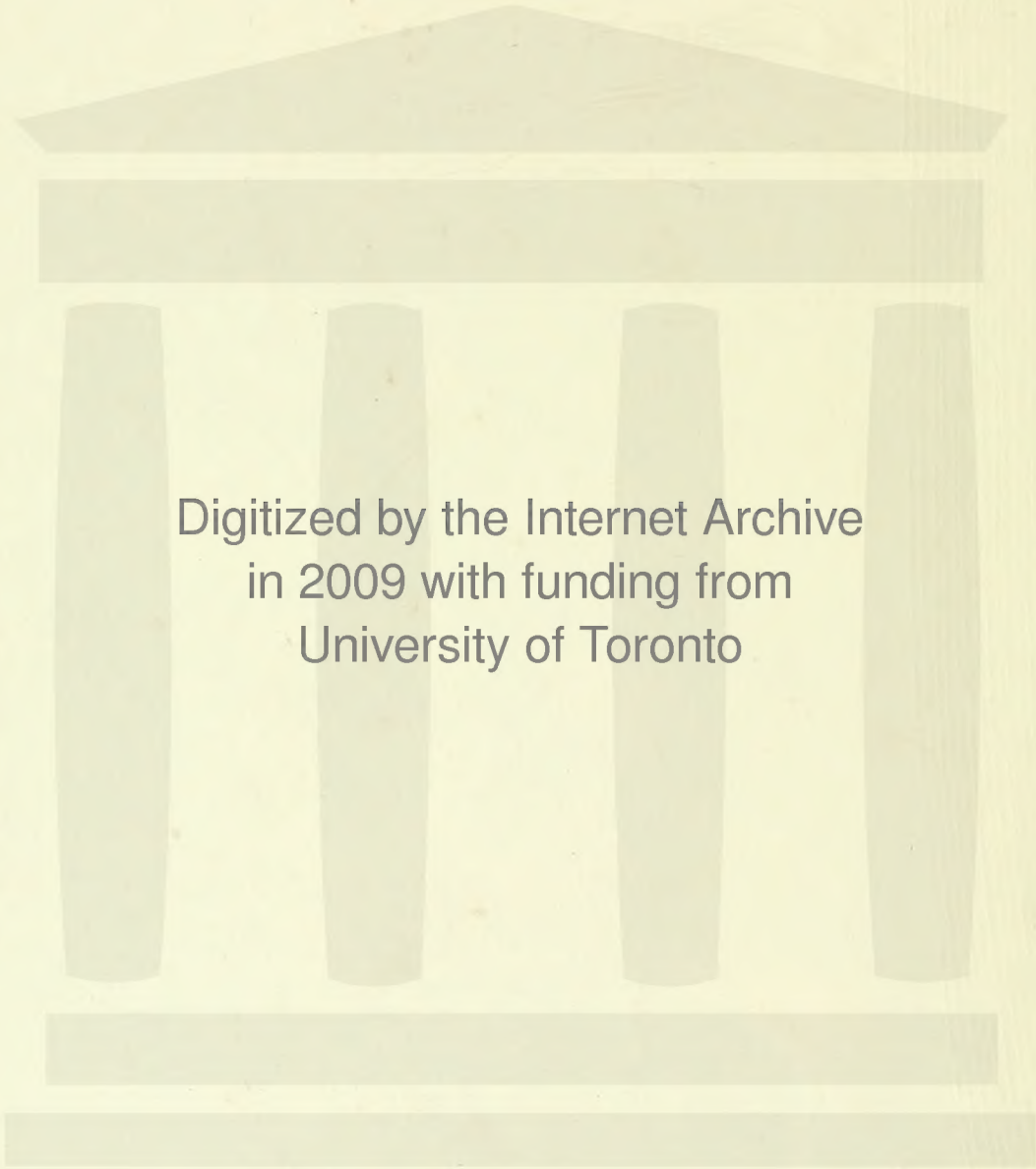

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THE

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## TWO CLINICAL LECTURES ON ADDISON'S DISEASE.

WITH NOTES OF THREE CASES, IN ONE OF WHICH SUPRARENAL EXTRACT PRODUCED MARKED IMPROVEMENT, AND IN WHICH THE SUPRARENAL BODIES WERE FOUND AFTER DEATH TO BE ABSENT AND REPLACED BY MASSES OF FAT.

*Delivered at the Edinburgh Royal Infirmary*

By BYROM BRAMWELL, M.D., F.R.C.P.Edin., F.R.S.E.,
Assistant Physician to the Infirmary: Lecturer on the Principles and Practice of Medicine in the School of Medicine, Edinburgh; etc.

### Lecture I.

A FORTNIGHT ago we had the opportunity of investigating together a very interesting case of Addison's disease, and I propose to-day to redirect your attention to some of the points which the case illustrates, and to describe to you a very remarkable case which has recently come under my notice in private practice. It was a typical case of Addison's disease, in which most marked improvement resulted from the administration of suprarenal extract, and in which, on *post-mortem* examination (death having taken place from an intercurrent attack of influenza) the suprarenal capsules were found to be absent, and replaced by masses of fat. The notes of the first case are as follows:

CASE I. *Typical Addison's Disease (profound Asthenia, Pigmentation of the Skin and Buccal Mucous Membrane): Very Great and Rapid Emaciation: No Vomiting, Abdominal Pain, or Diarrhœa: History of a Severe Blow on the Small of the Back: Death: Both Capsules Extensively Affected with the Typical Fibro-caseous Change: Extensive Deposit of Recent Tubercle in the Peritoneum: Old Tuberculous Lesion at the Apex of the Left Lung.*

W. M., a miner, aged 50, was sent to me by Dr. Rorie, of Cowdenbeath, and was examined before the students at the Edinburgh Royal Infirmary on June 30th, 1895. His chief complaints were weakness and loss of flesh. He stated that these symptoms had developed after an attack of influenza which he had had three months before.

On examination, we found that he was markedly emaciated. Indeed, he stated that he had lost no less than 4 st. in weight in the course of nine weeks. The debility and asthenia were extreme. His expression was one of great lassitude. The heart sounds could hardly be heard, and the heart's impulse could not be felt; the pulse was small and extremely soft; the appetite, he said, was poor; the tongue was slightly furred on the dorsum, and red at the edges and tip. He stated that there had been neither diarrhœa nor vomiting, and that he had no cough and was not short of breath.

I examined him very carefully, and, with the exception of the extreme feebleness of the heart's action, was unable to detect any physical signs indicative of localised organic disease. The lungs seemed absolutely healthy. There were no indications of phthisis or tubercle, which from the very rapid loss of flesh and the history of influenza at once, of course, suggested themselves as possible causes of the condition. There was no diabetes—another condition which was carefully excluded. And here let me say that in any case in which marked emaciation and debility are rapidly developed without any obvious cause, the possibility of diabetes mellitus should always be kept in view. With the exception of the loss of appetite there was nothing to suggest disease of the stomach. Malignant disease of the stomach is another condition which should always be thought of when debility and emaciation are rapidly developed without any obvious cause. Physical examination failed to reveal any evidence of organic disease either in the stomach or peritoneum.

Having failed to detect any evidence of organic disease in the lungs and stomach, and having excluded diabetes mellitus, the next thing which suggested itself to my mind was Addison's disease. Extreme debility and cardiac asthenia are, in my experience, the most constant and characteristic symptoms of Addison's disease. Further, it must be remembered that in some exceptional cases of Addison's disease there is very marked and rapid emaciation. This is a point which I wish particularly to emphasise, for it is not generally recognised; indeed, it is contrary to the teaching of some of the best authorities on Addison's disease. I will refer to it again later.

Thinking, then, that the case might be one of Addison's disease, I next directed attention to the condition of the skin. The face, neck, and backs of the hands and wrists were undoubtedly dark in colour, but not darker than one might expect in a man who had been much exposed to the sun and weather.[1] The skin of the body, especially of the back, also seemed to me to be somewhat darker than it usually is in most healthy people; but if so, it was not sufficiently marked to enable one to be sure that it was pathological. It became necessary, therefore, to try to ascertain whether the skin was actually darker than it had been before the commencement of the illness. The patient was first questioned, but he was unable to give any definite information on the point. I then asked my house-physician to bring in the man's wife, who had come with him to the hospital, and I asked her whether she thought the patient's skin was darker than it had been before the attack of influenza. She answered, "I could not say." I then told her to look carefully at the patient's back and tell me whether she thought it was darker than it was before the commencement of the illness. She said, "I could not say, I never saw his back before." I then said, "That is a very remarkable statement. Do you mean to tell me that you never saw your husband's bare back before?" The supposed wife then said, with some show of indignation, "I am not his wife at all!" It appeared that the house physician had brought in the wrong woman. When the real wife was introduced she told us that she did think that the skin was distinctly darker than it used to be.

I next carefully examined the buccal mucous membrane, and detected a very distinct pigmented patch on the inner side of the left cheek. This discovery at once clinched the diagnosis. The presence of this pigmented patch on the buccal mucous membrane, taken in conjunction with the profound asthenia which was present, showed to my mind without any doubt that the patient was suffering from Addison's disease. I at once, you will remember, committed myself to a positive diagnosis of Addison's disease, and gave directions that the patient should be admitted to the infirmary.

And here an interesting point, illustrative of the extreme asthenia which was present in this case, occurs. We were then, you will remember, seeing patients in the relief wards in Lauriston Lane. After I had left the hospital the patient was directed by the nurse to go across to the main building; his wife had by this time left him to return home by train. In going across to the hospital wards—a distance of about 50 yards—the patient had evidently been overcome by the asthenia, for he was found some little time afterwards lying in the centre path, quite conscious, but so feeble that he was unable to get up. He was helped to the medical wards and admitted under the care of one of my colleagues—for I have unfortunately as yet no male beds of my own. Not-

[1] Dr. Rorie's letter given below shows that the patient had been exposed in this way.

withstanding the most assiduous care and treatment, he died a few days afterwards. My colleague informed me that he refused to take the minced suprarenal gland which was prescribed for him, and that he remained in a prostrate, semi-delirious condition, the head symptoms being highly suggestive of some form of intoxication.

Before describing the *post-mortem* appearances, let me add certain particulars regarding the clinical history which I subsequently learned from Dr. Rorie, who, as I have already told you, recommended the patient to consult me at the hospital, but who had not sent me any particulars of the patient's case nor expressed any opinion as to the nature of the disease from which he was suffering. In answer to my inquiry regarding the early history of the case, Dr. Rorie kindly wrote me on July 7th—after the patient's death—as follows:

I am afraid that I cannot tell you much more concerning the case of Addison's disease about which you wrote, but I have inquired further, and got the following particulars from his wife:

The patient's children are all healthy. He himself is one of a family of eight, having four brothers and three sisters. One sister died three days after himself, of cardiac dropsy. The others are alive and well. There is no history of tubercle in the family.

His wife states that he has been "failing" for three years. About three years ago he received a severe blow over the lumbar region through the slipping of an iron "pinch," and has since complained of tenderness in the left side. At the time of this accident he was laid off work for a week. He has since worked steadily till three months ago, when I was first called to attend him for a sharp attack of influenza. He insisted on returning to work far too soon, and after a day or two returned home, and has not worked since. At that time his face and hands were discoloured, but the bronzing became much more marked after he stayed above ground, as during the late hot weather he lay about outside most of the day. He was in a dull listless state, refusing to go to infirmary or to be treated at home.

As regards the condition of the peritoneum found at the *post-mortem* examination, he has never had any temperature or pain beyond a slight tenderness on palpation. His wife states that twice during the past twelve months he has had a "bloody diarrhœa," with severe pain lasting some three hours, and making him lie down by the roadside. He was a fairly temperate man.

At the *post-mortem* examination which was made by Dr. Muir the diagnosis of Addison's disease was fully confirmed. Both suprarenal capsules were markedly enlarged and extensively diseased; they were as typical examples as one could wish to see of the characteristic fibro-caseous change which is the usual lesion in Addison's disease. In addition to the lesion of the suprarenal capsules, the peritoneum was thickly studded with recent miliary tubercles. There were one or two old fibrous tubercles at the apex of the left lung. The right lung and the other organs were healthy.

The presence of such well-marked tuberculous lesions in the peritoneum is of considerable clinical interest and pathological importance. I did not elicit anything, either in the previous history or in the condition of the patient, to lead me to suspect its presence. I examined the abdomen with great care, thinking that the case might be one of cancer of the stomach; but the patient showed no evidence of suffering or discomfort while the abdomen was being palpated. The absence of pain and tenderness may perhaps have been due to the extreme asthenia and depression which were present.

As I have already stated, the lesion of the suprarenal capsules was typical and characteristic. Now there is every reason to suppose that this fibro-caseous lesion, as it has been termed, is tuberculous in nature. And in this particular case that opinion is, I think, amply confirmed by the existence of the extensive deposit of recent miliary tubercles in the peritoneum and the old tuberculous lesion at the apex of the left lung.

Let me now refer to some of the clinical symptoms:—

*The Extreme Asthenia and Feebleness of the Heart's Action.*—This is the most constant and important symptom of Addison's disease, although it varies considerably in degree in different cases, and indeed very often notably from time to time in the same case. It is the one symptom which is never altogether absent in well-marked cases of the disease; usually, too, it is the first symptom of which the patient makes complaint. The weakness of the heart's action was in this case very apparent on physical examination. As I have already told you, the heart sounds were so faint that they could hardly be heard, and the heart's impulse could not be felt. As I have stated elsewhere,[2] in many cases of Addison's disease the heart is markedly atrophied. In more than one case which I have examined *post mortem* I have been much impressed by the smallness of the heart, and I am disposed to think that this atrophy is a feature in the pathology of the disease which has not, so far, received anything like the attention which it deserves.

*The Great Diagnostic Importance of Pigmented Patches on the Buccal Mucous Membrane.*—For the purpose of diagnosis the pigmentation of the skin, and especially the pigmentation of the mucous membranes, is by far the most important symptom, or rather sign, of the disease. It must, however, be remembered that discoloration of the skin *per se*, that is to say, without asthenia and other constitutional symptoms, is not sufficient to warrant a diagnosis of Addison's disease. The pigmentation of the skin is in no way peculiar; it is not pathognomonic; it may be due to a variety of other conditions. But the pigmentation of the buccal mucous membrane is of far greater diagnostic importance. A few cases have, indeed, been reported (all, so far as I know, cases of phthisis or tuberculous disease) in which pigmentation of the buccal mucous membrane, identical with that of Addison's disease, was present during life, and in which the capsules were found, to the naked eye at least, to be healthy after death. But such cases are exceedingly rare. When one meets with pigmentation of the buccal mucous membrane in a case in which the constitutional symptoms of Addison's disease are also present, one can have no hesitation whatever in giving a positive diagnosis of Addison's disease, provided that there is no obvious disease in any of the other organs or tissues capable of affording a satisfactory explanation of these symptoms.

In order to warrant a positive diagnosis of Addison's disease three factors are, in fact, necessary, namely (1) the presence of the characteristic constitutional symptoms (the more important are asthenia, vomiting, pain in the abdomen and back, and, in some cases, marked emaciation); (2) pigmentation of the skin, and, still more, pigmentation of the mucous membranes; and (3) the absence of any evidence of local organic visceral disease, other than the lesion of the suprarenal capsules, to account for the condition. When these three factors are present, in other words, in typical cases of the disease, a positive diagnosis may be confidently made. The recognition of typical cases of Addison's disease is, in fact, no more difficult than the recognition of other well-marked clinical entities. It is the atypical and complicated cases in which the diagnosis is difficult or impossible, but I do not propose on the present occasion to consider the diagnosis of the atypical cases. You will find the whole subject very fully discussed in the article on Addison's disease in my *Atlas of Clinical Medicine*, vol. i, p. 49. Let me also direct your attention to the two plates which illustrate the article. They are faithful representations of a case which I had under close observation for several years, drawn by a very able artist, and are the most beautiful illustrations of the disease with which I am acquainted.

*Emaciation.*—As I have already told you, in most cases of Addison's disease there is no marked loss of flesh: the muscles, indeed, are usually wasted, but the body fat is generally well preserved. The late Dr. Greenhow, who was a great authority on Addison's disease, held the view that extreme emaciation was never developed as the result of Addison's disease. And in one case about which I had occasion to consult him many years ago, he went so far as to say that the fact that the patient was emaciated led him to think that the case was not one of Addison's disease. The circumstances under which I had occasion to elicit this opinion were somewhat amusing, and I may as well detail them to you.

In the year 1877 I reported in the BRITISH MEDICAL JOURNAL a remarkable case of lymphosarcoma in which one suprarenal capsule was entirely destroyed, but in which there were no symptoms of Addison's disease. A distinguished teacher of physiology, now an equally distinguished lecturer on the principles and practice of medicine, wrote an interesting criticism of my paper, in which amongst other things he said that it is only the peculiar quasi-tuberculous change in both capsules which produces the symptoms of Addison's disease. In answering this criticism, I was able to cite a case which had come under my own observation, in which pigmentation of the skin and other symptoms suggestive of Addison's disease were associated with disease of one supra-

[2] *Atlas of Clinical Medicine*, vol. i, p. 68.

renal capsule only, and to quote two cases detailed in Dr. Greenhow's work in which one capsule only was diseased. I further was able to point out (and this was a very curious fact, and for the purposes of my controversy a very useful and amusing one) that one of the two cases recorded by Dr. Greenhow had actually been seen during life and diagnosed as a case of Addison's disease by the very gentleman who criticised my paper. If any of you care to refer to this controversy you will find it in the British Medical Journal, 1877, vol. i, pp. 8, 99, 256, 325, and 384.

My object in referring to this episode is, as I have already told you, that Dr. Greenhow, whose opinion I asked as to the nature of the second case, advanced as his chief argument against that case being one of Addison's disease the fact that the patient was markedly emaciated. Now, while I admit that in most cases of Addison's disease there is no emaciation—at all events, so far as the body fat is concerned—I know, from cases which have come under my own observation, that most marked and rapid emaciation, without any associated visceral disease to account for it, is in some cases developed. I believe that in the great majority of cases of Addison's disease the muscles, including the heart muscle, become atrophied: indeed, as I have already told you, I am disposed to think that the atrophy of the heart muscle is one of the most important clinical and pathological facts connected with the disease. In the present case the patient lost no less than 4 st. in weight in a period of nine weeks. I am disposed to think that this great loss of weight was chiefly due to the disease of the suprarenal capsules; it can hardly, I think, be satisfactorily accounted for by the very recent deposit of tubercle, with practically speaking little or no peritonitis, which was found in the peritoneum after death. But, as I have just told you, the present is not the only case of Addison's disease which I have met with in which profound emaciation has been present. In another case, which came under observation at this clinic some years ago, the patient lost 3 st. in weight during a period of six months. That case, like the present, was one of great interest—and it was the recollection of the facts of that case which led me, after I had excluded some of the conditions which are more common causes of asthenia and emaciation, to look for the symptoms of Addison's disease in the present case.

And I may take this opportunity of pointing out to you that the diagnostician is largely aided in quickly and rapidly arriving at a satisfactory opinion as to the nature of the cases which come before him by a knowledge of the pathological probabilities and possibilities which certain groups of clinical symptoms present. He knows, as the result of his past experience, and I may also add of his past mistakes—and this is a very important aid to knowledge—that certain symptoms when met with in combination, probably point to certain diseased or pathological conditions: and he then proceeds, as you saw me do in this case, to look for these different conditions—to exclude some and to look for additional symptoms and signs indicative of others—until he finally arrives at a definite opinion. Those of you who are in the habit of attending this clinic know that we first elicit the facts of a case, and that I then ask you to suggest a diagnosis. In many cases we have, as you so frequently have heard, a dozen different diseases suggested. We then proceed to discuss the different opinions which have been advanced. Many of them are, as you know, very quickly disposed of. It is unnecessary to say that some of the opinions which are expressed will not hold water. But the most erroneous opinions are often very valuable, for they make you think for yourselves; they necessitate our covering a lot of ground, and contrasting the symptoms and signs in a great variety and number of conditions. You learn far more by making mistakes in this way, provided always that you are told why and how you are wrong, than you would do if I were merely to state my own opinion. You get that in the end. I don't say that it is always right, for all of us sometimes make mistakes. But you get it, and, what is far more important, you always also get my reasons for it. This method of teaching is, in my opinion, most useful: and we often, as you know, also find it not only interesting but amusing. I am no believer in *ex cathedra* teaching. It is for this reason, and because I know how much one learns by one's mistakes, that I encourage you to express your opinions freely, whether they are right or whether they are wrong. I would almost say that it is better to have a wrong opinion, provided only that you can give some grounds for holding it, than to have no opinion at all.

But this is a digression. I was about to detail to you a case of Addison's disease, in which emaciation was a prominent symptom. The leading particulars of the case are as follows:

Case II.—*Case of Addison's Disease Characterised by Profound Asthenia and Feebleness of the Heart's Action, Localised Pigmentary Deposits over One or Two Vertebral Spines and on the Buccal Mucous Membrane; Great Emaciation; Diagnosis Verified on Post-mortem Examination; Simple Atrophy of both Suprarenal Capsules.*

A man, aged 36, came to this clinic complaining of progressive weakness and debility of six months' duration. The asthenia had developed gradually, had not been preceded by any illness, and could not be attributed to any obvious cause. The patient stated that, prior to the present illness, he had been robust and healthy. On examination, he was found to be extremely prostrate, distinctly anæmic and much emaciated. He stated that he had lost three st. in weight during the six months that he had been ill, and he was by no means a big made man. The red corpuscles numbered 3,500,000 per cubic millimetre; they were normally shaped, and formed *rouleaux* in the ordinary manner; the white corpuscles were not in excess. The tongue was clean, the appetite poor; the digestion was said to be fairly good. There had been no vomiting, no diarrhœa, no loss of blood, and no pains in the abdomen or back. The most careful examination failed to reveal any evidence of visceral lesion or localised organic disease; but the heart sounds were remarkably feeble, the heart's impulse altogether imperceptible, and the pulse extraordinarily small and weak. The cause of the anæmia, emaciation, and extreme prostration was obscure. I felt myself unable to make a positive diagnosis. I stated this to the students, and directed the patient to go into the side-room to put on his clothes; but as he was walking away from me, and when a good light fell full on his back, I noticed (what I had not observed before) two or three brown discolorations over the spines of some of the dorsal vertebræ. It immediately flashed across my mind that the case was one of Addison's disease.[3] I at once called the patient back, and carefully examined the mucous membrance of the mouth. A small brown discoloration was seen to be present on the inner side of the left cheek just opposite the angle of the mouth. The discoloration was quite characteristic, and I immediately committed myself to a positive opinion that the case was one of Addison's disease. The patient died shortly afterwards in the hospital, and at the *post-mortem* examination both suprarenal capsules were found to be reduced to small masses of fibrous tissue. There was no other lesion in the body. The case was one of the rare cases of Addison's disease in which the capsules, instead of being affected with the typical fibro-caseous tuberculous change, had apparently undergone a process of simple cirrhosis and atrophy.

*History of Injury.*—The fourth point to which I would wish to allude is the fact that the patient received a severe blow on his back about three years before his death (that is to say, according to his wife's statement, shortly before the weakness, which was no doubt the first symptom of Addison's disease, began to develop). This is a point of some interest, for it confirms the view which is generally held, that blows and injury to the back are the exciting cause of the disease in a certain proportion of cases; and this is just what one might expect if the lesion of the capsules is tuberculous. There can be no doubt that local injury favours the production of some tuberculous lesions, such for example as tuberculous tumours of the cerebellum.

I may add, with regard to the treatment of this case, that before the patient's admission to hospital, Dr. Rorie had recommended the administration of suprarenal gland tissue, but the patient had refused to take it.

The cases which I have now related to you present many features of clinical and pathological interest. I have referred to the more important, but I have said little or nothing, you

[3] I had previously met with another case of Addison's disease in which the pigmentation was limited to the skin over some of the vertebral spines. Here again was another illustration of the advantage of previous experience.

will observe, with regard to treatment. The reason of this is that I had the opportunity of seeing each case on one occasion only. I had no opportunity of watching them and of personally carrying any treatment into effect.

## REMARKS ON THE SURGICAL TREATMENT OF MALIGNANT DISEASE OF THE TONSIL.

By DAVID NEWMAN, M.D.,
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At the beginning of last year I showed at the Laryngological Society of London two cases of malignant disease of the tonsil treated by operation, and which are now well, more than six years thereafter. In describing these cases reference was made to statistics collected four years ago,[1] but since that time so many new cases have been recorded that it is well worth inquiring into the present position of surgery on the subject. Before doing so a short account of my two last cases may be given.

CASE I. *Carcinoma of the Left Tonsil Removed by Incision after Splitting the Left Cheek; no Glands Involved. No Recurrence within Five Months.*—The patient, a farmer, aged 69, consulted me on July 24th, 1896, and stated that during the last six weeks he had suffered from pain in the throat, especially in the region of the left tonsil, but sometimes the pain extended to the left ear and to the angle of the jaw on the same side. He had some difficulty in opening his mouth, but no swelling could be detected externally, nor was there any enlargement of the lymphatic glands. There was no dysphagia nor laryngeal trouble, and the patient's general health was remarkably good. On examining the tonsil it was found to be occupied by a firm hard swelling the size of a hazel nut, which was strictly limited to the tonsil itself, and did not extend even to the pillars. The surface, however, was fungating, and partly covered by a muco-purulent discharge. On August 3rd, a portion of the tumour was removed for microscopic examination, and on being demonstrated to be a carcinoma, immediate operation was advised, and was performed at the Sandyford Nursing Home the following day. With the assistance of Dr. E. A. Gibson and my house surgeon, Dr. Galloway, I split the cheek from the angle of the mouth to the ramus of the inferior maxilla. The skin and muscles were first divided, and when all bleeding was checked, the mucous membrane was opened except close to the tonsil, where it was pushed inwards and backwards with the finger; in this way the tonsil was easily freed, and by cutting with blunt pointed scissors the growth was completely removed. The patient recovered rapidly, and returned home on August 18th. Reported well December 20th, 1896.

CASE II. *Epithelioma of the Left Tonsil removed by Lateral Pharyngotomy, with Division of the Jaw in Front of its Angle.*—D. S., aged 54, was sent to the Royal Infirmary on April 23rd, 1896, by Dr. James Paton, of Greenock, who informed me that the patient was suffering from malignant disease of the tonsil. He said that he enjoyed good health(?) until six weeks previous to admission, when he began to suffer from pain in the throat, which had steadily become worse. While resting the pain was not severe, but during deglutition it was sharp and lancinating; the dull constant pain was referred to the root of the tongue and the faucial region, while a more acute pain extended to the ear. There was some difficulty in swallowing and considerable increase in the saliva, so that the secretion tended to collect, and when accumulated it flowed from the angles of the mouth. The voice was very little altered, only so far as the sounds were impeded by the pain produced by movements of the muscles of the mouth and pharynx. Examination of the pharynx revealed a tumour the size of a pigeon's egg occupying the left tonsil; the surface was very irregular, ulcerated, moderately hard, and showed a few small bleeding points. The growth was almost limited to the tonsil, but on very careful examination it was found to involve the anterior part of the posterior pillar, and extended down to, but did not involve, the base of the tongue. The anterior pillar was free, and there was no enlargement of the lymphatic glands. The larynx was normal. Thoracic and abdominal organs were normal. On April 30th a small portion of the tumour was removed for microscopic inspection, and when, on immediate examination, it was found to be an epithelioma, the tumour was excised at once by performing a lateral pharyngotomy, in which the lower jaw was divided at its angle on the left side. The patient made a good recovery, and is now well (December).

The question of how to gain access to the tonsil has been frequently discussed, and certain advantages have been claimed for each method.

It is not necessary to discuss many of the older and less efficient modes of operating, such as removal by chemical caustics and escharotics, by curetting, the ligature, the *écraseur*, or by electrolysis—as they have, very properly, been given up.

### OPERATION THROUGH THE MOUTH.

Within recent years the galvano-cautery has been employed in the removal of malignant tumours of the tonsil *per vias naturales*. A preliminary tracheotomy may be performed or not according to circumstances, but this is a point which will be discussed presently. Two questions require to be considered: (1) Is it possible totally to remove a malignant tumour of the tonsil without an external incision? (2) In making an external incision, is it advisable to incise the lower jaw or remove a portion of it?

Seven cases of cancerous disease of the tonsil have been recorded in which growths have been completed removed through the mouth without any external incision.

Wolff, Körte, McIntyre, Watson Cheyne, and Watson of New York, have each recorded one case in which this operation has been successful, and I have two cases in which a cure was effected. These cases show at least that it is possible completely to excise a cancerous tonsil without any external incision, but while this is so a large number of cases might be brought forward to prove that such an operation, while apparently successful at the time, completely fails to eradicate the disease. This is not to be wondered at when, for the purpose of avoiding hæmorrhage, the surgeon employes the wire *écraseur* or the galvano-cautery, or sometimes is even contented with removing the tumour piecemeal. From the very nature of the growth, and the great tendency to invasion of surrounding parts, not only must the entire tumour be removed, but also sound tissue in juxtaposition to it. There is no objection to using the electric cautery in place of a knife, so long as one is certain that the incision is being made through normal structures, but anyone will admit that it is much easier to distinguish between healthy and diseased tissues when cutting with a knife or scissors than when dividing with a cautery. The advantage gained from the avoidance of hæmorrhage by use of the cautery is greatly over-estimated. It is a question of risks: on the one hand the danger of hæmorrhage, on the other the likelihood of leaving remnants of malignant disease. Ligature of the external carotid artery has been employed to control bleeding, but if the disease has extended so far as to require such a procedure, then removal of the disease through the mouth is not likely to be efficient. It is only in cases where the disease is very limited that it can be removed *per vias naturales*, as, for example, in my cases operated on in 1890 and 1891,[2] who are still alive.

### LIGATURE OF THE EXTERNAL CAROTID.

When, however, the disease is more extensive, and a very radical removal is demanded, the question of ligature of the external carotid may be considered. Mr. Watson Cheyne[3] advises the division of the operation into two stages, on the ground that while giving a bloodless wound it avoids the danger of secondary hæmorrhage from ligature of the artery, and he says: "Failing this division of the operation into two stages, I am inclined, much against my will, to give up the preliminary ligature of the external carotid artery in most cases, and either tie its branches or control the bleeding by temporary compression of the artery during the removal of the tumour."

The advantages of ligature are more evident in cases wherein the operation the lower jaw is not divided.

### DIVISION OF THE LOWER JAW.

This leads us to the point: Is it necessary to divide the lower jaw in operating for malignant disease of the tonsil, and in what cases should section of the bone be employed? In Case I, where the tumour was small and hard, not larger than a hazel nut, and strictly limited to the tonsil, all that was required in order to have complete control over bleeding points was to split the cheek back to the ramus of the jaw. In Case II the tumour was the size of a pigeon's egg, was found to involve the anterior part of the posterior pillar, and extended down to the base of the tongue, so that the operation was more extensive than in the other case, but while it demanded division of the lower jaw, it did not require the ascending ramus to be removed.

The advantages of division of the jaw are at once manifest. In giving the surgeon more room to operate he has not only greater control over hæmorrhage, but he is also better able to completely eradicate the disease. On the other hand, the disadvantages are that in some cases there has been a difficulty in getting osseous union between the fragments, so that a false joint may result. There is a danger of necrosis of the ends of the bone, also of septic infection from the compound fracture communicating with the mouth. I have noticed, however, that compound fracture of the jaw, whether pro-

[1] ...cwman, *Malignant Disease of the Throat and Nose*, Young J. Pentland 1892.

[2] *Glasgow Medical Journal*, vol. xlv, p. 273.

[3] *The Objects and Limits of Operations for Can* ... 1896, p. 74.

duced by the surgeon or by other means, very seldom causes septic poisoning. This may be due to the very dense nature of the lower jaw, or it may be the effect of the secretions of the mouth upon septic organisms. If the mouth is thoroughly washed out and cleansed for several days before and after an operation, I would almost go the length of saying that a compound fracture of the jaw is less likely to cause septic infection than a compound fracture of any other bone left exposed to the air as a fracture of the jaw must be.

### LATERAL PHARYNGOTOMY.

For removal of the tonsil lateral pharyngotomy may be performed in six different ways, and the methods are known as Bergmann's, Cheever's, Küster's, Langenbeck's, Mikulicz's, and Polaillon's.

*a.* Bergmann's operation consists of a curved incision from the angle of the mouth to the angle of the jaw, and passing down the neck over the superior corner of the hyoid bone, it is carried along the magin of the sterno-mastoid muscle as far as is necessary. The soft parts are cut through, and the facial and lingual arteries found and ligatured. The muscles of the cheek being divided, the ramus of the jaw is exposed and sawn through close to the angle. The mucous membrane, which has been left intact, is now divided, backwards and downwards, and when this has been done a very complete view is obtained of the cavity of the pharynx.

*b.* Küster also commences his incision at the angle of the mouth, but in place of curving it downwards he carries it straight backwards across the ramus of the jaw just above the angle, till it reaches the anterior margin of the sterno-mastoid muscle. For the purpose of giving additional room Küster, after dividing the jaw, disarticulated, and removed the upper fragment. Polaillon's operation differs from Bergmann's in that he used a rectangular incision in place of a curved one. The first incision was made from the angle of the mouth backwards to the anterior border of the sterno-mastoid, and the second at right angles to it along the anterior aspect of the muscle. A segment of the ascending ramus of the jaw was excised, and the incision through the mucous membrane extended in a straight line from the angle of the mouth to the pharyngeal wall, and then downwards to the entrance of the œsophagus.

In these three methods the incision was begun at the angle of the mouth and extended backwards, and followed by section of the lower jaw. In Langenbeck's, in Mikulicz's, and in Cheever's operations the cheek is not incised.

*c.* Langenbeck makes a beginning midway between the chin and the angle of the jaw, and from the level of the lower border of the bone the incision is made to pass in a curved line downwards to the superior corner of the hyoid bone, and then along the anterior aspect of the sterno-mastoid. Having made a careful dissection and avoided the important vessels and nerves, these are retracted with the exception of the lingual artery, which should be ligatured. The stylo-hyoid and digastric muscles are then easily seen and divided, and the pharyngeal aponeurosis exposed. The latter structure with the mucous membrane of the mouth are then incised, and the pharyngeal cavity laid open. For the size of the incision this operation gives a good view of the pharynx, and section of the lower jaw is avoided.

*d.* In Mikulicz's operation the incision extends from the mastoid process to the level of the thyroid cartilage along the anterior border of the sterno-mastoid muscle. After dividing the deep fascia the great vessels are exposed, and the facial artery found and ligatured. The vessels are then drawn aside, the hypoglossal nerve carefully protected, and the angle of the jaw exposed and cleared carefully; the periosteum of the ascending ramus is then separated, and the ramus is sawn through and disarticulated. The posterior portion of the digastric muscle is found and divided, the stylo-hyoid drawn forwards, and the wall of the pharynx exposed and opened.

*e.* The only difference between Cheever's method and the one just described is that the bone is not divided and wider retraction of the wound is allowed for by making a short horizontal incision along the lower margin of the inferior maxilla.

In both of my cases the operations differed from any of those just described. In Case I the line of cutaneous incision was the same as in Küster's operation, but while the ramus of the jaw was exposed, I found it possible to remove the diseased tonsil without resecting the bone; whereas, in Case II, on the other hand, adopting Langenbeck's line of cutaneous incision, it was necessary to divide the body of the inferior maxilla at right angles, in front of the anterior border of the masseter muscle. Early in the operation the facial artery was ligatured close to its origin, so as to include its tonsillar branch, as well as the submaxillary and submental arteries. The lingual artery was also tied. In this way bleeding was completely controlled. The gustatory nerve and the hypoglossal were carefully drawn aside, but unavoidably the supra- and inframaxillary branches of the facial were divided, so that for some time after the operation the movements of the lips were impaired. Otherwise sensation and motion were normal.

Having exposed the pharyngeal aponeurosis and the mucous membrane of the mouth, the external wound was thoroughly washed with a 5 per cent. solution of carbolic acid, and all oozing being stopped the mouth was opened into, and the pharyngeal cavity laid open. The advantage of opening into the mouth only after the external wound is completed lies in the fact that anæsthesia is easily kept up, by the discharges being kept out of the pharynx and larynx. In this way the necessity for a preliminary tracheotomy is also avoided.

### PRELIMINARY TRACHEOTOMY.

As a safeguard against blood passing into the trachea, and to facilitate the administration of the anæsthetic tracheotomy has its advantages; it allows the surgeon to perform a very complete operation, and for these purposes it has been advocated as a preliminary to pharyngotomy; but it also has its complications. In many cases tracheotomy adds little to the danger or discomfort of the patient, but where the pharynx has to be opened and a malignant tumour removed it is, after the major operation, a distinct drawback; it interferes with the power of the patient to expel discharges from the pharynx, an additional septic wound is made, and the danger of septic pneumonia is increased rather than diminished. I do not refer to other diseases of the pharynx, but for the removal of a diseased tonsil preliminary tracheotomy should not be required as long as long as the lingual and facial arteries are tied during the early stage of the pharyngotomy, and the mouth is not opened into as the last step of the external operation.

### REMOVAL OF TONSIL.

For the removal of the tonsil and tumour after pharyngotomy cutting instruments should be used. When the growth is small, and one can be sure of cutting through healthy tissue with the galvano-cautery, it may be employed with advantage, but when the disease is so far advanced as to require a pharyngotomy, then it is most important to avoid burning or crushing in order to see the precise nature of the cut surface. With scissors and the knife this is best done, and if possible a good part of the mucous membrane of the pharynx should be stripped off along with the tumour.

### THE IMPORTANCE OF EARLY DIAGNOSIS.

With regard to malignant disease of the tonsil, it is of the utmost importance to recognise the disease early. I believe cancer to be primarily a local disease, which by total eradication may be prevented from invading the system. But while complete removal of a local cancerous growth should prevent the disease spreading from the primary focus, it must be held in mind that by such an operation the patient can only be placed, as regards predisposition, in the position which he occupied before the tumour appeared.

At the Laryngological Society of London I concluded my paper with the following remarks:[1]

"Many cases have been recently recorded where the immediate result of operation has been favourable, but very few can be classed as cured—that is, where three years or more have elapsed without recurrence. But while cases of cure of malignant disease of the tonsils are very rare, the disease is more common than is generally believed. The statement that malignant disease of the tonsils is rare is due to the circumstance that until within the last ten or twelve years, the cases were not recognised or recorded. For example, in Mr. Butlin's valuable work on sarcoma and carcinoma, published in 1882, only 3 cases of cancer of the tonsil are collected; but now that more special notice is taken of diseases of the tonsils, considerably over 200 cases have been published. It is evident, therefore, that the subject is one of much greater interest than has been generally admitted. When the belief prevailed that malignant disease seldom attacked the tonsil, there was a great danger of the serious nature of the malady being overlooked during the early stage, and of its being mistaken for some inflammatory infection of the gland. In 1892 I published 10 cases of malignant disease of the tonsil, and since then I have seen several others, which I may bring before the Society at a future meeting."

The diagnosis of malignant disease of the tonsil must be made early in the course of the malady if surgical treatment is to be of any avail. The presence of a recently-developed unilateral non-inflammatory new formation in the tonsil of an adult past middle life suggests the probability of malignant disease; and if the tumour is hard, dense, and of rapid growth, the presumption is strengthened. In the early stage of the disease, the naked-eye appearances and the feeling to the finger are often quite characteristic, but just as frequently they are atypical, and therefore should not be de

[1] *Glasgow Medical Journal*, vol. xlv, p.

pended upon. The microscopic appearances of a cancerous tumour are more characteristic than the naked-eye picture. A portion of the suspected growth should therefore be removed and at once examined microscopically, and should the disease prove to be a simple one no harm is done, but if it is demonstrated to be malignant, then much valuable time is saved, and an operation for removal of the tumour may be resorted to immediately. In submitting a specimen, great care must be taken that the tissue placed under the microscope is a portion of the new formation, and not a part of the tonsillar tissue in which it is embedded.

## OVARIAN CYSTS COMMUNICATING WITH THE RECTUM.

By HARRISON CRIPPS, F.R.C.S.,
Operator for Abdominal Sections in the Women's Ward, St. Bartholomew's Hospital.

In February, 1894, I published a paper in the British Medical Journal with the above title, and gave the details of 4 cases in which I had performed ovariotomy, and in which the cyst communicated with the rectum. In 3 of these the communication was on the anterior surface of the rectum—that is to say, in that portion of the rectum which is covered by peritoneum. In 1 of these cases a portion of the cyst wall the size of a florin was purposely left adherent to the rectum, for the opening had already spontaneously closed, and to have dissected off the adherent portion would have been certainly to have reopened the rectum. In 2 other cases the openings were small, high up, and accessible, and it was possible to close them effectually by Lembert sutures. All these 3 cases recovered. The fourth case was one in which a suppurating tumour had spread beneath and between the layers of the broad ligament, and had burst into the rectum behind in the part uncovered by peritoneum. It was impossible in that case to see the opening, but it could be distinctly felt, and would admit the tip of the finger.

It is in this class of case that the difficulty arises in closing the opening—that is to say, when the cyst has burrowed beneath the broad ligament and opened into the rectum behind. The opening is most inaccessible; and even in the Trendelenburg position it can scarcely be seen, and anything like accurate closure by sutures is almost impossible. In the case recorded in my last paper an endeavour was made to close the opening by sutures introduced by a cleft palate needle, but owing to the inaccessibility of the position precision and neatness were impossible. A glass tube was passed into the bottom of the cavity, and the opened broad ligament was then accurately sewn up with fine sutures, with the exception of the place through which the drainage tube passed. This, however, fitted quite tightly. Owing to the depth it did not seem practicable to draw the opened broad ligament sac upwards, and fix it to the parietal peritoneum and skin. The patient did well for three days, nothing coming through the drainage tube except a small amount of serum. On the fourth day fluid fæculent material came through the tube. The quantity soon became considerable, and it was most difficult to keep the patient clean, the discharge being very fluid and fœtid. She died on the seventh day; there was no *post-mortem* examination, but I suspect there was a septic peritonitis from some leakage by the side of the tube. In commenting on this case I made the following remark:

> Should I have the misfortune again to meet with a similar condition I would, in the event of its being impracticable to raise the edges of the opened broad ligament to the lower angle of the abdominal wound, prefer completely to close the broad ligament *in situ*, and trust to vaginal drainage rather than run the risk of suprapubic drainage through the peritoneum.

I have recently had nearly an exactly similar case, and, since the treatment adopted was absolutely successful, I give it in detail.

The patient, aged 35, was sent to me by my friend, Dr. Hind, of Stockton. She had been ailing for nearly two years, with vague pains about the abdomen, and was quite unable to take any hard exercise, to which she had been accustomed. For six months she had been rapidly losing flesh, and almost confined to her bed from general weakness. During this period one of her chief troubles had been the irritable state of the bowels. She was constantly requiring to go to closet, at which times only a teaspoonful or so of muco-pus would be passed. On making an examination under ether the following conditions were found:

*Abdomen.*—On deep palpation an ill-defined hardness could be detected deep in the pelvis, though nothing like a distinct tumour could be made out.

*Per Vaginam.*—The uterus was fixed and pushed forwards a little to the right. Occupying the posterior vaginal roof could be felt a hard swelling the size of the fist; it was very fixed and apparently attached to the uterus.

*Per Rectum.*—At first nothing of the swelling could be felt, but afterwards, by passing up two fingers and forcibly pressing down the swelling from above, the tip of the finger came upon a soft fungating lump which had perforated the rectal wall, and was projecting into the bowel; the size of the projecting portion was about that of a large walnut; it was soft and had no indurated edge, and had quite a different feeling from ordinary malignant disease of the rectum. In the centre of the mass was a depressed opening which would just admit the finger tip; into this opening a large bent probe could be guided for a couple of inches. Bimanually the projecting portion was found to be continuous with the main mass. The condition of things was correctly diagnosed to be an ovarian tumour full of intracystic growth which had burst into the rectum. It was explained to the patient that the removal of the growth would be accompanied by more than ordinary risk. She willingly, however, consented to the operation.

Assisted by my colleague, Mr. Clarke, I did the following operation: The patient was placed in the Trendelenburg position. On opening the abdomen and raising the slightly adherent omentum the tumour came into view, lying as nearly as possible in the middle line behind the uterus. It was seen to lie between the layers of the broad ligament, which were separated and spread over it. The tube was seen running along the top of the swelling. Some coils of small intestine were adherent to the surface of the broad ligament which formed the posterior boundary of the tumour. An incision 3 inches in length was made transversely through the broad ligament, a little in front of the tube. Some difficulty was experienced in getting the proper line of separation, for the ligament was greatly thickened; but, when this was found by means of the finger tips and back of the knife, the whole tumour was shelled completely out. At the lower end of the tumour was a projection which had formed, the fungating part protruding into the rectum.

After removing the tumour, a small amount of fæcal material escaped. On passing the finger down to the bottom of the sac, it passed through a hole nearly an inch in diameter into the rectum. By means of a long, fine, curved needle set in a handle, four ligatures were passed and closed the rectal hole. Owing to the depth, this was a matter of considerable difficulty, some of the sutures cutting out on tying them. Still, after a fashion, the hole was closed, but I felt far from confident in the security and accuracy of my stitches. Without undue tension, the edges of the emptied sac could not have been brought up to the adbominal wound for drainage. A knife guarded by the forefinger was now introduced into the vagina, and passed behind the cervix through the vaginal roof into the empty broad ligament sac, the amount of tissue traversed between the vagina and sac being nearly 2 inches. A long pair of forceps being substituted for the knife, an india-rubber tube, a quarter of an inch in diameter, was drawn from the sac through the opening into the vagina, about half an inch of the tube being allowed to remain projecting into the sac, and the other end projected 1 inch from the vagina. The opened sac, after being thoroughly washed out, was completely closed by fourteen interrupted silk fine sutures, the utmost care being taken to invert the edges so that opposed peritoneal surfaces should come into contact. After flushing the parts in the immediate neighbourhood, the abdominal wound was closed in the ordinary way.

For four days a small quantity of fœtid blood-stained fluid escaped through the vaginal drainage tube. On the fifth day after some castor oil, flatus and fluid fæcal material passed in considerable quantity through the tube. Dark brown fœtid and purulent material continued to escape to about the amount of an ounce a day for the next week. The vagina was

daily twice syringed out (1 in 2,000 perchloride,) and at each of these dressings some discharge was sucked out from the drainage tube by a glass syringe, and a teaspoonful of 1 in 1,000 perchloride injected back to wash out the cavity, seven or eight spoonfuls being used at dressing, but each spoonful was allowed to return before injecting the next, so that there should be no fear of distending the sac and breaking the adhesions. At the end of a fortnight nothing was coming through the tube except a small quantity of semi-transparent secretion without smell. On the seventeenth day the tube came out with the dressings, and could not be replaced. There was no appreciable rise of temperature or any constitutional disturbance, and the patient returned to the country convalescent six weeks after the operation.

The result in this case was in such favourable contrast to the one previously recorded that I should not hesitate in future to repeat the method adopted of completely closing the broad ligament and draining the sac into the vagina. The discharge of fœtid material and the escape of wind and fæces proved the inefficiency of the rectal stitches, and showed how essential it was in such a case to provide efficient drainage.

## A CASE OF OSTEO-ARTHROPATHY IN PHTHISIS.

By V. D. HARRIS, M.D., F.R.C.P.,
Physician to the City of London Hospital for Diseases of the Chest, Victoria Park, etc.

THE following case appears to be an example of that somewhat obscure and rare class of cases to which the term "hypertrophic pulmonary osteo-arthropathy" has been applied, and to which attention was first of all directed by Marie. More recently the affection has been discussed, among others, by Messrs. Thorburn and Westmacott as well as by Professor R. Godlee in his lecture upon Bone and Joint Changes in connection with Thoracic Disease. In one respect, perhaps, the case may not be considered entirely typical of the affection, namely, in the improvement which the patient certainly experienced when the chest disease entered into a fairly quiescent condition.



Fig. 1.

C. F., aged 40, by occupation a carman, was admitted into the Victoria Park Hospital under my care on June 14th, 1896. A thin-faced but healthy-looking man, with a ruddy complexion; a thin and rather prominent nose. Height 5 feet 9 inches, and weight 10 stone 10 lbs.

Appears to have been in fairly good health until a short time before Christmas, 1895, except that he had had an accident about November, having fallen off his cart, from which considerable bruising resulted, particularly about the chest and elbow. Rather before Christmas he was attacked with a severe form of influenza resulting in pleurisy. During his convalescence from the influenza there was considerable swelling of the left leg of a painful character, for which he was treated at one of the London hospitals as an out-patient. This swelling was said to have arisen from phlebitis. On admission, however, complaint was not directed to the condition of his leg, which had, indeed, almost entirely recovered, but to his cough and other chest symptoms. He had had slight hæmoptysis, and with his cough there was a moderate amount of expectoration. On microscopical examination his sputum showed the presence of tubercle bacilli in moderate numbers. His pulse was 100, temperature 100.5° F., and his urine was normal.

On physical examination it was found that the upper lobe of the right lung was in a condition of consolidation and breaking down; there were dulness on percussion, hollow breath, and exaggerated voice sounds, with subcrepitant *râles*.

The enlarged and swollen condition of the patient's hands at once attracted attention, so that a careful examination of the joints and bones was undertaken by my house-physician, Dr. Bertram Sanders, to whom I am much indebted for the following report and for full notes of the case



Fig. 2.

"Both hands are greatly enlarged and clumsy, the left distinctly more so than the right; they appear as though they should be the hands of a man much taller and bigger in all respects than the patient, and the disproportion is more markedly seen when the comparatively small forearms are in view. The length of hands 8 inches from wrist to top of middle finger. The fingers are all clubbed, but not only the ends of the bones, but also the joints, are swollen. The terminal phalanges are not more swollen than the other parts of the fingers: they are not hyperextended. The nails are slightly bluish, marked with longitudinal ridges, and have a brittle look. There is no apparent wasting of the interossei muscles. The fingers cannot be flexed without great difficulty, but the thumbs are pretty freely movable. The metacarpal phalangeal joints are

very little affected in the right hand. The bones and joints most affected are those of the middle and ring fingers. In these there has been more or less occasional pain, although none at the present time. The other fingers are also at present and have been free from pain. There is no œdema of the soft parts. Measurement across the middle of metacarpal bones of the right hand, 9 inches; of the left, 9½; of the middle finger at the first phalangeal joint on the right side, 3½; of the left, 3½; of the right ring finger at the first phalangeal joint, 3½ inches; of the left, the same. The dorsum of the hand is hot and swollen, but there is no œdema or fluctuation to be made out. Wrists enlarged and thickened; no œdema, fluctuation, pain, or tenderness. The movements are somewhat restricted in all directions. The lower ends of the radius and ulna on both sides can be felt and appear to be enlarged. On measurement, taken round the lower ends of the bones of the right side, 7¾ inches; of the left, 8 inches. At the carpal articulation of the right, 8 inches; of the left, 8½. Forearms and arms soft and flabby, muscles not well defined. Elbow-joints freely movable, no crackling or swelling. No pain or tenderness. Shoulders show no deformity, pain, or tenderness, and the same applies to the temporo-maxillary articulations, to the cartilages of the nose, ears, and neck, and spinal column. There is no retrosternal dulness. Hip-joints are not in any way fixed or swollen, but the muscles of the thigh are markedly soft and flabby, especially the adductors.

"*Knees.*—No limit of movement, no creaking or crackling, no enlargement of patellas. The knee-joints, however, distinctly swollen, and the left rather more so than the right, slightly hot, and appears to contain a small amount of fluid. No œdema and no pain or tenderness. Both legs swollen and slightly œdematous, pitting slightly on pressure, more markedly so on right side. The muscles soft and flabby. The outlines of the leg bones not easily made out, but the lower end of the fibula somewhat enlarged on both sides. Ankles enlarged and swollen, with some limitation of movement. Feet, 11⅛ inches long, are large and clumsy. All the toes clubbed and the nails marked with longitudinal ridges. If a measure be carried over the heel and across the dorsum of feet, the measurement of the right side is 14 inches, of the left 15 inches. If the measure be carried across the plantar and dorsal surface on a level with the metatarsal phalangeal joints, the measurement of the right side is 10 inches, of the left 11 inches. The joints of the toes not markedly affected, but the ends of the bones rather would seem to be thickened. The patient's reflexes, both superficial and deep, are unaffected."

During the patient's stay in the hospital the temperature chart showed variations diurnally of from a little above or below normal in the morning to 100° or 101° at night; but there was no marked exacerbation of fever, and he steadily improved in weight, in his appetite, cough, and general symptoms. The joints were never very painful or tender to the touch. The patient had never suffered from gonorrhœa, syphilis, or other form of venereal affection, or from rheumatism, gout, or dysentery; neither was there any family history of phthisis or rheumatism.

### REMARKS.

This case then should in all probability be looked upon as an example of hypertrophic osteo-arthropathy confined to the wrists, hands, knees, ankles, and feet. It is, I think, especially interesting in consequence of its appearance in connection with a comparatively limited tuberculous lesion of one lung, from which there was little expectoration, although in the expectoration tubercle bacilli were present. As regards the affection itself, the most noticeable changes were to be seen in the hands. Each finger, especially the middle and ring fingers on each side, was generally enlarged and thickened: the enlargement was not more marked in the terminal phalanx, as appears in some cases of finger changes in chronic suppuration, but was uniform; neither were the outlines of the joints much more prominent than usual; the enlargement was both of the bones and joints as well as of the soft parts about them. Only in the knee-joint could any marked evidence of fluid be obtained. As a rule the tissues about the joints were hard, and did not pit to the slightest degree upon pressure. There was practically no pain and very slight tenderness on hard pressure, yet the affection appeared to be distinctly subacute and not chronic.

As the pathology of this affection has been so recently discussed in the BRITISH MEDICAL JOURNAL, it is unnecessary to attempt any further generalisations, even if such were permissible, from the consideration of a single case. One or two points about the case, however, may be emphasised, namely, (*a*) that the joint affection appeared to be secondary to other changes in the neighbourhood; (*b*) that its amount varied considerably from time to time, and as the general condition of the patient improved, so did also the condition of the joints. On the diminution of the swelling the more permanent thickening of the fingers, etc., could be more easily gauged; (*c*) that the affection was comparatively painless, and that there was an absence of tenderness, differing in these respects so much from an ordinary gouty or rheumatic affection of the same parts.

THE Local Government Board have written to the Lewisham Board of Works stating that the Department cannot undertake to arrange for the analyses of samples of water sent to them by the metropolitan local authorities.

## A CASE OF DERMATITIS FROM ROENTGEN RAYS.

[WITH CHROMOLITHOGRAPH.]

BY H. RADCLIFFE CROCKER, M.D., F.R.C.P.,
Physician for Diseases of the Skin to University College Hospital.

A LARGE proportion of scientific discoveries which benefit the human race on the whole, bring in their train a certain amount of evil also by producing directly or indirectly some special injury or disease. The *x* rays of Roentgen appear to be no exception to this rule—at all events, as far as skin structures are concerned—and several cases have already been reported. The following instance is very definite and severe, and as the consequence of a single exposure its course can be readily traced:

E. H., aged 16, apprentice to a surgical instrument maker, sought advice at University College Hospital on October 24th under the following circumstances: On October 13th his employer was trying to radiograph the spine, and the following experiment was made on the boy: A Crookes's tube was placed about 5 inches from the epigastrium, a flannelette shirt intervening between the tube and the skin, while the trousers were turned down on each side. An exposure of one hour was made, the coil being run by means of an accumulator. Nothing was noticed at the time, but the next day the skin felt irritable and was of a deep red colour in the area subjected to the rays from the tube. The irritability increased, and on the 19th—six days after the experiment—the skin felt stiff when he bent his body. On the 22nd vesicles began to form, and they increased in size and number until the 24th.

When I saw him there was then situated at the epigastrium a patch the size of a hand, very sharply defined, and raised about ⅛ inch above the surface at the lower border corresponding to where the trousers were turned down, the transition from healthy to diseased skin being quite abrupt, and perceptible to the touch. The upper border was much less defined, and had a bright red areola beyond it; this areola was not uniform, but in radiating streaks. The general surface was of a dusky or purplish red, with flat vesicles extending to within ½ or ¾ of an inch of the red margin, and forming an irregular band ¾ inch wide round the umbilicus, with nearly clear areas on each side of the median line. These vesicles had increased considerably in number and size since their first appearance on the 22nd, and in the upper portion of the oval had coalesced into irregular compound vesicles in many places. The affected area felt sore, but not very tender, and there was only moderate itching. A lactate of lead lotion was ordered to be applied on lint and covered with oiled silk. The vesicles began to rupture on the afternoon of the 24th, and by the 27th the epidermis of the vesicular portion had separated, leaving a raw surface, and on the erythematous portion the skin was loosened and opaque white, partially due, no doubt, to the lead lotion.

On October 31st the whole of the epidermis had separated, and the skin was quite sound and level with the surrounding skin, except where the vesiculation had been most pronounced, which was still excoriated. The downy hairs with which the abdomen was rather thickly covered were still present on the site of the affected area. Subsequently many of them came away, except in the median line, where their presence was noted on November 10th. The excoriated part healed very slowly, and was not quite sound on December 19th, there being still a painful ulcer the size of a sixpence, with raised edge.

The persistence of the hairs on the inflamed portion of the skin is interesting in connection with the depilatory action of the *x* rays recorded by Professor Daniel, of Vanderbilt University, and quoted in the *New York Medical Record* for April 25th, 1896. In this instance the experiment was made on a co-worker, Dr. Dudley. The tube was only half an inch distant from the hair, and the exposure was also, like my case, for one hour. Twenty-one days later a bald spot, 2 inches in diameter, was formed corresponding with the size of the *x* ray field close to the tube. In this case there seems to have been no inflammatory or other visible lesion or sensory symptom preceding the falling out of the hair, thus differing from my case and that of a demonstrator of the *x* rays who records the effects on his hands in *Nature*,



October 29th, 1896. In this instance, where there was repeated and prolonged exposure of the right hand to the rays, a vesicating dermatitis was excited, attended with great irritation and smarting, which was allayed by an ointment, but was followed by exfoliation of the epidermis where the inflammation had been present. In the third attack the ends of the fingers were affected with serous exudation, which led not only to the exfoliation of the epidermis, but also of the nails, the old nail turning black and hard. This sufferer compared the effects of the rays to acute sunburn, which accords with the views put forward by Dr. Bowles as to the nature of these rays. The free application of lanolin and wearing grease-soaked kid gloves was found by "S. I. R." to be to a great extent a protection from the irritating effects of the rays. It is noteworthy that in my case there were no visceral symptoms of any kind.

Other instances in which lesions of the skin have been produced under similar circumstances are multiplying rapidly. In the EPITOME to the BRITISH MEDICAL JOURNAL, August 15th, 1896, a case of dermatitis and alopecia is abstracted from *Deut. med. Woch.*, July 23rd, 1896. Marcuse relates that in a young man, aged 17, investigations were carried on for four weeks once or twice a day for five to fifteen minutes, a Hittorf's tube being placed close to the body. When Marcuse first saw him there was a sharply defined patch just above the ear where the hair was very thin, and what remained could be pulled out without pain. There was diffuse redness in one half of the face, with some desquamation and infection of the conjunctiva. On the back there was a space as large as a plate over which the epidermis had separated, and the part was very tender. Recovery soon occurred.

A case closely resembling my own is published in the BRITISH MEDICAL JOURNAL for November 7th, 1896, by Dr. H. C. Drury. Here an attempt was made to demonstrate a renal calculus. The first exposure, of an hour's duration, produced nausea; the second lasted an hour and a half, with 10 cells of the battery. A large sore at the epigastrium resulted, the deeper portion of which obstinately resisted all attempts to promote healing, and was associated with profuse discharge for many weeks.

Dr. Edmund E. King, of Toronto, reports in the November number of the *Canadian Practitioner*, a case resembling that quoted from *Nature*, but with some interesting differences. Here, again, the victim was a demonstrator of the Roentgen rays before public audiences, and was exposed to their influence sometimes at first for only two hours a day, without evil effects, but when it was increased to six to ten hours, his right hand, which was most exposed, began to blister, and the nails to separate from their attachment at the proximal end. The application of picric acid not only gave relief to the burning sensation, but appeared to have some protecting influence. After resting, the hand soon recovered, and he resumed his work, his left hand being this time exposed: similar phenomena ensued, and in addition, the left side of the face became swollen and red, and the hair of the head, in front of the ear, fell off, together with the greater portion of his eyebrow and the left side of the moustache and left whisker, which was almost bare, leaving the skin very soft and smooth. He thought also that his sight was somewhat impaired.

The consideration of these cases shows, that while the *x* rays may excite a dermatitis very like severe sunburn, and even ulceration of the skin, which is extremely difficult to heal, and also shedding of hair and nails with or without antecedent inflammation, these ill-effects are only produced when the exposure is very prolonged and the Crookes's tube is placed very close to the skin, or when the exposure is frequently repeated, as in the case of public demonstrators of the phenomena. Dr. Drury's case suggests that possibly the strength of the battery used to run the coil may have some influence. In my case an accumulator was used, so that possibly the current was extremely strong. No ill-effects from the exposures usually required for an ordinary radiograph need be feared. The fact that in the Canadian case picric acid seemed to be protective to some extent, suggests that perhaps it was due to the yellow colour of the acid, and that Dr. Bowles's suggestion of protecting the face against the sunburn of snow mountains by coating it with black—or, better, red pigments might possibly be prophylactic against the *x* rays also, and workers with these rays might wear red cloth gloves, or coat their hands and face with red paint which could be easily washed off.



## A CASE OF SNAKE BITE TREATED WITH ANTIVENOMOUS SERUM.

BY

PROFESSOR H. P. KEATINGE and PROFESSOR M. A. RUFFER.

(From notes by Dr. KHAYYAT, Pathological Laboratory, School of Medicine, Cairo, Egypt.)

THE patient is a girl, called Hamida, 13 years of age, but looks much younger. The child, while collecting cotton on October 7th, 1896, at Ghizeh, near Cairo, a place well known to be infested with Egyptian cobras, especially in flood time, was bitten by a snake in the forearm. She stated later on that she did not notice the snake until, on clasping a bough with her right arm to pull it down to her level in order to pick the cotton flower, she suddenly felt the bite. She then saw the snake, which she described as being about 3 feet long and of a yellowish colour. She shouted for assistance, and her fellow workers, including her brother, carried her home. The brother was positive that she became unconscious almost at once, but anyhow the village barber made several small incisions on the whole arm and forearm. She was later on carried by the police to the hospital.

On admission at 7 P.M. she was quite cold and collapsed, with sunken eyes; the pulse could not be felt, and there was slight rambling delirium. She was then in such a precarious state that it appeared doubtful whether it was advisable to carry her up to the wards. The forearm was covered with a filthy rag, and the whole arm was thickly coated with Nile mud (a favourite remedy with natives), but about 3 inches below the bend of the elbow were two distinct holes, penetrating through the skin to the tissues below, evidently corresponding to the fangs of a snake.

At 7.30 Dr. Keatinge and Dr. Ruffer examined the patient, who was then in much the same state as on admission. The pulse still could not be felt, the patellar reflexes were absent, and the moderately-dilated pupils reacted sluggishly to light. The child was practically comatose, lying covered up in bed, and evidently in a very precarious condition. After consultation, Dr. Ruffer injected, with all antiseptic precautions, 20 c.cm. of antivenomous serum under the skin of the abdomen. The child groaned a little when the injection was made, but gave no signs of pain otherwise. She could not be made to take any nourishment nor brandy.

At 11 P.M. the patient's condition was distinctly improved, though still precarious. The pulse was 140, compressible, but the patient was warmer and answered questions; 10 c.cm. of antivenomous serum were again injected on the other side, the patient shouting lustily when the needle was introduced. She then slept quietly during the night, passing urine four times under her.

On October 8th, at 8 A.M., the pulse was 140; she took an egg beaten up in milk and 3 g. of brandy. She was evidently much better, and answered questions intelligently, but was still drowsy. There was no tenderness at the point of injection of serum. She remained in the same state during the day, but took a little nourishment.

On October 9th the pulse was 125, much stronger, but the patient was still drowsy. The same diet was continued.

On October 10th she had slept well and felt comfortable. On examination of the wound a little tenderness and swelling at the point of the bite was found. Lead lotion was applied every four hours, and ordinary diet ordered.

On October 11th the place of the bite was brawny and painful. There was evidently a good deal of tension, and the holes made by the teeth were discharging pus. After consultation with Dr. Milton, Dr. Khayyat made an incision and let out a small quantity of pus.

On October 12th she had slept well, but the pulse still kept up. The bowels were opened well, and she took food very well.

On October 14th the incision was enlarged, as the tempera-

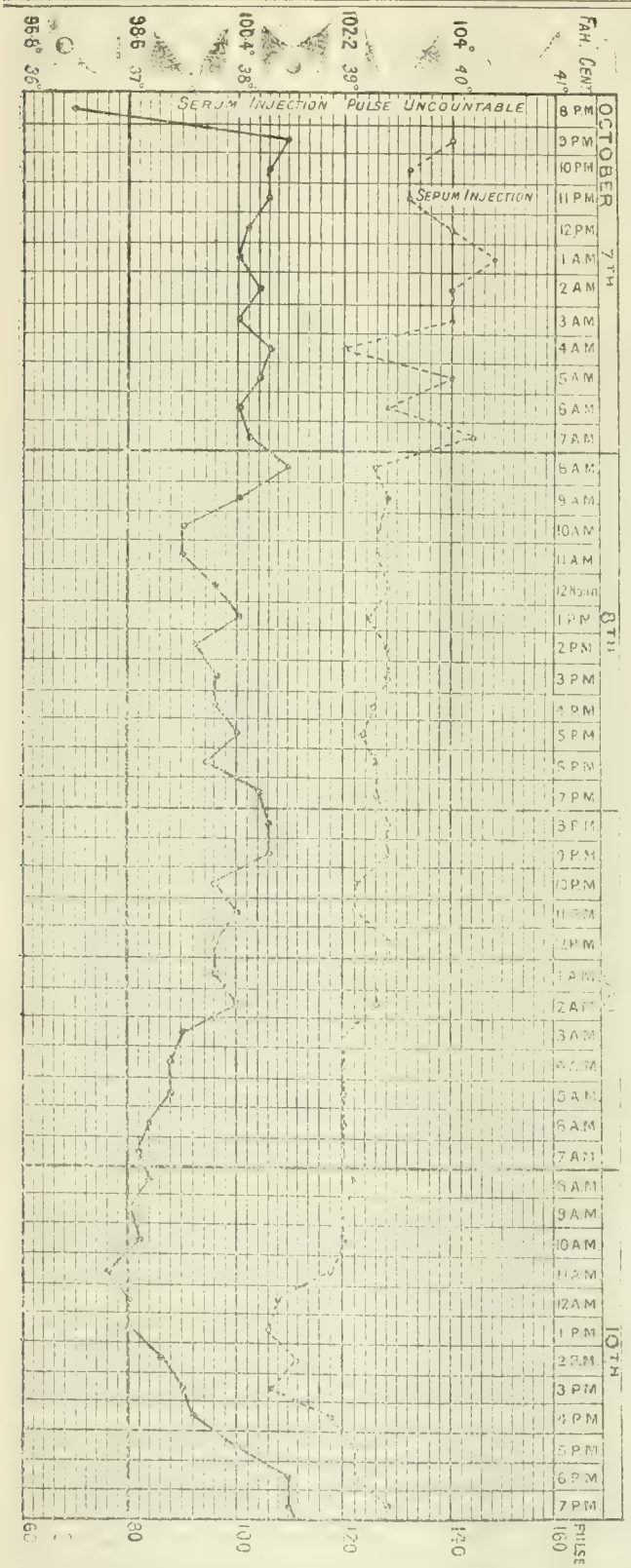



Chart of the pulse (dotted curve) and temperature (continuous curve) in the case of snake bite in an Egyptian girl. The rise of temperature and pulse during the afternoon of the fourth day (October 10th) was the beginning of the pyrexial period associated apparently with the suppuration at the site of the wound.

ture was going up, and as there appeared to be some tension. The wound was stuffed with dermatol gauze.

After this she made a continuous recovery, and was discharged cured on October 28th, 1896.

REMARKS.

As the snake was not killed it is not possible to say exactly what it was. Our friend Dr. Innes, curator of the Zoological Museum, and who has for a long time collected the snakes of Egypt, thinks that, judging from the child's description and the locality where she was bitten, the snake was probably the Egyptian cobra. That the snake was a highly venomous one cannot be doubted, considering the child's precarious condition when admitted. It was impossible to find out exactly at what time of the afternoon the child was bitten, but from inquiries it would appear that it was three to four hours before admission. With regard to the action of the serum, it would be rash indeed to draw any conclusions from this one case. All we can say is that the improvement following its administration was very marked, and that it produced no evil effects whatever. Neither rash nor joint-pains were noticed afterwards. The serum was made by Dr. Calmette, of Lille, and we have to thank the Société Chirurgique des Usines du Rhône, Lyon, who, as good luck would have it, had very liberally a few days beforehand sent us a supply of this serum. The abscess which formed in the arm, and which retarded convalescence, may possibly have been caused by the snake poison, but was most probably produced by the secondary infection from the Nile mud, with which the village barber had plentifully dressed the wounds in the first instance.

## INTRACRANIAL ANEURYSM TREATED BY LIGATURE OF THE COMMON CAROTID.[1]

BY RODERICK MACLAREN, M.D.,
Senior Surgeon to the Cumberland Infirmary, Carlisle.

THERE are few lesions which are so little capable of diagnosis as intracranial aneurysm. The miliary aneurysms which are the invariable cause of non-traumatic cerebral hæmorrhage give rise to no symptoms or signs till their rupture produces apoplexy and paralysis. And when these conditions are present it is often a matter of extreme difficulty to ascertain during life whether they are due to hæmorrhage or to some other cerebral lesion. With the large intracranial aneurysms situated on some one or other of the principal arteries, it is a rare thing to be able to get evidence of their existence during life. They either produce symptoms of a very equivocal kind, or, still more frequently, none that attract attention. Their existence is, generally speaking, first determined by *post-mortem* examination. I think, therefore, that the story of a case, in which the diagnosis was clear and the indications for treatment distinct, worthy of record. There are some other questions, also, both medical and surgical, on which this case throws a side light.

The patient, a domestic servant, aged 40, was sent to me on April 29th, 1896, by my friend Dr. Knight, of Keswick. Her story was that seven weeks before she was suddenly seized with pain on the left side of the head and in the left eye. At the same time she became aware of a rushing noise on the left side of the head. Very soon afterwards the left eye felt weak and watery, and the eyelids swelled.

On examination the following condition was ascertained: The left eyeball was pushed forwards, both upper and lower eyelids on the left side were swollen and œdematous. There was congestion of the conjunctival vessels. There was almost complete paralysis of the external rectus of the left eye. The pupil was active; vision normal. The other movements of the eye were right. The fundus was healthy and the disc normal. On auscultating the cranium a loud systolic musical *bruit* was heard. It was audible all over the head and a short distance down the back of the neck. It was loudest over the left orbit and temple. When the left common carotid was compressed the murmur entirely dis-

[1] Read before the Border Counties Branch of the British Medical Association.

appeared; it was not influenced by pressure on the right common carotid. Her arteries everywhere were extremely atheromatous. The heart was large and the apex beat two inches to the left of the middle line. There was a marked amount of albumen in the urine. The inference from this combination of symptoms was that she had an aneurysm of the internal carotid, pressing on the cavernous sinus, the sixth nerve, and the auditory nerve. She agreed to go to the Cumberland Infirmary, and was admitted on the same day. She was kept under observation in bed for a few days, and became notably worse: her eyelids gradually swelled more and more, and the conjunctiva was chemosed and half covered the cornea.

On May 8th I tied the common carotid. Improvement began at once; by night the eyelids were less swollen; the *bruit*, of course, disappeared immediately. On the following day it was noted that the eye was less prominent, and the hearing greatly improved. Two days after the operation the proptosis had disappeared; the œdema and deafness were gone, and there was improvement in power of the external rectus. She continued to do well. The wound healed at once. In three weeks the external rectus had regained most of its power. She was discharged from hospital seven weeks after the operation. The movements of the eye were then perfect; her vessels were decidedly softer. The apex beat was in its normal position, and there was no albumen in the urine. She had been kept on farinaceous diet throughout, and after the operation had iodide of potassium in 10-grain doses three times a day. Dr. Knight writes me (October 19th) that she is very well.

The first point to which I wish to call attention is the material used and the method of tying the common carotid. Her vessels were so atheromatous that I was desirous of ligaturing with as little injury to the vessel as possible, so I used kangaroo tendon, which makes a somewhat flat string. I did not tighten the first hitch of the knot very much, to avoid cutting the middle coat of the vessel, merely using sufficient pressure to close the lumen of the artery. In tightening the second hitch, however, I pulled rather too hard, and broke the ligature. This necessitated a second application of a ligature which was tied in a similar fashion, but without pulling quite so hard. The substance and method were entirely satisfactory; the vessel has remained closed and the wound healed absolutely by first intention. When the neck was examined about a week after operation the ligature could not be felt.

Another matter to which I would strongly direct attention is the very great improvement in the patient's general state, which followed treatment. This consisted of three things—milk and farinaceous diet, iodide of potassium, and rest in bed. I cannot pretend to tell which was the most prominent factor in her cure, but the result was thoroughly satisfactory. There was no history of syphilis, and nothing was elicited which was suggestive of its existence. It is alleged that this is by far the most common cause of intracranial aneurysm, and that atheroma has a second or even a doubtful place; but in this case there was no evidence to support this view.

## A CASE OF ACUTE SEPTIC GENERAL PERITONITIS WITH SEPTIC METRITIS TREATED BY ANTISTREPTOCOCCIC SERUM: RECOVERY.

By R. R. LAW, M.D.CANTAB.
(Late House-Surgeon St. Thomas's Hospital),
Sidcup, Kent.

ON AUGUST 26th I was called to attend a young lady who had been married only three weeks previously, up to which occasion her health had been perfect, menstruation being quite regular and free from pain.

On August 17th a period which was then due had commenced, and the loss of blood continued up to the date of my first visit. From August 17th she experienced pain and tenderness in the lower part of the abdomen; there had also been slight diarrhœa. The abdomen moved well on respiration, but on palpation I discovered rigidity and tenderness over the lower half of the abdomen, especially over the region of the left ovary and the fundus uteri. No distinct mass could be detected, and the abdomen was resonant all over. By the vagina the uterus was felt to be in good position, but the cervix and body were slightly enlarged and tender to the touch. The pulse was slightly quickened and the temperature was 100°.

There was a history of exposure to cold and fatigue at the onset of the period. I therefore diagnosed pelvic peritonitis, and ordered complete rest, milk diet, and hot fomentations to the abdomen, with small doses of opium internally. From August 26th to August 29th the condition of the abdomen improved; the pulse and temperature became normal, and the flow of blood ceased.

On August 30th, at my visit in the morning, I found a serious change for the worse. Symptoms of general peritonitis were rapidly developing, accompanied by a rising temperature and rapid wiry pulse. There had been diarrhœa during the night, and since my last visit a profuse purulent vaginal discharge tinged with blood had made its appearance. On vaginal examination the uterus was felt to be greatly enlarged, softened, and tender to pressure. The cervix uteri was swollen to twice its normal size. From certain new facts in the history of the case, I was enabled to infer the infectious nature of the vaginal discharge and the existence of septic metritis. Hot fomentations to the abdomen and antiseptic vaginal douches were ordered. The diet was restricted to peptonised liquids. Brandy, opium, quinine, and bismuth were given internally. During the day a rigor occurred, and the temperature for a short time stood at 104.5°. Slight diarrhœa continued, and there was retention of urine. In the evening I injected 3 c.cm. of antistreptococcic serum hypodermically. The condition of the patient prior to the injection was as follows: Tongue furred; breath offensive; temperature 101°; pulse 116, small and thready; respirations 32 to the minute and entirely thoracic; abdomen distended, tympanitic, and tender all over; a slight swelling could be felt on light palpation in the left ovarian region. One hour after the injection the temperature was 98° and the pulse 92 and of better volume. The patient, who had hitherto been wakeful, now obtained two hours' good sleep.

On August 31st four injections of 3 c.cm. each were given, with the same favourable effect upon the temperature and pulse; the highest temperature was 100°, highest pulse 104. Slight diarrhœa continued, and vomiting occurred once. Retention of urine required the catheter once and then passed off; the urine was free from albumen. On placing the hand lightly on the surface, peritoneal friction could be detected over the whole of the abdomen. This sign persisted up to September 3rd, and I submit that it was of the highest importance as proving the universality of the peritonitis. From September 1st to September 3rd the injections of serum were continued, amounting in all to 35 c.cm. The symptoms and abdominal signs improved in all respects.

On September 15th the condition was as follows:—Tongue almost clean, pulse and temperature normal, digestive system in good order, abdomen resonant and supple all over, and moving well in respiration; there was no pain anywhere, but slight tenderness existed over left ovarian region; no swelling could be detected in any part of the abdomen; the vaginal discharge was free from blood, and was gradually lessening in amount. On vaginal examination, the cervix and body of the uterus were almost of normal size but were still slightly tender; the vaginal fornices were free from any depression.

On October 20th the patient was able to walk, and suffered no pain whatever; the discharge was very slight in amount.

REMARKS.—The injections were given beneath the skin of each of the limbs in rotation. On September 5th urticaria appeared at the site of each injection almost simultaneously but disappeared by September 9th. There was no other local reaction. The most immediate effect of each injection was slowing of the pulse with improvement in quality. In all probability but for the serum the case would have ended fatally, as without doubt there was an acute septic general peritonitis fully established at the time the injections were commenced. The serum was obtained from Messrs. Allen and Hanburys, and had been prepared by the British Institute of Preventive Medicine in July, 1896.

## A NOTE ON THE PATHOLOGY OF A DOUBLE COLLES'S FRACTURE.

[WITH SKIAGRAPHS.]

By J. LYNN THOMAS, F.R.C.S.,
Assistant Surgeon to the Cardiff Infirmary.

A man, aged 30, who had sustained a double Colles's fracture, was sent to me by Dr. Cresswell, House-Surgeon to the infirmary, to be skiagraphed, on September 9th. The deformity was of the usual character in both limbs, and the cause of the injuries was a fall from a height upon the palm of the extended hands.

It will be observed that the bone lesions of the radii of a clinical entity are dissimilar, but the point I would like to draw special attention to is to the fracture of the styloid processes of both ulnæ, with the hope that others who have the



Fig 1.

opportunities may assist in establishing as a fact whether this condition is as uncommon as we have hitherto been in the habit of thinking it to be.

Before the days of the Roentgen rays one may assume without fear that it was very difficult, if not often impossible, to diagnose the exact pathological condition of similar bone injuries, but now, thanks to the great physicist of Wurzburg, we are able to see the living bones without any worry to the patient.

In Treves's *System of Surgery* it is stated in connection with Colles's fracture that "the carpus moves outwards with the lower fragment, and sometimes carries the ulnar styloid process with it." Bearing on the same point, we find in Keen and White's *American System of Surgery* that "exceptionally the styloid process of the ulna may also be broken off." So far I have skiagraphed only five cases of Colles's fracture, and in four of them this "exceptional" (?) condition of the ulnar styloid process was present, but whether these cases will prove "exceptional" or "sometimes" I would venture to ask that others who have frequent opportunities may assist in elucidating a point which by co-operation can now be satisfactorily settled in a few months.

Fig. 1 shows the ordinary fracture with outward displacement of the lower fragment in Colles's fracture, *plus* fracture of the styloid process of the ulna.

Fig. 2 shows very slight impaction of the radius about three-quarters of an inch from its lower end; it is to be observed by noticing the irregularity on the outer border of the bone, but the interesting, and I think a most unusual, condition to be noticed is a complete longitudinal single fracture of the lower end of the radius showing a detached portion of a triangular shape in its normal position attached to the radio-ulnar ligament.

In connection with the Roentgen rays I may be allowed to express the opinion than an apparatus for its development at



Fig 2.

a hospital is as essential in exploring living bones and embedded foreign bodies as an exploring needle is in connection with the chest, skull, and abdomen, and doubtfully fluctuating peripheral tumours.

## DYSTOCIA FROM RELATIVE SHORTNESS OF THE FUNIS.

By JOHN A LYCETT, M.D.,
Senior Surgeon, Wolverhampton Hospital for Women.

S. F., aged 33, mother of two healthy girls, the younger 3 years old, was recently attended by me at full term. The labour was tedious compared with her previous confinements, the pains being of short duration and not strong. Presentation first cranial or left occiput anterior. When the head

was bearing upon the perineum evidence of the nature of the difficulty became manifest by great retraction between the pains, which were becoming shorter and less effectual, though not from exhaustion, as she continued cheerful with a good pulse. Pelvic examination showed no cause, there being ample space with yielding soft parts, and the nature of the presentation was further confirmed by feeling, with ease, the pinna of the left ear. Abdominal examination showed a single gestation, with the placenta at the fundus, where the rotundity became much less defined during uterine action. Though during the labour a firm binder had been applied round the abdomen, it became evident that Nature, unaided, could not effect delivery, which had appeared so imminent for over an hour. Forceps were therefore used, and the head delivered by carrying the occiput over the symphysis without injury to the perineum. There was no caput succedaneum or other indication of the head having been subjected to undue pressure. Hæmorrhage now began, and the diagnosis was verified by finding a strong rather thick cord passing over the thorax round the back of the neck. The tension was so great that it was impossible to slip it either over the head or shoulders, so I divided it between forceps, as it was uncertain which was the fœtal end. The shoulders and arms were now freed, and a male child, weighing over 11 lbs. and 20 inches in length, delivered. As hæmorrhage continued rather free, and the placenta could not be expelled by Credé's method, ergot was given and the hand immediately introduced, when about a fifth of the placenta was found still attached to the fundus with a large clot.

I regret that the length and strength of the cord were not ascertained, but it was of an average length, probably more than 17 inches, and as a cord of medium strength will bear a weight of 8 lbs.,[1] this evidently would not have broken under a weight of 12 lbs. More frequently, when the cord is too short, and fully stretched, under the tensile force of labour, the placenta becomes detached from the uterus, as in this case; but the cord may be torn from either the placental or umbilical site, or when under the normal strength, snap through during labour, as related by Dr. Johnson.[2] It is not uncommon for the cord to encircle some part of the child, and, as a consequence, less marked degrees of relative shortening may be a cause of dystocia without being recognised, even after delivery.

During an experience of nearly 25 years I have no note of labour being impeded from absolute shortness, but have met with several where relative shortness has been a cause of the difficulty. This, however, is the only occasion in my practice where the symptoms and physical conditions were sufficiently obvious to enable a diagnosis to be, with reason, inferred before delivery.

## A CASE OF ENTERIC FEVER, COMPLICATED BY PERFORATION, PERITONITIS, AND RELAPSE, AND FOLLOWED BY PERITYPHLITIC ABSCESS: RECOVERY.

By Surgeon-Lieutenant E. B. STEEL, B.A., M.B.,
Army Medical Staff.

The following case, as illustrative of a rather rare sequela of enteric fever, namely, perityphlitic abscess, may be of interest. This condition and its rarity as a sequela of enteric fever were noticed by Sir Dyce Duckworth in the interesting series of lectures on the "Sequelæ of Diseases" which were published a short time ago in the British Medical Journal.

On February 20th, 1896, I was called to see Mr. R. He had suddenly been attacked with severe abdominal pain, and when I first saw him was in great agony, lying on his back with both legs drawn up and rigid, tender abdomen. The temperature was 103.6°, the pulse 130, small, hard, and wiry. His expression was drawn and anxious, and his respirations shallow, rapid (38 to the minute), and entirely thoracic. He complained of pain in the right iliac fossa, where tenderness was most marked; no dulness or tumour could be detected. The previous history of the case suggested a mild case of the so called "ambulatory typhoid."

The following day (February 21st) the abdomen was greatly distended and tympanitic, pain having become general. The other symptoms were proportionately intensified. For the next few days the patient continued to show all the symptoms of a very sharp attack of acute peritonitis.

Between 8 and 9 o'clock on the morning of February 23rd collapse suddenly occurred. The temperature fell from 104.3° to 96.4° with profuse perspiration, cold surface, an almost imperceptible pulse, and sighing respirations. The patient appeared to be in a moribund condition, but rallied surprisingly under judicious stimulation. The pain after revival was so agonising that 6 grains of opium administered within three hours failed to give relief, and recourse was had to hypodermic injection: 10 minims of the ordinary solution night and morning, and 5 minims in the middle of the day at last procured relief. Under the influence of morphine the patient progressed favourably, but the temperature remained fairly high and irregular, and the abdominal symptoms continued to give some trouble. For several days the case presented the symptoms of an ordinary case of peritonitis, but, suspecting enteric fever to have been present, I was not surprised when I found five well defined spots on February 29th. When the peritonitis abated the temperature fell by lysis in typical typhoid fashion. Characteristic stools followed with a period of moderate diarrhœa, considerable abdominal pain still necessitating the exhibition of morphine.

The patient now appeared on the fair road to recovery, when unfortunately on March 8th the temperature began to climb again, and there was no doubt that a relapse had to be dealt with. Fresh spots appeared, and all the symptoms returned, although in a much milder form. The patient was, indeed, in a very serious condition, and the chances of his recovery appeared to be reduced to a minimum. Still improvement took place, and all appeared to be going on well, when the patient again began to complain of pain in the right iliac fossa.

Towards the evening of April 4th this became more acute, with profuse sweating, and a temperature of 101.4°.

The following morning a well defined hard swelling was detected, and suppurative perityphlitis diagnosed. The case was now so serious that Dr. Goodhart, of Guy's Hospital, was called into consultation. He confirmed the diagnosis, and agreed that early operative interference was absolutely necessary.

On April 8th, chloroform having been administered, an incision was made about 2½ inches long, beginning 2 inches inside the crest of the ilium at its anterior extremity, and extending in a direction downwards and inwards. The peritoneum was opened, and about 4 ounces of pus evacuated; there was a fair amount of hæmorrhage. A drainage tube was inserted, and at 9 P.M. the temperature was normal, and the patient felt very comfortable.

The drainage tube was removed on April 22nd, and from this the patient made an uninterrupted recovery, being able to return to his home without discomfort on June 1st.

I have no doubt from the various symptoms presented that the case was primarily one of mild enteric fever resulting in perforation and consequent peritonitis; the abscess, I believe, occurred at the site of perforation, and was luckily cut off from the general peritoneal cavity by inflammatory adhesions. Such serious inflammatory action having occurred in the right iliac region, I consider it more than likely that subsequent abdominal trouble will occur, possibly requiring operative interference. The early stages of the case exemplified the necessity for the fearless exhibition of opium in such cases, the only criterion of the sufficiency of the dose of the narcotic being the relief of pain. Obstinate constipation is bound to follow and cause some trouble, but this is of little moment compared with the immediate beneficial action of the drug. I am indebted to Dr. Robinson, of Old Brompton, Chatham, for considerable assistance with the notes of the latter part of the case, as, owing to change of station, I was unable personally to conduct the case to complete convalescence.

[1] Matthews Duncan, *Obstetrical Transactions*, vol. xxiii, 1881; and British Medical Journal, 1881, ii, p. 857.
[2] British Medical Journal, 1882, ii, p. 132.

## CASE OF ARTHRITIC PURPURA.

By F. ERNEST PEAKE, M.R.C.S., L.R.C.P.,
Bristol.

THE patient—a well-nourished, healthy female, aged 23, of a slightly neurotic temperament—had always enjoyed good health, and, apart from the ordinary infantile diseases, had never occasion to consult a medical man.

For some time she had been somewhat fastidious in her diet, often preferring sweets to meat and vegetables, but had not abstained from animal and vegetable food to any extent. There was no previous or family history of rheumatism.

On May 21st, when I first saw her, she was suffering from a general erythematous rash, resembling that of scarlet fever. The temperature was 99°. There was no vomiting and no sore throat. The rash entirely disappeared in two days. She then complained of pains in both knee-joints and muscular pains in the legs. The joints were not swollen, but very tender on palpation. She could not stand owing to the pains. The pulse and temperature were normal, and no relief was obtained from the administration of sodium salicylate.

On May 25th she had a severe attack of vomiting, the vomit being distinctly "coffee-ground." This was soon followed by melæna, the evacuations being frequent, liquid, of a darkish red colour, and practically nothing but blood. Pain and tenderness were complained of in the epigastric region and slightly over the abdomen generally. Menstruation occurred on the same day, which was stated to be about the periodical time for its appearance. The discharge was not excessive. Following the vomiting the patient was exceedingly prostrated, the pulse was weak and thready, and varied from 130 to 150 per minute. The temperature was slightly raised, but never exceeded 100° F.

Nourishment was administered by means of enemata, in each of which was given half-drachm doses of liquor calcii chloridi.

The following day, May 26th, a thick petechial rash appeared on the legs and—to a slighter degree—on the forearms. On the dorsal surface of both feet, the buttocks, and both elbows larger extravasations occurred, forming blebs, varying in size from a small pea to a threepenny piece. The gums were not swollen, and did not bleed, but purpuric patches appeared on the mucous surface of the lower lip and on the gums. The pain in the knee-joints still continued, both elbow-joints—and particularly the right shoulder-joint—became affected, and she was unable to raise the right arm from the bed. Flexion of the forearm could only be effected with difficulty and great pain. Pressure of the bedclothes on the legs was also complained of.

The hæmatemesis and melæna stopped soon after the appearance of the purpuric rash, and no fresh eruption occurred subsequently. There was no hæmaturia, and no albumen was present in the urine. There were no retinal hæmorrhages.

After the first twenty-four hours the enemata were usually well retained; the purpuric patches, undergoing the usual changes, gradually died away, except on the buttocks and elbows, where, owing to the constant pressure on these parts, the blebs broke, leaving small sores, which soon healed under boracic ointment, the pressure being relieved by pads of cotton wool. Sloughing followed the eruption on the lower lip, leaving a clean, raw surface.

The pains in the joints gradually disappeared. Nourishment by mouth was carefully made to take the place of the rectal feeding, and the patient eventually made a good recovery without a relapse.

## THE VALUE OF STERILISED MILK.

By J. KINGSTON BARTON, M.R.C.P.LOND.,
Late Surgeon to the Kensington Dispensary.

DURING the past year there have been the most conflicting statements concerning the virtues and vices of sterilised milk. The scientific chemists state that heated milk has lost many of its nourishing qualities, and of late they state the destruction of pathogenic bacteria includes the slaughter of many most beneficent micro-organisms. Medical men, having seen the enormous saving of infant life since the introduction of sterilised milk, will take the opposite view to the scientists.

Having devoted special attention to this matter during the past two years, I would venture to make several positive statements:

1. Completely sterilised milk, if administered without any fresh food, will undoubtedly sooner or later produce scurvy.
2. Comparatively or temporarily sterilised milk may be administered for any length of time without fear of scurvy appearing.
3. Completely sterilised milk, if administered at once in perfectly clean bottles, spoons, or cups, can be relied upon as free from any pathogenic bacteria.
4. The heating of milk alters very slightly, if at all, its nourishing qualities.
5. All kinds of sterilised milk, if free from added chemicals, can become foul as quickly, if not quicker, than ordinary fresh milk.
6. All sterilised milk that is put into hermetically sealed vessels, and which can keep fresh in them for several or many days, will produce scurvy unless some fresh food is administered daily; one meal of fresh whey daily will achieve this in younger infants than those who may have fresh vegetables, meat, or fruit.
7. Milk that is raised to the boiling point, or better, to within two degrees of the boiling point, and maintained there five to fifteen minutes is "comparatively" sterilised, and will never produce scurvy, and is almost quite safe from pathogenic organisms.

Paragraphs 6 and 7 are merely extensions of 1 and 2. If milk is placed in a china vessel which stands in another vessel containing cold water, and this is brought to the boiling point, then the milk will not itself boil within the first fifteen minutes after the water boils. This heated milk does not lose its antiscorbutic properties for at least twelve hours. I cannot state what is the longest period it might retain its antiscorbutic properties, because such kept milk would be otherwise dangerous to give to a child.

Milk that is boiled direct over the fire undoubtedly constipates; but milk that has water placed between it and the fire does not produce this trouble. The only chemical permissible is a small quantity of bicarbonate of soda to be added to the fresh milk before it is scalded. This is to neutralise the acidity which appears in cow's milk soon after it is drawn from the cow, and in the second place the saline seems to produce increase in flow of bile.

To sum up, if you would steer clear of scurvy and avoid pathogenic microbes, then obtain as clean fresh cow's milk as possible twice a day in winter, three times a day in summer, and scald it soon after its receipt, of course every precaution being taken to prevent contamination of the scalded milk between the time of its sterilisation and administration.

As to the strength of milk and water, etc., to give hand-fed infants, that is altogether too wide a discussion to enter upon here. I wish merely to answer the question of how to avoid scurvy.

## THE OCCURRENCE OF ZONA BELOW THE KNEE.

[SINCE the publication of Dr. Mahon's paper in the BRITISH MEDICAL JOURNAL for November 7th, 1896, p. 1379), we have received notes of the following examples of herpes zoster occurring below the knee.]

I.—A. SYMONS ECCLES, M.B.,
London.

E. S. E., aged 25, on October 19th, 1896, took a long night journey of seven hours by train, and owing to the absence of foot warmers could not keep warm below the knees. On arriving at his destination he felt very cold, but a sharp walk restored the sense of warmth. On the following night he slept in a bed which had not been occupied for some time, and on October 21st and 22nd he experienced some pain and stiffness in both shoulders and knees.

On October 26th a crop of shingles appeared over the

seventh and eighth right intercostal spaces, unaccompanied by pain.

On October 29th the patient returned to London, reaching home early in the morning after eight hours' journey in a well warmed compartment. During the night he felt a slight smarting pain over the seat of the eruption, but no other discomfort.

On October 30th the eruption appeared on the right thigh and inner side of the same knee and on both shins. It was also observed by the patient that "the big toe joints were swollen and had a gouty blush."

On November 1st the patient, a near relative, consulted me, and characteristic herpetic patches were found in the following situations: A small patch, to the left of the fifth cervical spinal process, in the papular stage. Three patches in the seventh intercostal space, one near the spine on the right side, vesicular; another in the axillary line, and a smaller more scattered group near the sternum, not yet vesicular. Three patches and a few scattered papules in the eighth intercostal space on the right side, all the patches being a little anterior to those immediately above them, and all vesicular. A patch about the size of a shilling on the right buttock, corresponding to the exit of the cutaneous branch of the third sacral nerve. A longitudinal patch (3 in. by 1 in.) over the front of the left thigh, corresponding to the middle cutaneous distribution. A smaller patch above the inner condyle of the left femur and a few papules scattered down the skin on the inner side of the knee-joint (internal cutaneous). A patch 5 inches above the tip of the left internal malleolus, about an inch in diameter (internal saphenous). A larger patch 6½ inches above the right internal malleolus, 1½ inch in longitudinal diameter, and encroaching on the skin over the tibia. All the patches on the lower extremities were in the papular stage. Flexible collodion was applied night and morning to all the patches until November 7th. The intercostal zona ran its course to the pustular stage. In the other situations the vesicles did not appear to become turbid, and on the left leg, after two or three applications of collodion, the raised erythematous patch faded away.

On November 8th all the patches had faded, but some pain of a lancinating character, occurring about 4 P.M., and intermitting throughout the evening, was still felt along the seventh and eighth intercostal spaces. At no time was there any pyrexia nor any after-pain, save over the left chest.

### II.—John Crisp, M.R.C.S., L.R.C.P.,

Market Harborough.

Case I.—This case was seen nine years ago in the casualty room of Derby Infirmary, but the notes made at the time are very brief and imperfect. E. M., aged 22, female, had zona on one buttock, thigh, calf, and the outer side of the foot, including dorsum and sole, accompanied by much pain. She made a good recovery.

Case II.—Mrs. I., aged 69, rather feeble, but without actual disease, in July suffered severe pain in the right thigh and leg, which quite prevented her sleeping. She described it as being worse when warm in bed, and likened it to "cramp." The pain continued unchanged for a fortnight, and then sometime during the next two weeks the skin of the leg became tender, and a red patch appeared on the calf. Small spots also came out lower down the leg and on the foot. The pain continued as before. When first seen on August 15th she was much debilitated and depressed, and the condition of the leg was as follows: The right foot and leg were somewhat swollen, the former especially. There was on the middle of the calf an inflamed patch, 1½ or 2 inches in diameter, composed of confluent vesicles, which had burst and were discharging blood-stained pus. At several points the skin was necrosing, and the whole patch was surrounded by a considerable area of inflammation. Below this, on the postero-external surface of the leg and on the front of the ankle, mid-dorsum of the foot, and plantar aspects of the second, third, and fourth toes were several discrete vesicles. Most of these had blood-stained contents. The distribution of the eruption corresponded with the terminal branches of the small sciatic nerve on the calf. Lower on the leg with the cutaneous branch of the external popliteal and on the dorsum of the foot, with the musculo-cutaneous branch of the same nerve. On the plantar surfaces of the toes, with cutaneous branches of the internal popliteal nerve. The small skin sloughs slowly separated, leaving shallow and painful ulcers, which healed by September 26th, when the patient had much improved in health. When seen six weeks later she was as well as usual, except for occasional pains in the leg and foot.

Remarks.—Both patients were females, and no definite cause of the disease was discoverable. The eruption in the second case seems to have been preceded by severe pain for an unusually long period, and I since have learnt she had been treated for sciatica before coming under my care.

### III.—P. O. Watkin Browne, M.B., C.M.Glasg.,

Alderley Edge.

Miss R., aged 72, had been suffering from indifferent health for some months previously with acid eructations and pale stools. These symptoms subsided under appropriate treatment, leaving behind an impoverished state of the blood, for which she was put on a mixture containing 5 minims of liq. arsenicalis (Fowler's) three times a day. It was continued for about six weeks, when it was immediately stopped on account of the development of herpes. About the end of December, 1895, the disease began with a series of successive crops of vesicles accompanied by great pain, which outlived the rash by several months. The eruption consisted of four large patches (with a few scattered vesicles between) on inflamed areas situated over the right side of the sacrum and right buttock, extending very little further outwards than the middle line of the gluteal fold, and a few small patches on the upper part of the thigh behind. From here to the middle third of the leg the skin was clear. The lower two-thirds, however, in front, outside, and to the middle line behind were thickly studded with small groups of vesicles. There was only one patch on the inside of the leg, and it was placed just above the ankle close to the tendo Achillis. The rash appeared also on the dorsal surface of the foot, on a line with the extensor tendon of the great toe, spreading as far forwards as the distal end of the first metatarsal bone. It covered the inner side of the foot below the ankle and extended underneath to the sole, occupying it from the bunion joint in front to the middle of the arch behind, and not passing further outwards than the line of the second toe. I do not know whether the vulva was affected but I fancy not. Ulceration of the skin at the base of three of the patches on the buttock and sacrum took place, and was long in healing. The pain, which was always more acute during the night, did not disappear entirely until May, 1896, five months after the onset of the attack, and the leg has not quite recovered its former strength and usefulness up to the present time.

### IV.—Surgeon Walter C. Axford, R.N.,

Devonport.

(Communicated by the Director-General, R.N.)

E. N., aged 20, a student in the Royal Naval Engineers' College, was seen on October 20th with a group of vesicles situated on the anterior and outer aspect of the right leg immediately above the ankle-joint. During the next and following days fresh groups of varying size appeared, spreading over the dorsum of the foot to the adjacent sides of all the toes, the inner side of the big toe alone remaining free. The skin over the dorsum was covered with a bright red erythema, the limits of which were well defined both on the outer and inner side of the foot. As in Moers's case, quoted by Dr. Mahon, some of the vesicles coalesced, forming bullæ, which filled with a serо-purulent fluid, simulating pemphigus. The eruption corresponded to the cutaneous distribution of the anterior tibial, external saphenous and musculo-cutaneous nerves, whose terminal branches form the ultimate divisions of the lumbo-sacral cord.

A week before the eruption appeared the patient had an abrasion (with subsequent slight inflammation of the surrounding skin) in front of the ankle, caused by friction from a boot lace.

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Presentation.—Dr. Bangay, on the occasion of his leaving Lyme Regis, has been presented with an illuminated address, a copy of the *Encyclopædia Britannica*, and a purse of gold by his friends and patients as a mark of their respect and esteem.

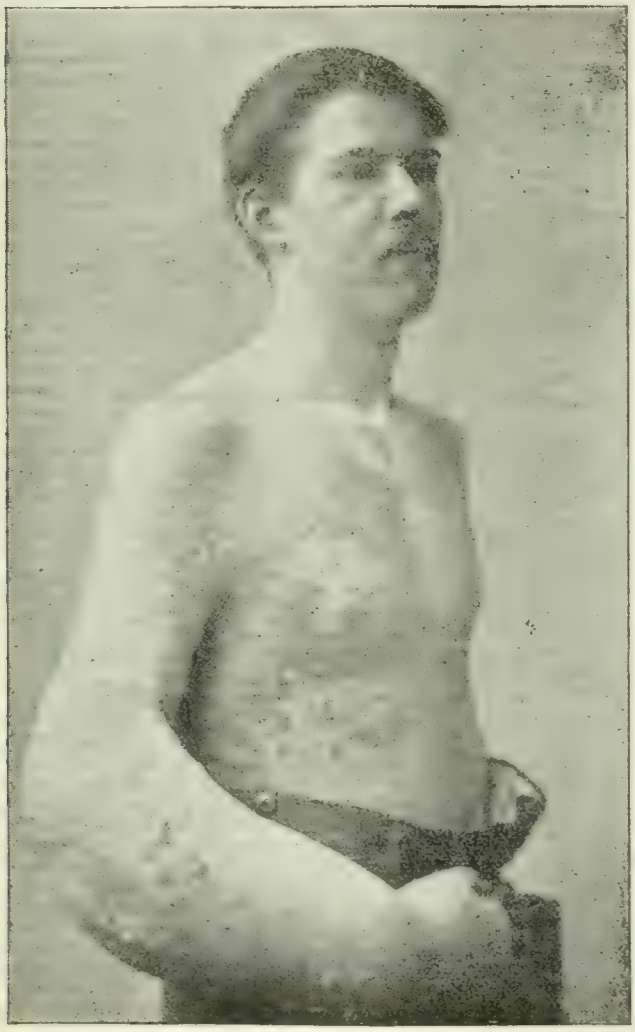
# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

### ELEPHANTIASIS OF FOREARM FROM ECZEMA.

C. T., aged 22 years, was vaccinated on the right arm when 3 months old. His mother says that shortly afterwards the present skin disease appeared on the upper arm, and has gone on progressing ever since. No local treatment has ever been attempted up to the present time.

At present the eczematous condition extends over the whole arm from the root of the neck to the middle of the forearm, excepting a narrow stripe running longitudinally along the inner aspect of the arm. Nearly the whole of the right side of the chest is affected, anteriorly, laterally, and posteriorly, where it crosses the middle line, and reaches the



vertebral border of the left scapula. On the face the right "flush patch" is affected, since a slight abrasion of the skin received only two years ago. The skin on the affected areas is markedly thickened and covered with abundant fine white scales, which are readily detached and show underneath a red, somewhat vascular surface, slightly moistened with serous discharge. Below the elbow there is great hyperplasia of the subcutaneous tissues of the forearm and back of hand, accompanied by slight œdema, evidently caused by lymphatic obstruction in the upper arm. The upper part of the affected forearm measures 20 inches in circumference, the corresponding part of the left arm measuring only 11 inches.

The patient's general health is good, but two or three times a year the condition of the arm undergoes acute inflammatory exacerbations, and at such times he has feverish attacks (102° to 103° F.), with sometimes tonsillitis and pain in joints, which I take to be due to septic absorption from the arm. There is occasionally a good deal of itching and dull aching pain in the arm, especially when it is in a dependent position. The accompanying reproduction of photograph will describe better than words the hyperplasia of the forearm.

Bradford. WILLIAM MITCHELL, M.B. & C.M.Edin.

### RECOVERY FROM CHLOROFORM SYNCOPE.

ON October 31st, at 2.30 p.m., I was asked to administer chloroform to a gentleman about 20 years of age for the purpose of teeth extraction. Four days previously I had carefully examined him and pronounced him in a normal condition and quite able to undergo the operation with that anæsthetic. At the time appointed, the patient being in a recumbent position in the chair, I proceeded to give the chloroform on folded lint (my usual custom), and after rather more than 2½ drachms were given he appeared to breathe spasmodically twice, when his whole aspect changed to one of deathly leaden pallor, with profound dilatation and fixity of the pupils, with now but the feeblest attempt at respiration, which was jerky. Added to this there was an almost simultaneous arrest of the pulse. With not a moment's delay the chloroform was stopped, he was lifted to the floor, artificial respiration was at once had recourse to, together with the subcutaneous injection of ether, ℥xxx. In four minutes his breathing had improved and his pulse was perceptible, whilst a little later his facial aspect had undergone a favourable change. With a disposition to relapse, however, artificial respiration was persevered with whilst still in the same posture. Another injection of ether was got ready, but I did not consider it necessary to give it, as in a few minutes there was marked improvement in the circulation and in the condition of the pupils, together with a return of consciousness. Brandy was now given alone, and subsequently in hot water, though I decided not to move him for another ten or fifteen minutes, when he was lifted to the chair and subsequently assisted across the road to his house.

The points of interest in this case are first that for the most part this was one of cardiac failure, that it was due to the chloroform, and that the recovery was due to the prompt and unceasing efforts used for the restoration of the circulation.

My best thanks are due to Mr. Bryan, the dental surgeon in attendance, without whose valued assistance throughout my proceedings might have terminated unsuccessfully.

Liverpool. CHARLES E. SOLOMON.

### FOOD POISONING: HIGH TEMPERATURE: SUPPRESSION OF URINE.

ON November 22nd, W. W., a hawker, and his wife had a rabbit and pork pie for dinner and part of the same cold for supper. They slept well that night and noticed no ill-effects from the food.

On November 23rd, Mrs. W. re-heated the pie and had some for dinner. Her husband, who was at work all day, came in to supper with his brother, and these two ate what remained of the pie.

Through the night all three suffered from vomiting, purging and violent pains in the bowels. Next morning the temperature of Mrs. W. was 101°, that of Mr. W. 102°, and the brother —a lad of sixteen, who was reported to have "gorged" himself at the previous night's supper—had a temperature of 105° and was delirious. The man had an urgent desire to pass water and had frequently but vainly tried to do so before my visit. He believed the difficulty to be due to an old stricture; but on passing a catheter, the bladder was found almost empty, not more than half a teaspoonful of water escaping.

On the morning of November 24th, the temperature of all three was normal, pain and vomiting had ceased and the man had passed water freely. He and his brother still suffered from some diarrhœa.

South Norwood. F. EVATT GAHAGAN, M.B.

## APPARENT SUPPRESSION OF SECRETION OF URINE.

ON October 17th, 1894, I saw S. O., a big, strong, healthy looking labourer, 35 years of age, who complained that "he had passed no water for four days, that he never wanted to and when he tried there was none to come." He had been wood-clearing and may have taken cold.

All his organs appeared to be healthy, there was no tenderness over bladder or kidneys and no distension of bladder. The temperature and pulse were normal and remained so throughout his indisposition. I met with no difficulty in passing a catheter but only drew off 3 ounces of urine, normal in colour and reaction, and without albumen. I ordered him to remain abed, a liquid diet, to have hot applications to abdomen and loins, and a dose of saline aperient medicine every four hours. His bowels did not act next day, he passed scarcely one ounce of urine, that coming only in drops; he had some general twitchings and spasmodic pain in the region of the left ureter. The day following he was tender about the right ureter, and complained of a "snatching" at his right testis; the left was tender. He had one loose motion and passed about 3 ounces of urine.

On October 20th, he was tender over the kidneys and bladder whilst prostrate gland was very tender to touch, he passed several liquid motions and 10 ounces of urine, which I examined chemically and microscopically and found normal as before.

On October 21st, he seemed better in every way, passed plenty of healthy urine, and was convalescent by October 27th.

He had previously had no urinary trouble, there was no blood nor albumen throughout nor since, nor was there any distress of urinary tract before the catheterisation, and he had no illness beyond a severe cold during 1895. The man was well-known to me as a steady, hard working man, upon whose statement every reliance could be placed.

Leominster. J. GOOD, M.R.C.S., L.S.A.Lond.

## AN EASY WAY TO PROVIDE A "WINDOW" IN A PLASTER SPLINT.

THIS may or may not be original. I have never seen it described or done. It is very simple and very useful. In many cases of compound or ordinary fracture where a wound or ulcer has not healed, or in cases in which a limb with a discharging sinus or sore has to be put up, the usual way of applying a fixed casing and cutting out a window afterwards is tedious and painful and troublesome.

My method is to insert a chip ointment box or other similar article a little larger than the ulcer or wound directly over the affected surface, and with a strip of bandage encircle the limb and box so that the ends of the bandages can overlap and be pinned over the box. Having applied the flannel roller or wadding, I apply the plaster-of-paris bandages in the ordinary way to the limb, fitting as closely as possible round the sides of the box. When the plaster has hardened I take the pin out of the piece of bandage which kept the box in position, undo the ends and lift up the box, and the ulcer is exposed ready for whatever dressing is required. The rest of the limb is properly encased.

Heathcote, Victoria. A. W. ESLER, M.D., M.Ch.

## RHEUMATIC TONSILLITIS WITH PERICARDITIS WITHOUT ARTHRITIS.

IN Dr. W. B. Cheadle's Harveian Lectures of 1888 he says of the connection of "tonsillitis with endocarditis or pericarditis apart from arthritis I have no certain knowledge." For this reason I report the following case:

J. A., aged 24, a clerk, when first seen had a moderate amount of palatal, tonsillar, and pharyngeal inflammation. The temperature was 101° at 8.30 P.M. On examining the heart there was nothing found abnormal in the area of dulness, position of apex beat, or sounds; but about the apex was heard a slight, soft rubbing. He was ordered sodium salicylate, gr. vii, every four hours. The next day the throat was worse, having a good deal of white exudation on the palate, arches, and tonsils in streaks. The temperature was 102.1° at 10 P.M. There was no joint pain even with rough movement. The third day was marked by improvement in the throat, by the entire absence of pain, and by an increase in area wherein the friction sound was heard. The temperature was 97.6° at 1 P.M. On the seventeenth day from the onset of the tonsillitis the area of the *bruit* was about half that shown in the chart of fifth day. He is now up and about with caution. On the thirtieth day the *bruit* area was about equal to that on the seventeenth, but sounds were less intense, and the greatest intensity was at the apex. Four months from the onset the *bruit* was still heard to the right and left of the nipple longitude and mostly in its latitude. The area of dulness was normal, and the first and second sounds of the heart were quite clear.

W. CAMPBELL M'DONNELL,
Medical Officer 6th District Hackney Union, etc.

Stoke Newington, N.

# REPORTS

ON

## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

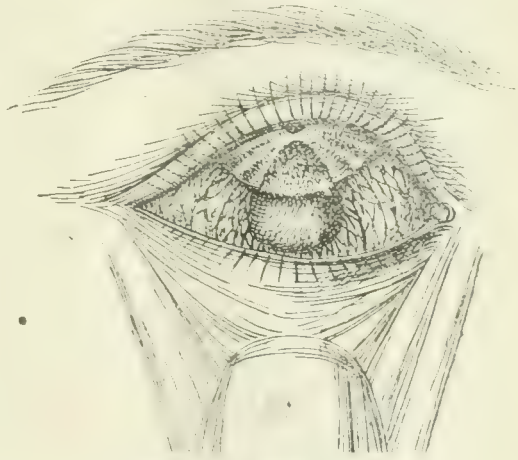
### THE ROYAL EYE HOSPITAL, SOUTHWARK.

#### GUMMA OF THE CILIARY BODY.

(By L. VERNON CARGILL, F.R.C.S., Assistant-Surgeon to the Hospital.)

THE excellent description of a case of gumma of the ciliary region, given by Dr. H. Campbell Highet,[1] leads me to record another typical case of this rare affection, which came under my observation.

The first case was recorded by von Hippel,[2] and, as far as I can ascertain, the following makes the twelfth case which has been reported, Highet's case being, of course, included.



Rough diagrammatic sketch.

W. B., aged 24, a stoker in the navy, had suffered from a chancre in January, 1894, and had then been treated with mercury for about six weeks. In the following June his right eye became somewhat inflamed, and he was admitted into Haslar Hospital, where he remained until October. He attended at the Royal Eye Hospital on November 13th, 1894, that is, ten months after the initial lesion. He complained of having great pain in the right eye, the vision of which had rapidly become very bad; this was soon followed by the appearance of a "lump" on the eyeball, and great redness. There was extreme conjunctival and ciliary injection. The pupil was only two millimetres wide and inactive; it did not dilate in the least on the instillation of atropine.

[1] BRITISH MEDICAL JOURNAL, November 7th, 1896.
[2] *Arch. für Opht.*, 1867.

There was a layer of lymph in the pupillary area, and no fundus reflex could be obtained. In the ciliary region, almost directly below the cornea, there was a prominent dark-red bulging of the sclera, which extended from the limbus for about 5 or 6 millimetres downwards, and measured 6 or 7 millimetres laterally. Corresponding to it in its width and position at the sclero-corneal junction there was a reddish-yellow cauliflower-like growth extending upwards in the anterior chamber, on the front of the iris, from the iritic angle, nearly to the margin of the pupil. This mass impinged against the back of the cornea in the periphery, and there the cornea was somewhat hazy. The aqueous was turbid, and there was some lymph on either side of the growth in the anterior chamber. The tension of the eyeball was − 2, and vision was reduced to mere perception of light. The left eye had never been affected, and showed no signs of disease, the vision with it being normal. He was treated vigorously with mercurial inunction. Perchloride of mercury and iodide of potassium was also administered, whilst atropine and cocaine were used locally. In a week the pain had almost gone, and there was less injection, the swelling already being distinctly less. In a fortnight the injection only remained in the region of the swelling, which was then some 3 or 4 millimetres in diameter, whilst the cauliflower-like growth in the anterior chamber only extended 2 millimètres from the apparent sclero-corneal junction towards the pupil. The cornea had lost its haziness, and the lymph in the anterior chamber was clearing up. The atropine had been discontinued, as it produced no effect on the pupil previously bound down.

On May 30th, 1895—that is, six months after first coming under observation—the vision of the right eye was Jaeger 16. There was a bluish-black discoloration in the ciliary region, where the bulging had been. The pupil was, of course, still excluded. The eyeball had a slightly shrunken appearance compared with its fellow, but the tension was normal.

Remarks.—In this case, as is usual, there was a preceding iritis, and a history of rapid deterioration of vision. The gumma appeared ten months after the initial lesion; but in a case reported by Terson,[3] scarcely two months elapsed; whilst in the cases recorded by Panas[4] and Scherl[5] there was an interval of fully seven years. In this case, as in Highet's, vigorous treatment was fortunately attended by a remarkably good result, the gumma cicatrising without breaking down, perforating, and discharging. The prognosis in this affection is very grave, the eye generally, in spite of all treatment, becoming soft and shrunken, with atrophied iris, closed pupil, detached retina, and consequent complete and permanent loss of vision. There is an interesting paper by Albert Terson in the *Archives Générales de Médecine*, October, 1894, in which he calls attention to the necessity of distinguishing these rare cases of primary gumma of the ciliary body from the much commoner and well-known cases of affection of the ciliary body, in association with and secondarily to iritis condylomatosa or papulosa. Terson also points out the liability of mistaking for this early tertiary affection: (1) An intraocular tumour—for example, sarcoma of the ciliary body, growing outwards; and (2) Any conjunctival, subconjunctival, or episcleral neoplasm, particularly if syphilitic. In sarcoma of the ciliary body the growth is usually slower; and there are often attacks of increased tension, the tension in the case of a gumma being usually low. In Highet's case, however, the tension was + 1 for fully a month. Nitot, in his *Thesis* (Paris, 1880) says that: "(1) Every malignant tumour of the ciliary body in a manifestly syphilitic subject should be regarded as a ciliary gumma; and that (2) every malignant tumour in a subject exempt from acquired or inherited syphilis, is probably a ciliary sarcoma, or a tuberculous affection." The possibility of a cancerous tumour appearing in a syphilitic subject, and the impossibility of always obtaining evidence of syphilis must, however, always be borne in mind. If, therefore, there is good reason for doubt as to the nature of the growth, and if, moreover, vigorous antisyphilitic treatment does not very soon arrest the progress of the disease, then it would seem most discreet to perform enucleation of the affected eye promptly.

[3] *Ann. de Derm. et de Syphil.*, 1894.
[4] *Méd. Mod.*, 1891.
[5] *Arch. f. Augenheil.*, 1892.

## RADCLIFFE INFIRMARY, OXFORD.

### THYROID TREATMENT OF LUPUS.

(By Frank G. Proudfoot, M.A., M.B., C.M., House Physician; late House-Surgeon; formerly House-Surgeon, Royal Infirmary, Edinburgh.)

The following cases serve to illustrate a method of treating lupus which has not, as far as I know, been extensively tried, and which, as the results in the cases show, has been very successful.

Case I.—M. E., aged 19, has suffered from lupus in different parts of her body, but especially in her face, for ten years. The parts have been thoroughly scraped on numberless occasions with no apparent benefit. Through the kindness of Mr. Morgan, surgeon to the infirmary, I was allowed to treat her as an in-patient. Previous to the administration of the drug, I once again thoroughly scraped the parts, and on the following day gave her thyroid extract 5 grains thrice daily. After three days I increased the dose to 10 grains three times a day, and so gradually increased the amount till she was taking 75 grains daily. The improvement was now so marked that I lessened the dose gradually, till she was only taking 15 grains a day. She was now quite free from the disease, and she left the hospital absolutely well.

Case II.—A. W., aged 20, has had lupus of the face for four years. He had been scraped frequently with little benefit. Mr. Symonds, surgeon to the infirmary, kindly gave me permission to treat him as an in-patient. Before the administration of the thyroid extract I scraped the parts once more, and then gave him the drug in similar doses, and in the same way as in Case I. At one period he was taking as much as 90 gr. a day. He also left the hospital absolutely well.

In both cases the effect on the general condition of the patients was watched, but there was no bad symptom. The points to be noted are the preliminary scraping, the gradual increase in the amount of the drug, and the large quantity taken.

Both patients have been seen by me eight months after leaving the infirmary, and in one case there is only a tiny focus in the interior of the nose, and in the other there has been no return whatsoever. They ceased taking the thyroid four months ago. Before the commencement of this treatment neither patient had ever been entirely free from the disease.

## STATION HOSPITAL, PORTSMOUTH.

### A CASE OF GOITRE TREATED WITH THYROID TABLOIDS: MARKED IMPROVEMENT.

(By Surgeon-Lieutenant Rupert Fawssett, A.M.S.)

Lance-Corporal ——, aged 22 years, was born and had lived in Dublin until September, 1893, when he enlisted and went to Sheffield, where he remained till September, 1894. He then went to Bradford, remaining there until September, 1895, when he came to Portsmouth with his regiment. His family and previous histories were good.

In September, 1895, he first noticed a swelling in his neck, which got gradually larger. On July 17th, 1896, he was admitted to the Station Hospital, Portsmouth.

On admission there was a large swelling in the front of the neck, in the position of and taking the shape of the thyroid gland. The swelling affected both lobes, was firm and smooth, not adherent to the skin, moving on deglutition—in short, was a simple hypertrophy of the gland. The measurement round the neck over the largest portion of the swelling was 17½ inches. There was no exophthalmos, the pulse-rate was 70, and the cardiac condition was normal. Iodide of potassium internally and tincture of iodine locally were tried, with no result. The treatment by sheep's thyroid was commenced on August 5th with one 5-grain thyroid tabloid (Burroughs and Wellcome) a day; this was increased to two a day on August 9th.

On August 10th he complained of giddiness; the pulse-rate was 100. By August 13th the symptoms had passed off.

On August 15th the tabloids were increased to three a day. He then suffered from giddiness and palpitation, which, however, passed off in four days.

On August 31st the measurement round the neck was only 16½ inches.

On September 8th the tabloids were increased to four a day. No palpitation or giddiness followed this increase. The neck was measured once a week, but no further diminution was noticed until September 29th, when the measurement was 16⅜ inches, and on October 5th it was found to be only 15 inches. He now complained of a recurrence of giddiness: the pulse rate was 80. The tabloids were reduced to two a day until October 7th, when, the symptoms having passed off, they were increased to three.

On October 12th, when the patient was discharged to duty, the measurement was only 14½ inches, but there was still a distinct goitre to be seen, although much smaller than on admission.

On December 1st, when I saw him last, he had been taking three tabloids a day since his discharge from hospital, had had no attacks of giddiness or palpitation, and had been well able to do his duty. The neck measurement was 14 inches, the goitre was scarcely visible.

No cardiac murmur was detected during the course of treatment, and the patient gained 10 lbs. in weight.

# REPORTS OF SOCIETIES.

## SOUTH EASTERN BRANCH OF THE BRITISH MEDICAL ASSOCIATION (WEST SUSSEX DISTRICT).

W. C. Cook, L.R.C.P., M.R.C.S., in the Chair.

*Thursday, December 10th, 1896.*

### Saline Baths in Dilatation of the Heart.

Dr. Leeds Harrison (Worthing) read a paper on a case of dilated heart treated by hot saline baths (temperature 95°) according to the Schott method. The patient, aged 48, had suffered from albuminuria for some years, and before taking the baths had considerable ascites and general anasarca. The heart was considerably dilated, had a reduplicated second sound, a loud systolic murmur resembling a friction sound. In seven weeks after taking twenty baths, the ascites and œdema had disappeared, and the daily excretion of urine had much increased: the reduplication of the second sound could not be detected, and there was no cardiac murmur heard. Digestion had improved, and the general condition of the patient was much better. Schott's exercises were tried for a short time but were not continued, so that the improvement must be attributed to the baths alone. The different theories as to the mode of action of the baths were mentioned, and discussion on the case was invited.

### Treatment of Cancer.

Dr. Eustace, of Arundel, contributed a paper on the treatment of cancer by drugs. He pointed out that it was within the experience of most practitioners to have seen improvements in cancerous growths whilst the patient was taking some particular drug, and that such observations were regarded as remarkable coincidences, and received no further attention. He related a case in which he had treated a rodent ulcer of the side of the nose of six years' duration, which had recurred after excision, by Bergeron's method, that is, by internal administration of chlorate of potash, and by keeping a saturated solution of the same salt applied to the wound; after three days the wound had remarkably improved, and was healed completely at the end of a week. It had not recurred up to the present time—two years since it healed. He suggested that such occurrences as these did not deserve to be treated as mere coincidences: and, whilst expressing the belief that the right treatment of cancer was by means of operation, he urged fuller investigation of the cases which were apparently benefited by the use of drugs.

### Thrombosis in Typhoid Fever.

Dr. Gostling (Worthing) called attention to the subject of thrombosis in typhoid fever, pointing out that the ordinary textbooks gave a very scanty account of it, and did not sufficiently emphasise its importance and dangers. From cases which were given in some detail the writer showed that thrombosis might be a sequel or a complication. When it occurred as a sequel—that is, after the temperature had become normal, the disease having run a fairly typical course—the prognosis was much less grave than when it occurred as a complication. As a sequel, the symptoms of thrombosis, which occurred most frequently in the external and common iliac and femoral veins, were pain and tenderness in the affected limb, with swelling and œdema, the vein being felt as a solid cord. In such case the temperature would rise again slightly, the evening temperature averaging say 100°, and the morning temperature 98.5 or 99°. This might continue for a week or ten days. The case might, however, be trusted to do well. When, however, thrombosis occurred as a complication—that is, before the primary fever had ceased, or in the midst of a relapse—it was a most grave condition, and influenced the prognosis most seriously. The danger appeared to be the breaking down of the clot, with consequent pyæmic symptoms. Rigors might be looked for, and would probably be repeated; the temperature ran a most irregular course; pulse frequent and irregular, respirations irregular, mental condition at first apprehensive of death, later completely apathetic. Death occurred in the large majority of such cases. Notes of *post-mortem* examinations of three cases were read. In one of these, in which the femoral external iliac and common iliac veins of the left side were filled with clot, which was softening in the external iliac, there had been no local symptoms (pain, tenderness, swelling) during life, although they had been constantly looked for, but the general symptoms described had been present.

## CLINICAL SOCIETY OF MANCHESTER.

*Tuesday, December 15th, 1896.*

A. T. Wilkinson, M.D., M.R.C.P., President, in the Chair.

### Cirrhosis of the Liver.

Dr. Kelynack read a paper based on an analysis of 121 specimens of common cirrhosis of the liver. He said most cases met with in hospital, if not directly due to alcohol, occurred in alcoholic subjects. Nearly 50 per cent. of all cases died from the direct effects of the cirrhosis. Death from tuberculosis was common. The relation of males to females was about 2 to 1. The average age of the males was 45½ years; of the females 42. Ascites was present in 56 of all cases, and occurred constantly in association with hæmatemesis, so these were not to be considered as mutually exclusive. The average weight of the cirrhotic liver in males was about 53 ounces; in females nearly 54 ounces. The average weight of the spleen in males was 14¼ ounces; in females a little over 11½ ounces.

### "Nodular" Cirrhosis of Liver.

Dr. Kelynack also recorded the history and showed preparations from an unusual case of so-called "nodular" or adenomatous cirrhosis. The subject was a young female of markedly alcoholic habits. The whole liver was extensively cirrhosed, and amidst the dark red, firm indurated tissue knobby yellowish-white, and more or less rounded patches of liver cells appeared. These on microscopical examination presented an adenomatous arrangement, due apparently to proliferative changes in certain of the cells forming the hepatic parenchyma.

### Recurring Appendicitis.

Mr. Southam showed several patients after removal of the vermiform appendix for recurring attacks of appendicitis, and made some remarks on the pathological conditions met with in this affection. Attention was also directed to the indications for operative interference, and it was recommended that the appendix should be removed after two or three attacks, especially if any local symptoms persisted in the intervals between the attacks.

### Dermoid Cysts.

Mr. E. Stanmore Bishop showed two cases of removal of dermoid cyst, one treated by marsupialisation, the other by excision.

### Porro's Operation.

Mr. E. Stanmore Bishop also showed a case of Porro's operation, after seven years: one of fibroid tumour treated by *morcellement*, one by vaginal hysterectomy, and one by panhysterectomy. He contrasted the improved result produced

by the latter operation with the dragging upon the bladder noticed in the Porro's case, which might be taken as an example of abdominal hysterectomy with extraperitoneal treatment of the stump. The necessity of approximation of the deep fascia in the prevention of post-operative ventral hernia was insisted upon, and a case in which this had been impossible was contrasted with the rest in which this had been done, and which showed absolutely firm cicatrices. The various specimens of fibroid uteri, dermoids, etc., were also shown.

## NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

G. E. Williamson, F.R.C.S., President, in the Chair.

*Thursday, December 10th, 1896.*

### Cases.

Dr. G. Murray showed (1) A case of Locomotor Ataxia with Charcot's Joint in a man, aged 33 years; there was no specific history. (2) A case of Addison's Disease in a miner, aged 46, who had spent several years in Australia, and came home much sunburnt 10 years ago. (3) A child 13 months old with Tetany. The child was improved by taking thyroid gland.—Mr. Page showed (1) A girl 7 years of age and a specimen of a Sarcoma of her Lower Jaw, which he had successfully removed. The wound had entirely healed, leaving moderate deformity. (2) A woman and a four months' Fœtus and Placenta (extra-uterine fœtation) removed from her abdomen. (3) A case of Ununited Fracture of the Ulna in a young man who had sustained a simple fracture of the ulna. He was operated upon in Edinburgh, and a second time by Mr. Page, without success. On the third occasion Mr. Page removed a portion of the radius, corresponding in length to the gap in the ulna, when success was secured. A skiagraph shown demonstrated satisfactory union. (4) A case of Hæmatocele of the Lesser Peritoneal Sac in a man aged 58 years. Laparotomy was performed and a dark-coloured tumour was exposed. It could not be delivered and was incised *in situ*. A considerable quantity of laminated clot, such as found in an aneurysm, was turned out of it, and no fresh hæmorrhage occurred. The tumour was seen to be in the lesser peritoneal sac. The patient had much improved in condition and the wound was now superficial. The most probable cause was rupture of a varicose vein.—Dr. Clay showed a case of Dilated Stomach in a young man who two years previously had been suddenly seized with acute severe pain in the stomach, followed by vomiting and collapse. His stomach now was enormously dilated, and held six pints of fluid. At short intervals his abdomen could be seen to swell like a full-time pregnancy. The swelling then felt hard and contracted like a pregnant uterus, and the contraction caused such severe pain that the patient groaned precisely as a woman in labour. Pyloroplasty was to be performed.—Dr. Clay showed a case of Pleurisy with Effusion following five months after cured empyema of the same side. The patient, after being tapped five times for a purulent pleural effusion, had his chest incised and drained. He was sent home cured five months previously, and had returned with all the signs of an extensive pleural effusion in the same (the left) side. On tapping, the fluid was found to be the ordinary clear effusion of simple pleurisy.—The President showed (1) a boy after operation for Incurved Tibia by removing a wedge of the tibia and wiring the cut ends of the bones together; (2) a child five weeks after Erasion of the Knee. The wound had only been dressed once, at the end of six weeks, when it was found to be entirely healed.—Dr. Limont showed (1) a case of Gonorrhœal Rheumatism with Pericarditis and Endocarditis in a man. Salicylates had not relieved him, and no medicine had materially benefited him. The swelling was chiefly external to the joint. There was marked muscular atrophy in the affected limbs; (2) a case of Chest Tumour for Diagnosis.—Mr. Rutherford Morison showed a young man in whom he had operated for a Calculus in the Pelvis of the Right Kidney. The peritoneum had not been opened, and only that portion of the transversalis fascia covering the perirenal fat. A stone the size of a Spanish nut was found in the kidney pelvis, and removed by direct incision on to it. This avoided damage to the kidney substance and possible infection of it, for there was pus in the urine due to pyelitis. It also avoided the risk of loss of blood, which sometimes occurred to a serious extent when the kidney was wounded; finally, the stone was more easily removed by direct incision. Mr. Morison suggested that in the case of stone in the pelvis the pain resulted from acute intermittent hydronephrosis; in the case of a stone in the ureter that the pain was due to the violent contraction of the unstriped muscular fibre in its walls.

### Specimens.

The following specimens were exhibited: Dr. Murphy: A Hydrocele of the Cord which he had dissected out; Tubes and Ovaries of both sides; a Pyosalpinx removed from one side and a Hydrosalpinx from the other of the same patient; a Hydatid of the Abdomen removed by operation; an Axillary Tumour of doubtful character which was closely attached to the axillary vein; one Lobe of a Large Goître excised for dyspnœa; a Uterine Fibroid from a patient, aged 52, seen three years ago. At that time she had no symptoms, but recently returned with the tumour much increased in size and producing pain, hæmorrhage, and difficulty in micturition. He never operated on fibroids unless they were producing serious symptoms. He had treated the pedicle extraperitoneally, and suggested that this was the best, because the safest, method. All the patients had made excellent recoveries.—Mr. Martin showed a Calculus of Oxalate of Lime removed by nephrolithotomy. The patient was now well.—Mr. Rutherford Morison showed the Urinary Organs of a man, aged 52, who had died twenty days after an operation for suppression of urine due to a calculus impacted in his only ureter. The specimen showed an absence of the kidney, the ureter, the vas, and the seminal vesicle of the right side.—Mr. Page showed a number of Gallstones removed *post mortem* from a patient operated upon for dilatation of the stomach. The dilatation was due to an adherent gall bladder. The gall bladder contained pus and the stones exhibited. The fundus of the gall bladder was firmly adherent to and had opened into the first portion of the duodenum.—Mr. Rutherford Morison showed specimens of Gallstones extracted by operation from three recent cases.

## MIDLAND MEDICAL SOCIETY.

J. W. Taylor, F.R.C.S., in the Chair.

*Wednesday, December 16th, 1896.*

### Middle Meningeal Hæmorrhage.

Mr. W. F. Haslam read notes on a case of middle meningeal hæmorrhage which he had successfully treated in a child aged 3 years and 8 months. There was a history of a fall; no symptoms for fifteen minutes, then unconsciousness and violent left-sided convulsions.

### Removal of Tumour of Liver.

Mr. Christopher Martin showed a tumour, about 4 lbs. in weight, which he had removed from the liver of a middle-aged woman. It was attached by a vascular pedicle to the anterior border of the liver, and the gall bladder was spread out over it. The pedicle was ligatured in sections. The cystic duct was ligatured and divided, and the tumour, with the gall bladder, cut away. The patient made an uninterrupted recovery. On section the tumour proved to be composed of altered liver cells with large vascular spaces. Mr. Martin believed it to be an accessory pedunculated lobe of the liver, which had undergone degenerative changes.

### Calculous Pyonephrosis.

Mr. J. Furneaux Jordan showed a specimen of calculous pyonephrosis removed three weeks previously from a patient by abdominal nephrectomy. Previously to attending the hospital she had suffered chiefly from a sense of discomfort in the right side, amounting to pain only a week or two before the operation. There was a large quantity of pus in acid urine. The patient made a good recovery, passing between 35 and 40 ounces of urine daily.

### Calculous Pyelitis.

Mr. George Heaton showed an oxalate of lime calculus, weighing 80 grains, which he had successfully removed from the right kidney of a young man. The calculus was found

firmly fixed in the opening of the ureter into the kidney pelvis, and had caused distension of the kidney pelvis and pyuria. The kidney was situated very high up, being entirely hidden by the lower ribs, and this rendered the operation somewhat difficult. The patient had been under observation for a lengthened period, and though the urine was repeatedly examined under the microscope, no trace of blood was ever discovered. The characteristic stabbing pain was well marked, and during the last few months pus had appeared in increasing quantities.

Gastro-jejunostomy for Pyloric Obstruction.

Mr. Haslam read a paper on gastro-jejunostomy as a remedy for pyloric obstruction. The writer reported two cases in which this operation had afforded relief from all urgent symptoms, and had been followed by a great gain of flesh, and that in spite of the fact that both patients were very cachectic and wasted when operated on. The junction was in each case effected by a Murphy's button; one of these was passed *per unum* after the long period of 140 days.

Laryngological Society of London.—At a meeting on November 11th, 1896, Dr. F. Semon (President) in the chair, the President showed a specimen of the Larynx of the Solan Goose and Cormorant.—Dr. Clifford Beale showed a specimen of Epithelioma of the Larynx and Œsophagus following Tubercle and Syphilis.—Dr. Bond showed (1) Case of Arrested Development in a Child: (2) Case of Sarcoma of Nose after Operation; (3) Case of Angioma of Nasal Septum.—Mr. Cresswell Baber showed a Case of Mucocele of the Frontal Sinus in which a radical operation was performed and recovery took place.—Dr. Edward Law showed a Case of Hæmatoma of the Palate.—Dr. H. Tilley showed (1) Sarcoma of Right Tonsil; (2) Syphilitic Laryngitis.—Dr. St. Clair Thomson showed a Case of Dropping of Cerebro-spinal Fluid from One Side of the Nose.—Dr. Willcocks showed Multiple Papillomata of Larynx.—Mr. W. G. Spencer showed (1) Spheroidal-celled Carcinoma of the Vocal Cord: (2) Perichondrial Sarcoma of the Cricoid Cartilage.—Mr. E. C. Stabb brought a Laryngeal Case for Diagnosis.—Dr. Ball showed a Case of Ulceration of the Mouth of Doubtful Origin.—Dr. Jobson Horne showed a Case of Disease of Tonsil, Soft Palate, Pharynx, and Larynx on the Left Side, syphilitic in appearance, occurring during the course of pulmonary tuberculosis.—Dr. Dundas Grant showed a Case of Malignant Disease of the Thyroid Gland.

Newport Medical Society.—At a meeting of this Society on December 2nd, 1896, Mr. G. A. Davies (President) in the chair, it was proposed by the President, and carried unanimously, that a vote of sympathy and condolence be sent to the relatives of the late Dr. Limbery, one of the members of the Society.—A paper was read by Dr. John Williams (Cardiff) on the Histology and Pathology of the Vulvar Vestibule in the Human Female.—A paper was read by Mr. B. W. Gowring, on Hospital Abuse in Newport. This gave rise to an animated discussion, in which most of those present took part, including Dr. Horder (Cardiff), who read some interesting memoranda referring to the Hospital Reform Association.

# REVIEWS.

A System of Gynæcology. By Many Writers. Edited by Thomas Clifford Allbutt, M.A., M.D., LL.D., F.R.C.P., F.R.S., F.S.A., Regius Professor of Physic in the University of Cambridge, and W. S. Playfair, M.D., LL.D., F.R.C.P., Professor of Obstetric Medicine in King's College, and Obstetric Physician to King's College Hospital. London: Macmillan and Co. 1896. (Royal 8vo, pp. 972, 242 illustrations. 25s.)

The editors have fortunately been able to include the whole of this long-expected work within the compass of one handsome volume, which, although consisting of nearly a thousand pages, is by no means bulky. Multiplicity of volumes is the chief inconvenience in "systems" where closely allied matters are treated in different essays. Thus in this work Injuries in Parturition are separated from Plastic Operations. If the papers on those subjects were in separate volumes inconvenience would be entailed on readers who referred to the *System* for knowledge about rupture of the perineum. Such inconvenience does not exist in a single volume work such as that which now claims our attention. The *System* is absolutely uniform in appearance with Professor Allbutt's corresponding work on medicine, but is freely illustrated.

A review of the essays of which this book is made up is only fair to the different authors, all already known for their writings and practice, though such a notice must of necessity be brief. Dr. Montagu Handfield-Jones leads off with The Development of Modern Gynæcology, a fair review of the subject, marked by great belief in the debt which medicine owes to Sir Joseph Lister and his followers. Thus in reviewing the history of ovariotomy he suggests that the long ligature and the clamp had less to do with failure in early days than the want of knowledge of antiseptic precautions. Koeberlé's *serre-nœud* and the long silk ligature are used much more successfully in these days in supravaginal and vaginal hysterectomy.

Dr. Berry Hart next contributes The Anatomy of the Female Pelvic Organs, a good, succinct essay. Dr. Ballantyne, a leading authority on teratology, supplies an article on Malformations of the Genital Organs in Women, with a copious table of references to recent works. Atresia and hermaphroditism are of interest to others besides purely scientific scholars. Dr. Balls-Headley sums up his remarkable views on the Etiology of Diseases of the Female Genital Organs, and Dr. Boxall writes an instructive essay on Diagnosis in Gynæcology. Dr. Barbour has undertaken Inflammation of the Uterus, a peculiarly difficult subject, which he has handled with ability.

We may pause at the Editor, Dr. Playfair's, Nervous System in Relation to Gynæcology. He shows that, notwithstanding the great interest which the public takes in the education and training of girls, there is still too much sedentary work and too little exercise in ladies' schools. The author knows "of no large school for girls where the absolute distinction which exists between boys and girls as regards the dominant menstrual function is systematically cared for and attended to." Dr. Playfair still commends the Weir-Mitchell treatment. He insists that "properly and judiciously carried out in well-selected cases, its results are most striking and satisfactory, and hundreds of women are now going about well and strong, who, but for this, would still be the wretched invalids they formerly were." Failure seems usually due to imperfect carrying out of the treatment.

A good review of an important practical question, Sterility, is written by Dr. Gervis, an authority of long experience. Dr. Amand Routh must be congratulated on a very good treatise on Gynæcological Therapeutics, treated in a manner as original as can be expected, considering its subject. He furnishes us with a useful table of baths and health resorts for chronic pelvic disorders. His remarks on the bicycle will be read with interest. "In cycling," he observes, "it is most important that the saddle should be wide enough to reach beyond the ischial tuberosities, which are wider apart in some persons than in others; otherwise the perineum gets superficially hard and rigid, and the pelvic contents are unduly affected. Pneumatic broad or double saddles, with a very slightly elevated peak, are therefore the best." Dr. A. Routh very properly warns his readers to be cautious about their "minor" gynæcology, especially when using dilators and curettes.

Dr. Milne Murray discusses fairly enough The Electrical Treatment of Diseases of Women, though he writes as an enthusiast. Thus the treatment of pelvic exudations by puncture and electricity is of doubtful value, and sounder advice on the management of pelvic inflammation will be found on the chapter named after that subject. Concerning electricity for uterine fibroids, Dr. Murray's experience seems to agree with Dr. Keith's. The tumour is rarely diminished in size, but may often, we are assured, cease to give any inconvenience.

Disorders of Menstruation form the subject of Dr. Halliday Croom's treatise. It includes some useful tables of cases of precocious puberty and phenomenally early appearance of the

catamenia. He owns that membranous dysmenorrhœa is a mysterious and intractable malady. The most original part of this paper is devoted to forms of painful menstruation, which, in the author's opinion, have their origin not in the ovaries but in the tubes or adjacent pelvic peritoneum. Dr. Smyly's Diseases of the External Genital Organs includes a good engraving of a large perineal hernia in front of the broad ligament, taken from a patient in the Rotunda Hospital. The greater part of this short essay, however, is taken up by notes on vulvitis and inflammation of the vagina, subjects of practical importance.

That so high an authority as Professor A. R. Simpson should undertake Displacements of the Uterus is no doubt satisfactory. The pessary question demands the judgment of a scientific worker. Chronic Inversion forms a separate essay by Dr. Malins. One of the most original of all the articles in this *System* is Dr. Herman's Morbid Conditions of the Female Genital Organs resulting from Parturition. Closely allied to it, as a sequel, so to speak, is Dr. John Phillips's Plastic Gynæcological Operations. In respect to trachelorrhaphy the latter writer explains why the necessity for its performance does not frequently arise. Mr. Bland Sutton writes on Extrauterine Gestation, introducing some familiar woodcuts. Since the recent appearance of the second edition of his textbook this authority has not altered his views with respect to Clarence Webster's theory, which he still regards as doubtful.

In literary form Dr. Cullingworth's Pelvic Inflammation is original. He retains the old classification; nor can we see how any experienced observer could do otherwise, so different are cellulitis and pelvic peritonitis in their early stages. We are glad to find that the writer speaks with great diffidence about certain Continental "developments" of surgery —or rather of operations—for the supposed relief of sufferers from chronic inflammatory disease of the appendages.

Sir William Priestley devotes over thirty pages to an essay on Pelvic Hæmatocele, which will undoubtedly be read with interest. The history of research into the pathology of this disease since the days of Récamier's *tumeur sanguine du bassin* is well summarised. Sir William is not at all disposed to accept in its entirety the doctrine of Tait, Fritsch, and Bland Sutton that pelvic hæmatocele is nearly always due to ectopic gestation. This theory is quite contrary to his own experience, which leads him to the conclusion that, as a general rule, it is best to treat cases of hæmatocele—intraperitoneal as well as extraperitoneal—by a palliative method.

Dr. Haultain's long and masterly treatise on Benign Growths of the Uterus, and Dr. Japp Sinclair's yet more complete essay on Malignant Diseases of the same organ are really small books intercalated in the pages of the *System*. The names of the authors are sufficient recommendation. Dr. Sinclair distrusts rules for the early diagnosis of cancer, and shows that microscopic research by preparation of sections after the "rapid method" is quite impracticable for busy practitioners and specialists. Hysterectomy for cancer is very judiciously considered. He suspects that in foreign statistics some of the early deaths in "non-recurrent" cases have been explained away too much. No doubt a bare report of death from bronchitis might really mean that the cancer had recurred in the lung. Dr. Sinclair's opinion as to the sacral method of operating for uterine cancer agrees with von Winckel's. Some, if not many, British gynæcologists would object even to suggest such a proceeding. Though distrusting this radical operation, which is full of danger and offers little guarantee against recurrence, Dr. Sinclair seems to accept in its entirety recent foreign theories about deciduoma malignum. It is unfortunate that his essay was finished before the instructive discussion on that disease took place at the Obstetrical Society of London.

The experience and authority of Mr. Knowsley Thornton being widely recognised, the section on Hysterectomy will be held of importance, and it is no mere abridgment or amplification of earlier writings. He draws excellent parallels between the practice of British, European, and American operators. In spite of certain evident disadvantages in supravaginal hysterectomy with the use of the *serre-nœud*, Mr. Thornton still prefers it, in the great majority of cases, to any of the modifications which have been proposed, and it has proved the most satisfactory method in his own experience.

Since the articles on pelvic disease and affections of the ovary include a consideration of the advanced stages of salpingitis, Mr. Alban Doran's treatise on Diseases of the Fallopian Tubes mainly relates to new growths. The paper includes some fine photomicrographs, by Mr. Edmund Roughton and Mr. H. Cosens, illustrating the early local appearances in tubal inflammation. The tables of authentic cases of primary cancer of the tube were originally drawn up by the author for a contribution to the *Transactions of the Pathological Society*, vol. xl. and extended by Fearn and Sänger. They appear in this treatise in a greatly extended form, and a considerable number of after-histories, not noted in Martin's recent work, have been added.

Dr. Walter Griffith contributes a good condensed account of Diseases of the Ovary. Students should bear in mind his statement that "the first requirement for a systematic investigation of ovarian tumours is undoubtedly a knowledge of the structure of the healthy ovary." Even the best workers of the present day do not appear well grounded in the histology of that organ, and too much trust is placed in appearances seen in the ovarian tissue of the lower mammals. The paragraphs on torsion of the pedicle and diagnosis of pelvic tumours are worthy of a teacher in a great metropolitan school.

The operation of Ovariotomy is described in a special paper by Mr. Greig Smith, who also writes on removal of the appendages. He rightly observes that there can be no doubt of the advantage of the liberation of an ovary bound down by adhesions in Douglas's pouch and elsewhere. Provided that there be no suppuration or evidence of destruction of the normal tissues of the tube and ovary, the removal of the appendages is not justifiable under any circumstances.

The subject of Diseases of the Female Bladder and Urethra has been entrusted to a general surgeon, Mr. Henry Morris. The gynæcologist will learn much from that surgeon's writings in the *System*. It is significant that he shows himself to be no extreme advocate of operative measures. Particularly useful are his notes on cystitis in women.

The above review of the separate essays which make up this work will show that the *System of Gynæcology* is a publication worth possessing, and a credit to its editors. They have put a great deal of valuable information into a relatively small space.

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KIRKES'S HANDBOOK OF PHYSIOLOGY. By W. D. HALLIBURTON, M.D., F.R.S., Professor of Physiology, King's College. Fourteenth Edition. London: John Murray, 1896. (Demy 8vo, pp. 852. 14s.).

IN spite of the numerous works which in recent years have been written for the introduction of medical students to the science of physiology, *Kirkes's Handbook* still holds its own, and has, indeed, renewed its youth in the hands of Professor HALLIBURTON. This edition, although in outward form the *Kirkes* of our student days, is to all intents and purposes a new work, nearly every page having been entirely rewritten by the present editor. The result is eminently satisfactory. A feature of this work has always been the anatomical and histological details given in each chapter, so that it may be read by the student at the very commencement of his medical studies, when he is only vaguely conscious of the heart as something which beats in his chest, and is apt to confuse the relative functions of veins and arteries. On this account, too, the book is adapted for those students of physiology who are not proceeding afterwards to the study of medicine. In spite, however, of this elementary character, Dr. Halliburton has so modernised the text that it serves as a very excellent epitome of the present state of the science, not to be scorned even by the proud strugglers for a London degree.

But every critic is allowed to salt his butter, and we must point out one or two slips which have happened in this edition, perhaps in consequence of the imperious time limits of an impatient publisher. A most astonishing statement is that on p. 542, that alveolar air only contains 3.6 per cent. of oxygen, with a tension of 27.4 mm. Hg., although on p. 539 the amount of oxygen in expired air is correctly given as 16.6 vols. per cent. A little later, on p. 544, arterial blood is

said to contain 3.9 vols. per cent. of oxygen in solution, which would correspond to a partial pressure of more than an atmosphere. On p. 457 an open schema is figured that is described as if it were a closed circuit in which the effect of the heart pump would be to cause a negative pressure on the venous side.

Professor Halliburton appears to accept without hesitation the formation of fat from proteid in the animal body, and quotes as decisive Nussbaum's perhaps questionable experiments on the secretion of urine.

Of the new diagrams we would especially commend those in the chapters on the nervous system. Throughout these chapters the student is helped over the difficult physiological topography of the central nervous system by a number of well-planned and chosen diagrams and illustrations. We have no doubt that in its present form *Kirkes's Handbook* will more than retain its position as the student's guide to physiology, and will be certainly more favourably received by teachers than the preceding editions of the same work.

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The British Guiana Medical Annual. Edited by J. S. Wallbridge and C. W. Daniels. 1896. Eighth Issue. Georgetown, Demerara: Baldwin and Co. 1896. (Demy 8vo, pp. 134. 5s.)

These reports, always interesting, often contain original papers of great value. The present issue is no exception. The form of paralysis described by Dr. Irving seems to be none other than beri-beri, a disease which so far, if we recollect aright, has not been alluded to in previous numbers. Drs. Conyers and Daniels give an admirable paper on the peculiar ulcerating granuloma of the pudenda so common in British Guiana, which had already been treated of by Drs. Neal and Ozzard. Four excellent photographs illustrate the subject, which is one calling for the attention of dermatologists. The same authors have a paper—also a valuable one—on elephantiasis and filariasis, wherein they adduce much new evidence connecting the filaria with elephantiasis and elephantoid disease. Dr. Daniels describes certain filariæ Bancrofti from a tumour of the spermatic cord, giving some new zoological details. We observe that he failed to ascertain the presence of the second spicule in the male worm. Necropsies on lepers by Dr. Neale, yaws in Wakenaam by Dr. Delamere, an operation on elephantiasis scroti by Dr. Gewand, Dr. Daniels's notes on necropsies in the public hospital, Georgetown, and some excellent discussions on local diseases make up a volume highly creditable to the authors.

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Sterility. By Robert Bell, M.D., F.F.P.S.G., Senior Physician to the Glasgow Hospital for Diseases Peculiar to Women. London: J. and A. Churchill. 1896. (Demy 8vo, pp. 88. 5s.)

This book is an account of the way in which Dr. Bell thinks he can cure sterility and dysmenorrhœa, and prevent displacements and inflammation of the uterine appendages.

In his Gulstonian lectures on sterility, Dr. Matthews Duncan stated and proved by statistics compiled from thousands of cases that no cause of sterility could be compared with age in extent and power. To Dr. Bell the fact brought out by Duncan's figures, that the chances of a woman becoming a mother grow less as the years advance after marriage, is proof that the uterus must in these sterile women be diseased. The kernel of the book is contained in the sentences which we next quote: "The more extensive my experience the firmer becomes my conviction that endometritis is the one potent cause of sterility, and not only of sterility, but of various other affections of the uterus, amongst which the most important are flexions, and, as I have endeavoured to show elsewhere, in the large majority of instances disease both of the tubes and ovaries is secondary to this also." Dr. Bell's treatment is simple: "I invariably commence by curetting the uterine canal, immediately after which I am in the habit of applying to the whole of the endometrium iodised phenol, which application is followed by the introduction of a tampon saturated with the glycerine of alum and boracic acid solution. The patient is kept in bed for some days, and the tampon changed every forty-eight hours. Afterwards it is necessary that the patient should be under supervision for some weeks, and at least once a week the intrauterine medication applied, while biweekly a tampon is introduced. By these measures we may safely look for a complete recovery in the course of two to four months."

The rest of the book may be compared to a sermon preached from these texts. Its tone is didactic. No proof is adduced of the thesis advanced. The profession will be able to estimate its value.

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Handbuch der Gynäkologie: Bearbeitet von Bumm, Döderlein, Fritsch, Gebhard, Küstner, Löhlein, Nagel, Olshausen, Pfannenstiel, von Rosthorn, Schaeffer, Veit, Viertel, Winter. In drei Bänden. Herausgegeben von J. Veit, Leiden. Erster Band. [Manual of Gynæcology in 3 vols. Vol, i.] Wiesbaden: J. F. Bergmann. 1897. (Roy. 8vo, pp. 628. M. 13.60.)

Professor Veit has issued the first part of a "System," almost an encyclopædia in fact, which promises to be a first class medical work. Every co-operator mentioned on the title page is well known in Germany, and few of them are not known in this country; their treatises, therefore, deserve our study rather than our criticism. We are justified, on the other hand, in objecting to the title. Three volumes of about 600 pages apiece, of the largest form of octavo, stitched in paper covers, should not be collectively called a "handbook" or "manual." Such a term is deceptive; it causes those who order a work which they naturally believe to be physically handy and in text concise to find themselves in possession of an unportable and bulky book, whilst what they want to know is possibly in a yet unpublished volume.

The truth is that Professor Veit presents us with a library book, most valuable to the expert and to advanced students. Competent authorities give a full review of the latest views and practice. In this volume Löhlein contributes an essay on antisepsis, Küstner supplies an exhaustive monograph on Displacements, and the Editor himself writes the article on Diseases of the Vagina. Bumm has prepared a very complete review of the effects of gonorrhœa on the female genito-urinary tract, a subject at which he has worked for many years. The last essay, entitled Development and Malformations of the Female Organs, is by Professor Nagel.

Löhlein's practice should be studied by British gynæcologists, who may proudly boast of Lister yet are not always so ready to take pains that their antiseptic precautions be complete. Doubtless some of the Continental ritual is useless, if not actually harmful, but perfunctory lustrations with solutions of antiseptics not always sufficiently warm are worse. Practitioners should study Dr. Küstner's observations on what he candidly terms "useful pessaries" and "useless pessaries," Dr. Veit gives a very complete review of all forms of damages to the vagina due to labour and other causes. His observations on lacerations of the recto-vaginal septum are especially good. Undetected fistulæ and imperfect healing after perineal operations cause intolerable irritation. Dr. Nagel's demonstrations of the pathology and diagnosis of hæmatometra and deformed uterus will prove of great value to the clinical worker.

This volume includes over 120 woodcuts, all fairly selected, but it is void of any specimen of anatomical or pathological high art, familiar to us in many German books. There is no index—a defect to be expected in all parts except the last of a three-volume "handbook"—but the table of contents has been prepared so as to be of real assistance. There are also copious tables of references more complete than is the rule in British publications. Notwithstanding physical defects, Professor Veit's *Handbuch* is essentially thorough.

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The Children: How to Study Them. By Francis Warner, M.D.Lond., F.R.C.P. Second Edition. London: Francis Hodgson. 1896. (Cr.8vo, pp. 124, 16 illustrations. 1s. 6d.)

In this handy little book we find reprints of lectures delivered before the Froebel Society some time ago, supplemented by additional matter which Dr. Warner's more recent experience has suggested. Those familiar with his persistent labours in the investigation of the physical and mental condition of school children—carried on for many

years under the auspices of the British Medical Association and other scientific bodies—will, of course, know that the lines on which he proceeds are purely physical: and this book is in the main an exposition of the visible signs by which, according to his original views, mental states and brain action may be studied. Directions are given to teachers as to what to observe and how to describe the facts seen.

The methods which Dr. Warner has made so peculiarly his own in the inspection of a school, are described in detail. No questions are asked of the children, but the signs of nutrition, the conditions of development, and the characteristic action of the nerve system as displayed in movements, are the criteria upon which is based a judgment of the child's mental state. The practical outcome of extensive investigations on these lines is the estimate that about 1.5 per cent. of our school population require special teaching, and Dr. Warner points out the advisability, from a utilitarian as well as a philanthropic point of view, of appropriate training for "wrong-brained" children. It promises well for the future of education that an increasing interest is being taken by medical men in the work of the teacher; and anything that tends to a better understanding between members of the two professions is likely to benefit the rising generation. These lectures of Dr. Warner's are a step in that direction; and as such we can cordially recommend them.

## NOTES ON BOOKS.

*How to Visit the Mediterranean.* Edited by Henry S. Lunn, M.D.Dub. (London: Horace Marshall and Son, 1896. Cr. 8vo, pp. 352, twenty maps and plans. 10s.) This is not, of course, a medical book, but including, as it does, descriptions of places which can be more or less used as health resorts, such as Ajaccio, Corfu, Algiers, Tangier, and the localities of the Riviera, it cannot fail to interest many of our readers. Moreover, a cruise along the Mediterranean coast is often in itself a remedial agent of no mean power. The traveller will find a large amount of practical information and most interesting notes on the history, antiquities, and buildings of the different places described. We note (page 75) a passage which may well be appreciated when recalling certain recent events in the East. Mrs. Mayo in this passage points out that even Lord Byron, enthusiast though he was for Greek independence, did not always recognise the fact that bad qualities, such as over-dependence, vacillation, and duplicity may be themselves the worst result and bitterest wrong of enslavement. The book may certainly be recommended as a guide to travellers who wish to visit many places on the coast, and would otherwise require a special volume for each of the countries on the Mediterranean.

*Traité Clinique et Thérapeutique de l'Hystérie.* Par le Dr. Gilles de la Tourette. Part II, Tomes I and II. (Paris: E. Plon et Cie. Cr. 8vo, pp. 556 and 608). Professor Gilles de la Tourette's work on hysteria which is completed in these volumes, is founded on the teaching of Charcot, and contains an immense collection of information as to the classical observations made through a long course of years at the Salpétrière. As such it is valuable, but the mass of material is not very carefully digested, and the author has so fallen into the habit of making long quotations from other writers that the volumes rather convey the impression of a common-place book devoted to hysteria than of a treatise. To those who will be at the pains to study the table of contents—for the index is utterly inadequate—the volumes will be most useful as a work of reference; and also for the very large bibliography scattered through them. The volumes contain illustrations of the conditions observed during the severe forms of hysterical attacks, and are adorned by an etched portrait of the late Professor Charcot.

*Cirugia y Medicina Operatoria.* Por Diogenes Decoud, Professor Sustituto de Clinica Quirurgica. (Buenos Aires, 1896. Square 8vo, pp. 456. Price 7 pesetas.) In this volume Professor Decoud has collected some of the lectures on the Principles of Operative Surgery delivered by him in the Medical Faculty of Buenos Aires. It is not a systematic course, but a series of tolerably exhaustive discourses on the indications and methods of amputation, the ligature of arteries, intestinal occlusions, abdominal surgery, anæsthetics, etc. Numerous cases illustrating the surgery of the brain, of the bones, of hernia (196 cases of radical cure), and of gunshot wounds are recorded and commented upon. In regard to the last-mentioned branch of surgery, it may be mentioned that the author who has seen a good deal of the injuries inflicted by the new projectiles, expresses the opinion that the "humanitarian" bullet does not fulfil the professed object of its inventors, as it not only kills more but makes worse wounds than the older bullets. Professor Decoud's book shows that he is well abreast of progress in scientific surgery.

*Dental Materia Medica, Pharmacology, and Therapeutics.* By C. W. Glassington, M.R.C.S., L.D.S.Edin. (London: J. and A. Churchill. 6s. Cr. 8vo, 266 pp. 1896.)—This book is divided into two parts: an introduction, consisting of thirty-nine pages devoted to such subjects as prescribing, incompatibility, classification of drugs; and the book proper, which deals with inorganic substances, synthetical compounds, organic substances, and general anæsthesia for dental operations. Each drug is treated of in the following manner:—Formula, source, characters, preparations, pharmacology, dental, therapeutics. The volume is therefore very useful as a book of reference. The author acknowledges the help he has received from Dr. Murrell, who has read the manuscript, and so it is to be supposed that the work bears the recommendation of that physician. We think the chapter on anæsthesia would be better deleted from the second edition; it has very little connection with the subject matter of the book and has been well treated in several monographs. The author is to be congratulated on having written a book that is really wanted. It should be in the hands of all dental students, for it contains information that will be of much value to them.

*A Textbook of Nursing.* By C. Weeks-Shaw. Edited by William J. Radford, M.R.C.S., Senior Resident Medical Officer, Poplar Hospital; with an Introduction by Sir Dyce Duckworth, M.D. (London and New York: Edward Arnold. 1896. Cr. 8vo, pp. 344, with a vocabulary and illustrations. 3s. 6d.)—This volume is a valuable contribution to the large amount of literature for nurses which is constantly issuing from the press. It is a distinct advance on the usual lectures to professional nurses, which often partake more of the nature of an elementary course for medical students than a series of practical instructions for nurses. The lectures are given in a plain practical form with an absence of technicality, so that they can be easily comprehended by the junior nurses. If another edition is called for, the method of arrangement might be improved, as there is a want of sequence in the order of the lectures. The chapter on the nursing of children might be much enlarged to the manifest benefit of the little patients. In some of the sections there is a want of definite teaching on symptoms and in the details of nursing.

*A Series of Lessons in Articulation and Lip-reading.* By Richard Elliott, LL.D. (London: 93, Cannon Street, E.C. Cr. 8vo, pp. 130. 2s. 6d.)—In this handy little volume of 117 pages the Head Master of the Asylum for the Education of the Deaf and Dumb Children of the Poor (London and Margate) supplies a graduated series of lessons in articulation and lip-reading for the deaf, as an aid both to the teacher and the pupil. In a preface containing some very practical remarks, Dr. Elliott mentions that the substance of the book has been used successfully for some years past with his own pupils. He dissents from the dictum—"Speak naturally to your pupil from the first"—on the ground that it is important to speak to beginners with greater deliberation and more distinct enunciation of the peculiarities of each component sound of the word than is customary in ordinary conversation. There is a useful chapter on preliminary imitative oral and lingual exercises, and this is followed by an exposition of the various steps by which clear articulation is attained, the *modus operandi* being clearly set forth. Such a book will be of value not only

to professional teachers, but to the friends of those afflicted with deaf relatives, and it will furnish useful hints to educated persons who become deaf in mature life as to the means of acquiring the useful art of "lip-reading."

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*The Phonographic Record of Clinical Teaching and Medical Science.* Issued by the Society of Medical Phonographers. (London: Pitman, Amen Corner. 4d.)—In the December number Dr. Mercier laments the number of what he aptly, if parodoxically, terms "sane lunatics," who so largely swell the ranks of the world's ne'er-do-wells. Dr. Gray contributes another helpful paper on the use of shorthand in medicine, and his instructive advice should prove valuable, especially to beginners. Correspondence, official announcements, and examples of humour in patients complete the number.

# REPORTS AND ANALYSES

AND

# DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

## NEW REMEDIES.

The stream of new remedies is now so constant that it is a somewhat difficult matter to keep abreast of it. The progress continually being made in organic chemistry is the source of this perennial supply, for most of the new remedies are synthetical chemical compounds. The Elberfeld Farbenfabriken Co., Limited, formerly F. Bayer and Co., manufacture a very considerable number of these new remedies. We have received some samples of their products; many of them—as analgen, sulphonal, phenacetin, and salol—have been in use for some time, and are well known. The uric acid solvents, piperazin and lycetol, are still on their trial. Trional is a new hypnotic which, according to report, is of exceptional value. The more recent introductions are salophen, an antirheumatic and antineuralgic remedy; tannigen, an intestinal astringent; losophan, a remedy in skin diseases of parasitic origin; aristol and europhen are iodoform substitutes; sycose is an artificial sugar said to be 300 times sweeter than sugar; iodothyrine is the iodine containing the principle of the thyroid gland combined with sugar of milk; it is prepared in the form of compressed tablets. The London agency of the Elberfeld Farbenfabriken Co. is at 19, St. Dunstan's Hill, E.C.

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## GLYCERINE PASTILLES.

Pastilles or lozenges containing medicinal substances are convenient for patients as regards portability, and, when they are made palatable, are easily taken. Messrs. G. Curling, Wyman, and Co., 58 and 59, Bunhill Row, London, E.C., prepare sulphonal and phenacetin in the form of a rose-scented oval, soft jujube-like pastilles, which will be found a pleasant method of administering these insoluble drugs.

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## SUCCUS CHELIDONII.

The chelidonium majus, celandine, a plant with yellow flowers, growing in the neighbourhood of villages, has long been reputed to possess powerful medicinal properties. The root is a drastic purgative, and its juice an acrid poison. The juice has been administered internally as an aperient, diuretic, and sudorific. It has been successfully used in opacities of the cornea, and is a popular application for the cure of warts. A report has recently come from St. Petersburg that celandine possesses special virtues when administered in cases of cancer. Mr. Martindale, 10, New Cavendish Street, W., has sent a specimen of succus chelidonii obtained by pressing the fresh plant. The juice is a dark-coloured liquid, miscible with water, and the taste, although not agreeable, cannot be described as nauseous.



# COLONIAL MEDICAL ACTS AND ORDINANCES.

A very interesting and valuable collection has lately been added to the Library of the British Medical Association of the Acts and Orders of the Legislative Councils which govern medical and surgical practice in our colonies.

These will be found invaluable to those members of the profession who are desirous of starting in practice abroad, and to those who, in the event of amended legislation here, wish to see how far unqualified practice can be prevented in the colonial empire.

It might be inferred from Sec. xxxi of the Medical Act, 1858, that any duly qualified practitioner registered in the British *Register* was entitled to practise medicine or surgery or medicine and surgery as the case may be in any part of Her Majesty's dominions, and to demand and recover in any court of law, with full costs of suit, reasonable charges for professional aid, advice, and visits, and the costs of any medicines. Such, however, is not strictly the case.

By the Medical Act Amendment Act, 1868, it was enacted that, being found expedient to amend the original Acts, power was given to every Colonial Legislature from time to time to make laws for the purpose of enforcing the registration, within its jurisdiction, of persons who have been registered under the "Medical Act," provided however that any person who has been duly registered under the "Medical Act" shall be entitled to be registered in any Colony upon payment of the fees—if any—required for such registrations, and upon proof in such manner as the said Colonial Legislature shall direct of his registration under the said Act. The reason for this amendment was that a certain amount of local authority was necessary to control the practice of medicine in the vast possessions of the Empire—the necessities of each Colony being taken into consideration.

We will enumerate the various ordinances in the several Colonies, the information being taken from the "Professional Handbook issued by the Emigrants' Information Office, 31, Broadway, Westminster, S.W.," and from the Acts and Ordinances issued in the Colonies themselves.

### Canada.

All British degrees and diplomas are registered by the Provincial Medical Board.

*Prince Edward Island.*—No one may practise here unless registered or licensed by the Medical Council. The Council shall admit upon the register, fee not exceeding 20 dols.: (1) Any person who has already been registered under previous Medical Acts (1871, 1874, 1890); (2) anyone who is duly registered by the Medical Council of Great Britain, or is otherwise authorised to practise medicine, surgery, and midwifery in the United Kingdom; (3) anyone who holds a medical or surgical degree or diploma dated before January 1st, 1880, from any university, college, or school of medicine in the United Kingdom and Canada, or certain institutions in the United States; (4) anyone who passes an examination before the Medical Council as to his knowledge for practising his profession, and who produces proofs of study in medicine, surgery, and midwifery for four years in a medical school, college, university, or licensing body which itself requires a four years' graded course, during at least twelve months out of which four years he must attend upon the practice of an approved general hospital; anyone commencing such study after September, 1892, unless he has graduated or matriculated in arts in any university in Her Majesty's dominions, must also pass a matriculation examination equivalent to that of the College of Surgeons, London, or one before the Council (fee, 2 dols.) in the English language, arithmetic, algebra, geometry, and Latin (all elementary), elementary mechanics of solids and fluids, comprising the elements of statics, dynamics, and hydrostatics, with or without one of the following optional subjects:—History of British America or of England, French, German, or Greek languages. Certain reciprocal advantages are given to other provinces of Canada and examinations are held every three months if there be candidates. Dentists, midwives, and those treating cancer by external application are permitted to practise and to charge for their services (?), and so are those who could prove they had been

in medical, surgical, or midwifery practice for five years prior to the Act.

*New Brunswick.*—All practitioners must register under the Medical Council under conditions which can be by the New Brunswick Medical Act, 1881, changed from time to time. Each medical practitioner has to pay an annual fee of 1 dol. to 2 dols. (Act of 1882, c. 30, and Act of 1884, c. 17).

*Nova Scotia.*—No person may practise physic, surgery, or midwifery here unless registered and licensed by the Provincial Medical Board. Women may practise midwifery, however, on receiving a certificate of competency from the Board. (Revised Statutes, 1884, c. 24 and a slight amendment in Stat. 1892, c. 29.)

*Quebec.*—All practitioners here must be licensed and registered by the Provincial Board. (Revised Statutes, 1888, Art. 3976.)

The Board may make rules for the practice of midwifery by women; and in the country they may practise if they have a certificate of competency from a licensed medical practitioner. Persons desirous of practising homœopathy are examined by the Montreal Homœopathic Association, and are required to be examined under the same conditions as other practitioners.

*Ontario.*—No one may practise medicine, surgery, or midwifery here who is not registered by the Council of the College of Physicians and Surgeons of Ontario. "It shall be optional for the Council to admit to registration all such persons as are duly registered in the *Medical Register* of Great Britain, or are otherwise authorised to practise medicine, surgery, and midwifery in the United Kingdom of Great Britain and Ireland upon such terms as the Council may deem expedient." A person is entitled to be registered who before July 23rd, 1870 (1) had received a medical or surgical degree or diploma of any university or college in Her Majesty's dominions, or of such other universities or colleges as the Council may determine; (2) was registered under the Imperial Medical Act, 1858, or Amending Acts; (3) was a physician or surgeon in Her Majesty's military service. Other persons must pass examinations in which provision is made for those desiring to qualify as homœopaths.

*Manitoba.*—No person may practise medicine, surgery, or midwifery here unless registered by the "Council of the College of Physicians and Surgeons of Manitoba." Any person is entitled to be registered who (1) is a member of an incorporated medical body in Canada which gives similar privileges to persons incorporated in Manitoba; (2) is mentioned in cap. 48 of the Imperial Act, 49 and 50 Vict.; or (3) is by examination a graduate in medicine, or has received a certificate of competency from the University of Manitoba. Homœopathy is represented on the Council, and due provision is made for the examination of homœopaths. (Statutes of 1888, cap. 36.)

*North-West Territories.*- No one may practise here unless registered by the Medical Council, which sits at present at Regina, under a penalty not exceeding 100 dols. The Council admits to the register (1) any person possessing a diploma from any college in Great Britain or Ireland entitling him to practise medicine and surgery on production of the diploma and proof of identity; (2) any member of the College of Physicians and Surgeons of the provinces of Manitoba, Ontario, and Quebec, on proof of membership and identity; and (3) anyone who has received a diploma of qualification from any college or school of medicine in Canada requiring a four years' course of study, provided he pass an examination before the Council if deemed necessary. The fee for registration is 50 dols., and the annual fee for membership from 1 dol. to 2 dols.

*British Columbia.*—No person may practise medicine or surgery here unless registered by the "Medical Council of British Columbia." All persons mentioned in the Imperial Act, 49 and 50 Vict. c. 48, duly registered under the Imperial Medical Act on or before June 30th, 1887, upon proof thereof and upon complying with certain regulations of Council. The fee for registration must not exceed 100 dols.

Those not previously registered must produce from any college or school of medicine and surgery requiring a three years' course of study a diploma of qualification, proof of identification, and pass an examination as to his competency. Any homœopathic physician holding a diploma of qualification from any authorised school or college which requires a three years' course of study may also be registered, and such homœopathic physician will not be required to pass in all the subjects required by the Board, but shall pass in anatomy, physiology, pathology, chemistry, obstetrics, and surgery.

### Australasia.

*New South Wales.*—Any person holding the degree of M.B. or M.D. or qualifications in medicine or surgery given by the Colleges of Physicians or Surgeons or the Apothecaries' Societies in Great Britain or Ireland, or who has been a medical officer of Her Majesty's land or sea forces, or who has passed through a three years' course of medical study in a school of medicine, and who has received, after examination, a diploma or certificate entitling him to practise medicine, is in New South Wales a duly qualified medical practitioner, for the purposes of giving legal evidence at coroners' inquests or judicial inquiries conducted by justices of the peace. Any person may, however, practise medicine without any qualification in this Colony but may not give, and cannot therefore be compelled to give, evidence as a medicine practitioner at courts of justice.

By Order in Council, the second part of the Imperial Medical Act, 1886, now applies to New South Wales.

*Victoria.*—Medical practitioners here must be registered. All persons entitled to be registered under the Medical Act, 1858, in Great Britain and Ireland, or registered under Imperial Medical Acts or amendments or who have passed through a regular course of medical study of not less than three years' duration in a recognised British or foreign school or medicine and has received, after due examination, from some recognised British or foreign university, college, or body, a medical diploma or degree certifying to his ability to practise medicine or surgery, as the case may be, shall, upon proof thereof to and personal attendance upon the Medical Board of Victoria, be entitled to be registered as a duly qualified medical practitioner, and shall receive from the Board certificates of qualification. Duly qualified medical women are entitled to registration and were, in 1891, admitted as members of the Victorian Branches of the British Medical Association.

*South Australia.*—Registration is not compulsory here, and persons can practise without it. Registration follows as a matter of course for those who are entitled to be registered in Great Britain and Ireland, or for those who hold a recognised medical degree or diploma from a recognised Australasian university or college of physicians or surgeons, or from a foreign university, college or licensing body, the examination of which, in the opinion of the Medical Board, shall be worthy of recognition. Part II. of the Imperial Medical Act, 1880, now applies to South Australia.

*Queensland.*—All medical practitioners must be registered by the Queensland Medical Board. Any person who shall prove to the Board that he has passed a regular course of medical study of not less than three years' duration in a school or schools of medicine, and that he has received, after due examination from such university, college or other body duly recognised for the purpose in the country to which such university, college, or other body, may belong, a diploma, degree, or licence entitling him to practise medicine in that country or who has been or is a medical officer duly appointed and confirmed by Her Majesty's sea or land forces, shall be deemed to be a legally qualified medical practitioner and shall be entitled to registration and to a certificate of such from the Board.

Persons registered under the Imperial Act, "to regulate the qualifications of practitioners in medicine and surgery," may practise in Queensland: but they must first present to the said Board a certificate of such registry or send to the Board such certificate authenticated by a justice of the peace.

*Western Australia.*—Any person entitled to be registered under the Medical Acts, 1858, in Great Britain and Ireland or a graduate in medicine and surgery of any colonial university or any one who has passed through a regular course of medical study of not less than three years' duration in a British or foreign school of medicine and has received, after due examination from such British or foreign university, college or body duly recognised for that purpose in the

country to which such university, college or other body may belong, a medical diploma or degree certifying to his ability to practise medicine or surgery, shall be entitled to be registered by the Medical Board of Western Australia.

*Tasmania.*—In this Colony an Act was passed in 1842 to amend and consolidate the Laws now in force, regulating the practice of medicine therein.

The original Act was passed in 1837, the first year of the reign of Queen Victoria and was entitled "An Act to regulate the practice of medicine in this Colony." An amended Act was also passed and became law in 1841, but it was found necessary again to amend these Acts, and they were accordingly repealed.

By the Act of 1842, a Medical Council, called "the Court of Medical Examiners," consisting of seven persons—one of whom was called the president—was established. No person was permitted after this enactment "to practise for fee or reward as a physician, surgeon or apothecary, or prescribe to be taken or administer any medicine or do or perform any surgical act or operation unless such person shall have received from the president or some member of the Court of Examiners, to be appointed under the authority of this Act, under the hand of such president or member, that it has been proved to his satisfaction that such person is a doctor of medicine of some university or that he is a physician, surgeon or apothecary, licensed or admitted as such by some college of physicians or surgeons or by the Society of Apothecaries of London or Dublin, or unless the said person shall have obtained, after an examination publicly held before such Court of Examiners, letters testimonial of such court to practise as a physician, surgeon, or apothecary upon pain of forfeiting for every such offence a penalty or sum not exceeding one hundred pounds."

It was also directed that "no person shall be entitled to such letters testimonial as aforesaid unless he shall have conformed to any course of education which may be required by the said Court of Examiners, or unless the Court shall be satisfied that the course of education which such person has pursued elsewhere shall be sufficient to entitle him to examination for such letters testimonial."

It was further enacted that "no person shall at any time thereafter vend any medicine or drug without obtaining a licence so to do from the president and two or more members of the Court under penalty not exceeding £50. The penalties incurred under this Act are recoverable under summary jurisdiction, but leave to appeal on conviction was permitted."

In addition, any person entitled to be registered under the Medical Act, 1858, in Great Britain and Ireland can, without an examination, obtain from the Court of Medical Examiners in Tasmania a certificate entitling him to practise in this Colony.

*New Zealand.*—Medical practitioners must be registered, and a fee of £1 5s. is imposed for registration. All persons entitled to be registered under the Medical Act, 1858, in Great Britain and Ireland, or who have passed through a regular course of medical study of not less than three years' duration in a school of medicine or surgery, and who have received from such university, school, or college after due examination a diploma, degree, or licence, entitling them to practise medicine or surgery, whether within Her Majesty's dominions or not, shall be entitled to registration by the Medical Board after payment of the said fee.

### South Africa.

*Cape Colony.*—No person may practise here without a licence signed by the Colonial Secretary on the recommendation of the Colonial Medical Council. Women are eligible for registration. The fee payable is £5. All degrees and diplomas entitling to registration under the Medical Act, 1858, and amendments to that Act, qualify for the licence in this Colony. In addition the following foreign degrees are qualifications under the Order of Council dated February 29th, 1892:—The Staats-Examens of Austria, Germany, Holland, Russia, and Switzerland. All applicants for the licence, except those already registered in the United Kingdom, who are only compelled to produce their certificate of registration together with sworn declaration of identity and authenticity, must submit, together with their diplomas or certificates, declarations, sworn before a justice of the peace, (*a*) of identity, (*b*) of the authenticity of the said diplomas and certificates, (*c*) of the fact that they are entitled to practise as qualified medical practitioners in the countries where the said diplomas and certificates were granted. Additional diplomas or certificates may be registered for a further fee of £1 1s. each. It is further ordered that all diplomas registrable in this Colony shall be required to cover a minimum curriculum of four years.

Midwives are registered. Certificates are granted by the Colonial Medical Council for competence in midwifery which entitle the holders to practise midwifery, to any persons who hold any of the following midwives' diplomas:—Of the Obstetrical Society of London, of the Obstetrical Society of Edinburgh, of the Rotunda of Dublin, of Sir Patrick Dun's of Dublin, of the German Government, of the French Government, and of any such other institute or examining body as the Council may from time to time determine. Proof of good character, identity, and good health must be given. The Council also has power to grant certificates to others after oral, written, and practical examination as to the competence for the practice of a midwife's calling. Certificates of attendance upon twelve confinements, good character, and good health, and the applicants must be able to read and write.

*Natal.*—No unlicensed person can either practise in Natal or is entitled to recover fees. All persons entitled to be registered under the Medical Act, 1858, and amendments to the same, or who possess a diploma or certificate from a Colonial or foreign university qualifying the person holding such to practise as a physician, surgeon, or accoucheur, may receive from the Natal Medical Board, upon payment of 1 to 3 guineas in fees, a licence to practise as a qualified medical practitioner. An annual licence also has to be taken out, the fee for which is £5.

### British Guiana.

By an Ordinance, No. 9, 1886, it was enacted that a a Medical Board should be established to perform certain duties, to keep a medical register of all persons qualified to practise medicine and surgery in the Colony, and to grant certificates of competency to any persons who are qualified to practise as chemists, dispensers, or midwives. The following persons are held to be entitled to be registered under this ordinance:

1. Every person who at the time of the passing of this ordinance has been duly licensed in the Colony to practise medicine or surgery or medicine and surgery.
2. Every person who is registered under the provisions of the Medical Acts of the Imperial Parliament.

No other person is entitled to be so registered. In case any person applying to be registered under this ordinance shall be refused such registration by the Medical Board, an appeal can be made to the governor, and if it appear to the governor that such person is entitled to be registered, the governor may direct that such person shall be registered.

No person after the passing of the ordinance is permitted to hold any Government medical appointment unless he be registered.

All certificates to be valid must be signed by a registered practitioner, and any words importing a person recognised by law as a medical practitioner, when used in any ordinance, shall be construed to mean a person registered under this ordinance.

No person shall be allowed to recover any charge in any court for any medical or surgical attendance, or for the performance of any operation, or for any medicine which he shall have prescribed and supplied, unless it be proved at the hearing that he is registered.

The Medical Board has power to remove the name of any registered practitioner who shall (*a*) have been found guilty of any felony or misdemeanour; or (*b*) is judged after due inquiry by the said Medical Board to have been guilty of infamous conduct in any professional respect, provided that the governor confirms the decision of the Board.

A penalty can be inflicted by way of fine or imprisonment not exceeding 12 months for wilfully procuring or attempting to procure registration by any false or fraudulent representation or declaration, either verbally or in writing, and every person aiding or assisting such false representation shall also be liable to the same penalty by fine or imprisonment.

Any person who wilfully and falsely pretends to be, or takes or uses the name or title of a physician, doctor of medicine, licentiate in medicine and surgery, bachelor of medicine, surgeon, general practitioner, or any name, style, title, addition or description implying that he is registered under this ordinance, or that he is recognised by law as a physician or surgeon, or licentiate in medicine and surgery, or a practitioner in medicine, shall be guilty of an offence punishable on summary conviction, and on conviction shall be liable to a penalty not exceeding 100 dols.

It must be noted here that this penal clause follows most closely the similar 40th section of the English Act. The words "wilfully and falsely" and "implying that he is registered" are found here, and it would be interesting to know what effect the clause has in cases of prosecution for unqualified practice.

### Fiji.

Practitioners must be registered in Fiji. Registration was originally ordered by an ordinance dated 1876; this was repealed and a fresh ordinance enacted in 1881, entitled "An ordinance to regulate the registration of medical practitioners and apothecaries and the sale of poisonous medicines."

The register is ordered to be kept by the chief medical officer, and it is directed that any registration effected under the older and repealed ordinance shall, for the purposes hereof, be deemed to be a registration under the fresh enactment.

It is declared illegal for any person unless so registered under this ordinance to practise as or to pretend to be or take or use the name or title of a physician, doctor of medicine, licentiate in medicine or surgery, master in surgery, bachelor of medicine, doctor, surgeon, medical or general practitioner, dentist or surgeon dentist, or apothecary or pharmaceutist, or surgeon apothecary or accoucheur, or licentiate, or practitioner in midwifery, or any other medical or surgical name, title, or append any letters, symbols, or description to his name, when written or printed, indicative of any such qualification or title. And any person so offending shall upon conviction in a summary manner be liable to a penalty not exceeding £50, and in default to imprisonment not exceeding three months.

[This is the most sweeping clause in any Medical Act which we have seen, and if embodied in any future Amendment Act in this country would check unqualified practice and protect the public more satisfactorily than has been done by previous legislative measures.]

Any person entitled to be registered under the Medical Act, 1858, and amendments of that Act, in Great Britain and Ireland, on proof of identity, is permitted to practise and be registered.

Apothecaries or pharmaceutists not being in addition registered medical practitioners or surgeons, are precluded from prescribing medicine or performing surgical operations, and if infringing this ordinance shall upon conviction in a summary manner be liable to a penalty not exceeding £10, or imprisonment for three months in default.

A further clause in this ordinance regulates the sale of poisons.

The chief medical officer has power given him to examine persons who desire to become apothecaries or pharmaceutists, and if satisfied as to their fitness, to grant registration to such on payment of a fee of £5; he also is directed to register midwives, if satisfied of their capacity for their duties, on payment of the sum of £1.

The chief medical officer has authority under this ordinance to remove the name of any registered practitioner or apothecary, or pharmaceutist, or midwife from the register if convicted for felony or misdemeanour, or for misconduct. Penalties are inflicted for false registration. A certificate signed by the chief medical officer is sufficient to prove that the person holding such certificate is duly registered. It was further ordered in 1888 that natives who had passed an examination in medicine and surgery at Suva, or shall hereafter pass such examinations as the chief medical officer shall prescribe, shall be entitled to receive from the chief medical officer a certificate entitling them to practise medicine and surgery within the island or part of it, and to be registered in a special register. The chief medical officer has the power to limit the locality within which the native shall be permitted to practise; each native so practising is known as a "native practitioner," and he is entitled to recover fees by process in law. His certificate shall be returned on demand of the chief medical officer. Those practising without certificates can be proceeded against, and if convicted are liable to imprisonment for not more than six months.

### Gold Coast Colony.

To be a duly qualified medical practitioner in this Colony persons must be entitled to registration under the Medical Act, 1858, or the amendments to this Act, or be doctors of medicine of any foreign or colonial university or college, and produce certificates to the satisfaction of the Licensing Board of having taken the degree of doctor of medicine after regular examination, and after due course of study of not less than three years at any such university or college.

Very stringent regulations are made in this Colony to regulate the dispensing and sale of drugs and poisons, and it is interesting to note that carbolic acid is scheduled as a poison under the ordinance; a matter of note when we remember that for years coroners and others have been pressing for this to be done in England and without success.

### Gibraltar.

An ordinance to regulate the practice of medicine and surgery in Gibraltar became law in February, 1886. The preamble of the ordinance is similar to that of our own Medical Act. "It is expedient that persons requiring medical aid should be enabled to distinguish qualified from unqualified practitioners." It is ordered that one month from and after the promulgation of the Act no person save those who were actually in practice at the commencement of the ordinance (under certain restrictions) shall be permitted to practise medicine or surgery in Gibraltar unless possessed of one or more qualifications which would entitle the holder to registration under the Medical Act, 1858, or amendment to that Act, or has any foreign or colonial degree, diploma, or licence in medicine, the holding of which would entitle the possessor to practise medicine in the country or colony to which such degree, diploma, or licence was issued. Penalties for unqualified practising by fines, and for obtaining registration by false pretences, by imprisonment for terms not exceeding twelve months, are inflicted under this ordinance. Registered practitioners have the usual privilege given them to sign certificates and to recover their charges in courts of law.

### Jamaica.

Various Medical Acts have been passed by the Legislative Council of this Colony, but the main principle is registration of the duly qualified practitioner. A Medical Council is established for the purpose of the Act, and this Council not only keeps the register, but also has power to appoint examiners from amongst themselves who shall examine and, if satisfied, order to be registered any person not otherwise qualified to be registered, the subjects for examination being medicine, surgery, and midwifery, provided that the person so examined shall produce a diploma, licence, or certificate granted to him by any university or by any college or faculty of physicians or surgeons.

The persons entitled to be registered are those entitled to be registered in Great Britain and Ireland under the Medical Act, 1858, and the amendments to such Act. A penal clause is found in this Act as amended in 1896, and runs thus: "Any person who does not possess a medical or surgical qualification, but who shall nevertheless practise medicine or surgery, or perform any surgical operation, within this island for which he shall demand, or receive any fee, gratuity, or remuneration, and also any person who shall wilfully or falsely pretend to be, or take, or use the name or title of a physician or surgeon, doctor of medicine, licentiate in medicine and surgery, bachelor of medicine or surgery, or master in surgery, or take or assume any other style, title, addition, designation, or description implying that he is qualified to practise medicine, surgery, or midwifery, or that he is recognised by law as a physician or surgeon, or licentiate in medicine or surgery, or a practitioner in medicine, shall be guilty of an offence under this law, and shall upon summary conviction before any two justices of the peace in petty

sessions (1) for the first offence forfeit and pay any sum not exceeding £10, and in default of payment be imprisoned, with or without hard labour, for any term not exceeding three calendar months; and (2) for each subsequent offence forfeit and pay any sum not exceeding £15, and in default of payment be imprisoned, with or without hard labour, for any term not less than three months, and not exceeding six months. The Council has power to erase names of practitioners convicted of any felony or misdemeanour, or after due inquiry be adjudged by the Council itself to be guilty of infamous conduct in any professional respect.

### LEEWARD ISLANDS.

*Antigua.*—In the island of Antigua a duly qualified medical practitioner is held to be a person qualified under the Imperial Act, 21 and 22 Vict. c. 90 (1858), and also such persons as held the Governor's licence under Act No. 46 in the Laws of the Island, dated 29th February, 1812.

*St. Christopher, Nevis.*—In 1887 an Ordinance was passed to prevent unqualified persons from vending medicines: "From and after the expiration of twelve calendar months after the publication of this ordinance no person or persons shall be allowed to compound, dispense, or sell by retail medicines except those commonly called patent or quack medicines, but such as are entitled according to the law for the time being in force in the United Kingdom to do so, or shall have obtained a licence from the governor, and such licence shall only be granted upon the production of a certificate from three medical men certifying that the person or persons applying is or are qualified to dispense medicines according to the *British Pharmacopœia*." A penalty of £50 is inflicted for infringement of this Ordinance.

*Montserrat.*—An Act or ordinance to prevent unqualified persons from practising physic or surgery, or pharmacy, or vending medicines, and to provide for the regulation of all medical and surgical practitioners, apothecaries, and vendors of medicines was passed in 1871, and we give the clauses in full:—

1. No person shall practise physic or surgery on this island who is not qualified as a medical practitioner under the Imperial Act, 21 and 22 Vict. c. 90.

2. No person shall vend medicines who shall not have first presented to the governor a certificate of his competency to vend such medicines from a qualified resident medical practitioner, and which certificate shall be duly registered as is provided by the 6th section of this ordinance, provided that it shall not be necessary for a duly qualified medical practitioner to obtain such certificate to vend medicines.

3. If any person shall practise physic or surgery or pharmacy, or vend medicine, or receive or obtain money without being qualified as aforesaid, he shall be liable on conviction before two or more justices of the peace to forfeit and pay for every such offence a sum not less than £20 and not exceeding £50, and in default of payment of any such fine, fines, or penalty shall be committed to the common gaol, there to be imprisoned with or without hard labour at the discretion of the justices for any time not less than two months and not exceeding three months as the convicting justices shall direct, or until such fine or penalty and costs (if any) shall have been sooner paid, and in all cases in which it shall be necessary to lodge or enter and hear and determine any complaint or case under the provisions of this ordinance in a police-court, such complaint or case shall be lodged or entered and heard and determined in the police-courts in the town of Plymouth, and any such complaint or case may be lodged, entered, and prosecuted by any person.

4. Every person duly qualified under this ordinance shall be entitled to recover in any of the courts of this island, with costs of suit and reasonable remuneration for the medical or surgical aid, visits, services, and medicine supplied by him to any person requiring the same.

5. The vendors of patent medicines alone are excluded from the provisions of this ordinance.

6. Every medical or surgical practitioner, upon adequate proof to the satisfaction of the governor of his qualification as aforesaid, shall be entitled to practise on receiving a licence from the governor, which licence shall be registered in the Register of Deeds Office in the said island.

7. This ordinance may be cited as "The Medical Qualification Ordinance, No. 7 of 1871."

### VIRGIN ISLANDS.

An ordinance for the regulation of all medical and surgical practitioners and vendors of medicine was passed in April, 1894, and we give the following clauses in full:

1. No person in this presidency shall practise medicine or surgery, or demand or recover in any court of law charges for professional aid, service or visits, or the cost of any medicines or other medical or surgical appliances rendered or supplied by him to his patients, or for the performance of any operation, who would not under the law for the time being in force in the United Kingdom be entitled to practise and to demand and recover charges for professional aid, advice, and visits, and the cost of any medicines or other medical or surgical appliances rendered or supplied by him to his patients, or for the performance of any operation.

2. In all cases it shall be incumbent upon a person who seeks to recover any charge in any court of law for any medical or surgical advice, attendance, or for the performing of any operation, or for any medicine which he shall have both prescribed and supplied to prove upon the trial that he would be entitled to sue for and recover such charges under the law for the time being in force in the United Kingdom.

3. No person shall be entitled to compound, dispense, or sell by retail medicine in this presidency except those commonly called patent medicines unless he shall be entitled according to the law for the time being in force in the United Kingdom to do so, or unless he shall have obtained a licence from the governor in that behalf, upon which licence a stamp duty of £2 shall be paid, and no such licence shall be granted by the governor except on a certificate from three duly qualified medical practitioners that the person to whom the licence is granted is qualified to dispense medicine according to the English *Pharmacopœia*. Provided that all licences which previously to the passing of this ordinance have been granted by the governor under the provisions of any ordinance of this presidency shall continue in force and be of the same force and effect as licences granted under this ordinance.

4. No person shall be entitled to recover in any court of law any charge for medicine sold by him by retail unless he shall prove upon the trial that he is qualified under the provisions of Section III of this ordinance to sell medicine.

5. If any person shall practise medicine or surgery or sell medicines, not being entitled to do so under the provisions of this ordinance, such person on conviction shall be liable to a fine not exceeding £100.

## THE SECRETION OF MILK IN THE BREASTS OF INFANTS.

HIS EXCELLENCY ROGERS PASHA, Chief Administrator of Sanitary Offices, Egypt, has forwarded us a photograph, which we here reproduce. In a short clinical note on the back of the original photograph, it is stated by Dr. Ahmed Arafah, Sanitary Inspector at Beni Souef, that the patient was "a male child, aged 45 days, who was attending the daily clinic. He has two large breasts: both secrete milk by pressing." The child seems to be still living, though the report does not state his present age, the "45 days" referring to the age when the portrait was taken.



As far back as the early part of the eighteenth century, Morgagni not only wrote on the secretion of milk in infants a few days old, but also referred to different opinions on the subject, which must, therefore, have been already familiar to observers. In 1854 Dr. Cobbold exhibited at a meeting of the Physiological Society of Edinburgh milk from the breast of a male infant 9 days old. He recognised the secretion to be milk on the strength of microscopical investigations. Twenty years later von Genser analysed milk from an infant without stating its sex in his report. He found that the fluid was rich in casein and albumen. Almost at the same time De Sinéty examined sections of the mammary glands of infants, after their death during parturition, and sections of the same structure from infants which had lived for a week or two. There was no histological evidence of activity in the breasts from newborn children: in fact, the milky drop which may sometimes be squeezed out of the nipple of a child an hour or two old is the produce of degeneration of epithelium filling the galactophorous ducts. The tissues of the breast of a male infant which died 12 days old showed, on the other hand, the changes observed in the adult female mammary glands during lactation. Before this child's death true milk had exuded from the nipples under pressure.

Modern obstetricians find that activity of the mammary glands is the rule a few days after birth. The exceptions usually occur in sickly children. Natalis Guillot found milk in 39 male and 34 female children. De Sinéty not only insists that the secretion of milk is almost constant between the fourth and sixth day after birth, but he further notes that the sex of the child has no influence whatever either on the quantity or on the duration of the secretion. The German people give the term "Hexenmilch" or witches' milk to this production.

This premature lactation makes the unfortunate infant not only liable to abscess as a direct result of retained milk, but subjects it to the same disorder through the love of meddling inherent amongst untrained nurses. In the second volume of the British Medical Journal for 1874 will be found a long correspondence on Mammary Abscess in Infants caused by Retention of Milk. Much was said upon the mischievous practice known as "breaking the nipple strings." Dr. W. Stephen, of Fettercairn, Kincardine, maintained that the practice was unknown in Scotland, where mammary abscess was rare, unless due to retention of milk. Mr. W. G. Davis, of Heytesbury, Wilts, gave the confession of a country nurse, aged 70, who declared that she always "broke the nipple strings." "I am sure," said this remarkable old person, "when females become mothers they cannot suckle well, and boys when they grow up have not so much power in their arms unless this be done." Thus in all literature on the subject it seems to be recognised by the writers that male infants secrete milk, and the testimony of ignorant goodwives supports the evidence. The practice of "breaking the nipple strings" is fortunately becoming rarer, but it is not entirely discarded.

In Dr. Arafah's case the breasts were unusually distended, and the secretion continued for a far longer period than is the rule.

## ARCHÆOLOGICA MEDICA.

### XXIII.—THE PHYSICIANS AND SURGEONS AT GLASGOW.

Mr. Duncan, Secretary and Librarian of the Faculty, has done a good piece of work, and one which is as interesting as it is good, in writing the *Memorials of the Faculty of Physicians and Surgeons of Glasgow*.[1]

The Faculty owes its origin to the enterprise of Master Peter Lowe, then recently returned from service in the army of Henry of Navarre. Observing the miserable condition of medicine and surgery, Lowe "got a priviledge under his highness Privy Seale, to try and examine all men upon the Art of Chirurgie, to discharge and allow in the West parts of Scotland, who were worthy or unworthy to profess the same." The charter was granted by James VI the penultimate day of November, 1599, to regulate the practice of Medicine, Surgery, and Pharmacy in the baronies of Glasgow, Renfrew, Dumbarton, and the Sheriffdomes of Cliddisdale, Renfrew, Lanark, Kyile, Carrick, Air, and Cunninghame. It instituted *ex officio* medico-legal examiners under obligation to report to the authorities, thus anticipating what is now known as State Medicine. It provided, too, for the gratuitous medical visitation and treatment of the sick poor at a time when hospitals for the treatment of diseases were unknown in Scotland. It recognised, too, that Medicine was a subject of academic study, whilst Surgery was a handicraft to be learned in the same way as any other manual labour, for it provided that surgeons should be examined and licensed, whilst physicians were only to be called upon to produce their University testamurs before they were admitted members of the newly-incorporated Faculty. Master Lowe's experience in Paris and in camps had also taught him that barbers were no fit associates for surgeons, and the Faculty was therefore peculiar amongst the surgical corporations of the time in having no dealings with barbers. The barbers, however, became united with the surgical side of the Faculty by a Letter of Deaconry in 1656; but even then they seem to have occupied somewhat of the subordinate position filled by the yeomanry in many of the City Companies in London.

The union of barbers and surgeons was not of long duration, for on December 19th, 1719, the surgeons formally gave in to the Town Council a "Demission and Renunciation of the Letter of Deaconry." It was signed by fourteen surgeons, but it was not engrossed in the Records of the Town Council until September 22nd, 1722. The cause of the split seems to have been a law made in 1679, by which membership of the Faculty was restricted to the sons, sons-in-law, and apprentices of the members, to "such as ether hav serwed their prentisship with ane freeman or member of the facultie..... or otheways be ane freeman's son, or maried to ane freeman's dochter." The barbers sought to interpret this as meaning that their sons and sons-in-law might aspire to become members of the surgical side of the faculty, the surgeons were equally determined that barbers' apprentices and relatives should remain barbers. The barbers as in London obtained the best of the bargain financially, for at the separation they received in cash £2,116 5s. 10d. Scots, and were immediately incorporated by a new Letter of Deaconry, whilst the Faculty took over the Hall and other real property at a valuation.

An attempt was made to form a subordinate class of members as early as 1757, but it was not until 1785, when the scheme was recast and placed on a good footing that the Licentiates were regularly organised as a body of men provided with a licence to practise upon the payment of a modified fee.

There is much good reading in Mr. Duncan's *Memorials*, and graphic sketches are given of the condition of Glasgow from the time when the lepers went about the town begging, and clad in a gown with a hood, and sleeves closed to the finger tips, whilst they had "clappers" to give notice of their approach. Next came the plague years, when those affected with the pest were isolated on the Town Moor, and it was shrewdly suspected by the Town Council of Aberdeen that "the sin of venerie" had something to do with the prevalence of "Glengore" or syphilis. At a much later time an enactment was made about the payment of fees. The Minutes of the Faculty (November 1st, 1756) state, in regard to this, that "as patients are uncertain how to pay physicians, and the surgeons have no rule to direct them, the Physicians of Glasgow Members of the Faculty agree to give advice and attendance to all poor people gratis. When called to people in good circumstances in town or country they expect to be feed at being called or consulted, and in acute cases where attendance is once a day or oftener, they expect to be feed every eight or ten days; and in chronical cases, where attendance is not so frequent, once in two or three weeks." The consulting fee of the physician was a guinea; midwifery fees varied from one to three guineas. For the different surgical operations there was much discriminative nicety in the tariff, from phlebotomy at five shillings up to the higher operations at five guineas. For a surgeon's visits the rate was one to three shillings in the town during the day, and five shillings to one guinea during the night.

It cannot but happen that a few slips must occur in the writing of a book. Instances are page 5, where the date 1606 should be 1617, for the charter of 1606 still bound the Apothecaries to the Grocers. On page 37: John Read had published the oath of Hippocrates as early as 1588, and as individual members of the medical profession had so much to do with the revival of Greek, it is hardly likely that Lowe was the first to render into an English garb any part of the writings of the great physician of Cos. The photogravures are excellent, and there is a good index and a carefully compiled roll of members.

[1] *Memorials of the Faculty of Physicians and Surgeons of Glasgow*, 1599-1850, by Alex. Duncan, B.A.Lond. Glasgow: James Maclehose and Sons. 1896. 4to, pp. 16 and 307.

A meeting will be held at St. Martin's Town Hall on January 7th at 4 P.M. to protest against the proposal to admit to the membership of the Royal British Nurses' Association and to place upon the Register of Trained Nurses asylum attendants who have not been trained in general hospitals.

The Wandsworth Guardians have resolved to erect a new home for the nurses engaged at the infirmary adjoining the institution, at a cost of over £10,000. The home will contain over eighty bedrooms.

## BRITISH MEDICAL ASSOCIATION.
### SUBSCRIPTIONS FOR 1897.

SUBSCRIPTIONS to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.


# British Medical Journal.

SATURDAY, JANUARY 2ND, 1897.


## A BACTERIOLOGICAL DEPARTMENT FOR INDIA.

IT may safely be said that nowhere in the world is there such a patent necessity for an ample endowment of bacteriological research as there is in India, or greater probabilities that the results of such researches will be practically useful. The case of the bubonic plague in Bombay may be quoted as an instance. The mere apprehension that quarantine might be applied resulted in a rise in freights to this the most important commercial centre of our Indian Empire. A wide application of quarantine regulations against arrivals from Bombay would no doubt be productive of the greatest hindrance and loss to the commercial interests of the port. However energetic may be the measures taken against the disease, they can produce no certainty that they will be successful, and give us no confidence in its early cessation, owing to our ignorance of its exact means of spread, whether by contagion or air infection. This ignorance is chiefly due to the fact that, with one noted exception, the disease has not appeared in localities in which it has been found possible to subject it to bacteriological research. The Government of Bombay have promptly recognised the importance of knowing more of the nature of the disease by appointing a scientific Committee, including Professors Haffkine and Hankin to investigate the matter. But it may be asked, Why has this not been done before?

In the Kumaon Hills, in the North-West Provinces of India, the disease is of frequent occurrence. If a central laboratory, adequately installed, had been established, there can be no doubt that the members of the staff would have seized the opportunity of investigating the microbe that causes the disease, and learning how to control its activities. Such information would at the present time be invaluable to the commercial magnates of Bombay.

The necessity for increased facilities for bacteriological research has been recognised for some years past both by the Government of India and by the Indian public. The valuable work carried on by Professor Hankin in the Agra Laboratory is well known. A scheme for enlarging the scope of this laboratory and for relieving Professor Hankin of his medico-legal duties has been put forward, and we believe is now awaiting the sanction of the Secretary of State. The voluminous annual report of this laboratory is now before us. The quantity of valuable information it contains with regard to the prevention of enteric fever among British troops, and of cholera in villages by the disinfection of wells, gives it a more than local interest, and we hope to notice it in detail in a future issue. It is to be hoped that the new organisation of this laboratory will be sanctioned, and that Professor Hankin will thus have further opportunities for extending his researches.

The Anglo-Indian public have recognised the need for bacteriological research in the support they have given to the scheme for a Pasteur Institute, that has been pushed with praiseworthy energy and determination by Surgeon-Colonel Roe, Sanitary Commissioner of the Punjab, who has acted as Secretary to the Provisional Committee. The Government have promised to encourage the scheme by every means in their power, and it is now felt that sufficient funds have been collected for a commencement. Prolonged discussions have taken place as to the best site for the laboratory. It is recognised that the equable and cool climate of a hill station is necessary for the proposed researches. Kasauli in the Punjab, and Darjeeling, the hill station nearest to Calcutta, have been proposed. The last named place would seem to have greater claims owing to its proximity to the area in which cholera and malaria are endemic, and the greater facilities that exist for carrying on inoculations against cholera among the coolies in the Darjeeling and Assam tea gardens.

A most extended programme of proposed work has been put forward. Besides investigations of tropical diseases, the Committee propose that the Institute should deal with inoculations against rabies, preparation of cholera vaccines, carrying on of anticholera inoculations, preparation of antitoxins of diphtheria and tetanus, preparation of anthrax vaccines, and of tuberculin and mallein for diagnostic purposes. There can be no doubt that every one of these items is of proved practical value for the relief of suffering humanity. To carry out fully the above programme would in our opinion require a staff of a dozen trained bacteriologists, and a sufficient number of trained assistants. The expenditure of the Pasteur Institute in Paris on the above objects amounts to 200,000 francs (£8,000) yearly. A similar expenditure for the Pasteur Institute of India will be necessary if it is adequately to perform all the demands that may be made upon it, especially in view of the greater cost of materials and apparatus.

We have every hope that as the state of Indian finances improves, and as the benefits of applied bacteriology become more patent, the Government of India will see its way to providing the necessary funds. A large expenditure for the prevention of famine is recognised as being both necessary and politic. Do not the people of India require protection against cholera and malaria far more than they do against famine? The Government of India have already so far recognised the value of Professor Haffkine's method of protection against cholera as to give facilities for its medical officials to learn the technique of carrying out the process.

If the advisers of the Viceroy thus admit its value in principle, the conclusion is inevitable that they cannot long defer recognising it in practice on a large scale. They must be prepared to sanction an expenditure as large as, or larger than, that is at present incurred for vaccination against small-pox, for it is undeniable that protection against cholera to the people of India, and, we may add, to the rest of the world, is at least as important as protection against small-pox. Does not the British army in India require protection against enteric fever far more than it requires new

cantonments, or strategic railways of problematical value? If, in spite of the state of the finances, the Indian Government can embark on the experimental manufacture of cordite, can it not spend one-tenth of the sum on the manufacture of antitoxins of recognised utility? Is the Anglo-Indian official so enamoured of the Bengali babu that he contemplates with equanimity the continued production of a supply ten times in excess of the demand? Is it not a fact that many of these well-educated natives, instead of being able to command a salary in any proportion to their position or deserts, would jump at the chance of being taken on as unpaid assistant clerks in the office of a Mofussil collector, and that failing such employment they too often regard themselves as wronged by Government, and turn into disloyal and seditious agitators. We believe it was suggested by a prominent official at the Calcutta Medical Congress in 1894, that some of the vast sums spent on education should be appropriated for the more glaring sanitary needs of the people of India. Though we recognise that an education grant is not a source from which money for sanitary expenditure should be drawn, that education is in itself of the nature of a sanitary precaution, and though we hope eventually to see larger sums spent in this direction, it is possible that a little judicious pinching in the Education Department might do but inappreciable direct harm, and might furnish the much-needed funds for the endowment of the proposed Institute. It must not be forgotten that this Institute will have a great educational value. Native medical men, whether working as paid assistants or while attending classes, will obtain an invaluable knowledge of the methods of bacteriology. English doctors to some extent may more conveniently learn these methods in London medical schools, but so far as the special technique of carrying on anticholera inoculations is concerned, an Indian laboratory is obviously the best place for instruction. A plan for sending medical men for short periods to the Agra Laboratory has, we believe, already been put forward by Government, and we hope to hear of its being carried into effect. It is not only in Agra and Darjeeling that such institutes are needed, but in all the larger towns in the Indian Empire.

## THE FUTURE OF LEGISLATION ON VACCINATION.[1]

### III. — Revaccination.

One of the most important points to be considered in connection with the future law as to vaccination has to do with the attitude which the Government will adopt towards the uniform practice of revaccination; and we cannot but regret that the position taken up by the Royal Commission as to this is an altogether inconsistent one. They devoted much of their report to prove that primary vaccination is of inestimable value, and that it affords the only real protection against small-pox in early life, and they then went on logically to demand that the practice should remain compulsory for the ordinary population, but they added that, to meet the case of conscientious objectors, there should be allowed the alternative of a statutory declaration for these objectors.

In precisely the same way they have pointed out the necessity for, and the value of, revaccination as the one means of defence against small-pox in later years. They announce definitely that the protection afforded by a primary vaccination wanes about the tenth year of life; that "revaccination restores the protection which lapse of time has diminished;" and that repetition of the operation alone can restore the efficiency of the protection. They spend whole pages of their report in proving the value of revaccination as a protection against both attack and against death from small-pox; they quote examples of groups and bodies of men and women—soldiers, policemen, postmen, and nurses, for example—whose protection against small-pox has been secured under conditions of special risk by the adoption of revaccination; and they recall the remarkable immunity from small-pox death in the German Empire since revaccination became compulsory there in 1874. The logical outcome of all this naturally is that revaccination should be placed on the same footing as primary vaccination. But at this point the courage of the majority of the Commission seems to have failed them; and the influence of a minority seems to show itself in the plea that the Commission cannot be "insensible of the difficulties involved in rendering it compulsory." What the Commission mean by "compulsory" in connection with revaccination is not clear. As regards primary vaccination they urge that the parent who really objects to the operation being performed on his child should not be forced to permit it. Why, then, not adopt the same attitude towards revaccination by requiring it at the age of 10 years, but again allowing the conscientious objector the alternative of making a statutory declaration of his objection? In such a case we do not understand where "the difficulties involved in rendering it compulsory" can be found to lie.

Indeed, we would go much further. By far the greater part of the "conscientious" objection, so-called, against vaccination lies in the anticipation of trouble and anxiety at a period of infant life. This form of objection tends rapidly to disappear with advancing years, and we are firmly convinced, from the experience already available as regards revaccination of children at about 10 years of age, that parents who look with aversion on the vaccination of an infant only a few months old would have no such feeling as regards the chances of a slightly sore arm in a school child of more advanced age. In short, the "difficulties" of which the Commission "are not insensible" apply with infinitely more force to primary vaccination in infancy than they do to revaccination before the close of the ordinary elementary school age.

Even if we were less convinced than we are that the Commission have altogether exaggerated the "difficulties" which they thus set in the forefront as an excuse for their illogical conclusion, we should still feel that the facts set out by the Commission as to the value and importance of revaccination make it necessary that the children of this country should be provided by the State with a restoration of the protection afforded by vaccination, and that this should be required in all cases except those in which the parents are so far true objectors as to be willing to take the steps necessary to the making of a formal declaration to that effect.

It will be remembered that the Parliamentary Bills Committee of the Association have already formulated a definite recommendation to the Government to the effect "that, looking to the importance of revaccination after the age of 10 in the prevention of small-pox as reported by the Royal Commission on Vaccination, the Government be requested in any future

[1] The previous articles appeared in the British Medical Journal of November 7th, p. 1397, and December 12th, 1896, p. 1729.

legislation based upon that report to make the same provision for revaccination as they may make under any new law concerning primary vaccination." And, having regard to the fact that the weak conclusion of the Commission may have a material effect on the Government, it behoves all who really desire that the loathsome disease small-pox shall, as far as possible, be eradicated from our midst, to communicate with their members of Parliament as soon as it is known that a Vaccination Bill is in preparation, and to endorse the demand for general revaccination. Some children will always escape primary vaccination, as the result of changes of address, etc.; some cases of small-pox will always be imported into this country; and it behoves the community as a whole to see that children and such young persons as have not yet attained an age which carries with it a sense of responsibility shall not, owing to mere apathy and negligence on the part of their parents, become victims to small-pox.

## STUFF AND NONSENSE?

We notice one or two letters in the daily press dealing with the difficult subject of graduated consulting fees on the basis of the existing distinction between "silk and stuff" at the Bar. It is suggested by one or two writers that it would be of advantage if the younger men among consultants would, like younger barristers, take a smaller fee than their elders, while others are inclined to deride any attempt to do things "on the cheap."

A recognised differentiation between consultants and family practitioners, corresponding with the distinction between silk and stuff at the Bar, might, as we have before pointed out, be of advantage both to the profession and to the public, for at present in this matter all is confusion, and it is hard to say where the family practitioner "of hospital status" ends and the consultant begins. Of consultants pure and simple there can hardly be said to be any in the medical profession, for certainly there are very few, if any, physicians or surgeons at the present day who insist on a consultation—that is to say, on the presence of a family practitioner—before seeing any patient, nor, although the subject has been put under discussion by us, and no doubt privately debated, have any organised or public steps been taken, so far as we know, even to consider this point of view.

Meantime it is a little surprising that the writers do not seem to know that what they wish, or fear, as the case may be, is done every day, when consultations are held at a long distance from London. The old scale of fees was fixed in the days when a journey of fifty miles was an arduous undertaking, and cost a great deal both in time and money. When a man can go that distance and back in four hours or less, the full charge is high pay for the work, and the longer the distance the higher it becomes in proportion. When a man reaches the top rank, a position which is no less distinct, because among us it carries no formal distinction, his opinion is in the eyes of the public, and often in our own, of the full value of his fee. Many men will even refuse to leave their daily work for this amount. But to the younger men, whose judgment is sometimes as good and whose learning is often more level with the times than that of their seniors, it is not seldom well worth while to take a journey for less than the regular full charge. Men in general practice know this quite well, and often ask consultants whom they know privately if they will accept a smaller amount. In this way a gradation is in a certain measure already established.

The practice is hindered chiefly by the folly of the public. They so often gauge a physician's or a surgeon's value by the fees he asks that consultants fear to lower their reputation by lowering their demands, though the actual sum proposed might be well worth their acceptance. One well-known physician of our acquaintance, after giving double the usual time to a patient who came to see him, accepted at the patient's urgent and piteous appeal one guinea instead of two. He subsequently heard through a third party that the patient was very ill-satisfied, first with the physician, because he was not cured, and secondly with himself for being such a fool as to go to "a guinea doctor." Such facts as these make men weigh carefully the risk before they accept smaller fees than their neighbours.

In our opinion there is room for change in two directions. We think that the younger consultants might well accept, as they in fact often do, a lower than the full fee for long journeys, and we think the seniors might, on the other hand, well exact, as also they in fact in some cases do, a higher fee for consultation at their own houses. In this instance the juniors cannot afford to charge less than they do, for the work is well worth the money, and the difference between junior and senior can therefore only be established in this way. At the same time such a practice would in the long run bring to the senior a much more interesting and important set of cases, and would also allow him to spend more time in their examination.

It is, we think, a great pity that consultants so often out of so-called charity diminish or remit the fee for consultation at their own house. It flatters them to have their opinion thought a necessity, but it is in plain truth usually a mere luxury. There is no sufficient reason why people should not pay for medical as much as for legal advice, and we are quite sure that this sort of charity gives rise to as much abuse, and is of as little use, as any in the world.

## "CHANGE OF ADDRESS."

Most of us change house once, or more than once; driven by desire of more space, air, and light, by want of ease, and by those two clamant instincts, the love of possession and the love of change. Besides all these motives, and perhaps above them, we are urged by the wish to make a braver show of the later half of our lives, to declare ourselves men of good success and assured standing. And there is some truth in the old saying, "Live in a house above your means, dress up to your means, eat and drink below your means."

A man's possessions may solace and lengthen his life, or they may vex and shorten it. A good house in a good street—clean, compact, well lighted, and well ventilated—is a continual pleasure, a sound investment, a gift of health, contentment, and length of days. Even the outside of it alleviates the ugliness of the street; and within, it is like a spoken welcome—*Pax intrantibus, salus exeuntibus.* It should be ablaze with daylight, fresh with bright colours and white paint, airy and glistening as a house in the country. It may be small, but it must be brilliant; above all, it must give the suggestion of a woman's care for its welfare, and must be not only a house but a home.

A gaunt stretch of big ugly rooms, dingy and ill-lighted, a

house like barracks, crying to the depressed visitor that he must not criticise its faded splendours, must not think upon its attics and its basement—such a structure is a blot on the street, a weariness to its owner, deterrent of patients, fatal to comfort. These commodious mansions should be left to the infatuated folk who love to give large parties; to men of our profession they are but burdens, bringing no proportionate increase of practice, and heightening all the miseries of the want of it. They cannot be kept clean, they give no welcome, they bring no pleasure, no tranquillity.

That a man should want three, even four, rooms on the ground floor is a strange thing, when we remember what leaders of our profession have made two rooms suffice them. If there be a third room, let it be of an informal habit, a den of scientific or literary work, familiar with the midnight oil and the midnight pipe. He who keeps such a room dull and prim, ever waiting for the never-coming day when his consulting room shall not hold the multitude of his patients, grasps the shadow of things for their substance.

For it is certain that the days of vast practices for consultants are coming to a close. Only a few will rise above the general levelling-up; the rest will do good work, but their road will go uphill to the very end. Hence it is of paramount importance that a man should take upon his shoulders no extra load—and it is just here, in moving house, that ambition may o'erleap itself. Those fateful cards, sent round with "change of address" upon them, might sometimes as well be labelled "Loss of Tranquility," or "Farewell to Comfort." A man may get into debt for his big new house, and may yet come to sit in one of four ground-floor rooms, each large enough for a banquet and cheerless as a family vault: longing to be back in the little old house of his early days, and waiting for the rare footfall of some stray patient.

This, then, is the secret of moving house. The change must be wisely made—from a poorer house to a better, from a street of less repute in the conventions of practice to one of higher renown. For the perfect house a man may well adventure much—even the borrowing of money. But the dominant note in the whole business must be the home note. It is better to have a small waiting-room, adorned with flowers and full of daylight, than a vast Georgian *salle-à-manger*, dingy and chill, with eighteen empty chairs in it. To ensure happiness now, and peace at last, let the new house proclaim, from every one of its rooms, that it is home as well as house; let it offer that particular welcome which it cannot give unless it be the direct visible expression of a tranquil and contented life.

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The Queen has been pleased to give directions for the appointment of Dr. William Forbes Newsam, M.D. (Colonial Surgeon), to be a member of the Executive Council of the Island of St. Vincent, and also to be an official member of the Legislative Council of that island.

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We learn that Dr. Jameson remains in a somewhat depressed condition, the knowledge that some of his comrades remain in prison being apparently the cause. Recovery is therefore taking place very slowly, although the operation wound is progressing as favourably as can be expected.

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## BERI-BERI IN RICHMOND ASYLUM, DUBLIN.

Since our last report there have been one fresh female and one fresh male case. This makes the total number attacked 115, or 83 women and 32 men; 7 of the female nursing staff have been attacked. Since our last notice 1 of the male patients has died, which brings the total of deaths to 8.

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## A SUCCESSFUL COTTAGE HOSPITAL.

The report of the Reigate and Redhill Cottage Hospital is most instructive, showing the admirable results which can be obtained in these little country hospitals. The total number of patients admitted in the year was 223. Of these 85.7 per cent. were discharged cured, and the mortality was only 0.98. The cases recorded include amputations major and minor, fractures of all sorts—some compound and comminuted—with a lengthy list of minor surgical operations. Such results speak well for the staff and for the hospital. That the institution is ably conducted and economically managed is shown by the very considerable amount yearly voted from the Metropolitan Hospital Sunday Fund.

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## HEALTH OF MONTREUX.

We are requested to contradict the rumour that typhoid fever exists in Territet or Montreux. The public health is absolutely satisfactory, and there is a complete absence of zymotic diseases. It is pointed out that the conditions render it extremely improbable that typhoid fever should occur. The water supply, which is of great purity, is derived from springs at Les Avants. It reaches Montreux and the adjacent townships under a pressure of about six atmospheres. There are no cisterns in the town, and the service is constant. Last year an epidemic of scarlet fever occurred; it was of very mild type, and caused only one death. Thorough measures of disinfection were taken, and not a single case has occurred this season or indeed since last spring.

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## CHILD MORTALITY.

Dr. Concetti, the Professor of Pediatrics in the University of Rome, has reprinted an article which he wrote for a publication issued in the interests of a new children's hospital in Milan. In it he discusses the loss which Italy annually endures owing to the excessive number of deaths in childhood, and the excessive amount of disease at the same period of life. He states that among the 800.000 deaths which in round numbers take place annually in Italy, about 370,000 occur among children under 5 years of age; and he points out, further, that the main causes of this excessive mortality are the diseases of the digestive and respiratory systems and the acute infectious diseases. Comparing these figures with those contained in the last Decennial Summary (1881-90) of the Registrar-General, it would appear that high as the mortality is among children in this country, that in Italy is more than half as great again in proportion, when the comparison is made with the total number of deaths at all ages in the two countries. When we compare the three classes of diseases which contribute most to the total number of deaths in both countries we find some interesting differences. Among 1,000 deaths in children under 5 years of age there are due to diseases of the digestive system 261 in Italy, 128 in England; to acute infectious diseases 154 in Italy, 160 in England; to diseases of the respiratory system 190 in Italy, 228 in England. The great excess of deaths from diseases of the digestive organs in Italy as compared to England is probably to be attributed in part at least to the great prevalence of errors in feeding and in part to the warmer climate, which favours the occurrence of infectious diarrhœas. On the other hand, in the greater mortality from respiratory diseases in England and Wales we see probably in part the effect of a colder climate, but mainly its influence exerted through confinement to the house and the greater liability to deterioration of the general health and to infection thus produced. Professor Concetti makes an elaborate calculation, from which he deduces that the total annual loss in money to Italy owing to this excessive mortality among children under 10 years of age is 192,000,000 of lira.

## UNIVERSITY OF EDINBURGH.

THE five years' curriculum and the raised standard of the Preliminary Examination have had an effect on the numbers of students attending medical classes in Edinburgh University. The following, we are informed, are the numbers who attended the systematic lecture classes during the sessions beginning October, 1895, and terminating in July, 1896: Chemistry, 281; Botany, 228; Zoology, 215; Physics, 267; Anatomy, 213; Physiology, 443; Surgery, 213; Materia Medica, 246; Practice of Physic, 230; Midwifery, 178; Mental Diseases, 99; Ophthalmology, 55.

## UNCONSCIOUS OF HIS FATE.

THE particulars to hand of the meeting between Captain Servonnet, of the French navy, and Monsieur de Maillé, at Tunis, the other day, which resulted in the death of the former, relate an interesting circumstance which confirms the fact that a man may be wounded, even mortally, without being aware of the fact. The combatants fought fiercely with swords for five minutes, when the seconds separated them to allow time for a breathing space. At the second assault Servonnet was hit in the right breast. Not appearing to be conscious of this, one of the seconds remarked, "Captain, you are wounded." "I do not think so," he replied; "I have felt nothing." As he said the words he fell. The doctor ran up, but could only announce that Servonnet was dead. The captain was one of the most distinguished officers in the French navy, and had been promoted only two months before. His age was 47.

## FOUND DRUNK.

WHEN the police in Denmark find any one in the streets drunk and incapable they take him in a cab to the station, where he gets sober under a surgeon's care. On recovering sobriety the police take him home. A bill for the services of the cabman, the surgeon, and the police agents for special duty is then presented to the host of the establishment where the patient took his last drink. In Turkey if a Turk falls down in the street while intoxicated and is arrested, he is sentenced to the bastinado, which punishment is repeated as far as the third offence. After the third bastinadoing he is considered to be incorrigible, and is called "Imperial," or "privileged" drunkard. If arrested after that he has only to give his name and address, and state that he is a "privileged" drunkard, when he is released and conducted home, the bill for these kindnesses being rendered to him for payment next day.

## THE PLAGUE IN INDIA.

OUR Special Correspondent in Bombay writes under date of December 12th: The number of deaths from plague in Bombay stands high—173 last week—and so does the general mortality—65.30 per mille per annum. There is some controversy in the papers as to whether there are or are not cases of plague included in the figures of other headings; but the controversy is obviously idle, all possible measures being undoubtedly most earnestly taken to secure as accurate information as possible. In Calcutta there is no plague epidemic, though there is a plague controversy. Your correspondent by no means claims to have inspired the Lieutenant-Governor of Bengal, but *les bons esprits se rencontrent*. On the day when the BRITISH MEDICAL JOURNAL containing the note on the baboo sanitation of Calcutta reached that famous city his honour administered to the *patres conscripti* such an admonition as to delight lookers-on. To mitigate the striking force of his speech the Lieutenant-Governor hastened to point out that the constitution itself of the Calcutta self-misgovernment is not calculated to secure a good state of affairs, and that he keeps his mind open as to the responsibility of other parties concerned, namely, of course, the Health Department. He quoted the constitution, in every way much superior though perhaps not so self-relying, of the city administration of Bombay, which facilitates the carrying on of municipal business. There is nothing against these considerations; they are correct, and show on the part of the ruler of Bengal a desire to see both sides of the question; for which he will be applauded. But one would like to see the parallel between Calcutta and Bombay extended to the other parties concerned. Bombay not only has an excellent health officer—an enthusiast of sanitation, perfectly devoted to his office and duty—but the Health Department has been, and is given, a far superior organisation and establishment to those afforded to the Calcutta office. There is, in the city representatives and in the public mind here, a readiness, even a spontaneity, of support in matters of reform and improvement which one may look for in vain on the other side of the peninsula. No matter how strong and energetic the European initiator may be, he is bound to succumb in the long run, under the spirit of apathy, carelessness, opposition, which hangs in the atmosphere of Bengal, and unless he is given full, unhesitating support from the other European elements, it is unfair to expect from him interminable struggle, never to be crowned by success or encouraged by sympathy. Now, the attitude taken by some of the European Commissioners on the Calcutta Corporation, or the allusions now made by the head of the Bengal Government, or by the Medical Board newly appointed, do not exactly look like a support or encouragement. On the approach of the present plague scare the Calcutta executive undoubtedly failed, but it was a failure against the injunction, *Surtout, pas trop de zèle!* Talleyrand did not live on this, the wrong, side of Suez, and his wisdom might, perhaps, not answer out here quite so well. It is scarcely advisable to extinguish what little zeal we bring with us to Asia, or what remains of it after some years of residence here. So, before any steps are taken in that direction, *videant consules ne quid detrimenti respublica capiat.*

## CHRISTMAS FARE AND THE SENSE OF TASTE.

THE celebration of festivals by feasting is one of the universal customs of mankind, doubtless because it usually conduces to contentment and a happy frame of mind; and this association is in every way more marked amongst English and Teutonic peoples at Christmas than at any other time of the year. Not that this festive season is now so prolonged as in former days. In the eighteenth century Christmas festivities in England were in full vigour from Christmas until Twelfth Night. It is a happy coincidence that this special season of festivity is synchronous with the winter solstice, the darkest and dreariest period in northern climes, as more food is naturally required by the body in cold weather; it is well, too, that the increased dietary of Christmastide is largely composed of fats and carbohydrates, as in the familiar plum pudding. Not only, however, are the quantity and variety of food consumed at Christmas time increased, especially amongst the poor, whose meagre stock of provisions is augmented by public and private charity, but for most persons below the upper classes of society the quality of food is wont to be improved in several respects, and delicacies at other times unattainable are enjoyed. Thus Christmas, apart from all religious associations and observances, is to the larger portion of the population a great occasion, the greatest in the year, devoted to the "cult" of all that ministers to the sense of taste. Nor apparently does any disadvantage ordinarily result; on the contrary, it is matter for some regret that more attention is not given throughout the year generally to the cultivation of this much discredited gustatory sense. The puritanical habit of regarding all the pleasures of life (at any rate, those produced through the special organs of sense) as heinous sins has not quite died out. Visits to picture galleries or concert rooms—the former affording gratification through the optic, the latter through the auditory, nerves—are now encouraged on every side; but many people still speak with bated breath

of a good dinner, as if to eat it and thus enjoy a succession of pleasant impressions upon the nerves of taste were almost a crime. To the strong, who usually have good appetites and can eat plain fare, it may not be necessary for food to be rendered more than ordinarily attractive by extra care in cooking and addition of condiments; but to many persons with small appetites such embellishment or its absence often means all the difference between a hearty meal and a poor one; whilst if the quantity of food daily taken continues for weeks below the normal, it inevitably leads to impoverished health, a lessened sphere of usefulness in the world, diminished enjoyment of life, and lowered capability of resistance to the many sources of disease constantly assailing one from without. The gustatory sense, therefore, has its importance in the rational enjoyment of life and preservation of health, and, with both these important objects dependent on it, it should be duly considered by many people more so than it is at present. Nor need one be a *gourmet* to see that a meal—dinner, for example—conforms to a few cardinal rules. First, it should furnish a succession of pleasant impressions upon the nerves of taste; secondly, the liquids taken between the solid viands should be those which by experience have been found best suited to wash away the taste of the last dish, and leave the palate a *tabula rasa* for the reception of other equally pleasing impressions; lastly, no dish at the beginning of a repast should be so strongly flavoured as to spoil the palate for the rest of the meal.

## RUMMAGE SALES: A CAUTION.

There are fashions in philanthropy, great and small, as in most other things, and at the present time the practice of holding "rummage sales" during the winter months has become very general. The organisation is simple. Some lady who takes an interest in a particular village, or a district of a large town, announces that a rummage sale ought to be held for the benefit of the poor, and makes requisitions of all the matrons of the neighbourhood who attend the same place of worship. In every household there are numberless articles which have been cast aside, not because they are entirely worn out, but because they have served their turn in that family—frocks which have become shabby or too well known, suits out of which young hopeful has grown or in which he scorns any longer to be seen, utensils of various kinds condemned by the servants. All such articles are welcome to the organisers of a rummage sale. Formerly they were given away by the individual, now they are sold at "ridiculously low prices." It would be churlish to object to a system which has many good points, in particular that the articles are more likely to reach the hands of those who really want them than by any other method, but there is no doubt that these sales have certain dangers with regard to infection. There is a belief, less strong and general than it was, but still far from uncommon, that clothes which have become infected cease to be dangerous merely by keeping. That this is a mistaken notion the history of many epidemics, especially of scarlet fever and small-pox, proves conclusively. From circumstances which have come to our knowledge, it seems to be desirable to call attention to this source of possible danger, more especially as it may easily be guarded against if its existence is brought to the knowledge of the charitable ladies who organise and contribute to these sales.

## COSMETIC PARALYSIS.

A daily contemporary has recently given an account of a "new and fashionable ailment," which is described at some length under the name of Cosmetic Paralysis. It is said to be confined to people who are or who would be fashionable, and to be due to the use of poisonous cosmetics. We are probably not far wrong in saying that the article in question is founded on a paragraph which appeared in the British Medical Journal of December 5th, 1896, entitled Poisonous Face Powders. We called attention to the fact that rice powders used by ladies are no longer composed of powdered rice, but are frequently made up with carbonate of bismuth, white lead, and even arsenious acid. Our contemporary states that bismuth paralyses the small veins so that the circulation of the blood through them becomes impeded, and after a while they become permanently visible in ugly little red lines. This is not in accordance with our knowledge of the pharmacological action of bismuth, and we fear that the stigmata on the cheeks and nose which are described in such graphic language are far more likely to be due to over-indulgence in alcoholic stimulants than to the employment of any face powder, however largely sophisticated. That corrosive sublimate applied locally will induce eczema and other forms of skin eruption we know, whilst the paralysis of various groups of muscles resulting from the ingestion of lead in even very minute quantities is familiar to every clinical physician. Our contemporary has done well in pointing out a rapidly growing evil. The subject has not escaped our attention, and we hope before long to publish a report which will show to what extent the danger is real, and how far the alarm which has been engendered is founded on fact.

## PROPOSED AMENDMENT OF THE VACCINATION LAWS.

Dr. Thorne Thorne and Dr. Monckton Copeman, who it will be remembered visited Paris and Brussels before Christmas to study the arrangements in those cities for supplying calf vaccine and generally for carrying out vaccination, will proceed to Germany on January 2nd or 3rd with the view of studying vaccine stations there. Their first visit will be paid to Berlin, and it is not expected that the Commissioners, who are acting under the instructions of the Local Government Board, will return to this country before January 21st.

## THE ARMY SURGEON IN WAR.

Examples of devotion and self-sacrifice in army medical officers are—to their credit be it said—by no means rare; and in a recent work *To Kumassi with Scott*, several examples are given. Standing out prominently among them is the one of Surgeon-Lieutenant Spencer, who, the author of the work says, "though not well himself, relinquished his own hammock to a worn-out sick man, and not content with that, loaded himself with the accoutrements of some of his men, who were just able to walk when thus relieved. That day's march was not the only occasion that this young officer acted in a similar way; and when the medical staff were reduced by sickness, he laboured day and night tending the patients in his charge."

## DIPHTHERIA IN LONDON.

There was a marked decline in the number of deaths from diphtheria in London last week, 38 fatal cases being recorded against 60, 52, and 58 in the three preceding weeks. Part of this decline is doubtless owing to the delay in registration caused by the Christmas holidays. The fall in the mortality from this disease was most marked in East London, where only 1 death was recorded, against 13, 8, and 14 in the three preceding weeks. In South London 19 deaths were registered, against 23, 21, and 24 in the three preceding weeks; of these, 3 belonged to Bermondsey and 4 to Lambeth. Of the remaining fatal cases recorded last week in the metropolis, 3 were of persons belonging to Marylebone and 3 to Islington sanitary areas. The 38 deaths from diphtheria registered last week in London included 17 of infants and young children under 5 years of age, and 20 of children and young persons aged between 5 and 20 years; while only one death occurred among persons aged upwards of 20 years. The 200 notifications of diphtheria in London showed a marked decline, the numbers in the three preceding weeks having been 267, 293, and 284 respectively. The decline was most marked in West and East London, especially in Paddington, Chelsea, St. George-in-the-East, and Poplar. Among the sanitary areas in North

London the decline in the prevalence of diphtheria was most marked in Hampstead and in St. Pancras; and in South London in Newington, Wandsworth, Greenwich, and Woolwich. On the other hand, there was a considerable increase in the number of new cases notified in Stoke Newington and Holborn. In Camberwell no fewer than 36 new cases were reported, the numbers in the three preceding weeks having been 20, 27, and 41 respectively. The admissions of diphtheria patients into the Metropolitan Asylums Hospitals during last week were 124, against 126 and 120 in the two preceding weeks: and 835 patients remained under treatment in these hospitals on Saturday last, December 26th.

## PROPOSED REBUILDING OF THE MANCHESTER ROYAL INFIRMARY.

The votes of the trustees of the Manchester Royal Infirmary have been cast and counted. The resolution proposed was practically to sanction the rebuilding on its present site, and to carry out a plan of reconstruction such as was proposed by the Grand Committee, while the amendment was: "That it is not desirable at the present time to extend the ground area of the existing infirmary buildings." The number of voting papers issued was 1,349, and of these 852 were returned, with the result that 449 voted for the motion and 403 for the amendment. Thus a small majority of the trustees have voted in favour of the proposal of the Grand Committee. The result will be formally submitted to a special meeting of the trustees to be held in the middle of January. A poll of the trustees has been held on two previous occasions, namely, in 1892 and in 1895. Perhaps this result will lead to a more thorough investigation of the whole question in all its aspects so as to secure the best possible result for the advantage of every interest involved. Clearly upon an issue so important and with a majority so small, indicating the great divergence of opinion amongst the public, the whole question requires to be thoroughly sifted so as to secure that unanimity of opinion which alone can secure the continued prosperity of an institution which is of incalculable benefit to Manchester.

## PHYSIOLOGICAL EFFECTS OF X RAYS.

The interesting report and illustration which we publish of Dr. Crocker's case, together with many other cases already recorded of *x* rays causing trophic changes in the skin and its appendages suggests the possibility that some of the speculations which at the beginning of the year were so often put forward as to the more remote therapeutic uses of the rays may after all be substantiated. On reviewing the cases before us we cannot help being struck by two facts: First, that it is only in isolated cases that such effects have been observed: and secondly, there is no evidence as yet that the condition is an unmixed result of the rays themselves. It is equally curious to note that no definite connection can be traced between the length of exposure and the resulting lesions. Just as many cases have been recorded after one, or at the most two, exposures as after a continuous series of exposures in the cases of public demonstrators and others engaged in research in the subject. The conclusion seems to be that we have to deal with another factor—some predisposing cause that has up to now escaped notice. The fact quoted by one sufferer that gloves soaked in some greasy or fatty material acted as an efficient protective suggests that the factor in question may be the presence or absence of an adequate supply of sebaceous matter in the skin. An analogous condition is present in determining liability to sunburn, with which *x* ray dermatitis has often been compared. Whatever be the predisposing cause in question there is no doubt that it exists, and until it is discovered no very definite prediction can be made as to a possible therapeutic use of the rays. Should it turn out to be the fatty condition of the skin, it is possible that some use might be made of the discovery in the treatment of seborrhœa and allied conditions. That the effect again is possibly not an unmixed one is suggested when we consider that many of the sufferers have been engaged in manipulating platino-cyanides—salts that are known to possess irritating properties—in the preparation of fluorescent screens. The summary of cases given by Dr. Crocker bears out these reflections, and if it is only found possible to determine what the *x* factor is, it seems that we may have in the *x* rays not only a great surgical assistance, but, in addition, an efficient therapeutic agent.

## ST. GEORGE'S HOSPITAL.

H.R.H. the Duke of Cambridge last week opened the new operating theatre of St. George's Hospital. The Duke was received by Mr. T. Holmes, F.R.C.S., the Treasurer of the hospital, and by the members of the surgical staff. In declaring the theatre open the Duke of Cambridge said that he did not believe that amid all the improvements, the advantages and additions which had occurred during the long reign of Her Majesty, any department of knowledge had made so much progress as medical and surgical science. Whether in this country or in foreign countries, there had been an advance of such enormous advantage to the human race as would alone make the period memorable. The surgeons of St. George's would in the future possess in the new theatre a great advantage over the older generation, an advantage upon which he congratulated both the surgeons, the medical students, and the inmates of the hospital. A hearty vote of thanks to His Royal Highness was adopted on the motion of Mr. T. Pickering Pick, and the Duke subsequently visited some of the wards. The theatre is situated on the second floor of the hospital, the walls and ceilings are lined with white glazed tiles, while the floors are of marble mosaic. It is well fitted and adequately lighted. The old operating theatre has been thoroughly remodelled, and will also be available for operations. Connected with them are anæsthetic rooms, a sterilising room, and a nurses' room.

## THE ANNUAL MEETING AT MONTREAL.

The year 1897 will mark for the Association an epoch, inasmuch as the annual meeting will for the first time in its history be held out of the United Kingdom. In the British Medical Journal of December 5th was published a full, illustrated article, giving an account of the attractions which Montreal has to offer to medical pilgrims, of the arrangements which had then already been made for the annual meeting and its Sections, for the accommodation of visitors to Montreal, and also as to the excursions which will afford them an opportunity of seeing some of the most picturesque scenery of the Dominion. In another column we publish a letter from our Montreal correspondent giving some further particulars which show that the meeting, which will commence on August 31st, is already arousing the greatest interest among medical men in Canada. In Professor Roddick the Association will have a President eminent in his profession, and distinguished also in the public life of Canada. He, with the able assistance of numerous committees, has thrown himself with the utmost energy into the work of organisation. Three honorary local secretaries have been appointed—Dr. J. Anderson Springle, who has charge of correspondence with Canada and America; Dr. J. G. Adami, who will perform a like duty for Great Britain and Ireland; and Dr. E. P. Benoit, who will take charge of French and French Canadian correspondence. The Chairman of the Reception Committee is Sir William Hingston, well known to many members of the Association from the Address in Surgery which he delivered at the annual meeting in Nottingham in 1892. The offices of the Local Committee are at 2204, St. Catherine Street, Montreal. As is well known, the population of Canada contains a large French element, and it is intended to take full cognisance of this fact in the arrangements made for the Association and its Sections. The letter which we print in another column from our special correspondent in Chicago shows that many of our

American brethren may be expected to take this opportunity of making acquaintance with British and Canadian practitioners, and with the scenery and capabilities of Canada. The *Montreal Gazette*, in a sympathetic article published in a recent issue lays stress upon this last aspect, and observes that the occasion will draw attention all the world over to the attractions of Canada for tourist travel, and will make widely known the material resources and the industrial and social advancement of the Dominion. It further anticipates that the meeting will give an impetus to medical education and research all over the Dominion, while it will demonstrate the high standard already reached, and will prove that Canadian collegiate institutions do not suffer by comparison with those on this side of the Atlantic. It is, we understand, the desire of the Montreal Executive to afford special opportunities for the discussion of various questions affecting medical education, especially in connection with clinical instruction. The Dominion Parliament has already made a grant of 5,000 dollars towards the expenses of the meeting, and it is expected that the Province of Quebec and the City Council of Montreal will also make grants raising the amount to 10,000 dollars. The preparations which are being made are on an extensive scale, and anticipate a large attendance. We sincerely trust that these expectations may be fulfilled, and that a large number of members of the Association will take this opportunity of making acquaintance with the nearest and one of the greatest of the colonies of the British Empire.

## HOSPITALS AT CHRISTMAS TIME.

Mr. Burdett has given a most pleasant account of Christmas Day at the London hospitals. His profound knowledge of their administration does not hinder him from comprehending the lighter side of the life within their walls, and he praises above all the devotion of the nursing staff, the residents, and the students—their determination to fill the whole place with happiness. Christmas Day lifts to their zenith the sympathy and good fellowship that illumine our hospitals—every ward is made home, every patient receives assurance that goodwill among men is a solid fact. We are, indeed, in some risk of overdoing our festivities—bewildering those who are seriously ill, and upsetting their temperatures. So long as we avoid this excess of hospitality our Christmas entertainments, being of the quality of mercy, are twice blessed; and it is just because of the sombre shadows that hang over hospitals that when festivities come there they have a brightness and a beauty far above the pleasures of a placid and self-centred life.

## THE LAW AFFECTING CORONERS.

We have already mentioned that the London County Council has for some time been endeavouring to obtain an amendment of the law relating to coroners, and suggestions have been submitted to the late Lord Chancellor (Lord Herschell), and the present occupant of the woolsack. The chief proposals made are that in no case should a death be registered without a certificate of the cause given by a registered practitioner or by a coroner after inquest; further, that the medical man giving such certificate should be required personally to inspect and identify the body, and include in his certificate a statement pointing to the absence of accident, poison, violence, or criminal neglect. It is proposed that only a prescribed form of certificate of death should be used, and that each certificate should be sent to the registrar instead of to the family of the deceased. When a medical man could not certify he would be required to report directly to the coroner, and a like obligation would be placed upon relations, friends, and others. Another proposal is that every case of death after surgical operation should be reported to the coroner with a view to preliminary inquiry, and, if necessary, an inquest. It is proposed, also to appoint medical investigators to inquire into uncertified cases, to make *post-mortem* examinations, and to act as medical advisers to the coroners. Under the scheme London would be divided into equal districts, and coroners would be paid by salary based on the number of inquests. Each district would be provided with a court with the necessary officers, as in police-courts, and with one or more medical investigators attached to each court, who would be paid by salary. The obligation to view the body would be abolished, and it is proposed to reduce the number of jurymen to not less than six nor more than eleven, and to compensate them for actual loss of time. With regard to burial, the scheme would make it a penal offence to bury or otherwise dispose of a body without an order from the registrar stating the place and mode of disposal, and that it should be an offence to keep a body unburied or otherwise legally disposed of for more than eight days, except by permission of a magistrate. Lord Herschell, it is stated, expressed himself as in general agreement with the suggestions made, and as willing to assist in giving them effect. Lord Halsbury, the present Lord Chancellor, as late as the end of last November, expressed much sympathy with the objects of the Council, but thought that grave difficulties might be experienced in any attempt to reduce the number of the jury. On the other hand, he saw many advantages in the proposal to appoint medical investigators to make preliminary investigations, and he undertook to give to that and other proposals his careful and sympathetic attention.

# NEW YEAR'S HONOURS.

## A PEERAGE FOR SIR JOSEPH LISTER.

The announcement which we are enabled to make that the Queen has raised Sir Joseph Lister to the Peerage will be received with the most lively feeling of satisfaction throughout the medical profession, which is proud to reckon him among its members, and on which he has already shed so much lustre. His brilliant application of scientific principles to practical surgery has earned for him a world-wide reputation and the gratitude of countless thousands. His own scientific work has gained for him from men of science the highest honour which it is in their power to confer, the Presidency of the Royal Society. It is very meet that these claims to honour and respect should thus be acknowledged by the Crown by his elevation to the Peerage.

This is the first occasion on which a member of the medical profession has entered the House of Peers, and the profession could wish for no representative more honourable or more distinguished.

We have also the pleasure to announce that the Queen has conferred a baronetcy on Dr. Douglas Powell, one of the Physicians Extraordinary to Her Majesty, and Physician to the Middlesex Hospital. It will be generally felt that this recognition has been well earned.

Among the other medical men whose names appear in the list of New Year's honours are Dr. William Raymond Kynsey, C.M.G., Principal Medical Officer and Inspector-General of Hospitals, Ceylon, who receives the honour of Knighthood, and Deputy-Surgeon-General Charles Benjamin Mosse, C.B., A.M.S., Superintendent Medical Officer of Jamaica, who is appointed C.M.G.

# BRITISH MEDICAL JOURNAL REPORTS.

## REPORTS ON THE HYGIENIC CONDITION AND ADMINISTRATION OF METROPOLITAN DISTRICT AND SEPARATE SCHOOLS.

BASED ON THE EVIDENCE LAID BEFORE THE DEPARTMENTAL COMMITTEE.

*(By Our Own Commissioner.)*

### I.—Sutton: Boys' and Infants' School.

This school is the largest of the district schools in the metropolitan area; it contains 1,541 children—1,076 boys between 8 and 14 years of age, and 465 infants, both boys and girls, under 8. These children are sent by the Camberwell, Greenwich, St. Olave's, Stepney, and Woolwich Unions. During 1894 there were 1,164 admissions and 1,194 discharges.

The returns furnished by the medical officer to the Poor-law Schools Committee are most suggestive. Under the heading of "number of cases treated in infirmary during the year ending Lady Day, 1894," the enormous figure of 8,421 is given (p. 50, vol. iii), while under the heading of "number of cases of children receiving medical treatment without being in the infirmary during the year ending Lady Day, 1894," the answer returned is 2,540 (p. 51, vol. iii).

In plain language, the total number of cases of sickness treated during the year has been 10,961, and this out of a school of 1,541 children; or, in other words, each child has been ill 7 times in the year. The death-rate in the same period was 46, or 30 per 1,000. When we come to inquire more closely into the nature of these diseases, we find that in 1894 there were 4,678 cases of ophthalmia, 2,815 attacks of ringworm, "several diseases" victimised 910 small mortals, and 26 were entered as "under treatment for chilblains" (p. 50, vol. iii). Besides these ills, 250 chidren were in the same year attacked by measles, of whom 10 per cent. died.

On a given date in 1894 there were 93 boys and 164 infants in the infirmary—a total of 257 out of 1,541; or, put otherwise, it reads over 16 per cent. of the entire school were under treatment which required isolation. But this does not exhaust the inventory of sickness, for another question elicits the fact that, besides those in the infirmary, there was a number representing "14 per cent. of invalids in the school," which brings the total up to 30 per cent. of the entire school who were disabled from sickness (p. 50, vol. iii). It would be a sorry condition of things if every workman who had a family of three or four children had one or another of them always in the hospital, and yet this is what these figures amount to if translated into the conditions of family life.

The medical officer is also asked to state the number of cases for which he has "ordered tonics or special diet during the last twelve months," but on this point he declines to commit himself to figures, replying that "there is a number of cases, but it is impossible to specify the number." This indefinite figure must, therefore, be added to the 30 per cent., in accordance with such experience of aggregated schools as the reader may possess. The longer his experience the larger probably will be the figure he will insert.

#### Management.

It is interesting to turn from the reports furnished by the school medical officer to the evidence elicited by the able and conscientious work of the Poor-law Schools Committee and learn from it something of the past ailments from which the school suffered and what the managers have done to cure, prevent, or minimise such ills.

As ophthalmia figures most largely in the medical officer's returns, it would be well to consider it first. In April, 1893, ophthalmia showed itself in the schools (4634); in May and June the epidemic increased, until in September there were as many as 121 cases among the boys and 94 among the infants (4637). In November Dr. Stephenson went down, at the managers' invitation, to inspect and advise, and reported that out of 1,500 children he found 462 who "required medical attention for ophthalmia in some form" (4641).

His report, which was placed in the managers' hands in November, 1893 is practical, able, and moderate. He recommends that wooden troughs for washing be abolished. In December, 1894 (thirteen months later), the troughs were still there and in use. He states that the iron house used as an infirmary was "inefficiently" ventilated and quite unfit to be inhabited by any class of children (6598). In December the iron house remained unfit and unventilated—in the same state as it was when the report was made. He reports that the infirmary "enjoys with the iron house the distinction of being the worst of the buildings at Sutton," and "disclosed a state of affairs one would have believed to be impossible in these days" (6601). "The ventilation" he reported to be "very bad, the corridors were dark and ventilated into the sleeping rooms" (4719—21). This condition of things remained, when the Committee took evidence, practically the same. He found the infirmary "overcrowded in every part;" "those 10 wards," he states, "have a total floor space of 7,692 feet, allowing 50 square feet for each bed—not one whit too much for a general infirmary—the rooms will accommodate 147 patients. Yet upon the occasion of my visit they contained 231 children, of whom all save 9 were under treatment for ophthalmia" (4736).

In spite of this report, the chairman and superintendent of the schools had, under cross-examination, to acknowledge that the infirmary "had not been abandoned" (4743-4) nor "a new one built," though the subject had been "under the consideration of the managers" for many months previous to the appointment of the Poor-law Schools Committee, pending whose report the Local Government Board had practically stopped increased building.

Dr. Stephenson also pointed out that an infirmary yard which was "dusty and full of holes," and "used for drying wet clothes," was not conducive to the health of ophthalmic patients; but the yard had been untouched when the evidence was taken, and the wet clothes still hung in it (4752-3).

In the boys' schools the same report (4755) condemns the closets; (4760) the washing arrangements; and (4766) the plan of allowing "the little boys to undress in the day room and go naked along a passage to the bath room;" and it recommends the warming (4772) of the juniors' lavatory, the provision of a little boys' gymnasium; the lighting (4778) and ventilation of playshed; (4786) bandroom; and (4783) tailors', carpenters', and shoemakers' shops. But from the cross-examination we learn that, though the closets are "under alteration," the other recommendations had not been carried out, yet they were made by a gentleman whom the managers had invited to help them out of their disgraceful hygienic condition.

"I do not agree there with Dr. Stephenson" (6608) explains the Chairman of the Boys School Committee, a Mr. Smith; and when it was put to him that Dr. Stephenson was invited to advise the Board because he was a specialist on ophthalmia, a disease which their mismanagement had resulted in allowing to assume most serious proportions, he acknowledged that he put his opinion against that of Dr. Stephenson (6609), and that it would "be strange indeed if he were able to agree with every word" (6610).

Amongst other suggestions, Dr. Stephenson stated that he considered that the care of 2,000 children was too much for one medical man, and advised that the medical officer should have assistance. Of this recommendation the Chairman said (6606) "the Board had not felt themselves called upon to take any notice," for "Dr. Rice himself is not wanting it" (6605), and even the suggestion that it might be wiser to take the opinion of Dr. Stephenson, failed to elicit more from Mr. Smith than that he believed the medical officer "was a man of good experience" (6606).

In the deputation that waited on Mr. Shaw Lefevre in July, 1894, and which was the immediate cause of this Committee whose work we are now considering, Mr. Ernest Hart said that ophthalmia was a disease "created in the barrack schools." The evidence given on Sutton schools goes far to justify this remark.

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The Royal Infirmary at Newcastle-on-Tyne.—The Northumberland miners have decided by a ballot to contribute £5,000 to the fund which is being raised to rebuild the Royal Infirmary at Newcastle-on-Tyne in celebration of the 60th year of Her Majesty's reign. Nearly £73,000 has already been subscribed towards the £100,000 which it is hoped to raise.

## THE WORK OF THE METROPOLITAN ASYLUMS BOARD.

Some interesting reference to the work of the managers of the Metropolitan Asylums Board, of which Sir Edwin Galsworthy is chairman, is made in the *Times* in its review of Poor-law administration in London. This body was formed for the purpose of providing accommodation for the infectious sick and harmless insane poor, but its duties have grown so considerably that its net expenditure last year amounted to £553,975, and its liabilities on loans to £1,563,844. With work involving such large sums as these, it is not surprising that the policy of the managers is constantly the subject of severe criticism. The condition in the matter of hospital provision for infectious cases does not now leave much to be desired, and this state of things is due to the untiring zeal of a body which has not as yet aspired to the dignity of being popularly elected. Difficulties, which only those who have to do with infectious diseases know much about, have had to be overcome, and since the passing of the Notification of Diseases Act and the removal of restrictions which prevented any person who did not wish to be classed as a pauper from being an inmate of any of the Board's hospitals, the work of making provision for patients has been enormous.

### Hospital Provision.

Considerable progress has been made in the last twelve months in the important and much-needed structural alterations and additions to the existing hospitals of the Board and with the provision of new hospitals. The first of the new permanent hospitals—the Brook Hospital at Shooter's Hill, Woolwich—was opened for the reception of patients on August 31st. It provides accommodation for some 500 fever and diphtheria patients. The Board have now in active work eight hospitals for patients in the acute stages of disease, situate respectively at Homerton, Tottenham, Hampstead, Fulham, Tooting, Stockwell, Deptford, and Woolwich, and hospitals for convalescent patients at Winchmore Hill and Darenth, near Dartford. These hospitals, in the aggregate, provide beds for about 5,000 patients. The Board also have in course of construction additional hospitals for acute cases at Lewisham and Lower Tooting, and have acquired a site for a convalescent fever hospital at Carshalton. When it is borne in mind that only five years ago the Board's normal accommodation in five acute and one convalescent hospital did not amount to more than 2,100 beds, that to erect and properly equip a permanent fever hospital of 500 beds costs considerably over £200,000, and that such a hospital cannot well be built, furnished, and staffed within a less period than about two years, the endeavours of the managers to fulfil the duties cast upon them by the Legislature may be better appreciated than they have been.

### Record of Cases.

The cases of infectious disease notified in London during the current year have numbered 46,158, including 223 cases of small-pox, 23,991 of scarlet fever, 12,268 of diphtheria, 2,955 of enteric fever, and 18,721 of other diseases. Scarlet fever and diphtheria were more prevalent than during 1895. Of the notified cases, the Board have treated in their hospitals about 21,000, including 15,064 cases of scarlet fever and 4,889 of diphtheria. At the present time the Board's fever hospitals contain 4,753 patients, or an increase over the number under treatment at this time last year of 1,235. There is not a single case of small-pox under treatment, nor has a case of this disease occurred in London for several weeks past. The Board possesses a very efficient ambulance service.

In the Board's asylums for adult imbeciles there are 5,032 inmates, and there are also 982 patients in the Darenth schools for imbecile children. Not the least important of the duties of the Board is that connected with the education of Poor-law children on board the training-ship *Exmouth*. The vessel now contains 523 boys, and the results obtained from the treatment of the children for years past reflect great credit upon all concerned in the administration of the ship.

In concluding this review of the work done by the Poor-law authorities of the metropolis, it is only just to say that, whatever may be the policy pursued in the various districts, the services rendered by the Boards of Guardians have been characterised by high motive and great zeal. Along with a desire to serve the interests of the ratepayers, there has been shown in most quarters a sympathetic interest in the sufferings of the poor and a wish to prevent, as far as possible, the spread of pauperism.

## THE INTERMENT OF PASTEUR.

[From a Correspondent.]

The ceremony of depositing the remains of Louis Pasteur in the mausoleum which had been prepared for them in the institute in Paris which bears his name took place in Paris on Saturday, December 26th, under circumstances at once touching and imposing. The gathering was a remarkable one, inasmuch as it comprised all the more eminent men of science and letters in France, and a considerable contingent from other countries, all anxious to show their admiration of the great *savant*, and to record their respect for his memory. The day was fixed to correspond as nearly as possible with Pasteur's birthday, December 27th. This being a Sunday, the previous day was chosen. Notwithstanding the inconvenience of the date, a number of representatives from England and other countries abandoned their Christmas gatherings in order to show their appreciation of the character of the great chemist; and to recognise the signal benefits he had conferred on man and on the lower animals.

There were present representatives of the President of the French Republic, of the Council of Ministers, of the Senate and of the Chamber of Deputies, of the Municipal Council, of the Institute of France, and of the French Academy. All the learned bodies were represented by some of their most distinguished members. England was represented by Sir Joseph Lister and Sir John Evans on behalf of the Royal Society, by Sir Dyce Duckworth on behalf of the Royal College of Physicians, by Sir William Priestley, M.P. for the Universities of Edinburgh and St. Andrews, and by Professor Crookshank for King's College. The Sanitary Institute was likewise represented, and Professor Stirling, of Manchester, and the Hon. Alan Herbert, M.D., were also present.

The ceremony began with a religious service at Nôtre Dame, where the body of Pasteur had been deposited since the State funeral last year, until the mausoleum to which it was to be permanently consigned was prepared. This religious service was intended only for members of the Pasteur family, but Lady and Miss Priestley were invited by Madame Pasteur, as intimate friends, to be present, and they accompanied the funeral procession from the Cathedral to the Pasteur Institute. The service, which began soon after 8 A.M., was most impressive. "The dim religious light" of the breaking day, combined with the beauty of the music in the historic building, appealed strongly to the imagination and rendered the occasion most solemn.

In the meantime the distinguished men who had been invited to take part in the final proceedings had assembled to the number of 300 or 400 in the large library of the Pasteur Institute. The members of the French Institute and Academy appeared in their green and gold dresses, and other academic bodies wore their official costumes, but the coldness of the day obliged them to wear overcoats besides. The military and other officers were in uniform, and the British delegates wore academic gowns with hoods.

When the funeral procession arrived the coffin was borne along the principal corridor and down to the crypt, followed by M. Pasteur's only son, his son-in-law, M. Valéry-Radot, and other male relations. With them were M. Duclaux, director of the Institut Pasteur, the Drs. Roux, Chantemesse, Brouardel, Delbet, Grancher, and Metchnikoff. Immediately after these the guests filed in lines of two or three deep, the place of honour being accorded to the British delegates, who came after the family, the members of the Government, M. Bertrand, the President of the Council of the Institut Pasteur, and other officials. Madame Pasteur and the ladies, who had entered by a private door, were in the crypt when the coffin arrived.

The final ceremony commenced by the Abbé Rivat offering prayers and pronouncing absolutions, and then M. Pasteur's son, M. J. B. Pasteur, who is First Secretary of Legation at

Madrid, in a voice broken by emotion, consigned his father's body to the care of the future authorities of the Institut Pasteur. M. Bertrand replied, accepting the trust, and eulogising the great founder of the Institut. Then followed MM. Rambaud, Paul Baudin, Legouvé.

The British delegates spoke next. Sir JOSEPH LISTER said:

Je suis chargé de représenter la Société Royale de Londres, le Collège Royal des Chirurgiens d'Angleterre et la Société Médico-Chirurgicale de Londres. Aussi j'ai fait déposer, de la part de l'Institut Britannique de la Médecine Préventive, fille de l'Institut Pasteur, une couronne ici. Il y a quatre ans, à l'occasion du jubilé de Monsieur Pasteur, j'ai eu le suprême honneur de lui présenter au nom de la Médecine et de la Chirurgie du monde entier, l'hommage de leur reconnaissance. Aujourd'hui, j'assiste à ses funérailles! Cette cérémonie est noble et imposante, digne de la mémoire de notre vénéré maître. Mais elle nous remplit d'une profonde tristesse, puisqu'elle nous rappelle que cette grande lumière de la science, si ardente et si claire, est éteinte; que ce caractère, si noble et si aimable, a disparu de notre monde.

He was followed by Sir DYCE DUCKWORTH, who said:

Au nom du Collège Royal des Médecins de Londres, j'ai l'honneur de témoigner la vive sympathie avec laquelle les Médecins d'Angleterre s'associent à cette touchante cérémonie. Je porte l'hommage de mes confrères à ce grand génie créateur, à ce noble caractère de Louis Pasteur. Pour nous, il est un des prophètes de la science; il en est un des avant-coureurs les plus éclairés et les plus intrépides. Vénérons ensemble ce bienfaiteur de l'humanité! Vénérons ce Chrétien loyal et convaincu, dont la foi a resisté à toutes les influences matérialisantes de ses études! Que l'œuvre de Pasteur, dont les cendres reposeront désormais dans ce sol consacré par son travail, reste une des gloires impérissables de la France et du monde!

Sir WILLIAM PRIESTLEY, M.P., who spoke next, said:

I have been appointed to represent here to-day the two Scottish Universities of Edinburgh and St. Andrews, in token of respect to the memory of one who has done so much to advance the interests of science, and who has conferred such signal benefits on mankind. The University of St. Andrews is the most ancient in Scotland, and its authorities have kept in grateful recollection the kindness extended to some of its students in Paris by a Committee of which M. Pasteur was the chairman. The connection of M. Pasteur with the University of Edinburgh is a more intimate one. At the celebration of the tercentenary of the University it conferred an honorary degree on Pasteur, and received a reflected honour in enrolling so distinguished a name on its list of graduates. Those who were present on that occasion will not readily forget the magnificent ceremonial. France was represented, besides M. Pasteur, by Caro, Mézières, Guizot, Ferdinand de Lesseps, and my dear and lamented friend Henri Gueneau de Mussy, with others. I sat beside Pasteur, and the enthusiasm with which he was greeted knew no bounds. I had the privilege of receiving an honorary degree at the same time, and considered its value greatly enhanced by being in such distinguished company as the celebrated Pasteur and his *confrères*. Both Universities I represent desire to show their sincere appreciation of M. Pasteur during his life, and to do all honour to his memory now that he is no longer with us. For Pasteur not only made great discoveries which have conferred priceless benefits on man and on the lower animals, but he opened up new and hitherto unexplored paths in the field of science, the horizon of which seems almost unlimited. M. Pasteur had the great gratification of seeing some of the results of his discoveries in the application of antiseptics in the treatment of wounds, in the hands of my illustrious colleague Sir Joseph Lister, and also in the prevention of puerperal fever in lying-in hospitals. These are only some of the results, and others may be expected to follow. It is recorded of M. Pasteur that he said prophetically, "You will see how it will grow by and by. Would that my time were longer!" Her Royal Highness the Princess of Wales, in writing her name in the Pasteur album, said most appropriately, "A ce grand Monsieur Pasteur, le bienfaiteur de la race humaine."

Sir JOHN EVANS and Professor CROOKSHANK also spoke.

After them MM. Cornu, President of the Academy of Sciences; Bergeron, Perpetual Secretary of the Academy of Medicine; Perrot, Director of the Ecole Normale; Tissier, President of the Students' Association; and, lastly, M. Duclaux, who paid a touching tribute to his old and revered master.

The speeches over, the visitors passed into the crypt to inspect closely the inscriptions on its walls, and the beautiful designs in brilliant mosaic work decorating the interior of the mausoleum. The crypt and its contained sarcophagus are really beautiful works of art, whether looked upon from an architectural point of view or from that of appropriateness as a fitting memorial for so great a man of science.

In the centre of the chamber stands the sarcophagus of porphyry, the covering slab in one piece, with simply the dates inscribed—1822-1895—indicating the beginning and end of Pasteur's life. The walls are inlaid with pictorial designs in beautiful gold and coloured mosaic work indicating the various investigations undertaken by Pasteur, and on each side of the sarcophagus are large marble slabs giving the dates of each discovery. The architect, M. Girault, has been most happy in his choice and completion of design, and general approbation is expressed of his work. He computes that half a million of mosaic cakes have been employed during the construction of the crypt.

The dado and slabs bearing inscriptions are of serpentine and Swedish porphyry, and four beautiful figures by Luc Olivier Merson decorate the cupola representing Charity, Science, Faith, and Hope. At the extreme end of the chamber is a small altar, surrounded by a gilded railing of chaste design, and the entrance is closed by a gate of elaborate iron work, which is much admired. Over the gate is inscribed in simple and touching words:

"ICI REPOSE PASTEUR."
[And a little further on]
"HEUREUX CELUI QUI PORTE EN SOI
UN DIEU UN IDÉAL DE BEAUTÉ
ET QUI LUI OBÉIT,
IDÉAL DE L'ART, IDÉAL DE LA SCIENCE,
IDÉAL DE LA PATRIE,
IDÉAL DES VERTUS, IDÉAL
DE L'EVANGILE."

The whole work, the loving memento of his widow and children, is in every way worthy of so great a man.

## THE PLAGUE IN INDIA.

*Serious Increase of the Plague in Bombay.—Revival of Segregation.—Increase in the General Death-rate.—Alleged Increase in Remittent Fever.—The Use of Antitoxic Serum.—The Mortality to the Last Week in December.—The Plague at Karachi.—Special Precautions at French Mediterranean Ports.*

THERE is no doubt that Bombay is now feeling the plague most acutely, and, as the number of persons attacked and the number dying are increasing week by week, it is impossible to hazard a remark about the future.

The abolition of segregation, in deference to the caste prejudices of several sects, has had its evil effects and taught its lesson, for we now read that segregation methods are being resuscitated, and for the most part at the instance of the natives themselves. The residents in Bombay are no longer regarding the outbreak as a mild one which can be "stamped out by vigorous measures," but have gone to the other extreme and declare that Bombay must suffer for two years. Should native resistance to segregation be continued a military *régime* is threatened.

The numbers of the plague-affected are as follows:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| December | 6th, 1896 | .... | 48 | attacks | ... | ... | 28 | deaths |
| ,, | 7th | ... | ... | 23 | ,, | ... | ... | 28 | ,, |
| ,, | 8th | ... | ... | 55 | ,, | ... | ... | 37 | ,, |
| ,, | 9th | ... | ... | 42 | ,, | ... | ... | 30 | ,, |
| ,, | 10th | ... | ... | 49 | ,, | ... | ... | 41 | ,, |

A more alarming feature, however, is that the general death-rate has increased enormously, so that during the second week in December, 1896, it is stated that the weekly death-rate exceeded the average of the five previous years by 591. The one disease which is increasing side by side with plague is remittent fever, and to such an extent that the number of deaths from that disease exceeded by 132 per week previous corresponding records.

The view taken by some medical men is that these cases of "remittent fever" are really plague cases, and that the only difference between the two diseases is the presence or absence of buboes. This view would seem to be in accordance with previous belief, and we would advise all medical practitioners in Bombay to found their diagnosis on the presence or absence of the bacillus. There is no other method of diagnosing plague which can be even approximately relied upon.

Dr. Haffkine received a small quantity of Dr. Yersin's antitoxic serum on December 9th.

The plague statistics in Bombay give 2,437 cases and 1,735 deaths down to December 30th. The deaths during the past week numbered 1,853, equal to a rate of 115.41 per 1,000. The epidemic, it is stated, has advanced to the suburbs and also to Bandora. The health of the Europeans, it is stated, remains satisfactory.

Perhaps the most serious piece of news, however, is that Karachi has been officially declared to be infected with plague. This raises fears that the infection may reach the ports of the Persian Gulf. The Persian Sanitary Council have given orders that measures should be taken for the protection of Persia, but as those prtoposed appear to be of the nature of quarantine restrictions, here is too much reasons to fear that they will, as on previous occasions, prove to be inefficient.

The French Committee of Public Hygiene had the prevalence of plague in Bombay under consideration last week, and special instructions have been given to the medical officers of health in Marseilles and other ports to exercise the utmost vigilance with regard to ships coming directly or indirectly from Bombay. They are directed to carry out minute individual inspection of all the sailors and of all passengers, especially of all natives of India.

## THE BATTLE OF THE CLUBS.

### Yarmouth.

We have on previous occasions given some account of the origin of the difficulty between the medical clubs in Yarmouth and those medical men in the town who have hitherto acted as their medical officers. Briefly stated, the facts are that the medical officers finding that the club system was being abused, and that under the circumstances which had grown up the practice had become worse than unremunerative, proposed to the clubs certain alterations which, as we pointed out at the time, were of a most reasonable and moderate nature. They comprised certain increases in the scale of fees and the right to discriminate as to the social position and earnings which should exclude persons from receiving medical attendance at club rates. These proposals were rejected with vehemence by the club managers and members, and the result has been the establishment of a medical institute by the friendly societies which have amalgamated for the purpose. As medical officer to the new institute, the clubs have obtained the services of Mr. T. Patterson Devlin, L.R.C.P., L.R.C.S.Ed., who is described as formerly of Bristol. The amalgamation, we are informed, at present possesses about 2,000 members, and consists of the members of those clubs that were able, owing to the fact that their medical officers were subject to annual re-election, to terminate their agreements without notice. Other clubs have given three months' notice to their medical officers, and will join the institute at Lady Day; after that date the probable strength of the membership for the amalgamated institute will be about 6,000. It will then comprise all the clubs in Yarmouth, with the exception of a few societies numbering perhaps some 400 or 500 members who have accepted the terms of their medical officers. Throughout, we are glad to learn, all the medical practitioners in Yarmouth have held together, and there is no sign of wavering. The clubs have boasted in the press that the "doctors' strike," as they term it, "has completely failed." On the other hand, the medical men themselves consider that through their united action the attempt on the part of the clubs to force their medical officers to work for them at starvation pay "has completely failed." At any rate, the profession in the borough has been relieved of much unremunerative work, and there is reason to believe that those clubs which have been wise enough to perceive the advantage of retaining their old medical attendants by conceding the terms asked will increase rapidly in numbers and prosperity.

The medical profession in Yarmouth are to be congratulated on the stand which they have made, but not so much can be said for the medical man who has thought fit to come to the rescue of the clubs by accepting the office of surgeon to the new institute. When in March next the membership of the clubs rises to 6,000 or more, it is hardly to be supposed that the committee will expect one medical officer to carry on the whole of the work, and we would earnestly warn members of the profession who may be approached with the object of inducing them to accept office under the clubs to consider well whether their duty to the profession and to themselves ought not to lead them to refuse to give any assistance to a system of practice contrary to the best traditions of the medical profession, and contrary, we firmly believe, to the best interests of the public.

A satisfactory result of the contest is that it affords evinence that practically the whole profession of an important town can be got to work together for the common good. Let this spirit spread and gather strength throughout the country, and the number of candidates for the post of medical officer to such institutes as this, which at the present time is by no means great, will diminish—let us hope—to the vanishing point.

### Penge and Beckenham.

There has been lately much agitation throughout the Penge and Beckenham district among the local profession on the question of benefit clubs, and a determination has been steadily growing to make a stand against the present abuse of the club system.

At a meeting which took place recently under the auspices of the Beckenham and Penge Medical Society, it was unanimously decided that, unless certain alterations were made, the doctors of the district would decline in a body to attend for the clubs in future illnesses on club scales. The suggested alterations were: (1) a wage limit of 35s. per week; (2) that the subscription of members be 6s., instead of 4s.

Mr. Frank Sturges, the President of the Penge and Beckenham Medical Society, in a letter to the *Daily Telegraph* of December 28th has put the matter extremely well. "For the protection of the dignity of the profession," he writes, "it is necessary to establish a minimum fee, not a fixed amount, but one varying according to the condition of the locality." "As we wish to fix our own minimum," he continues, "and the rate is to be one well within the reach of the humblest of our patients, it is plain there must be some discretion as to those who should enjoy it, and that can only be brought about by the fixing of a wage limit. We contend that, while it is contrary to the ethics of a great profession to refuse help to the poorest without fee or reward, it is just as much so to attend the comparatively well-to-do at a rate which, if generally adopted, would land the doctor in the poorhouse." He concludes by denying a statement that appeared in the press saying that the Penge doctors were not unanimous in their vote on this question.

It is satisfactory to find that the opinion of the profession is rapidly growing on this important question. Medical men are now combining in many places throughout the country to demand a more equitable rate of payment for their services, and to check the abuse by which wealthy members are allowed to avail themselves of medical aid at a rate of payment never intended for any but the poor. Friendly societies will soon be forced to confess that the present system cannot continue, and the sooner they acknowledge it the better it will be for them. Unless they have the wisdom to accept the terms of the Beckenham and Penge doctors, their only resource will be to form, as they threaten, a medical institute.

The multiplication of such institutes throughout the country, though an evil, will be less harmful to the profession than the present club system. Wealthy members, who do not scruple to avail themselves of the services of the present club doctor, who is often a well known and highly respected practitioner in the neighbourhood, will think twice before they employ the new institute doctor, who will necessarily hold a very different rank. Common sense will tell them that good men in the profession are hardly likely to risk ostracism for the wretched payment and degrading conditions offered by the institutes. There can be no doubt that this class of member will soon return to the private practitioner, and pay his fees; but it is to be regretted that through their selfishness many of their poorer brethren, who cannot afford to do so, will have lost for ever the services of the old doctors.

## LITERARY NOTES.

The January number of *Science Progress* contains papers on Selection in Man, by John Beddoe, F.R.S.; on the Causes of Variation by H. M. Vernon, M.A., M.B., of Merton College, Oxford; on the Cell and Some of its Constituent Structures, by Professor J. Bretland Farmer; on the Origin of Lakes, by J. E. Marr, F.R.S.; on Liquid Crystals, by Professor H. A. Miers; on Sugar: the Outlook in the Colonies, by Mr. C. A. Barber; on the Glossopteris Flora, by Mr. A. C. Seward, of Cambridge; on Condensation and Critical Phenomena, by Professor J. P. Kuenen, of Dundee, besides notices of books, etc.

The current number of the *Nineteenth Century* contains an article by Mrs. S. A. Barnett, a member of the Departmental Committee of the Local Government Board, on Barrack Schools, in which she reviews the evidence and the report, and arrives at conclusions which are at all points in concurrence with those which we have already expressed. The

article is an extremely able summary of the facts of the case, and a forcible statement of the arguments and conclusions which the Committee have adopted in that historical document. To our readers it will, of course, not be altogether novel, but all must profit by the extremely succinct and well-reasoned exposition of the facts and conclusions of this important matter.

Lady Priestley, in "Nurses à la Mode," in the same review, gives a smart criticism on the somewhat extravagant pretensions and highflown social displays of the "new nurse." She at the same time expresses the opinion that there is need to endeavour to satisfy the requirements of those who neither need nor desire the presence of the highly trained and expensive nurse now chiefly in evidence. The article is likely to give rise to a good deal of controversy. There are several standards in this matter, each of which have their extremely hot supporters. It is a good maxim in such matters that the best is never too good, but it may be found to be too costly for the requirements of the poor.

A fresh number has appeared of Mr. Sydney Rowland's *Archives of Clinical Skiagraphy*. The present issue has been enlarged by the issue of additional plates, amongst which are some representative cases of the application of the *x* rays to surgical diagnosis. To those interested in the application of the method to the diagnosis of cardiac affections, the skiagraph of an adult heart by Dr. John Macintyre, of Glasgow, will be of use, as showing how matters really stand in this direction. Among the other cases illustrated is that of a very typical application of the new method to a case of wiring the bones of the forearm, under the care of Mr. Bland Sutton.

## THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A meeting of the Committee of the Association of Fellows of the Royal College of Surgeons of England was held on December 30th, 1896, at 25, Grosvenor Street, W. In the unavoidable absence of Mr. George Pollock, the President, Mr. F. J. Gant was voted to the chair.

Mr. Percy Dunn, Honorary Secretary, reported that owing to various causes it had not been possible to arrange for the holding of the annual general meeting of the Association, and at the same time pointed out that it would be expedient to call a general meeting of the Association at an early date in the new year.

This suggestion was accepted, and the settlement of the precise date was left for subsequent determination.

The question of raising the subscription of the Association from half-a-crown, as at present, to five shillings was then discussed. Various opinions were expressed upon the subject, and the general view was in favour of the change; but it was ultimately agreed that the matter should be referred to the general meeting.

In accordance with the resolution passed at the last meeting of the Committee, the Honorary Secretary read a special address drawn up by a subcommittee for circulation among the Fellows of the College, inviting them to join the Association and to take an active part in forwarding its objects.

The report was warmly approved and unanimously accepted.

Mr. R. B. Anderson, one of the Honorary Secretaries of Mr. Rivington's Election Committee, presented a report prepared for the Association of Fellows on behalf of the representatives of the Association on Mr. Rivington's Election Committee.

The report was approved and adopted.

Mr. Rivington reported that, in accordance with the request of the Committee, conveyed to him at the last meeting, he had given notice to the Secretary of the College that he would move the resolution in favour of a grant from the Council to the appeal to the Privy Council on behalf of Mr. Anderson, and that he had received an acknowledgment from the Secretary.

Mr. Rivington then called the attention of the Committee to the fact that no report of the proceedings of the Association had been issued since 1892, and expressed the opinion that it would be very desirable to bring the account of those proceedings up to date and issue a copy of the report to members and others, more especially as there was some prospect of the subscription to the Association being raised. He then moved the following resolution, which was seconded and unanimously passed:

That a Subcommittee, consisting of the President, two Vice-Presidents, and the Honorary Secretary, be appointed to draw up a report of the proceedings of the Association, from the date of the last report to the present time, for transmission to the members of the Association.

This completed the business of the meeting, and the Committee adjourned.

## ISOLATION HOSPITAL CHARGES.

The town council of Cambridge have for some time had before them the subject of hospital charges in connection with their isolation hospital for infectious diseases. In April last they passed a resolution in favour of freeing the establishment, and only on the legal aspect of the matter being brought up on a subsequent occasion did the council see need for reconsidering their action. Counsel's opinion was sought as to whether it was binding on them to recover the expenses incurred in maintaining a patient in their hospital, in view of Section cxxxii of the Public Health Act of 1875. The opinion obtained was that the expenses are a debt which must be recovered from a patient, and that the failure of a council to recover the debt would enable a ratepayer to take successful action against them for misappropriation of rates. Hereupon the council wrote to several districts having hospitals with a view of ascertaining what is the attitude of other councils in the matter. Of 55 replies, 28 refer to districts where no payment is made for patients, payment of one or other sort is made in 18 other districts. In 8 payment is made occasionally, and in 1 case the subject has not arisen. Thus the proportion of those districts permitting free isolation is not very much in excess of those making charges either as matter of practice or at times. We venture to think that the replies from the health officers of the districts, had they been invited to express their views on the question, would have been almost wholly in favour of free hospitals, just as were those of medical officers of health in reply to our own inquiries in 1892, as shown in the British Medical Journal of January 28th, 1893. Even as they stand, many of the councils express their doubts as to the legal force of the section in question, whilst others entirely disregard the clause, or openly defy action under its provisions. Some state that the debt having to be recovered from the patient cannot be looked at seriously, since the patient is in so many instances an infant or child of tender years. If, then, one part of the clause is to be construed as binding, how are councils to act in the case of children? Further, although the expenses "shall" be deemed a debt, the recovery is optional. At any rate, the Cambridge Town Council having all the facts before them, have by a majority rescinded their resolution of April last, being apparently frightened by an expression of opinion by one of their number that, in the event of any action being taken by a ratepayer for the recovery from them of rates paid in the shape of expenses for patients, the onus of payment would fall on those who proposed to vote for freeing the hospital. The whole matter as it stands is in a very unsatisfactory state. Legal opinion is now adverse to the ofttimes expressed view of the Local Government Board that hospitals for infectious disease should be made free to all patients using them. And yet the view of the Central Board is the common-sense view. Hospitals are primarily intended for the safeguarding of the public health, and as such should be made as attractive as possible to the section of the public most needing their accommodation. We quite agree that non-residents should be made to pay through their own council, and that patients desiring special accommodation or attendance should be charged; but we most strongly advocate that all ordinary patients coming from the area which the hospital serves should be received at the cost of the district rates. If real doubt exists

as to the legality of freeing sanitary hospitals, by all means let the quibble be set right in some early sanitary Bill. Some districts have already by local Acts made legal provision for freeing their hospitals. An anomaly which deserves to be swept away at the same time is that hospitals should be optional requirements for a district, while payment for their use is, as is now held, compulsorily to be demanded.

# ASSOCIATION INTELLIGENCE.

## COUNCIL.

### NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday the 20th day of January next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M., Saturdays, 10 A.M. to 2 P.M. Members can have their letters addressed to them at the office.

## EAST ANGLIAN BRANCH.

IN a paragraph announcing the election of Mrs. Garrett Anderson, M.D., as President of the Branch, it was stated that among those present at a meeting of the Council of the Branch was Dr. Barnes. It should have been said that the gentleman present was Dr. E. G. Barnes of Eye.

# SPECIAL CORRESPONDENCE.

## PARIS.

*Celebration in Honour of M. Roussel.—Repopulation Congress.—An Action for Negligence in Medical Practice.—The Medical Scandal.*

ON Sunday, December 20th, 1896, the 80th birthday of the celebrated philanthropist and sanitarian, Dr. Roussel, was made the occasion of an imposing ceremony at the Sorbonne. M. Barthon, Minister of the Interior, was in the chair. The President of the Republic was represented. The learned bodies were also represented, and their delegates made suitable speeches. The Association Générale des Étudiants delegated their President, M. Tissier, for this purpose. The Minister gave an excellent address, in which he did homage to the philanthropic work of the veteran Dr. Roussel. The bust of the hero of the day was then unveiled. The Minister then presented to Dr. Roussel the gold medal of the Assistance Publique; also a silver slab on which was engraved the bust of Dr. Roussel being crowned by a child, while another child seated below the bust prepares fresh floral crowns. The Municipal Council and the General Council of the Seine also presented Dr. Roussel with medals. The pupils of the Braille School sang choruses; the poet Francis Fabré recited some of his best poems. The presidents of forty of the societies then filed past Dr. Roussel and presented him with addresses, Dr. Roussel pronounced an address, the Braille pupils performed a march, and the ceremony was then brought to a close.

The Repopulation Congress has assembled for the second time. Its sittings continue during eight days. It was organised by the "Alliance des Savants et des Philanthropes de tous les Pays." This Society was founded in 1892. M. Levasseur, Member of the Institut, was in the chair. He stated that legislators are as impotent as moralists to eradicate the evil which is undeniable. During 100 years the population of Germany has increased 12 per 1,000, that of England 13. If the same proportion continues in 1950, Russia will have 220,000,000 of inhabitants, Germany more than 100,000,000, and France 40,000,000.

The following case has been tried in the French law courts. Mme. B. was treated by a medical men, who correctly diagnosed her affection to be metritis. He called in a *confrère* in consultation. "Sublimate pencils" were ordered, without stating the quantity. The dispensing chemist saw the prescription, and the assistant prepared four of these mercury pencils. Dr. X. applied a third of one of them, containing about 65 centigrammes of mercury. The patient quickly manifested symptoms of mercury poisoning, and her health was injured during three months. When the effect of the mercury passed off her metritis was cured. The patient proceeded against her doctor for injuries by negligence. The Public Prosecutor included in the charge the dispensing chemist and his assistant. The medical man has been fined £4 and condemned to pay £32 indemnity and half the costs of the trial; the dispensing chemist £3 4s., £20 indemnity, and part of the expenses; the assistant £1 12s., £8 indemnity, and part of the expenses.

Several bottles containing anatomical preparations have been taken possession of by the legal authorities, and removed from Dr. Boisleux's clinic in the Rue des Archives, Paris. The police are also making inquiries among the dispensing chemists to discover in their books the prescriptions given by Dr. Boisleux to Miss Thomson. Judge Lemercier has now given the permission to bury Miss Thomson's body. The body of Mdlle. Maday has also been again inhumed at the Bagneux cemetery.

[FROM AN OCCASIONAL CORRESPONDENT.]

*Overcrowding of Students in Paris.—The Successor to the late Professor Schiff.—The Prizes of the Académie de Médecine.*

THE necessity for decentralisation in regard to the higher instruction in France could not be more clearly demonstrated than by the quotation of some facts just presented to the Minister of Education. The "General Council of the Faculties"—recently become the Council of the Universities—makes an annual report to the Minister of Public Instruction regarding the higher educational institutions of the country. The report for the scholastic year 1894-95 has just been presented, and from it we gather that the number of students attending the University of Paris was about 14,000. Of these, theology (Protestant) is represented by 55; law, 4,158 (230 foreigners); science, 444, and 56 candidates for the doctor's degree; while medicine claims the enormous total of 5,445 (4,165 French and 1,280 foreigners, Russia, Turkey, and Roumania furnishing by far the largest proportion of the strangers who reside within the hospitable gates of Lutetia). There were 27 women students in the Medical Faculty. In the Faculty of Letters 1,684 individuals were enrolled, and of these 222 were Frenchmen (61 foreigners). There were 1,802 students of Pharmacy. Of the 14,000 students it is estimated that about 2,000 from one cause or other "followed" the courses for a year, and then fell out of the ranks, but even then there remains the goodly total of 12,000 students in the French capital. As to the examination results there are also some interesting statistics. In law there were 6,448 examinations, that is, personal examinations, and the result was that during the first year 27 per cent. were "eliminated," and 54 per cent.—over one half—of the candidates for the degree of doctor were "refused," a fact of some importance, as from this class are drawn the future magistrates of the country. In medicine there were 8,238 examinations, with 1,394 "adjournments," rather a neat way of expressing what in England receives another name. Naturally in medicine the resources for practical teaching in the sciences are taxed to the uttermost, and in fact in some of the subjects no attempt is made or indeed can be made to give that kind of

practical instruction which is so characteristic a feature of medical education—and in many cases of examination—in England. Hence the bitter cry for decentralisation, but from all appearances the attractions of the capital, and its ancient renown are too powerful, and the long wished for growth of the provincial universities may be realised at the Greek kalends.

The question of the appointment to the Chair of Physiology in Geneva, vacant by the death of Professor Moritz Schiff, is exciting some attention in Paris. Amongst the candidates are stated to be Professor Herzen of Lausanne, Professor J. R. Ewald of Strassburg, son-in-law of Professor Schiff, Dr. Langlois, Assistant in the Physiological Department of the Medical Faculty in Paris under Professor Richet, and well known for his researches on Heat and the Suprarenal Capsule; Dr. Contjean, one of the staff at the Museum under Professor Chauveau; Dr. Contjean's researches on secretory nerves and his other contributions to physiology are also well known. Other names are mentioned, but it is evident that with Prevost as a possible successor, and the candidates already mentioned, a worthy successor to Schiff will readily be found.

At the annual public meeting of the Paris Académie de Médecine, held on December 15th, 1896, the prizes offered for competition during the past year were awarded. The Saint Paul prize (£1,000), as already stated in the British Medical Journal, was divided between Drs. Roux and Behring. The Academy prize (£40) for an essay on the part played by heredity and contagion respectively in the propagation of tuberculosis was divided between M. Georges Küss and Dr. Ausset. The Capuron prize (£56) for an essay on the influence of diseases of the lung in the mother upon the health of the fœtus was awarded to Dr. Chambrelent, of Bordeaux; the Civrieux prize (£40) for an essay on hallucination in mental diseases to Dr. Paul Sérieux; the Daudet prize (£40) for an essay on membranous non-diphtheritic anginæ to Dr. Jacquemart. The Falret prize (£36) for an essay on morphinism and morphinomania was divided between MM. Jacquemart, Paul Rodet, André Antheaume, and R. Leroy. The Orfila prize (£80) for a paper on the etiology of dysentery was awarded to Surgeon-Major M. O. Arnaud. The Portal prize (£30) for an essay on the lymphatic system in its relation to malignant neoplasms was divided between M. et Mme. Christiani, of Geneva, and MM. F. Barjon and C. Regaud, of Lyons. The Pourat prize (£40) for an essay on the relations between thermogenesis and the respiratory exchanges was awarded to M. F. Laulanié. The Laborie prize (£200) was divided between MM. Delorme, Mignon, and Mauclaire. Other prizes to the amount of about £1,600 were distributed among various competitors almost exclusively of French nationality. We have failed to find any English name in the list.

## MONTREAL.

*The Annual Meeting of the British Medical Association at Montreal.—The Profession in Canada and the Association.—Sir Donald Smith's Endowment of the Chair of Hygiene at McGill University.—The City Infectious Hospital.—Bacterial Diagnosis.—A Correction.*

At the annual meeting of the Montreal Branch on December 2nd, the officers of the previous year were, without exception, reappointed, and save for the election of 29 new members, the most important feature of the meeting was a review by the President, Dr. Roddick, of the successive steps that had been taken in the organisation for the annual meeting next August. That organisation is now in full working order. Particulars as to the cost of the journey to Montreal were given in the British Medical Journal of December 5th, page 1659; the latest arrangements made by the excursions, reception, and other subcommittees cannot be announced until they have been ratified by the Executive Committee of the meeting. Suffice it to say that it is hoped that very favourable terms may be published shortly for transit, and for the excursions throughout Canada after the meeting.

The reorganisation of the Toronto Branch through the efforts of Professor A. B. Macallum has already been announced. Professor Macallum is Honorary Local Secretary of the meeting of the British Association for the Advancement of Science, which begins in Toronto on August 18th, and he has throughout shown himself anxious to render the meeting of the British Medical Association in Montreal, which I may remind your readers will begin on August 31st, a complete success. From all parts of the Dominion letters have been received from the presidents of the provincial medical associations and of the local Branches of the British Medical Association, offering to do all in their power to render the Montreal meeting a success. The President-elect, with one or two other active members of the Montreal Branch, will, in all probability, start in a few days upon a tour through Ontario to organise other Branches of the Association in the more importants towns and districts.

More than two years ago, Sir Donald A. Smith, now High Commissioner of Canada, gave to the medical faculty of McGill the sum of £10,000 for the endowment of a professorship for hygiene: but when the medical faculty came to consider the subject, they found it practically impossible, either in Montreal or in any English-speaking country, to hear of anyone capable of teaching with equal authority all the branches of this peculiarly wide subject. Thus, after much consideration, it has been determined, with the consent of the donor, to modify the terms of the original gift, and to establish a department of hygiene rather than endow a single professor. Dr. Craik, the Dean of the Medical Faculty, retains the title of Professor of Hygiene, and will lecture upon sanitary science; Dr. Ruttan, Professor of Organic Chemistry, will give a course upon the chemical aspects of hygiene, with laboratory work in the testing of water and air, and of food stuffs; while Drs. Adami and Wyatt Johnston will give a course in bacteriology and preventive medicine, with laboratory work upon the subject. In this way it is hoped that third year students will, in the course of a year, gain a fuller and more authoritative course in hygiene than is possible by any other plan. The almost inevitable overlapping between this subject and other branches of the medical curriculum will by this scheme be reduced to the smallest dimensions.

In Montreal, as so often is the case elsewhere, we have difficulties in connection with the establishment of an infectious hospital, difficulties which here are accentuated by the fact that two populations have to be considered—namely, the larger French Catholic and the lesser English Protestant communities. Two years ago it was determined that there should be a civic infectious hospital with two divisions, the Nôtre Dame controlling the French and the General Hospital controlling the English-speaking patients. Now on the ground of expense the City Fathers, of whom the majority are French-speaking, have determined that there shall be one civic hospital under the management of the Health Department. Theoretically speaking, the arrangement seems most plausible; but the Protestant community are opposed to the scheme, more especially as the Protestant department of the hospital during this last two years has been most admirably conducted, the nursing has been good, the mortality low, and thereby the custom of removing infectious cases to the hospital has been rapidly popularised. It is felt that by making the change now the advance made thus far towards improved conditions will be sacrificed. What will be the outcome remains to be seen; but on November 27th a final attempt to influence the City Council by means of a large and important deputation of members of the English-speaking community met with considerable success, and, supported by the mayor, succeeded in arresting the new scheme for the next year at the least.

Until the present time the Board of Health of the Province of Quebec, which has its seat in Montreal, has performed all the gratuitous diagnosis of diphtheria, tuberculosis, and recently of typhoid. In Montreal it has been felt that this work in a large space should not devolve upon the provincial organisation, and now on January 1st next the health department of the city will, under the direction of Dr. Laberge, undertake these duties of gratuitous diagnosis for Montreal district.

By an oversight in copying, in my previous letter, reference was made to the first case of the presence of distoma in the liver recognised in America, the word "Sinense" being left out. This form, the distoma Sinense, has been frequently met with in China, and now we hear from Dr. Stiles,

the well-known parasitologist in Washington, that there is evidence of its having been found in America once before. The point of especial interest in the Montreal case is that the parasite was found in the liver of a Chinaman who had been resident for more than ten years in America.

## CHICAGO.

*Professor Klebs.—The Montreal Meeting and the Philadelphia Meeting of the American Medical Association.—New Work by Dr. N. Senn.—Opening of the New Isolation Hospital.—Politics and the State Charitable Institutions.*

Professor Klebs, the distinguished German pathologist, has accepted a teaching chair in Rush Medical College, and an adjunct position in the Chicago Post-Graduate Medical School. These connections are announced to be permanent. Professor Klebs has been particularly well received by the faculties and students, and a stimulus to his selective field of work is anticipated.

A great deal of interest is manifested in the approaching meeting of the British Medical Association at Montreal and the semi-centennial meeting of the American Medical Association at Philadelphia. The American Association meeting will no doubt be very largely attended, owing to the proposed adoption of some unusually attractive features; at the same time, Montreal is certainly going to see many American practitioners at the time of the British meeting. The visit to that city alone (which, by the way, is quite as easily and comfortably reached from the populous northern and western States as Philadelphia), the fact that a new body of professional brothers can be seen in working order, and can become known socially and measured intellectually, and that teaching from new sources may be obtained, and the knowledge that this is to be the first of its kind, and that it will to a very large extent take the place of the Moscow meeting, will turn much attention towards Montreal. Let it not be understood from this that there is any evident feeling of opposition to the Moscow Congress, or that any sense of strife has been engendered. It is simply a question of—first, distance (in the one case a distinguished meeting is brought close to home, in the other it is carried far away); second, a common language; and third, the very fact that although denominated the meeting of the British Medical Association, yet, after all, and in point of breadth and value, it will be regarded, as it will quite be in fact, as having the value and elements of an international assembly. Then there is another factor which will turn many towards Montreal, viz., the open hostility to the American Medical Association in Boston and New York. Of course, these gentlemen would not attend the Philadelphia meeting. They will, however, go to Montreal, and will very decidedly help to swell, not only the members from this side, but their individuality and reputation will lend much to the interest of the occasion, and their going will carry many others. In Chicago and vicinity we look for a division of interest and attendance. A magnificent special train will be run from here to Philadelphia over the Pennsylvania system, and no pains are to be spared by the officers of the Association, and by the authorities of its *Journal*, to make the entire occasion—the journey, the meeting, and the social functions—a most pronounced success. It has been whispered during the past week or two that a few influential minds favoured a joint meeting of the British and American bodies; or, if that were not possible, changing the time and place of the American meeting, so as to pass easily from one to the other—a killing of "two birds with one stone." However, the coming summer is to be full of interest in the matter of large professional gatherings upon this side of the water, and much good, no doubt, will result therefrom.

That indefatigable worker, Dr. Nicholas Senn, has just completed another volume, which bears the title of *Tuberculosis of the Male and Female Genital Organs*. Dr. Senn has also recently finished a revision of his classical work on *Tumors*.

The new small-pox hospital, called the isolation hospital, has just opened its doors, although there is not a case of small-pox to go into it, nor has there been need for its use for some months past. The building or buildings, for there are several connected by open corridors, are commodious and favourably situated in the extreme south-western part of the city, being upwards of seven miles from the commercial centre, and well isolated from other buildings or industries.

The inevitable complications and obstructions to needed and demanded reforms in the management, purposes, and results of the state asylums, particularly those for the insane, owing to political patronage and domination, is well shown in the uncertainty which now surrounds the large institution at Kankakee, Illinois, one of the largest State institutions for the insane in this country. Dr. Gapen, the medical superintendent, has put into working order a thorough system of so-called civil service reform, a graded merit system among all the attendants, nurses, and other employees, and a marked change for the better has come about, even allowing that the evolution has but commenced; and yet all that has been accomplished, and all the promises of far-reaching benefits which have grown around these reform efforts, are imperilled owing to the decline of one political party and the ascendency of another. The chief State executive has the power of appointing the heads of all the public institutions, and it is usually the case that political pressure is brought to bear upon the "hold-overs," and in favour of some aspirant in political affiliation with the new power, and official decapitation of the old incumbent occurs, generally without much regard to the value of his past services. It is in this manner that the reforms above spoken of are now jeopardised, for a succeeding superintendent is not bound to any existing policy, and may have his own predilections; and again, granting that by chance a new appointee is in thorough sympathy with his predecessor's views, in an institution caring for 2,000 mental invalids, requiring a large army of assistants, it would be months before the details of a reform service could be grasped, and meanwhile the bonds of discipline and the highest requirements will become loosened, and only the strongest efforts would be effectual in checking the decline. These conditions—their political vicissitudes—are the chief hindrances to the best influence of our various public charities.

# CORRESPONDENCE.

## THE LUNACY PROBLEM IN LONDON.

Sir,—Your leading article with the above title in the British Medical Journal of December 19th deals with a subject of great interest to alienists, and one which is engaging much attention in the asylum world. The question, I apprehend, is, Do the recent and curable cases get every chance in a county asylum; or is it a fair and reasonable proposition that, by segregating them in a well-equipped hospital, more thorough and advanced treatment would presently be secured and better results obtained?

Assuming that the latter part of this question is answered in the affirmative: I conceive that the most practical method of giving effect to the view held would be to erect a separate block, adequately provided with laboratories, in near association with the county asylum, for the treatment of the recent and curable, a course which is being followed certainly by one county council (and I believe more than one). I gather from your article that in respect of London the suggestion is that there should be a central hospital—presumably in town—with a special visiting staff, remote from the asylums of the county. In the plan I allude to the acute block is a part of and in proximity to the county asylum. There is no question of expense of removal or of special visiting staff of physicians and surgeons; the beneficial leavening of quiet chronic cases can be easily obtained; the scrubbing, household work, etc., of the hospital will be economically attended to; the open-air system of employment fully available.

The block is to be staffed by assistant medical officers, who will presumably be exempted as far as possible from administrative routine. The work required of these will, in my opinion, be of a considerably higher order than that now performed in asylums in general. They will presumably be skilled workers in different branches, and I am therefore prepared to admit that greater expense in salaries might be entailed; "might" because, though the labourer is presumably still worthy of his hire, the market is turgid, and he may not get it. Why should not the London County Council erect an

acute block at one of their asylums, in order to test the matter? This, as I understand, is the plan which is being adopted by the county council previously alluded to; probably the London authorities already have the project under consideration. My own opinion is that the departure is a highly desirable one, and worthy the enterprise of such authorities as have considerable resources at command.

In your article it is observed that the "hospital" will be peopled by cases which tend naturally to recovery under ordinary treatment, cases in respect to which it is difficult to see that the present treatment can be improved upon. I would submit that it is a mistake to allow *a priori* considerations of the kind to numb our efforts. Are there not instances to be adduced of bodily disease in which there is "a natural tendency to recovery?" But such considerations have not deterred hospital physicians and surgeons from interfering, with the purpose of promoting and facilitating by their art the cure of maladies which, left to Nature, would have been tardily and often probably imperfectly performed. I hold that it is quite reasonable to hope that experience will confirm the belief that some of the lapses of acute cases into dementia—partial or complete, of the imperfect recoveries, and of the early relapses after discharge, with which in county asylums as they are we are well acquainted, will, with the acute hospital system, be obviated. To take the cases for the purpose of the acute block from the class already constituting "the staple of the recovery list" is only reasonable at the outset. We must crawl before we can walk. If by the phrase "cases of paralytic insanity" paralytic dementia is referred to, I should demur to the statement that such would be excluded from the acute block. On the contrary, such cases would, in my opinion, be amongst the most desirable for careful study and experimentation in the hospital. As to how far the experience gained with the present curable cases will enable us to advance and encroach upon the proscribed list of to-day, no man can do more than speculate unprofitably.

It is, of course, out of the question to deal satisfactorily with the merits of the acute hospital plan within the compass of a letter. It may, in conclusion, be emphasised that, in reference to the dissatisfaction with the present asylum system, practical expression is being given to such by asylum authorities outside London, with several such institutions under their control, by the erection of an acute block, in the first place, in connection with only one of these institutions.—I am, etc.,

EDWIN GOODALL.

Joint Counties Asylum, Carmarthen, Dec. 22nd.

## THE REGISTRATION OF ASYLUM ATTENDANTS AS NURSES.

SIR,—In replying to the letters of Drs. Wood and Strahan on the admission of asylum attendants to the Royal British Nurses' Association it is necessary, at the outset, to remove a misconception which has arisen with regard to the last paragraph of my previous communication. It is treated by the above correspondents as though it were part—indeed, the chief part—of my general argument against the scheme. In other words, they presuppose, and then attack, the proposition that, the status of asylum attendants being lower than that of hospital nurses, it is an injustice to the latter to admit them to an association which will place them on the same footing. I do not say this proposition is bad, but it had no place in my letter. In so far as the question of injustice resulting to the nurses was considered, my argument was that the training of asylum attendants is incomplete, and consequently that it is an injustice to fully-trained nurses to admit them to an association the membership of which is regarded as evidence of a complete training. The recognition of the difference between these two propositions is of the utmost importance, since arguments going to prove that asylum training is thorough in no way invalidate the second one; for the specialised training of asylum attendants, however thorough, must of necessity be incomplete. Now, Dr. Strahan devotes himself entirely, and Dr. Wood mainly, to vindicating the thoroughness of asylum training, and in so far as they do so, it follows that they meet no objection appearing in my letter.

The misinterpreted paragraph was written under the belief that the promoters of the scheme desired to raise the status of the asylum attendants, utilising the Royal British Nurses' Association for that purpose. It is now contended that no such reform is necessary; but, even taking Dr. Strahan's optimistic letter literally, I am not prepared to admit—having regard for the fact that status is not wholly a question of curriculum—that asylums attendants are already on the same footing as hospital nurses. Here, however, as in my previous letter, I refrain from using this justifiable argument against their admission to the Association. It will suffice to emphasise the fact that, under present conditions, the question of prestige is of more than sentimental importance to the fully-trained nurse.

Dr. Outterson Wood's moderate letter I read with pleasure, but without finding in it a justification of the scheme which, I understand, he is fathering. He divides his argument under five heads. The first deals with the specialised training of the asylum attendant, and is, therefore, as explained, irrelevant. In the same section, it is pointed out that the newcomers are to be entitled M.N.R.B.N.A., as contrasted with M.R.B.N.A., that their names are to appear in a separate section of the register, and that a distinct badge is to be used. These "paper" precautions indicate the danger of confusion between the hospital nurses and the asylum attendants. The danger is real, and is alone sufficient to negative the adoption of the scheme. Under the second head it is argued that some mental cases require a nurse having special experience. The bearing of this fact on Dr. Wood's case is not made evident. To me it seems unfavourable, since it is a plea for the better definition of the nurse specialist rather than for her amalgamation with the general nurse. The third section once more raises the question of curriculum, and in it reference is made to the existence of male attendants as though this fact were favourable to the scheme, and not one of the chief counts against it. The argument appearing under the fourth head is, properly interpreted, self-contradictory; for, if "the Royal British Nurses' Association was founded for the purpose of affording information and protection to the public by publishing in a register the qualification of its nurses," it cannot be its duty "in a greater degree"—or in fact in any degree—to make others who are not generally recognised as trained nurses free of the register. I regret to note that, in the last section, Dr. Wood drops into the *argumentum ad populum*. Finally, he states that the admission of asylum attendants to the Royal British Nurses' Association "will add immensely to its strength and stability, and widely extend its large and increasing sphere of usefulness," thus begging the whole question by using as a clinching argument in favour of the scheme the very thing which it is necessary to prove in order to justify its adoption.

On the whole, Dr. Wood's letter, in contrast with that of Dr. Strahan, is an admission that asylum attendants require further organisation and a register which will command the attention of the public. To achieve this, it is not necessary to disturb the position which the fully-trained nurse has gradually attained—a position the maintenance of which is not only of primary importance to the nurse herself, but, as was shown in my last letter, to the medical profession and the public.—I am, etc.,

Plaistow Hospital, West Ham, E., Dec. 22nd. JOHN BIERNACKI.

## THE PROBABLE GOVERNMENT VACCINATION BILL.

SIR,—About five years ago I submitted to the Local Government Board a plan showing the possibility of so grouping the various sanitary districts in England as to give the medical officer of health of each district, or grouped districts, a salary varying from £150 to £500 per annum. This was without any increase of the salaries given at that time, which have in many cases been raised since.

If vaccination and the registration of births and deaths were added to the duties of the medical officer of health the salaries would be about doubled, and it would thus be possible, with hardly any additional expense, to establish a public health service, every officer with an adequate emolument and independent of private practice. At the same time one of the recommendations of the Committee on Death Certification would be carried out, and it would be possible to carry into practice some of the suggestions of the Royal Commission on Vaccination.

It would be feasible to arrange for the vaccination of children in their own homes, as the medical officer of health being registrar of births would obtain a knowledge of the children's ages and residences that would enable him to arrange the vaccinations in a convenient and time-saving manner. The vaccination officer might conveniently be a sanitary inspector. The difficulty of parents with conscientious objections to vaccinations could be more readily arranged. On registration of birth the conscientiously objecting parent would be handed a form of declaration on oath to be made before a magistrate. On the declaration having been sworn to, the conscientiously objecting parent should return the document to the medical officer of health, who would retain the same until the unvaccinated person were removed to another district. The conscientiously objecting parent would then give notice of removal to the medical officer of health, who would forward the declaration to his colleague in the other district, with whom the conscientiously objecting parent would register his new address. Thus the whereabouts or every unvaccinated person would be known to the medical officer of health. Penalties would be enforced in the event of neglect of compliance with these regulations.

Calf-lymph stations should be in charge of the county medical officer, who should also be inspector of vaccinations, and the payment for success should be made annually on his certificate.

Should parents desire vaccination to be performed by the family physician, the medical officer of health should supply the lymph and be in attendance, and should afterwards inspect and register the case. Every appointment should be permanent, and should be made by the local authority, or grouped authorities, subject to the approval of the Local Government Board. Part payment of every salary should be made from the central authority, who should deduct a recognised percentage as a contribution to a general pension fund.

I believe that many medical officers of health would be willing to relinquish private practice to take up these appointments, so that almost the sole cost of such a scheme would be the payment of compensation to the registrars and public vaccinators disturbed, together with the extra payments for those cases of vaccination that are not now taken to a public station.

The most convenient sizes for districts would be from 30,000 to 100,000, according to density of population. The larger population would yield about fifty vaccinations weekly at the age of six months, so that in no case would the visits amount to more than twenty a day.

These additional duties would greatly assist the medical officer of health in his ordinary sanitary work, as he would attain a more intimate acquaintance with the people in their homes, and he would also have many opportunities of impressing upon parents the great value of revaccination.—I am, etc.,

Kingston-on-Thames, Dec. 14th, 1896. H. Beale Collins, D.P.H.

## MUNICIPAL HEALTH SERVICE.

Sir,—In an article published in the British Medical Journal of December 12th, 1896, it is laid down that amongst other reforms needed in connection with the above service medical officers of health should invariably be "whole-time men."

In justice to a large body of medical officers who are not "whole-time" men, I must protest against this proposition going forth backed by the weight of your authority, as though it were a settled principle and generally agreed upon. On the contrary, in the opinion of a large majority of the health officials of this country the suggestion is wholly impracticable, and would not conduce to the good of the community at large nor the profession in particular.

As a medical officer of health of twenty-three years' experience, I would like briefly to discuss this position. For twenty years more than 90 per cent. of the public health work of the country has been done by medical officers who were not whole-time men, and has it not been well done? The reply will be found in the progressive diminution in the general and zymotic death-rates, the lessening of the amount of epidemic disease, and the general improvement of the sanitary condition of the community as a whole, so that England stands pre-eminent in this respect. We are now advised to abandon the system under which such magnificent results have been attained, because forsooth it has defects, the chief of which are (in the opinion of the "whole-time men") that men in practice are too much amenable to local influence, and that petty appointments are made with small salaries. The former argument appears to be much more applicable to the "whole-time man," who, if he offends the powers that be, loses everything, while the practitioner who has other strings to his bow can afford to be more independent. As a general rule I believe such officials have performed their duties conscientiously. Certainly the results attained would strongly support this, and it is remarkable that no complaint of the above nature has come from the authorities whom they serve. The evil of petty appointments lies with the local authorities, not the medical officers, but even this may be remedied by the system adopted in Staffordshire and Derbyshire, where superintendent medical officers have been appointed to supervise the local officials, and backed by the powers of the county council to bring careless authorities or their officers to a sense of their responsibilities.

What substitute have the whole-time men to offer for the present mixed system? An entirely independent service, controlled wholly by the Local Government Board. This, no doubt, is the only means whereby a whole-time system could be universally introduced and conducted, especially if fixity of tenure and adequate remuneration are to be secured, but no Parliament would ever listen to such a measure. It would be extremely expensive, and would be subversive of the principle of local self-government, which is so jealously guarded, and upon which the whole system of municipal life is founded. It is utterly futile to hope that the Local Government Board will ever come to the relief of "whole-time men" with such an unpopular measure as this would be.

Again, have the present whole-time appointments no defects? Doubtless the appointments to county boroughs where adequate remuneration is given, and the appointments of the kind described in Staffordshire, are excellent; but there are other county and borough appointments that are open to grave objection. Many combined areas are far too extensive to be efficiently administered by one medical officer, some districts having a diameter of twenty-five miles. How is it possible for the medical officer in such districts to visit and take that prompt action so necessary in respect to the notification of infectious cases? I understand that this important duty is left, in the first instance at any rate, to the inspector of nuisances. Another kind of whole-time appointment is most undesirable, and is generally made in connection with the smaller boroughs, where the medical officer is required to give his entire service for a salary of £300 to £400 a year.

Such appointments are eagerly sought after by junior men, and are no doubt very pleasant and acceptable during the early years of professional life, the glamour of youth stimulating the hope of future promotion; but the higher appointments to which they look are comparatively few, and competition is keen, and will become more so with the continuous stream of hygienic specialists now pouring into our ranks. Consequently the majority must of necessity be disappointed of preferment, and will find that as the result of a life's work of specialism they have attained an income about one-half that of the average general practitioner, with a position much more dependent.

This is the future reserved for the rank and file in the whole-time sanitary service, and I would ask seriously is it sufficiently brilliant that we should ask for an increase in the number of these appointments, and encourage young men to adopt this mode of livelihood to the exclusion of the other branches of the profession?—I am, etc.,

Mark Fenton, M.D.,
Medical Officer of Health, Coventry Urban Sanitary District.
December 19th, 1896.

## IRISH DISPENSARY DOCTORS.

Sir,—May I offer a few suggestions on the subject now before the profession—namely, the red ticket system which is so much abused, and will be so long as the present mode is in force:

1. That a register of families entitled to free medical relief in each dis

pensary district be made out in alphabetical list of townlands, residents therein to be alphabetically arranged. Heads of families only to be registered.

2. That any persons desiring to have their names inserted on such list at any time may apply to the Poor-law guardians of the division in which the townland is situated, and such Poor-law guardians shall thereupon bring such name before the next meeting of the Board of Guardians of the union by a note in writing giving the name, residence, and valuation description and occupation of the person so seeking to be put on the list, and, if the Board shall so order, the name shall be inserted on the list, and such addition notified to the medical officer by the clerk of the union.

3. That the list of each dispensary district shall be made out by the clerk of each union before the day of.....in each year, and a copy transmitted by him to the medical officer in each district.

4. That the medical officer shall attend free members of families appearing on the register in the same way as if a red ticket from a Dispensary Committee member had been produced.

5. That the fees to be demanded by and payable to a medical officer for attendance upon a member of families not upon the register, and whose holdings are under £10 valuation, shall not be more than 2s. 6d. for each visit where they reside within two miles radius of the dispensary, or from 3s. 6d. to 5s. when they reside beyond that radius.

6. That there shall be no limit of valuation for who shall be entitled on application to be inserted on the register for free attendance from the medical officer, providing it shall be made clear to the Board of Guardians that from the circumstances of the applicant they are unable to obtain proper medical attendance otherwise.

7. That the families be returned yearly by the clerks of unions on the register to the medical officer shall be those whose valuations are under £3, or such other families as have been therefore placed on the list by order of the Board of Guardians.

8. That it shall be the duty of the Poor-law guardians and the medical officer to facilitate the registration of families who may be entitled to be registered.

Should any person be improperly registered, it shall be the duty of the medical officer to report same to the Local Government Board.

There are several objections to the present system; the poor requiring medical relief have at the most sudden and dangerous crises to go first (perhaps a long way past or in the reverse direction from the doctor's residence) for a ticket from the Poor-law guardians or dispensary committee man, and if he is not at home they fail to receive the ticket and have then a further journey. The tickets are very often given to persons not entitled to them, and the result is the destruction of a fair practice for a capable medical officer. It was evidently the intention of the Medical Relief Acts to provide relief for the "destitute" poor, and if the system of registration of such in a district were adopted, one journey, namely, to the doctor, would be sufficient instead of as at present two journeys, while this system would secure the medical officer being called on to discharge only the duties he is paid for, namely, attending the destitute.—I am, etc.,

J. STIRLING GREER, L.R.C.P., L.R.C.S.Ed., etc.,
Medical Officer, Ballinagh Dispensary District, Cavan Union.
December 18th, 1896.

*Register 189 .*

| No. | Townland. | Name of Family. | Valuation. £ | s. | Where Resident, that is, on whose Farm, etc. |
|---|---|---|---|---|---|
| | | | | | |

*Notice of P. L. G. of Name to be inserted.*

To the Clerk of the Union:

I give you notice to have inserted on the register of free medical relief for the district of.....the names hereunder set out.

Dated this.....day of.... .....189

| No. | Name. | Townland. | Valuation. £ | s. | Where Resident, Occupation, and other Particulars. |
|---|---|---|---|---|---|
| 1 | Tom Smith | Glenmore | 2 | 10 | Cottier, newly come, resident of cottage on Mr. Robinson's farm. |
| 2 | Robert Jones | Liskeen | 12 | 0 | Farmer resident on own farm. |

Signed).. .....P.L.G... ..... .....Division.

## THE ACTION OF THE AURICULO-VENTRICULAR VALVES.

SIR,—I have for some 15 years been wondering why the theory attributed to Parchappe of the action of the auriculo-ventricular valves is not taught in England, and during the last few weeks I have several times been made aware that it is generally unknown in this country. Now, since it explains cardiac sounds, which are otherwise difficult to understand, and has been accepted by such men as Burdach, Purkinjee, and more recently by Malherbe and Fossion, who have developed it, and J. Béclard, who admits it in the 7th edition of his *Physiology*, 1880, surely it is time that every practitioner considered it. Marc Sée, in his *Researches on the Anatomy and Physiology of the Heart* (Paris, 1875) still further elaborates it, saying that the effect of the contraction of the musculi papillares, which takes place at the same time as that of the muscular walls of the ventricle, is to stretch the chordæ tendineæ and pull down the auriculo-ventricular curtains, and this in spite of the shortening of the longitudinal diameter of the ventricle, admitted by most authors. The musculi papillares of the left ventricle are placed in such a way as to fit into one another, and fill up the left part of the ventricular cavity. In contracting they pull the two flaps of the mitral to the left, applying them one against the other and against the wall of the ventricle. In the right ventricle the papillary muscles apply the flaps of the tricuspid to the surface of the partition.—I am, etc.,

G. COCKBURN SMITH.

Inverness Gardens, W., Dec. 25th, 1896.

## THE URIC ACID DIATHESIS.

SIR,—Mr. Freyer seeks to traverse the position I took at the Medical Society—namely, that the above "diathesis" is a myth, that its symptoms are due to errors of diet, and that when the errors are corrected the symptoms disappear—by the statement that certain native races in India live exactly on the diet I advise, and yet suffer severely from stone.

I reply that it is possible to have excess of uric acid in the body from eating too much nitrogen in any form, and that though diet is undoubtedly the chief factor in causation, there are some others which may powerfully influence the result.

As many of these are fully discussed and illustrated by cases in my book, I will merely enumerate them here as:

1. Large formation of uric acid and urea in children.
2. Large excretion of uric acid in old people as the result of introduction and retention in the prime of life.
3. Effects of drinking beer and wine.
4. ,, ,, scarcity of fresh fruits and vegetables.
5. ,, ,, climate, clothing (cold and heat).
6. ,, ,, fevers, malaria, etc.
7. ,, ,, splenic enlargement, splenic leucocythæmia, etc.
8. ,, ,, menstruation.
9. ,, ,, hard water.
10. ,, ,, wasting disease, as cancer.

And several of these factors obviously bear specially on the causation of stone in India.

Mr. Freyer seeks to limit what I say to surgical cases of stone in the bladder; but if we regard only those portions of the urinary tract which are common to both sexes, men are still much greater sufferers than women; and in this country I am sure that this is due to diet, the chief point being that women consume far less animal nitrogen than men, though the two sexes are also differently affected by several of the minor factors enumerated above.

Again, women are far less subject to gout than men, and Sir A. Garrod[1] quotes statistics putting the ratio at 1 to 40, which is not very far from that which Mr. Freyer gives as the ratio among his own cases of stone in the bladder; but I scarcely anticipate that Lincoln's Inn Fields will endeavour to persuade Pall Mall that this has anything to do with the length of the female urethra.

In my book, also, Mr. Freyer will find a case[2] mentioned of a man who suffered from migraine nearly all his life, but came in old age to be much worried with gravel. I can undertake to cure any similar case of migraine by stopping the introduction of uric acid and keeping nitrogen within physiological limits, and I believe that in this case the same treatment would have prevented the gravel. I should like to hear from Mr. Freyer where in such a case the "diathesis"

[1] *Gout and Rheumatic Gout* ed. iii, p. 212.
[2] Edition iii, p. 195.

comes in. Does he assert that the daily pouring into the body of 6 or 8 grains of uric acid in foods and drinks has no effect on the causation of headache or gravel?

As this is not a question of the diet of a remote Indian province about which my information is, according to Mr. Freyer, so lamentably defective, but one which can be demonstrated any day here in England, if he will furnish me with details of a case which diet fails to cure, or will publish such case or cases in the BRITISH MEDICAL JOURNAL, he need not fear that I shall be ready to meet him, as clinical research is much more to my taste than a battle of words, some of which, as "diathesis used in conjunction with uric acid," have but few shreds of meaning left.—I am, etc.,

Brook Street, Dec. 28th, 1896. ALEXANDER HAIG.

## SAFEGUARDS IN CHLOROFORM ADMINISTRATION.

SIR,—I should like to endorse the opinions contained in the excellent letter of Mr. F. C. Larkin in the BRITISH MEDICAL JOURNAL of December 26th, 1896. For some years past I have taught:

1. That the anæsthetic condition is essentially abnormal, and therefore can never be absolutely free from risk.

2. That although there is no royal road even to relative safety, yet much may be done in this direction by insisting that the student should thoroughly grasp what I believe to be the fundamental principle of all good administration—that is, to concentrate the whole of his care and attention upon the actual administration and the state of the patient, rather than rely in the slightest upon any reputed mechanical safeguard, or any so-called "perfectly safe" method.

3. That as far as chloroform is concerned, it is of great importance not only to observe and feel the breathing, but also "to watch the complexion, colour of the ears, etc., and so get information concerning the actual state of oxygenation of the blood."

It is because of the tendency of the Junker or Krohne's modification to distract his attention that I hesitate to advise the student to use it, at any rate, until he has mastered the first principles of the art; and I also agree with Mr. Larkin that with this particular apparatus it is sometimes difficult to induce such a profound degree of anæsthesia as is occasionally required.—I am, etc.,

Weymouth Street, W., Dec. 28th, 1896. J. FRED. W. SILK.

## THE CHEMICAL CHANGES WHICH TAKE PLACE ON HEATING MILK.

SIR,—Dr. Macphail in the BRITISH MEDICAL JOURNAL, 1896, p. 1767, presents an argument that pasteurised milk is more nearly approaching to milk than sterilised milk. He comes to this conclusion on grounds which are purely chemical, and makes statements which do not appear wholly warranted.

First, grave exception may be taken to the statement that it is to the presence of fat that the higher boiling point of milk than that of water is due. This is quite wrong; it is really due to the osmotic pressure of the dissolved sugar, salts and proteids.

Dr. Macphail states, "When a temperature above 167° F. is applied to milk, then the changes incident to boiling commence. The fat globules are broken up and the fat is liberated, the lactalbumin is coagulated, and changes occur in the milk sugar and casein."

The following statement is more in accordance with the facts. "When milk is raised to such a temperature (certainly below 160° F.) at which evaporation takes place to an appreciable extent from the surface, and at which the cream rises quickly, the larger fat globules have a tendency to coalesce, and fat is liberated in visible globules. Lactalbumin as such does not exist in milk; the alkaline salts of soluble lactalbumin are converted into the alkaline salts of coagulated lactalbumin, which are still soluble and do not appear to be difficult of digestion. The milk sugar is somewhat changed by the action of the alkaline salts in milk; its carbohydrate constitution does not appear to be seriously affected, and the change is not rapid. The casein is unchanged, or so slightly changed that the alteration cannot be detected unless the milk be alkaline, when a portion of the sulphur is removed as sulphide. At high temperatures a deposit of calcium citrate occurs, causing loss of both lime and citric acid. Owing to the deficiency of lime in boiled milk the action of rennet, which produces from casein (in solution as calcium caseinate) the calcium salt of dys-chymocaseose (curd), is modified."

All these changes take place below 167° F., and the difference between milk pasteurised at 167° F. and milk sterilised at 212° F. is one of degree, depending on the length of time the milk is kept at the temperature named, not of kind.

The amendment to Dr. Macphail's statement does not in the least affect the excellent results obtained by the Walker-Gordon Laboratories, but only shows that his very sweeping condemnation of sterilised milk was made on insufficient or erroneous data; were this not the case, it would be difficult to reconcile it with the fact that hundreds of infants thrive on the Aylesbury Dairy Company's Humanised Milk, which is completely sterilised, including many whose lives were despaired of till fed on sterilised preparations.—I am, etc.,

H. DROOP RICHMOND, F.I.C.

Analyst's Office, Aylesbury Dairy Company, Dec. 28th, 1896.

## HOSPITAL REFORM ASSOCIATION.

SIR,—At the request of the Hospital Reform Association, Dr. W. Knowsley Sibley and Dr. Ernest Snape have kindly undertaken to make a report on the special hospitals of the metropolis. The Association will feel grateful if the officers of these institutions will afford them facilities for making their report as complete as possible.—I am, etc.,

T. GARRETT HORDER,
Cardiff, Dec. 28th, 1896. Honorary Secretary.

## GENERAL MEDICAL COUNCIL: ELECTION OF DIRECT REPRESENTATIVE FOR SCOTLAND.

SIR,—Lest silence on my part under the circumstances should be misconstrued, will you kindly allow me also, through the medium of your columns, to cordially thank the 564 members of the profession in Scotland for the honour which they did me by this substantial and absolutely spontaneous support. Late of appearing in the contest, and with no personal organisation whatever, not even the employment of a single law agent, I take it that the support which I received demonstrates two conclusions—first, that there is a large feeling of dissatisfaction in Scotland with the present state of medical economy; and, secondly, contrariwise, that there exists a remarkable indifference to the remedying of it. Out of a constituency of close upon 4,000, not 50 per cent. took the trouble to return their voting papers, so that the present representative may be held as personifying the views of about one-third of the constituency. If absolute demoralisation and disintegration of the profession, which seems to me imminently to threaten, are to be averted, the first step to be taken is to obtain a new Medical Act supplanting the present useless and farcical machinery, and with a united profession throughout the kingdom, no Government could deny this imperative and just demand.—I am, etc.,

Glasgow, Dec. 29th, 1896. D. CAMPBELL BLACK.

## THE ETIOLOGY OF CHOLERA.

SIR,—The most interesting and instructive communication from Mr. Hankin in the BRITISH MEDICAL JOURNAL of December 26th, 1896, tracing with much probability an outbreak of cholera at Sangor, Central India, to pollution by an infected dishcloth, brings to my mind an isolated fatal case of cholera in which the attack was also fairly traced to an infected cloth which had impregnated the drinking water.

Briefly stated, the facts of the case were as follows:

A warrant officer in the Ordnance Department employed in the Fort at Mhow, Central India, was attacked by cholera one evening in August, 1895, and was dead by the following morning. The cause of the attack was at once investigated, with the following result: The warrant officer had been working on the day of his seizure in the room of the fort set apart for the filling of cartridges. The other occupants of the room were about a dozen natives. He had not left the room between 9 A.M. and 5 P.M., except for his dinner hour at 1 o'clock. He then partook of a simple dinner in the fort in the company of another European, who subsequently suffered from no illness. In the verandah of the room where the warrant officer had been working there was placed for his

use a chatty (porous earthenware bottle) of drinking water. I found this chatty half filled with water and loosely covered with a piece of soiled linen, which was tied round the neck of the vessel. The rag—it was nothing else—was moist, and had evidently been attached to the chatty in order to keep cool the water. The chatty had been filled from a cask of boiled water, the only supply of drinking water in the fort. As to the rag, no evidence was forthcoming. I could not discover where it had come from or who had attached it to the chatty. The latter, with its rag covering, I at once removed, also took away a sample of the boiled water contained in the cask, and despatched both to Mr. Hankin for bacteriological examination.

In due course Mr. Hankin reported that he found plentiful evidence of the cholera microbe in the water contained in the chatty, but none in the water supply from which the chatty had been filled. The question immediately arose, From whence did the cholera microbe find its way into the chatty water? I do not now recollect whether Mr. Hankin examined bacteriologically the rag, but I do remember that its presence attached to the chatty promptly answered the question which I had put to myself. The rag must have been infected with the cholera microbe, and, being so, the impregnation of the water contained in the porous earthenware vessel easily followed. The chatty, its contents, and the rag having been removed, no fresh case of cholera occurred in Mhow Fort.—I am, etc.,

R. H. Quill,
Chatham, Dec. 30th, 1896. Brigade-Surgeon-Lieutenant-Colonel A.M.S.

# OBITUARY.

## EMIL DU BOIS-REYMOND,
Professor of Physiology in the University of Berlin.

It is with great regret that we have to record the death of the famous physiologist, Professor Emil Du Bois-Reymond. He died at the age of 78 in Berlin on Saturday last. He was born on November 7th, 1818, in Berlin, where his father held a high official appointment. The family were of French-Swiss extraction, and Emil received his first scientific education at a French school. He was primarily intended for the Church, but before long he abandoned the study of theology, and turned to that of natural science. In the summer of 1838 the young student went to the University of Bonn, where he devoted himself to geology, and then going back to Berlin began his life-work by studying anatomy and physiology under the guidance of the famous Johannes Müller. In 1841 he commenced his researches on animal electricity. When the time came for Du Bois-Reymond to take his doctor's degree, he embodied the results of his investigations in a thesis entitled "Quæ apud veteres de piscibus electricis extant argumenta." Continuing his studies, he published later the great work for which he is famed, *Researches on Animal Electricity*. In the course of his journeys to Paris in 1850, and to London in 1852, 1855, and 1856, he succeeded in gaining recognition for his discoveries, upon which doubts had been cast by French and English scientists. Elected in 1851 to the Berlin Academy of Scienees, he was appointed Perpetual Secretary in 1867, and succeeded his former master, Johannes Müller, in the Chair of Physiology at the University of Berlin, which post he held until his death. After the Franco-Prussian war, the professor took a leading part with Mommsen in a somewhat acrimonious polemic against French scientists. Among his more important works are—*A Description of some Apparatus and Experiments in Electro-Physiological Researches*, *Voltaire and Natural Science*, *The Opinions of Leibnitz and Modern Natural Science*, a collection of essays on *The Muscles and Nerves from the Physical Standpoint*, *Civilisation and Natural Science*, and two series of memoirs on literature, philosophy, history, biography, and science. Many of his papers on muscle and nerve and on the electric fishes have been translated into English, and issued as the Oxford Biological Memoirs.

Du Bois-Reymond is one of the last to join the majority of a band of physiologists, which included Carl Ludwig and Helmholtz, who rather more than half a century ago rescued physiology from the hands of vitalists and mysticists, and made it an exact science. They employed the methods of physics and chemistry to the investigation of vital problems, and it is to such methods alone that physiology owes the progress of the last fifty years. Du Bois-Reymond, however, was of the opinion that there is a limitation to the knowledge of life that can be acquired by these methods. Every medical student knows the coil and key to which Du Bois-Reymond's name is attached, and thus will know that it was the electrical side of physiological science to which the deceased *savant* particularly addressed himself. His researches in this field have laid the foundation of all our knowledge in connection with animal electricity. It is true that some of the deductions from his experiments have been called in question by Hermann and those of his school. But Du Bois-Reymond's facts still remain untouched; as Professor Burdon Sanderson once remarked in a lecture he gave at the Royal Institution, "Du Bois-Reymond probably never made an incorrect observation, or performed a faulty experiment." Praise from one so well qualified to judge is a high tribute indeed to the capacities of the physiologist whose place it will be so difficult to fill.

## Sir GEORGE B. OWENS, M.D.,
Dublin.

We regret to record the death of Sir George B. Owens, of Dublin, after a few days' illness, at the age of 88. He was born in Limerick, and was admitted to the licence of the Apothecaries' Hall in 1832, and to the M.D. of Glasgow in 1850. He began practising in Mountmellick, but settled in Dublin in 1845. He soon identified himself with local public life, and was elected a member of the Corporation. In 1876 he became Lord Mayor of Dublin, and he was knighted in the same year for his civic services. In 1881 he was High Sheriff of the city. He was also a guardian of the South Dublin Union, and for many years chairman of the South City Dispensary Committee. He was extremely popular, and although he was a strong politician he held the respect of all sides. The sorrow for his death is general.

## GEORGE PADLEY, L.R.C.P.Lond., M.R.C.S.Eng.

We regret to have to record the death of Mr. George Padley, which took place at his residence, Lilliput Hall, near Mumbles, on December 14th, at the age of 78 years. The family of Dr. Padley have for upwards of two centuries been connected with Swansea. The deceased received his early education at Newtown, and in the Academy of Cowbridge, kept by a Mr. Rice; thence he was removed to Shirehampton. After completing his preparatory course, Mr. Padley went for a sea voyage, returning to Swansea to become an apprentice to his brother-in-law, Dr. Bird. He made rapid progress in his new studies, and when he went to Guy's Hospital he won a gold medal for medicine. He qualified as M.R.C.S.Eng. in 1843, and L.S.A. in 1844, and became L.R.C.P.Lond. in 1863. After qualifying he held the appointment as Lecturer and Demonstrator in Anatomy at the Royal Infirmary and School of Medicine, Liverpool. Subsequently he began private practice in the city, a pleasing incident in that period being a visit to the Holy Land with a wealthy patient. Ultimately he settled down in his native town forty years ago. In 1863 he was appointed a visiting physician to what was then the Swansea Infirmary, and is now the General Hospital. In 1878 Mr. Padley, having resigned his position as visiting physician, was appointed consulting physician. In 1866, when the cholera made such terrible ravages in Swansea and the neighbourhood, he was appointed medical adviser to the Board of Guardians, and it was he who had charge of the medical staff.

The deceased was the first President of the revived South Wales Branch of the British Medical Association.

## JAMES PRENTICE. M.A.St.And., M.B., C.M.Edin.

The announcement by cable of the death of Mr. James Prentice, M.A., M.B., C.M., from typhoid fever on December 18th, in New York, will come to many present and recent students in St. Andrews and Edinburgh with a shock of painful surprise. After his graduation in August last he acted as Resident Physician in the Royal Maternity Hospital, under Dr. Halliday Croom, during the autumn quarter, and early in

November he went to America on a short holiday. He meant to leave New York on December 8th, but on that day was seized with symptoms of typhoid, and was admitted to the Roosevelt Hospital, under the care of Dr. Delafield. The first reports described the attack as a mild one, but on December 17th a change for the worse occurred, and he died on the following day.

After taking his degree in Arts at St. Andrews five years ago, Mr. Prentice commenced the study of medicine in Edinburgh. He gave early proof of his ability, and soon came to be regarded, both by his teachers and his fellows, as a model student in the best sense of the term. For, earnest and conscientious as he was in his work and his duty, he was no mere bookworm, but took an active part in the social and recreative life of the university. Of a singularly manly and lovable nature, he formed many friends among the best men of his time, and to them, while they mourn the untimely blighting of his brilliant promise, there remains the memory of his generous heart and his upright life.

### EDWIN CHILD, M.R.C.S.Eng., L.S.A.Lond.

We much regret to announce the death of Mr. Edwin Child, M.R.C.S.Eng., L.S.A.Lond., which occurred on Wednesday, December 9th, 1896, after a very few hours' acute illness. He was the youngest son of the late Mr. William Child, of Vernham, near Andover, and belonged to an old and well-known Hampshire family.

He commenced the study of medicine at Charing Cross Hospital, and took the diploma of L.S.A. in 1864, and that of M.R.C.S. in the following year. He held the office of House Surgeon to his hospital, and eventually settled in practice at New Malden in the year 1865, so that he had completed over thirty years in the same practice at the time of his death. Mr. Child held the appointment of medical officer of the New Malden District of the Kingston Union, and also of Surgeon to the Cheam Isolation Hospital under the Epsom Rural Sanitary Authority; of Medical Officer of Health for New Malden, and of Divisional Surgeon to the local police force.

He was for many years a member of the British Medical Association, a Fellow of the Obstetrical Society of London, and of the British Gynæcological Society, and he belonged to various other public bodies and societies.

He was, in addition to his professional pursuits, much interested in local and political matters, and was an active ruling councillor of the local Habitation of the Primrose League, and took much interest in the management of the schools and church, and many other affairs for the benefit of the locality in which he had resided for so long.

His loss will be much felt by a wide circle of friends and neighbours. He leaves a widow and six children, one of his sons being at present a student at his own Alma Mater, with which he had always continued to maintain his connection, attending the annual dinner, prize distribution, and occasional lectures, and always keeping in touch with the men of his day.

The funeral took place at the churchyard of Old Malden, and there was a large gathering of relatives, friends, and former patients coming from all parts of the country to pay the last tribute of respect and affection to a highly esteemed practitioner, and friend of rich and poor. He died as he had lived—doing his duty to the last.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Jakob Rogowicz, a well-known obstetrician and gynæcologist, of Warsaw, aged 59; Dr. J. von Gerlach, emeritus professor of anatomy in the University of Erlangen, aged 76; Dr. José Joaquim Ferreira, medical director of the Hospital de Sancto Antonio, Coimbra, and a clinician of great repute throughout Portugal; Dr. Johannes Rigler, formerly of Berlin, and more recently of Bad Neundorf, author of a book on railway spine, and of numerous tracts against homœopathy; Dr. John S. Conrad, formerly medical superintendent of the Maryland Hospital for the Insane, and a leading alienist in the United States, aged 57; Dr. Carl Heitzmann, the distinguished histologist of New York, anthor of a well-known *Atlas of Anatomy*, and other works, aged 60; Dr. Leonard J. Sandford, professor of anatomy and physiology at Yale, and author of numerous pamphlets and papers on medical subjects, aged 66; Dr. P. W. Ellsworth, of Hartford, Conn., a friend of Horace Wells, one of the pioneers of anæsthesia, and an ophthalmologist and aurist of considerable distinction, aged 82; and Dr. L. Gwosden, professor of forensic medicine in the Medical School of St. Petersburg.

## NAVAL AND MILITARY MEDICAL SERVICES.

### THE NAVY.

The following appointments have been made at the Admiralty:—John F. Hall, Surgeon, to the *Royal Sovereign*, December 17th, 1896; Robert Hill, Surgeon, to the *President*, for study at a metropolitan hospital, January 1st, 1897; John D. Henwood, Staff-Surgeon, to the *Empress of India*, December 22nd, 1896; Samuel W. Johnson, Staff-Surgeon, to the *Devastation*, December 22nd, 1896; John Dudley, M.B., Fleet-Surgeon, to Yarmouth Hospital, January 1st, 1897; John E. O. Ryan, to be Surgeon and Agent at Ardmore, December 22nd, 1896; Valentine Duke, M.B., Fleet-Surgeon, to the *Vivid*, additional, for Devonport and Keyham Dockyards, January 12th; Thomas C. Hickey, M.B., Fleet-Surgeon, to the *Thunderer*, additional, for Pembroke Dockyard, January 10th; Edward W. Luther, Fleet-Surgeon, to the *Repulse*, January 10th; Bernard Ley, Surgeon, to the *Lapwing*, January 14th; Murray P. Jones, Surgeon, to the *Resolution*, January 14th; John A. L. Campbell, Surgeon, to the *Stork*, January 14th; Richard H. Way, Surgeon, to the *Sharpshooter*, January 14th.

### INDIAN MEDICAL SERVICE.

Surgeon-Lieutenant-Colonel Francis Cobham Nicholson, M.D., late of the Bengal Establishment, died at Upper Norwood on December 24th, aged 51 years. He entered the service as Assistant-Surgeon, October 1st, 1869, and became Surgeon-Lieutenant-Colonel from October 1st, 1889. He was with the Lushai Expedition in 1871-72, and had received the Frontier medal, with clasp.

It is notified from the India Office that an examination for appointments in the Indian Medical service will held in London on February 5th.

### ARMY MEDICAL RESERVE.

Surgeon-Lieutenant Alexander Macdonald, M.B., the Queen's Rifle Volunteer Brigade, to be Surgeon-Lieutenant, December 23rd, 1896.

### THE VOLUNTEERS.

Mr. John Cromie is appointed Surgeon-Lieutenant in the Tynemouth Artillery (Western Division Royal Artillery), December 23rd, 1896.

Surgeon-Lieutenant L. F. Houghton, 1st Cornwall (Duke of Cornwall's) Artillery (Western Division Royal Artillery), is appointed Second Lieutenant in the same Corps, December 23rd, 1896.

Surgeon-Lieutenant T. Wood, M.B., 5th Volunteer Battalion the Royal Scots (Lothian Regiment), is promoted to be Surgeon-Captain, December 23rd, 1896.

Surgeon-Major A. D. MacDonald, M.D., 3rd (Dumfries) Volunteer Battalion the King's Own Scottish Borderers, is promoted to be Surgeon-Lieutenant-Colonel, December 23rd, 1896.

Surgeon-Major H. Arthur, M.D., 5th Volunteer Battalion the Cameronians (Scottish Rifles), has resigned his commission, with permission to retain his rank and uniform, December 23rd, 1896.

### AMBULANCE FOR MOUNTAIN WARFARE.

It is gratifying to find that when lectures are delivered by officers on what may be termed strictly military operations the medical needs are not neglected. Within the last year and a-half this interest in perfecting medical transport has been exemplified in two instances.

The lecture delivered on December 15th, 1896, by Colonel Adam on The Campaign of the Pyrenees, 1813, at the Prince Consort's Library, Aldershot, alluded to defects which were in need of remedy. The lecturer is reported to have said that "We were absolutely without ambulances for hill warfare," the excellent service of the Mule Cacolet Corps thus seemed to be ignored. At the discussion which followed, Surgeon-Major-General O'Dwyer, the Principal Medical Officer at Aldershot, observed in reply, that there was "some misunderstanding," if Colonel Adam referred to European warfare, as for many years past we had equipment for mountain campaigns, and further, that the Medical Staff Corps were trained at the Depôt, Aldershot, in cacolet and litter duties. The chairman, General Sir Richard Harrison, in commenting on the principal medical officer's remarks, said that he had personally seen the cacolets in more campaigns than one, and had "ridden in one for a considerable distance, but did not want to ride in one again."

This is not striking testimony in favour of the comfort of cacolets for a wounded soldier. In a lecture delivered at the Royal United Service Institution in July, 1895, on Mountain Warfare, by Major F. C. Carter, the lecturer, in giving his Indian experience, pronounced the stretchers now in use as "quite unsuitable for steep hillsides"; and there can be little doubt that in this opinion Major Carter has the support of medical officers who had experience of the Afghan war.

Colonel Adam spoke of the services rendered to the French in Africa by mule cacolet corps. Longmore says that mule cacolets and litters were first introduced as ambulance equipment in the French army in Algeria, and had it not been for these contrivances, the French wounded in many of the expeditions in the mountainous parts of that country could not have been transported from the scene of action to a hospital. Indeed, Marshal Bugeaud (a great authority) said that Algeria could hardly have been conquered without them.

Cacolets and mule litters were introduced as articles of English ambulance equipment during the Crimean War, and were found useful for carrying wounded along the narrow ravines leading up from Sebastopol, and for conveying them from camps to the ports of embarkation before roads

suitable for wheeled vehicles existed. Mule cacolets, however, without the perfect training of both the mules and their conductors, can scarcely be considered suitable transport for the wounded. Longmore describes the motion communicated to the litters as "peculiar," as a sort of "pitching motion," creating in some person "a feeling akin to sea sickness."

In hill warfare in India, we observe in *The Soldier's Pocket Book for Field Service* (1886) that the "Dandy" is the only kind of ambulance suited, but it is thought that in many instances cacolets might be used with advantage if mules of sufficient size could be obtained. Nothing is said of the training these mules need. Whether we have reached a perfect system of transport for the wounded and sick in mountain warfare is a point still open to discussion.

# MEDICO-LEGAL.

## FEE FOR MEDICAL REPORT OF CAUSE OF DEATH.

J. B. S.—From the facts submitted by our correspondent we are inclined to think that the Procurator Fiscal adopted the proper course, and that our correspondent is not in a position to raise successfully a claim for the fee in question. We speak, however, with some diffidence, as there may be regulations applying to such a point in Scotland with which we are not acquainted.

## PRESCRIBING CHEMISTS.

OMEGA inquires if a chemist's assistant can lawfully inquire into the symptoms of a patient, ask about the periods, etc., and then make up and give a bottle of medicine.

*** Chemists cannot lawfully advise and prescribe for patients requiring medical relief, although counter practice of this kind is probably of frequent occurrence owing to the difficulty of procuring sufficient evidence to support an action for unqualified practice under the Apothecaries Act.

## THE CHARGE AGAINST A DOCTOR: COMMITTAL.

ON December 21st, 1896, at Greenwich Police-court, according to the *Daily Chronicle*, Arthur Greatorex Smith, M.D., aged 33, of Roland Gardens, South Kensington, surrendered to his bail on the remanded charge of unlawfully using a certain instrument upon Constance Fletcher (now deceased), aged 23, dressmaker, at a house near Victoria Station.

Mr. H. Avory prosecuted for the Treasury, and Mr C. Russell defended.

Detective Inspector Fox gave evidence in corroboration of that given by Inspector Russell at the last hearing.

Detective Sergeant Martin said he went to the prisoner's house on November 28th, but failed to find any instrument of any kind. On December 1st witness received two medicine bottles, one from Mrs. Hampson and the other from deceased's mother. He produced two bottles received from Dr. Creighton after examination.

Dr. A. P. Luff deposed to the receipt of certain bottles, the contents of which were submitted to examination. The appearance of the parts examined by him was consistent with violence having been used, and also consistent with natural effects, but the use of an instrument would probably not be detected if it was used by skilled hands. In cross-examination, Dr. Luff said that what he saw was consistent with there having been no operation.

Dr. Fancourt Barnes was called for the defence. He was present at the *post-mortem* examination, and said that death was due to peritonitis, the result of the rupture. He found no trace whatever of any surgical or operative interference.

Dr. Arkle, of Charing Cross Hospital, said that death was caused by peritonitis, following the rupture of an ovarian abscess.

Dr. Toogood, Medical Superintendent of Lewisham Union Infirmary, agreed with Dr. Arkle's evidence. He had known patients who were dying of blood poisoning of this character make grave and unfounded charges against persons who could not possibly have been in the institution at the time. They were given with every appearance of sanity, and involved investigations.

The prisoner, in answer to the magistrate's caution, said he had no statement to make at present.

Mr. Russell urged that the case was one in which no reasonable jury would convict, but

Mr. Kennedy said he could not withhold it from a jury, and committed the prisoner for trial, but reduced the bail to two sureties of £1,000 each, and the accused in £2,000.

## UNQUALIFIED ASSISTANTS AND COVERING.

AN inquest held by Dr. Wynn Westcott last week at Shoreditch on the body of a child named Bertram Lott brought out some statements in relation to "covering," which, if the report before us from the *Daily Chronicle* be correct, should be inquired into by the Medical Defence Union and the General Medical Council. The evidence of the mother of the deceased was to the effect that the child complained of an injury to the leg, and that she called in "Dr." Taylor, of 240, Hoxton Street, N., and that he had attended the family for over nine years, and that she believed Taylor to be qualified. She stated that his name used to be up at the house in Hoxton Street in conjunction with a Dr. Watts, since dead. It appeared from the evidence of the coroner's officer that in Taylor's surgery was hung up a diploma in the name of Dr. Watts, and that this name was on the door-plate. Taylor, in giving his evidence, said he was a medical assistant, and that Dr. Hooper was his principal. Dr. Hooper's name was not on his door, but Dr. Watts's was. He had left Dr. Watts's name up, as its disappearance might have injured the practice. He lived in the house alone. Dr. Hooper lived at Bridport Place, and when he took over Dr. Watts's practice he still kept him on as assistant. Dr. Hooper saw the case once on the day previous to the death. The coroner, in summing up, commented on the fact that the poor had a right to qualified attendance if they paid for it. The jury returned a verdict of accidental death, but added that Taylor ought not to have attended without disclosing that he was not qualified, and considered him deserving of censure.

# UNIVERSITIES AND COLLEGES.

## UNIVERSITY OF CAMBRIDGE.

SECOND EXAMINATION FOR MEDICAL AND SURGICAL DEGREES. PART I.—The following candidates have satisfied the Examiners:

*Pharmaceutical Chemistry.*—Andrews, Joh.; Aveling, Christ's; L. E. H. R. Barker, Gonv. and Cai; Bentley, Joh.; Bowdler, Sid. Suss.; Bréhaut, B.A., H. Selw.; H. S. D. Browne, Trin.; J. M. Brydone, Jes.; Burrows, B.A., Emm.; E. M. Clark, Trin.; H. H. Clarke, Trin.; A. J. Clarke, Emm.; Colyer, M.A., Cath.; Cooke, B.A., Sid. Suss.; Deeping, Trin.; Elliston, Cath.; Emerson, Gonv. and Cai.; Eve, B.A., Emm.; W. M. Fletcher, B.A., Trin.; Franklin, King's; Gayner, King's; Gilbart-Smith, B.A., Trin.; Greene, B.A., Corp. Chr.; C. F. Hardie, Queens'; Heap, Sid. Suss.; J. P. Hedley, King's; Hill, B.A., Emm.; Hodder, King's; Hodgkin, King's; Holroyde, Trin.; A. C. Hudson, Trin.; Ingram, Trin.; Kempthorne, Joh.; Kitchin, Down.; Laycock, Joh.; Le Lacheur, Trin.; Linnell, B.A., H. Selw.; Naish, B.A., Emm.; Norton, Trin.; Nothwanger, Joh.; Parker, Pemb.; J. S. Pearson, Trin.; Perkins, Joh.; Phillpotts, Christ's; Rashleigh, B.A., Trin.; Reynolds, B.A., Trin.; Rob, Joh.; Roper, Gonv. and Cai.; St. Clair Smith, Trin. H.; Simey, B.A., King's; Skrimshire, Jes.; Smedley, Pemb.; Stockwell, King's; Taylor, Non-Coll.; Thornton, Trin.; Wacher, Joh.; Wales, Down; Walker, B.A., King's; Whale, Jes.; Wharton, Joh.; Wilgress, H. Selw.; G. R. Wilson, Trin.; J. A. Wood, Joh.; Wood, Down.; Worthington, Gonv. and Cai.

FIRST EXAMINATION FOR MEDICAL AND SURGICAL DEGREES: Part I.—The following candidates have satisfied the Examiners:

*Chemistry and Physics.*—H. Ackroyd, Gonv. and Cai.; J. F. Alexander, Trin.; Barton, Pemb.; Bennion, Joh.; Bottomley, Christ's; Butler, Emm.; Byles, King's; Clapham, Emm.; Cohen, Emm.; Cole, Trin.; W. H. Dickinson, B.A., Trin.; Dudley, H. Selw.; Edwards, Down.; T. R. Elliott, Trin.; Frere, Pemb.; E. Gardner, Gonv. and Cai.; Goyder, Joh.; G. W. Greene, Down.; Hailstone, H. Selw.; A. W. Harvey, Joh.; Haynes, Down.; Heath, Down.; Holtzmann, Christ's; E. G. Kellgren, Trin; Kirk, King's; Lanchester, King's; G. C. Lawson, Trin.; Leighton, Joh.; Leslie, Pemb.; Leveaux, Joh.; Lowe, Gonv. and Cai.; Lucas, Gonv. and Cai.; Matheson, Gonv. and Cai.; Matthews, Down.; Molteno, Pemb.; Muspratt, Christ's; Nathan, B.A., Trin.; Noon, Trin.; Norman, Joh.; L. Orton, Joh.; Paramore, Joh.; Paton, B.A., Gonv. and Cai.; H. Robinson, Trin.; Salzmann, Pemb.; Sapwell, B.A., Corp. Chr.; Scarborough, Joh.; E. J. Scott, B.A., Trin.; A. V. Sedgwick, B.A., Gonv. and Cai.; Shone, Emm.; Snell, Gonv. and Cai.; B. Spearman, Gonv. and Cai.; Spurrier, Gonv. and Cai.; Stiebel, Trin. H.; Tonge, Emm.; Trigg, Christ's; Wakefield, Trin.; Wales, Sid. Suss; F. Whitaker, Trin.; L. Wigram, Trin.; Wiltshire, Joh.; Woolley, King's; Wylie, Pemb.

## UNIVERSITY OF LONDON.

M.D. EXAMINATION.—The following candidates have satisfied the examiners:

*Medicine.*—E. B. Allen, University College and University of Melbourne; H. R. Andrews, London Hospital; G. H. Barker, B.Sc., University College, Bristol; S. M. Brown, Owens College and Manchester Royal Infirmary; J. A. Codd, B.Sc., Yorkshire College; J. S. Collier, B.Sc., St. Mary's Hospital; *F. G. Crookshank, University College; E. M. Cuffe, St. Bartholomew's Hospital; W. Edgecombe, University College, Liverpool, and London; L. E. V. Every-Clayton, B.S., Guy's Hospital; H. G. Felkin, London Hospital; S. E. Gill, St. Bartholomew's Hospital; J. H. Griffiths, B.S., St. Bartholomew's Hospital; E. M. Hainworth, B.S., B.Sc., St. Thomas's Hospital; W. S. Handley, B.S., Guy's Hospital; J. O. Harvey, St. Bartholomew's Hospital; R. Hopton, B.S., Yorkshire College; G. S. Hovenden, B.S., Guy's Hospital; A. W. Kirkpatrick-Picard, University College; W. E. Lee, St. Bartholomew's Hospital; A. G. Levy, University College; W. B. Morton, University College; F. L. Orr, University College; L. A. Parry, B.S., Guy's Hospital; C. H. Perram, St. Bartholomew's Hospital; F. J. Poynton, St. Mary's Hospital; M. H. Raper, Middlesex Hospital; E. N. Reichardt, St. Bartholomew's Hospital; A. J. Rodocanachi, B.S., B.Sc., University College; †A. Salter, B.S., Guy's Hospital; E. W. Selby, B.S., University College; W. Shears, St. Bartholomew's Hospital; E. J. Smyth, B.S., B.Sc., University College; R. H. Steen, St. Mary's Hospital; G. H. C. Way, B.S., University College.

* Obtained the number of marks qualifying for the gold medal. † Gold medal.

M.S. EXAMINATION.—The following candidates have satisfied the Examiners:

H. A. Ballance, M.D., University College; H. L. Barnard, London Hospital; J. St. T. Clarke, M.D., Guy's Hospital; G. H. Cowen, London Hospital; J. W. F. Jewell, M.D., Guy's Hospital; W. P. Purvis, M.D., B.Sc., St. Thomas's Hospital; Mary Ann D. Scharlieb, M.D., London School of Medicine for Women; T. M. Thomas, Guy's Hospital.

B.S. EXAMINATION.—The following candidates have satisfied the Examiners:

*First Division.*—J. H. Cook, University College; E. G. D. Drury, St. Bartholomew's Hospital; J. H. Hugo, St. Bartholomew's Hospital; A. W. Jenkins, University College; H. M. Rigby, London Hospital; H. J. Scharlieb, University College; Ethel May Vaughan, London School of Medicine and Royal Free Hospital.

*Second Division.*—W. Allport, Queen's College and General Hospital, Birmingham; E. D. Aubin, Middlesex Hospital; C. Banting, University College; C. Bolton, B.Sc., University College; W. F. V. Bonney, Middlesex Hospital; E. B. Bostock, Mason College and General Hospital, Birmingham; Margaret M. Traill Christie, London School of Medicine and Royal Free Hospital; W. E. Dixon, B.Sc., St. Thomas's Hospital; A. R. J. Douglas, St. Bartholomew's Hospital; G. G. Genge, St. Thomas's Hospital; T. H. Hunt, Yorkshire College; C. E. M. Kelly, Owens College; Octavia Margaret Sophia Lewin, London School of Medicine and Royal Free Hospital; C. Oldfield, Yorkshire College; N. H. Pike, Guy's Hospital; G. B. Price, Bristol Medical School and St. Bartholomew's Hospital; C. Roberts, Middlesex Hospital; A. R. H. Skey, St. Bartholomew's Hospital; A. H. Spicer, Guy's Hospital; A. Stanley, M.D., St. Mary's Hospital; F. B. Thornton, St. Thomas's Hospital; E. O. Thurston, St. Thomas's Hospital; F. T. Waldron, London Hospital; Lizzie Wilks, M.D., London School of Medicine for Women; F. K. Wilson, Westminster Hospital.

### ROYAL COLLEGE OF SURGEONS OF ENGLAND.

FELLOWSHIP EXAMINATION.—The following gentlemen having passed the necessary examinations and having conformed to the by-laws and regulations, have been admitted Fellows of the College:

W. H. Quick (Surgeon-Major I.M.S.), L.S.A.Lond.; H. E. Harris, M.B.Cantab., L.R.C.P.Lond.; G. T. James, L.R.C.P.Lond.; F. Joffrey, L.R.C.P.Lond.; J. F. Nall, L.R.C.P.Lond.; F. R. Riley, L.R.C.P.Lond.; R. C. Elsworth, M.B., C.M.Ed., L.R.C.P.Lond.; R. J. Gladstone, M.D.Aberd., L.R.C.P.Lond.; R. K. Howart, M.B., C.M.Glasg., L.R.C.P.Lond.; R. H. Castellote, M.D.Lond., L.R.C.P. Lond.; H. Davies, M.B., B.S.Lond., L.R.C.P.Lond.; C. B. Hall, L.R.C.P.Lond.; J. A. N. Scott, M.D., C.M.Glasg., L.R.C.P.Lond.; V. Pendred, M.B.Durh., L.R.C.P.Lond.; C. Ryall, L.R.C.P.Lond.; L.R.C.P Ed.; J. J. Grace, M.B., B.S.Durh., L.R.C.P.Lond.; A. E. H. Pinch (I.M.S.), L.R.C.P.Lond.; C. M. Hewer, L.R.C.P.Lond.; L. E. V. Every-Clayton, M.B., B.S.Lond., L.R.C.P.Lond.; L. T. Giles, L.R.C.P.Lond.; W. M. Willis, L.R.C.P.Lond.; H. B. Shaw, M.B., B.S.Lond., L.R.C.P.Lond.; E. S. Savage, M.B., B.Ch.Oxon., L.R.C.P.Lond.; H. A. Bruce, M.D.Toronto, L.R.C.P.Lond.; W. S. Melsome, M.D., B.C.Camb.

Five other gentlemen passed the examination, but not having yet attained the legal age (25 years), will receive their diplomas at future meetings of the Council. Twenty-one gentlemen were referred for six months.

The following gentleman having previously passed the necessary examinations and having attained the legal age of 25 years, was also admitted a Fellow of the College: F. Fraser, L.R.C.P.Lond.

EXAMINATION FOR LICENTIATES IN DENTAL SURGERY.—The following gentlemen, having passed the necessary examinations, have been admitted Licentiates:

D. Amphlett, Mason College, Queen's and General Hospitals and Dental Hospital, Birmingham; C. F. Anderson, University College, Royal Infirmary, and Dental Hospital, Liverpool; J. H. Anderson, University College, Royal Infirmary, and Dental Hospital, Liverpool; C. E. Carter, Middlesex and the Dental Hospital of London; G. Chatterton, Guy's Hospital Dental Department and School; H. E. Cribb, Charing Cross and the Dental Hospital of London; C. B. Dalby, Owens College, Royal Infirmary, and Victoria Dental Hospital, Manchester; J. A. M. Douston, Guy's Hospital Dental Department and School; C. N. Doyle, Guy's Hospital Dental Department and School; G. G. Ellis, Guy's Hospital Dental Department and School; S. J. Evans, Guy's Hospital Dental Department and School; K. W. Goadby, Guy's Hospital Dental Department and School; T. D. E. Goodman, Guy's Hospital Dental Department and School; W. Green, Charing Cross and the Dental Hospital of London; A. R. Halliday, Charing Cross and the National Dental Hospital; G. H. Harding, University College, Royal Infirmary, and Dental Hospital, Liverpool; A. E. Harrison, University College, Royal Infirmary, and Dental Hospital, Liverpool; P. O'B. Hartnoll, Charing Cross and the Dental Hospital of London; L. S. Hounsell, Guy's Hospital Dental Department and School; J. E. Humphrys, Charing Cross and the Dental Hospital of London; J. J. James, University College, Royal Infirmary, and Dental Hospital, Liverpool; E. Jeffery, Middlesex Hospital and Dental Hospital of London; W. Jones, Middlesex and the National Dental Hospital; C. H. Knowles, Guy's Hospital Dental Department and School; C. A. Malone, Charing Cross and the Dental Hospital of London; G. F. C. Matthews, Mason College, Queen's and General Hospital, and Dental Hospital, Birmingham; T. C. Myers, Charing Cross and the Dental Hospital of London; G. Naish, Guy's Hospital Dental Department and School; E. G. Parrot, Charing Cross and the Dental Hospital of London; F. H. Pearse, Middlesex and the National Dental Hospital; C. B. Phillips, Middlesex and the National Dental Hospital; T. C. Reece, Middlesex and the National Dental Hospital; A. E. Relph, Middlesex and the National Dental Hospital; J. H. Robertson, Charing Cross and the Dental Hospital of London; G. S. Simpson, Guy's Hospital Dental Department and School; B. Smith, University College, Royal Infirmary, and Dental Hospital, Liverpool; S. Smith, University College, Royal Infirmary, and Dental Hospital, Liverpool; J. Stephenson, Owens College, Royal Infirmary, and Victoria Dental Hospital, Manchester; H. W. Turner, Middlesex and the Dental Hospital of London; S. T. Wale, Middlesex and the Dental Hospital of London; E. A. Wheeler, Middlesex and the National Dental Hospital; W. B. Whittington, Charing Cross and the Dental Hospital of London; R. L. Young, Middlesex Hospital and the Dental Hospital of London.

Twenty-nine gentlemen were referred back to their professional studies for three months.

### ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND.

REUBEN HARVEY PRIZE.—Notice is given in our advertising columns that the fifth triennial award of the Reuben Harvey Memorial Prize will be made on July 1st, 1897. The prize is open to all students of recognised schools of medicine in Dublin, and to graduates or licentiates of the medical licensing bodies in Ireland of not more than three years' standing at the time of the award. The prize, value £25, will be awarded to the writer of the best essay, on a subject to be selected by the candidate, evidencing original research in animal physiology or pathology, the essay to be illustrated by drawings or preparations. The essays, bearing fictitious signatures, are to be lodged with the Registrar of the Royal College of Physicians of Ireland, Kildare Street, Dublin, on or before June 1st, 1897.

# PUBLIC HEALTH
AND
# POOR-LAW MEDICAL SERVICES.

## MISTAKEN DIAGNOSES.

A WELL-INFORMED correspondent writes: The daily press has been calling attention to the fact that a large number of cases are sent as patients to the fever hospitals who are afterwards found not to be suffering from the disease set forth in the medical certificates upon which they are so sent, and speaks of "the preliminary diagnosis" as being of the "scantiest kind," and says further that "merely superficial symptoms will induce a duly-qualified practitioner to sign an order for the committal to a hospital of a patient as a sufferer from diphtheria or scarlet fever who may have contracted nothing more serious than an aggravated sore throat.'

This is a serious charge, but there is some ground for the fear that sufficient care is not always exercised before notifying cases of infectious disease; and while deprecating anything like mischievous delay, I would urge upon all practitioners that before notifying they should take care that there are good and sufficient grounds for their action, and to justify the removal of their patient.

*** With regard to diphtheria, we understand that the Metropolitan Asylums Board have had before them on several occasions the question of establishing a central bacteriological institute to which practitioners might send "swabbings" from doubtful cases before notifying. This would, however, in most instances mean a delay of forty-eight hours, and the end would be better met probably by each of the vestries providing facilities, through their medical officer of health, for bacteriological examination in their respective districts.

The Metropolitan Asylums Board have legally no concern with a patient until certified to be a case of infectious disease, and then if called upon, it becomes their duty at once to remove to a hospital.

## NOTES ON WORKHOUSES.

THE CITY OF LONDON UNION: "A RETROGRADE STEP."

SUCH is the verdict pronounced by the *Citizen* on the resolution of the guardians, who recinded the vote to use the infirmary for the training of probationers, and we accept the verdict. Perhaps as referred to this particularly infirmary the resolution may be premature, for we gather that there is a want of co-ordination and harmony in the executive which is not conductive to efficient working; but we affirm the principle that the only way by which the increasing difficulty of obtaining nurses for service in the workhouse infirmaries is to be met is by training them in the infirmaries. Nothing but good can come of using the infirmaries as training schools for nurses, proper safeguards being devised ensuring that the school of training is worthy of the name.

### NEWTON ABBOTT.

INEFFICIENCY AND OFFICIAL OBSTRUCTION.

WE had almost looked upon this House as having passed from under the glare of public criticism into the shadow of quiet reform; but we are rudely awakened, first by reading the report of the medical officer (Dr. Culross), which bristles with charges of inefficiency in one department or another; and, secondly, by the answer of Dr. Ley, in which he stated that the Board fully recognised the importance of the report, but it was unable to deal with the matters owing to the delay in the new buildings. That delay Dr. Ley boldly laid to the charge of the Local Government Board, "who sent them some twopenny-halfpenny circulars, but when they wanted to do some real reforms they were prevented by them." This charge of delay against the department is so often reiterated, and is of such grave importance, that we earnestly recommend the present Government to undertake some searching reforms in the department; it is too often charged with being sound asleep at the present day.

### HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 4,780 births and 3,545 deaths were registered during the week ending Saturday, December 26th, 1896. The annual rate of mortality in these towns, which had declined from 19.4 to 18.2 per 1,000 in the two preceding weeks, further fell to 17.0 last week. The rates in the several towns ranged from 11.0 in

Croydon, 12.3 in Derby, and 12.5 in Brighton, to 21.7 in Blackburn, 22.0 in Hull, and 31.8 in Plymouth. In the thirty-two provincial towns the mean death-rate was 18.4 per 1,000, and exceeded by 3.2 the rate recorded in London, which was 15.1 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.3 per 1,000; in London the death-rate was equal to 1.0 per 1,000, while it averaged 1.5 in the thirty-two provincial towns, and was highest in Salford, Nottingham, Blackburn, and Plymouth. Measles caused a death-rate of 1.6 in Gateshead, 2.1 in Bradford, and 4.0 in Plymouth; and whooping-cough of 1.0 in Birkenhead, Salford, and Huddersfield, and 2.8 in Blackburn. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 68 deaths from diphtheria in the thirty-three towns included 38 in London, 6 in West Ham, and 3 in Liverpool. No fatal case of small-pox was registered last week, either in London or in any of the thirty-two large provincial towns. There was no case of small-pox under treatment in any of the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital on Saturday last, December 26th. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital, which had declined from 4,164 to 3,868 at the end of the nine preceding weeks, had further fallen to 3,763 on Saturday last: 210 new cases were admitted during the week, against 350, 353, and 291 in the three preceding weeks.

### HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, December 26th, 1896, 805 births and 644 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 20.4 to 21.0 per 1,000 in the three preceding weeks, further rose to 22.1 last week, and exceeded by 5.1 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 12.0 in Perth to 26.0 in Glasgow. The zymotic death-rate in these towns averaged 3.7 per 1,000, the highest rates being recorded in Paisley and Glasgow. The 352 deaths registered in Glasgow included 41 from measles, 20 from whooping-cough, 8 from diarrhœa, 5 from scarlet fever, and 2 from "fever." Two fatal cases of diphtheria were recorded in Greenock, and 4 of measles in Paisley.

### BUILDING BY-LAWS AND BACK-TO-BACK HOUSES.

AT a recent meeting of the Devonport Borough Council there was considerable debate with reference to the question of approving plans for building new houses. It appears that difficulty has arisen in connection with the meaning of the words "where practicable," which occur in connection with the provision of secondary approaches in the by-laws. It was contended on the one hand that there is no justification for the view that it is not practicable to provide secondary approaches in the case of houses built on new sites, and the opinion expressed by the medical officer of health with regard to the back-to-back system of house construction was referred to. Some members of the council desired to hear what the medical officer had to say, and after some discussion Dr. May was asked to make a statement. Dr. May referred to the unhealthiness of back-to-back dwellings, and stated that amongst the plans which had been submitted to the committee was one for a long street without any back doors to the houses. He expressed the opinion that if the plans were persevered with it, it might seriously imperil the future health of the town. Ultimately a report of the sanitary committee, which referred to the need of ensuring that new buildings erected in the town should be thoroughly in accordance with the by-laws, was carried.

### ZYMOTIC DISEASES.

UNDER this heading reference was made in the BRITISH MEDICAL JOURNAL of December 12th to the question as to what should be understood by "zymotic death-rate." A correspondent quoted from a report of a medical officer of health in which there seemed at first sight reason for concluding that in calculating "zymotic death-rate" diseases such as alcoholism and stricture of the urethra were included. Our correspondent now sends further reports, from which it appears that the medical officer of health referred to uses the expression "zymotic disease" in the sense in which it was originally employed by Dr. Farr. The expression "zymotic death-rate," on the other hand, is one, it appears, which does not occur in the medical officer of health's reports. As before stated, when the expression "zymotic death-rate" is used it is commonly applied to the death-rate from the "seven principal zymotic diseases." If our correspondent desires to know the scope of the expression "zymotic disease," as originally used by Dr. Farr, he should refer to the annual report of the Registrar-General up to the report for 1880; since that date the expression "zymotic disease" has been used in more limited application, as will be seen in the more recent reports. The expression as employed by the Registrar-General has still much wider application than that which attaches to zymotic when used in the phrase "zymotic death-rate."

### CHOLERA REGULATIONS.

THE Local Government Board have, by order dated December 21st, 1896, rescinded their previous orders of August 5th and September 13th, 1893, which had prohibited the landing of dirty bedding and disused or filthy clothing from France, from certain ports on the Baltic and the North Sea, and from ports on the Black Sea and the Sea of Azof, and from other ports of Turkey in Asia.

### DANGEROUS TRADES.

ACTING under Section VIII (1) of the Factory and Workshop Act, the Home Secretary has certified that the process of vulcanising indiarubber by means of bisulphide of carbon, and the processes incidental thereto, are dangerous or injurious to health.

### THE SUPERANNUATION OF SANITARY OFFICERS.

R. B.—No medical officer of health or inspector of nuisances for a rural district has even been under a "board of guardians," the rural sanitary authorities which have hitherto had jurisdiction over rural areas having been quite distinct from the Poor-law Boards, of which their constituent members may have also been part. Such officers have consequently never been in any sense Poor-law officers, and hence lose nothing so far as the Poor-law Officers' Superannuation Act is concerned by the change of name of a rural sanitary authority to that of rural district council.

### CLAIM UNDER SUPERANNUATION ACT, 1896.

DISTRICT MEDICAL OFFICER writes to say he has been in office sixteen years and contemplates retiring four years hence. He wishes to know whether he will then be able to claim superannuation allowance for his twenty years' service.

*** He will only be entitled to claim if he is incapacitated for further service at the time of retirement or, not being so, has then attained the age of 65 years.

### ADMISSION OF PAUPER LUNATICS TO WORKHOUSE.

A., who is a district medical officer applied to the relieving officer for a form to be signed, in order to send a pauper lunatic to an asylum. The relieving officer does not send the form, but removes the patient to the workhouse. A. asks, Is this removal legal, and can the medical officer compel the relieving officer to send him the form requested?

*** To send such a patient to the workhouse is contrary to the spirit of the Lunacy Act. The necessary steps should have been taken by the relieving officer to send the patient direct to the asylum. A medical officer cannot compel a relieving officer to send him the form he refer to; one could probably be obtained from the clerk to the guardians, but it would even then be useless, unless the magistrate acting in th case decided to call for our correspondent's certificate.

### MEDICAL CERTIFICATE FOR GUARDIANS.

MEMBER writes to ask whether he is compelled to certify as to the permanent disability of one of his patients when required to do so by th guardians and they decline to pay any extra fee for the duty.

*** If the certificate has reference to a pauper patient under our correspondent's care, and is required by the guardians for their guidance, it must be given by the medical officer without extra fee.

## HOSPITAL AND DISPENSARY MANAGEMENT.

### PLANS FOR NEW ASYLUM.

THE question of finding accommodation for the steadily increasing number of lunatics coming within the official cognisance of the Commissioners in Lunacy is more than ever a pressing one, and we find evidence of this in the fact that the Commissioners have felt compelled to adopt the unusual course of sending out a supplement to their annual report. The supplement is devoted entirely to a series of plans showing the new buildings proposed to be erected for four county asylums and one borough: (1) An asylum for the county of London at Bexley Heath, to accommodate 900 males and 1,100 females; (2) an asylum for the county of Lancaster at Winwick, near Warrington, for 2,000 chronic cases, 1,000 of each sex; (3) an asylum for the county of Stafford at Cheddleton, near Leek, for 300 of each sex, but with administrative offices for 800; (4) a county asylum for West Sussex for 600 patients, but to be opened for 450 (the asylum is now in course of erection near Chichester); (5) an asylum for the borough of Middlesbrough for 250 patients, 125 of each sex, but capable of future extension.

### HOSPITAL ABUSE.

A CORRESPONDENCE has lately been published in the columns of our contemporary, the *Daily Mail*, on this subject. It cannot be said that the remarks of many of the writers are of a very edifying character, or likely to have much useful result; and some, apparently emanating from medical sources, are questionable. The profession may well cry out "to be saved from their friends," when a correspondent, signing himself "Practitioner," speaks about cheap doctors administering medicine to sufferers which is "practically dirty water." Another correspondent, "Sawbones," writes approvingly of professional work being done gratuitously by unqualified students at our hospitals, which otherwise "qualified medical men would have to be paid to do." "Sawbones" would appear to think that unqualified practice is justifiable in a hospital, although it is a punishable offence in the case of a struggling practitioner. "Statistics" gives some interesting figures, and asserts that, deducting paupers and lunatics, one in eight of the deaths that occur in London are in one or other public medical charities.

It can be scarcely be denied there is plenty of room for hospital reform. "Statistics's" opinion—"that a large portion of such persons (who die in hospitals) could have afforded to pay for medical attendance"—may be endorsed without doing much violence to reason.

THE Duke of Bedford has consented to preside at a public meeting called to consider the serious financial condition of the North London or University College Hospital, on Thursday, January 28th, 1897, at the Drill Hall, Chenies Street, Gower Street, W.C.

PRINCESS CHRISTIAN visited the North London Hospital for Consumption at Hampstead on December 18th, and unveiled a tablet over the "Elizabeth Rundle Charles" memorial bed, which has been endowed by friends in memory of the authoress.

# MEDICAL NEWS.

The muzzling order is to be revoked in the metropolitan district of Essex if no fresh cases of rabies occur there before February 22nd next. No fewer than 5,896 dogs have been slaughtered since the order came into force.

At the recent great horseless carriage exhibition held at the Crystal Palace, where ten carriages were exhibited with Dunlop pneumatic tyres, eight out of the ten took medals and diplomas, one being an ambulance.

It may be noted in favour of the South African climate that many men prominent in South African politics went out to the colony originally in search of health. Mr. Rhodes is one, two members of the present Cape Ministry, and one at least of the leading Capetown journalists, are other instances.

An Ophthalmological Society has been established at Brussels, under the title of Société Belge d'Ophtalmologie. The inaugural meeting was held on November 28th, and a considerable number of specialists have already joined the Society. Dr. Coppez is the President.

The Russian Congress of Syphilography, which was announced to take place on December 24th, has been postponed till the middle of January, on account of the Jenner Centenary Festival, which was to be held in St. Petersburg at the end of December.

International Courtesies.—Dr. Behring has had the Grand Cordon of the Order of the Crown of Italy conferred upon him by King Umberto. The German Emperor has conferred upon Dr. E. Roux, of the Paris Pasteur Institute, the Royal Order of the Prussian Crown, Second Class.

A circular has been issued by the Italian Government ordering that to the documents which demand a legal dispensation in order to contract a marriage between uncle and niece there shall be added a medical certificate affirming that no hereditary disease exists in the families of the respective parties.

It has been resolved by the Committee of the Shropshire Horticultural Society to place the commission for a statue of Charles Darwin in the hands of Mr. Horace Montford. It is proposed to erect it in front of the Shrewsbury Public Free Library, formerly the Free School building, where Darwin received a portion of his education.

Presentation.—Dr. A. L. Mackenzie was entertained at a public dinner on December 14th, when he was presented with a solid silver tea and coffee service and an illuminated address by his friends on the occasion of his leaving Romford. The tray bore the inscription: "Presented with a tea and coffee service to Dr. A. L. Mackenzie by a few friends on his leaving Romford, December, 1896."

Dr. Wm. Brendon Gubbin who, owing to the state of his health, has recently left Portobello, Mid-Lothian, was entertertained previous to his departure at a public dinner presided over by the provost. There was a large attendance. The members of the Order of Foresters presented him with a silver bowl, and the railway ambulance class with a photograph camera.

Dr. John A. Fordyce has retired from the editorship of the *Journal of Cutaneous and Genito-Urinary Diseases*, which will henceforth be under the editorial control of Dr. James C. Johnston (formerly assistant editor) and Dr. G. K. Swinburne. The new editors will have the active co-operation of the retiring editor and of Drs. L. A. Duhring, E. L. Keyes, Prince A. Morrow, R. W. Taylor, and J. C. White.

St. John Ambulance Association.—An ambulance *fête* and demonstration is to be given under the auspices of this Association, of which the Prince of Wales is President, at the Crystal Palace in May or June next in commemoration of the Queen's long reign. The feature of the *fête* will be a competition open to all the centres and classes in the kingdom. There will also be a competition restricted to railway classes.

Rabies in America.—The New York correspondent of the *Daily Mail*, telegraphing on December 27th, states that eight Baltimore boys recently bitten by a mad dog were sent at the city's expense to the Pasteur Institute, New York, for treatment. They remained a week and were duly inoculated. During the past few days two of the boys have died from hydrophobia, while symptoms of the disease have appeared in a third. The remaining five, however, are progressing favourably.

According to the officials returns issued on December 29th, only 1,279 deaths were registered in London during Christmas week, a number which compares with 1,713 for the first week of November. The death-rate dropped last week to 15.1, the lowest point touched for three months. Not for four years has the death-rate been so low in Christmas week. The principal cause of the decline was a further decrease in fatal throat and chest affections. Forty-eight deaths were attributed to accident or negligence.

Post-Graduate Demonstrations in Glasgow.—The physicians and surgeons of the Glasgow Royal Infirmary have arranged to give during the winter and summer sessions weekly demonstrations of cases in their wards to members of the medical profession who may wish to attend. They will be given by the members of the staff in rotation every Friday afternoon from 4 to 6 p.m. The first will be given on Friday, January 8th, 1897, at 4 p.m., by Mr. Henry E. Clark.

The will of Dr. Patrick Fraser was proved recently, the personalty amounting to £419,421 nett. Dr. Fraser was at one time Physician to the London Hospital. He took part in the Crimean War and the War of the Succession in Portugal. He was better known to the present generation as the Director of the Prudential Assurance Company. He bequeathed to his wife the silver inkstand presented to him by the governors of the London Hospital, his medals, and Order of the Tower and Sword of Portugal. His fortune he bequeathed to various members of his family.

In the course of an inquest held with regard to the death in childbirth of the wife of a labourer, the City Coroner for Leeds, Mr. J. C. Malcolm, made some observations on the employment of midwives by the working classes. He said that as matters stood it was impossible to stop the practice, which, however, led to serious mischief. The midwives talked about their large experience, but they had no training which warranted them in attending such cases, and it was a matter for serious consideration how far the practice should be checked. If the Bill which had been before Parliament became law a great check would be put upon these women. The jury found a verdict of "Death from natural causes." The cause of death would appear from the report of the inquest in the *Leeds Daily News* to have been *ante-partum* hæmorrhage, and medical aid was obtained too late.

## MEDICAL VACANCIES.

The following vacancies are announced:

BALLINASLOE DISTRICT ASYLUM.—Second Assistant Medical Officer. Salary, £120 per annum, with allowances of furnished apartments, board, etc. Doubly qualified, unmarried, and not more than 30 years of age. Applications to the Medical Superintendent by January 8th.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £150 per annum (with an allowance of £30 per annum for cab hire), and furnished rooms, fire, light, and attendance. Applications to E. W. Forrest, Secretary, by January 18th, 1897.

BOROUGH OF BRADFORD.—Resident Medical Superintendent at the Fever Hospital. Salary, £200 per annum, with board and residence; doubly qualified, not more than 30 years of age. Applications, endorsed "Resident Medical Superintendentship," to George McGuire, Town Clerk, Town Clerk's Office, Bradford, by January 4th, 1897.

CITY OF LONDON LYING-IN HOSPITAL, City Road, E.C.—District Surgeon. Applications to R. A. Owthwaite, Secretary, by January 19th.

COLONIAL SERVICE.—An Assistant Colonial Surgeon for the Gold Coast and Lagos. Salary, £350 a year, with free quarters and free passage. Doubly qualified, and must be between the ages of 25 and 30. Six months' leave of absence after twelve months' service. Applications to the Assistant Private Secretary, Colonial Office.

COUNTY ASYLUM, Rainham, near Liverpool.—Assistant Medica Officer, unmarried, and not more than 30 years of age. Salary commences at £100 per annum, with prospect of increase to £250, with furnished apartments, board, attendance, and washing. Applications to the Medical Superintendent by January 15th.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Surgeon to Out-patients; must be F.R.C.S. or M.R.C.S. Senior

Resident Medical Officer. Salary, £70 per annum, with board and washing. Also four Qualified Clinical Assistants, and eight Unqualified Clinical Clerks. Applications to the Committee of Management at the Hospital by the January 16th.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, 17, Bartlett's Buildings, Holborn Circus. Honorary Physician; must be F. or M.R.C.P.Lond. Applications to the Secretary by January 6th.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Appointment for six months, subject to re-election. Honorarium of £21 for the six months will be given, board and residence at the Infirmary, and washing provided. Applications to the Secretary at his office, 24, Friar Lane, Leicester, by January 11th.

MIDDLESBROUGH NEW ASYLUM.—Medical Superintendent. House (unfurnished, with rates and taxes free), coals, gas, water, and washing will be allowed. Applications, stating salary required, to George Bainbridge, Town Clerk, Middlesbrough, by January 23rd.

NORTHERN INFIRMARY, Inverness.—House-Surgeon and Dispenser. Salary, £70 per annum, with board, etc. Applications to Mr. Duncan Shaw, Honorary Secretary, by January 4th.

QUEEN'S HOSPITAL, Birmingham.—Third Casualty Surgeon, or Surgeon to Out-patients; must be F. or M.R.C.S. Second Physician for Out-patients. Appointments tenable for three years. Honorarium in each case £50 per annum. Applications to the Secretary by January 20th.

ROYAL ALBERT HOSPITAL, Devonport. — Honorary Ophthalmic Surgeon. Must reside either in Devonport or Stonehouse. Applications to Captain R. Matheson, Secretary, by January 9th.

ROYAL COLLEGE OF PHYSICIANS, Pall Mall East, London, S.W.—Milroy Lecturer for 1898. Course must comprise of not less than three or more than six lectures. Applications to the Registrar by January 9th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Resident Medical Officer, doubly qualified. No salary, but board, residence, and washing provided. Appointment for six months, but eligible for re-election. Applications to the Secretary by January 4th.

ROYAL HANTS COUNTY HOSPITAL, Winchester.—Assistant House-Surgeon, doubly qualified. Salary at the rate of £20 per annum, with board and lodging. Applications to the Secretary by January 22nd.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—House-Surgeon. Salary, £100, with board and residence. Applications to Hemsley H. Shanks, Honorary Secretary, by January 13th.

SUNDERLAND AND NORTH DURHAM EYE INFIRMARY.—House-Surgeon, outdoor. Salary at the rate of £100 per annum. Applications to the Chairman of Committee by January 6th.

UNIVERSITY OF EDINBURGH.—Examiner in each of the following departments: (1) Botany, (2) Physiology, (3) Medicine, and (4) Midwifery. Period of office may be for four years. Salary, £75 per annum in each case, with an allowance of £10 for travelling and other expenses, in case of not being resident in Edinburgh. Applications to M. C. Taylor, Secretary, University Court, by January 14th.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's Road, Chelsea, S.W.—House-Physician for twelve months. Honorarium, £50, with board and lodging in the hospital. Applications to the Secretary by January 16th.

WEST BROMWICH DISTRICT HOSPITAL.—Assistant House-Surgeon. Board, washing, and residence provided. Applications to R. S. Young, House-Surgeon.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Resident Assistant. Appointment for six months. Board, lodging, and washing provided. Applications, inscribed "Applications for Resident Assistant," to the Chairman of the Medical Committee by January 8th.

YSTRADYFODWG URBAN DISTRICT.—Medical Officer of Health. Appointment for one year. Salary, £450, including travelling expenses. Must devote his whole time to the duties. Applications, endorsed "Medical Officer of Health," to W. H. Morgan, Clerk, Treforest, Glamorganshire, by January 11th.

## MEDICAL APPOINTMENTS.

ADAMS, E. W., F.R.C.S.Eng., L.R.C.P.Lond., D.P.H., appointed Medical Officer of Health to the Slough Urban District Council.

ALLEN, Richard G., L.R.C.P., M.R.C.S.Eng., reappointed Medical Officer of Health to the Belper Rural District Council.

BENTLEY, Wm. Leonard, L.S.A., appointed Medical Officer for the No. 2 District of the Oldham Union.

BRYANT, T., F.R.C.S., appointed Consulting Surgeon to the Hospital for Epilepsy and Paralysis, and other Diseases of the Nervous System, Regent's Park, *vice* Sir J. E. Erichsen, Bart., deceased.

COOPER, H. Spencer, M.R.C.S., L.R.C.P.Lond., L.S.A., appointed Medical Officer of Health to the Brightlingsea Urban District Council.

DODSWORTH, F. C., L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health to the Chiswick District Council.

FREEBLAND, A. R. Stilwell, M.R.C.S.Eng., L.R.C.P.Lond., appointed Resident Medical Officer to the Barnes Convalescent Hospital, Cheadle, Cheshire.

FRY, A. Cradock, M.A., L.R.C.P., M.R.C.S., appointed House-Surgeon to the Royal Berkshire Hospital, Reading.

GAYLOR, Edward, L.R.C.P.Edin., L.F.P.S.Glasg., reappointed Medical Officer of Health to the Belper Rural District Council.

GIBB, W. Alexander, M.B., C.M.Edin., appointed Junior House-Surgeon to the General Infirmary, Gloucester.

GOWLAND, G. R., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of the No. 7 District of the Chorlton Union.

KEER, John C., M.R.C.S.Eng., L.S.A., appointed Medical Officer of the Workhouse and of the Wickham Market District of the Plomesgate Union.

MCANALLY, Mr., appointed Medical Officer for the Workhouse and Eastry District of the Eastry Union.

MACDONALD, A. H. W., M.B., C.M.Edin., appointed Medical Officer for the Old Ford District of the Poplar Union.

MACAULEY, W. G. Ridgeway, L.R.C.P., M.R.C.S., L.S.A., appointed Medical Officer to the Freebridge Lynn Union, Government Certifying Factory Surgeon, Medical Officer Court of Oddfellows, and other Clubs, King's Lynn, *vice* Dr. Barrington, deceased.

NEWTON, Lancelot, M.R.C.S.Eng., L.S.A., reappointed Medical Officer for the Sawtry District of the Huntingdon Union.

PARKINSON, C. H. W., M.R.C.S.Eng., D.P.H.R.C.P.Edin., reappointed Medical Officer of Health to the Wimborne and Cranborne Rural District Council.

SPURR, James, B.A.Camb., M.R.C.S.Eng., appointed Medical Officer of Health to the Borough of Lyme Regis.

STREETEN, F. Edward, L.R.C.P.Edin., M.R.C.S., D.P.H., reappointed Medical Officer of Health to the Old Swindon District Council.

WILSON, J. D. Octavus, M.B., C.M.Glasg., appointed House-Surgeon to the Newcastle-on-Tyne Hospital for Sick Children (Fleming Memorial).

YELF, John Burnet, M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Shipston-on-Stour District of the Shipston-on-Stour Union.

YOUNG, Dr., appointed Medical Officer for the Hawkhurst District of the Cranbrook Union.

## DIARY FOR NEXT WEEK.

**TUESDAY.**

PATHOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 P.M.—Papers:—Dr. A. A. Kanthack and Mr. T. W. Connell: Some Points in the Morphology of the Tetanus Bacillus. Dr. Douglas Drew: Villous Papilloma of the Kidney, Ureter, and Bladder. Mr. J. R. Lunn: (1) Excision of Knee-Joint. (2) Femur which had been Trephined. (3) Duct Carcinoma (?) in a Man, aged 91. Card Specimens will be shown by Dr. F. Parkes Weber and Dr. Th. Fisher.

**WEDNESDAY.**

OBSTETRICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8 P.M.—Specimens will be shown by Dr. C. Hubert Roberts, Dr. Amand Routh, and others. Dr. Macnaughton Jones: Note on a Case of Eclampsia. Papers:—Dr. W. S. A. Griffith and Dr. A. W. W. Lea: On Breech Presentation with Extended Legs. Dr. Giles: The Cyclical or Wave Theory of Menstruation, with observations on the Variations in Pulse and Temperature in relation to Menstruation.

THE CLINICAL MUSEUM, 211, Great Portland Street, 4 P.M.—Demonstration by Mr. Jonathan Hutchinson.

**FRIDAY.**

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 P.M.—Mr. R. Brudenell Carter: Case of Gunshot Wound of the Eye. Dr. W. P. Herringham: A case of Paroxysmal Tachycardia in a Girl aged 13 Years. Mr. C. S. Wallace: A Case of Fracture of the Axis. Mr. J. Ernest Lane: Two Cases of Gastro-enterostomy illustrating the Use of Murphy's Button.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Dr. James Taylor: Electrical Testing and Treatment.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

CAIGER.—On December 23rd, 1896, at the South-Western Hospital, Stockwell, the wife of Frederick Foord Caiger, M.D., M.R.C.P.Lond., of a son.

CULHANE.—On December 27th, 1896, at Glin House Hastings, the wife of F. W. S. Culhane, of a daughter.

JACKSON.—On December 25th, 1896, at 216, Great Dover Street, S.E., the wife of Philip J. Jackson, M.R.C.S.Eng., of a daughter.

WALKER.—On December 22nd, 1896, at 320, Hoe Street, Walthamstow, the wife of Alfred Walker M.A., M.D.Cantab., of a daughter.

### MARRIAGE.

MOULD—O'BRIEN.—At Delhi, on December 3rd, 1896, by the Rev. C. Swynnerton, chaplain, Surgeon-Captain W. T. Mould, Army Medical Staff, eldest son of the late Colonel J. S. Mould, Royal Marine Light Infantry, to Amy O'Brien, niece and adopted daughter of Wm. Thomson, Esq., President of the Royal College of Surgeons in Ireland.

### DEATHS.

BUNCH.—On December 21st, 1896, at 6, Gordon Place Gordon Square, after a long illness, John James Bunch, M.R.C.S., aged 77, for many years of Wolverhampton.

FRANCIS.—On December 24th, 1896, at his residence, Edenham, Shaftesbury Road, Southsea, John Francis, M.R.C.S., L.S.A., aged 83, late of Market Harborough.

ROBB.—At St. James's Lodge, Keith, N.B., November 27th, 1896, James Taylor Robb, M.D.Aberd., M.R.C.P.Lond., late of 33 Lowndes Street, S.W., aged 37 years.

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances*—Daily, 2. *Operations*.—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances*.—Daily, 1. *Operations*.—Daily.

CHARING CROSS. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations*.—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances*.—Daily, 1.30. *Operations*.—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances*.—M. Tu. Th. F., 2. *Operations*.—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations*.—F., 2.

GREAT NORTHERN CENTRAL. *Attendances*.—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30 Skin, W., 2.30; Dental, W., 2. *Operations*.—M. W. Th. F.

GUY'S. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations*.—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Attendances*.—Daily, 10. *Operations*.—M. Th., 2.

KING'S COLLEGE. *Attendances*.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations*.—M. F. S., 2.

LONDON. *Attendances*.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operations*.—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE. *Attendances*.—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations*.—M. Th., 4.30.

METROPOLITAN. *Attendances*.—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations*.—F., 9.

MIDDLESEX. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations*.—W., 1.30; S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Attendances*.—M. Tu. Th. F., 2. *Operations*.—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances*.—Daily, 2; Ophthalmic, W. S., 9.30 *Operations*.—Tu. F., 9.

NORTH-WEST LONDON. *Attendances*.—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations*.—Th., 2.30.

ROYAL EYE, Southwark. *Attendances*.—Daily, 2. *Operations*.—Daily.

ROYAL FREE. *Attendances*.—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 3; Dental, Th., 9. *Operations*.—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances*.—Daily, 9. *Operations*.—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances*.—Daily, 1. *Operations*.—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances*.—Daily, 1. *Operations*.—Daily.

ST. BARTHOLOMEW'S. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations*.—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th. 2.

ST. GEORGE'S. *Attendances*.—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations*.—M. Tu. Th. F. S., 1.

ST. MARK'S. *Attendances*.—Fistula and Diseases of the Rectum, males S., 3; females; W., 9.45. *Operations*.—M., 2; Tu., 2.30.

ST. MARY'S. *Attendances*.—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 3.0; Skin, M. Th., 9.30; Electro-therapeutics, M. Th., 2.30; Dental, W. S., 9.30; Children's Medical, Tu. F., 9.15; Children's Surgical, S., 9.15. *Operations*.—M., 2.30.; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances*.—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations*.—W. F., 2.

ST. THOMAS'S. *Attendances*.—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations*.—M. W. Tu. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances*.—Daily, 1.30. *Operations*.—W., 2.30.

THROAT, Golden Square. *Attendances*.—Daily, 1.30; Tu. F., 6.30. *Operations*.—Th., 2.

UNIVERSITY COLLEGE. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30. *Operations*.—Tu. W. Th., 2.

WEST LONDON. *Attendances*.—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations*.—Tu. F., 2.30.

WESTMINSTER. *Attendances*.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, Tu. F., 9.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operations*.—Tu. W., 2.

# LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

### QUERIES.

SCOTIA desires to obtain the address where steel horseshoes, with removable screws for frosting, can be obtained?

INQUIRER asks for advice as to the treatment of a very obstinate case of psoriasis. Various remedies have been tried without much benefit.

MCQ. desires to hear of a private home or asylum for inebriates in England in which a patient could be treated and boarded for £50 or £60 per annum. The patient is a gentleman, but his means are very limited.

TOFFEE.

SUGAR AND BUTTER writes: Can any reader refer me to the late Dr Milner Fothergill's remarks *re* toffee for delicate children and suckling women?

BICYCLES ON HIRE.

WHEELMAN writes: Will the medical man who some months ago through these columns recommended hiring a bicycle by the year in preference to purchasing, and said he was able to get one for £6 6s. per annum, kindly say what firms enable him to do this?

INVALID KITCHEN.

DR. S. WORTHINGTON (Woolwich) asks for information as to the working of an "invalid kitchen," and whether these have turned out successfully. By "invalid kitchen," he adds, "I mean charitable associations for supplying suitable dinners to poor sick and convalescent patients."

HYDATID MOLE: A REQUEST.

DR. W. E. FOTHERGILL (Manchester) writes: I am particularly anxious to obtain for microscopic work, which must be done during the next few weeks, a cubic inch or so of hydatid mole so called, or placenta in a state of hydatidiform degeneration. As I want it freshly hardened, old spirit preparations are not available. Perhaps some reader of the BRITISH MEDICAL JOURNAL may see a case soon, and if he would be kind enough to put a bit of the specimen into a small bottle of spirit or corrosive sublimate solution, and post it to me at 200, Oxford Road, Manchester, I should be greatly indebted to him, and would thank him in any way in my power.

A QUESTION OF HOSPITAL ADMINISTRATION.

W. R. W. asks: (1) Is the medical officer in charge of a public infirmary justified in refusing a serious case of injury or disease (not infectious) sent into town from a distance because the patient happens to be a pregnant woman? (2) Would the case of a pregnant woman suffering from a serious injury ever be admitted into a maternity hospital if a general hospital could be got at?

*** (1) This depends upon the rules of the infirmary. We should have said not; but there may be some rule authorising this action of the superintendent. (2) We think not.

DENTAL DEFICIENCIES AND THE NAVY.

L. M. writes: A candidate for a naval clerkship from a school to which I am medical officer has lately been rejected by the medical authorities on the score of his molar teeth not being in a sufficiently healthy state. Can you inform me whether it is possible to ascertain beforehand what are the limits (dental) that allow of a candidate passing?

*** We are informed that loss or decay of more than ten teeth is held to disqualify for the Royal Navy, but the condition of the remainder and the cause of loss—whether by accident or disease—are taken into consideration in conjunction with the candidate's physique and constitution.

BOOKS ON ELECTRO-THERAPEUTICS.

H. S. W., who knows nothing about electro-therapeutics, would be glad to be recommended a book on the subject which bears reference in detail to the electric treatment of lupus, nævus, alopecia, etc.

*** The best books on medical electricity at the present time are; *Medical Electricity*, by Lewis Jones, M.D. (London: H. K. Lewis. 10s. 6d.); *The Uses of Electrolysis in Surgery*, by Dr. W. E. Steavenson (London: J. and A. Churchill); *International System of Electro-Therapeutics*, by Dr. H. R. Bigelow (London: F. J. Rebman. 32s.). Erb's work in von Ziemssen's *Handbook of General Therapeutics* does not deal with surgical applications of electricity. Bordier's *Précis d'Electrothérapie* is the newest book, and is useful as embodying the recent work of French writers on electro-therapeutics. It can be obtained from Messrs. Williams and Norgate.

### ANSWERS.

R.A.—We have been unable to ascertain that there is any colony in which epileptics are cared for at the expense of the poor rates.

DR. PURDON might bring the subject of his communication under the notice of the medical corporations to which the author belongs.

FYFE.—Our correspondent probably refers to a paper by Sir Joseph Fayrer, Bart., on Falmouth as a Winter Resort, published in the BRITISH MEDICAL JOURNAL of August 29th, 1896, p. 489.

S.W.—(1) There is not any obvious objection so far as we can see to the proceeding described. (2) A practitioner holding the qualifications of M.R.C.S. and L.R.C.P. is entitled to style himself "Physician" and "Surgeon."

DR. P. NEWELL (Crowborough, Sussex) writes: Your correspondent "H." in the BRITISH MEDICAL JOURNAL of December 19th, will find a lotion of

"listerine" and water one of the most generally useful and pleasant dentifrice lotions. "Listerine" is sold by Maw, Son, and Thompson, and the formula given on the bottle.

### OPERATIVE SURGERY.

SCALPEL.—Jacobson's *Operations in Surgery*, of which a new edition is advertised to appear forthwith, is an excellent work on the subject, and would probably meet our correspondent's requirements. The book is published by Messrs. J. and A. Churchill.

### BOOKS FOR THE D.P.H. EXAMINATION.

G.R.S. will find a list of books recommended to candidates for examinations for the D.P.H. in the Educational Number of the BRITISH MEDICAL JOURNAL of September 5th, 1896, p. 585. He will find in the JOURNAL of September 26th, 1896, p. 890, some further hints from a correspondent.

### GASTRIC ULCER AND CORSETS.

N. O. P. Q. writes: I think it is probable that the reference your correspondent "M.D." (BRITISH MEDICAL JOURNAL, December 26th, 1896, p. 1858) wants is the following: Chlorosis, by William Williams, M.D., from the *Liverpool Medico-Chirurgical Journal*, January, 1892.

### MEDICAL RETICENCE AND ACCIDENT INSURANCE.

F.R.C.P.I.—In reply to our correspondent's communication, we think we cannot do better than to refer him to the article on the subject on p. 1840 of the BRITISH MEDICAL JOURNAL of December 26th, in which will be found a full expression of our opinion as to the most desirable course to adopt under the circumstance in reference to accident insurance.

### MALE NURSES.

G. F. C. is informed that male nurses have to undergo a similar training as females in some hospital or institution before they are considered competent. The length of the training and course of instruction would vary in different institutions, and there is not usually a hard and fast rule as to age. We understand a considerable proportion of the male nurses employed by the Hamilton Association have been trained in the Medical Staff Corps of the army, or as naval sick bay attendants. G. F. C. might do well to communicate with the manager of the Hamilton Association, 57, Park Street, Grosvenor Square, W., for further information.

### THE LONDON COUNTY COUNCIL AND MEDICAL FEES.

C. R. W.—A correspondent sends copies of letters that have passed between himself and the London County Council, relative to the fee to be charged for medical sick certificates given to employees of the Council. The sentiments he expresses as to the "sweating" of the profession in many cases may be cordially endorsed, but it is not by any means certain that the treatment he has received at the hands of the London County Council is a very flagrant example of this evil. The fee offered for the sick certificates is about the usual payment for services of this nature, and although it might be desired that such fees were higher, there are perhaps other forms of medical "sweating," which call more urgently for reform.

### MOSQUITO BITES.

A CORRESPONDENT writes for advice as to the best means of avoiding the bites of mosquitos. This, and similar questions having reference to the attacks of the allied insects which inhabit temperate climes, has on more than one occasion appeared in the BRITISH MEDICAL JOURNAL without eliciting, we regret to say, any very satisfactory replies. An eminent Anglo-Indian authority to whom we referred the question on one occasion, could only say that the best preventive of mosquito bites was mosquito curtains. We find in the issue of the *Fishing Gazette* for August 1st, 1896, an article from which we extract the following recommendations:—The writer himself relies upon olive oil; he pours a little on the palms of his hands, and rubs all the exposed parts of the neck, face, the roots of the hair, and the hands. Among other preventives which he extracts from previous issues of our contemporary are to wash the exposed portions of the body with carbolic soap, to anoint them with oil of sandal-wood, with paraffin, with cajuput oil, with spirits of turpentine mixed with glycerine jelly, or to use the dog soap employed for killing fleas.

### ANSWERS TO BICYCLING QUESTIONS.

A CYCLING SURGEON writes: If "Inquirer" will place a pelvis upon the ordinary peaked cycle saddle in the position usually occupied by riders, I think he will be as much surprised as I was at its dangerously unsuitable shape. He will see the narrow middle portion towards which the rider gravitates forms a more or less wedge-shaped projection between the tuberosities unless the muscles have been abnormally strengthened by long use: therefore I should say it would be very unwise to allow so young a child to ride unless upon one of the anatomical saddles, such as Henson's. I know the late Sir B. W. Richardson strongly advocated the use of the same.

I think also "Baffled" will discover the cause of the numerous cases of urethritis in the saddle, as the weight of the rider is practically borne upon the urethra in the peaked saddle, and this goes to prove that Mr. Turner's "equally good results" from a "carefully and properly adjusted" ordinary saddle are strictly true only when applied to skilled and hardened cyclists like himself, and not to the untrained learners of the present time.

DR. HERSCHELL wishes to call the attention of "Inquirer" to his book just published by Baillière, *Cycling as a Cause of Heart Disease*, in which the subject of bicycling as a recreation for children is treated.

## NOTES, LETTERS, Etc.

### TELEGONY AND THE INHERITANCE OF ACQUIRED CHARACTERISTICS.

DR. WILLIAM CULLEN, M.B. (Physician-Accoucheur, Northern District of Glasgow Maternity Hospital) writes with reference to the note in the BRITISH MEDICAL JOURNAL of December 12th on the discussion at a recent meeting of the Zoological Society: In the case of the human female the ovaries at birth have been estimated by independent observers (Foulis and Henle) to contain 70,000 ova. Manifestly it is no probable that each of these 70,000 ova can reproduce itself or undergo fecundation. Then what explanation can be given for their existence? The element of chance which forms a law in the pollenation of plants is not without analogy here, if we consider the human ovum as a medium only of fertilisation, with the parent female organism as a matrix: that is, the ovum is not in itself possessed of those potentialities and reproductive activities exhibited by the male element. The male element, the spermatozoon, I have elsewhere shown, is the product of a complicated function which has no equivalent in the female; and this is essential if in itself it is to convey a complete and final representation of male characteristics. What follows impregnation is an inoculation of the female constitution by the medium of an ovum on this principle: that with the conjunction of the respective male and female elements there develops a mutual product whose resemblance to the male organ would be infinitesimal were the initial activities of the latter not potent enought to affect, and afterwards modify, the whole maternal influence. Bear in mind the period of gestation, where, with the maternal nourishment, I hold there is conveyed a conjoint influence, nervous or constitutional, to the fœtus. With the expulsion of the embryo at birth there will remain a reserve of this conjoint influence in the mother sufficient to modify her next conception with another or a different mate, and that this primary influence will get less the more remote it becomes by subsequent impregnations is probable in theory, is a fact in practice, and is in keeping with this explanation. That the male element has an influence upon the female beyond that of mere fertilisation has been long acknowledged. Darwin's *Theory of Sexual Selection* has been faulted in presupposing a superiority and an entail in the male line. That Darwin believed the male sex to be the dominant one is an argument in its favour, and Darwin only held what those who studied pedigreed stock could tell him. Brooks has stated that "male cells are the more various, and alone transmit new variations." Finally, varieties in the characteristics of dogs will follow Starkweather's postulate about sex, "that sex is determined by the superior parent, and that the superior parent produces the opposite sex."

### LEONTIASIS OSSEA.

MR. W. ROGER WILLIAMS, F.R.C.S. (Preston), writes: I must enter a mild protest against the application of the term "leontiasis ossea," to such a tumour as that described by Mr. Noble in the BRITISH MEDICAL JOURNAL of December 5th. The histological structure of Mr. Noble's tumour was thoroughly investigated by the Morbid Growths Committee of the Pathological Society in 1868,[1] and it was proved to be an ossifying myxoma of the nasal septum of endosteal origin, whereas "leontiasis ossea" is merely a form of hyperostosis. The application of the term "leontiasis ossea" to such a tumour as Mr. Noble's is misleading.

### DIPHTHERIA IN HOT AND COLD COUNTRIES.

A.M.S. writes: There is at least one exception to Dr. Schellong's statement that diphtheria is very unusual in a tropical country. In the island of Mauritius, in the Indian Ocean, and within the tropics diphtheria is very prevalent. It is believed to attack particular families, but probably this can be explained by those families residing in certain localities favourable to the origin of the disease. The mean annual temperature in Mauritius is about 80° F. The climate is equable and damp, and malarious fever is endemic in the low-lying districts.

### MEDICAL EXPERT EVIDENCE.

DR. HORACE DOBELL (Parkstone Heights, Dorset), in the course of a letter on this subject, writes: I think it should be a rule that no doctor of repute should appear as an expert witness in a case unless he is allowed to have a conference with all the other doctors concerned in it. It is the lawyers who stand in the way of this; and I think it is beneath our dignity as a profession to allow ourselves to be made their tools. The very reason which makes them object to this course is the one that should make us insist upon it, namely, that more than half the medical disputes would never come into court if this rule were followed. Of course the experts, like the lawyers, would lose some fees by it; but I will not believe that doctors of repute would not a hundred times rather lose their fees than have undignified *exposes* come before the public and the profession. If all the best men in the profession would agree on this course it would soon become a disgrace to appear in court on any other terms.

### PRACTICE IN SOUTH AFRICA.

B. R. A. (Cape Town) writes: In answer to numerous inquiries I think the following facts may prove useful to those who look on South Africa as a good field for practice, and who intend to emigrate there. The profession here, as at home, is vastly overcrowded, and a man coming out here must be prepared to bring enough money to keep himself for a year or so until he either obtains some employment or his practice becomes lucrative. I can confidently state that every small village and town in Cape Colony and Natal is well supplied with medical men, and in the principal towns, such as Cape Town, Johannesburg, and even in Buluwayo, the supply largely exceeds the demand. Everything here, as elsewhere, is obtained by local influence, and an outsider naturally has no chance against the Colonial; this fact applies to every profession and trade out here. *Locum-tenencies* and assistantships are extremely difficult to obtain, as they are far and few between. Moreover, it is essential to have a good knowledge of the Dutch language, and, besides, there are always plenty of experienced men ready to take up these appointments, as I have found more than once to my cost. Fees certainly are higher, but then it must be remembered that the cost of living even in Cape Town is at least double that of England, and in Johannesburg about treble the amount. An English practitioner can have no idea of the isolated rough life which one is forced to lead in the up-country districts, the centre of which may be 100 miles from the nearest railway station, and even there professional competition is frequently quite as keen as at home. The majority of medical men here are either of Scotch or German nationality, and I think we are all well acquainted with their national characteristics. In view of the following facts I must advise the profession not to come here just now or they

[1] *Trans. Path. Soc.*, vol. xix., 1868, p. 339.

will be doomed to disappointment: (*a*) Rinderpest, which by devastating the country must affect medical fees; (*b*) unsettled relations between the Dutch and English all over the colony; (*c*) Transvaal depression; (*d*) uncertainty of the future of Rhodesia despite all Stock Exchange reports. I am writing this letter chiefly to catch the eye of the junior members of our profession, and I shall feel sufficiently repaid if I am the means of preventing disappointment in the minds of those who think that South Africa is an El Dorado for the doctor as well as for the artisan.

### PROFESSOR CALMETTE'S ANTIVENENE.

MESSRS. ALLEN AND HANBURYS, Plough Court, Lombard Street, E.C., ask us to state that they have become the agents for Great Britain and the Colonies of the Pasteur Institute at Lille, and have received a supply of the antivenomous serum. It is supplied in vials containing 10 c.cm., the quantity for one injection.

### PICRIC ACID IN BURNS.

DR. C. H. SOUTER (Balaklava, South Australia) writes: In the BRITISH MEDICAL JOURNAL, October 17th, 1896, Mr. R. Shalders Miller refers to Mr. D'Arcy Power's notes on the use of a solution of picric acid for superficial burns and scalds. He suggests as a substitute hazeline, and describes its use.

I had heard of and used picric acid in solution for burns even before I saw Mr. Power's contribution: it appeared to have been used with much success in certain iron foundries and sugar works, a large open vessel of it being kept in readiness for emergencies. I have used it (the solution to the strength of saturation) in several cases, one a burn of the third degree, and shall certainly not expect to find better results from any other application. I simply painted the whole burnt surface with a saturated solution of picric acid in water, using a large camel-hair brush with which to do so. In later cases I found that no evil results followed the practice of leaving the primary dressing (covered with oiled silk and cotton wool) on for a period of from three days to a week, and similarly with subsequent dressings. Greater simplicity, harmlessness, and freedom from pain and resulting scar contraction can hardly be gained by hazeline, which latter, Mr. Miller admits, is expensive.

### CHILD IN UTERO CRYING DURING LABOUR.

DR. E. FITZGERALD FRAZER (Brighton) writes: I was in attendance on a case of twin labour here recently. I applied the forceps to the head of the first-coming child. Whilst using gentle traction, and the vertex being still upon the perineum, I was surprised, as was also the nurse, to hear the child cry. At first we thought we were deceived, but in a very short time the sound was repeated, and before any part of the head was born the same phenomenon occurred several times. Nothing unusual happened during the birth of the second baby, which came away naturally. I cannot say whether the pressure of the forceps had anything to do or not with causing the crying. There were no marks of it on the head, and the boy is doing well. This instance illustrates the possibility of uterine breathing, as otherwise I cannot see how the vocal cords could have been called into play. The entry of air into the lungs took place, I believe, during the time I was putting the forceps into place. In doing this no difficulty presented itself.

### THE M.D.EDIN.

OUR contemporary, the *Daily Telegraph*, reports an incident that occurred before the Southwark magistrate, in which a most unwarrantable charge was made against the fair fame of the above degree. A solicitor, addressing a medical prosecutor, is reported to have made the extraordinary allegation that the M.D.Edin. could be purchased, as our contemporary phrases it, like a share in a gold-mining syndicate. "Yours is an Edinburgh degree?" he queried. "Yes," answered the other. "These degrees can be bought for so many pounds?" "That is untrue," was the indignant and perfectly accurate reply. Such an imputation is quite unwarrantable, and ought not to have been made.

### DRUNKENNESS AMONG CHILDREN.

ACCORDING to Jakubowitsch of St. Petersburg, drunkenness is spreading among children in Russia. He speaks of children between 4 and 5 years of age as having had *delirium tremens*. As to inebriate heredity, he had observed the difference between the children of the same parents, begotten while the parents were temperate, and those born during parental intemperance. The first children were physically and intellectually normal, while the later exhibited traces of body and brain degeneration. Parents often carelessly and thoughtlessly gave young children spirits to make their cheeks bright and their eyes sparkle, and liqueurs to soothe and induce sleep. Thus juvenile intoxication was originated. In Britain, only a week ago, a girl of 13, of respectable parentage, was charged with being drunk and incapable, at Ancoats Police-court.

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LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) Dr. T. M. Allison, Newcastle-on-Tyne; Mr. R. Allen, Dartford; Messrs. Allen and Hanburys, London; Dr. J. Adams, Glasgow; C. M. Allan, M.B., Longton. (**B**) Dr. G. P. Bate, London; Dr. B. Bramwell, Edinburgh; Dr. E. G. Barnes, Eye; J. Biernacki, M.B., London; B.W.; Mr. W. Bassett, Newport, Mon.; Mr. D. Butler, London; Dr. Bond, Gloucester; Dr. A. G. Barrs, Leeds; Mr. F. Bramwell, London; R. A. Bickersteth, M.B., London; Mr. D. Biddle, Kingston-on-Thames; Dr. R. Barnes, Lyss. (**C**) Professor E. M. Crookshank, East Grinstead; Mr. B. Clarkson, Liverpool; Dr. A. W. Campbell, Rainhill; Dr. W. L. Christie, Clifton; Messrs. A. H. Cox and Co., Brighton; Cycling Surgeon. (**D**) D.M.O.; Dr. E. Diver, Kenley; Mr. E. A. G. Doyle, Trinidad; D.; Sir D. Duckworth, Paris; Dr. W. Dobie, Chester. (**E**) Dr. F. Edge, Wolverhampton; Enquirer; Mr. J. Eyre, London. (**F**) Fyfe; W. R. Fenton, M.B., Cape Town; Dr. S. Felce, London; W. E. Fothergill, M.B., Manchester. (**G**) Dr. E. Goodall, Carmarthen; G.R.S.; G.F.C.; G. L. Gulland, M.B., Edinburgh; Mr. W. Gosse, Sittingbourne. (**H**) Mr. F. H. Hudson, London; Dr. F. Hinds, Worthing; Help; Mr. W. B. Holderness, Windsor; Mr. N. Hammond, Ashton-in-Makerfield; Dr. R. G. Hebb, London; Dr. W. P. Herringham, London; Dr. T. G. Horder, Cardiff; Dr. G. Herschell, London. (**I**) Dr. F. Imlach, Liverpool. (**J**) Dr. J. R. Jones, Winnipeg, Manitoba; Mr. G. C. Jones, Halifax. (**K**) Mr. E. P. King, Chepstow, Mon.; Dr. R. Kirk, Glasgow. (**L**) Dr. H. G. Lys, Bournemouth; Messrs. Lee and Nightingale, Liverpool. (**M**) Dr. G. McReddie, Greenhithe; Mr. A. G. Mitchell, Parsonstown; Dr. W. A. Michie, London; Mr. H. C. L. Morris, Bognor; Mr. M. C. Moxham, Boston, Linc.; M.B., M.A.; Mr. J. McNaught, Waterfoot; Dr. G. S. Middleton, Glasgow; Mr. W. R. Macauley, London; W. R. MacDermott, M.B., Newry; R. Morison, M.B., Newcastle-on-Tyne. (**N**) Dr. G. P. L. Nugent, Dublin; Mr. G. Netting, Plymouth; E. N. Nason, M.B., Nuneaton; N.; Mr. H. F. H. Newington, Ticehurst. (**O**) Messrs. Oldfield, Bartram, and Oldfield, London. (**P**) Dr. G. Pernet, London; W. M. Price, M.B., Cardiff; Persevere; Mr. W. F. Preedy, London; Dr. C. E. Purslow, Birmingham; Dr. R. D. Pennefather, London. (**R**) W. Rivington, M.B., London; Dr. J. S. R. Russell, London; A. F. B. Richards, M.B., Swansea; Professor Rutherford, Edinburgh; Mr. H. D. Richmond, London; R.B.; R.H.S.; Mr. W. T. Rogers, London. (**S**) Mr. F. W. Stoddart, Bristol; Dr. E. H. Starling, London; Mr. J. S. Sewill, London; J. H. Smith, M.B., Hampton Wick; Dr. T. Strehz, Chicago; Mr. D. W. Samways, Mentone; Dr. G. C. Smith, London; Scalpel; Dr. J. O. Symes, Bristol; Mr. C. H. Souter, Salakhoe, South Australia; Scotia; Dr. J. E. W. Silk, London. (**T**) Dr. J. C. Thorowgood, London; Mr. J. L. Thomas, Cardiff; Dr. F. W. Tunicliffe, London. (**V**) Veterinarian. (**W**) Dr. S. Worthington, London; Mr. J. S. Watts, London; Mr. C. H. Wells, London; Miss L. Warriner, London; Mr. P. C. Webb, London; Mr. C. Wade, Boscastle; E. W. White, M.B., Dartford; Mr. D. F. Williams, Liverpool; etc.

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## BOOKS, ETC., RECEIVED.

Anatomie Pathologique: Cœur, Vaisseaux, Poumons. Par M. Letulle. Paris: G. Carrè et C. Naud. 1897.

Cycling as a Cause of Heart Disease. By G. Herschell, M.D. London: Baillière, Tindall, and Cox. 1896. 1s. 6d.

A Pictorial Atlas of Skin Diseases and Syphilitic Affections in Photo-Lithochromes from Models in the Museum of the Saint Louis Hospital, Paris. Edited and Annotated by J. J. Pringle, M.B. Part VI. London: Rebman Publishing Co. 1896. 10s. 6d.

L'Epilepsie. Par Dr. J. Voisin. Paris: Felix Alcan. 1897. Fr.6.

Twentieth Century Practice: an International Encyclopædia of Modern Medical Science by Leading Authorities of Europe and America. Edited by T. L. Stedman, M.D. In 20 volumes. Vol. VII. Diseases of the Respiratory Organs and Blood, and Functional Sexual Disorders. London: Sampson Low, Marston and Co. 1896. 30s.

Bibliographia Physiologica, 1896. Répertoire des Travaux de Physiologie de l'Année 1896. Classé d'après la Classification Décimale. Par C. Richet. Paris: Felix Alcan. 1896. Fr.2.

Microscopic Researches on the Formative Property of Glycogen. Part I. Physiological. By C. Creighton, M.D. London: A. and C. Black. 1896. 7s. 6d. net.

Transactions of the Association of American Physicians. Eleventh Session, held at Washington, D.C., April 30th and May 1st and 2nd, 1896. Vol. XI. Philadelphia: Printed for the Association. 1896.

Index Catalogue of the Library of the Surgeon-General's Office, United States Army. Authors and Subjects. Second Series. Vol. I. Washington: Government Printing Office. 1896.

Nursing in Workhouses. By C. S. Roundell. London: Knight and Co. 1896. 6d.

The Medical Environment. By D. Campbell Black, M.D. Glasgow: Hugh Hopkins.

*** In forwarding books the publishers are requested to state the selling prices.

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# REMARKS
ON
# THE POSSIBILITY OF THE ACCLIMATISATION OF EUROPEANS IN TROPICAL REGIONS.

BY LUIGI SAMBON, M.D.,
Rome.

THE question whether Europeans can become acclimatised in tropical regions is one of great interest now that all European states look upon the development of the Dark Continent as the means of relief of the overcrowding of their populations, and of securing new markets for the produce of their industries.

There exists a wide difference of opinion on the question, but the almost universal agreement is that complete acclimatisation of Europeans in the tropics is impossible. Such a pessimistic view is derived mainly from the fact that, up to thirty years ago, the comparison of statistics, in all tropical countries, proved decidedly unfavourable to European colonisation. The enormous death-rate, tenfold higher for the European than for the native, seemed to prove, beyond doubt, that in the struggle for life, in tropical regions, the European was defeated.

The death-rate of Europeans in tropical countries has greatly diminished of late years through rational hygiene and sanitation; but, independently of more favourable statistics, if the question of acclimatisation be studied in its true elements, and if facts be rightly apprehended, a very different conclusion is attained, as in this paper I shall endeavour to prove.

## THE DEATH-RATE.

If we compare the death-rate of England (19.2) with that of the West Coast of Africa, which has been called "the grave of the white man," we shall certainly find a striking contrast, but tropical regions vary greatly in their salubrity, and some will compare favourably with that of England. Thus, in Curacao (Lesser Antilles) the average annual death-rate is 18.7 (1881-85); in Jamaica, 22.2 (1888); in Guiana, 27.4 (1881). Moreover, the death-rate of European States also differs widely, as, for example, between Norway (16.8) and Russia (35.4).

But in comparing tropical countries to European States we must not forget that the health of Europe is greatly due to the enactment of judicious public health laws, to great sanitary works, to more appropriate modes of life, and above all to the consideration which has fairly established itself in the public mind that disease is largely preventable. No country perhaps has benefited more from sanitary science than England, which can justly boast of having been its cradle. Consider what a difference in the healthiness from the Elizabethan to the Victorian age notwithstanding the increase of population from 4 to 29 millions!

## THE INFLUENCE OF HEAT.

The unhealthiness of tropical countries is universally attributed to the direct influence of their climate, but the term "climate" is not generally understood to mean all surroundings, nor all the physical conditions of a place, not even all meteorological agencies, but only temperature; or, in other words, the tropical climate is considered inimical to the European constitution because of its greater and continued heat. I hope I shall be able to show that this notion is erroneous.

Of course climate acts upon the human constitution as on animal life in general and temperature is certainly one of the most important of all climatological factors. A striking example is the change into hair which takes place in the wool of European sheep imported to the West Indies or to the West Coast of Africa, but the effects of climate on the body have little to do with the unhealthiness of tropical countries. Animal life responds to the influences of surroundings by changes essentially protective. A convincing example of this marvellous process of adaptation is that of a gull (larus argentatus) of the Shetland Islands, which twice every year changes the structure of its stomach according to its food. During the summer it feeds on grain, and has the gizzard of a graminivorous bird; during the winter it feeds on fish, and the gizzard is transformed into a carnivorous stomach (Edmonstone).

In considering the effects of climate and surroundings we must be very careful not to confound the changes brought on by adaptation with those consequent on disease. If, for instance, the anæmic state[1] due to the destruction of the red blood corpuscles by the protozoa of malarial diseases be considered as a normal and protective condition due to heat,[2] as some authors[3] have advanced, no wonder that the tropical climate must appear most injurious.

Heatstroke is universally looked upon as the most obvious effect of great heat, but I believe it to be an infectious disease due to a specific organism whose natural history is strikingly similar to that of the tetanus bacillus. The symptoms of the disease, its morbid anatomy, its peculiar geographical distribution, its epidemic occurrences, the relative immunity to its attacks afforded by acclimatisation, the conditions under which it prevails, all clearly point to the specific infectious nature of the disease.

All forms of liver affections may be met with in hot countries, but when they occur in the tropics they are curiously attributed to heat. Liver abscess in tropical countries is far more frequent than in temperate regions; but when we consider the great disproportion of its occurrence in different parts of the world where the same climatic conditions exist,[4] and its great diminution with improved hygienic surroundings in places where it was most prevalent, we must believe that it cannot be attributed to mere heat, moisture, or sudden alterations of temperature, but far more likely to the dysentery amœba (Kartulis).

On inquiring as to the effects of heat on human beings, we find that very high temperatures can be tolerated without harm. In the dry regions of Arizona and South Colorado the ordinary avocations of farm and factory are pursued without inconvenience in temperatures of 118° to 128 F. (Greely). Europeans have lived in health and cheerfulness on the banks of the Senegal when the thermometer in their tents stood at from 120° to 130° F. The tea planters of Assam furnish a remarkable illustration of the safety with which Europeans may expose themselves in the hottest sun. Tea planters are a large class, and their duties require them to be out in the hottest season and at the hottest time of the day (De Renzy). It is, indeed, surprising what power the human frame possesses of resisting the effects of high temperature. Many of our workmen, such as metal casters, glass blowers, furnace men, stokers working on board ship,[5] and men employed in Turkish baths are exposed for hours together to far greater heat than ever emanated from a tropical sun.[6]

There is, unfortunately, a complete lack of statistics that might show the effects of long-continued exposure to intense heat upon such workmen. Usually they are thin, and more or less pallid; but we must remember that also in these cases heat is not found acting alone, but with many other unhygienic conditions, such as noxious gases, vapours, and dust, besides the heavy and exhausting labour, and the very free indulgence in strong drink to allay their painful thirst while working. But if workers exposed to intense heat occupy a low place in tables of vital statistics, it is certainly not from

[1] A frequent cause of anæmia in most tropical countries is the ankylostoma duodenale. Professor Sonsino says: "It is a veritable scourge, and is decimating slowly and deteriorating entire populations like malaria."

[2] We know from the observations of Marestang, Eykman, and others, that in tropical regions the composition of the blood undergoes no change in the amount of red corpuscles or hæmoglobin under the influence of high temperature or other meteorological agencies.

[3] Sir William Moore, Treille.

[4] European troops suffer much more from liver diseases in India than in the West Indies and other hot countries (Fayrer). Hepatitis and liver abscess are far more frequent in Madras than in either Bombay or Bengal, and the same excess in Madras has always been known (Cayley).

[5] Stokers on large steam vessels are subjected to intense heat and to coal dust, often in horribly ill-ventilated and dark stoke holes. They work in a temperature of over 150°, sometimes for so long as four hours without harm. Formerly confinement in the stokehole was a common punishment at sea.

[6] Tillet states that the female assistants in the bakeries of La Rochefoucauld entered the oven at a temperature of 301.6° F. The workmen of Sir F. Chantrey were accustomed to enter a furnace in which his moulds were dried whilst the floor was red hot, and a thermometer in the air stood at 350° F.; and Chabert, the Fire King, was in the habit of entering an oven the temperature of which was from 400° to 600° F. (Carpenter). Of course such extremes of temperature can only be endured for a short time and provided the action of the skin be free.

the diseases most prevalent in hot countries. Diseases of the circulatory system and pulmonary affections, rheumatism, lumbago, and sciatica are among their most distinctive ailments.

In some of the hottest seasons in tropical countries the death-rate may rise greatly, but such a coincidence must not be taken as a proof that heat is the cause of unhealthiness. In the summer of 1895, in Bengal, when the temperature in the shade was as high as 115°, the death-rate rose to nearly 50 per 1,000 in the towns of Burdwar and Hoogley, and to 58 per 1,000 in Calcutta. But it was lower than normal in rural Bengal, thus showing that it is not heat that kills, although it may greatly favour unhealthy conditions.

The European transferred to the tropics accommodates himself to the greater and continued heat in a remarkable manner; the lungs act less, the skin more, the circulation lessens, the individual as a rule becomes thinner, and he soon differs in no essential point from his tropical brother. These variations are the same which take place in the inhabitants of the temperate regions during the height of summer.

### CAN CHILDREN THRIVE?

An argument often brought against the possibility of European acclimatisation in the tropics is the old and persistent impression that the tropical climate is extremely fatal to European child life. Certainly infant mortality is very high in some parts of India and in several other tropical localities, but in such places it is always much lower among European children than among natives.

In Calcutta, where it is extremely high, 58 European infants die annually out of every 1,000 born, whilst the mixed races lose 306 per 1,000, the Hindus 315 per 1,000, and the Mohammedans 363 per 1,000 (Payne).

The chief cause of this remarkable excess amongst the natives of Calcutta is tetanus, a preventable disease of bacillary origin.[7]

Infantile mortality varies greatly in different tropical countries, just as it does in Europe, where it ranges from 41 per 1,000 in Norway to 113 per 1,000 in Italy (Farr). In some mining districts in England 270 infants under 1 year die annually out of 1,000 born.

Some persons admit that infants can thrive in India up to 5 or 6 years, but between this age and fully-developed manhood they consider the climate absolutely inimical. It is true that most European children brought up in India grow up slight, weedy, and delicate, but this is easily explained because Europeans in India are generally obliged to settle in the very hotbeds of disease, and the normal development of their children must surely be hindered by inherited defects and frequent illnesses; besides, for the fear of diseases, wrongly attributed to solar influence, European children are constantly shut up in stuffy and darkened houses. Under similar conditions they grow up no better in Europe.

Experience has proved that, under proper hygienic conditions and careful management, the European child, whether born in India or imported from England, may live and thrive "almost as well as in Europe" (Sir J. Fayrer).

### DETERIORATION NOT DUE TO CLIMATE.

It is also a common belief that Europeans cannot permanently maintain themselves in the tropics without deteriorating.

Some years ago it was likewise believed that the English in the United States and in Australia must inevitably degenerate (Dr. Knox). We know now that the transplanted English in America and Australia have not only not degenerated, but that they, leading a healthy outdoor life, have improved their physique. It is not so much in the colonies as in their own climatic home that the English are deteriorating. Broad chests and powerful limbs are no longer common among labourers and artizans (Dr. Stewart). The medical examiners of recruits reject a larger proportion every year, and those admitted into the ranks are certainly inferior to their predecessors (Dr. Beddoe). This deterioration[8] is attributable to the herding together of dense masses of population in large cities[9]; to a more strenuous struggle for existence; to alcoholism, immorality, syphilis, and tuberculosis: to the survival of the unfit. It has been claimed that the strongest blood cannot endure continuous city life for more than three generations,[10] but must be kept alive by the infusion of country blood, or by return in some degree to country life (Dr. Taylor). It is impossible to trace how far marriage supplies an admixture of new blood into the worn-out city stock, but the constant immigration of country folk of both sexes into our large towns is a well-known fact. In almost all nations, organic ruin is slowly progressing as the old country life is being merged into the miserable life of cities. The birth-rate in England, France, Germany, Holland, and Belgium shows a marked decline coincident with the increase of urban population; and, if we compare the mortality of the rustic labourer with that of the corresponding class in towns, we find that the countryman enjoys a life on an average three times as long as that of his metropolitan brethren. It is surely over our cities that Dante's inscription, "Lasciate ogni speranza voi ch' entrate" might have been written.

Deterioration, whether in our towns, in the unhealthy districts of Europe (goitrous and malarious districts), or in tropical colonies, is evidently not due to meteorological agencies, but is the consequence of infectious disease. Tuberculosis and malaria are the most common and best types of degenerative action and loss of vital energy.

### CAN EUROPEANS WORK?

Another argument often stated is that if Europeans wish to live in tropical countries they must be free from outdoor physical labour and certainly over-exertion in an unhealthy locality may prove fatal, but experience in all tropical regions has proved that Europeans are far more healthy when taking regular exercise.

In malarious countries, the breaking up of the soil is always dangerous.[11] The Boers, who thrive as herders, would probably suffer were they to stir up the soil as husbandmen. In India, while the tea planters of Bengal, excepting those resident in the hills, are sickly in appearance, the indigo planters of Tirhoot, who expose themselves at all seasons and take a great deal of exercise in the sun, retain more of their healthy European appearance than the settlers in other parts of India. It has been remarked by Dr. Jackson that in the East and West Indies European troops were never so healthy as when actively engaged under solar influence and never so sickly as when reposing in barracks. De Quatrefages has pointed out that in the West Indies the wealthy and idle creoles and not the "petits blancs" swell the death-rate of the white population above the average. The transplanted English in tropical Australia work out of doors without loss of energy. When the slaves were emancipated in Guiana planters sought relief in various directions. Negroes from the islands, Indian coolies, Chinamen were all tried, but collapsed. At length they got labourers from Madeira who proved to be efficient, but, more hands being wanted, Portuguese were introduced with results as satisfactory as surprising, they worked better than negroes and they did not suffer more from the climate (Boyle).

### NO RACIAL IMMUNITY.

In unhealthy tropical localities sickness and death-rate are quite as bad among natives as among Europeans. There are differences of prevalence due to differences in the mode of living, but no racial immunity as was formerly supposed.

The immunity of the coloured races from malaria was once considered as an indisputable fact. More recent observations have proved that differences are usually small and mostly unfavourable to the natives.

Comparing the relative prevalence of fever in the European and native troops in India, we find that in the ten-years period 1878-1887, while the admission-rates were equal, the death-rates were three times higher for the natives. In the epidemics of malaria which prevailed in the Island of Mauritius after 1867 the population that suffered most was the immigrant Indian population, and that which suffered the least was the immigrant European (Davidson).

On the other hand, it is frequently stated that the dark races are more liable to elephantiasis than the white. This is undoubtedly true in some countries in which Europeans live a more hygienic life and are more careful about the water they drink. But when whites assume the habits of the natives, they are quite as liable to acquire elephantiasis, as Indian and Brazilian experience has proved (Manson). In India European soldiers suffer much more from liver diseases than the natives, but this is probably due to the great consumption of alcoholic drinks among white troops.

It is a well-known fact that native soldiers suffer much more than European soldiers from all kinds of diseases when they pass from their own district to another within the tropics (Dr. Bryden). But it seems only right to say that the natives are much more exposed.

### GEOGRAPHICAL DISTRIBUTION OF DISEASE.

Although the death-rate of widely separated tropical regions may be very much the same, the diseases which cause it are generally different in the various localities. Diseases have well-defined geographical limits, and, whether due to micro-organisms or to higher forms of organic life, their distribution has been regulated by the same laws which have caused the dispersion of all plants and animals.

Some tropical diseases have a very extensive diffusion, and are also endemic in temperate regions; but the majority have narrow endemic limits, even if, like cholera, they have at times vast epidemic diffusion.

Dysentery and malaria have the widest distribution, but districts quite close to each other and under the very same climatic conditions suffer very unequally from either disease. Very often malaria and dysentery

[7] The proportion per cent. which tetanus constitutes of the total infant mortality among the different races is as follows: Europeans 15, mixed races 15, Hindus 44, Mohammedans 43 (Dr. McLeod).

[8] The same is, to a greater or lesser extent, the case in Paris, Berlin, New York, and other large cities.

[9] According to Dr. Farr, the mortality of districts increases with the density of their population.

[10] Boudin could not find any pure Parisians who could trace the residence of their ancestors in the city back for more than three generations.

[11] The danger of turning up the soil and exposing it to sun and showers has often been exemplified. There was a great outbreak of malarial disease in Paris when the canal St. Martin was exeavated. A most fatal fever devastated Hong Kong when the hill behind the city (Victoria) was broken up for building purposes.

are endemic in the same region, but in many places where the one is prevalent the other is unknown. Malarial fevers are essentially connected with marshy soil.

The plague, which in past times spread widely, seems to have its foci in the neighbourhood of Benghazi in Tripoli; in the district of Assir, on the Western Coast of Arabia; and in localities in Mesopotamia, Persia, Hindustan, and Southern China; but it has never appeared in the Southern Hemisphere or the New World.

Elephantiasis arabum (filaria nocturna, Manson) has a wide area of distribution all over the tropical and sub-tropical world; but some localities are far more affected than others, whilst it is entirely absent in many islands within the endemic zone, as for example in Formosa.

Beri-beri has likewise a wide distribution in many tropical countries, and is at times epidemic, but it is strictly limited in its endemicity.

Yellow fever may become widely diffused in great epidemics, but its endemic area is restricted to the West Indies, the shores of the Gulf of Mexico, and to certain portions of the West Coast of Africa. It is essentially a disease of the sea coast and of the banks of great rivers; its altitude range has rarely exceeded 1,000 feet.

Endemic hæmaturia (bilharzia hæmatobia) has a very limited area of distribution in Africa and Mauritius.

Madura foot is limited to places in India.

Negro lethargy (filaria prestans (?), Manson) is confined absolutely to the West of Africa, and in its endemic area it prevails only in particular localities.

Verruga is confined to some valleys of the Peruvian Andes.

### INCREASE AND DIMINUTION OF DISEASES IRRESPECTIVE OF CLIMATE.

In all tropical countries each district maintains its natural peculiarities of climate and soil year after year, and should, if these conditions be potent, give its yearly quotum of malaria, dysentery, enteric fever, etc.; and in corresponding ratio, district for district, with the intensity of these conditions, yet statistics furnish no support to this necessary sequence; on the contrary, while some diseases have diminished, others have increased quite irrespective of climatic conditions. Cholera has greatly decreased in India wherever a pure water supply has been introduced. Enteric fever has become far more prevalent.

The mortality from enteric fever in 1894 was nearly three times what it was in the decade 1870-79. This increase has been attributed by some authors to change of nomenclature and mistaken diagnosis, but such explanations are not tenable. Dr. Welch has shown that in many places the introduction of a faulty drainage in place of cesspools has been a favourable condition to the spread of the disease, and he has also pointed to the fact that the increase is closely connected with the greater number of young soldiers arriving in India owing to the introduction of the short service system. The age of these soldiers—the enteric fever age, as Duka calls it—makes them especially liable to the infection, and consequently the spread of the disease is favoured by the greater number of cases.

### INTRODUCTION OF NEW DISEASES.

The healthiness of some tropical regions has been completely changed by the introduction of diseases which had never existed in them before, but had more restricted areas in other tropical localities.

The chigger (pulex penetrans), which formerly was confined to Central America and the West Indies, was introduced into Africa in 1872 or 1873, and has spread over the greater part of that continent with incredible rapidity.

Malaria was introduced in quite recent years into the islands of Mauritius and Reunion, which are believed to have been formerly free from infection. Near to Mauritius, now an intense focus of malaria, there is the island of Rodriguez, under the same climatic conditions, which remains free from the infection.

A striking example of the effects of introduced diseases is that of the Hawaiian people who, within a century, have been reduced to nearly one-fifth of their number by the introduction of syphilis and leprosy.

### TROPICAL DISEASES ARE LAND AFFECTIONS.

Tropical diseases are characteristically land affections. The crews of ships sailing in tropical latitudes are strikingly exempt from them, although placed under unfavourable circumstances, due to the small amount of air space available between decks and to a dietary largely consisting of preserved foods. When tropical diseases do occur among seamen they have generally been contracted on shore or introduced on board ship by means of food, drinking water, or other supplies. Sometimes, when ships are obliged to anchor off unhealthy shores, disease is spread to them by the wind. Ships may become independent centres of disease, and often convey diseases from one country to another as they convey brown rats (mus decumanus), which, finding their way into almost every ship, land in almost every shore. Many times yellow fever was brought by ship to the United States, and cholera to Europe, and often they developed into dreadful epidemics, although under physical conditions very different to those of their habitat.[12]

Owing to the great improvements made of late years in regard to supplies of drinking water and to the more extended use of distilled water, diseases such as enteric fever, dysentery, and diarrhœa have greatly diminished in frequency. When they do occur in the naval service they invariably are found to have been derived directly from the shore.

[12] Deadly epidemics of cholera occurred in Russia during the winte

### LIFE PREYING UPON LIFE.

It is not the mere influence of climate which opposes colonisation in tropical lands, but the competition of other living organisms—from man, wild beasts, and snakes to protozoa and bacteria—with which we have to struggle for existence.

In India about 23,000 people and 60,000 head of cattle are killed every year by snakes and wild beasts, but no one would think of putting those deaths down to climate. In Iceland one-tenth of all deaths are due to echinococcus disease, but even in this case no one would attribute to climate the ravages of the tiny cestode. Why, then, should we make climate responsible for the mortality caused by other organisms, even though they be the lowliest in the scale of life and invisible to the naked eye? The greatest advance in scientific medicine from the earliest times is undoubtedly the demonstration that diseases belong to the domain of parasitism.

### CLIMATE AND DISEASE.

Although climate *per se* is not injurious to health, it has nevertheless an important *rôle* in the development and spread of disease.

In some years conditions of environment are so very favourable to some pathogenic micro-organisms that, on account of an unchecked multiplication, they swarm and spread far out of their endemic areas. It happens with bacteria as with some insects—locusts, for instance—which, at certain times, under very favourable circumstances, swarm in those awful pests which are so much dreaded by the farmers of Africa.

We must admit of an even more direct influence of climate in predisposing to disease or influencing its progress.

A very damp atmosphere will develop latent tuberculosis of the throat and lungs, and will favour the continuance of catarrhal affections of the air passages, because it acts directly on the micro-organism and on the tissues, which have become their feeding ground.

The skin in new arrivals in the tropics, being stimulated to increased secretion, is continually bathed in perspiration, and readily becomes subject to lichen tropicus.

### INFLUENCE OF HABITS AND CUSTOMS.

But certainly far more powerful factors in rendering the body vulnerable to the action of disease are the foolish continuance of unsuited habits and customs of European life, the errors of clothing and diet, the neglect of all principles of hygiene.

The customs and vices of our civilisation have greatly increased consumption among the American Indians in their own climatic home, as Dr. Mathews, of the United States Army, has proved. At the beginning of the eighteenth century the Red Indians in the United States were over 2,000,000; in 1880 only 253,000. The same causes have reduced the population of Tahiti from 240,000 to 7,000, and that of New Zealand from 500,000 to 30,000.

But, although many different conditions can predispose to diseases, these cannot be contracted unless the specific micro-organisms peculiar to each be present.

### THE ARMY EXPERIENCE.

The annual mortality of European troops in India stood at 69 per 1,000 for many years prior to 1859. A Royal Commission sitting in 1864 ventured to express a hope that the introduction of scientific sanitation might reduce this to 20 per 1,000. This estimate was even too modest, for now it is as low as 12 per 1,000.

Still more striking is the change which has taken place in the West Indies, where service was formerly considered as almost certain death. Now, in some stations, as for example Trinidad and Barbadoes, the sickness and mortality among the European soldiers are actually less than on home service in years which have no yellow fever.

It may be objected that the lessened sickness and mortality of English soldiers in the tropics is owing to the shorter period of service, but the actual service is never less than five years, and we know that the death-rate and morbidity have always been greatest in the first two years. Moreover, "as the whole long service was constantly passed under the unfavourable sanitary conditions now removed, it does not follow that the inference to be drawn from the statistical evidence as to length of service is really correct" (Notter).

Again, the soldiers now transferred to India are mere boys,

their ignorance of what to avoid is complete; their carelessness proverbial. Under equal conditions they would fall victims to disease in numbers greatly in excess of the more mature and longer service men.[13]

A marked example of the influence of age susceptibility was the 32nd Regiment in Mauritius with malarial fever, when the proportion of attacks per 1,000 of strength under 20 years of age was 250, while between 20 and 30 it was only 40.82.

The almost incredible reduction in mortality obtained in tropical colonies through improved sanitation, a greater knowledge of local diseases, and more appropriate customs proves that the causes which induce disease and shorten life in the tropics are, as in Europe, greatly under our own control.

### DISTRIBUTION OF LIFE.

According to popular belief each species of animal or plant originated in the area it now occupies, but we know that the surface of the earth has continually changed. Land has sunk beneath the ocean, fresh land has risen up from it destitute of land-life; mountain chains have been elevated, altered, crumbled; the physical conditions of districts have been entirely modified; organic life has therefore been subject to continuous displacement and alteration.

If we inquire into the origin of our domestic animals, we shall find that twelve of them came from Asia, two from Africa, and three from America, while only five are European.

As to cultivated plants we should be very poor indeed if we were left only with those natives of Europe. Lemons and oranges were not cultivated in Italy when Pliny wrote; juicy peaches were not grown in Greece in the time of Aristotle. Thousands of people in Europe almost depend entirely on one of our last importations—the potato: it was introduced in England by Sir Walter Raleigh in 1598, and in 1894 it covered an area of 1,232,055 acres in England alone, which gave 4,662,147 tons of potatoes.

Again we have successfully acclimatised in America and Australia the animals and plants which had previously been acclimatised in Europe from Asia and Africa.

There were no sheep in America and Australia; now their number is simply countless. Horses and cattle have thriven marvellously in South America; in New South Wales horses have turned wild and have increased with alarming rapidity.

Even more incorrect is the theory that each species occupies those districts or surroundings best suited to its life. Often species introduced from one country to another or from one climate to another have proved better adapted to the new conditions than to those of their original habitat and have flourished and increased to such an extent as to exterminate the indigenous inhabitants.

The rabbit introduced into Australia and New Zealand and the sparrow in New Zealand and the United States, have found conditions so favourable in their new homes—abundant food, no competition—that, with amazing rapidity, they have grown into pests of appalling proportions.

The thistle, introduced into Australia by a Scotch emigrant, some forty years ago, has spread all over the country, proving a deadly foe to the Colonists. The watercress has proved equally injurious, choking up all the rivers of the country (Dr. Hooker).

A native proverb of New Zealand says, "as the white man's rat has driven away the native rat, as the European fly drives away our own, and clover kills our fern, so will the Maoris disappear before the white man himself." (Youmans).

Some animals and some plants when first introduced into a new country seem unable to thrive, but we must not rush too hastily to the conclusion that the new climate is not suitable. If we could only know all the facts which bear on the case, we should probably find the reason to be a very different one.

The red clover would not grow in New Zealand until bumble bees were introduced to fertilise its flowers; now it displaces the native grasses.

Very few of our hardy garden plants ever run wild. Botanists have sown the seeds of many hundreds of species of exotic hardy plants in what appeared to be the most favourable situations, but in hardly a single case has any one of them become naturalised. This proves that the competition of other organisms is a far more efficient agency in limiting their distribution than the mere influence of climate

### DISTRIBUTION OF MAN.

No plant and no animal originated in all the regions of the globe, and man, anatomically and physiologically a mammal, must have had likewise a restricted primary area. To suppose that man appeared in the beginning, everywhere that we now see him, would be to make a unique exception of him; therefore, even in the absence of direct proof we should have to admit it or otherwise deny all the general laws of geographical distribution. However, it is an undisputed fact that widespread migration and consequent acclimatisation took place in all times and the researches of ethnologists today are continually bringing new evidence.

The whole history of mankind is one of invasions and displacements; one restless movement of individuals and masses.

The swarms of colonies thrown out by Phœnicia and by old Greece, the Slavonic and Teutonic floods which burst into the Roman Empire in the fifth and sixth centuries of our era and the swaying to and fro of the vast Mongolian hordes in more recent times are good examples.

Formerly, the several races[14] of mankind were considered quite distinct ethnic groups and were believed to have originated independently of each other, in the areas where they are now found, but now the unity of the human species has become an accepted fact, and we know that "races are the daughters of climates," as Hippocrates said more than two thousand years ago.

In following up the history of some of the migrations of men which moved only a few centuries ago far from their ancient seats, we find that they have fallen under the same laws which govern the dispersion of all organic beings, according to circumstances, more or less favourable, while some people have hardly changed in their new settlements, and have succeeded so well that they have displaced or pushed wholly out of existence the former occupants, others have been transformed in various degrees by the new conditions of life, and by mixing and crossing with local people: others have totally disappeared.

Thus in India, while the Rohillas, the Rajpoots and the Parsis of Aryan race, after centuries have remained unchanged, the Portuguese of Bombay and Goa have changed immensely, and are now as black as Kohls or Bhils (Boyle).

But if Aryans of remote immigration have not only been able to thrive, but have even absorbed the Semitic dwellers of India, why should the Aryan of to-day be unable to prosper even in those parts of the country which have been called "the English climates of India?"

The French thought at one time that they would never be able to thrive in Algeria,[15] although descendants of anciently immigrated Aryans are still to be found in the province of Constantine and all along the Atlas from Mount Aures to Marocco. Now we send invalids to Algeria, many of its places having obtained the repute of excellent sanitaria!

The Red Indian inhabits the frozen wastes of Hudson Bay and the hottest regions of tropical America. In the Republic of Ecuador he thrives at a height of 12,000 feet on the Andes and in the hot plains at their western base. But if the red man can do this, why is it impossible to the white man, who, according to general opinion, has the greatest facility to accommodation?

The Jews[16] have succeeded admirably in climates very different from that of their native land (Poland, South Africa).

The Spaniards and Portuguese have completely acclimatised in some of the hottest parts of South America. The death-rate of the Spaniards at Cuba is less than in Spain.

The Dutch have prospered in South Africa and in the Moluccas. At the Cape, where they have been settled and nearly isolated for about 200 years, they have hardly changed. They are fair, tall, and robust. Indeed, they are the finest men in the Colony.

### MAN'S POWER OF ADAPTATION.

The power of adaptation to a new climate is certainly different in the several tribes of men, but this is not due so much to a superiority in the capabilities of adjustment as to the power and just application of the arts of civilisation. The lower the tribes the more restricted the regions in which they can exist, because they are unable to modify the circumstances which limit their capability of existence.

It has often been repeated that the negro cannot be acclimatised in regions far north or south of its origin; but the negro from Africa has succeeded in America where, especially in the Antilles and in the United States before the war, he was taken care of as valuable property.

The influence of national habits is a most important element in acclimatisation. The Italians, the Spaniards, the Chinese show a great facility of accommodation by reason of their simple diet and quiet, temperate life. The Englishman, on the contrary, is handicapped by his conservative ideas. He cannot give up animal food and spirituous liquors, and he is averse to the slightest change is his mode of life. Prof. Virchow and Dr. Felkin find the success of south Europeans in their element of Semitic blood; but south Europeans can not only endure more heat, but also greater cold. It was remarked by the famous Larrey that Napoleon's campaigns, whether in that of 1806-7 or the later disastrous in one of 1812, the troops which endured the cold best were not the northern ones but the southern, such as the Spaniards, Italians, and southern French.

### MIGRATIONS OF PRIMITIVE PEOPLE AND MODERN COLONISATION.

Authors generally maintain that sudden transference to an

[13] It may be well to mention that the diseases which most affect the health of European soldiers in India are not those peculiar to a tropical climate, but venereal diseases and enteric fever. In the Government of India sanitary report for 1892, we find that the European army gives 410 admissions for venereal diseases to every 1,000 of its strength. While venereal diseases cause the bulk of the invaliding, enteric fever is preeminently the disease which causes the largest death-rate (5.52 per 1,000).

[14] The human races varied in number according to authors from three (Cuvier) to fifteen (Borid de St Vincent).

[15] General Duvivier declared, "que les cimetières sont les seules colonies toujours croissantes en Algérie."

[16] It is well to remark that they never cultivate the soil,

extreme climate is unfavourable to acclimatisation.[17] The ancient migrations of primitive people were accomplished step by step: hundreds of years were employed to gain only a few degrees of latitude. The race thus accommodated itself gradually to surroundings which differed but little from those it had previously left. We proceed in a very different way: our railways and steamers transfer us in a few weeks to distances which in old days would have cost centuries. It is only in a few savage tribes that progressive colonisation is still witnessed. I believe that sudden colonisation, "le grand acclimatement" as the French have called it, is preferable by far to the "petit acclimatement"; and, in fact, what are the losses in our system of colonisation compared with those of the past! The primitive migrations are not recorded by history, but by analogy we may easily imagine how millions of individuals were hurled to destruction in their desperate struggle with men and surroundings. Every step was a battle.

The Kalmouks in their exodus of 1771 were over 600,000 when they left the Volga: but, five months later, only 350,000 reached the frontiers of China.

To fully understand how far more advantageous is a rapid transit, it will be sufficient to point to the first migrations of Europeans to America when they were heaped together for months in the old sailing vessels, or "floating graves" as they were called, in which scurvy played havoc.

In 1847, after a terrible famine, 89,738 immigrants left Ireland for Canada: 5,293 died at sea, 10,037 died soon after landing, and of the remainder, 30,205 were diseased.

In the present day we transfer shiploads of emigrants to any part of the world with hardly a single loss, but we land amongst them a host of weaklings. In the old perilous migrations of people only a small minority ever reached the promised land, but they were the survival of the fittest. This was the secret of their success.

### Racial Intermarriage.

Crossing with native stock or with immigrants better adapted to the new climate is persistently brought forward by anthropologists as the best and most rapid mode of securing acclimatisation. Intermarriage is said to be the secret of Spanish and Portuguese success in Mexico. But while most authors maintain that half-breeds resist climatic changes better than pure whites (Topinard), others believe that a cross between races is often apt to be a weakling, sharing in the pathological predispositions of each of its parent stocks, while enjoying but imperfectly their several immunities.

Race crossing is present in all colonial populations. Considering only the half-breeds which have resulted from the intercrossing of the white race with the coloured ones, we find that there are over 18,000,000 (D. Omalius). But the human race shows a graduated scale of fertility and permanence in crosses between different types according as they are closely or distantly related. The disposition to union is almost replaced by repugnance in types extremely divergent, while the offspring shows diminished fertility.

Intercrossing is not essential to acclimatisation, and, indeed, many of the most successful examples of acclimatisation have occurred where there has been a complete absence of crossing, as among the Jews in the Bourbon Islands and the Boers in South Africa.

### Fertility.

It has been asserted that sterility of the white race ensues after three generations in the tropics, and this has become the general opinion, but no direct evidence has ever been given to prove it (Dr. Fritsche). On the contrary, we have many examples of continued fertility.

The Spaniards, who in their own country have a yearly birth-rate of 37 per 1,000 inhabitants, have one of 21 at Cuba, and one of 46 in Algeria. The French offer a birth-rate of 26 at home, and one of 41 in Algeria.

With plants and animals a sudden change of habitat will sometimes produce a temporary sterility, as with corn at Sierra Leone, geese at Bogota, and European poultry in America. But it soon becomes re-established by spontaneous variation.

### Recency of Arrival.

"Recency of arrival" in a tropical country has been considered a most potent condition in predisposing to disease. It is a common belief in several tropical colonies that new arrivals must pass through an attack of a seemingly specific fever which is supposed to be essential to acclimatisation (Rufz). We find a similar belief amongst the ignorant classes of Europe in regard to measles, scarlatina, and pertussis, which are reckoned as inevitable perils of childhood; and I know of mothers who have taken their children to the sick-room of measles so that they should contract the disease, firmly believing that the earlier it developed the milder its course and the healthier the consequent growth of the child.

That a certain functional disturbance should be common among new comers, and that this systematic instability should increase susceptibility to disease is probable, but I believe, with Mr. H. M. Stanley, that the greater immunity of the acclimatised is largely a matter of education in hygenic common sense.

Surely thousands of years of experience have, in many instances, taught the people of tropical countries what is best for them in matters relating to food, clothing, houses, exposure, sleep, and the details of daily life.

The prohibition of pork among the Israelites and Mohammedans, and the general use of hot drinks like tea in China, are based upon the acquaintance with the ill effects that may result from the alimentary use of particular meats and waters.[18]

### Early Colonisations.

The very same difficulties which oppose our colonisation of tropical lands were met by the ancient Greeks when they colonised Sicily and Southern Italy. Malaria was rife in all the places which offered the best commercial prospects. In the monuments which have remained of that wonderful civilisation, we find frequent and unmistakable signs of a great struggle for healthiness. Even the coins of cities such as Caulonia and Selinus have subjects stamped on them which prove the mighty endeavours at sanitation which made their colonisation prosperous.

The same can be said of the old Romans, their great sanitary works, studded all over the ancient world, and in many places still in use, show which are the means of success.

Looking further back, far beyond the records of history, how much more terrible must have been the struggle for life to the earliest men who, leaving their warm countries, invaded our cold, damp regions, and whose bones we find alongside those of the mammoth, the ursus, and the hyena! Yet they succeeded. Now why should we, retracing our steps, become less vigorous or perish?

### Man was Born in the Tropics.

We know nothing positive about the locality in which the human species first originated, but two important facts lead us to believe that man was born in the tropics.[19] First, the tropics are still the habitat of the anthropoid apes from which the human species evolved according to the unanimous conviction of all naturalists. Secondly, the great civilisations of remote antiquity: Chinese, Egyptian, Chaldean, Assyrian, Hittite, Indian, Persian, Phœnician had their origin in warm countries. The two earliest civilisations of which we can form any definite picture were those which grew up on the banks of the Nile and of the Tigris; they constituted the source whence all peoples have drawn in their turn. The culture of Greece was derived from Egypt and Chaldea, that of Rome from Etruria and Greece, and the Roman style, again admixed with Oriental influences, gave birth in succession to the Byzantine, Romanesque, and Gothic styles, according to the genius of the peoples among whom they were developed. If there be still earlier seats of civilisation whereof the annals remain to be discovered, surely they must be in the South.

I will not go so far as to say that the warmest climate is the most suitable to man under the conditions of modern civilisation, but I must remonstrate against the prevailing idea that a cold and variable climate is the most conducive to the physical and intellectual improvement of the human race. Northern climates certainly produce stalwart frames, but they are not disposed to longevity. The average Arab outlives the

[17] Dr. Felkin says, "My strong opinion is that it can only be possible if migration occurs step by step, and in estimating the possibilities of acclimitisation we must count by generations rather than by years."

[18] Herodotus reports that "whenever the great king (Kyros) travels he is attended by a number of four-wheeled cars drawn by mules, in which the water of the Choaspes river, *ready boiled for use* and stored in flagons of silver, is moved with him from place to place."

[19] Max Müller places the locality of human origins "somewhere in Asia."

average Esquimaux by twenty-five years; the inhabitants of the unhealthy coast towns of South America survive the Gauchos who live a healthy outdoor life; the Hindus attain a surprising age, considering their *penchant* for betel poison and their great poverty. In Europe, the southern nations (Greece, Spain, France) are the most favoured as to longevity. England, with a population of 27,483,490, has 146 centenarians; Spain, with a population of 18,000,000, has 401.

### Acclimatisation a mere Question of Hygiene.

Although obliged to greatly curtail the adducible evidence, I venture to hope that the facts set forth in this paper will suffice to prove: First, that European emigrants can live and perpetuate their kind in tropical regions; secondly, that the difficulties in the way of colonisation are not due to climate, but to parasitism; thirdly, that acclimatisation is, to a great extent, a mere question of hygiene.

If colonisation in the past has proved to be a work of mere destruction, it is not a reason to suppose that it must be so in the future. The very failures of the past, if their meaning be clearly apprehended, will prove useful guides. Our greatest achievements are the results of many failures.

Of course, we must not forget that every attempt at colonisation is a campaign not only against man, but against a host of minute living organisms far more fearful.

In last year's expedition to Madagascar, only 7 men were killed by the Hovas and 94 wounded; but the deaths due to disease numbered 6,000, and 15,000 were on the sick list. In the expedition of 1802 to Jamaica, the French lost no fewer than 50,000 out of 60,000 from yellow fever.

The first and most important step towards success is the explosion of the old baneful theories which would only operate by obstructing the adoption of appropriate measures. Europeans going to tropical countries must be of robust constitution and in perfect health. To think that the weaklings and those from malarious districts stand a better chance is an absurd mistake. But physical defects are not the only disabilities: personal habits are of the utmost importance; temperance and morality are powerful weapons in the struggle for life. Arnold was right in saying: "Drink has cost England more graves in the East than all our wars since Clive." Sexual immorality, under the influence of a tropical climate, and in the presence of a native servile and morally undeveloped population, rises to a climax unknown amid the restraints of home life, and becomes one of the most potent causes of physical prostration.

Of the greatest importance is the choice of healthy localities. Even in the most sickly regions there are healthy tracts of greater or lesser extent. The general salubrity of a place may be fairly ascertained from the physical standard of its inhabitants.

The fertility of the land and the conveniences of trade have generally determined the location of settlements on the deadly alluvial soils at the mouth of rivers. Towns thus built in the very worst places in consideration of their apparent value, but totally regardless of their qualities with reference to health, are greatly responsible for the reputation of unhealthiness which is associated with tropical countries.

The sanitation of the unhealthy tracts in tropical lands may seem at first a hopeless task, but intelligence, energy, and science will surely triumph. The genius of man which has united Transcontinental seas and tunnelled mountains, which has changed the course of rivers and made vast regions rainless by denuding them of their forests, which has obliged the earth to produce almost only cultivated plants and domestic animals, and which has grasped the whole globe in a wonderful mesh of electric feelers, can undoubtedly turn to its advantage the vast and rich territories which lie within the tropical belt.[20]

### The Evolution of Man.

Europeans who settle in tropical countries must not expect to remain unchanged from generation to generation. Even when there is no intercrossing, although the main features may persist for a long while, the new surroundings soon give their own print. This is clearly shown by the Jews, who retain their original features, but who also bear the stamp of the country in which they live. In all the Colonies where Europeans have settled, we find they have altered in temperament, ideas, and bodily features. The change is slow at first, because fresh blood constantly streams in from the Mother Country, and perpetuates the original characters, but, as the colony grows older, the immigration lessens, and the new settlers diverge further and further from their original type.

We have no reason to dread this evolution, it is the outcome of acclimatisation, and when we consider what splendid races (the Sikh of India, for example) inhabit the most favoured tropical regions, we must come to the conclusion that it can only lead to the development of new people, certainly not inferior to the noblest specimens of existing humanity.

Nevertheless, when we consider that man, modifying surroundings and substituting his selection for that of Nature, has been able to produce endless varieties of domestic animals which would never have come into existence under natural conditions, and would soon revert through atavism to the original type (as witness the wild horse), or perish out of their artificial surroundings, we must certainly believe that he can escape many of those influences which irresistibly modify all other organic beings.

From the moment when the first skin was used as a covering and the first fire blazed at will, man was no longer a slave to the universal evolution, and advancing civilisation will enable him more and more to keep himself in harmony with Nature—not by bodily changes, but by greater strides in intellectual power.

[20] The tropical zone comprises more than one-third of the surface of the globe.

## HYPERPYREXIA IN MEASLES.

By T. M. ALLISON, M.D.,
Newcastle-on-Tyne.

On December 10th, 1896, I was asked to see a well-nourished girl, aged 15 months, with a history of whooping-cough during the previous five weeks. She was suffering from bronchopneumonia, the respirations being 70, and the temperature 104°. The face was somewhat livid, and the eyelids glued together with secretion. I ordered medicine and a hot bath, and in the evening the temperature was 102° and the respirations 60.

Next day a rash was visible on the forehead at the roots of the hair; the temperature was 104.2°, and the respirations very shallow and rapid.

At night the nurse sent me word that the temperature was 109°. On arrival I learnt that the child had had two slight convulsions, and had been given a hot bath. On putting my thermometer into the axilla, I found it to register 107°, whilst the nurse showed me her thermometer still registering 109°. This had been taken before the bath.

The patient was cyanotic, restless, and apparently unconscious. The rash had disappeared. The breathing was extremely quick for five or six respirations, and then came a long pause, followed by a struggle to get rid of the bronchial secretion, which threatened to choke her. During respiration hurried harsh breath sounds were present over the left chest behind, whilst abundant moist *râles* were heard in addition over the right. Both sides were resonant, with the exception of a slight area of dulness at the base of the right lung.

I gave antifebrin grs.ijss by the mouth, but as anything swallowed tended to set up an attempt at whooping-cough (seemingly overshadowed by the pulmonary condition) I administered atropine hypodermically, which checked secretion and calmed and regulated the breathing. On now rubbing the body back and front with ice the temperature was brought down, but it quickly went up again to 109° by the nurse's thermometer and to 109.2° by mine, both records being taken in the axilla. Ice was again applied to the body, and as the temperature fell the forehead was seen first to become flushed, and then the characteristic rash of measles followed, and spread slowly down the face, whilst the moaning of the child showed that consciousness was returning. The general condition became much easier for a time, but the breathing suddenly quickened and stopped, the rash disappeared, and the child expired.

Although high fever is not unknown in the measles of adolescence, yet a temperature of 109° is rare in that disease in childhood.

# TWO CLINICAL LECTURES ON ADDISON'S DISEASE.

WITH NOTES OF THREE CASES, IN ONE OF WHICH SUPRARENAL EXTRACT PRODUCED MARKED IMPROVEMENT, AND IN WHICH THE SUPRARENAL BODIES WERE FOUND AFTER DEATH TO BE ABSENT AND REPLACED BY MASSES OF FAT.

*Delivered at the Edinburgh Royal Infirmary*

BY BYROM BRAMWELL, M.D., F.R.C.P.EDIN., F.R.S.E.,
Assistant Physician to the Infirmary; Lecturer on the Principles and Practice of Medicine in the School of Medicine, Edinburgh; etc.

## LECTURE II.

THE case to which I wish to direct your attention to-day is one of remarkable interest—first, on account of the fact that great improvement resulted from the administration of the extract, the specific treatment of Addison's disease as it may be termed: and, secondly, from the circumstance that after death, which was due to an attack of influenza, both suprarenal capsules were found to be absent, and to be replaced by masses of fat.

But, before referring to the details of this case, let me say a word or two with regard to the pathological physiology of Addison's disease, and the theory on which the administration of suprarenal extract is based.

### PATHOLOGICAL PHYSIOLOGY OF ADDISON'S DISEASE.

There can be no doubt whatever that the symptoms of Addison's disease are the result of disease of the suprarenal capsules. In trying to explain the pathological physiology of Addison's disease, the following points in connection with the morbid anatomy must be kept in view:

1. In the great majority of cases of Addison's disease which have been examined after death, both suprarenal capsules have been found extensively diseased—in fact, completely destroyed—by a peculiar fibro-caseous change, which, as I have already told you, is tuberculous in its nature. Some authorities even go so far as to say that this fibro-caseous lesion is the only lesion which can produce Addison's disease. I venture to think that this is a mistake: for in some cases in which all the typical symptoms of Addison's disease were present during life and inactive, and in which the suprarenal capsules were found to be diseased after death, some other lesion than the fibro-caseous (tuberculous) one, which is the common cause of Addison's disease, was present. Cases of this kind are undoubtedly very rare, but they do occur. In some cases of this kind (they are very rare) the capsules were destroyed by malignant disease (cancer or sarcoma). In others, which are also extremely rare, the lesion of the capsules was apparently a simple fibrous atrophy. In still rarer cases, as in the one I shall presently relate to you in detail, the capsules have either been apparently absent, or, as in my case, replaced by fatty deposits.

2. Although, as I have just stated, in the vast majority of cases of Addison's disease both capsules are affected by the lesion, there are, I think, a sufficient number of cases on record in which one capsule only appears to have been affected to warrant the opinion that in very rare and exceptional cases the symptoms of the disease are developed when one capsule only is affected. It must, however, be admitted that this is a disputed point. Some of the best authorities on the subject (such as Dr. Wilks, Dr. Greenhow, Dr. Pye-Smith) doubt whether disease of one capsule is ever sufficient *per se* to produce the disease. This point has a very important bearing upon the theories which have been advanced to account for the mode of production of the disease.

3. In the great majority of cases of Addison's disease the nerves which pass in great abundance between the suprarenal capsules and the solar plexus are inflamed, degenerated, or diseased.

4. In rare cases in which some at least of the symptoms of Addison's disease (such as the pigmentation of the skin) were present during life, the suprarenal capsules were healthy, but the abdominal sympathetic was diseased.

The chief theories which have been advanced to explain the pathology of the disease are:

*The Theory of the Arrest of Suprarenal Function.*—That the symptoms of Addison's disease are due to destruction of the capsules—that is, to abolition of the functions of the suprarenal bodies or suprarenal glands, as they may be termed.

*The Nervous Theory.*—That the symptoms of Addison's disease are not directly due to destruction of the suprarenal bodies, but that they result from the derangements in the abdominal sympathetic and, perhaps, other nervous structures which the lesion of the suprarenal capsules produces.

In the present state of our knowledge it is extremely difficult to reconcile all the facts in accordance with either one or other of these theories.

In favour of the first view are the facts (*a*) that in the vast majority of cases of Addison's disease both capsules are completely destroyed; (*b*) that in some cases, apparently of simple atrophy or fatty change, in which both suprarenal capsules are completely destroyed, and in which, so far as *post-mortem* examination showed, there was no lesion of the abdominal sympathetic, typical symptoms of Addison's disease are nevertheless developed; and (*c*) that in some cases of Addison's disease the administration of suprarenal extract is undoubtedly attended with benefit.

Against this view are: (*a*) the fact that cancerous destruction of both capsules does not (except, perhaps, in very rare instances) produce the symptoms of Addison's disease[1]: (*b*) that in many cases of Addison's disease there is strong pathological evidence to show that the suprarenal capsules have been completely destroyed for months or even years before the death of the patient, and before the symptoms of the disease were developed in a marked degree: and (*c*) that in many of the cases of this kind (cases in which the capsules are completely destroyed) remarkable temporary improvement may occur.

In favour of the nervous theory of the disease are the facts: (*a*) That in the great majority of cases of Addison's disease the lesion is one and the same—a fibro-caseous (tuberculous) destruction of both capsules: (*b*) that cancerous destruction of both capsules rarely (in the opinion of some authorities never) produces the symptoms of Addison's disease;[2] (*c*) that in rare cases one capsule only, or (according to two French observers, Drs. Alezais and Arnaud) a part—the peripheral part—of one capsule only is involved; (*d*) that in almost all cases of Addison's disease the nerves surrounding the capsules, and (in many) the semilunar ganglia and large nerve cords of the solar plexus are embedded in a highly irritative (tuberculous and inflammatory) tissue; (*e*) that in a considerable number of cases naked-eye and microscopical changes can be demonstrated in the semilunar ganglia and solar plexuses, and that (according to Alezais and Arnaud) microscopical alterations are always present in the peri-capsular ganglia; (*f*) that (according to Alezais and Arnaud) in some cases in which the tuberculosis of the capsule is limited to the centre of the organ (that is, does not invade the cortical portion), and in which the pericapsular ganglia and the abdominal sympathetic are healthy, the symptoms of Addison's disease are not developed; (*g*) that in a few rare cases in which the symptoms of Addison's disease have been present during life, the suprarenal capsules have been perfectly healthy, but the semilunar plexus and solar ganglia have been diseased (enveloped in a mass of new growth); (*h*) that in some cases of Addison's disease in which suprarenal extract has been administered no improvement in the symptoms has occurred.

Against this view (the nervous theory of the disease) are: (*a*) That in many cases of Addison's disease no changes have been found in the semilunar ganglia or great cords of the solar plexus. It must, however, be remembered that the nerve fibres, which are in the immediate neighbourhood of the capsules, are probably always involved in cases in which the

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[1] The question is whether in cases of cancerous destruction of the capsules, in which the symptoms of Addison's disease were present during life, the suprarenal glands were completely destroyed.

[2] Possibly, as Dr. Rolleston has suggested (the Goulstonian Lectures on the Suprarenal Bodies, BRITISH MEDICAL JOURNAL, March 30th, 1895, page 680), in such cases death has occurred before symptoms characteristic of Addison's disease have had time to develop; or "that some compensation for the destruction of the suprarenal glands is present in accessory suprarenal bodies, and that, as in the case of the thyroid gland, symptoms due to the destruction of the main glands are thus avoided" (*loc. cit.*, April 5th, page 746).

typical fibro-caseous lesion of the capsules is present; and that, as Dr. Dixon Mann had pointed out, it is quite possible that an irritation, which is not sufficiently marked to produce visible (naked eye or microscopic) changes, may nevertheless produce very marked functional disturbances in the nervous system, and so may perhaps produce the symptoms of Addison's disease.

Further, Drs. Alezais and Arnaud, as I have already more than once pointed out, claim that the pericapsular ganglia are affected in all cases of Addison's disease,[3] though they allow that in many cases no alterations can be detected in the semilunar ganglia or large nerve cords of the solar plexus.

(*b*) That simple atrophy and (as my case seems to show) fatty destruction of the capsules (independently of any obvious nerve irritation) is occasionally the cause of the disease, and

(*c*) That in some cases of Addison's disease—and the one which I am about to relate to you is perhaps the most important which has yet been published—the administration of suprarenal extract is attended with marked benefit.

The theory that the symptoms of Addison's disease are due to arrested or defective secretion of the suprarenal glands is undoubtedly a seductive one, and the knowledge which we have obtained during the past few years regarding the important influence which the thyroid and other ductless glands have in regulating the metabolism and nutrition of the tissues renders it much more probable than it was a few years ago. It cannot, I think, be lightly put aside. As I have stated elsewhere, it is not improbable that both theories (the glandular and the nervous) are correct. It is not improbable, I think, that while some of the symptoms of Addison's disease are the direct result of abolition of the glandular function of the suprarenal capsules, others may be due to the secondary lesions in the abdominal sympathetic, which the primary lesion in the suprarenal capsules, when of the typical fibro-caseous form, seems almost always to be associated with. Cases such as that which I am about to relate afford strong support to the glandular theory of the disease, and I am disposed to argue more strongly in favour of this theory than I did when I published my article on Addison's disease in the year 1892.

Nevertheless, for the reasons already given, it must, I think, be allowed that in most cases of Addison's disease the lesions in the abdominal sympathetic play, at all events, some part, and probably an important part, in the production of some of the symptoms. The facts (*a*) that in some rare cases in which the characteristic pigmentation and some of the other constitutional symptoms of the disease were present during life, the suprarenal capsules were found to be healthy after death, while the abdominal sympathetic was involved in a mass of new growth; and (*b*) that in the great majority of the cases which have been recorded in which both suprarenal capsules were completely destroyed by malignant deposits there were no symptoms of Addison's disease, are extremely difficult to reconcile with the purely and exclusively glandular origin of the disease.

Now, the administration of suprarenal extract is based upon the theory that Addison's disease is due to destruction of the suprarenal glands, that is, to abolition of the function of the suprarenal glands and a deficiency of suprarenal secretion; or perhaps it would be more correct, in the present position of our knowledge, to say that some of the symptoms of Addison's disease are due to deficiency of the suprarenal secretion. Let me now give you the particulars of the remarkable case to which I have already referred.

CASE III.—*Typical Addison's Disease, characterised by Profound and Causeless Asthenia, deep Pigmentation of the Skin and Buccal Mucous Membrane, Pain in the Back, occasional Vomiting and slight Emaciation: Marked Improvement in all the Symptoms, including the Skin Pigmentation, under the Administration of Suprarenal Extract: Death from Influenza. On Post-mortem Examination, Absence of the Capsules, their place being taken by Masses of Fat: in the position of the Left Suprarenal a peculiar Histological Change in the Fatty Tissue, probably indicative of the Remains of the Degenerated Suprarenal Capsule.*

The patient, a grocer, aged 37, married, was sent to me by Dr. Mossop, of Bradford, on October 8th, 1893, suffering from all the characteristic symptoms of Addison's disease.

*Previous History of the Present Illness.*—The patient stated that his present illness commenced two years before I saw him, and that it had followed an attack of influenza. During the attack of influenza he was confined to bed for a few days and suffered from cough, but there was no marked pulmonary complication. After the attack of influenza he noticed that his skin was gradually getting darker. He says, however, that the colour is not worse than it was twelve months ago.

*Previous History prior to the Present Illness.*—The patient stated that he had never been a very strong man. When 22 years of age he had to give up his original employment, that of a compositor, because of "weakness." He had not, however, suffered from any special form of disease. He stated that he had never had a fall or received any injury or strain of the back, and that he had never, during the whole course of his life, been engaged in hard or laborious work.

*Family History.*—None of his relatives had suffered from consumption or scrofula. His father died, aged 50, from alcoholic excess; his mother, aged 60, is alive and well; one sister died of small-pox; there are no other members of the family. The patient is married and has four children, all of whom are fairly healthy.

### PRESENT CONDITION.

The patient states that he is naturally of a pale complexion. He is much pitted with small-pox, the result of a severe attack of that disease thirty years ago. He complains of extreme languor and debility. He says that he has not got appreciably thinner. Since the illness commenced he has felt some pain in the small of the back; this has been worse during the past three months.

On examination, the skin was found to be of a dark, yellowish-brown colour. The small-pox pits on the face, which were very numerous, were much more deeply pigmented than the other parts of the skin; in places they were almost black. This appearance was so peculiar that I photographed him while he was in my consulting room (see Fig. 1). There were also numerous small deep-brown moles on various parts of the skin. The pigmentation was most marked on the face, neck, hands, and genital organs, and it is over these parts that the small black moles and freckles were most abundant. There were also numerous pigmented patches on the lower lip, and on several parts of the buccal mucous membrane.

The patient complained of palpitation, faintness, and giddiness on stooping. He also stated that he was short of breath on exertion, and that on several occasions during the past three months he had vomited. His expression and bearing were suggestive of extreme debility. The heart sounds were so feeble that they could hardly be heard, and the cardiac impulse could not be felt. The blood was quite normal; a drop drawn for microscopical examination had a dark purple colour. The number of red blood corpuscles was 5,600,000 per cubic millimetre, and the hæmoglobin equal to 85 per cent. There was no excess of white corpuscles. No pigment granules could be detected in the specimen of blood which was examined. The urine was normal, specific gravity 1020; no albumen.

In writing to Dr. Mossop regarding the case, I said:

> It is one of great interest. The marked pigmentation at the seat of the small-pox cicatrices, and the numerous small pigmented patches, moles, and freckles, are peculiar. Personally I have never seen these moles and freckles so abundant in any case of Addison's disease before; they are described by Dr. Greenhow as highly characteristic of the disease. The case is a typical one in every respect, and the prognosis is consequently most unfavourable. The essential points as regards treatment are to protect the patient from cold, over-fatigue, and everything, such as over-exertion, likely to produce exhaustion, and to carefully regulate the diet and the condition of the bowels. As regards drugs, if arsenic agrees I should feel disposed to give it a fair trial, with, perhaps, in addition the compound syrup of the phosphates. I should also like very much to try the effect of feeding with an extract of suprarenal capsule. I have not as yet had the opportunity of administering the extract in any case of Addison's disease, but I believe it can be got from Messrs. Brady and Martin—at all events, they will make it for you. It would be well, perhaps, to keep the patient in bed during the early stages of the treatment, and to begin with small doses, carefully watching the effect. I shall be glad to hear from you as to the result.

[3] It is probable that this statement only holds good for the typical (tuberculous) cases. There is no reason to suppose, in cases of simple fibrous atrophy, apparent absence, or fatty transformation (the condition which seems to have been present in my case No. III) that the pericapsular ganglia are affected.

I heard no more of the patient until November 20th, 1894, when Dr. Mossop wrote me:

> I have sent you by post the kidneys and capsules from the case of Addison's disease which you saw more than a year ago, together with portions of the spleen and liver.
>
> I carried out the injections with suprarenal extract prepared by Brady and Martin with undoubted benefit. I will send you full notes of the case in the course of a few days. I feel so convinced of the utility of the treatment in this case, that I would confidently look for good results had I another case of Addison's disease to treat. Other medical men who saw the case during the treatment fully bear me out when I say that it was successful throughout. I may mention that shortly before his death he weighed 8 st. 12 lbs., and his weight at the time when the treatment was commenced was 8 st. 5 lbs.

Dr. Mossop subsequently sent me the following notes: "Early in the month of July, 1893, I accidentally met W. H. G.—who had been a patient of mine in Bradford for several years previous to 1891—at a seaside resort. I was so struck with his appearance that it occurred to me that he was the subject of Addison's disease. I requested him to call upon me on his return home, which he did on July 19th. He then gave me the following history:

"He had never been an ailing man, though not robust, until two years previously, when he had an attack of epidemic influenza; since then he had never fairly recovered his wonted strength and energy, and in fact had gradually become weaker and less fit to follow his occupation—that of a grocer. When I met him in July, 1893, he was totally unable to do anything, and had spent a month at the seaside in the hope of recruiting his strength, but he stated that he was worse than when he left home. His chief complaints were extreme weakness, loss of appetite, and sickness on the least exertion. He was so feeble that he was only just able to dress and undress himself, and had to crawl up to his bedroom on his hands and knees.

"His condition was as follows: Has a mournful, emaciated look, as if he was in the last stage of phthisis, stooping gait and listless movement, with breathlessness on walking. Face and neck as far as shoulders deeply bronzed. His face is marked from small-pox from which he suffered in his youth, the pits being deeper in tint than the rest of the skin. The whole cutaneous surface is discoloured, the backs of the hands contrasting strongly with the whiteness of the palms. The mucous membrane of the lips, mouth, and tongue look mottled and blotched. The conjunctivæ show unmistakably the usual pearly whiteness. There are also a number of small darker petechial spots about the size of a millet seed scattered over the face more particularly, doubtless pigmentary. The finger nails are not affected. The penis and scrotum are also especially discoloured. He first noticed his skin darker a year previously. He does not remember having a fall or a blow. He complains of vertigo, yawning, and sickness, the latter chiefly in the morning; on stooping or exertion he experiences faint feelings. His pulse in the recumbent position was 114, when standing 120; temperature 98°; respirations 24. His bowels are somewhat constipated; urine normal. Had a slight discharge of blood from the anus due to a pile. Tongue clean and moist, appetite indifferent, attacks of indigestion. Heart sounds normal but action weak. Lungs healthy. I advised rest and nourishing diet, with the compound syrup of hypophosphates.

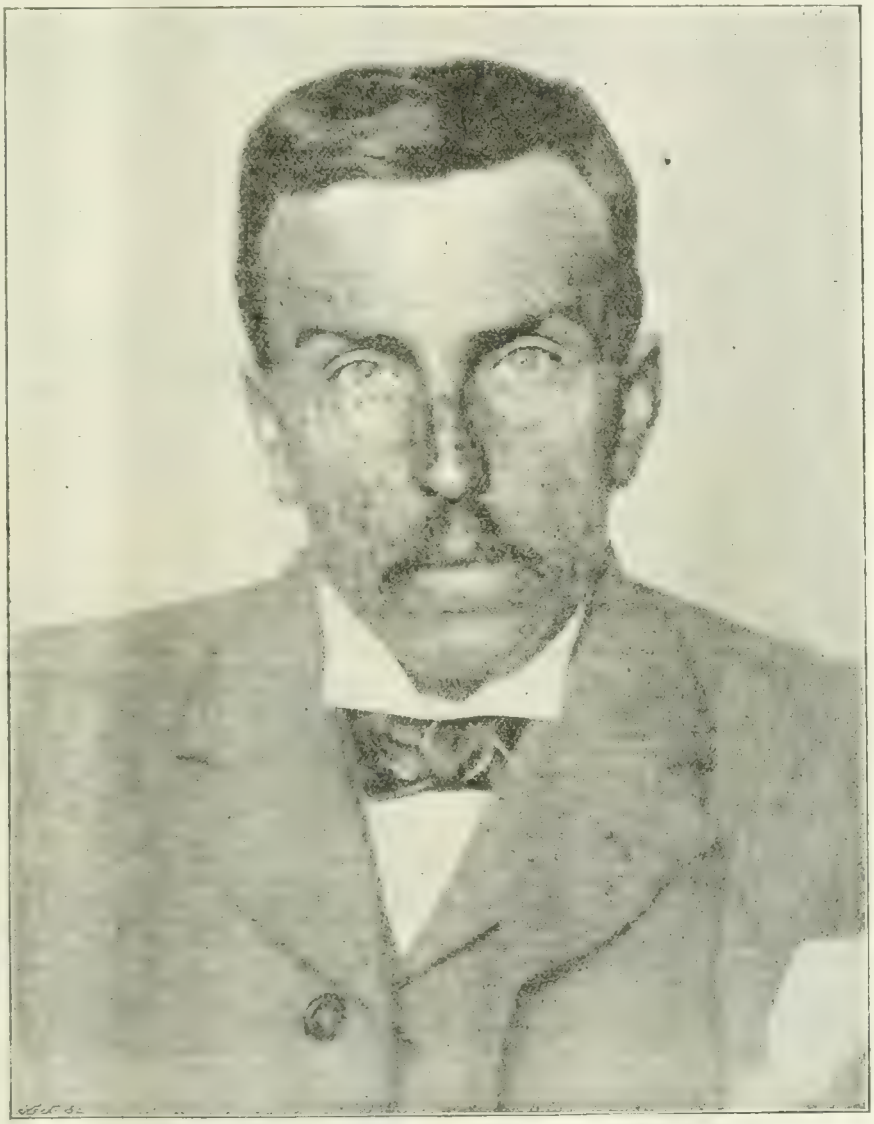


Fig. 1.—Pigmentation of Small-pox Pits in Addison's Disease.

"Three weeks later, on August 5th, I again saw him, and found him a little better. Temperature 99°, pulse 92, respirations 20. I suggested that he should see Dr. Bramwell, to whom I had previously mentioned his case at the Newcastle meeting of the British Medical Association with a view to the treatment by suprarenal capsule juice. He accordingly went to Edinburgh on October 7th, 1893, and my opinion was confirmed and a line of treatment adopted which I may say proved entirely successful.

"*Treatment and its Results.*—The patient was kept in bed for three weeks, and twice a week I injected with every care and precautions 15 minims of the sterilised suprarenal capsule juice prepared for me by Messrs. Brady and Martin of Newcastle, the glands of one rabbit in 3j of the extract. It was injected alternately over the kidney region, and in a fortnight a manifest improvement took place in the colour of the skin. Towards the end of October I tried the capsules of a sheep minced and put into beef tea. This brought on severe gastric

disturbance. I then ordered him to take 10-drop doses of the sterilised juice every other day by the mouth; this answered admirably. I ordered him also "Levico" water (arsenio-ferrated), for a time the mild and then the strong, which suited him well. His appetite improved, and a marked change in his general health took place. He was able to indulge in a fair amount of physical exertion, and to attend to his business as before. His colour was decidedly better, which fact was observed by other medical men who saw him from time to time casually. Ten days before his death, he took an unusually long walk in the country (about eight miles), and was much fatigued by it.[4] At that time his wife and children were ill with influenza, his nights were disturbed, and on the Friday night before his death, which occurred on the Sunday morning at 5 o'clock, he slept in the sitting-room on a couch before the fire. He thought that he had caught a chill, and for the rest of the following day appeared in a semi-comatose condition. A medical man who lived near at hand was suddenly sent for; he requested my attendance. At 11 P.M. I found him in a collapsed condition, with pallor of skin, dilated pupils, and temperature 104°, pulse 140, barely conscious, evidently sinking. Restoratives were tried, but he died at 5 A.M. (six hours afterwards)."

*Post-mortem Examination by Dr. Mossop.*—"The *post mortem* was made on November 20th, 1894. In addition to myself, Dr. Walter Nenby and Dr. Firth, House-Surgeon to the Children's Hospital, Bradford, were present. I was not allowed to make a complete examination. The abdomen and thorax alone were examined.

"The skin of the body had a bronzed hue. Half an inch of fat was present in the anterior abdominal wall. The patient was well nourished, the muscles being firm and of normal colour. The pericardium and heart were normal. The apex of the left lung was adherent by old pleuritic adhesions to the front of the chest wall, but the lungs were otherwise normal.

"The omentum was adherent on the right side to the adjacent structures. There were also some old adhesions about the liver and spleen. The gall bladder was distended with bile. There were no enlarged glands in the abdomen. The spleen was somewhat enlarged, but to the naked eye the liver and spleen appeared to be normal.

"After removing the liver, spleen, and stomach, each kidney with the whole of the fatty tissue in its neighbourhood and (as was supposed) the suprarenal capsule was removed *en masse*, and was immediately forwarded, together with portions of the spleen, to Dr. Bramwell for further observation." Dr. Mossop subsequently wrote saying, "Absolutely nothing was left in the body which could possibly represent a suprarenal capsule."

*The Naked-Eye Condition of the Kidneys and Fatty Masses Representing the Suprarenal Capsules.*—The tissues received from Dr. Mossop consisted of: (1) The two kidneys and large masses of fat attached to the upper end of each kidney, in which it was supposed the suprarenal capsules were embedded; and (2) portions of the liver and spleen.

The masses of fat which were supposed to contain the suprarenal capsules were first detached from the kidneys and carefully examined. They were of considerable size, measuring $3\frac{1}{2}$ inches by 3 inches and 4 inches by $3\frac{1}{4}$ inches respectively. An incision from above downwards was first made into the mass of fat corresponding to the right suprarenal capsule, but no suprarenal capsule was found. This mass of fat was then cut up into small pieces, but the most careful examination failed to detect any appearance whatever suggestive of a suprarenal gland. The mass of fat corresponding to the left suprarenal capsule was then carefully cut into a series of transverse sections. In the centre of the fat, a faint, brown, wavy discoloration, which seemed to correspond exactly in respect to its shape and size with the outline of a normal suprarenal capsule, was seen. The portions of fat in which this supposed suprarenal was embedded were immediately placed in Müller's fluid, and handed to Dr. Muir, who kindly undertook to make the microscopic examination. The kidney, liver, and spleen, which were carefully examined both with the naked eye and the microscope, were found to be perfectly normal.

*Dr. Muir's Report on the Microscopical Examination of the*



Fig. 2.—Untouched microphotograph of a transverse section through the mass of fat in which the left suprarenal capsule was supposed to be embedded (low power). In the centre a vessel surrounded by fat cells is seen. The fat cells in the immediate neighbourhood of the vessel are filled with small globules of oil, between which is a slightly granular material which colours of a brown tint with the rubin-orange stain.

*Mass of Fat in which the Left Suprarenal Capsule was Supposed to be Embedded.*—"I have examined three separate pieces of the tissues, and all show similar appearances. The tissue is composed of lobules of fatty tissue with vessels running in the central part (see Fig. 2). Some of these vessels are of considerable size. The cells at the periphery do not differ

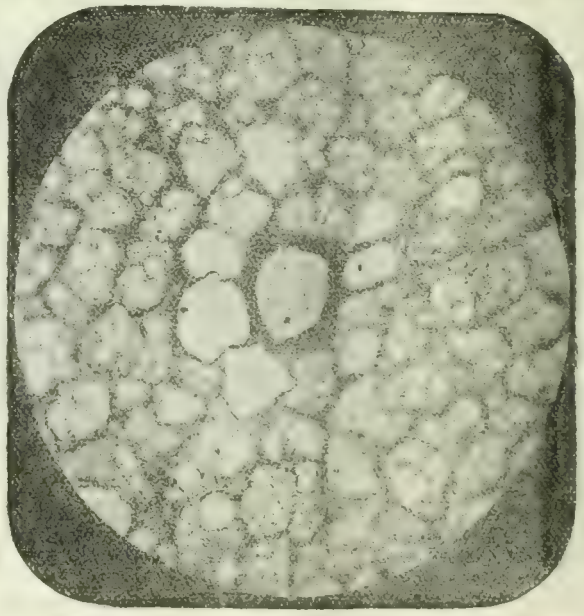


Fig. 3.—Untouched microphotograph of a portion of the tissue round the vessel seen in Fig. 2 (high power). Numerous small globules are seen within what appear to be fat cells.

from ordinary fat cells, but those arranged around the vessels show a peculiar appearance. They are filled with small

[4] The fact that after a year's treatment with suprarenal extract the patient could walk a distance of eight miles, whereas before the treatment was commenced "he was so feeble that he was only just able to dress and undress himself, and that he had to crawl up to his bedroom on his hands and knees," speaks volumes in favour of the remarkable improvement which the treatment produced in this case.—B. B.

globules of oil, between which is a slightly granular material, which colours of a brown tint with the rubin-orange stain. These globules are smaller, and there is more granular material in the more centrally-placed cells, whilst towards the periphery they become larger, apparently by coalescence and disappearance of the granular material (see Fig. 3). The appearance is as if cells were becoming filled with droplets of oil, which afterwards run together so as to produce an ordinary fat cell—a condition suggesting the appearances seen in advanced fatty infiltration of the liver. There are no cells which one can identify as being of epithelial type, and there is no arrangement of the cells in columns, etc. All the tissue examined corresponds to this description. Amongst the cells undergoing this change are a few leucocytes here and there, but there is no trace of inflammatory change. There is nothing, therefore, in the sections which would enable one to identify the tissue as part of a suprarenal. If it is so the change is an extreme fatty infiltration, with ultimate transformation into ordinary adipose tissue. I am not familar with these appearances as occurring in ordinary adipose tissue. I may state further that when Dr. Bramwell brought to me the piece of tissue for examination, the brownish sinuous outline in the fat certainly resembled that of a suprarenal; and I was greatly surprised to find, on microscopic examination, no trace of suprarenal structure. In view of the absence of anything else which could represent the suprarenal, I agree with Dr. Bramwell that the suprarenals were entirely absent or had been replaced by fat, and the facts stated are in favour of the latter view."

### COMMENTARY.

From the account which I have now given you of this case, you will see that it was a very remarkable one. The symptoms were typical and characteristic of Addison's disease. Very great improvement resulted from the administration of suprarenal extract. On careful examination after death both suprarenal capsules were absent, the right being entirely, and the left almost entirely, replaced by fat. These are the most important points.

Another feature of clinical interest was the very dark pigmentation of the small-pox cicatrices, and the presence of an unusually large number of small pigmented freckles and flat moles. As Dr. Mossop has pointed out, the improvement which resulted from the administration of suprarenal extract was most marked. This is only what one would expect if Addison's disease is due to suppression of the function of the suprarenal bodies.

As I have already stated, cases such as this, in which the suprarenal bodies seem to have undergone a simple (cirrhotic) or fatty atrophy, have a very important bearing on the pathological physiology of the disease. They can hardly be explained except on the supposition that Addison's disease is due to suppression of the function of the suprarenal bodies, just as myxœdema is due to suppression of the function of the thyroid gland. But I have already referred to this point in detail, and I need not occupy your time by repeating what I have already said.

But the pathological condition merits further consideration. It is well known that in a certain small percentage of the cases of Addison's disease, simple fibrous atrophy of the capsules instead of the ordinary fibro-caseous tuberculous change is found after death. I have given you the details of a case of this kind which came under my observation in this out-patient department a few years ago. In other cases the lesion in the capsules has been described as a fatty change. Dr. Greenhow refers to several cases of this kind, though he seems to doubt whether they were actually cases of Addison's disease. The same authority (Dr. Greenhow) mentions one case in which the suprarenal capsules appeared to be completely absent.

In the case which I have just detailed it must, I think, be allowed either that the capsules were entirely absent or that they were replaced by fat. The only other explanation is that the suprarenal capsules were not removed from the body and were not sent to me, and that the portions of fat which Dr. Muir and I examined were merely portions of the fat in which the kidney is embedded. This explanation was suggested by one of the speakers at a recent meeting of the Edinburgh Pathological Club at which I showed these specimens and detailed the clinical history of the case. This explanation is, in my opinion, quite untenable. It is of course quite possible in making a hurried *post-mortem* examination to miss the suprarenal capsules. I have, for example, often seen the right suprarenal capsule removed with the liver by an inexperienced pathologist, and supposed for the moment to be absent; but in this case the conditions were altogether different. That the fat which was attached to the kidneys did actually represent the remains of the suprarenal capsules cannot, I think, be doubted for the following reasons:

1. The patient had suffered during life from symptoms which were typical and characteristic of Addison's disease, and had been treated for eleven months with suprarenal extract on account of the Addison's disease. The case was, in fact, regarded as a typical case of Addison's disease in which notable improvement had occurred as the result of this treatment.

2. Three qualified medical practitioners made the *post-mortem* examination, with the express object of removing the suprarenal capsules. I am not acquainted with two of these gentlemen, but the third I have known for twenty-five years, and those who know him as well as I do will not doubt his competence and reliability.

3. This gentleman assures me that everything was removed which could possibly represent a suprarenal capsule, and was sent, along with the kidneys, immediately to myself. He states definitely that nothing was left in the body which could possibly represent a suprarenal capsule.

4. In the specimens which I received I found a large mass of fat attached to the upper end of each kidney. These masses of fat exactly occupied the position of the suprarenal capsules. Until I cut into these masses of fat and examined them I never for one moment doubted that the suprarenal capsules would be found in their interior.

5. In the mass of fat which occupied the position of the right suprarenal I did not find anything suggestive of a suprarenal capsule; but in the mass of fat which occupied the position of the left suprarenal, a dark, apparently pigmented, sinuous outline, which exactly resembled in size and shape the outline of a normal suprarenal body, could be seen with the naked eye.

6. Although the microscopical examination subsequently made by Dr. Muir failed to show anything which could be definitely identified as the remains of the suprarenal capsule, it showed appearances which are peculiar, and with which neither Dr. Muir nor myself are familiar as occurring in ordinary adipose tissue. Whether small localised hæmorrhages could produce such appearancess or not I do not know.

Now, for the reasons which I have just stated, there can, I think, be little or no doubt that the suprarenal bodies were absent, and that they were replaced by fatty tissue. If this is so, the lesion is, so far as I know, unique; for although fatty changes in the suprarenal capsules have been previously described, I am not acquainted with any case in which there was complete fatty transformation such as existed in this case.

From a practical point of view, the marked improvement which was produced by the administration of suprarenal extract is the most important point in the case. It raises a question of great interest and practical importance—namely, Why does the administration of suprarenal extract prove beneficial in some cases of Addison's disease, whereas in others it seems to do little or no good? As Dr. Muir suggested to me, this case perhaps affords an answer to this question. In cases such as this, in which the function of the suprarenal capsules is simply, as it were, suppressed, and in which there is no tuberculous lesion and no involvement of (lesion in) the abdominal sympathetic, the administration of suprarenal extract would *a priori* be expected to produce more marked benefit than in those cases of Addison's disease in which the lesion of the capsules is tuberculous, and in which the abdominal sympathetic is extensively involved. I may make my meaning perhaps more clear by saying that if the thyroid body were completely destroyed by a tuberculous lesion, symptoms of myxœdema would result; but in cases of complete tuberculous destruction of the thyroid gland (if such a condition occurs), the results of thyroid treatment would in all probability be less satisfactory than in the

ordinary everyday cases in which the tissue of the thyroid gland is simply destroyed by a process of cirrhotic atrophy.

Now in typical cases of Addison's disease there is not only a tuberculous lesion and abolition of the function of the suprarenal capsules, but there is associated disease of the abdominal sympathetic. Hence perhaps the explanation of the fact that while thyroid extract speedily cures myxœdema, suprarenal extract does not as a rule produce marked benefit in cases of Addison's disease.

It remains to be seen whether, as this case seems to suggest, the administration of suprarenal extract is chiefly beneficial in those cases of Addison's disease in which the lesion is a simple atrophy or fatty degeneration. If this should turn out to be the case, we may in future be able to form, by means of this therapeutic test, a more accurate idea as to the exact nature of the lesion of the suprarenal capsules in cases of Addison's disease than is possible by any of our present means of diagnosis.

These therapeutic considerations lend, I think, additional support to the theory which I have for long advocated, that some of the symptoms of typical tuberculous cases of Addison's disease are probably due to the tuberculous character of the lesion, and to the associated disease in the abdominal sympathetic, which the tuberculous lesion in the capsules seems almost invariably to produce, while others are the result of abolition of the function of the suprarenal glands.

Note.—In conclusion I have to express my very sincere thanks to Dr. Mossop for having so generously allowed me to record the case; and also to Dr. Muir for the care and time which he has expended on the microscopical examination.

# ABSTRACT OF AN ADDRESS
ON
# THE SPREAD OF PLAGUE.

*Delivered before the Epidemiological Society.*

By JAMES CANTLIE, M.B.Aberd., F.R.C.S.Eng.,
Lecturer on Applied Anatomy, Charing Cross Hospital Medical School: late of Hong Kong.

## Terminology.

[After some preliminary observations on the names which had been applied to plague, Dr. Cantlie said:]

The term "bubonic" so frequently applied to the disease is not so appropriate as would at first sight appear. A bubo is essentially the swelling of a gland caused by the entrance of septic materials in the tract of lymphatics over which the gland presides. This cannot be said to obtain in plague, for the so-called bubo of plague can in no sense be regarded as a sympathetic swelling, but merely the outcome of a blood poison. If it is to be classed a bubo at all, it must be distinctly understood to be an "idiopathic" bubo, a true *bubon d'emblée*. One never speaks of the buboes of tertiary syphilis nor of scrofulous buboes. The terms may be clinically correct, but they are not in common use; they have, however, as much right to be called bubonic as the glandular enlargements in plague. With these considerations before us I would venture to name the disease "Malignant Polyadenitis," in the hopes that attention may be drawn to the naming of the disease by more competent students than myself.

Plague or malignant polyadenitis we may define as "an acute febrile disease of an intensely fatal nature, characterised by inflammation of the lymphatic glands, marked cerebral and vascular disturbances, and by the presence of a specific bacillus."

## Geographical Distribution.

The basin of the Mediterranean and the strip of country which runs parallel to that sea across the Asian continent from Turkey to China may be roughly taken as its present belt during the nineteenth century, but the Mediterranean part of the belt has disappeared almost wholly within the present generation. A map of the plague-stricken districts within the last fifty years shows plague astride the Himalayas with giant limbs reaching on one side the Red Sea and on the other the shores of the Pacific.

## The Infection of Animals.

The animal which above all others is known to be affected by plague is the rat; but the wide geographical area throughout which this animal is met with would seem to frustrate any attempt to determine a collateral distribution. On looking a little more closely, however, we find rats (the murinæ) divided into two great sections—the mures, inhabiting the Old World (except Madagascar), and the sigmodontes, inhabiting the New World and Madagascar. Of the mures, one subfamily, that of the nesokia, is met with, reaching from Palestine to Formosa across the northern part of India. The southern limit in India seems to be where the great bandicoot, or pig rat, exists, and here plague is unknown. This is the only animal which presents a geographical distribution well-nigh corresponding to the present distribution of plague, and it is the animal above all others which is looked upon as being liable to be attacked by plague.

[Dr. Cantlie discussed the evidence as to the infection of other animals, and summed up the facts as follows:]

We find that pigs, dogs, rats, snakes, jackals, and pigeons are affected by a fatal malady, whilst plague is epidemic among human beings. Pigs and dogs are believed to be attacked only after consumption of plague flesh. Snakes by the swallowing of rats, and possibly jackals, are infected in the same way. None of the purely herbivorous animals, horses, donkeys, oxen, sheep, goats, or rabbits, are attacked. It is the flesh-eating animals which are the sufferers. Of course, the rabbit, guinea-pig, and a number of animals can be inoculated experimentally or made to consume plague-diseased food, but no herbivorous animal acquires it by the natural processes of infection. If it is by consumption of flesh that animals are infected, how do human beings get it? The animals affected seem to become infected from flesh: the snake from the rat, the jackal, pig, and dog from eating the flesh of persons dead from plague; but how does the rat become infected? Could we find that out we should likely know how man is infected. One animal missing in the scale is the cat; if rats perish from plague surely their mortal enemy, the cat, would be diseased. Perhaps the instinct of the cat teaches it to avoid the diseased rat. In Hong Kong during 1894 many cats died in a peculiar way—the chief symptom being paralysis of the hind legs.

## Pestis Minor.

[With regard to the nature of *pestis minor*, Dr. Cantlie observed:]

Is there a disease of an epidemic character, attended by a low death-rate, characterised by polyadenitis and showing in the blood and tissues a bacillus resembling the bacillus met with in typical plague (malignant polyadenitis), and yet so apart clinically that it is either a separate disease or caused by the same bacillus in a lesser or non-toxic form?

From all hands we have evidence of such a disease—namely, a *pestis minor*, benign polyadenitis. 1. The Russian outbreak at Astrakan in 1877 was probably, nay certainly, of this nature, the low rate of mortality being sufficient to stamp it other than true plague. It is to be noted that the typical plague which ranged in the same province appeared, not amongst the community affected with *pestis minor*, but in a district 150 miles away, where *pestis minor* was unknown. 2. In Calcutta six years ago a form of fever existed among the British troops there which in all points resembled the present form of bubonic fever which exists there now—namely, fever with specific glandular swellings. 3. We have it also from Calcutta that the natives are frequently afflicted with glandular enlargements during malarial fever. 4. In the far east, from Singapore, the Straits, and along the coast of China as far as Shanghai, between the years 1892 and 1896 we have accounts of a singular affection of the inguinal glands which occupied the attention of the Singapore and Hong Kong Branches of the British Medical Association. The correspondence was carried on between the Societies, and there is no doubt the affection at both places was identical in its nature.

I am compelled to draw attention to this subject in consequence of a paper which appeared in the British Medical

Journal of September 26th, 1896, by Surgeon C. C. Godding, R.N. Surgeon Godding refers to many cases of chronic glandular swelling attended by fever and anæmia, and he gives a careful clinical account of several such cases as having occurred in Hong Kong. This is the first notice to the profession generally of a type of ailment with which all practitioners in the Far East are but too familiar.

When I brought the matter before the Hong Kong Medical Society in 1893, I mentioned that I employed the term *bubon d'emblée* to designate the condition, and that I had treated 38 cases in thirty-two months. My account of the ailment was as follows: "A slowly developing non-venereal bubo occurring in one or other groin, attended by general weakness, anæmia, and fever. The groin glands affected are discrete at first, but gradually the swellings amalgamate, and a large mass as big as half an orange or larger presents. At the end of about twenty days points of boggy softness occur, and if the bubo be left to itself the skin becomes undermined, and the pus finds its way to the surface through two or three or more fistulous openings. The swelling, when cut into early, shows a periglandular serous infiltration, and when pus occurs the gland will be found lying detached except by shreds of tissue at one or two points. The gland when cut into shows many focal points of suppuration, and breaks down quite easily beneath the fingers. Surgeon Godding advocates arsenic as almost a specific, but my own treatment latterly was early incision. It is necessary to make a clean sweep of every gland that can be felt or seen, as there is a great tendency to recurrence in any gland or piece of a gland that is left. Seeing that glands, except strumous glands, are not excised for any other disease, I examined the records of the Government Civil Hospital in Hong Kong in connection with the excision of glands, and I found the following: In 1891 19 buboes were scraped or excised: cervical glands, 1. In 1892 I have not the record. In 1893 27 buboes were scraped or excised. In 1894 12 buboes were scraped or excised. 1894 was the plague year, and the list of operations is stated to be incomplete. Taking this evidence in conjunction with Surgeon Godding's and the private practitioners, in Hong Kong and Singapore we have weighty evidence of a widespread affection, be its cause what it may.[1]

5. Another form of glandular idiopathic enlargement is seen in what may be styled an epidemic form in children. In the year 1891 I reported twenty-three cases at the Medical Society in Hong Kong, and since that date cases have frequently occurred. The affection consists of an enlargement of one gland, seldom more, in the necks of children over the sterno-mastoid about the middle of its length. The swelling is seen upon the sterno-mastoid, but it might be found to commence, were it met with early enough, in a gland on its anterior border. The disease appears infectious, and is attended by feverishness. There is no throat affection, nor is the seat of the disease in the parotid. We, the medical practitioners, styled the condition for convenience' sake mumps, but we all admitted that neither the parotid nor the submaxillary glands were the seat of trouble. It will be remembered that the term "peculiar form of mumps" was employed by some to designate the Astrakan disease in 1877.

6. In the years 1893-4, and since, in Hong Kong, cases of fever of a typho-malarial type frequently presented in the third or fourth week a general enlargement of lymphatic glands, which lasted for a week or ten days and then subsided. They were deemed interesting cases at the time, but with the fresh light thrown upon them by recent investigation, more especially the researches in Calcutta, they assume a new aspect.

To sum up the evidence before us it would seem: (1) That a fever with glandular enlargement, *pestis minor*, a "benign polyadenitis," is an established disease; (2) that it may be independent of plague or malignant polyadenitis; (3) that the two may coexist; and (4) that the one may exist independently of the other.

### Infection and Contagion.

We have here two opposite conditions before us, namely, plague entering a house and seizing practically all the inmates; and, on the other hand, medical men, nurses, and native students acting as clerks and dressers escaping completely.

Gathering the evidence from Hong Kong together, we find that the soldiers who were affected were exposed—if there is any truth in intensity of contagion at all—to the most concentrated form of the poison. They worked not in the streets in the open air, but in reeking hovels for several hours together. Intimate and prolonged contact with the contagium in an active condition seems to be the explanation of their infection. The same is to be said of the two European nurses who were seized. Both attributed their ailment to intimate and prolonged contact with a generating source—namely, a child carried in the arms not for a few minutes, but for several hours daily extending over several days. The immunity of the medical men and Chinese students does not annul the theory that prolonged and intimate contact is a means of spread; for it must be remembered that the medical man "visits" only—he does not stay for a day beside one case as a relative does, nor does he sleep or eat under the same roof as does a nurse. In this way, also, the immunity of the Chinese students is to be accounted for. They performed their task in a newly-built, commodious, and roomy mat shed. Freely ventilated by being raised three feet from the ground, and its lofty roof constructed so that air swept across between the side walls and the roof, with large apertures in the roof itself, the chance of contracting the disease from so diluted a form was reduced to a minimum.

### Distribution of the Infection.

The rat seems to be infected before the human being; and the fact of dead rats being found about the house during the plague epidemic is a true warning that the inmates of the house will in all probability be affected. How is the rat infected? 1. Experiment proves (*a*) that the rat is inoculable and dies from a disease identical with bubonic plague in man; the inoculation of both the blood and inflammatory fluids of the plague infected is effective: and further, a pure cultivation injected hypodermically also sets up signs and symptoms of rat plague and causes death within a few days; and (*b*) that supplying the animal with plague-infected food, whether flesh or cultivated germs, causes plague in rats. How does the rat in his natural state become infected; by inoculation? We cannot assume that every rat has a scratch or open wound by which it is infected. It is more likely he inhales or imbibes the poison either as a miasm in concentrated form or he ingests it with his food. It may be both forms of infection are at work: and, further, it must not be forgotten that rats are cannibal in their habits, and direct contagion must play a large part, if not the major part, in the general infection of their tribe. That it is some general infection and not a chance inoculation is manifested by their sudden and simultaneous seizure—a seizure so sudden that scores of dead and diseased rats will be found in a single house of any size within a few hours.

What we may conclude from the study of the infection of animals is: (1) That the rat is the animal most likely to be attacked by plague; (2) that rats suffering from, or dead from plague, may infect other animals, such as snakes and jackals, who consume them; (3) that rats are always affected by a disease similar to plague at the same time man suffers; (4) that the rat may infect men, but the means of conveying the contagium is not known; (5) that during the prevalence of benign plague (*pestis minor*) rats do not die.

### Incubation Period.

The time intervening between exposure and the development of plague has been carefully observed and noted throughout many epidemics of this century. The conclusions arrived at by all who have written an account of their Hong Kong experience give from three to six days as the period of incubation. Dr. Lowson makes it seldom under three or over six. Professor Aoyama gives it at from two to seven days. If by that statement he means from the end of the second until the beginning of the seventh day, his recorded observations agree exactly with Lowson's and others. Be it observed, however, this extends only to plague infection during an epidemic.

In the British Medical Journal of December 12th, 1896, page 1737, we find a notification of two or three cases of plague

[1] Europeans were mostly attacked by these buboes, forming 88 per cent. of the cases operated upon.

as having occurred at the Seamen's Hospital, Greenwich. The dates given would show the vessel in which the infected persons were left Bombay about the end of August. The earliest official intimation of plague in Bombay was when Dr. Viegas reported, at the meeting of the Sanitary Committee on September 23rd, 1896, that the disease had prevailed in the locality for a fortnight, thereby assigning September 9th as the date of commencement. The first case, therefore, at the Greenwich Hospital could apparently not have been infected from that source, as the vessel could not have been less than seventeen days on the way. I find, however, in the *Times of India*, September 30th, 1896, the following statement: "In Bombay for two months certainly—in all probability longer—the native inhabitants of the neighbourhood of Maudvie, when plague broke out in Bombay, seemed to have been alive to the fact of the existence of a malady resembling plague before the malignant type developed. They had organised processions in August to propitiate the Goddess of Plague. This either proves that true plague was present long before the authorities knew of its existence, or that a disease resembling plague was mistaken for the malignant type. According to this evidence plague may have existed in Bombay in July, 1896. The first case dealt with, and reported upon in Calcutta, gives an instructive history. The patient, a lad aged 17, came from Bombay, where evidently he had been exposed to infection, as his sister, who accompanied him, had seen several cases of plague in Bombay. Fifteen days before leaving Bombay he had noticed swellings, first in one groin and then in another, but never felt ill until his arrival in Calcutta on September 24th. He was seen and carefully examined in Calcutta by honest observers, and a diplobacterium identical with the Kitasato bacillus was found in his blood. Not only so, but the clinical symptoms of plague were most manifest. It would, therefore, seem from these two well-authenticated cases that glandular swellings may attack a dweller in a district where true plague rages, and that at a subsequent period (a period which in the Calcutta patient was not less than twenty days and in the Greenwich Hospital case could not be under seventeen days) may become virulent and kill the patient by a true plague; in fact, that a *pestis ambulans* may become a malignant polyadenitis in the same person, even although the patient is removed from the infected zone. This may be true, although it is not at all a comfortable doctrine: but I can come to no other conclusion, having regard to the evidence before me. The incubation period of plague, therefore, may be fixed as from three to six days whilst an epidemic rages, but the evidence to hand within the last few weeks from Calcutta and from London renders the period of incubation of ambulatory plague uncertain.

### BACTERIOLOGY.

The bacteriology of plague began by the advent of Kitasato from Tokio during the Hong Kong epidemic of 1894. On June 14th, 1894, Kitasato demonstrated the bacillus, and this was confirmed afterwards by Dr. Yersin of the Pasteur Institute in Saigon, working in an independent manner. Dr. Yersin undertook some experiments to test the truth of the infection of the soil, the results of which elucidate the toxic nature of the bacillus. He found (1) that a bacillus in some respects resembling in its appearance that met with in the human body was found in the soil of Hong Kong during the plague epidemic; (2) that the bacilli of the soil and body occasionally behaved similarly in culture experiments; and (3) that the culture specimens of soil bacilli were, however innocuous, possessing no virulence when injected into mice or guinea-pigs. Dr. Yersin further found that in his cultures of human plague bacilli there were microbes of different virulence, some mildly powerful and some altogether powerless to infect either mice or guinea-pigs.

### PLAGUE AND SOIL INFECTION.

Bearing closely upon this subject is the question of the medium of spread of plague. Plague is perhaps the slowest-travelling disease known; it may take months and even years to extend a few miles. From the city of London it took nine months to reach Soho, and more recently it took ten months to travel from Hong Kong to Macao, a distance of thirty miles. The lines of communication will not explain this, for in Macao thousands of persons sought shelter in 1894, when Canton and Hong Kong were plague-stricken. Steamers and Chinese junks and fishing-boats passed freely between the ports, yet Macao did not become infected until nine months after Canton and Hong Kong were pronounced clear. How did the parasite reach Macao, by sea from Hong Kong or by land from Canton? If by sea, in all probability it would have been in Macao long before. If by land, how did it travel—by human or animal carriage or by the soil? If by human beings, it means intimate prolonged contact of the carriers; if by soil it means a bacillary infection of the soil, spreading from a centre and extending by a continuous margin of active growth along paths favourable to its nutrition. Were the soil only the producer or infector, all islands in the area ought to be immune. This not being so, it comes that the poison must be carried by human beings, by animals, by clothing, or by food. That the poison conveyed by them may require the soil as a medium to reproduce the infecting bacillus may be quite possible; but that some other medium than the soil is capable of transmitting the disease is quite evident.

### CLIMATE AND THE PREVALENCE OF PLAGUE.

In south-east China the epidemic of plague developed at the end of a prolonged and exceptionally dry season. The rainfall was so deficient that most of the wells throughout the district were exhausted, and the crops suffered severely. Without driving the argument of drought too deeply home it must, however, be observed that in Bombay we find a similar condition of things before the present outbreak. The rainfall over a wider area of country has been so greatly deficient that widespread famine has followed.

In Canton the plague commenced when the temperature averaged about 60° F., and continued when the average daily temperature reached 90°. Further, it must be noted that the disease disappeared when heat and moisture were about 90° throughout the district, so that with regard to the common statement that it thrives best at a temperature between 80° and 85°, it must not be forgotten that whilst thriving it also disappears at the same temperature. It dies out when the conditions which we believe to be suitable for its propagation, heat and moisture, are at their best. But heat does not seem to be an essential to the appearance of plague. In Russia it has appeared again and again in winter with deep snow on the ground and the thermometer in the neighbourhood of zero. In Astrakan in 1878 the disease raged during severe winter weather. We are at a loss, therefore, to connect warmth with plague or cold weather with its check.

The argument of overcrowding might be at once set aside by the sweeping statement that just as plague flourishes in crowded cities, so likewise it flourishes in barren deserts, where the population is sparse in the extreme. But overcrowding may take place in a country house as readily as in a town house, and the poorer the country the greater the overcrowding. The rains in warm climates drive the inhabitants within their poor dwellings, the snows of winter do the same in colder climates, and the ailments attending overcrowding are most likely to appear. In other countries, as in Mesopotamia, the cessation of rain brings the cessation of plague, as the people can issue forth to sleep and open their casements without fear of being drenched. The close, intimate contact believed to be necessary for the propagation of plague is, therefore, brought about by two entirely opposite conditions which have overcrowding in common; and taking all the effects of weather into consideration, it would seem that not the meteorological conditions but the mechanical results of weather generally are to be reckoned with.

### PLAGUE AND FAMINE.

Plague is ever associated with scarcity and want. Sometimes it is famine caused by the destruction of crops by floods, sometimes by drought; but from whatever cause, plague and scarcity of food are frequently allied. Not only is the grain scarce, but it has often been remarked upon that it is bad, musty, covered with blue mould, and fermented. The two conditions may be to each other as cause and effect. The grain is gathered before it is ripe owing to the people's necessity, and the unripe grain not only yields insufficient nourishment, but is apt to undergo fermentation and to be attacked by vegetable parasites.

### Plague and Filth.

The preceding remarks prepare the way for the recognition of all possible sanitary evils and neglects as accompaniments of plague. Chinese towns are at all times ready to generate any filth disease, and Hong Kong itself is but little better. The city was hastily built about fifty years ago, when the sudden inroad of tens of thousands of Chinese sought occupation and habitation under the British rule. From that rush of people and feverish haste to build without proper control the city never recovered, and to this day presents sanitary aspects of the most flagrant description. The public sewers are well built in the separate system; the water-supply is most excellent in quality, although when rains are delayed deficient in amount: the public latrines are under Government control; the removal of excreta is by the bucket system and is admirably controlled. Here, however, the bestowal of praise must cease, for beyond them there is much to condemn. House overcrowding is rife and surface crowding to the extent of 2,500 to the acre holds sway over the chief area of the native quarter of the town. Dr. Lowson states graphically what is known to every resident in Hong Kong: "The majority of the houses of the infected district being in a most filthy condition..... when to a mixture of dust, old rags, ashes, broken crockery, moist surface soil, etc., is added fæcal matter and the decomposing urine of animals and human beings, a terribly insanitary condition of affairs prevails."

The evidence from Bombay is similar to the Hong Kong report, and but confirms the state of overcrowding and filth to which Oriental cities, even when partially under British control, may attain.

### Conclusions.

The conclusions drawn from a study of the spread of plague are:

I. Varieties: (1) The varieties of plague known under the names (*a*) fulminant, (*b*) typical, and (*c*) *pestis minor* are allied. (2) The cause of fulminant and typical plague is a diplobacterium in the blood and tissues. The cause of *pestis minor* may be an allied diplobacterium, but with a lesser toxic power. (3) An appropriate name for the fulminant and typical plague is "malignant polyadenitis." An appropriate name for the mild variety (*pestis minor*) is "benign polyadenitis."

II. Infection and contagion: (1) Plague is infectious chiefly by the dust arising during the cleansing of dwelling houses which plague patients have occupied. (2) Plague is contagious by prolonged and intimate contact with the plague-stricken, as in the case of a nurse carrying a child ill of the disease.

III. Distribution: (1) Plague is met with in a definite area of Asia, which may be termed the "plague belt." (2) That the home of plague is at the present day in Mesopotamia and the countries adjacent. (3) From Mesopotamia as a focus the plague may spread northwards to the Caspian Sea, westwards to the Red Sea, southwards as far as Bombay, and eastwards as far as (Formosa) the China Sea. (4) During the present century plague has shown a western retrocession and an eastern accession of virulence.

IV. The bacillus: (1) Typical plague (malignant polyadenitis) is associated with *pestis minor* (benign polyadenitis). (2) A bacillus of somewhat similar appearance microscopically is reputed to be found in both.[2] (3) The bacilli differ in their toxic powers only. (4) A benign polyadenitis may run its course without being preceded or followed by the malignant variety. (5) Malignant polyadenitis may run its course without being preceded or followed by the benign variety. (6) The bacillus of the benign variety attains malignancy by passing through some intermediate host, possibly, but not probably, the rat.

[2] This is under discussion now (December 18th, 1896).

The Committee of Queen Charlotte's Lying-in Hospital, Marylebone, have received a donation of £50 from the executor of the late Sir Albert Sassoon in aid of the extension fund.

The Committee of University College Hospital have received a hundred guinea, the proceeds of the dramatic entertainment given by the members of the West London Dramatic Society at St. George's Hall on December 3rd.

## EXTRACTS FROM AN ADDRESS ON CURRENT MEDICAL POLITICS.

*Delivered before the Hull Medical Society.*

By C. H. MILBURN, M.B., M.S.,

President of the Society; and Honorary Surgeon, Victoria Hospital, Hull, etc.

### Preliminary Education and Examination.

There is undoubtedly now a need for a higher standard of general knowledge and greater stringency of examination before admission as a medical student, and I am glad to see that at the last meeting of the General Medical Council steps in that direction were taken by the passing of these resolutions:

That the Council should represent to all bodies whose Junior Examinations in General Education are recognised, that it desires that the stringency of the pass requirements in these examinations should gradually be increased,

and

That the Council instruct the (Education) Committee to consider the requirements of the several junior preliminary examinations now recognised by the Council, and to report on the steps that may be necessary for enforcing a higher and more uniform standard therein; that the recommendations which the committee may propose with this object be brought before the Council at the November session of 1897 in order that, if approved, they may be brought into force on January 1st, 1900.

I suppose the change will have to be gradual, but it seems to be very slow, if we have to wait until 1900 before it comes into actual existence. Another point, which I think should be emphasised, is that all subjects not strictly professional should be cleared away before the student enters on his real medical curriculum, for example, chemistry, physics, botany, zoology, etc. I consider they take up too much of the all too short time, even though it is five years, for acquiring a good theoretical and practical knowledge of his future work. There are as many as ninety preliminary art examinations qualifying for registration, and that means there will be many varying and different standards of efficiency required. Why should not the College of Preceptors, or some similar body, conduct one examination at stated periods in different parts of the kingdom, the standard required having been laid down and approved by the General Medical Council? If a man wished to go in subsequently for any special degree or diploma for which extra subjects in general knowledge are required, there is nothing to prevent him so doing, as extra optional subjects could be provided. This one suggested examination, which we might call the "medical students registration examination," should, however, be the only one necessary previous to his being registered: unless he had an arts degree, and that only should be accepted as an equivalent.

### The Apprenticeship System.

I take it that if a return to the partial apprenticeship system were made, all would agree that one year is as much as can be spared, and perhaps as much as is needed. Should this be at the beginning or at the end of the curriculum?—it cannot be during the course of study. My own opinion is that it ought to be immediately after registration as a medical student; he should then spend a year with a practitioner in general practice (if possible, one attached to a hospital), and should (if he earned it) have a certificate at the end of his apprenticeship, of good conduct and industry; this certificate should be required in the same way as his subsequent class certificates. During that time he would have picked up the thousand-and-one bits of information which he cannot learn from books and lectures: he would have learnt something of that complex, yet simple subject, "medical ethics" (which also cannot be learnt from books, and the teaching of which would do away, I firmly believe, to a very great extent, with the need for Ethical Societies and committees, and the quarrels and suspicions which call for them); and he would also, before going too far and spending too much money, have found out whether he had the aptitude to become a successful practitioner, or whether his tastes and abilities pointed in some other direction for his life-work. There are many details in this question, but time allows me only to mention the principle of the system. It may be said it would add another year to the curriculum. I grant that, but venture to think that it would be rather an advantage, as it would bring the length of time of study more into line with that of other

nations, as in Germany and France, where the curriculum extends further; in some cases, I believe, as far as eight years. It would, also, if the student registered at 17, bring up the minimum age at which to qualify to 23 years, which is not at all too old.

### The Qualifying Examinations.

I do not propose to touch on the subjects or the arrangement of the curriculum, as at present I do not think opinion is sufficiently matured. We therefore come next to the qualifying examinations. The student has twenty-one from which to choose. Where there are so many qualifying bodies competing for students to enter for their examinations (after the little preliminary of paying fees) there is always a tendency to try to make them attractive. Possibly the most attractive way is to reduce the stringency of the examination. It is, therefore, suggested that all the examining bodies should combine to establish one conjoint compulsory examination in each of the three divisions of the United Kingdom. (This—the "One-Portal System"—is actually in force at present with chemists, veterinary surgeons, solicitors, and barristers.) Then, after passing such a test, or whilst doing so, if a man wished to put an extra "hall-mark" on his education, there should be nothing to prevent his going in for a University degree or a College diploma, according to his requirements and the necessities of his future intentions.

### Medical Aid Associations.

It ought to be unnecessary to warn young medical men against having anything to do with medical aid societies; but as they flourish, it is apparent that these "sweaters" of the profession are able to get registered practitioners to work for them. The temptation may be strong for a young man just qualified, and anxious, and perhaps obliged to make his living, to accept "slavery" under such societies; but surely there are hospital appointments enough, and assistancies enough, to keep him going until something better turns up? These lay associations charge their members so much per head per annum, but the medical officer does not receive this, minus the expenses. He receives 3s. 6d. or 4s. a head, and the balance goes as profit to the association. In addition, the most reprehensible practice of employing paid touting agents is used to increase the membership of these societies. Usually, also, anyone can join a society—as in many there is no entrance medical examination, and there is no wage limit—consequently people in good positions (socially and pecuniarily), but with a poor sense of justice, are not above taking advantage of this laxity, and of the doctor. All this has a bad and lowering effect on the profession, and also on the estimation of the profession by the public.

For a little temporary benefit (and from jealousy and fear of each other) we are afraid to do what we should, and what would ultimately be greatly to the benefit both of the profession and the public. We ought to refuse to have anything to do with either these societies or with the medical men who lower themselves to be their servants. If we were to do so, these associations would gradually be extinguished from sheer inanition, as it would not suit the members to subscribe to them and then have to pay extra for their medical attendance. And, further, I to a great extent feel disposed to blame the general body of consultants (there are exceptions) who, for the sake of the guinea or so, meet the medical officers of these societies in consultation. If they were to refuse, the patients would be obliged to be attended by non "medical aid" doctors, who could be met in consultation. Thus, this objectionable "medical aid" would (from the patient's point of view) fail, when most required, and he would see the uselessness of paying to it. The medical officers, who would surely have some fragment of pride about them, would object to the snub, or series of snubs, and would give it up. One therefore feels that at present the consultant practitioners have an immense power in their hands for checking the spread of these "sweating" associations. Here one feels most strongly the necessity of union against such encroachments. Advantageous ultimately to each individual of us, and a duty to our medical brethren, such union would greatly lessen, if not remove, every such difficulty, as well as many of the other drawbacks of medical practice.

### The General Medical Council.

It is generally acknowledged that the governing body of the profession is in no sense representative of its members, or in such sensitive touch with its requirements; and that, therefore, while the interests of corporations and colleges are strenuously defended, there are many matters of the highest importance to the general practitioner which have received no attention. The General Medical Council consists of eight members chosen by the English universities and colleges and the Society of Apothecaries, London; seven members come from the corresponding bodies in Scotland, and seven from Ireland, whilst five are nominated by the Privy Council. To make up the total of thirty, then, only five direct representatives are elected by the whole medical profession of the United Kingdom. A sixth of the Council represent an electorate of nearly 35,000.

I feel it would be much more in consonance with our latter-day representative systems of government if the nominees of the qualifying bodies were elected by their graduates or licentiates, or that the number of directly elected members of the Council were increased to the same number as those chosen by the Corporations and Colleges. There would thus be a chance of matters affecting us intimately receiving attention and amendment. Undoubtedly, there are difficulties, financial and otherwise, in the way of carrying out either of these schemes, but the chief obstacle is the Council itself.

One must give credit to the Council that they have wakened up somewhat within the last few years to the necessities of the profession, apart from education and registration; and with that awakening has come the recognition that the Council has more disciplinary and regulating powers in a certain direction than at first it believed, or apparently wished to believe it had. I refer to the restriction and suppression of all forms of unqualified and unlicensed practice. But, even granting that, there is not that harmony and sympathy between the General Medical Council and the corporations on the one hand, and the profession generally on the other, which is necessary to satisfy our wants and aspirations, and this is shown by the absence of attempts to obtain the fuller powers for governing and regulating the profession. These must be obtained before we can feel that the General Medical Council is working really in the interest and for the real welfare of the public, and not for those of its chief constituent bodies. I must confess I do not see any prospect of improvement in this direction till a Medical Acts Amendment Bill is passed. In that it must be distinctly laid down that practice "for profit or gain" by quacks, herbalists, bonesetters, chemists, *et hoc genus omne*, is illegal and punishable. As things are at present, the Medical Act of 1858 does not fulfil its expressed intention, namely, "to enable the public to distinguish between qualified and unqualified practitioners." Do not many people think a chemist is trained and perfectly competent to treat accident or disease? The Act, therefore, being defective, and the General Medical Council not having the power to supplement and make effective its intention, it follows that this must be one of the subjects considered very carefully in the drafting of any such amending Bill.

### Registration of Midwives.

In considering this question, we have to remember that there are already over 15,000 midwives, a large number of them "Sairey Gamps," actually practising at the present. What are you going to do with these? Are you going to allow them to continue practising without any control, and with the constant and consequent results of suffering and death of which one reads every week almost? For the sake of argument, we will say you will not interfere. Very well: a certain section of the public (busybodies many of them, and others with ulterior personal motives), and assisted by a prominent member of the present Government, says: "We will not permit this; we will arrange that they shall each be trained and we shall register them." But in their last Bill they forgot, or purposely omitted, to provide any means for punishing misdemeanour, or striking off the register, so that once a woman is on the register she is always there. Is that desirable, or in the interests of the profession and the public? On the other hand, the Parliamentary Bills Committee of the British Medical Association, recognising the position, have

drawn up a Bill which overcomes these difficulties, and provides a board of medical men to draw up and administer regulations for the education and examination of midwives and the control and limitation of their practice. It is a case of making a virtue of necessity from one point of view, but there are strong reasons for believing it is a step in the right direction. Considering that it is a case, on the one hand, of permitting midwifery practice without any control as at present, and, on the other, of permitting attendance in cases of natural labour under the supervision of a registered medical practitioner, and these really are the two points to which it is reduced, I think an unbiassed judgment will say which is the most desirable and best.

### Army Medical Reform.

There is and has been for a long time great dissatisfaction among the army medical officers, and things have got to such a pass that the last three examinations resulted as follows:

| | | | |
|---|---|---|---|
| August, 1895, | 13 vacancies, | 23 candidates, | and 10 passes. |
| February, 1896, | 17 " | 18 " | " 9 " |
| August, 1896, | 25* " | 27 " | " 13 " |

* Nominally, but about 40 at the time of examination.

This is a most serious condition of affairs, as it means the army is understaffed in one of its most important departments, and that from the numbers of passes the medical staff is not getting "the best stamp of medical men which the schools can turn out," and which Lord Roberts has recently said the army wants. It also affects the civil practitioner, as it means that an increasing number of young qualified men are coming into general practice who would otherwise have become military surgeons, and thus competition amongst general practitioners is increased.

Shortly, the following are the grievances which require attention:

1. The service is treated as if it were outside the army instead of being, as it ought to be, an integral part of it.
2. Army medical officers have to contend with a certain kind of social discomfort, the risk of which is quite enough to prevent any man with self-respect from entering the service.
3. The total severance of medical officers from regiments has cut men unnecessarily adrift from contact with their non-medical brother officers.
4. The increased tours of foreign service exercise a prejudicial effect on the health of medical officers, whose mortality is already in excess of the average of that of other officers.
5. The Government of India refuses to carry out the late warrants financially.
6. The under-officering of the executive has made leave difficult to obtain and "study leave" impossible.
7. There are no means for specially recognising nor rewarding professional merit.

I read the other day that Lord Lansdowne, the Secretary of State for War, is disposed to grant certain concessions, but that the stumbling blocks are the Commander-in-Chief and the Adjutant-General. That being so, I think the outlook is more hopeful, though time will have to elapse and the voice of public opinion, raised against the causes of an ineffective and dissatisfied medical staff, will have to work its will on the obstacles. At any rate, it is quite evident that in removing discontent and inefficiency from want of numbers, the demand of the service for "army rank and military titles in a consolidated army medical corps" will have to be granted, as well as the administrative reforms necessary to remove the list of grievances which I have mentioned.

Dr. Milburn concluded as follows: I have thus, very briefly and almost in skeleton form, put before you the principal questions of the hour in medical politics, and I trust that the brevity of the remarks may whet the appetite for more, and so stimulate further interest being taken in matters which, though they seem remote, have a very near and powerful influence on each and all of us, and which also show the absolute necessity in the profession of union, more union, and yet more union.

At a meeting of the Abernethian Society of St. Bartholomew's Hospital on Thursday, January 14th, Dr. E. G. Browne, Lecturer in Persian in the University of Cambridge, will give an address entitled A Chapter in the History of Cannabis Indica. We are asked to state that old members and their friends are invited to attend.

## A CASE OF TUBERCULOSIS VERRUCOSA CUTIS (RIEHL AND PALTAUF'S DISEASE).

By B. G. A. MOYNIHAN, M.S.Lond., F.R.C.S.Eng.,
Assistant Surgeon, Leeds General Infirmary.

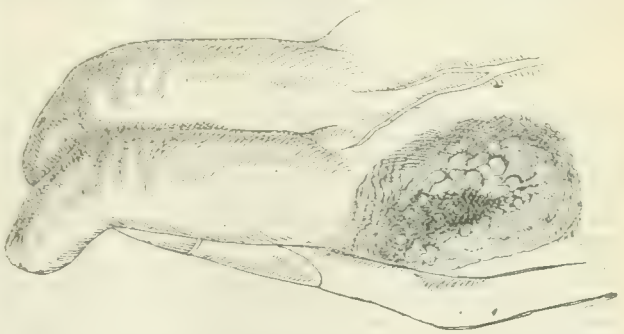
Tuberculosis verrucosa cutis is one of the varieties of skin affection caused by the local and primary inoculation of tubercle. The most common form of these varieties is the verruca necrogenica or dissector's wart, which is both clinically and pathologically very closely allied to Riehl and Paltauf's disease, the next in point of frequency.

In the case which is here figured the patient was a girl, aged 20, who three months before I saw her had cut herself on the dorsum of the right hand. This cut refused to heal, and about two or three weeks after its infliction she noticed that the inflammation round the wound was extending. At home she did the laundry work, and some part of the washing consisted of the handkerchiefs of her brother-in-law, who was under treatment for phthisis. The inoculation of the wound with tubercle was therefore most probably thus caused. I removed the patch of disease widely, and when last seen seven weeks later the wound was healed and there was no sign of any return, either local or general.

This disease was first described by Riehl and Paltauf as occurring in individuals exposed to animal infection—butchers, coachmen, cooks, and others. It is rarely seen on the palms of the hands, generally affecting the dorsum or the clefts between the fingers.

In a typical patch three zones are described:

1. An outer erythematous zone with slight raising of the skin. The erythema disappears on pressure.
2. A middle zone consisting of a dusky or livid infiltration, with scattered cutaneous abscesses. This area is slightly more raised than the former.
3. The inner zone with cracks and fissures running through it. Sprouting up from these clefts are small warty projections, larger in the centre than at the periphery. The inner zone is slightly more raised than the outer two. From the cutaneous abscesses and from the clefts drops of pus can be squeezed out. The growth is very sensitive.



The accompanying drawing, for which I am indebted to Mr. Haigh, gives a very good idea of the general appearance of the growth and the three zones of which it consists.

Microscopically the sections show "much disturbance of the epithelium, owing to chronic inflammatory exudation in the underlying cutis. The epidermis is thickened and verrucose, and the underlying round-cell infiltration is arranged in foci resembling those of tuberculous inflammation. In some of these a giant cell, with numerous nuclei of the tuberculous type, may be seen. The lesion is doubtless of a tuberculous character."

Riehl and Paltauf found a considerable number of bacilli in their specimens. As yet none have been found in this case, but I am having the growth carefully re-examined.

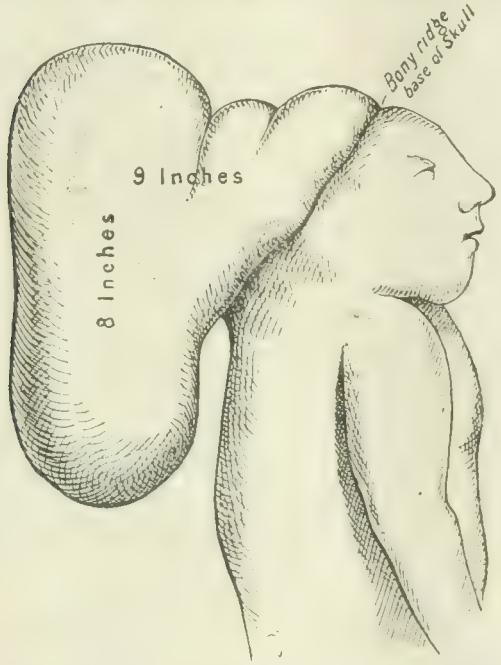
The Medical Board in Calcutta have begun to take evidence regarding the sanitary condition of the town. They are empowered to call any witnesses whose testimony may seem likely to be valuable.

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

### UNUSUAL SUCCESSION OF MONSTERS.

The following history of a patient of mine is, I think, worth recording. Mrs. S., a labourer's wife, was about 23 when married in August, 1889. A seven months' anencephalic fœtus was born on July 21st, 1891. On January 22nd, 1893, was born a full-term living child, also anencephalus, but with a cystic tumour extending from the edges of the bones of the base of skull. This tumour started from the top of the forehead, forming three folds, and hanging




Cystic anencephalus, born January 22nd, 1893. From a sketch taken at the time.

down the back to the middle of the dorsal region; it was covered with fine hair, and was soft. The child, a male, lived two days. The patient had a miscarriage on September 23rd, 1894, of a fœtus about 5 inches long. It did not appear to be malformed. She next had a seven-weeks' miscarriage in October, 1895; and lastly, on November 6th, 1896, she had another anencephalic fœtus of between the seventh and eighth month. It was born with membranes and placenta complete; there was a marked spina bifida. Previous to this last birth the abdomen was very tense, the uterine outline very irregular, with raised and very tender prominences of the size of a small saucer in three different places. Ovarian tenderness was marked. When labour set in an immense quantity of liquor amnii was slowly discharged for twenty-four hours, then the birth took place. Immediately after the birth the uterus was very much larger than usual, and on the left side a floating hard mass about the size of an egg could be felt. The woman is progressing favourably, and the tenderness is lessened. I can obtain very little family history. Her mother's sister was married, but childless; and her step-sister is married and healthy, but childless.

Drogheda. W. Bradley.

### HEAT APOPLEXY: HYPERPYREXIA: ICE PACKING: RECOVERY.

Surgeon-Major Gunning's memorandum on a case of heat apoplexy, published in British Medical Journal, November 28th, 1896, suggests to me that notes on two similar cases which occurred in my practice when surgeon in the Orient Line on my first voyage through the Red Sea in September, 1889, might be worthy of record.

Case I.—A male steerage passenger, aged 32, when I visited at 11 A.M., was in an unconscious state; the skin was hot and dry, the face and neck congested, the pulse very rapid, and there was an extreme amount of precordial pulsation; the temperature in the axilla was 107.5°. He was removed to the hospital, where the temperature was 94° F., but the coolest part of the ship at the time. He had a violent attack of convulsions, my assistants being obliged to hold him on to the couch. Taking off all clothing, I covered him with a sheet wrung out in iced water; I then put a second iced sheet on, and placed small blocks of ice between them. I also applied ice to the neck, and put an ice-bag on the head. In ten minutes the convulsions ceased; he became conscious, and in half an hour the temperature was down to 103° C. I then gave antipyrin, 15 grains, and repeated the dose every fifth hour till 4 A.M. the following morning, when I went to bed, leaving my patient fairly comfortable, and his temperature still about 100° C. At 5 A.M. the attendant called me to say the convulsions had returned. On taking the temperature I found it was 108° C. I adopted the same treatment as before, but continued applying ice for about an hour, when the temperature fell to normal. The patient made an excellent recovery, the temperature not again going above normal, and a week later, being in cooler weather, he stated he felt quite well.

Case II.—A delicate young married woman, aged 26, was unconscious and convulsed, and presented similar symptoms to the previous case. The temperature was 107.2° C. The treatment adopted was the same. The temperature was reduced to normal within the hour. Antipyrin, 15 grains, was given every fourth hour for four doses, when, there being no further evidence of temperature rising, it was discontinued. The patient made an excellent recovery, and was walking about in five days.

These two cases were the most serious of forty which occurred during the four days' passage through the Red Sea, and that we had no deaths is, I think, in a great measure due to the unlimited supply of ice which is always at the disposal of the surgeons of the Orient Line.—I am, etc.,

Tavistock. Thos. E. Smyth, M.D., etc.,
Late R.M.S. *Liguria*.

### ON NON-VENEREAL BUBO.

The publication in the British Medical Journal of September 26th, 1896, of a paper entitled On Non-Venereal Bubo, by Fleet-Surgeon O. G. Godding, R.N., induces me to forward the following remarks on apparently similar cases which have been under my observation for some two years past in the Presidency District of Bengal.

On examining the medical history sheets of the regiment quartered at Fort William I find that up to the end of September last they record 79 admissions for inflammation of lymph glands; of these, after rejecting such cases as looked suspiciously like being, or were noted in the "remarks" as being, due to venereal disease and irritation, 42 cases remained which were variously ascribed to the following causes: Climate, constitutional, malarial, uncertain, and unknown.

Of the battery stationed in the same fort for two years there were (up to the end of September) 11 men who have had inflammation of lymph glands, of which 7 cases show origin "unknown;" of these, 3 occurred in this district, 2 in Allahabad (their previous station), and 2 in England.

Of the 42 cases in the regiment noted above, 13 occurred in Hong Kong, 25 in Calcutta, 2 in Malta, and 2 in England. The preponderance of cases in Calcutta is of course due to the fact that the regiment had been here one year and nine months, and consequently many of the men who had had a similar complaint in Hong Kong, and more still of those who had had it in Malta had left.

There is no doubt that some of these cases could be traced, if a careful and searching investigation were made, to a previous attack of boils, the boils being probably small, and the patients not reporting sick until the trouble in the groin interfered with locomotion. Another cause, which is not noted in any of these cases, and a fairly frequent cause in

my experience is "Dhobi's itch," which is very severe out here, especially when situated between the scrotum and the thigh. Still, when every possible source of local irritation has been eliminated, there remain cases for which no other origin can be assigned but malaria or sepsis from intestinal glands.

These more obscure cases are usually preceded by fever, sometimes of prolonged duration (considered frequently to be remittent fever); the patients are cachectic in many cases, and have had previous admissions for malarial fever; the buboes sometimes come on while the patients are under treatment for "climatic" fever, and even dysentery. I examined the blood of 5 or 6 of these cases for the plasmodium but without success. As the buboes invariably occurred in the inguinal glands, and as the patients nearly always had irregular bowels (the temperature even in some cases being sent up by the administration of laxatives), with dyspeptic symptoms, and sometimes dysentery, the possibility of their being due to secondary infection from the mesenteric lymph glands then occurred to me. Considering the possibilities of infection along a long line of intestine, which need not necessarily be ulcerated, but may be sufficiently disordered in some way to allow of bacteria finding their way through to the mesenteric or lumbar glands, then to the inguinal glands, such an origin appears to me extremely probable, especially in tropical climates, where bowel troubles, often very obscure, are so frequently suffered from.

B. M. Skinner,
Surgeon-Major, A.M.S.

Calcutta.

## A COMPLICATION OF POTT'S FRACTURE PRODUCED BY A STIRRUP.

In the interior of the River Plate Republics, where one may almost say that the sons of the country are hardly ever out of the saddle, it is not to be wondered at that peculiar fractures caused by falls from horseback should occasionally be met with.

In the case I am about to refer to my patient was galloping along on rather slippery ground, when on suddenly trying to turn his horse fell sideways, the whole weight of the body of the animal crushing the right leg of the rider. Being close by when the accident happened I was able to make a diagnosis before any swelling of the parts had taken place. I discovered on careful examination that a complicated Pott's fracture had occurred, for not only was the external malleolus fractured transversely, but it was likewise parted vertically in two distinct portions, the vertical fracture of the malleolus being directly due to the force with which the stirrup had been buried in the outer side of the ankle-joint as a consequence of the weight of the body of the horse falling upon the rider's leg. The great difficulty I experienced was to draw together the two vertically divided fragments and to keep them in position.

I have thought this case deserved publication, as it showed a peculiar feature very rarely met with in an ordinary Pott's fracture.

Herbert J. Walker, M.B., C.M.Edin. Univ.

Durazno, Central Uruguay, South America.

## MASSAGE IN SKIN DISEASES.

There can be little doubt as to the value of massage in the treatment of skin diseases; it encourages the circulation, induces a more active nutrition, and materially assists in the removal of diseased tissues, infiltrations and effusions, by increasing molecular changes in the skin by means of mechanical stimulation. Massage as usually performed is, however, in many cases an unpleasant duty, which is in consequence seldom carried out so regularly or so thoroughly as it ought to be. I have found that in a great many cases the massage can be sufficiently well performed by using an india-rubber roller instead of the hand; thus avoiding unpleasant contact with the skin. I have now recommended this method in skin cases for some time, and find it answer admirably. It is easy of application, and can be applied largely by the patient, though the back must be massaged by some other person. The roller I usually recommend is the ordinary roller used in photographic work, and there are others made which act equally well.

Another method of stimulating the skin in isolated patches is by the use of a blunted Volkmann's spoon or by a curette, both of which instruments I have used with benefit. This method, however, is best applied to the face and neck, and can only be performed by the surgeon. I have found it of great value in obstinate cases of acne and psoriasis and localised indurations.

William Tibbles, L.R.C.P., M.R.C.S.

Nottingham.

## THE PHONENDOSCOPE AS AN AID IN THE DETECTION OF STONE IN THE BLADDER.

On December 10th, 1896, I was called to attend a man whose symptoms led me to suspect the presence of a vesical calculus.

On passing an ordinary Thompson's sound it at once came in contact with a stone lying on the right side of the neck of the bladder. Tapping with the beak of the sound, however, gave no aural evidence as to the nature of the substance with which it came in contact. Taking my phonendoscope I removed the outer disc, and held the flat handle of the sound in close contact with the more sensitive inner disc. On tapping again the distinctness of the sound produced astonished me. To avoid error I tapped in other directions, but only on returning to the same spot was the sound reproduced.

Why should not an instrument similar to Thompson's sound be made with a screw at the top of the flat handle to fit into the outer disc of the phonendoscope? It could then be used with or without the latter. If such has been made why is so useful an addition not advertised and sold with the phonendoscope?

Godfrey Goodman.

Brigg, Lincolnshire.

## BELLADONNA IN BRONCHITIS.

The importance of the communications of Drs. Sidney Ringer and Murrell on this matter is very great. The use of belladonna in a closely allied condition may be of interest.

In the summer of 1893 a girl, aged 14, had a very severe attack of pharyngeal diphtheria. In spite of most active treatment six weeks elapsed before the membrane had absolutely disappeared. Then followed a very marked and generally distributed paralysis—pharynx, larynx, and both extremities being involved. Feeding was wholly carried on by the nasal tube or by the rectum. Emaciation was extreme. The right lung was completely collapsed, so that the cardiac apex was beating just internal to the right nipple, and the liver dulness was drawn up. Liq. strychninæ ($7\frac{1}{2}$ m) was given at first four times a day, and then every four hours, to stimulate the cardiac and respiratory centres.

After a week of this treatment I found the patient, on the night of August 9th, in a state of extreme weakness. All day long there had been a perpetual cough, and this had quite exhausted her. She was ever trying to clear her throat, but her attempts were like the labours of Sisyphus. There was a constant moist tracheal *râle*, audible throughout the room, and the only difference between it and a death rattle was that the tracheal sensation and reflex were still perfect. There seemed no further room for hope, and it was difficult to see how she was to live through the night. In my despair I thought of the physiological effects of belladonna, and ordered 10 drops of the tincture every four hours. Next morning I found the patient had passed a better night; the tracheal *râle* had largely cleared, and the cough was much less troublesome. From this point improvement, at first slow, was continuous, yet three weeks elapsed before cough and expectoration had entirely ceased. The patient is now quite strong and well.

Struck by this case, I have used belladonna in the case of a young child with very sudden development of capillary bronchitis and universal moist *râles*, where the heart tended to fail before the right ventricle had got accustomed to the impediment in the lungs, and with admirable effect. I always use belladonna liniment as an application in cases of bronchitis with moist *râles*.—I am, etc.,

Frank Shearar, M.B., C.M.,
Physician, Paisley Infirmary.

Paisley

## EICHHORST'S CORPUSCLES.

During last October I was engaged in counting the corpuscles of several specimens of blood with a Gowers's hæmocytometer, the blood being mixed in the usual proportion with a solution of common salt in distilled water of specific gravity 1025. In

this solution, at the ordinary daily temperature of Bombay at that time, the red corpuscles kept alive on a slide for considerably over twenty-four hours. The official daily minimum of temperature was about 81° and the maximum 91°. But instead of retaining their disc-like shape, all the corpuscles, except quite a few that became broken up, tended to change into spheres. Their volume remaining the same, the spheres were much smaller in diameter than the discs, and, being thicker, their colouring appeared deeper. In other words, they became Eichhorst's corpuscles. Within an hour a few had undergone the change, and the number of spheres was slowly and steadily added to, until in twenty-four hours there were scarcely any normal discs left—though there were still a number of cells in a transition stage, that is, contracted and thickened discs, with small deep central cupping instead of the normal broad shallow depression. It was curious that within an hour some corpuscles should have completely changed, while in others the transformation did not begin till many hours later. I examined a few specimens of normal blood from different individuals, and the change was the same in all; but I have not attempted to extend the observation in any way with other fluids and at other temperatures. The examination of blood is quite apart from my work; and my apology for sending this note is that the incomplete observation may be made use of by others if there be anything new in it. In Hamilton's *Textbook of Pathology* Eichhorst's corpuscles are described only in connection with pernicious anæmia. But I fully realise that some years have passed since the publication of this book, and during the interval much may have been learned on the subject of which I am ignorant.

H. Herbert, F.R.C.S.Eng.,
Surgeon-Captain I.M.S.

Bombay.

# REPORTS
ON
## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

### ST. BARTHOLOMEW'S HOSPITAL.

CASE OF TIC DOULOUREUX RESISTING TREATMENT BY DRUGS: NERVE STRETCHING: GREAT RELIEF.

(By Samuel West, M.D., Assistant-Physician to the Hospital; Senior Physician Royal Free Hospital, etc.)

E. G., aged 33, was an out-patient of the hospital under my care suffering from tic douloureux. She gave the following history: She was healthy as a child and was married at the age of 17. At about 18 she had a severe blow across the nose and infraorbital region, and six months later had her first attack of pain: this consisted of very sharp twinges at intervals of about an hour, and the attack made the side of the face jump. She was given medicine which relieved the pain. She was then free from suffering for six months, when the pain returned again more intensely, but it was again removed by drugs. Two months after this she had her third attack. This was the first very bad attack. It lasted twenty minutes, and had to be relieved by the subcutaneous injection of morphine. This attack came on very suddenly in the street, and was so severe that she had to sit down, and was taken by a policeman into a doctor's house.

After this the attacks became more frequent sometimes lasting, on and off, all day at intervals of about half an hour. The average number of attacks for the last six or seven years has been one or two a day. Eight years ago she was advised to have some teeth extracted, and several were removed from the lower jaw without any relief to the pain.

Up to the time that she came to the hospital (December, 1894) the attacks became worse and worse, lasting longer and with shorter intervals until she was never free from pain for more than a quarter of an hour. In August, 1894, a few months before she was seen by me she had something removed from the nose; the doctor told her it was a growth, and that some bone came away with it, but of this nothing more is known. After this operation she was free for nearly nine months, and it was when the pain returned that she came again to the hospital in December, 1894.

When seen then the attacks of pain were very frequent and very severe. The pains were referred chiefly to the malar region, from which it appeared to start, but it radiated upwards over the temple, and forwards beneath the eye and middle part of the face; the muscles twitched and the eye was tightly closed. The agony was extreme, and often caused her to groan and cry. The skin over the malar bone and for some distance round was exquisitively sensitive, so that the slightest touch caused flinching, and she said often brought on an attack of pain.

After a time the pain became more diffuse; it was not so limited to the malar bone, but extended along the cheek nearer to the nose. The eye and orbit were examined, as also was the antrum and the nose, but no lesion could be found there, nor any cause for the attacks of pain. The patient seemed to be, except for the pain, a perfectly healthy woman, and except for an attack of so-called rheumatic fever at the age of 22, her previous history was negative.

The patient remained under treatment in the out-patient department for about four months. All sorts of remedies were tried, both internally and locally; for example, chloral hydrate and camphor, belladonna and aconite were all applied locally. Chloride of ammonium, salicylate of soda, strychnine and iron, phenacetine, antipyrin, arsenic, bromide of potassium, chloral, tincture of gelseminum and several other drugs were all tried in turn without material effect.

The patient was then admitted into Elizabeth Ward in June, 1895. She was placed under the action of bromides without material effect. Full doses of quinine were given, and also of salicylate of soda. This latter drug eased the patient for a time, but produced very troublesome toxic symptoms, and had to be given up. Arsenic, cannabis indica, and quinine alone and in combination were given. Besides this leeches were applied from time to time behind the mastoid process and to the temples. Bromidia, chloral, butyl chloral, and injections of morphine were administered from time to time, especially with the view of giving sleep. The ethyl-chloride spray was also used locally, and this gave a little relief for the moment, but the pain returned as soon as the skin thawed.

After a stay in the hospital of about two months she improved greatly, though I do not think in consequence of the drugs that had been administered, but rather because she was at rest and got better sleep. She was then feeling so much better that she was able to go to the convalescent home at Swanley, and had no severe attack there for six weeks, and after her return, though she had short slight attacks, she was not troubled with any severe paroxysms till the end of October. She then became an out-patient again until the end of the month, when she was again admitted, for the pain was extreme and could not be relieved by any remedies that we could find. During the next fourteen days in the wards she endured the greatest suffering. Doses of antipyrin were tried, salicylate of soda, quinine, opium and morphine, aconite, menthol, and a variety of other remedies locally, but none of them gave relief; even morphine relieved the pain for but a short time. It was evident that drugs had failed, and the question of operation was then entertained. After very careful consideration it was decided to do no more at first than to have a small incision made over the intra-orbital foramen, and to stretch that branch of the fifth nerve.

This was accordingly done on November 14th, 1895, by Mr. Harrison Cripps. When the nerve was exposed a hook was placed under it, and it was pulled with very considerable violence. There was nothing special to note about the operation; the wound healed by first intention, and in a few days everything was perfectly sound again. After coming round from the anæsthetic in the course of the evening the patient had several slight twinges of pain, but nothing of any great severity, and it was not until about three days afterwards that she had the first bad attack. From this time forward for several months she had no more bad attacks at all. The pains recurred, it is true, but they were hardly more than twinges, and came with diminishing intensity and at longer intervals, so that she slept well, and was in no great discomfort even during the whole day. She regarded herself as being marvellously improved.

It is now thirteen months since the operation was per-

formed; the patient looks hardly like the same woman, for she is so much better in appearance and in health. Though she has slight twinges from time to time, still they are none of them agonising as they used to be, and appear to be quite endurable. With the pains are slight twitchings of the side of the face, but there is none of the agony from which she previously suffered. The result of the operation may be regarded as eminently satisfactory, for her condition since the operation for the last thirteen months has been entirely different from what it was before. Her life is now at any rate fairly enjoyable, whereas it had been one of the greatest misery for several years up to the time that the operation was performed.

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## ROYAL INFIRMARY, NEWCASTLE-UPON-TYNE.

### DOUBLE HÆMATOMA AURIS.

(Under the care of Dr. OLIVER.)

AT the Carlisle meeting of the British Medical Association Dr. W. F. Robertson gave a microscopical demonstration of the pathology of hæmatoma auris. He showed that degenerative lesions in the ear cartilage paved the way for the occurrence of hæmorrhage, which arises from newly-formed vessels in the wall of an intracartilaginous cyst. As these vessels are specially prone to degenerate, they are thus liable to rupture from slight violence or even spontaneously. In the insane, amongst whom hæmatoma auris is prone to arise, traumatism need not play any part at all. In the patient whose case is now submitted by Dr. Oliver there are no signs of mental aberration, but a history of anæmia from insufficient food, a history of alcoholism and of traumatism.



Fig. 1.—Left side of head showing hæmatoma auris and the wound caused by the plate with which she was struck.

S. G., aged 36, a widow, was admitted into the infirmary on November 3rd, 1896, complaining of swelling of the ears and of weakness. Patient is a dressmaker, and for the last three or four months has not had sufficient food. Has had five children, two of whom only are alive. Previous to 1890 she took large quantities of alcohol. She renounced the habit, but returned to it again in 1895, drinking for a time rather heavily, and again becoming a teetotaller for the last few months. Had erysipelas in the head in 1883, since which she has been subject to headaches. For the last few months has been gradually getting weaker, but she attributes this to want of proper food. She has been getting paler too. Menstruation is normal. A week before her admission into the infirmary she was struck a violent blow on each ear by the closed fist of the woman superintendent of the workroom where she sewed, who, not content with severely boxing the ears, took up a plate which was lying on the table and broke it over her head, inflicting a scalp wound just behind the left ear which bled freely, and the scar of which is still very visible. The ears swelled up almost immediately.

The patient looks ill and is anæmic. The pinna of both ears is very much swollen, especially the right; it is bluish in colour; the surface is shiny and irregular. The swelling, which is the size of a large walnut, projects forwards, and completely closes the external auditory meatus, yet she can hear quite well. There is no discharge from the meatus. Appetite good, pulse 96, heart and lungs healthy; urine, no albumen, no sugar. Blood, on being examined, presents no increase of leucocytes: the red cells are healthy, but are deficient in number, there being only 2,800,000 in 1 c.mm. There are no signs of optic neuritis and no vomiting. The patient has been taking arsenic and iron with considerable benefit. The hæmatoma of the left ear is gradually disappearing.



Fig. 2.—Showing the hæmatoma of the right ear.

For the notes of the case Dr. Oliver is indebted to his house-physician, Dr. Clay, and his clinical clerk, Mr. Pope.

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# REPORTS OF SOCIETIES.

## PATHOLOGICAL SOCIETY OF LONDON.

HENRY TRENTHAM BUTLIN, D.C.L., F.R.C.S., President, in the Chair.

*Tuesday, January 5th, 1897.*

### SOME POINTS IN THE MORPHOLOGY OF THE TETANUS BACILLUS.

DR. A. A. KANTHACK and Mr. T. W. CONNELL, the authors, who illustrated this communication by means of lantern slides, made the following remarks: Impression preparations from the surface of gelatine showed considerable differences in the morphological characters of the bacillus; in some, filamentous forms predominated; in others, clubbed forms, like those of the diphtheria bacillus. Clubbed forms also appeared on agar (formate of soda agar). The micro-organism was very pleomorphic, and exhibited short rods and long filaments. In broth sporing was rarely observable; and it was equally so on agar after twenty-four hours, though spores were produced later on during the growth. On agar filamentous forms appeared with slender bacilli; the former perhaps indicated a mycelial ancestry. In older cultures spirulinar or twisted

forms made their appearance, like those encountered at times in anthrax bacillus. In regard to spore production, the drumstick was the commonest, but the terminal spore might develop at the end of a filament, or even of a twisted filament: where more than a single spore-like element was found an involution process was probably concerned. The whole of the terminal enlargement might stain with gentian violet, or the capsule round the spore, or a minute central point in a terminal enlargement provided with a thick colourable capsule. This minute centre stained with carbol fuchsin. If a guinea-pig was inoculated intraperitoneally with an agar culture death ensued, but not from tetanus; and in the peritoneal fluid there might at times be found large numbers of filamentous forms. Subcultures from these exhibited the more usual morphology, and broth cultures of such produced death with tetanic symptoms. The new observation, however, of the authors consisted in the demonstration that the bacillus is provided with large numbers of flagella, lateral and terminal, ranging from 20 to 30. Schwartz had previously described a terminal flagellum only, apparently from having studied old cultures. Nevertheless, the movement in a hanging drop was very sluggish, possibly because of the examination not being carried out under anaërobic conditions. The flagella were of two kinds—a thinner and a thicker; the latter (two or three times as thick as the rest) might conceivably be due to entwinement, but the authors had not been able to satisfy themselves that this was so. After some weeks the thinner set of flagella break away, and the thick at length are the only ones to persist, these being terminal. The flagella entirely disappear before sporulation occurs. Sometimes the silver staining (Van Ermengem's) discloses a series of channels in the spore capsule, corresponding in number with that of the flagella. From this the authors concluded that the flagella were prolongations of the protoplasm which emerged through the capsule.

Professor CROOKSHANK was well acquainted with the filamentous forms and different characters of the sporing ends mentioned by Dr. Kanthack. He thought that the staining of the terminal enlargement by Gram's method was due to staining of the spore capsule only, though it was difficult to be sure upon this. The minute point found in the enlargement in certain cases, stained by means of the Ziehl-Neelsen method, and he thought that it represented the early stage of spore growth, such as is seen in the anthrax bacillus. In all cases the sheath took the blue counter stain. Branching forms of the tubercle bacillus, like those of the tetanus, had been for some while recognised, first by Nocard and Roux, and by Dixon of the United States. He did not regard such as pointing to a mycelial ancestry, but looked upon them rather as relating the organisms to the higher streptothrix group, the process being one of advance rather than reversion to a higher type which had become lost.

The PRESIDENT did not gather the cause of the death of the guinea-pigs referred to in Dr. Kanthack's experiments, seeing that they did not present tetanic symptoms.

Dr. KANTHACK, in reply, observed that if no culture fluid was introduced the tetanus bacillus did not cause tetanus; death arose apparently from the intracellular poison contained in the bacilli; the toxin which was shed was shed only in fluid culture media, and not produced upon the surface of agar. That the filamentous forms recovered from the peritoneal fluid were tetanus bacilli appeared from the fact that broth subcultures produced death with the symptoms of tetanus. The speaker held that the branching form of the tubercle bacillus was first described by Professor Klein.

### VILLOUS PAPILLOMA OF THE KIDNEY, URETER AND BLADDER, BECOMING MALIGNANT.

Dr. DOUGLAS DREW recorded the above lesion from a man aged 56, who for three and a-half years had suffered from renal colic in the left side and profuse hæmaturia. Nephrolithotomy revealed no calculus; the wound was subsequently opened up, and for two and a-half months it discharged pus and flakes of epithelium and pus cells. After death the left kidney was hydronephrotic from the obstruction caused by the villous growths which involved the renal pelvis, ureter, and bladder around the orifice of the ureter. Adhering to the kidney was the aorta and a chain of enlarged lymphatic glands. The base of some of the pelvic growths showed distinct infiltration of the renal tissue, proving these to be malignant, whilst the tumours of the ureter and bladder were wholly superficial. The enlarged lymphatic glands exhibited groups of polyhedral cells, and a new growth in the liver corroborated the evidence of the infective nature of the renal tumour. The author had collected eight examples of papillomata of the renal pelvis; one series of these was associated with the presence of calculi. In his own case he thought that the growth had extended from the pelvis of the kidney to the ureter, and that in the former position it had subsequently acquired malignant characters.

Mr. CLEMENT LUCAS was familiar with villous growths of the renal pelvis, complicated with the presence of calculus, the latter being phosphatic and of secondary formation in such cases. He suggested the possibility of the lesions being due to tuberculosis, which had been followed by ulceration and a villous condition.

### OLD EXCISION OF THE KNEE-JOINT.

Mr. J. R. LUNN exhibited the above specimen, which was removed by amputation three years after excision had been practised; the bones had been united by silver wire, which was shown *in situ*, and unchanged in appearance. Amputation was performed on account of subsequent tuberculous disease of the ankle-joint and of the lung, and with good result.

### TREPHINING OF FEMUR.

Mr. J. R. LUNN also showed the lower end of a femur from the wall of which a disc of bone had been trephined: no disease being discovered the bone was replaced, and found in process of union after death, which took place thirty days later from causes unconnected with the operation. The knee had been contracted for several months, and a new growth was suspected.

### DUCT CARCINOMA.

The same exhibitor also recounted a case of the above in a male, 91 years of age. One unusual feature was the secondary involvement of the axillary glands.

The PRESIDENT remarked that such an implication had been observed, together with recurrence of the tumour of the breast, in a case reported by himself.

Mr. RAYMOND JOHNSON had made the histological examination of Mr. Lunn's specimens. In parts the cells had lost their columnar character and were spheroidal from active proliferation. It was not a villous form of carcinoma.

Mr. MARMADUKE SHEILD had studied this growth, and in his opinion it presented a combination of the columnar-celled and spheroidal-celled varieties. Macroscopically the tumour suggested a scirrhus; it did not present any indications of a cystic condition, which were so usual in duct carcinoma.

Dr. A. A. KANTHACK, Dr. H. D. ROLLESTON, and Mr. S. G. SHATTOCK also made some remarks upon the specimen, and the inadvisability of using the term "scirrhous," except as descriptive of hardness.

### CARD SPECIMENS.

Dr. JAMES CALVERT: Tooth-plate Impacted for Eight Months in the Œsophagus, and causing death by ulcerating into the thoracic aorta.—Dr. PARKES WEBER: Cardiac Thrombosis.—Dr. TH. FISHER: Broncho-pneumonia with Dilated Tubes in a child aged 5.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

### SECTION OF SURGERY.

WILLIAM THOMSON, P.R.C.S.I., President, in the Chair.

*Friday, December 11th, 1896.*

### ACUTE INTESTINAL OBSTRUCTION.

MR. M'ARDLE read a paper based on the results obtained in the treatment of 41 cases of acute intestinal obstruction by operation. The cases included instances of obstruction by bands, intussusception, volvulus, acute enteritis, perforative peritonitis, and appendicular disease. Seven cases succumbed, but in no case that was not beyond recall before opening the abdomen did death occur. Mr. M'Ardle pointed out that the delay occasioned by trying medicine and enemata often placed the patient beyond the reach of surgery. He regretted

that some modern writers advocated persistent efforts with enemata, even after dangerous symptoms had shown themselves. He recorded cases of acute internal strangulation in which great change was brought about in the injured intestines by irrigation with boiled saline solution, at a temperature of 100° F. He did not advocate indiscriminate laparotomy, but after calling attention to many cases of acute intestinal obstruction in which death occurred before he had an opportunity of operating on the cases, he held that with the present safe methods the intestines should be exposed much earlier and with greater frequency. The points on which Mr. M'Ardle laid greatest stress were (1) That all fluids should be removed from the pelvis and loins by irrigation with sterile water. (2) That the circulation in the intestines should be restored, and peristalsis established by irrigating with boiled saline solution before returning them to the abdomen. (3) That a tube passed through the rectum should be guided by the hand within the abdomen until flushing of the colon could be thoroughly carried out. This as an aid to reducing the intra-abdominal tension and easy return of protruded bowel. He laid down this rule: When a surgeon is called to a case of complete obstruction of the bowel, which has resisted judicious medical treatment, and in which evidence of peritoneal effusion exists, it is his duty to operate at once.

The PRESIDENT said that, granting that acute intestinal obstruction was recognised, everybody was at one with Mr. M'Ardle as to the propriety of operating as quickly as possible. As to what might be called ordinary chronic constipation, if they were quite sure that it was only that with which they had to deal, the idea of opening the abdomen would not be entertained except in very extreme cases.

Dr. MYLES referred to the extraordinary difficulty of accurate abdominal diagnosis. As to Mr. M'Ardle's suggestion of making a second incision if necessary, and putting the hand into the abdomen, he (Dr. Myles) had frequently done that. Most of his operations for obstruction of the bowel had ended fatally, but perhaps most of the cases that he saw were too far advanced for operative interference to be useful.

Mr. TOBIN said an early operation in a great many cases of intestinal obstruction would effect a radical cure. The persons who were most afraid of laparotomy were those who began it too late. If it were commenced before peritonitis set in the operator was encouraged. He believed it would soon become the practice to operate at once in all cases where there was complete intestinal obstruction; for even if it should lead to the discovery of an incurable cancerous mass, an artificial anus could be made, and thus the patient would be the better of the operation.

Mr. CROLY said the whole question turned on diagnosis. For his part, he would open the abdomen as a means of diagnosis. That was much better in a case of acute internal strangulation than stupes, or leeches, or tubes, or turning the patient upside down and shaking him. As far as his experience led him, he was entirely an advocate for early laparotomy as a means of diagnosis in cases of acute intestinal obstruction.

Mr. ALFRED SMITH said Mr. M'Ardle's experience bore out that of everyone who had anything to do with abdominal surgery as to the great advantage of saline solutions. In all these cases of intestinal obstruction the possibility of tubal pregnancy should not be overlooked.

Mr. HEUSTON said Mr. M'Ardle seemed to think that there was no such thing as secondary shock. He (Mr. Heuston) believed that after the operation a condition of things sometimes ensued which was a secondary shock, and of which the patient sometimes died. This might or might not result from the giving way of imperfect suturing; but he believed suturing could always be done in such a manner that there would be no fear of its giving way.

Mr. BENNETT said what he would particularly emphasise was Mr. M'Ardle's practice of making a secondary opening. He was not acquainted with the practice in question until he saw it done by Mr. M'Ardle, and he was then struck by the great facility which it gave for reaching any fixed and unmanageable structure that might exist in the lower part of the colon, close to the sigmoid flexure, and which could not be brought to the mesian incision; and the facility it gave for evacuating or exposing the intestine.

Mr. LENTAIGNE said he had himself done that very operation of secondary incision precisely as Mr. M'Ardle recommended, and for the very same thing.

Dr. BOYD said there were very few physicians coming across acute intestinal obstruction who would be so blind as not to recognise the necessity for operative interference; and all surgeons were agreed that it should be done early. But the rule was to be taken with some restrictions—mere lodgments or accumulations should not be confounded with obstruction.

Mr. M'ARDLE, in reply, said a definite statement had been asked for as to what cases should be operated on. In most of the cases that he operated on he did not know what he would find on opening the abdomen; but he did know that the peritoneal cavity contained fluid, that the bowels did not act, that the patient was in a state of collapse, or impending collapse, and that physic could do no good. He did not claim any originality as regarded the practice of secondary section of the abdomen: what he did in that particular case was on the spur of the moment, feeling himself otherwise cornered. Everyone knew that the danger of laparotomy was not great; but the danger of not performing it was much greater. It had been said that there was no use in operating when a patient was in a state of collapse, but he maintained that it was not too late until after the patient was dead.

## BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

C. W. SUCKLING, M.D., in the Chair.

*Friday, November 27th, 1896.*

### PATHOLOGICAL AND CLINICAL SECTION.

THYROTOMY PERFORMED THREE TIMES ON ONE PATIENT. MR. BARLING showed sections from a case of epithelioma of the larynx. The patient first came under observation in July, 1892, when thyrotomy was performed and a large quantity of simple papillomatous growth was removed. Two years later thyrotomy was again performed for recurrence, and this time sections of the growth showed that it was altering its nature, there being distinct, though few, cell nests. In April, 1895, a permanent tracheotomy tube was inserted, as cicatricial stenosis now existed, which was not relieved by intubation; but at this time there was no recurrence. In July, 1896, the patient again presented himself, with pain and swelling of the neck and a good deal of fixation of the larynx. At this time the larynx was occupied by growth, which was attached widely on both sides, and parts of which were necrosing. The diagnosis now made was epithelioma, which had probably perforated the thyroid cartilage and invaded the soft tissues around. In a few days, however, it was evident that pus was forming in the neck, and as soon as this was let out the infiltration rapidly disappeared and the larynx again became movable. Thyrotomy was performed a third time, and a considerable amount of growth removed, which was entirely confined within the larynx. After this was extirpated, the remaining soft parts within the cavity were cleared out with scissors, and the galvano-cautery was freely applied. The growth this time proved to be definite epithelioma. On each occasion the patient, a stout man aged 54 at the present time, made a good recovery, and was well as recently as two months ago. Hahn's tube was used at all the operations, and was replaced by an ordinary cannula the same day.

EXCISION OF TONSIL FOR MALIGNANT DISEASE. MR. HEATON showed a man, aged 60, on whom he had performed an extensive operation for removal of a large malignant growth seven months ago. The operation involved complete removal of the left tonsil and anterior pillar of the fauces, the left half of the soft and hard palates, and the alveolar portions of both upper and lower jaws corresponding to the three molar teeth. The removal was effected by a long horizontal incision carried backwards from the angle of the mouth. The ramus of the lower jaw was removed on the left side to get a free exposure of the growth. The patient made a rapid and perfect recovery, and put on flesh. He was now shown wearing an obturator plate with a set of upper and

lower false teeth, which enabled him to swallow without difficulty, and prevented all regurgitation of food through the nostrils.

Parotid Tumour.

Mr. Gamgee showed a case of cavernous angeioma of the parotid gland. For the last two years the patient, who was a girl of 21, had noticed that when she leaned forwards, a swelling had appeared in the left parotid region. No congenital history. Present condition: When she stands upright the left parotid region is a little fuller than the right, but when she leans forward a large, soft, fluctuating tumour appears slowly in this region. There is no thrill, *bruit*, or pulsation in it, and it disappears on pressure, and when the patient stands up again. At the same time that the tumour appears, the external jugular vein also becomes distended. Pressure on the external jugular also causes the tumour to appear, but in this case it is smaller. On palpation the tumour gives the impression of being one large cyst rather than many small ones.

Miscellaneous Cases.

Dr. Leslie Phillips showed two cases in which the Pediculus Pubis had extended its depredations to the small hairs of the trunk and axillæ, in one case extending to the hairs of the forearm.

Mr. Priestley Smith read a note on two cases of Plastic Operation for Tumour of Eyelid.

Mr. Barling showed a huge Myxolipoma of the Thigh and Leg, removed by amputation at the hip-joint, on Wyeth's method, from a male, aged 47. The growth was inflamed and sloughing at the time of operation, and the patient septicæmic, but he is now making a good recovery.

Dr. Purslow showed an unbroken Amniotic Sac, containing a fœtus of about four months' development. The sac was expelled without any hæmorrhage, leaving the entire chorion with the placenta behind, and these were expelled subsequently. The cord had given way at its placental attachment, and its torn end could be seen as a depression on the surface of the sac, the entire cord being, with the fœtus, inside the sac. Dr. Purslow drew attention to the extreme rarity of such a specimen.

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British Balneological and Climatological Society.—At a meeting on December 9th, 1896, Dr. A. S. Myrtle, J.P. (President) in the chair, Mr. Haviland read a paper on The Thorough Investigation of the Vital Statistics of Health Resorts, with the view of comparing them with those of the registration districts in which they are situated, or which immediately surround them. He suggested the advisability (1) of recommending a uniform method of death returns to be adopted by all British health resorts; and (2) that this Society then proceed to draw up forms of tables for the death statistics of health resorts on the model the late Dr. Farr adopted in his decennial supplements, and recommend their use to the sanitary authorities and others interested in such towns. The paper was discussed by Dr. Myrtle (Harrogate), Dr. Ward Humphreys (Cheltenham), Dr. McClure (Cromer), Dr. Henry Lewis (Folkestone), Dr. White (Margate), Dr. Bowen Davies (Llandrindod Wells). Dr. Ernest Snape (London), Dr. Tyson (Folkestone), Dr. Hyde (Buxton), Dr. Gifford Bennett (Buxton), and Dr. Cuffe (Woodhall Spa). —Dr. William Ewart read a paper on The Decrease of Malaria and Malarious Affections in London. During the former periods of its great prevalence in London, ague was probably largely endemic, as well as imported. The frequency of the affection had greatly diminished since the end of the eighteenth century, but in a much more remarkable degree during the last forty years; and the cases observed have been almost exclusively imported from the malarious districts adjoining London and extending along the lower Thames valley. Some authorities, and especially Addison and Sir William Gull, had, nevertheless, taught that ague and its varied manifestations lingered in many parts of the metropolis. With a view to ascertaining whether a "London ague" still existed at the present time—and, if so, in what districts—circulars were addressed to the medical superintendents of all the London infirmaries, and to the senior physicians of all the great London hospitals, and likewise to various physicians and practitioners. The replies received from infirmaries were, without exception, in the negative. Those obtained from hospitals, whilst testifying in several instances (Guy's, St. Bartholomew's, St. Thomas's, London, Westminster, St. George's) to old traditions relating to the existence of a "London ague," gave the clearest evidence of its disappearance for many years past, and of the rarity even of any imported cases. At the same time isolated instances have been brought to light in which ague had been contracted in London within the last thirty years, either in riverside districts or in the neighbourhood of extensive excavations. Valuable information had also been supplied from the records of private practice as to the existence of "ague spots" in the map of London, such as Woolwich, the neighbourhood of Holland Park, Shepherd's Bush, etc., where ague, or its manifestations, had occasionally cropped up within comparatively recent times. Of late years less and less of this sporadic form of ague had been observed. The general conclusion was that during the last thirty years ague had been dying out, not only in London, but even in the most aguish of our country districts. With the growth of London unhealthy districts had been included from time to time, and their malaria had become a London malaria. This would not occur again, since even the formerly malarious environs were now free from ague. Again, the importation of ague from greater distances had almost ceased, owing to the general subsidence throughout the country of its endemic local prevalence. The causes to be assigned for the decrease of ague were systematic drainage, the various sanitary reforms, as well as the improved hygiene and material comfort of the population. These factors, however, do not entirely account for the remarkable immunity now enjoyed. It remains a most extraordinary circumstance that ague, at one time so prevalent, bids fair to be reckoned in England within a few years—as it already might be in London—as one of the extinct diseases. Dr. Symes Thompson said that at King's College Hospital, from 1860 to 1865, he saw a good deal of ague, the cases coming mainly from the low lands of Kent and Essex, and also from Suffolk and Lincolnshire, but of late years he had seen very little. Dr. J. H. Caldecott (Hanwell) had seen one genuine case of ague, undoubtedly of London origin, which occurred four years ago in the neighbourhood of New Cross. Dr. Gilbert (Tunbridge Wells) had seen two cases in the district of Hackney Marshes, between the Lea Bridge Road and Stratford within the last twenty years. Dr. Fortescue Fox referred to instances of ague occurring after excavation, and asked if Dr. Ewart could throw any light on the incidence of rheumatism in connection with ague. Dr. S. G. Felce (Cricklewood), while resident for four years at St. Saviour's Infirmary, which received very many patients from the Old Kent Road and Borough districts, had never seen a case of ague arising *de novo*. Dr. Septimus Sunderland, during eleven years' experience of out-patients at the Royal Hospital for Children and Women in Lambeth, had never diagnosed a case of ague. Dr. McClure (Cromer) had often seen in foreign lands dysentery coinciding with ague, and had found rheumatism rather a common disease in malarious districts. Dr. Gifford Bennett (Buxton) said that in 1858, when he lived in Kent, ague was very common. With regard to any connection between ague and rheumatism he had not noticed it. Dr. Tyson (Folkestone) said his father used to see many cases from Romney Marsh, but since the drainage it had disappeared. Dr. Lewis (Folkestone) for two or three years after 1866 had often seen cases of ague from Romney Marsh, and was able to confirm Dr. Tyson's statement. Dr. Cuffe (Woodhall Spa), during twenty years' residence on the fringe of the Fen district in Lincolnshire, had not himself seen a case of ague. After some remarks from Dr. Myrtle (Harrogate), Dr. Ewart, replying, thought the Fellows of the Society should investigate in the various country districts what yet remained of ague. He was very doubtful about any connection between ague and rheumatism.

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Laryngological Society of London.—At a meeting on December 9th, 1896, Dr. F. Semon, President, in the Chair, Dr. P. McBride showed the following cases and specimens: (1) Specimen of Fatty Tumour from Epiglottis; (2) Photographs of a case of Rapid Destruction of the Nose and Face; (3) Case of Foreign Body in Nose.—Dr. Logan Turner showed macroscopic and microscopic specimens of Papilloma

of Septum Nasi.—Dr. Ball: a Case for Diagnosis.—Dr. H. Tilley: Case of Subglottic Stenosis.—Mr. C. A. Parkes: Case of Ulceration of Pharynx.—Dr. de H. Hall: Case of Œdema of Arytænoids.—Dr. Dundas Grant and Mr. R. Lake: A Case of Pre-Epiglottic Cyst, with Specimen and Microscopical Section.—Dr. Bond: (1) Case of Thickening of the Hard Palate; (2) Case of Growth springing from top of Œsophagus.—Mr. W. G. Spencer: (1) Case of Excision of Larynx and Upper Two Rings of the Trachea for Perichondral Sarcoma of the Cricoid Cartilage (specimen shown at last meeting); (2) Case of Excision of Vocal Cord for Spheroidal-celled Carcinoma (specimen shown at last meeting).—Mr. Lambert Lack: (1) Total Extirpation of Larynx for Squamous-celled Epithelioma (patient and specimen); (2) Total Extirpation of Larynx with part of Anterior Wall of Pharynx, of Posterior part of Tongue and Glands in Neck for Squamous-celled Epithelioma.—Dr. A. Bronner: Microscopic Specimens of a Pedunculated Tuberculous Growth of the Vocal Cords.—Dr. Jobson Horne: Fibroma of Right Nasal Cavity, together with microscopic specimen of the same, prepared by an old histological method for rapid diagnosis.—Dr. Watson Williams: Case of Congenital Nasal Stenosis.—Mr. A. A. Bowlby: (1) Specimens of Angeiofibroma of Pharynx illustrating the effects of Pressure on the Superior Maxillary Bones; (2) Case of Pharyngeal Tumour.

Glasgow Obstetrical and Gynæcological Society.—At a meeting on December 16th, 1896, Dr. Nigel Stark in the chair, Dr. G. Balfour Marshall read notes of a case of Tubal Gestation about the fifth week, in which he had operated successfully. In the removal of the tube and ovary on the affected side (right) the gestation sac was ruptured, and the ovum was found to have been converted into a mole. The tube was found to be in no way affected, but there were peritonitic adhesions on the right side fixing the ovary and binding down the uterus.—Dr. Jardine read a note on Delivery in the Walcher Position in a Contracted Pelvis. The patient had been in labour for twelve hours, and chloroform had been administered. She was exhausted, and the fœtal pulse was very rapid. He used Milne Murray's axis traction forceps with the patient in the usual position with little effect, but the head passed the brim easily when she was put in Walcher's position. The child was stillborn, and weighed 8½ lbs. The head was very much moulded, the biparietal diameter being 3 inches and the occipito-frontal 4½ inches. Before dismissing the patient he took the following pelvic measurements: Intercristal diameter, 10¾ inches; interspinous, 10¾ inches; external conjugate, 7 inches; diagonal conjugate, 3½ inches. The conjugata vera could not be more than 2¾ inches. Her first and second children were born dead at full time, the delivery being by instruments. Her third was born prematurely, and was still alive. Labour had been induced. The fourth child was delivered dead at the seventh month by turning. Dr. Malcolm Black had attended and noted the conjugata vera as being 2¾ inches. The fifth pregnancy was terminated at the Maternity Hospital last year by craniotomy at full term.—Dr. Lindsay showed a Human Embryo at about the sixteenth day, also specimens and photographs of Congenital Deformities.

Sheffield Medico-Chirurgical Society.—At a meeting on December 17th, 1896, Dr. Porter, Vice-President, in the chair, Mr. Pye-Smith showed (1) a woman, aged 58, with a large Cystic Tumour of the Neck, probably congenital. The tumour was first noticed when the patient was 17 years of age. It grew to the size of a child's head, and burst when she was 49 years of age, discharging fluid blood, and continuing to bleed for three days, greatly reducing her strength. It healed, and burst again when she was 56 years of age, and again (twice) a year later. Since then it had never quite healed, and now fresh openings were appearing. It always inflamed before bursting, and at present it was somewhat inflamed. (2) A case of Staphylorrhaphy, in which he had used a continuous instead of an interrupted suture.—Dr. Arthur Hall showed: (1) Pityriasis Rosea in a man aged 28; duration three weeks. (2) Circinate Papulo-squamous Syphilide of the Chin and Cheeks. (3) Aortic Stenosis in a young woman, with an extremely loud, rough systolic murmur over the aortic area. The secondary effects and symptoms were practically *nil*.—Dr. Alfred Robinson (Rotherham) showed a tongue which had been removed from a two-year old bullock suffering from Actinomycosis. The case occurred in the winter months, and several other cattle on the same farm had been suffering from a similar complaint. The diagnosis was verified by microscopical examination.—Mr. Cyril Flory showed a case of Left Pneumothorax in a man aged 50, a silver turner by occupation. The patient's account was that whilst at work on November 18th he felt as if something had given way. He became suddenly short of breath and broke out into a sweat. There was a history of a winter cough for several years, but no injury nor evidence of tuberculosis. The heart was much displaced, the apex being near the right nipple line. Though the condition had existed for over six weeks, there was no fluid in the chest.—Dr. Connell gave particulars of a case of Primary Ventricular Cerebral Hæmorrhage, and showed the specimen. The subject, a man aged 46, was found in a "fit" about half an hour before he was brought to the General Infirmary. When examined immediately after admission the face was cyanosed, the breathing was stertorous and purely diaphragmatic, the pupils were dilated and did not react to light, the limbs were markedly flaccid, the pulse 66, full and bounding; urine clear, acid, specific gravity 1010, contained a large quantity of albumen. Uræmia, hæmorrhage into the pons, alcoholic intoxication, opium poisoning, injury to the spine, and injury to the head were thought of, and the diagnosis of hæmorrhage into the lateral ventricles was made during life. This was confirmed by the necropsy. The kidneys were slightly granular and the cortex thinned. The left ventricle was hypertrophied.—Dr. Cuff showed a case of Tuberculous Lymphadenitis from disease of the pharynx. The glands on the opposite side of the neck were also involved.—Dr. Burgess showed a girl, aged 6, with Pulmonary Regurgitation from congenital heart disease: a diastolic thrill and murmur in the pulmonary area. The murmur was conducted outwards and heard down the left side of the sternum. Over the aortic area and along the vessels the click of the valves could be made out. The apex was displaced outwards, and there was epigastric pulsation. The heart affection was first noticed when the child was about a year old. There was no rheumatic fever in the family. Dr. Porter, Dr. Hall, Dr. White, Dr. Cuff, Mr. Makeig Jones, Mr. Pye-Smith, and Dr. Burgess made remarks.

Birkenhead Medical Society.—At a meeting on December 11th, 1896, Dr. Sidney Marsden, President, in the chair, Dr. Francis Johnson read notes and showed photographs and charts of the following cases: (1) Hydrops Articuli of both Knee-joints in an otherwise healthy child, treated successfully by tapping and elastic pressure. Mr. Shears drew attention to the fact that hydrops articuli is frequently seen in children suffering from congenital syphilis. (2) Lupus of Nose and Face treated by scraping and thyroid gland, and which was followed by great improvement. (3) Herpes affecting the area of the scalp supplied by the left great and small occipital nerves. (4) A Sporadic or Myxœdematous Cretin greatly benefited by thyroid gland. This case gave rise to an interesting discussion on the methods of administering the thyroid gland.—Dr. Blood showed a set of Gall Stones removed by operation from a patient who had suffered from symptoms for twelve years.

Nottingham Medico-Chirurgical Society.—At a meeting on December 16th, 1896, Dr. W. B. Ransom, President, in the Chair, Mr. Tresidder read a paper on Some Points in Abdominal Surgery. Referring to shock in operation on the peritoneum, he first drew attention to the peculiarities of the peritoneum: (1) Its considerable surface: (2) its great sensibility; (3) its remarkable powers of absorption and (4) its wonderful powers of healing. The amount of shock in operation of the peritoneum among other things would depend on (1) whether previously operated on: (2) the region of the operation; and (3) whether the membrane is inflamed. With reference to abdominal cysts, he thought a good clinical classification was whether: (1) Unilocular or multilocular; (2) whether pedunculated or sessile: (3) whether adhesions existed. In the treatment of cysts deep in the pelvis he had

found Trendelenburg's position very valuable. Lastly with reference to uterine cancer, he had recently performed vaginal hysterectomy for cancer in 4 cases; and in 2 of them mental complications had followed, one dying of melancholia, the other of recurrence with marked mental depression; the other 2 patients were alive, but one had recurrence now, five months after the operation. The other was still well eleven months after. He considered the limits of vaginal hysterectomy very narrow, and himself preferred supravaginal amputation of the cervix to the complete operation, as the growths tended to spread not upwards to the extreme body but outwards into the broad ligament, and melancholia was less likely to follow this operation. He illustrated points in his paper by a table of 17 cases of various abdominal diseases that he had treated by operation. He showed the following pathological specimens: (1) Stomach showing Healed Gastric Ulcer after operation; (2) Double Uterus with Pyosalpinx; (3) Five Ovarian Cysts; (4) Two specimens of Double Pyosalpinx: (5) Carcinoma Cervicis Uteri; (6) Carcinoma Corporis Uteri, microscopic specimens of Carcinoma of Body of Uterus. Dr. Ransom and Mr. Anderson made remarks on the paper and Mr. Tresidder replied.—The President showed a microscopic specimen of an Alveolar Sarcoma of the Skin. —Mr. Anderson showed: (1) a specimen of Double Pyosalpinx; (2) Primary Lympho-Sarcoma of the Inguinal Glands with microscopic specimens. He also gave a short clinical history of the latter case which ran a rapid course, destroying life in two months.

# REVIEWS.

Lectures on Renal and Urinary Diseases. By Robert Saundby, M.D.Edin. Second Edition. Bristol: John Wright and Co. 1896. (Demy 8vo, pp. 146. 10s. 6d.)

The welcome accorded to these *Lectures* has encouraged the author to prepare a second edition. The lectures on diabetes and those on renal diseases are now contained in one handy volume. Dr. Saundby tells us that the lectures have been carefully revised and much new matter added: a fourth section has also been included on miscellaneous affections of the kidney, which makes the book more complete as a work of reference.

The volume makes a favourable impression at once. As all business books should be, the pages are cut; it is well printed and sufficiently illustrated: it contains a good index both of proper names and of subjects; appended to each chapter is a sufficient list of references; and the text of each concludes with a summary of its argument, in one instance also with a summary of the gaps in our knowledge—an admirable device for pricking balloons.

The style of the work is clear and succinct. To enter on a full review would be impossible in this place; but we shall refer to a few passages. Of these the chief, perhaps, is the discussion on the cardiac hypertrophy and rise of arterial pressure in renal disease. Herein the propositions favoured by the author seem to us to be open to demur. Unless we are mistaken, Dr. Saundby leans to the belief that the hypertrophy is due to a stimulation of the heart directly by certain waste or foreign matters in the blood. Surely, whatever the difficulties of alternative views, this is open to objection. If every contraction of the heart is a maximum contraction, no stimulant can make the organ do more. A stimulant may make the heart contract more frequently, but in this case the output would be the less on each systole, and thus work would not on the whole be increased, or would be increased but uncertainly and incidentally. The hypertrophy of renal disease is more than this would account for.

In respect of the hypertrophy of the muscular coats of the arterioles, alleged by Johnson as the cause, Dr. Saundby agrees with Ewald in regarding it as a frequent but not a constant phenomenon—it was absent in 2 out of 10 of Saundby's cases—so that it cannot be the main cause of the hypertrophy. The last word on this point has yet to be said. Poison in the blood might, indeed, by lowering the nutrition of the heart and leading to dilatation of the organ, thus indirectly cause an increase of work; but the hypertrophy is as a rule too good for this kind of explanation; we do not find that dilatation from such causes in other diseases is so well compensated.

Mental stress as a cause of renal disease does not find a close adherent in Dr. Saundby, who throws this element of its causation into the chapter on lithæmia. It is to be presumed that the migraine so often found in the life-history of those who fall victims later to chronic renal disease would be attributed by him to the same factor. Yet there are great difficulties in a ready assumption that uric acid, as a mechanical irritant, is the direct factor in the renal disease of gouty persons. Many persons who are lifelong victims of gout in its articular form live to old age without renal disease, and indeed without high arterial pressure. It is rather those persons who suffer from "suppressed gout" who are liable to renal disease. Nor again are the cases to be forgotten in which high arterial blood pressure may last for years, and give rise to characteristic and even severe disturbance, and yet no renal disease may coexist therewith or thereafter. Is not "suppressed gout" something perhaps allied to articular gout, but a little off the line of it? May not the toxic matter in the blood be of another kind, or at any rate not identical with uric acid? These considerations lead to the only remaining point which we have space to refer to, namely, the renal disorder of pregnancy. In pregnancy the evidence is strong that the mechanical hypothesis apparently accepted by the author is not a sufficient explanation. In these cases there seems also to be a toxin in the blood to which the renal injury is to be attributed, a toxin which injection of the urine of pregnant women into animals shows to be always present; their urine being four times as poisonous as ordinary urine. When symptoms of "uræmia" appear, however, the toxicity of the urine falls quickly, while that of the blood serum rises, thus indicating that the poison is no longer removed by the fatigued or perhaps injured organs.

The subject with which Dr. Saundby deals is one on which there is room for many differences of opinion in matters of detail, but we cannot find any part of the subject upon which the views expressed are not carefully thought out, and fortified by evidence drawn from the most recent sources. The book may be cordially recommended as one which may be read with great interest and profit.

Year-Book of Pharmacy, with the Transactions of the British Pharmaceutical Conference, 1896. London: J. and A. Churchill. 1896. (Demy 8vo, pp. 415.).

Although the prospectus of the Association issuing this work still continues the statement that a volume of about 500 pages is annually presented to the members, the volume for last year was reduced to 415 pages, a circumstance which may be due to the financial position indicated by the published accounts. One half of the volume is taken up by the report of the proceedings at the Liverpool meeting held last July, and the other half contains as usual a concise review of the scientific work done during the current year in connection with subjects bearing upon pharmacy. An introductory chapter of 16 pages points out some of the leading features of the chemical and pharmacological investigations relating to drugs and medicinal preparations. The abstracts of individual papers have been carefully prepared, and the references given to the original publications show that the information contained in the volume has been collected from a great variety of sources. But most of this information had already been published in one or other of the numerous journals which now furnish periodically accounts of all scientific work done both at home and abroad. This circumstance somewhat detracts from the value of the *Year-Book*, except in so far as it is a convenient selection of subjects possessing especial pharmaceutical interest, which would otherwise require to be sought for in a variety of journals. This view of the matter appears to have been present in the mind of some of the members when the annual report of the executive was presented and discussed. The fact that the production of the *Year-Book* absorbs nearly the whole of the subscriptions is in itself sufficient to raise the question whether the objects of the Association might not be more effectually promoted in other ways than in the publication of a *Year-Book*. The annual meetings at different places throughout the kingdom have no doubt been very conducive to the promotion of

friendly intercourse and union among pharmacists, and they may be credited with having exercised a very beneficial influence in that direction during the thirty-three years that the British Pharmaceutical Conference has been in existence. The other object of the organisation—the encouragement of pharmaceutical research—might perhaps be better promoted if the funds now devoted to the publication of a *Year-Book* were applied as grants in aid of investigation, or in some other way that would operate as an incentive to such work.

The printing and paper of the *Year-Book* are both good, but in the copy sent for review the binder has left out the sixteen pages of Signature O and inserted Signature L twice.

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The Hæmatozoon of Malaria and its Discovery in Water and Soil. By Surgeon-Captain Patrick Hehir, M.D., F.R.S.E., D.P.H.Cantab.

The malaria parasite is receiving much attention at Hyderabad in the Deccan. One observer there sees too little, and that little incorrectly; another, we fear, sees too much, also incorrectly. Surgeon-Captain Patrick Hehir's remarkable and characteristic pamphlet contains a series of statements which, if they had been substantiated by reliable evidence, would place their author in the same line with, if not before, Laveran himself in this particular branch of pathology. Unfortunately, evidence is conspicuous only by its absence. The author's *bona fides* is not for a moment doubtful; but from the internal evidence which this present and his former papers supply, his accuracy as an observer and the value of his conclusions must be questioned. For example, he states (p. 16, par. 17) that the quartan parasite occurs fifteen times more frequently than the tertian; (p. 18, par. 76) that the blood corpuscle containing the tertian parasite is smaller than that enclosing the quartan: that the latter produces smaller and more numerous spores, and that its pigment is less in quantity and finer in grain than is the case with the tertian parasite. These and others of Dr. Hehir's statements are directly opposed to many generally accepted observations.

The sequence of ideas in Dr. Hehir's paper is not very obvious. We fear, too, that he jumps at conclusions, a very small amount of evidence apparently sufficing to satisfy him. The fact that a protozoal organism comes from a pond in a malarious locality, and that it resembles in one or more particulars some of the phases of Laveran's bodies, is hardly sufficient warrant for labelling it the malaria organism. Dr. Hehir is a diligent worker, but he suffers from lack of criticism prior to publication.

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An Introduction to Human Physiology. By Augustus D. Waller, M.D., F.R.S., Lecturer on Physiology at St. Mary's Hospital Medical School, London. Third Edition. London: Longmans, Green and Co. 1896. (Demy 8vo, pp. 656, 315 figures. 18s.)

The alterations made in this edition of Dr. Waller's well-known textbook are not numerous. The most important additions are in the chapters on nerve, and on animal electricity. Here the author has inserted a brief account of those experiments which he has carried out during the past few years, and which were fully described in his Croonian Lecture at the Royal Society, and in several articles in *Brain*.

Concerning the book as a whole, we have nothing to add to the favourable notices we have already published in connection with the two first editions. It continues to hold its own as one of the best of students' textbooks, and we congratulate Dr. Waller on the success it has achieved.

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Premature Burial. By William Tebb, F.R.G.S., and Colonel Edward Perry Vollum, M.D. London: Swan Sonnenschein and Co. 1896. (Crown 8vo, pp. 4co. 5s.)

According to the introduction to this book, the principal reason for its appearance is "the publication of several recent cases of premature burial in the English and American papers," and the issue of Dr. Franz Hartmann's *Buried Alive*. The more pretentious volume before us starts with the bold statement "that premature burials and narrow escapes are of almost every-day occurrence," and the proof of this assertion is that in a book of 400 pages there is only one case of premature burial reported as occurring in England, and that occurred over a century and a-half ago. On pp. 198, 199 the authors refer to a leading article on The Signs of Death that appeared in the British Medical Journal of September 28th, 1895, and, dissenting from it, express the fear that the writer must have overlooked, among others, the "able treatise" of Hartmann. In the review of that pamphlet, published in the Journal of February 29th, 1896, we observed that "a worse farrago of nonsense than that contained in this pamphlet it has seldom been our lot to come across," so that the authors may feel assured that that treatise has not been overlooked.

Among their many vagaries the authors rashly state that the signs of death are not taught in the medical schools. We can assure them that they are quite wrong if they are referring to British medical schools.

After careful perusal of the work we fail to find anything in it that is worthy of serious criticism.

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La Mort Réelle et la Mort Apparente [Real and Apparent Death]. By Dr. Séberin Icard. Paris: Félix Alcan. 1897. (Cr. 8vo, pp. 314. Fr. 4.)

The principal object of this book is to demonstrate the advantages claimed by the author for two new methods for distinguishing real from apparent death. One method consists in the hypodermic or intravenous injection of certain substances, and subsequently ascertaining whether these substances have been dispersed throughout the system. If they have, then the circulation persists and life continues, although the beating of the heart may not be detected by auscultation. Amongst the substances recommended for injection are fluorescein, sodium iodide, lithium iodide, and potassium ferrocyanide. Preference is given to fluorescein, 1 gramme of which is dissolved with an equal weight of sodium carbonate in 8 c.cm. of water, and the whole quantity is then injected subcutaneously. If the circulation is persisting, the skin and mucous membranes after a very few minutes assume a yellowish-green colour; about twenty minutes after injection the portion of the eye within the iris assumes a green colour from penetration of the fluorescein into the vitreous and aqueous humours, and in the blood the fluorescein may be detected by the following method:—One or two threads of cotton are passed under the skin in a similar manner to a seton, and, when saturated with blood, are transferred to a test tube and boiled with a little water. As the liquid clears, the green colour of the fluorescein becomes evident if that body had been absorbed into the blood. It is stated that the injection of this quantity of fluorescein is unattended with danger, supposing the person to be alive.

The second method for the distinction of real from apparent death consists in picking up a fold of the skin, and powerfully compressing it with a pair of artery forceps. If the skin does not completely settle down, and if the fine furrows produced by the teeth of the forceps continue indefinitely, then death has occurred; whereas, if the circulation is continuing, the fold and the marks of the teeth of the forceps disappear. Moreover, if death has occurred, the portion of skin compressed by the forceps assumes a parchment-like appearance.

The fluorescein test might be of use on very rare occasions when there is an element of doubt as to the reality of death. The compression test is, however, one that is likely to be very misleading. The book is well worthy of perusal by those interested in the subject.

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Physiologie des Menschen und die Säugethiere Physiology of Men and Mammals]. By Professor Dr. Immanuel Munk. Fourth Edition. Berlin: A. Hirschwaid. 1897. (120 figures, 8vo, pp. 633. 14 marks.)

The textbooks of physiology in Germany are even more numerous than in our own country. Professor Munk is well known as an able and energetic worker, particularly in connection with the various physiological problems included under the general heads nutrition and metabolism. His textbook is addressed to what we call in this country the "average student." The descriptions are brief but lucid, and as the date 1897 on the title-page is intended to indicate, it is

fully up to date. The book has already reached a fourth edition, so in spite of its numerous competitors it is a success. It deals with the physiology of the lower animals, particularly of mammals, much more in detail than most textbooks. This fact fits it for the use of veterinary as well as medical students.

The sections relating to the physiology of muscle and nerve have been largely revised. New work on isometry, and particularly the histological researches with which the name of Golgi and Ramon y Cajal are associated, has rendered this necessary. A very considerable number of pages are devoted to questions of bone architecture and the physiology of bodily movements, which do not as a rule receive much attention from the majority of those who compile physiological textbooks.

Though the work is particularly addressed to students, we think that many students of an older kind will derive benefit as well as satisfaction from the perusal of its well-written pages.

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THE STORY OF THE GLOUCESTER EPIDEMIC OF SMALL-POX. Showing how it arose, the facts which make it notable, and the lessons it teaches. With full statistics, diagrams, etc. Told by FRANCIS T. BOND, M.D., B.A.Lond., F.R.S.Ed., Medical Officer of Health, Gloucestershire Combined District, Honorary Secretary Jenner Society. With which is incorporated An Abstract of the Report of the Vaccination Committee of the Gloucester Board of Guardians. Gloucester: The Jenner Society. 1896. (Demy 8vo, pp. 114. 6d.)

THE above title does not allow much space for a review, and is so fully explanatory that the reviewer's task is easy. Dr. BOND deserves the thanks not only of the medical profession, but of the general public, for his very able exposition of the causes which underlay the recent epidemic in Gloucester, as to its suddenness, its terrible extent, and its abrupt fall on the adoption of house-to-house vaccination. The various theories of antivaccinators put forward to explain the epidemic in any other way than the right one are given in detail and refuted. A searching comparison is made between the Gloucester and Willenhall epidemics, and the tables of age incidences and fatalities amongst the vaccinated and unvaccinated respectively fully explain the differences between those epidemics. Dr. Bond has rendered the public a service by this work, which everyone should read, certainly every medical man.

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AN INTRODUCTION TO STRUCTURAL BOTANY. Part. II. Flowerless Plants. By DUKINFIELD HENRY SCOTT, M.A., F.R.S., etc. London: Adam and Charles Black. 1896. (Cr. 8vo, pp. xv and 328, with 114 illustrations. 3s. 6d.)

STUDENTS and amateurs who have used Dr. SCOTT's little book on the structure of flowering plants, which appeared two years ago, will naturally have recourse to the second part if they wish to extend their studies to flowerless plants; and we venture to predict that they will not be disappointed. It is written in the same simple, clear style, and is not so overladen with detail as to appal the beginner. As is explained in the preface, the use of this book must be accompanied from the first by the study of living plants in the field and by practical work in the laboratory. We welcome this statement, because too much encouragement is given to mere cramming from books. In the part devoted to flowering plants three types—namely, the wallflower, lily, and spruce fir—were considered sufficient; in this part no fewer than twenty-three types have been selected to illustrate flowerless plants. The genera selected are: Selaginella, Aspidium, Equisetum, Pellia, Funaria, Œdogonium, Ulothrix, Spirogyra, Vaucheria, Pleurococcus, Ectocarpus, Pelvetia, Callithamnion, Nostoc, Pythium, Pilobolus, Sphærotheca, Physcia, Puccinia, Agaricus, Bacillus, Cladothrix, and Badhamia, in the order given. The amount of space devoted to a type varies from thirty-five pages to Aspidium to a page and a-half to Pleurococcus. The illustrations are good and well printed, though of course the majority are familiar. Yet there are also many excellent original ones.

# NOTES ON BOOKS.

*Black's Guide to Bournemouth and the New Forest.* Edited by A. R. HOPE MONCRIEFF. (London: A. and C. Black. 1896. Cr. 8vo, pp. 80.)—Bournemouth probably owes as much to its fir trees as Arcachon in France does to its plantations, for Bournemouth, within the memory of many, has developed from a mere hamlet into an immense seaside health resort and a famous winter climatic station. The present guide is of convenient size, and gives plenty of information which will be of use to the countless invalids as well as tourists who visit the neighbourhood.

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*Encyklopaedie der Therapie.* [Encyclopædia of Therapeutics.] Edited by OSCAR LIEBREICH. Vol. i, Part II. (Berlin: August Hirschwald. 1896. Royal 8vo, pp. 287. 8s.)—This is an encyclopædia of the highest value, embracing all kinds of subjects directly or remotely related to therapeutics. The present instalment begins about halfway through A, and extends to Cera alba. The whole work is intended to be completed in nine parts of about the same size, and the eminence and great learning of the editor will ensure its value and authority.

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*Feesthundel intgegeven door de Nederlandsche Vereeniging voor Psychiatrie ter eere van haar 25-jarig Bestaan.* [Celebration Collection (of Papers) published by the Dutch Association for Psychiatry in Honour of its Semi-Jubilee.] (Hertogenbosch: (Bois-le-Duc). C. N. Teulings. 1896. Demy 8vo, pp. 353. 9 Plates.)—Under the management of a committee, consisting of Dr. A. Th. Moll, Professor C. Winkler, and others, the Dutch Psychiatrical Society has appropriately celebrated the twenty-fifth anniversary of its foundation by the publication of a volume containing eighteen monographs dealing with subjects of special interest to the alienist. In an historical introduction Dr. Van der Hagen sketches the origin and growth of the Society, and tells of its meetings, its presidents, its library, etc., whilst the original communications which follow treat of such questions as the relations of syphilis and tabes (by Hermanides), the psychical disturbances in migraine (by Boekhondt), acute mania (by Taalman Kip), the congenital criminal (by Schermers), and on drunkenness and its treatment (by Ruysch). There is also a well-illustrated paper (by Walsem and Lemei) on a case of pseudo-hypertrophia cerebri in a patient with two macrocephalic brothers, an epileptic and meretricious mother, and a drunken and sexually perverted father.

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*A Contribution to South African Materia Medica, chiefly from Plants in Use among the Natives.* By ANDREW SMITH, of St. Cyrus, M.A. Third edition—largely extended. (Cape Town: J. C. Jula and Co. London: J. P. Copland. Demy 8vo, pp. 246. 3s.)—The present edition of this interesting little volume remains substantially the same as its predecessor, although increased information has enabled numerous new facts to be incorporated in the work. It is written in popular language, and gives a full description of the most important South African plants which are in use by the natives as medicines, with their English, Kaffir, Dutch, and Latin names. Unfortunately the knowledge of pathology, toxicology, and medicine possessed by the writer is also popular in its character, and this undoubtedly detracts from the value of the work. Nevertheless, the subject-matter has been most carefully and conscientiously worked up, and is of great value and interest as throwing light on the medical practice of the natives. A very considerable variety of diseases and the drugs used in treating them are discussed, but none of the remedies seem to promise great advances on our present methods or any valuable additions to our materia medica. The treatment of anthrax and snake bite, for instance, seems wholly inadequate. While we already possess a sufficient number of bitter, anthelmintic, and other such drugs, it is interesting to observe that willow bark has been used from time immemorial by the native doctors in rheumatic fever, and it is just possible that careful investigation of the properties of some of the other plants described by Mr. Smith might result in a valuable find.

*Eléments d'Analyse Chimique Médicale.* Par Dr. SONNIE-MORET. (Paris: Société d'Editions Scientifiques. 1896. Demy 8vo, pp. 337. Fr.6.)—This small book is intended to give the methods of chemical analysis required at the present day, more especially for druggists who may examine urine, etc., for medical men. In the first part of the book the urine is treated pretty fully, and some of the plates of crystals would be found useful in practice. The work, however, is hardly up to date; for example, the only method for quantitative analysis of uric acid is the old one of Heintz, which has long been proved to be entirely fallacious, and yields results always too small. The estimation of the total nitrogen and urea are also not well treated, and the question of the aromatic sulphates, which are of much practical importance in medicine, is almost ignored. The quantitative analysis of chlorides and phosphates is carefully gone into. The last chapters, on blood, serous fluids, gastric juice, bile, saliva, and milk, are so brief that they will be found of little value, as fuller accounts are given in nearly all general textbooks of physiology. The book is written in an interesting way, and possesses the merits of systematic arrangement and clear diction which we are accustomed to find in French authors.

*Nervöse Zustände und ihre psychische Behandlung* [Nervous States and their Psychical Treatment]. Von Professor Dr. O. ROSENBACH. (Berlin: H. Kornfeld. 1897. Roy 8vo, pp. 105. M. 3.)—Under this title the author has republished eight separate papers treating of neurasthenia, hemicrania, hysterical disorders, and hypnotism. They have the common object of bringing into relief the distinction between deficient and morbid growth of nutrition, and those functional disorders which, arising from a perverted innervation, may be susceptible of treatment through mental impressions and new directions given to the impulses of the will. For these latter affections Rosenbach would seek the aid of hypnotic suggestions. He considers that modern medicine is too much based upon visible lesions, and allows too little to psychical influences. The professor rejects the theory that sleep is due to an accumulation of the products of waste in the blood. He thinks that in high organisms it depends probably upon the voluntary suspension of the efforts of bodily tension needed to sustain the equilibrium and other waking performances. These essays are clearly the outcome of much thought and ripe experience.

*The Progress of Medical Chemistry.* By J. L. W. THUDICHUM, M.D., F.R.C.P. (London: Baillière, Tindall, and Cox. 1896. Cr. 8vo, pp. 212. 5s.)—This book consists of reprints of a series of articles published in the medical press during 1895. The author gives some interesting summaries of the present progress in physiological and pathological chemistry. The articles on urinary pigments are specially well worth reading. The value of the book is much diminished by many of the chemical terms not being those in ordinary use, which renders the reading somewhat a labour. The sugar question is very fully gone into, and a very complete account given of the benzoylated esters. In one article Dr. Thudichum objects very strongly to specialistic laboratories, which, however, would seem to be of very great value in the advancement of chemical knowledge, and therefore not quite so disadvantageous as the author considers. At the same time his objections to spurious researches are only too well founded. Those interested in the subject will find the book well worth reading.

*Colour-Vision and Colour-Blindness. A Practical Manual for Railroad Surgeons.* By J. ELLIS JENNINGS, M.D. (Univ. Penn.), Lecturer on Ophthalmoscopy, and Chief of the Eye Clinic in the Beaumont Hospital Medical College, etc. (Philadelphia: The F. A. Davis Company. Cr. 8vo, pp. 110. One coloured plate and twenty-one photo-engravings. Cloth, 1 dol. net.)—This book is written for the guidance of those who have to examine for colour blindness. It is unfortunate, therefore, that it is based on a theory which is inconsistent with the ascertained facts of colour blindness. The author says, in one part of the book: "It is a well-known fact that many colour blinds have the power of differentiation, even by daylight, of the most difficult colours, when placed at the ordinary one-metre distance of wool selection." We agree with this statement. This is why so much experience is required to test for colour blindness; though the author says that in his opinion an educated layman can conduct the test.

*Abhandlungen zur Gesundheitslehre der Seele und Nerven* [Treatise on Mental and Nervous Hygiene]. Heft 2. Von Dr. E. HALLERVORDEN. (Würzburg: A. Stuber. 1897. Demy 8vo, pp. 56. M. 1.20.)—This is the second part of Dr. Hallervorden's contributions to an understanding of the mysteries of the human mind. This method of publishing lectures piecemeal may do where each number forms a chapter having an interest of its own. In the present case we are scarcely willing to learn Dr. Hallervorden's definitions and follow his abstract phraseology through the hope of learning something new later on. When one cracks nuts he likes to find kernels inside. In this instalment he discourses about feelings and passions. It is evident that the author has read much and thought deeply on these subjects.

# REPORTS AND ANALYSES
AND
# DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

## A NEW FORM OF SYRINGE.

MESSRS. ARNOLD AND SONS have made a new form of hypodermic syringe, the construction of which will be seen from the illustration. It is claimed for this pattern that no loose parts need be carried—the whole apparatus being com-



plete in itself, and carried in the pocket as a pencil. On all grounds it is advisable to have as few parts as possible, not only because loss is less likely to occur, but for the far more important reason that the fewer the parts the more easily are they kept clean and aseptic. The glass tube embracing the needle is for the purpose of carrying a supply of injection. From personal trial we do not recommend the use of the tube for this purpose. The heat of the body causes rapid evaporation of the more volatile parts of the liquid, thus leaving the remainder more concentrated, and consequently inaccurate in dose. The tube may equally conveniently be used for carrying tabloids, or hypoderms, which admit of rapid solution in the barrel of the syringe. With the exception of this point the instrument is all that could be desired, both in material and construction.

## THE BINAURAL VESICAL SOUND.

DR. KENNETH STEWART (Dover Street, Berkeley Square) writes: I can support Surgeon-Captain Heard's statement that a binaural vesical sound is a most convenient and useful instrument. Two years ago Messrs. Krohne and Sesemann made a sound to my design which, I think, has some advantages over that depicted in the BRITISH MEDICAL JOURNAL of November 28th, 1896. My instrument is an ordinary sound, excepting only that its handle terminates in a truncated cone. The bell chestpiece of the common stethoscope is replaced by another very similar in appearance, made of metal, which fits the cone at the end of the sound, and which can be slipped on and off at will with the greatest of ease. This arrangement combines the advantages of complete dissociation of the instrument with their association at any moment or position in the most perfect manner. I tried numerous experiments with animal bladders, and found that any cretaceous substance introduced, even if in a state of fine subdivision, gave a clearly audible friction sound. The merest fragment of a calculus makes the metal ring with marvellous clearness.

In practice the instrument affords a most comforting sense of conviction of the presence or absence of vesical calculus. Mr. Reginald Harrison, with the courtesy which belongs to him, permitted me to test the sound upon a stone, embedded in a pouch, which his experienced hand had been enabled to recognise, and which the cystoscope only had revealed. He discovered it in a moment with my binaural sound.

# BRITISH MEDICAL JOURNAL REPORTS.

## REPORTS ON THE HYGIENIC CONDITION AND ADMINISTRATION OF METROPOLITAN DISTRICT AND SEPARATE SCHOOLS.

BASED ON THE EVIDENCE LAID BEFORE THE DEPARTMENTAL COMMITTEE.[1]

*(By Our Own Commissioner.)*

### II.—Sutton: Boys' School.

In our last number we dealt with the health statistics of the South Metropolitan District School at Sutton; and we also glanced at the attitude which had been adopted by the managing body in relation to the hygienic condition of the building, which is the only home of some 1,500 to 1,600 children. In this paper it is proposed to deal with interesting facts relating both to Sutton Schools and the general management of such institutions by the Local Government Board. It will be remembered that, as stated in the British Medical Journal, ophthalmia, in an epidemic form, appeared in the Sutton schools in April, 1893, acquiring the alarming proportions which necessitated the calling in of Dr. Stephenson's assistance in October and November of the same year.

#### Illustration of Weakness and Obstinacy.

In Mr. Knollys's evidence (16671 to 16705) he gives a long and highly instructive account of the negotiations which the Local Government Board had had with the Sutton managers on this matter; a story which illustrates, as few isolated instances can do, the incapacity and weakness of the Government Department and the ignorance and obstinacy of the local managers. That body proposed to meet the difficulty by "erecting at once" (16674) "a new infirmary block of buildings on the grounds of the Brighton Road School to accommodate 400 beds." Of this plan the Local Government Board disapproved, pointing out by letters and in interviews the reasons for their disapproval, and requesting, with a patience that was almost criminal (considering how vital was the question to many young lives), the further consideration of the managers. But no fewer than four times (16674, 16684, 16695, 16696) did that able and enlightened body revive their request to be allowed to add to the already enormous institution, each time with modifications too slight to make any radical change of plan, but sufficiently different to demand the attention of the Local Government Board. To each proposal the same reply was returned, but in the meantime the children had suffered; the eyes of many had been damaged, and their careers consequently blighted—a matter of interest not only to the humanitarian and the specialist, but to the ratepayer and the patriot.

#### Four Conferences, Twenty-four Communications, and no Result.

The managers varied their tune, but kept up the same refrain. They subsequently proposed to build, not new infirmary buildings, but a cottage village, on a portion of their own land at Sutton (16696). This suggestion was negatived by the Local Government Board on August 4th, 1894, only to be followed, sixteen days later, by a similar proposal, to build on another portion of the same land; but on this being partially refused the managers returned once more to their old love, and demanded the sanction of the Local Government Board to build a new infirmary for 400 beds, though they had been expressly told by letter (16696) that "the Board would not be justified in consenting to any arrangement which would involve an increase in the total number of children to be provided for under one administration at the Brighton Road Schools, and therefore they could not consent to a proposal to build such a new infirmary as was proposed."

It would weary our readers, and be foreign to our purpose, to carry them through the details of this unseemly contention between the local managers and the supreme authority—the contention which has involved the holding of no fewer than four conferences, and the writing of something like twenty-four important official communications. It extended over a period of twenty-two months, during which time the school was overcrowded, riddled with disease, and disorganised from top to bottom.

It will be sufficient to say that the result at the date of the inquiry remained *nil*. "May I ask," questioned Sir John Gorst (16701, 16702, and 16703), "when the Local Government Board would consider the time had come to use their powers, and compel their recommendations to be carried out?" "Will you not go so far as to say that the time had come very nearly twelve months ago?" "Well, personally," replied Mr. Knollys, "I should think the time had certainly come now."

#### How Not to Compel.

It is, however, easy to speak of compelling; but, in this cumbersome method of managing by dual authorities, the only means that the superior body has of inducing the inferior to obey is to declare the school (16692) "in default, and omit its name from the next precept for repayment from the Metropolitan Common Poor Fund." A method which would so complicate the machinery of local rating that even the most thoroughgoing Board would hesitate before employing it.

#### Where is the Fault?

But the fault does not lie wholly with the managers. We trace the source of much of this mischief to a higher court. It is true that Dr. Stephenson discovered serious hygienic flaws in the arrangements of Sutton School; and it cannot be denied that the managers neglected to reform these flaws when they were pointed out, reserving to themselves the right of judging what was important, and when they might advisedly leave things as they were; but why was it left to Dr. Stephenson to discover these hygienic flaws and unhealthy conditions? The Local Government Board has a medical inspector, a gentleman well qualified by his standing and experience to see what is amiss (6477). "Had you ever been advised by the Local Government Board inspectors that your building was in an unsatisfactory sanitary condition?" was asked of the Chairman of Sutton Schools. "Certainly not," was the reply (6479). "The defects were very obvious, were they not?" (6480). "Yes, many of them," acknowledged the witness. These answers give grounds for reflection. Year after year had this school been visited and inspected by the highly accredited official of the Local Government Board. Year after year had the managers rested content with the conditions of their institution because unchallenged by the inspector, until an appalling outbreak of ophthalmia roused the dormant attention of the Local Government Board, and awoke their own medical officer, who had so long been apparently content with the normal condition of things in these giant schools, but the awakening was done by an outsider.

#### Want of Power.

It is true that Dr. Stephenson is an expert of great experience in ophthalmia, the disease which aggregation of children and low vitality especially engenders; but though Dr. Stephenson's services could have been appropriately demanded for the disease, which was the consequence of the disgraceful hygienic conditions, it ought not to have been left to him to discover and report that the rooms were ill-ventilated and badly warmed, the yards unpaved, the playing fields unused, the jet system non-existent, the cubic space shamefully inadequate, the younger children all but untended, and the closets and sanitary arrangements defective in action and obsolete in design. All this should have been known by the Local Government Board's own medical inspector, and not only known but acted on.

It is ludicrous that a Government Department should be powerless to enforce its recommendations except by a method so cumbersome that it hesitates before setting it in motion for fear of upsetting the whole machinery. It is burlesque that the opinions and recommendations of a skilled medical inspector should be set aside by a body of gentlemen who, however worthy, are incapable of adjudicating on matters technically related to physical well-being, but it is something more than ludicrous if such recommendations were never made. It is a burlesque on another stage if the trusted and accredited officer of the Local Government Board never represented obvious defects to

[1] The previous article appeared in the British Medical Journal of January 2nd, page 39.

the managers, or expressed any opinion other than that all was right. We have the statement that this was so from the chairman of the Boys' Department of the South Metropolitan District schools, and it is one that cannot be lightly passed over, for it may be the very key of the whole position. It may be, but it is not necessarily so. On this point the inspectors have to be heard. As far as we can see they are practically powerless. "I have often made recommendations which were not carried out" (9580) stated Mr. Hedley. "My utmost power (15436) is to make a special report to the Local Government Board," complained Mr. Holgate. "In my (15440) report to the Managers the Local Government Board would object to my saying anything. They would say, 'Report to us, the Local Government Board, Mr. Holgate, and if we consider it necessary we will deal with the managers.'" "I have no power whatever to enforce recommendations for the protection of these children," was (8849) reluctantly admitted by Dr. Downes.

### THE FOUNTAIN HEAD OF THE EVILS.

Such statements seem to point elsewhere than to the inspectors as the fountain head of many of these evils, namely, to the Local Government Board itself. The prevailing practice is for the inspectors to report to the Local Government Board, leaving it to decide whether or not to take action. Sometimes the opinions expressed by the inspectors commend themselves to the Board, who then convey them to the managers. Sometimes they remain unnoticed, and the school goes on as before, its keenest managers being kept in ignorance of the inspectors' reports on its administration, or hopes for its development. So far as we have been able to ascertain, there is no evidence that Dr. Downes had not reported the insanitary and unsatisfactory condition of Sutton Boys' School to the Local Government Board, but there is indisputable evidence to show that even if he had written the most able and exhaustive report, it had never been communicated to the managers. One of the statements of Dr. Downes was that "Dr. Stephenson (8883) was called in by the managers on my initiative." It is curious that he should have moved to get the assistance of an independent medical authority, a fact highly suggestive of the imputation that he himself, anxious for the welfare of the schools and unable to get his own recommendations effectively noticed by the Local Government Board, sought advice fom a non-official expert, in the hope of drawing attention to a condition of things evidently important in its probable consequences, but not sufficiently startling to demand the attention of the Local Government Board. But, as we have said, for this surmise there is no direct evidence, and it still remains open to question whether the Local Government Board or its inspector is responsible for a condition of things which we have no hesitation in saying is disgraceful.

*(To be continued.)*

## DIALOGUES ON SOME CURRENT QUESTIONS.

### III.

### A DIALOGUE ON CHEAP PRACTICE.

F.R.C.P. Well, it is a good many years since you and I were house-physicians together, but I need not ask you how you have been getting on; you look as prosperous as a stock-broker.

L.R.C.P. Prosperous! I have been doing pretty well for the last year or two, but I had a long struggle for it. But it is you who should be congratulated—assistant-physician to the old place, examiner to the Colleges, and all the rest of it.

F.R.C.P. Yes, in that sort of way I have not much to complain of, but I am afraid I was thinking of £ s. d.

L.R.C.P. You are lucky in that, too. Look how I have to slave for every penny I earn. At work from morning to night, never sure of a meal in peace or a night's rest, small fees, and, after all, by no means sure of being paid at all, while you sit at home in your consulting room and rake in the guineas.

F.R.C.P. Yes; it is true I sit at home in the mornings, some mornings, that is to say, for two days a week I have to be at the hospital in the morning. But as to the guineas! Let me tell you that one may be very lonely in a consulting room in a fashionable doctor's quarter.

L.R.C.P. At any rate, you are sure of your fees.

F.R.C.P. No doubt that is so in most cases; still, the fact is that consultants, especially physicians, are very far from prosperous. A few men are making large incomes, a larger number are making a decent living which a successful general practitioner would consider penury, a still larger number barely pay their way by practice, and many do not earn their house rent.

L.R.C.P. At any rate, you all manage to live in good roomy houses in a pleasant part of the town. Oh, I think you have a very good time of it; not much to be pitied!

F.R.C.P. No, perhaps not. But it is a great mistake to suppose that the average consultant has an easy time of it in his youth. His work is, perhaps, less harassing than that of a general practitioner, but he must work hard if he hopes ever to get his head above the crowd—the competition is tremendous.

L.R.C.P. Competition! Why, you can't know the A B C of that. The competition a general practitioner has to face is heartbreaking. There are the hospitals to which so many of our chronic cases drift, particularly the special hospitals, where sometimes larger fees are paid than we should ask. Then there are the free dispensaries and the casualty departments, which deal with almost any emergency case, and the maternity charities and midwives, who run away with most of the easy midwifery. Then there is the competition among ourselves. Look at the sixpenny dispensaries, so-called. I consider the "sixpenny doctor" a disgrace to the profession.

F.R.C.P. Yes, I know that is very often said. Perhaps I am a bit of a heretic, but I am not clear that there is any disgrace attaching to a small fee.

L.R.C.P. A small fee! No, perhaps not. But imagine an educated professional man estimating the value of his opinion at 6d., with the drugs thrown in!

F.R.C.P. But the profession rather prides itself on placing medical aid within the reach of everyone, whatever the length of his purse.

L.R.C.P. There is the Poor Law, and the hospitals for people who can't afford to pay decent fees, or think they can't.

F.R.C.P. But why drive all these people who can afford to pay a small fee to charitable agencies? Is it not better for them to retain their independence, even if it cost them only 6d.? That may be as much to a man earning 25s. a week, with a family to house and feed, as a guinea or even two to a man with thousands a year. Why should not these people have doctoring placed within their reach, at fees proportionate to their incomes?

L.R.C.P. Because these very low fees degrade medicine in the eyes of the public. What can they think of the value of a medical opinion when they find that they can get "Advice and Medicine" for 6d.? What can they think of the profession when they see that some of us value our opinion at less than 6d.—for the drugs must cost something?

F.R.C.P. But I have often seen on windows in poor neighbourhoods "Advice Gratis: Medicine Sixpence." Does not that show that the man has some self-respect?

L.R.C.P. On the contrary he teaches the public that his advice is worth nothing, while his drugs are worth something, just as you pay a grocer for a pound of tea, not for his opinion as to its wholesomeness. Whereas we want the public to understand that it is the advice which is the really valuable thing, for which they ought to pay.

F.R.C.P. Quite so. We shall all agree to that. But that is what I interpret the inscription to mean. The "Sixpenny Doctor" says, "You can't afford to pay my fee for advice, I give you that free, but I must charge you something for the medicine."

L.R.C.P. Ah well! that is a very ingenious, charitable theory, but it won't wash. He must make a living somehow. How can he do that and do justice to his patients if he only charges 6d.?

F.R.C.P. I don't know whether he really does either the one or the other. That is the whole question.

L.R.C.P. Here is an example of how this price-cutting competition is working downwards. I cut this out of the *Daily Telegraph* the other day:—"One fully-qualified medical man,

who is said to have passed his examinations with brilliancy, has descended to a lower depth than even the sixpenny doctor. He is settled in one of the poorest district of St. George's-in-the-East, and outside his surgery is painted in bold Roman letters, 'Advice and medicine, 4½d.; superior ditto, 6d.' Where the three-halfpenny worth of superiority lies is a puzzle to the more thoughtful inhabitants of the district."

F.R.C.P. If that is true it is indefensible. But is it true?

L.R.C.P. I know no more than I have told you, that the story was published in the *Daily Telegraph* a short time ago. But I can well believe it. I have heard of fourpenny dispensaries before now.

F.R.C.P. No doubt; there is nothing sacred about the sixpenny standard. The point is the two prices.

L.R.C.P. Yes, I believe that is a novelty.

F.R.C.P. The story whether true or invented takes us to the core of the matter. When a medical man undertakes the treatment of a patient he implicity promises to give the best advice he can, and to prescribe the remedies which he believes conscientiously to be most likely to produce a cure.

L.R.C.P. Of course you can give the same drug in a good many different forms. An infusion or a watery extract may be as active as a tincture, but a good deal cheaper and nastier.

F.R.C.P. Quite so. But if by "superior ditto" is meant that for the extra three-halfpence the medical man will take more trouble in the examination of the case, and give medicine superior in the sense of being better adapted to cure, then I think the matter ought to be investigated by the Ethical Committee of the body from which the advertiser, if he really exists, obtained his qualifications.

L.R.C.P. Whatever he meant, the case ought to be investigated. It is lowering the whole profession for a member of it to be advertising like a butterman.

F.R.C.P. Well, I am inclined to agree with you that the advertisement, if genuine, calls for official inquiry. But the idea is so absurd that the young man is probably already realising its folly.

L.R.C.P. Perhaps so. But the system is utterly bad, and leads to worse abuses. The receipts are so small that they are eked out by the establishment of "branch dispensaries." The "sixpenny Dr." takes a small house or shop a mile or two away, and puts his name and qualifications and terms on the door or window. As a rule he employs an unqualified assistant at a small weekly or monthly salary.

F.R.C.P. But isn't that rather risky?

L.R.C.P. Yes, there is a risk. If the coroner is active an inquest may put the "sixpenny Dr." and his unqualified assistant in an awkward fix.

F.R.C.P. And the registrar of deaths?

L.R.C.P. There is some risk, but it depends a good deal upon the individual subregistrar, to whom a great deal of discretion is left. If he chooses he can accept the unqualified assistant's certificate, not as a legal medical certificate of death of course, but as a statement upon which the registrar issues the burial certificate.

F.R.C.P. But surely that is illegal?

L.R.C.P. No, apparently not, at least according to the interpretation which the Registrar-General puts upon the law. The deaths appear in the statistics as "uncertified." It is a much less risky plan, if it can be worked, than signing certificates in blank and leaving them for the unqualified assistant to fill up, though that is done pretty extensively.

F.R.C.P. Then there is the risk of a charge of "covering" before the General Medical Council.

L.R.C.P. Yes, that risk is greater than it was. The Medical Defence Union has done a great deal of good in that way, and the Council has taken a much stronger line, and has been upheld in the courts.

F.R.C.P. What do you think ought to be done to check the abuses which you say grow out of the cheap dispensary?

L.R.C.P. The General Medical Council ought to make regulations so that men would be prohibited from engaging in these sixpenny practices, which lead to such serious abuses.

F.R.C.P. But the Council could never fix a scale of fees. It has no power to make by-laws for the profession. If it did make any attempt of the kind, any qualified medical man could defy it, with the certainty that the Court of Queen's Bench would find some means of upholding his right to charge as small a fee as he chose.

L.R.C.P. But the Council could declare underselling to be "infamous conduct in a professional respect." It did so with "covering." Why should it not strike at the root of the evil, and declare that the system of cheap practice, which leads to covering, is "infamous."

F.R.C.P. The two cases are very different. In declaring covering "infamous" the Council was aiming at a system distinctly contrary to the spirit, in fact you might almost say contrary to the letter, of the Medical Acts. The Council is an administrative body only, and cannot legislate for the profession—happily for us.

L.R.C.P. But the Colleges might do something.

F.R.C.P. Yes, they might take a more active interest in the after-conduct of their licentiates. They might thus do a good deal of good—a great deal more than they do. But I doubt if they could do anything about the scale of fees directly, and I feel very sure they will never attempt to meddle with the question. I don't think the profession would stand it, and I am very sure the public would not.

L.R.C.P. Then what would you do?

F.R.C.P. Stimulate the Colleges to give more attention to their licentiates. A man who is given his Licence or Membership parchment is cut too much adrift.

L.R.C.P. That comes of the traditional notion that we are inferior beings. The Colleges take our fees and turn us out. We have no voice in the management of their affairs.

F.R.C.P. Yes, it might be better if you had. But that is another question. We are talking about the influence of the Colleges on the discipline of the profession.

L.R.C.P. It ought to be exercised on everyone to whom they grant a qualification of any grade. As it is, a man is, as you say, given a qualification and cut adrift. If he does something very glaringly wrong, he is struck off the rolls, but a little warning might often check a man on his downward course.

F.R.C.P. A good deal of work of that kind is done by the Censors' Board of the College of Physicians, and by a Committee of the Council of the College of Surgeons.

L.R.C.P. One hears very little about it; at any rate, it is quite evident from what is happening every day that they might do much more, might work more systematically.

F.R.C.P. As far as I can make out, however, the Colleges in England do more of this sort of work than the other licensing bodies.

L.R.C.P. But a mere wigging from a committee would not have any great effect on many of those who disregard ethical rules.

F.R.C.P. As a matter of fact, I believe that it would have a very considerable effect on the whole. As to people who refused to take a hint, I would have them brought before the General Medical Council without hesitation or delay. If cheap practice leads necessarily to the abuses you mention, then it would be stopped, or so seriously hampered that it would not pay, if every legal abuse, that is, every violation either of the Medical Acts or of the regulations of the General Medical Council were at once investigated by the Council.

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At the quarterly meeting of the Society for the Study of Inebriety which will be held at the rooms of the Medical Society of London at 4 P.M. on Thursday next, Dr. J. J. Pitcairn, Assistant Surgeon to Holloway and Newgate Prisons, will read a paper on the Prison Treatment of Habitual Drunkards.

Miss Louisa Twining claims attention to a resolution passed at the Poor-law Conference: "That some women should be added to the staff of inspectors of workhouses and infirmaries, in order that nursing should be carefully and thoroughly supervised by those who are themselves trained nurses."

British Medical Temperance Association.—Dr. G. Sims Woodhead, F.R.S.E., Director of the Research Laboratory of the Conjoint Board of the Royal Colleges of Physicians and Surgeons, has been elected President of the British Medical Temperance Association, in place of the late Sir B. W. Richardson.

## BRITISH MEDICAL ASSOCIATION.
## SUBSCRIPTIONS FOR 1897.

SUBSCRIPTIONS to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.


# British Medical Journal.

SATURDAY, JANUARY 9TH, 1897.


## SIR JOSEPH LISTER'S PEERAGE.

As we announced in the BRITISH MEDICAL JOURNAL of last week, the New Year—the *annus mirabilis* of the Victorian age—brought, as its first gift to all of us, a gift to him whom we honour and love to see honoured. The peerage given to Sir Joseph Lister is not only a tribute paid to science: in his calling, science and art are inseparable: so that Her Majesty, in the very act of doing honour to science, expresses her gratitude to the man whose art has saved the lives of thousands of her people.

Not all those who practise the art of our life's work advance the science of it. It is not the will of Nature. To some of us she gives shrewd insight into the characters of men and women, tact, resourcefulness, common sense; but no love of theory, no patience with books, no power over experimental work. Others, and among them some of our elect, she has made studious and inquisitive from the beginning; they were naturalists in their boyhood, loving observation and experiment, and they became physicians and surgeons that they might face the problems of pathology in the pure light of science; but "the common round, the trivial task," of a busy practice do not appeal to them, and here they have no great success; they labour, and other men enter into the fruit of their labours.

And in a few of us, and in a few only, Nature has from the first combined these two opposed temperaments. For them, the science and the art of our work can no more be separated than the convexity and the concavity of a curve; they see in every patient a problem to be solved and a man to be helped. These take the lead over us, and keep it. One thing yet is needed, if they are to be not only our leaders, but also our heroes: they must have those other gifts—not of intellect, but of character.

At last we are represented in the House of Lords; and our representative—*primus inter pares*, in more senses than one—is indeed gifted with this triune excellence of the perfect surgeon. This word "representative" does not mean that the House of Lords will now redress our wrongs, lighten our burdens, compose our internal dissensions, or pay the least attention to our wants. Sir Joseph Lister goes to the Upper House neither deputed to be spokesman for his profession, nor bound to play a part on the stage of politics; he represents not the workmen, but their work; not surgeons, but surgery.

The honour that he has received, as it must needs quicken an old sorrow of loneliness, so it may bring with it some new sense of isolation; he is alone, even more than all great men are alone. Yet no man is, in the best sense of the word, less isolated; for the good news of New Year's Day was welcomed by the whole profession, by the whole nation.

If all of us by a unanimous vote could have advised Her Majesty whom she should now honour, the result would have been the same. And surely this is the whole meaning of a title, that the news of it should be greeted with a full chorus of welcome, without one dissentient voice.

## EUROPEANS IN THE TROPICS.

Is the acclimatisation of Europeans in tropical climates possible? At no time has this perennial question called more urgently for settlement than at the present. The answer which Dr. Luigi Sambon gives in his paper in another column comes therefore most opportunely. It is gratifying to find that it is a hopeful one, more especially as he takes, it seems to us, a view of the subject more scientific than that entertained by most writers on this important matter. He recognises the difficulties attending acclimatisation, but he thinks that it is in the power of modern science to remove an important section of these difficulties.

What, he in substance says, are the principal obstacles to tropical acclimatisation? Like everyone else, Dr. Sambon recognises two—heat and disease. But he differs from almost everyone else in accentuating the fact that these two are, as regards their direct action on man, independent of each other; in fact, entirely distinct. His predecessors rather looked on the tropical heat as the cause of tropical disease, but Dr. Sambon draws a clear and definite distinction between these two different factors. Heat, he points out, may tend to incapacitate for labour, but it does not cause disease; its influence has to be counteracted by slowly evolved physiological changes, which shall lead in the course of generations to adaptation. Disease kills off, and has to be met by a hygiene directed against disease germs, and is not to any great extent to be counteracted by adaptation. If, he reasons, disease is caused by—is a necessary result of—high temperature, then acclimatisation is practically hopeless, for heat cannot be escaped in the tropics, and the colony must perish before adaptation can be effected; but if tropical disease is not the effect of the heat, but of tropical germs, as he shows it to be, why cannot man, by suitable hygienic arrangements, escape from the tropical diseases in the same way, as, after long experience and study, he has contrived to escape from, or contend successfully against, so many of the diseases, equally deadly, of temperate climates? A suitable hygiene should be as effective in the one instance as it has been found to be in the other. But is it the case that tropical diseases are germ diseases? Dr. Sambon shows that heat, as such, rarely causes death or disease, and that the human body can endure high temperature with impunity. He endeavours to show that the disease known as heatstroke or ardent fever is really not the result of high temperature pure and simple, but of some germ which becomes active under certain meteorological conditions, of which high temperature is one. Keep away this and other disease germs, and also pernicious habits, and the reproductivity of Europeans and the health of Europeans will remain unim-

paired in the tropics, and their children will thrive there as well as, if not better, than the children of the natives.

Disease germs are as much members of the fauna and flora of a country as are the other living things found in it, and they are amenable to the same laws and conditions determining geographical distribution. Chief among these conditions are heat, moisture, and soil. Tropical diseases, like diseases elsewhere, are almost all of them caused by germs, parasites. These parasites to maintain their existence must pass at some time or other of their life-histories from one human body to another, and must contrive to live during this passage for a longer or shorter time in outer nature. During this temporary extra-corporeal existence the conditions—temperature, soil, and other intermediary media—must be suitable. Hence arise the peculiarities of geographical distribution of the various germ diseases. This is indisputable, and it is the leading fact which the student of geographical pathology and hygiene must ever bear in mind if he would understand and deal successfully with his subject.

Dr. Sambon thoroughly apprehends this all-important principle, and he illustrates it by a wealth of example drawn from tropical pathology. He points to malaria, the leading danger to the European and native alike in tropical countries, and he shows how its distribution depends on the extra-corporeal requirements of the protozoon which causes it; it is a germ disease whose germ depends on a medium to be found only in the presence of high temperature. He points to dysentery and its congener—liver abscess—diseases which he assumes to be caused by a protozoon also, the amœba coli, an organism which requires during its extra-corporeal life a high temperature. He points also to yellow fever, to Mediterranean fever, and to the host of as yet undifferentiated tropical fevers, all of them diseases arising from germs, germs which demand similar tropical conditions in their extra-corporeal state; and so with tropical anæmia—so often the effect of the ankylostoma duodenale, with filariasis, with endemic hæmaturia, and with many other diseases dependent on parasites for whose well-being high atmospheric temperatures are absolutely necessary. Get rid of or avoid these disease germs and we get rid of a principal obstacle to the colonisation of the tropics by Europeans. To do this all that is necessary is knowledge and properly directed effort—that is, an active and intelligent hygiene, one such as advancing civilisation and science are gradually evolving.

To this extent we thoroughly agree with Dr. Sambon. But given a clean sweep of all disease germs, there still remains the European's incapacity for tilling the ground in the presence of great solar heat. Until a race can feed itself it cannot be said to be acclimatised and able to maintain itself in the land of its adoption. Hygiene will do much to protect race during the process of acclimatisation, but it will not effect acclimatisation. After all the adaptation of the European to tropical conditions must be a physiological process, one to be effected slowly, an evolutionary adaptation carried on through many generations. Our mechanical science can transport thousands of individuals into Central Africa in the course of a few weeks, and when there modern knowledge of disease causes and of the principles of hygiene may preserve them for an indefinite period from disease. But these things will not enable the colonist to till the ground under the African sun, and until a race is evolved which can do this it cannot be said to be acclimatised. Modern knowledge may render the process of acclimatisation less painful, less murderous, and perhaps a little more rapid than in the earlier stages of human history; but the physiological adaptation which enables man to labour under a tropical sun must be equally slow now as in the morning of the world, unless indeed we hurry matters by applying to the breeding of races of men those principles of artificial selection which we apply so successfully to the breeding of domestic animals.

## RINDERPEST IN SOUTH AFRICA.

The spread of rinderpest in South Africa is a very alarming danger, which threatens seriously its future development. The Cape Government has for many years past shown an enlightened spirit in the way in which it has dealt with the subject of contagious diseases in animals. For several years it has possessed a staff of English veterinary surgeons, and some time ago it established a bacteriological institute at Grahamstown, which is in the charge of Dr. A. Edington. In face of the present great difficulty it has, as is well known, engaged the services of Professor Koch, who on December 3rd, 1896, left Cape Town for Kimberley. He is accompanied by a skilled assistant, Dr. Kohlstock, and it is understood that their headquarters, during the investigation into the bacteriology and the mode of the prevention of rinderpest, will be at Kimberley. It has been announced that Dr. A. Edington has discovered a micro-organism which he believes to be the specific cause of rinderpest. Dr. Edington's results have not yet been published in full, but in a letter to the *Cape Times* he states that the microbe which he has discovered cannot be the same as that discovered by Dr. Simpson of Calcutta, in India, since it is not motile, and does not grow with the formation of gas bubbles.

The position in which Cape Colony finds itself is one of great difficulty, but Professor Koch's achievements in the past encourage the hope that he may be able to arrive at definite conclusions as to the nature of the infective agent, and possibly to devise some effectual means of protective inoculation. His investigations, however, must necessarily take a considerable time, and in the interval some means must be found to check the progress of the plague if possible. The experience of this country is sufficient to prove that little success is likely to follow half measures. Just thirty years ago we learnt this lesson at a terrible cost. In six months during 1865-66, nearly 150,000 English cattle succumbed to the plague. Before this date veterinary surgeons, after a study of the history of the plague on the Continent of Europe, and the means found necessary to check its spread, had uttered warnings on the subject, which, however, were disregarded. In 1872 and in 1877 the disease was again imported, but our dearly-bought experience led to prompt action, and the disease was stamped out at a comparatively trifling expense.

The conditions obtaining in Great Britain, highly favoured as it is by insular position, can scarcely be compared directly with those which have to be dealt with in a new and partially-settled country where cattle are used for transport, and where wild animals abound, some of which are susceptible to the disease and capable of distributing its virus.

The fatality and virulence of rinderpest render known remedial treatment not only useless, but even dangerous, as

maintaining centres of infection. The disease is propagated, not only by the contact of diseased with healthy animals, but the virus, which exists in almost every part of the affected animal and its immediate surroundings, lives and remains effective for a considerable time outside the animal's body, and may be distributed by media of most varied and diverse kinds. The larger the area affected the greater the difficulty in arresting the progress of the plague and the greater the danger of its becoming indigenous.

As far as the Cape is concerned, there are some natural advantages, such as the Orange River, in preventing ingress of the disease, but it is difficult to see how even comparative safety can be secured with anything less than a military or police cordon; the prejudices of the natives are, it is thought, most likely to be overcome by a just and liberal compensation for animals killed. The Cape and its neighbouring States will, indeed, find remarkable obstacles to the development of their resources if their means of transport by oxen be rendered almost impracticable by rinderpest, for already in some parts Cape "horse sickness" (*Pfardzicke*) is a real menace to the employment of horses.

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The attempt to raise £15,000 for the purchase of the celebrated Holbein belonging to the Barber-Surgeons' Company, for the Guildhall Art Gallery has failed, and Sir J. Dimsdale and Sir Stuart Knill have returned the subscriptions already received.

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Dr. G. H. Savage, President-Elect of the Neurological Society of London, will deliver his inaugural address on Heredity in the Neuroses at the annual general meeting of the Society, to be held at the rooms of the Medical Society of London, 11, Chandos Street, W., on Thursday next, at 8.45 P.M.

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The services rendered by Mr. Rutherglen in drafting and promoting the Poor-law Medical Officers' Superannuation Act, 1896, are to be commemorated by a dinner on Wednesday, January 27th, under the presidency of Lord Glenesk. Those who desire to take part in this proper recognition of valuable services should communicate with Mr. H. F. Aveling, 289, Harrow Road, London, W.

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## ST. MARY'S HOSPITAL.

Mr. A. T. Norton, Senior Surgeon to the hospital, whose term of office was about to expire in the course of the year, has resigned his position on the active staff. Mr. Edmund Owen consequently becomes Senior Surgeon, and Mr. A. J. Pepper, who was Senior Assistant Surgeon, is promoted to the vacant surgeoncy. We understand that there are four candidates for the post of Assistant Surgeon, all of whom at present hold office in the medical school of the hospital—namely, Messrs. E. W. Roughton, Senior Demonstrator of Anatomy; Mr. J. Jackson Clarke, Pathologist and Curator in the Museum; Mr. T. H. R. Crowle, Surgical Registrar and Tutor; and Mr. H. S. Collier, Demonstrator of Anatomy. It is generally expected that the contest will be a close one.

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## PROPOSED CENTRAL HOSPITAL BOARD FOR LONDON.

The scheme proposed by the Charity Organisation Society for the formation of a Central Hospital Board for London may be said to have advanced another step, as a General Committee has been formed consisting of gentlemen who approve generally of the proposal to establish a Central Hospital Board for the metropolis on lines that shall ensure a fair representation both of the medical staff and of the lay supporters of medical charities. The Committee includes a fair sprinkling of medical men, who are, however, more strongly represented in a preliminary list of supporters, which includes many members of the staffs of hospitals in London, and many general practitioners. The scheme itself is still so much in the clouds as hardly yet to call for critical investigation. With two of its main objects—the preservation of the voluntary system of medical relief and the regulation and improvement of this system—all grades of the profession will, we believe, be in general sympathy. The third main object is stated to be the assistance of hospitals by means of a common fund available for special purposes. The sources which appear to be contemplated as likely to yield the sinews of war are a special subscription advocated by the Lord Mayor and other civic authorities, special "foundation grants" from the City Companies, legacies and bequests, and an annual grant from the large funds at the disposal of the City Parochial Foundation. The funds of this body are at at present applied chiefly to the establishment and maintenance of polytechnics and other educational institutions. As we have already stated, it is proposed to form a very large Board consisting of representatives of the various metropolitan hospitals and medical charities, and of any bodies which may make contributions to the proposed fund, but to delegate the work of the Board to a small Executive Committee.

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## EPIDEMIC INSANITY.

An extraordinary account of an outbreak of insanity has been reported in which first two brothers and then three sisters became violently mad in Skibbereen, Ireland, some of the patients being sent to the Cork Asylum. Various theories have been propounded as to the causation of this outbreak. It is not very unusual to meet with instances where two members of a family break down as the result of some common cause, generally the insanity of a member of the family, and in most instances the cases are very transient and hysterical in character. The so-called "folie à deux" may involve more than two, and we know that in Roman Catholic countries like Ireland an epidemic of a religious character may arise and spread far and wide. We do not think the outbreak under consideration is likely to have depended on the food taken, as has been suggested, and we should be inclined to attribute considerable etiological importance to nervous heredity and a kind of expectancy which easily gives rise to the real disorder.

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## THE UTILISATION OF BACTERIA.

The forthcoming Local Government inquiry at Exeter, where an application has been made for an official sanction of what is termed the septic tank system of sewage treatment, will be watched with great interest, for the process marks a new departure in the methods at present employed. In modern sewage treatment the object has been, by the addition of a variety of chemical substances, to precipitate certain constituents which in the course of subsidence will carry with them all suspended bodies, leaving an effluent partially if not completely sterilised and sufficiently inoffensive to permit of its being discharged, either with or without further filtration, into some convenient watercourse. The success of such measures has been only partial, for when the effluent reached the larger body of water, the dilution being great the antiseptic properties conferred by the added chemicals vanished, and putrefaction commenced, rendering the watercourse offensive and dangerous to health. Under the new methods, of which an extensive trial has been made at Exeter, not only is no attempt made to sterilise the sewage, but every effort is made to encourage the growth of micro-organisms. Briefly described, the process is as follows: The sewage is run into a large tank, from which light and air are excluded. In this, the septic tank, the anaërobic organisms flourish, much gas is evolved, and a fine mineral sediment is precipitated. From the septic tank the sewage passes to the aërating troughs, where under the influence of light and air

the aërobic bacilli do their work. The effluent from these troughs, after passing through coke filters, escapes in a highly purified condition, the dissolved and suspended impurities having been oxidised and rendered innocuous, exclusively through the agency of bacterial growth. A system very closely resembling the above has recently been undergoing an experimental trial at Sutton, under the direction of the London County Council. Mr. Dibdin having ascertained by passing sterilised air through sewage that the amount of oxidation so obtained was infinitesimal, concluded that practically the whole work of oxidation and nitrification depended on the presence of micro-organisms. He succeeded in isolating an extremely active variety of micrococcus candicans from coke breeze filters, and conceived the idea of utilising this in the purification of sewage. A 4-foot bed of burned ballast is prepared, and material containing the micrococcus is added. The sewage is then pumped on to the bed, where it remains for two hours, exposed to the influence of the organism. When drawn off at the end of this period, the effluent is of sufficient purity to satisfy the requirements of the Rivers Pollution Act, but as a further precaution it is recommended to filter it through land. Each bed is worked twice daily, long intervals being required to ensure efficient aëration. It will be seen that an entirely new principle is thus being introduced into our methods of sewage treatment, the attempt to check or destroy the growth of micro-organisms being abandoned, and every effort being made to encourage their work. It is claimed that the new departure is the more rational and natural method of treatment. The working is simple and inexpensive, and, should a wiser experience of its results prove satisfactory, its extension may be anticipated.

## PASTEUR INSTITUTES IN RUSSIA.

THE first Pasteur Institute in Russia for the treatment of hydrophobia was founded at Odessa on July 16th, 1886, on the initiative of Professor Metchnikoff. In the course of the same year similar institutes were established at Warsaw, Samara, St. Petersburg, and Moscow: in 1887 one was opened at Kharkoff, and in 1888 one at Tiflis. All these institutes are still in active work. The most recent statistics show that, taking the several institutes collectively, the total number of patients treated between 1886 and 1892 was 14,369, of whom 265, or 1.84 per cent., died. Of the whole number, 9,589 (approximately) were bitten by dogs, and of these 76, or 0.79 per cent., died; 621 were bitten by wolves, and of these 101, or 16.26 per cent., died. The number of patients shows an increase year by year, a fact which proves that the treatment is winning for itself the confidence of the people. Before the creation of the institutes the bulk of the cases of hydrophobia which occurred remained unknown to the authorities, the number notified being, on the average, about 100 each year. Of these more than 50 per cent. died. In estimating the life-saving value of the Pasteur treatment in Russia, allowance must be made for the considerable number of cases in which the bites were inflicted by wolves. In addition to the exceptional virulence of the wolf's bite in itself, it is generally inflicted on uncovered parts of the body, and the virus is thus more effectually inoculated. Other animals also transmit hydrophobia in Russia to an extent greater than in any other country. From 1882 to 1892 824 persons were bitten by rabid cats, 80 by rabid horses, 48 by rabid oxen and cows, 25 by rabid pigs, and 8 by rabid foxes. In 11 cases the disease was communicated by the bites of human beings.

## A LEPER HOUSE IN SCOTLAND.

IN the time of Wallace, if the Chronicle of Blind Harry is to be credited, there was a "leper house" at Kingcase, Prestwick, and Robert the Bruce is said to have been cured of some disease by drinking the waters of a mineral spring in that neighbourhood. His grandson, Robert II, who spent a considerable part of his life at Dundonald Castle, burdened the farm of Crossburn and the neighbouring farm of Colennan with the support of eight lepers. To this day, according to the *Glasgow Evening Times*, the charge on these farms is paid in kind, and is known as the "leper's meal." Crossburn has to contribute 56 bolls of meal and 28 merks as its share. It now goes to the Ayr Poorhouse, and the Duke of Portland makes good to his tenant the value of the meal in the shape of a money payment. In a note in Scott's *Lord of the Isles* it is stated that at this Prestwick sanatorium "each leprous person had a drinking horn provided by the King (Bruce)," and further states that "one of these identical horns, of very curious workmanship, was in possession of the late Colonel Fullarton of that ilk."

## SEARCH LIGHTS FOR THE NAVY.

OWING to the powerful electric lighting used on board French men of war sailors have frequently become affected with eye diseases, which have in some cases led to total blindness. The eye troubles are attributed to the intensity of the light and to the action of the ultra-violet rays. The French naval authorities supply dark blue glasses to those men engaged with search lights, and men who neglected to use these spectacles were injuriously affected. Grey and blue eyes are more easily affected than brown, that is, eyes in which the iris is not heavily charged with pigments.

## MR. JOHN ST. S. WILDERS, OF BIRMINGHAM.

AT the last meeting of the General Committee of the Queen's Hospital, Birmingham, a letter was read from Mr. John St. S. Wilders, Senior Surgeon to the institution, in which he tendered his resignation owing to the delicate state of his health. Mr. Wilders has been connected with the hospital for nearly 40 years. He was appointed Assistant House-Surgeon in 1858, and for the last 28 years has been one of the honorary staff. It was resolved unanimously:

1. That the Committee accept with regret the resignation of Mr. John St. S. Wilders, Senior Surgeon to the Queen's Hospital, and desire to place on record their high sense of the services he has rendered to the institution. For nearly 40 years Mr. Wilders has been on the staff, first as an Assistant House-Surgeon, and subsequently, for 28 years, as an honorary officer. During all that lengthy period he has served the hospital with fidelity and zeal, ever working in harmony with his professional and lay colleagues. This Committee, on behalf of the hospital, herewith tender to Mr. Wilders their grateful thanks, and their hopes that by his retirement from active work his health will be restored and his life long preserved.

2. That this Committee recommend to the Governors at their annual meeting the appointment of Mr. Wilders to the high and honourable position of Consulting Surgeon to this institution.

## LEICESTER BLUSTER.

IN the *Daily News* of December 30th, 1896, there appeared a paragraph of such an extraordinary kind that we hesitated to refer to it. As, however, its substance is repeated elsewhere, and as our attention has been called to a strong remonstrance in the *Yorkshire Daily Post*, we feel that we cannot leave the matter in silence. At the same time the report, as it appears, is so incredible, even for Leicester, that we remain under the impression that the rumour must be mere bluster on the part of certain persons who, by diverting the public attention, would cover their ignominious defeat as recorded in the report of the Vaccination Commission. That the sanitary authority has published officially the precious resolution of which we hear we cannot believe; and in justice to this body we shall suppose for the present that the rumour has arisen upon some new arrangements agreed upon between the sanitary authority and their medical advisers. The report is that the Sanitary Committee of the Leicester Corporation have agreed, "on the recommendation of Mr. Pickering," a gentleman described rather irrelevantly as F.R.G.S., F.S.S., and F.S.A., that "a hydropathic treatment of fever cases shall be applied to patients in the fever hospital for twelve months, subject to the discretion of the medical officer of health." The *Daily News* is not unnaturally astonished, and the *Yorkshire Post* naturally angry, at

this announcement; and these journals say that the result of the "experiment" will be looked forward to with considerable interest. If it be the case that the Sanitary Committee has determined to introduce a uniform system of treatment of all cases of whatever fever, in whatever stage, and under whatever circumstances, whether by water or by any other means, the public will indeed look forward, etc., etc.—even to seeing the Chairman himself the virtual defendant in an action for malpraxis, or even for manslaughter. The paragraphs from which we take our information speak as if the wretched patients are to be treated at the dictation of Mr. Pickering, F.R.G.S., F.S.S., and F.S.A., subject to the benevolent oversight of the medical officer of health, given at such odd moments as he can spare from medical discussions in the council chamber. Or shall we charitably suppose that the Leicester Fever Hospital is under the care of a medical staff, and that this staff will carry out such treatment as they think fit for each individual case for which its members are responsible to the public, to the profession, and even to the law? The "hydropathic treatment" of fevers—foolishly so called—as first introduced by the English physician Currie, as is well known, and its results are embodied in many elaborate reports both in English and other languages. The best recent account of it is that by Professor Osler in the *Johns Hopkins Hospital Reports* for 1894. The cold bath treatment, if properly carried out, is very onerous—it needs a large staff and expensive appliances; but we are of opinion that any fever hospital which is without these appliances is behind the times. No doubt the wiseacres of Leicester have just found this out, and have laid what they conceive to be a fresh egg with a ridiculous amount of cackling; or their injudicious friends have done the cackling for them.

## SIR W. R. KYNSEY.

The Honourable William Raymond Kynsey, upon whom, as we announced last week, the Queen has intimated her intention to confer the honour of knighthood, was gazetted an assistant surgeon in the Army Medical Department in September, 1863. After serving in Ceylon and India he took part in the Ashantee Expedition of 1873, and received the medal with the Kumassi clasp, having been present at the entry into that town. In 1875 he was appointed Principal Civil Medical Officer, Ceylon, by the late Lord Carnarvon, at that time Colonial Secretary, who acted on the recommendation of the late Dr. Parkes, then Professor of Hygiene at Netley. Sir William Kynsey has laboured successfully for the last twenty years in this office: and has been instrumental in obtaining the establishment of a medical school in Ceylon, of a women's hospital, and in greatly improving the health of the island by many sanitary reforms, and in improving the position of the Medical Department. He was made C.M.G. on the recommendation of the former Governor, Sir Henry Havelock, and was lately made a member of the Legislative Council. Some years ago he became an Honorary Fellow of the Royal College of Surgeons of Ireland.

## DIPHTHERIA IN LONDON.

There was an increase in the mortality from diphtheria in London last week, 49 deaths being recorded, against 32, 58, and 38 in the three preceding weeks. The rise in the mortality from this disease was most marked in East London, where 8 fatal cases were recorded, against but 1 in the preceding week; of these 8 cases, 3 were of persons belonging to Poplar, 2 to Bethnal Green, and 2 to Mile End Old Town. Of the remaining deaths from diphtheria registered last week in the metropolis, 5 were of persons belonging to Islington, 5 to Lambeth, and 5 to Camberwell sanitary areas. The 49 fatal cases of this disease registered last week in London included 35 of infants and young children under 5 years of age, and 12 of children and young persons aged between 5 and 20 years; while only 2 deaths occurred among persons aged upwards of 20 years. The 318 notifications of diphtheria in London during last week showed a considerable increase, the numbers in the three preceding weeks having been 293, 284, and 200 respectively. Part of this increase is doubtless owing to delay in notifying during the Christmas holidays. The increase was most marked in North and East London; in Islington the notified cases rose to 31, against 18 in each of the two preceding weeks; and in Hackney the 11 new cases were more than double those recorded in the previous week. In Shoreditch, Mile End Old Town, and Poplar there was also a very marked increase in the prevalence of the disease. Among the sanitary areas of West London, Fulham and Chelsea showed the largest proportional increase in the number of new cases; and in South London there was a considerable increase in the number of new cases notified in Newington, Lambeth, and Wandsworth. On the other hand, the new cases in Camberwell showed a further decline from the high numbers recorded in recent weeks. The admissions of diphtheria patients into the Metropolitan Asylums Hospitals during last week were 114, against 126, 120, and 124 in the three preceding weeks; and 829 patients remained under treatment in these hospitals on Saturday last, January 2nd.

## JAMAICA AS A WINTER RESORT.

The January number of the *Century Magazine* has an interesting article from the pen of Mr. Julian Hawthorne, under the heading of Summer at Christmastide, in which he has some good words to say about Jamaica. Mr. Hawthorne deals with his early experiences in Jamaica not long ago, when he went to live there for a time: "The sky is of a warmer and tenderer blue than I have ever seen in the North, and the mighty sunshine which irradiates it and all things below it seems twofold as luminous as ours. And all this, and the infinite other lovely things that I can see and feel, but never portray or describe, are not a dream, but an immortal reality to which nothing written, spoken, photographed, or painted can do justice. You cannot believe it, you cannot comprehend it, until you behold it for yourself, live it and breathe it. You may read and listen and imagine from one year's end to another, but your first glimpse of the reality will show you that all was in vain. Fancy and hearsay can issue no passport to the enchanted gates of the Caribbean, nor bear the soul across the mystic line." He adds: "The way to get ill is to avoid exertion and perspiration, and sit at ease in the shade absorbing cooling drinks. Such people sometimes last two years. Those who pursue the alternative regimen are not surprised to find themselves alert and alive at 90 and upwards. Of course it is more difficult to get ill on the higher levels than on the lower ones, but taking the island by long and large, it is one of the healthiest places on the globe. . . . . The sun is always warm, the nights are always cool, the atmosphere is always healthy, and you can choose your mean temperature to suit yourself: on the higher levels of the mountains you can get that of an English summer, and on the plains it will average 80° or more. The scenery of sea and mountain is, on the whole, the most beautiful in the world; and the price of most things, to our American ideas, is exceedingly cheap."

## THE "DENTISTS' REGISTER."

The validity of the action of the General Medical Council in refusing to place upon the *Dentists' Register* certain persons who had memorialised it to use its dispensing power in their favour will be tested by an action in the High Court, in which we understand the Council has already delivered its statement of defence. Under Section xxxvii of the Dentists' Act of 1878 provision was made for the case of students who might be pupils to dentists at the time of the passing of the Act. It is enacted that they should be entitled to be registered under the Act as though they had been in *bonâ fide* practice before it was passed. Further power was given to the General Medical Council by special order to dispense with any certificates, examinations, or other conditions for registration in favour of any dental students or apprentices

who had commenced their professional education or apprenticeship before the passing of the Act. This power, during the first thirteen years after the Act was passed, was exercised on many occasions, and pupils from time to time applied and were registered. Representations were then made to the Council by the British Dental Association which led to the Council deciding in 1891 that it would register no more such pupils unless they could in every respect fulfil the requirements of the first part of Section xxxvii, as it was felt that a period of thirteen years was long enough to allow for such applications to be made. The Council, in other words, decided not to use any longer its powers of dispensation. In 1896, eighteen years after the passing of the Act, the memorial to which we have referred was presented to the General Medical Council, the applicants praying the Council to exercise its dispensing power in their favour. By the Act one year was allowed to those in practice as dentists to claim registration, and so to become registered dentists. The Act required that after that date persons desiring to be registered should be in possession of a dental qualification obtained after examination at the Colleges of Surgeons. The minutes of the General Medical Council of June 1st and November 23rd, 1896, show that the applications recently made have been fully considered, but that no reasons were found for making special exemption in these cases. The applicants now appeal from the Council to the High Court.

## FORENSIC MEDICINE AND HYGIENE IN EDINBURGH.

It is understood that no successor to Sir Douglas Maclagan in the Chair of Forensic Medicine in the University of Edinburgh will at present be selected, inasmuch as a movement is under consideration for the separation of the two departments of Public Health and Medical Jurisprudence, and the appointment, therefore, of two professors. The matter is being discussed in the University Court. The late Mr. Alexander Low Bruce, Edinburgh, bequeathed the sum of £5,000 "to assist in founding a Chair of Public Health." Until quite recent years Public Health has not received the time and consideration which are pre-eminently due to it; and Medical Jurisprudence, which, though an important subject, is yet of less consequence to the welfare of the community, received a larger share of attention.

## THE JENNER CENTENARY IN RUSSIA.

The centenary of vaccination was celebrated in St. Petersburg on January 3rd by a meeting at which the Grand Duke Paul presided. The celebration was arranged by the Medical Department and the National Health Society of Russia. The correspondent of the *Times* telegraphs that a number of eulogies of Jenner and speeches referring to his great discovery were delivered. The bust of Jenner was placed at the upper end of the hall in which the meeting was held, and facing it were busts of the Emperor and Empress. Upon the walls were diagrams and tables of statistics and an exhibition of objects connected with vaccination was afterwards opened.

## HOSPITAL REFORM.

We are asked to state that the Hospital Reform Association proposes to call a meeting of the profession in London on February 4th to consider the question of hospital reform. It is proposed also during next summer, probably in the first week in June, to hold a conference with representatives of the Hospital Committee of the Charity Organisation Society and of the hospital staffs, at which papers on various subjects dealing with the question will be read. It will be generally felt that the Hospital Reform Association is proceeding wisely in thus seeking to gather opinions and to lay the facts before those laymen who take an active interest in hospital work. Suggestions for reform are numerous, but a satisfactory solution can be reached only by obtaining a general consensus of opinion. One of the most recent of these suggestions is put forward by Mr. Percy Dunn in the current number of the *Humanitarian*. Mr. Dunn believes that the solution of the problem will be found in the extension and improvement of the inquiry system at present in vogue at some hospitals. He says, "I cannot but think that the system would be improved if hospital authorities were to relieve themselves of the inquiry duty. The inquiry officers cannot be expected to be able to judge between the rights and the wrongs of the statements made to them by the various persons whom they question. . . . On the other hand, the case would be greatly different were the following method of inquiry to be adopted: Let each district in which hospitals are situated have one or more 'hospital agents,' whose duties would consist in determining the eligibility of persons claiming hospital relief. These officers would occupy the same position to hospitals as the relieving officers under the Poor-law system now occupy with regard to the ratepayers. The 'hospital agents' would provide each applicant, whose eligibility for relief was satisfactory, with a card by means of which relief could be obtained at any hospital charity. Such agents living in the district would have the best opportunity of knowing the circumstances of the deserving poor, and at the same time would have but little difficulty in preventing those who were in a position to pay for medical attendance from obtaining gratuitous relief." No doubt it is quite true that one source of the inefficacy of the present inquiry system is its inadequate development. If it is to be of real use, its basis must be enlarged and its details elaborated, conformably with the urgent necessities of the case.

## THE GENERAL HOSPITAL, ADELAIDE.

The Adelaide newspapers received in this country by the last mail contain reports of the inquiry undertaken by the Select Committee of the Legislative Council, the appointment of which we mentioned in the British Medical Journal of December 19th, 1896. We have received from Professor Watson, of the University, Adelaide, a detailed statement of the case of hernia the dispute as to which led to his dismissal. We must be excused from going into the details of these charges. Accusations have been bandied about with, what must seem to impartial observers, too great freedom. However important any question as to the competence of the resident staff of the Adelaide Hospital may be to those responsible for the management, this is not a question which interests members of the British Medical Association as a body. The question for them is whether it is becoming conduct on the part of members of a great professional brotherhood to accept appointments vacated by others under the circumstances which arose at the Adelaide Hospital last spring.

## PROFESSOR KOCH AT ROBBEN ISLAND.

Before proceeding to Kimberley to commence his investigation of the rinderpest Professor Koch paid a visit to Robben Island to observe the methods adopted there for the segregation of the lepers. He was accompanied by Dr. Te Water (Colonial Secretary), by other members of the Government, and by a large number of medical men. Under the guidance of Mr. G. Piers, Professor Koch visited the female asylum, where, it is stated, he showed great interest in a remarkable case of tubercular leprosy. Subsequently he made a visit to the male asylum, and afterwards was entertained at luncheon in the Drill Hall. In response to the toast of his health, which was given by Dr. Te Water, seconded by Mr. Faure (the Secretary for Agriculture), Professor Koch said that he could not promise the discovery of a preventive for rinderpest, but he sincerely hoped that that might be the the outcome of his inquiry. Referring to the leper establishment, he said that he had been much struck by the spirit of order and science which prevailed there. The whole arrangements were conceived in so scientific a spirit that he found great cause to congratulate the Government and the officials

upon them. He admired the way in which the Government of Cape Colony were endeavouring to get at the cause of things. In Europe it was never easy to induce people to look for the cause by utilising modern science to that end. In this respect he could congratulate Cape Colony in being in advance of Europe. Where such a spirit prevailed he was confident that success and prosperity would follow.

## THE PLAGUE IN BOMBAY AND THE MECCA PILGRIMAGE.

At the last meeting of the French Committee of Public Health, M. Proust, the Inspector-General of Sanitation, drew attention to the risk of the dissemination of plague in connection with the Mecca pilgrimage of this year. The pilgrimage will be in full activity in a few months' time, and has, in fact, already commenced, one vessel, the *Thibet*, having already reached Camaran, the sanitary station in the southern part of the Red Sea. M. Proust further stated that at a recent meeting of the Sanitary Council in Constantinople, the Austrian delegate inquired whether Great Britain would take any steps to prevent pilgrims from India from joining the pilgrimage to Mecca this year similar to those which the French Government took when the sanitary state in Algiers was unsatisfactory. The delegate of Great Britain is reported to have replied that, judging from precedent, he did not believe his country would consent to any prohibitive measures. Attention was also called to the danger to Persia, and it was stated that the Sanitary Council in Constantinople desired to institute special precautions against travellers and merchandise from Persia. Persia has protested against this proposal, but has offered to place the sanitary inspection of its ports in the hands of officials nominated by the Sanitary Council in Constantinople.

## SKIAGRAPHIC DIAGNOSIS APPLIED TO SOFT PARTS.

Professor Bouchard, of Paris, states that the existence of tuberculous disease of the lungs in the stages not marked by auscultatory or other physical signs is capable of being recognised by examination with a cryptoscopic screen. It is quite conceivable that patches of consolidation in the lungs would be recognised as darker shadows contrasting with the lighter parts of normal air-filled tissue. Professor Bouchard evidently finds that a fluorescent screen is capable of rendering finer degrees of difference in opacity than in an ordinary skiagraph—a result with which observers in this country will agree. Similarly in the examination of the heart, the screen is capable of giving much more accurate information than any other method, and it seems that by extending its use to regions in which the skiagraph is now almost exclusively employed, further advances might be made in parts of the body—such as the heart and lungs—which it is impossible to maintain in a position of absolute rest; the screen can give accurate information where the skiagraph can only give the net result of the variations in opacity which occur during the time the exposure lasted.

## MEDICAL CERTIFICATES AND SCHOOL BOARDS.

This vexed question was again brought up at Stockport at a meeting of the School Attendance Committee of that district. In dealing with the cases of the parents who had been summoned for the non-attendance of their children at the schools, the clerk mentioned that one summons had been withdrawn, as a medical practitioner had attended the court and given evidence as to the unfitness from physical causes of the child to appear at school. He also stated that the defendant's costs and the fee for the medical witness were not granted by the court, and that the medical witness, Dr. Smeeth had strongly objected to his (the clerk's) statement "that medical officers gave the parents medical certificates without charge." The clerk stated that he had investigated 28 cases lately, and found that in 23 the certificates had been given gratuitously by the medical practitioners. Why Dr. Smeeth should have taken exception to this testimony to the generous conduct of members of his own profession to the poor is not apparent, nor why the clerk should have made such a point of what is common practice, we cannot say. Medical men rarely, if ever, obtain fees for such certificates in consequence of the impecunious condition of the parents requiring them, and it is high time that some satisfactory arrangement should be come to in this matter. It certainly is extremely unjust that the expenses of a doctor in attendance as a witness, and whose evidence was necessary to prove the illness of a child, should not be granted by the court. If the certificates were paid for as they should be, as those for the notification of infectious diseases are, by the State, the suggestion that the attendance was for the sake of obtaining a fee could not be made, as it was in this case.

## THE ENDOWMENT OF SCIENCE.

Reuter's agent, telegraphing from Stockholm on January 2nd, states that full particulars have now become known of the testamentary dispositions of the late Mr. Alfred Nobel. According to the terms of the will a fund is to be formed from all his realisable property, the yearly interest of which is to be divided into five equal portions. The first of these is to be allotted as a prize for the most important discovery in the domain of physics; the second is for the principal chemical discovery or improvement; the third is for the chief discovery in physiology or medicine; the fourth is for the most distinguished literary contribution in the same field; while the fifth is to be allotted to the person who may have achieved the most, or done the best, to promote the cause of peace. All these prizes are open to Scandinavians and foreigners alike. After a few bequests to individuals have been deducted, it is expected that the fund thus devised will amount to the sum of 35,000,000 kroner, or nearly £2,000,000 sterling. The widow of Baron Maurice Hirsch, of Vienna, has resolved to present 2,000,000 francs to the Pasteur Institute as a memorial of her husband. This will enable the building to be enlarged by chemical and biological laboratories, which, it is estimated, will cost 8,000,000 francs. Some of the professors, moreover, at present receive little or no salary.

## PRIZES OF THE ACADÉMIE DES SCIENCES.

The annual award of the prizes of the Académie des Sciences is always an interesting event, as the money value of the prizes, together with the fame justly attaching to the distinction, gives rise to very keen competition in which nearly all the original workers who have their spurs to win take part. The annual public meeting at which the award is made was held on December 21st, 1896. M. J. Bertrand, the perpetual secretary of the Academy, announced the names of the successful competitors. In the Section of Medicine and Surgery the Montyon prize (£3,000) was divided among Professor S. Laskowski of Geneva (atlas of human anatomy); M. Legrain (researches on alcoholism); and MM. Imbert and Bertin Sans, of Montpellier, and Oudin and Barthélemy, of Paris (application of radiography to medical science). The Barbier prize (£80) was divided between MM. Bertrand and Fontan (treatise on suppurative hepatitis of hot countries), and M. Raynaud (serumtherapy of typhus fever). The Bréant prize (£4,000) for the discovery of a cure for cholera or some other epidemic disease was divided between M. Rénon, of Paris (researches on diseases produced by aspergillus), and MM. Netter and Thoinot, of Paris (researches on typhus). The Godard prize (£40) was awarded to Dr. Max Melchior, of Copenhagen (cystitis and urinary infection). The Serre prize (£3,000), for work in general embryology, was divided between Professor Mathias Duval and Professor A. Giard, both of Paris. The Belléon prize (£56) was awarded to Professor de Brun, of Beyrouth (researches on dengue, myxœdema, etc.); the Mège prize (£400) to M. Mauclaire, of Paris

(non-traumatic diseases of bone); the Lallemand prize (£72) to M. Raphael Dubois, of Lyons (mechanism of sleep and thermogenesis in mammals); the Larrey prize (£40) to Professor E. Delorme, of the Val-de-Grâce (surgery of the face). Prizes to the amount of about £140 were also awarded for work in physiology.

## "JANUS."

WE have already on several occasions mentioned the publication issued in Amsterdam which bears the name *Janus*. It is intended to be an international archive for the history of medicine and medical geography. The promoters point out that the great number of essays published during recent years in different countries prove that the spirit of history is awaking in the republic of medicine, as in other spheres. *Janus* has been founded to afford an opportunity for the publication of articles on the history of medicine. As the study is international, so the review also is international, and articles are published in English, French, or German. We have received from Sir Joseph Fayrer a letter asking us again to call attention to this interesting literary venture. He writes: "As the project is eminently one of international importance, is based on scientific principles, and conducted by men of well established repute, I trust that it will meet with support and encouragement." The French Government, we learn, has notified its intention to aid *Janus* by subscribing for twenty copies of each issue. It is a matter of regret that this historical journal has received, so far, small support in the United Kingdom, where it possesses, we understand, only ten subscribers. Subscriptions will be received in this country by Messrs. Williams and Norgate, Henrietta Street, Covent Garden. The annual issues will form a volume of 600 pages, and the subscription is £1. The editor is Dr. F. A. Peijpers, Parkweg, Amsterdam. The English collaborators are Sir Joseph Fayrer, Bart., Dr. J. Frank Payne, and Dr. Charles Creighton, and we are informed that the editor in Amsterdam will forward a prospectus and full particulars. The scheme is one which will appeal, we believe, to a large number of members of the profession in this country, where the history of medicine and the study of geographical pathology have many adherents, while the publication ought certainly to find a place in all medical reference libraries.

## PAN-AMERICAN MEDICAL CONGRESS.

THE second Pan-American Medical Congress was held in the City of Mexico on November 16th and three following days, under the presidency of Dr. Manuel Carmona y Valle. There were about 400 delegates and members in attendance. The work of the Congress was divided among fifteen sections: (1) General Medicine; (2) General Surgery; (3) Military, Naval, and Railroad Surgery; (4) Obstetrics, Gynæcology, and Abdominal Surgery; (5) Anatomy and Physiology; (6) Diseases of Children; (7) Ophthalmology; (8) Laryngology, Rhinology, and Otology; (9) Dermatology and Syphilography; (10) Hygiene and Demography; (11) Mental and Nervous Diseases and Medical Jurisprudence; (12) Dental Surgery; (13) Medical Pedagogics; (14) Bacteriology; (15) Veterinary Surgery. The proceedings were opened with an address of welcome from President Porfirio Diaz, who was present at the first formal session with most of his Cabinet, the Minister of Foreign Affairs sitting on his right, and the Minister of Public Instruction on his left. The National Theatre, in which the meeting took place, was beautifully decorated with flags and flowers, everything being arranged in the old Aztec fashion. The Secretary, Dr. Eduardo Liceaga read a report, in which he traced the history of the organisation of the Congress. He stated that the invitations issued by the Government of the Mexican Republic had been responded to by the Dominion of Canada, the United States of America, Guatemala, Nicaragua, San Salvador, Honduras, Costa Rica, the Argentine Republic, Venezuela, Ecuador, and Uruguay, as well as by the islands of Cuba, Hayti, and the French and Danish West Indies. The number of papers promised was 294. The President of the Congress welcomed the members in an eloquent speech, in which he gave an interesting account of the evolution of medical education in Mexico. Dr. William Pepper, of Philadelphia, who was President of the first Congress held at Washington in 1893, delivered an address on the purposes of the Congress, dwelling on the importance of the union of the American countries for mutual protection from a health standpoint. Of the work of the sections it is impossible to give any report here. In its more festive aspects, at least, the Congress appears to have been a success. Caracas, in Venezuela, has been chosen as the place of meeting of the third congress, which as at present arranged, will take place in Christmas week, 1899.

## EXPERIMENTAL MEDICINE.

ONE of the pressing needs of original investigators in all departments of biological study is a suitable medium for publication. It was the main topic of Professor Trelease's presidential address to the Botanical Society of America, and has also been discussed on many occasions in this country. Medicine has in recent years made great advances on the experimental side—in physiology, in pathology, and pharmacology—and while the broad result of investigations in these ancillary departments find a ready welcome in the pages of the medical journals both at home and abroad, the detailed description of methods of experiment and research, which it is very important should be published for the information and for the criticism of other investigators engaged in the same line of work, are rather out of place in journals devoted mainly to clinical medicine, and the applications of new pathological, pharmacological, and physiological facts to it. Moreover, from the nature of the illustrations frequently required by such communications they often make calls upon space which it is difficult to meet, and involve an expense to a journal of large circulation which may be very serious. In this country the establishment by the Physiological Society of the *Journal of Physiology*, which has now completed its twentieth volume, has covered part of the ground in a most admirable manner, while the *Journal of Comparative Pathology* supplies a means of bringing under the notice of pathologists papers dealing with special and technical questions of investigation and manipulation. In America similar needs have led to the establishment of the *Journal of Experimental Medicine*. The object of the founders was to provide a suitable medium for the publication of original investigation in pathology and bacteriology, morbid anatomy, pharmacology, and physiology in its more direct relations with medicine. The journal aims especially also at encouraging the application of the more accurate methods of the laboratory to clinical investigation, such applications as have brought about recent advances in our knowledge of the blood in disease, of metabolism, of the gastric contents, and of the presence and significance of micro-organisms in disease. The first volume, consisting of four parts, and containing over 700 pages, isnow complete. Its contents justify the expectations of the promoters that American workers would be able to furnish a valuable series of contributions to the literature of the subjects to which it is devoted. The volume contains altogether thirty-two papers, many of them very elaborate, and illustrated by numerous charts and diagrams. Physiology, physiological chemistry, bacteriology, pathology, morbid anotomy, neurology, and hygiene are all represented by papers which are in all cases carefully prepared, and in many contain observations and conclusions of much scientific value. We would express the hope that the new journal may have before it a long career of usefulness. It is edited by Dr. William W. Welch, Professor of Pathology in the Johns Hopkins University, and its business affairs are conducted by Mr. N. Murray, at that University (Baltimore). The annual subscription is one guinea. The publication is one which no medical reference library should be without.

# THE EXAMINERSHIPS AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

## I.

[From a Correspondent.]

One of the suggestions brought forward by the deputation of the Association of Fellows which was received by the Committee of the Council of the Royal College of Surgeons on June 10th, 1895, was that the Council should have power to increase the number constituting the Court of Examiners at the College from ten, as at present, to any number not exceeding twenty. The opinion expressed was that it would be in the interests of the College and of the students if there were a freer distribution of such posts among the Fellows. It was also urged that the present payment of the examiners was unnecessarily high. Strictly speaking, in view of the present financial position of the College, this question of the fees paid to the examiners has a very important bearing. At the time, however, when attention was drawn to the subject by the deputation, nothing was known by the latter of the decline in the College income, which the annual report of the Finance Committee for the year 1895 was afterwards destined to show. This report was presented at the meeting of Fellows and Members in November, 1895, and the Committee, while deploring the decrease in receipts and the consequent loss of income, stated, "The chief element of disturbance, however, in the calculations of the Committee has been the increase in the expenditure upon examiners' fees under the Combined Examining Board. The Committee allowed for a decrease in the examination receipts, and, relying upon the experience of former years, also reckoned on a corresponding decrease in the examiners fees." Although, however, the report continues, the receipts were £300 less, the examiners' fees were £219 more. Several attempts are made in the report to explain this, but it is not needful to discuss them here, more especially since no effort seemed to have been made by the Committee to ascertain, from a detailed examination of the books, the true facts upon which the apparent discrepancy in the figures depended.

### The Number of Examiners Paid by the Council of the College.

Leaving for the moment the question of the remuneration received by the examiners of the Royal College of Surgeons, the number and the *personnel* of the examiners may be discussed. The examiners at the College may be said to consist of three classes: (1) The Court of Examiners, (2) the Board of Examiners in Anatomy and Physiology for the Fellowship, and (3) the examiners under the Examining Board in England. The Court of Examiners consists of ten members elected by the Council from the Fellows of the College. The Court conducts the pass examinations in surgery and surgical anatomy of candidates for the diplomas of Fellow and Member of the College.

The Board of Examiners in Anatomy and Physiology for the Fellowship consists of eight members elected annually by the Council. It conducts the primary examinations in anatomy and physiology for the Diploma of Fellow.

Up till 1896 the examiners of the Conjoint Board were as follows: For the First Examination there were four in elementary anatomy, one examiner in elementary physiology, and two examiners in elementary biology. For the Second Examination there were four examiners in anatomy and three examiners in physiology. These examiners, in conjunction with the examiners appointed by the Royal College of Physicians, also conduct the Primary Examination for the Diploma of Member under the old regulations. For the Third Examination there are the Court and the four examiners in midwifery. For the Examination in Public Health there are two examiners. All these details still hold good with the exception of those relating to the First Examination, in which some change has recently been made. The examination in elementary anatomy has been abolished, and in order to adjust the expenditure with the College of Physicians, the College of Surgeons now appoint the whole of the four examiners in elementary biology.

In addition to the above there is a Board of Examiners in Dental Surgery, consisting of eight members, which conducts the examination of candidates for the diploma in Dental Su of the College. Thus the grand total is arrived at of forty-s examiners whose remuneration, derived from the College funds, is fixed and paid by the Council. In passing it may be observed that four members of the Court of Examiners are also members of the Council; that is to say, the members of the Council have the power to elect themselves to the posts of examiners, and at the same time vote for their own remuneration. How this anomalous state of things has been permitted to exist can only be explained by historical considerations. In view, however, of the tenacity displayed by the conservative majority of the Council to uphold the present charters, after all, perhaps, not much surprise need be felt. We do not say that the power in the hands of the Council of electing certain members of their body as examiners has been abused. But indisputably every unprejudiced person must admit that the principle is wrong, and that little can be urged in its defence. The posts of honour in connection with the Royal College of Surgeons are not sufficiently numerous to make it expedient that they should be limited in their distribution, as by permitting an individual surgeon to hold more than one appointment. In the College of Surgeons, Ireland, the posts of councillor and of examiner are kept quite distinct. A surgeon can only hold one at a time. If he be a councillor and desirous of an examinership he must resign his seat on the Council before he can become eligible for the latter post, and *vice versâ*, and the same rule might with advantage hold good in the case of the College of Surgeons, England.

### The Sums Paid to Examiners.

The College Calendar for 1895 shows that the receipts under the heading of examination fees paid by the candidates amounted to £18,791 15s. 9d., and that out of this sum £8,739 8s. was paid to the examiners. In other words, the examiners absorbed 46 per cent. of the candidates' fees, which form the main source of the College income. If the total sum of £8,739 were equally divided among the forty-six examiners, each would receive £190. But further inquiry reveals so extraordinary a variety in the distribution of the examiners' fees, that it is worth while to analyse in detail this branch of the subject.

The following table will show, better than any general statement, the amounts paid by the candidates, the sums paid to the examiners, and the percentage of those payments in respect to the latter.

*The Sums Paid to Individual Examiners in 1894-95.*[1]

| Examinations. | Number of Examiners. | Fees from Candidates. | Fees to Examiners. | Percentage received by Examiners. |
|---|---|---|---|---|
| | | £ | £ | |
| Dental ... ... ... ... ... ... ... | 8 | 882 | 512 | 58.2 |
| Public Health ... ... ... ... ... ... | 2 | 234 | 186 | 79.9 |
| Conjoint Board (1st and 2nd Examinations) | 14 | 6,371 | 1,731 | 27.1 |
| Fellowship (1st Examination) ... ... ... | 8 | 1,050 | 684 | 65.1 |
| Pass Examinations (Court of Examiners) ... | 10 | 8,371 | 5,597 | 66.8 |

In this table the odd shillings and pence are ignored.

The facts revealed by this array of figures are at first sight surprising, but the analysis of the figures cannot be regarded as complete without further showing the approximate amount which each examiner receives. Here another surprise is in store. An examiner on the Dental Board was paid £64, and each of the two examiners in the Public Health Examination received £93. If each of the fourteen examiners on the Conjoint Board had been equally paid each would have received £123, but the rate of remuneration is not the same in

[1] This table was also compiled from the College Calendar for 1894-95, when that for 1895-96 was not available for reference. It has, however, not been thought necessary to recast the figures from the later return, inasmuch as there is no reason for supposing that the facts revealed would be found to differ materially.

each class of examiners. For example, the examination fee *per caput* for the examiners in biology is 2s. 6d., while that for the examiners in anatomy is 4s. 8d.

Lastly, we come to the Court of Examiners. The total fees to examiners for the Third Examination were £4,817 9s. From this sum we must deduct the remuneration of the midwifery examiners, who are paid at the rate of 4s. 9d. per head. Multiplying the 824 candidates by 19 we obtain £783 16s. 6d. or £195 19s. for each of the four examiners. Deducting this we have £4,021 10s. for the Court for the membership, or £402 3s. to each examiner, to these fees must be added the Fellowship fees which were £765 9s. or £76 10s. to each examiner, making the total fees paid to each member of the Court £478 13s. Such is the calculation at which we have arrived from the figures before us.

### The Variation in the Examiners' Fees.

It will be gathered from the above table that a remarkable variation exists in the percentage of fees paid to the different examiners. For example, the duties of the Dental Board are distributed among eight examiners, and the fees absorbed by the latter from the contributions of the candidates amount to 58 per cent. But the examiners individually receive less for their services than any of their colleagues. A study of the above table will also show that the chief source of profit is the examinations of the Conjoint Board. Here the percentage of candidates' fees which goes to the examiners is the lowest of all the percentages in this regard, namely, 27.1. It would certainly be better for the College if all the examiners' fees were based upon this or a similar estimate.

### The Board and Court of Examiners.

The payment of the examiners on the Board and Court, as well as the facts respecting the fees paid to examiners at other corporations, are of special interest and call for a detailed investigation. This will appear plain from the perusal of the following figures. The total sum received, as already pointed out, by the forty-six examiners of the College, amounted to £8,740, and of this no less than £6,381 went to the examiners constituting the Board and the Court, that is to say, 73 per cent. of the payments to the examiners was distributed among twenty-two of that body, inclusive of the four examiners for midwifery for the Pass Examination. However, in justice to the examiners on the Board, it should be pointed out that the sum of their fees formed but a small item in comparison with that which their colleagues on the Court received. If, for example, the fees of the former be excluded, then it will be found that of the £8,740 paid to the forty-six examiners, 65.1 per cent. of that sum passed to the ten examiners who belonged to the Court.

An argument against this high payment system of the Court of Examiners at the College of Surgeons, England, is to be found in the fact that no other examining corporation in the kingdom finds it essential to remunerate their examiners in the same princely fashion. In this connection reference may first be made to the emoluments received by the examiners at the University of London. Here the examiners are paid by salary, and not by capitation fees, as is the case at the College of Surgeons. But despite the lowness of the fees offered by the Senate of the University of London for the various examinations, there is never any lack of highly competent candidates for the posts, even from among the senior members of the various professions concerned. It is not needful, however, to refer more particularly here to the precise salaries paid to the examiners of the University in question, inasmuch as the announcements in connection therewith periodically appear in our advertisement columns when vacancies occur.

### The Examinerships in Dublin.

The following information with respect to the examinerships in Dublin have kindly been supplied by a correspondent. In the Conjoint Scheme there are ten examiners appointed by the Royal College of Surgeons, Ireland, and fourteen appointed by the Royal College of Physicians, two examiners in each subject, elected annually by the governing body of the two Royal Colleges in question. For every candidate examined each examiner receives a separate fee for the written questions, the *viva voce*, and the dissections. The fee paid by the College of Surgeons is 1s. 9d. per candidate per act. That paid by the College of Physicians is 3s. 6d. The fees are paid, not by the Conjoint Committee, but by each College. The value of an examinership, therefore, depends upon the frequency of the examinations in the particular subjects, the number of candidates and the number of acts. Thus anatomy, which is examined upon in three years of the students' time, and which comprises three "acts" each time, is the most lucrative. But the the examinership in this subject does not bring to the holder of this post, at best, more than £150 at the Royal College of Surgeons; whereas hygiene, which is only once examined upon and requires only two "acts," is not worth more than about £40. In the University of Dublin the examinations are conducted by the professors —thirteen in number—who receive nothing for this service. In the Royal University the examinations are conducted by eight medical Fellows and twelve examiners. The medical Fellows are paid £100 per annum as such, but receive nothing for examining; they hold office for five or seven years. The examiners also get £100 per annum, and are elected annually by the Senate. Apparently, then it would seem to be the case that the highest remuneration that an examiner receives in the College of Surgeons, Ireland, is £150 for an examinership in anatomy. There is a great difference between this and the £500, or thereabouts, paid to each member of the Court of Examiners at the sister College in London.

### The Royal College of Surgeons, Edinburgh.

Unlike the College of Surgeons, England, the College of Surgeons, Edinburgh, does not publish a financial statement showing the receipts and expenditure of the institution for each year, consequently it has not been possible to obtain a detailed account of the latter for the purposes of comparison. We have, however, been informed that the examiners of the latter College are paid at the rate of 1 guinea an hour for the time that they are engaged, part of an hour counting as an hour. From the Clerk of the College we learn that there are forty-five examiners for the Licence and the Conjoint examinations; for the Fellowship forty-one examiners; for the Public Health examinations, eight; and for the Dental, eight. Thus it would appear that no fewer than 102 examinerships are available at the College of Surgeons, Edinburgh. In view of this large distribution of the examiners' posts, it is only reasonable to conclude that the individual remuneration is of a limited description.

### The University of Cambridge.

Through the kindness of one of the professors of the University of Cambridge we have been furnished with the figures showing the emoluments of the University examiners for the medical degrees. The system of payment is by means of a fixed stipend and a capitation grant. The latter varies in successive years, according to the number of candidates. For the First M.B. there are two examiners in chemistry, physics, and biology, respectively, each receives a stipend of £20, and the capitation fees amount to about £30 more: thus the examinerships are worth about £50 each. In the Second M.B. there are two examiners in pharmacy, who receive a stipend of £15 and capitation fees of about £16, amounting in all to about £31 for each examiner. In addition to which there are two examiners in anatomy and two in physiology. These examiners are paid capitation fees for their services in the Natural Science Tripos, so that altogether these posts are worth to the examiners about £80 to £90. For the Third M.B. there are three examiners in surgery, each of whom receives £40, and the same amount is paid to three examiners in medicine. The Professor of Surgery in the University, and the Regius Professor of Medicine are *ex officio* examiners. These are the main facts bearing upon the remuneration of the medical examiners of the University of Cambridge, and it cannot be said that, despite the payment, the University authorities have any difficulty in obtaining the services of well-known men.

(*To be continued.*)

Successful Vaccination.—Dr. C. F. Glinn, Public Vaccinator for the Fourth District of the Okehampton Union, has received the extra Government grant for successful vaccination for the second time.

# BACTERIOLOGY AND DISEASE IN INDIA.

## I.

The best evidence of the value which is locally set on Mr. Hankin's work is perhaps the rate at which it increases. In 1895[1] he received for examination 2,814 articles, being over 70 per cent. more than in 1894, and nearly three times as many as in 1893. Special reports were also demanded on various concrete subjects, such as proposed water supplies, cholera outbreaks, Pasteur and other filters, and their supply in third-class railway carriages, proposed legislation on poisons and explosives, etc., as well as on general questions of applied bacteriology, such as the disinfection of wells and the dissemination of disease by flies. Nevertheless, the present report shows that the pressure of these duties has not led Mr. Hankin to neglect investigation of general scientific interest. The author and his Governments may be congratulated on the report as an official document; but some parts of it form also an important contribution to the sciences concerned.

### The Bacillus of Enteric Fever.

The diagnostic value of the presence of the enteric bacillus as determined by present tests appears to be more questioned in India than it is here. Mr. Hankin applied his laboratory tests to 211 samples sent to him from 24 stations. The enteric microbe was found in the samples from each of 15 stations, being detected 47 times in 193 samples. Of the remaining 7 stations only two bottles of soda water were sent for examination in one case, and in another case the samples were delayed in transmission for sufficiently long in Mr. Hankin's opinion to have allowed the enteric microbe to have perished had it been present. In the 5 other stations, of which the samples failed to disclose the enteric microbe, no suspicion of enteric existed. The microbe was thus found to have coexisted with the disease in all cases where adequate samples had been received, and to be absent from the samples where no disease existed. In 13 out of the 15 cases the microbe had been found in drinking water, in 1 in milk diluted with water, in 1 with milk, and repeatedly in adulterated dairy products, material of filters, etc. Of the 15 outbreaks, it was found by the respective medical officers that 12 practically ceased on the suppression of infection in the sources incriminated by the bacteriological test. Mr. Hankin regards the result as at least consistent with the practical efficiency of the bacteriological diagnosis which he practises. When the facts are considered in context with other evidence, it is evident that this is a temperate statement of the case; and the facts justify his assertion that bacteriological examination must be an important element in attacking the etiology and prophylaxis of enteric fever in India. In nearly every case in which wells were condemned by it, they were soundly built and the water had on the chemical test been pronounced "fit for potable purposes." The enteric microbe, as found by Mr. Hankin, appears to differ from that known in Europe in the circumstance that it is seldom capable of growing on potato.

### Contamination by Polluted Water.

In general terms Mr. Hankin finds that "it is not only the water which is drunk that may cause disease, but water that may in any way come into contact either with the food or even into contact with those whose duty it is to handle food or food utensils." Contaminated filters, extraneous water supplies used for washing vegetables or dishes or cloths, or for adulterating milk or beer, or other foods, pollution of drinking water supplies, and even of milk by washing clothes in them, infection of the water-bearing servant, and through him of the water supply, by the latrine scavenger whom he accompanies for the purpose of watering the sweepings, and direct infection of the cookhouse floor by the same scavenger are among the causes to which outbreaks of cholera and of enteric fever have repeatedly been traced. In at least two instances the discovery was due to observations accidentally made by Mr. Hankin himself while on railway journeys, and to the investigations which arose out of them. We regret that we cannot reproduce the graphic detail in which the evidence is described. Pictures such as that of a native "caught prizing open the padlocked lid of a milk can and pouring into it dirty water," or "washing a dirty cloth in a bowl of milk," or reserving "one broom for clean work such as sweeping out barracks, and another for dirty work, such as cleaning latrines and cookhouses, although as a rule the custom is strictly forbidden," suggest sufficiently the difficulties under which sanitary work is carried on in India. They also emphasise the testimony which Mr. Hankin bears to the energy with which these difficulties are faced by the Army Medical Staff officers, and confirm, if confirmation were necessary, the urgency of the need for supporting their efforts by every practicable means.

### Wells at Pilgrimages.

Another case of indirect infection investigated in this report is that of the wells at pilgrimages. Mr. Hankin, on the basis of two years' experiments, described in his report for 1894, has come to the conclusion that certain microbes found in well waters, and apparently indistinguishable from those of cholera except by their harmlessness, are merely the cholera microbe in various stages of degeneration. They scarcely ever occur in water except within three months of a cholera outbreak. Mr. Hankin demonstrated by experiment on himself that the cholera microbe may undergo marked degeneration in its passage through a human intestine which resists the disease, while Sanarelli has shown the microbe to undergo a great increase of virulence in passing through the intestines of poisoned animals. It appears to Mr. Hankin possible that the presence of attenuated microbes and the recrudescence of cholera may at least in some measure be explained by these facts. The value of sanitation at the pilgrimages would thus lie in the removal of conditions which enable the cholera microbe to regain its virulence. In the Allahabad pilgrimage of 1895 the wells of the district were examined for the degenerate microbe shortly after the arrival of the pilgrims, and the results are plotted out on a curve in the report. On January 13th 23 per cent. of the wells disclosed it; on the 16th the percentage fell to 21; thence it rose to 61 on the 23rd, and to 70 on the 26th, the day after the "great day" of the pilgrims, reaching a maximum of 73 per cent. on February 1st. The pilgrims dispersed on February 12th, and by the 24th the percentage of infected wells had fallen to 24, and by April 2nd to 13. No cholera appeared, a circumstance which is presumably to be attributed to the fortunate absence of conditions capable of enabling the microbe to become virulent. The nature of these figures makes it at least, as Mr. Hankin puts it, "extremely probable" that great and rapid infection of the wells was caused by the pilgrims, and would have equally occurred with disastrous results had the microbe been virulent. The provision of pipe water and numerous standposts in 1894 seems to have had no appreciable effect on the pollution of the wells, which occurred in that year in nearly the same proportion as in 1895; a circumstance which Mr. Hankin attributes to the native view that the municipal supply is "excellent for washing the feet," but that Ganges or well water is to be preferred for drinking. Mr. Hankin suggests the actual manner of the infection. In ordinary circumstances during the hot weather a Brahman is paid by some wealthy person to draw water for travellers free of charge. The water is poured into the traveller's hands or water vessel, and precautions are taken to prevent the water from splashing out of it, and so conveying any infection which the vessel may have contained. The cost of such provision for the large number of pilgrims at Allahabad is beyond the limits of local charity; hence pilgrims freely lower their water vessels into wells, and the infection is distributed in proportion to the number of wells used and of pilgrims whose vessels are infected. The remedy which Mr. Hankin suggests is the provision of Brahmans for the wells on these occasions. This would no doubt be an important gain; but in view of the facility with which the degenerate cholera organism may regain its virulence, and of the disastrous consequences which would occur if it were enabled to do so at the time of the pilgrimage, it may be questioned whether some more drastic measure would not be desirable.

[1] Annual Report of the Chemical Examiner and Bacteriologist to the Governments of the North-West Provinces and Oudh, and of the Central Provinces for 1895: Government Press, Naini Tal.

### CHEMICAL TREATMENT OF WELLS.

Mr. Hankin describes at considerable length the results of his method of treatment of wells by potassium permanganate and similar substances. The discussion of these data is indeed one of the most valuable parts of the report, not so much by reason of positive conclusions obtained as by the admirable and scientific spirit in which the author seeks to confine the conclusions within his premisses. The difficulty of drawing definite general conclusions in this matter arises from the fact that the permanganate is not used in a proportion sufficient to exert disinfectant action. The quantity prescribed varies with the nature of the water, and is sufficient to maintain a faint pink colour in the well for twenty-four hours; a larger quantity having the disadvantage, apparently shared with lime used in any proportions, of killing frogs and so setting up putrefaction. The permanganate solution has been shown to reduce the number of microbes in a well, and appears to determine the disappearance of the cholera microbe more rapidly than in untreated wells, operating possibly as suggested by destruction of the pabulum of the organisms. As Mr. Hankin points out, a method which removed all microbes, or even all cholera microbes, would require little statistical evidence to establish its efficiency in checking cholera; but a method in which only a reduction occurs is dependent entirely on its statistical results for the demonstration of its complete adequacy. It is exceedingly difficult to obtain such results. The duration of cholera outbreaks varies very widely even in the same district, and this real variation is complicated by the difficulty of distinguishing single outbreaks from a succession of renewed outbreaks. Hence it is hard to say whether a case in which the disease has stopped is one in which the arrest was affected by natural causes or by the well treatment, especially as untreated outbreaks frequently have an abrupt cessation similar to what would be expected after the application of adequate artificial treatment.

In some cases a sort of control is obtained by comparing the duration of outbreaks in treated and untreated villages in the same districts; but, as Mr. Hankin points out, such cases must necessarily be rare, and for the reasons named above too much stress must not be laid on them even when they occur. Allowance has on the other hand to be made for the effect of polluted water stored on private premises before treatment. On the balance of the evidence, which is set out in considerable detail, it is not established that the method of treatment by permanganate is an adequate preventative of cholera or of enteric fever. In the case of both diseases more observations must be available before a definite opinion can be formed on this point. Enteric fever is far more prevalent among soldiers than is cholera; and Mr. Hankin hopes that with enteric fever the more reliable character of military statistics, as well as the longer normal duration of outbreaks, may afford a better opportunity of testing the value of this method. Whether this will result in a more definite conclusion than can be drawn at present remains to be seen. In the meantime it may fairly be said that the evidence, insufficient to show the complete adequacy of the method, and indeed to some extent affording at least *primâ facie* ground for doubting it, is amply sufficient to establish the fact that it can exercise a beneficial influence. Applied to all sources of supply in an infected village with the precautions described by Mr. Hankin, the large amount of accumulated evidence shows that it is certainly a step which, in the absence of means accredited by more positive evidence, should always be taken.

*(To be continued.)*

## THE BATTLE OF THE CLUBS.

### THE MEDICAL PROFESSION AND PROVIDENT SCHEMES.

SIR,—The medical practitioners in towns where friendly societies have recently started institutes (rather than adopt a wage or class limit, etc.), have been strongly advised to organise provident dispensaries in opposition, but there are weighty objections to such a plan, two of which I venture to point out:

1. It would be impossible for local practitioners to exclude their supporters in the recent club disputes. Amongst these supporters would be found those who have had and will have most illness; the club members who are never ill and do not know their former surgeon being the friends of the money-saving institute. The consequence of this would be that the institute would be eased of the bulk of its responsibility by the provident dispensary.

2. The provident dispensary would have to be pushed to make it successful, with the result of an increase of cheap contract work in the town, and a corresponding diminution of regular private practice.

What is obviously wanted is a medical club which will attract young men of the working class, their wants being:

1. Medical attendance at a cheap rate, say 1d. a week, or 4s. per annum.

2. A sick pay of 10s. or 12s. per week during illness for a weekly subscription of about 5d.

3. Security that the system offering these advantages will last their lifetime or requirements.

4. That a member changing his residence to another town shall have a reasonably good chance of finding a branch of his club, through which he could continue to reap the same advantages.

These are the main attractions offered by Oddfellows and Foresters. As these societies pay, it seems possible that the medical practitioners of the whole country could (either by themselves or in connection with an insurance society) organise such a club with the great extra advantage of giving each member a choice of medical attendant.

As a member of a local subcommittee appointed to consider the advisability of starting a provident dispensary, I am sure that advice or help in any form on this point would be very welcome.—I am, etc.,

January 5th. BETA.

### "ARE DOCTORS SWEATED?"

IN an article bearing this title, contributed to the *Daily News* of December 26th, 1896, the writer remarks "that in recent years medical clubs have spread all over the kingdom, and at least three of them number their members by the hundred thousand. For nearly five years a vigorous agitation has been carried on among the doctors to make the mere fact of a doctor giving his services to such clubs infamous conduct." "To find out what both sides have to say on the matter, I have been," the writer continues, "to a recognised authority from the doctors' point of view, and to the secretary of one of the largest associations of clubs."

A series of questions are then put to "the recognised authority from the doctors' point of view," whose answers fairly demonstrate some of the salient abuses of the system.

The answers, however, of the Secretary of the National Medical Aid Society are very different. As might be expected, he strongly condemns the profession for its opposition to a scheme which is so manifestly for its advantage. To the charge of "sweating" he says, all their members pay a penny a week, except in country districts, where children are taken for a halfpenny a week, and the profession is given 80 per cent. of all the fees collected. If it were not for the enterprise of the National Medical Aid Society, in his opinion, these people would not pay the doctors anything. Could any arrangement be more equitable towards the doctors? From the Secretary's point of view it would almost appear that the society was promoted as a kind of medical practitioners aid society!

To the charge that well-to-do people with independent incomes patronise the society the reply is that, if so, it is without the knowledge of the executive, that their agents have orders not to accept such members. This is all very well, but the Secretary must know that there is not a word in the prospectus of his society about a wage limit, so that it is not easy to see how the agents can follow directions which are not in accordance with the bills thrust into the hands of the public, and as to which no rules are officially laid down by the society.

To the charge that their agents use the names of the local doctors in soliciting people to become members the reply is that they are particularly forbidden to do so, "because it is against the interest of our society," as it sometimes happens that the doctors have later on started clubs and "stolen" its patients. When it is considered that all the payment the agents get is less than 10 per cent. of the fees collected, it is hardly likely they would be very scrupulous in the means they adopt to enrol members; and it can hardly be questioned that an individual agent would have much greater success in getting members by using the name of a popular local practitioner than by canvassing merely in the name of the society, so that the Secretary's statement that this is not the case is insufficient to rebut the evidence that comes from many quarters to the contrary. He further says: "In a few parts the doctors have left us and set up clubs of their own. There we have been obliged to import medical men, guaranteeing them a certain salary." This has been far more often done in cases in which the local doctors would have no dealings at any time with the society, and indiscriminate touting of the neighbourhood has been resorted to. It is satisfactory to find that in several instances the attempt has failed, and the practitioner introduced by the society has had to retire. The Secretary thinks that his society deals fairly with the doctors, but admits "that the profession has very good cause for complaint against many purely local medical societies." In the eyes of the profession all this kind of thing, whether done by the National Medical Aid Society or by local societies is equally objectionable, and it looks forward to a time when, with greater union in its ranks, it will be able to render all such methods of practice impossible.

PENGE AND BECKENHAM.

THE *Globe*, in a well-considered article, approves of the attitude taken by the profession at Penge. It says: "They (the doctors) hold, and no doubt correctly, that many men take advantage of the benefits of the doctor's fund who are not justified in so doing, as they are earning wages which would easily enable them to call in the medical man on their own account; and, moreover, they consider the 4s. is but a miserable pittance to receive for attending one family for a whole year." Speaking of the wage limit it says: "Perhaps the limit of 35s. per week is too low, but certainly 4s. a year seems an absurd sum to pay for the constant attendance of a skilled medical man, when the costly education of the doctor is taken into consideration. Even 6s. a year is only a fraction over 1d. a week—a small enough sum in all conscience to pay for such a benefit. The simplest way of arranging the dispute would be to raise the subscription of the members to 6s. a year, and to make the limit of the weekly income at least £2."

Such a suggestion appears to be worthy of consideration, and it is at least satisfactory to find the general press throughout the country is beginning to recognise the justice of the doctor's claims.

THE REWARDS OF CHEAP PRACTICE.

THE contract, or club system, has now reached such proportions in this country as to threaten in many places the existence of private practice. It is becoming every year more urgent that the present club rates should be revised, and steps taken to prevent the abuse of friendly societies by wealthy members, that is, as far as the doctors are concerned. In a recent report of the proceedings at a county court a medical man, who was being sued for debt, pleaded inability to pay; and on being questioned by the judge as to his means, said that his practice chiefly consisted of a club of 910 members, each of whom paid him ½d. a week.

## A NEW DEPARTMENTAL COMMITTEE.

THE MANAGEMENT OF FEEBLE-MINDED CHILDREN.

IT has been said that an effective way of shelving a vexed or difficult question is to appoint a Royal Commission or a Departmental Committee to inquire into and report on it. On the other hand, there can be no other course open for a Government or a Department which wishes to take wise action than to appoint a responsible body to inquire into the matter to be reformed, and to make such recommendations as their information and experience induces them to think advisable. This week we welcome the appointment of such a Committee, which will take into its consideration all that concerns feeble-minded children or those afflicted with epilepsy.

The *personnel* of the Committee leaves perhaps little to be desired, although we might have felt more confidence in its decisions had it included a larger proportion of medically-trained members, whether men or women. The medical profession is, however, represented by Dr. Shuttleworth, whose large experience and deep interest in the subject will now be brought into the arena of practical politics: the Rev. T. Sharpe, C.B., Her Majesty's Senior Chief Inspector of Schools; Mrs. Burgwin, whose work for the backward children under the London School Board is well known; Mr. Pooley of the Education Department; and Mr. Newton, one of Her Majesty's inspectors, with Miss Douglas Townsend, form the Committee, the latter bringing much actual personal experience to the subject from having been closely connected with a small but exceedingly successful home for feeble-minded girls, which has, under the medical supervision of Dr. E. S. Tait, been carried on for many years at Highbury.

The Committee has been appointed by Sir John Gorst as Vice-President of the Committee of Council of Education, and will, we understand, proceed with its labours without delay. It is not well to anticipate its conclusions, but we venture to predict that aggregation will be found as disastrous in its effects on the imbecile or feeble-minded children as on those of normal intelligence, and once more obedience to the immutable laws of Nature will be declared to be the wisest as well as the most humane course. It has been facetiously said that as children were not born in layers they cannot be reared in lines. The weakly mind, the uncertain volition, the variable temper, the flickering conscience of what is known as a feeble-minded child requires the service of devotion, and that can only be rendered by an individual to an individual. We welcome this new Departmental Committee, for the subject is one on which the knowledge attainable is very imperfect, and we willingly tender to it the offer of such help as it is in our power to render.

## PARLIAMENTARY BILLS COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.

THE SALE OF CARBOLIC ACID.

THE following letter has been received from the President of the Privy Council:

"Privy Council Office, Whitehall,
"January 4th, 1897.

"SIR,—I am directed by the Lord President of the Council to acknowledge the receipt of your letter of the 2nd instant, enclosing a copy of a memorandum presented at the last meeting of the Parliamentary Bills Committee of the British Medical Association with regard to the sale of carbolic acid; and in reply I am to inform you that the question of placing restrictions upon the sale of carbolic acid is now under the consideration of the Privy Council, with a view to legislation on the subject.—I am, Sir, your obedient servant,

"C. L. PEEL.

"ERNEST HART, Esq.,
"British Medical Association,
"429, Strand, W.C."

## CONCESSIONS TO ARMY MEDICAL OFFICERS IN INDIA.

WE are informed that some of the just grievances of army medical officers serving in India, to which the attention of the Secretary of State for India has been called by the Chairman of the Parliamentary Bills Committee, will be remedied by the following concessions being granted:

Increase in the rates of pay of Brigade-Surgeon-Lieutenant-Colonels, Surgeon-Captains, and Surgeon-Lieutenants. To the officers in the first-named rank a substantial increase of Rs.150 a month, to the others such increments to pay as will put them on an equality with other branches.

The tour of foreign service will be, as of old, five years.

## THE PLAGUE IN INDIA.

*Death-rate Increasing in Bombay.—A Type of a Plague-stricken Household.—Inutility of Disinfectants.—Incorrect Returns.—A Possible Remedy.—Latest Telegrams.*

WE have no better news from Bombay. The death-rate increases daily until at the present moment it averages for the week ending December 26th, 1896, 70 cases a day. The town is well nigh deserted, servants cannot be obtained at any price, and the death of a few Europeans—among whom, we regret to learn, has to be numbered Surgeon-Major Manser, the Senior Physician to the Native Hospital, who, it is reported by a Central News telegram, died of the plague on January 6th—adds to the general scare. In the Hong Kong epidemic the Chinese servants in European houses enjoyed a marked immunity, and there was never any scarcity of domestic servants. The house of a European was looked upon as a sanitary haven of immunity, but even this does not obtain in Bombay, where there seems no safety except in flight. The danger of such a procedure is but too evident, and we are quite prepared to hear of baneful results in the surrounding districts.

A graphic picture of what an epidemic of plague means is conveyed in the following story, published in the *Daily Mail*, which must be but one of scores of similar incidents: "A Hindu clerk went to the 'burning ground' for the purpose of cremating the body of his father, who had died of plague. On his return he found that in the meantime his mother had sickened and died, while shortly afterwards his wife was attacked, and in a few hours was dead also. The clerk himself and an uncle of his are now down with the disease." At the Bombay Club two servants died of plague, although the place is smothered with disinfectants. This is con-

sonant with the experience gained in Hong Kong, where the only European civilian who contracted plague in 1894 was the man whose duty it was to mix and prepare disinfectants for public use.

Incorrect returns are held to be the explanation of the increase of the mortality for diseases other than plague. Anyone who has had to deal with natives, especially natives of India, during a plague epidemic, well knows how they assail their medical men and sanitary inspectors with prayers and heartfelt beseechings not to pronounce their illness to be plague. By so doing the patient is not only removed from the house, but all the occupants of the house are put to considerable inconvenience, annoyance, and expense, by having to leave their abode, whilst in addition their goods and chattels have to be disinfected. It is difficult for British practitioners and sanitary agents to resist their entreaties, but it must be still more difficult for native doctors to withstand the desires and requests of their friends and relations. One must pardon the native practitioners, therefore, if they occasionally yield to the temptation of substituting "fever" as the title of the ailment instead of plague. It is but human to do so, and even might be regarded as charitable, were it not but too apparent that dire results to human life almost certainly ensue. In the Bombay papers we read as follows: "The official returns are worthless, because the native doctors fraudulently describe the cases they attend as not cases of plague, and this accounts for the rise of the general death-rate to the incredible figure of nearly 100 per 1,000." We have every sympathy with the native doctors in their trial, and would suggest as the only possible remedy that doctors from other parts of India should be engaged for special plague work, so that the local men might be relieved from the entreaties of their friends and neighbours to grant them certificates that their ailment is fever and not plague.

The Secretary of State for India has received the following telegram, dated January 1st, from the Governor of Bombay: "The plague—twenty-four hours up to yesterday morning: Cases 72, deaths 46. November—cases 333, deaths 268. December—cases 1,635, deaths 1,160. Total cases to date, 2,430; deaths, 1,725. Exodus is estimated roughly at 100,000 to 150,000." The following telegram has also been received: "Officially reported by Medical Board, Karachi, that bubonic plague epidemic in that city; 39 cases reported from 10th to 26th. Repressive measures adopted to combat spread of disease." A Reuter's telegram from Calcutta states that Surgeon-Major-General Cleghorn, the Surgeon-General of India, has been deputed by the Government of India to report upon the serious increase of plague, and has proceeded to Bombay.

## NOTES ON HEALTH RESORTS.

HÉLOUAN,[1] in Egypt, is a rising health resort, which can be reached in 25 to 40 minutes by train from Cairo. It has the advantage of lying between the comparatively moist Lower Egypt, and the very dry, hotter, and more dusty Upper Egypt. The warm springs were probably made use of at a very early period, but date their modern reputation only from 1868, when Ismail Pasha, the then Viceroy of Egypt, appointed a scientific committee to investigate them; the late Viceroy, Tewfik Pasha, made it a place of residence. The muriated sulphurous waters have temperatures of 90° F., and, according to Gastinel Pasha, contain 1.8 per mille chloride of magnesium, 3.2 per mille common salt, 47 volumes per mille of sulphuretted hydrogen, and 61 volumes per mille of carbonic acid. Another spring (77° F.) is much richer in chlorides, but contains less sulphuretted hydrogen. There is likewise a muriated spring (77° F.) which contains no sulphuretted hydrogen (used for drinking), and two others (likewise 77° F.) near the Khedive's palace, which contain iron. Hélouan is situated in an artificial oasis of the desert, on a plateau about 187 feet above the mean level of the Nile. The two hotels afford excellent accommodation, and there is an English medical man in residence during the season; private nurses could be obtained in cases of necessity from Cairo. During the winter months (November to March) it forms a suitable place of residence for many cases of pulmonary tuberculosis, especially those associated with bronchitis and emphysema, those affected with nervous irritability, those for whom the Alps and the Riviera are too cold, and mild cases accompanied by albuminuria. Cases with diarrhœa or laryngeal ulceration are not suited, nor are very severe cases, on account of the long journey. The place is likewise suited for many cases of bronchitis and emphysema with much expectoration, for some patients with chronic Bright's disease, for the milder forms of diabetes, and for some cases of general debility and low resistant power following acute diseases. The warm baths might aid the climate in chronic rheumatic and neuralgic patients. For chronic joint affections, etc., the Aix treatment could perhaps be carried out during winter at Hélouan.

*Glenwood Springs*[2] in Colorado, U.S.A., has several springs. The largest, called the Yampa, has a temperature of 127° F., and its muriated sulphurous water, the supply of which is abundant, contains about 15 parts of common salt in 1,000. The chief affections treated by its use are chronic rheumatism, obstinate syphilis, and some cutaneous diseases. The waters are taken internally for dyspepsia and constipation, but it would probably be better in many cases if the water were diluted for drinking. The vapour caves are used by silver miners with lead poisoning, and by obese persons and others for whom Turkish baths are prescribed. Glenwood lies on the western slope of the Rocky Mountains, at an elevation of about 5,700 feet above sea-level, about half way between Denver and Salt Lake City. The situation at the junction of the Roaring Fork and Grand rivers is very beautiful, and the springs, which not many years ago were used almost only by Indians, are now easily reached by the Colorado Midland and the Denver and Rio Grande railway lines. The best time of year for a visit is during summer and autumn. During summer excursions can be made into the higher plateaux (9,000 to 10,000 feet).

*Bilin*,[3] in Bohemia, near Teplitz, possesses the best known gaseous alkaline water in Austria-Hungary. According to Huppert's analysis of 1875, the "Biliner Sauerbrunn" contains 3.3 parts carbonate of sodium in 1,000 and 0.7 parts of sulphate of sodium. It is rich in carbonic acid gas. The water is much exported to other parts of Austria-Hungary and Germany, and employed in cases of chronic catarrhal dyspepsia, uric acid gravel, and gouty troubles. A cure may likewise be made at the place itself where there is a bath establishment with arrangements for hydrotherapeutic treatment.

From Bilin we also have sent us a note on the neighbouring *Saidschitzer* bitter water, which in 1,000 parts is said to contain 10.8 sulphate of magnesium, 3 sulphate of sodium, and some nitrate of magnesium. In spite of the competition of the stronger Hungarian bitter waters, Saidschitzer is still used to a limited extent in England.

*Salsomaggiore*, in North Italy, possesses cold muriated waters little known in other countries. The place has a population of about 6,000, and is about five English miles (thirty-six minutes by the steam tramway) from Borgo San Donnino, a station on the railway between Piacenza and Parma. According to Gibertini's analysis of 1871, the water contains 131 per mille common salt, 13 per mille chloride of calcium, and about 5 per mille chloride of magnesium, with some bituminous material. There are likewise small quantities of bromides and iodides. The Mutterlauge ("acqua madre"), obtained from the water by evaporation and precipitation of the greater part of the common salt, contains about 176 per mille chloride of calcium, 80 per mille chloride of magnesium, and 44 per mille common salt. The water is used in scrofulous and rachitic affections, etc. There are establishments for baths and inhalation treatment. Near the baths is a ferruginous spring, said to contain 0.05 per mille carbonate of iron.

*Ischia*, the beautiful island of the Bay of Naples, though perhaps rather more exposed to the wind than is desirable for winter residence, is suitable for some invalids between the months of April and October. The island has been noted since ancient times for its thermal springs, the best known of which is the Gurgitello. The muriated alkaline waters of this source contain, according to Palmeri and Coppola (1879), a total of 5.8 solids per 1,000 (2.7 common salt, and 1.5 bicar-

[1] *Hélouan les Bains*, par le Dr. A. Fenyes, 1895.

[2] *A Rocky Mountain Health Resort*, by Dr. E. Hobhouse, 1896.

[3] *Der Sauerbrunnen zu Bilin in Böhmen*, von Prof. Dr. Löschner.

bonate of sodium), and have a temperature of 131° to 149° F. Casamicciola, at the northern base of Monte Epomeo, has accommodation for visitors, though it suffered terribly from the earthquake of 1883. At Porto d'Ischia[4] (or Bagno d'Ischia), three miles and a-half from Casamicciola, there is accommodation and a municipal thermal establishment inaugurated in 1881, as well as the military establishment founded in 1875. There are natural vapour baths at Castiglione and elsewhere in the island, and sand baths and sea baths can be taken on the shore. Porto d'Ischia can be reached in two hours by steamboat from Naples.

## PROVIDENT DISPENSARIES.

A special meeting of the council of the Charity Organisation Society, to which members of the medical profession in London had been invited, was held on January 4th at the Royal United Service Institution, Whitehall, when Mr. C. H. Warren, Secretary of the Metropolitan Medical Provident Association, read a paper on Provident Dispensaries and their Claim on the Medical Profession. The Earl of Stamford took the chair, and, in introducing Mr. Warren, said that there had been a feeling in the medical profession against certain abuses which had arisen in connection with medical clubs, especially in the provinces. They all agreed, however, that the provident dispensary system was a thoroughly good one, and one which tended in the direction of thrift and self-help.

Mr. Warren confined his remarks to a consideration of how the interests of the medical profession could be safeguarded, while assuring the best medical advice to the working classes and how far the provident dispensary system met the necessities of the case between the competition of the free system of the out-patient departments of the hospitals and free dispensaries on the one hand, and the various medical aids of assurance companies, etc., on the other. The abuses of the hospitals' out-patient departments might be classed under two heads: First, persons were admitted who were well able to pay something for their medical treatment; and secondly, slight cases of illness were admitted which were not proper cases for hospital treatment. The schemes instituted to remedy these abuses were attempted cures rather than preventives. One condition essential to the success of any such scheme was the abolition of the letter system as at present understood, and, when that was accomplished, to admit cases for out-patient treatment only on the recommendation of a medical man who knew the case, in connection with some organised association, or in private practice. Up to the present the provident dispensary movement had been only partially successful, one reason for its comparative want of success being the competition of the hospital free system, and another, lack of support from the medical profession. A provident dispensary to gain general confidence should have on its committee of management representatives from the benefit members, the medical staff, and the hospital or other institution with which it sought to co-operate. Mr. Warren dealt, in conclusion, with the competition which the provident dispensaries had to meet from the medical aid societies of insurance companies, remarking that, if medical men allowed themselves to be placed on the books of such societies as medical officers, they should insist on the observance of the conditions which he had endeavoured to lay down for provident dispensaries—an examination of each applicant for admission, a strict wage limit, the suppression of touting and canvassing for individual doctors, and the representation of the medical profession on the committee of the Board of Management.

A discussion followed, and among those who took part in it were Mr. W. Bousfield, Chairman of the Metropolitan Provident Medical Association, Dr. G. H. Broadbent, Dr. Gustav Michael, and Dr. O. F. Wunderlich.

## DEATH UNDER ANÆSTHETICS.

### Chloroform.

Dr. J. C. Buckley, Senior Resident Medical Officer of the General Hospital, Nottingham, has favoured us with the following particulars of a case of death under chloroform which occurred in that institution on December 17th, 1896. On that morning the deceased patient saw the dentist of the hospital because of toothache; she had had two teeth removed about a fortnight before with chloroform, and without any ill-effect; the dentist then advised her to have several teeth out, and the patient asked to have chloroform. She had some milk about noon, no dinner, and at 4 P.M. the same day (December 17th) chloroform was administered in the prone position, after the lungs and heart had been examined and found healthy. The chloroform was given on a towel; she went under without any struggling or any signs of failure, either of pulse or respiration. About ℥ij was administered. Two teeth were extracted; the forceps were then placed on a third tooth, when the patient stopped breathing and the pulse ceased at the same time. Liq. strychninæ, ♏x, was at once given hypodermically, the patient's head lowered, and artificial respiration performed; nitrite of amyl, oxygen, and the battery were given without any signs of returning vitallty. A *post-mortem* examination was made next day. The brain was very anæmic; the lungs, liver, and spleen were healthy; the heart weighed 9 ozs.; the left side was contracted and empty, the right side full of blood; there were no evidence of hypertrophy or dilatation, and the muscle looked healthy. The kidneys were the seat of subacute nephritis.

[4] Dr. E. Fazio, *Porto d'Ischia*, 1896.

### Partial Anæsthesia and "Coming to."

Dr. Robert Kirk (Glasgow) writes: The fatal case of chloroform anæsthesia recorded in the British Medical Journal of December 26th, 1896, illustrates some points of much interest. According to my view of the matter the all-important fact is that the alarming symptoms appeared as the patient was "coming to," as evidenced by vomiting and the return of the conjunctival reflex. As the operation was practically over we must infer that the inhalation had been left off for some time, although no statement is made on this head. Such an omission is quite common, and indeed may be said to be the rule in reports of such cases, the reason being that importance is seldom attached to this question. In my estimation this is the question which should take precedence of all others: Was the patient actually inhaling chloroform when any alleged event occurred? If so, for how long? If not, how long had the inhalation been left off?

The next fact of importance in the above case is that the patient was never deeply under, and therefore was recovering from superficial anæsthesia. The danger in the early stage of chloroformisation, that is, in superficial anæsthesia, has long been recognised, and I should suppose that few would now dispute it. Now I hold that the danger at this stage lies solely in the administrator stopping; and that this is an error which in some patients, under certain circumstances and conditions which will demand much future investigation, may lead to syncope and death. Clinical records and experimental research combine to show, or I should rather say to prove, that what happens in such cases is this: the chloroform rapidly escapes from the lungs and from the blood; tachycardia, with increased intensity of the cardiac sounds, ensues, this being accompanied by a rising blood pressure, which Dr. Hay has shown to be an important factor in the train of events; these phenomena are then suddenly reversed, tachycardia giving place to bradycardia, as described by clinicians, the effect being the same as that following the intravenous injection of suprarenal extract, and attributed by Oliver and Schäfer to vagus stimulation. It is in such a conjuncture that the heart may succumb, whether from the elimination of chloroform or other cause.

Wills and Bequests.—The late Mr. William Tattersall, of Quarry Bank, Blackburn, has by his will bequeathed £2,000 to the Blackburn and East Lancashire Infirmary.

A Dermatological Society has just been founded in Holland. The President is Dr. S. B. Selhorst, The Hague; the Vice-President, Dr. T. Broes van Dort, Rotterdam; the Secretary, Dr. S. Mendes da Costa, Amsterdam.

Edinburgh Royal Infirmary.—The following managers have been elected to represent the Court of Contributors on the Board: Sir Thomas Clark, Bart., Mrs. Marcus Dods, Miss Louisa Stevenson, Mr. John Walcot, Mr. A. J. Napier, W. S., Rev. Archibald Scott.

## THE MEETING OF THE FELLOWS AT THE ROYAL COLLEGE OF SURGEONS, ENGLAND.

The half-yearly meeting of the Fellows of the Royal College of Surgeons of England was held on Thursday afternoon; Mr. Macnamara, Senior Vice-President, in the chair.

Some time was lost, there not being a quorum of members (30) present at the hour announced for the commencement of the proceedings. At length, the requisite number appeared, and

The minutes of the previous meeting having been confirmed,

The Chairman moved that a letter of congratulation be forwarded to Sir Joseph Lister on his elevation to the peerage. It was not necessary, he said, to enter on the nature of Sir Joseph's work. He was the first member of the profession who had been raised to the peerage for purely professional reasons; and, whatever their views of his work, they would all hope that he might be spared for many years to watch the development of the system which he had so thoroughly taught, and which had been such a great advantage to humanity at large.

Mr. Langton seconded the motion, which was agreed to.

The Chairman reported that the resolution carried at the last meeting of Fellows had been reported to the Council on July 9th, 1896, and that in reference thereto the Council had adopted the following resolution—namely, "That Mr. Bryant be requested to forward, in the General Medical Council, in every way which seems feasible, the objects of the Civil Rights Defence Committee in the case of Mr. R. B. Anderson."

Mr. Timothy Holmes moved:

That this meeting desires to call the attention of the Council to the published reports of the proceedings of the General Medical Council in the case of Mr. R. B. Anderson, and to the remarks and action of Mr. Bryant on the occasion, and to ask the Council whether their representative has, in this instance, correctly construed their instructions.

He said that in moving the resolution he entirely disclaimed all idea of finding fault with Mr. Bryant's proceedings. At the same time they had to think of Mr. Anderson's future; and if Mr. Bryant's observations had been correctly reported, Mr. Anderson would find additional difficulty in obtaining the justice to which he was entitled. He did not wish to criticise Mr. Bryant's action in opposing Dr. Glover's motion at the General Medical Council; but it would appear from his observations that he had not thoroughly studied Mr. Anderson's case. He had said: "No doubt Mr. Anderson had been badly treated, but there could be no further action in the law courts—the law would not allow it." At that very time there was a request before the Council for assistance in prosecuting Mr. Anderson's case in the highest court of law, and it was therefore incorrect to say that the law would not allow any further action. If such an opinion were spread abroad, Mr. Anderson's course of action would be seriously damaged. Mr. Bryant had also said that it was not quite within the scope of the College or the Council to help on the interests of an individual in such a way as to make themselves partisans against the law of the country. He would put it to Mr. Bryant whether in speaking thus he was carrying out the instructions of the Council. No fresh action had been taken, and the construction of Mr. Bryant's words was that the Council had gratuitously put itself against the law of the country. Mr. Bryant had further stated that he hoped Mr. Anderson's Committee would be satisfied with an expression of sympathy from the Council, and that the Council would not address the Government on any subject unless the cause was strong, and it was a question of principle; thereby assuming that the question at issue was not one of principle. If Mr. Anderson had not argued the case as a matter of principle, he might have made a good thing of it. As an honourable man he had so argued it, and it was rather hard that he should now be told that the question was not one of principle at all. He ventured to think that Mr. Bryant had not construed the instructions of the Council correctly. The instructions were that he should support a matter which the Council evidently regarded as in no way opposed to the law; and the observations which he had made were hardly such as would be expected from Mr. Anderson's advocate at the General Medical Council.

Mr. Moullin seconded the motion.

The Chairman said it had been remarked that Mr. Bryant had been "instructed" to do certain things by the Council, but the Council had really never instructed him to do anything. He was requested to forward the matter in every way which seemed to him feasible. He was a free agent in the matter.

Mr. Anderson addressed the meeting at some length. He said he had not been eager about Dr. Glover's resolution because it was not directly to the point, and would not serve his purpose. He strongly maintained that the question was strictly one of principle, and that he and his friends were not acting in opposition to the laws of the country. He hoped the Council would give all the assistance in its power in support of the only measures that could bring him success in remedying the injuries he had sustained.

The motion was then put and lost, 9 voting for it and 10 against.

Mr. Walter Rivington moved:

That this meeting submits to the Council that no objection can apply to an advance from the funds of the College to prosecute Mr. Anderson's appeal to the Privy Council, and therefore trusts that the Council will sanction a grant for that purpose.

He declared that the Council, having appointed delegates under By-law 15 of the College, had undertaken to protect and defend Mr. Anderson, and the only way in which that could be done was by granting a sum of money for prosecuting his appeal. If the Council did not do that Mr. Anderson would be practically ruined. A few hundred pounds was nothing compared with the reputation of the College as a vindicator of professional rights and a leader of professional opinion.

Mr. Timothy Holmes seconded the motion.

Mr. Christopher Heath sympathised with Mr. Anderson very fully, but thought that he had got into bad hands. Any stick would do to beat a dog, and Mr. Anderson had been found a very convenient stick with which to beat the Council of the College. He maintained that the meeting had no power to force the Council to do an illegal act such as that involved in the resolution. Nothing would induce him as a Treasurer of the College to sign a cheque for such a purpose. Not only would the auditors refuse to pass it, but it would be open to any Fellow or Member of the College to go to the Queen's Bench and get a *mandamus* calling upon the Treasurers to state why they had advanced the money for an illegal object. He was astonished that Mr. Holmes, who was Treasurer of St. George's Hospital, and knew what it was to deal with public funds, should support such a resolution. The by-law did not bear the construction put upon it by Mr. Rivington. Their appointment as representatives on the Committee did not commit them to any particular course of action. There was a sort of "ring" got up round Mr. Anderson with the view of pushing matters against the Council, and the time had come when someone should speak plainly on the subject.

Mr. Anderson (in reply to an inquiry by a Fellow) said his legal adviser was fully convinced that the judgment of the Court of Appeal would be reversed in the House of Lords.

Mr. Holmes repudiated Mr. Heath's suggestions, which he maintained were entirely undeserved and ought not to have been made.

After some further remarks from Mr. Anderson,

Sir Richard Craven said the matter was a question for the profession and not one connected with the College, and it was now time that it should be closed.

The Chairman was about to put the resolution to the meeting, when the Secretary intimated that there was not a quorum of members present. On this announcement the proceedings were abruptly brought to a close.

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The Colonial Office requests us to state that a sufficient number of candidates have now applied for the Gold Coast and Lagos appointments.

A Bill is to be introduced in the Illinois State Legislature next session providing that medical practitioners are to be allowed the same privilege in legal proceedings in respect of professional confidences as is now accorded to lawyers and clergymen.

## LITERARY NOTES.

THERE has been some diminution in the output of medical books during the past year. According to the *Publishers' Circular*, the number of new books relating to medicine, surgery, etc., published in 1896 was 117 as against 153 issued during 1895. The number of new editions was 45 as against 53 in the previous year.

The Queen has been pleased to accept a copy of *Eighty Years Ago, or the Recollections of an Old Army Doctor*, by the late Dr. Gibney, of Cheltenham, who was present at Quatre Bras and Waterloo. Dr. Gibney was physician to Her Majesty's uncle, the King of Hanover, and his uncle, Sir John Gibney, was physician to George the Fourth.

The *Scottish Medical and Surgical Journal*, the first number of which is now before us, is introduced to the medical world as "the first journal Scotland has possessed which professes to be National, and to represent medical work done all over Scotland." Its chief aim is stated to be to represent the best work done in all Scotland in all departments of medicine, both practical and scientific, but it will also contain abstracts of recent articles of importance from American, Continental, and British journals. The new journal is conducted by a Committee of Directors consisting of Professors Simpson and Annandale of Edinburgh, McCall Anderson and McKendrick of Glasgow, Stephenson and Hamilton of Aberdeen, and of Drs. Joseph Bell, Clouston, J. Wyllie, Underhill of Edinburgh, and J. W. Miller of Dundee. Dr. William Russell is the Editor. The contents are of an interesting and practical character, and the object aimed at of giving an account of the medical work done throughout Scotland appears to us to be accomplished in a satisfactory manner. The journal, which is published for the Committee by William F. Clay, is creditable to those responsible for its production, and we heartily wish it success.

The *Edinburgh Medical Journal*, which is now published by Mr. Young J. Pentland, marks the beginning of a new series by appearing in a brighter cover, and with a more attractive aspect generally than of old. It is edited by Dr. G. A. Gibson. Among the contributors are Professor George Buchanan, of Glasgow, who supplies an interesting retrospect of the early days of anæsthesia; Mr. Jonathan Hutchinson, Drs. Halliday Croom, Lauder Brunton, Stephen Mackenzie, Gowers, and Stockman. The journal also contains clinical records, reviews of British and foreign literature, summaries of recent advances in medical science, reports of societies, analytical reports, and notes on meteorology and vital statistics. If we may judge from this first number, there is little fear of the *Edinburgh Medical Journal* degenerating in the hands of Dr. Gibson.

A work entitled *Anomalies and Curiosities of Medicine*, by Dr. George M. Gould, of Philadelphia, and Dr. Walter L. Pyle, of Washington, is announced for early publication by W. B. Saunders, 925, Walnut Street, Philadelphia. The book, which will be sold by subscription, will form an imperial octavo volume of 968 pages, with 295 illustrations in the text, and 12 half-tone and coloured plates. It is described as "an encyclopædic collection of rare and extraordinary cases and of the most striking instances of abnormality in all branches of medicine and surgery, derived from an exhaustive research of medical literature from its origin to the present day, abstracted, classified, annotated, and indexed." Several years have been spent by the authors in searching through the great medical libraries of the United States and Europe, and in collecting materials for the work.

France has hitherto had no journal exclusively devoted to histology and kindred subjects. This want is, we learn, about to be supplied. Early in the present year Masson et Cie., of Paris, will publish the first part of a new journal, *Archives d'Anatomie Microscopique*, which will be devoted to animal histology and embryology. The directors are M. Balbiani, Professor of Comparative Embryology in the Collège de France, and Professor L. Ranvier, Professor of General Anatomy in the same institution. The Secretary, on whom will fall most of the literary work as editor, is Dr. Henneguy, also of the Collège de France. These names are a guarantee that the new *Archives* will prove worthy of the best traditions of French histology. The *Archives* will be published in four annual parts of about 200 pages each.

The first number of the new *Monatsschrift für Psychiatrie und Neurologie*, the appearance of which was announced in this column some time ago, was published at Berlin on January 1st. The editors are Professor C. Wernicke, of Breslau, and Professor T. Ziehen, of Jena. It consists of 97 pages and one sheet of plates, and includes articles on chorea, the perimeter and nerve cells and neuroglia, especially in the cerebellum, with reports and reviews.

# ASSOCIATION INTELLIGENCE.

## COUNCIL.

### NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday the 20th day of January next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M., Saturdays, 10 A.M. to 2 P.M. Members can have their letters addressed to them at the office.

## NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1897.

MEETINGS of the Council will be held on January 20th, April 14th, July 7th, and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 25th, June 17th, and September 30th.

### ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

## BRANCH MEETINGS TO BE HELD.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.—A meeting of this District will be held on Tuesday, January 12th, at 9 P.M., at the Medical Library, 5, Pembroke Road, Portsmouth. Dr. Blackman will read a paper on the Administration of the A.C.E. Mixture in Silk's Inhaler.—C. C. CLAREMONT, M.D., Honorary Secretary, 57, Elm Grove, Southsea.

OXFORD AND DISTRICT BRANCH.—The next meeting of this Branch will be held at the Radcliffe Infirmary, Oxford, on Friday, January 29th, at 3.15 P.M. Gentlemen intending to read papers, etc., are requested to give notice to the Secretary, W. LEWIS MORGAN, 37, Broad Street, Oxford, as soon as possible.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The next meeting of this District will be held at the Lambeth Infirmary, Kennington, at 3.30 P.M., on Friday, January 15th. Dr. Seymour Tollet has been nominated by the Committee for District Secretary, *vice* Mr. Robinson, elected Secretary of the Metropolitan Counties Branch. Cases of clinical interest from the wards of the infirmary will be shown, and a demonstration will be given. All practitioners, whether members of the Association or not, will be heartily welcomed.—H. BETHAM ROBINSON, 1, Upper Wimpole Street, W.

DUBLIN BRANCH.—The annual meeting of this Branch will be held in the Royal College of Physicians on Saturday, January 30th, at 4.30 P.M. Dr. Wallace Beatty, the President elect, will deliver the annual address, and the officers and Council for the year will be elected. The annual dinner will take place on the same evening at 7.30 P.M. Members intending to dine should communicate with the Honorary Secretary, JAMES CRAIG, M.D., F.R.C.P.I., 35, York Street, Dublin.

## METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

A MEETING of the North London District was held at the London Temperance Hospital on December 17th: Mr. H. T. BUTLIN, President of the Metropolitan Counties Branch, in the chair.

*Demonstration.*—Dr. RADCLIFFE CROCKER gave a demonstration on Diseases of the Skin due directly or indirectly to Tubercle.

*Cases.*—Dr. COLLINS showed a number of cases in the hospital wards, including a patient from whom he had removed a large Renal Calculus.

*Votes of Thanks.*—Hearty votes of thanks were passed to Dr. Radcliffe Crocker, the governors and staff of the hospital, and to the President.

## ABERDEEN, BANFF, AND KINCARDINE BRANCH.

AN ordinary general meeting of this Branch was held at Aberdeen on December 16th, 1896: Dr. GARDEN in the chair.

*Confirmation of Minutes.*—The minutes of the last meeting were read and approved.

*New Members.*—A ballot was held for the admission of Brigade-Surgeon-Lieutenant-Colonel G. A. Maconachie, Surgeon-Major Daniel Wright, and Dr. Middleton Connon, and these gentlemen were duly admitted members of the Branch.

*Dr. Blaikie Smith.*—The CHAIRMAN moved that an expression of sympathy be sent to Dr. Blaikie Smith (the President-Elect) on his leaving Aberdeen owing to ill-health, and it was remitted to the President and the Secretaries to draw up the same.

*Abuse of Medical Charities.*—Dr. FERDINANDS moved the motion which stood in his name:

That the Aberdeen, Banff, and Kincardine Branch of the British Medical Association appoint a committee to inquire into the increasing abuse of the local medical charities, with a view to take definite steps to check such abuse.

After a long discussion the whole matter was remitted to the Council of the Branch for consideration and report.

*Communications.*—Dr. MCKENZIE DAVIDSON described two cases of Steel Bodies in the Eye, removed by the electromagnet. He also exhibited a boy who had Congenital Dislocation of Both Lenses, the curious point being that several members of the family were also affected in the same way. He next showed his most recent Skiagraphs, including one of Calculus Vesicæ.

## SOUTHERN BRANCH: SOUTH-EASTERN DISTRICT.

THE half-yearly meeting of this District (South-East Hants District Medical Society) was held on October 30th, 1896.

*New Members.*—The following were admitted members: A. M. Fraser, M.B.; Lysander Maybury, M.D.; W. Sykes, M.D.; W. P. McEldowney, M.B.; R. A. Weston; J. McGregre.

*Presentation by Lady Reynolds.*—The SECRETARY announced that Lady Reynolds had presented to the library of the Society 108 volumes, being part of the collection of the late Sir John Russell Reynolds, Bart., M.D., F.R.S., President of the Royal College of Physicians. Resolved:

That this meeting expresses its sincere sympathy with Lady Russell Reynolds at the loss she has sustained by the decease of her husband, Sir John Russell Reynolds, and at the same time heartily thanks her for her handsome and generous gift of books to the library of the Society.

*Case.*—Dr. BLACKMAN showed a young woman suffering from Lupus of the Upper Air Passages which had undergone considerable improvement, the laryngeal stenosis having distinctly diminished.

*Pathological Specimens.*—Mr. J. GREEN showed (1) the parts of an infant with an Imperforate Urethra: (2) a Stillborn Child with Defect of the Vault of the Skull, of the Brain, and of the Arches of the Cervical and Dorsal Vertebræ.—Dr. WATSON showed a Myxoma extruded from the cervix uteri of an elderly maiden lady, from whom a succession of such tumours had been removed. Microscopic examination showed them to be myxomata.—Mr. J. P. WAY showed the Heart of a man who had died suddenly from rupture of an aneurysm of the aorta into the pericardium. The left ventricle presented an indurated patch the size of a florin, microscopic examination of which showed that the muscular tissue was infiltrated by a low formed fibrous tissue.

*Communications.*—Dr. J. WARD COUSINS gave an address on the Treatment of Urethral Stricture, and exhibited his instrument for the sterilisation of catheters by means of steam.—Dr. SYKES read notes of a case of Poisoning by Chlorate of Potash in a young infant, who recovered; also notes of a case of Traumatic Paralysis of the External Rectus Muscle in a child.

A MEETING was held on December 8th, 1896.

*Specimens.*—Mr. E. WILLMER PHILLIPS exhibited microscopic sections of an Endothelioma. The growth was attached to the inner surface of the dura mater over the sphenoid bone above the sphenoid fissure. It was about the size of a walnut, soft, very friable, not invading the neighbouring structures. The patient was a woman aged 53. There were no brain symptoms during life. Histologically the growth has the characters of an endothelioma. The cells are of an epithelial type, but they are not arranged in alveoli, and there is very little stroma present. It is well supplied with blood vessels, and these are surrounded by a curious whorl of cells, spindle-shaped and arranged concentrically.

## HALIFAX, NOVA SCOTIA, BRANCH.

A LARGELY attended meeting was held on Friday, December 4th, 1896, at the Victoria General Hospital, Halifax, the PRESIDENT, Dr. Tobin, in the chair.

*Cases.*—Dr. FARRELL presented 2 cases of Tuberculous Disease of the Knee.—Dr. DICKIE MURRAY presented 3 cases of Cardiac Disease, which elicited a long and interesting discussion.

*Specimens.*—Dr. WALSH showed a Bonnet Pin which he had removed from a male urethra. The pin was 6 inches long, with a large head. The patient had been attempting to dilate a stricture with the head, and the pin had slipped it. When seen by Dr. Walsh the point was imbedded in the spongy part of the penis. He removed it by pushing the point through the substance of the penis, and then reversing the end and so drawing it out. The patient did well. Dr. Walsh also showed a large Candle which he had with great difficulty removed from a vagina.—Dr. HATTIE showed interesting Microscopical Sections; also a specimen of a Broncholith, about as large as a hazel nut, which had been coughed up.

*Supper.*—After the meeting the Branch was entertained at supper by the superintendent, Dr. Reid.

A largely attended meeting was held at Halifax on December 18th, 1896, Dr. TOBIN, President, in the chair.

*New Members.*—The following gentlemen were elected members: W. T. Muir, M.D. (Truro, N.S.), Dr. Geo. Beechley (Guysboro'), Dr. Geo. Turnbull (Arcadia), Dr. Love (Bridgeville), Dr. Bret Black (Truro, N.S.), Dr. J. A. Sponagle Middleton, N.S.).

*Discussion.*—A discussion on Acute Pneumonia took place, Drs. HATTIE, D. A. CAMPBELL, M. A. B. SMITH, CHISHOLM, FARRELL, REID, WALSH, BLACK, and others taking part.

*Specimen.*—Dr. FARRELL showed a specimen of Calculus removed from female bladder.

*Smoking Concert.*—It was decided to hold a smoking concert on January 7th.

## SYDNEY AND NEW SOUTH WALES BRANCH.

THE usual monthly meeting of this Branch was held on October 30th, 1896, Dr. SYDNEY JONES (President) in the chair. Thirty-one members and two visitors (Drs. Walker Smith and Veech) were present.

*Confirmation of Minutes.*—The minutes of the previous meeting were read and confirmed.

*New Members.*—The PRESIDENT announced the following new members: Drs. E. J. Spark, John Spark, W. R. Tomlinson, A. H. Horsfall, and John Harris.

*Communications.*—Dr. BRADY exhibited a patient on whom he had performed Partial Laryngectomy for Epithelioma of the Vocal Cord, with the tampon cannula used at the operation. Dr. CHISHOLM made some remarks on the case.—Dr. GORE GILLON read notes on a case of Gunshot Wound of the Wrist, and exhibited a Skiagraph.—Dr. QUAIFE exhibited

Skiagraphs (three) of a case of a Hand damaged by the bursting of a soda water bottle.—Dr. HINDER read a paper on the Value of the Cystoscope in the Diagnosis of the Diseases of the Bladder. A discussion ensued in which Drs. GORDON CRAIG, SYDNEY JONES, and GORE GILLON took part. Dr. HINDER replied.—Dr. RENNIE (the Honorary Secretary) read notes for Dr. GLEDDEN, of Minmi, on a case of Anencephalus Fœtus, and exhibited the specimen.

*Addition to Article 12.*—Dr. RENNIE proposed and Dr. CRAGO seconded the following addition to Article 12 of the Articles of Association:

Provided that the Council shall not be compelled to call any ordinary meeting during the months of January and February of each year.

This was carried.

# SPECIAL CORRESPONDENCE.

## PARIS.

*A Low Death-rate and a Financial Deficit.—The Academy of Medicine and the Sterilised Milk Question.—Dr. Roux and his German Decoration.—The Medical Night Service of Paris.—A Mohammedan Medical Deputy.*

THE public health during 1896 has been excellent, but this happy sanitary condition it appears has its drawbacks, for the Government budget suffers thereby. This is a startling assertion, but it is supported by good authorities. In an official report, the Finance Minister declared that in consequence of the reduced death-rate there is a deficit of twelve million francs (£480,000) in the returns of the Succession Dues Department. The month of November was more fruitful for this department; there was a good crop of infectious pneumonia among the rich and aged, with the result that some £120,000 was netted by the Treasury, and helped to make up the deficit made by the healthy months.

M. Charpentier, in a report on a letter addressed to the Academy of Medicine by a general practitioner asking if sterilised milk or boiled cow's milk should be used for newborn children, in accordance with the directions issued by the Academy some time ago, states that the memoirs recently sent to the Academy of Medicine, especially those of M. Budin, likewise the results obtained at the *crèches* indicate that not only is sterilised milk thoroughly well tolerated by infants, but that infantile diarrhœa and cholera have disappeared and the mortality has considerably diminished in consequence of its use. Dr. Charpentier calls upon the Academy of Medicine to alter its directions concerning infants brought up by hand as soon as possible.

Dr. Roux of the Pasteur Institute who, as already stated in the BRITISH MEDICAL JOURNAL, recently accepted a decoration from the Emperor of Germany, has been interviewed by a journalist, to whom he said: "Some time ago the French Government conferred the Order of the Legion d'Honneur on Dr. Koch. More recently Dr. Loeffler and Dr. Behring, also German scientists, were presented with the same Order. Did they refuse the honour? It would be childish on my part to refuse this honour. M. Pasteur refused to accept honours from the German Government, but then he was Pasteur. Moreover he had personal associations with the war of 1870, which I have not."

The medical men entrusted with the medical night service of the 11th district have written to the Prefect of Police stating that when they accepted their posts for the modest salary of £24 a year they were under the impression that the staff was more numerous than is the case. This is the first protest of the kind made by the night medical officers. Before the new regulations were made, a fee of 8s. 4d. was paid for each visit. This scale of fees was, however, found too costly. It is impossible for four medical men to discharge all the duties exacted by 73,000 inhabitants over an area of more than 234 acres. During the last month there were so many night visits that the fees were reduced to 2s. 6d. each. It is now stated that the medical men concerned have refused to act and that consequently the service is disorganised.

Dr. Grénier has been elected deputy for the department of Doubs as a Radical Republican member. Dr. Grénier during his stay in Algeria was converted to Islamism. He observes all the ordinances of that religion, and has adopted the costume of its believers. He visits his patients wearing a burnous. He sits in the Chamber of Deputies with this Eastern garment.

## ROME.

*The Tiber and its Embankment.—The Institute of Mutual Aid among the Doctors and Chemists of Rome.—An Epidemic of Typhoid Fever at Pola.—A Centenarian.—General News.*

OWING to the very exceptional rainfall which occurred in Rome and the greater part of Italy during November and part of December the advantages of the embankment of the urban portion of the Tiber have been fully tested, and have fortunately exceeded the expectations of some eminent Italian engineers. One of the chief of these—Professor Moro, of Florence, who for a great many years has carefully studied the complicated problem of the Tiber inundations—has lately written a letter to one of the Roman papers in which he states that, owing to his studies on this question as long ago as the year 1871, he predicted a 25-yearly inundation of the Tiber for the autumn of 1896. He therefore anxiously awaited the happening of the flood, as he was very desirous to know if the new urban channel of the river was not too large as he thought, so that a current might result with an erosive force insufficient to keep the bottom clear. He gladly admits, however, that the embankment has fully answered the expectations of its constructors in protecting the lower parts of the city from inundation.

The fiftieth anniversary of the Institute of Mutual Aid among the Doctors and Chemists of the Province of Rome was held at the Institute on December 30th. The President, Professor Topai, in his address stated that from its foundation up to that date over 70,000 francs had been distributed to needy and sick members, and from 1855 onwards about 30,000 francs had been given to the widows and orphans of members. Since 1885 about 30,000 francs had been given to sick members. Notwithstanding this, the Institute had 92,000 francs in hand. In the evening over 100 members, including most of the chief medical men and professors in Rome, attended a banquet, presided over by Professor Baccelli, at the Hotel Minerva.

An unusually severe epidemic of typhoid fever has been raging in Pola, the chief naval station of Austria, which is situated in the Adriatic, south of Trieste. It appears from the official statistics that on December 15th 580 civilian patients were under treatment in their homes and the Civic Hospital. On the same day there were 1,030 patients under treatment in the military hospitals. The whole population does not exceed 50,000, and it is stated that each doctor in the town has no fewer than 150 patients to see daily. According to the latest reports on December 24th there were 1,192 persons then under treatment for the disease, that is, 684 of the civil population and 508 of the military, and, to provide for the scarcity of doctors, 25 military surgeons had been sent to the city, besides a large number of male nurses and sisters of charity. The cause of this severe outbreak is not stated.

The 105th birthday of a blind man named Gaetano Grocchi was recently celebrated at Revere, near Mantua. He is said to enjoy excellent health and full mental lucidity.

At the request of Professor Queirolo, the authorities of the united hospitals of Pisa have granted to the Medical Clinic the lazzaretto of Santa Croce for the purpose of enabling the students to study infectious diseases.

The Russian Red Cross Society reached Constantinople on December 30th on its way home from Abyssinia. It is under the command of General Schwedow.

## BRISTOL.

*Proposed Hospital Sunday Fund Committte.—Mr. Bancroft's Readings.*

IT is probable that this year some change will be made in the distribution of the Hospital Sunday Fund, the collections at the various places of worship having been divided hitherto between the two largest medical charities, the Royal Infirmary and the General Hospital. The chairmen and presidents of these two institutions have recently sent out a

circular to the clergy of the city, proposing that the collection shall be made this year on June 20th, that being the day on which Her Majesty will complete the sixtieth year of her reign, but making no reference to the fact that no other institution is to share in the fund. Several of the leading clergy have called a meeting of the ministers of all denominations to confer on the subject, and it is probable that their action will result in a Hospital Sunday Committee being formed to manage the fund and see to its distribution among all the medical charities in need of support. The sum collected in 1896 amounted to £1,302 10s. 11d.

Mr. Bancroft is announced to give a reading of Charles Dickens's *Christmas Carol* on Thursday, January 28th, in aid of the funds of the Royal Infirmary.

# CORRESPONDENCE.

## THE LUNACY PROBLEM IN LONDON.

Sir,—Your correspondents on this subject appear to me to run the risk of confusing two very different questions, namely, the treatment of incipient, unconfirmed mental disorder, and the treatment of certifiable insanity. These, it may be urged, differ only in degree, but this difference in my opinion demands a wide distinction in treatment. This distinction is perhaps best illustrated by the analogy of another disease. For example, what would be thought if diseases of the eye were only treated in asylums for the blind, to which blindness was the criterion for admission? Yet this is what obtains in mental disease; there is no provision comparable to the ophthalmic hospitals and ophthalmic out-patient departments, for the treatment of the incipient disorders which ultimately culminate in the mental blindness which fits a patient for the asylum. Medical practitioners have again and again complained to me that they have to wait until the patient is sufficiently bad to be certified.

This stage of incipient disorder has commonly lasted for from three to twelve months prior to admission to asylums, and it is in this period that the prevention of the development of disorder is most possible. My experience with out-patients of this class at St. Thomas's Hospital assures me of this; and I am equally assured that if special provision were made, not only for the out-patient treatment, but also for brief special hospital treatment, supported by special convalescent homes, there would be a very large reduction in the number of cases that reached the stage of certifiable insanity—a bourne from which many of the travellers do not return.

In thus supporting the early treatment of insanity I am not in any way reflecting on the asylums; although from the huge numbers aggregated in some of them and the scanty supply of medical officers, treatment has been, and must still be, difficult, and I should certainly urge that the special treatment should be conducted by specialists who had attained experience in asylums.

My belief, founded on service in each class of asylum, is that insanity in the incipient stage is very largely preventable, and that only by extending and popularising the means of treatment in this stage, especially by association with the general hospitals, can any great reduction be made in the accumulation of the insane in our asylums, which I regard as the pride of our philanthropy and the disgrace of our civilisation.—I am, etc.,

Harley Street, W., Jan. 3rd. H. Rayner, M.D.

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Sir,—With an ever-increasing insane population, which necessitates the construction of an asylum every three years or thereabouts, at an outlay of £350,000, and the corresponding heavy rate of maintenance, it behoves the ratepayers of London to consider seriously the question from the point of view of curative treatment, as well as from its financial aspect. Up to the present the main object of the powers that be has been how to keep the insane poor properly at the lowest weekly *per capita* rate of maintenance; hence large unwieldy asylums have been constructed in place of smaller ones, because the rate of maintenance is necessarily lower in the larger institution. The ratepayers are at last beginning to ask, "Is this true economy?" Would it not be better for us to cure more, even if they cost more for treatment for a time, than to have them under care for life? Surely this is true economy.

How is it to be obtained? The solution of the problem, which I first advocated in the *Lancet* of December 27th, 1884, and which appears most reasonable and beneficial to all concerned, is as follows: "The purchase of an estate of 160 acres, easy of access to London. The construction upon this estate of a hospital for 400 patients, and an asylum for 1,600, not more than a quarter of a mile apart. The former to receive new and acute cases only, irrespective of causation. The cases which after twelve months or less are deemed incurable, to be drafted to the asylum, as no longer requiring highly skilled scientific treatment. Attached to the hospital should be a consulting staff of alienists, neurologists, a gynæcologist, surgeons, and a dental surgeon, at least one assistant medical officer to every 100 patients, and resident clinical assistants in addition. Moreover all the attendants and nurses should hold the nursing certificate of the Medico-Psychological Association, and the recognised means of scientific treatment should be at the command of this staff. The hospital and asylum should be under the control of one medical superintendent, whose house should be equidistant from the two institutions.

The hospital would require the day assistance of some of the chronic patients for menial work, etc.; this could be easily arranged. All, both acute and chronic cases, would as far as possible be employed on the land and in the various workshops, and take part in the amusements which form an essential feature of asylum life. The suggestion of the London County Council Committee (January 30th, 1896) of a hospital for the insane in London was only wrong in location and the details of equipment. Cases of acute mania and melancholia cannot have their proper environment in a London square. Outdoor exercise, employment and recreation are essential for cure; the moral treatment is quite as essential as the medicinal. The question of advisability of treating all acute cases in the hospital together can be met by classification in numerous small wards. I am willing to own that many chronic patients require care and special attention; this they could have in the asylum; the scientific treatment of the curable cases would then in no way suffer by the propinquity of these.—I am, etc.,

Ernest W. White.

City of London Asylum, near Dartford, Dec. 28th, 1896.

## CHILDREN IN WORKHOUSES.

Sir,—In your report on the barrack schools of Sutton you speak of the total number of children who were returned by the medical officer as disabled by illness as 30 per cent. of the whole school. It may interest your readers to learn that on a given day in February, when in company with Sir Joshua Fitch, I visited the large boys' school at Sutton, the following were the figures supplied to me by the active and intelligent superintendent:

| In School. | Senior Boys. | Junior Boys. |
|---|---|---|
| Chilblains (open) ... ... | 58 | 55 |
| Bad heads ... ... ... | 24 | 22 |
| Bad eyes ... ... ... | 42 | — |
| Other complaints ... ... | 24 | 22 |
| | 148 | 99 |

On the same date there were 85 boys in the infirmary, which, if added to the the number of sick children in the body of the school, bring the total of disabled children up to 38 per cent. of the total number in the school.

In the infant school on the same day there were 472 healthy children and 133 in the infirmary, or 28 per cent. of the whole.

These figures go far to support your contention that children, when aggregated, are not so healthy as in their own homes; for, in my experience of East London elementary schools, I have never known one where more than one-third of the scholars were incapacitated by illness.—I am, etc.,

Clifton, Jan. 5th. Henrietta O. Barnett.

## COLLES'S FRACTURE.

Sir.—If Mr. J. Lynn Thomas, who publishes a skiagraph of a double Colles's fracture in the British Medical Journal of January 2nd, will refer to the *Guy's Hospital Reports* of 1884, p. 375, he will there see his question as to the fracture of the ulnar styloid answered in a paper written by me on the subject. It was a paper founded on several dissections as

well as on an examination of all the specimens to be found in London and Belfast. I state (p. 382) "fracture of the styloid process of the ulna and rupture of the triangular fibro-cartilage are frequent complications." In two out of three cases dissected both these injuries had occurred. Speaking of Professor Gordon's collection at Belfast, I state further that "I found there thirty-four specimens of Colles's fracture, each with the ulna attached. In examining these thirty-four cases for fracture of the ulnar styloid I put two aside as doubtful, because the bones suggested that the absence of the process might be the result of maceration. Of the remaining thirty-two specimens, the process was detached in sixteen and present in sixteen." It will be seen, therefore, that long ago this condition ought not to have been spoken of as "exceptional." It is pretty clear also, I think, from Mr. Thomas's skiagraph, that in Fig. 2 the second of the two injuries mentioned by me as frequent had occurred, for a considerable clear interval intervenes between the ulna and radius, whereas in Fig. 1 the splinter of radius had broken off instead of the triangular cartilage giving way. This again bears out the simile I draw at the end of my paper between Colles's fracture of the upper extremity and Pott's fracture of the lower: "One cannot fail to be struck with a certain analogy between this fracture and Pott's fracture at the ankle. In both there is fracture with partial dislocation. In the lower extremity the fibula is fractured, the foot displaced outwards, and the inner malleolus fractured, or the internal lateral ligament ruptured. In Colles's fracture the radius is fractured, the hand displaced outwards, and the ulnar styloid fractured or its ligaments torn." Now, in Pott's fracture a frequent complication is a vertical split of the tibia breaking off a triangular piece, which remains attached to the lower end of the fibula, just as in Mr. Thomas's skiagraph a piece of the radius is split off, and remains attached to the ulnar. A specimen in the Guy's Museum shows a similar split.

There are several other original observations in the paper referred to which have escaped recent writers, who have simply copied from the older descriptions. I showed by dissection that: (1) The pain so frequently complained of on the inner side, running down the little finger, or interval between it and the next, was due to direct pressure on the dorsal branch of the ulnar nerve. 2. That the position of the annular ligaments determined the effects of muscular action in maintaining or reproducing the deformity after impaction had been broken down. 3. That the freedom of movement regained, when the deformity remained permanent, was due to an abnormal amount of mobility developed in the mid-carpal joint, to supplement the limitation caused by deformity at the wrist joint. 4. That the absence of crepitus (when unimpacted) was due to the fracture opening and shutting in hinge-like movement, the posterior annular ligament and tendons preventing one fragment from passing across the face of the other. 5. That the shortened radius may remain permanently raised above the level of the articular surface of the ulna.—I am, etc.,

R. CLEMENT LUCAS, B.S.Lond., F.R.C.S.,
Surgeon to Guy's Hospital.

Wimpole Street, W., Jan. 5th.

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SIR,—I have read with interest Mr. Lynn Thomas's note in the BRITISH MEDICAL JOURNAL of January 2nd on the Pathology of Colles's Fracture, with special reference to accompanying fracture of the ulnar styloid process.

A case is under my care at present of a transverse fracture of the right radius about 2 inches above its carpal extremity, with separation of the ulnar styloid process, the latter remaining attached by the internal lateral ligament to the carpal bones.

The accident, which was the result of a fall downstairs, must have been due to striking the floor with the ulnar and dorsal aspect of the metacarpus, thus forcing the hand over to the radial side, dragging off the ulnar styloid process; the force of the fall then being communicated to the radius about 2 inches above its carpal end, at a point where the broad lower extremity narrows. This reason seems borne out by bruising along the ulnar side of the hand which has subsequently appeared. At the time of my seeing the case I was struck with its analogy to a Pott's fracture, suggesting homology between the radius and fibula, and ulna and tibia—though this is contrary to the anatomical homology. Extreme violence forcing the hand over to the radial side, and then causing an extreme outward rotation of the hand on the ulnar by the giving way of the radius, I think to be the cause of the ulnar styloid process breaking.—I am, etc.,

Bootle, Jan. 3rd. W. N. CLEMMEY, M.R.C.S.

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## SHORTHAND AND STUDENTS.

SIR,—May I be allowed to correct a misapprehension which appeared in the report of the proceedings of the General Medical Council regarding shorthand. There was no intention on the part of the Society of Medical Phonographers to ask for any limitation of the system of shorthand. The petition was for shorthand generally. The impression to the contrary may have arisen from some ambiguous words inadvertently used in my letter referred to.

I may take the opportunity of stating some facts which should, I think, dispose of another misconception: that shorthand is useless to the student because it is a mistake to attempt *verbatim* notes of lectures. To prevent this mistake in its use has been an object with the Society from the first, and the proper use is explained and illustrated in a pamphlet, an epitome of which in ordinary print will shortly appear. The facts I refer to are from my own experience.

I began as a student by taking full reports, but when I discovered the mistake, instead of giving up shorthand as useless, I found the proper way of using it. I found that I could take a perfect epitome of the lecture, and yet give more unremitting attention to it, and remember more of it, than if I took no notes. These epitomes were not much longer than such as were taken in longhand, but they contained more than twice as much of the substance of the lecture, far better arranged. The deliberate ease of the writing permitted the statements to be accurately epitomised, the useless verbal element which, with a quick speaker, cannot be kept out of longhand notes, being replaced by minor essentials. It was easy also to reproduce outlines of diagrams or drawings while these were being described. These notes I went over in the evening. The subjects of the paragraphs or a leading word of an important statement had been written in longhand at the time to catch the eye, but further names of the subjects or symptoms, or even very brief summaries of argument, were added in the margin, and were invaluable for a subsequent review. The notes were never rewritten. I have most of them now, and find them as legible as print.

The best proof of what they were is that, in the case of all the chief subjects, Medicine, Pathology, Surgery, etc., I used no textbook. I found no textbook comparable to them. I trusted entirely to my notes (among others) of Russell Reynolds's lectures on Medicine and Bastian's on Pathology, Marshall's on Surgery, a course given by Michael Foster on Medical Jurisprudence, even for the University of London. The first two proved adequate even to secure the gold medal at the M.D. examination. Of course I had also similar notes of clinical lectures, and especially of bedside teaching and of the facts of the cases. For the latter, in any considerable degree, shorthand is practically necessary; it permits facts to be recorded without interfering with their observation. In all observation, record compels increased accuracy and minuteness, and the degree of difference resulting from the use of this means of record (which also leaves more time for observing) can only be realised by use. This is true for the student, as well as in later life. Indeed the effect of the proper use of shorthand is on the quality of work far more than on its quantity.

The above experience is not mine only, but that of others also, and it can be that of any student. A contracted style is not necessary, and sufficient speed soon comes with use, but shorthand must be written and read with ease. It is quickly learned by boys, and is a limited subject, of service afterwards at school, especially in all work at languages which entails much writing in English and in all oral teaching. Hence the great importance of promoting its acquisition at school. Students should not attempt to learn it during the session; in a single vacation enough can be acquired to be useful.

But we fear the General Medical Council has taken away with one hand that which it gave with the other. At most of

the examinations, English occupies half a day. There is a single paper of, say, six questions. A competent knowledge of shorthand is to be equivalent only to one-third of a single question! Is it likely that any influence will be exerted, either on schools or examinations?

The contrast with the opinion of those engaged in education, moreover, is startling. Shorthand is one of the subjects of the College of Preceptors' examination, which is accepted by the General Medical Council. The boys practically seldom obtain much more than half the maximum number of marks, but this is the same number as is given for other subjects, even Latin! Half the maximum is ten times as much as the Council permits.—I am, etc,

London, Dec. 30th, 1896. W. R. GOWERS.

*** We fear that we shall not be able to give further space to correspondence on this subject.

## ISOLATION HOSPITAL CHARGES.

SIR,—I am much interested and obliged by your article in the BRITISH MEDICAL JOURNAL for January 2nd on isolation hospital charges. I believe that the Cambridge Town Council as a whole agrees with that article. To come to a more practical question, we should like to know what chance of help we might have from the Parliamentary Bills Committee of the British Medical Association. As a sanitary authority we are willing, I am assured, to join with others in endeavouring to get the law altered so that every sanitary authority may have the power to make its isolation hospital free.

I should be glad to hear that any steps are proposed to be taken to this end; and I hope that others will, through your columns, give some ideas as to how this desirable result is to be best obtained. I may add that I hope that the Municipal Corporations Association may be induced to move in the matter.—I am, etc.,

T. HYDE HILLS, L.R.C.P., M.R.C.S.,
Chairman of the Sanitary Committee, Cambridge Town
Cambridge, Jan. 4th. Council.

## THE REGISTRATION OF ASYLUM ATTENDANTS AS NURSES.

SIR,—Will you kindly allow me space in the BRITISH MEDICAL JOURNAL to protest against the attempt to place untrained asylum attendants on the register of trained nurses? Can this be fair to those nurses who have worked so hard to obtain the position they hold, or to the public, who, in trusting the lives of those they place under the nurses' care, should at least have the satisfaction of knowing, without the shadow of a doubt, that they are in the hands of properly-trained persons? What guarantee also will the doctor have that he is doing his level best for his patient if he is not sure about the qualifications of the nurse that he orders? Owing my life in a great measure to the skill and attention of registered nurses, I feel I should be wanting in common gratitude if I did not render my humble protest against such an injustice.—I am, etc.,

Clacton-on-Sea, Dec. 30th, 1896. WALTER MAINE.

## THE URIC ACID DIATHESIS.

SIR,—The reason Dr. Haig has not given a satisfactory answer to Mr. Freyer's question, even in his last letter, is because it is impossible for him to do so. The fact remains that there are many native races who live on a perfectly "non-uric acid" diet, and yet suffer from all the symptoms of uric acid poisoning, be it gravel, gout, or migraine.

I find from ten years' experience of treating a large number of cases of gout, principally by diet, that for the sake of treating the disease you may divide it into three classes: (*a*) Rich man's gout; (*b*) poor man's gout; (*c*) nervous gout. Rich man's gout can be generally cured by a non-nitrogenous diet combined with saline purgatives. Poor man's gout requires a nutritious, easily digested, mixed diet, with small doses of lithia and bicarbonate of soda. Lastly, nervous gout, by far the more common form met with in London, is caused by overwork, worry, and financial troubles; it can be cured by a moderate allowance of white meat, fish well cooked, easily digested vegetables, and some kinds of fruit. Small doses of salicylate of soda should also be prescribed. The treatment is, however, of little use unless the cause is first removed.

I have a case of gout now under my care who was placed on a strictly vegetable diet for over a year, with the result the gout got worse. I have placed her under a mixed diet with somewhat better results.

There is doubtless a uric acid diathesis which is not acquired, and on such cases no diet treatment is of any avail. I find an entire change of diet every few months gives the best results.

Dr. Haig asks if "the daily pouring into the body of 6 or 8 grains of uric acid in foods and drinks has no effect on the causation of headache or gravel." Where is Dr. Haig's authority that such an amount of uric acid, as such, is poured into the body?—I am, etc.,

Portland Place, W., Jan. 2nd. THOMAS DUTTON.

## OVERWORK.

SIR,—At the request of the Executive Committee of the Church of England Sanitary Association, I venture to address you on the much-needed lesson, in the opinion of the committee, conveyed by the recent number of deaths at a comparatively early age of apparently strong and vigorous men of eminence, who have fallen suddenly and prematurely in the midst of a course of tremendous physical and mental pressure. The necessity of the lesson has been enhanced by the lamentable mental disturbance induced by excessive bodily exercise in a recent cycle race in the United States of America. The Church Sanitary Association aims at teaching right and healthful views respecting the moderate use of our muscular system and of our intellectual faculties, and invites the sympathy and support of the press and the public in this effort to afford sound instruction on the subject of good health and long life.—I am, etc.,

NORMAN KERR, M.D., F.L.S.,
Westminster, S.W., Jan. 5th. Chairman of the Executive Committee

## THE PLAGUE IN INDIA.

SIR,—Those of your readers who are interested in preventive medicine should perhaps be informed that sanitary science can hardly be said to have had a fair trial in the city of Bombay, from which such a deplorable loss of life is at present reported. The health officer's reports are a sufficient testimony of his ability, energy, and zeal for a long period of service; but the question is, what notice has been taken of his reiterated remarks, recommendations, and suggestions?

The drainage of the island has been notoriously defective for many years, more especially that of the native towns, a great portion of which is waterlogged and sewage-sodden, and these conditions have been aggravated since the introduction of the Tansa water, which has increased the volume of sewage to more, probably, than can be efficiently removed by one pumping station, however well equipped and worked.

The difficulties of the old flat-bottomed drains have been great; but the new ones are not perfect, and with a view to their contents being discharged into the sea as rapidly as possible, instead of stagnating under a tropical sun, it was suggested that one or two additional properly constructed sewage outfalls should be provided, but no attention was given to the recommendation.

Rapid removal of noxious products to a safe distance from human habitations is an axiom of sanitary science, and this could be effected by taking advantage of the strong tidal currents and mixing action of sea water round the island, which would quickly dilute sewage and carry it away from the coast by the ebb tide. Sceptics on this point should visit Nice, where the rise and fall of the tide is very slight compared with Bombay. Colatra sewage can scarcely be fresh (any more than that from Mazagon) on arrival at Lovegrove. But why retain such offensive and dangerous material longer than is necessary? This is only, however, one of the many points connected with this serious subject.

The method of hand removal of night soil in such a large and populous city is barbarous and most dangerous to health. The completions of proper house connections will, it is hoped, do away with this evil, which is only necessary in the Mofussil.

Excessive overcrowding in many parts of the island has been permitted for a long time, and has no doubt aggravated

the calamity. The practically unlimited supply of water without check by meter has not been an unmixed blessing, as the system is liable to abuse. Two redeeming and inestimable features about Bombay are its water supply and refreshing sea breezes. Disregard of sanitary laws, however, here, as elsewhere, has been followed by its natural punishment.

The panic and scare caused by this outbreak of preventable disease will probably further the cause of sanitation more than volumes of official reports owing to the commercial disaster that it has brought about. Local self-government may be credited with many improvements, but sanitary progress cannot in my experience be justly included amongst them. How long this apathetic policy will be tolerated remains to be seen.—I am, etc.,

C. W. MACRURY,
Late Sanitary Commissioner for the Government of Bombay.

Holland Road, W., Jan. 3rd.

## MEDICAL EXPERT EVIDENCE.

SIR,—I hope we may soon see some affirmative response to Dr. Dobell's excellent suggestion in the BRITISH MEDICAL JOURNAL of January 2nd, p. 59. The exhibition of eminent medical men taking "sides" in a question of science—often on partial and insufficient data—is almost more derogatory to our profession than the stooping to low practices by registered men at the other end of the ladder.—I am, etc.,

W. M. H.

January 3rd.

## SAFEGUARDS IN CHLOROFORM ADMINISTRATION.

SIR,—Dr. Larkin, in his letter in the BRITISH MEDICAL JOURNAL of December 26th, says: "It is positively dangerous to rely on the movements of the chest. These do not actually indicate that air is entering or leaving the lungs." No doubt in asphyxia the movements may become exaggerated, as Dr. Larkin says, but they become altered in character at the same time, and I hold that every anæsthetist ought to be capable of recognising at once the difference between the spasmodic movements of a chest where no air is entering, and the even rise and fall of the abdominal and thoracic parietes when normal respiration is in progress.

Dr. Larkin objects to the idea of perfect safety, and perhaps rightly so, but I employed the expression "perfect safety" in a relative sense, and when used with regard to the small amount of risk in the method I described when compared with the amount of risk involved in the open method, I think the term is permissible.

The safety does not lie in the mere fact that a mechanical apparatus is used. The fundamental principle of these mechanical devices in general, and of Krohne's apparatus in particular, is that of affording a means of accurately measuring and diluting the dose of chloroform, and Dr. Silk, in his letter in the JOURNAL of January 2nd, clearly loses sight of this.

I deny that the use of the apparatus need distract the administrator in the slightest degree from the most careful watching for every change in the patient's appearance, and I took it for granted that no careful administrator would fail in this.—I am, etc.,

W. J. J. ARNOLD.

Aberdare, Jan. 4th.

## CONSULTANTS' FEES.

SIR,—One objection to the general adoption of a lower scale of fees by young consultants is not mentioned in the interesting article on the subject published in the BRITISH MEDICAL JOURNAL of January 2nd, p. 33.

It may, I think, be said, that the true analogy with the legal profession is not between general practitioners and junior consultants, but between general practitioners and solicitors. Consultants would then be analogous to barristers, and among consultants there is at present no well marked division between senior and junior, as there is at the Bar between silk and stuff. While this is the case the danger of any alteration in consultants' fees or any system by which a consultant was at liberty to decide for himself the fees he would accept is the tendency to encourage underbidding. Two men may be quite equal save in *morale*, and the one may try and get more work, for example, journeys by lower fees. This has always been felt to be a thing that should be discountenanced by custom.

Of course the whole difficulty is part of the larger question—how far we are passing from an honourable profession into a business.—I am, etc.,

F.R.C.P.

January 2nd.

## PUPIL TEACHERS IN ELEMENTARY SCHOOLS.

SIR,—The conditions under which the pupil teachers in elementary schools work are exceptional in two respects—first, that the community employs, and is therefore responsible for, those, at least, who are engaged in board schools; and, secondly, that the pupil teachers are indentured to their work. This apprenticeship differentiates them sharply from ordinary pupils at school, and makes it imperative on the community to ensure that no over-pressure occurs among them.

I believe that, like myself, many medical practitioners could instance cases of definite, perhaps flagrant, overwork which they have met with among pupil teachers, but I shall not refer to individual cases. Some of them no doubt are due to the unwisdom of parents, or the anxiety or dulness of students. I will give a few facts to show the average pressure on average students under unusually favourable conditions. I have strong reason to think that these facts are much too favourable to be taken as representing the general state of things. My facts are taken from an excellent report compiled for a large and liberal-minded urban School Board by its own instructor of pupil teachers. I have to thank the clerk to the Board and the instructor for permission to use the figures.

The report shows in detail the subjects studied, the time spent in class and in home work (but not that spent in teaching), the amount of recreation found possible, and other facts bearing on the conditions of work. From all these I select only the figures showing the actual hours of employment. It must be remembered that the apprenticeship may begin at 14 years of age and lasts four years. In the first two the student teaches half time; in the last two, full time. I have added the teaching hours (average).

| Year. | Class Work. | Home Work. | Teaching. | Total. |
|---|---|---|---|---|
| I | 17½ | 11 | 12½ | 41 |
| II | 17½ | 13½ | 12½ | 43 |
| III | 10¼ | 11¼ | 25 | 46½ |
| IV | 10¼ | 13¼ | 25 | 48½ |

Throughout the four years one hour a week should be added to these for all boys and most girls, for mathematics. In the first two years the pupils all have also one other hour a week at gymnasium or calisthenics, which may be looked on as recreation.

On the basis of five days' work a week these rapidly-growing young people all have over eight hours a day of hard brain work. In the last year this would rise to nearly ten hours, or, including Saturday, would give over eight hours for every week day. I can barely refer to the nature of the work, whether study or teaching. Your readers, better than any other people except teachers, understand its exhausting character.

It was found that the usual hour for closing books was 10 P.M., and it was so early only because most parents insist on this. In the last two years the average hour was 10.30 P.M. I omit extreme cases of work till 12, 1, or any hour. But it must be remembered that the schools begin at 9 A.M.

The report gives 21 cases—3 boys and 18 girls—in detail under the heading: "Cases where there appears to be suffering from overwork." Seven of the girls are marked "slight" or "less severe." As the Triennial Report for the same Board shows 180 pupil teachers of the four years, working at the centre at the time, the percentage of sufferers is a fraction over 11. It happens to be the same among boys and girls. The cases were mostly "anæmia" and the like—no acute illness being included. Only one case "of slight heart disease" suggested organic mischief. The student was in the fourth year. It will be remembered that a medical examination must be passed before apprenticeship, and another at the end of the second year. It may be supposed, therefore, that these lads and girls represent average healthy young people, mostly town-bred.

It is impossible for me to comment on these facts in this letter. But, remembering the full-time teaching of the third and fourth year pupil teachers, I should like to quote a

remark from the Triennial Report above-mentioned. It refers to uncertificated teachers who have passed their pupilage, and says: "Experience shows that teachers cannot, as a rule, properly qualify themselves (for certificates) whilst engaged full time in teaching." And the teachers referred to here are at least over 18 years of age.—I am, etc.,

Nottingham, Jan. 4th. SARAH GRAY, L.R.C.P. and S.Edin.

# OBITUARY.

## SAMUEL W. BROADBENT, M.R.C.S.

A striking personality has passed away by the death of Samuel W. Broadbent, M.R.C.S., at his residence, Easington, co. Durham, on December 29th, 1896. No man was better known or more respected in the county, and he was the *doyen* of the country practitioners of the North-East of England.

Born seventy-eight years ago in India, where his father was a Wesleyan missionary, he came to England at an early age, and, after a sound preliminary education, he was apprenticed to the late Mr. Henzell, surgeon, of Percy Street, Newcastle-on-Tyne; later on he attended lectures at the Newcastle School of Medicine, and subsequently at the Middlesex Hospital. He obtained the M.R.C.S. in 1850, and for some years acted as surgeon to a whaling fleet; after a few years of practice in various parts of the county of Durham, he was appointed Surgeon to the collieries of the South Hetton Coal Company, which responsible post he held for over forty years. When, a few years ago, he felt that the time had come for him to retire, the South Hetton Coal Company generously made him a retiring allowance in recognition of his past services. He then went to live at Easington, and continued to act as Medical Officer to the Easington Workhouse, an appointment which he held from the time that the workhouse was built until he died. He joined the volunteers as Surgeon to the 1st Durham R.V., shortly after they were formed, and, by resigning only a few months before the V.D. was created, missed that distinction, as he had very nearly completed his twenty years' service.

He took an active and most energetic interest in the local medical societies, and was an ex-President of the North of England Branch of the British Medical Association and also of the Northumberland and Durham Medical Society, and had been one of the most prominent members of the executive of these societies for many years. He was very regular in his attendance at the annual meetings of the British Medical Association, having been present on thirty-three occasions, and was keenly looking forward to being present at the meeting this year at Montreal. He was an occasional contributor to the *Transactions* of the Northumberland and Durham Medical Society, and frequently took part in its debates.

He leaves one son and three daughters. He was married three times. He was a most hospitable man himself, and being a most genial companion and an excellent *raconteur* he was a welcome guest everywhere. His funeral on New Year's day was attended by the whole neighbourhood.

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Professor Jean Hubert Thiry, of Brussels, who has just died, was a notable figure in the medical world of Belgium. He was born in 1817 at Sterpigny, in the Ardennes, and after a sound literary education he entered the University of Liége in 1834. He afterwards studied at Brussels, and after some years' service in resident appointments in various hospitals he took his doctor's degree in 1841. In 1843 he was appointed assistant to Professor Seutin in the clinic of Skin Diseases and Syphilis. He threw himself with great ardour into the work of research and teaching, and in 1847 he became head of the clinic. Thiry was, in fact, the pioneer in the teaching of venereal diseases in Belgium, where he was the earliest advocate of the views of Ricord, whose work he had closely followed in Paris. His zeal for reform in the treatment of these diseases, which till then in Belgium, as elsewhere, had generally been dealt with as if they were all due to one sole virus, got him into trouble with the authorities; an official inquiry was even held into his methods of treatment, which were said to have the effect of propagating syphilis instead of curing it. In a few years, however, the force of truth prevailed, and Thiry triumphed over his opponents. In 1848 he founded the *Presse Médicale Belge*, primarily as an organ for the ventilation and defence of his views. He continued to edit that journal for 40 years, and in it appeared a long series of papers on various subjects—notably syphilis, hernia, and ophthalmic surgery—from his pen. In 1850 Thiry was appointed Professor of Surgical Pathology in the University of Brussels. As incumbent of that chair he did excellent service in bringing the teaching up to the level of modern knowledge, and his influence extended to nearly all departments of the medical faculty. In 1862 he was elected a member of the Belgian Academy of Medicine, and in 1881 he was President of that body. In 1873 he was appointed Rector of the Free University of Brussels. From 1873 to 1876 he was President of the Société de Médecine et des Sciences Naturelles of Brussels. In 1875 he was President of one of the Sections of the International Medical Congress held at Brussels. In 1860 he was named a Knight of the Order of Leopold, becoming an Officer in 1865, and a few years later Commander of the same Order. He was also a member of several foreign scientific societies. An ardent reformer in his early days, Thiry towards the close of his career became ultra-conservative in his scientific views. He denounced bacteriology as a delusion, and displayed active hostility to progress in other directions. Thiry was a remarkable personality. Without influence and with a natural talent for making enemies which he seemed to take pains to improve by cultivation—he was known in his early days as "The Boar of Ardennes"—he succeeded in forcing his way to the top of his profession by what may be called brute strength of intellect and character. He was a strong man—strong in his convictions and strong in his prejudices, and strong in his manner of expressing both. He began by being in advance of his time, and ended by being so far behind it that in 1886 he was removed from his post of Clinical Professor by the Conseil des Hospices. He did good work in his day, however, and in the funeral orations delivered at his grave by the Rector of the University and others his great services were fully acknowledged.

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By the death of Professor Isidore Straus the Paris Medical Faculty has lost one of its most distinguished investigators. Born at Dambach, in the Bas-Rhin Department, in 1845, he studied medicine at Strassburg, and took his doctor's degree in 1868, the subject of his thesis being the fatty degeneration of muscles. In the following year he was admitted as *professeur agrégé*. After the Franco-German war he left Strassburg, and settled in Paris, where in 1874 he was appointed "Chef de Clinique Médicale" in the Faculty. In 1876 he was appointed Physician to the Paris hospitals, and in 1878 he won a place as *agrégé*. After working for some time in Pasteur's laboratory, he collaborated with Dr. Chamberland in a work on the transmission of acute virulent diseases from mother to fœtus, which was published in 1882. Soon afterwards he was sent to Egypt as a member of a commission to study cholera; in 1883 he published a report of its researches. In 1887 he published a work on anthrax in animals and in man; in 1888 one (with M. Wurtz) on the bacteriological analysis of the atmosphere, and another with M. Sanchez Toledo on microbiological researches on the uterus after physiological parturition. On the death of Vulpian, Straus succeeded him in the chair of Experimental Pathology. As a lecturer he was somewhat handicapped by his Alsatian accent, but he was an admirable writer. In 1895 appeared his great work, *Tuberculosis and its Bacillus*. He was an indefatigable worker and a man of fine simplicity and rectitude of character.

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On December 22nd, at the early age of 47, John Leitch, M.B., C.M., died at Silloth, Cumberland. As late as December 19th, 1896, he had been seeing patients, although quite unfit to do so by reason of cardiac failure, resulting from asthma, for which he had been under treatment. His death came as a shock to all his friends and patients. Dr. Leitch was born at Monimail Manse, his father being then parish minister of Monimail, in Fife. Educated at Meachiston Castle School and the Edinburgh Academy, he studied at the arts classes in St. Andrews University, before going to the medical classes in Edinburgh, where he took his degree in 1874. He afterwards went several voyages to America as

medical officer in the Cunard Line, and later on became resident surgeon at Leith Hospital. In 1874 he settled down at Silloth, and remained there until the end. For many years Dr. Leitch was medical officer to the Silloth Convalescent Institution, and amongst other interests he took an active part as chairman of the School Board. His great hobby was botany, and he spent the whole of his spare time, both as a student and afterwards, in the pursuit of botanical researches. Dr. Leitch married a daughter of the late Rev. J. Redford. Seven children survive him, the youngest being 2 years of age.

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WE regret to have to announce the death on New Year's day of Mr. J. B. CARTER, of Chapel Allerton, Leeds. Mr. Carter qualified in 1849, and was therefore one of the oldest practitioners in Leeds. He was born in Beverley, his father having retired there after serving under Lord Nelson as a naval surgeon. For nearly fifty years Mr. Carter carried on an extensive practice in North Leeds, and his loss will be keenly felt by all classes of patients. His long hours of professional work sat but lightly upon him, and did not prevent his keeping up a close acquaintance with the classical authors with which he was very familiar in his earlier days. Mr. Carter was an ardent Conservative. A widow, three daughters, and three sons survive him. Two of his sons were associated with him in practice, and one, also a medical man, is in practice at Shipley.

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THE death is reported of Mr. ISAAC N. JAKINS in his 87th year. He obtained the diploma of L.S.A. in 1841 and that of M.R.C.S. in 1850. He practised in Osnaburgh Street, Regent's Park. From 1868 to 1888 he held the post of divisional surgeon to the Albany Street Police Station. Mr. Jakins retired from practice some few years ago, taking up his residence at Acton.

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DR. THOMAS JAMESON, eldest brother of Dr. Leander Starr Jameson, died on New Year's day at his residence in Knollys Road, Streatham. He was 59 years of age. He graduated M.D. at Edinburgh University in 1858, in which year he also obtained the licence of the Royal College of Surgeons, Edinburgh. He became a surgeon in the Royal Navy on August 20th, 1858: was promoted to be Staff-Surgeon on November 29th, 1869, and retired on April 10th, 1872. Dr. Jameson was in receipt of a pension for wounds.

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DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. Franz Zillner, the last survivor of the professors in the extinct medical school of Salzburg, aged 81; Dr. P. Binet, for some time *Privat-docent* and lately Deputy Professor of Therapeutics in the University of Geneva, author of numerous researches on the action of drugs, aged 41; Dr. Ferdinand Morawitz, a well-known practitioner of St. Petersburg, and founder of the Entomological Society of that city, aged 68; Dr. Modest Galanin, editor of the St. Petersburg *Journal of Public Hygiene*, aged 44; and Dr. J. E. Gaspar Gomes, Medical Director of the Children's Department of the Hospital Estephania, Lisbon, formerly President of the Sociedade das Sciencias Medicas of that city, aged 74.

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# NAVAL AND MILITARY MEDICAL SERVICES.

## ARMY MEDICAL STAFF EXCHANGE.

*The charge for inserting notices respecting Exchanges in the Army Medical Department is 8s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.*

A SURGEON-CAPTAIN expecting to be for foreign service during the present relief (Indian) is anxious to exchange with an officer with a good roster position. A good bonus will be given. Full particulars as to bonus, etc., to "Roster," BRITISH MEDICAL JOURNAL Office, 429, Strand, W.C.

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## THE NAVY.

THE following appointments have been made at the Admiralty:—CHARLES H. UPHAM, Surgeon, to the *Torch*, January 14th: BASSET C. E. F. GUNN, Staff-Surgeon, to the *Flora*, for duty on the way home, undated: ROBERT F. BOWIE, Surgeon, to the *Flora*, for duty on passage, January 14th, and to the *Tauranga*, undated; EDWARD T. P. EAMES, Surgeon, to the *Karrakatta*, January 14th; ARTHUR W. B. LIVESAY, M.B., Surgeon, to the *Blenheim*, January 14th; ALFRED PATTERSON, Fleet Surgeon, to the *Edinburgh*, January 2nd; EVERARD H. SAUNDERS, Fleet Surgeon, to the *Blake*, January 2nd.

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## ARMY MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL H. H. STOKES, M.B., is promoted to be Brigade-Surgeon-Lieutenant-Colonel, *vice* H. T. Brown, M.D., retired, from July 9th, 1896, but without back pay to October 21st. Brigade-Surgeon-Lieutenant-Colonel Stokes's previous commissions bear date as follow: Assistant-Surgeon, March 30th, 1872; Surgeon, March 1st, 1873; Surgeon-Major, March 30th, 1884; and Surgeon-Lieutenant-Colonel, March 30th, 1892. He was in the Zulu war in 1879 (medal with clasp), and with the Hazara Expedition in 1891, for which he was mentioned in despatches, and received the frontier medal with clasp.

Surgeon-Lieutenant-Colonel R. W. MAPLETON, M.D., is also promoted to be Brigade-Surgeon-Lieutenant-Colonel, *vice* J. P. Rooney, F.R.C.S.I., promoted. November 20th. Brigade-Surgeon-Lieutenant-Colonel Mapleton was appointed Surgeon, September 30th, 1873: Surgeon-Major, September 30th, 1885; and Surgeon-Lieutenant-Colonel, September 30th, 1893. He served in the Boer war of 1881 with the Natal Field Force, and in the Soudan campaign in 1885, for which latter he has the medal with clasp and the Egyptian bronze star.

Surgeon-Lieutenant J. A. MURISON, M.B., is placed on temporary half pay on account of ill health, December 5th, 1896. His commission dates from January 20th, 1895.

Surgeon-Colonel R. H. CAREW, D.S.O., has been appointed Principal Medical Officer Rawal Pindi District, *vice* Surgeon-Colonel C. McD. Cuffe, C.B.

Surgeon-Major-General J. JAMESON, Director-General of the Army Medical Department, and Surgeon-Major-General C. H. GIRAUD, retired pay, have been granted distinguished service rewards of £100 per annum each.

Surgeon-Captain G. B. STANISTREET has been appointed personal assistant to the Principal Medical Officer Punjab Command, from November 11th.

Surgeon-Colonel R. P. FERGUSON has been appointed Principal Medical Officer at Woolwich, *vice* Surgeon-Colonel W. S. M. Price.

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## INDIAN MEDICAL SERVICE.

THE undermentioned promotions, which have been already announced in the BRITISH MEDICAL JOURNAL, have received the approval of the Queen:—*Bengal:* Surgeon-Lieutenant-Colonels J. O'BRIEN, M.D., A. CROMBIE, M.D., and W. R. MURPHY, D.S.O., to be Brigade-Surgeon-Lieutenant-Colonels: Surgeon-Majors J. MOORHEAD, M.D., C. W. OWEN C.M.G., C.I.E., and G. S. GRIFFITHS to be Surgeon-Lieutenant-Colonels; Surgeon-Captains J. T. W. LESLIE, M.B., D. PRAIN, A. T. BOWN, U. N. MUKERJI, and W. L. PRICE, to be Surgeon-Majors. *Madras:* Surgeon-Majors W. A. LEE and M. S. EYRE to be Surgeon-Lieutenant-Colonels. *Bombay:* Surgeon-Lieutenant-Colonel R. CALDECOTT to be Brigade-Surgeon-Lieutenant-Colonel.

The retirement from the service of Brigade-Surgeon-Lieutenant-Colonel W. FINDEN, Bengal Establishment; Surgeon-Lieutenant-Colonel M. H. SMITH, Madras Establishment; and Surgeon-Lieutenant-Colonel JOHN MACGREGOR, M.D., Bombay Establishment, which have been already announced in this JOURNAL, have been approved by the Queen.

Surgeon-Captain T. W. SHAW, Bombay Establishment, has resigned his commission, from December 2nd, 1896. He was appointed Surgeon-Captain, September 30th, 1889.

Surgeon-Majors O. H. CHANNER, E. W. YOUNG, and HUGH M'CALMAN, M.D., having completed twenty years' full-pay service, are promoted to be Surgeon-Lieutenant-Colonels, September 30th, 1896.

Surgeon-Lieutenant-Colonel ALEXANDER MACGREGOR, Indian Medical Service (retired), died at 3, Pembridge Villas, Southfields, S.W., on January 4th.

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## ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT H. P. JOB, 4th Volunteer Battalion the Sherwood Foresters (Derbyshire Regiment), is appointed Surgeon-Lieutenant, January 2nd.

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## THE VOLUNTEERS.

SURGEON-LIEUTENANT C. WIGGINS, 2nd Cinque Ports Artillery (Eastern Division Royal Artillery), has resigned his commission, January 2nd.

Surgeon-Major F. M. BECKETT, 3rd (Cambridgeshire) Volunteer Battalion the Suffolk Regiment, and Surgeon-Lieutenant-Colonel H. THOMPSON, 1st Volunteer Battalion the East Yorkshire Regiment, have also resigned their commissions from January 2nd; they are permitted to retain their rank and uniform.

Surgeon-Lieutenant W. F. BROOK, 2nd Volunteer Battalion the Welsh Regiment, is appointed Surgeon-Lieutenant in the same corps, January 2nd.

Mr. FRANCIS H. THOMPSON is appointed Surgeon-Lieutenant in the 1st Volunteer Battalion the King's Shropshire Light Infantry, January 2nd.

Surgeon-Major F. ORTON, 3rd Middlesex Volunteer Rifles, is promoted to be Surgeon-Lieutenant-Colonel, January 2nd.

Surgeon-Major W. G. LOWE, M.D., and Surgeon-Captain H. J. FAUSSET, M.D., 2nd Volunteer Battalion the Prince of Wales's North Staffordshire Regiment, are promoted to be Surgeon-Lieutenant-Colonel and Surgeon-Major respectively, January 2nd.

The undermentioned gentlemen are appointed Surgeon-Lieutenants in the corps specified, January 6th:—EDWARD C. M'M. MURPHY, 1st Cinque Ports Artillery (Eastern Division Royal Artillery); JOHN W. BONE, M.B., 3rd Volunteer Battalion the Bedfordshire Regiment; JOHN N. MARSHALL, M.D., 1st (Renfrewshire) Volunteer Battalion Princess Louise's Argyll and Sutherland Highlanders.

Surgeon-Lieutenant R. R. HARDWICKE, 1st Middlesex (Victoria and St. George's) Volunteer Rifles, has resigned his commission, January 6th.

### THE BRITISH SOLDIER IN INDIA AND ENTHETIC DISEASES.

UNDER the above heading Brigade-Surgeon-Lieutenant-Colonel W. H. Climo contributes a paper to the January number of the *United Services Magazine*. He deals with his subject in a plain and general manner in its relation to army efficiency and in relation to the general health of the community. A table shows that in 1894 only 37 per cent. of a force of 70,642 soldiers in India had never suffered from venereal disease, leaving the large remainder of 63 per cent. who had at some period of their service contracted it in some form or other. In another table the ratio of admissions per 1,000 of strength in England and other British possessions, including India and Egypt, is given; and a third table affords information on the same ratio of venereal diseases in the French, Austrian, Italian, and Prussian armies. Shortly, the home establishment of our army gives our admission for venereal diseases as more than seven times greater than in the Prussian army, four and a-half times greater than in the French, three times greater than in the Austrian, and 90 per cent. more than in the Italian army. Brigade Surgeon Climo thinks he has made it abundantly clear that the exceptional circumstances of India demand that the Contagious Diseases Acts should be re-enacted. He knows nothing else that will meet the circumstances with any prospect of success. The paper is well timed, and should afford instructive reading to members of Parliament.

### INFECTED CLOTHING IN INDIA.

THE Government of India have ruled that compensation will in future be granted to British soldiers serving in India for articles of clothing, regimental necessaries, and bedding destroyed under medical authority to prevent the spread of infection.

### POSTING IN INDIA.

SURGEON-COLONEL R. H. CAREW, who recently left Edinburgh for India, will be posted to the Rawal Pindi District in place of Surgeon-Colonel Cuffe, C.B., promoted Surgeon-Major-General, and brought home to be Principal Medical Officer at Portsmouth.

### THE SURGEON-GENERAL'S BUDGET IN MADRAS.

THE Madras Government has been applying the shears to the Surgeon-General's Budget Estimates for 1897-98. It has reduced the charges for diet at the General Hospital by Rs. 7,000; at the Maternity Hospital by Rs. 2,000; at the Ophthalmic Hospital by Rs. 900; and at the Lock Hospital by Rs. 200. It has also stopped work on two dispensaries, and thereby effected savings of Rs. 4,100 on establishments and upkeep. Under lunatic asylums, too, the estimated charges for diet have been reduced by Rs. 3,000. It is to be hoped the foregoing reductions have not been effected at the cost of the patients or of efficiency in administration of the institutions named.

### CIVIL MEDICAL CHARGES, INDIA.

ON the recommendation of the Chief Civil Medical Officer, the Bengal Government have decided to abolish all first-class civil medical charges, substituting a personal classification of the civil surgeon.

### *BLACKWOOD* AND THE ARMY MEDICAL DEPARTMENT.

PERSEVERE writes: I was much pleased to see your valuable observations on *Blackwood's* able article, which so clearly demonstrates and advocates the cause of army medical officers. The strictly military papers almost wholly oppose the granting of military titles to medical officers, on the ground that they would become soldiers instead of "doctors." The contention is of course absurd, and they fail to show how military status is to be conveyed unless through military titles. Lord Roberts, who is emancipated from unworthy prejudices, lately spoke of Surgeon-Major Parke's body being received in Dublin "with the military honours given to a soldier and a hero." *Blackwood's* article breathes the same broad spirit.

ADMINISTRATIVE MEDICAL OFFICER RETIRED writes: *Blackwood's* article should open the eyes of the magazine reading public to the treatment medical officers experience at the hands of our military oligarchy, and the urgent necessity of reform on public grounds alone. Army medical messes are needed, but if medical officers were to be attached for a term of years to regiments, as some suggest, then a departmental mess would scarcely succeed. Those who recollect the friction, divided authority, and interference with discipline in station hospitals, particularly at Aldershot, when unification was incomplete, and one medical officer still retained with each regiment, will scarcely desire to see that system revived. Nor would such a system better the status of medical officers; what they want, in order to put a stop to club blackballing and other forms of insult, indignity, and social ostracism, is military rank and titles, the same as other army officers. This can only be effected by the formation of a medical corps, against which the intolerant idea of a "fighting caste" would be powerless.

*** The term "fighting caste," we suppose, embodies a claim to certain privileges which other branches of the army may not share. We only know of one such which so-called combatants legitimately hold—namely, general command. This is a special privilege, regulated by rank, but it would be intolerable did it establish a universal precedence. The logical outcome of such a monstrous pretention, were it admitted, could be nothing less than the right to kill with impunity offending civilians, which now disgraces Germany and its military system.

### IN PEACE AND WAR.

A CORRESPONDENT, writing from India, says: It may interest your readers to hear that medical officers can excel in sport as well as in their own duties. Surgeon-Major Lloyd, V.C., and Surgeon-Captain Donegan were the winners of no fewer than seven events at a recent Mandalay meeting. Their good fortune was exceedingly popular, and among none more so than their grateful patients, of which the writer, a soldier, was one.

### MILITIA MEDICAL STAFF CORPS.

MILES.—The length of training in the above corps is the same as that in other militia corps—namely, forty-nine days. The training consists of the usual recruits' drill, with certain modifications, together with the professional drill for the Medical Staff Corps. The corps takes the same rank and precedence as other militia corps, which is before that of volunteers. We know nothing of vacancies in the corps, but that might be learned on application to the commandant thereof at Aldershot.

### TITULAR DESIGNATIONS IN THE ARMY.

X. Y. Z. writes: That which prevents friction among army officers and upholds discipline is expressed in titular denominations. Uniforms, with affixed badges, show at sight the rank and title of the wearers, and precedence is thus assured without question or self-assertion. Is it, then, unreasonable in medical officers to object to all their steps in military promotion being neutralised and ignored colloquially in the familiar appellation "Doctor"? That name belongs equally to the candidate with a degree as to the aged grey-haired army surgeon with the title of colonel. But its use relieves combatant officers, in their intercourse with medical officers, from tendering those outward manifestations of respect which are called for in the recognition of military titles.

When medical officers assert their military position it is retorted upon them, "You are ashamed of the title of which your civil brethren are proud," trying to throw an apple of discord into the medical profession. The taunt is utterly untrue, for the medical officers appeal to their civil brethren against the jealousies of those who impute snobbishness to them. Titular courtesy is the very breath of army life, and any departure from it among juniors treated as an impertinence. To deny such courtesy to medical officers means only studied insolence. When one man is as good as another (which can never happen in a graded army) then it will be time enough to ignore military titles.

# UNIVERSITIES AND COLLEGES.

### UNIVERSITY OF EDINBURGH.

DURING the past year 1,421 students (including 6 women) were enrolled in the Faculty of Medicine. Of these, 616, or over 43 per cent., belonged to Scotland; 431, or over 30 per cent., were from England and Wales; 91 from Ireland, 55 from India, 202 from the British Colonies, and 26 from foreign countries.

The number of women attending extra-academical lectures with a view to graduation in medicine was 68.

The degrees of M.B. and C.M. were conferred on 198 gentlemen; the degree of M.D. on 76; the degree of D.Sc. on 2; of B.Sc. on 25.

The total annual value of the University fellowships, scholarships, bursaries, and prizes in the Faculty of Medicine was £2,900.

### UNIVERSITY STUDENTS AT EDINBURGH AND GLASGOW.

THE following table shows the number of medical students at Edinburgh and Glasgow Universities during the past eight years:

| | Edinburgh. | Glasgow. |
|---|---|---|
| 1889 ... ... ... | 2,025 ... ... | 818 |
| 1890 ... ... ... | 1,979 ... ... | 770 |
| 1891 ... ... ... | 1,839 ... ... | 820 |
| 1892 ... ... ... | 1,715 ... ... | 760 |
| 1893 ... ... ... | 1,641 ... ... | 695 |
| 1894 ... ... ... | 1,494 ... ... | 618 |
| 1895 ... ... ... | 1,475 ... ... | 617 |
| 1896 ... ... ... | 1,415 ... ... | 621 |

The net diminution during that period is therefore 610 for Edinburgh and 197 for Glasgow.

### UNIVERSITY OF GLASGOW.

EXAMINERSHIPS IN PATHOLOGY AND PHYSIOLOGY.—The University Court invites applications for the office of Examiner in Pathology and Examiner in Physiology. By an error the fee for these examinerships was stated in the advertisement in the BRITISH MEDICAL JOURNAL as £50: the fee offered is only £30.

### ROYAL COLLEGE OF SURGEONS, EDINBURGH.

THE following gentlemen, having passed the necessary examinations, have been admitted Fellows of the College:

R. Turner, M.B., C.M.; W. A. Loxton, M.R.C.S.Eng.; A. E. Giles, M.D., M.R.C.S.Eng.; A. A. Hudson, M.B., C.M.; L. G. D. Jones, M.R.C.S.Eng.; H. C. Barclay, M.R.C.S.Eng. (New Zealand); T. MacC. Young, M.B., C.M.; W. M. Elliot, M.D.; J. J. G. Murray, L.R.C.S.E.; J. T. C. Johnson, L.R.C.S.E.; A. H. Griffith, M.B., C.M.; C. A. Brough, L.R.C.S.E.; H. H. B. Macleod, M.R.C.S.Eng.; E. J. M'C. Morris, L.R.C.S.E.

# MEDICO-LEGAL.

### ALLEGED COVERING.

AT an inquest at Kensington Town Hall on January 2nd on Elizabeth Tate, 28, wife of a porter of Kensal Road, who died on Tuesday, December 29th, 1896, Mr. Oswald, the coroner, according to the report in the *Morning*, said the woman had been attended by an unqualified doctor, who had given her medicine; and the question was whether the medicine had done her harm or not, as the person had made an entirely wrong diagnosis of the case. The husband said his wife had been unwell for twelve months, and some time since was attended by Dr. Roberts, who was the medical adviser to the Metropolitan Railway Men's Club. A short time since, she went to a place "like a chemist's shop" at Totten-

ham Road, Kensal Road. It was called the "Medical Hall." She complained of pains in her heart, and was seen by a young man who charged her 6d. for a bottle of medicine, and told her that she was pregnant. She took the medicine, but next day did not feel so well, and Dr. Roberts was called in again. He considered her condition serious, and ordered her to hospital. She became worse, and the vomiting continued. Witness went for a doctor, but death took place before his return. Dr. J. Conry said he found no trace of pregnancy. Death was due to syncope from hæmorrhage from a gastric ulcer in the stomach. The bottle (produced) which Mrs. Tate received from the person bore no name. He could not say what the contents had been, but it smelt like that which he had seen in possession of another patient of his, who told him she got it at the same place, and was worse after taking it. There was no name on the shop, but there were the words "Medical Hall" in large letters on the window. The coroner's officer said he served a subpœna on the person at the "Medical Hall" to attend the inquest. His name was William Stanley. He had not put in an appearance. The coroner said Stanley could have thrown some light on the inquiry, and for this contempt of court he would pay a fine of 40s., although he (Mr. Oswald) had serious thoughts of sending him to Holloway. He understood that the young man was "covered" by a fully-qualified man, but that was a matter for the General Medical Council. The verdict was in accordance with the medical evidence.

# PUBLIC HEALTH
AND
# POOR-LAW MEDICAL SERVICES.

## HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 7,451 births and 4,634 deaths were registered during the week ending Saturday, January 2nd. The annual rate of mortality in these towns, which had declined from 19.4 to 17.0 per 1,000 in the four preceding weeks, rose again to 22.3 last week. The rates in the several towns ranged from 16.6 in Bradford, 16.8 in Croydon, and 17.2 in Bristol to 29.6 in Birkenhead, 31.2 in Norwich, 31.4 in Cardiff, and 31.8 in Plymouth. In the thirty-two provincial towns the mean death-rate was 23.3 per 1,000, and exceeded by 2.5 the rate recorded in London, which was 20.8 per 1,000. The zymotic death-rate in the thirty-three towns averaged 2.1 per 1,000; in London the rate was equal to 1.8 per 1,000, while it averaged 2.3 in the thirty-two provincial towns, and was highest in Cardiff, Plymouth, Gateshead, and Nottingham. Measles caused a death-rate of 3.2 in Gateshead, 3.4 in Nottingham, and 4.6 in Plymouth; scarlet fever of 1.1 in Oldham; whooping-cough of 1.6 in Huddersfield, 2.0 in Nottingham, and 2.1 in Swansea; and "fever" of 1.6 in Gateshead. The 93 deaths from diphtheria in the thirty-three towns included 49 in London, 8 in West Ham, 8 in Cardiff, 8 in Birmingham, 4 in Sheffield, and 3 in Liverpool. No fatal case of small-pox was registered, either in London or in any of the thirty-two large provincial towns. Three cases of small-pox were under treatment in the Metropolitan Asylum Hospitals on Saturday last, the 2nd inst., all of which had been admitted during the week. The number of scarlet fever patients under treatment in the Metropolitan Asylum Hospitals and in the London Fever Hospital, which had declined from 4,164 to 3,763 at the end of the ten preceding weeks, had further fallen to 3,707 on Saturday last; 271 new cases were admitted during the week, against 353, 291, and 219 in the three preceding weeks.

## HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, January 2nd, 900 births and 655 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 20.3 to 22.1 per 1,000 in the five preceding weeks, further rose to 22.4 last week, and slightly exceeded the mean rate during the same period in the thirty-three large English towns, which was 22.3 per 1,000. Among these Scotch towns the death-rates ranged from 16.8 in Greenock to 23.8 in Dundee. The zymotic death-rate in these towns averaged 3.5 per 1,000, the highest rates being recorded in Paisley and Glasgow. The 322 deaths registered in Glasgow included 44 from measles, 12 from whooping-cough, 5 from diarrhœa, and 2 from scarlet fever. Two fatal cases of diphtheria were recorded in Edinburgh, and 9 of measles in Aberdeen.

## THE PATH OF DUTY: THE WAY TO REJECTION.

We are sorry to learn that Dr. Sandell has been passed over in the recent election of a medical officer of health by the Eaton Bray Rural District Council. Dr. Sandell has for some time been the holder of the post, and, so far as we can learn, his only offence, which has led to his supersession, has been his zealous discharge of his duties in a district apparently calling for recommendations on his part which are not pleasing to his council because to carry them out would entail expense. We are further sorry to see the spirit displayed on the occasion of the election. When a member of the council is reported to have said that if the officers in question (these being seemingly the superseded health officer and the re-elected nuisance inspector) were not called into the room, "we shan't have any fun at all." This kind of treatment is becoming too frequent, and calls for a radical change in the system which permits it. We shall hope to hear further of this particular case.

## THE CONTRAVENTION OF BY-LAWS.

It seems, from a recent report by Dr. Reid, the medical officer of health for Staffordshire, that there has been contravention of local by-laws in the county. But the county by no means possesses the monopoly in this direction, as we have constantly come across statements in the annual reports of medical officers of health to the effect that by-laws have been adopted in districts where there has been no subsequent attempt of any serious sort to enforce the sections in their entirety, and, indeed, in some cases complete laxity has been noticed. The matter seems to call for some sustained attention, either generally, or at least, on the part of county councils, by local inspection and inquiry as to the actual working of by-laws adopted by district councils. We think it would be soon made apparent that the matter is one calling for constant supervision by county councils, more especially so far as building by-laws are concerned, since important health considerations are involved in these, and they are just of a nature to lead to contravention by those whose pockets feel the cost of compliance with the details, essential though they they be, of the by-laws which refer to work out of sight, and so on. Such an inquiry, moreover, could not but result in the acquirement of useful knowledge as to the needs of one and another class of district in the matter of by-laws, and thus the particular requirements of each section of the community would be met.

## NOTIFICATION FROM TWO POINTS OF VIEW.

We have incurred the wrath of an ex-inspector of nuisances of Clay Cross, and are assured by him of our ignorance on the subject of the compulsory notification of infectious disease. The special occasion of our display of ignorance was an observation as to the folly of the Clay Cross Urban Council in not adopting the Notification Act, the paragraph having appeared in the BRITISH MEDICAL JOURNAL of December 19th, 1896. The writer of the letter in the *Derbyshire Courier* regards the Act as not needed in Clay Cross because there are some 80 per cent. of the inhabitants in sick clubs and the like, so that disease comes to be heard of without the expense attaching to notification. But it was just in this very place that fatal infectious disease was only last year existing for some weeks before the sanitary officers got to hear of it. And what of the 20 per cent. outside the scope of clubs? Are they never ill of infectious sickness. Moreover, there is at present no obligation upon anyone to notify. The council will, therefore, in accepting notification certificates, have to receive freely what the State has regarded as a service which should be paid for. Then, again, we are asked why, if the Government deemed the Act an essential one for the prevention of disease, did they leave it as an adoptive Act except in London. As regards London, the folly of seeing a disease notifiable, for example, in Oxford Street which was not notifiable in Regent Street, and of seeing the authority of a district including one side of a thoroughfare demanding notification from which the householders on the opposite side of the street were free, has undoubtedly had weight with the Legislature. As to leaving the Act adoptive in the provinces, is it forgotten that the great desideratum of hospital provision in regard to the prevention of disease has been left as an optional measure to local authorities, and that the only powers conferred on sanitary bodies since the Public Health Act of 1875 on this matter are those given to county councils and others under the Isolation Hospitals Act of 1893, even these new powers are optional? For the rest, we can only state our opinion that the Infectious Disease (Notification) Act of 1889 is of importance to all sanitary districts.

## THE HEALTH OF ABERDEEN.

A Scotch contemporary claims great healthiness for Aberdeen and its surroundings. Relatively to the other chief towns of Scotland there is certainly something to be said in its favour. The mean death-rate is 19.7 per mille, as far as can be judged by the five overlapping decades, ending respectively 1887, 1889, 1891, 1893, and 1895. The percentage for Glasgow, calculated in the same way is 24.7; that for Paisley is 23.2; those for Dundee and Greenock are 20.5; that for Leith is 19.8; but those for Perth (19.6) and Edinburgh (19.5) are slightly less. In the Registrar-General's last quarterly report, however, Aberdeen has the smallest death-rate (14.5) of all these places. Eight of eleven deaths at Old Meldrum (Aberdeen) were of persons aged respectively 100, 91, 70, 88, 77, 83, 72, and 88. At Hythie, in Aberdeenshire, the population is about 160, and during the last thirty years there have been 32 deaths, 18 of which were at over 80 years of age.

## SALARIES AND SUPERANNUATION ACT.

DISTRICT MEDICAL OFFICER writes to ask whether his guardians are right in calculating his stipend at £40 per annum, his fixed salary being £50, and this for the purpose of reckoning his claim for superannuation under the recent Act, this difference of £10 being estimated by them as cost of medicines and horse expenses.

*** The Superannuation Act expressly states that the calculations are to be made on the salary or wages and emoluments. Our correspondent should be taxed on his full salary of £50, and extra fees, if any, and then claim superannuation payment on the same amount.

## DEDUCTIONS OF SALARY, ETC., UNDER THE SUPERANNUATION ACT.

M.C.M., who is a district medical officer and public vaccinator, writes to ask whether the guardians had a right to deduct 2 per cent., from his last quarter's salary under the Superannuation Act, he not having then decided whether he would avail himself of the provisions of this Act; and next, whether they were right in deducting the same percentage from his payments for vaccination after the recent decision of the Local Government Board in reference to public vaccinators and this Act?

*** If our correspondent did not inform the guardians of his intention in reference to the Superannuation Act before the time of payment of his last quarter's salary, it was only reasonable that the deduction stated should have been made. If he has since decided not to avail himself of the provisions of the Act, he will, of course, after having done so, claim payment of the amount deducted. As a percentage of vaccination fees has also been deducted, it may be assumed that these guardians will be prepared to reckon vaccination fees as emoluments, and pay accordingly. Should they find themselves unable to do so, when the question as to public vaccinators is finally settled we apprehend this deduction will then be paid.

# MEDICAL NEWS.

THE Council of the British Institute of Public Health have awarded the Harben Medal for 1897 to Professor M. von Pettenkofer, Emeritus Professor of Hygiene in the University of Munich, in recognition of his distinguished services to the public health.

THE Junius S. Morgan Benevolent Fund Branch of the Royal National Pension Fund for Nurses affords immediate pecuniary or other relief by loan or absolute gift to members of the Pension Fund who may be in distress. Annuities have also been granted to matrons, sisters, nurses, who from no fault of their own have been unable to provide for themselves after 60 years of age. The invested funds, which amounted to £11,000, proving inadequate to meet the claims made upon the Benevolent Fund, some hundreds of nurses of the Society exerted themselves to raise a further sum in commemoration of the sixtieth year of her Majesty's reign. In the result £2,500 was raised by the nurses in donations, to which Mr. J. Pierpoint Morgan and Mr. and Mrs. W. H. Burns have generously added a further sum of £2,500, and the policy holders have spontaneously presented a further income of about £100 a year in annual subscriptions of one shilling and upwards. The Prince of Wales, as patron of the fund, kindly undertook to present these gifts to the Princess of Wales as President of the Fund, on January 1st at Sandringham, which the Princess was graciously pleased to accept as her first act in the sixtieth year of the reign of Her Majesty Queen Victoria. It is satisfactory to know that the Benevolent Fund has thus been made adequate to meet the claims upon it.

JOHN HUNTER'S HOUSE IN LEICESTER SQUARE.—It is announced that the proprietors of the Alhambra Theatre are about to extend their premises by rebuilding No. 28, Leicester Square, and the house in the rear in Castle Street. In 1768 John Hunter moved from Golden Square into a house in Jermyn Street in succession to his brother William. Upon the expiration of the lease, 1783, he purchased a twenty-four years' lease of No. 28, Leicester Square, and what was then No. 13, Castle Street, with the ground abutting upon Leicester Court, entered from Castle Street, between the two. On that ground, according to the *Builder*, he erected at a cost of £3,000 a large museum for his collections, and lecture and dissection rooms. The museum, latterly used as a workshop, rises through two storeys, with a wide gallery midway, and is lighted by three cupolas in the roof. A plan of the two houses, museum, etc., drawn by his assistant and curator, William Clift, we have seen in the collection of papers and drawings deposited by Sir Richard Owen's executors in the Royal College of Surgeons. At Leicester Square, Hunter (like Sir Joseph Banks in Soho Square) held his Sunday evening receptions, gave courses of lectures, set up a printing press and book warehouse, and, in 1785, instituted, with Dr. Fordyce, the Lyceum Medicum Londiniense. Hunter died in 1793, and was buried in St. Martin's-in-the-Fields. His remains, found after a long search in the vaults (1859) by Dr. Frank Buckland, were reinterred by the College of Surgeons, near Ben Jonson's grave in the north aisle, Westminster Abbey. His pictures, drawings, and library were sold "by Mr. Christie, at his Great Room in Pall Mall," January and February, 1794. In the auctioneer's catalogue (Stone Collection) of the sale of his household effects, including a set of painted hangings by Zucarelli, on September 24th, 1806, the house is described as "his residence, No. 28, on the east side of Leicester Square"; yet it appears that it had been previously known as No. 12, Leicester Fields. The materials of the house he built at Earl's Court, at Kensington, in 1763, were sold at auction, February, 1886, when the ground, 2 acres, was taken for Barkston Gardens.

## MEDICAL VACANCIES.

The following vacancies are announced:

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £150 per annum (with an allowance of £30 per annum for cab hire), and furnished rooms, fire, light, and attendance. Applications to E. W. Forrest, Secretary, by January 18th, 1897.

CHELSEA HOSPITAL FOR WOMEN, Fulham, S.W.—Clinical Assistant Post tenable for three months. Applications to the Secretary.

CITY OF LONDON LYING-IN HOSPITAL, City Road, E.C.—District Surgeon. Applications to R. A. Owthwaite, Secretary, by January 19th.

COUNTY ASYLUM, Rainham, near Liverpool.—Assistant Medical Officer, unmarried, and not more than 30 years of age. Salary commences at £100 per annum, with prospect of increase to £250, with furnished apartments, board, attendance, and washing. Applications to the Medical Superintendent by January 15th.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Surgeon to Out-patients: must be F.R.C.S. or M.R.C.S. Senior Resident Medical Officer. Salary, £70 per annum, with board and washing. Also four Qualified Clinical Assistants, and eight Unqualified Clinical Clerks. Applications to the Committee of Management at the Hospital by the January 16th.

FLINTSHIRE DISPENSARY, Holywell, North Wales.—Resident House-Surgeon. Salary, £120 per annum, with furnished house, rent and taxes free, also coal, light, water, cleaning, or in lieu thereof the sum of £20 per annum. Knowledge of Welsh desirable. Applications to the Secretary by January 25th.

GLASGOW DISTRICT LUNACY BOARD.—Assistant Medical Officer for the Gartloch Asylum. Salary, £100 per annum, and board. Applications to Mr. Dempster, Clerk to the Board, 318, Parliamentary Road, Glasgow, before January 14th.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Appointment for six months, subject to re-election. Honorarium of £21 for the six months will be given, board and residence at the Infirmary, and washing provided. Applications to the Secretary at his office, 24, Friar Lane, Leicester, by January 11th.

LINCOLN GENERAL DISPENSARY.—Resident Medical Officer, doubly qualified and unmarried. Appointment to be held for two years at least. Salary not less than £150 per annum, with furnished apartments, fire and gas provided. Applications to William Dean, Secretary, by January 16th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Physician. Applications to the Secretary by January 16th.

MIDDLESBROUGH NEW ASYLUM.—Medical Superintendent. House (unfurnished, with rates and taxes free), coals, gas, water, and washing will be allowed. Applications, stating salary required, to George Bainbridge, Town Clerk, Middlesbrough, by January 23rd.

QUEEN'S HOSPITAL, Birmingham.—Third Casualty Surgeon, or Surgeon to Out-patients; must be F. or M.R.C.S. Second Physician for Out-patients. Appointments tenable for three years. Honorarium in each case £50 per annum. Applications to the Secretary by January 20th.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House-Surgeon for six months from February 1st. Board, lodging, and washing provided. No salary. Applications to "Chairman of Medical Committee" by January 20th.

ROYAL HANTS COUNTY HOSPITAL, Winchester.—Assistant House-Surgeon, doubly qualified. Salary at the rate of £20 per annum, with board and lodging. Applications to the Secretary by January 22nd.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—House-Surgeon. Salary, £100, with board and residence. Applications to Hemsley H. Shanks, Honorary Secretary, by January 13th.

UNIVERSITY OF EDINBURGH.—Examiner in each of the following departments: (1) Botany, (2) Physiology, (3) Medicine, and (4) Midwifery. Period of office may be for four years. Salary, £75 per annum in each case, with an allowance of £10 for travelling and other expenses, in case of not being resident in Edinburgh. Applications to M. C. Taylor, Secretary, University Court, by January 14th.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's Road, Chelsea, S.W.—House-Physician for twelve months. Honorarium, £50, with board and lodging in the hospital. Applications to the Secretary by January 16th.

YSTRADYFODWG URBAN DISTRICT.—Medical Officer of Health. Appointment for one year. Salary, £450, including travelling expenses. Must devote his whole time to the duties. Applications, endorsed "Medical Officer of Health," to W. H. Morgan, Clerk, Treforest, Glamorganshire, by January 11th.

## MEDICAL APPOINTMENTS.

ANNINGSON, Bushell, M.D.Camb., reappointed Medical Officer of Health to the Cambridge Town Council.

BEATTY, Samuel, M.B., C.M.Edin., appointed Medical Officer of Health to the Moulin Parish Council.

BENNETT, W. E., F.R.C.S.Eng., appointed Resident Surgical Officer to the General Hospital, Birmingham, *vice* C. Leedham Green, F.R.C.S.Eng.

CAMPBELL, Donald, M.D.Glasg., C.M., reappointed Medical Officer of Health to the Calne Rural District Council.

DAVEY, Dr., appointed Medical Officer for the Second Division of the St. James's District of the Dover Union.

FERNIE, F. E., M.R.C.S., L.R.C.P.Lond., reappointed Medical Officer for the Swynnerton District of the Stone Union.

FORBES, Duncan M., L.R.C.P.Edin., L.F.P.S.Glasg., appointed Medical Officer of Health to the Eastwood Urban District Council.

GREEN, Arthur Robert, M.R.C.S., L.R.C.P.Lond., reappointed Medical Officer for the Bosbury District of the Ledbury Union.

HODGE, Albert, L.R.C.P., M.R.C.S., appointed Resident Medical Officer to the Manchester Hospital for Consumption and Diseases of the Throat, *vice* John Penny, M.B., D.Sc.Edin., resigned.

JONES, Mr. Matthew, appointed Medical Officer for the Glyn Ceiriog and the Llangollen District of the Corwen Union.

LEGGE, Richard, M.D., appointed Medical Superintendent to the Derby County Asylum, *vice* J. Murray Lindsay, M.D., resigned.

LLOYD, David, M.B., C.M.Glasg., appointed Medical Officer for the Llanrhaiadr District of the Ruthin Union, *vice* James Caithness.

MAPLETON, J. G., M.B., appointed Medical Officer to the Cranbrook Union.

PEPPER, H. W., M.R.C.S., L.R.C.P., appointed Assistant Medical Officer to the Workhouse Infirmary, Birmingham.

SMYTH, William Ardagh, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer and Public Vaccinator for the Ashtead District of the Epsom Union.

TEMPLE, G. H., M.B., C.M.Edin., appointed Medical Officer for the Weston-super-Mare District of the Axbridge Union, *vice* C. V. Hitchins, M.R.C.S.Eng., resigned.

THORP, Albert, M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer of Health to the Urban Sanitary District of New Mill, Yorks.

## DIARY FOR NEXT WEEK.

### MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Mr. Bland Sutton: Wandering Spleens. Dr Samuel West: The Prognosis of Pneumothorax, with a series of cases of recovery.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 40, Leicester Square, W.C., 8 P.M.—Communications by M. H. L. Albert, Mr. Edmund Balding, jun., and Mr. H. Baldwin. Papers by Mr. A. Pearce Gould and Mr. J. H. Badcock.

### TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 P.M.—Drs. E. C. Kingdon and J. S. R. Russell: Infantile Cerebral Degeneration, with Symmetrical Changes at the Macula. Mr. T. S. Ellis (Gloucester): On some Points in the Surgical Physiology of the Foot.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Dr. Buzzard: Clinical Demonstration.

### WEDNESDAY.

THE CLINICAL MUSEUM, 211, Great Portland Street, 4 P.M.—Demonstration by Mr. Jonathan Hutchinson.

LARYNGOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 5 P.M.—Annual general meeting, to be followed by an ordinary meeting, at which reports of the Morbid Growths Committee will be received, and some presentations to the Society will be exhibited. Cases and Specimens will also be shown by Dr. Semon, Dr. St Clair Thomson, Dr. P. Watson Williams, Mr. C. A. Parker, Dr. Permewan, Mr. de Santi, Dr. Kanthack, Dr. John Hunt, and Dr. Jobson Horne. The annual dinner will be held the same evening at the Café Monico at 7.45.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, 8.30 P.M.—Pathological evening. Mr. Openshaw: Uterine Fibroids removed by Abdominal Hysterectomy. Mr. Targett: Carcinoma of Body of Uterus. Dr. F. J. Smith: Large White Kidneys; other specimens will also be shown.

SOUTH-WEST LONDON MEDICAL SOCIETY, Vestry Room, Town Hall, High Street, Wandsworth, 8.30 P.M.—Mr. Howard Marsh: Studies of Diagnosis in Difficult Cases with illustrations.

### THURSDAY.

BRITISH GYNÆCOLOGICAL SOCIETY, 20, Hanover Square, W., 8.30 P.M.—Dr. Purcell: New Form of Intestinal Clamp. Mr. Taylor (Birmingham): (1) Pan-hysterectomy by Kelly's Method; (2) Sarcoma of Bladder. Annual meeting and election of officers for 1897.

NEUROLOGICAL SOCIETY OF LONDON, 11, Chandos Street, W., 8.45 P.M.—Address by Dr. G. H. Savage, President-elect, on Heredity in the Neuroses.

### FRIDAY.

EPIDEMIOLOGICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8 P.M.—Dr. Hamer on Age Incidence in Relation with Cycles of Disease Prevalence.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Dr. W. S. Colman: On Case Taking.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### MARRIAGES.

FERGUSON—MALONE.—On the 1st instant, at St. Peter's, Eltham Road, Lee, by the Rev. James Campbell, M.A., Vicar of the Parish, George Gunnis Ferguson, M.B., C.M., of 62, Holmdale Road, West Hampstead, N.W., son of the late Francis John Ferguson, of Glasgow, to Ada Bertha, daughter of the late Captain Joseph Malone, V.C., Enniskillen Dragoons. No cards. At home 25th, 26th, and 27th January.

HOCKEN—MASON.—October 29th, 1896, at St. Andrew's Church, Braidwood, N.S.W., by the Rev. J. S. Dobson, Helen S., third daughter of Frank Mason, Esq., J.P., of "Yately," Braidwood (late of Krawarree station), to J. Preston Hocken, M.D. M.R.C.S., L.R.C.P., L.S.A., J.P., of West Wallsend, N.S.W., eldest son of J. Hocken, Esq., Liverpool, England.

### DEATH.

CARTER.—On January 1st, 1897, Joseph Barton Carter, M.R.C.S., L.R.C.P., L.S.A., at Elm House, Chapel Allerton, Leeds, in the 73rd year of his age.

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances*—Daily, 2. *Operations.*—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR.—*Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—Daily.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30 Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations.*—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations.*—M. F. S., 2.

LONDON. *Attendances.*—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W., S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operations.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations.*—M. Th., 4.30.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations.*—F., 9.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations.*—W., 1.30; S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Tu., 2.30.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 3; Dental, Th., 9. *Operations.*—W., S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 1. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., W., S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th. 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations.*—M. Tu. Th. F. S., 1.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males S., 3; females; W., 9.45. *Operations.*—M., 2; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 3.0; Skin, M. Th., 9.30; Electro-therapeutics, M. Th., 2.30; Dental, W. S., 9.30; Children's Medical, Tu. F., 9.15; Children's Surgical, S., 9.15. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M. 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Th., 2.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations.*—Tu. F., 2.30.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1; Obstetric, Tu., F., 1; Eye, Tu. F., 9.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operations.*—Tu. W., 2.

## LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

*Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

## QUERIES.

Sight wishes to place a child, aged 7, who is blind, in an institution for care and educational purposes. The parents could pay about £1 per week. An institution near London, or preferably near Birmingham, is required.

M. H. writes: Will any one acquainted with the place state the climate and subsoil of Streatham Common, S.W.? A patient suffering from a weak right apex fancies it does not suit her. I should also be grateful for suggestions as to inland resorts likely to benefit this patient, and where a sister who would accompany her would not find it too dull.

### Treatment of Villous Tumour of the Bladder.

D.W.J. desires to learn if there has been any success in the treatment of villous tumours of the bladder by injections, nitrate of silver or otherwise, and if so by whom?

### Lectures to Nurses.

Superintendent asks what books he should read in preparing a course of lectures on nursing and hygiene adapted for the nurses of a large fever hospital, and what ground should the lectures cover?

### Carbolising Tow.

Medical Officer wishes to hear of a simple process for carbolising tow, ensuring equal impregnation, which could safely be carried out by the more intelligent inmates of a large workhouse, which at present is spending large sums on wood-wool, absorbent cotton, stypium, etc.

### Tardily-Absorbed Ligatures or Sutures.

Dr. Herbert Snow (London, W.) asks to be recommended a ligature or suture material which, in the absence of suppuration, can be relied on to continue taut for about fourteen days, and then to undergo gradual absorption. A diligent search, with the kind aid of the Librarian, in the College of Surgeons' Library, fails to reveal any notice of such an article, unless of the vaguest and most unsatisfactory character, in English medical literature. Ordinary catgut becomes more or less soft and lax within a very few hours; in my friends' hands, as well as my own, the chromicised article has generally proved incapable of absorption at all; the same with kangaroo tendon. Silk (be it remembered, not an animal tissue, though an animal product) remains to the last a foreign body, and can only be relied on, with occasional exceptions even then, not to make its presence objectionable when used about the peritoneum. Some halfway house is very desirable.

## ANSWERS.

Dr. H. K. Hitchcock.—No doubt the circular is in very bad taste. It will probably carry with it its own penalty.

F. J. B.—We should recommend our correspondent to send his inquiry to the *Hospital* or one of the nursing papers.

X.Y.Z. will find some particulars with regard to the examination for the Fellowship of the Royal College of Surgeons in Ireland in the Educational Number of the British Medical Journal (September 5th, 1896, p. 562). He can, we understand, obtain a full prospectus on application to the Registrar at the College.

C.T. will find the mortality statistics of New York from scarlatina and diphtheria in the New York Board of Health Reports, the statistics are under the heading "Sanitary Condition of the State and Summary of Mortality reported during the Year." The fifteenth Report relating to the year 1894, and published in 1895, is the latest report in the Library of the Association.

### Poor-law Officers in Scotland.

We would recommend our correspondent "A. M." (Durness) to communicate with Alex. M. Murdoch, M.D., Secretary, Society of Poor-law Medical Officers in Scotland, 51, Adelphi Street, Bridgeton, Glasgow.

### Toffee.

Dr. J. Harley Brooks (Mile End Infirmary, London) thinks that our correspondent, who in the Journal of January 2nd asked for a reference to the late Dr. Milner Fothergill's remarks on the dietetic value of toffee, will find the passage in *The Food We Eat*, published by Griffith and Farran, price 1s.

Surgeon-Lieutenant Colonel Boult (St. Leonard's-on-Sea) suggests that the passage is that at page 100 of the same author's work entitled, *Vaso-renal Change versus Bright's Disease*, published by Bailliere, Tindall and Cox, in 1887.

### Gastric Ulcer and Corset Pressure.

S. H. writes: "M.D." will find in *Neale's Digest*, 847, 4, and 211, 1 (edition of 1891) some sources of information on this topic. I refer him especially to the British Medical Journal of April 2nd, 1887, at p. 742, and of September 17th, 1887, p. 616.

### Horse Shoes.

Dr. W. Lattey (Southam, Warwickshire) writes: In reply to "Scotia's" inquiry respecting steel horse shoes with removable screws for frost, I would recommend him to get them from Mr. Wooldridge, of Lye, near Stourbridge. I have found cogs that plug in are more reliable than those with screws; they require nicely fitting, care being taken that they do not go in quite up to the shoulders, and that the metal of the shoe is sufficiently thick. They remain in firmly if properly fitted, and a tap on the shoe with a hammer will make them come out. This method of roughing horses has suggested the idea of something analogous for motor cars, which probably will not get on very well in slippery weather; but the present regulations are adverse.

### Contagious Diseases in the Army.

Inquirer.—In the year 1894 a return dealing with these matters was presented to Parliament. This return may be purchased at a trifling cost from any army publishers—for example, Eyre and Spottiswoode, East Harding Street, Fleet Street, E.C., or Harrison and Sons, St. Martin's Lane, W.C. If "Inquirer" will look up the *United Service Gazette* of March 24th, 1894, he will find a fairly lengthy article on the facts and figures appearing in the Parliamentary return alluded to. Further information can also be obtained by reference to the Army Medical Department Reports.

### Soft Corns.

The following suggestions have been received in answer to the questions of "Pes" regarding soft corns in the British Medical Journal of December 26th, 1896, p. 1858:

W. P.—Well wash with soap and water, and follow this by frequent application of tinc. belladonnæ.

Help.—Remove the cause—that is, pressure—by seeing that the patient wears square-toed boots, broad across the tread, and by fixing small pads of lint between the affected toes. The pads are composed of four or six thicknesses of the material, and are held in position by a strip of Mead's adhesive plaster encircling one or other of the toes.

Dr. James Adams (Glasgow).—Mr. Syme's prescription, which in over fifty years' experience has never failed, was to dry the corn, and smear it with a paste consisting of burnt alum stirred up with white of egg. The toes should be kept as much as possible apart, and the application renewed every second day.

R. D. P.—Paint airol between the toes every night; failing this, a strong solution of iodine may be tried.

### Bicycles not on Hire.

Dr. Prichard-Roberts (Harrogate) writes in answer to "Wheelman's" query in the Journal of January 2nd: The firm from whom I hired for some six years at £6 a year for a first-class bicycle now refuse to let out on these terms any more, as in many cases the machines were returned in such a bad state of repair as to be almost useless. I received from 300 to 400 letters about this system from various medical men in the United Kingdom, and found it utterly impossible to answer each individually, especially as the majority never sent addressed envelope or stamp for reply.

### "Twins, Twins, Twins."

Under this title an insurance syndicate undertakes to insure the risk of twins. Every subscriber of one shilling is promised £6, of two shillings £12, of three shillings £18, and so on up to £30 for five shillings. It is added that the insurance must be completed one calendar month before accouchement, but the subscription insures for eight months from the day of application.

This generous offer, a correspondent writes, deserves publicity. The average frequency of twins is about 1 in 80, so that this new and invaluable system of insurance offers odds of 120 to 1 against an event, the actual odds in fact against this event being only 80 to 1. Further, if the pregnant woman happens to consult her doctor during the seventh or eighth month of pregnancy, he may be able to ascertain with certainty the presence of twins, and enable his patient to get odds of 120 to 1 against a certainty. It may be, although the advertisement does not say so, that the money is paid only on the birth of living twins. The mortality of twin births has, we believe, never been very exactly worked out, but is generally reckoned at between 10 and 15 per cent., so that the difference of the odds in favour of the patient would be less by this extent.

## NOTES, LETTERS, Etc.

### Stuffy Omnibuses.

Stuffiness was long one of the most treasured possessions of the British public. A belief in it had descended from a time when stuffiness and warmth were held to be identical. It is one of the most tangible results of the various ambulance and nursing classes which have been held throughout the country that this belief is becoming a thing of the past. It is now generally known that windows are meant to be opened and doors to be shut. Feather beds have gone the way of nightcaps, and few stuff up their chimneys with old clothes or put a shutter over the fireplace in their bedroom. Nearly all classes have learnt that air which has been breathed is foul, and that such air is heated and has a tendency to rise. The omnibus conductor alone remains in primæval ignorance. Considerable thought and much money have been expended on the London omnibus. The light and roomy vehicle in use at the present day hardly bears the slightest resemblance to the wretched box on wheels which was its prototype—a box provided with a kniffeboard and monkey perch, the slamming of whose door was formerly the signal that a fresh victim had been more or less safely immured within its dark and cramped space. No sooner, however, does the temperature fall 10 degrees than the conductor or one of his satellites seek to bring us back to these times. All the modern omnibuses are provided with a continuous ventilator placed along the sides above the level of the passengers' heads, yet if any vehicle be entered at this time of year this ventilator is almost certainly found to be blocked with dirty rags or old newspapers, which prevent the outlet of foul air and demonstrate the conductor's ignorance of the most elementary principles of hygiene.

### Cases Resembling Scarlet Fever.

Dr. Hamilton Hall (Frant, Sussex) writes: In the British Medical Journal of December 12th Dr. Lee has some remarks on these cases which are of much interest, owing to the great practical difficulty of saying that they are not in fact cases of scarlet fever of very mild type. There have been of late very numerous cases of the kind scattered about in country places among other cases where the nature of the fever was unmistakable, and of the ordinary moderate type. In a district on high ground, 500 to 700 feet above sea level, on the borders of Kent and Sussex, where there are no sewers, no wood paving, none of the diffi-

culties of Fulham, the same disease is apparently to be found. Consideration of such a case as the following, which occurred quite recently, illustrates the difficulty of diagnosis: At a little country school several children are said to be ill. It is probably thence that a child, aged 6 years, brings home a disease which is plainly scarlet fever, with genuine peeling and with albuminuria. This child lives in a remote cottage, with no other sickness of any kind in the neighbourhood. Four or five days later a brother, aged 2 years, develops the following conditions: a slight *malaise*, with disinclination for one meal, and next day a temperature of barely 100°, a pinkishness of skin, just to be called a rash, seen most plainly in the groins, then in the other flexures and about the neck, consisting on close examination of little red spots hardly or only just contiguous; a throat congested, feeling a little sore perhaps, with some enlargement of the tonsils and a few minute ulcers; a tongue thickly coated with a yellowish-white fur, with the bare tips of bright prominent papillæ. In a few hours the fever is gone, the rash is gone, and at the end of the week the skin "efflorescses"—if that is the correct word to use—so very slightly that several close examinations leave it undecided whether or not the "efflorescence" is occurring. This child never went to school, and it seems inconceivable that he contracted it from any but his brother, and equally so that it could be anything but scarlet fever. It seems, however, to be a case remarkably similar to that described by Dr. Lee. Undoubtedly other cases quite as evident, or doubtful, have occurred in the same district and elsewhere; and while all the classic symptoms are to be found to some extent present, plain men will continue to call this disease scarlet fever until some strong evidence is brought forward that scarlet fever cannot be communicated by it. That scarlet fever gives no protection from this ailment is not yet general experience.

DR. BERNARD O'CONNOR (Lincoln's Inn, W.C.) writes: I have been interested and particularly struck by the paper from Dr. Robert Lee in the BRITISH MEDICAL JOURNAL of December 12th, 1896, p. 1708, in which he deals with the above subject, and refers to Cullen's description of cynanche maligna. There can be no question as to the existence of a malady in many ways capable of differentiation from diphtheria on the one hand and scarlatina on the other, which at the same time seems both to connect and to separate the two. Hence probably arise the unfortunate errors in diagnosis and certifications of which we have heard so much during the past few years, to which too Dr. Lee makes a timely reference. Up to about ten or twelve years ago I had ample opportunities of satisfying myself that, in such cases as are mentioned above, mistakes in diagnosis were of very frequent occurrence, and I have been recently assured that since the Notification Act and the Public Health (London) Act, 1891, have been in operation, the errors have considerably increased in number. Cynics say that the small notification fee has, in some way or other, complicated the symptoms. Be that as it may, the fact that there is a growing feeling that many ailments which are notified as scarlatinal and diphtheritic do not merit such classification is enough to serve to emphasise very strongly the necessity for requiring every intending practitioner to have spent at least some months at a fever hospital prior to his obtaining a qualification.

## CENTENARIANS.

THE following table shows the number of centenarians of whom particulars have been given in the *St. James's Gazette* during the last ten years:

| Year. | Men. | Women. | Total. |
|---|---|---|---|
| 1887 | 5 | 26 | 31 |
| 1888 | 13 | 23 | 36 |
| 1889 | 12 | 20 | 36 |
| 1890 | 11 | 25 | 36 |
| 1891 | 21 | 27 | 48 |
| 1892 | 22 | 23 | 45 |
| 1893 | 14 | 14 | 33 |
| 1894 | 12 | 30 | 42 |
| 1895 | 15 | 23 | 38 |
| 1896 | 14 | 29 | 43 |
| | 148 | 240 | 388 |

It will be seen that the proportion of male to female centenarians in 1896 stands at a fraction less than 1 to 2. The general average in favour of the latter is not quite so high, but the census returns of most European countries and of the United States concur in the result that there are always living about three female centenarians to two males. The above table shows how steadily this proportion is maintained in the United Kingdom.

## ACONITE POISONING IN A DOG.

DR. HENRY H. P. COTTON (Westerham) writes: The following case is, I think, of interest both from a toxicological and from a personal point of view. The dog, a fox terrier, first attracted my attention by incessantly protruding and withdrawing his tongue, as though it were irritated by some foreign body such as a thorn, but on careful examination I could discover nothing of the kind. A few minutes later the dog vomited, but the matter evacuated I did not examine at the time. Shortly after this he developed a peculiar walk, which is best described as "gingerly," and at intervals he would make a wild career round the room. This soon ceased, and his whole attention became directed to his feet, especially the fore feet, at first looking at and sniffing and finally biting them, in one instance until blood was drawn. In about fifteen minutes the breathing became slower, the pulse fell rapidly in frequency and power, and also became slightly irregular. These symptoms led me to suspect aconite poisoning. I made inquiries as to whether there was any horse radish in the house, and was told that several sticks had that morning been dug up in the garden. These I examined; they were without doubt the conical shaped roots of aconitum napellus. On searching about in the garden I discovered a root with the impression of the dog's teeth on it, and in the matter vomited I found fragments of the same. As regards treatment, as the dog had already vomited copiously an emetic was unnecessary, but I treated the now rapidly increasing heart failure with stimulants. In less than an hour he took without any apparent toxic effect half an ordinary dinner tumbler of whisky diluted with water, and during the following two hours about half as much again. An hour and a-half after beginning to take the stimulant the pulse began to increase in frequency and regularity. The tingling and numbness were the last symptoms to disappear, judging from the interest he continued to take in his paws and the insensibility to stimulus such as pinching, which was throughout most marked in the fore paws. In about five hours from the onset of the symptoms he began first to respond to the pinching, and at the end of the next two hours responded normally. In the early stages he micturated incessantly.

The above, I think, shows how unmistakeable the symptoms of aconite poisoning are, even in one of the lower animals. Personally I am greatly indebted to the dog, for as beef formed part of the next day's dinner it is most probable that my experiences of the toxic effect of aconite would but for him have been considerably and unpleasantly increased.

## A WARNING.

MR. WALTER MAYS (Cork Merchant and Manufacturer, Surrey Grove, Old Kent Road, S.E.) writes: Will you kindly allow me to warn the medical profession against an individual who is presenting cards bearing my name, and obtaining loans of a few shillings to, as he states, pay his fare home to Croydon, he having either lost his ticket or run short of money, and he does not want to return to the office? He promises to repay the money next day, but of course does not do so. I would point out that this person in no way represents me, and is an impostor.

## INCOME TAX CLAIMS.

THE INCOME TAX REPAYMENT AGENCY (6, Chichester Road, Paddington) writes: Will you allow us at the beginning of a new year and before it is too late to claim, to inform your readers as to what can be done in the way of obtaining refunds of income tax for four years? Claims for the year ended April 5th, 1894, can be made for a refund of (*a*) the whole tax paid or deducted if the income was under £150, (*b*) £3 10s. if the income was between £150 and £400. For each of the years ended April 5th, 1895, 1896, and 1897 for a refund of (*a*) the whole tax paid or deducted if the income did not exceed £160 (*b*) £5 6s. 8d. if it exceeded £160, but did not exceed £400, (*c*) £3 6s 8d. if it exceeded £400, but did not exceed £500. N.B.—The refund for four years may amount to about £20. Tenant farmers having no other income than their earnings can claim for the year ended April 5th, 1894, (*a*) the whole tax paid if their rent was under £300, (*b*) £3 10s. if it was between £300 and £800. For each of the years ended April 5th, 1895 and 1896 (*a*) the whole tax paid if the rent was under £487 12s., (*b*) £5 6s. 8d. if it exceeded £487 12s., and did not exceed £800, (*c*) £3 6s. 8d. if it exceeded £800, and did not exceed £1,30. For the year ending April 5th, 1897, (*a*) the whole tax paid if their rent does not exceed £480. (*b*) £5 6s. 8d. if it exceed £480, but does not exceed £1,200, (*c*) £3 6s. 8d. if it exceed £1,200, but does not exceed £1,000 For four years claims can still be made on life insurance premiums. A claim for one year can be made on decreased profits from profession, trade, or farming, also for any loss, the refund being claimed out of tax on other sources of income. We would call attention to the fact income tax can be recovered even on dividends said to be paid "free of tax." At all times we are happy to give gratuitous information as to the legality of claims on receipt of full particulars and an addressed envelope.

## THE PANCREAS AS AN ARTICLE OF DIET.

DR. T. WILSON PARRY (Youlgreave) writes to call renewed attention to the fact to which prominence was given when the thyroid gland first began to be used in therapeutics, but which may have been forgotten: Butchers apply the term "sweetbread" to organs (1) at the root of the neck, (2) in the cavity of the chest, and (3) in the belly, corresponding respectively to (1) the thyroid gland, (2) the thymus gland, and (3) the pancreas. To make quite sure, Dr. Parry adds, I watched a butcher kill and cut up a bullock. The thyroid gland in this animal is situated low down at the root of the neck over the trachea. The thymus (bigger in the calf than in the bullock) is placed in a somewhat similar position to what it is in man, while the pancreas he regarded as the least significant, and told me it was "given in with the liver." He said that if he were asked for calf's sweetbread he would give the person what we call the thyroid and thymus glands. An undercooked calf's thyroid being repeatedly given in the place of a real "sweetbread" might, as we know, produce untold mischief in a patient, as well as perplex the mind of the prescribing practitioner in a peculiar and undeserved manner.

*** A calf's sweetbread, *ris de veau*, means, we believe, the thymus. To the pancreas the term "milt bread" is sometimes applied by butchers. The thyroid, which appears to be ignored by butchers, is not as a rule, sent out with the thymus, but is left attached to the windpipe and sold with "the lights." It is not regarded as of any value, and it is perhaps worth while to add that a butcher will generally give it away, or sell it for a very small sum to a poor patient for whom it may be ordered by a medical man.

## SCARLATINA OR DIPHTHERIA?

DR. FRANCIS T. BOND (Gloucester) writes: The letter of Dr. R. A. Bayliss on this subject in the BRITISH MEDICAL JOURNAL of December 26th, 1896, so entirely expresses my own experience and views in regard to it that it would be interesting to know whether further information can be obtained from others who are in a position to speak upon it. For some months past, in fact, since the occurrence of the heavy rains which followed the drought of the earlier part of the year, a marked epidemic tendency has made itself manifest nearly over the whole of my district to an affection which in its simplest form is not distinguishable from ordinary tonsillitis, though it is unquestionably infectious in its character.

Concurrently with cases of this kind have occurred, on the one hand, others accompanied by every phase of exudation, from mere follicular spots to a uniform consistent membrane; and, on the other, a third category, in which there have been all sorts of rashes from simple erythema to the well-marked blotches of measles and the general and unmistakable eruption of scarlatina. In some of the diphtheritic type of

cases microscopic examination has demonstrated a bacillus which appears to correspond with Loeffler's in all its characteristics, although the general clinical features and apparent seriousness of the symptoms would not have justified regarding these as cases of true diphtheria. I have for years past recognised the difficulty, to which Dr. Bayliss calls attention, of drawing any absolute line of demarcation between scarlatina and diphtheria, but I have never felt such a complete demoralisation of the orthodox views on the relations of these diseases to one another as I have done during the past few months.

### MISTAKEN DIAGNOSES.

EX-DISTRICT M.O. writes: The writers in the press who cry out about the cases of mistaken diagnoses made in infectious cases have no idea of the difficulties under which the diagnoses are made among pauper cases. When I was a medical officer to one of the poorest parishes of central London, I had frequently to use a candle, even on bright summer days, as the room in which the patient was was so dark. Under the circumstances a correct diagnosis is most difficult. I urged upon the guardians of the parish the advisability of keeping a ward in the workhouse for the reception of uncertain cases, but as they would not do so, I got out of the difficulty by sending the cases to the nearest workhouse as "febricula cases to be watched." This prevented many cases being sent far away to the fever hospitals and being sent home again. I think that if such a ward were established in every parish that we would not hear any more about mistaken diagnoses.

### ADULTERATED TOBACCO.

ACCORDING to official reports tobacco is adulterated with sugar, alum, lime, flour or meal, rhubarb leaves, saltpetre, fuller's earth, starch, malt commings, chromate of lead, peat moss, molasses, burdock leaves, common salt, endive leaves, lampblack, gum, red dye, scraps of newspapers, cinnamon stick, cabbage leaves, and straw brown paper.

### THE PREVENTION OF RECURRENT APPENDICITIS.

NEW ZEALAND writes: A valuable prescription in appendicitis, typhlitis, or perityphlitis as the disease may be called, is a yard or a yard and a half of flannel folded and worn round the hips in the form of a binder; it may be kept in position by two or three safety pins, but no doubt other contrivances may be more agreeable to the wearer. The important point is protection from cold, which I believe would prevent a great many cases from relapsing. This portion of the body is particularly liable to chill, and is in most cases the cause of the disease, and when once a person suffers from even a mild attack, which might possibly be overlooked, the vitality or circulation of the parts become feeble, and are not able to resist an ordinary amount of exposure—in fact, from personal experience, the part feels for years after to be sensitive to cold, and as if one could always do with extra warmth over the iliac region.

### FAHRENHEIT TO CENTIGRADE.

THE following rule for the conversion of Fahrenheit into Centigrade degrees has recently been published in France. It is not, we believe, new, but it does not appear to be generally known, and may occasionally be convenient. Subtract 32 degrees and divide by 2; then add to this $\frac{1}{10}$ of itself, and, if further accuracy is desired, $\frac{1}{100}$ more. For instance, if it is required to find the number of Centigrade degrees corresponding to 72 degrees Fahrenheit, subtract 32 and divide by 2, giving 20; adding $\frac{1}{10}$ more gives 22, and, for greater accuracy, another $\frac{1}{100}$ gives 22.2.

### A FATAL CASE OF SNAKE BITE IN A DOG.

SURGEON-MAJOR J. C. BATTERSBY, A.M.S., writes: The recent publication of cases of snake bite in the BRITISH MEDICAL JOURNAL reminded me of a somewhat sad and tragic scene witnessed when stationed at Trincomalee in 1885. Returning to the fort one evening about dusk, a favourite fox-terrier dog suddenly rushed into an old drain after something. On listening a severe fight was distinctly heard taking place between the dog and a snake, the latter recognised by the peculiar hissing sound so typical of the snake species when suddenly disturbed. After a few minutes the dog came out of the hole, and careful examination failed to discover any wound or injury, and he accompanied me as far as the mess, when I noticed his hind legs becoming weak, and in a short time he was unable to stand, and died within three hours, notwithstanding the free administration of ammonia, strychnine, etc. Shortly after death I made a *post-mortem* examination, when I discovered an ecchymosed circular patch about the size of a shilling on the inner mucous surface of the lower lip, the centre of the patch containing a pin-hole opening corresponding to the snake's large fang. I inoculated a chicken No. 1 with the contents of the ecchymosed spot corresponding directly with the bite. Another was treated similarly with some blood from the axillary vessels, and a third with a portion of the contents of the spinal cord. The result in each case was *nil*. On opening the drain the snake was discovered dead, and recognised as a tic prolonga (Russel's viper). The snake truly killed the dog, but had succumbed to the injuries received in action.

### CLIMATES OF SYDNEY AND NAPLES.

VISITORS to Australia frequently allude to the Italian character of the New South Wales climate, especially that of Sydney, which, situated, as it is, midway between the extreme points of the colony, has a mean temperature corresponding with that of Barcelona and of Toulon. At Sydney the mean summer temperature is 71°, and that of winter 54°. The range is thus 17° F. At Naples, where the mean temperature for the year is about the same as at Sydney, the summer temperature reaches a mean of 74.4°, and the mean of winter is 47.6°, with a range of 27°. Thus the summer is warmer and the winter much colder than at Sydney.

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LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) Messrs. Arthur and Co., London; Mr. N. Alcock, Ballybrack; Dr. C. Averill, Macclesfield; W. J. J. Arnold, M.B., Aberdare; Messrs. Alexander, Daniel and Co., Bristol. (**B**) Dr. T. Brotchie, Belfast; Dr. F. Bushnell, Plymouth; J. B. Byles, M.B., London; Dr. J. H. Bond, Thames, N.Z.; Dr. A. F. Blagdon Richards, Swansea; Mr. E. R. Badcock, London; Mr. A. H. Bickford, Camborne; Mr. A. Boyd, Toronto; Dr. J. H. Brooks, London; Mr. R. Bruce, Milford-on-Sea; Mr. G. E. Bellen, Wellingboro'; Dr. J. B. Bradbury, Cambridge; Mr. W. L'H. Blenkarne, London; Mr. W. H. Brown, Leeds; Mr. J. C. Buckley, Nottingham; Dr. F. T. Bond, Gloucester; British Gynæcological Society, Secretary, London; Mr. W. E. Bennett, Birmingham. (**C**) Mr. L. Cooke, Wigan; R. D. Clarkson, M.B., Falkirk; Dr. W. Cotton, Bristol; Dr. J. Caithness, Denbigh; C. H. S.; Mr. J. W. Cockerill, Dover; C. T.; Dr. C. C. Claremont, Southsea; Mr. W. N. Clemmey, Bootle; Dr. W. A. Cummins, Cork; Mr. J. B. Curran, Rathmines. (**D**) Messrs. S. Dusselma and Co., London; Dr. T. Dutton, London; D. M.; A. Don, M.B., Dundee. (**E**) Enquirer; Epidemiological Society of London, Secretary, London. (**F**) Sir J. Fayrer, London; F. J. B. (**G**) Dr. J. Goodfellow, London; Mr. C. F. Glinn, Hatherleigh; Dr. A. Gamgee, Montreux; Dr. J. L. Gibson, Brisbane; Dr. F. E. Guntz, Dresden; Miss S. Gray, Nottingham; Mr. T. S. Gimson, London. (**H**) Dr. H. K. Hitchcock, Bournemouth; Mr. G. C. Hall, Droitwich; Dr. W. M. Harman, Winchester; Mr. T. H. Hills, Cambridge. (**I**) An Irish M.D. (**J**) Mr. F. T. Jenkins, Thayetmyo; Dr. H. S. Jones, Droitwich; Dr. R. L. Joynt, Dublin. (**L**) Mr. J. J. Langley, London; Dr. R. Legge, Derby; Dr. W. Latter, Southsea; L.R.C.P.Edin.; R. C. Lucas, M.B., London; Mr. F. W. Lowndes, Liverpool. (**M**) G. B. Morgan, M.B., Sunderland; Mr. W. Maine, Clacton-on-Sea; M.A., M.B.; Mr. G. W. MacRury, London; Mr. W. L. Morgan, Oxford; Medical Officer; Mr. W. Mays, London; Mr. T. C. Murphy, London; Member; M.R.C.S.; Mr. J. H. Mummery, London; M.D.; J. T. J. Morrison, M.B., Birmingham; Mr. W. Martindale, London; Mr. F. W. Marsden, Burnley; J. N. Mathews, M.B., East Ham; M.B., M.R.C.S. (**O**) Oxonian; Dr. J. Oliver, London. (**P**) Mr. J. D. Price, Dudley; Pondus; P. V.; Mr. W. F. Preedy, London; Mr. W. S. Praagh, London; Dr. L. Pick, Berlin. (**R**) Dr. H. Rayner, London; Mr. J. Rand, Wimbledon; Dr. H. B. Robinson, London; A. W. Russell, M.B., Glasgow; Mr. T. P. Roberts, Harrogate; Royal Institution of Great Britain, Secretary, London. (**S**) S. H.; Mr. M. B. Saunders, Philadelphia; Mr. D. Stewart, London; Dr. H. Snow, London; Superintendent; Dr. G. E. Shuttleworth, Richmond; Dr. E. M. Sympson, Lincoln; Mr. F. W. Stoddart, Bristol; Dr. F. J. Smith, London; Dr. J. O. Symes, Clifton; Mr. J. J. Smith, London; Sussex; Dr. A. J. Sharp, Whitby. (**T**) Dr. F. Taylor, London; Mr. J. T. Thompson, Cardiff; W. E. Tresidder, M.B., Nottingham; Mr. J. L. Thomas, Cardiff; Mr. A. Thorp, Holmfirth. (**U**) Dr. J. C. Uhthoff, Brighton. (**V**) Mr. A. E. Vaughan, Crewe. (**W**) Messrs. Witty and Wyatt, London; Mr. G. C. W. Williams, London; E. W. White, M.B., Dartford; Dr. H. Woods, London; Dr. H. Willey, London; Dr. A. Watson, Adelaide; Dr. B. Walker, Kirkby-Stephen; H. S. Ware, M.B., King's Heath; Dr. F. J. Waldo, London; Mr. T. G. Warner, London. (**Y**) Mr. H. Young, London; M. Young, M.B., Brighouse; etc.

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## BOOKS, ETC., RECEIVED.

Artificial Anæsthesia. By L. Turnbull, M.D., Ph.G. Fourth Edition. Revised and enlarged. Philadelphia: P. Blakiston, Son and Co. 1896.

Diphtheria and Antitoxin. By N. Tirard, M.D.Lond. London: Longmans, Green and Co. 1897. 7s. 6d.

The Practitioner: A Journal of Practical Medicine. Edited by Malcolm Morris. Old Series, Vol. lvi. New Series, Vol. iii. January to June, 1896. London: Cassell and Co., Limited. 1896. 7s. 6d.

Bournemouth Illustrated. Ninth Edition. Bournemouth: W. Mate and and Sons. 1s.

The Climate of Bournemouth in Relation to Disease, especially Phthisis. By A. Kinsey-Morgan, M.D. Bristol: John Wright and Co. 1897.

*** In forwarding books the publishers are requested to state the selling prices.

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BEING

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*Delivered at the Leeds General Infirmary,*

BY A. G. BARRS, M.D.EDIN., F.R.C.P.LOND.,

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THE observations I am about to make are the outcome of my experience in the treatment of typhoid fever in this hospital during the last three years. No one who has had much to do with patients suffering from enteric fever can fail to be impressed by the extreme degree of emaciation, feebleness, and prolonged disablement which that disorder not infrequently entails upon its victims; and it was with the idea that something might be done to mitigate its evils in this respect that I ventured, three years ago, to adopt the method of treatment which, with its results, I wish now to place before you.

Perhaps I cannot better open the matter than by briefly placing before you the records of two cases which came under my observation in the latter part of 1895.

On July 26th, 1895, I was asked by her medical attendants to see a lady who had been ill from enteric fever and its effects for practically eight weeks. Her life had never been in any great danger, but she had on July 26th arrived at such a degree of wasting and feebleness, and her temperature curve had assumed such a persistently remitting character, rising to 100° or 101° every night, and falling to 99° or normal in the morning, that my opinion was sought as to what further could be done to bring a very tedious case to an end. When I saw her she was in bed, though an attempt had been made to get her up five days before, but the temperature disturbance persisting in its remitting course, she had been sent back to bed again. During the whole of her illness she had been dieted in the most strict fashion. To me she appeared to be in good health, except for her wasting and weakness. Physical examination revealed no trace of disease except an old mitral lesion which had been present since childhood. I inquired after her functions, and was told that all except her heat-regulating function were normal. I inquired especially after her appetite, and was told by her that it was good, and that she was longing for solid food. I said I could see no reason why she should not have solid food, as she was genuinely hungry, and looked in every way able to take it, as well as very much in need of it. Her medical attendants at first demurred to this, but were soon convinced of the reasonableness of my view, and the following is the account of her diet from July 26th, at 5 P.M.:

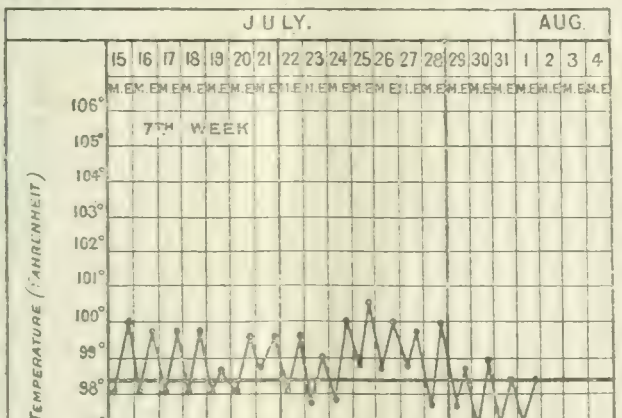



Fig. 1.

July 26th, 5 P.M.—Poached egg, sponge cake, tea, bread and butter. Temperature that night, 100°.

July 27th.—Morning temperature, 99°. Breakfast—coffee, bread and butter, bacon and egg. Dinner—sweetbread, part of a chop, potato, stewed plums, sago pudding. Tea—bread and butter, sponge cake, and tea. Supper—porridge and milk. Evening temperature, 99.8°.

July 28th.—Morning temperature, 98.8°. Breakfast—coffee, toast, bacon, bread and butter. Dinner—lamb, potato, peas, custard pudding, stewed plums. Tea—bread and butter and tomatoes. Supper—porridge and biscuits. Evening temperature, 100°.

July 29th.—Morning temperature, 97.8°. Breakfast—coffee, toast, bacon, bread and butter. Dinner—cold lamb, potatoes, peas, rice pudding. Tea—tea, bread and butter, toast, boiled egg, tomato. Evening temperature, 98.8°.

No further record of her diet was made because she continued from that time to take the ordinary meals of her household.

You will gather from the chart (Fig. 1) that we were not deterred from giving solid food by the evening rise of temperature, which did not finally disappear till July 31st, or, may I be allowed to say, that the administration of solid food failed to restore the temperature to normal till after the lapse of three days. I had warned the medical attendants that the temperature would probably rise again after the solid food had been given, but urged them not to allow that to prevent their persisting in giving it.

I quote this case as a good example of the beneficial effects of solid food upon the prolonged but small disturbances of temperature seen in cases of typhoid fever long after the specific process has run its course. I have seen many such, and in all I have advised the administration of solid food, that is, a return to natural diet, with the most satisfactory results.

In this connection I would mention another case, typical of a class, in which, at what appeared to be the stage of defervescence the temperature suddenly rose to 104° in the evening to fall to subnormal in the morning, and continued to do so for some days without any obvious cause, to the great consternation of the patient's friends. In this case the persistent administration of solid food soon restored the patient to a normal temperature curve and good health.

The second type case is that of a man who was under my care in the Leeds Infirmary in the latter part of 1895. He was 20 years of age, and was admitted on October 21st, which was about the fourteenth day of his disease, though he dated his definite symptoms from four days before admission. He was suffering from enteric fever of maximum severity, as evidenced by delirium, subsultus tendinum, irregular and weak pulse (116 a minute); the lips and tongue were dry and covered with sordes. There was profuse diarrhœa, all the evacuations being passed into the bed, and the abdomen was much distended. On October 26th, after sponging, he fell into a state of alarming collapse, which suggested perforation.

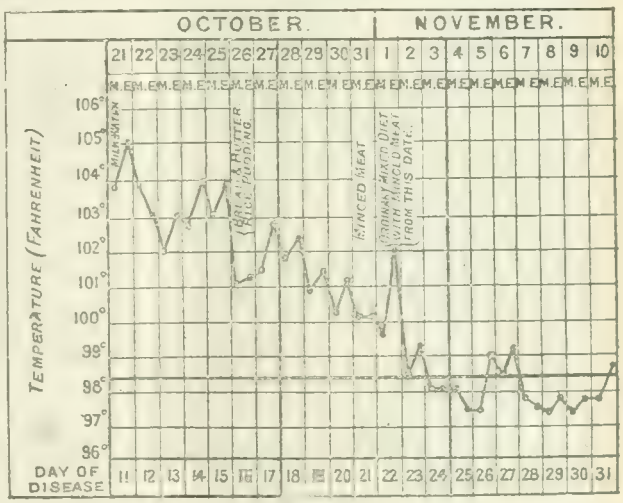



Fig. 2.

On October 27th he had rallied. On October 29th (morning temperature 101°, evening temperature 101.4°) he was given bread and butter in addition to fluid food. On October 31st (twenty-first day, morning temperature 100°, evening temperature 100°) he ate some minced meat. On November 1st

(twenty-second day, morning temperature 99.8°, evening temperature 102°) he took ordinary mixed diet, the meat being minced, and he continued to take it to the end of his illness. The rise of the temperature to 102° on the evening of November 1st did not deter us from continuing the solid food, and the following morning, as the chart shows, the temperature fell to normal. So far as his temperature curve can indicate his condition, the rest of his story is told by the chart (Fig. 2.) On account of great irregularity of the pulse, he was kept in bed for some weeks after defervescence, during which time he was taking solid food.

I have related these two cases to illustrate the manner in which I have ventured, and would urge others to venture, to depart from the orthodox and customary dietary of typhoid fever and its convalescence. I propose now to make some few observations in justification of this course. The ultimate and complete justification must be sought for in the actual clinical results.

The number of cases of enteric fever which have come under my own personal care during the last three years, and of which I have records sufficiently reliable to place before you, is not large enough to warrant any positive conclusion upon all aspects of the question, but I believe the results are sufficient to justify me in urging others to make trial of this simple modification of the usual method of feeding typhoid fever cases.

During the last three years every case of enteric fever —31 in number—admitted under my care has been treated upon this principle, and we have lost only 3 of them, and in these 3 fatal cases we were never able to give solid food. We have lost no case in which early feeding was adopted, and our case mortality has not been so great as the average mortality of the hospital. True relapse occurred in 2 of the 31 cases.

I have recommended the same plan of treatment in all cases in which my opinion has been asked in consultation, but in these cases I am unable to state what the result has been. Indeed, I mention the fact only to show that I have consistently followed this plan both in the hospital and outside it, though it is only in the hospital that the treatment has been carried out under my personal direction.

But, if I have not sufficient figures to decide the question, I think there are certain considerations which may fairly be put before you in support of the practice which I have followed. In the first place, let us ask ourselves why it is that the administration of milk or fluid diet has hitherto been the invariable practice in enteric fever and other febrile disorders? It is a question I frequently put to myself, and I have been able to find only one satisfactory answer, and that is, that as a rule in febrile states the patient has lost his appetite and is unable to take any other form of food, while the unnatural thirst of fever increases his desire for fluid. The practice is based upon no exact and scientific observations, so far as I am aware, which would tend to show that solid food *per se* is bad and liquid food *per se* is good in febrile states. Our clinical experience, of course, tells us that the great majority of cases of enteric fever recover on a purely milk or fluid diet, but this is surely no evidence of the danger of solid food given in appropriate circumstances, and I would also remark that the efficacy of any given treatment is not to be estimated entirely by the death-rate. To escape death is one thing; to be restored to health and usefulness in the shortest possible time is quite another.

Another question I would ask is, Why do we not give solid food in enteric fever? There are, it seems to me, three—there may be more—answers to this question. These answers are:

1. Because the patient cannot take solid food.
2. Because we believe that solid food is harmful in the febrile state, and
3. Because we believe there are special circumstances in enteric fever which make solid food not only undesirable, but absolutely dangerous.

The first of these three reasons is, to my mind, the only solid reason for the practice we follow. It is the reason which guides my practice, and has, so to speak, led me to my present position. I do not give solid food to patients suffering from enteric fever because they cannot take it. Whenever a patient suffering from enteric fever can take solid food I give it to him.

That solid food, when the patient's appetite and digestion permit him to take it, is deleterious in the presence of pyrexia, I am unable to believe, and I am unable to find any reliable observations which will in any way support the notion.

### SOLID FOOD DURING CONVALESCENCE.

I come now to the most important reasons usually alleged against the administration of solid food in the course of the disease, and before a certain date in convalescence has been reached. I will deal with the convalescent stage first, because I believe there is already a somewhat general tendency to relax the strict rules at one time followed, although in 1894 Dr. Curnow laid down, in most emphatic terms, the law that no solid food should be given until the temperature has been normal for at least ten days.[1] The reason alleged for this practice is the belief that the earlier administration of solid food will cause relapse or even perforation.

In regard to relapse being caused by solid food, I may state at once my own utter disbelief in the notion. If we accept the specific nature of the infection in enteric fever, how can we at the same time admit that a little bread and butter or a little meat can set up an attack of the disease—for that is what we mean by "relapse"—unless, of course, it contains a dose of the typhoid bacillus, which milk or any other fluid may much more easily contain? Perforation does now and again occur in the period of convalescence, or, to speak more correctly, after the temperature curve has fallen to normal and remained there for some days, for no patient can be said to be convalescent whose intestine still presents unhealed typhoid lesions. It is difficult for me to conceive any method of treatment more calculated to delay healing and so favour perforation than the prolonged period of starvation which the plan of fluid feeding, still advocated as essential for ten or fourteen days after the febrile state has come to an end, adds to the devastating effect of pyrexia and limited feeding of the disease itself. The conditions favourable to healing are the same for the small intestine as for any of the external parts of the body, and no surgeon I imagine would expect to see wounds undergoing repair in the shortest possible time in a patient living on fluid food alone. The question of physiological rest to the parts involved, that is, the reduction of intestinal movements, is to my mind no difficulty in this respect. Peristalsis is always going on more or less, and there is no reason to believe that solid food which has undergone efficient digestion in the stomach causes more vigorous movement than milk or any other fluid nutrient. I have to express my firm belief that there is no sufficient reason for withholding solid food in the stage of convalescence; on the contrary, I hold strongly that the sooner the patient returns to the natural diet of health, that is, solid mixed food, the sooner will he be restored to a condition in which he is best able to withstand any further invasion of the typhoid organism, and the sooner will his nutrition be such as to place his intestine under the best possible condition for healing.

### SOLID FOOD IN THE ACUTE STAGE.

I come now to the more important question of the dietetic management of the acute stage of the disease. Perhaps no one will disagree with the general statement that as there is a normal temperature, a normal pulse-rate, a normal body weight, a normal frequency of defæcation, and so on, which we regard as characteristic of good or normal bodily health, so there is belonging to that same state a normal appetite, a normal capacity to take natural food. The normal food for us is just as much a fixed quantity as our normal temperature, and there is no need for me to state what it is. The business of the physician, if I may say so, in typhoid fever is to see that the patient departs no farther from the line of health in food as well as in temperature, frequency of defæcation, and so on, than the nature of his disease requires. His condition at the moment should be the guide, and not our preconceived notions as to the requirements of his disease. He should, as Sir William Roberts has so well said for some other ailments: "Eat what he likes and what agrees with him." Whether a patient likes a thing or not depends upon his appetite for that particular thing, and as a rule an appetite for any particular thing is a pretty sure indication that it will agree, that is, it will be digested, absorbed, and

[1] *Clinical Journal*, March 7th, 1894, p. 291.

assimilated in due and normal course, and will so entirely tend to the well-being and not to the undoing of the patient. My rule, then, in typhoid fever is to give the patient such wholesome food, solid or fluid, as he can take, using the word "take" to mean that he likes it, and wishes for it, and enjoys it.

It has, I believe, been said by some who take an interest in my views in this matter, that I give in all cases, and at all stages of typhoid fever, solid food. Nothing could be further from the fact. To give a patient with a dry and shrivelled tongue, teeth covered with sordes, semi-comatose from pyrexia, and utterly indifferent to all around him, and especially to food, meat, or any other solid would be to my mind as silly and as cruel as to withhold it from a patient who expresses himself as genuinely hungry, and looks so, because his temperature curve is not normal, or because his bowels are acting a little too frequently. If I am convinced that a patient is genuinely hungry—and many patients are so in all stages of typhoid fever—I never refuse him reasonable solid or any other food, whatever his condition in other respects may be. I say "genuinely hungry," because sometimes patients, knowing as a matter of common knowledge how sure a sign of returning health an ability to take natural, that is solid, food is, will deceive themselves into believing that they can take solid food, when such is not the case. The point is not one of much difficulty. Patients with dry tongues (not simply furred tongues) and lips and teeth, cannot, I think, have an appetite for anything but water, whatever they may say. Even in such cases solid food does no harm, for it is soon withdrawn, for the simple reason that the patient cannot take it. My constant question to the patient, when I believe he has sufficient intelligence thoroughly to understand it, is, "Are you hungry?" And if he says "Yes," and I am convinced that he means it, and is really hungry, I give him some simple thing which he expresses a desire for, especially meat. Whenever a typhoid fever patient can eat meat and enjoy it, I have never much doubt as to his recovery. It is usually minced meat to begin with, because it is more easily given in the recumbent posture, for I am very tardy in allowing the patient to leave even the recumbent posture until he shows that he has largely regained his normal strength.

### Objections to its Use Considered.

The administration of solid food during the course of the fever is generally said to be undesirable, if not absolutely dangerous, from its liability to produce (*a*) increased diarrhœa, (*b*) perforation. I do not mention hæmorrhage, though perhaps that may have been alleged as a reason for a strictly fluid diet. My cases show that reasonable diet of any kind has no effect one way or the other in the matter of diarrhœa. Diarrhœa is a very varying thing in typhoid fever, even with the strictest dieting, and I think such variations in it as are usually attributed to food may very readily and reasonably be attributed to the specific lesion of the disorder.

Perforation is to my mind by far the most important point with which I have to deal, for I shall be the first to concede that if solid food can, with reasonable certainty be blamed for a single case of perforation, it would be quite unjustifiable to give it. Perforation is not a common accident. Under orthodox methods of dieting it occurs in from 2 to 3 per cent. of all cases. For instance, in the hospitals under the management of the Metropolitan Asylums Board in 1894, in 534 cases 96 died, and of these 17 were cases of perforation, so that it is not a common cause of death.[2] It seems to me that perforation may come about in one of two or three ways:

1. By a direct extension of the typhoid process to and through the peritoneal coat of the intestine.
2. By undue stretching of the intestine when the peritoneal coat has been exposed by separation of the slough. This is usually brought about by flatulent distension (we all very properly regard a distended abdomen as dangerous).
3. By violent peristalsis such as that induced by purgatives or foreign bodies in an intestine in which the peritoneum only forms the floor of the ulcer.

We have, of course, no facts to guide us, but my opinion is that the majority of cases are due to the direct effects of the typhoid process, and are not accidental in the strict sense of the term, and are unavoidable by any form of dieting unless it be by liberal feeding in order to maintain the resisting powers of the individual at the highest level possible under the circumstances. I think too much has been made of ulceration in typhoid fever. In my opinion, ulceration—in the sense of a spreading molecular destruction of parts—there is very little, save that which is necessary for the detachment of the slough, and when the sloughing process has reached the peritoneal coat the simple and natural process of separation will cause perforation. Tympanites and violent peristalsis are not more likely to occur under the method of feeding which I am advocating than under strictly fluid diet. I believe that whatever food we put into the stomach, if it is digestible and the stomach is digesting, it will reach the seat of the typhoid lesion in the same state of fluidity, whether it be milk, beef-steak, bananas, or what not. If the stomach is not digesting the patient will not be hungry, and, consequently, according to my rule, solid food will not be given to him. It is not necessary for me to remind you that milk is, at a certain stage of its digestion, just as much solid food as meat is, and sometimes it passes into the intestine and on to the typhoid lesion in its solid state, so that milk is not quite devoid of this supposed danger. I believe, also, that it will be generally admitted that a diet consisting of a normal proportion of wholesome solid food (meat and bread) is much less likely to give rise to an excess of intestinal gas than a diet consisting exclusively of fluids. Finally, I would suggest that solid food alone cannot be a cause of perforation, or perforation would not occur when the diet is so strictly regulated as it is.

As I have already pointed out, perforation is not a common cause of death. The average mortality in the Metropolitan Asylums Board hospitals during the last nine years is close upon 17 per cent.,[3] while the mortality from perforation is from 2 to 5 per cent., so that 12 per cent. of the deaths have to be explained by other causes. Hæmorrhage from the intestine probably causes death somewhat more frequently than perforation.

I believe the general experience to be that the majority of cases die from conditions such as cardiac failure, lung complications, and all the other devastating effects of general infection, against which the patient can set only such powers of resistance as he possesses, and which will be more or less effectual according as we have maintained his general nutrition by food, and diminished the other effects of the wear and tear of his disease by all means in our power.

There is in the treatment of typhoid fever too great a tendency to treat the intestinal lesion at the expense of the individual, or if not that, to make the temperature chart the sole arbiter of our practice.

Finally, may I state again my position in regard to the question of diet, so that there may be no misunderstanding? What I am contending for is that we should enforce no further departure from the normal diet of health than the disease itself enforces by the inevitable loss of appetite and impaired digestion of the pyrexial state. When a patient suffering from typhoid fever expresses a genuine desire for solid food, and his expressed desire is confirmed by his physical condition, I give him such food as he can take, especially meat. I do not suggest, much less insist, that a patient with a dry baked mouth, semi-delirious, and probably loathing even milk, should be fed upon beefsteaks. Such a proceeding would, in my opinion, be as ridiculous and unjustifiable as to insist that a man who, with a clear mind and a full appreciation of his condition says he is craving for solid food, should be refused it.

I have not hitherto urged any reason for the plan which I advocate beyond the fact that it involves the least departure from the normal line of health, but I am prepared to urge that it is a method which is likely to modify favourably the death-rate of typhoid fever, to shorten convalescence, to diminish the risks of complications and sequelæ, and generally to make typhoid fever a less formidable and more manageable disease than it is under our present standard methods of treatment.

[2] Reports for 1894 of the Statistical Committee, M.A.B., pp. 97, 98.

[3] *Ibid.*, p. 29.

THE Russian Society of Naturalists and Practitioners will hold its next annual meeting in the last week of August, 1897, in the city of Kiew, and it is stated that the municipality of that city has contributed £1,000 towards the reception fund.

# ABSTRACT OF AN ADDRESS
ON
# HEREDITY IN THE NEUROSES.

*Delivered before the Neurological Society of London,*

BY GEORGE H. SAVAGE, M.D., F.R.C.P.,
President of the Society; formerly Superintendent of Bethlem Royal Hospital for the Insane.

DR. SAVAGE first referred to the death of Dr. Hack Tuke, which thus placed him as the representative of the psychiatric branch of the Neurological Society in the honourable position of President. He spoke of the evidence of transmission of special mental qualities in the Tuke family.

In commencing his subject he considered heredity and the present ideas relating to it; next he defined the meaning he attached to the terms "neurosis" and "neurotic." Then he traced the connection between the various neuroses, and pointed out what, in his experience, was the relationship between these and parental neurosis. He discussed the special liability of recurrence of the insane neuroses, and dwelt on the conditions which gave rise to the tendency of some to recur more than others.

Dr. Savage traced at some length from the Darwinian period to that of Weismann the theories of the influence of heredity. He could not admit that there was no power of transmitting acquired capacities. He felt much misunderstanding had arisen from the idea that there might be transmission of fully formed powers or faculties, whereas all that could be transmitted must be a predisposition for developing a habit or power. The very existence of species which bred true and yet bore distinct relationships to other species was proof of a power to vary and of a power of slowly acquiring specific characteristics which might be transmitted.

Man's life was too short upon the earth to watch the process of species forming. The transmission of acquired powers in man was not to be seen in increase of brain mass, but in adaptability of already existing organs and tissues. There was no doubt this increasing power of accommodating itself to the ever-increasing complexity of the surroundings must also be associated with tendency to fail in power of adaptation which is one of the marks of neurosis. There might be made some comparison between the power of the nucleus to take to itself germ matter to form a germ cell, and the power of the fertilised germ to take to itself a body suited to fit into its special surrounding.

The transmission of the simpler parts of a body and the simpler associated instincts, he continued, was admitted, and it is only due to complexity of structure and function that we fail to trace other evidences of transmission. In the transmission of instincts it is noteworthy that some are only potentially transmitted. They may never be called into action. The proper stimulus for their production may never come, and it will be seen that there are certain neuroses which are not evoked till special causes, such as age, occur. Reference was made to the occurrence of special forms of neurosis in particular families at certain ages, these occurring though the individuals led very different lives.

Neurosis was looked upon as morbid nervous instability which showed itself in a nervous expression of bodily states, this nervous expression being exaggerated or premature. Neurosis depended more on the general bodily states than on the states of nervous tissues primarily. States of degeneration or weakness in the parent lead to instability in the offspring, and it is very important to recognise that similar states of instability may depend either on neurosis in a parent, or on previous neurosis in the individual. Certain neuroses are distinct, and seem to have little likelihood of becoming insanity; thus it is with many forms of hypochondriasis. In tracing neuroses it is well to observe the nervous symptoms which occur in the children of markedly neurotic parents; these consist of degrees of mental weakness, varieties of defect which are represented in various forms of idiocy. Again, the weakness may be most marked as defect of higher nervous control: thus we meet with impulse, convulsions tending to morbid habit, epilepsy, or there may be one-sided development, as seen in *idiots savants*, and in some precocious and criminal types.

Many interesting symptoms, such as somnambulism, incontinence of urine, sexual precocity, mimicry, defects of expression were shortly alluded to. Observations on the occurrence of high temperatures from slight causes, and the ease with which delirium was caused completed this part of the subject.

Other connecting links in the neurotic chain were discussed, and Dr. Savage pointed out that it was of interest to note how the same nervous symptoms might occur in patients who had insane parents, and in those who in youth had had attacks of insanity themselves. This was well seen in some cases of so-called moral insanity. The children of some insane or highly neurotic persons might have either no recollection of punishment, or else were unable to associate certain acts with certain pains. In some cases the criminal acts were simply uncontrolled impulses depending on original nervous weakness. Lying of different kinds was described as occurring both alone and associated with thieving in neurotics. Cruelty, the uncontrolled exercise of power in some cases, and in others a mere uncontrolled reflex. Precocious sexuality, and sexual perversions and their possible causes, were referred to.

The next part of the subject dealt with was the relationship of the various forms of insanity to heredity. Dr. Savage pointed out that ordinary mania was not a form of neurosis which bred true. There did not seem to be a sufficiently definite physical basis for it to be transmissible, but there was the form of acute delirious mania which was interestingly allied to the early delirium in childhood, which was easily evoked in neurotic subjects, and was a very grave disease. Melancholia, on the other hand, being specially associated with general bodily ailment, was a disorder which was often met with generation after generation in certain families. These families tended to die out in mind before they did in body; the individuals often lived to extreme old age. In some of the nervously unstable and brilliant there seemed to be capacity for passing on a tendency to recurring melancholia, which in the end became chronic. Dementia, in a similar way, was often associated with the old age of certain families. The way in which the mental decay occurred generally followed the same lines in members of the same family.

The next point taken was the relationship of systematised delusional insanities to heredity. It was pointed out that in nearly all these cases there was either neurotic heredity or else a history of previous attacks of insanity in the individual. The occurrence of similar imperative ideas in parent and child was referred to and explained as possibly only comparable to the occurrence of muscular tricks under similar conditions. The various monomanias were spoken of, and the relationship which exists between heredity and general paralysis of the insane. It was said that in general paralysis the neurotic heredity was not often strongly marked, but that, if it occurred, it seemed to affect the course of the disease, in some cases leading to frequent remissions, and in others to a chronic course in the disease. It was suggested that where there was a history of syphilis and neurotic heredity, locomotor ataxy was not uncommon, while under similar conditions without the heredity general paralysis was more common.

Dr. Savage concluded his address by observing that what in some cases looks like direct heredity is after all the result of nervous instability associated with dread and expectancy. This is well seen in some cases of puerperal insanity and the suicidal tendency recurring in certain families. Heredity, then, is an important factor in the production of neuroses; it is an important element, too, in their transmission, but the transmission depends as much on the stimulus which evokes the symptoms as on the heredity, and it is this which is so important a matter for the consideration of the physician. There is no absolute tyranny of the organisation any more than there is tyranny of the surroundings. There is, therefore, ground for hope in changing the surrounding of the neurotic, and thus breaking morbid habit or preventing its development. There are no specific differences between the neuroses; they are links in the same chain. On the whole, he concluded that there is evidence of the transmission of nervous acquisitions and also of nervous defects.

## CONCURRENT SCARLATINA AND ENTERIC FEVER.[1]

BY E. MAC DOWEL COSGRAVE, M.D., F.R.C.P.I.,
Professor of Biology, Royal College of Surgeons, Ireland; Physician to Cork Street Fever Hospital, Dublin.

ALTHOUGH many cases are on record of convalescents from enteric fever contracting scarlatina, and on the other hand of convalescents from scarlatina contracting enteric, true concurrence, that is, the incubation and pyrexial stages of the two diseases occurring simultaneously, is not common, and has only lately been recorded, and that in but few instances.

A convenient starting point which sums up previous knowledge is a paper[2] by Murchison, who, writing in 1859, says that in ten years he saw only one case of scarlatina contracting enteric fever, and that supervened on the twenty-sixth day; he gives, however, some cases of scarlatina supervening in enteric, but goes on to say, "No cases have hitherto been published showing the possibility of these two diseases coexisting."

This extreme view he afterwards modified, and in his classic work on fevers[3] says, "In the London Fever Hospital, where it was the practice to treat all forms of fever in the same wards, it was not uncommon for a patient suffering from enteric fever to contract scarlet fever, and I have notes of eight cases in which the eruptions of the two diseases coexisted." Murchison gives notes of two of these cases; in one the scarlatina eruption came out late in enteric—probably in the third week; and in the other case it appeared on the twenty-second day. On the other hand Murchison says[4] "scarlatina appears indeed to predispose to enteric fever."

The textbook accounts have not advanced further than this. Dr. John William Moore in his excellent work on fevers,[5] merely mentions Murchison's eight cases, but without analysing them, and gives none of his own. Dr. Marcus Hartfield[6] alludes to cases of coincident scarlatina, small-pox, and measles reported by Vogel, but does not mention the coexistence of scarlatina and enteric.

Curiously enough other observers went off on an entirely different line. Dr. John Harley, writing in *Reynolds's System of Medicine*,[7] announced his theory that enteric fever and scarlatina were manifestations of the same poison; and in 1871 he read a paper at the Royal Medical and Chirurgical Society,[8] arguing, from the general inflammation of the lymphatic glands sometimes occurring in scarlatina, that "the pathological changes accompanying an ordinary attack of scarlatina include all those of the first stage of enteric fever, and that the transition from one disease to another is but a natural pathological sequence, readily determined by any cause which may increase the intestinal lesion." However, as the cases given showed the symptoms of fully-developed enteric on the thirty-second, *circa* thirty-fifth, fifty-eighth, forty-first, fifty-second, and thirty-second day of scarlatina, these seem to have been cases of enteric following scarlatina.

Dr. Bayard Holmes, in a paper on Secondary Mixed Infection in Typhoid Fever,[9] which was published in 1889, does not allude to scarlatina; and Dr. H. N. Joynt, in a paper On the Influence of One Fever on Another,[10] published in 1891, deals with the modifying influence of scarlatina on other zymotic diseases, and *vice versâ*, but does not give a single case of scarlatina and enteric coexisting or in sequence.

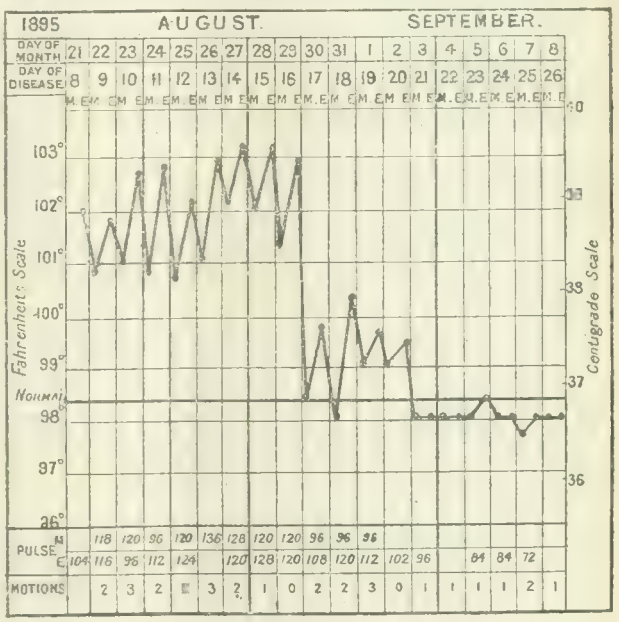
Dr. J. H. Sequeira in 1891 published two cases of enteric fever, complicated by scarlatina, treated at the North-West Fever Hospital in 1890.[11] One case was admitted into hospital with scarlatina on the tenth day of enteric, and the other developed the rash of scarlatina five days after rose spots had appeared. These were evidently cases of scarlatinal infection following enteric, the courses of the two diseases running partly together.

The first cases I have found recorded in which the incubation stages of scarlatina and enteric were concurrent, were recorded by S. A. E. Griffiths, L.R.C.P., in a paper on Scarlet Fever and Enteric Fever.[12] Four cases all occurring in the same family are given. The first, a boy, aged 11, on the sixth day of scarlatina showed characteristic enteric symptoms. The second, a girl, aged 13, got scarlatina three weeks after her brother, and in twelve days enteric was developed. The third, a girl, aged 3, got scarlatina some days after her sister; in eleven days enteric was developed. The fourth, a girl, aged 7, got scarlatina on the same day as the last; in eleven days enteric was recognised. In all there was free desquamation.

The next cases are recorded by Dr. Caiger in a paper[13] read at the Epidemiological Society, April 18th, 1894, on The Co-existence, or Close Succession, of Two or More Infectious Diseases in the Same Individual. He analysed the cases treated in Rockwell Fever Hospital in four years, and showed that there were 362 cases of infectious diseases running in part their courses concurrently. In 200 of these the febrile stages actually coincided. There were two cases of scarlatina coincident with enteric. At the same meeting Dr. J. F. Payne showed a temperature chart of enteric fever with concurrent scarlatina.

The same year Dr. Edward Carmichael published a paper[14] on Co-existence of Infectious Diseases in the Same Individual. In it he reported the case of a lad, aged 6, who got scarlatina, but although there was free desquamation, the temperature did not fall, and enteric developed. The occurrence of both diseases was curiously proved by the lad infecting his sister with scarlatina and his father with enteric.

Before passing on to the cases that have come under my own notice I would like to mention the adventitious scarlatiniform rash sometimes seen in enteric. It is spoken of by Murchison.[15] Dr. John William Moore also described it in a paper read before the Academy in 1888,[16] and later in his work on fevers;[17] and Jenner gives some cases in which this red rash preceded the rose rash, and was mistaken for scarlatina.[18] Other examples could easily be cited, but I merely




Case I.

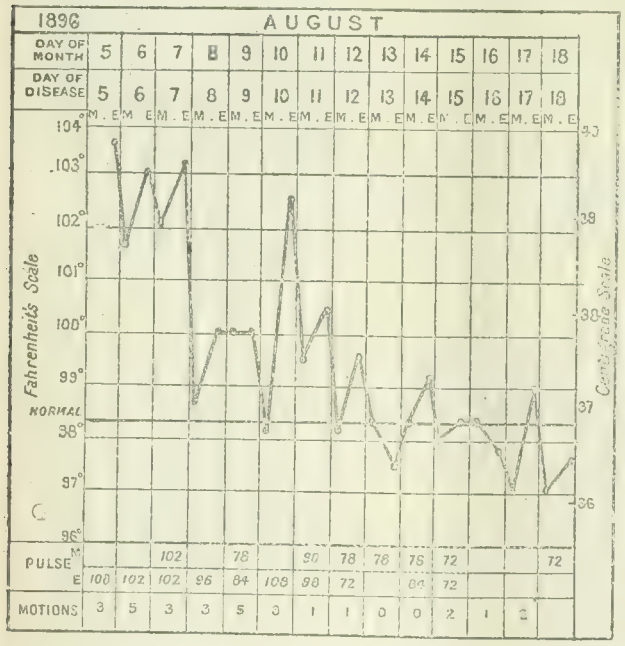
[1] Read at the Medical Section of the Royal Academy of Medicine in Ireland.
[2] *British and Foreign Medico-Chirurgical Review*, July, 1852, p. 194.
[3] *The Continued Fevers of Great Britain*, Ed. iii, p. 586.
[4] *Loc. cit.*, p. 453.
[5] *Eruptive and Continued Fevers*. J. W. Moore. M.D. 1892
[6] *American Textbook of Diseases of Children*, 1894, p. 155.
[7] Article on Enteric Fever.
[8] December 12th, 1871.
[9] *Medical Press*, January 16th, 1889, p. 52.
[10] *Practitioner*, 1891, vol. 2, p. 261.
[11] BRITISH MEDICAL JOURNAL, 1891, vol. i., p. 849.
[12] *Lancet*, 1893, vol. ii, p. 1307.
[13] *Lancet*, 1894, vol. i, p. 1137.
[14] *Lancet*, 1894, vol. i, p. 1246.
[15] *The Continued Fevers of Great Britain*, Third Edition, p. 516
[16] Accidental Rashes in Typhoid Fever, *Transactions Royal Academy of Medicine in Ireland*, 1889, vol. vii, p. 10.
[17] *Eruptive and Continued Fevers*, 1892, p. 371.
[18] *Fevers*, 1893.

mention these references to show that the occurrence of a scarlatiniform rash during the earlier period of enteric is not sufficient to show concurrence of the two diseases, but other symptoms of scarlatina should be present, such as invasion, distribution of rash, appearance of throat and tongue, and well-marked desquamation.

The following 5 cases of concurrent scarlatina and enteric were observed in Cork Street Fever Hospital during 1895-96. For the careful notes I am indebted to the kindness of Dr. Ernest A. Bourke, our Assistant Resident Medical Officer.

CASE I.—E. A., a delicate, strumous-looking boy, aged 8½ years, was admitted into Cork Street Hospital on August 21st, 1895. He had been attacked by scarlatina seven days previously, and was attended at home by Dr. W. J. Thompson, who, when thought safe to move, sent him into the hospital. On admission there was redness of the back of the throat, and enlarged cervical glands, but no trace of rash; there was also tympanites, enlarged spleen, diarrhœa with characteristic motions, coated tongue, and a temperature of 102°—in fact, all the symptoms of a fairly severe attack of enteric fever. Two days after admission free general desquamation set in. Five days after admission rose spots were noticed, but they might have been present two or three days earlier, as the desquamation would have concealed them. The patient made a very good recovery, the temperature becoming normal on September 3rd, and the lad was discharged from hospital on October 21st. The desquamation in this case was unusually free, and large flakes separated from the hands and feet. The sequel of the case may briefly be recorded. About a week or ten days after discharge from hospital he was suddenly attacked by convulsions, and died in forty-eight hours, apparently from meningitis. There had not been at any time otorrhœa.

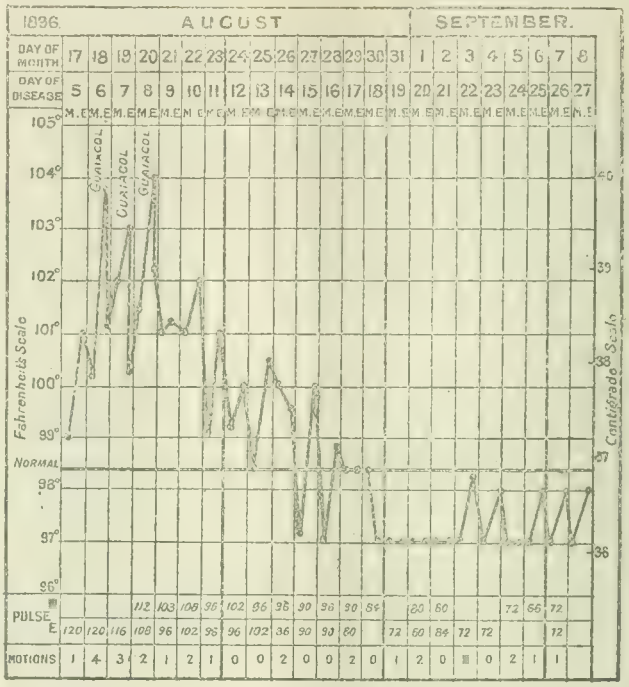
CASE II.—S. K., a young woman aged 18 years, was admitted into Cork Street Fever Hospital under my care on August 5th, 1896. Four days before admission she was attacked by sore throat and vomiting; a day or two afterwards a red rash was noticed on the body, and there was diarrhœa. On admittance there were traces of scarlatina rash, especially marked on the legs, the throat was red, the tonsils slightly swollen, and the papillæ of the tongue were enlarged; the patient complained of sleeplessness, the evening temperature was 103.8°. August 6th. The abdomen was distended, there was considerable diarrhœa; salol grs.x ter die was ordered. The evening temperature was 103°. August 7th. The diarrhœa still continued, the motions being light brown and liquid; there was




Case II.

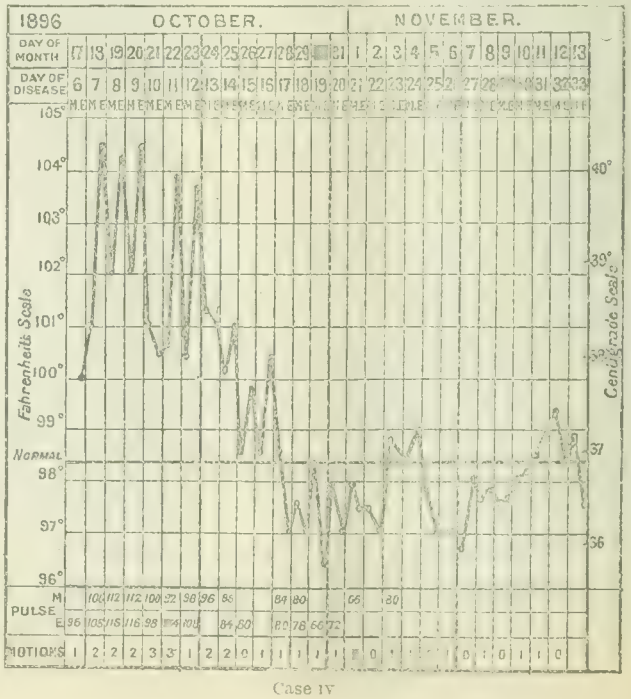
tympanites, the spleen was enlarged, and the tongue was coated. August 10th. On this the tenth day of illness rose spots were noticed on the abdomen, tympany was increased, and the tongue was brown, dry, and transversely furrowed. By this time there was no doubt of the existence of enteric fever, and as the patient was freely desquamating all over, large flakes separating from the feet, the diagnosis of scarlatina was confirmed. From this on the case did well, the temperature gradually falling, so that on the fifteenth day of illness it was normal.

CASE III.—G. H., a girl aged 11, was admitted into Cork Street Fever Hospital under my care on August 17th, 1896. Six days previous to admission she complained of slight headache and pain in the stomach, and on the following day was attacked by pains in the limbs, sore throat, and vomiting, and felt so weak and so ill that she went to bed. For the two days previous to admission she had diarrhœa. On admission there was extensive scarlatina rash over the body; in some places it was commencing to fade; the tongue was thickly coated down the centre, the tip and edges red, the papillæ enlarged. There were sordes on the teeth and lips; the tonsils and uvula were much swollen, dark in colour, and bearing exudation; the submaxillary glands were enlarged. The temperature on the evening of admission was 102°, the pulse 120. August 18th. The rash was still more faded, but the evening temperature rose to 103.6°, and the patient was slightly delirious; the epidermic application of

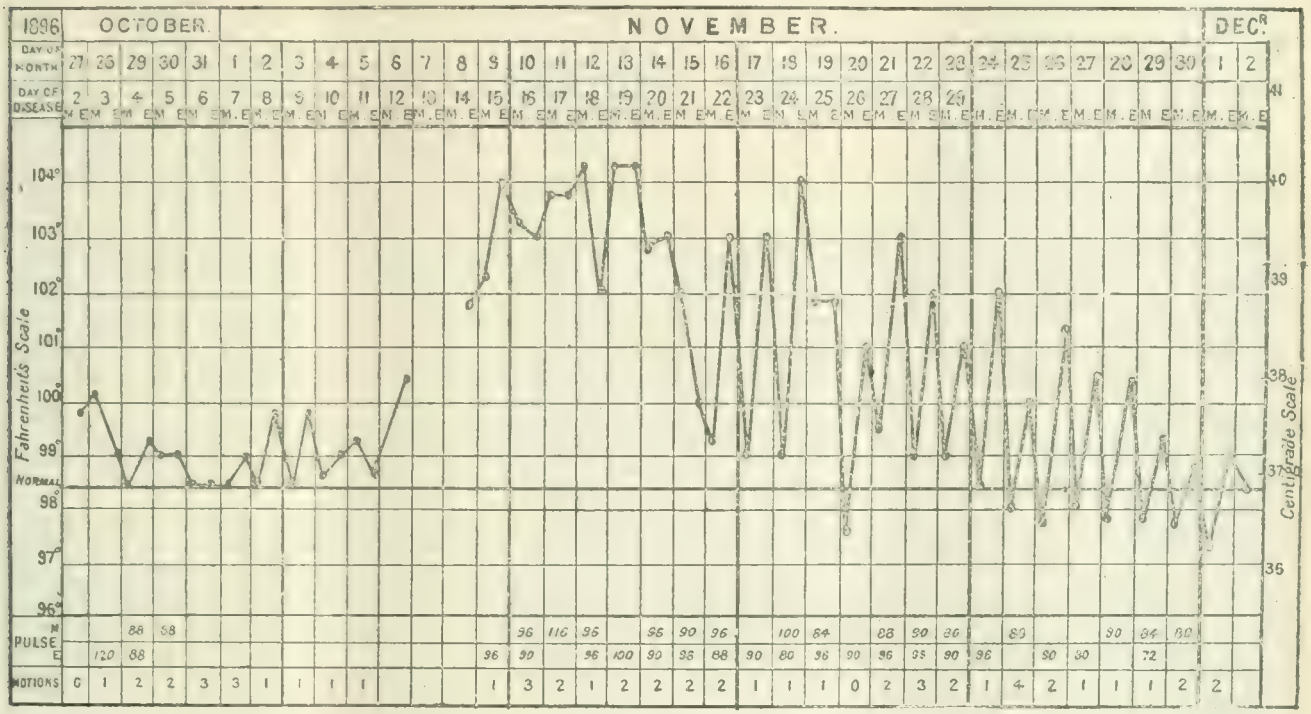



Case III.

guaiacol mvij brought down the temperature 2.6°. August 19th. The diarrhœa continued, the motions being large, liquid, and light brown in colour. August 20th. The abdomen was distended, there was tympanites, sordes on the lips and teeth, the tongue was dry and coated, the enlarged papillæ still showing; splenic dulness was increased, there was diarrhœa with light-brown liquid motions, the pupils were dilated, the patient was restless and inclined to be delirious. Towards evening the respirations became more rapid, there was slight congestion at the base of the lungs, and rose spots appeared. Next day fresh rose spots appeared, and there




Case IV




Case V.

was otorrhœa from the right ear: by this time desquamation was well marked. On this evening the temperature reached its highest point (103°), and was reduced by the application of 7 minims of guaiacol to 102.2°. From this on the enteric fever ran its usual course, except that the temperature became normal on the seventeenth day.

CASE IV.—W. F., a lad aged 10, was admitted into Cork Street Fever Hospital on October 17th, 1896, under my care. Five days previous to admission he had sore throat, headache, and pain in the stomach, but no vomiting. He was sent in as suffering from scarlatina. On admission there was a fading rash, best marked on the legs; the throat was red, the tonsils enlarged, a small ulcer being on the left one; the papillæ of the tongue were enlarged. On October 18th the tongue was coated, the face was pale with a hectic flush on the cheeks, the eyes were bright, the pupils were dilated; the abdomen was distended and tender on pressure; there was slight diarrhœa, the motions being liquid and light yellowish-brown. On October 20th rose spots appeared over the abdomen and chest, and during the next three days fresh spots came out: during this period the abdominal symptoms became more pronounced. On October 27th—the seventeenth day of the illness—the temperature reached normal, and by November 9th there was free general desquamation over the body and limbs.

CASE V.—R. K., a lad aged 7, was admitted into Cork Street Fever Hospital under my care on October 27th, 1896, on the second day of illness. He was suffering from scarlatina, and had a well-marked rash, swollen tonsils (the left being ulcerated), and the tongue had enlarged papillæ showing through a creamy coating. The scarlatina ran a mild course, and was free from any complications except slight diarrhœa. Ten days after admission the evening temperature rose to 100.4°, and two nights after to 104°. Gradually the symptoms of enteric fever developed, and the typical range of temperature, enlargement of the spleen, and moderate tympanites with diarrhœa continued throughout the further progress of the case. Red spots were not, however, noticed. There were no complications, and the temperature became normal on the thirty-fourth day, that is twenty-four days after the first symptoms of enteric. The desquamation was late but free, large flakes separating from the hands and feet.

These cases form an interesting series; they all occurred within eighteen months, 4 being under treatment at the same time. All had well-marked enteric, and all had well-marked scarlatina, followed by free general desquamation. In 4 of these cases the incubation stages were concurrent, the scarlatinal infection being secondary to the enteric, so that in these 4 cases the invasions of the two diseases were almost simultaneous: the earlier prominent symptoms being those of scarlatina, the rose spots developing on the thirteenth, tenth, eighth, and ninth day respectively.

Another interesting point is that the scarlatina, instead of increasing the severity and danger of the enteric, rather seemed to abort it; all the attacks were fairly severe, the temperature on the first appearance of rose spots being, respectively, 102.8°, 102.6°, 104°, and 104.6°, and the temperature of the fifth case, in which no spots were observed, running up to 104.4°; and yet, in the first case, normal temperature was reached on the twenty-first day, the disease having been mild from the sixteenth day, and in the next three cases normal temperature was reached on the fifteenth, seventeenth, and seventeenth day respectively. In the last case the enteric fever ran slightly over three weeks.

The enteric also seems to have a mitigating effect on the scarlatina. This is especially shown in the third case, which was one of scarlatina anginosa; at any rate the coexistence of the two diseases does not seem to add to the danger of either.

The importance of recognising the possible concurrence of these two diseases is evident, and it should be remembered that the severe invasion of scarlatina may mask the enteric: so that if the temperature of scarlatina keeps up, and abdominal symptoms develop, the possibility of enteric being concurrent with the scarlatina should be borne in mind.

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ARMY BOOTS.—The Mayor of Droitwich, Dr. H. Shirley Jones, has offered as a prize a pair of improved army boots to each of the two best recruits of the Droitwich company of volunteers. We have on previous occasions called attention to the defective character of the ordinary contract army boot, and Dr. Shirley Jones's prize will, it is to be hoped, call renewed attention to the matter. The boots which he is offering as a prize are of a very superior kind. A medical officer writes in reference to them: "I never saw such good ones; it is impossible to tell whether they are hand or machine sewn. They have capital flexibility at the waist and an excellent outline along the sole. They lace nice and low down over the instep." These boots are of good appearance, and do not bear the base uniformity of a War Office article.

THE Aldershot District Council, at their meeting on January 6th, resolved to cordially approve and support a scheme for commemorating the happy connection of the Royal Family with the town, and the memorable event this year in the Queen's reign, by raising an endowment fund for the hospital of which the Duke and Duchess of Connaught laid the foundation stone in July, 1896.

# REMARKS
ON
# WANDERING SPLEENS.

*A Paper read before the Medical Society of London.*

BY J. BLAND SUTTON, F.R.C.S.,
Surgeon to the Chelsea Hospital for Women; Assistant-Surgeon to the Middlesex Hospital.

THE epithet "wandering" has been applied to organs unduly mobile, the common examples being wandering kidney and a wandering goître; in none is the term so well deserved as in the case of a very movable spleen. In a well-marked instance this organ is capable of such free excursions that it may be brought into contact with every part of the cœlom (general peritoneal cavity) from the diaphragm to the floor of the pelvis. It is difficult to conceive that a viscus like the spleen, suspended by peritoneum to the under surface of the diaphragm, connected to the great *cul-de-sac* of the stomach by means of the gastro-splenic omentum, and by its blood vessels brought into intimate bondage with the pancreas, could so elongate its attachments as to reach the fundus of the virgin uterus.

It is not my intention to offer any speculations on the manner in which this undue mobility is acquired, but merely to refer to the leading facts which have been ascertained in regard to prodigal spleens, to indicate the evil consequences which arise out of their wanderings, the mischief they set up in certain organs with which they come in contact, the difficulty they occasion in diagnosis, the astonishment which follows their discovery in the operating theatre or the *post-mortem* room, and the disasters wandering spleens may entail upon their owners.

It is interesting to observe the positions assumed by a wandering spleen. Occasionally it will occupy the normal position, and remain for days retired under cover of the left costal arch; then suddenly it slips out, and becomes obvious to the patient in the umbilical or iliac regions; then it will descend into the pelvis, and its presence there is determinable only by deep pressure of the fingers over the hypogastric region, or by vaginal examination. Although gravity exercises some influence in determining the sinking of the spleen into the pelvis, its position in the belly does not always appear to be due to this cause. In one case, especially, I was able to determine on several occasions that when the spleen was very mobile and the patient turned on to her right side, this viscus sometimes fell into the right iliac fossa, but it would quite as often move to the left side, as though carried on by the intestines, like a boat on the crest of a billow. I am at a loss as to any suggestion as to the cause of these vagaries, but they are very similar to those characteristic of movable kidney; mobile kidneys, however, never exhibit such extensive excursions as wandering spleens.

In considering the many remarkable changes of position to which abdominal tumours, as well as mobile viscera are liable, it is well to bear in mind that the statics of vital bodies freely projecting into a vacuum like the cœlom, and subject to many forces apart from mere alteration in the position of the individual, is a subject which has never been adequately investigated. It is, however, important to bear in mind that there is no change which disturbs the abdominal viscera so much and leaves such traces as pregnancy, and it is noteworthy that wandering spleens are almost, but not exclusively, confined to women, and in the majority of cases the individuals have had children. This statement holds good not only for clinical examples, but also for those discovered after death.

## THE EFFECTS OF WANDERING ON THE SPLEEN.

(*a*) *Engorgement.*—As the structure of the spleen, even when the organ rests in its normal position, is one eminently favourable to the occurrence of engorgement, it is obviously more liable to over-distension when pendulous at the end of a long stalk formed by the elongated splenic artery and vein and gastro-splenic omentum. The extent to which the spleen may become distended will be gathered from the following observation. A wandering spleen, when lying in the belly, extended from the floor of the pelvis to a point midway between the umbilicus and the ensiform cartilage. When removed from the body it contracted so rapidly that in fifteen minutes its greatest length was 15 cm. (6 inches), and weighed half a kilogramme. It was left for six hours in a vessel of cold water, and when *rigor mortis* was well pronounced the spleen scarcely exceeded its normal size. This remarkable contractility of the spleen I was able to study closely in a girl during a splenectomy. The spleen reached from the diaphragm to the uterus, and when exposed through an incision in the belly wall looked a very formidable object. It was withdrawn carefully, and unwilling to sacrifice such a large quantity of blood I had the spleen gently supported by an assistant for a few minutes. Exposure to the air acted as a powerful stimulant, and the contraction was so obvious that, whilst we watched, this enormous spleen shrunk one-third of its original bulk. We really witnessed a splenic systole.

(*b*) *Axial Rotation.*—Apart from the facility with which a wandering spleen becomes overcharged with blood, its blood-holding capacity comes out even more markedly when the organ spins on its axis and twists the pedicle; then the thin-walled veins become compressed before the current is arrested in the more resilient artery, with the result that the spleen is so replete with blood that it looks as if only too ready to burst.

(*c*) *Atrophy.*—When a wandering spleen undergoes axial rotation the same severe symptoms arise as are met with in acute rotation of ovarian cysts and strangulated hernia. When the rotation is so acute as to completely arrest the circulation in the spleen, and persists it will lead to permanent occlusion of the splenic artery and vein. Obliteration of the splenic artery involves atrophy of the spleen, a fact demonstrated by Rokitansky in his classical paper dealing with the axial rotation of abdominal tumours and viscera (1859).

## THE EFFECTS OF A WANDERING SPLEEN ON NEIGHBOURING VISCERA.

(*a*) *The Pancreas.*—When we consider the intimate relation of the spleen to the tail of the pancreas, it is certainly to be expected that some disturbance of the gland would arise from elongation of the splenic pedicle; in some cases the pancreas remains undisturbed, but in others it has been incorporated in the pedicle. In one case reported by Rokitansky the pancreas was pulled out till it measured 25 cm. (10 inches), and formed part of a twisted pedicle, making three turns around the artery. Richelot removed a spleen which had tumbled into the pelvis and dragged the tail of the pancreas with it; the gland was so incorporated with the pedicle that pancreatic tissue was included in the ligature. I have had a similar experience.

(*b*) *The Stomach, Duodenum, and Gall Bladder.*—The dragging of a wandering spleen upon the stomach leads to uncomfortable gastric effects, such as dilatation of the stomach, accompanied by fermentation of food and vomiting. Occasionally the tension upon the stomach and duodenum interferes with the common bile duct and leads to frequent recurrent attacks of severe jaundice.

(*c*) *Intestines.*—It can easily be imagined that the long cord-like pedicle of a pendulous spleen would be very liable to interfere with the intestines, and cases are on record in which wandering spleens have been found adherent to small intestine, colon, sigmoid flexure, and the vermiform appendix. Adhesions of this character, apart from their liability to cause intestinal obstruction, are unpleasant because such unions lead to damage of the intestinal wall, which may favour the emigration of bowel contents charged as usual with micro-organisms, and thus initiate the formation of pus with all its evil consequences, and, the most serious of all, septic peritonitis.

(*d*) *The Uterus.*—Perhaps the least suspected damage which a wandering spleen may cause is acute retroflexion and even prolapse of the uterus. All wandering spleens tend to drop into the pelvis; in two patients I have been able to demonstrate that the weight of the spleen has doubled the uterus on itself, and in one woman the retroflexion thus caused has been a source of great inconvenience. Kouwer has published details of a case in which a pelvic spleen caused complete prolapse of the uterus, the vagina, and the bladder. The

Pressure of an organ like the spleen on the uterus not only mechanically interferes with the uterus but seriously disturbs menstruation.

### Danger to Life.

It will be gathered from what has been stated in the foregoing sections that a wandering spleen may, and occasionally does, jeopardise life. The dangers are:

(1) Rupture of stomach or duodenum.
(2) Intestinal obstruction.
(3) Abscess of spleen.
(4) Rupture of spleen.

### Diagnosis.

In writings dealing with the diagnosis of abdominal tumours, enlargement of the spleen is always taken into account, but wandering spleens are not mentioned. As a consequence a misplaced spleen is rarely recognised until the abdomen is opened in the operating theatre or *post-mortem* room.

Wandering spleens have been confounded with many kinds of abdominal tumours, such as ovarian cysts, renal tumours, malignant tumours of the omentum, movable kidneys, and uterine myomata. The tendency of such spleens to seek the pelvis, their shape and firmness, combined with the disturbance their presence in the uterus causes to menstruation, has led them to be mistaken for uterine myomata in many instances. Perhaps the most curious of all is a case reported from Spain, in which cœliotomy was performed for the relief of trouble due to the presence of a tumour in the pelvis. The tumour was successfully removed under the impression that it was a uterine myoma, impacted and adherent to the pelvis and adjacent structures. When fragments of the supposed myoma were submitted to microscopic examination it proved to be a spleen.

Körte reported a case in which a woman was seized with pelvic pain after a lying-in. The physician in charge of the case detected a tumour low in the belly, and as the urine was diminished in quantity, he regarded the tumour as a "wandering kidney." Signs of internal strangulation arose, and Körte saw the case and punctured the tumour, but only blood escaped. The patient died with signs of intestinal obstruction and peritonitis. At the *post-mortem* examination a spleen was found in the pelvis; it had obstructed a loop of intestine.

It is necessary to bear in mind that ovarian and uterine tumours may closely simulate wandering spleens. For instance, a married woman, 35 years of age, was admitted into the Chelsea Hospital for Women complaining of a swelling which she had noticed eight years. The tumour was in shape like a spleen minus the notches. It occupied the right iliac region, but could be transported into every region of the abdomen without causing pain or discomfort. No area of splenic dulness could be made out in the normal situation of the spleen. The pelvic viscera were apparently normal. The blood corpuscles were normal in shape and in their numerical proportions. The tumour was liable to variations of volume. After deliberate consultation operation was decided upon. When the abdomen was opened a dark red mass, with a wrinkled capsule and in shape like a spleen, was exposed, and it was not until I had passed my hand into the left hypochondrium that I satisfied the onlookers that it was not a spleen. It proved to be a pedunculated uterine myoma; its stalk was no bigger than my index finger, and contained a very large vein. I have little doubt that the variations in volume of the tumour were due to partial tension and torsion of the pedicle. The myoma (weighing 2½ kilometres) was removed, and the patient recovered.

Three months later a girl, aged 14 years, was admitted with a very large abdominal tumour, associated with free fluid. She was kept in bed for several days, and as the fluid slowly absorbed the tumour became more defined. It floated on the intestine, and lay obliquely across the left side of the belly, its upper end reaching to the left hypochondrium. Nothing abnormal was made out on pelvic examination. The splenic area was resonant, and the tumour had the shape and presented the notched border so characteristic of the spleen. The blood corpuscles were normal in number and proportion. It was regarded as an enlarged and wandering spleen. An incision was made in the left linea semilunaris, and a multilocular ovarian cyst was found, partially collapsed from rupture of its largest loculus, floating on the bowels. The secondary cysts gave rise to the deceitful sensation of splenic notches. The tumour, which originated in the right ovary, was removed through the incision in the left linea semilunaris. The girl made an uneventful recovery.

### Remarks.

Splenectomy for wandering spleen is not only justifiable but it is a highly successful operation, the rate of recovery being equal to that of ovariotomy in skilled hands. I have succeeded in collecting a score of cases performed within the last twenty years without a death. It has, of course, occurred to many that it would be desirable if it were possible to secure the spleen in the left hypochondrium by means similar to those adopted for movable kidney. Pouwer has endeavoured to carry this out in two instances, but his results show clearly that the patients ran much greater risks and had a longer confinement to bed than if he had removed their spleens.

Ridygier has conceived and carried out, apparently with success, an ingenious and simple method which seems full of promise.

The great difference between splenectomy and splenopexy is that in the former case the individual is deprived of an organ, and, although we do not know with any degree of precision what its real use is, we are nevertheless bound to display caution in dealing with it.

So far as my own cases go I have failed to find any evil manifestations. I regard the spleen as a highly developed and specialised lymph gland, and at present there seems to be no reason for hesitating to remove it when "wandering" and troublesome in so far as remote consequences are concerned, than in excising a crowd of enlarged glandulæ concatenatæ.

It is a fact that many, if not all, individuals with a wandering spleen are very thin and often gaunt, and as far as my observations go, they retain this character when spleenless.

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## SPLENECTOMY FOR PROLAPSE OF THE SPLEEN THROUGH A PERFORATING WOUND OF THE ABDOMEN: RECOVERY.

By E. HAROLD BROWN, M.D.,
Surgeon-Captain, I.M.S., Civil Surgeon, Darbhanga.

### Previous History.

On May 7th, when inspecting a dispensary in the Darbhanga District, the assistant-surgeon in charge drew my attention to a patient who had been under treatment for three weeks. I was told that the man in question, a powerful, well-built Rajput, aged 35, had been attacked by a wild boar, who knocked him over, and ripped open the left side of the abdomen. On being brought to the dispensary a few hours later he was found to have a large oblique wound extending in the axillary line from just above the tenth rib to a point half an inch above the crest of the ileum. Through this a solid organ had prolapsed, which the assistant-surgeon considered to be the liver, though on the left side; but, he said, the size, shape, and colour of the organ left no doubt in his mind as to its identity. He attempted to reduce it, but failed, so left it outside the body, and, three weeks later, I saw the case. I differed from the opinion which had been expressed, having no doubt that the spleen, much enlarged, was the organ which had prolapsed: but the assistant-surgeon defended his original diagnosis, maintaining that, having seen the case a few hours after the accident, he had no difficulty in recognising the liver as the organ which had prolapsed, its right and left lobes being perfectly characteristic, while the size and colour of the organ were distinctive. I adhered to my own opinion, however, especially as percussion revealed the fact that the liver was in its normal position on the right side, while the heart's impulse was visible in the fifth left interspace; and explained to my assistant that we were examining an enlarged and congested spleen; but he refused to be convinced.

I accordingly directed him to send the patient to the Raj

Hospital for operation, and he arrived four days later none the worse for the journey. Assistant-Surgeon Nobin Chunder Dutt and myself then made a careful examination of the patient, and were perfectly convinced that we had to deal with the spleen, and not the liver; and further, that the only treatment advisable was removal of the prolapsed organ.

### CONDITION OF THE PARTS.

The spleen projected from the side of the body like a huge fungus, completely overlapping on all sides the opening through which it had escaped. It was about two and a-half times its normal size, having contracted greatly during the past fortnight; the splenic notch was well marked, though compressed somewhat, so that it appeared more like a fissure or depression than a notch on the inner side of the organ, and it was this appearance which in all probability misled the surgeon who saw the case originally.

The internal surface of the mass was dark-red and granular in patches where slight ulceration had occurred; the margins were thick, rounded, and hard, and below the under surface had, by its middle, formed a firm attachment to the skin, this central adhesion being about 6 inches in circumference; the whole mass bore a striking resemblance to a "Tam o' Shanter" cap. The union of the spleen with the cutaneous surface was very firm all round, except at one spot at its upper part, where there was an ulcerated opening which admitted the finger and led to the tenth rib, which was fractured, the broken edges being sharp and bare. In the immediate neighbourhood of this opening the adhesions between the skin and the spleen were soft and very vascular, bleeding on very slight manipulation; elsewhere they were extremely firm, so that their separation would have been a matter of great difficulty, and would probably have resulted in free hæmorrhage. Hence, I decided not to attempt to free the organ by attacking the adhesions from without, but to undermine them from within.

### OPERATION.

The patient was prepared for operation, and chloroform having been administered on the morning of May 16th, I proceeded to operate, assisted by Assistant-Surgeon N. C. Dutt, and Hospital Assistants Shama Charan Tapadar and Kali Das Ghose. The mass and its vicinity having been rendered surgically clean, I made an oblique incision 2 inches to the inner side of, and parallel to, the original wound, and gradually dissected down to the pedicle (the splenic vessels), which was found without difficulty, and which was free on all sides. Round this a ligature was passed which would command the vessels in the event of hæmorrhage occurring from above. Dr. N. C. Dutt took charge of this. I then passed my index finger from within outwards, reaching the spot which led to the fractured rib, and proceeded to break down the adhesions and free the organ from the point of least attachment. This led to brisk hæmorrhage, but the ligature was tightened and restrained the bleeding, and I then rapidly separated the adhesions all round, some of them being extremely firm. Separation being completed, a second stout silk ligature was applied just above the first for greater security, and the mass was removed with scissors. Having satisfied myself that the pedicle was thoroughly secured, I removed the sharp and bare ends of the broken rib with bone forceps, being careful not to wound the pleura, which was in unpleasant proximity to that bone.

The wounds were then lightly washed with carbolic lotion; the lips of the recent incision were brought together with horsehair sutures; and the margins of the original wound, which were hard and callous, were freely scraped with a sharp spoon and brought into approximation with wire sutures; but I had very little hope of their remaining in coaptation. The parts were then dusted with iodoform, covered with salicylic wool, and a broad bandage was applied round the body. The operation lasted about half an hour, and the patient rallied very satisfactorily; he made no complaint of pain, was in very good spirits, and was not sick.

### AFTER-HISTORY.

Before the operation he had had daily accession of fever, the temperature rising to 103.5°, or higher every evening; but the temperature fell after the operation, and ceased to rise above the normal point after three days. There was a good deal of discharge for the first week, necessitating a change of dressings twice a day; but this gradually diminished till, a fortnight after the operation, there was scarcely any. The recent wound healed by first intention, the other by granulation, contracting rapidly. The ligatures came away on June 11th, twenty-six days after the operation.

The absolutely uneventful after-history of the patient was remarkable, for, after the spleen was removed, his progress towards recovery was unmarked by any complaint of pain or discomfort, except on one occasion, when he had a sharp attack of diarrhœa, the result of his friends having given him forbidden articles of diet.

### REMARKS.

The above case was interesting in many ways. The enlarged spleen prolapsed through the long rent in the side of the abdomen without receiving any injury. It was examined, within a few hours, by an experienced man, who mistook it for the liver, and whose attempts to reduce it were unsuccessful. It slowly contracted, becoming, within a month, less by half in size, and contracted very firm adhesions to the skin, the peritoneal cavity, meanwhile, being completely shut off. As there had been a compound fracture of the tenth rib, with subsequent necrosis of the broken ends of the bone, a sinus remained, leading from the prolapsed organ to the bone, and here the adhesions were very vascular. The pleura, fortunately, escaped injury, otherwise the case might have been seriously complicated.

My line of action—namely, working down to the pedicle from below, instead of simply breaking down the adhesions from above—was, I think, justified by the result, there being absolute command over the vessels, and the operation being thus rendered simple and expeditious.

I am greatly indebted to Dr. Nobin Chunder Dutt for his skilled and intelligent assistance, and to Hospital Assistants Shama Charan Tapadar and Kali Das Ghose, who rendered valuable help.

## EUCAINE AS A LOCAL ANÆSTHETIC IN THE SURGERY OF THE THROAT, NOSE, AND EAR.

[PRELIMINARY COMMUNICATION.]

BY

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SINCE the discovery of the anæsthetic action of cocaine by Niemann and its introduction into practice by Koller that alkaloid has held its own among the more valuable drugs of the *Pharmacopœia*, despite its disadvantages. But the untoward effects which have unexpectedly followed the use of cocaine have led those constantly using it to realise that its action is uncertain, and that it is therefore as well to keep antidotal remedies at hand.

Quite recently a rival has been introduced in the shape of eucaine, which is said to possess the anæsthetic action of cocaine without producing any of the toxic effects. The importance of a drug which could make good its claims to those properties it would be difficult to overrate, and, in order to arrive at its clinical value, we have lately used eucaine exclusively in throat, nose, and ear surgery.

Eucaine was first investigated by Dr. Gaetano Vinci, under the direction of Professor Liebreich. At the same time that Vinci's results were communicated to the Hufeland Society in Berlin,[1] Professor Emile Berger,[2] in Paris, was engaged in an extensive clinical examination of the drug. Both Vinci's and Berger's investigations, however, deal chiefly with eucaine from its ophthalmological aspect, one which is not within the province of this communication to deal with. A third observer in this branch of surgery is Professor Deneffe,[3] of the University of Gand, Belgium. Dr. Hal Foster[4] recently published some short notes on the Use of Eucaine

[1] April 16th, 1896.
[2] *Revue de Thérapeutique Médico-Chirurgicale*, 1896, No. 12.
[3] *Le Scalpel*, 1896, No. 11.
[4] *Langsdale's Lancet*, August, 1896.

Hydrochloride in the Nose and Throat, giving two cases—one of turbinate hypertrophy reduced by galvano-cautery, one of tonsillotomy. He also mentions other cases. His results were completely successful.

Dr. A. L. Fuller[5] used eucaine (by the endermic injection of 20 minims of a 10 per cent. solution) with complete success for the removal of a mole. He mentions also a case in which it was used to anæsthetise a tuberculous ulcer for curetting. Parlaghy, of Paris, is reported to have demonstrated the powers of eucaine before several physicians in the Assistance Publique de Paris, who proclaimed it an ideal anæsthetic. Other dental surgeons who have experimented with it are Kiesel, Warnekros, and Wolff, of Berlin, their verdicts are uniformly favourable. We shall have occasion to refer again to Kiesel's work.

Eucaine is the methylester of benzoyl-n-methyl-tetra methyl-gamma-oxy-piperidine-carboxylic acid. Its physical characters were thus defined to the Berlin Pharmaceutical Society by G. Merling.

Eucaine base crystallises from ether or alcohol in large glistening prisms, which melt at 104° C. Eucaine hydrochloride crystallises from methyl alcohol solutions in large glistening efflorescent prisms containing two molecules of methyl-alcohol, and from watery solutions in glistening leaflets containing one molecule of water of crystallisation and permanent in the air. Eucaine hydrochloride dissolves in about ten parts of water at room temperature.

Vinci carried out certain physiological experiments with eucaine on mice, rabbits, and dogs. He found that the instillation into the eye of a rabbit or dog of a 2 to 5 per cent. solution produced complete anæsthesia in one or two minutes, which lasted on an average ten or twenty minutes. A slight hyperæmic action was thereby developed, sometimes accompanied by slight symptoms of irritation of the conjunctiva. Eucaine acts upon the central nervous system at first as an excitant, later on in toxic doses producing paralysis. Small doses of eucaine increase the reflex excitability of mice and rabbits. Doses of $\frac{1}{3}$ grain per kilo body weight cause tonic and clonic convulsions, which last several seconds and recur at moderate intervals. An increase of the dose causes paralysis, under which the animal dies. Should the dose be resisted, the paralysis following upon the convulsions totally disappears. Vinci found that the pulse is gradually slowed by subcutaneous and intravenous injections of small and moderate doses to the extent of 20 to 30 beats per minute. There is no increase of blood pressure.

Berger's investigations corroborated those of Vinci upon all important points. The former demonstrated the action of eucaine to be analogous to that of cocaine, with the following important differences:

1. Eucaine is less toxic.
2. It slows the pulse.
3. It does not affect the pupils.

Dr. Charteris, Professor of Materia Medica and Therapeutics at the University of Glasgow, read a paper before the Royal Society of Edinburgh, in which he described experiments corroborating those of Vinci and Berger.

Before concluding this short review of the work done by others we should like to quote the following remarks of Kiesel[6] summarising the advantages of eucaine:

1. The heart is not influenced in any way: with nervous patients I have often had the opportunity of observing that the pulse before the operation had risen to 120 or 130, whilst after injection it rapidly fell to its normal rate without irregularity, and maintained its normal character.
2. Anæsthesia is more extensive than with cocaine, both as regards time and locality. In my experience the anæsthesia has in individual cases extended to the muscular tissues.
3. Solutions prepared with sterilised water and maintained at the room temperature remain always clear even without the addition of carbolic or salicylic acid, and never become flocculent like those of cocaine.

One more advantage—considered by Berger to be one of its most valuable properties—is that eucaine can be sterilised by boiling without undergoing decomposition.

In investigating the uses of eucaine in the surgery of the throat, nose, and ear, we feel that the points to which we should endeavour to direct special attention are:

1. The strength of solution required.
2. The rapidity, intensity, and extent of the anæsthesia.
3. The general and local action upon the circulatory system.
4. The after-effects.

[5] *International Journal of Surgery*, ix, p. 259.
[6] *Zahnärztliche Rundschau*, 1896, No. 196.

Although upon all these points the opinions we have been enabled to form are favourable, we wish it to be clearly understood that they are but tentative, and our final verdict is withheld until we have given the drug a more extended trial.

The number of occasions on which we have employed eucaine is thirty-two, and they may be classified as follows:

| | |
|---|---|
| A. Examinations: | |
| 1. Ear ... ... ... ... ... | 2 |
| 2. Laryngoscopy and posterior rhinoscopy ... | 4 |
| B. Operations: | |
| I. Ear: | |
| 1. Myringotomy ... ... ... ... | 4 |
| 2. Furuncle ... ... ... ... ... | 1 |
| II. Nose: | |
| 1. Galvano-cautery ... ... ... ... | 11 |
| 2. Spurs ... ... ... ... ... | 4 |
| 3. Polypi ... ... ... ... ... | 1 |
| 4. Other growths ... ... ... ... | 1 |
| III. Throat: | |
| Tonsillotomy ... ... ... ... | 4 |
| | 32 |

Of these, 19 were males varying in age from 4 to 42, and 13 were females from 6 to 70 years. Moreover, 6 of the patients (3 males and 3 females) had experienced the local anæsthesia of cocaine, a fact to which we shall revert later.

1. *Strength of Solution required.*—The solutions used were in three strengths, 2, 5, and 8 per cent. Of these, we found that the 2 per cent. is quite sufficient for anæsthetising the uvula, etc., for laryngoscopy or posterior rhinoscopy, and for aural examinations. In one case (Case II, male, aged 21) seven drops of a warm 2 per-cent. solution dropped into the left ear and retained (with the head inclined to the right) for 5 minutes caused complete anæsthesia of the membrana tympani lasting nearly 20 minutes. Another man (Case XXVII, aged 42) who was most intolerant of laryngoscopy, permitted a complete examination. In the latter case, the 8 per cent. solution was first used, but on the next occasion the 2 per cent. was found sufficient, as also for Case XXXII and for Case XXIX (posterior rhinoscopy). The 5 or 8 per cent. solutions have been used for operative procedures on nose, throat, and ear; and, although in Case IV an aural furuncle was incised without pain under the 5 per cent., and in Cases III, VI, VII, and X the same solution sufficiently anæsthetised the membrana tympani to permit of myringotomy, it was generally found that for all operative measures on throat, nose, or ear the 8 per cent. solution was the more reliable. Furthermore (as will be noted below), eucaine being in our experience (so far) devoid of unpleasant after-effects, it is of advantage to use the stronger solution. In Case I an attempt was made to cauterise an inferior turbinate body under a 2 per cent. solution, thus obtaining our only unsatisfactory result, the case requiring the 5 per cent. before proceeding.

*Methods of Application Used.*—1. For the ear, warm instillation retained for from five to eight minutes by inclining the head to the opposite side. 2. For the nose, either simple swabbing, or the insertion of a pledget of cotton-wool (soaked in eucaine) for five to ten minutes. 3. For the throat, simple swabbing with a pledget of cotton wool. On no occasion was eucaine applied by means of a spray.

2. *Rapidity, Intensity, and Extent of Anæsthesia.*—We have found that the anæsthesia is slightly slower in onset than that of cocaine, and that the cases required from five to ten minutes to elapse before they were ready for operation. When established the anæsthesia is fully equal to that of cocaine, and in this our opinion is endorsed by the patients who had previously experienced the latter. The duration of the anæsthesia is from ten to twenty minutes, fifteen minutes being the most usual. In the extent of the anæsthesia we have had no reason for dissatisfaction. We found that when the membrana tympani was anæsthetic, the tympanum and ossicular chain were equally so. A pledget of wool passed into the anterior half of the naris rendered the inferior turbinate body anæsthetic in its whole extent. Similarly, simple swabbing of the tonsils rendered them anæsthetic throughout.

3. *Action upon the Circulation.—a. General.* So far our investigations as to the effect of eucaine on the pulse are inconclusive. In many instances the observations must be excluded as unreliable, on account of the mental influences in the patient due to operation. In the few instances, however, in which the observations may be considered reliable, the pulse has remained the same in rate and character through-

out. In no instance have we noted any slowing of the pulse. In only three cases have we seen any unpleasant effects upon the circulation following an operation or examination under eucaine, and in each of these there was sufficient reason to otherwise account for the trouble without attributing it to the drug. We have judged it best to relate briefly these three occurrences.

CASE XV.—J. W., aged 25, male, has been suffering from chronic suppurative otitis media for twenty years. A warm 8 per cent. solution of eucaine was introduced into both ears and retained for ten minutes to allow of an examination with the probe. The anæsthesia was complete, but on touching a small granulation on the inner wall of the left tympanum the patient fell from the chair in a swoon, his face becoming livid, his lips blue, and his pulse small and irregular. He revived as soon as he was laid upon the floor, and then broke out into a profuse cold sweat. Later he stated that with the swooning sensation he experienced one of intense nausea, and thought he would vomit. He had experienced similar sensations before, while syringing the left ear. The unpleasant symptoms in this case were undoubtedly due to the combined cardiac and gastric aural reflexes.

CASE XVI.—A. C., aged 70, female, suffering from a large new growth in the right nostril. A piece was removed for microscopic examination after being swabbed with 8 per cent. eucaine. The pulse was 72, and remained unchanged in rate or character throughout. The local anæsthesia was complete. After the operation the patient complained of feeling faint. She had, however, been suffering from attacks of profuse epistaxis for five months, and was also the subject of aortic insufficiency.

CASE XXV.—A. A., aged 28, female.[7] A nasal polypus was removed from this patient under an 8 per cent. solution of eucaine. Immediately after the operation she became faint, but did not lose consciousness. Pulse 108. This patient was in a very low state of health, having active syphilitic ulceration of the soft palate, and active tuberculous deposit at both apices, while she was also suffering from anæmia and debility consequent upon a recent miscarriage.

*b. Local.*—Our observations upon the local effects of eucaine on the circulation are at present incomplete, several points having arisen requiring further consideration. We have not, however, found it to cause hyperæmia of the turbinate bodies, in fact in several cases it has induced slight ischæmia. In two cases it has been noted that a turbinate body which before the application was in contact with the septum was not touching it in any part when anæsthesia was established. Of course, any ischæmia observed was not to be compared to that caused by cocaine. This is a point upon which we hope to make further observations in the future. In no case has there been the hæmorrhage after an operation which so often forms an unpleasant feature of cocaine anæsthesia. We would here wish to mention an apparent effect upon the salivary secretion. In the first case (XXVII), in which an 8 per cent. solution was used to anæsthetise the uvula for laryngoscopy, a considerable increase of saliva was noted. On another occasion, when a 2 per cent. solution was used, this feature was absent. A similar increased salivation was noted in Case XXXII under the 2 per cent. In Case XXIX (posterior rhinoscopy) the saliva was not increased. Out of four tonsillotomies, in only one was increased salivation noted. This is an important point for decision by future observation, as its upholding will establish another point of difference from cocaine (which decreases the salivary secretion), and may detract from the usefulness of eucaine in operations upon the oral cavity.

4. *After-effects.*—With the exception of Cases XV, XVI, and XXV, we have not noted a single instance of what might be construed as an unpleasant after-effect; the 3 excepted cases have been already related and explained. We have alluded to 6 cases as having experienced the effects of cocaine. In the first of these (Case III) a female, aged 55, the use of cocaine for the removal of a nasal spur had caused such alarming syncope as to necessitate the employment of ether and amyl nitrite. This case has since been three times under eucaine without the least discomfort. The 5 remaining cases all declared that, whilst cocaine had caused unpleasant sensations in the mouth and throat (variously described as "contracting," "freezing," and "numbing"), lasting for some hours, eucaine on the contrary rendered them anæsthetic to the operation without causing any after-effect greater than (in one case) an unpleasant taste lasting half an hour.

Several points remain for further experience to decide, but we consider that our results so far justify us in continuing the investigation. Eucaine cannot, however, wholly replace cocaine, since the effect of the latter in reducing the size of the turbinate bodies gives it a value as an aid to diagnosis which eucaine does not appear to possess.

[7] *Proc. Laryng. Soc. Lond.*, vol. iv, I. p. 14

# THE TREATMENT OF PHTHISIS BY GUAIACOLATE OF PIPERIDINE.

BY

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THE success which has attended the treatment of phthisis by creasote and its derivatives, especially in the earlier stages, has led us to try a newly synthesised body, piperidine guaiacolate, which not only contains an antiseptic moiety, but also a constituent which possesses a nervine and vascular tonic action. In order to put our results with this substance as succinctly as possible, we shall divide this paper into three parts—(I) Chemistry, (II) Pharmacology, (III) Therapeutics.

## I. CHEMISTRY.

Piperidine guaiacolate has been prepared by Dr. Schidrowitz, and for its chemistry we are indebted to him.[1] It is a compound formed by the action of piperidine on guaiacol in a suitable solvent, such as benzol or petrolic ether, and it must be regarded as a guaiacolate of piperidine, having the formula $C_5H_{11}NC_7H_8O_2$. Its exact chemical composition is still under investigation. It crystallises in prismatic needles or plates. It is soluble to the extent of 3.5 per cent. in water; it is also easily soluble in most organic solvents. It melts at 79.81° C. It is decomposed into its constituents by mineral acids and alkalies. The chemical property which from a pharmaceutical standpoint is most worthy of note is the relative solubility of this salt. When the insolubility of the carbonate of guaiacol is borne in mind this becomes emphasised. The solubility is such that gr. x can be administered in an ounce draught of simple water, or if the specific gravity of the medium be raised by the addition of a little glycerine or mucilage, a dose of gr. xx to xxx can be given.

## II. PHARMACOLOGY.

The pharmacology of the guaiacolate of piperidine resolves itself into the pharmacology of guaiacol and piperidine, for it is into these substances that the salt is decomposed, probably not in the acid medium of the stomach, but in the alkaline one of the duodenum. The reason for this assumption is that large doses—3j—can be given without the slightest eructation of guaiacol. The action of guaiacol is too well known to be discussed here; it acts in the intestine as an antiseptic, in the structures through which it is excreted, for example, the respiratory mucous membrane, it acts also as an antiseptic. We will only give here a brief summary of the pharmacology of piperidine, as this subject forms part of a research to be published elsewhere by one of us (Tunnicliffe) in conjunction with Dr. Lauder Brunton. When hydrochlorate of piperidine, suitably diluted, is injected into the circulation in doses of 0.05 g. pro kilo body weight, the heart is slowed and the vessels contracted, a considerable rise of blood pressure taking place. When injected under the skin in doses of from 1 to 2 cg. pro kilo, an increase in reflex excitability occurs, so that if the drug is pushed convulsions may develop. Thus in suitable doses piperidine must be regarded as a cardio-vascular tonic and spinal stimulant.

## III. THERAPEUTICS.

During the last three months an inquiry as to the value of piperidine guaiacolate in the treatment of pulmonary tuberculosis has been carried out at the City of London Hospital for Diseases of the Chest. The patients to whom the drug was given were subjected to close observation, and the effects of the medicine were from time to time noted. In all, 14 cases were placed under observation, of which 8 were out-patients and 6 in-patients. The duration of the observations varied, but as a general statement it may be said that six weeks was the average. In order to test efficiently the value of the drug, cases were chosen more or less haphazard, some being early

[1] The manufacturers are Messrs. Joseph Turner and Co., Queensferry, Flintshire

cases in which improvement might be expected under appropriate treatment, others being more advanced, while yet others were in such a stage as to make it improbable that much good from any form of treatment would accrue. In all cases the dose to begin with was fixed at 5 gr. three times a day, and this was gradually increased until 20, and in one case 25 gr. were given for a dose. So far as could be gathered from questioning patients and personal observation, no unpleasant effects were noticed. All of them stated that the medicine had agreed with them. Pains were taken to ascertain if the drugs produced any gastric or intestinal irritation, but in no case could it be determined that the processes of digestion were in any way interfered with by the medicine. We think this worthy of special stress, because experience has so often taught us that when other derivatives of creasote, such as crude guaiacol, are given over a lengthened period, their use has to be discontinued from time to time, owing to the gastric and intestinal disturbances caused by them. But in these cases no such untoward event happened.

With regard to the varied symptoms of phthisis it is difficult to say with certainty that the guaiacolate of piperidine had any distinct effect upon them. For in all cases of phthisis it is so frequently found that improved hygienic conditions (good food, rest and attention), such as residence in a hospital affords, play a large part in the restoration of the patient's health. This much may, however, be said that in many instances the cough appreciably improved while the treatment was in progress. The temperature was in no case affected adversely by the drug; in most cases it receded to normal. The appetite, for the most part, was maintained, and very often patients expressed the belief that the medicine improved it; indeed, in some cases it seemed that it had a markedly good effect upon the appetite. Some patients gained in weight while the treatment was going on, and in two instances it was thought that more flesh was put on than would have been the case had ordinary remedies been tried. The expectoration in most cases decreased while the drug was being taken. Among the out-patients especially there was a general improvement in strength and vitality, In the case of out-patients it must be remembered that improved hygienic conditions do not come into operation to the advantage of the patient as they do in in-patient practice.

Coming now to speak of the changes noted in the physical signs, it must be admitted that discussion of this subject is full of difficulty, for it so often happens that, although considerable improvement takes place in the general condition of the patient, yet no marked change occurs in the physical signs. Some of the cases (out-patients) whose condition was found to be improving were examined week by week to see if any change could be found in the physical signs. Consolidation and excavation were of course unaffected, but in not a few instances the lungs were noticed to become drier with less moist crepitant *râles*. This change was attributed to the fact that the area of simple inflammation around the tuberculous infiltration itself had passed from an active to a more quiescent condition. It must be admitted, however, that the same improvement in physical signs could not be seen in most of the cases under treatment as in-patients. Two out-patients considered that the medicine relieved their dyspnœa, and, to judge from the lung signs, which were under the treatment improving rapidly, it might very well be the case.

### General Conclusions.

In stating the effects of any new drug upon a given disease, the physician must always guard himself against "over enthusiasm," so often it happens that a new medicine has been reputed to be successful in some affection, and upon fuller trial its effects are found to be trifling, or even *nil*. Of piperidine guaiacolate it may be generally stated:

1. That experience has shown that it is a perfectly safe drug in doses from 5 to 30 gr. three times a day.

2. That it causes no unpleasant effects.

3. That it is exceedingly well borne by the stomach, and in this respect it is equal to any other derivative of creasote.

4. That patients while under its influence improved in appetite and general strength.

## TWO CASES OF TRIGEMINAL NEURALGIA AND TRISMUS ASSOCIATED WITH LOSS OF TEETH.

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Two patients lately under my care have presented some points of interests which it may be worth while shortly to record. Both were suffering from severe facial neuralgia, starting from and radiating about the temporo-maxillary articulation. For the sake of clearness it will be well to consider the general characteristics of both cases.

1. *Deficiency in Number of Teeth.*—Both patients were entirely edentulous as regards the upper jaw, and had but three or four teeth in the incisor region of the lower jaw; of the latter, in one case, one, and in the other, two, were carious, and were extracted by me. I would point out, as an important factor in causation, the absence of grinding teeth in both cases.

2. *The Nature of the Attacks of Pain.*—The pain in both cases was paroxysmal, the patients keeping the mouth closed in order to avoid excitation of pain and spasm. In the patient whose case is first described removal of her artificial teeth had this effect. Attempts at mastication had a like result in Case II, but after wide separation of the jaws, while the patient was anæsthetised for the purpose of examination, as recorded later, the symptoms were materially reduced in intensity, for some days, occurring only under greatly increased stimulation.

3. *The area of the distribution of the pain* in each case presented marked features of similarity. It was partly local, but radiated over the area supplied by the auriculo-temporal nerve, that is to say, over a skin area including the front of the ear and temple, the point of maximum intensity lying in front of the ear along the upper border of the zygomatic process. In one case the pain appeared to be more extensive, though in a minor degree of severity, as it was clearly described as passing down the alveolar margins of both jaws unilaterally. Attention is called to the fact that branches of the auriculo-temporal nerve supply sensory filaments to the temporo-maxillary articulation.

4. *The Condition of Facial Spasm and Trismus.*—This facial spasm was probably of a reflex irritative character, comparable to that seen in other conditions, as, for instance, in tic douloureux, where twitching of the eyelids becomes a marked symptom. It may be noted that the fifth and seventh cranial nerves are intimately associated; their cerebral origins are in close proximity, and communicating branches pass between the nerves themselves and between their exit from the skull and their termination, where the intercommunication is extensive. The jaw muscles were thrown into tetanic spasm during the attacks of pain, producing a temporary trismus.

5. *The atrophic condition of the masseters and temporal muscles* was due to disuse in both cases, and was so marked as to produce sinking in of the temporal region. This is no uncommon senile condition.

6. *Injection of the conjunctiva and increase of lachrymation* was noted in both cases on the affected side, and is also probably a reflex condition, due to the same causes as that already described above when referring to facial spasm.

7. *Absence of disease of the temporo-maxillary joint* was ascertained under an anæsthetic.

8. *No obvious disease of the teeth*, gums, or alveoli was detected sufficient to account for the symptoms.

Case I.—A lady of about 60 years of age, looking older, owing probably to her extremely neurotic temperament, was sent to me by Dr. Ferrier. She had suffered for some considerable time—it was impossible to ascertain quite how long—from neuralgia referred generally to the alveolar borders of the jaws, and particularly to the left side of the face and head. On inspection of the mouth it was found that the patient was almost edentulous, having but four remaining teeth, all in the lower jaw (first premolars and the canines of either side). She was wearing dentures which fitted badly. Further investigation elicited the fact that she never voluntarily withdrew more than one of the plates from the mouth, as shortly after removal of both plates spasm of the facial muscles ensued, and violent neuralgic pains, radiating from the temporo-maxillary joint as a focus, occurred. The upper plate was a complete denture bearing incisor, canine, premolar, and molar teeth; the lower similar in character, but having spaces in lieu of teeth where her own remained. It may be mentioned that the necks—the junction of tooth and gum—of these remaining teeth were highly sensitive to mechanical irritation or changes

of temperature; the premolars were extensively diseased and required removal. The canines were repeatedly dressed with the solid nitrate of silver, this salt having the property of obtruding sensitive dentine. The result was satisfactory. There was no disease of the articulation or jaw other than that confined to the teeth and already described. The treatment to be immediately described in detail was carried out, the result being eminently satisfactory, the troublesome symptoms being relieved for about the space of two years. A few months ago the patient again came under my observation suffering from a slight relapse. On inquiry and examination it was found that one of her plates had been altered by another practitioner, and this alteration had allowed the jaws to relapse into a condition approximating that in which they were when I first saw her.

CASE II.—The second case was that of an elderly lady sent to me by Dr. Abbott Anderson. She sought his advice some months ago complaining of intense neuralgia, originating in and radiating from the right temporo-maxillary articulation. She was practically edentulous and unable to separate the jaws more than a quarter of an inch without causing severe attacks of neuralgic pain, darting over the whole of the right side of the face and temple, accompanied by spasmodic trismus of the masticatory muscles, injection of the conjunctiva and lachrymation of and from the eye of that side. Various local applications had been tried without more than temporary success, and I saw her in consultation with Dr. Abbott Anderson in order that a thorough examination of the mouth might be made and the existence of dental disease, if any, discovered. There was no obvious physical sign of disease in the joint. Nothing likely to cause neuralgia was found within the mouth, but the patient having for the purpose of examination been anæsthetised and the jaws somewhat forcibly separated, it was found that for some days subsequently her pain was sensibly relieved. I suggested that the case presented so many points of similarity to that I have already described that we could not do better than treat it similarly. The patient had, when I saw her, in her possession two small plates, one for each jaw, but had not lately worn them as they were not comfortable. They were small partial dentures, filling gaps in the front part of the mouth only. In this they contrasted strongly with the dentures in the former case. As in the first case, treatment gave immediate relief to the more urgent symptoms. Practically the neuralgia was cured and the patient enabled to perform the movements of mastication without discomfort or fear of sudden spasmodic pain.

### TREATMENT.

The principle in treating these and similar cases is the adaptation of well-fitting dentures so adjusted as to keep at all times the jaws as far as possible in their normal relative position by restoring the normal opposition of molar and bicuspid teeth. The chief difficulty, and one met with at the outset of the treatment, lies in obtaining accurate impressions of the jaws, for in the first case removal of the plates from the mouth set up pain and tonic contractions of the maxillary masticatory muscles; and in the second, the patient, in dread of causing onset of pain, would separate the jaws but to a very small extent, while any attempt to take models of the mouth resulted in causing muscular spasm.

### PATHOLOGY.

Loss of grinding teeth, molars and bicuspids, lies at the root of the mischief. Directly consequent upon this loss occur degenerative changes in the masticatory muscles due to inaction; then follows relaxation of ligaments about the joint; the condyle of the jaw, and perhaps the interarticular fibro-cartilage, slips when attempts are made to open the jaws, in this way pressing upon some of the nerve filaments derived from the auriculo-temporal and from the masseteric branch of the inferior maxillary nerves supplying the joint. Indirectly, these nerve filaments are connected with the seventh or facial nerve, the motor nerve of all the muscles of expression to the face. Branches from the auriculo-temporal nerve form one of the principal chains of communication between the fifth and seventh nerves. From the main trunk of the inferior division of the fifth nerve are given off branches to the masticatory muscles and from the ophthalmic division of the same nerve, those supplying the conjunctiva and lachrymal gland. After having been for some time in a state of chronic irritation, the sensory tracts become traversed by exciting stimuli with extreme ease, and consequent discharges of neuralgic pain over the areas supplied by these nerves are frequent and violent.

From the facts which have been mentioned, namely, the conditions which were observed before and after treatment, it may be deduced that the loss of normal relationship existing between the articular surfaces of the temporo-maxillary joint causes in a reflex manner both the paroxysmal pain in the sensory divisions of the fifth nerve and spasm of the muscles of the jaw. Two points favour this hypothesis: first, that the removal of the plates worn by my first patient caused immediate pain, replacement being followed by cessation of symptoms. Secondly, as already detailed, the relief gained by artificial restoration of the grinding teeth in the second case.

I feel more than ever inclined to believe this to be the true explanation, for recently my first case came again under my observation complaining of slight recurrence of all symptoms described. Upon questioning her carefully, I found that her dentist in the country had for some reason altered one of her plates, reducing the molar and bicuspid opposition, and allowing the jaws to relapse into a condition approximating to that in which they were when I first saw her. I have only to add that six months have elapsed since treatment of the second case without the return of any untoward symptoms.

## A CASE OF TETANUS TREATED WITH SUBCUTANEOUS INJECTIONS OF CORROSIVE SUBLIMATE: RECOVERY.

BY SURGEON-MAJOR HAROLD HENDLEY,
Indian Medical Service.
(From Notes taken by Hospital Assistant VAISHAN RAM.)

PARDHANA, a Hindu boy aged 9, son of a hillman in the Kangra District, Punjab, was first seen on August 10th, 1896, when it was stated by the father that he had been suffering for two days from stiffness of the neck and difficulty in mastication, associated with a considerable amount of pain.

On examination marked rigidity of the muscles connected with the lower jaw, neck, right arm, and thigh was discovered; and any movement of these parts was attended with very considerable pain. The temperature was 101.2° F., the pulse 96, the bowels constipated.

He was given calomel gr. iv, and a mixture to be taken every four hours of sodii salicylatis gr. v, pot. bicarb gr. iijss, S parts, chloroformii ♏ij, aq. ℥ij.

On August 11th his temperature was 99.8° F., the bowels had been moved once; his condition was much about the same.

On August 12th a very considerable amount of pain was complained of over the front of the chest, more especially over the cardiac area: and a slight systolic *bruit* was audible at the apex. A belladonna plaster applied over the area of greatest pain resulted in some relief.

On August 13th slight spasms became evident over the whole body at intervals of fifteen to twenty minutes. Chloral hydrate gr.ij was given thrice daily. A fair amount of sleep was obtained.

On August 16th risus sardonicus and opisthotonos were well marked; the paroxysms became very frequent, occurring at times every two or three minutes, and any movement of the patient increased their frequency. The bowels were again constipated, the temperature 100.2° F., the pulse 100, small and weak. Pain was very considerable; next to no sleep was obtained, and, in spite of the considerable amount of fluid nourishment taken in the shape of milk and soup, the patient had become considerably emaciated. Chloral hydrate, 2 gr. every hour, was now given and the calomel repeated.

From August 17th to 26th, by pushing the chloral hydrate and so producing sleep, some control over the paroxysms was obtained. On the latter date, however, the patient became much worse; the paroxysms increased in severity and frequency, and a fatal ending seemed not far off.

As the chloral hydrate appeared to have no longer any effect upon the course of the disease, it was determined to have recourse to a method of treatment used successfully by Celli.[1] The chloral hydrate was continued, and subcutaneous injections into the buttocks of corrosive sublimate in 0.0059-gramme doses were given twice daily, commencing on August 27th. After the first two injections the spasms markedly decreased in frequency and severity.

On September 2nd—that is, after eleven injections—the paroxysms had entirely ceased, and from this date, when the injections were stopped, recovery was sure and, considering the previous state of the patient, fairly rapid. Small doses of chloral hydrate were continued up to September 8th.

[1] Reported in the *Medical Annual* for 1896.

The muscles of the body generally gradually recovered tone under a course of massage carried out on Eastern methods.

REMARKS.

It is noticeable that, as in Celli's case, very marked amelioration in the patient's condition occurred after the second injection. After a very careful inquiry, no cause for the occurrence of the disease could be discovered. The early symptoms seemed to point to conditions which might admit of the case being classified as one of rheumatic tetanus.

## NOTE ON THE TECHNIQUE OF SERUM DIAGNOSIS OF ACUTE SPECIFIC FEVERS.

BY A. E. WRIGHT, M.D.,
Professor of Pathology, Army Medical School, Netley.

IN view of the great and growing importance of serum diagnosis the following method of applying the serum test may be of interest:

The blood, which is readily obtained in sufficient quantities from the finger tip by breaking off one of the points of a steel nib, and by then pricking the back of the finger near the nail, is drawn off into a pipette, such as is represented in Fig. 1. This pipette is converted into a blood capsule by sealing it in the flame at the points indicated in the figure by the letters *x x*. After twenty-four hours, or as soon as the blood has duly separated into serum and clot, the ends of the blood capsule are broken off and the separated serum is drawn off by a capillary pipette, as indicated in Fig. 2. The amount of serum which is drawn off is indicated by placing a mark *y* on the outside of the capillary pipette. The serum is then blown out into a watch glass, and is diluted first 5-fold by filling up the capillary pipette four times in succession with normal salt solution, and by blowing this salt solution out into the serum in the watch glass. In this manner any desired dilutions are obtained. It is convenient to make 5-, 10-, 25-, 50-, and 100-fold dilutions of each sample of serum.

Having diluted the serum in this manner a small quantity of the diluted serum is allowed to run up into the sedimentation tube represented in the diagram by Fig. 3. For the sake of clearness, let it be supposed that diluted serum has been allowed to run up the tube to the point indicated by the letter *a* in Fig. 3. This point is now indicated on the outside of the sedimentation tube by a red mark. Having filled in the tube in this manner with the desired amount of diluted serum, the point of the capillary pipette is now turned upwards, so as to admit a bubble of air into the point of the capillary pipette.[1] The diluted serum now occupies the position indicated in Fig. 3 by the space *c* to *d*, the bubble occupying the space between the letters *b* and *c*. Having thus introduced our bubble of air, which is to serve the purpose of an index, the end of the capillary pipette is immersed into the emulsion of either typhoid or, as the case may be, Malta fever bacteria, and the emulsion is allowed to run in until it reaches the point *a*. We have now introduced an equal quantity of diluted serum and of typhoid or Malta fever emulsion into our sedimentation tube. The next step is to mix the bacterial emulsion with our diluted serum. This is easily done by aspirating by means of the india-rubber tube the contents of the capillary pipette two or three times in succession into the mixing chamber *z*. Having thus obtained an intimate mixture of an equal portion of the diluted serum and of the bacterial emulsion, we blow the contents of the tube down into the stem of the pipette, taking care not to blow it down too near the end of the pipette, and we seal the point of the pipette in the flame. We then label the capillary pipette 1 in 10, if we have mixed an equal volume of 5-fold diluted serum with a bacterial emulsion, 1 in 20, if we have employed a 10-fold diluted serum, and so on. We then put up a control tube of the bacterial emulsion mixed with normal serum or with salt solution, and finally we place the whole series of sedimentation tubes upright in an ordinary test tube labelled with the name of the patient and the date. Figs. 4 and 5 represent such capillary pipettes after the lapse of twenty-four hours. In Fig. 4 the dark shading seen at *x* represents a pellet of either typhoid or Malta fever bacteria which have been immobilised and agglomerated by a serum from a person who is undergoing, or who has undergone, the specific fever which corresponds to the variety of bacteria which have been employed. Fig. 5 represents the control pipette which in the case of the eminently motile Malta fever or typhoid bacteria remains evenly turbid.

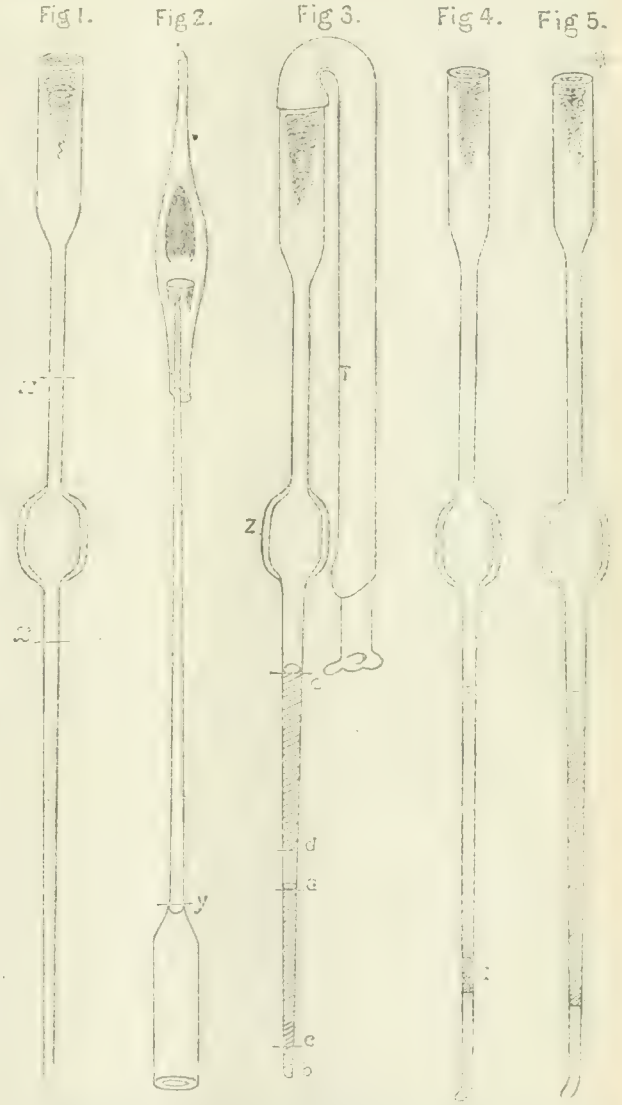



Fig. 1. Capillary pipette for drawing off blood from finger. Fig. 2. Method of drawing off serum from blood capsule. Fig. 3. Sedimentation tube filled in and ready for mixing. Fig. 4. Sedimentation effect produced by specific serum. Fig. 5. Control tube.

In conclusion, I may mention that Mr. A. E. Dean, jun., 73, Hatton Garden, E.C., is, at my suggestion, making sero-sedimentation tubes of stout glass. Provision is made in these tubes for preventing the escape of the contents when the tubes are placed upright so as to allow of sedimentation taking place.

[1] The capillary pipette, as represented in Fig. 3, is somewhat too short. The calibre of the stem perhaps also unnecessarily wide. This convenient implement for drawing blood was suggested to me by Professor Ehrlich.

THE Duke of Fife has consented to preside at a dinner in aid of the Alexandra Hospital for Children with Hip Disease on Thursday, April 8th, at the Hôtel Métropole.

## THE USE OF METHYLENE BLUE IN GONORRHŒA.

BY JAMES MOORE, L.R.C.S.E., L.R.C.P.E.,
Belfast.

THE benefit derived from the use of pyoktanin as an injection first led me to think of using the anilines internally; of these I found methylene blue best suited. The cases in which I exhibited this drug were all first attacks, and this I consider a very important point bearing on the success attending this treatment.

CASE I.—J. C. consulted me on August 14th. The discharge had existed four days, and it was then seven days since the time of connection. He stated positively that it was his first attempt at intercourse. The penis was considerably swollen, the glans very much congested, and the prepuce œdematous. The discharge was copious, whitish-yellow in colour, without any odour. I washed the glans penis with hot boric lotion. A specimen of the discharge stained with methylene blue showed on microscopical examination large characteristic pus cells, almost every one of which contained micrococci—gonococci and staphylococci—with a few micrococci in the serum. I prescribed methylene blue 3 gr. thrice daily and citrate of potash 15 gr. thrice daily. On August 19th the pain and swelling had almost gone; the discharge, which was copious but serous, was examined microscopically without staining. I found pus cells not so abundant, containing few cocci which were stained. There were some epithelial cells. I collected a specimen and stained with methylene blue as on the first occasion, but could not make out a greater number of cocci than in the specimen examined direct from the urethra. The treatment was continued, and an injection of alum, 3 gr. to an ounce of hot water, was directed to be used thrice daily. On August 26th the pain was gone and there was no discharge. I have seen the patient twice since—on September 2nd and 23rd—and he has had no recurrence. The patient stated that twelve hours after administration of the drug his urine became dark blue, and during the treatment it varied from green to blue; the fæces were also blue.

CASE II.—A. B. consulted me on August 25th. He had had connection on August 22nd. He stated that he felt a slight smarting on urinating on the morning he consulted me; he also stated that he never had a discharge from the urethra before, but that he had suffered from soft sores two years before. The meatus was congested, and a clear serous discharge was visible. On staining the discharge with methylene blue and examining microscopically I found abundant epithelial cells, very few pus cells, and in only one of these could I find micrococci, though they were very abundant in the serum. I prescribed methylene blue 3 gr. thrice daily and citrate of potash 20 gr. thrice daily. On September 2nd he had no pain; the discharge was sero-purulent and scanty. Examined under microscope without staining, pus cells containing a few micrococci were seen, but none in the serum. A few epithelial cells were present. The micrococci were stained blue. The treatment was continued, with the addition of an injection of alum 3 gr. to an ounce of hot water. On September 5th he had no pain; the discharge was scanty and serous. Microscopic examination showed a few pus cells containing only a very few micrococci deeply stained, the alum injection acting not only as an astringent, but also as a mordant. No cocci were seen in the serum, but many epithelial cells. The treatment was continued. On September 10th there was no pain and no discharge. On September 22nd he had had no recurrence. He informed me that he had got intoxicated on September 19th and had had connection apparently without any bad effect.

I have treated 7 other first attacks with methylene blue with a result similar to the above, namely the acute stage in each was cut short, and the patient's sufferings greatly minimised. With regard to the mode of action of methylene blue in gonorrhœa, I believe that it interferes with the development and virulence of the micrococci causing the disease. This is probably due to the staining action of the drug, either on the organisms themselves, or on the soil in which they grow; some chemical change being brought about. Methylene blue is excreted by the kidneys unchanged, so that the patient in urinating flushes the urethra with a fluid capable of staining the organisms, and the mucosa of the urethra.

Some time after the administration of this drug it can be found in the blood—principally in the leucocytes—of any of the tissues. This fact I was able to prove by examining the blood from the finger of Case I. The amount present in the blood depends upon the relation existing between absorption and excretion by the kidneys and rectum. Now when the micrococci have penetrated into the submucosa and there cause chemotaxis, the leucocytes passing through the vessel wall, convey with them this aniline dye, so that the disease is attacked front and rear.

Let this explanation of the action of methylene blue in gonorrhœa be right or wrong, the clinical fact remains that the acute stage is cut short before the mucosa and submucosa are extensively damaged, and thus the risks of serious complications and sequelæ are lessened.

If experience shows that this drug in any way diminishes the rapidity of development and virulence of micrococci in the tissues, it ought to prove a valuable adjunct to the treatment of general septic diseases.

## A RAPID METHOD OF PREPARING PERMANENT SECTIONS FOR MICROSCOPICAL DIAGNOSIS.

BY DR. LUDWIG PICK,
Director of the Laboratory of Professor Landau's Frauenklinik, Berlin.

THE technique used in our laboratory for the microscopical diagnosis of curetted or excised material allows the preparation of sections cut, hardened, stained, and preserved within ten to fifteen minutes, often even in less time. The rapidity of the method offers among other advantages the possibility of deciding important questions bearing on the pathology of the case during the anæsthesia, or even after the operation has begun, as we have often successfully proved.

We employ the Jung-Heidelberg Hobel (carpenter's plane), ether spray freezing microtome, and in fact regard it as an integral part of the method. It yields with ease and rapidity a large number of fine, thin, and complete sections, with very little waste of ether.

The excised or curetted material is freed from blood and coagula by dipping in water and then brought directly on to the freezing plate of the microtome and frozen. In order that the freezing should be rapid and not too severe, it is important that the mass be laid flat, and be not thicker than 2 or 3 mm. The breadth is immaterial up to 1 cm. square, or even greater. The ice block so obtained in a few seconds must be merely firm, not stone hard; the knife must cut through lightly and without grating. Particles from curettage may be laid on the plate, a half dozen or more at once, and sections obtained from all at one time.

The sections as they are cut are wiped from the knife blade by the finger tip, floated into a 4 per cent. aqueous formalin solution, and left there four minutes to harden and fix the cell plasma and intercellular substance. The use of the finger in place of a brush is to allow the warmth of the former to thaw the section before it reaches the solution, avoiding in this way the formation of air bubbles in the tissue which are often very annoying. As the formalin hardens at once the disadvantages so often urged against the freezing method—that is, fragility, loss of epithelial elements, and, above all, the poor staining quality of the sections—are done away with.

From the formalin solution the section is carried directly into a 4 per cent. alum-carmine solution, and left three to five minutes, staining a deep red (4 g. carmine boiled three-quarters of an hour in 100 g. 5 per cent. aqueous alum solution, cooled, filtered). For transporting the sections from one liquid to another up to absolute alcohol a glass rod is used, about which the section is rolled, obtaining a flat and even specimen much more quickly and conveniently than with a spatula.

The formalin section hardening and immediate carmine staining are emphasised as being the essential points of the method, distinguishing it from others more or less similar.[1]

The section taken from the carmine solution is rinsed in pure water to remove the superfluous stain, using the glass rod as before, and then dehydrated by bringing it for fifteen seconds each into 80 per cent. alcohol and absolute alcohol. Finally it is placed in xylol carbol to clarify, and mounted and conserved in Canada balsam.

The unused sections and uncut material may be preserved indefinitely in 80 per cent. alcohol, and subsequently stained or embedded by any method, exactly as with primary alcohol hardening.

With us the questions most frequently to be decided by microscopical diagnosis are: Malignancy or benignancy of tumours, ulcers, or erosions, existence of pregnancy, endometritis, or adenoma, etc. These are answered as efficiently and positively by preparations obtained by this rapid method as could possibly be obtained in any other way. Everyone using the method will be convinced of the exactness and distinctness with which the preparations show the proliferation and change of form of epithelium, abnormalities in number and development of glands, typical and atypical

[1] T. D. Callius, *Centralb. f. allgem. path. u. Path. Anat.*, 1895.

gland forms, decidual cells, placental residua, etc. Naturally this procedure, which has been tested by us only in gynæcological practice—diagnosis of uterine and vaginal, ovarian and tubal disease—would seem equally suitable for use in other fields where a quick anatomico-pathological diagnosis is required, and we hope that its wider use will confirm this view.

I am indebted to Dr. B. L. Eastman for rendering this note into English.

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

### CONCURRENT MEASLES AND SCARLET FEVER.—NOTE ON THE INCUBATION STAGE OF MEASLES.

A. S., aged 9 years, was taken ill on June 25th, 1896, with vomiting and purging, and some feverishness. I saw her next day, when the temperature was 102°, and she complained of sore throat, and looked ill. Next day, June 27th, the temperature was 102.5, and the throat worse, with a scarlatinal rash, which was well marked next day.

The temperature kept up for a few days, and then gradually subsided, as did also the rash and other symptoms, so that by July 5th the child was feeling fairly well, and able to sit up a little in the bedroom, and desquamation had commenced.

On July 9th the child was not so well—complained of being cold and shivering, and was sick again on the next day. July 10th, when the temperature was 101°, and a measles rash came out over the face, which by the next day had extended over her body. At this time she was desquamating freely.

In three or four days the measles rash gradually died away, and the child began to feel well again, and went on well, and finished peeling in six and a half weeks from the commencement of the illness.

In this case the measles developed just fourteen days after the scarlet fever, so that if she contracted the two diseases at the same time, the incubation stage of the measles was fourteen days. I find that most authorities give the incubation stage as seven to ten days, although Fagge says that the disease rarely manifests itself before the tenth or after the thirteenth day.

The child was nursed by her mother only, who never left the house after the child was taken ill.

Stourbridge. G. J. DUDLEY, L.R.C.P., M.R.C.S.

### BELLADONNA AND THE BRONCHIAL FLUX OF PILOCARPIN.

I HAVE witnessed in a few cases where pilocarpin had been administered to produce diaphoresis, in various acute conditions, evidence of the heart giving out, owing to the exhaustion induced by frequent coughing and expectoration absolutely necessary to avoid being suffocated with the excessive bronchial secretion excited by the drug. In such cases "atropine"—the physiological antidote to pilocarpin—will frequently save life by checking the excessive bronchial secretion, and enabling rest and sleep to be obtained.

Ilkley. AUGUSTUS H. BAMPTON, M.D.

### OPERATION FOR FLUID CATARACT.

IN my *Clinical Lectures on Certain Diseases of the Eye*, page 33, I say regarding the Morgagnian cataract:

> The cortical or outer layers of the lens become fluid, having a consistence of milk, and enclose a small hard central nucleus. Once seen you can easily recognise it when you see it again. The change or liquefication of the cortical substance may commence just as the lens is undergoing maturation, or it may supervene after its complete maturation. It may be limited to superficial layers, or it may involve a very considerable portion of the substance, or the fluid portion may become absorbed altogether, leaving an opaque capsule enclosing a small nucleus. Occasionally the whole substance becomes fluid, without leaving any nucleus at all. This latter occurrence takes place more frequently in young persons than in old ones: it goes then by the name of the fluid cataract.

Although I have said that fluid cataract is frequently found in the young, I have not met with fluid cataract in an adult until I came across the following case, which was of a man aged 40 years. On November 17th, 1896, I operated on this patient thinking it to be a Morgagnian cataract. An incision was made in the right cornea downwards, and while carrying the knife towards the opposite side to make the counterpuncture I lacerated the capsule, pierced the cornea, and proceeded to complete the section; the whole of the fluid escaped and left a clear pupil. I paused to see if there was any nucleus, and having made certain that none existed, I withdrew the knife without completing the section. I made a gentle massage with closed lids to bring in the field any hard portion that might be in the aqueous chamber; the pupil remained clear, and the case made a good recovery.

As accidents often take the initiative of discoveries, I mention this case with a view to suggest whether in operating for Morgagnian cataract it would not be advisable to allow the white fluid to escape before the entire section is completed, and if there be no nucleus avoid opening the cornea entirely, and thereby not incur unnecessarily a greater risk.

Bombay. ACCACIO DA GAMA.

### COCAINE IN GUNSHOT WOUNDS.

I HAVE had two cases this winter in which I have syringed a 10 per cent. solution of cocaine into wounds made by shot.

CASE I.—F. N., male, labourer, whilst eating his dinner under a hedge, was well peppered by a shooting party. I extracted six shots from various places, the worst being above the orbit under the supraorbital ridge, and ¾ inch depth from the eyelid. I injected the cocaine with a small dental syringe along the course of the shot, and was able to remove the shot with very little pain, only having to enlarge the wound in two situations, one by the side of the left inner condyle of humerus, and one between the metacarpal bones.

CASE II.—J. S., a beater, received four shot in the face and neck, which (the sportsman explained) were glance shot from a pheasant. I used cocaine to extract two, and within ten minutes the man collapsed with a very thin slow pulse, appearing to faint, and I removed the other two without cocaine whilst he was lying on the floor. This was an alcoholic case, and he had taken two wineglasses of brandy before being brought to my surgery; he was a great coward, and would not let me probe either of the wounds until I used a little cocaine.

I should like to know if others have seen bad effects produced by cocaine in alcoholic cases. I should add that in the first case I did not use more than ʒjss of the 10 per cent. solution in all six situations, and my patient enjoyed watching the operations.

In none of the situations was cocaine injected hypodermically, but produced sufficient local anæsthesia by absorption along the course taken by the shot.

Broadway, Worcestershire. CHARLES STANDRING.

### COMMINUTED FRACTURE OF RIB: EMPHYSEMA: RECOVERY.

ON September 18th, 1896, J. P., a mariner, while riding a bicycle, came into collision with a cart, the shaft of which struck him in the chest. I saw him directly afterwards, when he was suffering a good deal from shock; he complained of a severe pain in his back and a crackling noise in his chest distinctly heard when breathing. Over the second rib on the left side there was a round bruised area of about 2½ to 3 inches in diameter, extending outwards from about the junction of the cartilage with the rib, the rib was broken here, as also at the outer limit of the area, and a piece corresponding to the area named was freely movable. This area became alternately concave and convex during inspiration and expiration, accompanied by the crackling sound before mentioned, which was very loud. On palpation this area felt like "the feel of healthy lung tissue." There was a good deal of pain on breathing, with irritable cough and dark bloody expectoration. As he was unable to retain a recumbent position, he was propped up in bed with a rest and pillows; a pad of lint was strapped over the injured area to prevent further prolapse, and he was given 10 minim doses of tr. opii every two hours. Next day the crackling noise during breathing had almost disappeared, the protrusion and retraction of the injured area was not so marked, the hæmoptysis was less, but there had been an escape of air into the subcutaneous tissue, the emphysema extending up over the left clavicle and down to the nipple. Pain and cough were less urgent. A few moist sounds were heard all over the left

lung. The dose of tr. opii was reduced to 5 minims every four hours. The patient did well, and recovered without a bad symptom. The temperature never rose beyond 100.2°, which was reached on September 20th. I was unable to detect any sign of injury to the heart or pericardium. The injured area was over the second rib and the intercostal spaces above and below it, extending outwards from the junction of rib and cartilages for 2½ or 3 inches.

H. SPENCER COOPER, L.R.C.P., M.R.C.S., L.S.A.
Brightlingsea, Essex.

### BRONCHITIS WITH BRONCHIECTASIS TREATED WITH BELLADONNA.

MISS R., aged 97½, for the last five winters has suffered from bronchial attacks, each successive one being much more severe and trying than the previous. In November, 1895, though the season was mild, she had an unusually severe attack. The secretion was enormous, and her prostration great. She was treated with stimulants and expectorants, terebene and benzoin compounds, all with very little effect on the reduction of the secretion, which I feared was going to asphyxiate her. After a tedious illness she recovered slowly, and in February she was fairly well.

Early in November, 1896, she again began to develop bronchial troubles, and I looked forward to a long and probably fatal illness. The secretions, as before, were copious to a degree, and the prostration after coughing was alarming. I again resorted to stimulants, etc., but the case was steadily going from bad to worse when I resolved to try, as recommended by Dr. Ringer, tinct. belladonnæ (*B.P.*) ♏x every sixth hour. Stimulants were still given. After the first three doses she complained of intense thirst, with dryness of the mouth and a tendency to nausea. There were no eye symptoms, as she is totally blind, the result of senile atrophy of both optic nerves. I reduced the dose to ♏vj every sixth hour, and gave that steadily for four days, and at the end of that period the improvement was most marked. The expectoration was diminished by fully one-half; by the end of a week its watery character had disappeared entirely. The dose was reduced to ♏iij thrice daily, and this was given for another week, with the result that on December 7th the expectoration, which was nummular, became almost *nil* and easily coughed up, and my patient convalescent. The belladonna certainly exceeded my expectations in this case, as not only did it have such a distinct effect in rapidly reducing the amount of secretion, which was a grave source of danger, but also it enabled my patient to sleep well at night, and at the same time acted as a gentle laxative.

St. Boswells, N.B. WM. L. CULLEN.

# REPORTS
ON
## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

### BRADFORD INFIRMARY.

#### A CASE OF ACUTE ANEURYSM: EMBOLISM OF THE ILIAC ARTERIES: PARAPLEGIA.

(By WM. HORROCKS, M.B., F.R.C.S.)

A MAN, aged 58, was admitted on September 1st, 1896, and died three days later.

A few hours before admission, he was attempting to move a heavy plank of wood, when he suddenly complained of severe pain at the bottom of the back and numbness with a pricking sensation in both lower limbs. Shortly afterwards he found that he could not pass water. On admission both lower limbs were blue and cold; no pulsation could be detected in either femoral artery. Besides this there were signs of paraplegia, affecting both lower limbs. The patient could move the patellæ slightly, but with this exception there was complete loss of power over both lower extremities. The feet lay in a position of full extension. There was no sensibility to touch, pain, or heat in the lower limbs, except over the buttocks, where sensations were natural. The plantar and cremasteric reflexes were absent on each side. The bladder was much distended. The urine, which was drawn off, contained albumen. The radial pulse was 84, and of high tension. The patient was very restless, constantly pulling himself up in bed, and turning from side to side. He complained frequently of much pain in the lower part of the back and across the abdomen.

Morphine, gr. ⅓, was given frequently hypodermically to relieve pain. Two days later the paralysis of the lower limbs was complete, and the other symptoms still continued. The blueness and coldness of the surface had extended to the level of the umbilicus, and the loss of sensibility had extended to midway between the umbilicus and pubes. There was much tenderness on pressure over the lower part of the abdomen. The patient gradually passed into a drowsy condition, his body becoming colder, and he died on the third day after admission.

Dr. Gladstone, who examined the urine from time to time, noted the presence of hæmoglobin. The urine was chocolate-coloured, with a brownish deposit consisting of granules and a few red corpuscles. A spectrum showed the absorption lines of the hæmoglobin.

At the necropsy, the whole of the abdominal aorta and the iliac vessels showed advanced atheromatous disease of their inner coats, which were studded with calcareous plates. There was an aneurysm, about the size of a pigeon's egg, on the anterior wall of the aorta, near the origin of the cœliac axis. The aneurysm communicated with the aorta by a wide mouth, which was partly covered by a layer of fibrin, which covered the interior of the aorta at the same level. This layer of fibrin was broken below, where its attachment to the margin of the aneurysmal opening was imperfect. The interior of the aneurysm was partly filled with clot, which showed an irregular surface, as if part of the clot had been washed away. Both iliac arteries were occluded, but the right was more firmly plugged and the clot reached higher than on the left side. No clot was found in the aorta between its bifurcation and the aneurysm.

REMARKS.—The points of interest in this case are: First, what was the cause of the paraplegia, which might have been of central or peripheral origin? In this case the absence of any spinal lesion, and the fact that the circulation through the lumbar arteries was not interfered with, contraindicate its spinal origin. The movement of the recti, which was present on admission, and continued rather longer on the left than the right side, is accounted for by the later plugging of the left iliac artery. The muscles during the latter days passed into a state similar to cadaveric rigidity. The recti stood out prominently under the skin. The skin showed livid patches and the limb was cold, showing greatly impaired nutrition. All these signs seemed to point to coagulation of the myosin and deficient oxygenation as the cause of the paralysis. Sensation of pain in the limbs was absent. This is unusual, as in most recorded cases great pain is complained of. Possibly the entire cessation of the circulation so far damaged the sensory nerves that they were unable to convey afferent impulses. The condition of the urine is unexplained. The circulation in the renal vessels was not interfered with. The pulse showed markedly high tension, a point noted in similar cases by the late Dr. Bristowe. The possibility of increased tension accounting for the presence of hæmoglobin in the urine may be suggested. More probably the death of so large a portion of the body caused a great increase in the amount of broken-down tissues carried into the circulation, and part of this was excreted by the kidneys. In conclusion, I must thank Drs. Chapman and Gladstone for their careful notes and suggestions regarding this interesting case.

### MACCLESFIELD INFIRMARY.

#### TUBERCULOUS PERITONITIS IN A CHILD: LAPAROTOMY: RECOVERY.

(Under the care of C. AVERILL, M.D., B.S., Honorary Surgeon to the Infirmary.)

M. C., aged 7, was admitted on October 1st, 1896. She was extremely emaciated with a greatly distended and tense abdomen. She lay on her back with her legs drawn up. Fluctuation was well marked all over the abdomen; no "matting" or enlarged glands could be felt. There was no diarrhœa. The temperature was hectic, rising to 101° in the

evening, and falling to normal in the morning. She had a slight cough without expectoration, and examination of the chest revealed impaired resonance at the left apex, with small moist sounds at the end of inspiration.

On October 3rd the abdomen was explored with an ordinary exploring needle and syringe, and a small quantity of pus-like fluid withdrawn. On October 4th she was put under the influence of A.C.E. mixture, and with aseptic precautions an incision was made in the middle line midway between the umbilicus and pubes, and 63 ounces of pus-like fluid evacuated. The abdomen was washed out with hot (99° F.) sterile normal saline solution. No glands could be felt within the abdomen, but the mesentery was thickened and shortened so that the small intestine was dragged upwards, leaving a large cavity below which was filled with the pus-like fluid. The abdomen was carefully dried with wood wool and gauze sponges, and a small Keith's drainage tube inserted into the lower part of the wound, the upper part of which was sutured, and a gauze and wood-wool dressing applied. The case was dressed the same evening and about 2 ounces of fluid aspirated from the Keith's tube. Recovery was fairly rapid. On the fourth day after the operation the Keith's tube was removed and a small red rubber tube inserted. The rubber tube was next removed, and the sinus allowed to heal from the bottom.

A good firm cicatrix now represents the line of the original incision, and the patient is well and happy; her weight has increased nearly 3 stones, and the lung trouble subsided, though she is still continuing to take cod-liver oil and guaiacol.

During convalescence she had an attack of tuberculous inflammation in the right shoulder-joint, which, however, subsided under treatment.

I am indebted to Mr. Marsh, late Senior House-Surgeon, for notes taken on this case.

# REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

W. H. Dickinson, M.D., President, in the Chair.

*Tuesday, January 12th, 1897.*

### Infantile Cerebral Degeneration, with Symmetrical Changes at the Macula.

This paper was read by Mr. E. C. Kingdon and Dr. J. S. Risien Russell. The paper dealt with a rare and fatal disease of infancy, commencing in the early months of infant life by muscular enfeeblement associated with distinctive ophthalmoscopic appearances: complete paralysis resulted later, and the patient died about the end of the second year. Four cases of this affection had been under the observation of the authors. The children were born of healthy Jewish parents, and, of three other children of the family, two were healthy but one died of the disease. Of the 4 cases that had been under observation, 3 were dead and 1 was still alive. An account was given of the clinical history of the 4 cases, together with a description of the morbid changes met with *post mortem* in the central nervous system and eyes in the 3 cases which died. A note by Mr. Treacher Collins on the microscopical changes found in the eyes of the second patient was included in the report. The account of the 4 cases was supplemented by that of another, kindly placed at the disposal of the authors by Dr. F. J. Smith. The authors next detailed the characteristic features of the disease, their description being based on the conditions met with in the cases reported in the earlier part of their paper, in conjunction with a study of all the recorded instances of the diseases, references to which recorded cases were contained in a bibliography at the end of the paper. Male and female children were affected, and no exciting cause could be assigned. There was no apparent relation to syphilis, consanguinity of marriage, or any of the usual hereditary diatheses; but there was a marked racial peculiarity in that all the children have been Jews. More than one child in the same family was usually affected. The symptoms and progress of the disease were described as they occurred in three stages. In the first stage a child, born at full term and healthy, began to show signs of muscular enfeeblement and of failure of sight about the end of the third month. About the fourth or fifth month definite and characteristic changes in the region of the macula lutea could be detected on ophthalmoscopic examination. The second stage was characterised by such marked muscular enfeeblement that the child was unable to sit up, its head fell backward if unsupported, and its grasps were feeble; when in the recumbent posture there was inability to turn from side to side. It was generally apathetic, and the face bore an expression of mental enfeeblement. Vision was abolished, except that there was still perception of light, but hearing remained acute, and the sense of taste was preserved. In the third stage the enfeebled muscles became atrophied, and general emaciation progressed and became most marked. The deep reflexes were exaggerated, and, still later, there was rigidity of the extremities and retraction of the head, while occasional spasmodic contractions caused the child to start and cry from pain. Convulsions were not the rule, but had been noted in two exceptional cases. The temperature remained normal throughout the course of the disease. The heart, lungs, and abdominal viscera were also normal. The characteristic ophthalmoscopic appearances consisted in symmetrical changes at the macula lutea, in which situation there was a whitish-grey patch, but slightly raised above the surface of the retina, with a few retinal vessels visible on it at the periphery. In the centre of the patch the fovea centralis was seen as a dark cherry-red spot. In the early months the optic papilla showed no decided changes, but later in the course of the disease there was definite optic atrophy. Subjects of this disease usually died within two years, but the duration of life varied from one and a-half to two and a-half years. Death was sometimes unexpectedly sudden. On macroscopic examination of the central nervous system after death, little abnormal could be detected, but most profound changes were met with on microscopical examination. There was a widespread degeneration of the pyramidal cells of the cerebral cortex, progressive in character, with extensive degeneration of the fibres of the corona radiata and of the pyramidal tracts throughout their whole course in the pons, medulla oblongata, and spinal cord. Similar, but less extensive, degeneration occurred in the fillet, descending root of the fifth nerve, and superior cerebellar peduncles. As in the pyramidal system, so in these tracts, the degeneration was quite symmetrical on the two sides. With regard to the eyes, the retina at the yellow spot was much thickened, this being due to enlargement of the outer molecular layer, the tissue of which was spaced out, the most marked changes occurring in the neighbourhood of the fovea, and becoming less evident towards the periphery of the affected area. The optic nerve was atrophied, with increase of interstitial connective tissue and a large increase of round cells in the nerve. There was cupping of the optic disc, the result of atrophy of the nerve fibres. There was no inflammatory exudation between the dural and pial sheaths of the nerve. The pathology of the disease was next discussed, and the possible relationship existing between the ocular changes and those met with in the central nervous system was considered. In conclusion, the authors suggested certain lines of treatment which might possibly influence the course of the disease after it had commenced, or prevent its occurrence in children liable to it. The paper was copiously illustrated by photographs representing different stages of the clinical course of the disease, and by photomicrographs of the changes met with after death both in the central nervous system and in the eyes.

Dr. Fletcher Beach had seen a number of idiotic children, most of them about the age of 12 years, and all of them over 5 years, who had the same general appearance and inability to keep the head erect as the authors' cases. Microscopically the cortex showed the same lesions as had been described by the authors. His own cases were of course due to arrest of development.

Mr. Kingdon emphasised the rarity of the disease, its fatal tendency, and the characters of the retinal changes. He would be interested to know whether Dr. Fletcher Beach's patients showed any ophthalmoscopic changes.

Dr. Tooth inquired how the acute hearing possessed by the patients could be explained in the light of the fact that the temporo-sphenoidal lobes showed degenerative lesions.

Dr. RISIEN RUSSELL, in reply, said that the change in the temporo-sphenoidal cortex was earlier and less marked than elsewhere.

## CLINICAL SOCIETY OF LONDON.

THOMAS BUZZARD, M.D., F.R.C.P., President, in the Chair.

*Friday, January 8th, 1897.*

### GUNSHOT WOUND OF THE EYE.

MR. BRUDENELL CARTER described this case. The patient was a boy, aged 14, who received a charge of snipe shot in his face from a gun the muzzle of which was only three yards away, on December 14th, 1895. Most of the charge entered the mouth, and the jaws were much injured, but two pellets passed through the left lower lid and entered the eye, piercing the sclera below the cornea, one just to the nasal side of the vertical meridian, the other on the same horizontal line, and 4 or 5 millimetres nearer the nose. Mr. Carter saw the case two days after the accident, and, after dilating the pupil, was able to see that the retina had been wounded. An expectant treatment was pursued, and the eye recovered without inflammation or trouble of any sort. By February 4th, 1896, all the blood effused within the eye had been absorbed; and it was then seen that the retina and choroid, having been wounded below the optic disc, had disappeared from an extensive region, probably by retraction, leaving the internal surface of the sclera exposed to view; while on the temporal margin of the gap thus occasioned two pellets of shot were lodged and encapsuled, one slightly above the other, producing elevations which were about a millimetre above the general level of the fundus. Central vision was now equal to $\frac{1}{12}$ of the normal, and the gap in the upper part of the field was too remote from the fixing point to occasion any inconvenience. Since the accident the boy had passed into Rugby, and he was now taking part in all the games and pursuits suitable to his age and position.

Dr. KINGSTON FOWLER asked what circumstance would determine the author to wait or to excise the eye at once. He himself had been surprised at the alacrity with which eyes wounded by gunshot had been removed.

Mr. MAKINS inquired if the encapsuled shots were likely to be harmless or liable to cause future mischief.

Mr. R. J. PYE-SMITH (Sheffield) considered that the question of removal of the eye depended on the region injured. As in this case the ciliary region had probably escaped injury, an expectant attitude was permissible. Could Mr. Carter supply any observations upon the temperature of missiles at the time of discharge from a gun?

Mr. CARTER, in reply, said that injuries to the eye caused by heated missiles progressed as if the missiles had been sterilised, and cited several cases. In some of Sir Joseph Whitworth's experiments the bullet was fired through the length of a large iron tube into sawdust, and when taken out was quite hot. He saw the deposition of lymph on these two pellets. He consequently kept the boy quiet, not allowing him to ride, so that the encapsuling process might continue without hindrance. Now for many months he had played in games, etc., without any trouble occurring. It was the ophthalmic surgeon's duty to save an eye if possible, and as sympathetic ophthalmia rarely began sooner than three weeks from the date of injury, one might wait unless the injury rendered recovery impossible—for example, if the injury were near the macula. But removal was far inferior to Mules's operation, which permitted a glass eye to be worn that moved as well as the uninjured eye. He mentioned such a case in which the patient's acquaintance were puzzled as to which was the artificial eye.

### PAROXYSMAL TACHYCARDIA IN A CHILD.

Dr. W. P. HERRINGHAM reported this case. The child was under observation from September, 1895, when she was 11 years old, to June, 1896, during which time she had seven attacks of tachycardia. The history showed that she had been subject to similar attacks for at least five years. The attacks were typical in character. They began quite suddenly in a period of perfect health, and without adequate cause. The beginning was never witnessed by the writer. They lasted for a period which varied from thirty-six hours to thirteen days, and the end of the paroxysm took place during sleep. During the attack the pulse was very small and soft, uncountable at the wrist, of a rate which, taken at the heart, was from 240 to 260; the heart was somewhat dilated beyond its usual size, and the pulsation was very forcible. It was at first productive of some præcordial distress, but not of acute pain. Respiration was rapid, and there was occasionally a little cyanosis, but no sign of pulmonary œdema. There was no anasarca of the legs. The urine during the attack was very scanty, owing doubtless to the low blood pressure. During the paroxysm sleep was restless, and did not alter the cardiac rate. Since the attacks ended during the night the actual moment of change was never witnessed, and it could not, therefore, be told whether this was instantaneous or a matter of hours. The pulse, which had been over 260 the night before, was found in the morning to be 90 or thereabouts, and the child professed herself quite well. The causes which excited the attack appeared to be either sudden effort or sudden movement, yet neither of a degree likely to produce any ill-effect upon ordinary persons. No valvular disease could be detected, nor was there any history of rheumatism in the child or in her family. There was no sign or history of syphilis, and the patient before the attacks was a big, plump, rosy girl, the picture of health. The heart, however, was permanently enlarged, and the writer suggested that there might be adherent pericardium, and that the myocardium itself might as the result of some former disease be unhealthy. From a study of the literature of the subject, and from watching the present case, he was disinclined to believe that these hearts were structurally healthy, and he thought that the change in them might originate in three ways. In some cases it might be due to acute myocarditis, as in those which had been seen in rheumatic people, in others it might be due to degeneration of the muscle itself, either syphilitic, as probably in two of the recorded necropsies, or fibrosis, whilst in a third class it might be primarily due to nerve degeneration, as, in some cases, noted after infectious fevers. Various modes of treatment were adopted, digitalis, nitrite of amyl, atropine in large doses, pressure upon the vagus nerve, treatment of the stomach and intestines, had all proved useless, or if one had at one time seemed to cure, it failed to repeat the performance. Schott's treatment (baths and exercises) neither reduced the size of the heart, nor prevented the occurrence of the paroxysm.

Dr. B. ABRAHAMS asked if there was anything in the case to suggest a nervous origin of the affection. Possibly there might be a nutritional defect in the cardiac centre in the medulla, acting as an irritant, as did whooping-cough.

Dr. S. WEST said these cases were rare, especially in children. He had never been able to find anything in the patient's general health or surroundings to explain the attacks. Dr. Bristowe had thought that cases occurred in people who had no other disease, but even a few of his reported cases ended life by having confirmed heart disease; one case had valvular disease with most remarkable murmurs. He related the case of a policeman who had very rapid pulse, without apparent cause, accompanied by rapid dilatation of the heart and a peculiar murmur audible at a distance of 12 to 15 inches from the patient's chest. After two years his symptoms passed off, and left him without any cardiac disease; and for the last six years he had been on active service as a policeman. The prognosis, however, was not usually good. The cases constituted a distinct clinical group.

Dr. SEYMOUR TAYLOR had never before seen a case in a child, though he had met with four or five in adults. The peculiarity was that no disease of the heart was discoverable. Of his cases all had died except one in four or five years after the beginning of the symptoms; and all were associated with disease or dislocation of some abdominal viscus (in one case of the uterus, in another of the kidney) apparently through some irritation of the sympathetic. If the disease resembled any disease of the nervous system, it was not whooping-cough but epilepsy, as in its sudden onset. He thought he had seen some benefit arise from the application of a blister along the course of the vagus nerve.

Dr. GLOVER, having examined the patient, said the heart's action was at that time quite healthy and regular, and he

hoped they would be favoured with the subsequent history of the patient. Had the author tried a course of arsenic or nux vomica?

Dr. C. W. Chapman suggested a combination of arsenic and bromide of ammonium, from which Dr. Clifford Allbutt had obtained good results.

Dr. Kingston Fowler said that Dr. Sharkey had found great benefit produced by valerianate of zinc, beginning at 3 grains and gradually increasing the dose.

Dr. L. Benham said that in a woman aged 70 he had tried many drugs without good result, but at last found opium very beneficial.

Dr. Herringham, in reply, said that French authors used the word "essential" when there was no valvular disease in these cases of heart hurry; but he objected to this division, because there now had been 6 recorded necropsies, in all of which during life the myocardium was supposed to be healthy, and yet in 3 of these cases there was found after death to be organic disease. Over 20 years of age about the same number of cases were recorded in each decade of life, but only 2 fatal cases were known in children. The cases did not all die. Some began to trouble in childhood, and lived until after 50, and some cases were reported as "still living" when reported. If it were a disease of nervous origin, what nerve was affected? No artificial irritation of the sympathetic nerve ever produced such exceeding rapidity of pulse except the vagus were first cut. The cases said to be associated with coexistent disease of abdominal viscera were reported by Dr. S. Taylor, Dr. Eccles, and a German observer. Dr. Taylor's cases had not been reported in sufficient detail to enable one to judge of that connection; in one of Dr. Eccles's cases where it was said to be associated with movable kidney, the malady began when the patient was 3 years old, and had lasted ever since, but there was almost certainly no movable kidney at that time of life. No person had ever found any disease of the vagus, nor any lesion of the nervous system, although it had been very carefully searched for in 2 cases at any rate. Disease of the vagus, too, gave only a rapid pulse of 150, never over 200. Pressure over the vagus in a few cases had produced some benefit, but if the vagus were paralysed how could pressure on it do any good? So-called faradism of the vagus nerve in Graves's disease had no effect on the heart's action. Moreover in 3 cases actual disease of the heart itself had been found, a fact which went strongly to support the view that the cause resided in the heart itself. He would try valerianate of zinc and bromide of ammonia. Compression on the thorax sideways and on the abdomen at the same time had been found by a German physician to be successful in 3 or 4 cases.

### Fracture of the Axis.

Mr. Cuthbert S. Wallace described this case. J. W. B., male, aged 44, fell a distance of 9 feet, and was carried up to bed while unconscious. On the next day the patient sought advice because of the rigidity of his neck. On examination it was seen that the head was protruded, and the chin almost touched the sternum. A slight projection was felt in the cervical spine on examining the posterior wall of the pharynx, but this was not tender. The patient was laid on a flat bed, and the head fixed with sand bags. Rigidity passed away, and good movement returned by the eighth day; on the afternoon of this day the patient was suddenly seized with dyspnœa, and died. *Post mortem* a fracture of the axis was found that separated the two superior articular parts with the odontoid process from the inferior part of the body. No injury of the cervical cord was found.

## MEDICAL SOCIETY OF LONDON.

Reginald Harrison, F.R.C.S., President, in the Chair.

*Monday, January 11th, 1897.*

### Sir Joseph Lister's Peerage.

The President proposed, and Sir Dyce Duckworth seconded, a vote of congratulation to Sir Joseph Lister on his elevation to the peerage, which was described as an honour to the art as well as to the science of medicine.

### Wandering Spleen.

Mr. Bland Sutton read a paper on this subject, which is published on page 132.

Mr. Ballance said that two years ago he had been called upon to operate on an English lady from Brazil, married, but without children, and 29 years of age, who every month or six weeks had suffered from great pain in the abdomen, with intestinal distension and sickness—with symptoms, in fact, which had been attributed to intestinal obstruction. There was a tumour which moved about a good deal inside the abdomen. She was seen by Dr. Cullingworth, who, as the tumour was then located in the pelvis, opened the abdomen, but, finding that it was not an appendage of the uterus, he closed the wound, and the patient came under the author's care. He found that the tumour varied considerably in size, even during the course of an examination. It was freely movable, and could be pushed into any part of the abdomen. Under the circumstances he cut down and removed the organ. It had occurred to him to try to suture it in place, but he found the pedicle was 12 inches long and 1½ inch in diameter, and contained several veins, so he relinquished the idea. As far as the operation was concerned the patient did well, but a few days after the operation her temperature went up, and she became very ill, with a furred tongue, complete anorexia, loss of flesh, and a great diminution in the number of red, and an increase in the white, corpuscles. These symptoms, he observed, were those which were known to follow removal of the spleen in young animals. In the course of three or four weeks she had become extremely emaciated, and was fed on spleen extract, red bone marrow, etc. Ultimately, the external lymphatic glands all became markedly enlarged, and then her condition improved. Since that time he had twice performed splenectomy for rupture of the spleen; in both cases the operation was followed by recovery. In one a spleniculus was left, and that patient did not suffer from any of these symptoms, but the other developed them; and in a further case, that of a woman, they were also observed. Health was usually restored in about ten weeks. A wandering spleen was usually hypertrophied, and this might account for the fact that some patients did not display these symptoms, the organism having little by little become accustomed to the loss of spleen substance. In young subjects it had been ascertained that the red marrow took up the functions of the spleen substance, and the lymphatic glands those of the Malpighian bodies. In young animals the organism adapted itself readily enough to the change, but in older subjects it took some time.

Mr. Bland Sutton, in reply, said it was curious that two surgeons practising in the same city should have had such opposite results in splenectomy. He had had three patients, and with the exception of remaining thin no symptoms were observed. He had accumulated a very large collection of such cases, and here and there one met with a case exhibiting the symptoms referred to, but it was quite exceptional. He thought it was a pity Mr. Ballance had given the spleen extract, bone marrow, etc., for the patient would probably have done just as well without them.

Mr. Ballance added that he had only given the spleen extract, etc., in one case, and the others he admitted did just as well without them. They did not even remain thin.

### The Prognosis of Pneumothorax.

Dr. S. West read a paper on the prognosis of pneumothorax, with some statistics as to its duration and mortality, together with notes of a series of cases ending in recovery. Of two series, the first gave a death-rate of 77 and the second one of 60 per cent., while Saussier gave 90 per cent. Of the 74 cases, 45 died within the first month and 9 more during the second month, equal to a mortality of 71 per cent. He pointed out that death might be due to the pneumothorax itself, to empyema, or to the effects of the original disease causing the pneumothorax—for example, phthisis. The immediate risk to life depended upon (1) the urgency of the symptoms, (2) the effect produced upon the opposite lung, (3) the effect upon the heart, (4) the strength of the patient, and (5) the nature of the cause. In respect of recovery, most statistics gave a percentage of not more than 10 per cent., but the figures from St. Bartholomew's gave over 25 per cent., and his own were even more favourable. The most favourable cases were those in which no effusion took place, the air being simply absorbed. Of this he adduced 5 examples. In another set of cases effusion

formed, but was serous, and recovery took place with or without paracentesis as after ordinary effusion. When the effusion was purulent the prognosis was much more grave, but even some of these recovered in time. He thought it might fairly be claimed that pneumothorax was sharing in the diminished mortality of other diseases of the pleura, which he attributed to the better comprehension of the true nature of the affection and its dangers and to the better treatment of the cases, especially during the early days of the attack when the risk to life was greatest.

Sir DYCE DUCKWORTH observed that in years gone by they used to be taught that pneumothorax was one of the most deadly of complaints, but at present it had a less dreadful aspect. They were, however, still in need of further knowledge in respect of the more serious cases, namely, those associated with empyema which fell into the third category, with primary basic tuberculosis leading to pneumothorax. Each case required to be judged on its merits, but they had to consider the advisability of withdrawing the pus from the pleura. Pus in the pleura in association with tubercle was, he believed, generally held not to be so serious a complication as it appeared at first sight, for it had been observed over and over again that when in cases of this kind the chest was opened and the pleura drained the original disease had progressed with greater rapidity. He added that the late Sir Andrew Clark used to insist upon the inadvisability of interfering with empyema whenever there was a suspicion of phthisis, the patients living longer when left alone. That principle, he believed, was generally, though not universally, admitted. He suggested that the presence of pus in the pleura in some way inhibited the progress of the tuberculosis.

Dr. F. DE HAVILLAND HALL said he had had some thirteen cases of the kind, in all of which recovery followed after an average period of five or six weeks. The prognosis under such circumstances was therefore obviously less grave than one might anticipate. He called attention to the small amount of discomfort to which this complication sometimes gave rise, and suggested that in any future classification cases of pneumothorax occurring in apparently healthy persons should be placed in a separate group. The prognosis in cases of pneumothorax with phthisis was grave, the patients sooner or later dying of the original disease, but the longer the patient lived the better was the prognosis.

Dr. KINGSTON FOWLER concurred in the view that cases of pneumothorax in phthisical subjects were best left alone, life under such circumstances often being prolonged for many years. Of this he gave several examples. He thought it would be desirable in cases where pus had accumulated to ascertain the nature of the micro-organism. If none were present it would probably be regarded as tuberculous, but if streptococci were present the prognosis would be much graver. With respect to the production of pneumothorax from rupture of a emphysematous bleb, from which the author had dissented, he said he knew at any rate of one instance, and it was, he believed, generally admitted to be one of the causes of pneumothorax.

Dr. HUBBARD observed that both Gull and Murchison were very much opposed to operation in cases of empyema associated with phthisis.

Dr. G. R. TURNER related a case in which rupture of the œsophagus from vomiting in a healthy woman was followed in twenty-four hours by death, when it was found that there was left-sided pneumothorax, with collapse of the lung, though there has been nothing to suggest rupture of the lung at the time of the accident. On turning over the literature of the subject, which was very scanty, he found that this complication had been observed by others. He remarked that the author himself some years ago had drawn attention to the rarity with which ordinary cases of fracture were associated with empyema and pneumothorax, and he related a case of his own in which a lad aged 17 came to the hospital with three fractured ribs associated with hæmoptysis and emphysema, but no pneumothorax, but the day after the accident he vomited, and this was followed by an attack of hæmatemesis and pneumothorax. He, however, developed no symptoms beyond some collapse at the moment, and in three weeks the air was absorbed and recovery ensued.

Dr. WEST, in reply, explained that it did not enter into his plan on that occasion to make a separate category of the cases of pneumothorax occurring in the apparently healthy, such persons moreover being only apparently healthy, seeing that in his experience they were invariably phthisical. The question of the influence of pneumothorax upon the tuberculous lung was a wide one, but he differed from the distinguished authorities whose opinions had been quoted. They had judged from their statistics and he judged from his own, and matters had changed greatly since that time. In respect of the treatment of these cases he held that the reason why so many of them did badly was that they were left too long. He said he could bring evidence to show that it was a mistake, against which he protested, to believe that to leave effusions like this had any effect upon the condition of the lung. His series of cases comprised several in which recovery had followed in patients undoubtedly tuberculous, and although in some instances there might be rapid tuberculous symptoms after tapping they must set against these the cases in which the patient did not subsequently develop tuberculosis. He urged that they should treat cases of pneumothorax which did not get well in the same way as empyema. If they aspirated earlier they would do better. He did not assert that rupture of an emphysematous bleb never caused pneumothorax, but the evidence did not support the view that it was a frequent cause.

## OBSTETRICAL SOCIETY OF LONDON.

F. H. CHAMPNEYS, M.A., M.D., President, in the Chair.

*Wednesday, January 6th, 1897.*

### SPECIMENS.

THE reports of Committees on the specimens exhibited by Dr. REMFRY and Dr. LEWERS at a previous meeting were read. The following were shown: Dr. AMAND ROUTH: Case of Hysterectomy for Malignant Papilloma. — Dr. GOW: The Uterus from a Case of Cæsarean Hysterectomy for Fibroids.— Dr. ARNOLD W. W. LEA: Broad Ligament Cyst with Twisted Pedicle.—Dr. C. HUBERT ROBERTS: Calcified Fibroma of Broad Ligament with drawings and microscopic sections.

Mr. ALBAN DORAN considered that fibroma of the ovary caused less pain than dermoid. Ascites was quite frequent in ovarian fibroma, while in uterine myoma, also a hard and heavy tumour, it was decidedly rare.

### ETIOLOGY OF ECLAMPSIA.

Dr. MACNAUGHTON JONES read a note on this subject. After referring to the well-known theories of the causation of this disease, the author proceeded to relate an instance in which induction of abortion was necessary for albuminuria. The patient had well-marked eye symptoms, much sickness and headache. After abortion took place, further fits occurred, followed by coma. The author had administered two subcutaneous injections of pilocarpin. The patient recovered.

Dr. JOHN PHILLIPS, while agreeing with the treatment adopted in inducing abortion, considered that the use of pilocarpin was attended with grave danger. He called attention to his paper On the value of Pilocarpin in Pregnancy, Labour, and the Lying-in,[1] in which the whole subject had been considered, and thirty-nine cases in which pilocarpin had been used in convulsions reported. In nine of these cases, dangerous symptoms followed shortly after the exhibition of the drug, and seven died. His experiments showed that rapid œdema of the lungs took place, sometimes within a few minutes of the injection, and he ventured again to warn his fellow practitioners against its use.

Dr. HERMAN said that pilocarpin was a dangerous drug in puerperal eclampsia; it made the skin sweat, but it also made the bronchial tubes sweat. One of the dangers of this disease was the liability to pulmonary œdema and inflammation after the fits had ceased, and this danger was increased by the use of pilocarpin. He approved the induction of abortion in this case, and to it and not to the pilocarpin he attributed the good result.

### BREECH PRESENTATION WITH EXTENDED LEGS.

Drs. W. S. A. GRIFFITH and A. W. W. LEA read a paper on this subject, based on 17 cases which were briefly described, and the following conclusions were arrived at: (1) The exten-

[1] Vol. xxx, p. 354, Obstetric *Transactions*.

sion of the legs in incomplete breech presentations may be either primary or secondary. (2) In the primary variety, which occurs before labour has begun, the breech engages readily in the brim, and the diagnosis can be made. (3) In the secondary variety the extension occurs during labour. This form is more frequent than the primary. (4) This complication is more frequent in primiparæ, namely, 70 per cent. of the cases. (5) The prognosis, with regard to the child, is not worse than is that in pelvic presentations in general. (6) Cephalic version is advantageous before labour is advanced. It is not usually possible in the primary, but may be so in the secondary variety. (7) Most cases are delivered naturally. (8) Prophylactic reduction of the leg is only required in exceptional cases. (9) It is probable that flexion of the leg on the thigh is preferable to bringing down the leg into the vagina. (10) If aid is required in the lower part of the pelvis, the soft fillet will usually effect delivery.

Dr. AMAND ROUTH doubted very much if the statement of the authors that the prognosis as regards the child was no worse when the legs were extended than in ordinary breech cases was correct. This might be so in a hospital where an exact diagnosis would be made early in labour, but in general practice he believed the result was very different. He had seen cases where a correct diagnosis of the cause of the delay had not been made, and others where a diagnosis had been made, but efforts to bring down the legs had failed. He also thought that prolapse of the cord in breech cases was not so serious as had been stated in the paper.

Dr. C. HUBERT ROBERTS asked the authors if they could explain the cause of the curious primary extension of the legs in these cases, as nothing had been written at present on the matter. With reference to the cases, Dr. Roberts thought the question of diagnosis was very important, and if this were always possible and certain (because it was evident that interference was necessary in such cases), the question arose, When ought one to interfere? Dr. Roberts congratulated the authors on the small mortality of their cases. With regard to the children he had been led to believe that the mortality was very much greater. He considered that the use of the forceps was dangerous treatment.

Dr. SPENCER did not think that primary extension of the legs could be diagnosed from the fact that they assumed that position after birth. The great majority of children tended to extend the legs after a difficult birth in that position, but he did not think it proved that the limbs had occupied this position before labour. The child presenting by the breech was not known infrequently to lie with its legs stretched out towards various parts of the uterus, but he did not think the feet were forced up to the shoulders till labour occurred, except in rare cases of genu recurvatum, in which, however, the joint was not ankylosed, as he understood the authors to state, but subluxated.

After remarks from Dr. BOXALL, the PRESIDENT said that he had seen a case of primary extension of the legs with vertex presentation lead to difficult delivery. A patient with a normal pelvis and a small child fell in labour which could not be terminated by natural efforts. On examination a presentation of the vertex in the first position was found together with presentation of the left arm and the left foot. He suspected twins, and thought that the foot at least was contributed by a second fœtus. The child was delivered by forceps, and no twin was present. The legs after birth lay on each side of the neck. The newness of the subject might be illustrated by the fact that so careful and learned an observer as the late Dr. Matthews Duncan told him that he had never seen a case of primary extension of the legs. As to the question when to interfere, interference should always be resorted to when in a case of breech presentation delay took place at any stage, even in the first stage. The paper illustrated the fact that the subject was still not thoroughly understood. It might be thought that the cases of difficulty would be those of large children, contracted pelves, and primiparæ. But, on the one hand, many large children were delivered easily, many primiparæ, even with large children, experienced no difficulty, and contracted pelvis counted for a very small number of difficult cases. On the other hand, difficulties not infrequently occurred with normal pelves and small children. One mode of delivery was not insisted on in any book that he knew, though it might be mentioned casually—that was pressure from above. In any really difficult case where the breech was too low for the bringing down of the foot, this pressure applied judiciously and firmly by a skilled assistant, the patient being in the lithotomy position, was of the greatest service, and he always used it.

Dr. LEA briefly replied.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

GEORGE F. DUFFEY, M.D., P.R.C.P.I., President, in the Chair.

*Friday, December 18th, 1896.*

### WIDAL'S METHOD OF TYPHOID DIAGNOSIS.

DR. MCWEENEY gave a demonstration of Widal's method of typhoid diagnosis. The apparatus he used was a Pasteur pipette, consisting of two wide parts separated by a very narrow one. The end intended for aspiration was plugged with cotton wool, and the other end was drawn out to a fine capillary point, and the whole pipette sterilised. He generally sterilised the finger of the patient from which the blood was to be drawn. The skin was prodded with a lancet needle, and the drawn out end of the pipette having been snapped with a sterilised forceps was introduced into the drop of blood. A sufficient amount to fill the tube was easily obtained by pressure and aspiration; and then both ends of the tube were fused and thus hermetically sealed. Conditions necessary for success in the diagnosis were that the cultivations should be pure, typical, and young. The most important characteristic was mobility of the bacilli; and when serum taken from a typhoid patient was added, an almost instantaneous agglutination was seen through the microscope, large masses of bacilli becoming stuck together, in which the outlines of the individual bacilli were hardly distinguishable. In some cases all the bacilli appeared to be massed together. In other cases of equally undoubted typhoid type a considerable number of individual bacilli—even a large minority, remained pursuing their motions between the agglomerated masses. They seemed to be attracted by some force, as it were, to the massed collections. If the serum was not that of a typhoid patient, the bacilli were seen waggling about amongst the blood corpuscles, and a swaying movement of the latter could be seen, occasioned by their contact with the bacilli. The blood of the typhoid patients agglutinated and paralysed the bacilli, and the blood of the non-typhoid patients did not. Dr. Johnston, of Montreal, adopted a different process in applying the test—namely, by taking the drop of blood on a sheet of sterilised paper, and afterwards dissolving the scrapings of the drop in water, which he then tested. It might be alleged that the blood of persons not suffering from typhoid might cause the bacilli to be agglomerated; but he had made the experiment with the blood of as many diseases as possible—scarlatina, pneumonia before and after the crisis, synovitis, phthisis, and a number of other diseases, and had placed blood from them in contact with typhoid bacilli, and the typhoid bacilli exhibited no alteration in their mobility. It might also be objected that bacilli which were not typhoid might become agglutinated if mingled with the serum of a typhoid patient. But he had found that non-typhoid organisms, having active mobility, exhibited no alteration whatever in their movements when brought into contact with typhoid serum.

Dr. COLEMAN had tested the blood of 11 typhoid patients on twenty different occasions, and in every case there was immediate "clumping" of the bacilli, with loss of mobility. In one case a few bacilli remained mobile for five minutes, though the clumping was very obvious. The age of the patients varied from 9 to 30 years, and the cases varied from mild to severe; whilst the dates of their illness included from the beginning of the second week to advanced convalescence. One patient gave the reaction when the temperature had been for eighteen days normal. He tested the blood of three healthy persons: and also that of persons suffering from acute croupous pneumonia, rheumatic fever, gonorrhœal synovitis, measles, scarlatina, and phthisis, and in none of these cases did the bacilli lose their motion or become agglomerated. The method which he adopted in the greater number of cases was to obtain a drop of blood from the patient's finger: to touch the blood with a clean coverglass; and then with a sterilised platinum loop to convey a few

drops of the broth culture to the coverglass, to mix the blood and the culture on the coverglass with the platinum loop, and to examine immediately under a high power. In this way it was possible to examine 3 or 4 cases in a quarter of an hour in the hospital ward.

Dr. DEMPSEY had been concerned in the trial of this method in 18 cases. Of these 14 were presumably typhoid; and in 12 of them there was instant reaction, and agglutinisation rapidly followed.

CONCURRENT SCARLATINA AND ENTERIC FEVER.

Dr. E. MACDOWEL COSGRAVE read a paper on this subject, which is published at p. 129.

ENTERIC FEVER WITHOUT INTESTINAL LESIONS.

Dr. WALLACE BEATTY related two fatal cases of enteric fever in which there were no intestinal lesions. The first case was that of a man aged 34, who died on the sixth day of his illness. Death was preceded by jaundice, hæmaturia, and finally coma. On *post-mortem* examination the spleen and mesenteric glands were enlarged, but the intestines were healthy. Professor Alfred Scott and Surgeon-Captain Fullerton cultivated typhoid bacilli from the spleen. The second case was that of a young man, aged 19, who died on the sixteenth day of his illness. In his case the spleen resembled a typhoid spleen, and the mesenteric glands were enlarged. The intestines were healthy. There was not any bacteriological examination made in this case, but the result of the *post-mortem* showed that the only solution of his illness was a blood poison, and by its analogy with the first case Dr. Wallace Beatty suspected strongly that the illness was one of enteric fever.

DESQUAMATION IN ENTERIC FEVER.

Dr. NINIAN FALKINER read a clinical note on this subject.

In the discussion Dr. JOHN W. MOORE said he remembered seeing, with Dr. Pollock, a case of enteric fever which suddenly developed scarlatiniform symptoms. The rash, however, turned out to be that scarlatiniform one which sometimes developed after three weeks of typhoid fever. Very often in cases of the kind, owing to the great determination to the skin, there was a destruction and a shedding of the cuticle, and a copious desquamation—he had seen it more than once in cases of typhoid. In the later stages of scarlatina he had seen certain papules developing on the skin which were exceedingly like the rose spots in typhoid; but the cases ran so short a course that the suggestion was that they were from beginning to end cases of scarlatina. He would ask Dr. Cosgrave did he try Ehrlich's test?

Dr. DRURY said he saw one of Dr. Cosgrave's cases, and he had no doubt that it was enteric fever with concurrent scarlatina. The child had for some time well-marked enteric symptoms, and then undoubtedly the classical symptoms of scarlatina came on. The scarlatinal symptoms subsided, leaving a medium degree of temperature for the rest of the fever, during which all the classical enteric symptoms remained.

Dr. GUNN said that twelve years ago Dr. Stannus Hughes, who was then physician to the Lord Lieutenant's household, sent to him (Dr. Gunn), at Steevens's Hospital, a stable boy aged 16 or 17. Scarlatina was prevalent at the time, and the boy had very well-marked symptoms of it—in fact, there was no possible doubt that it was a pretty severe case of scarlatina. The disease ran favourably; and then instead of convalescing in the usual way the patient developed symptoms of enteric fever. These became pretty severe, and the case ran through as one of marked enteric fever. During that enteric period he desquamated freely; and there could be no doubt that he had the two diseases concurrently.

Dr. DAY said it was not possible to deny that a patient could have two epidemic diseases at the same time. He remembered a case in which there was both typhus and typhoid; and another case of a girl who first had measles, which passed off, and she afterwards had a severe attack of typhoid with subsequent relapse. Some years ago he had a case of a lad who was sent to him from a hotel. He had thick desquamation after scarlatina, and through it could be seen the rash of typhus. He ran through a well-marked attack of spotted typhus. He had been treated in a ward where typhus fever was present. Another case was that of a girl who had been treated for scarlatina in Galway Union Hospital. Before her skin had fully peeled off she came home to spend her convalescence at the Circular Road, and after three days was sent to his hospital with a maculated typhus rash upon her; and her skin continued to peel whilst she was running through the typhus course. He remembered another case of a child who had three diseases. First she had measles, and through the measles eruption could be seen a scarlatinal rash, whilst her throat was covered with diphtheritic exudation. After all that had passed away she ran through an ordinary typhoid course.

Remarks were also made by Drs. MONTGOMERY, BOYD, BEWLEY, and KNOTT, and Drs. MCWEENEY, BEATTY, COSGRAVE, and FALKINER replied.

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HARVEIAN SOCIETY OF LONDON.—At a meeting held on January 7th, Mr. ROUGHTON, Vice-President, in the chair, Dr. W. J. Gow read some notes on Ovarian Tumours, founded on a series of 47 cases in which he had performed ovariotomy. After alluding to the frequent absence of any symptoms other than those of progressive abdominal enlargement, he showed that disturbances of menstruation and pain were comparatively common. Menorrhagia and metrorrhagia were much more often met with than amenorrhœa. Procidentia uteri was sometimes associated with the presence of an ovarian tumour. In 6 cases of complete procidentia in young virgins which had come under his notice 3 were complicated by tumours of the ovary, and therefore it seemed probable that in young unmarried girls there was some distinct causal relation between the development of ovarian new growths and the occurrence of procidentia. He briefly discussed the etiology of suppurative changes in ovarian cysts and the symptoms of rupture, as well as certain difficulties in the differential diagnosis of ovarian tumours from pregnancy and uterine fibroids. He described a case in which he had performed ovariotomy on a patient who was the subject of diabetes mellitus. Among the 47 cases there was no mortality. The author concluded by briefly alluding to certain important points relating to the operation. Dr. BOXALL endorsed the advice given by the author to be always prepared for hysterectomy, even in what appeared the most straightforward case. Mr. ALBAN DORAN never trusted to menstrual disturbance as diagnostic of ovarian tumour. Amenorrhœa was usual in sarcoma of the ovary. Menorrhagia was possibly due to shortness of the pedicle irritating the uterus. Violent attacks of pain were not rare in cases of ovarian cyst where no adhesions or torsion of the pedicle could be found at the operation. Perhaps the pain was caused by temporary torsion. Mr. Doran was still in favour of short incisions, but diagnosis sometimes required a large wound, else the operators's fingers might do damage in the dark, and when the incision was too small the tissues of the wound get badly bruised, and a weak scar was the result. Ligature of the pedicle in several sections was not advisable. Even in a very broad pedicle, when the outer and inner borders were secured separately, a single transfixion was sufficient. Penrose even omitted the transfixion in oöphorectomy, and believed that the tying of the vessels in the borders was sufficient in ovariotomy. The outer border should always be tied separately. Double transfixions were sometimes followed by suppuration around the ligatures. The paper was also discussed by Dr. DUTCH, Mr. JACKSON CLARKE, the CHAIRMAN, and Dr. COCK; and Dr. GOW replied.

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WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—At a meeting on January 8th, 1897, Mr. BRUCE CLARKE, President, in the chair, a paper was read by Dr. W. J. TYSON (Folkestone) entitled A Plea for a more Precise Classification of Disease. He criticised the frequency with which cold or chill is alleged as a cause of disease, and showed how recent advances in bacteriology had furnished proof of the real causation. He urged that the known causes of disease should have a proportionate value put upon them, and that no prominent symptom should be classed as a disease if it were possible to put a causative or defining adjective in front of it. He illustrated his contention by referring to three diseases—namely, pneumonia, peritonitis, and meningitis. Remarks were made by Dr. TRAVERS, Mr. LLOYD, and Dr. THUDICHUM, and Dr. TYSON replied.—Mr. STEPHEN PAGET read a paper on Six Cases of

Strangulated Hernia in Infancy and Early Childhood. All the cases occurred in male children. Three of them were 3 months old, one 7 months, one 1 year, and one between 2 and 3 years. All were examples of inguinal hernia, five being on the right side and one on the left. In three of the six cases the cæcum was in the sac. Two of the infants died, and in one case the wound broke down a week after the operation. The cases were described in detail. Mr. Keetley said that the escape of intestines through the wound and beneath the dressings in the case of infants operated on for hernia had not been a very uncommon accident. He advocated careful suturing of the wound in layers as an effectual means of preventing it. He formulated the following rules: (1) Operate from the first with the full intention of doing a radical cure; (2) cut straight down upon the neck of the sac, open it and the peritoneal cavity at the same time; (3) after returning the bowel separate the sac high up from the cord, tie it there, and then sew up the hernial opening so tightly that it will only just permit (if the child be a male) the cord to pass through. The child should be kept warm with cotton wool and hot cushions. The amount of anæsthetics given should be reduced to a minimum. Mr. McAdam Eccles remarked that he did not consider strangulation of congenital inguinal herniæ in male infants uncommon, but that operation for such was a rare necessity, unless there was evidence of gangrene or part of the contents was irreducible. Inversion of the patient would usually lead to reduction of the contents. He alluded to the occurrence of the cæcum in the sac as the outcome of its being dragged by the gubernaculum behind a patent processus vaginalis. This might become the seat of inflammation rather than strangulation. Dr. McCann referred to his experience of strangulated hernia at the Children's Hospital, Great Ormond Street. He firmly believed that very few cases ever required operation, as he had seen well-marked examples completely recover after suspension of the child. He was strongly opposed to repeated taxis, whether under an anæsthetic or not, as the taxis was an important cause of gangrene of the bewel. The suspension or inversion of the child should be resorted to at once before any attempts at taxis were made. He thought intestinal distension from improper feeding an important cause of hernia and strangulation. The President remarked that he thought the reason why the difficulty of reduction of these cases of strangulated hernia on the right side in male infants occurred was a condition which was well shown in one of Mr. Paget's specimens. The testicle was adherent to the cæcum, having acquired this adhesion probably *in utero*. In one or two adults on whom he had operated, and also in one case of a child, this condition was very obvious, and no sooner was the connection severed than the difficulty in reduction vanished. In two such instances he had found it necessary to remove the testicle, which, he might remark, was atrophied and presumably useless. Mr. Paget, in reply, urged that an early operation avoided the danger of returning gangrenous bowel, several instances of this disaster being on record.

Nottingham Medico-Chirurgical Society.—At a clinical and pathological meeting on January 6th, Dr. W. B. Ransom, President, in the chair, the President demonstrated the method of Serum Diagnosis in Typhoid Fever. He had used an emulsion of a gelatine culture of typhoid bacilli, a peptone-bouillon culture, and a culture in human ascitic fluid. The blood was drawn from the ear either into a pipette, or small sterilised bottle, or allowed to form a dry clot on glazed paper, a drop of water being added to the clot when the test was applied. In a case of tuberculous meningitis and one of diabetes, no agglutinative action was obtained, and the bacilli moved freely without clump formation in the ascitic fluid until typhoid serum was added to it. Four cases of typhoid had been tested (1) a man in third week, severe case, temperature 104°, gave clumps in five minutes: (2) a man in third week, mild case, temperature 101°, gave clumps in twenty minutes; (3) a woman, third week, mild case, temperature 100°, clumps in thirty minutes; on the twenty-sixth day temperature 99°, clumps slightly in one hour; (4) a woman, fairly severe case, thirty-fifth day, temperature 100°, clumps in thirty minutes; on forty-second day no clumps were obtained. The President also showed (1) a single woman, aged 30, the subject of Acromegaly. For seven years she had had constant headache, amenorrhœa, gradually increasing weakness and loss of visual power, with enlargement of the extremities and face. There was bitemporal hemianopia, and in the right eye considerable contraction also of the nasal field. V. = $\frac{6}{9}$ in nasal field of left eye, $\frac{6}{24}$ in nasal field of right eye. The optic discs showed atrophic changes. There was no glycosuria. The thyroid was not enlarged. Treatment had failed to arrest the disease, though a free purge relieved the headache for a time. (2) The organs removed from Mrs. B., a case of Acromegaly, described in the British Medical Journal, June 8th, 1895, who died from coma, October, 1896. The pituitary body was much enlarged, being $3\frac{1}{2}$ by $1\frac{1}{2}$ ins., and formed a soft friable vascular tumour, which excavated the sella turcica, and formed a large depression in the lower surface of both frontal lobes. The gland tissue appeared to be entirely replaced by an angioglioma. The thyroid was enlarged, and showed microscopically simple hypertrophy. The liver contained an angioma which had a fibrous stroma, and in which a few cells like those of the pituitary tumour were found. In this case there was glycosuria and marked bitemporal hemianopia. The optic nerves were much flattened. (3) The Stomach and Liver of a man who during life had symptoms somewhat resembling Pernicious Anæmia. There was a large carcinomatous ulcer in the stomach infiltrating both liver and pancreas, shreds of which organs were found in the gastric cavity. The patient had been ill a year, vomiting only at the commencement, and during his stay in hospital for the last month of his life, showed no gastric symptoms. There was irregular pyrexia, moderate loss of flesh, lemon yellow skin, and extreme anæmia. Red corpuscles 30 per cent., hæmoglobin 20 per cent. When first observed the leucocytes were not increased, but a week before death there was 1 leucocyte to 50 red corpuscles. The increase was entirely due to the polynuclear or finely granular oxyphile cells, no eosinophilous being found. At the necropsy the medulla of the tibia was of the normal pale yellow colour.—Mr. Chicken showed two Urinary Calculi. The first (weight 1,700 gr.) removed by suprapubic lithotomy, the second (weight 1,075 gr.) treated by litholapaxy, the operation occuping $1\frac{1}{2}$ hour.—Mr. Smith showed: (1) The organs from a case of Hydatids in the Liver and Lungs. (2) A Malignant Growth causing Intussusception. (3) The Intestine from a fatal case of Obstruction caused by a constriction formed by a thickened and contracted mesentery. (4) An unusual form of Supernumerary Toe.—Mr. Williams showed a specimen of Tubal Gestation with the fœtus *in situ*, which he had operated on and removed before rupture occurred.—Mr. Tresidder showed microscopic specimens from a case of Epithelioma of the Rectum occurring in a girl aged 17. The symptoms had lasted one year.

Liverpool Medical Institution.—At a meeting on January 7th, 1897, Dr. R. Caton, President, in the chair, 160 members were present. The following vote of congratulation to Sir Joseph Lister, proposed by the President, and seconded by the Senior Vice-President, was passed by acclamation:

The members of the Liverpool Medical Institution beg to congratulate Sir Joseph Lister on his approaching elevation to the peerage, and desire also to express their satisfaction that the medical profession is gaining in him so esteemed and distinguished a representative in the Upper Chamber of the Legislature.

—The President then delivered his inaugural address On the Results of Recent Excavations at Epidaurus and Athens bearing on Medical Treatment in the Temple of Asklepios. After referring to the existence of hospitals and of a medical cult in Egypt as early as 3500 B.C., as proved by the researches of De Morgan, the President described the Asklepian sanctuary at Hieron near Epidaurus. The temples, the abaton or sleeping portico for the sick, the tholos, the baths, the library, theatre, stadium, and grove. He also gave a description of the smaller Temple of Asklepios at Athens, and a summary of the more important points contained in the 300 inscriptions recovered at Hieron and Athens, narrating some of the miracles attributed to the god, also details of medical treatment. The address was illustrated by fifty lantern slides representing the existing remains, and also restorations of the shrines.—After the address the President entertained he members at a smoking concert.

# REVIEWS.

SOME EFFECTS OF CERTAIN DIETS UPON EXCRETION BY THE KIDNEYS AND UPON THE BLOOD. By R. S. AITCHISON, M.D., F.R.C.P.E. Edinburgh: Turnbull and Spears. 1896. (Roy. 8vo, pp. 101, with charts.)

THIS pamphlet is the reprint of a thesis which was accepted for the degree of M.D. at Edinburgh University. The diets investigated are those in use at certain Scottish poorhouses. The observations relate to effect of these diets on general metabolism, and especially on the urinary excretion, and on the blood. The work done appears to have been extremely laborious, involving many hundreds of observations. The general effect found on the condition of the inmates, as evidenced by their body weight, is often largely at variance with the results calculated from a comparison of ingesta with egesta. This was perhaps to be expected when one looks to the nature of the experiments. In the first place, in the urine urea only was estimated by the hypobromite method; the amount of other nitrogenous materials was guessed at, and the nitrogenous output by the alimentary canal was similarly allowed for. The subjects of the experiments, moreover, can hardly have been keenly interested in the scientific results of the investigation, and would hardly have taken the necessary care in the collection of urine. A smaller number of more carefully and thoroughly performed experiments on a few interested individuals would have produced a more trustworthy result.

The most important general conclusions that Dr. AITCHISON draws from his work are the following: The pauper diets, judged from the physiological standpoint, are too low, and are, as a matter of fact, lower than those given to criminals. Buttermilk, which is given to Scottish paupers in large amount, causes polyuria, and this helps in the upset of nitrogenous equilibrium. The amount of iron in one of the diets described is too low. The author suggests as practicable improvements, that is, improvements of inconsiderable cost to the ratepayers: (1) The substitution of skimmed milk for butter milk; and (2) the addition of suet pudding (1 oz. suet and 3 oz. flour) twice weekly, which would almost raise the nutritive value of the diets to the normal standard.

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A MANUAL OF CLINICAL DIAGNOSIS BY MEANS OF MICROSCOPIC AND CHEMICAL METHODS. By C. E. SIMON, M.D. London: Henry Kimpton. 1896. (Roy. 8vo, pp. 506. 16s.)

THE sciences of chemistry and microscopy as applied to medicine are year by year becoming of greater importance; and while both form part of every medical curriculum in the preliminary stages, it is rare to find a medical school in which they are taught purely from the point of view of their clinical application. Too often they are learned by the student only to be forgotten as soon as he commences the "professional" part of his studies. That the time has come when this state of things should be altered, and a separate study made of these sciences in their application to diagnosis will impress all who read Dr. SIMON'S volume.

It has evidently been the author's aim in this work to present to students and practitioners not only the facts of physical science which are of practical importance, but also the reasons which have led up to that union of empirical deduction and scientific reasoning of which the modern science of diagnosis largely consists. Consequently, we find in the volume precise descriptions for the examination of the various fluids, secretions, and exudates of the body, both in health and disease. In every case a description of the normal material precedes the pathological considerations, which latter are in turn followed by a detailed account of the methods and apparatus used in examination. Following the directions given, no worker ought to find any insuperable difficulty in learning to recognise, say, the presence of tubercle bacillus in sputum, or of the diphtheria bacillus in membranous exudate.

The volume is most appropriately illustrated both by coloured plates and by woodcuts in the text. We heartily welcome the appearance of the work, which we feel sure will find a permanent place in the working literature of the profession, and will adequately supply a well-recognised deficiency.

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THE PRIVATE SANATORIA FOR CONSUMPTIVES. By Dr. A. VON JARUNTOWSKY. Translated with permission of the Author by E. C. BEALE, M.A., M.B.Camb., F.R.C.P. London: Rebman Publishing Co. (Roy 8vo, pp. 48. 1s. 6d.)

ACCORDING to our present state of knowledge, the rational treatment of pulmonary tuberculosis seems to consist not in attempts by antiseptic preparations to kill the tubercle bacilli within the body, but in endeavours by suitable dietetic, climatic, and hygienic means, so to improve the general health of the patient that his tissues may successfully cope with the bacilli. There may be differences in opinion as to the precise part which fresh air, altitude, and other factors of the climate play in the cure, and also regarding quality and quantity of diet, exercise, and hydrotherapeutic applications. Much must, of course, depend on the individuality of the patient; what is tonic for one may overtax another. In the main principles of treatment, however, most authorities now agree. The present sketch is concise and clear. When the English rich submit to strict treatment, there will doubtless be private sanatoria in England, just as there have long been public institutions for the consumptive poor. In fact, there is already a private sanatorium on the open-air principle at Bournemouth, and this, we hope, may be the pioneer of many.

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ROYAL INFIRMARY CLINIQUES. By ALEXANDER JAMES, M.D., F.R.C.P.E., Physician to the Royal Infirmary, Edinburgh. Edinburgh: Oliver and Boyd. 1896. (Demy 8vo., pp. 174. 5s.).

IN a modest prefatory note, Dr. JAMES states that he has issued this collection of his clinical lectures for the benefit of those members of his class of clinical medicine to whom, in their scattered form, they may have been inaccessible. The thoughtful record of interesting cases has, however, a wider value. The book, which is obviously the work of a careful and experienced observer endowed with considerable powers of graphic if homely exposition, has the merits, and also, it must be said, some of the defects attending the didactic style. The leading points in each case are put forward clearly, and often picturesquely, and are excellently illustrated by diagrams and charts. On the other hand, some of the statements are rather more dogmatic than, no doubt, they would have been if Dr. James had been writing a textbook instead of delivering clinical lectures. Thus he says (page 52) that it is important to remember that in cases of primary contracting (or, as we should say, granular contracted) kidney, albumen may be absent from the urine altogether from beginning to end. We know, of course, that in many instances none may be detected for prolonged periods, but the author, in emphasising this fact to a class of students, has perhaps somewhat exaggerated the actual state of affairs. The sixteen lectures which make up the book vary considerably in general interest. We may select, as worthy of especial notice, those on cases of pulsating empyema, of juvenile cirrhosis of the liver, and of tumour of the pons. There are, also, some very suggestive remarks upon the relative increase in the nocturnal urine in kidney disease, and upon the areas of cutaneous tenderness in aortic aneurysm. The record of a case of dysentery, successfully treated with de-emetinised ipecacuanha after the natural drug had proved both useless and intolerable, is striking.

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PROBLEMS OF BIOLOGY. By G. SANDEMAN, M.A. London Swan Sonnenschein and Co. 1896. (Cr. 8vo, pp. 220. 6s.)

THIS is a series of very thoughtful essays. Though the language is somewhat obscure and heavy in parts, the arguments advanced demand careful study, and no doubt we shall hear of replies from biologists and others interested in philosophical discussions. The main object of the book is to show that biology is a science of research, and that by this standard all the present theories concerning the origin of species must fall to the ground. The author is impartial throughout; he demolishes equally the doctrine of design,

and those associated with the names of Lamarck, Darwin, Weismann, and numerous other evolutionists. Not only so, but he subjects to the same scathing criticism many of the arguments of those who have previously called in question such theories as that of natural selection. Those who have followed at all the recent literature regarding biological problems will know that it is far from scanty. The present contribution strikes us, however, as being one of the most important of recent writings on the subject. It is evidently written by one who is not merely a student of books, for every page contains internal evidence that the author has a correct and practical acquaintance with the sciences of which he treats. He is content with destructive criticism; he does not attempt to add one more to the already too numerous biological theories. He is content to proclaim himself an agnostic in the widest sense of the term. We are far from saying that he has succeeded in his attempt to annihilate the doctrine of evolution. That idea has struck its roots too deeply into our life to be eradicated by essays. The consensus of opinion among biologists is that it is more than an idea; the facts on which it rests are demonstrable in many cases, and biologists are not as a body remarkable for their addiction to mere chimeras. It is, however, a healthy process for any doctrine to pass through criticism, and if evolutionists can succeed in providing a satisfactory answer to Mr. Sandeman's objections, they will materially strengthen their cause.

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An American Textbook of Applied Therapeutics for the Use of Practitioners and Students. Edited by J. C. Wilson, M.D., assisted by A. A. Eshner, M.D. Vols. I and II. London: The Rebman Publishing Company. 1896. (Roy. 8vo, pp. 1,326. 42s.)

These volumes, edited by the Professor of Medicine at Jefferson Medical College, are written by forty-two contributors, all of whom, with the exception of three—the late Dr. Beaven Rake who deals with leprosy, M. Laveran who writes on malaria, and Dr. Stewart of Montreal—are Americans. Nevertheless the list numbers many names which are well known to medical Europe as those of authors and original investigators of high rank. Although no strict system of classification of disease has been attempted, the arrangement is based on certain broad pathological lines. Beginning with the Intoxications, it passes on to Infectious Diseases, Internal Animal Parasites, Diseases of Undetermined Origin, and finally to Diseases of the Digestive and Other Great Systems.

Under Intoxications are considered a number of somewhat heterogeneous subjects, such as the commoner poisons, so-called "Food Infection," a term rather unhappily chosen, seeing that there are included in it ergotism (which is a poisoning, not an infection, in the human subject), drug habits, and curiously the "Resuscitation of Persons Apparently Drowned."

In discussing the fevers, and in fact every form of disease, it has evidently been very difficult for the authors, and probably has in no case been their intention, to confine themselves strictly to the therapeutic aspects of the matters in hand. Most of them have wandered off into questions of etiology and prevention, and very often of clinical symptoms. In most cases, however, this is inevitable, and is to be regarded as a distinct merit, seeing that rational treatment is inseparable from pathological and etiological considerations. As a rule the various writers have adhered to the more practical aspects of their subject, and consequently we have presented to us a series of very valuable treatises on the treatment of different forms of disease. The book may be recommended as a thoroughly practical work, and not too elementary even for experienced practitioners.

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A Practical Treatise on Materia Medica and Therapeutics. By Roberts Bartholow, M.A., M.D., LL.D. Ninth edition, revised and enlarged. London: H. K. Lewis. (Roy. 8vo. pp. 886. 21s.)

In the few years that have elapsed since the appearance of the last (eighth) edition of this well-known work, very great advances have been made in the science of pharmacology contributing much to the art of therapeutics. Much of this advance has been made by researches in organic chemistry, resulting in the production of synthetic remedies, many of which have proved of great utility.

In the present edition little change has been made in the character of the book, and the enlargement that has been made—some fifty pages—has been rendered necessary by the inclusion of descriptions of some of the new compounds. A short account is given of the present state of our knowledge of the therapeutic action of animal extracts—among which thyroid treatment stands conspicuous by the constancy and sureness of its therapeutic effects. Antitoxin treatment is also briefly considered. These additions render the book complete, and are evidences of the care with which the author superintends the successive editions. The volume is now so well known, and has so long taken a leading place among the standard literature of the subject, that it is unnecessary to describe it in detail. We can only congratulate the author on the success which the result of his labours has deservedly met with.

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The Education of the Central Nervous System. By R P. Halleck, M.A. New York and London: Macmillan and Co. 1896. (Demy 8vo, pp. 258. 5s.)

The purpose of this volume is to show the need of methods of education conducted with a view to the special exercise of the sensory, motor, and ideational faculties demanded for the attainment of full development of the nervous system while still young. A special reason given is that the study of English literature eminently requires a sensory interpretation of the objects and symbolic references so constantly occurring, as instanced in the works of Shakespeare and Milton.

The following is an example of the kind of psychological child study that is much wanted, and which teachers can carry out if they have some knowledge of the physiological basis of mental action. As a test of the ear and eye impressions received by reading *As You Like It*, it was found that when read aloud to the class by the master they repeated it intelligently and understood the characters described: when, however, the boys were left to learn the task without hearing it read they failed to appreciate its meaning. Good aural impressions produced a mental appreciation which sight of the page failed to effect. Some of the effects of environment and training narrated are new and well explained, being drawn from a wide field of observation. Youth is the time when environment and training should be most carefully adapted to produce mental faculty and training of the brain through the senses, and this may create power to appreciate classic literary descriptions. We fail, however, to find that in educating the central nerve system our author refers to or appreciates the active neural processes corresponding to intellectual acts, the formation of judgment and reason which are higher faculties than receiving impressions through the senses and recalling them mentally as such. The method he proposes for training the sense of taste would doubtless be appreciated by a class of boys. They are to be blindfolded and the nostrils stopped, they are then to be taught to distinguish among the following: strawberry, grape, pine apple, duck, goose, quail. This may train a boy to appreciate the description of a "feast of the gods," but there is no proof of its intellectual value.

In his notices on the literature of expression of impressions received through each sense, and ideas of movement as separate from sense impressions proper, the author has expressed himself well and affords much interesting matter. Analysis of a poem indicating the terms implying impressions through each sense, ideas of movement, and abstract ideas on the non-actually existent form without doubt useful mental training such as will add to an appreciation of the meaning of the text. We would point out the value of similar analysis showing appreciation of time, quantity, and the attributes of action received mentally rather than directly through the senses. Psychological study may add much to the appreciation of literature, and literary analysis may increase mental faculty and orderly brain development. Such modes of training are well expounded in this work, and combined with due attention to physical exercises form a scientific basis for education.

Researches into the Anatomy and Pathology of the Eye. By E. Treacher Collins, F.R.C.S. London: H. K. Lewis. 1896. (Demy 8vo, pp. 154. 6s.)

The opportunities for investigating the pathological conditions of the eye afforded by the office of curator to the Moorfields Hospital are almost unrivalled owing to the richness of the material at hand. Mr. Treacher Collins held that office for six years, and during that time made very great use of his opportunities. The result has been to clear up many matters concerning the development of the eye and of its diseases, in which our knowledge was inaccurate or deficient. Some of his results were given in a series of lectures at the Royal College of Surgeons in 1894; these with some additions have been included in the present volume. To the student of ophthalmology and to the practical ophthalmic surgeon these investigations are of the greatest value, as they contain material only which the author felt to be new and worth saying to fellow workers in his branch of surgery. Mr. Collins has undoubtedly advanced our knowledge in several important particulars, especially in regard to the development of the suspensory ligament of the lens and the structure and function of the ciliary body. His method of bleaching the uveal pigment, which was suggested by the examination of sections of an albinotic iris, has already produced valuable results in his own hands and in those of others, in revealing the glandular nature of a portion of the ciliary body, and the epiblastic character of some growths originating in it. Among other questions dealt with are the structure and development of anterior polar cataract, the structure of zonular cataract, the causation of glaucoma, both primary and secondary to cataract extraction, and other subjects, in which either fresh ground has been broken or contributions made towards the settlement of disputed points. The book is well illustrated with photographs and drawings of original specimens, so that there is no difficulty in following the descriptions given in the text.

## NOTES ON BOOKS.

*De la Nature de l'Epilepsie: Etudes sur la Physiologie Pathologique de l'Attaque Epileptique* [On the Nature of Epilepsy; Studies on the Pathological Physiology of the Epileptic Attack]. Par le Docteur Fr. Hallager. (Paris: Société d'Editions Scientifiques. 1897. Demy 8vo, pp. 181. Fr. 5.)—With admirable clearness and precision the learned author discusses the various theories about the nature of epilepsy. Dr. Hallager holds that it is due to a sudden interruption of the cerebral circulation producing anæmia, probably through the action of the sympathetic on the cerebral vessels. The cause may be a peripheral irritation, or an irritative lesion of the cortex acting upon the vasomotor centre. There is also a pathological irritability of the individual; but, until we know the nature of this irritability, we do not understand the nature of the cause, which is not efficacious without it. Moreover, an epileptic attack may sometimes be arrested by the compression of one or both carotids, which ought to increase the anæmia. Hallager tells us that if the predisposition be strong, we may have epilepsy due to latent or physiological irritation, idiopathic epilepsy. He thinks that it is only in cortical lesions that the normal irritability suffices for the production of an epileptic attack. He considers the psychical disorders sometimes attendant upon epilepsy, regarded by some as the alternation or equivalent of the epileptic explosion, to be post-epileptic occurrences.

*The Story of the Chemical Elements.* By M. M. Pattison Muir, M.A., Fellow and Prælector in Chemistry of Gonville and Caius College, Cambridge. (London: Geo. Newnes, Limited. 1897. Cr. 8vo, pp. 190. 1s.)—Even those captious critics who have cavilled at Sir George Newnes for entrusting "scientific" volumes of his Library of Useful Stories to Messrs. Edward Clodd and Grant Allen must admit his judgment in choosing Mr. Pattison Muir to write the chemistry book of the series. The result is one of the most perfect popular introductions to science extant, for Mr. Muir's expert knowledge is fully equalled by the exceptional lucidity of his diction and argument. Starting with a few homely illustrations, drawn from the behaviour of common objects under varying physical conditions, he proceeds to deduce the nature of chemical change, and thence leads his reader by easy stages to the consideration of compounds, mixtures, and elements; of acids, salts, and radicals, and so finally to a conception of the nature of the atom and the molecule, and the manner in which the latter are built up into complex chemical substances. Clear as the descriptions are, we think Mr. Muir would have done well to have provided a short glossary; such words as "synthesise" and "lixiviate" occur in the first dozen pages without any explanation. In the formula of urea (p. 176) there should be a double bond between the C and the O. But these minor points apart, we must congratulate the author most heartily on having produced a book which will be not only a boon to those who wish to commence the study of chemistry, but a delightful companion to any who may desire to retrace old paths, and at the same time to see a new and practical light thrown on a subject which has been too much obscured by symbols and equations.

*Surgeon-Lieutenant-Colonel Lawrie and the Parasite of Malaria.* By Surgeon-Major Ronald Ross. Reprinted from the *Indian Medical Gazette*, October, 1896.—This short but pithy paper is a severe criticism of Surgeon-Lieutenant-Colonel Lawrie's extraordinary views on the nature of Laveran's bodies. Surgeon-Major Ross, with commendable candour, tells how he himself was at one time a sceptic on the subject of the malaria parasite, how he became converted, and how he repented. He prophesies a similar conversion for his colleague. We trust when this conversion does take place that Surgeon-Lieutenant-Colonel Lawrie will do as Surgeon-Major Ross has done—repent and tell us. By such a course he will do something to atone for the sin of rushing into print prematurely, and of preaching false doctrine, and possibly of misleading much people. In a recent number of the *Arch. de Méd. Nav.* (December, 1896) Dr. Lemoine, of the French Colonial Medical Service, makes such a retraction—an act of candour highly honourable to this gentleman, and which we hope Surgeon-Lieutenant-Colonel Lawrie will have the courage to emulate.

Transactions and Reports.

*Transactions of the Epidemiological Society of London.* New Series. Vol. xv. Session 1895-96. (London: Shaw and Sons. 1896. Demy 8vo, pp. 156.)—This volume includes several papers which deal with questions concerning the etiology of diphtheria and allied affections. Dr. Goodall's discussion of Post-Scarlatinal Diphtheria is based upon his experience of this malady at the Eastern Hospital, Homerton, and the conclusion arrived at is that "the occurrence of diphtheria amongst scarlet fever convalescents in hospitals is but part of the much larger question of its behaviour in London generally during late years." Dr. Dowson treats of Diphtheria in Older and Newer Bristol, and Dr. Reid of a form of Infectious Sore Throat which he holds to be distinct from diphtheria. Dr. Evans contributes a paper on Back-to-Back Houses, the outcome of experience in Bradford; and Dr. Williams one on Puerperal Mortality, with special reference to its manifestations in Wales. Surgeon-General Gordon relates Experiences in Relation to Cholera in India from 1842-1879; and an Outbreak of Typhoid Fever in Syria is briefly discussed by Dr. Wortabet. A particularly interesting paper is that entitled Considerations in Respect to "Return" Cases of Scarlatina, by the late T. W. Thompson, whose lamented death the concluding pages of the volume record. A fragment of Mr. Thompson's work, an examination of the objections to the theory of aërial convection of small-pox from hospitals, has been also included in the volume.

The newly-constituted Willesden Board of Guardians has completed the purchase of 68½ acres of land on the Twyford Abbey Estate, for the purpose of erecting thereon a workhouse and infirmary for the parish, the total expenditure on which will amount to upwards of £100,000.

The widow of the late Mr. William Overend, Q.C., of Sheffield, who recently died at Retford, has left £30,000 to medical and other institutions in Sheffield, in addition to legacies to other charitable objects.

# REPORTS AND ANALYSES

AND

# DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

## COMPOUND PHENACETIN TABLOIDS.

MESSRS. BURROUGHS, WELLCOME, AND CO., Snow Hill Buildings, E.C., prepare compressed tabloids, each containing 1 grain of caffeine with 4 grains of phenacetin. Phenacetin may not possibly head the list of antipyretics and analgesics as regards efficiency, rapidity, and certainty of action, but in respect to safety and duration of effects it is valuable, and it possesses a soothing and soporific action. The combination of phenacetin with the cardiac stimulant caffeine has been found to be useful in sick headache, and it will no doubt prove to be valuable in the treatment of fevers where a stimulant to the heart's action is necessary.

## AN IMPROVED ŒSOPHAGEAL PROBANG.

THE ordinary œsophageal probang tipped with a piece of sponge and with an expanding ring of bristles is a useful instrument. But it is somewhat difficult to pass down into the œsophagus because it must be held by the outer tube, and the sponge end being pressed back by impinging on the back of the throat, causes the ring of bristles to open out, and so to impede its entrance into the gullet. To obviate this Messrs. Arnold and Son, of London, at Dr. Mansel Sympson's suggestion, have fastened a clip on the free end of the whalebone to fix the bore end of the catheter which constitutes the outer tube. This, Dr. Sympson states, holds perfectly fast while the probang is being passed, and directly it has gone far enough finger and thumb open the clip and drag the probang, with its ring of bristles expanded, out again.



## APPLIANCES FOR THE TREATMENT OF HERNIA.

IN the Willardbell Truss the spring consists of a metal wire, about the thickness of a No. 13 catheter (French scale). It can be bent to any shape and in any direction without losing its spring. The back-pad is W-shaped, and can also be bent and made to fit comfortably. The ordinary flat-springed truss can also be bent and fitted without heating more easily than many persons think; but the Willardbell has the obvious advantage in this respect which wire of circular section has over steel ribbon. The truss submitted to us is comfortable, neat, and effective.

The appliance for hernia sent to us by Mr. Payne, of Leicester, is a belt with separate pad and perineal strap. It appears to be strong and comfortable. The details are simple and the fastenings ingenious. We should think they will be effective. A provisional patent, No. 26,592, is stated to have been taken out for it. It is not clear to us what can be patented in this belt, as the use of belts, pads, straps, perineal bands, etc., is no novelty in the treatment of any kind of hernia.

## COMPRESSED DRUGS FOR SUBCUTANEOUS ADMINISTRATION.

IN reference to a letter from Messrs. Parke, Davis and Co. concerning the new syringe introduced by Messrs. Arnold and Co., and noticed in the BRITISH MEDICAL JOURNAL of January 9th, in which the use is recommended of tabloids or hypoderms, which admit of rapid solution in the barrel of a syringe, we desire to say that there is no intention of making any comparison between the products of any manufacturer, or distinguishing between hypodermatic tabloids, tabellæ or tabloids, or any other convenient form of compressed drug by whomever made. We have more than once referred, in terms of approval, to a variety of forms in various names.

## BACTERIOLOGY AND DISEASE IN INDIA.

II.

### THE STERILISATION OF PASTEUR FILTERS.

ANOTHER section of the report deals in particular with an improved form which Mr. Hankin has suggested for the use of Pasteur filters, which has the advantage of preventing stagnation of filtered water, and of preventing any leakage which might occur from penetrating into the filtrate. Mr. Hankin recommends in practice the use of chemical disinfectants for sterilisation instead of heat; and he obtained a complete sterilisation by a solution of 1 in 10,000 of chlorinated lime or 1 per cent. of alum. This method enables the operation to be performed without the apparatus being touched, and thus not only reduces the labour, but avoids the risk of breakage. It will be recollected that it is used on the Pasteur filters of the Darjiling waterworks.

### THE BACTERICIDAL ACTION OF CERTAIN RIVER WATER.

The report contains also a valuable continuation of the author's researches on the bactericidal action of Ganges and Jumna waters on the cholera microbe. This organism inoculated into fresh Jumna water and distilled water simultaneously died out in one experiment within two hours in the Jumna water, while in the distilled water it had considerably increased. This increase in distilled water is not usual, but with fresh Jumna water the disappearance has invariably occurred within a few hours. Ganges water has usually given similar results, but in a few cases it has failed to do so. Mr. Hankin attributes this to the length of time—fifty to sixty hours—which elapsed between the times of collection and examination, a similar loss of bactericidal action on the cholera microbe usually occurring with Jumna water when kept. The normal action is bactericidal, and not merely antiseptic; thus, to tubes of Jumna water apparently sterilised from the cholera microbe alkaline peptone, which entirely destroys the bactericidal action of Jumna water, was added without any growth occurring, while, when fresh cholera microbes were put into the same tube after a day or two, they grew copiously. The action was usually tested on filtered (pasteurised) water; but by preliminary controls it was shewn to occur equally with unsterile water of the same origin.

The enteric fever microbes were not disinfected by these waters, though it is more susceptible than the cholera microbe to change of medium. The action on cholera is therefore not due to change from artificial culture conditions to those of aquatic existence; and, indeed, in most cases the cholera microbe had been previously grown in Jumna water with traces of peptone alkali so as to acclimatise it as far as possible.

The disinfectant substance in the water is destroyed by boiling in the autoclave at 115° C. In pasteurised Ganges water the cholera microbe disappeared within three hours; in the same water boiled it persisted and multiplied up to forty-nine hours, the limit of the observation; while in the water boiled and pasteurised it disappeared between twenty-five and forty-nine hours. In pasteurised Jumna water it disappeared in about four hours; boiled with and without filtration it multiplied up to forty-nine hours. Precisely similar results were obtained from microbes derived from an outbreak in Tonquin some years ago, and from a recent outbreak in India. When the boiling occurs in a sealed tube, left to cool before opening, the disinfectant action is completely retained, from which it is to be inferred that the disinfectant substance is volatile. Unboiled Jumna water, in which the cholera microbe disappeared within five hours, retained it for over twenty-four hours when rendered alkaline with sodium carbonate. The experiments were carried out at all times of the year except during the rains, and extended with similar results to water taken from the Jumna twenty-two miles above Agra, at Agra, and below it. At certain times in the year the whole of the Jumna at Delhi, some 200 miles above Agra, is diverted into a canal, and the river

bed is supplied only with ground water, which passes also into wells. The bactericidal action of the Jumna water occurs equally when it is thus supplied and when the full flow of the river from the Himalayan snows is included. The well water exhibits no bactericidal action on the cholera microbe. Hence the disinfectant substance must be formed in the river or communicated to it between Delhi and Agra. Mr. Hankin considers that the same substance is probably in the Ganges water, and that it is extremely unlikely to be present in the river waters of the Himalayas or of the Madras Presidency, which are known to be capable of transmitting the cholera infection.

No influence appears to be exercised on the bactericidal action of the Jumna on the cholera microbe by the sewage of Agra (160,000 inhabitants). Water collected by Mr. Hankin from the neighbourhood of fresh and stale corpses retained the full bactericidal power. When the water, wherever collected, was boiled in open tubes, the bactericidal action disappeared. The action evidently does not extend to all organisms, as the enteric experiments show. But it must extend to a great many; for the number of all organisms in the neighbourhood of the drain varied from 2,500 to 21,000 per c.cm., and within 12½ miles below the town it had fallen to 128 to 130, about the same as above the intake. The bulk had disappeared within 5 miles of the town.

### ANTIVENOMOUS SERUM.

It has been arranged that M. Calmette's snake venom antitoxin should be distributed from Mr. Hankin's laboratory. It appears doubtful whether, whatever the ultimate value of the method may prove to be, uniformly good results are to be expected immediately.

The various specimens appear to vary in activity; they do not keep well at a high temperature; and it appears to Mr. Hankin doubtful whether the antiseptic used (camphor) will be adequate to restrain permanently the growth of the living bacteria which the antivenene contains. In the meantime, Mr. Hankin has applied it successfully to the diagnosis of snake poison on rags, rabbits inoculated with it being protected against the rag poison, which was fatal to control animals. He hopes that an antitoxin now being prepared by M. Calmette against abrin may have at least a similar use.

The report contains a number of details as to the various substances examined in the laboratory, and is illustrated by numerous statistical diagrams.

## NOTES ON HEALTH RESORTS.

*Cornwall.*—The mild and equable climates of Falmouth, Penzance, and other localities of Cornwall, offer many advantages for winter residence. The mean temperatures for the winter months (November to April), according to the data approved by Mr. E. Kitto,[1] vary at Falmouth from 43° F. (January) to 47.4° (November); at Sea-Water, Falmouth Bay, 47.5° (February) to 53° (November); at Penzance, from 41.7° (January) to 48° (April); at Torquay, 41.7° (January) to 48.1° (April); at the Scilly Islands, from 46° (January and February) to 49.9° (November); at Cannes, from 46.3° (December) to 55.5° (April); at Montpellier, from 43.3° (January) to 55.6° (April); at Mentone, from 48.7° (January) to 58.3° (April); at Nice, from 45.4° (January) to 57.1° (April); at Pau, from 41.2° (January) to 51.8° (April); at Madeira, from 60.4° (January) to 65.8° (November). The mean winter range at Falmouth is 4 4°, at Penzance 6.3°, at the Scilly Islands 4.1°, at Madeira 5.4°, at Cannes 9.2°. The mildness and equability of the West Cornwall climate are especially illustrated by the exotic flora which thrive there. According to the meteorological reports, Falmouth compares favourably with most other English stations in amount of sunshine. For many consumptive patients, who cannot winter in foreign stations, or for medical reasons should not undertake a journey abroad, the climate at Falmouth, etc., offers advantages; this is still more the case in patients with chronic bronchitis and emphysema without much expectoration; old people and those suffering from premature old age or the results of previous illnesses are likewise suited.

*Biarritz* on the Western French coast near Spain has long been visited by English invalids during the winter months, and the hotel accommodation has become excellent. Owing to its position on the Atlantic it is rather windy, and the climate is fairly moist with frequent rain, but it suits many invalids (for example some "old Indians") requiring a moderately bracing and cheerful place. Dr. Lobit[2] points out that during the last seven meteorological winters (December, January, and February) the mean temperature of Biarritz was 45.6° F., that of Nice was 44.2° F., that of Brest was 43.8° F., and that of Paris was 35.6°. For the years 1875-1895 the mean annual number of deaths per mille inhabitants was 16.9. What is really very remarkable, if it be confirmed, is the number of persons said to have reached the age of 100 between 1866 and 1886 in the Department of Basses-Pyrénées. It amounts to 167, or 0.384 per thousand inhabitants. The neighbouring Department of Hautes-Pyrénées is said to have had during the same period even relatively more centenarians, that is 93, or 0.388 per thousand inhabitants.

*Hohenhonnef*[3] on the Rhine, the sanatorium for phthisis, lies on the south-western slope of the Siebengebirge, 770 feet above sea level, about 520 feet above the level of the Rhine at Honnef. The neighbourhood is very beautiful, and its climate on the whole is mild, though the expression "Rhenish Nice" is scarcely applicable for it. The sanatorium was erected in 1891-92 out of funds obtained by numbers of individuals, including many medical men interested in the subject. The architect had been a patient at Falkenstein, and the medical director, Dr. Ernst Meissen, had been an assistant to Dettweiler. The idea of erecting a sanatorium in the present position was conceived by the late Professor Rühle, of Bonn, and the carrying through of the scheme was largely due to the exertion of Mr. Bredt, whose son, then a patient at Falkenstein, likewise took great interest in the subject. It is natural that the internal arrangements at Hohenhonnef should be particularly good, since the organisers had the results of the arrangements at Falkenstein and Goerbersdorf to guide them. Meissen's present statistics include those of the provisional sanatorium, and therefore extend over five years. Out of the 642 patients with undoubted pulmonary tuberculosis, who have so far been treated, 90 (15 per cent.) were apparently "cured," 176 (27 per cent.) were very much improved, and 176 were likewise improved. In the remaining 31 per cent. the result was not very satisfactory, in most cases because the disease was already too far advanced. The medical superintendent is obliged to admit all cases, and taking this into consideration there is reason to be thoroughly satisfied with the results obtained.

*Naples* in modern times, owing to its disagreeable winds and want of proper hygienic arrangements, has had anything but a good reputation for health. The annual mortality was a few years back 33.2 per 1,000 inhabitants. The charms of its situation and its historical associations are, however, quite sufficient in themselves always to guarantee for this wonderful town a great influx of visitors, including even some invalids. The supply of good drinking water is a great improvement, and the accommodation for visitors is satisfactory. The hotels for visitors and the new portions of the town do not share in the high mortality. The neighbouring Sorrento (2½ hours distant) and Castellamare (1 hour distant) are cooler during summer. The latter place has gaseous muriated alkaline mineral waters, and the baths of the island of Ischia are easily reached from Naples. Hypochondriacal and mentally-depressed persons of a phlegmatic nature are often benefited by the natural charm and varied interests of the Gulf of Naples.

Visitors to health resorts in Switzerland may derive some useful information from *The Hotels of Switzerland*[4] a book containing tariffs of the principal hotels in what is perhaps the chief country for hotels in the world.

[1] *Cornwall as a Winter Resort.* Third edition. Revised by E. Kitto, Superintendent of Falmouth Observatory. 1896.

[2] *Biarritz, Station Hibernale, Note Climatologique et Démographique*, 1896.

[3] *Sanatorium Hohenhonnef: Entstehung, Einrichtung, Heilverfahren.* By Dr. E. Meissen. Bonn: 1896.

[4] Published at Basle, 1896. English edition, price 50 centimes.

TREATMENT OF INEBRIETY IN RUSSIA.—The Society of Neurologists and Psychologists of Moscow has appointed a special committee (1) to report upon the present state of inebriety in that city, and (2) to draw up a scheme for the erection of a hospital for inebriates.

## BRITISH MEDICAL ASSOCIATION.
## SUBSCRIPTIONS FOR 1897.

SUBSCRIPTIONS to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.


# British Medical Journal.

SATURDAY, JANUARY 16TH, 1897.


## FAMINE AND PLAGUE IN INDIA.

NOT too early a public subscription has been opened in this country for the purpose of supplementing the efforts of the Indian Government in dealing with widespread famine and still more widely-spread scarcity of food consequent on drought. It is reckoned that the famine, which in India means total deprivation of food, will affect a population of 37 millions for a period of from four to six months, and that some 44 millions in addition will suffer from insufficient and dear food short of total want. The response of this appeal for India promises to be generous, and it is right that it should be so. The Government can afford only a mere subsistence allowance to the starving millions, and even this will cost the Indian exchequer some £4,000,000 to £6,000,000. But there are humanitarian objects to be served beyond mere subsistence and prevention of death which may best be ministered to by the benevolent offerings and efforts of a sympathetic public in other parts of the British dominion. Medical relief and comforts will be required on a very large scale; the sick, the aged, the infirm, widows, orphans, and helpless folk will have to be tended and succoured for long after the crisis of the famine is over, and many sufferers, whom for various reasons the State aid fails to reach, will require private aid; and grain, stock, and implements will be largely needed to start agriculture afresh, since they will have been obliged to consume their seed stores and sell their effects.

The physical disaster and distress caused by a famine in India are not indicated in full by the starvation and mortality directly due to want of food. The lowering of the vital resistance exposes the population of famine tracts to the ravages of whatever epidemic happens to be prevailing at the time. In the Madras famine cholera and small-pox raged with exceptional severity, and caused a large mortality. The ordinary diseases of the country—malarial fever, diarrhœa, and dysentery—present an enhanced incidence and aggravated forms. Cachectic conditions—dropsy, ulcers, parasites, and skin diseases—become very common and very severe. Under prolonged inanition, the tissues waste and degenerate, more especially those of the stomach and intestines; recovery becomes impossible, and death by marasmus and exhaustion inevitable. Add to this that the cattle also starve and die, and epizootics, which are always prevalent in India, acquire extensive prevalence and deadly force.

The physical energy of a population visited by famine is so undermined in India that its fertility is seriously impaired; while the death-rate rises, the birth-rate falls and continues low for long. Dr. Cornish calculated that the diminution of population in the Madras Presidency in 1877 due to actual mortality and checked increase amounted to between 15 and 20 per cent. The difference between the census return of 1871 and the special census in famine tracts taken in 1878 indicated a loss of 3½ millions in a population of 29 millions. The amount of physical suffering and deterioration which such a terrible loss of life implies must have been very vast and acute. It is to minimise this suffering as much as to limit mortality that the offerings of the charitable are solicited in supplement of the efforts of Government.

This is not the only serious emergency which the Government of India has to face at the present time. We publish in another column details with regard to the present aspect of the epidemic of plague in Bombay. Nothing, it must be confessed, could look more serious, and there is only too much reason to fear that the worst has not yet been reached. Further, the outbreak in Karachi appears to be of an exceedingly virulent type, and, as we have already pointed out, must raise the most serious apprehensions that extension of the epidemic into the Persian Gulf may not be far distant. It is not surprising to find other European Powers gravely exercised by the prospect of the spread of the epidemic westward, nor to learn that proposals are already on foot for inviting the British Government to bring pressure to bear on the Government of India to check, if not altogether to prohibit, the pilgrimage of Indian Mohammedans to Mecca this year.

The proposal, involving as it does an interference with the religious beliefs of a large and important section of the population of India, raises questions of great difficulty in which it is not easy to balance the conflicting claims of duty towards the Indian Mohammedans and duty towards Europe and the western parts of Asia.

Assuming, as we fear may be the case, that it will be impracticable to prohibit, or, indeed, appreciably to check, the Mecca pilgrimage, there are measures which might be adopted to diminish the risk of the spread of the plague by pilgrims, especially those embarking at Bombay. A camp of observation for the pilgrims arriving by land or sea should be established, with the necessary police, sanitary, and commissariat arrangements, and should be maintained throughout the pilgrim season. Hulks anchored in the harbour would be of great value, both as hospitals and as places where suspicious cases among the pilgrims could be kept under observation. The importance of preventing pilgrims on arrival from wandering into the bazaar in search of food and shelter will be obvious. Minute sanitary inspection of all pilgrims before embarkation will be necessary, and no pilgrim should be allowed to go on board until furnished with a certificate of fitness by the Health Department. This work of inspection will be arduous, and quite beyond the power of the health officer and his ordinary staff. His staff should therefore be largely reinforced without delay, and it appears desirable that lady doctors should be engaged for the purpose of making the medical inspection of female pilgrims. After a pilgrim vessel has received its full complement of pilgrims it should be required either to proceed to sea at once or to anchor in the stream, and to hold no communication with the shore. Further, every pilgrim ship should be in charge of a competent medical officer, and no ship should be allowed

to depart without a certificate to this effect from the Health Officer of the port of Bombay. The medical man in charge of the pilgrim ship should be required to exercise the greatest vigilance during the voyage, and to record every case of sickness. If precautions of this nature be carried out, there is reason to hope that the Mecca pilgrimage would not be a serious danger to the health of Arabia, Egypt, or Europe, provided always that proper provision be made for the reception of pilgrims at Camaran, where it is stated that the arrangements are still in great need of improvement.

## CHOLERA IN BRITISH PORTS.

The occurrence of Asiatic cholera on board a P. and O. steamboat which arrived in Plymouth Sound on January 9th has come as an unpleasant surprise at this season of the year. The persons affected were all soldiers belonging to the Loyal North Lancashire Regiment. The men were embarked at Ceylon, and the *Nubia*, the vessel in question, left that island on December 17th, 1896. On the voyage to Suez two natives, members of the crew, died of dysentery, one on December 22nd and the other on December 27th. The surmise will at once arise that these were really cases of cholera, but close examination of the facts on record does not support this view, and there seems to be no reason to believe that the diagnosis of dysentery needs to be revised in the light of subsequent events. The *Nubia* arrived at Suez on December 28th, and at Port Said on December 29th. The men purchased quantities of fruit at Port Said, and one of the natives on board, we learn, purchased a larger quantity, which was subsequently sold by retail to the soldiers. The first patient was attacked on the night of January 1st, the day that the vessel arrived at Malta, and died in twenty hours. The vessel left Malta the next day, and on that day two more men were attacked, of whom one died, while the other is now in a fair way to recovery. On January 3rd there was a fourth case of cholera, which terminated fatally on January 9th, and at about the same date there were four other cases in which the prominent symptom was diarrhœa, and which were in all probability mild cases of cholera. A fifth well-marked case of cholera occurred on January 8th, and the patient succumbed on the following day. There have thus been 5 well-marked cases, with 4 deaths, and 4 mild cases without a death.

As to the mode in which the infection was introduced into the ship the evidence is not conclusive. There was cholera among the native population in Ceylon at the time the *Nubia* sailed, but the troops were absolutely free. The usual incubation period of cholera is three or four days, and the utmost limit is probably six days. It appears certain, therefore, that the men were infected on board the *Nubia*, and did not contract the disease in Colombo. None of the men landed in Egypt or at Malta, though some came on board at the latter place. Suspicion therefore must rest upon the fruit purchased at Port Said. It is true that the Egyptian ports are asserted to be free from cholera, and the statement may be accepted, but it must be remembered that cholera has recently been prevalent in many parts of Egypt, and that absolutely nothing is known as to the locality in which the fruit was grown. In all probability it was brought from some distance by boat or rail. It may very possibly have been grown in cholera-infected soil, irrigated with water contaminated with the infection, or even washed in such foul water. Or it may have become contaminated during transit, or when stored in native huts, for the habits of Egyptian fruit dealers are not of the cleanest.

The precautions taken by Dr. Williams, the Port Sanitary Officer for Plymouth, in consultation with Surgeon-Major-General Hamilton, Principal Medical Officer of the Western District, and Dr. Bulstrode, the medical inspector sent down by the Local Government Board, have been of the most thorough-going kind. Acting on the advice of Surgeon-Major-General Hamilton, the War Office sanctioned the landing of the military, and the men are at present confined to Fort Shaddon. The health of the troops is excellent. We give some account of the measures adopted both by the military authorities and by the Port Sanitary Authority in another column, and there is every reason to hope, not only from indications of the last few days, but also from our experience of the application of similar precautionary methods on previous occasions in this country, that further spread of the disease need not be feared.

It will be interesting, however, to recall some instances of the invasion of English ports by cholera in recent years. Thus in 1892, although 35 cases of cholera reached our shores, the disease was not known to spread in a single instance. In the following year Dr. Thorne Thorne reported 287 cases "of the nature of cholera" in the United Kingdom, with 135 deaths. In all 64 localities were invaded, but of these 42 had only single cases. Great Grimsby and Cleethorpes, both of which towns are badly drained and sewered, and have an undue amount of enteric fever and "diarrhœa," accounted for no fewer than 43 of the deaths. There is no doubt that cholera is a waterborne disease, and that each scattered case, once imported, becomes a centre of danger almost in exact proportion to the sanitary excellence or otherwise of the particular location in which the patient is attacked; but while it is chiefly due to the vast strides in the attainment of pure water and efficient sewage disposal that the inhabitants of Great Britain can hear of the advent of cholera without any serious disquietude, yet the core of the matter may be said to lie in absolute control over the points of entry.

Owing to her insular position Great Britain is enabled to raise a powerful line of defence around her coast. Her system of port sanitation against cholera hinges upon the immediate inspection of the bill of health of every ship arriving from foreign or infected ports; upon the provision of special isolation hospitals for the reception of the sick; and upon the prompt and thorough disinfection, when necessary, of the ship and its contents. At the same time a medical inspection is made of all on board. Those who appear to be in good health are allowed to proceed forthwith to their destination. The names of such persons, however, are sent to the medical officer of health of the district to which they go, so that they are kept under official observation until the period of danger is past. Any inmate of the ship, on the other hand, who shows any signs of sickness is placed under local surveillance.

To sum up, then, the key to modern port prevention lies in medical inspection; in the isolation of infectious cases; in the disinfection of every chink and crevice of environment that might lodge specific contagion; and in the observation not only of suspicious cases but also of exposed persons who have been allowed to proceed to their destination.

The pith of the latter-day change in this branch of administration, so far as concerns the actual immigrants, is that

healthy passengers are no longer boxed up in an official building. For all that their subsequent supervision is necessitated by the fact that our modern sanitation is of an unequal character. Beyond a doubt many inland places still exist so badly provided in the point of water supply and sewage disposal that the importation of a case of cholera might readily lead to a disastrous epidemic. Indeed, were the Thames to be specifically infected above the water companies' intakes with the bowel discharges of such a patient, it is not at all impossible that the metropolis, comparatively healthy though it be, might speedily be decimated by riverborne cholera.

The modern system, using that term in the sense of the wider control of infected immigrants, is logical in its zealous watchfulness over possible distal centres of infection. It recognises the importance of early diagnosis, especially in the less typical forms of cholera. It insists on the practical steps of notification, isolation, and disinfection. Such measures, together with the maintenance of a high national standard of practical sanitation, form the safeguards by which it may confidently be hoped that the deadly plague of cholera has been to all intents and purposes banished from this country.

## "KISSING THE BOOK."

WE are glad to notice that this subject, to which we have so frequently referred, has entered upon a new and we hope a promising phase. Mr. F. A. Stringer, who is one of the officials of the Royal Courts of Justice, and is perhaps the best authority in the kingdom upon the subject of oaths, addressed to the *Times* at the commencement of the year a very strong letter pointing out the superiority, as regards decency and solemnity, of the practice of almost every other country in the matter of oaths, as compared with our own. He suggested, accordingly, that Parliament should be asked to make what is known as the "Scottish" form of oath not merely the optional but the ordinary procedure. Our readers will not be surprised to hear that Mr. Stringer closed his letter with the remark that he had "within the last fortnight received two letters from witnesses who asked to be sworn in Scottish form and were refused, one by the registrar of a county court and one in a magistrate's court."

The *Times* has published a leader containing an unqualified condemnation of the ordinary methods of our courts at present, both because of the risks of infection, on which we have so often insisted, and also because of the ridiculous absence of that solemnity and impressiveness which is supposed to be the very object of the ceremony, and it proceeds to refer to the proposals of amendment in the following very significant terms: "To be sure, as the law now is, anyone who asks to be sworn according to the Scottish form is entitled under the Act of 1888 to be dispensed from kissing the Book. That, however, is not enough. Few persons, officials not excepted, are aware of this privilege; and for many reasons it is preferable to have one form, if possible, universally acceptable."

Mr. Emden, who is the well-known County Court Judge of a suburban circuit, in an important letter has truly said that the common ignorance and neglect of the existing provisions of the Oaths Act can easily be remedied, if those who have the control of the courts choose to take the proper step. "For a year and a half," he says, "in all the courts on my circuit, printed notices have been placed in a conspicuous position drawing public attention to the provisions of the Act. Some trouble also is necessary on the part of the officials at first in asking witnesses whether they will take the oath in that way. That trouble has been willingly taken, and with success, by all the officials in my courts. As the result, after one year and a-half's experience, it is the exception when any witness asks to kiss the Book."

We commend this admirable example not merely to county court judges but to police magistrates, recorders, and other judicial officers of all kinds, including those who ought to set the highest standard—namely, the Lord Chief Justice and the Lord Chancellor of England. Is it unreasonable to hope that Lord Russell may be willing to take in his own court some equally efficient and simple means for promoting so simple and sensible a reform?

All agree in the view that there ought to be no serious difficulty—assuming that the Government are not unfriendly—in passing through in the next session of Parliament a Bill to amend the Oaths Act in such a manner as would settle, without offence to anyone, the whole question. At present the ordinary mode of taking the oath is considered to be that in which the person to be sworn says nothing whatever, but merely "kisses the Book." Anyone, however, is entitled at his own option, to be sworn in the alternative form, in which he raises his hand and repeats the formula himself. Is there any conceivable reason why Parliament should not reverse the situation, and decree that in future the Scottish form of oath, with uplifted hand, shall be the ordinary one, leaving, of course, to those who prefer the other the fullest right to say so?

THE Berlin Medical Society on January 6th unanimously re-elected Professor Virchow as President. Professor Virchow opened the meeting with a speech in memory of Dr. du Bois-Reymond.

MR. D'ARCY POWER'S lectures on Intussusception at the Royal College of Surgeons will be given on Monday, Wednesday, and Friday, February 8th, 10th, 12th, at 5 P.M. on each day. The first will deal with the minute anatomy, the second with the pathology, and the third with the treatment of the condition.

A SPECIAL Committee of St. George's Vestry, Southwark, have presented their report upon the inadequate arrangements for disinfecting dwellings in which there has been infectious disease. A shelter house for the accommodation of families during the disinfection of their homes has been decided upon at a cost of £1,500.

THE sum received by the Huxley Memorial Committee now amounts to nearly £3,000, and Mr. Onslow Ford, R.A., has nearly completed the full-sized model of the statue which is to be placed in the central hall of the Museum of Natural History at South Kensington. The dies for the Royal College of Science medal are now being prepared by Mr. L. Bowcher.

## MEASLES AND SCARLATINA IN DUBLIN.

THERE is a rather sharp outbreak of measles in Dublin. The cases of scarlatina have diminished, but there are sufficient to practically fill all the hospitals. One case of small-pox has occurred, but it has been strictly isolated, and it is hoped that the disease will be stamped out. Sir Charles Cameron has reported strongly in favour of the old Pigeon House Barracks as a convalescent home, and the question will come before the sanitary authorities for settlement.

## BERI-BERI IN RICHMOND ASYLUM, DUBLIN.

Since last report there have been no fresh cases. The patients who are at present under treatment for the disease are subject to repeated relapses, but fortunately there is no death to record since our last notice. In all 115 have been attacked—83 women, including 7 nurses, and 32 male patients, There have been 6 deaths on the female side and 2 on the male.

## THE EMPLOYMENT OF UNQUALIFIED ASSISTANTS.

We are informed that at a meeting of the Royal College of Physicians of Ireland, held on January 9th, the following resolution was adopted :

That the College condemn the employment of unqualified assistants by any of their Licentiates, and instruct their representative on the General Medical Council to urge the Council to suppress the practice by every means in their power.

## THE NEXT ARMY MEDICAL EXAMINATION.

A rumour reaches us to the effect that strenuous efforts to get candidates for the approaching A.M.S. examination are being made by the War Office and the Headquarters Office of the Medical Department. One of the latest moves is to abrogate the rule that no one who has already failed twice should be allowed to compete again. We have not the smallest doubt that the strictly military branches of the War Office are making strenuous efforts to whip up candidates—good, bad, and indifferent—for the examination in February ; for it is no secret that the present military heads will do anything rather than concede due status to medical officers. But if the profession remains true to itself the War Office must be beaten. Practically it is beaten already. We hear a further rumour that there was great discussion over matters military-medical at the War Office last week ; and at that time the number of candidates was exactly two ! Can it be that the outcome of that discussion is the attempt to secure past failures ; in fact, to lower the examination ?

## RESULTS OF TREATMENT OF RABIES AT THE PASTEUR INSTITUTE.

The last number of the *Annales de l'Institut Pasteur* contains the usual quarterly summary of the results of antirabic treatment during the months April, May, and June, 1896. The total number of persons under treatment was 316, while the number of deaths was 6. Of these 6 cases, 4 were bitten by dogs, of which only 2 were experimentally proved to be rabid ; in the case of the other 4, rabies was declared to exist from the result of *post-mortem* examination. Among the fatal cases were two sent over from England — Thomas Lambert, of Stockport, and Thomas Openshaw, of Bury. Thomas Lambert, aged 19, was bitten on March 3rd, and was at the Institute from March 8th to 26th ; he died on April 21st. He was badly bitten in the arm in four places, and two guinea-pigs which had been inoculated with the virus of the dog which had bitten him died of hydrophobia. Thomas Openshaw was badly bitten on both hands in November, 1895, and had been under treatment from November 22nd to December 3rd. He died on January 16th, but in this case there was no experimental evidence of rabies in the dog which had bitten him. It was, however, certified as rabid from a *post-mortem* examination by a veterinary surgeon. Of the 4 other deaths, 1 was in a patient bitten by an animal experimentally proved to be rabid, and 3 by animals so certified by veterinary surgeons. Compared with the previous quarter—January, February, and March—during which nearly the same number of cases were treated, 320 cases with one death, the increase in mortality seems alarming, but it must be remembered that the deaths occurring in one quarter are often those of cases treated during the previous quarter. A correct estimate of the progress of the treatment can fairly be formed only from considerations of a far larger series of cases extending over a large number of years. The mortality for 1896, it is true, will come out higher than that of previous years, but in all forms of treatment which, like the Pasteur treatment, are admittedly to some extent imperfect, times of bad luck must come, and a continuance of the relatively high mortality of the last quarter need not be anticipated. When it is remembered that during nine years the mortality has steadily diminished under treatment from 94 per cent. to 13 per cent., some idea is obtained of the splendid results of the Pasteur treatment.

## TO EDUCATE OUR MASTERS.

Now that local government is in the hands of the uneducated, and that the small householders contemptuously set at nought the advice of experts, though that advice is thoroughly disinterested, it behoves all the enlightened members of the public to do their utmost to bring all these sanitary matters within the range of popular education. As the small ratepayer is seated in the place of administration, it is not too much to ask that he shall be taught that a river-water supply is not above question, that sick people ought to be properly nursed, and that no public body is justified in placing the acutely ill at a distance from skilled help without providing means to bring that help to them with the least possible loss of time. The writer of a letter in the *Hereford Journal* of January 9th states that in that city all these things are being done. Guardians have decided to nurse the paupers with untrained nurses ; the fever hospital, situated some miles from the city, has no resident medical officer, neither is there any telephonic communication between it and the city ; the asylum is overcrowded ; the domestic supply of water is taken from the river Wye, a source which may one day cause an epidemic in Hereford from some waterborne diseases, originating in a remote village on the river bank.

## NATIONAL SCIENCE.

It is announced that the Council of the British Association have had seriously under consideration the question of the establishment of a National Physical Laboratory. They have resolved to take steps to bring the matter before the Government, and to invite the co-operation of the Royal Society of London, the Royal Society of Edinburgh, the Royal Astronomical Society, the Physical Society, and other cognate associations, in securing the foundation of the laboratory. The attention of the Government will also be drawn to the importance of establishing an Imperial Bureau of Ethnology for Greater Britain, which, by collecting information with regard to the native peoples within the empire, would, it is affirmed, prove of great service to science and to the Government itself.

## VEILS AND VISION.

It may at first sight appear to be an amiable inconsistency in the New Woman that while professing an uncompromising contempt for that foolish-compounded clay, man, yet in the very part of her being in which the "eternal feminine" might be expected to assert itself most vigorously—to wit, dress—she pays him that sincerest flattery which consists in imitation. But—apart from the obvious explanation, *Fas et ab hoste doceri*—she may not unreasonably plead that, as sanitarians have condemned most of the garments which are still looked upon as distinctively feminine, there is nothing left for her but to clothe herself in masculine raiment, or such portions of it as have not yet been placed on the *Index Expurgatorius* of hygiene. Stays, petticoats, trailing skirts, garters, high-heeled shoes have all come under the ban ; now veils have found a Savonarola in an American specialist, Dr. Casey A. Wood.[1] Dr. Wood says that it is within the experience of every ophthalmologist that the wearing of veils is productive of weak eyesight, headaches, and sometimes vertigo and nausea. Not only are these effects produced by the eye strain consequent upon the increased efforts made by one or both

[1] *Boston Medical and Surgical Journal*, December 3rd 1896

eyes to see through or around an obstruction, but the irregular figuring on the veil itself is in some instances an annoyance to the wearer. Dr. Wood had a dozen typical specimens of veils selected for him, and made a number of experiments with them to determine the extent to which veils of various kinds affected the eyesight. He sums up his results as follows: 1. Every description of veil affects more or less the ability to see distinctly, both at a distance and near at hand. 2. The most objectionable kind is the dotted veil, although the influence for evil of this variety is more marked in some samples than in others. 3. Other things being equal, in undotted and non-figured veils, vision is interfered with in direct proportion to the number of meshes to the square inch. 4. The texture of the veil plays an important part in the amount and kind of eye strain produced by the veil. When the sides of the mesh are single compact threads the eye is embarrassed very much less in its effort to distinguish objects than when double threads are employed. 5. The least objectionable veil is that without dots, sprays, or other figures, but with large regular meshes made with single compact threads. Weak eyes naturally suffer most from the injurious influence of veils, for a healthy eye in a healthy body resists the strain of an impediment to vision just as it withstands other harmful influences. If a veil is for any reason necessary to a woman's comfort, she should choose one of a kind likely to do the least harm, and in any case she should never attempt to read through it. The abandonment of veils would probably not be objected to by the most bigoted opponent of the emancipation of women. If the veil is to be discarded, we would humbly suggest that ladies should at the same time renounce the hats "volumed and vast and rolling far," which interfere with the vision of unfortunate male creatures who sit behind them at theatres, or at least that they should submit to some pruning of the redundancies of ornamentation in these works of art.

## THE BENIN DISASTER.

AMONG the members of the British Expedition which met with disaster in the Benin district was Dr. Robert Hanna Elliott, a District Medical Officer of the Niger Coast Protectorate. He was the son of Mr. W. M. Elliott, merchant, of Strabane, Ireland, and studied at the Queen's College and the Royal Hospital, Belfast. He took the degrees of M.B., B.Ch., and B.A.O. in the Royal University of Ireland in 1887, and was at one time resident assistant at the Royal Hospital, Belfast. After taking the degree of M.D. in the same University he went out in 1891 to Accra on the Gold Coast. He was in England recently, but returned to the sphere of his duties last summer.

## LONGEVITY OF THE CHOLERA VIBRIO.

IN connection with the recent occurrence of cholera on the *Nubia*, some experiments of Wernicke are interesting as showing how long the cholera vibrio can survive in water. This observer constructed an experimental aquarium, in which water weeds of various kinds were planted, and in which there was no lack of the ordinary water bacteria. A large quantity of virulent cholera germs was then introduced into the water. The aquarium with its contents was exposed during the experiments both to diffused daylight and direct sunlight. Three months after the cholera germs had been added the vibrios could be detected in the water as well as on the weeds, and in the mud at the bottom of the vessel. Wernicke is of opinion that mud affords a very suitable nidus for the preservation of the germs, and believes that had he allowed less light to gain access to the vessel he would have recognised their presence even after a longer period. No alteration, either in their morphological or biological functions, could be traced in these cholera vibrios in consequence of their long confinement to the same environment; but whilst Wernicke states that they were highly virulent when they were first introduced, he omits to say if their pathogenic properties suffered any alteration. But even supposing that marked diminution in virulence did occur, there is every reason to expect that after a few transmissions through appropriate hosts the full virulence would return. It will be remembered that in the cholera epidemic alluded to there were preliminary cases of dysentery, which might possibly have been cases of masked cholera, and that after the passage of the germs through certain Lascars, in whom they, in consequence of their altered virulence, caused choleraic diarrhœa only, their full virulence returned, and the succeeding cases appeared as true Asiatic cholera when the diagnosis was correctly made.

## LORD LISTER.

SIR JOSEPH LISTER informs us that it is his intention to take the title of Lord Lister on his elevation to the peerage. His decision will, we believe, be generally applauded, as it would have been a matter of regret had the name by which he had become so well known throughout the civilised world been merged in a territorial title. In taking this course, he has followed a precedent set by other distinguished men who have been elevated to the peerage in recognition of services rendered to science and to art. The latest example is the late Lord Leighton, but the list might easily be increased. Several medical bodies have already adopted resolutions of congratulation to Sir Joseph Lister: among them are the Royal College of Surgeons of England, the Royal College of Surgeons in Ireland, the Liverpool Medical Institution, and the Medical Society of London. Doubtless these are but the firstfruits of a plentiful harvest, for no honour which has been conferred upon a member of the medical profession has ever within our recollection been received with more widespread or spontaneous expressions of gratification from all ranks.

## HOSPITAL REFORM.

THE meeting of the profession in London, arranged by the Hospital Reform Association, will be held at St. Martin's Town Hall at 4 P.M. on February 4th. Among those who intend to take part in the discussion are, we are informed, Dr. Ward Cousins, Dr. Isambard Owen, Dr. J. G. Glover, Mr. Victor Horsley, Dr. S. Woodcock, Mr. Walter Rivington, Dr. Lovell Drage, and Dr. Major Greenwood.

## DIPHTHERIA IN LONDON.

THERE was a serious increase in the mortality from diphtheria last week, the deaths rising to 71, against 38 and 49 in the two preceding weeks. This is the highest number recorded in any week since the end of 1895, and exceeded by as many as 30 the corrected average number in the corresponding weeks of the ten preceding years. The increase in the mortality from this disease was most marked in East London, where no fewer than 20 deaths were recorded, against 1 and 8 in the two preceding weeks; of these, 5 were of persons belonging to Shoreditch, 5 to Poplar, 4 to Mile End Old Town, and 3 to Whitechapel. There was also a further marked increase in the mortality from diphtheria in South London, where 31 fatal cases were registered, against 10 and 21 in the two preceding weeks; of these, 5 belonged to Wandsworth, 5 to Camberwell, 4 to Bermondsey, 4 to Lambeth, 3 to Newington, and 3 to Woolwich. Of the remaining deaths from the disease registered last week in the metropolis, 6 were of persons belonging to Islington, 4 to St. Pancras, and 3 to St. Marylebone. The 71 fatal cases of diphtheria recorded last week in London included 41 of infants and young children under 5 years of age, and 28 of children and young persons aged between 5 and 20 years; while only 2 deaths occurred among persons aged upwards of 20 years. The 238 notifications of diphtheria in London during last week showed a decline, the numbers in the three preceding weeks having been 284, 200, and 318 respectively. This decline was most marked in West London, where 29 new cases were notified, against 46 in the preceding week. In North London

the new cases were also fewer than in the previous week, although in Hackney the 14 new cases showed a further increase upon those notified in recent weeks. In St. Pancras and Islington the prevalence of diphtheria showed a marked decline. Among the sanitary areas of East London the 12 new cases notified in Shoreditch showed a further increase, though in each of the other districts there was a decline. Among the various sanitary areas of South London the disease showed increased prevalence in Bermondsey, Battersea, and Woolwich; while in Camberwell the new cases further declined to 21, having been 41, 36, and 30 in the three preceding weeks. The admissions of diphtheria patients into the Metropolitan Asylums Hospitals during last week were 103, against 120, 124, and 114 in the three preceding weeks; and 854 patients remained under treatment in these hospitals on Saturday last, January 9th.

## A GENEROUS GIFT.

General regret will be felt at the announcement now made that Professor Alfred Hughes will be compelled, owing to the continued ill-health of his wife, to leave the neighbourhood of Cardiff before the end of the winter session, and consequently to resign his chair of anatomy in the University College, Cardiff. Before leaving he has granted to the College the free use of his anatomical collections, on which he has spent large sums of money and many years of labour. In the event of his wishing to remove these at some future period, he has placed at the disposal of the College a sum of money sufficient to replace them. Professor Hughes brought with him from Edinburgh the reputation of being one of the most popular and successful of the extramural teachers, and during his short tenure of the chair at Cardiff he has added greatly to his former reputation. One of his students only last summer obtained the Exhibition and Gold Medal in Anatomy given by the University of London, an honour only thrice obtained by any provincial school during the last twenty years. When Professor Hughes leaves the College the students will lose the guidance of a clear and incisive teacher, and one who never spared himself in the exercise of his teaching work. His colleagues and very many in the town will miss his genial and lovable presence, but his name will remain in the history of the school as the first teacher in, and able administrator of, an important department.

## ALLEGED PREMATURE BURIAL IN PARIS.

A very sensational article was published by a contemporary the other day on Premature Burial in Paris: A Danger that Attends Foreigners. According to the article: "Something like a panic has been caused in Paris by the conviction forced upon the public mind, and based on the surest medical evidence, that a terribly large proportion of the apparently dead, who are in due course interred, are in reality buried alive. . . . . Not long ago, in one of the principal hotels in France, an English lady died, and in accordance with the wish of the hotel proprietor, and what he was pleased to term the State regulations, the body was interred the following day. A week after it was exhumed, and then the shocking discovery was made that the mouth was full of blood, and that the fingers and wrists were gnawed away, an evident proof that the unhappy lady had come to life again, only to perish in a shocking manner." We regret that our contemporary has not seen fit to give "the surest medical evidence" on which is based the conviction that a terribly large proportion of individuals are in reality buried alive. Surely when such a statement is made in a widely circulated paper, on a subject naturally calculated to spread alarm amongst the public, it should be accompanied by full credentials, so that its reliability may be throughly tested. In our opinion, it is unnecessary to consider seriously these vague statements unless accompanied by full and authenticated details. For instance, as far as the account of the alleged premature burial of an English lady in France is concerned, what proof is there that the injuries to the hands and mouth had not been caused by rats? The observations to which we refer are not quite consistent in the article in question. Referring to the French system of verifying the fact of death, in which the body is seen by a *médecin inspecteur*, who certifies to the cause of death, and who is followed, or should be followed, by a *médecin vérificateur*, whose business is to verify that death has really supervened, it is stated that the last-mentioned official is not "as a rule competent to judge whether the indubitable signs of decease are present or not. It is now recognised that only decomposition is a sure sign of death." Further on in the article it is said that a society has been established in France for insuring persons against being buried alive, and it is stated that "for a small annual subscription a properly-qualified medical man visits the supposed dead body, applies the necessary tests, and gives a perfectly reliable certificate." But if the only reliable sign of death is decomposition (we by no means say that it is), where is the necessity for the visit of the medical officer of the insurance society, and how does he become possessed of powers denied to the *médecin vérificateur*?

## WOMEN WHO STEAL.

The frequency of shoplifting, and the extremely disagreeable and even distressing incidents to which its discovery leads, have caused someone to make the suggestion that in all large shops a policeman, or his equivalent, in uniform, should be at each counter. It has been suggested, however, that such an officer, whether he would deter the would-be kleptomaniac from stealing or not, would certainly deter many customers from entering the shop. However this may be, the suggestion hardly seems to be calculated to have the desired effect. Kleptomania arises from very different causes, and though the presence of a policeman might deter some it would not influence the conduct of others. The weak-minded stealer would still steal, and the general paralytic, who believed that all things belonged to him, would still help himself, and it is such people who are not detected readily, for their actions are without attempt at concealment. There are certain women to whom the policeman would appeal, and who would thus obtain just sufficient self-control to avoid committing the criminal act. On the other hand, we know of cases in which the stealing is equivalent to a passion, and we know that the very increased danger would add pleasure to the theft. Such cases probably merit some punishment, but on that point we cannot enter now. The policeman aid to diagnosis is not likely to be tried in England in our day.

## ACCLIMATISATION IN NYASSALAND.

We are indebted to Sir Joseph Fayrer for the following letter, written by a young medical officer, Dr. H. Hearsey, now in Nyassaland. As Sir Joseph Fayrer points out in forwarding the letter to us, the remarks on the relative immunity of the natives of India, as compared with the Europeans, from the influence of climate, are interesting and significant:—"Dear Sir Joseph,—I am stationed here at Fort Johnston, Nyassaland Protectorate, British Central Africa, as Surgeon to the Naval Forces. I have now been in the country about two months. This would be a very fine country indeed were it not for the unhealthiness of the climate. Remittent fever—frequently of the hæmoglobinuric type—is very prevalent, and it is the latter which accounts for a large percentage of deaths among the European population. There were 200 picked Sikhs brought here from the Punjab nearly two years ago, and on inquiry I find that of this number 17 have died—16 from dysentery, and only 1 from hæmoglobinuric remittent fever; whereas the mortality among Europeans is due almost entirely to the latter disease, known here popularly as 'black water fever,' on account of the dark coloration of the urine from the presence of hæmoglobin. I have already had two cases under my treatment (both Europeans), and of these one had a fatal termination. This shows in a marked degree

how very much more liable Europeans are to this type of fever as compared with natives of India, who in fact appear to be practically immune. The Sikhs suffer from dysentery chiefly, as already stated; they are also subject to attacks of remittent fever, and I find that as a result of the latter some of them develop anæmia, which in rare instances passes into the 'pernicious' variety. Besides fever and dysentery a very troublesome ulceration, chiefly of the toes, is caused by the pulex penetrans, the female of which burrows under the skin, usually of the toenails, in order to deposit her eggs. If the insect is not immediately picked out it sets up inflammation, a small ulcer eventually forming, which takes a long time to heal. Natives of India and of this country are, of course, more liable to this affection on account of their feet not being properly protected. With all these drawbacks this country has a great fascination, especially for sportsmen, as game of every kind abounds in the neighbourhood."

## MEDICAL TREATMENT IN THE TEMPLES OF ÆSCULAPIUS.

THE President of the Liverpool Medical Institution, Dr. Caton, delivered his annual address on January 7th, taking as his subject The Results of Recent Excavations at Epidaurus and Athens, bearing on Medical Treatment as carried out in the Temples of Æsculapius. The address, which was highly interesting and scholarly, was illustrated by many beautiful limelight views from photographs and sketches made by the author. The attendance was one of the largest on record at the institution, and included the Professors of Greek and Latin at University College. Afterwards a hot-pot supper was provided by the President, followed by a choice musical programme, rendered by some of the members and others.

## SAMSON'S RIDDLE.

WITHIN the last few days two great sums of money have been given for the advancement of science. Dr. Alfred Nobel, the inventor of dynamite, has left nearly £2,000,000 as a prize fund for the most important discoveries in physics, chemistry, physiology, and medicine; and the Baroness Hirsch has promised £80,000 to the Pasteur Institute. We who have just received Dr. Mond's splendid gift of the Davy-Faraday Laboratory need not envy the good fortune of other nations, nor does help given to Science benefit one country, but all. The work of the Pasteur Institute goes forth over the whole world: as Dr. Roux says of it, "We are perpetually carrying on a struggle against death, and we can only express our deep gratitude to all benefactors who help us to lighten the load of suffering humanity." The prizes given by Dr. Nobel are open to all the nations; and he has added yet another prize for him who has done most to promote the cause of peace. Truly, as in Samson's riddle, out of the eater has come forth meat, out of the strong has come forth sweetness.

## SCURVY IN ARCTIC EXPEDITIONS.

IN a lecture at the Imperial Institute on the Jackson-Harmsworth expedition, Mr. Montefiore Bryce, alluding to Mr. Jackson's views that limejuice and vegetables were useless against scurvy, said that the Esquimaux and the Samoyads never had it, though they could obtain neither limejuice nor vegetables; they kept in health by living on fresh meat, often raw, and seldom fully cooked. Knowing the vagaries of the British public, Mr. Jackson took a supply of limejuice with him, but determined that the expedition should eat as much bear as they could. During the first winter sixty-three bears were shot, and not a single man had developed the slightest symptom of scurvy. This they attributed to a diet of fresh blood meat, scurvy being a form of anæmia. But what, we would ask, are the inferences to be drawn from the cases of scurvy on the return voyage? We should like to know whether the supply of bear's flesh was equally great when returning, or whether, having exhausted the supply of limejuice and vegetables, scurvy then made its appearance. The fact that raw meat possesses strong anti-scorbutic properties has long been known and recorded by many previous explorers.

## PROPOSED AMENDMENT OF THE VACCINATION LAWS.

As some incorrect statements have been circulated with regard to the objects of the mission which Dr. Thorne Thorne, C.B., the Principal Medical Officer of the Local Government Board, and his colleague, Dr. Monckton Copeman, are now carrying out in Germany, it may be as well to state the true objects of the inquiry. It is to study the different methods adopted in different countries in the preparation of glycerinised lymph, the bacteriological results obtained under the different methods, and the amount of success in vaccinating with one or other method. The inquiry will, it is expected, be completed next week.

## GERMAN APPRECIATION OF SCIENTIFIC INQUIRIES.

AN item in the Prussian Estimates is a vote of 50,000 marks to the Ministry of Public Instruction for investigation with the Roentgen rays. The vote is justified by a reference to the importance which the new invention has been shown to possess in the spheres of physics, anatomy, physiology zoology, botany, and kindred sciences. The object of the grant is to enable institutes and scientists to procure the necessary costly apparatus, and to defray the expense of exhaustive experiments.

## TYPHOID FEVER IN INDIA.

A RENEWED outbreak of enteric fever has occurred among the British trooms at Quetta. Twenty-three fatal cases had occurred up to the month of November. This for a station at an elevation of 5,000 feet, where the climate is said not to be so trying as stations in the plains, is unsatisfactory. Typhoid and malarial fevers have been very prevalent at Poona and Kerkee, as, indeed, says a correspondent, "is usually the case in these stations." The sanitary wants of Poona have already received notice in these columns.

## THE MENTAL NURSE.

A CORRESPONDENT writes: In the early days of lunatic asylums in this country insanity as a disease was not recognised so much as the necessity for placing the unfortunate sufferer in some place where he would be rendered incapable of injuring himself and others, and where mechanical restraint was the chief form of treatment adopted. The men and women into whose care these lunatics were placed were uneducated and rough, uncouth persons, whose chief recommendations were the possession of physical strength and courage. With the improvement in the lunacy laws, the advent of the non-restraint system, the rapid and even startling advance in medico-psychological medicine and neurology, and the recognition of mental disease as a condition requiring the most careful treatment medically as well as morally, came the demand for nurses, male and female—whose education and training should be abreast of the times. A few of our more enlightened asylum physicians commenced the training of their nurses on an enlightened basis, but it was left for the Medico-Psychological Association to lay down the lines on a wider and more comprehensive scale. A rigid curriculum was drawn up which included attendance upon lectures and demonstrations with practical instruction, all under the direct personal superintendence of the medical staff, and examinations were established under the assessors appointed by the President of the Association. A strong Committee was appointed which brought out a textbook for the study of the various subjects; and in such high esteem is it held, that it has been sold in thousands, not in the United Kingdom alone, but throughout our Colonies,

and specially in America. In this country, including Ireland, there are upwards of 128,000 persons of unsound mind under the official cognisance of the Commissioners in Lunacy, and, allowing 1 nurse or attendant to every 20, there are upwards of 6,000 nurses and attendants. These persons are filling public appointments, earning pensions, and are a meritorious and highly-respectable class, who earn and hold their appointments by good character and efficiency. Of these no fewer than 2,000 have had the energy, the intelligence, and the ability to pass through the curriculum, and successfully undergo the high-grade examinations of the Medico-Psychological Association. In every asylum throughout the United Kingdom the good work is going on, and a body of nurses specially trained are qualifying for the certificate of the Medico-Psychological Association. A movement has been set on foot to procure for those who attain the high standard of the Association the right to be placed on the Register of the Royal British Nurses' Association, and the proposal has been unanimously adopted by the General Council. If this is carried out it will be a deathblow to the half-trained and inefficient persons who desire to pose as mental nurses, for it will afford the public the much-desired means for ascertaining who are properly trained and educated and who are not.

## THE COST OF NOTIFICATION.

Dr. George Reid, Health Officer for the county of Stafford, states in his report for 1895, recently issued, that the Infectious Disease (Notification) Act was in force at the close of the year in districts having an aggregate population of 716,449 out of a total population of 805,616 estimated to the middle of the year. He records the details of the working of the Act in the several districts, and shows that the cost of the system in each 1,000 of population during the years of its ever increasingly wide adoption in the county has been 18s. 6d. in 1890, £1 8s. 9d. in 1891, 18s. 4d. in 1892, £1 5s. 10d. in 1893, £1 1s. 7d. in 1894, and £1 2s. 8d. in 1895. These amounts are, of course, arrived at by means of averages, and at their highest point do not exceed 1½d. per household of (say) five persons. The sums in 1895 necessarily vary greatly in the several districts, as in any year is to be expected, according as one or another disease has or has not been prevalent. Thus we see districts ranging from 2s. 2d., 5s. 3d., and 9s. 10d. to £1 11s. 1d., £1 17s. 4d., and even £6 10s. 10d. per 1,000 persons, in the case of a district in which epidemics of scarlet fever and diphtheria had occurred. Speaking roughly, then Staffordshire, and, if that county, then presumably the whole country, can have the undoubted benefits of compulsory notification for a year at a cost much under the sum of 2d. a household. Has this practical side of the matter been sufficiently considered by those few authorities who still persist in their long-continued neglect of the good to be gained by taking over the statute?

## BERI-BERI IN LUNATIC ASYLUMS.

In connection with the recurrent epidemic of beri-beri in the Richmond Lunatic Asylum, Dublin, the account given by Dr. E. D. Bondurant[1] of an epidemic of multiple neuritis among the patients of the Alabama Bryce Insane Hospital at Tuskaloosa, U.S.A., raises some very interesting questions. The population of the asylum numbers about 1,200. On February, 1895, multiple neuritis, without assignable cause, developed in a female patient, and was followed in the course of the year by twelve similar cases. Hitherto such cases had been unknown in this asylum and neighbourhood. It would appear, however, that a number of cases of multiple neuritis occurred about the same time at the Arkansas State Asylum, Little Rock. Dr. Bondurant gives a careful analysis of his cases, and comes to the conclusion that the disease in question resembled beri-beri more closely than any other known form of multiple peripheral neuritis. In several instances œdema was present. Three of the patients died. He says nothing about the sanitary condition of the asylum at the time of and before the occurrence of the epidemic—a point of importance, and one which might throw light on the very similar epidemic now in progress at the Richmond Asylum, Dublin. It is singular that these three epidemics should have occurred in lunatic asylums. It has been suggested that it is not at all improbable that this disease may occasionally occur in other public institutions also where overcrowding and similar insanitary conditions obtain but are overlooked; and that it is owing to the special knowledge of and attention to nervous diseases in lunatic asylums that hitherto the occurrence has been remarked only in them.

[1] *The Medical News*, New York, October 3rd, 1896.

## MEDICAL DEFENCE AND THE BRITISH MEDICAL ASSOCIATION.

During the past few days the report of the Committee of the Council of the British Medical Association on Medical Defence has been issued to the Branches, and copies will have reached, or will soon reach, the members of the Branches. We may be permitted to point out, as the document is one which calls for the most earnest consideration on the part of all the members, that it presents in full the scheme drafted by the Committee, and propounds certain questions which the Branches are requested to answer. In an appendix are contained three other schemes, the Council's scheme, Mr. Butlin's scheme, and the scheme of Dr. Welsford and Mr. Horsley, as well as a series of amendments proposed by Dr. Rentoul to the Council's scheme.

## LEAD POISONING AND MEDICAL EXAMINATIONS.

A labourer, aged 38, engaged at Millwall Lead Works, died in a fit a few days ago. At the coroner's inquest it was stated by the wife that her husband had been suffering from lead colic and other symptoms of plumbism for seven months off and on. The medical officer to the works had observed the blue line on the gums and evidence of Bright's disease in November last, and although he had advised his patient to give up work, the advice was not acted upon. The death just announced is additional evidence in favour of the compulsory refusal by any manufacturer to receive into his factory any workman who is suffering from colic, and above all who is the subject of albuminuria. It is very necessary that each workman employed should be carefully examined, and any indication of plumbism, any complaint of colic, made the occasion of dismissal from the employment until recovery has taken place. Even then recurrent colic should become a disqualification, and under all circumstances no one should be allowed to work in a lead factory who is suffering from albuminuria.

## A FLANNEL SHIRT CLUB.

To a poor man leaving hospital few gifts can be more appropriate than a flannel shirt. The warmth and, perhaps more even than the warmth, the equability of the temperature in which he has lived for some weeks, in many cases make his "going out" a perilous adventure, and nothing is so likely to prevent relapse in such cases as the provision of the warm underclothing which the poor find it so difficult to obtain. We therefore wish every success to the Flannel Shirt Club which has been inaugurated by the Countess of Strafford. The objects of the club and the duty of its members are very simple. Each member undertakes to provide one or more men's flannel shirts a year, or the flannel for the same, in addition to a small subscription. It does not seem much to do; yet it may save many lives, and the making of these articles would seem to be peculiarly appropriate work for the thousands of well-to-do convalescents who so often find the hours pass wearily while waiting for returning strength. Subscriptions and donations of money may be sent to Mrs. H. H. Clutton, 2, Portland Place, W., and all shirts and material to Miss Lamport, 52, St. John's Wood Road, N.W.

# BRITISH MEDICAL JOURNAL REPORTS.

## REPORTS ON THE HYGIENIC CONDITION AND ADMINISTRATION OF METROPOLITAN DISTRICT AND SEPARATE SCHOOLS.

BASED ON THE EVIDENCE LAID BEFORE THE DEPARTMENTAL COMMITTEE.[1]

*(By Our Own Commissioner.)*

### III.—FOREST GATE.

THE POOR-LAW SCHOOLS COMMITTEE.

ALTHOUGH for many months we had endeavoured in this JOURNAL to draw public attention to the evils which attended the aggregation of children, it was not until the scandals at Forest Gate and Hackney occurred that active press sympathy was aroused.

It was part of the duty of the Poor-law Schools Committee to inquire into such scandals, and though we greatly regret that they considered it wise to exclude the press from their deliberations, we yet understand that the exclusion might have been necessary when the truth had to be ascertained from persons who might have had to pay for truth-telling by loss of livelihood.

The witnesses on the Forest Gate scandal heard by the Committee were Dr. Downes, the Local Government Board Medical Inspector; Mr. Cook, the chairman of the Forest Gate Managers; Mr. Costelloe, who acted as counsel for Henry Elliott at the Local Government Board inquiry; and Mr. Hedley, the Local Government Board Inspector, who had occupied the difficult position of judge and jury combined. Whether Sir John Gorst was asked by the Committee, on account of his legal training, specially to investigate this matter, or whether it was owing to his close cross-examination of the witnesses concerned that he became particularly interested in this case, we are not in a position to state, but the papers submitted by the Local Government Board to the Committee seem to have received his special consideration, and on the poisoning at Forest Gate he has written a terse and strong memorandum, which we will reproduce in full:

SIR JOHN GORST'S MEMORANDUM ON THE MEAT POISONING CASES.

"In June, 1893, 148 of the children at Forest Gate Schools were seized by sudden illness, and 2 died.

"There is no doubt from the medical testimony that the children died from ptomaine poisoning, and that the poison was conveyed in meat provided originally for the officers, of which the leavings were made into soup for the children on Thursday, June 22nd, 1893.

"There was a coroner's inquest, at which the jury returned a verdict of 'Accidental Death,' and placed on record their confidence in Duncan, the superintendent of the schools.

"At the inquest, Elliott, a subordinate officer of the schools, testified that some few days before the children were seized with illness, his wife had called his attention to there being maggots in the meat on which the children had dined, and that, on going into the dining hall, he had seen them. It seems to have been known by the authorities of the school that Elliott was going to give such evidence, for two dining-room maids were present in the court, and promptly contradicted Elliott's statement. Elliott was at once suspended by the managers of the Forest Gate Schools, and an inquiry was held by the Local Government Board into the truth of his statement. The inquiry was conducted by Mr. Hedley, the inspector responsible for the supervision of Forest Gate Schools. It was an inquiry into Elliott's veracity only. No inquiry as to how the children came to be poisoned has ever been made either by the managers or the Local Government Board. At the inquiry the truth of Elliott's statement was completely proved. The meat supplied to the children on Saturday, June 17th, was undoubtedly fly blown. The only questions on which difference of opinion can exist are (1) the number of eggs which the flies had deposited; (2) the degree of development which such eggs had attained.

"Besides Elliott's principal statement, two subsidiary statements seem to have been to some extent the object of inquiry: (1) That before June, 1893, a good deal of meat had to be buried; (2) that he had made previous complaints as to the food. Both statements appear to have been substantially true.

"The inquiry was held in September, 1893. Finally, in March, 1894, the Local Government Board, who thought that it was not clear that Elliott had not been actuated in the matter by 'misdirected' zeal for the interests of the children, required the removal of his suspension, but upon the condition that he should resign his office.

"The children's dinner of June 22nd became the object of careful investigation by the medical officers. It appears from the Provision Consumption and Account Book:

"1. That a soup dinner for boys, girls, and infants is charged in the accounts of June 22nd, whereas in fact the infants had bread-and-butter pudding, and not soup

"2. That 52 lbs. of fresh meat is on that day charged for soup, whereas in fact the soup was made chiefly of officers' waste and very little fresh meat was used.

"The attention of Duncan, the superintendent, was called to these facts, and he explained:

"1. That soup had been made for the infants before it was decided to give them pudding instead.

"2. That the 52 lbs. was entered in error, and that 'at the same time' he omitted to charge for beef to make beef-tea supplied to 85 children on the 23rd.

"It appears, however, from the book itself, that 52 lbs., or thereabouts, has been regularly charged for soup on every Thursday for weeks before and after June 22nd, and it appears from that book and the medical relief book that in the week in which the sick children were in the infirmary, there is an extraordinary charge for meat supplied to the infirmary of 112 lbs.

"It appears also from the Provision Consumption and Account Book:

"1. That on June 17th, when the fly-blown officers' waste was served to the children, a full charge of 189 lbs. of meat is entered as having been served.

"2. That the amounts of fresh meat charged as having been served to the children are practically the same before June 22nd, when it is admitted officers' waste was habitually used for the children, and after June 22nd, when the practice was discontinued. What became of the fresh meat thus charged as served to the children, but not, in fact, served, has not been the subject of any inquiry, either by the managers or by the Local Government Board.

"Nobody has been made responsible for the unwholesome meat supplied to the children either on June 17th or June 22nd, 1893."

AN UNSATISFACTORY TRIBUNAL.

This memorandum provides several arguments in support of those points of Poor-law reform which we have made it our duty during some years to advocate. For instance this case illustrates the inadvisability of inquiries being held by the inspector who, under normal circumstances, has this school under his supervision. On this point Mr. Costelloe says (16383): "My own frank impression was that that inquiry was exceedingly unsatisfactory." "It seemed to me that Mr. Hedley rather took the view of being a defender of the school against objectionable charges made against it. He was exceedingly anxious to limit the inquiry to the mere fact of the allegation of maggots and the other dry statements that had been made at the inquest; he absolutely refused to allow anything to be said which went in the direction of opening up further inquiry into the irregularities which appeared to be connected with these events: and what I chiefly objected to was that he absolutely refused to allow us access to the Provision Consumption and Account Book. I think it was clear that, as to this, we were entitled to raise very serious questions affecting the superintendent's veracity, and the whole circumstances surrounding the actual fact of the poisoning were clearly in point."

I. Here is our contention in a nutshell. It was the duty of the inspector to have discovered flaws in the system of book-keeping or the methods of administration which could have allowed so serious a scandal to be possible. As he had not

[1] The previous articles appeared in the BRITISH MEDICAL JOURNAL of January 2nd, page 39, and January 9th, page 90.

learned these facts in his position of an inspector, it was almost more than could be expected of a human being that he should be anxious as a judge for the light which would show their existence. As he sat in judgment upon the results of his own omissions little else could have been expected than that he should seek, without doubt wholly unconsciously, to minimise those results. When examined by the Committee on the incidents of the Forest Gate trial, Mr. Hedley found himself unable to recall them. His "memory would not serve him to speak definitely" (9498); he could not even remember the conclusions at which he arrived (9502, 9504), although the matter had occurred but a little more than a year before, and the Local Government Board had issued their decision on Mr. Hedley's report but six months previous to the date on which he gave evidence before the Committee.

The Subordinate Officers Dependent on the Managers.

II. Again, we have pointed out that the position in which the interior officers stand to the Local Government Board is not conducive to the discovery of cruelty or misconduct. The Local Government Board inspector was asked: "Can they (the children's attendants) look to the Local Government Board to protect them if they interfere on behalf of the children?" (9634). "No," replied Mr. Hedley, "they cannot, because the subordinate officers in a district school hold their office under the sanction of the managers of the schools, and are quite independent of the Local Government Board" (9634). The Local Government Board could give no protection (9650). "They have nothing to do with it."

In the face of this, is it to be wondered at that in Brentwood School cruelty went on for nine years, and not one of the children's attendants ever dared to make a complaint? (9635).

It is greatly to the credit of Elliott, the attendant of the receiving ward at Forest Gate School, that he risked his place in order to state what he had seen, and that his so doing was one of the factors which helped to bring the whole subject of the treatment of pauper children to light may be some consolation to him if he is a man of public spirit; but that a great department of State should allow one of its faithful servants to be dismissed because he had been too zealous on the children's behalf is, we consider, monstrous, especially when it is borne in mind that he has lost the pension to which his and his wife's faithful service under the Poor Law for eighteen years would, under normal conditions, have entitled them.

An Untrained Inspectorate.

III. Many times we have had occasion to draw attention to the want of special qualifications for the work possessed by the inspectors and the need of some form of report. Repeatedly has it been our disagreeable duty to point out the want of acquaintance of the Local Government Board inspectors with hygienic science, and their incapacity to judge on matters that necessitate technical skill, but we confess to surprise on learning from the cross-examination on this scandal that the form on which the reports were made is practically worthless for testing purposes. "The form was the one prescribed by the Local Government Board," and was used by the assistant inspector, whose (9566) principal duties were "to make the half-yearly inspection in each of the schools;" yet it did not "specify what he had visited," nor whether he (9571) "had been into all parts of the buildings;" neither did it show the conditions of the infirmary, or the receiving ward, or the laundry, or the number of girls employed, or the training classes, or anything of that sort; it merely stated that the children in the schools were in good health.

Cursory Inspection Useless because Deceptive.

This means that the inspection might have been as cursory as inexperience could dictate, or as a clever official objecting to detailed inquiries could manœuvre. Certainly, in the case of Forest Gate, it did not include an examination of the books, or the questioning of the cook, otherwise the fact would have been elicited, which Sir John Gorst's memorandum sets out, that 52 lbs. of meat had been regularly charged for soup on every Thursday for weeks after, before, and including the fatal 22nd of June, although we have Dr. Downes's statement that on that particular day (8913) he "asked for the butcher's voucher, and found that the delivery of fresh meat was that day 14 lbs or thereabouts" (8911). Are we to understand that the Local Government Board inspector believed that 14 lbs. were delivered against 189 lbs. entered? Such a discrepancy is in itself a condemnation of the inspector's method of work; but we have no hesitation in saying that it is scandalous when 148 children are poisoned and 2 die, that the inquiry should be directed only to the veracity of the officer who had dared to indicate the lines on which truth could be ascertained, and that neither by the managers, nor by the Local Government Board, should any effort have been made to ascertain what became of the fresh meat thus charged for.

## THE JENNER CELEBRATION IN RUSSIA.

[From our special correspondent in St. Petersburg.]

*The Meeting at the Medical Department of the Ministry of the Interior.—Speech by the Grand Duke Paul.—Dr. Kudrin on Small-pox in Russia before Vaccination.—A Eulogy of Jenner. The Practical Utility of Vaccination.—Award of the Prizes of the Russian National Health Society.—Addresses of Congratulation.—The Exhibition.—Portraits of Jenner.*

After more than one postponement the centenary commemoration of Jenner's great discovery was held by the Russian National Health Society on Sunday, December 22nd (old style). The commemoration took the form of a special meeting of the Society, held in the large hall of the Medical Department of the Ministry of the Interior, and an exhibition of objects of interest connected with Jenner or the subject of small-pox and its prevention. The hall was draped with red velvet, and decorated with palms and other greenery, among which were placed busts of the Emperor and the two Empresses. Round the walls were diagrams and tables, and some glass cases containing part of the objects of the exhibition already referred to, but the bulk of the exhibition was held in the adjoining rooms of the Department. A military band was present, and punctually at 2 P.M., to the strains of the National Anthem, the Grand Duke Paul, the Honorary President of the Society, entered the hall. He was accompanied by their Imperial Highnesses the Prince and Princess of Oldenburg, and by M. Doumovo, the President of the Committee of Ministers; M. Goremuikin, the Minister of the Interior; M. Tol, the Governor of St. Petersburg; the Mayor of the city, and a large number of the leading members of the medical profession and representatives of scientific institutions.

The opening speech was made by the Grand Duke Paul (who, be it noted in passing, is the uncle of the Emperor Nicholas). He welcomed those present, and thanked all who had responded to the invitation of the Socfety and lent their aid to the success of the commemoration.

Dr. Kudrin, the acting President of the Society, and honorary *Leibchirurg*, or body surgeon to the Tsar, then reviewed the circumstances which had led the Society to hold the present meeting. Before Jenner's discovery, he said, small-pox caused the death of from one-twelfth to one-tenth of the world's population. In Russia, with a population at that time of 40,000,000, every year some 200,000 died from small-pox. In Siberia some native tribes had been completely wiped out of existence by epidemics of this terrible disease. Little wonder, then, that the whole of the civilised world had agreed to do honour to the name of Jenner in this, the hundredth, year since his discovery of a means to stamp out small-pox. The idea of the present celebration in St. Petersburg was due to Dr. Hubert, the Secretary of the Society, who had spared no pains or exertion to make the meeting and the exhibition worthy of the occasion. To Dr. Ragozin, the President of the Medical Department, also, the thanks of those present were due for his active assistance and interest. In conclusion, Dr. Kudrin expressed a hope that the practice of vaccination would become more and more universal throughout Russia.

Professor Lukianof, the Director of the Imperial (Oldenburg) Institute of Experimental Medicine, followed with a

warm eulogy of Jenner and his undying work. Jenner, he said, who lived in the eighteenth century, had laid the foundation of the scientific work of the nineteenth. Thanks to him, how many million lives had been saved during these hundred years! Before his time small-pox raged among high and low. It carried off Peter II of Russia and Louis XV of France. Jenner's discovery was received on the one hand with scepticism and antagonism, but on the other it at once achieved a world-wide success. The Emperor of Russia, Alexander I, when he met Jenner, welcomed him as a man who should be happy in the thought of the lasting good he had conferred on humanity. Jenner's great claim to honour lay in the fact that he had perfectly carried out the most beautifully planned series of scientific tests before he made his great discovery public. He was the ideal scientific searcher after truth. His ideas were the basis of much modern medical investigation. Although bacteriology was unknown to him, his work had paved the way for all the discoveries in that field of science. He was the precursor of Pasteur and others who had done such splendid work on the subject of immunity to disease.

This speech was received with prolonged applause and cheers.

Dr. KORMILLO then spoke of the practical utility of vaccination, sketched the history of the practice in Russia for the last hundred years.

Professor LUKIANOF then announced the results of the competition for the prizes, which, it will be remembered, the Russian National Health Society offered for the best work on vaccination. Thirty-two essays had been received, in various languages. The Society's gold medal and 1,000 roubles, which had been originally offered, was not awarded. A gold medal was given to Dr. Layer, of Bordeaux, for his essay in French, "A la mémoire d'Edouard Jenner"; a gold medal to Dr. Miller, the chief physician to the Moscow Foundling Hospital; a small gold medal to Dr. Glagolef, and silver medals to Dr. Delobel, and M. Kazet, veterinary surgeon. Several foreigners were elected honorary members of the Society.

Addresses of congratulation from the Imperial Army Medical Academy of St. Petersburg, and from many Russian medical societies, were then read. Over forty letters and telegrams were received from Russian and foreign medical institutions and individuals.

Finally, the GRAND DUKE made a short closing speech, and the meeting dispersed, the band again playing the National Anthem, which was, however, almost drowned by the loud cheers of all present.

The exhibition in connection with the centenary occupies several rooms of the Medical Department, and contains a very interesting collection of objects. In the first room are two large pictures, the first a drawing of the Jenner monument at Boulogne, and the second a copy of a picture by an American artist, in which Jenner is depicted inoculating the boy James Phipps on May 14th, 1796. In the same room are two maps of Russia and of Europe, showing by means of different colours the death-rate from small-pox before the discovery of vaccination and since, and many other diagrams and tables. In glass cases are a number of interesting historical documents relating to the introduction and spread of vaccination, or to the still earlier practice of small-pox inoculation. These are, of course, mostly Russian; among others may be mentioned the original rescript of the Empress Catherine conferring the rank of nobility on the boy Ospennin, from whom the lymph was taken by Dr. Dimsdale when he inoculated Her Majesty. The engraving of Lady Mary Wortley Montagu, presented to the Russian National Health Society by the Queen, occupies an honoured place in the exhibition. So, also, does the gold and enamel casket in which it is thought the freedom of the City of London was presented to Jenner in 1803; this is lent by the Society of Apothecaries. An interesting case is that containing casts from various medals, struck on different occasions, as, for example, on the death of Peter II, who died from small-pox, or on the occasion of the inoculation of the Empress Catherine.

Another room contains a very complete collection of portraits of Jenner; some excellently-executed wax models of vaccine vesicles, showing the normal and some morbid developments, and a vast number of drawings illustrating the same thing. The literature of small-pox and vaccination is very fully represented; all the well-known, and many little-known, English works on the subject are here displayed in glass-topped tables, as well as a large number of books and pamphlets in other languages; there are, indeed, four civilised tongues which are not represented. Several Japanese books and pamphlets are striking objects. Among the English books may be mentioned the several reports of the Special Commission of the Epidemiological Society of London which were presented to the Houses of Parliament in the early fifties, and formed the basis of the present vaccination laws in England. These are handsomely bound in Russian leather, and bear a suitable inscription. Here also are a collection of reports of the medical officer of the Local Government Board, more than one original edition of Jenner's *Inquiry* and of his other works, copies of the prize essays already named, and a copy of the Jubilee Edition of Jenner's works. This handsome volume (the first of two, but the second is not yet ready) contains a complete history in Russian of small-pox and vaccination from the earliest times to the present day; translations of several early works on small-pox, including that of Rhazes, and much other matter. The second volume, which is still in the press, will contain a life of Jenner, and a complete translation of all his works.

One room in the exhibition contains the exhibits of individuals, firms, or learned societies. They consist mostly of drawings, photographs, and models of the vaccine or small-pox vesicle, instruments, modes of preserving detritus, and models of vaccination stations.

The exhibition closes with a stall containing two recently-inoculated calves, wrapped in white clothes or wrappers. For the present the exhibition remains open to the public, free of charge, between the hours of 12 and 6 each day.

## MEDICAL RETICENCE.

WE print in another column a letter recently received upon this subject from Messrs. Oldfield, Bartram, and Oldfield, who are the solicitors to the London and Counties Medical Protection Society, upon whose letter, published in the press, we felt obliged to comment in the BRITISH MEDICAL JOURNAL of December 26th, 1896.

Although we have always written upon this subject under direct legal advice, we felt it our duty to be specially advised upon this occasion, as Messrs. Oldfield, Bartram, and Oldfield directly assert that we have wrongly advised our readers. The result is that we see no reason to change the opinion which we gave on December 26th. That opinion was in substance the same as the advice frequently given in the BRITISH MEDICAL JOURNAL when the various aspects of this question have arisen. For the sake of clearness we set before our readers the material parts of the opinion of our legal adviser:

"Messrs. Oldfield, Bartram, and Oldfield appear to misunderstand the issue and to beg the question. They say that a medical man is bound to answer 'any reasonable or proper inquiries.' The whole question is whether any inquiries under such circumstances as to the symptoms discovered by a doctor in attending his patient are reasonable or proper. Further, the question is not as to what may be the duty of a medical man who may find a nurse 'to be suffering from a contagious disease.'

"If Messrs. Oldfield are using the term 'contagious disease' in the sense which is now ordinarily attached to it, it is clear that any medical man who discovers the existence of a state of things in which a specific disease may probably be communicated to children is bound to take steps to protect the children from that danger. He is clearly bound to do this without betraying the secret of his patient, if that course is practicable; but his duty in the matter has not the smallest connection with the question whether he has been paid by the servant's employer, or whether that employer has made any inquiries as to the nature of the illness. If by 'contagious diseases,' Messrs. Oldfield refer generally to

such infectious diseases as those which fall under the Infectious Diseases (Notification) Act, it is still more clear that the medical man is not only authorised but bound not to keep secret the existence of such a disease. Here again, however, the exception to the usual rule of medical reticence has nothing to do with employment or payment or inquiries, since it depends solely upon a public duty imposed by law. The point may be illustrated by observing that the other case, which is referred to in some of the correspondence received as to reports by army medical officers of cases of syphilis in the army, is clearly in the same category. The army regulations make such notification the legal duty of the doctor; and they equally involve, in fact and in law, the implied consent of the patient that the doctor shall make such disclosure. This is, in truth, the solution of the confusion of ideas which is apparent in the communications laid before me.

"There is no doubt that the legal rule—as well as, presumably, the medical rule—is that unless the patient has given an expressed or implied consent, or unless there is a clear overriding legal duty, the doctor is absolutely bound to keep the secret of his patient, and can claim no 'privilege' whatever if he breaks it. As already pointed out, it is always open to him to take the risk, if he choses, of pleading 'justification'—that is to say, to undertaking the onus of satisfying a jury that every fact which was stated or implied about his patient was in fact correct.

"It is unnecessary to point out that in most cases the proof of a medical diagnosis to a lay jury, possibly not over well disposed to the defendant, is a very serious and dangerous undertaking; and it is hardly necessary to add that to put forward such a plea, and to fail to substantiate it, is practically to increase the risk in damages to an indefinite extent.

"My opinion is therefore that the observations of Messrs. Oldfield, Bartram, and Oldfield are entirely without foundation, and that the comments made in the issue of December 26th were substantially correct. As for the position taken up in the original letter, on which these comments were made, I can only say that it is, in my opinion, entirely incorrect and highly dangerous."

We need add no words of ours to this opinion; but we may perhaps say that, in face of the obvious difficulties which beset the disclosure of knowledge arising during attendance on a servant, it seems to us, as a matter of common sense, quite obvious that a doctor should, whenever possible, obtain, as we said in our issue of December 26th, the provable consent of the servant to his disclosing the result of his examination if he should deem it expedient to do so. This was the gist of our comment on Messrs. Oldfield's original pronouncement, and, with all respect to them, we venture to repeat it.

A correspondent writes with reference to the same article, that while there seems to be no doubt that it is unsafe to reveal to an employer the nature of his servant's illness, the question remains, whether a medical man is justified in advising whether or no a servant should be retained on the score of health, if we give such advice alone without revealing in any way the nature of the illness or the reasons for our opinion.

This letter raises a new phase of this complex question, as to which it is necessary to distinguish (as it is in all these cases) between the question of medical ethics and the question of legal risks. We have been dealing in our notes mainly with the legal aspects of these problems, and upon the point now put to us we are advised that in ordinary circumstances a doctor would not run any risk of an action for defamation of character at the suit of the servant if he had felt it his duty to state to her employer that, under all the circumstances, and without any reflection upon the servant's character, he would advise him to terminate the employment. It is obvious, however, that he would not be safe in such a case if he went on to give reasons for that advice which might be construed as imputing misconduct, and there are cases in which it might even be legally dangerous to make statements imputing incapacity. As to the ethical aspect of the question, that, of course, must largely depend upon the particular circumstances of each case.

## THE OUTBREAK OF CHOLERA IN THE TRANSPORT "NUBIA."

Briefly stated, the history of the outbreak of cholera on board the hired transport *Nubia*, which arrived at Plymouth on January 9th, is as follows. On December 17th the *Nubia* left Ceylon with a complement of 299 military passengers. All went well until the arrival of the vessel at Port Said on December 29th. There large quantities of fruit were purchased by the soldiers for consumption on the voyage. The first case of undoubted cholera occurred on January 1st, four days after leaving Port Said, a period which corresponds very well with the incubation time of Asiatic cholera. On the following day there were two more cases, one of which died on the fourth day of the disease, the other surviving sufficiently long to reach Plymouth. A fourth case followed on the 3rd, which was also fatal; and, in addition, at about this time some cases were reported as diarrhœa. Another case occurred on the 8th, which has likewise since proved fatal.

On arrival of the *Nubia* at Plymouth, although at first there were some evidences of an incipient panic, the alarm raised very quickly subsided when it was realised that owing to the energetic action both of Dr. Williams, the Plymouth Port Sanitary Officer, and of Surgeon-Major-General Hamilton, as representing the military authorities, all danger was really past. The regulations which are now in force are practically those which were advised by the International Convention, by which the old-fashioned and costly process of quarantine was abolished, its place being taken by rigid notification and inspection. At the present time England relies for her immunity from cholera, plague, and similar exotic diseases upon the generally excellent conditions of her sanitary arrangements, especially those for water supply and drainage, throughout the country. Accordingly, in the present instance, after a preliminary inspection by the port sanitary authority had been made, the passengers were allowed to depart to their destinations. Before proceeding, however, each passenger was required to leave with the sanitary authority his name and the address to which he proposed to proceed. The port authority then communicates with the local authority in the district to which any individual is proceeding, and thus having given it warning of the approach of a possibly infected person, leaves the further dealing with the case to it. In this way quarantine is superseded, and the protection of the community at large is left to the several local authorities who have to rely on the perfection of their own sanitary arrangements.

On the part of the War Office, the steps taken by Surgeon-Major-General Hamilton were, owing to the fact of the vessel being used as a troopship, somewhat different. All cases in which the diagnosis of cholera was certain were immediately removed to the hospital ship *Pique*, and in addition two suspicious cases of diarrhœa were transferred to the same hospital. Here they will be detained until either they develop into undoubted cholera or until the maximum period of incubation is passed. The troop deck of the *Nubia* was thoroughly disinfected with chlorine; at the same time all clothing and the soldiers' kits were spread open. Immediately on his arrival Surgeon-Major-General Hamilton telegraphed to the War Office and advised the immediate evacuation of the ship, and that all the soldiers on board should at once be sent to Fort Shaddon, which is situated in an isolated position on the east side of Plymouth Sound. Authority to take this step was immediately granted by the War Office, and on January 12th all the men were landed at Fort Bovisand Harbour, and were marched along the military road to Fort Shaddon. Here they were confined to barracks, and will remain so till all symptoms of the disease have disappeared and the maximum time, allowing a wide margin for the period of incubation to be passed.

We must congratulate the authorities concerned on the consideration and wisdom displayed in this last procedure, for if the ship had been allowed to proceed and cholera had continued to appear the London port authorities would have had a most difficult situation to deal with. The *Nubia* is not a Government transport, but a P. and O. passenger boat hired for the occasion. In addition to the military contingent it carried, there was a quantity of valuable cargo to be considered. Consequently the authorities found

themselves in the position of having, on the one hand, to avoid claims for demurrage, and, on the other, to face the possibility of carrying cholera into the port of London.

On January 11th two more cases of suspicious diarrhœa occurred, and were immediately removed to the port hospital ship *Pique*. There are thus now eight cases on board the *Pique*, all of which are doing well. During the residence of the men at Port Shaddon all clothing will be disinfected and other precautions observed which are necessary for the stamping out of the disease. After their time of isolation in the fort is expired, the men will be sent off in batches, and, being time-expired men, will all proceed to their respective homes, where, of course, they will further be dealt with if necessary by the local sanitary authority. Thus it is seen that every possible channel of entrance for the disease into the country has been blocked at the commencement, and we feel confident that the efficient measures which have been taken both by the Local Government Board and the War Office will prove as efficient in this case as they have in the previous and far more dangerous invasions with which this country has been threatened.

We learn by telegraph from Plymouth that the landed troops from the *Nubia* remain perfectly free from disease, and, if all go well, the men will be allowed to go to their homes in a few days.

## ROYAL BRITISH NURSES' ASSOCIATION.

A MEETING of nurses and of the general public was held on January 7th at St. Martin's Town Hall to consider the suggestion accepted by the General Council of the Royal British Nurses' Association to admit to membership and to place upon the register of trained nurses, asylum attendants who have not been trained in general hospitals, and who do not conform to the regulations for membership and registration. Mr. GEORGE BROWN presided.

Miss WINGFIELD, Honorary Secretary, read letters of apology and sympathy with the objects of the meeting from matrons of institutions in England, Scotland, and Ireland, and stated that out of 300 members who had been communicated with more than two-thirds had signed a protest against the scheme in question.

The CHAIRMAN pointed out that the question was one which was of importance to the public as well as to the nursing profession, because it was only by means of a register on the existing lines that they could be sure that they were being served by nurses who understood their duties.

Several lady speakers addressed the meeting, and it was mentioned that at present no nurse was admitted a member of the Association unless she had been trained for three years in a hospital of not less than 40 beds, one year at least being in a general hospital. Fever nurses as such, and midwives who were only midwives, were not admitted to the register of trained nurses, and why should not mental nurses qualify for medical and surgical nursing as others were required to?

Mrs. C. HUGHES (Manchester) said it had been more than hinted that the scheme in question had originated in the desire of some well-meaning persons to obtain additional entrance fees. In other words, they were asked to sell their principles and wreck their society for a little ready cash.

Dr. BEDFORD FENWICK expressed strong confidence that the medical profession as a whole would not approve the admission to a register of trained nurses of those who were not so trained, and a resolution was unanimously passed declaring that such a course would be both injurious to the nursing profession and misleading to the public.

## SCINTILLÆ JURIS ON THE ROENTGEN RAYS.

JUDGES, as we know from their own ruling, can do no wrong; but this does not prevent them from speaking foolishly. Their utterances on medical matters, for instance, are often of a nature to make the judicious grieve, however much they may make the groundlings laugh. This use of the judicial privilege is naturally more common among the *minora sidera* of the Bench than among the stars of the first magnitude. Not many weeks ago we had occasion to refer to an extraordinary deliverance by Sheriff Campbell Smith, of Dundee, in which he denounced sanitary science and its professors, and even hinted that the microbe which goes up and down upon the earth, like a certain Scriptural character, seeking whom it may devour, is a "Mrs. Harris" of the scientific imagination. But this Scottish Solon, it would appear, tries to make up for his lack of belief in the teaching of science in one direction by an excess of faith in others. This had led him to suggest a use for the *x* rays undreamt of in the philosophy of Professor Roentgen himself or of the numerous workers who are developing his discovery. Dealing recently with the evidence of an affiliation case, his lordship (according to the *Dundee Advertiser*) expressed himself as follows:

> In cases of affiliation and of pedigree, when the evidence is narrow though thoroughly credible, and according to ordinary rule, such as to carry conviction, and therefore conclusive, I think that the law of evidence as it stands is grossly and ignorantly inattentive to the teachings of science regarding the natural laws regulating the transmission of bodily structure, temperament, vocal organs, and all pecularities of form and organisation which are, and must be, derived by the child from one or both parents. I know that the facial features of a child may be, and and often are, as matter of general appearance derived from any living or painted face that the mother may have a fancy to and opportunity to look upon. But I also know that parts of the body, such as the feet—the whole hidden skeleton, in short—which the mother never could see, must, in so far as differing widely from her, be derived from the father, in so far as it clearly resembles him. The new or *x* photography, which enables a comparison to be made of the shape of the bones, taken along with the general appearance and form of the other parts of the body not open to ordinary inspection, affords a means of demonstrating paternity about as clearly as science can demonstrate any fact, and by the help of the Roentgen rays in a way hitherto impossible. How long it may be before law will have the catholic wisdom to take aid from the light of science I don't know. I am greatly sorry that now and for me it is incompetent to venture to do it—incompetent, I am afraid, even with the consent of the parties. Were it otherwise, I would have given the defender such a chance of escape from liability as he could fairly get by the help of science, and I would have made a remit to one or two of the professors in University College—say to the Professor of Anatomy, or the Professor of Physiology, or the Professor of Physics, or for that matter to all three—and I should feel convinced that if by the help of anatomy, physiology, and photography they were of opinion that the defender could not be the father of the child, that in all human probability they were right; but upon the evidence as it stands I think the pursuer's case has been proved, her testimony being thoroughly credible to me, and sufficiently corroborated.

We give this gem of judicial wisdom in its native state; it would be spoilt by "cutting." Sheriff Campbell Smith would doubtless wish to have the familiar legal maxim altered to *Pater est quem* radii *demonstrant*, but we venture to think his doctrine somewhat dangerous. It certainly opens up an alarming prospect. A Japhet in search of a father might single out any eligible gentleman—not impossibly a judge—whose bony framework seemed likely to show a sufficient skiagraphic resemblance to his own, and the problem would be solved. If the *x* rays come to be looked upon as means of discovering an unknown paternity, men, however conscious of being without sin, will be coy of submitting their feet or any other part of their anatomy to so inconvenient a detective agency.

But it will probably be some time before the law will have what Sheriff Campbell Smith calls the "catholic wisdom" to take aid from this particular light of science. In the meantime we would with all respect call his lordship's special attention to Hamlet's recommendation that Polonius should "play the fool nowhere but in's own house." It is interesting to have such a proof of the penetrative power of the Roentgen rays as his appreciation of their capabilities seems to indicate, but the judicial bench is hardly the place for such exhibitions.

## THE INVESTIGATION OF THE PATHOLOGY OF RINDERPEST IN SOUTH AFRICA.

### PROFESSOR KOCH'S MISSION.

*Dr. Edington's Railway Laboratory.—Inoculation Experiments with Blood.—Isolation of a Bacillus.*

OUR Correspondent at the Cape of Good Hope writes that Professor Koch joined Dr. Edington, the bacteriologist to Cape Colony, early in December, and that a number of *post-mortem* examinations of animals were made by them together. In the beginning of October, when the disease had passed well within the lines of railway so as to be easily accessible, Dr. Edington converted a saloon car to serve as a laboratory, and went with a veterinary assistant, Mr. W. Robertson, and his secretary, Mr. Guthrie, to the infected area. Some difficulty was at first experienced in getting the assistance of the chief of the

Kaffirs there, but eventually, with the assistance of some Fingoes, a camp was established, and bacteriological and pathological investigations were begun. It was at this camp that Professor Koch studied the *post-mortem* appearances, and the virus obtained from these animals is now being investigated at Kimberley in a laboratory which has been just set up by the bacteriological department, and it is probable that Dr. Koch and Dr. Edington will shortly work there together. It is regretted, our correspondent adds, that the Bacteriological Institute, of which Dr. Edington is director, has been established at Grahamstown, a place which is most inconvenient of access for work affecting the colony as a whole. In April last, when rinderpest had crossed the Zambesi, the Colonial Government desired Dr. Edington to see what could be done in the way of discovering a "cure" for this dreaded disease. Dr. Edington accordingly proceeded to Mafeking, but when there found that as the veterinary staff were stamping out the plague by slaughter in this area nothing could be done unless a journey were undertaken into Rhodesia. The roads at this time were in a terrible state, and water was very scarce. It was therefore evident that any attempt to convey materials for delicate research into the country beyond the railway terminus was certain to be attended with failure. After inspecting the country in the north and south of the Transvaal, and satisfied himself as to the points of greatest danger to the Colony, Dr. Edington returned to Grahamstown.

The inoculation experiments with blood made at the Camp by Dr. Edington and his assistants showed that a rise of temperature was thus produced usually after about four days, but not always, as the rise was sometimes delayed. The blood examined showed the presence in most cases of bacillary forms and some irregularly spherical organisms. In some instances scarcely anything was to be seen, but if care were used the bacillary forms could be recognised. A short bacillus about 2$\mu$ long and 0.5$\mu$ broad has been isolated, which has been used for inoculation with positive results. As, however, within the past six weeks 20,000 cattle have died in the country in which the rinderpest camp is situated, it is evident that no definite statements can be made until the cultures have been tested in an area free from the disease.

## THE BATTLE OF THE CLUBS.

Trades Unionism and the Medical Profession.

Sir,—With the growth of co-operation and combination exemplified in the trades unions and the various friendly societies, there have developed strained relations between the medical profession and certain public bodies having medical appointments. This has of late become acute in the case of appointments to some of the friendly societies.

It must be borne in mind that the individual practitioner is quite unable to make terms of a satisfactory character against the combined forces or the combined influence of the friendly societies. It is still more hopeless if he has to compete with other medical men for these appointments.

What is the remedy? Obviously there is but one course to pursue. The profession must combine, and by combination and co-operation lay down certain lines upon which the services of its members may be obtained. Its members must be compelled, either by written or unwritten law, to refuse anything lower than the standard which has been adopted as consistent with professional dignity and honour. Such practices as canvassing and touting by agents must be severely punished. Private medical clubs, recruited by the assistance of a collector and canvassers, must be abolished. Tendering for an appointment must be considered unprofessional conduct.

If men be allowed unrestricted competition with each other against the solid and powerful influence of large corporations and societies, the standard of fee will be kept low and some members of the profession will hardly earn a living wage. Are the Yarmouth and Beckenham Societies going to succeed by importing medical men, or will the legitimate and reasonable demands of the doctors at both these places be acceded to? The new movement, so far as the profession is concerned, consists essentially in efforts at combination and co-operation. Some of the successful members of the profession dislike the term trades unionism. They are fortunate to have been able to do without it. It is, however, but another name for collectivism, and involves the principles of co-operation and combination. The old adage, "United we stand, divided we fall," merely expresses it in different language.

What is now wanted in the profession is organisation. Where is the central authority which can take up the interests of the general practitioner, and can at the same time compel obedience to its mandates? Except for a few favoured ones, the medical profession as a method of business, as a means of earning more than a respectable pittance in life, is a miserable calling. And it must continue so until the wretched terms and the low fees which a large number of struggling men have felt themselves compelled to make shall be improved by legislation, protecting the profession from its own suicidal impulses.—I am, etc.,

T. Frederick Pearse, M.D.,
Honorary Secretary Portsmouth Medical Union.

Family Medical Clubs.

M.R.C.S. writes to complain of what he terms "medical family clubs." He says: I am able to see little if any difference between a doctor who runs a private family club and one who holds a medical aid appointment. Both entail touting, and that is sufficient to condemn each.

*** Family medical clubs of the kind to which "M.R.C.S." refers, which "entail touting," need only to be mentioned to be condemned.

## LITERARY NOTES.

Messrs. Baillière, Tindall and Co. announce as ready for publication a seventh edition of Dr. Macnaughton Jones's *Diseases of Women and Uterine Therapeutics*, which has been rewritten and brought up to date; the fifth edition of Professor Delafield's *Pathological Anatomy and Histology*; the third edition of Bosworth's *Treatise on Diseases of the Nose and Throat*; and the second edition of Mr. Lennox Browne's *Diphtheria and its Associates*. The same firm has in the press the third edition of Dr. Ball's *Diseases of the Nose and Pharynx*; and a new work entitled *Chronic Nasal Obstruction*, by Mr. Mayo Collier.

A third edition of *Our Secret Friends and Foes*, by Dr. Percy Frankland, F.R.S., published in the S.P.C.K. Romance of Science series, is now in the press, and will shortly be issued. A new chapter has been added, in which diphtheria antitoxin is dealt with as well as Calmette's investigations on snake poisons and their treatment by antivenomous serum. Dr. Nobbe's recent researches on root-nodule bacteria are described in detail, whilst the bacteriology of milk is also fully considered.

In the *Semaine Médicale* of January 6th, Professor Lombroso criticises Dr. Edouard Toulouse's elaborate report of the mental and physical peculiarities of M. Zola, which appeared not long ago as the first of a series of similar studies to be published under the general title of "Medico-Psychological Inquiry on the Relations between Intellectual Superiority and Neurosis." Dr. Toulouse, while admitting that certain "neuropathic and psychopathic phenomena" are perceptible in the author of *La Terre*, inclines to the opinion that these are of no importance in relation to his literary work. The oracle of Turin, on the other hand, regards such a distinction between the man and the writer as unscientific; to him the style is the man in a more real sense than it was to Buffon, and he calls as a witness in favour of his view M. Zola himself, who has defined a work of art as "a corner of creation seen through a temperament." On the facts as presented by Dr. Toulouse, Professor Lombroso pronounces M. Zola to be the subject of "the hystero-epileptic psychosis, or at least the paranoiac psychosis," which, he says, is reflected in all his work. It is to be hoped that this diagnosis will be comforting to the "man of genius" who forms the subject of these interesting clinical investigations. Persons to whom Nature has denied "genius" may find some compensation in the fact that they are not liable to be morally butchered in public to make a criminal anthropologist's holiday.

The course of demonstrations and lectures at the Brompton Consumption Hospital will be resumed on Wednesday next.

## THE PLAGUE IN INDIA.

*Plague and Famine in the Bombay Presidency.—Gloomy Prospects for the Future.—Inaccuracy of the Official's Returns.—Counsels of Despair.—Deaths among the European Community.—Apparent Independence of Plague and Drainage.*

The Bombay Presidency is face to face with the most appalling calamity which has befallen India for the past two centuries, namely, malignant plague and widespread famine. The famine can and will be ameliorated by charity, but no sanitary or medical skill can be bought whereby the disease can be stayed. The death-rate of the city stands at the fearful rate of 200 per 1,000; and there is no indication that the crisis is yet reached; in fact everything points the other way, for instead of the stability of numbers, which is maintained for a week or so, when the maximum of the death-rate is at its climax, we have during the past two weeks a wide diversity.

The published record of deaths from plague during the past seven weeks is: 49, 51, 53, 67, 64, 173, 259. Nor is this all; for the mortality returns for "remittent fever" during the week ending December 18th, 1896, amounts to the unparalleled total of 363. In other words, 52 persons a day are dying of a fever which at its worst affords but a relatively moderate death-rate. Plague may be said to be killing its hundreds, "remittent fever" its thousands; a truly ridiculous legend, and one bearing out the inaccuracy of the numbers of the cases of plague in official returns.

At their wits' end, the Bombay citizens are making all sorts of what at other times would appear to be Utopian demands. Amongst others we read of the following: (1) A request that governmental may supplant municipal control of the sanitary affairs of the city. (2) That three professional experts of the highest qualifications be engaged in Europe to investigate and advise. The three experts considered necessary are: a sanitary officer, a scientific officer, and a sanitary engineer. (3) A large grant of money to cover the expenses of these projects. We cannot hold out much, if any, hope that these demands, made during the period of extreme scare at a public meeting held in Bombay, will ameliorate plague; certainly the two first will not, and the third—obtaining money—will only do so if properly spent. If it is used to establish segregation of the sick, to provide temporary hospitals, horse ambulances, temporary dwellings for those evicted from infected and insanitary houses, disinfection and house-to-house visitation, then, and then only, will it do the maximum of good.

The death of several Europeans is to be regretted, partly from the public insecurity caused thereby, not to speak of the depression and mourning consequent at a time when cheerfulness is almost a necessary preventive. The death of the nurse who devoted herself to Dr. Manser is particularly sad.

The latest telegrams announce the greatest alarm amongst the European community. Several patients are now in a critical state, among them being one of the chief police officers. The Europeans in Bombay expected the same immunity from plague as was enjoyed in Hong Kong; but Bombay and Hong Kong are two very different cities from a sanitary point of view. The Europeans in Hong Kong live under excellent sanitary conditions; many live on the hills, a long way off the overcrowded Chinese quarter: their houses are well situated, well built, and raised some four or five feet off the ground. This is very different from the bungalow system met with throughout India. Moreover, Hong Kong is built on the side of a steep hill, with a drain fall of phenomenal decline. Bombay has a difficulty with its drainage outfall, rendering the sewage at time stagnant and stationary. Let the Bombay authorities weigh well these facts before expending money on drains and sanitary experts. Plague has not to do with drains as drains. In the semidesert district of Rajaputana, which is innocent of drains, plague has been at times proportionately as deadly as in Bombay at the present. We have always the apposite example of Canton and Hong Kong before us. In both places plague ran its course uninterruptedly, although the two towns were under very different conditions. In Canton Oriental surroundings and sanitary customs prevailed, yet it got rid of its scourge almost as soon as Hong Kong, with its "separate" system of drains, its well-nigh perfect water supply, and every sanitary resource known to modern science. During an epidemic segregation, emptying insanitary dwellings, and disinfection are the lines to be followed; and after the epidemic is over, then is the time to set to work to perfect sanitation in order to prevent a recurrence.

A Reuter's telegram from Vienna announces that the Superior Sanitary Council has assented to the proposals of its reporter, Herr Kusy, that, in view of the prevalence of the plague in India, an order should be issued prohibiting the importation into Austria-Hungary of used clothing and linen, as well as of rags and refuse, from the whole of Asia with the exception of Asiatic Russia. It has also been decided that pilgrimages to Mecca from Bosnia and Herzegovina shall, as far as possible, be prevented, and, in any case, shall be subjected to medical supervision.

Ten plague cases are reported to have reached Marseilles by sea. Marseilles was one of the last towns to be attacked by plague in Western Europe, but as it did not spread beyond the town in these presanitary days—about 1720—we may hope that with the modern improvements in European sanitation it will again be defied.

# ASSOCIATION INTELLIGENCE.

## COUNCIL.

### NOTICE OF MEETING.

A meeting of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday the 20th day of January next, at 2 o'clock in the afternoon.

The following Committees will also meet:

*Tuesday, January 19th, 1897.*—2.0 P.M. Trust Funds Committee.—2.30 P.M. Premises and Library Committee.—3 P.M. General Practitioners and Ethical Committee.—4 P.M. Arrangements Committee.—5.30 P.M. Constitution Committee. *Wednesday, January 20th, 1897.*—10 A.M. Journal and Finance Committee.

Francis Fowke, *General Secretary.*

January, 1897.

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M., Saturdays, 10 A.M. to 2 P.M. Members can have their letters addressed to them at the office.

## NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1897.

Meetings of the Council will be held on January 20th, April 14th, July 7th, and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 25th, June 17th, and September 30th.

### Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

## BRANCH MEETINGS TO BE HELD.

Edinburgh, Dundee and District, Perthshire, and Stirling, Kinross, and Clackmannan Branches.—A conjoint meeting of the Edin-

burgh (Fife and Lothians), Dundee and District, Perthshire, and Stirling, Kinross, and Clackmannan Branches of the British Medical Association will be held in the Royal Infirmary, Edinburgh, on Friday, February 5th. A medical congress for clinical demonstration will be held at 4 P.M. A museum (pathological and apparatus) will be open from 3.30 P.M. onwards. The recently inaugurated laboratory of the Royal College of Physicians will be open for inspection. Dinner in the Balmoral Hotel, Princes Street, at 6.30 P.M. (morning dress); dinner ticket, 5s. Members of the Association who intend to be present at the meeting and dinner and to exhibit patients, specimens, or apparatus are requested to communicate as early as possible with Dr. R. W. PHILIP, Secretary, 4, Melville Crescent, Edinburgh.

GLOUCESTERSHIRE BRANCH.—There will be an ordinary meeting of the above Branch at the General Hospital, Cheltenham, on Tuesday, January 19th, at 7 P.M., the President, Mr. W. R. Buckell, in the chair. Agenda: Dr. Ferguson (Cheltenham): A case of Successful Operation for Re-union of the Ulnar Nerve some Months after Section. Dr. E. T. Wilson (Cheltenham): Two cases of Friedreich's Disease. Dr. Davies (Stroud): Notes of two cases of Foreign Bodies in the Trachea: Demonstration of the Roentgen Rays.—S. T. PRUEN, M.D., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of this District will be held, by kind invitation of Dr. Adams, at Brooke House, Upper Clapton, on Thursday, January 21st, at 8.30 P.M. The chair will be taken by Dr. Shadwell, Vice-President of the District. Agenda: Minutes of the last meeting. Mr. Sydney Rowland will give a demonstration of New Photography and its Application to Surgery and Medicine. Visitors will be cordially welcomed.—HERBERT E. POWELL, Honorary Secretary, Glenarm House, Upper Clapton.

SOUTH-WESTERN BRANCH.—An intermediate meeting of the Branch will be held at the Red Lion Hotel, Truro, on Tuesday, January 26th, at 3.15 P.M. A meeting of the Branch Council, to elect new members only, will be held at 3 P.M. at the same place. Luncheon will be provided at the hotel at 1.45 P.M., and after luncheon it is proposed to make a short visit to the cathedral. The Honorary Secretary will be obliged if members who have papers to read, cases or specimens to show, will kindly give him notice before January 20th, in order that an agenda paper may be issued. To facilitate the arrangements for the luncheon members are requested to intimate beforehand if they mean to attend.—W. GORDON, Honorary Secretary, Barnfield Lodge, Exeter.

OXFORD AND DISTRICT BRANCH.—The next meeting of this Branch will be held at the Radcliffe Infirmary, Oxford, on Friday, January 29th, at 3.15 P.M. Gentlemen intending to read papers, etc., are requested to give notice to the Secretary, W. LEWIS MORGAN, 37, Broad Street, Oxford, as soon as possible.

DUBLIN BRANCH.—The annual meeting of this Branch will be held in the Royal College of Physicians on Saturday, January 30th, at 4.30 P.M. Dr. Wallace Beatty the President elect, will deliver the annual address, and the officers and Council for the year will be elected. The annual dinner will take place on the same evening at 7.30 P.M. Members intending to dine should communicate with the Honorary Secretary, JAMES CRAIG, M.D., F.R.C.P.I., 35, York Street, Dublin.

## SOUTH MIDLAND BRANCH.

A SPECIAL meeting of this Branch was held at Bletchley on December 3rd, 1896, to take into consideration the subjects of medical aid institutions and vaccination. Eighteen members were present, and apologies for absence were received from several others out of each district of the Branch.

*Medical Aid.*—The notice summoning the meeting having been read, the PRESIDENT (Mr. De'Ath), from the chair, introduced the first subject, namely, the Question of Medical Aid, and what Steps (if any) should be taken by the Branch in the Matter. He read a short paper describing and drawing the line between what he called healthy practice and gangrenous or unhealthy practice; and suggested the desirability of having a schedule or black list to indicate those who belong to the latter class of practitioners. He also submitted the desirability of forming a Committee of the Presidents, Vice-Presidents, and Presidents-Elect of all the British Branches, in order to investigate the subjects thoroughly. Mr. De'Ath concluded by proposing the following resolutions:

1. That the members of the South Midland Branch of the British Medical Association refuse to hold private or professional relations with the medical officers of so-called medical aid societies.

2. That no member of the Branch can undertake the position of medical officer to any medical aid society without forfeiting his position and rights as a member.

3. That the foregoing resolutions shall apply to all medical aid societies except those which may be excluded from their operation by the Committee of the Branch.

The resolution on this subject passed at the recent annual meeting at Buckingham was then read by the SECRETARY at the request of the meeting. A prolonged discussion ensued, in which Drs. BUSZARD, JONES, PRIOR, BENSON, KENNISH, and Messrs. HAILEY, PERCIVAL, EVANS, and others took part.—Dr. BUSZARD thought the proposition of the Chairman was a large undertaking, and would be injurious to the Branch and the Association; and considered it would be sufficient to place on record the opinion of the Branch on the subject.—Dr. JONES generally supported Dr. Buszard's views, and thought it was the duty of the profession to educate the public on this question.—Other speakers held opposite or modified views on the subject.—Ultimately the following amendment was proposed by Dr. BUSZARD, seconded by Dr. PRIOR, and carried by a majority of 12 to 2, several members not voting:

That in the opinion of the members of the South Midland Branch it is injurious to the best interests of the medical profession and also of the public for medical men to hold any appointments in connection with any medical aid society.

That a copy of this resolution be sent to every member of the Branch.

*Vaccination.*—Dr. P. MURRAY BRAIDWOOD (Amersham) next introduced the subject of vaccination, with remarks on the report of the Royal Commission. He was very anxious that the Branch should take the initiative in thoroughly discussing and recording its opinion on this subject. Dr. Braidwood read many extracts from the report, explaining the opinions and recommendations of the Commission, criticising them and offering suggestions here and there. After urging the members carefully to consider the subject, Dr. Braidwood read a series of questions which he proposed should be sent round to every member of the Branch, asking him to state his opinion in the form of answer.—Dr. PRIOR (Bedford) laid on the table a summary of statistics showing the efficacy of vaccination in preventing the spread of small-pox in the county of Bedford, and indicating the lapse of vaccination in recent years. He also pointed out that neither the report of the Royal Commission nor the epidemic at Gloucester had taught the public a lesson which they had taken to heart.—Dr. BUSZARD considered that this was not a medical question, but was for the interest of the public; that when the profession had recommended vaccination its duty was ended; and that it was sufficient to put on record that vaccination and revaccination was absolutely necessary for the sanitary welfare of the community.—Dr. COOMBS (Bedford) thought that our duty did not end there; that this operation of vaccination should be more carefully performed, even to the extent of antiseptic detail; that more facilities should be given to the public; that calf lymph should be universally employed; and that improvements should be pointed out to the central authority.—Dr. BOWER (Bedford) considered that vaccination should be taken to the children, and not *vice versâ*, and that the age should be extended from three to six months.—After further discussion the following resolutions were proposed by Dr. BUSZARD, seconded by Dr. COOMBS, and carried:

1. That this meeting of the South Midland Branch desires to place on record, for the information of the public, its opinion of the necessity and harmlessness of vaccination and revaccination for the prevention of the epidemic spread of small-pox.

2. That the above resolution be sent for publication in the local papers.

*Schedule of Questions Relative to Vaccination.*—The following are the questions which Dr. BRAIDWOOD proposed should be sent round to all the members of the Branch:

1. Do you think that calf lymph should supersede human lymph for vaccination purposes?

2. If so, should the vaccination be calf-to-arm; or are you content that stored calf lymph should come into general use alike for public and for private vaccination?

3. In the event of calf lymph (whether as calf-to-arm vaccination or as stored-lymph vaccination) superseding human lymph, should parents be allowed vaccination with humanised lymph if they prefer it?

4. If vaccination with stored calf lymph is to supersede for public vaccination purposes arm-to-arm vaccination, do you consider that house-to-house vaccination should supersede vaccination at public stations?

5. Do you consider that compulsory vaccination is required, and how would you recommend it to be carried out?

6. Should a statutory declaration before a magistrate be accepted in lieu of having the child vaccinated?

7. Who, do you think, should treat any accidents which may occur after vaccination, and from whom should payment for such work come?

8. Do you consider that general revaccination should be encouraged, and how would you recommend this to be done?

AT a meeting of the committee of management of the Royal Alexandra Hospital for Sick Children, Brighton, held on January 8th, Mr. Ernest Payne was appointed Honorary Skiagraphist.

# SPECIAL CORRESPONDENCE.

## PARIS.

*The Roentgen Rays in Medical Diagnosis.—Baroness Hirsch's Gift to the Pasteur Institute.—Medical Aid at the Forthcoming Exhibition.—The Meat Supply in Paris.—General News.*

PROFESSOR BOUCHARD is continuing his use of Roentgen's rays in diagnosing diseases of the thoracic viscera. He has thus diagnosed aneurysm of the aorta, cardiac hypertrophy, etc. Radiography applied to abdominal affections has not been equally successful. Professor Bouchard believes that by increasing the penetrating power of the rays they will traverse the abdominal viscera, which offer greater resistance to their passage than those of the thorax. Dr. Bergonié, of Bordeaux, has repeated M. Bouchard's experiments on the thorax, and observed that the results of radiographic examination coincided in a most extraordinary manner with those of auscultation and percussion. A little girl believed to have swallowed a halfpenny was recently examined at a radiographic laboratory attached to the office of a medical journal. By means of the rays, M. Vaillard perceived the coin in the child's œsophagus. The examination was made in 6 minutes 23 seconds.

The Baroness Hirsch intimated her intention of giving a donation of £80,000 to the Pasteur Institute in memory of her husband the late Baron de Hirsch. M. Joseph Bertrand, President of the Committee of Direction of the Institute, officially visited the Baroness to thank her for her generosity. She confirmed her intention of making the donation, and expressed her desire to become acquainted with the different services and their needs. The exact distribution of the sum will not be decided by the Committee of the Institute and the Baroness until the latter returns from Pau.

The medical service for the Exhibition of 1900 is organised in theory. During its construction three medical help stations will be successively in working order according to the section being built. A practitioner, an assistant, and a nurse will always be on duty: the staff will consist of eight medical men and their assistants. Every two days each medical man will be on duty during three hours. The assistants will divide the day's work between them. The three stations will thus number twenty-four medical men and six assistants. Besides this, "*médecins de secours*" will visit patients removed to hospitals or their own homes. The central pharmacy of the *Assistance Publique* will furnish the drugs, which will be received by a special inspector, verified by him, and sent to the different posts. Cases of injury will be attended to at the help station nearest to the accident. Operations, except in specially urgent cases, will be performed at hospitals, to which the patients will be removed by ambulance carriages. Since September, Dr. Gilles de la Tourette has directed the exhibition medical service. With the help of two assistants and a nurse he has kept it in efficient working order.

The General Council of the Seine Department has urged the Prefect of Police to allow the veterinary sanitary service sufficient independence to enable it without annoyances to supervise the meat offered for sale. In the report furnished by MM. Foussier and Barrier it is stated that a number of stalls belonging to a company of public cabs were declared to be infected with farcy. The dead bodies of a number of these horses were clandestinely removed from the stables. The authors of the report ask if the authorities concerned are ignorant that a certain quantity of the meat condemned and disfigured by the veterinary service is fraudulently taken possession of, chemically treated, and then sold at a low price to intermediaries, who sell it again to restaurant keepers, whose customers are among the very poor classes. A considerable amount of condemned meat is clandestinely taken possession of, minced, seasoned, and made into sausages.

At the recent Senatorial elections four medical men have been elected.

The Baroness de Hirsch has given £80,000 to found a hospital on the Mediterranean coast for English consumptive children. She has entrusted Dr. Goldschmitt, who is in attendance on the Princess of Monaco, to find a suitable site.

The medical staff of the Boucicault Hospital, which will be opened in the spring, will consist of Dr. Letulle as physician, M. Marchand as surgeon, and M. Auvard as accoucheur.

## BERLIN.

*Professor du Bois-Reymond.—A False Alarm of Plague.—An Epidemic of Mumps.—Support of Quackery in High Places.—Proposed Tax on Medical Clinics.—General News.*

PROFESSOR DU BOIS-REYMOND'S funeral, which took place on December 29th, 1869 was an imposing ceremony. The large lecture hall of the Physiological Institute was decorated with plants and hung with black, and in the place where for so many years the well-known figure had stood, and the ringing voice had been listened to in breathless attention by crowded audiences, here now was placed his coffin, covered with wreaths and palms. Dr. Bosse, the Prussian Minister of Education, accompanied by some of the officials of the department, represented the Government: the Academy of Science and a great number of scientific societies had sent delegates, and almost the whole of the Medical Faculty of the Berlin University was present. Several former pupils and assistants of Du Bois-Reymond—now themselves professors in other universities—had also come to pay the last honour to their teacher. The Rev. Professor Scholz gave an address, which was not exactly a funeral sermon; with the greatest tact and delicacy he spoke of Du Bois-Reymond's views on religion, and said that such thinkers as he were destined to overcome the antagonism between science and religion. Professor Warburg made a short speech as delegate of the Physical Society; Professor Munk spoke in the name of the Physiological Society; Professor Rosenthal, of Erlangen, Du Bois-Reymond's oldest assistant, Professor Fritsch, one of the subdirectors of the Physiological Institute; and Professor Raoul Pictet also spoke. Through all these addresses and speeches ran a deep note of reverence for the deceased, and sorrow for his loss.

A rumour having been spread by several newspapers that two steamers from Calcutta had landed persons suffering from plague in Hamburg, exact inquiries have been made, and have shown that the report is false.

The death of General v. Lippe, one of the personal *aides-de-camp* of the German Emperor, which took place a few days ago in Dresden, closes a curious story of quackery *versus* the profession. In February last, Herr v. Lippe, who suffered from an organic disease of the spine, entered the Augusta Hospital (Berlin), and put himself under the treatment of its directing physician, Professor Ewald. A consultation with Professor Jolly took place, and both doctors agreed entirely both as to diagnosis and prognosis. The progress of the disease was so clear that Professor Ewald spoke of its serious nature and probably fatal ending to the patient's wife, at the same time proposing another consultation with a recognised authority. But Frau v. Lippe declined this, and called in a "Nature doctor," Goessel from Dresden, a quack who is in the habit of diagnosing his patients' diseases from the stockings they have worn. Of course Ewald declined to consult with him, and retired from the case, and it seems strange that under the circumstances Herr v. Lippe was not removed from the Augusta Hospital. Whether—as is said—feelings of humanity induced the hospital authorities to keep him where he was, or whether—as seems more likely—pressure was brought to bear on them from higher quarters—certain it is that Herr v. Lippe remained in the hospital, as if in private apartments, with an attendant of his own, with his food sent in from the Royal kitchen, and with his own "Nature doctor" in attendance. After some weeks of so-called "cure," he was said to be progressing towards recovery, and he left the hospital and Berlin, and settled down in Dresden to be near his "doctor." After a few months of ups and downs, the disease has now run its course, and the sufferer has died. The moral of the story of course is that no amount of prohibitive legislation will be able to put down quackery as long as it is believed in and favoured in the highest social circles.

An indignation meeting has been held by the Berlin doctors who have private clinics, to protest against the taxes imposed on them as proprietors of establishments falling under the designation of "undertakings for the sake of trade." Professor v. Bergmann presided, and opened the proceedings with a

speech, in which he declared, that he refused to pay the tax imposed on his private clinic, as by the German law a doctor was not liable to "Gewerbe-steuer" (trading-rates). Professor Hahn and Professor Wolff also spoke in the same sense, and after a discussion a committee of three members was elected, with power to pursue the action against the municipal authorities up to the highest court of appeal if necessary.

Interesting statistics with regard to the growth of the medical profession have just been published. The figures extend from the year 1886 to November, 1896. In 1886 there were 16,292 medical practitioners in the German empire; in 1896 the number was 24,000—that is, an increase of nearly 50 per cent. Of all Prussian provinces the Rhine province counts the greatest number of doctors—namely, 2,208. The second place with regard to numbers is taken by the township of Berlin with 2,077 doctors (1,193 in 1886); Munich, with over 400,000 inhabitants, counts 523 doctors; Hamburg (625,000 inhabitants), 487; Frankfurt on the Maine (229,000 inhabitants), 292; Leipzig (398,000 inhabitants), 368; Cologne (321,500 inhabitants), 257; and Hanover (209,500 inhabitants). 215.

During the Christmas holidays Professor E. Behring, the discoverer of the diphtheria antitoxin, was married to Miss Spinola, daughter of Geheimrath Spinola, Director of the Berlin Charité Hospital.

An epidemic of mumps has broken out in the north of Berlin. In some districts scarcely a house is without a case or cases. Most of the patients are children, of course, but here and there adults are attacked, and in the latter cases there are generally complications.

## MANCHESTER.

*Statistics of the Progress of Victoria University.—The Infirmary Problem.—Meeting of Trustees.—Informal Meeting and its Results.*

IN the new Calendar of Victoria University just issued there are presented for the first time some interesting statistics as to the graduates on whom degrees have been conferred since the granting of the charter. The total number of degrees conferred after examination since 1882 is 1,056, and of individual graduates 864, exclusive of 108 Owens College Associates who were made graduates by a special clause in the charter. Of the 1,056 degrees conferred after examination, 335 were in arts, 438 in science, 22 in law, and 256 in medicine and surgery. In the Faculty of Science the bachelors were 352, and the masters 82. The steady and continued progress in the University is shown by the fact that more graduates passed the examinations last year than in any previous year, the total for 1896 being 188, as against 149 in 1895. In arts the roll of graduates was increased by 57, in science by 79, and in medicine and surgery by 48.

The trustees of the Royal Infirmary met on Monday to receive the report of the scrutineers of the poll taken as to the question of rebuilding the infirmary on its present site. The result of the poll was to show that out of a gross poll of 853 there was a majority of only 46 in favour of the proposal of the Infirmary Board to rebuild on the present site, and to cover a somewhat large area with the new buildings than is at present occupied by bricks and mortar. Nearly 500 trustees did not express an opinion at all. The plan proposed will cost at least £175,000. The sharply accentuated difference of opinion in the public mind is revealed by the close approximation of the votes for and against the scheme. The City Council have already appointed a small Committee of its members to watch over the interests of the citizens in this matter. At the last meeting of the City Council the following resolution was adopted, which gives promise of a holding out of the olive branch by the City Council:

That it is the opinion of this Council, and, as they have reason to believe, is the opinion of the citizens generally, that no considerable portion of the present open space of what is known as the infirmary grounds should be built upon; that the special committee be authorised, should an opportunity be presented, to confer with the trustees of the Royal Infirmary with a view to prevent the absorption of the said land or building purposes, and as to the mode in which this object can be accomplished.

It was explained that this resolution was passed to indicate to the Infirmary Board the attitude of the Council with regard to the open space in Piccadilly.

At the meeting of the trustees, the Earl of Derby, the President, ruled that as this was the sole business before the meeting, no motion could be received. The above-mentioned resolution of the City Council was handed in, but with this ruling it could not be discussed. The formal meeting then came to a close, but before this occurred there was not wanting evidence that the tension was pretty acute. Lord Derby then left the chair. Thereafter the meeting resolved itself into an "informal" one, with Lord Derby in the chair, to discuss in a friendly manner the possibilities of the situation. After a motion had been made:

That it was desirable to call a meeting of the trustees at an early date, at which instructions may be given to the Infirmary Board to negotiate with the City Council with a view to arriving at a satisfactory settlement—

Sir John Harwood, as representing the Corporation, said the City Council had done all it could to be conciliatory. He repeated his declaration that the Corporation were willing to meet the trustees in the most friendly spirit. If only a Committee equal in numbers from the Board and the Corporation were appointed, he thought an agreement satisfactory to all might be come to. After further discussion, it was agreed to appoint six representatives on either side. Of course, as the meeting was informal, the resolution is not binding, but the outcome of it all is that there is now the assurance that the Board of the infirmary on the one side and the City Council on the other will appoint representatives to meet and discuss the matter. This is perhaps the beginning of the end of the present scheme as it stands for the moment. The whole question will now be discussed again from the widest possible aspect, and with hearty goodwill, we believe, on both sides. We do not despair of a solution—worthy of the city—of the subject and of the interests involved, and one which will commend itself to the great majority of the citizens.

## NEWCASTLE-UPON-TYNE.

*Royal Infirmary: Election of Assistant Physicians.—Mr. Waterhouse's Report on the Site.—Arrangements for Rebuilding.*

A MEETING of the Selection Committee was held on January 7th for the purpose of electing two honorary assistant physicians, in accordance with a recent resolution of the governors that two honorary assistant physicians be appointed. There were four candidates, and Dr. Beattie (35 votes) and Dr. Coley (19 votes) were elected.

The report of Mr. Waterhouse, R.A., upon the fitness of the present site of the infirmary for a new modern hospital of 400 beds, has been received by the Committee, who have recommended its adoption. Mr. Waterhouse remarks that there are peculiar advantages in the present situation. It has large open spaces to the north, south, and west; it slopes to the south; it is near the railway station; and is readily accessible from all parts of the town. Assuming that there are to be three storeys of wards, the area of the present site would be sufficient, the majority of the wards containing 24 beds, the others 26. The whole of the present infirmary will probably be pulled down, as Mr. Waterhouse remarks that the retention of the west wing will not allow of the new infirmary being perfect in all its arrangements.

The subscriptions to the building fund for the new infirmary now amount to nearly £75,000. It is hoped that the foundation stone will be laid on the commemoration day of Her Majesty's Jubilee.

## ABERDEEN.

*The Royal Hospital for Sick Children.—Dr. Blaikie Smith.—New Fever Hospital at Inverurie.*

THE directors of the Royal Aberdeen Hospital for Sick Children have recently issued a statement of the working of the hospital since 1877, when the hospital was founded. It then started with 14 beds. By the liberality of friends further accommodation has gradually been added, so that the number of beds is now 85, and the in-patients treated at the hospital last year amounted to 653. The statistics for 1894

showed the remarkably low figures of £41 5s. as the average cost per bed, and 2s. 3d. as the cost of each patient per diem. As the accommodation for the nursing staff and for the servants is quite inadequate, the directors are proceeding with an additional building to meet this need. Some generous subscriptions have been intimated, but appeal is being made to the public of the city and neighbourhood of Aberdeen, to assist in the scheme.

The fact that Dr. Blaikie Smith has been obliged by ill-health to spend the winter abroad is deplored by a numerous circle of patients and friends. His absence from the Royal Infirmary, where his clinical teaching was highly valued, is greatly felt by the students.

A Fever Hospital has been erected at Inverurie on modern principles. It at present contains 16 beds, but more can be added in case of need.

# CORRESPONDENCE.

## THE HALF-YEARLY MEETING OF THE FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

Sir,—Referring to your report of the meeting of Fellows at the Royal College of Surgeons on January 7th, will you allow me to make somewhat clearer my action in seconding Mr. Rivington's proposal: "That this meeting submits to the Council that no objection can apply to an advance from the funds of the College to prosecute Mr. Anderson's appeal to the Privy Council, and therefore trusts that the Council will sanction a grant for that purpose." This was, very strangely, misrepresented as an attempt on our part to involve the Council in an expenditure which we knew to be illegal. I repudiated at the time any such intention, and I beg through your columns now to submit the matter again to the judgment of the Fellows and Members of the College.

The Council has already expressed, in the most unmistakeable way, its sympathy with Mr. Anderson, and has nominated two of its members to serve on the Committee formed to assist him in the defence of his rights; and By-law xv lays the College under an obligation to protect in some way their Fellows and Members in the enjoyment and defence of their professional rights. No one denies that in this case a Fellow of the College has been disturbed in the exercise of his professional rights by the illegal action of the Colonial judge. The Council of the College has, I believe, decided not to subscribe to Mr. Anderson's appeal to the House of Lords, whether because they judge such appeal useless, or because they have been told by their solicitor that the expenditure would not be lawful I do not know; and I am quite ready to admit, for my own part, that there are objections, apart from any legal questions, to the expenditure of the College funds in law proceedings instituted on the part of individuals. We thought, however, that no such objection could apply to the College giving assistance towards an appeal to the Privy Council for the reversal of judgments admitted to be illegal. Such an appeal is, in its own nature, quite exceptional, and never likely to be drawn into a precedent: it is the only way in which the Council can carry out its own declared intention of giving Mr. Anderson practical support, and if it is illegal no proof of that fact has ever been given. As I pointed out at the time, the mere opinion of the solicitor to the College (allowing that it had been given with regard to this appeal) is no satisfactory proof of the fact—since in a recent instance, a course urged on the Council by the Fellows' Association, and declined by them, because their solicitor advised them that it was not legal, was, on further investigation by the standing counsel of the College, found to be perfectly within their powers, and is now adopted.

We have no wish to involve the Council in any action which is not perfectly legitimate, but we say that the Council ought either to ascertain from competent authority that they have no power so to expend their funds, or else state plainly that they do not desire to assist Mr. Anderson. The latter alternative, however, would involve them in a painful inconsistency.

I hardly know whether it is worth while even to spend a word in denying Mr. Heath's strange assertion that we are using Mr. Anderson as "a stick to beat the Council of the College." I have no object whatever in the case except to try and obtain justice for a fellow practitioner who has suffered cruel oppression.—I am, etc.,

Sussex Place, W., Jan. 12th. T. Holmes.

Sir,—Believing that the friendly interchange of views between the Fellows of the College and the Council would materially assist in the solution of the difficulties attending the prosecution of Mr. Anderson's appeals, I consented to move at the last half-yearly meeting of Fellows the following mild and inoffensive resolution:

That this meeting submits to the Council that no objection can apply to an advance from the funds of the College to prosecute Mr. Anderson's appeal to the Privy Council, and therefore trusts that the Council will sanction a grant for that purpose.

In support of this resolution it was necessary to prove: 1. That Mr. Anderson had been disturbed in his rights as a Fellow and Member of the College. 2. That under By-law xv the Council had undertaken to protect and defend Mr. Anderson from such disturbance. 3. That the only effective way in which the Council can fulfil its obligations is by a grant of money for the promotion of Mr. Anderson's appeal to the Judicial Committee of the Privy Council to obtain the reversal of the illegal orders and judgments which prevent him from returning to Tobago. Mr. Heath, who followed me, elected, for the same reason, probably, that the plaintiff's attorney comes in for abuse, to treat my friendly resolution as an attack upon the Council, and once again to indulge in that vein of irrelevant and speculative personalities which do more harm to himself than to those who are the subjects of them. In addition, however, to these amenities, Mr. Heath made certain statements which I am anxious now to correct, because they may have been accepted as facts by some of the Fellows present, and because the untimely end of the meeting, from the lack of the requisite quorum of thirty, prevented me from exercising the right to a reply which I had just commenced when the Chairman closed the proceedings.

Mr. Heath stated that on two occasions already the Council had negatived the proposal in the resolution; that its adoption would be illegal; and that an opinion to that effect had been given by the Solicitor of the College. Mr. Heath has not been careful to distinguish between two distinct appeals: one to the House of Lords, and the other to the Privy Council. The appeal to the House of Lords was taken up by the Civil Rights Defence Committee after the Council of the College had appointed representatives on that Committee. To this appeal the Council has twice declined to make any grant; and, though I voted against the resolution adopted by the Council, I fully admit that in the appeal to the House of Lords the professional element is overshadowed by the civil element, and that the obligations of the Council in regard to it are constructive and not very apparent.

With regard to the appeal to the Privy Council, the position is very different. In June, 1894, Lord Stamford asked the Council to appoint representatives on the Civil Rights Defence Committee to promote this appeal, and Mr. Anderson claimed the protection of the College under By-law xv. The solicitor of the College was consulted, and gave it as his opinion that the by-law was not applicable to Mr. Anderson's case, but he went on to say "the decision that he was not at liberty to discontinue his attendance on a patient when he thought fit is one which seriously affects the medical profession: and I do not think the College would be exceeding their legal rights in assisting him to obtain the reversal of such decision." On the motion of Mr. Morris, seconded by myself, the Council decided to appoint two representatives on the Committee to forward the appeal to the Privy Council. In seconding the motion I stated that I did so because I dissented from the solicitor's opinion, and considered Mr. Anderson's claim under the by-law unimpeachable, and from this position I have never receded. As Mr. Anderson's case now stands, my experience during the past year convinces me that it is absolutely essential to the success of his appeals that the College should head a list of subscriptions. A subscription of £2co only would exercise an enormous influence on members of Parliament and others who now hold back because the College only affords moral support: and if the Council would appoint a Committee for the reception of subscriptions and dealing with the funds, other bodies would

contribute and success would be assured. To meet Mr. Heath's objections all that is necessary is that the Council should submit the proposed grant to a general meeting of Fellows and Members for approval, in accordance with the principle that the Fellows and Members should be consulted with regard to extraordinary expenditure.

There is one personal matter on which I must say a few words for the justification of others. Mr. Heath challenged a passage in the address of my recent Election Committee, which stated that I had used every advantage which I possessed as a Fellow, *even to the sacrifice of my Collegiate interests*, to advance the claims of Members to representation on the Council. He then said that this must refer to the time, nearly six years, during which I had been on the Council, that it was an improper statement for a member of the Council to inspire, and was refuted by the fact that I had never during the period applied for any appointment in the gift of the Council. The words in italics to which Mr. Heath objected are perfectly correct, and refer to the year 1886. The fact that I have not applied for any appointment since I have been a member of the Council should have been sufficient in itself without other considerations, including the wording of the passage, to convince Mr. Heath that the words in italics could not possibly refer to the period of my tenure of office as a member of the Council. I do not object to personal criticism, but if it is to be an ornament instead of a disfigurement of debate it is essential that those who indulge in it should exhibit polish, discrimination, accuracy, and delicacy of touch.

I shall only add that if I had continued to apply for appointments in the gift of the Council after I became a member of that body I should have belied the statement in my election address to the Fellows that I came forward for the Council "not to advance any interest of my own, but to assist in making the College more useful to the Fellows, the Members, and the profession at large."—I am, etc.,

Wimpole Street, Jan. 9th. WALTER RIVINGTON.

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SIR,—The attendance at the Fellows' meeting at the College on January 7th, although it only exceeded the necessary quorum, will yet be a memorable one by reason of the business which it transacted. It is, indeed, impossible to over-estimate the importance of the first resolution brought forward by Mr. Holmes and the discussion which followed thereupon:

That this meeting desires to call the attention of the Council to the published reports of the proceedings of the General Medical Council in the case of Mr. R. B. Anderson, and to the remarks and action of Mr Bryant on the occasion, and to ask the Council whether their representative has, in this instance, correctly construed their instructions.

In reflecting upon the questions involved in this resolution it must be clear to everyone that an entirely new principle is introduced for the first time in respect to the relationship subsisting between the Council and the "body corporate," or that portion of the latter represented by the Fellows. Moreover, further reflection will undeniably show that the Council in raising no objection to the submission of such a resolution to the meeting of the Fellows, have either overlooked its importance, or have willingly conceded the principle contained in it. It is obvious, that by means of the resolution in question, the right has been established of discussing, at a meeting of the "body corporate," the conduct of the representative of the College at the General Medical Council. As matters at present stand, the representative of the College is not appointed by the Fellows and Members, but by the Council. To the latter body, therefore, it is impossible to dispute that he is directly answerable for all that he does in his official capacity. But the meeting of the Fellows just held puts an entirely different complexion upon the matter. The Council have practically conceded that it is within the power of the "body corporate" to challenge the action of the representative of the College—really of the Council—on the General Medical Council.

The great importance of this position of affairs is that a movement is about to be started with a view of testing the right of the Council to assume the sole power of appointing the representative of the College. At all events, apart from the fact of whether the Council are entirely within their legal rights in making such appointments, the recent meeting of Fellows has emphatically shown that the sole right of criticising the action of their representative on the General Medical Council has not been reserved by the Council of the College. The natural deduction to be drawn from this is that, if the Council concede, as they have done, to the "body corporate" the power of criticising the conduct of the representative on the General Medical Council, they cannot avoid conceding to the "body corporate" the power of "instructing" their representative on questions of College policy which from time to time the General Medical Council may be called upon to discuss.

In respect to this matter, however, I cannot believe that the chairman of the Fellows' meeting was really serious when he said that the representative of the College on the General Medical Council was quite a free agent as to the opinions he expressed. If this were in truth the case, the representative of the College would merely sit on the General Medical Council as a private individual, and, morally, he could not claim to have any *locus standi*. A representative of a great corporation could not be a free agent under the circumstances in question. The principle of such representation must necessarily be the same as that of a member of Parliament, who is returned to the House of Commons to represent the opinion of the majority of the constituents by whom he was elected. But the result of the last Fellows' meeting is another proof that little by little the policy of reform is beginning to tell upon the Council. The principle of keeping "pegging away" which now for a good many years the reforming section of Fellows has consistently followed is producing its inevitable effects. The democratic spirit, which pervades not only the Fellows and Members of the College of Surgeons of England but the profession generally, is only one from which I believe that good can come.—I am, etc.,

January 12th. F.R.C.S.

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## IRISH DISPENSARY DOCTORS.

SIR,—It is, I submit, scarcely worth while discussing the method for facilitating dispensary medical relief and at the same time preventing the abuse of the system by well-to-do people, as suggested in the letter of Dr. Greer, of Ballinagh Dispensary, simply because, under present conditions, any plan of the sort is entirely outside the region of practical politics. The Irish Poor-law medical system, with all its monstrous abuses and illegalities, must stand unreformed until the dispensary medical officers themselves awake to decisive action. I need scarcely remind you, sir, that it is years since the Irish Medical Association planned out a Bill to effect what Dr. Greer desires, that reams of paper and handfuls of money have been expended by that Association, by the British Medical Association, and by the medical press in exposing, in their primitive nudity, the abuses and injustices referred to by Dr. Greer, and all without material result. It is scarcely a month since the Chief Secretary, coached, without doubt, by the Irish Local Government Board, coolly informed a deputation of the Dublin Branch of the British Medical Association that, while he confessed to the prevalence of gross abuses, admitted the incompetency of the law or of the Local Government regulations to prevent them, and sympathised with the medical officers in their grievous complaints, he would do nothing, in either his ministerial or departmental capacity, to provide a remedy, nor would he give official countenance to the effort of anyone else to do so. Why? Because, in his opinion, to check the wholesale frauds upon the ratepayers and the medical officers, would interfere with "the elasticity" of the system. In other words, the Local Government Board for Ireland can find no other means of preserving the right of the sick poor to medical relief save to admit all comers, rich and poor, to the same privilege. This principle the Local Government Board has enforced, by the issue of recently revised regulations, which, with perfect illegality and in defiance of the Board's own regulations, employ dispensary committeemen to issue medical relief tickets, vicariously, to persons whom they never saw and did not know were sick, and without any inquiry whatever as to their circumstances.

While this is the official attitude with regard to the question, and while the officers who suffer thereby remain

wrapped in coma, what is the use of discussing ways and means?—I am, etc.,

ARCHIBALD HAMILTON JACOB, F.R.C.S.I.

Dublin, Jan. 7th.

## MORPHOLOGY OF TETANUS AND TUBERCLE BACILLI.

SIR,—In your excellent report of the interesting demonstration given by Dr. Kanthack and Mr. Connell at the Pathological Society on January 5th, it is stated that "the new observation of the authors consisted in the demonstration that the [tetanus] bacillus is provided with large numbers of flagella, lateral and terminal, ranging from 20 to 30. Schwarz had previously described a terminal flagellum only."

I find that Schwarz's statement has not been accepted by the most recent writers of the German school. Lehmann and Neumann, in their work published last year, refer to the flagella of the tetanus bacillus in the following terms, and the note of exclamation is theirs:

"Eigenbewegung gering oder fehlend trotz zahlreicher langer peritricher Geisseln. Nach Schwarz nur 1 endständige Geissel!"

You also report that I maintained that the branching forms of the tubercle bacillus had been first described by Nocard and Roux, while Dr. Kanthack persisted in the statement that the branching forms were first described by Dr. Klein.

Permit me, therefore, to give the quotation to which I referred:

"Dans une culture vieille de plusieurs mois nous avons rencontré des formes renflées plus longues qu'à l'ordinaire, quelques-unes d'entre elles présentaient comme un bourgeon latéral branché presque à angle droit sur le bacille principal et terminé quelquefois par un renflement à son extrémité."[1]

I am quite aware of Dr. Klein's remarks and of Mr. Pringle's photographs in the Nineteenth Annual Report of the Local Government Board, 1889-1890 (Plate XXVII), but, for the sake of historical accuracy, I should be glad if Dr. Kanthack would publish in your columns the date of any publication which prior to 1887 contains a description of these branched forms, or, on the other hand, verify my statement and acknowledge that I was correct in maintaining the priority of the researches of my friends MM. Nocard and Roux.

I may add that in 1891 I was able to confirm these observations in cultures obtained direct from human tuberculous sputum.[2]—I am, etc.,

EDGAR M. CROOKSHANK.

East Grinstead, Jan. 9th.

[1] "Sur la Culture du Bacille de la Tuberculose," *Annales de l'Institut Pasteur*, Janvier, 1887.

[2] *Transactions of the Pathological Society*, 1891

## THE BACTERIOLOGY OF PLAGUE.

SIR,—In the BRITISH MEDICAL JOURNAL of December 26th, 1896, Dr. Lowson, of Hong Kong, discussing the spread of the plague at Hong Kong, is reported to have spoken as follows: "He said Drs. Kitasato and Takaki denied that the bacilli found by Yersin in the soil had any resemblance to that of the plague, and had little or no faith in his serum treatment." Again, he is made to say: "All Yersin's work was suspicious." It is clear that Dr. Lowson cannot have made such serious statements without some very strong reasons, more especially when he is dealing with such a competent and highly esteemed bacteriologist as Dr. Yersin; and hence Dr. Lowson would confer a great favour on all medical men in the East if he would kindly tell us, through your JOURNAL, what are the grounds for his differing in opinion from Dr. Yersin, and especially give us the reasons for his severe judgment on the same gentleman's work.—I am, etc.,

M. ARMAND RUFFER.

Pathological Laboratory, School of Medicine,
Cairo, Egypt, Jan. 4th.

## MEDICAL CERTIFICATES AND SCHOOL BOARDS.

SIR,—In your issue of January 9th, p. 99, my name is mentioned in connection with a recent school attendance prosecution in Stockport, and I should be glad if you will allow me to make one or two explanations.

You ask why I should take exception to the statement that "the medical officer gave the patients medical certificates without charge." First, because the certificates are granted in with medical attendance, the child being under the doctor at the time, and secondly, because it is a rule here if a certificate is granted, the child not being under treatment, to charge—I do not say get—a fee. I do not charge for ordinary certificates to persons under my care; but I do not give, and have not for two or three years given, school attendance certificates, and I know several doctors in this town who also do not grant them. My reasons are:

1. Certain persons obtain, or try to obtain, them to evade school.
2. Children with trivial ailments are forced to go and consult a medical man—not for treatment, but for the certificate.
3. Children seriously ill ought not to require a certificate.
4. We are entitled to remuneration for certificates, and the Committee or Board, who for their own protection require them, ought to pay, and not the parents, who not only lose their children's schooling, but are under heavy expenses for medical attendance.
5. The School Committee has no right to demand certificates.
6. As evidence a certificate is legally worthless.

I have told the school attendance officer that I will give a verbal "yes" or "no" if he will ask me if a child is fit to go to school, but that I will not write a certificate unless he pays for it.

You say that the people who want certificates are generally impecunious. My experience, and, I may add, the experience of other medical men here, is that those who are most looked after by the school authorities are not the very poor and ignorant, but the sharp and intelligent children of the fairly well-to-do working man; the thoroughly idle truants are left alone, but those who are likely to gain grants for the school are not allowed to miss a day.

In the case mentioned the child was under treatment at the Manchester Eye Hospital suffering from ulcers on each cornea. The mother on two or three occasions produced the hospital papers to show that her child had gone to be treated every fortnight for the last two years. The School Committee refused to accept these, and the school attendance officer (not a medical man) said he could see nothing the matter with her eyes. She was ordered to get a doctor's certificate and pay for it. I have known this woman for about six years; she is hardworking and honest, and not one to neglect her children. She came and offered me a fee for a certificate, which I refused, and when she was summoned offered to go on her behalf to court. The result was the summons was dismissed, she lost her day's work, and had to pay her legal adviser's expenses for doing what the hospital doctor ordered, and her duty to her child. I refused the certificate on principle. If the School Committee wanted that certificate it is only right they should have paid for it, and not tried to compel her to do so. The suggestion that I simply attended court for the fee is not a fact; I went to try and defend a poor woman against what I thought to be a species of "official persecution."—I am, etc.,

HENRY G. SMEETH, M.D.

Heaton Norris, Stockport, Jan. 12th.

## THE REGISTRATION OF MENTAL NURSES.

SIR,—Allow me a few lines to reply to Mr. Walter Maine's letter in the BRITISH MEDICAL JOURNAL of January 9th. He evidently cannot have read my letter, or he would have found there never had been an attempt made to place "untrained asylum nurses on the register of trained nurses." The proposal under consideration is, that properly qualified asylum trained nurses shall under certain conditions be registered as a distinct class in a separate department of the register of the Royal British Nurses Association. This inflicts no hardship whatever on hospital trained nurses, whilst it is a matter of justice to the public that they should have the means of knowing whether the mental nurses they engage are properly qualified or not, and this is the very *raison d'être* of the Association. Your correspondent objects on account of some imaginary unfairness to nurses who are not asylum-trained. If a medical man requires a nurse for a mental case a hospital trained nurse is not sought for, but one who has been specially trained in some asylum, and is qualified to undertake the case, and surely the doctor and the patient's

friends should have some opportunity of knowing whether the nurse supplied is what they require, and this could at once be ascertained by a reference to the mental department of the register. Your correspondent's gratitude to registered nurses should not lead him to refuse justice to those who are so excellently qualified for registration as the certificated nurses of the Medico-Psychological Association.—I am, etc.,

T. Outterson Wood, M.D.,
Member of the General Council, Executive Committee, and Registration Board of the Royal British Nurses Association.

Margaret Street, Jan. 11th.

## MEDICAL RETICENCE.

Sir,—Our attention has been called by a client (whom we have recently advised on the subject) to an article in the British Medical Journal of December 26th entitled "Medical Reticence." Having regard to the concluding portion of that article, we feel it the more necessary to write you on the subject, as some of your readers, relying upon the advice therein contained, might possibly find themselves in an exceedingly unpleasant position.

As a matter of law, we do not think any lawyer would dispute that, if a medical man is called in by an employer to attend one of his servants, and if the servant consents to see such medical man, he is bound to answer any reasonable and proper inquiries made by the person who has called him in and who pays him for his services, and any communications honestly made by him in reply to such inquiries are undoubtedly privileged communications. To take an illustration, we will suppose that a medical man has been called in by the master of the house to attend his children's nurse, who consents to see him, and whom he discovers on examination to be suffering from a contagious disease. Under such circumstances it would be the duty of the medical man to inform his employer, in answer to inquiries of the nature of the illness; and if he should not do so, and if the disease should be communicated to one of the children and such child should become seriously ill or die, the medical man would undoubtedly find himself liable to a verdict of substantial damages for his negligence in the matter.

Trusting you will dispel the wrong impression which your article undoubtedly conveys,—We are, etc.,

Oldfield, Bartram, and Oldfield.

Moorgate Street, E.C., Dec. 28th, 1896.

## THE PROFESSIONAL SECRET AND ACCIDENT ASSURANCE.

Sir,—In the British Medical Journal of December 26th, 1896, you refer to a case in which a medical practitioner at Glasgow was disabled for several months owing to the infection of a wound upon his finger. You state that his claim for compensation was successfully disputed by the accident company with which he was assured, because it was held that it had not been proved that the poisoning was communicated as stated, or was the result of an accidental bodily injury within the meaning of the insurance policy, and that the judge observed that there was no reason to doubt the *bona fides* of the claimant, who had acted in an honourable manner in not disclosing the name of the patient, but that the claimant's adherence to this position precluded him from proving his case.

You remark in your leaderette that the case involves a professional problem of considerable importance, and the difficulty is one against which it is clear the members of the profession ought to be protected under their policies.

Into the merits of this particular case I do not propose to enter. We are concerned only with the question of proof of accident as a principle, and with the problem how to meet the difficulty in a way that will give equal protection to the assured and to the assuring company.

Accordingly, this Society proposes to place upon all policies issued to the medical profession a condition providing that proof as to the cause of accident satisfactory to the Society's medical officer or a medical referee jointly agreed upon, shall be deemed to be satisfactory proof to the Society. There would be no difficulty in making the arrangement retrospective.

I shall be glad to know whether this suggested solution of the problem is one likely to be acceptable to members of the profession.—I am, etc.,

E. T. Clifford,
Manager, Law. Accident. and Contingent Insurance Society, Limited.

Fleet Street, E.C., Jan. 7th.

## THE UTILISATION OF BACTERIA.

Sir,—Referring to your article on the Utilisation of Bacteria, in which you speak of the Exeter sewage experiment as marking "a new departure in the methods at present employed." I enclose a few extracts from the press dating as far back as September, 1892, which show that the system was well known at that time, and that I was the first person who applied it on a practical scale. The evidence given by Dr. Sims Woodhead before the Royal Commission on London Water Supply in 1893, quite recognises this claim, and his evidence before the Staines drainage Local Government Board inquiry in June, 1894, when the system was brought forward by the local authority for approval is equally conclusive.

As a matter of fact, the forthcoming Local Government Board inquiry at Exeter will be the third attempt to obtain the sanction of the Board to the expenditure of public funds on the system of sewage purification by micro-organisms, the first two attempts having been made by the town of Rushden and Staines. It was unfortunate that on both these occasions the inspectors who held the inquiries were unacquainted with bacteriology. The progress of the system has been retarded for years by the action of the Local Government Board, and it will be nothing short of a grave public scandal if some more competent tribunal is not available in the case of Exeter.

In writing this I have not a word to say about the competence of the Local Government Board inspectors to deal with purely engineering questions.—I am, etc.,

W. D. Scott-Moncrieff.

Victoria Street, S.W., Jan. 11th.

## CONSULTANTS' FEES.

Sir,—Before discussing any reduction in the fees of young consultants, it seems desirable to have some definition of the word "consultant." Very roughly it may be defined as denoting the holding of a hospital appointment, and the acceptance of nothing less than guinea fees. Unfortunately, some gentlemen known as consultants, though perhaps insisting upon a guinea for the first consultation, frequently see patients two or three times for the one guinea. To my mind there is very little difference between seeing a patient three times for the guinea and charging seven shillings for a consultation. I have no doubt the reduction is often made as an act of kindness; at the same time it is a very serious form of opposition to the general practitioner. Of course no one would raise any objection to these gentlemen seeing patients for seven shillings a consultation if they would genuinely assume the position of general practitioners; but if the public are able to obtain the advice of consultants on these easy terms, they are likely to dispense as far as possible with the humble practitioner. The competition we have to endure from general and special hospitals, dispensaries, etc., is quite sufficient, without adding anything more to our already overfull cup. If any alteration is made in the fees of consultants, I beg it may be either in the direction of raising those fees or a more strict enforcement of the present unwritten law.—I am, etc.,

Welbeck Street, W., Jan. 12th. Ernest Snape.

## ACCLIMATISATION OF EUROPEANS IN THE TROPICS.

Sir,—The discussion on the possibility of a European becoming acclimatised in the tropics has always been, as Dr. Luigi Sambon states, a fertile source of controversy, but the diversity of opinion is chiefly dependent on the meaning of the word "acclimatisation." If it should be construed to mean that a European, exercising care and prudence, and being able to select his place of residence and to change it with the changing seasons, can live in the tropics as free from disease as he can in England, then acclimatisation is not only possible but it is accomplished, but if it should be thought to imply that a European can be trained to withstand the effects of climate as the native of the place does, then acclimatisation is an impossibility, and opposed to the

natural laws of health. A European cannot mould his constitution to resist the effects of the climate except by blending it with the native constitution, and in this manner the slowly evolved physiological changes will lead in the course of generations to adaptation. Dr. Luigi Sambon indirectly admits the correctness of my contention, for he says, "of the greatest importance is the choice of healthy localities," which interpreted, as I understand it, means the choice of a place in which the heat is moderate and the evil effects of climate are non-existent. Dr. Luigi Sambon further contends that disease is the effect of tropical germs, but germs require a suitable soil in which to thrive, and it is, I maintain, the effect of the heat which creates the necessary and favourable medium of culture. The effect of heat on the European, for example in India, is first to exhilarate, secondly over-excite, and finally to depress and impair the functions of the various organs of the body. By this means disturbance of the natural equilibrium existing between the functions of the different organs of the body, the constitution is prepared for the reception of the tropical germs of disease, so that although true in part that the heat does not directly create disease, yet it is an important factor in the causation of disease. Without entering further into detail, I contend that the views of Dr. Luigi Sambon are unsound, that his conclusions are fallacious, and that the practical acceptance of his doctrines would materially increase the already too great sacrifice of human life in the tropics.—I am, etc.,

Victoria Street, S.W., Jan. 8th. G. Sherman Bigg.

# NAVAL AND MILITARY MEDICAL SERVICES.

## THE LATE SURGEON-MAJOR MANSER.

The announcement by telegram, to which we referred briefly last week, of the death on January 6th of Surgeon-Major R. Manser, M.D., First Physician, Jamsetjee Jeejeebhoy Hospital, and Professor of Medicine, Grant Medical College, Bombay, from bubonic plague, has come as a painful surprise to his many friends in this country. Surgeon-Major Manser was a distinguished student of Guy's Hospital, and entered the Indian Medical Service in 1877. After a few years of military duty, during which he served through the Afghan war in 1879-80, and was employed at the defence of Kandahar, he was in 1882 appointed Professor of Materia Medica, Grant Medical College, and Junior Medical Officer, European General Hospital, Bombay. In 1887 he was appointed Third Physician, Jamsetjee Jeejeebhoy Hospital, and in 1889 First Physician and Professor of Medicine. He was an excellent teacher and a popular practitioner, having a large general and consulting practice both among Europeans and natives. Soon after the reported outbreak of the bubonic plague in September, 1896, he was appointed President of the Plague Research Committee, and while actively investigating the disease, fell a victim to his devotion in the cause of science. He was aged 46, and was unmarried.

## THE NAVY.

The following appointments have been made at the Admiralty:—Edward H. Meaden, Surgeon, to the *Everia*, January 14th: Sidney H. Youel, Surgeon, to the *Penguin*, January 8th.

## ARMY MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel N. B. Major is promoted to be Surgeon-Colonel, *vice* H. S. Muir, M.D., promoted November 30th, 1896. Surgeon-Colonel Major, who was born September 15th, 1844, entered the service as Assistant-Surgeon, October 2nd, 1866; became Surgeon, March 1st, 1873; Surgeon-Major, October 2nd, 1878; and Brigade-Surgeon-Lieutenant-Colonel, December 14th, 1892. He has no war record in the Army Lists.

Surgeon-Lieutenant-Colonel W. L. Gubbins, M.B., is promoted to be Brigade-Surgeon-Lieutenant-Colonel, *vice* N. B. Major, November 30th. Brigade-Surgeon-Lieutenant-Colonel Gubbins's previous commissions are thus dated: Surgeon, September 30th, 1873; Surgeon-Major, September 30th, 1881; Surgeon-Lieutenant-Colonel, September 30th, 1893. He served in the Afghan war of 1878-80, and took part with the Bazar Valley expedition under Lieutenant-General Maude in medical charge of the 5th Fusiliers, and subsequently of the Head Quarters Staff; in 1879-80 he served with the Khyber Line force under Lieutenant-General Bright in medical charge of the Head Quarters Staff: was also Divisional Sanitary Officer and Secretary to the Principal Medical Officer, and was present with the expeditions against the Mohmunds and into the Hissarik Valley (medal). He was also with the expedition to Burmah in 1886 (medal with clasp).

Brigade-Surgeon James Saltus Conyers, M.D., died at Friendship, Demerara, on December 20th, 1896, in his 56th year. He entered the service as Assistant-Surgeon, March 31st, 1868; became Surgeon, March 1st, 1873; Surgeon-Major, March 31st, 1880; and Honorary Brigade-Surgeon, on retirement, July 2nd, 1884. He served in the Ashanti war in 1873-4, and was present at the battles of Amoaful and Becquah, and at the capture of Ordahsu and Coomassie, and had received the medal with clasp.

Surgeon-General Michael Fenton Manifold died at Putney on January 6th, aged 74 years. He was appointed Assistant-Surgeon, May 22nd, 1846; Surgeon, December 8th, 1854; Surgeon-Major, May 22nd, 1866; Deputy-Surgeon-General, February 28th, 1876; and Surgeon-General, May 21st, 1881. He was placed on retired pay, March 27th, 1882. He was one of the first to promote the employment of women nurses in the army to tend the sick, of which system he was always a warm advocate, and obtained permission for their employment for the first time in the army during the severe epidemic of small-pox that raged among the garrison in Ireland in the great famine year. Subsequently he served during the Crimean war in charge of the officers' hospital at Scutari, where he enjoyed the friendship of Miss Florence Nightingale, who found in him a warm supporter at a time when her path in instituting nursing reforms was beset with many difficulties; while his unvarying kindness and unwearying attention and courtesy made all the sick and wounded his friends. After the campaign he was promoted for his services, and was appointed to the 24th Regiment, with which he was present at the defeat of the rebels under Bala Rao, near Bootwul, on the Nepaul frontier, on March 28th, 1859 (medal).

Surgeon-Major J. G. S. Lewis, from half-pay, is restored to the establishment, *vice* A. M. Kavanagh, deceased, with precedence next below Surgeon-Major G. H. Sylvester, December 26th, 1896. Surgeon-Major Lewis was placed on half-pay on account of ill-health June 22nd last.

Surgeon-Major Arthur Maher Kavanagh died at Beaufort West, Cape Colony, on November 6th last, at the age of 41. He was appointed Surgeon, March 6th, 1880, and Surgeon-Major twelve years thereafter. In December, 1895, he was placed on half-pay on account of ill-health, but was recently restored to the establishment.

## CHANGES OF STATION.

The following changes of Station amongst the officers of the Army Medical Staff have been officially notified to have taken place during the past month:

| | | From. | To. |
|---|---|---|---|
| Surg.-Major-General | W. Nash, M.D. | Egypt | Netley. |
| ,, | H. S. Muir, M.D. | Madras | Egypt. |
| Surgeon-Col. | R. P. Ferguson | Bengal | Woolwich. |
| ,, | W. S. M. Price | Woolwich | Bengal. |
| Brig.-Surg.-Lieut.-Col. | G. T. Langridge | Woking | Shorncliffe. |
| Surg.-Lieut.-Col. | W. L. Chester, M.B. | Egypt | Portsmouth. |
| Surg.-Major | W. A. Parker | Golden Hill | ,, |
| ,, | H. L. E. White | Bengal | Curragh. |
| ,, | A. H. Burlton | ,, | Dover. |
| ,, | A. Hewett | York | Bombay. |
| ,, | A. P. O'Connor | Punjab | Tipperary. |
| ,, | W. Dugdale | Egypt | Newbridge. |
| ,, | R. Jennings, M.D. | Bengal | Portsmouth. |
| ,, | R. E. R. Morse | Punjab | Warley. |
| ,, | T. E. Noding | Canterbury | Shorncliffe. |
| ,, | R. C. K. Laffan | Newbridge | Madras. |
| ,, | A. A. Pechell, M.B. | Madras | Chester. |
| ,, | G. B. Russell, M.B. | ,, | Dublin. |
| ,, | J. R. Mallins, M.B. | Dublin | Bengal. |
| Surg.-Capt. | H. A. Haines, M.D. | Punjab | Limerick. |
| ,, | S. N. Cardozo | Dover | Canterbury. |
| ,, | F. J. W. Stoney | Bombay | Dublin. |
| ,, | W. Kiddle, M.B. | Woolwich | Madras. |
| ,, | R. E. Kelly, M.D. | Nova Scotia | Woolwich. |
| ,, | G. Bent | Netley | Barbadoes. |
| ,, | J. J. Russell, M.B. | Fermoy | Gibraltar. |
| ,, | J. Thomson, M.B. | Punjab | Hounslow. |
| ,, | V. H. W. Davoren | Bombay | Dublin. |
| ,, | H. S. Peeke | Punjab | Portsmouth. |
| ,, | R. W. H. Jackson, M.B. | Home District | Punjab. |
| Surg.-Lieut. | A. E. Milner | Hilsea | ,, |
| ,, | C. K. Morgan, M.B. | Shorncliffe | Bombay. |
| ,, | J. P. Silver, M.B. | Pembroke Dock | Bengal. |
| ,, | S. W. Sweetnam | Curragh | Jamaica. |
| ,, | F. E. Gunter | Canterbury | Netley. |
| ,, | F. S. Brereton | Aldershot | Chester. |
| ,, | E. C. Hayes | Chester | Aldershot. |
| Quartermaster | F. Kyle | Netley | Edinburgh. |
| ,, | J. B. Short | Egypt | Netley. |

## INDIAN MEDICAL SERVICE.

Surgeon-Major James McAdam Hyslop, M.D., late of the Bombay Army, died at Edinburgh on January 7th. His commission was dated November 3rd, 1865.

## THE VOLUNTEERS.

Surgeon-Lieutenant W. A. Payne, M.B., 1st Devonshire Artillery (Western Division Royal Artillery) has resigned his commission, January 13th.

Mr. Thomas Smith is appointed Surgeon-Lieutenant in the 1st Devon and Somerset Engineers, Royal Engineers (Volunteers), January 13th.

Surgeon-Lieutenant T. Forrest, M.B., 3rd Lanarkshire Rifles, and Surgeon-Lieutenant G. M'Intyre, M.B., 4th Volunteer Battalion the Cameronians (Scottish Rifles), are promoted to be Surgeon-Captains, January 13th.

Surgeon-Captain J. Blair, M.D., 5th Volunteer Battalion the Cameronians (Scottish Rifles), has resigned his commission, January 13th. Mr. James Kirkland is appointed Surgeon-Lieutenant in the same corps, from the same date.

### ARMY (MEDICAL) NEWS, INDIA.

SURGEON-MAJOR BEATSON, I.M.S., the Secretary to the Principal Medical Officer, Her Majesty's forces at Simla, who has been at home on furlough, rejoins his appointment this month, when his *locum tenens*, Surgeon-Major Shearer, I.M.S., will take furlough home on relief. Brigade-Surgeon-Lieutenant-Colonel R. Exham, the Secretary to the Principal Officer for the Army Medical Staff, will return to England, his appointment being abolished under the new organisation of the Indian army.

The outbreak of scurvy among the Indian troops in Suakim, says *The Pioneer*, was very sudden; but the percentage of bad cases was not so large as has been stated. The disease in a mild form affected a considerable number of Sepoys and followers.

### ARMY MEDICAL STAFF AND INDIAN MEDICAL SERVICE.

IT has been decided that officers of the Army Medical Staff will be viewed as on separate lists for each of the four commands (Bengal, Punjab, Madras, and Bombay) in India; while officers of the Indian Medical Service will be viewed on separate lists for the Madras and Bombay commands, but collectively as on one list for the Bengal and Punjab commands. This virtually leaves matters as they were before for the Indian Service, except that they are interchangeable into Presidencies, that is, there is not now a Bengal Medical Service, Madras Medical Service, and Bombay Medical Service, with the officers of each claiming location in their own Presidency.

# MEDICO-LEGAL.

### A RESPECTABLE BABY FARMER.

AT North London Police-court on January 8th a widow pleaded guilty to receiving babies under one year of age without having properly registered her house for that purpose under the Infant Life Protection Act. It was shown (according to the report in the *Times*) that all the fourteen infants of whom she had had charge, and of whom only six remained alive, were sent to her by the Salvation Army Rescue Homes, and the authorities of these, as well as the clergyman who was on the Board of Guardians, testified to her respectability. It was also stated that the rate of mortality was not excessive, and the magistrate contented himself with binding the defendant over to go up for judgment if called upon.

### BEATTY v. CULLINGWORTH.

THE appeal in this case was heard on January 13th before the Master of the Rolls and Lords Justices Lopes and Chitty. The counsel for the appellant stated that the appeal was on the ground that evidence which ought to have been admitted was excluded, and that there was misdirection. The Court, without calling upon counsel for the defence, dismissed the appeal with costs.

### RECOVERY OF CHARGES IN EMERGENCY CASES.

IN the BRITISH MEDICAL JOURNAL of November 14th, 1896, we published a statement of facts submitted by a correspondent on this subject, and gave our views thereon. We have since received a further communication from our correspondent, who states that since the above date he has had a good deal of correspondence with the accountant for the county, and also with the Chairman of Committee of the county council. At their request he stated the facts of the case, and they were unanimous in their opinion that it was a police case, and he believes that the police ought to have paid. However, our correspondent adds, he has been paid, and by the police. The case is referred to in the hope that it may serve a useful purpose in any future case of the kind.

### FOREIGN DEGREES.

AN IRISH M.D. inquires what is the legal status of a foreign M.D., say of America or Brussels, and whether, although not able to register or practise in the United Kingdom on any such qualification, the possessor has not the right to add M.D. after his name.

*** The question relative to the right of the holder of an (unregistrable) degree of M.D.Brux. was fully discussed in the Medico-Legal column of the BRITISH MEDICAL JOURNAL of August 15th, 1896, to which we would refer our correspondent.

# UNIVERSITIES AND COLLEGES.

### UNIVERSITY OF LONDON.

A MEETING of Convocation will be held on Monday next, January 18th, at 5 P.M. The agenda paper includes resolutions which, if adopted, will tend to render the library of the University more available for general use. A committee has inspected the rooms used as laboratories in the University building, and reports that a complete and radical reorganisation is needed in the equipment of the University before its laboratories can be regarded as adequate for even the restricted purposes of examination, to say nothing of those of teaching or research. Mr. Tyler will propose resolutions urging the appointment of different examiners at the different examinations in arts and science, and the appointment of moderators to see that the published regulations are strictly observed by the examiners, and that the questions are suitable, of fair average difficulty, and such as can be answered in the time allotted. Mr. W. T. Lynn will bring forward a resolution of the Council of the Royal Botanic Society offering a site, free of cost, for the erection of a students' observatory in connection with the University, together with the use of a lecture room, and move that the cordial thanks of Convocation be conveyed to the Council for their kind and generous offer, and that the Senate of the University be requested to take the offer into early consideration.

Two recent vacancies have occurred in the Senate owing to the deaths of Sir G. Johnson, M.D., and the Rev. Hubert A. Holden, M.A., LL.D. These vacancies have yet to be filled up by appointments made by the Crown.

### SOCIETY OF APOTHECARIES OF LONDON.

PRIMARY EXAMINATION, PART II.—The following candidates passed in:

*Anatomy and Physiology.*—A. G. C. Davies, Guy's Hospital; F. J. Featherstone, Guy's Hospital; C. S. Hawes, St. Bartholomew's Hospital; J. E. Howroyd, Leeds; E. Hudson, St. Thomas's Hospital; A. M. Macintosh, St. Mary's Hospital; C. B. Sells, Guy's Hospital; G. M. Smith, St. Thomas's Hospital; N. Walmisley, St. Bartholomew's Hospital; A. J. Watson, St. Mary's Hospital; T. R. Wilshaw, Birmingham.

*Anatomy.*—S. K. Cama, Bombay; S. F. Cheesman, Charing Cross Hospital; A. Croneen, Guy's Hospital; G. A. Crowe, London; G. R. Lucas, Edinburgh and St. Bartholomew's Hospital; T. Morgan, Guy's Hospital; G. Steel, Cambridge; D. L. Thomas, Birmingham; H. C. Woodward, Cambridge.

*Physiology.*—W. Alcock, Sheffield; E. C. W. Beasley, St. Mary's Hospital; J. C. S. Dunn, St. Bartholomew's Hospital; F. J. F. Jones, Guy's Hospital; S. Page, Birmingham; T. M. Talbot, St. Bartholomew's Hospital.

PRIMARY EXAMINATION, PART I.—The following candidates passed in:

*Biology.*—A. E. Brown, Royal Free Hospital; R. Burnham, Charing Cross Hospital; T. M. Burton, Royal Free Hospital; A. M. Dodd, Royal Free Hospital; E. A. Dunn, Royal Free Hospital; A. E. Gilford, Royal Free Hospital; K. Heanley, Royal Free Hospital; H. M. O. Jones, Royal Free Hospital; D. E. Lockwood, Royal Free Hospital; L. S. Molony, Royal Free Hospital; F. M. Payne, Royal Free Hospital; C. E. Shell, Royal Free Hospital; A. Turner, City School of Chemistry.

*Materia Medica and Pharmacy.*—A. L. Bartram, Cambridge and Westminster; R. S. Elvins, Birmingham; T. B. Haig, St. Bartholomew's Hospital; H. Towers, Leeds; M. E. Unwin, Royal Free Hospital.

# PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

## NOTES ON WORKHOUSES.

### CHESTER UNION: THE MEDICAL OFFICER ASKS FOR TRAINED NURSES.

THE Chester Board of Guardians comes again before the public in an unenviable light. The medical officer, Dr. Archer, states that at his recent visit to the hospital "he saw a pauper inmate assisting in handling a case of broken leg in such a way as to endanger the position of the leg"; and then he proceeds to ask for two trained nurses for night duty. Dr. Archer says nothing about the sufferings of the unhappy patient whose broken limb is in the hands of a pauper "nurse." Doubtless by this time he has learnt that it would be useless. As it is, the clerk (Mr. Turncock) throws himself into the fray, and states that in his opinion trained night nurses are not wanted; "he had always told Dr. Archer that he differed from him." We fail to see where the clerk comes in on this occasion, or why he was not shown his proper place by the chairman; but we are much surprised to read that a lady guardian thinks "the pauper inmate nurses are very kind to the patients, and that they prefer being dealt with by those they know." No one is questioning their kindness; but if the clerk or Mrs. Keith Douglas had a broken leg we very much doubt if a sense of kind feeling on the part of a clumsy nurse would make them dead to the torture of the fragments being twisted out of line, or cause them any sense of gratification when they rose from their beds with a badly united fracture. Really such people have no right to sit on a Board until they have graduated in the school of common sense.

### ENGLISH URBAN MORTALITY IN THE FOURTH QUARTER OF 1896.

THE vital statistics of the thirty-three large English towns dealt with by the Registrar-General in his weekly returns are summarised in the accompanying table. During the three months ending December last, 91,177 births were registered in these thirty-three towns, equal to an annual rate of 31.3 per 1,000 of their aggregate population, estimated at 10 846,971 persons. In the corresponding periods of the three preceding years the birth-rates in these towns were 30.7, 30.7, and 29.3 per 1,000 respectively. In London the birth-rate last quarter was 30.7 per 1,000, while it averaged 31.7 in the thirty-two provincial towns, among which it ranged from 22 6 in Huddersfield, 24.4 in Halifax, 24.6 in Brighton, 25.7 in Bradford, and 25.8 in Croydon to 34.7 in Sunderland, 35.2 in Liverpool, 35.7 in Cardiff, 35.9 in Salford, 36.2 in Wolverhampton, and 36.5 in Gateshead.

During the quarter under notice 54,867 deaths were registered in these thirty-three towns, corresponding to an annual rate of 18.8 per 1,000, against 22.6, 17.7, and 19.4 in the fourth quarters of the three preceding years, 1893-4-5. In London the rate of mortality was equal to 18.1 per 1,000, while it averaged 19 4 in the thirty-two provincial towns, among which it ranged from 14 6 in Croydon, 14.9 in Leicester, 15.4 in Derby, 15.5 in West Ham, and 15.6 in Portsmouth to 21.7 in Wolverhampton, 21.9 in Manchester, 22.6 in Preston, 22.9 in Plymouth, and 23.1 in Liverpool. The 54,867 deaths registered in the thirty-three towns last quarter included 5,079, which were referred to the principal zymotic diseases, equal to an

annual rate of 1.7 per 1,000; in London the zymotic death-rate was equal to 1.6 per 1,000, while it averaged 1.8 in the thirty-two provincial towns, among which it ranged from 0.7 in Norwich, 0.8 in Portsmouth, 0.9 in Bristol, 1.0 in Croydon, and 1.1 in Brighton to 2.4 in Liverpool and in Salford, 2.9 in Hull, 3.1 in Gateshead, 3.3 in Nottingham, and 3.4 in Plymouth. The 5,079 deaths referred to the principal zymotic diseases in the thirty-three towns included 1,205 from diphtheria; 966 from measles, 807 from whooping-cough, 733 from scarlet fever, 705 from diarrhœa, 663 from "fever" (principally enteric), and not one from small-pox. The 1,205 fatal cases of diphtheria registered during the three months under notice were equal to an annual rate of 0.41 per 1,000, against 0.34 and 0.35 in the two preceding quarters; in London the death-rate from this disease was as high as 0.66 per 1,000, while it averaged 0.24 in the thirty-two provincial towns, among which this disease showed the highest proportional fatality in West Ham, Cardiff, Wolverhampton, Birmingham, Leicester, and Burnley. The 966 deaths referred to measles during last quarter were equal to an annual rate of 0.33 per 1,000, against 1.09 and 0.50 in the two preceding quarters; in London the measles death-rate was only 0.15 per 1,000, while it averaged 0.45 in the thirty-two provincial towns, among which measles was proportionally most fatal in Plymouth, Nottingham, Bradford, Hull, Gateshead, and Newcastle-upon-Tyne. The 807 fatal cases of whooping-cough registered during the three months ending December last were equal to an annual rate of 0.28 per 1,000, against 0.75, 0.84, and 0.42 in the three preceding quarters; in London the death-rate from this disease was equal to 0.22 per 1,000, while it averaged 0.27 in the thirty-two provincial towns, among which whooping-cough showed the highest proportional fatality in Swansea, Nottingham, Birkenhead, Blackburn, Huddersfield, and Hull. The 733 deaths from scarlet fever registered last quarter were equal to an annual rate of 0.25 per 1,000, against 0.19 and 0.21 in the two preceding quarters; in London the scarlet fever death-rate was equal to 0.22 per 1,000, while it averaged 0.31 in the thirty-two provincial towns, among which this disease was proportionally most fatal in Leicester, Birkenhead, Liverpool, Salford, and Hull. The 705 fatal cases of diarrhœa registered during the three months ending December last were equal to an annual rate of 0.24 per 1,000; in London the death-rate from this disease was equal to 0.17 per 1,000, while it averaged 0.29 in the thirty-two provincial towns, among which this disease showed the highest proportional fatality in Wolverhampton, Liverpool, Oldham, and Blackburn. The 663 deaths referred to different forms of "fever" (including typhus, enteric, and simple and ill-defined forms of fever) were equal to an annual rate of 0.23 per 1,000, against 0.14 and 0.21 in the two preceding quarters; in London the "fever" death-rate was equal to 0.18 per 1,000, while it averaged 0.26 in the thirty-two provincial towns, among which the highest mortality from "fever" was recorded in Nottingham, Liverpool, Bolton, Salford, and Sunderland. No fatal case of small-pox was registered during the three months ending December last either in London or in any of the thirty-two large provincial towns. In the four preceding quarters the deaths from small-pox in these towns had been 23, 14, 10, and 1 respectively.

Infant mortality in the thirty-three towns, measured by the proportion of deaths under one year of age to registered births, was equal to 150 per 1,000 last quarter, against 174, 155, and 178 in the corresponding periods of the three preceding years. In London the rate of infant mortality was equal to 138 per 1,000 while it averaged 158 in the thirty-two provincial towns, among which it ranged from 111 in Portsmouth, 129 in Bristol, 134 in Leicester, 135 in Derby, and 136 in Brighton to 200 in Swansea, 203 in Plymouth, 204 in Nottingham, 208 in Blackburn, and 235 in Preston.

The causes of 900, or 1.7 per cent. of the deaths in the thirty-three towns during the three months ending December last were not certified either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths in London did not exceed 0.7 per cent., while it averaged 2.3 per cent. in the thirty-two provincial towns. The causes of all the deaths in Croydon, in Derby, and in Bolton during the quarter were duly certified; in the other provincial towns the lowest proportions of uncertified deaths were registered in Portsmouth, Plymouth, Oldham, and Newcastle-upon-Tyne, and the highest in West Ham, Birmingham, Liverpool, Preston, and Sheffield.

## HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,938 births and 4,084 deaths were registered during the week ending Saturday, January 9th. The annual rate of mortality in these towns, which had been 17.0 and 22.3 per 1,000 in the two preceding weeks, declined to 19.4 last week. The rates in the several towns ranged from 10.8 in Croydon, 12.5 in Brighton, and 15.1 in Derby and in Leicester to 23.0 in Plymouth, 23.2 in Bolton and in Leeds, and 23.6 in Liverpool. In the thirty-two provincial towns the mean death-rate was 20.0 per 1,000, and exceeded by 1.5 the rate recorded in London, which was 18.5 per 1,000. The zymotic death-rate in the thirty-three towns averaged 2.0 per 1,000; in London the rate was equal to 1.8 per 1,000, while it averaged 2.1 in the thirty-two provincial towns, and was highest in Birkenhead, Plymouth, and Nottingham. Measles caused a death-rate of 1.0 in Newcastle-upon-Tyne, 2.0 in Nottingham, and 3.7 in Plymouth; and whooping-cough of 1.1 in Birmingham, 1.6 in Blackburn, and 2.0 in Nottingham. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 103 deaths from diphtheria in the thirty-three towns included 71 in London, 7 in Birmingham, 4 in Leicester, 3 in Birkenhead, 3 in Liverpool, and 3 in Leeds. No fatal case of small-pox was registered, either in London or in any of the thirty-two large provincial towns. There were 2 small-pox patients under treatment in the Metropolitan Asylum Hospitals on Saturday last, January 9th, against 3 at the end of the preceding week; no new cases were admitted during the week. The number of scarlet fever patients in the Metropolitan Asylum Hospitals

*Analysis of the Vital and Mortal Statistics of Thirty-three of the Largest English Towns during the Fourth Quarter of 1896.*

| Towns. | Estimated Population in middle of 1896. | Births. | Deaths. | Annual Rate per 1,000 Living. Births. | Deaths. | Principal Zymotic Diseases. | Deaths from Principal Zymotic Diseases. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-Cough. | Fever. | Diarrhœa. | Deaths of Children under one year of age to 1,000 Births. | Rate per cent. of Uncertified Deaths. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 33 Towns | 10,846,971 | 91,177 | 54,867 | 31.3 | 18.8 | 1.74 | 5,079 | — | 966 | 733 | 1,205 | 807 | 663 | 705 | 150 | 1.7 |
| 32 Provincial Towns | 6,425,016 | 54,712 | 33,400 | 31.7 | 19.4 | 1.82 | 3,105 | — | 782 | 470 | 420 | 541 | 450 | 504 | 158 | 2.3 |
| London | 4,421,955 | 36,465 | 21,467 | 30.7 | 18.1 | 1.60 | 1,912 | — | 184 | 263 | 785 | 266 | 213 | 201 | 138 | 0.7 |
| West Ham | 261,297 | 2,315 | 1,085 | 33.0 | 15.5 | 2.11 | 149 | — | 42 | 15 | 69 | 15 | 15 | 18 | 143 | 3.7 |
| Croydon | 118,006 | 819 | 462 | 25.8 | 14.6 | 1.00 | 32 | — | 2 | 3 | 7 | 12 | 6 | 2 | 150 | — |
| Brighton | 120,499 | 797 | 560 | 24.6 | 17.3 | 1.10 | 36 | — | 15 | 1 | 8 | 5 | 3 | 4 | 136 | 1.4 |
| Portsmouth | 178,639 | 1,382 | 749 | 28.8 | 15.6 | 0.80 | 38 | — | 7 | 10 | 6 | 6 | 4 | 5 | 111 | 0.3 |
| Plymouth | 90,276 | 701 | 554 | 28.9 | 22.9 | 3.37 | 82 | — | 67 | 1 | 3 | 8 | — | 8 | 203 | 0.5 |
| Bristol | 230,623 | 1,671 | 1,048 | 27.0 | 16.9 | 0.91 | 57 | — | — | 10 | 9 | 25 | 5 | 8 | 129 | 0.8 |
| Cardiff | 162,690 | 1,558 | 821 | 35.7 | 18.8 | 1.72 | 76 | — | 15 | 12 | 29 | 16 | 5 | 5 | 159 | 1.6 |
| Swansea | 93,645 | 796 | 545 | 30.0 | 20.6 | 1.59 | 42 | — | 1 | 1 | 4 | 58 | 4 | 2 | 200 | 0.7 |
| Wolverhampton | 86,530 | 842 | 503 | 36.2 | 21.7 | 1.77 | 41 | — | 1 | 7 | 10 | 4 | 5 | 13 | 192 | 1.0 |
| Birmingham | 501,241 | 4,442 | 2,702 | 33.0 | 20.1 | 1.92 | 259 | — | 27 | 41 | 53 | 43 | 37 | 52 | 160 | 6.2 |
| Norwich | 103,020 | 970 | 516 | 33.3 | 17.7 | 0.72 | 21 | — | — | 2 | 6 | 1 | 4 | 8 | 162 | 1.4 |
| Leicester | 198,659 | 1,689 | 795 | 31.7 | 14.9 | 1.56 | 83 | — | 2 | 24 | 23 | 11 | 15 | 8 | 134 | 2.8 |
| Nottingham | 229,775 | 1,777 | 1,240 | 28.8 | 20.1 | 3.34 | 206 | — | 98 | 3 | 6 | 57 | 26 | 16 | 204 | 0.9 |
| Derby | 101,770 | 763 | 422 | 27.9 | 15.4 | 1.21 | 33 | — | 12 | 4 | 1 | 2 | 5 | 9 | 135 | — |
| Birkenhead | 109,343 | 969 | 580 | 33.0 | 19.8 | 1.99 | 59 | — | 1 | 23 | 1 | 22 | 8 | 6 | 158 | 1.0 |
| Liverpool | 632,512 | 5,979 | 3,919 | 35.2 | 23.1 | 2.44 | 413 | — | 11 | 104 | 47 | 49 | 71 | 85 | 144 | 4.2 |
| Bolton | 120,380 | 1,046 | 674 | 32.4 | 20.9 | 1.20 | 39 | — | 1 | 5 | 2 | 1 | 19 | 11 | 152 | — |
| Manchester | 529,561 | 4,727 | 3,119 | 33.2 | 21.9 | 2.12 | 301 | — | 97 | 41 | 18 | 51 | 36 | 58 | 161 | 1.3 |
| Salford | 210,707 | 2,031 | 1,134 | 35.9 | 20.0 | 2.34 | 132 | — | 11 | 20 | 27 | 24 | 23 | 27 | 162 | 2.6 |
| Oldham | 143,442 | 1,088 | 784 | 28.3 | 20.4 | 1.64 | 63 | — | 3 | 13 | 11 | 4 | 12 | 20 | 187 | 0.4 |
| Burnley | 102,805 | 905 | 515 | 32.8 | 18.7 | 1.48 | 41 | — | 1 | — | 15 | 11 | 4 | 8 | 196 | 1.4 |
| Blackburn | 120,459 | 1,031 | 704 | 29.7 | 20.3 | 1.79 | 62 | — | — | 3 | 3 | 25 | 8 | 23 | 208 | 3.3 |
| Preston | 113,864 | 959 | 691 | 31.4 | 22.6 | 1.12 | 34 | — | 1 | 2 | 3 | 5 | 8 | 13 | 235 | 4.3 |
| Huddersfield | 100,463 | 610 | 466 | 22.6 | 17.3 | 1.44 | 39 | — | 1 | 1 | 4 | 26 | 4 | 2 | 159 | 3.4 |
| Halifax | 94,775 | 620 | 448 | 24.4 | 17.6 | 1.19 | 30 | — | 11 | — | 9 | 2 | 2 | 4 | 181 | 1.6 |
| Bradford | 228,809 | 1,576 | 1,069 | 25.7 | 17.4 | 1.84 | 113 | — | 87 | 6 | 2 | 2 | 1 | 6 | 146 | 1.0 |
| Leeds | 402,449 | 3,430 | 2,066 | 31.7 | 19.1 | 1.33 | 143 | — | 22 | 33 | 11 | 28 | 22 | 12 | 144 | 0.6 |
| Sheffield | 347,278 | 3,241 | 1,746 | 34.8 | 18.7 | 1.55 | 145 | — | 17 | 30 | 17 | 13 | 25 | 29 | 152 | 4.0 |
| Hull | 220,844 | 1,850 | 1,206 | 31.9 | 20.3 | 2.11 | 169 | — | 14 | 24 | 21 | 31 | 18 | 16 | 170 | 2.5 |
| Sunderland | 140,386 | 1,309 | 702 | 36.2 | 19.4 | 1.38 | 52 | — | 7 | 7 | 3 | 7 | 19 | 13 | 141 | 1.1 |
| Gateshead | 98,436 | 964 | [illegible] | [illegible] | [illegible] | 2.09 | 82 | — | 31 | 7 | 1 | 3 | 2 | 7 | 175 | 0.8 |
| Newcastle-on-Tyne | 212,223 | 1,815 | 1,045 | [illegible] | [illegible] | 1.18 | 95 | — | 42 | 9 | 7 | 15 | 13 | 3 | 159 | 0.4 |

and in the London Fever Hospital, which had declined from 4,164 to 3,707 at the end of the eleven preceding weeks, had further fallen to 3,597 on Saturday last; 290 new cases were admitted during the week, against 291, 219, and 271 in the three preceding weeks.

### HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, January 9th, 1,165 births and 680 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 20.3 to 22.4 per 1 000 in the six preceding weeks, further rose to 22.8 last week, and exceeded by 3.0 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 18.4 in Aberdeen to 32.4 in Perth. The zymotic death-rate in these towns averaged 3.4 per 1,000, the highest rates being recorded in Dundee and Glasgow. The 356 deaths registered in Glasgow included 41 from measles, 14 from whooping-cough, 9 from diarrhœa, 5 from scarlet fever, 2 from diphtheria, and 2 from "fever."

### CERTIFICATION OF PAUPER LUNATIC.

J. N. M. writes: A. B. is a district medical officer. C. D. is a private practitioner who has a patient fit for the county asylum, and he informs the relieving officer to that effect. The latter then takes the patient to A. B., who ignores a message sent to him by C. D., and certifies for the removal to the asylum. Our correspondent asks: "Is this conduct in accordance with the ethics of the profession?"

*** When C. D. communicated with the relieving officer, that official took up the case as a pauper case, and in the ordinary course he would consult the district medical officer; if he did so, it appears that he (A. B.) was then at liberty to carry the case through without any conference with C. D. It is quite possible that if A. B. had declined to act he might have incurred the displeasure of his Board of Guardians by so doing.

### FEE FOR CERTIFICATION OF A PAUPER LUNATIC.

ENQUIRER writes to say that he informed the relieving officer of the condition of a patient whose removal to a county appeared necessary; that he was then requested to appear before a magistrate to give evidence on oath, and to certify to mental condition. For this duty the guardians allowed him half a guinea. He asks, Can I demand more; and, if so, how much?

*** We cannot understand for what reason evidence on oath was required, and we doubt whether any fee can be claimed for this. A guinea is a proper fee for certification only, and if our correspondent had any serious distance to travel it should be more than this. The magistrate who acted in the case has full power to order a guinea fee, or even more, to be paid by the guardians if he thinks fit to do so.

### CLAIM FOR NOTIFICATION FEES.

C. H. S. asks whether a doctor has to apply to the local medical officer of health for notification fees, and when that officer is supposed to pay them.

*** The notification certificates are in themselves sufficient demand for payment, but it is usual, we believe, for medical practitioners to send in an account for the total amount of fees due at the close of each year, addressing the claim to the clerk to the local council, who has to pay the fees. The medical officer of health only certifies the amounts due.

# INDIA AND THE COLONIES.

### INDIA.

THE LIEUTENANT GOVERNOR OF BENGAL AND THE CALCUTTA MUNICIPALITY.—It would appear from accounts received from private sources that Sir Alexander Mackenzie's censures of the municipality were not only well timed, but well deserved, notwithstanding the stormy proceedings which characterised the Calcutta meetings of the Municipal Council to discuss the Lieutenant Governor's speech. A correspondent of great experience, writing of the state of affairs, says: "Five hundred people were found living in one house, and 20 tons of ordure beneath. You can form no idea of what the back streets are like, even those close upon the best parts. If the plague gets to Calcutta it will have a nice hotbed to work on."

MEDICAL EDUCATION IN MADRAS.—The Madras Government seems at length inclined to grapple seriously with the question of bacteriology in Southern India. Ultimately, no doubt, a bacteriological laboratory will be started at Ootacamund or Yercaud, but the first step will be to free the present Professor of Hygiene at the Medical College, Madras, Surgeon-Captain A. E. Grant, from his duties as Second Physician at the General Hospital, in order that he may have the time to do regular laboratory work. The Hygiene Laboratory at that College has, we believe, a very complete equipment. In addition, the building of a Museum of Hygiene for local and imported exhibits is said to have been decided upon. We only hope this is true, for of the extreme usefulness of such an institution there can be no two opinions. A scheme for the reorganisation of the Medical College and General Hospital has been before Government for a long time, but nothing has been definitely settled as yet. Meanwhile Calcutta is going ahead, and Madras, which for years had the best equipped medical school in India, is gradually falling behind both Calcutta and Bombay. Pathological, physiological, and pharmaceutical laboratories are badly needed, and teachers who can give the proper amount of time to teaching and working at these subjects. It is very desirable that the whole question be taken in hand and settled without further delay.

### NEW SOUTH WALES.

UNIVERSITY OF SYDNEY.—The Hon. Henry N. MacLaurin, M.A., M.D., LL.D., Vice-Chancellor of the University of Sydney, has been elected to the office of Chancellor in the room of Sir William Windeyer, M.A., LL.D., resigned.

INSANITY.—The report for 1835 of the Inspector-General of the Insane for New South Wales, which was recently presented to the Colonial Parliament, states that on December 31st, 1895, there were 3,720 insane persons under official cognisance in the Colony as against 3,587 at the end of 1894. The increase during 1895 was therefore 133, which is above the average for the last twenty years, though somewhat below that for 1894. The proportion of insane to population from 1872 to 1891 was nearly stationary at 2.69 per 1,000, whereas during the last four years it has slowly risen, and now stands at 2.91 per 1,000. The chief moral causes of insanity during 1895, as far as can be ascertained with accuracy, were: (1) Mental anxiety, worry, and overwork; (2) domestic trouble; (3) adverse circumstances, including pecuniary difficulties. The chief physical cause was intemperance in drink. The chief cause of death was general paralysis. The cost to the State for each patient in the hospitals for the insane during 1895 was £24 6s. 4d., or 9s. 4d. per week.

# OBITUARY.

DR. LUIGI CALORI, late Professor of Anatomy in the University of Bologna, died on December 19th, 1896. He was born at San Pietro, near Bologna, in 1807, and took his degree at Bologna in 1829. In the following year he was appointed additional Professor of Anatomy at his University. In 1835 he was elected to the chair of descriptive anatomy, and nine years later to that of human anatomy, which he held till a few years ago. He was also for many years President of the Academy of Sciences of Bologna, and had been several times elected Dean of the Faculty of Medicine. He was the author of many important works on human anatomy, zootomy, and anthropology, besides several volumes on general literature.

WE have to record the death of Mr. THOMAS COLLYNS BLANCHARD, M.R.C.S., L.S.A. He was educated at St. Bartholomew's Hospital, and qualified in 1849. He went to Spain in 1865, partly on account of his health—he was subject to asthma—and partly because cholera was raging in Andalusia, and the available medical assistance was unsatisfactory to the English residents, many of whom died of cholera that year. He became medical officer to several English mining companies in the province of Jaen, and resided at Linares, where he died on January 6th at the age of 74. He wrote a work in Spanish on cholera and its treatment. He was of a kindly generous disposition, an able surgeon, a good shot, an expert horseman, and took a great interest in gardening. He was married to a Spanish lady, and was left a widower two years ago. He leaves no family.

WE regret to have to record the death of Mr. THOMAS B. ANSTIE, of Devizes. Mr. Anstie was a student of St. Thomas's Hospital, and obtained the diploma of M.R.C.S. Eng. in 1841, and of L.S.A. in 1842. He settled in Devizes in 1844, so that he had practised in that town for over fifty years. He was highly esteemed as a conscientious practitioner, who kept himself abreast of professional progress. He was reticent, unassuming, devoted to professional work, sympathetic with those in distress, while his opinion on social and domestic questions was highly valued. He was a Liberal in politics, and took a deep interest in the religious work of the Baptist community. Mr. Anstie, who was in his 79th year, leaves a widow and family, with whom much sympathy in their bereavement is expressed by all classes.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Plucker, Professor of Dermatology in the University of Liége, aged 45; Dr. D. Doijer, Professor of Ophthalmology and Otology in the Medical Faculty of Leyden; Dr. J. Monteiro Caminhoa, Emeritus Professor of Medical Botany and Zoology in the Medical Faculty of Rio de Janeiro; Dr. Theodore Lickfett, director of the Bacteriological Institute of Danzig, aged 48; Dr. Icaza Arosemena, of Panama, a leading physician and public man of the Republic of Colombia; and Dr. Franz Bartsch, a well-known gynæcologist of Vienna, son of Dr. Bartsch, formerly Professor of Obstetrics in the University of Vienna, aged 61.

# MEDICAL NEWS.

AN anonymous donor has given £4,000 to the Hospital for Women and Children at Leeds.

THE Alexandra Hospital for Children with Hip Disease has received a donation of £300 from "C. W.," and one of £100 from "A. B." in aid of its funds.

THE Victoria Jubilee Hospital Fund at Belfast now amounts to £47,000. The Lady Mayoress has convened a meeting of women to aid the collection of the necessary £100,000.

JAMES HENRY ALDRIDGE, described as a herbalist, has, according to the report in the *Daily News*, been committed for trial at Halifax on the charge of murder in connection with the death of a young woman upon whom he is alleged to have performed an illegal operation.

MORTALITY AMONG FRENCH TROOPS IN MADAGASCAR.—The medical returns of the French expedition to Madagascar show that among 22,850 troops there were 7,498 deaths. The sappers suffered most. Two-thirds of them died, and this high mortality is due, no doubt, to the effects of malaria whilst they were engaged in making roads and bridges over the low-lying lands near the coast. Next comes a battalion of chasseurs, with a loss of over 62 per cent. This occurred after the forced march to Tsarasotra. The coloured auxiliaries, whether Sakalava, or Senegalesi, or Kabyles, all suffered severely. Out of 7,000 men 3,000 died.

THE PROPOSED NEW HOSPITAL FOR CONSUMPTION AT LIVERPOOL.—A number of plans for rebuilding the Hospital for Consumption have been considered by the Committee of that institution, and it has finally been resolved—first, to take in hand the building of a branch hospital in the country, with 20 beds, and subsequently to pull down the present houses in Mount Pleasant, and build a hospital to receive forty patients. So far the committee has received generous promises of support, and already about £23,000 has been promised. About £50,000 will be required to complete the scheme, but there is little doubt that before long the amount will be forthcoming.

BIRMINGHAM SCHOOL OF DERMATOLOGY.—Arrangements have been made to permit medical practitioners and advanced students to attend the practice of the Birmingham and Midland Hospital for Skin and Urinary Diseases (formerly the Skin and Lock Hospital). Many students have in the past attended the practice of the hospital, but the new arrangements will lead to a more systematic use of the valuable clinical material at the hospital, to the advantage of students in Birmingham, who will thus have an opportunity of gaining a more extended acquaintance with the diagnosis and treatment of disorders of the skin.

## MEDICAL VACANCIES.

The following vacancies are announced:

ASTON-UNION.—Resident Assistant Medical Officer at the Workhouse, Erdington, near Birmingham. Salary, £100 per annum, with furnished apartments, rations, washing, etc. Doubly qualified. Applications to John North, Clerk to the Guardians, Union Offices, Vauxhall Road, Birmingham, by January 23rd.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £150 per annum (with an allowance of £30 per annum for cab hire), and furnished rooms, fire, light, and attendance. Applications to E. W. Forrest, Secretary, by January 18th, 1897.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Post is non-resident and for three months. Honorarium, £13 13s. Applications to J. E. Hartley, Honorary Secretary, 13, St. Paul's Square, Birmingham.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Clinical Assistants; must guarantee to give six months' attendance. Applications to Richard Kershaw, Secretary.

CITY OF LONDON LYING-IN HOSPITAL, City Road, E.C.—District Surgeon. Applications to R. A. Owthwaite, Secretary, by January 19th.

CORK STREET FEVER HOSPITAL AND HOUSE OF RECOVERY, Dublin.—Assistant Registrar and Resident Medical Officer. Salary, £45 per annum, with board, furnished apartments, coal, attendance, and gas. Applications to the Chairman by January 27th, and candidates must appear personally on the Thursday morning, January 28th, at 10 o'clock.

COUNTY ASYLUM, Rainhill, near Liverpool.—Assistant Medical Officer; unmarried, and not more than 30 years of age. Salary to commence at £100 per annum, with prospect of increase to £250, with furnished apartments, board, attendance and washing. Applications to the Medical Superintendent

COUNTY LUNATIC ASYLUM, Lancaster.—Assistant Medical Officer; unmarried. Salary commencing at £100 per annum, with board, apartments, attendance, and washing. Applications to the Medical Superintendent by January 31st.

FLINTSHIRE DISPENSARY, Holywell, North Wales.—Resident House-Surgeon. Salary, £120 per annum, with furnished house, rent and taxes free, also coal, light, water, cleaning, or in lieu thereof the sum of £20 per annum. Knowledge of Welsh desirable. Applications to the Secretary by January 25th.

JAFFRAY SUBURBAN BRANCH OF THE GENERAL HOSPITAL, Gravelly Hill, near Birmingham.—Resident Medical and Surgical Officer; doubly qualified. Salary, £150 per annum, with board, residence, and washing. Applications to the House Governor, General Hospital, Birmingham, by January 30th.

LIVERPOOL DISPENSARIES.—Assistant Surgeon. Salary, £80, to be increased to £90 per annum after the first year's service, with apartments, board, and attendance. Must be unmarried. Applications to R. R. Greene, Secretary, 34, Moorfields, Liverpool, by January 25th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer. Appointment for six months; doubly qualified. No salary, but board, washing, and residence in the hospital provided. Applications to A. W. Bodger, Secretary, by January 25th.

MIDDLESBROUGH NEW ASYLUM.—Medical Superintendent. House (unfurnished, with rates and taxes free), coals, gas, water, and washing will be allowed. Applications, stating salary required, to George Bainbridge, Town Clerk, Middlesbrough, by January 23rd.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich Road, S.E.—Resident Medical Officer. Salary, £30 per annum, with board, attendance, and washing. Post tenable for six months, with prospect of re-election as Senior. Applications to the Honorary Secretary.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-on-Trent.—Assistant House-Surgeon. Board, apartments, and washing as equivalent for services rendered. Applications to Ralph Hoadley, Secretary, by January 25th.

PLOMESGATE UNION.—Medical Officer for the Saxmundham District. Salary, £75 per annum, and usual fees. Must reside within the district. Applications to T. Waller Read, Clerk to the Guardians, Board Room, Wickham Market, by January 23rd.

QUEEN'S HOSPITAL, Birmingham.—Third Casualty Surgeon, or Surgeon to Out-patients; must be F. or M.R.C.S. Second Physician for Out-patients. Appointments tenable for three years. Honorarium in each case £50 per annum. Applications to the Secretary by January 20th.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House-Surgeon for six months from February 1st. Board, lodging, and washing provided. No salary. Applications to "Chairman of Medical Committee" by January 20th.

ROYAL HANTS COUNTY HOSPITAL, Winchester.—Assistant House-Surgeon, doubly qualified. Salary at the rate of £20 per annum, with board and lodging. Applications to the Secretary by January 22nd.

ST. GEORGE'S HOSPITAL, S.W.—Physician and Assistant Physician; must be F. or M.R.C.P.Lond. Applications to the Secretary by January 22nd.

SUFFOLK COUNTY LUNATIC ASYLUM, Melton, near Woodbridge.—Medical Officer; must not exceed 40 years of age. Salary, £600 per annum, with furnished house (excluding plate and linen), including all rates. Applications to A. Townsend Cobbold, Clerk to the Visiting Committee, County Hall, Ipswich, by February 1st.

SUSSEX COUNTY HOSPITAL, Brighton.—House-Surgeon; doubly qualified, unmarried, and under 30 years of age. Salary, £120, rising to £140 per annum at the discretion of the Committee of Management, with board, residence in the hospital, and washing. Applications to the Secretary by February 10th.

## MEDICAL APPOINTMENTS.

BOYD, Robert, M.B., C.M.Glasg., appointed Senior House-Surgeon to the Huddersfield Infirmary, *vice* G. W. K. Crosland, M.R.C.S., resigned.

BROOK, Henry D., L.R.C.P.Lond., M.R.C.S.Edin., appointed Medical Officer for the Second District and of the Workhouse of the Fareham Union.

BURGESS, R., M.B., C.M.Aberd., appointed Third House-Surgeon to Huddersfield Infirmary, *vice* R. C. James, M.B., C.M., resigned.

EASTON, Dr. John, appointed Medical Officer of Health to the Weardale Rural District Council.

EMANUEL, J. G., M.R.C.S., L.R.C.P.Lond., B.Sc.Lond., appointed House-Physician to the City of London Hospital for Diseases of the Chest, Victoria Park, E.

HENRY, John P., B.A., M.D., B.Ch.Dub., L.M.R.C.P.I., appointed Divisional Surgeon to the Lewisham Police, *vice* J. Hammersley, M.R.C.S., L.S.A., deceased.

HUGHES, Dr. T. H., appointed Medical Officer of Health to the Connah's Quay Urban Council.

JAMES, M. B., M.B., Ch.B.Vict., appointed Second House-Surgeon to Huddersfield Infirmary, *vice* R. Boyd, M.B., C.M.

MARSH, J. H., M.R.C.S., L.R.C.P., appointed Medical Officer and Ambulance Lecturer to the Macclesfield School Board.

SHEARER, R. P., M.B., C.M.Glasg., reappointed Medical Officer for the Gotham District of the Basford Union.

SHORT, Edward W., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the No. 2 District of the Alston with Garrigill Parish.

SMITH, G. Francis, M.R.C.S., L.R.C.P., appointed Honorary Medical Officer to the Watford District Cottage Hospital.

STEVENSON, Dr., appointed Assistant Medical Officer to the Glasgow Parish Council.

WALKER, Francis John, M.D., appointed Medical Officer of the Workhouse and Spilsby West District, and Public Vaccinator, Spilsby Union, *vice* J. West Walker, M.B.Lond., resigned.

WATKINS, Gregory, M.A., M.B., B.C.Cantab., appointed Public Vaccinator for the City of Lincoln, *vice* C. Harrison, M.D., resigned.

WEST, G. F., L.R.C.P., L.R.C.S.Edin., appointed Resident Medical Superintendent to the Kilkenny District Asylum.

WYLLYS, Henry J. M., L.R.C.P., L.R.C.S.Edin., appointed Junior House-Surgeon to the Norfolk and Norwich Hospital.

## DIARY FOR NEXT WEEK.

### TUESDAY.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL, Gray's Inn Road, W.C., 4 P.M.—Dr. Dundas Grant on the Investigation of Ear Disease.

PATHOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 P.M.—Mr. B. Pitts and Mr. S. G. Shattock: Noncalcifying Plastic Osteitis. Dr. A. A. Kanthack and Mr. T. Strangways Pigg: Sarcoma and Carcinoma of Testis; re examination of a specimen described by Sir James Paget fifty years ago. Mr. J. W. W. Stephens and Mr. Parfitt: Three Cases of Hæmorrhagic Diphtheria. Card Specimens by Mr. E. P. Paton.

ROYAL STATISTICAL SOCIETY, Royal United Service Institution, Whitehall, S.W., 5.30 P.M.—Mr. T. A. Welton: Local Death-rates in England and Wales in the ten years 1881-90.

### WEDNESDAY.

THE CLINICAL MUSEUM, 211, Great Portland Street, 4 P.M.—Demonstration by Mr. Jonathan Hutchinson.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M. Mr. McAdam Eccles: Cases of Hernia.

ROYAL METEOROLOGICAL SOCIETY, 25, Great George Street, Westminster, 7.45 P.M.—Annual General Meeting.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, 4 P.M.—Dr. Green: Clinical Demonstration in the Wards.

ROYAL MICROSCOPICAL SOCIETY, 20, Hanover Square, W., 8 P.M.—Annual Meeting. President's Address.

### THURSDAY.

SOCIETY OF ANÆSTHETISTS, 20, Hanover Square, W., 8.30 P.M.—Dr. A. E. Bridger: Disorders Favoured or Produced by Anæsthesia, with Clinical Cases.

### FRIDAY.

LINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 P.M.—Mr. Howard Marsh: Two Cases of Coins Impacted in the Œsophagus. Mr. H. G. Croly: Case of Successful Ligature of the Left Subclavian Artery in the second part for Aneurysm. Mr. George Stoker: Case of Chronic Ulcer, and Case of Lupus treated by Oxygen; and other Cases.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

ANDERSON.—On January 8th, at 5, Rue de Bois de Boulogne, Paris, the wife of D. E. Anderson, M.D., of a son.

CAMERON.—On January 5th, at 9, Elms Road, Clapham Common, S.W., the wife of Albert Cameron, M.B., C.M.Edin., of a daughter.

COX.—On January 2nd, at Duffield House, Watford, the wife of Alfred E. Cox, M.R.C.S., L.R.C.P., of a daughter.

DAVIES.—On January 5th, at 23, Finsbury Square, the wife of Arthur Templer Davies, M.D.Cantab., F.R.C.P., of a daughter.

D'ERF WHEELER.—On December 20th, 1896, at Jerusalem, the wife of Percy D'Erf Wheeler, M.D., F.R.C.S.E., F.R.G.S., of a son.

HEATH.—On January 6th, at 3, Cavendish Place, Cavendish Square, W., the wife of Charles J. Heath, F.R.C.S., of a daughter.

NORTH.—On January 10th, at Abbey Street, Armagh, Ireland, the wife of Thomas North, M.D., of a son.

PATON.—On January 10th, at Hendham House, Harpurhey, Manchester, the wife of R. A. Paton, M.B.Glasg., of a son.

### DEATHS.

CONYERS.—On December 20th, 1896, in his 56th year, at the residence of his nephew, Dr. J. E. Godfrey, "Littledale," Friendship, Demerara, British Guiana, Brigade-Surgeon James Saltus Conyers, M.D., on the retired list of the Army Medical Staff (formerly of the 8th King's), third son of the late Charles and Susan Butterfield Conyers, of British Guiana.

LEITCH.—On December 22nd, 1896, at Monimail, Silloth, Cumberland, John Leitch, M.B., C.M.Edin., aged 47 years. Was interred at Maryport Cemetery on December 26th, 1896.

STARK.—On January 3rd, at his residence, Abbey Road, Barrow-in-Furness, Lancashire, Peter Wood Stark, M.D., aged 67 years.

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances*—Daily, 2. *Operations*.—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances*.—Daily, 1. *Operations*.—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR.—*Attendances*.—M. W. Th. S., 2; Tu. F., 5. *Operations*.—Daily.

CHARING CROSS. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations*.—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances*.—Daily, 1.30. *Operations*.—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances*.—M. Tu. Th. F., 2. *Operations*.—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations*.—F., 2.

GREAT NORTHERN CENTRAL. *Attendances*.—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30; Skin, W., 2.30; Dental, W., 2. *Operations*.—M. W. Th. F.

GUY'S. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations*.—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Attendances*.—Daily, 10. *Operations*.—M. Th., 2.

KING'S COLLEGE. *Attendances*.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations*.—M. F. S., 2.

LONDON. *Attendances*.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operations*.—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE. *Attendances*.—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations*.—M. Th., 4.30.

METROPOLITAN. *Attendances*.—Medical and Surgical, daily, 2; Obstetric, W., 2. *Operations*.—F., 2.

MIDDLESEX. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 2; W., 1.30; Eye, Tu. F., 2; Ear and Throat, Tu., 2; Skin, Tu., 4; Tu., 9.30; Dental, M. W. F., 9.30. *Operations*.—W., 1.30; S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Attendances*.—M. Tu. Th. F., 2. *Operations*.—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances*.—Daily, 2; Ophthalmic, W. S., 9.30. *Operations*.—Tu. F., 2.

NORTH-WEST LONDON. *Attendances*.—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 2; Skin, F., 2; Dental, F., 9. *Operations*.—Tu., 2.30.

ROYAL EYE, Southwark. *Attendances*.—Daily, 2. *Operations*.—Daily.

ROYAL FREE. *Attendances*.—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 3; Dental, Th., 9. *Operations*.—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances*.—Daily, 9. *Operations*.—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances*.—Daily, 1. *Operations*.—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances*.—Daily, 1. *Operations*.—Daily.

ST. BARTHOLOMEW'S. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations*.—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

ST. GEORGE'S. *Attendances*.—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations*.—M. Tu. Th. F., 1.

ST. MARK'S. *Attendances*.—Fistula and Diseases of the Rectum, males S., 3; females; W., 9.45. *Operations*.—M., 2; Tu., 2.30.

ST. MARY'S. *Attendances*.—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Tu., 3; Orthopædic, W., 10; Throat, Tu. F., 3.0; Skin, M. Th., 2.30; Electro-therapeutics, M. Th., 2.30; Dental, W. S., 9.30; Children's Medical, Tu. F., 3.15; Children's Surgical, S., 9.15. *Operations*.—M., 2.30.; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances*.—M. 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations*.—W. F., 2.

ST. THOMAS'S. *Attendances*.—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, M. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations*.—M. W. Th. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances*.—Daily, 1.30. *Operations*.—W., 2.30.

THROAT, Golden Square. *Attendances*.—Daily, 1.30; Tu. F., 6.30. *Operations*.—Th., 2.

UNIVERSITY COLLEGE. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Tu., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30. *Operations*.—Tu. W. Th., 2.

WEST LONDON. *Attendances*.—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations*.—Tu. F., 2.30.

WESTMINSTER. *Attendances*.—Medical and Surgical, daily, 1; Obstetric, Tu., F., 1; Eye, Tu. F., 9.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operations*.—Tu. W., 2.

## LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

F. W. M.—The question is a legal one, and our correspondent should consult his solicitor.

ANON wishes information as to the climate of Paignton, Devon, whether fairly bracing, and likely to suit a rheumatic subject with heart and kidney affection.

### ACCESSORY PANCREAS.

R. H. S. C. writes: Can any of your readers kindly inform me if, in the experience of anatomists and pathologists, the occurrence of detached accessory pancreas in the wall of the intestine or stomach is frequent. The only cases, two in number, which I can find recorded in Great Britain, were published in 1861, in the 12th volume of the *Transactions* of the Pathological Society of London, by Montgomery.

### DELUSIONS.

F. would like to know of a private home where a female patient, aged 42, could be boarded. She has occasional delusions (mild), and her friends do not care to have her certified. They cannot afford to pay more than between £30 to £40 a year.

*** We know of no private home where a patient could be taken at the rate mentioned. If the patient has delusions certificates are indicated.

### BOOKS ON NURSING AND FIRST AID.

C. H. S. would be glad of the following information: four books on "first aid" or nursing at prices about 8s., 5s., 4s., and 3s. respectively, suitable for prizes for ambulance class.

*** We have not been able to hear of books on first aid and nursing at the prices suggested. First aid books appear to vary in price from 2d. to about 3s. 6d., and nursing books vary from 1s. 6d. to 4s. 6d. The only one we know of at the latter price is Billroth's *Care of the Sick*.

### MEDICAL ATTENDANCE ON MONTHLY NURSES.

A CORRESPONDENT asks for advice under the following circumstances: The monthly nurse of one of his patients being taken ill, he was called in to attend her. When she was about to leave the patient's service, she asked him to send her his account. Before doing so he thought it advisable to mention it to the patient's husband, who thereupon replied "that he thought that medical attendance upon a nurse was looked upon in the same light as if rendered to a brother practitioner, and supports his view of the case by saying that the nurse has told him that when at home she is always attended gratis by her medical man."

*** Many practitioners do not charge monthly nurses for professional services, but there is no obligation to do so. It is incorrect to say that monthly nurses have the same claim on a medical practitioner as a professional brother and his family, and in many cases the patient pays for attendance on the nurse. Indeed, if the patient's husband calls in the doctor to attend the nurse, he is legally liable to pay the account.

### INSTRUCTION IN NURSING.

G. B. writes: Your reviewer of *A Textbook of Nursing*, by C. Weeks Shaw, makes a remark which I have no doubt is much appreciated by many young practitioners besides myself, when he says that books on nursing are usually more of an elementary medical character than a series of practical instructions. This I have discovered by sad experience. What is wanted is a book with simple information as to all the details of nursing, for example, method of changing sheets, applying compresses, and such kindred matters, so that one can answer with some knowledge questions asked on these points, and not have to hedge and prevaricate. I should be glad to know what is the most useful treatise on such subjects.

### COMPETITION FOR CLUB APPOINTMENTS.

SUSSEX writes to say that a lodge of Shepherds having determined to change their surgeon, put up at one of their meetings the names of three local practitioners for selection. A deputation was then sent to the practitioner who secured the greatest number of votes, to ask him whether he would accept the post of surgeon to the lodge. He replied that he would do so if proper notice were given to the then surgeon, and if after the vacation of the office he were elected by the members. Was the practitioner right in becoming a candidate?

*** It is not desirable that one practitioner should receive a deputation from a lodge to treat respecting a professional appointment held by another. In a case like the one propounded, if a vacancy fairly existed, due notice having been given to the former surgeon, all the local practitioners would have been justified in becoming candidates.

### PERIHEPATITIS (?)

X. Y. writes: A medical man, aged 30, has twice suffered from pleurisy, first on the right and then on the left side in two consecutive winters recently, with no evidence whatever of its former existence now remaining. Since then he has had at intervals varying from two weeks to as many months attacks of slight pain and tenderness over the hepatic region, accompanied by very distinct friction in the same region. This friction is very distinctly heard at the lower edge of the ribs and over the exposed portion of the liver in the epigastrium, and is always most intense at a point on the lowest interspace an inch within the nipple line. This point is constant in all the attacks. Friction fremitus is very easily made out in the epigastrium. Several medical men have examined him, and expressed the opinion that it is peritoneal. There is no evidence of organic disease in the intervals between the attacks: the patient's health is always good, temperature normal and appetite good: and apart from the annoyance which it causes by its constant recurrence the patient in no way suffers from it. Can any of your readers state if they have seen similar cases; what they consider the cause, and the best means of treatment with a view to prevent further attacks?

## ANSWERS.

V. sends a letter which he does not authenticate with his name.

H. T. D., who writes on the medical profession and friendly societies, has omitted to enclose his name.

AJAX writes, in reply to "Scotia," in the BRITISH MEDICAL JOURNAL of January 2nd, page 58, that he will obtain the shoes and sharps from Thomas Whitehead, blacksmith, Kirkby-Stephen.

AJAX advisers "Inquirer," in the BRITISH MEDICAL JOURNAL of January 2nd, page 58, to try bran baths daily for two weeks for obstinate psoriasis, and subsequently anoint the patches with compound storax ointment.

R. H. S.—We should be disposed to advise our correspondent to consult the council of the medical corporation from which he obtained his diploma, or the Council of the local Branch of the British Medical Association.

### GROSS RECEIPTS AND NET PROFITS.

J.M.—The meaning of the terms gross receipts and net profits as used in a medical partnership is as follows: The former are the total receipts without deduction, and the net profits are the income after charging all expenses.

### THE PRIMARY F.R.C.S.ENG.

M.B., M.R.C.S.—The following books may be recommended for the Primary Fellowship Examination of the College of Surgeons as regards the Comparative Anatomy: Wiedersheim's *Structure of Man*, translated by Bernard, and published by Macmillan: and the chapters in Flower's *Osteology of the Mammalia*, which deal especially with man from a comparative point of view.

### TREATMENT OF PAPILLOMA OF THE BLADDER BY NITRATE OF SILVER.

MR. HERBERT T. HERRING (Harley Street, W.), writes: In reply to your correspondent, "D. W. J.," allow me to state that during the last six years I have, in connection with Sir Henry Thompson, successfully treated several cases of papilloma of the bladder by continued weak injections of nitrate of silver. This solution appears to exercise a more or less permanent control over the symptoms.

### THE PURCHASE OF ANTITOXIN.

A. J. S.—We do not know of any sanitary authorities having borne the expense of procuring antitoxin for use in diphtheria: but we should imagine that this course might be pursued in connection with the treatment of patients in infectious disease hospitals belonging to sanitary bodies.

### TARDILY ABSORBED LIGATURES OR SUTURES.

BRIGADE-SURGEON ROBERT BATHO (Jersey) writes: I venture a suggestion in reply to Dr. Herbert Snow's query as to a tardily absorbed suture. With the fear of the avenging *Digest* before me, I have consulted the third edition, and at Section 719: 4 I find "split tendons" mentioned, and below "horse, whale, deer, reindeer, kangaroo." It is very probable that in the Appendix, which I have not at hand, this list is amplified. It has seemed to me, though I cannot recall having been anticipated in the idea, that one need not go so far afield for materials. The flexor and extensor tendons of the turkey, chicken, etc., which are drawn out by poulterers attached to the feet when preparing birds for the spit, would seem to lend themselves to the purpose, and it might possibly be an advantage to use those of birds recently killed.

## NOTES, LETTERS, Etc.

### THE PRONUNCIATION OF "ENEMA."

MR. J. M. COTTERILL (Edinburgh) writes: There have been several letters in the BRITISH MEDICAL JOURNAL lately discussing the "quantity" of the penultimate in the word "enema." Possibly the following story may throw some light on the subject: A friend of mine was lately attending a distinguished scholar and cleric of this city. Amongst other things, the patient was advised to take an "enēma" (with a long *e*). "But, doctor," said the cleric, whose classical ear had been offended, "what about the quantity—the *quantity*, you know?" "Oh, the quantity," said the surgeon; "well, about two pints or so."

### ANTITOXIN IN SEPTIC DISEASES FOLLOWING DELIVERY.

THE Kiew Society of Gynæcology and Obstetrics has issued a circular requesting all members of the profession who have tried any experiments of the use of antitoxin in septic diseases following delivery to communicate the results to the President of that Society (Professor G. E. Kehn, Belschaja, Wladimirskaja, Kiew, Russia), or to the Secretary (Professor Pissemsky, Bolschaja, Podwalnaja, No. 4A, of the same city). The mass of material thus brought together will be carefully examined and submitted for discussion to the Section of Obstetrics at the forthcoming International Medical Congress.

### TINNED LOBSTERS.

THE occasional discoloration of tinned lobsters imported into this country has, says the *Birmingham Daily Post*, more than once threatened to have a very serious effect upon the trade, and efforts have in consequence been made from time to time to discover the exact cause. The Canadian Government, in continuation of the policy of their predecessors in exercising a paternal supervision over such industries, have

commissioned Dr. Andrew McPhail, Professor of Pathology at the Lennoxville College, Quebec, to visit the United Kingdom with the object of completing certain experiments he has been making into the matter. The formation of sulphide of iron in the tins has to some extent been prevented by the use of gelatine in canning lobsters in Nova Scotian canneries; but, although more or less satisfactory from the exporters' point of view, it is said not to be regarded very favourably by the consumers. Professor McPhail's investigations, therefore, are sure to be looked forward to with a considerable amount of interest.

### Charms for Whooping-Cough.

An extraordinary case of superstition was recently brought under the notice of the Belfast coroner. A child, aged 12 months, living with its mother, who is a widow, was taken ill on January 2nd with whooping-cough. The mother is stated shortly afterwards to have taken the infant to a man who carries on the business of a "charmer." That person is alleged to have gone through an extraordinary performance with the child. A donkey was brought into requisition, and three times in succession the infant was passed under the stomach of the animal, the "charmer" all the while going through some form of incantation. After this the donkey was given some special food, and at the same time the child was also given some food, and, while both were eating, the charmer again went over his mystic words. The child was then taken home, but evidently the work of the charmer was unsuccessful, for it got worse and died.

### Antivivisection Candour.

Mr. John J. Langley (student, St. Thomas's) writes: I think the following incident, which occurred on Saturday night, deserves to be noted. I heard a knock at the door, and on my landlady answering it, a young man's voice was heard: "Would you please sign this against torturing live animals?" Needless to say such an apparently reasonable request would have been immediately complied with had I not promptly interfered. I noticed a great many signatures which I assume had been obtained in the same manner. Comment of mine is superfluous.

### Fatal Cerebral Hæmorrhage in a Young Adult.

Dr. E. N. Nason (Nuneaton, Warwickshire) writes: In the British Medical Journal of December 19th an interesting case of cerebral hæmorrhage is recorded by Mr. C. R. Salisbury. I published what appears to be an exactly similar case in the Journal, ii, 1891, p. 1352, in which I was enabled to make a *post-mortem* and microscopical examination. In that case a large mediastinal growth (probably lympho-sarcoma originating in the remains of the thymus) was found, though entirely unsuspected before death. The late Dr. Fagge, in his *Principles and Practice of Medicine*, vol. i, p. 95, 1896, recorded a case of the same nature.

### Native Endurance under Injury.

Dr. W. H. S. Stalkartt (Chiroma, B.C.A.) writes: Native endurance under injury is well known, and the following case may be of interest. A. consulted me on November 2nd, 1896. Two days previously, while stooping to bathe on the banks of the Shiré river at Chikawa, B.C.A., a crocodile seized him by the left arm. The man immediately caught hold of some reeds with his right hand, and with the aid of two other natives, tug-of-war fashion, he managed to escape *minus* only the left arm from near the upper third of the humerus. When seen by me the man had walked 50 miles without other application than a dirty rag on the stump of the arm, and the part was very putrid, contained maggots, and 3 inches of bared humerus protruding from very ragged flesh wounds. Amputation was performed as high as possible at the shoulder. Gangrene, however, supervened, and the patient died on the eighth day after the operation. Whether natives suffer under injury as acutely as do other races is questionable. No doubt the relatively good constitutional state from his frugal manner of living will often enable a native to pull through after severe injuries.

### Another Princely Doctor.

Prince Doctor Ludwig Ferdinand of Bavaria, following the example of his cousin, Duke Karl, is now practising daily from 11.30 to 12.30 A.M. as a physician in the Red Cross Hospital at Munich. The Prince has hitherto daily visited the hospital, doing assistant's work, but has now set up on his own account as specialist for women's diseases.

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LETTERS, COMMUNICATIONS, Etc., have been received from:

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# REMARKS
ON THE
# DORSAL TEST FOR PERICARDIAL EFFUSION: AN ADDENDUM.

BY WILLIAM EWART, M.D.CANTAB., F.R.C.P.,
Physician to St. George's Hospital and to the Belgrave Hospital for Children.

THE short description of this test given in a paper on Practical Aids to the Diagnosis of Pericardial Effusion in connection with the question as to Surgical Treatment,[1] has remained hitherto incomplete as regards the explanation of the phenomena. The invariable appearance, as a result of effusion into the pericardium, of a patch of dulness of definite size, shape, and situation at the posterior thoracic base, and its disappearance step by step with that of the fluid, suggested the use of the term "pericardial dull patch," which identifies, perhaps better than any other, the clinical connection, but which is anatomically inappropriate. This note, whilst dealing mainly with the anatomical question, will afford an opportunity of reporting progress and of showing that, in spite of the exceptions which will have to be explained, the sign in question has held its ground. In reality we have in it something more than a sign: it is also a test, since not only does its presence prove,—with certain reservations to be named—but its absence is enough to negative, the existence of pericardial effusion.

From a previous familiarity with the outlines of the dulness of the heart, and of the dulness of the liver in the back, I was prepared to find that the dorsal patch of dulness was a modification of the latter. Careful observations by percussion and demarcation during life, and by surface markings and subsequent dissection after death, have conclusively demonstrated the correctness of this view. The peculiar localisation of the patch to the interval between the tenth and the twelfth ribs close to the spine, and its quadrilateral outline, show that this is not a dulness directly conveyed from the fluid within the sac, much less from the heart itself; for the cardiac dulness is well known to be situated much higher.

The basic or so called "pericardial" dull patch is really a portion of the normal dorsal projection area of the liver, over which dulness replaces, in pericardial effusion, the usual resonance observed in health. In pericardial effusion this part of the liver area not only ceases to be resonant but becomes absolutely dull on percussion. The abrupt way in which the patch terminates on both sides by a vertical boundary, more sharply defined in the left than in the right side of the chest, and the almost unvarying constancy of its measurements, point to some definite causes producing a local increase of the factors of dulness, and a local failure of the factors of resonance. The following seem to be the most likely influences:

1. A slight upward displacement of the compressed base of the lung.

2. A slight downward displacement of the anterior portion of the left hepatic lobe under the weight of the pericardial fluid without any marked depression of its posterior portion.

3. A corresponding depression of the stomach, with or without slight displacement to the left.

Most probably, for anatomical reasons which it is unnecessary to discuss, the lower level of the dorsal dulness due to the heart itself—a level which coincides with that of the vertebral end of the tenth rib (usually its upper border)—is not greatly modified in pericardial effusion, and the level of the latter also remains almost entirely above that of the dull patch. According to this, no striking disturbance of the sagittal arrangement of organs would take place as a result of pericardial effusion, and they would maintain at the level of the dull patch their normal order from back to front, namely, (1) posterior base of the left inferior lobe, (2) posterior convexity of the diaphragm, (3) left lobe of the liver, and (4) stomach.

The degree of the dulness is sufficient proof that fully aërated lung substance does not largely intervene. Compression of the lung, at least partial, must be admitted to exist. The compressing agents are most probably the distended pericardium above, and, below this, the left lobe of the liver pushed backwards. The mechanism of the dulness in question would thus seem to be worked from the front, the fluid collection in the anterior pericardial groove acting after the fashion of a wedge and pressing the anterior surface of the liver downwards, but tilting the mass of the left lobe backwards as well. A further loss of resonating influence is connected with the displacement of the stomach. Large effusions depress the stomach almost out of the thorax and push it downwards and to the left, whilst the left lobe of the liver tends to swing backwards. In this way, instead of conducting to the back, as in health, some degree of resonance from the stomach, the left lobe of the liver would become mainly a conductor of the dulness transmitted from the pericardial fluid with which it is weighted.

The view that the dorsal dull patch is essentially of hepatic origin receives strong support from a study of the conditions, to which I shall now refer, under which it is obtained in the absence of any effusion.

## THE DORSAL DULL PATCH NORMALLY PRESENT IN EARLY CHILDHOOD, AND ABNORMALLY PRESENT IN SOME WASTED ADULTS, WITHOUT ANY EFFUSION.

Further light was thrown upon the etiological question by the discovery that the dulness was normally present in small children, quite independently of any effusion. Up to the age of about 4 all the children examined by me in the hospital have presented the dulness in a definite manner, though not always in an absolute degree. Two peculiarities of children suggested themselves as an explanation: the relatively large size of their liver, and the relative smallness and shortness of their lung. Granting this to be a correct explanation, then if similar conditions were ever present in the adult, the same result might be expected. For instance, in advanced destructive disease of the left lung with the usual full-sized liver common in phthisis, a posterior basic dull patch ought to be found, and the same might be expected in the early convalescence from a long typhoid fever. Instances of this kind were found in two young adults emaciated owing to phthisis and to typhoid respectively, and in one of them the cause was investigated after death.

### ANATOMICAL EXPERIMENTS.

*Experiment I.*—In order to test the correctness of the explanation suggested I selected the case of a man, aged 23 (Med. Reg. No. 1,511 of 1896), who died from phthisis with extensive excavation of the left lung and great emaciation. The back was percussed before the necropsy, and a typical quadrilateral dull patch was found extending 2¾ inches to the left and 2½ inches to the right of the middle line, and 2¾ inches by vertical measurement, between the tenth rib and the lower border of the twelfth rib. The outline was carefully marked in pencil, and a long peg was driven from back to front through the base of the thorax at each of the four corners of the patch, special care being taken to give them a perfectly true sagittal direction. The two upper pegs went through the tenth space; the two lower ones immediately below the twelfth rib. On replacing the body into dorsal decubitus the points of the pegs were seen protruding in front under the skin, and were kept in position whilst the body was opened. The left upper peg did not pierce the diaphragm, but lay in immediate contact with its upper convexity, transfixing the heart half an inch above the extreme apex and in the line of the septum, having previously traversed the posterior pulmonary base. This peg, therefore, did not enter the abdomen, but lay within the pericardium. The left lower peg entered the abdomen, transfixing the diaphragm and the left lobe of the liver opposite the sixth costal cartilage, in the same vertical line as the upper peg. The cardiac end of the stomach was situated immediately external to it, and the internal border of the spleen was thought to have been grazed by it. The small curvature of the stomach was found in this case at a lower level than normal, and beneath the level of the peg. On the right side the upper peg transfixed the extreme convexity of the diaphragm and of the liver, opposite the upper border of the fourth chondro-costal junction, having previously passed through a small thickness of the base of the lung. The right lower peg transfixed the right lobe of the liver opposite the sixth costal cartilage in the same vertical line as the upper one, and pierced also the extreme tip of the right kidney. The liver in this case was rather large, weighing 4 lbs.: its anterior or presenting surface was unusually extensive, the vertical measurement in the right nipple line being 8 inches, that in the left 4½ inches, and the left lobe extended as far as the left axillary line. The diaphragm on the right side was found to extend upwards as far as the upper border of the fifth rib; on the left side the position of the upper peg exactly indicated its level. The points of the four pegs defined in front of the spine a quadrilateral space which, beneath the diaphragm, included nothing but liver and pancreas and their immediate surroundings. The stomach in this case was entirely excluded from the space in question, and the other organs mentioned only touched its boundaries. Above the diaphragm, as stated, the bases of both lungs were transfixed.

*Experiment II.*—These facts being in complete harmony with the expla-

[1] BRITISH MEDICAL JOURNAL, March 21st, 1896.

nation suggested, a similar inquiry was undertaken in connection with the dorsal dulness normally found in childhood, and an analogous experiment was conducted in the body of an infant aged 3 months, the subject of general miliary tuberculosis. Precisely the same results were obtained in every point, with the exception of the relative position of the pancreas, which was found to be apparently lower, namely, below the level of the twelfth rib, probably in connection with the more elevated position of the ribs, peculiar to the chest of infants. In this case, also, a thin wedge of lung tissue extended downwards beyond the level of the tenth rib; but with that exception no other organ shared with the liver the horizontal section of space defined by the four pegs.

It may thus be definitely stated that, where it occurs in the adult as the result of extreme wasting of the body and of the lungs, the dulness is directly produced by the liver, by the pancreas, and by the intervening solid parts (perhaps slightly also by the kidney); and that it is favoured by the imperfect expansion downwards of the lung, and, in most cases, by a low stomach. In healthy children these conditions probably obtain as normal anatomical features. In pericardial effusion we may provisionally accept an analogous explanation for the dorsal dull patch, the left lung being considerably compressed, the liver much depressed anteriorly, the thoracic portion of the stomach partly displaced into the abdomen, and the dulness special to the liver greatly intensified by the mass of fluid with which that organ is capped.

PRACTICAL CONCLUSIONS AS TO THE VALUE OF THE TEST.

The occurrence of the dulness normally in children, and pathologically in some cases of extreme wasting in the adult, does not detract from the practical value of the test, since in both instances, when pericardial effusion occurs, its detection by the usual methods of percussion is favoured by the smallness of the chest and the thinness of its walls; whilst its absence can be readily made out. Difficulties in diagnosis more commonly arise in non-emaciated adults. But among the many healthy adults whom I have examined for this sign, I have not hitherto succeeded in finding a single instance of the presence of the dorsal dull patch as a personal peculiarity. I therefore regard its occurrence in them as always suggesting a strong suspicion of pericardial effusion.

In cardiac enlargement, inasmuch as the heart may depress the liver and compress the lung, the dulness in question might be expected; I have not, however, found it in any of the adult cases which I have examined. In young subjects this is a source of fallacy to be carefully borne in mind, as was shown in the case of a young girl the subject of chronic heart disease and of recent pericarditis, in whom paracentesis was performed and no fluid obtained. In this case I had diagnosed the presence of fluid on the strength of the anterior percussion of the chest, which owing to an unsuspected complication simulated that of effusion, and I persevered in the diagnosis in spite of the circumstance that the dorsal patch, which was present, did not yield absolute, but partial dulness only.

With the reservations which have been indicated, the practical value of the sign remains unimpaired, and whenever other signs point to the probability of effusion, the presence or the absence of an absolute dulness of the exact shape and situation described becomes a special test which may decide the question conclusively, and which I regard as trustworthy.

# AN ADDRESS
ON THE
# USE OF ANTISEPTICS IN MIDWIFERY,
WITH
## SPECIAL REFERENCE TO CORROSIVE SUBLIMATE.

*Delivered before the British Gynæcological Society.*

BY CLEMENT GODSON, M.D.,
President of the Society, and Consulting Physician to the City of London Lying-in Hospital.

[AFTER some preliminary observations, in which he referred to an opinion which had been expressed as to the danger of mercurial poisoning in consequence of the use of solution of corrosive sublimate in obstetric cases, Dr. Godson said that he proposed to devote his address to an examination of the results obtained at the City of London Lying-in Hospital, which would be found to corroborate the testimony given respecting the General Lying-in Hospital since corrosive sublimate was introduced there as an antiseptic by Sir John Williams and Dr. Champneys in May, 1884, who followed the example which had been set by Dr. Tarnier in the Maternity Hospital of Paris. He proceeded:]

It was the publication of the admirable results obtained by the physicians at the General Lying-in Hospital that decided us to discard carbolic acid in favour of corrosive sublimate as the antiseptic when the City of London Lying-in Hospital was reopened on July 1st, 1886, after having been closed for a short period for thorough cleansing, as was the annual custom. The strength of the solution used was 1 in 1,000 for the hands of the attendants, and 1 in 2,000 for vaginal irrigation. I gave a full account of how it was employed in a lecture delivered at the Midwives Institute and Trained Nurses Club on October 14th, 1887, which was subsequently published and distributed among the midwives and nurses in pamphlet form; and, except in small details, it has been used in the same manner up to the present time, December 31st, 1896, just ten years and a half, on 4,608 women, without a suspicion of mercurial poisoning in one;[1] therefore I think we may at once dismiss the idea of any risk of poisoning in the way in which it is now used, and should be used, and it will probably be found that what Dr. Bantock refers to relates to when intrauterine injections were employed of a strength of 1 in 1,000, or stronger, such as those reported by Dr. Dakin in a paper on Mercurialism in Lying-in Women undergoing Sublimate Irrigation, read at the December (1886) meeting of the Obstetrical Society of London. Dr. Dakin brought the subject forward not with the view of advocating the discontinuance of its use, but to endeavour to elicit the best means of employing it with safety, for he says "the results at the General Lying-in Hospital have been such as to make the physicians loth to dispense with it."

In an admirable address[2] by Dr. Cullingworth on Puerperal Fever a Preventable Disease, he says: "Until the year 1877 this hospital" (the General Lying-in) 'was scarcely ever free from puerperal fever, and the mortality, always high, occasionally became fearful. In 1838, of 71 women delivered, 19 died; in 1861, 14 died out of 195; and in 1877, 9 out of 63. On several occasions the hospital had to be closed for long periods, and thousands of pounds were spent on the sanitary improvement of the building. In October, 1879, this institution, having been closed for two years, was reopened, and has since been conducted on antiseptic principles, the details varying from time to time as increased knowledge and experience have dictated. Mark the result," and he gives the following table:

| Period. | Deliveries. | Deaths. | Average Death-rate from All Causes. |
|---|---|---|---|
| 1833 to 1860 | 5,833 | 180 | 1 in 32⅓ = 3.088 per cent. |
| 1861 to 1877 | 3,773 | 64 | 1 in 58⅞ = 1.696 per cent. |
| 1880 to 1887 (antiseptic period) | 2,585 | 16 | 1 in 161⅝ = 0.618 per cent. |

This last period of eight years takes in three varieties of antiseptics used, first, carbolic acid; next, permanganate of potash; and finally, corrosive sublimate.

Dr. Boxall, in a masterly paper read at the June and July 1890 meetings of the Obstetrical Society (which I recommend to the attention of you all) gives another period, from the time corrosive sublimate alone was used—May 1st, 1884, to June 30th, 1889—2,150 deliveries, 9 deaths, 1 in 239=0.418 per cent., a much greater diminution in the death-rate.

I propose to contrast the results at the City of London Lying-in Hospital from the time that I became connected with it, in March, 1870, up to the end of April, 1886, a period of 16 years, with that commencing July 1st, 1886, when corrosive sublimate as the antiseptic came into use there, up to December 31st, 1896, a period of 10½ years, and I think you will find that it thoroughly bears out what Dr. Cullingworth has said in his address, and what Stadfelt (of Copenhagen) has expressed (his opinion being emphatically endorsed by Dr. Boxall in his paper to which I have referred), the

belief that the hygiene of a maternity depends less upon its construction and its age than upon the hygienic principles upon which it is directed, and upon the perseverance with which these principles are carried out in the daily practice. For you will learn that while structural alterations failed to improve the condition at the City of London Lying-in Hospital, hygienic principles, and markedly the employment of corrosive sublimate, produced an extraordinary change for the better.

I will say a few words about the hospital itself, and my connection with it. The present building was erected in the City Road, at the corner of Old Street, in 1771, and was opened for the reception of patients on March 31st, 1773, so that it is 124 years old. There is not now, nor has there ever been, a house-surgeon: the chief resident is termed matron and midwife. There is only one medical officer in charge, who resides in the neighbourhood, and visits the hospital daily and whenever required. He is termed the surgeon-accoucheur. I took over the duties of this office in March, 1870, though I was not permanently appointed to fill it till the following July. There were two other medical officers, a consulting physician, and a consulting surgeon. These are not complimentary honorary appointments, as the term "consulting" often implies. The surgeon-accoucheur is expected to call to his aid the consulting physician whenever he is in difficulty in a delivery or in any case of serious illness, and he has the consulting surgeon to appeal to in any case that is surgical, outside midwifery and gynæcology. Both these medical officers have a seat on the Managing Committee. I resigned my appointment of surgeon-accoucheur in 1871, and in 1872 was elected from among the governors a member of the Committee of Management, the meetings of which I attended as regularly as possible up to July, 1881, when Dr. Greenhalgh resigned his office of consulting physician, and I was appointed in his place; so that it will be seen that for nearly twenty-seven years I have taken an active part in the affairs of the hospital.

In 1870, when I took over the medical charge, the patients were dying in the proportion of 1 in 19, 12 deaths occurring among the 227 women delivered, so that as soon as possible, seconded by Dr. Greenhalgh, I appealed to the Committee to close the hospital. Its doors were shut on June 15th for three months in response to our entreaty. I immediately set to work to endeavour to discover the defects and get them rectified as far as possible, and what was done is recorded in the annual report for 1870.

"Your Committee have had the building painted and coloured throughout, have done away with all the old bedsteads, and replaced them by new iron ones without curtains. Palliasses and hair mattresses have been provided in the place of the old feather beds, and all other furniture likely to retain infection has been removed; in fact, the wards have been almost entirely refurnished. Your Committee have also had all the drains opened, and double trapped at all the gratings and down spouts, and all cesspools filled with concrete. The wards have been thoroughly fumigated with chlorine gas, and every means has been used to get rid of all infection."

The result was that from the reopening on September 21st to the end of the year 103 women were confined with only 1 death, reducing the mortality for the whole year to 1 in 25. In 1873 it was 1 in 50; and in 1876 and 1877, the two years taken together, 1 in 45—so that on November 24th, 1877, the medical officers again appealed to the Committee to close the hospital. This was done on December 1st.

"It was resolved that Dr. de Chaumont, of Netley, be requested to inspect the hospital and report on the ventilation and drainage with a view to their improvement." The result of this was that great alterations were made, at an outlay of upwards of £4,500. The hospital, in its reconstructed form, was reopened on April 16th, 1879, after having been closed for sixteen months—and with what result? 287 women were delivered during the remainder of the year with only 1 death. But what a crushing disappointment came next year (1880)—12 deaths among 383 women delivered—1 in 32; and 11 of these were in the first half of the year; out of 196 deliveries, 1 in 19. Does not this bear out the opinions I have expressed in the earlier part of my address as to structural improvements? In the following year (1881) there was again a large expenditure in this way, nearly £600—and with what result? At a meeting of the Committee held on April 28th, 1882, the medical staff reported that the sanitary condition of the hospital was very unsatisfactory, and recommended that it be closed at once. The Committee then resolved forthwith to act upon the advice of the medical officers, and appointed a subcommittee to inquire into the cause of the evil complained of. After several meetings the subcommittee presented a report to a special court of governors on June 2nd, recommending that the hospital be pulled down and rebuilt. Fancy this, after a recent expenditure of upwards of £5,000 on the building!

The special court, however, took exception to this report, and passed a resolution appointing a subcommittee from among the governors to co-operate with the Committee of Management "to report upon the present system of management adopted at the hospital." After several meetings the following report was presented:

It is recommended that the hospital be thoroughly inspected as to sanitary arrangements, and that it be at once cleansed, whitewashed, etc., and reopened as soon as possible, and that it be closed for thorough cleansing for a month ever year. That the back of the hospital be pulled down, and a one-storeyed building be put up, together with other alterations at a cost not exceeding £1,000.

This was done, and the hospital was partially reopened on October 1st, after having been closed for five months. But little more than four months later, on February 17th, 1883, in consequence of the unhealthy state of the wards, the Committee, on the recommendation of the medical staff, again closed the hospital, and appointed a subcommittee to inquire into the sanitary condition of the hospital generally. Their report was to this effect:

That, as far as the construction of the hospital is concerned, no alteration is required. That certain improvements recommended by Dr. Pavy, the Medical Officer of Health, be effected as regards the soiled linen shoots. That the wards be at once disinfected, cleaned, and whitewashed, and that the hospital be reopened as soon after April 1st as possible.

There were some other less important recommendations. The hospital was reopened on April 20th, and between that date and the end of the year 209 women were delivered with but 2 deaths, 1 in 104, and yet in the two years 1882-3, taken together, the mortality rose to no less than 1 in 23. In 1884-5, combined, it was 1 in 48. In 1886, up to the closure on May 14th, 3 women died out of the 133 delivered, 1 in 44; and now we come to the period when the sublimate treatment commenced.

From the reopening, under its beneficial influence, on July 1st, 1886, to September 30th, 1887, 420 confinements took place without any death. From the same date—July 1st, 1886—to December 31st, 1896 (ten and a half years), 4,608 women were delivered, with 11 deaths, mortality 1 in 419, or 2.387 per 1,000. From January 1st, 1892, to December 31st, 1896 (five years), 2,392 deliveries, with 3 deaths—1 in 797=or 1.250, that is, 1¼ per 1,000, and these deaths were:

First, in 1893, sudden death from pulmonary embolism, on the third day after delivery (patient had shown no sign of illness up to the occurrences, and the report of *post-mortem* by Dr. Tooth, Demonstrator of Morbid Pathology at St. Bartholomew's Hospital, was "embolism of the pulmonary artery; no septic condition present.")

Second death, in 1894, puerperal eclampsia, death third day after delivery.

The third death, in 1895, from puerperal eclampsia, the day after delivery.

So that we have:

| | | | |
|---|---|---|---|
| 1892 | 487 deliveries | ..... | no death |
| 1893 | 430 " | ..... | 1 death from pulmonary embolism |
| 1894 | 492 " | ..... | 1 death from eclampsia |
| 1895 | 490 " | ..... | 1 " " |
| 1896 | 493 " | ..... | no death. |

Such a low rate of mortality as this one cannot expect to maintain, when it becomes a matter of fortune how many deaths from non-preventable causes may arise, such as the three, from eclampsia and pulmonary embolism, met with in the last five years. Only on December 26th last I was called to the hospital to a severe case of eclampsia; the patient has happily recovered, but, had she died, it would not have enabled me to say we had had no death in the year 1896, and it would have increased the rate of mortality in the last five years.

Thus it will be seen that in the last five years, among 2,392 deliveries, there had been no death in which septicæmia could have borne any part; and there had been also very little illness during this time. In the past year I have only been

asked to see one patient who had high temperature, and she was discharged quite well. I am assured that all the patients have been in a satisfactory state of health before they were allowed to leave the hospital.

A total mortality of 1¼ per 1,000 is, indeed, I think, something to be proud of, 5 in 4,000, and no death from septic causes. This seems to justify the title of Dr. Cullingworth's address—Puerperal Fever a Preventable Disease—rather different to the time of my introduction to the City of London Lying-in Hospital, when 1 in 19 was dying.

I do not dispute for one instant the great share that cleanliness plays in these results. My late colleague, Dr. Matthews Duncan, spoke of antiseptic precautions as transcendental cleanliness.[3] "He had," he said, "always defended the good or the better hospitals, and he was proud to know that now, when thoroughly antiseptically managed, they needed no defence. Their mortality was equal to, if not less than, that of private practice. During his whole life he (Dr. Matthews Duncan) had watched the generous and persevering attempts of his brethren to improve midwifery hospitals. Long ago, in Dr. Rigby's time, he came to London, and saw a great ventilating scheme which was to work wonders. Architectural arrangements, drainage, ventilation, segregation, and drugs had all been tried, and all without securing success. The mortality in hospitals was terrible. He did not know what it was in private practice; probably it was as bad, or nearly as bad, as in big hospitals. Antiseptics, and antiseptics alone, had brought success, and had sustained success. It was, he knew, common in highly respected quarters in London to attribute this modern success or diminished mortality in general hospitals, as in lying-in hospitals, to many factors—to improved feeding, housing, cleanliness, nursing, and antiseptics; and no doubt all were important, but all had failed till the antiseptic era, and all would fail again were antiseptic precautions—transcendental cleanliness—neglected."

In his valuable book, *Mortality of Childbed and Maternity Hospitals*,[4] Dr. Matthews Duncan says, "In a well-managed hospital they die at the rate of 1 in 100; all the country over the mortality is probably not much less; in the best private practice it appears to be greater." "In the years of my private practice of which I have preserved records I find 8 deaths in 736 cases, or 1 in 92." This was written in 1870, before antiseptic midwifery came in practice.

Why the sublimate treatment should not be adopted in private practice as well as in hospital I am at a loss to understand. In my lecture to the midwives that I have spoken of, given in 1887, I gave them a list of what I order to be ready in the house of every patient who expects me to attend her in her confinement, and among the things was what would make half a gallon of sublimate solution, 1 in 1,000, labelled "To be used with an equal part of hot water as a lotion"; and I have continued this, very much to my satisfaction, ever since, and I have used the irrigation just as in the hospital practice, and have never seen a sign of mercurial poisoning.

In July, 1881, I had the great misfortune to lose my first private patient, and from puerperal septicæmia. This was before the days of sublimate and sterilising instruments, but not before the introduction of other antiseptics, and every precaution had been taken by the use of carbolic lotion and carbolised cream. It was a forceps delivery; after forty hours' labour, a primipara—occipito-posterior presentation, perineum partially ruptured—became feverish after a rigor on the fourth day, and died on the thirteenth day after delivery. The most unremitting attention failed to save her life. I cannot tell you the distress the loss of this patient, a young wife, caused me. Only those of you who have had similar losses can realise what it was! I have mentioned on a former occasion a case of puerperal peritonitis in a patient delivered in December, 1890, who was attended by me on the most strict sublimate lines. It was a genuine case of acute septic peritonitis occurring a few hours after delivery, and, although no *post-mortem* examination was made, I feel convinced, from the reasons I gave you, that it was caused by rupture of a pyosalpinx, as in those cases narrated by Dr. Michie, of Nottingham, in his paper read before this Society in May, 1885.[5] If this case be excepted, no case of septicæmia has occurred in my private practice since I commenced the use of corrosive sublimate. It gives me a feeling of protection I cannot over-estimate. I feel sure if its employment in midwifery were generally adopted by practitioners for their hands and for vaginal irrigation, the Registrar-General's reports of the mortality from puerperal septicæmia would very soon show a difference, and in these days of portable compressed drugs there is no reason why it should not be almost universally used, even among the very poor; but it is only right to point out what may result if it be improperly used.

In the annual report of the General Lying-in Hospital for 1883, the medical report, signed by Drs. (now Sir John) Williams and Champneys, says that 342 women were confined, of whom 3 died (1 in 114), 2 from septicæmia, quite independent of one another, "a percentage which testifies to the healthy condition of the hospital." This was during the time that antiseptics were employed there, but, you will note, before the corrosive sublimate was commenced, and the Committee add in presenting this medical report to the governors: "The Committee beg to tender their congratulations to the eminent surgeon to the hospital, Sir Joseph Lister, Bart., to whom this and other institutions are so much indebted for the satisfactory medical results obtained through the system with which his name is associated."

Sir William Priestley concluded his paper read before the Obstetrical Society of London, July, 1885, entitled Notes of a Visit to Some of the Lying-in Hospitals in the North of Europe; and Particularly on the Advantages of the Antiseptic System in Obstetric Practice, with these words: "Ample funds and sufficient space are necessarily most potent aids in waging warfare with disease in hospitals, but, even with limited means and space, absolute cleanliness, supplemented by the antiseptic system, may in our own country have a large influence for good, and the labours of our illustrious Lister prove of equal value to the obstetrician as to the surgeon. If I am not mistaken some of our Fellows," says Sir William Priestley, "can tell us of triumphs of this kind in the lying-in hospitals of London." I hope you will think that I have this evening succeeded in doing so.

I feel I cannot conclude my address better than by saying that though numerous peerages have been conferred upon those "waging warfare," resulting in destruction of life and victory, never has one been more worthily bestowed than on "our illustrious Lister," for the victory gained by him in "waging warfare with disease in hospitals," resulting in such an enormous saving of life among our fellow creatures.

References.

[1] A vaginal douche of 1 in 2,000, at a temperature of 115°, is given immediately after the delivery of the placenta, and three similar douches subsequently at intervals of night and morning, then iodine douches are given instead of sublimate. [2] Delivered at St. Thomas's Hospital, London, and published by J. and A. Churchill, 1888. [3] *Obstetrical Society's Transactions*, vol. xxvii, p. 215. Discussion on Dr. (now Sir William) Priestley's paper, Antiseptics in Lying-in Hospitals. [4] Edinburgh: Adam and Charles Black, 1870, p. 116. [5] Pregnancy complicated by Suppuration in the Pelvis, *Brit. Gynæcol. Journal*, 1895, p. 160.

## TWO CASES OF IDIOPATHIC ARTERIAL HYPERMYOTROPHY;

### WITH REMARKS ON THE SYMPTOMS, DIAGNOSIS, AND TREATMENT OF THE AFFECTION.

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By "arterial hypermyotrophy" is meant a disease in which the leading anatomical feature is a hypertrophic increase in the middle or muscular coat of the smaller and medium-sized arteries throughout the body in varying degrees—those vessels, namely, in which the muscular tissue is normally most plentiful. The condition has for a long time been recognised—chiefly in the arterioles[1] only—in association with chronic renal affections; but it had not, so far as I am aware, been described as an idiopathic or separate affection, nor as one to which distinctive symptoms belonged, until 1891, when I presented a preliminary communication to the

[1] Dr. W. H. Dickinson has recognised a muscular thickening in the arteries of all sizes, large as well as small, in connection with chronic renal disease—The Baillie Lectures, *Lancet*, 1895, ii, 137.

Pathological Section of the British Medical Association, based on ten cases of the affection verified by necropsy. It was in connection with some researches into the causes of "senile decay" that the condition was revealed, and the provisional conclusions I then arrived at were as follows:

1. That the condition of arterial hypermyotrophy may occur as a distinct clinical and pathological entity.

2. That the disorder is by no means an infrequent one.

3. That the disease is more frequent in advanced life and in those who are prematurely old; and that the arterial condition, coupled with the resulting circulatory disturbances, may account for a large proportion of deaths from senile decay.

4. That arterial hypermyotrophy, though frequently associated with, has no necessary or direct causal relationship to, renal fibrosis (contracted granular kidney); but, since contracted granular kidney and arterial hypermyotrophy are both prone to supervene in the later decades of life, these two conditions may be associated by having common causes, of which advanced life is one of the most evident.

It has long been known that a certain degree of cardiac hypertrophy is normal to the aged,[2] and I have found that a slight amount of arterial hypertrophy is common in the bodies of all persons aged 60 and upwards. This is physiological and unattended by symptoms, but by the term "arterial hypermyotrophy" is meant a pathological degree of the change, and this gives rise, if my observations be correct, to symptoms during life.

Since 1891 I have devoted much time to the investigation of the affection, and am still engaged in preparing a communication on the subject. But as this will only deal with the pathological aspect of arterial hypermyotrophy, I report here a typical case of the disorder which has recently come under my notice, together with another case, verified by necropsy, selected from those which occurred under my care at the Paddington Infirmary. The condition is one of extreme importance, by reason of its serious pathological results, and it is, consequently, very desirable to recognise it during life.

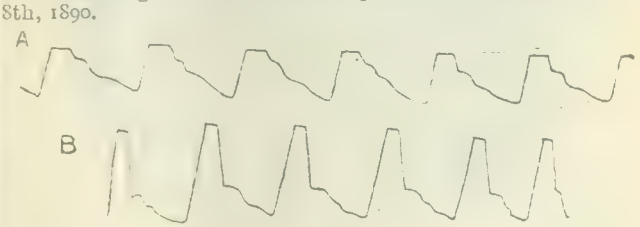
CASE XXX.—J. A., aged 75, a cabdriver, was admitted to the Paddington Infirmary for the first time on April 26th, 1890, for senile vertigo, and he died on December 7th, 1891. He could not tell us very much about his family history, and, as regards himself, he had lived a very healthy existence, having been either an indoor or outdoor servant nearly all his life. The only illness he could remember was an attack of some kind referable to the head at the age of 13, with which he was laid up for three days, and had his head shaved. He had always been a moderate drinker, and there was no history of syphilis. Of late years he had been troubled with some cough in the winter, but he never remembered to have given up work for any illness until the present occasion, when he felt unable to follow his occupation on account of the sensations of giddiness which came over him from time to time, and the frequent headaches from which he suffered.

For some years, he could not say exactly how long, he had been subject to these attacks of giddiness. At first he would have several sensations of this kind in the course of a week, followed by an interval of two or three months. Latterly they had become more frequent, occurring almost daily. They generally came on when he got up in the morning, or on assuming the erect posture during the day. They were only of momentary duration, but were attended by a feeling as if he were going to fall; and latterly he had felt as if he were going to faint at the same time. He had for some years been getting progressively weaker, which he attributed—not without some reason—to his age; but he had also lately suffered from breathlessness, which would come on after very little or no exertion.

On admission April 26th, 1890, the case was classed as one of "senile vertigo," his chief symptoms being those just mentioned. As regards the heart, the precordial dulness was somewhat obscured by emphysema, but it was noted that it was "probably enlarged," and that there was an occasional blowing musical systolic *bruit* at the apex, the second sound being reduplicated. The day after his admission we had the great advantage of Sir William Broadbent's opinion on his circulatory system, who remarked that there "were moderately advanced senile changes in the large vessels, resulting in the character of a partially sustained tension in the pulse (see tracing B), and that the systolic murmur at the apex was not valvular, but due to dilatation" (this was confirmed *post mortem*). The radial arteries were thick, and rather smaller than normal. The pulse was full, bounding, and tense, 56 per minute, and regular. In the lungs no abnormality besides moderate emphysema. The abdominal organs were normal, with the exception that he had an inguinal hernia on both sides, for which he wore a truss, but which had never given him any trouble. Urine clear, pale, acid, 1014; no albumen. On many occasions during the twenty months he was under observation the urine was examined with the same result, the specific gravity varying between 1014 and 1018.

During his first stay in the infirmary he was kept in bed either whole or half days, and the giddiness, headache, and other symptoms were considerably relieved by the rest and the administration, first, of a mixture containing magnesium sulphate and carbonate three times a day, and afterwards a mixture of magnesium sulphate, sodium bicarbonate, and rhubarb. Indeed, he had only about eight or nine attacks of "giddy faints," as he called them, during his three months' stay in the infirmary, always either at night when rising to micturate or in the morning when getting up. He went over to the workhouse on July 8th, 1890, and began a little light work in the shape of chopping and tying up bundles of wood.

Three months later, on October 8th, 1890, he was again transferred to the infirmary. The attacks of giddiness had returned a month previously, and the headaches had lately become very severe. He had also lately had a new symptom in the shape of what he termed "flushings," that is to say, feelings of general warmth, followed by chilliness and shivering. On the morning of his admission he had a shivering attack and temperature of 99.4°, which was, however, unattended by any other signs or symptoms. On his readmission the pulse was rapid, of high tension, full and bounding, and the radial artery was noted as being decidedly thick and dilated. The heart was in the same condition as three months before, but its action was more rapid and somewhat irregular. In a word this organ had become what Balfour used to call "irritable," as the result of the continuous peripheral obstruction. After admission he had a severe faint, which was somewhat difficult to reconcile with the high-tension pulse. It will be observed that this high arterial tension was a feature throughout the case, and in the light of experience of similar cases, it was decided to bleed the patient. He was accordingly bled to the extent of four ounces, with the result that the headache, faintings, "flushings," and all the feelings of discomfort of which he had previously complained immediately disappeared. Tracings of the pulse were taken before and after the operation, and these are given below. Tracing A shows the ordinary character of high arterial tension. In Tracing B the senile character of virtual tension (Broadbent) is to be seen in the partially sustained tension before the sudden fall of the lever. This, as is well known, is due to rigidity of the aorta and great vessels, as a result of which the systolic shock is transmitted to the periphery unmodified by the elastic dilatation of the aorta, such as occurs in younger persons. He was again treated with mist. alba twice or thrice daily, and had no return of the giddiness or headaches, being discharged to the workhouse again as "cured" one month later, on November 8th, 1890.




Tracings A and B of Case XXX, J. A., aged 76, October 9th, 1890, taken with a modification of Dudgeon's sphygmograph. A, shows the ordinary characters of high tension before the bleeding: the senile character of virtual tension is very evident in B, which was taken after bleeding.

In the workhouse I used to see him occasionally on account of the transient giddiness and feelings of "unsteadiness" in

[2] Boyd, *Trans. Roy. Soc.*, 1861

the head, from which he suffered from time to time, generally on rising each morning or after stooping. He did not attach much importance to it himself, because so many of the other old men, he said, complained of the same thing. He took occasionally $\frac{1}{100}$ gr. nitro-glycerine, and the relief he thus obtained was most marked. In this way he kept very fairly well during the ensuing twelve months, doing a little light work, and living a very regular and abstemious life.

On December 1st, 1891, he was taken suddenly ill in the workhouse. He shivered after he went to bed. It was noted by my colleague that "on attempting to get up to micturate during the night he was suddenly seized with giddiness and fell, striking and bruising his forehead severely. Next morning his skin felt hot, and the pulse was rapid." I was away for a few days, and during my absence he was for the third time admitted to the infirmary on December 4th, 1891, his chief complaints being the frequent sensations of giddiness and the fainting attacks, in which, he said, "I sometimes goes quite off, as I did yesterday, after making water." It was noted that the respiration was of a sighing character, and rather rapid, and that he looked and complained of feeling very ill. The following are the notes made of him at that time:

December 4th.—Heart: Apex beat in fifth interspace in nipple line; systolic murmur, heard best at the apex, second sound very faint. Action irregular and weak. Pulse 132, small, weak, and irregular. Lungs: Breathing somewhat harsh at the right apex, but no other signs here or elsewhere. Abdomen: *Nil.* Tongue coated; appetite bad. Urine acid, 1020; faint trace of albumen.

The temperature was 102.4° on admission. It remained at about 102° until the day of his death—on the 7th—when it fell to 99.6°. On December 6th more definite signs of pneumonia at the right base appeared, and he became gradually weaker, though the mind was always clear, and died of this disease, without any fresh symptoms, at midnight on December 7th, the final note being "pulse irregular; all the heart beats do not reach the radial pulse. Counted over heart, 164 per minute; respirations 44."

### NECROPSY.

Thirty-one hours after death. The signs of acute lobar pneumonia in the stage of grey hepatisation were found at the base of the right lung.

The heart weighed $13\frac{1}{2}$ ounces; wall of left ventricle measured $\frac{3}{4}$ inch thick, and was rather friable, the right ventricle was the seat of some superficial fatty deposit. The mitral and aortic valves were normal. The arch of the aorta presented a moderate degree of atheroma.

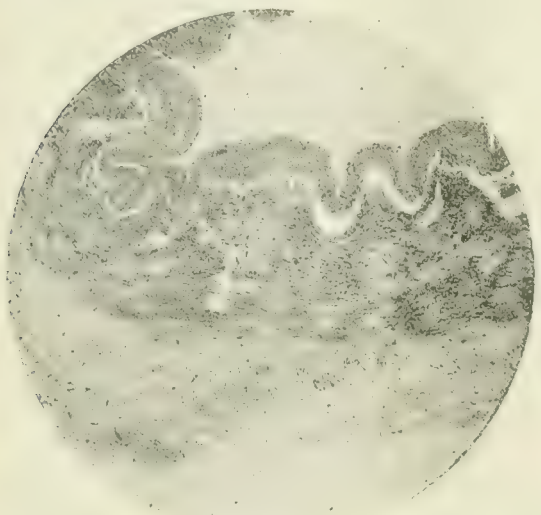


Fig. 1.—Case of J. A. Logwood staining of radial artery × 50 diameters. Shows hypertrophy of media and a less degree of increase in adventitia and intima. The media is very brittle owing to the degeneration (shown in Fig. 3).

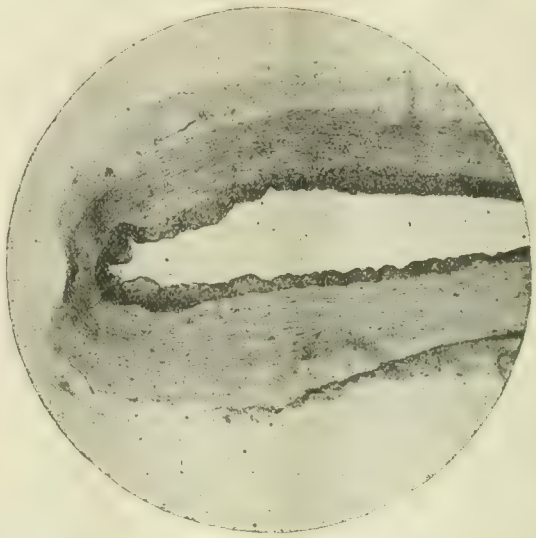


Fig. 2.—Logwood staining of a healthy radial artery × 50 diameters for comparison with Fig. 1. The patient was a man, aged 22, who died of acute pulmonary tuberculosis.

The walls of the radial arteries and all the medium and smaller arteries of the body were about twice the normal thickness,[3] the increase being almost entirely due to hypertrophy of the tunica media, which, in the case of the radial, was $\frac{6}{2.5}$ normal (Figs. 1 and 2). The calibre of the medium and small arteries was about normal or slightly diminished, but the brachial, femoral, popliteal, and posterior tibial arteries were considerably dilated in some parts of their course, and presented atheromatous changes in places. In sections of the radials and arteries of smaller size under higher powers (Fig. 3) the muscular fibres in the outer third

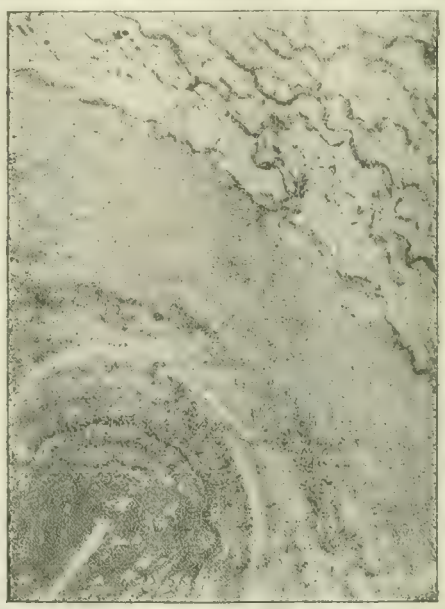


Fig. 3.—Acid orcein staining of radial artery, case of J. A., magnified 350 diameters to show granular degeneration of media, which is most marked in the inner layers. The elastic tissue of the adventitia and media is also brought out very clearly by this method.

[3] Exact measurements were made with a micrometer eyepiece, and comparison made with a set of normal specimens, but want of space prevents further detail being given here.

of the media were seen to be normal, though a trifle thicker than usual. Those in the middle third were granular, and the substance and nuclei of the muscular fibres of the inner third of the tunica media were broken up into granular matter. The media of the popliteals showed several small foci of caseation. Here the adventitia was thickened and somewhat consolidated, and without the use of acid orcein, which brought out the elastic tissue at the boundary between the media and adventitia, and without prolonged staining with hæmotoxylin the condition would have been mistaken for arterio-fibrosis. Small plaques of atheroma were scattered here and there in the femorals, popliteals, and arteries of larger calibre than these, but this change was not found in the median and smaller arteries.

Kidneys: right 4 ounces, left 5½ ounces; no disproportion between cortex and medulla. Capsule not thickened nor adherent. Microscopic examination revealed a certain degree of arterial thickening, but otherwise they were normal. A photograph would have been reproduced but for want of space. Liver, spleen, and intestines normal. Stomach: some petechial hæmorrhages beneath the mucous membrane, near the pyloric orifice; otherwise healthy. Brain: weight 47 ounces, convolutions somewhat atrophied; substance natural, but a trifle firm. Cerebral arteries appeared healthy, excepting slight dilatation of the basilar. No atheroma visible to the naked eye, nor on microscopic examination; nor were the cerebral arteries the seat of any measureable muscular increase.

*Microscopical Examination of Organs and Tissues.*—Heart: the muscular fibres are in a state of granular degeneration, and in some places show commencing fatty change. There is also commencing fibrosis in the immediate neighbourhood of some of the arteries, and in lines radiating from them—a change which corresponds to the "*sclérose par voisinage*" of Huchard.[4] The kidneys were extremely healthy, excepting for the thickening of the microscopic arteries. The liver cells show a granular, and, in places, a commencing fatty change. The microscopic arteries of all the organs present hypertrophy of the media, and, as in the bodies of all aged persons, slight fibrosis and atrophy of parenchyma. Sections from the base of the right lung show lobar pneumonia (commencing grey hepatisation). In the clinical history it will be observed that the pneumonia remained latent for a considerable time, as regards physical signs, as it so frequently does in the aged, particularly when accompanied, as in the present instance, by a certain degree of emphysema.

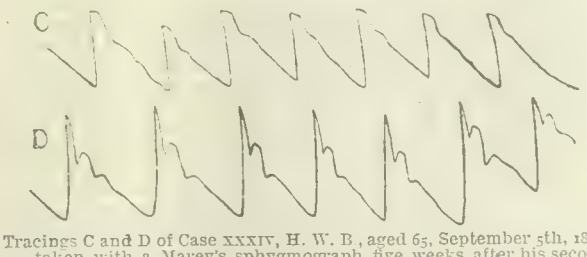
### REMARKS.

This case was doubtless somewhat complicated with atheroma, as may be seen from the necropsy, and it might be thought that the symptoms to which reference will shortly be made were due to this condition. But that this was not so is evidenced, first, by the absence of such symptoms in other cases of atheroma unattended with a pathological degree of arterial hypermyotrophy: and, secondly, by their presence in other cases of arterial hypermyotrophy in which the vessels were wholly free from atheroma.[5] It may also occur to some that the case was one of chronic Bright's disease (granular contracted kidney) attended by the muscular increase which Sir George Johnson[6] discovered in the microscopic arteries in such cases. However, this patient was under observation, more or less, for nearly two years, but from beginning to end he never presented any symptoms of renal disease nor of uræmia, either chronic or acute; and the urine presented no departure from normal until the fatal complication of pneumonia supervened. Moreover, a careful examination of the kidneys, both naked eye and with the microscope, failed to reveal any departure from normal in the structure of these organs. This point is deemed to be one of so much importance that a photomicrograph of a typical section from the kidney would have been submitted herewith had space permitted. Hitherto, the arterial hypertrophy under consideration has been described as affecting merely the microscopic arteries, and solely in association with renal disease, but this case is only one of many on which I rely to show: (1) That the arterial change may occur without that association; (2) that it may affect all the small and medium-sized arteries, as well as the microscopic; and (3) that the condition constitutes a separate disease, giving rise to its own symptoms, by means of which it may be recognised during life. An illustration of this is to be found in the case about to be narrated, which had a happier issue.

It is true that at the time of death the tunica media was found in a state of granular degeneration, but this change was a later one; the patient had suffered for years from the clinical phenomena which I have learned from other cases are due to simply hypertrophy of the muscular coat of the media and small arteries of the body combined with the resulting cardiac condition.

CASE XXXIV.—On July 25th, 1896, I was summoned in great haste to a gentleman (Mr. H. W. B.), aged 65, who had been seized with sudden giddiness while waiting to catch an omnibus, which was followed, as soon as he returned home, by a syncopal attack and by vomiting. He was a sallow-looking, somewhat emaciated man, and I found him completely prostrate in bed. The radial and temporal arteries felt very thick and cord-like when rolled transversely under the finger, and the former was little dilated on both sides. The pulse was irregular, rapid (108), and the high tension made the artery feel like a solid cord of indiarubber, and the state of the vessel wall could not be ascertained except by stopping the pulse above the wrist. The thickened condition of the arterial wall of the empty vessel below could then be readily mad out. The præcordial area measured 4⅜ inches transversely, and the apex beat, which was diffused and forcible, was 2½ inches directly below the nipple. There was a systolic *bruit* at the apex (which subsequently disappeared). The other organs appeared normal; and the urine, as the result of many examinations during the ensuing six weeks, averaged a specific gravity of 1016, and was quite normal in other respects. The daily quantity, as the result of 42 consecutive daily measurements, averaged 64½ ounces, varying but little above or below that figure. Albumen was tested for very frequently, sometimes twice a-day, but never a trace was found. On two or three occasions an excess of lithates was deposited.

As regards the previous history, he had always been healthy until about five years before. Since then he had noticed occasionally that any sudden movement of his head or stooping would induce a kind of "dizzy" feeling, and that within the last year or eighteen months he had become much more feeble. Six months before I saw him he had had his first severe attack of syncopal vertigo, for which he had been laid up a few days. Since then he had had several minor attacks of the same kind, chiefly in the morning, on rising. But the attack for which I was consulted was the most severe, and as soon as he returned home he vomited, and took to bed. He expressed himself as feeling so weak as to be hardly able to move, consequently he remained in bed; nevertheless, the next day he had another attack of the same kind, also followed by vomiting and great prostration. During the ensuing four or five weeks prostration was the leading symptom, though he complained from time to time of dizziness, and an uneasy sensation in the head hardly amounting to headache. This was increased and accompanied by breathlessness whenever he got up for any purpose. He obtained great relief from the dizziness by $\frac{1}{100}$ drop of nitroglycerine once or twice daily, and the mixture which did him most good was one containing tinct. nucis vom. 4 m, liq. ammoniæ acetatis ½ dr., tinct. digitalis 3 m sodium salicylate 4 gr., in 1 oz. of water four times a day. Many other remedies were tried, but we always returned to this. When it was left off he became restless, sleepless, had headache and throbbing of the head; there was further increase in the arterial tension, and increased rapidity of pulse, and the temperature would, not infrequently, go up to 99.5° or 100° in the evening. All the symptoms were at once relieved by the mixture just mentioned. Appended below are the pulse tracings and other observations that were made upon the pulse. During the last two weeks he improved greatly under massage, with passive and resisted movements, and finally he became well enough to leave for America on September 10th, though the arteries still remained thick and the arterial tension too high.




Tracings C and D of Case XXXIV, H. W. B., aged 65, September 5th, 1896, taken with a Marey's sphygmograph five weeks after his second severe attack of vertigo, showing efficacy of passive movements and nitroglycerine. C shows simply high tension taken before passive movements, the patient having taken no nitroglycerine for twenty-four hours. D was taken directly after the massage and passive movements, and a few hours after $\frac{1}{100}$ m nitroglycerine. The momentum of the lever is prominent in D, which also shows the senile character of virtual tension.

It is worthy of note that this patient's father died in his 50th year, of 'enlargement of the heart," and that he was subject to giddiness and

[4] Huchard. *Traité des Maladies du Cœur et des Vaisseaux*, Paris, 1893.

[5] I have not found cerebral atheroma invariably present in the bodies of aged persons. Out of over 200 cases of 60 years and upwards examined for this purpose, cerebral atheroma was present in a little more than 70 per cent., a figure which I find corresponds with that quoted by Gowers in *Quain's Dictionary*.

[6] *Royal Med. Chir. Trans.*, 1870-73, and elsewhere.

swoons before death. An uncle died at the age of 67 with a similar history. His eldest brother, who is still alive, aged 68, has been subject, for the last two or three years, to similar attacks of giddiness and nausea, and is believed to have some "cardiac affection." One of his sisters, also alive, is believed to have "some heart trouble."

Measurements were made towards the end of the period this case was under observation by Oliver's arteriometer and pressure gauge, instruments with which I am not very adept. These observations went to show that the normal dilatation which takes place on assuming the erect position was absent, and that on two occasions the calibre was 1 millimetre too large in the recumbent posture; they also showed that the maximum or obliterative pressure was too high, and that the minimum pressure (or mean, as some call it) was also high, and approximated too closely to the maximum pressure. After massage and passive movements the pressure was considerably reduced, and the pulse-rate diminished from about 80 to 65, so also after nitroglycerine.

### Remarks.

The case, however, is not dependent on the observations just mentioned to establish the diagnosis, for it corresponded in its course and symptoms very precisely with other cases of arterial hypermyotrophy which have been verified by necropsy. Here again the urine presented no departure from normal, and, therefore, it may be presumed to be uncomplicated with renal disease. It was not possible to be certain about the absence of atheroma in this case, but it may be mentioned that as regards the superficial arteries, they did not present the moniliform inequalities which atheroma gives to those vessels which it attacks. Nor was it possible in this case to state quite positively which of the arterial tissues was the seat of hypertrophy. The conclusion that the middle coat of the medium-sized and small arteries of the body was hypertrophied in this instance is arrived at by comparison with similar cases verified by necropsy. Whether the other coats also shared in the hypertrophy or not is a question of secondary importance, because the media is by far the most important of the three tissues. Not only is it the most solid of the three protective tissues, but it forms the functionally active portion of the whole arterial system. Judging by fatal cases, it is only when this coat is involved that one finds symptoms of such gravity and importance as those here presented.

### Symptoms and Diagnosis of Arterial Hypermyotrophy.

1. The affection under consideration may go on for many years without any evidence of its existence, so long as the cardiac hypertrophy compensates for the increased peripheral resistance; or the thickening of the vessels may be accidentally discovered when the patient consults his medical man for some other complaint. Then the characteristic thickening of the walls of the arteries can be made out in the superficial vessels. It is readily distinguished from atheroma by the absence of the bead-like inequalities which the latter produces. Atheroma, moreover, attacks primarily the large vessels, and must be in an advanced condition to affect vessels of the size of the radial.

2. The characteristic feature of the pulse in "arterial hypermyotrophy" is its perpetual state of high tension, which lasts until almost the conclusion of the history. This is due to a combination of increased peripheral resistance with the secondary cardiac hypertrophy. This high tension was a marked feature in both of these cases, as may be seen from the pulse tracings.

3. Another prominent feature which these two cases presented in common was vertigo, coming on without warning, and usually after assuming the erect posture. In cases of "arterial hypermyotrophy" this sensation lasts only for a few moments; and sometimes it is accompanied by a feeling of faintness. It may be immediately succeeded by actual syncope, as in the later stage of the first case; or by vomiting, as in the second. This symptom has been present at some time in the history of all the cases I have observed, where clinical records were obtainable in sufficient detail. The description given of the sensation by different patients varies a little. Some describe it as resembling a slight and transient degree of fainting; others as a "dizziness in the head." It is always attended by a momentary loss of equilibrium, and my belief is that the frequent falls to which the aged are so subject are very often due to this condition, which was by no means an infrequent one in the *post-mortem* room at the Paddington Infirmary. The sensation is always of very brief duration, and it differs somewhat in its characters from true vertigo, such as is met with in Menière's disease, from which it may also be distinguished by the absence of the aural and other symptoms of that condition, and by the presence of cardio-vascular signs, namely, the thickening of the arteries and hypertrophy of the heart. It might be mistaken for cerebral tumour, for in both the giddiness may be attended by nausea or actual vomiting; and the only way to distinguish it from that condition would be by the presence of other signs of cerebral tumour. These attacks may supervene spontaneously, even when lying in bed, as in the second case, but they far more frequently come on when the patient suddenly assumes the erect position, or when he suddenly turns or raises his head. The vertigo of *petit mal* very rarely occurs for the first time at the period of life when arterial hypermyotrophy ordinarily supervenes: and it is generally, sooner or later, attended by attacks of a more severe character, or by actual loss of consciousness, which never occurs in the arterial conditions unless the attack proceeds to complete syncope. Similarly hysterical vertigo, which resembles the sensation very closely in many respects, usually occurs for the first time at a different age; and, moreover, it is usually confined to the female sex.

4. Paroxysmal dyspnœa is another symptom attending arterial hypermyotrophy, and was met with in some degree in both of these cases. This is not a symptom to which too much importance is to be attached in the aged, in view of the frequency with which bronchitis and emphysema are met with at this time of life. It may be remarked, incidentally, that the second case had been diagnosed, previously to his coming under my care, as a case of emphysema, but I could not detect any signs of that affection in him. Arterial hypermyotrophy may be distinguished from emphysema by the dyspnœa being more paroxysmal and less constant than it is in emphysema: and by the presence of the thickened arteries, vertigo, and other symptoms which form the clinical picture of the disease.

5. Headache was somewhat more pronounced in the first case than in most of the cases I have observed, but it is nevertheless a feature. In all probability it is due to the high tension state of the pulse, but, as Sir William Broadbent aptly remarks, "headache is very common in the subjects of high arterial tension, but high tension has no specific form of headache."[7]

6. Hæmorrhage can hardly be regarded as a symptom, but is a very frequent complication in cases of arterial hypermyotrophy. Its most frequent seat is the brain. When arterial hypermyotrophy is accompanied by atheroma, we get all the conditions necessary for this accident—namely, high blood-pressure, which is the constant accompaniment of arterial hypermyotrophy, and the weakness of the vessels resulting from atheroma.

7. The urine presents no symptoms pathognomonic of arterial hypermyotrophy, but should always be carefully investigated, with a view to the exclusion of contracted granular kidney. The diurnal quantity is increased a trifle, as it was in the second case. When the disease occurs, as it frequently does, in the aged, the specific gravity is sometimes one or two degrees below normal. It will be observed that neither of these cases presented, either during life or after death, any of the signs of contracted granular kidney (chronic Bright's disease). But both diseases are predisposed to by old age, and are, therefore, not infrequently concurrent. The differentiation of the two conditions is important, for the prognosis differs and the arterial disease may go on for a much longer time than a case of fully-established granular contracted kidney. In both, there is progressive mental and bodily failure: in both, high pulse tension is a common feature. If, from any accidental cause, the patient incur a chill, a slight trace of albumen may appear in the urine, and under these circumstances a case of arterial hypermyotrophy is extremely likely to be mistaken for one of chronic Bright's disease. A probable instance of this is mentioned by Broadbent.[8] "A lady, still living, aged 75 or upwards, the subject of chronic arterial tension, caught a chill, and the arteries, which were unusually large, were found to be tightened up and incompressible, while there were severe occipital headache and a sense of oppression in the chest. The urine, previously normal, became temporarily extremely copious and pale, had a

[7] *The Pulse*, London, 1890, p. 177.
[8] *Op. cit.*, p. 152.

specific gravity of only 1006 or 1008, and contained a small proportion of albumen. On another occasion a similar attack was accompanied by slight left hemiplegia, with marked impairment of articulation; and, in my absence, two distinguished colleagues, not aware of the previous history, came to a diagnosis of advanced Bright's disease, and gave a most unfavourable prognosis. On both occasions a dose of calomel put an end to the serious symptoms almost at once—the hemiplegia, of course, excepted, which only disappeared very gradually."

8. Gangrene of the extremities and (9) angina pectoris are symptoms which have occurred in other cases of arterial hypermyotrophy, but they were not present in the above.

The existence of enlargement of the heart in cases of arterial hypermyotrophy renders it necessary to diagnose this condition from the other causes of cardiac hypertrophy; but the presence of vertigo, thickened arteries, and the other symptoms above mentioned, together with the absence of the signs belonging to any of the other causes of cardiac enlargement, enable one to come to a conclusion. There is every reason to believe that cases of arterial hypermyotrophy are very frequently mistaken for cases of cardiac-valvular disease. When, in the former condition, ventricular dilatation has supervened, it gives rise to a systolic apical murmur which throws the physician off his guard, and in any case renders the diagnosis a task of extreme difficulty. In none of the cases of arterial hypermyotrophy which I have met with has dropsy ever been present, and this fact may be of some assistance. The pulse usually is slow and regular, but when cardiac failure supervenes, one of its earliest manifestations is a rapid and irregular pulse. It is not possible to make more than the briefest reference to these matters on the present occasion.

### TREATMENT.

Space does not permit me on the present occasion to go fully into the question of treatment; but it will be gathered from these two cases that one of the chief indications in arterial hypermyotrophy is the reduction of high arterial tension. To this end saline purgatives and a dose of calomel are often of use, and even the extreme measure of bleeding may be called for, and may result, as in the first case, in very prompt relief. The value of rest is also illustrated in both of these cases, either alone or, as in the second, combined with massage and passive movements, to relieve the overburdened heart. In the earlier stages of the affection Schott baths and exercises may be resorted to, though caution is required in cases where there are reasons for suspecting advanced atheroma. For the giddiness and dyspnœa nitroglycerine seems to be the sovereign remedy, and it not only promptly relieved but also prevented this symptom very markedly in both of the above cases.

The matters here so cursorily dealt with will receive more exhaustive consideration on a future occasion. These two cases are only published in the hope that, by the recognition of what I am persuaded is a frequent and independent disorder, cases may accumulate and thus light may be thrown on what is admittedly one of the most difficult sections of pathology.

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# REMARKS ON

A CASE OF

## RECURRENT SARCOMA OF THE MAMMARY GLAND

TREATED BY

## COLEY'S FLUID

WITH A FATAL RESULT.

BY A. MARMADUKE SHEILD, M.B., F.R.C.S.,
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### PREVIOUS HISTORY OF THE CASE.

A NURSE, aged 44, was admitted into St. George's Hospital on April 3rd, 1896, and was kindly placed under my care by Mr. Pick, who had previously operated upon her. In January, 1896, the left breast was removed for a rapidly-growing malignant tumour, which on microscopical examination proved to be a myeloid sarcoma of a very pronounced type. The axilla was at that time apparently free. Within six weeks of the operation, the wound having healed, the disease returned in the scar, in the axilla, and beneath the clavicle. The patient attended in the out-patient department, and week by week the disease perceptibly increased, so that she was only too anxious to try any form of treatment that might afford a chance of relief. She suffered some pain of a "shooting" nature in the breast and down the arm.

On her admission, it was noted that there were two masses of disease in the centre of the scar. One was the size of a large walnut, livid, and marked by enlarged veins; the other was somewhat smaller, and was on the point of fungating. A large mass of disease was situated under the pectoral muscle. The general health and nutrition were good, and there was no evidence of deposits of disease elsewhere.

### EFFECTS OF THE INJECTIONS.

The injection treatment was commenced on April 3rd, when 1 minim of Coley's fluid, which, I may add, is a mixture of the toxins of the streptococcus of erysipelas and the bacillus prodigiosus, was thrown into the larger nodule at 4.40 P.M. At 6 P.M. the patient had a slight rigor and felt ill with a headache: a faint roseate blush spread over the skin round the site of injection. At 10 P.M. the patient was comfortable again, and the "blush" on the skin had extended as far as the clavicle. The pulse was quickened, and the temperature had risen 1° F.

On April 4th the same treatment was carried out at the same hour. Two minims of the fluid were injected into the same growth. The reaction symptoms were more severe, the rigors were pronounced, and the temperature was raised to 102.6° F. The pulse was quickened and feeble, and a red blush extended round the site of injection as before. She also complained of some numbness of the hands and feet.

On April 5th the temperature had again become normal, and the patient was asleep and comfortable. She volunteered the statement that the pain in the growth was greatly relieved. Two minims of the fluid were again injected. There was no reaction after this injection.

On April 6th the patient complained, however, of numbness of the hands and feet, and herpes appeared on the lips in the morning. At the usual hour 3 minims of Coley's fluid were injected. The patient within an hour had severe shivering, and the temperature rose to 103° F. She felt giddy and faint, with the usual "numb" feelings in the extremities.

On April 7th no injection was given. The patient was fairly comfortable, but felt very weak. The larger tuber of growth had completely altered its colour, being of a roseate hue, and obviously inflamed.

On April 8th an injection of 3 minims was again carried out, but slight reaction followed. The tumour was obviously smaller and flatter.

On April 9th and 10th the injection was followed by no reaction, so on April 11th and 12th 6 minims were injected beneath the clavicle into the masses of growth in this situation. Beyond slight local redness and pain no constitutional symptoms followed. I determined to omit the injections for a week, to allow the patient's general condition to improve, and to note the effect that had been produced.

On April 13th it was noted that the larger growth in the scar had discharged freely through a small opening; it was considerably smaller. The patient expressed herself as much relieved of the pains she had previously suffered from.

On April 20th the larger growth had entirely disappeared, its site being represented by a horny discoloured patch of thickened integument. The smaller tumour was semi-necrotic. The mass beneath the clavicle appeared less prominent. Six minims of the fluid were injected into the smaller tumour. The injection was made at 5.30 P.M. At 6.30 a rigor was experienced, and the pulse was quickened; the temperature was raised to 100.2° F.

On April 21st 6 minims were injected into the same growth. Well-marked reaction with a rigor occurred, and the temperature rose to 103 8° F.

On April 22nd a second rigor occurred, and the temperature after it rose to 103°. The patient was very ill and prostrate, and the temperature did not come down. On April 23rd and 24th the symptoms were very serious. At 10 A.M. on April 23rd the temperature was 105°, the pulse 140, and the respirations 50 in number. Small pustules appeared on the legs,

with petechial spots on the abdomen, and the patient became very comatose and drowsy. On April 24th she became quite unconscious, and died about 3.15 P.M. There appeared to be a good deal of local inflammation in the site of the growth, and shortly before death petechiæ appeared upon the face.

### The Characters of the Fluid used for Injection.

It may be here especially noted: (1) That the fluid was cultivated by Dr. Slater, and proved sterile. (2) That just after the last injection an injection of equal magnitude was made in a case of carcinoma, with but slight effects; the fluid was taken from the same bottle. (3) The fluid was obtained from the British Institute of Preventive Medicine, and was prepared by mixing the toxins of erysipelas and the bacillus prodigiosus. It was twice cultivated and found to be sterile.

The general treatment of the case may thus be summarised. Stimulants were freely given, and the patient's general health well supported. When the serious symptoms appeared towards the close of the case, cold sponging was resorted to to attempt to reduce the hyperpyrexia, and at the last, when respiratory embarrassment became evident, liquor strychninæ was administered. The injections were carried out with the same syringe, always carefully sterilised by boiling before use.

### Summary of Results.

A summary of the symptoms observed in this case would be as follows: Smart reaction followed the first two injections. After that three injections made in increasing quantities failed to have effect. After a week's interval severe reaction was again established. The effect on the growth injected was certainly very marked. It caused its undoubted shrinkage and apparent disappearance. This seemed due purely to inflammatory action in a soft neoplasm, rather than to any purely specific action of the fluid itself. The fatal end of the case will be discussed after the *post-mortem* appearances are described.

### Post-mortem Appearances.

At the *post-mortem* examination, conducted by Dr. Rolleston, signs of general pyæmia were apparent. Thus secondary abscesses and infarcts were found in the liver, myocardium, kidneys, and right knee-joint. The growth beneath the clavicle was necrotic, and it was particularly important to note that beneath the site of the two nodules which had disappeared was some purulent infiltration of the thoracic muscles. A bacteriological examination was kindly performed by Dr. Russell Wells, and the staphylococcus aureus was found in the secondary abscesses. This is noteworthy, as the original fluid was prepared from streptococci. There were no visceral deposits of sarcoma.

### Remarks.

I have thought it right to record this case because it well illustrates the difficulties and dangers that attend methods of treatment the effects of which may easily spread beyond our control. Fortunately in this case the serious nature of the disease justified the employment of a perilous mode of treatment. The patient could not long have survived, but it is right to allow that her life was undoubtedly shortened by the treatment. Nevertheless, so marked was the effect produced upon the prominent masses of growth that I would not hesitate to advise this treatment in cases of sarcoma which appear hopeless for less risky modes of treatment. It is especially interesting to note that the same fluid, in the same doses, was used for another patient suffering from carcinoma with little or no reaction result. The injections were made with scrupulous care, with an aseptic syringe, under my immediate direction. The fluid was found to be sterile. Hence the fatal organisms probably developed in the necrosing tissues of the growths themselves, and the "flaw" in this case was possibly due to imperfect disinfection of the skin. Little has hitherto been done with the seropathy of malignant growths in this country. From America we have the most conflicting testimony. For instance, Professor Senn[1] reports nine cases of failure, and says that the method is of no value, whereas the successful results claimed by Coley are well known,[2] and some of his cases are truly remarkable. An excellent paper by Repin[3] well sets forth the present status of the serum treatment of these cases. There can be no doubt that remarkable results in the disappearance of sarcomata have been brought about by some of these surgeons. Butlin, in a clinical lecture delivered at St. Bartholomew's Hospital on December 11th, 1895, seemed to think that the method was useless in carcinoma, but might prove of some benefit in sarcoma. The method is worthy of more extensive trial in this country, and the case I have related shows the importance of making every attempt, at all events, to prevent the entrance of dangerous organisms into the inflamed neoplasms.

Dr. Slater, our bacteriologist at St. George's Hospital, to whom I am indebted for much information on this subject, thus classifies the agents at present employed:

(*a*) Injection with the virulent organism apparently effective, but certainly dangerous.

(*b*) Treatment with toxins, occasionally successful, but giving rise to very severe symptoms.

(*c*) Treatment with the toxic blood serum of an infected animal, of doubtful efficacy, but giving rise to less constitutional disturbance.

(*d*) Antitoxic serum, free from risk, but apparently ineffective.

Thus it would appear that the more virulent the fluid the more marked is the effect upon neoplasm, and curative action in the growth and danger to life are in direct proportion. This is only what one would from analogy expect. It is after smart and dangerous attacks of erysipelas that retrogression of malignant growths has been observed most strikingly, and which led to the experiments of Ricord and Fehleisen, who in 1882 attempted to inoculate with living cultures of erysipelas.

I have received the following note on the preparation of Coley's fluid from Professor Macfadyen:

"Flasks containing nutrient broth are inoculated with a virulent culture of the streptococcus erysipelatis, and incubated at 30° to 35° C. for three weeks. The same flasks are then inoculated with the bacillus prodigiosus, and kept at room temperature for ten to twelve days. The mixed culture obtained is heated up to 50° or 60° C., with a view of killing the micro-organisms. A small quantity of carbolic acid is added to the sterilised broth, and it is used without filtration, commencing with small hypodermic doses of not more than half a minim."

References.

[1] *Journal Amer. Med. Assoc.*, July 27th, 1895. [2] *Amer. Journ. Med. Sci.*, July, 1894. [3] *Revue de Chirurgie*, June, 1895.

## ON THE ACTIVE CONSTITUENT OF THE THYROID GLAND.

By ROBERT HUTCHISON, M.D.,

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A few months ago I published in the Journal,[1] a preliminary note, in which I stated that the colloid matter of the thyroid is the only active part of the gland therapeutically. Since then I have published in the *Journal of Physiology*,[2] a paper dealing fully with the chemistry of the thyroid in which the above conclusion is supported by evidence drawn from the results of experiments upon dogs. In the present article I wish to present the clinical evidence by which I believe my conclusions to be finally proved.

For the sake of clearness it will be well to begin with a brief summary of the chief facts in the chemistry of the thyroid. I have shown that the proteids of the gland are two in number:

1. *A nucleo-albumin* present in small amount, and probably derived from the cells lining the acini.

2. *The colloid matter*, which possesses certain striking chemical peculiarities. One of these is that it contains, in addition to phosphorus, a considerable quantity of iodine. Another is that on gastric digestion it readily splits into two parts—a proteid part which yields albumoses and peptone, and a small insoluble residue which is entirely proteid free.

[1] British Medical Journal, March 21st, 1896.
[2] *Journal of Physiology*, vol. xx, p. 474.

Most of the iodine and all the phosphorus of the original colloid is found in this non-proteid residue, but the albumoses and peptones derived from the proteid part are also found to retain a small amount of iodine in their constitution.

*The extractives* of the thyroid (creatin, xanthin, etc.) resemble those of other organs, but they are said (by Fraenkel and Drechsel) to include amido bodies, hitherto unknown, to which an important part in the activity of the gland is to be ascribed.

### SEPARATION OF THE CONSTITUENTS.

In order to test the chemical activity of these different ingredients I isolated them.

*The Colloid Matter.*—A dilute alkaline extract of the fresh glands was made. The colloid matter was precipitated from this by the addition of acetic acid, and purified by reprecipitation and washing with alcohol and ether. It forms a very pale-brown powder, devoid of taste or odour.

*The Extractives.*—The filtrate, after removal of the colloid, was evaporated on the water bath, and any traces of proteid (serum, albumen, etc.) which separated out were removed by filtration. The residue was neutralised, made up to a definite bulk, and preserved by the addition of a few drops of chloroform. It forms a yellowish fluid, with a taste like that of dilute beef juice. This contains all the extractives of the gland, including the bodies described by Fraenkel and Drechsel.

*Nucleo-albumin.*—I also prepared a small amount of nucleo-albumin by Halliburton's method. It formed an almost colourless powder when purified and dried.

### THE SPECIFIC ACTION OF THE THYROID.

How are we to know whether any of the above preparations are active? This necessitates the further question, What is meant by the activity of the thyroid? With this question, What is really the pharmacology of the thyroid? I propose to deal fully in another paper, but at present one may say briefly that the specific action of the thyroid consists in a stimulation of general metabolism and an increase in the oxidation processes of the body. Clinically these effects are manifested by progressive loss of weight, slight rise of temperature and pulse, and an increased output of nitrogen and carbonic acid. If a preparation is capable of producing these symptoms in a healthy individual, it is to be regarded as "active." It will be observed that I do not include in the above list of symptoms those subjective phenomena such as headache and pains in the limbs, which help to make up the picture of what is known as "thyroidism," or over-action of the thyroid. I omit them because one cannot be sure *a priori* that these are not merely accidental concomitants which would not manifest themselves if one were really dealing with the active part of the gland alone and in a pure state. To this question, however, I shall return later. It is a commonplace of clinical observation that individuals vary very greatly in their reaction to the thyroid. In some all the above effects can be produced by the administration of quite small doses of the gland, in others large quantities can be given with little or no result. Accordingly, in testing the above preparations, I always made sure that the patient really reacted distinctly to moderate quantities of the whole gland before drawing any conclusions regarding the activity or the reverse of the particular preparation under trial. For this reason it is more satisfactory to deal with cases of myxœdema, whose reaction to thyroid treatment is so very marked. I have been fortunate enough to have three well-marked examples of that disease on which to try the preparations.

As I have shown above, there were three preparations which one wished to test: (1) A solution of the extractives of the thyroid—using that term to include all the non-proteid constituents of the gland; (2) the pure colloid matter; (3) the nucleo-albumin.

### (1) THE EXTRACTIVES.

These may be dismissed briefly. I have administered them both to normal subjects, whose reaction to the whole gland was well marked, and also to cases of myxœdema. The quantity given amounted in some cases to the equivalent of 30 g. of the fresh gland daily—(roughly = the thyroids of five sheep). In no case did I find any symptoms at all produced. Patients who had been progressively losing weight on the fresh gland began immediately to gain weight when put on the extractives. There was no rise of temperature or pulse, and no subjective symptoms were complained of. Cases of myxœdema remained in *statu quo*. One might, in fact, have just as well been administering beef tea. I therefore conclude that the active constituent of the thyroid is not among the extractives. Inasmuch also, as the solution was so prepared that it would contain Fraenkel's "thyrecantitoxin" I conclude that that substance is not the cause of the activity of the thyroid as administered therapeutically.

### (2) THE PURE COLLOID MATTER.

The amount of this substance yielded by the fresh gland varies considerably, but on an average 10 g. of fresh gland yields rather more than 1 g. of dried colloid. I administered it always in the form of a powder. The usual dose employed was 0.1 g. This may be regarded as approximately equal to 10 gr. of fresh gland, or to two of the ordinary thyroid tabloids. I found this substance to be invariably active. It produced all the ordinary signs of thyroid activity in healthy individuals, and in large doses distinct "thyroidism" resulted in some cases. I shall, however, only give the details of its action in one case—a well-marked case of myxœdema treated entirely by the pure colloid matter, and with a very brilliant therapeutic result. For this case I am indebted to the kindness of Dr. Inkster, Edinburgh. The notes were made for me by my friend Dr. George Elder, under whose observation the patient remained throughout the treatment.

Mrs. M., aged 55. About fifteen years earlier she had been exhausted by repeated childbirths. She then noticed some thickness of her voice, followed by swelling of the hands and face, loss of hair, weakness, and a feeling of coldness. The symptoms gradually progressed till June, 1896, when she presented the typical appearance of a well-marked case of myxœdema. Hebetude was marked. There was much swelling of subcutaneous tissues, large areas of baldness on the scalp, dryness and coldness of skin, typical slow speech. Her appearance at this time is shown in the accompanying illustration (Fig. 1). All the viscera were



Fig. 1.—Before treatment.

healthy. Her weight before the commencement of treatment was 10 s. 4 lbs.; the pulse rate was 60; and the temperature subnormal.

Progress.

On June 12th treatment was begun with one powder of 0.05 g. (about ¾ gr.) of pure colloid matter. This was given at noon; in the evening the pulse rate was 76 and the temperature 97.8° F.

June 14th. Two of the above powders daily; patient was perspiring and felt a "glow" all over.

June 15th. Three powders; the temperature in the evening was 100.3° F.; pulse 88.

June 16th. Two powders; some headache and pains in the limbs, worst one hour after powders; she thought her tongue felt "smaller," and speech was already more brisk; the skin was moist, temperature normal, pulse 100.

June 27th. Since the last note she had had a powder thrice daily; improvement had gone on rapidly.

July 1st to 15th. Four powders daily. Temperature, average 99.2° F.; pulse 96.

July 28th. She had been getting up since the last note. She felt weak, with pains in the limbs and a tendency to œdema of the ankles on standing. She was noticeably thinner. A good deal of desquamation was going on, and fine hairs have begun to appear on the bald places. She began to take 0.1 g. colloid daily.

August 12th. The change in the face was now very remarkable. The features were thin and sharp, the skin soft and moist. The pulse was 80, the temperature normal. The hair a quarter of an inch long; the weight 9 st. 4 lbs.

September 28th. She was still progressing rapidly. She felt quite strong and well. Hair one inch long. To continue 0.1 g. colloid daily.

The condition of the patient at the present time (November 15th) is shown in the accompanying illustration (Fig. 2). Her weight is now 8 st. 12½ lbs.—nearly 2st. less than at the commencement of treatment.



Fig. 2.—Mrs. M. after five months' treatment with "colloid."

From the effect on this case there can be no shadow of a doubt that the colloid matter is active. It acted rapidly and effectively, it was extremely well borne, and at no time did the dose exceed 0.2 g. (= 3 gr.) daily.

## The Constituents of the Colloid Matter.

It is not enough, however, to have shown that the colloid matter is active as a whole. I have already pointed out that the colloid is to be regarded as a compound substance which can be very readily split up into a proteid and a non-proteid part. Does the colloid owe its activity to one of these constituents only or do both participate in the action? If so, what is the part played by each? In order to solve these problems, I took some of the pure colloid matter, submitted it to gastric digestion for several hours, and separated the proteid and non-proteid constituents in a manner described in detail elsewhere. The non-proteid body formed a dark brown powder, odourless and tasteless; 25 g. of colloid yielded 0.9 g. of the substance. The proteid constituent was in the form of albumoses; these formed a colourless, somewhat hygroscopic powder with a bitter taste; 25 g. colloid yield 12 of albumoses.

## The Proteid Constituent of the Colloid.

Is the proteid constituent of the colloid (that is, in this case the albumoses) active?

I tested the albumoses prepared as above on the following case of myxœdema, for which I am indebted to the kindness of Dr. J. O. Affleck, Edinburgh.

W. R., plumber, aged 54, complained of swelling of the face and hands, slowness of speech and apathy: duration, 7 months. On June 10th, 1896, the patient exhibited the symptoms of distinct but not advanced myxœdema. Swelling was well marked in the face, the skin was dry, the speech characteristic; there was no loss of hair. The temperature was subnormal, the pulse 90, the weight 10 st. 12 lbs., viscera normal.

Progress.

June 16th. Began 0.1 g. of pure albumoses morning and evening.

June 28th. The weight had fallen to 10 st. 10¾ lbs.; no other symptoms.

July 6th. Since the last note he has been having 0.1 g. thrice daily; the weight was 10 st. 8 lbs. He had occasional shooting pains in the arms, the pulse was 112, the temperature normal.

July 12th. During the last week he had had 0.4 g. daily; the weight was 10 st. 4 lbs. He had had pains in limbs and headache that week. The temperature was 99° F., and the pulse 100.

July 19th. Since the last note the treatment had been stopped. The weight had risen to 10 st. 8 lbs. The pulse was 80, and the temperature subnormal.

August 2nd. Since July 20th he had had 0.15 g. albumoses morning and evening. The weight was 10 st. 5 lbs.; the pulse was 108.

September 10th. The face was certainly less swollen, speech quicker, and he felt well. The weight was 10 st. 5¾ lbs. The albumoses were stopped.

September 19th. The weight was 10 st. 8½ lbs.

September 20th. He was ordered 0.05 g. of the non-proteid part of the colloid instead of the albumoses twice a day.

September 26th. The weight had fallen to 10 st. 5 lbs. The non-proteid was stopped.

October 3rd. The weight was 10 st. 4 lb. Puffiness of the face had quite disappeared, speech was almost normal, and the patient felt quite himself again.

From the result of this case we are able, I think, to answer in the affirmative the question as to the activity of the proteid constituent of the colloid matter. At the same time the activity is by no means the same as that of the colloid as a whole. Larger doses of the substance were required to produce a noticeable effect. Thus the patient was taking on an average during the treatment a daily amount of albumoses which would be derived from about 6 g. of the fresh gland, which is a very considerable quantity, representing as it does about eighteen of the ordinary tabloids. The action of the albumoses differs also from that of the colloid as a whole in being more transitory. As soon as their administration is stopped the patient's weight returns to its former amount. The albumoses would seem to be more rapidly got rid of in the tissues than the colloid as a whole; the latter seems to be fixed by the tissues, and to have therefore a cumulative action, while the albumoses are rapidly excreted.

## The Non-Proteid Part of the Colloid.

I have not considered it necessary to put this part of the colloid to any elaborate clinical tests. The reasons for this are given in the article to which I have already referred. As I have there shown the non-proteid part of the thyroid is without doubt the substance from which is derived Baumann's thyroiodin, or iodothyrin, as it is now called. Now as to the activity of the latter substance there is no room for any doubt. It has been abundantly proved by Roos[3] in cases of simple goitre, and by Ewald[4] and others in myxœdema. More than this, the substance is active in very minute doses.

[3] *Zeitsch. f. phys. Chemie*, xxii, p. 16, 1896.
[4] *Verhandlungen des 14ten Cong. f. inn. Med.*, *1896*, p. 101.

In the second case of myxœdema recorded above it will be noted that for one week (September 20th to 27th) the patient got, instead of the albumoses, 0.05 g. of the non-proteid body twice daily. During this week he lost nearly 3 lbs. in weight, a much greater loss than had been brought about by a considerably larger quantity of the albumoses. Further than this the loss of weight continued for a week after the administration of the substance was stopped; in other words, it has that prolonged action which is characteristic of the colloid as a whole, which is absent in the case of the albumoses.

It would appear, therefore, that the colloid matter owes its activity chiefly to its non-proteid part—that is to say, to the part of it which is richest in iodine. The objection may be raised that the albumoses, as I have prepared them, owe their activity to the incomplete separation from them of the non-proteid body. Inasmuch, however, as I have submitted specimens of the albumoses to a three hours' boiling with 10 per cent. sulphuric acid, and subsequent extraction for three times with boiling alcohol, and have found them still to contain iodine, I hardly think that the objection is valid.

### The Nucleo-albumin.

I have administered this substance in one case of exophthalmic goitre, which reacted markedly to ordinary thyroid treatment. The dose given was small but not disproportionate to the small amount of the substance present in the gland. Its administration was continued for a week but no evidence of activity was observed.

### The Therapeutic Activity of the Colloid Matter.

From these observations it follows that the total therapeutic activity of the thyroid is to be attributed to the colloid matter. On consideration it will be found, I think, that all the preparations of the thyroid which have been found to be of therapeutic value contain the colloid. It goes into solution in all watery and glycerine extracts. Of dried preparations of the whole gland it is, of course, unnecessary to speak. One preparation deserves special mention—the thyroid powder prepared by White.[5] This powder was prepared in the manner usually employed for the separation of ferments, and was successfully used in some of the earliest cases of myxœdema treated by the thyroid. As a result, the conclusion was arrived at by many that the thyroid owes its activity to the presence of a ferment. I have found, however, on preparing the powder according to the directions of White, that the colloid matter is thrown down along with the precipitate of calcium phosphate, and that the dried powder consists, in fact, of calcium phosphate and colloid matter. It is, therefore, not surprising that it should have been found to be active. Vermehren[6] has described a case of cretinism cured by the administration of the precipitate produced by the addition of alcohol to a glycerine extract of the thyroid. Of course, such a precipitate would contain all the proteids of the gland, including the colloid matter.

### The Therapeutic Advantages of the Colloid Matter.

Seeing, then, that all the preparations of proved activity contain the colloid matter, the time has come, I think, when we should reconsider our methods of thyroid administration, and give to patients the colloid matter separated from the inert parts of the organ in a state of purity. The advantages of such a mode of administration are obvious.

1. Constancy of dose is ensured. The quantity of colloid present in different glands varies considerably; hence the amount of active substance in dried preparations of the whole gland is really not constant. By isolating the active part and giving it alone the difficulty is removed.

2. The drug is quite pure. The pure colloid matter is entirely free from fat, which is always present in dried preparations of the whole gland and is apt to make such preparations disagree when given in large doses.

3. The pure colloid is entirely free from taste and odour, and keeps indefinitely. These advantages cannot be claimed for other thyroid preparations.

4. A very small dose is required. Thus it will be found that as much of the dried colloid as will lie upon a sixpence is equivalent in activity to three of the tabloids in common use.

5. The colloid is absorbed with great ease and rapidity. This is a point on which I desire to lay special emphasis. Incredible though it may seem, I have seen its effects begin to be manifested in a thyroidectomised dog within five minutes of its administration by the mouth.

6. The administration of the colloid matter is really the most economical way of giving the thyroid. In giving the colloid, one is giving the active part of the glands, nothing more and nothing less. There is no waste of active material such as occurs in the preparation of thyroiodin.

### The Subjective Symptoms.

Are the subjective symptoms such as headache and pains in the limbs which are so often complained of by patients who are being treated by large doses of ordinary thyroid preparations produced also when the pure colloid is given? In other words, are these symptoms a necessary result of giving large doses of the active principle of the thyroid, or are they merely by-effects due to the presence of impurities in the preparation employed? My own observations show quite clearly that such symptoms are unavoidable results of the physiological action of the gland whenever that action is pushed beyond a certain limit. These symptoms are produced whenever large doses are given, even if everything other than the active principle of the gland be excluded from the preparation. It cannot, therefore, be fairly claimed for the colloid or for any other thyroid preparation that it obviates the occurrence of such symptoms. At the same time, the advantages of giving the colloid matter isolated in a pure state are so obvious that I have asked Messrs. Oppenheimer and Co., wholesale chemists, to prepare it according to my directions. This they have done, and members of the profession can now obtain the substance in a convenient and reliable form for administration to patients.

[5] BRITISH MEDICAL JOURNAL 1892, vol. ii. p. 966, and *Pharm. Journ.*, September 2nd, 1893.

[6] *Deut. med. Woch.*, March 16th, 1893.

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## REMARKS ON THE OPERATIVE TREATMENT OF A CASE OF DOUBLE FRONTAL SINUS EMPYEMA, COMPLICATED BY DOUBLE ANTRAL SUPPURATION.

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If one was asked what kind of surgical diseases (except those of a malignant nature) are most intractable to treatment, and fraught with most anxiety to the surgeon as to the ultimate success of his intervention, it is probable that the correct answer would refer to certain cases of chronic suppuration of the various hard-walled, bony cavities of the body.

The following case may therefore be of interest both to the general surgeon as well as to those who give special attention to rhinology, and this not only because of the extent and duration of the disease, and the number of accessory cavities involved, but also because the treatment which has been practically successful embodies most of the suggestions for dealing with chronic suppuration of the frontal sinuses which have been made up to the present time:

Mr. S., aged 38, was sent to me, October 19th, by his medical attendant on account of a constant purulent discharge from the nose, which he found associated with polypi. The discharge had been continuous for eighteen years, except for slight remissions during sea voyages. When about 8 years of age he had a severe blow on the forehead, after which he had a discharge from the nose, but whether purulent or not he cannot remember. When 18 years old he was attacked with violent frontal headache and fever, and a large abscess formed over the lower part of the forehead, and the whole scalp became tender and swollen. The abscess was opened by a median vertical incision extending from the root of the nose about 2 inches upwards, and counter-openings were made at different parts of the scalp where drain tubes were inserted. He was confined to bed for some six weeks, and when sufficiently strong he left for South Africa, where for five years a

fistula at the lower part of the incision secreted pus constantly, so that he was never without a small bead of it on his forehead. This, however, finally closed, but the secretion of pus from the nose continued for twenty years, until recently, and but for the inconvenience of this his general health has been excellent.

On October 19th I saw him for the first time, and found both nasal cavities bathed with pus, while the middle meatuses and upper regions were filled with polypi and granulations. Having cleansed the mucous membranes they were cocainised with a 10 per cent. solution of cocaine, when I had no difficulty in removing five polypi from the two sides, the largest being about the size of a broadbean: it was now easy to feel exposed bone with a blunt probe in each middle meatus, and on the right side I had no difficulty in passing a Hajik's probe into the frontal sinus, a proceeding which I was unable to carry out on the left side. It was also easy to pass a strabismus hook into each maxillary antrum, on removal of which there occurred a free flow of very offensive pus. The two bicuspid and first molar teeth were represented on each side by carious stumps only. On thoroughly cleansing the nasal cavities I noticed that pus soon made its appearance above the middle meatus, and flowed down the anterior part of the nose, so that I came to the conclusion that I had probably frontal sinus and certainly antral empyemata to deal with. I ordered him an antiseptic alkaline nasal wash, and on October 23rd I explored both antra with a Lichurtz trocar, perforating the inner wall below the inferior turbinate about an inch and a quarter from the columna. The operation is practically painless with cocaine. A quantity of extremely offensive dark green pus was evacuated from each cavity. The fluid returned from the left cavity with some difficulty, and whilst giving a little extra pressure to the syringe attached to the trocar the patient felt the fluid swill round the forehead, so that I had no doubt that the frontal sinus and antrum on the left side were in free communication.

November 6th. Since the preceding date the patient has been in the hands of the dentist, who removed carious stumps and fitted him with vulcanite plugs which entered each antrum. By this means he was enabled to syringe out each cavity twice daily, and used for this purpose the antiseptic alkaline tabloids made for me by Burroughs and Wellcome. None of the carious teeth removed communicated with the antra. I now noticed that when the fluid returned clear from the antra that the passage of a probe up the fronto-nasal canal was followed by a free flow of pus, so that one's diagnosis was fairly clear, and I considered that the antra merely acted as reservoirs of pus coming down from the sinuses above, the communication between which had already been proved on the left side. After some delay he agreed to allow me to perform the following operation, in which Mr. Collier kindly assisted me.

November 30th. The patient being under ether, I made two nearly median and slightly curved vertical incisions from the root of the nose upwards for about 2 inches, and joining above and below, so as to include the old depressed scar, which I dissected out. In doing this I found its deeper portion firmly cicatrised to a small vertical slit in the frontal bone, and through which a probe passed easily into the left sinus.

Retracting the soft parts and periosteum over the lower median portion of the frontal bone, the pin of a ½ inch trephine was applied to the bone (in the lower part of the space included between the median vertical line and a line drawn vertically upwards from the internal angular process), and a small disc of bone removed, when the unhealthy mucous membrane at once bulged into the aperture, resembling in appearance a rectal pile. A probe was now passed in to gauge the size of the sinus; it passed for 2 inches backwards and 3 inches outwards, the septum was complete, and everywhere the bony cavity seemed intact. A piece of sponge was secured by a ligature and passed down to the infundibulum, and the polypoid degenerated mucous membrane was gently scraped out, one or two apparently localised abscesses being opened during the process, if one may judge from the bright yellow pus which now and again made its appearance in the opening during the curetting. The hæmorrhage during this process was free, and the value of the plug in the infundibulum evident. Having carefully scraped the whole internal surface, the latter was swabbed out with chloride of zinc grs. 40 ad ℥j, and plugged with dry cyanide gauze.

The same procedure was adopted on the right side, but as it was a smaller sinus I did not plug the infundibulum, and during the curetting some blood entered the larynx, and towards the end of the operation caused us some anxiety by inducing respiratory difficulties. The upper end of the incision was now stitched together, the middle part being gently packed with gauze. I should say that previously to packing the sinuses I passed medium-size rubber catheters through the trephine openings and *viâ* the fronto-nasal passages out of the nares, and tied the ends together in order to prevent the latter passages occluding by blood clot.

December 1st. The sinus were repacked after removing the previous day's dressing, and the surfaces lightly touched with chloride of zinc gr.xxx ad ℥j.

December 2nd and 3rd. Sinuses similarly dressed.

December 4th. A brief gas and ether anæsthesia was induced, the previous day's dressing removed, and a thorough swabbing out of the sinuses was made with chloride of zinc grs.xl. to ℥j. The catheters were removed. I now passed from above downwards into the left sinus, through the fronto-nasal canal and out at the left nostril, a rubber catheter 6 inches long, with a funnel-shaped upper end ¼ inch in diameter; by drawing on the lower end the funnel was made to occupy the left infundibulum. The edges of the external wound were freshened, and with the periosteum, which was carefully drawn over the trephine apertures, sutured in the middle line.

December 4th. There is no collection of pus in either antrum, and I have syringed out the left frontal sinus with lukewarm mercuric chloride lotion, 1 in 3,000.

December 7th. Sinuses and antra daily syringed out with antiseptic lotion, and left sinus injected with zinc chloride, gr. x ad ℥j. Only a slight collection of muco-pus in right antrum. Removed funnel tube from left frontal sinus.

December 8th, 9th, and 10th. Patient now syringes out his antra twice daily. There is scarcely any discharge from them. No sign of pus coming from the sinuses.

December 16th. Patient has returned from seaside. External wound quite healed. On syringing the antra a small amount of muco-pus still appears every other day from the antra.

December 30th. No discharge from the sinuses, and a very small amount from either antrum.

There are several points of interest in this case:

1. The length of time that the disease has been present, and yet the patient has been in good health all the time. It is difficult to understand how such a collection of indescribably foul discharge can be located in the skull for years without even producing headache, especially when one remembers the distress produced by an ordinary catarrh of the sinuses, as experienced during an acute nasal catarrh.

2. The large sinuses, the left almost reaching into the temporal fossa.[1]

3. The nature of the degeneration (myxomatous) of the mucous membrane, and the value of plugging the infundibulum before commencing the removal of the disease.

4. The method of draining the sinus by inserting a self-retaining tube. Had the sinuses been smaller I should have inserted these tubes on both sides, and closed the external wound at once, but the free hæmorrhage necessitated packing in the case recorded here.

5. The sinuses, in spite of the long-standing disease, did not communicate, as the septum was complete.

6. The enormous number of these polypoid granulations, the localised collections of purulent matter referred to, and the size of the sinuses would have afforded an excellent demonstration of the futility of treating these bony empyemata by syringing lotions up the nose through the fronto-nasal canal, and still more so of endeavouring to force a passage from the nasal cavity into the frontal sinus when a natural one does not exist, or, if existing, cannot be found. As regards the use of syringing, I would point out that the fronto-nasal passage is often difficult to find, and, when found, may be unnavigable with a probe on account of its curves or narrow calibre, to say nothing of the danger of using force in this neighbourhood. Nothing could be easier than to make a false passage into the eye socket, into healthy ethmoidal cells, or

even into the brain, as has recently been done by a very careful and skilled worker, who learnt by means of a *post-mortem* examination how easy it is to go wrong, and how absolutely impossible to know the extent of the sinuses, the thickness of their walls, or, indeed, if they exist at all, without an external operation which is practically devoid of danger and has everything in its favour.

In these days, when enthusiasm runs high and the nasal cavities share with other regions its successful as well as unsuccessful results, I am sure I do right in adding a word of warning with regard to careless probing in the higher nasal regions, and I refer especially to the opening of the frontal sinus from the nose, in order to drain, irrigate, or insufflate. From investigations I have recently made, I am correct in saying that it is a proceeding which bristles with danger both to neighbouring healthy structures and to life. Even supposing it was devoid of danger, surely it must more often than not be absolutely useless—for example, in the case recorded, I would ask, What benefit can possibly result from syringing, or insufflating, or draining such large cavities lined by unhealthy degenerated mucous membrane of eighteen years' standing?

One must bear in mind that in dealing with the frontal sinuses we are dealing with a bony cavity, and that diseases of all bony cavities are very intractable to any treatment which is not thorough, that its relations are as various and intricate as its size, that its walls are often thin, and that no treatment which does not actually allow one to see and feel one's way with certainty and safety can be considered scientific or accompanied with reasonable prospects of success.

REFERENCE.

[1] For further information as to size of sinuses and their variations, see An Analysis of the Frontal Sinuses in 120 Skulls from a Surgical Aspect, with Cases illustrating Methods of Treatment, *Lancet*, September 18th, 1886.

## THE INFLUENCE ON THE ACTION OF THE AURICLE OF VARIATIONS IN ITS CAPACITY.

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"NOTHING appears to us more inadmissible than the existence of a current going from the auricle to the ventricle during the systole of the latter. In presence of a physical impossibility. . . ."[1] In these words Professor Marey has expressed the view which has hitherto been held without question in France and England, but which the following experiments seem to throw some doubt upon.

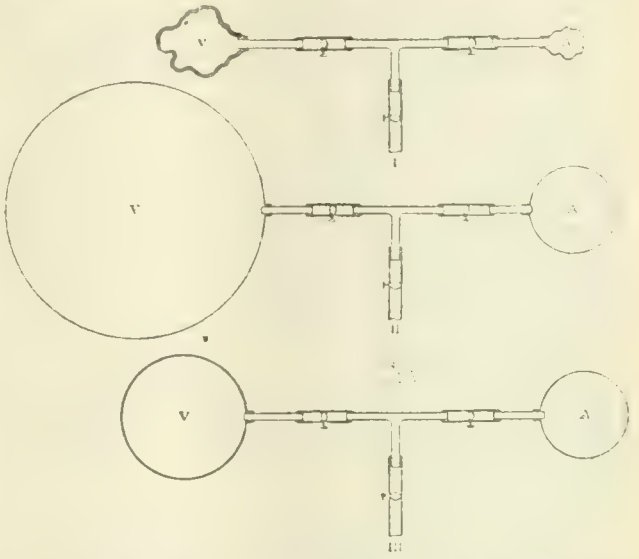
I chose two rubber balloons such as are commonly sold to children, the one, V, being large and thick walled, the other, A, being small and thin. The larger, V, when filled with air, but not distended, was about the size of the closed fist, and its walls were about equal in thickness to a sixpenny piece. The smaller, A, when similarly full of air, but undistended, was rather smaller than a hen's egg, and its walls were about equal in thickness to a piece of goldbeater's skin. A short tube was inserted into the mouth of the balloon, and tied there. The free end of each of these tubes was connected by a short rubber tube with a T tube, as shown in the figure.

EXPERIMENT I.—Air was blown in by the free tube of the T-piece, and was at liberty to pass into either or both of the balloons. It was found that, although the walls of the smaller balloon, A, were many times thinner than those of the larger balloon, V, yet the former supported better the pressure and the latter alone was distended.

EXPERIMENT II.—Both the balloons, V and A, were separately inflated to twice or three times their original diameters. They were then put in communication by opening the clamps placed on the tubes between them. Instead of the large thick-walled balloon, V, sending air into the small thin-walled balloon, A, the air took the reverse course, and A emptied itself into V and still further dilated it.

EXPERIMENT III.—Air was allowed to escape from V, so that the balloon V was diminished in size; A was distended as in the last experiment. V and A were then put in communication. In this case the air was expelled from V into A, and the connecting tube had to be closed to prevent A being burst.

EXPERIMENT IV.—The balloon A was inflated and then put in communication with V, which was empty and collapsed. In this case the air escaped from A into V at such a rate that a rubber band which was stretched across the end of the tube inserted into A was made to vibrate sufficiently to produce a loud musical note. This note had not been heard in Experiment II, when the air passed from A into V more slowly.




It follows from Experiment I that a weak, thin-walled, but small balloon can sustain a greater pressure than a strong, thick-walled, but large balloon; and it follows from Experiments II and III that, if both these balloons be inflated and then put in communication, the direction of the current of air will depend quite as much on their relative sizes at the time as on their initial strengths. The same conclusions may be arrived at mathematically; the internal pressure which a hollow sphere can support, or, if contracting, exert on its contents, being easily proved to vary inversely with the diameter of the sphere.

Now, exactly the same mechanical principle applies to the heart and to the two chambers, the auricle and ventricle. These on contracting assume a form sufficiently spherical for the purpose of the analogy—and the error would be comparatively small if they did not—and as they contract they exert a pressure on their contents which increases in proportion as their diameters diminish. Supposing that the auricle and ventricle should at any time be contracting simultaneously, is it, as Professor Marey states, "une impossibilité physique" that the auricle should succeed in sending its contents into the ventricle?

If the auricular cavity happen at the time to be small, the auricle having nearly finished expelling its contents, and the ventricular cavity happen at the time to be large, the ventricle having just commenced its contraction, then Experiment II suggests the possibility of the auricle being master of the situation, and sending the remnant of its contents into the ventricle, in spite of the latter being already in contraction.

Professor Potain[2] has shown in France, and Professors Roy and Adami[3] in England, that the auricular systole lasts till the opening of the aortic valves. If so, the auricular systole must overlap any portion of the ventricular systole which precedes such opening. During this, the first phase of the ventricular contraction, the ventricle is large and full of blood; the auricle, on the other hand, is small and nearly empty of blood, it having already sent most of its contents into the ventricle. The auricle, in fact, is just in the position in which it has every advantage from relative size, and the mechanical advantage thus gained probably more than compensates it for its relative muscular deficiency, and leaves it at this stage of its contraction more than a match for the ventricle resisting it.

It has been pointed out that the auricle is not more than one-tenth the thickness of the ventricle, and therefore could not exert more than one-tenth as great a pressure on its contents. Since, however, the auricular walls thicken as they draw together during contraction, it is not necessary to suppose that the diameter of the auricular cavity must be re-

duced to one-tenth that of the ventricular before the auricle can exert an equal pressure on its contained blood. When its diameter has become one-fifth or perhaps one-fourth the auricle will probably have thickened sufficiently for its increased muscularity, and the mechanical advantage under which it works, to enable it to contend successfully with the ventricle, and to expel the last portion of its contents into the contracting ventricle.

The left ventricle, on contracting, can never exert a pressure appreciably greater than that in the aorta, because the aortic orifice acts as a safety valve, and blood escapes into the aorta directly the ventricular blood pressure is sufficiently raised. Practically, therefore, the greatest pressure against which the auricle can ever have to contend from the ventricle is measured by that in the aorta. If, therefore, at, or towards, the end of its contraction the auricle can exert a greater pressure on its blood than that in the aorta, it can send it into the ventricle, whatever be the state of the ventricle at the time.

It is not my intention here to prove that the auricle does send blood into the ventricle while their contractions overlap, but merely to point out that it is mechanically able to do so, if its cavity be sufficiently small at the time. I desire also to protest against the generally received assumption that it is physically impossible for the auricle to send blood into the contracting ventricle.

Personally, I strongly believe that the auricle does contend successfully with the ventricle when their contractions overlap, and that it sends blood into the ventricle at that time. This belief I base on the following considerations:

1. That, as I have shown, the overlapping of the systoles occurred at a time when the auricle is favoured by every mechanical advantage.

2. That this action best explains why the auriculo-ventricular valves shut late—that is, at about the time, or but little before, the aortic valves open. The auriculo-ventricular valves are prevented from closing by the support they receive from the contraction of the auricle behind them, and perhaps the necessity of still allowing a small stream of blood to enter the ventricle.

3. That it similarly explains why the contraction of the papillary muscles begins late, as shown by Professors Roy and Adami[4] (and whose conclusions to my mind are quite out of the reach of the attempts which have been made to disprove them), these muscles not being required to contract till the auricle ceases to support the valves.

4. Professor Potain in his article in the *Clinique Médicale de la Charité*, p. 543, wrote: "It is remarkable that the snap (of mitral closure) is as a rule less clear when the præcordial elevation preceding it is more considerable. One willingly attributes the fact to the ventricular hypertrophy which appears capable of stifling in some way or other the vibrations produced." Now Professor Potain attributes the præcordial elevation to the contraction of the auricle. A vigorous præcordial elevation therefore suggests a vigorous auricle. In this case the mitral valves are well supported by the auricle and the residue of its contained blood, and with a strong pressure on each side of them, the resultant pressure to close the valves is but small, and they consequently close quietly. A simpler explanation than Professor Potain's.

5. In mitral stenosis, with incompetent valve and hypertrophied auricle, this theory explains at once the frequent absence of a systolic murmur, and therefore presumably of regurgitation. Regurgitation in fact need not occur, though the stenosed valve be very incompetent. The auricular contraction is admittedly prolonged by the difficulty the auricle experiences in emptying itself forwards. The auricular systole which normally overlaps the first phase of the ventricular contraction now overlaps the second or expulsive phase as well. Regurgitation from the ventricle towards the auricle is therefore prevented by the auricle itself, which remains contracted behind the incompetent mitral orifice, and I have shown that the auricle is mechanically capable of resisting the ventricle under these conditions. It is only when the auricle dilates that regurgitation need occur.

6. In mitral stenosis a "presystolic" murmur is commonly continued into the time of præcordial elevation. From this Dickinson[5] and others have concluded, in opposition to the generally-received opinion, that the murmur is ventricular-systolic in origin, and depends on mitral regurgitation. If, however, as I have indicated in this paper, the auricle is also contracting during the earlier portion of the ventricular systole, the blood current from the hypertrophied and nearly emptied (therefore small-chambered) auricle will still pass onwards towards the ventricle, in spite of the latter entering into contraction, and the murmur will continue to be auricular-systolic in origin. There seems no reason why the presystolic murmur should not continue up to, during, and even after the first sound, if the contraction of the hypertrophied auricle be sufficiently prolonged, and its blood be not all previously expelled into the ventricle.

7. There are many other facts in the physics of the circulation the difficulty of explaining which disappears as soon as it is recognised that the auricle can exert a pressure on its contents increasingly great in proportion as the size of its cavity is reduced during its contraction. It would make this paper too long to discuss these here, as well as certain baseless objections, such as the auricle not being valved towards the great veins, which might be raised.

References.

[1] Marey, *Circulation du Sang*, p. 692. [2] Potain, *Clinique Médicale de la Charité*, p. 541. [3] Roy and Adami, Heart Beat and Pulse Wave, *The Practitioner*, vol. xliv. [4] Roy and Adami, *Loc. cit.* [5] Dr. Dickinson, *Lancet*, 1887.

## ON THE PREVALENCE OF ANKYLOSTOMIASIS IN ST. LUCIA AND ITS TREATMENT.

By OTHO GALGEY, M.R.C.P.I.,
Colonial Assistant Surgeon, St. Lucia, West Indies.

Anæmia, tropical anæmia or progressive pernicious anæmia, is a disease of such severity, and is so prevalent in this island, especially among the coolies, that the discovery of any means of curing it may be regarded as a decided advance in therapeutics. The number of admissions into Victoria Hospital for anæmia in 1892 was 209; in 1893, 277; and in 1894, 272.

Most of these cases were coolies, but the natives are also very prone to contract the disease. The miserable, dejected, and despondent appearance of the sufferer is characteristic of anæmia. The pale, waxy complexion, the difficulty of breathing, and the slow, laboured walk show that the patient is utterly unfit for work. He has probably remained on the estate, endeavouring to perform even a very moderate task, until dyspnœa on the slightest exertion compels him to seek hospital relief.

Up to the middle of last year we were in the habit of treating these cases with alteratives and tonics, and a generous diet. Among the tonics, iron, in an infinite variety of preparations, was the favourite remedy. Arsenic and its compounds, phosphorus in various forms, chlorate of potash, quinine, strychnine, hypophosphites of lime and soda, cod-liver oil, and other valuable medicines, were given with varying results. Bismuth, dilute hydrochloric acid, and pepsine were administered alternately to assist the failing digestive and assimilative powers. Of the three, pepsine wine undoubtedly occasioned great relief in many cases.

Tabloids of thyroid extract (prepared from the thyroid gland of the sheep) were imported expressly for these cases of profound anæmia, but I cannot say that they afforded any permanent relief. They seemed to allay the urgent symptoms of dyspnœa, and the patient's condition apparently improved for a time, but the change was only temporary. The severe cases generally went from bad to worse, and almost ably ended fatally.

After carefully perusing the researches of Dr. Sandwith on the *Prevalence of Ankylostoma Duodenale in Egypt*, and the valuable article on the same subject in Davidson's *Hygiene and Diseases of Warm Climates*, I determined to make a *post-mortem* examination on the first fatal case of pernicious anæmia that occurred in hospital, and find the parasite if possible. I had not very long to wait. On March 27th, 1895, Kanjania, a female coolie, died in the Victoria Hospital of pernicious anæmia.

*Post-mortem Examination.*—The usual pathological signs of anæmia were noted. I removed the small intestine and opened it carefully, the contents being preserved in a basin.

I then divided the intestine into segments and examined each separately. Small ecchymosed spots were noticed, but at first no worm could be detected. The duodenum and jejunum and upper part of the ileum were covered with thick mucus. The intestines were carefully washed, and the contents allowed to settle in a basin.

On minutely examining the sediment I was rewarded by finding the parasite. I got hundreds of specimens from this body, which, under the microscope, corresponded exactly with the description of the ankylostoma duodenale of Griesinger. I have preserved many specimens of the nematode in bottles.

My next endeavour was to produce the drug thymol, which was described as a specific for the disease. Early in May a supply arrived from England, and we at once commenced a regular and systematic treatment of ankylostomiasis. After keeping the patient on milk diet for a day or two, a brisk purgative was given, to be followed next morning by two doses of 20 grains each of thymol, given at intervals of two hours. If there be no evacuation for some hours after the second dose, an ounce of castor oil is administered. The excreta are put aside for examination. At first we administered the thymol enclosed in cigarette papers, but as on several occasions I found the paper undissolved and unopened in the stools, this method was abandoned, and we now give it in large capsules specially imported for the purpose. I append short notes of 23 cases, being the first of the series of anæmic patients submitted to the treatment by thymol.

CASE I.—Mahaysh, male, aged 23, indentured coolie of Soucis, face puffy, large flabby tongue, conjunctivæ pale, weighs 105 lbs. Admitted April 22nd, 1895, for anæmia. On May 15th thymol was administered with a negative result. On May 28th, after a second dose, he passed a quantity of ankylostomata (also a lumbricoid). Stools very dark-coloured. Discharged June 4th. Weight, 114 lbs. Much better.

CASE II.—Badal, male, aged 20, Crown lands, admitted April 29th, anæmia; weight, 115 lbs.; thin and delicate appearance, tongue dark and mottled, conjunctivæ pale. On May 15th thymol, two doses, passed a large quantity of ankylostomata; stools very dark. Discharged June 3rd. Weight, 53 lbs. Much better.

CASE III.—Perbhoo, free coolie from Crown lands, aged 20, admitted May 6th, with anæmia, face pale, tongue soft and flabby, and indented at margin, ears transparent, eyelids [illegible] weighs 121 lbs., treated with ferri et ammon. cit. May 15th, thymol, three doses of 20 g. each, passed a large quantity (specimen preserved). Discharged June 3rd. Weighs 103 lbs. Greatly improved.

CASE IV.—Bhulaie, male, 33 years of age, Mont d'Or. Admitted May 14th with the usual symptoms—shortness of breath ("hampa"), etc. Weight 122 lbs. May 15th, thymol, passed many ankylostomata. May 22nd, thymol, passed many ankylostomata. Discharged May 31st. Weight 127 lbs. Much improved. His tongue from being pale and flabby has assumed a healthy appearance.

CASE V.—Pheru, male, aged 23, Mont d'Or. Admitted May 14th. Anæmia. Weight 107 lbs. Face very sallow, thin pinched appearance, tongue large and flabby, marks of teeth on margin, eyes sunken, lassitude, palpitation, and dyspnœa. May 17th, thymol, passed many ankylostoma. May 21st, thymol, passed many ankylostomata. Discharged July 4th. Weight 109½ lbs. Much better.

CASE VI.—Pudai, male, aged 23, Mont d'Or. Admitted May 14th for Anæmia. Face puffy, tongue large, soft, and pigmented, conjunctivæ pale, enlarged spleen. This patient suffered from severe migraine, which is a common symptom in anæmic cases. May 17th, thymol, negative result; May 21st, thymol, passed a few; May 28th, thymol, passed a few. Discharged June 4th much improved.

CASE VII.—Masuma, a female coolie from Crown Lands. Admitted May 20th with anæmia. Suffers from intense frontal headache, cries with pain, tongue pale and mottled, face puffy, eyelids swollen. Weighs 89 lbs. May 21st, thymol, passed a large quantity (specimen preserved). Discharged June 13th. Weight 96 lbs. Much better. Headache has entirely disappeared.

CASE VIII.—Deoghulamsing, male, aged 21. Volga coolie. Very tall and stout for a coolie. Admitted April 15th. General œdema, urine scanty, no albumen, face sallow and swollen, eyelids puffy, feet and legs much swollen, tongue large and flabby, indented by teeth, visible mucous surface extremely pale. May 22nd, thymol, 3 doses, passed a quantity of ankylostomata. Discharged June 4th. Much better. All traces of dropsy have disappeared.

CASE IX.—Madarbukhsh, male, aged 38, Crown Lands. Admitted April 21st. Anæmia; weight 121½ lbs. May 6th contracted influenza, not a very severe attack. Sallow complexion, pale, flabby tongue, eyelids puffy, shortness of breath on the least exertion. May 22nd, thymol, passed many ankylostomata. Discharged June 19th. Weight 123½ lbs. Much better.

CASE X.—Gopaul, male, aged [illegible] Crown Lands. Admitted May 11th with a slight attack of influenza, [illegible], eyelids swollen, conjunctivæ pale, tongue mottled, palpitation and difficulty of breathing on the slightest exertion. May 2nd, thymol, passed a quantity. Discharged June 21st Improved in health.

CASE XI.—Joseph Herbert, aged 23, a black man from Nevis, working at Soucis. Three years in St. Lucia. Admitted with malarial fever. May 9th. Weight 127 lbs. Face puffy, tongue pale and flabby, mucous surfaces blanched. May 27th, thymol, passed a few. Discharged June 10th. Weight 138½ lbs. Much better.

CASE XII.—Kishun, male, indentured coolie of Crown Lands, aged 40. Admitted May 20th. Weight 101½ lbs. Face puffy, conjunctivæ pale, tongue flabby, mottled, large purple spots on surface, complains of shortness of breath, frequently in hospital. May 27th, thymol, three doses passed numerous ankylostomata. Discharged June 13th. Weight 106 lbs Much improved.

CASE XIII.—Samundri, aged 23, female from Crown Lands. Admitted May 18th, suffering from anæmia. Tongue large and flabby, face puffy, conjunctivæ very pale, frequently in hospital. Weighs 91 lbs. May 27th, thymol, passed a quantity (specimen). Discharged June 5th. Weight 92 lbs. Much better.

CASE XIV.—Punwasi, aged 10, a female coolie from Mont d'Or, admitted May 22nd for anæmia; weight, 82 lbs. Face puffy, tongue pale and indented at edges by the teeth, conjunctivæ blanched. May 29th, thymol, passed a few; stools dark green. Discharged June 9th. Weight, 84 lbs. Very much improved.

CASE XV.—Daryao, a male coolie from Mont d'Or, admitted May 22nd suffering from anæmia; weight, 119 lbs. Face pale, eyelids puffy, conjunctivæ yellowish white, tongue flabby, marked by teeth, spleen enlarged. May 29th, thymol, dark stools, passed a few. Discharged June 9th. Weight, 125 lbs. Greatly improved.

CASE XVI.—Ramrattan, male, aged 32, Crown lands, admitted May 15th with fever and influenza; weighs 117½ lbs. General appearance anæmic, pale waxy complexion, eyelids puffy, tongue large and pigmented as if stained with ink. May 31st, thymol, passed a few ankylostomata. Discharged June 8th. Weighs 123 lbs. Much better.

CASE XVII.—Bargaxipiasad, male, aged 20, Crown lands. Admitted May 15th. Influenza and anæmia. Weighs 119½ lbs. Face puffy, eyelids swollen, conjunctivæ yellow, tongue large and pale. Male 31st, thymol, passed a few ankylostomata. Discharged June 11th. Weight 124 lbs. Greatly improved in health.

CASE XVIII. Shadilal, male, aged 34, Mont d'Or, free coolie. Admitted May 25th for anæmia. Tall man, weighs 131 lbs. Face pale, depressed and anxious look, tongue large and flabby and pigmented, conjunctivæ pale and anæmic. June 2nd, thymol, passed a few ankylostomata. Discharged June 15th improved.

CASE XIX.—Chedda, male, aged 45, Mont d'Or, free coolie. Admitted May 16th with influenza. Weight 98 lbs. Face sallow, eyes sunken, conjunctivæ yellow, tongue pale and flabby, teeth marks on edges, very large large spleen, frequently in hospital. June 2nd, thymol, passed a few ankylostomata. Discharged June 6th. Weight 99 lbs. Much improved.

CASE XX.—Baliraj, Volga coolie from Soucis Estate, aged 30. Admitted April 23rd, suffering from anæmia. Weight 100 lbs. Pasty-looking complexion, eyelids puffy, tongue deeply pigmented, mucous surfaces blanched. June 2nd, thymol, passed a quantity. Discharged June 17th Improved in health.

CASE XXI.—Kalu, indentured coolie, male, aged 30, Crown Lands. Admitted May 20th, with intermittent fever. Weighs 95 lbs. Characteristic appearance—face pale and unhealthy-looking, eyelids swollen, conjunctivæ pale, tongue large, soft, and pigmented. Complains of difficulty of breathing ("hampa" Hindustani). June 4th, thymol, passed many ankylostomata. Discharged June 13th, in good health. Weighs 101 lbs.

CASE XXII.—Zalim, free coolie from Roseau, male, aged 32. Admitted June 3rd, with anæmia. Weighs 107 lbs. Weary, pasty look, tongue large and soft, conjunctivæ dirty-yellow. June 4th, thymol, negative result. June 6th, thymol: passed many ankylostomata. Discharged June 9th. Weight 109½ lbs. Greatly improved.

CASE XXIII.—Dinali, a boy, aged 14, from Peru Estate. Admitted March 30th, for geophagia or pica (earth eating). Weight 60 lbs. Unhealthy, waxy look. Complains of pain at pit of stomach. June 5th, thymol, in 15-grain doses, passed a large quantity. Discharged July 30th, much improved. Weighs 65 lbs.

Since then fully 60 other cases have been undergoing the same treatment with the most successful results. After a few doses of thymol the tongue of the patient, which had been soft, pale, and mottled, becomes red and healthy looking. This change is very remarkable. The appearance of the individual also alters rapidly, and after a short course of tonics and iron, he is sufficiently recovered to be able to resume work on the estate. The fatal effects of thymol on the small parasite in the intestines are unfailing. Thymol imparts to the urine a dark colour, resembling that observed when carbolic acid is absorbed into the system. It also changes the stools to a dark green colour. Giddiness and faintness after taking the drug were complained of by a few of the more debilitated coolies, but these symptoms quickly passed off. For this reason I never administered more than 20 grains at a time, although larger doses are recommended by some authorities. It is worthy of note that there has been only one death from pernicious anæmia in the hospital since May last when the treatment by thymol was commenced, and this case might have been saved had the thymol arrived sooner. Nine deaths from this cause are recorded for the previous five months.

The method of finding the worms is tedious and difficult, and by no means agreeable. The excreta must be submitted to at least six washings, and the deposit allowed to settle between each washing. The final deposit is now carefully examined, and the minute worms, measuring from about half to three quarters of an inch, are discovered at the bottom of the vessel. Thymol is given the credit of being a powerful disinfectant and deodorant, but in my experience it has not proved so.

The habit of eating earth (pica or geophagia) is prevalent among coolies, both children and adults. It is a vitiated and

depraved state of the appetite, and is a frequent symptom of cases of anæmia. According to Cobbold, it is a common symptom of worms of all kinds.

I have at hand an extract from Dr. Livingstone's last *Journals*, Vol. II, p. 83, which I think worth quoting:

Safura is the name of the disease of clay or earth eating at Zanzibar. It often affects slaves, and the clay is said to have a pleasant odour to the eaters, but it is not confined to slaves, nor do slaves eat in order to kill themselves; it is a diseased appetite, and rich men who have plenty to eat are often subject to it. The feet swell, flesh is lost and the face looks haggard, the patient can scarcely walk for shortness of breath and weakness, and he continues eating till he dies.

Earth eating is one means by which the ankylostoma duodenale is introduced into the system, but unwashed hands in labourers working in contaminated soil is a more frequent cause of infection. Water is probably the principal medium through which the parasite infects man.

Three different modes of action are put forward to explain the pernicious anæmia caused by the action of the ankylostoma upon the system: (1) direct loss of blood, (2) catarrh of the stomach and intestines, causing altered digestion and impeded absorption; and (3) blood poisoning produced by materials originating in the metabolism of the parasite, or in the impaired digestion of the bearer.

I hope from further observation to be able to demonstrate successfully that the pernicious effects of the anæmia of this island, whether occurring in Creoles or coolies, are due to the presence of the ankylostoma duodenale in the intestines.

## INHALATION OF FORMALIN IN CATARRH AND OTHER DISEASES OF THE RESPIRATORY TRACT.[1]

By J. LARDNER GREEN, M.R.C.S.Eng., L.S.A.,
Salisbury.

THE predisposing cause of ordinary catarrh is most probably a depressed condition of the nervous system; the exciting cause a chill or other constitutional shock paralysing the branches of the first, fifth, and eighth pairs of nerves followed by the introduction of air laden with the ever-present morbid germs. Dr. Davison records a case of a vigorous young girl who breathed air strongly imbued with coal gas; when discovered she was comatose, breathing stertorously, and foaming at the mouth. After partial recovery under the prompt and skilful treatment employed, we are told that there was great danger owing to the exhausted condition of the system; the cells of the respiratory tract were so paralysed that they were incapable of resisting the invasion of the pneumococcus, thus leading to a fatal attack of pleuro-pneumonia: for the automatic centres lose their inhibitory powers if the higher centres become so disorganised as to be unable to discharge their functions.

According to Fraenkel, a micrococcus is found in the sputum of pneumonic patients, and more recently he believed them to be the cause of pneumonia; they are frequently rod-shaped, being somewhat longer than broad, varying in size and shape, usually found in pairs, sometimes in filaments of three or four elements; when in double pairs they are called micrococcus tetragenes. They stand in some intimate relation to many forms of fevers and inflammations. Their presence in the healthy mucus of the mouth, etc., does not disprove this, for it is necessary that some injury—greater or less—should occur to stir up this ever-present germ to develop the diseases of the respiratory passages. These complaints have several points of resemblance to others acknowledged to arise from microbes; thus catarrh is to some extent contagious. Popular belief confirms this idea, and all admit that catarrh, if often recurrent, is apt to end in laryngeal and pulmonary consumption.

These considerations lead to the conclusion that the most rational treatment is by means of germicidal remedies, the most direct mode being by the careful inhalation of a gas or vapour; the best results have been from the vapour of formalin, one or two drops placed inside a Jeffery's respirator. If the disease be in the acute stage one drop will suffice; if the vapour be too stimulating, the respirator should be temporarily removed from the face to dilute the vapour with air; a feeling of warmth and comfort will follow.

I strongly advise a trial of the formalin in the early stages of tuberculous consumption, when usually it will be found under the microscope that the number of both the micrococcus pneumoniæ and also of the bacillus tuberculosis, which is constantly to be found in the sputum, will be rapidly lessened. Of course, every subsidiary aid, for example, tonic medicine, careful dieting, every attention to hygienic surroundings, should not be omitted. Formalin is the short name given to a 40 per cent. aqueous solution of formaldehyde gas. For inhalation in acute cases, the formalin should be diluted with water.

[1] Abstract of a paper read at a meeting of the Southern Branch of the British Medical Association.

## A CASE OF ACUTE SEPTICÆMIA TREATED WITH ANTISTREPTOCOCCIC SERUM: DEATH.

BY
A. V. CROSSING, M.R.C.S.Eng., L.R.C.P.Lond., and H. W. WEBBER, M.D., M.S.Lond.

K. T., aged 15½, a pupil teacher, was first seen on October 31st, 1896. She worked very hard at the school, appeared to have been not too well fed, and lived in an insanitary house. She first felt ill on October 26th, but went to school till October 30th. On October 31st she looked ill, and complained of pain in respiration in the left infracostal region. The lower lip was swollen, with a small pustule on the left side. This was opened and hot boracic fomentations applied.

November 1st. Temperature 103°, pulse 140, respirations 40. The chin and lower part of the face on the right side were swollen, red, and tender. Fine inspiratory crepitation could be heard over the ninth and tenth ribs in the left mid-axillary line. Calomel (gr. iv) was given and quinine sulphate (gr. iij) every four hours.

November 2nd. The inflamed area on the face had extended somewhat downwards. Crepitations could be heard over the same spot as before. In the evening the temperature was 103°, the pulse 140, and the respirations 46.

November 3rd. The swelling was more prominent over the face, and felt elastic. The temperature was 100.4°, pulse 120, and respirations 34. In the evening, under A.C.E. mixture, an incision was made in the middle line below the chin 2 inches in length, and another over the border of the lower jaw. The incised tissues were very tense and brawny, but no pus was found. Quinine, digitalis, and brandy were ordered to be taken at frequent intervals, and the hot boracic fomentations continued. Several pustules on the lower lip were opened, and pure carbolic acid rubbed into their cavities. The condition of the lip at this time very much resembled that of a carbuncle.

On November 4th there was slight general improvement: the temperature 101° to 103°, the pulse 120 to 130, and the respirations 30 to 40; no crepitations were now audible, and nourishment was well taken.

On November 5th the temperature in the morning and evening was 101.4° and the pulse 120. At 9.30 P.M., 5 c.cm. of antistreptococcic serum prepared at the Pasteur Institute were injected subcutaneously to the left of the umbilicus.

On November 6th there were swelling, redness, and tenderness in the right temple, extending over the eyelid, and causing inability to open the eye: the temperature was 102°. At 9.30 A.M., 5 c.cm. of serum were injected. At 9 P.M. the temperature was 103.8° and pulse 120. Under chloroform an incision down to bone was made into the swelling outside the right orbit; 10 c.cm. of antistreptococcic serum (Burroughs, Wellcome, and Co.) were injected.

November 7th, at 4 A.M., rather severe hæmorrhage came on from the incision over the lower jaw. It was stopped by compression with dry wool and a pint of saline solution injected into the rectum. This was repeated two hours later, the result on the pulse and general condition being good on each occasion. In the evening the temperature was 103° and pulse 150. The patient was evidently becoming much worse, though she took milk freely, and brandy in two-drachm doses every two hours.

On November 8th diarrhœa came on frequently, and the

patient was delirious, pulse very rapid and feeble, and temperature ranging from 102° to 104°.

On November 9th, at 5 A.M., she died.

Remarks.—This was a very severe case; the patient went steadily downhill from the first, and never showed an encouraging symptom. The serum was probably not used early enough and in too small doses; still, the amount which was injected (20 c.cm.) in twenty-four hours produced no effect on the constitutional symptoms though the local condition improved.

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

### EMBOLISM OF THE PULMONARY ARTERY MORE THAN TWO MONTHS AFTER DELIVERY: DEATH.

Mrs. P., aged 35, was delivered by me of a male child on October 23rd, 1896. It was her third confinement. For many years she had suffered from a very extensive varicose condition of the left internal saphenous vein, from the foot up to Scarpa's triangle.

Four days after her confinement she complained of pain in the upper, inner, and back part of the left thigh. On examination I found a localised phlebitis, and a thrombus formed in the largely dilated external pudic. She remained in bed till November 26th, and then, feeling fairly well, she got up, without my permission. I did not see her again until December 23rd. I then found her in a low, weak condition, and the external pudic still blocked with the thrombus. I still advised complete rest on her back as much as possible.

On January 6th I received an urgent message that she was dying. On arrival I found that she had felt much better the last few days, and had arranged that she should be "churched" on that morning, and her nurse was in the house ready to accompany her. About 10 A.M. she lifted her little boy, aged 3 years, out of his cot, and carried him downstairs, but on reaching the bottom she felt a sudden pain in the breast, and a choking sensation, with a fear of impending death. I found her on her bed, whither she had been carried by her husband and nurse. Her condition was most alarming. She complained of great pain under the sternum and through to the back. Her respirations were short, gasping, 40 to the minute. Her face was pallid, except the lips, which were blue. The heart was beating in a hurried, tumultuous manner. The pulse was small and irregular. Air was entering all over the lungs. No *bruit* and no *râles* to be heard. Her mind was quite clear, and she said she felt she was dying. I at once administered brandy, ordered hot bottles, perfect quiet and rest, and sent her an ether and ammonia mixture. On my way up to see her again about 4 P.M. I met her husband, on his way to tell me that she was dead. It appeared that she had rallied a good deal, and they thought she was going to get better. She was left alone for a few minutes, when suddenly the nurse, who was downstairs at the time, heard a noise overhead, and running up, found that the patient had got out of bed, evidently to urinate, and was then lying on the floor at her last gasp. In a few more moments she was dead.

This case illustrates the great length of time which may elapse between the thrombus following on a confinement and a fatal separation of the embolus. It is just possible that had she not got out of bed her life might have been spared, as she appeared to have got over the first imminent danger, and with further time the obstruction in the pulmonary artery might have become absorbed.

Sherborne. T. Reuell Atkinson, M.R.C.S.

### TREPHINING FOR FRACTURE IN A YOUNG CHILD.

On November 26th, 1896, a little girl, 2 years and 5 months old, fell down two or three stairs, and it was thought had broken her left arm. I was called to her, and found the left arm and leg affected with convulsive twitchings; on the upper part of the right side of the head was a deep indentation. She had two convulsive fits.

She was at once sent into the Evesham Cottage Hospital, and put under an anæsthetic; on removing the scalp over the indentation, a fracture about an inch long, with a good deal of depression, was seen. Part of the depressed bone was trephined, and the rest raised with the elevator; the next day she was quite sensible and bright, and since then she has made an uninterrupted recovery; her temperature never rose above normal.

Evesham. H. E. Haynes.

### EXTENSIVE HERPES INVOLVING MUCOUS MEMBRANE.

In February, 1896, F. F., male, aged 35, a platelayer, married, presented himself for examination, complaining of intense neuralgia of the right side of his face, and of a "breaking out" on his face and in his mouth, due, he supposed, to exposure to cold. To diagnose herpes was comparatively easy; the large area affected, however, certainly seemed worthy of note. Briefly, the right trigeminal nerve was implicated, and a well-marked herpetic rash in various stages of development was noted in the following situations:

Right half of forehead, with a slight overlap to left side (supraorbital and frontal).
Right temple well up into the hairy scalp (auriculo-temporal).
Lateral angle of right eye and back to ear (subcutaneous malar).
Right lower eyelid, cheek below the eye and right upper lip (infraorbital).
Mucous membrane of right cheek (buccinator).
Right anterior two-thirds of tongue and right tonsil (lingual).

The right eye was also badly bloodshot, but I failed to find any vesicles on the cornea or conjunctiva. The case progressed favourably, the only difficulty being the mouth lesions, which had to be dressed with nitrate of silver before they would heal.

Crewe. Alfred E. Vaughan, L.R.C.P.E., L.R.C.S.E.

### CARDIAC TONICS IN ACUTE BRONCHITIS AND BRONCHO-PNEUMONIA, ESPECIALLY IN CHILDREN.

The cause of danger in most, if not in all, cases of bronchitis and broncho-pneumonia, especially in children, is heart failure. The right ventricle continues to receive its wonted supply of venous blood, which it endeavours to force on through the already obstructed pulmonary capillaries. This obvious disadvantage has shortly added to it another—namely, overdistension, and so the right heart works on, stimulated it may be by aliment and drugs, until frequently it fails altogether, unless it be helped by suitable drugs.

The chief clinical phenomena accompanying this condition are blueness of the skin and mucous membranes, an extremely rapid pulse, quickened respiration, and great strengthening of the second cardiac (pulmonary) sound at the base. It is at this period that I think we do well if we look more to the condition of the heart than to that of the lungs. The most useful drugs are undoubtedly digitalis and nux vomica, but it becomes necessary in a few cases to resort also to strophanthus and convallaria majalis. These may, I believe, be given, in suitable doses, to the youngest children.

In conclusion, I would say a word in praise of spongiopiline as against the time-honoured linseed poultice, the frequent application of which, by exhausting the patient, often does more harm than good.

Portsmouth. J. G. Blackman, M.D.Brux., M.R.C.S.

### CHRONIC (SEPTIC) DISCHARGE TREATED BY ANTI-STREPTOCOCCUS SERUM.

On August 18th, 1896, I saw Mr. G., aged 54, who had received a small abrasion in the cleft between the thumb and index finger of the right hand while gardening. Septic absorption was evinced by red lymphatic lines running up the arm, with enlargement and tenderness in Cruikshank's gland above the bend of the elbow. The temperature was 102°, and there had been repeated rigors. These symptoms, however, yielded rapidly to local and general treatment, but on September 1st he had a strong rigor (temperature 103°) with vomiting. I found enlarged and tender glands in the axilla, which rapidly broke down, and on September 5th I opened an axillary abscess containing about 10 ounces of thick laudable pus. This abscess, in spite of free drainage, rapidly extended under and through the sheath of the pectoralis major muscle, necessitating two counter-openings—one in the mammary

line (fifth interspace), the second an inch to the right of the xiphoid cartilage.

On September 12th I opened a small abscess which had formed in the supraclavicular glands. From this date his temperature fell to normal, and, with the exception of an exacerbation of half a degree in the evenings, never again reached 99.5°.

These cavities, however, continued to discharge copiously in spite of daily syringing and free drainage, and showed no tendency towards the formation of granulation tissue whatever. Owing to the low condition into which my patient had sunk, I determined to try antistreptococcus serum. This I obtained from Burroughs and Wellcome on November 12th, just sixty-two days after I had opened the last abscess, and on that day I injected 3.3 c.cm. into the substance of the pectoral muscle. The report on November 13th was: "Slept well; delirium much less." I continued these injections into the same region daily until November 17th, when, as the necessity for them seemed to have ceased, I discontinued it. His temperature was now steady, delirium gone, appetite good, and the discharge, instead of being copious and purulent as formerly, had become very scanty and serous. From this date he made an uninterrupted, though slow, recovery.

My reasons for publishing the above case is that, in my opinion, it shows that antistreptococcic serum furnishes us with a most valuable means of controlling chronic purulent discharge unaccompanied by any febrile disturbances. The complete absence of any local reaction points to the non-irritating qualities of the serum. The patient's condition, which I attributed rather to the effects of the prolonged discharge than any septic absorption, was my reason for adopting the small doses—3.3 c.cm. of the serum, instead of the larger doses of from 7 c.cm. to 20 c.cm. advised in acute septicæmia. After the extremely satisfactory result in the above case, I would certainly be strongly inclined to adopt a similar dosage should I have another case of the same kind. I am quite convinced that had the serum treatment not been adopted in this case the result would have been very different.

Manningtree, Essex. J. S. Jameson, M.D.Dub.

# REPORTS

ON

## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

### COOTEHILL UNION INFIRMARY.

A CASE OF ACUTE PUERPERAL SEPTIC INTOXICATION TREATED WITH ANTISTREPTOCOCCUS SERUM: RECOVERY.

(By T. Hamilton Moorhead, M.D., Medical Officer.)

At 3 A.M. on December 23rd, 1896, M. M'C., a healthy primipara, aged 18, was delivered of a living male child at full term by the infirmary nurse, who is a trained midwife. The placenta was retained, and at 7 A.M. I was sent for. I found that the patient had lost a good deal of blood. Failing to press off the placenta, and having most carefully cleansed my hands first with turpentine, and then with hot soap and water and sublimate solution I proceeded to remove it. There was hour-glass contraction, but no difficulty was experienced in extracting both placenta and membranes intact, and the uterus was immediately irrigated with sublimate.

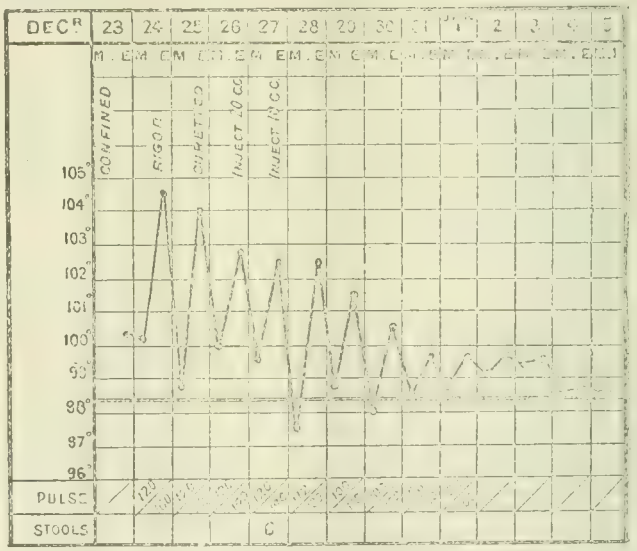
I saw the woman at 1 P.M. when she had fully rallied, and at 10 P.M., when her temperature was 100.5° and her pulse quick and small. I again irrigated with 1 in 2,000 solution of perchloride of mercury, and this was repeated twice daily until December 29th, when all uterine discharge had ceased.

At my morning visit on December 24th I found a marked change for the worse. The patient was stupid and apathetic, like one intoxicated. The skin was clammy, the tongue coated, the lochial discharge trifling and free from odour, the pulse quick, small, and compressible. She was thirsty, but there was no abdominal tenderness. A tear in the perineum was covered with dirty grey lymph.

It was only too evident that I had to deal with a case of septicæmia of a bad type; such cases frequently die within a week. I put her on 20 gr. doses of sodæ benzoas every two hours, half an ounce of whisky every two hours, and as much milk as she could be induced to take. I also telegraphed to Messrs. Burroughs and Wellcome for a supply of serum, which I have to thank them for having promptly despatched, though the wire must have reached them late on Christmas Eve.

She had had two prolonged rigors during the night and some vomiting, and on December 25th seemed indifferent to everything, hardly rousing herself to answer when spoken to. At 4 P.M. on Christmas Day I curetted the uterus thoroughly under ether, getting away much shreddy lymph. Six hours later the temperature had fallen 5° F., and the pulse from 140 to 88.

On December 26th the night nurse reported that she had had a restless night. There was some abdominal pain on pressure over the uterus, and some vomiting. The temperature in the morning was 100° F., and the heart was failing. At 11 A.M. the temperature had gone up to 102.8°. F., and the pulse was 120. At 10 P.M. I injected 20 c.cm. of serum between the shoulder blades; a fall of 2.7° F. followed within two hours.




She had several hours' sound sleep following the injection. There was less stupor on December 27th, and although the temperature at 8 A.M. was 101.4° F., it fell to 99.5° F. before noon. She was taking nourishment more freely, but she had some painless diarrhœa. At 10 P.M. I injected 10 c.cm. of serum, which was followed by a fall of 3.4° F. in two hours.

On December 28th there was a marked change for the better in every way. The stupor was gone; some milk was flowing from her breasts; the grey lymph had disappeared from the perineal wound. She said she felt much better, and laughed at some joke I made.

From this date, although the temperature continued to rise at night for some days, I felt no uneasiness about her; and on December 30th I washed out the uterus for the last time.

On January 6th, 1896, she was entirely convalescent, and was allowed up for a few hours, having a good appetite and a fair colour in her cheeks. No urticaria was observed.

Remarks.—This is the first case of puerperal septicæmia that has occurred in the Cootehill Infirmary during the twenty years I have been medical officer. It is also the first case in which I have used antistreptococcus serum. I regard it as a typical case of the worst form. That I was attending a case of cellulitis of the leg when the confinement occurred would point to that as the source of infection, and is another evidence of the difficulty of rendering our hands aseptic. The rapid change in the general condition of the patient after the antitoxin injections and the flow of milk from her breasts impressed me very strongly in favour of the serum treatment of this fearful malady.

## ROYAL INFIRMARY, NEWCASTLE-UPON-TYNE.

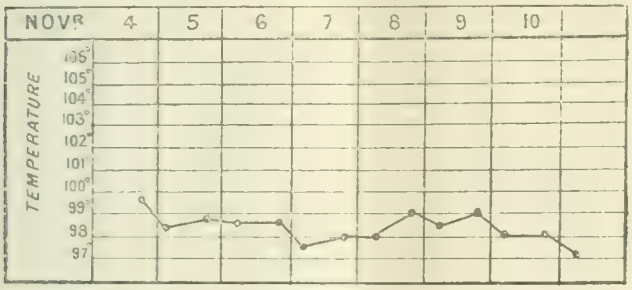
### A CASE OF OBSTRUCTION AT THE PYLORIC END OF STOMACH DUE TO KINKING PRODUCED BY SUPPURATING GALL BLADDER.

(Under the care of Mr. PAGE.)

[Reported by Dr. JOHN CLAY, Senior House-Physician.]

M. R., aged 42, was admitted into the Royal Infirmary, Newcastle, on October 2nd, complaining of vomiting of two months' duration. The history of the case is as follows:

Two years ago he had a swelling in the right side, a little below the region of the gall bladder. This swelling he was told was an abscess; it eventually ruptured into the bowel. Two months ago he commenced to vomit fluid brown in colour, frothy, and sometimes as much as two quarts. He continued to vomit, but without pain, until the day of operation.




On November 14th gastro-jejunostomy was performed, but the vomiting was continuous, and on November 18th the patient died.

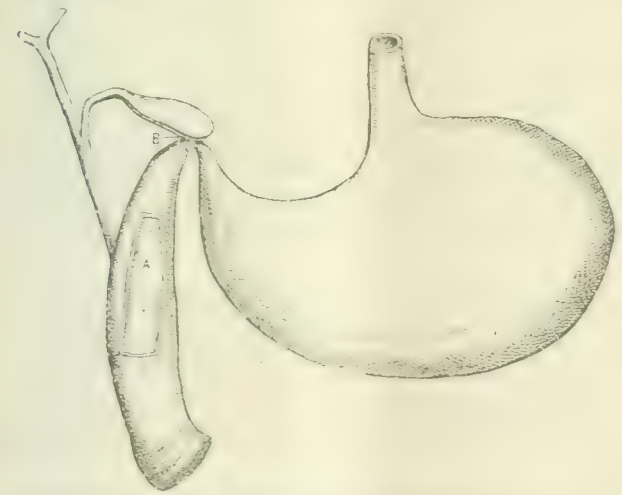


Diagram of stomach in which pyloric obstruction was produced by kink caused by adhesion to gall bladder.

On *post-mortem* examination on November 19th the following conditions were found: The stomach was much dilated, the pyloric end, colon, and gall bladder matted together by a mass of adhesions which were difficult to separate. The gall bladder was full of stones and pus. A band of adhesions passed between the gall bladder and the pylorus, so that the latter was drawn up, producing an acute kink. Within the pylorus there was a small opening leading into the gall bladder. A sinus from the gall bladder ran down behind the duodenum, and opened into the latter close to the opening of the common duct. The common duct and hepatic ducts were patent. The pylorus was not stenosed, though the kinking produced practically the same effect.

REMARKS BY MR. PAGE.—This case illustrates what may happen if gall stones be allowed to remain in the gall bladder. On opening the abdomen in the left semilunar line a fixed tumour was found consisting of the gall bladder, pylorus, and colon, so firmly welded together that it was impossible to separate them so as to expose the gall bladder, which, however, could be felt to be full of gall stones. Further, the persistent vomiting after gastro-enterostomy is one of the serious and by no means uncommon objections to the operation, the only procedure which in this case seemed to be feasible. It is curious that the gall stones did not escape into the intestine through the fistulous communication between the gall bladder and the gut.

## LIVERPOOL CANCER AND SKIN HOSPITAL.

### UNUSUAL CASE OF CARCINOMA OF BREAST.

(By W. S. CRAWFORD, B.A.Cantab., F.R.C.S.Edin., Senior Assistant Surgeon.)

IN the beginning of September, 1892, M. W., a fresh complexioned, thin woman, aged 31, came under my care. Some months before admission she received a blow on the right breast which caused her a good deal of pain for some time. She did not notice any swelling. Three months after receiving the blow she found a lump in her right breast about the size of a marble, situated above and to the outer side of the nipple; it was freely movable and quite free from pain. On admission to hospital some four months later the lump had attained the size of a tennis ball; it was very hard and adherent to the skin; the nipple was retracted; the axillary glands were hard and enlarged; a well-marked scirrhus of the breast. This was removed and the axilla cleared. The sections were found to be hard spheroidal-celled carcinoma.

On November 25th, 1896, she again presented herself at the hospital, her general appearance but little changed. Eight months before, when there was no lump of any kind, she had wrenched her arm and hurt her right breast. There was a large oval-shaped tumour distending the skin, which was ulcerated in a circular patch 2 inches in diameter over the most prominent part of the growth; the ulcerated area was concave and bled readily on the slightest interference. Towards the axilla a flattened portion of growth was felt extending from the main mass, and firmly adherent to the pectoral muscles, but not certainly to the bony wall of the chest. About 2 inches lower down than the main mass there was a small area somewhat discoloured about the size of a penny, intensely hard, and two or three small nodules in the immediate neighbourhood, evidently recurrences in the superficial lymphatics. The right armpit was clear, but the left contained a mass of enlarged and undoubtedly cancerous glands. The main recurrence commenced, according to the patient's description, immediately above the old cicatrix; it now involves the scar and the tissue on each side.

REMARKS.—Her father's sister died of carcinoma of the breast which followed an injury. The patient's primary growth, as well as the recurrence, followed definite injuries. In so young a patient one was pleased to find so long an immunity period (three and a-half years).

# REPORTS OF SOCIETIES.

## PATHOLOGICAL SOCIETY OF LONDON.

HENRY TRENTHAM BUTLIN, D.C.L., F.R.C.S., President, in the Chair.

*Tuesday, January 19th, 1897.*

### NON-CALCIFYING PLASTIC OSTEITIS.

MR. B. PITTS and Mr. S. G. SHATTOCK gave a detailed account of a very unusual case for which they ventured to propose the above name. The patient, a thin, careworn woman, aged 39, was admitted with a deformity of the right leg, and could only walk with difficulty and pain. She was married at the age of 28, and had a child about a year afterwards. When 31 years of age she struck her right leg in a fall, and three months afterwards the knee became stiff and painful; two years later, after a confinement, the knee became much worse. She had since been a patient at many hospitals. On examination, the knee was found flexed almost to a right angle, and there was an apparent displacement backwards of the tibia and fibula. The upper third of the tibia was extremely tender, and distinct mobility could be obtained at what appeared to be the junction of the shaft and epiphysis. The knee-jerks of the left leg were exaggerated. Amputation was performed, on account of the pain and discomfort, in

November, 1895, the patient being at the present date in fairly good health. No other bones of the body were diseased. The upper half of the tibia had undergone a uniform transformation into a minutely cancellous bone-like substance, so devoid of earthy salts that the bone itself was as pliable as indiarubber; precisely similar tissue completely filled the medullary cavity. Microscopic sections were cut quite readily without artificial decalcification. They were stained with carmine and hæmatoxylin. The trabeculæ, which took the carmine stain like bone decalcified artificially, were surrounded with osteoblasts, the amount of reabsorption by osteoblasts being quite insignificant compared with that of new production. The spaces between the trabeculæ were everywhere occupied by a highly cellular connective tissue. The sections of the nerves in the periosteum exhibited a perfectly normal structure. In the gross the anatomical result was like that presented by the calvaria in osteitis deformans before sclerosis had supervened, but from such the condition differed in the absence of calcification. The tissue most closely resembled the uncalcified osteoid tissue seen in rickets around the shafts or upon the flat bones. Excluding rickets, by reason of the clinical differences, the strict localisation of the disease to the upper half of the bone, the filling of the medullary cavity with the osteoid tissue, etc., the authors considered what relation the condition might have to osteitis deformans and osteomalacia. It was an osteitis in the sense in which any chronic osteoplastic process could be called inflammatory. Whether any distinction was admissible between a process of chronic inflammation in progress and an irritative hyperplasia they did not discuss; if any such could be drawn, it would have to rest upon altered condition of vascular wall and abnormal diapedesis. Where an irritant, whatever its nature, determined only hyperæmia and cell proliferation, the results could hardly be regarded as other than those of a physiological hyperplasia. Following Virchow's teaching, Recklinghausen, in his recent monograph on Fibrous or Deforming Osteitis, had adopted the view which took osteomalacia to be an inflammatory lesion. In this disease, however, the amount of bone production was conspicuous by its absence; the osteitis was almost completely aplastic; moreover, the decalcification and metaplasia of the decalcifying bone into fibrous tissue seen in osteomalacia were absent in the specimen under consideration. Recklinghausen had adopted the term "osteitis fibrosa" as a synonym for osteitis deformans for the reason that in certain cases an obvious amount of fibrous tissue may be met with in the bones, but in none had want of calcification been observed; moreover, there was no fibrous formation in the present specimen. The cases of frontal leontiasis recorded by Mr. Horsley exhibited an intertrabecular formation of fibrous tissue, but the bone, again, was not uncalcified, and the operations for its removal were conducted by means of the trephine and saw. The authors, in conclusion, found it impossible to class the specimen under the heading either of osteomalacia or osteitis deformans. The lesion was an osteitis occurring in the adult, of a pronounced plastic character, but unaccompanied with calcification of the new osseous tissue, and in all this was so remarkable that they had proposed the term "non-calcifying plastic osteitis," thinking that its etiology might prove to be different from that underlying other better known and commoner anatomical conditions.

Dr. A. A. Kanthack was inclined to look upon the lesion as an osteoid sarcoma. He did not think that the regular zone of osteoblasts round the trabeculæ discountenanced such a view. He had seen two cases of osteoid sarcoma with imperfectly calcified tissue in the new growth. In one recurrence ensued after amputation, and this was accompanied by the formation of similar growths in the lung. He would be interested to know of the future history of the case.

Mr. W. G. Spencer referred to growths of bone arising from the small round cells of the medulla. Such myelomata or myelosarcomata might last some while before producing secondary tumours. He was inclined to think the lesion of the nature of a new growth.

The President considered the specimen so closely allied to osteitis deformans that he thought it might be so named. In this disease there must be a stage in which the bones were abnormally soft, as told by the curvatures to which they were subject, and possibly the specimen exhibited the disease at this stage. He adverted to the fact that Dr. Goodhart, when Sir James Paget first described osteitis deformans, had suggested the view that the osseous enlargement was due to the growth of a diffuse form of fibroma; he himself viewed it as an inflammatory condition.

### Chondro-carcinoma of Testis.

Dr. A. A. Kanthack and Mr. T. Strangways Pigg gave a detailed histological account of the well-known specimen many years ago described by Sir James Paget, and by him thought to be a chondroma. Mr. Butlin had cast doubt on the growth being a pure chondroma, and suggested the possibility of its being sarcomatous. Sir James Paget had described the growths which extended upwards from the testicle along the spermatic cord as lying in lymphatic vessels. The testicle was removed; recurrence ensued, and after death an extension of the cartilaginous tumour was found to reach to the inferior cava, into which it penetrated. This penetration had been followed by multiple metastases in the lungs. Sir James Paget, nevertheless, had observed in some of the "lymphatics" a lining of columnar epithelium, the true significance of which, however, had been missed. By a series of microscopic sections of the growth extending along the spermatic cord, the authors had been able conclusively to show that this lay in the veins, and that although it largely consisted of cartilage in process of origin from the connective tissue of the tumour, it contained in addition alveoli lined with columnar epithelium. The extension to the cava had in reality taken place by the spermatic vein; and what Sir James Paget had considered as an enlarged and infected gland lying upon the cava was a secondary growth of similar cartilaginous and carcinomatous elements. It was noteworthy that Sir James Paget had observed that the lumbar and inguinal glands were free of disease. The intracaval growths were of the same nature; those in the lungs the authors had not yet examined. It was not easy to explain the presence of cartilage in the growth, but Virchow had described this in carcinoma both of the testis and ovary. Although Virchow's view of the source of carcinoma from connective tissue was no longer held, nevertheless the importance he attached to the stroma as well as to the epithelium in carcinoma was not to be lost sight of; the reproduction of cartilage in all the secondary growths showed that more than the epithelial cells were concerned in the metastases.

The President had considered that the cartilage played quite a secondary part in such growths as contained it and were followed by metastasis. He had been led to doubt the purely cartilaginous structure of the tumour in question by Sir James Paget's own account of the case.

Dr. Herbert Snow remarked that the admixture of tissues present in this and similar neoplasms showed to him that the latter must arise in fœtal residua; and he submitted that some such a term as "blastoma" was needed to emphasise this.

Mr. A. A. Bowlby did not see any difficulty presented by chondrification of connective tissue in such growths. It was observable that no lymphatic glands were involved in Sir James Paget's case, as this was contrary to what was commonly noticed, both in sarcoma and carcinoma of the testis. Was it that such chondrifying carcinomata formed an exception?

Dr. A. A. Kanthack could not answer his question, for, especially in the cases recorded in Germany by Virchow, Ziegler, and others, the clinical history was so largely wanting.

### Card Specimens.

Mr. E. H. Paton: (1) Fracture of Ulna and Radius at Epiphysial Lines; (2) Prevertebral Abscess. Dr. H. G. Turney: Intrapericardial Aortic Aneurysm, communicating with the superior vena cava.

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Bristol Medico-Chirurgical Society.—At a meeting on January 13th, Dr. Aust-Lawrence in the chair, Dr. Waldo showed a patient with Thoracic Aneurysm, in whom tracheal tugging was well illustrated. Dr. J. G. Swayne and Mr. W.

J. PENNY made remarks.—Dr. T. FISHER showed a number of mounted Pathological Specimens recently added to the Royal Infirmary Museum.—Dr. W. H. NEWNHAM read a paper on Three Vaginal Hysterectomies for Malignant Disease. Dr. W. C. SWAYNE, Dr. J. G. SWAYNE, Dr. MICHELL CLARKE, Mr. GREIG SMITH, Mr. MORTON, Mr. EWENS, and the CHAIRMAN spoke at length on the paper.—Dr. B. ROGERS read a paper on a case of Mediastinal Inflammation. Dr. MICHELL CLARKE, Dr. FISHER, and Dr. WALDO remarked on the paper.

## BRITISH GYNÆCOLOGICAL SOCIETY.

ANNUAL MEETING.

CLEMENT GODSON, M.D., President, in the Chair.

*Thursday, January 14th, 1897.*

ELECTION OF OFFICERS.

THE following were elected officers for the ensuing year:—*Honorary President:* R. Barnes, M.D., F.R.C.P. (London). *President:* Professor A. W. Mayo Robson, F.R.C.S. (Leeds). *Vice-Presidents:* G. G. Bantock, M.D. (London); C. H. Bennett, M.D. (London); Professor J. W. Byers, M.D. (Belfast); A. E. Cordes, M.D. (Geneva); G. Elder, M.D. (Nottingham); H. Macnaughton Jones, M.D. (London); Leith Napier, M.D. (Adelaide); Professor W. L. Reid, M.D. (Glasgow); C. H. F. Routh, M.D. (London); F. F. Schacht, M.D. (London); W. Travers, M.D., F.R.C.S. (London); Professor Hector Treub, M.D. (Amsterdam). *Treasurer:* J. A. Mansell Moullin, M.D. (London). *Council:* W. Armstrong, M.R.C.S. (Buxton); Dudley W. Buxton, M.D. (London); T. Kilner Clarke, F.R.C.S. (Huddersfield); E. Tenison Collins, F.R.C.S. (Cardiff); W. Dingley, M.R.C.S. (London); A. Donald, M.D. (Manchester); F. Edge, M.D. (Wolverhampton); C. Godson, M.D. (London); F. N. Haultain, M.D., F.R.C.P.Ed. (Edinburgh); W. Balls Headley, M.D., F.R.C.P. (Melbourne); P. L. Hebert, M.D. (London); R. A. Hodgson, M.R.C.S. (London); F. Bowreman Jessett, F.R.C.S. (London); Skene Keith, M.B., F.R.C.S.Ed. (London); Henry Lewis, M.D. (Folkestone); R. Marsden Low, M.B. (London); J. J. Macan, M.D. (London); Christopher Martin, M.B., F.R.C.S. (Birmingham); James Oliver, M.D. (London); H. W. F. Powell, F.R.C.S.Ed. (London); T. Savage, M.D., F.R.C.S. (Birmingham); Professor A. J. Smith, M.D. (Dublin); D. Thomson, M.D. (London); W. S. Wyman, M.D., F.R.C.S. (London). *Editor of Journal:* F. F. Schacht, M.D. (London). *Honorary Secretaries:* John Shaw, M.D. (London); George E. Keith, M.B. (London).

RETIRING PRESIDENT'S ADDRESS.

After the Treasurer and Editor had presented their annual reports, the PRESIDENT delivered a valedictory address which is published at page 186.

Mr. JESSETT moved, and Mr. J. W. TAYLOR seconded, a hearty vote of thanks to the retiring President for his excellent address, and that he be asked to allow it to be printed in the journal of the Society.

SPECIMENS.

Dr. H. M. MACNAUGHTON JONES showed for Dr. MACNAUGHTON JONES a microscopic section of a specimen of Deciduoma Malignum.—Dr. F. A. PURCELL showed a new form of Intestinal Clamp for compressing a colotomy spur.

PANHYSTERECTOMY.

Mr. J. W. TAYLOR (Birmingham) read a communication on Two Cases of Panhysterectomy after Previous Treatment by the Clamp Operation, and showed the specimens.

Mr. BOWREMAN JESSETT congratulated Mr. Taylor on his successful results, and the Society on the fact that for three or four years it had insisted that total extirpation was the best treatment for uterine myomata.

After some remarks from Dr. HEYWOOD SMITH,

Mr. J. F. JORDAN (Birmingham) said he had had the good fortune to assist Mr. Taylor in his case of Doyen's operation. He had not himself used this method: in the three cases of hysterectomy which he had performed he had used Mr. Jessett's method with successful results. To him total extirpation seemed the best treatment. Of course they had to consider the mortality of each procedure; and so far it would seem that the mortality after total extirpation was not greater than that of other methods, but would rather prove to be less. The drawback of Doyen's method was that it did not appear to be available for cases of myomata blocking up the pelvis, but he was still in doubt as to the manner in which such cases were best dealt with.

Dr. F. A. PURCELL observed that, for his part, he did not yet feel bold enough to strip the side of a myoma and leave the vessels untied till after they had been secured by an assistant. An allusion had been made to large tumours blocking up the pelvis. In such a case he had adopted the method of separating the broad ligament on each side, slicing the tumour across, and then dissecting the remaining portion out of the broad ligaments, so completing the total extirpation.

Mr. TAYLOR, in reply to Dr. BEDFORD FENWICK, said that these operations must necessarily take some time, varying from a little under an hour to an hour and a half. A careful study of the specimen removed by Kelly's method would answer the question that might be raised about it. The size of a tumour in the pelvis was necessarily limited by the size of the pelvis itself; and if one side remained healthy and accessible, the size of the remainder would probably not matter much. The worst cases they had to deal with were such as Mr. Jordan had referred to, in which the pelvis was blocked on both sides. In such a case, Doyen's method might be useful. It was also especially applicable to those cases in which the connections between growth and bladder could not be properly attacked from above.

## EDINBURGH OBSTETRICAL SOCIETY.

*Wednesday, January 13th, 1897.*

Professor A. R. SIMPSON, M.D., Vice-President, in the Chair.

SPECIMENS.

DR. J. A. K. KYNOCH, Dundee, showed an Adenomatous Tumour of the Right Kidney, which he had removed by abdominal nephrectomy from an infant, aged 16 months. It was the size of a large lemon, and growth started from the posterior part of the kidney. Six weeks later the child appeared to be quite well.—The VICE-PRESIDENT showed (1) an Anencephalic Fœtus with Spina Bifida, which latter had ruptured during intrauterine life; (2) a Fœtus showing "Fœtal Ascites," with a layer of lymph on the surface of the liver, and effusion into the pleural space; (3) a Colloid Tumour of the Ovary, small cysts with thin walls, one of which had ruptured into the peritoneum before operation; the second ovary also had a small colloid tumour.—Dr. G. KEPPIE PATERSON showed a Genealogical Table from Professor Winckel's Clinic at Munich, tracing the occurrence of twins to the male progenitors. In a family of three generations there were nine confinements, of which six produced twins. One member had twins by two wives.

GENITAL HÆMORRHAGE.

Dr. R. C. BUIST, Dundee, read a note of a case of genital hæmorrhage from a ruptured varicose nodule at the os uteri. The patient was aged 81, had had complete uterine prolapse for many years which apparently had caused passive congestion, then hæmorrhage into a mucous cyst, and lastly secondary external hæmorrhage from rupture of the cyst wall. Attention was called to the condition by serious bleeding, an irregular swelling close to the os uteri was found. On being seized with a forceps it came away and left an oozing base. Two sutures of silkworm gut stopped the hæmorrhage.

RETENTION OF MENSTRUAL FLUID IN ONE-HALF OF A DOUBLE UTERUS.

Dr. J. LAMOND LACKIE read a paper on this subject. He narrated a case where menstruation occurred normally and regularly from one-half of the uterus, and an intermittent discharge from the other. The patient was 24, unmarried, and began to menstruate at 16. She complained of a right-sided pain, and of a bloody discharge coming on every four months, and lasting some three weeks. During this flow the pain was less, but came on again when it ceased, and gradually increased in intensity till relieved by a further discharge.

Between the regular menstrual periods she suffered every month from severe pain, and felt as if menstruation were about to come on. On digital examination a defined tumour was found in the hypogastric and right iliac regions, and a bulging in the right fornix. She had always observed the swelling "in her right side" before hæmorrhage set in, and when it was fully established it disappeared. The tumour was aspirated *per vaginam*, and the fluid found to be altered menstrual blood. Later, when the sac had again become full, an incision was made into it through the vagina, the cavity explored, and the diagnosis confirmed. Bougies were forced through the septum between the two halves at the level of the cervical canal, so as to establish communication. A drain was passed along the cervical canal into the distended side. Subsequently the patient menstruated every fortnight alternately from either side of the uterus. This was known to be so because every second menstruation passed entirely by the drainage tube. Alternate menstruation in such cases had been observed by Emmet, Kussmaul, and others. The present case was not one of bicornate uterus, but of true "uterus septus," where one-half had a very unsatisfactory communication with the common cervical canal. Dr. Lackie referred to some points of differential diagnosis, and gave a list of twenty-four recorded similar cases. The mortality following relief operations was 50 per cent.

Drs. Haultain, Berry Hart, and others discussed the subject; and Dr. Lackie replied.

### A Case of Extrauterine Gestation.

Dr. A. H. Freeland Barbour read this paper for Dr. C. F. A. Moss (Medical Mission Hospital, Antananarivo, Madagascar). The history was amenorrhœa for six months, abdominal swelling with pain, pain in the rectum, but especially during defæcation. A fœtal head, lying between the vagina and rectum and protruding into both, was found, and the fœtal heart was heard. Twenty-one days after she was first seen there was a false labour, with the passage of decidua. Fourteen days later she left the hospital, fairly well and without pain. Two months later she returned, complaining of intense abdominal pain and menorrhagia. On February 5th, 1895—three months from the date of the false labour—laparotomy was performed and a female child removed. The mother made an excellent recovery and went home on March 5th. There had been three previous pregnancies, the first a miscarriage at the seventh month, the second now living at the age of 20, and the third an early abortion six years later, that is, 14 years ago. The last discharge in April was scanty, and accompanied by much pain in the epigastrium and rectum, so severe as to cause fainting. She was then probably two months pregnant. Then followed a period of four months without pain, and the gradual appearance of an abdominal tumour—first in the middle line, later left-sided, with some bulging into the flanks. Peristaltic contractions were felt in parts of the tumour, and also fœtal movements, and the fœtal heart was heard. Thus pregnancy was certain, but was it a retroversion or an extrauterine one? Fœtal heart not heard after October 15th. An attempt at replacement under chloroform was made on October 23rd. On October 29th decidual membrane was passed, and she was much relieved. On January 10th there was severe pain. She had menstruated once since the last passage of decidua. On February 5th she was operated on by a middle line incision. The sac was covered by peritoneum, and there were slight adhesions to the omentum, but none to the abdominal wall. The sac was incised, and the edges were stitched to the parietal peritoneum. The right side of the sac was completely occupied by the placenta, and the left by a full-time female child much shrivelled. The placenta was easily detached. Four weeks later the cervix was easily felt, the uterus in its normal position though slightly enlarged. This was the fourth case Dr. Moss had seen in Antananarivo.

### Laparotomy for a 5 months' Extrauterine Gestation.

Dr. Freeland Barbour read this paper. A married woman, aged 32, came on August 14th, 1896, complaining of swelling of the abdomen and pain in the right leg, lasting from February 7th. She had a child when she was 17; then two miscarriages at or about the third month. The last normal period had ended on January 27th; on February 7th faintness, pain in the right side, and vomiting came on. Three or four weeks later a similar attack occurred, followed by a second recovery. Amenorrhœa and an increasing abdominal tumour led to a belief in the existence of pregnancy. Movements were felt from the end of May till June 18th, when she had an attack of unconsciousness lasting seven and a half hours. On admission to the infirmary a large irregular tumour was found, reaching to within an inch of the umbilicus. Dull on percussion—solid at some points—cystic at others. A well-marked linea nigra. On vaginal examination a large bulging mass in the posterior fornix, and a small nodular body in the right fornix. The uterus in front and apparently continuous with the tumour. Operation on September 11th, when the sac was stitched to the abdominal incision. The mummified fœtus was 12½ inches long; therefore extrauterine gestation had gone on to the fifth or sixth month. The accidental hæmorrhage of January was not menstrual, but the first symptoms of rupture. These had the character of being sudden, unprovoked, and abdominal. The vomiting was not unlike that of irritant poisoning, though the cause was not evident in such cases. This case raised two points with regard to treatment, namely, the best time for operating and the mode of treating the sac. Opinions differed as to the desirability of immediate operation in cases of rupture during the early months; it was generally accepted that in the later months, if the fœtus were dead, we should wait for a certain amount of atrophy of the placenta. How long should one wait? Some advised three months, others would postpone till symptoms arose calling for interference. Dr. Barbour then went over the eight cases of extrauterine gestation recorded in the *Transactions* of the Society, and referred to the various points brought out by these, the reasons for interference—pain, sepsis, and hæmorrhage. He dwelt on the danger of placental hæmorrhage, on the importance of stitching the sac to the abdominal wall.

Professor Simpson remarked that if it were possible it was better to stitch the sac to the peritoneum of the abdominal wall, and so diminish risk of peritoneal infection.

Dr. Berry Hart stated that the sac in the extrauterine gestation was in part extraperitoneal and with a peritoneal periphery; if the latter portion were opened, it was better to stitch to the abdominal wall, but if the peritoneum was not opened this was not necessary. The sickness and vomiting occurring with the internal hæmorrhage were evidently due to the resulting cerebral anæmia. He had not experienced any trouble from hæmorrhage in operating on the cases, even if the placenta were cut into, as he had found plugging with iodoform gauze sufficient to control it; if there had been bleeding the tampon could be inserted and the placenta left to be dealt with at a subsequent operation a few days later.

Dr. Haultain remarked that the question of stitching before opening into the sac was one of diagnosis. If the child was alive and the placenta were opened into it might be difficult to control the hæmorrhage; he instanced a case where the bleeding could be controlled only by pressure from the outside of the sac at its base; if the sac had been stitched to the abdominal wall at the beginning of the operation there would have been trouble and delay in dealing with the hæmorrhage.

Dr. Barbour in reply stated that in all advanced cases it was more likely that the sac would be opened through the peritoneum, and not through the cellular tissue or extraperitoneally.

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Hunterian Society.—At a meeting on January 13th, Dr. G. E. Herman, President, in the chair, Mr. T. H. Openshaw showed a Solid Ovarian Tumour, a small-celled sarcoma, removed from a woman who had been confined ten days before admission to the hospital. Dr. Herman examined the patient and diagnosed a sarcomatous tumour. There was a large amount of ascitic fluid in the abdomen. The uterine cavity was 3½ inches in length. The interesting points of the case were: (1) The size of the tumour, 7½ lbs.; (2) its solidity; (3) the pedicle was twisted. The President spoke on the question of recurrence of sarcomatous tumours of the ovary, and said that it was by no means certain. Mr. Targett alluded to the fact that fibroma of the uterus was

sometimes associated with ascites. Dr. F. J. SMITH alluded to 2 cases of sarcoma of the omentum—one with much ascites which simulated extrauterine pregnancy, and the second a solid growth with but little ascites. Mr. OPENSHAW replied, and then brought before the Society the Leg and Foot of a boy aged 15. At the age of 7 he had acute periostitis of the lower half of the tibia. In the specimen part of the shaft of the tibia had not been reproduced, while the fibula had continued to grow. The inferior tibio-fibular articulation was very loose, and, owing to the absence of part of the shaft of the tibia, he could twist the foot into any direction. Mr. TUBBY, in speaking to Mr. Openshaw's point as to the propriety of waiting before removing the dead bone, thought that it was better to remove the sequestrum early, and to maintain the cavity of the periosteum by stuffing it with gauze. Mr. TARGETT alluded to some cases of congenital absence of the tibia simulating the condition seen in Mr. Openshaw's case. Mr. OPENSHAW replied.—Mr. TARGETT presented two specimens of Malignant Growth of the Uterus, one of villous character and the second a columnar-celled carcinoma. The PRESIDENT remarked that it was unusual for a uterus with malignant growth of the body to be of such a size as the specimen Mr. Targett had described. He thought that in cancer of the body of the uterus the microscope by itself was not always trustworthy from a diagnostic point of view.—Dr. J. H. SEQUEIRA showed a specimen of Secondary Carcinoma of the Spleen, the primary growth being in the uterus. The PRESIDENT remarked that cases of cancer of the body of the uterus did not frequently (10 per cent.) give rise to secondary growths in distant organs. Dr. F. J. SMITH remarked upon the comparative infrequency of secondary splenic growths. Dr. SEQUEIRA replied, and then exhibited the Head of a Femur from a case of rheumatoid arthritis in a man aged 56. In this instance the ligamentum teres had entirely disappeared, and there was lipping of the femoral head and acetabulum. Dr. SMITH asked if the ligamentum teres were ever congenitally absent, and Mr. OPENSHAW referred to its absence in congenital dislocation of the hip. Dr. SEQUEIRA replied.—Dr. F. J. SMITH brought forward a specimen of large White Kidney from a boy aged 15, who had been ill for only three weeks. The interest of the specimen lay in the fact that it was in opposition to the generally received teaching of the essentially chronic nature of large white kidney. The case was also of interest from a life-insurance point of view, as a life might be accepted and renal symptoms might develop shortly afterwards, and a large white kidney be found *post mortem*. Dr. ARTHUR DAVIES spoke on the points of cyclical albuminuria and life assurance. The PRESIDENT was much interested in the discussion, as it was closely connected with puerperal eclampsia. Dr. SMITH replied, and then presented the Lungs and Trachea from a boy, aged 9, who was brought into the London Hospital dyspnœic and moribund. Tracheotomy was performed unsuccessfully. At the necropsy an aneurysm of the descending aorta was found.

HARVEIAN SOCIETY OF LONDON.—The following is a list of names of gentlemen proposed by the Council as officers of the Society for the year 1897:—*President:* R. H. Milson, M.D. *Vice-Presidents:* *Mr. Argles, *Dr. Boxall, *Mr. Juler, and Dr. Lamb. *Treasurer:* *Mr. Edmund Roughton. *Honorary Secretaries:* Dr. F. W. Cock and *Mr. Jackson Clarke. *Council:* Mr. R. S. Armstrong, Mr. E. Bartlett, Mr. Peyton Beale, *Dr. Cagney, *Dr. Gee, *Dr. Gow, *Mr. J. Griffith, Dr. L. Guthrie, *Mr. R ymond Johnson, *Dr. Maclure, *Mr. L. Mark, and *Mr. Knowsley Thornton. (An asterisk (*) is prefixed to the names of those gentlemen who did not hold the same office the preceding year.)

ULSTER MEDICAL SOCIETY.—At a meeting on January 7th, Professor SYMINGTON, President, in the chair, the proposal of the Council to present an address to Lord Lister on his approaching visit to Belfast was approved.—Dr. CALWELL showed: (1) A Case of Severe Acne Vulgaris; (2) A Case of Dermatitis Herpetiformis. — Professor SYMINGTON showed specimens of Fracture of the Base of the Skull, Fracture of Bones of the Leg with Vicious Union, Fracture of Radius and Clavicle, Ununited Fracture of Patella.—Dr. MCCAW read notes of a Case of Intussusception in an Infant of 4 months. Dr. LORRAIN SMITH showed the specimens obtained at necropsy of this case.—Dr. J. R. DAVISON read notes of a Case of Erythema Migrans Linguæ.—Dr. J. R. JOHNSTONE read notes of (1) a Case of Fracture of Several Costal Cartilages in the same subject; and (2) a Case of Several Distinct Fractures occurring in the same patient.

LARYNGOLOGICAL SOCIETY OF LONDON.—The following is the list of officers and council for 1897 elected at the annual meeting on January 13th:—*President:* *H. Trentham Butlin, F.R.C.S. *Vice-Presidents:* E. Cresswell Baber, M.B., *J. W. Bond, M.D., *A. Bronner, M.D., *Scanes Spicer, M.D., and Charters Symonds, F.R.C.S. *Treasurer:* W. J. Walsham, F.R.C.S. *Librarian:* *J. Dundas Grant, M.D. *Secretaries:* St. Clair Thomson, M.D., and *H. Tilley, M.D. *Council:* J. B. Ball, M.D., *R. M'Kenzie Johnston, M.D., *F. Semon, M.D., *W. R. H. Stewart, F.R.C.S., and P. Watson Williams, M.D. (Those to whose names an asterisk (*) is added did not serve the same office last year.)

BIRKENHEAD MEDICAL SOCIETY.—At a meeting of this Society on January 15th, Dr. SIDNEY MARSDEN, President, in the chair, Dr. H. LAIRD PEARSON showed the Bone Handle of a Penholder, 4 inches long, which he had Extracted from the Bladder of a Middle-aged Married Woman thirty-six hours after its introduction. Under anæsthesia, after dilating the urethra with Duke's uterine dilator, the foreign body was, after much manipulation, extracted by means of a fine sequestrum forceps. There was no subsequent cystitis, and at the end of three days micturition, although painful, was well under control. Drs. STANSFIELD, BRIEN, and HUGHES made remarks, and referred to cases of foreign body in the bladder.—Dr. C. THURSTAN HOLLAND, of Liverpool, gave a Demonstration of the Uses of Roentgen Rays, first showing and describing the apparatus, enumerating several of the theories connected with the production of the rays, and exhibiting a long series of lantern slides illustrating various physiological and pathological conditions of the skeleton as demonstrated by the rays. A short discussion ensued, in which Drs. HARRIS, STANSFIELD, and WILKINSON took part.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on January 12th, Dr. CARTER (President) in the chair, Dr. EURICH showed a series of sections illustrating the Development of the Various Tracts of the Spinal Cord and Medulla oblongata. He pointed out that on section of the cord, degeneration of tracts occurs in the order of development.—Dr. A. BRONNER showed (1) a case of Internal Strabismus, and advocated advancement of the external rectus, combined with tenotomy of the internal rectus, as opposed to simple tenotomy in these cases. (2) Cases of Iritis, Glaucoma, and of Interstitial Keratitis, and remarked on the complete recovery which takes place, under treatment, of cases of the latter affection due to syphilis.—Dr. A. BRONNER also read a paper on Cases of Asthma and Hay Fever of Nasal Origin. He pointed out that the symptoms might be: (1) a direct result of nasal obstruction; (2) the result of irritation of the endings of the fifth nerve, by polypus, atrophy, or hypertrophy of the nasal mucous membrane, by foreign bodies, or by necrosis of the bones of the nose; (3) the outcome of a central neurosis, in which cases the application of the cautery gave relief by acting as a counter-irritant. Details were given of several inveterate cases of asthma and hay fever cured by treatment directed to the nasal cavity. He advocated examination of the nose in all such cases and the removal of any abnormal condition if present.—Dr. JOHNSTONE CAMPBELL showed the Stomach from a case of diffuse cancer of that organ, which had invaded the head of the pancreas. The stomach presented great contraction of its cavity. The symptoms during life were rapid wasting, constipation, and vomiting, coming on after a few mouthfuls of food had been swallowed. There was no glycosuria.—Mr. CHAPMAN showed: (1) A case of Perforated Ulcer of the Duodenum, causing death after only thirty-six hours' illness. There was no history of previous attacks, and the patient had gone to his work up to the time of the fatal seizure. (2) A case of Peripheral Neuritis affecting the legs, which was said to be the result of bandaging the limbs for severe secondary

hæmorrhage from an operation wound. There was no history of syphilis or of alcoholic excess.—Dr. CAREW WEBB showed a case of Peripheral Neuritis after chorea, which latter affection had been treated with arsenic. Dr. GOYDER suggested a rheumatic origin for the neuritis. Drs. KERR, JOHNSON, and MITCHELL discussed the case.—Mr. WM. HORROCKS read a paper on Undescended Testicle. Among the causes mentioned were (1) intrauterine peritonitis, giving rise to adhesions between the testicle and the cæcum or small intestine; (2) contraction of the external abdominal ring owing to over-development of the transverse fibres; (3) incomplete development of the inguinal canal; (4) absence of the gubernaculum testis: (5) excessive action of cremaster, due to reflex irritation (phimosis, etc.): (6) undue shortness of the vas deferens or of the vessels of the cord; (7) long mesorchium, allowing the testicle to wander freely in the abdominal cavity. Adhesions to the cæcum might not prevent descent of the testicle, but the cæcum might descend with the testicle, and give rise to a hernia with an imperfect peritoneal covering. An undescended testicle was not necessarily sterile, as Curling asserted, but its activity depended less on its position than on its freedom from inflammatory attacks following injuries. The complications of undescended testicle were: (1) Inflammation, especially in inguinal position; (2) special liability to malignant disease, more particularly in testicles lying in the inguinal canal; (3) hernia, the bowel being sometimes adherent to the testis. Treatment by truss was deprecated as worse than useless. Daily downward manipulation was said to be useless. Operative treatment by drawing down and suturing the testicle to the scrotum, obliterating the processus vaginalis, and suturing the ring, was not successful when the cord was too short, being followed either by re-ascent of the testicle or by its atrophy. Dissection of the globus minor from the testicle in order to give greater length to the cord was tried in one case, but the testicle atrophied. Assuming the testicle to be not liable in any given case to attacks of inflammation, it was recommended that no operation be performed before the age of 13, as up to that age there was a prospect of the testicle descending normally. In the meantime phimosis or any condition liable to cause reflex action of the cremaster may be dealt with. A hernia coexisting with the undescended testis must be dealt with on ordinary lines, the liability of the presence of the cæcum with an imperfect covering being borne in mind. Mr. ALTHORP pointed out the intimate relations in position between the cæcum and testis during development. Dr. LODGE mentioned a case of cryptorchism in which there was perfect functional activity of the testicle.

# REVIEWS.

THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE RECTUM. By WILLIAM ALLINGHAM, F.R.C.S., and HERBERT ALLINGHAM, F.R.C.S. Sixth edition. London: Baillière, Tindall, and Cox. 1895. (Demy 8vo, pp. 485. 72 illustrations. 12s. 6d.)

THE book before us claims to be a practical guide to the diagnosis and treatment of diseases of the rectum. After carefully reading it we think the authors have substantiated their claim, and the fact that it has reached a sixth edition shows that there is a demand for it. The style of writing is somewhat popular, and there are certain expressions we should like to have seen omitted. In the description of cases there appears to us no reason for stating that the patients have previously been under either "eminent physicians" or "eminent surgeons," and that the authors have been successful where others have failed.

The authors begin by insisting on the importance of a careful examination of the rectum, and give minute instructions as to how this is to be carried out. The remarks on the operation for fistula in tuberculous patients are valuable. In the chapter on hæmorrhoids they strongly advocate the use of the ligature, and somewhat too strongly condemn the use of the clamp and cautery—a method of treatment which, when properly carried out, certainly has not all the disadvantages and dangers they have depicted.

The classification of cancer of the rectum under five heads will seem to many rather cumbrous and unnecessary, and in the chapter on excision we are surprised to find no mention of the position recommended by Mr. Godlee for operating on these cases.

The remarks on the treatment of malignant disease, when to operate, and which operation to select, are good. The chapter on the relative merits of the different forms of colotomy is judicial, and perhaps the best in the work.

The book will be found a useful guide to practitioners, both as regards diagnosis and treatment.

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LEHRBUCH DER GESAMMTEN PSYCHOTHERAPIE MIT EINER EINLEITENDEN DARSTELLUNG DER HAUPTHATSACHEN DER MEDICINISHEN PSYCHOLOGIE. [Textbook of General Mental Therapeutics and Medical Psychology.] Von Dr. LÖWENFELD. Wiesbaden: H. J. F. Bergmann. 1897. (Roy. 8vo, pp. 276. M. 6.40.)

THE author indicates the different disorders over which mental impressions have an influence and the means we have of rendering such mental influence operative towards the removal of disease. The power of the mind over the body has been recognised from the dawn of medical science, and Dr. LÖWENFELD shows how the power of faith and expectation is the efficacious cause in some time-honoured prescriptions, charms, and superstitious practices. So delicate is his analysis of the efficacy of faith in medical practice and so advantageous towards recovery is confidence in the physician that Dr. Löwenfeld sees reason to believe that the request of "a too modest honorarium may be injurious to the interests of the patient," who is thus led to think little of his physician. But mental influences in diseases are capricious and uncertain in their action. The author holds that hypnotism enables us to reduce mental therapeutics to a system, and that the judicious employment of hypnotism is attended with no real danger to the patient, and that the advantages are often real and permanent. The advocacy of these views and the details of the author's own experience constitute the principal value of the book. He has found most benefit from the use of hypnotism in neurasthenia, hysteria, dominant ideas, melancholia, and sleeplessness. He also recommends its occasional employment in some affections of the functions of respiration, circulation, digestion, and other disorders, which are, to a certain extent, under the control of the nervous system. At the same time Dr. Löwenfeld does not exclude the ordinary methods of therapeutics. On the whole the author shows a ripe knowledge of nervous and mental disease, and his work is useful in calling attention to methods which, though scarcely capable of frequent use in regular practice may occasionally augment the resources of the physician.

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ANALYTIC PSYCHOLOGY. By G. F. STOUT. 2 vols. London: Swan Sonnenschein and Co. New York: Macmillan and Co. 1896. (Demy 8vo, pp. 306 and 320. 21s.)

IN approaching the consideration of this able work we encounter at once a disappointment when we find that Mr. STOUT has put what he calls his "analytic" study before his study of the genesis of mind, which, however, must likewise be "analytic." The reasons given for the preference appear to be insufficient. A survey of the genetic aspect of mental phenomena would have led more clearly to the apprehension of those transcendental phenomena which for the moment we may call "residual"; and again such a study, combined with such a physiological study as we lately reviewed in these columns in Professor's Titchener's admirable translation of Kulpe, and of Titchener's just published *Outline*, would have insensibly modified for the better—as we think—the author's handling of this matter. It might not have taught him more; for the vexing thing is that the author foresees and deals beforehand with our objections to his method, but we think without entering into them. Mr. Stout is able, lucid, and progressive; but he seems to lie under the influences of a metaphysical bringing up, which dominates

both his language and his attitude. He sees the arguments of his adversary, but he does not realise them. For instance, Mr. Stout refers to Professor Karl Pearson's recent exposition of Hume's theory of causation, and does not overtly disagree with it; yet much of the present work shows little assimilation of the arguments of this school. The reply no doubt is that Mr. Stout does not wholly accept them: and if so there is no more to be said at present. For example, Mr. Stout—and, we will add, Dr. Ward also—continually refer to "matter," to "material points of view," and to certain conceptions of phenomena as "mechanical"—words often used by them in a dyslogistic sense. Yet by such terms these writers seem to mean only that the phenomena have been, or may be, reduced to "laws." Either all things are mechanical, using the word in this sense, or they are incapable of scientific treatment. Things which do not run in invariable series cannot be subjects of formal thought at all. So, again, although Mr. Stout recognises in a sort of external way the modern conception of "force," yet he does not seem to be penetrated by this conception. Of course all this is mere assertion on our part, and open to categorical denial; hence the difficulty of writing a brief review. But, for instance, ethics was long supposed to spring from "conscience," and to acknowledge "conscience" only as a standard. Now, Mr. Stout probably admits that ethics is a subject fit for scientific handling from without, and is not to be estimated by any innate faculty which as a standard is inconstant. Thus all psychological arguments which owe their validity to, or seek it from, inward interrogation are based on a quicksand; for the phenomena are referred to an inconstant standard. Such arguments cannot be submitted to any standard of verification. Ethics is within sight of being regarded as mechanically as the phenomena of electricity. Thus, in opposition to Mr. Stout, we consider that psychology, or so much of psychology as is a subject of "analysis," is as much barred off from physiology as is chemistry, and no more. If in the realm of consciousness there be—as well there may be—another sphere incapable of "mechanical" treatment, then we say that it is scientifically indiscutable. Again, it seems that Mr. Stout has not freed himself from the oppression of the absolute; we do not see how otherwise exclusive contraries—such as activity, passivity, thought and sensation, and so forth—can be supposed. While we think that Mr. Stout, pupil as he is of Bain, has not shaken himself free from traditional psychology, and while he has, on grounds we regard as insufficient, set aside almost wholly the hypotheses of association, yet we gladly bear testimony to the merits of those many parts of his work which we think will live. Some parts of the work are a little tedious, and some parts are not very choicely executed, yet all parts of it are competent and many of them admirable. Even the most transcendental parts of such treatises keep the ground in cultivation until the physiological husbandman shall come.

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KURZGEFASSTES LEHRBUCH DER MIKROSKOPISCH-GYNÄKOLOGISCHEN DIAGNOSTIK. [A Short Textbook of Microscopic Diagnosis in Gynæcology.] Von Dr. J. A. AMANN, jun., Privatdocent der Gynäkologie an der königl. Universität München. Mit. 94 Abbildungen. Wiesbaden: J. F. Bergmann. 1897. (Demy 8vo, pp. 188. M. 5.40.)

EVERY teacher and gynæcologist should impress on his pupils and on himself the first words in Dr. AMANN'S preface: "Histological research is an absolute necessity for all students and doctors who work at gynæcology." One of the best features of this textbook is the careful description of normal tissues. Another is the care with which the drawings have been selected. Nearly every microscopic drawing is original and large enough to demonstrate clearly the smallest visible elements. The text is not burdened with references, and there is an excellent index, valuable for the more experienced readers who seek for special information. Full directions are given as to the preparation of specimens, and there is a good chapter on micro-organisms, though, as in the case of histology, special training in bacteriology is needed before any sound instruction could be gained by a study of this chapter.

The main part of the text is excellent. One or two illustrations only show signs of hurry, which, in the case of a microscopic drawing, is indicated by a suspicious uniformity and symmetry, as in the sketch of the tubal mucous membrane (Fig. 72), which resembles too much a "decorative art" pattern for wall paper. This error is also seen in Fig. 75, which is not original. In nearly every other drawing where epithelium is demonstrated, we see it as we know it always looks in microscopic sections.

The British critic, who bears enough authority to criticise justly, will most probably find fault with the paragraphs on deciduoma malignum. We are not surprised that this disease is already taught, as a stock subject for pupils, in a German work. Since Sänger, only seven years ago, recorded the first case, German writers have certainly given us grounds for believing that there may be a true malignant degeneration and proliferation of histological elements normally confined to tissues immediately concerned in pregnancy. They have, however, laid too much stress on a specific "decidual cell" and on "syncytial masses." After very careful examination and judgment Kanthack and Eden have shown that all the peculiarities grouped together as constituting "decidual cells" and "syncytial masses" are to be seen in many rapidly growing sarcomas in any part of the body, and in males as well as females. The sources of fallacy in the pathology of this new disease ought to have been indicated in Dr. Amann's otherwise excellent and reliable textbook.

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CYCLING AS A CAUSE OF HEART DISEASE. By GEORGE HERSCHELL, M.D. London: Baillière, Tindall, and Cox. 1896. (Cr. 8vo, pp. 44. 1s.)

IN this little pamphlet Dr. HERSCHELL has done a real service by calling attention to the insane way in which people of all sizes and of all ages ride bicycles as fast and as far as they can without knowing or caring to know whether they are fit to do so. That the practice may cause acute dilatation of the heart we readily agree, and we know that, short of the severe symptoms which Dr. Herschell describes, minor ill effects—palpitation and intermittence—are produced and require considerable care to cure. These are grave enough dangers thoroughly to justify Dr. Herschell's position. As to the chronic increase of blood pressure from this cause the proof is less clear, and that it produces paroxysmal tachycardia is not at all proved. But nevertheless the public does require a warning that an exercise which when rationally pursued is healthful may when carried to excess bring about disease and death, and they owe something to Dr. Herschell for telling them so.

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LEÇONS DE PATHOGÉNIE APPLIQUÉE: CLINIQUE MÉDICALE. HÔTEL DIEU, 1895-96. Par A. CHARRIN. Paris: Masson et Cie. 1897. (Demy 8vo, pp. 414.)

THIS is an interesting book, rather on account of its method perhaps than of its actual contents. The author, in publishing a volume of his professorial lectures, claims for them a very important quality, though one, we trust, less original than he is disposed to believe. His claim is that he has not contented himself with the traditional observation of clinical phenomena as observed at the bedside, but, not forgetting this purpose, he has woven into the structure of his teaching the knowledge of processes—of pathogeny—as revealed by modern laboratory methods. It is true that M. CHARRIN has thus handled his subjects, and, while giving to bedside observation all that this primary method demands, he has brought to bear upon the results all that modern analytical science has to offer in explanation of them. In his various lectures Professor Charrin asks, Why do diabetics differ among themselves? Why have icterics a slow pulse? What in its nature is chlorosis? Whence comes the tremor, the rapid heart, of Graves's disease? Granting certain rules of diagnosis, of prognosis, why are these rules true? What are their elements?

Now, we trust that these questions have not escaped the attention of physicians in England and elsewhere, though they have not made so many protestations about the matter. We know a few physicians here and there who are as familiar with laboratory work, and even with laboratory processes, as Professor Charrin evidently is, and who endeavour to bring to the impressions, the inspirations, the inferences of the bed-

side, something more rigorous and positive; to found the art of medicine upon a more and more permanent basis of science.

As a pupil of M. Bouchard M. Charrin lays great stress upon auto-intoxications, and especially upon the protection of the body by the normal intestinal mucous membrane; but we cannot forget that as yet Bouchard's teaching is rather in the stage of brilliant suggestion and of working hypothesis than of verified doctrine. However, we recommend our readers to give an hour to the book before us; we have the assurance to believe that those readers who are abreast of the science of the day will not find much that is actually new in it, but they will find modern work penetrating the old conceptions, and a genuine scientific ardour which makes the author's discussion of diabetes, rheumatism, enterica, cancer, colitis, hypertrophies of the liver, chlorosis, purpura, infective endocarditis, tuberculosis, pneumonia, Bright's disease, Graves's disease, and of certain palsies, stimulating as well as intelligent, and apt to prove that in these days the most practical men must learn the theoretical as well as the clinical side of their profession if they are to do justice to their patients.

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PRACTICAL AND OPERATIVE GYNÆCOLOGY. By J. CLARENCE WEBSTER, M.D., F.R.C.P., Edin., formerly assistant to the Professor of Midwifery and Diseases of Women, University of Edinburgh. Edinburgh and London: Young J. Pentland 1896. (Cr. 8vo, pp. 312.)

THIS book deals with but a limited part of its subject. It consists of three parts. The first part, 68 pages in length, gives instruction in case-taking. The second part, extending over 77 pages, describes minor gynæcological therapeutics. The remainder is devoted to operations.

The style is that of a teacher preparing students for examination. The matter is condensed and systematised. The information given upon subjects upon which unanimity exists is correct, and is put in a forcible and dogmatic way. Upon matters of opinion we have no right to criticise, because the author makes no pretence at discussion of controverted points.

As to the execution of the book we have no fault to find. We cannot say that we think a book of this kind very useful or much needed. For the credit of examiners, we hope they require from students a great deal more knowledge than they will find here. It is infinitely more important that a student should know disease and should be able to distinguish cases that do not require treatment from those that do, than that he should know about the different specula and dilators and pessaries, etc., and the details of abdominal section. Knowledge of the latter points without the former, will only tend to make him a fussy and mischievous practitioner.

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ŒUVRES DE LÉON LE FORT. [Works of Léon le Fort.] Published and Edited by Dr. FELIX LEJARS. Vol. iii. Paris: Félix Alcan. 1897. (Roy. 8vo, pp. 780. Fr. 20.)

THIS bulky volume completes the reissue of the writings of the well-known professor of clinical surgery in the Paris Faculty of Medicine. The first two volumes have already been noticed in the JOURNAL. They were devoted to the general subjects of hospital hygiene and construction, public health, demography, and military surgery. This third volume contains chiefly articles relating to pure surgery. The opening chapter is appropriately given to the discussion of the scientific method in surgery, and is really a revised issue of a masterly address delivered by Le Fort as far back as 1868; it is immediately followed by an excellent summary of the history of surgery down to 1873. The main portion of the book is taken up with lectures upon clinical surgical subjects, and cover much ground. The more noticeable articles are those upon bichloride of methylene as an anæsthetic, dislocations of the shoulder, pulsatile tumours of the orbit, various operative methods in resections and amputations, radical cure of hernia and descriptions of innumerable forms of splint, orthopædic apparatus, and various other mechanical applications in practical surgery. In this latter branch of his calling, Le Fort appears to have displayed much ingenuity and mechanical ability, some of his ideas and suggestions being extremely original.

The article upon exophthalmic goitre and pulsatile orbital tumours is very thorough, and supplemented by an excellent tabular summary of all cases published by various surgeons down to the end of 1888. The same commendation can be given to the articles upon resections of the hip- and knee-joints. His handling of the somewhat unsatisfactory and difficult subject of the therapeutic value of articular resections in cases of gunshot injury is, perhaps, the best chapter in the book. It is true it was originally written as far back as 1880; still our experiences in this direction since then have not been sufficiently extensive to justify any great modification of the views here expressed. To those familiar with Gurlt's writings upon the subject of excision after gunshot injury, the excellent summary and analysis of Gurlt's figures given in this volume by Le Fort will be acceptable. For this article alone, this volume is well worth the study of all surgeons, more particularly those engaged in military and naval duties. Dr. LEJARS is sincerely to be congratulated upon the conclusion of his editorial labours; these volumes of Le Fort's works will always remain an honourable monument not only of a great Frenchman, but of French surgery generally.

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# NOTES ON BOOKS.

*A Manual of Obstetrics.* By W. A. NEWLAND DORLAND, A.M., M.D., Assistant Demonstrator of Obstetrics, University of Pennsylvania, etc. London: H. Kimpton. 1896. (Demy 8vo, pp. 760, with 163 illustrations in the text, and 6 full-page plates. 12s.)—This is a fairly up-to-date summary of American obstetric teaching. It makes no claim to exhaust its subject. We speak of it as representing American teaching, meaning by this that the author refers to, as authorities, gentlemen whose names are little known on this side of the Atlantic. On the other hand, he seems unacquainted with some of the best English work. Thus we cannot recommend as a text-book for English students one which tells them that the maternal mortality in placenta prævia varies from 30 to 40 per cent. (p. 349). It was 30 or 40 per cent. before the introduction of antiseptics and Braxton Hicks's method of treatment, two improvements which have between them lowered the mortality to about 5 per cent. In this book Hicks's method of treatment is incorrectly described, and is only given as one of several methods. Hicks's treatment is said to consist in the introduction of the hand into the uterus, which is a dangerous and bad practice. What Hicks really taught was to perform bipolar version with two fingers in the uterus early in labour, and then let the half breech gently and safely complete dilatation. But on the whole, the book is original, concise, and readable, and will no doubt be found useful to transatlantic students.

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TRANSACTIONS AND REPORTS.

*Twenty-seventh Annual Report of the State Board of Health of Massachusetts.* (Boston: Wright and Potter. 1896.)—This volume of upwards of 800 pages contains an elaborate exposition of results obtained from a further series of experiments with respect to the sand filtration of water supplies, in which the effects upon bacterial efficiency of depth of filtering material, loss of head, rate of filtration, cleansing operations, etc., are elaborately illustrated. The subject of filtration of sewage is also dealt with in considerable detail. A report on the Production and Use of Antitoxins is included in the volume, in which the results obtained from the treatment of about 1,000 cases are analysed. Prior to the use of antitoxin, the average diphtheria mortality during five years had been 25 per cent. In the male cases (123), with antitoxin the mortality was 11.4 per cent.; and in the female case (143) 11.7. In some of the towns antitoxin was provided for the poor, free of charge. The report also contains the usual statistical summaries and a digest of annual reports of the local boards of health of cities and towns.

# REPORTS AND ANALYSES

AND

# DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

## ANTISEPTIC PELLETS.

The Sanitas Company, Limited (Letchford's Buildings, Three Colt Lane, Bethnal Green, E.) manufacture pellets of corrosive sublimate, carbolic acid, and permanganate of potash. These pellets are intended to be used for the preparation of antiseptic solutions, and are put up in small tubes, which can be easily carried in the waistcoat pocket. The facility with which a solution can be prepared from these pellets, and their portability will certainly recommend them.

## SYRUP OF HÆMOGLOBIN.

We have received from Messrs. Adrian and Co., Société Française de Produits Pharmaceutiques, of Paris (74, Wickham Road, Brockley, S.E.), samples of syrup containing Deschien's soluble hæmoglobin. There is no doubt of the genuine character of this preparation, and that it does contain hæmoglobin. The syrup when heated coagulates, and with nitric acid gives a reddish brown flocculent precipitate. The residue left after ignition is rust-coloured, and it also gives the characteristics of blood when examined with the spectroscope. The administration of hæmoglobin has given excellent results in the treatment of chlorosis, anæmia, etc. This syrup will be found to be a very agreeable mode of administering the remedy.

## ARCHÆOLOGICA MEDICA.

### XXIV.—THE BARBER-SURGEONS OF NEWCASTLE-ON-TYNE AND THE DURHAM SCHOOL OF MEDICINE.

The Barber-Surgeons of Newcastle-on-Tyne were united with the Chandlers, and but little is at present known of their early history. The ancient ordinary of the society, dated October 10th, 1442, enjoins that they should go together in procession on Corpus Christi day in a livery, and afterwards play "the baptising of Christ" at their own expense. Every man to be at the procession when his hour is assigned him, at the New Gate, on pain of forfeiting a pound of wax; to go also with their pageant, when it should be played, in a livery, on the like pain; that no alien born should be taken apprentice, or allowed to work within the town or without, under a penalty of twenty shillings; that the society should uphold the light of St. John Baptist in St. Nicholas' Church as long as they were of ability; that no barber, apprentice, or servant should shave on a Sunday, neither within the town nor without, by a mile's space.

There is another ordinary of the society, dated September 25th, 1671, confirming the former, and making the Company a body politic by the name of "the Barber-Chirurgeons and wax and tallow-chandlers." The company was to meet yearly and to choose two wardens, who were to be sworn: the apprentices were to serve seven years, and when a brother had a cure in hand no other should meddle with it until it was complete, under pain of forfeiting twenty shillings for the first offence, thirty shillings for the second, and forty shillings for the third default, half to go to the brother who first dressed the patient. It was further enjoyned that none should wash, dress, or trim on a Sunday, on pain of forfeiting two shillings for every offence. The Company had also power to make its own by-laws, and to choose annually two searchers, who were to be sworn. On December 11th, 1711, it was ordered by a full vote in the Company that "perrywigg-making be from henceforth accounted as a part and branch of the Company."

As early as 1648 the Company obtained a lease in the Manors adjoining the east end of the Jesus Hospital, for the purpose of building a meeting-house. The lease was for 61 years, at an annual rental of 6s. 8d., and the land was sufficient for a garden, which was to be planted with medicinal herbs. A new lease of this land was granted to the Company by the corporation of the town on November 4th, 1771, for a further period of 61 years.

It is evident that the Company made some effort to teach their apprentices, for in 1691 the following entry occurs in the accounts: "Disburst about the man that was given to the Company for dissection;" and again, April 9th, 1711, "a skeleton ordered to be bought in London, not to exceed 6 guineas." The teaching, however, had long been discontinued, though the number of members in the Company in May, 1831, was 47. The proprietors of the Newcastle School of Medicine and Surgery, which had been established in 1832, agreed to occupy the Barber Surgeons' Hall at a rent of £40 a year, and the first lecture was delivered in the Hall on October 20th, 1834. The lectures of the two previous sessions had been given in a large room on the north side of the entrance to Bell's Court in Pilgrim Street, a room which had served at times as an auction room. The first subject dissected, says Dr. Embleton in his excellent *History of the Collegium Medicum Novocastrense*, was an elderly humpbacked cutler named Samuel Morgan, who sold his body for the sum of £10. He made instruments for the infirmary surgeons, and as he had no relations, and had gained money in trade with the medical profession, he said that it was only right that the surgeons should have his remains to benefit their school. From very small beginnings the school continued with varying fortunes until a serious disruption occurred on June 25th, 1851. The disruption resulted in the reorganisation of the school of Medicine and Surgery and in the formation of a new body called the College of Medicine and Practical Science. The old Barbers' Hall was pulled down in the winter of 1850 and spring of 1851 to make room for the railway, which has altered so completely the appearance of the central parts of Newcastle, and on February 6th, 1851, the foundation of a new Barber Surgeons' Hall was laid in Victoria Street, Westmoreland Terrace. The College of Medicine took possession of this building as soon as it was finished, and occupied it for some years.

The majority at the disruption continued under the old style of the school of medicine and surgery, receiving permission from the town corporation to occupy such premises as still remained in their old quarters at the Manors until they could find a site proper for their purposes. The managers of this school also made efforts to ally themselves with the University of Durham, established in 1833, and in spite of vigorous opposition they were successful on December 17th, 1851, when they assumed the style and title of "The Newcastle-on-Tyne College of Medicine in connection with the University of Durham." The College at first endeavoured to obtain a site near the infirmary, but the negotiations having fallen through they bought Westmoreland House, closely adjoining the library of the Literary and Philosophical Society. The house was rechristened "Neville Hall," and was used for domestic and collegiate purposes, whilst in 1852 new buildings were erected in the garden behind the house. "Neville Hall" proved to be too small for the accommodation of the Principal and a number of students. It was sold to the Mining Institute, and was soon demolished. "Neville Hall" in the meantime was transferred to No. 1, Leazes Terrace, which was opened for students in October, 1852. The first medical examination for a licence was held in 1856, though it was not until 1861 that the first degree of Doctor of Medicine was conferred by the University of Durham upon those who had passed the Newcastle examinations. The two rival colleges of medicine were united in love and harmony on October 3rd, 1857, and the new Barber Surgeons' Hall in Victoria Street, Westmoreland Road, then became vacant. It was used for a time as a children's school, and was sold by the Worshipful Company, to whom it belonged, and the proceeds were divided among the brethren. In 1888 the ground and buildings occupied by the College of Medicine were purchased by the North-Eastern Railway Company for the extension of their Newcastle Central Railway Station.

A closer connection was established between the University of Durham and the Newcastle-on-Tyne College of Medicine in 1870, and in 1887 the Professor of Medicine was made *ex-officio* a member of the Senate, whilst in 1888, and again in 1893, additional professorships were established. A new and most admirably arranged building for all the purposes of the

medical school has recently been built on a site in the Bath Road, at the upper part of the town. It only remains to complete it by the erection of a new residential college for the medical students.

# BRITISH MEDICAL JOURNAL REPORTS.

## REPORTS ON THE HYGIENIC CONDITION AND ADMINISTRATION OF METROPOLITAN DISTRICT AND SEPARATE SCHOOLS.

BASED ON THE EVIDENCE LAID BEFORE THE DEPARTMENTAL COMMITTEE.[1]

*(By Our Own Commissioner.)*

### IV.—THE BARRACK FIRE: THE PLAY YARDS: THE SUPERIOR OFFICERS.

OUR article last week related to the Local Government Board inquiry into the poisoning of 148 and the deaths of 2 children in the Forest Gate District Schools; but this unhappy incident is not the only matter that demands attention in connection with these schools. In 1889 there was a fire which resulted in the deaths of 26 boys. On this point the published memorandum states: "When the fire broke out the boys had been long locked in the dormitories, and most of the officers had gone to bed. The first to discover the fire was Mrs. Bloomfield, who slept with Miss Terry in a room just outside dormitory No. 9, opening upon the front staircase. She was alarmed by smoke and the smell of fire as she was going to bed. She ran down to the needleroom, and, having seen the fire, returned upstairs and roused Miss Terry.....who went and roused Duncan, the superintendent, who proceeded at once to the scene of the fire, and devoted all his energies to extinguishing it.....He did not himself take any steps when the alarm was first given to see that the boys were safe, nor give any directions about them.....No steps seem to have been taken by anybody to arouse the boys in dormitory No. 9. Hare (the officer in charge of No. 10) took no steps to see that No. 10 was clear of boys before himself coming downstairs, and no one explored No. 9 at all.....There were in all 26 boys suffocated, mostly in their beds. There is no evidence as to how many of these were in No. 9, and how many were in No. 10. It took three officers to identify all the victims."

That anyone was to blame for this terrible tragedy we are the last to suggest. Such catastrophes can occur without fault, and should be met only with sympathy; but that the system of aggregating young and helpless children together was the cause of the extent of the mortality must be self-evident. We shall have occasion to refer to the inadequacy of the cubic space of air demanded by the Local Government Board. With insufficient air, probably with closed ventilators—for the season was midwinter—the children slept heavily, and their very number stood in the way of their rescue. The suggestion rightly or wrongly made is that No. 9 dormitory was forgotten until too late; among so many a few were not missed, and after death, because unknown, it took three persons to identify them, for the establishment, though run as a machine, was not sufficiently well organised to enable the officers to state which boy occupied which bed.

#### SOME USEFUL EXPERIMENTS.

It is unfortunate for Forest Gate that it should have been the scene of two accidents which attracted public attention and threw blame on its administration, for in many ways, so far as we can judge by the evidence before us, it seems to be managed with care, thoroughness, and judgment, and its Board have, anyhow, sufficient progressive sense to permit them to make two or three experiments in what we consider to be the right direction, insomuch as they aim at minimising the evils of aggregation and monotonous routine. The first of these experiments is, to quote the chairman's words, to "allow a class of boys to attend the Carpenters' Company Schools; they are allowed to go out by themselves to the class and to come back by themselves, so they come into contact with other lads, and the experiment has been remarkably successful" (1542). In this opinion also Mr. Holgate shares, for he reports with approval conversations that he has had with the carpenter and another officer, who report of boys who had previously been in their shops as follows:

"'Well, sir, I could not have believed it,' they all agreed, one after another. They said it 'has made different boys of them; they get emulation and they get an idea; they want to learn something now, whereas it was mere mechanical doing what I told them to do before'" (15593).

#### CHILDREN SENT TO THE COUNTRY.

The second experiment is similar in spirit, though dealing in this case not with strong lads but with ailing children, who are sent for two weeks during the summer months to board in country cottages under the direction of the Children's Country Holiday Fund (1837). This is an admirable idea but one that we can easily imagine is surrounded with difficulties, owing to the large number of children assembled and to the necessity of close organisation and rigid discipline, unless the many are to suffer for the few. "There is great difficulty," witnesses Miss F. Davenport Hill (3077) "of making what seemed very desirable and simple and trifling alterations without a very careful examination beforehand all round which would generally show that a change had better not be attempted. Schools are like a great machine, and anything which affects one part affects them all through, and is very apt to put them out of gear altogether."

The managers of the training ship *Exmouth* have, however, faced, and to a certain extent overcome, these difficulties. For a fortnight, as the chairman, Mr. James Brown, explains, the boys are sent away to their homes, "if they have any decent relations" (5150) and (5152). "We have, perhaps, 200 boys left out of the 600 who have no homes to go to, but all the rest either go to their parents or to friends."

"They return not morally worse," though (5154) "we generally find our infirmary rather full in the first fortnight," and (5155) "at any rate they get the advantage of having contact with real life," and so the managers (5156) "put up with some diminution of discipline for the sake of that." And if some such plan as this for providing a safe outlet for youthful energy and natural excitement be not adopted, it will be easy to see that holiday time might become either a period of pain for the children, as the officers vainly endeavour to maintain discipline when employment is relaxed, or a time of unoccupied leisure which can only result in their moral deterioration. In such schools as these it is necessary for the teaching staff to take holidays, the period allowed being, in our judgment, too short to permit of recuperative refreshment; but during that time the children remain too often in the school without sufficient playthings, change of playmates, or new interest—a weariness to themselves, to each other, and to their supervisors.

#### HOLIDAYS IN A BARRACK SCHOOL YARD.

"Did you not authorise the drill master to give a boy a single whack whenever he liked?" was asked of a witness whose experience was of the Hackney Union Schools—"A single stroke, but it was to be entered in the book," was the answer (8399).

"And in the holidays this man was authorised, by way of celebrating the holidays, to give them two or three single strokes?"—"I do not think there was any authorising of that" (8406). "But he did it?—He did it" (8407), and "he told us he could not keep any discipline without it" (8408).

These last words throw a search light into the playground of an aggregated school; the brutalised among the lads without natural interests have to be subdued by the fear of the cane, or they might find their amusement in bullying the younger or terrifying the weak-minded.

The class of persons usually employed to supervise the children out of play hours is not generally such as is best suited for the purpose. Dr. Bridges, the late inspector, asserts "that the officer who is with the children in their play time is very often an officer of a very inferior sort indeed" (900). This is all the more to be regretted because "the real education of a child," he continues, "goes on, in my opinion, not in those five hours in the schoolroom, but in

[1] The previous articles appeared in the BRITISH MEDICAL JOURNAL of January 2nd p 39, 9th, p. 90, and 16th, p. 163.

the nineteen hours outside the schoolroom" (675). The practice of engaging persons of "a common and coarse fibre" (901) who are incapable of interesting the children is not only, however, to be regretted on moral but on hygienic grounds. Health in all persons, and especially among the young, is largely dependent on wholesome nervous stimulus, and to quote a medical witness, "the daily monotony of even the best barrack institution affords no channel for the nervous energy of the inmates to run safely in" (9247). There can be no doubt that conditions which are not conducive to activity in children are conditions not conducive to healthy growth. "At our schools," says Dr. Littlejohn, speaking of Hanwell, "the children have been in the habit of having everything done for them; and unless you go and play with them as a rule they will not play. If you simply show them the game they will not play by themselves."

### No Check on Stores.

It is deeply to be regretted, but we fear it is hardly to be denied, that the class of persons who, as managers or guardians, usually administer these institutions, are frequently not able to attract superior persons as officers, or to rule the inferior ones whom they appoint. According to one witness "it appeared that the superintendent was the autocrat of the place, and that the Board of Management took his word blindly" (16390); an opinion borne out by the further statement (16518) "There is absolutely no check, no independent person, other than the superintendent, who is solely responsible for the stores .....No independent person ever checks, as I understand it, the figures that are entered in that book; nobody checks the correctness of the amount as it is delivered by the contractor: nobody checks the correctness of the amount as it comes out of the store; there is no tally whatsoever; everything depends upon statements made by the superintendent to his clerk to put down so many pounds of meat brought in, and so many served out."

It is not inconceivable that such confidence might in certain cases encourage carelessness or misuse; all the more so because the guardians have no power to remove an officer, however unfitted he may prove to be for his position, unless they can satisfy the Local Government Board that circumstances justify his removal. On this point Miss Baker, a guardian of Holborn and a member of the Metropolitan Asylums Board, says: "The appointment being for life, and your being obliged to prove that they are guilty of something very dreadful before you can dismiss them, is very detrimental." (2381).

### A Lady Matron.

It has long been one of the leading principles of our programme of reform for these and similar institutions that, as Mr. Holgate puts it, the two superior officers should be a "gentleman" and a "lady." Indeed, he expresses in such admirable terms our own opinion of what is wanted in the matron of an institution, that we quote fully: "The matron," he says, "should be an educated lady, with great firmness of purpose, largeness of heart, thorough knowledge of all domestic duties, including nursing, not necessarily married or the wife of the superintendent, and of sound constitution: for the work is heavy and unceasing, and the exposure constant" (15282).

## THE EXAMINERSHIPS AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

II.

[FROM A CORRESPONDENT.]

### Fees of Members of the Court of Examiners at the Royal College of Surgeons, England: Are they too High?

THE consideration of the subject of the fees paid to the members of the Court of Examiners has been designedly left to the last, because it forms by far the most important question which we have been called upon to discuss in these articles. The matter, we believe, is one which seriously demands the close attention of those who have the interests of the College at heart. So far as can be ascertained, the information concerning the remuneration of the examiners at the Royal College of Surgeons of England and in Dublin, and the University of Cambridge, has never before been brought under the notice of the profession. The full details do not appear in official publications, so that the constituents of those bodies have no access to them. Let the reader of these articles compare the remuneration paid in the College of Surgeons, Ireland, with that paid to the examiners at the English College, and then answer the question, Why is in the latter case the payment so high? Why is the capitation fee 1s. 9d. at the Irish College, and 8s. 6d. at the English College?

In reflecting upon this subject it must be conceded that it is difficult to avoid raising the question whether the Council of the Royal College of Surgeons, England, are justified in remunerating the examiners at so high a rate as is here shown to be the case. When attention was upon one special occasion called to this matter, the reply of an important member of the Council was that the system of high payment was necessary, otherwise it would not be possible to secure the services of the well-known surgeons by whom the posts of the examinerships were filled, and that if the emoluments were less, the applications for the posts would largely consist of those from junior Fellows of the College, whose reputations were still to be made. It is, however, not possible to admit the validity of this objection. Without doubt there are a large number of highly-efficient examiners among the younger Fellows who would discharge the duties of examiners at the College in a way which could not fail to be deemed highly satisfactory, and these Fellows would probably be glad enough to officiate in the place of their senior colleagues, if the latter were asked to receive and refused reduced emoluments for their services. To the younger Fellows it would be an honour to hold such a post as an examiner on the Court, but to the older Fellows it is much more a matter of business. No doubt, if in large and active practice, the holders of these examinerships distinctly lose by the appointments, despite the high rate of remuneration, and from time to time popular and well-known surgeons have been compelled to relinquish their examinerships in consequence of the duties interfering with professional engagements. In this connection it may be asked, How can an examiner, whose time is otherwise taken up with active professional duties, be expected to give to the perusal of the candidate's paper that due amount of thought and judgment which the task demands? The plea might be urged that the work of the Court of Examiners is especially arduous, and the high remuneration be justified OR the grounds that the "labourer is worthy of his hire." But here, again, the validity of the argument cannot be admitted. Presumably the work is felt to be hard by those examiners who have passed the meridian of their professional life. But younger Fellows in a similar position would probably neither feel it hard, nor a hardship, to have to submit to the somewhat uncomfortable proceedings which are generally known to be associated with the duties of an examiner on the Court. The work begins at 5 P.M., and is not completed till 10 P.M., an arrangement which means that an examiner must make due provision for "his inner man" before arriving at the College or the Examination Hall.[1] No doubt some undue physical strain thus falls upon an examiner by this interruption to his habit of dining; but obviously, if youth were on his side, the sense of fatigue which is probably induced would scarcely be expected to have much, if any, effect upon the placidity of his demeanour towards the nerve-strung candidates who appear before him.

In these observations it must be clearly understood that it is not intended to cast any reflection upon the manner in which the present Court ably discharge the duties of their post. Nevertheless, it must be generally conceded that, while the possibilities here hinted at are merely those which common sense suggests, it so happens that they undeniably tell in favour of our contention that younger Fellows as examiners would be able to do the work of the Court, ably and efficiently, at much less cost to the corporation.

In view, then, of the financial position of the College, the "body corporate" might well insist upon some

[1] The regulations have been altered since this article was written, by which the examiners are able to leave the College or Examination Hall before 8 P.M.

retrenchment in this regard, and for the very solid reason that such expenditure of College funds cannot be held to be necessary. When or how this high rate of remuneration was fixed will be known to the permanent officials of the College; but now that public attention has been drawn to it the matter should not be allowed to rest.

In conclusion, it may be observed that owing to the absence of published statements it has not been possible to obtain the detailed facts respecting the emoluments of the examiners of several important corporations. From some with whom we communicated no reply was received, while in one instance the answer was to the effect that no information respecting the payment of the examiners could be given. The object, however, of these inquiries has been to show that the Court examiners' fees at the Royal College of Surgeons, England, are higher than is necessary as such payments go out of proportion to the duties discharged, and not warranted by the present financial position of the College.

## "THE COLONIAL MEDICAL SERVICE": A REJOINDER.

By C. H. EYLES, L.R.C.P.&S.Ed.,
Colonial Surgeon, British Honduras.

THE establishing of a Colonial medical service on the army model, as proposed by Surgeon-Major Evatt in the BRITISH MEDICAL JOURNAL, September 26th, 1896, p. 863, is outside of the field of practical politics. Even if established, such a department would in the end be costly and inefficient.

Politically, the first step towards forming such a department would be the federation of the Colonies concerned for at least this one purpose. Is it possible or likely that a number of isolated communities scattered throughout the world, and living under every conceivable diversity of conditions, would federate for the express purpose of establishing a highly centralised department? Even if this initial difficulty were overcome, in addition to the centralisation involved in this scheme, there must of necessity be the same freedom of local action as at present exists, that is, a high degree of centralisation will go hand in hand with elaborate decentralisation. Unsuitable as this state of affairs would be in even the small and compact area of England,[1] nothing but failure could result if it were imposed on the scattered communities represented by our Colonies.

Financially there would be increased cost. An essential feature in the new department would be a gradation list. So many officers of each grade would be apportioned to each colony. To make matters fit in with this requirement, every officer will be liable to removal from one colony to another. This liability to removal will be a serious impediment to private practice. At present the emoluments of medical officers in the Colonies depend largely on the amount of private practice possible; in many instances this is the mainstay of income, the official income being much of the nature of a retaining fee. Where the private practice is large, the official salary is small, and *vice versâ*. If private practice is to be eliminated from consideration, the emoluments must be altered accordingly, and this alone would make for increased cost.

Departmentally, however well the army model may suit army requirements, it does not necessarily follow it would equally suit the requirements of civil communities. The new arrangement would bring with it its own peculiar troubles. Where, at present, men are quite content to pursue the even tenour of their way, rejoicing in the fact that they are highly respected members of the communities in which they have been for years established; the presence of a gradation list, with its suggestions of superiority and supersession, would be a disturbing element. The hunt for titles and such-like "tinsel show" would inevitably follow, to the damage of valuable professional work. Mere seniority in the service would assume large proportions (larger than at present exists) in the matter of drafting members into "administrative ranks." Those hitherto content to spend their lives as useful members of an honourable profession would be striving to gain admission into the so-called "superior" grades. At the present time questions of this sort do not disturb us. If a man's bent is for purely professional work he has not before him the bugbear of being forced into administrative rank or considering himself superseded. Administrative work he is content to leave to those, his seniors or his juniors, who may have a taste or a talent for it. Hence it often occurs in the Colonial medical departments that a relatively young member of the profession is appointed to be a chief medical officer. But as between him and the working members of the staff there are no heartburnings and jealousies, no idea of supersession. Indeed the possibility of this is reduced to a minimum by the absence of a general gradation list; for rarely, if ever, is an officer appointed to be chief of the department in which he has served as a junior; and, again, the exclusion of the chief from private practice makes the administrative office one of little account to those whose bent is purely professional, and these are the great majority in the Colonial medical departments.

Professionally, the new department would be a gain neither to science nor to the communities concerned. Pathological and epidemiological knowledge is not gained to any great extent by those who are mere rolling stones. This knowledge comes slowly in the train of extensive, long, and careful work. Frequent removals interrupt it. Hence the professional workers should be encouraged to enter freely into professional work without fear of having their work broken in upon by frequent removals. That this is amply recognised is seen in the fact that the Professor of Military and Tropical Medicine in the Army Medical School at Netley has always been an Indian medical officer.

The army model, therefore, even if practicable, would be a useless encumbrance to the Colonies. Nevertheless, the extreme decentralisation to which we are of necessity subjected may be advantageously corrected by the establishment of a central office, which, whilst it would leave individual colonies the same latitude of action as they at present enjoy, would render valuable service to each by keeping it informed of the success or failure attendant on certain lines of action in other places, systematising results already achieved, rendering assistance and advice when such are required. The model for such an organisation is not to be found in a department established expressly for the purposes of militancy, but in one established to further the ends of industrialism—not in the medical department of the army, but in that of the Local Government Board.

[1] Sir John Simon's *English Sanitary Institutions*, pp. 339-342.

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THE Duke of Connaught will take the chair at the Biennial Festival on March 24th of the National Hospital for the Paralysed and Epileptic (Albany Memorial), Queen Square.

ALCOHOLISM AS A CAUSE OF IDIOCY.—M. Bourneville, whose observations and writings on idiot children are known to all who are specially interested in the subject, has submitted to the Paris Public Health Society the following statistics, which show the terrible influence of alcoholism in the production of idiocy. Of 1,000 idiotic, imbecile, backward or epileptic children admitted to the Bicêtre Asylum between 1880 and 1890, 471 had drunken fathers, 84 had drunken mothers, while 65 were of alcoholic parentage on both sides. In only 209 cases was there no history of alcoholism on either side. In 175 no information on this point was forthcoming. In 57 cases it was positively ascertained that conception had taken place while the father was drunk, and in 24 other cases the same circumstance was extremely probable, though not quite certain.

THE Lord Mayor, President, Mr. R. B. D. Acland, Chairman, and Mr. H. N. Hamilton-Hoare, Treasurer of the Hospital Saturday Fund, make an appeal to the public for assistance in purchasing and fitting up suitable premises for the Fund. The large amount of work which is done by the Fund, including the supplying of surgical appliances on a carefully thought-out system of part payment by instalments, makes it absolutely necessary to leave the present inconvenient premises in Farringdon Road. An opportunity offers of purchasing the freehold of suitable premises in a central position, easy of access from all parts of London, for the sum of £4,000, and by the expenditure of an additional sum of about £500 these premises can be thoroughly adapted to the increased work of the Fund.

## BRITISH MEDICAL ASSOCIATION.

### SUBSCRIPTIONS FOR 1897.

SUBSCRIPTIONS to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

# British Medical Journal.

SATURDAY, JANUARY 23RD, 1897.

## THE QUEEN'S SPEECH.

THE programme of legislation set out in the Queen's Speech, while it does not involve the discussion of any question immediately affecting the organisation of the medical profession, promises more than one measure which presents aspects of great medical importance upon which the voice of the medical profession should make itself heard. To the Employers' Liability Bill and to the questions of medical interest which it raises we refer below, as also to the reference in the earlier part of the speech to the epidemic of bubonic plague, the international importance of which is every day looming larger.

The announcement that among the Bills prepared for submission to Parliament by the Government, "if opportunity for considering them should be found," is a Bill for the establishment of reformatories for inebriates will have been welcome intelligence to most of our readers. The late Cabinet, through the then Home Secretary, fully redeemed its promise to a joint deputation from the British Medical Association's Inebriates' Legislation Committee, the Society for the Study of Inebriety, and the Homes for Inebriates Association, to propose such a measure in the Inebriates Bill introduced by Lord Chancellor Herschell. The present Home Secretary, Sir Matthew Ridley, made a similar promise to a succeeding joint deputation, at which the Chairman of the Inebriates' Legislation Committee was supported by his Eminence Cardinal Manning, Canon Duckworth, Sir William Charley, Q.C., Dr. Danford Thomas, and other representative men. It is gratifying to find a conditional fulfilment of Sir Matthew Ridley's promise in the Royal Speech. The Inebriates' Legislation Committee have never relaxed their efforts to press the importance and urgency of amended legislation for habitual drunkards on the Government, as well as on all classes in the community. No later than last Tuesday an appeal was sent from the Chairman of the Committee to the Prime Minister, the Lord Chancellor, and the Home Secretary, regretting that the promised measure could not be brought forward last session, and trusting that it would be introduced during the current session. This letter restated the improvements proposed by the Committee: power compulsorily to seclude, provisions for the poor, the inclusion of habitual additions to opium, morphine, and other narcotics, the removal of existing hindrances to the reception of voluntary applicants in retreats, and the inspection of inebriates treated privately. It is understood that the forthcoming Bill may, in view of the difficulty in passing measures through Parliament, be limited to police-court offenders; but we feel that any Bill which will present a genuine instalment of remedial legislation will be heartily supported by the medical profession, and we may express the earnest hope that the Government will find time for its discussion, and take steps to pass it through both Houses at an early stage of the session.

The "spirit of prudent foresight" and "provisions for adding to the military defences of the empire," commended to the House of Commons, clearly indicate that some additions to and reorganisation of our military forces are contemplated. It can hardly be supposed that a substantial increase in the effective strength of men will be made, and the Army Medical Service left actually undermanned, as it is at present. Every thousand men added requires an addition to the staff of medical officers. How are these to be found when even existing vacancies cannot be filled? That is the problem before the military authorities which must be faced, and driven home when the estimates come before the House. It is high time the War Office made peace with the medical profession by reasonable concessions to army medical officers.

Perhaps, however, the point about the Queen's Speech which will most nearly interest the general body of the medical profession is not what it contains but what it omits. There is no reference to the question of vaccination, no promise of legislation, as an outcome of the long-delayed report of the Royal Commission on Vaccination. The omission will cause keen regret, for the present state of uncertainty, which has continued now for so many years, is a source of great risk to the public health. It would seem, however, that we must face a continuance of this state of uncertainty for another year at least. No doubt the Government will be invited at an early date to give their reasons for their failure to introduce any legislative measure, and we assume that the answer will be that sufficient time has not yet been afforded for the consideration of the Commissioners' report, and that as the evidence and some of the reports on special inquiries made for the Commission are not yet issued, all the facts upon which the Commission founded its recommendations are not yet available.

## PLAGUE PROSPECTS.

WE cannot pretend at present to foretell the ultimate results of the diffusion of bubonic plague in our Indian Empire, but one thing seems certain, and that is that the matter is not unlikely to be a serious one in connection with English commerce, and perhaps with English ports and English public health. That the imminent importance of the subject to this country is beginning to be appreciated is shown by the introduction of a reference to the plague in India into the Queen's speech. The phraseology of the paragraph in the speech is worthy of note. The words are: "I have directed my Government to take the most stringent measures at their disposal for the eradication of the pestilence." This may be read as referring to the Indian Government, but we venture to assert that questions requiring the most earnest attention of the British Government will very shortly arise, if indeed it should not rather be said that they have already arisen.

The announcement that certain Governments have decided to hold an International Conference with a view to united action in Europe means that regulations will be laid down to control traffic passing up the Red Sea into and beyond the Mediterranean. That such regulations should be made is only reasonable, but it is hardly likely that the regulations will be of a character that will commend itself to the common sense of this country. And it is with regret, and a feeling akin to indignation, that we find the Crown Colony of Malta leading the way to restrictions that are altogether unreasonable and opposed to common sense. A Reuter's telegram from Malta, dated January 18th, announces that "twenty days' quarantine has been enforced at Malta on all vessels from Bombay;" that is to say on every vessel, notwithstanding the fact that she may have had an absolutely clean bill of health and a complete medical administration on board during the whole voyage. If such an imposition is necessary at Malta, it is necessary everywhere else; in other words, relations with Bombay or any other plague-infected port must practically cease. And yet it is in the face of such an example as this on the part of a British Colony that an International Conference is proposed to Great Britain. The precise relations subsisting between the Government of this country and our Crown Colonies may be a nice question for constitutional lawyers, but the sooner the matter is made clear, whether we are helpless or not, the better for the nation.

As regards English ports, we must be on the alert. Plague is an insidious disease, and at times manifests itself at first by symptoms that are comparatively trivial. The new order as to plague and cholera issued by the Local Government Board gives a power of inspecting every individual who reaches this country from an infected port, and this power can be acted on, without any undue hindrance to those who are healthy. Those ports which have neglected to make proper provision for the isolation of infectious patients should also, forthwith, mend their ways in this respect.

As to public health generally, it must be remembered that this country is in weekly, almost daily, communication with a country where there prevails in epidemic form a disease which has the closest connection with filth. Many English towns can be found where filth about houses, filthy foundations of dwellings, and filth having access to water supplies are known to exist. These are not the places which should run any risk of the importation into them of even mild and obscure cases of a disease, such as plague. The fact that the risk is announced in advance to such towns by a port medical officer of health, who sends on the addresses of people landing from ships sailing from infected ports, is but a poor guarantee for places that have neglected that action as to "filth diseases" with which the safety of the public health is inseparably bound up.

## ACCIDENTS AND THEIR CONSEQUENCES.

There are none who have a more intimate knowledge than the members of our profession of the sad and harrowing accidents which befall sailors, miners, and journeymen of all handicrafts in the course of their daily employment. We are familiar with the straits of the desolate home while the breadwinner lies maimed in hospital, and with the shifts and devices of his family to find a new means of livelihood. Men must work and accidents will happen. According to the Labour Statistics for 1895 issued by the Labour Department, fatal accidents occurred to 1,096 miners, 489 railway servants, 455 factory operatives, 515 fishermen, and so on. Notification is so incomplete that the total number of fatal accidents to workmen is unknown, nor can their proportionate distribution among the various handicrafts be given. Although accidents which are not fatal must be far more numerous—according to the estimate in German industries as 40 to 1—there is no uniform system for reporting them. It is still more difficult to estimate the proportion of accidents which are the fault of nobody and those which are due to the negligence of employers or fellow-workmen. According to some useful German figures which were reported to the Washington Government the employer is accountable for 19.76 of the accidents, and the fellow-workmen for 3.28. And so 77 per cent. are the fault of the injured man himself or are nobody's fault.

Prevention of accident comes less within the scope of the medical profession than the prevention of disease, and the question of compensation is quite beyond our sphere. It is, therefore, as sympathetic spectators that we must regard the coming strife of the parliamentary session over the readjustment of employers' liability. "Margaret Ogilvy," says Mr. Barrie, "could never be brought to look upon politics as a serious concern for grown folks." To be good citizens, and to take a responsible share in public affairs, is, however, a duty which we all acknowledge. But all we shall here attempt is to trace the probable influence, for good or evil, of the several suggestions which are put forward upon the existing arrangements for the prevention and treatment of accidents. The hospitals of the United Kingdom, whatever their defects, have kept sweet the name of charity amongst English-speaking people. It is to them the ambulance hurries with the maimed and crippled without jarring upon their sense of independence, and no one wishes to see the resources of charitable institutions deflected to any other purpose. But their maintenance might become a serious question if employers were compelled to pay compensation to their workmen in every case of accident. There is much that is attractive in the Bill for Compensation of Workmen's Accidents which Sir Arthur Forwood proposed to introduce. More than twelve months ago we described its provisions, and it is needless to repeat them in detail now. In case of death or total disablement of a workman the employer is to pay three years' wages, with a minimum of £150; for partial disablement the sum is not to exceed one-half of the death claim; for temporary disablement a weekly allowance not exceeding two-thirds of the workman's wage is to be paid for a term not exceeding eighteen months; disputes to be settled in the county court with the assistance of a medical assessor when necessary; and the Employers' Liability Act of 1880 to be repealed.

The Act of 1880, which created the doctrine of common employment, does not appear to have a single friend. County-court judges never tire of denouncing its evasive provisions, and, by common consent, it must be amended. In the last Parliament Mr. Asquith proposed to do away with this doctrine of common employment; an employee was to have the same rights as any other member of the public, so that if he was injured through defect in plant or negligence of foreman or fellow workman he could claim

unlimited damages before a jury. Apart from the disputed question of contracting out, both Houses and both parties gave a cordial assent to the Bill; and it seems probable that Sir Mathew Ridley's Bill will be Mr. Asquith's, with the addition of a contracting-out clause. Of course the amount of compensation is often settled out of court. It appears that there have been 2,590 disputes in the county court under the Act of 1880, and that the average of awarded compensation was nearly £42. With this may be compared the sum of £13, which is rather more than the average compensation awarded by the Shipping Federation to sailors who have put themselves upon the register. It was some of the railway companies, especially the London and North-Western, which made the fighting in the last Parliament for the contracting-out clause. Company and employees mutually contribute, and the sum is divided amongst the injured men, who agree not to seek compensation otherwise. Other companies are now busily promoting mutual benefit funds, and will be prepared to contract out of the new Act: the Shipping Federation is trimming to the times, and it is clear that the new Act is expected to be a very good one to get out of. But if the clause is to be allowed to swallow up the law, it would surely be a simpler plan to adopt Sir Arthur Forwood's Bill as the Government measure. By this Bill every injured workman will be secure of a moderate compensation, while the "quasi-penal" damages of Mr. Asquith's Bill, to which some employers strongly object, would be abolished. Take the case of a domestic servant or charwoman who becomes totally disabled by an accident which is nobody's fault; her employer must pay £150 in compensation, and obviously will have insured against such a casualty.

The only plain objection to this course is that it altogether loses sight of the prevention of accidents which counts for so much with the medical profession. Money is not everything, though it is very nearly everything. Hospital subscriptions may be withdrawn to pay insurance premiums, and nothing be done to diminish the list of horrors which the newspapers are now depicting. It is this fear which induces us to hope that if moderate compensation for all cases of accident be made the rule, a "quasi-penal" clause may be retained for occasional resort in clear cases of culpable negligence. If a workman went to a jury without good cause the costs would be payable out of the moderate compensation to which he would be entitled. A jury has often awarded damages to an injured employee, when there was little evidence of negligence, on the moral ground that "the man ought to have something given to him, you know." With Sir Arthur Forwood's alternative there would no longer be the temptation to stretch a point in law.

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WE regret to have to record the death on January 19th, of Dr. Edward Ballard, F.R.S. Dr. Ballard, who was in his 76th year, was well known as a Medical Inspector for many years of the Local Government Board, for which he carried out many important inquiries.

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OUR Berlin correspondent writes that there is absolutely no foundation for the rumour which has found currency during the past week to the effect that Professor von Bergmann had been summoned to St. Petersburg to attend upon the Czar. Professor Bergmann is in Berlin, and categorically denies the report.

THE Lettsomian Lectures before the Medical Society of London will be given by Dr. de Havilland Hall on the following Mondays: February 1st, February 15th, March 1st, at 8.30 P.M. on each day. The subject is Diseases of the Nose and Throat in Relation to General Medicine.

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## THE JUBILEE OF ANÆSTHESIA IN MIDWIFERY.

PROFESSOR SIMPSON, lecturing to his students in the class of midwifery of the University of Edinburgh, on Tuesday, January 19th, the fiftieth anniversary of the first use of anæsthesia in midwifery practice, by Sir James Simpson, took for his subject the notable career of his famous predecessor in the chair.

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## THE ROYAL COLLEGE OF SURGEONS IN IRELAND.

MR. W. THOMSON, President of the Royal College of Surgeons in Ireland, entertained His Excellency the Lord Lieutenant at dinner on Saturday, January 16th. Among those who had the honour of receiving invitations to meet His Excellency were the Lord Chancellor, Field-Marshal Lord Roberts, Lord Lister, the President of the Royal College of Surgeons of England, Dr. Duffey, the President of the Royal College of Physicians, Ireland; Dr. Little, President of the Royal Academy of Medicine: Viscount Frankfort, Lord Settrington, Earl Granard, Earl of Rosse, Sir John Banks, K.C.B.; Sir W. Stokes, Sir Thornley Stoker, Sir Philip Smyly, Hon. Gerald Cadogan, Sir Thomas Moffett, and many of the leading members of the profession in Ireland.

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## THE MONTREAL MEETING.

DR. RODDICK, the President-elect of the British Medical Association, has been in London during the past week for the purpose of conferring with the Arrangements Committee and the Council of the Association as to the details of annual meeting which begins on August 31st next in Montreal. That he should have been ready to put aside the multitudinous arrangements which beset a surgeon in busy practice and the Parliamentary representative of a large constituency is a proof, if proof were wanted, of the earnestness with which our Canadian brethren desire the success of the coming meeting. His presence in London at this season of the year has been, indeed, a most effective *argumentum ad hominem*, for if he was ready to face the discomforts of a winter journey across the Atlantic, it would be a reproach to us on this side if we are deterred from making the same trip in the summer season, when the conditions of the voyage are pleasant, and when the great waterway of the St. Lawrence affords a direct means of communication without change of boat, and without a long railway journey. The passenger can go on board at Liverpool and step ashore at Montreal.

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## THE COCAINE HABIT.

THERE can be no doubt that in many parts of the world cocaine inebriety is largely on the increase. Many writers speak of it as the third scourge of humanity, alcohol and morphine being the first and second. The greatest number of victims is to be found amongst society women and amongst women who have adopted literature as a profession: and there is no doubt that a considerable proportion of chronic cocainists have fallen under the dominion of the drug from a desire to stimulate their powers of imagination. Others have acquired that habit quite innocently from taking coca wines fortified with salts of the alkaloid in solution. It is stated that at Manchester, Kentucky, the cocaine habit has recently assumed the proportions of a veritable epidemic, and that thousands of people are suffering from it. The evil commenced with a local druggist, who advertised a popular remedy for catarrh, which was found on investigation to be a mixture of menthol and cocaine. There was a sudden demand for it, and it was taken to such an extent that many of the victims had to be accommodated in the public lunatic asylum. The symptoms experienced by the victims of the

cocaine habit are illusions of sight and hearing, neuro-muscular irritability, and localised anæsthesia. After a time insomnia supervenes, and the patient displays a curious hesitancy and an inability to arrive at a decision on even the most trivial matter. In Paris the use of the hypodermic syringe for the administration of both cocaine and morphine is extremely common, and there are establishments to which ladies of fashion resort periodically in order to have the accustomed stimulant administered. One drug habit rapidly engenders another, and the victim of chronic cocainism is usually addicted to overindulgence in alcohol, besides being a confirmed cigarette smoker. Most American writers on pharmacology devote much attention to the subject, and deplore the rapidly increasing growth of the vice and the serious deterioration of health which it induces. We understand that in England pharmaceutical chemists are fully alive to the danger, and that, as a rule, they decline to supply preparations of cocaine without a prescription. At all events, in a case which recently came under our notice, a chemist declined to sell even a drachm of a 1 per cent. solution of hydrochlorate of cocaine without a duly authenticated order. This is a wise precaution, and we think that stringent measures should be taken to stamp out an evil which, if once established, is difficult to eradicate. Coca wines made from cocaine, and cocaine lozenges and tablets, should be supplied with the utmost caution, and there should be a distinct understanding that prescriptions containing cocaine should not be dispensed a second time without being reinitialled by the prescriber.

## HEALTHY AND UNHEALTHY OYSTERS.

PROFESSOR W. A. HERDMAN, of Liverpool, in discussing the relation of the oyster trade to the general public, and while recognising that these and other shellfish can transmit infective disease, as exemplified in his own experiments carried out with Professor Boyce, insists upon their importance as a healthy and valuable food. He makes certain suggestions as regards obviating the risk of contracting disease from their consumption, and at the same time reassuring the public so that the mollusc may again come into as extensive consumption as formerly. This would be accomplished by some competent authority inspecting the different "layings," and certifying as to their being exposed to no unfavourable hygienic conditions. The importance of having the oyster beds inspected by the central sanitary authority has frequently been insisted on in these columns, but the sanitary authority must have power not merely to grant a certificate as to conditions being favourable for oyster culture, but should also possess the power to prevent oysters from layings exposed to dangerous risks of contamination being put on the market. The difficulty now arises as to what should be done with foreign oysters—Dutch, French, or American—which may frequently have been obtained from very objectionable sources. Professor Herdman suggests that these oysters should be subjected to a species of quarantine by the use of what the French call *dégorgeoirs*—tanks of clean water, in which the oysters ought to be placed for a short time before they are sent to the consumer. The use of these is based upon the fact furnished by laboratory experiments that in oysters infected with typhoid germs subjected to running sea water a great diminution or total disappearance of the typhoid bacillus occurred in from one to seven days. He even suggests that fresh water might be used, and that the "housekeeper" should place the oysters in running water underneath the pantry tap, and states that even one day of this treatment makes a great difference in the washing out of the germs. The period of quarantine to which the oyster should be exposed, in our opinion, should be such as to exclude completely the possibility of subsequent danger, and the process should be carried out in natural running sea water. This could be accomplished by having the oysters relaid for at least three or four weeks in natural sea water, which should be subject to tidal or other influences ensuring a constant circulation of the water. If this system were adopted all foreign oysters and all natives originating from localities not licensed by the central authority would be subjected to this species of quarantine before being allowed to be put on the market. We cannot agree with Professor Herdman's recommendation as regards the use of tap water for oysters, and we suspect that most people would rather give up the consumption of oysters than partake of them after being subjected, "even for one day," to the influence of running water from the pantry tap. The only effective method of obviating the risk arising from contaminated oysters is not one which would rely upon the consumer taking precautions, but is one which would consist in a central authority preventing all oysters from suspicious sources being placed on the market.

## SOLDIERS' MILK.

AN Army Order (No. 198) has been issued recently with reference to the supply of milk for the troops. It directs that before a contract or agreement for the supply of milk is made by a commanding officer or the president of an institute, the sample offered is to be approved by the medical officer in charge of the barracks. A condition of the contract must be that the medical officer shall, without giving notice, visit the farm from which the milk is supplied so as to inspect the dairy, the surroundings, the water used in washing milk pails, and to inquire into the manner in which the cows are stabled and fed. Reports of such inspections will be forwarded for the information of the general officer commanding. The medical officer is frequently to obtain, from units and institutes, samples of milk supplied and test their purity. In what sense this last clause is to be taken, it is not quite easy to understand. It is to be feared that under existing conditions the only testing possible must be of a very rough and ready kind. Certainly nothing like a proper bacteriological and chemical examination can be intended, unless it is in contemplation to establish suitable laboratories for the purpose at every station. This would indeed be an innovation, since at the present time we believe there is no army sanitary laboratory except at Netley. Even from Aldershot it has been necessary in the past to send samples to Netley, and we cannot learn that there is adequate provision made in Ireland or in Scotland. The regulations in the Order with regard to the inspection of dairy farms for supplying milk to troops, and with regard to the cleanliness in the cow-sheds and the use of pure water for cleansing purposes, are excellent, but the concluding directions as to testing the purity of the milk appear to be an attempt to throw dust in the eyes of the public. If the War Office authorities are so little acquainted with the appliances required for testing the purity and quality of milk and its freedom from harmful bacteria, they should have sought advice from competent analysts and bacteriologists before inserting in the Order a clause which can only render this country ridiculous in the sight of foreign nations, who are better able to appreciate the value of the application of scientific methods to the preservation of the health of the soldier.

## THE BENIN EXPEDITION.

WE understand that in consequence of the fact that a leading part in the Benin expedition is to be taken by the navy, the Medical Department of the Royal Navy are making extensive preparations for the care of the sick and wounded. The P. and O. steamship *Malacca*, which is to serve as a hospital ship for the expedition, is being fitted up with every regard to modern efficiency. Within a few hours of taking over the ship, stores for 1,000 men, including large quantities of aseptic dressings, medicines, and appliances, were placed on board while the steamer lay at the Albert Docks. Further stores will be placed on board at Deptford, and the ship is timed to leave for the Gold Coast this day (Saturday). The *Malacca* will contain hospital accommodation for upwards of 100 men. An

operating room has been constructed, and has been supplied with sterilising apparatus and with the most approved modern types of surgical instruments and appliances. She is fitted throughout with the electric light, carries a large store of ice, and has ice-making machinery. She will be in medical charge of Fleet-Surgeon Michael Fitzgerald, who will have the assistance of Staff-Surgeon G. P. Gipps, and three other surgeons R.N. She will carry also a staff of nursing sisters and sick berth attendants. The rapidity with which the work has been accomplished is a gratifying proof of the readiness of all departments of the navy to meet any emergency, and the foresight of the Medical Department is shown by the fact that the medical stores for this expedition were ready for placing on board within a few hours of the order being given for taking over the *Malacca* as a hospital ship. Immediately on arriving at her destination the military stores will be removed and naval and marine ratings disembarked, and the ship will at once be converted exclusively to use as a hospital. In addition to the *Malacca* it is understood that base hospitals will be formed on shore for the reception of the sick and wounded. The special officers engaged by the Niger Coast Protectorate sailed from this country last week. They included two medical men, Dr. Felix Roth and Dr. Allman. Dr. Roth, who before entering the medical profession had experience at sea, was appointed District Medical Officer at Warra in 1893, and saw service during the previous Benin River expedition, and in the operations against Nana. On the latter occasion he was nearly taken prisoner, being saved by the courage and devotion of his native servants. He received the West African medal and clasp in recognition of these services. The delta of the great Niger river is perhaps the most dismal of all tropical swamps, and the terrible moist heat is extremely trying to European constitutions. Solid ground can hardly be said to exist, for everywhere the soil is an alluvial mud, covered with a dense tropical vegetation.

## THE TOXIN TREATMENT OF MALIGNANT DISEASE.

WE publish this week an account of a case of recurrent sarcoma treated by Mr. Marmaduke Sheild according to the method devised by Dr. Coley, of New York. The employment of erysipelas germs in the treatment of malignant disease arose in a manner by accident. Busch in 1866 observed the cure of a multiple cutaneous sarcoma of the face as a result of an attack of erysipelas, and this was soon supported by other cases of a similar nature. Fehleisen in 1883 published the first attempts at the treatment of malignant disease on these lines: he injected five patients, the subjects of sarcoma or carcinoma, with pure cultures of the erysipelas streptococcus, and was able to record results which were distinctly encouraging. The subject was taken up by other observers, most of whom were dissatisfied with the treatment or alarmed by the accidents which sometimes followed it till Dr. Coley published his first paper in the *Annals of Surgery* for 1891. Dr. Coley has since then published a number of articles in support of the method, the details of which he has in course of time considerably modified. Thus he at first inoculated with living cultures of the erysipelas organism, but for this he speedily substituted erysipelas toxin sterilised first by heat and later by filtration. The substance obtained by the latter method being too weak, he intensified its action by mixing it with four or five times its bulk of the toxin produced by the bacillus prodigiosus. Next he conceived the idea of growing the two bacilli on the same broth, the erysipelas bacillus being cultivated for ten days alone, and then the two together for another ten; the filtered mixture of toxins was employed in the injections. His latest method is simply to heat the mixed culture for an hour to a temperature of 58° to 60°, and to inject it without filtration. The toxin thus obtained is of great potency, the therapeutic dose commencing at half a minim and being gradually increased. The fluid used by Mr. Sheild was prepared at the British Institute of Preventive Medicine by inoculating flasks containing nutrient broth with a virulent culture of the streptococcus erysipelatis, and incubating at 30° to 35° C. for three weeks. The same flasks were then inoculated with the bacillus prodigiosus, and kept at room temperature for ten to twelve days. The mixed culture obtained was heated to 50° to 60° C. for one hour with a view of killing the micro-organisms. A small quantity of carbolic acid was added to the sterilised broth, and it was used without filtration. With regard to Dr. Coley's results it must first be remarked that whereas in 1893 he stated that "the curative effect of erysipelas upon malignant tumours is an established fact" in his last important communication[1] he is content to say that "the mixed toxins of erysipelas and bacillus prodigiosus exercise an antagonistic and specific influence upon malignant tumours, which influence in a certain number of cases may be curative." In this last paper he gives an analysis of 160 cases, with brief summaries of those instances which lend most support to his views. He finds more amelioration to result in sarcomata than in carcinomata, and of the former most improvement in spindle-celled, and least in melanotic. He considers about 20 of the 160 cases to have been "successful," but of these only four were alive at periods varying from one and a-half to four and a-half years after the treatment. He admits that fatal accidents sometimes supervene, of which he has had at least three himself; but on the other hand he expects no ameliorative effect unless the temperature reaches 103°—104° after the injection. So far we are able to follow Dr. Coley fairly well, and although his writings are entirely *ex parte*, and afford ample ground for Dr. Roncali's criticisms,[2] we must admit, with Professor Welch, that the record of success with a single inoperable case is sufficient to justify the treatment under similar circumstances. But when he steps beyond the region of fact, and essays to explain the action of the toxins as being not a local destruction of a growth, but a systemic antagonism to the cancer parasite, he is obviously *ultra crepidam*. He is, in fact, assuming that an agent which invariably produces grave constitutional disturbance, which brings many cases to death's door, and some to death itself, is at the same time supporting and strengthening the tissues in their struggle against noxious organisms. As Roncali well says, the action of the toxins is no more a general one than that of Vienna paste or zinc chloride. Dr. Coley would limit their use to inoperable cases of sarcoma, and to primary cases after operation, to prevent recurrence. The weight of evidence appears to justify his first recommendation, but the second is based upon pure hypothesis.

## DIPHTHERIA IN LONDON.

THERE was a marked decline in the number of deaths from diphtheria in London last week, 52 fatal cases being recorded, against 38, 49, and 71 in the three preceding weeks; this number, however, exceeded by 17 the corrected average number in the corresponding weeks of the ten preceding years. The decline was most marked in South London, where only 13 deaths from this disease were recorded, against 19, 21, and 31 in the three preceding weeks. In West London, however, the fatality of diphtheria showed an increase, 9 deaths being registered, of which 3 were of persons belonging to Chelsea, and 2 to Kensington. In North London the 13 fatal cases were within one of the number in the preceding week, and included 4 in Islington, 4 in Hackney, 3 in St. Pancras, and 2 in Stoke Newington. In East London there was a marked decline in the mortality from diphtheria, although as many as 6 of the fatal cases belonged to Poplar and 5 to Shoreditch. Of the 13 deaths from this disease recorded last week in South London, 4 were of persons belonging to Bermondsey, 2 to Newington, and 2 to Lambeth. The 52 fatal cases of diphtheria registered last week in London included no fewer than 40 of infants and young

[1] *American Journal of the Medical Sciences*, 1896.
[2] *Il Policlinico*, January 1st. 1897.

children under 5 years of age, and 11 of children and young persons aged between 5 and 20 years; while only 1 death occurred among persons aged upwards of 20 years. The 211 notifications of diphtheria in London during last week showed a further decline, the numbers in the three preceding weeks having been 200, 318, and 238 respectively. The decline was most marked in South London, where 71 new cases were notified, against 120 and 99 in the two preceding weeks. In North London, although the new cases were fewer than in the previous week, they showed an increase in Hampstead and St. Pancras. Among the sanitary areas of East London the prevalence of diphtheria showed a decline in Shoreditch, Whitechapel, and Poplar, but a slight increase in Bethnal Green, St. George-in-the-East, and in Limehouse. Among the districts of South London there was a marked rise in the prevalence of diphtheria in Bermondsey; while in most other sanitary areas there was a decline. In Camberwell the new cases further fell to 15, against 41, 36, 30, and 21 in the four preceding weeks. The admissions of diphtheria patients into the Metropolitan Asylum Hospitals during last week were 108, against 124, 114, and 123 in the three preceding weeks; and 849 patients remained under treatment in these hospitals on Saturday last, January 16th.

## DUBLIN EPIDEMICS.

THE epidemic of measles is still increasing in Dublin, and, although scarlatina cases are less numerous, there are many patients suffering from whooping-cough. The combination has made a demand upon the hospitals which is altogether unparalleled. The newspapers are now calling for increased accommodation; but an unusual pressure like this does not, it is urged, justify large expenditure upon permanent buildings which would probably be rarely needed. The provision of temporary wooden hospitals ought, it is held, to be at once undertaken, so as to take the burden off the permanent institutions. It would seem, however, that a convalescent home is most urgently needed, There is no house of recovery to which the children can be sent before going to their homes. In this way the hospital wards are unduly taxed and probably the diseases are spread. It is the duty of the sanitary authorities to do this work, and we hope the press in Dublin will see that it is done.

## THE UTILISATION OF BACTERIA.

MR. SCOTT MONCRIEFF'S letter in the BRITISH MEDICAL JOURNAL of January 16th—and we have received others from competent authorities in the same sense—calls attention to a pressing need. As he points out, two attempts at solving the question as to the value of bacteria in the purification of sewage have already failed from want of proper bacteriological knowledge on the part of the inspectors. If the value of this system of sewage disposal is to be threshed out—and it is in the public interest that this should be done thoroughly—it can only be by the aid of trained bacteriologists. It is therefore very desirable that in the inspection to be conducted by the Local Government Board at Exeter skilled bacteriological experts should be consulted, so that a speedy and safe decision may be come to on a matter affecting in the highest degree the public pocket and the public health. The result of an inquiry fraught with such weighty issues will be awaited with interest.

## THE PROPOSED ROYAL VICTORIA HOSPITAL, BELFAST.

WE are pleased to be able to state that great progress has been made with regard to the proposed new general hospital in Belfast, which is to take the place of the present Royal Hospital. About £50,000 has been promised, and as the scheme was only launched at a town meeting held on December 9th, 1896, such a result obtained in so short a time is highly creditable to the public spirit and philanthropy of the citizens of Belfast. Among the most noteworthy items on the subscription list are the contribution of the York Street Spinning Co., namely, £5,000. and the contribution of the medical and surgical staff of the Royal Hospital, £1,300. Several contributions of £1,000 have been announced, and the interest in the project is great and increasing. A very strong and representative executive committee has been formed, of which the Lord Mayor of Belfast, Alderman Pirrie, J.P., is chairman and treasurer, the Right Hon. Thomas Sinclair, P.C., and Mr. R. H. Reade, J.P., vice-chairmen, and President Hamilton, Dean Seaver, Dr. Whitla, Mr. Henry Musgrave, and Mr. Wakefield H. Dixon secretaries. The Lady Mayoress of Belfast, who has thrown herself heart and soul into the movement, summoned a meeting of the ladies of Belfast in the Town Hall upon January 11th. This meeting was influential and enthusiastic, and a large and representative committee of ladies was appointed. It is proposed to raise £100,000, and of this about one-half has been obtained in a little over a month. No doubt the second moiety will be obtained more slowly, but we cannot doubt that complete success will eventually crown the movement. The urgent need for a new hospital is not questioned by anyone whose opinion deserves serious consideration, and we feel sure that the enterprising and progressive city of Belfast, having once put its hand to the plough, will not draw back. Various questions as regards site, constitution of the new hospital, etc., are being judiciously waived for the present, but it has been decided that as soon as the proposed sum has been promised, namely, £100,000, a meeting of subscribers will be called to determine all the various points at issue.

## ANKYLOSTOMIASIS AND TROPICAL ANÆMIA.

DR. OTHO GALGEY in his paper on the prevalence of ankylostomiasis in St. Lucia and its treatment, which we publish at the request of the Colonial Office, does good service in calling attention to the relationship of ankylostoma duodenale to the pernicious anæmia so prevalent among West India negroes. It is satisfactory to find that the knowledge of ankylostomiasis is extending, and that in most of our tropical colonies its recognition as the usual cause of endemic anæmia, as well as the value of thymol in its treatment, is becoming recognised. Ankylostomiasis is a subject well deserving the attention of teachers. Medical men about to commence practice in tropical countries ought to familiarise themselves with what is known on the subject; otherwise they are likely to waste iron and arsenic in vain attempts to cure anæmias, which a little skill in diagnosis and a few doses of thymol might dissipate in a week.

## PROPOSED CENTRAL HOSPITAL BOARD FOR LONDON.

A MEETING for the discussion of the scheme put forward by the Charity Organisation Society for the formation of a Central Hospital Board for London will be held on Monday next, January 25th, at the Royal United Service Institution. The Society's scheme, to which we have already referred on several previous occasions, will be brought before this meeting, which will be asked to affirm that the establishment of a Central Hospital Board in London on a representative basis is desirable, and that for the organisation of medical charity in London reliance should be placed on co-operation and publicity, and not on legal measures and compulsion. Further, the meeting will be asked to affirm that it is desirable that a central fund should be established as a permanent endowment to afford large and liberal aid to hospitals for special purposes, such as rebuilding, on lines similar to those already adopted by the Charity Commissioners for the establishment of polytechnics. Such a method, it is believed, would not interfere with voluntary contributions. Mr. C. S. Loch, the secretary of the Charity Organisation Society, informs us that a resolution approving of the Society's plan as a basis for practical organisation will be moved by Sir William Broadbent, and supported by Mr. G.

D. Pollock, Dr. Lauder Brunton, and Mr. Victor Horsley. At this meeting, which medical men throughout London are invited to attend, a general committee will be appointed, and Mr. Loch, on the part of the Charity Organisation Society, desires the special attention of members of the profession to be called to the meeting, in order that a large number may take the opportunity of attending.

## SERUM DIAGNOSIS OF TYPHOID FEVER IN ABERDEEN.

THERE is a very marked increase in the number of cases of typhoid fever in the health reports for the past month—21 cases having been notified, as against 3 in the month before. Fortunately the type is fairly mild, and no deaths have as yet been reported. As 13 out of the 21 cases were found to obtain their milk from a farm in the neighbourhood, the health authorities at once visited the house, and found a case of illness in the family of the farmer, which they concluded, in all probability, to be one of typhoid. The infection for about two-thirds of the cases is consequently attributed to the milk from the farm. The water supply of the farm has been analysed, and is found to be unpolluted. In view of the great difficulty of diagnosing mild cases of typhoid fever, Dr. Hay, the medical officer of health for Aberdeen, strongly urges upon the medical attendant to make use of the new serum test for typhoid. Professor Hamilton is most willing to have the test applied to samples of blood from doubtful cases sent to him at the Pathological department of the University.

## THE ARMY MEDICAL EXAMINATION ON FEBRUARY 5TH.

IT is naturally difficult for critical outsiders to overcome that official reticence which properly less or more environs official changes; yet the question whether the standard of examination for medical commissions in the army is to be practically lowered by allowing, and even inviting, men who have previously failed to compete more than twice is of such importance that the public have a right to know what the authorities intend. Of course the matter cannot admit of long concealment, and will be unearthed in Parliament if necessary. Meanwhile we have reason to infer that the candidate list continues to be of slender proportions, and under these circumstances it is rather to be expected that the forthcoming will, like past examinations, be a farce as far as competition is concerned; it may even prove a fiasco. It will then be impossible for the War Office authorities to blink the fact that our young medical men of these latter days will only serve in the army under substantial equality of status with the officers of other branches. It is understood that the army is to be considerably increased in numbers; but while the soldiers increase the Medical Staff, which should be their right hand, dwindles away.

## THE ENGLISH VACCINE INQUIRY IN GERMANY.

A CORRESPONDENT in Berlin writes: Dr. Thorne Thorne, C.B., Principal Medical Officer to the English Local Government Board, and Dr. Monckton Copeman, one of the medical inspectors to the Board, have been in Berlin for some days past, studying the system in force in Berlin for the preservation of calf vaccine, with special reference to the use of glycerine for this purpose, and have since left for Dresden and Cologne. The suggestion to make use of glycerine as a preservative for vaccine lymph was due, I believe, to Dr. Monckton Copeman, who six or seven years ago pointed out that glycerine, after acting for a period of about a fortnight, had the power of destroying and rendering innocuous all extraneous organisms without in any way diminishing the activity of the vaccine virus itself. The practical importance of this observation for the diminution of risks connected with vaccination would appear to have been better appreciated in Germany than in England; why this is so, it is not for me to conjecture. At any rate, the system has been introduced at the Berlin Vaccine Institution, and every facility has been afforded to the English visitors to study the practical working of the method. The chief officers of the German Health Department placed themselves at the disposal of Dr. Thorne Thorne and his colleague, and with them visited the institution on two successive days, when every opportunity was given for inspection and a detailed study of the arrangements. Although the vaccine establishment is not in full use during the winter, special arrangements were made beforehand so that the English visitors might see the whole establishment in working order. Calves were vaccinated in advance so that they might be ready to yield lymph at the time of the visit, and the full staff were directed to be in attendance. Dr. Thorne Thorne has expressed himself in the warmest terms as to the courtesy and consideration shown to him by the German and Prussian Health Departments and all their officers. He and his colleague have been the objects also of many social attentions, which must have contributed to make their visit agreeable as well as instructive. I may add that in Germany the methods of vaccinating either from arm-to-arm or even direct from the calf have been abandoned in view of modern researches in connection with glycerinised lymph.

## TABAKS-COLLEGIA.

AT the present time the only learned Society with which we are acquainted which permits its members to indulge in smoking during its meetings is the Physiological Society. Of this privilege large use is made, and it is in accord with the general want of formality which characterises the meetings of this Society. The Council of the Harveian Society has now decided to propose that "at the ordinary meetings of the Society, except those at which the presence of patients is required, smoking be permitted in the Society's room." This proposition will be considered and the decision of the members taken by vote at the ordinary meeting, to be held on Thursday, February 4th. The Council will further be glad to receive an expression of the opinion of members unable to attend the meeting. This proposed innovation will consequently receive careful consideration, and will not be adopted unless a majority of the members support its introduction. It is doubtless brought forward by the Council with the object of increasing the attendance at the meetings: but the excellent papers and discussions of the Society usually bring together a fair proportion of the members; and it must not be forgotten that, if the proposed change should prove attractive to some, there are possibly others by whom it would be disliked.

## THE BRITISH RED CROSS SOCIETY.

DURING the last few years a great work has been going on among civilised nations, the object of which is to relieve the sick and wounded, and generally to ameliorate their condition during active operations. Among the societies founded for this purpose is the British National Society for Aid to the Sick and Wounded, also known as the British Red Cross Society, whose report of its operations during the rebellion in Rhodesia, has been published recently. Similar instructive reports from the same Society were published relating to the Turco-Servian war in 1876, the Egyptian Campaign 1884-85, and the Bulgarian war in 1885-86. Since the termination of the Russo-Turkish war up to the Egyptian campaign a sum of some £30,000 has been expended by the British National Society in its work for relieving belligerents. The action of national aid societies is voluntary, but is guided and restrained by war ministries. The regulations for our Army Medical Service recognise volunteer aid societies, and require that their staff of surgeons, attendants, and all supplies brought by them for distribution to hospitals shall be placed at the disposal of the principal medical officer, who will allocate duties to all such volunteers. The official relations of the Continental national aid societies with their Governments and the military authorities give the members, says Longmore in his recent work, a title to the privileges con-

ferred by the Geneva Convention. There is nominally a similar society in England, but it has "no official connection with the War Department." Its *personnel*, continues this great military medical authority, would not be entitled to claim the privileges of the Geneva Convention so long as the Society is not included in the official military establishments, to which alone the Convention refers. Some persons have gone so far as to suggest that an aid society should stop short of nothing less than a complete organisation on which the nation would have a right to rely for the care of the wounded in time of war; a society which would share with the War Office the great responsibility which rests entirely upon it. This, however, is not, in the opinion of the British National Society for Aid, a correct view of the position of the Society or of the duties incumbent on it. The Society disclaims becoming an organisation upon which the Government might suppose they could throw the burden of their wounded in war. The Government itself makes no such claim, and if, under the pressure of circumstances, it should ask or accept the Society's aid, it will not be given with any view of diminishing in the smallest degree the responsibility of the Government. The report of the British Red Cross Society on work in Rhodesia remarks on the tendency which exists to misuse the badge of the Red Cross in this country. This point of usurping the Red Cross in civil hospitals or for civil purposes is, as has been already pointed out by Mr. Furley, indefensible, and he insists on the fact that the Red Cross has no significance except as denoting the *personnel* and *matériel*, both official and unofficial, of military hospital and ambulance service. It is now reported that a society connected with the medical charities of Manchester has been using the title of "The Red Cross Society" for collecting funds for local hospital purposes. It is urgently necessary that steps be taken to protect the badge from misuse. In relation to this particular subject it may not generally be known that in the year 1877 the Turkish Government desired to substitute a red crescent for the red cross in the Turkish ambulance under the Geneva Convention. Colonel Sir Loyd Lindsay thought the proposal reasonable, and did not see how any inconvenience could arise from the substitution of the red crescent for the red cross for the ambulance and troops of the Ottoman Empire. The subject of the substitution of the red crescent for the red cross was contained in a note addressed by the Turkish Minister for Foreign Affairs to the President of the Swiss Confederation in 1877. Abundant evidence is forthcoming of the appreciation in which the aid of the British National Society has been held wherever it has been given.

## THE CHOLERA ON THE "NUBIA."

No fresh cases of cholera have occurred among the troops or any of the passengers of the steamship *Nubia*. The circumstances afford a striking proof of the efficacy of the measures, founded upon pathology and common sense, which are now taken in British ports in dealing with infected ships. The men landed from the *Nubia* and marched to Fort Staddon have remained absolutely healthy. After careful inspection by the Principal Medical Officer of the district, Surgeon-Major-General Hamilton, they were allowed more liberty on January 16th, that is to say, they were permitted to go about in small parties for exercise under the command of non-commissioned officers, but out of regard to the susceptibilities of the public, and to avoid any cause for panic, they were not allowed to enter the towns and villages. The men who have been under treatment for cholera on the hospital ship *Pique* are being removed, as soon as their condition warrants it, to the station hospital at Plymouth, whither the sick from the *Nubia*, mainly cases of ague, have already gone. The invalids brought from abroad by the *Nubia* have been transferred to Netley Hospital, while the rest of the men have been sent off to their destinations as fast as the military authorities can make arrangements. The barrack rooms at Fort Staddon are being disinfected with sulphur dioxide, and will be limewashed. It will, perhaps, reassure some of our foreign critics who appear desirous of enforcing quarantine against Plymouth, to learn that the more rational system of inspection and isolation of the sick has been successful in preventing any spread of the disease.

## VACCINATION WITH CALF LYMPH.

THE Local Government Board have issued an order altering their instructions for public vaccinators, the particular portions altered being paragraphs numbered 5 and 6 in the instructions promulgated in 1887. These paragraphs deal with the kind of lymph to be employed and the method of its employment, registration, preservation, etc. The new order admits the right of public vaccinators to use calf lymph at their stational attendances. By calf lymph is meant stored calf lymph, as, of course, calf-to-arm vaccination has never been other than allowable. The maintenance of arm-to-arm vaccination is to be the "endeavour" of all public vaccinators, but we venture to think that, in face of the final report of the Royal Commission on Vaccination, the clamour for calf lymph vaccination will prove for public vaccinators, as for many other medical practitioners, too strong to admit of any general maintenance of arm-to-arm work. We are glad to see this concession. It is no doubt only the beginning of larger measures concerned with the use of calf lymph.

## HOSPITAL DRAINAGE.

A REPORT presented to the Metropolitan Asylums Board at their last meeting by the South-Western Hospital Committee in regard to the drains at this hospital is of interest as showing the rate at which the standard of sanitation advances; but it should also be taken to heart by all hospital managers as demonstrating the necessity for enforcing periodical inspection of all their sanitary appliances. The existing drains were laid down in the year 1870, when the hospital was erected, and were constructed on methods current at the time. It now appears that the drains are not laid in straight lines from point to point, but wind round the several buildings in a tortuous manner, and that there are only two manholes. The drains are laid with clay joints, most of which are defective, upon the natural soil, principally gravelly loam, without any concrete bed, the consequence being that the ground has become largely impregnated with liquid sewage. Attempts have been made to hold water in the drains, but have failed. Some of it has percolated into basements, and some has made a channel outside the drain, and has discharged into the openings made for testing purposes. At all points where the drains have been opened up they have been found in a very dilapidated and foul condition, roots of trees having spread into them in certain places. Of course the drainage will have to be reconstructed, but the discovery of such a condition in such an important hospital demonstrates the necessity for frequently overhauling drainage.

## INTOXICATING MALT EXTRACTS.

A CASE of some interest to physicians and chemists was tried in the United States Superior Court at Dedham on September 22nd, 1896. The charge was against a druggist in Quincy of maintaining a common nuisance by the sale of malt extract. The district attorney prosecuted, and the trial lasted three hours. The sale was admitted. Analysis showed that the extract contained over 5 per cent. of alcohol. Professor Sharples called it "porter" and a "beverage." The defence was that it was a medicine and not a beverage. A verdict of guilty was returned, the defendant having to pay £36 8s., inclusive of costs amounting to £13 4s. Mr. H. H. Fayon, on whose complaint the Government took action, states that he has the analysis of 17 samples of malt extracts containing from 3.35 to 8.88 per cent. alcohol, and 11 others showing from 3 to 9.86 per cent.

## COMPLIMENTARY DINNER IN LONDON

TO

## DR. RODDICK,

### THE PRESIDENT-ELECT OF THE BRITISH MEDICAL ASSOCIATION.

On Wednesday evening, January 20th, Dr. Roddick, of Montreal, who earlier in the day had attended the meeting of the Council to discuss the arrangements as to the next annual meeting of the British Medical Association, which begins in Montreal on August 31st next, was entertained at dinner by some members of the Council at the Grand Hotel.

Among those present as guests were the President of the College of Physicians (Dr. Wilks), and the Master of the Apothecaries' Society (Mr. E. Tegart).

The chair was taken by Dr. ROBERT SAUNDBY, President of the Council, who at the end of the dinner briefly proposed the toast of "The Queen," and spoke of her virtues, both as a Queen and as a woman, which had endeared her to all subjects of the British Empire. The toast having been duly honoured,

Dr. SAUNDBY again rose to propose the toast of "Our Guest," Professor Roddick. He said the object for which they had gathered together that night was, as they knew, to welcome Professor Roddick, their President-elect. Professor Roddick had made the long journey from Montreal, crossing the Atlantic, in order by personal conference to advance the arrangements for the coming meeting. They all felt extremely grateful to him for his kindness, and acknowledged deeply the sacrifice that he must have made in leaving his professional work at this time of year. They were all heartily glad to see him among them, to make his acquaintance and give him a real and hearty British welcome in his capacity as President-elect. He (the President of Council) hoped they were all looking forward to going to Canada and enjoying the hospitality which each Canadian friend promised them at Carlisle in such hearty terms. He was certain that everyone who did go to Canada would be well received and most heartily repaid for his visit. He was trespassing on Professor Roddick's speech in saying so much, but their business was to express their welcome to Professor Roddick for having come over here. The Arrangement Committee was always composed of six members appointed locally by the town in which the meeting was to be held and six members appointed by the Council. There was no difficulty in settling points which arose because the representatives of the Council, so long as certain formalities were complied with, were only anxious to do all they could to meet the views of the local representatives. On this occasion the six Canadian representatives were sitting in Canada and the six London representatives sitting in London, and it became a little difficult, even with the cable across the Atlantic, to adjust the many matters of detail which arose for decision. Professor Roddick had undertaken the journey to set those matters straight. The result had been extremely satisfactory.

The toast, which was warmly received, having been duly honoured,

Dr. RODDICK, who was received with loud applause, in responding said he had to thank the President of Council for the very kind and very flattering manner in which he had proposed his health, and the gentlemen present for the very friendly and enthusiastic manner in which they had received that toast. He assured them that when he arrived here he was somewhat surprised, and he might say flattered, to learn through the President of Council by a letter to him that a dinner would be tendered him that evening after the meeting of the Council. He was more than surprised—he was almost frightened into shock—when he discovered that not only were they going to dine him, but they expected him to make a speech. He assured them that without exception this was probably one of the proudest days of his life. He felt that if he had been at some inconvenience in crossing the Atlantic he had been fully repaid by the way in which he had been treated that day, and by the magnanimous manner in which they were treating him that night. He assured them that the dinner was most unexpected, and while he could not conceal the fact that he had felt very much and very keenly the great honour they had done him in nominating him as President-Elect of this great British Medical Association, at the same time he certainly did not expect this to be backed up by such treatment as he had received since he arrived in London a week or ten days ago. The idea of having the British Medical Association in Canada originated some years ago. He had himself prompted his friend Dr. Osler on one occasion to suggest at the dinner of the British Medical Association in Bristol that they might ask the Association to visit Montreal. Sir William Hingston also spoke at Nottingham on the subject, and ever since a Branch of the British Medical Association had been formed in Montreal he had never ceased himself to agitate this question. He felt it was a great contract to bring the Association to Montreal, but he was an Imperialist, and if there was anything by means of which he could bring more closely the premier Colony of Canada to the British Isles, he would be always willing to do it. There is no doubt about it that we have sometimes not been looked after quite so well by our friends on this side of the Atlantic as we should have been; we have felt ourselves neglected, and we have constantly had occasion to feel that those over here did not know us as well as they ought, and he wished they did. He hoped it would be many a-day before Canadians added more stars and stripes to the banner of the United States, and hoped they would be satisfied for a long time with that flag that was wrapped around Wolfe on the Plains of Abraham, and which 50 years later led our De Salabery and our Brock on to victory. He thought they were getting in the thin edge of the wedge of genuine Imperialism in bringing over in the same year to Canada two great associations like the British Medical Association and the British Association. Undoubtedly the visit to Montreal would be a success if they would give them the opportunity of making it a success. They wanted the members of the Association, and that was all—they would attend to the rest. They would see that the members of the Association were well looked after, and had nothing to complain of. He hoped they would be able to come back and say that one of the most successful meetings of the British Medical Association was held in the city of Montreal. Not only that, but they in Canada felt that there was going to be an intellectual treat for the Canadians; and, as he said to-day at the Council meeting, they were very anxious to do this. They were anxious to have 600, 800, or 1,000 Canadian practitioners meet the men who were going over from this side. He certainly thought they ought to guarantee to Montreal 500 or 600 at any rate. Not only would it be an intellectual treat, but he thought they could give the members a social treat and a treat in travel which those of the meeting who had never crossed the Atlantic before would have an opportunity of experiencing. They would show them one of the largest rivers in the world, which was only 200 miles across in one place, and the old city of Quebec, which dated back very far, to the days of Jacques Cartier and Champlain. Then they could show the members one of the prettiest cities in the world—the city of Montreal. Further than that, they proposed to take them to see the greatest cataract in the world—Niagara Falls. Beyond that, they would journey, he hoped, as many as could be persuaded to go, to the great wheat fields of Manitoba and the North West, which would give them an opportunity of seeing where the millions of bushels of wheat came from, and which, if the crop failed in India and all the other cereal-growing countries in the world, they could provide them with. They would be taken to the great Rocky Range of mountains, the scenery of which could not be excelled in the world. Again, if they were inclined to invest, and wanted to know something about where their money was going, they could take the members to the Kootenay Valley, the great mining country of Rossland. They

would also have an opportunity of seeing the great Pacific Ocean. He thought altogether they could certainly offer the members of the Association a thorough treat, and hoped that every member of the Council—especially everyone that heard him that night—would guarantee, at any rate, ten others who would come across the Atlantic. He assured them that, so far as the profession in Canada was concerned, they were unanimous on that point. There was no jealousy; no one begrudged anybody anything. For himself he felt that he had the entire profession in Canada at his back. They had a free hand, and they wanted the members to feel that they must come, and let everything else go. He could positively assure them that they should certainly have a trip which could not be bettered anywhere in the world. In conclusion, he thanked them very heartily, and said he could not allow that opportunity to pass without again saying how flattered and grateful he was for the great kindness they had shown him.

Dr. RODDICK, on again rising, and in proposing the toast of "The British Medical Association," said he assured them that it afforded him very great pleasure indeed to present to them that toast. He quite appreciated now for the first time what the British Medical Association was. One had to come and spend a day or two and attend the different meetings and the meeting of Council to know how much work was before them. He had no conception of the amount of work which was undertaken and accomplished by the British Medical Association. He had to congratulate them on one thing, and that was the officials of the Association. He thought they had been exceedingly lucky in the choice they had made in their President of Council, Dr. Saundby, and in the choice he understood they had made many years ago (and he hoped it would be a long time before they found it necessary to shelve him) in their worthy Secretary, Mr. Fowke. Together their organisation was grand. He had been sitting in the Parliament of Canada, where they had 240 members, and had been at different Committee meetings there, but he certainly never saw a better conducted and more orderly meeting than that which he attended that afternoon in their Council Room. Although there was a difference of opinion, as there always is—and there must be to give spice to the pudding—your worthy Chairman managed to make everyone believe that he was everybody's friend. He felt about the Chairman, that some day they would see him sitting in the House of Commons. He certainly had the legislator's head, the political instinct, and besides that there was something of the statesman in him. He (Dr. Roddick) said their Association, numbering 20,000 members, was certainly the largest medical association of the kind in the world, and that was a great deal to say. He felt that if the Association was not the most influential, it was among the most influential, and he doubted if as a scientific body there was its equal anywhere in the world. From such a small beginning a comparatively few years ago, it was astonishing how the Association had grown to enormous proportions. He felt that the Branches of the Association should be encouraged, and thought they certainly would constitute one of the links of that great Imperialism to which he had previously referred. He hoped they would allow the Colonial Branches to grow and prosper, and that some day they would be tempted to accept an invitation from Australia. In proposing that toast they must allow him so say a word about his friend on the right (Dr. Henry Barnes), the President of the Association. Although he met him for the first time yesterday, he had begun to love him, and felt, in the choice which the men of the Border Counties made in selecting him as their President, they had made an admirable choice. He could understand now why the Carlisle meeting had been such a success. With Dr. Barnes as President it could not be otherwise. He asked them to drink to "The British Medical Association," and would connect with that toast the health of the President of the Association.

The toast having been drunk,

Dr. HENRY BARNES (Carlisle), the President of the Association, in responding, said that to have succeeded to the Chair of the British Medical Association—after the very brilliant and successful meeting in London, presided over by the late Sir Russell Reynolds, a man of world-wide reputation, a man who was beloved throughout the whole of the medical profession—was a distinction which was sufficient for any man; and to preside over the Association and to be followed by the first Colonial President of the Association was an honour which he did not esteem less highly. He thought it was a happy inspiration on the part of the President of Council to invite them there to a dinner of welcome to the President-Elect, the first Colonial President of the British Medical Association. The Association was thoroughly justifying its designation of "British" by accepting the invitation of the premier Colony of the British Dominions. After the brilliantly successful meeting in London came to a conclusion it was felt that there were very few places that would care to put themselves in competition with London, but he had himself felt that some of the most useful meetings of the Association had been held in the less populous centres, and the success of the meeting in Carlisle had once more demonstrated the truth of this view. One of the principal objects of the Association was to promote cordiality and good feeling amongst its members, and he was proud and glad to say that the members of the profession in Cumberland, after the visit of the Association, were better friends than ever before. Carlisle also had proved that it was possible to hold meetings in less wealthy places. The guarantee fund which had been raised had paid all expenses, and had permitted a substantial return to be made to the subscribers. When he first joined the Association it only had 2,000 members. When he became President the circulation of the JOURNAL was 19,000. He thought the increase in the circulation of the JOURNAL was the best augury for the success of the Association. He understood from Professor Roddick that the number of Colonial Branches was increasing in Canada, and he believed that wherever the English language was spoken, wherever medical men were practising, there the BRITISH MEDICAL JOURNAL circulated.

The TREASURER (Dr. Parsons) next proposed "The Medical Corporations," and he hoped Professor Roddick would understand, from the presence of the President of the Royal College of Physicians, the Senior Vice-President of the Royal College of Surgeons (Mr. Macnamara), and the Master of the Apothecaries' Company, that it was the desire of the whole medical profession, as well as of the British Medical Association, to accord him a very hearty and sincere welcome. The medical profession was very much indebted to these Corporations in a variety of ways. The Apothecaries' Company was entitled to their gratitude, because it was the first to recognise the fact that the education of the medical practitioner should be the liberal education of gentlemen. It was the first to recognise that an examination and acquaintance with arts was a necessary preliminary to the study of physic. He asked them to drink to the medical corporations, and to couple with the toast the name of Dr. Wilks, the President of the Royal College of Physicians. Long might he enjoy that dignity!

The toast having been duly honoured,

Dr. WILKS, in replying, said he thanked them for responding to the kind words of the Treasurer. He was very pleased with the remarks that had been made by the Treasurer as to the sympathy which ought to exist, and he hoped did exist, between the Board and the Corporations. Dr. Wilks then proceeded to refer at some length to the difficult work of the Royal College of Physicians. He said the profession at large appeared hardly to be aware of the extent of this work, of the care which was given to cases of complaint brought to the knowledge of the College, or of the number of cases which thus came under consideration during the course of the year. The British Medical Association could do very much by voluntary co-operation and union to bring pressure to bear and to set a high standard of professional conduct, but the powers of the Association were practically limited to this. But the Colleges possessed further powers. What he wished the profession to understand was that the Royal College of Physicians was prepared to exercise its powers in these matters, and that it did exercise them, as he believed, to the very great benefit of the profession, which might rest assured that every complaint duly authenticated would receive most careful attention at the hand of the Censors Board, and would be made the subject of minute and painstaking inquiry.

Mr. WHEELHOUSE then, in a few graceful words, proposed "The Health of Dr. Saundby," thanking him for giving them the opportunity of meeting the President-Elect. This was suitably acknowledged by Dr. SAUNDBY, who then proposed the Health of Dr. Dundas Grant, and Dr. Charles Grant and Mr. Harden, who had contributed several excellent songs to the pleasure of the evening.

## THE BATTLE OF THE CLUBS.

### FRIENDLY SOCIETIES AND THEIR DOCTORS IN DUNDEE.

THE *Dundee Advertiser* of January 11th states that "the concerted action which it was understood that each side was to maintain seems to have been entirely abandoned," but this is only true as regards the friendly societies which have intimated their intention to take no further joint action in the matter. The medical officers, on the other hand, are loyally holding to the agreement, and have each made application for an advance to the terms agreed upon last year as a minimum to their societies which had not previously made a contract for the ensuing year. So far only one such application has met with refusal, and, with the approval of his fellows, the medical officer has resigned; and the Secretary of the Dundee and District Branch of the British Medical Association has sent to every practitioner in Dundee a copy of the following circular:

Dundee, January 12th, 1897.

FRIENDLY SOCIETIES' PAYMENTS.

I am instructed to inform you that Court —— - —, Ancient Order of Foresters, having declined to grant the minimum rate of payment, as agreed upon in the resolutions submitted to the profession in May last, the present medical officer has resigned, and to remind you of the understanding that, in these circumstances, no medical practitioner will accept the appointment of surgeon to the Court on any condition whatever.

It is a matter for congratulation that such action has been required in one instance only: but so many members of the societies understand perfectly that the movement is truly to their interest—even more than to that of the doctors—that it is surprising that any society should have attempted to keep to payments which the late Mr. Ballaw Stead described as "unheard of in any civilised part of England," namely, 2s. 6d. a year, inclusive of medicine.

## THE EPIDEMIC OF PLAGUE.

### THE MECCA PILGRIMAGE AND THE PLAGUE.

THE presence of plague in India is a source of anxiety and fear on the Continent lest the disease should be introduced into Europe by Mecca pilgrims. In the case of insanitary towns where little attention is paid to filth and overcrowding this alarm is not wholly groundless, for it is well known that plague once introduced develops and assumes a virulent form wherever local insanitary conditions exist.

The Government of India will no doubt endeavour to dissuade Mohammedans from making the pilgrimage to Mecca this year by issuing orders to be published by local Governments pointing out the danger from plague on the journey, as is done when cholera prevails in an epidemic form. But only the few educated and intelligent Mussulmans are likely to pay any attention to this advice, and the devout stream will as usual pour into Bombay during the pilgrim season regardless of the pestilence, and it would be neither prudent nor politic to interfere in any way with the movement of people bent on such a serious purpose.

On arrival at the place of embarcation, if an infected port, it would be better to send the pilgrims directly on board rather than to allow them wander about the bazaar, food and necessaries being supplied either in the docks or at a properly appointed rest camp.

So long as Calcutta and Madras remain free from plague it would be safer to recommend intending pilgrims to embark at those ports, but the greater distances by sea and land and the poverty of the pilgrims will be pleaded as insuperable objections to these places. Bombay and Karachi are naturally the most convenient ports for Indian, Persian, Afghan, and Central Asian pilgrims *en route* for the Red Sea. The pilgrim traffic regulations have lately undergone important improvements as regards space and general comfort of passengers at the hands of the Government of India, but the responsibility for the sanitary condition of Camaran, Jeddah, and the route to Mecca lies with the Turkish authorities, who cannot be relied upon to carry out any measure which necessitates the expenditure of money even nearer home than Arabia and the Red Sea. This is not the least important of the many reforms that the European Powers should urge on the Sultan to carry out in view of the grave issues involved and the hardships which the limitation or prohibition of the pilgrimage would inflict on the followers of Islam both in Asia and Europe.

India may be trusted to do her duty as regards supervision and careful inspection of each pilgrim before embarcation, in compliance with the standing rules enforced respecting cholera, and more than this cannot in reason be expected of any country.

Plague, as far as can be ascertained, has never been in Mecca, but it has been within a few miles of it, in fact in 1874 plague was traced to within four days' march of the "Holy City." During the present century plague has visited the Asir district of North Yemen, near Mecca, no fewer than four times, the last time as recently as 1879-80. It may therefore be presumed that the neighbourhood is one in which plague will readily obtain a hold with the minimum of exposure. It behoves the Christian world therefore to beseech, or if need be to enforce, the Mohammedan world to forego the annual pilgrimage for the present year. It must be remembered that the question is fraught with the most acute danger to Europe. Mohammedans from Bosnia and Herzegovina and the Albanian provinces of Turkey journey to Mecca yearly, and there come in contact with Eastern pilgrims from Asia. An unguarded contact of peoples at the present moment may mean a spread of plague throughout the Western Hemisphere, and that, too, with a celerity which might be paralysing.

The great question is, Can the pilgrimage be stayed? Even if pilgrims were prevented from embarking at Bombay and Karachi, the two great ports of departure for the Mohammedans in the Indian Ocean, yet pilgrims, although deterred by the expense of railway travel to other non-infected ports of India, can journey on foot, begging their way and claiming as their right and privilege the support of the "faithful." In this way other ports can be reached, either in India or in the Persian Gulf, and caravan routes may be followed through Persia and Mesopotamia to the Arabian shore of the Red Sea. The danger of plague reaching the Mediterranean by land is much greater than the peril it stands in from sea, and the more the sea traffic is interfered with the greater is the likelihood of infection by land. It must, however, be remembered that Mesopotamia has almost constantly been the seat of plague since 1866, and yet only once did it reach Europe, and that was on its furthest outposts—namely, the banks of the Volga in 1877. The danger to Europe, therefore, is apt to be exaggerated, since neither the plague which visited the Red Sea shore in 1879, the Volga in 1877, or the regions around Mesopotamia, where plague has been endemic and frequently epidemic since 1866, have ever reached further. Nearer than any of these to Europe were the succession of outbreaks in Tripoli, where as late as 1893 an outbreak of what some called "typhus" and some "plague" caused alarm locally, but failed to infect beyond the Tripoli province. With all these comforting assurances, however, it behoves Europe to be sanitarily prepared to meet, by internal sanitation and by legislation, the threatened introduction of plague. The closing the Suez Canal is useless, but the prevention of any debarcation from vessels from Western Indian ports north of the 19° N. latitude—the furthest south point plague has ever travelled—would be salutary and wise.

### EXTENSION TO KARACHI.

As already announced, the plague appears to have become established in Karachi. Our advices received by the last inland mail state that the first death in Karachi from the disease occurred on December 10th, 1896. It was reported by the municipal health officer on December 12th; other cases in the native town were inspected by Surgeon-Captain Arnim, I.M.S., Deputy Sanitary Commissioner, who pronounced them to be bubonic plague, and the disease was on December 18th declared by the permanent Medical Board to be epidemic in the town.

From December 10th to December 30th, 59 cases with 55

deaths had been officially reported. The case mortality is thus as usual high, but our correspondent adds that the incidence of the disease is apparently less severe in Karachi than in Bombay. This is attributed to the fact that the native city of Karachi is less overcrowded than Bombay. The outbreak is confined mainly to one quarter of the native town.

Before the appearance of plague the most rigid quarantine precautions were taken against arrivals from Bombay, and as soon as the disease was discovered to be present in Karachi prompt and energetic measures were adopted by the local authorities to check the spread of the epidemic.

As to the mode in which the infection reached Karachi, our correspondent states that the most rigid inquiry has failed to trace the origin of the disease. The first cases investigated show no evidence of contact with persons or goods from infected areas outside the city, the probable explanation being that the disease may have been prevalent some little time before attracting attention. The origin in all cases investigated is shown to be local.

### Regulations as to Plague in English Ports.

The regulations under which any ship reaching an English port with cases of plague on board are identical with those issued with regard to cholera and found to be effective. If an officer of customs have any reason to suspect a ship to be infected, or learns that it has come from an infected place, he must require the master—or the surgeon, if the ship carries a surgeon—to give a written statement to the effect either that no case has occurred during the voyage or during the stay of the ship in any port, or, in the other alternative, particulars as to the nature of any cases or suspected cases during the voyage or during the stay of the ship in any port.

If the ship be infected, or if there be reason to suspect it to be infected, the ship must be detained, and no person shall be allowed to leave it. Notice is then given to the sanitary authority, and the ship must be duly visited and examined by the medical officer of health. Every port sanitary authority is required to make provision for the reception of patients suffering from plague as well as from cholera or yellow fever, to which the order also applies. Further, the medical officer of health of the port may on his own authority, without the intervention of the officer of customs, visit any ship suspected to be infected or hailing from an infected port, and detain the ship if he be of opinion that it is infected, furnishing a certificate to the master and to the sanitary authority.

The medical officer of health having certified the ship to be infected, must examine every person on board, and if he find any person suffering from, or suspected to be suffering from, cholera, yellow fever, or plague, he shall certify accordingly. The person so certified must be removed, if his condition admit of it, to some hospital, or other suitable place appointed by the sanitary authority, and shall not be allowed to leave until the medical officer of health shall have certified that such person is free from the disease. A person suspected to be suffering from one of the diseases may be detained on board for not more than two days, or may be removed to a hospital provided by the sanitary authority.

On the other hand, every person not suffering from, or suspected to be suffering from the disease, shall be allowed to land after satisfying the medical officer as to his name, intended place of destination, and address. This information the clerk to the sanitary authority must transmit to the local authority of the district to which the person from the infected ship intends to proceed, and the person himself, if he arrive within 48 hours at any other place, shall communicate his destination and address to the medical officer of health of that district. The medical officer of the port is further empowered to take such steps as may appear to him to be necessary for the prevention of the spread of infection from the ship, and the master of the ship must carry into execution such directions as may be given to him by the medical officer, and shall cause the ship and every article therein to be disinfected or destroyed.

Further, the medical officer of health of a port has power, in the event of a ship having on board passengers who are in a filthy or otherwise unwholesome condition, or if it have come from an infected port, to detain such passengers on board until they have satisfied him as to their names and destination. The medical officer of a port has power in the case of any ship infected or coming from an infected place to direct all bilge water and water ballast to be pumped out, and, on the sanitary authority providing a proper supply of water to the ship for drinking and cooking purposes, the medical officer of health may direct all casks or tanks on board containing water for drinking and cooking purposes to be emptied and cleansed.

Lastly, every ship with plague on board as every ship with cholera on board must fly the yellow flag when within three miles of the coast.

### Continuance of Plague in Bombay: Threatened Loss of Gas Light.

"The situation has become worse and the exodus continues" is the latest news from Bombay. The officially declared death-rate from plague is about 200 a day, and withal the numbers of deaths attributed to "remittent fever, bronchitis, and pneumonia," the chief subterfuges under which plague is masked, increase in numbers. We now hear of plague at Poona, the health resort for Bombay, whither so many have fled. The numbers attacked in Poona up to date are 87, with 51 deaths. It is useless to conjure up the miseries of a plague-stricken city, but when, in addition to all conceivable horrors, the city is threatened with want of light, the climax may be said to have been reached. Such is the case in Bombay, where the men at the gas works are deserting or becoming plague stricken to such an extent that the city seems likely to be left in darkness.

### Infection of Animals.

According to the newspapers rodents, swine, and poultry in Bombay are dying from plague in numbers. Poultry have never been mentioned as succumbing to plague since the year 1111 A.D. in the City of London. Further, swine have always been held to enjoy an immunity in China; the only instance ever reported of swine being undoubtedly affected occurred in Yunan, where, owing to the custom of exposing bodies dead of plague in the open air, the swine consumed the flesh of the plague victims and were themselves seized.

A question was raised concerning "the infection of pigeons in Bombay." All the reports from China declared that pigeons were not infected, but the question having been asked by Dr. Surveyor it was assumed that these birds were the subject of plague. It is, however, now stated by Dr. Surveyor that pigeons are not affected, and we are relieved to know that so rapid a method of spread as that afforded by birds is not to complicate the situation. We have also been assured that vultures will not touch the bodies of those dead of plague. This statement we are not prepared to accept. In all probability it is diffused by the Parsees, in the dread that their manner of disposal of the dead, namely, exposure in the Towers of Silence where the bodies are speedily consumed by these loathsome birds, should be stopped. Did the vultures consume plague bodies, even if the birds were not themselves attacked, their droppings might still contain bacilli with infective power.

### The Best Gift to India.

A writer in the *Times of India* states that "as cases of plague require constant attention and care, the municipal authorities would do well to entertain the services of trained nurses for their Arthur Road Hospital. During my visit I was surprised to find our worthy and energetic Dr. Choksey quite single-handed, without the assistance of a nurse."

We endorse this statement. In no disease does treatment give better results than in plague, but it must be constant, active, and decisive. The best gift Britain can send to Bombay is 25 doctors and 50 nurses. It would give the people heart and courage, and show a practical sympathy which would be valued and cherished.

### The Defences against Plague in Scotland.

The regulations of the Scottish Local Government Board for the prevention of plague, cholera, and yellow fever, are practically the same as those of the English Board. As regards their administration, however, there are two vital differences. In England there is attached to the Board a staff

of thoroughly competent medical inspectors, supplemented when required by temporary additions, and admirable work performed by this staff is recorded in the departmental reports of the cholera survey. In Scotland the Board has to depend on the services of two or three laymen who are largely occupied in inspection under the Poor Laws. No new legislation is needed to remedy this very serious defect in the defences against plague and cholera in the northern kingdom. The Board has power, subject to the sanction of the Treasury, to appoint such medical officers as it may require. We may almost assume that here the responsibility rests with the Treasury rather than with the Board, and in view of the prevalence of plague in Bombay the responsibility is no light one.

The other serious difference between Scotland and England relates not to the central authority but to the local authorities. In Scotland there are no port sanitary authorities as in England, and under the existing law there is no power to constitute such authorities. To this important question we shall hope to recur at an early date.

### THE DIFFUSION OF PLAGUE.

A CORRESPONDENT writes: Before it is possible to take any really effectual steps to prevent the spread of plague it will be necessary to possess more accurate knowledge than we do at present as to the means by which the disease is propagated and of the actual course of the *materies morbi* from patient to patient. It has on more than one occasion been suggested that one at least of the methods of spread is an actual carriage of the infection by rats. The rats become infected with the disease, and dying from it their dead bodies remain as sources of infection. That this means of spread is an actual one is confirmed by some recent researches of Mr. Hankin. In one case which was investigated a house in which two deaths took place was searched for rats; several were found, and their bodies were dug up and the holes closed. The labourer who was employed on this work contracted the plague and died from it. Pursuing his investigations on the same house further, Mr. Hankin noticed the prevalence of a large number of ants which had come to feed on the dead bodies of the rats. In the bodies of these ants large numbers of plague bacilli were found. The practical suggestion to be drawn from these observations seems to be that in order to prevent the spread of the disease removal of the healthy must be practised instead of the segregation of the infected which is the usual practice. The infection lurks in the house, and remains there with the rats. The logical course, therefore, is to leave the infected with the infection, and to remove the healthy to more hygienic surroundings.

## QUEEN'S COLLEGE, BELFAST.

### JUBILEE CELEBRATIONS.

*Opening of the New Physiological and Pathological Laboratories.*

THE new Physiological and Pathological Laboratories at Queen's College, Belfast, which were completed during the past year, and have been in occupation since the beginning of the session, were formerly declared open on Tuesday last, January 19th, by His Excellency Lord Cadogan, Lord-Lieutenant of Ireland.

This ceremony was followed on Wednesday by an address delivered in connection with the occasion by Lord Lister, and an inspection of the laboratories to which the profession in Belfast and the neighbouring parts of Ulster were invited.

### DESCRIPTION OF THE LABORATORIES: PHYSIOLOGICAL.

The physiological department comprises a large practical classroom (Fig. 1, C), size 67 feet by 37 feet, which for the present is also used as a lecture room. This room is provided with six work benches, each capable of accommodating eight students. Additional space is also provided by means of a side bench, capable of seating eight extra students. This also serves as a demonstration bench for the exhibition of typical histological slides, and for other purposes. All the benches are supplied with water and gas, sinks being placed between each pair of workers. A lecture bench, elevated 18 inches, is placed at one end of the room, and is also fitted with water and gas.

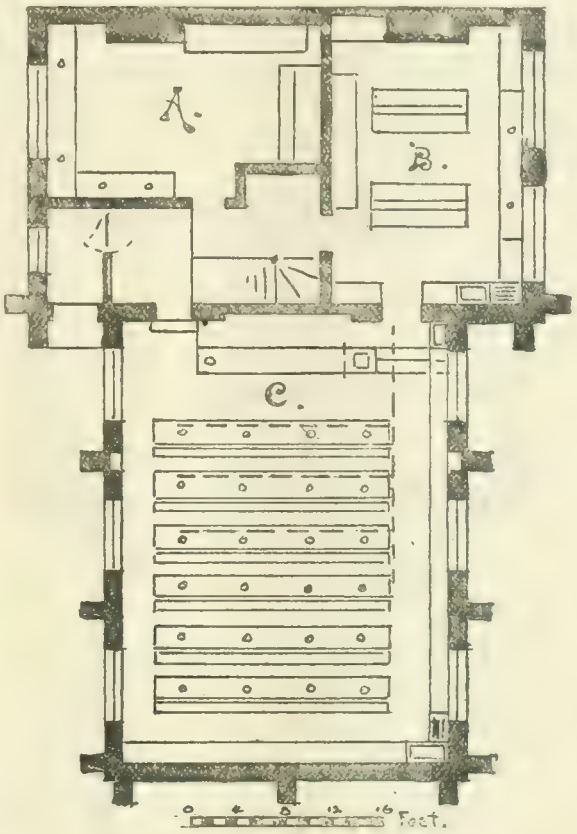



Fig. 1.—Physiological Laboratory. A, Professor's private room; B, chemical physiology room; C, practical class room.

Three of the front students' benches have been fitted with shafting (shown by interrupted lines in Fig. 1). Each shaft carries four pullies for driving students' recording drums. Twelve of these drums are in use. The bench shafts are driven from a main shaft placed in a culvert beneath the floor by means of half-twist belts. This latter shaft runs along the ends of the benches at one side, and is driven by a Thirlmere water motor. From the same underground shaft a small shaft on the lecturer's bench is driven. This gives the same motions as those on the students' benches, and in addition a slower rate of motion, which by means of a crank at one end of the shaft is used to work the bellows of an artificial respirator.

Behind the lecturer's bench are placed movable diagram screens, and a ground glass "blackboard" inclined forwards at the upper part, an arrangement found very convenient both for lecturer and students, since diagrams can be seen with greater ease from the seats, which are placed at a lower level. Two small draught closets, one on each side, are found very convenient. A frog tank and large sink are placed, one at either end of the room. A lantern screen is also provided at the right end of the professor's bench. The room is well lighted by three large windows on either side, supplied with dark blinds for use when the lantern is employed.

2. A small laboratory for research work in physiological chemistry (Fig. 1 B) is fitted with chemical benches for the accommodation of eight workers. A side bench covered with a slate slab is supplied with (*a*) a Soxhlet's fat extraction apparatus, capable of carrying on eight extractions simultaneously; (*b*) two Kjeldahl distilling apparatus, each for four distillations; (*c*) a paraffin bath is also placed temporarily in this room, which has to serve to a certain extent as

a preparation room. In addition a large stink chamber is placed at one corner, provided, amongst other things, with a stand for boiling eight Kjeldahl destruction flasks at one time. A centrifugal machine is also erected in this room.

3. The professor's private room and apparatus room (Fig. 1 A) contains wall cases for storing physiological apparatus, diagram cases, and also fitted with two work benches, one for histological and the other for chemical work.

In addition to the above rooms, which constitute the ground floor, the following rooms are provided in the top storey: (4) A dark room for photographic, polarimetric, and optical work; (5) a private experimental room, which is also to be used a gas analysis room; (6) an animal room.

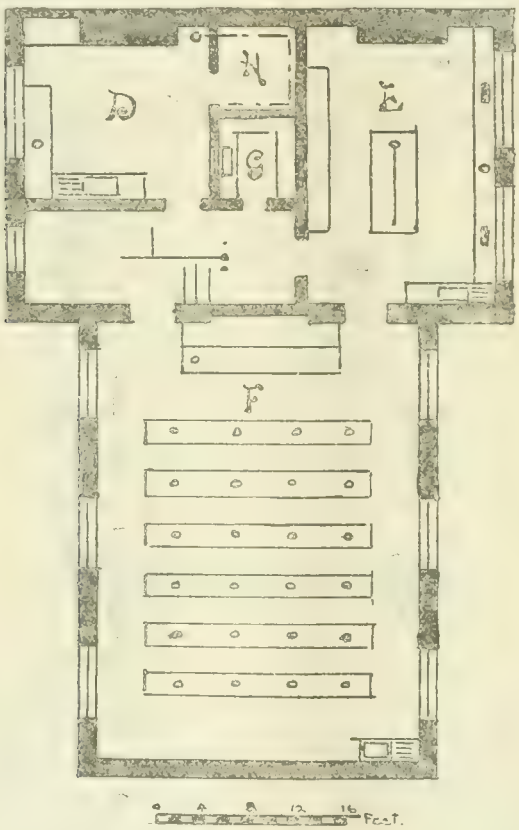



Fig. 2.—Pathological Laboratory. D, General workroom: E, private laboratory; F, practical class room; G and H, store and culture rooms.

### THE PATHOLOGICAL LABORATORIES.

The pathological department occupies the upper floor of the building. It consists of a lecture room (Fig. 2 F), a professor's private laboratory (Fig. 2 E), a bacteriological room (Fig. 2 D), an incubating room (Fig. 2 H), and a store (Fig. 2 G).

The lecture room is used for practical class work as well as an auditorium. The benches are provided with gas and water fittings for each student, each bench accommodating eight workers. Light has been supplied by windows and roof lights, in such a way as to make it easy to use the microscope in any part of the room. A lecture platform with a bench is placed at the end of the room, and behind this there is a large blackboard fixed in a recess in the wall. The height of this platform is such as to make general supervision of practical classes very easy. Adjoining this room is the professor's private laboratory. Here there are two benches, one along the north wall, which is fitted up for microscopical research, and another one parallel to it, in the centre of the room, fitted up for chemical and experimental research. The latter bench is double the ordinary width, and has a central runnel, which extends from one end to the other. The water supply is both from the cistern and from the main, the latter being specially used for negative pressures in filtration, and for aspirating air currents in respiration work. A water motor has also been fitted up, and the south wall has been utilised for shelving. At the end of the room there is a large sink and a slate table for a paraffin bath.

The bacteriological research room (Fig. 2 D) is situated on the southern side of the building. There is a window bench with sufficient space for two workers, a slate table for an incubator, a large draught chamber supplied with gas and water for the purpose of sterilising and distilling. Opening out of this room is the incubating room (Fig. 2 H). This apartment has its own heating apparatus which is controlled by a regulator. The walls of it have been rendered heat proof by a thick layer of slag wool, so that the temperature can easily be maintained at the requisite level. A small storeroom, with sink and commodious shelving, completes the department specially set apart for pathology.

The architectural style adopted in these buildings is a plain type of Tudor-Gothic throughout, somewhat in keeping with the medical schools and surrounding buildings, the façades being broken up by gables, dormers, ornamental ventilating turrets on roofs and exhaust tower. The lighting of all rooms is by mullioned windows. The whole was designed and carried out under the supervision of the architect, Mr. Robert Cochrane, F.R.I.B.A., Board of Works, Dublin. The expenditure for the internal fittings and equipment was supplied out of local funds provided by the College Council.

## THE COMMITTEE ON THE PUPIL TEACHER SYSTEM.

WE had very recently to record the formation of a Departmental Committee instituted by the Education Department for the purpose of inquiring into the condition of the feeble-minded. Close upon its heels follows, from the same Government office, another Committee appointed to "inquire into the working of the pupil teacher system in England and Wales and the supply of teachers as affected by that system, and to report whether any, and if so what, alteration is required in the existing regulations of the Department as regards pupil teachers." These terms of reference are comprehensive enough to include what is not mentioned, but which we venture to think is the source of most of the causes of dissatisfaction with the present system, namely, the physical condition of the young people who during the age of puberty are tired by labour excessive in hours and responsible in character. There is a medical aspect to this question, and one which is vital both to the teachers and the taught, but the adequate and skilled consideration of it in all its bearings is not provided for in this inquiry. Among the Committee we find educationalists such as the Rev. T. W. Sharpe, C.B.; Mr. Senior, Chief Inspector of Schools; and Mr. P. A. Barnett, Assistant Inspector of Training Colleges; we find experts in the art of producing excellent results of special training such as Miss Hughes, Mrs. Bannister and Miss Manley; we find persons whose profession compels them to be cognisant of the value of this training, such as Mr. H. E. Oakeley and Mr. W. Scott Coward, but we find no medical man; and on this important matter the public will have no security that the physical relation is apportioned its due position, or that the skilled professional aspects of the question will receive proper attention.

It is well known to all who have ever watched pupil teachers that none but the strong escape—not indeed death—but retirement. If we mistake not, the Committee will discover that a great deal of the leakage, in any case among the girls, which takes place between the number of accepted candidates and those who become fully qualified teachers is due to physical and not financial, social, or educational causes. We trust that it is not too late to urge upon the President of the Council and Sir John Gorst the desirability of adding a medical man to the assemblage of practical and enthusiastic educationalists whom they have

empowered to advise them as to the system which provides the sinews of war against the arch enemy ignorance. It is urged that in view of the large number of female pupil teachers there is much to be said for preferring a medical woman, who would be able to afford valuable assistance. There is more than one lady who is qualified by character and experience to form a sympathetic opinion as to the forces and trials of the young. The name of Mrs. Garrett Anderson, M.D., to whom her medical brethren have recently given a striking proof of their confidence by electing her President of the East Anglian Branch of the British Medical Association, naturally suggests itself, since her experience on the London School Board would here serve her in good stead.

## THE SERUM DIAGNOSIS OF TYPHOID FEVER.

DR. WYATT JOHNSTON, Bacteriologist to the Board of Health of the Province of Quebec, Canada, who, in conjunction with Dr. D. D. McTaggart, published in the BRITISH MEDICAL JOURNAL of December 5th, 1896, an account of the method employed at Montreal for the diagnosis of typhoid fever by the serum reaction, has addressed the following letter to the President of the Board of Health of the Province of Quebec. The letter deals with the use of attenuated test cultures as a safeguard against misleading reactions in the serum diagnosis of typhoid fever by the dried blood method.

"In my work in serum diagnosis, done jointly with Dr. D. D. MacTaggart, we recently met with a series of peculiar partial reactions, in which the dried blood solution from many perfectly healthy persons gave a very decided agglutination. The blood serum from the same persons was found much less liable to give these pseudo-reactions. This made it less easy to exclude other febrile diseases, and as, with this test, accuracy in the negative diagnosis is of great practical importance, others who may meet with similar pseudo-reactions will be interested in learning how they may be avoided.

"These pseudo-reactions were not encountered in our earlier cases when attenuated cultures were used. They began to appear when we employed a short time virulent cultures, and disappeared again on resuming the use of attenuated ones. Active, virulent cultures intensified by daily transplantation and growth at the body temperatures were, therefore, not suitable for the dried blood test. Where only active cultures are employed we do not think that the dried blood method can be considered to have had a fair trial.

"The explanation of this difference appears to be that the serum contains relatively less of the substances causing agglutination than solution of the entire blood. Hence solutions of the entire blood react more intensely to the test than solutions of the blood serum alone. This was the reverse of what we had anticipated.

"It is found that old laboratory stock cultures kept at room temperature and transplanted at intervals of about one month give us the best result. Bouillon test cultures grown from this stock for twelve to twenty-four hours at body temperature are found to react decisively with solutions of typhoid blood or typhoid serum, the reaction being as a rule well marked within fifteen minutes. With non-typhoid blood or serum solutions, the same test cultures give no reaction even after twenty-four or forty-eight hours' contact. Intraperitoneal injection of 1 c.cm. of such living bouillon culture produces in guinea-pigs a marked blood reaction and immunity without much disturbance of health. We find that the best results in cases of dried blood are obtained with cultures where the motion as seen under the microscope is of a rapid gliding character, but free from darting movements. If the movement is sluggish owing to too great attenuation of the culture, a few daily transplantations at body temperature will make it more active. Exact estimation of the degree of dilution has not been found necessary for ordinary diagnostic work when attenuated cultures are used. A very faint tint in the drop examined usually indicates sufficient strength. The solution should not be thick and viscid.

"All the results which I have reported[1] were obtained with attenuated cultures. A report giving some additional technical details has been prepared, and can be sent to any who desire further information."

[1] *New York Medical Journal*, December 31st, 1896, and BRITISH MEDICAL JOURNAL, December 5th, 1896.

## SCOTTISH POOR-LAW MEDICAL OFFICERS.

THE Scottish Poor-law Medical Officers' Association, in the phrase of the day, meets a long felt want. Poor-law medical officers in Scotland, lacking the statutory protection which their brethren in England enjoy, without organisation or cohesion, have suffered many things at the hands of parochial Boards in the past. They have been liable to dismissal, not only without just cause, but without any semblance of a cause or allegation of inefficiency, when the loss of their parochial appointments meant the breaking up of a practice which was just a livelihood and no more; men being turned adrift on the world, with wife and family, at the caprice of a petty Board, dominated often by a petty tyrant, the battle-ground of small sectarian jealousies.

The reconstructed Association has just completed a year of useful and active effort. Its membership now numbers 149, and it is to be hoped that next year will show a large increase. The activities of the Association during the year centred round two questions of the most urgent importance to Poor-law medical officers. A Superannuation Bill for Poor-law officers in England was introduced last session. The Council of the Association did their utmost, in co-operation with the Association of Inspectors of Poor, to secure the inclusion of the officers of the Scottish Poor-law Service within the scope of the Bill. They sent deputations to the Local Government Board for Scotland, to the Secretary for Scotland, and to London to bring influence to bear upon members of Parliament. The Bill, however, had been drafted on English lines, and, in the pressure of business, the Government declined to take the risk of recasting the Bill. The case of the Association, however, has been immensely strengthened by the precedent which the passing of the English Bill affords. Parliament can hardly refuse to Scotland what it has granted to England and Wales, and the Association should make a determined effort to get the Scottish members of Parliament to embody their views in a Bill to be introduced in the present session.

Even more important was the effort made by the Council to make some progress towards securing security of tenure. A deputation which waited upon the Local Government Board urged that the Board should issue such an order as that promulgated by the English Board on the subject. The Board were doubtful as to their powers in the matter. It was for the Association to consider whether the line of least resistance would not be found in the proposal that the Board should make a small alteration in their "Rules for Parishes participating in the Local Taxation Grant." For instance, Rule 11 might be altered so as to read: "No alteration of the salary [or tenure of office] for medical officers, without the consent of the Local Government Board," etc.

The annual meeting and dinner of the Association is to be held on the evening of Wednesday, January 27th, in the North British Station Hotel, Glasgow. Previous intimation of intention to attend should be made to the Secretary, Dr. Murdoch, Broad Street, Mile End, Glasgow.

## PAUPER NURSING IN IRELAND.

IF A. is taken ill, and through the intervention of the charitable becomes the inmate of a general hospital, he receives all the care that medical skill combined with nursing can supply. If A., on the other hand, is stricken with illness where alone he can be cared for by the Poor-law authorities, he has only such care as the medical officer, himself non-resident, can give him, handicapped as that official is by the want of proper wards, the absence of trained nursing, and the presence of the pauper "nurse." Here is an anomaly which cannot be explained by the man's circumstances, by his physical condition, or by the poverty of the country in which he resides. This anomalous state of things is again forced on our notice by the near approach of the meeting of the Irish Workhouse Reform Association, at which pauper nursing, with other

kindred matters, will be brought prominently before the public.

Dr. Joseph Smyth, in an article on pauper nursing, says that the most important part of the Irish workhouse system is the provision for the sick. "In many parts of Ireland the Poor-law infirmary is the only one within the reach of the general public in cases of serious accidents and special necessities; the fever hospital is maintained for the protection of the community against infectious diseases, and must be open to all classes." If it is conceded that these infirmaries are practically the hospitals of the poorer classes in many districts, not necessarily destitute, then we are brought face to face with the anomaly instanced above, that, though hospitals in fact, in their appointments and equipments they are poorhouses, meagre, squalid, and sordid.

The system of pauper nursing has grown with the growth of Poor-law administration, but it took its rise in times when the sick were almost unknown in our workhouses, and when even in the better-equipped hospitals there was no such thing as a trained nurse. But though the immense improvement in the science of treating the sick has demanded the specially trained nurse without whose services the skill and resources of the medical attendant would be of little avail, in our vast Poor-law hospitals the trained nurse is still regarded as a luxury, and her assistants are the poor atoms of humanity which have drifted into the workhouse because elsewhere they were failures. Our space does not admit of our labouring this point, and, indeed, we have so often referred to it that our readers must be conversant with the many objections to be urged against the employment of paupers as nurses in the wards, but there are two aspects of the subject which we wish to emphasise: one is the economic aspect, and one is the medical.

To take the last first. The demand for the appointment of the trained nurse is very much in the hands of the medical officer; if the medical officer does not express dissatisfaction with the services of the untrained nurse, the Local Government Board will not be zealous in pressing the trained nurse upon him; on the other hand, if he is firm and refuses to accept the untrained nurse when offered by his Board, the department will support him in his demand, and refuse to confirm the untrained nurse in her appointment. In this particular the medical officer is all-powerful in his department, and if untrained nurses are employed in the workhouse infirmaries, we must take it that it is with the connivance of the medical officer. But this does not get us out of the difficulty of the use of pauper assistants, a practice condoned by the authorities because they believe it to be economical, and because it finds work for the able-bodied.

Dr. Smyth brushes away these two arguments in a very convincing manner; on the economic side he proves by figures based on a calculation worked out for his Board (Naas Union) that the employment in the place of the nine pauper "nurses" of three probationers at a salary of £10 per annum, with uniform, board, and lodging would result in an annual saving of £18 a year. When to this is added the improvement in the work done, and the more complete and rapid recovery of the patients, there is opened up a field of indirect saving to the ratepayers which is well worth the most careful study. The second reason, the useful employment of the able-bodied, is hardly a reason at all, for if the small privileges, the whisky here and the beer there, were struck off, these inmates would soon find a more congenial employment outside the house. The Master of Naas Workhouse when questioned on this point said "that seventeen years' experience had convinced him that not one of these pauper 'nurses' would consent to remain in the workhouse" if dismissed the infirmary and relegated to the able wards.

As to the remedy for existing defects, there is none short of a General Order, having statutory force, abolishing the employment of paupers in the nursing of the sick; courteously worded circulars may get no further than the Board-room, and are only permissive in their action. We call upon this conference which will shortly assemble in Dublin to use this splendid opportunity to state in plain terms that those present will be content with nothing short of the complete extinction of the pauper "nurse."

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The epidemic of measles in Aberdeen still prevails, but is on the decrease.

## ROYAL COLLEGE OF SURGEONS.

A QUARTERLY Council was held on January 14th. Sir WM. MAC CORMAC was in the chair, and the minutes of the last meeting were read and confirmed.

The congratulations of the Council were offered to Sir Joseph Lister, Bart., on his elevation to the Peerage.

The following report from the Dental Section of the Board of Examiners in Dental Surgery was received and adopted:

The Dental Section of the Board, having consulted the teachers of dental metallurgy in the several dental schools in England, beg to recommend the Council to adopt the following as the synopsis of the Examination in Dental Metallurgy to be held under the new regulations which came into force on January 1st.

The Dental Section of the Board also recommend that the Examination in Dental Metallurgy be conducted by written paper only.

SYNOPSIS OF THE EXAMINATION IN DENTAL METALLURGY.

The physical properties of the metal—gold, platinum, palladium, silver, tin, antimony, mercury, lead, bismuth, zinc, cadmium, copper, aluminium, iron, nickel; namely, lustre, tenacity, elasticity, malleability, ductility, conductivity for heat and for electricity, fusibility, specific gravity, specific heat, expansion by heat, brittleness, hardness, crystalline character, change of volume on solidification.

Action of air (either hot or cold), of water, of acids, of alkalis and of sulphuretted hydrogen on the above metals and their principal alloys and amalgams.

Effect of exposure of the above metals, their alloys and amalgams, in the mouth.

*Gold.*—Preparation and properties of pure gold. Cohesive and non-cohesive gold. Precipitated and spongy gold. Assay of gold. Calculation of amount of base metal to be added to reduce the fineness of gold to a given carat, or of the amount of fine gold or of gold of high carat needed to be added to raise the fineness of an alloy to a given carat. The detection and estimation of gold in alloys. The purple of cassius. The effect of impurities on the properties of gold. The properties of the alloys of gold. Composition of solders for gold.

*Platinum.*—Preparation and properties of platinum. Platinum-black and spongy platinum. Detection and estimation of platinum in alloys. Alloys of platinum with iridium, gold, silver, and other metals. Dental alloy.

*Palladium.*—Preparation and properties of palladium and its combinations with silver, gold, and mercury.

*Silver.*—Preparation and properties of pure silver. Assay of silver by cupellation and in the wet way. Preparation and properties of the combinations of silver with copper, gold, platinum, and mercury. Composition and preparation of solders for silver. Electroplating.

*Tin.*—Preparation and properties of tin. Detection of tin in alloys. Preparation and properties of the alloys of tin. Its combinations with zinc, copper, and mercury. Composition and melting points of readily fusible alloys.

*Antimony.*—Preparation and properties. Properties of alloys.

*Mercury.*—Preparation and properties of pure mercury. Testing the purity of mercury. Vermilion and detection of impurities therein. Preparation and properties of amalgams of the various metals mentioned in this synopsis. Composition and preparation of the principal alloys which have been used for preparing dental amalgams. Methods of testing such amalgums, as to the causes of their change of volume, permanence in the mouth, and change of colour. Effects of different metals in these amalgams. Possible action of amalgam fillings on other metals used in the mouth.

*Lead.*—Preparation and properties. Effect of alloying on its roperties. Solders and soft soldering.

*Bismuth.*—Preparation and properties. Alloys.

*Zinc.*—Preparation, purification, and properties. Preparation of zinc oxide, zinc chloride, and the various materials for the oxychloride, oxyphosphate, and oxysulphate cements. Action of acids and alkaline solutions on cements in the mouth. Alloys of zinc.

*Cadmium.*—Properties, its advantages and disadvantages in alloys and amalgams.

*Copper.*—Preparation and properties. Effect of impurities on its properties. Alloys. Modes of preparation and properties of copper amalgams. Preparation of Sullivan's amalgam and its modifications.

*Aluminium.*—Preparation and properties of aluminium and aluminium-bronze. Solders for aluminium and aluminium-bronze.

*Nickel.*—Preparation and properties. Alloys. German silver. Nickel-plating.

*Iron.*—Differences between cast iron, wrought iron, and steel. Effect of presence of impurities in iron. Hardening, tempering, annealing, and burning steel.

Methods of testing metals and alloys for their various properties as described in first paragraph.

Methods of testing dental amalgams for changes of volume. Effect of sulphuretted hydrogen, water, air, acids, and alkalies on dental amalgams.

Methods of parting gold from silver; rough tests for fineness of gold alloys (touchstone); of preparation of gold alloy of required firmness; of recovery of gold from scraps; of preparation of solders for gold; of recovery of platinum and silver from scraps; of preparation of pure silver; of preparation of amalgam alloys containing two or more of the following metals—silver, tin, gold, platinum, copper, zinc; of preparation of readily fusible alloys, containing two or more of the metals tin, lead, bismuth, mercury, cadmium, antimony, and zinc.

Methods of determining melting-points of readily fusible alloys; of preparation of alloys recommended for dies and counter dies.

Description of furnaces and muffles used in metallurgy.

The blow-pipe; theory and varieties of fluxes.

Colouring and gilding gold.

Purification of sweep or lemel.

The resignations of Mr. Howard Marsh and Mr. Howse as members of the Court of Examiners were accepted.

The following motion was carried:

That it is desirable that no one who has served six years as a representative of this College on the Committee of Management or the Laboratories Committee shall, on his retirement in rotation from office, be eligible for immediate re-election.

## MEDICAL RETICENCE.

We have received a long rejoinder from Messrs. Oldfield, Bartram and Oldfield with reference to their former letter and the legal opinion thereon, which we published in the British Medical Journal of January 16th. We regret that we cannot afford space for their somewhat lengthy statement, but it may be sufficient to say that they entirely accept the statement of the law as laid down in our counsel's opinion. They also say:

"We think the opinion of your legal adviser itself furnishes ample justification for our letter. Indeed, if that opinion had been inserted in your issue of December 26th last in place of the article on which we commented, our letter would never have been written."

We venture to say with confidence that there is not the smallest discrepancy between our article of December 26th, 1896, and the opinion itself. The only points which Messrs. Oldfield insist upon in their communication are two—first, that a medical man owes what they describe as a "legal duty" to the person who has paid his fee, meaning in the case supposed, the employer; and, secondly, that because of the existence of such a duty a communication to the employer as to the nature of the servant's disease would be privileged, according to the general principles laid down in the textbooks on libel. They write:

The word "duty" is, of course, used by your adviser in the sense of "legal duty," and we are treating the subject purely from a legal aspect, and you yourself state that you have been dealing in your notes mainly with such aspect of the case. If there is a legal duty it is essential that such duty must be toward somebody, and in the circumstances we have raised such duty could be only towards the person who is availing himself of the services of the doctor and paying for his advice.

If that be so we do not see how a medical man who fails to acquit himself of a duty towards the person by whom his services are engaged can avoid the usual legal consequences of breach of duty and escape liability for neglect.

We do not wish to trespass unduly upon your space, but upon the question of "privileged communications" the following extracts from the well-known textbook on the *Law of Libel and Slander*, by W. Blake Odgers, Q.C., LL.D., may not be out of place:

"Wherever in answering an inquiry the defendant is acting *bonâ fide* in the discharge of any legal, moral, or social duty, his answer will be privileged.

"The answer must be pertinent to the inquiry.

"A communication will be privileged even if not asked for where there exists between the parties such a confidential relation as to throw on the defendant the duty of protecting the interests of the person concerned.

"A confidential relationship clearly exists where the parties are principal and agent, solicitor and client, guardian and ward, partners or even intimate friends; in short wherever any trust or confidence is reposed by the one in the other. Or, changing the point of view we may say that it will be the duty of A. to volunteer information to B. whenever B. could justly reproach A. for his silence if he did not volunteer such information."

The above extracts would appear more than sufficient to justify the opinion expressed in our letter of December 28th.

By way of what the lawyers call "more abundant caution," we have submitted Messrs. Oldfield's rejoinder to the counsel who signed the opinion, so that our readers may be assured that no point has been overlooked; and we are advised that the points raised by Messrs. Oldfield in no way modify either the statements in the opinion or the advice given by us in our article of December 26th.

Counsel advises that—"The question who finds the money to pay a doctor's fee is irrelevant. The relation of doctor and patient is necessarily one of personal confidence, and it cannot be too strongly maintained that the finding of money by a third person in no way diminishes the rights of the client.

"A communication to an employer as to a servant's disease, unless by the consent of the servant or in obedience to some overriding statutory or public duty, is not only not privileged as the discharge of a duty, but is an express breach of a confidence which is recognised by the law.

"The employer, *qua* employer, or *qua* the payer of the fee, has no legal right in the matter beyond that of any other third party. As has been pointed out already, there are exceptional cases where the doctor's knowledge places upon him a duty to protect the public, or individual members of it, from imminent risk of disease; but this exceptional duty, which in any case must be discharged with careful regard to the rights of the patient, does not regard the employer any more than a fellow lodger or a customer, and has absolutely no relation to the question of the fee."

We regret to find that in the article on this subject in the British Medical Journal of January 16th Messrs. Oldfield, Bartram, and Oldfield were by inadvertence referred to as the solicitors to the London and Counties Medical Protection Society. The solicitors to the Society are Messrs. Le Brasseur and Oakley.

## LITERARY NOTES.

The Rebman Publishing Company, Limited, have ready for publication a small work by Dr. F. W. Forbes Ross, of the Children's Hospital, Paddington Green, entitled *Intestinal Intoxication in Children*. The aim of the book is to deal practically with alimentary and digestive derangements in children.

The *Senate* for January contains an excellent silhouette of Sir Henry Acland, K.C.B., late Regius Professor of Medicine in the University of Oxford.

In the December number of the *Dublin Journal of Medical Science*, Mr. George M. Foy discourses on the discovery of anæsthesia. He holds that the genesis of modern anæsthetics is found in Priestley's discovery of oxygen. With the introduction of "factitious airs" there arose a hope in the minds of certain members of the medical profession that in pneumatic medicine there was to be found a remedy for most diseases. An ardent advocate of this view was Dr. Thomas Beddoes, of Clifton, who made extensive therapeutic trial of "factitious airs" as early as 1793. The following passage would seem to show that he thought that in them he had discovered a cure for cancer:

I have lately seen cancerous patients treated by the application of unrespirable air with the most astonishing success. In mentioning to Dr. Black the introduction of factitious airs into the Bath Hospital as a source of hope, I did not so soon expect an event which ages and nations have desired in vain.

This passage, which is quoted by Mr. Foy for another purpose, appears to us to be, in Carlyle's phrase, "significant of much." It shows that Beddoes was an enthusiast in whom the wish was most easily father to the thought, and he summed up his life-history truly enough when he described himself in a letter written to Davy from his death-bed as "one who has scattered abroad the *avena fatua* of knowledge from which neither branch nor blossom nor fruit has resulted." Mr. Foy speaks of Davy as "fortunate in having voiced the views of Beddoes and his fellow workers on the anæsthetic properties of nitrous oxide." Yet the passages from their writings which he quotes in support of this statement are hardly convincing. There is no hint of any suggestion as to the practical use of the gas as an anæsthetic such as is conveyed in Davy's explicit declaration that nitrous oxide "may probably be used with advantage during surgical operations in which no great effusion of blood takes place." That Beddoes had used nitrous oxide gas before he knew of Davy's existence no more entitles him to the credit of having discovered anæsthesia than Déclat's use of carbolic acid before Lister justifies the ridiculous claim now made for him in certain quarters in France that he was the true discoverer of antisepsis.

The *Guyoscope*, which made its bow on the journalistic stage on January 13th, is intended, as we learn from its introductory article, to "gather and consolidate into an active mental force the 'unconsidered trifles' of daily social life at Guy's Hospital." It describes itself as a combination of "'scopes." ' It possesses the luminosity of the laryngoscopic mirror with the penetration of the *x* rays. It will be a search light for all the social functions of studentdom, and will shine as a beacon to guide sport, music, debate, art, science, and literature within its ranks." The fun of the *Guyoscope* is such as the "tender juvenal" of medicine loves, though a trifle exuberant for "tough seniors." The illustrations by "Little Billy" are excellent. We wish our frolicsome young contemporary all success.

# ASSOCIATION INTELLIGENCE.

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M., Saturdays, 10 A.M. to 2 P.M. Members can have their letters addressed to them at the office.

## NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1897.

MEETINGS of the Council will be held on April 14th, July 7th, and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 25th, June 17th, and September 30th.

### ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

## BRANCH MEETINGS TO BE HELD.

PERTHSHIRE BRANCH.—A special meeting of the Branch will be held in the Royal Infirmary, Perth, on Friday, January 29th, at 3.45 P.M. The staff have kindly consented to show clinical cases. Members are specially invited to show cases or specimens of interest. Thereafter the Branch will consider the circular lately distributed concerning medical defence. (See also notice of conjoint meeting with Edinburgh and other Branches.) —A. R. URQUHART, Honorary Secretary, James Murray's Royal Asylum, Perth.

EDINBURGH, DUNDEE AND DISTRICT, PERTHSHIRE, AND STIRLING, KINROSS, AND CLACKMANNAN BRANCHES.—A conjoint meeting of the Edinburgh (Fife and Lothians), Dundee and District, Perthshire, and Stirling, Kinross, and Clackmannan Branches of the British Medical Association will be held in the Royal Infirmary, Edinburgh, on Friday, February 5th. A medical congress for clinical demonstration will be held at 4 P.M. A museum (pathological and apparatus) will be open from 3.30 P.M. onwards. The recently inaugurated laboratory of the Royal College of Physicians will be open for inspection. Dinner in the Balmoral Hotel, Princes Street, at 6.30 P.M. (morning dress); dinner ticket, 5s. Members of the Association who intend to be present at the meeting and dinner and to exhibit patients, specimens, or apparatus are requested to communicate as early as possible with Dr. R. W. PHILIP, Secretary, 4, Melville Crescent, Edinburgh.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting (clinical) will be held at the Infirmary, Cardiff, on Thursday afternoon, February 25th. Notices of papers, cases, etc., are requested to be sent in on or before February 18th.—ALFRED SHEEN and D. ARTHUR DAVIES, Honorary Secretaries.

BORDER COUNTIES BRANCH.—The winter meeting of this Branch will be held at Carlisle on February 12th. Members desirous of communicating papers, etc., are requested to write to the Secretary.—R. DUNDAS HELM, M.D., 3, Alfred Street North, Carlisle.

SOUTH-WESTERN BRANCH.—An intermediate meeting of the Branch will be held at the Red Lion Hotel, Truro, on Tuesday, January 26th, at 3.15 P.M. A meeting of the Branch Council, to elect new members only, will be held at 3 P.M. at the same place. Luncheon will be provided at the hotel at 1.45 P.M., and after luncheon it is proposed to make a short visit to the cathedral. The Honorary Secretary will be obliged if members who have papers to read, cases or specimens to show, will kindly give him notice before January 20th, in order that an agenda paper may be issued. To facilitate the arrangements for the luncheon members are requested to intimate beforehand if they mean to attend.—W. GORDON, Honorary Secretary, Barnfield Lodge, Exeter.

DUBLIN BRANCH.—The annual meeting of this Branch will be held in the Royal College of Physicians on Saturday, January 30th, at 4.30 P.M. Dr. Wallace Beatty, the President elect, will deliver the annual address, and the officers and Council for the year will be elected. The annual dinner will take place on the same evening at 7.30 P.M. Members intending to dine should communicate with the Honorary Secretary, JAMES CRAIG, M.D., F.R.C.P.I., 35, York Street, Dublin.

OXFORD AND DISTRICT BRANCH.—The next meeting of this Branch will be held at the Radcliffe Infirmary, Oxford, on Friday, January 29th, at 3.15 P.M. Gentlemen intending to read papers, etc., are requested to give notice to the Secretary, W. LEWIS MORGAN, 37, Broad Street, Oxford, as soon as possible.

# SPECIAL CORRESPONDENCE.

## PARIS.

*A Plague Scare in Paris.—Medical Scandals.—An Attack on the Anthropometric System.—General News.*

THE statements published in the Paris daily press concerning the presence of cholera and plague in England caused some alarm. The *Libre Parole* declares that "several cases of Indian plague have occurred in neighbourhoods near the London Docks." The same authority (?) states that the "English are, above all, traders; they would not take any precautions to prevent the plague being transmitted to their shores, and now the calamity has happened." This want of prudence teaches their French neighbours a lesson, and makes them tremble. "It may to-morrow be here," says Raphael Vian, who signs the article, in which the whole English nation is described in one short line. He advances that the French Government hesitates to take energetic measures at Calais, Boulogne, and Dieppe, where the constant arrival of English subjects and English merchandise demand immediate and efficacious preventive measures. Rendered desperate by the apathy of the French Government, M. Vian had the happy but not novel idea of interviewing on the subject the *principales personalités* in the medical world. M. Dujardin-Beaumetz, member of the Consulting Committee of Public Health and Medical Inspector of the Army Health Technical Committee, could not give any information nor express any opinion, his tongue was tied; only his chief, the War Minister, could unloosen it. Dr. Dujardin-Beaumetz assured the interviewer that when his chief questioned him he would be ready to answer; M. Vian concluded from Dr. Dujardin-Beaumetz's reticence that the position was a serious one. The interview with Dr. Bergeron, Perpetual Secretary of the Academy of Medicine is described as falling from Scylla into Charybdis. He declared he knew nothing about the matter, but he admitted that a report on plague and cholera would be read on February 19th at the Academy of Medicine, and subsequently he would be able to say what he thinks of the sanitary position. With this crumb of comfort M. Vian courageously set forth to tackle M. Chantemesse, whom he found as "coy" as the others. He declared that if it were possible to give the information desired he would do so with pleasure, but being on the *Comité Consultatif* it was impossible. This "but" had the effect of immediately suggesting to M. Vian to go and see M. Brouardel, Dean of the Medical Faculty; M. Brouardel could not be interviewed. After all these laborious disappointments M. Vian was fortunate enough to lay hands on a "medical celebrity" who, on condition that his name should not be mentioned, gave the following information: "A boat having on board Mohammedan pilgrims en route for Mecca, was sent into quarantine at the Camaran lazaretto. One half of the pilgrims were ill with the plague; and other vessels leaving the Indies bound for different ports were suspected of having on board passengers contaminated with cholera and plague. In consequence of England having refused in 1892 to give her adhesion to the preventive measures to be adopted in epidemics, it is greatly to be feared that the plague brought from India to England will be brought from England to France." M. Roux at the Pasteur Institute, in consideration of this danger, has for the last few days been engaged in preparing "antipest" serum. Before two months are past this unnamed authority stated that the plague may be at Marseilles and Calais.

According to the *Journal de Médecine* a few years ago there existed at Auteuil a "medico-chirurgical establishment" where women attracted by advertisements were operated on in the following manner. Anæsthetics were administered to the patients; when they woke up they were shown a blood clot obtained elsewhere, and were told it had been removed from the womb and the operation had been successful; the patients paid the fees with gratitude. These proceedings are

sufficiently blamable, but the lives of their victims were not exposed to danger. The *Journal de Médecine*, however, declares that there are medical men who, without possessing the necessary experience, perform operations on women not strictly necessary which frequently end in death. These offenders merit the *Cour d'Assises*, yet they are at large continuing their malpractices, "indulging in insolent luxury, and reading at different learned societies ultrafantastical papers." The law cannot reach this class of criminals, the tribunals are not competent to deal with them; often, also, their victims refuse to seek redress either from stupidity, ignorance, or fear of a scandal. In order to prevent such dishonourable conduct Dr. Lutaud proposes that in each department there should be organised a sort of medical jury authorised to judge professional offences. The members should not be chosen from official bodies, but should be elected like members of commercial tribunals. In order that the verdicts of the proposed jury be valid it will be necessary to add to the twenty-fifth article of the law 1892, which legislates for medical offences, the following paragraph: "All medical men considered unworthy by the medical jury will be forbidden either temporarily or permanently to practise." Should this project find general favour and be carried out it will necessarily be sanctioned by a Ministerial decree, which will control the organisation of the jury and the mode of its election.

M. Julien Dumas has announced his intention to interrogate the Government on the abuse of the Bertillon system of measurement. This deputy has been interviewed, and has made the following statement: A year ago he gave notice of a question on the subject. During the Lebaudy affair journalists were arrested and submitted to anthropometric measurement. All except one were acquitted. Now a deputy, M. Chauvin, has been arrested in connection with the political incidents at Carmaux, and M. Julien Dumas will not be baulked in his intention of raising this question. M. Dumas asserts that the calculations made by M. Bertillon are far from correct. He has had in his possession measurements taken of the same person at an interval of ten years. There were not two alike. M. Dumas expressed his desire to visit the anthropometric service. The Minister of the Interior and the police prefect asked him to name his day. M. Bertillon, with great courtesy, explained his system. He sent for a woman who had refused to give her name. She then said her name was Garcias, her birthplace Bordeaux. Measurements were taken. M. Dumas, being initiated, found without assistance the photograph of this woman, whose real name was Tosas, and her birthplace was not Bordeaux. Much astonished, he warmly praised anthropometry. He carried away with him four or five books on the subject. In one of them he found three photographs typical of the criminals most often met with. One of these was of the woman measured that morning, kept on the premises, according to M. Dumas, to illustrate the system. M. Dumas believes that this incident and others of the same kind will convince the Chamber of Deputies of the danger that everyone is threatened with by anthropometry. Moreover, he declares that if it is applied throughout France, in a few years there will be fifteen million photographs taken, therefore recognition will be impossible.

The St. Petersburg Academy of Science has elected M. Joseph Bertrand, the Perpetual Secretary of the Paris Academy of Sciences, an honorary member.

The Pasteur station at Tiflis, since it has been founded, has treated 956 patients. Twenty of the number died, of which only one underwent the complete course.

## BERLIN.

*Medical Courts of Honour.—A New Tariff of Fees.—Skiagraphy of the Brain.—The Roentgen Rays in the Diagnosis of Internal Diseases.—New Drugs in 1896.—The Medical Budget.—Professor Behring's Serum.*

THE Berlin Aerztekammer (representative body of medical men) has drawn up and submitted to the Prussian Minister of Education a paper containing its views with regard to the proposed establishment of medical courts of honour. While fully recognising the desirability of such an institution, the Aerztekammer are of opinion that its jurisdiction should be strictly limited to the professional conduct of doctors, and should not extend to any misdemeanours committed in private life, and they demand a modification of the Bill in this sense. They say: "Underselling, a mountebank style of advertising, underhand endeavours to obtain practice by spreading false reports about colleagues, undignified canvassing for positions such as club doctors, etc., and many other similar violations of professional dignity, affecting as they do the whole profession, should come under the consideration of the medical courts of honour. But the private conduct of members of the profession should be exempt from their jurisdiction; medical courts of honour have nothing to do with political, religious, social, or any other questions or complications of private life."

A new tariff of fees, which is to be binding in all cases of litigation, has just come into force in Prussia. Every description of medical and surgical assistance—from an ordinary visit to the most difficult operation—is tabulated and marked with a minimum and maximum price. The minimum is to be paid not only by the poor, but by workmen's clubs, charitable institutions, etc., and, of course, wherever State funds come in question. The code is not binding in cases of special arrangement. The following examples will give a fair idea of the fees and the minuteness of the code: "First visit of a doctor to a patient, 2 to 20 marks (2s. to £1); every subsequent visit in the course of the same disease, 1 to 10 marks; first visit of a patient at the house of a doctor, 1 to 10 marks; every subsequent visit in the course of the same disease, 1 to 5 marks, the fee for the visit to include examination of the patient and prescription. But special examinations with the ophthalmoscope, laryngoscope, ear speculum, or vaginal speculum may be charged 2 to 5 marks extra.....Anæsthesia, 5 to 15 marks.....First simple dressing of a small wound, 1 to 10 marks; suture and first dressing of a small wound, 2 to 10 marks; suture and first dressing of a large wound, 10 to 30 marks; every subsequent dressing one-half, but with a minimum of 1 mark. Natural confinement, 10 to 40 marks; delivery with instruments up to 200 marks (£10)." The highest fees, up to 500 marks or £25, are fixed for serious operations, such as Cæsarean section, extirpation of the larynx, etc.

The last meeting of the Berlin Society for Psychiatrics and Nervous Diseases was opened by an interesting discussion on Roentgen photographs and their applicability for the diagnosis of brain diseases. Professor Oppenheim showed some experiments to the meeting. He made successful skiagraphs, first of an empty skull, in which a piece of bone had been placed, then of the same skull into which a brain had been introduced, and lastly of the same with a tumour added. But his attempts to produce a skiagraph of a brain *in vivo* failed entirely. After an exposition lasting about two hours, no shadow was obtained. Professor Jolly remarked that it was evident that the brain mass itself, and not the skull bone, chiefly absorbs the Roentgen rays, and, in illustration, he quoted the attempt to skiagraph a hydrocephalus—which was unsuccessful in spite of the thin skull bone. He added that, though bullets and pieces of iron in the brain had been found by means of the skiagraph, it had been impossible hitherto to demonstrate bone splinters and tumours in the brain by its help.

A Roentgen ray institute is to be established in connection with Professor Senator's University Policlinic. It will be under the direction of Professor Grunmach, who has made a special study of the Roentgen rays as applied to the diagnosis of internal diseases.

In the last number of the *Therapeutische Monatshefte* Professor Grunmach gives an account of his results in the diagnosis and observation of internal diseases by the help of Roentgen rays. Special modifications and adjustments of the apparatus have enabled him to demonstrate distinct contraction of the windpipe in three cases of goître accompanied by dyspnœa; further, in a case of lung disease a large tumour could be seen in the right lung, where it showed itself as a pale shadow, and remained almost immovable even in deep inspiration, whilst the left lung was transparent and very mobile. In emphysemas, too, the Roentgen rays gave a remarkably exact picture of the position, extension and mobility of the lungs, and, finally, irregular action of the heart could be watched, and different heart diseases diagnosed with the greatest accuracy.

The *German Pharmaceutical Journal* estimates that 117 new drugs have been brought on the market during the second half-year of 1896.

Considerable sums for medical and hygienic objects are set apart in the Prussian Budget for next year. The universities of Koenigsberg, Breslau, Greifswald, Kiel, Göttingen, Marburg, and Bonn, are to have new or enlarged buildings, either connected with the medical schools, such as bacteriological institutes, operating theatres, etc., or for improved hospital accommodation. A small leper hospital is to established in the Memel district. A special sum is set apart for combating the granular eye inflammation so widely spread in the eastern provinces, and another for Professor Behring's sero-therapeutic experiments.

In an article published in the last number of *Fortschritte der Medicin*, Professor Behring explains modifications which he is on the point of introducing in his antitoxin serum. The serum is in future to be brought into the form of a solid. It will not contain any carbolic acid or other antiseptic, and Behring maintains that thus modified it will keep for any length of time without losing its efficacy, and that it will be free from any dangerous by-effects.

## MANCHESTER.

*Literary and Philosophical Society; Fundus Oculi.—The City Council and the Widal Serum Test for Typhoid Fever.—Defective House Drainage.—Powers of County Councils in Relation to Hospitals.*

AT the last meeting of the Literary and Philosophical Society, Dr. Lindsay Johnson showed a large series (over 100) of coloured drawings of the fundus oculi which he had drawn from Nature after ophthalmoscopic investigation of a large number of wild and exotic animals usually found in zoological gardens such as those of London or Belle Vue in Manchester. The type of fundus seems to have a relation to the genus of animal examined, while the facts of monocular or binocular vision, that is, whether the eyes look laterally or more or less directly forwards, is of great importance in relation to the fundus. The yellow spot exists in many monkeys.

The diagnosis of typhoid fever is admittedly somewhat uncertain in its early stages, but the microscopic test of Widal showing the behaviour of bacilli in blood serum enables a diagnosis to be made provided some blood is obtainable. The medical officer of health for Manchester, Dr. Niven, has just issued an important circular to the medical profession in the district wherein it is announced that the Sanitary Committee of the city have arranged with Professor Delépine to examine the blood by means of Widal's microscopic, or serum test. Owing to one cause or other, cases of typhoid are sometimes not notified sufficiently early to the public health officer to enable effectual steps to be taken to prevent the spread of the disease. It appears that in order to aid the diagnosis of typhoid, the Sanitary Committee of the City Council have made arrangements with the Council of Owens College whereby Professor Delépine will carry out the necessary microscopic and bacteriological tests. Any practitioner can, by applying at the Town Hall, have supplied to him a small box containing a pipette for the sample of blood, and instructions how to collect the blood in any suspected case of typhoid. Along with the circular is sent a copy of the directions for taking a sample of blood for the purposes of serum diagnosis. Briefly they are as follows:—The skin of the back of the index finger is washed with soap and water, then sterilised with mercuric chloride or carbolic acid lotion. The finger is then constricted so as to cause it to be congested with blood. The skin near the root of the nail is pricked with a sterilised needle supplied with the tube, and the blood sucked up into a small glass pipette, which is then sealed at both ends and sent to Professor Delépine. The expenses of the bacteriological examination will be defrayed by the corporation, and the circular expresses the hope that full advantage will be taken of the opportunities thus afforded at the earliest possible period of the illness.

A case of some importance with regard to the drainage of honse property was decided by the stipendiary magistrate of Salford last week. The Salford Corporation summoned an owner of house property to show cause why he should not be ordered to drain certain property in accordance with the directions of the Corporation. Proceedings were taken under Section XIX of the Public Health Act, 1890, which has reference to the procedure with regard to nuisances caused by defective drains. Since the decision in the case of Travis *v.* Uttley (*Law Reports*, 1894) many owners have refused to repair the drains on their property, and difficulties have consequently been of frequent occurrence in various parts of the country. The above case was taken as a test case. Last year, however, another decision was given by the Lord Chief Justice and Mr. Justice Wills, which considerably strengthened the position of the Corporation. The liability of the house owner was admitted, and thus a very important point has been settled judicially.

Another important decision has also been arrived at. It appears that the Cheshire County Council proposed to make a contribution of one-third of the cost towards the erection of isolation hospitals throughout the county. In several places considerable opposition was offered to the scheme for various reasons; but in order to test the matter a deputation from the Public Health Committee of the County Council waited upon Mr. A. D. Adrian, one of the officials of the Board of Trade, to urge their views on the subject. The result has perhaps come as a surprise both to the supporters and the opponents of the scheme, for when the various Acts bearing on this subject were carefully looked into it was discovered that the county council had no power to contribute a penny towards the cost of such hospital buildings. Mr. Adrian entered fully into the question as set forth under the existing Acts, and also intimated that he could not hold out any hope that the Local Government Board would initiate legislation to enable county councils to contribute towards hospitals already erected or to be hereafter erected under the Public Health Acts until there was a general amendment to or consolidation of these Acts.

# CORRESPONDENCE.

## THE HALF-YEARLY MEETING OF THE FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

SIR,—I have nothing more to say about Mr. Anderson, but as Mr. Rivington has referred to a portion of my speech which was not reported, I may say that I pointed out that the same little clique which runs the Association of Fellows had also run Mr. Rivington for the General Medical Council, Mr. Anderson being one of the honorary secretaries of Mr. Rivington's committee. I denied then, as I do now, that Mr. Rivington's efforts on behalf of the Members had led to the sacrifice of his collegiate interests, as put forth by his committee, and now that Mr. Rivington has supplied me with the date—1886—I am able to prove it.

In August, 1886, Mr. Rivington applied for the post of Examiner, but was not elected because in the opinion of the Council there was a more eligible candidate.

I find from the columns of the BRITISH MEDICAL JOURNAL that Mr. Rivington took no part in the meeting of Fellows and Members in March, 1884, or November, 1895, and that at the meeting in November, 1886, he made his first speech on behalf of the Members. In a letter of the following week Mr. Rivington mentions that he wrote upon the subject in 1868, and later in his Oration at the Hunterian Society and his Carmichael Essay, but I can assure him that none of these literary efforts in any way affected his non-election as an examiner.—I am, etc.,

Cavendish Square, W., Jan. 18th. CHRISTOPHER HEATH.

SIR,—Your correspondent "F.R.C.S." is mistaken in supposing that the resolution to which he refers as brought forward at the recent Fellows' meeting establishes any new principle. I fear he is also mistaken in thinking that the Council would pay the slightest attention to it if it did.

At the last annual meeting I proposed the following resolution, which was carried *nem. con.*: "That the Council be requested to instruct the representative of the College on the General Medical Council to forward in every way which seems

feasible the promotion of the principle 'That every representative of a licensing body should effectively represent the interests of its Graduates, Fellows, Members, or Licentiates.'" In the course of a week or two I was duly informed that the resolution had been "laid before the Council"—and there the matter ends.

A similar resolution to this was carried at a previous Fellows' meeting, calling on our representative on the General Medical Council to support Mr. Anderson's case before that body. We know how effectively he represented us in that matter. It is apparent that Mr. Bryant merely represents what he himself conceives to be the interests of the College, and as for taking instructions from the body corporate, or any part thereof, he would laugh at the idea.

I quite agree with "F.R.C.S." that we must keep pegging away at this question of representation, and that we shall ultimately win the battle, in spite of the miserable apathy to their collective interests in which so many of our professional brethren are steeped.—I am, etc.,

Putney Heath, S.W., Jan. 19th. W. G. DICKINSON.

## THE NURSING MANIA AND ITS FINANCIAL EFFECT ON THE PROFESSION.

SIR,—Lady Priestley's powerful article in the January number of the *Nineteenth Century* on "The Nurse *à la Mode*," has induced me to trouble you with some remarks about another feature of what Lady Priestley calls the "new profession." I will not tread upon the ground so ably occupied by Lady Priestley, in whose views I fully concur, but I desire to direct attention to the financial effect on the medical profession of the enormous development of the nursing system.

I distinctly deprecate any desire to depreciate the value of skilled nursing, but it is now carried to such a ridiculous extent that the abuse of this medical aid is likely to become extremely detrimental to the profession at large. In the county in which I reside, if a patient, say a farmer's wife, has any illness, except of the most trivial nature, a skilled nurse is at once summoned, and not infrequently two nurses, one for the day and one for the night.

Now what is the result of all this? If the illness lasts two months there is £16 16s. for the two nurses, besides their board and other extras, and the surgeon in attendance has to wait for his £5, and in many cases does not get paid at all, and in these days of agricultural depression the heavy expense entailed by nursing prevents the head of the family from paying the doctor. This is no imaginary evil that I am describing, and it is time that the attention of the profession should be called to the fact that this "new profession" is taking a very large sum which would otherwise go to the doctors, and in my county is represented by many thousand pounds. In fact, the undue development of the nursing system is having a bad effect upon the finances of the medical profession. Moreover, we shall soon have these ladies demanding to be considered as registered practitioners, as the midwives are already doing.—I am, etc.,

January 15th. F.R.C.P.

## CONSULTANTS' FEES.

SIR,—What is meant by a "silk" consultant? Does the term mean a physician or surgeon who only takes consulting fees (one to three guineas) and who refuses to prescribe for a patient originally seen through a general practitioner except in consultation with the latter? Such consultants (of whom the late Sir Andrew Clark was the type) exist to-day in but very small numbers—a score or so at the outside. The rest, who practise chiefly as general practitioners of a superior sort, must be the "stuff" consultants; and if the latter term may be held to rightly describe these gentlemen, let us adopt it by all means, especially if it helps us to know where we are.

What London practitioner, indeed, does not know the so-called consulting surgeon who attends Mrs. Brown's baby for whooping-cough at general practitioners' fees of, say, half a guinea a visit (or rather, a guinea the first visit, and nothing the second, and so on), or the specialist in gynæcology who daily visits Mrs. Jones for some cardiac irregularity quite unconnected with those organs to which he is supposed to confine his attentions, or the eminent physician who meets the family practitioner at Mr. Robinson's house on Monday, and calls upon the patient on Tuesday to the exclusion of his colleague of yesterday?

It is from the competition of such consulting practice as this that large numbers of general practitioners in the West End of London, at any rate, suffer most grievously and most unfairly, not from the free advice openly given at large hospitals to those who may not be the proper recipients of medical and surgical charity.—I am, etc.,

January 18th. A LONDON PRACTITIONER.

## COLLES'S FRACTURE.

SIR,—It seems clear from the extracts published in the BRITISH MEDICAL JOURNAL of January 2nd, in connection with two skiagraphs of the above injury, and subsequently on January 9th by Mr. Clement Lucas that the true pathology of one of the commonest of fractures requires rewriting in the leading surgical textbooks in the English language. I am much indebted to Mr. Lucas for drawing my attention to his valuable paper.

Owing to slight imperfection in the reproduction of the skiagraphs some of the minor details are wanting. Fig. 1 should read Fig. 2, and *vice versâ*. In each the styloid process is fractured at its base, and my first impression was that a part of the triangular radio-ulnar fibro-cartilage might be attached to it, but the direction of the tip and base of the process negatived that view.

My cases strongly support the view brought forward by Mr. Lucas in connection with the condition of the ulnar styloid process, but I do not think that Mr. Lucas's interpretation of Fig. 2 on p. 12 of the JOURNAL is absolutely correct, for "the considerable clear interval between the radius and ulna" is only apparent and not real; it is due to skiagraphical distortion, due to the position of the Roentgen lamp and its proximity to the limb; the comparative interval between the fourth and fifth metacarpal bones in the two figures clearly shows what I mean in addition to the thicker bones and larger intervals in Fig. 2. A monster with eight limbs which I published in the last number of the *Archives of Clinical Skiagraphy*, shows well certain features of these distortions of skiagraphy.

I have already received a few skiagraphs of Colles's fracture from gentlemen who are interested in the subject, and I am very thankful to them for their trouble.

I still think that a collection of 100 or 200 skiagraphs of Colles's fracture in the living would be invaluable in deciding the points raised by me, and very ably discussed from museum specimens without my knowledge thirteen years ago by Mr. Clement Lucas. There are many other pathological conditions in this fracture, such as elongation of the radius, and comminution and impaction of the different fragments (upper and lower) which would then be satisfactorily disposed of.—I am, etc.,

Cardiff, Jan. 18th. J. LYNN THOMAS.

## THE BACTERIOLOGY OF PLAGUE.

SIR,—I am obliged to Dr. Armand Ruffer for calling my attention to the report of the Epidemiological Society's meeting on December 18th, 1896. I hope the following extract of the actual words I used (written down to be precise) will give him a better idea of what occurred.

"In Hong Kong, in Taipingshan, there were numerous earthen-floored houses which were shut up owing to plague cases having occurred in them. These houses, however, were not so numerous as generally stated, the large majority of tenements being floored with unglazed tiles or bricks. Yersin took earth from one of these under my supervision at 7, 18, and 24 inches depth. He said he found the bacillus in that taken at 7 inches depth, but afterwards qualified his statement—through Dr. Cantlie in the newspapers—by saying that he had found it not deeper than 3 inches. Matters were in such a doubtful state that I asked Dr. Takaki, one of Kitasato's assistants, to conduct a series of experiments with me on the subject. We could not find the plague bacillus in the earth by culture; we could not kill rats or rabbits of plague by the culture got from the earth; we could not kill them of plague by the earth itself direct; none of them suffered from plague to all appearance. A bacillus was found in the earth somewhat like the plague bacillus, but smaller and distinctly dumbbell shaped. This

same bacillus was found in our garden, could not probably have been introduced. This evidence leads one to conclude that at least in the houses we examined there was no plague infection of the soil—in all probability. Before Takaki went to Japan numerous other specimens of earth were taken at depths of from 1 to 6 inches in the aforesaid earthen-floored houses, and these were all examined in Kitasato's laboratory, and I was informed these had given no positive results as to plague. I do not by this say that plague infection of the soil cannot take place; I only say that in Hong Kong it was very improbable; but I should say that in a Chinese village there is a possibility that the superficial layers of the earth will get infected in time. The question requires further proof, and from an independent worker. Yersin believes in an infection of the soil: I can only at present believe in a superficial infection of floors in an epidemic."

In 1894 the Hong Kong Government requested Yersin and Kitasato to give it an opinion regarding the infection of the soil, and, though I do not have copies of these reports beside me, I know their contents well, as they have already been the subject of a good deal of correspondence. When speaking at the Epidemiological Society, I meant to convey the idea that, notwithstanding Dr. Yersin's high position in the bacteriological world, I respectfully differed from his conclusions regarding plague infection of the soil in the 1894 Hong Kong epidemic.

I have what I consider to be good reasons for placing little or no faith in the reported efficacy of Dr. Yersin's serum treatment as carried out in Canton and Amoy in 1896. They were mentioned briefly at the meeting, and doubtless will appear in print before long.

I did not say, "All Yersin's work was suspicious." I presume the idea arose from what I said of some of his plague views. Few British medical men know more than I do of Yersin's splendid work in the Far East, not to mention Paris, but I am still of opinion that he was in error as regards Hong Kong in 1894.

I would ask Dr. Ruffer to remember that condensed reports of Societies' meetings should not be taken as authoritative.—I am, etc.,

Ferryton, Forfar, N.B., Jan. 19th. JAMES A. LOWSON.

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SIR,—In reference to Dr. Armand Ruffer's letter dated Cairo, January 4th, concerning Dr. Lowson's remarks upon M. Yersin and his work as "being suspicious," which appeared in the BRITISH MEDICAL JOURNAL of January 15th, I feel called upon to reply.

I worked with Dr. Yersin in his laboratory at Hong Kong for six weeks. I saw the care and indefatigable energy with which he dealt with all bacteriological matters. His methods were excellent, and his conclusions were scientifically drawn. He built a laboratory for himself close to the Plague Hospital, and had a large assortment of animals and apparatus for experimental work. So earnest was he that alongside the laboratory he put up a mat-shed dwelling, so that he might not waste time going to and fro to his work.

Dr. Lowson's remarks at the Epidemiological Society referred, I take it, to Yersin's serum treatment for plague, which has never been laid before us in a scientific manner. We must not judge the man and his work by the reports gathered from a French missionary in Canton, and some equally popular source in Amoy. Yersin, in my opinion, is one of the foremost bacteriologists, and by that I mean that his work is honest and reliable. He is a master of detail, precise in his methods, full of resource in difficulties, and his conclusions are worthy of the highest respect.—I am, etc.,

London, Jan. 18th. JAMES CANTLIE, M.B., F.R.C.S.

# OBITUARY.

## JOHN WILFORD MARSH, M.R.C.S.ENG., L.S.A.

WE regret to have to record the death of Dr. J. W. Marsh, the Medical Superintendent of the Lincoln County Asylum, Bracebridge. He was the son of a medical practitioner in Yorkshire, but was early identified with Lincolnshire by his appointment as Assistant Superintendent of the Lincoln County Asylum. In 1888 he was appointed Medical Superintendent of the asylum, when, on the formation of the county council, the control of the asylum passed into the hands of the Joint Committee for Lincolnshire. Shortly afterwards an outbreak of typhoid fever threw much additional work upon the medical staff, and Dr. Marsh himself suffered from the disease. Largely through his efforts a thorough reorganisation of the system of drainage was carried out, and under his superintendence the asylum has been maintained in a state of high efficiency. Early last year he began to show signs of ill-health, and in June was compelled to relinquish his duties on long leave of absence. He went to Bognor, but his condition gradually became worse, and he died on January 14th at the age of 54. Dr. Marsh devoted himself to the duties of his office with enthusiasm, and his loss will be much felt. He was held in wide esteem, and earned the gratitude and respect of all those with whom he was brought in contact.

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WE regret to announce the death of Professor WILLIAM H. PANCOAST of Philadelphia, which took place on January 4th. He was the son of the distinguished surgeon, Joseph Pancoast, and was born in Philadelphia in 1835. He received his medical degree from the Jefferson Medical College in 1856, and afterwards studied for three years in London, Paris and Vienna. On his return to Philadelphia he soon acquired a high reputation as an operative surgeon. In 1862 he was appointed Demonstrator of Anatomy, and in 1868 Adjunct Professor of the same subject in the Jefferson Medical College. In 1874 he succeeded his father as Professor of Anatomy in the same College. He was appointed Professor in the Philadelphia Medico-Chirurgical College in 1886. He contributed largely to the literature of his profession, and his writings were always marked by width and accuracy of knowledge and soundness of judgment.

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WE regret to have to record the death of Dr. DONALD ALEXANDER FRASER which occurred at his residence, Pomeroy House, Bridgetown, Totnes, on Monday, January 4th, after an illness of some weeks' duration. In December he had a slight attack of influenza. He suffered subsequently from rheumatic symptoms of a severe type, which terminated fatally. Dr. Fraser was 45 years of age, and was educated at King's School, Bruton. He was a student of St. Mary's Hospital, London, and obtained the diplomas of M.R.C.S. and L.S.A.Lond. and M.D.Brussels. He held for some time the appointment of House-Surgeon of the Weston-super-Mare Hospital, and then settled at Burnham. After practising at Burnham for some years, he joined Dr. Hains in partnership at Totnes. He was immediately appointed Deputy Coroner for the County of Devon, and shortly after was elected Medical Officer of Health for the borough of Totnes. His other public appointments included those of Medical Officer and Public Vaccinator for the parishes of Berry, Pomeroy, Stoke Gabriel, and Littlehempston.

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BY the death of Professor VON GERLACH, of Erlangen, Germany has lost one of her greatest anatomists. Joseph von Gerlach was born in 1820, and was thus in his 76th year. He studied medicine at Würzburg, Munich, Berlin, Vienna, Paris, and London. In 1846 he returned again to Munich, taking his Doctor's degree there in the same year, and shortly afterwards he settled in Mainz, his native place. He soon became one of the busiest practitioners in that city; this, however, did not prevent him pursuing anatomical researches, and, as far back as 1847 he succeeded in injecting the peripheral vascular system with carminic acid and ammonia. His *Handbuch der allgemeinen und speziellen Gewebelehre* was published in 1848. This brought him into notice, and in 1850, on the death of Fleischmann, Gerlach succeeded him in the Chair of Anatomy at Erlangen. Here, in the early years of his professorship, he wrote his *Mikroskopische Studien*. Here he practised the staining of organic tissues, a method which, made known by him in 1855, came as the result of his efforts into general use. He did much also to promote the study of histology by the introduction and popularisation of microphotography. When von Gerlach first began to make use of that method very little was known about it in Germany, though since the technique of photography was improved by Archer in 1851 it

had been much employed both in England and in France. Von Gerlach held the Professorship of Anatomy at Erlangen more than 40 years, retiring in 1890. Up to last year, however, he continued to lecture on the organs of sense, and assisted his son, who succeeded him in the Chair of Anatomy, in the demonstrations in the anatomical theatre. Amongst his other contributions to the medical literature his *Handbuch der speziellen Anatomie des Menschen in topographischer Behandlung* (1891) deserves special mention. Professor von Gerlach, from the magnetic charm of his personality, was a source of inspiration to a host of successful workers and pupils. He leaves a widow, one son (Professor Leo Gerlach, of Erlangen), and a daughter, who is married to Dr. Emil Fischer, the well-known Professor of Chemistry in the University of Berlin.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently passed away are Professor Giuseppe Mandruzza, Director of the Maternity Hospital of Perugia, and for many years Dean of the Medical Faculty of the University of that city; Dr. J. Michael of Hamburg, a well-known specialist in diseases of the throat and nose, aged 49; Dr. Lecerf, Senior Surgeon to the Hôtel Dieu, Valenciennes, aged 49; Dr. Theodore G. Wormley, Professor of Toxicology and Chemistry in the medical department of the University of Pennsylvania, aged 70; Dr. Puech, Senior Physician to the Hôtel Dieu of Nimes; and Dr. Trinchese, Professor of Comparative Anatomy in the University of Naples, and author of numerous papers relating to that department of science.

# NAVAL AND MILITARY MEDICAL SERVICES.

## REPORT OF THE ARMY MEDICAL DEPARTMENT FOR THE YEAR 1895.

THE appearance of this volume in December, 1896, cannot be considered belated in view of the immense mass of figures and details with which it ably deals. The Director-General and his staff are to be congratulated on the accuracy and lucidity of the information supplied. These reports year by year yield much the same figures and facts, except when varied by special army operations or outbreaks of disease in portions of our world-wide possessions.

Taken broadly, 1895 seems to have been an average year, of an uneventful character. Among the 100,000 troops at home and the 30,000 in our Colonial garrisons the ratios of sickness and mortality were in 1895 somewhat higher than in 1894, but still below the decennial average. Among the 71,000 men in India there was also a small increase, due to the steady rise in venereal diseases.

At home there were only three cases of small-pox, but a considerable increase in scarlet fever and measles. Enteric fever appeared in every district to a greater or less extent, but as usual Dublin held its bad pre-eminence. It is remarked, however, that in that garrison "insanitary surroundings have far more to do with the prevalence of the disease than any defect within barracks."

As regards invaliding, the highest ratio is among men of between one and two years' service, while, as in previous reports, the principal disabilities necessitating discharge are circulating diseases. The highest ratio of sickness is among soldiers under one year's service, but the mortality rate is higher among the older soldiers. The highest admission rate is recorded to the infantry, the lowest to the Departmental Corps.

The number of recruits found fit in 1895 was 33,150, and the rejections were in the ratio of 411.43 per 1,000 inspected, an increase of 6.92 unfit compared with 1894: but as more than half the rejections are always from deficient standard of height, weight, or chest, or from defective vision, such unfitness, as is well known to those conversant with recruiting, is very largely governed by the amount of care taken by the recruiters in primary selection: if they rush men into the medical inspection rooms obviously under standards or half blind, the rejections on such grounds are, of course, unduly increased.

Concerning the health of our troops abroad there is fortunately little to be said. Mauritius in 1895 was even more unhealthy than ever, and it is high time the sanitary condition, especially of Port Louis, was overhauled. It is satisfactory to find there was a further reduction in the ratios of sickness in Egypt and Cyprus. In India sickness in 1895 was much of an average. The admission rate is always higher among the young soldiers during the first and second year in the country, but the mortality is greatest among the older men.

Enteric fever occurred in every station with only thirteen exceptions, and was slightly more prevalent, but with a decreased mortality. The causes to which the disease is ascribed are as usual very numerous, but all point to specific infection through food or water.

Cholera was fortunately not prevalent in 1895, but there was a small outbreak at Fyzabad which caused 11 deaths out of 17 seizures.

Venereal diseases—all forms—afforded 32,116 admissions, a ratio of "536.9 per ₱,000, which is more than that of the preceding year by 25.2, and in excess of the average rate by 127.6, while for constantly sick the ratio was 46.31, representing a loss of 3,164.84 men to the efficient strength of the force from these diseases, higher than the rate in 1894 by 3.17, and above the average by 14.39."

No comment of ours could possibly better enforce a lesson or moral, or could more clearly suggest a policy, than these sad figures. Lord Ellenborough is credited with saying that if India is ever lost, it would not be by the sword, but in the House of Commons. Should his prediction come true, it would almost seem as if it would come by that House listening to the irresponsible cant regarding venereal diseases by a small section of utterly mistaken if well-meaning purists.

## ARMY MEDICAL STAFF EXCHANGE.

*The charge for inserting notices respecting Exchanges in the Army Medical Department is 8s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.*

A SURGEON-CAPTAIN, who will complete five (5) years in India, March, 1898, is willing to exchange places in the roster with a medical officer who would have two, three, or four years more to serve in India, or is willing to take a complete tour of Indian service from next trooping season. Apply, stating the amount willing to give, to Surgeon-Captain Gibbard, A.M.S., Ootacamund, India.

## THE NAVY.

FLEET-SURGEON M. FITZGERALD, now on half-pay at Plymouth: Staff-Surgeon A. G. P. GIPPS, of the Royal Naval Hospital, Stonehouse; and Surgeon J. GRANT, of the *Cambridge* gunnery school ship, are under orders to proceed to Benin.

The following appointments have been made at the Admiralty: SHIRLEY H. BIRT, Surgeon, to the *Wildfire*, January 16th; MICHAEL FITZGERALD, Fleet-Surgeon, ALEXANDER G. P. GIPPS, Staff-Surgeon, and JOHN GRANT, M.B., GEORGE M'GREGOR, RICHARD H. WAY, and EDWARD SUTTON, Surgeons, to the *St. George*, additional, for the hospital ship *Malacca*, January 18th; WILLIAM EAMES, Staff-Surgeon, to Plymouth Hospital, January 18th; HENRY W. D. WALSH, Staff-Surgeon, to the *Lion*, January 18th; RICHARD A. FITCH, Surgeon, to the *Excellent*, January 22nd.

## ARMY MEDICAL STAFF.

SURGEON-COLONEL W. GRAVES, whose tour of service in India has expired, is directed to proceed to England on being relieved on the administrative medical staff of the Bengal Command.

Brigade-Surgeon-Lieutenant-Colonel M. M. GALLWEY, now borne on the strength of the Bombay Establishment, will proceed to England during the trooping season of 1896-7, doing duty with the troops on the homeward voyage.

Surgeon-Colonel W. S. M. PRICE, recently arrived in India, is appointed Principal Medical Officer Meerut and Bundelkhund Districts.

Surgeon-Major ALEXANDER SHARPE, M.D., retires on retired pay. He was appointed Surgeon, February 5th, 1881, and Surgeon-Major twelve years later.

Surgeon-Major G. D. HUNTER, D.S.O., is restored to the establishment from the Seconded List, *vice* W. J. Macnamara, seconded, January 7th. Surgeon-Major Hunter has been serving with the Egyptian army since May 1st, 1888.

## INDIAN MEDICAL SERVICE.

DEPUTY-INSPECTOR-GENERAL FREDERIC JOHN MOUAT, M.D., F.R.C.S., LL.D., Bengal Establishment Retired, formerly Inspector-General of Prisons, Bengal, died at Kensington on January 12th, aged 80 years. He was the second son of Surgeon James Mouat, of the King's Hussars and the 13th Light Dragoons, and was educated at University College, London, in Paris, and at the University of Edinburgh. He graduated M.D. at Edinburgh in 1839, and LL.D. in 1886, and obtained the qualification of M.R.C.S. Eng. in 1838, and F.R.C.S.Eng. in 1844. He served in India as Local Government Inspector and Deputy-Inspector-General of the Bengal Army, Official Visitor of Lunatic Asylums, and Inspector-General of Prisons in Bengal, J.P. for Calcutta, Professor of Chemistry and Materia Medica, and Chemi-

cal Examiner to the Government, Professor of Medicine and Medical Jurisprudence, and first physician of the Medical College in Calcutta, and Secretary of the Council of Education, Bengal. He was President of the Royal Statistical Society from 1890-92, Fellow of the Royal Geographical Society, Fellow of the Society of Arts, and Member of the Faculties of Medicine and Arts, and Member of the Senate of Calcutta University. He was the author of a large number of works on Indian medicine and other kindred subjects.

### THE VOLUNTEERS.

SURGEON-CAPTAIN C. W. J. CHEPNELL, M.D., 1st Volunteer Battalion the Royal Sussex Regiment, has resigned his commission, January 20th.

### A SANATORIUM FOR TROOPS IN BURMAH.

THE Commander-in-Chief of the Madras Army Corps (Sir C. Mansfield Clarke) on his visit to the Northern Shan States in February, will take into consideration the proposal to remove European troops from the unhealthy site of Mandalay to the Maymyo Sanatorium, some fifty miles from Mandalay, to which the railway will be opened during the present year.

### THE ROSTER OF FOREIGN SERVICE.

THE extremely short home service of Army Medical officers at the present time is attributable chiefly to two causes: (*a*) the department being greatly under its proper strength: (*b*) the reduction of the foreign tour in India to five years. Matters have arrived at such a pass that, it is stated, a certain number of surgeon-majors have been placed on the surgeon-captains' roster, which practically means that the vacancies abroad for officers of the latter rank are filled by the former. Such is the importance attached to the rank of the departmental officers.

### MOVEMENTS OF A.M.S. OFFICERS.

THE following medical officers embarked for India on January 26th: Brigade-Surgeon-Lieutenant-Colonel Slaughter, Surgeon-Major Kirkpatrick, Surgeon-Lieutenant Lawson. These officers are serving in the Southern District.

Surgeon-Majors Fannel and Sloggett, and Surgeon-Lieutenant Evans, from the same district, embarked in the *Britannia* for India on January 13th.

Surgeon-Major Jencken, at Netley, is under orders for India early next month. He has only two years home service.

Surgeon-Major-General C. McD. Cuffe, C.B., on the Staff of the Lieutenant-General commanding at Portsmouth, rejoined from leave on January 10th.

Surgeon-Major-General Nash took over the Netley charge on January 1st.

### ARMY SURGEONS AND CORONERS' INQUESTS.

AN important point has been recently decided by the Secretary of State for War on a question raised by the Aldershot auditor of the Local Government Board. It is as follows: That Army medical officers are not entitled, as they have hitherto been, to receive fees for attending inquests or making *post-mortem* examinations on the bodies of persons dying in military hospitals. The War Office reply says: "I am directed by the Secretary of State for War to inform you that in respect of an inquest on the body of any person admitted to a military hospital under the provisions of Para. 56 Army Allowance Regulations, the medical officer would not, in the opinion of the Secretary of State for War, be entitled to a fee, as a military hospital cannot properly be included within the expression 'other medical institutions.'" In the future examination of coroners' disbursements the War Office views will be acted up to, and the county coroner has been so informed.

### INSTRUCTION IN FIRST AID TO WOUNDED.

INQUIRER asks whether, and if so by whom, instruction is given in first aid to wounded in conscripted Continental armies? In the British army all officers and soldiers are ordered to be taught the use of the first field dressing; while, of course, the regimental stretcher bearers have special instructions in their duties.

### THE COMING EXAMINATION.

SURGEON-MAJOR writes: It is currently reported that some of our highest military officials have expressed their intention to defy the medical profession on the question of the status of medical officers, and to fall back on "contract rates," etc. It is a ridiculous threat we have heard before. But let those who even think of becoming candidates pause before they jump into a career already hard enough, and into a department which the authorities would like to keep the lowest in army life.

### MEDICAL OFFICERS' TITLES.

"SERJEANT"-CAPTAIN writes: As a civilian I should like to tell you that my brother, a surgeon-captain in the army, has been spending with me three out of the five days leave generously granted him before going on five years' foreign service. In introducing him to friends, and speaking of him to servants, I naturally called him "Captain," instead of the cumbersome "Surgeon-Captain," which the servants promptly interpreted as "Serjeant"-Captain; but he at once told me that if I did so he would be accused of snobbishness, and of posing as something he is not. Now, it seems to my civilian mind that this state of things is ridiculous in the extreme; do we talk of an Engineer or Artillery Captain when speaking of such officers? Why should my brother, as a medical officer of the army, be put in the awkward position of not knowing what to style himself, without at the same time entering into an explanation of what he is?

*** Just so; he is supposed to have the rank and title of captain in the regular forces: but, unlike other officers, if he dares to use it without at the same time specifying his particular function, corps, or branch of the service, he is accused of being a snob! Why not introduce an inspector of army schools as "educational-captain," or the custodian of the purse as "paymaster-captain"?

# MEDICO-LEGAL.

### AN UNQUALIFIED PRACTITIONER CONVICTED.

THE Medical Defence Union is again to be congratulated upon the successful prosecution of an unqualified person at Burnley. At the quarter sessions for the borough held on January 8th before the Recorder, Mr. H. G. Shee, Q.C., Arnold George, 34, described as a "specialist," was charged with obtaining money by false pretences from William Martindale with intent to defraud on August 8th, 1896. The evidence as reported in the *Burnley Gazette* disclosed the usual features. The plaintiff, believing that he was suffering from disease, and reading the advertisements of the wonderful powers of cure possessed by the "specialist," consulted him, and was informed that he would have to go under treatment for a month, and that the fee would be two guineas. Several visits were paid, and then the prisoner represented that he was very seriously affected, and that special and further treatment was necessary, for which more money was required. In the space of nine days the sum of £11 7s. was paid by the prosecutor, who was a labouring man. Finally, finding that he could not continue to pay the fees required, he stopped attending, and then received a letter from the prisoner, pointing out that he would suffer for his stupidity in not carrying out his instructions, and later following this with a letter threatening to put the case in the hands of his (the prisoner's) solicitors. Evidence was given by medical practitioners that there were no traces or appearances in the prosecutor of the ailments as stated by George. The defence raised was that had George been a duly qualified medical man he would never have stood in the dock. Further, it was contended that as medical men often made mistakes in diagnosis, the prisoner should be put on the same level as duly qualified practitioners. George, it was suggested, did honestly believe that the man was suffering from the disease that he diagnosed. The Recorder having summed up at some length, the jury brought in a verdict of "Guilty." The judge, in sentencing the prisoner to twelve months' imprisonment with hard labour, stated that the offence was a cruel one, and one deliberately committed. The prisoner had stripped a hard-working man out of every shilling he had saved, and he considered the offence the worst he had the misfortune to try. He hoped the sentence given would be sufficient to teach other people who lived as the prisoner that if they were caught and brought before him they would be severely punished.

### MEDICAL HALLS AT THE EAST END.

AT an inquest held upon the body of Elizabeth Warrington at the London Hospital on January 10th, it was stated, according to the report of the evidence in the *Daily Mail*, that the deceased was attended by a chemist's assistant from the "Medical Hall" in Salmon's Lane. The assistant in question gave evidence, and informed the coroner that he had no surgical qualification. The coroner informed the jury that a similar matter had been the occasion of an inquest previously, and that he had then written to the principal, Mr. Willmer, in whose employment the assistant was then as at present, and that he had promised to dismiss him "if it occurred again." The evidence showed that there was a red lamp in the front of the shop and the words "Medical Hall" upon the facia. The case is in the hands of the Medical Defence Union, which is already taking steps in the matter. The words "Medical Hall" are to be found in various districts in London without the name of any registered medical practitioner being upon the place, and in any future amendment to the Medical Acts a clause must be drafted which should put a stop to a practice so obviously calculated to mislead the suffering poor by such means. Naturally, as the coroner stated, persons seeing this designation imagine that the place is conducted by a qualified practitioner. As there are good grounds for holding that the Apothecaries Act has been infringed in this case, no doubt the Society of Apothecaries will have the matter under consideration shortly.

### PROSECUTIONS UNDER THE DENTISTS ACT.

AT the Brighton Police Court on January 10th, before the stipendiary and bench of magistrates, certain persons trading under the name of the American Dental Institute and the American Dental Company respectively were severally summoned for using the title of dentist and representing themselves as qualified in dentistry contrary to the provisions of the Dentists Act, 1878. Evidence was given in the case of three of the defendants, Harris, Foley, and Dinjian only, and in the end Harris's case was adjourned for eight weeks, as it appeared that he was one of those who were moving the High Court against the General Medical Council in order that their names might be entered on the *Dentists' Register*. The summons against Foley was dismissed with costs, it being proved that he was upon the *Register* with a different address. In the third case, that against Dinjian, the stipendiary also dismissed the summons, ruling that the evidence of the holding out of a qualification was not sufficient to justify a conviction. The remaining cases were then adjourned for a week. In the report of the cases in the *Sussex Daily News*, it does not appear whether the prosecutions were initiated by individuals or by the Dental Association of London. We will reserve our comments upon the legal questions involved until after the decision of the stipendiary in the adjourned cases.

### BOGUS DEATH CERTIFICATES: A REMEDY.

D. M. writes: The prosecution of "Ferdinand," reported in the BRITISH MEDICAL JOURNAL of December 26th, 1896, brings to light the fact that flaws exist in the way of accurate and legal death certification. To remedy such each register office should be provided with the current issue of the *Medical Register*, and the medical man's name, address, qualifications, place, and date of registration on every death certificate handed in compared with the entry in the *Medical Register*. The place and date of registration is meant as an additional safeguard. In addition the registrar, before filing the certificate permanently, should take it to the issuer's address and get him to initial it, and with the view of noting anything suspicious of the quack about the surroundings of the certifier. This method, although a little troublesome, would, it is certain, prevent the issue of any bogus certificates of death, and would in

great manner check the career of the professional quack, because these stringent rules of death certification would do away with his chances of escaping detection in the event of a patient dying under his treatment. Besides it would make medical men more particular to note any change of address to the medical registrar. In country districts, where medical men are few and mostly well known to the district registrars, such a scheme is hardly called for, but in large towns it would appear to be of vital importance.

*** This suggestion has been made before, but the objection to its adoption advanced by the Registrar-General are twofold: first, that there are 2,000 local registrars of births and deaths, so that the expense would be considerable; and secondly, that the addresses in the *Register* are not all correct. Registrars are instructed, on receiving a medical certificate signed by a practitioner as to whose registration any doubt exists, to report the circumstance at once to the Registrar-General. We may remind our correspondent that the defects of the present system for the certification and registration of deaths were inquired into by a Departmental Committee of the Local Government Board, and that certain recommendations were made. The matter was discussed at a meeting of the Metropolitan Counties Branch last year, and the recommendations of the Committee which were endorsed by this meeting will be found embodied in the address of Sir Henry Thompson to this meeting. The address was published in the BRITISH MEDICAL JOURNAL of June 6th, 1896.

# UNIVERSITIES AND COLLEGES.

## UNIVERSITY OF CAMBRIDGE.

APPOINTMENTS.—Dr. E. Barclay-Smith has been appointed Senior Demonstrator of Anatomy in the place of Dr. Melsome, and Mr. F. C. Kempson, M.B., of Caius College, Junior Demonstrator. Dr. J. Ward has been appointed the First Professor of Mental Philosophy.

DEGREES.—At the Congregation on January 14th the following medical and surgical degrees were conferred:

*M.B.*—W. L. Brown, M.A., St. John's; A. L. Tatham, B.A., Caius; A. F. Shoyer, B.A., Trinity Hall; G. A. Auden, B.A., Christ's.

*B.C.*—W. L. Brown, St. John's; A. G. Butler, St. John's; C. F. Lillie, St. John's; A. L. Tatham, Caius; F. W. H. Hutchinson, Trinity Hall; A. F. Shoyer, Trinity Hall; G. A. Auden, Christ's.

## UNIVERSITY OF LONDON.

### MEETING OF CONVOCATION.

A GENERAL meeting of Convocation took place on January 18th. Mr. E. H. Busk, chairman, presided.

Mr. T. G. Foster, B.A., presented the report of the Annual Committee, which described the present inaccessibility of the books in the library of the University, and the unsatisfactory state of the laboratory. The Committee's report was adopted.

*The Library.*—A resolution, proposed by Mr. Harris, was passed. It expressed regret at the lack of a University hall, which compelled the Senate to use the library for purposes for which it was not intended, and asked the Senate to consider whether steps could not be taken to remove the limitations which exist to the free use of the library.

In speaking to this resolution, Dr. Silvanus Thompson regretted that the library was virtually useless, and its treasures unavailable for students. He contrasted this condition of things with that which obtained in Bavaria, where, with a population scarcely exceeding that of London, there were three universities, each equipped with an admirable library, far better provided for and attended to than that of the University of London.

Mr. T. G. Foster, B.A., moved a resolution requesting the Senate so to revise the regulations of the library as to meet several suggestions. The first was that a list of days on which the library would be closed for examinations should be circulated. (2) That during such periods books might be obtainable on notice given. (3) That a list should be circulated of the periodicals taken by the University. (4) That current numbers of such periodicals, copies of the catalogue, and a list of recent accessions, should be provided and made available. (5) That the library be open from 10 to 4, and that during examinations books should be obtainable on notice. (6) That readers, at their own cost, be allowed to have books sent to them for a limited period. The first four parts of the resolution were carried, and paragraphs 5 and 6 were carried with the addition of an amendment to the effect that the librarian was to use his endeavours to inform members whether a particular book was in the library or not.

Mr. H. Keatley Moore, B.A., B.Mus., moved a new standing order, that "Before any notice of motion be placed on the agenda paper it shall be submitted to the chairman, who, if he be of opinion that it is out of order, shall cause the giver of the notice to be so informed." He spoke of the great inconvenience caused to members who came to the meetings prepared to support or oppose a proposal, and who might find it ruled out of order.

Mr. G. Eastes, M.B., considered that it would be an improvement to empower the chairman to strike such a motion off the agenda paper altogether.

An amendment was moved to the effect that when the chairman had expressed his opinion that a motion was out of order that fact should appear on the agenda paper. Before this was put the House was adjourned, as there was not a sufficient number of members present to form a quorum.

## UNIVERSITY OF ST. ANDREWS.

MUNIFICENT GIFTS BY THE MARQUIS OF BUTE.—At the last meeting of the University Court a letter was read from the Marquis of Bute intimating his readiness, in order to remove for a time any difficulty in the way of providing the salaries of the lecturers on physiology and on modern Greek, to place the amount thereof at the disposal of the Court for this and next year. The Court nominated Miss Umpherston to be lecturer on physiology. Lord Bute made a further munificent offer to defray the cost of erecting a building for the accommodation of the medical classes. The site chosen is in St. Mary's College Gardens. The Court, after passing a cordial vote of thanks to Lord Bute, resolved to accept the offer, and appointed a committee to make arrangements for the acquisition of the necessary ground, and for the erection of the building. It was resolved also that the salary of the Chandos Chair of Medicine and Anatomy should be raised to £500, exclusive of fees, by additions from the Berry Fund.

## CONJOINT BOARD IN ENGLAND.

THE following gentlemen passed the Second Examination of the Board in the subjects indicated at a meeting of Board of Examiners on Monday, January 11th:

*Anatomy and Physiology.*—A. G. Brinton, Y. Flewett, J. C. Oates, O. E. Ward, and E. E. M. Price, of Mason College, Birmingham: D. M. Davies and G. H. Simpson, of St. Mungo's College, Glasgow; R. J. Fyffe, of Firth College, Sheffield; W. N. Blatchford, of University College, Bristol; R. Walker, of St. Bartholomew's Hospital; J. S. Cousins, of Guy's Hospital and Mr. Cooke's School of Anatomy and Physiology; J. B. Thompson, of University College, London; E. Hudson, of Owens College, Manchester, and St. Thomas's Hospital; and W. S. Low, of Royal College of Surgeons and the University of Edinburgh and St. Thomas's Hospital.

*Anatomy only.*—A. S. Arkle, of Cambridge University, St. Thomas's Hospital, and University College, Liverpool; H. M. Leaths, of Cambridge University and St. Thomas's Hospital; L. C. Martin, of Guy's Hospital and Mr. Cooke's School of Anatomy and Physiology; E. F. Crabtree, of St. Bartholomew's Hospital; and R. Pestonjee, of Ceylon Medical College and Mr. Cooke's School of Anatomy and Physiology.

*Physiology only.*—W. Beck, of Aberdeen and Edinburgh Universities; J. A. Mellish, of St. George's Hospital.

Eighteen gentlemen were referred in both subjects, 1 in Anatomy only, and 1 in Physiology only.

Tuesday, January 12th:

*Anatomy and Physiology.*—P. T. Nichols, of Middlesex Hospital: H. N. R. Child, of Otago University, Dunedin, and Middlesex Hospital; H. Burrows, H. W. Illius, J. W. Illius, W. P. Dyer, and T. W. Brown, of St. Bartholomew's Hospital: A. D. Reid, of King's College, London; G. J. E. Pitman and C. M. Row, of University College, London; T. G. Fenton, of St. Thomas's Hospital: C. A. D. Bryan and W. M. Thomas, of Guy's Hospital; J. R. Griffith, of London Hospital; A. H. Foster and A. J. Watson, of St. Mary's Hospital; and R. E. Mounsey, of St. George's Hospital.

Eighteen gentlemen were referred in both subjects.

Wednesday, January 13th.

*Anatomy and Physiology.*—C. B. Sells, C. Edwards, and J. B. C. Brockwell, of Guy's Hospital; H. C. Holden, of Guy's and Westminster Hospital; C. W. Wirgman, N. F. Stallard, and P. T. H. Stedman, of University College, London; C. V. White, of St. Thomas's Hospital; G. M. Smith, of St. Thomas's Hospital, and Mr. Cooke's School of Anatomy and Physiology; H. Thwaites and A. Jones, of London Hospital; E. A. Sanders, of King's College, London; A. M. Macintosh and W. R. P. Goodwin, of St. Mary's Hospital.

*Anatomy only.*—J. Micklethwaite, of Frith College, Sheffield, and Mr. Cooke's School of Anatomy and Physiology.

*Physiology only.*—F. A. Hort, of Cambridge University, Middlesex Hospital, and Mr. Cooke's School of Anatomy and Physiology; and W. M. James, of Cambridge University and St. Bartholomew's Hospital.

Twenty-five gentlemen were referred in both subjects, 2 in Anatomy only, and 1 in Physiology only.

Thursday, January 14th:

*Anatomy and Physiology.*—E. G. Andrew, G. Shorland, A. E. Cawston, and R. W. J. Radley, of Guy's Hospital; W. E. Cooper, of University College, London; C. A. Nanjapa, of Madras Medical College and University College, London; J. O'Hea, G. J. A. Leclerzio, of St. Bartholomew's Hospital; G. H. Orton, of Cambridge University and St. Bartholomew's Hospital: E. W. Browne, C. A. R. Nitch, of St. Thomas's Hospital: R. A. G. Penny, of St. George's Hospital: C. E. Ethridge, of Middlesex Hospital; J. S. Dudding, F. J. P. Daly, of London Hospital; M. S. Doubble, of Charing Cross Hospital; W. E. Turner, of St. Mary's Hospital.

*Anatomy only.*—A. W. Walker, of Mason College, Birmingham; and J. A. Rooth, of St. George's Hospital.

*Physiology only.*—T. A. King, of Cambridge University and St. Thomas's Hospital.

Sixteen gentlemen were referred in both subjects, 2 in Anatomy only, and 1 in Physiology only.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentleman having passed the necessary examinations, and having now conformed to the by-laws and regulations, has been admitted a Member of the College:

L. W. Roberts, M.B., Ch.B.Melb., of Melbourne University and King's College, London.

## ROYAL COLLEGE OF SURGEONS IN IRELAND.

AT a meeting of the Fellows, Mr. Robert L. Swan, F.R.C.S., was elected Vice-President, and Mr. L. Hepenstal Ormsby, F.R.C.S., was elected a member of the Council of the College.

### CONGRATULATIONS TO LORD LISTER.

THE following correspondence has passed between the President of the Royal College of Surgeons in Ireland and Lord Lister:

MY LORD,—The Council of the Royal College of Surgeons in Ireland have requested me to tender to you on their behalf and my own our earnest congratulations on your elevation to the peerage. We are glad to

recognise that on the first occasion on which such an honour has been conferred upon a member of our profession the recipient should be one who has created a new era in surgery, and who has thereby saved innumerable lives. There is no place in which your precepts and practice have been more zealously followed than in this country, and we, in common with all other peoples, are your debtors. We rejoice in the honour which has been conferred upon you by Her Majesty: and we trust that you may live long to exercise that influence upon the practice of scientific surgery which has made your name famous.

I am, my Lord, yours faithfully,
W. THOMSON, President.
12, Park Crescent, Portland Place,
January 12th, 1897.

MY DEAR MR. THOMSON,—I esteem it a very high honour to receive congratulation from the body which represents my Irish colleagues in surgery, and I feel it to be enhanced by the circumstance that the gratifying message has been communicated to me by yourself, the President of the College.

I well remember the kind part you took in reporting a small address that I gave many years ago in the Richmond Hospital, an act on your part which I suspect had no small share in diffusing among your Irish brethren the principles of antiseptic surgery. I beg you to express to your colleagues on the Council the great gratification which they have caused to me, and

Believe me, very sincerely yours.
JOSEPH LISTER.

# MEDICO-PARLIAMENTARY.

*HOUSE OF COMMONS.*

THE third session of the twenty-sixth Parliament of the United Kingdom was opened on Tuesday.

NOTICES.

THE PLAGUE IN BOMBAY.

Mr. CALDWELL has intimated that he proposes to ask the Secretary for India whether the attention of the Indian Government has been called, or will be called, to the necessity of having suitable hospital accommodation at Bombay for the isolation and treatment of cases of plague, and whether, in view of the great suitability of the military lines and cantonment of Colaba for such a purpose, the Indian Government will find other accommodation for the troops in Bombay?

THE FACTORY ACTS.

Sir C. DILKE has given notice to ask the Home Secretary whether it is his intention to introduce, in the present session, a Bill for the consolidation of the Factory Acts with any minor amendments of the law?

THE CASE OF DR. FOSTER NEWLAND.

Mr. FIELD has on the notice paper a question to the President of the Board of Trade as to whether he is aware that Dr. Foster Newland has remonstrated against his dismissal without notice or complaint from his position as medical officer to the Irish Lights Board in the Kingstown District after a satisfactory service of 20 years; and whether he will cause an investigation to be made into the facts.

TRANSIT OF CATTLE.

Mr. FIELD also intends to ask the Secretary for Ireland whether he will introduce a Bill to ensure the more humane cross-Channel transit of live stock, by making shipping companies liable under the Carriers' Act for injuries to animals caused by careless handling and insufficient fittings.

LAW OF EVIDENCE (CRIMINAL CASES).

The ATTORNEY-GENERAL has given notice of his intention to introduce a Bill to amend the law of evidence in criminal cases.

HABITUAL DRUNKARDS.

Mr. KNOWLES has given notice that on an early day he will call attention to the treatment of habitual drunkards, and move a resolution.

# PUBLIC HEALTH
AND
# POOR-LAW MEDICAL SERVICES.

## ESTIMATION OF LEAD IN PUBLIC WATER SUPPLIES.

WE have received from Mr. N. J. Hughes-Hallett, Clerk to the Derbyshire County Council, the following letter for publication, which he has addressed to the Clerk of the Rural District Council, Chesterfield. The letter sufficiently explains the circumstances.

County Offices, St. Mary's Gate, Derby, January 15th, 1897.

George Shaw, Esq., Clerk to Rural District Council, Chesterfield.

DEAR SIR,—The Derbyshire County Council met on Wednesday, the 13th instant, and their attention was then called to remarks reported to have been made by your water engineer, Mr. Eaton, at a recent meeting of your authority with reference to the results of analyses made by our county medical officer, Dr. Barwise, of water submitted to him by Dr. Mackintosh for the purpose of ascertaining whether lead was present therein or not. As you are aware Dr. Barwise reported that two samples analysed by him contained respectively 0.45 and 0.42 grain of lead per gallon. It appears from the papers that this report was called into question by Mr. Eaton, who stated that Dr. Barwise did not know what he was talking about, that his analysis was all wrong, that it was ridiculous to talk about 0.42 grains of lead per gallon, and that such a state of things did not exist. He went on to infer that Dr. Barwise had carried out his work in an amateurish manner, with the silly result arrived at.

Since these reported remarks of Mr. Eaton appeared in the public press further portions of the same samples of water which had been examined by Dr. Barwise have been handed to Mr. White, the County Analyst for Derbyshire, and to Dr. Bostock Hill, the County Analyst for Warwickshire. The results of the three analyses of the samples of water submitted by Dr. Macintosh are as follows:

| | Sample No. 1. | Sample No. 2. |
|---|---|---|
| Dr. Barwise ... ... ... | 0.45 ..... | 0.42 |
| Mr. White ... ... ... | 0.45 ..... | 0.39 |
| Dr. Bostock Hill ... ... | 0.385 ..... | 0.39 |

It will thus be seen that Dr. Barwise's estimate, to which Mr. Eaton has taken exception, is confirmed to within $\frac{1}{20}$ of a grain, an almost inappreciable quantity.

In further confirmation of the above results two taps in your district were on the 8th inst. sealed up by the county sanitary inspector in the presence of Drs. Mackintosh and Meredith Richards; and on the following day the seals were broken and samples collected in duplicate by the same inspector in the presence of Dr. Richards. These samples were subsequently analysed by Mr. White, with the following results, namely:

Mr. Hewitt's tap at Holbrook ... ... 0.30 grains per gallon.
Mr. Roberts's tap at Halfway ... ... 0.42 ... ...

Your Council will thus see that a week after Mr. Eaton's reported statement that such result as 0.42 grains of lead per gallon was nonsense, the same quantity was again proved to be present in the water.

Under these circumstances the County Council very strongly resent Mr. Eaton's derogatory remarks concerning one of their officers, and at their meeting held on Wednesday last the following resolution was unanimously passed:

"That the clerk be instructed to communicate with the Chesterfield Rural District Council with reference to the statement made by their engineer, Mr. Eaton, at their last meeting, and to inform them of the results of the water analyses obtained by Dr. Bostock Hill and the county analyst, and that the District Council be asked to call upon Mr. Eaton to either substantiate or withdraw the statements made by him with reference to the county medical officer. And further that a copy of such communication be sent to the press."

In accordance with this resolution I have already explained what has taken place with regard to the examination of the water submitted to Dr. Barwise, and I now ask that you will be good enough to bring this letter before your District Council at their next meeting. I have no doubt that your authority will comply with the request of the County Council contained in the latter part of their resolution, and when this has been done I shall be greatly obliged if you will let me know the result of your Council's communication to Mr. Eaton.

In accordance with the directions of my Council I am forwarding a copy of this letter to the press.

I am, yours faithfully,
N. J. HUGHES HALLETT.

## HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 7,127 births and 4,055 deaths were registered during the week ending Saturday, January 16th. The annual rate of mortality in these towns, which had been 22.3 and 19.4 per 1,000 in the two preceding weeks, further declined to 19.2 last week. The rates in the several towns ranged from 9.1 in West Ham, 15.4 in Portsmouth, 15.5 in Brighton, and 15.9 in Leicester to 23.9 in Wolverhampton, 24.9 in Preston, 25.1 in Liverpool, and 28.3 in Plymouth. In the thirty-two provincial towns the mean death-rate was 20.1 per 1,000, and exceeded by 2.1 the rate recorded in London, which was 18.0 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.8 per 1,000; in London the rate was equal to 1.7, while it averaged 1.8 per 1,000, in the thirty-two provincial towns, and was highest in Birmingham, Manchester, Bristol, Blackburn, and Nottingham. Measles caused a death-rate of 1.6 in Nottingham, 1.7 in Portsmouth, 1.8 in Bradford, and 2.1 in Plymouth; scarlet fever of 1.0 in Gateshead; whooping-cough of 1.1 in Sunderland, 1.6 in Bristol and in Nottingham, and 2.0 in Blackburn; and "fever" of 1.1 in Halifax. The 77 deaths from diphtheria in the thirty-three towns included 52 in London, 9 in Birmingham, 3 in Bristol, 2 in Liverpool, and 2 in Leeds. No fatal case of small-pox was registered during the week under notice, either in London or in any of the thirty-two large provincial towns. There were 3 small-pox patients under treatment in the Metropolitan Asylum Hospitals on Saturday last, January 16th, against 3 and 2 at the end of the two preceding weeks; 1 new case was admitted during the week. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital, which had declined from 4,164 to 3,597 at the end of the twelve preceding weeks, had further fallen to 3,414 on Saturday last; 208 new cases were admitted during the week, against 219, 271, and 290 in the three preceding weeks.

## HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, January 16th, 1,001 births and 664 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 20.3 to 22.8 per 1,000 in the seven preceding weeks, declined to 21.0 last week, but exceeded by 2.7 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 17.3 in Aberdeen to 23.8 in Paisley. The zymotic death-rate in these towns averaged 2.5 per 1,000, the highest rates being recorded in Greenock and Glasgow. The 323 deaths registered in Glasgow included 25 from measles, 23 from whooping-cough, 3 from "fever," and 2 from diphtheria.

## THE SUPERANNUATION ACT AND THE NURSES.

THE Metropolitan Asylums Board at its last meeting had under discussion the position of the nurses under this Act, and, on a recommendation from the General Purposes Committee, recommended that the President of the

Local Government Board be requested to receive a deputation from the managers with the view of urging upon the Board the desirability of supporting the proposed amendments which were in course of preparation, so that the great injustice done to nurses by this recent Act might be remedied. We are very glad to see that action is being taken by this important body, and that this question is being dealt with in such a statesmanlike manner. If nurses are to be offered opportunities of providing for their old age, it should be in such a way that there may be a reasonable prospect of reaping the fruits of their prudence. As the Act now stands, very few nurses could ever come within the scope of its provisions.

### THE INSANE POOR IN IRISH WORKHOUSES.

AN important letter on the above subject from the Local Government Board was read at the meeting of the Governors of the Clare Lunatic Asylum. This letter pointed out that the workhouse was designed for the reception and treatment of the destitute and sick poor, and not for the custody of the insane, and that the obligation to make due provision for the insane poor rests with the governors of the asylums. We are most fully in accord with the principle of this letter, and we have from time to time endeavoured to draw attention to the miserable condition of the imbecile and idiot class in the workhouses. At present, both in this country and in Ireland, the management of the harmless class of lunatics is chaotic, and often the unhappy idiot is bandied from workhouse to asylum, or asylum to workhouse, because in neither institution is he a welcome inmate. Now that the responsibility of the governors of asylums is put so clearly, we trust that means will be forthcoming to enable them to meet their responsbilities. It is a question of accommodation; the asylums are overcrowded, and the adjustment of the financial burden of their increase has to be equitably apportioned.

### PUBLIC HEALTH IN THE EASTBOURNE DISTRICTS.

AT a recent meeting of the Eastbourne Town Council it was decided that in the event of the united districts, to which the late Dr. Fussell was medical officer of health, being divided, Dr. Willoughby, the medical officer of health of Eastbourne should be allowed to apply for the appointment to the Eastbourne Rural District Council. Some discussion arose with regard to this matter, it being urged on the one hand that the claims made upon the time of the medical officer of the town were such as not to admit of his undertaking extra work; while on the other hand it was pointed out that there would be considerable advantage if the medical officer of health were in a position to act as adviser with regard to health conditions in the rural parishes immediately surrounding Eastbourne. A letter from Dr. Willoughby was read, in which he stated he wished to withdraw his application. This letter was, however, ultimately withdrawn, and Dr. Willoughby placed himself in the hands of the council. It was decided that the permission requested should be granted.

### DISINFECTION IN ST. GEORGE SOUTHWARK.

THE system to be adopted in disinfecting dwellings in which there has been infectious disease is receiving a good deal of attention in St. George's Southwark. Three years ago, acting on the advice of its medical officer, the vestry provided a steam disinfecting apparatus, and Dr. Waldo has also succeeded in inducing the sanitary authority to make arrangements for providing a shelter house for the accommodation of families during the disinfection of their homes. A special committee of the vestry has, moreover, had under consideration the question of the arrangements for disinfecting dwellings in force in the parish. The medical officer of health has recently reported on the matter, and he presented to the vestry at its last meeting a supplementary report on room disinfection, in which the points requiring attention in connection with office administration, and with the arrangements as they affect the household concerned, are dealt with in detail. Dr. Waldo makes a number of suggestions with regard to the routine to be observed, and points out the need for additional assistance in order to place the system of disinfection upon an efficient basis. In an appendix to the report a proposed code of rules for the guidance of disinfectors is submitted for the vestry's approval. Dr. Waldo's report has been referred to a committee for consideration.

### "AGGREGATE" SERVICE AND "EMOLUMENTS" UNDER SUPERANNUATION ACT.

SECRETARY (Norwich) writes to ask the meaning of the terms "aggregate" and "emoluments" under this Act, and whether, in case of an officer serving for ten years in each of two unions at the same time, this would count as twenty years.

*** In calculating the amount payable for superannuation, all service under the Poor Law is to be reckoned, so that if an officer leaves the service, and returns to it after the lapse of years, both periods of actual service are to be aggregated in reckoning the claim. Our correspondent's claim will in the course of time be against both unions in which he has served, but will be reckoned on the length of time he has been engaged in each union only. The term "emoluments" is defined as including all fees, poundage, and other payments made to any officer as such for his own use, also the money value of any apartments, rations, or other allowances in kind appertaining to his office. Fees received from guardians for certifying lunatics for asylums would not be reckoned as emoluments.

### M.O.H. AND CLERK.

RURAL M.O.H.—Inasmuch as the firm of architects has advised in the same sense as himself, our correspondent does not appear to be called upon to take any other action beyond what he has already taken—speaking to the chairman of the council. The clerk has incurred unnecessary expense, and this is so patent that it will probably provide a remedy against similar conduct in the future.

# MEDICAL NEWS.

THE Local Government Board has sanctioned the borrowing of the sum of £10,600 by the Richmond Town Council for perfecting the water supply to the town.

THE *Gazette* of January 19th announces that the Queen ha been pleased to renominate Dr. William Moore, Physician in Ordinary to the Queen in Ireland, to be, for five years from January 25th, a member of the General Council of Medical Education and Registration of the United Kingdom, for Ireland.

THE sum of £10,000 has now been obtained to provide a maternity hospital for Dundee, and the matter has been taken up by the managers of the Royal Infirmary, and will without delay be proceeded with. Half of the sum was received by the Forfarshire Medical Association from the Cobb bequest, and the remaining £5,000 raised by public subscription.

THE Portsmouth Medical Union has resolved to make a presentation to the medical officers of the Order of Rechabites of that town who recently resigned, in acknowledgment of the united stand they made on behalf of the whole profession in the recent dispute with that Order. The presentation will be made by Dr. Ward Cousins at the Medical Library on Tuesday next, January 26th.

INTERHOSPITAL FOOTBALL.—The Interhospital Rugby Football Cup was founded in 1874, and since then twenty-one competitions have been completed. St. Thomas's has won for the last five years in succession, and has altogether nine wins to its credit, Guy's four, St. George's three, the London and St. Bartholomew's two, and the Middlesex one. The first round of the competition in the present season will be played before the end of this month.

OUR Liverpool correspondent writes: January 10th was Hospital Sunday in Liverpool, and the weather fully maintained the reputation it has gained of late years for inclemency. On this occasion the collections show a considerable falling off in almost all cases as compared with last year. There is a strong feeling among the friends of the hospitals in favour of fixing Hospital Sunday at some milder time of the year.

AT a quarterly court of the directors of the Society for the Relief of the Widow and Orphans of Medical Men on January 13th, Mr. Christopher Heath, Vice-President, in the chair, one new member was elected, and the deaths of one honorary and two other members announced. It was resolved to distribute £1,212 10s. among the fifty-one widows, thirteen orphans, and five recipients from the Copeland Fund. Presents amounting in the aggregate to £368 were distributed on December 21st among the widows and orphans on the books of the Society. It was reported that the expenses of the quarter had amounted to £76.

TRAINED NURSES IN THE UNITED STATES.—Under the name of the Trained Nurses' United Aid Society of America, what is described as the most extensive association of nurses yet organised in the United States has recently been incorporated. More than 6,000 nurses are said to have joined the Society. Its object is the relief of members who are prevented from following their employment by illness or accident, and in case of death the payment of a funeral benefit. Other advantages proposed are homes of rest, loans of money in temporary distress, a sickness fund, endowed beds, and pensions.

ANTIVIVISECTION PETITIONS.—We published recently a note from Mr. J. J. Langley, calling attention to the house-to-house antivivisectionist canvassing now being practised in the West End, and we have since received a similar communication from another correspondent. Signatures are obtained in the usual haphazard fashion, and leaflets of the ordinary sort are distributed. We would remind our readers that the Honorary Secretary of the Association for the Advancement of Medicine by Research (Mr. Stephen Paget, 57, Wimpole Street) is always glad to send literature relating to experiments on animals to anyone who wishes to have a ready answer to the antivivisectionist.

SOCIETY FOR THE STUDY OF INEBRIETY.—A quarterly meeting was held on January 14th, the President, Dr. Norman Kerr, in the chair, who referred to the recent losses by death of Dr. George Harley and Sir B. W. Richardson. Dr. Pitcairn, Assistant-Surgeon to Holloway and Newgate prisons, read a paper on the Prison Treatment of Habitual Drunkards, laying down that, in the interests of the community, persons whose liberty and will power had been lost through habitual drunkenness ought to be secluded under curative conditions. Special measures should be adopted for the therapeutic treatment of inebriate prisoners, for whom the present ordinary prison system was a failure. A discussion followed, in which Surgeon-Major Poole, Drs. Smith, Longhurst, and Paramore took part.

THE DETERMINING CAUSE OF SEX.—An interesting correspondence has lately been published in the *Stockkeeper and Fancier's Chronicle*, arising out of a letter which stated that nutrition plays an important part in the determination of the sex of butterflies, moths, aphides, and tadpoles; and it was suggested that the higher animals might be subject to the same influence. This belief, that abundance of food and no exercise tend toward the production of female progeny, while the reverse conditions make for a male progeny, is not supported by facts; and the writer of the letter seems to have ignored the existence of parthenogenesis among insects. The replies made to him contain many facts of interest, but it is contrary to all that we either know or surmise about generation to believe that the sex of the offspring can be in any way determined by circumstances of nutrition, time of year, or health.

THE DISINFECTION OF THE "NUBIA."—On January 21st a trial of a method of disinfection, which has been in use for some time in France, but which has not hitherto, we believe, been carried out in England, was made on board the ss. *Nubia*. Dr. Collingridge, the medical officer for the Port of London, has, we understand, been instrumental in introducing the method, and that it should be used for the first time on such an important piece of work as that of cleansing a cholera ship in a British port speaks highly for the opinion he has formed of it. Briefly, the system consists in the use of a superheated steam spray to convey the necessary germicidal solution to the objects under disinfection. The apparatus consists of a strong cylinder in which is placed the antiseptic to be used, and of a length of hose from this long enough to reach to any part of the premises under operation, terminating in the spray-producing apparatus. To the cylinder steam is admitted above the antiseptic, while at the same time it is kept hot by means of water from a boiler. The whole apparatus is portable, and can be connected to any existing steam supply, such as the donkey boiler of the ship. The use of any antiseptic solution is not, it is stated, absolutely necessary, the hot spray by itself being a sufficient steriliser. Using this apparatus the entire system of holds and decks of the *Nubia* was disinfected. Not the least important of the features of this new method is the rapidity with which the process can be carried out.

PROPRIETARY MEDICINES CONTAINING POISON.—An inquiry instituted by the Wolverhampton coroner in reference to the sudden death of a widow has led to the discovery of large quantities of morphine and other poisons in her house. According to the report in the Wolverhampton *Express and Star*, some of this poison appeared to have been supplied to Mrs. Wedge by a Liverpool firm of wholesale druggists in the ordinary course of wholesale dealing, such sales of poison being exempt from the restrictive provisions of the Pharmacy Act, which relate only to the retailing of poisons. The evidence given at the inquest showed that the death of Mrs. Wedge was caused by morphine poisoning; but the circumstances of the administration of morphine could not be ascertained. In explanation of the large quantity of morphine found in Mrs. Wedge's house, a relative stated that she used morphine in making up a "cough mixture" for sale as a proprietary medicine, and this disclosure recalls to mind the possibility mentioned by Mr. Justice Collins as being a likely consequence of allowing unskilled persons to sell medicinal preparations containing poison. In reply to an argument in favour of such sales being permitted, Mr. Justice Collins was of opinion that nothing could be more dangerous; for if preparations of that kind could be sold by anyone, they might also be compounded by anyone, however incompetent. Incidentally this Wolverhampton inquest appears to have brought to light the actual existence of such a dangerous practice as Mr. Justice Collins referred to hypothetically, and evidence is thus furnished of the great necessity of watchfulness in regard to the multitude of secret preparations recommended to the public by every inducement of the advertising art. Concealment of the fact that they contain poison is the difficulty which prevents application of the Pharmacy Act in many instances, and strong as are the reasons for insisting that manufacturers of proprietary medicines containing poisons should disclose the fact on the labels, no step has yet been taken in that direction.

## MEDICAL VACANCIES.

The following vacancies are announced:

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Acting Physician. Appointment for twelve years, but eligible for a further period of eight years. Applications, accompanied with diplomas and certificates of registration, to be addressed to the "Medical Board, Children's Hospital, Steelhouse Lane, Birmingham," by February 3rd.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon. Applications to John Griggs Bryant, Secretary, by February 9th.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Pathologist; a knowledge of bacteriology a recommendation. Applications to Herbert H. Jennings, Secretary, by February 1st.

CORK STREET FEVER HOSPITAL AND HOUSE OF RECOVERY, Dublin.—Assistant Registrar and Resident Medical Officer. Salary, £45 per annum, with board, furnished apartments, coal, attendance, and gas. Applications to the Chairman by January 27th, and candidates must appear personally on the Thursday morning, January 28th, at 10 o'clock.

CORK UNION.—Medical Officer for the Whitechurch Dispensary District. Salary £120 per annum, and £15 per annum of Medical Officer of Health, with the usual fees as Registrar of Births, Deaths, and Marriages, and as a Public Vaccinator. Applications to J. J. Humphreys, Honorary Secretary, Whitechurch, by February 5th.

COUNTY LUNATIC ASYLUM, Lancaster.—Assistant Medical Officer; unmarried. Salary commencing at £100 per annum, with board, apartments, attendance, and washing. Applications to the Medical Superintendent by January 31st.

FLINTSHIRE DISPENSARY, Holywell, North Wales.—Resident House-Surgeon. Salary, £120 per annum, with furnished house, rent and taxes free, also coal, light, water, cleaning, or in lieu thereof the sum of £20 per annum. Knowledge of Welsh desirable. Applications to the Secretary by January 25th.

GOVAN POORHOUSE AND ASYLUM, Merryflatts, Govan.—Assistant Medical Officer. Salary at the rate of £90 per annum, with board and apartments. Applications to John Thomson, Governor, Merryflatts, Govan, by January 23rd.

HEREFORD COUNTY AND CITY LUNATIC ASYLUM.—Assistant Medical Officer. Salary, £105 without beer, with board, lodging, and washing. Applications to the Medical Superintendent by January 29th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Clinical Assistants to the Out-patients, Physicians and Clinical Clerks in the wards. Applications to the Secretary before February 1st.

HULL ROYAL INFIRMARY.—Honorary Surgeon: must be F.R.C.S. Eng., or have been Assistant Surgeon of the Infirmary for five years. Applications, addressed "Chairman, Committee of Management," to be received at the Board Room of the Institution by February 10th.

JAFFRAY SUBURBAN BRANCH OF THE GENERAL HOSPITAL, Gravelly Hill, near Birmingham.—Resident Medical and Surgical Officer; doubly qualified. Salary, £150 per annum, with board, residence, and washing. Applications to the House Governor, General Hospital, Birmingham, by January 30th.

LEICESTER INFIRMARY.—House-Surgeon. Salary, £120 for the first year, rising at the rate of £10 per annum until the third year. Board, apartments, and washing provided. Applications to the Secretary at his offices, 24, Friar Lane, Leicester, by February 1st.

LIVERPOOL DISPENSARIES.—Assistant Surgeon. Salary, £80, to be increased to £90 per annum after the first year's service, with apartments, board, and attendance. Must be unmarried. Applications to R. R. Greene, Secretary, 34, Moorfields, Liverpool, by January 25th.

LONDON COUNTY ASYLUM, Claybury, Woodford Bridge, Essex.—Assistant Medical Officer; unmarried; doubly qualified. Salary, £120 per annum, rising £5 a year to £150, with board, furnished apartments, and washing. Applications, on forms provided, at the Asylums Committee Office, to be sent to R. W. Partridge, Clerk to the Asylums Committee, 21, Whitehall Place, S.W., by January 28th

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer. Appointment for six months; doubly qualified. No salary, but board, washing, and residence in the hospital provided. Applications to A. W. Bodger, Secretary, by January 25th.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-on-Trent.—Assistant House-Surgeon. Board, apartments,

and washing as equivalent for services rendered. Applications to Ralph Hoadley, Secretary, by January 25th.

PARISH OF ST. LEONARD, Shoreditch.—Medical Officer for the Hoxton Old Town District; doubly qualified. Salary, £100 per annum, subject to a deduction prescribed by the Poor-law Officers' Superannuation Act; will also be appointed Public Vaccinator for a District of the Parish, the remuneration in respect of which will be the prescribed fee. Applications, on forms to be obtained at the Clerk's Office, to be sent endorsed "District Medical Officer," to Robert Clay, Clerk to the Guardians, Clerk's Office, Kingsland Road, N.E., by January 25th.

POPLAR UNION.—Assistant Medical Officer and Dispenser. Salary, £100 per annum, with furnished apartments and rations in the Workhouse. Applications to G. Herbert Lough, Clerk, Guardians' Offices, Upper North Street, Poplar, E., by January 26th. Candidates must attend the Guardians' Offices on January 27th at 6 P.M., and produce their diploma or certificate,

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Physician; must reside within a mile and a half of the Infirmary. Applications to the Secretary before February 1st.

SUFFOLK COUNTY LUNATIC ASYLUM, Melton, near Woodbridge.—Medical Officer; must not exceed 40 years of age. Salary, £600 per annum, with furnished house (excluding plate and linen), including all rates. Applications to A. Townsend Cobbold, Clerk to the Visiting Committee, County Hall, Ipswich, by February 1st.

SUNDERLAND BOROUGH ASYLUM, Ryhope, Sunderland.—Resident Clinical Clerk. Board and lodging provided with a nominal salary. Applications to Dr. Elkins, Medical Superintendent.

SUSSEX COUNTY HOSPITAL, Brighton.—House-Surgeon; doubly qualified, unmarried, and under 30 years of age. Salary, £120, rising to £140 per annum at the discretion of the Committee of Management, with board, residence in the hospital, and washing. Applications to the Secretary by February 10th.

## MEDICAL APPOINTMENTS.

ADAIR, Thomas Stuart, M.B.,C.M.Edin., appointed First Assistant Medical Officer to the Wadsley Asylum of the West Riding County Council.

BARNETT, Frank S., M.R.C.S.Eng., L.F.P.S.Glasg., appointed Medical Officer for the Lewisham District of the Lewisham Union.

BOASE, R. Davey, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health to the Penzance Port Sanitary Authority.

COGHILL, Miss Sinclair, L.R.C.P., L.R.C.S.Edin., appointed Registrar and Anæsthetist to the Royal Hospital for Children and Women, Waterloo Bridge Road, S.E.

DIX, William Ralph, M.B., B.S.Durh., appointed Assistant Medical Officer, Whittingham Asylum, Preston.

EVANS, Herbert, M.B.Oxon., M.R.C.S.Eng., appointed *pro tem.* Medical Officer of Health to the Seaford Urban Sanitary District.

GIBSON, E. Arthur, M.B., C.M.Glasg., L.M.Rotunda, appointed Outdoor Physician to the Glasgow Maternity Hospital, *vice* Professor John Edgar, promoted.

ISACKE, Matthew Wm. Stuart, M.R.C.S., L.R.C.P.Lond., appointed Third Assistant Medical Officer to the Wadsley Asylum of the West Riding County Council.

KAY, Dr. Matthews Burrows, appointed Second Assistant Medical Officer to the Wadsley Asylum of the West Riding County Council.

KIRWAN, J. St. L., B.A., B.Ch., B.A.O.Roy.Univ.Irel., appointed Second Assistant Medical Officer to the District Asylum, Ballinasloe.

NIXON, J. C., M.B., appointed Third Assistant Medical Officer to the Menston Asylum of the West Riding County Council, *vice* Dr. Middleton, resigned.

PARKER, J. Edmund, M.R.C.S.Eng., L.R.C.P.I., appointed Medical Officer for the Ince District of the Wigan Union, *vice* Dr. Hall, resigned.

PENFOLD, W. J., M.B.Edin., appointed Fourth Assistant Medical Officer to the Menston Asylum of the West Riding County Council.

ROBERTS, Chas. Gordon, M.A.Camb., M.B., B.C., appointed Medical Officer of Health to the Halstead Urban District Council.

SAUNDERS, Dr., appointed Medical Officer for the Parish of Duffus.

SAUNDERS, James F., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Catford District of the Lewisham Union.

SCOTT, E. W. Kerr, M.B., C.M.Edin., appointed Assistant House-Surgeon to the District Hospital, West Bromwich, for six months.

SHEAF, C. A. Ernest, M.R.C.P., F.R.C.S.E. appointed Government Medical Officer, Levuka, Fiji.

SPRIGGS, Iven, M.B., appointed Temporary Assistant Medical Officer to the Nottingham Union.

STILES, Arthur J., M.D.Edin., M.R.C.S.Eng., appointed Medical Officer, West Spalding District, and for the Deeping St. Nicholas District of the Spalding Union, *vice* H. T. Stiles, M.D.St.And., M.R.C.S.

KITCHEN, J. T., M.D.Edin., appointed Resident Medical Superintendent to the Bradford Fever Hospital, *vice* A. E. Foster, M.R.C.S.Eng., L.S.A., resigned.

LEE, J. A., M.B., C.M.Edin., appointed Medical Officer and Public Vaccinator of the Eyam District of the Bakewell Union.

BLACK, Mr. —, B.A.Camb., M.R.C.S., L.R.C.P., appointed House-Surgeon to the Suffolk General Hospital.

BAILEY, T. R., M.D.Edin., appointed Medical Officer for the No. 1 District of the parish of Bilston, of the Wolverhampton Union, *vice* F. J. Griffiths, L.F.P.S.Glasg., resigned.

BIRCH, L., L.R.C.P.I., L.R.C.P.Edin., appointed Medical Officer and Public Vaccinator for the Ince Division of the Wigan Union, *vice* William Hall, L.R.C.P., L.R.C.S.Edin.

## DIARY FOR NEXT WEEK.

### MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W. 8.30 P.M.—Mr. Harrison Cripps: Three cases of Intestinal Anastomosis, two of them involving Double Resection. Mr. Stanmore Bishop: New Operation for Vesico-vaginal Fistula.

CENTRAL HOSPITAL BOARD FOR LONDON.—Meeting of Council of Charity Organisation Society to consider this question at the Royal United Service Institute, S.W., 4.30 P.M.

### TUESDAY.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Lecture by Dr. Ormerod.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL, Gray's Inn Road, W.C., 4 P.M.—Dr. Dundas Grant: Details of Aural Therapeutics, Manipulations, Minor Operations, etc.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 P.M.—Dr. T. Lauder Brunton and Mr. A. A. Bowlby: A case of Perforating Typhoid Ulcer treated by Operation and Suture and resulting in Recovery. Dr. W. P. Herringham and Mr. A. A. Bowlby: Typhoid Fever Convalescence, Symptoms of Perforation, Laparotomy, no Lesion found, Recovery. Mr. Francis Hawkins: On Jaundice and on Perforation of the Gall Bladder in Typhoid Fever.

### WEDNESDAY.

THE CLINICAL MUSEUM, 211, Great Portland Street, 4 P.M.—Demonstration by Mr. Jonathan Hutchinson.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M.—Dr. Seymour Taylor: Urine Testing.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND, 20, Hanover Square, W., 5 P.M.—Dr. Pye-Smith: Varicella Bullosa. Dr. Stowers: The Antecedent of and Sequel to a case of Paget's Disease of the Nipple. Dr. Abraham: (1) Extensive Epithelioma of Abdominal Wall; (2) Lichen Scrofulosorum. Mr. Bidwell: Epithelioma of Leg.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, 8.30 P.M.—Mr. A. H. Tubby: Sprains and their Treatment. Mr. Openshaw: Treatment of Pelvic Cellulitis. Dr. Levy: Drawings from a case of Pneumothorax.

### THURSDAY.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, Cavendish Square, W.—Card Specimens at 8 P.M. by Mr. Macnaughton Jones, Mr. Work Dodd, and others. Papers 8.30 P.M.: Dr. R. Lawford Knaggs: Case of Spontaneous Recovery of a Retinal Detachment. Dr. Argyll Robertson: Notes on the Further History of a reported case of Filaria Loa. Mr. Arnold Lawson: Cystic Tumour of the Orbit. Dr. Cecil E. Shaw: Perforating Wound of the Eyeball followed by Optic Neuritis.

### FRIDAY.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Dr. Tooth: Anatomy of Cranial Nerves.

BRITISH LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL ASSOCIATION, 11, Chandos Street, W., 3 P.M.—Cases will be shown by Mr. Mayo Collier, Mr. F. Marsh, Mr. Lennox Browne, Mr. Wyatt Wingrave, and Dr. Sandford. 4.45 P.M. Adjourned discussion on Dr. Harry Campbell's paper: Breathing in Singers.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL, Gray's Inn Road, W.C., 4 P.M.—Mr. Lennox Browne: On Tuberculosis.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

LESLIE.—At Bexley Heath, Kent, on January 16th, the wife of J. Leith Leslie, M.A., M.D., of a daughter.

MOORHOUSE.—At 9, Victoria Square, Stirling, N.B., on January 13th, the wife of J. Ernest Moorhouse, M.A., B.Sc., M.D., of a daughter.

SUMMERHAYES.—On December 26th, 1896, at Dera Ghazi Khan, Punjab, India, the wife of John O. Summerhayes, M.R.C.S., L.R.C.P., of a daughter.

### MARRIAGES.

EDGECOMBE—SWINBURNE.—January 13th, at St. Peter's, Harrogate, by the Rev. A. Cope, M.A., Wilfrid Edgecombe, M.D.Lond., F.R.C.S., fifth son of George Edgecombe, Esq., Blundellsands, Liverpool, to Jane Swinburne, daughter of the late John F. Swinburne, of Workington, Cumberland.

LITTLE—POLLALION.—On December 29th, in Paris, Arthur Little, M.B. Lond., M.R.C.S.Eng., to Ara, Marquise de Pollalion, *née* Stone, of New York.

### DEATHS.

FRASER.—On January 4th, at Pomeroy House, Bridgetown, Totnes, Donald Alexander Fraser, M.D.Brux., M.R.C.S., L.S.A., in his 45th year.

MARSH.—On January 14th, at Bognor, Sussex, after a lingering illness, John Wilford Marsh, M.R.C.S., L.S.A., Superintendent of the Brandbridge Asylum, Lincoln, aged 54.

WHITE.—On January 11th, at Springfield, Wigan, James White, M.R.C.S., J.P., third son of the late Joseph White, of Sutton Hall, Cheshire, aged 73 years.

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances*—Daily, 2. *Operations.*—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR.—*Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—Daily.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M., Tu, W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30 Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations.*—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations.*—M. F. S., 2.

LONDON. *Attendances.*—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operations.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations.*—M. Tu., 4.30.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations.*—F., 9.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations.*—W., 1.30; S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30 *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 3; Dental, Th., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 1. *Operations*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., W. S., 9; Eye, W. Tu. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th. 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations.*—M. Tu. Th. F. S., 1.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males S., 3; females; W., 9.45. *Operations.*—M., 2; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 3.30; Skin, M. Th., 9.30; Electro-therapeutics, M. Th., 2.30; Dental, W. S., 9.30; Children's Medical, Tu. F., 9.15; Children's Surgical, S., 9.15. *Operations.*—M., 2.30.; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M. 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Th., 2.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Tu., 9; Dental, W., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations.*—Tu. F., 2.30.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, Tu. F., 9.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operations.*—Tu. W., 2.

# LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

### QUERIES.

M.D., who is intending to travel soon to the East and to Japan, wishes to know the best small practical work on Eastern diseases to buy for reference.

G. P. writes: Supposing a woman was confined on the first of the month, which is the ninth day, the ninth of the month or the tenth of the month? I have always considered the day of confinement the first day in common with most medical men, but now I have been told the ninth day would be on the tenth of the month, as the first day should not be counted.

*** Surely the ninth of the month is the ninth day. The day of confinement is counted as the first day.

HOME FOR BACKWARD GIRL.

K. B. desires to know of a home in which a young lady slightly mentally afflicted could be received free of charge. The father, a medical man, who has spinal sclerosis, is quite unable to pay any fee. His daughter, aged 17, remains still a child in ways and thoughts, and cannot be made to understand the duties and responsibilities of life, and it is considered that a year's residence in a suitable institution will probably develop her dormant faculties.

*** If the mental defect is certifiable she should be sent to an asylum. We know of no institution where voluntary boarders are received free of charge.

MEDICAL RETICENCE.

T. J. asks: Will you advise how to act under these circumstances? I hold an appointment as surgeon to a Court of Foresters. One of my duties is to see and pass medical certificates granted by other medical practitioners to non-resident members. A few months ago I got a certificate from a medical practitioner saying that a non-resident had been under his care for some three weeks suffering from orchitis, but not stating whether from a specific cause or not: at the same time I received an intimation from the member of the Court himself stating that it was due to an accident. I wrote the medical attendant to see if this was the case, and he kindly informed me it was not so, but that he considered it specific. Of course, such being the case, I refused to put the member on the sick list. Now the Court are threatened with an action to recover the aliment claimed. Now, how are we two medical men placed? If the case goes to court would we be justified in stating the nature of the illness, and, if so, could the party bring an action against us for defamation?

*** Our correspondent's difficulty admits of a very simple answer. If he is called in a court of justice as a witness, and asked any question as to any disease affecting a member of the Order of Foresters, whom he has seen as their medical officer, he is at liberty to state his medical opinion of it, and to give the reasons on which that medical opinion is founded, and no action of defamation will lie against him for such evidence. In the case in question, his refusal to put the member on the list for sick benefit was no doubt perfectly regular and proper; but, if any legal question arose, his evidence would, as we gather, be confined to stating the fact that he had communicated in the ordinary course of his duty with the other doctor, and had acted in accordance with his reply. The result would be, no doubt, that, as hearsay is not evidence, the other doctor would have to be called, and would be entitled to state the whole circumstances of the case within his knowledge and to give his professional opinion as to the diagnosis. As regards doctors giving evidence in court no suggestion has ever been made that they are liable to actions for defamation for anything said honestly and without malice in the witness box; the only question has been whether they can under all circumstances be compelled to reveal matters which they may conscientiously consider it to be their duty, as a matter of medical ethics, to keep secret. In the case put to us we do not see that any such question of medical ethics can arise. The Forester applying for the certificate clearly undertakes, as between himself and his Order, to bring the true medical facts to their knowledge. If he attempts under cover of an ambiguous certificate to obtain benefit on a false statement of the facts, it cannot be supposed that the doctor to whom he has submitted himself is bound to assist him by reticence in so doing, although the usual reticence may still be obligatory in all other relations, for example as regards the friends or employers of the man examined.

### ANSWERS.

FAIRPLAY.—(1) Any qualified medical practitioner is entitled to put his name on the door. (2) It is a matter of private arrangement.

F. J. J.—The Registrar-General's Report for 1895 has not yet been issued. We are informed that it will probably be published about the middle of February

W. R. D.—The book to which reference was made in the BRITISH MEDICAL JOURNAL of January 16th, p. 161, is entitled *Handbook for Attendants on the Insane*, published by Baillière, Tindall and Cox (2s. 6d.).

M.R.C.P.—Upon the ethical question raised by our correspondent, he might seek the opinion of the College from which both he and the medical man upon whose conduct he reflects hold diplomas.

S. H.—The literature of osteitis deformans is chiefly in the *Transactions* of the various learned Societies. An admirable recent account of the disease is given in Pierre Marie's book on *Acromegaly*, published in English by the Sydenham Society.

### INSTRUCTION IN NURSING.

M.D. writes: In reply to "G. B." I would suggest *Nursing* by Hampton, published by the Scientific Press. In this he will find very complete instruction as regards packs, compresses, and such like. It is certainly the most thorough book of its kind, and is of great advantage to hospital residents.

### BICYCLES ON HIRE.

DR. W. SPENCER COX (Kensington, W.) writes: It may interest "Wheelman" and others who write to Dr. Pritchard Roberts about hiring bicycles to know that the Victory Cycle Syndicate make a speciality of hiring bicycles to medical men.

### SOFT CORNS BETWEEN THE TOES.

DR. W. FRANK COLCLOUGH (The British Hospital, Oporto, Portugal) writes, in reply to "Yes:" The cause, I think, is always overlapping of the toes, and hence the pressure and friction of one toe on another when walking, accompanied by excessive perspiration. Ordinary large boots will not cure the trouble, but any simple dusting powder, scrupulous care in washing and drying, and the wearing of digitated socks will soon make the corn disappear. I have lately suffered myself from a soft corn on the outside of the fourth toe, and I found that a sock made with a digitation for the little toe at once gave relief, and was better than the inconvenient method of pads which I had been trying at first.

### DRINK AND THE DEATH-RATE.

A CORRESPONDENT sends us a card issued by a firm of whisky distillers, which card contains in conspicuous type the following statements:

"The *Daily Telegraph* lately published the following statistics, which show the ages attained by those who refrain completely from the use of alcohol, those who indulge in it moderately, and those who abuse it:

| | Yrs. | Dys. |
|---|---|---|
| 1. Total abstainers ... ... ... ... | 51 | 22 |
| 2. Habitually temperate drinkers ... ... | 63 | 13 |
| 3. Careless drinkers ... ... ... | 59 | 67 |
| 4. Free drinkers ... ... ... ... | 57 | 59 |
| 5. Decidedly intemperate drinkers ... ... | 53 | 3 |

These figures demonstrate very clearly that alcohol is beneficial to the system, and if taken in moderation 'is the best of all ways to lengthen your days.'"

The above figures are correctly quoted from the Report of the Collective Investigation Committee on the connection with disease in habits of intemperance, published in the BRITISH MEDICAL JOURNAL of June 23rd, 1894. The conclusion drawn from them is, however, entirely unwarranted, as was clearly pointed out in the text of the report itself. This has been so often stated by the editor of the report and by others in the public press that we are in doubt whether any further repetition of the absurd fallacy can be attributed merely to carelessness or ignorance. Whether there are any reliable statistics extant as to the relative length of life of abstainers and temperate drinkers is a question on which authorities are not wholly agreed; but some very valuable information on the subject is furnished by the experience of those insurance societies which make a distinction between the abstaining and the non-abstaining section of insurers.

## NOTES, LETTERS, Etc.

### TARDY RESPIRATION IN THE NEWBORN.

DR. GEORGE H. R. DABBS (Shanklin, Isle of Wight) writes: May I mention a favourite "first aid" of mine for the tardy respiration of some newborn children? I use a crooked throat brush as a probang, having soaked it in 1 in 10 of sal volatile and water. Exit mucus, enter ammonia, and the curtain rarely "rings down" on the little life comedy. The cue may want repeating as the performer is often shy.

### MACCLESFIELD SCHOOL BOARD AND ITS MEDICAL OFFICER.

THE Macclesfield School Board in May, 1896, with a view to secure the more regular attendance of children at school, on the one hand, and to avoid unnecessary prosecution of parents on the other, "appointed a medical officer, whose duty it was to examine all children sent to him by the clerk, and to make a report as to their fitness or otherwise to attend school, and the salary 5 was fixed at 1s. for each child so sent. Naturally the medical men at Macclesfield objected both to the scale of remuneration given by the Board, and also to the nature of the duties, as these would have necessarily brought the medical officer appointed into a position involving interference with the patients of other practitioners in the district. Only one applicant appeared in answer to the advertisements, and naturally he was elected unanimously. Since the date mentioned the post has fallen vacant, and this time two applications were received, one from Dr. Penrose, who it appears for the last six months has been performing the duties of the office as *locum tenens* for the medical officer; and the other from Dr. Marsh, late house-surgeon to the infirmary.

In the discussion which arose at the meeting of the Board to make the appointment, one of the members stated that the medical men, he had been informed, were trying to boycott the Board in this matter, and that the general feeling in the local profession was that they would have nothing to do with the appointment as long as only a "paltry" shilling was offered as a fee for the examination and the certificate of physical capacity or incapacity of the children to be examined. This remark seems to have aroused the Board, and an animated discussion ensued, some members trying to obtain the names of the medical men who were alleged to be boycotting the Board in this matter. In the end Dr. Marsh was duly appointed Medical Officer to the School Board and Ambulance Lecturer. The latter appointment carries with it the remuneration of 10s. 6d. per lecture, and we presume this, in the minds of the Board, makes the total received by the person holding the appointment worthy of a professional man's holding.

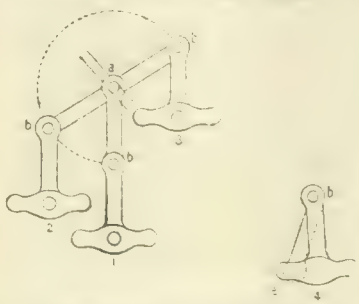
It appears to us that this very addition makes it all the more clear that the profession at Macclesfield was right in refusing to contest the first appointment and in holding aloof—with the exception of two—from the second competition. As long as medical men will be content to accept such extremely low remuneration for performing what is considered by a public body to be a public duty, of course salaries are not likely to be increased; but we cannot congratulate the present holders of any such appointments, and we cannot but regret that their colleagues should not have been guided by that of the large majority of their local professional brethren.

### CYCLING IN ORTHOPÆDIC PRACTICE.

MR. E. B. TURNER, F.R.C.S. (Sussex Gardens, W.) sends us the following, which he has received recently. The plan of the jointed crank, he adds, is most excellent for such a case:

"Wanganui, New Zealand,
"September 16th, 1896.

"Dear Sir,—I have read with much interest your papers in the BRITISH MEDICAL JOURNAL on cycling for various sorts of cripples. Possibly my own experience may be of use to someone else. I am the subject of bony ankylosis of the right hip-joint in the straight position, with 2 in. shortening. I had often wished to ride a bicycle, but found on attempting it that it was quite impossible for the right foot to follow the pedal in the upper half of the circuit. Even with a short crank it was no use. At last it occurred to me that if I had the crank interrupted in the middle of the two pieces jointed on a pin I might succeed. I had a jointed crank made, and found that I could use it better than I had thought possible.



*a*. Crank axle; *b*. joint in crank.

"The subjoined sketches show the movement when the pedal is at its lowest point 1, in the first and second quadrants of ascent 2 and 3, and at the top of its circuit 4. One is working with a crank of half length, and the movements of the foot never bring it above the level of the crank axle.

"My machine is geared to 56 in., and I can comfortably keep up with my more ablebodied friends. For coasting purposes I have a step on the right side of the machine, and rest my right foot on it while the left one is on the ordinary foot rest. I have had ball bearings introduced into the joint in the crank.

"I think of trying this joint an inch nearer the pedal, and so gaining an inch in the length of the working crank: but even as it is it is very much better than working with one leg, as an enterprising individual in a neighbouring township does who has only one to work with.—I am, yours faithfully, "C. B. INNES.

"E. B. Turner, Esq."

### MÉNARD'S OPERATION.

DR. THOMAS LAFFAN, M.R.C.P., (Cashel, co. Tipperary), writes: In the BRITISH MEDICAL JOURNAL of November 21st, 1896, there is a letter from Dr. Little, in which he claims originality for Dr. Ménard's operation for spinal caries, the great object of which is to prevent the formation of deep-seated and burrowing abscesses. Allow me to refer Dr. Little to my paper on the same subject, which was published in the second volume of the JOURNAL for 1887, and he will find that Ménard was not the first to propose an operative remedy for the prevention of deep-seated and burrowing spinal abscesses. I made such a proposal in the paper in question, and it was fiercely assailed at the time, particularly by representatives of the American school who were present at the section of the Dublin meeting where it was read.

### SHORTHAND FOR CLINICAL CLERKS.

AT the request of Dr. Gowers we publish the subjoined letter from Mr. H. E. Gray, a student of Westminster Hospital. He writes: "I have been asked to state to what extent and in what way shorthand really helps me in my studies as a medical student. I have recently commenced the duties of a clinical clerk in a medical ward. All who have served this office under a strict physician will admit the labour, mental and manual, of extracting and recording satisfactory histories from a class of patients who are apt to be inaccurate, forgetful, contradictory, and verbose. With the aid of shorthand I jot down the patients' statements at a great saving of time to them and to myself. Then from these rough notes I afterwards at my leisure do my best to write a concise history of the case, with due regard to chronological order, and to sketch the symptoms in something like proper perspective. Secondly, I am able to take full and accurate abstracts of the various lectures in medicine and surgery. Shorthand enables me to take these abstracts easily in one-third of the time which longhand would require, and they are quite as legible to me as ordinary writing at any distance of time afterwards. Most men are, I think, agreed as to the greater facility of getting up any subject from good lectures which they have attended than from a text-book with which they are but indifferently familiar. Thirdly, I keep a general notebook in which I put down all sorts of odds and ends, especially any short, valuable comments made by a good teacher at the bedside. These, unless recorded, I should sooner or later forget, or imperfectly or wrongly remember. I should not have patience to record them in longhand; it is no effort to record them in shorthand.

### CHARM FOR WHOOPING-COUGH.

DR. ARCHIBALD FAIRLIE (Cowpen, Northumberland) writes: Strange suggestions for the cure of disease are often met with in practice among the lower classes. For whooping-cough a certain cure is asserted to be found in the juice of grey snails which have been treated with vinegar. A still stranger remedy, pronounced infallible by my informant, an amateur herbalist, consists of soup made from mice. The difficulty, he said, was to get people to give it a trial. But recently I came across an example of credulity worth recording, if only on account of the fact that the patient was not the unfortunate creature subjected to direct treatment. A small lock of hair is cut from a person's head, not necessarily the child afflicted with whooping-cough. The hair is to be spread on a piece of bread, which is then moistened with matter vomited during a paroxysm. This tasty morsel has to be consumed by a dog to complete the cure. As a matter of fact, in the case alleged to have been cured whooping-cough was only suspected to be developing. In this district, chiefly mining, paraffin oil, undiluted, is frequently given in teaspoonful doses to children for croupy coughs, colds, whooping-cough, etc., and, if informants are to be believed, with wonderful results. Can any reader supply information regarding the medicinal uses of this liquid? Petroleum emulsion seems to be only a more scientific and elegant method of employing it.

### MEDICAL RETICENCE.

DUBIUS writes: I have read with great interest the presumed ethics of medical reticence. I say "presumed" because opinions vary widely, some saying one thing and others, of equally good standing, saying quite the opposite. I should, if I may trespass on your white sheets, just say what my opinion is, especially on the cases which have been placed before us as regards servants and employers. I have had a few such cases, where the employer has come to me to ask about his or her employee questions which I thought were not justifiable. My answer has generally been to this effect—namely, As the patient has come to me as a patient, whether suffering from any ordinary disease or any kind that might be placed under the category of immoral diseases, whatever passes between him or her and me is purely confidential, and that the employer, if he or she wishes to know anything further from the employee, he or she must communicate directly with my patient. The patient I generally give to understand the nature of the disease, and leave the publication of such to his or her discretion entirely. I feel convinced that, except under extreme legal and moral necessity, the secrets of a consulting room, or that of a private sick one, should be kept inviolate.

### SCARLATINA OR DIPHTHERIA?

DR. ARTHUR CAMPBELL (Uley, Gloucestershire) writes: Dr. Bond's (Gloucester) letter in the BRITISH MEDICAL JOURNAL of January 9th is exemplified in a house in my district.

F. S. returned home from training ship, having recently caught cold from falling overboard. He developed an ordinary sore throat of the follicular variety. After a few days a rash having all the characteristics of urticaria came out on his legs, but nowhere else; his sore throat commenced on December 26th, the urticaria on December 30th, 1896. On January 6th I saw three of his sisters: M., aged 13 years, recovering from inflamed throat; N., aged 12 years, commencing what ultimately became a severe attack of throat ulceration, with nasal discharge and a suspicious odour, the lymphatic glands in the neck being considerably swollen; and H., aged 4½ years, with a mild attack of follicular sore throat; these three never had any sign of rash, but convalescence is tardy and pallor is a very obvious sign. No examination of the urine was made. On January 8th a boy, aged 2 years, became ill, and next day had sore throat, high temperature, and rash indistinguishable from scarlatina. The first four cases I looked upon as "epidemic sore throat" (that is, follicular); but what is the origin of the last case? No scarlatina is in the neighbourhood to my knowledge, and the child, strange to say, seldom goes out of doors, and we cannot account for the scarlatinal (?) infection.

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LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) Dr. W. Alexander, Portobello; Messrs. Arnold and Sons, London; Dr. R. Archer, Liverpool; A.M.D.: Antibovicide. (**B**) Mr. L. A. Bidwell, London; Mr. D. Butler, London: Dr. A. Bruce, Edinburgh; Dr. R. Batho, Jersey; Messrs. Blaber and Watson, London; Dr. A. G. Bateman, London; H. Briggs, M.B., Liverpool: British Gynæcological Society, The Secretary of the, London; Mr. J. Brinbaum, London: Messrs. Burroughs, Wellcome and Co., London; Mr. J. P. Bush, Clifton; Mr. F. Blazy, London; Messrs. Bradshaw and Payne, Leicester; Mr. J. H. Busted, Romford; Dr. P. M. Braidwood, Amersham; Mr. Blackett, London; B. (**C**) Dr T. D. Crothers, Hartford, Conn.: Dr. J. Cantlie, London; Cardenden; Mr. H. N. Constance, London; Dr. W. F. Colclough, Oporto; Dr. R. Caton, Liverpool; Mr. T. E Constant, Scarborough; Mr. W. A. S Cox, London; Mr. H. Clarke, Ashton-on-Mersey; Mr. S. Coghill, London; Dr. W. Collingridge, London; Dr. H. Corley, Cork. (**D**) Disgusted Non-Medico; W. R. Dix, M.B., Preston; Dubius; Mr. W. G. Dickinson, London; Mr. H. J. Dufton, Newmarket. (**E**) E. M. C.: Education Department, The Secretary of the, London; Mr. C. H. Eyles, Belsize: Dr. H. Evans, South Lowestoft; Mr. J. P. Elliot, Bellingham: Dr. T. Elliott, Tunbridge Wells. (**F**) F.R.C.P.; Friendly; A. Fairlie, M.B., Bebside; Dr. J. Fraser, Manchester; Dr. J. Farrar, Gainsborough. (**G**) Mr. A. D. Grosvenor, Hastings; G. P.; Mr. E. A. Gilcross, Glasgow. (**H**) Dr. J. P. Henry, London; Mr. C. Heath, London; H. S. C.; Dr. S. M. Hamill, Burnham; S. H. Hawley, M.B., Sutton Coldfield; Dr. R. D. Helm, Carlisle; Mr. N. J. H. Hallett, Derby; Mr. G. Hamilton, Bordighera. (**J**) Mr. E. C. F. James, London; Mr. W. Johnston, Montreal; Mr. R. W. Jolly, Peterborough; Mr. A. L. Joseph, Broxbourne; R. James, M.B., Stamford Bridge. (**K**) K. B.; Mr. P. Q. Karkeek, Torquay; Mr. R. Kershaw, London. (**L**) Mr. P. A. Lloyd, Haverfordwest; Mr. R. Lake, London; London Practitioner; Mr. J. A. Lowson, Forfar; Dr. W. Leask, Birkenhead. (**M**) F. Murchison, M.B., Long Buckby; Dr. W. Murrell, London; Dr. A. M. Murdoch, Glasgow; C. R. Marshall, M.B., Cambridge; Mr. R. Maples, Kingsclere; Medicus; G. V. Miller, M.B., Stockton-on-Tees; M.R.C.P.; Dr. J. G. McNaughton, Edinburgh; M.D.Cantab.; Member of the British Medical Association; Medicina Sequitur Legem; H. T. N. Merrick, M.B., Surbiton. (**N**) Dr. D. Newman, Glasgow. (**O**) Dr. J. O'Connor, Buenos Ayres; Messrs. Oldfield, Bartram, and Oldfield, London. (**P**) Dr. G. S. Pullin, Burnley: Mr. G. Pernet, London; Mr. F. G. Proudfoot, Oxford; Mr. T. Partridge, Stroud; Dr. B. Poulton, Adelaide; Mr. F. Penny, Barnstaple: Partner; Dr. G. K. Poole, London; Podophyllin: Dr. J. Parsons, Liphook. (**R**) Professor W. K. Roth, London; Mr. L. W. Roberts, Folkestone; Mr. W. Rushton, London; Rural M.O.H. (**S**) Dr. G. E. Shuttleworth, Richmond; Messrs. Street and Co., London; Mr. H. H. Senning, London; Mr. J. A. K. Strahan, London; Mr. E. Sheaf, Levuka; R. Stephens, M.B., Edinburgh; Dr. F. J. Smith, London; Dr. A. P. Stevenson, Darlington; Dr. S. Smith, London; Mr. H. B. Symons, Sorento; Dr. A. Sheen, Cardiff; Dr. C. E. G. Stalkartt, Southsea; Dr. D. W. Samways, Mentone; E. W. K. Scott, M.B., London; Dr. T. D. Savill, London. (**T**) Dr. C. Templeman, Dundee; Dr. H. Tilley, London; Mr. W. Terry, Northampton; Tuberculosis; Dr. N. Tirard, London; Dr. G. G. S. Taylor, Liverpool; Mr. J. L. Thomas, Cardiff; Dr. J. Thomas, Selkirk; Professor W. H. Thompson, Belfast; T. G. (**W**) Mr. H. Waldo, Portobello; Mr. G. Watkins, London; Dr. F. J. Waldo, London; Mr. T. J. Wanner, London; Mr. J. A. Wilson, Jahore; Dr. H. Woods, London; Dr. J. Wilson, London; Dr. J. Weiss, Vienna; Dr. T. J. Wood, Bradford; Miss L. Weddington, Bootle; Mr. W. Whitehouse, London; Mr. P. E. Wallis, East Grinstead; etc.

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## BOOKS, ETC., RECEIVED.

The Humanities of Diet. By H. S. Salt. London: William Reeves. 1897. 2d.

Archives of Clinical Skiagraphy. Edited by Sydney Rowland, B.A. Vol. I. No. 3. London: Rebman Publishing Company. 1896.

Transactions of the Reading Pathological Society. Edited by the President and Honorary Secretaries. Vol. I. Fifty-fourth Session, 1895-96. Reading: Beecroft and Alexander. 1896.

A Young Congo Missionary: Memorials of Sidney Roberts Webb, M.D. London: H. R. Allenson. 1897. 1s. 6d.

Caóba, the Guerilla Chief: A Real Romance of the Cuban Rebellion. By P. H. Emerson. London: David Nutt. 1897. 6s.

Criminology Series: Juvenile Offenders. By W. D. Morrison. London: T. Fisher Unwin. 1896. 6s.

Enteroptose und intra-abdominaler Druck. Von Dr. C. Schwerdt. Leipzig: Georg Thieme. 1895.

Beiträge zur Aetiologie, Symptomatologie, und Therapie der Krankheit Enteroptose-Basedow Myxoedem-Sclerodermie. Von Dr. C. Schwerdt. Jena: Gustav Fischer. 1897. M. 1.

Exercises in Practical Physiology. By A. D. Waller, M.D. Part I, Elementary Physiological Chemistry, by A. D. Waller and W. L. Symes. London: Longmans, Green and Co. 1897. 1s.

A Book for Every Woman. By Jane H. Walker, L.R.C.P.I., L.R.C.S., M.D.Brux. Part II, Woman in Health and out of Health. London: Longmans, Green and Co. 1897. 2s. 6d.

Femmes en Couches et Nouveau-Nés. Par P. Budin. Paris: Octave Doin. 1897. Fr. 14.

Dod's Parliamentary Companion. Seventy-third Edition. London: Whittaker and Co. 1897. 4s. 6d.

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# REMARKS
ON THE
# TREATMENT OF BUBONIC PLAGUE.

By JAMES CANTLIE, M.B.Aberd., F.R.C.S.Eng.,

Lecturer on Applied Anatomy at Charing Cross Hospital Medical School; late of Hong Kong.

At first sight it would seem as though the treatment of plague was a subject which it is useless to discuss, as it is repeatedly stated that we have no cure for plague. We have no "cure" for many, nay, most, of our diseases; yet experience has shown that although no specific treatment is known, still with care, judicious nursing and medical supervision, ailments, such as typhoid, cholera, and zymotic diseases generally, can be, and are, conducted to a successful termination. Much, therefore, as it is desirable to know what will "cure" the disease, it is not consistent with our behaviour in other illnesses, to stand by and wait until it is discovered what form of attenuated virus may be tried as a specific remedy.

Once for all let it be understood that in no disease does one get such immediate results from careful and prompt medical treatment, and as a direct outcome of watchful nursing, as in plague; and perhaps one ought to add to that, "in the case of Europeans."

Natives, whether of China or India, succumb more readily to plague than Europeans. There are one or two reasons for this: 1. A native seldom comes to a doctor (a European doctor most of all) until the disease is well advanced. 2. In point of stamina the poorer natives are a long way below northern Europeans. 3. The inherited dislike of the native for all forms of stimulants, be they medicinal or alcoholic, during illness. 4. The belief of the natives in the old adage that "to starve a fever" is correct. The difference between Europeans and natives was well illustrated, during the 1894 epidemic in Hong Kong, by the fact that, out of 11 British patients, 9 recovered—a mortality of only 18.2 per cent.—whilst the Chinese died at the rate of something like 95 per cent. This favourable result cannot, however, be ascribed altogether to racial influence; it was rather due to the effect that medical treatment and good nursing had upon the course of the disease. The British patients were seen early in the disease. They could take, and stand, stimulants, medicinal and alcoholic, well, and the result was the satisfactory number of recoveries which took place. Even with such Asiatics as would submit to similar treatment, most markedly in the case of the Japanese doctors, were the satisfactory results of treatment during plague manifest.

The attendance of the doctor must be prompt, and his treatment must be decisive. In fact, during the first five days of illness in plague the doctor must be within a few minutes' call. To each ward of a hospital a doctor should be assigned, or, if a valuable life is at stake in a private house, medical aid must be obtainable in a few seconds. The changes are so rapid in plague, the features of the disease so fulminant, that without immediate treatment being possible success is hopeless.

## Nursing.

In a hospital ward, during the first five days of illness, practically two patients require an attendant to themselves if the utmost good possible is to be done, A nurse must never let her patient out of sight for a moment, be the patient asleep or awake. She cannot leave the ward or room, without posting a deputy, for any purpose whatever. No nurse should be on duty for more than eight hours at a time; still better is it to follow the four hours "watches" kept at sea.

The number of nurses required may seem outrageous, but we have in many illnesses a day and night nurse for private patients, and no more is demanded in this the most fatal illness known. Of course plague comes in epidemics, and the number of nurses is limited, no doubt; but we must not lose sight of what is necessary in considering what is expedient. Shortly, it may be put that a liberal supply of doctors and nurses is essential if the lives of the plague-stricken, be they native or European, are to be saved.

Enough has been said as to the rapidity of the onset, the development, and the fatality of plague to make the importance of early treatment in the disease and of the requisite promptness in its administration understood. The symptoms and signs change so rapidly, and in such varying succession, that no stereotyped line of treatment can be followed. Now it is delirium which calls for relief, now cardiac distress, or vomiting may supervene; or an unexpected loss of pulse, or a collapse totally without warning, may carry off the patient before any help is obtainable. The much despised legend "Treat symptoms as they arise" is the maxim in plague, and if the word "promptly" were added, the summary of plague treatment is before us. The disease is caused by a bacillus, the toxic effects of which upon the blood give rise to functional derangements of possibly all organs, but most markedly of the nervous system, central and peripheral. The poison is so acute that, with the exception of the glandular inflammation, but little structural change is met with in the more vital organs. The cardiac trouble which is so marked an accompaniment of the disease is evidently a functional one, and the result of derangement of the nervous supply of the heart. This has constantly to be borne in mind when the subject of drugs is dealt with.

The subject of segregation, temporary hospitals, quarantine, and disinfection generally, are not dealt with here. I propose merely to deal with general and medicinal treatment.

## General Treatment.

The essentials are of free ventilation, a cool room (60° to 70° F. where such is possible) a plentiful supply of hot and cold water, ice, a sufficiency of servants, and, of course, all the appliances of a modern hospital. Deaths are so frequent and so sudden that when the hospital is large it is necessary to have men employed whose duty it is to remove, to disinfect and to dispose of the dead.

Nothing should be allowed to leave the ward but to be disinfected. Crockery and glass should be scalded. Fæces should be sprinkled with quicklime; bed and bedding if not burnt are to be disinfected by heat; the steam disinfector is well nigh essential. Scrupulous cleanliness of the floor and bedsteads, obtained by washing with a disinfectant solution are of primary importance, and all doorways should be curtained by a sheet wet with carbolic acid, Jeyes', or other reliable antiseptic.

The patient should not be allowed to get out of bed for any purpose, but the use of the bedpan and urine bottle should be insisted on. So many times has it occurred, that the patient has tumbled over dead whilst getting up to stool, etc., that this is an imperative measure to insist upon.

## Medicinal Treatment.

*Purgation.*—When the patient is first seen, the foul state of the tongue, the foul breath, the jaundiced tinge of the conjunctivæ, and a generally bilious aspect, suggests a purge. For this purpose, calomel in 5-grain to 10-grain doses recommends itself. This is to be followed by a saline in some five hours' time. Against this treatment it may be argued that the drain upon the system and the lowering action of calomel are deleterious, but, if given quite early in the disease and not when the pulse is flagging, it undoubtedly seems to do good. It frequently stops vomiting, which is often present; it clears away the jaundiced aspect, it restores the power of taking nourishment, and it seems to diminish mental aberration and cardiac distress. If a full gall bladder justifies the exhibition of calomel, *post-mortem* evidence of that condition is not wanting. So far as is known, bacilli of plague escape from the body in greatest numbers by the bowel. In the breath, sweat, or urine bacilli are but sparsely met with, but in the fæces a rich supply is found. This points to the necessity of ample disinfection as being requisite for all latrines, bedpans, closets, etc., but it also proclaims as justifiable and rational the attempt to assist Nature in expelling the poison of plague by a free action of the bowels.

*Stimulation.*—From the very first onset, or certainly after twenty-four or forty-eight hours, it will be found necessary to stimulate the plague patient by food, by alcohol, or by medicine.

*Food.*—Unless the patient is actually delirious there is not usually much difficulty in feeding plague patients. In fact, in comparison with allied ailments, appetite is wonderfully

good. One encourages this in a general way, but the occurrence of sudden death supervening after the ingestion of a full bowl of rice, for example, and its accompaniments, in the case of Chinese patients on several occasions leads one to the belief that a full meal is not without its danger. The heart is in such a condition that it takes but little to disconcert its rhythm, and the pressure consequent upon a full stomach is calculated to do this. Food should be in small quantities frequently repeated and of a kind which is easily digested. Brand's essence of beef, in fluid or jelly form, is excellent, but any beef jelly will do. Ox tail soup, mutton broth, beef and chicken tea should be constantly on hand to suit the varying palate of the patient. Conjee water—that is, the water in which rice is boiled, is useful as a drink and serves as nourishment. Milk with ice (sipped slowly), and ice cream (Lowson) are particularly grateful.

*Drink.*—Thirst is at times a marked symptom, and its relief should be attended to by allowing the patient anything in reason. Ice to suck, if not kept up too long; water or lemon and water (not lemonade) to drink, if not in such quantity as to distend the stomach; beer and stout iced, especially for Europeans, is "at once stimulant, soporific, nutritious, and thirst quenching" (Lowson). Brandy or whisky diluted with not more than three or four times its quantity of water (not aërated waters) should be freely supplied. When the pulse shows signs of failing, or collapse or faintness supervene, then of course alcohol is doubly beneficial, and brandy is preferable to whisky as a cardiac stimulant.

*Delirium.*—When active the delirium of plague is best combated by cold to the head. Leiter's coil would be perhaps the readiest method, provided the patient could be kept still, but an ice bag or a constantly wetted cloth is efficient. These applications combined with tepid sponging of the body at frequent intervals seem grateful to the patient, are useful means of reducing temperature, and seem the safest and readiest method of quietening active delirium.

*Hyoscine.*—In most cases, but not in all, hyoscine administered hypodermically in doses of gr. $\frac{1}{100}$ is perhaps the most efficient and safe of the hypnotics. It calms the nervous system and induces sleep when everything else fails. Hyoscine should be one of the first drugs in the armamentarium of a plague hospital.

*Morphine.*—At times nothing but morphine administered hypodermically in doses of gr. $\frac{1}{6}$ to $\frac{1}{4}$ is of any avail. *A priori* one would not select it as a hypnotic or anodyne, but experience has proved it to be reliable, and not so unsafe as to exclude its use. It is almost certain that when painful adenitis complicates the cerebral intoxication, morphine effects its purpose. The safest method of administration is in combination with atropine.

*Bromide of Potassium.*—An occasional dose of bromide of potassium during delirium is useful and without danger, but its prolonged use is not permissible.

*Diarrhœa.*—An occasional looseness should not be stopped unless it continues over twelve hours, and the patient seems exhausted thereby. It is but seldom obstinate, and yields to salol in gr.x doses, or to an enema of starch and opium; or, still better, a suppository of morphine and cocaine, gr. $\frac{1}{4}$ and gr. $\frac{1}{2}$ respectively, more especially when continued straining persists (Lowson).

*Vomiting* frequently ushers in an attack of plague, and may persist throughout the illness. When the latter condition obtains it is an unfavourable sign, as loss of strength ensues owing to the rejection of food and medicines. A mustard plaster to the epigastrium, ice to suck, and an effervescent draught of a few drops of hydrocyanic acid and liquor morphiæ are generally sufficient to check this untoward symptom (Lowson).

*Pyrexia* no doubt accounts for some of the delirium, the restlessness, the headache, and subsequent collapse. Hyperpyrexia is exceptional. The usual chemical antipyretics, antipyrin and phenacetin, are such severe depressants that they are at a discount and should not be used. Should hyperpyrexia necessitate its use, one hypodermic of antipyrin is no doubt justifiable, but only as a last resource. Frequent sponging with tepid water, ice to the head and nape of the neck, iced drinks, and a short application of the wet pack, with the administration of brandy by the mouth or by the rectum, are useful when promptly and rationally used.

*Stimulants, Externally.*—Flying blisters of mustard to the limbs, abdomen, and over the heart are useful. Smelling salts and strong ammonia applied to the nostrils often succeed in restoring the pulse, rousing the patient in collapse, and not infrequently cause him to rally from what seems a moribund state (Lowson). Nor is this kind of stimulation of mere passing effect, for in several instances when death seemed inevitable and at hand patients have revived and actually recovered permanently.

Stimulation by *hypodermic* injection of ether is a treatment that gives grateful response, and must be used freely and frequently. The collapse from plague does not take place at that period of the disease when organic structures are played out, but it occurs early in the disease, in two or three days, and is therefore more of a functional or toxic than of an organic nature; consequently, the use of stimulants, in whatever form, is more likely to be attended by remedial results and not by a mere temporary flicker of response.

*Internally* the form of drug most useful is either a general stimulant, such as ammonia, or a cardiac tonic or specific.

The prescription of every practitioner who treats plague will be found to be one in which carbonate of ammonia and the tincture or decoction of cinchona are met with, and with this mixture now given, now withheld, will be exhibited digitalis, strophanthus, or camphor. More good is ascribable to ammonia in some form than to any other known and more specific drug.

*Digitalis* in infusion, tincture or in leaf, the latter perhaps the best, seems the one drug called for when the pulse becomes dicrotic and the nervous stimulation of the heart gives out. In practice, however, it is unsatisfactory, and seldom can any good results be traced to its administration. No doubt the slowness of its action is against it; but, what is still more, positive evidence is against its being considered a reliable drug in an acute illness like plague.

*Strophanthus* is in the same category with digitalis.

*Camphor* in its double action as a direct cardiac stimulant and a stomachic carminative is useful as an alternative drug. Undoubtedly the best form is in pill in doses of gr. ij. Camphor may advantageously be used hypodermically dissolved in sterilised oil. *Caffeine* also is worthy of trial.

*Musk*, in the few cases treated therewith, seems to justify it administration, and it is a form of circulatory stimulant which one welcomes as an addition to one's resources. The musk, as fresh as can be obtained, may be given in 5-grain doses every six hours as an expedient.

*Strychnine*, administered by the mouth or hypodermically, is of the greatest use. Granted that a functional abeyance of the nervous influence, more especially of the heart, is the essence of the toxic effect of the plague bacillus, strychnine ought to be a drug of importance in the treatment. This expectation was borne out in practice, and Dr. Lowson in his report, and all who have reported on the treatment of plague, regard strychnine as a most reliable agent in the form of stimulation required in plague. Liquor strychninæ in 5 to 10-minim doses, given every four hours, is the most convenient form; but, when vomiting is present, a hypodermic solution of gr. $\frac{1}{48}$ of the sulphate of strychnine in 10 minims of distilled water is advisable.

Other drugs may be mentioned, but, though useful as a change and a stand-bye on occasions, they do not justify more than a passing notice. Among the more important are *quinine* when malaria complicates the disease, as evidenced by a large spleen; *aconite* in the early stages, when high fever and a full pulse are present; *chloride of ammonium* as an alterative is occasionally useful.

The inhalation of oxygen (Lowson) is not to be neglected, and the gas ought to be always at hand and ready for immediate use.

The result of experience gained by local, radical or tentative *treatment of the glands* does not lead one to expect much benefit from there. That abscesses should be opened when they point, or when fluctuation is perceptible, is of course natural; but that local remedial steps should be undertaken for the purpose of affecting the course of the disease by acting on the gland is, from what we know of the pathology of the disease, scarcely rational. Injection of a swollen gland when it is accessible, as in the groin, with such substances as carbolic acid, perchloride of mercury, or a solution

of the perchloride of mercury and iodide of potassium, has perhaps a theoretical basis of justification, but practically little good can be ascribed to it. The latter-mentioned solution may have a higher claim, as in several cases in which it has been administered temperature falls and the patient seems easier. It may be, however, that the mere pricking of the tense capsule of the gland, even by needle punctures, may serve to relieve tension and thereby pain. This leads one to the belief that subcutaneous incision of the gland may be attended with beneficial results, and it is a method of surgical procedure not without precedent. Early free incision of the gland is not to be recommended, nor can excision be in any way justified. The disease is a polyadenitis, and of so extensive a nature that eradication of infected glands is an impossibility. A gland when swollen, red, and painful may be smeared with glycerine and belladonna, or poulticed to relieve pain, and when fluctuation is perceptible it should be opened, but further procedure is useless. When pus is evacuated, dusting the wound with iodoform and ensuring thorough drainage are the means by which the best results are obtainable.

*Retention of Urine*, a frequent concomitant during the delirium of plague, renders the use of the catheter imperative.

## OBSERVATIONS ON A CONDITION NECESSARY TO THE TRANSFORMATION OF THE MALARIA CRESCENT.

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BIGNAMI, in the *Policlinico*, July 15th, 1896, gives a lengthy critique of Dr. Patrick Manson's views, expressed in the Goulstonian Lectures for 1896, as to the mosquito being the alternative host of the malaria parasite. Beginning by opposing Manson's leading postulate, that the so-called flagella are in reality flagellated spores intended for the continuance of the life of the parasite within some suctorial animal, on the grounds that the crescents are "deviate and sterile forms," and that the flagellate bodies are products of degeneration, Bignami proceeds to advance a mosquito theory of his own on certain epidemiological considerations. This he reaches by a process of exclusion. Refusing to admit either water or air as the medium of malarial infection, he arrives at the conclusion that that infection must be produced by inoculation—namely, by the mosquito; and assumes for these reasons that the mosquito is the alternative host of the parasite.

With respect to this latter part of Dr. Bignami's paper, it may be remarked that in it he does but repeat the almost obvious reasoning which must have led Laveran and others, besides Manson, to connect the disease with the mosquito, so that it appears scarcely necessary to consider this part at length here. We may perhaps object to some of his citations. Thus not everyone will be willing to discredit the possibility of malaria being carried from a shore to a neighbouring vessel, nor will everyone deny that drinking water may convey the disease. Bignami cites the general opinion of Italian peasants in favour of the view that water is not the medium; in India, however, an opposite opinion is frequently expressed, not only by natives, but by forest and survey officers, and sportsmen who are intelligent men, and who are continually in contact with malaria. On the whole, however, one may agree with the general trend of Bignami's remarks in this direction, but I cannot exactly perceive the grounds on which he assumes, as he seems to assume, that these views are distinct from Manson's, and hence worthy of such detailed examination. Manson has already suggested many of them in the Goulstonian Lectures and in the BRITISH MEDICAL JOURNAL, December 8th, 1894, and would doubtless have discussed them in greater detail if he had not thought them to be rather self-evident. Given the broad epidemiological facts of malaria, and granted that the mosquito is the carrying agent, we are easily led to conjecture that it may also be the alternative host, and that it may cause infection by means of its bite or otherwise. The latter idea has probably occurred to scores of people. I remember talking it over with Dr. Manson two years ago, have thought much about it since, and in August last, before seeing Dr. Bignami's paper, performed several negative experiments with a view to producing infection by mosquito inoculation.

But what should be emphasised here is that such epidemiological data are so uncertain that it is really quite impossible to base upon them alone any substantial theory. Dr. Bignami accuses Manson of expounding a theory of his own, and attempting to back it up with proofs, which are, however, matters of speculation more than of observation; and then proceeds to expound just the same theory, except that the most convincing argument is omitted.

Fortunately the theory as developed by Manson is founded on something far more solid than such merely plausible conjectures as Bignami has to advance. It is founded on his induction (for which we are indebted to him and to no one else) that the process of exflagellation is a developmental one intended by Nature to continue the life of the species within some suctorial animal. The epidemiological considerations serve only to fortify the presumption that the suctorial animal is the mosquito. And it is here, just at the climax of the induction, that Bignami falls away. He returns to the involution (degeneration) theory of Antolisei, Grassi, and Feletti, and of himself and Bastianelli.

Of course, if this involution theory be the true one, the evolution theory of Manson falls to the ground. On the other hand, if the evolution theory holds, the consequences must be far-reaching, because the parasites must evolve somewhere, and in all probability must evolve within the mosquito. Hence I should like to reopen the discussion here, especially as I think that I have some new facts to offer in respect to the transformation of crescents—facts which I believe to be subversive of Bignami's views.

Before considering such facts, however, we must remember that the crescents (which may be taken as typical of the flagella-bearing forms) are much larger, more permanent, and perhaps altogether as numerous in their allotted period as the æstivo-autumnal fever forms are in theirs. Hence any theory which ventures to stigmatise them as being sterile, degenerative, or useless, and the flagellate bodies as being mere agony forms, must face the question as to how it is that Nature, usually so purposeful, has in this respect proceeded so aimlessly. Is it likely that after producing bodies so carefully adapted in every detail to their habitat as the fever forms, she should proceed to fill the blood with as many sterile bodies which have no function to fulfil in favour of their species? On the contrary, the position appears to be directly opposed to the first teachings of the Darwinian system, which lay down that useless forms are excluded by the evolution of the species. If the crescents serve no purpose, how comes it that they exist? Either the case must be an extraordinary exception to a great general law, or, what is far more likely and what so often happens with those who argue the inutility of phenomena, the degenerationists have failed to detect the purpose served by the bodies referred to, and, in failing to detect it, have fallen back rather rashly on the supposition that there is no object. Hence we are, I think, justified in demanding at the onset very conclusive facts before accepting a theory so much at variance with accredited views as to the usual intentionality of Nature.[1]

The facts really given, however, are far from conclusive. Bignami, in the critique referred to, does not even reply to Manson's cogent reasoning against the degeneration theory; and he has not repeated my experiments with the mosquito. He returns simply to the old arguments which have already been traversed, partly at least, by Laveran, Danilewsky, Mannaberg, Manson, and others. They are:

### ARGUMENTS FOR THE INVOLUTION THEORY.

1. That the nuclei of crescents do not participate in the development of the flagella, and that the latter contain no chromatin. Manson admits that this will be fatal to his theory, but cites Sacharoff (also a degenerationist) as giving an opposite opinion. Mannaberg also appears to be in opposition; so that in view of such disagreement among those who have specially studied the subject, as well as of the delicacy of the necessary investigation, we can hardly venture to accept the statement as being final; while, on the other hand, convictions forced upon us by other observations lead us to

doubt whether some mistake has not been made, and whether a revised inquiry will not demonstrate the facts now denied by Bignami.

2. The fact that flagellate bodies are found only after the blood has been drawn is looked upon as suggesting that they are dying or "agony" forms. But the same fact can be also explained by Manson's theory on the ground that exflagellation is the first step of the parasite outside the human body (in the stomach of some suctorial animal), and therefore necessarily occurs only after the blood is drawn.

3. The frequent vacuolisation met with in crescents and crescent-derived spheres is supposed to support the same view as 2, but similarly can also be shown to be consistent with Manson's theory. By this the flagellate body is taken to be an act of birth of the flagellated spores accompanied by the death of the residual mass of the parent body—a parturient dissolution, in short. Hence, in these residual masses, as well as in those crescents and spheres which have failed to give birth to their contained flagellated spores and which must evidently die sooner or later, we must certainly expect to find vacuoles as we find them in dying fever forms. The flagellate body is a degenerative body to the extent that all of it except the flagellated spores is dying; but this, while explaining the vacuolisation, does not admit that the flagella necessarily participate in that death.

4. Similar cases of degeneration are quoted, and Dr. Bignami does not hesitate to repeat the old comparison of the flagella with "the bacilliform filaments which in special conditions, as, for instance, under the action of an elevated temperature, originate from the red corpuscles." Even if there were any real similarity, we must seriously object that such similarity cannot prove identity. As a matter of fact, as Laveran and Mannaberg have already shown so vigorously that one is surprised at seeing this argument crop up again, there is no real similarity. For example, even Thayer and Hewetson, who reserve their opinion on the general question, say of the flagella, "Their appearance, their activity, the regularity of outline, the shape of the flagella are very much against their being compared to the sarcodic prolongations of degenerating red corpuscles, which are certainly very dissimilar in appearance." For my own part, I feel compelled to say that when we carefully observe the movements of free flagella, which are as vivacious as trypanosomes, and more vivacious than spirochætes, we must refuse to admit such a comparison for a moment.

### Arguments for the Evolution Theory.

Such are the arguments in favour of the degeneration theory: in my humble opinion the first only is of any value. Keeping this argument in mind, however, we may now consider the reasons against this hypothesis:

1. Both crescents and crescent-derived spheres undergo another process of degeneration after death—a process unlike flagellation, but similar to the degeneration of fever forms, and seen best in sealed liquid specimens. Crescents tend either to shrivel at the ends, leaving after a day or two nothing but the central mass of pigment (and this without true spherulisation or the escape of flagella): or become vacuolated, the pigment often being somewhat distributed and frequently taking on after twelve or more hours a rapid Brownian (?) movement, sometimes within the vacuoles (*sic*). The crescent-derived spheres tend to swell up after several hours like dead leucocytes, the pigment at first collecting eccentrically and then often assuming a lively Brownian movement. These, I submit, are the true degeneration forms of these parasites.

2. The flagella cannot be extruded sarcodic processes of dying bioplasm, not only for the reasons given by Laveran and Mannaberg, but because they may sometimes be seen within the parent parasites. I observed lately a sphere in a situation specially favourable to examination, within which three active flagella could with ease be detected, coiling and uncoiling themselves and tossing about individual pigment granules, their movements persisting after those of two other flagella, which had partially escaped, had ceased. The flagella referred to were clearly within the parasite and not above or below it; and were of the same size and shape as flagella seen in the usual positions. I have seen the same thing on several previous occasions.

3. If exflagellation be a process of death, why, we may ask, does it not occur among the fever forms? As it does not do so we must assume, on this hypothesis, that the bioplasm of these must be very different from that of the flagella-bearing bodies, which undergoes such extraordinary degenerative changes. Are we justified in believing that such a marked difference in the bioplasm of various individuals of the same species can exist?

4. But, perhaps, the strongest argument which may be adduced against the involution hypothesis is that the process of transformation of the crescents behaves under experimental conditions like a process of evolution, and not like one of degeneration. If (*a*) it be one of death and degeneration we may reasonably expect that it is due to some inherent quality in the bioplasm of the crescents—a quality which will produce the transformation referred to, either independently of surroundings, or, if anything, to a greater degree under conditions which hasten the death of the parasites. On the other hand, (*b*) if the process be one of life and evolution, it is likely to be encouraged by condition which exactly suit that life and evolution. In other words, (*a*) to support the involution theory we have to show that the transformation always occurs in, at least, a certain percentage of dying crescents, whatever the surrounding conditions, short of actual chemical alteration of the blood, may be; and that it is hastened by conditions which tend to kill the parasites. But (*b*) to support the evolution theory we should show that, unless a certain condition propitious to that evolution be present it will not proceed at all, and that, on the other hand, if we supply the required condition we may encourage it as much as we please. I venture to maintain that we can entirely check, or produce as much as we please, the transformation of crescents, and this simply by withholding or supplying the condition necessary to it.

Experiments suited to this inquiry are somewhat difficult to devise, because, if we use reagents to kill the crescents, and if thereupon it be found that they do not become transformed, it is sure to be said by the involutionists that the phenomenon has been checked by some subtle alteration in the bioplasm of the parasities induced by the reagent used; on the other hand, if the reagent hastens the transformation, it will be said that it has killed the parasites without altering the bioplasm, so that the result is only what was to be expected by the involution theory; and it will be very difficult to controvert these statements. It will be seen presently, however, that reagents are unnecessary; and that we have but to discover the condition necessary to the transformation in order to control it as we wish.

Experiment I.—The following experiment entirely checks the full transformation of crescents, and appears to me to be equally damnatory of the degeneration hypothesis. A lump of vaseline free from air bubbles is placed on the finger, and the skin is pricked through it (Plehn's method). A balloon of blood rises in the vaseline, which is then removed, blood and all, to a glass slide, care being taken not to expose the blood for one instant to the air. A cover-glass is now laid on the vaseline, which is so flattened out by pressure (either at once or later) as to produce sufficiently thin fields of vaseline-surrounded blood. If the experiment be properly done, it will be found that hardly any of the crescents have become spheres, even after twenty-four hours, and that none of them have become flagellate.

I have lately had the opportunity of repeating this experiment frequently with a case containing swarms of crescents. In one specimen alone I counted no fewer than 400 crescents, kept for four hours in vaseline, without chancing upon a single crescent-derived sphere: after this number was counted it appeared unnecessary to count further. Occlusion in vaseline clearly checks the transformation practically altogether. How explain the fact on the degeneration hypothesis? It cannot be argued that the vaseline exerts an inhibitory chemical effect upon the phenomenon, because if the blood be exposed to the air even for half a minute before occlusion in vaseline, the transformation does proceed even in crescents lying close to the grease; and again considering that the blood is merely surrounded by the vaseline and not mixed with it, it is otherwise extremely unlikely that this inert substance should have such a remarkable and immediate effect on crescents lying in the centre of the drop of blood. Nor can it be argued that the absence of transformation is due to the crescents remaining alive in the vaseline, because a specimen may be kept for any length of time without showing true spherulisation of the crescents, which, it is presumed, must die sooner or later. Moreover after twelve hours or so they exhibit the obvious signs of death referred to above. They die, but they are not transformed. Hence we may justly ask, How is it, if the transformation be a process of death, that it does not occur here, even though the parasites die? We say that a certain phenomen is due to the death of an animal; the animals die in hundreds and do not exhibit it; what are we to conclude? (See also Experiment IV.)

It is evident, on the contrary, that the transformation is rather one of life and evolution, but that in the vaseline experiment we have excluded some condition which is neces-

sary to its occurrence. It remains to discover that condition. The following experiments will, I think, show what it is.

EXPERIMENT II.—The finger is pricked and the drop of blood allowed to stand on the skin exposed to the air for five seconds to four minutes, and is then taken up on a coverglass and laid on the slide in the ordinary way. It will be found that the longer the blood has been exposed to the air the greater, roughly, is the number of crescents which proceed to spherulisation. The experiments should, if possible, be done with blood containing numerous crescents, say one or two in every field. Examination of the specimen should at first commence directly it is made, and an assistant should be ready to record observations as soon as taken. In a specimen made with thirty seconds' exposure (that is, an ordinary specimen) it will be found that about 20 per cent. of the crescents become spheres. Thus in an experiment which I take at haphazard from those made from the case referred to, which swarmed with parasites, I found, after thirty seconds' exposure and during five minutes' search, 158 parasites, of which 38, or 24 per cent., had become spheres in that time. In such specimens it will generally be noted that it is the parasites lying close to air bubbles which more commonly become spheres. An exposure of even half a minute long will as a rule result in the transformation of many more crescents: and with three to four minutes' exposure we shall find that about 90 per cent. of them have changed. Thus, in another unselected experiment made with three and a-half minutes' exposure and examined for five minutes I found 268 parasites, of which 242, or 90 per cent., had become spheres and 1 flagellate in that time. In another made with three minutes' exposure and examined from fifteen to twenty minutes after the finger was pricked I found 81 parasites, of which 68, or 85 per cent., had become spheres; of these 81 parasites, 20, or 26 per cent., were flagellate

The following observations should be recorded in this connection. Making the specimen tends to check the transformation except in the proximity of air bubbles. I have not yet succeeded in converting all the crescents by any exposure. Perfect spheres may be already found within one minute after pricking the finger. The above experiments should be compared with Sacharoff's method of obtaining flagellates.

Comparing these experiments with the vaseline experiment we shall conjecture that exposure to the air is the condition necessary to the transformation of crescents. This, however, is not the case.

EXPERIMENT III.—A mosquito is allowed to suck the blood which is removed from the insect from a quarter of an hour to one or more hours after it began to suck. Even after a quarter of an hour practically all the crescents have become spheres. From fifteen to thirty minutes numerous flagellates are often found. At one hour 65 per cent. of the spheres present the appearance of a sphere after the flagella have escaped. I have examined over 20 mosquitos, and find the rule that all crescents are converted to be almost invariable. Of course if we examine the insect too soon we shall find some crescents which have only just been ingested.

EXPERIMENT IV.—Leeches are applied, removed at various intervals, and evacuated by means of salt rubbed into the mouth. The results are the same as those observed in the mosquito, except, perhaps, that the transformation is more tardy. Numerous flagellates may be found occasionally.

Now what is the condition necessary to the transformation? It cannot be a low temperature, as Sacharoff and Manson have conjectured, because I found, working at Secunderabad at a temperature nearly that of the blood, that the process went on to the same degree at that temperature as in control specimens kept on ice, and I have never noted temperature to have any effect. It cannot be exposure to air, because blood in leeches and mosquitos, where the transformation is most complete, is no more exposed to air than in the vaseline experiment, where it is entirely checked. It cannot be contact with the stomach of these animals, because the change occurs nearly as much in the exposure experiments, and because it commences very rapidly, long before the blood can be acted upon by digestive juices (if any), and, indeed, long before leucocytes and even small amœboid bodies are at all affected.

The condition must be abstraction of water from the serum. This is clearly absent in the vaseline experiment: while more and more water is abstracted by evaporation the longer blood is exposed to the air. Lastly, the mosquito and leech abstraction of water is very rapid (evidently in order to reduce the bulk of the blood). Not only does the microscope give evidence of this in the greater huddling together of corpuscles in blood taken from these animals, but the mosquito can easily be observed to void droplets of water every ten seconds or so while she is sucking, while the profuse sweating of feeding leeches is well known. Hence the view that the condition required is found in the said abstraction of water is the only one (which at least has occurred to me) that fits the facts; and it fits them very accurately indeed.

EXPERIMENT V.—We may now make a concluding crucial experiment which clearly demonstrates the effect of the necessary condition, and, at the same time, strikingly illustrates the living nature of the phenomenon. A vaseline preparation is made as in Experiment I: after one or two hours it is examined, and found to contain only crescents; it is then opened, and the blood is removed to a clean slide, where it is exposed for evaporation in the air for a minute or two, and lastly covered with a fresh cover glass. In a few minutes the transformation begins, as in Experiment II. Numbers of the crescents become spheres, and many of them become flagellate. The crescents have remained alive in the vaseline for the one or two hours, so that they are still capable of retaining their function when taken out and brought into the presence of the necessary condition. Again, a similar vaseline preparation is kept for twenty-four hours, after which it also is opened. None of the crescents now become spheres; many of them have vacuoles and oscillating pigment; in fact, they are now dead, and no longer capable of undergoing transformation. I think that the crescents begin to die after an hour or so, but am not yet in a position to state the usual time of death definitely. In all vaseline experiments a few parasites are found, which have, so to speak, attempted to become spheres, and these are readily taken up by phagocytes; but there is no true process of spherulisation. Crescents showing shrivelling vacuoles, or the slightest oscillation of pigment, are quite dead.

All these experiments should be made from a patient containing numerous crescents, who has not been taking quinine. The experiments should be repeated so frequently as to assure the observer that he has arrived at the real facts. He must, of course, be able to distinguish true spheres from crescents hanging end downward in deep blood, and from the spurious spherical degenerative change of dead and shrivelled crescents. The vaseline experiments require very careful manipulation to exclude air, the presence of air bubbles in the grease, and even (I think) the existence of too thin a film of it between the blood and the air being sufficient to allow a few crescents to become spheres. The best results are obtained, I imagine, by pressing out partially at once by means of the cover slip, which is, of course, entirely impermeable to air; and perhaps some better medium than vaseline may be found; but the number of spheres seen even in carelessly made specimens is so small as compared with that in exposed blood, that the main principle in question can scarcely be denied.

It may now be asked, How and why does abstraction of water from the serum affect the crescents? I suppose that the slight alteration of density caused thereby is instantly appreciated and taken by them as a signal that they are now in a proper position to undergo further development with advantage. As to the why, we may remark that, at first at all events, the only sudden alteration which occurs in blood ingested by the mosquito is, so far as we can see, this same alteration of density. It is so rapid and marked that in a field of mosquito-drawn blood we find two or more corpuscles or parasites to one which we shall find in a field of finger blood made quickly into a specimen. In all other qualities the ingested blood probably remains at first much the same as when it was in the capillaries; there is no exposure to air; there is a certain amount of motion; the temperature must fall very slowly at first; and there is not likely to be any digestive action during the first few minutes after deglutition, namely, those when the transformation occurs, and possibly must occur, to enable the flagellated spores to escape the approaching viscidity induced by the extravasation of hæmoglobin. Hence it seems that alteration of density can be the only alteration on which the crescents can rely in order to know, so to speak, when the time has come for them to give birth to their included spores. That it is the alteration on which they actually do rely is evident; and our knowledge of the exquisite arrangements which Nature is wont to make for emergencies of the kind suggests that this is another example to the same effect.

In view, however, of the fact that I have never been able by any exposure to the air to convert all crescents into spheres with the constancy found in the mosquito, I am inclined to believe that in the latter there is some slight subsidiary condition, perhaps some subtle coincidence of temperature, which also affects the phenomenon. Flagellation also appears to depend on some additional condition which I have not yet been able to ascertain, because it occurs very markedly to a different degree in different specimens, or even in different parts of the same specimen. Still, abstraction of water is the first condition; and I feel justified in saying that anyone who considers the above experiments with due attention must conclude that the mere fact that an extrinsic condition so necessary to the phenomenon exists at all negatives the view that the phenomenon is due to any intrinsic change, such as the degeneration theory assumes it to be. More than this, the same fact seems to me strongly to enforce Manson's theory by reasons based on direct observation. We owe to

him the view that the transformation of crescents is intended for the propagation of the parasite within the mosquito; and later I was able to show that the same transformation does actually occur within the mosquito, and occurs there to a greater extent than in ordinary specimens. But the above experiments appear to demonstrate, further, not only that the transformation must be a vital phenomenon, and not one of degeneration as some say it is, but that the condition which is absolutely necessary to its occurrence is just the one which is most conspicuously found in the stomach of suctorial animals (mosquitos and leeches).

I may also mention here, as being opposed to the involution theory, the effect of quinine on the transformation of crescents. Though I am unable to speak yet with any absolute certainty on the point, the effect appears to me to be one of partial restraint both on the change of crescents into spheres and of spheres into flagellates (not one of complete repression, as Manson has through a misapprehension given me as saying). Thus in a specimen taken from a cinchonised patient fewer crescents will be transformed and fewer flagellates found than in one taken from an untreated person. I have often remarked this, but have not yet attempted a quantitative examination of the question. The fact (if it be one) will, as Mannaberg has already suggested, be strongly opposed to the degeneration hypothesis, according to which crescents killed by quinine should be the first to undergo transformation. Direct treatment of crescents with reagents, such as water, quinine, and methyl blue, always appears to check exflagellation, again contrary to the degeneration hypothesis.

EXPERIMENT VI.—The last series of arguments which may be directed against the involution theory are those based on a careful study of the appearance and movements of free flagellated spores, a subject which may be treated at such length that I am not prepared to enter upon it here. Dr. Bignami describes Manson's remarks under this head as "a mere matter of impression," and I think we shall be willing to let the matter rest at this for the present. It is our "impression" that the said movements are eminently indicative of independent life—the same sort of impression which convinces us that a flying bird or a galloping horse is a living animal and not a dead one. In favour of the degeneration theory it is impossible to feel any impression whatever. That theory appears to have arisen from an insufficient scrutiny of the minutiæ of these phenomena, and probably from the spectacle of those flagellate bodies whose spores cannot free themselves and therefore die *in situ*. Some of my own experiences in regard to these points may, however, be briefly recorded here. The movements of free spores (which may live for two hours) are very similar to those of trypanosomes. All living free spores seen by me have had a nearly uniform structure, namely, that of a central enlargement, probably the spore, with a flagellum on either side, and I opine that this central body will, with suitably staining, be demonstrated to contain chromatin. The spores are capable of attaching themselves, apparently by the extremity of the flagellum or by the body, and I have on several occasions seen them attached to red corpuscles, and pulling them along. The ordinary flagellate body is generally such a confused mass of waving flagella, that it is impossible to make out the structure of the spores until they effect their escape. Much work in this connection, however, remains to be done.

### REMARKS.

It is interesting to note that Bignami has not succeeded hitherto in finding the parasite in mosquitos—an experience which, so far as it relates to the post-flagella stages, coincides with mine up to the present. His argument, delivered with much confidence, that it is impossible for the mosquito to convey the parasite out of the human blood, since in this case we should expect to find the disease communicated from an infected person to healthy individuals in his neighbourhood, appears to me to be of little value, because in the first place I doubt whether such cannot occasionally occur—witness the first appearance of malaria in the Mauritius in 1866; and, in the second place, it is possible that each species of parasite requires for its propagation a special species of mosquito, so that, if this be absent in a locality, the parasite cannot exist there at all, and therefore cannot spread there.

Bignami refuses to credit that a case of fever following upon a "mosquito water" experiment was one of malaria. Crescents were certainly not found after the fever; but this was possibly because they were not carefully enough looked for. I think that the case was one of slight malarial infection; and it may be remarked that the natives of India appear often to be comparatively immune to the effects of the parasite, as Thayer and Hewetson have remarked in the case of the negro. Thus, I have lately treated several cases in which the clinical symptoms gave no idea of the numbers of parasites found. Marked rigor is, of course, frequently absent. Since this experiment I have had similar slight reactions in 2 out of 21 experiments of the same kind; 3 more experiments were performed as follows: Mr. Appia, assistant surgeon of my hospital, volunteered to be bitten by numerous mosquitos fed on malarial blood. In August last he was bitten on three occasions by altogether 36 mosquitos, most of which had been fed on a case containing quartan, mild tertian, and æstivo-autumnal parasites. Two other volunteers underwent similar experiments. All the results were entirely negative. These 25 experiments are detailed in a paper read in October before the South Indian Branch of the British Medical Association, in which I conclude that no definite inferences can be drawn from them. For various reasons the similar experiments cited by Bignami appear to be equally inconclusive.

Dr. Bignami quotes Calandruccio's results with the mosquito as being opposed to mine. I have not had the good fortune to read Calandruccio's observations in this connection, but understand that he worked with fever forms, which, of course, die in the mosquito. My work, on the other hand, refers to the transformation of crescents, which beyond all doubt occurs in the insect, though, owing to the difficulty of the investigation, I am not in a position to state whether or not the flagellated spores undergo further development then.

### NOTES BY THE AUTHOR.

I had just written and dispatched the above when my attention was called to a letter by Dr. Marshall, from Rio Tinto, Spain,[2] in which he states that the addition of a small quantity of water not only causes all crescents to become spheres, but encourages exflagellation as well. This appears to be diametrically opposed to my own conclusions; and it became necessary therefore not only to repeat my experiments once more, in order to see whether some error had not been made, but also to ascertain the exact effect of the addition of water. Being in charge of a patient whose blood was rich in crescents, I have been able to effect the necessary observations in time for the publication of this paper.

Repetition of my experiments given above yielded precisely the same results; and a further experiment was devised, which led still further to the conclusion that unless water is abstracted from the blood the crescents will not change. The finger was pricked, and then quickly held over warm, not hot, steam, and kept there for one minute. Blood will evidently not evaporate so copiously under these conditions as when it is exposed to comparatively dry air; and consequently, by hypothesis fewer crescents will change. The experiment is not so complete as the vaseline experiment and is difficult to do, not only because the hot blood escaping from high pressure in the capillaries has an immense tendency to evaporation, which is but partially resisted by the incompletely saturated air over a steaming vessel, but because the drying edge of the blood and air bubbles in the specimen cause a rapid increase of density in their vicinity, which affects the parasites there. Nevertheless, it was found that in blood exposed for a minute over steam only about half as many parasites change as in blood exposed for the same period to dry air, and that those parasites which do change are generally to be observed near air bubbles and the edge of the specimen. Further, in experiments conducted in this manner it was determined from the microscopical appearance of the blood that often a certain amount of water had been added (from absorption of globules of steam). I am therefore of opinion that if the blood density be kept at its normal amount, or even if it be slightly lowered by admixture of very small additions of water, transformation will be checked.

So far, then, the former conclusions were again justified; but it was now necessary to observe the effect of larger additions of water. Here I may say that I (for one) was already familiar with the fact that an excess of water causes all crescents to swell up into spheres. I did not deal above with the fact, because I held somewhat hastily that it was due merely to absorption of water by the parasite, and therefore looked upon it as an example of the effects of the reagents, which I was not considering. On second thoughts, however, it became evident that the change is not in this case due merely to "imbibition of water," as Dr. Marshall thinks, and, as I once thought, because the transformation is here not a mere mechanical swelling up of the parasites,

but a genuine transformation which may be complete in all its stages. It is therefore necessary to admit, contradictory as it may appear, that decreased density may provoke transformation as well as increased density can; and it is equally necessary to consider this new fact.

The following are the results obtained by me: A large drop of water is placed on the finger, and the skin being pricked through it, a small quantity of blood is mixed with the water. The well-known effect follows, that the hæmoglobin is dissolved out, and the leucocytes are swelled into spheres. At the same time the crescents have become spheres, almost always without thick outline. The spheres are larger than normal (?), and the pigment remains clustered in a mass, and soon takes on a Brownian movement. Many eviscerated crescents are found (a form noticed, I think, by Canalis), in which we may observe lying together the shell of the corpuscle and the outline of the crescent, with the pigment extruded from it in a mass. At this stage transformation is checked, pigment is rarely distributed, and exflagellation does not occur. In short, excess of water accelerates the first stage of transformation, but then kills the parasites.

Again, a small drop of water is placed on the skin and is mixed with a larger quantity of blood. On examination it is found that the hæmoglobin is not dissolved out, but that the corpuscles are swelled up so much as to prevent their forming rouleaux. The crescents rapidly become spheres, and if too much water has not been added some of them proceed to exflagellation, about as many as become flagellate in blood exposed for forty seconds or so. The stages of transformation are precisely the same as usual, exflagellation occurring almost invariably at eleven, twelve, and thirteen minutes; and I think equally in parts removed from air bubbles as in those near them. If, however, sufficient water has not been added numerous crescents still remain, and spheres and flagellates are generally found only in parts in proximity to air. We must conclude, then, that the addition of a certain quantity of water (say 30 per cent.) encourages transformation just as the abstraction of a certain amount of water does. To sum up I reach the following conclusions:

1. Transformation does not proceed unless the normal density of the blood be changed to a certain extent—that is, either increased or decreased.

2. If the normal density be decreased too much, crescents become spheres, but are then killed.

The addition of water as practised by Dr. Marshall—namely, by mixing water into blood which has already been exposed to the air for a few seconds—gives rather dubious results. In some crescents transformation appears to be started by exposure to air, in some by the effect of water, in others (generally numerous) by the proximity of air bubbles; while many crescents—namely, those which happen to have come in contact with excess of water—may be first transformed and then killed. Judging from many such experiments, however, I hold that change of density has the effect merely of starting transformation, and does not much control subsequent developments, except in the case of excess of water. I think, too, that transformation once started addition of a little water helps the next stages by increasing the bulk of the blood, and so preventing undue pressure of the cover glass on the parasites.

Exposure to very hot steam kills the crescents. Normal salt solution permits some crescents to proceed in development, but a stronger solution checks transformation. Hayem's solution is quite inhibitory so far as I have examined. Many interesting experiments with reagents, such as solutions of various salts, sugar, etc., may be tried. I have not had leisure to attempt them. One interesting experiment in the same line as the vaseline experiment may be suggested—namely, to check transformation temporarily by means of a salt or Hayem's solution, and then to endeavour to resuscitate the crescents by further dilution with water.

We have now to consider how the new fact bears upon my former deductions. An argument in favour of Manson's theory was derived from the observation that increased density, which is just the condition found in the mosquito's stomach, is also the condition necessary to transformation; and it will now be said that the argument no longer holds, because decreased density is also necessary, while decreased density is not found in the mosquito's stomach. To this the answer seems to be that the argument still remains sound, because increased density is the natural condition which provokes transformation, being that condition which obtains in the mosquito; whereas the effect of decreased density is an accidental or artificial one, due to its producing some action upon the crescents similar to that produced by increased density. What is this action which is produced both by condensation and by attenuation of the medium? I think it is an alterative action on the shell of the corpuscles containing the parasite. If we carefully examine crescents becoming spheres, we shall observe that the first step of the change consists in an apparent thickening of the outline of the crescent. This thick outline persists not only while the crescent becomes an oval, but for a minute or two after it has become a complete sphere. Then, generally five minutes after the blood was drawn, the thick outline is suddenly discharged, and we find a sphere without any limiting line at all. The thick outline is connected with the shell of the corpuscle which contained the parasite, and its disappearance is due to its rupture by a slight but often distinct stretching movement of the parasite—a fact which may repeatedly be observed in exposed blood four to eight minutes after it was drawn (I hope to describe the exact steps of exflagellation hereafter). Now both increased and decreased density appear to have an alterative effect on corpuscles; either, if carried far enough, produce extravasation of hæmoglobin; and I judge, in short, that it is the beginning of this alterative effect which determines the commencement of transformation. But while condensation is the natural incentive to the change, attenuation is accidentally capable, so to speak, of producing the same effect by having or threatening a similar alterative action on the shell of corpuscle. For all we know, many reagents may be found which will give the same result; though, however numerous they may be, condensation will remain the natural condition leading up to the phenomenon.

I must here correct a misapprehension of Dr. Marshall's; he evidently thinks that transformation in the mosquito is occasioned by the addition of some fluid which has the same result as the addition of water. "What bearing these phenomena (effects of water) may have on Dr. Manson's theory," he writes, "I cannot venture to say, but only express the opinion that they are due to the imbibition of water by the crescent, and that this may take place as well in the stomach of the mosquito as in any other place where blood containing crescents is mixed with a comparatively inert fluid." In the stomach of the mosquito there is no fluid mixed with the blood, certainly not enough to cause transformation; water is abstracted.

I have forgotten to note that in making most of the above experiments a fairly large drop of blood should be examined; that two or more exposure specimens should not be made from the same drop of blood, and that the great effect of air bubbles in promoting transformation should be always remembered.

REFERENCES.

[1] It is difficult to understand Bignami's own views in respect to this theory, or what exactly he means by his "deviate and sterile forms." As, however, in this paper he opposes Manson's evolution theory, there is no option for us now but to class him among the degenerationists.

[2] *Lancet*, October 24th, 1896.

LOCAL DEATH-RATES.—At the last meeting of the Royal Statistical Society Mr. Thomas A. Welton called attention to some of the fallacies which vitiated the calculated local death-rates. In particular he pointed to the practice of charging all deaths in workhouses and lunatic asylums to the district in which the building happened to be situated, and urged that the workhouse deaths ought to be distributed, and the asylum and hospital deaths shown separately. He further showed ground for believing that in large towns, where many persons were employed at the ages 15 to 35, whose parents resided in rural districts, these persons when taken seriously ill returned to their country homes and died there. He pointed out also that the death-rate of watering places and pleasure towns were made to appear too heavy because their average population was based upon census returns taken at a period of the year when visitors to such places were fewest in number.

ANTITOXIN IN LOUISIANA.—The Louisiana State Board of Health has announced that it will supply antitoxin free of charge to poor patients suffering from diphtheria.

# REMARKS
ON
# VACCINATION AGAINST TYPHOID FEVER.

BY
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Mr. Haffkine suggested rather more than twelve months ago to one of us that the method of vaccination which has proved so effectual in combating cholera epidemics in India might, *mutatis mutandis*, be applied also to the prophylaxis of typhoid fever. Since that time, this question has been constantly engaging our attention, and we have gradually elaborated the method of antityphoid vaccination, which is to be briefly described in this paper.

Our first vaccinations against typhoid were undertaken in the months of July and August of last year. These vaccinations were put on record by one of us in the *Lancet* on September 19th, 1896, in a paper which dealt primarily with the question of serous hæmorrhage. A reprint of this paper was sent among others to Professor Pfeiffer.

Nearly two months after the date of this paper Professor Pfeiffer[1] published, in conjunction with Dr. Kolle, a paper on Two Cases of Typhoid Vaccination. The method of inoculation which these authors have adopted, is exactly similar to the one that we had previously adopted. Like our own method, it was based upon the methods which have been so successfully employed by Mr. Haffkine in his anticholera inoculations.

After this historical discursus, we may without further prologue proceed to consider, first, the general principles upon which these typhoid vaccinations are based; secondly, the methods which are adopted in preparing the vaccines; thirdly, the dosage and the strength of the vaccines; fourthly, the clinical symptoms which supervene upon the inoculation of those vaccines; fifthly, the method of gauging the effect of these vaccinations; lastly, we shall consider certain questions with reference to the probable duration of the immunity and in connection with the application of these vaccines.

## Principles upon which the Proposed Method of Typhoid Vaccination is Based.

The object of all vaccination processes is, first, to achieve a degree of immunity which shall be equal or greater to that which accrues to a patient who undergoes and recovers from an actual attack of the disease; and, secondly, to achieve that immunity without any risk to life or health.

The first of these objects can, as far as is known, only be satisfactorily achieved by inoculating the patient with the micro-organisms (or the products of the micro-organisms) of the particular disease. The second object can be achieved in several ways. We may either, as in the Jennerian vaccination against small-pox, inoculate the patient with micro-organisms which have lost their virulence for man by being passed through a whole series of appropriately chosen animals. Or we may, as in the Pasteurian method of vaccinating against anthrax, employ in our inoculations artificially attenuated micro-organisms. Or, lastly, we may inoculate the patient with measured quantities of dead, but still poisonous, micro-organisms.[2]

It is this last method which we have adopted in the case of our typhoid vaccinations. The advantages which are associated with the use of such dead vaccines are, first, that there is absolutely no risk of producing actual typhoid fever by our inoculations; secondly, that the vaccines may be handled and distributed through the post without incurring any risk of disseminating the germs of the disease; thirdly, that dead vaccines are probably less subject to undergo alterations in their strength than living vaccines.

## Method of Preparing the Antityphoid Vaccines.

These vaccines are made from agar cultures of typhoid bacilli which have been grown for twenty-four hours at blood heat. The cultures which are thus obtained are emulsified by the addition of measured quantities of sterile broth. The resulting emulsion is then drawn up into a series of sterile and duly calibrated glass pipettes. The capillary ends of these pipettes are then sealed up in the flame so as to form vaccine capsules. These capsules are then placed in a beaker of cold water, which is then brought to a temperature of 60° C., and is kept at that temperature for five minutes. The sterility of the vaccines is then controlled by allowing a drop of their contents to run out on to the surface of an agar tube, which is subsequently incubated. If, as in our experience always occurs, the contents of the vaccine capsules are now found to be absolutely sterile, the vaccine is ready for use.

In proceeding to the inoculation of these vaccines, the capsule is first thoroughly shaken so as to distribute the bacteria through the fluid. The contents are then drawn up aseptically into the syringe in the manner which was proposed by Mr. Haffkine, and which is described and illustrated in a paper which was written by one[3] of us in conjunction with Surgeon-Major D. Bruce. The vaccines are inoculated into the flank.

## Dosage and Strength of the Antityphoid Vaccines.

The strength of a typhoid vaccine will obviously be determined (1) by the number of bacilli which it contains, (2) by the virulence of these bacilli. We have in all our later experiments employed a typhoid culture of such strength that one-fourth tube of a twenty-four hour culture constituted a lethal dose for a guinea-pig of 350 to 400 grammes when hypodermically inoculated. The quantities of this culture which we have employed for our antityphoid vaccinations have varied from one-twentieth to one-fourth of a tube. The latter quantity (that is, the quantity which, if injected alive, would have proved fatal to a 350-gramme guinea-pig) constitutes a somewhat severe dose for a man.

## Clinical Symptoms which Supervene upon the Inoculation of the Antityphoid Vaccines.

When the smaller doses (one-twentieth to one-sixth of a tube) are employed, the symptoms are comparatively slight. The local symptoms consist in a little local tenderness; the constitutional symptoms in a subjective feeling of chilliness, which comes on about two to three hours after the inoculation of the vaccine; further, in a very slight rise of temperature, and a little restlessness at night. The symptoms have quite passed off in twenty-four hours.

With larger doses, such, for instance, as were administered in Cases 4 to 14 inclusive (*vide* Table of Results given below) all the symptoms are more severe.

*Local Symptoms.*—About two or three hours after the injection a certain amount of local tenderness develops about the site of injection. This tenderness gradually increases in severity and extends upwards into the armpits and downwards into the groin. Corresponding with these subjective sensations a patch of congestion 2 to 3 inches in diameter develops round the site of the inoculation. Red lines of inflamed lymphatics can be distinctly traced, extending upwards into the armpits. The local tenderness is at its worst twelve hours after the injection. It is still very sensible twenty-four hours afterwards. It finally disappears about forty-eight hours after the injection.

*Constitutional symptoms*, consisting in some degree of faintness and collapse, begin to manifest themselves generally in two to three hours. In 4 out of 11 cases inoculated with these larger doses the faintness and nausea, resulting in one case in vomiting, were already well marked after three hours. In the other 7 cases these symptoms supervened somewhat later. Appetite was abolished. Only 3 out of the 11 cases were able to put in an appearance at dinner. A good deal of fever was developed in all cases, and sleep was a good deal disturbed. These constitutional symptoms had to a great extent passed away by the morning, and laboratory work went on without interruption. By the next day 8 out of these 11 patients reverted to their normal condition of health; 3 of the 11 looked somewhat shaken in health for some three weeks after.

It may be well to note that these symptoms, which are here described, are the symptoms which actually manifested themselves in patients each of whom had received doses of 45 to 60 grains of calcium chloride cryst. This calcium chloride was administered with a view to preventing such a

decrease[4] of blood coagulability and such a condition of œdema,[5] as supervened in the case of Case 1 (*vide* Table of Results given below), where the inoculation of one-twentieth of a tube of a weaker typhoid resulted in the production of an œdematous swelling, which extended from the site of inoculation as far forwards as the linea alba and as far downwards as the pubis.

### EFFECT ON THE BLOOD OF ANTITYPHOID VACCINATION.

Owing, in the first instance, to the researches of Pfeiffer on immunity against cholera, and, in the second instance, to the subsequent researches of Gruber and Durham on the differential diagnosis of bacteria by means of the serum of immunised animals, we are now in possession of a method which enables us not only to detect the effect that a vaccination exerts on the blood of the patient, but also accurately to measure that effect. Professor Pfeiffer and Dr. Kolle have, like ourselves, gauged by this method the effect of their antityphoid vaccinations. In order to appreciate the exact nature of the test which has been put into our hands by the ingenuity of Durham and Gruber, and in order, further, to form an exact estimate of its value, we have briefly to consider the basis upon which the method of serum diagnosis depends. Put briefly, that basis is to be found in the fact that whenever the micro-organisms which are causally associated with a specific fever are brought in contact with the serum or plasma of an animal or a patient who is undergoing, or who has undergone, an attack of the specific fever in question, the following succession of phenomena manifests itself: (*a*) The bacteria become agglutinated together, (*b*) the bacteria lose their motility, (*c*) the clumps of agglutinated bacteria sink to the bottom, and the culture fluid, which was previously evenly turbid, becomes clarified; (*d*) the bacteria shrink up into the form of minute spherules, (*e*) lastly, the bacteria are definitely devitalised.

For the purposes of serum diagnosis, it is not essential that this whole train of phenomena should come under observation. It suffices if any one of this series of phenomena comes distinctly under observation, provided always that we keep in view the fact that the subject matter of our observations is no longer the actual bactericidal effect of the particular serum, but either its agglutinating, immobilising, sedimenting, or spherulating effect. Provided we keep this in view, we shall be well advised if we, for purposes of serum diagnosis, select as the subject matter of our observations that particular effect which is most easily accessible to observation. Now, as Gruber and Durham were the first to show, the effect which is most accessible to observation is the agglomeration and the sedimentation of the bacteria. This effect can readily be appreciated by the unaided vision, even when, in accordance with the method which has been suggested by one of us in a recent issue of this JOURNAL, minimal quantities of the serum and of the bacteria are mixed together in capillary "sero-sedimentation tubes."[6]

Having thus settled that the sedimentation of the bacteria is the phenomenon which will best serve as a criterion of the specific power of a serum, it will be obvious that we shall be able readily to determine in what measure the serum possesses this specific power if we make a series of successive dilutions of the serum, and determine how far the blood may be diluted without forfeiting its sedimenting powers.

The quantitative results which are obtained by this method of successive dilutions may be conveniently expressed in terms of "sedimentation units," or, if the term shall afterwards appear to be justified, in terms of "preventive units." We may, for instance, speak of a blood which manifests this power of sedimentation in tenfold dilution as a blood which contains one "sedimentation" or "preventive unit." Similarly we may speak of blood which exhibits this sedimenting power in a hundredfold dilution as blood which contains ten "sedimentation" or "preventive units."

### TABULAR STATEMENT OF THE RESULTS OF OUR ANTITYPHOID INOCULATIONS.

*With two exceptions all these vaccinations were performed upon Medical Officers of the Army or Indian Medical Services, or upon Surgeons on Probation who were preparing to enter those services. The blood which was required for testing the effect of the vaccination was obtained by pricking the finger. This blood was filled into capsules and allowed to clot. The serum was then drawn off, diluted, and mixed in a capillary sero-sedimentation tube with a small quantity of typhoid culture in the manner described by one of us in the* JOURNAL *of January 16th.*

*In the Table a voluminous sedimentation is denoted by the sign ×, a slighter but still distinct characteristic sedimentation is denoted by the sign *, a negative result is denoted by the sign o.*

| No. of Case. | Initials. | Dates of Inoculation. | Whether Culture was Dead or Alive. | Quantity Inoculated. | Dates of Blood Examination. | Dilutions. 10-fold. | 25-fold. | 50-fold. | 100-fold. | 200-fold. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Tube | | | | | | |
| 1 | M. D. | July 31, 1896 | Dead | 1/20 | —— | | | | | |
| | | Aug. 14, 1896 | .. | 1/20 | Aug. 14, 1896 | — | × | × | × | — |
| | | Sept. 5, 1896 | .. | 1/10 | Sept. 5, 1896 | — | × | × | × | × |
| | | Sept. 25, 1896 | Alive | 1/10 | Sept. 25, 1896 | — | × | × | × | * |
| 2 | J. S. | Aug. 19, 1896 | Dead | 1/20 | —— | | | | | |
| 3 | R. W. S. | Nov. 6, 1896 | ,, | 1/20 | Nov. 9, 1896 | × | × | o | o | o |
| | | Nov. 16, 1896 | .. | 1/20 | —— | | | | | |
| 4 | A. E. W. | Nov. 19, 1896 | ,, | 1/20 | Nov. 18, 1896 | ? | ? | * | * | o |
| | | | | | Nov. 20, 1896 | × | × | * | * | o |
| | | | | | Nov. 21, 1896 | × | — | * | * | o |
| | | | | | Nov. 22, 1896 | × | × | * | * | * |
| | | | | | Nov. 23, 1896 | × | × | * | * | * |
| | ,, | Dec. 2, 1896 | .. | 1/20 | Dec. 2, 1896 | × | × | — | * | * |
| | | | | | Dec. 3, 1896 | × | × | × | × | * |
| | | | | | Dec. 6, 1896 | × | × | × | × | * |
| | | | | | Dec. 15, 1896 | × | × | × | × | * |
| | | | | | Dec. 30, 1896 | × | × | × | * | * |
| | | | | | Jan. 13, 1897 | × | × | × | * | * |
| 5 | D. S. | Nov. 19, 1896 | .. | 1/20 | Nov. 18, 1896 | o | o | — | — | — |
| | | | | | Nov. 20, 1896 | × | — | — | — | — |
| | | | | | Nov. 22, 1896 | × | — | — | — | — |
| | | | | | Dec. 6, 1896 | × | × | × | × | * |
| 6 | J. S. | Nov. 19, 1896 | .. | 1/10 | Nov. 18, 1896 | o | o | — | — | — |
| | | | | | Nov. 24, 1896 | × | * | — | — | — |
| | | | | | Dec. 5, 1896 | × | × | × | — | — |
| | | | | | Jan. 13, 1896 | × | × | × | * | — |
| 7 | G. E. S. | Nov. 20, 1896 | ,, | 1/10 | Nov. 19, 1896 | * | — | — | — | — |
| | | | | | Nov. 24, 1896 | * | — | — | — | — |
| | | | | | Dec. 8, 1896 | × | × | × | × | — |
| | | | | | Jan. 13, 1897 | × | × | × | * | * |
| 8 | J. G. B. | Nov. 20, 1896 | ,, | 1/10 | Nov. 19, 1896 | o | — | — | — | — |
| | | | | | Nov. 24, 1896 | × | × | × | — | — |
| | | | | | Dec. 9, 1896 | × | × | × | * | o |
| | | | | | Jan. 13, 1897 | × | × | × | * | o |
| 9 | A. A. F. McA. | Nov. 20, 1896 | ,, | 1/10 | Nov. 19, 1896 | o | — | — | — | — |
| | | | | | Nov. 24, 1896 | * | o | o | — | — |
| | | | | | Dec. 9, 1896 | × | × | × | * | o |
| | | | | | Jan. 13, 1897 | — | × | × | * | o |
| 10 | R. B. | Nov. 20, 1896 | ,, | 1/10 | Nov. 19, 1896 | o | — | — | — | — |
| | | | | | Nov. 24, 1896 | * | — | — | — | — |
| | | | | | Dec. 5, 1896 | × | * | * | * | — |
| | | | | | Jan. 13, 1897 | × | × | * | * | * |
| 11 | F. J. G. | Nov. 20, 1896 | ,, | 1/10 | Nov. 19, 1896 | o | — | — | — | — |
| | | | | | Nov. 24, 1896 | * | * | o | — | — |
| | | | | | Dec. 5, 1896 | × | × | × | * | * |
| | | | | | Jan. 13, 1897 | — | × | × | * | * |
| 12 | W. E. H. | Nov. 20, 1896 | ,, | 1/10 | Nov. 19, 1896 | o | — | — | — | — |
| | | | | | Nov. 24, 1896 | * | ? | o | — | — |
| | | | | | Dec. 9, 1896 | × | × | × | * | * |
| | | | | | Jan. 13, 1897 | × | × | × | * | * |
| 13 | R. H. P. | Nov. 20, 1896 | ,, | 1/10 | Nov. 19, 1896 | o | — | — | — | — |
| | | | | | Nov. 24, 1896 | × | * | o | — | — |
| | | | | | Dec. 9, 1896 | × | * | o | — | — |
| | | | | | Dec. 12, 1896 | × | * | o | o | * |
| | ,, | Dec. 21, 1896 | .. | 1/10 | Dec. 30, 1896 | × | × | × | × | * |
| | | | | | Jan. 13, 1897 | × | × | × | * | * |
| 14 | C. H. S. L. | Nov. 20, 1896 | ,, | 1/10 | Nov. 19, 1896 | o | — | — | — | — |
| | | | | | Nov. 24, 1896 | × | * | ? | — | — |
| | | | | | Dec. 9, 1896 | × | × | × | * | * |
| | | | | | Jan. 13, 1897 | — | × | × | * | * |
| 15 | W. H. K. | Nov. 28, 1896 | ,, | 1/10 | Nov. 19, 1896 | ? | o | — | — | — |
| | | | | | Dec. 9, 1896 | × | × | * | * | — |
| | | | | | Jan. 5, 1897 | × | × | * | o | o |
| | | | | | Jan. 13, 1897 | × | × | × | * | o |
| 16 | C. A. L. | Nov. 28, 1896 | ,, | 1/10 | Nov. 19, 1896 | o | — | — | — | — |
| | | | | | Dec. 9, 1896 | × | × | * | o | o |
| | ,, | Dec. 23, 1896 | ,, | 1/10 | Dec. 31, 1896 | | * | * | o | o |
| | | | | | Jan. 4, 1897 | — | * | * | o | o |
| | | | | | Jan. 13, 1897 | × | * | * | o | o |
| 17 | M. P. C. | Nov. 28, 1896 | ,, | 1/10 | Nov. 19, 1896 | o | — | — | — | — |
| | | | | | Dec. 9, 1896 | × | × | × | * | o |
| | | | | | Jan. 13, 1897 | × | × | * | * | o |
| 18 | T. B. K. | Nov. 28, 1896 | ,, | 1/10 | Nov. 19, 1896 | o | — | — | — | — |
| | | | | | Dec. 5, 1896 | — | × | × | — | — |
| | | | | | Jan. 13, 1897 | × | × | — | — | — |

*Discussion of the Results which are Exhibited in the Table above.*—The results which have been incorporated in the table above show in the most evident manner that the blood of patients who have submitted themselves to an antityphoid inoculation

becomes in some measure poisonous to the typhoid bacillus. For we may obviously assume that a blood which immobilises and agglutinates the typhoid bacillus is in some measure poisonous to that bacillus.

So much being certain, the next question we have to consider is the question as to whether we may legitimately conclude that a person who possesses a sedimenting power—say of twenty units—is absolutely protected against typhoid by the poisonous properties which have been imparted to his blood. Experiment shows that this is not so.

We find that undiluted blood which contains 20 sedimentation units fails to kill typhoid bacilli, even when these bacilli are exposed to its influence for as long a period as forty-eight hours.[7] It will be obvious from this fact that we cannot rely upon the blood of a vaccinated person being sufficiently poisonous to kill off such typhoid bacilli as may chance to effect an entrance into his system.

This matter having become clear, we may next proceed to consider whether we have any warranty for inferring that the vaccinated patient's blood will, short of killing the bacilli of typhoid fever, yet exert such a deleterious influence on them as will result in the effectual protection of the patient against typhoid.

Everything that we know seems to show that this inference is perfectly warranted. We know, for instance, that guinea-pigs, upon whom this sedimenting power had been conferred by vaccination processes, are extremely resistant to infection by the specific micro-organisms with respect to which they possess this sedimenting power. Again, experiments which are in progress in this laboratory have already shown that monkeys who have been vaccinated against Malta fever, and who have acquired a sedimentation power with reference to the micro-organisms of that disease, have acquired also a power of at least inhibiting the growth of the micro-organisms of that disease in their system. Again, in our first case of typhoid vaccination (*vide* Table of Results) we had proof of the association of this sedimenting power with a condition of "bacteria-proofness." For our patient, who, on September 25th, 1896, possessed a sedimentation power of 20 units, suffered no ill effects from an inoculation of one-sixth tube of living virulent typhoid bacilli, which was made upon him on that day.

Finally, we have the fact that, so far as we know, every convalescent from typhoid or Malta fever (and we may legitimately assume that such convalescents are, at any rate for a time, immune against reinfection with these specific fevers) shows a notable[8] sedimentation reaction. It appears to us that the only conclusion that can be reasonably deduced from this series of facts is the conclusion that the sedimenting power of the blood is a trustworthy criterion of the immunity of the patient who furnishes it.

This conclusion cannot, however, be regarded as absolutely assured until we are in a position satisfactorily to account for the fact that the typhoid fever patients and Malta fever monkeys who succumb to these diseases show the specific sedimentation reaction in exactly the same way as the typhoid fever patients and Malta fever monkeys who recover from these diseases.

The complete explanation of this fact is still to seek. It would, however, appear that every animal must be assumed to be working its way up to the acquirement of immunity from the very moment of infection to the time at which its struggle with the disease finally ceases. The sedimenting power of a patient, who afterwards succumbs to the disease, would thus appear to indicate only the degree of immunity which has been acquired at the particular moment at which blood was drawn off. And our experience of infective disease in general tells us that a degree of immunity which would, if already attained on the first day of the disease, amply suffice to ward off a fatal issue, will be of no avail if it is acquired later on in the course of the attack. We have an example of this in the case of the guinea-pig, who, before he finally succumbs to an injection of diphtheritic poison, not infrequently elaborates in his system considerably more antitoxin than would, if given in time, have sufficed to immunise him against a much larger dose of toxin than that which is accomplishing his death. Now it may well be that, just in the same way as the antitoxin is produced in the guinea-pig too late to save the animal's life, so likewise, in the case of the typhoid or Malta fever patient, the sedimenting power of the blood may be acquired too late in the attack to save the patient's life.

Having discerned that this may be the explanation of the paradoxical fact of the development of the sedimentation power in the blood of the patient who afterwards succumbs to the disease, we need no longer hesitate to accept, at least as a working hypothesis, the conclusion that the possession of a sedimenting power connotes also the possession of a certain measure of "bacteria proofness" against the bacteria in question.

We may reasonably surmise that this condition of bacteria proofness, inasmuch as it does not depend upon the presence of any absolutely bactericidal power in the blood, depends in large measure at least upon the fact that the typhoid bacilli which have been exposed to the poisonous influence of the blood fluids[9] are likely to fall an easy prey to the phagocytes.

We have next to turn to the consideration of a certain number of practical questions in connection with the application of these typhoid vaccinations.

### Question of Risk associated with the Antityphoid Vaccinations.

When we appreciate that the bacteria which are employed in these vaccinations are dead bacteria, and that they are incapable of generating new poison in the system, it will be obvious that the injection of small and measured quantities of these dead bacterial cultivations involves no more risk to life or health than the injection of a medicinal dose of morphine. That there is no unknown factor of risk in the case of the injection of bacterial toxines will be evident when we consider that Mr. Haffkine has performed nearly 100,000 anti-cholera inoculations without a death, and, as far as we can learn, without the supervention of a single serious symptom.

### Outlook with Respect to the Duration of the Immunity.

It is obvious that a vaccination process has little chance of being widely adopted unless immunity of a more or less durable character can be conferred. A person who submits himself to a vaccination process will always desire to have some guarantee that he will not require to be constantly re-inoculated. Up to the present it has not been possible in any degree to forecast the duration of the immunity which is conferred by a particular vaccination. In the case, for instance, of small-pox, it has always been, and still is, impossible to tell whether a particular patient has lost his immunity and requires to be revaccinated. In such a case we depend entirely upon statistics of the incidence of disease. When Mr. Haffkine commenced his anticholera vaccinations three years ago he also was face to face with this difficulty. Now, however, that we are in possession of the method of serum diagnosis, it will probably be possible to ascertain the duration of an immunity by a series of successive blood examinations. As yet we have no facts to base definite conclusions upon.[10] In the meantime, if it is legitimate to judge from the extremely slow disappearance of the perfectly[11] comparable sedimentation power, which is acquired by undergoing an attack of typhoid, we see every reason to hope that the immunity which is conferred by these vaccinations may persist for a considerable number of years. If it does so it will obviously suffice to carry a young adult over the period of his extreme susceptibility.

### Suggestions as to the Sphere of Application of the Proposed Antityphoid Vaccinations.

Since these vaccinations are unattended by risk, and since the general symptoms which supervene upon moderate doses of typhoid vaccines are comparatively slight, and since the local swelling at the site of the inoculation can easily be held in check by the administration of calcium chloride, and since further it will always be possible to control[12] the adequacy of the vaccination by a blood examination, we venture to suggest that it would be expedient for every one who is likely to be frequently exposed to the risk of typhoid infection to undergo the vaccination. In particular this would appear to be expedient in the case of young soldiers going abroad to typhoid infected districts, to nurses who are in attendance upon typhoid patients, and,

lastly, to persons who are living in any district which is being visited by an epidemic of typhoid.

In conclusion, we desire to state that we have a certain amount of typhoid vaccines which we shall be glad to place at the disposal of any practitioner who may desire to undertake these vaccinations.

REFERENCES.

[1] *Deut. med. Wochschft.*, November 12th, 1896. [2] Comparative experiments on monkeys inoculated with dead and living cultures of Malta fever have led us to believe that dead cultures in suitable doses give quite as effectual an immunity as living cultures. [3] BRITISH MEDICAL JOURNAL, February 4th, 1893. [4] This decrease of blood coagulability appears to be one of the most common effects of the introduction of a bacterial poison into the system. It becomes especially notable whenever there is already a natural defect of blood coagulability, especially if in such cases no provision has been made for forestalling this blood change. Instances in point are Cases 1 and 2 (*vide* Table of Results) where there was a natural defect of blood coagulability, and where calcium chloride was not administered along with the inoculation. Further, Cases 4 and 11, in which, although there was no natural defect of blood coagulability, the administration of calcium chloride was deferred till after an interval of 3 to 5 hours. In the last three cases blood coagulability decreased respectively from 7 minutes to 9 minutes, from $3\frac{1}{4}$ minutes to $5\frac{1}{2}$ minutes, and from 4 minutes to 11 minutes under the influence of a typhoid vaccination. Under the influence of calcium chloride blood coagulability was in these cases brought up in a very few hours from 9 minutes to $5\frac{1}{2}$ minutes, from $5\frac{1}{2}$ minutes to 3 minutes, and from 11 minutes to 5 minutes respectively. [5] That local œdema is often dependent upon a defect of blood coagulability, and that it can be corrected by the administration of calcium chloride is a proposition which has been established by one of us in a series of papers dealing with serous hæmorrhage in general, and with urticaria and chilblains in particular. These papers were published in the *Lancet* of January 18th, 1896; September 19th, 1896; and January 23rd, 1897; and in the *Journal of Dermatology*, February, 1896. [6] BRITISH MEDICAL JOURNAL, January 16th, 1897, p. 139. [7] This, it may be noted, is in harmony with the fact that Pfeiffer has succeeded in cultivating cholera vibrios upon a goat's serum which exerted a sedimenting influence in much more than a 200-fold dilution. [8] It may be noted in passing that, so far as our observations go—and here, again, they are in harmony with those of Pfeiffer—the sedimentation power which is acquired by undergoing an attack of actual typhoid is not greater than that which is acquired by an inoculation of dead typhoid bacilli. [9] We have verified that there is no appreciable difference with respect to sedimentation power between the plasma and serum of a man who has received an inoculation of dead typhoid bacilli. [10] We have, however, arranged to be supplied from time to time with samples of blood from each of our vaccination patients, in order to investigate the question. [11] *Vide* Note 8. [12] The advantage of such a control will be obvious if we consider that Cases 13, after first vaccination, and 16, after second vaccination (*vide* table of vaccination cases) proved on examination to have acquired only a very small amount of sedimentation power. This fact could not have been suspected in Case 13, for this patient showed a very marked clinical reaction.

## FOUR CASES OF ENTERIC FEVER TREATED WITH ANTITOXIC SERUM.

BY FRANK M. POPE, M.B., M.R.C.P.,
Physician to the Leicester Infirmary.

As few instances of the treatment of typhoid fever by antitoxic serum have as yet been published, the following details of four cases treated in the Leicester Infirmary may be valuable. The only selection that was made as to the cases in which the serum was used was that it was thought inadvisable to administer it to cases in a later stage than the end of the second week, as otherwise natural defervescence and that due to the remedy might have been confused.

The serum used was that prepared by Mr. T. J. Bokenham, and was obtained from Messrs. Burroughs and Wellcome. The injections were mostly made in the loins, and antisepsis was carefully observed. For the thorough manner in which this was done, for care in the treatment generally, and for the preparation of these notes, I am much indebted to Mr. C. H. Fagge, the House-Physician to the infirmary.

CASE I.—F. C., female, aged 18, admitted March 17th, 1896. Had been ailing 14 days. She had had diarrhœa and vomiting, and a good deal of bronchitis. There were three spots on the abdomen. She was restless and excitable, and took nourishment badly.

On March 18th she seemed worse; pulse 120. The abdomen was soft. The temperature was reduced by the cold pack, but rose again rapidly. The urine gave Ehrlich's colour reaction. She had 5 c.cm. of antityphoid serum at 4 P.M.

On March 19th there was not much change. The temperature was higher than the previous morning. The tongue was dry. The evening temperature was high, and she was very delirious. No injection was given. The pulse was 144 at night.

On March 20th she was very restless. There were traces of old hæmorrhage in the stools. There was much rhonchus and sibilus in the chest. She had 5 c.cm. serum. The pulse was 124 in the evening.

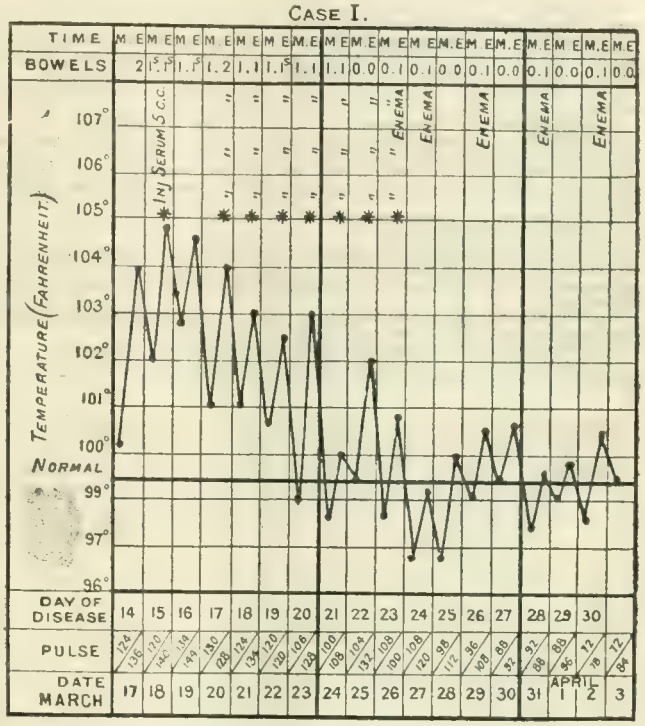
On March 21st she slept more. The motions were partly formed. The pulse was 134 in the evening, and she looked better; 5 c.cm. serum were injected. The evening temperature was lower.

On March 22nd the pulse was 120. She slept more, and had less delirium: 5 c.cm. serum were injected.

On March 23rd she was much quieter, and had a better night.

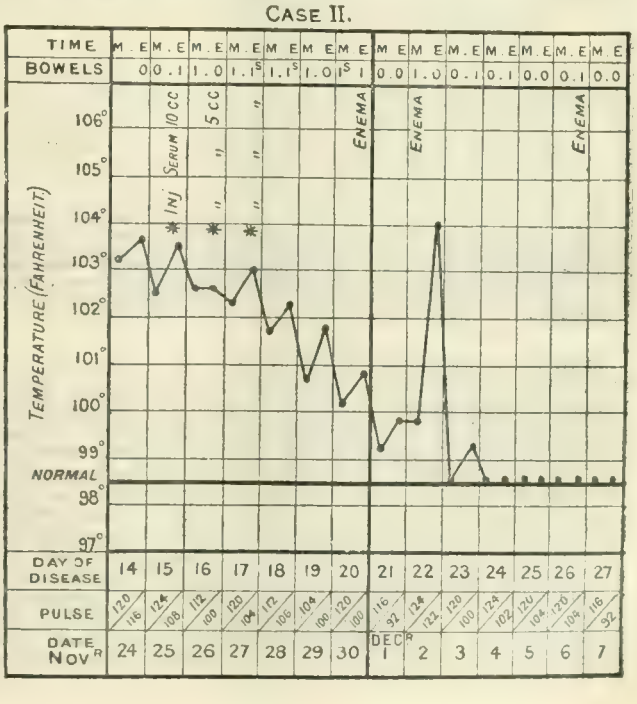
On March 24th she looked better; the tongue was cleaner. Ehrlich's reaction was not given by the urine. After this recovery was uninterrupted. Only 5 c.cm. were given as first injection in this case. The dose was probably too small. I also think that probably an unnecessary number of injections were given.

CASE I.




CASE II.—M. L., female, aged 25, was admitted on November 24th, 1896. She had been ill about fourteen days. The tongue was very furred. She was deaf, heavy, and stupid. There were several spots on the abdomen. The spleen was enlarged, and there was some general bronchitis. Ehrlich's reaction was present. Pulse 120, feeble.

CASE II.



On November 25th the condition was much the same. Ten c.cm. were injected at 1.45 P.M. The pulse was 116.

On November 26th the pulse in the morning was 112, in the evening 100. She seemed rather better. Five c.cm. serum were given at 3 P.M. Ehrlich's reaction was not present.

On November 27th the motions were formed; the pulse 120; the breathing quieter. Five c.cm. serum was given at 3 P.M.

On November 28th and 29th she was better.

The convalescence was almost uninterrupted. There were two sudden rises of temperature, which lasted only a few hours.

CASE III.—F. M., a male, aged 19, was admitted on December 16th, 1896. He had had diarrhœa, and had a few spots. The motions were loose and yellow. Ehrlich's reaction was present. The tongue was very furred.

On December 17th he was much the same, and 10 c.cm. serum were given.

On December 18th there was no change in the temperature, but he seemed better. The tongue was clearing in patches. The spleen could be felt. Five c.cm. serum were injected.

On December 19th the tongue was clean, temperature rather higher. Urticarial rash appeared on the right side. Five c.cm. serum were injected.

On December 20th he was about the same. The tongue was rather drier. Six c.cm. serum were injected.

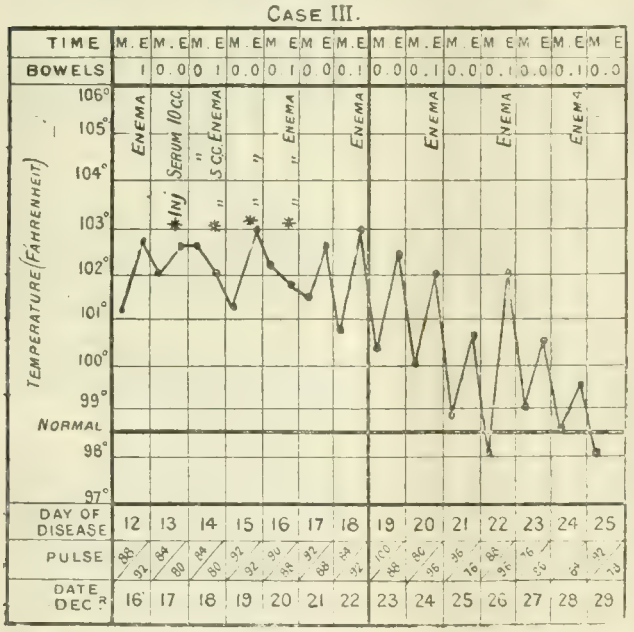
On December 21st there was a good deal of tenderness round the seat of injection, but no deep swelling or glandular enlargement. The rash had extended over the body and itched a good deal, otherwise he was about the same.

On December 22nd the tongue was moist; he slept well, but was suffering from the rash. Ehrlich's reaction was present.

On December 23rd he was better, with the exception of the rash.

On December 26th he was about the same, but on December 29th he was better, and recovery after this date was uninterrupted.

CASE III.




CASE IV.—In this case, which came under treatment about the twelfth day of the disease, and which has not yet quite recovered, though progressing satisfactorily, no improvement was noticed between admission and the first injection. There was much general bronchitis. After each injection the temperature dropped nearly two degrees in the next twelve hours, but subsequently rose again. The patient, however, improved in appearance, the tongue became moister, and the pulse slowed.

REMARKS.

That the serum had a beneficial effect on the progress of the disease I have no doubt; the question remains as to the amount of such effect. In Cases I and II a steady defervescence took place from the date of the first injection, though both cases were, in common with others admitted about the same time, of a severe type, and in the ordinary course of events I should not have expected defervescence to commence for six or seven days. It will be noticed that defervescence took a somewhat long time, so that it is possible that the whole period of this disease was not much shortened, but still the general condition of patients I and II was much less serious during the third week than I have been accustomed to see in cases treated in any other way, not excepting the bath treatment, which I have followed for some years. The state of the tongue improved at once, and the general aspect of the patient changed for the better.

In Case III, and to a slight extent in Case II, some inconvenience was caused by an urticarial rash, which, starting at the seat of the puncture, spread to some distance on the surrounding skin.

No good end would be served by making any extravagant claim as to the value of the serum, and I am aware that these notes must be only of limited value, owing to the comparatively late period of the disease at which the treatment began in each case. I also will not enter into the stormy question of the mode of action of the serum, but simply contribute this paper as a clinical observation.

# REMARKS
ON
# THE EARLY FEEDING OF TYPHOID PATIENTS

BY SAMUEL WEST, M.D., F.R.C.P.,
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THE management of the diet in typhoid fever is of the greatest practical importance, and it is well that from time to time the subject should be considered. Certain points have been raised by Dr. Barrs in his recent article upon the early feeding of typhoid patients with solid food, and it is because I think there is a great deal to be said against both his reasons and his conclusions that his article calls for criticism.

The usual practice of the present day is to place a typhoid patient, as soon as the disease is recognised, upon a fluid diet, and not to change it until all trace of fever has been absent for a week or more, and then to make the change to ordinary diet gradually and with great caution.

As to the best kind of fluid diet during the early stage of the fever, and the best method of changing the diet when the time has come, as well as the time at which the diet could be most advantageously changed, there may be considerable differences of opinion. The two first questions need not be raised in the present communication. It is the third question which is raised—namely, as to when the change in diet may be safely made.

The reason that the diet is not changed until the eighth or tenth day after the fever is that there is a general belief that to do so sooner introduces a risk, and many think a considerable risk, of relapse. Dr. Barrs, on the contrary, advocates an early change from liquid to solid food: first, because he does not share this belief: secondly, because he cannot understand the reasons for it; thirdly, because his own experience is against it; lastly, because the patients are underfed and require more food.

In respect of the last objection it may be asserted that no one intentionally starves a fever patient nowadays. On the contrary, as much food of a suitable kind is given as the patient can digest. Nor is milk, if taken in sufficient quantity, a starvation diet. Other patients may live for months upon a milk diet only, and be capable of a considerable amount of active exertion and mental work; and why should typhoid patients starve on it? The wasting and anæmia and debility of a typhoid patient is not the result of his diet, but of the fever, and is similar to that seen in tuberculosis, in which disease the appetite may be even large and yet the wasting continue. What is called a low diet, that is, a fluid diet, is not necessarily a starvation diet. It is often the patient that is low, not the diet, just as asthenic fever describes the patient and not the disease. If a typhoid patient requires more food it can be given him by increasing the quantity of the liquid diet, whatever it is which is being taken, without necessarily making any change in it, and still less putting the patient upon a solid diet.

Nor are the patient's desires necessarily a safe guide in this respect; so far as there is a mere feeling of hunger this can be easily dealt with by increasing the amount of fluid food he is already taking. So far as the desire is for different food, the propriety of yielding to it must be determined by other considerations, for the cravings in disease are sometimes after what is harmful and not after what is good.

After all, then, we come back to the question of fact: Is it,

or is it not, a fact that there is a risk in changing the diet too soon?

The general opinion is that too early change in diet introduces a risk of relapse. This is a risk only, and not a certainty, of course, and how great a risk it is impossible to express in figures; but as the dangers of relapse are so considerable, the general opinion is that this risk should not be run.

Against this opinion Dr. Barrs quotes 31 cases; but it is to be observed that out of these 31 cases 2 had relapses, that is, 6.2 per cent.

In typhoid fever statistics are notoriously unreliable. I dealt with this question some years ago, in a paper read before the Medical Society of London, and showed what utterly fallacious results can be drawn when the number of typhoid fever patients is small, and that even when the numbers are comparatively large, conclusions may be arrived at which are not borne out by bedside observations.

In questions of the kind we have now under consideration the general floating opinion of the profession is much more likely to be correct. The only doubt which might be thrown upon such an opinion would arise if the question at issue were one to which the attention of the profession at large had not been clearly directed, or upon which there had been a very strong tradition. In the present case neither of these objections hold, for typhoid fever is an extremely common disease, and one of which every practitioner, whether in hospital or family practice, has experience, and the practitioner is called upon in every individual case to decide this most important question of diet, and above all things he has to consider when and how he shall make any change in it. He could not avoid the question if he would, for it is sure to be forcibly brought before his notice, if not by the patient, at any rate by the patient's friends. If, then, the general experience has led to a strong opinion that the diet should not be changed until the eighth or tenth day after the fever is past, depend upon it it is an opinion that is worthy of respect. It should not be lightly set aside because it cannot be actually put into a statistical form, still less must it be upset by appeal to a small number of cases, or because the *rationale* of it is not obvious.

*A priori* considerations should not, as Dr. Barrs himself says, influence our practice too much, but that is equally true whether they appear to support or to oppose any special line of treatment. One of Dr. Barrs's chief objections to the present mode of treatment is that the explanations given are to him unsatisfactory. They are equally unsatisfactory to me, and I believe them to be incorrect; but still a wrong explanation does not affect the value of a fact.

I am confirmed by my own observation in the opinion generally held that too early and incautious a change of diet from liquid to solid is attended with a considerable risk of relapse. I have seen relapse follow so often that I cannot question the fact; and the relapses have occurred not only in cases in which solid food has been given somewhat prematurely, but even in cases where the change of diet has been from one kind of liquid food to another. Thus I have seen it follow, and I believe result from, the taking of orange-juice or grape-juice without the pips, just as I have seen it follow a plum bun or piece of Christmas pudding smuggled in. The risk that premature change of diet introduces is of a relapse—that is, of a recrudescence of the disease—with all its consequences, whether it be perforation, hæmorrhage, or what not. There is no evidence to show that the food itself induces perforation or any other morbid process except the relapse, and then all the accidents may occur which are met with in the original attack.

If it be a fact, as I believe, that a too early change in diet may lead to relapse, and the explanations suggested are unsatisfactory or wrong, what explanation is there? We cannot answer this question until we know why it is that any fever ever comes to an end spontaneously. We can at the present time only speculate as to the answer. As far as we can judge, the spontaneous limitation of these infectious fevers seems to be dependent upon very subtle changes produced in the body of a chemical or physical character by which either the germs are prevented from developing, or the poisonous products they produce neutralised. If it depends upon the production of antitoxins, bodies of very complicated chemical composition, it is quite a conceivable possibillty that very slight chemical changes may so far modify them as to lead to their complete transformation or neutralisation, or actually to stop their production, in which case the original toxins would produce their symptoms all afresh, and a relapse would occur.

There is some evidence to be produced in favour of these chemical changes to which I am referring. Some years ago, in the course of some observations upon the excretion of urea, I noticed the remarkable influence which an abrupt change of diet has upon the amount of urea passed. For instance, in a patient who had been placed upon a fixed diet for some time and was passing an average percentage of about 1.5 of urea the diet was changed, as, for instance, by the administration of a single egg, or something of that kind. The percentage ran up at once to 3.5, or even 4, and remained at that height for some little time. This was quite independent of the new article of food given, for if the same diet was continued the percentage of urea fell in the course of time to what it was before, namely, 1.5; or, if the offending article was withheld, so that the diet continued what it was before, the percentage still remained high for a time, so that the total excretion of urea amounted to many times the equivalent of the nitrogen contained in the article of diet which had been added. This is a very instructive and suggestive fact, and shows how considerable the chemical changes may be which slight causes can produce.

Diabetes mellitus affords another illustration of the same kind, for the ingestion of a small quantity of sugar or starchy food is followed by a very considerable increase in the amount of sugar eliminated, and this may last many days, and be altogether out of proportion to the actual amount taken, so that sugar acts upon a diabetic patient as an active poison.

In another disease of an entirely different character from typhoid fever, namely, rheumatic fever, I have similar observations upon the excretion of urea to show what profound effect is produced by slight alterations in diet. But rheumatic fever is of especial interest in relation to the question we are discussing, for it has been long accepted as a clinical fact that it is very easy to determine relapse by changes in diet. Rheumatic fever is no doubt a germ disease, just as typhoid fever is, and no doubt the true explanation of relapse is much the same in either case.

If this conclusion to which observation has led me be true, we have a sufficient explanation of relapses occurring in various diseases as well as in typhoid fever, as the result of comparatively slight disturbing causes, of which a change in diet may be one. In typhoid fever the physiological equilibrium is unstable. In all the metabolic processes the same instability is seen which is so obvious in the temperature. How easily this is upset by intestinal disturbance we have daily clinical experience.

If what I have said is true, it is change as change which does the mischief in typhoid fever, and not so much the alteration from one kind of diet to another, although it is quite clear that the more abrupt the alteration the more likely is it to produce these effects. This is, I believe, the essential fact in typhoid fever, and it so far influences my practice. In the febrile stage it is important first of all to find out a diet which suits the patient. Milk is the simplest diet, and fortunately it suits most people, but it does not suit all. If milk cannot be taken the diet must be modified, and this or that form tried until one is found which agrees with the patient. As soon as the suitable diet is found, it should be continued and not changed without good reason. "Leave well alone" is an excellent maxim in medicine, and it is one of constant use in typhoid fever. If there are exceptional cases, or exceptional circumstances arise in any case, exceptional treatment may be necessary. So with the diet: if change is necessary, change must be made, but it should be made as it were under protest, and only when distinct necessity arises. Opinions differ greatly as to what is absolutely the best diet for typhoid patients. Some lay great stress upon the feeding, the giving of milk only, and the avoiding of beef tea. Others do not object to a combination of milk and beef tea or prepared foods. Some like eggs added to the milk, and so forth. To my mind it matters little so long as the diet is liquid, sufficient in quantity, and agrees with the

patient, if it be not changed. If I come to a patient and find that patient upon a diet which suits him, although it might be one which I should not myself have originally selected, I should not change it if the patient were doing well.

In regard to the other question—namely, at what period of convalescence it may be safe to pass from the diet of fever to a more ordinary diet, I believe the best rule is that which is laid down by most authorities in the present day, and which I alway practise—namely, to make no change whatever in the food until the temperature has never risen above the normal for ten days. I have never seen any harm done by keeping a patient a few days longer on the ordinary liquid diet, especially if its quantity has been increased, and if it is not necessary why should any risk be run at all, especially when it is remembered how serious a relapse may be? During the first day or two the risk of a relapse being produced by a change of diet is considerable, and it becomes less and less with every day of the post-febrile stage; it is less at the eighth day, and still less at the tenth.

As a rule I think it may be safely said that if the patient passes the tenth day the risk of relapse is extremely small. This, however, is only a general rule, and there are exceptions to it: thus I have lately seen a case in which the relapse occurred on the fifteenth day.

I do not think this question should be treated as an open one, as if it had not been seriously considered hitherto, for the current opinion is really the outcome of a multitude of observations conducted without bias over a series of years, and all the more trustworthy because no attempt is made to prove it by figures. So far as my own personal experience is concerned, I am led to endorse the current opinion with emphasis. I cannot but believe that if change of diet from liquid to solid food in the early days of convalescence, and still more before the fever has ended and convalescence commenced, become the routine practice, some of the individuals upon whom the experiment is tried will suffer, while in the end the conclusion will be that the current opinion is correct.

## GRASS SPIKELET IN THE CONJUNCTIVAL SAC OF A CHILD: SUPPURATION OF THE CORNEA: COLLAPSE OF THE EYEBALL.

BY H. PERCY DUNN, F.R.C.S.,
Assistant Ophthalmic Surgeon, West London Hospital.

THE following case is remarkable, partly on account of its rarity, and partly because of the sad result.

A child, aged 3, was brought by her mother to my out-patient room early in January with the following history. Four weeks previously its right eye began to become inflamed. At about that time the child had had a fall, striking the side of its head forcibly on the floor, but it was not thought that the fall had had anything to do with the condition of the eye. The eye was bathed from time to time with warm water, but gradually became worse. Ultimately some lotion was obtained from a chemist, and with this attempts were made to wash the eye. By this time, however, the patient had begun to resent all interference. Whenever any preparations were made to apply the lotion the child commenced to scream, and, in short, resisted so forcibly that the parents ceased for some days to disturb it by attempting this measure. A medical man was next consulted, and on his advice the child was brought to the West London Hospital.

When I saw her there was much œdema of both lids, and a muco-purulent discharge freely oozing from the inner canthus. An attempt was at once made to examine the eye, but this was productive of violent screaming, so that it was necessary to administer chloroform. Preparatory to examining the eye under the anæsthetic the parts were thoroughly cleansed with a 1 in 1,000 solution of chinosol. After the lids had been retracted, and the eyeball exposed, it was seen that the cornea had sloughed, and that the globe was partially collapsed. While, however, the chinosol solution was being used to wash out the sac, a linear body about $\frac{3}{4}$ inch in length came into view, lying over the front of the remains of the cornea. It was thickly covered with pus, and at first it was taken to be a brush bristle to which some thickened pus had adhered. I passed the foreign body over to Mr. M'Dougall, one of the members of the post-graduate class, and after careful washing he discovered that it was a grass spikelet, the full size and appearance of which are depicted in the accompanying figure.



On inquiry from the mother it was not possible to obtain any history showing how the piece of grass could have gained entrance to the child's eye. Judging, however, from the facts that the cornea had sloughed, and that the globe was partially collapsed, there is every reason to suppose that the foreign body had been present for some time acting as an acute source of irritation in the conjuctival sac. The case also possesses additional interest, inasmuch as experience teaches that foreign bodies upon the surface or within the eyes of children are rare. For example, I have never had to remove a foreign body from the cornea of a child, such as might have been forcibly blown there by a high wind. Again while particles of dust are commonly enough seen under the lids of adults, I cannot recall any instance in which I have been called upon to evert the upper lid of a child for the purpose of removing any such foreign substance. The significance of the rarity of these cases in children is self-evident. Moreover, an adult usually volunteers a statement that "something has gone into the eye," whereas, under similar circumstances, such a hint as to the condition of affairs could scarcely be forthcoming from a child. In the case above narrated, although the foreign body must from the commencement have been the cause of the whole trouble, its presence appears never to have been suspected. The inflammation, of which it was the source was attributed to other causes, and even an ophthalmic surgeon might easily have been deceived at the beginning of the case, unless while examining the eye very carefully some portion of the foreign body had come into view.

From an examination of the literature of this subject I cannot find any record of a case similar to that narrated above.

In conclusion, I may add that in this case I used the new antiseptic, chinosol; for some time now I have discarded all other antiseptics in my work. Chinosol has many advantages over the various other antiseptic drugs: it is non-toxic, non-caustic, and does not coagulate albumen. These are valuable qualities which have commended it to surgeons. But, among other things, it possesses the advantage of not causing any ill-effects to the skin—for example, of the hands when used in strong solutions. It is, of course, impossible to employ a 1 in 1,000 solution of carbolic acid without the skin being much damaged; whereas a 1 in 1,000 solution of chinosol, while acting as a powerful and perfect germicide, has no deleterious effect whatever upon the skin. Chinosol is now, I believe, coming into much use in general surgery and gynæcological practice; hence I have thought it of interest to give the new antiseptic a trial in ophthalmic work, and so far my experience of it is very satisfactory.

THE INTERNATIONAL MEDICAL CONGRESS.—Professor W. K. Roth, General Secretary of the Twelfth International Congress to be held at Moscow this year, requests us to state that the titles of all communications intended to be presented at the Congress, together with a summary of the conclusions, must be sent to the Executive Committee not later than June 1st, 1897.

AT the meeting of the subscribers to the Liverpool Northern Hospital, held on January 20th, the Secretary stated that Mr. Levy, the Chairman of the David Lewis Trust, had decided to give another £20,000 towards the rebuilding of the hospital, thus raising this generous gift to £80,000.

AN IMPROVED TUBERCULIN.—The *Médecine Moderne* states that news has reached the Pasteur Institute in Paris to the effect that Professor Koch, before his departure for the Cape, left in the hands of one of his assistants the formula of an improved tuberculin. The new preparation is said to be in course of manufacture in Professor Behring's establishment for the supply of therapeutic serums.

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

### HOW TO STOP THE INFLAMMATION FROM VACCINATION WHEN RUNNING TO EXCESS.

Now that direct calf-lymph vaccination is generally advocated, and it is admitted that inoculation from this source is commonly followed by more severe local and general inflammation than arm-to-arm vaccination, it may be well that a means of cutting short the inflammation should be known to every practitioner. This is the more important since the organisation of a blind and bigoted Society is ever on the alert to make capital and sensation out of any case not following a regular course. Should, then, the vaccination pustules on the twelfth or fourteenth day tend to become confluent whilst the inflammatory areola tends to spread beyond the usual limits, the glands in the axilla to enlarge, and the arm, perhaps, to become œdematous, what I would suggest is that the area of the pustules should be powdered over with iodoform, and a sterilised dry pad be applied over to keep the powder in position and the pustules from friction. In this way the process is completely checked in twenty-four hours. The pustules dry into a cake, the redness subsides, the glands decrease, and the œdema of the arm rapidly disappears. This is in every way preferable to hot fomentations or antiseptic moist applications, which, apart from the difficulty of applying them to an infant, involve the healing of open wounds.

Wimpole Street, W. R. CLEMENT LUCAS, B.S., F.R.C.S.

### TRANSILLUMINATION IN THE DIAGNOSIS OF EMPYEMA OF THE ANTRUM OF HIGHMORE.

As is well known, we ought not to place too much reliance on transillumination, in arriving at a conclusion as to the presence or absence of pus in the maxillary antrum. I think it worth mentioning that I saw a patient recently who had all the usual symptoms of this condition, and in whom the very dark shadow under the orbit was most marked. I made the usual opening, by means of a drill, through the alveolus and syringed out a good quantity of pus. About six weeks after the operation the patient came to me nearly well, with very little or no pus coming out of the nose on syringing through the opening in the mouth, and with nearly complete absence of all the other symptoms from which he had previously suffered. I put a Voltolini lamp in his mouth, and to my astonishment the shadow was just as dark and just as extensive as it was before the operation.

Does this mean thickening of the mucous membrane or of the bone, or (which seems to me to be improbable when I remember the exceedingly favourable course of the case) the existence of thick pyogenic membrane? Perhaps other rhinologists have had a similar experience.

BARCLAY J. BARON, M.B.,
Physician in charge of the Throat and Nose Department of the Bristol General Hospital.

### ZONA FOLLOWING EXTRACTION OF TEETH.

THE patient, aged 25 to 30, consulted me on July 30th, 1896, for an eruption on her body and right arm. She gave the following history: On July 20th six teeth were extracted under gas, namely, the four lower incisors, the right lower canine, and a left molar. On July 26th she felt uncomfortable about the right side of the back, the inner side of the right arm, the right axilla, and the right mamma. This was succeeded by tingling pain, which every day increased in severity, and was accompanied by occasional shooting under the right arm.

*The Eruption.*—Zoster, with the following distribution. In front: Two clusters of vesicles just above the right mamma; one of these in the nipple line, the other between that line and the axilla. Behind: Three clusters near the middle line and two near the axilla. Right Axilla: A number of vesicles; in some of the groups coalescence had occurred: several of the vesicles were rather larger than usual. Inner side of right arm: a few groups of vesicles. When seen again on August 3rd there were fresh clusters of vesicles lower down on the inner and upper flexor surface of the arm. Fresh groups had also appeared on the back; the vesicles of the older ones had coalesced. The patient complained that the pain had been very severe, and this was borne out by her appearance. From this date recovery was rapid.

An interesting feature of the case was the fact that about a year before twelve teeth were removed under ether, when the patient suffered very much from shock, loss of blood, and, in her opinion, the effects of the anæsthetic.

Comparing my rough sketches of the distribution with Dr. H. Head's diagrams in the last edition of *Quain's Anatomy*, vol. iii, part ii, p. 346, etc., I find that the eruption approximately corresponded in front to $D_1$; behind to $D_3$, $D_4$, and $D_5$; and on the arm to $D_4$.

GEORGE PERNET, L.R.C.P.Lond., M.R.C.S.Eng.
Upper Gloucester Place, N.W.

### THE ASSOCIATION OF DIPHTHERIA AND SCARLET FEVER.

A YOUNG lady visitor, aged 19, came on December 12th, 1896, to stop with some friends in one of my districts. On arrival she complained of a sore throat, and fancied that she had caught cold on the railway journey.

On December 13th the throat is said to have been red and swollen. On December 14th she was kept in bed. On December 15th she was seen for the first time by a medical man, who pronounced it malignant diphtheria, and notified it as such, and she died early the next morning, December 16th, the medical man remaining with her in constant attendance all night, as well as a fellow visitor.

On December 20th the medical man and the visitor were both notified with scarlet fever, and had somewhat severe attacks of this disease.

Now, did this girl have diphtheria, or did she have scarlet fever with membranous throat, or did she have scarlet fever on which was grafted diphtheria? I may say that she had no rash, and that in August, 1893, she was in our sanatorium for seven weeks, suffering from scarlet fever.

Lydd. RICHARD BEVAN, L.R.C.P.Lond. and D.P.H.

### CASE OF HYDATIDIFORM MOLE.

ON October 10th, 1896, I was called to Mrs. H., aged 34, who had been married eleven years, and had five children and one miscarriage. She complained that she had been flooding for three weeks, and of severe pains in the back, and believed herself to be thirteen weeks pregnant. There was no history of syphilis or cancer.

On examination, the uterus was found to extend to a level with the umbilicus, and had a peculiar doughy feeling. *Ballottement* was absent: the os uteri was undilated. She was ordered small doses of opium and absolute rest in bed. There was only slight loss of blood, but the pains in the back continued for the next ten days, when she had a severe hæmorrhage. I then decided to empty the uterus, which had considerably increased in size. The os, which was still undilated, not admitting the finger, was dilated first with Hegar's bougies, then with Barnes's bags until it was large enough to admit three fingers, and afterwards rapidly with the hand. On passing the hand into the uterus, it was found to contain a semifluid mass with soft bands running across. The hand was passed well round the walls of the uterus to separate any adherent parts, and the whole mass removed. It consisted of numbers of small cysts about the size of a pea, mixed with blood and clots. The uterus, which contracted firmly, was washed out with a strong solution of permanganate of potash. There was very little hæmorrhage during the operation, and she made a good recovery, the temperature never rising above normal.

Macclesfield. C. AVERILL, M.D.

### A CASE OF HEMICEPHALIC MONSTER.

ON December 22nd, 1896, I was summoned by Mrs. G., a healthy well-built woman, to attend her in her second confinement. I had delivered her by forceps of her first child in February, 1895, instruments being used on account of uterine inertia.

I found the waters had already escaped, and was informed that their quantity had been extremely great. The pains

were regular and of moderate severity. On vaginal examination I found a soft and pulpy mass presenting, through which bone could be felt, one portion of which was somewhat triangular in form and movable, and suggested to my touch that it might be the point of the scapula. Further examination, however, revealed the presence of an ear, swollen and enlarged, as well as one of the eyes. As the pains continued extension of the head took place, so that the mouth became accessible, while the rotation of the head on an antero-posterior axis brought the whole of the face into the range of touch. I now found that no cranial vault could be discovered posterior to the frontal bone, and that there the finger encountered the pulpy mass already mentioned. Diagnosis of a monster was made, and after an hour of natural pains the child, a male hemicephalic monster (dead quite recently) was born. The general development was that of 7½ months. The eyes were staring and prominent, the ears large and thickened. The scalp terminated abruptly at the posterior margin of the frontal bone, and a dark red hæmorrhagic mass extended from this point to the upper cervical vertebræ. The whole of the hinder part of the skull was occupied by a much enlarged basi-occipital, from which, on each side, a winged triangular process (movable) extended towards the petrous part of the temporal bone. The brain was almost entirely wanting. A full dissection could not be carried out. The placenta was small and fatty.

Skelmorlie, Ayrshire, N.B. CARSTAIRS DOUGLAS, M.D., B.Sc.

# REPORTS
ON
## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

### TEWKESBURY HOSPITAL

FRACTURE OF THE BASE: EXTENSIVE SCALP WOUND: MENINGEAL HÆMORRHAGE OVER RIGHT MOTOR AREA AND LESION IN THE LEFT CRUSTA.

(Under the care of W. C. DEVEREUX, M.A., M.B., B.C.Cantab.)

F. H., aged 6, was admitted collapsed at 12.45 on February 17th. He had fallen before a clover crusher, and his head, becoming jammed between the wheel and the ground, had skidded several yards. The scalp and periosteum were completely detached over the right parietal area, a large triangular flap being turned backwards. The right ear was nearly torn completely off. He breathed with a gurgling sound, and a sponge passed into the back of the mouth was stained with blood.

Brandy ℥j in hot bovril was given, and soon afterwards the boy vomited some blood-stained matter. Within two hours he regained consciousness slightly, recognising his parents, and asking for water. The wound was now dressed. The periosteum would not cover the whole of the exposed area of bone, and some of the flap had to be removed owing to bruising. The ear was wired on; an ice-bag was applied. The temperature was 99.6°. The patient lay quiet and semi-conscious all night, uttering a frequent moaning cry.

On February 18th he had violent convulsive movements of the left arm and leg, excited on the slightest movement. The left arm and leg were flexed and then violently extended. These movements went on rhythmically for some time after being excited. The left knee-jerk was exaggerated, and there was no ankle-clonus. The right arm and leg were motionless and rigid, the arm being flexed and the leg extended. The right knee-jerk was increased, and there was no ankle-clonus. There was right facial paralysis and proptosis of the right eye. The pupil was widely dilated, and reacted sluggishly to light. The left pupil was normal, and reacted fairly well to light. There was ptosis on the left side. He lay in a semi-comatose state, and the power of swallowing was evidently impaired, liquids remaining in his mouth for a minute or two before being swallowed. The breathing was slow and stertorous, sometimes approaching Cheyne-Stokes respiration in character. The pulse was fairly good. The temperature was 98.4° in the morning, and 100° at night. Milk diet with brandy ℥iss. daily was ordered. During the night the patient became very collapsed; Cheyne-Stokes breathing developed, and during the long pauses the pulse, which was rapid and weak, became imperceptible. The convulsions also increased. There was considerable improvement on increasing the brandy. An enema produced a tarry motion.

On February 19th he had occasional left-sided convulsions and some Cheyne-Stokes breathing. The temperature was 102° in the morning and 100.2° in the evening. From 7 A.M. on February 20th he had constant violent left-sided convulsions. The right arm and leg were extremely rigid, breathing very irregular, and pulse weak and running. Slight improvement towards evening. The temperature was 100.2° in the morning, and 103° in the evening.

On February 21st the convulsions were less violent. The right side continued rigid, the knee-jerk being almost gone. The left ptosis was still marked, but the right ptosis had disappeared. The pupils were equal, with occasional lapses to inequality. The breathing was quiet and regular. The temperature was 99.6° in the morning and 98.4° in the evening.

From 7 A.M. on February 23rd there was a great change for the worse. The face was flushed, and the breathing stertorous and of a Cheyne-Stokes type. Proptosis of the right eye was again marked, the right pupil being widely dilated, and reacted very sluggishly to light. The rigidity of the right limbs continued, but the right knee-jerk had quite gone. The left arm was rigidly extended with the hand flexed on the wrist and slight ulnar flexion. The left leg was rigid, with the foot extended and the toes flexed. The knee-jerk was greatly exaggerated. The temperature, which was 100° in the morning, began to rise at midday, and reached 105° at 5 P.M., when his condition was at its worst. The respiration was shallow and sighing, with frequent long pauses, the pulse being imperceptible. This lasted some hours, and then improvement began, and was maintained with one or two relapses to Cheyne-Stokes respiration and convulsive movements. The improvement was most marked in the left arm and leg, which had recovered their functions to a large extent. The patient became conscious, and recognised persons and things. The right arm and leg were much the same. The right facial paralysis and proptosis still persisted, and also the left ptosis, though slightly less. Some paralysis of the left external rectus was present. The power of speech had not returned.

From this time the patient gradually improved; the wound had completely healed by April 7th. The temperature continued normal and the breathing regular. The convulsions ceased and the left arm and leg had completely recovered their functions by February 29th, when the proptosis of the right eye had also disappeared. The inequality of the pupils and the ptosis of the left side continued till April 14th. The left external rectus had recovered by April 1st. The boy began to take notice of things and answer in monosyllables on March 14th, but the full power of speech was not re-established until August. The right facial paralysis and the rigid flexion of the right arm and leg, accompanied by pain on forcible extension, improved only very slowly with galvanism and massage. The full use of the arm had not returned until September 24th. The patient could walk by himself by June 16th, though only the inner side of the great toe touched the ground, and by September 24th he walked with only a slight limp.

# REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

W. H. DICKINSON, M.D., President, in the Chair.

*Tuesday, January 26th, 1897.*

PERFORATING TYPHOID ULCER TREATED BY OPERATION AND SUTURE, AND RESULTING IN RECOVERY.

DR. T. LAUDER BRUNTON and Mr. A. A. BOWLBY presented this communication. The patient was a man, aged 37, who was admitted into St. Bartholomew's Hospital on October 3rd, 1895, at about the end of the second week of typhoid fever. The case was a severe one, and was complicated by hæmorrhage from the bowel soon after admission, and by a relapse on October 30th. The relapse lasted nearly a fortnight, and was followed by a slow convalescence till December 14th, when there was a sudden attack of severe abdominal pain, followed

after some hours by abdominal distension and symptoms of obstruction, but without nausea or vomiting. There was no evidence of free gas in the peritoneal cavity, and the distension was chiefly in the lower half of the abdomen. Laparotomy was performed about eighteen hours from the commencement of the pain. The patient was placed under the influence of chloroform, and the abdomen opened in the middle line below the umbilicus. The upper part of the peritoneal cavity was free from gas or fæcal matter, but the great omentum was adherent in the pelvis, and as soon as it was separated from the subjacent intestine, it was found that the whole of the intestines beneath it were matted together. On freeing the uppermost coils, about half a pint of fluid was let loose. It was dirty yellow in colour, and evidently consisted of some intestinal contents mingled with peritoneal exudation. On passing the hand into the cavity amongst the intestines from which this fluid had escaped, a very indurated coil of bowel could be felt, and, after a little trouble, was separated from its adhesions and drawn out of the abdomen. It was then seen that the gut had been perforated by a small ulcer about as large as a pea, situated opposite to the attachment of the mesentery. This ulcer was evidently in the centre of an inflamed Peyer's patch, for an area of induration corresponding in size to such a patch could be felt in the wall of the bowel. The whole coil of intestines was covered with old and recent lymph, and was thickened and œdematous. This lymph was removed as thoroughly as possible and the whole bowel very carefully washed. Ten silk sutures were then passed after Lembert's method transversely to the long axis of the bowel, which was clamped by the fingers of the assistants. The sutures furthest from the ulcer were passed clear of the indurated Peyer's patch, so that the line of suture was about an inch and a half in length. Flatus and fluid matter were then allowed to enter the sutured coil of gut, and it was found that there was no leakage, and that the lumen was free. The abdomen was finally irrigated with hot water until all foreign matter seemed to be quite removed, and a drainage tube having been passed into the pelvis the wound was sutured. The operation lasted about forty minutes, and the patient was not at all collapsed at its conclusion. Some difficulty in passing sutures was caused by the induration of the inflamed Peyer's patch and the friability of the intestinal wall. Recovery was uninterrupted, the temperature remaining normal throughout. The tube was removed in forty-eight hours, and for four days no food was given by the mouth, except water in teaspoonful doses. The bowels acted on the fifth day, after the use of an enema, and for the next month the patient was very carefully dieted. He left the hospital on February 21st in good health, and returned to his work in April. When seen on April 15th he had regained his normal weight, and the bowels acted regularly. For several weeks after the operation he had a slight "dragging pain" in the abdomen, and a feeling of tightness, but this gradually passed away. It was pointed out that the case was one unusually well adapted for operative treatment, and could not be compared with those cases where perforation occurred during the height of the fever and in a patient greatly prostrated by the disease. It was probable that the perforation in the bowel had really existed for some time, and had been temporarily but insecurely closed by adhesions. These had gradually yielded when a fuller diet was allowed, and had permitted an escape of the contents of the intestine. It was believed that there had been up to the present three successful cases of operation on typhoid ulcers. A review of all recorded cases by Dr. Robert Abbe appeared in the New York *Medical Record*, for January 5th, 1895, and from this it seemed that the successful operators had been Van Hook,[1] Abbe,[2] and Netschajen.[3] The latter surgeon resected the portion of bowel and sutured the divided ends. Two operations had been recorded in England, but in each case the patient's condition was evidently very bad, and the results were not satisfactory. It would appear that the case here described is the third recorded case of the kind submitted to operation in this country, and the first to arrive at a satisfactory termination.

[1] *Philadelphia Med. News*, vol. ix. p. 591.
[2] *Loc. cit.*
[3] *St. Petersburg. med. Woch.*, 1894, No. 36, Supplement No. 8. p. 46.

### Supposed Perforation in Typhoid Fever.

Dr. W. P. HERRINGHAM and Mr. A. A. BOWLBY presented a communication entitled A Case of Typhoid Fever; Convalescence; Symptoms of Perforation; Laparotomy; No Lesion Found; Recovery. Though perforation in typhoid fever was allowed to be almost invariably fatal, cases had from time to time been recorded in which symptoms usually held to indicate this event had yet been followed by recovery. Whether in these cases the bowel had actually been perforated must always remain doubtful, and it had been pointed out by Fitz that there were no trustworthy signs pathognomonic of perforation, and that the occurrence of even a local peritonitis alone would be quite sufficient to explain the condition. That the same symptoms might occur, even when there was no peritonitis at all, was shown by the following case: A girl of 13 had had a subnormal temperature on and after the twenty-second day of typhoid fever. On the twenty-eighth day symptoms like those of perforation, acute pain, frequent vomiting, small pulse, rigid and tender abdomen, suddenly came on. The bowels had been open the day before. An oil enema did not remove the symptoms, nor did morphine. After three hours and a half it was judged advisable to open the abdomen. The contents were found perfectly healthy, save that the colon contained masses of scybala. Recovery was uneventful. The symptoms were apparently due simply to constipation; yet they were an exact copy of those caused by perforation. The operation was undertaken (*a*) because it appeared to be the only chance of recovery; (*b*) because the patient was in good case, and the date at which the accident happened gave good hopes that the intestine would be able to bear an operation.

Dr. NORMAN MOORE said that there was no condition in which the desire for surgical help was more often felt, or in which it would be more welcomed, than in perforation in enteric fever if it were not for the severe accompaniments of the fever. He mentioned some general points suggesting that operation in such cases was not so desperate as it might appear. Thus the situation of the perforation was localised within fairly narrow limits: in 113 fatal cases of enteric fever examined at St. Bartholomew's Hospital there were 21 in which perforation had occurred, and in only 2 of these was the perforation more than 5 feet from the cæcum; in 1 only was the perforation in the colon; in three-quarters of the cases the perforation was within 3 feet of the cæcum. The perforation was in his experience usually surrounded by adhesions, and did not as a rule open freely into the general peritoneal cavity. The date at which perforation occurred was perhaps later than was usually thought to be the case; in an epidemic of typhoid fever in which 18 fatal cases were met with there were 5 cases of perforation; of these only one occurred at the twenty-first day, the others from the twenty-eighth to the forty-first day. This was important, as the virulence of typhoid fever diminished as time went on; this was shown by the fact that deaths were less common in relapses than in the primary attack. Dr. Herringham and Mr. Bowlby's case might explain what really occurred in cases where recovery occurred after what clinically appeared to be perforation. He had never seen or read of any *post-mortem* appearances justifying the belief that complete repair and recovery had occurred after perforation. Peritonitis without perforation, however, was commonly seen in enteric fever over the ulcerated portions of the intestine.

Dr. LAUDER BRUNTON had come across another case in which a man had suffered for three weeks from ambulatory typhoid, and was then admitted, passing sloughs by the bowel, followed by hæmorrhages. The temperature was between 102° and 104° when perforation took place, and as the man's general condition was so bad he did not call in surgical aid. At the necropsy there was a perforation the size of a pin's head, which might have been successfully dealt with, but the extensively ulcerated state of the whole of the colon rendered this extremely doubtful.

Dr. E. W. GOODALL considered that Dr. Brunton and Mr. Bowlby's case was, since perforation occurred during convalescence, the kind of case in which an operation might be expected to succeed, but it was otherwise with the majority of cases of perforation which occurred during the acute stage of the fever. He did not think that lymph often shut off

extravasation from perforation from the general peritoneal cavity; he had only seen this once, and this was late in the course of the disease. He did not attach much importance to the suggestion that perforation occurring at a late date was necessarily more favourable than when it occurred early. It might occur from the third to the sixth week, and when occurring late there was usually much ulceration present; the cases were then protracted. He thought that a suppurating gland might, by rupturing into the peritoneal cavity, simulate perforation; some cases of recovery after apparent perforation might be thus explained. He inquired whether there was any evidence of such an accident having occurred in Dr. Herringham and Mr. Bowlby's case.

Dr. S. PHILLIPS remarked on the fact that in these two cases the symptoms more closely resembled those of perforation in the one in which it had not occurred. This illustrated the difficulty of diagnosing perforation with certainty. He had seen many cases in which the symptoms at first resembled perforation, but passed away. He did not believe that recovery occurred spontaneously after perforation. If perforation could be certainly diagnosed, operation was indicated, but the difficulty was in being sure on this point. He recognised two types of cases with perforation: (1) Those with a tympanitic abdomen; here from the distension of the intestines leakage was prevented, and operation was likely to be successful; (2) those with a doughy abdomen and no striking symptoms, the patient dying from asthenia; here extravasation occurred freely, and the conditions were unfavourable for operation. In his experience, perforation was not localised by lymph and adhesions.

Mr. F. C. WALLIS remarked on the extreme importance of surgical measures being taken early and not postponed until the patient was in a hopeless condition.

Mr. A. A. BOWLBY showed the patient operated on in the first case, and remarked that the credit of the case was due to Dr. Brunton's diagnosis and prompt resort to surgical measures. He was far from advocating operation in all cases of perforation in typhoid fever; both of the cases he had operated on were in good condition, and to this success was largely due. In the second case he examined the greater part of the mesentery, and did not think there was any evidence that an inflamed gland had ruptured into the peritoneal cavity.

### JAUNDICE AND PERFORATION OF THE GALL BLADDER IN TYPHOID FEVER.

Dr. FRANCIS HAWKINS read this paper. The rarity of cases of jaundice with typhoid fever was mentioned by Sir William Jenner, Murchison, Osler, Frerichs, Louis, Andral, and Liebermeister. As to age, noted instances of its occurrence were limited to between 18 and 54; as to sex, occurrence was more frequent in males; as to time of appearance, it had been noticed on the third, fifth, fourteenth, twenty-sixth, twenty-ninth, thirty-eighth day, and once during a relapse. Associated symptoms were delirium (more or less violent), vomiting bile, diarrhœa, bilious and albuminous urine (the latter but once), incontinence of urine, epistaxis, bloody expectoration, pneumonia (after several days' jaundice), parotid bubo, thrombosis of femoral vein, erysipelas in legs, hæmorrhage from bowel. The liver showed tenderness on palpation with lessened hepatic area, and in one case total absence of dulness. Results were recovery in two cases; the others ended fatally. Duration of the jaundice was seven days when it developed during relapse, six days when it appeared on the third day (patient eventually dying of pneumonia), three days when manifesting itself on the fifth day (patient dying of coma), fifty-nine days when appearing on the fourteenth day, the jaundice disappearing and patient dying two months later, whilst in two cases jaundice appeared four days before death, which took place on the thirty-third and forty-second days respectively. The causes assigned were (1) a catarrhal process, (2) parenchymatous liver changes; the liver being sometimes healthy, sometimes soft and containing nodules of pultaceous matter; sometimes with purulent tumours, and sometimes acutely atrophied. A recent case of special interest was reported, that of a female gipsy, aged 18, suffering from typhoid, complaining of pain in abdomen and back, the abdomen being tumid and showing pink spots; the liver slightly enlarged, bowels irritable, pulse 96 and regular, respiration 44 with *râles*, temperature 104°, urine free from albumen, specific gravity 1030. Progress of the case: For the first five days constant pain in back and legs, rejection of food, bowels frequently open, night delirium, formation of fresh spots, temperature 102° to 104.4°, respiration 36; next day pain (severe) in right half of the epigastric region and over right lower axillary and hypochondriac regions; respirations 40 per minute, with evidence of dry pleurisy over right base, axillary and lower mammary regions; vomiting constant, temperature 105.8°. Next day conjunctivæ and skin of upper part of body jaundiced, bile found in urine, stools frothy and white. The following day jaundice increased; pain over above-named regions more severe, and extending round the umbilicus; region of gall bladder exquisitely tender. Next day jaundice still marked, bile in the urine, which with fæces was passed unconsciously; respirations 50 per minute, breathing mainly abdominal; dry pleurisy on the left side (as also on the right). After this, pain over epigastric region lessened, ultimately disappearing; bile was vomited, and jaundice persisted till death (having lasted from January 22nd to February 14th). Once, and for one day, with the exception of conjunctivæ being yellow, it quite disappeared. Of pulmonary complications, ten days before death dyspnœa was extreme, the face cyanosed, soft parts were drawn in, and respirations were 56 per minute (the breathing was abdominal), varying from 60 to 80. The patient died from the pulmonary complications. Other points of interest were as to bowels, the stools at first onset of the jaundice being white and frothy, later on more coloured, on three or four occasions containing bile, and passed unconsciously. Hæmorrhage from the bowels more or less constant for nine days, many of the stools being pure blood. Delirium: Constant at night, frequent by day. Skin: Pomphi on left leg, with dark-reddish margins; many pink petechiæ on both legs, but subsequently disappearing, as did the pomphi, leaving scars. A swelling (of the size of a Tangerine orange) on the left hip also disappeared. Necropsy: Body greatly emaciated; left lung adherent in all parts, adhesions easily breaking down; right lung free over lower lobe, lymph over both pleural surfaces, the free space containing 10 ounces. Both lungs markedly pale and collapsed, with consolidation at base of the right, and at apex of lower lobe of the left. Cardiac walls flabby, right ventricle dilated, valves normal. Stomach distended, adhesions of gall bladder and stomach, the gall bladder being adherent to peritoneum, and around the adhesion was a small area of peritonitis; the anterior wall of the gall bladder after adhesion was broken down, showing perforation. The contents of the gall bladder were purulent; the walls were thin, and especially on the posterior surface, where there was also almost perforation. The cystic duct was not blocked by the easily movable gall stone. Liver uniformly enlarged, showing cloudy swelling but exuding no bile. As to cause of the jaundice, the gall stone had not caused complete blocking of the choledochus, and had it blocked the cystic duct that in itself would not produce jaundice if the hepatic duct and choledochus were open. Purulent inflammation within the gall bladder without destruction of the choledochus, according to Fraenkel, might produce jaundice, and this condition existed. The typhoid fever might have been the exciting cause, and suppuration of the gall bladder might occur during the attack, though perforation of the gall bladder pathologically in typhoid was as rare as the occurrence, clinically, of jaundice with the same disease.

Mr. A. MARMADUKE SHEILD referred to a case recorded in the *Lancet* by Mr. Monier Williams and himself, in which after typhoid fever symptoms of perforation of the gut led to the abdomen being opened, the perforation was found after considerable search to be in the gall bladder. Great difficulty was caused by distension of the intestines; this was overcome by perforating the colon obliquely through one of the longitudinal muscular bands, and by means of the valvular opening thus obtained much flatus was got rid of. He thought that in operating on perforation of the bowel in typhoid fever it might be advisable to enlarge the opening and drain the bowel of its contents.

Dr. JOHN HARLEY inquired what pathological evidence there was of typhoid fever in the author's case. Jaundice was very rare in typhoid fever; he thought this was due to the bile being very watery during the disease, so that even if the

bile duct became obstructed jaundice would not result. He recalled the case of a fat woman, who, when convalescent from typhoid fever, had a swelling in the epigastrium opened, with the result that twelve pale gall stones and some fluid like whey came out. From the character of the calculi he concluded that they had been formed during the six weeks' illness of the patient.

Dr. F. HAWKINS, in reply, said there were ulcers in the ileum and colon.

## CLINICAL SOCIETY OF LONDON.

THOMAS BUZZARD, M.D., F.R.C.P., President, in the Chair.

*Friday, January 22nd, 1897.*

CLINICAL EVENING.

### COINS IMPACTED IN THE ŒSOPHAGUS.

MR. BOWLBY (on behalf of Mr. HOWARD MARSH) showed a boy, aged 3½, who had swallowed a halfpenny piece. He was under observation for five weeks, but had exhibited no symptoms beyond occasional sickness. A skiagraph taken by Allen and Hanburys, Wigmore Street, at once revealed the presence of the coin in the œsophagus at the level of the second dorsal vertebra (Fig. 2). The coin could not be felt with the finger, and an attempt to remove it with a coin catcher failed, and no better success followed an attempt with forceps. Ultimately its removal was effected by the aid of a catch within a gum elastic catheter, as suggested by Mr. Bowlby (Fig. 1). The second patient was a boy, aged 3, who was also said to have swallowed a similar coin. No pain or other urgent symptoms were manifested, and removal was effected in the same way.

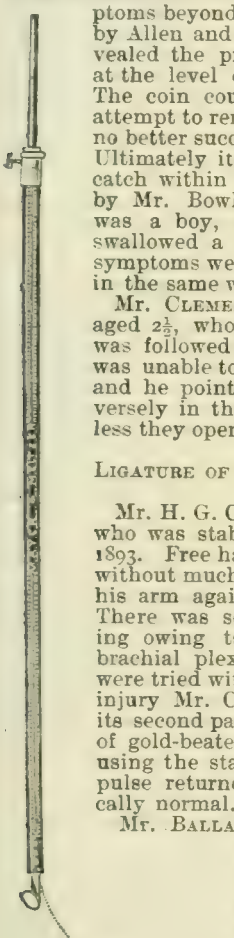


Fig. 1.

MR. CLEMENT LUCAS recalled the case of a child, aged 2½, who had swallowed a halfpenny, and this was followed by some difficulty in swallowing. He was unable to remove the coin with the coin catcher, and he pointed out that as coins usually lay transversely in the œsophagus, forceps were useless unless they opened antero-posteriorly.

### LIGATURE OF SECOND PART OF SUBCLAVIAN ARTERY FOR ANEURYSM.

MR. H. G. CROLY (Dublin) showed a man, aged 30, who was stabbed with a pair of tailor's scissors in 1893. Free hæmorrhage followed, which was checked without much difficulty, but when he began to use his arm again a tumour formed behind the clavicle. There was some loss of power in the arm and wasting owing to the pressure of the tumour on the brachial plexus. The usual methods of treatment were tried without success, and two years after the injury Mr. Croly ligatured the subclavian artery in its second part, tying the vessel with ligatures made of gold-beaters' skin as suggested by Mr. Ballance, using the stay also suggested by him. The radial pulse returned in four weeks, and was now practically normal.

MR. BALLANCE had seen the patient before the operation; the tumour was large, extending above and below the clavicle. He said the gold-beaters' skin ligature was very serviceable. Gold-beaters' skin was formed of the peritoneum of the ox hammered out, and was pure fibrous tissue. As a ligature it took longer to be absorbed than kangaroo tendon. The stay knot had the advantage that, when the two first hitches were tied on the artery they were so locked together that there was no expansion of the knot before the first half of the final reef knot was tied. Further the stay knot did not rupture the coats of the artery. This operation should encourage surgeons to operate on the big vessels at the base of the neck without opening the pleura.

MR. SPENCER WATSON had used ox-aorta ligature (as recommended by Mr. Barwell) for tying big arteries, and thought it an advantage that aorta ligature was flat.

### CHRONIC ULCER AND LUPUS TREATED BY OXYGEN.

MR. G. STOKER showed two patients, one suffering from chronic ulceration of the leg and the other from lupus, both treated by oxygen. The first patient sustained a severe injury to his leg on April 10th, 1896, and though he remained in hospital two months healing did not take place, and he was sent to a convalescent home. Healing was still delayed, and on July 17th he was admitted to the "Oxygen Home." The ulcer was treated with 50 per cent. of oxygen, the pain and fœtor speedily disappeared, and he was discharged cured on September 4th. Bacteriological examination of the wound ulcer revealed the presence of the staphylococcus albus and aureus, together with streptococci. The other patient, a commercial traveller, was admitted to the Home on October 23rd. His leg had been painful for twenty years, and had ulcerated ten years ago. There was a deeply excavated ulcer with irregular rough thickened margins, and considerable discharge, which was very offensive, and the ulcer was most painful. He was treated in the same way, and in less than four weeks the ulcer on the inner side of the leg had completely healed, and the other was in a fair way to recovery. Bacteriological examination showed the rod bacterium and the bacillus subtilis. Later on staphylococci and streptococci were found.

MR. SPENCER WATSON confirmed the very great benefit obtained by the oxygen treatment in these cases of chronic ulcers. Whether the result was due, as explained by Mr. Stoker, to the growth of certain micrococci might be open to doubt. He considered the apparatus in which the limbs were enclosed clumsy and open to improvement. Might not the oxygen, too, be applied in a liquid form, for example, as a solution of peroxide of hydrogen?

MR. STOKER, in reply, said that he had used peroxide of hydrogen, but found it irritating. Moreover, the oxygen must be nascent, in order to effect the full benefit.

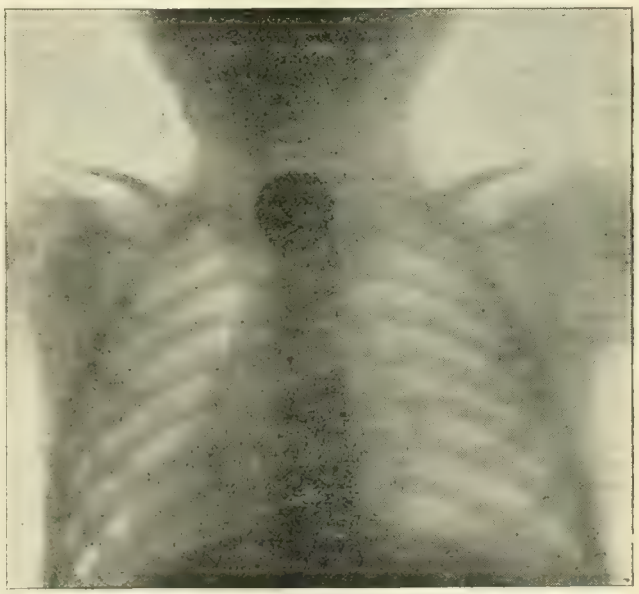


Fig. 2.

### PARALYSIS OF FIFTH NERVE.

DR. SIDNEY PHILLIPS showed a woman, aged 31, with paralysis of the left fifth nerve. The following symptoms were present: Anæsthesia and analgesia of the left side of the face and of the mucous membrane of the inner side of the cheek and of that covering the hard and soft palate; insensibility of the teeth to pressure and loosening of several of them; loss of sensation on the left side of the tongue, and loss of sense of taste over the posterior third, as well as the anterior two-thirds, strychnine, sugar, and salt being unrecognised; anosmia of the left nostril with a constant sanious ichorous discharge and frequent epistaxis; conjunctival injection with an area of cloudiness of the surface of the cornea; ulcerations of the cornea unless the eye was kept

constantly protected by a watch glass, and even with this protection a tendency to growth of loops of vessels over the cornea, which was kept in check by atropine; sight on the left side defective, nothing smaller than 14 Snellen being able to be read; no optic neuritis, but pallor of the disc. The motor part of the nerve had, during the last few days, begun to recover, contraction of masseter and temporal being now felt, though at one time quite absent; the lower jaw still deviated to the paralysed side on opening the mouth. The illness commenced in August, 1886, with sudden acute pain in the forehead behind the eyes, with photophobia, nausea, and shivering; at one time, too, there was staggering gait and vertigo, and slight numbness of the left hand. These symptoms all passed away, leaving the isolated paralysis of the fifth nerve, under treatment by iodide of potassium. This had been complete in both motor and sensory divisions, and the signs of improvement had but lately come on under mercurial treatment. The eye had been injured by a fork five years previously, but not sufficiently to need medical attendance. Seeing the improvement under specific treatment, and that the first three children of the patient's marriage had been born premature and dead, the origin of the disease was probably syphilitic. Dr. Phillips thought the lesion was situate in or around the Gasserian ganglion, and was an irritant lesion.

The PRESIDENT asked if the back of the tongue over the area supplied by the glosso-pharyngeal nerve had been tested for taste. He thought the affection was probably specific, and that its locality was the Gasserian ganglion.

Dr. PHILLIPS had not tested the extreme back part of the lingual mucous membrane for taste.

### HÆMO-PERICARDIUM.

Mr. MANSELL MOULLIN showed a lad, aged 20, who received a severe blow over the sternum while playing at football on March 28th, 1896. He was able to go on playing for twenty minutes, but on arriving at his home he became profoundly collapsed. At 9 P.M. on that day his pulse was fairly good, but the heart was apparently beating at about twice its usual rate. There was no increase of cardiac dulness, but there was some difficulty in swallowing and great pain on the left side. The breath sounds were very loud all over that side, and the temperature was 96° F. Thirty-six hours after the accident he was seized with a violent cough accompanied by profuse expectoration, and he perspired profusely. The pulse was 140 and the breathing 22 per minute. The area of cardiac dulness gradually increased until it spread to the right of the sternum. On April 22nd, three weeks after the accident, he was seized with violent dyspnœa, and then the whole of the left side of the chest was found to be distended and motionless. The heart sounds could only be heard in the right second interspace. He (the speaker) made an incision through the fifth left space, and exposed the pericardium, which was incised, and a drainage tube inserted. Altogether some 6 pints of blood escaped through the tube within the first three hours, and this clotted firmly in the basin. The dyspnœa at once disappeared, the tube was removed on the following day, and the patient was able to sit up in a week. The left lung remained collapsed for a long time. The patient had recently returned to his duties as a postman, and had resumed football.

### MULTIPLE NODULES.

Dr. TURNEY showed a man with chronic renal disease whom he had had under observation for about twelve months, during which time he had developed more or less symmetrical nodules, at first over the upper half of the body, but later elsewhere. Their distribution was not that of the rheumatic nodules with which they were familiar. Some of them appeared to be connected with bone, and were fixed, while others were freely movable under the skin. The patient had formerly suffered from alcoholism, but not recently; he had not had syphilis. The nodules were never tender nor painful. He considered that they were not neuromata, and for the present preferred to describe the case as one of multiple fibromata of uncertain origin.

### LIGATURE OF FEMORAL ARTERY FOR ELEPHANTIASIS OF LEG AND FOOT.

Mr. R. CLEMENT LUCAS exhibited a patient suffering from elephantiasis, in whom he had ligatured the femoral artery. A man, aged 45, a native of Leicester, who had never been abroad, suffered twelve years previously from inflammation and thrombosis of the left internal saphenous vein, when his leg and foot swelled up, but gradually subsided again. Two years ago he cut a corn on the little toe of that limb, which he neglected. The toe sloughed away, and he was in St. Thomas's Hospital for eight weeks, pieces of bone coming away at intervals since, but the wound had now healed. At this time the leg swelled again, and had since gradually increased. The right leg and foot had also lately commenced to increase in size. The left leg and foot were œdematous and the cuticle about the heel greatly hypertrophied at the time of admission. Mr. Lucas ligatured the superficial femoral artery of the left leg on December 18th, 1896, with a sterilised silk ligature, sterilised pads being used as dressing. Primary union without any rise of temperature followed, and three weeks afterwards the limb measured 2 inches smaller around the calf than before the operation. Good circulation followed in the foot. At the operation Mr. Lucas had used a ligature of sterilised silk, and the wound was well in a week. He preferred this to goldbeaters' skin, kangaroo tendon, or ox-aorta ligature, as they could not be boiled for sterilising purposes.

Mr. WALLIS had seen three or four cases of spurious elephantiasis, and had not found them improved by this operation. One patient had considered himself distinctly worse after that operation.

Dr. C. W. CHAPMAN remembered a case at Guy's Hospital, under Mr. Bryant, which had been much benefited by ligature.

Mr. LUCAS, in reply, said that case was figured in Mr. Bryant's *Surgery*, and was a case of wonderful recovery.

### ANOMALOUS MUSCULAR DYSTROPHY.

Dr. W. S. COLMAN showed a boy, aged 4½, suffering from a curious form of muscular dystrophy. At 8 months of age he developed paralysis of one arm coming on a week after a fall when he struck the right side of his head. The forearm and arm had remained weak and wasted ever since. The weakness had lately increased, and there had been some atrophy of the other shoulder, and other muscles were becoming involved. The knee-jerks were much increased and the muscles of the leg were wasting, and there was well-marked pes cavus on both sides. The lesion was probably a sclerosis, and allied to Friedreich's disease, rather than an affection of the grey matter of the cord.

### OPHTHALMOPLEGIA, WITH SYMMETRICAL ATROPHIC PARALYSIS OF THE SHOULDER MUSCLES.

Dr. TURNEY showed a man, aged 65, who for twenty years had suffered from ophthalmoplegia, and who for the last ten years had had associated paralysis of the shoulder muscles of both sides, but chiefly on the left side. There was no affection of the neck muscles, nor of the muscles of mastication or deglutition. The knee-jerks were good. He had had syphilis forty-six years ago. The lesion was probably nuclear.

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## MEDICAL SOCIETY OF LONDON.

REGINALD HARRISON, F.R.C.S., President, in the Chair.

*Monday, January 25th, 1897.*

### NEW OPERATION FOR VESICO-VAGINAL FISTULA.

Mr. STANMORE BISHOP (Manchester) described a new operation for vesico-vaginal fistula which may be briefly summarised as follows: A circular incision is made around the fistula, from which the tissues are split up to, but not through, the edge of the fistula. The reflected tissues hang like a frill or a truncated glove finger into the vagina. Through four points in this frill he passes long double threads which are knotted outside the vagina. A curved forceps is now passed through the urethra, and the knotted ends of the sutures are brought up the vagina and placed in the grasp of the forceps, which is then withdrawn through the urethra, carrying the threads, through the bladder, and out through the urethra. As this is being done a purse-string suture is carefully carried round the summit of the frill, in the connective tissue, taking care to avoid the mucous membrane, and tightened up as the frill is inverted. When by continued traction on the guiding threads the inversion reaches such a point that the folds of

the frill fall together on a level with the base of the bladder, another purse-string suture is applied, also strictly through connective tissue alone, knotted, and cut off short. The raw surface in the vagina is drawn together if small enough, by interrupted catgut sutures. If too large for this to be possible without tension a Thiersch graft is immediately applied thereto, the long guiding threads in the urethra are then divided and drawn out, leaving the bladder wall reformed. The Thiersch graft is kept in position by plugging the vagina with iodoform gauze. The patient remains for ten days on the face, the urine during the first few days being methodically withdrawn by the aid of a catheter. This operation, he claimed, presented several advantages—namely, the absence of tension on the uniting surfaces, the fact of the mucous floor of the bladder being reformed without any reduction of its capacity, and, lastly, the sutures were not passed into the lumen of the bladder.

The PRESIDENT asked if the author had reflected that an inverted scar inside the bladder might ultimately lead to the deposition of phosphate salts. He himself had known this happen after suprapubic cystotomy, and in two cases he had had to open the bladder through the perineum in consequence of vesical symptoms, revealing the presence of phosphatic stone upon the line of the suprapubic incision.

Mr. STANMORE BISHOP, in reply, admitted that there was a projection into the bladder, but it was not a rough, knotty scar, the mucous membrane being drawn down over it, and practically enclosing the whole of the raw surface.

### RESECTION OF STRICTURE OF THE SIGMOID FLEXURE.

Mr. H. ALLINGHAM showed a patient, aged 64, who was admitted to St. George's Hospital in July, 1896, with a history of four months' discharge of blood and slime from the rectum with alternating attacks of constipation and diarrhœa. He was losing flesh, but an examination under an anæsthetic revealed nothing in the rectum or through the abdominal walls, so he performed laparotomy. On introducing the hand he discovered a hard mass inside the sigmoid flexure near its centre, which he resected, joining the divided ends over a large bone bobbin. The patient made an uninterrupted recovery.

### TWO LAPAROTOMIES IN ONE PERSON FOR OBSTRUCTION CAUSED BY A BAND.

Mr. G. R. TURNER related the case of a woman, aged 45, who was admitted to St. George's in July, 1895, with the history of an acute attack of abdominal pain followed by vomiting and complete intestinal obstruction of five days' standing. She was much collapsed on admission, and on performing laparotomy he found the omentum folded into a roll-like twisted band, and there was a volvulus of the small intestine which was pressed upon by a band near the end of the ileum and the beginning of the cæcum. The parts were intensely congested, and there were flakes of lymph elsewhere, but the patient made an uninterrupted recovery. There was no history of previous peritonitis to account for the band. Six months later (January, 1896) she was readmitted, obstruction and vomiting having recurred on the previous day. She was kept under observation, the bowels acting on three successive days and the pain subsiding; but on the 26th urgent symptoms supervened, and Mr. Pick performed laparotomy through the former incision, accidentally opening the small intestine, which proved to be adherent to the scar. A portion of small intestine was constricted by a band in the left hypochondrium, which was divided. She did well. The bowels acted naturally on the second day, and she was discharged on August 26th.

Mr. WALLIS asked Mr. Allingham what sutures he employed in joining the divided ends of intestine. He mentioned that Mr. Cripps had also on one occasion cut into adherent intestine in consequence of operating through the old scar, and this had impressed him with the undesirability of adopting this procedure.

Mr. SWINFORD EDWARDS concurred in the view that when a second laparotomy was called for it would be better to avoid the line of the former incision on account of the danger of cutting into adherent intestine. He asked whether the disease of the sigmoid flexure was malignant or not.

Mr. MORGAN observed that the specimen appeared to be a malignant growth of the flexure not involving the whole circumference of the gut. The patient was consequently free from the excessive hypertrophy which followed stricture. He recalled a case in which he had operated in which the hypertrophy above and the thinning below rendered it exceedingly difficult to effect a satisfactory junction between the ends of the divided intestine. He asked what course Mr. Allingham would adopt under similar conditions.

Mr. ALLINGHAM, in reply, said his plan of dealing with the mesentery was that suggested by Mr. Mayo Robson at a meeting of the Clinical Society some time ago. He had fixed the bobbin in the usual way, putting in a Lembert suture here and there. The growth was an ordinary cylindrical epithelioma, and it ought perhaps to be so described rather than as a stricture, but as the growth projected into the lumen of the gut it produced the symptoms of a stricture. In such a case as that alluded to by Mr. Morgan he suggested that it would be best to close the open ends of intestine, joining them by lateral anastomosis, with or without the use of a bone bobbin.

Mr. TURNER, in reply, said that the choice of incision in a second laparotomy would depend upon whether or not they knew exactly what was the condition to be relieved. If the lesion were one which could be got at at a distance from the middle line, then he agreed that an incision elsewhere might be employed, but in the absence of any definite information it might not be possible to reach it except through the middle line. When there were indications of peritonitis at the previous operation, as in his case, it might be well to be on their guard against the possibility of subsequent adhesion of intestine.

## HARVEIAN SOCIETY OF LONDON.

### ANNUAL MEETING.

*Thursday, January 21st, 1897.*

### PRESIDENT'S ADDRESS.

THE address of the retiring PRESIDENT (Mr. J. Knowsley Thornton, M.B.), who was unfortunately unable to be present, was read by Dr. J. CAGNEY, one of the Honorary Secretaries. Its subject was some of the lessons learnt by the President during twenty-four years of surgical work in London. The chief lesson impressed upon him was that the closest adhesion to the principle of "doing to others as we would have them do to us" should guide professional conduct; it made relations with patients and professional brethren easy and pleasant, was the best sedative to worries of all kinds in laborious professional life, and was the surest way to success. It made a man gentle; and with tact enabled the consultant to be strong and unbiassed in his judgment of a case and yet give no offence to a professional brother who might differ from him. But whilst such conduct was proper in cases of error of judgment, or want of sufficient knowledge or experience, with deliberate wrong-doing one was bound to put one's foot down firmly with complete disregard of the feelings of the wrong-doer. Though formerly an enthusiast with the microscope, he had come to regard the knowledge which it gave as over-rated, especially in regard to new growths. If he had to choose between the microscope and clinical observation in deciding what was malignant and what benign, he would be rather guided by the latter, though the microscope was useful in suggestion and in confirmation. It should not be the arbiter in doubtful cases. The enthusiasm for the knife, too, which he held in the days when, under Lister's scientific procedures, it seemed that to the knife all things were possible, had now somewhat abated; and he thought that the probable limits of, and scientific and curative work of the knife had been nearly reached, and "that the time had come when it behoved surgeons to weigh well what was possible against what was advisable, and to temper the one with the other. To consider, in short, a little more than was often done to-day, not merely the possibility of doing some brilliant piece of work, and saving the patient alive, but the probability that what was done would surely prolong life, and not merely life, but healthy life. That what was done, while it removed some evils, would not leave behind others which might in the end be more troublesome to the patient, and even more deadly than the disease which was cured." For example,

"take exploratory abdominal section, an operation of the greatest value in properly selected cases, in which there was a strong and reasonable probability that it would result in a curative operation, and not end as a mere exploration." This operation was, to his certain knowledge, terribly abused, and used far too often in cases in which there was but small prospect of its doing good. "Oh, but if it does no good it does no harm," said the enthusiast. But he (the speaker) had seen in the last few years a large number of patients whose lives had been spoilt by a reckless use of an exploratory incision. They had either a ventral hernia, or adhesions tying up omentum and intestines, rendering natural action of the bowels impossible, and putting them in daily risk of fatal obstruction. Such fatal obstruction after a successful abdominal section was not so uncommon as men would believe. Then intra-abdominal adhesions were often a source of acute suffering or of such chronic discomfort that patients would submit to anything to obtain relief. He had had to deal with such cases by a second operation both from his own practice and from that of others; and what he had found at these second operations convinced him of the risks run in all abdominal sections, whether immediately successful or not—risks of leaving behind a condition which came in time to involve more distress to the patient, and it might be even more risk to life, than the disease which had been cured. Of course, if the patient was the subject of a growing tumour which the surgeon knew must kill, of some acutely painful and certainly dangerous condition, or of some accident which might end in rapid death, he was bound to operate, and the patient must take any after-risks or discomforts which might be secondary to that operation. But the surgeon was bound to consider these after-risks, and to point them out to a patient. In regard to two other procedures, he thought it well to damp the surgeon's enthusiasm, so that in doubtful cases he might wisely stay his hand—namely, in the removal of the uterine appendages or the vermiform appendix. "That the first of these operations had been grossly abused must be admitted by every honest and thoughtful man who was in the position to form an opinion." It was of great value in proper cases, but there should be more care in the selection of cases, in the details of the operation, and in its extent, and more care in the promises made to the patient and her friends as to its immediate and future results. He was constantly seeing patients who had been operated upon for the usual symptoms of pain, disorders of function, and more or less palpable enlargement and displacement, who assured him that the troubles resulting from the operation were far worse than any they suffered before. Even in his relatively small experience of these operations he had in several cases, when he came to perform the operation, been surprised to find so much less disease than symptoms and palpation indicated; and in many more cases in which, after long and careful consideration, he had advised against operation he had been rewarded by complete recoveries from what seemed very unpromising conditions. He would plead for more care in treatment, in watching and deciding, and especially for more care in pointing out the possible risks of operation, and the consequent impossibility of speaking too confidently as to the ultimate result. As to the operation for the removal of the vermiform appendix; he was not speaking of those terrible cases in which serious mischief had arisen before the surgeon saw the case, and in which, whether he operated or held his hands, death was almost equally likely to be the result, but of cases in which a certain set of symptoms which surgeons had learned to regard as due to trouble in the vermiform appendix arose, and passed away, and recurred. In many cases the recurrences were milder and shorter than in the first attack; but in some, rarer in his experience, the recurrences were more prolonged and severe. It was becoming the fashion to operate during what was called the quiescent stage, and to remove the appendix. In competent hands it was usually an easy operation, and attended with but little risk to life, but the recovery was not always so smooth and uncomplicated as it might be, and the after-history of some of the patients who had even made very smooth recoveries was suggestive of adhesions and alterations about the site of the operation which were not a source of comfort to the patient even if they were free from risk. There should be more caution, more consideration for the possible after-results of operation before setting it forth to the public as a riskless and easy cure of a possibly dangerous condition. His third enthusiasm had been the antiseptic or aseptic system of surgery, without which the brilliant work of to-day would still be as far off as it ever was. But Listerism had made knife work so free from risk that it had produced the danger lest mere skilful employment of the knife should overshadow the true scientific and benevolent spirit of surgery which was not only to save the body alive, but to clothe the spirit and the life with such a healthy body that it should be free from discomforts and pains, and enjoy and do good work in the life given back to it. "And whilst wishing Sir Joseph Lister Godspeed and length of days to enjoy his new dignity, surgeons might feel that their profession as a whole gave while it also received honour in the ennobling of one of its most distinguished sons." The private soldier was said to carry the marshal's baton in his knapsack; the surgeon of the future might perhaps carry a coronet in his pocket case.

### REPORTS AND VOTES OF THANKS.

The reports of the Council and the Treasurer showed that the condition of the Society was flourishing, and that there was a balance in hand of over £63. Votes of thanks were moved to the retiring President by Dr. BOWLES and Mr. RAYMOND JOHNSON; to the retiring Treasurer, Mr. Cripps Lawrence, by Dr. STAMFORD FELCE and Mr. GEORGE EASTES; to the retiring Council by Dr. MILSON and Mr. BLENKINSOP; and to the retiring Secretary, Dr. Cagney, by Mr. W. H. LAMB and Mr. W. SEDGWICK.

Mr. CRIPPS LAWRENCE, Mr. JULER, and Dr. CAGNEY replied.

The result of the ballot was declared by the scrutineers, who found that the officers proposed by the Council[1] had been unanimously elected.

Dr. W. HILL, Vice-President, who had up to that point presided, thereupon inducted Dr. R. H. Milson, the new President, into the chair.

The PRESIDENT thanked the members for the honour conferred upon him, and the meeting ended.

### CONVERSAZIONE.

A *conversazione* was subsequently held. Dr. W. S. Hedley and Dr. H. Campbell Thomson gave a demonstration with the fluorescent screen. There was also an exhibition of skiagrams, kindly lent by Drs. Blacker, Hedley, Leon, Laurie, Macintyre (Glasgow), MacClure (Cromer), John Shaw, Sutherland, and St. Clair Thomson, and Messrs. W. Anderson, W. H. Battle, H. T. Butlin, Percy Dean, Pearce Gould, Victor Horsley, Keetley, Howard Marsh, Henry Morris, Pitts, Nobie Smith, and Bland Sutton. An orchestra gave a pleasant selection of music. Mr. G. Denis and Mr. M. Dene rendered some songs, which were much applauded, and Dr. Haydon contributed a very successful violin solo.

## EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

D. ARGYLL ROBERTSON, M.D., President, in the Chair.

*Wednesday, January 13th, 1897.*

### CASES.

DR. AFFLECK showed a case of Cerebral Gumma in a young woman who was rapidly recovering under antisyphilitic treatment. There was a definite history of specific infection, and the third, fourth, and sixth nerves were affected. Now there was also slight paresis.—Mr. MILES showed (1) a man after Excision of the Tongue for Malignant Disease. Two teeth were removed to give room for operation, and the lingual arteries were tied when an incision was made to remove affected glands. (2) A boy after operation for Talipes by Kocher's Method.—Dr. MACGILLIVRAY showed a patient after Nephrotomy.

### SPECIMENS.

Mr. MILES showed the Tongue excised from the patient noted above, a cast of a patent Meckel's Diverticulum, and casts and photographs from a case of Talipes. — Dr. MACGILLIVRAY showed specimens from a case of Nephrotomy (a calculus from the pelvis of the left kidney), and from a case of Nephrectomy (a cystic kidney resulting from a calculus impacted at the beginning of the ureter).

[1] BRITISH MEDICAL JOURNAL, January 23rd, p. 209.

Agraphia and the Question of the Existence of a special Graphic Centre in the Cerebrum.

Dr. William Elder read a paper on this subject. After referring to the commonly accepted four types of aphasia, namely, auditory, visual, motor, and conduction, he went on to show the graphic symptoms usually present in each of these types, and in the subvarieties of infrapictorial, pictorial, and suprapictorial of the three former types. Agraphia, or graphic disturbances, might be present in all the varieties of aphasia, and specimens of writing of aphasic patients showing agraphia, paragraphia, and word and letter intoxication in writing were passed round. After pointing out that no cases could be found in medical literature which clearly proved either the existence of a special graphic centre or the localisation of it, although many cases had been studied clinically tending to show the existence of such a centre, Dr. Elder went on to a consideration of the art of writing, and came to the conclusion that although the outlines of letters might at first be traced by the right hand guided by the visual word centre, in time certain cells became specialised in the neighbourhood of the centre for the movements of the right hand for guiding or co-ordinating these movements, so that the individual could write expertly. The action of this centre thus determined the character of the handwriting, and explained the very marked difference between writing with the right hand and with the left. The left hand could be guided also from the visual centre, but that was merely tracing either from visible or mental copy, and not writing in the true sense of the word. If there was a special graphic centre, and it was suddenly called on to direct the movements of the left hand in writing, the writing would not be in the usual way, but in the peculiar form known as "mirror writing." Dr. Elder had tested over 260 persons, asking them to write their signature with the left hand, and he found that a certain proportion wrote in the mirror fashion. He found that there was a larger proportion in people over 15 years of age who had learned to write, and therefore presumably had developed a graphic centre, than in boys and girls under 15 who were still learning to write, and guiding their hand by their visual centre in order to improve their writing. His figures also brought out the peculiar result that almost all the mirror writers were women. In all probability the graphic centre only contained the graphic memories of letters and some familiar words, and the letters were combined into words by means of the psychomotor speech centre (Broca's centre) and the auditory centre, explaining the silent articulation which almost always went on when writing, and also explaining the fact that Broca's aphasia was almost always, if not always, accompanied by agraphia. Broca's centre took the chief part in spelling syllables after they had been called up in the auditory centre. Having arrived at the conclusion that there was a graphic centre which was really a graphic letter centre, the author suggested that the reason that it had never been pathologically demonstrated was probably because it was so small, and so near to the centres for the hand that few pathological lesions could destroy it, and leave the ordinary centres for the hand intact. He also suggested that those cases of motor aphasia with agraphia, where the motor aphasia disappears and the agraphia remains, are not due to the destruction of the graphic centre, as Pitrio claimed in his case, but rather are due to an interruption in the fibres between Broca's convolution and the graphic centre, a situation where occasionally a lesion must occur. These cases were therefore suprapictorial agraphias, and Dr. Elder gave an account of a case in his own experience, and showed specimens of writing illustrating the characteristics of this form of agraphia. Finally, it was pointed out that in many cases one could tell from the writing alone what form of aphasia the patient suffered from.

Dr. Byrom Bramwell said that two opposing views obtained as to the existence of a writing speech centre and of agraphia. One set of authorities believed that a separate centre existed for written speech, another that it did not. According to the former view, destruction of this supposed writing-speech centre would produce agraphia and agraphia alone; according to this view agraphia was aphasia of the hand. Dr. Bramwell used to believe in the existence of a writing-speech centre, but of late he had come to doubt its existence—he meant the existence of a special speech centre for writing as distinct from the ordinary psychomotor centre for the movements of the hand. He then briefly referred to the development of the speech faculties in the child, and especially to the method by which reading and writing are acquired. He did not think that the arguments advanced by Dr. Elder proved the existence of a separate writing-speech centre, nor the necessity for the existence of such a centre. As Dr. Elder had said, there was no case on record which clearly proved the existence of a writing-speech centre; no case had been recorded in which destruction of the second left frontal convolution (the supposed writing-speech centre), or of any other part of the cerebral cortex, had produced agraphia and agraphia alone. He believed, however, that a localised lesion of the conducting fibres which passed from the visual speech centre to the centre for the production of the writing movements (the ordinary psychomotor centre for the hand and forearm) might produce agraphia and agraphia alone. As a matter of fact, in all the cases of complete agraphia with which he was acquainted, there was either motor aphasia or word blindness or both. It was clearly established that destruction of the visual speech centre produced not only word blindness but complete agraphia. The whole question turned upon one point—namely, Could a person who was completely word-blind from destruction of the visual speech centre ever write—that is, express himself intelligently in written speech by the aid of the memories of the kinæsthetic impressions concerned in the act of writing? Dr. Bramwell fully agreed as to the importance of the kinæsthetic impressions in regulating the muscular movements concerned in the mere act of writing—in the formation of the letters. But the mere formation of the letters was not expressing oneself in written speech. The nervous impulses necessary for written speech seemed to originate in the visual speech centre, acting of course in conjunction with the auditory speech centre and the motor speech centre (Broca's convolution). Complete destruction of the visual speech centre in the left hemisphere seemed, in the great majority of persons at all events, to produce complete agraphia. According to Déjerine, it was only in case of subcortical word-blindness that patients could read by tracing the letters over in the air or on paper. The memories of the kinæsthetic impressions concerned in the act of writing did not seem to be sufficient to enable a patient, word-blind from destruction of the visual speech centre, to express himself in writing or to read. Dr. Bramwell also referred to left-handed writing, to mirror writing, to simultaneous writing with the right and left hands, and to so-called mirror speaking. With Déjerine and Mirallié, he was disposed to regard the so-called writing-speech centre merely as part of the ordinary psychomotor centre for the arm and hand, and not as a definite and distinct speech centre at all. With special training, one could write either with the right or left hand, with the foot, with a pen held between the teeth—in fact, with any part of the body that was sufficiently mobile.

Dr. Ireland was not satisfied that there was a special graphic centre, and thought there was too great a tendency to pigeon-hole the cerebral cortex in place of looking at its various parts as going to make up a complex whole in structure and function.

Dr. Clouston considered that a strong presumption had been raised in favour of a specific writing centre; but the same mode of proof by logic and not by pathological demonstration would lead to the conclusion that every skilled handicraft and exercise, such as that of the engraver, the watchmaker, and the piano player, must also develop a special centre.

Mr. F. M. Caird and Drs. G. R. Wilson and Macpherson also spoke; and Dr. Elder replied.

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## NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

G. E. Williamson, F.R.C.S., President, in the Chair.

*Thursday, January 14th, 1897.*

The late Mr. Broadbent.

A vote of sympathy for the death of Mr. Broadbent was carried.

### CONGRATULATIONS TO LORD LISTER.

It was proposed and unanimously carried that the congratulations of the Society be sent to Sir Joseph Lister.

### SARCOMA OF KIDNEY.

Dr. HUME showed a patient, aged 53, who was well till August, 1896, when she felt an uneasy dragging in her right side, noticed some increased frequency of micturition, and discovered a lump in her abdomen. On admission to the infirmary the tumour could be passed across from the right lumbar and iliac regions, where it mostly lay, to the left of the spinal column. Because it seemed to be attached by a pedicle to the right side high up, and because of the absence of colon note behind the tumour and its presence in front, it was considered to be probably renal. There was nothing in the urine. The abdomen was opened in the middle line, and the diagnosis verified. The incision was extended outwards through the right rectus abdominis muscle, and the tumour and kidney were removed. The whole of the anterior abdominal wound was closed, and a drainage tube inserted through the loin. The specimen (exhibited) was a sarcoma about the size of a cocoanut, growing from and involving the lower end of the kidney. Its mobility was explained by the fact that it had dragged upon and elongated the kidney which formed its pedicle.

### EXCISION OF LOWER END OF HUMERUS FOR FRACTURE DISLOCATION.

Dr. HUME showed a young man whose elbow had been stiffened in consequence of a fracture dislocation proved by skiagraph (exhibited). The arm was rendered practically useless by the accident, and attempts to remedy the condition by manipulations under chloroform had failed. The lower end of the humerus had been excised by Heron Watson's method with a satisfactory result.

### ABDOMINAL SECTION FOUR TIMES IN ONE PATIENT.

Dr. HUME showed a woman who had undergone an operation for removal of the Fallopian tubes four years ago. A ventral hernia resulted, and was twice operated upon by the surgeon who did the first operation, without success. Six weeks ago Dr. Hume opened the abdomen for the fourth time to cure the ventral hernia, and the result so far was perfectly good.

### URINARY CALCULI.

Mr. PAGE showed (1) A uric acid calculus the size of a Tangerine orange successfully removed by suprapubic lithotomy from a man aged 50 years who had symptoms of stone for forty years. (2) Eight calculi of various sizes removed successfully by the suprapubic operation from an old man with enlarged prostate. It was evident from an examination of the specimens that some of the calculi had undergone spontaneous fracture. (3) An oxalate of lime stone the size of a walnut, successfully removed from a boy aged 4 years by suprapubic lithotomy.

### GALL STONE FROM THE CYSTIC DUCT.

Mr. PAGE showed a gall stone, the size of a filbert, removed from a young woman who had a tumour in her abdomen about the size of an ostrich egg. The tumour could be placed in any part of the abdomen, but, when undisturbed, remained in the right side. The diagnosis being uncertain, her abdomen was opened in the right linea semilunaris, and the enormously distended gall bladder was opened and emptied of a clear colourless fluid. The cystic duct was firmly plugged by the stone exhibited, and had to be incised for its removal. The wounds in the gall bladder and the duct were closed by sutures, and returned into the abdomen, which was entirely closed without drainage. This was the fifth case in which Mr. Page had closed one or other of the ducts and gall bladder by suture and returned them into the undrained abdomen, and all the cases had recovered well.

### THYROIDECTOMY FOR HÆMORRHAGE.

Mr. PAGE showed the lobe of an enlarged thyroid gland removed from a woman who had for many years noticed a small swelling which caused no inconvenience. A few days before her admission, whilst working hard, the swelling suddenly increased in size and became painful. At the same time she had so serious an attack of difficulty in breathing that it was thought she might not recover. Since then she had other attacks of dyspnœa, and the tumour (exhibited) was removed. On section it was seen that the whole substance of the tumour was infiltrated with coagulated blood, and careful examination showed at one portion of it a small ruptured cyst. It seemed a probable explanation that hæmorrhage had first occurred into the cyst, and that this had burst.

### EYE SPECIMENS.

The PRESIDENT showed sections through a Staphylomatous Eye and sections through an Eyeball containing a Tumour, mounted in glycerine jelly.

### VAGINAL HYSTERECTOMY.

Mr. RUTHERFORD MORISON showed a series of specimens illustrating conditions which he thought could be best dealt with by vaginal hysterectomy. Cancer of the body and cancer of the cervix uteri were the most common indications for this operation. In one case he had excised the uterus and a fibroid of the anterior wall the size of a cocoanut, which was causing gradually increasing bladder trouble with attacks of urinary retention. In another he had excised the uterus, both tubes, and one ovary for acute gonorrhœal endometritis, salpingitis, and pelvic abscess. In another he had removed the uterus in an apparently hopeless case to allow of efficient drainage of a large pelvic abscess which had been previously drained by the abdomen, and which was complicated by a fæcal fistula. He thought that no preliminary treatments of the vagina and uterus were useful. All necessary preparations could be made immediately before operation and whilst the patient was anæsthetised. He did not use any ligatures, but secured the broad ligaments in hæmostatic forceps before dividing each portion, using from twelve to twenty-four pairs of forceps for this purpose. No drainage tubes or sutures were necessary, drainage being effected by a strand of gauze passed up in the centre of the forceps. The vagina was then so full that neither intestines nor omentum could escape. The forceps were left in for 48, the gauze was removed in 72 hours. Unless the discharge became fœtid, no further treatment than keeping the external parts clean and dressed was employed. He had performed this operation nineteen times for cancer and seven times for other conditions. All the twenty-six patients had recovered, and only in one case had there been any accident. In this case sharp bleeding followed the removal of forceps at the end of twenty-four hours.

### CONGENITAL CYSTIC DISEASE OF THE KIDNEYS.

Dr. CLAY exhibited the kidneys removed *post mortem* from a man, aged 42, who died in the infirmary. His illness began a year previously with diarrhœa and vomiting. On admission he was uræmic. His urine contained blood, and the two large tumours (exhibited) were found in his abdomen. They very closely resembled in appearance certain multilocular cystic ovarian tumours.

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EPIDEMIOLOGICAL SOCIETY.—At a meeting on January 15th, Professor J. L. NOTTER, M.D., President, in the chair, Dr. W. H. HAMER read a paper on Age Incidence in Relation with Cycles of Disease Prevalence, in which he referred to the various hypotheses of simple accumulation of individuals susceptible from age or otherwise—Dr. Ransome's theory of a certain necessary density of the susceptible population or mutual proximity of the individuals, Dr. Whitelegge's of periodic changes in the intensity of the poison, and Mr. Shirley Murphy's evidence as to the influence of school attendance on the age incidence of scarlatina and diphtheria. He described the great waves of epidemic prevalence recurring at long intervals, and the smaller waves which intervened, as Dr. Ransome expressed it, "like ripples on the surface of the billow." The greater epidemics were marked by a progressive rise and subsequent decline in the virulence of the infection analogous to that to which they owed their existence, but there was no direct ratio, indeed, mostly an inverse one, between the general prevalence and the intensity as indicated by the case mortality at each period. Dr. Hamer showed by means of the lantern a number of graphic diagrams representing in successive quarter years the relative

age incidence of small-pox, scarlatina, and measles for each year of life up to 5, from 5 to 10, and for ages over 10, calculated on 100 cases at all ages which clearly brought out the greater and lesser epidemic waves, and the inverse ratios, subsistence between these and between the prevalence of the disease and its fatality, as well as between its general incidence and that on the ages of greatest susceptibility. These phenomena were most marked in scarlatina and least in measles. Dr. Ransome's suggestion that the longer intervals between the major epidemics in Sweden were due to the sparseness of the population was fully borne out by a comparison between London and the large towns with the rural districts of least density of population, while the age incidence of small-pox in successive decennia seemed related to the more or less general practice of vaccination.—Dr. WILLOUGHBY expressed a wish that the rates had been calculated on the numbers living at each age period, and doubted the value of such actuarial calculations in the case of small-pox, in which the extent of vaccination and revaccination dominated, and overruled all other factors. He maintained that the general diffusion of small-pox in 1871-2 was mainly caused by the dispersion of French prisoners or fugitives.—Mr. SHIRLEY MURPHY also held that the intensity of an epidemic of small-pox depended almost solely on the number of susceptible—that is, unvaccinated—persons in the community among whom the disease was induced.—Dr. WHITELEGGE maintained that the greatest incidence of scarlet fever in early life, and the highest case mortality occurring in periods of lesser prevalence, indicating variations in the intensity of the poison, while the greater prevalence of the disease in autumn was not attended by a high mortality, because it involved ages of less fatality. He did not think that the rainfall had any direct influence, though drought might emphasise and wet minimise a rise, or conversely affect a fall, predetermined by other factors.—Dr. HAMER briefly replied.

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SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on January 14th, Mr. RECKLESS (President) in the chair, Dr. R. F. CASTLE (Darfield) showed a man, aged 50, with Labio-Glosso-Pharyngeal Paralysis. The muscles of the larynx were the first to be affected instead of the last.—Mr. LOCKWOOD showed a Vesicular Mole, weighing 2½ lbs., passed by a woman, aged 44 years, the mother of nine children, who went the full normal pregnancy period. There was considerable hæmorrhage four or five months after the last menstruation, but the large mass was passed without any complication, and the woman made a good recovery.—Mr. LOCKWOOD related a case of False Teeth in the Œsophagus. The patient complained on awakening from sleep of an obstruction in his throat. A hard substance was encountered at the junction of the œsophagus and pharynx, and after some little difficulty and considerable hæmorrhage, Mr. Lockwood succeeded in extracting a palate with ten teeth attached; no complication ensued.—Mr. ARCHIBALD CUFF showed (1) a Skiagraph of the Bones after an Extensive Compound Fracture of the Leg. The fragments of the tibia were united with silver wire. The wound had perfectly healed in three weeks, and the after-result was good. (2) (For Mr. G. H. SHAW) an Enterolith, which had caused acute intestinal obstruction in a woman, aged 59. The obstruction had lasted four days, and the patient was much exhausted. The stone was removed by laparotomy, but the patient never rallied from the shock. The enterolith, which was of a brownish gray colour, measuring 1½ by ¾ inch, appeared to be a compound of salts of lime and magnesium, with fæcal matter. (3) A Calculus which had been impacted at the junction of the membranous and penile portions of the urethra of a boy aged 10 years. The stone was cut down upon and removed, and the skin brought together with silkworm gut. A catheter was retained for two days. The patient left the hospital cured on the tenth day.—Dr. SINCLAIR WHITE showed 4 cases of successful trephining: (1) A man, aged 25, operated on eight months ago for the relief of traumatic epilepsy with mania. There had been immunity from the fits and mania since the operation. (2) A child aged 4 years, who began to have convulsions three hours after an injury to the left temple. The convulsions commenced on the left side of the face, and rapidly spread to the left arm and leg. They were continuous, and the child was quite unconscious. The wound on the left temple was first explored, and a fracture being detected the trephine was applied, but without benefit. A large trephine disc was next removed over the region corresponding to the centre of the right Rolandic fissure, when the fits ceased immediately and permanently, and rapid recovery of consciousness followed. (3) A case of Compound Comminuted and Depressed Fracture of the Right Side of the Frontal Bone, caused by a small, rapidly revolving wheel starting from its bed. The inner table was much more extensively fractured than the outer. About thirty pieces of bone, several of which were lodged in the brain, were removed. The patient, an adult male, went about for a fortnight after the injury apparently without much discomfort. (4) A case of Cerebral Abscess in a boy, aged 12 years, due to a wound in the forehead inflicted three weeks previously. The skull was not fractured. The abscess contained about an ounce of pus, and was situated on the surface of the right frontal lobe. The symptoms were gradual onset of stupor, rapid wasting, choked optic disc, pulse and temperature subnormal.—Dr. SINCLAIR WHITE also showed a case of Aneurysmal Varix between the superior thyroid artery and the anterior external jugular vein on the right side, in a man, aged 38. The vein was much dilated and pulsated freely. The abnormal communication was marked by a small collapsible swelling. There was a very distinct thrill and a very loud *bruit*. The condition caused little inconvenience, and it was thought right not to interfere. The PRESIDENT, Mr. BULL, Dr. KEELING, Mr. CUFF, Mr. PYE-SMITH, Dr. ADDISON, and Dr. BURGESS made remarks.

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NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—At a meeting on January 20th, Dr. W. B. RANSOM, President, in the chair, Dr. MARSHALL read a paper on Electrolysis in the Treatment of Nævi. He stated that the opinions expressed by him in the *Lancet* of January 12th, 1889, were strengthened by the continued and up-to-date use of this method. The several methods most commonly in use—ligature, excision, and injection, and the various caustics, such as ethylate of sodium, nitric acid, etc., were reviewed, and all condemned except excision, the use of which he confined to nævi in unexposed parts which were not too large to admit of its adoption. It was claimed for electrolysis that it was (1) free from pain after operation; (2) it was free from danger; (3) no bleeding occurred; (4) the scar which remained was whitish in colour, and more nearly resembled true skin than any other. There was no tendency to contraction of this scar. The one argument against its use was its tediousness. Stress was laid upon the fact that it was only necessary to stay the growth, and Nature would complete the process. Too frequent operation was deprecated; and as an illustration of the time likely to be occupied before a good result was gained, it was stated that two years would elapse before a raised nævus on the eyelid would be perfectly cured. The great value of Lewis Jones's polar needle was pointed out. Dr. Marshall believed that a cure was effected by plugging of the vessels and subsequent contraction by the formation of fibroid bands. He always aimed at attaining the former by attaching the base first. The use of a galvanometer was negatived, and it was pointed out that by change of colour alone could a safe guide be found as to the strength of current to be used and the period of its application. Dr. Marshall could form no opinion as to the number of operations required for a given nævus until he had gauged the resistance by an operation. The history was given of an enormous raised nævus on the loin of a baby 7 months old, which measured after the two operations 6½ by 3½ inches. This, however, was stopped completely in three operations. Eight cases were shown, all of which bore out the statements made. The paper was based upon twenty years' experience of electrolysis for nævi. Messrs. PARKER, O'MULLANE, RANSOM, and TRESIDDER, and Miss GREY spoke and asked questions, and Dr. MARSHALL replied.—Dr. MARSHALL also showed a boy, aged 13, upon whom he had operated for Harelip and Cleft Palate, also photographs from a very successful case of Osteotomy.—Dr. RINGROSE showed a man, aged 34, suffering from Keratosis Pilaris: he pointed out the distinction between this disease and lichen pilaris.—Mr. LAWS showed a specimen of Glioma of Retina occurring in a child, aged 3, with six months'

history. Squint was the first symptom noticed, and afterwards a whitish appearance of the iris existed. He also showed a microscopic specimen of the growth.—Dr. RANSOM showed a microscopic specimen of the Sarcoma of the Right Lobe of the Cerebellum from a patient who had middle ear disease, and who was trephined for cerebral abscess.

MANCHESTER MEDICAL SOCIETY.—At the annual meeting of this Society held on January 13th, the following officers were elected for the year: *President:* Dr. Steell. *Vice-Presidents:* Dr. Brooke, Mr. Collier, Dr. Harris, Dr. Moritz. *Treasurer:* Dr. Glascott. *Secretary:* Mr. Coates. *Committee:* *Dr. Edge, *Dr. Faulkner, *Dr. T. A. Helme, *Mr. H. Lund, *Dr. Milligan, *Dr. Railton, *Dr. Reynolds, *Dr. John Scott, *Mr. W. P. Stocks, *Dr. Torrop, *Dr. Wild, *Mr. G. A. Wright. (The names of Committee marked with an asterisk are nominated by the retiring Committee. See Law 20.) *Library Committee:* Dr. Kelynack, Mr. J. E. Platt, Dr. R. T. Williamson. *Auditors:* Dr. Annacker, Mr. Pomfret.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—At the annual meeting held at Owens College, Manchester, on January 15th, the following officers were elected: *President:* H. Briggs, F.R.C.S. (Liverpool). *Vice-Presidents:* T. A. Helme, M.D. (Manchester); Archibald Donald, M.D. (Manchester); T. B. Grimsdale, M.B. (Liverpool); Glynn Whittle, M.D. (Liverpool); T. Kilner Clarke, M.D. (Huddersfield); Edmund Robinson, M.R.C.S. (Leeds); Richard Favell, M.R.C.S. (Sheffield); A. H. Laver, M.D. (Sheffield). *Honorary Treasurer:* J. Nelson Cregeen, M.R.C.S. (Liverpool). *Council:* E. Annacker, M.D. (Manchester); F. A. E. Barnardo, L.R.C.P.I. (Southport); Owen Bowen, M.R.C.S. (Liverpool); S. Buckley, M.D. (Manchester); Sir R. M. Craven, F.R.C.S. (Hull); E. T. Davies, M.D. (Liverpool); Duncan Forbes, M.D. (Bootle); H. A. Lediard, M.D. (Carlisle); John W. Martin, M.D. (Sheffield); T. W. Napier, M.B. (Egremont); J. J. O'Hagan, M.B. (Garston); Lloyd Roberts, M.D. (Manchester); G. J. Robertson, M.D. (Oldham); S. Rumboll, F.R.C.S.E. (Leeds); Benjamin Scott, M.D. (Manchester); W. J. Sinclair, M.D. (Manchester); A. Stookes, M.D. (Liverpool); G. W. Thomson, L.R.C.P. (Sheffield); Arthur Wallace, M.D. (Liverpool); W. K. Walls, M.B. (Manchester); W. Walter, M.D. (Manchester); C. J. Wright, M.R.C.S. (Leeds). *Honorary General Secretary:* J. E. Gemmell, M.B. (Liverpool). *Honorary Local Secretaries:* John Scott, M.D. (Manchester); W. Fingland, L.R.C.P. (Liverpool); Edward O. Croft, M.R.C.S. (Leeds); David Lowson, M.D. (Hull); Hugh Rhodes, M.D. (Sheffield).—Mr. BRIGGS, as President, having taken the chair, related two cases of Abdominal Hysterectomy for Uterine Fibroids, and showed the tumours.—Dr. J. E. GEMMELL read a case of Intra-uterine Disease, and showed microscopic specimens of the curetted fragments of tissue removed from the uterus. A discussion took place as to whether the disease was adenoma uteri, benign or malignant.—Dr. W. E. FOTHERGILL read a note on the Development of the Placenta, and in its fate when retained *in utero* after the death of the fœtus; and showed several microscopic sections and drawings illustrative of the subject.

# REVIEWS.

ESSAYS AND ADDRESSES. By Sir J. RUSSELL REYNOLDS, Bart., F.R.S., M.D.Lond., LL.D.Edin., LL.D.Aberd., President of the Royal College of Physicians of London, President of the British Medical Association, etc. London: Macmillan and Co., Limited. 1896. (Royal 8vo, pp. 332. 12s. net.)

IN publishing this volume of collected essays and addresses by the late Sir RUSSELL REYNOLDS his widow has not only fulfilled a pious duty to her late husband, but has put the medical profession under a considerable obligation. The volume will contribute to producing a better and truer impression of the manner of man that was lost in Reynolds. It will also serve to make plain to the more thoughtful members of the general public the nature of the special and rare qualities which won for Reynolds the honours which he received from his profession, and will at the same time set before them some of the problems which have in recent years occupied the best minds of the profession of medicine.

Important as were his contributions to medical literature, great as was his success in practice, and eminent as was the position which he attained in his profession, there are many who knew Russell Reynolds, either as pupils or friends, who yet feel that he never gave to the world quite all that was in him to give. This was due, perhaps, partly to the calls on his time created by his early success in practice, partly to delicate health, but mainly to a certain fastidiousness in taste and judgment which limited his literary output, and rendered his attitude of cool inquiry and dispassionate judgment on many burning questions "*caviare* to the general." He would have sympathised thoroughly with the sense, if he might have gently protested against the forcible phraseology, of Byron's famous apophthegm as to easy writing. He was not only a clear thinker, but he paid himself and his readers the compliment of believing that what was worth saying was worth saying well, neatly, and in unambiguous phrase. That is to say, he was a literary artist, and literary composition was with him a labour, though, as with all true artists, a labour of love. In the words of the sympathetic biography which has been prefixed by an anonymous hand to this volume, "He required a certain aloofness from daily routine before he could make his pen serve faithfully its poetic and fastidious master." "Aloofness" is perhaps the best word to describe Russell Reynolds's mental attitude, not that he was wanting in sympathy, but that he was compelled by a law of his mental constitution to form his own judgment on every question, uninfluenced by gusts of popular fashion, and, to a very large degree, untrammelled by tradition.

How sympathetically he regarded the men from whom he had learnt and with whom he had worked is well shown in the address, here reproduced, which he delivered in 1888 at the annual dinner of past and present students of the Medical Faculty of University College. He had then known that institution for forty-two years, and he took the opportunity of recalling some of the great figures of the past. We may quote as an example of his powers of insight and of graphic description the following words, which those who knew the man referred to will recognise as true to life:—

"The first figure, one that almost fills the portal, is that of Sharpey—the incomparable, the colossal Sharpey—there he stood to tell us what we scarcely knew, namely, what it was we wished to know; to show us whence we had come, where we were, and whither we should tend; to put the problem of our life-study of life plainly before us, and show us how to try and grasp it. It seems but yesterday that we heard him struggling to make us understand what life meant, and how its vegetable and animal forms impinged on one another, and defied the cleverest definitions that had been made to sever them. Some of us might have been revelling in biologic dreams of untold 'pleasures in the pathless woods of speculation'; but Sharpey was there to tell us that, in the dark night of ignorance, pathless woods had thorns, and traps, and pitfalls; and that our only safety was in following the ways that the great masters had cut out—the ways that led from profitless fancy to useful fact—from the known and proved, to that we sought to know."

In turning over these essays, it is not difficult to see that Reynolds had been slowly ripening and broadening. His judgment, always acute, became tempered by the mellow wisdom of age, and the natural regret arises that he was not spared to carry out his intention of adding to each of these essays appendices giving "the fruit of nearly half a century's assiduous practice in hospital ward and consulting room." As it is, we must be grateful for what it has been possible to give us; and in the latest essay in the volume on the Organised Progress of Medicine, a subject which it may be said had occupied his thoughts throughout the whole of his professional life, we have, owing to the happy circumstance that he was called upon to deliver this address as President of the British Medical Association at its meeting in London, the advantage of his ripest thoughts and most mature judgment. We have already mentioned a brief biographical notice prefixed to the volume. It is anonymous, but the graceful dedicatory note by Lady Russell Reynolds will enable us to identify the author, and we may congratulate him upon the manner

in which he has fulfilled his talk. The frontispiece of the volume is a reproduction of an excellent and characteristic photograph of Sir Russell Reynolds.

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THE YEARBOOK OF TREATMENT FOR 1897; a Critical Review for Practitioners of Medicine and Surgery. London, Paris, and Melbourne: Cassell and Company, Limited. (Crown 8vo, pp. 488. 7s. 6d.)

THIS annual review of the improvements in our means of defence against disease made during the foregoing twelve months is one of the books that in these days of literary overproduction cannot be regarded as superfluous. To the busy practitioner, indeed, it is almost indispensable, for it presents a brief but sufficient summary of all the new facts and ideas in the domain of therapeutics which are likely to be of use to him in his daily round of professional duty. As regards the execution of the work it is enough to say that the contributors are recognised authorities in their several provinces. Moreover, the fact that the book is now in its thirteenth year of regular publication of itself places it out of range of the slings and arrows of the outrageous reviewer.

A glance through the various articles shows in what direction the stream of therapeutic tendency is running in each department of the healing art. Thus, in Dr. Coupland's article on Diseases of the Heart and Circulation the Nauheim treatment holds the field. In Dr. Gustave Schorstein's article on Diseases of the Lungs and Organs of Respiration serum bulks large, and there are signs that the *toga* of the physician is yielding in some points to the *arma* of the surgeon. In Dr. E. S. Reynolds's article on the Treatment of Nervous and Mental Disease lumbar puncture occupies the foreground, though from the therapeutic point of view the evidence so far is not much in its favour. From the prominence given to operative measures in Dr. Hale White's article on Diseases of the Stomach, Intestines, and Liver, it might almost be inferred that in abdominal affections the physician is now beginning to find himself in the position of a ruler dispossessed by a powerful ally whom he had called to his assistance. In Diseases of the Kidney, Diabetes, etc. (Dr. F. D. Boyd), and in Gout, Rheumatism, and Rheumatoid Arthritis (Dr. A. E. Garrod) there is no marked progress to record. Dr. Sidney Phillips's article on Infectious Fevers is mainly devoted to diphtheria and its treatment by antitoxin. In his article on Medical Diseases of Children, Dr. Dawson Williams gives most attention to the sterilisation of milk. The most important novelty in Dr. Dudley Buxton's article on Anæsthetics is local anæsthesia by Schleich's "infiltration method." In the article on General Surgery by Mr. W. Rose and Mr. A. Carless, the principal subjects dealt with are the surgical applications of the new photography, serumtherapy in malignant disease, and the surgery of the nervous system, lungs, and abdomen. Mr. Walsham, in his article on Orthopædic Surgery, has to record only modifications of familiar methods. In Mr. Edmund Owen's article on the Surgical Diseases of Children, the leading topics are the removal of tuberculous glands and the treatment of acute inflammation of the cæcal appendix; in Mr. Reginald Harrison's on Diseases of the Genito-urinary System, reni-puncture in albuminuria and the treatment of prostatic hypertrophy; in Mr. Alfred Cooper's on Diseases of the Rectum, the operative treatment of rectal cancer; in Mr. J. E. Lane's on Venereal Diseases, the treatment of syphilis by intramuscular injections of calomel and intravenous injections of mercurial solutions. Dr. Herman in his article on Diseases of Women gives a good deal of space to displacements of the uterus, intraperitoneal hæmorrhage, and pelvic suppuration. The chief points in Dr. Handfield-Jones's article on Midwifery are deciduoma malignum, heart disease, and pregnancy, and the use of streptococcus antitoxin in puerperal septicæmia. Mr. Malcolm Morris's article on Diseases of the Skin contains many useful hints, but registers no great advance; the same may be said of Mr. Henry Power's article on Diseases of the Eye, and of that of Dr. StClair Thomson on Diseases of the Nose and Throat. In Mr. Field's article on Diseases of the Ear, chronic suppurative disease of the middle ear and operations on the mastoid hold the chief place. Dr. Patrick Manson has no distinctly new thing to record in his article on Tropical Diseases. The interest of Dr. E. F. Willoughby's article on Public Health and Hygiene is mainly historical. A new and useful feature of the *Yearbook* is an article on Medical Jurisprudence, by Dr. A. P. Luff. In the Summary of the Therapeutics of the Year Professor Tirard has skilfully winnowed the wheat from the chaff in the matter of new remedies, of the making of which there is no end.

We can give the present issue of this most helpful *Yearbook* no greater commendation than that it is fully up to the level of its predecessors. The publishers deserve our thanks for the production of a work which is a boon to the English-speaking medical profession.

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HANDBUCH DER PHYSIOLOGISCHEN OPTIK. [Handbook of Physiological Optics.] By H. VON HELMHOLZ. Second Edition. Leipzig: Leopold Voss. 1895. (Royal 8vo, pp. 1,330).

THIS book has been called in Germany the Bible of the Ophthalmologist. The completion of the second edition, which has taken eleven years in preparation, is a matter for sincere congratulation to all who are interested in the study of the eye or of vision, whether as physiologists simply or as practical ophthalmic surgeons. When the revision of the great work of his life was projected by the author, it was his intention to correct the first edition, to bring it up to date in the progress of the science, and to introduce any new material which might seem to him to be worthy of insertion. As he got into his subject, however, his interest in it revived with all its old intensity, and he continued to investigate and experiment in various directions, so that the progress of the revision was of necessity slow. Unfortunately, before its completion, HERMANN V. HELMHOLZ died. Professor A. Koenig, however, into whose hands the work fell, has loyally carried out the wishes of the author. Because of his unwillingness to alter the work of Helmholz more than was necessary, Dr. Koenig has made less change in the latter part of the book than Helmholz himself probably would have done; the old form is very largely retained. In the last fasciculus now issued there is the conclusion of the criticism on Hering's theory of vision and a bibliography of 300 pages.

In spite of the fact that the *Handbook* contains every observation of value up to the time of writing, it is yet eminently a personal work, as it contains so many of Helmholz's own observations and experiments, and when we remember that it was these observations and experiments which led to the discovery of the ophthalmoscope, by which a new world was revealed to us, and which also established the optical constants of the living eye with mathematical precision by means of the ophthalmometer, it is difficult adequately to express one's sense of indebtedness to the author for his life's work, and for the great *Handbook* in which it is embodied. Some of Helmholz's views, especially those respecting the theory of vision, have been seriously questioned by other observers; but whichever side one may take in a controversy about a detail of his work, yet before the whole mass of it, which is here given us, criticism has no place.

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TRAITEMENT DE L'AVORTEMENT INCOMPLET. [Treatment of Incomplete Abortion.] Par le Dr. CHALEIX-VIVIE et le Dr. AUDEBERT, Chefs de Clinique Obstétricale à la Faculté de Médecine de Bordeaux. Paris: Masson et Cie. 1896. (Royal 8vo, pp. 148.)

THIS is a systematic treatise on the subject indicated by its title. Like most French medical books, it is orderly, well arranged, clear, and complete. Each of the sections into which it is divided is composed of a general dissertation on a department of the subject, illustrated by reports of particular cases. The whole subject is a limited one, upon which it is difficult to say anything novel. What there is to be said, the authors have said very well; but most of it will be familiar to the profession, at least in England.

The practical points the authors urge are (1) that the retention of the placenta has far-reaching effects; that it is a seed of future evil. (2) Vaginal and intrauterine injections are useless as means of procuring the expulsion of the placenta. (3) Vaginal plugging, well done, will for the time stop hæmorrhage, but will not bring away the placenta. (4) The right

treatment is to empty the uterus either with the finger or the curette. It is often difficult or impossible to do this with the finger; and to try to extract an incompletely detached placenta, either with finger or forceps, is in the authors' opinion a practice to be condemned. If the finger fail, the curette almost always succeeds. It only fails in timid, negligent, or hasty hands. Like every operation, it is dangerous in unskilful or dirty hands. Neither forceps nor metallic dilators should be used. Curetting is a delicate surgical operation; no one is obliged to do it; there is always time to obtain the aid of a more expert *confrère*, checking the hæmorrhage meanwhile by vaginal plugging. Expectant treatment the authors regard as imprudent.

## NOTES ON BOOKS.

*A Treatise on Cholelithiasis.* By B. NAUNYN, M.D. Translated by ARCHIBALD E. GARROD, M.A., M.D., F.R.C.P. (London: The New Sydenham Society.[1] 1896. Demy 8vo, pp. 197.)—The New Sydenham Society have been happy in the selection of Professor Naunyn's work for translation, as it undoubtedly contains in small compass one of the best studies of cholelithiasis available. The subject is looked at from all aspects: thus the chemical and physiological properties of gall stones, the formation of gall stones, as well as the more strictly etiological factors in producing cholelithiasis, are all most carefully considered. The chapter on the symptoms contains a very lucid exposition of the subject. The various complications of gall stones are discussed under irregular cholelithiasis. The treatment of gall stones is dealt with in the last chapter, and includes a section on the operative treatment. Professor Naunyn's wide experience, extensive knowledge of the literature of the subject, as well as acquaintance with pathology and experiment, have joined to make all parts of this book of very equal merit, in contradistinction to some of the works on this subject which have recently appeared. To Dr. Garrod much credit is due for providing an English text which hardly anywhere bears the impress of being a translation.

*Die Elemente der Pathologie.* [The Elements of Pathology.] By Dr. E. VON RINDFLEISCH. 3te Auflage. (Leipzig: Wilhelm Engelmann. 1896. Roy. 8vo, pp. 322. M. 8.60.)—This work by Professor Rindfleisch is the third edition of one of the essays dedicated to Professor Virchow on the occasion of his jubilee. It is divided into (1) general symptomatology and (2) general etiology. Under the former is included a discussion of (*a*) the local outbreak of the disease, (*b*) the actual extension of the disease, and (*c*) its functional extension. The soil, inflammatory phenomena, and new growths are dealt with under (*a*), and metastases and fever under (*b*). Section (*c*) requires a word of explanation. It is divided into the disturbances as they affect the vegetative and more strictly animal life. The various phenomena of necrosis, degeneration, local and general circulatory changes, the disturbance in blood formation and purification, and alterations in intermediate metabolism (diabetes) are grouped under vegetative, and the various morbid phenomena in the nervous system, with or without appreciable anatomical change under animal, disturbances. The general etiology is treated of under (1) traumatic diseases, and parasitism, including the infective processes, and (2) defective development. Diseases due to overstrain and involution receive a special chapter. Under traumatism as a cause of disease the diseases due to cold (*Erkältungskrankheiten*) are fully considered, and, although the modern view that most of these diseases are nothing else than infective processes is mentioned, it hardly receives the attention which might be expected. The list of diseases due to cold given on pp. 241-42 is truly a formidable one. From the above sketch of the contents it is obvious that this book is not strictly or purely a pathological one, nor is it, as the author mentions in his preface, intended as a pathological textbook. Indeed, it includes a considerable amount of clinical detail. It represents more a review of the various subjects under consideration rather than an exhaustive account of them. The arrangement is interesting and somewhat novel. The subjects are everywhere treated by Professor Rindfleisch with much originality, and, coming as it does from this very distinguished pathologist, the work is sure to command a very general interest.

[1] The annual subscription to the New Sydenham Society is £1 1s. Agent: Mr. H. K. Lewis, 136, Gower Street, W.C.

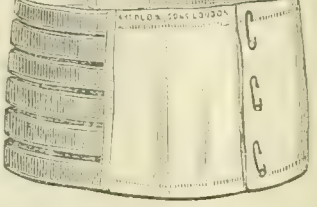
### REPORTS AND TRANSACTIONS.

*Transactions of the Dermatological Society of Great Britain and Ireland.* Edited by JAMES HERBERT STOWERS, M.D., and LEONARD ARTHUR BIDWELL, F.R.C.S. 1895-96. (London: H. K. Lewis. 1896. Roy. 8vo, pp. 90).—This volume contains the opening address by the President, Dr. Pye-Smith, in which he speaks of the value of water in the treatment of disease. Many forms of general disease, and not a few dermatoses, are more or less due to the want of a proper amount of water internally, almost as many as those which had been caused by too large an admixture of other liquids. He deprecated the habit of ordering patients suffering from diseases of the skin to drink spirits and water, particularly in the case of young people. Dr. Radcliffe Crocker contributes a paper on the internal therapeutics of psoriasis and some other diseases of the skin. His experience of thyroid extract tended to narrow the sphere of its usefulness. He considers the drug unsuitable for elderly people with weak hearts on account of its depressing effects. It might be tried experimentally. He recommends the use of salicylates in psoriasis. Records are given of a considerable number of patients who were shown throughout the year by Dr. Abraham, Dr. Eddowes, Dr. Stowers, and others, and there is a description by Dr. Savill of an epidemic of peri-oral eczema.

## REPORTS AND ANALYSES
AND
## DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

### A NEW OBSTETRIC BINDER.

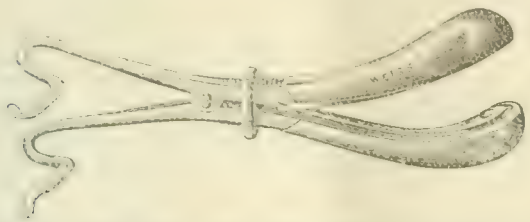
AT the suggestion of Mr. A. Dunley-Owen, Messrs. Arnold and Sons, of West Smithfield, London, have made a new form of obstetric binder. A row of silk elastic bands are inserted on one side of the bandage, which is itself made of strong linen. By these means the following advantages are anticipated: (1) Even pressure over the abdomen, each band of elastic only expanding to the extent required at its situation; (2) Power of self-adjustability by the patient; (3) the bands of elastic being at the side, the patient will not be inconvenienced by having to lie on them; (4) the strong safety pins supplied with each bandage will prove a boon to many, for often nothing is so difficult to find at these times as a pin worthy the name; (5) the binder is easily cleansed, and can be used many times if carefully put away after each convalescence.



### THE "MAMMOTH TUSK" GAG FOR SENILE AND EDENTULOUS JAWS.

DR. HERBERT SNOW (London) writes: All the gags in common use for tongue and mouth operations are very prone to slip, thus embarrassing the operator, and often seriously deteriorating his results. Messrs. Weiss have kindly made for me the instrument here depicted, which is free from that objection, and which I find most valuable for buccal operations generally, especially so, however, when the jaws are senile and edentulous. It is the familiar Ferguson's gag with a slight modification, consisting in a prolongation of the prongs, which are also curved outwards at an obtuse angle, and bevelled. When in position they lie (sheathed, of course, with india-rubber) on the inner aspect of the gum, and cannot

very well slide off until deftly removed. The instrument must be introduced with the handle in a line with the patient's neck, then rotated until this is at right angles to the trunk, and the jaws then prised open, being extracted by a



repetition of the same manœuvre. The head, if not over the table edge, should be turned on one side, the handle of the gag lying on the uppermost cheek. A remote suggestion of the recurvation in the mammoth's tusks explained the choice of title.

## ARCHÆOLOGICA MEDICA.

### XXV.—THE PLAGUE.

One of the most striking differences between our forefathers and ourselves in regard to the plague is the relative interest taken in its course and distribution. Increased facilities of communication instantly brings to our notice outbreaks of the plague occurring in the most distant parts of the world where the disease is indigenous, whilst newspaper enterprise gives us details sufficient to induce a lively horror of its spread in our own country. Our ancestors, on the other hand, took but a languid interest in its ordinary ravages. It was endemic, they had constant opportunities of seeing its effects upon the human body, and it was held in no more consideration by the common people than is typhoid fever at the present day. It was perhaps even less thought of, for the social condition of the lower classes was then so brutish that the exact cause of their death must have been a matter of supreme indifference even to themselves. The better classes, we know, cared nothing for the physical welfare of their poorer brethren, at any rate in towns where the plague was most rife. It was only when a particularly fatal outburst devastated wide areas that the parochial authorities took alarm, and adopted more or less active measures to stamp out the disease.

Some towns, being from their position more liable to chance infection than others, armed themselves with special powers. Chester isolated its infected houses by putting up a palisading, and the leases in the city for many years contained the clause, "Tabulas roboreas palos aut perticas sive sepam circundere nisi solamodo tempore pestilencie infra civitatem," that no palisading or hoarding should be put up within the city except in time of pestilence. At Glasgow, says Mr. Duncan, pestiferous persons who declined to be "enclosit" were transported with the plague-stricken to the town moor, where they received medical attendance and some scanty provision out of the municipal funds. The wide distribution and constant occurrence of the plague in England are faithfully reflected in the various treatises on medicine. Hardly any medical or surgical work was published here for hundreds of years which did not contain some method of treating the disease or of warding off its infection. Waters, baths, essences, medicines, or plasters were recommended in unlimited numbers, some original and vaunted by the author, but by far the greater number were traditional. It is curious to observe how inert were the substances recommended; at most they were only slightly diaphoretic or stimulant, but perhaps their value lay in the fact that they did no harm even if they did no good. Here is one taken from *A Treatise of the Pestilence*, by Thomas Phayer:

A very good preseruatiue for the common people, ready at all times and of smal coste: Take an ounce of leaves of rue, half an ounce of good figges, one ounce of Jenuper buries, two ounces of walnuttes piked, iiii ounces of vinegar, and a good quantitye of saffron; stampe all the foresaide thynges together and reserue them in an earthen cuppe or a glasse faste stopped that no ayre yssue, whereof yf ye receyue in the mornynge upon a knifes poynte, the quantity of a beane or more ye shalbe sure by the grace of God not to be infected in four and twenty houres after.

William Boghurst, Apothecary, of St. Giles-in-the-Fields, has left us the best contemporary account of the great outbreak in London in 1665. This treatise, though it seems to have been prepared for the press and was tolerably well known to scholars, remained unprinted until it was issued by the Epidemiological Society, with an excellent introduction, and under the most able editorship of Dr. F. J. Payne. Boghurst seems to have laid himself out especially for practice amongst the plague stricken, for whose cure he had a water, a lozenge, and an electuary antidote. Amongst many other interesting observations whose accuracy has since been confirmed he noticed the extreme slowness with which the disease spread, for he says "it gradually insinuated and crept downe Holborne and the Strand, and then into the City, and at last to the East End of the Suburbs; soe that it was half a yeare at the West End of the City before the East End and Stepney was infected, which was about the middle of July. Southwark being the south suburb was infected almost as soon as the West End."



## THE ASSOCIATION AND MEDICAL DEFENCE.

Report of the Committee on Medical Defence appointed by the Council of the British Medical Association.

The following report is published in accordance with a resolution of the Council on the recommendation of the Committee. The report has been also sent to all the Branches:—

The Committee appointed to consider the subject of medical defence beg to submit the following report to the Branches, and to request answers to the subjoined questions to be sent to the General Secretary, at the London offices of the Association, not later than March 31st, 1897.

At the annual meeting at Carlisle it was resolved:

That the scheme provisionally adopted by the Council and the amendments proposed thereto shall be remitted to the Branches for their consideration, and that they report thereon to the Council by March 31st, 1897. That in the opinion of this meeting it is desirable that the Council shall appoint a special committee to consider the claims of medical defence, and present a definite scheme for the approval of the Branches. That it be a recommendation from this meeting to appoint some members from outside the Council to act on this Committee.

That in the opinion of this meeting no scheme for medical defence is adequate which does not provide that the privileges and obligations of medical defence should be shared by all members of the British Medical Association in the United Kingdom.

The scheme as finally drafted by the Committee is as follows:

1. That in order to make the scheme for medical defence successful it must be obligatory upon all members of the Association resident in Great Britain and Ireland.

2. That the annual subscription for medical defence be not less than 5s., and if at any time increased shall not exceed 10s., and limited to those resident in Great Britain and Ireland.

3. That members of the Association resident abroad who are not called upon to pay the subscription for medical defence be not entitled to claim individual assistance from the Medical Defence Fund.

4. That a Standing Committee, consisting of nine members, five to form a quorum, be appointed to carry out the duties of medical defence, of whom not more than four may be members of the Association who are not upon the Council.

5. That such Committee shall have absolute power and discretion to give or withhold assistance in any case, and shall decide which of the cases brought before them shall be conducted under their direct supervision, and which by the Branches, or by any other body or person.

6. That the maximum sum which such Standing Committee shall be at liberty to authorise to be expended in any particular case shall be £200, as and by way of preliminary grant, any further expenditure in any particular case requiring the sanction of the Council previous to its being allowed.

7. That the Standing Committee shall communicate with the secretary of any Branch before taking legal action within its area.

8. That each member of the Committee shall receive his travelling expenses, and that the Council of the Association may, at some future date, if the Medical Defence funds permit, sanction the payment of each member of the Committee for his attendance.

9. That a paid organising secretary be appointed.

10. That the Committee shall have power to consult the solicitor to the Association or some other solicitor to be approved by the Council.

11. That the Committee report its proceedings to the Council.

12. That under no circumstances shall the damages incurred by a medical man in any proceedings be paid by the Association.

13. That the accounts in the matter of medical defence be kept entirely distinct from the general accounts of the Association.

14. That the Standing Committee under the direction of the Council shall be entrusted to carry out the following as well as any other duties of medical defence:

(*a*) Defence of members of the medical profession in respect of civil and criminal proceedings instituted against them.

(*b*) Proceedings instituted by members of the medical profession for libel or slander published against them.

(*c*) Settlement of disputes between members of the medical profession and questions of professional conduct and etiquette.

(*d*) The protection of the privileges and interests of members of the medical profession generally, and also as affected by any particular legislation.

(*e*) Proceedings under the penal or any other clauses of the Medical Act, 1858.

(*f*) Proceedings under the penal clauses of the Apothecaries Act, 1815.

(*g*) Proceedings under any other Act affecting the interests of the medical profession.

The questions which the Branches are requested to answer are subjoined, and it is particularly requested that the numbers voting either way should be recorded and returned with the reply:

1. Is your Branch in favour, or not, of the Association undertaking the duties of individual and collective medical defence?

2. Is your Branch in favour, or not, of the scheme as finally drafted by the Committee?

3. If not, what amendments does your Branch suggest?

## MEDICAL SICKNESS AND ACCIDENT SOCIETY.

The usual monthly meeting of the Medical Sickness, Annuity, and Life Assurance Society was held on January 15th at 420, Strand, London.

There were present the Chairman, Dr. de Havilland Hall, Dr. G. E. Herman, one of the Treasurers, Dr. J. B. Ball, Dr. M. Greenwood, Mr. Frederick Wallace, Dr. Walter Smith, Mr. J. Brindley James, Dr. J. Pickett, Dr. Alfred S. Gubb, and Dr. W. Knowsley Sibley.

The accounts presented showed that the amount of benefit money paid to the members is still increasing, although well within what is expected and provided for in the tables of premiums. Many of those who joined the Society when it first commenced operations in 1884 have now reached an age at which illness becomes both more frequent and more likely to prevent a medical practitioner from performing his duties, and while the steady increase in the number of claims and of their average duration shows how necessary such a Society is, the satisfactory growth of the reserves, which now amount to over £100,000, proves that the Medical Sickness and Accident Society was founded on a correct actuarial basis, and that the large and important work it had to perform was properly estimated.

As usual at the first meeting of the committee for the year a careful investigation was made into the cases of chronic sickness. Special reports were presented in each of these and it was found that in at least seven instances members were receiving sickness benefit under circumstances which leave little or no hope that they will ever be able to again perform professional work. Nearly £5,000 has already been paid to these members, and the majority of them seem likely to receive the much-needed aid of the Society for many years to come.

The ordinary sickness claims show an increase usual at this period of the year, caused by throat and chest affections, to which medical men are specially liable, and a considerable number of claims have been produced by accident. More than half of these have been met with in riding or driving, but a considerable proportion arise from causes of a strictly professional nature.

The full accounts for 1896 are not yet complete, but when they are produced it is clear that they will show that during the year just ended the Medical Sickness and Accident Society has done a very large amount of useful work, and is fully carrying out the intention of its founders.

Prospectuses and all particulars may be obtained on application to Mr. F. Addiscott, secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

## A CENTRAL HOSPITAL BOARD FOR LONDON.

A special meeting of the Council of the Charity Organisation Society was held at the United Service Institution on Monday, January 25th, to consider the question of a Central Hospital Board for London, and to appoint a General Committee for the purpose of promoting its establishment. The Earl of Stamford presided, and the meeting was numerously attended.

The Secretary (Mr. C. S. Loch) read letters from the Duke of Bedford, Duke of Fife, Lord Cranbrook, Mr. Gladstone, Sir James Paget, and others, regretting their inability to attend. Dr. T. Lauder Brunton wrote asking that, for the present, his name should not be on the Committee.

The Chairman said that he believed the time had arrived when a step forward should be taken in regard to the scheme for the establishment of a Central Hospital Board. The scheme proposed to give assistance from a common fund to the medical charities, and provided machinery for the supervision of the existing voluntary system. There was no intention to intercept the donations which might be given to the individual organisations.

Sir William Broadbent moved the following resolution:

That this meeting affirms the resolution adopted on April 13th last approving of the establishment of a Central Hospital Board for London on a representative basis, and accepts the draft submitted to it as indicating a plan that, subject to further consideration and modification, is likely to prove satisfactory; and that the following be a General Committee[1] to consider, promote, and from time to time report upon the draft scheme, with power to add to their number and appoint an Executive Committee.

Sir William said that nothing in the proceedings of the meeting could be taken as hostile to hospitals. He supposed that the abuses which had arisen in hospital work were known to every individual present. The number of out-patients seen every year amounted to something like 1,300,000, and he did not consider it possible that it could only represent those who were fit and proper objects for medical and surgical relief. Do what they could, it was an undoubted fact that patients came to hospitals who did not belong to a proper class for relief at those institutions. To the members of the medical profession generally it was a matter of great interest. Primarily, it concerned the general practitioner, who, from the fact that people who were able to pay for medical advice obtained it for nothing at the hospitals, suffered seriously. The matter also concerned the hospital physicians and surgeons, who felt deeply that they were often made the means of inflicting injury on their professional brethren. Subscribers to the hospitals further objected when they were aware they paid for medical advice to people who could quite as well afford to pay for it as themselves. On the part of the physicians and surgeons there was waste of energy; on the part of the hospital subscribers there was a waste of money. To this state of things many causes had contributed, and one of the main causes was the isolation of the great hospitals from each other. There had been no intercommunication, no comparison of work or methods, among the great hospitals, and thus diversities had arisen, and increasing divergences, which had left gaps. Those gaps had sometimes

[1] The preliminary list of the General Committee contains 150 names of persons, many of them members of the medical profession who approve generally of the proposal to establish a Central Hospital Board for the Metropolis, on lines that shall ensure a fair representation of the medical staff and of the lay supporters of the medical charities.

been filled by small institutions, which in the opinion of many had done great harm. The hospitals originally made a serious omission in not recognising early the necessity for specialities. When, owing to the advance in surgery and medicine, certain necessary specialties developed, the hospitals were not quick enough to recognise and provide for the necessity; and hence arose special hospitals. He himself had never objected to special hospitals; their merits and their necessity he had always recognised, but they were particularly liable to abuse. Since one of the great causes of the difficulties they had now to contend with arose from the isolation and the competition of the hospitals, the means of remedy must be in co-ordination. Nothing must hinder or restrict the energies of the different hospitals, and there was no idea of extinguishing the rivalry between them, but the rivalry must be in the direction of the good of the patients, and not merely in the direction of increasing the number of patients, and being able to put forward specious claims for the support of the public founded merely on numbers, and not founded on real efficiency or on the value of the work accomplished. He would like to see a local co-ordination; each large hospital with its medical school should be a centre of usefulness, with which should be affiliated the provident dispensaries, representing, as they did, those among the working classes who were willing to pay for their medical advice. He would say the same in respect to friendly societies, which actually helped hospitals, and they ought to receive something more in return than a certain number of out-patient letters. It would be a good thing if there were some affiliation between the large central hospitals and the surrounding institutions with the same objects in view. What was wanted was "a hospital brain," which should receive information from all sources, and which should from the experience gained thereby give instruction again. With regard to the question of the formation of a Central Board, he confessed himself entirely out of his depth. The functions of such a Board were clear enough, and he considered that in the scheme which had been laid before him they had been set forth very clearly. There was no principle of compulsion in the scheme; it was simply to obtain information from all institutions, and as far as possible, with that information, to give encouragement in the form of money grants for efficiency as decided from the reports of representatives and visitors. In his opinion it was as experts that the Charity Organisation Society had formulated the scheme which was submitted to them, and he considered that the charitable public of London was much indebted to that Society for drawing up that scheme. In the scheme submitted to them the Charity Organisation Society did not appear at all; the whole power was vested in representatives from the hospitals, with which the Society had nothing to do. It seemed to him a matter of congratulation that there was a possibility of a large scheme for collecting funds for the benefit of the London hospitals on the part of the Prince of Wales, in connection with the celebration of the Queen's reign. It was known to all that His Royal Highness the Prince of Wales had set Guy's Hospital upon its feet again; and he considered this new scheme was worthy of the Queen, of the Prince, and of the occasion. He sincerely hoped that these rumours would turn out to be well founded, and that the scheme would have every success. If that scheme succeeded and money was collected a committee of distribution would become a matter of necessity, and for that particular purpose and occasion would act as a Central Hospital Board, and would have to obtain information from all hospitals and distribute its funds, not merely in relation to the apparent necessities of the hospital, but with some regard to the merits of the different institutions. That Central Board, it seemed to him, very possibly might turn out to be the Central Hospital Board, which they all desired. If the principle of representation which they had had laid before them by the Charity Organisation Society could be carried out in that body, he considered it would be the best way of securing the proper distribution of the funds.

Mr. VICTOR HORSLEY, in seconding the resolution, said that as the meeting was practically the only remaining occasion on which the principle at issue could be discussed, he hoped that those who were best able to judge would be heard at length.

Mr. MYERS moved the following amendment to the resolution:

That the Charity Organisation Society draw up recommendations to the Boards of the London hospitals, etc., to enable those Boards as much as possible to compare their relative expenditure, and to profit when expedient thereby; and also to enable the Charity Organisation Society to draw up accurate annual reports and statements of accounts of those charities. (2) That this Society issue such advice as they may deem expedient for the better regulation of the out-patient department of the various hospitals and dispensaries.

This was seconded by Mr. GRIFFITHS WILKINS.

The Rev. Dr. WACE hoped they would not be called upon on that occasion to adopt any resolution which would pledge them to the scheme proposed.

The amendment was lost, a large majority voting against it.

Mr. KEETLEY then moved the following amendment:

That this meeting affirms the resolution adopted on April 13th, 1896, approving of the establishment of a Central Hospital Board for London on a representative basis, and suggests that all further steps taken in the establishment of such Board should be taken by a Committee of representatives duly elected by the individual authorities of the hospitals. That Lord Stamford, Sir William Broadbent, and Mr. Loch be requested to adopt the necessary initiative steps in this matter.

Dr. MORGAN DOCKRELL seconded the amendment, which was also lost by a large majority.

The CHAIRMAN then put the resolution to the meeting, with the result that it was carried by a large majority, 121 voting for it, and 12 against.

The usual vote of thanks to the Chairman concluded the proceedings.

## QUEEN'S COLLEGE, BELFAST.

### JUBILEE CELEBRATIONS.

THE celebration in connection with the opening of the new physiological and pathological laboratories at Queen's College, Belfast, of which we gave some account last week, were continued on January 20th, when Lord Lister was presented with an address by the North of Ireland Branch of the British Medical Association and by the Ulster Medical Society, and delivered an address, a revised report of which we hope to publish in an early number.

#### PRESENTATION OF ADDRESS TO LORD LISTER.

The meeting was held in the College Library, and the chair was taken by the President of the College, the Rev. Dr. HAMILTON.

The CHAIRMAN, in opening the proceedings, said it had been one of the great pleasures and advantages of those jubilee celebrations that they had brought to the shores of Ireland a number of most distinguished *savants* to joy with them in their joy, and to hearten and encourage them in their work. Amongst those there was no one whose name was more highly to be honoured, and no one whom they welcomed there more cordially, than the great high priest and apostle of antiseptic surgery—Lord Lister. When it became known in Belfast that he had kindly consented to come there and deliver an address in connection with the opening of their new laboratories, one universal feeling of satisfaction was felt, not only throughout the College, but, he might add, also throughout the entire city.

Professor WHITLA, who on rising was warmly received, stated that as President of the North of Ireland Branch of the British Medical Association, it fell to his lot to welcome Lord Lister in the name of 280 medical men enrolled in their large and flourishing Branch. In extending this welcome to Lord Lister they were joined hand and heart with the Ulster Medical Society, who this year had the privilege of being presided over by one of the most distinguished anatomists of the day, in the person of Professor Symington. Representatives of the medical profession had assembled in that room to testify their appreciation of the result of Lord Lister's life work. Whatever differences of opinion might exist between rival schools of thought or of practice, the entire profession of all countries felt as one man about the value of the results which had flowed from the brilliant labours of Lord Lister. When the two societies joined to present the address to him they little expected that the Queen would open that marvellous year of her reign by honouring the British peerage by

including in its ranks the greatest surgeon of all time, and in their address they had endeavoured to convey to Lord Lister their hearty congratulations.

The HONORARY SECRETARY (Dr. M'Kisack) then read the address which was a beautiful illuminated document.

ADDRESS TO LORD LISTER, PRESIDENT OF THE ROYAL SOCIETY, ETC.

We, the members of the North of Ireland Branch of the British Medical Association and of the Ulster Medical Society, gladly embrace the opportunity afforded by your visit to Belfast to offer you a most cordial welcome. It is no small gratification to us to be able to greet personally one whose name and fame are enshrined in the hearts of the members of the medical profession in every civilised country of the world. The name of Lister is synonymous not only with notable advances in science, but also with the most memorable and beneficent revolution in the annals of surgery. Your early researches in physiology and pathology would have sufficed to put your fame upon an enduring basis, but these formed only the prelude to your true life work, namely, the discovery, development, and practical application of the antiseptic system, which has indefinitely extended the sphere of the surgeon's art, saved innumerable lives, and materially reduced the mass of human suffering. There is no country that has not felt the impress of your genius, no land that has not reaped blessing from your labours.

We offer you our most hearty congratulations on the honour recently conferred upon you by Her Most Gracious Majesty the Queen, and we anticipate great benefits to the nation from your presence in the House of Lords. We feel sure that only one sentiment pervades the entire medical profession with regard to this most happy and auspicious event—that of lively gratification, sympathy, and approval. We pray that you may live long to reap the fruits of your beneficent labours, to extend still further the confines of knowledge, and to enjoy the admiration, gratitude, and affection of your fellow men.—We are, my lord (signed on behalf of the societies),

W. WHITLA, President of the North of Ireland Branch of the British Medical Association.
JOHNSON SYMINGTON, President of the Ulster Medical Society.
JOHN CAMPBELL, Honorary Secretary of the North of Ireland Branch of the British Medical Association.
H. L. M'KISACK, Honorary Secretary of the Ulster Medical Society.

Lord LISTER, who on rising received an ovation, said: My Lady Mayoress, my lords, ladies, and gentlemen,—I cannot but feel that the language in which Dr. Whitla has brought this subject before you has been far too eulogistic. All I can say at the present time is that I return my warmest thanks to my medical brethren in the North of Ireland for their extreme kindness in presenting to me this address. I beg them to accept my best thanks.

The CHAIRMAN, again rising, said that in the name of the College he had asked Lord Lister to do them the favour of delivering an address, and the College had been pleased and struck with the readiness with which he had at once consented, and it would be a happy memory in the annals of the College, especially in the annals of the medical school, that the laboratories which had been formally opened by the representative of Her Majesty in Ireland would in the future have associated with them a name so illustrious, a name so worthy to be honoured, and a name so deserving to be had in everlasting remembrance as that of Lord Lister.

Lord LISTER, who was again very cordially received, then delivered the address, which, as we have stated, we hope to publish, after revision by Lord Lister, in an early issue of the BRITISH MEDICAL JOURNAL.

SPEECHES BY PROFESSOR PURSER AND PROFESSOR COATS.

Professor J. M. PURSER, Trinity College, Dublin, said he felt honoured in having the opportunity to express, not only on his own part, but on that of the College with which he was connected, the heartiest congratulations to the Queen's College upon the occasion of its jubilee. He desired also to say how much they in Dublin looked up to the progressive spirit of this College. No doubt this new building would give a great stimulus to Dublin to do better than they had done hitherto, for there was a great want of improvement in many of their arrangements. The new laboratories, however, would be of little use without suitable men to carry on the work within them, and with regard to Professors Thompson and Lorrain Smith, he could say they were both gentlemen who stood in the very front rank as experimental pathologists and physiologists. At the same time neither laboratories nor professors would serve much without the students, and as one who had lived among the Irish medical students for the best part of fifty years, and who knew their good and bad qualities fairly well, he could say with pride that their good points were numerous and their bad ones very few. He felt quite sure that the support of the students would not be wanting for an undertaking of the kind which had just been inaugurated.

Professor COATS (University of Glasgow) also added his congratulations and those of his University. He referred to the fact that Lord Lister had occupied the Chair of Surgery in Glasgow for nine years, to his great popularity during that time, and to the permanent effect of his teaching. It was at Glasgow that Lord Lister began the system of antiseptic surgery that had since made his name famous, and he (Professor Coats) recalled with pleasure the fact that he was a dresser in the case in which that system was first applied by him—a case of compound fracture of the thigh in the hospital. Lord Lister, when at Glasgow, inspired the students with enthusiasm for their profession, and his influence upon them had enormous depth and power. Among his pupils at Glasgow were names now honourably known in the first ranks of the profession, including that of Macewen, who was esteemed in surgery second only to his great master, while in the University Hospital seven out of the eleven doctors occupying honoured positions there were pupils of Lord Lister. In its roll of medical professors, Queen's College had drawn largely from Scotland. The Scottish medical schools had been steadily diminished in numbers, owing to some extent to the springing up of strong schools like that of Queen's College in various parts of the kingdom. In Glasgow they used to have a good many Irishmen, but the number was diminishing every year. That was quite right, and he wished their excellent school every success and prosperity.

VOTE OF THANKS.

Professor CUMING, in moving a vote of thanks to Lord Lister and Professor Purser and Professor Coats, expressed the appreciation with which Lord Lister's kindness in coming was held, and added that the two Universities represented by Professor Purser and Professor Coats could hardly have selected better or more popular representatives.

The motion, which was seconded by Professor THOMPSON, was passed with acclamation.

Lord LISTER, in reply, said that he esteemed it a great privilege to meet such a large and distinguished company, and reiterated his best wishes for the success of the College.

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THE MEDICAL JOURNALS OF THE WORLD.—In a recent lecture Professor Laboulbène, of the Paris Faculty of Medicine, gave the following statistics as to medical journals throughout the world. In 1880 the total number was 785, distributed as follows: France, 147, of which 95 were published in Paris and 52 in the provinces; Germany, 133; Great Britain, 69; Austria, 54; Italy, 51; Belgium, 28; Russia, 26; Spain, 26; Holland, 16; Switzerland, 10; Sweden and Norway, 9; Denmark, 5, Portugal, 4; Danubian Principalities, 4; Turkey, 2; Greece, 1. The total for Europe was thus 438. To these must be added 183 for America; 15 for Asia; and 2 for Oceania, making up the grand total of 785. In 1895 the total had risen to 1,380, distributed as follows: In Europe France headed the list with 286, of which 191 were published in Paris, and 95 in the provinces and colonies. Then came Germany with 168; Italy with 140; Great Britain with 101; Russia with 86; Spain with 47; Austria with 45; Belgium with 31; Holland with 16; Switzerland with 13; Sweden and Norway with 9; the Danubian Principalities with 7; Turkey with 2; Greece with 2—giving a total for Europe of 667. America had 367, of which 343 were published in the United States, 17 in the Republic of South America, 4 in Canada, 2 in Mexico, and 1 in Brazil. To these must be added 25 published in India, 30 in Japan and China—making a total of 55 for Asia. Africa was content with 2 and Oceania with 3. M. Laboulbène points out that these figures, which were supplied by M. Dureau, librarian of the Académie de Médecine, are probably under the real number, as the Académie does not receive all the medical periodicals published throughout the world.

WHOLESALE INFANTICIDE.—A telegram from Odessa to the *Daily Mail* reports the trial of a woman and her three daughters at Ekaterinburg, during the course of which it was proved that the charge for "angel making," the euphemism applied to infanticide, was 5s. an infant. Death was brought about mainly by withholding food, and by general neglect.

# OBITUARY.

## EDWARD BALLARD, M.D., F.R.C.P., F.R.S.

THE name of Dr. Edward Ballard, whose death on January 19th at the age of 76 we regretfully announce, must be principally associated with a life of arduous devotion to the interests of public health. Distinguished in his student days at University College and at the University of London, where in 1843 and 1844 he received gold medals and scholarships, Dr. Ballard was engaged for many years in physician's practice in London. In these years of practice he did much good clinical work, some of which is recorded in his early contributions to medical societies; he was the author of a treatise on *Materia Medica and Therapeutics;* and he acted as Medical Tutor at University College and as Physician to the St. Pancras and other dispensaries.

The habit of mind, with its aptitude for exact observation and for scientific deductions from observed facts, which had made Dr. Ballard a good clinician, peculiarly fitted him also for investigation of the many urgent questions of public medicine that were then coming more and more to occupy the attention of the profession. In 1856 Dr. Ballard was appointed Medical Officer of Health to the Vestry of St. Mary Islington. This office he held, concurrently with his practice, until 1870. The first health officers of crowded and insanitary districts in London had much to contend with. Few of the existing facilities for obtaining information were then available, while the difficulties in moving local authorities unaccustomed to any comprehensive exercise of sanitary functions were great. Dr. Ballard's annual reports during his tenure of office at Islington show how thoroughly he grappled with these difficulties, and how much sanitary benefit he was able to secure for his district. They have also more than mere local interest. In them Dr. Ballard discussed, clearly and with much judgment, many questions of public health which then demanded, and still demand, the attention of scientific inquirers. Age incidence of disease, relation between occupation and mortality, sanitary effect of overcrowding, the dangers to health of trade nuisances, the relation of diphtheria to other forms of sore throat, studies of the epidemics of small-pox between 1862 and 1867 and of cholera in 1866—these and many other questions are dealt with in these reports, always in a manner which sets out clearly the observed facts, and shows the reader what logical conclusions can be drawn from them.

One of the most painstaking, as it is one of the best known of Dr. Ballard's investigations at Islington, consisted in a study of an epidemic of enteric fever in Holloway in 1870. This was one of the first recorded instances in which an outbreak of typhoid fever was traced to an infected milk supply, a fact which was conclusively demonstrated by Dr. Ballard after months of careful inquiry. Two years before, Dr. Ballard had published another important contribution to public medicine—his "Prize Essay on Vaccination." In this essay, designed for the lay as well as for the medical reader, he gave with admirable clearness and judgment a logical account of the facts which show the value of vaccination and the nature and duration of the protection which it affords. He reviewed at length the principal objections to the practice of vaccination, and made valuable suggestions for obviating danger in its performance.

In 1871 Dr. Ballard was offered and accepted an appointment in the Medical Department of the Privy Council. He filled the office of Inspector both of the Privy Council and of the Local Government Board from 1871 to 1890, first working with Sir John Simon as his chief, and later with Seaton and Buchanan. In these twenty years of inspectorship Ballard did much well known and important work. His interest in vaccination led him to obtain for the Department a mass of valuable information on the subject, and he made numerous important inquiries into the origin of local outbreaks of disease. Many of these inquiries are published in the annual reports of the Medical Officer of the Privy Council and Local Government Board; several relate to interesting epidemics of enteric fever and diphtheria, while some of the most notable deal with cases of food poisoning. An analysis of a number of cases in which disease of a specific character has been communicated or spread by the use of infected articles of flesh food, made by Dr. Ballard in 1890, gives a concise summary, to which it would be difficult now to add anything new, of the facts observed in connection with this important subject, and of the various phenomena of food poisoning which still require explanation.

Perhaps Ballard's work was seen at its best when he undertook the detailed investigation of a large subject. Two such investigations particularly call for notice. The first was an inquiry, which lasted over three years, into the danger to health arising from effluvia of different kinds. This inquiry, involving minute study of the methods employed in diverse manufactures and trade processes, and observation of the effect of effluvia from these trades and processes upon the health of persons exposed to them, was published in the Reports of the Medical Officer from 1875 to 1878, and it still embodies most of the knowledge on the subject. The other was a statistical inquiry, involving years of patient work, upon the incidence of autumnal diarrhœa in one and other parts of the country.

The opinions at which Dr. Ballard arrived as to the nature and causation of autumnal diarrhœa, reported in 1888, are well known. He himself regarded the important conclusions in this report as in constant need of revision in the light of new facts and observations, and, after his retirement from the Local Government Board he devoted himself to continuing his statistical studies of diarrhœa mortality. On this subject, which he had made peculiarly his own, as well as on other work which engaged his last years, he manifested the same energy and power of application, and the same alacrity in appreciating statistical facts which had characterised all his labours.

Dr. Ballard was a Fellow of University College, a past Vice-President of the Medico-Chirurgical Society, and an original member and frequent contributor to the Society of Medical Officers of Health. He was elected to the Royal Society in 1889.

Although Dr. Ballard had been known to be in weak health for several years, his end was comparatively sudden. A week before his illness he had been thought by his friends to be enjoying better health than he had been known to do for some winters past. But in the second week of this month he was unexpectedly seized with a sharp attack of bronchitis, to which he succumbed after a few days' illness.

We are indebted to Sir John Simon, K.C.B., who was Principal Medical Officer to the Privy Council and Local Government Board during the greater part of Dr. Ballard's connection with the Central Medical Department for the following tribute to his memory:

In answering your letter of January 21st, I am glad to express in the strongest terms I can use my admiration of the late Dr. Ballard, whom I knew with increasing intimacy for the last forty years of his life, and whom I believe to have been one of the best men, and also one of the most genuinely scientific observers who have devoted themselves to national objects in regard of the public health. Before he joined the medical staff of the Privy Council Office he had worked for sixteen years as Officer of Health for the large metropolitan district of Islington; and this with so much distinction that in 1871 he was already among the foremost representatives of English sanitary knowledge and practice; and in the subsequent service of the Local Government Board he more and more established his reputation as a thoroughly exact observer and truthful reporter on the various questions which were referred to him. The evidence which he so admirably collected on the diffusion of enteric fever by means of milk belonged to the last period of his Islington service, but the work which he did for the Local Government Board was enough to make a first-class reputation. It included not only many exhaustive reports on the conditions under which particular outbreaks of infectious disease were occurring in particular localities, but also more general studies of the distribution of disease, such as those which he made during the years 1877-9 on the effluvium nuisances connected with various branches of industry, and subsequently his very elaborate local studies of the causation of summer diarrhœa.

My impression is that in times long after our own, Dr. Ballard will be recorded as one of the chief confirmers and extenders of the sanitary science of his age; and at this sad moment of his being taken away from among us, it is indeed

touching to remember the unselfish devotion with which he pursued his work, and the qualities which deeply endeared him to his friends.

### Surgeon-Major ROBERT MANSER, M.D., Indian Medical Service.

We have already briefly noticed the death of this distinguished officer from plague contracted during the course of his duties in Bombay.

Dr. Manser, who received his medical education at Guy's Hospital, entered the Indian Medical Service, and went out to India in 1877; he served in the Afghan campaign at Kandahar, and in 1882 he was appointed Civil Surgeon at the European Hospital, and afterwards Third Physician of the Sir Jamsetjee Jeejeebhoy Hospital, Bombay. At the time of his death he had become First Physician to the hospital, and held the office of Professor of Medicine in the Grant Medical College. He was an able, energetic, and accomplished officer, and brought to the work of teaching the same characters of thoroughness. These he endeavoured to instil into his pupils, by whom he was deeply respected and beloved.

His loss will be deeply felt both at the hospital and the Grant Medical College. He was a man of strong character, and had decided views. As a practitioner he was painstaking and accurate—qualities which, being combined with long experience, rendered his opinion highly valued in consultation.

At the end of December he was called to Akalkote to see the late Rajah. He returned to Bombay on Friday, January 1st. On the following morning he looked ill and felt chilly, his temperature rose rapidly, and on January 3rd pain was felt in the left armpit, where there was slight swelling, and headache was severe. Subsequently symptoms of pneumonia developed, and the plague bacillus was found in the sputum. In spite of every care he became exhausted, delirium ensued on the evening of January 5th, and he died at 2 A.M. on the following morning. His funeral, at which the Governor of Bombay was represented, was attended by a large number of friends, both European and native. During the present visitation of the plague, Dr. Manser had won golden opinions by his devotion to duty. He had recently been appointed President of the Committee of Scientific Experts nominated by the Government to conduct investigations relative to the plague.

### WILLIAM WHYTEHEAD BOULTON, M.R.C.S.Eng., etc., J.P.

We regret to announce the death of Mr. W. W. Boulton, of Beverley, Yorkshire, aged 63 years. He was the elder son of the late Dr. R. G. Boulton, of Beverley, and was born and lived in that town, where he joined his father in practice in 1855. He was a student of King's College, London. Mr. Boulton was tall and handsome, and had a sympathetic, genial disposition, which rendered him peculiarly fitted for the large family practice which he inherited from his father. His delicate nervous organisation, however, no doubt had much to do with the cardiac asthmatic attacks from which he suffered for some years before his death, which incapacitated him for practice, and eventually caused his death on January 17th, 1897. He leaves a wife and large family to lament his loss.

Mr. Boulton was an ornithologist, and a great lover of animals, and at one time was well known as the breeder of "Cocker spaniels," which had become nearly extinct, but in his hands multiplied and took prizes at nearly every exhibition in England. Like Mr. W. B. Tegetmeier, he bred animals on scientific principles, and proved the power of selection in breeding for colour or for size. Amongs other things he introduced a new variety of "cuckoo bantam," which took prizes at many shows. It may be of interest to some to know that as a practical breeder of domestic animals he came to the conclusion that the male influenced the progeny principally in colour and outer contour, while the female was chiefly responsible for the characteristics and peculiarities of temperament, instinct, and family stamp, quality, or feature.

The death is reported of Mr. Robert Beedie Robertson, of Ardrossan, at the age of 64. After attending school in Dundee he passed to the Aberdeen University, where he went through the Arts course. From Aberdeen he went to Edinburgh, where he studied for the medical profession, qualifying as L.R.C.S.Edin. in 1859, and becoming F.R.C.S.Edin. in 1862. He went to Ardrossan thirty-five years ago. The deceased retired from practice owing to failing health about three years ago.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. I. I. Sudacewitch, Professor of Morbid Anatomy in the University of Tomsk, aged 37; Dr. J. M. Vilches, Professor of Pathology and Clinical Medicine in, and Dean of the Medical Faculty of Cadiz; Dr. M. Pantaleo, sometime Professor of Obstetrics in the University of Palermo; Dr. Georg Münch, formerly Professor of Morbid Anatomy in the University of Kieff, aged 60; and Professor Sätherberg, of Stockholm, the pioneer of the Swedish system of curative gymnastics, and one of the most distinguished poets of Sweden, aged 84.

## HOSPITAL AND DISPENSARY MANAGEMENT.

### ROYAL ALBERT ASYLUM FOR IDIOTS AND IMBECILES, LANCASTER.

The thirty-second annual report of this institution, recently issued, affords evidences of progress in its useful work as well as of continued financial prosperity. The number of patients was, at the date of the report, 559; and the total amount received during the year on maintenance account (including subscriptions, interest on investments, and payments for patients) was £19,784 7s. A sum of £3,000 has been transferred as a nucleus for an extension fund, the Committee having determined to erect additional wards for the separate accommodation of epileptics and of cripples, now scattered amongst the other inmates. The policy of making such additional accommodation an extension of the present main building is questionable. Experience has demonstrated the disadvantages incident to the aggregation under one roof of so large a mass of afflicted humanity as 800 idiots, imbeciles, and epileptics. It is a matter for congratulation that another extension, provided by the generosity of Sir Thomas Storey, is to take the form of a detached block for the accommodation of 40 feeble-minded girls. With an estate of over 150 acres there should be no difficulty in finding suitable sites for buildings for different classes of patients, who are better kept apart, as has been done with satisfactory results at the large Pennsylvania Imbecile Institution, which assumes the form of a village colony rather than a huge barrack building.

From the report of the Medical Superintendent, Dr. Telford-Smith, it appears that careful sanitary precautions are adopted in the admission of new patients, who are quarantined, and have their clothing disinfected before mixing with the other inmates. There have been, however, two somewhat extensive outbreaks of epidemic disease during the year, the one of pneumonia affecting both patients and staff, and the other of measles. The former caused the death of 7 patients and of 2 of the staff; the latter extended to 124 cases, but does not seem to have been directly fatal. As epidemic pneumonia is usually associated with insanitary conditions, it would seem desirable that the drainage and ventilation of the main building should be carefully considered before extensions are made to it. The death-rate for the year was 5.56 per cent. on the average number resident; 7 deaths are attributed to phthisis and 9 to other tuberculous diseases, out of a total of 21. Dr. Telford-Smith rightly lays stress on the importance of fresh air and sunshine as the great exterminators of disease, and we would venture to point out that these beneficent agents are more readily obtainable in simple buildings of moderate size than in an overgrown architecturally-pretentious pile. The upper floor of the detached infirmary has proved an excellent infectious hospital, great care having been taken in its construction thoroughly to isolate it from the lower portion, which is used for ordinary disorders. The thyroid treatment of sporadic cretinism is again favourably reported on, and its tentative use with patients of the Mongol type referred to. Craniectomy comes in for condemnation as the result of experience in 2 cases. Of 62 patients discharged, 14 were so much improved as to be self-supporting under supervision, 32 were moderately and 14 slightly improved, and 2 set down as unimprovable. The necessity of some form of after-care in order to make the most of the results of training is very obvious in the case of imbeciles, and we trust that the new Association for the Welfare of the Feeble-minded may help in this direction.

During 1896 the sum of £609 1s. was subscribed by the employees of Messrs. J. S. Fry and Sons, Limited, and the following medical institutions among others received the sums named: Bristol Dispensary (for notes), £210; General Hospital, £140; Royal Infirmary, £140; Children's Hospital, £55; Hospital for Skin Diseases (for notes), £27 6s. In addition the mechanics engaged in the building department subscribed £29, which has been distributed amongst various medical institutions.

The Institute of Chemistry.—At the January examinations of the Institute of Chemistry of Great Britain and Ireland seven candidates passed the practical examination for the Associateship, three the intermediate examination, and four the final examination for the Associateship. Three of these candidates are applying for the Fellowship.

## BRITISH MEDICAL ASSOCIATION.

### SUBSCRIPTIONS FOR 1897.

SUBSCRIPTIONS to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.


# British Medical Journal.

SATURDAY, JANUARY 30TH, 1897.


## THE SCHEME FOR MEDICAL DEFENCE.

WE publish on page 277 the report to the Branches of the British Medical Association, drawn up by the Special Committee appointed by the Council of the Association to consider the subject of medical defence. This Committee was appointed at the meeting of the Council on October 21st, and to it were referred the resolutions adopted at the annual meeting at Carlisle, together with the schemes which had previously been drawn up. These schemes included that provisionally adopted by the Council and submitted to the annual meeting at Carlisle, together with certain amendments to it suggested by Dr. Rentoul, a scheme drawn up by Mr. Butlin, and a scheme prepared by Dr. Welsford and Mr. Victor Horsley.[1]

It will be remembered that the annual meeting at Carlisle affirmed the principle that no scheme for medical defence would be adequate which did not provide that the privileges and obligations of medical defence should be shared by all members of the British Medical Association in the United Kingdom. It was to be compulsion or nothing. The Special Committee have therefore worked upon this basis, and, after holding two meetings, have, in accordance with the instructions of the Council, taken steps for the circulation of their report to the members of the Branches in the United Kingdom. By its publication to-day in the BRITISH MEDICAL JOURNAL it is brought under the notice of members unattached to Branches.

The scheme proposes an important new departure in the work undertaken by the Association, and is therefore worthy of the most careful consideration on the part of all the members. It will be seen that it is proposed that contribution to the funds for medical defence should be obligatory on every member of the Association resident in Great Britain and Ireland, whether a member of a Branch or unattached. All members resident in the United Kingdom would under the scheme be entitled to claim individual assistance under certain conditions, and with certain limitations which are clearly laid down in the report of the Committee.

Turning to the last clause of this report, it will be seen that it is contemplated that the work of medical defence should be undertaken under both its aspects, namely, in the first place the defence of individual members in respect of civil and criminal proceedings instituted against them, or of proceedings instituted by them for libel or slander; in the second place the more general aspect of medical defence, that is to say, the protection of the privileges and interests of members of the medical profession generally and as affected by legislation, as also the taking of proceedings under the Medical Act, the Apothecaries Act, or any other Act affecting the interests of the medical profession, is also brought within the scope of the scheme. The importance of this second aspect of medical defence will not be lost sight of in forming an opinion on the merits of the scheme. It is an aspect which affects all members of the medical profession who hold British qualifications, and it would give to the work a public character, since it is a public service to enforce the laws which the Legislature has passed for the protection of the public against the impositions of unqualified practitioners.

The scheme proposes the appointment of a Standing Committee, consisting of nine members, of whom four may be members of the Association who are not members of the Council. It is proposed to give to this Committee absolute discretion to give or withhold assistance.

This Standing Committee would have power to incur expenditure up to the limit of £200 in any particular case without reference to the Council, but expenditure beyond this amount would require special sanction. The liability of the Association is limited by the proviso that under no circumstances shall the damages incurred by a medical man in any proceeding be paid by the Association. Discretion would also be given to this Standing Committee as to the mode in which the cases should be conducted, whether under the direct supervision of the Committee itself, or under the supervision of a Branch, or by any other body or person. The only specific limitation of the freedom of action of the Standing Committee would be that it would be required, before taking any legal action within the area of a Branch, to communicate with the Secretary of that Branch.

The scheme proposes that the Standing Committee should have the services of a paid Organising Secretary, and should be empowered to obtain the advice of a solicitor. It proposes, also, that the annual subscription for defence purposes required from members of the British Medical Association resident in Great Britain and Ireland should be some sum not less than five shillings, and that, if at any time increased, the amount should not exceed ten shillings. The accounts in the matter of medical defence would be kept entirely distinct from the general accounts of the Association. Members of the Standing Committee would receive travelling expenses, but no fees for attendance unless at some future time the Council of the Association should be of opinion that the medical defence funds justified the payment of such fees.

There is one proposal in the scheme to which we have not yet referred, but which might not improbably prove to involve duties which would be among the most important and onerous to be undertaken by the Standing Committee. It is the paragraph which proposes to entrust to this Committee the settlement of disputes between members of the medical profession and the duty of adjudicating upon questions of professional conduct and etiquette. Disputes between individual members of a numerous profession such as ours must inevitably arise, and it would be to the advantage both of individual members and of the profession at large that there should be means of bringing them speedily for

[1] These schemes have been published in the BRITISH MEDICAL JOURNAL of the following dates: Council's scheme June 27th, 1896, p. 1575, and July 18th, 1896, p. 137; Mr. Butlin's scheme, June 27th, 1896, p. 1576; Dr. Welsford's scheme, February 8th, 1896, p. 350.

adjustment to the friendly arbitration of an impartial tribunal.

The first question submitted by the Special Committee to Branches states very clearly these two aspects of medical defence—the individual and the collective; and it is well that in all discussions upon the subject these two aspects should be borne in mind. The second question asks for an opinion on the scheme as submitted to the Branches, and the third for suggestions as to any amendments which may seem to be desirable.

## THE SICK CHILDREN'S BOARD.

IT is with considerable satisfaction that we have learnt that at last the Local Government Board have moved with regard to the many sick children to be found in the large metropolitan pauper schools.

Their proposal is to form "the several unions and separate parishes in the metropolis into a district, for the purpose of the relief of certain classes of children." The classes to which it is proposed the scheme shall apply are "children suffering from ophthalmia, contagious diseases of the skin or scalp, children requiring either special treatment during convalescence or the benefit of sea air, children who by reason of defect of intellect or physical infirmity cannot properly be trained in association with children in ordinary schools, and children who are ordered by the Industrial Schools Act to a workhouse or asylum in the district."

Such, then, are the classes of children who are to be dealt with. Let us see who are to deal with them. Shortly, the guardians, and the guardians only, with the exception of such few persons as the Local Government Board may see fit from time to time to nominate to serve with them. The Board is not to be elected by, or in any sense to be directly responsible to the ratepayers. The fifty-five guardians of whom it is to consist are to be elected by the guardians of the unions and separate parishes concerned. Thus the old and often condemned system of indirect representation is to be revived.

It will be remembered that the Poor-law Schools Committee were to all intent unanimous in recommending the appointment of a Central Metropolitan Board, which would have the care of all the London pauper children. At first sight it may appear as if this newly constituted Board were in accordance with that recommendation, and a step in the right direction, but a closer examination into the facts of the case will show the dangers, difficulties, and inherent weaknesses of the new proposal.

In this JOURNAL it will, we believe, be unnecessary to prove that the aggregation of numbers of young persons is in itself productive of certain diseases of malnutrition, and that the system lends itself to the spread of zymotic diseases, as well as ophthalmia, ringworm, and contagious disorders of the skin and scalp. The simplest method of reform, therefore, would seem to be not to constitute a new Board in order to remedy the results of a condemned system, but to appoint a Board which would aim at the abolition of the barrack schools, in the fruitful soil of which disease takes root and weakness abounds.

The Central Board as recommended by the Departmental Committee was to have possession and control over all the existing buildings. This would have enabled them to sell some, and administer others for special purposes, after due classification had been secured; but, as we understand it, this Board is to have no such jurisdiction. It is to begin work with some 1,000 or 1,500 sick children and no appliances. It can therefore only build, and once more, it is to be feared, we shall see a repetition of the policy of the guardians with their uncontrolled expenditure, multiplied institutions, ineffective results, and persistent inability to see virtue in any plan for children but that of institutions.

Recognising the policy that it is wise to accept the gifts of the gods, even although they are not such as we should ourselves have chosen to receive, we would urge that public pressure be brought to bear to induce the Local Government Board to extend the powers and responsibilities of this newly-created body.

But the powerlessness of the new Board is not the only matter which calls for attention; its size will render it unnecessarily cumbersome; its personality will be wanting in variety and representative character. As it stands, its work is too small and its responsibilities too limited to attract the services of the best men and women, and we very much doubt whether Boards of Guardians as now constituted could supply enough persons of suitable social standing and educational status to adequately man such a Board. Selected, as this must be, primarily and for all majority purposes solely from the guardians, we confess we view the future of the sick children committed to its care with anxiety, because the guardians have not shown themselves hitherto to have been specially suitable for administration which is hygienically successful or financially economical.

We do not, however, understand the draft order to be anything more than a tentative scheme put forward with a view to ascertaining the opinions of the guardians and those who are otherwise generally interested. It would be anticipatory to predict those opinions. There can be no doubt that certain guardians will be chagrined at discovering that in the opinion of the Local Government Board they are no longer to be counted fit to manage their sick children, and that they are required to hand them over to a body which will be financially as well as organically beyond their control.

On the other hand there will be some who will see in the proposed Central Sick Children's Asylums Board the seed of the larger Metropolitan Board, which it is ultimately hoped will have the care of all the London Poor-law children and institutions. A careful study of the subject, not only from the purely professional point of view, but in its ethical and economic aspects, extending now over many years, disposes us to advocate that every possible influence be brought to bear to induce the Government to make this new Central Board a strong, powerful, and responsible body—one fit to command public confidence, and to do what must ultimately be done, namely classify and segregate the children until they are absorbed into the working class population.

## NURSES *À LA MODE*.

IT is gratifying to those who wish well to the nursing profession to see that the lay journals are opening their pages to a discussion on the present phase of private nursing. We have before us an article in the current number of the *Nineteenth Century*, from the pen of Lady Priestley, and in the *National Review* two articles have followed each other on the same subject. The

question of nursing concerns closely members of the medical profession, and no doubt in some cases the success of treatment is largely due to the services of the trained nurse at the bedside. It is because of this that Lady Priestley has sharply criticised the nurse *à la mode*. Everything that this lady writes is entitled to respect, but there are reasons for a divergence of opinion.

Lady Priestley casts longing eyes on the Roman Catholic Sisters and the nurses of the religious community, and seems to imply that a return to that or some analogous system would work the cure for the evils of which she complains. Is not this to introduce an element foreign to the discussion? No one will deny that a high religious ideal in the individual enhances the value of the worker in any calling, but it will not take the place of technical skill; moreover, in our present social system the "religious" nurse is by no means generally asked for. Nursing by the religious orders abroad is not always such as to recommend itself to the English practitioner. Lady Priestley appears disposed to consider that the modern nurse is arrogant and dictatorial, flighty and frivolous: that she is overtrained and underbred, an *intriguante* of the first water, a matrimonial adventuress, and an expensive luxury of doubtful utility. These are grave charges, and should cause searchings of heart to all who are responsible for her existence. But is this a fair picture?

In the first place the writer of the article is speaking of the private nurse, after all only a section of the great body of nurses who, in the hospital, the district, and the workhouse, are doing work of which anyone may be proud. For one nurse who figures in the police reports, or is the heroine of the unsavoury romance of the divorce court, there are hundreds, nay thousands, of good women who, true to the best traditions of their sex, are quietly doing their duty by their patients and their employers. Hence it seems hardly just to judge of a class by those who attain the unenviable notoriety of the evil-doer.

But though doing battle for nurses as a class, it must sorrowfully be admitted that there is some justification for Lady Priestley's charges in the modern development of the private nurse, and for this development the public is much to blame. A sensational phase has crept into the employment of the sick nurse which is the opposite of a sober business-like transaction; there is a prevalent impression that she must be young, attractive, of fascinating manners, well dressed; the supply has adjusted itself to the demand, a fact that is now, we are told, pressing heavily on many a middle-aged nurse who finds that her experience counts for little if she be past her first youth. We are quite in accord with Lady Priestley in her wish that more discrimination were exercised by the heads of institutions in selecting a nurse for an engagement; as the nurses exist for the public, the rule of rotation should give way when the exigencies of the case require. To send a young nurse to be the sole companion of the bachelor in his chambers, or to keep her dangling after a man through an idle convalescence, is not seemly; the question of sex cannot be ignored. Though accepting the fact that the relation between patient and nurse, as between patient and doctor, is a purely professional one, still it is necessary to take into account that the situation may become strained, and then the business side of the question goes to the wall.

We do not feel sure that the hospital authorities and the medical staff have acted wisely in allowing the control of this important section of the nursing profession to slip from their hands; this has resulted in the creation of the nursing agencies which, whether in their own or the nurse's interest, have done much to contribute to the existence of the undesirable private nurses, of whom Lady Priestley complains. One of the remedies she suggests is the evolution of a lower grade nurse who will sell her services more cheaply; on the other hand there are good grounds for holding the opinion that before a nurse shall be allowed to practise her profession she should be thoroughly equipped, nor do we see that only those who can afford a higher figure should be served by the highly trained nurse. In the public interest the nurse should be fully trained, and then it is only fair that she receive the proper market price for her services. If the employer cannot afford that, then the nurse has an opportunity as an act of grace to lower her fees.

In the article on which we are commenting, the writer quotes, from Dr. Charles West's recent work on the *Practice of Medicine*, a passage which is worthy of the fullest consideration, as the opinion of one who early in the sixties was in the van in this very work of improving the nursing of the Hospital for Sick Children. Dr. West speaks of the private nurse as a "free lance" under no discipline. It is so, and this state of the case must be fully faced before the root of the evil can be reached. She is not really under the control of the head of the nursing institution, her work is subjected only to the criticism of the family, in regard to which she can maintain an independent attitude so long as she can please the medical attendant. It must be admitted, however, that it is difficult to make any suggestion as to the provision of an effectual system by which discipline may be maintained. Under these circumstances it appears that the remedy, such as it is, must be applied during the period spent in the hospital; and here it may be questioned whether the tone maintained in the schools of training is such as will best fit the probationer for the work that lies before her. Has there not been too much sentimentality talked about the "sadness and strain" of the nurse's life, and therefore the urgent necessity for amusement? Are not matrons and governors somewhat to blame in encouraging the probationer to think that amusement comes first, and sick-nursing second?

With regard to the charge that the nurse is quite ready to assume the *rôle* of the doctor, this again seems to be a hasty generalisation; because occasionally a conceited young woman scoffs at a surgeon as being behind the age and airs her technical terms in the hearing of the unlearned, it does not follow that the majority of nurses are guilty of such indecorum. But there is ground of complaint that it has been the tendency of late to develop the theoretical side of the training until the average probationer has more theory to learn than she can assimilate or put in use in her practical work. From this point of view there is much to be said in favour of the old system, which kept the probationer entirely to practical work for the first year; at least it taught her the importance of practical knowledge and diminished the physical and mental strain, leaving her more leisure to understand her bedside work and its various technicalities. As the scientific teaching is mainly in the hands of the medical staff, it rests with them to frame such a course of lectures as shall meet the wants of the nurse without being

so full of detail as that prescribed for the medical student. It is difficult to hit the happy mean, but we feel sure that if the teachers of the nurses will endeavour to look at the science question from the standpoint of the nurses' work such a course may be evolved.

Young and immature women should be rigorously excluded from the hospitals, and in awarding the marks for examination the highest place should be given to practical work. The wearing of the uniform off duty ought to be discouraged, and positively forbidden in all places of amusement. And lastly the heads of the training schools should use their best endeavour to manage these establishments on a business-like footing. Still, in the end, the whole question is in the hands of the public, and when a healthy opinion is created on the nursing question the style of nurse for private work will improve.

Professor Paul Ehrlich, of Berlin, Director of the State Central Station for Diphtheria Serum, has been named a Medical Privy Councillor.

The municipality of Mexico has given the name of Pasteur to the gardens situated in front of the National School of Medicine in that city.

## STATUES TO PASTEUR.

The subscriptions in France and other countries for a statue to Pasteur now amounts to more than £10,000. M. Paul Dubois has been selected as the sculptor, and the site for the statue will probably be the space between the Rue de Médicis and the Luxembourg Gardens. More than £20,000 has already been spent in the erection of statues of Pasteur in various parts of France.

## BRITISH PORTS AND THE PLAGUE.

Under the directions of the President of the Board, Dr. Thorne Thorne, C.B., Principal Medical Officer of the Local Government Board, has made arrangements that all ports in England and Wales having relations with British India are to be visited by medical inspectors of the Local Government Board. Dr. Thomson, Dr. Bulstrode, and Dr. Reece have already begun their inspection, and visits to the Ports of London, Plymouth, Bristol, and Gloucester are now in progress. The object of these visits is much the same as that which was so satisfactorily carried out in 1892 and the two following years, when there was grave risk of the importation of cholera into this country.

## THE MICROBE, ANTITOXIN, AND VACCINE OF RINDERPEST.

Dr. W. J. Simpson, Health Officer of Calcutta, continues his experiments in rinderpest. The results which he has obtained up to the present time are as follows. In the latter part of 1894, while carrying on some experiments with the object of elucidating the origin of small-pox, Dr. Simpson discovered the microbe of rinderpest, and soon after began certain experiments with this microbe. The stage to which these experiments had reached in the early part of this year is set forth in the preliminary note which appeared in the British Medical Journal of May 9th, 1896. In May last Dr. Simpson visited the laboratories of London and Paris with the object of becoming thoroughly acquainted with all the most recent methods of preparing antitoxic and bactericide serum, believing that for a disease such as rinderpest this is the only direction in which a curative for the disease can be found. Since his return to India he has been engaged as far as his spare time would allow in advancing his experiments in this direction. In connection with these experiments a horse and a bull have been rendered quite immune to the rinderpest microbe, so much so that if a large and fatal dose of the microbe is given to a healthy animal, and at the same time a similar dose be given to the immune animal, the former will die of rinderpest and the latter will remain quite unaffected. From these highly immune animals which have been rendered so by four months' treatment, Dr. Simpson proposes to obtain antitoxic and bactericide serum, and try its curative effect on animals affected with rinderpest. He finds also that by treating the microbe in a certain manner and inoculating it into healthy animals, a non-fatal and mild form of the disease is produced in them, and his experiments as far as they have gone (though it is necessary to carry them further) tend to show that those which suffer from this mild disease are protected for some time at least from rinderpest. This he calls the rinderpest vaccine, as distinguished from the antitoxin and bactericide serum.

## THE BENIN EXPEDITION.

The *Malacca*, the hospital ship for the Benin Expedition, sailed from the Albert Docks on January 23rd. Her departure was witnessed by the First Sea Lord of the Admiralty, Sir Frederick Richards, and by the Director-General of the Medical Department of the Royal Navy. Sir James Dick may well feel proud of the speed and completeness with which the department under his direction has achieved the task of transforming an ordinary P. and O. cargo vessel into a splendidly equipped hospital ship. Practically the change was accomplished in five days. The vessel had first to be cleared to receive the hospital fittings. We have already described the nature of the change made. The orlop deck has been converted for the use of convalescents. No. 2 hold is fitted as a hospital ward, with steel swinging cots provided with punkahs. There is a second hospital deck at the after end. The operating room is provided with an oak operating table securely fixed to the deck. The room is lighted by electricity, and a movable light attached to a flexible cable is provided. An irrigator is suspended from the ceiling, and two glass barrels for antiseptic solutions are properly secured by brass bands with india-rubber stays to the side of the ship. The room has a sink supplied with hot and cold water, and is fitted with one of Schimmelbusch's sterilisers heated by methylated spirit. Adjoining is the dispensary fitted with a solid counter, desks and cupboards, as well as with a sink supplied with hot and cold water. These rooms have been fitted up by Messrs. Evans and Wormull. There is a special ward containing four cots for officers, and accommodation for nine convalescent officers and for the three nursing sisters—Miss Isabella Smith, Miss Kate M. Negus, Miss Eva M. Keogh. The medical staff is as follows:—Fleet-Surgeon Michael Fitzgerald, Staff-Surgeon G. P. Gipps, and Surgeons J. Grant, G. Macgregor, H. Way, and E. Sutton.

## DIPHTHERIA IN LONDON.

The deaths from diphtheria registered in London last week showed an increase, 63 fatal cases being recorded, against 49, 71, and 52 in the three preceding weeks; this number exceeded by as many as 30 the corrected average in the corresponding weeks of the ten preceding years. The notifications of diphtheria in London, which had been 318, 238, and 211 in the three preceding weeks, rose to 236 last week. The increase was most marked in South London, due principally to a considerable increase in the prevalence of diphtheria in Camberwell, where 31 new cases were notified, against but 15 in the preceding week; and in Battersea 17 cases were notified, against 10 and 5 in the two preceding weeks. In West London there was a further increase in the prevalence of the disease, principally in Paddington, where 10 new cases were notified, against 1 and 6 in the two preceding weeks. In North London, however, there was a marked decline in the prevalence of diphtheria, the 39 new cases being fewer than in any week for some months past. The slight rise in the

number of notified cases in East London last week was due to a marked increase in the prevalence of diphtheria in Mile End Old Town. The admissions of diphtheria patients into the Metropolitan Asylums Hospitals during last week were 93, against 114, 103, and 108 in the three preceding weeks; and 874 patients remained under treatment in these hospitals on Saturday last, January 23rd.

## THE DIAMOND JUBILEE AT PORTSMOUTH.

THE Mayor of Portsmouth and the Hospital Committee are hoping to celebrate the longest reign in English history by at least commencing the erection of a new hospital. The existing building is very defective, and quite out of date, and the humane enterprise of erecting a new building on modern lines, to celebrate the sixtieth year of the Queen's reign, must create much enthusiasm in the loyal centre of Portsmouth, which enjoys the reputation of being the chief naval arsenal in the kingdom. The Committee have retained the services of Mr. Keith Young, and we hope to have something more to say upon the matter when his plans for developing a new hospital on the present site are under consideration.

## THE JENNER SOCIETY.

WE are requested to direct attention to the fact that the Jenner Society issues publications of various kinds dealing with the question of vaccination and small-pox, and that any person who wishes for information on the subject can obtain it by applying to Dr. Bond, the honorary secretary of the Society at Gloucester.

## UNQUALIFIED PRACTITIONERS AND THE PUBLIC.

A RECENT issue of the *Durham County Advertiser* contains a report of a public meeting held in the schoolroom, Langley Moor, for the purpose of hearing an address on The History of Medicine, by a Mr. J. Tempest, to whose name are attached the letters M.D., LL.D. We have been unable to find the name of Mr. Tempest in the *Medical Register*, and his claim to give an address upon the history of medicine seems no better founded than his qualifications for practising it. The meeting was really to eulogise a so-called system of medicine which the lecturer described as the "American Reform System." He went on to state that this peculiar method of treating disease was by remedies purely herbal. He deprecated the "other system" practised by the "regular doctors," because they used minerals which could not, he said, be otherwise than harmful to the human system. "He had no hesitation in saying that in the past 500 years more people had been poisoned by mineral medicines than had been destroyed by all the wars and pestilences that had yet visited the earth." It is amusing to find that "herbalism" should after so many years be described either as something new or as something "made in America;" and why the mineral world should be so abused when the vegetable kingdom possesses so many rank poisons is hard to determine. Another meeting was held in the same place on the following evening, but not for such a peaceable purpose as listening to an address upon the history of medicine. It was held to consider the conduct of the coroner of the district, who had apparently performed his duty by holding an inquest upon the body of a woman who had been attended by "Dr." Hudspeth, an unqualified person! The coroner had been held up to public derision because he had stated in court, according to the report from which we quote, that Mr. Hudspeth was "actionable for attending the case, and for giving a certificate of death." Mr. Hudspeth's qualification entitling him to the privileges of a registered practitioner was described as one "recognised by Somerset House and the Board of Trade." What this phrase may mean we do not know, but it may be remembered that the Council of Safe Medicine, Limited, was a company which some time back was registered at Somerset House under the Companies Act, and was the subject of an action—the Attorney-General obtaining an injunction against those forming it, and thereby putting a stop to any further distribution of its "degrees" of M.D.B.C. (Doctor of Medicine, Botanic College). In addition to considering the conduct of the coroner, the meeting proceeded to hear a "practical demonstration of the superiority of medical reform," whatever that may mean. We conclude by the speeches which followed that medical reform is another name for unqualified practice, because "Dr." Steele, "Dr." Temple and others warmly urged their hearers not to employ in cases of illness "drug doctors," or any other treatment than the herbal medicines advocated by them. In the end a vote of confidence in "Dr." Hudspeth was proposed, and, we need hardly say, unanimously agreed to. It may be interesting to our readers to learn that one of the speakers suggested that a "Medical Defence Association" should be formed to defend the principles of the reform system of medicine.

## THE INTERNATIONAL SANITARY CONFERENCE.

IT is announced that all the Powers have agreed to send delegates to the proposed International Sanitary Conference, and that it will assemble in Venice on February 10th. India also will be represented. France will be represented by M. Barrère, the French Ambassador in Switzerland, and by Dr. Brouardel, the Dean of the Paris Medical Faculty, and Dr. Proust, the President of the Consultative Hygienic Committee. Switzerland will be represented by Dr. Carlin, the Minister in Rome of the Federation, and by Dr. F. Schmid, Director of the Swiss Department of Public Health.

## THE VACCINATION WEATHERCOCK AT GLOUCESTER.

IN November last the antivaccinators endeavoured to make great capital, both at Gloucester and elsewhere, of the results of the elections to the City Council, by which a certain number of Conservative members of the Council were evicted, and their places taken by Liberals. Most of these latter belonged to a so-called "Independent" party, which had been formed just previously by a combination of an active municipal agitator, who is himself an advocate of vaccination, and of his friends, who posed as Independents, with men who are equally opposed to vaccination. The result of this manœuvre, backed up as it was by a most violent attack on the Sanitary Committee of the City Council, who were most of them Conservatives, was to oust the chairman of the Sanitary Committee, and also a medical member of the Committee, from their seats, and to bring about the election of a combination of Liberals and Independents, including the secretary of the local branch of the Antivaccination League. This was claimed as a great antivaccination triumph, and as a proof that Gloucester was more strongly opposed to vaccination than ever. We took some trouble at the time to investigate the facts of the case, and thought it well to explain what they really were. The accuracy of the explanation of them which we then gave has been fully confirmed by the result of a by-election which has recently taken place in one of the wards of the city, to fill up the vacancy caused by the death of one of the councillors who was elected in November. On this occasion there were three candidates: a Conservative who was defeated at the November election, and who made no statement as to his views on the subject of vaccination, but who was dubbed by the antivaccinators a "coercionist;" a local tradesman, who came out under the auspices of the Liberal Association, and who announced himself a believer in vaccination but opposed to compulsion; and one of the leaders of the antivaccination party, who posed as an "Independent." During the course of the election a very pretty squabble arose between this candidate and his friends and other members of the Independent faction, charges and recriminations of the most personal character being freely bandied about between them. Indeed, the leader of the Independents, who had incurred the ire of the antivaccinators for deserting them, was openly charged with

dishonesty. The result of this split in the Liberal party was that the "coercionist" candidate came in at the head of the poll, beating his two opponents put together, the antivaccinator being at the bottom of the poll with a merely nominal number of votes. The following are the actual numbers: Hatton (Conservative), 589; Beale (Liberal A.C.), 412; Baker (Independent A.V.), 27; Conservative majority over both opponents, 150. We have thought it worth while to put these facts on record, not only because the results of the November elections were trumpeted all over the country as a proof of the increasing progress of the antivaccination agitation, even in a city which had undergone the terrible experience of Gloucester, but because it was currently rumoured at the time that the Government had been materially impressed by these statements and were likely to be influenced by them in the Bill which they were understood to have in preparation to give effect to the recommendations of the Royal Commission. It is sincerely to be hoped that the Government will not be misled by such plausible misrepresentations as this into capitulating to an agitation the noise of which is out of all proportion to the real intellectual, social, or political weight of those by whom it is made. There is indeed plenty of enthusiasm at the bottom of the antivaccination agitation, but it is the enthusiasm of a mere handful of soldiers in buckram, who trot backwards and forwards over the stage, blowing their trumpets and beating their drums as if they were a veritable army, and with declarations of coming victory which are calculated to mislead the ignorant.

## OUT-NURSING OF HOSPITAL PATIENTS.

A SCHEME is put forward in connection with Guy's Hospital for the nursing of out-patients, and of in-patients who are discharged from the wards, who for some valid reason are unable to go to convalescent homes, and for providing them with medical requisites. It is proposed to place a trained nurse in each district surrounding the hospital, and it is estimated that the services of one nurse would suffice for the wants of each district. A fund is being raised for this purpose to provide £100 for each nurse, and it is intended for the present to place one nurse in the Home of St. Olave's District Nursing Association in Bermondsey. It is urged by the promoters of the scheme that it will increase the capacity of the hospital by removing such patients to their own homes whose treatment can be undertaken and completed at home. An experienced correspondent writes with reference to this subject: "There is much in this scheme to recommend it, especially in the case of the out-patients; the out-patients at the Hospital for Sick Children, Great Ormond Street, have been visited regularly by the sisters attached to the department for a great number of years with manifest advantage to the little patients, so that for that part of the scheme I have nothing but praise. The weak part of the proposal appears to be that the nurse is dissociated from the hospital and placed in another community of nurses with which she has no connection, thus removing her outside the range of hospital supervision. As it is to be presumed that she would be daily in attendance at the hospital to receive her instructions, would it not be possible to house a staff of these outdoor nurses in connection with the hospital? Nothing but good can come of the systematic nursing of the poor in their own homes.

## EDINBURGH ROYAL INFIRMARY.

WE very much regret to hear, and the regret will be shared not only by old students of the Edinburgh Medical School, but also by the profession at large, that for some time back an unfortunate state of tension has existed between the managers and staff of the Edinburgh Royal Infirmary. Everybody has been in a state of animated expectancy as to what is going to happen next. It is difficult to understand how or why this should have arisen. Probably it is due to the rather misdirected zeal of a small section of the managers, who wish to teach the members of the medical and surgical staff that they are servants, and may be thankful to take what they get from their masters. This is shown in many ways. The most persistent form is a craze for economy. It should be remembered that the hospital is one of the wealthiest corporations of the kind in the kingdom. How far economy is now carried will be gathered from a single instance. An instrument is wanted; it may be one of trifling cost. Forthwith the medical superintendent (we presume he is ordered to do so) sends out requests for estimates from the surgical instrument makers and the Medical Supply Association. If there is a difference, even to the extent of a few pence, the chances are that the lowest estimate is taken. It may follow that the surgeon finding the instrument useless naturally refuses to have it, and provides one at his own cost. Making new rules is another way of escape for this misplaced zeal. Rules are made, unmade, amended, abrogated, till no one knows what they now are. The whole is likely to be crushed under the superincumbent mass of rules. A Committee of the managers have for a year or more been engaged on this entertaining task. One of the rules sought to declare that if any member of the staff accepted a seat on the Board, he *ipso facto* should be held to have resigned his staff appointment. This rule was ultimately accepted by the whole Board by the casting vote of the chairman. It is most important to note this, because efforts have been made to evade the fact. These rules had to be revised by the Court of Contributors. That was carefully done by a Committee, whose report was received on Monday, January 18th. By a majority the revising Court struck out the rule in question, which kills the matter for another year at least. We must deprecate the spirit which certain managers of this great institution have brought into the discussion. We maintain that there should always be a definite medical representation on the Board if the hospital is to retain its prestige. It is a matter of history that members of the staff have ere now been on that Board with only advantage to the interests of the hospital. No one will dare to deny that the presence of Sir James Simpson and Sir Robert Christison at the Council seat had other than such effects. But there were men of light and leading at the Board in those days, men who were not inflated with a sense of their own importance, men who laboured with the staff to secure the highest efficiency of the hospital. The members of the present staff are working for the best interests of the hospital, the advancement of medical and surgical science, and not for their sole self-interest. But their best work cannot be done unless the whole management of the hospital is going harmoniously. If it does so the staff is quite capable of keeping up, and even advancing, the prestige which the hospital has for so long a time rightly held.

## OPERATION FOR PERFORATION IN TYPHOID FEVER.

AN extremely interesting discussion took place at the Royal Medical and Chirurgical Society on Tuesday on the operative treatment of perforation in enteric fever. Two papers were read on two cases, on each of which Mr. Bowlby operated. Both the patients were convalescent and both recovered. In Dr. Lauder Brunton's case perforation occurred, but the symptoms were not nearly so severe or so suggestive of perforation as in Dr. Herringham's patient, in whom laparotomy revealed the fact that there was no perforation, peritonitis, or other apparently sufficient cause for the extreme gravity of the symptoms. The colon was packed with scybala, and this appears to have been the cause, for they were removed by enemata directly the operation was over, and the patient straightway recovered. Constipation and subsequent colic must therefore be borne in mind as a possible cause of alarming symptoms, and should render caution necessary in allowing long-continued

inactivity of the bowels to occur in typhoid fever. For such a course may bring about results closely simulating the accident—perforation—which prompts its adoption. The two cases form a striking contrast, and seem not only, as Dr. S. Phillips pointed out, to emphasise the difficulty of diagnosing with any certainty whether perforation has or has not taken place, but also to throw doubt on the view that perforation may be recovered from spontaneously. For in Dr. Herringham's case the symptoms justified an emphatic diagnosis of perforation, and, had not operative proof that no perforation existed been provided, it would fairly have been regarded as a case in point. Mr. Sheild referred to an interesting case in which the symptoms of perforation of the bowel occurred after typhoid fever, but were found to be due to perforation of the gall bladder. Both the patients referred to in the papers were convalescent and in good condition, and therefore bore the operation well: and it is in such cases, as Dr. Goodall pointed out, that operative measures may be expected to succeed. But it must be borne in mind that the majority of cases of perforation in typhoid fever are met with during the course of the fever when the patient is in a most unfavourable state for operation. Cases for operation, therefore, must be carefully selected, or the operation, on which Dr. Brunton and Mr. Bowlby are to be sincerely congratulated, will be discredited rather than established.

## LECTURES AT THE COLLEGE OF SURGEONS OF ENGLAND.

THE Hunterian Oration by Mr. Christopher Heath will be delivered before the College on Monday, February 15th, at 4 P.M.: Dr. Starling's Arris and Gale lectures on the Changes in the Circulation Consequent on Heart Failure, will be given on Monday, February 22nd, Wednesday (24th), and Friday (26th), at 5 P.M.: the Erasmus Wilson Lectures by Mr. W. G. Spencer, F.R.C.S., on the Pathology of Lymphadenoid Structures on Monday, March 1st, Wednesday (3rd), and Friday (5th), at the same hour. Mr. A. W. Mayo Robson's lectures on Diseases of the Gall Bladder and Bile Ducts and their Surgical Treatment will be given on Monday, March 8th, Wednesday, March 10th, and Friday, March 12th; and those of Professor Charles Stewart on Joints and Flexible Bonds of Union in Plants and Animals on Monday, March 15th, Wednesday (17th), Friday (19th), Monday (22nd), Wednesday (24th), and Friday (26th), also at 5 P.M. We have already announced that Mr. D'Arcy Power's lectures on Intussusception will be given on Monday, February 8th, Wednesday (10th), and Friday (12th). These lectures will be given at 5 P.M.

## A NEGLECTED RESPONSIBILITY OF EMPIRE.

THE article which we print to-day on a Condition Necessary for the Transformation of the Malaria Crescent, by Surgeon-Major Ronald Ross, I.M.S., is a valuable contribution to our growing knowledge of an interesting, as well as a highly important, subject. In England too little attention has been paid to the many pathological and biological problems offered by malaria: but were we more cosmopolitan in our sympathies, and had we a more scientific and broader grasp of pathology; did we even attempt to rise to our imperial—including medical—duties towards our fellow-subjects in the tropics, this matter of malaria would bulk much bigger in our eyes than it does. Malaria is, perhaps, the most important disease affecting mankind. It is not so dramatic as plague or cholera, but, nevertheless, in the aggregate it is infinitely more deadly, and, therefore, proportionately, infinitely more deserving our attention. We trust Indian observers and Indian authorities will not lose sight of the humbler and more familiar disease now that such a dramatic affection as plague is occupying public attention, and that genuine investigators, like Surgeon-Major Ross, will still continue to receive every encouragement and opportunity to pursue their self-imposed inquiries into that disease, which, like the poor, is always with them. By his observations he has effectually confuted the many followers of the Italian School, which maintains that the crescent and flagellated forms of the malaria parasite are but degeneration or involution forms possessing no significance in the life-history of the parasite. His experiment of protecting the crescent body from the influence of the atmosphere by enclosing it in vaseline and thereby repressing development, and afterwards of bursting the vaseline balloon and exposing the crescent, thereby securing development, is as beautiful in its simplicity as it is scientific in its conception and convincing in its results. Exflagellation is clearly a developmental process. We cannot say that Surgeon-Major Ross has so conclusively proved his other point, namely, that the addition of water to the blood, or the withdrawal from the blood, is the immediate cause of crescent transformation: but he certainly has proved that exposure to some influence which is not encountered in the vessels, but which is present in the air and in the stomach of mosquito and leech, is at the root of this striking phenomenon. This matter of the nature of the process of exflagellation is no trivial scientific curiosity, for on the settlement of its developmental nature hangs the future of our knowledge of the life-history of the malaria germ outside the human body—a problem possibly carrying in its train vast consequences to mankind. We congratulate Surgeon-Major Ross on what he has already accomplished, and trust it is an augury of fruitful discovery in the future.

## LONDON POST-GRADUATE COURSE.

THE spring term (eighth year) will commence on Monday, February 15th, and classes will be formed at Blackfriars (Skin), at Bethlem (Mind), the London Throat Hospital, King's College (Bacteriology), Cleveland Street (General Medicine and Surgery), Parkes Museum (Hygiene), and at the Institute of Preventive Medicine (Clinical Chemistry). The practical character of the instruction has proved of great service to practitioners who have joined the classes. Further efforts are being made to make the teaching continuous throughout the year so as to offer facilities to medical visitors at all seasons. Entries are now being received by the Secretary, Dr. Fletcher Little, 32, Harley Street, W.

## THE PRESIDENCY OF QUEEN'S COLLEGE, CORK.

THE pending election to the office of President of Queen's College, Cork, is exciting much interest throughout the medical profession in the South of Ireland. It is understood that the contest lies practically between Dr. Henry Corby, Professor of Midwifery in the College, and Sir Rowland Blennerhassett, Inspector of Reformatories and Industrial Schools. Professor Corby has had a long connection with the College as student and professor, and apart from the fact that the promotion of a member of the professoriate is desirable as stimulating the zeal of the professors of the College, Professor Corby's services in the medical faculty, which are now, we believe, the longest in the College, would seem to fit him peculiarly well for the office of President. The medical school forms an important integral part of the College, and for the head of a teaching institution it seems obvious that a person experienced in teaching should be chosen. The late President Sullivan was a bright example of the advantages of such appointment. He had been Professor of Chemistry in the Cecilia Street School of Medicine in Dublin, and under his guidance modern improvements had been introduced into the Cork College which have enabled the Medical School to keep pace with the advance of medical science. It is every way desirable that this historic tone should be continued, and that we should see at the head of Queen's College, Cork, a member of the teaching staff of long experience in its needs. It will be remembered that for the successful annual meeting of the British Medical Association held in Cork the College was put at the disposal of the Association for the holding of sectional meetings, and the

large botanical gardens, the splendid plant houses, and the well-equipped laboratories all exhibited the intelligent and fostering care of President Sullivan. Professor Corby has not only had a long and intimate knowledge as a member of the Council of the Cork College of the administration of the College, but as his recent pamphlet on technical education shows, he has an extensive knowledge of, and takes a deep interest in, questions affecting general education.

## THE LONDON SCHOOL BOARD AND MEDICAL CERTIFICATES.

An attempt by Mr. Whiteley to settle satisfactorily the vexed question of medical certificates was nearly defeated at the last meeting of the London School Board by a motion for "the previous question" by Mr. Davies. Mr. Whiteley's resolution, which was carried after considerable discussion, was: "That in cases where the magistrate or justices of the peace is or are dissatisfied with the medical certificate furnished, and in cases where the medical certificate is *primâ facie* unsatisfactory, and where the certificate is signed by a registered medical practitioner, the Board's medical officer shall, in the first instance, communicate with the practitioner giving the certificate, and in the event of such certificate being ultimately acted upon, the fee of 2s. 6d. shall be paid by the Board for the confirmation of such certificate; and that so much of the resolution of the Board of July 30th, 1896, as prescribes that 'in cases where the magistrate or the justices of the peace is or are dissatisfied with the certificate furnished, the system now in operation be continued' be rescinded." In other words, in any case where the authorities dispute the accuracy of the certificate, and such accuracy be confirmed, the Board shall pay a fee or fine of 2s. 6d. to the certifier for the doubt implied or expressed; and in any case where the certificate be disputed the medical officer of the Board shall consult with the medical practitioner who has certified before any action be taken adversely. These certainly are steps in the right direction, and will tend to confirm the opinion in favour of State payment of all medical certificates required for the purpose of this Act, as in the Notification of Diseases Act. Mr. Whiteley's motion will certainly have the effect of making the School Board authorities more careful in their rejection of certificates signed by registered medical practitioners, and this in itself will lessen the existing friction between the Board and the profession; but a statement of the mover of the resolution that "he was authorised to say that if the resolution were carried it would remove all the scruples of the profession" is scarcely correct, as nothing short of payment for all medical certificates required will be satisfactory to medical men. Mr. Whiteley has gained a considerable concession by his motion; it has removed the objectionable revision of the certificate without consultation with the person certifying.

## MEDICAL VOLUNTEERS FOR PLAGUE-STRICKEN DISTRICTS.

In another column we publish a note from Sir Joseph Fayrer, in the course of which he expresses the opinion that the proposal to send a staff of medical men with a number of nurses to the plague-stricken district in India would do a great deal of good, and would be of great use to the Indian authorities. As we have already pointed out, in no disease does treatment give better results than in plague, if it be constant, active, and decisive; and, in his remarks on the treatment of the disease in another column, Mr. Cantlie insists upon this point, and dwells also upon the importance of constant nursing attendance, a matter to which we have also drawn attention. We are glad to be able to announce that already many medical men in this country have expressed their willingness to volunteer. We have communicated with Lord George Hamilton, the Secretary of State for India, and a reply has been received from Sir Arthur Godley, K.C.B., the Permanent Under-Secretary, to the effect that Lord George Hamilton is in communication with the Government of Bombay as to the staff of doctors and nurses required, but that at present he is not in a position to avail himself of the offers of voluntary aid. No one who knows anything of the past records or present officers of the Indian Medical Service can doubt for a moment that they will do all that it is in the power of man to do to alleviate the sufferings of the people of India; but in a great emergency such as this it is almost inevitable that in the outlying districts in which plague is now appearing they should be unable, numerically, to deal with every local outbreak. The suggestion is that volunteers from this country might be of great service in supplementing the work of the Indian Medical Service in many districts, and we feel confident that, if the call is made, it will be readily responded to.

## THE MONTREAL MEETING.

We are informed that Lord Lister has expressed to Dr. Roddick his intention of being present at the Montreal meeting of the British Medical Association. Dr. Roddick, during his recent visit to London, has received many other assurances of support, and of their intention to be present from well-known members of the medical profession in this country. It will be seen by the detailed article which we publish in another column that considerable further progress has been made by the local Executive Committee since the preliminary announcement made in the British Medical Journal in our illustrated article of December 5th, 1896. The question of expense is so often a matter of great importance to medical men that we may perhaps call special attention to the statement made in the article in this number to the effect that the journey to Montreal and back, including excursions in the neighbourhood of Montreal and to Niagara, need not exceed £25 for travelling, board, and lodging; the total trip occupying a few days under four weeks.

## ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.

We are glad to learn that a new building is now in course of erection to replace the present Royal London Ophthalmic Hospital, better known as "Moorfields." For some years past, in spite of extensive additions, the hospital premises have proved inadequate for the large out-patient practice, as well as for the accommodation of the numbers of in-patients applying for admission. The hospital authorities have consequently found it essential to obtain a site affording abundance of space and good light, even though this necessitates their leaving the present one. They have been fortunate in obtaining a piece of ground affording the desired advantages, a little north of the Honourable Artillery Company's grounds in the City Road. We understand that great care has been taken with the plans of the new building, so as to secure all the advantages that modern hospital architecture and sanitation can supply, so that the new structure may worthily represent English workmanship of the present day. Not only will the ordinary requirements of such a hospital be supplied, but unusually complete provision has been made for teaching purposes, so that "Moorfields" may maintain its reputation in this respect. The architect of the new building is Mr. Keith D. Young. It is hardly necessary to say that a large sum of money is required to meet the indicated expenditure, and we hope that the people of London will remember the necessity of helping this very deserving charity. For the purpose of bringing the present needs of the hospital before the public a meeting will be held at the Mansion House on Monday, February 1st, at 3 o'clock. It will be presided over by the Lord Mayor. The speakers will probably include Lord Thring, the Cardinal Archbishop of Westminster, the Right Hon. A. J. Mundella, M.P.; the Chief Rabbi, Mr. Percy Thornton, M.P.; Mr. Jonathan Hutchinson, F.R.C.S.; Mr. John Tweedy, F.R.C.S.; and one or two members of the committee.

# THE MONTREAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, AUGUST 31 TO SEPTEMBER 4, 1897.

WE are indebted to Dr. Roddick, of Montreal, President-Elect of the British Medical Association, for the following particulars with regard to the Branches of the British Medical Association in Canada, and to the arrangements made for the annual meeting of the Association in Montreal which begins on August 31st next.

### BRANCHES OF THE BRITISH MEDICAL ASSOCIATION IN CANADA.

Down to December 31st, 1896, the number of Branches of the British Medical Association organised in Canada, numbered seven: Montreal, Ottawa, Toronto, Quebec, Vancouver, Winnipeg, and Halifax. Of these the Halifax Branch is the oldest.

*Montreal Branch.*—This Branch was formed at the time of Mr. Ernest Hart's trip through Canada in 1891. It has a membership at present of 174. Quarterly meetings of this Branch are held throughout the year.

*Ottawa Branch.*—The Ottawa Branch was organised on December 16th, 1896, by Dr. Roddick, and has at present a membership of upwards of 40 members. A report of the inaugural meeting will be found in another column.

*Toronto Branch.*—The Toronto Branch practically consists of the entire profession in Toronto and vicinity. It was organised in 1891 by Mr. Ernest Hart, but became defunct. Through the influence of Professor Macallum and other influential members of the profession in the city of Toronto, it has recently been reorganised, and the members are very much interested in the coming meeting.

*Winnipeg Branch.*—This Branch was organised in 1891, and has been active up to the present date, with a membership of 15.

*Vancouver Branch.*—The Vancouver Branch was organised in 1894, and has been active since, having a membership of 39.

*Quebec Branch.*—The Quebec Branch was organised by Dr. E. P. Lachapelle, Vice-President of the Montreal Branch, on December 23rd, 1896; it consists now of 23 members. This Branch has not as yet been recognised by the Council, and its members have in the meantime been elected to the Montreal Branch, to be afterwards transferred when the Quebec Branch is recognised. This Branch fills a long-felt want in Quebec, as there is no medical society there. As the majority of the profession are French in nationality, the probability is that this Branch will be the first French-speaking Branch of the Association.

*Halifax Branch.*—The Halifax Branch is a large and active organisation, and has been in existence since 1887; its membership includes the Lower Provinces, and Newfoundland. The number of members is 59, many being officers of the Army and Naval Medical Services on that station.

### COMMITTEES ENGAGED IN PREPARING FOR THE MONTREAL MEETING.

*The Finance Committee.*—Of this Committee Dr. Lachapelle is Chairman, and Dr. Finley Secretary. It is actively engaged in arranging the financial part of the business, and it is expected that ample funds will be received. The sum of 5,000 dollars has been received from the Dominion Government, and 2,000 dollars from the Provincial Government, also 3,000 dollars from the City of Montreal. This Committee supervises all expenditure, and exercises thorough economy in the same.

*The Reception Committee.*—This Committee, of which Sir Wm. Hingston, M.D., is Chairman and Dr. Ruttan Secretary, has practically completed its arrangements, having secured the grounds, various college buildings, museums, libraries, etc., of the different Faculties of McGill University. These are situated side by side on the University property. It is still under consideration whether a large temporary reception building will be erected upon the College grounds at a cost of nearly 3,000 dollars or whether the large hall in the Windsor Hotel will be engaged for that purpose. The Windsor Hotel is seven minutes' walk from the University of McGill.

*The Museum Committee.*—This Committee, of which Dr. Perrigo is Chairman and Dr. Stirling and Dr. Jack are the Secretaries, have secured the Victoria Rink, immediately in the rear of the Windsor Hotel, for the exhibition. This building will give a floor space of 30,000 feet. One thousand dollars will be expended by the Committee in improving space. The Customs authorities have offered every facility towards this object. The Museum will practically be a bonded warehouse with Customs officer in charge, and no duty will be charged on any exhibit except in cases in which a sale is made. This rink has been engaged for two weeks, to allow exhibitors time to place their exhibits and remove them after the meeting.

*Pathological Museum.*—A purely Pathological Subcommittee has been formed, which will have charge of all pathological specimens, anatomical preparations, etc. These will be placed in a large well-lighted room in the Medical Department of McGill University.

### HOTELS AND LODGING ACCOMMODATION.

*The General Purposes Committee*, of which Dr. Proudfoot is Chairman, and Dr. Devlin Secretary, have completed their work so far as the hotels in Montreal are concerned. It will be impossible to give a list of boarding houses until after May 1st. However, a list of boarding houses will be prepared, with the amount of accommodation and rates in each. The following rates have been received from the hotels in Montreal, to include board and lodging:

WINDSOR HOTEL (will accommodate 350).

| | |
|---|---|
| For single person in one room, with attached bathroom | $3.50 to $5.00 per person |
| For single person in one room, without attached bathroom | $3.00 to $4.00 per person |
| For two persons in one room, with double bed and attached bathroom | $7.00 to $10.00 |
| For two persons in one room, with double bed without bathroom | $6.00 to $8.00 |
| For two or more persons, one room, with bathroom, in separate beds | $3.50 to $4.50 per person |
| For two or more persons, without bathroom, in separate beds | $3.00 to $3.50 ,, ,, |

ST. LAWRENCE HALL (will accommodate 300).

| | |
|---|---|
| For single person in one room, with attached bathroom | $5.00 per person |
| For single person in one room without bathroom | $3.00 ,, ,, |
| For two persons in one room, with bathroom and double bed | $3.50 ,, ,, |
| For two persons in one room, with double bed and without bathroom | $2.50 ,, ,, |
| For two or more persons one room with bathroom, in separate beds | $4.00 ,, ,, |
| For two or more persons one room with separate beds and without bathroom | $2.50 |

BALMORAL HOTEL (300 members).

| | |
|---|---|
| For single person in one room, with attached bathroom | $3.50 per person |
| For single person in one room, without bathroom | $2.50 to $3.00 ,, ,, |
| For two persons in one room with double bed and attached bathroom | $3.00 ,, ,, |
| For two persons in one room, without bathroom, with double bed | $2 50 to $3.00 ,, ,, |
| For two or more persons one room with bathroom, separate beds | $3.00 ,, ,, |
| For two or more persons in one room, without bathroom, separate beds | $2.50 to $3.00 ,, ,, |

TURKISH BATH HOTEL (50 members).

| | |
|---|---|
| For single person in one room, without bathroom | $1.75 to $2.25 per person |
| For two persons in one room, with double bed and without bathroom | $1.50 to $2.00 ,, ,, |
| For two or more persons, one room without bathroom, in separate beds | $1.75 to $2.25 ,, ,, |

(Bathrooms off halls upstairs, and swimming baths free.)

AVENUE HOUSE HOTEL (50 members).

| | |
|---|---|
| For single person in one room, without bathroom | $1.50 to $2.00 per person |
| For two persons in one room, and without bathroom | $3.00 to $3.50 ,, ,, |
| For two or more persons, one room without bathroom, separate beds | $1.50 to $2.00 ,, ,, |

RICHELIEU HOTEL (200 members).

| | |
|---|---|
| For two or more persons, one room without bathroom, separate beds | $2.00 per person |
| For single person in one room, with attached bathroom | $3.00 ,, ,, |
| For single person in one room, without bathroom | $2.50 ,, ,, |
| For two persons in one room, with double bed and attached bathroom | $2.50 ,, ,, |
| For two persons in one room, with double bed and without bathroom | $2.00 ,, ,, |
| For two or more persons, one room, bathroom, separate beds | $2.50 ,, ,, |

First-class board and lodging can be had in the immediate vicinity of McGill University at the rate of from 10 to 12 dollars a week. Members, however, can be quite comfortable at less rates than this, of course depending upon location and size of rooms. Hire of carriages in Montreal may be obtained at low rates, and the service is an exceptionally good one. The street car fare of 5 cents transfers passengers to all the various intersecting lines throughout the city. In the vicinity of Montreal the Park and Island electric railway carries passengers to the various points of interest north, east, and west of the city. These cars are open, and passengers are enabled in a short time, and without fatigue, to get a good idea of the city and its vicinity.

### The Excursions Committee.

The Chairman of this important Committee is Dr. G. E. Armstrong, and the Secretary, Dr. H. S. Birkett, 123, Stanley Street, Montreal. This Committee is not only arranging for local excursions, but is also engaged in working out the great problem of ocean transportation.

### The Journey to Montreal.

Montreal can be reached by any of the lines crossing from British ports to New York and the seaboard cities north of New York. The quickest route is *viâ* New York, and thence by rail to Montreal. A less expensive and in some respects more agreeable route is afforded by the weekly boats of the three lines of steamers, the Allan, the Dominion, and the Beaver, which run direct from Liverpool to Montreal. Special arrangements will probably be made with the Beaver Line to start a ship to meet the convenience of members who may notify their intention to select this route. The charge for the steamboat journey by this line from Liverpool to Montreal and back to Liverpool would be £17, so that it will be seen from a study of the statements made by the General Purposes Committee as to the necessary expenses in Montreal, that it will be possible to travel from Liverpool to Montreal, reside in Montreal during the time of the meeting, and return to Liverpool at the expense of, say, £25, including not only board and lodging on the steamer and in Montreal, but also excursions in its immediate neighbourhood and to Niagara. As to special reductions for individual members by other lines, it will not be possible to secure any material reduction of rates by steamships leaving England at a later date than August 10th, because at that time of the year all ships going westward are usually full. For the return eastward journey, however, a considerable reduction on the single return fare from Montreal to Liverpool has been arranged for, and it is believed that a similar reduction will be likewise secured on the single return fare from New York to Liverpool. It would very much facilitate the arrangements if members who intend to visit Montreal for the meeting would communicate their intentions, in all cases in which it may be possible, not later than May 1st to the Secretary of

### Local Excursions.

The Excursions Committee has been able also to make arrangements under which members will be afforded opportunities for taking short excursions, occupying three or four days to a week or more, which will enable them to visit Quebec, the Saguenay, and the Lake St. John country or the Lower Provinces, or to go west and visit Ottawa, Toronto, and Niagara Falls. Other arrangements are now being made, but are not yet completed, for taking any members who may so desire right across the continent on the Canadian Pacific Railway, over the Great Prairies, through the Rockies and Selkirk Mountains to Vancouver. Stop-over privileges will be given so that members may visit Winnipeg, the Prairie harvest fields, Banff, the gold-mining camps at Rossland, and other places. Tickets can likewise be obtained enabling members to return by the Northern Pacific Railway, visiting Yellowstone Park, Salt Lake City, and Chicago.

Short excursions are arranged to take place in the afternoons of the week of the meeting. These will include a trip to St. Anns by railway, returning to Montreal by steamer down the St. Lawrence and through the Lachine Rapids. Another afternoon will be spent on the St. Lawrence below Montreal; while a third afternoon will be given to visiting the top of the mountain, where it is probable a luncheon will be served; and a fourth afternoon to going round the two mountains on the Electric Railway.

Members who are fond of the rod and gun will be invited to visit as guests the large fishing and shooting clubs in the Laurentian Mountains, between Montreal and Quebec. There is no salmon fishing in August, but good trout fishing and grouse shooting can be had.

The Grand Trunk and Canadian Pacific Railways will sell to all members of the British Medical Association and their families return tickets over their lines for single fare, or a single ticket for half one first-class fare.

### Extra Steamers.

Should a special steamer be chartered from Liverpool for the Montreal Meeting, it will be met by an agent from Montreal, who will afford all necessary information before arrival there, and probably it will be possible to have all luggage checked and examined before arrival in the city. The Customs authorities will offer no obstacle so far as examination of passengers' luggage is concerned. Exhibitors with their exhibits will also have the same reduced fares as members.

Arrangements have been made to bring members from Australia, New Zealand, India, and China, to Canada for charges equivalent to what is allowed to the various Government officials, that is, 25 per cent. off the usual tariff. Passengers would travel by the American and Canadian Pacific boats running to San Francisco and Vancouver, and thence to Montreal by the Union Pacific or Canadian Pacific Railway.

# THE EYESIGHT OF SEAMEN.

## COLOUR BLINDNESS AND DEFECTIVE SIGHT IN THE MERCANTILE MARINES.

## I.—THE DANGER AND THE GRIEVANCE.

There was published in the British Medical Journal of October 31st, 1896, a paper by Mr. Bickerton, of Liverpool, which was a strong condemnation of the course pursued by the Board of Trade with regard to defective vision, and especially defective colour vision, in the mercantile marine. Some of those who read his paper, distressed by the nature of the indictment, may have been disposed to think, or at least to hope, that the language used was too strong. There are, however, subjects which call for the use of strong language, and moments in the course of a long controversy when the advocates of right and reason are compelled to state the conclusions at which they have arrived in a forcible manner. A further investigation of the subject which has been made for us has forced us to the opinion that under the present system gross acts of injustice are frequently committed, and the travelling public is frequently exposed to preventable dangers.

### A Question Half a Century Old.

Time was in the days when ships were entirely dependent upon the wind for their motive power. These wooden vessels were accustomed to show, when occasion required, a lantern or flare-up light to warn an approaching vessel of their whereabouts. The advent of iron as a ship building material and steam as the motive force made collisions at once more frequent and disastrous, and accordingly regulations were issued to the effect that vessels should exhibit certain lights when within their jurisdiction. On December 15th, 1847, the British Admiralty issued a notice requiring the mail steams at Liverpool, Holyhead, etc., to carry a white light on the foremasthead, a green light on the starboard bow, and a red light on the port bow. This regulation was experimental, but evidently successful, for on June 29th, 1848, an order was issued requiring all steam vessels to carry the lights already mentioned from July 21st of the same year. Seven years later—forty-one years ago—Dr. George Wilson, of Edinburgh, pointed out in the clearest manner the grave risks incurred at sea and on land if men who were physically incapable of interpreting correctly the significance of lights were placed in positions of trust. To day we are still pleading the same cause, and though we cannot hope to equal

the eloquence and pathos of his language, our words, falling upon more responsive hearts, may perhaps be the means of completing the noble work he then began.

Not until twenty-two years after Dr. Wilson's pregnant words were written and published did the Board of Trade awake to a sense of the gravity of the situation, and admit that "serious consequences might arise from an officer of any vessel being unable to distinguish the colour of the lights and flags which were carried by vessels;" and they drew up and passed into law rules and regulations for the safe navigation of vessels at sea by night. The utter inadequacy of these rules and regulations to attain the end in view was patent to all but the framers of them, and time after time have we condemned them, and our columns will bear witness to the efforts made to overcome that condition of passive resistance which has been the characteristic of the Board of Trade on this subject.

### The Peril to the Public.

There are two aspects of the present system—the peril to the public and the injustice to the individual seaman; and we think that it must be admitted that from both the action of this country, as represented by the Board of Trade, appears to be quite indefensible. As to the first aspect, it cannot be necessary to labour the point. It must be obvious that a man who cannot distinguish the primary colours cannot be an efficient seaman, whether as an officer or as a look-out man; but as a proof of the importance attached to good vision and good colour vision by the Cunard Company, we reproduce copies of letters sent by this company in 1876 to each captain and to each medical officer in their service. In reproducing them we shall make but one remark—namely, that this, the first company which recognised the importance of the subject, is able to boast that it never lost the life of one of its passengers.

Copy of a Letter sent by the Cunard Company in 1876 to each Captain in their Service.

Cunard Line, British and Foreign Steam Packet Company,
8, Water Street, Liverpool, March 22nd, 1876.

To Captain ———

Dear Sir,—Annexed is a letter addressed to the surgeon of your ship. You will at once perceive the importance of being assured of the capability of your "look-outs," especially at night; and, besides taking the opinion of the surgeon upon the question, you will kindly impress upon your officers that grave responsibility rests with them in their selection of men for a duty which is of paramount importance.—Yours truly,

D. and C. MacIver.

Copy of a Letter sent by the Cunard Company to each Medical Officer in their Service.

Cunard Line, British and Foreign Steam Packet Company,
8, Water Street, Liverpool, March 22nd, 1876.

To Surgeon ———

Dear Sir,—As it is of the greatest importance that a thoroughly efficient look-out should be always kept, we have to request that upon the day of muster you will kindly pay particular attention to the eyesight of the men who are told off as look-outs, so as to ascertain whether these men have sufficiently good vision to enable them to see with natural acuteness both by daylight and in the evening, and also readily to distinguish the colours of the different lights displayed by ships at night, so that they may report quickly and accurately, and may otherwise fulfil the duties of a thoroughly efficient look-out. In the event of your having any doubt as to the possession of the necessary qualifications by any of the men, will you please to report your opinion to the captain, so that these men may not be employed upon a duty for which, in the exercise of your professional discretion, you consider them unfit?—Yours truly,

D. and C. MacIver.

### The Injustice to the Individual.

As to the second point, it is almost equally obvious that cases of great hardship must occur if, as too often happens, a man who has embraced the sea as a career is, after he has fitted himself for promotion, suddenly confronted with the fact that he is the subject of some defect, whether of acuteness of vision or of colour vision, which is held, and rightly held, to unfit him for responsible positions on board ship. We may be reminded that hard cases make bad law, but here the existence of a hardship creates a danger of concealment. Imagine a young man in the prime of youthful vigour—steady, intelligent, hardworking, with every prospect of rising in his profession—suddenly confronted with a verdict which at once, and utterly, ruins his prospect. Can there be imagined a position more pathetic or, let us add, more exasperating? Here are some extracts from a letter written by a colour-blind seaman:

I tried once in London to get through after Liverpool, but a very light shade of green failed me, and I could not make anything of it, only a dirty-looking white, and I have never tried since. But I am still following the sea, I am sorry to say, as I can get nothing better. I was nominated for a boatman in the Customs, but I have not heard anything since about it. I don't intend going up any more for second mate, as I shall leave off the sea as soon as I am able. I will have to go for another couple of years, as I belong to the Royal Naval Reserve.

These extracts illustrate two of the evils of the present system, as they affect the safety of the public. We have a man failing at one port in colour vision, and then, aware of his defect, trying again at another port in the hope of slipping by the examiner. He failed again, but his defect was probably extreme. Having failed, he is still forced by circumstances to keep to the sea, and looking forward as the best thing that could happen to him to be made a boatman in the Customs, in which capacity, nevertheless, his defective vision might, under conceivable circumstances, lead to danger.

It is hardly reasonable to blame the individuals who find their future thus blocked if they attempt to escape from the *impasse* by dodging the examiners.

### The Examination of Visual Powers.

At any rate, it might be supposed that in the interests of the public and of the individual the Board of Trade would long ere this have taken care to ensure that the examiners were thoroughly competent trained experts. Nothing of the kind, however, has been done. The examiners are not trained experts, but officials who have had to pick up how and where they could such skill as they may possess.

A remedy must be found for this grave peril and this gross injustice. The question of remedy is no doubt difficult; but fortunately matters are somewhat simplified by the fact that there can be no doubt as to the shoulders upon which responsibility must rest. The Board of Trade is responsible for the present defective system, and, indeed, admits its responsibilities. Under parliamentary pressure it agreed to accept a report on colour vision from the Committee of the Royal Society. This Committee, after an exhaustive inquiry extending over two years, made the following recommendations:

1. The adoption of Holmgren's wool test.
2. Compulsory testing of all applicants.
3. Certified examiners.
4. Right of free appeal.
5. Testing of eyesight of all witnesses giving evidence in courts of law as to lights in collision cases.

The Board of Trade adopted the first recommendation. It has done nothing towards adopting the other four recommendations. We do not propose to comment on this omission further than to say that when the injustice and the inadequacy of the regulations which came into force on September 1st, 1894, were brought to the notice of Mr. Bryce, the then President of the Board of Trade, two years ago, by a representative gathering of physicians and ophthalmic surgeons, Mr. Bryce promised that the representations made to him should receive careful consideration. Consideration, like Mesopotamia, is a blessed word!

## THE BATTLE OF THE CLUBS.

### The Medical Profession and Friendly Societies.

H. T. D writes: The relations of the friendly societies and the profession have recently been so strained, and the attitude of the former to the latter so unfriendly, that it seems to many of us an opportune moment to ask the profession as a whole, or such part as is organised in our Association, to reconsider its position in regard to these friendly societies.

In making this request I will urge, first, that the contract system is not an advantageous one to either party. Its supposed advantage to the profession is that it secures a certain income without the trouble of booking, collecting, or suing for fees. Against that there are many disadvantages which far outweigh everything in its favour; these are the inadequacy of payment such as is made at present, the refusal of the societies to allow extra fees for major accidents, the extraordinary trouble given by club patients, especially by hypochondriacs and malingerers, the feeling of dependence upon the will and caprices of a body of men often of an aggressive disposition and almost certainly of inferior education, and the inclusion of those who can well afford to pay. The advantage to the members is that they can depend upon some kind of treatment during illness which will carry with it no extra payment. The disadvantages to the members are—and here let us be as free from cant as possible—that the "club doctor" will send medicine whenever he can without wanting the trouble of seeing the patient—and this we must regard as the greatest enormity; that the atmospheric conditions will influence the number of his visits; that the less trouble he has with his patients the more he will be pleased; that the patients themselves usually seem to expect only very ordinary consideration for their ailments; and that there are many drugs and other remedies

which might be more suitable for the case, but which the "club doctor" cannot possibly afford to employ without adequate payment. The question may be asked, too, whether the contract as it is usually made is not illegal.

Secondly, if we regard it as necessary that some contract should exist, let us consider the justice of the terms of such contract. As we are now placed, each medical officer of a friendly society receives about 4s. per head per annum. That such a sum is in itself remunerative, let no man say. In the country, with one or two horses to keep and shoe, with a man to pay, and with quarterly drug bills to meet, what practitioner can cover half these items of expense alone by means of club payments? The facts of the case are these: the treatment of club patients is charity pure and simple, from the hands of a class of men whose struggle for existence is as keen as it possibly can be. Again, the contract system could never have existed so long if it were not for the small accounts paid for attendance on wife and family. Let us state frankly that this system is unjust because it is unremunerative; that we view it entirely as a charity to a family to take one member in contract for such a small amount. Further, let us declare that to be asked to take the rest of the family on the same contract system (and usually at a lower rate) is to have insult added to injury.

Thirdly, the society receives from its members from seven to eight times as much as is paid to the medical officer; and from three to four times as much remains over after provision has been made for sickness and accident pay.

Fourthly, there is no limit of wages in admission to the benefits of the society. There is a great deal of ignorance of mankind and its affairs shown by the medical profession when its members declare every week that a man earning £1 a week cannot afford to pay a doctor's bill. He can pay his way in other matters, and if not in this it can only be the doctor's fault.

To organise the profession into one mass of fixed principles which themselves shall stand out the code of honour of the profession, and deviation from which shall be deemed, at any rate to the profession and its Association, infamous conduct in a professional respect, should be the dearest wish of all who are anxious for a continuance of the blessings which in the past have been vouchsafed to us.

## THE EPIDEMIC OF PLAGUE.

### The Spread of the Epidemic.

Bombay is well-nigh bereft of its population, 75 per cent. of the inhabitants having left the city. In Karachi a similar state of things exists, the exodus being large and continuous. From outlying towns—Poona, Tanna, and Satara—and from the interior of Sind come reports of the presence of the disease which, to say the least, are alarming. Plague is looked upon as a slow-travelling disease, but the rapidity of the infection of widely-separated districts suggests one of two things: Either modern means of quick travelling by railways has altered the rule of transmission, or such districts as Sind and the Valley of the Indus have been infected for some time previous to the outbreak at Bombay. The latter contingency would, of course, do away with the belief that infection reached Bombay from Hong Kong, a statement never proved but frequently assumed. The Indus Valley and Rajputana have within quite recent times been swept by plague, and the disease is endemic in several countries adjacent. Natives are disposed to conceal any and every epidemic disease from European authorities, being afraid of the severe restrictions placed upon them by European sanitary laws. It will then be well, by the investigations of sanitary authorities on the spot, to attempt to settle the question whether plague might not have reached Bombay from the North instead of from the Far East.

### Restriction of the Pilgrimage.

All the European Governments are thoroughly aroused to the danger of infection, and the Powers ruling Mohammedan subjects are placing restrictions upon the pilgrimage to Mecca. The movement of the French subjects in Northern Africa is just now a matter of French legislation, and the Mohammedans in Eastern Europe—in Albania, in Herzogovina, etc.—are being told that restrictions are to be placed upon their intended visit to Mecca. The Indian Government has closed its infected ports to the departure of pilgrims, and on every side the strong hand is to be shown in the matter of the annual journey to the Holy City. It is no light matter that is being undertaken. The Mohammedan is no passive subject, but resents any interference with his religious freedom; the fact of obstruction being put in his way serves but as a stimulus to his reaching his goal. He has no regard for others in his blind fanaticism; the fact of his spreading plague and causing death and suffering in Christian countries and to Christian peoples would, in his opinion, hardly detract from the merits of his pilgrimage. European nations who have to deal with Mohammedan subjects are well aware of this state of things, and appreciate the difficulty of interference. Therefore it behoves all Governments to be patient in their enforcement of laws limiting pilgrimage; but at the same time it is their duty to be firm, and to be ready, if need be by force of arms, to see that their sanitary laws are carried out.

### The State of Bombay.

The numbers of plague cases reported from Bombay continue to average between 50 and 90 daily. The most hopeful sign in the published returns as yet is the return for Thursday, January 7th, 1897; it shows that the number of deaths—49—actually exceeded the attacks—44. When the numbers are the other way, that is, when the attacks are many more than the deaths, it shows the disease is on the increase; but when the attacks diminish and the previously attacked succumb, then the deaths exceed the attacks.

### Protective Serum Injections.

Professor Haffkine is reported to have produced an attenuated plague virus which is credited with being protective against the disease. No details have yet been published respecting the methods he employs. We anxiously await the return of Dr. Yersin, and we heartily recommend the French *savant* to the special care and hospitality of the Indian Government.

### Quarantine in British Crown Colonies.

As we pointed out last week, Malta is as usual foremost in its quarantine restrictions. They have been made the subject of remonstrance by the Colonial Office. Fanatical quarantine rules are the unfailing mark of a people or community who systematically neglect the application of hygienic laws in their routine of life, but fly to quarantine as their only safeguard when disease threatens their filthy shores.

### Help from England.

It may be said that, so far as legislation and organisation are concerned, the Government of the Bombay Presidency has the epidemic well in hand, but we hope that no sentimental or other deterrents will present themselves, whereby the authorities will hesitate to ask for the assistance of civil doctors and nurses from England, should such assistance be deemed advisable. Plague has travelled far beyond the great centres, and it is possible that the sick in outlying districts are being attended by unqualified natives and by unscrupulous native medicine men, to the risk of their lives and the spread of the disease.

### Plague, Quarantine, and Kamaran.

The proposal to make use of the island of Kamaran, in the Red Sea, as a quarantine station for the detention of persons coming from Eastern ports infected with plague, invests that little island with an interest in the eyes of Europeans, and of all Eastern travellers, which it otherwise would not possess.

It is a narrow island, 13 miles in length, lying off the western coast of Arabia, about eleven days' voyage from Bombay. It possesses a fairly extensive roadstead, but the landing is difficult; it is not far from Hodeida, so that provisions are not very difficult to obtain; it contains few inhabitants: such as there are are mainly immigrants attracted by the hope of petty trade with the pilgrims who are there made to undergo quarantine.

The great want of the island is water. In 1881 a lazaretto was established. Numerous cabins (called *arisches*) were constructed of boughs and matting, and were arranged in different camps, so as to keep separate the pilgrims from the various ships. At this place about 17,000 pilgrims a year have undergone quarantine, the total number up to and including 1891 having been 170,040. Latterly they have amounted to 30,000 in the year. But under Turkish rule Kamaran has always been a most objectionable place, and it seems quite clear that instead of being a protection to Mecca it has actually become a source of danger. The lazaretto has become itself infected, and instead of being a hospital for the sick it has become a sort of cholera exchange, whence the disease has been imparted to the healthy who were received there.

At the Sanitary Conference held in Paris in 1894 the delegate from Austria-Hungary put in documents showing that the *arisches* were overcrowded, that the latrines were badly constructed and ill kept, that there was no hospital for those

attacked by infectious diseases, that the water supply was utterly insufficient, and that although the administration had in 1886 caused a large cistern to be constructed, it was so badly built that it burst before it had been in existence for a year. He also showed that cholera had been directly imported to Mecca from Kamaran, showing how primitive and ineffectual had been the modes of disinfection. The importance of all this arises from the fact that under proper sanitary arrangements cholera is comparatively easily controlled, whereas plague easily becomes endemic under the very conditions which were set up at Kamaran in the name of quarantine. If the authorities could not prevent Kamaran becoming an *entrepôt* of cholera, what hope is there that it will not even more certainly become a centre for the propagation and distribution of plague?

A very important point was raised at the Paris Conference in regard to the infection of the soil which had been allowed to take place. It was admitted that the soil had been so fouled, and the fact that even the Turkish authorities were stated to have had about a foot of the surface within the area of the lazaretto dug up and removed may be taken as good proof that the pollution had been considerable. We look upon this as a most important matter. Plague is probably a soil disease, or, at any rate, is diffused by means of filth conditions of the soil, and if the authorities were unable to prevent the soil of their lazaretto becoming so polluted, how are we to expect them to make such a lazaretto a preventive of plague?

At the same Conference, Surgeon-General Cunningham said that from the very commencement of its existence as a quarantine station the complaints of the pilgrims had been numerous and circumstantial, and the Indian Government had sought in vain to remedy the defects of the place. The miserable huts, the over-crowding, the want of water, its bad quality, and its known tendency to produce intestinal maladies; the lack of wood for boiling water and cooking food; the scantiness and the filthy condition of the latrines, the ill-kept state of the hospital, the exorbitant prices, the want of beds, which forced the pilgrims to lie on the ground; the existence of all these evils was insisted on, but do not these constitute the very conditions amid which plague is known to take root and flourish?

Dr. Thorne Thorne gave definite evidence that Kamaran, instead of being a protection from, had served as a distributing point for, cholera—an *entrepôt cholérique*. Will it not be even more likely to become an *entrepôt* for the distribution of plague if it is used for quarantine purposes?

The Paris Conference agreed upon a series of reforms. There is, however, but small reason for believing that anything effectual has been done. Again, in 1895, cholera broke out and spread in the very lazaretto arranged to arrest its progress! At present Europe has at least one protection against incursions of plague, namely, the fact that the voyage from Indian ports is a lengthy one, and that cases are likely to be detected and isolated *en route*. The use of Kamaran as a quarantine station is, we fear, likely not only to do nothing to stop the advance of the disease, but, on the contrary, is likely to act as a halfway house from which plague will start forward with renewed vigour, and from within a shorter striking distance of European ports.

### The Defences against Plague in Scotland.

We referred briefly last week to some of the defects which appear to exist in the present arrangement for dealing with the plague and other exotic pestilences. We pointed out that the Scottish Board has no staff of competent medical inspectors, and that in Scotland there are no port sanitary authorities as in England. In illustration of this last point we may take the case of the River Forth, which is the main water entry into Scotland for traffic from the Continent. On the estuary of this river, there are twenty or more separate local authorities, most of them with their own staff of officials, and many of them with only a very small population and unable to bear any large expenditure with regard to sanitary staff or hospital accommodation. Yet it is the duty of each of these bodies to receive, and consider, and act on the various circulars issued by the Local Government Board regarding cholera and plague, the importation of infected rags, and so forth. Most of these local authorities are representative of small burghs, but several consist of district committees of county councils. These district committees have many other important and pressing duties to perform, and their interest in the river may consist merely in the existence within their boundaries of some small harbour, where the chances of reception of plague or cholera are most remote. Yet they have laid on them all the worry and anxiety belonging to the responsibility for the prevention of the entrance of foreign infectious disease into this country.

It is obvious that, on the one hand, there is considerable risk that such duties may be more or less neglected or more or less inefficiently fulfilled by these numerous local bodies; and that, on the other hand, if the work is thoroughly done, it can be so only at an expenditure of time and money altogether out of proportion both to local resources and to the risks of invasion by plague. Yet the present Public Health Acts of Scotland make no provision for combination of the local authorities for port purposes on the Forth, or the Tay, or the Clyde. Not only so, but even the Public Health Bill which was introduced last year into the House of Lords contained no such provision, and neither in the Select Committee of the Lords nor in the Upper House itself was the necessary clause introduced. How the Bill would have fared in the Commons we know not, for it never came under discussion there, but if there had been in the Lower House the same tendency to passive resistance to addition of clauses as was exhibited in the Upper House, the chances of any remedy being provided would not have been great. Now again it is understood that in the parliamentary session which has just begun there is to be introduced a Public Health (Scotland) Bill, or more probably there is to be reintroduced the Bill which was dropped last year. If so, it is hard to suppose that Government will shut its eyes to the need for legislation on this subject of port sanitation. Often in the past sanitarians have had to thank epidemics or threatened epidemics for the bringing in of new laws to protect and preserve the public health. In the present connection it is to be hoped that the devastation which plague is producing in Bombay, and the fears which are being expressed regarding the spread of the disease, may have the desired effect.

In Scotland it has frequently been the case that the want of national legislation has necessitated local legislation to meet pressing wants. With regard to port sanitation on the Clyde this has already been the case. Until a few years ago it was the duty of the Greenock Sanitary Authority to take charge of all infectious cases discovered by the Customs authorities, though many of the ships were bound for ports higher up the river, notably for Glasgow. A local Act had in consequence to be obtained providing that payment should be made by the sanitary authority of the port of destination for each case treated by the Greenock Corporation. Such special legislation, however, only very partially meets the case, and would be unnecessary if power existed to constitute port sanitary boards as in England.

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### Need for Immediate Action.

With reference to this question we are glad to have the opportunity of publishing the following brief observations, which, in response to our inquiry, Sir Joseph Fayrer, for so many years President of the Medical Board of the India Office, has placed at our disposal:

Whatever views we in England may hold, we are bound to meet Continental powers in a conciliatory and friendly spirit. Whatever the poison and the mode of diffusion may be, there can be little doubt that locality is of the first importance. The dread of contagion is a great obstacle, and its true value ought to be better known; it is really very little, from personal contact. Cleanliness is also of the greatest importance, and most drastic measures should be taken—by fire where possible—to destroy foci of infection.

No measures can now be too costly or stringent in dealing with the plague which has assumed such fearful proportions. The exodus from Bombay should be restricted, if not altogether stopped, and all pilgrimages to Mecca or elsewhere for the present interdicted.

Isolation hospitals are needed, and places to which the healthy can be removed out of the infected locality.

This is a great opportunity for Bombay to achieve good sanitation. Work may be done now and the money for the purpose obtained which at other times would be impracticable. When the plague passes away it is to be feared that the dread of it will also go, and much less chance then exist of taking really effective measures.

I should like—for it would give them heart as well as substantial aid—to hear that a staff of medical men, with a number of nurses, were sent out to India. I am sure such a measure would do great good, and would be of great use to the Indian authorities.

I know that the Secretary of State has a most able adviser in Surgeon-Major-General Hooper, and I know that his counsel would be as valuable and practical as could be. Mayhap he would approve of such measures. Whatever is done should be practical and done speedily. Practical sanitation is most needed to put into force the knowledge derived from former experience in Egypt, and recently in Hong Kong, as well as from the researches of the bacteriologists. Those are already on the spot, and most valuable and interesting is their work; but, obviously, we want to know not only the germ, but the conditions under which it grows and thrives, and, conversely, those under which it is rendered impotent and sterile.

This is a great opportunity for showing what science can do in such an emergency, and the very able medical officers in India will no doubt render a good account of it. Help such as I have suggested will be of great assistance in the difficult task now before them.

## LITERARY NOTES.

In the *Caledonian Medical Journal* for January Dr. W. A. Macnaughton gives a short historical sketch of Scottish Medical Journalism. He says the father of medical journalism in Scotland was undoubtedly Dr. Andrew Duncan, the elder (1744-1828), who was also the founder of several societies and institutions, most of which still continue in prosperous case. In 1773 he began the issue of *Medical Commentaries*, a periodical avowedly framed on the model of a similar one published at Leipzig. The *Commentaries*, which appeared regularly for twenty years, contained medical observations, reports of cases, reviews of books, etc. In 1796 Duncan was joined by his son, and the title of the periodical was changed to *Annals of Medicine;* of this series eight volumes were issued (1796-1804) under their joint editorial care. In 1804 a combination was made with the promoters of a similar venture in London, and in January, 1805, the first number of the *Edinburgh Medical and Surgical Journal* issued from the Constable press, under the editorial direction of Dr. Andrew Duncan, the younger, assisted by Dr. Reeves, of Norwich, Dr. Bateman, of London, and others. Dr. Duncan, jun., who was the immediate predecessor of Sir Robert Christison in the Chair of Materia Medica in the University of Edinburgh, was a man of wide literary culture. For thirty-five years the *Edinburgh Medical and Surgical Journal*, which was published quarterly, held undisputed sway in the Northern Athens. In 1841 a rival to it appeared in the shape of the *Monthly Journal of Medical Science*, which was edited successively by Dr. (after Sir) John Rose Cormack, Dr. Fleming, and Dr. Gairdner. In 1855 the two rival journals were amalgamated in the *Edinburgh Medical Journal*, which, till the beginning of the present year, held the field of medical journalism in the Scottish capital. Now, as has already been stated in this column, there are two Richmonds in the field, and in the *Scottish Medical and Surgical Journal*, the older publication, has a competitor worthy of it. The *Edinburgh Clinical and Pathological Journal*, which came out in 1883 as a weekly publication, had the fate of Marcellus, for it was only shown to the world, and immediately absorbed again into the infinite. In the West of Scotland the first *Glasgow Medical Journal* saw the light in 1828, and, after a five years' struggle for life, fell in 1833 into a condition of suspended animation, which lasted twenty years. From this prolonged cataleptic trance it awoke to vigorous life in 1853, being edited among others by Drs. George Buchanan, Joseph Bell, and W. Leishman. In 1868 the Glasgow and West of Scotland Medical Association was founded, mainly to carry on the journal which now flourishes under the fostering care of Drs. Joseph Coats and J. Lindsay Steven. The *Glasgow Medical Examiner* appeared in 1826, but lived only two years, and another periodical of the same name which was born into the journalistic world was equally short-lived. The *Caledonian Medical Journal*, which entered on its third volume with the new year, is the organ of the Caledonian Medical Society.

## BRITISH MEDICAL BENEVOLENT FUND.

The annual general meeting of the subscribers to this Fund was held on Jannary 14th, at the residence of the Treasurer, Sir W. H. Broadbent, Bart. The chair was taken by Sir James Paget, Bart., the President of the Fund.

The financial statement and the report of the Committee were submitted, and from them it appears that subscriptions £1,185 9s. 8d. and donations £365 19s. 6d., making together £1,551 9s. 2d. had been received. The income from investments (all made according to Trust Acts) amounted to £2,086. The amount distributed in grants was £1,464 15s., and 107 annuitants had received £2,114 6s. 8d. The distribution had been made by the Honorary Financial Secretary through the London and County Bank, chiefly in monthly instalments—a mode which the Committee find to be more and more desirable. Five new annuitants of £20 each had been elected to fill vacancies caused by death, and grants had been made to 159 applicants, in sums varying from £5 to £20. Four legacies had been received during the year, namely, from the executors of the late Mr. Tauton, £1,953 6s. 2d.: from those of Dr. Fearnside, £300; from those of Mr. D. Rees Thomas, £50; and from those of Miss Hawes, £90. The last of these had, by the desire of the testator, been devoted to the grant department. The accounts had been exhaustively audited by a chartered accountant, and the working expenses of the fund had been satisfactorily small.

The Committee had received with regret the resignation of Dr. F. Robinson and Mr. S. G. Sloman, who had for many years acted as honorary local secretaries for Eastbourne and for Farnham, and who had, during that time, been invaluable friends to the charity. The honorary local secretaryship for Newport, Mon., had been kindly undertaken by Mr. R. E. Brewer.

Votes of thanks were passed by acclamation to the Treasurer and Honorary Secretaries, to the Auditors, the Honorary Chartered Accountant, and to the medical press; and a very cordial vote of thanks to Sir James Paget for his conduct in the chair, and for the great interest which he has always manifested in the welfare of the Fund.

The Honorary Secretary of the Fund is Mr. Joseph White, F.R.C.S., 6, Southwell Gardens, Queen's Gate, S.W., who, it will be remembered, was President of the British Medical Association when it met at Nottingham.

# ASSOCIATION INTELLIGENCE.

## NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1897.

Meetings of the Council will be held on April 14th, July 7th, and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 25th, June 17th, and September 30th.

### Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

## BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.—The third meeting of the session will be held on Tuesday, February 9th, 1897, at 4.30 P.M., at the St. Pancras Infirmary, Dartmouth Park Hill, Highgate, N. Dr. Cleveland will preside. Mr. Stephen Paget, M.A., F.R.C.S., will read a paper On Cases of Blood-poisoning treated with Antistreptococcus Serum, and will give an abstract of the general results of the treatment up to the present time. Dr. Chilcott, Medical Superintendent of the infirmary, will show interesting cases in the wards of the infirmary. The District Committee will meet at 4.15 P.M.—HUGH WOODS, Honorary Secretary.

EDINBURGH, DUNDEE AND DISTRICT, PERTHSHIRE, AND STIRLING, KINROSS, AND CLACKMANNAN BRANCHES.—A conjoint meeting of the Edinburgh (Fife and Lothians), Dundee and District, Perthshire, and Stirling, Kinross, and Clackmannan Branches of the British Medical Association will be held in the Royal Infirmary, Edinburgh, on Friday, February 5th. A medical congress for clinical demonstration will be held at 4 P.M. A museum (pathological and apparatus) will be open from 3.30 P.M. onwards. The recently inaugurated laboratory of the Royal College of Physicians will be open for inspection. Dinner in the Balmoral Hotel, Princes Street, at 6.30 P.M. (morning dress): dinner ticket, 5s. Members of the Association who intend to be present at the meeting and dinner and to exhibit patients, specimens, or apparatus are requested to communicate as early as possible with Dr. R. W. PHILIP, Secretary, 4, Melville Crescent, Edinburgh.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting (clinical) will be held at the Infirmary, Cardiff, on Thursday afternoon, February 25th. Notices of papers, cases, etc., are requested to be sent in on or before February 18th.—ALFRED SHEEN and D. ARTHUR DAVIES, Honorary Secretaries.

BORDER COUNTIES BRANCH.—The winter meeting of this Branch will be held at Carlisle on February 12th. Members desirous of communicating papers, etc., are requested to write to the Secretary.—R. DUNDAS HELM, M.D., 3, Alfred Street North, Carlisle.

## THE FORMATION OF A BRANCH OF THE BRITISH MEDICAL ASSOCIATION AT OTTAWA, CANADA.

A MEETING of the members of the medical profession resident in the city of Ottawa was held on the evening of December 15th, 1896, at the Russell House, for the purpose of meeting Dr. T. G. Roddick M.P., President-elect of the British Medical Association, with a view of establishing a local Branch of the Association. Dr. H. P. WRIGHT occupied the chair, and Dr. CHIPMAN acted as Secretary.

*Address of Dr. Roddick.*—Dr. RODDICK was called upon to address the meeting, and after pointing out the objects and benefits of the Association, referred to the annual meeting which would be held in the city of Montreal in August next, and stated that extensive arrangements were being made by the profession in that city for the reception and entertainment of the visitors to the meeting. It was expected that at least 1,000 would attend from Great Britain alone. Money grants had been made by the Dominion Parliament, Quebec Legislature, city of Montreal, and private subscription to the extent of 15,000 dollars. A most successful meeting was safely predicted.

*Resolution of Sympathy with the Association's Work.*—Sir JAMES GRANT expressed pleasure at Dr. Roddick's address, and moved the following resolution, seconded by Dr. P. A. MCDOUGALL:

That this meeting of the medical profession resident in Ottawa cordially sympathises with the work of the British Medical Association in bringing the members of the profession throughout the whole extent of the British Empire into direct union and frequent intercommunication for the purpose of promoting mutual friendship, advancing scientific knowledge, and furthering the general interests of the medical brotherhood, and that it will use its best efforts to promote the extension of the membership of the British Medical Association throughout the provinces of Canada.

The resolution was carried unanimously.

*Resolution to form an Ottawa Branch.*—It was moved by Dr. CLARENCE R. CHURCH, and seconded by Dr. W. R. BELL:

That it is desirable that an Ottawa Branch of the British Medical Association be constituted, and it is hereby constituted, subject to the sanction of the Council of the British Medical Association, its laws and by-laws.

The resolution was supported by Dr. HENRY P. WRIGHT and Dr. H. BEAUMONT SMALL, and carried unanimously.

*Election of Officers.*—The meeting then proceeded to the election of officers, which resulted as follows: *President:* Dr. Clarence R. Church. *Vice-President:* Dr. L. C. Prevost. *Secretary:* Dr. C. P. Dewar. *Treasurer:* Dr. W. C. Cousens. *Council:* Sir James Grant, Drs. H. P. Wright, A. J. Horsey, P. A. McDougall, and W. R. Bell.

*Vote of Thanks.*—Sir JAMES GRANT moved a vote of thanks to Dr. Roddick for his address, seconded by Dr. CHURCH. Dr. RODDICK returned thanks.

*Members forming the Branch.*—The following signified their intention and desire to form the Branch: Sir James Grant, Drs. W. R. Bell, A. J. Horsey, R. P. Robinson, Hurdman, Gorrell, Chabot, Cousens, Dewar, Troy, Pratt, McDougall, Courtenay, Shillington, J. W. Shillington, Rogers, Chipman, W. M. Bell, F. W. Church, Scott, Wright, C. R. Church, Kidd, Edwards, Kennedy, Prevost, Echlin, Klock, Small, Baptie, F. Powell, Cooke, Cormack, Klotz, Lambert, Davies, Pritchard, Potter.

## METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.

A MEETING of the South London District, Metropolitan Counties Branch, was held at Lambeth Infirmary on Friday, January 15th, at 3.30, Dr. PERCY SMITH (Vice-President) in the chair.

Dr. Seymour Toller was elected District Secretary, *vice* Mr. Betham Robinson, now Secretary of the Metropolitan Counties Branch.

The meeting was entirely clinical, and several interesting cases were demonstrated on by Dr. HECTOR MACKENZIE at the invitation of Dr. Quarry, the Medical Superintendent.

## BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE fourth ordinary meeting was held on January 14th, Mr. M. A. MESSITER, President, in the chair.

*Cases and Specimens.*—Dr. SIMON read notes of a case of General Suppurative Peritonitis occurring in a child as the result of a severe attack of gastro-enterits brought on by eating tinned salmon.—Mr. BARLING showed a Round-celled Sarcoma that he had removed a year ago from a woman aged 35. She first noticed a small swelling on the tongue four months before operation. This grew larger despite treatment by iodide of potassium, and eventually the patient consented to an exploratory incision for microscopic purposes. At this time an elastic round swelling occupied the left half of the tongue in its middle portion, extending up to the septum and bulging on both the superior and inferior surfaces; it was not very tender, and there was no surface inflammation or ulceration; the tongue could be protruded with some freedom and was not at all fixed as in carcinoma. A portion was removed for microscopic examination, and through the small incision a fungating growth rapidly took place. The report of the section of the growth, the size and position of the tumour, and its rapid fungation appeared to call for practically complete excision without any attempt to save the right lateral half, and this was effected with scissors. Examination of the parts after removal showed a growth the size of a large horse chestnut imbedded in the left half of the tongue; it had a distinct capsule, so that it could be enucleated from the muscular bed in which it lay, and its consistence was moderately firm, not brainlike. Microscopic examination from another part of the growth confirmed the report from the exploratory incision that the tumour was a round-celled sarcoma. A good recovery was made.—Mr. JORDAN LLOYD showed Five Calculi, the largest weighing 60 grains, which he had successfully removed from the left ureter of a male patient through an iliac incision. Symptoms simulating renal calculus had been present for several years, but no local pain on deep prodding in the lumbar region could be elicited. The calculus was felt with a finger passed high up into the rectum by palpation against the pelvic wall. The incision employed was that for ligature of the external iliac artery. The wound in the ureter was sutured with gut by means of a cleft palate needle.

*Papers.*—Mr. WILLIAM THOMAS read a paper on the Early Symptoms of Disease of the Spinal Column.—Dr. SAUNDBY read a paper on Milk as an Article of Diet.

## SYDNEY AND NEW SOUTH WALES BRANCH.

THE usual monthly meeting of this Branch was held at Sydney, on November 27th, 1896, Dr. SYDNEY JONES in the chair. There were thirty-five members present.

*Confirmation of Minutes.*—The minutes of the previous meeting were read and confirmed.

*New Members.*—The PRESIDENT announced the election of the following gentlemen as members of the Branch: Drs. E. H. Burkitt, G. S. Samuelson, and A. S. Vallack.

*Communications.*—Dr. HANKINS read notes of a case of Neurofibromatosis associated with Large Single Sarcomatous Tumour in the Neck: operation: wound and ligature of thoracic duct. Living exhibit.—Dr. JAMIESON read a paper on Jaundice due to Distoma Sinense.—The PRESIDENT read notes of a Case of Tumour of the Back of a Child. Dr. JAMIESON exhibited some specimens in connection with the case. Drs. CLUBBE, RENNIE, JAMIESON, and GORE GILLON discussed the case.—Dr. GORE GILLON exhibited some specimens of Foreign Bodies and Calculi in the Bladder.

*Addition to Article 12 of Articles of Association.*—The PRESIDENT moved the confirmation of the following addition to Article 12 of the Articles of Association, which was passed at the last meeting of the Branch:

Provided that the Council shall not be compelled to call any ordinary meeting during the months of January and February in each year.

Carried.

*Next Meeting.*—The PRESIDENT stated that the next meeting of the Branch would be held on December 18th, 1896.

## THE COST OF THE CARLISLE MEETING: A CORRECTION.

THE President of the Association desires us to state that he is inaccurately reported at p. 226 of the BRITISH MEDICAL JOURNAL of January 23rd, in the remarks referring to the cost of the Carlisle meeting. The statement should read: "The accounts are not yet complete, but the guarantee fund which had been raised, added to what had been obtained from other sources, would be sufficient to meet all the expenses of the meeting and leave a substantial surplus to be dealt with by the subscribers."

# SPECIAL CORRESPONDENCE.

## PARIS.

*The Plague.—The Colony Treatment of Lunatics.—The Prevention of Tuberculosis.—General News.*

PROFESSOR PROUST, Member of the Academy of Medicine and general sanitary inspector, has presented to the Académie des Sciences Morales et Politiques a communication on the prevention of plague in Europe. In it he states that the appearance of plague at Bombay in September, 1896, the increased proportions of the epidemic, and the probability of its being transmitted to Europe *viâ* the Persian Gulf and the Red Sea fully justify the resolutions passed by the International Conference held at Paris, 1894. If the convention signed at Paris had been ratified by the Powers represented at the Conference, it is probable, he considers, that the international sanitary service instituted by the Conference would now be in working order, and would protect Persia. Professor Proust declares that it is necessary to ratify immediately the resolutions passed in 1894; this step has been too long delayed. He also considers that it is necessary to create "an International Sanitary Union to prevent the propagation of epidemics." This "union" is intended to confer protection against the plague, yellow fever, and cholera. These measures cannot be followed by immediate results, therefore he recommends a rigorous inspection of arrivals from Bombay. The marine sanitary police regulation of 1896, if seriously observed, guarantees the French territory against the transmission of epidemics. The administration has given definite instructions, and takes steps that they be carried out to the letter. M. Proust cherishes the hope that other Powers will do the same. "Here," he says, "everyone does his duty, and there is reason to believe that Europe will be preserved from the plague." News comes from Toulon that in consequence of the cases of plague in England and India the authorities have issued a decree to ensure the strict observance of sanitary measures and the cleansing of the streets. The Marine Prefect has given orders that vessels coming from the above-mentioned countries be immediately conducted to the lazaretto and submitted to a careful sanitary inspection before they are granted a clean bill of health. The *Mabel*, an English boat, was intercepted at Bougeral, by order of the Minister of the Interior. It had a cargo of Indian carpets; these have been disinfected, under the direction of Dr. Chautemps, and the *Mabel* is allowed to continue its route to Paris. The daily papers publish a telegram sent from the Havre agency categorically denying the statement appearing in the English press that a case of plague has occurred at Marseilles. The statement does not apply to any of the French ports. The Belgian Government has decided to adopt the measures decreed in 1895 to combat cholera in order to defend its territory from the transmission of plague from India.

Dr. Marie, the medical director of the family colony of Dun-sur-Auron, has sent in his report to the Prefect of the Seine. Five hundred insane patients formerly treated in the four asylums of the Seine department are now dispersed among different families, where they are treated and looked after by medical men specially appointed. M. Marie affirms that this system of treating the insane has a satisfactory influence, not only on the aged imbecile, but also on cases of chronic madness which have become harmless by age. A goodly number of patients recognised to be incurable after many years of confinement in a madhouse have in the family colony after a short time considerably improved mentally. Gradually they become interested in the life and occupations of their surroundings, are less inert, are no longer obstinately silent, and share in the general activity. Later on they take part in conversation, reacquire elementary notions which enable them to lead a more normal existence. The memory of a life led before their confinement in a madhouse is awakened, which the *régime* of those establishments tends to destroy.

The Police Prefect has organised a service for the following purposes: To discover tuberculosis among the cows reared in the Seine department; to inoculate breeding animals in order to prevent them from contracting infectious peripneumonia. This service will be in working order in a few days in the Villette live cattle market.

The celebrated walker, Grandin, has been overtaken by the same fate as Succi, the celebrated faster. He has suddenly gone mad. It was his intention to make a walking tour to Africa and Abyssinia.

## BERLIN.

*The late Professor Du Bois-Reymond.—Lunatic Asylums.—Private Clinics in Berlin.—General News.*

A LARGE and distinguished audience filled the lecture hall of the Physiological Institute on the evening of January 22nd to listen to an address delivered by Professor Rosenthal (Erlangen) in memory of his teacher and friend Du Bois-Reymond. The occasion was a special *In memoriam* meeting convened by the united Physiological and Physical Societies, but some guests had been invited, among them the wife and daughter of the deceased. In tracing the life-work of a man such as Du Bois-Reymond it is not enough to count up the list of his scientific discoveries and controversies, and though Rosenthal, in his address, of course gave prominence to these, still he dwelt on the philosophical and literary tastes which were so characteristic of the great physiologist, and gave a masterly picture of his curiously complex personality. Considerable space was devoted to the now celebrated controversy between Du Bois-Reymond and Hermann on animal electricity.

There has been a debate on lunatic asylums and sanatoria in the Reichstag. Herr Lengmann, a Liberal member, and Herr Stadthagen, a Socialist, urgently demanded more stringent legislation, so as to exclude all possibility of sane persons being deprived of their freedom and placed in asylums. Herr Stadthagen went so far as to assert that by far the majority of persons at present in German asylums were illegally detained. Dr. Kruse, a medical member of the House, repudiated these exaggerations, but acknowledged the need for better securities, and brought in a Bill praying the German Federal Governments for imperial legislation (that is, a law uniformly binding on all the German States), with more exact and stringent regulations on the subject of the admittance, detention, and dismissal in and from asylums and sanatoria of persons suffering from mental diseases.

As State interference with private clinics is the burning question of the day in Berlin medical circles, it is interesting to note that in the year 1895 more than 10,000 cases were treated in private clinics. The statistics for 1896 have not yet been published, but there is no doubt that there has been a considerable increase.

The Chancellor of the German Empire has issued orders for careful sanitary supervision of ships arriving from Indian and Persian harbours.

## BRISTOL.

*Sanatorium to commemorate the Diamond Jubilee.—Proposed Extension of the Dispensary.—The St. John Ambulance Association.*

THE minds of the citizens of Bristol have been exercised recently as to how the Diamond Jubilee of Her Majesty's reign should be most suitably celebrated. Two proposals have been made, one to build an art gallery, the other to erect or convert some present home into a sanatorium. The former suggestion, though it met with some support, did not recommend itself so much as the latter, the inclination of the citizens being no doubt influenced by the recent intimation by the Prince of Wales of the Queen's own wishes. The Mayor held an invitation meeting on January 19th for general discussion, when a resolution in favour of the sanatorium from a joint Board of the Royal Infirmary and General Hospital was read. The sum required for such a scheme is fixed at £40,000, half of which is to be set aside for endowment, for it is recognised that whatever is done in this direction, a sufficient sum must be put aside for permanently supporting it. The general feeling of the meeting was in favour of this suggestion, but the question was raised whether it would not be advisable to include one or more of the other medical charities that exist in the city. A generous offer of a house on the Downs was made by Mr. E. P. Wills, a member of the well-known Bristol firm of tobacco manufacturers. The meeting was adjourned till January 27th, when a resolution in accordance with the recommendation of the Infirmary and Hospital Board was adopted.

At the annual meeting of the dispensary a report was made on the extension of the institution at Bedminster. The building was nearly complete, and the chairman expressed a hope that many would avail themselves of the advantages of the institution when it was opened, an opinion which is certainly not shared by many of the medical men practising in that part of Bristol.

The St. John Ambulance Association has now passed entirely into the hands of the medical profession. In previous numbers of the BRITISH MEDICAL JOURNAL reports have been published of the efforts of the lecturers to obtain an adequate representation on the Executive Committee. By means of the combined action of the lecturers, a resolution to increase their number on the committee was carried, in the face of the determined opposition of the lay members. In place of the three chief officers, who refused to be re-elected, Dr. Rogers was elected chairman, and Dr. Symes treasurer and clerk, and the work of the Association will be carried on as it has been in former years.

## MANCHESTER.

*Rebuilding of Infirmary.—Water Supply from Thirlmere.—Isolation Hospitals in Cheshire.*

PROGRESS in the negotiations between the Infirmary Board and the City Council is evidently being made. At its meeting on Monday the Infirmary Board passed the following resolution:

That before taking steps to give effect to the resolution passed by the trustees on January 11th, the Board, in keeping with a wish expressed at an informal meeting of trustees on the same date, hereby appoint Mr. Edward S. Heywood, Sir Frank Forbes Adam, Mr. Alfred Simpson, Mr. J. H. Grafton, Mr. W. Hawkins, and Mr. W. J. Crossley to put themselves in communication with an equal number of members of the City Council, with the object of discussing with them any proposals that that body may desire to make in order to bring about such modification of the plans for rebuilding the infirmary on the present site as, while meeting the views of the City Council, may at the same time seem to the Board to be desirable to submit to the trustees before the Board proceeds to carry out the terms of the trustees' resolution above referred to.

The resolution itself is strictly in keeping with the sense and substance of what passed at the meeting of the trustees on January 11th. It now only remains for the City Council to nominate an equal number of representatives, and then this joint committee will set to work to solve the problem which has long waited for solution.

The immense importance of the new supply of water to Manchester from Thirlmere is already manifest. One of the inspectors of the Local Government Board held last week an inquiry at Wigan relative to an application by the Wigan Corporation for a provisional order to enable them to obtain an additional supply of water for Wigan from the Manchester Corporation. Wigan proposed to tap as it were the aqueduct supplying water from Lake Thirlmere to Manchester. It appears terms had been arranged between the respective corporations, Wigan to have in perpetuity 200,000 gallons per day. Other smaller places desired to have a similar boon, but it was stated on behalf of the Manchester Corporation that such applications could not be acceded to without formal application being made to the City Council, as Manchester itself is using eight of the ten million gallons supplied from Thirlmere.

With reference to the paragraph in the BRITISH MEDICAL JOURNAL of January 23rd anent a proposed contribution by the Cheshire County Council towards the erection of isolation hospitals in the county, it seems that there has been some misunderstanding. It appears that under the Isolation Act of 1893, Section XXI, power is given to contribute out of the county funds either to structural or to establishment expenses, or to both. This Act of course stands, and cannot be affected by any decision of the Local Government Board. What, however, the County Council really proposed to do was to contribute to hospitals voluntarily built under the provisions of the Public Health Act, 1875. It was the provision of funds by the County Council under the latter Act which the Local Government Board says there is no power to make.

# CORRESPONDENCE.

## THE TREATMENT OF MALIGNANT DISEASE BY THE INJECTION OF THE TOXINS OF ERYSIPELAS.

SIR,—In the BRITISH MEDICAL JOURNAL of January 23rd, page 192, Mr. Marmaduke Sheild gives an interesting account of a case of recurrent sarcoma of the breast which was treated at St. George's Hospital by the injection of Coley's fluid. Mr. Sheild refers to a clinical lecture which I delivered at St. Bartholomew's Hospital in December, 1895, and which was published in the *Clinical Journal* shortly afterwards. In that lecture I gave my personal experience of the use of Coley's fluid, some of which had been very kindly supplied me by Dr. Coley himself, and some of which had been prepared under the direction of Dr. Armand Ruffer at the British Institute of Preventive Medicine.

I am sorry to say that my further experience has not proved more satisfactory than the experience I then related. I have not seen a permanent improvement in any instance, and I can scarcely claim even a temporary improvement in the cases which were treated.

The *American Medical Record* for October 17th, 1896, contained a leading article on the Erysipelas Toxins, from which I quote the following:—

"Some months ago the whole question was discussed in one of our medical societies, and the unanimous opinion was reached that this method of cure should no longer be held out to sufferers from cancerous diseases. Subsequently the New York Surgical Society took the matter up, and, as a result, the following conclusions were presented by Drs. Stimson, Gerster, and Curtis:

"'1. That the danger to the patient from this treatment is great.

"'2. Moreover, that the alleged successes are so few and doubtful in character that the most that can be fairly alleged for the treatment of toxins is that it may offer a very slight chance of amelioration.

"'3. That valuable time has often been lost in operable

cases by postponing operation for the sake of giving the method of treatment a trial.

"'Finally, and most important, that if the method is to be resorted to at all, it should be confined to the absolutely inoperable cases.'

"And now, just as we on this side are beginning to acknowledge the inadequacy of these injections, they seem to be coming into favour abroad."

If the treatment were free from danger or even from serious discomfort I might still be disposed to try it in cases which are unfit for operation. But there can be no question that it is most distressing to the patient, and Mr. Sheild's paper shows that it is not free from serious danger to life.

The accounts which I have read of the German fluid are so little encouraging that I have not thought it worth while to apply it.

I am the more disappointed at the results of this method of treatment in that it has some approach to a scientific foundation. And Dr. Coley has been so courteous to me, and so hopeful of his method, that I have striven to persuade myself to believe that my patients were benefited by the treatment.—I am, etc.,

Harley Street, W., Jan. 22nd. HENRY T. BUTLIN.

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SIR,—I was much interested in the case of sarcoma treated with Coley's fluid in the BRITISH MEDICAL JOURNAL of January 23rd, having reported what seems to be a successful case last year. There was one important difference in the case—namely, that I injected, not into the substance of the growth, but into the subcutaneous cellular tissue, generally of the arms; also I allowed forty-eight hours or longer intervals between the injections, as I found it was generally at least twenty-four hours before the effect of the injection had entirely passed off. I used the same fluid as Mr. Sheild, and began with ½ minim dose, gradually increasing to 6 minims, which I only used once, as it caused a fall of temperature to 97.2°, with very great depression and *malaise*. On no occasion did it cause a rise of temperature, but always uneasiness and depression. I thought it best to stop all stimulants while using the injections. The effect on the growths seemed to be very marked, and I should like to try it again, but should expect the best results in the earlier stage, though I should like to try it even in an advanced stage. Five minims seemed to be the full amount my patient could tolerate, but this would probably vary, each patient having a different tolerance.—I am, etc.,

Bournemouth West, Jan. 25th. GEO. B. BEALE, M.D.

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## THE HALF-YEARLY MEETING OF THE FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

SIR,—No one will be surprised that Mr. Heath has nothing more to say about Mr. Anderson's case. What could he say when he found from my letter that the propositions he advanced so confidently, namely, that the Council of the College had twice negatived a grant in aid of the appeal to the Privy Council, that such a grant would be illegal, and that the Solicitor of the College had declared it to be illegal, were at variance with facts? Nothing whatever, unless he retracted his statements, a course which I regret to think that we cannot expect from him, even when he makes public charges against individuals which are absolutely unfounded. For example, at a public meeting Mr. Heath made an entirely irrelevant attack upon my Election Committee for issuing a statement, and at the same time on myself, for having as a member of the Council permitted a statement to be issued which he regarded as reflecting on the Council of the College for its action towards me during my tenure of office on the Council. When I show that Mr. Heath's imputation is unfounded because the statement did not relate to the period of my tenure of office as a Councillor, without retracting or expressing regret for an unfounded charge, Mr. Heath shifts his ground to the different and wider imputation that the statement itself is untrue. He also makes it appear as if his fresh attack sprang from my letter dealing with a part of his speech which was not reported, instead of from the fact that I had driven him from his first position; thereby implying that, having been deprived, by the abrupt close of the meeting, of the opportunity of correcting his misstatements, I might have submitted to them in silence.

Mr. Heath's second attack and so-called proofs are as unfounded as the first. He states that I made my first speech on behalf of the Members in November, 1886. I beg to refer him to the *Lancet* of December 26th, 1885, where he will find a report of my first speech on behalf of the Members, occupying about two columns of the paper, and delivered December 17th, 1885. The speech was more briefly reported in the BRITISH MEDICAL JOURNAL, and was inserted *in extenso* in the *Medical Times* of December 19th, 1885. This is a pitiful error in one who undertakes to correct others, and destroys Mr. Heath's so-called proof.

Both from my "literary efforts" and from my speeches at the College in 1885 and 1886 my advanced opinions became well known. That such opinions and their expression at the College in direct opposition to and criticism of the Memoranda issued by the Council were injurious to my "collegiate interests" is not open to reasonable doubt. That I was well aware of this and deliberately disregarded it at the time is shown by a passage from the very letter of November 8th, 1886, to which Mr. Heath refers, and which runs as follows:

"From long-standing conviction, and from a sense of what is due to the Members of the College, and to the profession at large, I have come forward again (and, as I am informed and believe, in opposition to my private interests) to aid a righteous and most important cause."

Views such as mine opposed to the views of those in office at the College, and of the majority of the Fellows were certain to make any other candidate (from the point of view of Mr. Heath and his friends), as Mr. Heath says, "a more eligible candidate" for office in the College than myself. From any other point of view I trust I may be permitted, without want of modesty, to challenge comparison of my claims to the examinership with those of any who were preferred to me. Mr. Heath's reasons, however, for confining the meaning of the words "collegiate interests" to an application for an examinership are best known to himself. Perhaps he will explain them.

Mr. Heath calls the Association of Fellows—a body which includes such high-minded and public-spirited gentlemen as Mr. George Pollock, Mr. Holmes, Dr. Robert Barnes, Mr. Gant, and others whom I need not mention, and which publishes its proceedings—"a clique." To the action of this clique, which has been guided by the principle that the College is not for the Council only, but for the Fellows and Members as well, the Fellows and Members are indebted for many reforms and improvements at the College. The annual general meeting of Fellows and Members, the annual report of the Council, the simplification of the system of voting papers, the Common Room at the College, and the half-yearly meeting of Fellows. To such "a clique" I consider it an honour to belong, and I have very little doubt that such attacks as those of Mr. Heath will impart fresh vigour to its efforts for the promotion of the best interests of the greatest of all our professional institutions.—I am, etc.,

Wimpole Street, W., Jan. 26th. WALTER RIVINGTON.

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## DR. RENTOUL'S ELECTION EXPENSES, AND THOSE INCURRED IN OPPOSING THE FOUR MIDWIVES BILLS.

SIR,—The result of the General Medical Council election must be gratifying to the supporters of Dr. Rentoul's policy. We, the undersigned, think this an opportune moment for bringing to the notice of these supporters the heavy expenditure in which the election has involved Dr. Rentoul; the sum of £85 17s. 6d. having been spent by him in stamps, stationery, and travelling. We feel that practitioners upon whose behalf he has so faithfully striven should defray this out-of-pocket expenditure.

Also we would state that since 1890 Dr. Rentoul has spent £375 13s. 8d. in opposing the four Midwives Bills. Of this £351 12s. 8½d. has at various times been refunded, thus leaving £24 0s. 11½d. still owing, exclusive of interest.

Dr. Rentoul is, like most of us, in general practice, and we feel it to be unfair to ask him to give not only his time and work (which have been and are invaluable to the cause), but also his money. We, therefore, with confidence ask his sup-

porters to subscribe to a fund for the repayment of this £109 18s. 5½d. By this means practitioners will not only show practical appreciation of good work done, but will pave the way for more. We would point out that this is not a question of a testimonial, although if the response were as hearty as it ought to be, this might also be considered. It is firstly and chiefly a question of paying back money out of pocket, spent—and most cheerfully and usefully spent—in furthering our interests.

At the same time we would add that no time should be lost in establishing a guarantee fund, so as to be at once ready to fight the next Midwives Bill, and to help in drafting and securing the passing of a Bill for Increased Direct Representation upon the General Medical Council. For these purposes about £1,500 will be required, and, considering the handsome and prompt response of the profession in many cases—for example, Dr. Cullingworth's expenses—no difficulty should be experienced in obtaining this money for such important purposes. We have Dr. Rentoul's statement that he cannot advance any more money for these purposes, though he is both willing and ready to give both work and time.

Donations will be gladly received by Dr. A. Cox, Gateshead, and will, with your permission, be acknowledged in the BRITISH MEDICAL JOURNAL.—We are, etc.,

COLIN CAMPBELL, J. A. MYRTLE, CLEMENT H. SERS, J. WHEELER O'BRYEN, W. E. BARTON, JOHN R. WILLIAMS, J. M. FERGUSON, FRANCIS J. A. WARING, DONALD FRASER, WALTER LATTEY, JOHN E. GARNER, W. A. WETWAN, J. B. CLOSE,

ALFRED COX, Honorary Secretary.

West View, Gateshead-on-Tyne, Jan. 22nd.

*** This communication only reached our hands on January 23rd, owing, as Dr. Alfred Cox informs us, to an oversight on his part.

RENTOUL EXPENSES FUND.—FIRST LIST OF SUBSCRIPTIONS.

| | £ | s. | d. |
|---|---|---|---|
| J. R. Williams, Penmaenmawr | 1 | 0 | 0 |
| W. E. Barton, Staunton-on-Wye | 0 | 10 | 6 |
| D. Fraser, Ruthin | 0 | 5 | 0 |
| J. W. O'Bryen, Sydenham | 1 | 1 | 0 |
| Walter Lattey, Southam | 0 | 5 | 0 |
| W. A. Wetwan, Bridlington Quay | 0 | 10 | 0 |
| J. E. Garner, Preston | 0 | 10 | 6 |
| Stanley Haynes, Malvern | 0 | 10 | 0 |
| Alfred Cox, Gateshead | 1 | 1 | 0 |
| J. B. Close, Hull | 0 | 10 | 6 |
| Francis J. A. Waring, Hove | 0 | 10 | 6 |
| J. A. Myrtle, Harrogate | 0 | 10 | 6 |
| Colin Campbell, Saddleworth | 1 | 1 | 0 |
| M. G. McElligott, Belper | 1 | 1 | 0 |
| Burnley and District Medico-Ethical Society | 2 | 2 | 0 |
| North-Wales Branch of the British Medical Association (per Dr. W. Jones Morris) | 1 | 10 | 0 |
| Clement H. Sers, Peckham | 1 | 1 | 0 |

ALFRED COX, M.B., Honorary Secretary.

## THE TREATMENT OF MYOMA.

SIR,—The statement made in the columns of the BRITISH MEDICAL JOURNAL of January 23rd that the Gynæcological Society had for three or four years insisted that total removal of the uterus was the best treatment for these tumours seems to me somewhat premature, as I do not think that in many, if any, cases this method of treatment had occurred so far back as four years in British practice. The members who gave utterance to this sentiment as that of the Society form an extremely important section of it; but it is quite certain that an important minority will not give their sanction to any such opinion. I think it probable, for example, that Dr. Bantock and myself could make up a larger list of cases of myoma treated in various ways than all the other members of the Gynæcological Society put together, and neither he nor I have made up our minds, as yet, definitely on the subject.

I have tried a number of cases of the so-called "pan-hysterectomy," and have a list much longer than any yet published in England, and I do not find that it commends itself to me in preference to Koeberlé's method, save in the one particular of being somewhat easier to perform. Indeed, in those cases for which it is adapted, I cannot understand how an hour or an hour and a half can be spent over it unless the proceeding is much interrupted by unnecessary conversation. Its primary mortality, so far as my own work is concerned, is much the same as the clamp operation, but it is too early to speak positively upon this important point. As adverse arguments to the operation, there are several points to consider, the first being that there is a distinct group of cases for which it is absolutely inapplicable, and these, unfortunately, are the cases which demand hysterectomy most of all—I mean the soft œdematous myomata. In the tumours having uterine tissue at their base, firm, and not given much to shrinking, and with vessels well-defined and separate, the operation can be easily applied.

On Thursday last I operated for one of the former class of tumours, and started with the intention of trying "pan-hysterectomy," but found it absolutely impossible.

It is, however, upon secondary results that the fate of this operation will depend, and I have seen already enough of them to make me suspect that it will be speedily discarded. The reason is the unfortunate effects of the ligature, a paper on which I published some time ago. In this operation the ligature is not dropped into a peritoneum which speedily digests and absorbs it, but is placed among tissue peculiarly apt to resent interference.

Concerning the lower ligatures it must be borne in mind that they are placed with nothing between them and the cavity of the bladder but part of its denuded muscular and the whole of its mucous coats. These form but a slight protection against a dead ligature finding its way into the bladder. In addition to such an accident as this, three other forms of accident have already passed under my notice—namely, the formation of leakage from a ureter, leakage from the bladder, and leakage from intestine, all incidents occurring long after the primary success had been obtained.

Personally I have been now for twelve years patiently waiting for material upon which I can express my opinions as to the complete methods and the best of treating myoma, and one thing after another has risen to alter opinions which I thought had been stedfastly established; and even now I am still obliged to refrain from writing fully on the subject. I think with the knowledge of this the younger members of the Gynæcological Society will refrain from positive expressions of opinions which must be premature, and at least they will not pledge the whole Society to opinions against which some of their seniors certainly must enter an energetic protest.—I am, etc.,

Birmingham, Jan. 23rd. LAWSON TAIT.

P.S.—Can anyone find a classical justification for such a combination as "pan-hysterectomy"?

## THE USE OF ANTISEPTICS IN MIDWIFERY.

SIR,—In reading a very interesting address on the Use of Antiseptics in Midwifery, in the BRITISH MEDICAL JOURNAL of January 23rd, delivered by Dr. Clement Godson before the British Gynæcological Society, I notice the lecturer says: "Why the sublimate treatment should not be adopted in private practice as well as in hospital I am at a loss to understand." I imagine it must be much more largely used in private practice than Dr. Godson has any idea of from this statement. Certainly since 1885 I have used it personally, and probably all good surgeons who are also obliged to undertake midwifery in general practice have done the same.

A routine treatment is no doubt an admirable part of discipline in a lying-in hospital, and very necessary for all concerned; but the healthy natural labour one sees in the country, where clean linen and normal hygienic conditions obtain, do not all require such drastic resources. I imagine any well-worked country operating surgeon knows only too well how to keep wounds sweet and free from infection, and that the best preliminary drilling for all those who wish to be successful in midwifery practice is an aseptic surgical training. I should be sorry to stake my reputation on one chemical, particularly when it has often to be employed by unskilled hands, as is the case in general practitioners' obstetrics.—I am, etc.,

A HOSPITAL SURGEON AND GENERAL PRACTITIONER.

January 26th.

SIR,—Dr. Clement Godson, in his recent address to the British Gynæcological Society on the use of antiseptics in midwifery which you report, makes this astounding statement: "Why the sublimate treatment should not be adopted in private practice as well as in hospital I am at a loss to understand."

How uninformed our leaders—the specialists—are at times!

Dr. Clement Godson's references to the literature of his subject are also, I venture most respectfully to say, both hackneyed and one-sided—oft-told tales.

As a general practitioner, I beg the favour of space in the British Medical Journal to inform Dr. Clement Godson that I commenced the antiseptic practice of midwifery ("obstetric Listerism" I prefer to call it now) in the year 1884; and in the same year (1884) I communicated the then newfangled Continental methods of using corrosive sublimate in midwifery work to my professional brethren in England through the columns of the *Provincial Medical Journal*, in a paper on The Practice of Obstetric Antisepticism at Home and Abroad. This was two years, according to Dr. Clement Godson's own showing, before the patients in the City of London Lying-in Hospital came "under its beneficial influence." How strange a fact! Again, in 1889, in the *Provincial Medical Journal*, as well as in the *London Medical Recorder*, I published another paper on The Hygiene of Midwifery, giving the results of my private midwifery practice, which were then, and still continue to be, most happy, most gratifying, and most encouraging—no childbed fever, no deaths.—I am, etc.,

J. Dysart McCaw, M.D., F.R.C.S., L.S.A.

East Finchley, N., Jan. 23rd.

## DIET IN TYPHOID FEVER.

Sir,—May I, through the British Medical Journal, congratulate Dr. Barrs on his excellent article on the dieting of typhoid patients. The practice which he so soundly and sensibly advocates in its entirety is one that I have for some years followed in a hesitating and tentative manner in the wards of the London Hospital, though, with his experience to support me, I shall for the future pursue it with less fear and trembling.

I should like to mention one case in which I adopted the feeding plan, because its result was particularly encouraging, and I firmly believe that a life was saved which would have been sacrificed by a too rigid adherence to precedent and tradition. The patient was a ship's cook, who contracted typhoid in Madagascar. The disease had continued some six or seven weeks, while slowly voyaging to England, when he came under my care. He was then weak to a degree, and it seemed as though emaciation could not be greater if life was to be preserved. Before his temperature was normal, but, acting on his active desire for food, I fed him freely on soft, semi-solid food (boiled egg, pulped meat, etc.), his temperature fell to normal, but ten days later he had a relapse. Owing to want of courage, I suppose, I knocked off the food with the recrudescence of the pyrexia, but through fear of exhaustion I resumed feeding as soon as the defervescence began, with the happiest of results. Without the feeding I feel sure that he must have succumbed, so extreme was the exhaustion, and it is on this point of gaining strength for a possible relapse that I think Dr. Barrs has hardly laid sufficient strength.

In conclusion, may I be allowed to express my absolute agreement with every detail of his arguments: in meaning they are identical with those I have used at the bedside; their actual expression and sequence only differ from my own as the care of publication differs from the somewhat loose phraseology of bedside teaching.—I am, etc.,

Christopher Street, E.C., Jan. 18th. Fred. J. Smith.

## THE PROFESSIONAL SECRET AND ACCIDENT INSURANCE.

Sir,—My attention has been directed to the comments made in the British Medical Journal of December 26th in reference to a case in which a medical practitioner at Glasgow was disabled for several months owing to the infection of a wound upon the finger, and I understand that the claim he made against an accident insurance company was successfully disputed because it was not proved that the poisoning was brought on as stated.

This Corporation, which has been established for over a quarter of a century, and which has granted policies to a large number of the medical profession, has always accepted as proof as to the cause of accident the claimant's own doctor's certificate, and as a matter of fact has paid thousands of pounds as compensation for poisoned wounds to members of the said profession.

I am glad to see that at least one of the younger accident companies proposes to bring itself into line with this practice which has hitherto been adopted not only by this, but also, I believe, by other of the older accident insurance companies.—I am, etc.,

Rich J. Paull,
General Manager and Secretary.

Ocean Accident and Guarantee Corporation, Limited,
Moorgate Street, E.C., Jan. 22nd.

## TABAKS-COLLEGIA.

Sir,—Referring to your annotation in the British Medical Journal of January 23rd on "Tabaks-Collegia," I beg to inform you that at the meetings of the South-West London Medical Society smoking is now permitted. This has only been the case during the current session, and on the whole the meetings have been much better attended since the change came into force. We have heard of no objectors.—I am, etc.,

W. G. Dickinson,
Joint Hon. Sec.

January 26th.

## DORSAL TEST FOR PERICARDIAL EFFUSION.

Sir,—I have been much interested with Dr. William Ewart's dorsal test for pericardial effusion. The chief difficulty, as it appears to me, is in deciding between a pericardial effusion and an enlarged heart.

For making this differential diagnosis I do not think Dr. Ewart's test is of any assistance. Some few weeks ago one of my colleagues drew my attention to the case of a young girl in the Bristol Infirmary, which seemed to be one of pericardial effusion, excepting that there was no protuberance in the epigastrium. The cardiac impulse was easily felt, and outside this the dulness was as marked as on its inner side. The dorsal dulness was also present, yet at the necropsy a very dilated heart was found.

Some years ago I remember a very similar case at St. Bartholomew's Hospital. The heart was tapped, but there was no fluid in the pericardium. I am inclined to look upon epigastric bulging as a very significant sign in pericardial effusion.—I am, etc.,

Henry Waldo,
Physician to the Bristol Royal Infirmary.

January 23rd.

## CONSULTANT'S FEES.

Sir,—A man is a consultant, in the true sense of the term, not on account of the amount of his fee, but because he observes a definite principle in his practice, namely, the rule of not visiting patients of any rank without the attendance of another practitioner, and of not allowing a patient to come to him at his rooms more than once without communicating with the family attendant. Working on this principle he will be compelled to charge at least a guinea for each consultation, if he is to make a living from the limited number of cases he will see, and he will be under no temptation to compete with the general practitioner, because his work will altogether depend on the loyalty with which his professional brethren support him.—I am, etc.,

F.R.C.S.

January 20th.

## CARDIAC TONICS IN ACUTE BRONCHITIS AND BRONCHO-PNEUMONIA, ESPECIALLY IN CHILDREN.

Sir,—Dr. J. G. Blackman, in his short interesting communication in the British Medical Journal of January 23rd, raises some points with regard to the dangers and treatment of acute bronchitis and broncho-pneumonia which I feel sure he will not object to have discussed. I would write more especially concerning the latter disease as it affects children.

One cannot accept his suggestion that the cyanosis of broncho-pneumonia is due to heart failure; there are so many reasons why, on the contrary, it should be ascribed to diminished air space, the result of exudation and defective respiratory power, the extent of the cyanosis depending upon the area of lung involved and the amount of yielding of the chest walls. Dr. Blackman will no doubt have observed how poor is the chance of life of a rickety child suffering from this disease compared with that of a previously healthy child under the same conditions, and yet it can hardly be said that the heart has a tendency to fail in the one more than in the

other. It appears to me that heart failure in broncho-pneumonia occurs only after prolonged adverse conditions, such as venous blood, high temperature, insufficient nutrition, and a struggle to overcome the obstructed pulmonary circulation, and that speaking generally the heart in children withstands acute disease much better than it does in adults. We constantly see this exemplified in cases of croupous pneumonia, a disease so fatal from heart failure to adults, so harmless to children.

That heart failure is not the cause of the cyanosis in broncho-pneumonia is also shown by the rapid effect of oxygen inhalation in this disease. One can hardly ascribe the disappearance of lividity to the action of oxygen upon the heart.

The question is not unimportant, or I should not trouble Dr. Blackman with my criticism. If we direct our attention in the early stages of the disease to the condition of the heart rather than to that of the lungs, as he suggests, we run the risks of omitting certain treatment directed against the lung disease, which, though at best not particularly satisfactory, is not without good effect. I would recommend Dr. Blackman to try the oxygen inhalations, and would suggest hot mustard baths in preference to either linseed meal poultices or spongio-piline, both of which are open to objection. Strophanthus, digitalis, and strychnine are no doubt of great service in the later stages of the disease, but I confess I set greater store on alcohol.

Manchester, Jan. 25th. T. C. RAILTON, M.D.Lond.

## TRIGEMINAL NEURALGIA, ASSOCIATED WITH LOSS OF TEETH.

SIR,—I have read Mr. Sewill's paper on this subject with great interest, and think it highly probable that his deductions are correct. At the same time I cannot help feeling that he has overlooked one very important cause of tic douloureux in edentulous cases, namely, the presence of cicatricial tissue, the result of extraction, corresponding to the neuralgia following the amputation of a limb. This cicatricial lesion is always situated on the alveolar border, and being irritated by a badly fitting denture gives rise to the most distressing symptoms.—I am, etc.,

Harley Street, W., Jan. 20th. WM. RUSHTON.

## AN OCEAN AMBULANCE.

SIR,—In the BRITISH MEDICAL JOURNAL of December 26th, 1896, under the above heading, you refer to a subject in which I have been interested during many past years Since 1884 I have endeavoured from time to time to attract public attention to this matter, partly by my pen and partly by exhibiting my plans of hospital ships. In the *Lancet* of April 4th, 1896, you will find my views fully explained. Therein I state: "The hospital ship is to be regarded as an integral part of the fleet of war. It ought never to be wanting, and should accompany the fleet as the ambulance or the field hospital does the army. As long as hospital ships and rafts are wanting the Naval Medical Service will be incomplete."

Further, I have advocated for some years past the establishment of a naval ambulance association, "to succour all during and after the battle, without regard to nationality, and to proceed with their rafts to the assistance of the crew." It seems to me that as "the Red Cross Societies assist the Army Medical Service with men and material, they should likewise supplement the Naval Medical Service."

Surely we are not going to let the United States Government be the first to add ambulance ships to its navy. The great obstacle I have met with has been cost; but, if it be justifiable to spend millions on life destroyers, money should not be wanting for a naval ambulance association.

The "great difficulty" you mention, namely, that vessels carrying coal, which is a contraband of war, are liable to be captured, would, I should think, be met by the fact that hospital ships could be protected by flying a Red Cross flag. They need not be in the way of belligerents any more than the St. John Ambulance Service is.—I am, etc.,

P. MURRAY BRAIDWOOD.

Coleshill, Amersham, Bucks. Jan. 19th.

## THE URIC ACID DIATHESIS.

SIR,—Dr. Dutton is kind enough to give us a classification of gout in the BRITISH MEDICAL JOURNAL, January 9th, p. 114, which, if not altogether new, may still be of use to those who prefer to treat results rather than causes.

I regret that I have failed to see more than one class of gout, namely that due to excess of uric acid in the body, and I know that unfortunately where this is the result of errors in diet extending perhaps over thirty or forty years, it cannot be cured by "a non-nitrogenous diet," if such there be, or by "a strictly vegetable diet," which by the way I never advise, even if carried out "for over a year."

If "the uric acid diathesis" has nothing to support it but records of failure in cases thus treated with doubtful diets and large expectations, it must be in a bad way.

I venture to believe also that my statement that 6 or 8 gr. of uric acid may be daily introduced into the body in foods and drinks is not a matter of authority (always the least secure foundation of science) but of fact, and my facts bearing on this point have been published from time to time during the last four years,[1] and have always been open to revision by other observers.

I may perhaps also remind Dr. Dutton that a point in my paper at the Medical Society which originated this discussion is that by means of the knowledge thus obtained, I am able to cure migraine with a certainty scarcely short of absolute, and from these and other facts I make the suggestion that those who suffer from it owe their pain to diet, and not to diathesis; but these points are susceptible of clinical demonstration.—I am, etc.,

Brook Street, W., Jan. 11th. ALEXANDER HAIG.

# NAVAL AND MILITARY MEDICAL SERVICES.

### DISTINGUISHED SERVICE AWARD.

BRIGADE-SURGEON-LIEUTENANT-COLONEL J. ARNOTT, M.D., Army Medical Staff, who served in the Abyssinian and Afghan campaigns, has been granted a distinguished service reward of £100 per annum.

### THE NAVY.

FLEET-SURGEON JOHN WILSON, M.D., late in medical charge of the Royal Naval Hospital at Great Yarmouth, died on January 23rd. He was a graduate of the Queen's University in Ireland and a gold medallist in Physics when taking his M.A. degree. He entered the Royal Navy as Surgeon, April 1st, 1873; became Staff-Surgeon, April 1st, 1885; and Fleet-Surgeon, September 9th, 1893. We learn from the *Royal Navy List* that he received the approbation of the Admiralty for the creditable manner in which he performed his duties when Surgeon at Malta Hospital in 1881. He was Surgeon of the *Hecla* at the bombardment of Alexandria, July 11th, 1882, at the subsequent operations there, and in the Suez Canal during the occupation (Egyptian medal, Alexandria clasp, Khedive's bronze star). When Staff-Surgeon of the *Cormorant* he was commended by the Admiralty for the judicious measures adopted after the death of the captain on board that ship, from yellow fever, on passage home from the Pacific, 1889. He was favourably noted by the Director-General when Surgeon at Plymouth Hospital, 1884, when Staff-Surgeon of the *Cormorant*, 1887, and when Staff-Surgeon at Chatham Hospital, 1892. On February 12th, 1894, when Fleet-Surgeon-in-charge at Yarmouth Hospital, a fire of an extensive nature broke out in the roof of the building, owing to the defective construction of a chimney; after which he was informed by the Admiralty, that the fact of the fire having been discovered at once, and extinguished with great celerity, was very creditable to the establishment, and met with their lordships' approbation.

The following appointments have been made at the Admiralty: WILLIAM E. BRETON, M.D., Fleet-Surgeon, to the *Prince George*, January 22nd; HENRY A. W. RICHARDSON, Fleet-Surgeon, to the *Monarch*, January 26th, and afterwards to Cape of Good Hope Hospital, undated; JOSEPH H. WHELAN, M.D., Staff-Surgeon, to the *Monarch*, and afterwards to the *Penelope*, when the *Monarch* becomes port guardship, undated; OSWALD REES, M.D., Staff-Surgeon to the *Monarch*, when commissioned, January 11th; ROBERT F. BOWRIE, Surgeon, to the *Orlando*, additional, for the *Tauranga* when commissioned, January 14th; THOMAS H. KNOTT, Deputy Inspector-General, to the *Vivid*, additional, for temporary service at Plymouth Hospital, January 26th.

### ARMY MEDICAL STAFF.

SURGEON-COLONEL MICHAEL COGAN retires on retired pay January 27th. His commissions bear date as follow: Assistant Surgeon, March 31st, 1864; Surgeon, March 1st, 1873; Surgeon-Major, April 28th, 1876; Brigade-Surgeon, December 29th, 1888; and Surgeon-Colonel January 24th, 1894. He was in medical charge of a detachment of the 77th Regiment in the Hazara campaign in 1868. He was also in the Afghan war in 1880, when he organised the Principal Base European Hospital at Candahar, under the command of Major-General Phayre. He was mentioned in despatches for his services, received the Afghan medal, and was thanked by the Governor-General of India in Council.

Brigade-Surgeon-Lieutenant-Colonel JAMES MACARTNEY, M.D., is placed

[1] BRITISH MEDICAL JOURNAL, July and December, 1894; October, 1896; *Journal of Physiology*, vol. xv, 1893.

on retired pay from January 26th. He entered the service as Assistant Surgeon, October 2nd, 1868; became Surgeon, March 1st, 1873; Surgeon-Major, October 2nd, 1878; was granted the rank of Lieutenant-Colonel, October 2nd, 1886; and made Brigade-Surgeon-Lieutenant-Colonel, December 15th, 1892. He served in the Kaffir war in 1877-8, and was present in the engagement at Draaibosch on December 30th, 1877; he was mentioned in despatches as having "zealously performed his duties with the wounded under a heavy fire," and received the South African medal with clasp.

Surgeon-Major-General T. WALSH, Principal Medical Officer Bengal Command, and Surgeon-Colonel T. A. ATKINS, Principal Medical Officer Poona District, have been appointed Honorary Surgeons to the Viceroy of India.

Surgeon-Captain A. De C. SCANLAN, who was placed on half pay on account of ill-health on March 11th, 1896, is restored to the establishment from January 4th, *vice* C. C. Fleming, seconded, with precedence next below G. G. Adams.

### ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT DAVID L. ANDERSON, 1st Banff Volunteer Artillery is appointed Surgeon-Captain, January 27th.

### INDIAN MEDICAL SERVICE.

SURGEON-MAJOR D. F. DYMOTT, M.B., Madras Establishment, is permitted to retire from the service from May 14th next. He was appointed Surgeon, March 31st, 1880, and Surgeon-Major twelve years later. He was with the Burmah expedition in 1885-6, and has the Frontier medal, with clasp.

Brigade-Surgeon-Lieutenant-Colonel G. BAINBRIDGE, M.D., Bombay Establishment, who was appointed Assistant-Surgeon, April 1st, 1867, is promoted to be Surgeon-Colonel, from October 4th last.

Surgeon-Major C. H. BEATSON, Bengal Establishment, who entered the service as Assistant-Surgeon, September 30th, 1876, is promoted to be Surgeon-Lieutenant-Colonel from September 30th last. He was with the Manipore expedition in 1891, was mentioned in despatches for his services, and has the Frontier medal, with clasp.

Surgeon-Major THOMAS WATKINS WILSON, M.D., Bengal Army, retired, died at South Kensington on January 15th, at the age of 84.

### THE VOLUNTEERS.

SURGEON-LIEUTENANT A. H. CROUCHER, M.D., 1st Sussex Engineers, Royal Engineers (Volunteers), is promoted to be Surgeon-Captain, January 27th.

Mr. DAVID R. DOBIE, M.B., is appointed Surgeon-Lieutenant in the 2nd (Berwickshire) Volunteer Battalion the King's Own Scottish Borderers, January 27th.

Mr. CHARLES E. R. BUCKNILL is appointed Surgeon-Lieutenant in the 2nd Volunteer Battalion the East Lancashire Regiment, January 27th.

Surgeon-Lieutenant W. TIPLADY, 5th (Perthshire Highland) Volunteer Battalion the Royal Highlanders, has resigned his commission, January 27th.

### CADET BATTALION.

ACTING-SURGEON C. W. SCOTT, M.B., 1st Cadet Battalion the Buffs (East Kent Regiment), has resigned his appointment, January 27th.

## ARMY MEDICAL STAFF EXCHANGE.

*The charge for inserting notices respecting Exchanges in the Army Medical Department is 8s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.*

A SURGEON-CAPTAIN, who will complete five (5) years in India, March, 1898, is willing to exchange places in the roster with a medical officer who would have two, three, or four years more to serve in India, or is willing to take a complete tour of Indian service from next trooping season. Apply, stating the amount willing to give, to Surgeon-Captain Gibbard, A.M.S., Ootacamund, India.

Surgeon-Major recently home wishes an exchange to a Colonial station for a whole or part tour. Apply, stating amount of bonus, to Exchange, care of Messrs. Holt and Co., 17, Whitehall Place.

### VOLUNTEER MEDICAL STAFF CORPS.

THE distribution of prizes to the London companies of the Volunteer Medical Staff Corps will be made at Calthorpe Street, Gray's Inn Road, W.C., by the Countess of Albemarle, on Saturday, February 6th, at 7 P.M.

IT is reported that Surgeon-Colonel W. E. Riordan, P.M.O., Cork, is under orders for foreign service, and that Brigade-Surgeon-Lieutenant-Colonel E. J. Fairlamb, now serving at Netley, will retire.

Surgeon-Colonel N. B. Major, on promotion, will be transferred to India from the Straits Settlements, where he has been in the rank of Brigade-Surgeon, serving as Senior Medical Officer.

### "FIRST AID" IN WAR IN INDIA.

THE *Madras Mail* points out in an able article the importance of "first aid" in war, and the necessity of a specially selected and trained agency for the purpose. In the English army the requirement is well met by the Medical Staff Corps; but in India neither are the men of the Army hospital corps nor the *dhoolywallahs* competent to render those "first aid" services which, when properly applied, are instrumental in saving many a valuable life and limb.

### OFFICERS' MESSES IN INDIA.

"A RETIRED OFFICER" writes to the *Army and Navy Gazette* of January 23rd pointing out that while the cookhouses of barracks in India are by regulation under the sanitary control of army medical officers, those of officers' messes are not so, and comments on the grave disadvantages attending such a state of things. The remedy we would suggest seem plain enough—namely, to insert an addendum to Army Regulations, vol. vi, India (Medical) ordering that army surgeons, when making their sanitary inspections shall visit the cookhouses and subsidiary buildings of officers' messes and report on their condition to the officers commanding regiments. The servants' houses, etc., in mess compounds are as much in need of sanitary supervision as the kitchens. Now that a grave defect has been pointed out, let us hope that no delay in rectifying it will occur. The remedy is quite simple and practicable.

### SPECIAL STUDY LEAVE FOR ARMY MEDICAL OFFICERS.

A CORRESPONDENT of our contemporary the *Army and Navy Gazette* has lately handled this subject in a very able and temperate manner. He shows how absolutely insincere must the "good doctor" claptrap be, especially in the mouths of those who, by their dumb opposition to all army medical reform, effectually prevent doctors, good, bad, or indifferent from entering the service; and, by having a chronically undermanned establishment, make ordinary leave very difficult to obtain and study leave a sheer responsibility. No mere study of books, however hard, can keep the army medical officer abreast, especially in surgical knowledge; he must see with his own eyes the practical application of new methods in a great civil hospital. The writer shows that this fact has been fully recognised by various Commissions, from that of Lord Herbert downwards, who have all urged and recommended study leave. The Camperdown Commission recommended three months' study leave every seven years. Nothing whatever has, or, perhaps, can be done in this matter. We might remind the present Adjutant- and Quatermaster-Generals that, as members of Lord Morley's Committee, they were parties to these recommendations, which remain dead letters.

The truth is, it is idle to speak of good or any other doctors while under existing conditions they will not enter the army. The War Office must "first catch its hare" before discussing how to cook it!

# MEDICO-LEGAL.

### ACTION FOR ALLEGED NEGLIGENCE AGAINST A MEDICAL PRACTITIONER AT BANGOR.

A MOST important case to the medical profession was heard at the last Carnarvon Assizes, and resulted in a verdict for the defendant with costs. It was an action brought by Mr. Dew, a solicitor at Bangor, against Dr. Grey Edwards, who is not only a leading practitioner at the same place, but has also the honour of being the mayor of the city. The action was for damages and expenses incurred by the plaintiff in consequence of the illness of his children, which damages the sustained, it was alleged, either by the ignorance or neglect of the defendant.

The plaintiff was represented by Mr. Honoratus Loyd, instructed by Messrs. Peacock and Goddard, of London; Dr. Grey Edwards was represented by Mr. Marshall, Q.C. and Mr. Ellis Jones, M.P., instructed by Mr. W. Hempson, of Messrs. Hempson, London, (solicitors to the Medical Defence Union). This account of the case is founded on a very full report in the *North Wales Chronicle*. The illness referred to in the pleadings, it appeared, was that of a child of Mr. Dew, named Stanley, aged 6 years, who was taken ill on October 4th, 1895, upon his return home from Bangor. By the opening statement, Dr. Grey Edwards was sent for on the following day, the child having become worse in the night. An examination showed that the throat was sore, and the usual remedies were prescribed and directions given to place the child in a separate room so that he might not be disturbed by the other children. This was done, and Mr. Dew himself slept with the boy that night. Dr. Grey Edwards came the following days, continuing the same treatment. The child remained very ill, and the father went to the house of Dr. Edwards one evening and urged him to come and see him. Certain remedies were made up, but Dr. Edwards did not consider there was any necessity for him to call again that evening. Upon calling the next day Dr. Edwards stated that the child was getting on nicely, that there was no danger, and that the same treatment should be continued. Counsel mentioned here that there were in the house at this time four other children, one of whom, an infant, Mrs. Dew was nursing. On October 8th the boy was very ill; his mouth was open, the glands much inflamed; the head rigid, and there was a very offensive discharge from the nostrils. A trained nurse was suggested by Mr. Dew, but objected to by Dr. Edwards, but was finally sent for, and attended the child from that time. Certain suggestions were made, it was contended, by Mr. Dew in reference to disinfectants. Another child was then in the room occasionally, and Dr. Edwards, only at the instance of Mr. Dew, ordered her out, this being, it was alleged, the first instance in which any directions which had been given by Dr. Edwards with regard to isolation. In spite of the continuance of the offensive discharge and other serious symptoms, Dr. Grey Edwards still contended that the case was doing well. Some carbolic oil was bought by Mr. Dew and given to the nurse, and the attention of the doctor was, it was said, called to the fact that the handkerchiefs used for the discharge were not being disinfected, but were taken by the servants to the scullery and there washed. Dr. Edwards then, it was alleged, and then only, desired that old linen should be substituted for the handkerchiefs, and then burnt. An inhaler was also suggested by the father and purchased by him. On October 11th Dr. Farley came from the infirmary to see the child on behalf of Dr. Edwards, and, noticing the syringe, objected to its use, it not being the most convenient form of apparatus. He requested Mr. Dew to call at the infirmary for another, and stated that if it were used it must not be used for any other person. On Saturday, October 12th, there was a more serious change, and Mr. Dew requested Dr. Edwards to call in another medical practitioner for consultation. Dr. Williams, of Holyhead, was suggested, and it was finally arranged that he should be sent for; but before he could arrive the child died. Mr. Dew, however, met him at the station, and, on walking up with him to the house, Dr. Williams, after hearing a description of the symptoms from the father, declared positively, it was said, that the case must have been one of diphtheria, and also expressed much sur-

prise that no precautions had been advised in regard to isolation, and that the greatest supervision must be exercised upon the other children, so that, should any symptoms arise, they could be treated at once. The sanitary inspector was communicated with, and Mr. Dew and he called upon Dr. Grey Edwards. They saw the defendant, and he was informed of what Dr. Williams had said, and was asked what should be done for the safety of the other children. Dr. Grey Edwards denied that the case had been one of diphtheria, and said that it was malignant sore throat from which the child had died. Dr. Grey Edwards also said that there was no infection, and, in answer to the sanitary inspector, stated that the disease was not notifiable. They were also informed by him that there was no danger with regard to the other children. Counsel proceeded to say that on the following Sunday the infant, who had been nursed by Mrs. Dew, became ill, and died from a sore throat complicated with bronchitis. All the other children except one (Ivy) were then sent away to an hotel. Later on the child Ivy became ill, and Dr. Lloyd was sent for. Dr. Lloyd finding that Dr. Grey Edwards was in attendance, declined to enter the house. Dr. Edwards saw the child, and, it was stated, assured the father that there was nothing serious the matter with her, and that she would soon be well. Mr. Dew then sent for Dr. Lloyd, and insisted upon him seeing the child. He at length consented, and after examination of the child's throat ordered complete isolation. On the next day, after another examination, he pronounced the case to be one of diphtheria. Later on in the week Dr. Fraser, the medical officer of health, came in, and he, too, diagnosed diphtheria. A few days later a female servant was taken ill, but insisted upon going home, and soon afterwards she was notified as suffering from diphtheria. Under these circumstances counsel urged that Mr. Dew was justified in considering that Dr. Edwards, either through ignorance or otherwise, had not exercised the ordinary skill and care which a medical man was bound to exercise. Counsel considered that no doubt could exist that the boy had suffered from diphtheria, and that no sort of precautions had been ordered by the defendant. Every attempt had been made to get information about the child's illness from Dr. Farley and the nurse, but without success, and after expert medical men had been consulted and declared from the symptoms described that the disease must have been diphtheria, the plaintiff determined to test his legal right. It appeared from the pleadings that the defendant charged negligence to the plaintiff for having failed to use precautionary measures advised by the defendant.

Mr. Dew gave evidence in support of the statement of his Counsel, and was submitted to a lengthy cross-examination by the defendant's counsel. He said, in answer to Mr. Marshall, Q.C., that he had known Dr. Grey Edwards for many years, and that he had been the medical attendant of the family for ten years. He had never complained of his treatment before. Dr. Edwards never told him to use milk and beef-tea. He possessed a book on medicine, and upon hearing that the case was one of diphtheria he had looked it up in the book, and found that the instructions as to the treatment for diphtheria had been entirely ignored. Dr. Edwards told him that the child might disturb the other children, and at his (Mr. Dew's) suggestion the child was isolated. He was not told by Dr. Edwards not to let the other children into the room. There was no painting the throat of the child. Dr. Edwards did not at one time bring in a bottle of nitrate of silver for the purpose of painting the throat, but on the Saturday afternoon when the child died he did bring in something, which he found afterwards was lunar caustic. On the Sunday previous the temperature was taken by Dr. Edwards; the nurse made a regular report in writing each morning, but he did not know these reports were burnt by her as a measure against infection. A mixture had been ordered for the child to relieve pain, and this was properly administered. Dr. Edwards visited twice a day, and on the Friday before the death came three times, and, in addition, Dr. Farley came once. A particular nurse was mentioned, but Dr. Edwards did not say that she must not attend as she might convey contagion. The doctor strongly urged that it was not necessary to engage a nurse. Until the Wednesday morning, when he himself brought some eucalyptus into the room, no disinfectant had been used. He had asked Dr. Farley whether he had used antitoxin, and in spite of the answer, which was in the negative, he still believed antitoxin had been administered, although in searching Dr. Edwards's books he could no record of that drug having been prescribed. His theory was that Dr. Farley had used antitoxin on the Friday night. On the Sunday after the death Dr. Edwards did not give orders for the house to be disinfected, and did not tell him in Nurse Lyons's presence that the rooms would have to be disinfected. He did not know that his brother's wife was suffering from sore throat just about the time the boy Stanley was taken ill. He never said that Ivy had been staying at his brother's house at the same time as Stanley. He had been told that the drainage at his brother's house was defective. In re-examination the witness stated that the discharge from the child's nostrils was of blood-red colour mixed with matter. On the lips were sores, which had turned black, and there were cracks on the lips. He did not consider that Stanley had croup; he knew the symptoms of croup well. He would never have disregarded any precautions which the doctor might have directed to be taken. Dr. Grey Edwards showed no dissatisfaction at the children being in the house.

Mrs. Dew, wife of the plaintiff, was called. She stated that in October, 1895, three of the children, including Stanley, were together at Wellfield, the residence of her brother-in-law. They came home on October 4th, and she thought Stanley looked ill. Mrs. Dew then corroborated the statements previously sworn to by her husband.

On cross-examination by Mr. Marshall she denied having told Dr. Edwards that the child Stanley had caught a cold by sitting on the ground at Wellfield. She never mentioned that place. The doctor ordered strong beef-tea and port wine on Friday. Dr. Edwards did not speak of the necessity for isolation, and was not angry when he found another of the children in the sick room. The children were anxious to see their brother, and she did not remember the doctor saying that they must not do so. She did not remember telling the doctor not to alarm her husband as she was apprehensive of his mental condition. The doctor did not once say "The things used in this room must not go out." Witness did not remember Nurse Lyons warning the children not to go into the room.

A cook gave evidence that she had been allowed to kiss Stanley in the nurse's presence without any interference on the part of the latter.

Mr. Lennox Browne was then called, and, after describing his qualifications and stating that he was the author of several works upon diseases of the throat, some of which had been translated into French and German, and had also written a treatise upon diphtheria, was examined upon the diagnosis and treatment of diphtheria, which he minutely described. Having heard the evidence of Mr. and Mrs. Dew, he had no doubt that the symptoms (in the absence of the examination for the bacillus), namely, the swelling of the glands, the change in the complexion to pallid and pasty, the nasal discharge of blood and matter, the excoriation of the lips, the intense fœtid nature of the breath, the lack of interest in a child previously active, and (more than all) the temperature which was normal and even subnormal, proved the case to be diphtheria. Another sign would be the vomiting which took place on the third, fourth, and fifth day of the case. The passage of food through the nostrils indicated paralysis of the palate, one of the first of the minor paralyses which would set in. Assuming that the witnesses had properly described the symptoms, the boy must have suffered from diphtheria of the fauces and nostrils of the most malignant type. He had to state with great regret that he did not think proper care and precaution had been taken in the case to prevent the spread of the disease and infection to others. To allow handkerchiefs so used to be washed in the house without previous disinfection and then to be again used was a very likely way to convey contagion into other articles of clothing. In cross-examination Mr. Lennox Browne admitted that his opinion might be modified by the evidence upon the other side. He would have liked to have had the main ingredient, the false membrane, in order to prove conclusively that the disease was diphtheria. The cases in which false membrane was absent were very rare. Asked if he were satisfied that there was no false membrane present in this case whether he would declare the case to be one of diphtheria on the symptoms described by Mr. and Mrs. Dew in their evidence, he replied that there had been no *post-mortem* examination. He was, however, quite satisfied from what he had heard, even in the absence of false membrane, that the case was one of diphtheria. Mr. Marshall asked if it were likely that two medical men could fail to distinguish between false membrane and slough? Witness replied that if he (Mr. Marshall) saw the two things he would not find much difference. Proceeding, witness said that putrid sore throat was not a children's disease. Mr. Marshall: What about septic sore throats? Witness: It would invariably be attended with a high temperature. There was not such a thing as sloughing sore throat in a child of 6 years, except when accompanied by scarlet fever, measles, or diphtheria, and other high temperature fevers. Septic sore throat was an inflammation of the tonsils due to the presence of pus, and it might appear in a child under high pressure. The distinctive point in septic sore throat was the high temperature, but he admitted that in the early stages, until the third or fourth day, diphtheria was very deceptive. It would only be in a very rare case that no membrane was present in diphtheria, but the sanguineous discharge from the nose was an indication of its presence.

Dr. Owen T. Williams, of Holyhead, gave evidence that he received a summons by telegraph to go to Bangor, and that plaintiff met him at the station. He walked to his house, and that, on the symptoms being described to him, he considered the case to be one of diphtheria.

Dr. Lloyd, Bangor, gave evidence that he was called in by the plaintiff to see one of his children, and from the symptoms suspected diphtheria. He saw the case the next day, and asked Dr. Fraser to see it with him, and he confirmed his opinion. A portion of the membrane was sent to London for bacteriological examination, and a telegraphic message was sent later to say that the bacillus of diphtheria had been found in it. Later he was asked to see the servant, and mentioned to the nurse in her presence that he was afraid they were going to have another case. The next day when he called he was informed that the servant had left the house and gone to her home at Festiniog. In cross-examination the witness said that he told Dr. Williams he should not have concluded that the child suffered from diphtheria. He had never seen a case of diphtheria without a membrane. He certified that the baby died from bronchitis, laryngitis, and convulsions, bronchitis being present all along.

Dr. Fraser, medical officer of health, deposed that he received no notification from the defendant as to the boy's death, but he had a communication from the registrar, in which malignant sore throat was described as the cause of death. He went to Bangor and gave instructions that the place should be disinfected. If the symptoms described were detailed to him by a medical man, he should be of opinion that the case was one of diphtheria; but if narrated by a layman, he would be disposed to discount them to some extent. Replying to the judge, witness said that if death were not due to diphtheria, he should be of opinion that it was due to the presence of cocci, and that it was a case of infectious sore throat.

Other witnesses followed, including the matron of the nursing institution, who deposed to the fact that the fee charged for the nurse Lyons was that for an "infectious case" all through.

Mr. Marshall, Q.C., in opening the case for the defence, said it was obvious that it was one of the very highest importance to the defendant, his professional character being at stake. The case must stand or fall upon the question of the disease being diphtheria or not. He did not think there was any evidence that the case was one of diphtheria. A number of the symptoms named were common to other diseases, and not peculiar to diphtheria. The change of complexion given by one or two witnesses was a mere matter of opinion, and indeed, other witnesses had spoken of the complexion of the child as "not pallid, but flushed." The nasal discharge and fœtid breath were not peculiar to diphtheria. With regard to the temperature, it was quite clear that there was nothing in favour of the plaintiff's contention in the evidence given. Mr. Lennox Browne had stated in his book that the temperature in 80 per cent. of diphtheria was 101° F.; in 50 per cent. averaged 99° F.; whereas in the present case the temperature was either normal or subnormal. With regard to the question of the false membrane, he would point out that none of the plaintiff's medical witnesses saw the child, which was an absolute necessity in order to form a safe opinion as to the nature of the disease, and the diagnosis of diphtheria was in some cases extremely difficult. The defendant found there was no false membrane

in this case, and he had no difficulty in making up his mind that it was not diphtheria. Dr. Farley also, who had seen the case, acquiesced in the diagnosis. It had been attempted to be proved that antitoxin had been used in the case, but the evidence brought forward was not only most shadowy, but most childish. Antitoxin was not administered at the time the plaintiff suggested, nor upon any other occasion. Mr. Dew was utterly mistaken in thinking the case was one of diphtheria. Dr. Grey Edwards was called in on Saturday, when he found the child had a sore throat. He prescribed for it, and ordered poultices and "slop diet." On Sunday, Monday, and Tuesday the symptoms, according to Mrs. Dew, did not change, and therefore the same treatment was continued. "Painting" the throat was suggested, but the patient resisted too violently for its use, and Condy's fluid was ordered. On Friday iron was prescribed, and brandy, and on Saturday digitalis and other remedies given. The defendant told Mr. Dew several times that the children who were at Wellfield ought not to return before the recovery of the boy Stanley, and that the children ought not to be admitted into the sick room. Dr. Grey Edwards had been required by Mrs. Dew to treat the case a little more lightly to Mr. Dew than he would otherwise have done. His case was that the disease was never diphtheria, and not infectious in the sense that scarlet fever or measles was.

Dr. Grey Edwards gave evidence corroborating the statements of his counsel, and detailed minutely the treatment adopted, and absolutely denied that he had not given orders for the other children to be excluded from the sick room. He had advised that the children still away when Stanley's illness commenced should remain at Wellfield. On one occasion, finding that one of the children was in the sick room he was angry, and ordered her to be removed at once. Mrs. Dew did not think much harm could come to the child if she did not come near the bed, but he insisted upon her leaving at once. Mr. Dew objected to any skilled nurse coming in. Mrs. Dew urged that the children were very anxious to see Stanley, and asked if they could do so, but he replied: "Certainly not." He ordered that great care should be exercised to wash everything as soon as Stanley had used it, and also to prevent any discharge getting upon any clothes. He also advised that linen rags should be used instead of pocket handkerchiefs, and that these should be immediately burnt. He gave orders for the greatest precautions to be used, and examined for any appearance of false membrane each day. He would not allow a nurse suggested by Mrs. Dew to attend the case, as he knew that she would have to go to a midwifery case afterwards. On Friday, October 11th, he saw the child three times, and noticed that there was some want of tone. He added iron to the mixture he had prescribed previously, and ordered port wine. Up to that time he had believed the child would recover, and even then he had not given up hope of ultimate recovery. He asked Dr. Farley to see the child that evening late, as he was called away to Penmaenmawr, and Dr. Farley kindly did so, and washed the mouth out with boracic acid. It was utterly untrue that he had used antitoxin or that Dr. Farley had done so. He was quite willing for a second opinion, and Mr. Dew suggested Dr. Williams, of Holyhead, and he was telegraphed for, but came only after the death of the child. He gave instructions to the nurse as to the disinfection of the room, and ordered all bedding to be burnt. Mr. Dew said to him, "You say there is no danger, and yet you are taking all these precautions." He replied, "It is in consequence of taking these precautions that I anticipate no danger." The sanitary inspector expressed his opinion that the bed mattress need not be destroyed, and he told him that, if it could be thoroughly fumigated, he would be satisfied. He considered that Stanley suffered from malignant sore throat. There were three degrees of inflammation of the tonsil, and he was suffering from the affection in the third degree. He had repeatedly and daily looked for membrane, but never found any. The absence of this and other symptoms led him to the conclusion that it was not diphtheria. In cross-examination Dr. Grey Edwards stated that he was qualified in 1879, and had had considerable experience of diphtheria in 1875 and 1879 in Ireland. After the Tuesday before the boy died he had no doubt about the nature of the case. He had taken as much precaution as was usual in similar cases. He used Sanitas and Condy's fluid. The case was on the border line between contagion and infection. He had told the sanitary inspector that it was not a notifiable disease; not that it was not infectious. He took it that plaintiff and his wife clearly understood the directions he gave with regard to the non-removal of things from the room.

Dr. George W. Farley also gave evidence, and stated he saw the child, Stanley, at the request of Dr. Grey Edwards. He examined the throat and found it inflamed; there was no obstruction in the windpipe. He saw no appearance of membrane. He insufflated the throat with boric powder and also syringed the nose. He saw both Sanitas and Condy's fluid in the room. He was of opinion that the child was suffering from malignant sore throat, and that sudden failure of the heart's action was the cause—a common one in such cases—of the death. He visited the child again and found him much weaker, and he ordered the brandy to be increased. It was quite incorrect to say that he had administered antitoxin. He visited the house a third time, at the request of Dr. Grey Edwards, but the child was dead when he arrived there. It was true that he had declined to give Mr. Dew any information, but that was because he apprehended that legal proceedings were about to be taken, and preferred to state in court what he knew about the case.

Nurse Lyons gave evidence, and confirmed Dr. Grey Edwards about the use of the old linen. She never saw any false membrane in Stanley's case, and the symptoms in the other cases were very different, and in Ivy's case she did see the false membrane. It would not be right to describe Stanley's face as being pallid; it was slightly feverish. The temperature was normal in the morning and higher in the evening. She had been told that the case was contagious from the first. She did not think the boy was very bad, and the discharge was not offensive. Nurse Ida stated that there were plenty of disinfectants in the room, and that Dr. Grey Edwards had told her to disinfect everything that came in contact with the child.

Dr. Lloyd Roberts, consulting physician to the Manchester Royal Infirmary, was called, and stated that, after hearing the symptoms as described by Drs. Grey Edwards and Farley, he had come to the conclusion that the case was not diphtheria, but a malignant sore throat. If it had been a case of true diphtheria there would have been less swelling and not so much discharge from the nose. He had never seen a case of true diphtheria without a membrane. In his opinion the treatment by Dr. Grey Edwards was right and proper, and he considered the course pursued by him with regard to disinfectants and other matters was adequate.

Dr. Henry Ashby, Physician to the Manchester Royal Infirmary, and Lecturer on Children's Diseases at Owens College, Manchester, was called, and agreed generally with the evidence given by the defendant, Dr. Farley, and Dr. Lloyd Roberts. His opinion was that the case was non-diphtheritic.

The Judge, in delivering judgment, stated that a doctor was bound to give reasonable care and skill in attending to his patients, and it must be shown by the plaintiff that he had failed to give such reasonable care and skill in the case He was bound to say that he saw no proof of that. He failed to see that the plaintiff had proved that the child had died from diphtheria, and there was no proof whatever of any negligence in the precautions taken by the doctor. He was sorry to find that this was one of those cases in which there had been a great deal of painful feeling on the part of those interested in it, and he thought it had all originated from the too hasty statement made by one of the witnesses. He felt sure that Dr. Williams of Holyhead did not intentionally do what he (his lordship) thought he ought not to have done. He was sure that Dr. Williams would be the first to regret his course of action, the result of which at the time he probably never realised. He could not help feeling that the whole dispute originated from the too hasty remark of Dr. Williams. He had not seen the child, but he had had a statement made by the plaintiff, and had at once expressed the opinion that the child had died of diphtheria. It was quite clear that the plaintiff had allowed his feelings to get the best of him in the matter, and his evidence was not to be relied upon where it was critical. The child had died, but the doctor could not be held liable for that. He found no evidence that the defendant had not used every reasonable care and skill. In conclusion, his lordship said his judgment must be for the defendant with costs.

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## ACTION AGAINST THE "AMERICAN DENTAL INSTITUTE."

BEFORE the Lord Chief Justice and a special jury the case of Cavendish *v*, the American Dental Institute was heard last week. In this action the plaintiff, Mr. Richard Cotton Cavendish claimed damages from the defendant company for alleged negligence on the part of one of their operators whilst attending upon him and putting in certain artificial teeth. The defendants denied the negligence

From the report of the case in the *Times* the evidence given as to the negligence was as follows: In January Mr. Cavendish went to the American Dental Institute, South Kensington Branch, Thurloe Square, S.W. He saw one of the assistants named McCormick, who, after examination, stated he could put him all right for the fee of £5 per tooth. The attendance was continued daily for some time, and finally what was practically a new set of teeth in the upper jaw was provided. Finding that the plate was causing soreness, and that two of the teeth had dropped away whilst at Brighton the plaintiff went to the branch establishment there and made a complaint. He was, however, referred to the South Kensington Branch, and, on returning to London, called and saw Mr. McCormick, who considered that the fault was not his but that of the workmen employed upon the set The plate was refixed, but shortly after the mouth became sore, and mastication could not be carried on at all. Later on he saw Mr. McCormick, who lanced the gums, and requested him to consult a medical practitioner. A few months later the plate broke in halves and gave much pain. He attended again at the institute and saw Mr. McCormick, who again put the blame upon the workmen of the establishment. The plate was mended and replaced. After this the witness suffered much inconvenience, and finally had to consult another dentist, who removed the plate, giving him great relief. He then had to incur the heavy expense, amounting to 60 guineas, for another plate, and had suffered no pain or inconvenience since. Medical evidence was given corroborating the plaintiff's statement as to the condition of his mouth and the manner in which his health had been affected Mr. Tomes, F.R.C.S., F.R.S., gave expert evidence that the plate was badly made and the teeth put in in a slovenly manner; the plate was too thin, and the workmanship bad or ill-judged considering the strain that would be brought to bear upon it. Mr. Morton Smale, M.R.C.S., confirmed Mr. Tomes's opinion, and stated that the bridge was not a well-made one. The defendant company put Mr. McCormick into the box, and in his evidence he stated that he was practising at Thurloe Square, and was a doctor of dental surgery of the University of New York, and had been in practice for six years. He considered the plate was quite thick enough, and denied that the plaintiff had ever complained of gumboils at any of his interviews with him. A female assistant confirmed the evidence as to what passed at the interview between the plaintiff and Mr. McCormick. Mr. Isidore Clifford, a licentiate of dental surgery of the Royal College of Surgeons, who stated that he was a director of the defendant company, also gave evidence. The jury returned a verdict for £150 damages, and judgment for this amount was accordingly entered.

It must be noted here that the result, although satisfactory as far as the verdict goes, illustrates once more the necessity for an amendment of the present "company law." It will be remembered that it has been contended that a company cannot be sued under any of the Medical, Dental, or Pharmaceutical Acts for breaches of such Acts. This contention has been borne out by decisions in the courts in which the companies, not being "individuals," have been held to be exempt from the provisions of the Acts in question. Hence it is in consequence of these decisions that dental businesses, trading chiefly under some such name as "Anglo-American" or "American and English," have sprung up, having perhaps one duly qualified dentist on the staff, the remainder of the operators being not legally qualified, though styled doctor of dental surgery of some university not on this side of the water. Such businesses are exempt from the law, and do an incalculable amount of harm both to the public and the dental profession. An attempt has been made to get an amendment introduced into further legislative Acts with regard to limited companies, but at present without much hope of success, and the late over-ruling in the House of Lords of the celebrated decision of Mr. Justice Vaughan Williams in the "one man company" case makes

the prospect somewhat more hopeless. Where the facts appear to warrant the reporting of the qualified member of the company to the General Medical Council for "covering" this seems the only possible action to be taken. It will be necessary that some steps be taken to prevent any further extension of the use of dental titles by persons unqualified but combining together and trading under the name of a company.

## THE MEAT OF TUBERCULOUS CATTLE.

THE Maidstone Corporation endeavoured recently to obtain the punishment of a local butcher for having in his possession for purposes of sale a diseased carcass, and they have failed, simply because the local Bench declines to convict. The chief facts, according to the report in the *Kent Messenger*, seem to have been admitted—that many of the internal organs were affected, and that the costal pleura and the peritoneum lining the abdominal walls had been stripped off, presumably on account of their being diseased. The magistrates took this view of the case; they found that some of the internal portions of the cow were affected with tuberculous matter, but they were of opinion that the flesh that was prepared for sale was not affected with tuberculosis. There was no evidence to satisfy them that it was the intention of the defendant to sell that portion of the carcass which was affected, and the case would, therefore, be dismissed.

The local authority have since, acting on the advice of counsel, instructed their officers to apply to the magistrates to state a case for the opinion of the High Court.

Almost exactly the same thing has happened again and again. Medical officers of health have cut from the dressed carcass portions which they have demonstrated to be swarming with bacilli, and still magistrates continue of opinion that the flesh is not affected.

## THE BULWELL MURDER.

IN this case, Joseph Allcock, a collier, aged 26, was tried and convicted before Mr. Justice Day, at Nottingham (December, 1896), for the murder of his wife. The man was described as a sober, industrious workman, who soon after his marriage, some years since, became unreasonably jealous. As a result of this there were frequent quarrels. As to the murder, the facts were not disputed. The prisoner, after having threatened his wife, spent part of the day with his brother-in-law, with whom he had some beer. He was noticed to be dull and sullen, then he behaved oddly and was very emotional. He then went home, and disputes were heard going on between him and his wife. These proceeded till he asked her to come to bed. She refused; then there was further disputing, and he cut her throat. He went to the Police Station and confessed what he had done. The plea of insanity was raised through the surgeon to the gaol, who said he had seen no signs of insanity while the prisoner was under his care.

Dr. E. Powell, the Superintendent of the Borough Asylum, gave evidence that in his belief the prisoner acted as the result of insane delusion. He therefore did not think him responsible.

In the cross-examination of Dr. Powell, the judge would not allow him to state whether, in his opinion, the prisoner was in a fit state of mind to know right from wrong, though he would allow him to say whether he thought him to have been sane at a certain time.

In summing up the judge said the only question for the jury's consideration was whether the prisoner at the time of the murder was insane. The insanity must be tested by the rules laid down by the judges many years ago, and which had since been constantly followed. Was the prisoner at the time of the killing cognisant of the nature and quality of the act? Did he know he was killing the woman—did he know he was killing his wife? If they found he did know, then he was of sound mind and liable to be punished. The law recognised the dispensation of Providence; when men were afflicted by Providence with insanity they were relieved from responsibility if they did not know the nature and quality of their act. The jury were there to administer justice in accordance with the law, not in accordance with any theories. The question for the jury to consider was whether they were satisfied that when the prisoner took the woman's life he did not know that he was killing his wife, and did not know that killing his wife was wrong. They had heard something said about the medical evidence. He was sorry to say he did not attach quite as much value and importance to medical evidence as some people did. He thought those about the person constantly were better able to judge of sanity and insanity than medical men who only paid short visits. He in fact thought the value of a warder's evidence was of more value than that of the prison surgeon. The judge summed up in this line, pointing out that the man's character and conduct did not show signs of insanity. He allowed that jealousy had displayed itself early in his married life, but this was to be looked upon as a vice which, not being checked, had outgrown reason and control, but was not excusable.

The prisoner was found guilty and sentenced to death. He was subsequently examined by medical experts at the instance of the Treasury, but the sentence was carried out.

## PROSECUTION UNDER THE APOTHECARIES ACT AT WALSALL.

AN extraordinary verdict was given at Walsall recently by a county court jury, but was not accepted by the judge, who instantly reversed it. The case was a prosecution of a person named William John Devereux, Cheslyn Hay, who was summoned, with the consent of the Apothecaries' Society, by the Medical Defence Union, for having illegally acted as an apothecary in contravention of the Act of 1815. Evidence was given which, according to the report in the *Birmingham Daily Post*, established the fact that the defendant had been for fourteen years unqualified assistant to a Dr. Osgood, in the neighbourhood of Cannock. After terminating this engagement, Mr. Devereux started practice on his own account, and prescribed, compounded, and dispensed medicines for certain persons who appeared as witnesses for the prosecution. No evidence was given for the defence, and the judge, in putting the case before the jury, stated that there could be no doubt that the defendant had acted illegally, and that, therefore, they must return a verdict for the plaintiff Society. The jury retired, and shortly returned, and, in answer to the judge, gave a verdict for the defendant, and stated that they were unanimous in doing so. Thinking that there might be some confusion in the minds of the jury as to the terms plaintiff and defendant, the judge had the question—for whom did they find the verdict—put again, and received in answer the same reply. In addition, the jury volunteered the statement that they "found the defendant had practised illegally, but there seemed a great amount of mystification and haziness about the Act, and therefore they unanimously found for the defendant." Naturally, after this extraordinary amplification of the verdict, the counsel for the prosecution claimed that it amounted to verdict for the plaintiffs, and the judge said it was so. In order to avoid any possibility of error, the question was put once more to the jury, with the same result, and one of the jurymen said that they had given the benefit of the doubt. After this logical conclusion on the part of the jury, the judge directed a verdict for the plaintiffs, with costs. In instances like this "trial by jury" becomes a farce.

## CONTRACTS NOT TO PRACTISE.

A CASE interesting to medical officers of dispensaries and other public medical charities was part heard at the County Court at Accrington on January 21st, when an interim injunction was sought to be obtained on behalf of the trustees of the Accrington and District Medical Dispensary to restrain their late medical officer from practising as physician and surgeon within a certain area, it being alleged that such practising constituted a breach of an agreement between the parties. Affidavits were put in to prove that Dr. Cooper, the medical officer in question, was engaged by the dispensary trustees in June, 1896, and that he signed an agreement binding himself in case he left the dispensary not to practise his profession in Accrington within a radius of three miles for a period of three years, under a penalty of £2 per day in case of breach of covenant. Damages were claimed for £50. It was alleged, according to the report in the *Manchester Guardian*, that the defendant was practising as a professional man within the time and limit of space indicated in the agreement; and further allegations were made that he was canvassing former dispensary patients and endeavouring to alienate them from the dispensary for his own benefit. The injunction was opposed on behalf of the defendant, and it was pleaded that there was a good defence to be raised at the trial pending. The judge declined to grant the interim injunction, but ordered the defendant to keep an account of all work done by him in the meantime.

## UNQUALIFIED ASSISTANTS AND "COVERING."

THE work of the General Medical Council at the next session in May will be greatly increased if attention be paid as it should be to the communications forwarded by coroners in London and elsewhere at the request of juries. Hardly a week passes without a rider being added to a verdict of natural death, to the effect that "We desire the coroner to communicate the facts in this case to the General Medical Council." Such words were an addition to the verdict in an inquiry held last week by Mr. Wynne Baxter as to the death of the widow of a house decorator at Poplar. The evidence, as reported in the *Morning Leader*, was to the effect that the woman was taken ill with some chest complaint, and a Dr. C. W. Smith, of North Street, Poplar, was sent for. He did not attend, but an unqualified assistant did, and prescribed. Finding the remedies did not have the desired effect, the daughter of the patient sent again for Dr. Smith, but seeing the assistant, he informed her that he would have nothing to do with the case, and referred her to a Dr. O'Brien, but before the latter arrived death took place. Mr. William Pratt Maule, the assistant in question, gave evidence, and stated that he was a chemist and assistant to Dr. C. W. Smith. He was paid 1s. for the medicine. The foreman of the jury considered that "this sort of thing should be stopped," and the coroner commented on the fact that Dr. Smith was responsible.

Most people will agree with the foreman of the jury that such a state of things as disclosed here should "be stopped." It is useless, however, to forward recommendations to the General Medical Council unless the depositions in the cases under judicial inquiry are forwarded at the same time. The principal can then be dealt with under the penal section of the Medical Acts by the Council in session assembled. If the General Medical Council would deal with a firm hand in all proven cases of "covering" brought before them for two or three years, the dangerous risks medical men run in keeping unqualified assistants would no longer be worth running. Up to the present the Council has not shown sufficient certainty in its decisions, and the risks are run in consequence, in many cases with impunity.

## A MEDICAL LIBEL ACTION.

DR. REID, of the Norton, Tenby, brought an action for libel against Mr. R. Morrison, the managing editor of the *Tenby Observer*, damages to the extent of £3,000 being claimed. The case was commenced at the Pembrokeshire Assizes, on January 18th, and it appeared from the statement of claim that the libels were contained in two paragraphs in the issues of the defendant's paper for May 21st and 28th, 1896.

The paragraphs referred to were considered by the plaintiff to impute negligence and ignorance in his professional duties, and that, *inter alia*, he was unfit to practise his profession, and did not deserve the confidence of his patients.

On the case being called for hearing, counsel asked for permission to confer, and this being granted, and the conference held, the case was settled in Court, a juror being withdrawn, the defendant withdrawing and apologising for the statements made against the plaintiff in his journal, promising not to make any further attacks upon him, and paying him the sum of £100 as damages, and all costs as between solicitor and client.

The Court assented to these terms, and judgment was entered accordingly—a most satisfactory termination for all concerned.

## PENSION UNDER THE SUPERANNUATION ACT.

PARTNER inquires whether a pension under the Superannuation Act comes within the meaning of the term "emolument from an appointment." Also whether the said pension should be placed in the firm account and divided, so long as the recipient remains in partnership.

*** On the above statement of facts simply, the reply to each

question would, in our opinion, be in the negative; but a consideration of the articles of partnership (and of other facts, such as whether the partner in receipt of the pension held the appointment in respect of which he was superannuated during the partnership and accounted for the salary derived therefrom) might lead to a different opinion.

# UNIVERSITIES AND COLLEGES.

## UNIVERSITY OF EDINBURGH.

EXAMINERS.—The following additional examiners have just been appointed for a period of four years: Dr. R. Bruce Low, Local Government Board, London (Forensic Medicine and Public Health); Mr Robert Turnbull, B.Sc., Edinburgh (Botany); Dr. De Burgh Birch, Yorkshire College, Leeds (Physiology); Dr. George A. Gibson, Edinburgh (Medicine); and Dr. James Haig Ferguson, Edinburgh (Midwifery). Some of these appointments have given rise to adverse criticism, as it is stated that in some cases there were stronger candidates available.

The *Edinburgh Medical School Calendar* has in its last issue—that for 1896-97, been extended in scope, and now embraces all the modes of medical education available in Scotland. Appropriately it bears the new title, the *Medical School Calendar and Guide to Students for Scotland*. It will be very useful to students, and its value would be greatly enhanced were a full and accurate index added. The present table of contents is quite inadequate. We miss some of the important Edinburgh dispensaries, and we doubt the wisdom of giving 122 pages to old examination questions. The information is accurate as far as we have tested it.

## DUNDEE UNIVERSITY COLLEGE.

THE report of the Privy Council upon Ordinances Nos. 45, 46, and 47 of the Scottish Universities Commission, and the matters contained therein, which form the subject of dispute between St. Andrews University and Dundee College, has been issued. The newly-passed ordinances settle the most important questions at issue in the relation of the College to St. Andrews University. They first of all unite the College to the University, make its professors members of the Senatus Academicus, enable its classes to qualify for degrees in the University, and make the union permanent and dissoluble only by Act of Parliament. This will give the Dundee teachers and their students a security that will allow them to map out courses of teaching and study in their own way, knowing that they will be able to continue without the dislocation of transfer to other schools. In the second place the ordinances allocate a sum of £3,000 a year from the Universities' grant for the purpose of completing the University School of Medicine in Dundee, and provide specifically for the establishment of professorships of pathology, materia medica, surgery, medicine, and midwifery, in addition to those of anatomy, physiology, and the preliminary sciences, which have already been founded. Finally, the ordinance abolishing the M.D. degree for practitioners, of which St. Andrews has since 1862 annually conferred ten, will make the medical school in Dundee practically the sole avenue to the medical degrees of the University, and throwing thus the whole responsibility for the credit of the degree on the new school will supply a stimulus to work of the most efficient kind, while it will at the same time remove the objection which students would have to take a degree that might be considered in other ways too easily accessible. The University Court, with whom will lie the selection of the new professors, consists of fourteen members, and includes the Lord Provost of Dundee and the Principal of University College, who may be supposed to represents the interests of the College, but as the majority is composed of the party which raised the lawsuits that have now been settled against them, it is evident that some demands will be made upon their generosity and loyalty before the new school can become a credit to the University.

## CONJOINT BOARD IN ENGLAND.

FIRST EXAMINATION (FIVE YEARS' REGULATIONS).

THE following gentlemen have passed in the subjects indicated:

*Part I. Chemistry and Physics.*—J. C. Baggs, St. Thomas's Hospital; L. D. Bailey, St. Paul's School, West Kensington; H. E. Barrett, St. Mary's Hospital; W. A. Beet, London Hospital; C. H. Bennett, St. Mary's Hospital; K. H. Bennett, University College, London; H. W. P. Bennette, University College, Liverpool; G. Bettinson, St. Mary's Hospital; H. D. Brice, Westminster Hospital and Pharmaceutical Society; A. Camacho, St. Paul's School, West Kensington; G. R. H. Chell, Mason College, Birmingham; J. C. Clayton, University College and Clifton Laboratory, Bristol; G. C. Cross, Middlesex Hospital; E. P. Cumberbatch, St. Paul's School, West Kensington; A. M. Dalzell, St. Bartholomew's Hospital; S. De Carteret, St. Bartholomew's Hospital; A. S. Dodd, St. Mary's Hospital; J. F. Douse, Guy's Hospital; A. B. Edwards, St. Bartholomew's Hospital; W. Fawssett, King's College, London, and St. Thomas's Hospital; C. Fisher, St. Bartholomew's Hospital; P. R. Fort, St. Mary's Hospital; E. C. Foster, University College, London; P. H. Goodair, St. Thomas's Hospital; W. H. Gray, London Hospital; A. L. B. Green, St. Bartholomew's Hospital; G. H. Hackney, University College, London; L. F. Hanbury, St. Thomas's Hospital; R. J. Hanbury, St. Bartholomew's Hospital; W. T. Harris, St. Thomas's Hospital; E. M. Harrison, St. Paul's School, West Kensington; M. W. Haydon, St. Thomas's Hospital; C. H. Howkins, Mason College, Birmingham; C. E. A. Huddart, London Hospital; H. R. Jeremy, London Hospital; J. P. Jones, University College of South Wales, Cardiff; S. H. Jones, King's College, London; B. S. Kidd, St. Mary's Hospital; E. C. Lindsey, St. Mary's Hospital; W. Mathews, Mason College, Birmingham; F. W. Miller, King's College, London; T. C. Mitchell, Yorkshire College, Leeds; H. W. Pank, St. Bartholomew's Hospital; H. M. Prins, University College, London; H. M. Raven, St. Mary's Hospital; G. H. Richard, St. Paul's School, West Kensington; J. C. Sale, St. Bartholomew's Hospital; R. Small, St. Thomas's Hospital; G. B. Soper, Guy's Hospital; R. W. Stephenson, University College, Liverpool; W. A. Tatchell, London Hospital; R. Thompson, St. Bartholomew's Hospital; A. H. Tovey, St. George's Hospital; G. De B. Turtle, King's College, London; G. B. Vincent, St. Paul's School, West Kensington; J. A. West, St. Bartholomew's Hospital; H. Whitwell, St. Bartholomew's Hospital.

*Part II. Practical Pharmacy.*—H. C. Adams, St. Bartholomew's Hospital; W. L. Baker, Guy's Hospital; K. de R. Bell, King's College, London; R. Bigg, St. Bartholomew's Hospital; W. H. S. Blizzard, Mason College, Birmingham; H. D. Brice, Westminster Hospital; E. K. Brown, London Hospital; E. A. Bullmore, University College, London; H. G. Clitherow, London Hospital; A. J. Couzens, London Hospital; F. C. Forster, St. Mary's Hospital; L. O. Fuller, University College, London; C. E. Gaitskell, Guy's Hospital; P. N. Gleig, Charing Cross Hospital; F. H. R. Heath, Guy's Hospital; E. S. E. Hewer, St. Bartholomew's Hospital; H. H. Hollick, Mason College, Birmingham; G. H. Irvine, University College, Bristol; J. P. Jones, University College of South Wales, Cardiff; N. H. Joy, St. Bartholomew's Hospital; J. A. Kilpatrick, University College of South Wales, Cardiff; A. H. B. Kirkman, Guy's Hospital; L. H. McGavin, Guy's Hospital; M. R. Maher, University College, Liverpool; W. S. Maugham, St. Thomas's Hospital; S. L. C. Mondy, University College, London; J. L. Morris, St. Bartholomew's Hospital; E. J. O'Meara, Guy's Hospital; E. F. Palgrave, St. Bartholomew's Hospital; A. R. C. Parsons, King's College, London; N. R. Phillips, University College of South Wales, Cardiff; A. B. Pugh, St. Bartholomew's Hospital; P. D. Ramsay, St. Mary's Hospital; H. M. Rees, Owens College, Manchester; R. M. Richards, St. Mary's Hospital; C. Ryley, St. Mary's Hospital; C. R. Shattock, King's College, London; W. S. Sheldon, University College, London; A. J. Stanley, Mason College, Birmingham; P. R. Tarbet, University College, London; A. R. Thomas, Guy's Hospital; J. H. Timothy, University College of South Wales, Cardiff; J. C. Wadmore, University College, Bristol; J. B. Walter, Guy's Hospital; J. H. Watson, University College, Liverpool.

*Part III. Elementary Biology.*—E. F. Ackery, Charing Cross Hospital; C. H. Allan, London Hospital; C. H. Bannerman, University College, Liverpool; H. W. P. Bennette, University College, Liverpool; J. M. Boclett, Charing Cross Hospital; H. D. Brice, Westminster Hospital; E. R. Carling, Westminster Hospital; H. G. Clitherow, London Hospital; J. Couper, Charing Cross Hospital; C. W. Davies, St. Thomas's Hospital; V. Davies-Ooranofski, Anderson's College, Glasgow, and University College, Liverpool; C. Dix, St. Bartholomew's Hospital; J. F. Douse, Guy's Hospital; T. W. H. Downes, St. Thomas's Hospital; C. C. Drabble, Firth College, Sheffield; F. A. Drinkwater, University College, Liverpool; W. Fawssett, St. Thomas's Hospital and King's College, London; T. H. Fowler, St. Bartholomew's Hospital; R. K. G. Graves, St. George's Hospital; R. G. E. Grote, Charing Cross Hospital; J. M. Hamill, St. Paul's School, West Kensington; T. D. Heimans, St. Thomas's Hospital; P. A. Hendley, King's College, London; T. H. J. E. Hughes, St. Mary's Hospital and King's College, London; F. D. S. Jackson, Guy's Hospital; H. R. Jeremy, London Hospital; F. C. Jobson, Westminster Hospital; E. G. Lindsey, St. Mary's Hospital and King's College, London; H. P. Margetts, St. Bartholomew's Hospital; J. K. N. Marsh, St. Bartholomew's Hospital; F. D. Martyn, Westminster Hospital; A. G. Michel, Charing Cross Hospital; F. Morgan, Westminster Hospital; D. Morrow, Queen's College, Belfast; V. B. Nesfield, St. Paul's School, West Kensington; T. Richards, University College of South Wales, Cardiff; J. H. Roberts, Charing Cross Hospital; J. C. Sale, St. Bartholomew's Hospital; B. M. Sampson, St. Thomas's Hospital; E. S. Scott, London Hospital; A. E. Soden, McGill College, Montreal, Canada; R. W. Stephenson, University College, Liverpool; A. F. Van Dyk, School of Medicine, Surgeons' Hall, Edinburgh; S. J. Williams, Mason College, Birmingham.

FIRST EXAMINATION (FOUR YEARS' REGULATIONS).

The following gentlemen have passed in the subjects indicated:

*Part I. Chemistry, including Chemical Physics.*—S. R. Dudley, St. Bartholomew's Hospital; E. A. Houchin, Middlesex Hospital; C. C. T. Magee, Melbourne University and London Hospital.

*Part II. Materia Medica.*—V. S. A. Bell, Cambridge University and St. Bartholomew's Hospital; H. Clough, Yorkshire College, Leeds; F. Cooper, Mason College, Birmingham; R. S. Elvins, Mason College, Birmingham; H. J. Gould, Middlesex Hospital; W. St. G. Grantham-Hill, St. Mary's Hospital; C. C. T. Magee, Melbourne University and London Hospital; P. Phillips, Charing Cross Hospital; G. O. Pierce, King's College, London; W. St. A. St. John, St. Mary's Hospital; J. Sandison, London Hospital; G. Sowdon, London Hospital; H. Towers, Yorkshire College, Leeds; F. Voller, St. Thomas's Hospital; F. J. Waldmeier, Syrian Protestant College, Beyrout, Syria, and London Hospital; F. W. Whyte, Queen's College, Belfast.

*Part III. Elementary Physiology.*—W. R. Elliott, Cambridge University.

## ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

EXAMINATION FOR MEMBERSHIP.—The following candidates have satisfied the examiners:

T. H. Wilson, L.R.C.P.I.; J. H. R. Glenn, M.D.Dub., L.R.C.P.I.

## CONJOINT BOARD IN IRELAND.

FOURTH PROFESSIONAL EXAMINATION.—The following candidates have passed this examination:

*Completed the Examination.*—T. E. Cottu, P. D. Glynn, T. C. Mackenzie, J. M'Carthy.

*Passed in Medicine.*—J. J. F. Bourke, D. F. Clarke, M. A. Ghani.

*Passed in Surgery.*—J. O'M. Irwin.

*Passed in Midwifery.*—J. J. F. Bourke, D. F. Clarke, T. F. O'Connor, V. B. Taylor.

*Passed in Ophthalmology.*—H. E. Eardley, M. A. Ghani, W. J. Keane, G. G. H. Moorehead.

*Passed in Forensic Medicine and Hygiene.*—J. J. F. Bourke, E. F. Clarke, H. E. Eardley, J. J. Foley, J. O'M. Irwin, C. J. Powell.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, January, 1897. The following candidates passed in:

*Surgery.*—G. P. Ambrose, Westminster Hospital; C. C. Brymer, Montreal University; C. H. Church, McGill University; J. McD. McCarthy, Cambridge University; G. L. Meredith, London Hospital; A. E. Seller, London Hospital; J. H. Wilson, Middlesex Hospital.

*Medicine, Forensic Medicine, and Midwifery.*—A. P. Ambrose, Westminster Hospital; E. S. Langworthy, St. George's Hospital; J. McD. McCarthy, Cambridge University; H. R. Marsh, Guy's Hospital; J. K. H. Smyth, St. Mary's Hospital; H. de P. B. Veale, Yorkshire College, Leeds.

*Medicine and Forensic Medicine.*—G. F. May, McGill University.

*Forensic Medicine and Midwifery.*—J. Gott, King's College; W. F. Reckitt, Guy's Hospital.

*Forensic Medicine.*—A. W. H. Edgelow, Charing Cross Hospital; A. P. Square, Middlesex Hospital; G. S. Thompson, St. George's Hospital.

*Midwifery.*—P. M. Brittain, St Bartholomew's Hospital; E. R. R. Cheesman, Charing Cross Hospital.

The diploma of the Society was granted to the following candidates: Messrs. Brymer, Gott, Langworthy, McCarthy, Marsh, Smyth, and Thompson.

# MEDICO-PARLIAMENTARY.

## *HOUSE OF COMMONS.*

### PRIVATE MEMBERS' BILLS.

As the result of the ballot taken last week for precedence with private members' Bills, seventy-six measures were given notice of, the number of members taking part in the contest being 356. Amongst the seventy-six Bills there are many "hardy annuals," including schemes for grappling with such hackneyed problems as the Sale of Intoxicating Liquor on Sunday, Local Veto, and Female Franchise. The following are some of the Bills of more or less interest to the readers of the BRITISH MEDICAL JOURNAL, prefixed by the names of the members who have charge of them: Mr. PYM: To Amend the Poor-law Officers' Superannuation Act, 1896, as respects Female Nurses since appointed. A Bill with a similar object has since been introduced by Mr. JAMES BAILEY, and Mr. WANKLYN has brought in a Bill to extend the provisions of the Act to "officers and servants of other local authorities."—The LORD ADVOCATE: To Consolidate and Amend the Laws relating to the Public Health in Scotland.—Mr. CAMERON: To Amend the Burial Laws. This Bill will be the first order of the day on Wednesday, February 24th.—Mr. KNOWLES: For the National Registration of Plumbers. This Bill is also backed by Earl Compton, Mr. Dixon, and Dr. Farquharson. It appears on the paper as the first order of the day on Wednesday, March 3rd.—Mr. STEPHENS: To Amend the Law with regard to the Rating of Certain Cemeteries. The name of Sir Walter Foster is also on the back of this Bill, which is down for second reading on February 10th. Mr. Galloway has given notice of his intention to move its rejection.—Sir WALTER FOSTER: To Provide Pensions for Poor Persons over the age of 65 years.—Mr. BARTLEY has since given notice of a Bill to Provide Pensions in Old Age to the Provident Poor, and of another to Amend the Law Relating to Outdoor Relief in Sickness and Widowhood to Provident Poor. Second reading May 26th.—Mr. BURT: To Consolidate and Amend the Law Relating to the Liability of Employers for Injuries to their Workmen. This Bill is down as the third order for Wednesday, May 12th.—Sir F. DIXON-HARTLAND: To Amalgamate the Water Companies in and around London. This Bill is down for second reading on March 3rd as the fourth order of the day.—Mr. CHANNING: To Amend the Law Relating to Coroners' Inquests in the Case of Fatal Accidents on Railways.—Mr. BARTLEY: To Amend the Law Relating to Outdoor Relief in Sickness and Widowhood to the Provident Poor.

### THE CASE OF DR. FOSTER NEWLAND.

Mr. FIELD asked the President of the Board of Trade whether he was aware that Dr. Foster Newland had remonstrated against his dismissal without notice or complaint from his position as medical officer to the Irish Lights Board in the Kingstown District after a satisfactory service of twenty years; and whether he will cause an investigation to be made into the facts.—Mr. AKERS DOUGLAS: My right hon. friend has been informed by Dr. Newland that he has been dismissed from his position. His employment rests entirely with the Commissioners, the Board of Trade control being limited to approval of the fees.

### VACCINATION.

Mr. LOGAN asked the President of the Local Government Board if it was the intention of the Government to take any steps toward carrying out the recommendations of the Royal Commission on Vaccination during the present session, and whether they would advise Boards of Guardians to discontinue prosecutions for non-compliance with the Vaccination Acts until the Government were ready to deal with the subject.—Mr. T. W. RUSSELL: I can only state at present that the report of the Royal Commission on Vaccination is receiving the consideration of the Local Government Board. It is the duty of Boards of Guardians to enforce the existing law, and the report of the Royal Commission does not in any way relieve them of their duty in this matter.

### THE PLAGUE IN BOMBAY.

In reply to Mr. CALDWELL, Lord G. HAMILTON said: The attention of the Government of India has been called to the necessity of providing suitable accommodation at Bombay for the isolation and treatment of cases of plague: but I do not propose to interfere with their discretion in regard to moving the troops from Colaba, or using the barracks as plague hospitals. I understand that temporary hospital accommodation of a suitable kind could easily be erected on the open ground in and around Bombay.—In reply to Sir A. SCOBLE, Lord G. HAMILTON said: The plague was identified at Bombay in September last. On October 2nd wide powers were conferred on the chief executive officer of the city, who is a Government official, to take whatever measures were found necessary to prevent the epidemic from spreading. Large sums of money were voted for the purpose by the Corporation. The Government appointed a special Medical Committee to investigate and advise; scientific experts came from other parts of India to report upon the disease and its prevention, while additional medical men and a large staff of workers were employed to carry out at once the special sanitary measures in Bombay advocated by the Committee of Experts. The epidemic appeared to be abating in November, but from December 1st it grew more severe. The plague spread to Karachi in December, and is now suspected to be epidemic in Poona. Over 2,500 plague deaths have occurred in Bombay, over 300 in Karachi, and about 100 sporadic cases elsewhere. As the House is aware from newspaper telegrams the plague has caused much terror among the people of Bombay and in the adjacent country. But the disease has not, so far, appeared in epidemic form at any place besides Poona, outside the cities of Bombay and Karachi. The sporadic cases of which I spoke, excepting at Poona, occur almost entirely among fugitives from the two plague-stricken cities. The efforts of the Government and of the Corporation, between whom hearty co-operation exists, were devoted to relieving sufferers from the plague, to checking its extension in Bombay and Karachi, and preventing its spreading elsewhere, and preventing its spreading elsewhere. Hospital space was increased, special plague hospitals were provided for six different sections of the community, and are being prepared for two other sections. House to house visitation of infected quarters is being carried out under medical supervision. Every suspected case of plague that is not at once removed to the hospital is isolated as far as practicable; every house where a plague case has occurred is disinfected, and is, as far as possible, vacated, temporary accommodation being provided elsewhere. Insanitary houses are pulled down, in others partitions are removed or ventilation introduced. Special sanitary precautions and improvements have been carried out in the backward parts of Bombay city. A fuller staff of doctors and Indian medical men is being organised, and the Bombay Government will indent on England for a temporary staff of doctors and nurses if more aid is required. To prevent the spread of plague to other parts of India, passengers leaving Bombay, Karachi, or Poona by rail, road, or sea are inspected by medical officers, and persons travelling or alighting at the larger stations are stopped and removed for treatment if they are suspected of being plague-stricken. In case pilgrims to the Moslem holy places should carry plague into the Red Sea, the Government of India have, as empowered by law, declared that from February 1st Bombay and Karachi shall cease, for the present, to be ports of departure for pilgrims. The Bombay Government report that the corporations are granting all necessary funds, while the executive and medical officers there and elsewhere are doing all that can be done, though prompt suppression of the epidemic has not been attained. The Government of India report their belief that the arrangements at railway stations for checking the spread of disease are working well; but they are inquiring whether further measures are needed, which, if necessary, will be taken. I am hopeful that the continuous energy and vigilance shown by the Government and the local authorities, and the rigorous measures they have adopted, are beginning to make real impression upon the epidemic, and that we may for the future note its decline. I should add that the experts some time back expressed the view that during the winter months some increase in the epidemic might be expected. As I came into the House I received a telegram from the Governor of Bombay to the effect that he learns that alarmist and greatly exaggerated telegrams in reference to the plague are being sent from Bombay, and he hopes that great caution will be shown before accepting the information as true. Only four pure Europeans have died of the plague, including a doctor and a nurse. Amongst the dock labourers and Port Trust servants the deaths and sickness are very small indeed.—In reply to Mr. MACLEAN, Lord G. HAMILTON said: I understand that, as far as practicable, efforts are made to improve the sanitary condition of the native quarters; but I am afraid that until the epidemic is over, it will not be possible to embark on any wholesale measure for that purpose.

### QUARANTINE AT MALTA.

Sir WALTER FOSTER: I beg to ask the Secretary of State for the Colonies whether it is true that the Governor of Malta, after first imposing a twenty days' quarantine, has since issued a total prohibition on all vessels, however healthy they may be, arriving from India. And whether, seeing that this country, which is in unceasing communication with Indian ports, finds it sufficient to rely for the purposes of plague on the systems of inspection and isolation which were so successfully tested both during the European cholera invasion of 1892-4, and recently again in the case of the *Nubia* at Plymouth, he will take such steps as will secure the adoption by our Crown Colonies in the Mediterranean of those more scientific and less inconvenient methods to prevent the introduction and spread of foreign diseases.—Mr. CHAMBERLAIN: The answer to the first part of the question is in the affirmative. My predecessors and I have continually urged the Government of Malta to adopt the more scientific and convenient methods of preventing the introduction and spread of foreign diseases, instead of the stringent system of quarantine hitherto in use; but, partly from the supposed necessity of conforming to the practice of Italy, and partly from the inveterate belief of the population of Malta in the necessity of the strictest quarantine, which might lead to disturbance if the rules were relaxed, we have not as yet succeeded in effecting the change. I am now in correspondence with the Governor, and have pointed out to the Colonial Government the serious injury which is being inflicted, not only on commerce, but on the interest of Malta by the action of the Government; and I shall be glad if my remonstrances may induce them to adopt a more reasonable course.

### CHOLERA ON THE "NUBIA."

Sir WALTER FOSTER asked the President of the Local Government Board whether, on the arrival of the steamship *Nubia* at Plymouth with cholera on board, his department and the port sanitary authority found that their powers under the provisions of the existing law were quite sufficient to meet the emergency; and whether any necessity arose for any quarantine regulations?—Mr. T. W. RUSSELL: The *Nubia*, which arrived in Plymouth on January 9th, was reported to have cholera on board, some

cases having already proved fatal. One of the Board's medical inspectors was immediately instructed to go to Plymouth and to place himself in relation with the port sanitary authority and the port medical officer of health. In all, some thirteen cases and four deaths occurred. The action taken was that laid down in the Order of the Board as to cholera; and, owing to the excellent arrangements prepared long in advance by the Plymouth Port Authority, isolation of the sick was at once carried out; the healthy passengers were allowed, on giving their addresses, to proceed to their respective homes; and the ship, after the requisite measures of disinfection, was allowed to continue her voyage to the Port of London. The troops were transferred to shore under the direction of the military authorities. No extension of the disease occurred to any persons beyond those attacked on board, any the results fully justify the action which is taken in this country of dealing with diseases of foreign importation by means of isolation and disinfection, and without resort to any such measures of quarantine as are involved in the detention of healthy persons, either in hospital or in an infected vessel.

CONTAGIOUS DISEASE IN THE INDIAN ARMY.

Mr. DARLING: I beg to ask the Secretary for India whether his attention has been called to a statement in the *Times* to the effect that it is alleged in India that 522 soldiers per 1,000 are now incapacitated from duty by reason of contagious disease; and whether the Government propose speedily to deal with this question to prevent this evil from rendering inefficient the forces of the Crown in India, and from endangering the health and the lives of people in this country as the troops return home. —Major RASCH: I beg to ask whether the admission to hospital for venereal disease of the British army in India amounted to 536 per 1,000 for the year 1895, an increase of 25.2 on the previous year, and what steps the Government propose to take in the matter.—Colonel LOCKWOOD asked whether the Goverment would inquire into the whole facts referred to in the Army Medical Report on the health of the troops in India.—Lord GEORGE HAMILTON: It is the case that the total aggregate admissions to hospital for certain contagious diseases among the British troops in India amounted, in the year 1895, to 522 per 1,000; but that does not mean that 522 men per 1,000 were separately and individually admitted. Still less does it indicate that 522 soldiers per 1,000 were incapacitated for duty from that cause. It is calculated on the latest returns that an average permanent deduction of 46 per 1,000 is the loss entailed by these diseases. The facts as to the serious increase of this disease in India are now being inquired into by a Departmental Committee, on the receipt of whose report Her Majesty's Government will carefully consider the whole subject.—In reply to Colonel LOCKWOOD, Lord G. HAMILTON further stated that 522 per 1,000 meant the total number of admissions to the hospitals. One man may be admitted more than once.

MEDICAL SUPERINTENDENTS OF LUNATIC ASYLUMS.

Mr. DANE: I beg to ask the Chief Secretary for Ireland whether the rule of the Civil Service requiring officials to retire at the age of 65 applies to resident medical superintendents of district lunatic asylums and their assistants?—Mr. G. BALFOUR: No, Sir. The rule in question applies only to permanent Civil servants of the Crown, and the officers of lunatic asylums are not Civil servants.

FOOD PRODUCTS.

Mr. KEARLEY moved, as an amendment to the Address, to add at the end, "And we humbly represent to your Majesty our regret that your Majesty's advisers have expressed no intention of promoting legislation in furtherance of the report of the Select Committee on Food Products, which disclosed the existence of unfair and nefarious competition with native food producers by foreigners and others, to the great detriment both of the commercial and agricultural interest of the people of the United Kingdom." He contended, *inter alia*, that the importation of adulterated goods was largely increasing, and that in many districts the existing Acts respecting adulteration were a dead letter.—Mr. T. W. RUSSELL, in the course of his reply, stated that a Bill dealing with the recommendations of the Committee had been drafted, and he hoped that at no distant date it would be submitted to the House.—Sir W. FOSTER expressed the opinion that it would be a great advantage to the local authorities if they could have a central body to refer to for guidance and advice in all cases of food adulteration.—After further discussion the amendment was negatived.

NOTICES

POPPY CULTIVATION.

Mr. H. J. WILSON proposes to move an address for a return showing for the last ten years the acreage under poppy in India, the amount of advances to the cultivators for crude opium, and the quantity of opium produced in the factories, distinguishing between the Behar and Benares agencies; also the quantity exported to China and other countries; the quantity of Malwa and other opium purchased by the Indian Government; and the quantity which in any other way came under the cognisance of the Indian Government.

LONDON WATER SUPPLY.

Mr. HUBBARD has notified his intention of moving on an early day for a Select Committee "to inquire into the present system of water supply for London with the view of determining whether any existing defects in the system would be best dealt with by a policy of (*a*) purchase or (*b*) control."

MINISTRY OF PUBLIC HEALTH.

Mr. FORTESCUE FLANNERY proposes on an early day to move the following resolution: "That in the opinion of this House it is desirable that a Department of Public Health be constituted, and that the same be under the charge of a responsible Minister having a seat in Parliament."

HABITUAL DRUNKARDS.

Mr. KNOWLES has given notice of his intention to move a resolution on an early day on the subject of the treatment of habitual drunkards.

TUBERCULOSIS.

Mr. KNOWLES proposes for a return showing, in respect of each of the years ended March 25th, 1896 and 1897, the number of carcasses seized by medical officers of health and inspectors of nuisances in England and Wales under Section CXVI of the Public Health Act, 1875, and Section XLVII of the Public Health (London) Act, 1891, and of the number of such carcasses condemned by justices under Sections CXVII and XLVII of those Acts, distinguishing, as far as practicable, the number so condemned in consequence of the animal having suffered from tuberculosis (in continuation of Parliamentary Paper, No. 435, of Session 1895).

# PUBLIC HEALTH
AND
# POOR-LAW MEDICAL SERVICES.

## POOR-LAW OFFICERS' SUPERANNUATION ACT.

WE have received for publication the following correspondence, which will be read with interest by Poor-law medical officers:

Local Government Board, Whitehall, S.W.,
January 7th, 1897.

SIR,—I am directed by the Local Government Board to advert to your letter of the 27th ultimo, and to enclose, for your information, a copy of a letter which they have this day addressed to the Guardians of the Grantham Out-relief Union on the subject to which you refer.—I am, Sir, your obedient servant, W. E. KNOLLYS, Assistant Secretary.

R. Wilson, Esq., District Medical Officer, Grantham.

(Copy.) Local Government Board, Whitehall, S.W.,
January 7th, 1897.

SIR,—I am directed by the Local Government Board to state that Mr. Wilson, Medical Officer for the Grantham District of the Grantham Out-relief Union, has written to them forwarding a copy of the letter addressed to him on the 23rd ultimo with reference to the claim sent in by him under the Poor-Law Officers' Superannuation Act, 1896.

The Board think it well, therefore, to inform the guardians of their view of the point at issue. In their opinion the contributions to be made in accordance with Section XII of the Act should be calculated on the full salaries of the officers, and not on the salaries after making such deductions as are in question.—I am, Sir, your obedient servant,

(Signed) W. E. KNOLLYS, Assistant Secretary.

A. H. Malim, Esq., Clerk to the Guardians
of the Grantham Out-relief Union.

It is very satisfactory to find that the Local Government Board has so definitely settled this question, as to which we ourselves never entertained a doubt. None but an injudiciously parsimonious Board of Guardians would ever have construed the Superannuation Act as the guardians of the Grantham Union endeavoured to construe it. Such a reading of it was only worthy of a rural parish council composed wholly or non-ratepayers.

## VITAL STATISTICS OF LONDON SANITARY DISTRICTS DURING THE FOURTH QUARTER OF 1896.

IN the accompanying table will be found summarised the vital statistics of the forty-three sanitary areas of the metropolis, based upon the Registrar-General's returns for the fourth or autumn quarter of last year. The mortality figures in the table relate to the deaths of persons actually belonging to the various sanitary areas, and are the result of a complete system of distribution of deaths occurring in the institutions of London among the various sanitary areas in which the patients had previously resided.

The 36,465 births registered in London during the three months ending December last were equal to an annual rate of 30.7 per 1,000 of the population, estimated at 4,421,955 persons; this rate was 0.9 per 1,000 above the mean rate in the corresponding quarters of the five preceding years, 1891-95. The birth-rates during the period under notice in the various sanitary areas showed, as usual, wide variations, owing principally to the differences in the age and sex distribution of the population. In Kensington, St. George Hanover Square, St. Margaret Westminster, St. James Westminster, Hampstead, St. Martin-in-the-Fields, City of London, and Lee, the birth-rates were considerably below the average; while they showed the largest excess in St. Luke, Whitechapel, St. George-in-the-East, Mile End Old Town, St. George Southwark, and Bermondsey.

The 20,982 deaths of persons belonging to London registered during the quarter under notice were equal to an annual rate of 17.7 per 1,000; this rate was 1.8 per 1,000 below the mean rate in the corresponding periods of the ten preceding years, 1886-95. In the December quarters of the three previous years the death-rate in London was 22.9, 16.2, and 17.7 per 1,000 respectively. The lowest death-rates in the various sanitary areas were 12.0 in Hampstead, 12.7 in Lee, 13.3 in Wandsworth, 13.8 in St. Martin-in-the-Fields, 13.9 in Plumstead, and 14.1 in Stoke Newington; the highest rates were 22.8 in Holborn, 23.8 in St. George-in-the-East, 24.0 in St. George Southwark, 24.1 in Strand, 25.2 in Limehouse, and 27.5 in St. Luke. During the quarter under notice 1,893 deaths resulted from the principal zymotic diseases in London; of these, 779 deaths were referred to diphtheria, 265 to whooping-cough, 262 to scarlet fever, 204 to enteric fever, 195 to diarrhœa, 184 to measles, 4 to ill-defined forms of continued fever and not one to small-pox. These 1,893 deaths were equal to an annual rate of 1.58 per 1,000, a lower rate than in the corresponding quarters of any of the ten preceding years, during which the zymotic death-rate averaged 2.38 per 1,000. The lowest zymotic death-rates last quarter in the various sanitary areas were 0.48 in St. James Westminster, 0.68 in St. Giles, 0.72 in City of London, 0.75 in Hampstead, 0.76 in Wandsworth, and 0.96 in Paddington; while the rates ranged upwards to 2.36 in Clerkenwell, 2.76 in Lewisham, 2.79 in St. Luke, 2.94 in Rotherhithe, 4.02 in Limehouse, and 4.15 in St. Olave Southwark.

*Analysis of the Vital and Mortal Statistics of the Sanitary Districts of the Metropolis, after Distribution of Deaths occurring in Public Institutions, during the Fourth Quarter of 1896.*

| SANITARY AREAS. | Estimated Population middle of 1896. | Births. | Deaths. | Annual Rate per 1,000 Living. | | | Deaths from Principal Zymotic Diseases. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-Cough. | Typhus. | Enteric Fever. | Simple and Undefined Fever. | Diarrhœa. | Phthisis. | Deaths of Children under 1 year of age to 1,000 births. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Births. | Deaths. | Principal Zymotic Diseases. | | | | | | | | | | | | |
| LONDON ... ... | 4,421,955 | 36,465 | 20,982 | 30.7 | 17.7 | 1.58 | 1,893 | — | 184 | 262 | 779 | 265 | — | 204 | 4 | 195 | 2,132 | 137 |
| *West Districts.* | | | | | | | | | | | | | | | | | | |
| Paddington ... ... | 124,838 | 832 | 496 | 24.8 | 14.8 | 0.96 | 32 | — | — | 6 | 16 | 3 | — | 4 | — | 3 | 46 | 119 |
| Kensington ... ... | 170,660 | 1,002 | 762 | 21.9 | 16.6 | 1.07 | 49 | — | — | 12 | 16 | 7 | — | 9 | — | 5 | 69 | 172 |
| Hammersmith ... ... | 104,551 | 780 | 438 | 27.8 | 15.6 | 1.19 | 33 | — | 2 | 5 | 12 | 3 | — | 5 | 1 | 5 | 42 | 145 |
| Fulham ... ... ... | 115,008 | 1,062 | 454 | 34.4 | 14.7 | 1.23 | 38 | — | — | 10 | 15 | 5 | — | 5 | — | 3 | 49 | 129 |
| Chelsea ... ... ... | 96,657 | 689 | 449 | 26.5 | 17.3 | 2.08 | 54 | — | — | 7 | 33 | 8 | — | 4 | — | 4 | 40 | 136 |
| St. George Hanover Sq. | 80,041 | 394 | 332 | 18.3 | 15.4 | 0.94 | 20 | — | — | 4 | 9 | 1 | — | 2 | — | 4 | 24 | 188 |
| Westminster ... ... | 53,477 | 317 | 277 | 22.1 | 19.3 | 1.26 | 18 | — | 3 | — | 6 | 4 | — | 2 | — | 3 | 35 | 161 |
| St. James Westminster | 22,955 | 112 | 109 | 18.2 | 17.7 | 0.48 | 3 | — | — | — | — | 1 | — | 2 | — | — | 11 | 89 |
| *North Districts.* | | | | | | | | | | | | | | | | | | |
| Marylebone ... ... | 141,114 | 1,186 | 713 | 31.3 | 18.8 | 1.28 | 49 | — | — | 7 | 19 | 7 | — | 9 | — | 7 | 77 | 122 |
| Hampstead ... ... | 75,812 | 428 | 245 | 21.0 | 12.0 | 0.75 | 15 | — | 2 | 3 | 3 | 4 | — | 2 | — | 1 | 20 | 100 |
| St. Pancras ... ... | 241,066 | 1,841 | 1,142 | 28.4 | 17.6 | 1.14 | 74 | — | 2 | 4 | 27 | 21 | — | 14 | — | 6 | 124 | 145 |
| Islington ... ... ... | 337,639 | 2,732 | 1,499 | 30.1 | 16.5 | 1.57 | 142 | — | 9 | 20 | 68 | 17 | — | 15 | — | 13 | 144 | 129 |
| Stoke Newington ... | 33,615 | 209 | 127 | 23.2 | 14.1 | 0.99 | 9 | — | — | 2 | 5 | — | — | 2 | — | — | 8 | 144 |
| Hackney ... ... ... | 213,774 | 1,764 | 862 | 30.7 | 15.0 | 1.42 | 82 | — | 1 | 10 | 34 | 6 | — | 18 | 1 | 12 | 93 | 103 |
| *Central Districts.* | | | | | | | | | | | | | | | | | | |
| St. Giles ... ... ... | 38,158 | 308 | 200 | 30.1 | 19.5 | 0.68 | 7 | — | — | 3 | — | — | — | 1 | — | 3 | 36 | 101 |
| St. Martin-in-the-Fields | 13,003 | 50 | 48 | 14.3 | 13.8 | 1.16 | 4 | — | — | 1 | 1 | 1 | — | 1 | — | — | 5 | 80 |
| Strand ... ... ... | 23,820 | 135 | 154 | 20.9 | 24.1 | 1.10 | 7 | — | — | 1 | — | 5 | — | — | — | 1 | 19 | 207 |
| Holborn ... ... ... | 30,932 | 223 | 180 | 26.9 | 22.8 | 1.44 | 12 | — | — | — | 2 | 7 | — | 2 | — | 1 | 23 | 224 |
| Clerkenwell ... ... | 66,195 | 612 | 368 | 34.4 | 20.7 | 2.36 | 42 | — | 1 | 7 | 16 | 7 | — | 7 | — | 4 | 41 | 157 |
| St. Luke ... ... ... | 41,478 | 523 | 306 | 47.0 | 27.5 | 2.79 | 31 | — | 4 | 8 | 8 | 5 | — | 2 | — | 4 | 42 | 152 |
| London City ... ... | 31,409 | 140 | 147 | 17.3 | 17.4 | 0.72 | 6 | — | — | 2 | 1 | 1 | — | 2 | — | — | 12 | 103 |
| *East Districts.* | | | | | | | | | | | | | | | | | | |
| Shoreditch ... ... | 122,265 | 1,160 | 671 | 35.3 | 20.4 | 2.10 | 69 | — | 13 | 9 | 27 | 5 | — | 4 | — | 11 | 63 | 153 |
| Bethnal Green ... ... | 129,151 | 1,285 | 647 | 37.1 | 18.7 | 1.56 | 54 | — | 12 | 9 | 19 | 2 | — | 7 | — | 5 | 53 | 132 |
| Whitechapel ... ... | 78,886 | 829 | 448 | 39.1 | 21.2 | 1.65 | 35 | — | 4 | 8 | 14 | 2 | — | 4 | — | 3 | 46 | 135 |
| St. George-in-the-East | 47,589 | 560 | 304 | 43.8 | 23.8 | 1.81 | 23 | — | 2 | 5 | 8 | 1 | — | 2 | — | 5 | 35 | 150 |
| Limehouse ... ... | 58,347 | 568 | 395 | 36.3 | 25.2 | 4.02 | 63 | — | 34 | 2 | 12 | 9 | — | 1 | — | 5 | 39 | 169 |
| Mile End Old Town ... | 111,226 | 1,175 | 590 | 39.3 | 19.8 | 2.10 | 63 | — | 13 | 10 | 21 | 10 | — | 6 | — | 3 | 46 | 142 |
| Poplar ... ... ... | 169,379 | 1,635 | 950 | 36.0 | 20.9 | 2.08 | 95 | — | 27 | 3 | 37 | 7 | — | 9 | — | 12 | 89 | 166 |
| *South Districts.* | | | | | | | | | | | | | | | | | | |
| St. Saviour Southwark | 25,276 | 211 | 142 | 31.1 | 20.9 | 1.92 | 13 | — | 1 | 2 | 4 | 5 | — | — | — | 1 | 18 | 204 |
| St. George Southwark | 60,301 | 638 | 389 | 39.4 | 24.0 | 2.04 | 33 | — | 4 | 2 | 12 | 10 | — | 3 | — | 2 | 52 | 172 |
| Newington ... ... | 121,191 | 1,164 | 688 | 35.8 | 21.1 | 2.00 | 65 | — | 10 | 12 | 22 | 13 | — | 5 | — | 3 | 82 | 156 |
| St. Olave Southwark | 11,673 | 111 | 59 | 35.4 | 18.8 | 4.15 | 13 | — | — | — | 6 | — | — | 2 | — | 5 | 5 | 108 |
| Bermondsey ... ... | 85,508 | 870 | 468 | 37.9 | 20.4 | 2.04 | 47 | — | 1 | 5 | 26 | 6 | — | 3 | — | 6 | 54 | 146 |
| Rotherhithe ... ... | 40,432 | 362 | 240 | 33.3 | 22.1 | 2.94 | 32 | — | 12 | 2 | 11 | 2 | — | 1 | — | 4 | 35 | 155 |
| Lambeth ... ... ... | 296,036 | 2,603 | 1,431 | 32.8 | 18.0 | 1.54 | 122 | — | 3 | 21 | 53 | 23 | — | 7 | 1 | 14 | 138 | 123 |
| Battersea ... ... | 165,864 | 1,390 | 680 | 31.2 | 15.3 | 1.26 | 56 | — | 2 | 8 | 23 | 7 | — | 8 | — | 8 | 73 | 112 |
| Wandsworth ... ... | 188,908 | 1,278 | 677 | 25.2 | 13.3 | 0.76 | 38 | — | 1 | 9 | 14 | 3 | — | 6 | — | 5 | 65 | 109 |
| Camberwell ... ... | 253,975 | 2,062 | 1,122 | 30.2 | 16.5 | 1.85 | 126 | — | 4 | 16 | 85 | 10 | — | 5 | — | 6 | 98 | 129 |
| Greenwich ... ... | 176,293 | 1,566 | 856 | 33.1 | 18.1 | 1.99 | 94 | — | 11 | 16 | 25 | 14 | — | 18 | 1 | 9 | 86 | 135 |
| Lee ... ... ... ... | 38,714 | 227 | 132 | 21.8 | 12.7 | 1.15 | 12 | — | 2 | 2 | 7 | 1 | — | — | — | — | 19 | 123 |
| Lewisham ... ... | 83,795 | 555 | 353 | 24.7 | 15.7 | 2.76 | 62 | — | — | 2 | 43 | 7 | — | 4 | — | 6 | 32 | 126 |
| Woolwich ... ... | 41,334 | 338 | 201 | 30.5 | 18.1 | 1.89 | 21 | — | — | 1 | 13 | 3 | — | 1 | — | 3 | 25 | 154 |
| Plumstead ... ... | 59,610 | 533 | 222 | 33.3 | 13.9 | 1.86 | 30 | — | 4 | 6 | 6 | 12 | — | — | — | 2 | 19 | 120 |

No death from small-pox was registered in London during the three months ending December last; no fatal case has been recorded in the metropolis since the beginning of July last. Measles showed the highest proportional fatality in St. Luke, Shoreditch, Limehouse, Mile End Old Town, Poplar, and Rotherhithe; scarlet fever in Clerkenwell, St. Luke, Whitechapel, St. George-in-the-East, Newington, and Greenwich; diphtheria in Chelsea, Clerkenwell, Shoreditch, Poplar, St. Olave Southwark, Bermondsey, Camberwell, Lewisham, and Woolwich; whooping-cough in Strand, Holborn, St. Saviour Southwark, St. George Southwark, and Plumstead; "fever" in St. James Westminster, Hackney, Clerkenwell, St. Olave Southwark, and Greenwich; and diarrhœa in St. Luke, Shoreditch, St. George-in-the-East, St. Olave Southwark, and Rotherhithe.

During the quarter ending December last 2,132 deaths from phthisis were registered in London, equal to an annual rate of 1.80 per 1,000. Among the various sanitary areas the lowest phthisis death-rates were recorded in St. George Hanover Square, Hampstead, Stoke Newington, Wandsworth, and Plumstead; and the highest rates in St. Giles, Strand, Holborn, St. Luke, St. George-in-the-East, St. Saviour Southwark, St. George Southwark, and Rotherithe.

Infant mortality in London last quarter, measured by the proportion of deaths under one year of age to registered births, was equal to 137 per 1,000, and with one exception was below the rate recorded in the corresponding quarter of any of the ten preceding years, during which it averaged 151 per 1,000. Among the various sanitary areas the rates of infant mortality were lowest in St. James Westminster, Hampstead, Hackney, St. Giles, St. Martin-in-the-Fields, City of London, St. Olave Southwark, and Wandsworth; while they showed the largest excess in Kensington, St. George Hanover Square, Strand, Holborn, Limehouse, St. Saviour Southwark, and St. George Southwark.

## HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,310 births and 4,156 deaths were registered during the week ending Saturday last, January 23rd. The annual rate of mortality in these towns, which had declined from 22.3 to 19.2 per 1,000 in the three preceding weeks, rose again to 19.7 last week. The rates in the several towns ranged from 12.0 in Croydon, 13.6 in Derby, 14.2 in Brighton and in Halifax, and 14.9 in West Ham to 23.5 in Sunderland, 23.6 in Burnley and in Oldham, 26.0 in Manchester, and 29.2 in Liverpool. In the thirty-two provincial towns the mean death-rate was 20.8 per 1,000, and exceeded by 2.7 the rate recorded in London, which was 18.1 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.8 per 1,000; in London the rate was equal to 1.8 per 1,000, and corresponded with the mean rate in the thirty-two provincial towns, among which the highest zymotic death-rates were recorded in Blackburn, Burnley, Swansea, and Nottingham. Measles caused a death-rate of 1.0 in Gateshead, and 1.6 in Plymouth, in Nottingham, and in Bradford; whooping-cough of 1.2 in Wolverhampton and in Salford, 1.6 in Blackburn, 2.1 in Swansea, 2.2 in Nottingham, and 2.9 in Burnley; and "fever" of 1.5 in Sunderland. The 87 deaths from diphtheria in the thirty-three towns included 63 in London, 4 in Birmingham, and 3 in Liverpool. One fatal case of small-pox was registered in London, but not one in any of the thirty-two large provincial towns. There were 2 cases of small-pox under treatment in the Metropolitan Asylum Hospitals on Saturday last, January 23rd, against 2 and 3 at the end of the two preceding weeks; no new cases were admitted during the week. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital, which had been 3,707, 3,597, and 3,414 at the end of the three preceding weeks, had further declined to 3,354 on Saturday last; 249 new cases were admitted during the week, against 271, 290, and 208 in the three preceding weeks.

## HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, January 23rd, 898 births and 733

deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 22.8 and 21.9 per 1,000 in the two preceding weeks, rose again to 24.6 last week, and was 4.9 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 15.3 in Perth to 28.9 in Glasgow. The zymotic death-rate in these towns averaged 3.0 per 1,000, the highest rates being recorded in Paisley and Glasgow. The 397 deaths registered in Glasgow included 32 from measles, 20 from whooping-cough, 4 from diphtheria, 4 from "fever," and 3 from scarlet fever. Two fatal cases of diphtheria were recorded in Edinburgh.

## WELL-DESERVED CENSURE.

In the British Medical Journal of December 21st, 1896, we commented on the unsatisfactory system in vogue of appointing medical officers of health by local health bodies for short periods, and we instanced the then notorious case of the late medical officer of health of the Daventry Rural District, Dr. Churchouse, who had incurred the wrath of his council by his plain speaking as to the gross sanitary shortcomings of the district, especially so far as regarded the parishes of Weedon and Long Buckby. For this offence of seeking to benefit the localities from a health point of view he had been superseded, after ten years' faithful service. His commendable zeal seemed his only fault in the eyes of his council.

His well-timed advice in respect of Long Buckby has now received the attention which it merited, but not from his council. The Local Government Board have intervened, and, in an admirable report, Dr. Bruce Low shows how far the Daventry Rural District Council have fallen short of the claim to continue longer as a "health body," and how great was the need that existed, and still exists, for the action, loyally persisted in by Dr. Churchouse, of calling and recalling the mind of the council to the growing necessity for comprehensive measures for securing those elementary sanitary requisites which are lacking even now.

Dr. Low's report[1] is mainly concerned with the water supply of Long Buckley, which has 2,000 inhabitants:

"The evidence," he writes, "shows that the soil in which the Long Buckby wells are sunk is highly contaminated, and that although the parochial committee, and more recently the parish council, have made efforts to reduce the amount of pollution of the soil, the water supply still remains in a very unsatisfactory state. From the evidence laid before me I am of opinion that, owing to their construction and position, it would be impossible to secure the wells at present in use at Long Buckby against dangerous pollution.....There can be no question whatever as to the danger that may arise from the use of these polluted well waters. All the conditions favouring the passage, for example, of enteric poison to the wells are present, and it only needs the introduction of the specific poison from without to start an outburst of zymotic illness on a considerable scale. In addition to the urgent need for a new and adequate water supply for Long Buckby from a source free from danger of pollution, the village requires the abolition of cesspits and privy vaults, and the introduction of a more modern and improved system of excrement disposal. The street drains, too, constructed bit by bit on no definite scheme, and consisting in part of leaking stone culverts intermixed with socketed pipes, need careful examination and remodelling under engineering advice. The suppression of pig nuisances also needs attention. The removal of refuse should be undertaken, or contracted for, by the rural district council, who should also apply for urban powers in respect of Long Buckby, and proceed to frame by-laws, based on the Board's model series, relating more especially to nuisances, scavenging, new streets and buildings, slaughter houses, and common lodging houses. But the first and most pressing need of Long Buckby is a fresh water supply; indeed, the rural district council already know this from the warnings of experts, engineering, geological, chemical, and medical."

It should in justice to the rural council be stated that the inhabitants of the place seem averse from any expenditure for purposes of water supply, but even so we venture to ask: Is not this a case in which the county council should step in and do the work which the local authority seem loth to perform, charging the cost to the local rates? At any rate the district council have now one more opportunity. Will they take advantage of it? Meanwhile Dr. Churchouse has been upheld on the highest authority, and his action fully justified. But this does not replace him in his proper position.

## UNASSAILABLE RECALCITRANCY.

The Lewisham District Board of Works have failed to establish a case for the issue of a mandamus requiring the Lewisham Board of Guardians to enforce the Vaccination Acts, the case going against the Board of Works on the ground that they were not in the position of having a specific legal right to the performance of the duty sought to be cast upon the guardians, and that the Local Government Board have already ample powers under the Vaccination Acts for compelling the due execution of those statutes. As to the first of the grounds, we do not here discuss the ruling in this instance, but we sincerely hope that the time is not far distant when the guardians not only of unions like Lewisham, but all through the land, will be relieved by Parliament of their present duty of administration (or non-administration?) of the Acts, and that health authorities will no longer hold their anomalous position of to-day in this respect. As to the second point, we assume that the Board of Works were by no means unaware of it, but that their contention was that the Lewisham guardians were not, from whatever reason, duly enforcing the Acts, and that such neglect of duty might at any moment have serious health significance for Lewisham and for the rates.

## THE CONTROL OF INFECTIOUS DISEASE IN BELFAST.

The Infectious Disease Notification Act was adopted by a large majority by the City Council of Belfast at their last monthly meeting, and will come into force on March 1st. The delay in the adoption of the Act in Belfast was mainly due to defects in the wording of the Act which, it was thought, would have given rise to great difficulties in its administration. These defects were rectified in the Irish Public Health Act of last session, and hence the way was clear for the adoption of compulsory notification. We are glad to learn that the Public Health Committee are reconsidering their decision to erect the new municipal hospital for infectious diseases at Purdysburn. This site is too remote from many parts of the city, and a hospital located there would be deprived of much of its usefulness. The alternative site—the grounds at present occupied by the asylum—is in every way superior. It is to be hoped that the corporation will follow the consensus of expert opinion on this subject.

## DOES BLAME ATTACH?

Occasionally in connection with outbreaks of small-pox it has been our lot to notice the attack by the disease of some official of a local health body in the execution of his duty of removal of patient, or disinfection of infected articles and the like. If we mistake not, this matter has cropped up with greater relative frequency in Wales than elsewhere. Where the occurrence takes place, it always seems to us in our ignorance of the actual facts that blame attaches to the local body employing the official, since we take it that he cannot have been proved to have been successfully vaccinated, and, what is of almost equal moment, recently revaccinated also. Proof of such operations should be forthcoming before a sanitary official is knowingly brought into contact with small-pox. We now learn that an assistant sanitary inspector in the employ of the Barry and Cadoxton Urban District Council has been attacked by small-pox in that district. We should like to know how far and when the official in question was protected against small-pox before he was brought into relation with the disease. No council would, we imagine, permit a nurse to attend small-pox patients in hospital without knowledge of her state of preparedness to defy the disease. All officials should be called upon to show equal preparedness.

## NOTIFICATION FROM TWO POINTS OF VIEW.

The correspondent of the *Derbyshire Courier*, to whom we made reference in the British Medical Journal of January 9th, under the above heading, has again assumed our ignorance of the system of compulsory notification, and, in effect, brings two arguments to bear upon his contention. Considerations of space allow only of the briefest comments. The writer contends, as we read his letter, that the contiguity of parishes in London and in the provinces is one and the same thing for the purposes of a system of notification, and that if in London the continuity and overlapping of sanitary areas make general compulsory notification desirable, so also do the similar geographical locations of provincial areas under differing sanitary control. The contention for other than large provincial towns is not tenable. Secondly, the writer argues against himself in stating as a ground for non-adoption of notification in Clay Cross that the prompt knowledge of a case of small-pox in the past—which case he dubs an "epidemic"—led to extinction of the disease because of equally prompt precautionary measures taken. Quite so; and it is just this early information of infectious disease while yet the cases are few that will enable sanitary bodies, and does enable them, to stay in many instances small beginnings from creating large prevalences of disease, with attendant suffering, death, and expense.

## ISOLATION HOSPITAL CHARGES.

D. S. S. writes; I have been interested in the question of charges for maintenance of patients in an isolation hospital. As regards the compulsory nature of the Act, the wording of the clause in the Public Health Act of 1875 says the maintenance "shall be deemed to be a debt," and "may be recovered." It seems that the point turns on the introduction of the word "deemed." Why was this word introduced, except to mitigate the command? The meaning of it (in *Webster*) is "to account, to esteem, to think"; and the reading might be "shall be esteemed, or thought, or supposed to be a debt." The Act distinctly does not say that it shall be a debt, or that it shall be recovered. A year ago our District Council decided to carry out the Act for twelve months, and make a charge for maintenance, with the result that in the majority of cases the circumstances of the parents were such that the claim had to be abandoned. A proposal has been made that the charge shall be discontinued at the end of the year's trial. If the Act were as compulsory as some seem to think, and proceedings were taken in every case in Court to recover it would mean that the hospital would be for the use of the wealthy, who have accommodation, and might isolate cases in their own houses, rather than for the poorer class, who have not such accommodation.

*** We are advised that the word "deemed" in an Act of Parliament has been held to mean that a judgment, or discretion, is to be exercised (De Beauvoir *v.* Welch, 7 B. and C. 170). The reasonable construction of Section cxxxii of the Public Health Act, 1875, appears to be that the local authority shall, at their discretion, treat the "expenses" as a debt due from the patient, and take steps to recover same accordingly.

## MEDICAL ORDERS ON LOAN.

District Medical Officer.—We believe it is very unusual for guardians to claim the goods of a pauper who leaves a widow, and as they decided not to do so in this case, we should think it highly inadvisable to put forward any claim for a fee for medical attendance.

## PAYMENT FOR NOTIFIED CASES.

H. H.—The Infectious Disease (Notification) Act of 1889 is an adoptive Act, and no claim for notifying a case of disease as laid down in that statute could be maintained in a district where the measure has not been adopted.

A reception will be given to Dr. Nansen, the Arctic explorer, by the Royal Societies Club on February 5th.

[1] Dr. R. Bruce Low's report to the Local Government Board on the Water Supply of Long Buckby, in the Rural District of Daventry, Northants. London: Messrs Eyre and Spottiswoode, No. 11, pp. 13. 6d

# MEDICAL NEWS.

PRESENTATION.—Dr. George Robinson, of Sheffield, has been presented with a secretaire in recognition of his services as surgeon to the Teachers' Orphanage at Page Hall.

AT the last meeting of the Chemical Society it was announced that Mr. J. J. Tustin had made a donation of 1,000 guineas to the Research Fund of the Society.

THE Chairman of the Inebriates Legislation Committee of the Association has received acknowledgment of the Committee's recapitulation of amendments urgently asked for in the present Inebriates Acts from the Prime Minister, the Lord Chancellor, and the Home Secretary. The most ample reply was from Lord Salisbury, who confirmed the announcement in the Queen's Speech, that the Government intended, if time should allo to bring in a Bill for Amended Legislation for Habitual Drunkards during the current session.

HOSPITAL REFORM.—We may remind our readers that a meeting of the medical profession will be held at St. Martin's Town Hall, Charing Cross, London, on Thursday next, February 4th, at 4 P.M., to discuss the question of hospital abuse and the recommendations of the Hospital Reform Association. Among those who are announced to take part in the discussion are: Dr. J. Ward Cousins; Professor Victor Horsley, F.R.S.; Mr. Timothy Holmes, F.R.C.S.; Mr. Walter Rivington, F.R.C.S.; Mr. Jordan Lloyd, F.R.C.S.; Dr. Frederick J. Smith; Dr. Samuel Woodcock, J.P.; Dr. Lovell Drage: Mr. Nelson Hardy, F.R.C.S.E.; Dr. W. Knowsley Sibley; Lieutenant-Colonel E. Montefiore, R.A.; Dr. J. A. Glover; and Dr. Isambard Owen.

THE GENERAL HOSPITAL AT BIRMINGHAM.—At a meeting of the General Committee of the General Hospital at Birmingham on January 25th it was stated that the Queen had expressed her inability to visit Birmingham to open the new hospital, but had deputed Princess Christian to open the building on her behalf. The new hospital will be completed in June, and according to present arrangements the opening will take place in that month. The Committee are about to appeal to the public for the necessary amount to enable the hospital to be opened free from debt. It is estimated that from £40,000 to £45,000 will be needed. Mr. J. C. Holder has intimated his desire to head this, the sick subscription list, with a further donation of £5,000.

PRESCRIBING CHEMISTS.—In spite of repeated warnings certain chemists continue to practise as if they were duly qualified apothecaries, and probably nothing short of criminal proceedings will put an end to their dangerous work. At an inquest held recently in Westminster with regard to the death of a child from diphtheria, the coroner stated that several cases of the same disease had been brought before him lately which had not received proper medical treatment. In the case mentioned the mother, instead of taking the child to a doctor, consulted a chemist, who prescribed for it without ever seeing the patient. The Pharmaceutical Society of Great Britain has always, through its President, urged its members to confine their duties to those legitimately belonging to their trade; but it is apparent that stronger measures will have to be taken in the interests of the public to put a stop to such dangerous unqualified practice.

THE Royal Commission on Tuberculosis held sittings on January 20th, 21st, and 22nd. There were present Sir Herbert Maxwell, M.P.; Dr. Thorne Thorne, C.B., F.R.S.; Professor G. T. Brown, C.B.; Mr. Shirley Murphy, Mr. Harcourt E. Clare, Mr. Thomas Cook-Trench, D.L.; Mr. John Speir, and Dr. T. M. Legge, Secretary. The following gentlemen were called and examined: Dr. J. F. W. Tatham, Superintendent of Statistics, Registrar-General's Office, Somerset House: Dr. Hamer, Assistant Medical Officer of Health for the County of London; Dr. Bond, Medical Officer of Health of the Holborn Board of Works; Mr. Billings, Meat Inspector of the Holborn Board of Works; Mr. Haydon, L.C.C., President of the London Butchers' Trade Society; Mr. Cooper, Chairman of the Meat and Cattle Trades' Section of the London Chamber of Commerce; Mr. Holmans, Veterinary Superintendent of the Deptford Cattle Market of the Corporation of London; Dr. Marsden, Medical Officer of Health of Birkenhead; and Mr. Wagstaff, Meat Inspector of Birkenhead.

THE SOCIETY OF TRAINED MASSEUSES.—At the time that the BRITISH MEDICAL JOURNAL was engaged in investigating some of the scandals which had grown up around this most useful branch of medical treatment, and which were fast bringing the whole practice into disrepute, some of the leaders among the trained *masseuses* in London saw that the best way to meet the emergency was to form a society for their mutual protection which, by framing rules of practice and conditions of admission, should band the profession together as a respectable body of women, wishing to do their work in a respectable manner. It was a wise suggestion, and has been well followed out; the Society was formed in 1894, and the prospectus before us shows that besides the names of many leading nurses and midwives, who have been trained as *masseuses*, there are a large number of medical men of repute who have given their names to the Society. The objects of the Society are twofold: First, educational, and, secondly as an agency for providing the public with qualified *masseuses*. The first of its objects is accomplished by holding an examination and by organising lectures and discussions, and the second by opening a registry for the use of the members and the public. The rules which bind the members are: (1) No massage to be undertaken except under medical direction. No general massage for men to be undertaken. Occasional exceptions may be made at a doctor's request for urgent or nursing cases. (2) No advertising permitted in any but strictly professional papers. (3) No sale of drugs to patients allowed. We have quoted these rules in full, as they show that an honest effort is being made to put down those grave scandals which we pointed out as bringing ruin on an honourable calling. The office is at 12, Buckingham Street, Strand, the office of the Trained Nurses' Club.

## MEDICAL VACANCIES.

The following vacancies are announced:

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Acting Physician. Appointment for twelve years, but eligible for a further period of eight years. Applications, accompanied with diplomas and certificates of registration, to be addressed to the "Medical Board, Children's Hospital, Steelhouse Lane, Birmingham," by February 3rd.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon. Applications to John Griggs Bryant, Secretary, by February 9th.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Pathologist; a knowledge of bacteriology a recommendation. Applications to Herbert H. Jennings, Secretary, by February 1st.

CORK UNION.—Medical Officer for the Whitechurch Dispensary District. Salary £120 per annum, and £15 per annum of Medical Officer of Health, with the usual fees as Registrar of Births, Deaths, and Marriages, and as a Public Vaccinator. Applications to J. J. Humphreys, Honorary Secretary, Whitechurch, by February 5th.

COUNTY LUNATIC ASYLUM, Lancaster.—Assistant Medical Officer; unmarried. Salary commencing at £100 per annum, with board, apartments, attendance, and washing. Applications to the Medical Superintendent by January 31st.

DUNDEE ROYAL INFIRMARY. Resident Clinical Assistant (qualified) for three months. Board, lodging, and washing provided. Applications to the Medical Superintendent by February 3rd.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Clinical Assistants to the Out patients, Physicians and Clinical Clerks in the wards. Applications to the Secretary before February 1st.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Assistant-Physician. Applications to the Secretary by February 10th.

HULL BOROUGH ASYLUM.—Assistant Medical Officer, unmarried, and not more than 30 years of age. Salary, £120 per annum, rising by annual increments of £10 to £150, with unfurnished apartments, board (except liquors), attendance, and washing. Application to the Committee of Visitors under cover to the Town Clerk, Town Hall, Hull, by February 9th.

HULL ROYAL INFIRMARY.—Honorary Surgeon: must be F.R.C.S. Eng., or have been Assistant Surgeon of the Infirmary for five years. Applications, addressed "Chairman, Committee of Management," to be received at the Board Room of the Institution by February 19th.

INFIRMARY OF THE CITY OF LONDON UNION.—Assistant Medical Officer at the Infirmary situate in Bow Road; doubly qualified. Must be single, or widower without children. Not less than 25 nor more than 35 years of age. Salary, £150 per annum, with furnished apartments at the infirmary, rations and washing. Applications on forms to be obtained at the Clerk's office, to be sent to Frederick W. Crane, Clerk to the Guardians, 61, Bartholomew Close, E.C., by February 9th.

LEICESTER INFIRMARY.—House-Surgeon. Salary, £120 for the first year, rising at the rate of £10 per annum until the third year. Board, apartments, and washing provided. Applications to the Secretary at his offices, 24, Friar Lane, Leicester, by February 1st.

OMAGH DISTRICT ASYLUM.—Assistant Medical Officer. Salary, £100 per annum, with allowances of furnished apartments, rations, washing, fuel, light, and attendance, valued for pensionable purposes at £100 per annum. Not more than 30 years of age, unmarried, and qualified in medicine, surgery, and midwifery. Candidates must attend at the asylum on February 11th at 10.30 A.M., and produce certificate of birth or statutory declaration of age and originals of qualifications and testimonials.

ROYAL ORTHOPÆDIC HOSPITAL, 297, Oxford Street, W.—House-Surgeon and Anæsthetist. Salary, £100 per annum, with partial board and washing; doubly qualified and unmarried. Applications to the Secretary by February 1st.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Physician; must reside within a mile and a half of the Infirmary. Applications to the Secretary before February 1st.

ST. MARY'S HOSPITAL, Paddington, W.—Surgeon in Charge of Out-patients. Must be Fellow or Member of one of the Colleges of Surgeons of the United Kingdom. Appointment for five years, but eligible for re-election. Applications to the Secretary by February 8th.

ST. MARY'S HOSPITAL, Paddington, W.—Medical Registrar. Salary, £50 per annum. Medical Officer for the Selection of Out-patients. Salary, £75 per annum. Must be M.R.C.P.Lond. Appointments for one year, but eligible for re-election for a second year. Applications to Thomas Ryan, Secretary, by February 8th.

SHEFFIELD GENERAL INFIRMARY.—Junior Assistant House-Surgeon, doubly qualified. Salary, £50 per annum, with board, lodging, and washing. Appointment for three years, but eligible for re-election. Applications addressed to the "Medical Staff of the Sheffield General Infirmary" to the care of the Secretary by February 10th.

SUFFOLK COUNTY LUNATIC ASYLUM, Melton, near Woodbridge.—Medical Officer; must not exceed 40 years of age. Salary, £600 per annum, with furnished house (excluding plate and linen), including all rates. Applications to A. Townsend Cobbold, Clerk to the Visiting Committee, County Hall, Ipswich, by February 1st.

SUSSEX COUNTY HOSPITAL, Brighton.—House-Surgeon; doubly qualified, unmarried, and under 30 years of age. Salary, £120, rising to £140 per annum at the discretion of the Committee of Management, with board, residence in the hospital, and washing. Applications to the Secretary by February 10th.

TIVERTON INFIRMARY AND DISPENSARY.—House-Surgeon and Dispenser, unmarried. Salary, £105 per annum, with lodging, attendance, fire, and lights. Must serve two years if required. Applications to Arthur Fisher, Honorary Secretary, by February 27th.

## MEDICAL APPOINTMENTS.

ADAIR, Thomas Stewart, M.D.Edin., appointed Senior Assistant Medical Officer to the Wadsley Asylum of the West Riding of York.

ALLEN, Vernon F., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Swaffham District of the Swaffham Union.

BODEN, John S., M.R.C.S., L.R.C.P.Lond., appointed an Assistant Medical Officer to the St. Pancras Parish Infirmary.

BREMNER, D. C., M.B., C.M.Edin., appointed Medical Officer for the Workhouse and of the Bishop's Castle District No. 1 of the Clun Union, *vice* John F. Boa, M.B., C.M.Glasg., resigned.

CAMPBELL, Donald, M.D.Glasg., C.M., reappointed Medical Officer of Health to the Calne Town Council.

CARTER, Ernest Christison, M.D., M.R.C.P., appointed Honorary Medical Officer to the Female Orphanage, Cheltenham, *vice* W. R. Puckell, F.R.C.S., resigned.

CHAMBERS, Herbert J. W., M.R.C.S.Eng., L.R.C.P.Edin., appointed Medical Officer and Public Vaccinator for the Pendlebury Division of the Salford Union.

EDDOWES, Alfred, M.D., L.R.C.P.Edin., appointed Honorary Assistant Physician to St. John's Hospital for Diseases of the Skin.

FARRANT, Mark, jun., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Workhouse of the St. Thomas Union.

HOBHOUSE, Edmund, M.D.Oxon., M.R.C.P., appointed Assistant Physician to the Sussex County Hospital.

KING, Arthur, M.B., C.M.Edin., D.P.H.Eng., reappointed Medical Officer of the Workhouse of the Watford Union.

MACDONNELL, Edward R. A., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg. appointed Medical Officer for the Litcham District of the Mitford and Launditch Union.

MATURIN, F. H., M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon to the Derbyshire Royal Infirmary.

MILLAR, William, M.B., C.M.Edin., L.R.C.P.& S.Eng., L.F.P.&S.Glasg., appointed Medical Officer and Public Vaccinator for the Welton District of the Sculcoates Union.

NEWTON, Henry W., M.R.C.S., L.R.C.P.Lond., D.P.H.Eng., appointed Medical Officer for the First District of the Chelmsford Union.

NICHOLSON, B. H., M.B., M.D.Edin., appointed Surgeon to the Essex and Colchester Hospital, *vice* H. Laver, M.R.C.S., appointed Consulting Surgeon.

NORMAN, E. P., B.A., M.D.Dub., reappointed Medical Officer to the Workhouse and of the Coddenham District of the Bosmere and Claydon Union.

NUNN, P. W. G., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health for the Borough of Bournemouth and Medical Superintendent of the Sanitary Hospital.

RAY, Matthew Burrow, M.B., C.M.Edin., appointed Second Assistan Medical Officer to the Wadsley Asylum of the West Riding of York.

RENTON, J. Crawford, M.D., appointed Additional Examiner in Surgery in Edinburgh University, *vice* G. T. Beatson, M.D.

SAYERS, M. H., M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant House-Surgeon at the Worcester General Infirmary.

SUTTON, Dr., appointed Medical Officer for the Norbury District No. 2 of the Clun Union, *vice* John F. Boa, M.B., C.M.Glasg., resigned.

THOMAS, Evan, M.B.Lond., M.R.C.S., L.R.C.P., appointed an Assistant Medical Officer to the St. Pancras Parish Infirmary.

THORP, Albert, M.R.C.S., L.R.C.P.Lond., appointed Medical Officer of Health to the New Mill Urban District Council.

TIPLADY, William, L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of the Thornley District of the Weardale Union.

TURNER, A. Scott, appointed House-Surgeon to the Hospital and Western Branch of the Brighton, Hove, and Preston Dispensary.

SAVILL, Thomas D., M.D.Lond., D.P.H.Camb., M.R.C.P.Lond., appointed Honorary Assistant Physician to St. John's Hospital for Diseases of the Skin, *vice* Dr. Barratt, resigned.

## DIARY FOR NEXT WEEK.

### MONDAY.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 40, Leicester Square, W.C., 8 P.M.—Communications by Messrs. H. W. Messenger, G. H. Bowden, H. Baldwin, and J. H. Badcock.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Dr. F. de Havilland Hall: Diseases of the Nose and Throat in relation to General Medicine (First Lettsomian Lecture).

### TUESDAY.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Lecture by Dr. Tooth.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL, Gray's Inn Road, W.C., 4 P.M.—Dr. Dundas Grant: The Diagnosis and Treatment of Obstructive Deafness apart from Pain or Discharge.

PATHOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 P.M.—Mr. J. W. W. Stephens and Mr. C. D. Parfitt: Three cases of Hæmorrhagic Diphtheria. Dr. A. E. Garrod: Pneumococcus Endocarditis of a Two-cusped Aortic Valve with Malformation of the Liver. Dr. H. Mackenzie and Mr. W. Edmunds: Persistence of Thymus in Graves's Disease. Card specimens by Mr. Douglas Drew and Dr. Hebb.

### WEDNESDAY.

THE CLINICAL MUSEUM, 211, Great Portland Street, 4 P.M.—Demonstration by Mr. Jonathan Hutchinson.

OBSTETRICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8 P.M.—Specimens will be shown by Mr. Doran, Dr. John Phillips, and others. Paper:—Dr. A. E. Giles: The Cyclical or Wave Theory of Menstruation, with observations on the Variations in Pulse and Temperature in Relation to Menstruation. Annual meeting: The President (Dr. Champneys) will deliver the Annual Address.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M. Dr. Donald Hood: Appendicitis from a Medical Point of View.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, 4 P.M.—Dr. Schorstein: Diagnosis of Early Tuberculosis.

### THURSDAY.

HOSPITAL REFORM ASSOCIATION, St. Martin's Town Hall, 4 P.M.—Meeting of Profession for consideration of question of Hospital Reform.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 P.M.—Clinical evening.

### FRIDAY.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Dr. Beevor: Cerebral Localisation.

WEST KENT MEDICO-CHIRURGICAL SOCIETY, Royal Kent Dispensary, Greenwich Road, S.E., 8.15 P.M.—Dr. George Herschell: On Chronic Fæcal Retention; its Consequences and Treatment.

WEST-LONDON MEDICO-CHIRURGICAL SOCIETY, West London Hospital, W., 8 P.M.—Discussion on the Menopause opened by Drs. Amand Routh, W. Hunter, and C. Tuke.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

HART.—At 29, Charlotte Square, Edinburgh, on January 23rd, the wife of D. Berry Hart, M.D., of a son.

STOWERS.—On January 24th, at Silchester Lodge, Thornton Heath, Surrey the wife of J. H. Stowers, M.D., of 128, Harley Street, Cavendish Square, W., of a son.

### DEATH.

EVANS.—On January 20th, at Penybout, Radnorshire, J. S. M. Evans, L.F.P.S., L.M., aged 80.

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances*—Daily, 2. *Operations.*—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR.—*Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—Daily.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations.*—W. Th. F., S.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30 Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations.*—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations.*—M. F. S., 2.

LONDON. *Attendances.*—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operations.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations.*—M. Th., 4.30.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations.*—F., 9.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations.*—W., 1.30; S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30 *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 3; Dental, Th., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 1. *Operations*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th. 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations.*—M. Tu. Th. F. S., 1.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males S., 3; females; W., 9.45. *Operations.*—M., 2; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F. 3.0; Skin, M. Th., 9.30; Electro-therapeutics, M. Th., 2.30; Dental, W. S., 9.30; Children's Medical, Tu. F., 9.15; Children's Surgical, S., 9.15. *Operations.*—M., 2.30.; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Th., 2.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations.*—Tu. F., 2.30.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1; Obstetric, Tu., F., 1; Eye, Tu. F., 9.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operations.*—Tu. W., 2.

# LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

### QUERIES.

A. B. C. asks to be recommended a suspensory bandage for riding and cycling.

MEMBER wishes to know if any medical man can recommend any form of exercise for the muscles of thighs and legs which can be indulged in in a bedroom. Dumbbell exercise for arms and chest can be made use of in a confined space. Is there anything in the nature of dumbbell exercise for the legs?

D.E.B. would be obliged for answers to the following questions about a patient who is suffering from the usual symptoms of primary and secondary syphilis, namely, sore on the penis, sore throat, roseolous rash, alopecia, pains in the joints: (1) What is the best form of mercury to give, and for how long a period should it be given? (2) In the above case is it necessary to give iodide of potash in combination with the mercury, and, if so, what are the best preparations in which to combine the drugs?

#### DAMP HOUSES.

COUNTRY SURGEON asks for advice on the following matter. His house was built seventy years ago on a damp site, the ground walls are damp, and diphtheria has occurred several times. What kind of new flooring would be best for the living rooms? The following are mentioned to him: (1) Concrete finished off smooth, without wood flooring, but to be covered by a carpet; (2) asphalte, with wood flooring laid on joists, the spaces between being filled up solid with asphalte. Which of these would be best, or what other kind of flooring would be better? Would the asphalte be dangerous from fire?

#### RUPTURE OF FRÆNUM PRÆPUTII.

M.D. writes: Patient, aged 56, complained of swelling of the prepuce. I found œdema of the entire prepuce, and a crack on either side of the frænum præputii. I recognised that the cracks were the cause of the œdema, which the patient was at first loth to believe. I treated the cracks with friar's balsam, and drew forward the prepuce to guard against danger of constriction. The cracks became longer, and the frænum itself began to ulcerate. I then touched the entire ulcer with a nitrate of silver point. Still the ulceration went on till the frænum got very thin and ruptured. Since that time I have touched it occasionally with pure liquid carbolic, and have dressed it with dermatol and other powders. It is now slowly healing, and I am anxious to know: (1) What the etiology of the condition may be. (2) Whether the lesion is of frequent occurrence. (3) What the prognosis is, especially as to sexual function. (4) Whether an attempt should be made to restore the frænum by operation. The patient is nervous, and not robust. There is no history of syphilis.

#### HOSPITAL APPOINTMENTS.

WE are asked to express an opinion upon the following circumstances: Ten years ago A. and B. were on the same day appointed assistant surgeons to an infirmary for five years. At the expiration of this period they were re-elected for another term of five years, and on the same day C. and D. were appointed for the first time for the same period, which has now expired. One of the surgeons is now retiring, thus creating a vacancy on the senior staff. C., who has served as assistant-surgeon for five years, is making great efforts to obtain the appointment of full surgeon as a candidate in opposition to A. and B., who have served for ten years. We are asked whether this is in accordance (1) with the usual routine of such appointments; (2) whether there is any precedent in the history of hospitals for the appointment of a junior over the heads of his seniors; and (3) whether the junior is justified in making the attempt to supersede his colleagues by putting himself forward as a candidate for the vacant appointment.

*** As to (1) and (2), we believe that precedents might be found, but they would be generally recognised as contrary to the usual routine The answer to the third question would depend upon the regulations of the hospital governing the appointment of the medical staff, and upon the custom usually followed at the particular institution. The promotion of the senior member of the junior staff to the senior staff when a vacancy occurs is, we think, the rule.

### ANSWERS.

J. F.—The matter is under consideration.

MRS. SCOTT should consult an electrician.

F. M.—We cannot recommend any particular physician or institution. Our advertising columns may be consulted.

M.B., M.A.—Only a "registered" qualification should be inserted in a certificate of death.

M.R.C.S.—Such a method of seeking practice resembles too closely that of a tradesman to be commendable in a member of a learned profession.

#### INSTITUTION FOR CARE AND EDUCATION OF BLIND CHILD.

S. writes: "Sight" should apply to Dr. Campbell, Principal of the Normal College and School for the Blind, Upper Norwood, S.E.

#### THE PURCHASE OF ANTITOXIN.

DR. PERCY E. WALLIS, medical officer of health to the East Grinstead Urban District Council, writes with reference to the inquiry of "A. J. S." as to whether any sanitary authority has borne the expense of procur-

ing antitoxin, as follows: "I beg to inform you that my Council has agreed, since last August, to my request that they should defray the cost of bacteriological examination in cases of sore throat of a doubtful nature; also to pay for the antitoxin used in the treatment of diphtheria, when the patients are not in a position to bear the expense on their own account. Medical men in the district can always have the materials for taking a specimen from a bad throat, and a supply of antitoxin, by making an application to me.

ENUMERATION OF DAYS.

DR. ALBERT E. COPE (Vauxhall Bridge Road, S.W.) writes: In the Queries column of the BRITISH MEDICAL JOURNAL of January 23rd, page 246, the exact significance of the "ninth day" is asked. There is one principle which is both scientific and, what is more important in practice, easily demonstrable: that is, to be guided entirely by the number of periods of twenty-four hours which have elapsed since the delivery, altogether irrespective of dates of month or days of week. It is not an uncommon thing for one to be asked to settle a dispute between nurse and patient on this knotty point, and I have found this a very easy and consistent way of delivering judgment. Thus, supposing a patient to be delivered at 6 P.M. on January 1st, the ninth day would begin at 6 P.M. on January 9th, and continue till 6 P.M. on January 10th, and, supposing the patient were to be allowed to get up on the ninth day, one would select the most convenient time between these two hours, which would probably be taken as the afternoon of January 10th. The same point is of considerable importance in determining, in regard to the eruptive fevers, the interval between exposure to infection and invasion or between invasion and rash, a good deal of the variation in statement of textbooks having, I believe, had its origin in failure to reckon on the twenty-four hour plan.

## NOTES, LETTERS, Etc.

PLAGUE OF RINDERPEST AT THE CAPE.

ANTIBOVICIDE writes: In reference to the subject of the rinderpest at the Cape among the cattle, both of native and European owners, it may be pointed out how very little advance has been made in veterinary science and hygiene in the Colony. Having served in South Africa three times, and seen the country in various parts, it seems to me that sanitary science is still as enveloped in gloom as it was even a generation ago, and visitations of plagues are still looked upon as those of Providence and retribution for our sins. Wholesale slaughter of live animals, domestic and wild, is still considered the only method to check plagues, as it was from the first ages, and no thought seems to be taken of trying and finding out remedial or medicinal methods of cure or amelioration. The civil authorities, and private owners seemed to have overlooked the measures adopted in clearing out insanitary areas and dwellings in Europe by removal of nuisances, and disinfection of premises occupied by diseases.

It might be pointed out that cattle are housed in large circular kraals and sheep in square pens at night after grazing, and these places in time become filled with ordure and manure some feet in depth, and they swelter all day under a burning sun, or are soaked by urine and rains. Cannot measures be therefore taken to apprise owners that these places become unhealthy, and exhale noisome gases and vapours to the injury of the health of the cattle and sheep housed in them for nine to ten hours a day? It might surely occur to veterinary authorities that these fever clumps should be cleared out periodically down to the floors below the manure cake, and afterwards thoroughly disinfected in these epidemic seasons in the Colony.

The tribes of Kaffirs and Bechuanas are aghast at our proceedings, and cannot understand our remedies for curing rinderpest, and so they turn rusty to, and hostile to, our bovicidal remedies, and oppose our carrying them out in their possessions.

Birds and beasts of prey now have begun to haunt the pestiferous bodies and to feed upon them, and to carry away with them the germs of rinderpest and plague to their nests and dens in distant parts, and eventually perish themselves in due course. The air of the stricken localities at the Cape and Bombay is even now as well poisoned by the mephitic vapours emanating from decomposing matter, such as corpses and bodies, and residence in them by the healthy has become risky unless rigid hygienic measures are taken.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) Mr. A. Angell, Southampton; Messrs. Arnold and Sons, London; A. B.; Dr. T. S. Adair, Sheffield; Dr. L. Atthill, Dublin. (**B**) Mr. D. Butler, London; Mr. M. R. J. Behrendt, Scunthorpe; Dr. P. Boulton, London; Mr. W. Bentley, Lancaster; Dr. Bond, Gloucester; Dr. G. B. Beale, Bournemouth; Mr. L. Browne, London; Bartholomew. (**C**) Dr. J. Campbell, Belfast; Correspondent; Mr. N. C. Collie, London; Mr. G. L. Cheatle, London; Dr. A. E. Cope, London; A. Cox, M.B., Gateshead-on-Tyne; Mr. J. Cockram, Richmond; Country Surgeon; Mr. W. G. Carnt, Derby; J. Cooke, M.B., Devonport; C. M. J.; Dr. A. Churchward, London; Dr. F. W. Cock, London; Constant Reader; Dr. J. Conner, London; Dr. J. A. Campbell, Carlisle; Dr. E. Carter, Cheltenham. (**D**) Mr. T. J. Day, Manchester; D. E. B.; Miss H. Douglas, London; Disgusted Non-Medico; Mr. W. G. Dickinson, London; Dr. T. M. Dolan, Halifax. (**E**) Dr. E. H. Ezard, London; Esprit de Corps. (**F**) Mr. T. Farrow, London; Mr. E. Folliott, Salisbury; F. M.; Messrs. J. S. Fry and Sons, London; Dr. G. B. Ferguson, Cheltenham; Factory. (**G**) Dr. F. S. Gramshaw, Stillington; J. E. Gemmell, M.B., Liverpool; Mr. T. W. H. Garstang, Knutsford; Messrs. R. W. Greef and Co., London; Dr. A. O. Grosvenor, London. (**H**) T. E. Hill, M.B., Durham; Dr. J. B. Hellier, Leeds; Mr. R. M. Hugo, Purley; Mr. M. R. Hatch, Bombay; Dr. H. A. Hare, Philadelphia; Dr. J. Haddon, Hawick; Hospital Surgeon and General Practitioner; Mr. J. Herbert, Pendlebury; Dr. E. Hobhouse, Brighton; Messrs. J. Haddon and Co., London; Dr. G. A. Humble, Viedma; Dr. S. H. Habershon, London; Dr. R. G. Hebb, London. (**I**) Dr. F. Imlach, Liverpool. (**J**) Dr. W. Johnson, Bloemfontein; J. M.; H. M. Jones, M.B., London. (**L**) Mr. W. Lambert, Great Malvern; Dr. R. C. Lucas, London. (**M**) J. W. Milne, M.B., Fisherie, N.B.; Messrs. Mather and Crowther, London; Mr. W. Marriott, London; Mr. J. Morgan, Pontrhyd-y-Groes; W. R. MacDermott, M.B., Newry; Mr. J. MacKay, London; Dr. J. G. Macnaughton, Edinburgh; A. L. McMillan, M.B., Kelvinside; Dr. P. Macpherson, St. Leonard's-on-Sea; Dr. A. Mitchell, London; Dr. H. Mitchell, Cockermouth; Mr. R. Morison, Newcastle-on-Tyne; Member; Dr. W. Murrell, London; Medical Practitioner; Dr. J. McNamara, London; Mr. H. P. F. Marriott, London; C. Maguire, M.B., Ferryhill; Dr. J. D. McCaw, London; Member B.M.A.; Dr. J. S. Morrow, Belfast; Dr. J. W. Moore, Dublin. (**N**) Native by Birth of Bombay; Dr. D. Newman, Glasgow. (**O**) Dr. J. Oliver, London; Odontological Society of London, The Secretary of the, London; Messrs. Oppenheimer, Son, and Co., London; Dr. J. O'Conor, Buenos Ayres. (**P**) Dr. C. Popesca, Giurgin, Roumania; Dr. T. F. Pearse, Portsmouth; Mr. J. Pascoe, London; Dr. J. Phillips, London; Dr. D. R. Paterson, Cardiff. (**R**) Dr. H. C. Rose, London; Messrs. Rice and Paul, London; Mr. D. Rees, Carnarvon; Mr. F. Reynolds, Harrogate; Dr. N. Raw, Dundee; Dr. H. B. Robinson, London; J. Rutherford, M.B., Dumfries; Dr. T. C. Railton, Manchester; Redress; Dr. T. S. Revely, Stockport; W. Rivington, M.B., London. (**S**) Dr. J. W. Stainer, Folkestone; Mr. G. F. Sydenham, Dulverton; Mr. Sutcliffe, London; Student; Dr. T. S. Short, Birmingham; Mr. W. J. Spence, Leicester; Miss F. Scott, London; Society of Apothecaries of London, the Secretary of the, London; Mr. J. Snowman, London; Mr. P. L. Sclater, London; Sheffield Medico-Chirurgical Society, the Secretary of the, Sheffield; Dr. C. E. G. Stalkartt, Southsea. (**T**) Dr. N. Tirard, London; Mr. A. L. Turner, Hove; W. E. Tressider, M.B., Nottingham; Mr. C. S. Tomes, London; Mr. M. R. Taylor, Ilminster. (**V**) Dr. F. Vacher, Birkenhead; Victorian. (**W**) Mr. A. M. Watts, Hereford; Dr. F. P. Weaver, London; Mr. E. Webster, Brighton; Mr. W. S. Watson, London; Mr. G. C. Wilkin, London; Dr. H. Waldo, Clifton; Dr. W. J. Wilson, Great Yarmouth; Mr. J. White, London; Dr. A. McCook Weir, East Sheen; Mr. N. Wood, London. (**Y**) Young Practitioner; etc.

## BOOKS, ETC., RECEIVED.

Atlas der pathologischen Histologie des Nervensystems. Redigirt von Dr. Victor Babes. VII Lief. Berlin: August Hirschwald. 1896.

Water and its Purification. By S. Rideal, D.Sc.Lond. London: C. Lockwood and Son. 1897.

Aristotle on Youth and Old Age, Life and Death, and Respiration. By W. Ogle, M.A., M.D., F.R.C.P. London: Longmans, Green, and Co. 1897. 7s. 6d.

La Pendaison, la Strangulation, la Suffocation, la Submersion. Par Prof. P. Brouardel. Paris: J. B. Baillière et Fils. 1897. Fr. 12.

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# AN ADDRESS
ON THE
# VALUE OF PATHOLOGICAL RESEARCH.

*Delivered on January 20th, 1897, in connection with the Opening of the New Physiological and Pathological Laboratories in Queen's College, Belfast, during the celebration of the Jubilee of the College.*

By LORD LISTER, P.R.S.

It gave me very great pleasure to witness the opening of the physiological and pathological laboratories yesterday by His Excellency the Lord-Lieutenant. Such an establishment is calculated to be of enormous advantage to the North of Ireland. The benefits which it will confer will be of various kinds. In the first place it will be of very great assistance to the medical practitioner in forming his diagnosis of the disease of the patient he has to treat. In these days the knowledge of pathology has made immense advances; and, at the same time, along with these advances in pathological knowledge, there has arisen increased complexity in the methods of examining pathological objects. Section cutting, staining, microscopic examination—these are matters of the utmost moment; and yet for the general practitioner there may be neither the apparatus nor the time requisite for that kind of investigation. It will, therefore, be of great advantage to the practitioner, when he has removed or in any way obtained a portion of a morbid growth, to send it to a central institution, and have absolutely definite information as to the precise nature of the disease with which he has to deal. Then, as regards the bacteriological department—there, again, diagnosis will be greatly facilitated. You are most of you aware that the diagnosis of diphtheria can now be made by bacteriological examination. It is of the utmost importance in the treatment of a case of diphtheria that its nature should be distinctly defined: that it should be known with certainty whether it is true diphtheria or a disease which closely simulates it, and may deceive the most experienced practitioner, and yet have none of the deadly characteristics of true diphtheria. Now for the future any medical man in the North of Ireland will only have to send, in a suitable tube, which will be provided by the institution, a little of the false membrane in the case with which he is dealing, and in a very short time he will have sent to him a bacteriologically-made diagnosis of whether it is a case of true diphtheria or not. Again, with reference to what is more immediately connected with the objects of this College, such an institute will be of very great help in the training of students in their education for the medical profession. In it the student will have the opportunity of practically studying the various forms of morbid growths and the diseases which are of the nature of microbes. These are days when the subjects of medical examination are becoming more and more complex, and the student is too much tempted to get up his knowledge in a superficial way, cramming to satisfy the examiner, rather than to obtain thorough-going practical information. That is more especially the case when the student is not examined by his own teachers, under whom he might work with some confidence that his labour would not be thrown away with reference to that really subordinate, but in his eyes vastly important, matter of the passing of his examination. May I venture to interpose a remark on that point, and to express the hope that the time is not very far distant when the great Northern metropolis of Ireland will have its own university, a true teaching and graduating university on the same lines as most of the German universities and the Scotch? But passing from that, independently altogether of the difficulty a student may have in preparing for examination by strangers, the great complexity of the subjects of medical education makes it extremely important that there should be afforded ample opportunities of practical study. The bacteriological department will be of peculiar value in the education of the student. It will in the first place convince him of the reality of the microscopic foes with which we have at the present day so largely to deal—the microbes, which are the cause of so large a proportion of human disease. He will not only read that such things are, and when he gets into practice perhaps forget that they exist, but he will know them as acquaintances. He will see the evidence not only of their existence, but also of their effects. The bacteriological training will besides be of special advantage in teaching the student accurate observation and also dexterity of manipulation—both most important matters in a medical man's practice. If a student is told to prepare a culture of a particular microbe in a state of purity, in order to do that he must be very sharp indeed in his observations, and very clever, too, in his manipulations; and if he fails, the fact will very soon declare itself. There will be an impure culture, and instead of having only the one microbe he wished to cultivate, with its well-known special characteristics, it will be seen that he has allowed others to get in at the same time. His own imperfections will thus declare themselves: but he will persevere, and go on and on until he becomes perfectly competent to produce a pure culture. This will be of great importance in his education. There is another aspect of a pathological institute which I feel some delicacy in alluding to, because there are some people who take strange views with regard to these matters—exaggerated views. There are people who do not object to eating a mutton chop—people who do not even object to shooting a pheasant with the considerable chance that it may be only wounded and may have to die after lingering in pain, unable to obtain its proper nutriment—and yet who consider it something monstrous to introduce under the skin of a guinea-pig a little inoculation of some microbe to ascertain its action. Those seem to me to be most inconsistent views. With regard to all matters in which we are concerned in this world, everything depends upon the motive. A murderer may cut a man's throat to kill him; any one of you medical students may have to cut a man's throat to save his life. The father who chastises his son for the sake of the good of his morals is a most humane man; a father who should beat his son for the mere sake of inflicting pain upon him would be an inhuman monster. And so it is with the necessary experiments upon lower animals. If they were made, as some people seem to assume, for the mere sport of the thing, they would be indeed to be deprecated and decried; but if they are made with the wholly noble object of not only increasing human knowledge, but also diminishing human suffering, then I hold that such investigations are deserving of all praise. Those little know who lightly speak on these matters how much self-denial is required in the prosecution of such researches when they are conducted, as indeed they always are, so far as I am aware, with the object of establishing new truth. The exercise of a little charity might lead those who speak of us as inhuman to reflect that possibly we may be as humane as themselves. The profession to which I have the great honour to belong is, I firmly believe, on the average the most humane of all professions. The medical student may be sometimes a rough diamond; but when he comes to have personal charge of patients, and to have the life and health of a fellow-creature depending upon his individual care, he becomes a changed man, and from that day forth his life becomes a constant exercise of beneficence. With that beneficence there is associated benevolence; and in that practical way our profession becomes the most benevolent of all. If our detractors knew this, common sense would enable them to see that our profession would not be unanimously in favour of these researches if they were the iniquitous things which they are sometimes represented to be. I was reading the other day a very interesting account of Pasteur's work on rabies, written by one who was associated with him from an early period (M. Duclaux). It had been established that the introduction of a portion of the brain of a mad dog under the skin of a healthy animal was liable to cause rabies, and Pasteur had reason to believe that it was principally in the nervous centres that the poison accumulated. He felt a very strong desire to introduce some of the poison into the brain of an animal; but he was a peculiarly humane man. He never could

shoot an animal for sport. He was more humane than the great majority of human beings; and for a long time he could not bring himself to make the experiment of trephining an animal's skull, and introducing some of the poison of rabies into the brain. He was exceeding desirous of doing it to establish the pathology of the disease, but he shrank from it. On one occasion, when he was absent from home, one of his assistants did the experiment, and when Pasteur came back he told him that he had done so. "Oh!" said Pasteur, "the poor creature! His brain has been touched. I am afraid he will be affected with paralysis." The assistant went into a neighbouring room and brought in the animal, which was a dog. It came in frisking about and investigating everything in a perfectly natural manner; and Pasteur was exceedingly pleased, and though he did not like dogs, yet he lavished his affection upon that particular animal and petted it; and from that time forth he felt his scruples need no longer exist. The truth is that the pain inflicted by this process of trephining is exceedingly slight, and yet the operation is sometimes described as being a hideously painful one. That is a mistake. In point of fact the operation is always done now under anæsthetics, so that the animal does not feel it at all; but even without that the operation is not seriously painful. I look forward to the time when there will be an institute in connection with this College, where investigations of the kind to which I have referred can be carried on and where pathological knowledge of the first importance may be promoted. Think also of the practical advantages of an institution where the materials can be provided for the treatment of diseases on the principles which have been recently established. It appears to be now placed beyond doubt that that dreadful disease, diphtheria, may by the antitoxic treatment be reduced in mortality from about 30 per cent. to about 5 per cent. if the proper material is promptly used. It is exceedingly important that in a city like Belfast the supply of such material should be within easy reach of the practitioner—that he should not be compelled to send to London for the requisite serum, and thus lose much valuable time. Every hour that is lost in the treatment of a case of this nature is a very serious loss indeed. But it is by no means only in diphtheria that such an institute is likely to confer benefits of this kind. In the case of the streptococcus which is the cause of erysipelas and kindred disorders, including that very terrible disease, puerperal fever, there are very promising indications that the use of antitoxic serum will rescue patients from otherwise hopeless conditions. Let anyone picture to himself the case of a young wife after her first confinement afflicted with this dreadful puerperal fever, and doomed under ordinary treatment to certain death. The practitioner makes an injection of this serum under the skin, with the result that the lady rapidly recovers, and in a few days is perfectly well. Let any man conceive such a case as this, and all objections to the investigations necessary to bring about such a state of things must vanish into thin air. So soon as our poor selves are directly concerned our objections disappear. If a tiger threatened to attack a camp, who would care much about what kind of a trap was set for it, or what suffering the trap caused the animal, so long as it was caught? When the matter affects only the welfare of others, including generations yet unborn, the good done does not appeal to the individual, and the objector sees only the horrors of modern scientific investigation: of which horrors, however, he quickly loses the sense as soon as he becomes personally concerned.

On the occasion of the funeral of that illustrious investigator to whom I have before referred, I visited the Institut Pasteur, and there was shown preparations of the microbe of the plague discovered at Hong Kong in 1894 by M. Yersin. And I was told by M. Roux that M. Yersin, whom he knew intimately as formerly his colleague, had lately been treating in China several cases of that fearful disease with serum prepared at the Institut Pasteur on the same lines as that used for diphtheria. Cultures of the plague bacillus had been taken to Paris, and at the Institut, under the most rigorous precautions, the serum had been prepared. At the Institut they did not think they had succeeded in producing a very powerful serum judging from its action on animals; but in the human subject it seems to have proved most potent. M. Yersin obtained serum sufficient for the treatment of twenty-six cases of the plague. The mortality from the disease at the time was above 80 per cent. The first case which he treated was that of a young man in whom a "bubo" characteristic of the disease was present, and the patient, already delirious, was completely despaired of. A little of the serum was introduced, and, to M. Yersin's absolute amazement, on the following day the young man was well, the bubo having almost entirely disappeared. And, moreover, of the twenty six cases in which M. Yersin used the serum, twenty-four recovered; while in the remaining two M. Yersin felt that he was called in so late that their cases were hopeless. I would not have referred to these facts did I not know that the source from which they were obtained was absolutely trustworthy. We cannot tell how soon the plague may visit these shores. We know that in one of our great dependencies—Bombay—it is already prevalent in a very severe form, and has already cost many lives. We know that a ship may carry the disease; that rats are liable to contract it, and that a rat making its escape from a ship coming from Bombay, say, to the Thames or to Belfast Lough, may carry the plague ashore, and that the taint may be communicated to human beings, with dreadful results. I would not say that there are not slums in the city of Belfast which might harbour the plague. So you can easily recognise how vastly important it would be to have means at hand whereby, in the simple way I have described, the disease may be combated. I have, I think, said enough to show the vast importance of an institute of such a character, and I look forward to the time when you will have such an establishment, thoroughly equipped for its beneficent work.

There is another department in connection with medical education in the city about which I cannot speak in the same terms of praise as I can with reference to the new laboratories, and that is the hospital. No doubt the Royal Hospital, which I had the honour of visiting for the first time yesterday, is a fine institution; but it is altogether inadequate to the requirements of this great and rapidly-growing city. It is inadequate, whether for affording means of clinical instruction to students or for dealing with the diseases of your large and increasing population. But I am glad to know that there is a prospect of better things before long. I understand that it has been not merely contemplated, but determined, to build a large new hospital, provided the requisite funds can be obtained; and I have been informed that within six weeks of the initiation of the movement more than half the necessary sum has been raised. I have no doubt that the munificence of the merchant princes of Belfast will soon provide the balance. Therefore, whichever way I look at this jubilee, I feel that the College, more particularly with regard to its medical school, is entering upon a new era of prosperity. I rejoice with you in the fact, and I have felt it a great privilege to take part in your celebration.

[Since this address was delivered the last number of the *Annales de l'Institut Pasteur* has appeared, containing a paper by M. Yersin describing his experience above referred to. The details which he gives of the cases confirm in a remarkable manner the conclusion which the mere numbers suggest. Just as in diphtheria, and exactly as must occur if the antidote is really efficacious, the cure was most rapid when the treatment could be commenced on the first day of the disease; speedy also, but less so, when it was begun on the second day; and so from day to day till the fifth. Four patients were treated at this very late period, and the only failures were in two of these. More of the serum also was required in the more advanced cases. Equally striking was the manner of recovery. In none of the twelve cases in which treatment commenced within two days of the onset of the complaint did the bubo suppurate; and in those of a later period in which matter did form, the abscess closed rapidly after being opened, instead of healing tediously as it does when recovery takes place without this treatment; and the patients, instead of having a lingering convalescence, were healthy men and women in a time which was always relatively short, and astonishingly so when the treatment had been commenced early. These details are so extraordinarily confirmatory that, small though the number of

cases is, they carry conviction to my own mind. It gives me the most profound satisfaction to be able to state, on the authority of the India Office, that the Bombay Government intend to employ M. Yersin, now on his way to the stricken region, and to give a full trial to his method. I have also learned through another channel that within a fortnight of this time (February 1st) the serum treatment will probably have begun in Bombay.]

# THE LETTSOMIAN LECTURES
ON
# DISEASES OF THE NOSE AND THROAT IN RELATION TO GENERAL MEDICINE.

*Delivered before the Medical Society of London,*

By F. DE HAVILLAND HALL, M.D., F.R.C.P.Lond.,
Physician to the Westminster Hospital, and Joint Lecturer on the Principles and Practice of Medicine in the Westminster Hospital Medical School.

## Lecture I.

Mr. President and Gentlemen,—When your Council did me the honour of requesting me to deliver the Lettsomian Lectures my first thought was, Had I anything worthy of presentation before so distinguished an audience? It then occurred to me that between the position of the Medical Society of London and my own there was a certain resemblance. The Society is always ready to receive papers on general medicine; at the same time it welcomes with equal pleasure the contributions of those of its Fellows who have devoted themselves to special branches of practice. My position is this: I am physician to a general hospital, and consequently all forms of disease come under my care. At the same time, in virtue of having held for nearly twenty years the post of Physician in charge of the Nose and Throat Department at the Westminster Hospital, I may be considered to have more or less special knowledge of the diseases of the nose and throat. This being our respective positions, I thought that I could not do better than submit for your acceptance some reflections on the relation existing between diseases of the nose and throat and general medicine, as in the dual capacity in which I stand I am perhaps better able to see the two sides of the question than either the pure specialist or the general practitioner.

There are two chief methods of treating the subject I have chosen. You can either briefly run over the principal general diseases and point out the nose and throat complications which occur during their course, or you can start with the various diseases of the nose and throat, and then mention the conditions under which they may be met. I have selected the former plan as being the more suitable for my purpose. I therefore propose to pass in review some of the principal general and local diseases of the body, and describe the various affections of the nose and throat which occur during their course.

If you will pardon a digression, I should like to take this opportunity of emphasising the importance of the laryngoscope as a means of diagnosis and treatment. I often hear it compared with the ophthalmoscope, and I have heard students say that, as they had not time to perfect themselves in both, they had chosen the ophthalmoscope. For the general practitioner, however, there can be no sort of doubt that the laryngoscope is immensely more useful than the ophthalmoscope. I am ready to admit that the ophthalmoscope is very often useful in settling a diagnosis, but, as far as I can learn, there are only two conditions in which the ophthalmoscope is essential to a diagnosis, namely, the presence of optic neuritis as indicative of some organic disease within the brain, and the occurrence of retinitis as an early sign of renal disease. Its use from a therapeutic point of view is extremely limited. On the other hand, I might well occupy the whole of one of these lectures in describing the use of the laryngoscope in the diagnosis and treatment of disease, and I know of no specialty in which even a moderate amount of knowledge is so sure of a good harvest as that of laryngoscopy. The general practitioner who has made himself familiar with the laryngoscope has largely increased his sphere of usefulness. Far be it from me to run down the ophthalmoscope; on the contrary, I hope that the time will come ere long when no one will be licensed to practise unless he can show that he is capable of using the laryngoscope, ophthalmoscope, and other instrumental means of diagnosis. The use of the nasal speculum and rhinoscope is so closely connected with that of the laryngoscope, that the student who learns how to use the latter will, as a matter of course, employ the former. This digression will, I hope, be pardoned, but I felt it a duty to speak plainly on the subject as, owing to the deficiency in the system of examination as now carried on, students are not induced to perfect themselves in the use of the laryngoscope.

Before entering upon a description of the nose and throat affections of the acute specific diseases I would like to accentuate the extreme importance of the nose and throat as the chief portals of entrance of the poisons, whatever they may be, which give rise to these diseases. Evidence is gradually being accumulated which points to the conclusion that people who suffer from nasal affections are more liable to contract infectious diseases, especially diphtheria, than healthy persons. In erysipelas of the face it is very frequently found that there is some chronic nasal affection and that the erysipelatous blush started from the nose. This I have often been able to demonstrate in hospital cases under my care. If we except waterborne diseases, such as cholera and dysentery, almost all the other infectious diseases are conveyed by the air, and hence the morbific agent usually enters by way of the nasal cavities and pharynx, and here it proliferates during the first stage of incubation.

Two cases of artificially produced disease of the nose brought forcibly before me the risk of operative procedures on the nasal mucous membrane in persons exposed to infectious diseases. In both these cases I had used the galvanocautery for the cure of hypertrophic rhinitis, and in both symptoms of scarlet fever manifested themselves two or three days after the application of the cautery. The first case might be merely a coincidence, but the second case was that of a medical man who, as house-physician at a London hospital, had been constantly exposed to the infection of scarlet fever without effect until I unluckily made a way, as I believe, for the entrance of the germs through the abraded mucous membrane of the nose.

The practical conclusion that I would draw from the above is the advisability of abstaining from operative procedures on the nasal mucous membrane during epidemics of influenza and other infectious diseases, as well as in the case of persons liable to be brought in contact with such diseases. I have also abstained from operating on medical students and others whose duties take them into the dissecting or *post-mortem* rooms. Lacunar tonsillitis occasionally follows intranasal cauterisation. I have seen it in one or two cases of my own, and numerous instances are to be found recorded in the various special journals.

The *rôle* played by the tonsils as a point of entrance of germs into the system is now becoming more generally recognised. Gerhardt has termed the tonsil a physiological wound, an inlet guarded however by leucocytes which protect the system against the entrance of these germs. If from any reason the energy of the leucocytes is diminished, or the tonsil is in an unhealthy condition, then the germs of diseases such as scarlet fever, diphtheria, and other infectious diseases gain access to the system. Tubercle bacilli can probably pass through the tonsils, and, without giving rise to any disturbance in them, may produce tuberculosis of the glands of the neck. Staphylococci, streptococci, and other micro-organisms can also find their way into the system through the tonsils. Adenoid vegetations in the naso-pharynx have a similar action to the tonsils in this respect, and there can be little doubt that one of the beneficial results of Wilhelm Meyer's discovery will be a lessened amount of danger in cases of scarlet fever and diphtheria, and especially a great diminution in diseases of the middle ear.

As I have already pointed out, in a large proportion of the infectious diseases the morbific element is conveyed by the air, and consequently usually enters the system *viâ* the upper respiratory tract, hence it was to be expected that this region would show signs of irritation. The typical example of this is diphtheria, in which the disease in the first instance is a purely local one, consisting of a fibrinous exudation caused by

the Klebs-Loeffler bacillus, and it is not until the toxins produced by these bacilli in their growth have been absorbed that we have constitutional symptoms. Most of the infectious diseases give rise to a catarrhal condition of the air passages—this is especially the case in measles; in some the engorgement of the nasal mucous membrane finds relief in epistaxis—so common a prodromal symptom in enteric fever. The naso-pharynx may be the starting-point of some diseases—notably, I believe, is this the case in influenza. I have already discussed the *rôle* of the faucial tonsils as the starting-point of scarlet fever, diphtheria, etc. The larynx deserves especial attention in diphtheria, small-pox, and enteric fever. And lastly it should be remembered that all diseased conditions of the mucous membrane of the nose, naso-pharynx, pharynx, and larynx, whether merely local, as an abraded surface, or as part of a general disease, such as scarlet fever, are liable to be accompanied by a secondary diphtheritic inflammation, and that this is a very grave complication, especially in the case of the acute specific fevers. I will now proceed to describe at greater length the changes seen in the nose and throat as a result of the acute infectious diseases.

### SMALL-POX.

This disease is occasionally ushered in with catarrhal symptoms, for example, sneezing, epistaxis, intolerance of light, lachrymation, sore throat with redness and some swelling of the palate and tonsils, and hoarseness—symptoms which it is important to emphasise, as they may cause the disease to be mistaken for measles. In the malignant form of small-pox there may be profuse epistaxis. The pustules of small-pox have been seen in the nostrils, mouth, pharynx and larynx; they have even been noticed as low down as the bronchia of the second or third order. The eruption may occur on any part of the mouth; salivation is present, and is very severe in the confluent form of the disease.[1] If the soft palate is affected there is usually much inflammatory swelling, and an abscess sometimes results. Owing to the moisture of the mouth, the pocks seldom form well-marked pustules. At first they appear as whitish-grey slightly elevated spots, which soon soften and form superficial ulcerations, surrounded by a red zone. The larynx in small-pox may be the seat of an inflammatory process causing congestion of the mucous membrane, or there may be a papular or pustular eruption giving rise to but little discomfort. In severe cases, however, about the ninth to the twelfth day, great swelling of the laryngeal mucous membrane may occur, and suffocative attacks due to œdema of the epiglottis and ary-epiglottic folds come on. Trousseau records three cases in which the progress of the disease was so rapid that death occurred before relief could be obtained. In a case of hæmorrhagic small-pox Morell Mackenzie[2] found "ecchymotic spots on the under surface of the epiglottis and on the mucous membrane over the arytenoid cartilages," and Gevaert[3] has described a case of submucous hæmorrhage in the ary-epiglottic folds, forming two thick sacs, and considerably interfering with access to the larynx. In some cases ulceration extends down to the cartilages, causing necrosis, and death may result from impaction of a piece of extruded cartilage in the glottis; or, owing to more or less destruction of the framework of the larynx and cicatricial contraction, stenosis may occur even after the lapse of many years. I knew one patient in whom tracheotomy had to be performed thirty-eight years after the attack of small-pox, and during the whole of this period she was the subject of a chronic laryngeal affection. If the crico-arytenoid joint becomes involved in the inflammatory mischief, ankylosis may occur, and the patient will recover with a permanently fixed cord; this condition, rather than paralysis, is probably the explanation of two cases described by Morell Mackenzie,[4] in which he says permanent paralysis of the adductor of a vocal cord followed small-pox.

As in the other acute specific diseases, the excoriated condition of the mucous membrane of the upper air passages renders it vulnerable to the bacillus of diphtheria; hence a diphtheritic exudation may appear on the fauces, or the patient may have the signs of a membranous laryngitis. This form of laryngeal affection usually begins about the tenth day and runs a rapid and fatal course. Fortunately, it is a rare complication; Dr. Ricketts, Medical Superintendent of the Small-pox Hospital Ships, Metropolitan Asylums Board, writes to me: "I remember only two cases which I regarded as diphtheria (in about 5,000 cases). In a few more I have seen semi-membranous exudation on the fauces. But I have in no case made a bacteriological examination. In fact, the cases I speak of occurred some little time back, before I had the means of making such an examination."

### VARICELLA.

According to M. Rondot,[5] varicella is often accompanied by a mild sore throat, and he has been able to verify the existence of a varicellous eruption on the buccal mucous membrane, even in the absence of a cutaneous manifestation. In this case the diagnosis is based on the objective character of the ulceration of the mouth, on the concomitant sore throat, and the presence of an epidemic of varicella. Whatever may be thought of a varicellous eruption limited to the mouth, there is no doubt that in typical cases of varicella vesicles with reddened bases may be seen on the palate; on the lips, tongue, and cheeks small round superficial ulcers occur, seemingly the result of the breaking down of a vesicle; in other words, the eruption of varicella may occur on mucous membranes as well as on the skin. I would lay stress on this point, as Osler and some other writers do not mention the possible occurrence of the buccal eruption. Varicella resembles small-pox, inasmuch as the eruption may occur, though very rarely, in the larynx. Marfan and Hallé[6] report two cases. The first case, a child aged 3, was admitted into hospital on account of suffocative attacks. In spite of the absence of a membrane, antitoxin was injected. Bacteriological examination, however, showed the absence of the bacilli of diphtheria. Tracheotomy was necessary, and the eruption of varicella was then seen. The patient recovered. In the second case the child died from broncho-pneumonia, and ulceration of the vocal cords was found.

### MEASLES.

The sneezing and running from the nose, which are the earliest premonitory symptoms of measles, indicate the existence of an acute nasal catarrh. The discharge is at first clear and watery, but soon becomes muco-purulent, and often excoriates the upper lip. As a rule, the nasal catarrh disappears with the decline of the rash, but, under unfavourable hygienic conditions in badly nourished children, the discharge may continue and be the commencement of a chronic purulent rhinitis. Epistaxis may occur in the prodromal stage of measles, and in rare cases the loss of blood may be so great as to threaten life. According to Wolff,[7] the accessory cavities of the nose are always affected in measles, sometimes with catarrhal, at others with purulent, inflammation. This statement must, however, be received with a considerable amount of caution, especially with regard to purulent inflammation, in view of the rarity of acute affections of the nasal sinuses.

On the second or third day of the disease hyperæmia of the roof of the mouth and soft palate is to be seen, followed by an eruption of small red points or patches, giving a stippled redness to the parts. The term "endanthem" has been applied to this appearance. Inasmuch as this eruption is almost invariably present, and as it precedes the rash on the skin, it is of diagnostic importance where there is an unusually prolonged prodromal stage, and in dark races of mankind, in whom it is very difficult to recognise the cutaneus eruption. In delicate children severe stomatitis and even cancrum oris may develop. I remember Dr. Gee impressing on me when a student that measles was the most common cause of cancrum oris. The prognosis in these cases is very grave. The tonsils and mucous membrane of the pharynx generally are inflamed and swollen; the inflammatory mischief occasionally spreads up the Eustachian tube, and gives rise to earache or even otitis media, but the latter is very rare in comparison to what happens in scarlet fever. Catarrh of the larynx is as much a part of the disease as nasal catarrh. The hoarseness and constant irritable cough, which are so frequently met with in the first stage of the disease, point to the implication of the larynx. Von Ziemssen[8] speaks of having repeatedly seen a deep uniform redness of the laryngeal mucous membrane, with a yellow-reddish colour of the vocal cords. In rare cases measles comes on with the sym-

ptoms of laryngeal obstruction, and as the rash comes out these subside. Owing to the tendency to spasm in children the cough is not infrequently of a croupy character. In the severe forms of laryngitis, ulceration of the mucous membrane, and even an abscess may occur, or death may in rare cases be due to œdema of the larynx. Dr. Major[9] of Montreal has recorded a case of complete aphonia, without the slightest embarrassment of respiration, coming on during an attack of measles of more than usual severity. On laryngoscopic examination the left arytenoid was found fixed at full inspiration and completely immovable. There was redness about the joint and external tenderness. The larynx was otherwise normal.

Membranous laryngitis is an infrequent but very dangerous complication of measles. According to Morell Mackenzie[10] it is even more fatal than the corresponding scarlatinal affection, 80 per cent. of the cases proving fatal. This complication is in the majority of cases true diphtheria. "It usually supervenes during the eruptive stage, often just when the rash is fading; sometimes it arises later. The symptoms of laryngeal obstruction develop with great rapidity, and are accompanied by a rise of temperature."[11] Dr. H. Smith[12] has recorded the occurrence of three cases of paralysis of the intrinsic muscles of the larynx. The paralysis set in within a few days after the subsidence of the fever. Loss of phonation was the only symptom. There was no congestion or inflammation of the larynx present. The first case lasted about ten days (without any treatment). The second and third cases lasted about six days treated with strychnine. I have seen aphonia due to paresis of the thyro-arytenoid muscles coming on after measles, and cured by strychnine and faradisation.

### Rötheln (German Measles).

In this disease there is frequently slight nasal catarrh, but not to be compared to what is met with in measles. A sore throat which resembles the early stage of the scarlatinal sore throat is usually present: indeed it was on this account that rötheln was originally regarded as a hybrid between scarlet fever and measles—that is, it was said to have the sore throat of scarlet fever and the rash of measles. As a rule there is only a moderate amount of injection of the throat, with some swelling of the tonsils; there is hardly ever any ulceration, and never any sloughing. I would insist on the constancy of sore throat as a symptom of German measles, as Osler, in his otherwise admirable textbook on *Medicine*, makes no mention of its occurrence.

### Scarlet Fever.

One of the most important of the recent advances in the treatment of infectious diseases is the attention directed to the condition of the nose and naso-pharynx. In no disease is this more necessary than in scarlet fever. In severe forms of this disease the nostrils and naso-pharynx may become affected by extension from the pharynx. The Eustachian tubes opening into the naso-pharynx participate in the inflammatory mischief, which, spreading up the tubes, gives rise to otitis media, and all the dangers to life and hearing therewith connected. At the commencement there may be noticed a catarrhal condition of the nasal mucous membrane, but the discharge rapidly becomes muco-purulent and very acrid, so that it excoriates the upper lip. In cases of a malignant type the mucous membrane may slough in places, and necrosis of bone and cartilage may result. In scarlet fever the streptococci of pus develop in great numbers in the mucous discharge; cervical adenitis and abscess, purulent otitis media, endocarditis, pleurisy, etc., are due to their absorption, hence the importance of local treatment.[13]

In some cases epistaxis occurs at the commencement of the disease; when it occurs towards the end or during convalescence it is to be attributed rather to the kidney condition than to the fever. If a nasal discharge comes on during convalescence the secretion should be submitted to bacteriological examination, as post-scarlatinal diphtheria may attack the nasal passages primarily or exclusively. As in measles, the accessory sinuses, according to Wolff,[14] are always affected, the inflammation being sometimes of a catarrhal nature, in other cases suppuration may occur. I have already expressed my doubts as to the constant affection of the sinuses in measles, and I would repeat them again in respect to scarlet fever.

It is quite unnecessary for me in this assembly to enter upon a description of the condition of the throat in scarlet fever. In passing, however, I should like to direct your attention to a very important practical point which I think is often overlooked, resulting in the occurrence of preventable disease and death. I cannot do better than quote Dr. Dukes, the able physician to Rugby School: "There is a class of sore throats to all appearance often only simple acute tonsillitis, while at others having a membranous or sloughy appearance, and with a complete absence of eruption on the skin, occurring in those who have already had scarlatina; this kind of sore throat, however, is capable of passing on scarlatina to an individual who has not already been affected by it. Scarlatina is often spread extensively by this means; for if the patient has suffered previously from scarlatina these sore throats are looked upon as simple non-infectious sore throats, and are consequently not carefully isolated for three or four days as they should be."[15]

The occurrence of a membranous inflammation of the throat during the course of scarlet fever has attracted much attention of late years. It is now pretty generally agreed that a membrane may present itself at two periods of the disease:[16] (1) During the acute stage, that is, during the period of eruption; and (2) during convalescence or even later. 1. The membrane which occurs in the first period, though it may be whitish-grey, thick, and adherent, and to the naked eye hardly at all to be distinguished from a true diphtheritic membrane, is proved by bacteriological examination to be due to streptococci, and not to contain the Klebs-Loeffler bacillus. It may also be distinguished clinically from diphtheria by not spreading to the larynx and by not recurring locally. Dr. Sidney Martin[17] suggests that the throat already attacked by scarlet fever poison is rendered less capable of resisting the invasion of other organisms. 2. The membrane met with in the second period contains the Klebs-Loeffler bacillus, and as this is accompanied by the presence of streptococci the disease represents a very grave combination. It is of course possible that diphtheria may occur as a complication of scarlet fever during the early stage, but this is, according to Dr. Washbourn,[18] a very rare mishap: the only way of arriving at a correct diagnosis is a bacteriological examination. As regards the method of infection, Dr. Goodall[19] is of opinion that the introduction of diphtheria into the Asylums Board's fever hospitals is generally due to infection from mild cases of that disease inadvertently admitted as scarlet fever. He thinks that the susceptibility of scarlet fever patients to the infection of diphtheria has been greatly exaggerated, for the great majority of those exposed to it in the observation ward, when the diagnosis was clinical only, did not contract it. It would appear that scarlet fever alone is not the predisposing cause to this mixed infection. According to Dr. Goodall: "The prevalence of post-scarlatinal diphtheria has closely followed that of the primary form, and its incidence had not been materially higher among the scarlet fever patients in the hospitals than among the juvenile population of the metropolis of like ages." This would seem to suggest that the entrance of the diphtheritic bacillus is facilitated by the presence of some other organisms—possibly streptococci. Laryngeal mischief in connection with scarlet fever apart from diphtheria is rare. Dr. Washbourn,[20] however, states that he has seen cases of ulceration of the larynx in scarlet fever, unaccompanied by membranous exudation. Mr. Pepper[21] has recorded a case of which the heading of the paper he read before the Clinical Society gives an epitome—"Scarlet Fever: Secondary sore throat on fifty-fourth day; severe bleeding on fifty-eighth; ligature of left common carotid on fifty-ninth. Hoarseness, followed by sudden aphonia on same day as hæmorrhage. Bursting of retro-pharyngeal abscess after application of ligature. Recovery with fixation of left vocal cord." In reference to the laryngeal condition, Mr. Pepper writes: "The sudden change in the voice from huskiness to complete aphonia came on prior to the operation, and must have been due either to œdema of the mucous membrane of the larynx, or to stretching of the vagus nerve from the extensive extravasation into the tissues of the neck.' Dr. Mahomed examined the patient when he was convalescent, and reported that the left cord was still almost completely fixed, and added, "Whether this fixation

is due to paralysis or to inflammatory swelling I am by no means certain; I am inclined to think the latter." To me the history of the case clearly points to inflammatory mischief in the neighbourhood of the left crico-arytenoid joint, causing arthritis and subsequent ankylosis of this joint. Gevaert,[22] of Ghent, mentions a case of scarlatinal angina in which, on account of stenosis of the larynx and threatened asphyxia, tracheotomy had to be performed.

### WHOOPING-COUGH.

Whooping-cough almost invariably begins with a catarrhal stage, the nasal mucous membrane sharing in the catarrhal condition. During the paroxysmal stage epistaxis is a common symptom, and so far from being a grave one, it often seems to relieve the patient. There is a difference of opinion as to whether there are any constant changes to be seen in the larynx during life. Von Herff,[23] while suffering from an attack, made a series of examinations upon his own larynx. He noted in the first stage a slight catarrh of the larynx, which became very intense during the spasmodic stage; the vocal cords, however, were not affected. The hyperæmia extended into the trachea. During every paroxysm a pellet of mucus could be seen on the posterior wall of the larynx on a level with the glottis; when this was expelled the attack ceased.

### INFLUENZA.

Influenza is essentially a catarrhal disease, that is to say, the micro-organism (almost certainly that described by Pfeiffer) seems to attack the mucous membrane in the first instance; in some cases its effects are almost confined to them, and in nearly every case they experience the chief brunt of the disease. Very curiously Landgraf[24] states that he has seen rhinitis only once in 216 cases of influenza. He adds that this is the more surprising as in textbooks it is reckoned as one of the most common symptoms of influenza. The only explanation that seems forthcoming is that Landgraf would not class a catarrhal state of the nose as rhinitis, but reserves the latter for severe inflammatory condition of the nose. The nose, as being the chief portal for the entrance of the specific bacillus, which is taken in with the inspired air, is early affected, and the excessive sneezing, marked interference with nasal respiration, and profuse running from the nose testify to the virulence of the attack. In many cases the acuteness of the catarrh causes a certain amount of hæmorrhage from the nose. Occasionally this has been of an alarming nature, the bleeding occurring from the posterior third of the nasal cavity; in some cases, indeed, a special hæmorrhagic tendency seems to have developed during the course of the disease. A frequent sequel of the rhinitis of influenza is some alteration in the sense of smell. Usually it takes the form of simple loss of the sense of smell—anosmia; more rarely the anosmia is accompanied by perverted olfactory sensations—parosmia. I have met with all degrees of anosmia—from slight impairment of the sense of smell to its complete loss. As a matter of course, the loss of the sensation of smell was accompanied by loss of so much of the sense of taste as depends on flavour. I have no note as to the loss of gustatory sensations.

One of my patients was a woman, aged 28, who originally consulted me for debility, neuralgia, and violent fits of sneezing. She improved under the administration of iron and arsenic. I did not adopt any local treatment for the nose.

In March, 1895, she had a mild attack of influenza, which was followed by cessation of the attacks of sneezing, but she lost her sense of smell. The latter condition has persisted up to the present in spite of treatment.

This case would seem to suggest that the inflammatory conditions of the nasal mucosa led to changes both in the filaments of the fifth nerve, in the nose, and also to those of the olfactory, in the one case abolishing the hyperæsthesia and thus stopping the sneezing, and in the other case annihilating the normal sensibility of the nerve and causing anosmia. The accessory cavities of the nose are very liable to be affected in influenza, the intense frontal headache being due in many cases to extension of the catarrhal process from the nose to the frontal sinuses. In one patient under my care the pain and feeling of weight and fulness persisted so long after the influenzal attack, that I thought it would have been necessary to adopt surgical measures to obtain relief; the patient, however, recovered without operation.

Dr. Felix Semon[25] has narrated his personal experience of acute inflammation of the left antrum of Highmore after influenza, and many similar cases have been recorded. Cases of antral disease coming on in this acute manner respond much more quickly to treatment than those developing more gradually. In many cases the influenzal attack begins with symptoms referred to the naso-pharyngeal space, and it appears to be the starting point of a large number of local affections coming on during influenza, notably otitis media and its results, and it may be the centre of the systemic infection. The patient complains of severe headache extending to the back, difficulty in breathing through the nose, and the sensation of a foreign body, variously referred to the nose or throat, so that the patient is constantly hawking or trying to clear the throat. On making a rhinoscopic examination the mucous membrane of the naso-pharynx will be found much swollen and covered in places with a viscid secretion; in exceptional cases I have seen follicular inflammation of the pharyngeal tonsil.

Shelley[26] has called attention to the existence of a vesicular eruption on the palate as a sign of influenza. Acute pharyngeal catarrh is a very common condition in influenza, the mucous membrane is of a purplish colour and œdematous, and, in consequence of the swelling and the muscular infiltration, pain and difficulty in swallowing usually exist. The faucial tonsils, like the pharyngeal, may be the seat of follicular inflammation, with or without peritonsillar mischief; they may be covered with a pultaceous exudation. On more than one occasion I have seen influenza start in a household with one inmate being attacked with what was apparently an ordinary lacunar tonsillitis, and it was only the fact of other members of the family speedily succumbing to one of the more ordinary varieties of influenza that cleared up the diagnosis in the first case. Occasionally the inflammatory mischief runs a very severe course. In one patient I saw, in consultation with Dr. Penny, the condition was that of a phlegmonous pharyngitis, as there was great swelling of the pharynx followed by suppuration, and the urine contained much albumen. This patient recovered. In two other cases a membranous exudation formed on the soft palate. It resembled in some respects a diphtheritic membrane; but unfortunately in neither case was a bacteriological examination made; in both patients the urine was albuminous. Both these patients died. One of the most common of the complications of influenza is laryngitis, of all degrees of severity. In the mildest cases the larynx is seen to be the seat of a slight catarrh, the symptoms being a troublesome, irritable cough—difficult to cure, with hoarseness or even loss of voice. In more severe cases the vocal cords are intensely injected, the sputa may be tinged with blood, and occasionally the expectoration of blood has been so profuse as to warrant the term of hæmorrhagic laryngitis being applied. As I have already stated when speaking of influenzal epistaxis, a hæmorrhagic tendency is distinctly developed in some cases of influenza. The presence of dysphagia is said to differentiate the hæmorrhagic laryngitis of influenza from the ordinary forms of hæmorrhagic laryngitis; this statement requires confirmation.[27]

Several authorities have noted infraglottic swelling in cases of influenzal laryngitis. Fraenkel[28] regards as characteristic of this disease a fibrinous infiltration of the vocal cords, giving a whitish appearance in places to the cord; this is followed by a superficial loss of epithelium. Ulceration of the vocal cords, apart from any fibrinous exudation, has been described in influenza. The ulcers are quite superficial, occur in the anterior part of the cords, and usually heal rapidly. In severe cases swelling of the ary-epiglottic folds, occasionally amounting to œdema of the larynx, has been noted. Abscess of the larynx has been met with as a complication of influenza. Schaefler[29] records a case in which abscesses developed in three different parts of the larynx; tracheotomy was required on account of dyspnœa, the cannula was able to be removed after eight days, and the patient made a good recovery.

The most common paralytic affection of the muscles of the larynx met with in influenza is paralysis of the adductors and tensors of the cords, giving rise to loss of voice. Lublinski[30]

has recorded one case of paralysis of the posterior crico-arytenoid on the left side, which recovered in the fourth week, and I have seen bilateral abductor paralysis follow a severe attack of influenza.

Kuttner[31] showed at the Berlin Laryngological Society a woman 54 years of age who had, during an attack of influenza, paresis of the soft palate and muscles of the posterior wall of the pharynx on the left side, and paralysis of the corresponding cord. He regarded it as a case of recurrent paralysis of neuritic origin.

### Enteric Fever.

In enteric fever there is a tendency to a catarrhal state of the mucous membranes, and the pituitary membrane suffers with the others. Two symptoms met with in enteric fever are due to the catarrh of the nose, namely: the deafness which results from extension of the catarrhal process to the Eustachian tubes, and their consequent occlusion; and epistaxis.

Epistaxis is so common a symptom at the commencement of enteric fever that, given a young adult who is feverish and has had an attack of nose bleeding, the possibility of enteric fever should be borne in mind. Epistaxis is most frequent in the first week of typhoid, on the second or third day. As a rule, it is of no prognostic significance, but occasionally the loss of blood has been so excessive as to destroy life. Devic[32] states that buccal ulceration is fairly common in enteric fever. The ulceration is always superficial, oval or round in shape, with regular and not undermined margins. It occurs most frequently on the anterior pillars of the fauces. The lateral aspect of the tongue, the anterior surface of the soft palate, and lastly, the tip of the tongue, come next in order of frequency. The ulcers may be red or yellowish-red, and are frequently covered with mucus, but a false membrane never occurs. As there are usually no symptoms, the ulceration must be specially looked for in order to be recognised. According to Tripier, these ulcers run an absolutely parallel course with the intestinal lesion. He therefore considers them of great value as a guide to the condition of the intestines. Devic has been able in three cases to predict a relapse, owing to the fact that, though the patient had improved and the temperature was lower, there was no attempt at cicatrisation of the buccal ulceration. He has met with this condition in about one-sixth of the cases of enteric fever; they do not in themselves affect the prognosis. They are best treated by mild antiseptic lotions; caustics are unnecessary.

At the commencement of enteric fever there may be some erythema of the pharynx and enlargement of the tonsils, but there is nothing characteristic. Dr. Gee[33] says: "Sore throat attends the first few days of typhoid fever with a frequency which is remarkable. Hereby for a time perplexities in diagnosis may occur." He regards it as a necessary part of the febrile state rather than a symptom of the specific fever. Ulceration of the pharynx has been noted in exceptional cases. According to Morell Mackenzie,[34] an herpetic eruption is occasionally seen on the mucous membrane of the pharynx and mouth, accompanied by pain in deglutition.

As in the other acute specific diseases a secondary diphtheritic deposit may occur on the fauces of patients suffering from typhoid fever. It usually occurs during the third week and is a serious and fatal, but, fortunately, rare complication. Out of 6 cases mentioned by Oulmont 5 terminated in death, and Peter states that it has been fatal in all the instances he has met with.[35]

Clinically the laryngeal changes in typhoid fever may be considered according as to whether they occur as a complication of the fever or whether the symptoms they present are so severe as to mask the underlying disease. Of the first variety laryngitis is the representative; a mild form, characterised by slight injection of the larynx and increased cell proliferation, is fairly common in the second and third weeks of the disease. Landgraf[36] has several times seen yellow patches in the larynx formed by colonies of staphylococcus pyogenes. A more severe form may occur acutely during the third week of the fever, or it may show itself in a chronic form during convalescence. During the first two weeks of typhoid there is often reason to suspect a catarrhal condition of the larynx from the patient's voice and the signs of catarrh of throat and chest, but it is usually not until the third week that the severe symptoms present themselves. These are hoarseness and feebleness of voice, dyspnœa (chiefly affecting inspiration, expiration being easy), pain and difficulty in swallowing. Laryngoscopic examination is naturally difficult in patients in the third or fourth week of typhoid fever, but, if practicable, swelling of the arytenoids and of the ary-epiglottic folds and some ulceration are the conditions most likely to be recognised. Tracheotomy is generally necessary on account of the increasing dyspnœa. Death may be due to a laryngeal ulcer spreading down into the connective tissue and giving rise to subcutaneous emphysema. Fagge and Pye-Smith mention cases of this sort recorded by Wilks and Ziemssen. There is an interesting case in the British Medical Journal of January 18th, 1896, reported by Dr. Parsons, in which the emphysema occurred after tracheotomy had been performed, death following about fourteen hours later. At the *post-mortem* examination œdema of the larynx or purulent infiltration of the mucosa, together with more or less chondritis, are generally found. The chronic variety most frequently occurs during convalescence, or it may not be noticed until recovery is apparently complete. The patient presents the usual signs of laryngeal stenosis; sudden death may be caused by œdema of the larynx or impaction of a portion of necrosed cartilage in the glottis. If the urgency of the dyspnœa necessitates tracheotomy, the cannula has generally to be worn permanently, as destruction of the cartilage leads to collapse of the larynx. Even if recovery takes place without tracheotomy, trouble in connection with the voice and breathing may result from the cicatrisation of the ulcerated parts. I have recently had under my care a man who suffered from typhoid fever with laryngeal complication in 1856. In this case the ventricular bands were thickened, the left vocal cord was immobile in the cadaveric position, and there was thickening about the crico-arytenoid joint; the outward movement of the right vocal cord was somewhat interfered with, but as the cord crossed the median line it came nearly in contact with its fellow, so that the voice, though feeble, was fairly clear; there was no dyspnœa except on great exertion. This was an example of how good a recovery may ensue even in a severe form of typhoid laryngeal mischief.

I now propose to describe another class of cases to which the name of "laryngo-typhoid" has been applied, in which the poison of typhoid fever is at the outset focussed, as it were, upon the larynx, so that the symptoms of the local affection may, up to the end of the first week, so completely mask the underlying febrile state that it is not until the appearance of the eruption and other characteristic symptoms of typhoid fever that the diagnosis can be made with any degree of certainty. A typical case is one recorded by Gerhardt.[37] A man, aged 18, "has been subject to hoarseness and cough with the slightest colds. On December 24th, 1877, he was exposed to severe cold and wet. This was followed by severe chills, fever, pain in the throat, and cough, with mucous expectoration. The voice was affected immediately; soon he became hoarser; when he entered the hospital he was completely aphonic. In swallowing there was severe, and on attempting to speak slight, pain in the throat. From the first he had headache, dizziness, and debility; soon after, also, hardness of hearing. On the 28th he took to his bed; the nights were restless and disturbed by dreams. On January 1st, 1878, several copious bleedings from the nose occurred. On the 2nd he entered the hospital with fully developed symptoms of typhoid fever, particularly enlargement of the spleen, and the characteristic roseolar eruption." The laryngoscopic examination revealed swelling and injection of the epiglottis, with an extravasation of blood the size of a pin's head. The laryngeal mucous membrane generally was in a similar condition, and there were dark extravasations of blood over the vocal processes. The neighbouring lymphatic glands were swollen and tender. Ulcers eventually formed on the epiglottis and arytenoid cartilages. The fever ran a normal, though severe, course. The patient left the hospital on February 13th with a good voice; the ulcers were entirely cicatrised and strength completely restored.

A series of five cases reported by Dr. Watson Williams[38] is important as pointing to the possibility of typhoid being communicated by the breath. This method of communication

is, of course, most likely to occur in cases of laryngo-typhoid, hence special prophylactic precautions should be taken in these cases. Patients with any previous tendency to laryngeal affections seem to be more vulnerable to this form of typhoid fever than others; this was the case in Gerhardt's patient, and also in Watson Williams's first patient.

Shortly after writing the above a man, aged 45 years, was admitted under my care into the Westminster Hospital from the throat department. On admission his temperature was 99.4°, and rose the same evening to 103°. The nasal mucous membrane was dry and covered with crusts, the vocal cords were much congested, thickened and irregular, and covered with inspissated mucus. The patient had a cough, was very hoarse, and appeared much more ill than the local condition would account for. In the course of a few days I came to the conclusion that I had to deal with a case of laryngo-typhoid, and the subsequent course of the disease verified my diagnosis.

Œdema of the larynx may occur as the result of any of the laryngeal complications of typhoid fever; it has been the cause of death in a case of ambulatory typhoid fever without any previous symptoms of throat mischief.[39]

Paralysis of the vocal cords is occasionally seen as the result of enteric fever. Lublinski,[40] for example, has seen five cases—four in men and one in a woman—all occurring between the ages of 27 and 39 years. In one case there was bilateral abductor paralysis, in three paralysis of one recurrent nerve, and in one paralysis of both recurrent nerves. The paralysis may be due to pressure on the recurrent nerve by enlarged glands or thickened pleura; or, inasmuch as it is sometimes accompanied by paraplegia or paralysis of peripheral nerves, we must assume the existence of an anterior poliomyelitis or a peripheral neuritis due to toxins. The symptoms usually show themselves during defervescence. Of the five cases recorded by Lublinski, one case—that of bilateral recurrent paralysis—died three days after the onset of the paralysis. In the case of bilateral posticus paralysis, tracheotomy had to be performed. The diagnosis in these cases is only to be made by means of the laryngeal mirror, and care must be taken to exclude cases of fixation of the vocal cord due to ankylosis of the crico-arytenoid joint. The most recent account of the pathology of the laryngeal complication of typhoid fever is that contained in the paper written by Dr. Kanthack and Dr. Drysdale, and the discussion thereon at the Laryngological Society of London on February 12th, 1896. The paper was based on the *post-mortem* records of 61 cases. In 14 there was loss of substance in the larynx; in 8 it was stated in the *post-mortem* books that the larynx had not been examined; so that, assuming that the larynx had been examined in all the remaining 53 cases, which is doubtful, ulceration was found in 26 per cent. of the fatal cases. This represents a great advance in numbers affected compared with Hoffman's figures, as quoted by Fagge and Pye Smith.[41] He gives only 28 cases of ulceration in 250 necropsies, that is, a percentage of 11 as against 26. One explanation is that the larynx of late years has been more carefully investigated than formerly, and another is that Dr. Kanthack and Dr. Drysdale included slight losses of substance in their list, whereas Hoffman only reported cases of distinct ulceration.

According to Kanthack and Drysdale, the ulceration is most frequently seen over the tip and edges of the epiglottis and in the neighbourhood of the processus vocalis. Various explanations have been given as to the pathological nature of these lesions. Dittrich assumed that they were of decubital origin; the evidence on this point is conflicting. Rokitansky pronounced in favour of the typhogenetic nature of the ulceration, but clinical evidence and the results of recent bacteriological examination tell rather against this theory.

I am myself inclined to agree with Kanthack and Drysdale in their summary of the question: "The evidence in their possession convinces them that these laryngeal ulcers occurring during the course of typhoid fever are caused by fresh infections with pyogenic organisms which always abound in the larynx, and which gain a firm foothold on the debilitated tissues, although they cannot deny that in an individual case the typhoid bacillus may have escaped and caused the lesion."

Dr. Jobson Horne made an important remark during the discussion to the effect that in some of the larynges of persons dying from typhoid fever the ulceration had been proved by microscopical examination to be of a tuberculous nature. From this he deduced two conclusions, (1) that typhoid may be a possible factor in the etiology of tuberculous ulceration of the larynx, and (2) that the tuberculous diathesis may be a factor in the etiology of typhoid ulceration of the larynx. One of the most characteristic features of the typhoid affection of the larynx is the tendency to suppuration about the cartilages leading to their necrosis and extrusion, and the tendency to destructive changes in and about the crico-arytenoid joints, so that if the patient recovers he does so with an immobile joint and consequently fixed cord. Lacoarret,[42] in an excellent article on arthritis of the crico-arytenoid joint, has collected many examples of this condition occurring as a result of enteric fever.

### ERYSIPELAS.

In the production of facial erysipelas chronic nasal affections play an important *rôle*, hence the frequency with which erysipelas starts from the centre of the face, the orifice of the nostril being a favourite point of departure. A large amount of literature has accumulated on the subject of erysipelas of the pharynx and larynx, but our ideas on this subject have been clarified since we recognised that the streptococcus erysipelatis is the cause of erysipelas. If, as seems likely to be the case, the streptococcus pyogenes, the cause of various septic affections such as phlegmonous erysipelas, is proved to be identical with the streptococcus erysipelatis the whole subject of erysipelas of the throat will be much simplified. I am strongly in favour of the view propounded by Dr. Semon that erysipelas, phlegmonous pharyngitis, angina Ludovici, and similar conditions are only modifications of the same process, differing in their virulence or place of development. I have discussed the subject of erysipelas of the pharynx and larynx in a paper presented at the meeting of the British Medical Association in 1891,[43] so that it is unnecessary for me to say more on the subject on the present occasion.

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ROYAL COMMISSION ON TUBERCULOSIS.—Sittings of the Royal Commission "to inquire what administrative procedures are available and would be desirable for controlling the danger to man through the use as food of the meat and milk of tuberculous animals" were held on January 27th, 28th, and 29th. There were present Sir Herbert Maxwell, M.P. (Chairman), Dr. R. Thorne Thorne, C.B., Professor G. T. Brown, C.B., Mr. Shirley F. Murphy, Mr. Thomas Cooke-Trench, Mr. Harcourt E. Clare, Mr. John Speir, and Mr. T. M. Legge (Secretary). The following witnesses were called and examined: Dr. Stafford, Medical Inspector, Local Government Board, Ireland; Sir C. A. Cameron, Medical Officer of Health, and Public Analyst of the City of Dublin; Mr. Conway Scott, C.E., Executive Sanitary Officer, Belfast; Mr. G. W. Cooper, Secretary of the Butchers' Trade Society, St. Helens; Dr. Robertson, Medical Officer of Health of St. Helens; Mr. Patten MacDougall, member of the Scottish Local Government Board; and Dr. Chalmers, Medical Officer of Health of Glasgow.

# MOTOR AND SENSORY APHASIA.*

(Word Blindness, Word Deafness, Mind Blindness).

By ALFRED MANTLE, M.D., M.R.C.P.Lond.,

Physician to the Royal Halifax Infirmary.

Although in each of the two cases of aphasia here related there was a combination of motor and sensory disturbance, it is chiefly on account of the sensory derangement of speech that I report them.

My first patient was a well-built man, aged 41, an artist by profession.

*Past History.*—A little more than nine years before he had had some slight epileptiform convulsions, and after one of these attacks he had paralysis of the right arm and leg, and was aphasic. The aphasia, however, was not so lasting as in the attack I am about to describe, for he went to work in fourteen weeks, having recovered speech completely and the power of the right arm and partial power of the leg. Five years afterwards he had another, but much slighter, attack, lasting a fortnight, when speech was again affected, and there was paresis of the right side. His health receiving a great shock he gave up the very active work he was engaged in, and had a long rest. He practically recovered, and worked fairly hard again, but complained of headaches and giddiness. The viscera were healthy, and there was no evidence, though a suspicion, of syphilis.

The attack I now relate commenced on October 29th, 1892, with no marked premonitory symptoms. He was gloomy the day before and shut himself up, and drew some curious pen-and-ink sketches, but did not complain of his head. He retired to bed, and his wife roused him early next morning as he had an appointment, and she discovered that he was perfectly conscious but speechless; she noticed the tongue was drawn to the right side, but the features were quite straight. There was slight numbness all down the right side, but power enough in the hand to write slowly.

I was called in to see him at 8 P.M. I found complete motor aphasia, that is, he had lost all power over the motor part of speech, and the only sound he could utter fairly well was "o" and "a," and "u" indifferently. The tongue could only be partially protruded, and deviated to the right, and the lips did not move. There was slight loss of power in the right leg, less marked in the right hand. He could, however, write slowly with this hand, and asked me several questions in writing, which were intelligent and written correctly. He complained of the back of the head being painful, and of having a burning sensation in that region. During the first week he was very emotional and easily excited, and at the end of the week he was very drowsy and difficult to rouse, and the paralysis of the right side was complete, both for motion and sensation. There was marked rigidity of the right hand and arm, and the thumb was firmly contracted into the palm. The left hand was very tremulous and deficient in power, and sensation was diminished on the left side, but not so markedly as on the right. A curious spot of hyperæsthesia was discovered by the nurse on the inner side of the right knee, so sensitive, that if touched ever so lightly he would spring up in bed and suffer agonising pain. He was now in a very sensitive condition, for the movement of lifting him up in bed to change his position had an extraordinary effect upon him, and produced a drowsy and more or less unconscious condition, which was very marked during the whole of the second week. Motor power, however, on the left side was practically normal, and he could write slowly with the left hand. From the third week he gradually improved, gaining steadily more power in the right leg and arm, and recovering sensation. He was much interested in all that was going on, reading daily papers, and discussing topics of the day, by writing with the left hand, for he was none, or very little, better so far as his aphasia was concerned. There was, however, during this period of motor recovery a good deal of sensory disturbance, particularly from the eight week to the eleventh, when another condition developed, that of sensory disturbance of speech.

It was noticed he was slightly deaf on January 19th, which increased during the day and became complete on the following day. Dimness of sight was also observed, and he suffered a good deal of pain in the head. Next morning he could not read writing, however large, but could read words composed of child's large printed letters, but these were only of use until 3 o'clock in the afternoon, when they could no longer be seen.

On the following day sight and hearing were both gone on both sides, but a lighted taper passed before his eyes produced a pupil reflex. The ophthalmoscope showed the fundus of both eyes to be normal. There was a good deal of difficulty in swallowing. He had a fixed, staring look—straight out; always plucking at the bedclothes with the left hand, and a meaningless sing-song was heard at intervals. He now continued deaf and blind for ten days, and could only recognise his wife and nurse by the sense of touch, feeling their hands and articles of dress. On the eleventh day he showed signs of delight when the blind was drawn up and light admitted; he could then recognise the difference between the hands of his nurse and his wife. He was still deaf to words, but could hear sudden sounds. On the twelfth day he heard and seemed to recognise his own name; he also noticed details in dress of those about him. The next day he saw colour in some tulips placed before him, which evoked grunts of satisfaction. Pointing to his ears and eyes, he asked with his finger on the coverlet why he was deaf and could see so badly. Fourteen days after the loss of hearing he heard sounds at a distance—a dog barking—whilst he was comparatively deaf to sounds at his bedside, and on the following day he asked, by making the outlines of the letters on the coverlet of the bed with his finger, why he heard sounds—at the same time pointing towards the next house where a piano was being played—yet could not tell what was said by those about him.

He had now extended vision, pointing to pictures on the wall facing him, but the field of vision was very limited, and it was found he had right hemianopsia. He continued very deaf to ordinary word sounds; but the experiment of whispering the word "better" slowly in the right ear was tried. He heard it, and immediately began to write on the coverlet the whispered word, and showed signs of gratification. The same word spoken in natural tones produced an expression of pain and bewilderment. His mind continued to be very clouded, and he was unable to understand day from night or the time of day.

February 9th was the last day he made known his thoughts by drawing with his finger the outlines of letters forming words. He had during the day thought out and written a number of questions and was somewhat exhausted. His left hand, which he could only use, was said to be rigid in the evening, the rigidity passing off very soon; but next day his sight was very much worse and all hearing gone again. He now had a slight attack of influenza, which was prevalent at the time. He could no longer form the outlines of letters, and the only way he could express his thoughts was in pantomime. He, like an uneducated deaf-mute, made pictures in the air to express his wants, and his wife understood his drawings in a wonderful manner. Wishing for a chop, he drew the shape in the air. Wanting milk and soda water, he pointed to the sheet for whiteness and drew in the air the shape of a soda-water siphon.

Before losing all sight he had enjoyed seeing and arranging a bunch of lilies of the valley. He evidently remembered this, and drew in the air the shape of lilies of the valley, arching the stems and dotting them with flowers. His wife understood, and brought the flowers to him, when he was quite satisfied, and arranged them with care. His sight again came back, but he was still suffering with right hemianopsia. Although an omnivorous reader when well, he did not recognise when tried either letters or figure symbols, and when a paper was given him he turned it upside down, and by gesture asked why it was given him.

There were now (end of February) distinct signs of recovery of motor loss of speech, and he uttered his first word distinctly enough to be understood—"better." The right leg and arm also had much more power, but the arm was exceedingly sensitive to touch. He understood whispered language more easily, but was unable to recognise words in the ordinary strength of tone. Although deaf to words, he interpreted

* A paper read before the Medical Society of London.

tones and gestures so well as to be conversant of much that transpired.

In March, mind blindness was most marked, though he had not so much difficulty in remembering objects as persons. His aunt, to whom he was very attached, was allowed to see him. He did not recognise her, but after she had left the room he drew with a pencil in the left hand the house in which she lived, with the road to it, the garden and the dog at the gate, which was a very fair description of her abode. During this month his deafness gradually improved, but was more deficient on the left side than the right. The sense of smell was impaired on the left side. He saw better but had yet word blindness. He was able to articulate more, and used and understood more words, but made use of pantomime as well. The very sensitive spot on the inner side of the right knee, which had remained so all these months, could now be touched, he having asked nurse to lay her hand lightly upon it for trial. He tried to count but it was difficult, especially on more than one hand. He soon became more inquiring, and asked "what was it he used to do?" When told "to paint" he remarked, "What was that?" Upon pursuing the subject he was told he used to read books, when he replied "that sounded like it." He was now getting up daily, and greatly interested in building with dominoes. He took a little more interest in things, but at the end of March, five months after the attack commenced, he still had forgotten that he ever was a painter. He was one day anxious for a certain picture to be brought to him, which, as a matter of fact, he had painted; but when asked if he painted it he emphatically stated no, but that he remembered seeing a man paint it. He was very anxious to know what a book was.

In April he noticed the lettering upon half a crown, given in his hand, when he asked to have it read to him, repeating each letter after the nurse, and committing them to memory and comparing their form with other letters; he asked if these were what were contained in books. He could not remember his own surname, and, when told his wife's surname, he indignantly denied it, and uttered her Christian name. He was now taking great interest in looking at pictures in illustrated papers, and was very critical. He was able to remember letters and words told him a few days ago, and it was interesting to notice what aid the fingers of the left hand were to his memory. If he wanted to remember a thing, he looked hard at his left fingers, and, as he remarked, he saw it there in a short time, but often after much puzzling.

The patient's condition from this time gradually improved. He was able to understand word symbols more readily day by day, and could read. He would repeat a word over again and again, after following the outline of each letter, and having been told what they spelled. He often employed a circumlocution of more general words instead of the special word he could not revive in his memory, and, instead of asking for "a pencil," would ask for "something to draw with." His great trouble was that he had forgotten so much. His mind blindness did not improve, and he could not recollect his most intimate friends when calling to see him. Neither could he recognise paintings which he had spent a great deal of time over, but little sketches which had cost him very little time and thought he could recognise as his work. In August he had partially recovered his loss of power, but he had still right hemianopsia, and his motor speech was very indifferent. His friends attempted to get him into the air, after which he seemed very much worse, for the movement upset him considerably. Early in September he had been reading, and was very cheerful before taking his afternoon sleep, but when he awoke he was found to have a dazed look, and to have lost all power of the right side. On the following morning I found hearing and sight completely gone. The tongue could not be protruded from the mouth, but deviated to the right. Swallowing was difficult, and there was also loss of sensation and power of the right side. He was completely deaf to words, even when whispered, but had painfully acute hearing for sounds. There was one marked difference in his condition now than in his previous attack, which was that he had always been able to make known his various wants by writing with his finger the outlines of the letters upon the sheet, which power he lost in this attack, when he was reduced to pantomimic signs. The word deafness and all vision was absent for four weeks, but he had right hemianopsia for several months afterwards. While deaf and blind to words, as well as having complete paralysis of motor speech, he expressed a wish to make his will, and made his wishes known by forming the outline of the letters on the sheet of the bed. He also made his lawyer and wife understand that when they meant "yes" they were to tap his hand, and when "no" they were to cross it. To satisfy him the will was executed, and with his left hand he very badly wrote his signature.

He now gradually recovered from word blindness and very slowly regained power in the limbs, but the motor part of the aphasic condition was very slow in recovering, for he was unable to speak until the following April, when he started and rapidly regained speech, it having been absent since its partial recovery for thirty-two weeks. On getting downstairs, he almost at once commenced to strum on the piano, and it was noticed that he had no difficulty in reading music. This test, however, had not been tried when he was word deaf.

At the end of the second year he was able to walk slowly on crutches. His zest for painting returned, and he found the greatest pleasure in sketching from Nature at Filey, where he was convalescing. His mind was a complete blank with regard to paintings he had done before his illness. His power of motion steadily returned, and at the end of the third year he could dispense with his bath chair. It was very curious, how in the early period of his convalescence movement of the body, that is, to another room, brought on the sensory disturbance of speech for perhaps twenty-four hours. This occurred on three or four occasions.

Four years have now elapsed since the attack came on, and I have quite recently had a chat with the patient in his studio. He tells me he has tried hard to paint during the last year, but he is so disgusted with his work that he has practically given it up. To my uncritical eye his work looks very passable. He says, however, that his difficulty is in trying to remember how he used to do it, and when he finds he is doing the thing wrong, he is so dissatisfied with his efforts that he has ceased making further attempts. He can, however, do pen and ink work exceedingly well. On asking him if he remembered painting the pictures about his room, he said he did not, but he still thinks he saw another man paint one of them. He describes himself as being a better judge and more critical than ever he was before, but no workman; and this is not through want of muscular power, for that has quite recovered.

He has been colour-blind ever since he was 15, his difficulty being to distinguish green from red. On inquiring if this is any worse or is in any way explanatory of his failure, he says not, but if anything he thinks the condition a little better. He has always had an ambition to become an author, and has written considerably, but he tells me that he now finds this work most difficult, his power of concentration being limited and thought slow. He has a very good vocabulary, however, when talking, and never wants for a word, though there is sometimes an occasional hesitancy in pronunciation. Contrary to Lichtheim's experience, the sensory aphasia in this case of total aphasia cleared up before the motor.

Another case of sensory and motor aphasia came under my care at the Royal Halifax Infirmary in the month of February. I had previously seen this patient five years before in consultation with Dr. Steele, of Halifax, when he was suffering with paralysis of the extensors of the left forearm, which had come on quite suddenly. There was no disturbance of speech at this time. He is said to have recovered from this attack. Two and a-half years afterwards he had an epileptiform seizure and partially lost the use of the right leg and foot, from which he recovered; but he had subsequently at intervals slight fits, one of which ushered in the present condition and was attended with twitching of the right side of the face. There was a clear history of syphilis, made out before, but the condition of the patient now was such that he could give no account of his illness. "I really cannot tell you, I am sure, just now," was his answer to every question put to him, and it was evident he had no comprehension of word language. He read with great difficulty figures, and could not read printed matter accurately, but could make out some letters. He could not recognise a bell on the table, but could recognise a watch

and a knife. When a water pipe was pointed at he could not say what it was, but said "hot." Apparently there was no defective eyesight, but an exact perimeter tracing could not be taken on account of the patient's inability to comprehend what was wanted. The motor part of speech was good, and there was no paralysis and his gait was normal, and so were the organic reflexes. The patient looked in good health, and apparently was always in good humour, readily pleased, but not in any way emotional or childish.

On further examining the aphasic condition, he seemed to have a more or less complete comprehension of the uses of the objects shown but could not always give the correct designation. Some things shown he remembered easily and could pronounce their name, others he could not name; but if he thought for a time he sometimes gave the correct name or a similar sounding word, or substitute a roundabout phrase as an equivalent. Occasionally, when taken suddenly, he seemed to answer instinctively and generally correctly. A pencil he knew the use of but could not name. A pen he called "pea," then "pen." A knife and fork and book he knew; a cork he knew, but called a bottle "brot," and "medicine" he could only pronounce partially. A key he called "lock," recognising its use. He knew his own name, but occasionally transposed the two parts. In the identification, then, of objects shown he occasionally used the association of ideas. Water pipe he called "hot" and the key "lock," but mispronounced some words.

On investigating the visual sense in reading printed or written matter he was found much more incorrect. He could read figures accurately, though with some hesitation in some cases. When spelling out printed words letter by letter he was very incorrect, and did not always give the same interpretation on two consecutive occasions, while in time he might stumble into a correct reading. When reading and pronouncing words there was similar hesitation and inaccuracy, while there was often an approximation to the sound; for example, he called London "Luddenden," the name of a local village, after considerable doubt. His own name he was able to read correctly. On testing his capacity for repeating words there was evidently a degree of inability to recognise certain words and phrases. "What is your name?" he replied to correctly. "How old are you?" he could not understand. Certain words he was deaf to and could not repeat, and through the word deafness he was unable to comprehend, and allowed his mind to dwell on one or two stock phrases, which were always ready, and from which it was difficult to divert his attention. His memory was very defective, and he could not say where he lived, or the town he lived in (but the word deafness might account for this), neither could he say how long he had been ill. On testing his writing from a copy, it was found he made the same errors as in spelling but did not make the same blunders twice. At times his writing was quite clear, at others quite unintelligible. He could write his name, but sometimes transposed it and sometimes left out letters. He could copy figures more accurately than letters.

His condition seemed to improve a little, and remained bright and cheerful. He was able to talk and answer simple things correctly, and his memory was a little better. Early in the morning of March 24th he went to the ward lavatory, and was found afterwards in an insensible condition. Apparently he had had a fit but was quite unable to speak. There was complete paralysis of the right leg, the limb being quite flaccid and paralysed, with rigidity and contracture of the right arm. The eyes and face were unaffected. He could only partially comprehend what was said to him, and could make no response. He gradually recovered power in the leg and arm, and made attempts at speaking, and could utter one or two words—"very nicely," "yes," "getting on," and a few others, and seemed to comprehend more what was said, but his attention was very easily overtired.

On May 8th he had another attack, when he was quite speechless and collapsed. The nurse had observed some twitching of the muscles of the right side of face when he awoke; he then lost the power of the right arm, but the leg escaped. The condition of paralysis was succeeded by one of rigidity. There was difficulty in swallowing, and the patient was very irritable. He seemed to understand a little more what was said to him in a few days, but recovery was very incomplete, for there was no return of intelligible speech, and there was complete loss of power over the right hand, and partial loss of power of the right leg. He became very restless, constantly attempting to get in and out of bed, and was so noisy that we could no longer retain him in the infirmary. His condition is very pitiable at the present time; he cannot understand anything said to him, has complete motor aphasia and right hemiplegia, is very emotional, and presents all the symptoms of cerebral softening.

Although motor speech has been involved in both of these cases as well as sensory, as I have said before, I have brought them forward chiefly on account of their being good examples of sensory disturbance of speech. In the first case, that of the artist, it is remarkable how compound was the aphasic condition, and it is most probable that there was thrombosis of the Sylvian artery, for all the cerebral centres concerned either in the expression or the interpretation of speech are situated within an area supplied by this vessel.

The centre for motor speech (the posterior part of the third frontal convolution and the lower part of the ascending frontal on the left side) were first affected, and the ascending frontal convolution containing also the cortical centres for the movement of the tongue and lips accounts for the early loss of these movements in this case. The part of the brain concerned in the sense of hearing was next affected, which is the posterior half of the first temporo-sphenoidal convolution on the left side. When this region is diseased there is often transient deafness in the opposite ear, as was the case here. The fact observed that he could hear a whisper and understand the word when whispered very softly and slowly is one I find no record of, but points, I think, to over-stimulation of the centre by the ordinary voice, preventing perception of sound characters. The hearing of both ears went simultaneously, but the right, or that on the opposite side of the lesion, was the first to recover.

In word blindness a lesion of the first temporal convolution is found in the majority of cases. The hemianopsia was probably due to involvement of the occipital lobe, for the pupil still continuing to respond to light supports Wernicke's suggestion that the symptom is then due to a lesion in the occipital cortex. The amaurosis which has been present in both attacks was probably cortical also. The optic nerve always looked healthy. Mind or object blindness was part of the visual disturbance. It has been produced artificially by Munk in dogs by extirpating parts of the occipital lobe. Loss of smell, which was associated with the sensory aphasia, is thought by Gowers to be due to softening of the root fibres at the commencement of the fissure of Sylvius.

I have not mentioned the fact before, but this patient had visual hallucinations to which Professor Henschen in his work on the *Pathology of the Brain* directs attention, as likely to trouble a patient with homonymous hemianopsia when that symptom is of cortical origin. He said he could always see in the blind half of the field of vision a man at the back of his head holding two lighted candles. Bastian has strongly pointed out that lesions in the posterior parts of the brain are more apt to produce hallucination than lesions in the middle or anterior parts. The amount of sensory disturbance was very remarkable in this case, and might have suggested at an early period a purely functional origin; but as Wyllie says, in *Disorders of Speech*, p. 375, "The very existence of word deafness or word blindness in any case should suggest an organic rather than a functional cause."

In the other case I have recorded, there is not much to note except that the sensory aphasia came on first, and long before the motor condition; also that there was an absence, as far as could be made out, of any hemianopsia, with the word blindness. The probable cause in this case is thrombosis, which may be proved in a short time as the patient is now *in extremis*.

An important question in connection with aphasia is its influence on testamentary capacity. My patient, as I have related, made a will and signed it; but as Gowers remarks, word deafness is incompatible with will making, inasmuch as the testator cannot understand what is said to him.

This patient's will was entirely made on his own instructions, for he had no agraphia and was aided by pantomime.

Since a short notice of this paper was published, Professor

Gairdner, of Glasgow, has written to me for fuller particulars of my patient's will making, as he is to be called as a witness in a case next month in which it is to be attempted to reduce a will made by an aphasic whom he attended. Dr. Gairdner says: "I touched briefly upon the subject of the testamentary capacity of the aphasic in my address at the Liverpool meeting of the British Medical Association, but it has always appeared to me one of great difficulty and depending essentially on details."

## A CASE OF COMPLETE APHEMIA OF NINE WEEKS' DURATION: SUDDEN RECOVERY THROUGH AN ACCIDENT.[1]

By C. M. ALLAN, M.A., M.B., C.M.,
Surgeon, Longton Cottage Hospital, etc.

The patient, C. R., aged 34, a bricklayer, was seen by me on September 2nd, 1896. Complete loss of speech had occurred suddenly on the night before. There was no specific history, no history of previous blow or fall, and none of previous neurotic attacks of any kind. He had always taken a considerable amount of beer, but had been a teetotaller for seven months, and until a fortnight before the loss of speech occurred, when he took to his old custom. He had always been in good health, with the exception of occasional rheumatism and an illness seven years ago, which was stated to be inflammation of the lungs and kidneys.

His present attack came on quite suddenly on his way home from the public-house, and just after having left a friend with whom he was conversing as usual. As he left his friend to walk to his house—a distance of about 50 yards—he experienced a feeling of faintness and swimming in the head, with weakness in the left leg, which rendered him unable to walk steadily. He asserted that he was quite sober. This his wife corroborated.

On arriving home he discovered that he was unable to talk, and he had since been unable to articulate a single word, though able to express himself freely by aid of slate and pencil without the slightest hesitation or mistake.

The patient, a well-built dark-complexioned man, with a narrow retreating forehead, looked somewhat dazed, pale-faced, with anxious, emotional expression, and profuse perspiration of head and face, which increased on his being questioned, when he showed an amount of distressed effort. His temperature was slightly increased. The tongue was furred and moist, and on attempt at protrusion impinged on the teeth at the right angle of the mouth. There was difficulty of deglutition. The throat was relaxed and the uvula deflected to the right side.

He complained of occasional attacks of faintness and swimming in the head, of the same kind as he experienced at the onset of the attack. The apex beat was outside the nipple line, and the impulse weak. The first sound was indistinct, the second accentuated in comparison. There was a systolic murmur in the aortic area transmitted towards the neck. The urine was healthy. He complained of pricking or tingling sensation in the left leg as far up as the knee. There was no alteration in sensation or conduction. The pupils were equal and reacted well to light. There was general paresis of left leg and arm—of the leg more than the arm—and that mostly in the upper part.

His intelligence was good; he had no delusions, torpor, or coma, or much slowness of mental processes; attention and memory were good. Sleeplessness with restlessness had been troublesome since the attack. This he attributed to faintness and swimming in the head. No involuntary interjections were uttered and attempts at speech were abortive. He answered simple questions requiring affirmation and negation by nodding and shaking the head. He understood everything said to him, and promptly and intelligently answered all questions put to him by aid of slate and pencil, and without confusion of words or their sequence. He wrote the date of the month and the day of the week of the seizure, and gave dates and character of previous illnesses. He understood and appreciated singing. He could read and understand what he read. Sight was good, and he recognised common objects and pictures of common objects, and named them correctly. He could copy words and figures, and wrote spontaneously and from dictation.

On September 3rd he could protrude his tongue with slight difficulty.

On September 12th he muttered "Yah! yah!" at the breakfast table without apparent application to anything. He tried to talk to a child, but unsuccessfully. He complained of weakness in the arm after getting out of bed for the first time.

His general condition improved, and he resumed his work on September 16th. He had a slight attack of lumbago and sciatica on October 1st, which soon passed away. Sleeplessness resulted if he worked in a stooping position. The loss of speech remained as before.

His general condition continued to improve until November 2nd, when, while building an oven at a height of 6 feet from the ground, he felt giddy, lost his balance, and fell backwards to the ground, landing on his head. He was stunned, moaned, and then shouted to his friend by name. His nose bled considerably, which it does occasionally and without apparent cause.

Next morning he informed me that he had been able to talk since, and spoke quite distinctly, but somewhat more slowly than usual. There was tenderness on pressure over the left occipital and parietal regions, with some effusion.

The exact pathology in this case is difficult. Hyperæmia, hæmorrhage, thrombosis, and embolus will suggest themselves, as also monospasm and hysteria.

There was inability to protrude the tongue, which was diverted to the right side. The left arm and left leg were paresed—the arm slightly and leg mostly in the upper part. The complete loss of speech are suggestive of a lesion in the left inferior frontal convolution or in that region, the patient being righthanded, although his work might help to make him partly ambidextrous. Can hyperæmia be so localised? There was no disease of the kidneys or of blood vessels which would tend to exclude hæmorrhage and thrombosis, and the lesion was probably not central. The heart was not satisfactory, and the multiple character of the lesions suggests emboli. If embolic, were both sides of brain affected? As to the sudden recovery through an accident, can it be owing to the sudden cessation of an enduring monospasm as Bastian would suggest? or to the resolution of the embolus or emboli? The leg on November 24th showed distinct weakness. As to the locality of the lesion as far as the total loss of speech in a case of aphemia such as this is concerned, Bastian suggests that the "defect is capable of being produced by damage to efferent internuncial fibres in any part of the course from the left glosso-kinæsthetic centre to the articulatory centre in the bulb," and Gowers, that the lesion is "probably so placed as to interrupt the fibres that go to the motor tract (internal capsule), and those to the corpus callosum, but has not destroyed the speech centre itself or the connection between it and the head centre."

[1] Read before the Staffordshire Branch of the British Medical Association at Stoke-on-Trent.

## TWO CASES IN WHICH THE SIGNS OF THE PRESENCE OF AN INTRACRANIAL TUMOUR WERE FOLLOWED BY RECOVERY.

By J. MICHELL CLARKE, M.A., M.D.Cantab., F.R.C.P.,
Physician to the General Hospital; and Professor of Pathology, University College, Bristol.

When patients present themselves with signs of progressive organic intracranial disease, the outlook is, in the great majority of cases, of the most gloomy character. Sometimes, however, even when such signs are well-marked, an intermission or remission of the symptoms takes place, and, much more rarely still, a more or less complete recovery, and this in cases in which the character of the symptoms present seems to leave little room for doubt as to the correctness of the diagnosis.

With the exception of intracranial syphilitic disease, which is more amenable to treatment, and in which more or less complete recovery is frequently seen, the uniformly

grave prognosis that attaches to cases of organic brain disease renders instances of recovery of great interest from the clinical point of view. That such recovery may occasionally take place where the symptoms indicated tuberculous meningitis has been shown by the accounts of published cases.[1] Sometimes cases are also met with, and are perhaps of especial interest, in which, in the absence of syphilis, the symptoms point to the presence of an intracranial tumour and yet the patients recover. Such seemed to be the condition in the two cases which form the subject of this paper. In each the prospect of recovery during the early part of the illness seemed, to say the least, extremely doubtful, and the favourable termination was all the more satisfactory.

Case I.—L. E., aged 17, a cigar maker, was admitted into the Bristol General Hospital on January 28th, 1893, complaining of frontal headache, attacks of vomiting, and great failure of sight since the previous September. Her father died of pulmonary phthisis, and her mother was in delicate health; otherwise there was nothing of importance in the family history. The patient, although never strong, had never had any bad illness. The present illness began in the first week of September, 1892, with several attacks of vomiting, and severe pain in the frontal region of the head, which was intensified on lying down. For the eleven weeks following this attack the patient was laid up at home. She was frequently sick—as a rule about every other day, generally at 5 A.M., and two or three times later in the day. She stated that at this time the headache was practically constant, without intermission. She also suffered from dimness of vision, with sudden attacks of total blindness, which lasted for two or three minutes and then passed off. These attacks had occurred about three times a day ever since the middle of September; she was sometimes giddy in them, and once fell down, but there was never any loss of consciousness, convulsions, or muscular twitchings. There was some failure of memory. She returned to work at irregular intervals during the latter part of November, but then grew worse. There was no history of diplopia.

On admission she looked fairly well; she was rather pale, but not distinctly anæmic. The thoracic and abdominal organs were healthy. There was no sign of hereditary syphilis.

*Nervous System.*—No tenderness to percussion anywhere over the skull. No paralysis of the cranial nerves. No paralysis, wasting, or rigidity of any muscles. No affection of sensation to touch, pain, or temperature. Superficial and deep reflexes normal. Speech and swallowing normal. Special senses, except vision, normal. Gait natural. There was very intense double optic neuritis, most advanced in the left eye, which showed numerous specks of cholesterin at the edge of the optic disc; there were a few linear hæmorrhages around the right disc. The swelling of the optic discs was estimated at from 5 to 6 D.

She could move her limbs well, and there was no paralysis or wasting of any muscles. The feet presented the condition of pes cavus, which dated from infancy. Urine normal, contained no sugar or albumen. Catamenia absent for six months. Pulse 72, regular. Temperature 98°; it remained subnormal during her stay in the hospital. Bowels regular. Tongue clean and moist. There was no history or sign of aural affection. She suffered from very severe dull aching pain in the frontal region of the head, not quite continuous, though occasionally lasting for hours. She was unable to lie down in bed on account of the headache being aggravated and accompanied by giddiness in that posture.

During the first month of her stay in the hospital she complained almost constantly of intense headache, and of nausea; she vomited on several occasions, the vomiting being of the cerebral type, and bearing no relation to the ingestion of food: the brief attacks of amaurosis came two or three times daily, and there was progressive deterioration of sight. The treatment adopted was the administration of cod-liver oil and of potassium iodide in increasing doses, with syrup. ferri iodidi. Antipyrin generally relieved the headache for the time, but on a few occasions hypodermic injections of morphine were necessary. Nausea, vomiting, and headache began first to improve about March 18th; she then had a slight eruption of labial herpes. The attacks of vomiting first ceased, then the giddiness passed off, and the headache began to lessen. The optic neuritis gradually subsided, only to be followed by atrophy of the disc. The temperature remained at 98° during the whole of her stay in the hospital, the pulse at about 72 to 76; there were no other symptoms, and she never at any time had any pains in the back of the neck or retraction of the head. She left the hospital in May, as she seemed well in herself, and the headaches and vomiting had ceased, and no further symptoms appeared. Vision was, owing to the consecutive atrophy of the discs, unfortunately reduced to very little more than perception of light. When seen some months later her condition was unchanged.

Case II.—A mason, H. K., aged 23, was admitted on November 8th, 1893, complaining of headache, weakness, giddiness, and dimness of vision. He stated that his father had died of pulmonary phthisis, and that a brother and sister had died young—cause unknown. He had never had any previous illness, and was certain that he could not have contracted syphilis; he had occasionally suffered from headaches. He had never suffered from deafness or discharge from the ears, and had always been temperate. About two months before admission he had fallen out of a cart on to his head, and for two or three minutes after getting up he felt dazed and could not see, but was able to resume his work shortly afterwards.

The present illness began five weeks before admission. One day whilst at work he felt giddy and stupid, so that he could not go on, and was obliged to go home. During the next week he managed to continue at work, but his sight failed so rapidly that he could hardly see at all. A week later he had an attack of shivering (? tremor), together with violent headache and a sense of fulness in the head which made him feel very stupid. From this time his sight grew rapidly worse, so that he could not see persons with whom he was talking, and had to be led about in the streets; he had attacks of vomiting, not related to food, two or three times in each week. He also suffered from muscular twitchings and cramps in the legs, from pains in the back of the head and left angle of the jaw, from noises in the ears, and from giddiness.

On admission he looked healthy, but his face was decidedly flushed. On his first morning in the hospital he felt cold and shivered for about half an hour, without, however, any rise of temperature. The headache was generally in the frontal, sometimes in the occipital region.

On examination, the heart's apex was in the sixth space, and a faint blowing systolic murmur was heard over the pulmonary area; otherwise the thoracic and abdominal organs were normal. The urine contained a deposit of oxalate crystals but no albumen or sugar. The pulse-rate was 108, respiration 24, temperature 97.6° F. He lay on his back, was listless, yawned repeatedly, and was extremely drowsy. His gait was feeble, and he was giddy when he stood up. There was no paralysis of any movement, although he was generally weak, and no muscular rigidity or wasting. Sensation to pain, touch, and temperature normal. The superficial reflexes and knee-jerks were normal; ankle clonus was not present; the cranial nerves were unaffected; the special senses other than sight were normal; vision was very defective; there was very intense optic neuritis with much swelling of the discs, most advanced in the left eye: the pupils were dilated, and reacted, though sluggishly, to light, accommodation, and sensory stimulation of the skin of the neck.

The night after admission he vomited several times, and for several days the headache was intense. He was very drowsy the whole time, being with difficulty roused; he was occasionally irritable. Ten days after admission his sight had become so bad that he could no longer feed himself.

On November 22nd his condition was much the same; the optic neuritis had increased, and there were numerous small hæmorrhages around the discs. He was now quite unable to stand, chiefly from weakness but partly from giddiness, which was especially bad in the early morning. There had been no recurrence of vomiting. Both pupils were dilated, and the left was persistently larger than the right.

On November 28th the headache began gradually to improve, and he felt a little better in himself. Steady though slow improvement as regards general symptoms took place. On December 12th he was delirious during the night without any obvious cause or rise of temperature. Soon after this he began to get up for a little time each day.

By January 11th, 1894, he was able to be up and about the ward; there had been no recurrence of the vomiting, and the headaches only recurred occasionally and were slight. Vision was reduced to bare perception of light; the optic neuritis was subsiding, leaving the disc atrophied. He suffered from clonic spasm of the right hand for a short time one day, which did not recur; otherwise there were no fresh symptoms. As his general health was now good and his condition appeared to be stationary, he left the hospital shortly afterwards. The treatment adopted was rest, application of ice to the head, the administration at first of mercury and full doses of potassium iodide, followed later by cod-liver oil and tonics. He was seen a few months later, and again in November, 1896, and it was found that he remained well, but was totally blind from atrophy of the optic discs. There had been no recurrence of any of the cerebral symptoms.

When these patients were admitted, and during the first part of their stay in the hospital, although the symptoms were general and no localising symptoms were present, the most probable diagnosis seemed to be that of an intracranial tumour. In each case the general signs of tumour—that is, optic neuritis, intense headache, vomiting of cerebral type, and vertigo—were well marked, and in the second case there was inability to stand. From the point of view of the symptoms themselves, the most significant was the character of the optic neuritis, which was of that very intense kind that is most frequently found in association with tumour.

The next most likely cause of the illness was meningitis, and there was, further, the possibility of the optic neuritis being of the idiopathic variety, a primary neuritis sometimes occurring for which no cause can be discovered. Against this latter was the very pronounced nature of the general head symptoms, and possibly the great intensity of the neuritis. With regard to meningitis, the absence of any past or present ear disease and of any other cranial affection that commonly causes meningitis, and the absence of all the characteristic symptoms—for example, retraction of the head, affection of cranial nerves, muscular rigidity, convulsions, delirium, and the presence of a subnormal temperature throughout the illness in both cases—would seem to be sufficient to negative this affection. The other causes of optic neuritis, including syphilis, anæmia, lead poisoning, and Bright's disease, could be satisfactorily and completely excluded.

On the whole, then, the presence of an intracranial tumour seems the most probable diagnosis even in the absence of localising symptoms, and the character of the optic neuritis offers further confirmation of this view of the cases. In the second case the appearance of symptoms some time after a fall on the head suggests that the injury might have started into activity some previously existing but quiescent mischief, and is certainly suggestive when the frequency of a history of a fall or blow on the head in cases of intracranial tumour is borne in mind.

With regard to the nature of the growth it is well known that under treatment tuberculous masses may occasionally cease to grow, become inert, and are encapsulated. This pro-

bably occurs more frequently in tuberculous than in any other form of intracranial tumour, syphilitic growths of course excepted.

In each of my cases the father of the patient had died from pulmonary phthisis, and in the second case there had probably been other deaths from phthisis in his family. Without going further one may suggest that it is at least probable that the cause of the illness in these patients was a tuberculous mass in some indifferent part of the brain, which ceased to grow or became encapsuled. The duration of the illness was about eight months in the first and four months in the second case.

Dr. Gowers [2] gives a short account of two cases, and says that he "has seen a considerable number of other cases with well-marked symptoms of a tumour, probably tuberculous, which passed away permanently under treatment," and a most instructive case in point, in which the accuracy of the diagnosis was confirmed at the necropsy made four years afterwards is reported by Dr. R. T. Williamson.[3] The patient, a man aged 27, had suffered from Jacksonian epilepsy (left-sided), with impaired vision. He got better, the fits ceased, vision improved, and he returned to work, with a slight loss of power on the left side. Four years later he suffered from ataxia, headache, vomiting, and double optic neuritis, with tuberculous lung disease, and the necropsy disclosed an old encapsulated tuberculous nodule in the right cerebral hemisphere, with a recent tuberculous mass in the cerebellum.

There is one point with regard to the prognosis in such cases after the period of symptoms of active disease has passed away. Of course, in cases of tuberculous diseases there is always a liability, as is illustrated in Dr. Williamson's case, at some subsequent period to a recrudescence of the disease, but apart from this there seems to be also a danger of sudden death after the symptoms of the former illness have disappeared. Dr. Gowers mentions that in one of his cases referred to above sudden death occurred after there had been no recurrence of symptoms for three years. The same fact was recently exemplified in a patient who had been under my care for cerebral syphilis, due, as the necropsy showed, to the presence of a large syphilitic growth on the under surface of and involving the substance of the left frontal lobe. There was no other lesion. This man suffered at first from attacks of loss of consciousness, later from attacks of Jacksonian epilepsy (right-sided), with right hemiparesis; from headache, vomiting, vertigo, spasm of the left orbicularis muscle, fixation of the left pupil, and double optic neuritis ending in blindness. He became unable to stand or walk, was at first mentally dull and drowsy, and then for two or three weeks very irritable, noisy, violent, and at times quite maniacal, and lost all idea of his surroundings. After a stay in the hospital of three months' duration he recovered from all his symptoms except that he was left blind from optic atrophy, and with slight loss of power on the right side. In all other respects he left the hospital apparently well, and able to walk about nearly as well as ever except for the blindness. After he had been at home for a month, and was to all appearance in good health and perfectly free from all his former symptoms, he one day fell down dead quite suddenly whilst walking in the street.

REFERENCES.

[1] Bristowe, *Diseases of the Nervous System.* [2] *Diseases of the Nervous System*, vol. ii, p. 519. [3] *Med. Chron.*, September, 1896, p. 406.

## A CASE OF CEREBRAL ABSCESS, PRESENTING SOME UNUSUAL FEATURES.

BY MORLEY WILLIS, F.R.C.S.ENG.

I AM indebted to Mr. T. Chalmers Norton for permission to publish this case, which occurred in his practice at the Hospital for Sick Children and Women, Bristol, at the time I was house-surgeon at that institution.

E. L., aged 8 years, was admitted on January 28th, 1896. On January 24th she complained of headache, was sick once, and her friends for the first time noticed a discharge of matter from the left ear. They attributed the headache to a fall a few days previously, though the only evident injury due to the fall was a cut lip. On January 25th and 26th she was sick several times, and on the last-named day her manner altered, and she was very excited and unruly.

For the greater part of January 26th and the whole of January 27th she was not conscious, and recognised no one. Her head and neck were markedly retracted on admission, and had been so since January 26th. When not disturbed she lay quiet and still, and curled up, that is, flexed generally, except at the neck, which was extended. She much objected to being disturbed, turning away, and crying petulantly on being roused. The temperature was 101° F. There were sordes on teeth and lips, and the tongue was dry. Though not profoundly unconscious it was obvious that she did not recognise her mother. There was no purulent or other discharge from either ear, nor any offensive odour from the meatus. There was no paralysis of any sort at this time.

The notes for the next two days show some improvement in her mental condition, and she gave intelligible replies to questions relating to feeding, and asked for bread and butter. Coincidently with this improvement the temperature fell, until on the morning of February 1st, five days after admission, it was 98° F. For those five days it had been at 100° to 101° F., the latter on most evenings.

On February 7th a view of the optic discs was obtained, and they appeared slightly redder than usual. From this time she got worse, vomiting frequently, occasionally screaming, and appeared to indicate that she had pain in her head, although at this time her expressions were not very intelligible.

On February 16th (20 days after admission) some weakness of the right arm and hand was observed; and the wrinkles and folds of the right side of the face were less marked than those of the left, especially when she cried. Her speech had become more impaired, and she could not make herself understood.

These symptoms all became more and more marked until, on February 22nd, there was complete facial paralysis of the right side, and greatly impaired power in the right arm and hand. The tongue on being protruded was strongly deviated to the right of the middle line, that is, towards the paralysed side. With this there were now distinct evidences of optic neuritis.

Taken together, these symptoms appeared conclusive evidence of a lesion affecting Broca's convolution and those parts of the cortex lying in the immediate neighbourhood of the lower end of the Rolandic fissure. The history of the case indicated as the cause an abscess in the temporo-sphenoidal lobe of the left side, which, gradually enlarging, pressed upon the structures named.

It was, therefore, decided to explore the brain in this situation, and on February 23rd, the patient having been anæsthetised with chloroform, a disc of bone ½in. in diameter was removed with a trephine, the pin of the trephine being applied to a spot corresponding to the lower end of the fissure of Rolando. The dura mater was incised and turned up, and then, carefully avoiding some rather large veins on the surface of the brain, a silver trocar and cannula were passed into the substance of the brain in a direction slightly downwards and backwards from the centre of the area of cortex exposed by the removal of the disc of bone. It had been observed as soon as the disc of bone had been removed that there was an increase in the intracranial pressure; when the dura mater was incised the brain bulged somewhat into the hole in the skull, and pulsation in the brain itself was hardly at all visible. On removing the trocar pus welled up through the cannula.

The cannula itself was left *in situ* for drainage. The wound was sewn up entirely, a hole having been made in the flap to permit the passage of the cannula. A small superficial drainage tube was placed in the posterior inferior angle of the wound, which was then dressed antiseptically, and the patient was removed to bed.

On the day following the operation there was an obvious diminution in the signs of compression, the patient being conscious, and appearing to understand what was said to her. On the second day after the operation the discharge of pus ceased, and as it was thought that the cannula might have become blocked, a little chloroform was given, and it was removed and reinserted in the same direction, but, on removing the trocar, not pus, but a stream of pure blood, shot up at

least a foot into the air. This was controlled by the finger, lightly placed on the mouth of the cannula, but recurred at once on removal of the finger. The cannula was therefore withdrawn, but on reinserting it more backwards and downwards the same thing occurred; nothing was done, therefore, and the patient was returned to bed.

Two days later another attempt was made to drain the cavity, but without success. No stream of blood now issued from the cannula, but some slight arterial hæmorrhage occurred on the surface of the brain, which was arrested by pressure on the left carotid artery. These repeated attempts were made because the abscess had so quickly ceased to discharge, and there were still some signs of compression remaining.

From this time to the termination of the case, the recovery was uneventful. The patient gradually regained the power in her right arm and hand; her speech remained defective for a longer time, only very gradually improving.

On May 6th she was discharged to the seaside Convalescent Home.

I saw her last on September 23rd, and found her almost well, and having very little difficulty with her speech. There was just the faintest trace of facial paralysis on the right side, and the tongue, on being protruded, deviated slightly towards that side. Beyond this she appeared quite well. She went to school, and was apparently a very intelligent girl.

Comment.—On admission, the symptoms, consisting of headache, vomiting, high temperature, retraction of head and neck, and marked signs of "cerebral irritation," in a patient the subject of otitis media purulenta, warranted a diagnosis of meningitis. I think it is unusual for such signs, so well marked as in this case, to subside completely, and give place to those of cerebral abscess. The temperature fell coincidently with the cessation of the signs of meningitis; and with the supervention of those of cerebral abscess it became subnormal and so remained throughout, no distinct rise taking place after the operation. The average temperature throughout was, after the first five days below 98° F., occasionally as low as 97°. The second unusual feature was the forcible ejection of a stream of blood through the cannula, which occurred on two occasions. It could not have come from one of the venous sinuses, the direction and extent to which the cannula was inserted negativing the idea that one of these had been punctured; while the force with which the blood was ejected is also opposed to this hypothesis. It is almost inconceivable that any individual vessel could have been so punctured that its lumen was placed in direct continuity with that of the cannula. The most probable explanation appears to me to be that it was blood which came from an effusion or hæmorrhage which had taken place into the original abscess cavity, and its forcible ejection was due to the greatly increased intracranial pressure which existed as a result of it.

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

### CASE OF MARKED INTOLERANCE OF SALICYLATE OF SODIUM.

On December 19th, 1896, a domestic servant was sent to consult me by her mistress, on account of severe pains in her feet, which prevented her doing her work.

On examination I found that the girl, who was aged 19, had lately suffered from acute rheumatism, and had had several subsequent subacute attacks.

On the present occasion her right ankle and the extensor muscles of her left toes were affected, and both slightly swollen. Her temperature was under 100° F., and but for slight anæmia she was otherwise well.

She told me that when she had rheumatic fever, nine months ago, she had not been able to take what she called "rheumatic medicine," and that it had to be stopped after a few days' trial.

I prescribed for her sodium salicylate gr. x, to be taken thrice a day, and sent her home to bed. Next day I was sent for, and found that the pains in her feet had all but gone, and that she complained of severe headache, ringing in the ears, giddiness, and lightness of the head, all of which, she said, had come on shortly after she had taken the second dose of mixture, and had continued till she fell asleep. In the course of the night she had once awakened, dreaming that she was standing by a waterfall, and that the rushing of the water had made her so giddy that she was about to fall into the stream.

In the morning the symptoms had gone, and, after a light breakfast, she had a third dose, shortly after which the giddiness, headache, and ringing in the ears returned as badly as ever.

I questioned her closely in case she should ever have been warned of the possible effects of an overdose, and have imagined all these symptoms, and she replied that she had never either heard of them or experienced them before—the reason for the "rheumatic medicine" having been stopped before, having been, she said, on account of weakness of the heart. She was not a hysterical girl—she had not taken more than the gr. x dose, and later on I found gr. v doses produced with her similar but less severe effects: so much so that the amount of the salicylate given in the twenty-four hours had finally to be reduced to gr. viiss, which nevertheless proved sufficient in the course of a few days to complete the cure of the arthralgia and muscular pain.

Stow-on-the-Wold. David Wield, M.A., M.D.

### PICRIC ACID IN ECZEMA.

As picric, or carbazotic, acid is at present being much used as a local application in cases of eczema, and as Dr. Maclennan says that it is quite free from danger, may I say that in my experience, although it is most valuable in the majority of cases, still in one adult patient I prescribed it for it caused much prostration, and, in fact, all the symptoms of carboluria, with very dark urine. The dermatitis affected the arms and legs, and the drug was ordered to be painted on night and morning. After this had been done for ten days, the unpleasant symptoms I have mentioned developed, and certainly resembled the action of carbolic acid, to which it is, as Dr. Maclennan mentions, constitutionally related.

Henry Waldo,
Physician to the Bristol Royal Infirmary, and in charge of the Dermatological Department.

### RHEUMATISM WITH HYPERPYREXIA.

In the British Medical Journal of November 7th, 1896, p. 1389, an interesting case was recorded under the above heading. On reading it I was reminded of a somewhat similar one which ended fatally, and about which I was never able to satisfy myself. I have not the notes of the case at hand, but I have a very vivid recollection of the events in connection with it, which are as follows:

On a Sunday a young and apparently healthy soldier, after a bath proceeded to cut his toenails. One of these he cut too low, and caused some slight bleeding, which was easily stopped.

Next day (Monday) he went on duty, but had to be relieved, when he was detained for temporary treatment at Edinburgh Castle. The following day (Tuesday) he complained of pains, and was unfit for duty. On Wednesday he was sent to Glencorse Military Hospital, with a diagnosis of rheumatism. On arrival his temperature was about 101°. He complained of acute pain in both wrists, which were swollen, and there was a distinct odour characteristic of rheumatic fever. Other concomitant conditions led to the belief that the case was one of acute rheumatism, and the man was at once treated with sodium salicylate and topical applications.

The case did not improve, nor did any other joints become affected, but the pain in the wrists and back of the hands rather increased.

On the following Sunday he was worse; at morning visit the temperature was about 102°. On returning from church I was surprised to learn that the temperature had gone up to 108°. Wet packing was at once resorted to, which reduced the temperature to 103°, but the man died unconscious shortly after.

The *post-mortem* examination revealed, besides the expected congested condition of all the internal organs, a curious con-

dition of the brain cortex. On each side of the brain a small clearly-cut ulcer, about the size of a threepenny piece, was found on the part of the cortex corresponding to the arm centres, one somewhat larger than the other, and on the side opposite the most affected wrist.

Although at first I was satisfied that I was dealing with a case of acute rheumatism, the result of the *post-mortem* examination did not, to my mind, verify this, and I have since that time—now some years ago—been in some doubt about the nature of the disease in the case I have so imperfectly given, and have thought it possible that similar conditions might at times give trouble and pass unobserved.

WM. ALEXANDER, M.D.,
Portobello, N.B. Brigade-Surgeon-Lieutenant-Colonel.

# REPORTS
ON
## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

### RADCLIFFE INFIRMARY, OXFORD.

NOTES ON A CASE OF TETANUS: ADMINISTRATION OF ANTITOXIN: DEATH.

(Under the care of WM. COLLIER, M.D., F.R.C.P.)

[Reported by FRANK G. PROUDFOOT, M.A., M.B., House-Physician, to the Infirmary.]

W. C., a boy, aged 9, was admitted about 6.30 P.M. on November 1st, 1896, with marked symptoms of tetanus. He had not been feeling well for two days, but the convulsions did not show themselves till that day. There was no history of injury, but on examining hands and feet numerous small cracks were noticed, and on further inquiry we elicited the fact that for some days he had been gathering potatoes in a field. On being put to bed he at once lay flat on his face. The spasms, which were severe, were then coming on every fifteen minutes, and were brought on at once on the slightest touch. There was no opisthotonos, but emprosthotonos was a marked feature of the case.

Chloral hydrate, 15 grains, was administered at once, and then 10 grains every three hours afterwards. The interval between the spasms now gradually lengthened, until towards morning three hours elapsed between the spasms, the patient sleeping quietly. His bowels had been freely opened by an enema, and he was fed by the nasal tube. At the beginning of each spasm a whiff of chloroform was given, which considerably lessened the severity of the attacks.

The antitoxin was telegraphed for on November 2nd, and it was received on November 3rd; 1 g. of the dried serum was at once injected into the thigh, after the patient had been given a little chloroform. During that day he was quieter, sleeping soundly at intervals; the spasms were much less severe. The chloral was now suspended for twenty-four hours. Towards night the spasms became more severe, and chloral was again administered, 10 gr. every four hours, with the inhalation of chloroform at the beginning of each spasm.

On November 4th the pulse was much weaker, 150 per minute, and the temperature, which had previously been normal was now 100.4° F. Another injection of serum (1 g.) was given in the thigh, and after that the spasms were much less frequent and slighter in character. In the morning he had another injection of serum (1 g.). The pulse was weak, 150; the temperature 99.8° F.

No improvement in the spasms was noted in the night, but on November 5th it was seen, however, that the spasms, which were general before, were now limited to the trunk. Another supply of antitoxin was telegraphed for, and this time the fluid antitoxin was sent. Before its administration he had an attack of dyspnœa, due evidently to spasm of the diaphragm; he recovered after the performance of artificial respiration: 10 c.cm. of the fluid antitoxin were now injected, fourteen hours after the last injection. The dose was repeated in six hours, but there was no apparent benefit, the spasms being very severe and frequent. He had during the day three attacks of dyspnœa similar to the first.

During the night the patient was given almost continuously inhalations of oxygen. These seemed to ward off the attacks of asphyxia.

On the morning of November 6th our supply of oxygen was finished, and he had three attacks of asphyxia. Within two hours oxygen was again administered, and he had no more attacks. His pulse was scarcely perceptible, and his breathing was very embarrassed, the lungs being evidently quite œdematous. He died at 4.30 P.M.

REMARKS.—Apart from the antitoxin, what seemed to do the patient most good was the administration of large doses of chloral hydrate and the inhalation of chloroform. Latterly, when the breathing was so embarrassed, oxygen was of enormous benefit. As to the antitoxin, our great difficulty was to know how much to inject and how often. The amount administered in this case produced little or no benefit, and what we desire to learn is, whether it would be safe to give large doses very much oftener than is usually given, and what are the symptoms which an overdose would produce, so that we might be able to suspend the administration in time.

# REPORTS OF SOCIETIES.

## PATHOLOGICAL SOCIETY OF LONDON.

HENRY TRENTHAM BUTLIN, D.C.L., F.R.C.S., President, in the Chair.

*Tuesday, February 2nd, 1897.*

THREE CASES OF HÆMORRHAGIC DIPHTHERIA.

MR. J. W. W. STEVENS and MR. C. D. PARFITT pointed out that in fatal cases of diptheria it had been shown by many observers that the Klebs-Loeffler bacillus may be found in the heart's blood, lungs, spleen, lymphatic glands, kidneys, and other organs. In most fatal cases, moreover, it had been shown that there was, in addition, a hæmic infection with pyogenic cocci, more especially streptococci, which added to the gravity of the disease. In most of the purpuric examples of diphtheria the authors inclined to the belief that examination would demonstrate the presence of pyogenic micro-organisms in the blood. In the three instances of hæmorrhagic diphtheria recorded the septicæmia was produced in one case by the diphtheria bacillus, in another by the pneumococcus, and in the third by the diphtheria bacillus and streptococcus. The diphtheria bacilli obtained on culture were shown to be virulent to guinea-pigs, and the toxic effects could be neutralised by diphtheria antitoxin.

In answer to the PRESIDENT, the authors stated that by hæmorrhagic diphtheria they meant diphtheria accompanied by hæmorrhage from the mucous membranes, and spots on the skin.

Dr. A. A. KANTHACK remarked that such results could only be arrived at by the systematic bacteriological examination of *post-mortem* material, which was not carried out in this country at present as it was in America, notably in the Johns Hopkins Laboratory. Osler had said that a disease itself was rarely fatal—that is, that it proved fatal by reason of its complications. In diphtheria, when death ensued, it was largely by reason of mixed infection. In addition to this, the escape of diphtheria bacilli into the tissues must now be fully recognised.

PNEUMOCOCCUS ENDOCARDITIS OF A TWO-CUSPED AORTIC VALVE.

Dr. A. E. GARROD recounted the case of a man, aged 39, in whom the above condition was observed. He had been for some weeks the subject of cough and aphonia. A systolic murmur was present on admission. He subsequently developed fatal pneumonia, the base of the left lung undergoing consolidation. After death, the heart exhibited some hypertrophy of the left ventricle; all the valves were normal with the exception of the aortic, and this had two normally-formed cusps of equal and large size; this condition the author held to be a congenital defect. There were infarcts in the spleen, left kidney, and in the lower lobe of the left lung, which was the seat of pneumonic consolidation. The abnormal aortic valve was covered with prominent vegetations. The right tympanic cavity contained pus. In addition to these lesions the left lobe of the liver was diminutive, the right

enlarged, in an early stage of cirrhosis and fissured on the surface, the organ itself lying in a vertical direction, and reaching down nearly to the iliac crest. Cultures from the pus in the middle ear and from the heart's blood yielded abundant colonies of pneumococci, and a few of streptococci and bacillus coli. Sections of the cardiac vegetations, stained by Weigert's method, showed numerous diplococci (pneumococcus). The interest of the case lay in the support it gave to the view that congenital cardiac lesions, like those acquired, were more prone to become the seats of infective processes, a view formulated by Rokitansky, who held that such malformations predisposed to the occurrence of fœtal endocarditis.

Dr. H. D. Rolleston referred to a somewhat similar specimen at St. George's Hospital Museum, and though old the same view was expressed in the record of it. He asked whether the malformation itself was not possibly the result of a fœtal endocarditis, the acute process really attacking an old inflammatory lesion, as it so commonly does. He thought it was easier to hold this view from an anatomical standpoint.

Mr. S. G. Shattock adverted to cases of congenital stenosis of the aortic, and those more common of the pulmonary, valve, which Peacock had regarded as the results of intra-uterine endocarditis; and he thought that if the missing cusp in Dr. Garrod's case had been destroyed by intra-uterine disease stenosis would have resulted, which was not the case.

Mr. J. H. Targett was acquainted with such fissures of the liver as the specimen exhibited. He had supposed that vascular blockage might lead to such, but the true explanation was still to be made out.

### Persistence of Thymus in Graves's Disease.

Dr. Hector Mackenzie and Mr. Walter Edmunds read a paper on two cases of Graves's disease with persistence of thymus gland. It was well known that the thymus gland was frequently found to be persistent in this disease, but more experience was necessary before it could be affirmed that this was a constant feature. Its presence was too frequent to be merely accidental. It was suggested that as the result of the disease the normal atrophy had been arrested, or even the remaining thymus tissue had hypertrophied. The persistence of the thymus gland was of interest in connection with the reported benefit arising from the internal administration of thymus gland in this disease. In the current number of the *American Journal of the Medical Sciences*, Dr. Mackenzie had reported a series of 20 cases of Graves's disease treated by him with thymus gland. He was unable to confirm the idea that thymus gland had any specific action in this disease. His conclusions were that its administration had no effect on the action of the heart, or the size of the goitre, or on the exophthalmos, although it appeared to have some value in improving the general condition of the patient, and in this way might contribute towards his recovery. One of the two fatal cases reported in this communication had been treated with thymus gland without benefit. The first case was that of a woman who died at the age of 31, having suffered from the disease for five years. She had complete anorexia before death, was greatly emaciated, and died from exhaustion. The thyroid gland was uniformly enlarged, each lobe being about the size of a hen's egg. The vessels on the surface were numerous, dilated, and full of blood. The thymus gland was present, and was spread out like an apron over the front of the pericardium, forming a layer about a quarter of an inch in thickness. The two lobes of which it consisted were nearly in contact in the mid-line. It was somewhat paler than the thyroid, and was covered with a fibrous envelope. The second case was that of a woman who died at the age of 35, having suffered from the disease for a year and a-half. The case was complicated with ascites and general œdema. The thyroid gland was much enlarged, and uniformly so. The veins on the surface were greatly dilated, but the interior of the organ was not abnormally vascular. The two lobes of the thymus were present, but in an atrophic condition. The heart was much hypertrophied, although the valves were normal. There were chronic perihepatitis and signs of old pelvic inflammation. The thyroid and thymus glands from the two cases were examined microscopically. Sections of the former showed (1) the colloid so altered that it did not take the usual deep stain with reagents; (2) the vesicles enlarged and altered in shape, in place of being round they were long and branched; (3) the lining membrane convoluted; (4) the secreting cells columnar instead of cubical. The thymus glands were scarcely if at all abnormal; degenerated and opaque concentric corpuscles (Hassal's) were less common than in the normal, however; there were, moreover, large "corpuscles" without stained nuclei; eosinophile cells were seen, but such occurred, also, in the normal gland.

Dr. Rose Bradford had seen four cases of Graves's disease in which the thymus was found abnormally large after death. Two of these were of interest because death took place shortly after the onset of the disease. In one example the condition followed an injury, and death ensued a year later; it was not a particularly pronounced case, yet the thymus was large, not thin and flat, but about a quarter of an inch in thickness. In the second of the two cases death was due to incessant vomiting; there was a small goitre; the exophthalmus was one-sided. In the third case death resulted from a maniacal attack; it was of an ordinarily severe grade, with thyroid enlargement. It was to be remembered, however, that a similar enlargement of the thymus was met with in lymph-adenoma, leucocythemia, and Addison's disease.

Dr. Bertram Abrahams remarked that the results of Dr. Mackenzie in regard to the inefficacy of thymus in exophthalmic goitre were in accord with those of German observers and his own. It was noteworthy, however, that thymus was of service in common goitre. One theory of the enlargement of the thymus in exophthalmic goitre was that an abnormal colloid was produced, and that the thymus counteracted the results due to this. Thyroid extract was also of use in cases of ordinary goitre, though its results were not so marked as those obtained by thymus.

### Card Specimens.

Mr. Douglas Drew: Obturator Hernia. Dr. Cyril Ogle: (1) Hæmatoma of Dura Mater, becoming organised; (2) Ulceration of Intestine, associated with paraplegia from crushed spine. Mr. Edward Hunt: Myomata of Uterus. Mr. T. Strangways Pigg: Heart from a Case of Purpura Hæmorrhagica. Dr. Hebb: (1) Fibroglioma of Membranes compressing the upper part of the cord; (2) Congenital Cardiac Defects associated with Endocarditis. Mr. H. W. Lewis: Carcinoma of the Pylorus.

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## OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

E. Nettleship, F.R.C.S., President, in the Chair.

*Thursday, January 28th, 1897.*

### Spontaneous Recovery of a Retinal Detachment.

This paper was read by Dr. Lawford Knaggs. A woman, aged 21, was shot in the right temple on May 21st, 1892. The bullet passed below the right orbit and lodged in the floor of the left antrum. The wound healed quickly. Attention was drawn to the right eye by the patient's complaints of inability to see things in certain portions of the field. Two choroidal ruptures near, and œdema around, the macula, and several large hæmorrhages were seen on the 22nd, and from that date till the early part of July an acute attack of central choroiditis, with much effusion, was observed in its various stages. At the latter date a large mass of white lymph occupied the vicinity of the macula, and was surrounded by a broad frame of pigment, over which several vessels curled, to be buried beneath the mass of lymph. On July 27th a detachment of the retina had formed, which, when seen end-on, was of the shape of a wedge of cheese with its apex uppermost. The top of the detachment formed a ridge, which ran horizontally backwards till it merged in a track, which disappeared beneath the inflammatory mass overlying the macula. The front of the detachment probably reached to the ora serrata. The field showed scotomata corresponding exactly to the central mass and the detachment. The patient was not seen again till November 28th, 1893, when the detachment was found to have disappeared completely, and the reapplied retina to be quite normal in appearance. The central mass had become more

triangular in shape, but the track which had led to the detachment was still visible. The scotoma caused by the detachment had gone, and that dependent on the central disturbance had slightly contracted. Central vision was destroyed. The condition was unchanged some time later. There could be no doubt that the detachment was produced by exudation gravitating after expression from the central mass of inflammatory tissue, or possibly from a concealed detachment behind it. A detachment produced by inflammatory serum, whose natural tendency was towards absorption, differed essentially from a detachment where the subjacent fluid was a passive effusion filling a potential vacuum. Detachments of the retina were divisible into three groups: (1) Those occurring in fairly healthy eyes as a result of concussion in some form, as in coughing, blows. (2) Those where it is the direct result of inflammatory effusion dependent on severe traumatism or on some organic disease. (3) Those met with in eyes which are the subjects of some chronic disease, such as myopia, where degenerative as well as inflammatory changes may share in the production. In Groups 1 and 2 spontaneous recovery was more probable and surgical treatment more hopeful (in suitable cases) than in Group 3. These statements were illustrated by references to recorded cases.

Remarks were made by the PRESIDENT and Mr. CANT.

### RETENTION CYST OF THE LACHRYMAL GLAND OR "DACRYOPS."

This paper was read by Mr. ARNOLD LAWSON. The patient was a young married lady, aged 19. The tumour had been growing for about four months when first seen. It caused a swelling in the upper and outer part of the left upper eyelid, and was accompanied by considerable ptosis, slight proptosis of the globe downwards and forwards, and slight limitation of movement upwards. On raising the upper lid a soft elastic tumour immediately bulged forwards between the lid and the globe. The tumour was obviously cystic, and had a dark bluish appearance. The skin moved freely over it. There was no glandular enlargement, no pain, and the general health was excellent. The tumour, which grew rapidly whilst under observation, was removed by dividing the external canthus, and having by this means everted the lid, an excision through the fornix conjunctivæ completely exposed the anterior surface of the tumour. It was then shelled out without much difficulty. It lay perfectly free and non-adherent, except along its anterior surface, where it was attached by tags to the subconjunctival tissue of the lid and at its outer margin where it seemed to be adherent to the lachrymal gland. The cyst measured 40 mm. in length, and 22 mm. in breadth at its thickest part, and bore a remarkable resemblance in size and shape to a pigeon's egg. Its walls were of extreme delicacy and very translucent. It proved to be an unilocular cyst with a very shaggy inner wall, and contained about ʒij of a pale straw-coloured limpid fluid with a small sediment. Microscopically, the cyst wall was found to consist of a very delicate, loose, wavy, and elastic areolar tissue, denser and more felted toward the external wall. There was a remarkable absence of the cellular element, and it was only after repeated examinations of many sections that any cells could be found lining the cyst wall. Ultimately a few clusters of very minute cells with large nuclei were found scattered here and there in a few of the sections. The cells were of irregular shape and grouping, but strongly suggested a glandular origin. The cyst fluid was neutral, of a light specific gravity, and contained a fair amount of albumen, and a distinct trace of chlorides. The chief feature of the fluid was the presence of numbers of homogeneous bodies presenting great variety of size and shape. They were almost transparent, but stained readily. There were also present large numbers of leucocytes and red corpuscles, both floating free and also adherent to the bodies and embedded in them. The presence of fibrin in these bodies was demonstrated by staining after Weigert's method, and they were considered to be probably small detached masses of an albuminous nature, which had been coagulated, the precipitation of the albumen being brought about by the presence of alcohol, in a weak solution of which the cyst was lying for some days before examination, and the coagulation resulting from the formation of fibrin from the blood elements in the cyst. This theory was supported by the constant presence of adherent and embedded leucocytes in these bodies. As a further explanation, a possible analogy was suggested between the bodies and hyaline casts, probably derived from some proteid of the renal epithelium, the urine in which they were found being nearly always albuminous. The presence of the epithelial lining to the cyst, the glandular type of the cells, the situation of the cyst, the presence of sodium chloride in the fluid, and the limpid character of the fluid itself, point very strongly to its being a retention cyst of the lachrymal gland, a disease of extreme rarity. A parasitic origin was suggested for the cyst on account of the curious bodies in the fluid, but the nature of the cyst wall placed such a diagnosis out of the question.

Remarks were made by Mr. MARSHALL.

### CARD SPECIMENS.

The foregoing were the card specimens: Dr. MACNAUGHTON JONES: Case of Congenital Closure of the Lachrymal Punctum, and Absence of the Canaliculus.—Mr. WORK DODD: Peculiar Changes in the Fundus Oculi.—Mr. JULER: Changes in the Macula.—Mr. J. GRIFFITH: Arrest of Development of Lens.—Mr. DOYNE: Retinal Hæmorrhages.—Mr. TREACHER COLLINS: Hæmorrhage into the Sheath of the Optic Nerve.—Mr. JESSOP: Detachment of the Retina.—Mr. HIGGINS: Two Eyes Lost by Spontaneous Hæmorrhage after Extraction of Cataract.

## PATHOLOGICAL SOCIETY OF MANCHESTER.

WILLIAM THORBURN, F.R.C.S., Vice-President, in the Chair.

*Wednesday, January 20th, 1897.*

### AN UNUSUAL FORM OF TUMOUR OCCURRING IN THE DUODENUM.

MR. PETER THOMPSON showed a specimen of polypoid growth in the duodenum. The tumour, which was about the size of a walnut, was attached to the region of the pylorus, and possessed a well-marked pedicle, from which it hung freely in the interior of the gut. Continuous with the pedicle was a mass of hypertrophied mucous membrane, which microscopical examination showed to be partly gastric and partly duodenal in character. The gastric portion extended through the pylorus into the stomach, where it was continuous with the general lining mucosa, and this mass almost entirely occluded the passage. By experiment it was found that a very small stream of water could pass from the stomach onwards. There was, in addition, a small intussusception of the pyloric end of the stomach into the duodenum. The specimen was obtained from a dissecting-room subject aged 75 years, and the clinical history available shows that the tumour gave rise to no symptoms during life. It would appear that polypi in the region of the pylorus are rare. Still rarer, that they should be determining factors in the production of intussusception so high up in the alimentary tract. Microscopically the polypus was fibro-adenomatous in nature.

### AORTIC ANEURYSM OPENING INTO RIGHT AURICLE.

DR. ERNEST S. REYNOLDS showed a specimen of an aneurysm (arising from behind the aortic valves), which projected into the right auricle, where it had ruptured suddenly by a slit-like aperture. The aneurysm was the size of a hazel nut, and two of the aortic valves had been thrown into one, possibly from an old endocarditis. The specimen was obtained from the body of a girl, aged 17, who had had no known previous illness, but had died quite suddenly whilst walking in the street.

### CEREBRAL HÆMORRHAGE IN A CHILD.

DR. LEA showed the brain from a girl, aged 12 years, into which an extensive intraventricular hæmorrhage had occurred, resulting in rapid death. The patient had enjoyed robust health, and had never any serious illness. The family history was good; there was no evidence of syphilis. A few hours before death she complained of headache and vomited several times. She then went to bed, and was found dead two hours later. No convulsions were observed. A *post-mortem* examination showed that the thoracic and abdominal viscera were healthy. There was no endocarditis. The brain externally appeared normal; no signs of meningitis. On section the left lateral ventricle was seen to be filled with blood clot. The septum lucidum had ruptured, and some blood had passed into the right ventricle and also into the

third ventricle. There was no laceration of the basal ganglia, and the bleeding appeared to have been primary in the ventricle. No tumour could be discovered. Sections were shown of the small cerebral arteries, they were quite healthy. It is possible that the hæmorrhage may have been due to rupture of a vein of the choroid plexus. In rare instances aneurysms have been known to rupture in young subjects. The precise origin of the hæmorrhage could not be found in this case.

## LIVERPOOL MEDICAL INSTITUTION.

Richard Caton, M.D., F.R.C.P., President, in the Chair.

*Thursday, January 28th, 1897.*

### Abdominal Hysterectomy.

Dr. Briggs exhibited the specimens from four cases of complete abdominal hysterectomy, in each of which there were serious symptoms calling for the operation.

### Castration for Enlarged Prostate.

Mr. Robert Jones related four cases of enlarged prostate, with urinary complications, in which he had operated with success. In the first two both testes were removed, in the third the vas was divided and the lower end turned into the wound, and in the fourth one testis was removed. The first patient, aged 65, had led catheter life for five years. Before operation the prostate was the size of a hen's egg. Six weeks after operation the catheter was discarded, and the prostate was half its normal size. The second case was one in which the patient, aged 67, had a very enlarged prostate. He had urinary difficulties for years, and suffered retention for six weeks. Double castration was performed, and in two months he was able to dispense with the catheter, and he was now practically well. In the third case in which the vas was divided and turned out of the wound considerable amelioration of the symptoms took place. In the fourth case the operation had been performed only three weeks previously, and the prostate was now softer and less prominent, while the symptoms had undergone amelioration.

Dr. Alexander, Mr. Rushton Parker, and Mr. Larkin made remarks favourable to the operation.

### Saddle Nose in which a Celluloid Bridge was Permanently Buried.

Mr. Thelwall Thomas brought forward a patient, 15 years of age, in whom he had operated seven months previously for the deformity known as "saddle-nose." The nasal bones had disappeared in childhood from congenital syphilis. A piece of celluloid modelled like nasal bones, and possessing a well-marked keel on its concave surface, was inserted subcutaneously and pressed into position, the keel fitting between the nasal processes of the upper jaws, the lateral portions resting on these processes. The incision was made on the left side, and closed by horsehair sutures. The embedded celluloid did not appear to cause any irritation, and had of course greatly improved her personal appearance. The device was adopted in place of the many osteo-periosteal flap methods that had from time to time been described, all of which left marked cicatrices elsewhere.

### Thoracic Aneurysm Presenting Difficulties in Diagnosis.

Dr. Glynn showed a patient who had had blocking of the external jugular vein, and who on careful examination was found to have a thoracic aneurysm. There were, however, several peculiarities in the case. In the first place, there was no pain, which Dr. Glynn said was a very constant symptom in thoracic aneurysm; however, the face flushed when the head was lowered, there was tracheal tugging, there was no fremitus to be felt over the left side of the chest, there was no pulsation in the left carotid, and the radial pulse on the left side was small. He pointed out that the loss of fremitus was one of the earliest signs of aneurysmal pressure.

Dr. Wallace and Mr. Rushton Parker commented upon the case.

### Suppuration in the Small Omental Sac.

Mr. Banks related the case of a girl who was hit in the abdomen by a "swing boat." There was a central abdominal swelling reaching from the xiphoid to the umbilicus. There was pain, vomiting, high fever, and want of sleep. On examination there was a doubtful feeling of fluctuation, and from the history a blood tumour was diagnosed. An incision was made in the middle line above the umbilicus. The great omentum spread over the tumour. A trocar was introduced into the tumour, and thin greenish fluid escaped. A large tube was substituted for this, and after many weeks' drainage the patient recovered. The fluid withdrawn was old blood on the point of suppuration.

### Unsuccessful Attempt to Ligature the Left Subclavian Artery.

Mr. Banks brought forward the case of a labourer, aged 27, who had been severely crushed by an engine ten weeks before admission to hospital. The accident caused, among other injuries, a fracture of the outer third of the clavicle. The patient said that immediately after the injury a swelling the size of a cocoannt appeared in the posterior triangle of the neck; this became smaller but had recommenced to grow. The diagnosis of aneurysm of the second or third portion of the left subclavian was made. The application of a ligature to the first portion of the left subclavian was attempted. A long incision was made down the middle line of the neck, and by means of a transverse incision at either end of this a flap was formed and turned outwards, the clavicle was cut through and the inner third removed, a piece of the first rib was also cut away, the internal jugular and innominate veins were tied, the left subclavian vein caused some trouble, and was plugged with cyanide gauze. The aneurysm did not pulsate much, and this want of pulsation increased the difficulty of finding the artery. During the prolonged operation the left pleura was opened and was plugged with gauze. The difficulty of the operation was graphically described by Mr. Banks. It was at last deemed necessary on account of the condition of the patient to desist from further attempt to find the vessel. The patient died seventeen days later from pleurisy.

Mr. Paul and Dr. Alexander commented upon the difficulties of tying the left subclavian artery.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Pathology.

Professor Bennett in the Chair.

*Friday, January 15th, 1897.*

### Heart Disease.

Dr. J. B. Coleman exhibited a series of Pathological Hearts illustrative of different affections of that organ. The specimens were taken from cases which came under his notice in hospital for the last five years. (1) A girl, aged 11 years, who was admitted to Jervis Street Hospital with chorea gravis and endocarditis. She died of exhaustion. The heart shows vegetations on the mitral valve. (2) A boy, aged 8 years, who was admitted to the Children's Hospital suffering from mild chorea and mitral regurgitation of old standing. Whilst in hospital he developed acute endocarditis, of which he died. His heart remarkably enlarged particularly the left side. The mitral orifice was much dilated, admitting two fingers readily, whilst the apex was bifurcated, the apex of the left ventricle being nearly an inch below that of the right, and separated from it by a groove. (3) A boy, 4 years of age, admitted to the Children's Hospital suffering from rheumatic pericarditis. Both visceral and parietal layers of the pericardium were covered with soft, shaggy, easily-detached lymph, and the muscular tissue of the heart was soft. (4) A girl, aged 19, who died in the Whitworth Hospital. She had been under Dr. Coleman's care from time to time for the past two years, presenting well-marked signs of mitral stenosis. The heart showed extreme stenosis of the mitral orifice, which would not admit the edge of the finger-nail. The left auricle was much hypertrophied, left ventricle normal size, right ventricle hypertrophied, right auricle dilated. She had suffered from paroxysms of dyspnœa and hæmoptysis, and hæmorrhagic infarcts were found in the lungs. (5) The heart of a man, aged 56, showed puckering and calcification of the aortic valves. (6) A man, aged 55, who was brought to hospital dead. *Post mortem* the pericardium was found distended with blood, which had come from the rupture of a small aneurysmal bulging of the upper part of the ascending aorta. (7) A man, aged 60, died sud-

denly. His heart showed a fusiform aneurysm of aorta, and chronic sclerotic changes in the aortic valves. (8) The specimen, taken from a man, aged 63, who died suddenly, showed the whole inner surface of the aorta lined with calcareous plates; the aortic valves and coronary arteries were also extensively calcified. (9) A man, aged 66, dead on admission. The specimen showed a rupture near the apex of the left ventricle. On the pericardial surface was seen a rent about half an inch in length, and on the corresponding endocardial surface there was ulcerative destruction of the endocardium and muscular tissue. The pericardium was found distended with blood. (10) A labourer, aged 28, whilst engaged in some severe work on the quays, suddenly dropped dead. *Post mortem* the pericardium was found to be distended with blood, and the cause of death was a ruptured aneurysm of the left ventricle. The heart shows a sacculated aneurysm, somewhat bigger than a walnut, situated near the apex of the left ventricle. The external wall of the aneurysm was composed of the pouched-out pericardium; the cavity invaded the thickened myocardium, and a small opening from the inner side of the ventricle near the apex led into the sac of the aneurysm.

Remarks were made by the CHAIRMAN, Drs. FRASER, SYMES, MCWEENEY, and F. A. NIXON; and Dr. COLEMAN replied.

ACHORION SCHÖNLEINII.

Dr. MCWEENEY showed pure cultivations of glycerine agar and ordinary agar of achorion Schönleinii grown from a favus scutulum given him by Dr. Coleman. A fragment of the scutulum was crushed in a drop of sterile broth between sterile glass slips, and a trace of the fluid rubbed into the nutrient surfaces. Abundant and pure development occurred at 37° C.

PYOGENIC ORGANISMS.

Dr. MCWEENEY also showed a series of pyogenic organisms which he had recently isolated from the human subject: (1) Streptococcus pyogenes var. longus from a severe whitlow on his own finger (*post-mortem* infection). (2) Staphylococcus aureus from a metastatic miliary abscess of the kidney in a case of septico-pyæmia and infective endocarditis that had terminated fatally within two days of admission to hospital. The patient was a powerfully-built man, a cattle drover, aged 25, of alcoholic habits, from Dr. Boyd's ward in the Mater Hospital. (3) B. coli communis from the peritoneal exudation of a case of general purulent peritonitis from perforation of the vermiform appendix in a boy aged 10. A remarkable feature was the discharge of 4 ounces of turbid, yellow, foul-smelling fluid from the subject's left ear when on the *post-mortem* table. This fluid contained B. coli also in pure cultivation (specimen shown). Intracranially nothing was found to account for the accumulation. (4) B. pyocyaneus obtained from the urine of a case resembling tuberculous pyelitis, but shown to be due to infection of the kidney with the organism mentioned. This was a rare occurrence. The race isolated was intensely chromogenic and pathogenic.

Remarks were made by the CHAIRMAN and Dr. FRAZER.

TRICHINOSIS.

Dr. ALFRED R. PARSONS presented a communication on trichinosis, illustrated by specimens of encapsuled trichinæ removed from the body of a patient between 60 and 70 years of age, who was admitted to the City of Dublin Hospital in September, 1896. He was a labourer, and stated that he had never had any serious illness. For a few years past he had had a cough, but was not obliged to give up his work till six or seven weeks before admission. Physical examination revealed the presence of extensive tuberculous disease of the right lung. He died a little over two months after his admission, and the *post-mortem* examination disclosed a large cavity in the apex of the right lung. Scattered through the muscles, especially of the neck, extremities, and diaphragm, were numerous white spots, most abundant towards the tendinous insertion of the muscles. A small portion of one of the muscles was spread out in a thin layer on a slide, and in an area about half an inch square at least twenty-five capsules could be counted. None could be found in the heart muscle. On treating the capsules with dilute hydrochloric acid the embryonic trichinæ were easily seen. Experimental investigation proved that the trichinæ were dead, and probably the attack occurred so many years ago that it had passed out of the recollection of the patient. It would have been impossible for such an invasion of the muscles as this case disclosed to have occurred without producing symptoms. Within the last five years muscle trichinæ have been recognised in two other cases—one in the anatomical department of Trinity College, and the other in the anatomical department of the Royal College of Surgeons.

In reply to the CHAIRMAN, and to Drs. FRAZER, FINNY, NIXON, KNOTT, and DEMPSEY, Dr. PARSONS said that in neither the English or German literature of the subject did the names of Dr. Harrison or Dr. McDonnell occur. Two years ago a case of the disease was met with in Trinity College dissecting room, and four or five years ago another case was met with in the dissecting room of the College of Surgeons. How long these organisms retained their vitality after they had become encapsuled had not been determined. It was certain, however, that they did retain vitality for a considerable time after they were encapsuled, and that dipping them in alcohol did not destroy them. He agreed with Dr. Knott that in the early stages the symptoms produced by them might easily be mistaken for enteric fever, for there was pyrexia for five or six weeks, but later on there was a change in the symptoms, and the severe pains in the muscles indicated the lodgment of the embryos in them and the consequent irritation. As to Dr. Dempsey's question, the œdema was not limited to the upper extremities, though it commonly occurred in the eyelids. It also occurred in some cases in the lower extremities. It was difficult to understand why œdema should occur in the eyelids. The only explanation he had heard suggested was that there was some plugging of the lymphatics or capillaries, but he was not satisfied with it.

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LARYNGOLOGICAL SOCIETY OF LONDON.—At a meeting on January 13th, Dr. F. SEMON (President) in the chair, a series of X Ray Photographs by Dr. MacIntyre and Dr. Betz's Plaster-of-Paris Models of the Nose and its accessory Cavities were demonstrated by the PRESIDENT.—Dr. PERMEWAN read notes of a case of Bilateral Abductor Paralysis in a Child.—Mr. W. R. H. STEWART showed a case of Laryngeal Obstruction and a case of curious Malformation of the Nose resembling a bifid nose.—Dr. BENNETT showed a case of Nasal Obstruction.—Mr. P. DE SANTI showed a case of Pharyngeal Pouch.—Dr. KANTHACK showed the following pathological specimens: (1) Tuberculous Ulcers of Larynx and Trachea, (2) Diphtheria hardened and fixed in Formalin; (3) Larynx from case of hæmorrhagic diphtheria, (4) Epithelioma of Larynx, (5) Singer's Nodule, (6) Curious Intralaryngeal Growth.—The PRESIDENT showed a case of Black Tongue.—Dr. STCLAIR THOMSON showed for Dr. E. BROWN, of Montreal, a new Nasal Snare.—Dr. DUNDAS GRANT showed a Wrist Easel with Tracing Tablets for laryngoscopic drawings.—Dr. MIDDLEMASS HUNT showed a Microscopic Section of an early Epithelioma of the Vocal Cord, and a Drawing of the laryngoscopic appearances before operation.—Dr. WATSON WILLIAMS showed a case of Unilateral Paresis of the Vocal Cord.

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HUNTERIAN SOCIETY.—At a meeting on January 27th, Dr. HERMAN, President, in the chair, Mr. A. H. TUBBY read a paper on Sprains and their Treatment. He described the symptoms, differential diagnosis, and treatment. In the earlier stages—that is, in the first three or four hours, he advocated cold and pressure; after that for three or four days the use of heat and pressure, and finally of well directed friction and passive movements. If the joint remained stiff and painful liniments should be applied, but if it remained stiff only, massage and the application of the faradic current were indicated. Dr. F. J. SMITH alluded to a point emphasised by Mr. Mansell Moullin—namely, if the patient were away from help, the value of field or garden mould around the joint as a means of refrigeration and support. Sir HUGH BEEVOR asked as to the treatment of sprains by massage within two days after the injury. Dr. FORTESCUE FOX alluded to cases of chronic sprain complicated by tenosynovitis. He was of opinion that in the case of the knee-joint the tender spot was just above, and to the inner side of, the insertion of the ligamentum patellæ. Dr. Fox was averse

from treating most cases of sprain by rest, especially after middle life. Dr. Ettles alluded to the use of opium liniment, and doubted if any absorption of opium could take place. The President alluded to cases of chronic weakness of the muscles around a joint—for example, atonic flat-foot, some cases of scoliosis, knock-knee, etc. He asked as to the effect of rest in producing atrophy of muscles. Dr. F. J. Woods observed that he had in many cases removed the pain after sprains by "suggestion" and manipulation.—Mr. T. H. Openshaw read a paper on Pelvic Cellulitis. He quoted a case in which an abscess had been opened just internally to the anterior superior spine of the ilium, and the cavity was found to extend to the pubes and down into the thigh. After four months the patient was discharged with a sinus. He mentioned a second case which was discharged with a sinus, and of a third which had healed after some months. The speaker deprecated early surgical interference unless it were absolutely necessary, the points of urgency being implication of the skin and suddenly wide tracking of pus. Further, some cases got well spontaneously, and others burst by themselves. He quoted five cases in support of his contention. The President was disposed to leave matters much to Nature. About half the cases suppurated, and nine-tenths of these opened just above and to the outer side of Poupart's ligament.

South-West London Medical Society.—At a meeting held in the Town Hall, Wandsworth, on January 13th, Dr. B. Duke in the chair, a paper was read by Mr. Howard Marsh entitled Studies in Diagnosis, illustrated by Difficult Cases. A discussion followed, in which Mr. T. A. J. Howell, Dr. John Gay, Dr. Wyman, Surgeon-Major Mark Robinson, and others took part, each speaker referring to difficult cases of various kinds which had come under his observation. On the motion of the President, a vote of thanks to Mr. Howard Marsh for his valuable paper was carried by acclamation.

North London Medical and Chirurgical Society.—At a meeting on January 21st, Mr. J. Macready (President), in the chair, Mr. W. R. H. Stewart showed a man, aged 23, upon whom he had recently performed a plastic operation for a Deformity of the Nose. A cast of the condition before operation, which was exhibited, showed a broad and deep groove in the middle line running from the lower end of the nasal bones downwards between the lateral nasal cartilages. The nose thus presented two well-marked tips. Along the floor of the groove there was a scar, and from this situation a tumour (a dermoid, it was thought) had been removed during infancy. At the operation it was found that the anterior margin of the septal cartilage was much broader than normal, and much of it, as well as of the lateral cartilages, had to be pared away before the sides of the cleft could be brought together to make the tip of the nose a single one. The result of the operation, six days after its performance, was very satisfactory, and the patient's appearance was greatly improved.—Dr. Arthur Wilson read the notes of a case of Recurrent Appendicitis in a little girl 5½ years of age. There had been four attacks, two of them very severe, within five months, and about three weeks after the last subsidence of the inflammatory swelling the appendix had been removed by Mr. Mower White. The subsequent course of the case had been in every way satisfactory. The appendix showed considerable inflammatory thickening of its coats, and ⅔ of an inch from the top of it there was a marked constriction of its lumen. Distal to this the lumen was dilated into a small spherical cavity containing thick purulent material, and a semi-solid body probably fæcal in nature. The mucous lining of the tube was nowhere ulcerated. The President, Drs. Stiles, Glover, Tait, Bailey, Matson, and Mr. Mower White took part in the discussion which followed; and Dr. Wilson replied.—Mr. Peyton Beale showed: (1) A male patient, aged 20, suffering from a large Soft Swelling below the calf of the left leg. The patient was the subject of congenital syphilis, and had also a congenital malformation of the left tarsus and metatarsus. There was marked hypertrophy of the bones of the leg, the left leg being three inches longer than the right. The swelling was thought to be caused by lymphangiectasis, probably due to syphilitic fibrosis of the lymphatic vessels above. There was also a marked varicose condition of the superficial veins of the leg and foot, no doubt due to partial blocking of some of the deep veins of the leg, also due to syphilitic fibrosis. (2) A man, aged 47, in whom he had excised the left elbow for Tuberculous Disease. Excision of the same elbow had been performed thirty-six years previously at Bath, so successfully that the patient had earned his living by hard manual labour.—Mr. Allan Hair, for Mr. Traer Harris, showed a patient who, as the result of a blow, had sustained a Double Fracture of the Body of the Lower Jaw. One fracture was just in front of the ramus on the left side and the other between the two bicuspid teeth on the right. The fragments had been fixed by means of a Kingsley's splint, which the patient was still wearing eight weeks after the accident. There had been sequestra thrown off at the seat of both fractures, and the septic condition of the mouth at the time of the accident had, no doubt, in spite of the free use of 1 in 60 carbolic lotion since, tended to delay the process of union of the fragments.

Infirmary Medical Superintendents' Society.—The January meeting was held on January 30th at the Infirmary, Plumstead; Mr. Walter Burney (Greenwich) presiding. Mr. W. C. Boulter showed cases of Recurrent Sarcoma, Amputation of Thigh, and Perforating Ulcer.

# REVIEWS.

Textbook of General Pathology and Pathological Anatomy. By Richard Thoma, Professor of General Pathology in the University of Dorpat. Translated by Alexander Bruce, M.A., M.D. Vol. i. London: Adam and Charles Black. 1896. (Imp. 8vo, pp. 638. 30s.)

The use of the word "textbook" in the title of this volume conveys a very meagre impression of the character of the work. Textbook it is, inasmuch as it covers the field of work usually considered in treatises on pathology, but it is much more than this. Like so many of the volumes left as records of their life's work by men of research on vacating their academic chair, the book contains the records of a vast amount of investigation of a most original character. Much of the research detailed in the book was undertaken by Professor Thoma whilst at Heidelberg; he worked out the suggestions of J. Arnold. It is due to Arnold that much of the already published researches of Thoma on the subject of circulatory disturbances were undertaken.

The first three chapters deal with general considerations and the diseases produced by injury and the intoxications. The fourth chapter is wholly devoted to a detailed consideration of the infections, and their etiological relation to bacteria and other parasites. Here also are considered the parasitic worms, sporozoa and protozoa. Malformations are very fully considered in the next chapter. By viewing the subject from the embryological standpoint a vast improvement is effected by reducing this perplexing subject to its simplest possible form.

But it is in Chapter viii that the reader will find most of the work above alluded to. It is in itself sufficient at once to raise the volume from the usual textbook level. The chapter deals with disturbances in the circulation of the blood. Treating first of the general circulatory disturbances, these are considered from the point of view of their cause. Thus we have circulatory disturbances due to heart disease, vessel disease, and altered condition of the circulating fluid itself. The subject is considered under the headings of various propositions, of which the following may be selected as being the most interesting. It is usual in dealing with this subject to start with the assumption, which is true for tubes with rigid walls, that it is a matter of indifference for the amount of work that the heart has to do whether a given circulation lie in a horizontal or in a vertical plane, and to leave the action of gravity out of account; hence grave errors are introduced. To get over this difficulty the author has introduced the term "hæmostatic pressure" as representing the hydrostatic pressure due to the weight of the column of blood under consideration. Under the heading of circulatory

disturbances due to diseases of the heart are considered, complete insufficiency of the heart, hypostasis, and general venous congestion; then follow methods of physical examination of the blood and a consideration of the pathological conditions of leukæmia and other blood diseases. It is impossible in the space of a short notice to do full justice to the amount of work in this chapter. The most striking fact is the combination of physical reasoning with deductions from experiment which the author has elaborated into a specific method of dealing with circulatory phenomena.

The rest of Section II is devoted to a consideration of the various disturbances of tissue nutrition.

Section III commences the study of combined forms of disease, the rest of the volume dealing with the various autonomous new formations.

The book is illustrated with a profusion of plates, and most of the drawings are original.

Taking a comprehensive view of the subject as treated by the author, the main feature is seen to be, not so much any new method of arrangement of the subject matter, but a consideration of the facts of pathology from a standpoint somewhat different from that adopted by most writers. In all cases in which it is possible the mechanical laws which can be brought into connection with biological processes are carefully studied. Professor Thoma is evidently a good physicist and mathematician, and consequently approaches his subject from a direction somewhat different from most pathologists. To say that the result was in all cases satisfactory would be to acknowledge a new era for pathology, but it is none the less true that a new method of study is introduced in this volume. Dr. ALEXANDER BRUCE is to be congratulated on the lucid English into which he has managed to render much difficult and involved reasoning.

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A TREATISE ON THE SURGERY OF THE ALIMENTARY CANAL: Comprising the Œsophagus, the Stomach, the Small and Large Intestines, and the Rectum. By A. ERNEST MAYLARD, M.B., B.S.Lond., Surgeon to the Victoria Infirmary, Glasgow, etc. London: J. and A. Churchill. 1896. (Demy 8vo, pp. 724, 116 illustrations. 25s.)

THIS work is an important addition to the rapidly-increasing literature of abdominal surgery. It is written clearly, deals fully with the many special subjects to which it is devoted, and is evidently the result of much careful study of the results of both the author's own experience and the recorded experience of others. Although it forms a bulky volume, it deals with but a branch of abdominal surgery; it excludes the affections of the liver and pancreas, and even those of certain regions such as the throat, the pharynx, and the anal portion of the rectum, which might be regarded as belonging to the alimentary canal. The book is, as its title implies, a treatise on gastro-intestinal surgery, supplemented by a chapter, which is a long and valuable one, on injuries and morbid conditions of the œsophagus.

The author, in treating the different branches of his subject, has adopted the regional method. This, though preferable to the method of dealing in order with injuries and diseases which may involve any portion of the alimentary canal, has, however, some disadvantages. As separate chapters are devoted to the large and to the small intestine, there is an inconvenient separation of morbid growths affecting the intestinal canal, and also of the different forms of intestinal obstruction. On most of the special subjects the reader will find that nothing has been omitted whether with regard to direct instruction, or to judicious and suggestive comment. The author has associated with full records of his own extensive clinical experience, the results and prospects of recent methods of operative treatment. The discussion of the indications and contraindications of surgical intervention in cases of both disease and injury are in most instances very instructive, as will be found on reference to the remarks on gastrostomy in cancerous stenosis of the œsophagus, to pylorectomy, and to the treatment of wounds of the intestine.

Mr. MAYLARD has great faith in the future extension of abdominal surgery, and believes that there yet exists for the surgeon a sphere of labour in this direction far beyond his present limited field of operation. Indeed he goes so far as to predict that the day is not far distant when the stomach will be opened and explored for purely diagnostic purposes.

An attempt is made in this book to revise the present very confusing terminology of operations on the stomach and intestinal canal. A list is given of the more or less recognised operations in which a nomenclature is suggested which, if studied and adopted, will be found useful for removing the ambiguities, due, for the most part, to the practice of giving different terms to similar operations in separate portions of the alimentary canal, or similar terms to different operations.

In concluding our notice of this book, which, we may add, is clearly printed and admirably illustrated, we must express a feeling of disappointment that the important subject of appendicitis is, in comparison with other portions of the volume, treated in a somewhat feeble and unsatisfactory manner.

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L'EPILEPSIE. Par Dr. J. VOISIN. Paris: Félix Alcan. 1897. (Demy 8vo, pp. 424. Fr. 6.)

ANYONE who has read Dr. VOISIN's previous publications and who knows his opportunities at the Salpêtrière will expect this book to give an accurate description of the symptoms in the various forms of epilepsy. Nothing of consequence is omitted to ensure completeness; indeed, there are some repetitions which might be expunged without diminishing the clearness of the work. Dr. Voisin confirms the observations of Combemale and Bué, who found staphylococci in the blood of epileptics. He considers that the toxin secreted by these microbes is the cause of the epileptic symptoms. The poison, he thinks, probably acts upon the vaso-constrictor vessels of the brain and medulla, and modifies the protoplasm of the nerve cells. This last hypothesis would explain the temporary paralysis sometimes following convulsive attacks. To the objection that there are cases of epilepsy resulting from injuries and cases of partial epilepsy and general epilepsy unaccompanied by troubles of digestion, Dr. Voisin merely replies that the essential element in epilepsy is hereditary predisposition, a particular condition of the nerve cell. What this assumed condition is he does not tell us.

He has tried many remedies, but has little to say in favour of any save the bromide of potassium in doses of from 60 to 90 gr. a day. Dr. Voisin mentions that in the Asylum of Teppe, Drôme, a mixture is used containing camphor, lime flowers, and gallium. We are aware that a good many years ago a decoction of galium album was used against epilepsy, and the claims of success seemed worthy of attention. We should like to have some appreciation of the effects of this remedy, which has held its ground so long against a disease often little amenable to treatment.

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THE PRACTICE OF MIDWIFERY; A GUIDE FOR PRACTITIONERS AND STUDENTS. By D. LLOYD ROBERTS, M.D., F.R.S.Ed., F.R.C.P.Lond., Physician to St. Mary's Hospital for Women and Children. Manchester, etc. Fourth Edition. London: J. and A. Churchill. 1896. (Cr. 8vo, pp. 585. 10s. 6d.)

IT is not necessary to enter into details about the character and merits of a work which has passed into its fourth edition. The changes made in it have been mainly those of addition. New chapters appear on antiseptics in midwifery and on obstetrical anæsthesia. If we may venture to suggest further desirable changes, we would ask the author to give still greater prominence and more detailed information than he has done about external examination and manipulations in labour. Space might be gained for this by omitting the sections relating to laparo-elytrotomy, and the method of cutting the head into slices with the *écraseur*. We think, also, that the injection of saline fluid in quantities larger than a pint may now be safely recommended, even to the exclusion of transfusion of blood. We trust Dr. ROBERTS will pardon these hints towards the improvement of his popular little work.

The Climate of Bournemouth in Relation to Disease, especially Phthisis. By A. Kinsey-Morgan, M.D. Bristol: John Wright and Co. 1897. (Crown 8vo, pp. 51. 1s.)

Bournemouth has great advantages as a winter health resort in many cases, and Dr. Kinsey-Morgan certainly points out these advantages. He says (p. 15), however, that the longest possible sunshine at Davos Platz on January 1st is about five hours, whereas at Bournemouth it is seven hours, fifty-three minutes. Doubtless it is so, but the author does not tell us what is of more practical value, namely, whether the total number of hours of actual (not possible) sunshine during the invalid's winter is greater at Bournemouth or at Davos. We read (p. 26) that hay fever may be looked upon very much "as depending more or less upon nerve prostration and corresponding loss of inhibitory power in the vasomotor centres, rather than to the cruder idea of pollen and the scent of flowers in the air, acting mechanically on the nasal mucous membrane." A peculiar individual disposition (hardly nerve prostration) is certainly necessary for hay fever, but it is one not usually amenable to climate, unless comparative absence of the mechanical cause be likewise secured. We note with interest (p. 45) the hygienic "precautions" and "recommendations" for consumptives adopted by the Bournemouth Medical Society.

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Southall's Organic Materia Medica; designed for the Use of Teachers, Pharmaceutical and Medical Students, Chemists, Druggists, and others. By John Barclay, B.Sc.Lond., some time Lecturer on Materia Medica and Pharmacy in Mason College, Birmingham. London: J. and A. Churchill. 1896. (Demy 8vo, pp. 328. 6s.)

This book, originally prepared in 1874, reached its fourth edition in 1887. Having been out of print for some time, a fifth edition has been prepared, and the occasion has been utilised for considerably modifying and altering the original scope of the book. The alterations generally are in the nature of improvements. Botanical classifications have been given up, and the number of drugs dealt with has been greatly increased. The work appears to be intended primarily for the use of students, but it contains a vast amount of information, judiciously condensed, which must greatly extend its sphere of utility. Some space has been devoted to drugs included in the pharmacopœias of India and of the United States, hence many unfamiliar names appear in its pages.

Mr. Barclay has brought the present edition well up to date, and as a book of reference it should retain the favour accorded to the former editions. The book is well printed, with the usual useful variations of type for sections of varying importance, and, so far as we have been able to test, it is commendably free from errors.

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Obstetric Accidents, Emergencies, and Operations. By By L. Ch. Boisliniere, A.M., M.D., LL.D., late Emeritus Professor of Obstetrics in the St. Louis Medical College, etc. Philadelphia: W. B. Saunders. 1896. (Demy 8vo, pp. 381, 68 Illustrations. 2 dols.)

This book is adequately described by its title. It is in fact a treatise, or rather a practical compendium, of midwifery practice. It omits all theory: and also instruction in the anatomy and physiology of pregnancy and labour. It is clearly and concisely written, and is evidently the work of a teacher and practitioner of large experience. Its merit lies in the judgment which comes from experience; its defect, or rather its peculiarity, is that the references it gives are mostly to authors of a past generation. It reads as if the literary part of the book had been done twenty or thirty years ago, and that the author had now revised it in the light of his recollections of practice. A book which gives us the independent judgment of a sensible man who has seen much is always worth reading, whether we agree with him or not. We cannot say we agree with all our author's practical advice. We fail to see any advantage which can compensate for the risk in doing Cæsarean section for puerperal eclampsia. We cannot see the necessity of giving 10 grains of quinine every two hours until 30 grains have been taken, at the beginning of every labour, and 5 grains three times a-day for a week afterwards (p. 91), nor does it seem a wise recommendation to make multiple incisions round the os to accelerate delivery in ordinary cases of premature labour (p. 142). On the whole, although the book is one to be read, and from which useful hints may be gleaned, yet we cannot say we think it an always trustworthy guide in practice.

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# REPORTS AND ANALYSES

AND

# DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

## EUCAINE HYDROCHLORIDE SOLOIDS.

The results of the investigations into the action of eucaine show that it is analogous to cocaine, except that eucaine is less toxic, and does not affect the pupils. The anæsthesia produced is more extensive than with cocaine, both as regards time and locality, and its solutions prepared with sterilised water do not become flocculent. A compressed form of this drug, termed a "soloid," is prepared by Messrs. Burroughs, Wellcome and Co., Snow Hill Buildings, E.C. These soloids are very convenient for making solutions, and are made to contain either one or five grains of eucaine hydrochloride.

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## TRIONAL, TETRONAL, QUININE SALICYLATE, AND COMPOUND BROMIDE TABLOIDS.

Messrs. Burroughs, Wellcome and Co., Snow Hill Buildings, E.C., have recently added to their list of compressed drugs a number of remedies, which, mainly on account of their low solubility, are more conveniently administered in the solid form. Trional and tetronal are made into tabloids containing 5 grains of the drug. These new hypnotics are reported to act more rapidly than sulphonal. The tabloids of quinine salicylate contain 3 grains in each. Compound bromide tabloids are composed of the bromides of sodium, strontium, and ammonium, also as a corrective a small quantity of sodium arseniate. This combination of bromides is considered to be the best method of continuous bromide treatment: the salts of sodium, strontium, and ammonium being less depressing than the potassium salt. We find that the tabloids of the insoluble drugs readily break up when placed in water.

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## BROWN BREAD.

We have received a sample loaf of bread from Messrs. Chappell, and Sons, of 132, High Road, Kilburn. It is a brown bread prepared from mixed and highly nutritious cereals, to which a certain proportion of fatty and diastasic materials have been added. It has been only partially fermented, thus rendering the bread more suitable to dyspeptics. It is palatable and well made.

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Among other useful works for the development of Madagascar a medical school is being founded, while a native technical school has already been opened.

A proposal is on foot at Woking to commemorate the Queen's long reign by raising a fund to provide a new building for the Woking, Horsell, and Woodham Cottage Hospital.

Among the gentlemen called to the Bar at Gray's Inn is Mr. Richard Deane Sweeting, M.A.Oxford, M.B.Trin.Coll. Dub., D.P.H., and Holt Scholar at Gray's Inn, 1895.

Dr. Charpentier, of the Bicêtre Asylum, Paris, was last week shot at with a revolver by a former patient suffering from the delirium of persecution while visiting the ward. Fortunately the weapon was out of order, and the bullet, though it struck Dr. Charpentier on the sternum, did not penetrate. Dr. Charpentier, though knocked down, was not seriously hurt, and was able to go on with his visit.

# BRITISH MEDICAL JOURNAL REPORTS.

## REPORTS ON THE HYGIENIC CONDITION AND ADMINISTRATION OF METROPOLITAN DISTRICT AND SEPARATE SCHOOLS.

BASED ON THE EVIDENCE LAID BEFORE THE DEPARTMENTAL COMMITTEE.[1]

*(By Our Own Commissioner.)*

### V.—Leavesden: A Well-Managed School.

So far as the evidence taken by a Departmental Committee can exhibit the internal administration of a school, we should have little hesitation in saying that Leavesden is well managed. It is a parochial, not a district school, housing only the children chargeable to the parish of St. Pancras, and conducted by a subcommittee appointed from and by the guardians. And yet, admirably as this institution is administered, we could hardly have chosen a school which more emphatically and indisputably supports the contention persistently made by the British Medical Journal—namely, that the barrack school system, as a system, is hygienically and morally a failure.

#### If the Guardians were Angels.

In the deputation which waited on Mr. Shaw Lefevre, and which was the immediate cause of the Committee of Inquiry, Mr. Ernest Hart said "If the guardians were angels; if the inspectors were archangels, and if you, Mr. President, had a permanent seat in the House of Commons, and a life tenure of this Board, and were the leader of the angelic band for the rest of your natural life, these abuses must still continue, because you are fighting against the laws of Nature. Nature requires individual care."

The school contains 663 inmates. In 1894 the number of deaths was 13, or 2 per cent., or 20 per 1,000, a very large death-rate when it is remembered that there are no children in the schools under 3 or over 15; but we learn that in the two previous years the death-rate had been low, only one child having died in each of those years. The cause of the large death-rate in 1893-94 is traced to an outbreak of diphtheria which assumed serious proportions, the throats of more than half the children in the schools being more or less affected. Dr. Sykes gives evidence that he found "the drains and water satisfactory;" and (12388) "everything excellently arranged in the school;" (12389) but that on examination of "the throats of 222 girls, two-thirds of them were in abnormal condition," and that out of 318 boys more than half were in the same state (12393-6). The cause, he states to be, in his opinion, not the "slight overcrowding just at that time, but the large number who were in the school, although it was within the number for which it was certified by the Local Government Board" (12390). On this point also a medical officer expresses a similar opinion. He holds that the step to be taken to improve the children's health would be "not to send or retain in the school so many children."

#### Government Satisfied with Insufficient Cubic Space.

It seems that the cubic space allowed by the Local Government Board is insufficient, it being calculated as 360 feet for each child (16027). The medical inspector of the Local Government Board emphatically states his opinion (8715) that this amount is inadequate, and Dr. Sykes points out "that if 300 feet is sufficient for one child 3,000 feet is not enough for ten, nor 30,000 for 100 children (12397)." But he refuses to admit that 360 is enough for one child. "Assuming good conditions of ventilation," he asserts that "at least 500 feet should be allowed for each child" (12356), and that this figure should be increased in proportion to the number of children aggregated. This he contends is specially true with regard to pauper children who, "being abnormal, with bodies and brains tending to be unhealthy by inheritance, require more careful hygienic conditions than other children" (12408). "A child," he said, in evidence (12301), "requires as much cubic space as an adult, because, although the size is less, the size of the being and the activity of the being are in inverse ratio."

#### Argument for a London Central Board.

If this standard is accepted, we are at once met with the necessity of reducing the number of children in Leavesden Schools by one-third, for the well-recognised rule of Dr. Parkes was that (12356) "you should calculate the cubic space by the number of times you can change the air, and under normal ordinary conditions in this country the air can only be changed about three times an hour—that is the rate in an ordinary-sized room; he calculated that 3,000 feet were necessary per head in the case of adults, and that 1,000 feet should be the size of the space."

In face of these expert opinions it is instructive to turn to the evidence given to Miss Lidgett, a guardian of St. Pancras, who (1268) asserts that they (the guardians), "could not help an amount of over-crowding last year." "We were at our wit's end," she says, "with over-crowding in the workhouses, and with diphtheria there, and we did not know where to put the children." On the one hand we have it on high medical authority that the amount of cubic space sanctioned by the Local Government Board is unhealthily inadequate, and, on the other, we have the admission of a self-devoted lady that to "this stagnant pond" of air, as Mr. Nettleship calls it (12359), more children were condemned than was even allowed on the low scale sanctioned by the Local Government Board. The result was that the vitality of the children was so lowered (12303) that they fell easy preys to many and varied diseases. A more convincing argument for the management of all these schools by some Central Authority could hardly be adduced. In such a case as an epidemic of zymotic disease in any workhouse, the children would not necessarily be obliged to seek refuge in an already over-crowded school. If all the schools were owned and managed by one body, the children could be transferred to either one or the other institution where space was available.

#### Overgrown Dormitories.

Closely connected with the amount of cubic feet is the question of the size of the dormitories. In some of these overgrown schools the number sleeping in one room is very large. In one dormitory at Sutton there were seven or eight rows of beds, and for the boys sleeping in this ward there was not provided even one night convenience. Moreover the beds were in such close proximity as almost to necessitate the lads climbing over each other in view of hurried or unexpected action.

At Leavesden the dormitories are also large, 190 girls sleeping in one room (5412) while in other cases large rooms are divided only by low partitions (12354). On sleeping accommodation the Committee have received highly instructive evidence. Dr. Downes says: "I object to large dormitories on the ground that the greater the number of children who are brought into close connection one with another, the greater the chance of extending disease, and I think there is a relationship between the health of the schools and the size of the dormitories. I also object to large dormitories if they are very wide. I think the dormitory should be narrow. I do not like so many rows of beds" (8747); and when pressed to say what would be the proper maximum size for a dormitory, he gave 7 for small children, rising to 20 for elder boys (8748-50). So wide asunder is the ideal of the inspector under the Local Government Board, and the practice of the managers under the Local Government Board. That the evils connected with large dormitories are not only physical is unhappily proved beyond doubt, but on this point we will dwell in another article.

#### Double Probationary Wards and yet 18 per cent. in Infirmary.

At Leavesden and also at Anerley (833), (875), (2113) there is a double system of probationary wards. After a short residence in the workhouse the children are sent to the school, and drafted into Probationary Ward No. 1. There they stay a fortnight, and if no ailment has in the meantime broken out among them they are drafted to Probationary Ward No. 2, where they again remain two weeks, moving on to the body of the school at the end of that period, if each

[1] The previous articles appeared in the British Medical Journal of January 2nd, p. 39, 9th, p. 90, 16th, p. 163, and 23rd, p. 214.

and all are in health. We can hardly imagine a system more indicative of care and forethought, and yet, in spite of all this there were on the day that the matron of the school appeared to give evidence (5490), 43 children down with scarlet fever, 7 infected with ophthalmia (besides 22 at the Hanwell Ophthalmic School), 4 were suffering from ringworm, 6 from eczema, 1 from rheumatic fever, 1 from dropsy, and 35 with other complaints, a total of 119 out of 678, or nearly 18 per cent. of the entire number within the schools, were in the infirmary or ophthalmic hospital (5378). The probationary ward system as a precautionary measure against the admittance of diseases must be pronounced a failure because it cannot be completely carried out. It implies that after once entering the school the children should have no touch nor relation with the outside world. To make it in any sense complete, it is necessary that the children should never leave the school premises, never see houses, lanes, shops, or the world as it is; never have visitors or go home. They should be condemned to live the conventual life without the spiritual interest which alone can make it tolerable. "We do what we can to break the monotony of the sort of life of the school," acknowledges one witness (1202), "the bigger children have expeditions up to town. One of the guardians invites parties of the girls up to see the Zoological Gardens once a year; the boys now and again go out nutting, and they have a good many breaks during the summer" (1201). Admirable efforts, and indicative of the excellent intentions and endeavours of the managers, but resulting in the undoing of another portion of their work, for it is because of these outings we learn that the school was decimated by scarlet fever and riddled with diphtheria. It is a delicate question whether the children should be allowed to go out and by reasonable excitement and interest dissipate the "dulness and discontent" (1203) which was noticed among them, thereby running risks of infection the consequence of which, in the case of the Leavesden School, was that nearly one in every five children was attacked with zymotic disease; or whether they should be immured within school walls.

"Practically such children are cut off from the influence of the outer world, and the consequence is that there is a great deal of unsatisfied affection amongst them, and that turns very sour if it has no outlet, and it makes them very ill-tempered" (3076).

## ARCHÆOLOGICA MEDICA.

### XXVI.—THE FIRST OVARIOTOMY.

In the last (November to December) number of *Janus* Dr. James Finlayson, of Glasgow, deals with the question, Who performed the first ovariotomy? Ephraim McDowell, of Danville, Kentucky, has the credit of being the pioneer in this field. As is well known, he operated on a woman in 1809. The following is his own account of it as published in the *Eclectic Repertory and Analytical Review* of Philadelphia (vol. vii, 1817), and lately reprinted in the *Practitioner* (January, 1897):—

In December, 1809, I was called to see a Mrs. Crawford, who had for several months thought herself pregnant. She was affected with pains similar to labour pains, from which she could find no relief. So strong was her presumption of her being in the last stage of pregnancy, that two physicians who were consulted on her case requested my aid in delivering her. The abdomen was considerably enlarged, and had the appearance of pregnancy, though the indication of the tumour was to one side, admitting of an easy removal to the other. Upon examination *per vaginam* I found nothing in the uterus, which induced the conclusion that it must be an enlarged ovarium. Having never seen so large a substance extracted, nor heard of an attempt or success attending any operation such as this required, I gave to the unhappy woman information of her dangerous situation. She appeared willing to undergo an experiment, which I promised to perform if she would come to Danville (the town where I live), a distance of sixty miles from her place of residence. This appeared almost impracticable by any, even the most favourable, conveyance, though she performed the journey in a few days on horseback. With the assistance of my nephew and colleague, James McDowell, M.D., I commenced the operation, which was concluded as follows: Having placed her on a table of the ordinary height on her back, and removed all her dressing which might in any way impede the operation, I made an incision about three inches from the musculus rectus abdominis on the left side, continuing the same nine inches in length parallel with the fibres of the above-named muscle, extending into the cavity of the abdomen, the parietes of which were a good deal contused, which we ascribed to the resting of the tumour on the horn of the saddle during her journey. The tumour then appeared full in view, but was so large that we could not take it away entire. We put a strong ligature round the Fallopian tube near the uterus, and then cut open the tumour, which was the ovarium and fimbrious part of the Fallopian tube very much enlarged. We took out fifteen pounds of a dirty gelatinous-looking substance, after which we cut through the Fallopian tube and extracted the sack, which weighed seven pounds and one half. As soon as the external opening was made the intestines rushed out upon the table, and so completely was the abdomen filled by the tumour that they could not be replaced during the operation, which was terminated in about twenty-five minutes. We then turned her upon her left side, so as to permit the blood to escape, after which we closed the external opening with the interrupted suture, leaving out at the lower end of the incision the ligature which surrounded the Fallopian tube. Between every two stitches we put a strip of adhesive plaster, which by keeping the parts in contact, hastened the healing of the incision. We then applied the usual dressings, put her to bed, and prescribed a strict observance of the antiphlogistic regimen. In five days I visited her, and much to my astonishment found her engaged in making up her bed. I gave her particular caution for the future, and in twenty-five days she returned home as she came—in good health, which she continues to enjoy.

Mrs. Crawford survived the operation thirty-two years.

McDowell's account was received with pretty general scepticism both in his own country and in Europe, and it must, we think, be admitted that even to us at the present day the narrative has in it some elements of the marvellous. It may be said that if the patient was fortunate in coming under the hands of so bold a surgeon, the operator was not less fortunate in having a patient of such courage and such stamina. McDowell had no precedent to guide him, and even if it should be the fact that someone had removed the ovaries before him, this does not in the slightest degree dim the lustre of his achievement. Did someone perform the operation before him? Dr. Finlayson enters a claim on behalf of Robert Houston, a Glasgow surgeon of the eighteenth century. Houston, who was the son of a "Chirurgeon Apothecar" in Glasgow, became a member of the Faculty of Physicians and Surgeons of that city some time after 1684. After being engaged in general practice in Glasgow for some years he took the degree of M.D. in 1712, and soon afterwards went to London, where he settled in the neighbourhood of Westminster, apparently as a general practitioner, ready to do surgical operations. Thus in a case of extrauterine fœtation reported by him to the Royal Society[1] he proposed operative interference, but this was declined by the patient. The operation on the ground of which the honour of being the first ovariotomist is claimed for him was performed in Scotland in 1701. The following is his own account of it as published in the *Philosophical Transactions*, vol. xxxiii, London, 1726, and republished in Mr. Duncan's *Memorials of the Faculty of Physicians and Surgeons of Glasgow* (p. 114):—

August 1701 I was in the Country, with a Patient, the Lady Anne Houstoun, Wife to Sir John Houstoun, Baronet, in the Shire of *Renfrew*, ten miles from *Glasgow*, *North Britain*. This charitable lady pressed me with great Earnestness to visit a Tenant's Wife, who lay bedridden, of an uncommon Disease, which no Physician, or Surgeon, who had seen her, could give any Name to, or account for. She inform'd me, the ablest of that Country had forsaken her, and declared her incurable, so that I should lose no Reputation by the Result of my Endeavours.

In order to oblige this worthy lady, and in Compassion to the Distress of a poor Woman in so deplorable Condition, deserted and given over on all sides, I went, determined to do every thing in my Power for her Relief. She was in the 38th Year of her Age, her name was *Margaret Millar*.

She informed me that her Midwife, in her last lying-in at 45 Years old, having violently pull'd away the Burthen, she was so very sensibly affected by a Pain, which then seiz'd her in the left Side, between the *Umbilicus* and Groin, that she scarce ever had been free from it after, but that it had troubled her more, or less, during 13 years together; that for two Years past she had been extremely uneasy, her Belly grew very large, and a Difficulty of breathing increased continually upon her: insomuch that for the last six Months, she had scarce breath'd at all but with the utmost Difficulty. That in all that Space of Time, having quite lost her Appetite, she had scarce eat so much as would nourish a sucking Child: and that for three Months together she had now been forced to lie constantly on her Back, not daring to move at all, to one side or other.

This Tumour was grown to so monstrous a Bulk, that it engross'd the whole left Side, from the *Umbilicus* to the *Pubes*, and stretched the Abdominal Muscles, to so unequal a Degree, that I dont remember ever to have seen the like in the whole Course of my Practice. It drew towards a Point. Her being so long confined to lie continually on her Back having grievously excoriated her, added much to her Suffering, which, with want of Rest and Appetite, had wasted her to Skin and Bone, as the poor Woman herself expressed it. Indeed she needed not to have told me so, my Eyes were too faithful Witnesses of her low and wretched condition.

Scarce able to speak out, she told me, that having heard much of my Success, she had strong Hopes of Relief provided I would try at least, and do something in pity to her Affliction.

I answer'd her that I was willing, but afraid, in her low State, she would not have Strength to undergo a large incision: that in order effectually to relieve her, I must be oblig'd to lay open a great Part of her Belly, and remove the Cause of all that Swelling; she seem'd not frightened, but heard me without Disorder, and, as if inspir'd with sudden Courage, press'd and urg'd me to the Operation.

[1] *Philosophical Transactions*, vol. xxxii, London, 1725.

I drew (I must confess) almost all my Confidence from her unexpected Resolution, so that without loss of Time, I prepared what the Place would allow, and with an Imposthume Lancet, laid open about an Inch, but finding nothing issue I enlarged it to two Inches and even then nothing came forth but a little thin yellowish *Serum*, so I ventured to lay it open about two Inches more. I was not a little startled after so large an Aperture, to find only a glutinous Substance bung up the Orifice. All my Difficulty was to remove it; I try'd my Probe, I endeavour'd with my Fingers, but all was in vain; it was so slippery that it eluded every Touch, and the strongest hold I could take.

I wanted, in this place, almost everything necessary, but bethought myself of a very odd Instrument, yet as good as the best in its Consequence, because it answer'd the end propos'd. I took a strong Firr-Splinter, such as the Poor in that Country ordinarily use to burn instead of Candles; I wrapt about the End of this Splinter some loose Lint, and thrust it into the Wound, and by turning and winding it, I drew out some two yards in Length, of a Substance thicker than any Gellie, or rather like Glue that's fresh made and hung out to dry; the Breadth of it was above ten inches; this was followed by nine full Quarts of such Matter, as I have met with in Steatomatous and Atheromatous Tumours, with several *Hydatides* of various Sizes, containing a yellowish *Serum* the least of 'em bigger than an Orange, with several large Pieces of Membranes, which seem'd to be parts of the distended Ovary. Then I squeez'd out all I could, and stitch'd up the Wound in three Places, almost equidistant; I was oblig'd to make use of *Lucatellus's* Balsam, which was made by her Lady for the Use of the Poor; with this Balsam I cover'd a Pledget, the whole Length of the Wound, and over that laid several Compresses, dipp'd in warm *French* Brandy, and because that I judg'd that the parts might have lost their Spring by so vast and so long a Distension, I dipt in the same Brandy a large Napkin four times folded, and applied it over all the Dressings, and with a couple of strong Towels, which were also dipt, I swathed her round the Body, and then gave her about four Ounces of the following Mixture which I had from her Lady:

℞ Aq. Menthæ, lb ss. Aq. Cinnamomi fort., lb iss. Syr. Diacodii, ʒ vi. M.

The Cinnamon Water was drawn off from Canary and the best Cinnamon; indeed it was the finest and most fragrant Cinnamon Water I ever tasted; of this mixture I ordered her 2 or 3 spoonfuls 4 times a day.

Next morning I found her in a breathing Sweat, and she informed me, with great Tokens of Joy, that she had not slept so much, nor found herself so well refresh'd, at any Time for three Months past. I carefully attended her once every Day, and as constantly dressed her Wound in the same Manner as above, for about eight Days Together; I kept in the lower Part of the Wound a small Tent, which discharged some Serosities at every Dressing for 4 or 5 Days. But Business calling me elsewhere, I left her, having first instructed her two Daughters (both Women, who carefully attended her) how to dress her Wound, and told 'em what Diet I thought most proper, enjoining 'em strictly to observe what I ordered.

Her chief food was strong Broth made of an old Cock, in each Porringer of which was one Spoonful of the Lady's Cinnamon Water; this was repeated 4 times a day, and gave her new Life and Spirits.

After three Weeks' Absence, I called at her House, and finding it shut up, was a little surpriz'd, but had not gone far before I was much more surpriz'd, when I found her sitting wrapt up in Blankets, giving Directions to some Labourers who were cutting down her Corn.

She amended apace to the Admiration of everybody thereabouts, recovered surprisingly, and lived in perfect Health from that time, which was in August 1701 till October 1714, when she died in ten Days sickness.

Was this a true ovariotomy? It is admitted to have been such by Dr. Atlee, the American gynæcologist, and Mr. Lawson Tait has expressed the same opinion in his *Diseases of the Ovaries*, 4th edition, Birmingham, 1883. On the other hand, Dr. Peaslee describes Houston's operation as a simple "ovario-section." We have presented the evidence in full; let the reader judge for himself.

## THE ROYAL COLLEGE OF PHYSICIANS.

THE ordinary quarterly comitia of the Fellows was held on Thursday, January 28th, Dr. SAMUEL WILKS (President) in the chair,

The PRESIDENT announced the award of the Sir Gilbert Blane medals, which are given for the best annual reports by naval surgeons, the Presidents of the two Royal Colleges and the Director-General of the Medical Department of the Navy being the judges. He instanced this as some of the outside work which devolved upon the President in virtue of his office, and of which the College had no cognisance, as it never came before them officially. He announced that Dr. Markham Skerritt had been appointed Bradshaw Lecturer for 1897, and Dr. Monckton Copeman Milroy Lecturer for 1898. He also announced that the dies for the Weber Parkes medal had been struck; and the dies and copies of the medal in bronze were on the table for the inspection of the Fellows. Reference to the medal will be found elsewhere in our pages.

The following gentlemen were admitted Members of the College: J. Barr, M.D.; A. P. Beddard; G. H. A. C. Berkeley, M.B.; C. R. Box, M.D.; R. J. McL. Buchanan, M.D.; M. Craig, M.B.; J. J. Perkins, M.B.Camb.; R. A. Young, M.D.

The Licence of the College was granted to 126 gentlemen of whom all but five came under the regulations of the Conjoint Board.

The Diploma in Public Health was granted, conjointly with the Royal College of Surgeons, to the following gentlemen: A. Boulton, L.R.C.P., M.R.C.S.; A. McC. Erskine, M.B., B.Ch. R.U.I.; J. M. Evans, L.R.C.P., M.R.C.S.; P. Gardiner, M.B., C.M.Glasg.; P. W. McD. Howse, F.R.C.S., L.R.C.P., L.S.A.; W. B. Jones, M.D.Lond., L.R.C.P., M.R.C.S.; H. B. Mapleton, M.B., C.M.Edin.; E. Maynard, L.R.C.P., M.R.C.S.; H. T. Parker, M.D.Lond., L.R.C.P., M.R.C.S.; J. S. Richards, M.D.Lond., L.R.C.P., M.R.C.S.; G. A. E. Roberts, M.R.C.S., L.S.A.; C. H. Russell, L.R.C.P., M.R.C.S.; S. C. Smith, L.R.C.P., M.R.C.S.; E. J. Steegmann, M.B., B.S.Durham, L.R.C.P., M.R.C.S.

Communications were received from the Royal College of Surgeons on matters appertaining to the common interests of the two bodies. The last of these announced the decision of the Council that when a representative had served on the Committee of Management for six years, he should not be immediately re-eligible.

A communication was received from the Bailiff of Mason College, Birmingham, announcing certain changes which it was proposed to make in the constitution of the governing body of that institution, and in respect of which application would be made to Parliament, and inviting the College to appoint a representative on the governing body. On the nomination of the President, Dr. Dickinson was appointed, and consented to serve.

Communications were also received from the Crystal Palace Company and the London Exhibitions Company.

Drs. Sansom, Mitchell Bruce, Allchin, and F. Taylor were elected to fill vacancies on the Council.

A report from the Council recommending that when his diploma of Membership was returned to a gentleman, who for his own convenience had been allowed to resign it at some previous date, his name should be placed at the bottom of the list, was received and adopted.

A report from the Committee on Bacteriology was received and adopted, the result of which will be that in future a course of lectures on pathology must include practical instruction in bacteriology as well as in pathological histology.

A portrait of the late President painted in 1882 by Mr. Sidney Hodges, was presented to the College by Lady Russell Reynolds, and gratefully accepted.

On the motion of Sir DYCE DUCKWORTH, seconded by Dr. THEODORE WILLIAMS, a report from the Bisset Hawkins Memorial Committee was received and adopted; it was to the following effect:

Dr. Hermann Weber, whose name had been added to the Committee, submitted a relief model in clay of the head of Dr. Bisset Hawkins, by Mr. Bowcher, of Camden Town, for the obverse of the medal, and his own suggestions for a design for the reverse, which represented Heracles strangling a monster in the presence of Asklepios seated, this being interpreted as the God of Health employing the forces of Nature to destroy whatever is noxious to human life. This design, derived partly from Greek coins which Dr. Weber exhibited, was after some discussion accepted by the Committee, as also a contract from Mr. Bowcher for carrying out the design, at a cost (including the dies) not exceeding £150. The report concluded with cordial thanks to Dr. Weber, for the great pains and trouble he had taken in the matter.

SIR DYCE DUCKWORTH reported that he had represented the College on the occasion of the removal of the remains of the late M. Pasteur from the Cathedral of Notre Dame to their final resting place at the Institut Pasteur on December 26th, and the PRESIDENT, after expressing his opinion that it was no credit to this country that nothing had been done to contribute to the memory of that great man, thought the College did not share in the discredit, as it had been most worthily represented on each occasion, proposed a vote of thanks to Sir D. Duckworth, which was carried by acclamation.

Reports were received and adopted from the representative of the College in the General Medical Council, the Conjoint Finance Committee and the Finance Committee of the College, from the Examiners for the Licence, the Committee of Management, and the Laboratories Committee, the only point of general interest being the notice contained in the last-mentioned that the Metropolitan Asylums Board had decided not to renew the agreement for the examination of material for diagnosis by the staff in the laboratories. This was due, as Dr. Payne explained, not to any dissatisfaction felt by the

Board at the way in which the work had been done, but because the Board thought the time had come when the work might be done without outside help.

The thanks of the College were voted to the donors of books during the past quarter.

# THE EYESIGHT OF SEAMEN.

## COLOUR BLINDNESS AND DEFECTIVE SIGHT IN THE MERCANTILE MARINES.

## II.—THE NEED FOR COMPULSORY EXAMINATION.

### The Powers of the Board of Trade.

In a previous article we pointed out the peril to the public and the injustice to the individual traceable to the present defective system of testing seamen's vision, which has too long been permitted by the Board of Trade to exist. With a view of ascertaining what steps it was feasible in the opinion of practical men to take without delay, some inquiries have been made for us in well-informed quarters. In the first place we made inquiries as to whether testing could be made compulsory at an early stage of a seaman's career. There is at present no power of compulsion. The Board of Trade, in a recent letter, has stated that it has no statutory power to enforce qualification of any kind in the case of any person entering the Mercantile Marine until he presents himself for examination as a second mate. The Board, however, circulates in the seaports a placard calling attention to the importance of all persons on entering the mercantile marine presenting themselves for the Voluntary Colour and Form Examination provided by the Board's regulations.

We find, however, that considerable doubt attaches to the view that fresh legislation is required to enable the Board to insist on compulsory examination. It is believed that the Board of Trade could, by obtaining an Order in Council, acquire power to enforce the examination of pilots, apprentices, and boys. The Board has in the past acquired power in this way, the most recent illustration being furnished by the new fog signals. However this may be, it is a point gained to have from the Board of Trade what is tantamount to an admission that their present powers are not sufficient to enable them to remedy an evil which they admit exists.

### Pilots.

In the eyes of the public the very name of pilot implies security. But what are the facts upon which this popular belief is founded:

(*a*) In Great Britain there is no State supervision, and no eyesight qualification is required. A man may be short- or poor-sighted, or colour blind, and yet considered quite competent for the proper discharge of his duties.

(*b*) "In the year ending June 30th, 1895, 1,255 pilots were examined with regard to their ability to distinguish colours, and 51 (4.06 per cent.) were rejected on account of colour blindness." (United States Marine Service Report. 1896.)

(*c*) Quite recently a steamer under control of a certified pilot was stranded whilst entering at night an English port. The captain in his report stated this to be due to the pilot's bad sight, and on examination this surmise was found to be correct. The pilot was very shortsighted, not having one-fourth of normal vision with the right eye, and not one-tenth with the left.

### Able Seamen (A.B.'s).

One difficulty in the way of making the testing of eyesight compulsory on all seamen (A.B.'s) is that they are not, as are pilots and railway men, in the employ of one company. It would therefore be difficult to maintain efficient control and to prevent personation. Upon this point we are enabled to publish the opinion of Mr. Thos. H. Ismay, the founder of the White Star Company, a line in which, as in the Cunard Line, the men employed for look-out duty are specially selected and paid, and are all subjected to periodical tests as to their sight. Mr. Ismay states than in his opinion it would, theoretically speaking, no doubt be an excellent thing if anyone contemplating a sea life could be examined and certified as having passed certain visual tests, but, he adds, "in practice I fear such a system would prove unworkable under existing circumstances. The old system of apprenticeship and the A.B. certificate were essentially personal, the latter containing a description of the holder; both have been done away with, and men from all parts now go to sea as ordinary seamen, often shipped at the last moment, while the A.B. certificate contains nothing to identify it with its holder, and any certificate of sight would, I fear, be therefore of very little value. On training ships such as the *Conway* as a rule the sight tests are applied when a boy enters." He then states that the White Star Line requires "that these tests shall be renewed every two years, and we have on board the steamers a body of men specially selected and paid for look-out duty, all of whom are periodically tested as to their sight, but while all this is practicable as applied to special cases, I fear the circumstances attending men going to sea in the present day would have to be entirely altered before any widespread application of the practice, however desirable, to the general rank and file of seamen would be operative."

### Apprentices.

On the other hand it must be observed that the Marine Department of the Board of Trade do already accept responsibility with regard to men going to sea, inasmuch as they supervise the indentures of apprentices before entry on board ship. They have not, however, extended their supervision to the question of a youth's qualifications as to acuteness of vision, and colour vision. Yet it is essential that he should possess good vision in both respects, and this ought to be ascertained at the outset of his career instead of its being first investigated after he has passed through four, five, or more years of the drudgery of sea life. It is true that the Board of Trade, as we have stated above, does circulate a placard recommending persons to present themselves for the voluntary colour and form examination at the seaports, and it is true that any boy can go up to be tested for a shilling, but it must be remembered that a large proportion of ships' apprentices come from inland towns or country districts, and know nothing about the matter until too late. The Board of Trade ought to enforce a colour and eyesight test on lads before allowing them to sign certificates of indenture, for it is these apprenticed lads who in the main eventually become officers in the mercantile marine. It would be extremely simple to have printed on the corner of their indenture paper an endorsement as follows:

Eyesight ... ... ... ...
Colour sight ... ... ...

This would call the attention of parents to the matter, and would tend to diminish the risk of hardship subsequently arising.

### Opinion of Seafaring Men.

At a meeting of the Mercantile Marine Service Association, held on October 10th, 1896, Earl Derby in the chair, the following resolution, which really embraces all the main questions involved, was unanimously adopted:

That, in view of the penal consequences of defective vision to young officers of the mercantile marine service, this meeting urges upon the Board of Trade, shipowners, and others the imperative necessity for testing the eyesight of all sea-going apprentices previous to entering on board ship; and, further, this meeting is of opinion that the present vision tests as applied to candidates for Board of Trade certificates should be conducted by qualified examiners, with a right of free appeal to the higher authority; also, that in all cases of official inquiries under the Merchant Shipping Acts, in which the question of form or colour vision may be concerned, the sight of the witnesses should be tested.

It appears, therefore, to seafaring men to be practicable to enforce initial testing of vision in the case of all sea-going apprentices at the time they seek to be apprenticed.

Supposing that this system could be introduced, the danger to the public would be considerably diminished; but there would still be the risk that the able-bodied seamen employed for look-out duty might have undiscovered defects of vision and colour vision.

### Look-out Men's Sight and Collision Inquiries.

It seems impossible to devise a system under which these men should be examined compulsorily in all cases, but the action of the Cunard and White Star Line shows that it is not beyond the power of individual owners to take adequate precautions. One of the recommendations of the Committee of

the Royal Society was "that in case of judicial inquiries as to collisions or accidents, witnesses giving evidence as to the nature or position of coloured signals or lights should be themselves tested for colour and form sense." In the opinion of men of practical experience the enforcement of this recommendation would go a very long way towards removing the present defective conditions. If every Board of Trade inquiry involved without question the examination of the look-out's eyesight, all shipowners would, as a matter of business, and for their own safety, take care that none but men of proved good eyesight were placed on the look-out. The Board of Trade has stated that should there be any case of an official inquiry in which the question of form or colour vision may be concerned, arrangement would certainly be made for testing the sight of the witnesses. The meaning of this pronouncement is not very clear. We are inclined to suspect that it might be paraphrased as follows: "If we find that any collision has been due to defective eyesight or colour blindness, then we will examine the eyesight." This is to invert the proper order of the inquiry; the eyesight of the look-outs should be tested first, and the result of such examination should be one of the facts brought under the notice of the Court as a matter of routine. The system should be made to work automatically.

That we are stating no hypothetical opinion as to the Board of Trade's attitude on this point is shown by the correspondence which took place in reference to the *Elbe* and *Craithie* disaster, in which, it will be remembered, 380 lives were lost. On the Board being advised of the desirability of an examination of the eyesight and colour sight of such of the *Craithie's* crew as were on deck at the time of the catastrophe. They wrote in reply:

> That the question of the powers of vision will be carefully borne in mind in the Board of Trade inquiry into the cause of the collision between the *Elbe* and the *Craithie*.

The inquiry took place, but the question of defective sight not being mentioned, the Board were again communicated with, and the following extraordinary answer received from them that:

> the witnesses were not examined as to their eyesight, and that the evidence of both sides showed that colour blindness had nothing to do with the collision.

Colour blindness may or may not have been the cause; but, considering the awful nature of the catastrophe and the unsatisfactory nature of the evidence forthcoming, the Board's failure to test the eyesight constituted, we cannot help feeling in the face of their letter, a serious dereliction of duty.

### The Need for Medical Examiners.

It would, however, be necessary that these examinations should be conducted by skilled persons, and the same remark would equally apply to the desired compulsory examination of apprentices before they sign indentures. It would be unjust to condemn the present examiners employed by the Board of Trade for mistakes which occur. It is the system which is at fault. The Board of Trade complacently asserts that the present tests are conducted by examiners, each of whom has been carefully tested as to his qualifications, and the Board appears to derive satisfaction from the fact that the present tests are necessarily of as simple a nature as possible. We desire to ask why the tests are necessarily of as simple a nature as possible? Why are they not efficient, and carried out by persons specially trained? Why are they not entrusted to properly qualified ophthalmic surgeons? A person of ordinary common sense who finds that his vision is below the standard of other people does not consider that he has done his duty by himself if he goes into an optician's shop and gets "fitted" with a pair of spectacles. No doubt people used to do this, but the educated classes have practically given up such a suicidal course of conduct, and that knowledge of the danger of ignorant meddling with eyesight is penetrating among the poorer classes is shown by the enormous numbers who apply at the various ophthalmic hospitals to have the refraction of the eyes properly estimated. If this be so, is it not in the least degree absurd that when it becomes the duty of the State in the interests of public safety to examine the eyesight and to test the colour vision of seamen, the duty is relegated to persons who, however conscientious, have received no special training, and are, therefore, not fitted to form a reliable opinion upon the matter? We are very strongly of opinion that the examination ought to be conducted by medical men who have taken opportunities to become proficient in the most approved methods of examining the eyes for their perception of form and their power of discriminating colours.

## IRISH WORKHOUSE REFORM.

By W. R. MACDERMOTT, M.B.,
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### VI.—The Growth of the Problem.

There are three significant terms in workhouse statistics: the average daily number in the house, the yearly number of admissions, and the flux from year to year in these numbers. The average daily number measures actual workhouse pauperism, the yearly admissions or the total number receiving indoor relief measures pauperism in the country—and by a very stringent test—and the flux of last from year to year measures uncertainty of State or liability to pauperism. A relatively large daily number of inmates accumulating as the result of a relatively small number of admissions yearly is desirable compared with the opposite condition, a smaller average daily number the result of a larger number of yearly admissions. The first represents better care of the paupergoing, with less necessity for the workhouse in the mass.

The general character of Irish workhouse pauperism for the past thirty years is decided by an apparent decrease in the daily average of inmates, increase in the yearly number of admissions, and violent fluxes in short periods in the last. In 1866 the daily average was 50,280, the admissions 184,587; in 1895 the numbers were 40,578 and 276,036. The maximum daily average was 54,246 in 1880, the minimum 40,437, in 1892. The yearly admissions were 140,601, the minimum in 1876, rising to 317,238 in 1880, falling to 253,342 in 1884, then rising to the maximum (351,604) in 1888. In the lustrum 1866-70 the admissions were 1,005,149, and in 1890-95 1,405,962. But in 1866 the population was 5,582,625, and in 1895 4,574,807; and, therefore, while relatively to population the daily average remained stationary, the number of persons using the workhouses nearly doubled. But this has to be limited to the labouring class, the section of the population which has decreased most. The increase and the violent fluxes within short periods show that the life of labour is precarious and insecure.

The increase in the use made of the workhouse in sickness needs explanation. In 1865 the admissions in fever and other serious infectious diseases was 18,410, an abnormal figure, but the figure for 1895 (3,611) is abnormal as being above the recent average. Irish practitioners of experience know well the happy change that has come over the prevalence of these diseases. But the gain is lost in the record of economic degradation. Between 1876 and 1895 the admissions in sickness varied from 45,531 in 1876 to 62,609 in 1880, standing at 56,166 in 1895. This, taking into account decreased population, is a great increase, and, taking into account diminution in zymotic cases, is most unfavourable. It indicates not sickness alone, but want of means predisposing to sickness, and inability to bear its strain on means. For the admissions in sickness and other than in sickness vary together: the last thus were 95,070 in 1876, 298,540 in 1888, and 219,881 in 1895. This means more sickness due directly to want of the means of support and more general inability to meet the strain of sickness.

In 1865 the average daily number of able-bodied inmates was 9,197, and in 1895 5,457. Casuals, who average weekly 3,564, account in part for these. The much talked about casual is, however, a nuisance, not an important element in workhouse pauperism. Child life is the first burden responded to in the social economy, and the children went with the able-bodied, numbering in 1865 15,495, and only 6,356 in 1895. The able-bodied labourer has left the workhouse, taking his children with him, because he has left the country. This is the key to the whole position.

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A Congress of Medical Jurisprudence will be held at Brussels in August next for the discussion of questions of medico-legal interest. Among those on the programme are the following: Hypnotism and its Relations with Crime; the Professional Secret and the Law; and the Functions and Duties of Medical Experts in Medico-Legal Cases.

## LITERARY NOTES.

In an article on Diet and Medicine in China in the February number of the *Cornhill Magazine*, Mr. E. H. Parker writes as follows:

The Abbé Huc was satisfied that many Chinese doctors were able to cure the worst cases of hydrophobia, and I myself have seen in widely different provinces frequent advertisements by philanthropists offering a cure gratis, which certainly looks as though the physician at least honestly believed in his own remedy. The first sign of rabies, whether in a dog or a man, is a strong repulsion to being fanned, and to hearing the noise of a gong. If these symptoms appear, two doses of the following tisane, taken hot, must be administered within seven days of the bite which produced rabies: ½ oz. ginseng, ½ oz. peucedanum decursivum, ½ oz. angelica root, ½ oz. of another plant allied to the last two, ½ oz. bupleuri octoradiati ½ oz. of either citrus fusca or decumana skin, broiled, ½ oz. platycodon grandifolium, ½ oz. pachyma pinetorum, ½ oz. liquorice root, ½ oz. of the radix tuberosa levistici, ½ oz. raw ginger, 1 oz. of radix hedysari, and a handful of "red bamboo," one of the common bamboos of China. Seven days later some raw beans should be chewed. If they taste like cooked beans, and can be swallowed easily, the tisane must again be taken three times, and the bean test renewed until a cure is effected. But if there is nausea in attempting to swallow the raw beans the cure is already complete or will be complete. In the case of dogs the same treatment is followed, with the addition of an ounce of radix daphnidii. Myrrh must be mixed with their rice. Pregnant women need not be afraid to swallow the tisane. If lockjaw has already set in, the front teeth of the patient must be knocked out, and the tisane poured in somehow. The advertiser in one case says he himself found out the remedy accidentally through seeing a man, taken by mistake for a quack, tied to a patient whom he had offered to cure for six taels. The villagers had adopted this practical method of discovering alike the secret of the cure and the fact of the doctor's good faith. The victim was cured, and the doctor duly paid by the village. Some Chinese doctors use cantharides for hydrophobia, but this remedy is now disapproved as being too painful. They prescribe in preference geranium nepalense, red bamboo root, and ginseng. Thus it will be seen that red bamboo and ginseng are declared on all sides essential to a cure.

To this we may add that a method of preventive treatment of hydrophobia, which may to the non-scientific mind seem to present some analogy with that known by the name of Pasteur, has long been in use in China. According to a writer in the *Lyon Médical*, a French missionary not long ago was greatly perturbed on account of two of his carriers who had been bitten by a mad dog. Five Chinamen who witnessed the occurrence, however, reassured him, saying, "There is no cause for anxiety; all of us were bitten by a mad dog in March, and here we are in September without any symptom of hydrophobia." They attributed their immunity to the fact that they had eaten raw the liver of the dog which had bitten them, and they expressed the greatest confidence that the same treatment would preserve the missionary's carriers. The treatment is an old one. In Pliny's *Historia Naturalis*, Lib. XXIX, cap. xxxii, the following passage occurs:

Est limus salivæ sub linguâ rabiosi canis, qui datus in potu, fieri hydrophobos non patitur. Multo tamen utilissime jecur ejus qui in rabie momorderit, datur, si possit fieri, crudum mandendum; si minus, quo modo coctum, aut jus coctis carnibus. (There is a slime of saliva under the tongue of a mad dog which, given in drink, prevents hydrophobia. By far the most useful thing, however, is to give the liver of the rabid animal which inflicted the bite to be eaten raw if possible; if not, it should be given cooked in some manner, or a broth of the cooked flesh.)

Mr. Charles Heneage, a gentleman who is anxious to introduce into this country the institution known in Austria and Germany as the "Psychiatrische Klinik," wrote to Professor Max Müller some time ago asking him to suggest an English word conveying the meaning indicated by the title. The following is the Professor's reply:

7, Norham Gardens, Oxford, June 1st, 1896.

Dear Sir,—I doubt whether you could coin a better word than psychiatric, that is, soul-healing. Possibly psychopathic might do.—Yours sincerely, F. Max Müller

Burke was fond of medical metaphors, which he occasionally stretched beyond the limits of good taste. A French writer, M. Edmond Lepelletier, who, like Hudibras, "cannot ope His mouth but out there flies a trope," sometimes goes to surgery for his figures of speech. The following is a recent example: In an eloquent address to the cadets of the military school of Saint-Cyr, he calls them "the surgeons of French honour, performing with their swords the rhinoplasty of territory, destined one day to restore to their wounded country the piece of living flesh cut away by the brutal knife of the conqueror." From which it would seem to follow that in M. Lepelletier's opinion France has had her nose cut off by Germany, and must remain so mutilated until Alsace and Lorraine are restored her. It strikes us that a very free "freshening" of surfaces will be needed to ensure firm union of parts that have been so long separated.

The majority of medical students probably think the number of muscles which they now have to learn amply sufficient. They will therefore receive with very moderate enthusiasm the intelligence that Dr. Ledouble, Professor of Anatomy in the Medical School of Tours, who has for some time past been making researches on muscular variations, has discovered ten new muscles in the human body. He has described them in a communication recently presented to the Académie de Médecine. A full account of Professor Ledouble's observations and discoveries will be given in a work which he is about to publish under the title of *Traité Complet des Variations Musculaires*.

The *Journal of Balneology and Climatology*, the first number of which has just been published, is the organ of the British Balneological and Climatological Society. It contains a Presidential address on the relative position of practitioners at health resorts and the profession in general, by Dr. Andrew S. Myrtle; original communications on Climatology and Balneology, Old and New, by Sir Edward Sieveking; on Natural Mineral Waters, by Dr. W. H. Pearse; on the Climate of Ilfracombe, by Dr. C. W. E. Toller; on the Decrease of Ague and Aguish Affections in London, by Dr. W. Ewart (a brief abstract of this very interesting paper appeared in the British Medical Journal of January 9th, p. 84); on the Vital Statistics of Health Resorts, by Mr. Alfred Haviland; on Wintering Stations in Ireland, by Mr. D. Edgar Flinn. The new journal is to be published quarterly. Dr. Samuel Hyde, Chairman of the Council of the Society, is the editor, and we may be allowed to congratulate him on a very successful first appearance.

## THE JEWISH METHOD OF SLAUGHTERING.

An address was given on this subject at the house of the Royal Society for the Prevention of Cruelty to Animals on January 26th, under the auspices of the Humanitarian League, by Mr. Charles W. Forward, who at the outset stated that his conclusions were based on personal observation of the various methods of slaughter, and that he had not read the book by Dr. Dembo, which was so much spoken of in connection with this subject. The Jewish method of slaughter was in vogue in barbaric times, and is now carried out in the same way that it was then. It is not so much the actual killing as the preparatory process that is such a serious matter of torture to the animals. Mr. Forward contended that in the method of "casting" the animal is not let down gently, but that its feet are pulled forcibly from under it, and after, it may be, a long and tedious struggle, the animal falls to the ground with a heavy thud. The processes of securing and straining back the head were described as causing the animal much pain, and the method as a whole could not be regarded as otherwise than cruel and barbarous. The actual bleeding to death of the animal was sometimes much prolonged owing to the formation of clot at the bleeding point. The lecturer considered that he was putting the time exceedingly low when he stated that the preparatory process takes five minutes, and that five minutes more elapse after the throat is cut before the animal becomes unconscious. During all this time the animal is suffering intensely mentally, which cannot be otherwise than prejudicial to the character of the meat. He concluded his remarks by quoting expert evidence to the effect that there is less blood in the meat of animals slaughtered according to the Christian method (poleaxing) than in that of animals slaughtered by the Jewish method.

In the discussion which followed there appeared to be considerable confusion in the minds of some of the speakers on various points, such as the evidence of consciousness, the signs of death, and so on, one gentleman indeed mistaking the spinal cord for the trachea. Only two speakers referred to the loss of the conjunctival reflex as a sign of unconsciousness, and only one of these alluded to the pupil reflex in relation to the time of death. From personal observation this gentleman had been unable to find any evidence of the persistence of the pupil reflex after an animal had been poleaxed, while he had obtained unequivocal reaction of the pupil for a minute and a-half to a minute and three-quarters

after the throat had been cut. Reflex movements after loss of consciousness were confounded by many with movements indicating consciousness, one speaker alluding to the movements resulting from the insertion of the cane into the brain after poleaxing as evidence that the animal is stirred into life again. Some of the Jewish speakers regarded the address as antisemitic, and they complained that the lecturer had said next to nothing of other methods of slaughter, such as poleaxing, which they regarded as far more cruel than that in vogue among Jews. It was contended that the preparatory stage could not be one of torture to the animals in that they would eat bread, etc., and even attempt coitus at this stage. While some defended the "casting," the more moderate of those who upheld the Jewish system admitted that there is room for improvement in this procedure, but at the same time pointed out that this is not an essential part of the Jewish rite. Much stress was laid on the fact that the Jewish slaughterer had to undergo a special training and hold a diploma, while the Christian slaughterer had to give no such guarantee of efficiency. Unskilful poleaxing or the missing of his mark by a skilful poleaxer was dwelt on as causing much suffering to the animals. The lecturer's statement that five minutes elapsed after the throat was cut before consciousness was lost was pointed out to be erroneous. One speaker adversely criticised Dr. Dembo's book, called attention to contradictions in it, and regarded it as unreliable. Attention was called to the torture to which animals were subjected in transit to slaughter houses, and the opinion was expressed that the Humanitarian League ought to turn its attention to this subject and questions in relation to the cruelty of sport rather than make any attack on the Jewish method of slaughter. On the other hand it was pointed out that the League had already dealt with these matters.

In reply, Mr. Forward considered that extraneous matters had been introduced into the discussion, and altogether repudiated the suggestion that any antisemitic feelings had prompted his paper. He had touched but lightly on other methods of slaughter, as his paper was not intended to do more than deal with the Jewish method. Referring to the Jewish slaughterers' diploma he pointed out that the Christian slaughterer had also to undergo a long apprenticeship before he was allowed to poleaxe an animal. The eating of bread, etc., by animals during the preparatory process was not to be wondered at in that the animals had often been starving for twenty-four hours, and Mr. Forward called attention to the fact that a man about to be hanged was able to eat his breakfast. Referring to the question of rapid loss of consciousness, he said that pigs with their throats cut often ran across the yard to their own pen, which certainly indicated the persistence of consciousness for a longer time than was generally supposed. The lecturer asked why a prize for a better method of "casting" had been offered by the Jews if the present method was so perfect? In conclusion he remarked that because there was cruelty to animals in their transit to slaughter-houses that was no reason why an attempt should not be made to make the preparatory process in connection with the Jewish method of slaughter less cruel.

## THE PATHOLOGY AND TREATMENT OF TUBERCULOSIS.

### The Weber-Parkes Prize and Medals.

In December, 1894, Dr. Hermann Weber offered to the Royal College of Physicians a sum of £2,500 to found a prize on some subject connected with the etiology, prevention, pathology, cure, or treatment of tuberculosis in memory of the late E. A. Parkes, M.D., and he subsequently increased his gift to £3,000.

The gift was at once and gratefully accepted, and a committee was appointed to give effect to the proposal. The regulations, which were issued in January, 1895, state that the prize is to be awarded triennially and that the value of it will be about £150; a bronze medal will be awarded to the holder of the prize and a similar medal, to be distinguished as the second medal, to the essayist who comes next in order of merit. The competition is open to members of the medical profession in all countries.

The first award will be made this year, the subject of the essay being "The Means, Prophylactic or Curative, deemed by the Author to have Value in the Control of Tuberculosis, especial regard being had to their Application to Human Tuberculosis." The essay must be based on original work and observations (experimental or other) of the author, and must include a detailed exposition of the methods employed and their mode of application. The essays must be sent to the Registrar of the College not later than July 1st next, and the award will be made at some date prior to October 18th, on which day the prize and medals will be presented to the successful essayists.

The dies for the medal have just been prepared, and were shown at the last meeting of the College, when the President referred to it as the most beautiful medal in the possession of the College. By the courtesy of Dr. Weber, and with the ready help of his son, Dr. F. P. Weber, we are enabled to present our readers with a reproduction of the medal taken



Obverse.



Reverse

from a photograph of a plaster cast. The obverse presents an admirable portrait of the founder, Dr. Hermann Weber, in profile, whilst the reverse of the medal represents Asklepios seated, with Demeter, Apollo, and Herakles standing before him. The idea is that the physician (Asklepios) avails himself of the powers of Nature in preventing and curing pulmonary tuberculosis. He requires for these purposes food supplied by Demeter; light and warmth by Apollo, the Sun the promoter of growth, the destroyer of injurious microbes; and, further, purity of air and muscular force represented by Herakles. The inscription on the reverse reads, "The Prevention and Cure of Tuberculosis." The figures are taken from Greek sculptures and coins of the best period of Greek art. The medal is a work of very great artistic merit, as was only natural seeing that the design was left in the hands of the founder. The preparation of the dies was entrusted to Mr. Frank Bowcher, of Camden Town, a sculptor who has

devoted himself to this branch of his profession, and who has executed his task with a faithfulness and delicacy that leave nothing to be desired.

## A WARNING TO SANITARY AUTHORITIES.

### The Gloucester Small-Pox Hospital.

The citizens of Gloucester appear to have been much exercised for some months past on the subject of the alleged mismanagement by the Sanitary Committee of the hospital which was used for purposes of isolation during the recent epidemic of small-pox. The excitement was first started, we believe, by a gentleman who has been very much in evidence during and since the epidemic as a leading antivaccinator, and who has been very fertile in explanations as to the causes of the epidemic, amongst which it is hardly necessary to say that the neglect of infant vaccination for ten years finds no place. This gentleman, whose assertions naturally carried more weight than would attach to those of an ordinary speaker or writer from the fact that he is a member of the medical profession, has propounded various theories to explain why the epidemic was not due to neglect of vaccination. The elementary schools were overcrowded and insanitary; the disease was confined to "South Gloucester," the insanitary condition of which was alleged to be "terrible." When it was found that these hares would not run, because they were at once bowled over by the irresistible logic of facts, it became necessary to discover some new explanation, not only of the large number of attacks, but also of the high mortality which attended them. At this juncture Fortune was more favourable to these modern diviners (for by this time the scent had been taken up by other champions of the antivaccination cause) than she had previously been. Attention was directed to the hospital which was being employed for isolation purposes; and it soon became evident that this could be used with much more effect for the purpose of distracting attention from the vaccination question than the overcrowded schools or the alleged insanitary condition of "South Gloucester."

There were two facts which were patent to everybody. The first was that the situation of the hospital, consisting as it did of a series of wood and iron buildings spread out over a considerable area of ground, and surrounded by rows of semi-detached villas and streets of newly-erected houses, was about as well calculated to diffuse infection on all sides of it, whether by aërial or other means, as it well could be. There can be no doubt that the hospital must have been a potent cause of the spread of infection all round it, and that it must, therefore, have contributed in no small degree to the magnitude of the epidemic; but this fact did not much help the antivaccination contention. It was still necessary to explain the high mortality of the epidemic. To do this it was thought to be sufficient to allege that the mortality of cases admitted to the hospital was much greater than that of those treated outside of it. It was asserted that in the earlier portion of the epidemic the fatality inside the hospital was 57 per cent., or, to use the actual words in which the charge was made, "when Dr. Brooke went there the mortality at the small-pox hospital was 57 per cent., but after Dr. Brooke had been there it went down to 8 per cent." It is only necessary to say here that the hospital statistics show that the fatality of the hospital cases during the whole of the epidemic did not exceed 28 per cent., and that after Dr. Brooke took charge it was 28.1 per cent. It is clear, therefore, that whatever may have been the effect of Dr. Brooke's arrival on the general management of the hospital, it had none of an appreciable character on the fatality of the cases treated in it.

This explanation is necessary in order to enable the bearings of the much-debated subject of "Dr. Brooke's report" to be properly appreciated. And this brings us to the second fact, about which there cannot be much doubt: and that is, that the rapid increase of the epidemic during the month of February, finding the Sanitary Committee quite unprepared to cope with it—either by a sufficiency of accommodation for purposes of isolation, or with resources which every well-designed isolation hospital should contain—soon led to a state of administrative chaos. The wards became overcrowded; the nursing staff was insufficient; the caretaker, who with his wife had been able to meet fairly well the requirements of an occasional epidemic of scarlet fever, found that he could not overtake the work even of looking after the gate; the laundry, which had been large enough for ordinary needs, became suddenly paralysed, and the foul and infected linen accumulated. It is only bare justice to the Sanitary Committee to say that when they had fully recognised the gravity of their position, they spared no effort to meet the emergency. New buildings were ordered, with what some of their critics have assumed to be a reckless prodigality. A steam disinfector was erected, a larger laundry commenced, the nursing staff was materially strengthened, and last, but not least, it was decided to put the hospital under the sole charge of a gentleman who had had experience in the administration of small-pox hospitals. Application was made to the Metropolitan Asylums Board, who selected one of their own staff, Dr. T. B. Brooke, and gave him leave of absence, so that he might come to Gloucester to help the Sanitary Committee out of the difficulty in which they found themselves.

No sooner had Dr. Brooke arrived in Gloucester than he was requested by the Sanitary Committee to report to them on the state of things at the hospital and on the measures which he considered necessary to make it as effective for purposes of isolation as was practicable, considering the magnitude which the epidemic had by that time assumed and the fatal blot on its efficiency which its unfortunate position made unavoidable. Dr. Brooke came to Gloucester on or about April 24th, and on May 1st he presented his report to the Sanitary Committee. It is only fair to him to say that the report itself shows from internal evidence that it must have been somewhat hurriedly prepared. The position in which he found himself was a difficult one. He was precipitated into a state of administrative confusion, which at the time of his arrival was already beginning to show some signs of spontaneous clearance. The indications of what was needed to promote the more speedy realisation of this result were in some respects very clear and simple; in others they were much more complicated. An efficient matron was wanted. Dr. Brooke obtained plenary powers from the Sanitary Committee to engage one, which he did before he left London. Additional medical assistance was required. Here, too, as also in the engagement of charge nurses, the Sanitary Committee authorised him to provide what he thought necessary. On all these points, with which Dr. Brooke deals in the earlier portion of his report, it is clear that he had the fullest discretion allowed him.

Up to this point the report is a mere synopsis of what had been already done. But it then plunges into two questions involving considerations of the most complicated character, with reference to which there was room for considerable difference of opinion. "I have since my arrival," says Dr. Brooke, "and accompanied by Miss Walker (the matron), made a thorough inspection of the Stroud Road Hospital, and we are of opinion as to the absolute unsuitability (1) of the site (as such), (2) of the structural arrangement, which is devoid of any plan, system, or method, and renders the satisfactory working of the hospital impossible." Now, it may be conceded without any question that both of these opinions were justified up to the hilt. But whether there was anything to be gained by making them at that precise moment is another matter. Dr. Brooke points out, as a further justification for the second of these recommendations that it was impossible to separate the sexes properly, and he urges specially "that both hospitals"—the one which had been temporarily employed at Hempsted as well as that in the Stroud Road—"should be closed as soon as possible, and that immediate steps be taken to form a camp by means of tents at a considerably greater distance from the town."

Here, it is well to remember, that at the time the Sanitary Committee received this report the epidemic had begun to exhibit signs of dying out as quickly as it had arisen. Dr. Brooke's recommendation to close all the buildings on the Stroud Road was being rapidly anticipated by the decrease in the number of persons attacked. It is scarcely, therefore, to be wondered at if the Sanitary Committee received these "counsels of perfection" with some hesitation, or that they were not very anxious to give publicity to a report in which they were so strongly emphasised. They treated it, as it was evidently intended by its author to be, as confidential, and

not intended to be published *urbi et orbi*. To have closed the existing hospital buildings, and to have transferred all the patients to tents at a distance from the town, would not only have been extremely expensive, but practically impossible, owing to the difficulty of obtaining a site at such short notice.

Beyond these recommendations the report contains little that might not be anticipated by anyone who knew anything of the circumstances under which it was written. The strongest phrase which it contains expresses the joint opinion of Dr. Brooke and Miss Walker that "from a sanitary point of view the whole administration of the hospital has been shockingly neglected." Indeed, the parity of Miss Walker in the responsibility for this report is such that, instead of its being called "Dr. Brooke's report" it might almost be called the "Brooke-Walker report." Illustrations of the defective administration referred to above are given in "the deficient laundry accommodation;" the want of clean linen, due to the fact that the washing was "a month behindhand;" a total absence of fire-extinguishing appliances; the foul and offensive condition of the ambulance shed; heaps of decaying animal and vegetable matter around the wards; dirty linen and soiled dressings lying about in bath rooms, and other places where they never should have been; the outer gate left open so that the public could find their way in, for want of a custodian; etc.

With reference to all of these defects the report makes recommendations as to the propriety of which there could be no doubt, and we are not aware that it is charged against the Sanitary Committee that they made any difficulty in acceding to them.

And now comes the point of the whole matter. By some means, which it is not difficult to guess, the existence of this report became generally known. It was assumed to reflect very gravely on the Sanitary Committee. When the Chairman was questioned about it in the City Council he was not so judicious in his reply as he might have been. It was almost denied that such a report existed at all. This added fuel to the fire. As luck would have it, this gentleman's term of office ended on November 1st, and when he and his Conservative colleagues on the Council presented themselves for re-election they were opposed by a motley collection of Liberals, Independents, and Antivaccinators, who agreed in nothing except a denunciation of the Sanitary Committee for their alleged mismanagement of their duties in regard not only to the hospital, but of the city generally, and in promising that when they got into the Council they would demand the publication of "Dr. Brooke's report." On this cry they swept the board at the polls, the secretary of the local antivaccination league, who had been the least scrupulous of the whole band in his attack on the Sanitary Committee, coming in at the head of the poll.

But, strange to say, as soon as the men who had ridden into the Council on the back of this stalking-horse had an opportunity of seeing the report for themselves, their desire to publish it suddenly evaporated. No one seemed to care to take the responsibility of putting it into type. At last it was resolved *nem. con.* that it should be printed for the use of the Council only. No sooner was this done, however, than it at once became public property, and was formally communicated to his fellow-citizens by an active antivaccinator, who read it aloud at a lamp-post during a recent by-election for the Town Council, when it was thought that this would be a good card to play in order to help one of the candidates, who was put forward and actively supported by the antivaccinators. How entirely this calculation failed is shown by the fact that at the election in question, whilst the Conservative and (as the antivaccinators claimed) "coercionist" candidate, who was defeated in November, polled 589 votes, and the Liberal and anticompulsory candidate polled 412, the antivaccinator, for whose return the whole strength of his party was exerted, could only scrape together 27 votes, all told.

The account which we have thus given at some length of "Dr. Brooke's report" would have scarcely deserved, from its intrinsic importance, the space we have devoted to it, if it were not for the important lesson which it teaches to many other towns which are no better prepared than Gloucester was at the end of 1895 to meet an epidemic of small-pox. At that time Gloucester had an isolation hospital which, though certainly not as well equipped as it ought to have been, was probably no worse, and possibly even better than that of the majority of towns in Great Britain of the same size. But the hurricane of pestilence suddenly broke over the city, with its 10,000 unvaccinated children, and its 30,000 older persons, the bulk of whom had been discouraged from renewing their vaccination by the example set them by the Board of Guardians, and in less than a month the helm slipped from the grasp of those who were responsible for the sanitary supervision of the city in all other respects except vaccination, and the administrative ship was left to drift for some time in a storm of confusion. If the sanitary committees of other towns which are no better protected than Gloucester was in 1895, only learn from these facts to recognise the terrible responsibility which they incur by allowing themselves to drift in a similar *laissez faire* manner, this account of "Dr. Brooke's report" will not have been written in vain.

It is scarcely necessary to add that the interest which it possesses as a proof of the emptiness of the claims made as to the lesson of the last November election in Gloucester, though secondary in importance, is by no means without value. If Dr. Brooke had done no greater service to Gloucester than to enable the public generally outside of it to appraise at their true worth the crowings and flapping of wings with which the antivaccinators published to all the world their triumph at the November elections in Gloucester, he would certainly have done a useful work. Nor is it needful to dilate upon the fact that, even taking Dr. Brooke's report at its worst, as a very grave indictment of official incompetence and mismanagement, though it may explain in some degree why upwards of 2,000 persons caught small-pox in Gloucester in little more than six months, it does not throw the least light upon the general high fatality of the epidemic, which though greater inside the hospital than it was out, from perfectly obvious causes, was no less after Dr. Brooke presented his report than it was before he arrived in Gloucester.

## THE BATTLE OF THE CLUBS.

### EVIDENCE AS TO THE ABUSE OF CLUBS.

Sir,—Doubt has been expressed as to the fact that advantage is taken of clubs by men well able to pay for medical attendance. If any of your readers who know of instances would state the income or rent of house occupied by people they have attended as club patients, it would render a great service in the "battle of the clubs." A list would be useful for reference and quotation if necessary. I heard recently of two cases:

1. Occupier of house, rent £60 to £70 per annum, demanded medical attendance because he paid 4s. a year to his club. The medical man had to give a quarter's notice before he could refuse to attend further.
2. Business man, income £700 a year at least, received medical advice through the club intended for clerks, etc.

I can only state what I have heard, but with good authority. I should be glad to see instances given by those who know of similar impositions.—I am, etc.,

January 25th. Medical Practitioner.

Licensing Examinations in New York.—The following figures show the proportion of students from the several medical schools in the State of New York who passed the licensing examinations now required in the State for the year ending in 1896: From the University of the State of New York there were 2 candidates, both of whom were accepted, a percentage of passes of 100 per cent.; from the New York Medical College and Hospital for Women, there were 7 candidates, with an equally good percentage; from the College of Physicians and Surgeons, Columbia University, 142, with 92.9 per cent. of successes; from the Syracuse University, 24, with a percentage of 91.6; from the Bellevue Hospital Medical College, 47, with a percentage of 89.3; from the University of Buffalo, 36, with a percentage of 89.2; from the Long Island College Hospital, 64, with a percentage of 87.5; From the Niagara University, 15, with a percentage of 86.6; from the Women's Medical College of the New York Infirmary, 7, with a percentage of 85.7; from the Albany Medical College, 47, with a percentage of 85.1; from the Eclectic Medical College, 20, with a percentage of 85; from the New York Homœopathic Medical College, 27, with a percentage of 81.4; from the New York University, 79, with a percentage of 75.9.

## BRITISH MEDICAL ASSOCIATION.
## SUBSCRIPTIONS FOR 1897.

Subscriptions to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, FEBRUARY 6th, 1897.

## THE ASSOCIATION AND MEDICAL DEFENCE.

We pointed out last week the nature of some of the main provisions of the scheme of the Special Committee on Medical Defence, but the matter is of so much importance to the Association, and is calculated to have so great an influence for good or evil upon its future development that it seems to be desirable to recur to some of the provisions which were then lightly touched upon.

It is of the first importance that it should be clearly understood that the scheme as it stands is compulsory, and that there is no alternative scheme formally before the Association. It would be rash to close our eyes to the fact that many who are disposed to approve of a scheme of medical defence entertain grave doubts as to the wisdom of the proposal to render it compulsory upon every member of the British Medical Association resident in the United Kingdom.

In all discussions as to the necessity for individual medical defence, it must be borne in mind that there are already in existence organisations which are doing work of this nature for those members of the medical profession who care to join them in return for an annual subscription which is the same as the maximum mentioned in the special Committee's report. The number of members in the oldest and largest of these organisations, the Medical Defence Union was, according to the last report (for 1895), 3,537. The opportunity, therefore, of ensuring the advantages of individual medical defence is open to every member of the profession in the United Kingdom. If at the end of ten years, during which the Medical Defence Union has been in existence, it has not been joined by a larger number of members of the medical profession in the United Kingdom, it may fairly be asked whether a majority of the British Medical Association, supposing it to be in favour of the Association taking up individual defence, can equitably make the extra subscription for medical defence compulsory upon all members of the Association.

The Standing Committee which it is proposed to appoint would have to report its proceedings to the Council of the Association, and it may be assumed that its conduct of the business of medical defence, both in general principle and in particular instances, would be subject to discussion by the Council, which is a very large body for such a task. This seems to create a difficulty and a danger. No doubt the point has been considered by the Special Committee, although there is no reference to it in the report we published last week; yet the question is one which we venture to say should engage the attention of the Branches in discussing the report. With a threefold membership would not the proposed Standing Committee have thrice the amount of work to do? Could it have a threefold working capacity?

It will hardly be questioned that the Medical Defence Union has done its work well. The amount of this work is shown by the statement in the report that over 1,000 applications were received during 1895 from members of the Union for aid, advice, and assistance. During the same year there were sixteen meetings of the Executive Committee and eleven meetings of the Council of the Union. The amount of work to be done, therefore, in the management of 1,000 applications is very considerable, but in addition the Union has found it necessary to appoint an Emergency Committee. It is clear that the office of a member of the Standing Committee on Medical Defence which the scheme proposes should be appointed would be no sinecure, and the question will be asked whether such a Committee would be able to act with the independence and promptitude which are probably the secret of the success of the Medical Defence Union.

The Special Committee which has drawn up the scheme now before the Branches[1] was bound, by the resolution of the annual meeting at Carlisle, to embody the principle of compulsion in its scheme; but the report of the Committee concludes by inviting from the Branches suggestions as to amendments which may be desirable. We apprehend that there can be no doubt that it will be within the competence of the Branches to consider the question of compulsion, and to express an opinion upon it. Indeed, upon a principle of so much importance it is much to be desired that such opinions should be expressed in the clearest possible way. The effect upon the membership of the Association of putting into force the proposal to make the scheme compulsory cannot but be viewed with a certain feeling of apprehension, even by those who may be most strongly impressed with its necessity. It is a policy with regard to which many will feel great reluctance in enforcing the decision of a majority upon a minority. In any case it is a proposal upon which, by discussion and reasoning, every effort should be made to obtain practical unanimity before it is brought into operation.

The first question upon which the Branches are invited by the Committee to express an opinion really involves two distinct questions—"Is your Branch in favour or not of the Association undertaking the duties of individual and collective medical defence?" and it is perhaps to be regretted that this question was not distinctly divided into the two parts of which obviously it consists. While it might be held that to undertake individual medical defence implies that collective medical defence should also be undertaken, the converse does not necessarily hold. It may be held and there is reason to believe that there are many who entertain this view, that the Association would be better qualified to undertake the work of collective defence than for the task of individual defence. Under the head of collective defence the report of the Special Committee appears to contemplate action for the protection of the privileges and interests of members of the medical profession generally and as affected by any particular

[1] The report was printed in the British Medical Journal of January 30th, p. 277.

legislation, the taking of proceedings under the Medical Act of 1858, under the Penal Clauses of the Apothecaries Act, 1815, and under any other Act affecting the interests of the medical profession.[2]

However this may be, we make no doubt that there will be universal agreement that matters to which we have here referred, and others which will arise out of a consideration of the report deserve and demand the most careful inquiry and the most minute investigation, so that whatever the result finally reached, the decision as to this momentous scheme which would affect not only the members of Branches but also the unattached members resident in the United Kingdom may be formed only after the probable effect of its provisions, and especially of those which embody the principle of compulsion, have been very fully considered from every point of view.

## PATHOLOGY AND PRACTICE.

We publish this week Lord Lister's address at the opening of the new laboratories, Queen's College, Belfast. He spoke with perfect simplicity of language and of purpose, describing the inseparable union between pathology and practice, and the gain to mankind, past all reckoning, that comes of this union, and of it alone. His address was eloquent, because there was not one superfluous word in it; and original, not by virtue of new facts, but in its emphatic statement that all our hope of success in practice depends on our being well acquainted with pathology.

Perhaps, in years to come, we shall remember that bacteriology is after all but a part of pathology. Even from the point of view of practice, there are laurels to be won still, as in the past, by men wholly ignorant of bacteriological work. That one discovery for which a good surgeon, if he could, would give his life—the cure of malignant disease without operation—may come at last from clinical observation, as it were by chance, after failure of all the experiments that are now made in the belief that cancer is a parasitic growth. But we cannot all make discoveries, and we can, all of us, make use of them; and so common and so fatal are the diseases now treated with the antitoxins, that he who neglects to learn the use of these weapons against them is henceforth without excuse.

Lord Lister emphasised one fact which is often forgotten—that a practical course of bacteriological work, as part of their mental and manual education, is of the very greatest advantage to students. They, of course, practise inoculations not on living animals but on test tubes; but we fear that the opponents of all experiments on animals will neither take our word for this, nor be moved by Lord Lister's plain statement of the truth. They accept or promote the frightful incessant waste of animal life for the amusement of sport, the vanity of fashion, and the pleasures of the table; but they are furious at the inoculation of animals for the prevention of disease among men, until such time as they themselves fall ill. Happily there is reason for believing that their opposition has become of late years irresolute, less sure of itself, less unreasonable; they will in time consent to join with us in thankful recognition of the good work that has been achieved.

[2] See Clause 14, paragraphs (*d*) (*e*) (*f*) and (*g*) of the report (Journal, January 30th, p. 278).

Of especial interest was that part of the address that treated of the antistreptococcus serum, and of M. Yersin's serum against the plague. Of the latest researches with regard to the latter, which we trust we shall never require in this country, we give some account in another column. The former has not yet had an adequate trial in the United Kingdom. The diseases due to streptococcus infection are so numerous, that a few observations of the action of the antistreptococcus serum have been extended over a vast field of pathology, and have not been concentrated on one set of cases. Again, many of the cases lately published are almost valueless, because the serum was not used at once, or because the patient would probably have done well without it. And its general use has been further hindered by some uncertainty as to the dose, and by the difficulty of knowing which is the best preparation of it. But he who will study what has been written of its value will certainly agree with Lord Lister that its results are full of encouragement for us. Given at once, and in full doses, it may save life; given late, in a half-hearted sort of way, it will probably be called useless; but this title would sometimes be more applicable to him who thus gives it.

Lord Lister employed M. Yersin's discovery of a plague-serum as a final and irresistible proof of the infinite practical value of bacteriological work. Surely in all the history of medicine there have been few discoveries of greater promise than this. To measure its greatness one should first read M. Yersin's account of his work, and then read what Ambroise Paré and Defoe have written of the plague. We rejoice that M. Yersin's method of treatment has been adopted by the Bombay Government. And at this present time, when India is assailed both by plague and by famine, we hope that the whole sum of charity will not flow into the Mansion House fund. If the gift of a thousand pounds to a laboratory can help toward the preparation of a serum that will stand between the living and the dead in time of plague, the money thus spent will save more lives than will be saved by ten thousand pounds given against famine.

## THE PREVENTION OF TUBERCULOSIS.

After the publication of Koch's discovery of the tubercle bacillus in 1882, it was manifest that the chief source from which the infective material of tuberculosis is reinforced is phthisical sputum. Soon after Schill and Fischer published their research on the disinfection of phthisical sputum, in which they showed that, when dried, it may remain infectious for long periods. From this to the conclusion that such sputum, dispersed as dust, is probably the chief means by which tuberculosis is propagated is no difficult step. Nevertheless, before such an inference could be used with confidence for practical purposes it was necessary to know whether, as a matter of fact, such dust does present itself in the neighbourhood of consumptives, and under what circumstances it can be shown to occur. A careful investigation was accordingly instituted by Dr. Cornet, of Berlin, into the dust of rooms and hospital wards in which phthisical persons were being treated, from which it appeared that if no particular care had been exercised in removing infectious discharges from the patient, the dust of such places was liable to contain sufficient infective matter to cause the disease when injected into guinea-pigs, while even that small degree of infectivity was absent if the discharges of the

patient had been collected and taken away. Cornet also showed that the dust in streets obtained from places where consumptives were wont to spit might be neglected so far as any risk of tuberculous infection is concerned. It is clear that this important research enabled us to define with precision the circumstances under which one individual may be expected to infect another, and how such infection may be avoided.

A great impetus was thus given to preventive effort, which in this country appears to have been specially active in Lancashire. So far, it has not gone beyond the stage of popular instruction, although that has been carried on with some measure of success.

There are several reasons why the prevention of tuberculosis has not been brought under administrative control. In the first place, factors which require to be well considered play a most important part in preparing the system to receive the disease. A marked and not unnatural disinclination, moreover, exists on the part of many medical practitioners towards any interference on the part of the sanitary authority with their treatment of tuberculous patients. Other difficulties also exist which can be got over by the exercise of a little caution.

On the other hand, the conviction is steadily growing that, while the other variable though weighty elements in the production of phthisis must not be neglected, the destruction of great quantities of infectious matter, such as are now often accumulated in confined situations, cannot be without a marked influence in diminishing the number of those attacked.

As regards the relation of the sanitary authority to the medical attendant, that would, no doubt, be a matter for mutual adjustment. It must always be borne in mind that medical practitioners have it in their power to render inoperative any procedure which meets with their general disapproval.

Amongst those who have entertained considerable misgiving as to the interference of the sanitary authority, and even as to the dissemination of precautionary literature, the distinguished Medical Officer of Health for Glasgow has occupied a prominent position. We must, therefore, regard it as a sign of the times when we learn from the local press that a leaflet has been sent by the Glasgow Health Committee to every ratepayer in that city, explaining in the clearest manner the infectious nature of the disease, and giving brief but excellent directions for the avoidance of infection. There is little chance of tuberculosis being brought under direct administrative control until the public mind has been fully educated in this manner.

Dr. Russell's leaflet differs from others which we have seen in this particular, that he prefaces his directions by a short account of the nature of the disease, as well as of its conditions and modes of propagation. He is probably right in thinking that his rules of conduct will receive more attention from thinking people on that account. Stress is laid perhaps rather too exclusively on discharge from the air passages. In other respects the leaflet is admirable, and, evidently, once begun the campaign is about to be pursued with energy. We read that "in addition to this leaflet there is kept on hand, and will be given gratuitously, on application to the medical officers (1) a detailed report on the prevention of tuberculosis for the use of medical men; (2) a synopsis of the above, giving a clear view of the modern doctrine of tuberculosis, for the use especially of nurses, district visitors, teachers, and others, etc."

There is no doubt that the prevention of the dissemination of tuberculosis is a matter which calls for special regulations in those health resorts to which persons suffering from consumption repair in large numbers. The "precautions" for the prevention of phthisis recommended by the Bournemouth Medical Society along with their "recommendations as to the cleansing of rooms occupied by consumptive patients"[1] are brief and good. But we may point out that expectoration is not the only form of discharge from which danger of infection may arise.

The experience of other health resorts has aroused a suspicion that consumptives may inflict serious harm on subsequent visitors, or even on residents, unless preventive measures are adopted. The members of the Bournemouth Medical Society have, therefore, exercised a proper care in trying to secure that favourite resort of invalids against the possibility of such an imputation. We may add that the Bournemouth sanitary authority is honourably distinguished by the vigilance which it exercises in securing a pure milk supply, a matter of the utmost importance to the class of people for whose welfare it endeavours to provide.

Another aspect of the prevention of tuberculosis has been brought into prominence by Sir James Sawyer. The suggestion which he puts forward—that an effort should be made to have an intercommunication of ideas between scientific observers and agriculturists on the preventive measures which may be usefully and economically taken—is an excellent one. On the one hand the pathologist and physician would be stimulated to appreciate and overcome the difficulties which beset the breeder and cowkeeper, and, on the other, the owners of stock would come to realise the advantages which would in a short time accrue from rational precautions. It would be necessary in carrying out such a proposal to have a clear idea of what has been demonstrated in regard to the facts of propagation of the disease. One or two points may be here indicated.

The recent experiences of Bang in Denmark have shown that where a sound stock is kept free from the intrusion of tuberculous individuals, tuberculosis does not arise. The infective element is, therefore, by far the most important consideration.

Nocard has called attention to the great faculty for spreading which tuberculosis possesses once it is introduced into a herd. But here again both Bang and Nocard show how easy it is, by proper and simple means of isolation, to save animals which are sound. The further inference may safely be drawn that tuberculosis once expelled should be easy to keep out, and an excellent subject for the interchange of ideas would, therefore, be how to remove, and having removed how to exclude, the disease from herds.

It would be of advantage at the same time to show that not merely as a matter of ultimate profit, nor as a matter of human infection, but as a matter of pecuniary benefit to the farmer, the disease must be thoroughly dealt with. We are thus conducted back to the question of the condemnation of

[1] The precautions and recommendations will be found in full in Dr. Ransome's *Treatment of Phthisis* (London: Smith, Elder, and Co. 1896), along with the leaflet of the Manchester and Salford Sanitary Association. They have been reprinted recently by Dr. A. Kinsey-Morgan in a small work on *The Climate of Bournemouth in Relation to Disease, especially Phthisis* (Bristol: Wright. 1897.)

meat from tuberculous animals, and to the consideration of how far milk from a cow known to be suffering from tuberculosis in any form should be permitted to be sold.

OWING to the pressure on space, we are compelled to hold over a large number of letters and other communications.

MR. ROBERT L. SWAN has been elected Vice-President of the Royal College of Surgeons in Ireland, and Mr. L. H. Ormsby to a seat on the Council.

DR. HINGSTON FOX will deliver the annual oration before the Hunterian Society, on Wednesday next, February 10th, at 8.30 P.M., at the London Institute, Finsbury Circus. The subject will be "William Hunter (1718-1783)," and the oration will not only deal with William Hunter as an anatomist, physician, and obstetrician, but will include references to his contemporaries, especially to Drs. Cullen, Fothergill, and Smellie. Members of the profession will be welcomed as visitors to the meeting on this occasion.

## REVACCINATION.

THE Council of the Epidemiological Society will submit the following resolution in reference to the recent *Report of the Royal Commission on Vaccination* to the meeting of the Society, on Friday next, February 19th:

That this Society, while noting with satisfaction the pronouncement of the Royal Commission as to the value of primary vaccination, and the necessity for maintaining it, regret that, although the report also brings forward conclusive evidence as to the value of revaccination, the Commissioners have not seen their way to recommend legislation which would place it on the same basis as primary vaccination.

At the same meeting, Dr. J. C. McVail, M.O.H. for the counties of Stirling and Dumbarton, will read a paper reviewing the statements of those members of the Royal Commission who dissented from the report.

## GUY'S HOSPITAL MEDICAL SCHOOL.

THE new school buildings are now approaching completion. They have been erected on the site of the fives court behind the anatomical lecture theatre; and will provide a series of laboratories, class rooms, lecture and demonstration theatres, complete in every respect for the practical teaching of physiology. The library will also be moved thither, and the room now occupied as the library will be converted into a ward or otherwise used by the hospital. The cost of the new building is computed to be nearly £13,000; and the entire amount has been provided by the members of the staff and the teachers in the medical school. The buildings now used as the anatomical lecture theatre and museum will in a few years be demolished, that a more modern theatre and museum may occupy their site. Meanwhile, the wing, which is nearly completed, will be occupied during the ensuing summer session; and the Prince of Wales, who is President of the hospital, has graciously consented to open it early in May next.

## DIPHTHERIA IN LONDON.

THE fatal cases of diphtheria registered in London, which had been 71, 52, and 63 in the three preceding weeks, declined to 53 during the week ending Saturday last, January 30th, but exceeded by 17 the corrected average number in the corresponding weeks of the ten preceding years. Of these 53 cases, 4 were of persons belonging to Hammersmith, 4 to St. Pancras, 4 to Islington, and 4 to Camberwell. The number of notifications of diphtheria in London, which had been 238, 211, and 236 in the three preceding weeks, were 230 during the week ending Saturday last. There was a slight decline in the number of new cases notified in West, East, and South London, while in North and Central London there was a slight increase upon the numbers recorded in the preceding week. Among the sanitary areas of West London the prevalence of diphtheria showed an increase in Kensington and in Hammersmith, while in Fulham the new cases were fewer than in any week for some months past. In North London there was an increase in the prevalence of diphtheria in Marylebone and in Hackney, while in St. Pancras and in Islington the number of new cases showed a further decline from those recorded in recent weeks. In East London the notified cases of this disease showed an increase in Whitechapel and in St. George-in-the-East, while in Mile End Old Town and in Poplar they showed a decline. Among the sanitary areas of South London the prevalence of diphtheria showed a marked decline in Lambeth and in Battersea, but a further increase in Newington, in Wandsworth, and in Camberwell. In the last-mentioned district no fewer than 36 new cases were notified, against 15 and 31 in the two preceding weeks. The admissions of diphtheria patients into the Metropolitan Asylums Hospitals during last week were 115, against 103, 108, and 93 in the three preceding weeks; and 897 patients remained under treatment in these hospitals on Saturday last, January 30th.

## THE ROYAL PORTSMOUTH HOSPITAL.

A LARGE and influential meeting was held in the Town Hall, Portsmouth, on January 29th, to consider the most appropriate way of celebrating Her Majesty's long and glorious reign of sixty years. The Mayor (Mr. G. E. Couzens) presided, and proposed a scheme for rebuilding the Royal Portsmouth Hospital on modern lines, and the proposition was very warmly and enthusiastically received by the meeting. We have much satisfaction in stating that the Committee of Management intend to carry out the project on the present site, which is conveniently situated in the centre of the most populous part of the town, and has an area of about 2½ acres. When complete, the new hospital, it is anticipated, will have accommodation for 250 patients. The building will be started this year by the erection of the first ward pavilion of 60 beds. The donations at the close of the meeting amounted to nearly £3,000.

## VACCINATION AGAINST TYPHOID FEVER.

PASTEUR has made a revolution not only in pathology but also in treatment. If it is true that we are now prone to regard every acute disease as the effect of some living poison, it is true also that we are proportionately hopeful to discover an antidote for each. That microbe which was first assailed, bacillus tuberculosis, has indeed hitherto disappointed us, and still refuses to acknowledge a specific remedy. But anthrax, hydrophobia, and diphtheria may certainly be counted successes, and we have good grounds for hoping the same of M. Haffkine's attack on cholera. In one of these, diphtheria, it is the antidote that is injected, and cure of the disease that is directly attempted. But in the rest—for hydrophobia is no exception—immunisation of the animal or man and prevention of the symptoms is the aim, and the method is by the injection of a weakened microbe to produce without danger a condition resembling that after recovery from the disease itself. These diseases are so acute and so severe that we are forbidden to hope that cure would often be possible. The worst cases of diphtheria show us that even in a disease usually curable a grave attack is stronger than are we. Prevention is the most hopeful method of the two, though it, too, has this drawback, that we cannot tell with certainty how long the immunity will last. The latest extension of this method is given in the paper printed by Professor Wright and Surgeon-Major Semple in the BRITISH MEDICAL JOURNAL of January 30th. Their method of weakening the vaccine is by killing it; their proof of its action is the disturbance, both local and constitutional, that is produced by its injection into man, and their test of its immunising efficacy is the sedimentative power which it gives to the blood. The blood of a patient recovering from typhoid, if mixed with a small quantity of a typhoid culture,

makes the typhoid bacilli which before were swarming throughout the fluid collect into clumps, cease to move, fall to the bottom, and become spherular. In other diseases it is known that animals whose blood has been given "sedimentary power" resist the specific microbe which they can thus precipitate. In typhoid it is impossible to adduce this proof because animals cannot be given typhoid fever. It must, therefore, remain a matter of inference from analogy. Yet typhoid is so severe a scourge to man that a trial should, if possible, be made of any means of prevention that is not itself a danger. Typhoid vaccination, as set forth in the paper we have quoted, is not without unpleasant effects. Locally it produces considerable swelling and tenderness, which may extend from the flank into the armpit and groins, and last for forty-eight hours. The constitutional symptoms are faintness and nausea, loss of appetite, fever, and restlessness. These symptoms ceased after forty-eight hours, but in three out of eleven cases there was some impairment of general health for as long as three weeks. In all probability a little practice will enable these unpleasant effects to be prevented. At any rate they are minor matters, and we think that if a man knew that he were likely to be exposed to the infection of typhoid he would act wisely if he submitted to be vaccinated by this method. We hope that some opportunity of an extended trial will be afforded.

## A WARNING TO GIVERS OF TESTIMONIALS.

The vendor of patent medicines is as eager in collecting testimonials of "cure" as an Indian brave is in collecting scalps, and hangs them at his belt, so to speak, in the advertising columns of newspapers in proof of his therapeutic prowess. The manner in which these documents are obtained does not concern us here. That the giving of testimonials, however, may sometimes be attended with undesirable consequences for the grateful patient is shown by the following case, which is reported in the American papers. A veteran living in the interior of Massachusetts recently gave a testimonial to a patent medicine manufacturer, stating that he had been entirely cured by his nostrum. He had been in receipt of a pension for the ailments of which he testified that the medicine had cured him, and when the authorities learned of his recovery his pension was withdrawn. It is, of course, possible that the veteran may unfortunately suffer a relapse: but it may be doubted whether in that case the authorities would see their way to renew the pension. They would, we imagine, be more likely to recommend him a further course of the patent remedy which had proved so efficacious before.

## COCA WINE AND ITS DANGERS.

There is no doubt that the steadily increasing consumption of coca wine is a subject which calls for comment and investigation. We find that coca wine and other medicated wines are largely sold to people who are considered, and consider themselves, to be total abstainers. It is not uncommon to hear the mother of a family say, "I never allow my girls to touch stimulants of any kind, but I give them each a glass of coca wine at eleven in the morning, and again at bedtime." Originally coca wine was made from coca leaves, but it is now commonly a solution of the alkaloid in a sweet and usually strongly alcoholic wine. According to the Board of Trade regulations a wine containing a grain of any salt of cocaine in the ounce may be sold without a wine licence; this may be the explanation of the frequency with which we see bottles of "coca champagne" exhibited in the windows of the drug stores. Not long ago a physician reported that he had experienced considerable inconvenience from taking a glass of standardised coca wine which he had mistaken for an innocuous beverage. Still more recently we have been furnished with details of the case of a man who, thinking to abjure the use of alcoholic stimulants, drank coca wine so freely that he died of delirium tremens. School mistresses as a rule have a deep-rooted belief in the efficacy of the popular drug, and give it to their pupils on the slightest provocation, in complete ignorance of the fact that they are establishing a liking not only for alcohol but for the far more insidious and pernicious poison cocaine. The child who is the innocent victim of cocainism is wayward in disposition, is restless and disturbed at night, and is incapable of prolonged application. The mania for taking narcotic stimulants is widespread, and is a distinct source of danger to the national health. It is difficult to say at present what steps should be taken, but it is obvious that at no distant date some restriction will have to be placed on the sale of coca wine and its congeners.

## THE SUSSEX COUNTY HOSPITAL.

The new out-patient department of the Sussex County Hospital, Brighton, the first stone of which was laid eleven months ago by the Prince of Wales, was opened by Her Royal Highness the Duchess of Fife, who was accompanied by the Duke, on January 29th. The new department is a separate building facing the main block, and contains a lofty hall about 90 feet by 30 feet, with a double set of consulting rooms, bathrooms, and a dispensary. It is constructed on modern principles, and is lighted by electricity. The Duke of Fife, in acknowledging speeches of welcome by the Mayor of Brighton and the Chairman of the Hospital Committee, expressed the pleasure which the Duchess of Fife felt in helping the work of the hospital. After the ceremony, the distinguished visitors, accompanied by representatives of the staff, paid a visit to the wards, and a reception was given to those who had attended the ceremony. We are informed that advantage will be taken of the new building to establish special departments, and it is anticipated that ophthalmic and dental departments will shortly be organised. It may be added that the following changes in the staff have taken place recently: Dr. Rutter has been appointed consulting physician, while Dr. Mackey has succeeded him as full physician. The vacancy in the office of Assistant-Physician has been filled by Dr. Hobhouse.

## THE SICK CHILDREN'S NEW ASYLUMS BOARD.

The tone of the reply of the President of the Local Government Board to Mr. Geoffrey Drage's question in the House of Commons is calculated almost to make reformers despair. Mr. Chaplin said that he would move all the sick children from the healthy, but failed to say that he would reform the breeding grounds of the sickness. He asks for suggestions, but fails to adopt the suggestion of the Committee that a Central London Board should be established which, by classifying the children, would enable the large existing buildings to be utilised. It is to be regretted that while Mr. Chaplin is clearly anxious to remove existing evils, he should still be disposed to accept the suggestions of his permanent officials, who have stood by and allowed things to get into their present deplorable state, instead of those of the strong Departmental Committee, which had the courage to bring to light the deficiencies of the department which created it.

## NEED FOR A WEST AFRICAN SANITARIUM.

Shortly after the death of Prince Henry of Battenberg there was some talk of establishing on one of the Canary Islands a sanitarium for the West Coast of Africa. Such a sanitarium would have been an appropriate memorial to the Prince, and at the same time have supplied a very great want. In view of our rapidly extending interests in that part of the world, of the large official, mercantile, and missionary communities there, and of the constantly recurring little wars in that most unhealthy country, it would be a pity if the project should fall through. There are two distinct advantages that would accrue from a sanitarium located in the Canaries. In the first place, being close at hand, it would be much more accessible to the fever-stricken or country-tired resident than Europe; in the second place, it would obviate a return to Europe in the winter, a most unsafe proceeding for those

suffering from the extreme anæmia produced by African fevers. We have known of more than one case of hæmoglobinuric fever which relapsed on the weakened and convalescing patient being suddenly plunged into an English winter. Such cases would be much better treated in the milder yet healthy climate of the Canaries. The same remark applies to the subjects of hepatitis, dysentery, diarrhœa—diseases so rife on the West Coast. We trust that this subject will not be allowed to drop. We fear that the great distances intervening, and the consequent want of cohesiveness and co-operation among the various European communities scattered over the West Coast of Africa and in the Congo State prevent anything like combined action on their part. It therefore seems to us that this is a matter which the Colonial authorities might very well take in hand; at all events, it is one in which they might very well take the initiative. If thought desirable, doubtless the French, German, and Portuguese authorities might be induced to co-operate in so worthy a scheme. However brought about, a well-conducted sanitarium, embracing European comforts, close to the West Coast of Africa, would be an enormous boon to the white man, whether he is sick or whether he is only in want of a short holiday in a mild and healthy climate not too far away from his work.

## NURSES A LA MODE.

THE current number of the *Nineteenth Century* contains an article by Mrs. Bedford Fenwick, in reply to that published in a previous number by Lady Priestley, to which we called attention in our last issue. Mrs. Fenwick contends that Lady Priestley has exaggerated the extent of the evils, and that the true remedy for those which exist is registration and control by the British Nurses Association. We fear that the matter is not quite so easy. After all, the question, as in so many other relations of life, is one of character. The remedy is twofold—to seek out the right woman, and then to give her the right training. Hospital training will not sift the chaff from the wheat unless the tone of the hospital and the style of training are directed to that object.

## THE ARMY MEDICAL EXAMINATION.

MR. BRODRICK'S reply to Sir Walter Foster confirms the rumour that unsuccessful candidates at the army medical examination, hitherto limited to two trials, are now to be allowed three. We must regard this—whether acquiesced in by the medical authorities or not—as a virtual lowering of the examination; even although the present minimum qualifying number of marks, which is certainly not too high, be maintained. For while in a genuine competition a really good man may, through accident, once fail, he is not likely to repeat the failure on a second trial; but this examination having lost all semblance of competition, and become merely qualifying, two failures should clearly stamp a candidate as at least undesirable for the service. But the relaxation of the rule was probably forced on the department by military authorities, seemingly deaf, as they certainly are dumb, to suggested army medical reforms. The object of the change on the eve of an examination is all too obvious; by admitting past double failures a better show of candidates *versus* vacancies will be made. and so prevent a so-called competition from appearing a complete fiasco. Probably the next step will be to reduce the minimum qualifying standard—anything to stave off such concessions as good candidates will alone accept. The army was never more in want of "good doctors," but how are they to be got if, by the obstinate refusal of reasonable reforms, "good candidates" are deterred from coming forward?

## THE LEGAL CRITERIA OF INSANITY.

THE Bulwell murder, of which some of the main particulars were given in the JOURNAL of January 30th, is the history of a man who was unreasonably jealous, and who, as a result of this, killed his wife, and there is said to be no justification for raising the plea of insanity in such a case. We find the judge sticking to the old dictum that knowledge of the nature and the quality of the act constitutes the sole measure of responsibility. Other judges have not agreed with Mr. Justice Day, and have directed juries to remember that if a man's acts were the outcome of insane delusion he was not to be held as legally responsible. In many cases of delusional insanity in which the idea of persecution is dominant, the prisoner, or patient, knows the nature and quality of his act, and may take the utmost care to secure his ends, yet he is very mad. We know that some hold that a person merits punishment if he acts criminally from delusions; that, in fact, just as a man is not relieved of responsibility if he, having just cause for jealousy, kills his wife, so a lunatic has no right to expect to be excused for a similar act depending on false ideas. We do not think the whole case adds to the dignity of the English methods. The judge openly says he has little opinion of medical evidence, and he is willing to take the evidence of a warder rather than that of the doctor, if the former has seen a good deal of the accused. There is a fine flavour of mediævalism in the idea of "visitation by Providence" in the occurrence of insanity. The prisoner was executed, and as this was done after special examination by doctors sent by the Treasury, we presume there is ground for thinking the judgment was right, though we certainly think the general impression left is not a satisfactory one.

## ARMY MEDICAL VOLUNTEERS FOR THE PLAGUE DISTRICTS.

MANY people are surprised to learn that volunteers from the Army Medical Staff are desired for employment in the plague-stricken districts in India. They naturally reason: Surely, in the present dearth of army medical candidates, and the seriously undermanned state of the department, so that even strictly military duties have to be thrown into the hands of civil practitioners, it cannot be proposed further to disorganise the Medical Staff by drafting its members away for purely civil duties? Army medical officers may, of course, be ordered to India in any available numbers, and regardless of the efficiency of our army corps at home; but they could hardly be compelled to do purely civil work in combating the plague. Hence, we presume, the call for volunteers. The present grave emergency in India should bring home to the authorities in the War Office the great risk involved, and the serious responsibility incurred, in allowing the present inefficient and shrunken condition of the Army Medical Service to continue.

## CELANDINE IN CANCER.

A BRIEF account was given in the EPITOME of the BRITISH MEDICAL JOURNAL of November 28th, 1896, of some cases of malignant disease in which Dr. N. N. Denisenko, of Brjansk in the Orel Government, Russia, claimed to have effected a cure or very marked amelioration by treatment with extract of chelidonium majus. Celandine, or swallow wort, belongs to the order of *Papaveraceæ*, and is found wild in Great Britain and the North of Europe, in Siberia, and in Western Asia. It has long been a popular remedy in this and in other countries for warts, and hence in some places it goes by the name of "wart wort." It was used in the Middle Ages as an internal remedy for cancrum oris and as a corrective of "corrupt and pernicious humours," and Linnæus and other botanical writers have expressed astonishment at the oblivion into which a plant with such energetic properties has fallen. Dr. Denisenko's statements naturally excited considerable interest, and the treatment has already been tried by several practitioners in Russia. In many cases the results have been unsatisfactory. Thus, Tiling has used the extract of chelidonium in cases of cancer of the breast, tongue, and stomach; Bidder, Beckmann, and Mörsch have tried it in cancer of the uterus, and Moritz in cancer of the liver—all without appreciable benefit. Great pain, and in some cases collapse, followed the administration of the remedy. The experience of Dr. Samson is more encouraging.

Having failed with preparations of celandine made by leading pharmacists of Moscow and St. Petersburg, he made a pilgrimage to Brjansk to see Dr. Denisenko's cases for himself. He went in a sceptical spirit, but what he saw convinced him that the remedy is really effective, at least in certain cases. He saw thirty patients under treatment, and although he is not able to say anything as to the microscopical structure, he states decisively that as far as could be judged from the appearances, the tumours presented all the clinical features of carcinomata and sarcomata, and in several of the cases the patients had been operated on, sometimes more than once, for recurrence. He gives details of several, including epithelioma of the nose, mammary cancer *en cuirasse*, sarcoma of the stump of an amputated arm, and cancer of the rectum, in which the tumour had either disappeared or been greatly reduced. Dr. Denisenko told Dr. Samson that of all the patients he has treated with celandine so far only two have died; in one of these death was caused by extension of the disease through the cervical spine to the medulla; in the other it appeared to be due to weakness. Dr. Samson has no doubt that by means of celandine cancer can be cured without operation, but as the active principle has not yet been isolated, there is no preparation that can be relied on. Dr. Denisenko's method of preparing the injection is as follows: He mixes extractum chelidon. spiss. with an equal quantity of distilled water in a test tube, filters the mixture through cotton wool, and heats it over a spirit lamp till the fluid bubbles up a few times. According to him this procedure, while sterilising the fluid, increases its efficacy. It is injected subcutaneously not into the substance of the tumour, but in its vicinity. In his experience there is no inflammatory reaction, only pain which soon subsides. In the case of rectal cancer, the surface of the growth was painted over with the fluid through a speculum, and hypodermic injections were made in the neighbourhood of the anus. Dr. Samson refers to the internal use of chelidonium majus, but without entering into details. At a meeting of the Société de Thérapeutique, M. Bardet read on behalf of Dr. Robinson, of Constantinople, notes of a case of ulcerated cancer of the upper jaw, in which distinct improvement followed local applications of celandine and internal administration of the remedy in doses of from 1 to 5 g. This is all the evidence we have been able to collect on the subject. It is clear that the data are still quite insufficient to form the basis of a final judgment or even of a probable opinion. There seems to us, however, to be evidence enough to justify a careful trial of the remedy. But first we must have a preparation which retains the active principle without the poisonous alkaloids present in the natural juice of the plant.

## THE SICKNESS AND MORTALITY IN FRIENDLY SOCIETIES.[1]

At a time when the question of the fees payable to medical clubs is attracting so much attention, the information provided in this voluminous Blue Book cannot fail to be of interest. It is much to be regretted that since 1880 friendly societies have been relieved from the necessity of making a detailed report with respect to their sickness experience. The present report covers the period, for males, 1856-80; and for females, 1856-75. It is a remarkable fact that although these returns relate not to actual sickness, but to sickness giving rise to claims for sickness benefit, yet the rate is subject to very small variations indeed. For instance, during the period 1861-70, of 1,789,532 males exposed, the total sickness experienced was 3,199,138 weeks and 5 days, or an average of 1.8777 weeks per week per head. During the period 1876-80 the annual average per head was 1.8929 weeks, the difference between the two averages being less than a day. Commenting upon this remarkable evenness of results in the experience of widely different periods, Mr. Sutton points out that it is the more remarkable because the managing committees of friendly societies are constantly changing, and "consequently the spirit in which the rules are interpreted in practice differ very widely, and it must not be overlooked that there is the personal equation of the medical officer employed by the society." Of great importance to medical men, especially those engaged in club work, is the fact that the average rate of sickness is very much higher amongst women than amongst men, although by the nature of their employment the risks from accidents must be much less. Thus, among 139,122 females, the sickness experienced equalled 325,612 weeks and 5 days, equal to 2.3405 weeks per annum per head. Although some portion of this time may be accounted for by the period of "lying-in," yet in view of their comparative freedom from accidents there would seem to be other causes at work, and their increased liability to sickness must necessitate the fixing of a higher rate for the female members of medical clubs.

[1] Special Report on Sickness and Mortality experienced in Friendly Societies, together with certain Monetary Tables based Thereon. By W. Sutton, M.A., F.I.A. H.M. Stationary Office: Eyre and Spottiswoode.

## ST. CROSS HOSPITAL, WINCHESTER.

A few months ago[1] we called attention to the interesting early history of St. Cross Hospital, Winchester, then in danger of undergoing radical changes. It is now our pleasant duty to report that the trustees of the charity have come to the conclusion that the proposed new buildings can be erected without interfering with the present precincts. The number of inmates in the hospital is to be increased, and for that purpose the house of the present master will be taken and a new one will be built. It has been decided, after conference with the Charity Commissioners, that the new master's house is to be built outside the ancient precinct on a site which will not bring it into conflict or contact with the unique mediæval group of church and hall and chamber, of tree and stream and meadow, which have made St. Cross famous throughout the world. It has been objected that the extrusion of the master breaks up the old "family" and destroys the historical completeness of the institution; but this is merely a sentimental objection. It is centuries since the master and the brethren dined together in the common hall and lived a common life; it is years since the brethren themselves resorted to the common hall for any other purpose than to receive their rations. Moreover, since the mastership was converted by the Court of Chancery, now nearly fifty years ago, from a delightfully fat sinecure into a not over well-paid but well-worked vicarage of a popular and growing suburb, there are practical advantages in the master's house being without the precinct. It is not particularly convenient for a parish priest to be inaccessible to his parishioners after 9 P.M., at which canonical hour the gates of the hospital are still shut to the outer world.

## RURAL SANITATION, MONMOUTHSHIRE.

For some years past the subject of the pollution of the streams in the eastern and western valleys of Monmouthshire has engaged the attention of the sanitary authorities of the districts affected, and has been on various occasions brought under the notice of the central authority in the annual reports of the medical officers of health of those districts. Owing to the development of the coal and iron industries in Monmouthshire, the increase in the population in these localities during the past half century has been enormous. Up to the present time the sewage from the towns and villages has been allowed to find its way into the streams without any attempt to purify it having been previously made. The result has been that the streams have become little better than open sewers, which in summer or after long droughts constitute a most offensive nuisance, and cause danger to the inhabitants of the localities through which they flow. The late Mr. Thompson, one of the inspectors of the Local Government Board, was instructed to examine and report upon the question of the pollution of these streams,

[1] British Medical Journal, ii, 1896, p. 92.

and it will be remembered that his sudden and lamented death occurred whilst he was engaged upon this inquiry. Mr. Thompson's report was, however, practically completed and has recently engaged the attention of the Monmouthshire County Council and the various sanitary authorities in the eastern and western valleys of the county. A scheme has been prepared by the County Surveyor to deal with the sewage of these valleys; he proposes to construct seven main sewers of an aggregate length of 55½ miles to receive the sewage of the several districts they are intended to serve, and to discharge their contents into the sea below Newport. A conference of the Sanitary Committee of the County Council and of delegates from each of the sanitary authorities affected by the scheme met recently at Newport to consider the matter, and a Committee was appointed to examine the question in all its bearings. It is clear that the time has arrived when this matter will have to be dealt with in the interests of the large and growing populations of the lower parts of these valleys, who, under existing conditions, are the unwilling recipients into their districts of the sewage from the great centres of population in the upper parts of the valleys. Whether it will be found possible to carry into execution so comprehensive a scheme as that proposed by the County Surveyor is a matter of some uncertainty, owing mainly to the financial position of many of the local authorities affected by the scheme; it will more probably be found that the only feasible means of dealing with the matter will be by the adoption by each separate authority of some one or other of the systems for the purification of sewage which are in successful operation in certain parts of the country.

## SURGEONS IN THE PULPIT.

One of the Liverpool clergy has just suggested that hospital sermons should be preached, not by his own brethren, but by medical men. This is a terrible idea, and we hope it will go no further: for it is capable of extension. Military men might preach in time of war; artists and musicians might plead for the opening of museums and concert-rooms on Sunday; secretaries of charitable institutions would want to preach at least once a year; and the clergy would soon have only the week days left to them. Their congregations would be first amused, then scandalised, then dispersed. We question whether the more self-respecting members of hospital staffs would accept the duty. It is said that there are four things which we all believe we can do better than somebody else: poking the fire, finding a train in *Bradshaw*, deciphering a word in an ill-written letter, and preaching a sermon. As to the first three, offers of interference are common enough; but the suggestion that we should not only practise what we preach, but should also preach what we practise, is too tiresome for serious consideration.

## A CHAPTER IN THE HISTORY OF VACCINATION.

M. Hervieux, speaking on behalf of the Académie de Médecine, recently stated that vaccine was introduced into France by the Duc de la Rochefoucauld-Liancourt, an *émigré*, who on his return from America had stayed some time in England, where he had opportunities of seeing the effects of vaccination. On May 11th, 1800, he communicated to some friends, and to some leading men in the medical profession, his impressions as to the importance of Jenner's discovery, and opened a subscription for the promotion of the practice. On May 30th, 1800, a medical committee was formed for the purpose of performing vaccinations and observing the effects. The efforts of the committee received official support from Lucien Bonaparte, then Minister of the Interior, and from Frochot, Prefect of the Seine. By the help of these authorities the hospitals were placed at the disposal of the Committee, and steps were taken by Talleyrand (Minister for Foreign Affairs), and Otto (Commissioner of the French Republic in England), to obtain a supply of lymph from the Vaccine Institute in London. The subscribers had obtained a first supply of vaccine from London on May 29th, 1800, but, whether owing to the age of the lymph or to the inexperience of the operators, the first inoculations were unsuccessful. Woodville, one of the first English physicians who practised the "new inoculation," was then invited to Paris, but his vaccinations also failed; some which he had done at Boulogne, however, were successful, and lymph was obtained from these cases, and used in Paris with most satisfactory results. Soon the practice became general throughout France. A report, dated March 14th, 1803, presented to the First Consul by Hallé, led to a circular being issued to all prefects of departments asking for information as to the results of the method. The replies were so satisfactory that on April 4th, 1804, a new society, comprising the members of the old committee and a number of leading scientific men and functionaries, was founded under the name of Central Committee. After that all the establishments forming part of the Assistance Publique, the hospitals, foundling asylums, midwives, medical juries, and Sisters of Charity vied with each other in every part of France in practising vaccination. The prefects and medical practitioners sent reports every year to the Government. Napoleon was therefore, not properly speaking, the initiator of vaccination in France, but it was under his consulship and with his support that the practice spread in that country. In 1809 he issued a decree making the maintenance of a supply of vaccine compulsory in the principal towns of France. In 1820 the Académie de Médecine was founded and took over the functions of the Central Committee.

## CREMATION DURING EPIDEMICS.

Events are constantly pointing with increasing force to the importance of disinfecting the bodies of all persons dying of infectious disease. Quite recently the steamship *Nubia* arrived at Plymouth with cholera on board. Several deaths occurred on her whilst in quarantine in Plymouth Harbour, and from fear of spreading the disease the bodies were taken out into the Channel and buried at sea. Probably, under the circumstances, this was the best thing to do with them, but, from what has subsequently appeared in the newspapers, there are many people who do not relish the idea of bodies dead from such a terrible disease as cholera being thrown into the sea from which are taken fish that may be used for food. Then, again, there is the plague, which is making such frightful ravages among the population of Bombay, and threatening to spread across India. Hundreds of plague bodies, it is stated, have been buried in a small burying-ground in Bombay, surround by tenement houses containing a large population. Surely it is time that the advice first given by Sir Henry Thompson over twenty years ago, and frequently repeated, that the body of every person that has died from an infectious disease should be cremated, should be acted on. As Sir Henry pointed out in the paper he read on this subject at the International Congress of Hygiene and Demography held in London in 1891, nearly 69,000 bodies dying of zymotic diseases are scattered about England and Wales every year, which involves, at any rate, some risk to the living. In Buenos Ayres the cremation of all bodies dying of yellow fever is compulsory. It would be a good thing if cremation were now compulsory at Bombay, and if a crematorium were provided at all our seaports at which ships arrive from foreign countries. The provision of a crematorium is simple, and involves no great expense, and by placing a body in a chamber heated to from 1,500° to 2,000° F., all the fluid and gaseous matters are volatilised and escape as innocuous gases, the residue being a small heap of absolutely harmless white ash. Cremation is an act of wise precaution and just regard for the interests of the living.

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On July 6th the venerable Professor Kölliker will celebrate the fiftieth anniversary of the commencement of his fruitful career as a teacher. His eightieth birthday falls on the same date.

# THE PLAGUE.

## THE ANTITOXIN SERUM.

### The Discoverer of the Serum.

Dr. Yersin's name has been so frequently mentioned of late in connection with his researches on plague that a few particulars about him will doubtless be interesting. He was born at Morges, in Switzerland, in 1863, of a French family, driven from its country by the revocation of the Edict of Nantes. He is now a Frenchman by naturalisation. He studied medicine in Paris, and in 1885, when he was working at the Hôtel-Dieu under Professor Cornil, he wounded himself in making a *post-mortem* examination on the body of a Russian patient who had been bitten by a rabid wolf, and had been sent to Paris for treatment. M. Yersin was himself sent to the Pasteur Institute, where he underwent the treatment. There also he became acquainted with M. Roux, who, seeing his aptitude for bacteriological work, associated him with himself in his researches. M. Yersin was still only an *externe* under Professor Grancher, when M. Roux's first paper on diphtheria toxin appeared; in it M. Yersin's name was coupled with that of his teacher. In 1888 he became Demonstrator of Microbiology. His going to the East seems in the first place to have been more or less accidental. After graduation he obtained an appointment in the Messageries Maritimes. While still in the service of that company Dr. Yersin did a good deal of exploring in Indo-China, and especially in a part of the Annamite country which was then almost unknown. In 1895 the Minister of Public Instruction entrusted him with a new scientific mission "to explore the unknown regions of the Black Country from the geographical and ethnological points of view, and to continue in Indo-China the study of various epidemic diseases of men and animals." M. Yersin first went to Hong Kong to study the plague, and there he worked in a thatched hut, which with the sanction of the British authorities he had built within the precincts of the chief hospital. Here he succeeded in isolating the plague bacillus. He continued his researches in Paris and at Nyatrang, a lonely station on the Annamite coast, and finally succeeded in obtaining from the horse a serum which he thought would probably produce immunity in man.

### The Results of the Treatment.

At a meeting of the Académie de Médecine on January 26th M. Roux gave an account of the results obtained by M. Yersin with the serum. After referring to the despatch from the French Consul at Hanoï, which had been communicated to the Académie on August 11th, 1896, he proceeded to give more precise details as to M. Yersin's work in China. Having given a brief description of his experimental work in connection with the serum, M. Roux went on to state that while M. Yersin was at Nyatrang, and had just commenced the immunisation of several horses, the plague broke out again at Canton in January, 1896. He at once went there, taking with him eighty bottles of serum which he had received from Paris. On his arrival, however, the epidemic was beginning to subside; moreover, he could find no Chinese patients willing to allow themselves to be treated by him. A student of the mission seminary, however, having fallen ill on the morning of June 26th, M. Yersin injected 10 c.cm. at 5 P.M., and two further doses of the same amount at 6 and 9; at midnight the patient was quiet and fell asleep. The next morning there was no fever and the bubo was not painful; the day after that the patient was cured. M. Yersin then left Canton, leaving a syringe and a small supply of serum. After his departure two other seminary students fell ill of the plague, and were cured in the same way. M. Yersin next went to Amoy, where he treated 23 cases in eight days; of these 21 were cured and 2 died, one five, the other twenty-four, hours after injection. In one of these fatal cases the patient was in the fifth day of illness before the treatment was commenced, and in the other the infection was very intense. In these various cases injections were given of a total dose of from 40 to 60 c.cm., according to the gravity of the disease and the time it had lasted. If the injection is given on the first day a cure is effected in twenty-four hours without suppuration; if on the second day a stronger dose is required, and recovery is slower (from two to three days), but still without suppuration; if the treatment is not begun till the third or fourth day a dose of 40, 50, or 60 c.cm. is required. As a rule, if the treatment is begun soon after the onset of the disease only 20 to 30 c.cm. are required on the average, and the buboes suppurate, but recovery is still possible.

Of the 26 cases treated, therefore, 2 died, a mortality of 7.6 per cent. The serum used had been carried about to various places after being brought from Europe. As a prophylactic the serum has still greater activity, and M. Yersin is strongly of opinion that it should be injected in all persons likely to come in contact with plague patients. M. Roux pointed out that although the number of cases is small, still, if it be borne in mind that they were of a very grave type, and that in such circumstances the mortality of the plague has hitherto been 80 per cent., one cannot help thinking that the efficacy of the method has very nearly been definitively proved.

### The Experimental Evidence.

Dr. A. Yersin contributes to the January number of the *Annales de l'Institut Pasteur* a most important note on The Serum Treatment of Bubonic Plague. He points out that in 1894, following up the researches carried out by Calmette and Borrel on the immunising of rabbits and guinea-pigs, he was able to obtain a certain degree of immunity in a horse by injecting small quantities of the plague bacillus subcutaneously, and afterwards, as this produced suppuration, by making intravenous injections of the plague bacillus, these injections being repeated from time to time as the temperature went down, the glandular enlargements and joint tenderness disappeared, and the animal came to its normal condition. With serum taken from such a horse three weeks after the last injection mice were treated; in one set of experiments serum, first given as a preventive dose, was injected in quantities of $\frac{1}{10}$ c.cm., followed twelve hours afterwards with a dose of the plague bacillus which, under ordinary conditions, would have proved fatal, enabled the animals to escape an attack of the disease, all remaining quite well. He found, however, that if the order were reversed, and the fatal dose of the bacillus was given twelve hours before the serum was injected, 1 c.cm. was necessary to counteract the effects of the bacillus. Continuing his experiments in Annam, Dr. Yersin succeeded in obtaining a serum of which from 1-20 to 1-30 of a c.cm. was a preventive dose, and he was very sanguine as to the results he would obtain in the treatment of cases of plague in the human subject. He was also supplied with a quantity of serum that had been prepared in the Pasteur Institute in Paris of the same strength as that he had originally used—that is, a $\frac{1}{10}$ c.cm. was a preventive dose for a mouse of 20 grammes weight. The results, as stated above, are sufficiently striking, and certainly indicate that, as the nature of the disease becomes better understood and the method of immunising the animals from which the serum is obtained are improved, still better results may be anticipated. The amount of serum at Dr. Yersin's disposal was, as we have seen, very small, and he was quite unable to comply with the requests of those who had seen the results of this method of treatment to leave with them a quantity of the serum. He is, however, still continuing his experiments, whilst no doubt other investigators will be working on similar lines in order that, should the present outbreak continue, some attempt may be made not only to cut short the epidemic by means of preventive inoculations, but to cure cases in which the disease is actually well developed, cases the majority of which have hitherto been looked upon as hopeless from the beginning. As M. Yersin points out, hitherto this serum has only been employed in developed cases of plague. He maintains, however, as the result of his experiments on animals, that it will be extremely valuable in affording protection to those who have been exposed to the infection of plague, and that in this way the diffusion of the disease may be prevented, especially when careful isolation can be maintained. The duration of the preventive action of the serum has not yet been determined, but it is certainly active for a sufficient length of time to allow of the isolation and disinfection of the houses in which a case of the disease has occurred.

So striking are these experiments as a whole that it may

almost at once be affirmed that the question of the treatment of plague is resolved into a question of the production in large quantities of a fairly active serum, a serum sufficiently strong to be readily transportable—that is, in small bulk—from place to place; such a serum will be useful until such time as the conditions which favour the epidemics amongst crowded native populations can be removed, or at any rate largely ameliorated.

## PROGRESS OF THE EPIDEMIC.

Rest stations—that is quarantine stations—are being established along the Bengal frontier railway stations. No traveller is allowed to journey to Bengal until careful inquiry is made as to where the traveller started from and whither he or she intends to go. This, combined with medical inspection, is what Calcutta relies upon for safety.

### Despatch of British Doctors to Bombay.

We congratulate the authorities on the wise step initiated this week of sending additional medical help to Bombay. As pointed out in these columns, no disease necessitates more close and constant medical supervision than plague; and in face of the danger entailed on neighbouring countries, it behoves the people of this country to supply medical and nursing assistance without stint.

Famine is being relieved by munificent subscriptions, but the plague, which means ruin of trade, loss of employment to thousands, and immediate danger to the civilised world, is not attracting the financial help which, both in the name of charity and saving of life, seems well-nigh imperative. The evil of famine can be localised, but the danger of plague is illimitable, and it is this fact, and not the presence of famine, which is exciting all Europe.

The choice of Dr. Lowson as Adviser to the Government of India is an excellent selection, as Dr. Lowson has seen more of plague than any man living, and had medical charge of the Hong Kong epidemic in 1894. As yet we regret that no nurses are being sent from England, but we earnestly hope that they, as well as the adequate medical help we have so frequently urged to be sent out, may be despatched at an early date.

### Prospects for the Future.

As regards the epidemic, no better news is forthcoming, nor, we fear, is any great abatement of the disease in Bombay, or wherever else it may appear, to be anticipated with any confidence until six or seven months after the commencement of the outbreak. Bombay, it may be hoped, will be free of the epidemic in the month of April—that is, seven months after its appearance in September, 1896. Afterwards sporadic cases will occur, and unless every sanitary precaution is taken during the lull it will reappear in seven or eight months more. The precautions necessary are thorough purification of the city, not only as regards drainage and dirt and house cleansing, but the disinfection of clothing must form the keynote of precautionary measures. When disease or impoverishment from any cause approaches, the poorer classes immediately pawn their clothing, and if they are infected—be it with plague, small-pox, or any other infectious disease—the particular form of disease again reappears when returning prosperity enables them to redeem their goods. This, perhaps, is the greatest danger in the future, and one which should be met by a thorough disinfection of pawnbrokers' stores immediately the present epidemic is over.

### The Sanitation of Karachi.

The sanitary condition of Karachi, on the whole, is better than that of Bombay, as the town occupies a larger area in proportion to the population, though a few of the wards are densely inhabited. Before the introduction of the water supply the wells in the native town were all brackish; but the soakage of the ground by the unstinted quantity of pipe water used and the want of drainage has converted some of them into sweet wells again; this proves the extent of the water-logging.

A portion of the native town has lately been drained on the Shone system, and the sewage utilised on a plot of ground favourably situated, which ought to prove remunerative and successful. House connections should be extended in the native town, and the camp could be drained by gravitation to the present outfall on the Moneh plain. The level of the subsoil water is abnormally high; but this might be reduced by checking the consumption of water by meter and raising the water rate, which is far too low at present, and therefore wasted in garden irrigation and other ways.

The rainfall on the average is only a few inches; but even after light showers the water lodges and stagnates in pools in the streets and lanes, which ought to be raised where necessary. There is more hope for sanitary reform in Sind than in any other province in the Western Presidency, although it used to be included in the list of non-regulation districts.

### The Danger by Land.

The real danger to Europe is by land and not by sea. The country to the west of the Indus is the home of plague, and when once the infection in an epidemic form reaches thence—that is, Afghanistan, Persia, and especially Mesopotamia—no doubt there will be a danger of its importation, *viâ* the Caspian and the Black Sea shores, to Europe. But these regions have been for many decades now liable to invasions by plague, yet it has not reached Europe, and *a priori* there is no reason to conclude that it will do so now. In fact, all experience for the last fifty years is against its spread to Europe, and, although not wishing to minimise the danger, we cannot join in the assumption that, because plague is raging east of the valley of the Indus, it is to spread to Europe. Plague has not up to the present gone beyond the "plague belt," in which it has been known to exist at times during the past fifty years.

### Closure of the Bombay Mills.

The closure of many of the mills in Bombay is a serious matter, not more from a pecuniary than from a sanitary point of view. The work rooms of the mills are healthy domiciles, where at least the workers enjoy immunity during the day from the foul air of their overcrowded dwellings; their closure means poverty, insanitary abodes, and a loss of occupation, which during any epidemic is calculated to depress the spirits and allow time for people to brood over their afflictions. We would urge the employers of labour to do their utmost to keep their factories open, if for no other reason than that it is for the good of the public health and the public welfare.

### Plague in Poona and Karachi.

Plague has fairly laid hold on Poona, and Karachi is as severely stricken as Bombay. Already in Bombay the parts first stricken are enjoying a cessation; and if it be the case that plague was in the Mundvie district in August, the seven months of its affliction are well nigh at an end. A Reuter's telegram states that the International Sanitary Council at Constantinople has received notice that the plague has appeared at Port Djivadir, in Baluchistan.

### Portuguese India.

Goa, the Portuguese district to the south of Bombay, is threatened by plague, and the Portuguese authorities are taking severe measures to check its advance. Cordons, military law, and rigorous punishments for evading the laws, are what they chiefly rely upon; but it is doubtful whether they will meet with any more success than they did in the Portuguese settlement in Macao, China, in 1895. Something more is required than mere regulations; intelligent sanitation is what is needed, and we are afraid that, neither at home or abroad, have our Portuguese neighbours learnt the rudiments of the art.

### Suggestions for Treatment and Prevention.

We are favoured by suggestions from various sources. Amongst others, Surgeon-Major Holmstead (retired) suggests a pill of arsenic, iron, and assafœtida, to be given as a prophylaxis; and suggests that the Brahmins, Yogis, etc., should be asked to distribute them, as faith sometimes helps. The same writer also condemns all disturbance of refuse whilst the plague is raging—a suggestion which may be endorsed.

The newspapers report that Dr. Haffkine's serum has been used as a prophylactic in 156 inmates of the House of Correction.

### The International Sanitary Conference.

The International Sanitary Conference will assemble at

Venice on February 10th. Great Britain will be represented by the Hon. M. Herbert, first Secretary of the British Embassy at Rome, and Dr. Thorne Thorne, C.B., principal medical officer to the Local Government Board. India will be represented by Surgeon-Major-General Cleghorn, Egypt by Dr. Milton and Cherif Pasha, Under-Secretary for Foreign Affairs. The medical representatives of France will be Drs. Brouardel and Proust; of Russia, Dr. Botkin; of Holland, Dr. Ruysch; of Portugal, Dr. Sousa Martin.

A special conference of German sanitary officials at Berlin, held in the Imperial Office of Public Health on January 28th, decided to adopt precautions against the introduction of plague into Germany, similar to those which were adopted during the cholera epidemic. The import of rags, bedding, and soiled linen will be controlled, writes the special correspondent of the *Times* at Berlin, and in the case of all arrivals of ships, as well as of travellers from the East, the port of departure will be specially registered.

### Help for India.

One of the most interesting phases in the history of the present terrible disasters of "plague, pestilence, and famine" besetting the Indian Empire, is the generous response given to the appeal for pecuniary aid to the sufferers by the Colonies. All the Canadian banks, we read, have opened subscription lists, and on hearing the ghastly position of affairs through a telegram from the Chief Justice of Bengal, Sir Francis Maclean, to the Governor-General of Canada, the Canadians were deeply moved. Even wealthy Americans have forwarded handsome contributions to the subscription lists opened at Montreal, and considerable sums have already been voted by the Governments of Ontario and Manitoba for similar purposes.

Medical officers of the Indian Medical Service who are about to retire or return to Europe on leave have been asked to remain in India; and among the medical officers of the Indian Medical Service on leave in this country who have left or are about to leave for India are Surgeon-Lieutenant-Colonel W. M'Conaghy, Surgeon-Major David C. Davidson, Surgeon-Major W. H. Burke, and Surgeon-Major W. P. Carson. In response to the invitation to army medical officers in this county to volunteer, Surgeon-Major W. L. Reade, Surgeon-Captain Borradaile, and Surgeon-Captain Beveridge have been accepted.

## ROYAL LONDON OPHTHALMIC HOSPITAL.

On February 1st the Lord Mayor presided at a meeting at the Mansion House, held "for the purpose of considering the measures to be taken to defray the unavoidably heavy cost of the new building now being erected in the City Road," in connection with the Royal London Ophthalmic Hospital, Moorfields.

Lord Thring moved the first resolution:

That this meeting desires to place on record its sense of the importance and usefulness of the Royal London Ophthalmic Hospital.

He said he had attended the meeting in gratitude to Mr. Nettleship, who had recently operated upon him successfully for cataract. The hospital was founded in 1804, rebuilt in 1821, and enlarged in 1891. These buildings having become quite inadequate, a site for a new hospital was obtained, and the large sum of £85,000 was now required for the purposes of building and maintenance. In order to give an idea of the advantages conferred by the hospital, he mentioned that in 1895 no fewer than 20,000 patients were treated, 800 of them being sufferers from cataract.

Sir Donald Currie, in seconding the motion, read the following letter from Mr. Gladstone:

Hawarden, January 15th, 1897.

I find myself disabled by circumstances from giving any further attendance at public meetings. That need not, however, altogether prevent me from bearing my testimony to the value of institutions such as the Ophthalmic Hospital, in which the resources of science are made available to repair or mitigate the wastes of Time, the defects of Nature, or the deficiencies of disease. All who have suffered, even in the mildest form, from any of these causes acquire an enhanced perception of the immense value of the power of sight, and a new insight (in some degree) into the marvellous skill with which it is adapted to what I may call an infinity of purposes. Of those to whom you make your appeal a portion probably are already sufferers, but a larger number, now in the full enjoyment of their visual powers, must lay their account with having in the course of Nature to stand hereafter in the same predicament. It will be no unhappy circumstance if, without waiting for the evil day, they stretch out the hand of help to their brethren.

(Signed) W. E. Gladstone.

The Rev. Brooke Lambert supported the motion, which was agreed to unanimously.

The Right Hon. A. J. Mundella, M.P., moved:

That this meeting records its hearty appreciation of the hospital as a school of ophthalmic medicine and surgery.

He said that he also responded with cheerful alacrity to Mr. Nettleship's invitation to attend the meeting, for not very long ago his wife was threatened with blindness, and was saved from that fate by one of the surgeons of the hospital. He had recently served for nearly eighteen months on an inquiry into the condition of the Poor-law schools of the metropolis, where they had had much painful experience with regard to ophthalmic diseases. On the Blind Commission, on which he also served, they found that ophthalmia was the prevailing cause of blindness, which this hospital had done more to stamp out than any other institution in the kingdom. It was, in fact, a hospital of a national character, and it gave training, skill, and efficiency to students who resorted to it.

Mr. Jonathan Hutchinson, in seconding the motion, said the hospital stood at the very centre of ophthalmic science.

Mr. John Tweedy supported the motion, which was carried unanimously.

Cardinal Vaughan moved:

That this meeting approves of the rebuilding of the hospital on the site chosen in the City Road, recognises the urgent necessity of its speedy completion, and promises by every effort in its power to secure liberal aid from all who sympathise with ophthalmic suffering.

His Eminence urged that it was absolutely necessary to close and sell the premises in Moorfields, and towards the new building they had only a few thousands in hand.

The Rev. Dr. Adler, Chief Rabbi, seconded the motion, which was supported by Mr. Charles R. Smith and Mr. Percy Thornton, M.P., and carried unanimously.

A list of contributions towards the rebuilding fund (which included £100 from the Queen and £1,000 from the medical staff of the hospital) was read.

A vote of thanks to the Lord Mayor brought the proceedings to a close.

## UNIVERSITY COLLEGE HOSPITAL.

A public meeting in aid of this hospital was held at the Drill Hall, Chenies Street, on January 28th. It was convened by a local Committee, with Sir John Hutton as chairman, and its especial object was to secure more adequate support from the inhabitants of St. Pancras and the neighbouring districts. The Duke of Bedford, who presided, stated the case for the hospital in a manner impressive by reason of its bluntness and directness. The assured annual income of the charity was, he said, £7,000, the expenditure £19,000; the present debt to tradespeople was £15,000, and unless funds were forthcoming to pay this off fifty beds must be closed on March 1st. Mr. Asquith followed with an eminently practical appeal to his neighbours, declaring the expenditure of money upon a hospital a true form of economy. The Chief Rabbi, in a moving speech, implored the aid of the Jews and the Nonconformists, for whom University College had done so much, and to whom the hospital had not looked in vain in the past; while Lord Reay quoted figures showing how much more generous was the support accorded to hospitals by the wealthy natives of India than by the corresponding class in England. The Rev. H. C. Paget claimed to speak as a surgeon's son, and as the vicar of the parish in which the hospital is situate. He drew a dramatic picture of the squalor and misery of Somers Town, but maintained that dreadful as was the poverty in St. Pancras, there was wealth enough in the parish to relieve it, and to support comfortably an institution twice the size of University College Hospital. Captain Jessel, M.P., referred to the number of hospitals within the district, and named University College as the one in which family traditions had given him the most interest. Sir John Hutton moved, and supported with considerable eloquence, a resolution pledging the meeting to use every effort to place the hospital on a sound financial basis. The resolution was seconded in a characteristic speech by Mr. Christopher Heath, who commented upon the severe way in which royal patronage extended to one hospital reacted on

the others. He pointed out that of all the hospitals in London, St. Bartholomew's was the only one to pay its way. He strongly urged the meeting to support and give effect to the motion, which was thereupon carried by acclamation. The meeting concluded with a vote of thanks to the Chairman, proposed by Lord Monkswell, and seconded by the Chairman of the Hospital Committee, Mr. Henry Lucas, who, in the course of his remarks, made some extremely telling points. The whole number of subscribers to the hospital among the inhabitants of St. Pancras amounted, he said, to 351, being less than the number of houses in Tottenham Court Road and Gower Street together. In these, the two important thoroughfares nearest the hospital, the subscribers numbered 12 and 31 respectively.

The meeting was a great success from the point of view both of attendance and enthusiasm, and it is to be hoped that the inhabitants of the district will respond generously to the appeal for a hospital in whose past and in whose present they can have nothing but pride. A festival dinner in aid of the hospital is to be held at the Hotel Cecil on February 10th. The Lord Mayor (Alderman G. Faudel Phillips) will take the chair, and will be accompanied by the Lady Mayoress.

## IRISH WORKHOUSE REFORM ASSOCIATION.

On January 29th a conference in connection with the Irish Workhouse Reform Association was held in the Mansion House, Dublin, Lord Monteagle in the chair. The attendance was very large, and included the Duchess of Abercorn, the Marchioness of Dufferin and Ava, Lady Monteagle, the Countess Fingall, Lady Emly, Lord and Lady Bellew, Mr. Thomson (President of the Royal College of Surgeons), the Right Rev. Bishop Healy, and many representatives from Boards of Guardians. The principal speakers were Sir Christopher Nixon, Sir Thornley Stoker, Mrs. Power Lalor, Dr. Moorhead, the Dean of the Chapel Royal, Mr. Phibbs, Mr. Sheridan, Chairman of the Navan Union, Dr. Smyth, N.A.C.S., and Dr. Laffan, Cashel.

It was pointed out that the Association aimed at carrying out the reforms through the Boards of Guardians with the existing machinery.

Dr. Moorhead said that the death-rate in workhouses was 250 per 1,000. In other words, one-fourth of the inmates died every year. He had no hesitation in saying that this was due to want of nutritious food, insufficient warmth, and unwholesome surroundings.

On the question of nursing the feeling was unanimous that the pauper nurse should be abolished, and that trained nurses should be employed in conjunction with the religious orders.

The constitution of the Association was approved, and a general Council was elected.

# ASSOCIATION INTELLIGENCE.

## NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1897.

Meetings of the Council will be held on April 14th, July 7th, and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 25th, June 17th, and September 30th.

### Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

## PROCEEDINGS OF THE COUNCIL.

At a meeting of the Council held in the Council Room at the office of the Association, 429, Strand, London, W.C., on Wednesday, January 20th, 1897,

*Present:*

Dr. Robert Saundby, President of Council, in the chair.
Dr. Henry Barnes, President.
Dr. T. G. Roddick (Montreal), President-elect.
Dr. Charles Parsons, Treasurer.

Dr. James Barr, Liverpool.
Dr. Rayner W. Batten, Gloucester.
Dr. Michael Beverley, Norwich.
Dr. Thomas Bridgwater, Harrow-on-the-Hill.
Mr. H. Langley Browne, West Bromwich.
Mr. Henry T. Butlin, London.
Dr. James Cantlie, London.
Dr. Alfred H. Carter, Birmingham.
Mr. Andrew Clark, London.
Dr. William F. Cleveland, London.
Dr. John Ward Cousins, Portsmouth.
Dr. H. Radcliffe Crocker, London.
Dr. George W. Crowe, Worcester.
Dr. E. H. Dickinson, Liverpool.
Dr. T. M. Dolan, Halifax.
Brig.-Surg.-Lieut.-Col. E. F. Drake-Brockman, London.
Dr. W. Dyson, Sheffield.
Mr. George Eastes, London.
Dr. William A. Elliston, Ipswich.
Dr. David W. Finlay, Aberdeen.
Dr. John H. Galton, Upper Norwood.
Dr. Bruce Goff, Bothwell.
Dr. C. E. Goodall, London.
Dr. William Gordon, Exeter.
Dr. Ogilvie Grant, Inverness.
Dr. H. Handford, Nottingham.
Mr. J. Hughes Hemming, Kimbolton.
Dr. C. Holman, London.
Dr. T. F. I'Anson, Whitehaven.
Mr. Evan Jones, Aberdare.
Mr. Jordan Lloyd, Birmingham.
Mr. C. N. Macnamara, London.
Mr. H. J. Manning, Salisbury.
Dr. J. W. Miller, Dundee.
Dr. John William Moore, Dublin.
Mr. W. Jones Morris, Portmadoc.
Mr. R. H. B. Nicholson, Hull.
Dr. J. W. J. Oswald, London.
Dr. Isambard Owen, London.
Mr. C. H. Watts Parkinson, Wimborne Minster.
Dr. Frank M. Pope, Leicester.
Dr. Edwin Rayner, Stockport.
Dr. John Rolston, Devonport.
Dr. William Russell, Edinburgh.
Dr. L. F. Sedgwick, London.
Dr. Alfred Sheen, Cardiff.
Dr. G. E. Shuttleworth, Richmond Hill.
Dr. E. Markham Skerritt, Clifton.
Mr. Henry Stear, Saffron Walden.
Dr. J. Strachan, Dollar.
Dr. J. Roberts Thomson, Bournemouth.
Dr. A. R. Urquhart, Perth.
Mr. T. Jenner Verrall, Brighton.
Mr. J. Hopkins Walters, Reading.
Mr. C. G. Wheelhouse, Filey.
Mr. Joseph White, London.
Mr. G. E. Williamson, Newcastle-on-Tyne.
Mr. Alfred Winkfield, Oxford.

Read letters of apology for non-attendance from Dr. John Campbell, Dr. Drummond, Dr. Glascott, Mr. Vincent Jackson, Mr. Jessop, Dr. Lindsay, Dr. Philip, Dr. Philipson, Dr. Sandford, Dr. Somerville, Dr. Trend, Dr. Winterbotham, Dr. Woodcock, Mr. J. B. Harries, Surgeon-General O'Dwyer, and Sir Willoughby Wade.

Resolved: That the Council of the British Medical Association desire to offer their cordial congratulations to Lord Lister, P.R.S., M.B.Lond., F.R.C.S.Eng., upon the honour of being the first member of the medical profession in this kingdom who has been raised to the peerage as a recognition for his scientific and professional eminence, and they wish him long life to enjoy the dignities he has earned by his supreme merit.

The President of Council announced the presence of the President-Elect, Dr. Roddick, who had come from Montreal for the purpose of attending this meeting of the Council, and expressed to him a very hearty welcome on behalf of the Council.

The President-Elect then made a statement as to the meeting at Montreal in August next.

The President of Council then announced the new representatives, who were present for the first time, namely, Mr. J. Hopkins Walters, from the Reading and Upper Thames Branch; Dr. Shuttleworth, from the Thames Valley Branch; and Dr. Carter, from the Birmingham and Midland Counties Branch.

Read letter from Mrs. Benson, of which the following is a copy:

Addington Park, Croydon, November 4th, 1896.

Mrs. Benson and the family of the late Archbishop of Canterbury desire to express their sincere thanks for the kind and sympathetic resolution received from the Council of the British Medical Association.

Read letter from Lady Humphry, of which the following is a copy:

Grove Lodge, Cambridge, November 1st, 1896.

Sir,—May I ask you on your next occasion of meeting to express to the Council of the British Medical Association my grateful sense of their kind expressions and sympathy.—I am, Sir, yours sincerely,

Mary Humphry.

Read letter from Captain A. T. Moore, of which the following is a copy:

15, Portland Place, W., November 9th, 1896.

Sir,—Lady Moore desires me to acknowledge the receipt of your letter of the 2nd instant, and to express her sense of gratification at the resolution of sympathy which was passed at a meeting of the Council of the British Medical Association on the 21st October last in reference to the death of her husband, the late Sir William Moore.—Yours truly,

A. T. Moore, Capt. R.E.

Read letter from Mrs. Langdon Down, of which the following is a copy:

Normansfield, Hampton Wick,
November 7th, 1896.

To the General Secretary, British Medical Association.

Dear Sir,—I am much obliged for your letter enclosing the resolution of the Council.

Will you be so good as to express to the Council of the Association the sincere thanks of myself and family for the sympathy extended to us in our bereavement?—I am, dear Sir, yours very truly,

M. Langdon-Down.

Resolved: That the same be received and entered on the minutes.

Read reply of the Local Government Board in reference to minute of Council 3698, of which the following is a copy:

Local Government Board, Whitehall, S.W.,
November 4th, 1896.

Sir,—I am directed by the Local Government Board to advert to your letter of the 23rd ultimo, forwarding a memorial signed by the President of the Council of the British Medical Association on behalf of the Council respecting the action of the Guardians of West Bromwich Union on the appointment of a medical officer for the No. 1 District of the union.

In reply, I am directed to state, for the information of the Council, that Articles 177 to 183 of the General Consolidated Order of the 24th of July, 1847, relating to the payment of fees to district medical officers, have been suspended so far as regards the West Bromwich Union by the Board's order of the 20th September, 1862.—I am, Sir, your obedient Servant,

Francis Fowke, Esq., General Secretary, British Medical Association, 429, Strand, W.C.

W. E. Knollys, Assistant Secretary.

Resolved: That Sir Walter Foster be requested to ask a question in Parliament as to the reason of the suspension of the order in the case of the West Bromwich Board of Guardians, and whether such suspension cannot now be removed.

Read letter from Mr. James Green respecting the invitation to Portsmouth which was given at the last annual meeting.

Resolved: That Mr. Green be informed that there was nothing irregular or unprecedented in the invitation sent from the profession at Portsmouth at the last annual meeting.

Read letter and statement from Mr. Timothy Holmes, Chairman of the Medical Subcommittee of the Civil Rights Defence Committee.

Resolved: That the further consideration of Mr. Holmes's request be postponed until the next meeting.

Read letter from Dr. Bond, of Gloucester, asking for a grant in aid of the Jenner Society.

Resolved: That a grant of £100 be made to the Jenner Society in aid of the movement for which they are at work.

Read letter from Dr. Douglas suggesting that a leaflet might be drawn up on the personal and public advantages of vaccination for the use of the profession among their patients.

Resolved: That the letter from Dr. Douglas be entered on the minutes, and the subject of the publication by the Association of a leaflet on vaccination be allowed to stand over for the present.

Read new by-law of the Aberdeen, Banff, and Kincardine Branch.

Resolved: That the new by-law of the Aberdeen Branch—"That no communication regarding the transactions of the Branch be made to the lay press, except through the Secretaries, with the approval of the Council"—be approved and confirmed.

The election of 159 candidates, whose names had been circulated with the summons calling the Council, was then considered.

The General Secretary reported that he had received an objection to one of the candidates.

Resolved: That 158 of the 159 candidates, whose names appear on the circular convening the meeting be and they are hereby elected members of the British Medical Association.

Resolved: That the minutes of the Journal and Finance Committee of to-day's date be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Journal and Finance Committee contain a resolution on the question of the appointment of an outdoor Editor. The accounts for the quarter, amounting to £3,454 2s. 11d.: the Auditors' report; and financial statement of the Anæsthetics Committee.

Resolved: That such a sum be invested in first-class security as may, in the opinion of the Treasurer, be taken from the balance in hand without interfering with the business.

Resolved: That the minutes of the Premises and Library Committee of January 19th be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Premises and Library Committee contain suggestions from the solicitor on behalf of the Association relative to the proposed two underground railways intending to run under the Association premises, and a resolution appointing a Subcommittee to confer with the solicitor to carry out his sugestions; the report of the Librarian.

Resolved: That the minutes of the Trust Funds Committee of January 19th be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Trust Funds Committee contain the appointment of adjudicators for both the Stewart Prize and the Middlemore Prize, and a resolution to the effect that the adjudicators of the Middlemore Prize be requested to award the prize for the best work in the departments of ophthalmic science and surgery during the past three years.

Resolved: That the minutes of the General Practitioners and Ethical Committee of January 19th be received and approved, and the recommendations contained therein carried into effect.

The minutes of the General Practitioners and Ethical Committee contain the replies from the universities which were memorialised as to their ethical regulations. Correspondence and resolutions as to medical aid associations. Replies of the Branches as to a certain Assurance Co. Also letters as to various ethical points with resolutions passed by the Committee in reference to the same.

Resolved: That the minutes of the Medical Defence Committee on November 6th and December 4th, 1896, be received, and a copy of the scheme published in the Journal.

Resolved: That the minutes of the Arrangement Committee of November 6th, December 4th, 1896, and January 19th, be received and approved, and the recommendations contained therein carried into effect.

Resolved: That the minutes of the Inebriates Legislation Committee of December 7th, 1896, be received and approved, and the recommendations contained therein carried into effect.

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French Association for the Advancement of Science.—The next meeting of the Association Française pour l'Avancement des Sciences (popularly known in France as *Afas*) will be held at St. Etienne (Loire) on August 5th, under the presidency of Professor Marey. Professor A. Poncet, of Lyons, will preside over the twelfth section (Medical Sciences) and Professor Bard, of Lyons, over the seventeenth section (Hygiene and Public Medicine).

A Tuberculosis Antitoxin.—Makssutoff in a preliminary communication published in a recent number of *Vratch* (No. 51, 1896) claims to have succeeded in obtaining from guinea-pigs which had died from tuberculosis an antitoxin whereby animals (guinea-pigs) could be rendered insusceptible to inoculation with tubercle bacillus. The nature and mode of the preparation of the antitoxin he at present reserves.

## BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—A meeting of this District will be held on Wednesday, February 24th, at 4.30 P.M., at Guy's Hospital (by kind permission of the Treasurer). The meeting will be clinical entirely, and demonstrations will be given by members of the staff. All practitioners, whether members of the Association or not, will be heartily welcomed.—SEYMOUR G. TOLLER, M.D., St. Thomas's Hospital, District Secretary.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.—The third meeting of the session will be held on Tuesday, February 9th, at 4.30 P.M., at the St. Pancras Infirmary, Dartmouth Park Hill, Highgate, N. Dr. Cleveland will preside. Mr. Stephen Paget, M.A., F.R.C.S., will read a paper On Cases of Blood-poisoning treated with Antistreptococcus Serum, and will give an abstract of the general results of the treatment up to the present time. Dr. Chilcott, Medical Superintendent of the infirmary, will show interesting cases in the wards of the infirmary. The District Committee will meet at 4.15 P.M.—HUGH WOODS, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting (clinical) will be held at the Infirmary, Cardiff, on Thursday afternoon, February 25th. Notices of papers, cases, etc., are requested to be sent in on or before February 18th.—ALFRED SHEEN and D. ARTHUR DAVIES, Honorary Secretaries.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.—The monthly meeting will be held on Tuesday, February 9th, at the Medical Library, 5, Pembroke Road, Portsmouth, at 9 P.M. Dr. Carling will read notes of two cases of interest.—C. C. CLAREMONT, Honorary Secretary, 57, Elm Grove, Southsea.

BORDER COUNTIES BRANCH.—The winter meeting of this Branch will be held in the County Hotel, Carlisle, on Friday, February 12th. The report of the Special Committee on the subject of medical defence, copies of which have been sent to members, will be considered and resolutions passed. The following papers are announced:—Dr. L. E. Stevenson, Temple Sowerby: Endemic Goitre. Dr. Parker, Kendal: Notes on Thyroid Gland Colloid and Thymus Gland. Drs. Barnes and Maclaren will show a case of Stricture of the Pylorus treated by Gastro-enterostomy, with notes. Dr. Ogilvy Ramsay, Carlisle: The Prevention of Sepsis in the Lying-in Room. Dr. Crerar, Maryport: A case of Otitis Media with Intracranial Suppuration. Dr. Wilson, Morland: An account of an Epidemic of Typhoid Fever in the village of Morland.—R. DUNDAS HELM, M.D., Honorary Secretary, 3, Alfred Street North, Carlisle.

## NORTH OF IRELAND BRANCH.

THE winter meeting was held at Belfast on January 20th, Professor WHITLA (President) in the chair. Lord Lister, Professor Coats (Glasgow), and forty-five members were present.

*Confirmation of Minutes.*—The minutes of last meeting were read and confirmed.

*Army Medical Service.*—Dr. LINDSAY moved:

That we, the members of this Branch, approve of the efforts now being put forth by the Council of the Association to promote a reform in the conditions of medical service in the army.

This was seconded by Dr. KEVIN, and passed unanimously.

*New Fever Hospital for Belfast.*—Dr. MCKEOWN moved:

That we, the members of this Branch, protest against the proposition to build a fever hospital for the borough of Belfast at Purdysburn.

This was seconded by Dr. DARLING, supported by Dr. O'NEILL and passed unanimously. A deputation was appointed to wait upon the Public Health Committee of the City Council, and urge the views of the Branch upon their notice.

*Medical Defence.*—Dr. CAMPBELL moved, and Dr. AGNEW seconded, the following resolution:

That we, the members of this Branch, approve of the scheme drafted by the Committee appointed to consider the subject of medical defence, and are of opinion that it should be adopted by the Association.

This was passed unanimously.

*Case.*—Dr. HENRY O'NEILL showed a patient from whom he had removed a cancerous tongue, with the neighbouring affected glands, and read short notes of the case.

*Paper.*—Dr. R. M. FRASER read a medico-ethical paper on the Conditions of Practice in Belfast. He discussed the abuse of hospitals, the evils of club practice, and the relations of medical men to one another. At the conclusion of the meeting several members expressed a desire that this subject should be revived at a subsequent meeting.

*New Members.*—The following were elected: James McMaster, M.D., Broughshane, Ballymena; Francis T. Heron, M.B., Loughbrickland, co. Down; R. J. Johnston, M.B., Silverstream, Greenisland; Thomas Houston, M.B., Royal Hospital, Belfast; William D. Donnan, M.B., High Street, Holywood, co. Down; Charles O'Neill, M.D., 39, Great Victoria Street, Belfast; James Morrison, L.R.C.P. and S.Edin., 126, Castlereagh Road, Belfast; Harriette Neill, M.B., Pakenham Place, Belfast. John Tennant, M.B., Antrim Road, Belfast, was transferred from the Edinburgh Branch.

*Afternoon Tea.*—The President and Mrs. Whitla entertained the visitors and the members of the Branch to afternoon tea before the meeting.

## PERTHSHIRE BRANCH.

A SPECIAL meeting of this Branch was held in Perth Infirmary on January 22th. Dr. NIVEN was called to the chair on the motion of the TREASURER. There were also present Drs. Liddell, Robertson (Perth), Robertson (Errol), Robertson (Scone), Hood, Stirling, Dr. Tough as guest, and the Secretary (Dr. Urquhart).—The SECRETARY intimated apologies for absence owing to illness from Drs. Mackay and Ferguson.

*Confirmation of Minutes.*—The minutes of the last meeting were read, approved, and signed by the CHAIRMAN.

*Clinical Cases.*—Dr. ROBERTSON (Perth) showed a case of Embolism of the Middle Cerebral Artery after Rheumatism in a girl of 11. There was hemiplegia of the left side with some spastic rigidity. There was a well-marked valvular lesion of the heart.—Dr. STIRLING (for Dr. FERGUSON and himself) read notes of certain cases of interest: (1) Rapid Growth of Uterine Tumour at age of 53; menstruation continued until early stages of enlargement; cured by curetting; microscopic section shown. (2) Perforation in Typhoid; sudden fall of temperature; collapse; no hæmorrhage; treatment by morphine injections; recovery, operation having been decided against. (3) Case of Puncture of Renal Capsule for Intractable Albuminuria in a boy; diminution of the albumen marked, but return after catching cold. (4) Fatty Tumour of Inguinal Canal simulating Hernia—probably remains of a hernia of spontaneous cure.—Dr. NIVEN moved a vote of thanks to the gentlemen who had taken the trouble to address the meeting, and took occasion to emphasise the value of salol in cases of diarrhœa of typhoid nature.

*Medical Defence.*—The scheme of the Committee lately appointed to consider the subject of medical defence was next discussed. General approval was expressed, but it appeared to the meeting that certain points should be amended. On the motion of Dr. R. STIRLING, seconded by Dr. W. ROBERTSON (Perth), to the effect that the subscription should be voluntary, being put to the meeting, all others present voted against it, and the Secretary was instructed to write to the following effect:

That the Perthshire Branch is of opinion that the subscription for the purposes of medical defence should be obligatory on all members of the British Medical Association. That the said subscription should not exceed five shillings per annum. That the funds of the Association should be used to make up any deficiency if that prove necessary. That, in the event of a paid organising secretary being appointed, he should be at the call of any United Kingdom Branch when his services appear to be necessary, so that he might make local inquiry for report at headquarters.

There were 8 members present; after due notice and submission of the circular of December 16th, 1896, to everyone connected with the Branch, those present were unanimous in adhering to former decision of the Branch in replying that the Association undertake these duties. They were unanimous in agreeing to the alterations and amendments above indicated, except that two voted for voluntary assessment.

*The late Dr. Fleming.*—Dr. URQUHART referred to the arrangements made in regard to the funeral of the late Dr. Fleming, which met with the approval of the meeting. He was instructed to insert a minute of condolence in the records, and communicate the same to the family of the deceased.

## BATH AND BRISTOL BRANCH.

THE third ordinary meeting of the session was held at Bristol on January 27th; Dr. E. MARKHAM SKERRITT, President, in the chair. Sixty-one members were present.

*New Member.*—Mr. James Pearse, M.B., C.M.Edin., of Trowbridge, was elected a member.

*National Deposit Friendly Society.*—With regard to the letter of the National Deposit Friendly Society, referred to the consideration of the Council at the October meeting of the Branch, after some discussion, in which Drs. JAMES STEWART, WAUGH, and Messrs. BLOXAM, WATHEN, FLEMMING, and the

President took part, the previous question was moved by Dr. Stewart, seconded by Dr. Waugh, and carried *nem. con.*

*Medical Defence.*—The Branch considered the scheme of the Central Council for Medical Defence, and on the motion of Dr. Stewart, seconded by Dr. Wigmore, decided unanimously in favour of the Association undertaking the duties of collective and individual medical defence.—After some discussion as to whether the Association should pay the damages incurred by a member in any proceedings, and also as to whether the scheme should be made obligatory on all members of the Association, on the motion of Dr. Stewart, seconded by Dr. Michell Clarke, the Branch decided unanimously in favour of the scheme as finally drafted by the Central Committee.

*Cholecystotomy.*—Mr. C. A. Morton recorded a successful case of cholecystotomy in which it was impossible to bring the gall bladder to the abdominal wall. There was jaundice, and the patient's strength was much reduced by frequent vomiting. Mayo Robson's method of separating and tucking down the parietal peritoneum was employed. Mr. Morton remarked on the various methods of performing cholecystotomy.—Mr. Greig Smith mentioned several instances in which he had not been able to stitch the gall bladder to the abdominal wall, and showed specimens of gall stones successfully removed from a case of pregnancy in which the gall bladder had ruptured and lay under a mass of adherent intestines, from two cases in which it was overlaid by the liver, and another in which it was the seat of sarcoma. He mentioned the various causes which might render the operation difficult, and said that each case must be dealt with according to the particular condition present.—Dr. Michell Clarke pointed out that a dilated gall bladder might not be due to malignant disease, and might require operative interference even in old persons, and remarked on the share the gall bladder takes in the formation of gall stones.—Dr. Waldo also spoke.—The President mentioned a case in which the escape of bile into the peritoneum did not give rise to peritonitis, and thought that jaundice in gall-stone cases was often due to catarrh of the ducts set up by irritation.

*Occlusion of Os Uteri.*—Dr. Newnham read a paper on complete occlusion of the os uteri in a woman nine months pregnant, second confinement. A sound was first introduced, and the os gradually dilated by uterine dilators, the fingers and hand. A living child was delivered by forceps. Complete recovery took place without complications.—Dr. Aust Lawrence said that from the extremely small size of the passage in this case, it was at first thought that abdominal section would be necessary, and mentioned another case in which there was absolute occlusion and the cervix sloughed off.—Dr. A. J. Harrison and Mr. Paul Bush remarked on the case, and Dr. Newnham in his reply stated that two months after confinement the os was soft and natural, but there was no cervix uteri.

*Paroxysmal Tachycardia.*—Dr. Watson Williams read a paper on paroxysmal tachycardia, with two typical cases. He showed sphygmographic tracings, which brought out the rapid, almost sudden, variation in the pulse-rate from 48 or 50 to 200 a minute. He alluded to some of the characteristic features of the condition distinguishing it from other forms of heart hurry in neurotic subjects. Abrupt change from slow to rapid pulse, and persistence of latter for hours or even days characterised this affection.—Dr. Shingleton Smith, with regard to the first case, called attention to the remarkable stoppage of the pulse during some of the attacks, and to the speedy cessation of general symptoms after the attack ceased.—Dr. Long Fox thought that the vagus centres were probably involved, and suggested that the symptoms might be accounted for by sudden changes of pressure in the circulation in the fourth ventricle, causing variation in the condition of the nerve centres in this region, thus explaining the suddenness of the attacks.—The President considered the symptoms in the first case to be due to "distress" of a diseased heart, and the second case to be one of disturbed heart action in a neurotic subject.—Drs. Symes, Claud Taylor, Michell Clarke, and Mr. T. M. Carter also took part in the discussion, and Dr. Watson Williams replied.

The thirty-first Congress of French Scientific Societies will be held at the Sorbonne on April 20th and three following days.

## BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

*Medical Defence.*—A special meeting was held on Thursday, January 28th, Mr. M. A. Messiter (President) being in the chair, to consider the report of the Committee to the Branches on medical defence. After considerable discussion a vote was taken on the first question submitted to the Branch by the Committee, namely: Is your Branch in favour or not of the Association undertaking the duties of individual and collective medical defence? Sixteen members voted in favour of this and 21 against it. The question was therefore answered in the negative by 21 to 16, and the meeting then terminated.

## OXFORD AND DISTRICT BRANCH.

A general meeting of this Branch was held at the Radcliffe Infirmary, Oxford, on January 29th, Mr. Moore (President) in the chair.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*New Member.*—Mr. D. G. Kennard was elected a member of the Branch.

*Paper.*—Dr. Wield read a paper on a case of Fatal Strangulation of a Diverticulum of the Ileum. The apparatus for treating chronic ulcers by oxygen was shown.

*Medical Defence.*—The meeting discussed the report of the Special Committee appointed to consider the scheme of medical defence. The questions were answered as follows: 1. The Branch was in favour of the Association undertaking the duties of individual and collective defence by 8 votes to 3. 2. The Branch was in favour of the final scheme of the Committee. 3. The Branch considers that all moneys expended on medical defence should come out of the extra subscriptions for the purpose, and not from the Association funds. Carried by a majority.

*Ethical Committee.*—A report of the Ethical Committee was received.

## DUBLIN BRANCH.

The annual meeting of the Dublin Branch was held in the College of Physicians on Saturday, January 30th, under the Presidency of Mr. William Thomson, P.R.C.S.I.

*Report of Council.*—The report dealt with the various questions which had been under consideration during the year, and mentioned that 68 names had been added to the roll of members. Dr. Atthill, in proposing the adoption of the report, said that he would support the registration of midwifery nurses, but not of midwives. He also objected to the proposed scheme of medical defence in connection with the Association.—Sir Wm. Stokes, in seconding the report, hoped that the removal of the abuses of medical officers under the Poor Law was not far distant. The report was adopted.

*Medical Defence.*—Dr. J. W. Moore brought before the meeting the scheme of medical defence proposed by the General Council, and urged that the Association should be allowed to do its scientific work untrammelled by trade unionism. He moved:

That the Dublin Branch are of opinion that the question of medical defence does not lie within the province of a scientific body like the British Medical Association, that they disapprove of the proposal that medical defence should be undertaken by the Association, and that they view with grave misgiving the effect upon the fortunes of the Association which the incubus of a system of medical defence would almost certainly have.

—Dr. Grimshaw, in seconding the motion, said he looked upon the proposal as a departure from the main principles of the Association. If medical defence were introduced they might come into collision with the public in a way that trade unions often did.—Sir Christopher Nixon said he felt so strongly on this matter that if it were made compulsory to join the defence association he would resign from the British Medical Association. It would simply reduce the Association to that of a railway servants' association or a tramwaymen's union.—The motion was carried unanimously.

*Election of Officers.*—The Chairman announced that the ballot had resulted in the following elections:—*President:* Wallace Beatty, M.D. *President-Elect:* Sir C. Nixon, M.D. *Vice-Presidents:* F. T. Heuston, M.D., and H. C. Tweedy, M.D. *Council:* Sir C. Cameron, M.D., C. B. Ball, M.D., E.

H. Bennett, M.D., F.R.C.S., J. W. Moore, M.D., R. D. Purefoy, M.D., J. M. Redmond, M.D., W. G. Smith, M.D., W. J. Smyly, M.D., Sir William Stokes, M.D., J. B. Story, F.R.C.S., H. R. Swanzy, F.R.C.S., and William Thomson, M.D.

*Vote of Thanks to Retiring President.*—Dr. WALLACE BEATTY having taken the chair, Dr. BENNETT moved a vote of thanks to Mr. Thomson for his distinguished conduct in the chair during the past year. He said they all appreciated the great ability and skill of Mr. Thomson as chairman.—Sir CHRISTOPHER NIXON seconded the motion, which was adopted.—Mr. THOMSON replied.

*President's Address.*—The new President delivered an address entitled A Plea for the Teaching of Dermatology in the Universities in Medical Schools.—On the motion of Dr. DUFFEY, seconded by Dr. WALTER SMITH, a vote of thanks was passed to the President for his address.

*Dinner.*—In the evening the members dined together, Dr. WALLACE BEATTY in the chair. There was a large gathering, and amongst those present were: To the right of the Chairman—Mr. Justice Ross, the Provost T.C.D., Sir William Findlater, D.L., President of the Incorporated Law Society; Dr. Duffey, P.R.C.P.I.; Rev. Dr. Hamilton, Pt.Q.C.B.; Sir Andrew Reed, C.B.; Sir C. J. Nixon, Dr. Grimshaw, Registrar-General: Dr. Bennett. To the left of the Chairman, Sir Robert Forster, Bart.; Mr. William Thomson, P.R.C.S.I.: Sir William Kaye, C.B.; Sir William Stokes, Dr. Little, President Royal Academy of Medicine; Surgeon-General Preston, Dr. W. G. Smith, Dr Swanzy, Mr. J. S. Edge. There were also present: Dr. C. B. Ball, Colonel Blagrove, Dr. Stewart Woodhouse, Dr. Middleton, Dr. Heuston, Surgeon-Major Daly, Dr. Redmond, Dr. H. C. Tweed, Rev. Canon Robinson, Rev. W. F. Roberts, F.T.C.D.; Dr. J. Usher, Surgeon Nolan, Dr. Woods, Mr. Alcock, C.I.,R.I.C.; Dr. Purefoy, Dr. Lennon, Mr. R. H. Moore, Dr. J. W. Moore, Dr. O'Donovan, Dr. Gibbs, Dr. A. Croly, Mr. Barrington Jellett, Dr. Hadden, Dr. Peacocke, Mr. Gordon Cleather, Dr. Langford Symes, Mr. J. W. Moore, Dr. George Moore, Dr. Wm. Taylor, Dr. W. H. Anderson, Mr. R. Smith, Dr. James Craig, Honorary Secretary. The usual toasts were proposed.

# SPECIAL CORRESPONDENCE.

## PARIS.

*The Plague.—Anticholera Inoculations.—Lunatic Asylums.—The Sale of Frozen Meat.—The Anthropometric System.—Medical Practice in Madagascar.—General News.*

M. ARISTIDE BOYER asked the Government what measures would be adopted to check the plague epidemic now raging in India. He noted with regret that England had not followed the example set by France of forbidding the Mohammedans of Algeria and Tunis of taking pilgrimages to Mecca. M. Boyer asked what are the prophylactic measures taken if not only quarantine but also disinfection is imposed. If a panic reigns among the populace he fears that the effects will be worse than those of an epidemic. M. Barthou answered that there is not any case of plague at Marseilles, though the contrary had been stated. Rigorous measures had been taken to prevent its transmission. At the Council of Ministers M. Barthou proposed that a clause should be added to the law of March 3rd, 1892, concerning the sanitary police. The tenth article of this law punishes with death the intentional disguising or alteration of a statement when such false notifications endanger the public health and are followed by the appearance of a pestilence. When these false notifications without being followed by a pestilence endanger public health, and prevent the necessary precautions from being observed, the punishment is imprisonment with hard labour for a certain period, and a fine of £800. M. Barthou's amendment provides that false notifications, even if not followed by any of the probable results enumerated in the article, be punished by five years' imprisonment, and a fine of from £4 to £120. The expenses attending the presence of the French delegates at the International Sanitary Conference will amount to £600. The Direction Committee of the Sanitary Service considers that £1,000 must be voted in order to organise two disinfecting stoves at Marseilles, also a bacteriological laboratory at Marseilles and a disinfecting service at Rouen. The Minister of the Interior called upon the Chamber of Deputies to vote £1,400 to meet these expenses.

The French Consul General at Calcutta writes that interesting experiments of inoculating with anticholera vaccine have been made at Assam. The death-rate among the inoculated was 2.55 per cent.; among the coolies who refused to be inoculated it reached 19 per cent.

The city of Paris contributes 1 per cent. more towards the expenses of lunatic asylums than last year. The General Council of the Seine urges that an annexe for female patients be added to the family colony of Dun-sur-Auron; that a colony for chronic male patients be created near Dun; that the measures necessary for the creation of a family colony for the insane near the Ville Evrard Asylum be created. During the year 1897 the female children temporarily housed in the Villejuif Asylum are to be permanently lodged in the Salpêtrière Hospital in the department set aside for them and at the Vallé Foundation.

The Minister of Agriculture has framed a law forbidding the sale of frozen meat unless declared to be such. All frozen meat offered for sale in butchers' shops must be ticketed. Infraction of this rule will be punished by a fine of £20 to £40, and six days to two months' imprisonment. In cases of repetition of the offence the punishment will be doubly severe. This measure is the result of rotten frozen meat having been offered for sale.

The *Figaro* has interviewed M. Bertillon, whose anthopometric service has been attacked by M. Julien Dumas. He stated to the representative of the *Figaro* that about 150 accused persons are lodged daily in the Central Prison. He has never forced any prisoner to submit to measurement. It is needless to say that when it is a question of a professional thief or a habitual criminal, there are police tricks to compass the desired object. As regards female prisoners he has for the last year given up all attempts at measurement, not having a female staff in his service.

A decree issued by General Gallippe declares that no one is entitled to practise medicine at Madagascar unless holding a diploma given by a French faculty. The Malgache medical men who have taken their diploma in a French medical school established in the colony are permitted to practise. No foreign diploma confers the right of practising. A temporary decision allows foreign practitioners practising at Madagascar to continue if they apply for permission.

The Municipal Council has voted £4,000 to provide help for indigent women about to become mothers. This help is to be accorded at any period of pregnancy, and not at the seventh month exclusively, according to the suggestion in the report.

M. Napias, in a communication to the Paris Medical Academy, declares that in France the birth-rate being inferior to other countries, the hours of female labour ought to be diminished in order to enable mothers to take care of their children.

Mme. Guéroult has bequeathed the whole of her fortune to the Paris Public Assistance, for the purpose of creating an establishment for treating phthisical male patients from 15 to 30 years of age.

## BERLIN.

*The Charité Hospital.—The Antitoxin Treatment of Diphtheria.—Professor Kussmaul on Medical Examinations in Germany.—Chair of Physiology.*

THE Charité Hospital will shortly open a new department with 50 beds for accident cases only. Special attention is to be paid to after-treatment; wherever possible the patients are to remain until not only the injured part has completely healed, but until they themselves are sufficiently restored to resume their usual occupations. For this object the department will be furnished with so-called "medico-mechanical" apparatus, Turkish baths, and similar aids to therapeutic treatment. The price has been fixed at 3 marks (3s.) a day for board and treatment inclusive. In an official circular on the subject of the proposed new institute, addressed by the Imperial Board of Insurance to the different trade unions, special attention is drawn to the fact that on certain fixed days of the week trades union doctors will be allowed to ac-

company the officiating surgeons on their rounds, and thus be able to watch the treatment and progress of any cases they may have sent there.

The yearly report of the municipal hospital Friedrichshain (Berlin), issued by Professor Fürbringer, contains some interesting statistics on diphtheria treated with antitoxin serum. All the diphtheria cases of the year (both children and adults) were treated with the serum, whilst in the previous year it had been used in about 50 per cent. of the cases only. There were 663 diphtheria cases, against 581 in the previous year. The number of deaths from diphtheria was 114, or 17 per cent., against 30.7 per cent in the previous year. Tracheotomy had to be performed in 161 cases, and of these cases 103, that is, 63.9 per cent., were cured, against 45.1 per cent. in the previous year. Except in one case, no untoward secondary effects of any importance were observed. The one exception was a child, aged 7 years, with scarlet fever and a suspicious looking tonsillitis. Immediately after the injection a very severe, evidently dangerous, collapse took place, lasting about two minutes. The child seemed lost, but immediate and thorough application of stimulants saved its life. A few drops of blood issued from the point of injection, so that possibly a vein may have been punctured. However this may be, the case is of importance as bearing upon the problem of the nature—whether dangerous or non-dangerous—of antitoxin serum; for the child was long past infancy. The general infection was not of a serious nature, and nothing but the serum could be held responsible for the sudden catastrophe.

Professor Kussmaul, the eminent clinician, for many years Examiner in the University of Strassburg, has published a pamphlet, in which he criticises the proposed changes in the medical examination statutes for Germany. He thinks that far too much stress is laid on special disciplines, and too little importance given to the study of natural therapeutic methods, such as hydropathy. The new regulations, he says, attempt too much; they aim at producing ideal doctors, equally at home in every special branch of medicine. This he considers a great mistake, and as a corollary he adds that, in spite of the enormous recent development of scientific medicine, it is a matter of fact that the public turn away more and more from the medical profession to consult unlicensed empirics. "The belief of the educated classes in prescriptions is on the wane," he writes, "and the reliance on dietetic methods and the therapeutic action of water is rising. The lower classes, too, begin to recognise how much may be attained by air, water, and careful regulation of daily life without medicines." These are not light words; they deserve, and will probably find, attention in the quarter to which they are addressed. Of course, the allusion to Pfarrer Kneipp, who is making—or rather, has made—an immense fortune, and with his imitators is drawing away an enormous amount of practice from regular practitioners, will be obvious to all.

The chair of Physiology in the Berlin University, vacant through du Bois-Reymond's death, has been offered to Professor W. Kuehne, of Heidelberg, who has, however, declined it. At present the choice is said to rest between Professor von Kries, of Freiburg, and Professor Herrmann Munck, Director of the Physiological Institute in the Royal Veterinary Schools, Berlin.

## LIVERPOOL.

*Presentment of Insanitary Property.—Royal Infirmary: Retirement of Dr. Alexander Davidson and of the Chairman.*

At the Liverpool Quarter Sessions held on Jauuary 26th, the fourteenth presentment of insanitary property was made, the total number of houses included in it amounting to 890. Dr. E. W. Hope, the Medical Officer of Health for the city, gave evidence as to the state of the condemned property, and was corroborated by Sir Henry Littlejohn and Dr. William Carter. The houses for the most part consisted of three rooms placed one above the other, connected by staircases, without as a rule any intermediate landing. The houses were back to back and side to side with others of similar structure. There was no yard space nor watercloset private to each house, a circumstance which led to the retention in bad weather of excrement within doors. The premises were of the usual court description, the entrance to the court being often converted into a tunnel by the contiguous street houses. The property was in a state of utter dilapidation, the owners being unwilling to spend money on its repair, as is evidenced by the fact that during the year 1895 no fewer than 779 notices were issued from the sanitary department to the owners to cause the abatement of nuisances. The average death-rate for the whole of the presented area during the three years ending 1895 was 42, being in some groups as high as 79.6, that for the whole city during the same period being 25.3; while in the model dwellings in Victoria Square it was only 22. It was further shown that ample accommodation for the displaced population could be found in the neighbourhood of the condemned areas. Dr. Hope gave evidence to show that overcrowding is lessening in the city, and that the number of cellar dwellings has also diminished. The grand jury concurred in the report, and ordered the destruction of the houses.

The annual meeting of the trustees of the Royal Infirmary was marked by the resignation of two of its most valued and respected officers, Dr. Alexander Davidson, Physician to the institution, and Mr. Hamilton B. Gilmour, Chairman of Committee. Dr. Davidson resigns, much to the regret of all connected with the institution, after holding office for twenty-one years. He bore a large share of the labour of planning and perfecting the present Royal Infirmary; and it may be safely said that the completeness and efficiency of that building are in no small measure due to his keen insight and supervision. His presence in the wards will long be missed by his colleagues and his pupils past and present, many of whom will look back with grateful remembrance to the helpful advice and discriminating encouragement which he knew so well how to bestow. He has been appointed one of the consulting physicians. Mr. Gilmour has held the office of Chairman for twenty years, a period which has witnessed a truly marvellous development in every department of the infirmary. The office is an arduous one, often calling for the exercise of the highest tact and discrimination, but Mr. Gilmour has won the esteem of all who recognised his courtesy and strong sense of justice.

## MANCHESTER.

*Association for Child Study.—Royal Eye Hospital.—Proposed Jubilee Nurses' Home for Salford.*

Last year a small Association was formed in Manchester for the purpose of "child study." A public meeting was held in Owens College on January 29th, when it was resolved that a branch of the National Association for Child Study be formed in Manchester. Dr. Ashby presided, and in a humorous speech indicated what the Society did not intend to do. They did not intend to put salt or pepper on the tongues of newly-born babes to try and find out at what exact period the infant appreciated these useful condiments; nor were they going to repeat the experiments on the prehensile faculties of infants. The nursery was not to be erected into a temple, nor was the babe to pose as an idol. It was hoped, however, that their studies would help to remove a good deal of the ignorance, prejudice, and rule-of-thumb work which seemed to pervade the British nursery. Professor Lloyd Morgan, of University College, Bristol, so well known for the studies in the evolution of the mental manifestations in animals, delivered an interesting address on the aims and methods of the proposed Society. He advocated the working jointly of the trained psychologist and the teacher by profession. He hoped that the teacher who was ignorant of psychology would generally be recognised as not adequately prepared for his task. Child study, he maintained, would tend to give people right ideas, and to eradicate wrong ones, and thus influence the practice of education. The child should be made a co-operator and participator in all their work. Professor Morgan then gave a number of examples of simple experiments which could easily be made on children, as, for example, those in colour vision, accuracy in grasping musical intervals, their powers of estimating angular value or relative weight. The first elementary experiments must be directed to a study of the sensory endowments by means of simple tests, while he

impressed on his audience the necessity for the careful tabulation of the results obtained.

There are not many philanthropic institutions which can from year to year boast of so successful a report as that of the Manchester Royal Eye Infirmary. At the annual meeting of the trustees it was stated that this institution during the past year had 22,364 out-patients and 1,370 in-patients. The finances also are in a satisfactory condition, the income being £4,313, while the expenditure just exceeded this by a few pounds, the first occasion on which this has happened since 1879. Moreover, the funded capital was stated to be over £44,000. The expense incurred was partly due to improvements in the accommodation for the patients and staff, the establishment of a new pathological room, and the installation of the electric light.

At a recent meeting of the Committee appointed by the inhabitants of Salford to carry out the arrangements in connection with the Diamond Jubilee of the Queen, it was resolved to carry out the idea of establishing a nurse's home in some central position in the borough, to commemorate the memory of the long and beneficent reign of the Queen. For this purpose it is proposed to raise a sum of not less than £10,000, to cover the cost of the land, buildings, and the equipment thereof.

# CORRESPONDENCE.

## THE ASSOCIATION AND MEDICAL DEFENCE.

Sir,—Referring to the report of the Committee on medical defence, which, according to the British Medical Journal of January 30th has been sent to the Branches for their decision, I should be glad to be informed in what way the Branches are to arrive at this decision. Is it to be decided, for or against, by the officers of the Branch, and such members as can conveniently attend a meeting, and are they to decide for the unattached as well as for the attached members, as seems to have been done on the last occasion when this subject was before them?

Personally I object to the attempt to have the Association, of which I am an old if a humble member, mixed up with any such insurance scheme, for that is what the proposal amounts to. If we are to be compelled to insure against loss by irregular competition or vexatious legal proceedings, why not also compel us to insure against loss by accident, sickness, burglary, fire, any of which are quite as injurious to our pecuniary interests as the two former? I, like many other members residing in these islands, suffer nothing by irregular competition, and if I have to go to law I am quite prepared to fight my own battle. Therefore the medical defence party have no more right to tax me for their defence than they would have to tax me for their accident or sickness insurance.

Further, I hold that it is an attempt to degrade the Association in the eyes of the public to the position of a trader's guild. Possibly the next step will be to make it a debt-collecting agency. Within my recollection of twenty-five years' membership no such apple of discord has been flung into our ranks, no such injudicious attempt has been made to subvert the original aim of the Association. I am altogether in favour of a medical defence union, just as I am in favour of sickness and accident and fire insurance, but I object and shall protest as long as I can against the Association degrading itself by embarking in any such speculative business.—I am, etc.,

Cootehill, February 3rd. Thomas H. Moorhead, M.D.

## A CENTRAL HOSPITAL BOARD FOR LONDON.

Sir,—Will you kindly allow me to give my reasons for moving the amendment (reported in the British Medical Journal of January 30th) to Sir William Broadbent's resolution regarding the above-named scheme at the Council meeting of the Charity Organisation Society, on January 25th.

In the first place I should state that from my experience of the previous meeting of the Council I feared that unless some such amendment were moved there would be little or no attempt made to oppose this scheme.

The Charity Organisation Society, in its endeavour to obtain a better system of management of the London hospitals, is undoubtedly proposing a good work, and one which the Society is specially fitted to undertake, and from the evidence so far obtained the scheme of the Central Hospital Board meets with the approval of the general public and a portion of the medical profession.

Is not this, however, probably in great part due to the able advocacy of Mr. Loch, and to the invaluable support of Sir William Broadbent?

In the draft scheme it is acknowledged that a Central Board of 169 delegates, as proposed, would be a large and unwieldy representative body. Consequently the Executive Committee would do the work, and in time this would pass to an inner ring of men and women, who by giving up their time to it would hold the reins of power, and what would then become of fair representation?

The Board should have, it is stated, an income of £20,000 per annum, and it is proposed that the Board should make grants to hospitals and dispensaries to facilitate their removal, if requisite, to other districts, and to meet other special needs, but no reference is made to the working expenses of this Board. Perhaps it is intended as suggested by the Select Committee of the House of Lords that these should be defrayed by levying a small percentage on the income of the hospitals sending delegates.

If this Board only obtained an income of £20,000 per annum, of what use would that be towards giving grants as proposed to institutions whose combined incomes, exclusive of legacies, was in 1892 £600,000 per annum?

If on the other hand the Central Board scheme was accepted by the public, and legacies were left to this Board instead of to individual hospitals, and it is suggested that it should receive legacies, a vast amount of money might, in course of years, pass into its hands, and with this a dangerous controlling power which would ruin the individuality of the hospitals, destroy all healthy rivalry, bring them to one dead level, and if wielded by a small clique, might sap the foundations of our old and well-deserving charities.

Perhaps I have painted this in too strong colours, but surely it is a point worthy of the deepest consideration, and though it is distinctly stated that the Board does not intend to interfere with the hospitals, what will become of intentions when it holds these institutions in its golden grip?

Then with regard to inspectors, it is stated in the draft scheme that:

"There is no general system of supervision that insures that defects or abuses are brought to light by inspection and remedied by the common sense of the administrators stimulated by the fear of publicity." Such must be the duty of the Board's inspectors, "so as to insure that it may act and report with a competent knowledge of the facts."

Surely our great hospitals do not require the supervision of such inspectors. Paid inspectors would have to be appointed of high probity and special capability, and a serious expenditure incurred thereby.

Lastly, should this Board become all-powerful and dictatorial, personal interest in individual hospitals would be much shaken thereby.

Believing, however, that much might be done for the more systematic management of our hospitals, it occurred to me that the Charity Organisation Society could well draw up recommendations to such effect, which after consultation would meet with the cordial approval of well-constituted hospital committees, and render the formation of a Central Hospital Board with all its attendant expenses quite unnecessary.—I am, etc.,

A. B. R. Myers,
Brigade-Surgeon-Lieutenant-Colonel.

Gloucester Street, S.W., Feb. 1st.

## THE HALF-YEARLY MEETING OF THE FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

Sir,—Mr. Rivington is unnecessarily wrathful with me for having overlooked the fact that in 1885 there was, in addition to the ordinary meeting of Fellows and Members—at which he did not speak—a special meeting on December 17th, at which he made a lengthy oration, which he communicated in advance to a now defunct journal. I apologise for my error, and, with regard to Mr. Rivington's references to the examinership, would say that I have been especially careful to make no use of information coming to me officially as a

member of Council; but, since Mr. Rivington, "without want of modesty," challenges comparison of his claims to examinership with those of any who were preferred to him, I would point out that he had the opportunity of showing his mettle as an Examiner in Anatomy and Physiology from 1878 to 1883.—I am, etc.,

Cavendish Square, W., Jan. 30th. CHRISTOPHER HEATH.

## THE SUPERANNUATION OF PUBLIC VACCINATORS.

SIR,—Permit me to inform gentlemen interested in the above subject that if they wish to rectify the exclusion of public vaccinators from the Poor-law Officers' Superannuation Act, 1896, an opportunity now occurs. The Municipal and County Councils Superannuation Bill is being brought into Parliament, to which a clause might be added. It might run thus, or otherwise, as deemed advisable:

"Further, be it enacted that for the intents and purposes of the Poor-law Officers' Superannuation Act, 1896, a public vaccinator who is paid fees under a contract with a Board of Guardians, or who is paid in any other way, shall be deemed an 'officer' as defined by Section XIX of that Act, and shall not be debarred from the benefits or exemptions of that Act, as and from the date of the passing of that said Act.

"Furthermore be it enacted that all vaccination fees paid to Poor-law medical officers shall be included as extra fees in the calculation for superannuation allowance, under the Poor-law Officers Superannuation Act, 1896. This also to be retrospective."

Will gentlemen approving of this movement kindly communicate with me? On the amount of support accorded will the success of the movement depend.—I am, etc.,

Tunbridge Wells, Jan. 28th. T. ELLIOTT, M.D.

P.S.—If the amount of support received be large, it is intended to ask the Parliamentary Bills Committee to take up the subject, and see that it be passed through Parliament.

## PILOCARPIN IN ECLAMPSIA.

SIR,—I regret that unexpected and unavoidable absence from the meeting of the Obstetrical Society on January 6th prevented my hearing the remarks of Drs. John Phillips and Herman on my notes of a case of eclampsia occurring at the fifth month, and in which the uterus was emptied. As these notes will be published in full, I only take the opportunity of saying here that no one, after eighteen years of its employment, is better aware of the physiological effects of pilocarpin than myself, nor of the responsibility attaching to its use in certain cases. On the other hand, I desire emphatically to assert that in this particular instance it is my belief that the pilocarpin it was that ultimately saved the patient's life. It was injected but once, and in quantity only the tenth of a grain, and its use was followed, after the immediate development of its physiological effects, by rapid reduction of the high arterial tension, entire cessation of convulsions, which up to that moment had been of frequent recurrence, and the consequent return to consciousness of the patient. But it was not from the therapeutical aspect of the case that I was principally influenced in reporting it. There were several other points of considerable clinical interest, namely, retroversion of the uterus as a cause of the eclampsia, the retinal symptoms and appearances as indications of the approaching cerebral complications, the occurrence of glycosuria from the chloroform administered, and the rapid disappearance of the albuminuria which had been present in such quantity prior to the emptying of the uterus. The administration of such a remedy as pilocarpin must always depend on the circumstances of the individual case in which it is applied, and the judgment of the practitioner who employs it. Nothing I said in my short paper could be construed into an advocacy of anything so rash as its routine employment in eclampsia.—I am, etc.,

January 20th. H. MACNAUGHTON JONES.

## THE NURSING MANIA.

SIR,—I feel sure that the majority of the profession would heartily endorse the views so ably expressed by Lady Priestley in the last number of the *Nineteenth Century*, and would thoroughly agree with "F.R.C.P." as to the financial aspect of the question. If, however, the evil is to be remedied, an appeal must be made to those members of the medical profession who are directly connected with our large hospitals, in whose power it is to decide on the length of training necessary for the obtaining a certificate. In the meantime it would be interesting to learn from those who defend the present system of from three to four years hospital training, with examinations in physiology and anatomy, their reasons for considering such elaborate training necessary. At the hospital with which I am myself connected, I have invariably urged the Committee to allow probationers to be trained for one year, and to give those who wish for one year's training a certificate at the end of that period showing exactly what training they had had.—I am, etc.,

January 27th. A PROVINCIAL PHYSICIAN.

## THE INTERPRETATION OF SKIAGRAPHS.

SIR,—In the BRITISH MEDICAL JOURNAL of January 2nd (a note on the Pathology of a Double Colles's Fracture) it is stated that the accompanying skiagraphs show fracture of the styloid process of both ulnæ. On comparing them with my own skiagraphs of (*a*) normal wrist, (*b*) an old-standing Colles's fracture, and (*c*) a fracture of styloid process of ulna with fracture shaft of radius, I am forced to affirm that the skiagraphs as published by you show distinctly enough the styloid process of the ulna on both sides to be in its normal position, and of its usual, though faint, skiagraphic appearance. About the other lesions detailed I should not like to be positive till I have seen the original prints.—I am, etc.,

Bristol, Jan. 2nd. WM. COTTAM, M.A., M.D.

## VACCINATION AGAINST TYPHOID FEVER.

SIR,—In an article by Professor Wright and Surgeon-Major Semple, entitled, Vaccination against Typhoid Fever,[1] the authors appear to take an exaggerated view of the value as a test of immunity of the agglutinative reaction on typhoid bacilli. Their views are not shared by some observers who are well qualified to form an opinion. For example, Widal,[2] so far back as September, 1896, recognised the uncertainty of the test (*quâ* immunity), and spoke of it as a "reaction of infection" not a "reaction of immunity." On any other supposition how can we explain a case reported by Thiercelin[3] in which the positive agglutinative reaction was immediately followed by a relapse, or the observation of Fraenkel,[4] who obtained a positive reaction within two days of the commencement of the illness? But the main argument against the truth of Wright and Semple's views lies in the extreme irregularity of the persistence of the reaction after typhoid. The maximum period observed is seven years, the minimum stands at zero. Fraenkel[5] gives the results of the test as applied to 36 convalescents; 28 gave a positive reaction, 8 a negative. Of the 8 who reacted negatively, the maximum period which had elapsed since the fever was seven weeks, the minimum two weeks and a half, the average exactly five weeks; 28 per cent. then of patients, none of whom had been convalescent from typhoid for two months, reacted negatively. According to these results, either the agglutinative reaction is no test for immunity, or immunity conferred by typhoid is commonly of such short duration that prophylactic vaccination is hopeless.

Recent research by Pfeiffer and Kolle[6] tends to show that the agglutinative power of the serum is independent of its bactericidal properties, although commonly associated with them. The latter would be a test of immunity though the former would not. But I do not wish to discuss the subject here. My object is to point out that some of the deductions drawn by the authors are hardly justified by the present state of our knowledge, and are to some extent inconsistent with it.—I am, etc.,

Portland Place, W., Feb. 1st. H. G. T.

[1] BRITISH MEDICAL JOURNAL, January 30th, 1897.
[2] *Sem. Méd.*, p. 393, 410.
[3] *Sem. Méd.*, p. 496.
[4] *Deutsch. med. Woch.*, No. 3, 1897.
[5] *Op. cit.*, and *Berlin. klin. Woch.*, No. 47, 48.
[6] *Centralb. für Bacteriologie*, Bd. XX.

MEDICAL MAGISTRATE.—Dr. Frederick P. Weaver, of Cedar Lawn, Hampstead Heath, has been appointed a Justice of the Peace for the County of London.

# OBITUARY.

## SIR THOMAS SPENCER WELLS, BART., F.R.C.S.,

Consulting Surgeon to the Samaritan Free Hospital; formerly Surgeon to Her Majesty's Household.

THIS great surgeon, the establisher of ovariotomy, was born at Hertford on February 3rd, 1818, the eldest son of Mr. William Wells, of St. Albans. Without being formally apprenticed, he had all the advantages of the old apprentice system under Mr. Michael Sadler, of Barnsley, Yorkshire. For a year, when still quite a lad, Wells worked for one of the parish surgeons of Leeds, attended the Lectures of Hey and Teale, and saw much practice in the Leeds Infirmary. In 1837 and the next year he went to Dublin, and studied under Graves, Stokes, Crampton, Beattie, Harrison, Apjohn, and Jacob. In 1839 and 1840 Wells worked at St. Thomas's Hospital under Green, Travers, and Tyrell. In 1841 he became a Member of the College of Surgeons, and entered the Royal Navy as Assistant-Surgeon. For nearly six years he served in the Naval Hospital at Malta. On that island Wells practised, and operated, among civilians.



In 1853 Spencer Wells settled in practice in the West-End of London, and wrote papers on gout and allied medical subjects. In 1854 he was elected Surgeon to the Samaritan Free Hospital. The Crimean war breaking out in that year, he started, as Naval Surgeon, for the East, after arranging with his hospital that he should be allowed to resume his appointment there if the war ceased and he returned within a reasonable time. During the war he and other naval medical officers were borrowed by the military authorities for services required at Smyrna and Renkioi on the Dardanelles.

Fanciful speculations as to what would have happened had he given up his hospital appointment in 1854 are of little use, though not without interest; for the name of Spencer Wells at the date of which we are speaking was unknown beyond the circle of his private and professional friends. He was popular with his patients among whom he found several noble patrons, very useful to him and to his hospital. But it was not till 1858, two years after he had returned to the Samaritan Hospital, that he commenced to rise to fame, and then he was 40 years of age. Fame and more substantial rewards, however, came very quickly afterwards.

In his youth Spencer Wells did an unusual amount of midwifery, but he admitted that he never thought seriously about ovariotomy till one day in 1848, when Dr. Waters, of Chester, discussed with him that operation. Both came to the conclusion that, as surgery then stood, ovariotomy was not justifiable. In April, 1854, Wells, and Mr. Nunn, of the Middlesex Hospital assisted Baker Brown at his eighth ovariotomy. This was the first time that Spencer Wells had ever seen the operation, and he afterwards admitted that it discouraged him, just as the death of the patient and further ill results discouraged Baker Brown. Afterwards, in the Crimea, he found that, contrary to received opinions, the peritoneum would bear very rough handling. He learnt that a man's abdominal walls might be lacerated by fragments of shell, his intestines protruding for hours till they were covered with dirt, and yet that after careful cleansing of the cavity and accurate closure of the wounds complete recovery was possible.

Spencer Wells remembering the results of careful cleansing, ceased to be frightened at opening the peritoneum. Dr. Snow Beck attempted to cure a young woman of ovarian cystic disease by injecting iodine into the cyst after tapping. Notwithstanding many precautions, some of the iodine escaped into the peritoneal cavity, with disastrous results. Wells now began to think seriously of ovariotomy as of something possibly less perilous than palliative treatment. He lacked material, and it was not till December, 1857, that he attempted the then discredited operation. On this occasion the tumour could not be safely removed, and spectators made discouraging remarks. Nowise daunted, Wells undertook and successfully completed his first ovariotomy in February, 1858. Dr. West declared that Wells had at once converted him from his "previous condition of conscientious and determined opposition to a state of warm support."

Dr. Keith, in the BRITISH MEDICAL JOURNAL, 1873, admitted that till 1858 he could find nothing anywhere to encourage, but everything to deter him from attempting ovariotomy. Later on Spencer Wells generously said that "Keith was one of the first to follow me, and did more than anyone else at that time to assist in the revival of ovariotomy."

How success followed this epoch-marking operation in February, 1858, is known to all. Instead of making an enormous median wound, hurriedly pulling out the cyst, and rapidly closing the incision, he made a small incision, tapped the cyst, with precautions modified by experience, and took his time to clean out the peritoneum with sponges. Anæsthesia allowed of slow operating, particularly needed in some of the steps of abdominal section, but his predecessors often erred from following practices no longer required after the introduction of chloroform and ether. We need not dwell on the favour bestowed by Wells on the clamp, for he lived to see that the ligature was better, and discarded the former. His attitude to the profession in the early days of his ovariotomy practice must not only be remembered, but must be correctly interpreted. In 1858 even a bold operator dreaded ovariotomy, and had a tendency to do it "as quietly as possible." Sceptics suggested that failures were not faithfully reported.

Wells determined to clear away these sources of reproach. He persistently invited men of authority to see him operate. He published series after series, with every case dated, so that the spectators could be appealed to, to justify his statements. All must feel that it was then his duty to report that he "operated in the presence of Drs. A., B., and C.," and that such and such cases died at such and such a time. Conditions have changed; abdominal sections far more hazardous than ovariotomy may now be undertaken; the operating theatre need not be packed with supporters and with sceptics. To publish names of spectators is useless to science and humanity, needless as an ethical step, and vainglorious in fact. The publication of "series," no longer imperative, has become questionable in respect to operations like ovariotomy, long established. We must remember that Wells did right in these matters, where to imitate him, now that circumstances have changed, may no longer be commendable.

Boldly did he advocate his cause in the manner above indicated, writing in the *Medical Times*, of which he was for seven years editor, and reporting his cases at the meetings of societies. He was a hard hitter, and at first had numerous opponents, but he held his own manfully. In 1865 he published an excellent work—*Diseases of the Ovaries: their Diagnosis and Treatment* (Vol. I). It is a full clinical report of his first 114 ovariotomies—an admirable and instructive publication. His experience increased so rapidly afterwards that he did not publish the second volume, but issued in 1872, under precisely the same name, a work essentially different, being a full summary of its subject, while analyses of individual cases were placed in the background. It was this issue that became world famed, and was translated into many foreign tongues. In 1882 the work was again published under the fuller title, *Ovarian and Uterine Tumours: their Diagnosis and Treatment*, and, lastly, in 1885, it appeared in a condensed form, bearing the name *Diagnosis and Surgical Treatment of Abdominal Tumours*.

In June, 1880, Spencer Wells did his thousandth ovariotomy, and a special article was devoted to that triumphant record in the British Medical Journal. He afterwards did many more. Since the beginning of his labours in 1858 he had lived to see first two or three most able specialists imitate and improve on his practice, then to see ovariotomy undertaken with success abroad, and then to witness the introduction of antiseptic and aseptic methods which revolutionised abdominal surgery. Bold, indeed, were Wells and his immediate successors in undertaking their operations before the days of carbolic acid, sublimate, and sterilisation. Thanks to Pasteur and Lister, the average operator can now carry out with success procedures more difficult than ovariotomy.

For exactly twenty years Spencer Wells operated at the Samaritan Hospital, Seymour Street, resigning in 1878. He ably assisted with his advice the medical officers who succeeded him at that institution, when he became consulting surgeon in fact as well as in title.

Sir Spencer Wells married in 1853 a daughter of the late Mr. James Wright, of Sydenham. Lady Wells died in 1886, having lived to see her husband made a Baronet in 1883. He leaves six daughters, one of whom married, in 1889, Mr. Swinburne-Hanham. He is succeeded in the baronetcy by Arthur Spencer Wells, M.A.Cantab., his only son, private secretary to the Chancellor of the Exchequer, Sir W. Harcourt, during the last Ministry. In 1882 Sir Spencer Wells became President of the Royal College of Surgeons. He received honours too numerous to mention from all parts of the civilised world.

Three years ago he was attacked with influenza when travelling in India, and paralytic symptoms, especially affecting the speech, slowly developed. Yet, until last autumn, he might be seen driving his own carriage from his beautiful country house at Golder's Hill to his town residence in Upper Grosvenor Street. Two months ago he went to the South of France in fair health, accompanied by two of his daughters. On the morning of Sunday last, January 31st, while staying at Cap d'Antibes, near Cannes, he suffered an apoplectic seizure. Dr. Frank and Dr. Battersby, of Cannes, were summoned to him, but twelve hours later, at 11 P.M. on Sunday evening, he passed peacefully away, dying just three days before his 79th birthday. The body will be cremated at Woking.

Almost to the last Sir Spencer Wells was one of the members of the profession most often to be seen at medical gatherings. He had the appearance of a healthy, vigorous country gentleman, and was an excellent rider, driver, and judge of horseflesh. He took great interest in public questions, especially in cremation, a subject with which his son-in-law, Mr. Swinburne-Hanham, has identified himself. His operations, witnessed in early days by, in the aggregate, many hundreds of spectators from all parts of the globe, were models for every surgeon to imitate. He worked in perfect silence; he took the greatest care in selecting instruments, and submitted his assistants to a firm discipline, which proved of the highest value to them in after-life. At the conclusion of every operation, he personally superintended the cleaning and drying of every single instrument, and packed it in its case in the most orderly manner.

The amount of benefit which he conferred on surgery and on humanity in general is incalculable, and we feel that no mortal can be found so churlish as to grudge Spencer Wells his well-earned fame. His features, not very difficult for the artist to portray, have been reproduced on canvas by Lehmann and in marble by Liebreich. The characteristic photograph which we reproduce fairly represents the great ovariotomist as he appeared when he had passed the middle period of life but was yet in his prime.

We are indebted to Mr. T. W. Nunn, Consulting Surgeon to the Middlesex Hospital, for the following reminiscences: Wells, then surgeon in the Royal navy, went to Paris after the battles of June, 1848, and it was there that I first met him studying gunshot wounds. Subsequently to this, Wells accompanied the Marquis of Northampton on a journey to the East. His observations on malarious fevers were valuable. When Wells settled in Brook Street, No. 84, the house previously occupied by the late Robert Nasmyth, he commenced his career as an essentially progressive surgeon; for example, he was very sanguine in the matter of curing strabismus by prismatic spectacles. He endeavoured to promote the success of a private hospital in Kensington on the same lines as Fitzroy House is now conducted. About this time and in this hospital he was operating for the radical cure of hernia by the golden stitch. Wells had, I think, some idea of purchasing the house and site. The house was an isolated one, standing in large grounds, and was close to Kensington Turnpike Gate. The grounds are now covered by palatial buildings by no means isolated.

Whatever was a forward move had Wells's attention. It was thus that ovariotomy attracted him, and he began his ovariotomies at the Samaritan Hospital, an institution hardly then emerged from its chrysalis condition of an obscure dispensary, and where the facilities for such operations were not highly developed it was then in truth ovariotomy under difficulties. However, Wells was the man to seize upon and utilise every device for simplifying and making the operation more safe. It may be said that one chief characteristic of Wells was not to be beaten back by difficulties however great, and he did not know the meaning of the word "discouraged."

Wells had the faculty of choosing the right men to work with him. Dr. Woodham Webb, a gentleman of independent means, an ardent physiologist and an accomplished writer, was one of his most trusted allies, and rendered invaluable aid in many ways. In bachelor days Wells had much of the cordial geniality of the sailor, and all his life was a delightful companion.

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Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. N. Zdekauer, Privy Councillor and Physician in Ordinary to the Czar; Dr. Martin-Lauzer, for thirty years editor of the *Revue de Thérapeutique*, aged 84; Dr. Duroziez, formerly President of the Paris Medical Society, and author of a treatise on diseases of the heart, and of numerous valuable contributions to professional literature, aged 71; Dr. H. Colladon, a leading otologist of Geneva, aged 55; Dr. Christian Jacobi, Surgeon-General of the Saxon Army Corps and Physician in Ordinary to the King of Saxony, aged 60; and Dr. Wilhelm von Renz, of Wildbad, author of numerous publications on the medical and historical characters of that health resort, on trichina spiralis, etc.

# MEDICO-LEGAL.

## GRAHAM v. THE TUDOR PUBLISHING COMPANY, LIMITED, AND ANOTHER.

IN this case Mrs. Minnie Graham, calling herself an accoucheuse, living at Brightleigh, Trent Road, Brixton, was the plaintiff, and sued the Company and Mr. T. P. O'Connor for libel. The action arose out of a series of articles published in the *Sun* newspaper, entitled the Massacre of the Innocents, written to prove the existence of a large amount of child murder in the metropolis. The articles were written from the reports of two members of the staff of the *Sun*, Miss Priestley and Mr. Cadett, and described how, on seeing Mrs. Graham's advertisements in certain papers for lying-in patients, they separately sought interviews with her with the intention of exposing the system adopted should they discover anything objectionable. Associated with Mrs. Graham, it was discovered by Mr. Cadett, was a then registered medical practitioner, Mr. Ady, L.R.C.P.Edin. and L.R.C.S.Edin., who lived at the house, calling himself her foster father; and, according to the reporter, aided her in the performance of the alleged illegal operations. These reports appeared in the *Sun* with nothing to identify them with the plaintiff or Mr. Adv. but the latter "fitted the cap upon himself," and "demanded apologies and withdrawal of the charges." His letter appeared in the *Sun*, and finally the report coupled with sworn declarations was forwarded to the General Medical Council just previous to the November session in 1895. Shortly after this Mr. Ady was communicated with by the Solicitors to the Council, who informed him that an inquiry would be held into his conduct. Within a few days after the receipt of this notice Mr. Ady swore an information at Bow Street Police Court against Mr. Cadett for criminal libel, and obtained a summons. The matter being then *sub judice*, the General Medical Council postponed their inquiry into Mr. Ady's conduct until the following session in June, 1896. The summons before Mr. Vaughan at Bow Street was heard, and on the third day dismissed by the learned magistrate, and Mr. Cadett discharged. Mr. Ady was summoned before the General Medical Council, and the *Sun* was represented by Mr. Avory, with the result that after due inquiry Mr. Ady's name was ordered to be removed from the *Register* for infamous conduct in a professional respect. He ceased to be a registered medical practitioner, but so far as we can learn still retained his diplomas from the Colleges of Surgeons and Physicians at Edinburgh.

The action of Mrs. Graham is far too long to be reported in our columns; and our remarks are founded on the full report in the *Times*: it occupied the Court four days, and on the afternoon of the fourth day, after having heard the evidence of Miss Priestley, Mr. Cadett, and others, and most especially that of a servant living formerly with Mrs. Graham and Mr. Ady, who detailed the operations performed on women by the plaintiff, assisted by Mr. Ady, which she had seen herself, the jury gave a verdict for the defendants.

The case cannot rest here, and the conduct of both the plaintiff and Mr. Ady must, in the interests of justice, be the subject of inquiry in another Court. We would call the attention of the authorities of Edinburgh to the evidence of Mr. Ady as given in this case under cross-examination, and also at the sitting of the General Medical Council in June, 1896. Mr. Ady formerly practised at Rangoon, and was removed from the list of members of the British Medical Association whilst there.

## CONTRACTS NOT TO PRACTISE WITHIN A RADIUS.

IN the action (Newington *v.* Bloxham), as reported in the *Times* of January 29th, Mr. Newington, a medical practitioner residing at Goudhurst, in Kent, claimed an injunction against the defendant, also a medical practitioner, to restrain him from carrying on the business or occupation of a physician or surgeon within five miles of Goudhurst. It appeared that Mr. Bloxham had signed an agreement with Mr. Newington in 1894 on entering his service as an assistant, that he would not for a period of five years after leaving his (Mr. Newington's) employment practise as a physician or surgeon, whether as principal, partner, or assistant, within a radius of five miles from Goudhurst Parish Church as the crow flies. Mr. Bloxham remained in Mr. Newington's employment until October, 1895, when verbal notice to leave was given, and defendant went away. Mr. Bloxham then set up in practice at Hawkhurst, living at Highgate close by. It appears that Hawkhurst was just outside the five-mile boundary named in the agreement, but Highgate, where the defendant's surgery was, was just within the radius, and it was alleged that the defendant attended a number of patients within the prohibited area. On the part of the defendant, Mr. Willis, Q.C., contended that the plaintiff had opened a surgery at the neighbouring village of Lamberhurst, and had taken the defendant into partnership for the purpose of the business there, and that this circumstance constituted an implied rescission of the contract which had been entered into. He further contended that the restraining clauses of the contract would only come into operation if the terms of contract as to giving notice to leave in writing (which was not done, the notice being simply verbal) were then strictly complied with. Further, that there had been acquiescence on the part of the plaintiff in the defendant's carrying on his profession at Hawkhurst. Counsel urged further that the agreement was not one to restrain the defendant from visiting patients within the five-mile radius, but to prevent him from selling up his place of business within that district, and he maintained that the surgery at Hawkhurst was outside the radius.

The plaintiff in his evidence denied that he had entered into a partnership with the defendant at Lamberhurst. A large number of witnesses who lived within the five-mile radius were called to prove that Mr. Bloxham had attended them professionally since he had set up at Hawkhurst.

The defendant was then called, and said that he told Mr. Newington when he left that he proposed to practise at Hawkhurst, and that no objection was raised. He denied that he attended any of Mr. Newington's patients, but admitted that a doctor to whom he had been formerly assistant had brought an action similar to this one against him.

The Lord Chief Justice, in giving judgment, remarked that this litigation was regrettable. This was not a case where an agreement had been unintentionally broken. His lordship then, having dealt in detail with each point raised by Mr. Willis, directed judgment to be entered for 40s. for the plaintiff, and granted the injunction prayed for.

## PROSECUTION OF UNQUALIFIED DENTAL PRACTITIONERS AT BRIGHTON.

IT will be remembered that in the BRITISH MEDICAL JOURNAL of January 23rd it was stated that seven persons were summoned at the Police-court at Brighton for infringing the provisions of the Dentists' Act. Three cases were dealt with on January 19th; the remainder were brought up on January 26th, when Mr. A. Ferguson, *alias* Cutler, Mr. E. Woods Oxborrow, "Dr." E. P. Day, and Mr. H. J. Barker appeared in answer to the summonses.

The case against "Dr." Day was taken first. The evidence given was that there was a brass plate on Day's door with "Dr. Day, of Philadelphia, U.S.A.," upon it; also a London address, "9, Charles Street, St. James's Square." On attending the house the witness was shown into a surgery where "Dr." Day was waiting. An examination was made, and an agreement made by which certain teeth were to be extracted and replaced by new ones, and the fee of £6 6s. was to be charged. Witness on leaving asked defendant if he were a qualified dentist, and the answer given was "Yes." Other witnesses gave similar evidence.

The defence raised was that Day was a qualified man, having taken his degree in Philadelphia after two years' study, and that he had been practising since 1878, and in England for ten years. It was denied that he had stated that he was a dentist, or implied that he was registered. It was stated that he had not a large practice in Brighton, being more often in London, and that when away Mr. Foster, a registered dentist, took charge.

Mr. Foster gave evidence that he was practising with "Dr." Day at Old Steine, but that his name was not upon the door of the house there. He shared profits with "Dr." Day. When registered he had no qualification, but since that date he had obtained one.

The stipendiary said he had no reason to doubt the witnesses for the prosecution. The evidence was plausible, reasonable, and clear. He thought "Dr." Day had held himself out as being a dentist, and that he must convict. He, however, took into consideration what had been said as to his competency. The law must, however, be enforced, and he would impose a fine of £10 and £3 13s. 6d. costs, or in default twenty-one days' hard labour.

The next defendant was A. Ferguson, *alias* Cutler, of 12, East Street. Evidence was given that the inscription "Mr. Ferguson, of New York," appeared on the defendant's premises, and a circular with numerous testimonials and prices for sets of teeth was produced. It was asserted also that the defendant in answer to a question gave himself out as a qualified dentist.

The defence raised was that there was nothing upon the premises which amounted to calling himself a dentist or implying that he was registered.

The stipendiary said that if the business circular did not hold out the defendant to be a qualified dentist he did not know what would. He inflicted a penalty of £10, and £3 13s. 6d. costs, or imprisonment in default for twenty-one days with hard labour.

In the case against E. Woods Oxborrow, Mr. Marshall Hall, for the complainant, said that defendant's solicitor could not contest the summons. He was not surprised at this, because he actually had called himself a registered dentist. He was a young man, and as he had taken the wise course of admitting his offence he did not press for a heavy penalty.

Mr. Tickle, on behalf of the defendant, said his client had not practised dentistry without qualification. He accounted for the word "registered" being used by the fact that he took the business over from a man who was registered, and he had never altered the wording.

A fine of 40s., and £1 1s. cost, was imposed, with the alternative of fourteen days' hard labour, and Mr. Tickle gave an undertaking that the word complained of should be removed.

The last case was against H. J. Barker, who also pleaded guilty. The word "registered" was used on an extensive facia over the shop, with the name of the defendant's deceased father, "J. Barker." The defence was that no dentistry was being carried on.

The stipendiary imposed a fine of 40s., and £1 1s. costs, or fourteen days hard labour.

## HERBALIST COMMITTED FOR TRIAL.

ACCORDING to the *Western Morning News*, "Dr." Edwin Alfred Cormack, who stands already committed at Devonport for trial for the murder, by alleged illegal operation, of Jessie May Oliver, was again brought before the Stonehouse magistrates on a writ of *habeas corpus* on January 26th upon another charge. He was associated in this charge of attempting to perform an illegal operation upon Edith Hobbs with another herbalist, John Henry Phillips, of Union Street, Stonehouse, who has absconded from his bail; his sureties have been estreated and a warrant issued. After hearing the evidence of the girl and three medical practitioners, all of whom stated that an examination made by them proved the consistency of her story that mechanical violence of some sort had been applied to her for the said purpose, the prisoner was committed to Exeter assizes. It will be remembered that Mrs. Cormack, the wife of the prisoner, has also been committed for trial charged with being an accessory in the case of the murder of Jessie May Oliver before the fact.

## THE CASE OF DEW *v.* GREY EDWARDS.

DR. LLOYD, of Bangor, desires us to state that in our report of the action Dew *v.* Grey Edwards the statement that he should not have concluded that the child suffered from diphtheria is incorrect. The statement he really made was that he remarked to Dr. Williams that the latter should not have expressed his opinion to the plaintiff in the absence of the defendant.

## CERTIFICATION OF LUNATICS IN SCOTLAND.

L.R.C.P.—It is legal for two practitioners in partnership to sign the two certificates required in each case of lunacy in Scotland. We presume that this is what our correspondent wishes to know, although he says

"Is it legal to sign the same certificate?" By 25th and 26th Vict., cap. 54, Section XIV. certificates in due form are required from two medical persons. The only disabilities imposed by the Scottish Acts in regard to the signing of these certificates by duly qualified medical practitioners are that they shall not have any immediate or pecuniary interest in the asylum in which the lunatic is to be placed, and in the case of those who are not pauper lunatics the medical officers of the asylum cannot grant a certificate for detention in such asylum, except the certificate of emergency authorised by the section quoted. If the lunatic were to be sent to an English asylum such a procedure by partners would be illegal.

# NAVAL AND MILITARY MEDICAL SERVICES.

## ARMY MEDICAL SCHOOL, NETLEY.

On January 30th Surgeon-Major-General J. Jameson, M.D., Director-General of the Army Medical Department, visited Netley and presented the prizes at the conclusion of the recent session of the school. Surgeon-Colonel Notter read a report of the work done, and reported that of twenty-five surgeons on probation who had attended the course of instruction during the session just closed, twenty-four had satisfactorily acquitted themselves. The conduct of all the gentlemen had been exemplary, and the general tone of the school exceedingly good. The following is a list of the gentlemen who have been successful at both the London and Netley examinations, and who were recommended for commissions in the Army Medical Staff and the Indian Medical Service respectively. The final positions of these gentlemen are determined by the marks gained in London added to those gained at Netley. The prizes are awarded in the special subjects taught at Netley.

| Army Medical Staff. | Marks. | Indian Medical Service. | Marks. |
|---|---|---|---|
| *G. E. F. Stammers ... ... | 5,889 | †A. A. F. McArdle ... ... | 5,626 |
| C. F. Wanhill ... ... ... | 5,006 | ‡J. M. Woolley ... ... ... | 5,625 |
| W. E. Hudleston ... ... ... | 4,697 | C. A. Lane... ... ... ... | 5,300 |
| M. P. Corkery ... ... ... | 4,278 | T. B. Kelly ... ... ... | 5,030 |
| F. J. Gaine ... ... ... | 4,178 | §J. H. Hugo ... ... ... | 4,921 |
| L. Addams-Williams ... ... | 4,094 | W. H. Kenrick ... ... ... | 4,900 |
| E. W. Bliss ... ... ... | 4,004 | C. H. Watson ... ... ... | 4,649 |
| M. M. Rattray ... ... ... | 3,999 | C. H. S. Lincoln... ... ... | 4,530 |
| J. H. Power ... ... ... | 3,922 | R. H. Price ... ... ... | 4,502 |
| R. E. G. Phillips ... ... ... | 3,824 | E. F. E. Baines ... ... ... | 4,408 |
| T. H. M. Clarke ... ... ... | 3,772 | G. F. Sealy ... ... ... | 4,340 |
| W. E. P. V. Marriott ... ... | 3,097 | R. Bryson ... ... ... ... | 4,269 |

* Gained the Herbert Prize of £20 for General Proficiency, the Montefiore Medal and Prize of 20 guineas for Surgery, the Parkes Memorial Medal for Hygiene, and the Pathology Prize presented by the Director-General A.M.D.

† Gained the De Chaumont Prize in Hygiene and the Maclean Prize or Clinical and Ward Work.

‡ Gained the Martin Memorial Medal for Medicine.

§ Gained the Second Montefiore Prize for Surgery

Having presented the prizes, the Director-General gave an able and sympathetic address to those about to enter on their military career, reminding them that the day they left Netley marked a distinct period in their lives. The service which they had chosen necessarily imposed upon them a wide variety of experience, not perhaps under such pleasant conditions as in former days, when some of the best climatic areas were garrisoned by Imperial troops, and the rupee was at par; still even now it was not without its charms and advantages. The history of the military medical service during the last forty years had been somewhat chequered—there had been giving and taking, progress followed by retrogression, but advancement all the same. Comparing the conditions of 1857, when he (the speaker) entered the service, with those of 1897, the present generation had much the best of it in regard to education and social position. The old regimental organisation had its advantages, but it could never be revived on the old lines. He was aware that the medical service of the army was suffering under several disabilities, most of which he hoped and believed would be removed in time; but he desired to remind his hearers that even granting the concession of such points as army rank, army titles, consolidation into a Royal corps, with right to sit as presidents of mixed Boards, the privilege of study leave and shorter tours of foreign service, all these would be as empty brass so long as the army medical officer was not a good doctor. For these reasons he asked them never to lose sight of the ideal of attaining the best possible standard of professional proficiency. Above all things, the army surgeon should be loyal to his brother in arms. He regretted to say that the medical service had an unenviable notoriety for writing anonymously to the press, and airing its grievances in public; such conduct rarely did good, but oftener than not cast discredit upon what was and should be a highly honourable branch of the army. Another matter of good taste and policy he felt bound to mention: he referred to the use which some officers made of the military portion of their titles only. Such a habit gave the unfriendly critic an opportunity of saying that they were ashamed of their profession, and would like to be considered what they were not. He was quite aware it was only to a small minority of their officers that such a remark applied, but as the conduct of one affected the character of many, he felt sure they would pardon his making this reference. Having further spoken of the great part which medical officers of both the Imperial and Indian local forces had played, not only in extending the limits of our Empire, but also in testifying to the courage and valour of the Anglo-Saxon race, the Director-General bade the young officers all good fortune, with the hope that they would not refer with regret to the days they had spent at Netley.

The Director-General and other guests were subsequently entertained at luncheon at the mess by Surgeon-Major-General Nash and officers of the Army Medical Staff stationed at Netley.

## ARMY MEDICAL STAFF EXCHANGE.

*The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.*

A Surgeon-Captain, who will complete five (5) years in India, March, 1898, is willing to exchange places in the roster with a medical officer who would have two, three, or four years more to serve in India, or is willing to take a complete tour of Indian service from next trooping season. Apply, stating the amount willing to give, to Surgeon-Captain Gibbard, A.M.S., Ootacamund, India.

## THE NAVY.

The following appointments have been made at the Admiralty: Henry S. Jackson, Staff-Surgeon, to the *Pembroke*, February 4th; John W. Craig, M.B., Surgeon, to the *Caledonia*, January 27th; John A. L. Campbell, Surgeon, to the *Stork*, February 6th; James G. Fowler, Surgeon, to the *Sharpshooter*, February 6th; William A. Whitelegge, Surgeon, to the *Phœnix*, February 11th; John H. Stenhouse, Surgeon, to the *Algerine*, February 11th; Alfred J. Pickthorn, Surgeon, to the Portsmouth Division Royal Marines, February 11th; Ernest A. Penfold, Surgeon, to the Plymouth Division Royal Marines, February 11th; Hugh Clift, Surgeon, to the *Vivid*, additional, for Devonport Dockyard, February 11th; Edward B. Pickthorn, Surgeon, to the *Vernon*, February 11th; Cyril J. Mansfield, Surgeon, to the *Pembroke*, March 1st; John H. Thomas, Staff-Surgeon, to the *Orlando*, February 1st; Alfred H. Miller, Staff-Surgeon, to the *Royal Arthur* for voyage home; Frederick J. Lilly, Staff-Surgeon, to the *Mildura*, undated; Edward H. M. McSherry, M.D., Surgeon, to the *Wallaroo*, undated; Frederick A. Capps, Surgeon, to the *Royal Arthur*, on *Waterwitch* paying off, undated; Edward C. Cridland, Surgeon, to the *Waterwitch*, undated; Donald T. Hoskyn, M.B., Staff-Surgeon, to the *Centurion*, additional, for Yokohama Sick Quarters, undated; Henry N. Stephens, Surgeon, to the *Centurion*, additional, for the *Esk*, undated.

## ARMY MEDICAL STAFF.

Surgeon-Lieutenant-Colonel W. M. James retires on retired pay, February 3rd. He was appointed Surgeon, September 30th, 1875; Surgeon-Major, September 30th, 1887; and Surgeon-Lieutenant-Colonel, September 30th, 1895.

We understand that Brigade-Surgeon-Lieutenant-Colonel Steele has sent in his papers to retire.

Examinations for promotion of Surgeon-Captains of the Army Medical Department were held on February 1st and 2nd at the Military Hospital in Rochester Row, Westminster, and at the barracks at Caterham and Kingston-on-Thames.

## ARMY MEDICAL RESERVE.

Surgeon-Captain James Drummond, M.D., 3rd Durham Volunteer Artillery (Western Division Royal Artillery), to be Surgeon-Captain, February 3rd.

## INDIAN MEDICAL SERVICE.

The tenure in the administrative medical grade of Surgeon-Colonel G. Bainbridge, Bombay Establishment, will reckon from October 4th, 1896.

Surgeon-General Thomas Hastings, F.R.C.S., late Bengal Establishment, died at Brighton on January 27th, aged 78. He entered the Indian Medical Service as Assistant Surgeon September 9th, 1842; was made Deputy Surgeon-General December 21st, 1868; and retired January 1st, 1874, with the honorary rank of Surgeon-General.

## THE VOLUNTEERS.

The undermentioned gentlemen are appointed Surgeon-Lieutenants in the corps mentioned dated February 3rd: William B. Mason, 1st Hampshire Engineers, Royal Engineers (Volunteers); Ralph B. Sidebottom,

4th Volunteer Battalion the Cheshire Regiment; JOHN C. FENWICK, 3rd (Sunderland) Volunteer Battalion the Durham Light Infantry.

Surgeon-Captain F. O. F. RANSOM, M.D., 3rd (Cambridgeshire) Volunteer Battalion the Suffolk Regiment, has resigned his commission February 3rd.

Surgeon-Lieutenant C. W. GRAHAM, 1st (Cumberland) Volunteer Battalion the Border Regiment, is appointed Second Lieutenant in the same corps February 3rd.

Surgeon-Major J. MITCHELL, 2nd Volunteer Battalion the Durham Light Infantry, is promoted to be Surgeon-Lieutenant-Colonel February 3rd.

### ARMY HOSPITAL SCHOOLS.

It is proposed to establish in India what are termed "hospital schools," by which is no doubt meant a modified course of instruction in military hospitals for such slight cases as sprains or other minor ailments which have necessarily to be treated for uncertain periods. The project meets with the approval, and rightly so, of medical officers. It is in the knowledge of all army surgeons that trifling cases form a large proportion of the total numbers in hospital, and seeing that such cases, especially in the hot season, spend much of their time in looking about or sleeping between the visits of medical officers, the scheme of hospital schools is likely to be attended with most beneficial results, as it gives mental employment during much spare time.

### VOLUNTEER MEDICAL ASSOCIATION.

THE annual general meeting of this Association will be held on May 5th. The final competition for the Ambulance Challenge shield, instituted for regimental bearers, will be held on Saturday, June 12th. The Council has been unable to accede to the request that members of brigade bearer companies should be admitted to the competition, as the trust deed under which the shield is held would not permit this. The Council has resolved to institute a gratuitous course of instruction for the Volunteer Medical Officers Proficiency Examination. No reply has yet been received from the War Office to the Association's protest against the exclusion of volunteer medical officers from the £20 grant.

### THE PROMOTION BOARD.

"FOR ways that are dark" Promotion Boards have long been notorious, and the medical seems to be no exception. We have before us a pamphlet on the supersession of a surgeon-colonel, which, as it stands, does indeed seem passing strange. The officer in question had apparently always been well reported on, and was at one time promoted over the heads of others; now he experiences a like fate, with no bad reports (as stated) between. He demanded but obtained no explanation of his supersession. We think an officer passed over has a right to know the reason, otherwise there is no safeguard against official nepotism which we should be loath to suspect. At all events this case is not encouraging to those now serving, and should be another warning to candidates for service to look before they leap.

### ARMY MEDICAL REFORM.

ESPRIT DE CORPS suggests that a deputation at the instance of the British Medical Association should wait upon the War Minister and represent the urgent need for certain reforms in the Army Medical Service. Of these he mentions:

1. Increased autonomy on the lines of a Royal corps.
2. Abolition of the compound, and substitution of simple military titles.
3. A substantial increase of pay, both at home and in India.
4. Increase of establishment, so as to admit of reasonable private leave and study leave.

It would be well to inaugurate such reforms in this the auspicious year of Her Majesty's long reign.

*** Our correspondent evidently does not know that a Subcommittee of the Parliamentary Bills Committee is now in communication with the Minister of War on the subject of army medical reform.

# UNIVERSITIES AND COLLEGES.

### UNIVERSITY OF CAMBRIDGE.

DEGREES.—At the Congregation on January 28th the following degrees were conferred:

*M.B.*—R. A. Kirby, B.A., Trinity; F. A. C. Tyrrell, B.A., Clare; J. Hobday, B.A., Christ's; G. C. Taylor, M.A., Christ's.

*B.C.*—F. A. C. Tyrrell; L. P. Black, B.A., Trinity Hall; J. Hobday.

MATRICULATION.—By the matriculation of 18 new students on January 28th, the entry for the current academic year has been brought up to 923, including about 25 graduates of other Universities admitted as advanced students.

### UNIVERSITY OF ST. ANDREWS.

BUTE SCHOOL OF MEDICINE.—The present Lord Rector of the University, the Marquis of Bute, who has for several years taken a keen interest in the development of the medical school at this ancient seat of learning, has undertaken to erect at his own cost, under certain conditions, four new laboratories, lecture rooms, museums, workrooms, etc., for the departments of anatomy, physiology, materia medica, and botany. These laboratories, etc., will be provided with all modern appliances for teaching and research purposes. The object in view is to enable students attending the medical classes at the University to spend two residential years at St. Andrews, these being required for medical graduation at all the Scottish universities. Owing to additions made last autumn to the medical teaching staff, two very complete *anni medici* can now be obtained at St. Andrews, qualifying courses being given in (1) physics, (2) botany, (3) natural history, (4) chemistry, (5) anatomy, (6) physiology, and (7) materia medica. St. Andrews University aims at providing the seven fundamental subjects of the medical curriculum, and the four new laboratories, etc., will give greatly increased facilities and opportunities both to teachers and taught. The new laboratories, etc., will form a most important addition to the existing natural philosophy, natural history, and chemical departments. As they are to be built apart from the existing colleges on ground of their own, they will, of necessity, form the headquarters of the extended medical school there, which school will henceforth be known as the "Bute School of Medicine" in commemoration of the generous donor.

### ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE following candidates having conformed to the by-laws and regulations, and passed the required examinations, have been admitted Licentiates of the College:

Allen, C. P.
Allen, J. L.
Ambrose, G. P.
Arthur, J. H.
Ashford, W.
Baird, R. F.
Barton, C. N.
Beards, E. J.
Bebb, R.
Bennetts, A. J.
Bernhard, D. R.
Berry, H. G.
Berry, S. H.
Binckes, F. W.
Blackwood, J.
Bletchley, G. P.
Booker, C. W.
Bottomley, F. C.
Bremridge, R. H.
Buendia, N.
Burney, C. D. F.
Burt, A. H.
Caley, T. A.
Carnes, W.
Chevallier, C. L.
Clarkson, C. C.
Clough, W. H.
Cobbledick, A. S.
Coutts, J. M. S.
Dakin, T. B.
D'Amico, C. de P.
Densham, W. A.
Dodson, G. E.
Dykes, C. R.
Eardley, W.
Eddy, J.
Edleston, R. S. C.
England, H.
Evans, W. F.
Farr, A.
Finch, W. S.
*Fogarty, D.
Fordham, J. W.
Fox, E. J.
Fulton, H.
Gilbert, L.
Godson, F. A.
Goffe, E. G. L.
Goldie-Scott, T.
Good, H. A.
Grant, A. J.
Greenwood, A. R.
Greenwood, H. H.
Grummitt, C. C.
Harding, W. J.
*Harris, C. J. J.
Harris, N. H.
Hartley, J. V.
Hasslacher, F. J. M.
Haynes, G. S.
Herrington, E. W.
Howlett, G. D.
Hudson, C.
Hughes, J. B.
Hunt, E. L.
Jennings, R. E. W.
Joynson, A. W.
Langdon, H. C. T.
Langworthy, E. S.
Lewis, C. E. M.
Liversidge, W.
Lynch, S. F.
Marriage, H. J.
Marsh, H. R.
Mayston, R. W.
Michod, F. A. H.
Millichamp, G. E.
Moore, J.
Mudd, F. B.
Neild, N.
Norrington, H. L. W.
Oxley, A. W.
Oxley, W. H. F.
Parker, L. E. L.
Parsons, H. C.
*Parsons, H. F.
*Pope, H.
Priestley, T.
Reynolds, L. G.
Richards, W. J.
Rocah, S.
Roberts, L. W.
Robinson, J. C. R.
Ross, M. W.
Scanlon, L. E.
Scowby, E. T.
Sessions, F. L.
Somers, C. D.
Stansfield, J. S.
Stevens, H. J.
Sutcliffe, W.
Sworn, A. B. R.
Tarbet, W. E.
Taylor, F. E.
Temple, P. G.
Thomas, E. R.
Thomas, R. R.
Torrance, J.
Townsend, H. W. W.
Tulk-Hart, T. J. A.
Turnbull, H. P.
Vulliamy, J. T.
Walker, W. P.
Wall, J. B.
Wallis, W.
Ward, E. L.
Waters, J. F. W.
Waters, W. A. P.
*Watkins, J. P.
Watson, G. T.
Whicher, S.
White, M.
Wiggins, W. D.
Willis, H. A. L.
Wills, B. S.
Wood, J. H.

* These candidates have not presented themselves under the Regulations of the Conjoint Examining Board.

### CONJOINT BOARD IN SCOTLAND.

THE quarterly Examinations of the Triple Qualification in Edinburgh took place in January, with the following results:

*First Examination, Four Years' Course.*—Of 9 candidates entered the following 5 passed the examination: N. McGowan, Lilian Edith Sykes, R. Brodie, E. A. Nicholls, and J. G. Gray; and 1 passed in Anatomy and Histology.

*First Examination, Five Years' Course.*—Of 16 candidates the following 4 passed the examination: E. G. D. Benson, F. W. Newcombe, W. Deery, and M. Beatty; and 3 passed in the division of Physics, 2 in Chemistry, and 4 in Biology.

*Second Examination, Four Years' Course.*—Of 40 candidates the following 19 passed the examination: W. P. Lappin, C. K. Darnell, W. A. Clayton, J. W. Lee, W. Ritchie, Amelia Norah De Souza, E. J. Kelleher, T. Murphy, J. J. Porter, A. H. H. Barclay, A. G. Sutton, J. H. Moag, G. L. Philipsz, J. E. Broadbent, W. M. S. Robinson, C. W. Iliffe, A. A. Jeremiah, J. J. A. Sherry, and G. T. Johnson.

*Second Examination, Five Years' Course.*—Of 14 candidates the following 6 passed the examination: J. P. Lavery, J. Roche, W. Pattullo, A. C. Balfour, H. W. Borcham, and J. McMurray.

*Third Examination, Five Years' Course.*—Of 13 candidates the following 7 passed the examination: J. G. Parker, Harriette Frances Bailey, J. K. Calder, W. W. Dickie, A. F. Seacome, Evelyn Stone Milestone, and I. A. Jackson: and 1 passed in the Division of Pathology.

*Final Examination.*—Of 105 candidates, the following 36 passed the Examination and were admitted L.R.C.P.E., L.R.C.S.E., and L.F.P.&S.G.: J. G. Murray, W. A. G. Farquhar, F. P. Mouckton, F. E. L. Johnston, Ursula Chaplin, J. St. C. De B. Bartley, G. E. Brooke, A. F. Edwards, J. R. Lambert, H. S. Roberts, R. B. Redkar, Mildred Jane Wallace, D. F. O'Kelly, A. A. Humphrys, G. H. Williams, J. S. Thorne, C. B. Johnstone, T. H. Evans, L. F. Beven, C. R. Dearden, H. T. O'Donohoe, J. Crowley, W. Faull, J. S. Gill, A. P. Brown, D. W. Reese, G. S. Foulds, J. MacRae, D. Ritchie, O. Hall, H. S. Desprez, Regina Lewis Landau, R. L. Storrar, R. V. Donnellan, K. C. Hill, and G. R. Harland, and 6 candidates passed in Medicine and Therapeutics, 1 in Surgery and Surgical Anatomy, 4 in Midwifery, and 3 in Medical Jurisprudence.

# MEDICO-PARLIAMENTARY.

## HOUSE OF COMMONS.

### DEATHS FROM STARVATION.

ON the motion of Mr. T. G. BOWLES (on behalf of Mr. TALBOT) a return has been ordered of the number of all deaths in the administrative county of London, in the year 1896, upon which a coroner's jury has returned a verdict of death from starvation, or death accelerated by privation, together with any observations furnished to the Local Government Board by Boards of Guardians with reference to cases included in the return.

### THE ARMY MEDICAL STAFF.

Sir W. FOSTER: I beg to ask the Under-Secretary for War whether the rule which prevents candidates for the Army Medical Staff who have twice failed in the competitive examination again presenting themselves for examination has been, or is to be set aside, and, if so, how many trials a candidate is to be allowed.—Mr. BRODRICK: In future, on the recommendation of the medical authorities, three trials will be allowed.

### THE VACCINATION COMMISSION.

Mr. LOGAN: I beg to ask the President of the Local Government Board, if it is proposed to publish the evidence given before the Royal Commission on Vaccination during the autumn of 1891 and in 1892 and 1893, also the reports of the subcommissioners on small-pox epidemics since 1881; and when it is probable such documents will reach the hands of members.—Mr. T. W. RUSSELL: I have made inquiry of the Royal Commission on Vaccination, and have been informed that some of the reports in question will be issued almost immediately, and that all are in the hands of the printers.

### DANGEROUS TRADES.

In reply to Sir C. DILKE, Sir M. W. RIDLEY said: A recommendation that wool-sorting should be certified as a dangerous trade was made last year by a Departmental Committee, and it was so certified accordingly. Special rules were at once prepared, but suggestions were made by the workmen at the eleventh hour requiring further investigations by the Committee, which were only recently completed. The rules are now in the printers' hands, and will be ready for issue shortly. They will be served in the usual way upon the occupiers of works in which hair or wool (other than British wool) is sorted.

### MAINTENANCE OF PAUPER LUNATICS.

Sir M. STEWART: I beg to ask the Lord Advocate if his attention has been called to the hardship imposed by law on a parish which has been compelled to afford relief to an alien pauper lunatic becoming chargeable on the rates of such parish: and if he can see his way to free the rates from such a burden by extending the costs of chargeability over a wider area than one parish, by legislation or otherwise.—The LORD ADVOCATE: So long as the parish system is retained, cases of hardship of the kind mentioned must occasionally occur, but will tend to distribute themselves equally. I may point out, however, that, so far as the obligation to relieve is concerned, there is no difference between an alien lunatic and a native lunatic without a known settlement. The occasional nature of the case complained of is a sufficient argument against making alterations in a system which works well.

### CONTAGIOUS DISEASE IN THE ARMY.

In reply to Major RASCH, Mr. BRODRICK said: On January 1st the men under treatment for venereal disease at the several stations were 155 at Aldershot, 77 at Portsmouth, 84 at Woolwich, and 169 in Ireland. These gave the following rates respectively per 1,000 of the strength: 12.13, 18.06, 10.79, and 8.03, with an average of 11.84.—Major RASCH asked whether the Government intended to take any steps to remedy this state of things,—Mr. BRODRICK said the whole question, as related to India, was under inquiry by a Departmental Committee of the India Office, and no decision with regard to any steps could be taken until the results of that inquiry were laid before Parliament.

### IRISH GUARDIANS AND HYDROPHOBIA PATIENTS.

In reply to Mr. J. P. FARRELL, Mr. GERALD BALFOUR said: The Local Government Board have issued a writ against the Newry Board of Guardians, specially naming four members, for the recovery of a sum of money paid by the guardians to Philip M'Govern, in direct contravention of the law. In October, 1895, the guardians passed resolutions that three men and any other persons bitten by a mad dog who might thereafter apply were to be sent for treatment to M'Govern, who claims to be able to cure hydrophobia. The Board pointed out to the guardians that, M'Govern's farmhouse not being a recognised hospital within the meaning of the 25 and 26 Vic., cap. 83, sec. VII. the guardians were acting *ultra vires* in sending patients to him for treatment. Upon the presentation of M'Govern's bill the guardians applied to the Board to sanction the expenditure, which the Board explained they had no power to do, and as the account was not paid M'Govern served the guardians with a civil bill for the amount. The guardians decided not to defend the process, and judgment went against them accordingly by default. The Attorney-General has granted his fiat for the proceedings which are now being taken in the superior Court.—In reply to Mr. P. A. M'HUGH, Mr. GERARD BALFOUR said: I have already stated fully the circumstances under which legal proceedings had been taken by the Local Government Board in this matter. I have no information as to the statements in the second part of the question, and, as regards the suggestion at the end, I must point out that the Local Government Board [illegible] Newry House is not a hospital within the meaning of Section VII of the 25 and 26 Vict., cap. 83, as it is not an institution under the professional control and management of duly qualified medical practitioners, in which the treatment is openly avowed and subject to proper investigation. The Local Government Board do not interfere with the discretion of Boards of Guardians as regards the selection of the hospital to which inmates should be sent for special treatment so long as the terms of the statute are complied with.—Mr. H. A. M'HUGH asked what was necessary in order to bring M'Govern's house within the description of a properly qualified hospital?—Mr. GERALD BALFOUR: As I have already stated, in order to satisfy the conditions of the statute it must be an institution under the professional control and management of duly qualified medical practitioners, in which the treatment is openly avowed and subject to proper investigation.

### BARRACK SCHOOLS.

Mr. DRAGE: I wish to ask the President of the Local Government Board whether he has come to any decision on the subject of the report of the Departmental Committee on Poor-law Schools which he can conveniently communicate to the House.—Mr. CHAPLIN: I have carefully considered the recommendations in the report of the Committee on Poor-law Schools and have come to the following decision. We propose to avail ourselves of the powers we possess under the Metropolitan Poor Act, 1867, and to carry out the changes we contemplate by an order of the Local Government Board instead of coming to Parliament. In doing this we give effect to some of some of the principal recommendations of the Committee. We propose to create a central body for the metropolis, who will be responsible for the charge of certain classes of children. The classes of children whom this authority will provide are: (*a*) Those suffering from ophthalmia and other diseases of the eye; (*b*) those suffering from certain diseases of the skin or scalp; (*c*) those requiring either special treatment during convalescence or the benefit of seaside air; (*d*) those who by defective intellect or physical infirmity cannot be trained in association with children in ordinary schools; (*e*) children who are remanded to the workhouse by justices before being sent to industrial schools. For these classes of children I am satisfied that special provision must be made, and the arrangement proposed will have amongst others the following advantages: The provision required can be made by an authority acting for the whole of London at less cost than would be entailed by each district making separate provision for this purpose; it will greatly benefit the children themselves; it will render unnecessary the detention in workhouses of classes of children whom it has been the practice to temporarily detain there; and, further, it will set free some of the accommodation in the existing schools, a result which is greatly to be desired. The members of the central body will be elected by the guardians of the several unions, but not necessarily from their own body. The Local Government Board will also have the power to nominate members. A draft order has been prepared for this purpose, and dealing as it does with a matter of great importance to the metropolis, I have thought it right to communicate it to the various Boards of Guardians and the managers of the district schools for their information, and thus to afford them the opportunity of making suggestions to the Local Government Board if they desire it. Much objection has been made to the massing together in one institution of great numbers of children, and we fully concur in this objection. In accordance with the practice of the Board for some years past we are declining to sanction proposals which would have the effect of extending the large schools in the metropolis, and we shall most readily entertain any proposals for applying to other purposes any of these large buildings, subject to other provision of a suitable character being made for the children. There are other recommendations of the Committee to which the Board are desirous of giving effect. We are in communication, through the Secretary of State for the Colonies, with the Canadian Government, with a view to arrangements for the more frequent visitation by officers of the Dominion of children sent out to Canada at the cost of the rates; and we have made special appointments of inspectors to inquire as to the prevalence of ophthalmia in the schools, and also as to the ventilation and warming of the rooms in these institutions as a preliminary step to determining the question of cubic space. Other matters, which can only be dealt with by legislation, are receiving the attention of the Board.—Mr. BARTLEY: Will the other children be left, as now, with the guardians?—Mr. CHAPLIN: We are not prepared to accept the main recommendation of the Commission, which was to hand over the charge of all the children maintained out of the rates to a central body.—Mr. LOUGH: Is provision to be made for the various classes of children in a large institution or in small and scattered institutions, and, if in a large institution, will not that tend to increase the evil?—Mr. CHAPLIN: I have already stated that it has been the practice of the Board to refuse their sanction to any further extension of these large institutions, and that will be their course in the future.

### CIVILIAN MEDICAL PRACTITIONERS AND THE ARMY.

Dr. FARQUHARSON: I beg to ask the Under-Secretary of State for War how many civilian medical practitioners have been employed during the past year to give professional aid to the troops in Great Britain and Ireland owing to vacancies in the Army Medical Staff: and what were the actual number of vacancies in the Army Medical Service up to December 31st, 1896.—Mr. BRODRICK: The number of civil practitioners specially employed during the past year was 77. It is not possible to associate the engagement of individual practitioners with particular vacancies in the Medical Staff, but there were on December 31st last 39 vacancies, and, although 13 surgeons were on probation at Netley, the number of private practitioners engaged was somewhat larger than would otherwise have been the case. There may, therefore, be some connection between the number of private practitioners engaged and the number of vacancies.

### VACCINATION.

Mr. HOLLAND asked the President of the Local Government Board whether, in view of the fact that vaccination officers were paid only by fees upon successful cases of vaccination, and that therefore their incomes had been largely reduced in a great number of districts by the non-enforcement of the Vaccination Acts by Boards of Guardians, while their actual work was in no degree diminished thereby, the Local Government Board would sanction Boards of Guardians paying the vaccination officers by fees based upon birth returns as well as upon successful cases of vaccination.—Mr. CHAPLIN: Experience has amply shown the importance of payment of vaccination officers by results as a principle of general application, but I will consider where any modification in the existing rule can be made under which the payment to the vaccination officer shall not wholly depend on fees in respect of the certificates of successful vaccination registered.—Sir WALTER FOSTER: I desire to ask the President of the Local Government Board whether vaccination medical officers come under the provisions of the Poor-law Superannuation Act of 1896; and, if not, whether he will take steps to amend the Act

in this respect.—Mr. CHAPLIN: The Local Government Board are of opinion that neither under the Superannuation Act of 1864, nor under the Act of last session, is a public vaccinator, who is paid by fees under a contract, an officer to whom a superannuation could be granted. I am not contemplating any alteration in the law in this respect.

### KISSING THE BOOK.

Mr. PICKERSGILL: I wish to ask Mr. Attorney-General whether his attention has been drawn to the report of an inquest, held at West Bromwich on January 27th before Mr. Betham, deputy coroner, from which it appears that a surgeon, being called to give evidence, desired to be sworn according to the Scottish form, whereupon the deputy coroner professed his ignorance of the Scottish oath, and stated that he was not bound to administer the oath in that form; whether, under the provisions of the Oaths Act, 1888, the administration of the oath in the Scottish form was imperative upon the court in the circumstances stated; and, if so, whether he would communicate with the Lord Chancellor with a view to the attention of coroners and county court judges being called to the matter; and, whether, having regard to the strong representations of the medical faculty as to the danger of infection from "kissing the Book," he will consider the advisability of extending generally the practice of the Lambeth County Court, namely, to place printed notices in a conspicuous position in the courts calling public attention to the provisions of the Act which permit the Scottish form of oath as an alternative.—The ATTORNEY-GENERAL: I am informed by the deputy-coroner that he did not state that he was not bound to administer the oath in Scottish form. On the contrary he was prepared to accept it if the witness could remember the form of it; the deputy coroner not then having the form by him. The witness was not required to kiss the Book, his unsworn evidence being accepted. Under the provisions of the Oaths Act, 1888, the administration of the oath in Scottish form is to be permitted if it is desired by the witness, and a circular has been issued by the Home Office calling the special attention of coroners and deputy-coroners to these provisions, and I shall be pleased to show the hon. and learned member a copy of it if he desires to see it.

### HYDROPHOBIA.

Dr. FARQUHARSON: I beg to ask the President of the Board of Agriculture how many cases of canine hydrophobia have been reported in the Metropolitan district during the last six months; and whether there is any chance of the muzzling order being repealed or relaxed.—Mr. LONG: Twelve cases of rabies have been reported in the County of London and 22 in the five Home counties, during the last six months. I am informed that the Public Control Committee of the London County Council proposes that the present muzzling regulations should now be so far relaxed as to give exemption to dogs under proper control and wearing a collar bearing the name and address of the owner. In this connection I may perhaps be allowed to point out, however, that it will be necessaay for the whole subject to be further considered in the light of the report of the Committee which has been sitting for some time past to inquire into the working of the laws relating to dogs. I understand that the Committee propose that a determined effort should now be made to rid the country of rabies once and for all. If this could be accomplished the necessity for the issuing of intermittent muzzling regulations by particular local authorities would disappear. I am under the impression that the owners of dogs and the public generally would support a well-considered scheme which promises to secure the complete extirpation of rabies in these islands—a result which is never likely to be secured under the existing system.

### COLOUR BLINDNESS.

Mr. AMBROSE asked the President of the Board of Trade whether of the number of persons (sailors) rejected by the Board of Trade as colour blind, as appeared from the Board's report, 1896, 38 per cent. of those that were rejected and appealed were, on appeal, passed; and whether the Board of Trade proposed to take any steps to revise their tests.—Mr. RITCHIE: 6,680 candidates were examined during the 16 months ended December 31st, 1895, in colour vision; 101 failed, but of these 21 availed themselves of the right to appeal, and 8 passed on appeal. The present system of sight tests is based upon the report of the Committee of the Royal Society specially appointed to inquire into the subject, and I am advised that no case has been made out for revising it.—Mr. WOLFF asked the right hon. gentleman whether he would allow all boys of five years' apprenticeship to be examined, so that, after having learned the trade of a seaman, they might not at the end of their term possibly be put aside.—Mr. RITCHIE said that anyone who desired to present himself for examination could do so, and he would be examined. The only difference was that the examination was not compulsory in the case mentioned by his hon. friend.—Mr. WOLFF asked whether the right hon. gentleman would make the examination compulsory in the case of boys.—Mr. RITCHIE replied in the negative. In the case of boys it would not be sufficient, for large numbers of men became officers who did not enter the service in the manner suggested.

## NOTICES.

### MIDWIVES REGISTRATION.

Mr. SCHWANN has given notice of his intention to ask the Home Secretary whether the Government proposes to take any action to carry out the report of the Select Committee on Midwives' Registration (of 1893), which was of opinion that a large amount of suffering and death was needlessly inflicted on both women and children of the so-called working classes through the want of medical training amongst those practising as midwives.

### HEALTH OF THE ARMY.

Mr. HENRY J. WILSON proposes on an early day to call attention to the state of the army, especially in India, as regards venereal disease; and to move a resolution.

### HABITUAL INEBRIATES.

Mr. KNOWLES has given notice of his intention to ask the Home Secretary if his attention has been called to the State Home for Inebriates which has been opened in Foxboro, Massachusetts; and if he could obtain information with regard to its conditions of management, etc.

### INCREASE OF INSANITY.

Mr. CORBET will ask the Secretary of State for the Home Department if his attention has been recently called to the fact that the number of insane persons under official cognisance in the United Kingdom, Ireland included, have increased from 55,525 in 1862 to 128,896 in 1895, and that the ratio of insane per 1,000 of the population has gone up during the same period from 1.81 to 3.28. And whether, in view of the importance of the subject, he will take steps to convene an International Conference to ascertain what measures can be taken to arrest the spread of the disease.

### EXPERIMENTS ON LIVING ANIMALS.

Mr. MACNEILL will ask the Secretary of State for the Home Department why the annual report of experiments on living animals was published later and later every year. And whether, having regard to the fact that the last vivisection report for the year 1895 was published on August 6th, 1896, when Parliamentary intervention that session was impossible, he will give an assurance that the report for 1896 will be published in time for discussion on the estimates. Mr. MacNeill also proposes to ask the Secretary of State for the Home Department, what measures were taken in respect to two men licensed to perform experiments on living animals during the year 1895, under the provisions of the 39 and 40 Vic., c. 76, who are stated in the report of the inspector, G. V. Poore, Esq., M.D., to have been guilty of irregularities as licensed vivisectors? What were the irregularities brought by the inspector in these cases under the notice of the Secretary of State? Were any proceedings under the provisions of the Cruelty to Animals Act, 1876, taken against these persons or either of them? And, were the certificates granted to them by the Home Secretary for the purposes of vivisection revoked?

### THE GLOUCESTER SMALL-POX OUTBREAK.

Mr. T. BAYLEY proposes to ask the President of the Local Government Board if the Government Inspector had yet reported on the outbreak, and if so, whether he would lay the report on the table.

### TUBERCULOSIS.

Mr. KNOWLES intends to move for a return showing, in respect of each of the years ended March 25th, 1896 and 1897, the number of carcasses seized by medical officers of health and inspectors of nuisances in England and Wales under Section CXVI of the Public Health Act, 1875, and Section XLVII of the Public Health (London) Act, 1891, and of the number of such carcasses condemned by justices under Sections CXVII and XLVII of those Acts, distinguishing, as far as practicable, the number so condemned in consequence of the animal having suffered from tuberculosis (in continuation of Parliamentary Paper, No. 435, of Session 1895).

### THE SCOTCH PUBLIC HEALTH BILL

Dr. FARQUHARSON intends, after the second reading of the Public Health (Scotland) Bill, to move "That it be referred to a Grand Committee on which all the Scotch members shall be represented."

### PETITION.

A petition has been presented from Clifton for the prohibition of vivisection.

### NEW BILLS.

Mr. KEARLEY has brought in a Bill to consolidate and amend the law relating to the Sale of Foods and Drugs. The measure is backed by Sir J. Wodehouse, Mr. H. Plunkett, Mr. Lambert, Mr. Jeffreys, Mr. Nicol, Mr. Channing, Mr. Lough, and Mr. M. Healy, and the second reading has been fixed for March 18th.—Mr. DUNCOMBE has introduced a Bill to provide that all shop assistants shall have one half holiday in each week, and Sir A. FORWOOD has introduced a Bill to make better provision for workmen injured in the course of their employment.—A Bill has been introduced into the House of Commons, backed by Mr. Wanklyn and several other members of Parliament, with the object of securing superannuation allowances to officers and servants of local authorities, including county, borough, district, and parish councils, school, burial, highway, and other Boards, and vestries, but of course, no body to which the Poor-law Officers Superannuation Act relates. The latter Act in its main clauses appears as a schedule to the Bill, and forms the basis of proposed legislation, the general form and provisions of the Act being requisitioned in the Bill.

# PUBLIC HEALTH
## AND
# POOR-LAW MEDICAL SERVICES.

## THE PUBLIC HEALTH (SCOTLAND) BILL.

THE measure which has just been introduced by the Government into the House of Commons under the style and designation of the Public Health (Scotland) Bill is identical in all except three material points with their Public Health Bill of last year, as amended in the House of Lords. In the course of its passage through the Lords the Bill was materially extended and improved, especially in respect of certain points to which we at the time directed attention. Although the Bill was sent down to the Commons as early as the month of May, so congested was the state of public business in the Lower House, that no opportunity occurred for its introduction there during the currency of the session, and it was hung up for a year.

Although the present condition of the public health law in Scotland is unsatisfactory in the extreme, the delay which has arisen in placing a new Public Health Act upon the Statute Book is not entirely matter for regret. Time has been allowed for more mature consideration of the provisions of the Bill,

and suggestions have been made with respect to its amendment, more particularly with reference to certain important matters with which the Bill in its present form fails to deal. To these we propose to refer at a later stage. In the meantime it may be useful to note the points in which the Bill of 1897 differs from the Bill of May, 1896.

We had occasion in dealing with the Bill of last year to point out very forcibly the impracticability of certain clauses in which the provisions dealing with infectious disease were to become operative—"all or any"—only "by special resolutions" of local authorities. It was impossible to contemplate without alarm the confusion, the diversity of practice which would have arisen had these clauses been persisted in. In the present Bill the difficulty has been met by the deletion of one clause and the alteration of another, so as to render the clauses dealing with the prevention of infectious disease applicable to the diseases to which the Notification Act in any district applies, the provisions of the Notification Act being, under the Bill, extended to every district in Scotland. This method has the distinct merit of simplicity; it is, perhaps, somewhat summary, and it will pretty certainly be objected to on the ground that these very useful clauses should not be restricted in their application to notifiable diseases. The question, however, is surrounded with difficulties. In days when the range of diseases regarded as "infectious" is being ever extended, there must be some limitation, some category of diseases which are to be held as infectious "for the purposes of the Act."

The Government have wisely dropped certain sections of the Factory and Workshops Acts, dealing with workshops and bakehouses, which they had rather indiscriminately incorporated in the Bill of last year. Their retention would but have added to the confusion which already exists in connection with the administration of the public health provisions of these statutes.

The third material alteration on the Bill of last year consists in the insertion of a clause abolishing the pre-existing method of rating for public health purposes, which was rendered exceedingly cumbrous by reason of a system of "deductions" and "classifications." The rate will henceforth be imposable, without qualification, upon the gross valuation. This alteration, however, is merely complementary to the Agricultural Rates, Congested Districts, and Burghs Land Tax Relief Act which was passed in the fag end of last session.

## HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,563 births and 4,338 deaths were registered during the week ending Saturday last, January 30th. The annual rate of mortality in these towns, which had been 19.2 and 19.7 per 1,000 in the two preceding weeks, further rose to 20.6 last week. The rates in the several towns ranged from 10.8 in Croydon, 14.7 in Halifax, 15.9 in Preston, and 16.0 in Gateshead to 25.3 in Birmingham, 25.7 in Salford and in Liverpool, 27.5 in Wolverhampton, and 33.6 in Plymouth. In the thirty-two provincial towns the mean death-rate was 21.1 per 1,000, and exceeded by 1.2 the rate recorded in London, which was 19.9 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was equal to 1.7 per 1,000, while it averaged 1.8 in the thirty-two provincial towns, among which the highest zymotic death-rates were recorded in Burnley, Salford, Blackburn, Nottingham, and Wolverhampton. Measles caused a death-rate of 1.1 in Bradford, 1.5 in Gateshead, 1.6 in Plymouth, and 1.8 in Nottingham; scarlet fever of 1.0 in Salford and 1.3 in Croydon; and whooping-cough of 1.2 in Salford, 2.0 in Bristol, in Burnley, and in Blackburn, and 2.4 in Wolverhampton. The mortality from "fever" showed no marked excess in any of the large towns. The 83 deaths from diphtheria in the thirty-three towns included 53 in London, 6 in Birmingham, 4 in West Ham, 3 in Wolverhampton, 3 in Oldham, and 3 in Liverpool. No fatal case of small-pox was registered either in London or in any of the thirty-two large provincial towns. There were 8 cases of small-pox under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, January 30th, against 3 and 2 at the end of the two preceding weeks; 7 new cases were admitted during the week. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 3,597, 3,414, and 3,354 at the end of the three preceding weeks, had further declined to 3,311 on Saturday last: 254 new cases were admitted during the week, against 290, 208, and 249 in the three preceding weeks.

## HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, January 30th, 924 births and 723 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.9 and 24.6 per 1,000 in the two preceding weeks, declined again to 24.3 last week, but exceeded by 3.7 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rate ranged from 18.0 in Leith to 30.5 in Greenock. The zymotic death-rate in these towns averaged 2.7 per 1,000, the highest rates being recorded in Edinburgh and Glasgow. The 362 deaths registered in Glasgow included 24 from measles, 10 from whooping-cough, 6 from diarrhœa, and 3 from "fever." Four fatal cases of scarlet fever, 2 of diphtheria, and 7 of whooping-cough were recorded in Edinburgh.

# NOTES ON WORKHOUSES.

## PRIMITIVE LANGPORT.

Quoting from the report of the inspector, Mr. Preston Thomas, we find "that bathing and lavatory accommodation is exceedingly defective, and the scarcity of hot water and the absence of fixed baths lead to the objectionable practice of bathing several people in the same water. There is no hot water for the tramps, or on the first floor of the infirmary." The inspector goes on to insist on the need of more efficient isolation, and on the keeping of the tramps apart from the inmates. It seems that Langport is much troubled with the itch, and that there is no proper system of isolation or of disinfecting the clothing. The medical officer, when asked what means were taken to disinfect or dry the tramps' clothing, replied, "The only means we have for disinfecting at present is an umbrella with a little brimstone beneath it." (The medical officer must have had a sense of humour, or his reply would have been entirely in the negative.) It appears that in this primitive house the tramps are locked in their ward at night, and are unable to communicate with the inside of the house: that there is no stove in the dining hall, "the old folk have to sit on a cold stone floor, and without a stove." We do not read in this report of any adequate arrangements for nursing the sick; but as a man with cancer was put in charge of an imbecile old man, and as a woman with lung disease was placed in a ward which the inspector considered quite unfit for such a purpose, and as young children suffering with itch were found in the charge of an inmate "not far removed from an imbecile," we are justified in coming to the conclusion that though there may be nursing in theory it does not exist in fact.

## THE DOLING OUT OF PITTANCES.

The Mablethorpe Urban District Council have had before them the question of the salary to be paid to their medical officer of health. The Local Government Board have refused to sanction a salary less than £20 with a view to repayment from county funds of a moiety of the sum, and even so this minimum seems to us to be ridiculously low. But it is too high for Mablethorpe, whose Council, after a solemn disquisition on the enormity of such a salary, and the advantages of having appointments in the hands of local bodies who can "sack" their officers at will, came to a determination to offer £10 as a salary, and to free themselves, as far as possible, from the control of the Central Board. To have doubled the salary would, in the circumstances set forth by the Local Government Board, have entailed no extra burden on the local rates. But the whole affair demonstrates anew the folly of our system of small local control in such a matter.

## SCARLET FEVER AT HOLLOWAY.

At a recent meeting of the Islington Board of Guardians the clerk read a letter from the vestry clerk enclosing a report by the medical officer of Islington, dealing with the occurrence of a case of scarlet at the Kingsdown Orphanage, which was alleged to have been caused by the discharge of a child from the St. Ann's Hospital, Tottenham, while that child was in an infective condition. In his report the medical officer stated, "I have so often expressed myself as to the discharge of patients from the Asylums Board Hospitals whilst in an infective condition, that I will now only say that I carefully examined the patient, and found that she was desquamating from the thumb of her right hand and forefinger of her left hand." A copy of a letter from the medical adviser to the orphanage was also read, and after some discussion it was agreed that the Local Government Board be asked to inquire into the matter, and that a letter be also sent to the Metropolitan Asylums Board.

## NEW FEVER HOSPITAL FOR EDINBURGH.

The Public Health Committee of the Edinburgh Town Council have recommended that arrangements should be made for 600 beds in the new hospital for infectious diseases.

## THE INFECTIOUS DISEASES (NOTIFICATION) ACT.

Perth adopted the Infectious Diseases Notification Act on July 9th, and it is determined that the Act shall not remain a dead letter. On January 22nd, Dr. James Holmes Morrison was prosecuted by the city local authority of Perth for failure to notify a case of membranous croup. Dr. Morrison's view appears to have been that inasmuch as infection was not communicated to any one of five children who associated with the child, membranous croup is not an infectious disease. It was contended for the prosecution that as membranous croup is specifically mentioned in the list of infectious diseases, no question as to its infectiousness could be raised. The Sheriff before whom the case was tried found the charge proved, and Dr. Morrison was fined 30s. Dr. Morrison appealed, and the Sheriff said he would prepare a case to be submitted to the higher Courts.

## THE WATER SUPPLY OF TORQUAY.

A statutory meeting of the burgesses of Torquay was held recently, to consider the question as to whether the Town Council should be empowered to take the necessary steps to obtain an Act of Parliament, under which the gathering grounds, from which the water of Torquay is derived, should be purchased. The Torquay water is collected on a spur of Dartmoor; a few farms are situated on the gathering ground, and these it is is proposed to clear away or obtain control of. The powers sought by the Bill are permissive, and in any event the cost of the undertaking is not to exceed £40,000.

After some discussion, in which the importance of insuring that the supply of water shall be above suspicion was insisted upon, and after hearing objections raised with respect to the amount of expenditure contemplated, a formal resolution of approval of the scheme was put to the meeting, and carried with only half-a-dozen dissentients.

### THE CONTROL OF MEASLES.

In his annual report for the past year, which has just been presented to a Committee of the Dover Town Council, Dr. Robinson states that, "but for the epidemic of measles which caused 63 deaths, the death-rate would have been below the average of the previous ten years." Some discussion arose in connection with this statement, and a councillor moved that measles be added to the list of notifiable diseases. After some debate a member of the Committee gave the statutory fourteen days' notice of a motion declaring measles to be a notifiable disease.

In Newcastle a marked decrease in the epidemic of measles is recorded. Rather more than a month ago the public elementary schools were closed at the instance of the sanitary authority; measures of disinfection have since been carried out and the schools are now again opened. It is hoped that the outbreak is now at an end.

### UNQUALIFIED ASSISTANTS AND POOR-LAW PRACTICE.

It cannot be too clearly understood by parochial medical officers that they have no right to permit persons not registered as duly qualified practitioners to act as their deputies and to visit and prescribe for their parish patients. At the Brentford Board of Guardians at a late meeting it was alleged that Dr. Tily, one of the Board's medical officers, had allowed his son, admittedly not qualified, to attend a fever case in his absence. The statement was made that the order was sent to Dr. Tily on a Wednesday, and that he did not attend himself until the Friday, the son calling on the Thursday and Sunday, Dr. Tily again seeing the case on Tuesday. Whether these allegations are true we cannot say, but we can only express our hope that such a practice is not followed.

### THE WATER SUPPLY OF RICHMOND.

In a pamphlet addressed to the burgesses, particularly those of the North ward, Richmond, Surrey, Town Councillor John Cockram draws special attention to what he contends are serious objections to the character of the water supplied to Richmond. It is stated in this pamphlet that water derived from Petersham well is mixed with water derived from deep wells in the chalk and Thanet sand, and that the water obtained from the first-named source is liable to contamination by reason of the fact that the Petersham well is shallow, lies only 56 feet from the border of the Thames, and is situated in low ground subject to inundation when the river is in flood. Objection is further taken to the fact that the mixed water is not filtered and to the manner in which it is stored before being delivered to the consumers. Mr. Cockram contends that the use of Petersham well water should altogether be discontinued.

### WHOLE TIME APPOINTMENTS IN LONDON.

Bartholomew's asks whether the medical officers of health for the various districts of London are permitted to engage in private practice.

*** The majority of London medical officers of health have been appointed or reappointed since January 1st, 1892, and the terms of their appointments have been determined in accordance with Sections cvi and cviii of the Public Health London Act, 1891. In several instances it has been a condition of the appointment that the medical officer shall not engage in private practice. This requirement does not exist for the most part in the case of appointments made before the date above given.

### FACTORY SURGEONS IN SCOTLAND.

Factory writes: Is it the case that in Scotland examining surgeons to factories are now no longer appointed by the Crown, and that any surgeon, at the request of the owner of the factory, workshop, etc., may undertake the duties?

*** No alteration has been made in the method of appointing certifying factory surgeons in Scotland.

### INFECTIOUS HOSPITALS.

M. O. H. writes that his rural sanitary authority purpose building a small hospital for infectious diseases, and he asks for suggestions. A building sufficiently large to hold three males and three females, together with nurses' and caretaker's quarters would, it is judged, be sufficient in this case.

*** Our correspondent might obtain the Memorandum on the Provision of Isolation Hospital Accommodation (London: Eyre and Spottiswoode. 1d.).

# MEDICAL NEWS.

Guy's Hospital has received a gift of £500 from Mr. W. F. Highfield, of Plymouth.

The course of the Milroy Lectures of the Royal College of Physicians for this year, which will be delivered by Dr. Collingridge, will commence on March 11th.

The resignation by Dr. Blaikie Smith of his post of Physician to the Royal Infirmary, Aberdeen, caused a vacancy which has been filled by the appointment of Dr. Edmond.

Professor Sherrington, F.R.S., of University College, Liverpool, will give an address to the Clinical Society in the College of Medicine, Newcastle, on February 18th, the subject being his Researches on the Spinal Segment.

The Benin Expedition.—We may add to the statement made last week with regard to the fitting up of the *Malacca* as a hospital for the Benin Expedition, that Messrs. Arnold and Sons supplied surgical instruments on a very short notice.

Dr. Robert Farquharson, M.P., will take the chair at a meeting of the Sanitary Institute on Wednesday, February 10th, at 8 p.m., when a discussion on the Sanitary Supervision of Shelters for the Homeless will be introduced by Dr. F. J. Waldo.

Lord Lister, who for many years has been Consulting Surgeon to the General Lying-in Hospital, has accepted the office of President, rendered vacant by the death of Lord Darnley. The hospital is to be congratulated on the choice, for obstetric practice no less than surgery has benefited by the teachings of Lord Lister, and in no institutions have antiseptic methods been followed with greater benefit to the inmates.

A Medical Income Tax.—The Kentucky Legislature has imposed a graded income tax on all medical men practising in that State. All whose incomes amount to less than $2,000 (£400) per year must pay $10 (£2) per year; all of $10,000 (£2,000) or more must pay $1,000 (£50). Intermediate rates are fixed on incomes between these extremes. The profession is up in arms against the law, and proposes to test its constitutionality.

At a meeting of the Windsor Town Council, held on January 30th, it was proposed to inaugurate a fund in aid of the Royal Infirmary, and Princess Christian's District Nurses' Home, which was founded in the Queen's Jubilee year, 1887, as the most suitable memorial to commemorate the Queen's sixty years' reign. The sum of £972 was subscribed in the room.

Scottish Poor-law Medical Officers' Association.—The second annual meeting of the Scottish Poor-law Medical Officers' Association, which was held in Glasgow on January 27th, was of a most successful character. Mr. Alexander Cross, M.P., was elected Honorary President; Dr. Bruce, Dingwall, Honorary Vice-President; Dr. W. L. Muir, President; Dr. A. M. Murdoch, Mile End, Glasgow, Secretary, with a body of influential gentlemen to form the Council. The members of the Association and their friends afterwards dined together.

Sutton Boys' and Infants' School.—We have received from the Clerk to the Managers of the South Metropolitan District School a letter in which he states that the statistics supplied by the medical officer of the Sutton Schools in the Poor-law Schools Inquiry Committee, and published in the report of that Committee presented to Parliament last year, were erroneous. As our Commissioner's article on the Sutton Schools published in the British Medical Journal on January 9th was based on the figures contained in the report, the clerk also calls in question the deductions drawn from the figures. As the matter is one of considerable importance, we propose to defer its consideration until the statistics have been fully examined.

The annual general meeting of the London and Counties Medical Protection Society will be held at 4 p.m. on Tuesday, February 16th, at 12, New Court, Carey Street, Lincoln's Inn, when the annual report and balance sheet will be presented. It appears from the statement of account for the year ending December 31st, 1896, that the income of the Society was £647 8s. 6d., and the expenditure £392 6s. 11d. The Council reports that during the last few months it has been able to carry into effect the hope expressed in previous reports, and that a reserve fund has been formed, of which Sir William Broadbent and Mr. Pickering Pick will act as trustees. The report further states that upwards of 80 cases had been dealt with by the Society during the year.

A dinner was held at the Holborn Restaurant on January 27th to commemorate the passing of the Poor Law Officers' Superannuation Act. The chair was taken by Lord Glenesk and the principal guest of the evening was Mr. W. H. Long, M.P., who took the place of Mr. Chaplin, the President of the Local Government Board, who was unable to be present owing to the effects of his recent accident. During the evening Mr. Rutherglen, Clerk to the Kensington Guardians, was presented with a casket containing a cheque for £1,160 in recognition of his untiring efforts to secure the passing of the Poor Law Superannuation Act. A diamond ornament was presented to Mrs. Rutherglen. Mr. Rutherglen acknowledged the gift.

## MEDICAL VACANCIES.

The following vacancies are announced:

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Senior House-Surgeon. Salary, £100 per annum, with board, washing, lodging, etc. Applications to Nathan A. Smith, Secretary, Infirmary Office, 15, Richmond Terrace, Blackburn, by February 11th.

BOROUGH OF BURTON-UPON-TRENT.—Medical Officer of Health: must reside within the borough and must not engage in private practice. Salary, at the rate of £350 per annum, exclusive of authorised disbursements. Applications, endorsed "Medical Officer of Health," to T. N. Whitehead, Town Clerk, Town Hall, Burton-on-Trent, by February 24th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon. Applications to John Griggs Bryant, Secretary, by February 9th.

CHELSEA HOSPITAL FOR WOMEN.—Clinical Assistant. Tenable for three months. Applications to Herbert H. Jennings, Secretary.

DERBY COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary, £100, rising to £130, per annum, with furnished apartments, board, etc. Not more than 30 years of age. Application to Mr. B. Scott Currey, St. Michael's Churchyard, Derby, by February 16th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Assistant Physician; must be M.D. or M.B., and F. or M.R.C.P. Applications to William H. Theobald, Secretary, by February 17th.

HULL BOROUGH ASYLUM.—Assistant Medical Officer, unmarried, and not more than 30 years of age. Salary, £120 per annum, rising by annual increments of £10 to £150, with unfurnished apartments, board (except liquors), attendance, and washing. Application to the Committee of Visitors under cover to the Town Clerk, Town Hall: Hull, by February 9th.

HULL ROYAL INFIRMARY.—Honorary Surgeon: must be F.R.C.S. Eng., or have been Assistant Surgeon of the Infirmary for five years. Applications, addressed "Chairman, Committee of Management," to be received at the Board Room of the Institution by February 19th.

INFIRMARY OF THE CITY OF LONDON UNION.—Assistant Medical Officer at the Infirmary situate in Bow Road; doubly qualified. Must be single, or widower without children. Not less than 25 nor more than 35 years of age. Salary, £150 per annum, with furnished apartments at the infirmary, rations and washing. Applications on forms to be obtained at the Clerk's office, to be sent to Frederick W. Crane, Clerk to the Guardians, 61, Bartholomew Close, E.C., by February 9th.

JOINT COUNTIES ASYLUM, Carmarthen.—Qualified Clinical Assistant, for six months. Board, lodging, etc., and honorarium offered. Applications to Dr. Goodall, Medical Superintendent.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House-Surgeon. Boord and lodging provided, but no salary. Applications to C. W. Carver, Honorary Secretary, by February 15th.

LONDON COUNTY ASYLUM, Claybury, Woodford, Essex.—Lady Assistant Medical Officer; unmarried; doubly qualified. Salary £120 per annum, rising by £5 a year to £150, with board, lodging, and washing. Applications, on forms provided, to be sent to R. W. Partridge, Clerk of the Asylums Committee, Asylums Committee Office, 21, Whitehall Place, S. W., before 9 A.M. on February 11th.

LONDON HOSPITAL, Whitechapel, E.—Surgical Registrar; must be Fellow or Member of the Royal College of Surgeons, England, or possess such diploma as may be considered equivalent. Salary, £100 per annum. Applications to the House-Governor by February 12th.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—House-Physician, House-Surgeon, Assistant House-Physician, and Assistant House-Surgeon. Salary for the two former £40 a year, and £20 a year for the latter. Must be doubly qualified. Applications to the Secretary by February 22nd.

OMAGH DISTRICT ASYLUM.—Assistant Medical Officer. Salary, £100 per annum, with allowances of furnished apartments, rations, washing, fuel, light, and attendance, valued for pensionable purposes at £100 per annum. Not more than 30 years of age, unmarried, and qualified in medicine, surgery, and midwifery. Candidates must attend at the asylum on February 11th at 10.30 A.M., and produce certificate of birth or statutory declaration of age and originals of qualifications and testimonials.

PARISH OF ST. GILES, Camberwell.—Assistant Medical Officer for the Infirmary at Havil Street and the Workhouse at Gordon Road. Appointment for one year. Salary, £50, with apartments, board, and washing. Applications, on forms provided, to be sent to Charles S. Stevens, Clerk to the Guardians, Guardians Offices, 29, Peckham Road, S.E., by February 12th.

ST. MARY'S HOSPITAL, Paddington, W.—Surgeon in Charge of Out-patients. Must be Fellow or Member of one of the Colleges of Surgeons of the United Kingdom. Appointment for five years, but eligible for re-election. Applications to the Secretary by February 8th.

ST. MARY'S HOSPITAL, Paddington, W.—Medical Registrar. Salary, £50 per annum. Medical Officer for the Selection of Out-patients. Salary, £75 per annum. Must be M.R.C.P.Lond. Appointments for one year, but eligible for re-election for a second year. Applications to Thomas Ryan, Secretary, by February 8th.

ST. MARY'S CHILDREN'S HOSPITAL, Plaistow, E.—Resident Medical Officer. Appointment for one year. Salary, £80 per annum, with board and laundry. Applications to the Secretary by February 27th.

SHEFFIELD GENERAL INFIRMARY.—Junior Assistant House-Surgeon, doubly qualified. Salary, £50 per annum, with board, lodging, and washing. Appointment for three years, but eligible for re-election. Applications addressed to the "Medical Staff of the Sheffield General Infirmary" to the care of the Secretary by February 10th.

STRETTON HOUSE ASYLUM, Church Stretton, Salop.—Resident Medical Officer. Salary, £100 and all found. Must be single. Applications to C. H., care of Dr. Theo. Hyslop, Royal Hospital, London, S.E.

SUSSEX COUNTY HOSPITAL, Brighton.—House-Surgeon; doubly qualified, unmarried, and under 30 years of age. Salary, £120, rising to £140 per annum at the discretion of the Committee of Management, with board, residence in the hospital, and washing. Applications to the Secretary by February 10th.

TIVERTON INFIRMARY AND DISPENSARY.—House-Surgeon and Dispenser, unmarried. Salary, £105 per annum, with lodging, attendance, fire, and lights. Must serve two years if required. Applications to Arthur Fisher, Honorary Secretary, by February 27th.

TOWNSHIP OF TOXTETH PARK.—Senior Assistant Medical Officer of the Workhouse and Infirmary; doubly qualified. Salary, £100 per annum, with board, washing, and apartments. Deduction under the Superannuation Act of 2 per cent. on the salary and money value of emoluments, valued at £88 per annum. Applications, marked "Assistant Medical Officer," to J. Moulding, Clerk to the Guardians, 15, High Park Street, Liverpool, by February 17th.

YORKSHIRE COLLEGE, Leeds.—Demonstrator of Physiology. Salary, £150. Applications to the College Secretary by March 15th.

## MEDICAL APPOINTMENTS.

BARLING, A. S., M.R.C.S., L.R.C.P., appointed Surgeon to the Lancaster Police.

BARLOW, John, M.D., F.R.C.S., appointed Examiner in Surgery for the Faculty of Physicians and Surgeons, Glasgow, *vice* Hector C. Cameron, M.D., resigned.

CANT, Frederick, M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Bredbury District of the Stockport Union.

CARTER, F. R., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Chapeltown District of the Leeds Union.

COLLINSON, Henry A., M.B., B.S., appointed Surgeon to the Moor Steel and Iron Works, Stockton-on-Tees, *vice* J. H. Clegg, M.R.C.S., deceased.

CROOKSHANK, F. Graham, M.D.Lond., appointed House-Physician to the Hospital for Consumption and Diseases of the Chest, Brompton, S.W.

HALL, W. H., L.R.C.P., M.R.C.S., appointed Medical Officer for the Frant District of the Ticehurst Union.

HAMILL, J. Wilson, M.D., M.Ch.R.U.I., appointed Examiner and Certifier in Lunacy at Hope Hospital.

HAMILTON, W. C., M.B., C.M.Edin., reappointed Senior House-Surgeon to the South Devon and East Cornwall Hospital, Plymouth.

HANDFORD, Henry, M.D.Edin., D.P.H.Camb., appointed Medical Officer of Health to the Nottingham County Council.

HICKS, Thomas W., M.B.Lond., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of the Finchley Branch of the National Hospital for the Paralysed and Epileptic, Queen Square.

KENMAN, Richard H., M.B., B.Ch.B.A.O., appointed Resident Medical Officer at Park Hill Hospital, Dingle, Liverpool.

MORETON, Reginald, M.R.C.S.Eng., L.R.C.P.Lond., appointed House-Physician to the Hospital for Consumption and Diseases of the Chest, Brompton, S.W.

MORRIS, Colin D., L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health to the Sunbury Urban District Council.

PATON, E. L., M.A.Glasg., M.B., C.M., appointed Medical Officer for the Western Division of the Parish of Kinfauns, *vice* David Fleming, L.F.P.&S.Glasg.

SCOTT, A. William, M.D.Brux., M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health for the Handsworth Urban District.

WATTS, James A. W., M.B., B.S.Durh., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer and Public Vaccinator to the Hyde District of the Stockport Union, *vice* G. W. Sidebotham, M.R.C.S., L.S.A., resigned.

WOOD, T. Outterson, M.D., F.R.C.P.Edin., M.R.C.P.Lond., appointed Consulting Physician to the St. George's and St. James's Dispensary, King Street, Regent Street, W.

YOUNGER, Edward George, M.D.Brux., M.R.C.P.Lond., D.P.H.R.C.P.&S.I., appointed Medical Officer of Health to Gray's Inn.

FERGUSON, James Haig, M.D., F.R.C.P.Edin., appointed Additional Examiner in Midwifery in the University of Edinburgh, *vice* A. H. F. Barbour, M.D., F.R.C.P.Edin.

VENIS, H. Carey, B.A., L.R.C.P.&S.Edin., appointed House-Surgeon to the Brecknock County and Borough Infirmary, Brecon.

HARKER, W. E., M.D.Durh., B.S., reappointed Medical Officer of Health to the Tyne Port Sanitary Authority.

MAPLETON, G. Hubert, M.B., C.M.Edin., appointed Medical Officer for the Goudhurst District of the Cranbrook Union.

STEWART, Duncan, L.R.C.P.&S.Edin., appointed Medical Officer for the Hexham and Sealy Districts of the Hexham Union.

JONES, Herbert, L.R.C.S.I., L.M., L.A.H.Dub., appointed Medical Officer of Health to the Rhondda District Council.

GRATTE, C. Brooke, L.R.C.P.Lond., M.R.C.S., appointed Public Vaccinator to the Central District of the Newport Union.

PRESTON, George, L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer of Health to the Saltash Urban District, *vice* R. T. Meadows, M.D. Edin., resigned.

## DIARY FOR NEXT WEEK.

### MONDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor D'Arcy Power: The Hunterian Lectures. Lecture I: The Minute Anatomy of Intussusception.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Clinical cases. Mr. Noble Smith: (1) Spastic Contraction of a Mutilated Hand, Trophic Ulcer on the Posterior Surface, with Extreme Pain of the whole Hand, Relieved by Tenotomy and Neurectomy. (2) Diffuse Lipoma and Congenital Deformity of the Phalanges of the Index Finger. Mr. J. H. Morgan: Compound Fracture of the Anterior Fossa of Skull with resulting Lesions to Retina. Mr. G. R. Turner: Excision of Head of the Radius for Old Unreduced Dislocation. Mr. F. C. Wallis: Case of Unusual Fracture of the Humerus in a boy aged 16. Mr. G. Stoker: Two Cases of Ulcers treated by Oxygen Gas. Mr. Swinford Edwards: Skiagraph of Knee-joint after Suture of Patella.

**TUESDAY.**

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Lecture by Dr. Beevor.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL, Gray's Inn Road, W.C., 4 P.M.—Dr. Dundas Grant: The Diagnosis and Treatment of Nerve Deafness.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 P.M.—Dr. P. Horton-Smith: On the Presence of Typhoid Bacilli in the Urine of Patients suffering from Typhoid Fever. Dr. John Abercrombie: On some Affections of the Nervous System met with in Association with an Attack of Enteric Fever.

**WEDNESDAY.**

THE SANITARY INSTITUTE, PARKES MUSEUM, Margaret Street, W., 8 P.M.—Discussion on Sanitary Supervision of Shelters for the Homeless, to be opened by Dr. J. F. Waldo.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, 8 P.M.—Annual Meeting 8.30 P.M.—Hunterian Oration by Dr. Hingston-Fox: William Hunter (1718-1783).

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, 4 P.M.—Dr. Sidney Martin: Cases Illustrating Points of Interest in Mitral Stenosis.

THE CLINICAL MUSEUM, 211, Great Portland Street, 4 P.M.—Demonstration by Mr. Jonathan Hutchinson.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor D'Arcy Power: The Hunterian Lectures. Lecture II: The Pathology of Intussusception.

LARYNGOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 5 P.M.—Cases and Specimens will be shown by Mr. W. R. H. Stewart, Dr. Bond, Mr. Edward Law, Dr. H. L. Lack, Dr. Watson Williams, Dr. St. Clair Thomson, and Mr. Charters Symonds.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M. Mr. Bidwell: Operations on the Stomach.

**THURSDAY.**

BRITISH GYNÆCOLOGICAL SOCIETY, 20, Hanover Square, W., 8.30 P.M.—Mr. Bowreman Jessett will show: (1) Carcinoma Uteri with Dermoid Cyst of Ovary removed by Vaginal Hysterectomy; (2) Myomata Uteri, removed by Panhysterectomy; (3) Hæmatosalpinx with Large Hæmatocele; (4) Tubal Gestation. The President's Inaugural Address. Demonstration on Specimens and Instruments from Berlin by Dr. Macnaughton Jones.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M. Dr. Seymour Taylor: Urine Testing.

**FRIDAY.**

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Dr. James Taylor: On Epilepsy.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor D'Arcy Power: The Hunterian Lectures. Lecture III: The Treatment of Intussusception.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 P.M.—Mr. J. Ernest Lane: Two Cases of Gastro-Enterostomy. Mr. Walter Edmunds: Sequel to previously-recorded Cases of Excision of Malignant Growth from the Large Intestine. Mr. Stephen Paget: Cases of Voracious Hunger and Thirst after Injury or Disease of the Brain. Dr. E. W. Goodall: Two Cases of Enteric Fever Fatal during the Third and Fifth Week respectively, in which there was no Intestinal Ulceration.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

CLOWES.—On January 29th, at 56, London Street, Reading, the wife of Dr. Norton B. Clowes, M.R.C.S., L.R.C.P., of a daughter.

ENGLISH.—On January 24th, at Sleights, near Whitby, Yorkshire, the wife of T. H. English, L.R.C.P., M.R.C.S., of a daughter.

ROBERTS.—On December 27th, 1896, at 110, Princess Road, Liverpool, the wife of J. Lloyd Roberts, M.D., B.S., B.A., B.Sc.Lond., F.R.C.S.Eng., of a daughter.

### DEATH.

STOCKER.—On January 31st, at Weedon, Ethel Gwendolen, beloved daughter of Edward and Ethel Stocker, aged 3 years.

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances*—Daily, 2. *Operations.*—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR.—*Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—Daily.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30 Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations.*—(Ophthalmic) M. Tu., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations.*—M. F. S., 2.

LONDON. *Attendances.*—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operations.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations.*—M. Th., 4.30.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations.*—F., 9.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations.*—W., 1.30; S., 2; (Obstetrical), Tu., 2.

NATIONAL ORTHOPÆDIC. *Attendances*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances*—Daily, 2; Ophthalmic, W. S., 9.30 *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 9; Dental, Th., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 1. *Operations*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., W. S., 9; Eye, W. Tu. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th. 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations.*—M. Tu. Th. F. S., 1.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males S., 3; females; W., 9.45. *Operations.*—M., 2; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 3.0; Skin, M. Th., 9.30; Electro-therapeutics, M. Th., 2.30; Dental, W. S., 9.30; Children's Medical, Tu. F., 9.15; Children's Surgical, S., 9.15. *Operations.*—M., 2.30.; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M. 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Th., 2.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations.*—Tu. F., 2.30.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1; Obstetric, Tu., F., 1; Eye, Tu. F., 9.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operations.*—Tu. W., 2.

## LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

IGNORAMUS asks whether a person wearing a truss should be allowed to bicycle.

INQUIRER would like to know the best means for softening a hard water supplied to the boilers in a country house.

A MEMBER asks for advice as to the best type of hypodermic syringe, and as to the relative merits of solutions and compressed drugs for purposes of hypodermic injections.

PODOPHYLLIN desires to know where a girl, aged 11, of limited intelligence, but who can talk fairly well and use her hands and arms, but cannot stand owing to weakness of the legs, could be educated. The parents would contribute five shillings a week.

### LUNACY LEGISLATION IN CANADA.

DR. W. J. H. HASLETT (Sunbury-on-Thames) writes: Where can I find the best account of the lunatic asylums of Canada, and also the legal enactments referring to the insane in that country?

### BOOKS ON PUBLIC HEALTH.

X. asks what standard works should be studied with a view to becoming conversant with the duties and requirements of a rural district medical officer of health.

*** "X." will find a list of books recommended for the examination for a diploma in Public Health on page 585 of the BRITISH MEDICAL JOURNAL of September 5th, 1896.

### ECONOMY WITH EFFICIENCY.

E. E. writes: Will any gentleman who has had an extended experience of the non-alcoholic tinctures now on the market, kindly state whether they keep well, and give as good therapeutical result as the *British Pharmacopœia* tinctures? May I also ask for suggestions that will diminish the cost of some other drugs? for instance, I always use dec. aloes co. without saffron, and often find tinct. iodi to act as well as pot. iodi.

### A CASE FOR DIAGNOSIS.

H. G. D. would be glad if any member who has met with a similar case to the following would give his opinion. A married woman, aged 70, has a depression immediately below and in front of the right parietal eminence. It is rounded, size an inch and three-quarters to an inch and three-eighths, fairly sharp edges, and about a quarter of an inch below the surrounding bone; as firm as other parts of the skull, and not tender to pressure or percussion. A depression was first noticed in this region twelve years ago, and was then the size of a shilling. No cause is known for it. The woman's health has always been good. At present the only signs of impaired health are those of feeble circulation and atheromatous arteries, which cause occasional attacks of vertigo. There are also signs of brain failure in loss of memory.

### RULES OF MATERNITY CLUB.

A COUNTRY MEMBER writes: It is proposed to start in this neighbourhood a maternity fund, that is to say, a fund by which women who are not in a position to pay a guinea confinement fee and yet are not poor enough to avail themselves of the "parish doctor," may ensure medical attendance during their confinement. The fund is not to be a medical club in any way, but will be started by certain lady residents, who will subscribe for the benefit of their poorer sisters. The mothers will themselves be expected to contribute to a general fund, and will be allowed to engage any medical man in the place, the fee of one guinea (no lower fee) being guaranteed by the fund, and the doctor being paid after the confinement by the treasurer of the fund. Can any member tell us how to start this and give any suggestions as to rules?

### THE USE OF ANTISEPTICS IN MIDWIFERY.

UNSKILLED writes: The statement of a "Hospital Surgeon and General Practitioner" in the BRITISH MEDICAL JOURNAL of January 30th, "that he should be sorry to stake his reputation on one chemical, particularly when it has to be often employed by unskilled hands, as in the case in general practitioners' obstetrics," is rather a sweeping one, and one rather derogatory to general practitioners. Would "Hospital Surgeon," etc., kindly categorically state the steps he takes to conduct an ordinary, uncomplicated labour in a skilled antiseptic manner, for the benefit of the unskilled general practitioner? My method is very simple, and is as follows: (1) Clean the hands, and nails especially, with a nail brush and soap and hot water, rinse the soap from the hands; (2) soak the hands in a sublimate solution (1 in 1,000) for a minute or so; (3) do not dry the hands, but anoint the fingers with glycerine and corrosive sublimate (1 gr. to 2 ounces) before making an examination; (4) rinse the hands again, soak in the solution, and again anoint before making another examination; (5) after the labour wash the external genitals with the sublimate solution, and apply an antiseptic diaper if it can be afforded, if not a clean warm napkin. The routine of vaginal infections I do not follow. "Hospital Surgeon" would confer a favour if he would inform me whether anything has been neglected.

### DEATH CERTIFICATES.

DE RUDA asks: 1. Is it necessary in writing death certificates to put every word in full; as, for instance, acute bronchitis for a. bronchitis?

2. Has the local registrar any right to return a certificate to the medical man to correct the above abbreviation?

3. Has the registrar any right to refuse a certificate in case of non-compliance with above? and, if so, would an inquest be necessary?

4. Can the medical man give more than one certificate, and if a second is required for insurance, etc., may he charge for it? Or do the insurance societies decline to take all but the registrar's copy of the medical man's certificate?

*** 1 and 2. Registrars are instructed to copy the contents of medical certificates into their death registers, without omission, abbreviation, addition, or alteration. It would therefore be their duty to refer certificates containing unusual abbreviations to the certifying practitioner.

3. If the practitioner were so ill-advised as to refuse to amend an abbreviated certificate, the registrar would be bound to copy its contents literally into the register.

4. Under the Friendly Societies Acts, insurance societies are not authorised to pay money on any other certificate than that of the registrar, who can then carry out the provisions of those Acts limiting the amounts for which the lives of children may be insured.

## ANSWERS.

YOUNG PRACTITIONER may be advised to submit his question to the Ethical Committee of the college from which he obtained his diploma.

MEMBER OF 20 YEARS' STANDING might consult the reply given in the BRITISH MEDICAL JOURNAL of December 12th, 1896, page 1750.

X. Y. Z.—Our correspondent's question has been answered very frequently in the BRITISH MEDICAL JOURNAL.

J.—If our correspondent desires to proceed further in the matter he might submit the case to the notice of the local Branch of the British Medical Association.

RURAL.—The question might be sent to the Corporation from which the person referred to obtained his qualification. We believe that it will be brought under the notice of the Royal Colleges of Physicians and Surgeons at an early date.

J. B. S. writes in reply to the query by "Member" as to exercise for muscles of thighs and legs that ordinary dumbbell exercises as taught by army instructors are excellent means of developing thigh and leg muscles as well as arms and chest.

### WORKS ON ORTHOPÆDIC SURGERY.

DEFORM might consult *The Deformities of the Human Foot, with their Treatment*, by W. J. Walsham, M.B., C.M., and W. K. Hughes, M.B. (London: Baillière, Tindall, and Cox. 18s.); *Deformities: A Treatise on Orthopædic Surgery*, by A. H. Tubby, M.S. (London: Macmillan and Co. 17s.).

### TREATMENT OF SYPHILIS.

IN answer to the query of "D. E. B., (1) the best form of mercury for primary and secondary syphilis is grey powder in the following doses and combination—hydrarg. c. creta. gr. ½; ferri sulph. exsic., gr. ½; ft. pil. Direct the patient to have all very decayed teeth extracted and others to be stopped, then to take one of the above pills three times daily for three days, and increasing by one every third day until the teeth give slight pain on closing the jaws or salivation occurs; then halve the number which produced that, for example, three pills the first three days (add one on the third day), four pills for next three days (add one on the third day following), five pills for next three days, and thus keep adding one every third day until the above symptoms are produced; then, say it took twelve pills to do this, halve that number, which would be six, and continue for two years. (2) It is very seldom necessary to give potassium iodide in secondary syphilis, but, should it be thought advisable, the usual form is with liq. hydrarg. perchlor.

### DAMP HOUSES.

G. J. writes: The following plan is being carried out for me in a house forty years old built on the lower tertiary gravels. I think "Country Surgeon" would find it effectual, though I must admit it is too expensive to be done by any but a freeholder, and that it needs an honest builder.

I. To dry the foundations.—(1) Carefully excavate the footings in short sections. (2) Having got the levels, lay a porous drain of field pipes beneath the outer edge of the lowest course of the footings the whole way along the side towards which the ground falls, or the whole way round the house if possible. (3) If a fall is obtainable, let the top be open to the air, but guarded from rain or storm water, and let the bottom discharge over an open head or gully. The effect will be to cut off from the walls vertically and from the floors horizontally all percolation of ground water and ground air, and to diminish the rising of water up the bricks due to capillary attraction; if the pipes can be laid on porous stuff, sand, or broken brick, all the better. (4) Over all put down a concrete bed, with channel for rain water all round the house. (5) Cement the outside of the walls 3 feet high. This will guard against splashing.

II. To dry floors.—(1) Clear away existing floors. (2) Fill up to within 8 inches of fixture floor level with clean "hard core" broken brick, gravel, etc., mixed with lime, in fact "lime concrete." (3) On this to within 2½ inches of floor put down good cement concrete. (4) Render up the surface with neat cement. (5) Cover with pitch. (6) Lay down 2 inch wood block floor, setting it with hot pitch, which should rise between the joints to within ⅛ inch of the surface. If "Country Surgeon" should be in town I could show him the work.

## NOTES, LETTERS, Etc.

ERRATUM.—In the paragraph in Mr. Percy Dunn's article, published last week, in which chinosol the new antiseptic, is compared with carbolic acid, for a "1 in 1,000 solution of carbolic acid" read a "1 in 20 solution."

### THE BRESSA PRIZE.

THE Bressa Prize of the Royal Academy of Science, Turin, will be awarded for the eleventh time in 1899. It is of the value of about £400, and is given for the most important scientific work produced during the years

1895-99. Contributions, which must be printed, must be sent in to the Secretary before the close of the present year. The Academy reserves to itself the right of awarding the prize to one who has not entered his name as a competitor.

### MÉNARD'S OPERATION.

MR. E. MUIRHEAD LITTLE (Seymour Street, W.) writes: Dr. Laffan's letter in the BRITISH MEDICAL JOURNAL of January 23rd calls for some reply from me. In the first place, I would point out that in my letter in the BRITISH MEDICAL JOURNAL of November 21st, 1896, I made no claim to originality for Dr. Ménard. I was not concerned with any questions of priority. My point was that Dr. T. Sinclair Kirk had inaccurately described his operation as Ménard's. Dr. Laffan has referred me to the report of his paper in the BRITISH MEDICAL JOURNAL (vol. i, 1888, not vol. ii, 1887). I find there only a vague proposal to cut down somehow on the dorsal vertebræ in all cases of Pott's disease in that region. He is not reported to have given any hint as to how he would do this, nor to have referred in detail to the difficulties of the proceeding, nor did he record any case in which his suggestion had been carried out. Dr. Laffan is, of course, entitled to whatever credit may attach to his sweeping proposal, but hardly I think to priority over Dr. Ménard's in the treatment of Pott's palsy by lateral drainage.

### DISLOCATION OF SHOULDER WHILE BOWLING.

DR. WM. YOUNG (Wellington, New Zealand) writes: The following case of dislocation of the shoulder seems, in its mode of occurrence, unusual enough to be worth recording: T. G., aged 18, while bowling at cricket, felt something give, and had severe pain in his right shoulder, and then found his right arm was stiff and powerless. A few minutes after the occurrence I saw him, and found he had a subcoracoid dislocation of the right shoulder-joint. Having tried both manipulation and extension without success, I gave chloroform, and then found reduction quite easy.

### CHRONIC ULCERS AND LUPUS TREATED BY OXYGEN.

MR. GEORGE STOKER (Hertford Street, W.) writes: Will you permit me to make a correction in reference to your kind report of my oxygen cases shown at the Clinical Society last Friday? All the final bacteriological examinations showed only staphylococci, all the other micro-organisms having disappeared. I have obtained identical results in hundreds of examinations. I mention these facts to show the selective power that oxygen undoubtedly has.

### HOW TO STOP THE INFLAMMATION FROM VACCINATION WHEN RUNNING TO EXCESS.

DR. J. H. GIBSON (Public Vaccinator for Aldershot District) writes: I am glad to have Mr. Clement Lucas's treatment for excessive inflammation of the arm after vaccination. Such a misfortune may—and undoubtedly will—happen occasionally, no matter from what source the lymph is taken, and no matter how careful one may be with instruments. In these rare cases the inflammation, I do not doubt, is due to septic absorption arising from the dirty condition or unwholesome surroundings of the patient. If a vaccinator finds many of his arms becoming inflamed excessively, he should see to his instruments, and change the source of his lymph. I have reason to know that some time ago some of the calf lymph supplied was very carelessly collected, and without proper precautions being taken in the sheds where the calves were kept. My experience is that if the calf lymph is properly collected no ill results of any kind follow its use. I have also found that the late appearance of the vesicles after using calf lymph is due either to using old lymph or lymph that has been allowed to get warm. A day in the post in hot weather will often be enough to make calf lymph quite inert.

### PROTECTION FOR UNITED STATES NURSES.

THE United States Government has lately given a new ruling on the Alien Labour Law, the effect of which is to declare that Canadian trained nurses who go to the States to work in hospitals there do so in violation of the law. The Secretary of the Treasury has ruled that these nurses can be deported. Second thoughts appear to have led to the conclusion that the expulsion of the nurses would be an act not altogether likely to reflect credit on the Government of the United States, and accordingly it seems to have been determined not to interfere with the Canadian nurses who are already at work there, but no more are to be allowed to be imported. In the land of the McKinley Tariff it is only logical that native industry in the matter of nursing should be protected like other home-made products.

### MALE NURSES.

DR. PROSSER JAMES writes to point out that Lady Priestley in her article on Nurses à la Mode in the *Nineteenth Century*, to which we referred last week, while insisting that male nurses are necessary in many cases, falls into the error of stating that there is no society for supplying them. Dr. Prosser James calls attention to the fact that the Hamilton Association for Providing Trained Male Nurses has been in existence for eleven years. The Hamilton Association, he adds, is not a commercial enterprise but a philanthropic institution. The Committee of the Association, of which Dr. Prosser James is a member, has always given the greatest attention to discipline, and it is, he believes, due to this, and to the high character required for admission, that in only a few instances have complaints been made against Hamilton nurses.

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LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) Dr. W. L. Andriezen, London; Messrs. Armour and Co., London; A. M. Department; Dr. L. Atthill, Monkstown; J. M. Anderson, M.B., Tasmania; Messrs. Aitken and Co., York; H. B. Angus, M.B., Newcastle-on-Tyne; Messrs. Arnold and Sons, London; Mr. A. Anderson, Canterbury. (**B**) Mr. G. A. Brown, Cardiff; T. A. Bowes, M.B., Herne Bay; W. T. Burr, M.B., St. Leonard's-on-Sea; Dr. H. T. Bulstrode, London; Mr. J. G. Blackman, Portsmouth; Mr. T. H. Bickerton, Liverpool; Dr. F. C. Berry, Burnham; Mr. J. B. Bisset, Devizes; T. A. Bowes, M.B., Herne Bay. (**C**) Mr. J. D. Costine, London; Dr. W. Collier, Oxford; Dr. J. M. Clarke, Clifton; Mr. G. Christy, London; Mr. M. Cook, Hebburn on-Tyne; Dr. J. Cotter, Dublin; H. A. Collinson, M.B., Stockton-on-Tees; P. R. Cooper, M.B., Bowden; Colliery Surgeon; Dr. R. H. Cox, Shanghai; Centaurus. (**D**) Mr. J. Davies, Southsea; Messrs. Down Bros., London; Dr. A. Douglas, King Williams Town, South Africa; De Ruda; Deform; Dr. J. Davies, Maesteg. (**E**) Etiquette; Dr. H. Esler, Frankfort; E. W.; Economy with Efficiency; A. E. Evans, M.B., London; Dr. W. Ewart, London; Enquirer; Messrs. Elliott and Fry, London. (**F**) Filter; F.R.C.S.; Dr. T. Fisher, Clifton; Mr. R. Fletcher, London. (**G**) G. W. L.; Captain A. M. Gallet, London; T. B. Grimsdale, M.B., Liverpool; Mr. J. O. Gimlette, Singapore; G. W. S. (**H**) Half-paid Medical Practitioner; Mr. J. Heckscher, London; W. Hammond, M.B., Liskeard; Dr. T. G. Horder, Cardiff; H. G. D.; Mr. T. Holmsted, Bournemouth; T. W. Hicks, M.B., London; Dr. E. Hobhouse, Brighton; Mr. C. Heath, London; Dr. J. Haddow, Glasgow; H. G. T.; Dr. J. W. Hamill, Manchester; Dr. S. M. Hamill, Burnham; Mr. W. C. Hamilton, Plymouth; Mr. W. F. Haslam, Birmingham. (**I**) Ignoramus. (**J**) Dr. J. H. Joy, Tamworth; G. Jones, M.B., London; J. B. S.; Dr. P. James, London. (**K**) R. H. Kenman, M.B., Liverpool; Mr. G. E. Keith, London. (**L**) A Layman; Mr. E. M. Little, London; R. R. Leathem, M.B., Belfast; L.R.C.P.; Dr. E. J. Lloyd, Upper Bangor. (**M**) Member of the B. M. A. Twenty Years' Standing; M.R.C.S.; Member for Nearly Thirty Years; M.B., M.A.; Dr. A. M. Murdoch, Glasgow; Mr. J. Marsh, Manchester; M.D.; Mr. F. J. McNaught, London; Mr. R. Moreton, London; Member of the Junior Staff; Mr. H. Melladew, London; R. L. Meade-King, M.B., Taunton. (**N**) Nemo. (**P**) Pat; Mr. J. Pilkington, Blackpool; Dr. J. B. Pettigrew, St. Andrews; Mr. R. B. Popham, London; Perplexed. (**R**) Dr. J. S. R. Russell, London; Dr. J. Robinson, Bolton; Royal Hospital for Diseases of the Chest, The Secretary of the, London; G. Rice, M.B., Sutton; Royal Corps of Surgeons; Rural; Mr. G. A. Riordan, Cork; Mr. J. F. Rymer, London. (**S**) Messrs. J. P. Segg and Co., London; Mr. W. P. Stocks, Manchester; Dr. A. Sheen, Cardiff; Dr. F. J. Smith, London; Mr. G. Stoker, London; A Seemingly Abnormal G. P.; Dr. H. Snow, London; R. D. Shiels, M.B., Dunbar; Dr. A. W. Senior, Manchester; Lieutenant-General Sir R. Sankey, London; Sleigh; C. A. Sturrock, M.B., Dunfermline; Dr. D. W. Samways, Mentone. (**T**) Dr. S. G. Toller, London; Dr. H. G. Turney, London; Dr. F. S. Toogood, London; A Tory; Mr. W. H. Thompson, Bradford. (**U**) Dr. A. R. Urquhart, Perth; Unskilled; Urgent. (**V**) Dr. V. E. J. Vanderstraaten, Colombo. (**W**) Dr. W. T. Wilson, Idaho, U.S.A.; J. Watts, M.B., Hyde; Mr. E. W. Wallis, London; R. H. Woods, M.B., Dublin; Mr. C. H. Whiteford, Plymouth; Mr. T. Wodruff, Didsbury. (**X**) X. Y. Z.; (**Y**) Dr. W. Young, Wellington, New Zealand; E. S. Yonge, M.B., Manchester; Dr. E. G. Younger, London, etc.

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## BOOKS, ETC., RECEIVED.

The Operations of Surgery. By W. H. A. Jacobson, M.Ch., F.R.C.S. Third Edition. London: J. and A. Churchill. 1897. 34s.

The Natural and Artificial Methods of Feeding Infants and Young Children. By E. Cautley, M.D. London: J. and A. Churchill. 1897. 7s. 6d.

Essays and Addresses. By Sir J. Russell Reynolds, Bart., F.R.S., M.D. London: Macmillan and Co. 1896. 12s.

Kelly's London Medical Directory, 1897. London: Kelly and Co. 1897. 6s. 6d.

Appendix X to the Second Edition of the Descriptive Catalogue of the Pathological Specimens contained in the Museum of the Royal College of Surgeons of England. By J. H. Targett. London: Taylor and Francis. 1896.

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# THE HUNTERIAN LECTURES
ON
# THE PATHOLOGY AND SURGERY OF INTUSSUSCEPTION.

*Delivered at the Royal College of Surgeons of England.*

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[Abstract.][1]

## Lecture I.—Some Points in the Minute Anatomy of Intussusception.

[Mr. D'Arcy Power began his course of lectures with an apology for selecting so time-worn a subject as intussusception, but he justified his choice by saying that it was one which had occupied the thoughts of John Hunter, the great master in pathology, after whom the chair he occupied was named. Very little seemed to be known about the minute anatomical changes occurring in intussusception, though the various museums attached to the medical schools and hospitals throughout the country contained an abundance of material for its study.

The earliest changes were shown in sections from the intestine of a child, aged 8 months, upon whom the lecturer had performed an operation successfully 13½ hours after the appearance of the first symptoms of intussusception. The child died a few days later, with symptoms of paralysis of the bowel, but without peritonitis. The mucous membrane of the invaginated colon was healthy except for an increased number of goblet cells in its crypts of Lieberkühn. Much blood had been extravasated into the submucous tissue, though no clotting had occurred. The circular layer of muscle was healthy, but the longitudinal layer was œdematous, and was separated from the serous coat by many large venous and lymphatic channels.

The next section was taken from an experimental invagination made in a cat a week previously. The histological changes were again more marked in the mucous and submucous layers than in the muscular coat, but the extravasation of blood was chiefly in the mucous membrane whilst the swelling of the submucous tissue was due to œdema. The sections from the experimental invagination in a cat were compared with a spontaneous intussusception which had killed a dog. The extravasation of blood in the dog's intestine had done serious injury to the mucous membrane and to the submucous tissue, but the chief alteration in its structure had taken place in the muscular coat, where the circular fibres were separated by the œdema and had degenerated.

Some of the later changes in intussusception were illustrated by sections taken from John Hunter's own specimen, which was particularly well preserved, because at the time the patient died spirit was so cheap and strong that its retailers used to advertise that their customers might be "drunk for a penny, dead drunk for twopence, and straw to lie upon for nothing." Hunter's specimen, which led him to write his celebrated paper upon "Introsusception," was taken from the body of a child who died sixty hours after the first symptoms of illness had been recognised. Microscopical examination showed that the mucous membrane of the intestine was healthy, but that parts of its surface were covered with blood clot. The whole of the submucous tissue was engorged and œdematous. The circular layer of muscle was more injured than the longitudinal layer, whilst the mesocæcum was thickened by bands of fibrin. A lymphatic gland which had been involved in the invagination was congested.

The latest changes occurring in intussusception were shown in sections taken through the ilea of children in whom the submucous and serous coats of the intestine were suppurating whilst the mucous and muscular layers were comparatively healthy.

The changes which take place in the intestines of adults as a result of intussusception were next shown to be identical in some points with those occurring in the more delicate tissues of children, though in other points they differed widely. The frequent association of adult intussusception with polypi and other growths in the intestinal canal led to the changes being of a more chronic nature. The villi of the mucous membrane, therefore, became converted into mere tags of connective tissue, but the extravasation of blood into the submucous tissue remained a marked feature in the invaginated bowel. In a case of chronic intussusception taken from the body of a man, aged 27, the submucous and muscular layers had become converted into dense fibrous tissue, whilst the villi were congested but had not undergone any mummifying change into connective tissue.

Sections from portions of bowel which had been exfoliated, with and without the recovery of the patient, were then exhibited. It appeared that the intestine occasionally underwent a sclerosing process before it was cast off, but that more frequently it had undergone so much tryptic digestion as to leave only a skeleton of connective tissue (reticulin) which was still sufficiently coherent to be passed as a complete cylinder. An examination of the scarred intestine at the point of separation showed that the mucous membrane repaired itself, and that the submucous tissue became continuous with the serous coat by layers of scar tissue which ran through the interrupted muscular coat. The exact method of repair in these cases required more careful examination, for the specimens which had been examined were not sufficiently well preserved to allow a satisfactory microscopical examination to be made.

The rarer forms of intussusception were then considered, and sections were shown from a case of ascending and retrograde intussusception occurring in the same patient. It was clear that in this instance the descending or ordinary form of invagination was the primary one, whilst the retrograde invagination had been produced much later, though it was not of the "agonic" type. Sections were then shown from a polypoid tumour associated with an intussusception occurring in a woman. The tumour proved to be a sarcoma, but the intestinal villi contained numerous oval bodies which seemed to be thrombosed vessels. The thrombosis was limited to the villi, for the blood vessels in the deeper part of the mucous membrane and in the submucous tissue contained ordinary *post-mortem* clots.

Mr. Power concluded his lecture, which was illustrated throughout with microphotographs, by an allusion to Dr. Vierhuff's and Dr. Sutherland's cases of intussusception occurring in the course of attacks of purpura. He also pointed out the various ways in which a Meckel's diverticulum, whether it was open or closed, might cause the rarest forms of intussusception; and he showed a specimen in which an obscure case of intussusception in an old person was proved by microscopic examination to be associated with carcinoma, that most usual cause of invagination in late adult life.]

[1] The full text of this lecture will be published in the forthcoming number of the *Journal of Pathology and Bacteriology*.

## Lecture II.—The Pathology of Intussusception.

In the former lecture, Sir, we ascertained some of the minute structural changes which take place in invaginated portions of the intestine, and we were then on the firm ground of fact. In the present lecture I propose to consider some points in the pathology of intussusception, and we shall find that we are almost at once driven to theorise. Every advance in pathology must be made by combining the results obtained from a consideration of anatomical, physiological, and clinical facts, for the science is the mistress of all these its handmaidens. It will therefore be necessary to follow intussusception along these lines, and afterwards to draw certain conclusions from the premisses thus obtained.

### Anatomical.

It behoves us to make a careful anatomical examination of the ileo-cæcal portion of the alimentary canal, because 40 to 60 per cent. of all the recorded cases of intussusception are said to occur at this part of the intestine. My work, therefore, has been limited to the ileo-colic angle, and I have been very greatly assisted by Dr. Pickard and Dr. Hayne, successively the senior resident medical officers at the Victoria Hospital for Children. These gentlemen have given me

*Table of Measurements at the Ileocolic Angle.*

| Number. | Age. | Sex. | Type of Cæcum. | Length of Mesentery. | Diameter of Ileum, mm. | Diameter of Colon, mm. | Breadth and Direction of Ileocæcal Slit (mm.) | Direction of Axis of Ileum. | Arrangement of Peritoneal Folds and Mesenteric Glands. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Fœtus near term. | — | A. | — | 6 | 6 | — | Upwards | Figured and measured by Professor Struthers, *Edinburgh Medical Journal*, October, 1893 (Figs. 1 and 2). |
| 2 | ,, | — | — | — | 9 | 12 | | Upwards | |
| 3 | 5 days | F. | E. | — | 11 | 12 | 8, horizontal | Horizontal | A well marked ileocolic fossa; wide ileocæcal pouch. |
| 4 | 5 weeks | M. | C. | 38 | 11 | 16 | 8, horizontal | Horizontal | Shallow ileocolic fossa; no ileocæcal pouch. Many small glands in ileac mesentery. |
| 5 | 8 weeks | F. | D. | 46 | 13 | 20 | 12, horizontal | Upwards | Deep ileocolic fossa; no ileocæcal pouch. A collar of lymphatic glands in ileocolic fold (Fig. 6). |
| 6 | 15 weeks | F. | A. | 47 | 15 | 19 | 10, puckered | Curved downwards | Good ileocolic fossa; wide and deep ileocæcal pouch. One large gland in ileocolic fold (Fig. 4). |
| 7 | 5 months | M. | C. | 37 | 13 | 22 | 7, horizontal | Upwards | No ileocolic fossa; ileocæcal pouch is behind and above instead of behind and below, as is usual. Capacity of colon 10 ounces. |
| 8 | 5 months | M. | A. | 34 | 15 | 25 | 10, oval | Horizontal | Very deep ileocolic fossa; no ileocæcal pouch. Glands in ileocolic fold and in ileocolic mesentery. |
| 9 | 6 months | F. | E. | 50 | 14 | 20 | 10, horizontal | Horizontal | Well-marked ileocolic fossa; deep ileocæcal pouch, with crescentic edge. One gland in ileocolic mesentery. |
| 10 | 6 months | M. | A | — | 14 | 25 | 8, gaping | Upwards | — |
| 11 | 7 months | M. | E. | 41 | 14 | 20 | 10, oval | Horizontal | Shallow ileocolic fossa; deep ileocæcal pouch. Glands in ileac mesentery and one in ileocolic fold over colon. |
| 12 | 7 months | F. | A. | 50 | 18 | 22 | 8, horizontal | Horizontal | Deep ileocolic fossa; very deep ileocæcal pouch with thin crescentic edge. Capacity of colon 40 ounces. |
| 13 | 9 months | M. | E. | 47 | 11 | 15 | 8, circular | Curved downwards | Shallow ileocolic fossa; no ileocæcal pouch. One lymphatic gland in ileocolic fold. |
| 14 | 9 months | M. | D. | 55 | 13 | 22 | 7, oval | Upwards | Deep ileocolic fossa; very shallow ileocæcal pouch. Lymphatic glands few and small. |
| 15 | 9 months | M. | A. | 44 | 15 | 24 | 12, horizontal | Horizontal | Deep ileocolic fossa; well-marked ileocæcal pouch. A large mass of glands in ileocolic mesentery. |
| 16 | 11 months | M. | A. | 47 | 16 | 20 | 9, semicircular | Upwards | No ileocolic fossa; no ileocæcal pouch. One large gland in ileocolic mesentery. |
| 17 | 11 months | M. | E. | 50 | 14 | 26 | 9, horizontal | Horizontal | Shallow ileocolic fossa; very large and deep subcæcal pouch. One lymphatic gland in ileocolic mesentery. |
| 18 | 15 months | M. | A. | 56 | 15 | 25 | 9, horizontal | Horizontal | No ileocolic fossa; ileocæcal pouch narrow and deep. No glands. |
| 19 | 16 months | M. | A. | 38 | 11 | 15 | 6, circular | Horizontal | Shallow ileocolic fossa; deep ileocæca pouch with wide mouth. Glands in ileocolic mesentery; none in ileocolic fold. |
| 20 | 16 months | F. | D. | 38 | 22 | 29 | 8, horizontal | Upwards | No ileocolic fossa; shallow and wide ileocæcal pouch. A chain of lymphatic glands lies parallel with the colon. |
| 21 | 18 months | M. | A. | — | 17 | 20 | 9, horizontal | Semicircular downwards | Shallow ileocolic fossa; deep ileocæcal pouch opening far forwards beneath ileum. Glands of ileocolic junction. |
| 22 | 23 months | M. | A. | 63 | 14 | 21 | 6, very puckered | Vertically upwards | No ileocolic fossa; ileocæcal pouch wide and shallow. Two glands in ileocolic mesentery. Cæcum sharply bent upon itself to pass behind the ileum (Fig. 2). |
| 23 | 2 years | M. | E. | 45 | 24 | 28 | 12, horizontal | Horizontal | Shallow ileocolic fossa; well-marked and wide ileocæcal pouch. Glands in ileocolic mesentery and fold. |
| 24 | 2½ years | F. | A. | 45 | 19 | 32 | 9, horizontal | Curves upwards | Deep ileocolic fossa; deep and wide ileocæcal pouch. Large gland in mesentery; none in ileocolic fold. |
| 25 | 2⅝ years | M. | A. | — | 15 | 26 | 13, horizontal | — | Shallow ileocolic fossa; deep ileocæcal pouch. Glands in ileocolic fold. |
| 26 | 2½ years | F. | E. | — | 16 | 25 | 11, horizontal | Horizontal | Shallow ileocolic fossa; deep ileocæcal pouch, with small opening. Glands in mesentery at a distance from ileocolic fold. |
| 27 | 2⅝ years | M. | A. | 53 | 15 | 30 | 15, horizontal | Convex upwards | Shallow ileocolic fossa. Mesentery of appendix is derived from lower border of ileum. It is double, and forms a very definite pouch ¾ inch in depth. No glands in ileocolic junction; large one in mesentery (Fig. 3). |
| 28 | 3 years | M. | A. | 46 | 17 | 30 | 8, vertical | Upwards | Shallow ileocolic fossa; very deep ileocæcal pouch. Glands greatly enlarged; ileocolic fold thickened. |
| 29 | 3½ years | M. | A. | 50 | 16 | 23 | 12, oval | Horizontal | Shallow ileocolic fossa; wide and deep ileocæcal pouch. Many lymphatic glands. |
| 30 | 4 years | F. | A. | — | 15 | 42 | 17, horizontal | Horizontal | Good ileocolic fossa; ileocæcal pouch very deep, with pinhole opening. Glands in ileocolic fold and in mesentery. Ileocæcal valve admits tip of little finger. |
| 31 | 4 years | M. | B. | — | 16 | 20 | 9, oval | Upwards | Shallow ileocolic fossa; deep ileocæcal pouch, with a thin edge. Glands in mesentery; none in ileocolic fold. |
| 32 | 4 years | M. | A. | 57 | 18 | 30 | 18, horizontal | Upwards | Shallow ileocolic fossa; very complex ileocæcal pouch. Two large glands at ileocolic angle with a few smaller ones. Intestinal wall thick and muscular. Died of colocolic intussusception. |
| 33 | 4½ years | F. | A. | 45 | 20 | 35 | 22, horizontal | Upwards | No ileocolic fossa; no ileocæcal pouch. No glands. |
| 34 | 5 years | F. | — | 100 | 16 | 28 | — | — | — |
| 35 | 6 years | M. | D. | — | 18 | 29 | — | — | — |
| 36 | 9 years | F. | A. | 50 | 17 | 33 | 15, horizontal | Upwards | Fair ileocolic fossa; shallow and wide ileocæcal pouch. Glands in mesentery at a distance from ileocolic junction. |
| 37 | 9 years | F. | E. | 57 | 17 | 45 | 18, horizontal | Upwards | Well-formed ileocolic fossa; very deep ileocæcal pouch, with minute orifice. Several glands in mesentery, and one in ileocolic collar. |
| 38 | 9 years | M. | A. | — | 26 | 40 | 20, horizontal | Horizontal | Shallow ileocolic fossa; deep and complex ileocæcal pouches. No glands. |
| 39 | 10 years | F. | C. | 81 | 23 | 63 | 10, circular | Horizontal | No mesenteric attachment to upper border of ileum. Ileocolic junction concealed by the cæcum. Ileocolic fossa deep. No ileocæcal pouch. Capacity of large intestine 79 ounces. |
| 40 | 11 years | F. | A. | 58 | 15 | 47 | 21, horizontal | Horizontal | A singularly deep ileocolic fossa; no ileocæcal fossa. Glands in mesentery only (Fig. 1). |
| 41 | 13 years | M. | E. | 50 | 16 | 34 | 20, horizontal | Upwards | No ileocolic fossa; no ileocæcal pouch. One gland at junction of ileocolic in the ileocæcal fold. |
| 42 | 14 years | F. | E. | 100 | 17 | 42 | 19, horizontal | Horizontal | Shallow ileocolic fold; complex ileocæcal fossa. Large gland in mesentery. Capacity of large intestine 40 ounces. |
| 43 | 14 years | F. | D. | 82 | 22 | 87 | 24, horizontal | Horizontal | Very deep and complete ileocolic fossa; no ileocæcal pouch. Ileocæcal valve easily admits the forefinger (Fig. 5). |
| 44 | 15½ years | F. | A. | 72 | 20 | 49 | 14, horizontal | Horizontal | No ileocolic fossa; large and deep ileocæcal fossa, with shallow subcæcal fossa. Very few lymphatic glands. |

many opportunities to examine the ileo-cæcal region in the bodies of children from a few days old up to the age of 15 years. The results of our observations are set out in the preceding table.

It should be stated that the mesentery was measured as soon as the body was opened, but the measurements are only approximately correct, because it is difficult to obtain constant points from which to measure and because its tissue is very easily stretched. All the other measurements were made when the specimen had been hardened for twenty-four hours in Müller's or in Foà's solution; and afterwards in 30, 60, and 90 per cent. alcohol, remaining in each strength for twenty-four hours. I believe that by adopting so uniform a method of hardening more accurate results have been obtained for purposes of comparison than could have been gained by measuring the fresh intestines, a proceeding which is difficult on account of the extensibility of their walls. The actual width of the intestines seemed to be unimportant, as I was only interested in their relative diameters. The mesentery in each case was measured at a point in the colon 2 inches away from the top of the ileo-colic junction; the ileum was measured at the same distance above it, and the colon at the same distance below it. All the measurements are expressed in terms of millimetres for the sake of ease and accuracy.

### *a*. The Mesentery.

The length of the mesentery is a matter of interest in considering the pathology of intussusception, because the size of the invagination depends materially upon the length of the mesentery or upon its extensibility. Time does not allow me to consider the matter in detail, but it is obvious from a consideration of the table that the length of the mesentery is singularly constant in all the specimens measured; and as the age of the individuals varied considerably, this means that its proportion to the length of the body was much greater in infants than in older children. Increased length of mesentery is necessarily associated, other things being equal, with an increased range of movement in the intestine. The intestines should therefore be capable of a greater range of movement in children than in adults. This result is confirmed by the practical experience of all surgeons who have had to open the abdomen for the relief of intussusception in children, for the intestines are nearly always so freely movable that it is easy to bring the tumour into the wound. A few cases are recorded, however, in which the bowel seems to have been anchored with undue firmness.

Careful examination of the ileo-colic mesentery shows that the ileo-colic artery is always present, running parallel with the ileum and sending off numerous branches to it and to the lymphatic glands in its neighbourhood. These glands vary greatly in their size and distribution; sometimes they lie parallel to the colon, sometimes parallel to the ileum, and sometimes they have no orderly arrangement. They are discrete and seed-like in many specimens, in others they are aggregated to form a mass of lymphoid tissue which often forms a collar or band thickening the edge of the anterior ileo-colic fold, whilst in children who die of tuberculous disease they are characteristically enlarged.

Treitz,[2] Lockwood,[3] and others have drawn attention to a suspensory muscle of the duodenum and mesentery. It springs from a band forming the right side of the œsophageal opening in the diaphragm, and is prolonged onwards with the superior mesenteric artery into the mesentery. The presence of such a band of muscular fibres might prove an important factor in the causation of intussusception if it extended as far as the ileo-colic junction, by hindering the movement of one border of the intestine. I therefore took the trouble to stain and make a microscopical examination of a piece of the ileo-colic mesentery in each of the specimens, but in none was I able to find a single bundle of muscular fibres.

### *b*. The Ileo-colic Angle.

The point of union of the small intestine with the large intestine next engaged my attention. The axis of the ileum at this point was horizontal (Fig. 1) in 20 cases; in 15 it sloped upwards to open into the large intestine (Fig. 2); in 3 it was curved concavely downwards (Fig. 3), and in one it was curved convexly downwards (Fig. 4). The actual line of union of the ileum with the colon is hidden both in front and behind by folds of the peritoneum, whose arrangement has been made familiar to us by the works of Mr. Treves,[4] Dr. Rolleston and Mr. Lockwood,[5] in England, and of Dr. Pérignon.[6]

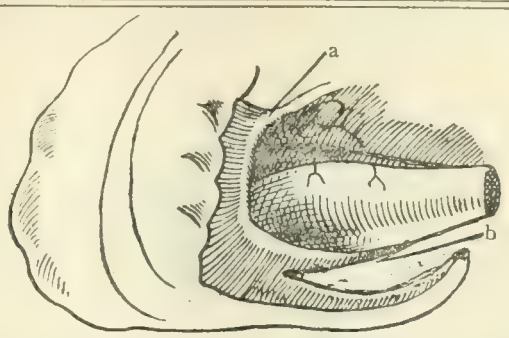



Fig. 1.—A simple but complete form of ileo-colic angle from a girl, aged 11 years. The ileo-colic fossa is well formed, and the axis of the ileum is almost horizontal. (*a*) The ileo-colic fold. (*b*) The ileo-cæcal fold.

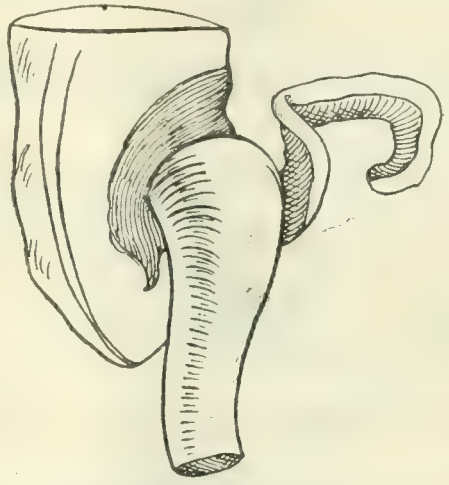


Fig. 2.—The ileo-colic angle of a child, aged 23 months. The ileo-colic fossa is absent, and the axis of the ileum is directed upwards to end in the large intestine

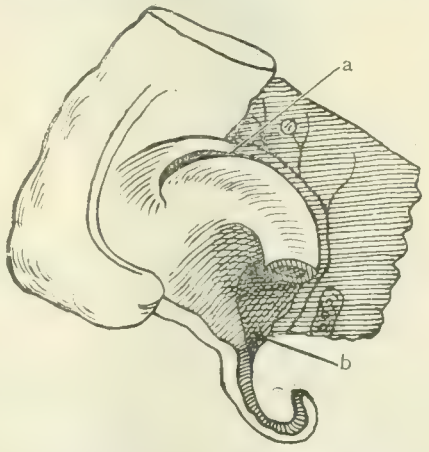



Fig. 3.—The ileo-colic angle from a child, aged 2 years and 8 months. The ileo-colic fossa (*a*) is incomplete, but there is a very large and deep ileo-cæcal fossa (*b*). The axis of the ileum is concave downwards.

[2] *Vierteljahrschr. f. d. prakt. Heilkunde*, Prag, vol. i, 1853, p. 113.
[3] *Hunterian Lectures on Hernia*, London, 1889, p. 24.
[4] *The Anatomy of the Intestinal Canal and Peritoneum in Man*, 1885.
[5] *Journ. of Anat. and Physiol.*, xxvi, 1892, p. 150.
[6] *Thèse de Paris*, 1892, No. 4.

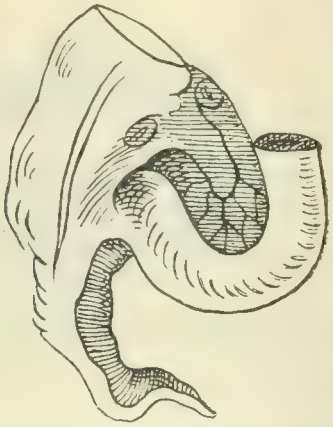


Fig. 4.—The ileo-colic angle of a child, aged 15 weeks. The ileo-colic fossa is incomplete, and the axis of the ileum is convex downwards.

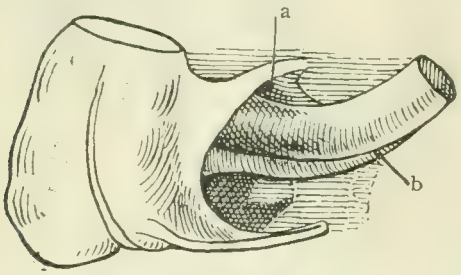



Fig. 5.—The ileo-colic angle of a girl, aged 14 years. The ileo-colic fold (*a*), and the ileo-cæcal fold (*b*) are unusually well developed. The axis of the ileum is nearly horizontal.

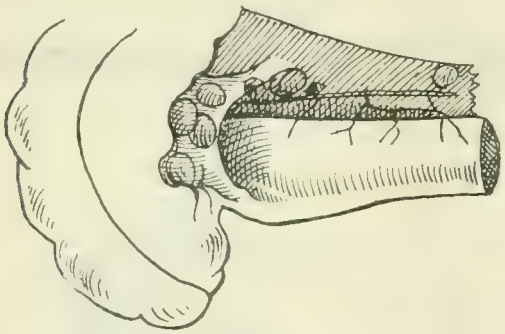


Fig. 6.—The ileo-colic angle of a child, aged 8 weeks. The ileo-colic fossa is incomplete, but its roof is studded and thickened with lymphatic glands. The axis of the ileum is horizontal.

in France. The folds give rise to pouches whose extent and complexity vary in each specimen, but, as a rule, those in front of the ileo-colic junction are simpler than those behind and below it. The ileo-colic fossa resolves itself into two great types, the complete (Fig. 1) and the incomplete (Fig. 6), whilst in some cases (Fig. 2) it is entirely absent. The complete fossa (Figs. 1 and 5), which is usually coexistent with the simpler types of cæcum, is that in which the ileo-colic fold stretches in a wide sweep from the ileo-colic mesentery across the ileum to form the mesentery of the appendix. This fold is attached to the cæcum externally, and terminates internally in a crescentic margin which forms the mouth of the ileo-colic fossa. This border is sometimes thick and rounded (Figs. 1 and 6), at other times thin and membranous (Fig. 5), and the ileo-colic fold may often contain one or more lymphatic glands (Fig. 6). The lower wall of the pouch is formed by the ileo-cæcal fold in the most simple instances. This fold is attached for a varying distance along the lower border of the ileum, but, like all the other structures in this region, it varies greatly in its development, and is often wholly absent. Numerous modifications of this type are seen (Figs. 1 and 5), but they agree in having a pouch of greater or less depth which involves the whole width of the ileum. The incomplete form of pouch (Figs. 3, 4, and 6) occurs when the ileo-colic fold terminates on the anterior surface of the ileum. When there is no pouch (Fig. 2) the ileo-colic fold is attached to the ileum in its whole extent.

The peritoneal folds lying behind the ileo-cæcal junction are much larger and more complex than those situated in front of it, and the fossæ formed by them vary so greatly in width, depth, and structure that I have no time at present to describe them adequately. It must suffice to say that they are divisible broadly into the ileo-cæcal (Fig. 3, *b*) which runs upwards behind the ileo-colic junction and the subcæcal fossæ, which are situated behind the cæcum, and are less constant than either the ileo-colic or the ileo-cæcal pouches. The course run by an ileo-cæcal intussusception will depend materially upon the arrangement of these peritoneal folds and their fossæ. When the folds are simple the fossæ are small, and if lymphatic glands are absent the case is probably only a simple invagination which can easily be reduced by irrigation of the bowel in its earlier stages, or, if it be left unreduced, will run a chronic course, killing the patient by exhaustion, or ending in sloughing and separation of the intestine. When the peritoneal folds are complex the fossæ are large, and if the lymphatic glands are numerous so much tissue is necessarily invaginated in addition to the intestine that if early strangulation does not occur, extensive adhesions of the puckered mesentery must necessarily be formed which will soon cause the intussusception to become irreducible. Such cases will therefore run an acute course. The nature of the mouths of the pouches must also be taken into account, for in some cases they are so wide that the fossæ are merely depressions, whilst in others they are no bigger than pinholes, and the fossæ are then closed sacs, whose walls would either easily be brought into apposition by pressure, or would become distended by the products of inflammatory exudation.

### *c.* Relative Diameters of Ileum and Colon.

It is of importance, too, in considering the anatomical points connected with an ileo-colic intussusception to ascertain the relative diameters of the ileum and colon. The width of the large intestine at birth is only a few millimetres greater than that of the small intestine, and before birth its diameter is usually the same, or even a little less; at the age of 15 it is from two and a half to three times as large. The colon begins to grow in girth directly after birth, as might be expected when we remember that its function is to store up and consolidate the refuse food materials until they can be cast out of the body at convenient times and places. It appears, however, that while the colon grows in width it remains at first almost stationary in length, whilst, on the other hand, the ileum grows both in length and breadth. The question of the growth of the large intestine in length was very carefully studied by Mr. Treves,[7] who occupied this chair in 1885. He executed his task with such skill and assiduity that I did not think it worth while to work over the same ground, but I took the liberty to measure the widths of the large and small intestines in each of my specimens. These transverse measurements show that the colon increases very rapidly in capacity, though for a time its length may remain stationary. Thus in the specimen obtained from a child aged 5 weeks the small intestine has the same transverse diameter as in a child at birth, but the diameter of the colon has increased by a quarter, and in a child of 5 months old, the small intestine remaining of almost the same diameter (No. 7 in the Table), the large intestine has nearly doubled its width. Individual measurements like this prove nothing, but a general review of the figures shows that whilst the ileum only rarely doubles its diameter, if 11 or 12 millimetres be assumed to be a fair average width at birth, the large intestine not only often doubles its size, but may even treble or quadruple it.[8]

[7] *Anatomy of the Intestinal Canal and Peritoneum in Man*, 1885, pp. 9 and 10.

[8] Intussusception is said to be so uncommon amongst the native population of India, that I asked Surgeon-Major Gibbons, I.M.S., and Surgeon-Captain O'Kinealy, I.M.S., to obtain for me the ileo-colic angles of Hindu children. After much trouble they have been successful in sending me two, of which the measurements were: (1) M., aged 2 years, ileum, 17 mm.; colon, 27 mm.; no ileo-colic fold. (2) M., aged 3 years, ileum, 18 mm.; colon, 24 mm.; no ileo-colic fold.

These facts seem to have an important bearing upon the question of the origin of intussusception. The colon is growing rapidly and continuously in width from birth onwards, but at about the age of 4 months it also begins to grow in length. The small intestine has grown steadily in length and breadth from the beginning, but the increase in its circumference is less rapid than the increase in its length. During the early months of life, therefore, there is a rapidly increasing disproportion between the transverse diameters of the large and small intestines. Physiology teaches us that too rapid growth is often associated with perversion of function, especially when, as in this case, the increased rate of growth affects both the muscular and the nervous tissues, but to this we shall recur presently. Clinical evidence shows that spontaneous intussusception occurs most frequently between the fourth and sixth months, when the large intestine is beginning to grow in length as well as in width.

### *d.* The Ileo-cæcal Valve.

The last point of anatomical interest to which I directed my attention was the ileo-cæcal valve. The description found in the ordinary textbooks of anatomy is substantially correct in a large number of cases, but in many the arrangement differs. The orifice is often oval or circular in the hardened specimens, instead of being horizontal, and a part of the valve is frequently so defective that the opening appears to be horseshoe-shaped when it is seen from cæcum. In one or two cases the orifice very closely resembled the pyloric opening in the stomach. The ileum nearly always projected for 4 to 7 millimetres into the lumen of the intestine; sometimes as a conical process, at other times more on one side than upon the other, and in a few cases the mucous membrane of the ileum was distinctly prolapsed into the large intestine.

### Physiological.

Let us turn now from the anatomical to the purely physiological side of the question as to the cause of intussusception. Experimental work seems more likely to help in the elucidation of the problem than simple observation. Observation tells us, however, that the peristaltic wave passing along the small intestine ceases at the ileo-cæcal valve, and that a new wave is developed there by the contraction of the coats of the large intestine. It is quite possible, therefore, for the end of the ileum to be contracted or even to be absolutely quiescent at the instant when the colon is contracting energetically.

The experimental work of Dr. Leubuscher,[8] elaborated and carried to a more successful issue by Professor Nothnagel,[9] has taught us that intussusception is due to one piece of gut swallowing, so to speak, a neighbouring piece, which has become constricted in consequence of local or other causes producing a vigorous contraction of its circular layer of muscle. An intussusception, therefore, is essentially and usually spasmodic in origin, and though there may be occasionally a paralytic form, which is secondary to other causes acting upon the intestinal wall, I do not believe that it ever causes a spontaneous invagination.

The important part which is played by the muscular coat of the intestine in producing an intussusception is well seen in two specimens[10] which came from the museum of Mr. George Langstaff. They were taken from dogs which had been dosed with turpith mineral for the cure of the distemper. The signs of intussusception began almost directly after they had taken the drug. The first dog lived two days, the second dog three days. These specimens led me to experiment with turpith mineral to discover whether the intussusceptions were produced by it or were merely of accidental occurrence, and they formed the beginning of a series of experiments upon the effects of increasing the peristalsis of the intestines. The experiments were made upon healthy cats, rabbits, and guinea-pigs, as well as upon similar animals whose intestines had been invaginated by drawing the colon over the cæcum and ileum, the neck of the artificial invagination being afterwards fixed with a few point sutures of silk or horsehair. Turpith mineral, black sulphide of mercury, eserin, barium chloride, calomel, rhubarb, magnesium sulphate, croton oil, and castor oil were administered with varying results. Some of these drugs, like croton oil, turpith mineral, and the black sulphide of mercury, were administered on account of their irritant action; some, like rhubarb, Epsom salts, barium chloride, and castor oil, because they increased in various ways the peristaltic action of the bowel; whilst others, like eserin, were given because they produced a tonic contraction of the coats of the intestine.

Time fails me to detail the experiments I have performed; it must suffice for the present to give results. Turpith mineral and black sulphide of mercury cause enteritis, and so modify the irritability of the intestine as to lead to its muscle being thrown into a series of localised contractions separated from each other by relaxed portions of the intestine, an arrangement which is most favourable to the formation of a series of short intussusceptions. Eserin, on the other hand, produces so uniform a contraction of the intestinal muscle that no intussusception could possibly be produced. I endeavoured to modify this uniform contraction by excising pieces of the mesentery and by administering purgatives to the animal before the eserin was injected, but without any satisfactory result. The effects of barium chloride were of great interest. The increased peristalsis produced by the injection of 6 minims of a 2 per cent. solution of barium chloride was sufficient in a cat to reduce the ileac portion of an artificial invagination, though the cæcum remained completely invaginated within the colon. A different result occurred in another invagination, for the increased peristalsis led to the intestine becoming M-shaped at the point of invagination, the kink being so sharp that the animal died of complete intestinal obstruction.

A simple invagination of the intestine in a cat produces little or no discomfort to the animal, for it leads neither to gangrene, strangulation, nor acute symptoms. This specimen (Fig. 7) was taken from a cat in which the ileum was invaginated into itself, and was pushed into the colon, where it was secured with three interrupted sutures. The sutures were of silk, and, as it was my first operation upon a cat, I did not allow for the great thickness of the muscular coat in these animals. The sutures therefore hardly passed into the submucous layer, and they consequently held badly and threatened to cut their way out of the brittle muscular coat when I tied them. The intestine was replaced in the peritoneal cavity and the abdomen was closed.




Fig. 7.—An ileaco-ileo-colic invagination produced experimentally in a cat. The invagination was removed, and the cut ends of the intestine were united by Maunsell's operation a week after the intussusception had been produced. The ileo-cæcal valve is seen in section at *a*, whilst *b b* mark the position of the sutures which a week previously were inserted at the neck of the invaginated intestine.

The cat appeared to be so well on the day after the operation that I felt sure the sutures had cut their way out, and

[8] *Virchow's Archiv*, vol. lxxxv, 1881, p. 83.
[9] *Beiträge zur Physiol. und Pathol. des Darmes*, Berlin, 1884, p. 42; *Spec. Path. and Therap.*, Bd. xvii, Theil ii, 1896, p. 297.
[10] Museum of the Royal College of Surgeons of England, Nos. 2,725 and 2,726.

that the invagination had reduced itself. For a week the animal took its food and behaved exactly like a healthy cat, except that it would not jump, and got down steep places by scrambling. Eight days after the first operation it was again anæsthetised, and a second incision was made to the right of the first one, which had nearly healed. The invagination still existed, so I removed it by cutting through the intestine above and below the tumour. The ileum and colon were then joined by Maunsell's method, the operation being completed in thirty-five minutes from the first incision, and half an hour later the cat was lapping milk.

The invaginated portion of the intestine (Fig. 7) bears out the theory that intussusception is due to the swallowing of a piece of constricted intestine by a neighbouring portion, whose peristalsis is still active, whether the contraction be a descending one, as is usual, or retrograde, as is less often seen. The invaginated intestine has been divided longitudinally. The sutures are seen in position, but instead of being at the neck of the sac, where they were inserted a week previously, they are now situated in the very middle of the intussusception, at a distance of 32 millimetres from its beginning, as measured along the lesser curvature. The whole length of the intussusception is 75 mm., and as the sutures mark the original neck, the invagination has advanced 32 mm. in eight days—that is to say, it has nearly doubled itself in this time. The intussusception is an excellent example of the ileaco-ileo-colic variety, for the cæcum is intact, and the ileo-cæcal valve is normal, and has not become invaginated. The intussusception is pervious throughout, a fact which explains the freedom of the cat from any symptoms of obstruction. The invagination is of the chronic form, for the apex of the invaginated ileum is alone congested. The intussusceptum, as is usual, is curved towards the side of its mesenteric attachment. The two apposed serous surfaces can be separated from each other as low as the point of suture, but below it they are intimately blended by the union of the mesenteric folds. The adhesions are much better marked along the concave surface, where the mesentery is crowded into a small space, than along the greater curvature, where the two serous surfaces can be separated in their whole extent, except at the point where they have been sutured.

Amongst the other interesting points which this experiment, with its resulting specimen, teaches us is the important one that the force exercised by peristalsis is extremely slight even in an animal with so muscular an intestine as a cat. The sutures were barely capable of maintaining their position when they were tied, yet as the invagination increased they must have turned over the edge of the intussusception without losing their hold. The feeble force of peristalsis has also been noticed by Professor Cash,[11] of Aberdeen, who says that in dogs a weight of 8 to 10 g. is sufficient to prevent a well-developed peristaltic wave from executing its object, whilst the traction exercised by a weight of 5 g. produced much hindrance and caused spasmodic contraction of a propulsive character which created most distinct discomfort or colic.

## Pathological.

A considerable number of the cases of intussusception are merely invaginations of one piece of bowel into another which is usually of larger calibre, and, if there is a great disproportion in width, spontaneous reduction may take place, as in a case recorded by Mr. Thomas,[12] occurring in a boy aged 16 months, in whom he had distinctly felt the invaginated intestine *per rectum*. When the disproportion between the diameters of the ensheathed and ensheathing intestine is less marked or when much additional tissue is invaginated, adhesions are formed, the intussusception becomes irreducible, and in process of time secondary changes take place in the intestine, which lead to strangulation, to gangrene, or to ulceration of the neck of the bowel.

### 1. Strangulation.

Strangulation in intussusception is more often chronic than acute. Its exact cause is unknown even in hernia, though its mechanism is well understood. It is of the true or elastic variety when it occurs in intussusception—that is to say, the invaginated bowel is enclosed in a lumen which is either no bigger than itself, as in the enteric form, or only slightly larger, as in the ileo-cæcal variety; whilst in the ileo-colic type, where the ileum passes through the ileo-cæcal valve, the valve may form an additional constricting agent—for, as I showed in my first lecture, hæmorrhage may take place into its substance or it may become inflamed. During the actual invagination the lumen of the ensheathing intestine must be dilated to its utmost extent. The wall of this portion of the intestine then recoils and exercises sufficient pressure upon the vessels of the mesentery to cause a marked congestion in the tissues of the intussusceptum. The congestion leads to a stagnation in the blood flow, and so to a cellular infiltration, which is best marked at the two points where the vessels are doubled upon themselves—that is to say, at the end of the intussusceptum and at the point where the pressure is exercised, which is the neck.

In children the tissues are so soft, and the peristaltic wave engulfing the gut is so feeble, that in some cases the intestine merely slips on and is imprisoned, for, as I have endeavoured to show, there is usually a very considerable difference in the relative diameters of the large and small intestines even in children between the ages of 4 and 6 months, the time when statistics show that intussusception is most common. Clinical evidence shows that there is so little interference with the contractile power of the muscular coat of the intestine, that in many cases the intussuscipiens certainly, and the intussusceptum probably undergo rhythmical peristaltic contraction, for if the tumour be carefully watched in a well-marked case, its consistency will be found to vary greatly, at one time hard and easily felt, at another it is quite unrecognisable. The continuance of peristaltic contractions show that the blood flow is no more stopped through the intestine than it is in the gravid uterus, for if it were the muscle would be paralysed and there would be no longer any peristalsis. In an intussusception, however, there is no arrangement for storing up the blood during the contractions as there is in the uterus. The intestinal tissues, therefore, become engorged, œdema takes place, and the congestion leads to the extravasation of blood which is so marked a feature in the microscopical sections taken from tissues thus affected.

### 2. Gangrene.

The inflammatory changes which result from a continuance of these conditions lead to gangrene which may spread slowly from the apex towards the neck of the invaginated piece of gut, though in many cases it appears early and may involve considerable portions of the invaginated bowel. Gangrene, however, is less common in intussusception than it is in hernia, and there are several reasons for this difference between the two conditions which have otherwise many pathological affinities. Intussusception is essentially an affection of children, and in children gangrene of any part is rare, even after the most serious injuries, partly because their vascular system is so healthy that it adapts itself readily to the most unfavourable conditions; partly because the blood supply to all growing parts is very abundant, and partly because all young tissues are soft and yielding. In an intussusception, therefore, the bowel passes through an elastic ring which, even when it is inflamed, never offers a resistance in any way comparable with that exercised by the rigid fibrous structures which compress a hernia or an internal strangulation. When gangrene takes place early in intussusception, it often follows upon a particularly violent onset in cases where the invagination is ascribed definitely to some sudden muscular effort: to increased, prolonged, and violent peristalsis, as after the administration of purgatives; and occasionally to such rare conditions as the blocking of the narrowed lumen of the intussusceptum with blood,[13] or portions of undigested food, or even to the grafting of a second intussusception upon an earlier one which was running an acute course. Gangrene occurring in the course of an intussusception is more limited, is more chronic, and is less likely to set up suppurative peritonitis than a similar condition in strangulated hernia. It is more limited because the tissues are less liable to injury, as it is impossible to perform taxis for the relief of an intussusception.[14] It runs a more chronic course because it is asso-

[11] *Proc. Roy. Soc.*, vol. 41, 1887, p. 230.
[12] *Lancet*, ii, 1886, 1219.
[13] *Trans. Path. Soc.*, xxviii, 1877, p. 131.
[14] *Holmes's System of Surgery*, Ed. 3, vol. ii, p. 767.

ciated with less perfect interference with the blood supply, and the intestine is thus enabled to protect itself more perfectly by reparative changes. It is less likely to set up general peritonitis, because the gangrenous portion is enclosed in a sheath of healthy intestine, for the gangrene in chronic cases nearly always begins in the intussusceptum, though it may afterwards involve the intussuscipiens.

3. Ulceration.

The occurrence of ulceration or of necrosis of the intussuscipiens is a much greater danger than gangrene of the intussusceptum, but it is fortunately somewhat less common. It is, however, met with at either end of the intussusception, as well as in the bowel above and below that portion which has been invaginated. We do not yet know the exact course taken by the micro-organisms as they pass through the wall of the bowel, and, though I have been engaged in an endeavour to trace their passage, my results are not yet sufficiently advanced to warrant any definite statement. But there seems to be no doubt that micro-organisms begin to traverse the intestinal wall when a loop of bowel has been constricted for a period of from 4 to 48 hours, and that the more completely the blood supply is arrested the more rapidly do they pass. Suppurative peritonitis is not usually set up in anything like so short a space of time, and when it does occur it is more often associated with rupture of the gut from the progress of ulceration due to accidental or additional causes than to the simple extension of suppurative processes through the wall of the intestine. The experiments of Grawitz[15] and of Halstead[16] have shown that even pure cultivations of pyogenic organisms as well as suppurating tissues and particles of fæces do not necessarily cause suppuration when they are introduced directly into a healthy peritoneal cavity. Accessory conditions must be present to enable pus-producing substances to set up a purulent peritonitis, and these accessory conditions seem to have in common the power of preventing absorption or removal of the pyogenic substances from the peritoneal cavity. The whole subject of absorption from the peritoneal cavity wants to be worked out, for Drs. Adler and Meltzer[17] in their excellent essay Upon the Path by which Fluids are carried from the Peritoneal Cavity into the Circulation, have done enough to show that it bristles with difficulties, though it is full of interest.

Clinical Factors.

There are good reasons to believe that intussusception is associated with peculiarities of structure and function in the alimentary canal. In a certain proportion of cases intussusception has occurred in more than one member of a family[18] and in the children of parents who have themselves suffered from conditions associated with organic or functional disturbances of the bowels. A remarkable instance of this came under the notice of Mr. Pick[19] in the case of a child, aged 15 months, who was admitted under his care into St. George's Hospital for the relief of an intussusception. The grandfather and the father of the child had been operated upon for strangulated hernia, and one brother had died of strangulated hernia. The defective condition, whether of structure or of function, may be repeated in different members of the family, or it may be peculiar to the individual. In the latter case the symptoms of intussusception may be preceded for months by an increase in the peristaltic contraction of the bowels, or they may be repeated at long intervals[20] even when a *post-mortem* examination shows that the invagination has not been associated with any gross lesion in the alimentary canal like a polypus, sarcoma, or cancer.

Many cases of intussusception have been cured by injection or inflation of the bowel through the rectum, even when the apex of the intussuscepted gut has protruded beyond the anus. In a few cases such advanced intussuseeptions have receded spontaneously, whilst in others when the abdomen has been opened the surgeon[21] has rejoiced to find that the invaginated bowel unfolded itself spontaneously as soon as the merest touch had released the constriction at its neck. The effects of the constriction in untreated cases are essentially chronic, for strangulation, gangrene, and ulceration are secondary changes which may never make their appearance in the course run by an ordinary intussusception.

Conclusions.

The evidence derived from anatomical, physiological, pathological, and clinical data render it legitimate to assert that spontaneous ileo-cæcal intussusceptions occur where the colon is considerably larger than the ileum, and is so unduly movable that it readily allows itself to become invaginated when once the process has begun. This variety of intussusception is essentially an affection of childhood, and such an undue increase in the width of the colon implies either a congenital abnormality or an unduly rapid growth, for at birth the diameter of the large intestine is practically the same as that of the ileum. Such a rapid increase in the width of the large intestine may, perhaps, in some instances, render the ileo-cæcal valve less competent to guard the end of the ileum, because the valve is not capable of very rapid growth if it is to be firm, but this is probably a factor of very rare and subordinate importance.

Though anatomical peculiarities are important factors in the production of an intussusception, the physiological factors are no less important, for they apply in all probability to every form of spontaneous invagination whether it is of the enteric variety, the ileo-cæcal, or the colic. The physiological factor is much less easy to specify than the anatomical, for it is almost certainly an individual peculiarity. It may be stated broadly, however, that as regards the ileo-cæcal portion of the intestine the increased mobility, coupled with the unduly rapid growth in the width of the large intestine is probably associated with increased and irregular peristaltic movements of the large intestine. Everyone who has had much experience in watching children must have noticed how subject they are to an irregular twitching of the muscles, and how greatly such inco-ordinate movements vary in different children and in different families. They are most common at the instant when the child drops off to sleep and during the act of awakening. They occur both in the voluntary and in the involuntary muscles, and are due, as physiologists think, to a contraction of the interfibrillar sarcoplasm, whilst the ordinary tetanus and twitch is caused by an additional shortening of the contractile fibres. This theory explains why the symptoms of intussusception so often appear at the instant when a child awakens, why it is that boys rather than girls, and the most active and the best grown children are attacked as often as those who suffer from chronic inflammatory affections of the alimentary canal. The muscular system in the active and well grown is undergoing its greatest development, and its sarcoplasm is in as unstable a condition as in the puny where attacks of enteritis have unduly heightened the irritability of the intestinal muscle, and have thus led to the irregular twitchings which, with suitable anatomical conditions, may form the starting point of spontaneous intussusception.

The cause of intussusception is obscure, but clinical evidence shows that it may be produced mechanically though the spontaneous form is the more common. Amongst such mechanical causes are direct injury to the belly,[22] sudden and violent muscular efforts,[23] gymnastic movements,[24] jolting or dandling,[25] paroxysmal coughing as in whooping cough,[26] or it may even be the reward of greediness, as in the cases recorded by Max Baur[27] and Leichtenstern,[28] in which men were suddenly seized with symptoms of intussusception shortly after eating a quantity of cherries—stones and all. It is, indeed, no matter of surprise that such causes should produce an intussusception, for any of them might lead to a sudden and limited constriction of the intestine associated with an active peristaltic movement of a neighbouring portion sufficient to draw the receiving layer of the gut over the contracted portion, which then becomes

[15] *Charité Annalen*, xi, 1884, p. 770.
[16] *American Jour. of the Med. Sci.*, xciv, 1887, pp. 437 and 451.
[17] *The Journal of Experimental Medicine*, i, 1896.
[18] Hutchinson, *Med.-Chir. Trans.*, vol. lix, 1876, p. 100; Bryant, Harveian Lectures, p. 12, Case 17.
[19] *Lancet*, 1891, i, p. 1312.
[20] Pick, *Lancet*, i, 1891, p. 1312; *Archives of Pediatrics*, xiii, 1896, p. 616.
[21] Marsh, *Med.-Chir. Trans.*, vol. lix, 1876, p. 81; Fagge and Howse, *Med.-Chir. Trans.*, vol. lix, 1876, p. 88; Shepherd, *Lancet*, ii, 1892, p. 1155.
[22] *Guy's Hosp. Rep.*, 1869, p. 290; *Trans. Clin. Soc.*, xvi, 64; *Lancet*, ii, 1888, 315; ii, 1892, 482.
[23] *Lancet*, ii, 1888, 315.
[24] *Lancet*, i, 1893, 651.
[25] *New York Medical Record*, vol. xlix, 1896, p. 73, Case xiv
[26] *Trans. Clin. Soc.*, xxii, 1889, p. 282.
[27] *Berl. klin. Woch.*, No. 33, 1862, p. 817.
[28] *Deutsch. Archiv. f. klin. Med.*, xii, 1874, p. 381.

the apex of the intussusceptum. As soon as the intussusception has been started the anatomical peculiarities again become of paramount importance, for they determine the character of the intussusception. In the ileo-cæcal forms a wide colon with few and simple ileo-colic folds, devoid of lymphatic glands, will allow the intussusception to run a chronic course, even though the amount of bowel invaginated is very great. Complex fossæ, with numerous glands at the ileo-colic angle and prolongations of mesentery along the end of the ileum will, no doubt, so far steady the ileum as to render its intussusception less likely. But if it should occur, the additional amount of tissue invaginated will render the impaction so peculiarly tight that if gangrene is not produced at once early adhesions will be formed and the intussusception will soon become irreducible.

## REMARKS ON THE MEDICAL ASPECT OF A SYSTEM OF COMPULSORY INSURANCE OF THE WORKING CLASSES.

BY F. PARKES WEBER, M.D., M.R.C.P.LOND.

As the subject is comparatively little known to the majority of English medical men, in order to make the medical remarks intelligible, I must first give a short account of the German National Workmen's Insurance System, and this account I shall give as nearly as possible in the words of the *Guide to the Workmen's Insurance of the German Empire*,[1] compiled by Dr. Zacher, permanent member of the Reichs-Versicherungsamt. It will, however, be unnecessary to enter into any complicated details or figures.

The work of social reform was practically initiated by the Message of the German Emperor, William I, to the Reichstag on November 17th, 1881. The Message, as communicated by Prince Bismarck, was expressed in the following words:

> We consider it Our Imperial duty to impress upon the Reichstag the necessity of furthering the welfare of the working people. We should review with increased satisfaction the manifold successes with which The Lord has blessed Our reign, could We carry with Us to the grave the consciousness of having given Our country an additional and lasting assurance of internal peace, and the conviction that We have rendered the needy that assistance to which they are justly entitled. Our efforts in this direction are certain of the approval of all the federate Governments, and We confidently rely on the support of the Reichstag, without distinction of parties. In order to realise these views a Bill for the Insurance of Workmen against Industrial Accidents will first of all be laid before you, after which a supplementary measure will be submitted providing for a general organisation of Industrial Sick Relief Assurance. But likewise those who are disabled in consequence of old age or invalidity possess a well-founded claim to a more ample relief on the part of the State than they have hitherto enjoyed. To devise the fittest ways and means for making such provision, however difficult, is one of the highest obligations of every community based on the moral foundations of Christianity. A more intimate connection with the actual capabilities of the people, and a mode of turning these to account in corporate associations, under the patronage and with the aid of the State, will, We trust, develop a scheme to solve which the State alone would prove unequal.

Thus the working man, unfitted for work by sickness, accident, invalidity, or old age, was to have a legal right to a provision sufficient to render him independent of public charity or Poor-law relief. This end could only be attained by a system of general and compulsory insurance, based on mutuality and self-administration, and the endeavours to attain this end have resulted in the system of working-men's insurance now employed in Germany. This system consists of three component parts: (1) Insurance against sickness; (2) insurance against accidents; (3) insurance against invalidity and old age. These component parts, which supplement each other to form the insurance system, must be separately considered.

### INSURANCE AGAINST SICKNESS.

The insurance is intended to secure the insured sufficient relief in case of illness during at least thirteen weeks. All the insured have a legal claim to:

(*a*) Free medical attendance and medicines from the beginning of the illness; likewise spectacles, trusses, bandages, etc.

(*b*) (From the third day of any illness which incapacitates from work) a daily sick pay amounting to one-half the daily wages on which the contributions have been based; or else (in special cases) free admittance to a hospital, together with half the sick pay for the family.

(*c*) Burial money.

(*d*) In the case of women, sick relief during four weeks following confinement.

The insurance against sickness, contrary to that against accidents, is restricted to local organisation, because cases of less importance are continually occurring in which relief to be efficacious must be prompt. The law has therefore authorised the formation of various associations for obligatory insurance against sickness. By the associations being local and self-administrative, the management of their funds is more easily controlled, and simulation on the part of the insured is more difficult. The contributions of the different classes of workmen vary from 1 to 3 per cent. of their average daily wages. The law binds the employers themselves, when depositing the contributions of their workmen, to pay a sum equal to one-half the contributions of the employed, so that two-thirds of the whole are furnished by the workmen and one-third by their employers.

### INSURANCE AGAINST ACCIDENTS.

The liability law of June 7th, 1871, had not the desired effect, partly because the burden of proof was laid on the poor workman seeking redress, and partly because the person—sometimes a fellow workman—responsible for the accident was often unable to pay damages. Moreover, this law did not provide for accidents caused by chance or by the fault of the workman himself.

The present system of insurance against accidents is carried out under the guarantee of the empire, on the mutual system, by the employers united in trade associations, which may embrace the different branches of industry in certain districts or in the whole empire.

The object of the insurance arrangements is to secure compensation for bodily injury or for death, in consequence of an accident to the workman whilst working for his employer, injuries sustained on other occasions being excluded. As a matter of course the injured man must not have brought about the accident purposely, though the injury may be due to his own fault. The compensation includes the cost of the cure, and in addition a fixed allowance during the period of incapacity for work, or in fatal cases burial money and an allowance to the survivors (widows, children, parents) from the day of death. When the injured person is totally disabled the compensation amounts to two-thirds of his average year's earnings; if only partially incapacitated for work a fraction of this amount will be granted. For the first thirteen weeks after the accident the associations for insurance against sickness (or, in their absence, the employers) have to step in.

In the interest of a fair and suitable treatment of sufferers from accidents the trade associations are, however, legally authorised either to commit at their own costs the care of the injured to the associations for insurance against sickness beyond the thirteenth week, until a complete cure is effected, or they may themselves undertake the charge of the patients at any time during the first thirteen weeks, with the understanding that their outlays of sick pay shall be refunded by the associations for insurance against sickness.

The amount of the compensation is fixed, after a police investigation, by the organs of that trade association in whose district the accident happened. Against this decision an appeal may be made to an arbitration court, composed of two members of the trade association, two representatives of the insured workmen, and a presiding magistrate. This court is invested with the character of a special court of law; in more complicated cases an appeal from its verdict may be made to the Reichs-Versicherungsamt.

Every employer contributes to the burdens of the year in proportion to the risks to which he exposes his association.

As it is evident that both the trade associations and their individual members have a strong interest in diminishing the chances of accidents, the law confers on the associations the important prerogative of prescribing regulations for the prevention of accidents. Through these regulations the employers can be compelled, under penalty of higher assess-

ments, to adopt the necessary measures for safety; the workmen also may be forced by fines to follow the rules.

As regards the participation of the insured workmen in the organisation of the trade associations, they are neither members of the associations nor have they to bear any of the corporate burdens. They have, however, to take on themselves a portion of the aggregated liabilities caused by accidents, in so far as, together with the employers, they contribute to the associations for insurance against sickness, to which, as already stated, for practical reasons, the care of patients during the first thirteen weeks of the illness is left.

Accordingly the law permits representatives of the working men (chosen by the directing boards of the associations for insurance against sickness) to take part in the police investigation of accident cases, and in the discussions of preventive regulations, as well as in the proceedings of the arbitration courts and of the Reichs-Versicherungsamt; on all these occasions the workmen enjoy the same rights as the representatives of the employers.

The Reichs-Versicherungsamt (Imperial Insurance Department) is the supreme court for all that has reference to organisation, administration, and judicature. It is composed of permanent members—a President appointed for life by the Emperor on recommendation of the Bundesrath, and several higher officers similarly appointed; and of temporary members—namely, four delegates of the Bundesrath, and representatives of the employers and employed in equal numbers. Two judiciary officers are added to decide the more important cases, such as appeals to the Reichs-Versicherungsamt and the settlements or adjustments of claims in the case of changes in the composition of trade associations. For some of the federal States, special State insurance offices have been established.

### Insurance against Invalidity and Old Age.

The money to pay the invalidity and old age pensions is furnished jointly by the empire, the employers, and the employed. The empire contributes to each annuity the fixed amount of 50 marks per annum, and pays the contributions of the workmen while serving in the army or navy. It defrays the expenses also of the Reichs-Versicherungsamt, and effects gratuitously, as in the case of the accident insurance, the payment of pensions through the post-offices. All other expenses are borne in equal shares by the insured and their employers, and are raised by current contributions.

The carrying out of the invalidity and old age insurance is entrusted, under State guarantee, to special insurance institutions, whose districts coincide with the province or State divisions.

The pension for old age is granted, without proof of disability, to all who have completed their 70th year. The pension for invalidity is granted, irrespective of age, to every insured person who is permanently disabled (that is, no longer able to earn even one-third of his average wage), and also to persons, not permanently disabled, but who for an entire year have been unfit for work, during the remaining period of their disability.

### Remarks.

It can hardly be doubted that a general system of insurance of the labouring classes, rendered compulsory by law (such as the German system) must exercise a beneficial effect on the mass of the poor people, and through them on the whole nation. By such a system every labourer is assured of a certain amount of support in case of illness, accident, or infirmity. The insurance subscriptions (paid partly by the empire, partly by the workmen themselves, and partly by their employers) are reduced to a minimum owing to the immense number of individuals thus clubbed together. Some, indeed, may object that a State institution of this kind is "too paternal" or rather "too socialistic," but such terms mean little in themselves. A system which gives the poor workman a certain just sense of security, and, when sick, the feeling that he has contributed something to his medical treatment, must deserve attention. Moreover, it doubtless reduces in number those who having lost employment by illness of various kinds become paupers.

An insurance system of this kind presents special points of interest in regard to medicine and the medical profession. The mutual obligation of the different parties concerned in such a system must help towards the proper carrying out of sanitary regulations. It becomes at once the duty of an employer, not only towards his workmen but towards other employers, to see that his workmen do their work under the most hygienic conditions possible. The workmen, moreover, are bound to carry out directions as to personal hygiene, etc., and when ill or injured must submit to be treated by the approved methods, and cannot so easily go wandering about from one hospital to another, as they sometimes do in England.[2]

It is obvious that the collection of statistics of medical importance must be greatly furthered by an insurance system of this kind. By the necessary registration of cases knowledge must be gained as to the exact relative frequency of various illnesses and injuries amongst workmen employed in different kinds of work, and living in different places.

The statistics must also help in deciding which methods of treatment, at least which practical methods, give the best results when employed on a large scale. By the aid of the insurance associations more hospitals and sanatoria for treatment of the consumptive poor could be erected, both in suitable parts of the country, somewhat after the model of the new sanatorium for poor consumptives at Rupertshain in the Taunus, and in towns, like the hospitals for consumption at London, Frankfurt, etc. In fact, not only sanatoria for consumption, but sanatoria for various classes of convalescents might be profitably established by such an insurance system. Similarly, institutions for Swedish gymastics and massage might be instituted (or, as in some German towns, private ones might be hired by contract during certain hours of the day) for the use of working men, considered by the insurance doctors likely to be benefited (for example, after injuries to joints, etc.) by such means.

These are some of the advantages which might accrue from such a general system of working men's insurance. On the other hand, it must be acknowledged that medical men are not likely to be well remunerated for their most important share in the work. Medical men would naturally, as in Germany, be found to do the work for very little, partly to have a share in the great undertaking, and partly, doubtless, for the sake of the experience to be gained. After all, however, the medical clubs in England are probably just as bad for the doctor's pockets, do less good to the working classes, and are more liable to be abused by those who could quite well pay the ordinary medical fees.

### References.

[1] New edition, published by A. Asher and Co., Berlin and London, 1896. See also *Die Arbeiterversicherung in den Europäischen Staaten* (Leipzig, 1895), by Dr. T. Bödiker, President of the Reichs-Versicherungsamt; and *Les Assurances Ouvrières en Allemagne* (Paris, 1895), by Maurice Block. [2] I do not mean that poor patients should necessarily be prevented from changing hospitals when they really fancy themselves badly treated; it would be sufficient if those who now change hospitals for some trivial question of convenience, should have a practical inducement not to do so. Knowledge as to the sequelæ of disease, ultimate results of operations (such as radical cure of hernia, etc.), recurrence of tumours, etc., would be thus facilitated. Certain classes of patients would probably continue to wander, for instance, many neurasthenics, including the *malades imaginaires* of the poor.

## THREE CASES OF RUPTURED GASTRIC ULCER TREATED BY LAPAROTOMY, SUTURE, AND WASHING OUT OF THE PERITONEUM.[1]

By THOMAS H. MORSE, F.R.C.S.Eng.,
Norwich.

The history of the three following cases that have occurred in my practice will, I hope, prove of interest to the profession.

Case I has been already fully recorded.[2] The more prominent points were as follows: The rupture took place on December 7th, 1893. The operation was performed five hours after the first onset of symptoms. The details as to suturing the ulcer and washing out of the peritoneum were very similar to those of Cases II and III, about to be related. The patient recovered completely in a month, and has ever since been, and is at the present time, quite free from all symptoms.

Case II. Miss E. P., aged 21, had been under treatment for dyspepsia the two previous winters, being always better in the summer time. Her sister

[1] Read before the East Anglian Branch of the British Medical Association.

[2] *Medico-Chirurgical Transactions*, vol. lxxvii, and British Medical Journal, March 17th, 1894, p. 576.

died from ruptured gastric ulcer in twenty hours from the first onset of symptoms. For three days preceding her rupture I had seen her and diagnosed gastric ulcer, her chief symptoms being pain after taking food, relieved by vomiting, and pain on pressure over the cardiac end of the stomach.

Rupture occurred suddenly on October 24th, 1895, and I saw her two hours after. Her condition then was as follows: Her face, usually rosy, was quite pale; features pinched; pulse 90, feeble, and feeling empty. She was lying on her back in bed, hardly daring to move, cold and collapsed. The abdominal muscles were perfectly rigid. On percussion the whole abdomen was hyper-resonant, the liver dulness being absent. Pain was caused by deep pressure on any part of the abdomen. She told me that when the symptoms commenced she was sitting still in a chair, and lifted her arms for some purpose, when suddenly she felt a violent pain in the abdomen, which made her sink down into the chair and cry out, "I am dying!" She screamed with pain for several minutes, then tried to vomit, but could not do so. The pain commenced in the left hypochondriac region, and rapidly spread all over the abdomen.

The only food which had been taken into the stomach was some beef tea some two hours before. I decided at once that the case was one of ruptured gastric ulcer and advised abdominal section without delay. Dr. Barton, who saw her with me, agreed in the diagnosis and treatment proposed. Mr. D. Day gave ether, and the operation was commenced four and a half hours after the first onset of symptoms.

The patient was very cold, and was wrapped in hot blankets upon the operating table. An incision about $3\frac{1}{2}$ ins. long was made 1 in. to the left of the middle line, commencing at the cartilages of the ribs and extending down towards the umbilicus. The reason for making it to the left of the middle line was to allow the entire organ to be more easily withdrawn from the abdomen.

Directly the peritoneum was opened the contents of the stomach began to well up into the wound. Beef-tea and a few curds of milk could be recognised. The stomach was immediately found and drawn completely out of the wound. The rupture was a round punched-out hole, about $\frac{1}{8}$ in. in diameter, situated on the anterior surface of the cardiac end about 1 in. above the attachment of the transverse gastro-colic omentum. I tried to wash out the stomach, but this failing I contented myself with squeezing out its contents through the ulcer.

The perforation was then closed. A curved needle threaded with catgut was passed so as to take up only the peritoneal and muscular coats in the form of Lembert's sutures in such a manner as to cover in the ulcer. A second row of sutures was now put in so as to bring into apposition two surfaces, each of which was 1 in. in breadth, and extended in both directions $1\frac{1}{2}$ in. beyond the perforation.

The stomach was then replaced and the washing out of the peritoneum with boiled water commenced, cooled to a temperature of 105° F. With the usual siphon irrigator and two glass tubes passed in different directions, a stream of water was constantly kept running in through the irrigator and out at the glass tubes. In this way every possible corner was reached, and the washing continued until the water returned quite clear from each point before moving the tubes to another. About 20 pints of water were thus used. A drainage tube was left in and the wound closed. The operation lasted forty-five minutes. Shock was severe, and was treated with warmth and brandy enemata. As in the first case, the patient on coming round from the anæsthetic expressed herself as being free from pain, and during the night slept a good deal.

No food was given by the mouth for forty-eight hours, after which the administration of liquids caused no symptoms. Her convalescence was retarded by the formation of an abscess in the left pleural cavity, which was opened and drained from the back. However, at the present time she is strong and well and can walk several miles, and has none of her old symptoms.

CASE III, a servant girl, aged 22, who was somewhat anæmic and had had dyspepsia for some time, was suddenly seized with violent pain in the abdomen whilst at her work; was sick once, and afterwards retched and tried several times to vomit but without success.

She was seen by Mr. Shepheard, of North Walsham, and by Mr. Hugh Taylor, of Wroxham; the diagnosis of ruptured gastric ulcer was made. When I saw her, her condition was as follows: She lay sunk down in bed, her eyes sunken, with dark rims round them, respiration 50 per minute, pulse 150. The knees were drawn up, the abdomen distended and tympanitic all over, the liver dulness absent; there was tenderness on pressure all over. She was perfectly sensible, and told me the pain began suddenly at a spot to which she pointed, just to the left of the xiphoid cartilage. The abdominal muscles were not at that time rigid; in all probability relaxation had come on as the result of exhaustion.

Operation was at once agreed to. It was now just twenty-four hours since the commencement of symptoms. Ether was given by Mr. Shepheard, and with the assistance of Mr. Hugh Taylor I opened the abdomen above the umbilicus, just to the left of the middle line, the incision being placed in the same position as in the other two cases. When the peritoneum was opened a rush of gas followed, and next a continual welling up of bile-stained fluid mixed with curds of milk. The whole stomach was drawn out of the wound and a perforation found on its anterior surface, close up to the cardiac orifice, so high up that it was difficult to draw the stomach down far enough to make the perforation appear in the wound.

With a curved needle threaded with catgut Lembert's sutures were introduced, first a row close to the perforation, then a second row, so that, when tied, about two inches of the peritoneal surface of the stomach were in apposition, the perforation being at the bottom. Next, the peritoneal cavity was washed out thoroughly in the usual manner, thirty pints of hot water being used, and a glass tube, as in the other cases, was passed in by the side of the irrigator to assist in the return of the water, and only discontinued when clean water returned from every point. The operation lasted an hour, and the patient's condition at the end was one of great exhaustion. Yet she awoke from the anæsthetic apparently quite sensible, and not suffering mentally from shock, though the bodily shock was very severe. The pulse was hardly perceptible, the respiration rapid, and she was very cold. She lived only a few hours after.

The duration of life after perforation of the stomach may be estimated at twenty-four hours; hence the importance of early and distinct diagnosis cannot be exaggerated. The shock following perforation is so severe and its effects can be observed to increase with such rapidity that it is apparent that the chances of success are diminishing in direct proportion to the length of time that is allowed to elapse between the occurrence of the injury and its repair by surgical means. It has been before observed, though I think not explained, that injuries of the upper part of the abdomen produce greater shock than those of the lower part. Mr. Dunn refers to this. I think it probable that this is owing to their close proximity to the solar plexus and its large semilunar ganglia, as I observed that in the second case here related the manipulation of the irrigating tube in this neighbourhood was sufficient to stop respiration on two separate occasions.

One other point I would mention. A frequent cause of death in the cases which survive the first injury is inflammation of the lung or pleura. It appears that septic materials rapidly pass through the diaphragm from below; to prevent this the thorough cleansing of the peritoneum at the time of operation seems the only remedy.

It is difficult to explain why the two cases that recovered have ever since been quite free from all symptoms of gastric ulcer.

## A CASE OF ACUTE INTESTINAL OBSTRUCTION FROM IMPACTED GALL STONE: RECOVERY.

BY ROBERT WILKINSON, M.D.BRUX., M.R.C.S., L.R.C.P.,
Anerley.

A VERY stout woman, aged 63, was seized (February 7th, 1896) with well-marked biliary colic. She had suffered some months previously from at least two similar seizures, and was a chronic dyspeptic, with great predilection for various patent medicines.

Bilious vomiting was very severe, and the excruciating pain was with difficulty kept in check by hypodermic injections of morphine. On the fourth day of the disease stercoraceous vomiting, general abdominal pain, distension, quick thready pulse, and other signs of acute intestinal obstruction set in.

At a consultation with Dr. Caldwell Stephen, of South Kensington, a diagnosis of impacted gall stone was made and an unfavourable prognosis given.

Treatment consisted chiefly of copious and frequently-repeated enemata of tepid water, alternating with nutrient injections, and hypodermic injections of morphine and atropine (gr.$\frac{1}{3}$ and gr.$\frac{1}{150}$) to allay the excessive pain, a little ice only being allowed by the mouth for thirst. The patient became rapidly worse. The pulse was 120 to 140, wiry and occasionally intermittent; temperature 99° F. The tongue was dry and glazed; the abdomen tympanitic and distended, especially in the cæcal region. Nothing was discoverable on palpation beyond slight fulness over the sigmoid flexure, and nothing on examination *per rectum*.

Four days after the onset of obstructive symptoms (eighth day of disease) there was some amelioration, vomiting diminishing, and the general strength being somewhat better. There was, however, distressing hiccough and continued severe pain, and during the next few days she became progressively weaker, and on the sixteenth day of the illness was apparently dying. The pulse was 135, almost imperceptible; respiration was gasping, the extremities clammy, and mucus rattling in the throat. A hypodermic injection of strychnine sulphate was given (gr.$\frac{1}{30}$), and she rallied in a remarkable manner, swallowed a little peptonised milk and retained it.

For the next four days the condition was unchanged, but on the twenty-first day she was again *in extremis*. She, however, rallied again, and, although fearfully emaciated and almost pulseless, her vitality continued to be marvellous. On the twenty-fifth day of the illness the enemata became slightly mixed with fæcal matter, and three days later the obstruction finally broke down.

The general condition now improved up to a certain point, but for the next four weeks the weakness was so extreme, owing to obstinate refusal to take nourishment and the in-

tolerance of the rectum to nutrient enemata, that a fatal issue seemed constantly imminent. During this time she existed upon an average of less than 3 ounces of milk a day. Eventually food was taken slightly better, and strength began to return.



Actual size of gall stone.

On the night of April 22nd (eleven weeks after the onset of the first symptoms) I was hastily summoned, and found my patient in great pain, straining, and collapsed; and on examination detected a hard mass blocking the lower fourth of the rectum. By gentle pressure through the posterior vaginal wall the foreign body was extruded, and found to be a gall stone about the size of a pigeon's egg, facetted, and weighing in the fresh condition $\bar{5}$ v gr. xliss. The patient slowly gained strength, and was ultimately sent to the south coast to convalesce. When I last heard of her she was "perfectly well and active."

Remarks.

This case supports very well, I think, the contention of my friend and former teacher, Mr. Mayo Robson, that if we can be reasonably sure that obstruction is due to gall stone a palliative line of treatment will probably end in the passage of the foreign body, though many may contend that the risk is greater than that of operative treatment. The stone evidently ulcerated its way into the duodenum and became blocked somewhere in the small intestine.

## CHYLOUS CYST OF MESENTERY: OPERATION: RECOVERY.

By J. O'CONOR, M.D.Dubl.,
Senior Medical Officer, British Hospital, Buenos Ayres.

Mr. E. M. M., aged 41, manager of a mercantile company, consulted me on September 2nd, 1896, complaining of a tumour in the abdomen. The history was as follows: For the past two years he had an inclination every morning to vomit, with a constant foul mouth and a bad smell from the breath. He frequently had severe lancinating pains in the lower part of the abdomen. In June, after riding ten miles, the pain was so bad that he had to remain in bed for three days. In July he made a sea voyage, and suffered intensely from pain all the time, but he was not quite certain how much sea sickness had to do with it. During August he had much business to transact in Buenos Ayres, which necessitated walking about, and he suffered continually from pain, the morning tendency to vomit and foul breath continuing as before. At the end of August, after jumping from a tram, he experienced the most excruciating agony; on the following morning he was unable to get out of bed, and for the first time noticed a "lump" below and to the right of navel.

A doctor was called in, and later that same day a consultation was held, and he was told he had a tumour, and was placed on low diet, kept in bed, and had free purgation. On the following day his doctor told him he had a "hydatid tumour," which would require operation.

On examination, on September 2nd, a distinct swelling was visible in median line between the umbilicus and pubes. A well-defined, tense, fluctuating tumour was felt, even in contour, movable, and about the size of an ordinary coker nut. Palpation caused severe pain, so much so that I had to desist from finding the actual range of movement. There was absolute dulness on percussion; no thrill was obtained. The tongue was furred, breath foul, the temperature and urine normal; other organs were healthy. There was nothing to record in his past history excepting habitual constipation and an occasional attack of "asthma." The family history was excellent.

I informed him that he undoubtedly had a tumour, the exact nature of which I could not state, but that I felt pretty certain it contained liquid. I advised him to enter hospital in order that I might make an exploratory incision. This he did on September 7th.

On the following morning, the bladder having been emptied, chloroform was administered, and when the dressings were removed we found that the tumour moved freely in all directions. Assisted by my colleague, Dr. Shadbolt, an incision 3 inches long was made in the median line, directly over the tumour, and the abdominal cavity opened. It was immediately seen that the cyst wall differed from that of a hydatid in that it had a dirty grey appearance, and many large veins ramified over its surface. It looked like a sarcoma. The tumour was lifted out of the peritoneal cavity along with the mesentery in which it grew, and some 4 inches of adherent small intestine. A careful examination was made to see if it was feasible to enucleate it, but as it was so very adherent between the layers of the mesentery, and as so many vessels would require ligation, it was decided to drain it. A medium sized trocar was inserted, and half a pint of milky fluid withdrawn. The opening made by the trocar was enlarged, and the anterior half of the circumference clipped away with scissors, many large veins having been tied, the whole mass was returned into the abdominal cavity, and the cut edges of the cyst united to the parietal wound by a continuous silk suture. The remainder of the superficial wound was closed by two continuous silk sutures, and the cavity of the cyst stuffed with iodoform gauze.

For the following forty-eight hours vomiting was incessant, but ceased on the third day. The highest temperature recorded after the operation was 99.5° F. The bowels were moved on the fifth day, and by the fourteenth day the cavity had contracted flush with the parietal wound. The pain, tendency to vomit, and foul breath completely disappeared, and he was discharged cured two weeks later. He said he "had not felt so well for two or three years."

Dr. Welchli kindly made a microscopic examination of the fluid, and reported that it was ordinary chyle.

On referring to Mr. Treves's treatise in his *System of Surgery*, I find that he states that there have been only 19 cases of mesenteric cysts recorded, 12 of which were cured by operation and 7 died. The situation and mobility of this tumour exactly corresponded with Mr. Treves's teaching, but he says they are usually painless. In this case pain was one of the earliest and the most distressing symptoms.

## ARTIFICIAL FEEDING OF THE INSANE.

By L. HARRIS-LISTON, M.R.C.S.,
Assistant Medical Officer, Home for Mental Diseases, Coton Hill, Stafford.

The persistent refusal of food amongst the insane is a symptom of frequent occurrence, which, when moral suasion has failed, has to be treated by forcible feeding.

Of the last 200 patients admitted to a lunatic hospital for private patients, among whom refusal of food is said to be more common than among paupers, 27 required forcible feeding, which I performed on them nearly 3,000 times. Complete refusal of food for twenty-four hours in a strong well-nourished patient, or the missing of two meals by a feeble one, may be taken, as a general rule, to indicate the operation; freshly admitted cases with a history of starvation, who are feeble, with weak pulse, and who resist taking food, should be fed at once. Of these 200 patients 85 were males, 115 females, and of the 27 fed, 12 were males and 15 females; this 27 does not include many patients whom the attendants were able to fee with a spoon, but only those who successfully resisted thi method. Of these 27, there were 4 in a state of acute mania 4 in a stuporose condition, 13 were melancholiacs, 4 were

suffering from delusional insanity, and 2 were chronic dements; 12 of them were at some period actively suicidal.

The effect of feeding was soon apparent in most cases, nutrition improving, some getting fat, and no doubt the lives of many were saved by its adoption; sometimes, but rarely, the pharynx, œsophagus, or stomach became irritated by the tube, and then feeding by the bowel had to be resorted to; in one lady, a case of stupor, gastritis was set up, and curiously enough, the pyrexia was coincident with the commencement of her recovery.

Besides the improvement of nutrition, feeding has a lasting moral effect, in some cases a few feedings effecting a cure of the habit of refusal; it occasionally cures a delusion, as one case in a friend's practice exemplifies, a case in which he was "commanded" not to eat; after a few nasal feedings with a tube smeared with assafœtida he was commanded no more. A mere exhibition of the tube will cure the habit in some hysterical cases.

The method of feeding adopted was the funnel and soft rubber œsophageal tube passed to the stomach by the mouth or nose; the latter way I now almost always use as generally preferable, its only danger being the passage of the tube into the larynx, of which the evidence, stridulous breathing and loss of voice, is at once perceived, and remedied by withdrawing the tube to the pharynx, pouring a little food down tube, and as patient swallows pushing it down; the passage of the tube by the mouth is a more expeditious procedure, as a large tube can be used so that a quart or more of food may be given in a few seconds, and this is advantageous in old people and others who secrete a large amount of mucus about the throat which they cannot swallow while the tube is in the œsophagus, and which, collecting over the glottis, causes dyspnœa. The disadvantages of the passage through the mouth are the need of a gag, which is apt to injure the lips or break the teeth of patient, and the possibility of the gag slipping out, and so rendering biting and swallowing the tube, or injuring the operator's fingers, probable. The latter accident happened to me once, causing a poisoned wound of a finger, and consequent inability to use the hand for a week, but during this time I was able to pass the nasal tube with the left hand, a statement which shows how easy the operation is.

Diet Given.

Breakfast at 9 A.M.—A pint and a-half of milk, two eggs, with one ounce of whisky.

Dinner at 2 P.M.—A pint and a half of beef tea, two eggs, two ounces of port wine, and one ounce of maltine.

Supper at 7 P.M.—A pint and a half of milk, two eggs, one ounce of whisky.

The food is given warm, and the patient kept lying down for half an hour afterwards; medicines are given with the food as required; generally a purge is needed every two days, when half an ounce of castor oil may be added; occasionally the juice of half a lemon is added to the dinner.

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

### TWINS FROM A SINGLE OVULE.

On November 8th I was called to attend Mrs. W., aged 28, in her third confinement. On examining her I found the head presenting; I ruptured the membranes, and in a short time delivered her of a well-developed male child. On placing my hand over the uterus to express the placenta, I felt a second child *in utero*, and on examination *per vaginam* found another head presenting. I immediately ruptured the membranes, and about a quarter of an hour afterwards delivered her of a second, equally well-developed, male child. On carefully examining the placenta after expression I found two placentæ in close apposition, fused into a single mass, a separate cord to each almost joining at their insertion, the vessels of the one appearing to anastomose with those of the other. The whole placental mass was surrounded by one chorion, enclosing two distinct amnions. This was evidently a case of twins developed from a single ovule containing a double germ, a condition I believe to be somewhat rare, and conformed to the rule laid down by Schroeder, that in these cases the children are always of the same sex, and generally males.

Although both fœtuses were exceptionally well developed, presented by the vertex, and were enclosed in a single chorion, there was not the slightest difficulty or delay in the birth of the first child.

On inquiring into the family history I find the patient's mother had only one child, her husband died six months after, and she did not marry again; but the grandmother gave birth to twins, both of which were females.

Wm. H. Stephenson, L.R.C.P., L.R.C.S.Ed.

Harpurhey, Manchester.

### THE SCHOTT TREATMENT OF CHRONIC HEART DISEASE.

Early in last year a patient, over 70 years of age, suffering from a greatly dilated right heart, with marked mitral insufficiency, complicated by frequent attacks of angina pectoris, whose symptoms lately had practically resisted all forms of treatment, was advised to undergo Schott's course.

During the first bath there was slowing of the pulse from 86 to 76, with increased volume, the dyspnœa and cyanosis became less marked, the lips improving in colour, and the face assuming a healthy ruddy glow. A feeling of tightness and oppression within the chest was complained of which continued for fully two minutes; after the fourth bath, however, this uncomfortable feeling altogether disappeared. On leaving the bath the patient expressed himself as feeling refreshed. On examination after the bath what was most striking was the change which had taken place in the extent of the cardiac dulness; indeed, but for the extreme care with which the dulness had been mapped out previously, one must have concluded that a mistake had been made in the tracing; on the right side, to the right of the mid-sternal line, the area of dulness had diminished 1¼ inch, while a corresponding increase in the pulse force was proved by sphygmographic tracings taken before and after the bath.

By the end of the course, five weeks, the patient had but little discomfort from his attacks of angina pectoris; he could comfortably walk a mile and ascend two flights of stairs, feats previously impossible; dyspnœa much relieved, mitral *bruit* less accentuated.

Nine months after treatment a thorough examination of this patient was made, and the excellent results accruing from the treatment were still marked.

Several cases of a similar character have come under observation since the above patient was treated, in all of which the improvement has been as marked. The deduction from those observations is that the size of a diseased dilated heart can be reduced by the judicious use of baths and exercises as recommended by Schott, and that the reduction is not only beneficial, but probably permanent. Whatever the cause of the heart shrinkings and increased tone may be physiologically, there can be no doubt about the results, and from these results we can but infer that repair does take place in the degenerated heart and vessels. The diminution in the size of a dilated heart resulting from this treatment can only be accounted for by the contractions being increased, and consequently the cavities more efficiently emptied.

London. Alexander Mitchell, M.D.

### TREPHINING THE FRONTAL SINUS.

The following interesting case came under my care at the London Throat Hospital towards the end of 1895:

The patient, a woman, came complaining of inability to breathe through the right nostril, accompanied with a distressing discharge. The difficulty in breathing had come on, gradually increasing, during the last eighteen months; the discharge had lasted for quite five years. On examination, the nostril was found full of large polypi. When these were removed the discharge was found to be as bad as ever, and pus was clearly seen flowing from the infundibulum. It was determined to open the frontal sinus. This was done with a small trephine a few days later. The sinus was found full of a web-like granulation tissue, in which three small mucous polypi were embedded. The whole of this tissue was carefully scraped out. A small drainage tube was put in, with the object of keeping the wound open as long as necessary. The sinus was well syringed out through the wound with the biniodide of mercury solution (1 in 1,000) each day until the

lotion came freely and quite clear into the nose. On the eighth day the drainage tube was removed and the wound quickly healed up. With the operation the discharge ceased and has not returned since. I saw this patient last November, a year after her first attendance at the hospital and nine months after the operation, when she still remained quite free from nasal trouble.

Devonshire St., W. GRIFFITH C. WILKIN, M.R.C.S., L.R.C.P.

### IDIOPATHIC HÆMORRHAGE FROM THE UMBILICUS IN AN INFANT.

As these cases are so rarely met with, and are almost invariably fatal, it may be of some interest to record a case which lately came under my notice. It occurred in a full-time, healthy male child of poverty-stricken parents. The bleeding began with oozing on the fifth day, just before the cord separated. There was slight icterus, and several large purpuric spots over the body. The treatment tried was pressure by means of pads, astringents, suture, underpinning, all of which for a short time seemed effectual: but in a few hours the flow invariably began again, and ended fatally on the fourth day. The blood showed no tendency to clot.

Macclesfield. C. AVERILL, M.D.

### CASE OF SCARLET FEVER WITH EYE COMPLICATIONS.

On the afternoon of November 4th, 1896, a medical man was attacked with severe sore throat. Next day the throat was rather worse, the temperature was 101°, and he had dull aching pains in the back and legs. On the night of November 5th he was very restless; the temperature was 102°, and the pains in the legs more severe. On November 6th the symptoms were rather worse, and the temperature higher. There was headache and a good deal of injection of the eyes.

On November 6th a well-marked scarlet fever rash was seen over the body, the temperature was lower, and the pains not so severe. The eyes were still injected, and he had sensations of light on closing the lids. On the evening of November 6th the condition improved, and this continued up to November 10th, when he was removed to the sanatorium, the temperature being normal, and desquamation proceeding. After two or three days the eyes became injected.

On November 18th, when I saw the case, there was much injection over the globes of the venous, purplish, episcleral type, and it was more noticeable laterally than above and below. The conjunctiva appeared to be slightly raised as if the tissue below it were infiltrated. This feature was also more marked laterally. The palpebral conjunctiva was more injected than normal, but there was no secretion and no gumming of the lids after sleep. There was extreme tenderness on palpation over the ciliary region all round, but no increase of tension. On attempting to fix a near object severe pain of a shooting or dragging character was experienced, and was felt also on any sudden movement of the eyes. The iris was normal, pupils equal, and reacted freely to light. The pain in the eyes and supraorbital region was of a boring and dragging character. I expressed the opinion that the patient was suffering from a general episcleritis or capsulitis with cyclitis, and that it was probably rheumatic in character, for there was a distinct family history of rheumatism, and he had had pain of a rheumatic character in the course of the illness. Atropine was prescribed to put the ciliary muscle at rest, and sponging with hot boracic lotion over the closed lids. This afforded immediate relief. Next day moderate doses of salicylate of soda were prescribed. This was continued for a day or two, and was followed by massage over the closed lids, counter-irritation to the temples, and administration of small doses of iodide of potash. In a fortnight to three weeks the eyes were quite well.

Cases presenting similar symptoms without the injection, and arising from exposure to cold winds, in rheumatic persons are seen along with rheumatic retrobulbar neuritis. But in these vision is lowered, there is often a central or paracentral scotoma for colours, and the disc exhibits inflammatory changes, but in the case described there were no visual changes.

Stockton-on-Tees. G. VICTOR MILLER, M.B.

# REPORTS
ON
## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

### CORK UNION HOSPITAL.

CASE OF PUERPERAL SEPTICÆMIA TREATED BY ANTI-STREPTOCOCCUS SERUM, WITH RECOVERY.

(Under the care of W. ASHLEY CUMMINS, M.D., Senior Medical Officer.)

H. C., aged 23, was admitted on November 20th, on the ninth day after her first confinement, which, it was stated, was prolonged and had to be terminated by the forceps.

On examination, it was found that the perineum and os uteri had been slightly lacerated and an exudation had taken place around the cervix, extending into the left broad ligament. The temperature was 103° F., with a quick pulse and distended abdomen. The uterus had been thoroughly irrigated previous to her admission with creolin solution, and the lochia were only slightly offensive. The symptoms rapidly became worse; the temperature rose to 105°, and there was constant vomiting, delirium, hiccough, and a dry, brown tongue; the pulse rate was between 120 and 140.

On November 25th a dark red erysipelatous eruption appeared on the left mamma and spread rapidly all over the trunk. At 6 P.M. she had a severe rigor, followed by a rise of temperature to 106.6° F. in the axilla.

On November 26th she was apparently sinking; there was constant vomiting, hiccough, involuntary evacuations, the pulse was 132, and the rash was spreading rapidly down the thighs and arms. At 6 P.M. she received the first hypodermic injection of antistreptococcus serum, procured from Messrs. Burroughs, Wellcome and Co.

On the next day she was much improved; the vomiting had ceased, hiccough was not so frequent, the temperature ranged between 103° and 104° F., and the rash was much lighter in colour.

The serum, and subsequently the dry preparation, were injected in doses of 10 c.cm. on nine occasions between November 26th and December 4th, 1896. The general condition of the patient began to improve, although her temperature continued to range between 102° and 104° F. The rash quite disappeared from the trunk, but continued to extend as a faint line down the thighs and arms for a few days.

On December 5th she had another rigor, after which the temperature went up to 105° F.

On December 12th several joints became swollen and painful, but rapidly subsided under a few 20 gr. doses of salicin every second hour.

On December 17th the temperature came down finally to normal, and the pelvic exudation had quite disappeared.

REMARKS BY DR. ASHLEY CUMMINS.—The influence of the serum on what was an apparently hopeless case was most remarkable. The general symptoms—vomiting, hiccough, delirium—disappeared rapidly, not so the temperature, which continued a fluctuating course, and did not come down finally until twelve days after the serum injections had been discontinued. The influence of the treatment on the rash was most marked; four days after the first injection it had left the trunk, and spread subsequently only 2 or 3 inches down the thighs and arms. Additional treatment adopted was quinine in large doses, perchloride of iron, hypodermics of strychnine, salicin, stimulants, etc., with local treatment by iodoform pessaries, irrigation of the uterus, etc. These, doubtless, contributed to the successful result, but I feel convinced that without the serum treatment the patient would have succumbed.

### SAN FERNANDO HOSPITAL, TRINIDAD, W.I.

ABDOMINAL HYSTERECTOMY.

(By E. A. GAYNES DOYLE, L.R.C.P., M.R.C.S., Resident Surgeon.)

THE operation of hysterectomy is such an unusual one in the West Indies that the following successful case might be recorded.

M. A., a black woman, aged 40, was admitted on August 25th, 1896, for an offensive vaginal hæmorrhage of four months' duration. The woman was then anæmic and weak. On examination a commencing epithelial cancer was found, involving the anterior lip of the uterus.

I removed the entire uterus by the abdominal method on September 22nd, 1896. Great antiseptic cleanliness was observed before and after; but no spray was used during the operation. The sutures were removed on the eighth day. The temperature never rose higher than 101.2 F. The bowels became costive, and there was some vaginal purulent discharge, which detained the patient in hospital up to October 29th, 1896, when she was discharged well, and returned to her duties as a labourer.

This is the third case of hysterectomy performed in this hospital within the last eighteen months. The previous cases were unsuccessful.

# REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

W. H. DICKINSON, M.D., President, in the Chair.

*Tuesday, February 9th, 1897.*

### TYPHOID BACILLI IN THE URINE.

DR. P. HORTON SMITH read a paper on the presence of typhoid bacilli in the urine of patients suffering from typhoid fever. Since the year 1886 various papers had appeared, for the most part in Continental journals, stating that typhoid bacilli occurred with great frequency in the urine of patients suffering from typhoid fever. The writers found them generally with great ease, and sometimes as early as the third day. The importance of such a statement, if correct, from a hygienic and diagnostic point of view was obvious. Later research had, however, shown that the methods of examination employed by all observers who had written on this subject were incapable of distinguishing the typhoid bacillus from others like it, and especially from bacillus coli communis, which was not uncommonly found in urine. Hence all statements made hitherto as to the presence of typhoid bacilli in urine fell to the ground. The author therefore determined to examine the matter afresh. Seven typhoid cases had been examined, sixty-one observations in all having been made. Method: Small and large quantities (filtration method) of urine, obtained aseptically, were inoculated on to the surface of gelatine plates. The suspicious colonies, if any, so obtained were examined by all "ordinary" methods for distinguishing the typhoid bacillus, and also by various special tests, not used by the former observers referred to, but absolutely essential if a correct diagnosis of the typhoid bacillus was to be made. These special tests were—(1) the cilia test; (2) the serum test; (3) the power of forming slight acidity in milk after twenty-four hours. These tests, taken together with the others, *did* distinguish the typhoid bacillus from all others like it, and thus the sources of error of former observers were eliminated. Results: (1) Three cases out of the seven examined contained the typhoid bacilli in the urine at some period of the disease, sometimes in enormous quantities; the other four cases never: (2) the bacilli were never found in the first or second week (seventeen observations). They first appeared in the third week or later. In one case they persisted in the urine until 22 days after the temperature had come down for good. Conclusions: (1) Examination of the urine was of little value for diagnostic purposes, since the bacilli only occurred in it, when they did so occur, late on in the disease; (2) the urine was often, though not in all cases, a serious source of infection, and should so be reckoned with. The paper was illustrated by magic lantern slides of the apparatus employed and of typhoid bacilli.

The PRESIDENT congratulated the author on his valuable paper, and said that it was gratifying to find that abstract research led to practical results. An important point had been established in that the urine of typhoid patients contained the bacilli, and thus could propagate the disease.

Dr. H. E. DURHAM said it would be interesting to know whether any of the author's cases in which typhoid bacilli were present in the urine had been tested with the serum-diagnostic method, and if so whether in any of them a negative result had been obtained. It was desirable to control the results of the serum method of diagnosing typhoid fever by other means, such as the author's. He thought that unless the observer was experienced a positive result was more likely to be obtained than a negative one with the serum method.

Dr. P. HORTON SMITH, in reply, said that his research was carried to completion before the introduction of the serum method of diagnosing typhoid fever.

### THE NERVOUS SYSTEM IN TYPHOID FEVER.

Dr. JOHN ABERCOMBIE read a paper on Some Affections of the Nervous System met with in Association with an Attack of Enteric Fever. He drew attention to the occasional occurrence of imbecility after enteric fever, and endeavoured to show that a lack of sufficient nourishment during the attack was probably a main factor in its causation. Reference was made to the development of rigors during or after the attack, mostly associated with intestinal irritation, but in one case with venous thrombosis. Two cases were narrated in detail in which convulsions occurred in the course of enteric fever, both patients being adults; in the first case they were due to intestinal irritation; in the second to a passage of a portion of thrombus to the heart. Both patients recovered.

Dr. W. F. HERRINGHAM had seen many cases of mental enfeeblement occur in patients treated throughout the entire illness in hospital, and did not think that the author's view of insufficient food explained this occurrence, unless indeed the regulation typhoid fever diet was insufficient. He thought the exhaustion after a severe attack might account for the change. As to rigors they certainly occurred in perforation, in thrombosis, and from intestinal causes. Some cases during the natural lysis of the disease manifested a peculiarly tendency to have rigors; he instanced a woman who had ten rigors during this period, and he had met with other examples in the records of St. Bartholomew's Hospital. In such cases no visible or mechanical cause need be forthcoming. The range of temperature and the occurrence of rigors might be closely allied. An analogy with an epileptic fit was drawn, in the latter during the stress of the attack the movements were tonic, but when this was passing off the exhausted nervous system produced wild and extravagant movements, so here the temperature during the acme of the fever was comparatively even, but during lysis became subject to wide and more irregular variations. He had under his care a girl with post-typhoid paralysis, in whom there was spasm of the arm simulating disseminated sclerosis.

Dr. F. DE HAVILLAND HALL expressed his appreciation of the author's paper, and detailed the case of a man, aged 40, who, while in an attack of typhoid fever, with profuse hæmorrhage, had on the fifth week (the temperature being 102°) a sudden rigor with alarming symptoms. Two days later a second occurred, in which Cheyne-Stokes respiration was present; a third rigor followed later. No cause could be found, and he was inclined to accept Dr. Herringham's explanation that it was connected with the temperature.

Dr. JOHN HARLEY insisted that there was a close relationship between intermittent fever, in which rigors occurred, and enteric fever. He quoted a case in which a man while bathing swallowed some sewage. Fever of quotidian type came on and lasted a week; then symptoms of typhoid fever declared themselves, and proved fatal. Imbecility after prolonged fever and wasting were common in typhoid fever; any weak spot on the organism was likely to be especially affected.

Dr. NORMAN MOORE admitted that constipation late in the disease and other trivial causes might give rise to rigors, but their occurrence should not be neglected. Among other factors causing rigors, he quoted (*a*) discharge of pus from the urinary tract: of this association, he had seen two cases that recovered; in this connection the discovery of deep-seated abscesses *post mortem* in cases of typhoid fever should be remembered; (*b*) the rapid and extensive recrudescence and spreading of old tuberculous pulmonary lesions. With regard to the marked impairment of mental powers that might follow typhoid fever, he inquired whether there was any factor present beyond the exhaustion attendant on a prolonged illness.

Dr. RUSSELL WELLS had observed many cases of nervous

lesions associated with typhoid fever, and thought it possible that in the course of the disease a poison specially affecting the nervous system was developed. He referred to a case of typhoid fever under the care of Dr. Ewart in St. George's Hospital, in which there were signs like those of cerebro-spinal meningitis. He inquired whether the author had ever seen marked insanity supervene in such a case.

Sir Dyce Duckworth said that the sequels of typhoid fever had been recognised in increasing numbers since the era of bacteriology, and referred to the occurrence of terminal infections such as the abscesses mentioned by Dr. N. Moore. He regarded the mental changes after typhoid fever as the result of the protracted illness, but he thought one point in this connection deserved emphasising, namely, the influence of a hereditary neurotic taint; when this was present manifestations of nervous irritability were specially likely to occur in typhoid fever. He thought the pathology of intermittent fever clearly accounted for the occurrence of rigors, but he did not consider that rigors in typhoid fever were explained by comparing that disease with intermittent fever.

Dr. Abercrombie, in reply, said he had only once seen symptoms like cerebro-spinal meningitis in enteric fever, and in that case he was inclined to attribute them to the excessive use of certain drugs. His cases of imbecility were quite distinct from the commoner mental derangements seen after typhoid fever. Though many speakers had referred to rigors, no mention had been made in the discussion of convulsions, probably from their rarity. Rigors and convulsions were closely allied; in fact, in children they were interchangeable.

## MEDICAL SOCIETY OF LONDON.

Reginald Harrison, F.R.C.S., President, in the Chair.

*Monday, February 8th, 1897.*

### Clinical Evening.

#### Withering Sarcoma.

Dr. Morgan Dockrell showed a patient, prior to inoculation with Coley's fluid, who was exhibited under this description. The patient had been operated on by Mr. Morrant Baker nine years ago, since which time he had been gradually going from bad to worse, the condition spreading to other parts.

Mr. G. R. Turner asked whether the ray fungus had been discovered, adding that he was not personally in favour of the use of Coley's fluid.

Dr. Davies asked whether sections of the growth had been examined microscopically.

Dr. Morgan Dockrell, in reply, said that he was only in favour of using Coley's fluid in cases like this one, which were gradually going to the bad.

#### Spastic Contraction of a Mutilated Hand.

Mr. Noble Smith showed a woman whose hand had been crushed ten years ago. On admission the hand was firmly contracted, and was the seat of great pain. There was an ulcer on the back of the hand, and the skin around it was glassy. He made a transverse incision across the front of the wrist, and divided the tendons of the superficial flexors. In order to relieve the pain he also divided the median and ulnar nerves. The relief was marked and immediate, and the patient had since recovered to some degree the power to seize objects, though the hand was still much flexed.

#### Diffuse Lipoma and Congenital Deformity of the Index Finger.

Mr. Noble Smith also showed a young woman whose thumb and index finger had been injured at the age of 15 months. Ten years later the thumb became crooked and amputation was advised. When she applied to him a year ago, the distal end of the index finger was turned to the ulnar side, and the finger generally was enlarged and awkward to use. He ascertained by skiagraphy that the bones were normal in size, the enlargement bearing only on the soft tissues. He removed the diffuse lipoma which ran down in strings of fatty beads between the tendons, and by cutting through the distal phalanx he remedied to some extent the deformity of the finger.

#### Compound Fracture of the Anterior Fossa of the Skull with Consequent Retinal Lesions.

Mr. H. J. Morgan showed a man who in October, 1896, fell some distance on to his head, and remained unconscious for a time. Soon after he vomited a large quantity of blood, and the eyelids were bulging from extravasation of blood. Two days later he was found to have extreme conjunctival ecchymosis, with incontinence of urine and subsultus. He was then conscious but drowsy. There was a fracture of one patella. Later on he had an attack of erysipelas of the face, with high temperature, lasting until December 5th. He then presented a large soft swelling containing air on the right side of the forehead, pointing to a communication between the frontal sinus and the subcutaneous tissue. This gradually subsided. He was found to have lost vision on the temporal side of both eyes, and the appearances pointed to commencing atrophy. The morbid process was presumed to be in the chiasma, damaging chiefly the central portion and the decussating fibres from the nasal halves of both retinæ.

In reply to the President, Mr. Morgan said the progress of such a case was necessarily slow, but such change as they had been enabled to observe did not justify a favourable prognosis. In reply to Dr. Richards, he said the patient had not noticed any difference in the olfactory function.

#### Unusual Fracture of Humerus.

Mr. F. C. Wallis showed a lad, 16 years of age, who had a fall, and sustained a fracture of the humerus, which began just below the greater tuberosity and ran down the shaft, not however separating from the shaft, but the upper end had torn its way through the fibres of the deltoid, and was just beneath the skin. He tried unsuccessfully to wire it in position. Later he removed the upper end of the fragment. The boy had now excellent movement of the arm in all directions, though some of the upward movements were still impeded. Just before he operated on this patient, there had been an operation on a tight intussusception which had ruptured, and one of the surgeons present then had assisted him. The result was that three days later the temperature went up, the wound reopened with foul black edges, and there was some synovitis of the shoulder-joint; in fact, the wound had been infected with the colon bacillus. He treated it energetically, and in three days the temperature fell and thereafter the patient did well.

#### Excision of Head of Radius for Old-standing Dislocation.

Mr. G. R. Turner showed a young man whose shoulder was injured in an accident, and who had sustained, in addition to a fracture of the ulna, a dislocation forwards of the head of the radius. He was treated with splints, and six months later he applied at St. George's Hospital. Even then it would probably have been difficult to diagnose the actual condition of affairs without skiagraphy. As movement was greatly limited, he cut down and removed the head of the radius, and within a week he was moving the joint. He now had very good movement.

Mr. Wallis asked whether any treatment was tried short of surgical interference; if so, what was it?

Mr. Waterhouse said he had treated such a case in a child of 8 who had an anterior dislocation of two years' standing. They failed to reduce it without an incision; but on cutting down he managed, with a periosteum elevator, to force the bone into position. This was done without much difficulty, but he doubted whether this would be feasible in an adult.

Mr. Turner, in reply, said that when the patient was under an anæsthetic he had tried to reduce the dislocation, but found it impossible. In any event, it did not follow that if one replaced the head of the bone the patient would have a more useful arm; in fact, he could recall several cases which proved the contrary.

#### Malignant Disease of Lung.

Dr. Maguire showed a patient, aged 52, who came to the Brompton Hospital complaining of dyspnœa and cough, but on questioning him he said the first symptom had been difficulty in swallowing. There was a swelling over the upper part of the left chest, over which dilated veins could be seen.

There was marked and sharply defined dulness over this region, with intensely tubular breathing also abruptly limited, and surrounded by an area of lung with bronchitic *râles*. He regarded the case as one of malignant disease of the lung, though there had not been much loss of weight.

CONGENITAL HEART DISEASE.

Dr. MAGUIRE also showed a case of congenital heart disease in a young man. The patient had had three attacks of rheumatic fever, but the heart lesion was discovered long anterior to his first attack.

SUTURE OF FRACTURED PATELLA, WITH SKIAGRAM.

Mr. SWINFORD EDWARDS showed a skiagram demonstrating the position of the ligature after suture of a fractured patella. It showed that there was good bony union, and the man had since experienced no diminution of usefulness in the injured limb.

Mr. TURNER asked whether the author had adopted the plan of making an incision in the aponeurosis, hammering down the knot in the wire.

Mr. EDWARDS replied in the affirmative.

ULCERS TREATED BY OXYGEN.

Mr. GEORGE STOKER showed two patients, one with a large specific ulcer of the leg, and the other with lupus, who had been submitted to the oxygen treatment. In respect of the specific ulcer, there were originally two ulcers, one of which proved to contain staphylococci, the other not. The staphylococcic wound had completely healed, but the other, though improving, was still open. He had therefore inoculated this wound with staphylococci, and great improvement had followed. The case of lupus of the nose was curetted, and then oxygen was applied, and was now quite healed.

Mr. SPENCER WATSON admitted that the results of the treatment were very encouraging, but suggested a doubt as to the desirability of inoculating an ulcer with staphylococcus. He observed that in the lupus cases the author had scraped, so that all the credit could not be given to the oxygen treatment.

Mr. TURNER observed that when patients with ulcerated legs could be kept clean and at rest, cicatrisation generally took place, no matter what the treatment; and he urged that it was not fair to institute a comparison between cases treated at the Oxygen Home and those which came to the out-patient department.

Mr. WALLIS agreed that rest and improved hygienic conditions had much to do with the cure. He suggested that a much better way of treating a limited area of lupus in this situation would be to remove the diseased tissues with the knife, filling up the gap with a Thiersch graft. He asked on what scientific grounds the author justified the inoculation of an ulcer with staphylococcus.

Mr. SWINFORD EDWARDS observed that the author had had recourse to three different methods of treatment—oxygen, curetting, and inoculation with staphylococci. To which of the three did he attribute the results? He did not believe the lupus could be regarded as cured, for it was liable to break down at any moment. The cicatrix of the healed leg ulcer was everywhere adherent to the bones, and he apprehended that directly the patient began to get about again the scar would break down, and her last condition would be worse than the first.

Mr. STOKER, in reply, said he had shown the leg case especially to prove that while healing took place in the wound infected with staphylococci it had been less prompt in the other. He thought that the oxygen had a deleterious effect on the bad microbes, and that the staphylococci, which multiplied under oxygen, acted as scavengers. He pointed out that rest had been tried for years without bringing about the healing of the leg ulcer, while the lupus case had been scraped, off and on, for ten years, without causing it to heal.

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THE sixty-ninth Congress of the German Association of Scientists and Medical Men will be held this year at Brunswick from September 19th to 25th. The work is distributed among thirty-three sections.

ON May 1st, the German University of Strassburg will enter on the twenty-fifth year of its existence.

## OBSTETRICAL SOCIETY OF LONDON.

F. H. CHAMPNEYS, M.A., M.D., President, in the Chair.

*Wednesday, February 3rd, 1897.*

VARIOUS TUMOURS.

MR. DORAN showed the following specimens: (1) Fibroma of Ovary, Impaction, Ascites, Removal. A year before removal this tumour was impacted in the pelvis; the uterine cavity measured 3½ inches. It was reduced with ease. In the autumn ascites set in, and the uterus measured 4 inches; the tumour (8 inches broad) lay in the abdomen across the pelvic brim, and was quite movable. Mr. Doran removed it on January 12th. The pedicle was 5 inches broad, and very short otherwise. No difficulty was encountered, and the patient did well. She was 49 years of age. (2) Lipoma of Lumbar Region, four pounds in weight, and of twenty years' growth. The patient was aged 55, and had borne ten children. She was very corpulent. In 1876 it measured 3 inches, and remained about that size till 1891, when it began to grow very rapidly. It was removed in 1894 without any difficulty. It then measured 19 inches in its long diameter, bulging conspicuously from the loin forward and outwards. (3) Fibroma of the Abdominal Wall, increased during pregnancy. The patient was aged 32, and had borne five children. The tumour was first seen in December, 1895, and the patient became pregnant shortly afterwards. It increased over 2 inches in its long diameter during pregnancy, and was removed five weeks after delivery. It lay in the substance of the left internal oblique muscle, and probably originated in the conjoined tendon. Neither the external oblique nor the peritoneum were involved or adherent to the tumour. Mr. Doran called the attention of the Society to the great predominance of parietal tumours of this kind in women.

FŒTAL MONSTROSITY (HEMICRANIA).

Dr. JOHN PHILLIPS showed a specimen. The mother, a young primipara, was delivered at the eighth month of pregnancy; the labour was complicated by marginal placenta prævia. The fœtus presented by its face, and labour terminated with the chin to the anus as in a first vertex delivery. The placenta was of enormous size and irregular shape. The fœtus was stillborn. The external appearance of the monstrosity was exactly as depicted by Ahlfeld, the characteristic frog-like attitude being well seen. The tumour over the site of the occipital and upper spinal regions had been removed in the specimen, and was found to consist of a broken-down brain substance with various nerves passing from it. The whole of the posterior portion of the cranial vault and the posterior vertical laminæ was entirely absent. The lower jaw articulated in a fossa in normal relation to the zygoma. The generative, digestive, cardiac, and pulmonary systems were normal. The fœtus was a female. The left foot had an equino-varus; the right a calcaneo-valgus.

RUPTURED GESTATION.

Mr. TARGETT showed a specimen of ruptured gestation in an ill-developed right uterine cornu. The gestation sac was connected with the cervix of the well-formed left cornu by a small rounded cord, which seemed to be traversed by a minute canal. This cord was 3 inches long, and represented the lower end of the Müllerian duct. The evidence that the gestation sac was uterine and not tubal rested upon the facts that the right round ligament took origin from it, and that the sac possessed a normal right broad ligament with a Fallopian tube and ovarian ligament of the usual length. The left cornu was lined with decidua, and its cervix plugged with mucus. A rupture of the sac was caused by vomiting, in consequence of the administration of an aperient draught, and was speedily fatal. The patient was in the fifth month of pregnancy.

After remarks from Dr. MACNAUGHTON JONES,

Dr. GRIFFITH said he had carefully examined two similar specimens, with the object of endeavouring to identify and trace the Müllerian duct or any channel of communication between the developed and the undeveloped horn containing the gestation sac. The method he adopted was by microscopical section through the whole thickness of the septum uniting them. He had failed to find any trace of such a canal in either specimen, and he placed no reliance on a bristle for

this purpose, which would naturally find some passage along the bundles of muscle fibres or some vessel or nerve.

Remarks were made by Dr. Maclean.

### Ovarian Abscesses.

Dr. Cullingworth exhibited a specimen removed by operation a few hours previously consisting of the Fallopian tubes and ovaries. The right Fallopian tube was enlarged, tortuous, and completely occluded by adhesion of its fimbriated extremity to the surface of the ovary. Its diameter was 1 inch and its length 4½ inches. Its lumen was dilated, and contained ½ fluid ounce of greenish-yellow pus without odour. The mucous lining was covered with granulation tissue without any trace of ulceration. The right ovary was enlarged, and on section was seen to contain a large number of small abscesses with walls of thick, opaque, whitish tissue, giving them the appearance of degenerate corpora lutea. Dr. Cullingworth said that he had exhibited the specimen chiefly on account of the interest attaching to the condition of the ovary. It was unusual to find a large number of small abscesses in the ovary except in tuberculous disease. In this case he believed the inflammation to be of gonorrhœal origin, the purulent vaginal discharge during the first inflammatory attack having probably been due not to the bursting of an abscess, as was then supposed, but to acute gonorrhœa. The result of the operation showed that nothing short of complete removal of the diseased parts would have sufficed to give the patient relief.

Remarks were made by Drs. Stevens, McCann, and Gandy.

### Annual Meeting.

The annual general meeting of the Society was then held. The reports of the Hon. Treasurer (Dr. Potter), the Hon. Librarian (Dr. Griffith), and the Chairman of the Board for the Examination of Midwives (Dr. Cullingworth) respectively were read and adopted, and a vote of thanks passed to each gentleman.

The laws as revised by the Council were confirmed.

The President then delivered his valedictory address.

It was moved by Dr. Potter and seconded by Dr. Hurry:

That a vote of thanks be accorded to the President for his address, and that he be requested to allow it to be printed in the next volume of the *Transactions*.

This was carried unanimously.

A vote of thanks to the retiring vice-president and members of Council was proposed by Dr. Playfair and seconded by Dr. Sinclair was passed.

### Election of Officers.

The names of the officers recommended by the Council and elected were as follows: *President:* *Charles James Cullingworth, M.D. *Vice-Presidents:* William Duncan, M.D.; John H. Galton, M.D.; Thomas Cargill Nesham, M.D., Newcastle-on-Tyne; *Jamieson Boyd Hurry, M.A., M.D., Reading. *Treasurer:* John Baptiste Potter, M.D. *Chairman of the Board for the Examination of Midwives:* *Percy Boulton, M.D. *Honorary Secretaries:* William Radford Dakin, M.D.; John Phillips, M.A., M.D. *Honorary Librarian:* Walter S. A. Griffith, M.D. *Other Members of Council:* Thomas Rutherford Adams, M.D., Croydon; John Walters, M.B., Reigate; Joseph Thompson, Nottingham; Albert Kisch; *Arthur Nicholson, M.B., Brighton; *Richard Pinhorn, Dover; *Thomas Watts Eden, M.D.; Amand Routh, M.D.; *Frederick John McCann, M.B., C.M.; *William Gandy; *George Henry Pedler: Montagu Handfield Jones, M.D.; William Rivers Pollock, M.B., B.C.; *Alfredo Antunes Kanthack, M.D.; *Angus Fraser, M.D., Aberdeen: Harold A. des Vœux, M.D.; *Charles Hubert Roberts, M.D.; Walter W. H. Tate, M.D. (Those gentlemen to whose name an asterisk is prefixed were not on the Council, or did not fill the same office last year.)

## EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

William Craig, M.D., Vice-President, in the Chair.

*Wednesday, February 3rd, 1897.*

### Exhibit.

Dr. Graham Brown showed the Perigraph, an instrument for delineating the shape of the thorax, and for clinical mensuration generally.

### Dual Brain Action.

Dr. Lewis C. Bruce read a paper On Dual Brain Action, and its Relation to Certain Epileptic States, founded on observations made on patients the subjects of unilateral right-sided epilepsy. Two cases were detailed; and the peculiar state of consciousness, without recognition of surroundings, following such an epileptic seizure was described. It was argued that the unilateral epileptic storm disorganised the one hemisphere, leaving the other hemisphere to carry on consciousness. The conclusions drawn from these observations were that in the normal state of these patients the left cerebral hemispheres controlled the functions of the right, the mental development of which must have been low either from atavism or from congenital deficiency not having the capability to develop. The relation between the state of epileptic automatism following attacks of *petit mal*, and the states of consciousness previously described, was pointed out. The loss of inhibitory power, and tendency to irritability common to all patients subject to epilepsy was mentioned. In the brains of those who through heredity were predisposed to epilepsy and the allied neuroses, there was possibly a considerable difference in the mental development and education of the two hemispheres. Such a condition would render a man more liable to brain fatigue. The whole character of the incipient epileptic was that of a man with a brain easily exhausted. Given a heredity to the neuroses, there was no great step to that sudden discharge of energy which was named epilepsy. It was therefore suggested that in some cases of epilepsy the disease was due to a want of equal education or development in the two cerebral hemispheres, thus rendering the patient liable to unusual brain exhaustion.

The paper was discussed by Drs. Ireland, Byrom Bramwell, and Joseph Bell; and Dr. Lewis Bruce replied.

### Gall Stone.

Mr. Rutherford Morison read a paper entitled Notes on Cases of Gall Stone. Two classes of gall stone cases were characterised by an absence of the pain peculiar to that condition. In the first, illustrated by a case related, a gall stone was found in the dilated common duct, which it partially occluded. After a single severe attack of pain all pain disappeared, and for months or even years the only symptoms were jaundice with recurrent rigors, the jaundice being increased after each rigor. In such a case the gall bladder would be found to be thick walled, small, and contracted to such an extent as to have practically no cavity. The gall bladder had become functionless. In the second, of which a typical example was related, the gall bladder formed a large tumour, often mistaken for a movable kidney or other abdominal swelling. There was no jaundice. A gall stone was then found blocking and completely occluding either the neck of the gall bladder or the cystic duct. The gall bladder was distended and paralysed by a clear mucous fluid, its own secretion. Like the urinary bladder, the gall bladder would become contracted and hypertrophied when dealing with a partial obstruction; and like it would dilate painlessly when all its efforts to overcome the obstruction were futile.[1] A contracted gall bladder with adhesions might be regarded as pathognomonic of gall stone, and the recognition of this fact often encouraged the surgeon in his search for the offender in an apparently hopeless task. It was probable, for reasons given at some length, that rupture of the gall bladder was not an infrequent occurrence, and was the explanation of the firm adhesions found in many gall stone cases.

The paper was discussed by Drs. Joseph Bell, W. Russell, Byrom Bramwell, Surgeon-Major Black, Messrs. Cotterill and Cathcart; and Mr. Rutherford Morison replied.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Obstetrics.

Lombe Atthill, M.D., President, in the Chair.

*Friday, January 8th, 1897.*

### Exhibits.

Dr. W. J. Smyly showed five Myomatous Uteri which he had removed by Abdominal Panhysterectomy. One patient had died of pulmonary embolism on the twenty-second day. The

[1] R. Morison, *Annals of Surgery*, 1895, p. 199.

other patients went out well.—Dr. Alfred Smith showed: (1) A large Malignant Papilloma of the Ovary which he removed from a married woman aged 35. Recovery uninterrupted. (2) Two Subperitoneal Fibromyomata which he removed from a young married woman. The indications were great local tenderness over the tumour and inability of the patient to stoop so as to perform her household duties. Recovery rapid. (3) Two small Ovarian Glandular Cystomata, removed respectively from patients aged 23 and 19. Recovery. Dr. Smyly remembered a case in which ovariotomy was performed by Dr. Kendal Franks for papillomatous disease, and the disease recurred in the cicatrix of the wound. —Dr. F. W. Kidd exhibited an Intraligamentous Cyst, about the size of a goose egg, which he had removed from a patient aged 42. She made an excellent recovery.

### Ectopic Gestation.

Dr. F. W. Kidd read notes of three cases of ectopic gestation upon which he had operated, and exhibited the specimens from two of them. Each case represented a different form of the condition. One patient died on the second day after the operation: the others recovered.

### Ruptured Tubal Pregnancy.

Dr. Alfred Smith read a paper entitled Notes of a Case of Ruptured Tubal Pregnancy, and showed the specimen. The patient, aged 28, married eight years, was four times pregnant. In May, 1896, her uterus was curetted and a pessary put in. On August 17th she fell off a chair from weakness, and was carried into St. Vincent's Hospital. She was in a state of profound collapse; temperature 96° F., pulse soft and compressible; abdomen opened. The specimen consisted of a fœtus, distended Fallopian tube with ovary. The fœtus was 9 cm. long, and was attached by the umbilical cord, which was 13 cm. long, with well-marked spiral turns, to a tuft of placental tissue, which was seen sprouting from a rent in the superior border of the middle third of the Fallopian tube. In the ovary was a beautiful example of the corpus luteum. The chief points of interest were: (1) The absence of acute pain at the time of rupture; (2) there was no hæmorrhage *per vaginam*, nor any evidence of decidua being shed; (3) the uterus was in a position of retroflexion; (4) the operation was performed when the patient was in a state of profound collapse; (5) a large quantity of blood was left in the abdominal cavity; its absorption might have contributed to the remarkably rapid recovery of the patient.

### Pregnancy in a Uterus Bicornis.

Dr. Barry read a paper entitled Pyometra with Pregnancy in the Second Horn of a Uterus Bicornis. The patient, aged 23, unmarried, was admitted to the National Maternity Hospital on August 17th, 1896, complaining of severe pains in the right side. Menses at all times irregular and painful, but complete amenorrhœa since May—three and a half months. Was in Mater Hospital in 1893, under Mr. Hayes, complaining of pain in right side, when he removed the right ovary. After above history, following conditions noted: Breasts large, full, and nipples prominent, areola darkened with secretion in breasts. Abdomen enlarged and irregular in outline; on palpation two tumours readily made out—one to right side, quite hard, immovable, considered a fibroid tumour; the second to left, a pregnant uterus. Vaginal examination: orifice quite patulous and congested; on digital examination a large tumour is found filling up the pelvis, cervix high up and to left side; tumour in pelvis continuous with cervix. Vaginal examination modified previous diagnosis—tumour right side now looked upon as a fibroid, tumour to left side as extrauterine or a pregnancy in a bicorned uterus. Patient kept in hospital under observation for a fortnight with the result that the fœtal heart was heard night before operation. On September 5th, 1896, an incision was made in line of cicatrix of former opening. The tumour to right side was found firmly bound down by dense adhesions, which were with difficulty broken down, and tumour brought through abdominal opening, pedicle formed and tied with twisted silk ligature, tumour cut away, pedicle pared, stitched over, and dropped in. No difficulty experienced in removing left pregnant horn. Abdominal wound closed, no drainage used. The patient made a perfect recovery. The vaginal tumour was aspirated and 4 ounces of pus removed, with the result that the vaginal tumour practically disappeared. Dr. McWeeney reported as follows: 1. Fœtus 20 cm. long, attached by umbilical cord to placenta. The placenta projects slightly from os interna and is attached to fundus and posterior part of uterus; the ovary is of large size and contains a large corpus luteum and several small cysts. The Fallopian tube is healthy. 2. The uterine wall is 3 cm. (1⅛ inch) thick. The mucous membrane in a purulent and shreddy condition. Near fundus is a soft polypoid growth, about the size of half-a-crown. 3. On microscopical examination of this polypoid growth it is found to be a polymorphous cell sarcoma—a very peculiar structure and very distinct in its nature from the smooth muscle from which it springs.

The papers were discussed by the President, Dr. W. J. Smyly, and Mr. Heuston; and Dr. F. W. Kidd and Dr. Alfred Smith replied.

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## Section of Surgery.

*Friday, January 22nd, 1897.*

Professor Bennett in the Chair.

### Excision of the Tongue.

Mr. Wheeler read a paper on excision of the tongue, and referred to 61 cases that he had operated upon. He demonstrated that each particular case of cancer of the tongue generally required a special operation, and that no individual recognised operation would be suitable for every case. He never ligatured the lingual arteries prior to the operation on account of any dread of hæmorrhage during the operation. His practice was to extirpate the diseased tongue before removing the submaxillary glands and the enlarged lymphatic glands, as the foul diseased mass in the mouth was a constant source of irritation, and the longer it remained the greater chance there was of septic poisoning. He had operated on the tongue with the ordinary scissors, the thermo-cautery scissors, and the electric cautery, and for precision and celerity he thought that, in suitable cases, the thermo-cautery scissors was the best. There was no charring of the part, no sloughing, and no secondary hæmorrhage, for the ranine arteries were always ligated. He never performed preliminary tracheotomy before excising the tongue, as he considered there was no compensation to the patient for this additional operation, and no compensatory advantage to the operator. He emphasised the necessity of absolute cleanliness of the mouth and tongue prior to and after the operation. He believed that many patients were lost for want of attention, before and after this operation, to surgical cleanliness. He related cases of his ranging from three to fifteen years that had no return of the disease. The removed parts were submitted for examination to competent pathologists and microscopists, whose report was epithelioma.

After some remarks by the Chairman, Mr. Swan said he thought that Mr. Wheeler was to be signally congratulated on the fact that he had patients alive fifteen years after operation for this disease; but most surgeons would agree that cases were occasionally seen which presented all the clinical aspects of malignant disease of the tongue—namely, the ragged sore with a hard base, the emaciated appearance of the patient and the enlargement of the neighbouring glands, the age of the patient also being that at which cancer commonly occurred, and which were not yet cancer, but only simulated it, and got well under course of mercury.

Sir Thornley Stoker agreed that syphilis was a predisposing cause of cancer. Mr. Wheeler spoke of dividing the gustatory nerve as a means of relieving pain and salivation in cancer of the tongue. He had performed the operation on a good many occasions, and he had not found any marked benefit to result from that proceeding. He entirely dissented from the practice of transfixing the base of the tongue, because he believed it to be quite unnecessary. As to the thermo-cautery scissors, he thought it a totally unnecessary and objectionable instrument. In cases which were proper ones for the performance of the operation, perfect command over the vessels was obtained by performing Whitehead's operation, and using a clipped forceps if an artery began to bleed. He had of late years done no operation except White-

head's, and he believed it to be the best for removing the tongue in a case of cancer. Other procedures might in certain cases be necessary, but rarely. In the last case he operated on he found it necessary to go so far back that he had to remove the anterior artery of the palate and a portion of the tonsil on one side, and he found no difficulty in doing it by Whitehead's operation. He was in complete accord with Mr. Wheeler as to the deligation of the lingual arteries. Dr. Swan hit the nail on the head when he said that those arteries might be deligated when they came into view in such critical operations as the removal of the jaw, or of the submaxillary glands; but in ordinary cases he (Sir T. Stoker) did not believe deligation of the lingual arteries to be either necessary or advisable.

Mr. Tobin said that at present their system of dealing with this disease in the tongue was slipshod compared with what they did in dealing with disease of the breast. At present the practice in operations on the breast was to remove the lymphatic glands in their continuity with disease in the breast. In cancer of the tongue he should like to see an operation of such magnitude undertaken that not only would the diseased tongue be removed—not through the mouth, but through an incision underneath the jaw, so that the floor of the mouth and all the structures in their continuity could be reached as far as possible—but also the glands connected with it.

Mr. M'Ardle said the phrase "removal of the tongue" was hardly sufficient for nineteenth century surgery. Removals of the whole tongue, of a patch at the side of it, and of the front of it should be distinguished. If statistics were to be of any use they should be founded on something definite. He had never seen the slightest ill effect ensue from the removal of the tongue from outside, and within the last ten years he had carried out that form of operation a considerable number of times, making an incision down from the angle of the jaw and coming up again. He never did Kocher's operation except once. When performing the operation through the mouth they should see that every shred of the cancer was removed.

Mr. Lentaigne said that in operating for cancer of the tongue they ought always to make themselves certain as to whether there were diseased glands or not, and they could only effect a careful examination on that point by making an external excision. Up to two or three years ago they firmly believed in Whitehead's operation; but they did not get to the root of the disease by it, and if there were an extension of the disease to the glands, Whitehead's operation was not sufficient.

Remarks were also made by Mr. Doyle, Mr. Taylor, and Mr. Myles, and

Mr. Wheeler, in reply, said there was a band of tissue—whether connective or not was a matter of dispute—going from the submaxillary glands down to the lymphatic glands, and guided by that tissue they could find the glands and lift them out more perfectly after the subsidence of the others. It was not so easy with the submaxillary glands in a state of tension, or perhaps inflammation, to remove the whole of the glands perfectly, but when they waited until after the subsidence, everything could be removed perfectly, and they would not have the disease recurring in the site of the submaxillary space. In cases of what was called non-penetrating epithelioma, they would hardly have enlarged glands, and in such cases he had had the best results. He had recorded the history of his cases as fully as he could. There were only 10 that he could not account for. In 29 he knew that the disease returned. As to 22, he had no direct knowledge of the disease not having returned, but he heard indirectly that 5 of them were alive. He wished it to be clearly understood that where the glands were enlarged he not only took out the submaxillary glands, but followed down the connective tissue and eliminated the lymphatics.

## LIVERPOOL MEDICAL INSTITUTION.

F. T. Paul, F.R.C.S., in the Chair.

*Thursday, February 4th, 1897.*

### Serum Diagnosis of Typhoid Fever.

Dr. John Robertson (St. Helens) read a paper on this subject. A brief review of observations of earlier workers, and especially those of Pfeiffer and Kolle, Gruber, Durham, Widal, Delépine was given. The following points were dealt with: Methods of demonstrating the special action of typhoid blood serum on the bacillus of typhoid fever (*a*) in test tubes; (*b*) as hanging-drop preparations under microscope; the advantages of the latter method for clinical purposes; method of collecting blood in sterile large sized vaccine tubes; special apparatus for collecting; the preparation of the typhoid culture; dilution of the serum necessary; results obtained by various observers; results obtained in St. Helens during the past six months; value of early diagnosis of typhoid fever to the patient, and for public health purposes; use of known typhoid serum in identifying the typhoid organism.

After remarks from the Chairman, Professor Delépine (Manchester) emphasised the importance of using fresh cultures of the bacillus typhosus; he had noticed that old cultivations had of themselves a tendency to "clumping." To obtain such cultures the bacillus was grown on solid medium, and fluid cultures were made from day to day as required. It was important to avoid the slightest contamination; and he considered a magnifying power of 300 diameters sufficient to observe the reaction.

Dr. H. E. Durham (London) made some historical observations, especially indicating where he was at variance with Bordet's conclusions. He pointed out that experimentally the action of sera was not truly specific. In view of the positive reaction of bacillus enteritidis (Gärtner) with typhoid fever, it was possible that fallacious diagnosis may be arrived at in clinical cases. The action of serum of a typhoid patient in 5 per cent. dilution on B. enteritidis (Gärtner) was demonstrated. Blachstein's "artificial cholera serum"—chrysoidin—was also demonstrated in its action on cholera and several other vibrios. Lastly, a number of photographs were projected on the screen to illustrate the macroscopic and microscopic phenomena attending the mixture of various sera and various microbes upon one another, as well as the abnormal growth of microbes in appropriate sera.

Dr. Grünbaum emphasised the importance of dilution of the serum, and recommended that it should be accurate. On account of the action of normal sera and those of other diseases, a time limit is also necessary. He had also observed similar effects to those of the Canadian observers from the variability of virulence, but proper dilution obviated any confusion. The action of typhoid serum or other microorganisms was interesting, but did not affect the diagnostic value. That the reaction should be present from the third day of the disease was in accordance with experiments on animals whose blood first showed an agglutinative action generally about the third day after the first inoculation. He had not come across any case of enteric fever in which the reaction was not present at some time. The method did not depend on the motility of the pathogenic organism, as was shown by the agglutination of a diplococcus from a scarlet fever case by serum from another scarlet fever patient.

Dr. N. E. Roberts showed a hanging drop specimen of typhoid bacilli culture to which had been added the serum of a typhus patient four hours previously (dilution 1 in 20). The bacilli were motile and showed no "clumping." In contrast with serum from an enteric case, the bacilli ceased their gliding and darting movements in a few minutes, and "clumping" was marked in half an hour. Dr. Durham did not seem to attach so much importance to the cessation of movements of translation, and asked what was the meaning of this reaction—was it associated with immunity? Out of 1,300 cases of typhoid seen as Physician to the City Hospital, relapses occurred in 4 per cent.

Professor Boyce said no one would question the value of the test, and its simplicity made it incumbent on all to apply it. They had now only to send a capillary tube of blood to the Pathological Laboratory to receive an opinion. Professor Boyce agreed with the observations of Dr. Roberts, who was working in the laboratory, upon the reaction of typhus. Dr. Durham mentioned that he obtained a reaction with bacillus enteritidis. Dr. Campbell and himself had tried the reaction with a closely allied bacillus, and which was invariably associated with a very severe form of dysentery which had occurred in Rainhill Asylum, but they had not obtained "clumping" with typhoid serum.

In reply to Dr. ROBERTS, Dr. H. E. DURHAM remarked that immunity must not be regarded as a stone wall; it was very variable and only relative. Antibacterial and antitoxic immunity did not run hand in hand. The degree of immunity found in man was extremely low compared to that in artificially immunised animals.

SPECIMENS.

Specimens were exhibited by Dr. GEMMELL, Mr. ROBERT JONES, Dr. BARENDT, Mr. R. A. BICKERSTETH, Mr. LARKIN, Dr. LESLIE ROBERTS, Dr. GIVEN, and Mr. R. PARKER.

## LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

JAMES BRAITHWAITE, M.D., in the Chair.

*Friday, January 15th, 1897.*

INSTRUMENTS OF LOCAL AND HISTORICAL INTEREST.

MR. C. J. WRIGHT read a paper on this subject. He referred to the very ancient examples found in Pompeii and other parts of Italy, as illustrating more or less perfect forms of those in use at the present day, namely, catheters, probes, directors, scalpels, trephining instruments, uterine sounds and hooks, and anal and vaginal specula. These were seen recently in this country amongst the valuable collection exhibited by Messrs. Oppenheimer, at the annual meetings of the British Medical Association in 1894 and 1895. The *donaria*, or votive offerings to the medical deities, chiefly of terra-cotta, in this collection evinced much anatomical and pathological accuracy. Coming to later times, plates in Scultetus's *Armamentarium Chirurgicum* (17th century), of Hey's saws, and Weiss's dilator, were found, of which the forms at present in use were mere developments, and a drawing from the same work showed that suction for cataract was practised before that time. The following were then exhibited:—Stethoscope: original form as depicted in Laennec's book (about 1816); another later form, with stopper. Hey's saws: various forms (1803-1810). Lithotomy: Aston Key's case (1824), with straight-grooved staff and beaked knife, blunt and cutting gorgets, etc., according to Cheselden; knives and blunt gorgets used by the late Samuel Smith, of Leeds; and a pair of bone forceps which belonged to Liston, marked with his initials "R. L." The jubilee of anæsthesia rendered important the earlier modes of administration of ether. A glass receiver enclosing sponges was shown, corresponding probably with that described by Dr. William Squire in the BRITISH MEDICAL JOURNAL of October 17th, 1896, p. 1143, as the one used at the first administration of ether, at which he was present, in December, 1846; a sponge covered with mackintosh, used upon the reintroduction of ether to England in 1872; and Allis's cage inhaler, for open administration, brought from Philadelphia in 1875, and still used in America, were of interest. The obstetric examples were: Smellie's forceps, covered with leather (1754); Denman's short straight forceps (1794); Davis's short curved forceps (about 1841); pair of crotchets with English lock (Smellie's); pair of crotchets with sheath for guarding one point (Davis's); some "moxas, an old form of escharotic" and counter-irritant, for burning into the subcutaneous tissues, and consisting of pith and cotton soaked in pot. nit., completed the list. Mr. Wright concluded by appealing to members for contributions to his collection.

EMPYEMA OF MAXILLARY SINUS.

Dr. ADOLPH BRONNER read notes of a case of empyema of the maxillary sinus, in which the only symptom complained of was parosmia. He drew attention to the frequency of diseases of the accessory cavities of the nose after influenza. In most cases the symptoms of disease of the maxillary sinus were discharge from the nares, parosmia, and slight pain. In the case recorded parosmia was the only symptom. The sinus was opened through the alveolar process, and the opening kept patent by a gold pin attached to the false teeth. This was the most successful method of treating these cases. Dr. Bronner thought that many cases were overlooked, because the description of the disease in most textbooks was overdrawn and misleading.

SPONTANEOUS RUPTURE OF FEMALE BLADDER.

Mr. E. O. CROFT read notes of this case. A widow, aged 38, had suffered from piles for five years; these were removed on December 5th. There was no subsequent retention of urine, and progress was normal for eight days, when the patient complained of abdominal pain, and said she had felt a twitch in the body while reaching to move her pillow. Abdominal pain and distension continued, and the urine diminished in quantity, though a few ounces were drawn at intervals by the catheter. Temperature remained normal. The patient gradually sank and died on December 17th. At the necropsy a large quantity of urine was found in the abdomen. There was no peritonitis, adhesion, or evidence of tubercle or abscess in the pelvis or abdomen. The bladder was empty. On the upper and posterior surface of its peritoneal aspect was found an oval ulcer 1 inch by $\frac{1}{2}$ inch. From its thickened edges it appeared to be of old standing. The base was formed of the mucous membrane of the bladder, and the perforation through this was $\frac{1}{6}$ inch in diameter. Mr. Croft drew attention to the difficulty in diagnosis, owing to the retention by the bladder of some urine after the perforation took place, and also to the peculiarity of the ulceration taking place on the upper surface of the bladder.

LATERAL SINUS PYÆMIA.

Mr. MAYO ROBSON read a paper on a case in which he had removed part of the sinus and ligatured the internal jugular vein in the neck. The patient, who was extremely ill at the time of the operation, and was suffering from a high temperature with frequent rigors, made a slow but good recovery, and was now quite well. The wound in the neck healed by first intention, and the trephine opening, which had to be packed, healed by granulation.

A discussion followed, in which Mr. WALKER, Dr. BRONNER, Mr. WHITEHEAD, and Mr. HOLLINGS joined.

CARD SPECIMENS.

Mr. MAYO ROBSON showed (1) a case of Gastrostomy with a small oblique opening, and although the patient had been fed for eighteen months by means of a catheter through the artificial opening, there was no tendency to leakage. (2) A case of Pyloroplasty for Simple Stricture of the Pylorus, the operation having been done five weeks previously by means of one of the author's bobbins. The patient was rapidly gaining health and strength. (3) A large Calculus, weighing $5\frac{3}{4}$ ounces, removed by suprapubic lithotomy from the bladder of a middle-aged man, whose symptoms only dated back to four months before operation.

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HARVEIAN SOCIETY.—At a meeting on February 4th, Dr. R. H. MILSON (President) in the chair, the proposal that "at the ordinary meetings of the Harveian Society, except those at which the presence of patients is required, smoking be permitted in the Society's room," was negatived by a practically unanimous vote of the members present at the special meeting called to consider the subject on February 4th. The SECRETARY read extracts of letters received from several members. Those favouring the proposed change were Messrs. G. T. Phillips and Noble Smith, and Drs. T. D. Savill, J. Cook, Scanes Spicer, and W. F. Cleveland (a former President). Mr. Noble Smith thought it a reasonable proposal, and said that the British Orthopædic Society had allowed smoking from its very commencement, and that the plan had worked very well. Dr. Savill was convinced it would make the meetings much more popular, the chief reason for non-attendance at meetings of Societies being that it interfered with that post-prandial necessity, an after-dinner smoke. Dr. Spicer thought that smoking would create an atmosphere of ease, and absence of formality, which would encourage more members to join in the discussions. Dr. Samuel West was neutral. The members who wrote in opposition to the proposal were Messrs. Thomas Bryant, A. C. Goldney, W. H. Lamb, and Balmanno Squire, Drs. J. Cagney, S. H. Davson, C. J. Hare, and Stanley Smith, and Sir R. Quain. Mr. Bryant, a former President, wrote that several members did not smoke or like smoking, and that their wishes and tastes were worthy of attention; and

that personal indulgences were not quite consistent with serious work. Further, if the members desired that their deliberations should end in smoke, Nicotina might be worshipped after the President had risen from the chair. Mr. Goldney thought it hardly fair to the author of a paper to expect him to read it in an atmosphere of tobacco smoke. Mr. Lamb considered it would lower the dignity of the proceedings and the character of the Society. Mr. Squire wrote that smoking was not customary on serious occasions when men met to transact business, and it would make it appear as if members did not consider the business of their meetings particularly serious, and as if they could not cease from smoking even to give their attention to matters affecting the progress of their art. Dr. Cagney considered that the change would be a breach of faith with the non-smokers, and that the Society's room was not sufficiently well ventilated to allow of smoking with comfort. Dr. Hare, President of the Society in 1847-48, thought the proposed innovation both unnecessary and injurious. No one would really be one iota the better for the smoking; brains would not be the clearer, the attention more riveted, or the discussion more fluent, whilst someone's cough might be made all the worse. Men in training gave up entirely the use of tobacco, and intellectual athleticism was none the worse without it. Lastly, Sir Richard Quain, also a former president, wrote that smoking would be most disagreeable to a minority, it might be, of those who did not smoke. Such an atmosphere caused nausea and headache to some people, and members who suffered this discomfort must cease to attend the meetings, and be thereby deprived of those privileges which belonged to them after their election. To his mind the practice, if adopted, would be a breach of faith.—The President next called for the views of any present who were in favour of the proposal. No one responding, he asked for the opinions of opponents.—Dr. Norman Kerr stated that he was strongly opposed to innovations of that kind. He had smoked and had no personal prejudice against the practice, but he thought younger men might hold strong objections to it. If ever ladies were admitted members of the Society there would then be great objections to smoking; also it would be a great injustice to many men if smoking were permitted.—Dr. T. Morton thought smoking would lower the dignity and character of the debates in the Society. The proposal, if adopted, would change the environment of the Society, and this would slowly but surely alter the structure of the Society itself, for the Society was a living body. The fact that smoking was only to be permitted when patients were not present showed that the supporters of the innovation were rather ashamed of it. Smoking was permitted on two festive occasions every year—namely, at the dinner and annual meeting, and that should suffice.—Mr. Juler said all members might smoke at present at coffee time after the meetings. He had been present at meetings of the Ophthalmological Societies of Berlin and Paris, and never saw smoking at either of those scientific gatherings.—Mr. Roughton said that his reason for originally advocating the adoption of the proposal was that he thought more members might be thereby induced to attend the meetings. Neither he nor anyone else desired to thrust smoking on any members who were opposed to the change, and, seeing that there was so large an opposition to the proposal, he should vote against it.—The President thereupon put the proposition to the meeting, when it was rejected *nem. con.* A small proportion of the members did not vote.

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Society of Medical Officers of Health.—At a meeting on January 15th, Dr. G. P. Bate, President, in the Chair, Dr. F. T. Bond (Gloucester) read a paper entitled How shall we Legalise the Recommendations of the Royal Commission on Vaccination? He would include under that description the various expressions of belief and opinion scattered through the report, which had neither index, summary, nor insets, although there were but three or four which the Commissioners distinguished as recommendations—namely, the discontinuance of criminal proceedings and repeated penalties, the stricter supervision of tramps and common lodging houses, and the more general provision of calf lymph. They thought, however, that vaccination should not be optional, but "promoted" and "required" by the State; that the age might be extended from the third to the twelfth month, as in Scotland, except in the presence of an epidemic; that it might more often be postponed on account of ill-health or other causes; that great greater care be taken to avoid wound poisoning, the inspection being with this view deferred to the tenth or twelfth day, and any accidents treated by the vaccinators; that small-pox hospitals should be established at the discretion of the Local Government Board, and that compensation be made for losses sustained through isolation, closure of premises, etc. They admitted the value of isolation, but only as an auxiliary measure, and made a passing allusion merely to "sanitation," fully believing in its protecting power and in the comparative insignificance of the alleged evils. But while piously desiring the extension of vaccination and revaccination, they would enable any parent to evade it by simply stating to a magistrate or other official that he had "honest doubts" or "conscientious objections," while by dropping legal proceedings against the merely negligent they would surrender all power of enforcing or "requiring" vaccination, though they hoped that if the operation and inspection were carried out in the child's home the opposition would be less. Dr. Bond considered that it would be wiser merely to suspend for a few years the more obnoxious provisions of the Act, substituting temporary and tentative "orders"; that to distinguish between "honest" objection and neglect or apathy, the summons should be taken out as hitherto, and the costs paid by the objector, who by a public declaration in court might obtain exemption, to be entered in the vaccination register, but to hold good only until the child reached school age, or small-pox appeared in the neighbourhood. He thought that far less opposition would be presented to the vaccination of school children than to that of infants, while the difficulty of tracing defaulters, through change of residence or otherwise, urged against delay in enforcing primary vaccination would cease, since school attendance was everywhere compulsory, and the inspection of the arms would afford evidence of the previous performance or neglect of vaccination, as well as of "one place" and like insufficient operations. He considered that certificates should testify not merely to "success," but to the size and number of the vesicles, which should be entered in the register for future reference. He approved of home vaccination by public vaccinators, but could not agree to the recognition of every practitioner as such. He urged the transfer of vaccination from the Poor-law to the sanitary authorities, on whom all other duties connected with epidemic diseases already devolved. This would necessitate and hasten the long-called-for reorganisation of the sanitary service, adjustment and consolidation of areas, and appointment of whole-time and independent medical officers of health, who should be brought into touch with the Poor-law medical, registration, vaccination officers. He thought that the State might "promote" the extension of vaccination by sound information in simple language printed on the notice given at registration of a birth; and he asked the Society to pass a resolution embodying the chief points to be urged on the Government under the present circumstances, the discussion of which was adjourned to the next meeting.

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West London Medico-Chirurgical Society.—At a meeting on February 5th, Mr. Bruce Clarke, President, in the chair, a discussion was held on the disorders associated with the menopause. Dr. Amand Routh introduced this in a paper on The Menopause viewed from the Gynæcological Standpoint. He showed that the vulva was apt to become affected with local hyperæsthesias, such as pruritus, which was a symptom of many diverse conditions. Thus it might be due to a pure neurosis, to reflex causes such as early cancer of cervix, to mucous polypus or prolapsed ovary, or to kraurosis, local rashes, dirt, parasites, vaginal or uterine discharges, or irritating urine, as in cases of cystitis, acidity, gout, or diabetes. Kraurosis vulvæ and diabetic pruritus were described, with their appropriate treatment, and the internal remedies and external applications found to be most useful, whilst the cause of the pruritus was being removed, were mentioned. Intrapelvic climacteric affections were next considered, and the influence of the ovarian "internal secretion" was discussed, with the probability that the diminution of

this influence accounted for some of the climacteric phenomena. The hæmorrhages of the menopause were then dealt with, whether arising from malignant disease, fibroids, fibroid or mucous polypi, endometritis, or adhesive vaginitis. If vaginal and cervical disease could be eliminated, the uterus should be digitally explored after rapid dilatation, and a means of diagnosis and immediate treatment thus afforded. Functional pelvic and constitutional troubles were next considered, and it was pointed out how advisable it was to avoid local treatment at this age unless it were imperative, for the mind of these patients needed to be led away from their pelvic organs. It must be remembered that if a woman had had chronic pelvic trouble the symptoms would be very marked at this age, even if the local evidence had greatly lessened or was altogether absent. The subjects of tachycardia and "flushings" was discussed, and the latter was shown to be very trying to the patient, and was described in detail. The treatment was most successful by combined nerve sedatives, antispasmodics, and purgatives. All such patients needed much encouragement.—Mr. CHARLES TUKE discussed the subject from the psychological aspect. He pointed out that the neuroses seen showed many gradations from nervous irritability, with effects on the character and temper to fully developed insanity, which had a tendency in a large proportion of cases to melancholia or a delusional insanity, less frequently to mental weakness, and rarely to general paralysis. The change in the reproductive organs led in some to a morbid querulousness, in others to a jealousy, either of which might seriously disturb domestic peace. Sexual excitement was sometimes developed which exceeds all control. Drunkenness and the drug habit are specially noted at the climacteric. The treatment advocated was change of air and scene, removal from friends, together with attention to the bodily health.—Dr. HARRY CAMPBELL contended that practically every woman suffered from depression of spirits at the climacteric. He alluded to the frequency at this epoch of morbid cephalic sensations, such as a sense of weight, burning, etc. He had observed post-climacteric monthly manifestations in over a hundred cases, and in one case had traced them to beyond 70 years of age. He was inclined to believe that the menstrual rhythm continued in all women to the end of life. After remarks by Dr. MANSELL MOULLIN, Dr. HENRY SUTHERLAND remarked that he did not believe that the change of life *per se* had much influence in causing insanity at this period. His data were based on an investigation of 101 cases of insanity at this period. Mr. MCADAM ECCLES alluded to two points of interest to the surgeon in connection with the menopause, (1) as to operations at this period, (2) as to whether the involution of the sexual organs had any effect on mammary cancer. Dr. FORBES ROSS referred to the insanity occurring in the male sex at a period corresponding to the climacteric, and that some derangement of the abdominal organs was associated with the mental disorder. Dr. MCCANN agreed with Dr. H. Campbell as to the continuance of the menstrual phenomena after the blood loss had ceased, as the discharge of blood may be looked upon as an accidental concomitant of menstruation, examples of so-called white menstruation being not uncommon. Dr. CHAPMAN advocated belladonna in the treatment of tachycardia at the menopause. Remarks were also made by Dr. CAMPBELL POPE; and Dr. ROUTH replied.

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NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—At a meeting on February 3rd, 1897, Dr. W. B. RANSOM, President, in the chair, Mr. EVAN POWELL, in a paper on the Insanity of Childhood, said that the disease was rarely met with unassociated with idiocy or imbecility. The variety and range of the mental disorder varied with the degree of mental development. The insanity of the child was for the most part that of the senses, and the chief characteristics were restlessness, viciousness, and destructiveness. He described a case of mania in a boy aged 7, who was said to have been frightened by a dog at the age of 2, and soon after to have had a sort of "fit;" he showed now and again certain peculiarities of conduct up to the date of the attack of mania; his symptoms were acute excitement with violence and destructiveness, and there was inco-ordination in the muscles of the limbs and much tremor of the face. A week after admission he had an epileptoid seizure, became unconscious and rigid, but was not convulsed: after this he steadily improved, and was discharged after two and a half months' residence. As age advanced the insanity simulated that of the adult, and delusions and hallucinations appeared, but these were transitory and less liable to become fixed. Mr. Powell related two other cases of acute mania in boys aged 14, the result of injury to the head and epilepsy. The latter, he said, was one of the most common causes of insanity in children. A peculiar practice he had noticed in some cases was the habit of climbing. Melancholia in children was rare; the disease was mostly of the simple form, but occasionally it assumed an active character with delusions and hallucinations; but the most striking form the melancholia of children manifested itself was by suicide. Moral insanity, another variety of the derangement of the affections, was sometimes met with; there was more or less complete perversion of the moral sense, and the child exhibited inordinate vicious propensities, either to steal or destroy things, to torture animals, or to commit sexual vice. He recommended that such cases should be treated away from home, either under the care of private individuals or in suitable homes. In conclusion, Mr. Powell related three cases of general paralysis in children aged respectively 12½, 13, and 14 years. Remarks were made by Messrs. ANDERSON, WOOD, WATSON KINGDON, and Miss GRAY.—Mr. A. R. ANDERSON read clinical notes of two cases in which he had operated for Perforating Gastric Ulcer. The first patient lived six weeks, and succumbed to the results of a subphrenic abscess, the seat of the ulcer being found firmly healed. The second patient made an uninterrupted recovery and was shown at the meeting.—The following cases were also exhibited: Dr. C. BELL TAYLOR: (1) Bilateral Glioma; (2) Simple Cataract Extraction in patient aged 96; (3) Skin Transplantation for Ectropion.—Mr. STEVENS showed a pathological specimen of Gastric Ulcer communicating with a Hepatic Abscess.

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MIDLAND MEDICAL SOCIETY.—At the fourth ordinary meeting, held on January 20th (Mr. W. F. HASLAM in the chair), the CHAIRMAN showed a patient, aged 51, on whom he had operated twelve months before for pyloric obstruction. She gave a history of abdominal pain, vomiting, and loss of flesh for four months; and a hard tumour, the size of a large egg, could be felt above and to the right of the umbilicus. A portion of the jejunum was fixed to the anterior surface of the stomach by means of a Murphy's button. She was now apparently quite well, and could eat anything. The button had not yet been recovered.—Mr. JOHN W. TAYLOR showed (1) A Large Myoma of the Uterus (together with the uterine appendages) which he had successfully removed by Doyen's operation of panhysterectomy from a patient 33 years of age. A myoma had been previously removed by so-called clamp "hysterectomy" in 1892. (2) A Uterus, together with the appendages of the right side, and a tumour of the left broad ligament, which he had successfully removed by Kelly's operation. In this case also a clamp operation had been performed in 1891.—Dr. T. STACEY WILSON showed a specimen of Intrathoracic Tumour—primary lymphosarcoma of the bronchial glands.—Mr. ALFRED FREER read a paper on the Report of the Royal Commission on Vaccination, in which he criticised the report as being unintelligible to the general reader, and as being marked by timidity and uncertainty, and lacking entirely any appearance of authority. He related his own great experience of small-pox and vaccination, and mentioned that he had never seen syphilis as the consequence of vaccination.—At the fifth ordinary meeting, held on February 3rd, Dr. CARTER (President), and afterwards Dr. FOXWELL in the chair.—Mr. MORRISON read notes of a case of Fracture of the Clavicle by Muscular Contraction.—Dr. FOXWELL showed a case of Early Disseminated Sclerosis in a young man. No similar disease, or neurotic predisposition, could be traced in the sufferer's family. The disease was attributed by the patient to hard work in a stooping position, and the first symptom was vertigo of increasing intensity, becoming so severe as to cause the patient to fall. The present symptoms and signs were extremely spastic gait and spastic tremor of the legs while standing, with marked preservation of volitional power, and disappearance of the tremor in the recumbent posture: spastic expulsion of the urine, and only a very little tremor of the hands near the completion of delicate co-

ordinate movements. Affection of the speech was doubtful, and not recognised by the patient and his friends; but there was slight nystagmus on strong lateral conjugate deviation, chiefly to the right side.—Dr. Saundby showed the Kidneys from Three Cases of Diabetes Insipidus, which had died from uræmic coma. The first pair, which showed well marked hydronephrotic sacculation, came from a case published at length in the *Practitioner* for January, 1895, and the patient was a young man who had suffered from polydipsia and polyuria all his life, but during his final stay in hospital the amount of urine was less, between five and six pints, and the urea only 200 grains daily; he died comatose on the eighteenth day after admission. The kidneys shown next were from the body of a young man who had had polydipsia and polyuria for four years: when seen last September his urine was only from five to six pints daily, and contained 300 grains of urea. He died of coma on January 11th. The kidneys were sacculated and wasted, the microscope showing subcapsular interstitial nephritis. The last pair of kidneys belonged to a case who had died in the General Hospital from uræmic coma; for a month before admission the patient had suffered from thirst and polyuria. The urine contained a little albumen, and varied in amount from five to seven pints. The urea was estimated soon after her admission only, and was then stated to be 700 grains (?) These kidneys showed no trace of sacculation, but the cortical substance was atrophied, and the microscope showed similar subcapsular interstitial nephritis, as in the former case. A fourth illustration of this condition was likely to be afforded by a young woman still under observation, whose daily output of urea was from 200 to 250 grains. Dr. Saundby referred to the cases published in *Beale's Archives* in 1861 and 1862, by Dr. Strange, of Worcester, and Dr. Eadie, but he remarked that the lesson contained therein had been unheeded by that generation, and had had no definite significance for himself, although well known to him, until his first fatal case two years ago. The point he wished to bring home was that cases of diabetes insipidus were liable to suffer from secondary wasting of the kidneys, causing fatal uræmia, and that this was common enough to require modification in the current prognosis which regards this disease, as but little dangerous to life, although generally incurable.—The President read a paper on A Plea for More Accurate and Systematic Feeding of Infants. He insisted upon the greater attention which should be given to the composition of infant food, from whatever source it was derived. He discussed the composition of human milk, the variations usually met with in practice, and the best means of overcoming them. Reasons were adduced for the preference of cow's milk as a substitute for human milk—and tables were submitted for more accurate adjustment of milk to infant requirements. It was pointed out that by more careful feeding, accompanied by periodical weighing of infants at short intervals, much might be done to anticipate and prevent serious gastro-intestinal disorders.

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Kidderminster Medical Society.—At a meeting on January 29th, Mr. W. Moore (President) in the chair, Dr. Dudley was elected a member of the Society.—Mr. J. L. Stretton showed (1) a boy, aged 13, upon whom he operated for the Radical Cure of Hernia in October, 1896, with a perfect result. (2) A man, aged 30, who strained himself seven months ago while lifting a heavy weight, and ever since had suffered from pain in the left chest and shortness of breath. When first seen about six weeks ago, there was a systolic murmur heard to the right of the sternum and conducted upwards, but this had disappeared; there was also a marked difference in the volume of the pulses felt at the wrists, and they were not synchronous; this difference was still very marked, the left pulse being very thin. There was no specific history, but he was decidedly neurotic. Mr. Stretton thought that, as the result of the accident, there was some dilatation of the aorta. An interesting discussion ensued. Some members considered that his symptoms were due to nervous conditions.—Mr. W. Hodgson Moore showed (1) a young woman with Specific Disease affecting the Bones of the Lower Extremities. She had derived benefit from large doses of iodide of potassium, but when pushed it did not remove the whole of the disease. He raised the question whether there was not some other disease in association with syphilis, but the general opinion of the meeting was against this. (2) A Plaster-of-paris Jacket which he had to Remove from a Boy who complained of considerable Pain in the Dorsal Region. When removed it was found that a halfpenny had become fixed in the mid-dorsal region, and by pressure caused considerable ulceration. He had dropped the coin down his back some time before it gave rise to any symptoms.—Mr. E. P. Hasluck showed a Heart with very extensive Calcareous Degeneration of the Aortic Valves, from an old man, aged 74. He was ill only for a few hours, and died of exhaustion. The degeneration was so extensive that the cusps were rigidly adherent, and gave a distinct metallic ring when struck; they felt like rough stones. He did not, however, exhibit any serious symptoms, though he was short of breath the last five years. He was walking about apparently in good health within a few hours of his death.—Mr. S. Stretton read a paper entitled, Some Notes on the Present and Future General Practitioner.

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Sheffield Medico-Chirurgical Society.—At a meeting on January 28th, Mr. Reckless (President) in the chair, a resolution of congratulation to Lord Lister on his elevation to the peerage was passed with acclamation.—Mr. Simeon Snell showed (1) a baby with Anophthalmos and Cyst of Right Lower Eyelid, (2) two cases of Rupture of Choroid, (3) Subconjunctival Dislocation of Lens with Rupture of the Globe above, (4) Retinitis Pigmentosa with an unusual amount of Pigment, (5) Herpes Ophthalmicus. Mr. Snell related particulars of a case of Distended Frontal Sinus. The patient had undergone a similar operation fifteen years previously, and had remained well for twelve years. About three years since a tumour at the inner orbital region reappeared and increased until she again came under observation in November, 1896. There was then considerable prominence and outward displacement of the eye. The sinus was opened from the orbit, and a drainage tube passed into the nose. Stereoscopic photographs of the patient before and after the operation were shown.—Mr. Archibald Young showed a case of Molluscum Fibrosum.—Mr. Archibald Cuff showed cases illustrating some Lesions of the Joints and Bones occurring in the later stages of Congenital Syphilis, and made remarks upon them; they included forms of sclerosing osteitis, and necrosis of the tibia, humeri, ulna, and radius, enlargement of the epiphyses of the long bones, and in one case lengthening of the affected bone (tibia). Necrosis of the frontal bone was also present in one case. The joint lesions included the usual ones found in syphilis, and were in the main symmetrical. The bone lesions, on the other hand, were asymmetrical, contrary to what is usually taught.—Dr. Sinclair White showed: (1) A lad, aged 11, with Atrophy of the Thenar Eminence and Bulbar Enlargement of the Tips of the Thumb and Index Finger, due to implication of the median nerve in the callus of a badly-set fracture of the humerus. (2) A Large Calculus removed from the Prostatic Urethra of a boy. The calculus had a uric acid nucleus which, becoming impacted in the prostate, had increased in size and produced retention of urine.—Dr. Arthur Hall demonstrated the presence of borax in the urine from absorption by the skin. The President, Dr. Keeling, Mr. Pye Smith, Dr. Sinclair White, Mr. Atkin, Mr. Snell, Dr. Eastes, and Mr. Cuff made remarks.

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Manchester Medical Society.—At a meeting on February 3rd, Dr. Graham Steell, the President, delivered the annual address, his subject being Heart Disease: a Retrospect over Five-and-twenty Years.—Mr. J. E. Platt read a communication upon some points in the Diagnosis and Treatment of Fractures of the Lower End of the Humerus, based upon a series of 60 cases which he had treated at the Manchester Royal Infirmary. The cases included 11 of separated epiphysis, 1 of partial separation of the epiphysis, 7 of transverse fracture at or near the condyles, 3 T-shaped fractures, 20 fractures of the external condyle, 11 of the internal condyle, and 7 of the internal epicondyle. The manner of growth of the lower epiphysis of the humerus and the fact that separation of the epiphysis as a whole probably never occurs after the age of 13 years, were referred to. The occurrence of cubitus

valgus and varus after oblique fractures of the condyles was mentioned, and a means of preventing these deformities, when the fractures were treated with the elbow flexed, was described. The importance of immediate reduction of the displacement of the fractured portions of bone was insisted upon. The relative advantages of anterior and internal angular splints in the treatment of these cases were discussed, and the former was recommended, since it had been found to keep the fragments in good position much more readily than the latter. For the reduction of the swelling around the elbow a slight amount of pressure with cotton-wool had been found more effective than evaporating lotions. The use of passive movements of the elbow-joint in the treatment of these fractures was condemned; some of the cases had been treated with passive movements, others without passive movements, and it was pointed out that the latter cases had on the whole recovered in a shorter period of time than the former. Seldom had it been found, except in cases where the displacement of the fragments was not properly remedied, that those fractures which were treated without passive movement left any very prolonged stiffness of the elbow-joint.

# REVIEWS.

ANATOMIE PATHOLOGIQUE: CŒUR, VAISSEAUX, POUMONS. [Pathological Anatomy: The Heart, Vessels, and Lungs.] Par MAURICE LETULLE, Prof. Agrég. à Paris. Paris: Carré et Naud. 1897. (Royal 8vo, pp. 448, 102 illustrations, 31 coloured.)

THE author puts forth this book not as a great treatise on pathology, for which he believes the hour is not yet come, nor as an elementary manual with encyclopædic knowledge forcibly compressed into a small space, but as a series of studies in pathological anatomy, the result of many years' pathological teaching and research. He has accordingly taken for his subject a part only of the body, and has not treated it as a compiler of the opinions of other men, but has given his own experience, his own results, and his own views.

Such work not only forms the necessary foundation for great theories, but is far more pleasurable, and indeed profitable, to the reader, than the compilations in which the author's own opinions are lost amid a chaos of references. An original book is a real luxury, and the publishers of this, by the excellence of the print and the beauty of the illustrations, have done their best to add to the pleasure that it gives.

An idea of the scope of the work may be given thus. The first 150 pages are devoted to the heart. The chapters are upon: 1. General anatomy and physiology, including the direction and measurement of the muscle fibres, and a study of the currents of blood within the heart, showing their directions and points of pressure. 2. Careful directions for examining the heart *post mortem*. 3. Dilatations of the heart with a study of the change which results in the cardiac current. 4. Under Hypertrophy are sections on the weight and volume of the hypertrophied heart, on the question of hyperplasia and hypernutrition, and on the evolution of the hypertrophy. 5. Myocarditis, acute and chronic. 6. Interstitial lesions—œdema, hæmorrhage, adiposis, sclerosis, aneurysm, and lesions of the coronary arteries. 7. Endocarditis. 8. Valvular disease. 9. The lesions which are found in asystole. 10. Pericarditis. All are treated in a manner forcible and fresh, in which the author often, of course, agrees with others, but often also differs from them with both judgment and originality.

His argument on the evolution of cardiac hypertrophy will serve as an example. Pathology, he says, cannot take account of "essential" hypertrophy (that of growth, or effort), since this never leads to death. Morbid hypertrophy is always secondary to obstruction. That of valve disease is easy to explain; where no valve disease exists the question is of extreme difficulty. Some cases are ascribed to atheroma of the vessels, yet often atrophy, not hypertrophy, exists. In Bright's disease, neither the actual decrease of the kidney area nor the alteration of the rest of the vascular tract are sufficient or constant causes; and although it is plain that in some way the heart is subordinate to the kidney, there is no exact proportion between the lesions in the two. He maintains, first, that the hypertrophy of Bright's disease is always with dilatation; and, secondly, that it is a simple hypertrophy, and not originally a sclerosis, as many Frenchmen have argued.

In a work on morbid anatomy, one turns naturally to the so-called chronic inflammations to test an author's views and capacity. Sclerosis of the heart LETULLE considers an uncommon lesion. After describing forms of sclerosis as seen in this organ, he discusses the theories of its causation through the blood vessels by obliterative endoarteritis, or by infarction, and, after dismissing them as inadequate, considers whether it can be referred to a primary degeneration of the muscles, or to a primary outgrowth of the interstitial tissue. He declares himself unable after careful study to accept any conclusions other than that both lesions occur and progress together. One naturally respects a man who refuses the great temptation of the neatest theory.

We have no space to discuss the chapters on the vessels and lungs, and have wished rather to give specimens of the author's method than to criticise his views. To those who have themselves studied these subjects, and who know the difficulties they contain, we can confidently recommend the work. They will find it full, weighty, and eminently suggestive. We have no doubt they will share our wish that the author had permitted himself even more latitude in speculation as to the causes of the appearances which he so ably describes, yet this is but in harmony with the self-restraint and moderation with which the book is instinct.

EPICUREAN SCIENCE AND POETRY; SELECTED FROM LUCRETIUS. By ISLAY B. MUIRHEAD, M.D. London: John Bale and Sons. 1895. (Fcap. 8vo, pp. 76. 3s. 6d.)

WE have been guilty of an injustice in not publishing an earlier notice of this modest but genuine essay. Dr. MUIRHEAD begins his work with an introduction on the genius, the doctrines, and the influence of Lucretius; and the rest of the volume consists of translations of detached passages of the *De Rerum Natura*, such as to convey in readable form a faithful impression of the manner of the poet and of the system under which the universe presented itself to his imagination. Now we have some knowledge of the current criticism of the poem, and we do not hesitate to say that Dr. Muirhead's introduction is as much his own as such a thing can be, and excellent both as a criticism of the genius of the poet and the thought of the period in which he lived. It is a ripe, cultivated, and philosophical appreciation.

As regards the translations (in verse)—well, we do not take kindly to translations as a rule. There is enough fine literature in English for those who can read no other tongue. Still, all are scholarly, many are happy, and we admit that to know something about Lucretius is needful to all persons who would learn what great things have been in literatures other than their own. Moreover, a study of Lucretius is peculiarly interesting at the present time of the western world. Even our friends the "pyschological school in literature" have made the great poet meat for their ingenuity! Professor Stampini, of Messina, using Jerome and Suetonius of course, declares that the love philtre myth is grim physiological fact: and needless to say, the usual "internal evidence" is distilled from the poem itself, such as any critic may find who has a nose for the enormities of genius. Stampini's "masterly contribution" seems unfortunately to be rather a masterly mare's nest, even supported, as it is, by the Libero Docente Valmaggi, of Turin, who is, however, admitted to be "over coloured" by the anthropological doctrines of his university. Out of the legend of the potion, and the poet's love for Astericos, these modern anatomists find that Lucretius was the victim of "a form of epilepsy in which maniacal symptoms, mental extravagances, melancholic hallucinations alternated with an active period of extraordinary cogitative power, with an energising of intelligence, of imagination, of all the psychical forces which combine towards the evolution of a great work, at once philosophical, artistic, and poetical." Prodigious! To us this stuff is as false in literature as it is in physiology; and if the industrious journalists who have been copying it had checked their morbid curiosity by reading articles by Dr. Woltjer, in

*Mnemosyne*, part ii, 1895; and by Mr. John Masson, in the *Classical Review* for October, 1896, they might have learned that these monstrously garbled stories are valueless. It is a great pleasure to turn from such unhealthy and baseless speculations to Dr. Muirhead's sober study, and we trust his tiny introduction to Lucretius may find many readers.

## NOTES ON BOOKS.

*The Humanities of Diet.* By Henry S. Salt, Humanitarian League Publications, No. 23. (London: Wm. Reeves. 1897. Cr. 8vo, pp. 22. 2d.)—Mr. Salt has written a very pleasant essay on food reform, which is well worth reading, though this is not the time of year to make converts to a vegetable diet. He upholds vegetarianism rather for its humanity than for its practical results, and here he is on sure ground. There is not a shadow of doubt that the use of animals for food involves a vast amount of pain, which would be lessened by better methods of carriage and slaughter. It is impossible to find good reasons for vegetarianism in anatomy, physiology, chemistry, and history, but the appeal to humanity is a strong argument, and will gain in strength as we grow more humane. Mr. Salt should put his pamphlet in some covering less ugly than brown paper, and should issue it again when the hot weather comes.

*Anleitende Vorlesungen für den Operations-cursus an der Leiche* [Operations on the Dead Body]. Von Prof. E. von Bergmann und Dr. H. Rochs. Dritte erweiterte Auflage. (Berlin: August Hirschwald. 1896. Cr. 8vo, pp. 298. 63 Illustrations. M. 5.)—In this book an attempt is made to describe the most important operations of surgery which can be performed on the dead body. Fifteen lectures are devoted to the subject. The first five deal with "ligature of arteries." The operations are for the most part well described, particular attention being directed to the anatomical conditions met with during the stages of each operation. Several illustrations of the anatomy of the region dealt with are given, but in most instances it would have been better to have given a transverse section of the part, so that the relations of the vessel would be more apparent. The sixth chapter deals with tracheotomy, laryngotomy, and œsophagotomy. Six chapters are devoted to amputations and resections of joints and bones. The value of these might have been considerably increased by the addition of a few diagrams illustrating the lines of incisions. The final three chapters include descriptions of operations on the fifth nerve and its branches, on the urinogenital organs, and on the rectum. The operations on the abdominal viscera have been omitted. The book is not a complete manual of operations upon the dead body, but, as regards the subjects of which it treats, it is a useful elementary manual for a first course of operative surgery.

*Die Mikrotechnik der thierischen Morphologie.* [The Microscopical Technique of Animal Morphology.] Eine kritische Darstellung der mikroskopischen Untersuchungsmethoden. Von Dr. med. Stephan Apáthy, Prof. der Zoologie und vergleichenden Anatomie an der Universität Kolozsvar. (Braunschweig: Harald Bruhn. London: Williams and Norgate. 1896. Demy 8vo, pp. 326, 10 woodcuts. 7s. 9d.)—This is an original work on the subject of microscopical technology. In it the various methods which have been made use of at different times by microscopical observers are described and discussed. The book is divided into two parts. The first or general portion comprises an account of the objects of microscopical investigations, the history of microscopical technique, which is divided into three periods, and general considerations upon all kinds of microscopical work in relation to animal morphology. The second or special part is devoted to the elucidation of the different methods which are made use of in the examination of animal organisms without the assistance of chemical reagents. The author has attempted to explain on a scientific basis, as far as possible, the different appearances which are met with in tissues during the course of an examination, and in this he has succeeded fairly well. In the last portion of the book a chronological table of the different workers in biology who have identified their names with special investigations and discoveries is given. The volume will be found to be of considerable value as a book of reference owing to the large number of historical facts which are given, but it might have been improved in this respect by the addition of an index.

*Nursing in Workhouses.* A paper read at the South-Eastern Poor-law Conference by Charles S. Roundell. (London: Knight and Co. Cr. 8vo, pp. 23. 6d.)—This is a useful contribution, and will be of much service to those who are trying to master the complexities of the question. Mr. Roundell has dealt with this controversy in a plain statesman-like manner. He places the present condition of workhouse nursing before his reader, points out the anomalies of the nurse's position and the difficult conditions under which she does her work, and then goes on to suggest remedies, all of which read as practicable, and have the merit of going to the root of the matter. Mr. Roundell insists more than once upon the great mistake made in administration by requiring that the master and matron shall be married; he lays much stress upon the difficulties thus imported into the harmonious working of the workhouse machine through adherence to this antiquated custom, which according to his showing is the cause of very many of the troubles in controlling the nursing staff with which the country guardians are confronted. We trust that this little pamphlet will have a wide circulation, and that above all it may wile away many a leisure hour in the Local Government Board Office.

### Reports and Transactions.

The new volume of the *Transactions of the Ophthalmological Society of the United Kingdom* (vol. xvi, session 1895-6. London: J. and A. Churchill. Demy 8vo, pp. 376, price 12s. 6d.) contains the full text of the Bowman Lecture for 1896, by Professor H. Snellen, of Utrecht, who took for his subject Vision and Retinal Perception, and discussed it not only with acuteness, but with clearness. Another important communication is the introductory address delivered before the Society in 1895 by the President, Mr. Nettleship. The rest of the contents consists of reports of cases, among which may be mentioned a communication by Mr. W. H. Jessop, on Three Cases of Exophthalmic Goître, with Severe Ocular Lesions; a Case of Recurrent Paralysis of the Ocular Nerve, by Mr. Holmes Spicer and Dr. Ormerod; one of Acquired Nystagmus in Occupations other than Coal Mining, by Mr. Simeon Snell; and an account by Mr. Devereux Marshall, of the Extraction of a Piece of Metal from the Vitreous with the Electro-magnet, good vision being retained. A word must be said as to the excellent printing of the volume and the beauty of the ophthalmoscopic and other illustrations reproduced.

## REPORTS AND ANALYSES
AND
## DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

### SPUTUM BOX AND STAINS.

Some minutes are apt to be wasted in collecting the various requisites for examining sputum for tubercle bacilli. The sputum box invented by Dr. Fearnley and prepared by Messrs. Freshfield Reynolds, chemists, Harrogate, price 12s. 6d., post free 13s., is of convenient size, and contains scissors, forceps, duster, glasses, slides, coverslips (in a bottle of methylated spirit), washleather pads (for polishing coverslips), a box of matches, and drop bottles with carbo-fuchsin, methyl blue and $H_2SO_4$ solution, and cedar oil—in fact everything wanted for staining the bacilli. The printed directions are concise and simple, so that practitioners, even if not familiar with the ordinary methods, can hardly make a mistake. Those already accustomed to staining phthisical sputum will perhaps slightly modify the method recommended in the directions, but will find the box and its con-

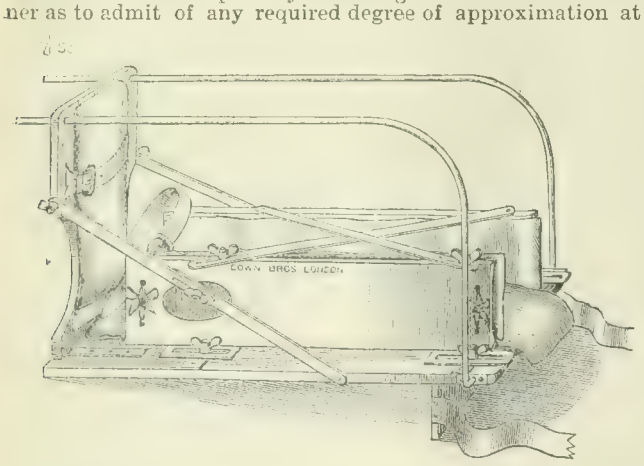
tents equally handy for their own variation. The box was described by Dr. Fearnley in the BRITISH MEDICAL JOURNAL for August 22nd, 1896, p. 487.

## LACTOMALTINE.

THIS is a preparation containing extract of malt, milk and cream, in which the milk fat, it is claimed, is present in quantity as great as can be obtained from preparations containing cod-liver oil merely, and its digestive properties are completely ensured, the fat being readily absorbed by the digestive organs. According to our analysis, it has a great digestive action on amylaceous substances, having the power of converting its own weight of starch in about twenty-five minutes at 70° C. It is therefore a good malt preparation. When mixed with water it forms an emulsion in which the milk fat is finely disseminated. Lactomaltine is also prepared with hypophosphites. It is contained in a specially-shaped bottle covered with a very suitable celluloid cap. It can be obtained from the Lactomaltine Company, 35, Snow Hill, E.C.

## A NEW FRACTURE APPARATUS.

A NEW fracture apparatus has been designed by Mr. F. St. John Kemm, of Worle, Weston-super-Mare, with a view to furnish medical practitioners with every requisite for treating any fracture of the leg or foot in an easily portable form and at small cost. It consists of a back splint into which a footpiece can be fitted, so as to suit the different lengths of limb at any desired angle, and two side splints. The latter are attached to the back splint by travelling screws in such a manner as to admit of any required degree of approximation at




either end, and are therefore capable of accurate adjustment to the different diameters of the leg. The same arrangement permits of their being altered at will, as swelling takes place or diminishes, or for the application of dressings, etc., without disturbance of the fracture. A rectangular rod passes from either side of the back splint to the top of the footpiece, and forms a cradle. The special advantage claimed for the apparatus is that as the limb is exposed to view during the entire course of treatment, any displacement can be at once rectified, and the occurrence of gangene, venous or arterial stasis, sloughs, inflammatory fibrosis of muscles, etc., avoided. The splint is manufactured by Messrs. Down Brothers, 21, St. Thomas's Street, London, S.E.

INEBRIETY IN LADS.—There have been several cases of drunkenness among young lads before the police-courts recently. A few days ago, at the Perth Sheriff Court, a lad of 14 was charged with having stabbed another lad of 16. From the evidence it appeared that one of the pair had purchased a pint bottle of whisky, and that both were very much the worse for liquor at the time of the occurrence. These charges against young people of violence during intoxication, who when sober have no intention of wounding, lend additional force to the urgency of the plea for instruction in the nature and properties of alcohol in every school, an example set our educational authorities by the French Minister of Education.

# MEDICO-PARLIAMENTARY.

*HOUSE OF COMMONS.*

MIDWIVES' REGISTRATION.

IN reply to Mr. SCHWANN, the HOME SECRETARY said: The Lord President of the Council informs me that the Association for promoting the compulsory registration of midwives intend to promote a Bill with this object during the present session, and that he has under consideration the question of receiving a deputation from the Association with regard to it.

Mr. TATTON EGERTON obtained leave to introduce a Bill "for the Registration of Midwives," and subsequently brought in the measure, which was read a first time.

BARRACK SCHOOLS.

In reply to Mr. PICKERSGILL, Mr. CHAPLIN said: The children who are temporarily detained in workhouses, under remand by magistrates, prior to being sent to industrial schools, are placed under the charge of the guardians, and, whilst they are under their care, are maintained at the cost of the rates. I am advised that they are children to whom the provisions of the Metropolitan Poor Act, 1867, would apply. In further reply to Mr. Pickersgill, Mr. Chaplin said: The hon. member is under a misapprehension if he supposes that the Local Government Board propose to constitute a new central authority for the government of the metropolis. The order which the Board propose to issue has reference to the constitution of an authority to undertake the charge of certain classes of children in the metropolis who are now maintained at the cost of the rates, this being one of the recommendations of the Committee referred to. I cannot give the undertaking which the hon. member asks for. Mr. Chaplin also stated that no arrangement for the transfer to the Education Department of the duty of inspecting the education in Poor-law schools had yet been made, and the Local Government Board had not yet filled up a vacancy which had occurred in the office, but temporary arrangements until the end of the year had been made pending a final decision on the subject.

In reply to Dr. FARQUHARSON, Mr. CHAPLIN said: According to returns received from the several district and separate schools, including the large Roman Catholic certified schools, the cases of ophthalmia number 760, and if the number of children in the workhouses and infirmaries is added, the number for which separate treatment is desirable may be roughly estimated at 1,000. The number of children in the schools referred to who are returned as suffering from ringworm is 208, and of those suffering from skin disease 168. If the number in workhouses and infirmaries is added, the total number of these children may be estimated at about 500. I have no information as to the number of children requiring special treatment during convalescence or seaside air, or of children who in consequence of defects of intellect and physical infirmity cannot properly be trained in association with children in ordinary schools. The number of the latter class I should not anticipate would be large.

In reply to Mr. PICKERSGILL, Mr. CHAPLIN said that the number of children detained in London workhouses and infirmaries was now less than 2,000. The block has to some extent been occasioned by the existence of infectious disease, and it would be the duty of the central authority, whom it was proposed to constitute, to make such provision as was necessary for children of the class alluded to. The question how such provision should be made would be one for the new body in the first instance to consider.—Mr. PICKERSGILL asked whether the provision would be limited to children suffering from ophthalmia, eye disease, or skin disease.—Mr. CHAPLIN replied in the negative.

In reply to further questions by Mr. PICKERSGILL, Mr. CHAPLIN said it had been the practice of the Local Government Board in the past to encourage the establishment of small certified schools, and it was his intention to continue to do so. These schools were inspected by inspectors of the Board, and he had under his consideration the question whether it would not be necessary to increase the number of inspectors for the metropolitan district. The Local Government Board considered it very desirable that provision should be made otherwise than in the workhouse for the children who were now retained temporarily before being drafted into the school in order that it might be ascertained that they were not suffering from infectious disease, and for children of the particular class referred to. The Board were desirous of promoting such arrrangements, and schemes for the purpose were now under the consideration of some of the Boards of Guardians. The Board considered that such provision could be more satisfactorily made by the guardians of the different unions than by a central authority acting for the whole of the metropolis.

In reply to Mr. TALBOT, Mr. CHAPLIN said the children who were sent to Darenth were children in respect of whom the medical officer of the district or workhouse from which they were sent had certified that they were in his opinion chronic and harmless lunatics, idiots, or imbeciles. The distinction is this case would be that children of weak or feeble intellect who were not certified to be imbeciles or idiots, would be subject to the new order. In reply to a further question by Mr. Talbot as to the expressions of opinion he had received from the various Boards of Guardians in the metropolis as to the proposed new Board for the care of various classes of children chargeable to the rates, Mr. Chaplin said that the number of definite answers received was very few. Some were in favour, some disapproved, of the proposed new Board, and in several cases the Local Government Board had been asked to defer action until a conference of guardians had been held. But, so far as he could judge at present, the proposals of the Board would be preferred to those of the Poor-law Schools Committee by a large majority of the authorities.

VIVISECTION.

In reply to Mr. MACNEILL, the HOME SECRETARY said: I explained, in answer to a question of the hon. member last August, why last year's return was issued so exceptionally late. Every effort will be made to issue the return in future at an early date. The irregularities referred to in the report of the inspector, Dr. G. V. Poore, consisted in the one case in the licensee performing an operation on a cat without having the necessary certificate; in the other case, in the licensee performing two experiments necessitating a certificate which he had omitted to obtain. In the first case, the licence was revoked and not regranted until after an

interval of three months and a-half, and steps were taken to prevent recurrence of the irregularity. In the second case the consideration of the application for a renewal of the licence was deferred for a month. In neither case was it thought desirable to take further proceedings. In further reply to Mr. MacNeill, the Home Secretary said: Both the gentlemen referred to now hold licences, one of them with the addition of certificates which enable him to perform experiments without anæsthetics; the other with the addition of certificates which dispense with the obligation of killing the animal after the effect of the anæsthetic has passed off. Both gentlemen held licences at the time of performing the experiments in question, but had omitted to obtain the certificates which were also necessary under the Act. The experiments in both cases were such as would be allowed, and, in fact, have been allowed, to be performed by properly qualified persons, and both gentlemen had previously the certificates which in the cases in question they had omitted to obtain. The penalties are those provided by the Act of 1876—namely, fine for a first offence, fine or imprisonment for subsequent offences. The irregularities were committed before I came to the Home Office, but I see no reason for dissenting from the opinion of my predecessor that in the particular circumstances the withholding of the licence for a time and the warning given were sufficient punishment. It was decided on the same grounds not to publish the names, and I am not prepared to do so now.

### THE GLOUCESTER SMALL-POX OUTBREAK.

In reply to Mr. THOMAS BAYLEY, Mr. CHAPLIN said: In view of the fact that the Royal Commission on Vaccination had sent a special Commissioner to report on the epidemic of small-pox at Gloucester, the Local Government Board did not deem it expedient to instruct an inspector to make a report on the same subject. In reply to a further question, Mr. Chaplin said that although a Commissioner had been sent down whilst the epidemic was at its worst to take measures to put an end to the state of things then existing, he was not instructed to make a report on the general position, inasmuch as another person was charged with that duty. The report had not yet been received, though he believed it had been prepared.

### VACCINATION.

General RUSSELL asked the President of the Local Government Board whether it was the intention of the Government to take any action with reference to the vaccination laws this session.—Mr. CHAPLIN: I have carefully considered the question of amending the Vaccination Act since the Royal Commission reported in September last. The Royal Commission recommended that, amongst other things, a further investigation should be made into the effect of the storage of vaccine lymph in glycerine, the value of which had been experimentally proved by Dr. Copeman, one of the medical inspectors of the Board. I took an early opportunity of instructing Dr. Thorne and Dr. Copeman to visit certain foreign cities in order to study and report on the more modern methods adopted abroad as to the preparation, storage, and distribution of glycerinised calf lymph, and to ascertain the results. These officers have visited Paris, Brussels, Berlin, Dresden, and Cologne for the purpose, but their inquiry is not completed, and their report, therefore, has not been submitted to me. I may say this, however, that on the information before me, I have already come to this conclusion—that any alteration of the law will almost certainly involve an important and radical change in the matter of lymph supply, and will necessitate, consequently, a very considerable modification of the system of public vaccination. In view of these circumstances, I doubt if I shall be in a position to introduce a Bill this session; but the hon. member will see no time has been lost by the Local Government Board since the report of the Royal Commission was published, and I shall make every effort to mature as soon as possible the proposals which I hope to submit to Parliament on this important subject.

### THE INCREASE OF LUNACY.

Mr. CORBET asked the Home Secretary if his attention had been recently called to the fact that the number of insane persons under official cognisance in the United Kingdom, Ireland included, had increased from 55,525 in 1862 to 128,896 in 1895, and that the ratio of insane per 1,000 of the population had gone up during the same period from 1.81 to 3.28; and whether in view of the importance of the subject he would take steps to convene an International Conference to ascertain what measures could be taken to arrest the spread of the disease.—The HOME SECRETARY: I am aware of the great increase in the number of insane persons in institutions, and I would remind the hon. member that on February 28th last year I stated in the House that I should consult with the Lord Chancellor with a view to the attention of the Lunacy Commissioners being specially directed to the question. The Lunacy Commissioners have, I am informed, completed a special report on the subject, which is now in the printer's hands; and until I have had the opportunity of considering that report I should prefer not to reply to the second part of the hon. member's question.

### A STATE HOME FOR INEBRIATES.

Mr. KNOWLES asked the Home Secretary if his attention had been called to the State Home for Habitual Inebriates which had been opened at Foxboro, Massachusetts, and if he could obtain information with regard to its conditions of management, etc.?—The HOME SECRETARY: My attention had not been previously called to this home, but I shall be glad if my hon. friend would speak to me on the matter.

### IMPURE WATER AND SICKNESS.

Sir CAMERON GULL asked the President of the Local Government Board whether his attention had been called to the fact that, although statutory obligations were imposed upon rural district councils in respect of the supply of water to places within their districts, it had been often found practically impossible for those councils to carry out their obligations in the absence of powers of compulsory purchase? And whether, having regard to the serious amount of sickness in country districts directly traceable to insufficient or impure water supply, he could introduce at an early date a short measure enabling rural district councils to compulsorily acquire water rights?—Mr. CHAPLIN: I am advised that there have been cases where district councils have been placed at a disadvantage, and I have already caused the point to be noted as one of the matters which should be considered in connection with any Bill for the amendment of the Public Health Acts; but for reasons already given on other matters I cannot undertake to bring in a Bill this session. I can not say if there is any immediate prospect of a Bill being introduced.

### HEMP DRUGS AND OPIUM.

In reply to Mr. HENRY J. WILSON, Mr. CHAMBERLAIN said: The Ceylon Government have recently decided, with my approval, to prohibit the importation of hemp drugs into Ceylon, and to raise the import duty on opium from 1 rupee to 2 rupees per lb.

### QUARANTINE IN GIBRALTAR AND MALTA.

Sir WALTER FOSTER asked the Colonial Secretary whether his attention had been called to two telegrams (1) from Gibraltar, to the effect that vessels from India would not get pratique there, and would not be allowed to land passengers or goods. Mails and specie would be landed in quarantine, and coals and provisions supplied in quarantine; and (2) from Malta that from February 6th inclusive, vessels from India having no cases of plague or suspected cases of plague on board, would communicate with Commino Island, where passengers would be landed to undergo 21 days' quarantine, their clothes and linen being disinfected Such vessels would coal at Comingott's Islet. And, whether he would communicate with these Crown Colonies with a view to the adoption of more scientific and convenient measures for the protection of public health, and also with the view to prevent an example being set by the Crown Colonies to foreign governments, calculated to encourage the imposition of restrictions on British commerce.—Mr. CHAMBERLAIN: My attention has been called to the quarantine orders in Gibraltar and Malta referred to. The Governor of Gibraltar informs me that the stringent regulation adopted there is necessary to prevent quarantine being enforced by Spain against Gibraltar, which would put a stop to the Admiralty work in the harbour. As regards Malta, I may refer the hon. member to my answer to his question on January 26th. I am glad to say that the Colonial Government have to some extent relaxed the stringency of the measures at first adopted, and I trust that although they are placed in a position of some difficulty by the very strong feeling of the inhabitants of all classes in favour of the antiquated system of strict quarantine, they may be induced by degrees to adopt more enlightened methods of protecting the public health.

### THE DEATH-RATE IN INDIA.

In reply to Mr. DAVITT, Lord G. HAMILTON said: The Central Provinces *Gazette* does not give the full monthy vital statistics for any month later than September, 1896; but the figures for the two periods of three months ending September, 1895, and September, 1896, respectively, are as follows: Mean of monthly death-rates, July to September, 1895, 43.12 per mille; 1896, 55.80 per mille. Total number of deaths, July to September, 1895, 102,420; 1896, 132,552. These provinces were visited by a severe epidemic of cholera in the spring and summer, which cause a heavy and general rise in the number of deaths during the summer and early autumn. Though Though I have no complete summary of the death-rate of the whole province for the later months, the Chief Commissioner informed me some time back that in the division of Jubbalpore, where the distress was acute, there was a continuous fall in the mortality during October and November.

### PLAGUE-INFECTED ARTICLES.

Mr. GODSON asked the First Lord of the Treasury whether Her Majesty's Government were aware that woollen manufactured articles were being imported into this country from the plague-stricken districts of India; and whether, looking to the general consensus of opinion that the Great Plague of London derived its origin from woollen manufactures brought into this country from infected countries in Asia Minor and the East, Her Majesty's Government would take immediate steps to compel all wools and woollen manufactures coming from India to be thoroughly disinfected before they were allowed to be landed.—Mr. BALFOUR said that the Secretary for India was in communication with the Indian Government on this subject, and the Indian Government was thoroughly alive to the responsibility resting upon them. He was sure that every precaution would be taken, and he trusted that nothing would be either said or done in this country which might unnecessarily hamper the course of trade.

### NEW BILLS.

On the motion of Dr. FARQUHARSON, leave was given to introduce Bills to empower the London County Council to acquire the undertakings of the eight Metropolitan Waterworks Companies. The companies in question are the East London, the Grand Junction, the Chelsea, the Kent, the West Middlesex, the Lambeth, the New River, and the Southwark and Vauxhall. A Bill was also introduced to enable money to be raised out of the capital account in connection with the acquisition of the undertakings.

### NOTICES.

Mr. PATRICK ALOYSIUS M'HUGH intends to ask the Chief Secretary to the Lord Lieutenant of Ireland whether he is aware that the Banbridge and Rathdrum Boards of Guardians have passed resolutions calling on the Local Government Board of Ireland to institute an inquiry into the merits of the treatment of rabies by Mr. M'Govern of Cavan; and will he, as official head of the Local Government Board, and in view of the importance attached to this matter in Ireland, advise the Board to grant the inquiry asked for.

Mr. CALDWELL has intimated that on the second reading of the Public Health (Scotland) Bill, he will move "That this House declines to read a second time a Bill to consolidate and amend the laws relating to public health in Scotland which does not provide for the rates under the same being levied one half upon the owners and the other half upon the occupiers of land in burghs as in counties; and which does not permit of the acquisition of land compulsorily for public health purposes by an Order of the Local Government Board of Scotland without resort to Parliament."

Mr. WEIR, on the same Bill, intends to move "That this House declines to read a second time a Bill to consolidate and amend the laws relating to the public health in Scotland which does not provide for the housing of the inhabitants of black houses and other dwellings in the crofting counties of Scotland which may be condemned and ordered to be closed under the provisions of the Bill."

## THE BATTLE OF THE CLUBS.

"DOES IT PAY TO BELONG TO SICK SOCIETIES?"

UNDER this head a contemporary has given insertion to the letter of a writer who complains of a growing tendency in club doctors to draw a distinction between club and private patients; that he himself has had experience of it, and that many are "severing their membership" rather than put up with it. He says, "of course he does not expect the attention and consideration that a private or fee-paying patient receives, but one does expect a little courtesy and thought, though he be an unfortunate club patient." Here the case against the club doctor is clearly overstated, for it is a libel on the profession to say they do not, as a rule, treat their club patients with courtesy and thought. Still there is a modicum of truth in the remarks. Human nature is human nature, and the present miserable scale of payment to the medical officers of friendly societies may not improbably tend to promote a feeling of dissatisfaction in the minds of some practitioners which may result in strained relations between a doctor and his club patients.

"Pro Bono Publico"—for so the writer styles himself—is quite right, and the profession will be entirely of his mind, that a time has come for an "inspection of the working of these societies," and that efforts should be made to restrict their operation to the class for which they were originally intended.

THE MEDICAL PROFESSION AND FRIENDLY SOCIETIES.

MIDLANDS writes: The letter of "H. T. D." in the BRITISH MEDICAL JOURNAL of January 30th is as concise and clear as it is possible to put it, and I agree with every word. Perhaps I am in an unusually good position to express an opinion, having formerly "indulged" in clubs in a mixed practice, next having had a mixed cash and general practice without clubs, but getting dozens of patients that belonged to clubs but who somehow afforded to pay me 2s. 6d. a visit and a trifle less for advice and medicine; and now I have a practice without any clubs. I may as well say here that I have, and always shall for the future, decline clubs on the following grounds: The remuneration is totally inadequate; the system of being paid inadequately and for prospective much or little work tends to make one neglect one's cases, and look upon them as "only clubbers," and always to endeavour to get that part of one's work done as quickly as possible; in fact, the system is bad both for doctor and patient alike. I hope I am not making it appear that the ordinary medical man is a totally mercenary character—that I do not admit—but at the same time human nature does assert itself in many cases, when one is sent for at the same moment to see both a club and a private patient for instance. I think in the majority of cases the latter would *ceteris paribus* be attended to first.

Now I emphatically declare that in my opinion every working man with wife and no children who earns as much as £1 a week can well afford (or ought to be able to do so) to pay far more than 8s. a year for medical attendance unless he or she is thriftless in the extreme—thriftlessness often meaning drink. That he cannot afford to pay 2s. 6d. a visit for a long illness anyone will freely admit, but he could afford a sum of, say, 5s. a week for a few weeks in case he had sickness, and in the event of a longer illness no doubt a hospital would be the proper place. In such an instance the medical man would find he was paid better for the amoumt of work done, including wear and tear and out of pocket expenses, than if the patient belonged to a club, and so too I think if his prospective patients numbered hundreds at the same rate.

Now, every medical man who takes patients in clubs at 4s. a year is, in my opinion, being "sweated" by those patients. I admit that I have been so in the past, but I never intend to put myself in that position again. Rather—far rather—would I give medicine and advice to the poor for 1s. (and be richer) than get £200 a year for attending clubs (which represents about 1,000 members), leaving little time for aught else.

The system I have alluded to of attending the poor at from 5s. a week when ill I know will work, because I have tried it. Moreover, it has been made use of even by members who were paying into clubs at that identical time. How, then, about the man who earned £1 a week, was in a club, and could still afford to pay me?

But the reason medical men suffer from this sweating system is their own jealousy. They hate to hear of others taking up the clubs they have themselves declined. And the public, who know this fact, trade upon it. Therein lies the whole mystery.

Let us, then, amend this state of affairs at once, and by an amalgamation giving us power over those few who fail to see the profession being degraded, and let not the future give regret at having missed an opportunity which may never occur again.

THE COMPLAINT OF THE NATIONAL MEDICAL AID CO.

MR. E. T. HORWOOD (Secretary National Medical Aid Co., Ltd., 80, Fleet Street, London, E.C.) writes: In the BRITISH MEDICAL JOURNAL of January 9th you refer to this company at some length, and I am sure I can rely upon your courtesy and fairness to allow me to say a few words in reply. I do not propose to discuss the question whether this company is or is not "a sort of medical practitioners' aid society," nor yet whether "if it were not for the enterprise of the National Medical Aid Company, some of the poor classes of the community would not pay a doctor at all." I merely wish to say a word on the systematic attempts which are being made (of course, on purely ethical grounds) by medical men, even while they are acting for us, to form clubs of their own, and in the more ambitious ventures to evolve local medical societies out of the local branch of the National Medical Aid Company by the simple process of taking our subscribers, our rules, and even our collectors. If this sort of thing prevails to any extent—and I have no reason to believe that this company is specially singled out for attack—it would, indeed, be strange if friction and bad feeling did not exist between the associations and certain of their medical officers. So far as this company is concerned, in persuading our members to leave us and join a newly-formed private club or local society, a medical officer is doing what he distinctly promised and agreed he would not do, and that stipulation was a condition of his appointment. If the battle of the clubs is to be fought, let it at any rate be fought fairly, and let there be no misapprehension as to the weapons used or the issues involved.

The General Medical Council a few years ago emphatically refused to declare that those medical men who continued in the services of medical aid associations were acting in a reprehensible manner, but if they were appealed to on this particular aspect of the battle of the clubs, it is more than probable they would declare that the methods adopted to transform medical aid associations into doctors' private clubs and local medical aid societies are both unethical and reprehensible.

EVIDENCE AS TO THE ABUSE OF CLUBS.

DR. EDGAR J. DONBAVAND (South Tottenham) writes: *Apropos* of your correspondent "Medical Practioner's" letter in the BRITISH MEDICAL JOURNAL of February 6th, this fact may go on the list. A patient whose rent is £45 has just brought her child to ask me if there is anything wrong with her chest; if so, she would take her at once to the Brompton Hospital. I may add, the whole family of four belong to a medical aid club.

FAIR TRADE (Nottingham) writes: I am acquainted with two glaring instances of the abuse of clubs: (1) The son of a director of a large hosiery manufactory, employing over a hundred hands and paying a good dividend, allows his wife to be attended by a doctor who receives 4s. per annum per patient from the society of which he is an officer. (2) A lace manufacturer, managing a factory for his father, who is also the owner of other property in the neighbourhood, obtains medical attendance for his wife and family through the agency of a society which pays its doctor less than 4s. per annum. In the former case it was to the credit of the doctor that he refused to treat the patient unless as a private case.

THE *Mansfield Reporter* of January 30th gives an account of a successful stand made by a local practitioner for better club remuneration. Dr. E. S. Nutting, the medical officer of the "Rising Star" Lodge (Manchester Unity) applied for an increase in the payment of members up to 4s. per annum, the usual club rate. On the application being refused Dr. Nutting resigned; but at the election which followed we are glad to find he was re-elected at the terms he stipulated for. It is, however, not so satisfactory to find that in this dispute with the club Dr. Nutting was opposed by two of his profesional neighbours, although all the other local practitioners had determined to support him in his reasonable claim.

DUNDEE FRIENDLY SOCIETIES.

THE Court of Foresters, which previously refused to grant the increased terms asked for by the medical officer, have now done so, and confirmed his appointment for the year.

## LEGISLATION AND THE SAFETY OF THE COAL MINER.

THE Home Secretary has recently issued an Order insisting upon the use of certain of the higher explosives in coal mines and the abolition of gunpowder for blasting purposes. One feeling has influenced Sir M. W. Ridley in coming to this conclusion, and that is his care for the safety of the coal miner. Although the medium of expression, the Home Secretary has in this instance voiced the opinion of experts not hastily arrived at, but formed after due consideration.

In certain parts of the country the Order has been received in a spirit quite foreign to its intention. To render coal getting a safer employment is all that is aimed at. Under any circumstances the daily round of a collier's life is a perilous one. In spite of the fact that there is no other industry so subject to Goverment regulations, the number of lives lost annually in this coal industry is too large, and any reasonable recommendation that will diminish these should be welcomed by all, whether employer or employed. It is estimated that whilst coal miners form one-thirty-sixth of the population of our country, they have to bear one-fifth of the fatal accidents that occur in all industries, a circumstance which shows how precarious is their calling. From the annual report of the mining industry for 1895 we learn that coal mining gives employment to 687,371 persons, and that the number of deaths from explosions of fire damp or coal dust was 55, and from falls of ground 447; including these and other fatal accidents, 1,096 lives were lost within the year. The death-rate of those employed under ground is double that of those who work on the surface. Within the past twelve months 70 fatalities occurred in the mines in the North of England, 36 of which were due to falls of side and roof, and only 4 attributable to explosions. In the South of Durham and North Yorkshire 20 deaths occurred through explosions. Different districts show different death-rates. Taking the year 1895 there were employed in South Wales 18.3 per cent. of the total coal miners in the United Kingdom; 24 per cent. of the total deaths from mining occurred in this

principality, whereas the northern coal fields, which employ 20 per cent. of all the miners, was accountable for only 13.9 per cent.

There are some kinds of coal the mining of which is attended with greater risk to life than others. Certain mines are known to be "fiery;" they contain large quantities of gas (fire damp). In such pits naked lights are not allowed, experience having shown that the opening of a Davy's safety lamp by a thoughtless pitman, or the striking of a lucifer match, has not only cost that reckless individual his own life, but has been the means of destroying the lives of scores of others. In addition to this danger from fire damp, it is also recognised that dry coal dust when in a state of very fine division is capable of becoming ignited and of causing an explosion. In the case of coal dust, however, there is something more required than the presence of a naked light. There must be flame, great heat suddenly generated, and concussion. These conditions are immediately called into existence when a "blown-out" shot is fired. Many of the seams of coal that are being worked to-day are not more than 3 or 4 feet in thickness. In order to work these effectively, and to make proper channels of exit for the secured products, it is necessary to bring down the hard stone that overlaps these seams, and forms subsequently part of the roof of the "ways." This is usually accomplished by the stonemen boring a hole into the rock, and filling it with a charge of gunpowder, or inserting into it an explosive cartridge. Either of these, when properly fired, brings the stone down, the miners meanwhile during the blasting sheltering themselves in some protected place. Occasionally, owing either to the hole in the rock being too small, or the charge of gunpowder insufficient, instead of the rock being shattered, the shot is propelled outwards as from a gun, and the flame thus created, the heat generated, and the concussion are such as in the presence of coal dust to cause an explosion. Clearly, therefore, under certain conditions, gunpowder in the hands of an unskilled workman, who has not properly gauged the resistance, may become a very dangerous weapon, and any substitute for it, the use of which can be shown to be attended by less risk to life, and to be as serviceable to the mining engineer as a disruptive agent, should be gladly received.

The practice of mining experts, particularly in the coal fields of South Wales, has demonstrated that such explosives as roburite and tonite, though not always flameless, are usually so, and can therefore be used in pits that are known to be fiery. In a word, without such explosives the coal could not be worked: the use of gunpowder as a blasting agent in such mines would be extremely hazardous. When, therefore, it is ordered by the Home Secretary that those explosives only should be permitted which are believed neither to ignite "fire damp" nor coal dust, the object clearly aimed at is the prevention of those lamentable accidents with which we are all more or less familiar. To the underground worker it is an order at once humane and considerate.

It has been objected that the Order is far too sweeping in its application, and that as the Northern coal mines, for example, are practically free from gas, and explosions therein are consequently rare, instead of its being an order to be enforced universally and without any regard to the conditions present during the working of the coal, it should be a power placed in the hands of the Government Mining Inspector, and only to be put into force by him in pits that are proved to be of a fiery nature. The objection to the use of explosives is principally one of expense. In some places it is believed that it will increase the cost of production, and thereby raise the price of coal to the consumer or leave a smaller margin of profit to the proprietor. The price of gunpowder is 2½d. per lb.; Ardeer powder and Westphalite, 8d.; carbonite, 9d.; and roburite, 10d. If, therefore, for blasting purposes a quantity of the higher explosives was required equal in weight to that of gunpowder, the annual expenditure in even a small colliery would be considerably increased, and particularly, too, since it is part of the Order of the Home Secretary that a special set of trained men shall be employed to fire off the cartridges. Surely this is work, however, that ought only to be entrusted to a body of skilled men.

We shall not discuss the financial side of this very large question, but it is our duty from a medical point of view to state that the fumes arising from the exploded cartridges of roburite and tonite, though unseen compared to those of gunpowder, can yet be smelt, but are, practically speaking, harmless in well-ventilated pits. Miners have complained of their supposed evil effects, but when such complaints have been carefully inquired into, they have usually been found to be groundless. No such objection as that of health affected by the fumes has to our knowledge been made by the Welsh colliers.

Admitting that the lower force of gunpowder is one reason in favour of its use compared to roburite, it should be remembered that the blasting force of the higher explosive is greater, and that therefore a much smaller quantity will suffice. Not only may one-third of it in weight be sufficient, but the hole drilled into the rock need not be so large; there would therefore be some saving of labour at this particular stage. The question as to how far the Order should be made general application to all coal mines, "safe" as well as "fiery," is one that must be left to the decision of the Home Office authorities after due consultation with members of the coal trade, but so far as we as a profession can be regarded as the protectors of life and limb, our verdict is unhesitatingly given in favour of the employment of the "permitted explosives." In the coalfields of South Wales, as already stated, nothing else is used. The colliery managers have readily accepted the Order, and are loyally prepared to carry it into effect.

Certain recommendations were made in 1886 by Mr. Herbert Kirkhouse, of Tylorstown, Pontypridd, which have never received the attention they merit. Prevention is always better than cure. Dr. Haldane, of Oxford, has shown that after a colliery explosion death occurs from the effects of burns and also from poisoning by carbon monoxide gas, and that if only air or oxygen could reach those who are entombed life would be saved. When an explosion has occurred, the amount of *débris* and the number of falls in the main ways are such that not only is it impossible for those miners in the pit who have escaped the dangers of the explosion to reach the foot of the shaft, but also for the rescue party to reach readily those who are behind the falls. Few men have had a larger practical experience of coal mining than Mr. Kirkhouse; few witnessed a larger number of explosions; and fewer still have descended more often in the hour of danger to rescue life and save property. Long before the part played by coal dust in mine explosions was generally recognised, he had demonstrated how the watering of dusty places in pits could be accomplished by a moving tram car, thereby obviating at least one cause of explosions, and had shown how by means of iron pipes carried underneath the floor of the main ways, and connected with transverse and vertical branches appearing here and there in the walls, particularly at the face of the workings, atmospheric air could be driven through the mine by a small compress engine at the mouth of the shaft, affording a circulation of air quite apart from, and in addition to, the ordinary ventilation of the pit, and so protected that should disaster come, air would still be diffused behind the falls and the obstruction caused by the explosion, and therefore within reach of the entombed miner.

## THE HOSPITAL REFORM ASSOCIATION.

A numerously attended meeting was held on February 4th at St. Martin's Town Hall, Charing Cross Road, to consider the question of hospital abuse. Dr. J. Ward Cousins presided over the meeting, which was convened by the Honorary Secretary of the Hospital Reform Association, Dr. T. Garrett Horder, of Cardiff.

The Honorary Secretary read letters regretting inability to be present from Sir William Broadbent, Dr. J. G. Glover, Mr. Walter Rivington, and Dr. Woodcock, of Manchester.

The Chairman, in opening the proceedings, said it was a matter for congratulation that since the formation of the Hospital Reform Association, other societies had been more active in the direction of hospital reform, and he hoped that the occasion would arise when they would be able to work not only side by side with these societies, but also in combination with them. They all had the same object in view—the relief and support of the great hospitals and infirmaries in the United Kingdom. The efforts of the Hospital Reform Association were not confined to the metropolis. The Asso-

ciation was open not merely to the medical profession, but to all comers interested in what might be termed the ethics of charity. The Association was not opposed to hospitals; its object was not to injure charitable institutions, but to support them and to lighten their financial burdens. The Association desired to show the supporters of these institutions plainly that their subscriptions went largely towards the medical relief of persons able to pay for themselves. Institutions must not be judged by the mere number of patients treated. The best and the most intrinsically good work was often done by institutions publishing the smallest number of patients treated. The subscribers to hospitals should know not only the number but also the class of case treated. The really urgent cases, those requiring special skill and special care, were the proper cases for hospital treatment. Subscribers' tickets were given away wholesale, with the result that the out-patient departments were crowded with persons suffering from the most trivial disorders. A large number of hospital out-patients should be treated at the Poor-law infirmaries and dispensaries. No body of professional men were more earnest in their duties than the Poor-law officers; the hospital could only prescribe for the extremely poor, while the Poor-law officer could order nourishment, which in many cases did more good than physic. The Association had determined not to advocate any wage limit. By means of the skilled attendants attached to the various benevolent societies, the respectable working classes combined to receive the best medical advice, and he considered that there should be more affiliation between these societies and the hospitals. Emergencies occurred which the medical officers had neither time nor opportunity for treating, and hospitals were intended for this class of case. If these medical officers were more in contact with the hospitals and with the hospital surgeons and physicians, it would be a source of affiliation which would be of great benefit to the poor.

Dr. ISAMBARD OWEN then proposed the following resolution:

That the wholesale, indiscriminate, and hasty relief at present administered by many hospitals in out-patient and casualty departments is demoralising to the community, detrimental to the interest of true charity, unjust to the medical profession, and injurious to medical education; and that in the opinion of this meeting the time has arrived when the attention of governors of hospitals should be seriously given to the matter.

Dr. Owen said he was to a certain extent a representative of a London hospital in which the evils of indiscriminate medical charity had long been recognised, and in which an honest attempt had been made to meet the difficulty without compromising the requirements of true charity. Allowing for the possibility of many patients being reckoned twice, the conclusion could hardly be resisted that some 500,000 persons during the year 1895 received outdoor relief at the hands of the great London hospitals; and if to that total there be added the number of persons who received relief at small and special hospitals, a total was arrived at which was appalling when the proportion of these figures to the total population of London was considered. There was a perfectly legitimate field for medical charity; illness occurred in many ranks of life—as an unexpected and overwhelming accident, which the most provident could hardly hope to meet out of their own resources, and in the relief of such cases there was a legitimate field for medical charity. It could not be pretended, with the exception perhaps of a comparatively small proportion, that the patients of the London hospitals could be included in this category; it was a fact known to all who had experience of unlimited out-patient departments. The hospitals were doing the work that ought to be done by the Poor-law administration, or work that ought to be paid for by the friends of the patients concerned. In his (Dr. Owen's) opinion, hospitals ought not to provide medical attendance for the ordinary slight cases of illness. The present provision for relief was demoralising to the public, and it was a matter of regret that so many hospitals made no inquiries into the circumstances of patients. This indiscriminate relief was also a grave injustice to the members of the medical profession, practising among the poor or in comparatively poor districts, and the extent of the mischief was commonly greatly underestimated. It was spoken of as though the injury simply consisted in treatin gratuitously patients who would otherwise pay some medical man, but the mischief went deeper than that; the system must be held responsible for the general lowering of medical remuneration, which had become such an unfortunate feature in the medical profession. The medical man in poor districts had much to fight against: he had not only the competition of unqualified and ignorant quacks, not only the attractions of the chemist's counter to struggle against, but he had also to keep his fees down to such a level that he could attract patients against the counter attractions of a number of institutions prepared to offer free the same advantages without any inquiry. Unlimited relief in the out-patient departments was often defended on the ground of utility to medical education, and it was said that a student learnt from a big, overcrowded casualty or out-patient department how to treat the trivial ailments which would form the bulk of his practice. That idea was an utter delusion; a medical student would learn more of the treatment of slight ailments by working with a general practitioner for six months than he would by seeing numbers of cases hastily dealt with in the out-patient department by the hospital physician. At St. George's Hospital the out-patient department was used for the teaching of the finer points in the diagnosis of diseased conditions of the lungs and heart, the recognition of which did so much to secure for the medical student a successful career. In the wards of the hospital the student met with well-marked cases of disease, but it was in the out-patient department that he learnt the art of recognising the early appearances of disease, and of discriminating between different conditions of lung disease, and in particular of detecting at an early period the onset of tuberculosis of the lungs, which was a disease responsible in this country for one-fifth of the adult mortality. The successful treatment of phthisis depended almost entirely on its early recognition, and the importance to the student of acquiring this art could not be exaggerated. It was in the out-patient department that this art was acquired, and it could not be acquired there if the physician who was expected to teach it was also required to treat an indefinite number of cases with an inadequate amount of time for the consideration of each case. It was therefore in the limitation and not in the extension of the out-patient departments of hospitals that the true interests of medical education lay. The pecuniary injury inflicted on medical practitioners by indiscriminate hospital relief could not be a trade matter of no concern to the public, because the character of the men who enter any calling in life was in the long run determined by the remuneration they may reasonably expect, and the character of the men who enter a profession with such responsible work and duties as the medical profession could therefore never be a matter of indifference to the public. The medical profession asked for no protective measures, but had a right to demand that the public should not keep up a condition of things which directly tended to cut the remuneration of the profession down to a level at which the right class of man would not be induced to enter it.

Dr. FREDERICK J. SMITH, of the London Hospital, in seconding the resolution, said that he was dissatisfied because as a hospital physician he expected to be able to help the patients who came before him, to teach himself and to teach the students who were to be the future practitioners; but no real help was afforded a patient suffering from an acute illness by ordering a week's medicine after a consultation of a few minutes' duration; in chronic cases the usefulness of drugs was doubtful; and as for teaching there were too many patients to see, and the nature of their maladies was in the large majority of a trifling character. Why, then, were patients ordered drugs unnecessarily? Simply because it was the universal custom; the patient must have something done for him, otherwise there would be much grumbling and great dissatisfaction. In a very large number of cases the patients attending the out-patient department had not made an honest attempt to pay for medical advice. The out-patient departments of hospitals should exist for the purpose of enabling medical practitioners to have somewhere to send deserving cases, in which there were difficulties of diagnosis, for the opinion of a skilled physician. He suggested that out-patient letters should automatically cease after one month's duration unless initialed by the physician,

and that every out-patient letter should be countersigned by a medical practitioner.

Mr. Jessop said that many of the London hospitals were shutting up their wards for want of funds, and not for want of patients. The patients came in some instances from the country, and if they could afford to pay for a long railway journey they could afford to pay for medical advice. The crowded state of the out-patient departments was picking the pocket of the general practitioner. Inspectors should be appointed to inquire into the means of patients. In regard to the wage limit, there should be a minimum and a maximum wage limit.

Mr. Nelson Hardy considered that the facts brought forward demanded the attention of the hospital authorities. These institutions could not exist without the aid of the medical men carrying on the work, and it was their plain duty to formulate some recommendation to alter and remedy these great evils.

The Hon. Sydney Holland (Chairman of the London Hospital) said that he regretted that this small Celtic invasion had come to London at the very time when everyone was endeavouring to celebrate this memorable year by securing larger collections than ever on behalf of the hospitals. It seemed to him very unfortunate that gentlemen from Wales should write to the *Times*, giving figures which scarcely required the time to examine them to recognise their fallacy. He referred to Dr. Garrett Horder's letter, and he was satisfied that Dr. Horder had no means of investigating the position of the patients referred to in the letter. In his opinion the abuse of hospitals of which people talked so glibly hardly existed. He had spent day after day in the out-patient department; he himself had stopped and questioned every person whom he thought was at all in a position to pay, and he was pained at the absolute misery and destitution of the people. As chairman of three hospitals, he said it was not with them that the abuses existed. The difficulty was to get the staff to do anything. It was all very well for Dr. Smith to make a speech about the abuses of the out-patient department of the London Hospital. He had had the pleasure of meeting Dr. Smith several times, and had talked with him about the affairs of the hospital, and he had never heard one word from him about these abuses till that day. It was all very well for Dr. Smith to get up and say that a week's medicine was often ordered when he did not consider it right; then why did he do it? If he were to venture to tell a doctor not to make up medicine for a week, he would be told to mind his own business. Dr. Smith said he had no time to attend to the cases: then why did he not ask for more assistance? If it be a matter of payment, let it be known that that was one of the objects of the Association. It was considered an advantage to a consulting physician to be seen and known at his hospital by future practitioners. A trifling illness might be of slight interest to the physician, but still it might keep a poor man out of work for a long time. Dr. Smith had said, amid the cheers of the meeting, that he was perfectly certain some of the out-patients were able to pay. Dr. Smith had no right to say that. To patients who waited from 1 till 7 o'clock at night for advice, money must be of enormous importance. It was not fair to come to that meeting and make general statements. Everyone knew how people were affected by such statements, and they knew how ready people were to stop their subscriptions and take every possible excuse for stopping them, and responsible gentlemen like those present should approach the staffs of the hospitals and not appeal to the public by meetings of that sort, convened by gentlemen unconnected with London Hospitals.

Dr. Atkinson said that the working men objected to the Poor-law relief. He knew from personal observation that many of the out-patients were able to pay.

Mr. George Brown said that the out-patient department of St. George's Hospital was crowded with servants of the *élite* and nobility: its beds were filled to about one quarter with butlers, coachmen, footmen, and ladies' maids. Ought money to be given to St. George's Hospital and other similar institutions to doctor free the servants of "My Lord this," and "His Grace that"?

Mr. Timothy Holmes said that Mr. George Brown was mistaken; there was no such enormous number of servants at the out-patient department of St. George's Hospital; if there were servants, at any rate they were not sent there by their masters and mistresses, for the simple reason that they had no out-patient letters at that hospital. The in-patients were mainly admitted for urgency—for every person admitted by letter four were admitted for urgency. He (Mr. Timothy Holmes) utterly denied and entirely contradicted the statement that the beds were full of servants of rich people. He denounced the assertion as a perfect fable, and having passed it over as a matter of little importance, went on to explain that confusion arose from the fact that people forgot that the hospitals in London were of the most different characters. Speaking from his own experience, there were very few out-patients indeed who could pay anything like a reasonable fee. The most striking abuse in the out-patient work was that it was ill-directed. Most of the medical and much of the surgical work was directed to the treatment of diseases that ought not to be treated by a short consultation and a bottle of physic, with the consequence that for a great deal of work there was but a little result. It all went to show that there was an absolute necessity for some general and exhaustive inquiry. He agreed with much that Mr. Holland had said, and was opposed to the system of paying for hospital practice. The necessity was evident for having some means of communication between the great hospitals, and nothing but good could come out of it. To talk of putting hospitals under control was to use words without meaning, for the great hospitals could not be put under any control.

Mr. Thies, Secretary of the Royal Free Hospital, said that 70 per cent. of the out-patients in his institution were fit and proper persons for medical relief.

Dr. Seymour Taylor, of the West London Hospital, said that gross abuse obtained in the out-patient departments, and asserted that 50 per cent. of the patients who came into his room ought not to have been there. On this being represented to his Board, the answer was that they were a good advertisement.

Dr. Knowsley Sibley said that in some special hospitals, before being seen by the physician, an out-patient was asked, How much can you pay the hospital? In other special hospitals, the question was, Can you afford to pay a specialist?

Mr. Lennox Browne supported Mr. Holland's views, and urged that, if the House of Lords Committee could not come to the conclusion that there was abuse at the hospitals, it was because they conscientiously did not feel they could do so.

Dr. Garrett Horder having replied to the statements of Mr. Holland,

Mr. Holland moved an amendment that the word "governors" should be taken out of the resolution, and the word "staffs" inserted. This was lost by a large majority.

Dr. Atkinson, seconded by Mr. George Brown, then moved that the words "the medical and surgical staff and" be inserted before the word "governors;" and the resolution, thus amended, was eventually put to the meeting and carried.

Mr. Timothy Holmes then proposed the following resolution:

That in the opinion of this meeting the recommendations of the Hospital Reform Association for the management of the out-patients and casualty departments of our hospital are deserving of the careful consideration of the governing bodies of the hospitals.

Mr. Holmes considered that a hospital that was well managed would not object to inquiry, and it was his opinion that nothing would do so much good for the really well-managed hospitals as investigation by some public body.

This was seconded by Mr. Brindley James, supported by Dr. O'Connor, and carried.

The following resolution was proposed by Dr. Knowsley Sibley, seconded by Dr. J. P. Henry, and carried:

That this meeting is of opinion that the objects of the Hospital Reform Association are worthy of the support not only of the medical profession but of all laymen who take an interest in the welfare of our great medical charities.

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The Paris Faculty of Medicine has awarded the Lacaze Prize of 10,000 francs (£400) to Professor Nocard, of Alfort, for his researches on tuberculosis.

## THE PRINCE OF WALES'S HOSPITAL FUND FOR LONDON.

H.R.H. THE PRINCE OF WALES has issued under date February 5th, 1897, an important statement, which has already been published at length in the daily papers. The statement opens as follows:

"Having ascertained from the Queen that she has no wish to express a preference for any one of the many proposals loyally suggested for commemorating, nationally or locally, the sixtieth year of her reign, I feel at liberty to bring to the notice of the inhabitants of the metropolis a project lying very near my heart, its object being to attach the sentiment of gratitude for the blessings which the country has enjoyed during the last sixty years to a scheme of permanent beneficence. The finances of the hospitals of London have long been a source of anxiety and solicitude. An analysis furnished me of the audited statements of account for the year 1895 of 122 metropolitan hospitals and convalescent homes shows a deficiency of £70,000 in the ordinary receipts as compared with the ordinary expenditure, while, if we limit the figures to institutions which failed to meet their outgoings, the deficiency is increased to £102,500. In considering how this may be remedied, I have been struck by the statement, the truth of which is placed beyond doubt, that the contributors to the funds of our hospitals number less than one in a hundred of the population. It appears to me that in this fact we may find at once an explanation of present indigence and the best hope of its relief. It is necessary to enlarge the area from which annual subscriptions are gathered. If we divide the population of the metropolitan district into two portions and agree that one moiety is unable to contribute anything, there still remain three millions of persons representing, say, 500,000 households. Of these, 450,000 households at least, so far as can be ascertained, do not contribute anything towards the support of hospitals. If we again assume that one-half are unwilling or unable to acknowledge either privilege or duty in this matter, an average annual subscription of no more than 10s. each from the remainder will suffice. The efforts of individual institutions, competing with one another, have not availed to enlist a large body of subscribers. I do not believe that this arises from any real indifference, but partly from the difficulty of choosing an object of interest among so many, partly from the lack of any definite opportunity for giving annual subscriptions to the cause as a whole, and partly from the feeling that small sums are not worth contributing. I am, however, confident that a combined appeal on behalf of the hospitals of London, setting forth their work in its magnitude and importance, will prove irresistible."

In dealing with the general purpose and policy of the scheme the Prince of Wales writes:

"Public opinion has shown itself upon more than one occasion, and I think wisely, in favour of the maintenance of the voluntary system for support of our hospitals, combined with an adequate system of representation of the body of subscribers in their control and management. It is obvious, however, that if these institutions are to be saved from State or parochial aid, their financial condition must be secured. We must recall the fact that, apart from the purely philanthropic work carried on in relief of our sick poor, we look to the voluntary hospitals for the means of medical education and the advancement of medical science. Our hope is that by the aid of this Commemoration Fund we may be enabled to secure for these necessary institutions sufficient and permanent support."

The Prince states that he proposes to invite subscriptions of 1s. a year and upwards from all classes for "the Prince of Wales's Hospital Fund for London to commemorate the 60th anniversary of the Queen's reign." An endeavour will be made to secure from £100,000 to £150,000 from those who have not hitherto regularly contributed.

With regard to the distribution of the fund the Prince proposes for the first year to rely upon the co-operation of the Distribution Committee of the Hospital Sunday Fund, but he adds that in the future it may be desirable to seek the assistance of representatives chosen by the hospitals. In the collection and administration of the fund he has associated with himself a General Council consisting of representative men, and including the President of the Royal Society (Lord Lister), the President of the Royal College of Physicians (Dr. Wilks), and the President of the Royal College of Surgeons (Sir William Mac Cormac). The Treasurer is Lord Rothschild, New Court, E.C., to whom or to the Honorary Secretaries of the Prince of Wales's Hospital Fund for London, the Bank of England, London, E.C., subscriptions may be sent.

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The Honorary Secretaries ask that help may be given in any of the following forms:

1. Annual subscriptions for the life of the subscriber, or at least "until further notice," or
2. Subscriptions for a limited term of years, or
3. Sums representing subscriptions compounded at 4 per cent., or at the rate of £25 in a single payment in lieu of an annual subscription of £1, or
4. Donations, the application of which the donors may leave to the discretion of the council of the fund.

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The *Daily Telegraph* immediately opened a subscription list, which it calls the Shilling Branch, and the response was at once very gratifying. The total number of shillings announced as received up to Thursday morning, February 11th, was 155,109.

## LITERARY NOTES.

MESSRS. LONGMANS, GREEN, AND CO. have in the press a work entitled *Memories and Ideals*, by the late Sir Benjamin Ward Richardson.

The *Echo Médical du Nord* is the title of a new journal recently established by a group of professors in the Medical Faculty of Lille. The editor is Dr. Combemale.

Dr. Thomas L. Stedman, of New York, has written a textbook of modern Greek, which is published by Messrs. Harper and Brothers. It is entitled *Modern Greek Mastery*, and is described as "a short road to ancient Greek." It may possibly be intended as a step in furtherance of the project initiated by Dr. Achilles Rose, of New York, of getting modern Greek accepted as the universal language of science.

A series of popular textbooks on nursing will shortly be issued by The Scientific Press under the title of the "Burdett Series." The first of the series, entitled *Hints on District Nursing*, written by Miss Amy Hughes, Superintendent of Nurses, Bolton Union Workhouse, will be published immediately. These handbooks will be produced in a handy pocket size, clearly printed and bound in cloth.

Under the title of *A Short Practice of Midwifery* Messrs. J. and A. Churchill will shortly issue a handbook embodying a detailed account of the treatment pursued in the Rotunda Hospital, Dublin. The author is Dr. Henry Jellett, Assistant Master of the hospital. Dr. Smyly, late Master, contributes a preface, and an appendix is given containing the statistics of the hospital for the past seven years. The work will be illustrated with over forty figures.

Our cousins across the Atlantic appear to have had special and not altogether trustworthy information on the subject of Lord Lister's title. The January number of the *Journal of the American Medical Association* is "pleased to chronicle the fact that Sir Joseph Lister was created Lord Kinnear on December 31st." The *New York Medical Record* of January 30th, says: "Sir Joseph Lister, now Lord Kinnear, is not the first medical man to be raised to the peerage, but he is the first to be so honoured for medical achievements. Lord Playfair, a qualified physician, was made a peer for political reasons solely." Lord Playfair will, we imagine, be as much interested to hear of his medical qualification as Lord Lister will be to learn his new title from America.

There is as usual at this time of the year the appearance of a batch of new medical journals to chronicle. Two in the Polish language have recently begun to appear in Warsaw; they are entitled respectively *Krytika Lekarska*, which is under the editorship of Dr. Kramschtik, and *Andrologia i Syfilografia*, edited by Dr. Missewitz. The *Canadian Journal of Medicine and Surgery* is the name of a new medical periodical published at Toronto; the editors are Drs. W. A. Young, J. J. Cassidy, and E. Herbert Adams. *La Médecine Orientale*, which has just made its first appearance on the journalistic stage under the editorship of Dr. Michel Kobas, will, as its name imports, devote itself to the diseases of Eastern climes.

## BRITISH MEDICAL ASSOCIATION.
## SUBSCRIPTIONS FOR 1897.

Subscriptions to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, FEBRUARY 13TH, 1897.

## THE PRINCE OF WALES'S HOSPITAL FUND FOR LONDON.

The Prince of Wales's scheme for a special hospital fund for London, to commemorate the 60th anniversary of the Queen's reign, has for its object, to quote his words, "to attach the sentiment of gratitude for the blessings which the country has enjoyed during the last sixty years to a scheme of permanent beneficence." In another column we reproduce the main paragraphs of H.R.H.'s statement. The scheme proposes to provide a large annual subvention for the metropolitan hospitals by means of a common fund, raised to some extent from all classes of the community, but chiefly from those numerous persons in London who do not subscribe to any hospital at present, though they are well able to do so.

His Royal Highness, with his usual good sense, has exactly hit on the essential feature of the present aspect of things. The necessitous condition of our hospitals depends on "the truth," as the Prince puts it, "that the contributors to the funds of our hospitals number less than one in a hundred of the population." We perfectly accept the truth of this statement, and have often recalled it to mind in reading or listening to the boasts of our munificent charity to the sick so common in newspapers and at charity dinners.

It is to remedy this state of things that the Prince has set on foot a scheme, for the success of which everyone interested in these grand institutions ought to pray, and not to pray only but to work. Its success need not interfere with any existing subscription list, since it is aimed not at those who do, but at the far more numerous class of those who do not, now subscribe. It might possibly be regarded as threatening the prosperity of the Sunday and Saturday funds; but we are glad to see by the presence of the President of those funds (the Lord Mayor) on the Committee, as well as Mr. Burdett, that their authorities are not jealous of the new fund which the Prince of Wales proposes to create. That there are a sufficient number of persons in London who now are not regular subscribers, but who could easily afford an average of (say) ten shillings a year, in sums varying from one shilling upwards, no one, we think, would question. Critics of the scheme have expressed doubts about what they call "the statistics" which are contained in the Prince's letter. These, however, are hardly worthy of so pedantic a name, being in fact no more than a rapid calculation to the effect that "if we divide the population of the metropolis into two portions, and agree that one moiety is unable to contribute anything, there still remains 3,000,000 of persons, representing say 500,000 households; of these, 450,000 households at least, so far as can be ascertained, do not contribute anything towards the support of hospitals." The conclusion from this is that it ought to be easy to fill up the deficit in annual subscriptions, which is taken at £102,500, and it is a conclusion which we should have thought no one could question, provided, of course, that the appeal is made by one in whom public confidence is reposed, and is made to a public convinced of the urgency of the need. Now, His Royal Highness is, after his illustrious mother, deservedly the most popular person in the country, and it hardly needed the grave warning conveyed in this letter to convince the public that the present state of things cannot last long without leading directly to the "municipalisation" of our hospital system, a change which, besides all the other objections to which it is liable, would be followed at once by a huge addition to that burden of rates which already presses so hard on the poorer householders of London.

Our readers will also observe with satisfaction that the Prince has not overlooked "the fact that apart from the purely philanthropic work carried on in relief of the sick poor, we look to the voluntary hospitals for the means of medical education and the advancement of medical science." This consideration, too much neglected by non-medical advocates of our hospital system, gives a completeness to His Royal Highness's treatment of the subject which we are most glad to recognise.

We do not, therefore, doubt for a moment that the Prince will succeed in raising what he asks for in the present year. The trial will come when the enthusiasm of the Queen's 60th year has passed, and "the Prince of Wales's Hospital Fund for London" has fallen into the rank of dull and common things. We will not, however, believe that the public, when they have once realised the enormous benefits which would follow from a sounder system, will allow our hospitals to relapse into their present condition, which is to many of them one of almost hopeless insolvency.

The scheme is very closely connected with the agitation which is just now assuming such considerable proportions for hospital reform and for the creation of a central hospital Board. The Prince sees the necessity of creating a central authority for the distribution of so large a fund, and although he proposes to rely for the present on the Hospital Sunday Fund, this is only "for the first year." In fact that body (of which we desire to say nothing but good, for they have done their work conscientiously and well) is not sufficiently representative of the profession to be entrusted permanently with so great a task. The very question which will meet them at the beginning of their operations—What is "a hospital"?—is one by no means easy to answer. Then, after an institution has been put on the register of the Prince of Wales's fund, its share in the division must be regulated not merely by its deficit, for this would be to encourage prodigality and waste, but to a great extent by the work done and the mode of doing it. And how is this to be judged of except by some such central Board as has been sketched out in the report of the Lords' Committee and the recent proposals of the Charity Organisation Society?

Again, if a great fund like this is obtained, how great will be the stimulus to fresh institutions to spring up in order

to share it! And who is to judge whether these institutions are really meant to supply an admitted local want, or to serve the ends of speculators, lay and medical? The larger the call is on public charity, and the more largely it is answered, the more necessary is it that there should be some public control over the fund, and the more clearly will that need be seen. There may be hospitals (but, as far as we know, St. Bartholomew's is the only one now existing) which require no assistance from the public, and these, of course, would be justified (at least from the pecuniary point of view) in saying "We want nothing from you, and therefore will have nothing to do with you." Even for such hospitals we should think this attitude unwise—but for such as confess their inability to carry on the work without assistance it is impossible.

Our respected correspondent Brigade-Surgeon-Lieutenant-Colonel Myers favoured us last week with various comments on the scheme propounded for discussion by the Charity Organisation Society. Much of this criticism seemed to us premature, and more appropriate in the Committee which would finally settle the details of the scheme. But one of his objections was a very solid one, namely, that the income of £20,000 attributed to the Central Board is insufficient. No such objection applies to the Prince's proposal. That proposal, if realised, as we most sincerely hope and most confidently trust it will be, would afford a grand opportunity for starting our hospitals on the sound basis of financial security, and would, we are convinced, supply the public with that security for good and efficient management which is provided in a few of our hospitals by the presence of an active medical school, but which in those less exposed to the full light of day can only be given by an adequate central authority.

Whatever comes of this proposal, its conception and initiation will further endear the Prince of Wales to the hearts of his future subjects.

## THE SERUM DIAGNOSIS OF ENTERIC FEVER.

DURING the latter part of the past year a most important advance was made in the method of diagnosing enteric fever. Within the last month, even, numerous contributions have been made to the subject, and although the general mass of evidence seems to go in favour of this new method, one or two discordant voices have been raised. It has been noted by several observers that when the serum separated from the blood of a patient suffering from an attack of typhoid fever is mixed (often as early as the fifth day, and almost invariably by the eighth or ninth day, and for a long time after convalescence) with a dilute emulsion of living typhoid organisms, there is almost immediately in drop cultures under the microscope, or within a few hours, when considerable quantities of the serum and of the typhoid bacillus emulsion are used, a peculiar change in these living organisms, the actively moving bacilli become distinctly less motile. They appear even to undergo change in shape, becoming shorter and thicker, whilst—and this is the most noticeable feature of all—they acquire a peculiar property of "agglutination"—that is, they run together, and become agglomerated into little "clumps," which at once become evident under the microscope, and in test tubes or small settling pipettes, so fall to the bottom that they leave the supernatant fluid (however cloudy it may previously have been) perfectly clear.

It has now been claimed, and much of the published experience seems to bear out the claim, that this action is "specific" in its character, and that when typhoid fever is to be diagnosed by means of this action of the patient's serum, the specific effect can only be obtained with the specific typhoid bacillus, whilst the serum from an individual who has not suffered from typhoid fever exerts no such influence on the bacillus. All this promises to have a most important bearing on the diagnosis of typhoid fever, a bearing which, if the promise be fulfilled, may have more far-reaching consequences than most physicians are inclined to recognise. When the changes that take place in the serum of animals which undergo attacks of certain specific diseases were first studied, it was thought that much or most of the benefit to be derived from such study would be in the acquisition of improved methods of treatment. In certain diseases these anticipations have been more than realised, as in the case of diphtheria. The treatment on these lines of cholera and typhoid fever has not, however, as yet advanced much beyond the purely experimental stage. Indeed, though both cholera and typhoid serums have been prepared, most observers are now carrying out their investigations on the lines laid down by Haffkine, who it will be remembered uses a modification of Pasteur's method of vaccination. It has been found that serum obtained from animals so treated has acquired the specific characteristics met with in the blood of patients who are passing through, or have recovered from, an attack of one or other of these diseases.

In the JOURNAL of January 30th we published a series of observations by Professor A. E. Wright and Surgeon-Major Semple in which the results of this Pasteurian system of vaccination against typhoid fever as applied to the human subject are gauged by Widal's serum-diagnostic method. It is evident from these experiments—for, though they have been carried out with the definite object of reinforcing the natural insusceptibility of certain (18 in all) of the medical officers of the Army and Indian Medical Services or upon Surgeons on Probation who are preparing to enter those services in which the officers are so frequently exposed to typhoid infection, they must still be looked upon as part of a great experimental investigation in which the patients have voluntarily but confidently submitted themselves as "subjects"—that after a series of injections of dead typhoid bacilli in gradually increasing doses the blood of the "subject" acquired the specific characters which give the Widal and Bordet-Durham reactions. The protection, as measured by this reaction, is not in most cases very high, and it is impossible to say how long it may last; but the simple fact demonstrated in this fashion is both interesting and startling.

In a recent paper, C. Fraenkel has brought together a number of the early recorded facts bearing on this subject. Charrin and Roger pointed out, as early as 1889, that the fluids from animals that had been injected with living or dead cultures of the bacillus pyocyaneus exerted a peculiar effect upon the living bacillus pyocyaneus. Five years later Issaeff and Iványoff made a similar observation on a special vibrio described by Iványoff. Then Bordet (in 1895) and Pfeiffer (early in 1896) found that the fluids of animals vaccinated with devitalised cholera vibrios exerted a peculiar effect upon these vibrios. Pfeiffer's reaction, as this now came to be called, was observed when the living specific organisms were injected into the peritoneal cavities of small rodents. So long as the matter remained at this stage it was evident that the question was of scientific rather than o

practical interest. A further step towards the general use of the method was made when it was demonstrated that similar changes in the living bacilli would take place *in vitro*, first as seen under the microscope, and then (more important still for practical purposes), in the test tube as pointed out by Gruber and Durham. The latter used this method to test the specific character of the changes in the serum of animals treated with different organisms, and to determine the extent to which the change had gone on. It is undoubtedly to Widal, however, that we owe the direct application of the serum-diagnosis method to enteric fever. In June of last year he pointed out that the agglutinating effect was obtained by mixing 8 drops of the serum of a seven-days' typhoid case with 4 c.cm. of a culture of the typhoid bacillus. He found that, just as in the case of the experimental animals, there was a clearing of the fluid owing to the agglutination of the bacilli into masses which rapidly settled to the bottom of the fluid.

Chantemesse, continuing the application of this method, found that when the typhoid fever organism was used, no agglutinising effect was produced when the serum separated from the blood of patients suffering from other affections, such as caseous pneumonia, influenza, erysipelas, peritonitis, was used. That this property is generally distributed in the fluids of the body is evident from the fact that the milk from a typhoid patient exerts a similar action, as does also the fluid that collects in blisters developed on typhoid patients. This property, though developed so rapidly, appears to remain in the blood for a very long period—seven years, at least. It has further been pointed out that drying at a low temperature does not materially affect this property, and Wyatt-Johnston has published a series of observations made with blood dried on paper and then extracted with distilled water, in which most exact information as to the nature of the disease was obtained in a large number of cases.

Quite recently Dr. Yez has published reports of a series of cases in which he has not obtained such definite results; but where a new and incompletely-described method is under consideration, such discrepancies in observation are to be expected. It is extremely interesting to find that in this country Dr. Delépine of Manchester is so satisfied with the results he has obtained by this method, and has so far impressed the medical officer of health of that city that the latter has advised his Public Health Committee to empower him to make arrangements with Dr. Delépine to give a serum diagnosis in all cases typhoid in character.

The method may by some be said to be on its trial, but already those who have worked at it have come forward with most rational explanations of the failure of certain observers to obtain positive results in typhoid cases or the success of the same or other observers in obtaining positive results from serum from patients who have never suffered from an attack of this disease. Grünbaum, for example, has pointed out that certain dilutions of the serum are essential, whilst Wyatt-Johnston reports that when the dried blood method is adopted it is necessary to use a culture of somewhat attenuated typhoid bacilli. These points are all extremely important, and it is only as their value becomes properly appreciated and generally accepted that Widal's method, or any modification thereof, can take its proper place in the laboratory, in the side room, and in the ward or sick room.

## WORKMEN'S INSURANCE AND FACTORY HYGIENE.

Whilst our commercial classes are concernedly discussing the industrial progress of Germany, it is interesting to learn something of the hygienic and social conditions under which factory life is carried on in that country. We publish in another column an interesting article by Dr. Parkes Weber dealing with the medical aspects of the system of compulsory insurance of the working classes in force in Germany. The system has many important bearings on various aspects of medical relief. It has already had some trial and the financial statement for 1894 gives the following figures for the three classes of insurance (*a*) sickness (*b*) accident (*c*) invalidity (and old age). Persons insured (*a*) 7,760,000 (*b*) 18,192,000 (*c*) 11,510,000; persons relieved (*a*) 2,713,000 (*b*) 332,800 (*c*) 295,200; receipts, including contributions of employers and employed (*a*) 148,185,000 marks (*b*) 82,187,700 marks (*c*) 123,320,000 marks; amount paid in relief (*a*) 109,974,000 marks (*b*) 44,281,700 marks (*c*) 35,060,000 marks. In the organisation and proper execution of the scheme, we understand that especial credit is due to Dr. T. Bödiker, the President of the Reichs-Versicherungsamt.

In the British Medical Journal of December 26th, 1896, attention was directed in an article, the "Welfare of the Worker," to the excellent sanitary arrangements that exist in several of the German factories. But this is by no means universal, and it will be well to call attention to some of the conditions under which the system has to work in Germany which are distinctly less favourable than might be expected to be met with in this country.

A report upon factory inspection in Bavaria has just been made by the British Legation at Munich. After alluding to the improved relationships existing between the Government inspectors and employers, as also between the workpeople and their masters, mention is made of the small regard shown to the younger hands, especially those engaged in dangerous trades, and to the long hours of toil. In Bavaria, as in Britain, all cases of industrial lead and phosphorus poisoning are brought under the notice of the Government inspectors. It is gratifying to learn that since Bavaria adopted the system of reporting these cases, the increased attention paid to the hygiene of industries and the utilisation of scientific discoveries have been followed by a marked declension in the number of people incapacitated for work. We may take, for example, the looking-glass industry at Fürth, in Mittelfranken. As late as the year 1888, workpeople absented themselves on account of mercurial poisoning to the extent of 1,680 days. Since then this form of illness has entirely ceased, owing to the introduction of a more scientific method of mirror making, whereby silver salts have replaced mercurial. By the adoption of this method the health of the operatives has considerable improved.

It is generally known that German industries have progressed at a rapid rate within the last few years, a circumstance which has not only added to the wealth of the empire, but has caused her to be regarded in business as a formidable rival to Britain. The commercial side of this question is fully discussed in the small book *Made in Germany*, whilst its medical and social bearings are shown in the employment of an increased number of women and children, and in the slack regard paid by employers to the factory laws, for

convictions have been numerous. The hours of labour in Bavaria are long: eleven to twelve hours a-day for machine workers, and ten to eleven for hand workers. So far back as 1840, the Bavarian Government issued an Order in Council protecting children, but it was not until several years after the unity of the German Empire was an accomplished fact that an Industrial Code was introduced (1879), which made factory inspection obligatory in all the States. Since then special Acts have been introduced to regulate dangerous trades and to ensure the provision of safety appliances for the prevention of accidents.

The greatest advance in these particular requirements dates from the meeting of the Labour Conference in Berlin called at the invitation of the Emperor. In 1891 the Industrial Code was in consequence amended so as to regulate Sunday toil and the labour of women and children. So far as Bavaria is concerned, it would appear that the regulations for Sunday's rest have not been long enough in operation for their efficacy to be tested, but it is admitted by the workpeople that they themselves have materially benefited by them. Girls over 16 years of age and women are not allowed to work more than eleven hours a-day, a length of time in excess of that in our own country. The hours of labour, which are long, are of almost general application to all the industries of Germany, and yet, in spite of this fact, production is less than it is in England.

Taking the textile industries as our illustration, a German employer lately acknowledged that in Lancashire spindles ran 95 per cent. of the possible time; and in his own town, though the rate of speed was 10 per cent. less, the time lost through the breaking of threads was 5 per cent. greater. Schultze-Gaevernitz showed for the year 1892, that whilst there were in Bavaria 6.8 workmen per 1,000 spindles, there were only 3 workmen per 1,000 spindles in England, and that the saving of labour effected through improved machinery was strongly in favour of Lancashire. Similarly in the weaving of cotton, a man in England will superintend 4 to 6 looms, but in Germany he will only manage 2, the result being that whilst the Continental workman in twelve hours a day turns out a weekly produce equivalent to 466, the English weaver, working eight hours a day, produces in the week 706. The wages of the German are lower than those of the English spinner, 11.8 marks as against 16.3, and this though he is working three to four hours a day longer.

Additional facts might be adduced to show that industrial supremacy is not all on the side of Germany. Our Teutonic neighbours are fully alive to their own interests, however, and are determined to make a bold bid to advance them. Child labour unfortunately is still too largely utilised by them, especially in their "home industries," and these are always the worst, for they cannot be so thoroughly inspected. In order to foster industrial development, the State has provided technical schools. In spite of the improved artisan life in Germany, there is still considerable social unrest amongst the workpeople, who look askance at any benevolent institution started by employers on behalf of the toilers, whose wish, there as elsewhere, is for a larger participation in the profits of labour. The report upon factory inspection in Bavaria concludes by stating that much yet remains to be accomplished ere the housing of the working classes can be regarded as satisfactory, or their domestic conditions brought within the range of hygiene and personal comfort.

THE Executive Committee of the General Medical Council will meet on February 22nd.

THE anniversary dinner of the Medical Society of London will be held at the Whitehall Rooms, Hôtel Métropole, on Saturday, March 6th.

THE presentation of the testimonial to Sir William Broadbent will take place in the Library of St. Mary's Hospital Medical School on February 17th at 3 P.M.

DR. M. A. RUFFER, formerly director of the British Institute of Preventive Medicine, and now Professor of Pathology and Bacteriology in the Medical School at Cairo, has been appointed President of the Egyptian Quarantine Board in place of M. Miéville, who has resigned on account of ill-health.

HIS HIGHNESS THE KHEDIVE has recently conferred the following distinctions upon medical officers in the service of the Egyptian Government in recognition, as it is understood, of the manner in which they discharged the duties of their several offices during the late epidemic of cholera in Egypt. Dr. Harry Crookshank Pasha, Inspector-General of Prisons, and Dr. Rogers Pasha, C.M.G., Director-General of the Sanitary Service, each receive the 2nd Class (Grand Office) of the Imperial Order of the Osmanieh; and Dr. Pinching Bey, Sanitary Inspector of Lower Egypt, the 3rd Class (Commander) of the Order of the Medjidieh.

## LORD LISTER'S PEERAGE.

THE *London Gazette* for February 9th contains the following announcement, dated February 8th: The Queen has been pleased to direct Letters Patent to be passed under the Great Seal of the United Kingdom of Great Britain and Ireland, granting the dignity of a Baron of the said United Kingdom unto Sir Joseph Lister, Bart., President of the Royal Society, and the heirs male of his body lawfully begotten, by the name, style, and title of Baron Lister, of Lyme Regis, in the county of Dorset. We understand that the new peer will prefer to be addressed as Lord Lister, without the territorial addition.

## THE EMPLOYMENT OF UNQUALIFIED ASSISTANTS.

WE are informed that at a recent meeting of the Council of the Royal College of Surgeons in Ireland the following resolution was passed;

That, in the opinion of this Council, the employment of unqualified assistants by qualified medical men is most injurious to the interests of the public and the profession, and should be prohibited by the General Medical Council.

We announced about a month ago that a similar resolution had been adopted by the Royal College of Physicians of Ireland.

## MEDICAL AID FOR INDIA.

A FORTNIGHT ago we called public attention to the need which exists in India at the present time for additional medical assistance, especially in the remoter districts, not only within the area already affected by plague—an area daily extending—but also in the districts visited by famine. Scarcity of food brings in its train typhus and typhoid fever, relapsing fever (often called famine fever), dysentery, diarrhœa, and pneumonia. Everyone must feel the highest admiration for the heroic manner in which the officers of the Indian Medical Service and of the Army Medical Staff serving in India are doing their work; but it is unfair both to them and to the suffering people that extra medical help from England is denied to them. As we stated a fortnight ago, volunteers are ready to offer themselves. But nothing has been done in this direction, though a step in the right direction has been taken by obtaining the valuable services of Dr. Lowson, who

has had large experience of plague in Hong Kong, to act as special adviser to the Government of Bombay. It is true that members of the Indian Medical Service on leave in this country have been summoned back to India, and that a few officers of the Army Medical Staff have been allowed to volunteer. But valuable as the services of these experienced men will be they are not sufficiently numerous to meet the emergency. This country ought to be permitted to send medical aid to India in the person of medical men and medical women and a plentiful supply of capable nurses. They would bring courage and help not only to sufferers from plague, but to those who are dying from ailments which, whilst attributable to scarcity of food, it is no less the duty of the medical man to take in hand and deal with by medicinal treatment.

## THE PREVENTION OF HEREDITARY DISEASES.

A number of unmarried women of New York have formed a society for the prevention of hereditary diseases. They have registered a solemn vow not to marry any man whose family is tainted with consumption, insanity, alcoholism, or other heritable disease. This is a step in the right direction, and if the example of these wise virgins is widely followed by their sisters, and if eligible bachelors show an equally enlightened zeal for the healthfulness of posterity, they will have done something for the betterment of the race. But if it comes to a conflict between Cupid and Hygeia, the betting, we fear, will not be on the latter. Love, which laughs at locksmiths, will think little of snapping the frail link of a vow which has no sanction but the opinion of a small band of enthusiasts.

## QUARANTINE IN THE MEDITERRANEAN.

It is to be hoped that the International Sanitary Conference will be able to introduce some order into the existing chaos of regulations as to quarantine in Mediterranean ports, and that the British Government will see its way to take a strong line with those of our Mediterranean Colonies which by their recent regulations are neutralising the influence of this country in such matters, and going the right way to encourage other Powers to enforce rules of a kind likely to inflict serious damage upon British commerce. It is stated that the proposal already entertained by the International Board of Health at Constantinople as to the Suez Canal will be revised at the Conference at Venice. The date of the assembly of this Conference has been postponed until Tuesday next, February 16th, in order to allow time for all the delegates to arrive before the opening of the Conference. Sir Walter Foster has again called the attention of the Secretary of State for the Colonies to the imposition of preposterous periods of quarantine by British Crown Colonies in the Mediterranean. He referred especially to the regulation by Malta, under which passengers by vessels from India having no cases and no suspected cases of plague on board would still be subjected to twenty-one days' quarantine, while at Gibraltar no vessel from India would be given *pratique*, and neither passengers nor goods would be allowed to land. Mr. Chamberlain's reply showed that he was alive to the folly of these regulations, and to the pernicious effect of such an example, set by British Crown Colonies. He expressed the hope that the Colonial Governments might by degrees be induced to adopt more enlightened methods of protecting the public health, but he dwelt upon the difficult position created by the very strong feeling of the inhabitants in favour of the antiquated system of strict quarantine. The state of affairs in Malta appears to approach panic. Nightly meetings, it is stated, are held in the streets, the crowds clamouring for stricter quarantine regulations; and the authorities in their despair, in order to satisfy the populace, promised to impose the *S'fratto*, under which not only ships from India, but ships from any place which does not enforce quarantine against India, would be forbidden to touch at Malta for any purpose. The particulars with regard to the action of the International Board of Health at Constantinople, which we have received from Dr. Dickson, the British member of that Board, do not encourage much hope of assistance from that quarter. The history of the recent decisions and proposals of this Board make it only too clear that of its own initiative it is unable to rise to any proposal beyond the enforcement of elaborate quarantine regulations. A strong effort will, it is said, be made by some of the Powers at the Conference to enforce the regulation that all ships coming from India or having touched at Indian ports should be disinfected and quarantined at the Suez Canal, and that the passage of vessels having had cases real or suspected on board, or carrying cargoes easily infected, should be altogether prohibited. No doubt this proposal will be vigorously resisted by the delegates of the British and of the Indian Governments, but they will be open to the retort that regulations exactly parallel are permitted to be enforced at Malta and Gibraltar. So long as this is the case, it is to be feared that the task before the delegates will be one of great difficulty; and we cannot too strongly urge upon the Government the importance of taking early and decisive action to remove this stumbling block out of our way. Otherwise it is greatly to be feared that a serious blow may be inflicted upon British commerce, not only in the Mediterranean and India, but also to Australia and the Far East.

## THE UNIVERSITY OF LONDON QUESTION.

We are glad to see that the Committee of Graduates of the University of London, of which Mr. Cozens-Hardy, Q.C., M.P., is President, are beginning to move in the matter of the Bill for the reconstruction of the University of London. At a recent meeting it was resolved to urge upon the Government the importance of again introducing the amended Bill for the creation of a Statutory Commission. We have reason to believe that the Duke of Devonshire is not indisposed to accede to this request, but in the present state of public business it is rather to be expected that the Government will be indisposed to introduce any contentious measure, unless assured beforehand of a large measure of support not only within, but also outside of Parliament.

## THE PASTEUR INSTITUTE.

The President of the French Republic recently paid a visit to the laboratories and stables of the Pasteur Institute at Villeneuve-l'Etang. There are at present in the stables 111 horses intended for the production of the diphtheria and tetanus antitoxins. Fifteen other horses are in course of preparation as sources of supply of the plague serum. On February 10th M. Faure visited the Pasteur Institute in Paris, when Dr. Roux took the opportunity of showing to him the cultivations of the microbe of bubonic plague. In his observations to the President Dr. Roux observed that the microbe has little power of resistance, and is easily destroyed by antiseptics and by a temperature of 140° F. On the other hand he said that it had the power of retaining its vitality in the soil, and that thus epidemics favoured by a dense population and insanitary conditions were perpetuated in Eastern countries. He expressed the opinion that if by mischance the infection were introduced into Europe, it would not spread and rage as in Asia, adding that the best preventive was cleanliness. In these observations on the manner in which the plague bacillus clings to and lives in the soil, Dr. Roux fully confirmed the observations made in Hong Kong and other parts of the East by physicians and sanitary officers who had to deal with plague epidemics on a large scale, and he is at one with them in deprecating alarm in Europe.

## THE ETIOLOGY OF SCURVY.

In the account of Dr. Nansen's wanderings in the Polar regions, which was published in the British Medical Journal of November 28th, 1896, page 1602, it was stated that all the men on the *Fram* remained in excellent health during the whole expedition, except for a few trifles. Dr. Nansen fully

confirmed this statement in the lectures he has been giving this week in London. There was never any sign of scurvy amongst the crew; although that malady has hitherto been found more frequently than any other in Arctic exploration. He thought it a disease very easy to avoid by taking proper precautions. Dr. Torup, Professor of Physiology at the University of Christiania, had, after examining the subject, come to the conclusion that scurvy arises from poisoning caused by eating badly-preserved meat and fish and that under such circumstances poisonous matter allied to the ptomaines is produced, and, when constantly swallowed, engenders scurvy. This theory coincided entirely with the experience obtained during the *Fram* expedition. Whether it will, on further investigation, be found to harmonise with other experiences remains to be proved. At any rate, it was a practical working hypothesis, and Nansen, by adopting it in his well-considered plans, had the felicity of finding the health of his crew remain good throughout their absence of three years in the icy North. It is announced that Dr. Nansen has been appointed Professor of Zoology at the Christiania University.

## VICTORIA MEMORIAL HOSPITAL FOR INCURABLES IN DUNDEE.

SOME years ago the Forfarshire Medical Association, then the only medical society in Dundee, initiated a movement to erect a maternity hospital. By the help of a joint lay and medical committee, a fund of £10,000 has now been raised for this purpose, and the Directors of the Royal Infirmary have undertaken the duty of carrying out the scheme. About the same time, another committee on which the medical profession is fully represented was appointed to look after the interests of the sufferers from incurable disease for whom the present hospital accommodation is entirely inadequate. The great difficulty of treating such cases at home in a town where two-thirds of the houses have no more than two rooms has been keenly felt by the medical profession, who most heartily support the movement for a hospital. At first it was thought that a very small hospital would meet the needs of the town, but inquiry has shown that this is not so, and the Committee has wisely taken advantage of the Queen's sixtieth year to further a much more ambitious scheme, which will include provision for consumptives. A considerable sum—about £20,000 it is said—is already promised, and as the unanimous approval of the community has been given, it seems likely that the whole sum aimed at will be obtained. The Town Council has voted £2,000 from the Common Good, and other large subscriptions are looked for. The details of the scheme are not yet settled, but the Committee should have ample funds to provide separate houses for the consumptive cases, and in other respects make their arrangements completely satisfactory.

## DIPHTHERIA IN LONDON.

THERE was a further decline in the mortality from diphtheria in London, last week. The fatal cases of this disease, which had been 52, 63, and 53 in the three preceding weeks, further fell to 46 during the week ending Saturday last, February 6th, although this number was 5 above the corrected average in the corresponding weeks of the ten preceding years. Of these 46 fatal cases, 7 were of persons belonging to Camberwell, 5 to Hackney, 3 to Islington, 3 to Shoreditch, and 3 to Bethnal Green. The number of notifications of diphtheria in London, which had been 226, 246, and 246 in the three preceding weeks, further declined to 219 during the week ending Saturday last. There was a marked decline in the number of new cases notified in West, North, and Central London, while in East and South London there was an increase upon the numbers recorded in the preceding week. In the sanitary areas of West London the prevalence of diphtheria showed a general decline, although in Fulham there was a slight increase in the number of new cases. In North London there was a marked decline in the prevalence of the disease in Marylebone and in Islington, while in St. Pancras the new cases notified numbered 10 against 6 and 4 in the two preceding weeks. In East London the notified cases showed a marked increase in Shoreditch and in Bethnal Green, where they exceeded the numbers recorded in any recent week; in Whitechapel, St. George-in-the-East, and Limehouse, however, the new cases showed a decline. Among the sanitary areas of South London the highest proportional prevalence of diphtheria was in Camberwell, where 36 new cases were notified against 15, 31, and 39 in the three preceding weeks. The 14 new cases in Greenwich exceeded the number recorded in any week during the past two months, while in Battersea there was a further decline in the number of notified cases. The admissions of diphtheria patients into the Metropolitan Asylums Hospitals during last week were 95, against 108, 93, and 115 in the three preceding weeks; and 879 patients remained under treatment in these hospitals on Saturday last, February 6th.

## THE UNDERMANNING OF THE ARMY MEDICAL STAFF.

As we have already noted, Dr. Farquharson in the House of Commons recently asked the Under-Secretary of State how many civil practitioners had been employed for army medical purposes during the year 1896, and what were the actual (as apart from the officially notified) number of vacancies in the Army Medical Staff down to the end of 1896. Mr. Brodrick's reply is of the usual official character—in other words, evasive, and is worded so as to throw dust in the eyes of the public. He endeavours to dissociate the number of civilian practitioners employed (77) from the actual number of vacancies in the Army Medical Service; while he has to allow at the end of his reply that there "may be some connection between the number of private practitioners engaged and the number of vacancies." Now, it is a perfectly well-known fact that districts and commands generally are seriously underhanded in army medical officers, and that the principal administrative medical officers know not where to turn for men to carry out the duties. Several of the larger commands are quite one-third short of their complement of full-pay medical officers. Leave cannot be obtained; and the War Office is ungenerous enough not to allow any civilian practitioner to be employed with payment to enable a full-pay army medical officer to get leave under any circumstance. Such a state of things is simply intolerable. We must again repeat that there are not short of 50 to 60 actual vacancies, and it is now an accomplished fact that additional Army Medical Staff officers have been, so to speak, lent to the Government of India owing to the plague. Taking the probable result of the next examination into view with the present state of affairs, what is likely to take place if an Egyptian expedition is organised a little later on? Nothing can be more deplorable than the indifference shown by the War Office to army medical needs.

## THE DWELLING HOUSE.

DR. VIVIAN POORE, it is well known, takes a pessimistic view of London houses, even of the better class, and he gave characteristically vigorous expression to that view in a lecture which he delivered at the London Institution on February 4th. London houses are, he said, much too high; then they have as a rule no back door for delivery of goods or removal of refuse; the staircase is ill ventilated; and the "areas," shutting in as they do the gullies leading to the sewer, are close and unwholesome. Dr. Poore declared that modern methods of sanitation give a fatal facility for overcrowding which is certain eventually, if not checked, to do more harm than sanitation has done good. Overcrowding is the greatest of sanitary ills, and is often fostered by sewage schemes. The London Building Act places no adequate check upon enormous structures, and "open spaces," bought at great cost, are made an excuse for the abolition of

private curtilage to houses. So-called "lungs," in which the blood circulates only occasionally on a Sunday, are no compensation for lack of space and light and air in our dwellings. Dr. Poore admitted that defects of the kind pointed out are inevitable in London, but they can easily be avoided in the country. Plans by which the dwelling-house could be made healthier were exhibited and discussed. Dr. Poore contended that some of the Model By-laws of the Local Government Board are not suited for country places, and that regulations as to air space round dwellings which may be beneficial in towns become mischievous suggestions when circulated in the country. He went on to deal with the cost of the dwelling-house, and here he certainly did not prophesy smooth things. Taking a concrete instance in Marylebone, he showed that the rates had risen 87 per cent. in twenty-three years, and that the whole of the obligatory charges—rent, rates, taxes, and water—amounted to over £2 per annum per square yard of occupied land. Increase of the cost of the dwelling inevitably leads to overcrowding, and every addition to the rates increases the cost of the dwelling. Dr. Poore complained that schemes of ostentation and so-called philanthropy, which fall heavily on the householder in the form of rates, do harm rather than good. Modern sanitation, he told his hearers, is largely based on a lopsided socialism which is doing incredible harm. As to this there may be some difference of opinion, but all sensible men will agree with Dr. Poore that no improvement can take place unless it is possible to encourage people in sanitary well-doing. If the man who builds a wholesome isolated house, and completes his sanitation on his own premises, is merely "rated up" and practically fined for doing so, it is hopeless to expect improvement. Dr. Poore speaks strongly, but there can be no doubt that he has here indicated an evil which may easily become a danger. It is unfortunate for the cause of sanitation that "progress" in municipal policy should so far have manifested itself mainly in an upward movement of the rates. "Progress" of this kind is pretty sure to lead to the revolt of the long-suffering ratepayer, and the reaction is not likely to make for sanitary righteousness.

## AN INTERESTING JUBILEE.

Dr. T. F. I'Anson, who was President of the Ethical Section at the last annual meeting of the Association, has been connected with the Whitehaven and West Cumberland Infirmary for fifty years, and on February 1st this professional jubilee was appropriately celebrated. Dr. I'Anson was presented by the committee, trustees, vice-presidents, and medical staff of the hospital with his portrait, painted by Mr. J. D. Kenworthy, of Whitehaven, to be placed with those of other benefactors of the institution in the Board Room. He was at the same time presented with an illuminated address containing the names of the subscribers. The presentation was made by Mr. J. G. Dees, who said that Dr. I'Anson, who was one of the leading men of the North of England, had, since he came to Whitehaven fifty years ago, fulfilled all the duties of his citizenship in a most admirable manner. For many years he took part in the government of the town as a member of the Board of Trustees. He was the founder and first President of the Whitehaven Scientific Association, which had done much to promote the spread of science and literature in the district; he was one of the founders of the Whitehaven Choral Union; he presided at the first meetings for the inauguration of the St. John Ambulance Classes and the District Nursing Association; he was one of the first promoters, and was now President, of the local branch of the Society for the Prevention of Cruelty to Animals. Not only had he lent his name, but he had been an active promoter and organiser of all those movements. On October 12th, 1846, he was appointed House-Surgeon of the hospital, and in 1849 he was promoted to the surgical staff, on which he had continued to serve till the present day. It was to commemorate his golden wedding with the institution that his friends had asked him to sit for his portrait, in order that it might be a lasting memorial of the services which he had rendered, and that his example might stand out for the encouragement of those who came after. Dr. Muriel, the present senior member of the visiting staff, said it had been his lot to work for five and twenty years with Dr. I'Anson in the hospital, and there had never been one word of disagreement between them, and that, he might say, was the general opinion of the whole of the staff; they were all agreed in looking upon Dr. I'Anson as their leading man in Whitehaven, and he hoped under Providence that he might so continue for many years to come. Dr. Jackson and other gentlemen present spoke to the same effect, and Dr. I'Anson expressed his appreciation of the manner in which his services had been recognised in a feeling speech. We venture to add our congratulations to those of Dr. I'Anson's friends on a record of service so long and full of credit to himself and of benefit to those among whom his professional life has been passed.

## COMMON SENSE AND LIFE ASSURANCE EXAMINATIONS.

In a paper recently read by Dr. Leslie Ogilvie, before the Actuarial Society of Edinburgh, the author pointed out that too great attention to the minutiæ of a medical examination for life assurance might lead to the general appearance of the proposer being less carefully observed than in former days. From the records of one of our large assurance offices it has been found that the lives taken before a medical examination was instituted compared very favourably with those who were subjected to a medical examination. In the former period the proposer had to appear before the Board of Directors, and the decision depended in a large measure upon his general appearance and past history. Nowadays the tendency is to submit the individual organs to examination, and rather to neglect the general condition of the applicant, like the Pharisees of old, who paid tithe of mint and anise and cummin, and omitted the weightier matters of the law. One of the greatest difficulties in teaching medical students is to get them to look at the patient before proceeding to use the stethoscope and other instrumental means of diagnosis. There is much to be urged in favour of taking a broad view of life assurance, and Dr. Goodhart's suggestion that he would pass many a heart that is now looked at askance, provided the applicant could produce evidence that he made a good breakfast, deserves consideration. There can be no sort of doubt that many lives are rated up or rejected which might be taken at the ordinary rate, provided the examiner would bring a little more common sense to bear on the case. On the other hand, it is possible that certain lives which are now taken might be refused.

## BRADFORD MEDICO-ETHICAL SOCIETY.

A most excellent code of medical ethics has been drawn up by this Society, of which Dr. T. W. Hime is President, for its members. If followed it will render Bradford a most desirable town for medical practitioners. The code is divided into six parts, and includes a scale of fees based on the annual rental of the patient's house. Part I. embraces the general lines of professional etiquette, and makes it an offence for members "to sign any testimonial or certificate as to the merits of any medicinal substance, surgical appliance, or other article used in the treatment of disease, to be used as an advertisement in the daily papers, or by way of placard or handbill; nor shall he authorise any opinion he may have expressed as to such articles to be used as an advertisement." Objection is also taken to any member being the proprietor of or in any way deriving advantage from the sale of any patent or proprietory medicines. No member is permitted to publish or authorise the publication of cases or operations in non-professional publications. Employing unqualified assistants as substitutes for professional attendance and "covering" are held to be ethical offences, and also the visiting of another practitioner's

patients save with his consent or knowledge. This latter clause is drafted to prevent the troubles so often raised by medical officers of health examining cases of infectious disease in the absence and without the approval of the medical attendants of the patients. Members are warned to be careful to avoid adverse criticism of the diagnosis or treatment adopted by their professional brethren, and to decline to encourage "unprofessional people" in discussing the skill or conduct of rival practitioners. It is well stated that medical men will best maintain their personal and professional dignity and the best interests of the profession by doing their utmost to uphold the reputation of its members and prohibiting derogatory discussions in their presence. The other divisions of the code are equally ably drawn up, but are too numerous for quotation in our columns. We do not detect any omissions. We are glad to note that the question of consultants' fees is also raised, and very sensible details are arranged in reference to consultations in general. The only rule we should be inclined to criticise is that in which it is suggested that "the Committee shall prepare and from time to time shall correct a list of systematic defaulters in the district, also assist in its compilation." Black books are dangerous weapons, and we very much question the wisdom of carrying out this rule. With this exception, we have no hesitation in recommending that the rules in question be accepted as the basis at least of all such societies in future.

## THE NATURE OF MYELOID SARCOMA.

IN a suggestive and well illustrated article in the *Edinburgh Medical Journal* for February Mr. Bland Sutton gives a general account of "myelomata," or what are ordinarily called myeloid sarcomata. He considers that they have been too long confounded with sarcomata, and thus expresses the same idea, only more decidedly, which Messrs. Butlin and Colby suggested in an article on sarcoma of the femur and tibia in the *St. Bartholomew's Hospital Reports* for 1895. Speaking of myeloid sarcomata they said: "If they are sarcomata they differ from other forms in a manner which the modification of their structure does not suffice to explain." Mr. Sutton points out that they are only found growing from those parts of bones where red marrow exists, and that they grow from it just as innocent cartilaginous tumours spring from the epiphysial palte; they in fact grow from one of the normal constituents of the bone. His important conclusion that they differ histologically, pathologically, and clinically from sarcomata crystallises the view which must have existed, though perhaps in a somewhat dormant condition, in the minds of many surgeons and pathologists.

## ANTIVACCINATION "IN EXTREMIS."

No one who is cognisant of the activity which the National Antivaccination League has been exhibiting dnring the past twelve months will be surprised to learn that the outlay involved in so doing has been considerable. With all allowances for what enthusiasm will undertake in the way of letter writing, lecturing, and other devices for keeping such an agitation going, there is a certain amount of expenditure which cannot he avoided. Printers do not work for nothing; postage runs away with a good deal of money when circularising is carried on upon the scale employed by the League; counsel learned in the law are understood to require their briefs marked with decent fees before they can be expected to appear in petty sessions courts all over the country, to say nothing of appeals in the High Court, which have been going merrily on for some months past; and a clerical staff of some kind has to be retained in order to keep the machinery moving. The Council of the League appear to be somewhat disturbed by the condition in which they find themselves at the end of the year, if we may judge from an appeal which they are circulating rather widely. This document, which is addressed promiscuously to any "Dear Sir or Madam" into whose hands it may fall, certainly does not mince matters. With all the resources which typography can lend to emphasise the statement, it asserts that; "Funds are most urgently needed. Unless subscriptions are despatched promptly the Executive will be unable to discharge its heavy liabilities, effectively continue the work of the League, or publish the *Vaccination Inquirer*." We are evidently on the verge of a catastrophe. What would be the result of the collapse of this instructive periodical it is painful for anyone who is acquainted with it to contemplate. For truculent personalities, unblushing assurance in assertion, and ingenious sophistry, it has, we venture to say, no equal on this side of the Atlantic. As a stimulus to their supporters to unbutton their pockets, the Council assure them that "we have reached the most important crisis in our movement. The hope that the Royal Commission Report may favourably influence Parliament should not influence anyone to relax effort or to withhold support." The results, we are told, "would be calamitous, and would enormously aid the advocacy of State vaccination," for "persistent and most influential efforts are being made for the continuance of the present law, or the enactment of a measure perpetuating its principle in a form more difficult to resist and to abolish." And then, with a candour which is quite captivating, the Council proceed to advise that "the utmost use must be made of the admissions and concessions of the Commissioners, and of the confusion amongst vaccinal advocates. Such opportunity," they say, "has never before been ours, nor has there ever been such emphatic call to action." *Fas et ab hoste doceri.* When our opponents so frankly show us their cards it would be quixotic not to use the trumps with which they so despairingly credit us. We commend this interesting document to the Committee of the Jenner Society, who will, no doubt, know how to supply the counterblast which its ingenuous suggestions invite. Meanwhile, it will be well that the supporters of vaccination should pull themselves together, to meet with a firm front the efforts of an organisation which has ceased to profess the modest object of abolishing compulsion in vaccination, and now, and with a consistency which is to be commended, emblazons on its banner as its war cry, "The repeal of the Vaccination Acts; disestablishment and disendowment of vaccination; and abolition of regulations making vaccination a condition of employment by the State, or of admission to educational or other institutions."

## THE PREVENTION OF CONSUMPTION.

WE pointed out last week the importance of enlisting the interest and the assistance of the public, and of agriculturists in particular, in the strife against the spread of tuberculosis. We then called attention to the excellent leaflet distributed by the medical officer of health for Glasgow to every ratepayer in that city, explaining the mode in which tuberculosis is propagated and the means of holding it in check. At the same time our opinion was expressed to the effect that Dr. Russell laid rather too exclusive stress upon discharge from the air passages. We have since been favoured by Dr. Scurfield, medical officer of health for Sunderland, with a copy of his paper on An Antituberculosis Programme, read before the last Congress of the Sanitary Institute, and also of the Instructions for Preventing the Spread of Tuberculosis, which he has circulated throughout his sanitary district. The proposals put forward in the paper are of considerable importance. Dr. Scurfield suggests first the desirability of some form of notification of human tuberculosis, particularly when accompanied by a discharge. He wishes also that sanitary authorities should urge the committees of management of public institutions in their district to give preference to farmers who will supply milk from herds guaranteed free from tuberculosis by the tuberculin test, and that they shall advertise lists of such farmers in the local newspapers for the benefit of private consumers. He further desires the Government to supply the tuberculin test to farmers free of charge, and to insist on the marking of animals which show the reaction, and their sale for purposes of slaughter only.

He finally recommends the exclusive use of public abattoirs, and the compensation of butchers for animals condemned for tuberculosis after having been bought *bonâ fide* as sound. Dr. Scurfield informs us that the Sunderland Fever Hospital is now supplied with milk from a herd which has been tested with tuberculin, and from which the reacting animals have been removed. If this precautionary measure is more extensively adopted and the provisions of the leaflet—which is very similar to Dr. Russell's—are faithfully carried out, we may look for a notable diminution of the mortality from the greatest scourge of our island.

## THE ROYAL COMMISSION ON TUBERCULOSIS.

During the spring certain members of the Commission, including the Chairman, Sir Herbert Maxwell, Bart., M.P., and the Secretary, Dr. T. M. Legge, will visit some Continental cities to inquire into the system there adopted for the inspection of meat in public abattoirs, and into the regulations affecting the source of the milk and dairy produce exported to the United Kingdom. The Commission met on three occasions last week; and among the witnesses called were Dr. J. Niven, M.O.H. Manchester: Dr. Vacher, M.O.H. for the county of Cheshire; Dr. Newsholme, M.O.H. Brighton; Dr. Gourley, M.O.H. West Hartlepool; and Dr. Tatham, Superintendent of Statistics in the Registrar-General's Office. Representative cattle dealers and butchers were also heard. The Commission will now consider the evidence already obtained, but it is proposed towards the end of March to take the evidence of witnesses nominated by the Royal Agricultural Society, the Scottish Chamber of Agriculture, and the British Dairy Farmers' Association. Evidence will also be heard from the farming interest in Ireland and from butchers.

## THE ELEMENTS OF SUCCESS IN LOCAL SELF-GOVERNMENT.

The great differences in the manner of enforcing the laws relating to public health in different districts, raise the question what is the secret of the varying degree of efficiency in sanitary administration. The answer may be of divergent kind and yet be true. There are one or two ways in which the public health can be safeguarded to the best advantage and these should be held in mind from the outset. The first is to exercise the wisdom which sees that the truest economy lies in adequate outlay for the means of prevention of disease. A second is that the advisory officers of a sanitary body should be of such stamp and experience as shall command adherence to their recommendations for the defence of the district against all that militates against the wellbeing of the community. A third is that all the principal sanitary officers be appointed on terms which will enable them to lay aside the cares and competition of private private practice and trading, and thus place them entirely at the disposal of their health body. A pure water supply, proper sewerage, and hospital accommodation, with all the aid to be derived from legislation for the prevention of infectious sickness, should be matter of course. It may be said that for towns these aims may be achieved, but not in small areas of low rateable value. But small districts can either of themselves or in combination with neighbouring areas carry out the programme, as can a large town or residential suburb.

## ROENTGEN AND OTHER RAYS.

The light emitted by glow-worms is still engaging the attention of physicists. That it possesses some of the properties of $x$ ray light was announced in this country last year by Dr. Dawson Turner. Professor Muraoka, of Tokio, working with the light emitted by 300 worms, states in a recent number of *Wiedermann's Annalen* that it behaves very much as ordinary light, except that when filtered through cardboard or metal plates it shows the properties of $x$ rays. It thus seems that it is a mixture of ordinary and $x$ radiations. It is also asserted to contain radiations which have the properties of Becquerel rays. Very possibly the light emitted by the animal comprises rays extending over a very long series of wave lengths. Working with Becquerel's rays an American observer has succeeded in obtaining photographic records. The object to be photographed was placed in direct contact with a photographic plate in a dark slide, and on this was placed the substance under experiment, and of which it was desired to obtain a radiograph, the whole then being protected from daylight. Some very good negatives are said to have been obtained. We are not told, however, that precautions were taken to guard against the possibility of any direct contact effect. The fact that no results were obtained when sheets of metal or glass were interposed suggests a similarity as regards transparency to the $x$ rays. The best results were obtained by using granulated sugar which had been exposed to sunlight as the source of the rays. Using this substance as a source the rays were made to traverse a thickness of over 2 inches of wood. In some of the experiments two shadows at right angles to each other were obtained. It will be remembered that a similar curious effect with the radiations from a glow lamp with a broken filament was recorded in these columns at the beginning of last year.

## THE DIAGNOSTIC VALUE OF TUBERCULIN.

Mr. James Wilson, Fordyce Lecturer in Agriculture, Aberdeen University, has published a pamphlet[1] giving a description of the attempts to eradicate tuberculosis by the aid of tuberculin from the celebrated herd of Aberdeen-Angus cattle belonging to Sir T. D. Gibson-Carmichael, Bart, M.P. Until recently the difficulties of applying means for prevention of this disease have been mainly connected with diagnosis. Tuberculin, though probably not infallible, has to a large extent cleared the way. The treatment described by Mr. Wilson has been adopted in many other herds, and is based on the assumption that tuberculous animals react to tuberculin, and that milk as drawn from the udder is germ-free except when the gland itself is diseased. The whole herd has been tested annually, the reacting animals separated, the cows with apparently sound udders allowed to suckle their calves, and the byres subjected to disinfection. Indeed, the writer states "the only alteration in the management of the herd has been the annual testing and the separating of the sound from the unsound." The present plan was adopted in March, 1895, when 20 per cent. of the herd reacted; in January, 1896, 11.63 reacted; and in November, 1896, 10.84 per cent. This method avoids wholesale immediate slaughter, admits of the rearing of calves from cows probably tuberculous, and suggests for diminishing tuberculosis in our herds, a means which seems in this case so far satisfactory.

## DOCTORS AND FISHERMEN.

François Coppée has called the attention of the public in France to a strange arrangement in the French fishing fleets. By the law of their country French shipwrights and sea captains are bound to see that every kind of craft that sails with a crew of over twenty men carries a medical officer. Very large smacks, well known to British tourists, especially artists, put to sea for Iceland and Newfoundland in considerable fleets every season. The shipwright or owner, obliged to conform to the law, but unwilling to pay for a "useless pair of arms," demands that each doctor should help the fishermen to cut up and salt the fish. M. Coppée states that at Granville, Paimpol, and Fécamp, as many doctors as are wanted can be found only too ready to accept these terms. They must resemble the "experienced surgeon" of bygone days who, with "a cow," figured on advertisements of the sailings of British emigrant ships.

[1] *Results of the Use of Tuberculin.* By J. W. Wilson, M.A., B.Sc. Edinburgh: George. P. Johnston. 1896. 15 pp., 3 temperature charts.

# THE PLAGUE.

## THE INTERNATIONAL BOARD OF HEALTH AT CONSTANTINOPLE AND THE MECCA PILGRIMAGE.

We are indebted to Dr. E. D. Dickson, British representative on the International Board of Health at Constantinople, for the following interesting account of the measures taken or recommended by that Board with a view to preventing the spread of plague from India by pilgrims. It will be seen that these measures appear to have consisted entirely of more or less prolonged periods of quarantine. Dr. Dickson writes under date January 31st, as follows :—

### Supposed Origin of the Epidemic in Bombay.

The Constantinople Board of Health's attention has been called to the outbreak of plague at Bombay and Karachi. The Board has in consequence decreed stringent measures of a more or less rational and effectual character with a view to arrest the extension of the malady to the Hedjaz and Mesopotamia. The departure of pilgrims from Bombay for the Hedjaz to assist at the religious ceremonies of the pilgrimage at Mecca on May 11th rendered such precautions at this moment very necessary. Great fear was, moreover, entertained by the European delegates on the Board of this plague extending to Europe.

The manifestation of plague in Bombay was announced to the Porte by the Ottoman Consul at Bombay on September 27th, and was attributed by him to an importation of the malady from Hong Kong. The outbreak, he added, had manifested itself about a fortnight previous to that date, in the *Mandesi* quarter; but its real nature did not seem to have been recognised at first.

### Quarantine against Bombay and Persia.

On the receipt of this news the Constantinople Board of Health imposed at its sitting held on September 29th a quarantine of twenty days on arrivals from Bombay. This quarantine was, however, reduced by the Board on October 6th to ten days with disinfection of the clothing of the passengers and ships' crews.

As the Persian Government had not taken any precautionary measures against Bombay, the Constantinople Board of Health applied, on December 15th, a similar quarantine on arrivals from the Persian ports of the Persian Gulf, and ordered at the same time that arrivals by land from the Persian territory, extending between Mohammera, on the Karun river, and the Turkish frontier, be repulsed.

### Quarantine against all Indian Ports.

Plague having now broken out at Karachi, the Board of Health imposed on December 29th a quarantine of ten days with disinfection of the clothing of the passengers and crew on arrivals from that port.

On January 5th, 1897, as the outbreak of plague at Bombay appeared to be extending, the Board of Health ordered that arrivals from every part of Hindustan, as well as those from Karachi, were to perform a quarantine of fifteen days, and that the clothing and luggage of pilgrims and merchandise of a susceptible nature, that is, liable to contain the infection of plague, were to be disinfected. If cases of plague occurred on board of any of these ships their quarantine would have to be increased to twenty days; the ship's cargo would have to be landed and disinfected, and all articles suspected of containing the *materies morbi* of plague were to be incinerated.

The delegates of the European Powers and some of the Turkish members of the Board of Health advocated the prohibition of the departure of pilgrims from India and Karachi this year for the Hedjaz; and the Austrian and German delegates more especially insisted that the British Government should carry out this measure. I protested, however, against it, and told the Board that the Indian Government would most assuredly never carry it out. The Board did not therefore insist on it.

### Quarantine against Persia.

Fluvial arrivals at Bassora from Mohammera were to perform there a quarantine of ten days with disinfection; but arrivals by land from the Persian territory extending from Khanckin to Mohammera were to be repulsed.

Since January 5th, and up to January 27th, the Board of Health has imposed a quarantine of ten days on arrivals from Muscat and from Bahrein, on the Arabian shore of the Persian Gulf. It has, moreover, prohibited the entrance into Mesopotamia of Shiite pilgrims and corpses coming from India, and has ordered that arrivals at Bassora which have had cases of plague on board shall be repulsed.

### Proposed Exclusion of Indian Ships from the Suez Canal.

The Board of Health has manifested the intention of establishing a lazaret at Fao, at the mouth of the Shat-el-Arab—a useless and vexatious measure as a sanitary precaution; and the Persian Government has announced its intention of establishing a quarantine station at Bender Abbas, at the entrance of the Persian Gulf, to overhaul ships arriving from India. The Constantinople Board of Health has, moreover, expressed a desire that all vessels bound from India to the Mediterranean should not be allowed to go through the Suez Canal unless they have been overhauled at Aden and put in quarantine there if necessary.

The Sanitary Conference, which is to meet shortly at Venice, will probably solve all these questions. Bombay and Karachi will cease to be ports of departure for pilgrim ships after February 1st.

The Ottoman sanitary delegate at Teheran, in Persia, telegraphed on February 1st to the Constantinople Board of Health that bubonic plague had manifested itself at Jewadir —a port in Beluchistan, close to the Persian frontier.

### Plague on a Pilgrim Ship.

The sanitary inspector at Kamaran telegraphed to the Board of Health on January 8th that the ss. *Pekin* had arrived there from Bombay with 1,047 pilgrims; that two deaths from plague had occurred on this ship during its voyage from Bombay; but, on its arrival at Kamaran, all the pilgrims were in good health, and continued to enjoy good health up to January 26th, when they were admitted to free pratique, and sailed for Jedda.

The sanitary officer at Jedda telegraphed to the Constantinople Board of Health on January 30th that this ship had arrived there with all its pilgrims in excellent health, and, after being kept under observation twenty-four hours, they were admitted to free pratique.

## THE SANITARY DEFICIENCIES OF BOMBAY.

### Overcrowding.

The predisposing causes of plague—filth and overcrowding—have been rife in Bombay for many years; the present visitation of pestilence, therefore, does not come as a surprise to anyone tolerably acquainted with the physical aspect of the island. The native quarter is to a great extent built on "made soil," much of which was originally impure material, including what has been used in reclamation in the vicinity of the docks. Blocks of buildings several storeys high were rapidly run up some years ago without proper connections with the sewers, and only surface drains in many places to carry off the surplus sewage and soakage which the ground could not absorb, the solid excreta being removed in baskets on sweepers' heads to the nearest night soil cart, which, when full, is drawn by bullocks to be emptied into the main drain at Carnac Bridge or elsewhere. The pollution of soil and atmosphere in such circumstances may perhaps be better imagined than described. The railway passenger between Victoria Terminus and Byculla will see and smell enough to give him some idea of the relation between dirt and disease in Bombay. Excessive overcrowding has been the rule in these jerry-built "chawls," house rent having risen so much of late that business people had to live at Bandora, Tanna, and even as far as Kalyan, some thirty miles off on the G. I. P. Railway.

### Insanitary Burial Customs.

Malabar Hill, where Europeans and the richer natives live, is undrained, and some of the compounds there are also overcrowded with the servants, families, and their relations.

On this ridge are the "Towers of Silence" for the disposal of the Parsee dead, which ought to have been closed long ago, and others built at a distance from human habitations. The Parsees occupy such a prominent position in the island, that their leading members should insist on the selection of a more secluded and suitable site for the disposal of the dead of their community before it becomes necessary to have recourse to compulsion, which must be the case sooner or later. The Mohammedan burial ground is badly situated and dangerously overcrowded, and should have been closed many years ago. As a rule, Mussulmans never reopen a grave but always bury in fresh soil; the result is that their burial grounds cover greater areas than are available near most towns. Intramural burying must be prohibited by a legislative enactment within the town and island of Bombay as an urgent sanitary measure.

### The Drainage System of Bombay.

The drains are not self-cleansing, and the sewage has been seen tided back high in the manholes in Marine Lines, owing to silting of the sewers and defective pumping. The pipes are not bedded in concrete even in the waterlogged parts of the town, as they should have been, consequently the joints cannot be gas or watertight, and "made soil" cannot be expected to support pipes at true level for any length of time without settling in some places, and so causing obstruction. The offensive state of the Bombay drains has been notorious for years, and the acrid and irritating nature of the sewer gases may be witnessed in their effects on the eyes of the men engaged in screening the sewage and working at the outfall pumping station. The foulness of the "flats" is evident on approaching the city by the B. B. and C. I. Railway, through stagnant pools of sewage and heaps of sweepings deposited here for years, whereas this offensive and dangerous refuse might have been removed to the Coorla flats, and utilised in reclaiming the salt marshes, as was so successfully done formerly. The condition of the foreshore has been a long-standing scandal, as in numerous places it is used by the natives for natural purposes, owing to insufficient latrine accommodation in that locality for the large harbour population.

### Domestic Hygiene in Bombay.

It is not an easy matter to improve the domestic hygiene of natives, who live closely packed together in small dark rooms built back to back, with entrances from narrow lanes and gullies. Personally, as a rule, natives are cleanly where water for ablution purposes is plentiful and space sufficient, but the mistake made in Bombay has been to have allowed a practically unlimited supply of water in an overcrowded city, with waterlogged and sewage-sodden soil and defective drainage. The sanitary condition of the stables and sheds for horses and cattle has been most unsatisfactory for many years, and the confined stalls in which the calves of the vaccination department sicken and die are a disgrace to the authorities. Taking all the above conditions into consideration, a more favourable hotbed for the development and dissemination of disease could neither possibly exist nor well be imagined than the town and island of Bombay.

### The Bombay Municipality.

To arrive at an approximate estimate of the ways and means of the Bombay municipality, and the manner in which that corporation have discharged their various functions for the last ten years, it would be necessary to peruse a file of the *Bombay Gazette* and *Times of India*, in which the rhetoric of its members is fully displayed and recorded, and also the share of their attention devoted to sanitation during the same period. If it be permissible in this instance to judge by results, it is quite clear that it was premature to have given the control of sanitation to the Bombay municipality on the introduction of local self-government in India. An exception should have been made in the case of sanitary science, the precepts and practice of which, partly from caste prejudices, natives are yet unable fully to appreciate in their bearing on the health of the public, of which they have been constituted the guardians before being qualified for such an important responsibility.

### The Sanitary Lapses of the Bombay Government.

It is very doubtful whether the present system of sanitary administration in force in the Bombay Presidency is the most efficient that could be devised for the good of the greatest number. A few years ago, when the Sanitary Department was being reorganised, the Bombay Government expressed a wish to be relieved of its Sanitary Commissioner, but as they were overruled on this point by the Government of India they took to practically ignoring as many as possible of this official's suggestions, and disregarding his opinions as an expert. They even went the incredible length of prohibiting the two last incumbents of this post from discussing important measures of sanitary reform in their annual reports, and actually expunged several paragraphs from a recent report, thus depriving the Secretary of State for India and the Army Sanitary Commission of the opportunity of criticising the views and opinions expressed. Why are sanitary experts and their establishments appointed and paid from public funds if they are not allowed to express their opinions freely on public health questions? A knowledge of the existence of an evil is half its cure, but in these cases an ill-judged policy of concealment was adopted, which on serious reflection must by this time have been discovered to be a mistake. It would be interesting to know what the Bombay Government now could urge in excuse for their indifference to the numerous recommendations to remedy sanitary evils made by their sanitary advisers during the last decade. The Sanitary Commissioner's reports are reviewed by a junior civilian in the Secretariat, who cannot possibly properly understand questions of public hygiene, nor appreciate the interpretations of vital and mortal statistics. Laymen are not competent to pass judgment on the reports of experts, yet this farce has been acted in the Bombay Secretariat for many a year. The only authority capable of comprehending and dealing with Indian sanitary reports is the Army Sanitary Commission, whose deliberate memoranda and suggestions ought to be law on the subjects with which they deal, otherwise, why is such a Committee of experienced officers and experts appointed at the expense of the State?

### Procrastination, its Causes and Consequences.

An experienced correspondent writes:

It is not perhaps generally known that the Government are supposed to be advised in sanitary matters by the Sanitary Board, but in reality are influenced in their decisions and final orders by the Secretary of the Public Works Department, who is not a sanitary expert. Schemes of drainage and water supply for Mofussil towns are expected to be drawn up by Public Works Department engineers without, as a rule, any special training or study of such works, in addition to their ordinary duties. Hence the great delay in completing such undertakings, besides extra cost in establishment charges and the supply of material through the India Office, which cannot be done expeditiously.

The open market could be relied upon to furnish men and materials, and the sanitary engineer could exercise the necessary supervision over works planned by himself, and assisted by engineers of the Public Works Department if required, as is done in other provinces.

The details connected with the Public Works Department, however, whose Secretary has the ear of Government, is one of the chief obstacles to sanitary reform in Bombay. After this severe lesson the Government may probably see the error of their way in looking on sanitary science as one of the crazy delusions of the age. Let them turn over the pages of their sanitary reports for the last ten years and see what action has been taken on the suggestion of their sanitary advisers to remedy admitted evils in all the towns and villages throughout the Presidency. It should be the duty of Her Majesty's Government in this, the sixtieth, year of the Queen-Empress's reign, to enact that future Indian civilians should be educated in the elements of hygiene before appointment. This would induce them to sympathise more with the aims and objects of preventive medicine in preserving health and prolonging life, which besides being a distinct advance and improvement on the disdainful manner in which sanitary suggestions are received by some of the present race of heaven-born civilians of our Indian Empire.

## CHRONICLE OF THE EPIDEMIC.

### Increase in the Bombay Presidency.

Neither in Bombay nor anywhere in India is there any sign

of the plague abating. The number of deaths in Bombay on February 7th and 8th, 1897, were 114 and 128 respectively. In Karachi and Poona the death-rate is increasing, and from Turkestan in the north, Bangalore in the south, Delhi and Kandahar, we have reports more or less reliable that plague has reached those cities. The time is not yet come when an abatement of the disease might be expected in any one of these localities. We do not hope to hear that Bombay is free of plague before April, but we do rely on a distinct improvement by the end of that month. Professor Haffkine has laid the matter clearly before the Bombay municipal authorities, and he endorses what we have time after time repeated in these columns. Plague cannot be stayed by any known sanitary measures when once it has got hold of a locality; its subsidence is dependent upon the abatement of its virulence in the due course of its evolution. With that, and with that only, comes a remission, an intermission, or the disappearance of the epidemic. After so definite a statement, with the authority of Haffkine, hysterical sanitation and the demand for "stamping out" the disease will surely subside. Plague cannot be "stamped out."

The question as to the vultures and their refusal to eat the bodies of those who have died of plague is now fully answered. It would appear that the notion got abroad from the fact that the number of vultures were not sufficient to consume the large numbers of Parsee bodies. With the accession of corpses, however, came an increased number of vultures, so much so that the birds are now said to be quadrupled.

M. Hankin formulates the suggestion that people ought to avoid treading on ants, beetles, bugs, and such animals, as they are full of plague germs. This, of course, applies only to persons walking barefooted, and is a revival of the belief that plague is spread by inoculation. This theory has its upholders, and more than one observer in China lends himself to that way of thinking. The evidence, however, is far from conclusive.

The question of establishing a cordon around Bombay, as advocated by Haffkine, is now of course a dead letter, seeing that plague is known to prevail many hundreds of miles beyond the city. A month ago, however, medical and sanitary opinions were not a little at variance as regards its efficacy. Surgeon-General Cleghorn denounced the plan, and advocated instead removal of the inhabitants from infected houses to temporary dwellings in a healthy site, the sick to be treated in their own homes or removed to hospital by preference. There can be no doubt of the correctness of Dr. Cleghorn's plan. Dr. Haffkine argues from Russian traditions; and although we may admit the possibility of thus dealing with an inland Russian village, it is out of the field of practical sanitation thus to surround a city on the sea coast, and more especially within the tropics, by a system of cordons.

### Suggestions for Treatment.

We are not without suggestions from correspondents as to treatment.

Brigade-Surgeon Parker (retired) writes recommending sulphur as a cure and as an antiseptic and preventive. He recommends that sulphur be burned continuously about a yard from the patient's bed, and that a half-drachm dose of the sulphurous acid solution, *B.P.*, in half a wineglass of water, be administered every half-hour for a time. No less importance is attached to hypodermic injections of the same solution, 15 to 30 minims every half-hour if necessary. Brigade-Surgeon Parker quotes the success of this treatment in cholera, and urges its use in plague, and, in fact, in all zymotic diseases.

Rubbing the surface of the body with olive oil is an old remedy which finds adherents among the laity chiefly. We may mention that this plan of treatment was practised in China during the 1894 epidemic, but without success.

Some recommend the administration of olive oil internally, giving as much as 4 to 8 ounces at a dose, and repeated frequently. Yet again another remedy dating from the early days of the century is suggested: Take of camphor, 2 oz.; sulphuric ether, 1 oz.; olive oil, 1 pint. Of this mixture, 2 tablespoonfuls are to be exhibited every hour.

### Professor Haffkine's Prophylactic Serum.

Dr. Haffkine has prepared a prophylactic serum with which he has had the hardihood to inoculate himself; his statement is as follows:

I have the honour to communicate the following facts relating to the problem of protective inoculation of man against the plague. In the course of the present researches I have found different media which give rich cultures of the plague bacillus, permitting to cultivate them in abundant and concentrated quantities. The virulence of these cultures is shown by the fact that one or two minims are sufficient to communicate certain death to the largest rodents. The destruction of the bacilli in the culture by delicate processes, such like the addition of essence of mustard, of very weak solution of carbolic acid, or by desiccation or by heat deprives these cultures of their fatal properties, and makes a dose 40 to 50 times bigger than the fatal one quite harmless to the animals. But while depriving the cultures of their noxious properties, the above processes leave to them the power of protecting the system against fatal infection. Rodents which have had an injection of such cultures (with microbes killed in them), when infected five days after the prophylactic treatment, stand easily a dose of living virus, which would be fatal to ten other not protected animals. Having established these facts, I caused myself to be inoculated on the 10th of this month to observe the symptoms of this operation in man. The injection was done in the flanks with 10 c.cm. of a culture in which the microbes were killed by heating during one hour at a temperature of 70° C. The symptoms produced consisted in pain at the seat of inoculation and in a rise of temperature. The highest point reached was 102° F., eight and a half hours after the injection, which was accompanied by slight headache and feeling of faintness. The temperature got again normal twenty-four hours later. The bowels remained normal. The pain at the seat of inoculation was mostly felt next morning while getting up from bed. It extended on the left side to the region above the Poupart's ligament, and on the right towards the axilla without reaching it. Since the next day the pain gradually disappeared. A small nodule remained at the seat of inoculation, but got rapidly absorbed. These symptoms show the perfect harmlessness of the operation. The observations made in the laboratory lead to the conclusion that the inoculation as described above will increase the resistance of man against the disease, but the extent of that protection, and the modifications to be introduced in the method for the object of increasing that protection can be shown only by observation on man during the epidemic.

### Extension Northward and Eastward.

Kandahar, in Afghanistan, is reported to be infected, and the Russians are forming a cordon along the banks of the Oxus. Turkestan is added to the list of infected, or at least suspected, regions, and the disease occupies now well nigh an area of 2,000 miles from north to south, and 1,000 miles in breadth.

All these foci of infection we expected, but we were not prepared to hear that Bangalore, in the Mysore district, was also plague stricken. Plague has never been known further south than 19° N. lat., but if we are to accept the report, which at present we are not inclined to do, we must be prepared to open our minds to the fact that plague has gone beyond the "plague area," and travelled as far south as 12° 58′ N. lat. As, however, our real knowledge of plague dates only from 1894, we must not condemn statements which have only tradition and unreliable records against them.

### Measures Adopted by the Indian Government.

A Viennese physician writes to the Austrian papers from Bombay in highly eulogistic terms of the efforts now being made by the Indian Government. We can endorse this encomium, and we are sure anyone who knows anything of the methods of the Indian Government generally will be prepared to accept it. The "benign autocracy" by which India is ruled is of all forms of Government the one best qualified to deal with distress amongst its subjects.

The authorities in the Bengal provinces have established a double chain of observation camps along their trade routes, and the Calcutta authorities are doing their best to cleanse their city. Plague, if we are to believe rather mythical records, has never visited Calcutta, nor, as far as we know, the Bengal Province; but conditions change, and we are afraid historical precedents will not allow the authorities to relax their vigilance.

The Legislative Council of Calcutta on February 4th, 1897, passed a Bill for the Better Prevention of Dangerous Epidemic Diseases. The main provisions of the measure are the detention of vessels where this may be considered necessary, the immediate and systemic examination of railway passengers throughout India at suitable points, and the establishment at these points of isolation camps and hospitals.

The whole of the ports on the Malabar and western coast of India are closed to pilgrims, and, to the annoyance and consternation of the inhabitants of the Madras Province, the port of Madras is thrown open to the Mecca pilgrims. Quarantine and cordons are the order of the day. France maintains the old-fashioned notions of strict quarantine. Egypt is applying the laws that have come down to her from the days of the Pharaohs. We repeat that it is not by sea but by land that the danger to Europe lies. The modern British ships and the mail boats of other countries are, for the most part, models of sanitation, but the same cannot be said of the trading vessels of countries other than British, and we are not surprised at less maritime and less sanitary nations, whose acquaintance with shipping is gathered from a know-

ledge of their own vessels, condemning all British maritime authorities with what appears to them culpable negligence.

### Germany and the Plague.

No decision has yet been made as to who is to be the representative of Germany at the International Plague Conference in Venice on February 16th. Professor Robert Koch had been chosen, but no answer has as yet been returned to the two telegrams sent out to him; probably he is at present away in the interior of Cape Colony.

A scientific research party is to be sent out to India by the German Empire to investigate and report on the plague.

### Miscellaneous Jottings on the Plague.

At the present moment it may be interesting to recall the opinion expressed by Napoleon as to the contagiousness of the plague. In a little book published in 1816, Dr. Warden, surgeon of the *Northumberland*, which took the fallen Emperor to St. Helena, records a conversation which he had with his illustrious patient on the voyage. Napoleon said that plague could be communicated only by the respiratory passages, and on Warden objecting that the disease was contagious, the Emperor replied that when his army was attacked by the plague in Egypt he had constantly visited the hospitals, and touched the bodies of the patients in order to give confidence to all, in the conviction that the disease could be caught only from the breath. He added that he always took care to make his visit to the hospitals after a meal, and after drinking several glasses of wine, and in approaching the patients he always kept to windward of them. There is a well-known picture representing Napoleon in the midst of his plague-stricken soldiers at Jaffa. His precautions were judicious, whatever may be thought of his theory.

Dr. Kimura, the new editor of the Japanese medical journal, *Sei-I-Kwai*, gives, in a recent issue, the following interesting account of Professor Kitasato's researches on the plague bacillus:

The pest bacillus is of rod shape, whose both extremities stain deeper than the middle part with anilin pigment, and has a capsule; its shape resembles the bacillus of chicken cholera. The pest bacillus is differ from all other bacilli of infectious diseases, being inoculated by three channels—by lungs, stomach, and by hypodermic injection. In the blood of the patient in convalescent state, after decline of fever, abundant of the pest bacilli still present; and therefore, immunity to the disease can easily be secured, by a certain method which Dr. K. is investigating at present.

# ASSOCIATION INTELLIGENCE.

## NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1897.

Meetings of the Council will be held on April 14th, July 7th, and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 25th, June 17th, and September 30th.

### Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M., Saturdays, 10 A.M. to 2 P.M. Members can have their letters addressed to them at the office.

## BRANCH MEETINGS TO BE HELD.

Aberdeen, Banff, and Kincardine Branch.—An ordinary general meeting of the Branch will be held in the Palace Hotel, Aberdeen, on Wednesday, February 17th, at 8 P.M. Business: Ballot for the admission of Dr. Innes, George Street. Report from Council *re* Abuse of Medical Charities. Dr. W. H. Williamson: Case of Abscess of Antrum, Transillumination.—C. Thiselton Urquhart, J. Scott Riddell, Honorary Secretaries.

Metropolitan Counties Branch: West London District.—The next meeting will be held at St. Mary Abbot's Infirmary, Kensington, on Wednesday, February 17th, at 4.30 P.M.: Mr. Kiallmark, Vice-President, in the chair. Agenda: Paper: Robert Maguire, M.D., F.R.C.P.Lond.: Some Points in Palpation and Percussion. Clinical Cases: H. Percy Power, F.R.C.S.Eng., Medical Superintendent.—Thomas Dutton, M.D., Honorary Secretary, 7, Portland Place, W.

Metropolitan Counties Branch: South London District.—A meeting of this District will be held on Wednesday, February 24th, at 4.30 P.M., at Guy's Hospital (by kind permission of the Treasurer). The meeting will be clinical entirely, and demonstrations will be given by members of the staff. All practitioners, whether members of the Association or not, will be heartily welcomed.—Seymour G. Toller, M.D., St. Thomas's Hospital, District Secretary.

Metropolitan Counties Branch: East London and South Essex District.—The next meeting will be held, by kind invitation of Dr. Aveling, at "The Oaklands," Upper Clapton, on Thursday, February 18th, at 8.30 P.M. The chair will be taken by Dr. Shadwell, Vice-President of the District. Agenda: Confirmation of minutes of last meeting. Dr. Goodhart will read a paper on Appendicitis from a Physician's Point of View. Visitors will be cordially welcomed.—Herbert E. Powell, Honorary Secretary, Glenarm House, Upper Clapton.

South Wales and Monmouthshire Branch.—The next meeting (clinical) will be held at the Infirmary, Cardiff, on Thursday afternoon, February 25th. Notices of papers, cases, etc., are requested to be sent in on or before February 18th.—Alfred Sheen and D. Arthur Davies, Honorary Secretaries.

Staffordshire Branch.—The second general meeting of the session will be held at the North-Western Hotel, Stafford, on February 25th at 4.30 P.M. The President, Dr. T. Ridley Bailey, will take the chair. Agenda: Minutes of the last meeting. Election of new member. Recommendation of Council to give a donation of 10 guineas to the Royal Medical Benevolent College. Consideration of the report of the Special Committee on Medical Defence. Dr. Greaves will move: "That this Branch of the British Medical Association regrets that public vaccinators are debarred from the benefits of the Poor Law Officers' Superannuation Act, 1896, and is of opinion that the Parliamentary Bills Committee should take steps to have the omission rectified, if possible, by the insertion of a clause or clauses in the Municipal and County Council Superannuation Bill." Exhibition of any clinical cases or pathological specimens. Dr. C. Reid: Notes on a Fatal Case of Chorea. Mr. Gerard C. Taylor: The Treatment without Splints of Fractures at the Lower End of the Humerus. Dinner at 6.30; charge, 5s. Members intending to dine are requested to notify the Secretary.—F. Milnes Blumer, Honorary Secretary, Stafford.

## SOUTH-WESTERN BRANCH.

An intermediate meeting of the Branch was held at Truro on January 26th; Dr. Hingston, the President, in the chair.

*Confirmation of Minutes.*—The minutes of the previous meeting were read and confirmed.

*New Members.*—The following gentlemen were elected members of the Association and Branch: W. H. Brendon, M.B., Plymouth; J. Cock, M.R.C.S., L.R.C.P., Exmouth; Elgan Down, M.R.C.S., L.R.C.P., Devonport; M. Farrant, M.R.C.S., L.R.C.P., Exeter; L. L. Hanham, M.R.C.S., L.R.C.P., Devonport; J. W. Haughton, L.R.C.S.I., L.R.C.P.I., Truro; W. L. Mayer, M.R.C.S., L.R.C.P.E., Brixham; W. R. Miller, M.D., Penzance; E. S. Pollock, M.B., Witheridge; J. D. Shapland, M.B., Exmouth; J. E. C. Wilson, L.R.C.P.E., L.M., Devonport. The following members of the Association were elected members of the Branch: W. H. Bowes, M.D., Blackadon Asylum, Ivybridge; F. G. Bushnell, M.D., Plymouth; G. H. Cressey, M.R.C.S., L.R.C.P., Torquay; W. Eames, Staff-Surgeon H.M.S. *Lion*, Devonport; W. A. Payne, M.B., Ilfracombe; C. M. Powell, M.R.C.S., L.R.C.P., Exmouth; R. P. Ryan, F.R.C.S.I., Devonport; H. Sharp, M.B., Truro; J. C. Walker, L.R.C.P.E., L.R.C.S.E., Mevagissey.

*Communications.*—Mr. Swain, of Plymouth, read a paper on Ectopic Gestation, with illustrative cases, and a discussion followed, in which Dr. Salmon, Dr. Shore, Dr. Butlin, Dr. Sharp, and Dr. Hichens took part.—Dr. Montgomerie, of Penzance, read Short Notes on Adenoids; and Dr. Butlin,

Dr. MAY, Dr. EVERSHED, Dr. HICHENS, Dr. LAWRIE, and Dr. SHARP took part in the discussion of it.—Mr. LUCY, of Plymouth, read a paper on Perforating Appendicitis, and showed specimens of appendices which he had removed by operation. Dr. SHARP, Dr. ROLSTON, and Dr. BUTLIN made remarks.—Dr. CARLYON, of Truro, next read two cases, one of a girl aged 15, from whom he had removed a large Ovarian Cyst; the other of a man who had developed a large Liver Abscess after Dysentery, and who recovered through operation. Mr. LUCY and Dr. BUTLIN made some observations on these cases.—Dr. CARLYON also showed a large Villous Tumour which he had removed from the rectum.—Dr. EVERSHED, of Penzance, read a case of Rapidly Fatal Diabetes Mellitus: and Dr. HICHENS and Dr. MONTGOMERIE referred to cases in their experience.

*Visit to Cathedral.*—Canon Donaldson most kindly met the members, and conducted them over the Cathedral.

## NEW ZEALAND BRANCH.

A SPECIAL meeting of the New Zealand Branch was held in Christchurch, New Zealand, on October 27th, 1896; Dr. JAMES IRVING in the chair. Drs. F. Batchelor, Lindo Ferguson, Barnett, and Wm. Brown were present as delegates from Dunedin.

*President's Address.*—Dr. IRVING delivered an address in which, after a graceful reference to the work of Dr. Murray-Aynsley in helping to bring about the establishment of a New Zealand Branch of the British Medical Association, and congratulating those present on the successful accomplishment of that object, he went on to say: Our connection with the parent tree is an accomplished fact, as our charter is ready to come out. Our growth, both numerically and in importance, will, I hope, be a matter of but a short time; and the pruning will, doubtless, be conspicuous by its absence. I am sure that our transition will stimulate members to renew their efforts to make our Branch of the British Medical Association worthy of the great and wide-spreading tree upon which we are now engrafted; and that as the natural tendency of all healthy branches is ever to spread wider and grow higher so may we, one and all, ever strive to soar higher into those ethereal and illimitable regions of science, whose advances are so rapid that even the gigantic intellect of a Kelvin or a Gladstone are unable to keep abreast of all its achievements. In no departments of science is the old adage, "Knowledge is power," more true than in those of medicine and surgery, and if it is a fact that with our so rapidly increasing knowledge our power proportionately increases, so it is equally true that our responsibilities keep pace with them. I sincerely trust and believe that it will be said of every member of this Branch of the British Medical Association, *Crescit amor scientiæ quantum ipsa scientia crescit.*

*Provisional Arrangements as to Officers and Membership.*—It was proposed by Dr. L. FERGUSON, seconded by Dr. BARNETT, and carried unanimously:

That until the next meeting of the Branch at Nelson in March, 1897, Dr. J. Irving be President of the Branch.

Dr. IRVING expressed himself willing to accept the post.—It was proposed by Dr. WM. BROWN, and seconded by Dr. LINDO FERGUSON:

That until the meeting in Nelson in March, 1897, Dr. Richard W. Anderson, of Christchurch, be General Honorary Secretary of the Branch.

This motion was also carried *nem. con.*, and Dr. R. W. ANDERSON accepted the post.—It was proposed by Dr. LINDO FERGUSON, seconded by Dr. E. JENNINGS, and carried:

That all members present be voted in as members of the Branch, though though they were not original signatories.

Dr. WM. BROWN (Dunedin) proposed:

That until the meeting to be held in Nelson in March, 1897, instead of appointing special officers, the whole of the members of the British Medical Association resident in Christchurch and immediate neighbourhood who have either signed the original application for affiliation, or have given in their names to-night, be appointed a provisional council to carry on the business of the Branch.

This was seconded by Dr. F. BATCHELOR (Dunedin) and carried.

*Australasian Medical Gazette.*—After considerable discussion it was decided that the *Australasian Medical Gazette* be the official local organ of the Branch. It was proposed by Dr. F. BATCHELOR (Dunedin) and carried unanimously:

That the subscription to the New Zealand Branch of the British Medical Association shall be 2 guineas, including the cost of the two journals—namely, the BRITISH MEDICAL JOURNAL and the *Australasian Medical Gazette*—and for that sum country members shall be entitled to become members of their local Branch. Town members to subscribe as may be decided by their Branch. If any profit be made by the sale of the *Australasian Medical Gazette* it shall be the property of the local sub-Branches.

## HONG KONG AND CHINA BRANCH.

A MEETING of this Branch was held in Hong Kong on December 18th, 1896.

*New Members.*—The following gentlemen (already members of the British Medical Association) were admitted members of the Branch: Surgeon-Colonel G. J. H. Evatt, M.D., Principal Medical Officer of Her Majesty's Forces in China: and Surgeon-Captain P. J. R. Mannerley, Army Medical Staff.

*Election of Officers.*—The officials and Council for the ensuing year were elected as follows:—*President:* Surgeon-Colonel G. J. H. Evatt, M.D., P.M.O. *Vice-President:* F. O. Stedman, M.D. *Hon. Secretary and Treasurer:* J. C. Thomson, M.D. *Council:* Surgeon-Major P. H. Johnston, M.D., A.M.S.; Surgeon J. C. Durston, R.N.; J. M. Atkinson, M.B.; G. P. Jordon, M.B.; A. Rennie, M.B.

*President's Address.*—Surgeon-Colonel EVATT delivered an address on the Medical Organisation of a British Army in Time of War.

# SPECIAL CORRESPONDENCE.

## PARIS.

*Plague and Rumours of Plague.—An Old Epidemic.—Foundling Hospitals and the Increase of the Population.—The Keeping of Diphtheria Serum.*

NEWS comes from Marseilles that the statement in the *Times*, copied by a Parisian daily paper, as to a case of plague having occurred at Frioul, is erroneous. No deaths from plague have occurred at Frioul. The appearance of the two English vessels, the *Persia* and the *Branksome Hall*, arriving from Bombay at Marseilles, caused great excitement in that city. The sanitary service decided to disinfect the goods, and after forty-eight hours' quarantine to give a clean bill of health. The Marseilles daily press became alarmed, and they in turn frightened the municipality. The mayor of Marseilles (Dr. Flassières) urged that all arrivals from Bombay should be forbidden, whether contaminated or not, to enter the port of Marseilles. The prefect also took fright, and asked the Minister for further instructions. In the Senate M. Peytral asked the Minister of the Interior to order a longer quarantine in the case of the two vessels the *Persia* and the *Branksome Hall*, and that henceforth vessels coming from India are not to enter any French port unless a thorough clean bill of health can be furnished. M. Barthou replied that the international preventive measures would be settled at the conference to be held in a few days at Venice. The French Government has forbidden the importation of goods or products from the contaminated Indian provinces, except by entering at certain specified ports. The Chamber of Deputies has under consideration his propositions for perfecting the sanitary law of 1822. M. Barthou denied, as he had previously done in the Chamber of Deputies, the occurrence of one single case of plague at Marseilles or elsewhere in France. With regard to the two vessels in question, the Minister could not give a definite reply until he had conferred with his colleagues. He could only assure the House that if it became necessary to take more rigorous measures, the Government would not shrink from doing so in order to safeguard the public health. The Marseilles members of the General Council were convened by M. Estier, and have voted that the port of Marseilles be forbidden to all vessels arriving from plague-stricken districts; also to those that have only stopped at the ports of the said districts. The members of the Society for the Defence of Commerce have met and have decided as follows: "The Syndical Chamber approves all the measures,

however severe they may be, adopted in accordance with the sanitary authorities. It even strenuously urges that they be observed, but considers that Government should be asked for an indemnity to the importers and merchants who are victims of the decisions contradicting those previously made. The *Caledonia*, an English vessel, from Bombay, is detained at Frioul. It has on board seventy-seven passengers, most of whom intended to take the train to Paris, thence to Calais to cross the Channel. The authorities refuse to allow them to land. The *Varra*, of the Messageries Maritimes, is expected to arrive shortly from the East. She will also be kept in quarantine at Frioul. At the request of the Director of the Health Service, twenty foot soldiers have been sent to Frioul to co-operate with the police who are awaiting the arrival of the *Varra*. It is feared that the friends and parents of those on board will attempt to force their way on board the *Varra* to see their relatives. Passengers on board vessels coming from plague-stricken localities will have to undergo eight days' quarantine in the Ocean ports and four in the Channel ports. The period is determined by the distance travelled. These decisions of the Committee of the Sanitation Service will be submitted for the consideration of the Council of the Ministers.

M. Deluns-Montaud, formerly Minister, now Deputy for the Lot and Garonne Department, has found among his family papers and made public an interesting letter concerning the plague which invaded Marseilles in 1720 21. The writer deplores the disorder and absence of organisation in the city of Marseilles which prevented the medical men from treating their patients satisfactorily. Thirty thousand deaths had occurred at the moment the letter was written. There was no doubt in the mind of the writer—one of the three professors of the Montpellier Faculty sent to investigate the nature of the epidemic—that Marseilles was a prey to plague. Twenty surgeons, six assistants, and six physicians had fallen victims to the scourge. The cases were characterised by buboes and purple spots. Death carried off the victims in one, two, or three days; sometimes suddenly, without any premonitory symptoms. In those rare instances in which the pulse beat quickly and the body retained a certain amount of generalised heat, constant bleeding, emetics, purgative tisanes, refreshing drinks, diuretics, and cordials cured, when the illness lasted five or six days, but these cases were rare. At the necropsy, gangrenous inflammation was observed in the lower abdominal region, the chest, and the brain. The origin of this epidemic was generally attributed to the arrival of a vessel from the Indies. Six of its crew had died on board of an illness presenting the symptoms above described. Some of the cargo of this vessel was removed clandestinely, and sent to a street thickly populated by the poor. The porters who were the first to handle the infected goods died suddenly. When one member of a family was attacked the whole family died; if a person from the infected house sought refuge elsewhere, the contagion was transmitted. It was thus that the plague-stricken were abandoned; "they died without broth, bread, or water to help them on." The dead bodies remained days without burial; all those who had performed those duties had perished. The magistrates were too scared to make themselves obeyed; the district police commissaries and health overlookers had all deserted Marseilles.

The second Congress to promote the increase of the population has been held, and has been followed by a deputation to M. Monod, Director of the Health Service attached to the department of the Minister of the Interior. M. Monod was petitioned to re-establish the "Tour"—that is to say, the boxes in which infants can be secretly deposited by mothers intending to desert their children. At the Rue Denfert Rochereau, there is a foundling hospital, where mothers can take their children if unable or unwilling to rear them. They are only called upon to state the age and name of the child, and they are warned that if they give up their children they will not be able to have them back nor even to know where they are. Every three months they will be informed of their condition. Efforts are also made to induce the mother to change her intentions, and help is given when this takes place. M. Paul Strauss, who has written an excellent and touching work entitled *L'Enfance Malheureuse*, is opposed to the re-establishment of the "Tour," which is asked for on account of the secrecy attached to it. By the system followed at the Denfert Rochereau Foundling Hospital the same secrecy is assured, and the danger to health and perhaps life of depositing infants in a large letter-box is avoided. Moreover, the mothers are not brought into contact with good influence nor encouraged by the prospect of assistance.

Several prefects having applied to the Minister of the Interior to be informed if the antidiphtheria serum does not lose its prophylactic properties on keeping, and also asking how to replace tubes thus damaged, the Director of the Public Health Service has issued as a circular M. Chantemesse's report on the subject. It is there stated that the Pasteur Institute has always replaced by return of post all tubes in which the contents are no longer fluid, and will continue to do so; the thickening of the contents is not a sign that the serum has become deteriorated. This change takes place in all albuminous fluids which are kept, and does not in the slightest degree affect their therapeutic efficacy. Tubes of serum prepared in 1891, though turbid, were efficacious when used in 1896. Serum sent to India and Australia and afterwards sent back to Europe were used at hospitals, followed by perfect success.

## BERLIN.

*Progress of Hygiene in Prussia.—Report on the Antitoxin Treatment of Diphtheria.—Private Clinics and the Rates.—Electricity and the Absorption of Drugs through the Skin.—Mud Disease.—Quarantine and Rinderpest.*

A careful and comprehensive report on the progress of public hygiene in Prussia during the years 1889, 1890, 1891 is being circulated by the Medical Board of the Prussian Cultus-Ministerium (Ministry of Education, etc.). It is a book of more than 600 pages, comprising chapters on every branch of public health and on epidemics in man and beast, besides a large number of statistical tables. The latter include general mortality, mortality at different ages, mortality from different specified diseases, and disease and mortality in different trades. The problems of water supply and drainage, police supervision of food and drink, supervision of factories and schools, etc., are fully discussed, and there are chapters on workmen's dwellings, working colonies, poorhouses, almshouses, hospitals, etc.—on the whole, a thoroughly conscientious and, as far as it goes, exhaustive work, that well deserves study by those interested in the subject of public hygiene.

Early in 1895 the directing physicians of German public hospitals were asked to collect their experiences with diphtheria antitoxin, and after a year send them in for publication to the Imperial Board of Health. To this appeal 258 physicians (in 204 hospitals) responded, and their reports, collected and collated, have furnished the material for a Collective Report on the Efficacy of Antitoxin, just published by the Imperial Board of Health. It appears that from April, 1895, to March, 1896, of 9,581 diphtheria cases treated with antitoxin, 1,489 (that is, 15.5 per cent.) died; 4,642 cases (that is, almost half) were severe, and of these 29.4 per cent. died; 3,059 were slight cases, and here the mortality did not exceed 0.49 per cent.; 4,085 (or 42.6 per cent. of the total number) were cases of laryngeal diphtheria, and of these 2,744 had to be tracheotomised; 32.3 per cent. of these operated cases died. The advantage of early treatment was clearly demonstrated. The number of deaths among those treated with serum on the first day was 6.6 per cent.; on the second day 8.3 per cent.; third day, 12.9 per cent.; fourth day, 17.0 per cent.; and fifth day, 23.2 per cent. The conclusions of the report are summed up in the words: "The treatment of diphtheria with antitoxic serum must be considered as an advance in therapeutics. Since its use a favourable issue has been more frequent than with the therapeutic methods in practice hitherto. No dangerous by-effects have been reported, and the eruptions and similar secondary symptoms observed were not of importance as compared with the therapeutic value of the new remedy."

The proprietors of private clinics in Berlin have decided to form themselves into a corporate body, and have elected a Managing Committee, of which Professor von Bergmann is president, and Professor Martin vice-president. Their object

is united action against (1) the Berlin Rating Commission, and (2) against the new Ministerial regulations on the building plan and details of arrangement of private clinics, which they say would seriously endanger the existence of the present private clinics, and render the establishment of new ones almost an impossibility.

At the last meeting of the Berlin Dermatological Society Dr. Meissner read an interesting paper on a subject which is arousing much attention just now—namely, the introduction of drugs through the intact skin by means of electricity. Dr. Meissner explained that the introduction is not effected by electrolysis nor by induction currents, but solely by cataphoric action—that is, by a purely mechanical transport of heterogeneous fluids from the positive pole into the tissue. The method, he said, was by no means a new discovery, Professor Hermann Munck having by experiment proved its efficacy as long as twenty-four years ago. One such experiment was demonstrated to the meeting. Two rabbits were subjected to the influence of strychnine on the intact skin —one by means of the constant current, and the second by means of a current inverted every five minutes with both electrodes applied to the skin. The first rabbit remained alive and apparently unhurt, while the second one succumbed in twenty minutes.

The Scientific Committee of the Prussian Medical Board has been engaged in investigating a curious epidemic that has appeared at intervals during the last two years in some low-lying districts of Silesia, and which goes by the name of "mud disease." Their report states that the disease almost exclusively attacks individuals who have been at work while standing in water of exceptionally low temperature, and who probably have also drunk contaminated water. The symptoms are sudden attack of high fever, which rises up to about 40° C., with pain in the head and back, drowsiness and disturbance of the gastric and intestinal functions. After about forty-eight hours profuse perspiration sets in, the symptoms quickly decrease in intensity, and the patient recovers in a few days. The report of the Scientific Committee says that the disease differs from the generally-known epidemics; that it resembles inflammation of the lungs in the sudden setting in of fever; and, to a certain extent, enteric fever in some of its symptoms, but that it is distinguished from other epidemics by its short duration, the slow defervescence of the fever, and its non-contagiousness.

In Friday's (February 5th) sitting of the Prussian Diet, a Bill was brought in by a private member demanding four weeks' quarantine and the tuberculin test for imported cattle, and prohibition of cattle import from countries where foot and mouth disease is rife. An animated debate ensued, in the course of which Virchow spoke. He said that in this whole question too much importance was given to "the bacillus," which should only be taken into account where it had actually been found. To imagine that "the bacillus" was everywhere where infection was, was to go far beyond the limits of scientific analogy. Our medical students were taught something of the kind, but they got rid of the notion very soon when they saw that a number of diseases could not be traced to a bacillus. A case in point was the bacillus of rinderpest, which Dr. Koch had searched for in Kimberley but had not found. The bacillus of small-pox, too, had not been discovered. Measures were now beginning to be taken on the basis of a hypothetical bacillus, but it was too much to demand legislation on such a basis.

## ST. PETERSBURG.

*Death of Professor Zdekauer.—The International Congress.—General News.*

THE profession in Russia is the poorer by the death, which occurred on January 15th (27th), of Dr. Nikolai Feodorovitch Zdekauer, a physician and hygienist of deservedly high reputation. Born in Sveaborg in the year of the battle of Waterloo, Dr. Zdekauer had nearly completed his 82nd year. He entered the physico-mathematical faculty of the University of St. Petersburg in 1831, and shortly after passed over to the Army Medical Academy, where he took the diploma of *lékar* with distinction. For two years he studied abroad, particularly at Berlin and Vienna, and in 1840 began to lecture on pathological anatomy, and on the then newly-introduced methods of diagnosis—percussion and auscultation. In 1842 he was appointed adjunct-professor, and took his degree of Doctor of Medicine; in 1848 he became ordinary professor of medical diagnosis, general pathology, and therapeutics. He was a contemporary and intimate associate of the famous surgeon Pirogof. When the cholera epidemic visited Russia in the early sixties he was one of the first to point out the great lesson that epidemic taught—the necessity for improved methods of hygiene and sanitation. He was fortunate in finding support in high places, and his teaching soon led to practical results. Improved drainage and water supply, better modes of ventilation, heating and lighting of palaces, theatres, barracks, and other public buildings, were introduced with most beneficial results. In 1850 he tried to form a society with the object of improving the purity of the food supplies of the capital; this attempt was not immediately successful, but it led to the foundation of the first Russian National Health Society. This society lasted for ten years. After a brief interval it was revived in 1877 as the present society of that name, of which Zdekauer was the first president. He resigned the presidency two years ago on account of old age. He resigned his professorial chair in 1863, after having held it for fifteen years. From 1884-89 he was President of the Medical Council, the highest medical body in the empire. He was also an active member of the Army Medical Scientific Committee, of the Red Cross Society, the Imperial Academy of Sciences, and many other learned bodies, both Russian and foreign. Quite recently he was elected an honorary member of the Epidemiological Society of London. Among his literary works may be mentioned a volume of *Clinical Lectures*, many clinical reports, essays on small-pox, on the treatment of hæmoptysis by the inhalation of iron perchloride, and many articles on influenza and cholera. It will be remembered that when influenza appeared in Russia in the autumn of 1889, Zdekauer was strongly of opinion that an epidemic of cholera might be expected to follow, a view which was justified by subsequent events. In 1860 he was appointed Imperial Physician in Ordinary, and in this capacity treated for some years the family of the Emperor Alexander II. In 1888, on the completion of his fiftieth year of public work, the late Czar presented him with a handsome snuff-box set with diamonds. Dr. Zdekauer had always had a large consulting practice, but for some years he had retired from all active work. In October last he became markedly weak, but subsequently improved again, and was able to come up from the country to St. Petersburg. There he again became worse, and death resulted, apparently from heart failure.

The new clinic for acute infectious disorders at the Military Clinical Hospital in St. Petersburg was opened on the 17th (29th) of January. The Prince of Oldenburg and many leading members of the medical profession were present at the opening ceremony.

It is too early to foretell yet whether the International Congress in Moscow will be numerously attended or not, but it seems probable that it will be. As many as thirty national committees have been formed in countries outside Russia, and have promised to send delegates. The executive committee of the Congress has recently approached the Minister of Finance with a request that a reduction in railway fares be made for the members of the Congress on the same system as the reductions were made last year for visitors to the great exhibition at Nijni-Novgorod. A series of circular tickets will probably be issued, enabling foreigners to make brief tours to the more interesting and accessible towns at greatly reduced rates. As railway travelling is already remarkably cheap and comfortable in Russia, no apprehension on this head need prevent foreigners from attending the Congress.

The Medical Department recently sent ten medical men to the southern and south-eastern frontiers to take measures to prevent the infection of plague from entering the country. Three have gone to Tiflis, three to Resht, and the remainder to other points along the Russo-Persian frontier.

At the recent annual meeting of the St. Petersburg Medical Society, Professor Ebermann was elected president, and Dr. Danillo vice-president for the ensuing year.

## ROME.

*The Health of the Pope.—The Discovery of the Yellow Fever Microbe.—Small-pox and Vaccination in Italy.*

There is no truth in the reports published in some of the Italian newspapers that Leo XIII was taken ill with a fainting attack, and that he passed a sleepless and agitated night on February 6th. Dr. Lapponi paid his usual visit to the Pope on the morning of that day, and found His Holiness in excellent health and spirits. The Pope held his usual receptions in the course of the day, the Prince of Orleans being one of those received.

There appears to be no doubt that Dr. Giuseppe Sanarelli has discovered the bacillus of yellow fever. He will publish an account of his discovery in the next number of a leading Italian hygienic publication which will be issued in the course of the next few weeks. Dr. Sanarelli is a native of Arezzo, and is now 35. He studied medicine at Siena, and later experimental hygiene under Celli in Rome, Roux in Paris, and Behring in Berlin. In July, 1893, whilst *libero docente* in Siena, he was appointed Director of the Institute of Hygiene of Montevideo. During the summer of 1896, he went to study yellow fever at the lazaretto in the island of Flores, where he performed a large number of necropsies, and was himself stricken with the disease. When he recovered he pursued his investigations at Rio Janeiro, where the disease was very prevalent. He remained there about two months, and succeeded in discovering the bacillus. *La Nazione*, of Florence, has published an article sent by a correspondent in Montevideo which states that for some little time Sanarelli's modesty did not permit him to believe in his success, but in August his experiments were so clear that he was certain of the discovery of the microbe, and he then occupied himself with the preparation of the serum, in which he encountered many difficulties. Professor Sanarelli himself says that "the microbe of yellow fever now splendidly presents itself, and is the strangest of all the microbes that are known." His experiments are very extensive; he has vaccinated more than 2,000 animals, including rabbits, goats, sheep, monkeys, and a few horses, and he did all this himself because he did not wish his discovery to leak out. The results of the treatment are definitely reassuring, and in October, 1896, he decided to announce confidentially to the President of the Republic of Uruguay the splendid results that have crowned his studies in the origin and cure of yellow fever. If this remedy be truly efficacious, Dr. Sanarelli will obtain the reward of 150,000 scudi (£30,000) offered by the Brazilian Government for the discovery of such a remedy.

Professor Bizzozero has written an important paper on Vaccination in Italy which is published in the *Revista d'Igiene* of January 16th, which review is now issued in Turin under the joint editorship of Professors Pagliani and Bizzozero. The paper is an answer to those persons who say that Italy, although being a well-vaccinated country, is very subject to small-pox. Of these two statements the Professor says that "the second is true, but the first is not equally so. It is very true that small-pox attacks a considerable number of persons in Italy, and that the epidemic which lasted from 1887 to the end of 1889 caused the death of nearly 48,000 persons; but it is not true that Italy is a well-vaccinated country. In fact, in the period preceding this epidemic there was no law which made vaccination obligatory. Vaccination was prescribed in an indirect way, a certificate of vaccination being necessary for admission to the schools. What was the result of this? If the statistics of the years 1885-86 be consulted, it will be found that for every 1,000 born there is an average of 757 vaccinations, which number includes vaccinations performed at all ages. For every 1,000 born, therefore, there were 243 persons not vaccinated. The contingent of persons who remain unvaccinated during their life cannot be precisely determined, but one can get an approximate idea from the army statistics. In the five years, 1884-88, which preceded the epidemic amongst 683,836 soldiers, 12.155 were not vaccinated; this gives 1.77 per cent., or, transporting the ratio to the entire population (30 millions), 527,000 persons, excepting the rare cases of natural immunity, were absolutely unprotected against the disease. As to the vaccinated, almost all had only one insertion in infancy. This is deduced from the small number of revaccinations, which in the two years abovementioned was 6.5 for every 1,000 living. Then to the group of the unvaccinated a very much larger group must be added, in which through the remote date of the vaccination immunity was incomplete or altogether lost. It is not surprising, therefore, that small-pox found a favourable ground for its diffusion in Italy. Can it be inferred from this that vaccination is useless? No; the only deduction possible is that a single vaccination is not sufficient against small-pox. Nor has the objection greater value that vaccination is useless because small-pox especially attacks children under 5 years of age, that is, in the age in which immunity would be at its maximum. We see above all what has been the mortality from small-pox according to age in the two years in which the epidemic was most severe.

*Deaths from Small-pox in 10,000 Living.*

| | 1887. | 1888. |
|---|---|---|
| Up to 1 year ... ... ... ... ... | 59.5 | 67.5 |
| From 1 to 5 years ... ... ... ... ... | 18.4 | 25.2 |
| From 5 to 10 years ... ... ... ... ... | 4.2 | 5.1 |
| From 10 to 15 years... ... ... ... ... | 1.9 | 2.0 |
| From 15 to 20 years... ... ... ... ... | 2.4 | 2.2 |
| From 20 to 40 years... ... ... ... ... | 2.9 | 2.3 |
| From 40 to 60 years... ... ... ... ... | 2.5 | 1.9 |
| From 60 to 80 years... ... ... ... ... | 1.6 | 1.3 |
| 80 and upwards ... ... ... ... ... | 0.9 | 0.8 |

These statistics prove that the mortality among children is enormous, but it proves nothing against vaccination. In fact it demonstrates that less than a third of those born are vaccinated within the first year after birth; of the remainder a part is vaccinated sometimes in the third or fourth year from birth, and a part is never vaccinated. Continuing to consult the figures of those years which prepared the ground for the epidemic, we see that 685 infants in 1,000 under one year were not vaccinated, and as the births in that time were a yearly mean of 1,135,000, there were about 770,000 unvaccinated infants amongst whom small-pox was able to cause a high mortality. In the years of life immediately following the first the number of vaccinated augments, and the mortality still keeping high gradually diminishes. After the fifth year almost all are vaccinated, and then the mortality is reduced to a small figure.

## HONG KONG.

*Report of the Government Commission on the Tungwa (Native) Hospital—Its Objects and Constitution.—The Female Protection Society.—Suggested Employment of Chinese Surgeons with Western Training.—The Institution a Poor House not a Hospital.—Improvements to be made.—Threatened Epidemic of Small-Pox.*

For nearly a year a Commission appointed by the Governor of Hongkong has been inquiring into the organisation and administration of the Tungwa Hospital, with special reference to whether it is fulfilling the object and purpose of its incorporation, and whether it can be improved or carried on more efficiently.

After exhaustive investigation a report, which with the evidence extends to nearly 200 pages, has been issued, and while the majority report not unfavourably on the institution, there is a vigorous minority report taking a very different view. The issue of this Blue Book marks an era in the medical history of Hong Kong.

The majority find that the hospital was established in 1872 to receive moribund and sick Chinese, more especially those in indigent circumstances; that the conduct of the affairs of the hospital and the framing of regulations for its guidance were to devolve on the Chinese, who were to be responsible for the management; that the treatment was to be conducted according to Chinese methods and not according to English principles, and that the hospital was intended to induce the Chinese to make use of the institution instead of allowing their sick and destitute to die in their own homes, and to meet certain Chinese special wants and prejudices not provided for by the Government Civil Hospital. The gentlemen

signing the majority report are of opinion that the hospital is fulfilling these objects, and they find that in addition to treating the indigent sick the institution provides free burial for the poor, vaccinates free of charge, has afforded accommodation and food for women and girls rescued by the Po Leung Kuk, a society for their protection, and houses and feeds male destitutes, defraying the cost of sending them to their own homes.

The report then goes on to make certain suggestions for the improvement of the staff, structural arrangements, and sanitary maintenance of the Tungwa Hospital, and urges the necessity of daily inspection of the building by the Colonial surgeon and also by an officer of the Sanitary Board. The suggestion regarding the staff is the most important point in the document. It is proposed "that a Chinese trained in Western medical science should be appointed by the Government to reside at the hospital, chiefly for the purpose of furnishing correct returns of deaths occurring there," it being impossible to accept as accurate mortality statistics furnished by the Chinese doctors who practise in the hospital; but it is carefully pointed out that such officer should not in any way interfere with the treatment of patients unless requested to do so by them or the native doctors. He would also act as interpreter for the Colonial surgeon, and otherwise assist him in his daily inspections.

The majority report is signed by Hon. J. H. Stewart Lockhart, Colonial Secretary, Hon. Ho Kai, M.B., Barrister-at-Law, and Hon. A. M. Thomson, Acting Colonial Treasurer. Hon. C. P. Chater agrees with the report in the main, but urges that the Chinese trained in Western medicine should not merely act as registrar and interpreter, but should be required to make it his business quietly and gradually to introduce Western treatment in place of the Chinese methods thus far alone employed in the hospital.

Hon. T. H. Whitehead, representative in the Legislative Council of the Chamber of Commerce, presents a vigorous independent report, in which, while he grants that the Tungwa Hospital has rendered good service as a poorhouse and refuge for sick and destitute Chinese, he expresses the opinion that it has completely failed to become what it was intended to be as a hospital, and lays the responsibility for this failure at the door of the Government officials, especially the successive registrars-general and Colonial surgeons, who, through lack of exercise of powers of supervision provided for by ordinance, had allowed it to become before the time of the plague outbreak "overcrowded, filthy, insanitary, and dangerous not only to the health of the inmates, but to the public of Hong Kong." He submits that it is a disgrace to the British Government and to our civilisation that in this British Crown Colony no attempt has up to the present been made by the Colonial Government to dissipate the cloud of ignorance that rests over the Chinese in regard to the advantages of Western medical science, and that native "doctors" are still permitted to continue to treat the sick poor among the 240,000 Chinese in the Colony. He believes that the existence of the Tungwa Hospital has not only not been a benefit, but has actually been a misfortune and an injury to the Chinese, because the public belief that it was doing the work it was intended to do, namely, that of a really good and well-conducted hospital, has steadily blocked the way to the gradual and judicious introduction of modern methods of medical and surgical treatment, as has been successfully done in India and in all other regions under British rule.

He urges constant supervision and control by duly qualified Government officers; the appointment of a resident Chinese trained in Western medicine; the appointment of a European steward with the knowledge and training of a sanitary inspector, to see that regulations regarding ventilation, cleanliness, etc., are observed; and that while the selection of European treatment should be voluntary to the patient, the directors of the hospital should be required to gradually substitute for the present Chinese doctors others, also Chinese, who as well as being trained in Chinese medicine, should have gone through a course of study in Western medical science. As a result the directors of the institution have under pressure from the Government appointed Dr. Chung King Ne, who was trained by the late Dr. Mackenzie in the Viceroy Li Hung Chang's Medical School at Tientsin, to be resident surgeon. Dr. Chung has during the past eight years held a similar office in the Alice Memorial Hospital, and his popularity among the Chinese community makes his appointment all the more likely to prove satisfactory. Chinese treatment will be carried on as before by the native doctors already practising in the Tungwa, but every patient will have the option of being treated by Dr. Chung, and it is hoped that the new methods may eventually take the place of the old. At the same time the Government have appointed Dr. J. C. Thomson, one of the local practitioners, who had an extensive experience of work among the Chinese as Superintendent of the Alice Memorial Hospital, to visit the Tungwa Hospital daily on behalf of the Government, and carry out the sanitary and other reforms suggested by the Commission.

During the past fortnight 16 cases of small-pox have occurred in Hong Kong, about half of which have occurred in Europeans. The Government are taking vigorous measures to stamp out the disease. Free vaccination is being practised daily in different hospitals throughout the city, and is also being offered by house-to-house visitation in the districts specially affected, while the medical officer of health has been given enlarged powers in dealing with these districts.

# CORRESPONDENCE.

## THE ASSOCIATION AND MEDICAL DEFENCE.

Sir,—Having read the article on the Association and Medical Defence which appeared in the British Medical Journal of February 6th, I shall be obliged if you will permit me to make a few observations on certain points which are there raised.

Although it is indisputable that the membership in 1895 of the largest defence society, the Medical Defence Union, was but 3,537, it is to be borne in mind that the subscription for this, as for kindred societies, is exactly double the amount mentioned as the minimum in the defence scheme of the Association. Moreover, it should be obvious that a scheme which has been adopted by the British Medical Association and carried out under the auspices of its Council, must rather commend itself to the profession than any of the smaller defence companies all more or less antagonistic to each other.

As to the contention that the work under the new scheme would be so gigantic that it would be with difficulty accomplished, it strikes me as being at variance with the experience of at least one of the existing societies. As a matter of fact, the major part of the work of our medical defence societies could be efficiently conducted by the president, the secretary, and the solicitor. The work of the numerous executive and council meetings which are called is often merely formal, the time being largely taken up in formally proposing and seconding "that the action of the secretary be approved."

In the existing societies a very considerable proportion of the cases dealt with are those in which merely advice of a medico-legal nature is asked, and as they are necessarily urgent are dealt with promptly by the secretary, and his action submitted by him for approval to the next executive meeting of Council. In cases of greater gravity a small emergency committee is summoned. That this is so anyone may verify for himself who cares to read carefully the reports of our defence societies, and compare the vast amount of correspondence with the comparatively small bill of legal costs.

Now the new medical defence scheme provides for the appointment of an organising secretary, and I feel sure, if the Association should be fortunate enough to secure the services of an expert in medical defence, whose whole time is devoted to his work, and who enjoys the confidence of the Standing Committee and the Council of the Association, that assistance will be rendered to the larger organisation, as efficient as that now rendered to the smaller existing companies.

Assuming that the subscription is that proposed as a minimum by the Committee, it will be exactly half that of

the amount charged by the present defence unions, and I have no doubt that, where members seek advice on difficult legal points or where calumnious accusations are made and troublesome actions are threatened, the prestige of the British Medical Association and its legal adviser will tell effectively upon the minds of those who would disturb the peace of the too often harassed medical man.

I hold, therefore, that the scheme propounded by the Medical Defence Committee of the Association should have a fair trial, and I am glad to find that four of the six Branches which have already voted on the question concur in this view. By this effort to present one solid front to the attacks of our common foe, the blackmailer or the quack, may we not indirectly help forward the achievement of our long-cherished ideal—a united profession?—I am, etc.,

Catford, S.E., Feb. 8th. Robert J. Collie.

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Sir,—In the British Medical Journal of January 30th, p. 277, the report of the Committee, which the Council of the Association was instructed by the annual meeting of members at Carlisle to appoint, appears. This report is to be now discussed by each Branch and replies returned not later than March 31st next. I think we are all greatly indebted to Dr. Welsford for his persistent efforts in originating and pushing forward this proposal that the Association should take up the carrying on of medical defence, and I sincerely trust each Branch member will give his prolonged and practical attention to his proposal.

There are some points in the proposed scheme which require our close attention:

1. The scheme rightly applies to members of the Association resident in—I would say "practising in"—the United Kingdom. Some assert that the Colonial and foreign members should be included. But, although there were in 1896 29 Colonial and foreign Branches, these had only 1,359 members. Moreover, the Colonial and foreign laws relating to practitioners are so complicated and numerous that we should require a very heavy income to meet such cases.

2. The scheme proposes to embrace all the members of the Association resident in the United Kingdom. I would propose that no member of the Association be permitted to join unless he is also a member of a Branch. Everything should be done which will induce members to join a Branch; for, unless they do so, the Branch reserve funds will be reduced to a vanishing point. The Branches are the backbone of the Association. I fear there will be a great falling off in Branch membership if this defence scheme be adopted without this proposed alteration. At the end of 1896 there were in the United Kingdom:

| Branches. | Branch Members. | Non-Branch Members. |
|---|---|---|
| 38 | 8,347 | 5,615 |

that is, about half of the members of the Association have not become Branch members. This is not as it should be. The following table shows how the Branch and non-Branch members are located:

| Locality. | No. of Branches. | Branch Members. | Non-Branch Members. |
|---|---|---|---|
| England ... | 22 | 6,319 | 4,078 |
| Wales ... | 3 | 498 | 200 |
| Scotland ... | 7 | 958 | 814 |
| Ireland ... | 5 | 536 | 499 |

3. The scheme proposes that each member shall pay 5s. per annum to the defence scheme. I think this sum is too small. At the end of 1896, there were 13,962 members of the Association resident in the United Kingdom. These at 5s. each would give a maximum yearly income of £3,475. This is a very small sum, that is, if members wish to see the Medical, Apothecaries, and other Acts—as well as the other important items mentioned in the scheme—properly administered. I would propose that the annual subscription should be 7s. 6d. This would give an income of £5,212 per annum. The income of the General Medical Council is about £8,000 per annum. Any practical person must know that with so meagre an income it is impossible for the General Medical Council to administer with efficiency the important sections of the Medical and Dental Acts. In fact to do so an annual income of £30,000 would not be more than sufficient. I also notice that in 1895 the Law Society, England, expended £3,318 in law and Parliamentary expenses. Considering the fearful arrears of medico-ethical and medico-political work which remain for us to work off, a greater expenditure must be provided for.

4. The scheme makes no definite provision for the payment of the Defence Committee. This is equivalent to reducing the scheme to a farce. I would propose that each member attending should be paid at least three guineas *per diem*. If the Committee consist of nine members and meet twice each month, this would cost (even supposing all the members attend) only £680 per annum. I would also propose that each member receive not only first-class travelling, but also £1 *per diem* hotel expenses. I have served upon both the Parliamentary Bills and the Medical Charities Committees of the Association, and I shiver yet when I think of having left Liverpool early in the morning, travelling third class, and rushing back by the midnight train, arriving home about 6 A.M. No good business can be transacted under such circumstances, and I for one refuse absolutely to subscribe to any such low and contemptible proposal as that members of this Committee should, from year to year, do the work of us members and be unpaid; unpaid work of this kind would be badly done work. Again, the scheme proposes that the Secretary of this defence (or, as I would prefer to see it termed, "Discipline Committee") be paid, but it does not state the amount to be paid. I think he should be paid £800 per annum, and that such person must be a registered practitioner. Why should we give away our paid appointments when we have tried practitioners ready to act. This, with the previous item, would use up £1,480 yearly.

5. I notice that the scheme proposes to defend members "of the medical profession." I would oppose this, and would suggest that it defend "members of the Association" only. I think there is no portion of society in this country so willing to accept the benefits of work done for them without helping to pay for it as are medical practitioners. We seem to be so saturated with the nauseating cant of "medical charity," that we ourselves try to apply it all round; therefore, let only those who work and pay derive any benefits. "If a man work not neither shall he eat."

6. Paragraph 5 of the draft scheme proposes that the Discipline Committee be given "absolute power and discretion to give or withhold assistance." This makes the power too "autocratic," and I would suggest that the right of appeal to the Council of the Association be provided for.

I look upon this defence proposal as one of the happiest suggestions ever made in connection with our Association. I have had some of my amendments to the alterations made in the "memorandum" of the Association, and to the defence "scheme," adopted; and I shall only add that if practitioners will be so criminally lazy as to fail to push this "scheme" to a successful issue, they will lose an opportunity which is not likely to recur for the next ten or fifteen years.—I am, etc.,

Liverpool, Feb. 4. Robert R. Rentoul.

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Sir,—In the British Medical Journal of February 6th Dr. Moorhead asks in what way the Branches are to arrive at a decision on the question. It seems to me absurd to get a vote on the question at meetings, because comparatively so few members attend meetings. The plan adopted in our Branch was to send a postcard to each member asking him to say "Yes" or "No" to each of the questions Nos. 1 and 2, and to make any suggestions in reply to Question No. 3. So far I have received nearly 70 replies; 43 members answer Questions 1 and 2 in the affirmative; under 10 say "No" to Nos. 1 and 2; and the remainder, whilst generally agreeing, make certain suggestions, mainly in reply to No. 3. (The few negative replies come from the elderly men.)

Personally, I think medical defence ought to be taken up by the Association, the accounts be kept separate, and the subscription compulsory, such subscription to be collected by the Branches. Or if the subscription is voluntary only those who subscribe to participate in any possible benefits.

There are two or three Defence Unions in existence at present; surely it would conduce to economy if these were concentrated in one, and what better method can be suggested than that our large Association should undertake this duty?—I am, etc.,

A. Sheen, M.D.,
Hon. Co-Sec. South Wales and Monmouthshire Branch.

Cardiff, Feb. 6th.

SIR,—I wish to protest strongly against the proposed plan of using the organisation of the Association for the purposes of a "defence union." The plan savours rather of a trade than of a profession—to compel all members to pay forthwith an extra 25 per cent. subscription with or without any actual or contingent advantage, is most unfair and unjust; for instance, I have paid my subscription without a break for nearly half a century, and as I do not press unwilling patients and live peaceably with my medical brethren, I shall consider whether I ought to refuse to pay this new addition, and resign my membership, rather than appear to acquiesce in the unprofessional character of the Association, so contrary to that which it had at its commencement.—I am, etc.,

Salisbury, Feb. 10th. J. LARDNER GREEN.

SIR,—I agree with Dr. Moorhead, and think that medical defence should be left to the associations already in existence, and that the adoption of a compulsory subscription would be injurious to the British Medical Association.—I am, etc.,

Bournemouth West, Feb. 9th. GEO. W. BEALE M.D.

SIR,—The short report in the BRITISH MEDICAL JOURNAL of February 6th does not convey the fact that the proposal that the Association should undertake medical defence was defeated by two unforeseen circumstances—by, first, the confidence on the part of the practitioners of the district that the proposal would not be opposed, and, secondly, that a combination comprising the President of the Council of the Association, a past President of the Association, and a number of consultants and a few others under their influence strongly opposed the resolution and succeeded in defeating it by a majority of 5. Had the members of the Branch had an idea that there would have been opposition the majority on the other side would have been a record one. May I say that the medical profession is not quite such a jellyfish as some would make believe: Give us something to fight for, such as an honest, thorough Medical Act, not a makeshift like the last one, and the profession will soon prove that it has the power even to unmake a Government which refuses to do it justice; well handled and working for mutual as well National good, the British Medical Association could, and would, change the representation of the nation at a general election.—I am, etc.,

Erdington, Feb. 8th. WILLIAM DONOVAN, M.D.

SIR,—At the special meeting of the British Medical Association held in Birmingham last summer, the extremely small attendance gave the impression that the subject of "Medical Defence by the Association" was a matter of indifference to the members. At the recent special meeting of the Birmingham and Midland Counties Branch to consider the scheme propounded by the Committee, the same indifference was displayed, only 37 members attending out of a total of over 400, and this when a matter described as a burning question was to be discussed, and one on which differences of opinion were notorious. Surely a subject which appears to be of so little interest is not one which justifies a revolution in the affairs of the Association.

At the meeting just referred to the feeling against compulsion was very strong, even on the part of some who were supporters of a voluntary scheme of medical defence within the Association. Many like myself, strongly opposed to compulsion because of danger which it may convey to the existence of the Association, see no advantage and some positive disadvantage in a voluntary association within the Association. The single managing body to be created would have all the work thrown upon it now performed by three distinct committees, and, whilst there is no reason for supposing that a committee of greater wisdom would be evolved than those now existing, it is probable, owing to the quantity of work to be dealt with, that each case would receive less attention from mere want of time. Further, such Committee would be weakened and fettered by being necessarily controlled by the Council of the Association, and out of this awkward conflicts might arise.

The suppression of unqualified practice is impeded by the imperfections of the Medical Acts, and the British Medical Association would be as powerless to cope with nefarious people as is the Medical Defence Union. Its dignity and importance would be diminished rather than enhanced by its having to appear practically as plaintiff in matters brought before the General Medical Council or other corporation. What is really needed to prevent the present abuses is, amendment of the Medical Acts, towards which the efforts of the Parliamentary Bills Committee have earnestly been directed. To secure legislation there is no need to create a fresh body or further funds. The requirements are time for Parliament to consider the Bill, and members of the Legislature less enamoured of all kinds of irregular practice.—I am, etc.,

Birmingham, Feb. 10th. GILBERT BARLING.

## VACCINATION AGAINST TYPHOID FEVER.

SIR,—We had hoped that we had, in our paper on Vaccination against Typhoid Fever, made it plain that we had at least considered the more obvious arguments which can be adduced against the proposition that the "agglomerating and sedimenting power of the blood is, in all probability, a trustworthy criterion of immunity." In view, however, of the fact that "H. G. T." in the BRITISH MEDICAL JOURNAL of February 6th adduces certain facts which in his opinion invalidate our conclusion, we may briefly advert to his letter. The points made by "H. G. T." are the following:

1. Widal considers the agglomerating and sedimenting power of the blood to be a "reaction of infection," and not a "reaction of immunity." In view of the fact that the reaction is characterised by the acquirement of properties which Widal himself has shown to be unfavourable to the growth of the bacillus typhosus *in vitro*, and which Pfeiffer had previously shown to be unfavourable to the growth of micro-organisms *in vivo*, it seems obvious to us that this reaction must be regarded as at any rate a "reaction in the direction of immunity." We presume that no clear-thinking man can assume it to be either a "reaction which exerts no influence upon the event," or a "reaction which exerts an influence in the direction of greater susceptibility." We do not profess to determine which of these two meanings we are intended to assign to the term "reaction of infection."

2. Thiercelin reported a case in which "the positive agglutinative reaction was immediately followed by a relapse." We have not Thiercelin's original paper at hand. We are therefore in doubt as to whether we are to interpret these words to mean (*a*) that Thiercelin observed in this case that the agglutinative reaction was connected by some fact of causation with the relapse; or (*b*) that Thiercelin observed a relapse to occur in a patient whose blood showed positive reaction to typhoid. If this last is—as we suppose that it is—what Thiercelin did actually observe, we need only point out that this observation is in perfect accordance not only with the experience of others, but also with our own experience of Malta fever in monkeys. We adverted to that experience in our paper, and we there suggested a possible way of accounting for the fact that a patient whose blood shows the specific reaction may not only relapse, but even die of the disease.

3. Fraenkel obtained a positive reaction within two days of the commencement of the illness. We also adverted in our paper to the fact that the sedimentation reaction is acquired as early as this in the course of the disease. And we suggested that this is quite in harmony with what might be expected *a priori*.

On the assumption that the conflict with the disease begins at the very moment of infection:

4. Fraenkel gives the results of the test as applied to 36 convalescents from typhoid; 28 gave a positive reaction, 8 a negative reaction. Again here, we have not the original paper at hand. We, however, presume that the fevers from which these patients convalesced had not been diagnosed as typhoid on definite bacteriological evidence. We submit that if the diagnosis in all these cases depended exclusively upon clinical evidence, the percentage of negative results need cause absolutely no surprise. Inasmuch as in our 18 typhoid vaccinations we in all cases found a certain amount of positive reaction, we may not unreasonably infer, while waiting the accumulation of definite proof to the contrary, that a certain amount of agglomerating power is invariably acquired when the typhoid bacillus has been introduced into the system.

It will, perhaps, now have become plain to the reader that "H. G. T." has not called our attention to any unconsidered point. His contention that the agglomerating power of the blood is not an absolute criterion of immunity is a contention with which we have absolutely no quarrel. On the contrary, it is a proposition to which we ourselves endeavoured to draw the reader's attention. We, however, endeavoured to see this question to scale, and to display it to the reader in the light of the much broader fact that the sedimentation reaction may serve as a practically useful test of immunity.

Doubt on this subject is in our opinion not admissible, for it is not possible to doubt that, given two otherwise similar animals, one of whom possesses, and the other does not possess, this sedimenting power, it will in every case be the one who possesses it who will be immune against infection. —We are, etc.,

A. E. Wright.
Netley, Feb. 9th. D. Semple.

## THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

Sir,—In your remarks on the medico-legal case, Graham *v.* the Tudor Publishing Company, Limited, and Another, in the British Medical Journal of February 6th, it is stated that Mr. Adie "ceased to be a registered medical practitioner, but so far as we can learn still retained his diplomas from the Colleges of Surgeons and Physicians at Edinburgh."

In regard to that statement I have to inform you that the Royal College of Surgeons on October 21st, 1896, after due citation of Mr. Adie, recalled his diploma and declared the same to be void.—I am, etc.,

Francis Cadell, Secretary.
Royal College of Surgeons of Edinburgh, Feb. 8th.

## A CENTRAL HOSPITAL BOARD FOR LONDON.

Sir,—The question of hospital management is so peculiarly one which ought to be taken in hand by our profession, that it is almost superfluous to call attention to the opinion expressed by Mr. Sydney Holland at the Hospital Reform Association meeting, to the effect that if abuse exists in the out-patient department, and that if the members of the various hospital staffs are aware of it, it is clearly their duty to approach the managers of hospitals upon the subject. The scheme propounded by Mr. Loch is one which, on the face of it, is to be looked upon with a certain amount of suspicion. But, if the medical profession is unable or unwilling to come to some agreement upon the whole question of hospital management, it appears to be a matter of certainty that the power to do so effectually will slip from its grasp.

The enormous proportion of persons in receipt of free medical relief demands attention from all classes of the community. If the working of the Poor Law had resulted in the provision of gratuitous medical relief to anything like the same proportion of persons, there can be no doubt that the outcry upon the subject would have been loud. The present condition of affairs is as demoralising to the community as it is to the profession. Since I have been examining this question I have been struck with the fact that appointments to the medical and surgical staffs are very often practically life appointments. The system of life Fellowships at the universities was found wanting, and the present system of re-election of Fellows at the end of stated periods is a much better one, so far as the education of undergraduates is concerned. Whether or no the education of medical students would not be improved by a judicious weeding of the teachers from time to time is certainly a question which merits consideration. Promotion by mere seniority is always of doubtful expediency. It appears to me to be a great opportunity for those who have the reins in their hands to show their skill in driving an awkward team. If they are unable to rise to the occasion, they cannot reasonably complain at the reins being taken from their hands.—I am, etc.,

Hatfield, Feb. 7th. Lovell Drage.

## DIET IN TYPHOID FEVER.

Sir,—In the British Medical Journal of January 30th I have read with interest and satisfaction the paper of Dr. S. West, in which he traverses the revolutionary views of Dr. Barrs on the dieting of enteric fever patients. Had Dr. Barrs confined himself to entering a plea for a curtailment during the early convalescence of enteric fever of the strict dietary rules which are laid down by most writers of authority, I would have willingly joined hands with him, for I am one of those who believe that when the morning temperature has fallen to normal for two or three successive days, we have evidence that the specific fever process has run its course, and an indication that we may safely commence to judiciously increase the liquid nourishment of our patient.

At this period of the fever I am in no way concerned with the evening rise of temperature, which is almost invariably present for a week or more after the morning temperature has fallen to normal. This evening rise is not an evidence that the specific element of the fever still remains, but merely tells us that the nervous system has not yet recovered its equilibrium, and upon that sign of nervous disturbance the administration of increased nourishment will have only a beneficial effect.

So far then I am entirely in accord with Dr. Barrs, but with his views as to the proper dietary during the acute stage of fever I am in direct issue. His convictions are totally opposed to the very limited gastro-intestinal digestion which, in my experience, is almost invariably present in the acute stage of enteric fever, and I feel convinced that a consent to the morbid food cravings of an enteric fever patient in the acute stage will ever be fraught with disastrous consequences. —I am, etc.,

Richard H. Quill, M.D.,
Chatham, Jan. 31st. Brigade-Surgeon-Colonel, A.M.S.

## THE HALF-YEARLY MEETING OF THE FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Sir,—Mr. Heath's assumption of the office of censor, and his irrelevant attacks upon my Election Committee and myself in a discussion on Mr. Anderson's case, rendered it necessary for me to dwell with some emphasis upon the remarkable series of errors into which he has fallen. This necessary emphasis he describes incorrectly as unnecessary wrath, and then, after an apology for one error about myself, proceeds *more suo* straightway to fall into another. It surprised me not a little to find that, although he had not known that I made a "lengthy oration" in December, 1885, he possessed special knowledge that I communicated it "in advance to a now defunct journal."

The simple fact is that after the meeting a Member of the College came to me and asked me to let him have it in full for publication in the *Medical Times*, and I complied with the request. With regard to Mr. Heath's remarks in his last letter, I must explain that the term "collegiate interests" implied election to the Council for which I was intending to come forward, and the succession to offices at the College. Mr. Heath elected to limit its signification to application for a single office, and he it was who introduced the subject of my candidature for a seat on the Court of Examiners. Although I objected to such limitation, I felt bound to challenge Mr. Heath's assertion of the superior eligibility of the candidate preferred to me. I could defend myself in no other way, and Mr. Heath has now vindicated my modesty by abandoning his more eligible candidate. Evidently feeling, however, that it was necessary to justify my exclusion in order to remove the cap which he himself fitted on to those in office, he once more shifts his ground, and proceeds to justify my exclusion by suggestion and innuendo. His words imply that while I was on the Board I was not an efficient examiner, and he bases this on official information which he is not at liberty to divulge. This is a serious imputation, serious both for him to make and for myself to suffer under, and I must call upon Mr. Heath either to prove the truth of my implied inefficiency as an examiner in anatomy and physiology, or to disavow it as publicly as he has made it. There is no middle course open to him which would be consistent with honour.

Meanwhile I must be allowed to say that any such imputation on me must be as absolutely unfounded as it is entirely new to me, and when Mr. Heath formulates his imputation and produces some scintilla of evidence, I shall know how to to deal with them and disprove them.—I am, etc.,

Wimpole Street, W., Feb. 9th. Walter Rivington.

## LORD LISTER'S PEERAGE.

SIR,—It seems to me and many others of his old pupils that this elevation of our revered teacher—Sir J. Lister, Bart.—to the Peerage ought not to be allowed to pass without his former students in London, Edinburgh, and Glasgow having an opportunity of testifying their appreciation of the honour by giving him a complimentary banquet. No doubt the Graduates' Testimonial Committee would act also in this matter, and until matters assume a definite shape I shall be pleased to receive the names of those who favour the suggestion.—I am, etc.,

Nottingham, Feb. 8th. GEORGE ELDER.

## PROPOSED TESTIMONIAL TO PROFESSOR CAMPBELL BLACK, M.D., GLASGOW.

SIR,—As a mark of the esteem in which Dr. Campbell Black is held by practitioners who sympathise with his views on professional matters and who are specially indebted to him for his recent candidature for the direct representation for for Scotland upon the General Medical Council, the following Committee of subscribers has been formed with a view to presenting him with a testimonial, which, it has been proposed, should consist of his portrait in oils.

| | £ | s. | d. |
|---|---|---|---|
| J. McKim, M.D., Glasgow ... ... ... | 5 | 0 | 0 |
| Sir Henry Littlejohn, M.D., Edinburgh ... | 1 | 1 | 0 |
| R. Grieve, F.F.P.S., Glasgow ... ... ... | 1 | 0 | 0 |
| Joseph Bell, M.D., Edinburgh ... ... | 1 | 1 | 0 |
| J. Maxwell, M.D., Tobermory ... ... | 0 | 10 | 0 |
| James Dunlop, M.D., Glasgow ... ... | 1 | 1 | 0 |
| J. Erskine, M.B., Glasgow ... ... ... | 2 | 2 | 0 |
| R. Macnab, M.D., Brighton ... ... ... | 1 | 1 | 0 |
| D. Moffat, M.B., Glasgow ... ... | 0 | 10 | 6 |
| G. Roy Fortune, L.R.C.P., Glasgow ... ... | 1 | 1 | 0 |
| H. Murray, F.F.P.S., Glasgow ... | 1 | 1 | 0 |
| J. F. Sutherland, M.D., Edinburgh ... ... | 0 | 10 | 0 |
| J. F. Stevenson, L.R.C.P., Glasgow ... ... | 1 | 1 | 0 |
| Alexander MacDonald, L.R.C.P., Glasgow ... | 1 | 1 | 0 |
| D. Cowie, M.B., Glasgow ... ... ... | 1 | 1 | 0 |
| J. Cowan Woodburn, M.D., Glasgow ... ... | 1 | 1 | 0 |
| Angus Macphee, M.D., Glasgow ... ... | 1 | 1 | 0 |
| W. MacDonald, L.R.C.P., Maryhill, Glasgow ... | 0 | 10 | 0 |
| G. Yeaman, M.D., Glasgow ... ... ... | 1 | 1 | 0 |
| J. Provan, M.D., Glasgow ... ... ... | 1 | 1 | 0 |
| D. R. Cameron, L.D.S., Glasgow ... ... | 1 | 1 | 0 |

Subscriptions have also been received from lay friends.

We beg to bring the proposal under the notice of practitioners who may be inclined to support it, and shall be glad to receive and acknowledge subscriptions.—We are, etc.,

JAMES ERSKINE, M.B., 351, Bath Street, } Honorary
D. MACLACHLAN, Solicitor, 33, Renfield Street. } Secretaries.
D. FORTUNE, J.P., 84, Wilson Street, } Honorary Treasurer.

Glasgow, Feb. 8th.

## THE SUPERANNUATION OF PUBLIC VACCINATORS.

SIR,—Is it a wise policy to seek to obtain by fresh legislation that which it is by no means certain public vaccinators are not already entitled to under the present Superannuation Act? May not the Local Government Board be exceeding its powers in refusing to recognise public vaccinators as "officers" under the Act?

Section XVIII only gives that Board the power of deciding "any question which may arise between guardians and any officer," etc. This does not give authority to say who are officers, as defined by Section XIX, and we contend that public vaccinators are clearly included in that definition.

What is required is a reliable legal opinion as to the true reading of the Act. This ought not to involve much expense, and if against us, it might then be advisable to adopt some such course as Dr. Elliott suggests.—We are, etc.,

D. B. BALDING, F.R.C.S., Public Vaccinator.
MAJOR GREENWOOD, M.D., LL.B., Barrister-at-Law.

February 8th.

THE late Mr. Herbert Grundy, of Manchester, who died on October 20th, 1896, has left personal estate valued at £28,779. After leaving to the Corporation of Liverpool, for the Walker Art Gallery, the picture by Huggins of "Christian and the Lions," he has left the residue of his estate in trust in equal shares for the Manchester Royal Infirmary, the St. Mary's Hospital, Manchester, and the Manchester Eye Hospital.

# OBITUARY.

## SIR SPENCER WELLS.

SIR WILLIAM PRIESTLEY, who is staying at Cannes, has, in response to a request from us been good enough to send the following reminiscences:

Spencer Wells was one of my oldest professional friends, and although I knew full well from previous indications that his life was a very precarious one, the news of his sudden death did not come the less as a painful shock. He had been in Cannes from the Cap d'Antibes, where he was staying with his daughters, on the day before his death, not feeling ill, and bravely striving to disregard the physical effects of past illness and of his previous stroke a year ago. He was quite unwilling to admit that he was incapacitated from travelling or exerting himself as was his wont in days gone by. He was fortunately saved all the irksomeness of long or tedious illness. The peacefulness of his death left little to be desired by his family and friends, beyond the fact that he was away from home. He was in no discomfort until the moment of his seizure with apoplexy after breakfast on Sunday morning at eleven o'clock. From that time he gradually became unconscious, and tended by his friends, Drs. Frank and Battersby, and a local French *confrère*, he passed away quietly at 11 P.M. on the same day. A day later he would have been still further away from England, for he had engaged rooms and made all arrangements for going along the Mediterranean coast to Rapallo in Italy, which would still further have complicated matters in reference to the transit of his remains back to England. At Cannes and adjacent places in France all such arrangements are definitely and admirably provided for.

Curiously enough, Wells and I were in early life under the same master in Yorkshire. He—considerably my senior—was assistant to Michael Thomas Sadler, of Barnsley, while I in later years was his articled pupil. Mr. Sadler, a nephew of the distinguished member of Parliament, who wrote the well-known treatise *On the Law of Population*, was a singularly gifted man—a scholar as well as an accomplished medical man. He prided himself on his fine library, and was always anxious—nay, sometimes urgent—in pressing his pupils to furnish themselves with such reading and study as would best fit them for the exercise of a liberal profession. Years after, when Spencer Wells brought an action for defamation of character, Mr. Sadler appeared as a witness, and Lord Chief Justice Cockburn, in his charge, could not forbear to remark on the just pride with which the old master had spoken of his former, but now eminently-distinguished, pupil. It fell to my lot to be associated with much of Spencer Wells's early work after my settling in London. Wells was in early life a surgeon in the Royal Navy, and this brought him in contact with Sir John Forbes, and he was associated with him in the *British and Foreign Medico-Chirurgical Review*. Later he became editor of the *Medical Times and Gazette*, and often pressed me into service for the reviewing of books or for the contributing of articles.

As his colleague at the Samaritan Hospital I was in close relation with him, and having come fresh from the great Edinburgh School, where I had acted as assistant to the celebrated Sir James Y. Simpson, he constantly asked my opinion on his cases, and I took part in most of the earlier ovarian operations which gained him his great reputation. His scrupulous care and his dogged determination to overcome all obstacles constantly evoked my admiration, and if at times failures and discouragements occurred, he always rose to the emergency, and insisted that perseverance would ensure ultimate success. In those days there was no antiseptic method. Listerism had not dawned, and it was inevitable that there should be misadventures, and occasionally catastrophes, which would have daunted an operator of less determined character. He was attacked sometimes not very amiably or scrupulously, but this in no way discouraged him. He was always able to defend himself, and seemed rather to enjoy a warfare in which he could display his strength and bear down his adversary. One of his compeers compared him to a lion whose physical power, strength of will, and indomitable purpose broke down all resistance, and must eventually bring success.

His love and devotion to his work were not only remarkable during his full vigour, but quite lately, when many of his friends thought it desirable that he should cease operating, he said the best operation he had ever done was his last, and as soon as he saw his juniors operating better than himself he would retire. In truth he did not seem to realise in later days that strength had gone from him, and although partially paralysed, and indistinct in speech, he resolutely declined to acknowledge himself superannuated to the last.

Although cast in a tough mould mentally and physically, those who knew him best recognised a tender vein in his character which readily responded to the claims of friendship and sympathy, and many can testify to the kindness extended to them in the hour of trial, and when tenderness was most gratefully acknowledged. His confident and cheerful promise of success often reconciled patients to the ordeal of an operation which otherwise they would not willingly have assented to, and the trust thus engendered no doubt largely contributed to dispel a mental depression which is certainly adverse to the welfare of many surgical as well as medical patients.

The friends of Sir Spencer Wells may be content to reflect that he well filled his life with useful and active work, and that he attained affluence, and was thus enabled in his declining years to enjoy himself in foreign travel and other congenial pursuits. He died full of years and full of honours. Had he lived until February 3rd he would have entered his 80th year.

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The remains of Sir Spencer Wells were cremated at Woking, according to his desire, on Monday morning, February 8th. At 3 P.M. on the same day a memorial service was held at St. Margaret's, Westminster. This service was conducted by Canon Eyton, the Rev. J. Hutchons, M.A., Vicar of St. Barnabas, Bell Street, Edgware Road, and Chaplain to the Samaritan Free Hospital, and the Rev. Spencer Woolward, nephew to the deceased. Brahms's anthem, "Blessed are the Dead," the Ninetieth Psalm, and the hymns "Lead, kindly Light" and "Abide with Me" were sung. Among the congregation were Sir Arthur Spencer Wells, with two daughters of the deceased and other relatives; Mr. Arthur Gilbey, representing Sir Walter Gilbey; Mr. Ambrose, Q.C., M.P.; Sir Henry Thompson; Sir W. Roberts; the Secretary of the College of Surgeons (Mr. Trimmer); the President (Dr. Cullingworth), past President (Dr. Champneys), and Senior Honorary Secretary (Dr. Dakin) of the Obstetrical Society of London, with the Society's Treasurer (Dr. J. B. Potter); several members of the staff of the Samaritan Free Hospital, with the Matron (Miss Butler), the Secretary (Mr. Scudamore), and several nurses: Colonel Gordon Watson, a member of the Committee of Management of the Hospital; also Dr. Braxton Hicks, Dr. Playfair, Dr. Theodore Williams, Dr. Clement Godson, Dr. Cleveland, Dr. Wynter, Dr. Augustus Cooper-Key, Dr. R. C. Priestley, Mrs. Anderson, Mr. Reginald Harrison, and Mr. Irvine Menzies. By Sir Spencer Wells's express wish there were no flowers. The remains were deposited at Brompton Cemetery.

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## JAMES ELLISON, M.D.Lond.

Surgeon to Her Majesty's Household, Windsor.

Dr. James Ellison, Surgeon and Apothecary to Her Majesty's Household at Windsor, who died on January 31st, was in his 80th year, but being a man of remarkable vigour, had continued in active practice until his fatal illness commenced in the autumn of 1895. He was born in India in 1817 (his father being in the East India Company's service), and at an early age was sent to England to be educated. In 1834 he commenced his medical studies by being articled to Mr. Walker, of Peterborough, whose daughter he married in 1847. The five years of pupillage were not likely to be wasted by a man of Dr. Ellison's character. He had left school more highly educated than most lads of his age, and when he left Peterborough to enter as a student at St. Bartholomew's Hospital, he had not only acquired much valuable professional knowledge, but he had added greatly to his accomplishments and mental culture. He was an excellent linguist and a clever artist. He had acquired a knowledge of music, excelled in most games of skill, and was a good rider, enjoying a day with the hounds when the opportunity offered. Having, after a successful career at St. Bartholomew's, qualified as M.R.C.S., and L.S.A., Mr. Ellison was appointed House Surgeon to the Peterborough Infirmary and Dispensary. While discharging the duties of that post he continued his work for the degree of M.D. of the University of London, and in 1845, having in the meantime resigned his house-surgeoncy that he might study for a session in Heidelberg, he graduated as M.D.

Thus equipped, Dr. Ellison commenced practice in London, but after five years of increasing success he availed himself of an offer to enter into partnership with the late Mr. H. Brown, of Windsor, who at that time held the appointment of Surgeon-Apothecary to Her Majesty's Household; and in 1852 Dr. Ellison settled in the Royal Borough, receiving the Castle appointment, which he held to the day of his death, shortly afterwards. He was also for many years Surgeon to the Windsor Infirmary.

Endowed with exceptional abilities, possessing tact and judgment, and thoroughly versed in all branches of his profession, Dr. Ellison enjoyed in an eminent degree, the confidence of his patients, and his opinion was frequently sought in consultation by his medical neighbours.

Although unsparing in his attention to his special work, he never ceased to use his leisure moments for the advancement of his mental culture. He was a great reader, and, having a most retentive memory, he possessed a vast store of accurate information on most subjects. Whether it was the telescope, the microscope, the pencil, the brush, or some branch of music to which his studies were specially directed, one and all were worked at with thoroughness, and in no *dilettante* spirit.

From its origin Dr. Ellison took a keen interest in the Volunteer movement, and for twenty-eight years he served in the Berkshire Regiment, at first as a combatant officer in command of the Windsor Company, and latterly as Surgeon to the battalion.

Certainly no higher testimony can be given to the character of Dr. Ellison than that which we now are enabled to quote from a letter to his son, Dr. W. A. Ellison, from Sir James Reid, K.C.B.: "I received your telegram.....and lost no time in informing the Queen, who commands me to express to yourself and to the other members of the family Her Majesty's sincere regret at the loss of one who has served her so long and so faithfully, and for whom she entertained the highest regard." The writer of this letter adds: "Personally I should like to repeat what you already know—how much I respected Dr. Ellison, who was one of the most unaffected, upright, and honourable men I ever knew, and whose high-mindedness was never more in evidence than during the protracted and distressing illness which he has borne with such exemplary fortitude and patience."

The illness referred to was malignant stricture of the œsophagus, for which Dr. Ellison received most valuable attention from his partners, Dr. Fairbank and Dr. W. Ellison, and from Mr. Lennox Browne, Dr. Semon, and Mr. Charters Symonds, the latter surgeon having added thirteen months to his life, when death from starvation seemed imminent, by introducing a tube through the stricture into the stomach, through which tube the patient was fed from December, 1895, to January 30th, 1897.

Honourable, high minded, and duty doing, constantly seeking for, and availing himself of, opportunities of adding to the happiness of those about him; able to gratify his intellectual tastes; happy in his domestic relations, in his friendships, and his general surroundings; loved and respected, Dr. Ellison, notwithstanding the cares, anxieties, and disappointments incidental to his profession, lived a life such as few men attain to; and we may with confidence assert that he has left the world the better for his having lived in it.

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## ALEXANDER PROFFIT, L.R.C.S.E., J.P.

We regret to have to record the death of Dr. Alexander Profeit, Her Majesty's Commissioner upon her estates at Balmoral. Dr. Profeit has been in failing health for the last two years, and was on the point of surrendering his commission at the time of his death.

Dr. Profeit was a native of the parish of Towie, in Aberdeenshire, and began his education at the parish school. He proceeded to the Grammar School of Aberdeen, and the Univer-

sity of Aberdeen, where he graduated in Arts in 1855. Two years later he qualified in medicine, and settled down in practice in his native parish. He afterwards engaged in practice in Tarland, and finally in the parish of Crathie. When his friend, Dr. Robertson, resigned the Queen's Commissionship, twenty years ago, Her Majesty appointed him to the vacant post, which he has since filled with singular success and acceptance. He took an active interest in local affairs, and occupied the offices of Justice of the Peace, county councillor, and Chairman of the Parish Council. He was an agriculturist of no mean note, and successfully developed the Queen's polled Aberdeen herd, which carried off many prizes at the leading shows in England and Scotland.

Dr. Profeit's engaging personality, devotion to duty, and business capacity gained for him the esteem and confidence of his royal mistress and the household, as well as of the public at large. He had a quite unique acquaintance amongst royal personages, from whom he received many tokens of regard and esteem. At Court, his services were indispensable. One of his last public duties was to take part in the arrangements for the reception of the Czar, upon the occasion of his recent visit to Balmoral.

Dr. Profeit's remains were borne to their resting-place in Crathie Churchyard on Monday last, upon the shoulders of the keepers and gillies on the estate, and wreaths from the Queen and Princess Beatrice were laid upon his grave.

# MEDICO-LEGAL.

## THE CORMACK CASE.

IT will be remembered by our readers that a person calling himself "Dr." Cormack and "Physician and Surgeon," together with his wife were committed for trial lately to the Devon County Assizes for having jointly been concerned in the performance of an illegal operation upon a woman named Jessie May Older at Devonport, thereby causing her death. The trial took place on February 3rd before Mr. Justice Williams, and the two prisoners were indicted—the husband for causing the death by the said illegal operation, and the wife for aiding and abetting her husband in the crime. Both pleaded "Not Guilty," and, after a long and protracted trial, were acquitted. Mrs. Cormack was immediately released, but "Dr." Cormack was held in custody to be brought up for trial on a further charge the next day.

In the course of the case evidence was given that the prisoner's name did not appear in the *Medical Register* for 1896, but the counsel for the defence elicited from the witness producing the *Register* that the names of Edwin Alfred Cormack (those under which the prisoner practised) did appear in the *Medical Directory* for 1891. Witnesses were then brought forward by the Treasury (which prosecuted) to prove that the diploma produced by Cormack was a forged one, and that the "Edwin Alfred Cormack" mentioned in the *Directory* for 1891 was not the prisoner, and that the real owner of the name was in Australia.

The second trial of "Dr." Cormack was for performing an illegal operation upon a woman named Edith Hobbs, a domestic servant at Stonehouse, near Plymouth. The jury in this case found a verdict of "Guilty," and he was sentenced to penal servitude for five years. It is satisfactory to note that justice has been done in this case, and that the "nefarious practices"—to use the terms employed by the judge in his judgment—of this unqualified practitioner have been cut short by the sentence conferred upon him.

From the evidence given in both cases, it would appear that Cormack has been practising for some years at Devonport under the name of a duly-qualified medical man, and using his medical titles, without suspicion or hindrance. This is a most serious state of things, and one almost incapable of detection. Similar instances have been notified before, and in one case a medical man upon the *Register* was actually summoned by the Registrar of his district for issuing a false certificate of death. Upon inquiry before the magistrate, it became clear that the name and qualifications of the person summoned had been used without his knowledge or consent by an unqualified man living not half a mile from his house. Of course the summons was dismissed at once, and a fresh one taken out against the real offender, but when attempted to be served it was discovered that he had absconded, and nothing further has been heard of him since.

## DENTAL PROSECUTION AT HOVE.

AN unregistered dentist named James Galloway was fined last week £2 12s., including costs, at Brighton for an infringement of the Dentists Act, in that he used the titles "Dentist" and "Surgeon Dentist." The defence raised, according to the report in the *Sussex Telegraph*, was that the defendant possessed a diploma from a dental college in Kansas, and that on his return to England he tried to register under the Dental Act, but was not permitted by the General Medical Council to do so. It was also stated that the defendant intended to return to the States.

## THE ROENTGEN RAYS AS EVIDENCE IN CIVIL ACTION.

FOR the first time in Scotland, according to a correspondent, the Roentgen rays were brought into evidence in the case of Taylor *v.* Dick. This was an action in which the plaintiff, a boy aged 8 years, sought, through his father, to obtain damages, estimated at £200, for alleged injuries received through a bullet wound.

The evidence, as reported in the *Glasgow Herald*, disclosed that the boy, whilst playing in the street, suddenly felt himself sharply hit by something in the chest. A doctor was called, and found that the injury was from a bullet which had entered the body between the fourth and fifth ribs. It was found impossible to probe for the bullet, but on exposure to the *x* rays a foreign body, apparently a bullet, was seen deeply embedded, but could not be extracted. It was alleged that the defender was firing a rifle first at a target at Maitland Street, Dumferline, and afterwards at another at a quarry. The distance from the quarry to the place where the boy was shot was about a mile, and the plaintiff's case was that the rifle used by defendant was capable of shooting that distance, and that the direction in which the target lay was the same as that at which the injury took place. The defence was that with the charge used the bullet could not have gone the distance averred. The jury gave a verdict for the defendant. Our correspondent states that the conical shadow of the bullet was found projected to one side of the vertebral column at about the level or a little above the fifth rib on the left side.

## MEDICAL TITLES.

CENTAURUS writes: Have Licentiates of the Royal College of Physicians, Edinburgh, or the Royal College of Surgeons, Glasgow, any right by the certificate or parchment they hold to the title of "Dr."? Again, have persons holding such qualifications and signing death certificates, etc, any right to place after their name "L.R.C.P.," leaving it of course to be understood that they hold the L.R.C.P.Eng. qualification.

*** With regard to the first question, we may observe that there is no "Royal College of Surgeons, Glasgow." On the general question, we do not think we can usefully add anything to what has already appeared in the BRITISH MEDICAL JOURNAL on many occasions with reference to the title of "Dr.," and we would refer our correspondent to the reply in the "Medico-Legal" column of the JOURNAL of November 14th, 1896, in which some general views are expressed. In reply to the second question, it would be desirable (and we are not sure that this is not the general method employed) to add, after the letters indicating the nature of the qualification, the town or part of the United Kingdom from whence the qualification was derived, as "Edin.," "Lond.," "Irel."

## CONTRACTS IN RESTRAINT OF PRACTICE.

IN reply to several correspondents we may observe that it can hardly be said there is a usual radius, except in particular localities; for example, the radius will be different according as the practice is in a town or country district. In large towns three miles would be ample, but in smaller towns or country places it would probably be more. We are advised that in restraining an assistant from practising in his neighbourhood the restraint must be reasonable; and whether it be or be not reasonable will depend on whether the restraint put on the latter be more than the circumstances of the case require to give the principal a sufficient protection. Obviously this may at times be a very nice point.

PERPLEXED asks the following question: 1. Is it usual on bonds between principal and assistants to bar the latter from starting in opposition on leaving, and to state any particular time during which the prohibition shall last? 2. Within what radius is it usual to prohibit practice in town or country in the case of a man whose practice extended to ten miles on either side of him. 3. Should the *locum tenens* require a copy of the agreement or bond, at whose expense is it provided?

*** 1. In reply to the first question, we believe the course is frequently adopted on the occasion of the employment of an assistant of stipulating in the bond or contract that the latter should not at the termination of his service commence practice either as principal or assistant for a prescribed period, say three to five years.

2. As to the second question, the reply to this would depend upon the size of the town where the principal carries on his business. The stipulation must be reasonable, and, in the case of a country district, would probably be made to embrace the area of the practice of the principal.

3. In reply to the third question, this would be a matter of arrangement between the parties. We are not aware of any settled rule on the point.

# NAVAL AND MILITARY MEDICAL SERVICES.

## ARMY MEDICAL STAFF EXCHANGE.

*The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.*

A SURGEON-CAPTAIN, who will complete five (5) years in India, March, 1898, is willing to exchange places in the roster with a medical officer who would have two, three, or four years more to serve in India, or is willing to take a complete tour of Indian service from next trooping season. Apply, stating the amount willing to give, to Surgeon-Captain Gibbard, A.M.S., Ootacamund, India.

## THE NAVY.

THE following appointments have been made at the Admiralty: CHARLES E. GEOGHEGAN, Staff-Surgeon, and LAWRENCE BIDWELL, Surgeon, to the *Royal Oak*; SIDNEY H. YOUEL, Surgeon, to the *Penguin*, February 3rd;

EDWARD SUTTON, Surgeon, to the *Thescus*, February 6th; PATRICK J. FLANAGAN, to be Surgeon and Agent at Mullaghmore, February 6th; ARTHUR S. NANCE, Staff-Surgeon, to the *Collingwood*; ROBLEY H. J. BROWNE, Surgeon, to the Royal Naval Depôt, Walmer, February 10th; WILLIAM E. MARSHALL, Surgeon, to the *Duke of Wellington*, February 10th.

### ARMY MEDICAL STAFF.

SURGEON-CAPTAIN H. M. RAMSEY, F.R.C.S.Edin., has retired from the service with a gratuity, February 10th. He was appointed Surgeon-Captain, January 30th, 1886, and joined the Scots Guards April 11th, 1888.

Surgeon-Lieutenant-Colonel R. G. THOMSETT is promoted to be Brigade-Surgeon-Lieutenant-Colonel *vice* J. Macartney, M.D., retired, January 26th. Brigade-Surgeon-Lieutenant-Colonel Thomsett's previous commissions are thus dated: Surgeon, September 30th, 1873; Surgeon-Major, September 30th, 1885; and Surgeon-Lieutenant-Colonel, September 30th, 1893. He served in the Afghan war in 1878-79, and had medical charge of the Divisional Field Hospital at Thull; he accompanied the expedition into the Khost country, and was at the engagement at Mattoon (medal). He was also in the Egyptian war of 1882 with No. 4 Field Hospital, and has the medal and Khedive's Star for that campaign.

The undermentioned Surgeon-Captains, having completed twelve years' full-pay service, are promoted to be Surgeon-Majors from January 31st: M. W. RUSSELL, B.F. ZIMMERMANN, A. STABLES, M.B., G. E. MOFFET, M.B., H. A. HAINES, M.D., J. D. MOIR, M.B., R. CROFTS, G. E. HALE, D.S.O., C. W. JOHNSON, M.B., A. T. I. LILLY, C. C. REILLY, A. PERRY, S. N. CARDOZA, A. DE C. SCANLAN, H. D. JAMES, and W. TURNER. The war services of these officers are as follows:—M. W. Russell: Soudan Frontier Force in 1885-86, including the engagement at Giniss (medal, and Khedive's Star); Zhob Valley and Kidderzai expeditions in 1890 under Sir George White, including the march to Vihowa. A. Stables: Soudan Frontier Field Force in 1885-86 (medal and Khedive's Star). J. D. Moir, C. W. Johnson, and C. C. Reilly: Soudan Frontier Field Force in 1885-86 (medal and Khedive's Star). R. Crofts: Expedition against the Jebus, Lagos, in 1892 (mentioned in despatches; medal, with clasp). S. N. Cardoza: Egyptian Frontier Field Force in 1885-86, including the engagement at Kosheh (mentioned in despatches; medal and Khedive's Star). W. Turner: Soudan campaign in 1885 (medal, with clasp, and Khedive's Star).

Surgeon-Colonel R. H. CAREW is brought on the administrative medical staff of the Punjab army from December 21st, 1896.

The following Surgeon-Lieutenants, having completed three years' service, are promoted to be Surgeon-Captains from January 29th: H. V. PRYNNE, A. E. MASTER, M.B.; G. DANSEY-BROWNING, E. S. CLARK, M.B.; K. B. BARNETT, M.B.; M. BOYLE, M.B.; K. M. CAMERON, M.B.; C. M. FLEURY, A. C. FOX, S. F. ST. D. GREEN, and W. TIBBITS, M.B.

### INDIAN MEDICAL SERVICE.

SURGEON-LIEUTENANT-COLONEL GEORGE WATERS, Bombay Establishment, who entered the service as Assistant Surgeon, October 1st, 1869, is promoted to be Brigade-Surgeon-Lieutenant-Colonel, from March 31st, 1896.

Brigade-Surgeon-Lieutenant-Colonel S. M. SALAMAN, M.D., has been awarded the extra pension of £100 per annum due to the Bombay Establishment for the year 1896-97, with effect from the date of his retirement from the service.

### THE VOLUNTEERS.

M. DAVID JAMES LAWSON, M.D., is appointed Surgeon-Lieutenant in the 1st Dorset artillery (Southern Division Royal Artillery), February 10th.

Surgeon-Lieutenant J. M. MOIR, M.D., the Highland Artillery, is promoted to be Surgeon-Captain, February 10th.

M. WILLIAM H. VICKERY is appointed Surgeon-Lieutenant in the 3rd Volunteer Battalion the Northumberland Fusiliers, February 10th.

Surgeon-Major W. A. F. BATEMAN, 3rd Volunteer Battalion the East Surrey Regiment, is promoted to be Surgeon-Lieutenant-Colonel, February 10th.

Surgeon-Major H. H. SMITH, 1st Volunteer Battalion the South Staffordshire Regiment, has resigned his commission, retaining his rank and uniform, February 10th.

### THE ARMY ESTIMATES.

THE usual statement by the Secretary of State for War has been issued with the Army Estimates, but contains no reference to any additional provision for the Army Medical Staff in view of the proposed increase to the army. We extract the following from Vote II, which deals with the Army Medical Staff:

| 1896-97. | 1897-98. | |
|---|---|---|
| 6 | 7 | Surgeon-Major-Generals. |
| 3 | 3 | Surgeon-Major-Generals, Indian Establishment. |
| 14 | 13 | Surgeon-Colonels. |
| 10 | 10 | Surgeon-Colonels, Indian Establishment. |
| 474 | 474 | Brigade-Surgeon and Surgeon-Lieutenant-Colonels, Surgeon-Majors, Captains, and Lieutenants. |
| 322 | 322 | Brigade-Surgeon and Surgeon-Lieutenant-Colonels, Surgeon-Majors, Captains, and Lieutenants, Indian Establishment. |
| — | — | Surgeons on Probation. |
| 83 | 83 | Acting Medical Officers. |

Thirty-five quartermasters and 1 Assistant Apothecary (Hong Kong) are also reckoned of the Medical Staff for the purposes of this vote, raising the total number of the Medical Staff, British Establishment, to 613, and the total estimate for pay is £233,200, the same amount as in 1896-97. The total number on the Indian Establishment is 335.

The estimate for the pay of militia medical officers is £2,600; of civilian medical practitioners and medical officers of military prisons, £8,000.

For corps pay and extra duty pay of the Medical Staff Corps the estimate is £25,100, which is £500 more than last year. The pay of clerks and nurses and for miscellaneous labour is estimated at £12,400, or £500 more than last year.

The estimate for drugs (the War Office calls them medicines!) and surgical instruments is £14,000, the same as last year.

Contingencies and appropriations in aid bring up the total of "Vote 2, Medical Establishment, Pay, etc.," to £295,800, as compared with £294,800 in 1896-97.

Under Vote 6, Travelling Expenses, etc., the estimate for the Medical Staff is £4,125, which in proportion to the number of officers appears to be high.

### VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

THE number of volunteer medical officers under instruction by the staff of this school who have recently passed the proficiency examination for medical officers is 47. The next class will commence on February 17th at 8, Portman Street, Portman Square, London, W. Further particulars can be obtained from Surgeon-Captain R. R. Sleman at this address.

# UNIVERSITIES AND COLLEGES.

### UNIVERSITY OF CAMBRIDGE.

HONORARY DEGREES.—A grace passed the Senate on February 11th for conferring the complete degree of Master of Arts, *honoris causâ*, on Dr. A. A. Kanthack, of St. John's College, formerly Walker Student, and now Deputy-Professor of Pathology.

CHAIR OF SURGERY.—Dr. Joseph Griffiths, F.R.C.S., who has been appointed by the Senate to discharge the duties of the Professorship of Surgery during its suspension, has been assigned a stipend of £250 a year on the recommendation of the General Board of Studies.

### UNIVERSITY OF LONDON.

PRELIMINARY SCIENTIFIC (M.B.) EXAMINATION.

THE following candidates have satisfied the Examiners:

*Entire Examination.*—First Division: C. H. Dawe, Guy's Hospital and University Tutorial College; C. W. Forsyth, Owens College and private study; S. Hastings, Middlesex Hospital and University, and University Tutorial College; J. B. McVail, private study and University Tutorial College; P. J. Robbins, St. Mary's Hospital; W. M. Robson, Guy's Hospital. Second Division: C. E. Adams, Guy's Hospital; R. Appleton, B.A., University Tutorial College and private tuition; Agnes Maud Brown, University and University Tutorial Colleges; H. Butler, University Tutorial College; H. M. Churchill, Brighton Grammar School; J. D. Clay, King's College; P. Reynolds, B.A., Yorkshire College and private study; Anna Maude Smith, Alwyne and Birkbeck Institutes; V. G. Ward, St. Bartholomew's Hospital; W. P. Yetts, University Extension College, Reading, and University Tutorial College.

*Chemistry and Experimental Physics.*—J. E. Adams, City of London School; A. J. Beadel, Guy's Hospital and University Tutorial College; *Maud Bennett, University Tutorial College and Birkbeck Institution; *Victoria E. May Bennett, University College, Cardiff; *Lilly Alice Bilke, Carlyon College; *A. H. Bradley, Mason College; *W. W. Campbell, King's College; G. A. Charter, private study; *G. B. F. Churchill, Guy's Hospital and University Tutorial College; *Olive Claydon, University Tutorial College; *Anne Fenton Cleaver, University Tutorial College; W. H. Cole, Guy's Hospital and University Tutorial College; C. F. Coombs, University College, Bristol; *E. W. F. Dolman, Epsom and King's Colleges; Lætitia Nora Ede, private study and tuition; *F. A. Edmonds, Epsom and University Colleges and private study; E. S. Ellis, Cheltenham Science School and St. Bartholomew's Hospital; *J. C. Fleming, University and University Tutorial Colleges; G. F. I. Harkness, University and University Tutorial Colleges; *F. R. Harris, St. Mary's Hospital and private study; *Anne Elizabeth Hooper, University College, Nottingham; *A. F. Horn, University and University Tutorial Colleges; N. N. A. Houghton, University Tutorial College; L. J. Hughes, Guy's Hospital and University Tutorial College; *Frances Mary Jenkin, Westfield College and Plymouth Technical School; *L. C. Johnson, Owens College; H. A. Kellond-Knight, St. Bartholomew's Hospital; *E. T. Kendon, London Hospital; *R. F. Korte, private study; *C. E. Lakin, Middlesex Hospital, University College, and private tuition; *A. Lewthwaite, University Tutorial College; C. E. W. Lyth, Wesley and Firth Colleges; *Agnes Emma Mecklenburg, University and University Tutorial Colleges; *Helen Moore, University Tutorial College; *Mary Eva Hastings Morris, University College, Aberystwith; *W. J. Morrish, St. Mary's Hospital; *G. P. Mosscrop, University Tutorial College; *H. R. F. Nattle, private study; *H. H. Raw, Kingswood and St. Bartholomew's Hospital; W. A. Rees, Middlesex Hospital, University College, and private study; G. S. Robertson, Guy's Hospital and Dulwich College; F. C. Robinson, Guy's Hospital; C. E. Rogers, B.A., Yorkshire College and Leeds School of Medicine; *J. B. Rous, St. Mary's Hospital; C. C. Rushton, Owens College and private study; *C. Russ, St. Mary's Hospital and Birkbeck Institute; *Agnes Catherine Scott, Yorkshire and University Tutorial Colleges; *Edith Serjeant, private study and University Tutorial Colleges; *C. W. Smith, private study; J. E. S. Smith, Owens College; *Louisa Spicer, University and University Tutorial Colleges; *Ethel Maud Stacy, University and University Tutorial Colleges; J. B. Stephens, University Tutorial College; *Emily Gertrude Stuart, University Lectures Oxford, University Tutorial Colleges, and private tuition; *R. A. S. Sunderland, St. Bartholomew's Hospital; Alice Taylor, University College and private tuition; A. Telfer, B.A., private study and tuition; Louisa Graham Thacker, Bedford College, London; *A. E. Thomas, St. Bartholomew's Hospital; *H. K. Ward, Mason College; H. Watts, Dulwich College and St. George's Hospital; E. C. Whitehead, Wyggeston School, Leicester; *A. Whitehead-Smith, Epsom

College and St. Thomas's Hospital; *C. A. Wiggins, St. Mary's Hospital; *J. T. Williams, University College, Cardiff; L. L. Winterbotham, Cheltenham School of Science; *F. H. Wood, St. Bartholomew's Hospital and Alwyne Institute; *M. D. Wood, Guy's Hospital; G. P. Young, University Tutorial College.

*Biology.*—*Anne Thompson Barnard, Birkbeck Institution; H. E. Barnes, St. Mary's Hospital; *Mildred Mabel Burgess, University Tutorial College; *B. Chiles-Evans, University College, Aberystwith, and Cardiff; *E. M. Clarke, University College, Cardiff; *G. T. Collins, University Tutorial College and Guy's Hospital; *M. A. Collins, University Tutorial College and Guy's Hospital; L. F. Cope, St. George's Hospital; *J. F. Corson, Owens College and private study; J. C. Curtis, University College and private study; *H. J. De Brent, St. Thomas's Hospital; *T. S. Dudding, Oundle School and London Hospital; *J. P. Ellerton, Carlyon College and private tuition; *J. Evans, University College, Aberystwith, and Guy's Hospital; *A. C. H. Gray, Guy's Hospital and Malvern College; *C. A. Hewavitarna, University College; *H. C. Keates, Guy's Hospital and University Tutorial College; R. H. Lee, King's College; *G. B. M'Kean private study; N. H. Marshall, B.A., Baptist and University Colleges, Nottingham; A. F. Martin, Owens College; S. W. Milner, St. Bartholomew's Hospital; *F. H. Noke, St. Bartholomew's Hospital; *W. G. Parker, Guy's Hospital; *F. B. Pinniger, Charing Cross Hospital; H. W. Plant, B.A., Mason College; *F. L. Thomas, Guy's Hospital and University Tutorial College; *R. N. Watson, Westminster Hospital, University Tutorial College, and private study; H. G. Wright, King's College.

*These candidates have now completed the examination.

# PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

## ZYMOTIC MORTALITY IN LONDON.

THE accompanying diagram shows the prevalence of the principal zymotic diseases in London during each week of the fourth quarter of 1896. The fluctuations of each disease and its fatal prevalence, as compared with that recorded in the corresponding weeks of recent years, can thus be readily seen.

*Small-Pox.*—Not one death was referred to small-pox in London last quarter, the numbers in the five preceding quarters having declined from 31 to 1; the corrected average number in the corresponding periods of the ten preceding years was 5. The number of small-pox patients in the Metropolitan Asylums Hospitals, which had declined from 227 to 4 at the end of the five preceding quarters, was 3 at the end of September last; 5 new cases were admitted during the quarter, against 116, 74, and 41 in the three preceding quarters.

*Measles.*—The fatal cases of measles, which had been 1,632 and 497 in the two preceding quarters, further declined to 184 during the three months under notice, and were less than one-fourth of the corrected average number. Among the various sanitary areas of the metropolis measles showed the highest proportional fatality in Shoreditch, Bethnal Green, Limehouse, Mile End Old Town, Poplar, and Rotherhithe.

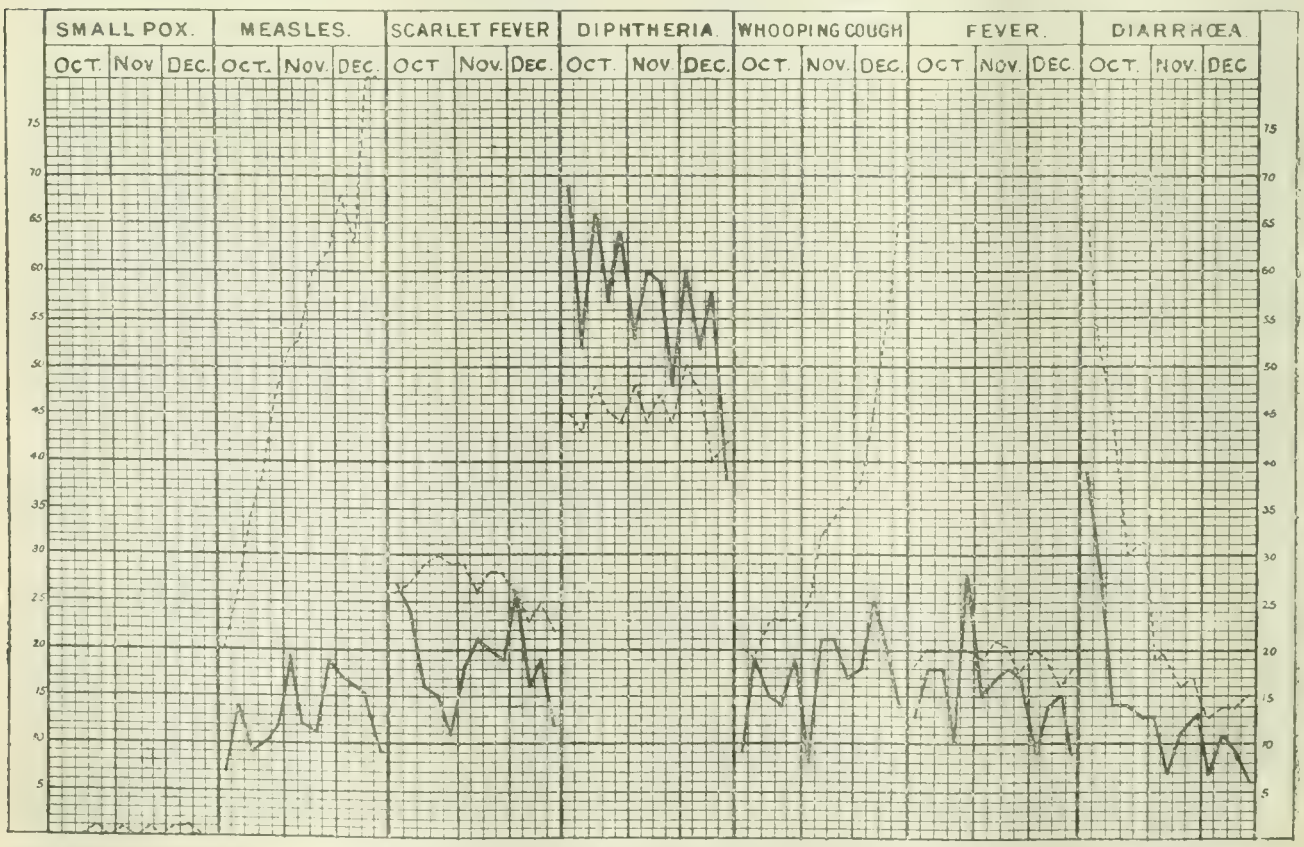
*Scarlet Fever.*—The deaths referred to this disease, which had been 264, 197, and 218 in the three preceding quarters, further rose to 263 during the three months ending December last, but were 107 below the corrected average number in the corresponding periods of the ten preceding years. Among the various sanitary areas this disease showed the highest proportional fatality in Fulham, Clerkenwell, St. Luke, Whitechapel, St. George-in-the-East, Mile End Old Town, Newington, Greenwich, and Plumstead. The number of scarlet fever patients in the Metropolitan Asylums Hospitals, which had been 2,687, 2,795, and 3,847 at the end of the three preceding quarters, had declined to 3,599 at the end of December last. The number of cases admitted into these hospitals, which had been 3,366 and 4,691 in the two preceding quarters, further rose to 4,835 during the three months ending December last.

*Diphtheria.*—The fatal cases of diphtheria in London, which had been 683, 566, and 649 in the three preceding quarters, further increased to 785 during the three months under notice, and were 158 above the corrected average number. Among the various sanitary areas this disease showed the highest proportional fatality in Chelsea, Clerkenwell, Shoreditch, Limehouse, Poplar, St. Olave Southwark, Bermondsey, Rotherhithe, Camberwell, Lewisham, and Woolwich. The cases of diphtheria admitted into the Metropolitan Asylums Hospitals, which had been 1,307, 1,269, and 1,275 in the three preceding quarters, further rose to 1,558 during the three months ending September last, and 829 patients remained under treatment at the end of the quarter.

*Whooping-Cough.*—The fatal cases of this disease, which had been 979, 1,188 and 504 in the three preceding quarters, further declined to 266 during the three months ending December last, and were little more than half the corrected average number; among the various sanitary areas whooping-cough showed the highest proportional fatality in St. Martin-in-the-Fields, Strand, Limehouse, St. Saviour Southwark, St. George Southwark, and Plumstead.

*Fever.*—Under this heading are included deaths from typhus, enteric, and simple and ill-defined forms of continued fever. The deaths referred

DEATHS FROM ZYMOTIC DISEASES IN LONDON DURING THE FOURTH QUARTER OF 1896.




NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding week of the ten preceding years 1886-95.

to these different forms of "fever," which had been 142, 85, and 169 in the three preceding quarters, further rose to 213 during the three months ending December last, but were 52 below the corrected average number. Of these 213 deaths from "fever," 200 were certified as enteric fever, and 4 as simple continued fever. Among the various sanitary areas the highest proportional fatality of "fever" was recorded in St. James Westminster, Hackney, Clerkenwell, St. Olave Southwark, and Greenwich. The Metropolitan Asylums Hospitals contained 116 enteric fever patients at the end of December last, against 72, 75, and 149 at the end of the three preceding quarters; 203 new cases were admitted during last quarter, against 154, 174, and 288 in the three preceding quarters.

*Diarrhœa.*—The 201 fatal cases of diarrhœa registered in London during the three months ending December last were 162 below the corrected average number; this disease was proportionally most fatal in St. Luke, Shoreditch, St. George-in-the-East, Limehouse, St. Olave Southwark, and Rotherhithe sanitary areas.

In conclusion, it may be stated that the 1,912 deaths referred to these principal zymotic diseases in London during the fourth or autumn quarter of 1896 were 994, or as much as 34 per cent. below the average number in the corresponding periods of the ten preceding years, 1886-95, all these diseases, with the single exception of diphtheria, being below the average. Among the various sanitary areas the lowest zymotic death-rates last quarter were recorded in Paddington, St. James Westminster, Hampstead, Stoke Newington, St. Giles, City of London, and Wandsworth: and the highest rates in Clerkenwell, St. Luke, Shoreditch, Limehouse, Mile End Old Town, Poplar, St. Olave Southwark, Rotherhithe, and Lewisham.

## HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,536 births and 4,375 deaths were registered during the week ending Saturday last, February 6th. The annual rate of mortality in these towns, which had increased from 19.2 to 20.6 per 1,000 in the three preceding weeks, further rose to 20.8 last week. The rates in the several towns ranged from 11.3 in Huddersfield, 14.2 in Croydon, 14.6 in Newcastle-upon-Tyne, and 16.3 in Halifax to 24.7 in Oldham, 25.2 in Liverpool, 25.3 in Bolton, and 27.2 in Manchester. In the thirty-two provincial towns the mean death-rate was 20.9 per 1,000, and slightly exceeded the rate recorded in London, which was 20.6 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was equal to 1.7 per 1,000, and corresponded with the mean rate in the thirty-two provincial towns, among which the highest zymotic death-rates were recorded in Hull, Bradford, Blackburn, and Burnley. Measles caused a death-rate of 1.1 in Plymouth and in Bradford; whooping-cough of 1.6 in Nottingham; 1.8 in Bristol, 2.0 in Blackburn, 2.6 in Swansea, and 2.9 in Burnley: and "fever" of 1.0 in Gateshead, 1.1 in Halifax, and 1.2 in Wolverhampton and in Hull. The mortality from scarlet fever showed no marked excess in any of the large towns. The 69 deaths from diphtheria in the thirty-three towns included 46 in London, 5 in West Ham, 5 in Birmingham, and 4 in Leeds No fatal case of small-pox was registered either in London or in any of the thirty-two large provincial towns. There were 21 cases of small-pox under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, February 6th, against 3, 2, and 9 at the end of the three preceding weeks; 12 new cases were admitted during the week, against 7 in the preceding week. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 3,414, 3,354 and 3,311 at the end of the three preceding weeks, had further declined to 3,153 on Saturday last; 245 new cases were admitted during the week, against 208, 249, and 254 in the three preceding weeks.

## HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, February 6th, 924 births and 792 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 24.6 and 24.3 per 1,000 in the two preceding weeks, rose again to 26.6 last week, and was 5.8 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rate ranged from 22.3 in Dundee to 44.0 in Greenock. The zymotic death-rate in these towns averaged 3.2 per 1,000, the highest rates being recorded in Glasgow and Perth. The 374 deaths registered in Glasgow included 24 from measles, 23 from whooping-cough, 4 from diphtheria, and 3 from scarlet fever. Five fatal cases of whooping-cough were recorded in Edinburgh.

## DUBLIN EPIDEMICS.

The death-rate in the city of Dublin for the week ending January 30th was 30.2 per 1,000; 17 died from measles, 1 from typhoid, 4 from scarlet fever, 22 from whooping-cough, and 1 from German measles For the week ending February 6th 437 cases of measles were notified, and 40 of scarlet fever.

Sir Charles Cameron writes to point out that the high death-rate is due to the unusual coincidence of measles, scarlet fever, and whooping-cough in epidemic form, and he believes that these will die out at no distant date. He says: For the six years ended December 31st last our zymotic death-rate was only 2.3 per 1,000 persons living, a rate decidedly under that of the thirty-three great towns of England, including London. As regards 1896, it had about the lowest death-rate recorded for Dublin, and notwithstanding the prevalence of scarlet fever, the zymotic death-rate was only 2.3 per 1,000, whilst that of the English towns was about 3 per 1,000. The death-rate in the last quarter of 1896 was nearly 2 per 1,000 below the usual rate for that quarter. Since 1892 there have been few deaths from measles, scarlet fever, or whooping-cough; therefore few children under 4 years old have been protected against these diseases by previous attacks, hence the diseases spread widely through our infantile population.

## THE WATER SUPPLY OF RICHMOND.

The Mayor of Richmond (Dr. G. R. Cundell, J.P.), who is also Chairman of the Health Committee, and Dr. John T. Rowland, Medical Officer of Health, write: Referring to your note on p. 376 of the British Medical Journal of February 6th, we beg to say that from all the analyses performed by us, and also by Dr. Stevenson (the county analyst), and other eminent analysts of the Local Government Board for years past, we are able to give a distinct denial to these statements by Mr. Councillor Cockram referred to by you; and we are also able to affirm that the water supply of Richmond is excellent for drinking and all domestic purposes.

# MEDICAL NEWS.

Mr. Timothy Holmes, F.R.C.S., has been elected a vice-president of the Hospital Reform Association.

A society is being organised in New York for the purpose of testing the efficacy of music as an aid in the treatment of certain diseases.

The eighth International Pharmaceutical Congress will be held at Brussels in August of the present year. The Congress is being organised by the General Pharmaceutical Association of Belgium on the occasion of the jubilee of its foundation.

It is positively announced that the long-promised statue of Samuel D. Gross, the eminent Philadelphia surgeon, will be unveiled during the Triennial Congress of American Physicians, to be held in Washington next May. The statue will be placed in the grounds of the Smithsonian Institution, near the Army Medical Museum.

Dublin Sunday Hospital Fund.—The twenty-third annual meeting of the Dublin Hospital Fund Society was held on Monday, February 9th, Dr. Duffey, President of the College of Physicians of Ireland, in the chair. The amount contributed was £4,388 8s. 8d., and the number of co-operating Protestant churches was 271.

Influenza in Ulster.—Influenza is very rife at present in some of the towns of Ulster. Coleraine, Garvagh, and Cookstown, have suffered severely. In Belfast the disease is somewhat prevalent, but the type is not severe, and fatal pulmonary complications are exceptional. There is, however, a great deal of sickness in the city, and the death-rate is considerably over 30 per 1,000.

Dr. Nansen.—A dinner to Dr. Nansen, at which about 170 sat down, was given on Friday, February 5th, at the Royal Societies' Club. The chair was occupied by the President, Sir Clements Markham, who was supported by a distinguished company. Lord Lister responded to the toast of "Literature, Science, and Art," and Mr. Thomas Bryant proposed that of "The Visitors." A reception was afterwards held in Dr. Nansen's honour, and was largely attended by members of the medical profession.

The Medico-Psychological Association of Great Britain and Ireland.—The next general meeting of the Medico-Psychological Association of Great Britain and Ireland will be held at the Borough Asylum, Mapperley Hill, Nottingham, on Thursday, February 18th, under the presidency of Dr. Julius Mickle, when a discussion will take place on the Housing of the Insane and the Size of Asylums, to be opened by Dr. Rayner. Cases of interest in the wards of the Nottingham Borough Asylum will be shown by Drs. Vincent and Montgomery.

At the monthly meeting of the managers of the Montrose Lunatic Asylum, held on February 2nd, a letter was read from Dr. Howden resigning the post of superintendent to the Asylum, which he had held for forty years. A proposal was carried appointing a small committee to consider the best step to take under the circumstances, and the hope was expressed that if he were given a colleague, Dr. Howden might reconsider his resignation.

An Enlightened Town Council.—The municipality of Lille has decided to institute a series of popular lectures to be given by professors of the medical faculty of the town on the following subjects: (1) Hygiene of infancy, (2) alcoholism in the North of France, (3) chemistry of food, (4) physiology of food; (5) bacteriology, (6) the struggle against tuberculosis, (7) a question connected with the history of medicine. Each lecturer will receive a fee of £12. The town councillors of Lille are said to be mostly socialists, but they have set an example which might well be imitated by other towns, not

only in France, but in certain other countries. The subjects are well chosen, but the most important point in the decision is that the lectures are to be given by men specially competent to give the instruction required.

"Kissing the Book."—In the *Cardiff Western Mail* of February 3rd we noticed that Dr. Taylor, a medical magistrate in that city, pressed the desirability of using the new form of oath from his place on the bench, and pointed out that the Home Secretary had sent a recommendation with full explanations to the magistrate's clerk two years ago. It turned out, however, that the magistrates could not find the papers, and the witness was, as the *Western Mail* puts it, "sworn after the time-honoured fashion." Will it be necessary to inflict a penalty on magistrates' clerks and other officers before they can be induced to perform their duties?

Medical School Inspectors in New York.—New York city has followed in the wake of Boston in appointing medical inspectors of public and private schools, for the purpose of reducing the number of cases of contagious disease. Every child is to be examined daily, and when absent because of sickness, the nature of the sickness will be investigated. The press reports say that many prominent practitioners have applied for appointment on the staff. The office of inspector is worth $300 (£60) a year. Among the applicants for this position is a professor in one of the medical colleges. The applicants for appointment on the staff are of both sexes. Provision is made for a staff of 150 at $30 (£6) a month. The chief inspector will receive $2,500 (£500) a year. Competitive examinations will determine who are to have the places.

Association of Asylum Workers.—The annual meeting of this Association, formed (1) to improve generally the status of asylum nurses and attendants; (2) to secure the sympathy and co-operation of all those interested in institutional work and efforts; (3) to provide a "home of rest" for those engaged in asylum work, was held on February 8th at 12, Buckingham Street, Strand, under the presidency of Mr. P. Michelli. The annual report, which stated that 2,012 members had joined the Association, and that there was a balance in hand of £94 17s., was adopted; and Dr. G. E. Shuttleworth, of Ancaster House, Richmond Hill, was appointed Honorary Secretary in succession to Dr. Walmsley. It was resolved that the Executive Committee should make an earnest effort to open the home of rest as early as funds would permit. The first number of the *Asylum News*, printed at the Lancaster County Asylum Press, has been recently distributed to the members.

The Edinburgh University Club of London.—Dr. George Ogilvie presided at a dinner of this club which took place at the Holborn Restaurant on February 10th. About ninety members and guests sat down, among those present being Dr. Lauder Brunton, Professor Watson Cheyne, and Deputy Surgeon-General Don. After the usual loyal and patriotic toasts, the Chairman proposed "Alma Mater and the Edinburgh University Club of London." In referring to the Faculty of Medicine he took occasion to express the satisfaction with which the graduates of Edinburgh had heard of the peerage conferred on Lord Lister. Dr. Ogilvie said that when many years ago Lord Lister was raised to a baronetcy the news reached him on the day on which he was to deliver a lecture at one of our provincial medical schools. He then said that, with full appreciation of those honours which a Sovereign could bestow, the greatest honour would be to have his name associated in the grateful memory of mankind with those immortal benefactors like Hunter and others. That at that time he had already possessed this highest honour to an extent never surpassed, and perhaps never equalled in the history of medicine, was the universal verdict of the civilised world. It was customary on occasions like that of Lord Lister's promotion to speak of the honour conferred upon the man. To him (Dr. G. Ogilvie) it rather seemed that, by entering the House of Lords, Lord Lister gave fresh lustre and life to a time-honoured institution, the old resplendence of which had become somewhat tarnished with age. Long before Lister was called to sit with the highest in the land his figure stood out prominently with the greatest in the world, for he was not for an age, but for all time.

## MEDICAL VACANCIES.

The following vacancies are announced:

BETHNAL GREEN BOARD OF GUARDIANS.—Second Assistant Medical Officer at the Workhouse and Infirmary, Waterloo Road, Victoria Park, N.E.; doubly qualified. Appointment for six months, but will probably be extended. Salary at the rate of £80 per annum, with rations, furnished apartments, and washing, and an allowance at the rate of £3 per annum for beer. Applications on forms provided to be sent to D. Thomas, Clerk of the Board, Administrative Offices, Bishops Road, Victoria Park, N.E., by February 18th.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL.—House-Surgeon. Appointment for six months. Board, lodging, and washing provided. Application to the Secretary of the Medical Committee by February 23rd.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Senior House-Surgeon. Salary, £100 per annum, with board, washing, lodging, etc. Applications to Nathan A. Smith, Secretary, by February 18th, and not February 11th as stated last week.

BOLTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon; doubly qualified, and age not to exceed 25. Appointment for one year. Salary, £80 per annum, with furnished apartments, board, and attendance. Applications to Mr. Peter Kevan, Hon. Secretary, 12, Acresfield, Bolton, by February 23rd.

BOROUGH OF BURTON-UPON-TRENT.—Medical Officer of Health; must reside within the borough and must not engage in private practice. Salary, at the rate of £350 per annum, exclusive of authorised disbursements. Applications, endorsed "Medical Officer of Health," to T. N. Whitehead, Town Clerk, Town Hall, Burton-on-Trent, by February 24th.

BRISTOL ROYAL INFIRMARY.—Resident Officer. Salary, £40 per annum, with board, lodging, and washing. Appointment for one year. Applications to the Secretary by February 22nd.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Dental Surgeon; must be Licentiate of Dental Surgery. Applications to J. Francis Pink, Secretary, by March 8th.

DERBY COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary, £100, rising to £130, per annum, with furnished apartments, board, etc. Not more than 30 years of age Application to Mr. B. Scott Currey, St. Michael's Churchyard, Derby, by February 16th.

EASINGTON UNION.—Medical Officer for the Workhouse and Medical Officer and Public Vaccinator for the Easington District. Salary as Medical Officer of the Workhouse, £60 per annum, and as District Medical Officer £40 and the usual fees for vaccination. Must reside in the Easington District. Applications, on forms to be obtained of the Clerk, endorsed "Application for Workhouse Medical Officer," to be sent to W. J. Malcolm, Clerk, Union Offices, Easington, Castle Eden, R.S.O., by February 22nd.

GENERAL HOSPITAL, Birmingham.—House-Physician; must be graduate in medicine. Appointment for one year, but eligible for re-election for a further year. Salary, £70 per annum, with residence, board, and washing. Pathologist. Appointment will be subject to re-election to a limit of five years. A knowledge of bacteriology deemed essential. Salary, £100 per annum, with board and residence, £20 per annum being allowed till residence is provided in new hospital. Assistant House-Surgeon; must possess surgical qualification. No salary, but board, residence, and washing provided. Applications for each appointment to be sent to Howard J. Collins, House-Governor, by February 27th.

GREAT YARMOUTH HOSPITAL.—House-Surgeon; doubly qualified. Salary, £90 per annum, with board and lodging, but no wines, spirits, beer, etc., are found. Applications to Richard F. E. Ferrier, Honorary Secretary, 23, Hall Plain, Great Yarmouth, by February 20th.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL.—House-Surgeon; unmarried, doubly qualified. Salary, £75 per annum, with board, lodging, and laundry expenses. Applications to William J. Gant, Secretary, by March 1st.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Assistant Physician; must be M.D. or M.B., and F. or M.R.C.P. Applications to William H. Theobald, Secretary, by February 17th.

HULL ROYAL INFIRMARY.—Honorary Surgeon; must be F.R.C.S. Eng., or have been Assistant Surgeon of the Infirmary for five years. Applications, addressed "Chairman, Committee of Management," to be received at the Board Room of the Institution by February 10th.

LINCOLN COUNTY HOSPITAL.—Assistant House-Surgeon. Appointment for six months, but eligible for re-election. Honorarium of £10 for each period of six months. Board, residence, and washing provided. Applications to the Secretary by February 20th.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House-Surgeon. Board and lodging provided, but no salary. Applications to C. W. Carver, Honorary Secretary, by February 15th.

LONDON COUNTY LUNATIC ASYLUM, Colney Hatch, Middlesex.—Junior Assistant Medical Officer; doubly qualified, unmarried, and not more than 30 years of age. Salary, £120 per annum, rising by £5 a year to £150, with board, lodging, and washing. Applications on forms provided to be sent to R. W. Partridge, Clerk, London Asylums Committee Office, 21, Whitehall Place, S.W., by February 18th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Resident Medical Officer; doubly qualified. Salary, 100 guineas per annum, with board, lodging, and washing. Applications to the Secretary to be posted not later than February 27th.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—House-Physician, House-Surgeon, Assistant House-Physician, and Assistant House-Surgeon. Salary for the two former £40 a year, and £20 a year for the latter. Must be doubly qualified. Applications to the Secretary by February 22nd.

PARISH OF ST. GILES, Camberwell.—Assistant Medical Officer for the Infirmary at Havil Street and the Workhouse at Gordon Road. Appointment for one year. Salary, £50, with apartments, board, and washing. Applications on forms provided to be sent to Charles S. Stevens, Clerk to the Guardians, Guardians' Offices, 29, Peckham Road, S.E., at once.

POPLAR HOSPITAL FOR ACCIDENTS, Poplar, E.—House-Surgeon. Appointment for one year, re-election may take place annually up to three years. Salary, £110 for the first year, £120 second year, £130 third year, with board and residence. Applications to the House-Governor by February 22nd.

ST. GEORGE'S AND ST. JAMES'S DISPENSARY, 60, King Street, Regent Street, W.—Physician, and also a Physician for the Diseases of Women and Children. Applications to the Secretary by February 22nd.

ST. MARY'S CHILDREN'S HOSPITAL, Plaistow, E.—Resident Medical Officer. Appointment for one year. Salary, £80 per annum, with board and laundry. Applications to the Secretary by February 27th.

TIVERTON INFIRMARY AND DISPENSARY.—House-Surgeon and Dispenser, unmarried. Salary, £105 per annum, with lodging, attendance, fire, and lights. Must serve two years if required. Applications to Arthur Fisher, Honorary Secretary, by February 27th.

TOWNSHIP OF TOXTETH PARK.—Senior Assistant Medical Officer of the Workhouse and Infirmary; doubly qualified. Salary, £100 per annum, with board, washing, and apartments. Deduction under the Superannuation Act of 2 per cent. on the salary and money value of emoluments, valued at £88 per annum. Applications, marked "Assistant Medical Officer," to J. Moulding, Clerk to the Guardians, 15, High Park Street, Liverpool, by February 17th.

UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE.—Professorship of Anatomy. Applications to J. Austin Jenkins, M.A., Secretary and Registrar, University College, Cardiff, by March 8th, from whom further particulars can be obtained.

WEST HERTS INFIRMARY, Hemel Hempstead, Herts.—House-Surgeon and Dispenser; doubly qualified, unmarried. Appointment for two years. Salary, £100 per annum, with furnished rooms, board, light, fire, attendance, and washing. Applications to the Hon. Secretary by March 3rd.

YORKSHIRE COLLEGE, Leeds.—Demonstrator of Physiology. Salary, £150. Applications to the College Secretary by March 15th.

## MEDICAL APPOINTMENTS.

BENNETT, Charles, M.R.C.S.Eng., reappointed Medical Officer of Health to the Fairfield Urban District.

BROWN, Thomas Lloyd, M.R.C.S.Eng., L.S.A., appointed Medical Officer and Public Vaccinator for the Hoxton District of the Shoreditch Union, *vice* Thomas Leonard, M.D.Lond., resigned.

CLEMMEY, W. N., M.R.C.S.Eng., appointed Honorary Surgeon to the Bootle Borough Hospital.

CROUCH, H. C., M.R.C.S.Eng., L.R.C.P.Lond., appointed House-Surgeon and Anæsthetist to the Royal Orthopædic Hospital, *vice* M. H. Sayers, resigned.

DANIEL, W. P. T., M.R.C.S., L.R.C.P.Lond., D.P.H., appointed Medical Officer for the Kirkburton District of the Huddersfield Union, *vice* R. F. Shaw, L.R.C.P., L.R.C.S.Edin.

FOULDS, G. S., L.R.C.P.Edin., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Assistant House-Surgeon to the North Staffordshire Infirmary, Stoke-on-Trent.

FOX, Edward J., B.Sc.Lond., M.R.C.S.Eng., L.R.C.P.Lond., appointed House-Surgeon to the Manchester Royal Infirmary.

HONNYWILL, Alfred Oram, L.R.C.S., L.R.C.P., L.M.Edin., appointed Medical Officer and Public Vaccinator for the Sutton and Cheam District of the Epsom Union.

HUGHES, Mr. Thos. H., appointed Medical Officer of Health to the Connahs Quay Urban District Council.

ROWLANDS, William, L.R.C.P.I., M.R.C.S.Eng., reappointed Medical Officer of Health to the Little Crosby District Council.

SWETE, E. H. W., M.D.St.And., M.R.C.S.Eng., D.P.H.Camb., reappointed Medical Officer of Health to the Bromyard Urban District Council.

VINTER, Sydney G., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer to the Union House and Medical Officer and Public Vaccinator to the No. 2 District of the St. Germans Union, *vice* Charles W. Chubb, M.R.C.S., L.R.C.P., resigned.

CRAWFORD, Alex. D., M.B., C.M.Glasg., appointed Medical Officer and Public Vaccinator for the Maxstoke and Coleshill Districts of the Meriden Union, *vice* James Lafarelle, M.R.C.S.Eng., resigned.

LITTLETON, P. R., M.R.C.S.Eng., reappointed Medical Officer of Health to the Ashbourne Urban District.

DANIEL, Dr. R., appointed Medical Officer of Health to the Chatteris Urban Disirict Council, *vice* Charles Farrar, M.D.Heidelb., L.F.P.S. Glasg.

## DIARY FOR NEXT WEEK.

### MONDAY.

LONDON POST-GRADUATE COURSE, London Throat Hospital, 204, Great Portland Street, W., 8 P.M.—Mr. W. R. H. Stewart: Examination of the Ear.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 P.M.—Mr. Christopher Heath: The Hunterian Oration.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Dr. F. de Havilland Hall: Diseases of the Nose and Throat in Relation to General Medicine (Second Lumleian Lecture).

### TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. Craig: Mania—Acute Hysterical, Acute Delirious. Hospital for Diseases of the Skin, Blackfriars, 4.30 P.M.—Dr. Payne: Eczema, its Varieties.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Lecture by Dr. Ferrier.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL, Gray's Inn Road, W.C., 4 P.M.—Dr. Dundas Grant: The Diagnosis and Treatment of Diseases Producing Pain in or about the Ear.

PATHOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 P.M.—Dr. T. C. Fox and Dr. F. R. Blaxall: The Plurality of Ringworm Fungi (with lantern demonstration). Mr. S. G. Shattock: Undescended Testicle Removed in Radical Cure of Hernia. Dr. H. Morley Fletcher: Congenital Cyst of the Mediastinum. Dr. F. J. Wethered: Case of Hypertrophy of the Lung. Card specimens by Mr. J. Poland and Dr. F. J. Smith.

ROYAL STATISTICAL SOCIETY, Royal United Service Institution, Whitehall, S.W., 5.30 P.M.—Mr. Noel A. Humphreys: English Vaccination and Small-pox Statistics, with Special Reference to the Report of the Royal Commission, and to recent Small-pox Epidemics.

### WEDNESDAY.

LONDON POST-GRADUATE COURSE, Parkes Museum, 74A, Margaret Street, Regent Street, W., 4.30 P.M.—Professor A. Wynter Blyth: Refuse Removal and Disposal.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, 4 P.M.—Dr. Wethered: Hæmoptysis.

ROYAL METEOROLOGICAL SOCIETY, 25, Great George Street, Westminster, 7.30 P.M.

ROYAL MICROSCOPICAL SOCIETY, 20, Hanover Square, W., 8 P.M.

THE CLINICAL MUSEUM, 211, Great Portland Street, 4 P.M.—Demonstration by Mr. Jonathan Hutchinson.

### THURSDAY.

LONDON POST-GRADUATE COURSE, British Institute of Preventive Medicine, 101, Great Russell Street, W.C., 3.30 P.M.—Dr. Allan Macfadyen and Mr. A. G. Foulerton: On the More Important Constituents of Normal Urine. Central London Sick Asylum, Cleveland Street, Mortimer Street, W., 5.30 P.M.—Mr. John Hopkins's Clinical Lecture.

SOCIETY OF ANÆSTHETISTS, 20, Hanover Square, W., 8.30 P.M.—Casual communication by Mrs. Dickinson Berry, M.D. Dr. Leonard Hill: The Causation of Chloroform Syncope—an Experimental Inquiry.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 P.M.—Professor Herbert R. Spencer: On the Diagnosis and Dangers of Breech Presentation and its Treatment by External Version during Pregnancy.

### FRIDAY.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, W.C., 3 to 4 P.M.—Professor Crookshank: The Microscope and Methods of Cultivation; 4 to 5 P.M., Examination of Cultivations.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Lecture by Dr. James Taylor on Jacksonian Epilepsy.

EPIDEMIOLOGICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8 P.M.—Dr. J. McVail: The Royal Commission on Vaccination; A Review of the Dissentients' Statement.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

EAMES.—On January 26th, the wife of E. V. Eames, L.R.C.P.& S.Edin., L.F.P.&S.G., Heanor, Notts, of a daughter.

HUDSON.—On February 6th, the wife of C. E. Leopold B. Hudson, F.R.C.S., of 16, Harley Street, W., of a son.

LUNN.—On February 3rd, at Oakfield, Handsworth, the wife of Cyril R. Lunn, M.R.C.S.Eng., L.R.C.P.Lond., of a daughter.

PETTER.—On February 7th, 1897, at 93, Stanhope Road, Darlington, the wife of Walter Petter, M.B., C.M.Edin., of a son.

### MARRIAGES.

BATESON—MARTIN.—On February 4th, 1897, at St. Paul's Church, Walkden, by the Rev. C. Heath, M.A., Vicar, assisted by the Rev. Horace Headley, Curate, and the Rev. R. Martin, D.D., Vicar of Irlam, uncle of the bride, Henry Bateson, M.B., of Walkden, to Edith Margaret, eldest daughter of William Young Martin, Esq., M.D., J.P., of The Limes, Walkden.

TINLEY—LEA.—At Christ's Church, Bridlington Quay, on February 3rd, by Rev. S. Darwen Fox, M.A., William Edwyn Falkingbridge Tinley, M.B., M.R.C.S., son of Thomas Tinley, M.D., J.P., of Hildegard House, Whitby, to Ada, younger daughter of Thomas Lea, of Whitby.

### DEATHS.

HALL.—On February 6th, at Townsend House, Dilwyn, Herefordshire, Edith Mabel, the wife of Thomas Lambert Hall, M.R.C.S., in her 32nd year.

LLOYD-WILLIAMS.—At Vronheulog, Corwen, December 14th, 1896, Humphrey Lloyd-Williams, M.R.C.S., L.S.A., aged 51.

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances*—Daily, 2. *Operations.*—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR.—*Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—Daily.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30 Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations.*—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations.*—M. F. S., 2.

LONDON. *Attendances.*—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operations.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations.*—M. Th., 4.30.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations.*—F., 9.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations.*—W., 1.30; S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30 *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 3; Dental, Th., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 1. *Operations* —M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th. 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations.*—M. Tu. Th. F. S., 1.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males S., 3; females; W., 9.45. *Operations.*—M., 2; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 3.0; Skin, M. Th., 9.30; Electro-therapeutics, M. Th., 2.30; Dental, W. S., 9.30; Children's Medical, Tu. F., 9.15; Children's Surgical, S., 9.15. *Operations.*—M., 2.30.; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M. 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Th., 2.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations.*—Tu. F., 2.30.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1; Obstetric, Tu., F., 1; Eye, Tu. F., 9.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operations.*—Tu. W., 2.

# LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

### QUERIES.

J. M. B. writes: Would any member kindly recommend what books should be read for the M.R.C.P.Lond.?

E. M. H. asks for treatment, other than electrolysis, for growth of hair on the upper lip of a female patient.

SLEIGH would like to learn from any readers who have tried Chiono runners whether their experience would lead them to recommend them.

A. R. P. wishes to hear of an institution to which a cripple (female) from hemiplegia and rheumatoid arthritis could be admitted for £25 per annum, which is her entire income.

X. Y. Z. asks for information as to localities in South Africa suitable for a patient in the early stage of consumption. He is a compositor, so must live in a town where he could carry on his trade.

A MEMBER B.M.A. asks for directions for easy and effective methods of examining supposed diphtherial membrane for the characteristic micro-organism.

R. M. L. A. is anxious to determine a career for his only son; he inclines to the Sandhurst examination with a view to the Marine Corps. Opinions from members who have sent their sons into this corps, together with any advice, hints, or suggestions, would be gratefully received. Letters under cover to the Editor, in phonography or otherwise.

#### CIDER.

POMUM asks which county's cider is best suited for those of a rheumatic or gouty tendency.

#### A FEE.

F. P.—In the neighbourhood of a provincial infirmary, an infirmary outpatient of Dr. B. hangs herself. The friends immediately send off for the nearest doctor—Dr. A.—who is not at home; then they go to the infirmary, and beg the house-surgeon to go round. He does so, and applies all necessary restoratives with success, and leaves the patient in Dr. A.'s hands on his arrival. The patient, however, dies a few hours later, and the house-surgeon is summoned by the coroner to give evidence at the inquest. It is asked to whom the fee ought to go.

*** Although it is stated that the rules of the infirmary provide that the house-surgeon shall not engage in private practice, yet we apprehend that the latter is entitled to the fee in this case.

#### COTTAGE HOSPITALS.

URGENT asks for information which would be of use in drawing up rules for a small cottage nursing home for about three beds, for children under 10 years of age: the desire being to treat gratuitously poor children whose parents are unable or incapable of doing so properly.

*** The question as propounded is somewhat vague. Everything depends on the intention of the founder. Probably our correspondent would find some hints in Burdett's *Cottage Hospitals*, of which a new edition has recently appeared. There are many difficulties in the establishment and management of very small cottage hospitals. If they are intended for mild and chronic cases they are apt to degenerate into mere convalescent homes, while if they are intended to take in cases of severe accident and acute disease, it is necessary that good nursing should be provided, which for three patients is expensive, while it is almost essential that the cottage home should be situated in the immediate vicinity of the residence of the medical man who proposes to be responsible for its management. Now an institution for three beds only is hardly likely to be able to afford more than a nurse matron and a general or perhaps only an occasional servant, and the sort of nurse matron, including a dash of cook, required for such a post is not always easy to procure; while, on the other hand, the appointment of one medical man to have exclusive authority over the establishment is apt to cause jealousies which in the end lead to unpopularity and lack of support In small villages, far removed from larger hospitals, the cottage hospital is a great blessing; but a little independent institution of the sort set up in a town where a hospital already exists is generally a wasteful way of doing good.

#### CELANDINE IN CANCER.

DR. WILLIAM HARDMAN (Blackpool), referring to the paragraph on this subject which appeared in the BRITISH MEDICAL JOURNAL of February 6th, p. 354, asks for further particulars as to the treatment. He writes: What proportion of crude drug does a certain amount of it contain, and how much is injected at one operation, and in how many places? How many grains of the raw and dry drug are a dose, and what are the active principles? What time of the year is the plant in the greatest activity? It seems almost dormant now, and I should think must have a diminished activity, if I am to judge by the small amount and poor colour of the juice. In the summer the juice is almost the colour of gamboge. True celandine is not uncommon, but is rarely abundant. It does not seem to be found often in a true state of wildness, anyway in the Fylde, but is met with in old gardens and orchards, where probably it has some time or other been planted on account of its medicinal properties, as it has long been used by herbalists and the country folk. Its

most common use is for corns and warts, but it is also taken for jaundice. Celandine is a large, handsome weed, and spreads fast in a rich soil more or less shaded by trees. There is another plant called celandine, the common pile wort, which is also called the lesser celandine, but this is a ranunculus, whilst chelidonium is a papaver. A lady most kindly sent me a lot of "celandine," but it turned out to be ranunculus ficaria.

*** We are sorry to be unable to give any information beyond what has appeared in the JOURNAL. An abstract of Dr. Denisenko's paper was published in the EPITOME of November 28th, 1896. He treated his cases at the Municipal Hospital at Brjansk, and in his early experiments he used the fresh juice of the chelidonium majus. The results, however, were not quite satisfactory, because the fresh juice could be obtained only during two months in the year. Consequently since February, 1895, he has, he says, used the extract found in the shops. He directs that from 22 to 75 grains of the extract should be taken internally, dissolved in distilled water or peppermint water, every day throughout the treatment. Into the substance of the tumour, as close as possible to the boundary between it and the healthy tissue, he makes a number of injections of from 2 to 4 drops of a mixture of equal weights of the extract, glycerine and distilled water, not exceeding a syringeful in all. The frequency with which the injections are given is not stated. If the tumour is ulcerated Denisenko paints its surface twice a day with a mixture of one or two parts of the extract and one part of glycerine. Iron, quinine, and other tonics are given according to indications. As regards the extract "found in the shops" it would seem that reliance is not always to be placed upon it, since Dr. Samson Woskresensk, whom we quoted last week, found the preparation procured from the best chemists of Moscow and St. Petersburg ineffective. Moreover, he states that in a case of rectal cancer, in which a preparation procured in Moscow was used, no result was obtained till Dr. Denisenko was summoned to that city, and brought some of his remedy manufactured by himself. This acted well, but after his departure the Moscow doctors carried out what they believed to be the same treatment without success. Dr. Samson-Woskresensk's account was published in the *St. Petersburger Wochenschrift* of November 23rd (December 5th), 1896. As stated in the BRITISH MEDICAL JOURNAL of January 2nd, p. 25, Mr. Martindale, of 10, New Cavendish Street, W., has prepared a "succus chelidonii" by squeezing the juice out of the fresh plant. We understand that Messrs. Parke, Davis, and Co. prepare an extract. But, as stated in the paragraph to which Dr. Hardman refers, the pharmacology of the drug requires to be worked out.

## ANSWERS.

N.B.—The matter does not appear to be one which affects the medical profession.

A YOUNG PRACTITIONER.—We believe that the proper officer to whom to address inquiries would be in the case of the Royal College of Physicians of London the Registrar, in the case of the Royal College of Surgeons of England the Secretary.

X. Y. Z. might consult *The Marriage of Near Kin*, by A. H. Huth (London: J. and A. Churchill), and chapter xix, entitled Consanguineous Marriages, in *Marriage and Disease*, by S. A. K. Strahan, M.D. (London: Kegan Paul, Trench, Trubner, and Co.)

ENQUIRER.—We have always contended that where a Board school authority requires medical evidence, even in the shape of a certificate, of a child's incapacity for attending the school owing to illness, a fee should be paid to the medical witness or certified by the authority. In most cases we fear the certificate has to be given gratuitously.

### NURSES FOR CHOLERA.

J. M.—The Royal British Nurses' Association, 17, Old Cavendish Street, W., organised a register of nurses available for nursing cholera. The matter was referred to in the JOURNALS of September 3rd, 1892, p. 565; and September 10th, 1892, p. 608.

### TO SOFTEN HARD WATER.

FILTER.—To soften hard water Maignen's anti-calcaire is, we are advised, the best substance, and if hardness is the only reason for filtering the water we should advise the use of this substance rather than filtration through any of the loose media sold. The anti-calcaire may be obtained from Maignen's Filtre Rapide and Anti-calcaire Company, Limited, 255, Regent Street, W.

### RULES OF MATERNITY CLUBS.

A GENERAL PRACTITIONER writes in reply to "Country Member" (BRITISH MEDICAL JOURNAL, February 6th, p. 379): A very good rule is that the patient desiring to be attended in her confinement should pay by instalments fifteen shillings, the charity providing the six shillings. The patient is enabled to employ any medical man she pleases, the charity handing over the guinea one week after attendance.

### THE THYROID TREATMENT OF OBESITY.

PUZZLED will find a lengthy correspondence with regard to this subject in the JOURNALS of July 7th, 1894, p. 42, and July 21st, p. 157; he might also consult the article (222) in the EPITOME of March 21st, 1896. When the administration of thyroid extract causes the muscular pains referred to, they may sometimes be lessened, by at first using small doses at long intervals.

### QUALIFICATION OF DISPENSERS.

X. Y. Z.—The General Order of the Local Government Board relating to the qualification of dispensers appointed by the guardians of the poor (June 7th, 1895) requires that such persons shall be licentiates of the Society of Apothecaries or hold the Society's Assistant certificate, or be registered under the Pharmacy Act, 1868 or 1875 (Ireland).

### HYPODERMIC SYRINGES.

DR. CORDES, M.R.C.P.Lond. (Geneva) writes in reply to the query of "Member" (BRITISH MEDICAL JOURNAL, February 6th, p. 379) as to a hypodermic syringe: I can say that the best, according to my experience, are made of celluloid (made by Mousnier, 26, Rue Houdan, Sceaux, Seine, France). The material they are made of makes them perfectly aseptic, even without any precautions. Mousnier makes also celluloid tubes, consequently perfectly aseptic too, for keeping the fluid medicines. I have used syringes and tubes continually for over four years with complete satisfaction.

### LUNACY LEGISLATION IN CANADA.

DR. W. W. IRELAND (Polton, Midlothian), in reply to Dr. Haslett's query in the BRITISH MEDICAL JOURNAL of February 6th, p. 379, writes: Dr. Hack Tuke, in *The Insane in the United States and in Canada*, London, 1887, gives an account of what he saw of the asylums of Canada. The Inspector of Prisons and Public Charities of Ontario publishes an annual report upon the lunatic and idiot asylums of that province, published at Toronto, Warwick and Rutter, 70, Front Street West.

### EXERCISE FOR THE LEGS.

THE following replies have been received to the question put by "Member" in the BRITISH MEDICAL JOURNAL of January 30th:

MR. J. M. BEATTIE (House Surgeon, Royal Alexandra Hospital for Children, Brighton) states that "dumbbell exercises" for the legs are regularly carried out at the hospital. The patient lies on his back, weights are suspended from the ankles, and hip rotation is performed. For further information he refers to Mr. Bernard Roth's article on Medical Gymnastics in Heath's *Dictionary of Surgery*.

G. S. recommends "Dowd's exerciser," which efficiently exercises every group of muscles; the chart sent with the machine gives full directions.

MEDICUS suggests that the patient should sit diagonally on a chair, with the corner between his knees, and kick his legs backwards and forwards.

MR. REGINALD NITCH-SMITH (Bessborough Gardens) describes three forms of exercise which he has found beneficial. In the first the patient stands in the erect position on one foot, steadying himself if necessary by merely touching the wall; he then raises himself on tiptoe, repeating the movement 10 or 20 times night and morning, and daily increasing the number of efforts till 50 or 100 movements with each leg are done with ease. In the second exercise the patient stands erect, and then gradually lowers the body till the buttocks touch the heels, which by the movement have become slightly raised from the ground, the thighs being, of course, flexed on the legs. The body is then again brought into the erect position, and the action frequently repeated. The third performance is particularly useful for the knee and ankle-joints, and consists in standing upright on one leg, and repeatedly flexing and extending the other; the good results are soon perceptible.

## NOTES, LETTERS, ETC.

### "DR. NANSEN AND SCURVY."

DR. J. KINGSTON BARTON (London, W.) writes: The *Daily Graphic* of February 6th states that Dr. Nansen, amongst other erroneous impressions, has dispelled the belief that northern latitudes and want of exercise are the causes of scurvy. May I state that all English explorers, guided by their physicians, have for many years known that absence of fresh food is the only cause of scurvy, so Dr. Nansen must have been very ill-informed on the subject of scurvy. Dr. Nansen says he and his companions often ate raw bear's flesh: therein lies his safety from scurvy. To prevent scurvy it is not necessary even to eat raw meat or vegetables, for so long as they are eaten within a few hours of being cooked it is sufficient. Raw meat is only necessary where a good many weeks have elapsed since fresh food was obtained. In this great city scurvy is not at all uncommon, namely, amongst the very poor, who feed their children for any lengthened time on bread and water or tinned food and water, or amongst the very rich, who also are inclined to feed their children on patent foods. A very little fresh food such as milk, meat, vegetables, or fruit quite prevents scurvy, however unwholesome the diet may otherwise have been.

### HOW TO STOP THE INFLAMMATION FROM VACCINATION, WHEN RUNNING TO EXCESS.

DR. WALTER GRIPPER (Wallington) writes: Every practitioner will agree with Dr. Gibson that an undue amount of inflammation will now and then occur, even with the most rigid precautions. I have always found painting around and even over the vesicles with a 30 to 50 per cent. solution of ichthyol in water reduces pain and irritation almost at once. It will be found a most useful application, even in ordinary cases, with or without a pad of antiseptic wool or gauze. All hot and moist applications are to be strictly avoided.

### INCOME TAX REPAYMENT.

THE INCOME TAX REPAYMENT AGENCY (6, Chichester Road, Paddington, W.) writes: In a few weeks it will be too late to claim a refund of tax for the year 1893-4; meanwhile we would point out to your readers what can be done in the way of claiming refunds of income tax for the past four years.

Claims for the year ended April 5th, 1894, can be made for a refund of:
(*a*) The whole tax paid or deducted if the income was under £150
(*b*) £3 10s. if the income was between £150 and £400.

For each of the years ended April 5th, 1895, 1896, and 1897, for a refund of:

(*a*) The whole tax paid or deducted if the income did not exceed £160.
(*b*) £5 6s. 8d. if it exceeded £160, but did not exceed £400.
(*c*) £3 6s. 8d. if it exceeded £400, but did not exceed £500.

N.B.—The refund for four years may amount to about £20.

For four years, claims can still be made on life insurance premiums.

A claim for one year can be made on decreased profits from profession, trade, or farming; also for any loss, the refund being claimed out of tax on other sources of income.

We would call attention to the fact that income tax can be recovered even on dividends said to be paid "free of tax."

At all times we are happy to give gratuitous information as to the legality of claims on receipt of full particulars and an addressed envelope.

### HOME FOR MENTALLY DEFICIENT CHILD.

IN reply to query of "G. W. S.," the Earlswood Asylum would receive such a case as described if mentally deficient enough to be certified as imbecile in the form required by the Idiots Act. Here there is provision for industrial training. The case would have to be elected, the parents' proposed contribution of 5s. weekly being mentioned in the voting paper. Information to be obtained of the Secretary, 36, King William Street, E.C. If the mental deficiency be but slight, the case might be deemed suitable for one of the small working homes for feeble minded, respecting which information can be obtained through Miss Paul, 27, Percy Street, W., Secretary of the National Association for Promoting the Welfare of the Feeble-minded.

### LONDON LETTERS AND LONDON SURGEONS.

A CORRESPONDENT sends us an extract from the London letter of a leading provincial newspaper giving an account of an operation performed by a London surgeon upon a well-known journalist. Our correspondent writes that he does not suggest that it was inserted with the knowledge or wish of the surgeon referred to, and the wording of the paragraph affords, we think, conclusive evidence that this surmise is correct. We have, however, communicated with the surgeon in question, who informs us that he knew nothing about the circumstance, and adds that he does not suppose that anyone could really think that he prompted the publication of such a paragraph.

### THE ALVARENGA PRIZE OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA.

THE College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Señor Alvarenga, and amounting to about 180 dollars (£36), will be made on July 14th, 1897, provided that an essay deemed by the committee of award to be worthy of the prize shall have been offered. Essays intended for competition may be upon any subject in medicine, but cannot have been published, and must be received by the Secretary of the College on or before May 1st, 1897. Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope having on its outside the motto of the paper and within the name and address of the author. It is a condition of the competition that the successful essay, or a copy of it, shall remain in possession of the College; other essays will be returned upon application within three months after the award. The Alvarenga Prize for 1896 was not awarded.

### A CURE FOR TOOTHACHE.

A CORRESPONDENT in Ireland (co. Cavan) sends us the following: An extraordinary instance of superstition in this county came to my notice some days since. A funeral was taking place about a mile from this town. Several old skulls were thrown to the surface in digging the grave, and as they lay on the ground a respectable young girl took up one and tried to pull a tooth from it with her own teeth. Failing in this, she tried another skull, and succeeded in forcibly extracting one. She explained to a bystander that it was to cure toothache, and that the pain would now leave her teeth and go to the remaining teeth in the skull. In the event, her toothache got much worse, and no wonder, and her mother to make things right travelled off to the graveyard with the tooth, and once more committed it to the earth. I find this strange superstition still exists here even among the better class of the peasants.

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LETTERS, COMMUNICATIONS, ETC., have been received from (**A**) Dr. J. A. Austin, London; Mr. A. S. Ashmead, New York; Appetitus Rationi Pareat; Dr. J. Adam, London; Assistant; Dr. T. M. Allison, Newcastle-on-Tyne. (**B**) Mr. W. Boyd, Grenada; Mr. T. H. Brocklehurst, Weymouth; Dr. B. Bramwell, Edinburgh; Mr. C. Braine, London; Mr. J. M. Beattie, Brighton; Mr. W. J. Bramwell, Brighton; Mr. W. Basset, Newport, Mon.; E. C. Baber, M.B, Brighton; J. Bruce, M.B., Dundee; Dr. G. B. Beale, Bournemouth; Dr. J. K. Barton, London; Dr. P. L. Benson, Steeple Claydon. (**C**) Dr. C. Coombs, Castle Carey; Messrs. J. and A. Churchill, London; Dr. J. Craig, Dublin; Mr. J. G. Carruthers, London; Dr. R. H. Cox, Shanghai; Mr. M. C. Corner, London; Messrs. Callard and Co., London; Mr. G. Clifton, Leicester; Mr. W. N. Clemmey, Bootle; Mr. T. G. Cotterell, Bath; Mr. H. Carter, London; Dr. W. Cotton, Bristol; C. W. Cathcart, M.B., Edinburgh; C. A.; T. D. Cook, M.B., Torquay; F. Cadell, M.B., Edinburgh; Dr. Cordes, Geneva; Mr. W. Chappell, London. (**D**) Dr. J. Davies, Maesteg; Dr. T. M. Dolan, Halifax; Dr. H. M. Duncan, London; Mr. E. J. Donbavand, London; Mr. H. L. Dave, Gondal; Mr. J. S. Dawse, London; Dr. T. Dutton, London; Dr. W. Donovan, Erdington; Dr. L. Drage, Hatfield; Mr. A. W. Dalby, Frome. (**E**) Enquirer; Dr. J. Erskine, Glasgow; Mr. C. T. Ennals, Louth; E. S. (**F**) Dr. J. H. Fergusson, Edinburgh; Messrs. Foster and Co., Manchester; Dr. J. H. Ferguson, Killygordon; Fair Trade. (**G**) Dr. T. G. Garry, Liverpool; Mr. J. Gillingham, Chard; G. S.; A. S. Grünbaum, M.B., Liverpool; P. G. Griffith, M.B., Hayward's Heath; Mr. J. L. Green, Salisbury; W. Gripper, M.B., Wallington; Dr. W. Gordon, Exeter. (**H**) Dr. R. D. Helm, Carlisle; Mr. A. C. Hackney, Manningtree; Mr. C. W. Hemming, Abergwynfi; Mr. E. S. Harwood, London; Dr. W. Hardman, Blackpool; Mr. H. W. Haydon, Wadebridge; Dr. T. W. Hime, Bradford; Harveian Society, Secretary of the, London; Dr. T. G. Horder, Cardiff; Mr. J. O. Hunt, Borrowash. (**I**) Dr. F. Imlach, Liverpool. (**J**) Dr. A. James, Edinburgh; J. Q.; Dr. C. E. Jennings, London. (**K**) Dr. R. L. M. King, Taunton; Dr. A. Kinsey-Morgan, Bournemouth. (**L**) R. T. Lewis, M.B., Cambridge. (**M**) Mr. J. S. Mansford, London; Mr. E. Morgan, Ventnor; M. N. T.; Dr. P. W. MacDonald, Dorchester; Midlands; Member; Mr. J. N. E. Macleman, London; Messrs. Maw, Son, and Thompson, London; Mr. A. G. Mahomed, Bournemouth; Mr. B. Moore, London; M.O.H.; F. J. McCann, M.B., London; Magpie; A. S. Morton, M.B., London; Mr. E. W. G. Masterman, Damascus; Medicus; Mr. W. E. Musson, Clitheroe; Member of the Incorporated Medical Officers' Association; Dr. W. Milligan, Manchester; M. O.; Mr. V. Moxey, London. (**N**) E. S. Nutting, M.B., Mansfield; Nottingham Medico-Chirurgical Society, Secretary of the, Nottingham; Mr. P. Newell, Crowborough. (**P**) Pomum; Sir W. O. Priestley, Cannes; Dr. J. E. Platt, Manchester; Mr. G. S. Pope, Purley; Mr. R. B. Popham, London; Mr. L. Porri, Grimsby; Mr. A. F. Palmer, New York; Dr. M. Pesina, Prague; Mr. C. R. G. Parker, Paignton; Mr. H. E. Powell, London; Peacocks Ovaline Soap Company, London; Mr. F. A. Parsons, London. (**R**) Mr. H. T. Roxby, London; Dr. A. Robinson, Rotherham; S. J. Ross, M.B., Bedford; Dr. R. R. Rentoul, Liverpool; R. M. L. A.; Professor G. Ria, Naples; Dr. T. H. Redwood, Rhymney; W. Rivington, M.B., London; Mr. St. G. C. Reid, Thornton Heath. (**S**) Mr. P. Sharp, Newark-on-Trent; Mr. T. S. Sutton, Bishop's Castle; Mr. F. A. Southam, Manchester; Dr. H. Scurfield, Sunderland; Dr. A. Sheen, Cardiff; Mr. E. F. Smith, Lavenham; Mr. E. Stephens, Ilminster; Dr. J. O. Symes, Bristol; Surgeon; Dr. P. B. Smith, San Remo. (**T**) Dr. J. C. Thresh, Chelmsford; Mr. W. T. Thomas, Liverpool; Mr. O. R. Travers, St. Leonards-on-Sea; Dr. D. Turner, Edinburgh; Miss H. Thompson, London; Dr. R Torres, Rio de Janeiro. (**U**) C. T. Urquhart, M.B., Aberdeen. (**V**) Mr. H. C. Venis, Brecon; T. A. Vesey, M.B., Rostrevor; Mr. S. G. Vinter, Devonport. (**W**) Mr. S. B. M. White, London; Mr. C. W. Whisgrove, Penarth; A. L. Whitehead, M.B., Leeds; Dr. J. W. Washbourn, London; Mr. H. Ward, London; Dr. E. F. Willoughby, London; Sir Willoughby Wade, Birmingham; Westminster Hospital, Secretary of the, London. (**X**) X. Y. Z. (**Y**) Young Practitioner; etc.

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## BOOKS, ETC., RECEIVED.

Everybody's Guide to Photography. By "Operator." London: Saxon and Co. 6d.

Eighteenth Report of "Arms and Legs" in Rome. Founded by the late General H. H. Maxwell, R.A., C.B. Roma: Tipografia Populare. 1897.

On Deafness, Giddiness, and Noises in the Head. By E. Woakes, M.D., assisted by C. Woakes, M.R.C.S. Fourth Edition. London: H. K. Lewis. 1896. 10s. 6d.

Allgemeine Brunnenditetik: Anleitung zum Gebrauche von Trink und Badekuren. Von Dr. J. Beissel. Berlin: August Hirschwald. 1897. M. 2.40.

Étude sur l'Aspergillose chez les Animaux et chez l'Homme. Par Dr. L. Rénon. Paris: Masson et Cie. 1897.

L'Ozène Atrophiant. Clinique, Pathogénie, Sérothérapie. Par Dr. S. Lautmann. Paris: Henri Jouve. 1897.

Nouvelle Contribution a l'Étude du Traitement de l'Infection Puerpèrale par la Méthode Fochier. Par Dr. R. Robinson. Paris: Henri Jouve. 1897.

*** In forwarding books the publishers are requested to state the selling prices.

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# THE HUNTERIAN ORATION
ON
# JOHN HUNTER AS A SURGEON.

*Delivered at the Royal College of Surgeons.*

By CHRISTOPHER HEATH, F.R.C.S.,
Past President of the College; Holme Professor of Clinical Surgery in University College, London; and Senior Surgeon of University College Hospital.

John Hunter was a great anatomist, a learned physiologist, and a profound pathologist, as his monumental museum and his numerous writings sufficiently show; but there has been among the Hunterian orators of late years a tendency, I think, to ignore the fact that Hunter was also a great surgeon. It will be my effort to-day to magnify the claims of John Hunter to have been a great surgeon.

When 17 years of age, John Hunter stayed for a time with his brother-in-law Buchanan, and thus acquired manual dexterity in the carpenter's workshop, which is, after all, no bad preparation for the art of chirurgery. In his 20th year John joined William Hunter, and soon showed his dexterity as a dissector, and became by rapid strides a human anatomist. In the following summer he attended at Chelsea Hospital under Cheselden, the leading surgeon of the day, and only entered as a pupil at St. Bartholomew's, under Percival Pott, when Cheselden's health gave way. This was in 1751, and here Hunter must have seen a good deal of the best surgery of the day; but in 1754 we find him entering as a pupil at St. George's Hospital, where he two years later filled the responsible position of house-surgeon. In 1759 his hard work of various kinds had told upon Hunter's health, and he sought change of air by joining the Army Medical Service, with which he served at the siege of Belleisle in 1761, and subsequently in Spain. Here he saw much surgery, and upon it he based his paper on gunshot wounds, and showed how erroneous was the then received practice of invariably opening out bullet wounds. His paper on Inflammation was also to a great degree founded upon observations made at Belleisle, and in it he constantly refers to cases which came under his notice there.

Having thus added largely to his surgical experience, Hunter returned to London in 1763 at the conclusion of the war, and devoted himself to what little surgery came in his way, but worked hard at those researches in anatomy and physiology which have rendered his name immortal. In 1768 he was elected Surgeon to St. George's Hospital, where he enjoyed for twenty-five years the opportunity of practising surgery before an admiring crowd of pupils, many of whom attained eminence in later life. Hunter was then in his 40th year, which may be fairly considered a surgeon's prime; and it is not wonderful that he attracted as his pupils men like Jenner, Home, Carlisle, Abernethy, and Astley Cooper.

It is to be regretted that we have so little contemporary information respecting Hunter as a clinical teacher. That he did teach in the wards of St. George's there can be no doubt, for it is impossible to imagine Hunter failing to observe, to record, and to annotate verbally or in writing the cases which must necessarily have come before him in that hospital. But the days of clinical clerks and surgical registrars were not yet come, and there is no official record of Hunter's work to be found at St. George's. How Hunter would have rejoiced in the complete system of recording not only cases, but *post-mortem* examinations and museum specimens, which now obtains in that institution, and in every other well-managed hospital, metropolitan or provincial! There were in those days no weekly and other medical journals teeming with records of clinical experience; nor were the then existing medical societies much affected by hospital surgeons. In 1783 the Society for the Improvement of Medical and Chirurgical Knowledge was founded by John Hunter and Dr. Fordyce, and to its *Transactions* Hunter contributed papers on Inflammation of the Internal Coats of Veins, read in 1784, and on Introsusception in 1789, but for the first twenty years of his hospital work the clinical record is wanting.

In 1774 Hunter began a course of systematic lectures on the Principles of Surgery, of which the library of this College possesses manuscript notes of various dates by different members of his class. The well-known edition by Palmer, published in 1833, was taken from the shorthand report by Mr. Nathaniel Rumsey, of Chesham, of lectures delivered in 1786 and 1787, and no doubt fairly represents Hunter's teaching. It was these lectures Astley Cooper and Abernethy attended, and which they and others found difficulty in following, mainly because of Hunter's defects as a lecturer—for he was not an attractive lecturer: his manner was heavy, and his language inelegant and even coarse. Still these lectures did more to lay the foundation of modern surgery than any other work of the last century, and proved Hunter to be not merely a philosopher, but as I shall hope to show, a sound practical surgeon. Thus in his sixteenth lecture he discusses in much detail the affections, common then as now, grouped together under the term "hydrocele." He distinguishes between three species: "first, when it takes place in the tunica vaginalis testis; secondly, when it occurs in the body of the testicle; thirdly, when in the spermatic cord"; and then proceeds to discuss the diagnosis and treatment of each variety. He lays down that a cure must be produced either by adhesion of the two surfaces of the tunica vaginalis (which he regards as rare) or by suppuration and granulation, and takes credit for having been the first to teach the latter. He discusses the treatment by incision and by caustic, and combats the notion that the entire tunica vaginalis can be made to slough out and come away by the opening made with the caustic. Lastly, he recommends the following method, which will not, I fear, commend itself to the antiseptic surgeon of to-day:

> Make an incision into the sac about 3 inches in length, and let the whole of the water escape; then fill it as full as possible with pretty stiff poultice, occasionally introducing your finger to direct the poultice into every corner of the bag; and lastly, put some lint into the wound to keep the poultice in. The poultice should be made of linseed meal, and pretty stiff; if it is made into little balls it will be still more convenient. The advantages that this method has over the others are, first, that it is simpler than exposing the whole: secondly, the parts are kept universally distended by an extraneous body, so that the inflammation becomes universal: thirdly, the poultice does not become entangled in the granulations as dry lint does: fourthly, as the parts granulate and contract, the poultice is gradually squeezed out, and only requires superficial dressing during the whole time.

In his lecture on Injuries to the Head, Hunter shows himself to be far in advance of his contemporaries, with whom trephining the skull was a matter of routine. He says:

> In cases of fissure of the skull only, it may admit of dispute whether we are always to trepan. If there is no symptom of an injured brain, certainly it will not be necessary. It may not be necessary, even when attended with symptoms of an injured brain, for the injury may only be from the concussion, and we never trepan for concussion.

Again he lays great stress upon the danger of opening the dura mater because of the occurrence of fungus cerebri, which was almost constant before the introduction of antiseptic dressings, and even now is not entirely unknown. He says:

> Whenever I have seen the dura mater opened the brain has worked through the opening, and the patients have died. This was the case with a Mr. Cooper, whose dura mater I opened with a crucial incision on account of the state of the parts beneath: he died, and I think it is probable I killed him by opening the dura mater.

Mark the honesty of the man—"It is probable I killed him!" Is the surgeon of to-day always as truthful?

Fashion reigned in Hunter's time as at present. Thus under the head of simple fracture we find him saying:

> The position for the patient to lie in was formerly on the back, but the side is now generally adopted. However, I think its whole advantage is that it has the appearance of novelty, and is not a real improvement, but time will establish the truth.

Again, in speaking of fractured patella, he says:

> Before the year 1750 it was the practice to endeavour to bring the broken ends of the bones as near together as possible, with little or no motion allowed; but after that a fashion arose (for we have fashions in surgery as in everything else, arising perhaps from a person happening to do well who had not been treated in the old way) of letting the parts separate, and of not forbidding motion so strictly; but now caprice has, I believe, had its day, and we are taught by reason and experience that the parts should be, when cured, as nearly as possible in their natural situation.

Here, thanks to Mr. D'Arcy Power, I am able to avail myself of a little bit of contemporary criticism in the form of an *Essay on the Fracture of the Patella or Knee-pan*, by John Sheldon, F.R.S., Professor of Anatomy in the Royal Academy of Arts, London, 1789. Mr. Sheldon combats the view that extension of the leg relaxes the muscles attached to the patella, though, as he says:

> those anatomists whose opinions I am acquainted with, as the late Dr. Hunter, Mr. J. Hunter, the late and present Professor Monro, and every other teacher or writer I have seen or heard of, have entertained the same opinion, though the contrary is evidently the case.

He proceeds to argue that the thigh must also be flexed upon the pelvis, a practice which has been generally adopted for many years, so as to relax the rectus; but he also recommends slight flexion of the knee, so as to relax the hamstrings, a useless and harmful proceeding. In his lecture Hunter tells the story of a lady with an old fractured patella and great separation of the fragments, with consequent loss of power; and Sheldon speaks with approval of his plan of exercising the muscles of the thigh by swinging the leg with weights attached to the foot. How both these surgeons would have appreciated my colleague Mr. Barker's simple plan of wiring the fragments together by the subcutaneous method![1]

John Hunter's name is so inseparably connected with the treatment of aneurysm that it is almost unnecessary for me to maintain his claims to originality in his operation of applying a ligature at a distance from the sac, particularly after the exhaustive lectures on the subject of aneurysm which were given in this theatre in 1871-73 by Mr. Holmes. The claim put forward by French surgeons, and particularly by Broca in his classical work on aneurysms, for Anel as the proposer of the Hunterian operation will not bear investigation, for it is clear that Anel really placed a ligature above the aneurysm, and in close proximity to it, and only differed from his predecessors in not laying open the sac. It is well known that this method and its varieties proved so fatal from secondary hæmorrhage that Pott, the leading authority of the day, recommended amputation as the only safe proceeding; and on this Hunter remarks in his lectures:

When the disease is in an advanced stage I agree with Mr. Pott in thinking amputation necessary and profitable. The earlier, therefore, the operation for the aneurysm is performed the better, not waiting with the expectation that an increased size of the aneurysm will produce an increased size of the collateral branches. If the artery, however, cannot be tied above the aneurysm in the operation, where can it be tied if the limb be amputated? Why not tie up higher in the sound parts where it is tied in amputation, and preserve the limb?

The first operation performed by Hunter for popliteal aneurysm, by ligature of the femoral artery in Hunter's canal, was in December, 1785, the patient being a coachman, aged 45. Sir Everard Home gives full details of the case in the *London Medical Journal*, vol. vii, 1786, and vol. viii, 1787, and also in the first volume of the *Transactions* of a Society for the Improvement of Medical and Chirurgical Knowledge, which was published in 1793, during Hunter's lifetime. It is quite clear that the vein was included in the ligatures, which were four in number, two being tied and two kept in reserve. The patient recovered. Home gives four other cases operated on by Hunter, one of which was fatal; and on the fourth case it is remarked that "in performing the operation the vein was not included in the ligature," implying that previously the vein had been so included.

In the museum of this College is preserved the preparation of this historical case (3258) (obtained by Hunter "with some trouble and considerable expense" on the patient's death, fifteen months after the operation), a drawing of which accompanies Home's second paper in the *London Medical Journal*, 1787.

The femoral artery was impervious from its giving off the arteria profunda as low as the part included in the ligature. Below this part the femoral artery was pervious down to the aneurysmal sac, and contained blood, but did not communicate with the sac itself, having become impervious just at the entrance. What remained of the aneurysmal sac was somewhat larger than a hen's egg, but more oblong, and a little flattened. It contained a solid coagulum of blood, which adhered to its internal surface. A section made of this coagulum appeared to be composed of concentric laminæ, uniform in colour and consistence. The trunk of the femoral vein where it passed along the side of the tumour must have been obliterated.

Appended to the account of the dissection is the following remark:

The conclusion to be drawn from the above account appears a very important one, namely, that simply taking off the force of the circulation from the aneurysmal artery is sufficient to effect a cure of the disease, or at least to put a stop to its progress, and leave the parts in a situation from which the actions of the animal economy are capable of restoring them to a natural state.

We are not informed whether this statement of Home's had the support of Hunter or not, but it is a little remarkable that no reference should have been made to the collateral circulation, which has such an important bearing upon the formation of laminated clot within an aneurysm. Our museum contains also, thanks to the late Mr. Thomas Wormald, the specimen from Hunter's fourth case, in which the vein was not included in the ligature. The patient was 36 years old, and survived the operation fifty years.

The portion of artery obliterated by the ligature extends from the origin of the profunda downwards to the division of the popliteal. A small oblong mass of earthy matter occupies the situation of the aneurysm.

Of course Hunter's new operation had a certain amount of opposition, notably from his colleague Bromfield and from Percival Pott; but we find in Home's paper that Mr. Lynn, of the Westminster Hospital, had a successful case, the date of which is not given. Hunter was cursed with a candid friend, one Jesse Foot, surgeon, who published the year after his death *The Life of John Hunter*, in which he criticised severely the whole of Hunter's professional career; but it is remarkable that he makes no allusion to the operation for aneurysm.

Of the separate volumes which Hunter published, the first was that on *The Natural History of the Human Teeth*, and a *Practical Treatise on the Diseases of the Teeth*, price £1 1s., 1778. The late Mr. Thomas Bell, F.R.S., himself a distinguished dental practitioner, as well as for many years Lecturer on Comparative Anatomy at Guy's Hospital, in the preface to Hunter's essay in Palmer's edition, speaks of the work thus:

If it may be stated that the work in question is perhaps the least felicitous effort of this extraordinary genius, and that of which the errors are the most obvious and striking, some apology may be found even for these in the confined nature of the subject, and especially in the obscure and anomalous structure of the organs of which it treats; whilst the basis which his experiments and observations have laid for subsequent improvements in our knowledge, both of the physiology and pathology of the teeth, as well as in the treatment of their diseases, constitutes a never-ceasing claim to the gratitude and admiration of every scientific practitioner of dental surgery.

Mr. Jesse Foot, surgeon, in the *Life of Hunter*, already mentioned, does not spare the author, but devotes no fewer than thirty pages to a detailed criticism of this work on the teeth, interspersed with remarks of a more or less scurrilous nature. Foot says, no doubt with truth:

John Hunter, at the time he published this book, had but very little practice, the whole circle being then filled up by names to which I have before alluded; and Hawkins, Bromfield, Sharpe, and Pott were proud and unaccommodating professional men. They were above submitting to consultations with dentists. Their patients, who wanted advice for relative complaints of the teeth, sent for or went to them, and from them took the instructions which the dentists were to obey. Hunter laudably condescended to accommodate himself to the necessity of the case, and to fill up this chasm in practice he placidly attended on fixed days and hours at the house of a dentist, to aid him by consultation for the benefit of his patients.

In Chapter ix, which treats "Of Drawing the Teeth," Hunter has, to his caution against rapid extraction of the teeth, appended the following note: "I must do Mr. Spence the justice to say that this method appears to be peculiar to him, and that he is the only operator I ever knew who would submit to be instructed, or even allow an equal in knowledge; and I must do the same justice to both his sons." Foot thereupon says: "John Hunter was not found to bestow his smiles upon every dentist; his sincerity in friendship confined him alone to the family of the Spences;" and then proceeds to give a personal recollection of the elder Spence, dating from 1762, when he kindly extracted without fee a tooth from Foot, who was then an apprentice[s]

No doubt, as Bell has pointed out, Hunter made mistakes in his work on the teeth, particularly as regards the development of the second set, and their relation to the temporary teeth. But the sections on gumboils, on excrescences from the gum, on deeply-seated abscesses in the jaws, and on abscess of the antrum maxillare show that he had considerable experience in the ailments connected with the teeth and their surgical treatment. His chapter on Transplanting Teeth shows how careful he was in dealing with all the details of such a delicate operation, which we know to have been highly successful in his hands, although eventually abandoned on account of the fear of transmitting syphilis.

In 1786 John Hunter published *A Treatise on the Venereal Disease*, which excited a good deal of controversy at the time, and has been freely criticised during the last fifty years. Hunter had no doubt seen a great deal of venereal disease whilst serving with the army both at home and abroad, though he seems to have ignored to a very great extent the labours of others in the same field of inquiry. His reputation as an anatomist and surgeon was so great that the work was received both at home and abroad with acclamation. In 1787, the year after publication, French and German translations appeared. In 1788 there was a second English edition, and in 1791 the first American edition was published. There were not wanting, however, contemporary critics, and

[1] British Medical Journal, April 18th, 1896.

foremost among them must be mentioned Benjamin Bell, of Edinburgh, and Mr. Jesse Foot, surgeon, to whom I have already referred. This last gentleman brought out a volume of 450 pages, in which he goes *seriatim* through Hunter's work, criticising as far as possible all his statements, and speaking of him invariably as the "Professor," which he seems to regard as a term of reproach.

Unfortunately, Hunter started with the idea that the poisons of gonorrhœa and syphilis were identical, and so early as 1767 made experimental inoculations upon himself with gonorrhœal matter, as he believed, but which, no doubt, was mixed with the discharge from a chancre within the urethra. A chancre and secondary symptoms resulted, for which mercury was taken, and, in his own words, "the time the experiments took up, from the first insertion to the complete cure, was about three years." After such a personal experience it is not surprising to find Hunter laying down explicitly: "The experiment proves that matter from a gonorrhœa will produce chancres." His critic, Foot, takes the same view, and says, sarcastically: "I shall be glad to be informed by the Professor who ever doubted but that it [the poison] was the same!" It is the more curious that such an acute observer as Hunter should have fallen into such an error, for we find him laying down that "till about 1753 it was generally supposed that the matter from the urethra in gonorrhœa arose from an ulcer or ulcers in that passage, but from observation it was then proved that this was not the case." He proceeds also to show, by the examination of the bodies of criminals known to be the subjects of gonorrhœa at the time of execution, that the prevailing belief in the existence of warts or growths in the urethra in all cases of gonorrhœa was incorrect.

Hunter seems to have had undoubting faith in the contradictory statements of his patients, and particularly of his female patients, the subjects of gonorrhœa. It is difficult otherwise to understand the conclusions he comes to, for they often appear to be entirely opposed to modern experience. His views also on swelled testicle do not commend themselves to the modern surgeon, for he held that the inflammation was due to "sympathy," and that the testicle "is never affected with the venereal disease, local or constitutional." However much in the present day we may disagree with Hunter in recommending a mercurial course for the treatment of gonorrhœa, we must allow that he thoroughly appreciated the various affections of the urinary organs which commonly result from and follow that disorder. Still more valuable are the chapters on "Supposed consequences of gonorrhœa," disorders which have proved a happy hunting-ground for the quack for many generations. Hunter's description "of the discharge of the natural mucus of the glands of the urethra" is brief but forcible:

> The small glands of the urethra and Cowper's glands secrete a slimy mucus similar to the white of an egg, not coagulated. This seldom appears externally or flows from the urethra but during the indulgence of lascivious thoughts, and is seldom or never attended to except by those who are either under apprehensions of a gonorrhœa coming on, or imagine the last infection is not gone off entirely, and are therefore kept in constant terror by this natural discharge.

He then passes on to speak of "the discharge of the secretions of the prostate gland and vesiculæ seminales," and expresses a strong opinion, in which modern physiologists agree, that the vesiculæ are not seminal receptacles.

> "It is a discharge of mucus," he says, "by the urethra, which generally comes away with the last drops of urine, especially if the bladder is irritable, and still more at the time of being at stool, particularly if the patient be costive, for under such circumstances the straining or action of the muscles of these parts is more violent. It has generally been supposed that this discharge is semen, and the disease is called a seminal weakness; but it appears from many experiments and observations that the discharge is undoubtedly not semen."

So highly do I appreciate John Hunter's good commonsense teaching on this important subject, that I have for many years kept this page in his works doubled down in order that I may read out an authoritative statement to those miserable persons who consult the surgeon from time to time for so-called "spermatorrhœa"—a word which one could wish eliminated from our language.

It is remarkable that the term "Hunterian chancre" should have been the universally accepted description of the primary syphilitic sore, for Hunter himself says:

> Venereal ulcers have one character, which, however, is not entirely peculiar to them, for many sores that have no disposition to heal (which is the case with a chancre) have so far the same character. A chancre has commonly a thickened base; and although in some the common inflammation spreads much further, yet the specific is confined to this base.

But what is the most remarkable is that Hunter denied the existence of chancres on the mucous membrane of the vagina or cervix uteri, and *a fortiori* did not recognise such unusual occurrences as chancre of the lip, etc. Although the anatomy and pathology of the lymphatic system, including glandular enlargements, had made great progress during the previous century, yet the primary indolent bubo was not recognised as typical of syphilitic infection. Thus we find Hunter describing all kinds of buboes as occurring during the primary stage of syphilis, and even advocating the mercurial treatment of suppurating chancres and inflamed buboes.

From what has been already said it cannot surprise us to find Hunter's views of the *lues venerea* or constitutional syphilis little in accordance with the opinions of the present day. It will be sufficient to quote the following as regards the transmission of syphilis from parent to child:

> "It is supposed," says Hunter, "that a fœtus in the womb of a pocky mother may be infected by her. This I doubt very much. However one can conceive the bare possibility of a child being affected in the womb of a pocky mother—but indeed from the disease of the mother, but from a part of the same matter which contaminated the mother!" Again, he says, "It has been supposed that such a contaminated child could contaminate the breasts of a clean woman by sucking her;" and yet a little later on he describes vividly enough the infection of a nurse by a syphilitic child!

Yet with all these mistakes, which it has taken nearly a century to correct, we owe John Hunter a great debt of gratitude for his unfailing faith in mercury as the specific remedy for syphilis. So long as varieties of venereal sores were undistinguished, mercury was, of course, often given unnecessarily and with disastrous effects; but if it had not been for Hunter it seems likely that the heresy which the Bells and other Scottish surgeons promulgated, that syphilis did not require mercury for its cure, would have made much greater way than it did. Thanks to the labours of Ricord, Hutchinson, and Hill, the diagnosis and treatment of syphilis are now placed on a firm basis; and if it had not been for the "shrieking sisterhood," and the action of a few effeminate members of Parliament, we might now be rejoicing in the reduction of venereal diseases in our army and navy by those most beneficent laws known as the "Contagious Diseases Acts," which were unhappily wiped out by a weak-kneed Government just when they were conferring the greatest benefit upon suffering humanity.

The papers which John Hunter himself contributed to the *Transactions* of a Society for the Improvement of Medical and Chirurgical Knowledge were only two in number. The first was read on February 6th, 1784, and was On the Inflammation of Internal Coats of Veins. The frequency of phlebotomy gave rise, as he says, to a very frequent complaint, that is, an inflamed arm after bleeding; and he proceeds to show that this arose from the wound not healing by first intention. Numerous *post-mortem* examinations enabled him to state correctly enough that, as the result of inflammation of the lining membrane of the vein, in some cases adhesions of the coats and obliteration of the canal took place; whilst in others suppuration ensued and abscesses had to be opened, or led to the death of the patient by what we now term pyæmia. It is remarkable that Hunter does not mention thrombosis, and does not appear to have recognised the formation of clot in the vein as an early stage of phlebitis.

In the treatment of phlebitis Hunter urges the application of a compress to produce adhesion of the surfaces of the vein; and though this can be but of little service, it is noteworthy that he should have anticipated the proposal of Mr. Henry Lee to pass a pin beneath the vein so as to prevent pus getting into the circulation, by upwards of seventy years. Nothing is more remarkable in the present day than the almost absolute safety which attends the removal of portions of varicose veins, as recommended by the late John Marshall, provided strict attention be paid to asepsis.

Hunter's second paper was read on August 18th, 1789, and was On Introsusception—as it was spelt in those days. He says: "When the introsusception is downwards it may be called progressive, and when it happens upwards retrograde;" and attributes the slipping of one piece of intestine within

another solely to some additional weight in the gut above. Again, Hunter says: "The outer fold is the only one which is active, the inverted portion being perfectly passive and squeezed down by the outer, which inverts more of itself."

Although these views are not received in the present day, the figures of two cases of intussusception, which Hunter gives, most accurately represent the disorder, and could not be improved upon. His treatment is curiously dominated by his views as to the action of the outer fold of the intussusception, for he says: "medicine can never come in contact with the outer fold," and he advises, therefore, giving vomits, "with a view to invert the peristaltic motion of the containing gut, which will have a tendency to bring the intestines into their natural situation." It is remarkable that neither inflation of the bowel from below, which dates from Hippocrates, nor the proposal of Praxagoras to open the abdomen and thus reach the seat of trouble, which in modern times has proved so successful, receives any mention in this essay.

John Hunter seems to have been the originator of the practice of feeding artificially through a stomach tube. He read before the Society for the Improvement of Medical and Chirurgical Knowledge on September 21st, 1790, A Case of Paralysis of the Muscles of Deglutition, cured by an Artificial Mode of Conveying Food and Medicines into the Stomach. The patient was a man of 50, a hypochondriac who lost the power of swallowing, and was brought to Hunter for relief. Hunter proposed that a hollow flexible tube should be passed down into the stomach, and mentioned his having an instrument of the kind made of spiral wire covered with gut, for the purpose of injecting liquids into the stomachs of animals. The plan was adopted and the patient recovered. The instrument used was a fresh eel skin of rather small size, drawn over a probang, and at the end of the paper it is observed:

An eel skin seems very well adapted for this purpose, being smooth, pliable, and readily passed into the stomach; but as cases of this kind may occur when eels cannot be procured, a portion of the gut of any small animal, as a cat or lamb, will make a good substitute.

This same volume of the Society's *Transactions* contains a paper by Sir Everard Home "from materials furnished by Mr. Hunter." It is entitled Some Observations on the Loose Cartilages found in Joints, in which the view is maintained that the cartilages originate in blood clots rather than in the loose fringes of the joint. Hunter advises the removal of such bodies by an incision above and to the inner side of the patella, and describes graphically the extreme difficulty of the proceeding, owing to the tendency of the cartilages to escape into the cavity of the joint.

I have thus endeavoured to show by his own writings that John Hunter was an able and experienced surgeon as well as an unrivalled anatomist. That he had been for some years before his death the leading surgeon in London cannot be doubted, for even Jesse Foot allows this. He says:

I think I may affirm that his consultations were more in fashion than any other surgeon's, and that his range of practice was more extensive—that we heard more of the name of John Hunter than of any other surgeon.

Evidence of this kind is better than that which nowadays is too often looked upon as the test of professional success—the amount of legacy duty. Hunter died a poor man, not because he did not make a large professional income, but because he spent all he made upon his museum. When he died in 1793, we find his influential friends exerting themselves to procure a grant for his widow from the Government of the day; and eventually, in 1799, Parliament voted £15,000 for Hunter's Museum, and placed it under the care of the Corporation of Surgeons. The Royal College of Surgeons of England, the successor of that corporation, cannot be said to have failed in its duty towards Hunter's collection, and the splendid series of museums which the College has erected during the present century show the interest taken by the Council of this College in the promotion and advancement of the art and science of surgery.

[Mr. Heath then, in accordance with custom and in compliance with the wishes of the founders of the oration, referred to those eminent Fellows of the College who had passed away since the last oration. In the course of his remarks he paid a tribute to the memory of Mr. J. W. Hulke, of Sir William Savory, Mr. Arthur Durham, Sir John Erichsen, Sir George Murray Humphry, and Sir Spencer Wells. He concluded as follows:]

And now, Sir, having completed the roll of the illustrious departed, let me conclude by saying a few words on my own behalf. In July, my period of office as a Councillor of this College expires, and this is, therefore, the last occasion on which I shall have the right to address my colleagues and the College at large from this place. Gentlemen, I cannot but view the future of this College with some anxiety. This great corporation is, I fear, on the high road to become something very unlike the Royal College of Surgeons of England, which has existed now for nearly a hundred years. Hitherto it has been regarded as the home of surgical science, and its funds have been devoted to the advance of the art of surgery by providing unrivalled opportunities for study in its museum and library. This College will, in my opinion, lose professional prestige and fall in public estimation if its funds should ever be diverted from these legitimate purposes in order to support the interests of individual members of the profession, however worthy in themselves. It will be a melancholy day for British surgery if ever this royal College should become a gigantic protection society, to fight the puny battles of its Members who may happen to come into collision with each other or with the public. It is to the Council, and to the Fellows who elect the Council, that we must look for the maintenance of that high professional position which this College has hitherto occupied, and for the furtherance of the art and science of surgery—*quæ prosunt omnibus artes.*

# THE LETTSOMIAN LECTURES
## ON
# DISEASES OF THE NOSE AND THROAT IN RELATION TO GENERAL MEDICINE.

*Delivered before the Medical Society of London,*

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### LECTURE II.

### MYCOSIS FUNGOIDES.

ON April 10th, 1895, I showed at the Laryngological Society of London a man, aged 52, suffering from mycosis fungoides. In addition to numerous tumours all over the body and limbs, tumours were seen on the posterior and lateral walls of the pharynx and on the left arytenoid cartilage. The patient had complained of more or less sore throat for eighteen months, but the speech was not affected. This is, I believe, the first case in which the larynx has been recognised as having been attacked by mycosis fungoides.[1]

### RHEUMATISM.

Rheumatic affections of the nose have received but little attention. I cannot say that I have seen any cases in which I could assure myself that rheumatism was the cause of symptoms referred to the nose, with the possible exception of a few cases in which patients complained of pain at the point of emergence of the nasal branches of the superior maxillary nerve, and even in these cases the rheumatic origin of the neuritis is problematical. Freudenthal,[2] however, states that "a number of cases have come under his observation in which the symptoms of nasal rheumatism were distinct and unmistakable. Two varieties of the disease were noted—one with visible changes in the nose, and the other without such changes. The changes consisted of a swelling of the lower and middle turbinated bodies which obstructed the breathing, and which could not be reduced with even strong solutions of cocaine. In all the cases the pain in the nose was very severe, and all were associated with attacks of articular rheumatism affecting various joints in the body. In all of the cases, too, antirheumatic treatment was the only one which had any effect on the nasal symptoms."

The epistaxis which we occasionally see during the course of acute rheumatism is almost invariably due to the salicylate of sodium now so generally employed; at all events, I can find no reference to epistaxis among the symptoms of acute rheumatism in the pre-salicylate days.

In the naso-pharynx the only condition which seems at all dependent on rheumatism is lacunar inflammation of the

third or pharyngeal tonsil. I have seen several cases where this tonsil has been affected independently of the faucial tonsils, and the pain and suffering the patient has experienced have been greater than is usual in ordinary tonsillitis. I believe that in some of the cases the rheumatic poison is the cause of the complaint. In two cases it was clearly of influenzal origin.

Before the days of rhinoscopy I should have been at a loss to explain the cause of the severe headache, pain referred to the back of the nose, and fever, met with in these cases, but a glance in the rhinoscopic mirror shows irregular swelling of the tonsil, which is dotted over with yellowish spots.

Pharyngitis is a very common complication of acute rheumatism. It usually appears a day or two before the onset of the articular pain, but occasionally the throat is only complained of after the disease has fully declared itself.

On examination the margin of the soft palate, the tonsils, and the posterior wall of the pharynx will be found of a deeper red colour than normal, and somewhat swollen. Occasionally there is œdema of the mucous membrane, more especially of the uvula. Freudenthal[2] describes a benign ulceration of the pharynx, which he has only met with in persons affected with chronic rheumatism, and which promptly disappears under antirheumatic remedies. This I have not seen. In some cases the symptoms of rheumatic pharyngitis are so slight as not to be mentioned by the patient unless questioned on the subject. In the more severe forms the usual symptoms of dysphagia, pain in the ears, and difficulty in speaking are met with. The rheumatic origin of tonsillitis in many cases is now fully recognised. Lacunar tonsillitis is the form which usually occurs in connection with rheumatism. It must be borne in mind that though cardiac lesions are seldom seen when sore throat is the chief feature of a rheumatic attack, still cases do occur in which endocarditis and pericarditis are met with, even when articular pains are entirely absent. In the discussion on Tonsillitis at the meeting of the British Medical Association in 1889 I described a typical example of this.[4]

The outcome of the connection between the throat and the onset of rheumatic phenomena is the importance of preventing oral respiration and the removal of chronically hypertrophied tonsils. If tonsillitis occur it should be promptly treated with salicylates, in the hope of thereby warding off an attack of acute rheumatism. In some cases the rheumatic poison affects the muscles of the pharynx giving rise to attacks of pain in the pharynx—much aggravated by swallowing—there may be no objective signs. The rheumatic origin of these symptoms is shown by their occurring in patients with rheumatic antecedents, and by their yielding to salicylates. From its exposed condition, both externally and internally, and from the amount of fibrous tissue which enters into its structure, it might have been thought that the larynx would be especially subject to rheumatic affections. This, however, does not seem to be the case, and it is only comparatively recently that attention has been directed to the occurrence of a rheumatic laryngitis. Morell Mackenzie, for instance, whose textbook represents the high water mark of knowledge of throat diseases extant at the time, though he mentions "rheumatic sore throat," says nothing about rheumatic affections of the larynx, except the remark that it is probable that ankylosis of the crico-arytenoid joint may be due to primary synovitis, either rheumatic, gouty, or simply catarrhal.

I have no doubt in my own mind, however, that in the past many cases of the kind have been misinterpreted; indeed, on looking back through my casebook I have found cases which I should now class among rheumatic affections of the larynx, but which formerly I did not recognise as such. For instance, I have noticed in patients subject to other rheumatic manifestations swelling of one or both ary-epiglottic folds accompanied with considerable pain in swallowing and some external tenderness, which have speedily yielded to an antirheumatic treatment. If the case proceeds a little further the crico-arytenoid joint becomes involved, and there may be impairment of movement in the corresponding cord. The form of sore throat described by Hinkel[5] is clearly an allied condition. The patient complains of sudden pain on swallowing, and there is slight elevation of temperature. The most painful spot is seated just behind the cricoid cartilage, or outside the superior cornu of the thyroid, or in the posterior wall of the pharynx. The mucous membrane is congested in a patchy way. In some cases a severe cough, of a dry and painful character, is met with.

There is one class of affection of the throat in which, though the evidence of connection with rheumatism is somewhat weak, I nevertheless think that rheumatism plays an important *rôle*; I refer to cases of fixation of a vocal cord from ankylosis of the crico-arytenoid joint. In my book on *Diseases of the Nose and Throat*, page 361, I recorded two cases which came under my observation. It would, perhaps, be more correct to places these cases in the class of arthritis *a frigore*; but the line of demarcation between an arthritis arising from exposure to cold and that due to rheumatism is a very narrow one.

If articular rheumatism of the larynx is associated with rheumatic affections of other parts of the body the diagnosis is easy, but if the larynx alone is affected it is extremely difficult to say positively that the affection is really of rheumatic origin. In rheumatism of the crico-arytenoid joint the patient complains of an uncomfortable sensation at the angle of the jaw, usually relieved by pressure, which frequently elicits crepitus: the pain is increased by swallowing. Swelling round about the joint may or may not be present. Swallowing is generally easy at first, but dysphagia comes on later. The cord usually becomes fixed in the cadaveric position. Dr. A. E. Garrod[6] quotes three cases.

I believe that many of the cases of fixation of a vocal cord of doubtful origin—and every laryngologist has met with these cases—are probably due to rheumatic arthritis, and that though the prognosis as regards life is good, the voice will always be somewhat impaired, but even in this respect it is sometimes astonishing how good and strong a voice can be produced in spite of the fixation of one vocal cord, owing to the fact that the unaffected cord takes on compensatory action, crosses the middle line, and comes into almost complete contact with the motionless cord.

Dr. E. F. Ingals,[7] of Chicago, believes that laryngeal rheumatism is often mistaken for neuralgia. He finds it to occur most frequently in men, and most commonly during spring and autumn. Nearly all subjects are of the rheumatic diathesis. The pains come and go in the manner characteristic of rheumatic affections, and they are benefited only by those remedies and surroundings which have proved most useful in rheumatism. A case recorded by Dr. Max Thorner[8] under the head of "chronic rheumatic laryngitis and pharyngitis" corresponds to the description given by Ingals, and I have had somewhat similar experience; the rheumatic origin of these cases is, however, rather doubtful. Before leaving the subject of rheumatic laryngitis, I should like to add that cases of affection of the crico-arytenoid joint from gonorrhœal rheumatism have been recorded. Even if there were no cases reported we might reasonably expect that they had occurred, but had been overlooked, as we know that gonorrhœal rheumatism may affect any joint.

Dr. Lacoarret,[9] in his very interesting paper on acute arthritis of the crico-arytenoid joint gives two cases.

In connection with impairment of movement of vocal cords comes the question of rheumatism of the laryngeal muscles. I am not myself a believer in the rheumatic origin of muscular affections generally. I am of opinion that they are more often due to a gouty tendency. I cannot therefore give my adhesion to the view that the muscles of the larynx may be affected with rheumatism and give rise to impaired movement of the vocal cord, and I agree with Dr. Semon when he says that "I believe the less in rheumatic paralysis the greater my experience becomes."

Larauza,[10] however, records a case of hyperæmia of the laryngeal mucous membrane with loss of tension in the vocal cords with aphonia in a patient the son of arthritic parents, but who had not suffered himself from articular rheumatism. On the very insufficient ground of a rheumatic family history and the speedy improvement under the administration of sodium salicylate after other methods had failed, Larauza diagnosed rheumatism of the intrinsic muscles of the larynx. I have not seen any cases which could not be explained on other than a rheumatic theory.

### Gout.

I have but little to say in reference to gouty conditions of the nose. Tophi are sometimes found in the skin of the nose;

at the time of writing this, I have a patient in the Westminster Hospital with a large tophus in the skin of the nose.

Sir Dyce Duckworth[11] states that "painful follicular inflammation in the alæ of the nose have been noted with some frequency in the gouty. These do not suppurate, but are apt to recur again and again."

If epistaxis occurs it is usually as a result of changes associated with chronic interstitial nephritis (the gouty kidney), rather than directly due to any gouty condition.

In a letter to me on the subject, Sir Dyce Duckworth confirms an opinion which I have long held, that "some nasal catarrhs are gouty, sudden, and sometimes fugitive." There is much to be said in favour of the view that in some cases of hay fever there is an underlying gouty tendency, or, as Haig would say, a condition of uricacidæmia. I have not, however, found hay fever alternating with or replacing an attack of gout.

Sir Dyce Duckworth quotes Noël Guéneau de Mussy as being of opinion that cases of hay fever were especially frequent in members of gouty families, and as regarding the changes in the mucous membrane of the nasal passages as akin to the eruptions which vex the skin of gouty subjects. I have found that a simple unstimulating diet, only a moderate amount of animal food, and no alcohol suits the victims of hay fever the best.

Whilst on the subject of hay fever and paroxysmal sneezing in the gouty, I will take the opportunity of emphasising the importance of a thorough investigation of the patient's general condition before any local treatment is carried out in the nose for these affections. A careful inquiry should be made as to the state of the various functions of the body, especial attention being directed to the condition of the liver and kidneys. The possibility of malarial infection should also be considered. Having done this I would go one step further, and if, in spite of general treatment the sneezing or attacks of hay fever persist, I would most certainly carry out local treatment in the nose. Of the methods of local treatment I have found none so efficacious as the use of the galvano-cautery. Given a puffy, spongy condition of the mucous membrane of the turbinated bones, with more or less occlusion of the passages, the application of the galvano-cautery has in my experience been followed by great benefit, it involves little or no risk of any sort, and, thanks to cocaine, can be carried out in a perfectly painless manner. Only in exceptional cases is a more severe local treatment necessary, but should there be deflection of the septum partially blocking one nostril, it may be necessary to forcibly straighten it, and thus restore free nasal respiration. Removal of the turbinated bones is hardly ever justifiable.

I have entered somewhat fully into this question of local surgical treatment of nasal neurosis, as Dr. Goodhart in his admirable Harveian Lectures on Common Neuroses, p. 48, has in my opinion taken up too strong a position when he says, "we should remember, in making use of severe measures of this kind, that we are only treating a symptom, and from the nature of the case adopting a means that is very unlikely to prove of any permanent good." While agreeing with him that "means of this kind are too often meddlesome and bad surgery," I have had so many patients under my care who have derived permanent benefit from the galvano-caustic plan of treatment, that I feel it my duty to protest against indiscriminate blame being attached to it, as well as against its unjustifiable abuse. In this, as in most worldly matters, "*In medio tutissimus ibis*" is the motto to follow.

Though gouty affections of the nose are comparatively rare, the pharynx is frequently the seat of trouble in the gouty, chiefly of a chronic nature, anything like acute gout of the throat being excessively rare. Morell Mackenzie[12] mentions the case of a patient who was "suffering from acute pharyngitis, when the symptoms suddenly disappeared, and an acute attack of gout developed in the great toe of the right foot; after three days the gouty inflammation of the toe disappeared, and acute hyperæmia of the pharynx supervened." He also mentions a case of acute œdema of the uvula disappearing upon sudden development of gouty inflammation of the big toe.[13] M. Vaton[14] has described the case of a patient with a gouty history suffering from enormous œdema of the uvula, soft palate, and fauces. The swelling suddenly disappeared after lasting some days, simultaneously with the big toe being attacked with severe gout.

I have not myself seen anything similar to the above—that is, acute mischief in the throat being replaced by acute gout, and this in its turn giving way to a return of the throat mischief. On the other hand, I have had a good number of gouty patients who have had marked throat symptoms which seemed to me to be dependent on their general gouty condition. The appearance of the gouty throat is characteristic—the soft palate, the fauces, and the posterior wall of the pharynx present a gorged, congested appearance; the uvula is generally enlarged, and is sometimes of an enormous size. The colour of the mucous membrane is purplish-red, and has a somewhat glistening appearance. As regards symptoms, patients complain of all degrees of discomfort, from slight difficulty and pain in swallowing to sharp pain radiating up to the ear, with excessive pain on swallowing. In some cases the patients complain of pain limited to certain areas, or they have the sensation of tickling, or of a foreign body in the throat. These symptoms are especially met with in the lithæmic—that is, in people with defective liver action, but who have not as yet shown any overt manifestations of gout.

I am of opinion that quinsy is sometimes a manifestation of the gouty diathesis, and occurs in the children of gouty parents more frequently than in others. In the past the diagnosis of gout has undoubtedly been the refuge of the destitute, and I do not think that we are justified in describing an affection of the throat as being gouty, unless the sufferer has had some other distinct evidence of gout. The gouty nature of the complaint is still further assured if it quickly yields to colchicum and alkalies when other remedies have failed. In connection with gouty pharyngitis it is not uncommon to find the larynx also affected. The cords are congested and the mucous membrane of the larynx has sometimes a dusky coloration. The patient complains of pain through the larynx, and there may be some external tenderness. There is usually hoarseness with a frequent hacking cough and a little viscid expectoration, sometimes streaked with blood, is brought up with difficulty.

Sir Thomas Watson, in his classical lectures, writes: "A year or two ago an eminent physician of my acquaintance suffered a violent and dangerous attack of what was considered to be gout in the throat." It is extremely difficult to recognise what was included under the term of "gout in the throat" in the prelaryngoscopic days, but it is quite certain that nowadays we do not see gout attacking the larynx and threatening life. The only two cases of a definite gouty affection of the larynx, which Morell Mackenzie[15] records, are: (1) Gouty deposit around the crico-arytenoid joints on both sides, causing permanent dysphonia; deposit in lobule of left ear. (2) Gouty inflammation, producing fungous ulceration of the left ventricular band, resembling cancer; cured by a course at Wiesbaden. Sir Alfred Garrod[16] writes: "In one instance only have I seen what appeared to me to be a true gouty disease of the larynx." Inasmuch, however, as no laryngoscopic or *post-mortem* examination was made the case is not conclusive.

In my experience gout, as it affects the larynx, has been in the form of catarrh, more or less chronic, but yielding to alkalies and iodide of potassium. Careful pathological investigation bears out the comparative rarity of gouty changes in the larynx. Dr. Norman Moore[17] has noted the *post-mortem* appearance in 80 cases of gout, and as one of his conclusions states that "the articulations of the larynx rarely contains deposit," that is of urate of sodium.

In the report of a case in the Pathological Society's *Transactions*, vol. xxxiii, p. 273, Dr. Moore, however, mentions the occurrence of a small deposit, looking like urate of soda, just below the outer end of each cord.

In one case Sir Alfred Garrod[18] met with some points of deposit on the arytenoid cartilages which were proved to consist of urate of soda, both from their microscopical and chemical characters, and Duckworth[19] states that Virchow has detected "a tophulus" in the posterior part of the right vocal cord. Uratic deposits have been found in the crico-arytenoid ligaments. Ewart[20] quotes cases observed by Litten and Brooks of uratic deposits in the larynx.

### Osteo-Arthritis, Rheumatoid Arthritis.

Osteo-arthritis affecting the crico-arytenoid joint has, up to the present time, received but scant attention. Sir Alfred

Garrod[21] is inclined to attribute the aphonia, which he has observed in several cases, to implication of the arytenoid cartilages in the disease, but this view has not been confirmed by laryngoscopic or *post-mortem* observations. Bearing in mind how generalised the joint lesions of this disease are, I cannot but think that cases in which the crico-arytenoid joint is implicated occur fairly frequently but pass unrecognised, for I can see no reason why this joint should be exempt from the ravages of osteo-arthritis, more especially as a neighbouring joint, the temporo-maxillary articulation, is often attacked. Now that the laryngoscope is so commonly employed, we may expect to hear of osteo-arthritic affections of the crico-arytenoid joint. Dr. W. E. Casselberry,[22] of Chicago, has recorded a case, the clinical history of which points to osteo-arthritis affecting the crico-arytenoid joint.

### Leukæmia.

Several cases of laryngeal stenosis due to leukæmia have been reported.[23] In a case of Ebstein's, the arytenoids and ventricular bands were infiltrated. Three months after the first observation the swelling had increased, and had extended to the supraglottic region, the surface being covered with a yellowish secretion. Owing to an increase in the amount of stenosis, tracheotomy was required. Death occurred five days later. In another case the laryngoscopic appearance was that of a tuberculous infiltration, and the stenosis was chiefly due to swelling of the subcordal mucous membrane, extending posteriorly to the sixth tracheal ring.

Mager records the case of a patient, aged 58, who, after having suffered from leukæmia for a year, became dyspnœic. On laryngoscopic examination the mucous membrane of the larynx was read and swollen; the swelling appeared due to a hard infiltration; the vocal cords were swollen, and there was immobility of the right half of the larynx. Death followed tracheotomy in a few days. In this case, at the *post-mortem* examination, in addition to the usual sub-epithelial infiltration by leucocytes, there was perichondritis and necrosis of the right arytenoid cartilage. Leukæmic infiltration of the larynx represents a grave complication; it usually requires tracheotomy, and is a precursor of the fatal issue.

### Hodgkin's Disease.

In Hodgkin's disease running an acute course, œdema of the pharynx, especially of the arches of the palate and the uvula, coming on in successive attacks, has been observed.[24] The swelling is probably due to leukæmic infiltration, and the administration of arsenic has good effect. In a chronic case of Hodgkin's disease, an œdematous granular appearance of the uvula and the anterior palatine arch, which felt hard, was noticed. A similar condition has been seen in the larynx. A child, aged 2 years, had attacks of suffocation, and died notwithstanding the performance of tracheotomy. At the *post-mortem* examination there existed a general swelling of the lymphatic system, with especial localisation in the ventricular bands and the epiglottis. The swelling of the laryngeal mucous membrane was pale and slightly knobby, caused by accumulation of leucocytes in the subepithelial tissues.[25]

### Lymphatic System.

Owing to the universality of its distribution the lymphatic system necessarily plays an important part in all diseased processes. As Moritz Schmidt has pointed out, in a considerable number of cases of recurrent posticus paralysis the cause is quite obscure during life. A likely hypothesis in these cases is that the paralysis has been produced by a swollen mediastinal or cervical gland. I have had the opportunity of watching such a case for the last ten years, and though I had always assumed, in the absence of any other recognisable condition, that the paralysis was due to the pressure of enlarged mediastinal glands, it is only within the last few months that the cervical glands have become enlarged, and lend support to my original diagnosis.

### Hæmoptysis.

There is hardly any symptom which gives rise to more anxiety to the patient and his medical attendant than hæmoptysis. The rule still holds good that blood which is coughed up should be regarded as coming from the lungs, until there is distinct evidence to the contrary. Numerous cases are now on record in which a varicose ulcer on the posterior border of the septum, small ulcers and vascular ruptures in hypertrophied tonsils, enlarged vessels in the pharynx, a varicose condition of the veins at the base of the tongue, dilated vessels or ulceration of the larynx have given rise to the suspicion of hæmoptysis, and the diagnosis has only been arrived at by the employment of the rhinoscope or laryngoscope as the case may be.

Among the comparatively rare causes of hæmoptysis may be mentioned the presence of a leech in the larynx.[26] A dry laryngitis, in which crusts form on the vocal cords, may give rise to quite a severe hæmorrhage when they become detached, and thus, together with the concomitant cough and hoarseness, may, in the absence of a thorough examination, lead to an erroneous diagnosis of phthisis.

### Bronchitis.

The intimate connection between the nasal passages and the bronchial tubes has for a long time been common property. There are certain persons who say that whenever they get a cold in the head it is sure to travel downwards and set up bronchitis. This tendency is, however, much greater in those who suffer from stenosis of the nasal passages, interfering with proper nasal respiration. This is one argument I employ when I think it necessary to advise that hypertrophic rhinitis, crests on the septum, and deflected septa should be surgically treated. I point out that though in early adult life the nasal condition may only be an inconvenience, still with advancing years and the tendency to bronchial affections which comes with increasing age, any interference with free nasal breathing greatly aggravates the risk of being attacked by bronchitis. Oral respiration is always attended sooner or later by chronic pharyngitis and laryngitis, and a little additional upset of the system will start off bronchitis, which, under these circumstances, is extremely likely to become chronic. Even slight nasal affections, not sufficient to interfere with breathing, may be a predisposing cause of bronchitis. Thus Cahn[27] records a case of bronchitis coming on in an acute manner in a patient with small nasal polypi, and the bronchitis lasted until they were cleared out. Cahn specially notes that there was free nasal breathing.

### Asthma.

One of the earliest reflex conditions which was recognised as being dependent in some cases upon intranasal disease is asthma, and though I cannot agree with some authorities that asthma is usually associated with intranasal diseases, still cases of this sort occur with sufficient frequency to render it absolutely necessary for the physician to examine the nose in all cases of asthma. Numerous cases have now been recorded of asthma occurring in persons suffering from nasal polypi, in which the removal of these growths has completely freed the patient from the attacks of asthma. It has not, however, been my fortune to meet with absolute success—that is to say, that in all the cases of asthma complicated with polypi which have come under my care, in no single instance have I succeeded in curing the patient by removing the polypi. No matter how thoroughly the nose has been freed from the growths, the patient has still suffered from attacks of asthma, though the effect of the treatment has been greatly to diminish the attacks in frequency and severity. Unfortunately, as a rule patients do not come for treatment of the nasal disease until the asthma has lasted for a considerable period—possibly years—and by this time changes have been set up in the central nervous system and in the lungs, which are incompatible with complete restoration to health.

Though polypi represent the intranasal lesion most frequently found associated with asthma, any affection of the nose may be the starting point of asthma. Spurs and crests on the septum, deflection of the septum, hypertrophic and atrophic rhinitis have been noted as apparently giving rise to asthma. Adenoids may also cause asthma. A patient of mine, aged 21, who had suffered from asthma for two years, completely lost it after the removal of adenoids. According to Lichtwitz[28] symptoms resembling asthma were seen in five patients as a complication of empyema of the accessory nasal cavities. Believing as I do in the connection between intranasal lesions and the development of asthma I would strenu-

ously advise that a systematic examination should be made of the nasal fossæ and accessory sinuses, and if any gross lesion is found it should be promptly treated.

### Emphysema.

Emphysema is another lung affection which has intimate relations with diseases of the nose and throat. Any of the various causes of nasal obstruction may, as a result of the chronic pharyngeal and laryngeal catarrh, and consequent irritable cough thereby produced, give rise to emphysema. It is probable also that emphysema may be directly due to nasal obstruction; this is borne out by the experiments of Dr. Cervello[29] on dogs. He finds that occlusion of the nostrils invariably produces in a few days pulmonary emphysema in completely healthy dogs.

I have seen the progress of a somewhat rapidly increasing emphysema at once checked by the amputation of an elongated uvula, and I have seen equally good results from the treatment of granular pharyngitis by the galvano-cautery. These remarks will, I think, be sufficient to indicate the desirability of looking out for the cause of any chronic cough, and not to be satisfied with simply ordering some cough mixture.

### Pneumonia.

Epistaxis is sometimes observed in pneumonia; it may be an early symptom, or occur as one of the critical phenomena. Just as acute rheumatism may follow an attack of tonsillitis, so, I believe, may pneumonia. Whether the pneumonia is of septic origin, or whether the micro-organism (be it the diplococcus of Fraenkel or the pneumococcus of Friedlaender) first sets up the inflammatory mischief in the tonsil, and then proceeds to affect the lung, I must leave to be settled by those skilled in bacteriology.

Dr. Wallack, of Crick,[30] has recorded a case of this kind. The patient, a man, aged 36, had an attack of sore throat (quinsy) followed by pneumonia. Examination of the sputum showed numerous long chains of streptococci, staphylococci, pneumococci, single, double, and in short chains, and zoogleæ of micrococci.

In a patient in the Westminster Hospital under my care an attack of acute laryngitis came on during the course of a pneumonia.

### Shape of the Chest.

The state of the nose and naso-pharynx has a profound influence on the shape of the chest. Any interference with free nasal respiration, whether in the nose or naso-pharynx, in early life will give rise to a characteristic deformity. Adenoid vegetations, as being the most common cause of defective nasal breathing, are usually found to be present. At one time it was thought that enlarged tonsils were the cause of this deformity, but the observations on which this view depended were mostly made in the pre-adenoid days, and as adenoids are almost invariably associated with enlarged tonsils, it is probable that the latter usually play quite a subordinate *rôle* in the production of the deformity in question. That enlarged tonsils alone are capable of causing deformity of the chest is shown by two cases reported by Dr. Norman Moore.[31] He made a cyrtometrical drawing of the chest in each case before and some time after the removal of the tonsils, and the cup-shaped depression in the chest which was present before the operation was found to have disappeared when the second tracing was made.

My colleague Mr. Tubby[32] has given an excellent representation of the changes seen in the thorax. If the adenoids or other causes of nasal obstruction are removed before the bones are firmly ossified the deformity may be almost completely cured, and recovery of the shape of the chest is accelerated by the judicious employment of extension and gymnastic exercises.

### Diseases of the Circulatory System.

As we have already seen in connection with rheumatism, the heart may become affected with valvular disease as the result of a rheumatic tonsillitis, but it is not so generally recognised that an infective endocarditis may have a tonsillar origin. A case reported by Charrin[33] is a good illustration of this connection. On *post-mortem* examination staphylococcus aureus, which, during life, had been found swarming on the exudation over the tonsils, was present in the broncho-pneumonic patches and the valvular vegetations.

Dr. Dreschfeld,[34] in describing the paths of entrance of the microbes in infective endocarditis says: "Probably the tonsils, which are so often affected in rheumatic endocarditis, may occasionally serve as the means of entrance; and thus, again, some of the so-called "primary cases" may be explained. Löri[35] states that in 4 out of 5 cases of acute septic endocarditis which he has observed ecchymoses have been present in the pharynx, larynx, or trachea. Loss of substance in the larynx and hæmorrhage from the pharynx, larynx, and trachea have been also met with in acute septic endocarditis.

Various cardiac neuroses are met with in patients presenting intranasal abnormalities. A sensation of weight and constriction, anginal attacks, palpitation, and giddiness are the symptoms most commonly seen under these circumstances. Tachycardia may be associated with intranasal disease. Mr. Spencer Watson[36] has reported a case of nasal polypi in which the pulse rate was 120 per minute, the tachycardia being persistent. After the nostrils had been completely freed from obstruction the cardiac trouble ceased. In contradistinction to tachycardia, a slow pulse may be met with in certain nasal affections. Lichwitz[37] reports the case of a patient with empyema of all the sinuses, who had a pulse of 28 to 30 to the minute, which became normal after treatment. Tachycardia has been observed to follow excision of the larynx.[38]

Besides causing tachycardia, nasal lesions occasionally give rise to irregularity in the action of the heart. Dr. Sansom,[39] in a discussion following the reading of his paper entitled the Irregular Heart, a Clinical Study, read before this Society on December 12th, 1892, said, "He thought that nasal and aural troubles were amongst the commonest reflexes which started the cardiac derangement."

### Exophthalmic Goître.

In exophthalmic goître, and, as we have just seen, in the allied condition, tachycardia, intranasal changes play an important part. Mr. Arthur Maude,[40] who recently presented his valuable series of monographs on exophthalmic goître to the Library of the Royal College of Surgeons, has collected a series of cases in which operative interference in the nose has been carried out in cases of Graves's disease.

A case recorded by Mr. Spencer Watson[41] of a woman, aged 54, with prominent eyeballs, great mental depression, and fainting fits was probably one of exophthalmic goître. There was extensive hypertrophy of both inferior turbinals, which were removed with great relief to the symptoms. Dr. Scanes Spicer[42] has recorded a case of incomplete Graves's disease associated with nasal polypi. In this case, although the enlargement of the thyroid, the tachycardia, the tremor, and nervous excitement were well marked, Dr. Spicer elected to call it incomplete Graves's disease from the subordinate character of one of its leading symptoms—the exophthalmos. The polypi were removed with the cold wire snare, and as the nasal passages gradually became pervious the thyroidal swelling diminished and became less defined, the pulsation less, and the slight exophthalmos and tremors disappeared. Over against the above cases of exophthalmic goître successfully treated by intranasal operative procedures must be set the remarkable case of unilateral incomplete Graves's disease after removal of nasal polypi recorded by Dr. Felix Semon.[43]

Mr. R. S. Charsley[44] has observed marked enlargement of the glands in the neck and protrusion of the eyeballs lasting for a period of three months after operation for removal of turbinate body with the galvano-cautery. The pulse had ranged as high as 110, but complete recovery ensued.

The only nasal trouble that I have myself noticed in Graves's disease was very profuse epistaxis in a lady aged 40. The patient was much weakened by the repeated losses of blood, so I applied the galvano-cautery to the bleeding point and at once arrested the hæmorrhage, which gave her no further trouble. The course of the disease was not apparently modified by stopping the loss of blood, and the patient eventually died from exhaustion consequent on profuse diarrhœa.

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# THE HUNTERIAN LECTURES
ON
# THE PATHOLOGY AND SURGERY OF INTUSSUSCEPTION.

*Delivered at the Royal College of Surgeons of England.*

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## Lecture III.—The Treatment of Intussusception.

I called your attention, Sir, in my previous lectures to the scientific aspects of intussusception, and I have now to deal with the subject from a practical standpoint. I showed you first the minute anatomical changes which take place in the tissues injured by invagination, and afterwards I brought before you certain anatomical, physiological, and pathological factors which appeared to be of importance in causing the affection. These points are only of subordinate interest to the practical surgeon, for though a knowledge of them helps to elucidate the cause of intussusception, it does not in any way assist in its cure.

Turning, then, from the theoretical to the more severely practical aspects of intussusception, there can be no doubt that all cases of the affection have to be treated upon the assumption that they are either reducible or irreducible. I do not propose to occupy your time with a history of the treatment of intussusception. Those who are interested in such matters—and every surgeon ought to be, for the practice of surgery is part of a liberal education, and is not the mind-narrowing vocation that some would have us believe—will find that Professor Ashhurst,[1] Dr. Leichtenstern,[2] and Mr. Jonathan Hutchinson[3] have published admirable summaries of it from different points of view.

It is still necessary, however, to teach the majority of mothers that early advice and abstention from domestic remedies are required in all cases of painful constipation occurring suddenly in young children, just as it is only lately that men as well as women have come to understand that the immediate treatment of strangulated hernia means recovery, whilst to delay is death.

### *a.* Reducible Intussusception.

Clinical and pathological evidence show that an invaginated portion of the intestine has a constant tendency to reduce itself until its muscular coat becomes paralysed, or adhesions are formed at its neck. This tendency to reduction is probably counteracted during the earlier stages of an intussusception by the tonic contraction of the ensheathing bowel, for if this be reduced or abolished by mechanical or other means the intussusception can be easily reduced until hardly any invagination remains. Complete reduction is not easy, for the congestion and consequent œdema of the muscular coat at the apex of the intussusception render this the hardest part of the surgeon's task. Inflation or injection of the large intestine is therefore upon the whole the safest and the most satisfactory treatment for all cases of uncomplicated intussusception, provided that the patient has been seen early enough, that the distending force be applied gradually, and that it be not too great.

#### 1. Treatment by Irrigation.

Injection is preferable to inflation, because the force employed can be graduated with much greater accuracy, whilst the apparatus is always at hand. But irrigation is not of the least service in the enteric form of intussusception—where one part of the small intestine is invaginated into another, for many observers[5] have shown by experiments on living and on dead bodies that fluid can only be made to pass through the ileo-cæcal valve when over-distension of the colon has caused a mechanical separation of its two segments. Such an over-distension, however, is in the highest degree dangerous, because it is usually accompanied by a cracking of the serous coat of the large intestine, which is soon followed by rupture of the muscular and mucous layers if the force be continued.

Professor Senn[6] thinks that somewhat better results may be obtained in cases of enteric intussusception by distending the intestine with such a gas as hydrogen, for he finds that a gas passes through the ileo-cæcal valve under a much lower pressure than a fluid. But enteric intussusceptions are both rare and difficult to recognise, and it is better to open the abdomen at once in every case where this condition is suspected.

The method of irrigation under hydrostatic pressure is the most satisfactory way of distending the colon in cases of colo-colic and ileo-cæcal intussusception. The fluid is allowed to pass into the large intestine by its own weight, so that the force can be accurately estimated by observing the height to which the reservoir is raised above the recumbent body of the patient. The valuable experiments of Mr. Mortimer[7] in London and of Mr. Mole[8] in Bristol have greatly increased our scientific knowledge of the effects of irrigation in the treatment of intussusception. They have shown that the results depend partly upon the obstruction to be overcome within the intestine and partly upon the external support. The greater the pressure within the abdomen the more is the distending force neutralised, for the intestinal wall is then compressed between two opposing forces. Mr. Mortimer experimenting upon the unopened bodies of children, points out that in an irreducible intussusception the large intestine is distended by almost the whole force of the stream when the abdominal walls are lax, as is usual in children under chloroform, and when there is not much tympanites. The intestine may kink if fluid be allowed to enter the bowel too suddenly or too forcibly, and the distending force is then prevented from acting upon the intussusception, so that the colon may become sufficiently overdistended to rupture. A similar accident may happen as a result of a sudden peristaltic contraction taking place whilst the pressure is being applied. There is apt to be cracking of the serous coat of the large intestine when the resultant pressure of the fluid distending the colon is about 2½ lbs.—that is to say, when the irrigator is raised 5 feet above the body of the patient, and this accident usually happens when the irrigator is raised to 8 feet, though the bowel may be completely ruptured when the reservoir is only raised to a height of 6 feet.

Mr. Mole used a slightly different method of experiment, but he arrived at substantially the same results, and, as he worked with the abdomen open, he was able to see the exact manner in which the intestine ruptured as a result of its overdistension. When this accident is imminent the peritoneal coat of the bowel splits longitudinally for a considerable length; the fluid then begins to leak through the wall of the gut, a small jet issues, and at last, if the pressure be continued, a large rent takes place, with forcible expulsion of the contents of the bowel into the peritoneal cavity.

Rupture of the large intestine is most likely to occur in the transverse colon, at or near to the splenic flexure, whilst in the small intestine it takes place in the unprotected portion of the bowel which is situated between the two layers of the mesentery.

It should be borne in mind, however, that these results are derived from experiments upon dead bodies and upon

animals. It is impossible for the surgeon to estimate the capacity of the colon in any individual case of intussusception, nor can he judge the amount of pressure that may be applied with safety to the inflamed and softened intestinal wall at the neck of the tumour. A pint of fluid was sufficient to rupture the bowel in a child,[9] aged 3 months, though the injection was made by one of the most careful and experienced surgeons in the profession; whilst in another child,[10] aged 7½ months, three quarts under a head of 5 feet pressure were injected into the intestinal canal without doing any injury.

Dr. Muir, at my instigation, has measured the capacity of the colon in the bodies of several children, with the results shown in the table I presented to you in my second lecture. The measurements show how widely different is the capacity of the colon in different children of almost the same age. Thus in a male child of 5 months old 10 ounces of water were sufficient to distend the colon, whilst in a girl of 7 months 30 ounces could easily be passed into the large intestine.

Forty-eight hours is the limit of time within which irrigation is likely to be successful in an ordinary case of ileo-cæcal intussusception with tolerably acute symptoms, and such pressure is alone justifiable, in a child of 2 years old, as can be obtained by raising a reservoir of water containing a quart of salt solution at 100° F. 2½ feet above the anæsthetised patient. I do not think that inversion of the patient renders irrigation more successful, but I am satisfied that long-continued distension under a low pressure is of more avail than rapid dilatation under a high pressure. The surgeon should keep one hand flat upon the abdomen whilst irrigation is being performed, and he must carefully avoid great variations of pressure. A sudden and uniform enlargement of the whole abdomen during irrigation raises a strong suspicion that the bowel has been ruptured, because rupture of the colon almost always takes place before there is any great distension of the small intestine. A laparotomy must be done at once when this accident happens, and the seat of rupture should be looked for either on the left side of the abdomen or at the neck of the intussusception.

The length of the intussusception is no bar to its reduction by irrigation, for many cases are recorded in which an intussusception has been reduced even when the ileo-cæcal valve has protruded beyond the anus, and Dr. Mansel Sympson[11] recently cured a case by this means when 6 inches of the intestine were visible externally. This is not difficult to understand by the light of the anatomical facts brought to your notice in the last lecture. The progress of a very large intussusception is usually rapid, for the colon is disproportionately wide, and the mesentery is either unduly long or peculiarly extensible. A rapid advance presupposes, therefore, an easy reduction, and such large intussusceptions often unfold themselves spontaneously when their reduction has been once begun.

A chronic case with a great deal of glairy discharge, whose onset has been heralded by similar attacks of less intensity, may be treated by irrigation after a very much longer time than is allowable in ordinary cases; indeed some cases[12] of this nature have been cured when the symptoms have lasted from four to six months. The duration of the symptoms is perhaps always of less importance in an intussusception than their intensity, for a long-standing intussusception is often more easily reduced by irrigation than one of comparatively short duration. The longer the time the symptoms have lasted, however, the more likely it is that adhesions will have been formed. Slight adhesions are not an insurmountable barrier to reduction by irrigation, though they militate greatly against its success. Professor Senn[13] investigated this point, and found that in one case when the colon was overdistended the adhesions which had formed round an artificial invagination made three days previously gave way with an audible sound, and the intussusception was completely reduced; but the force required to overcome the adhesions ruptured the serous coat of the intestine in three different places, and the animal died on the following day with diffuse peritonitis. He was more successful in another experiment, for the intussusception was reduced without any injury to the walls of the bowel, and the animal survived the operation.

Abundant hæmorrhage would seem to contraindicate any attempt to reduce the intussusception by irrigation. Much extravasation of blood implies destruction of the muscularis mucosæ, infiltration of the submucous tissue, œdema of the circular muscle, and consequently a swollen condition of the mucous and submucous layers, with paralysis of the muscular coat. The swollen tissues render reduction difficult, and if the intussusception be reduced the paralysis of the muscle allows recurrence to take place, and may thus lead to the loss of much valuable time. Absence of hæmorrhage, on the other hand, associated with severe collapse, equally contraindicates the treatment of intussusception by irrigation, for it points to the early recurrence of gangrene.

A great disadvantage attends the use of irrigation for the cure of intussusception apart from the danger of rupture, which has already been sufficiently discussed. This disadvantage is the liability to recurrence after reduction. Dr. F. H. Elliott[14] has published the details of a case of recovery from intussusception in a child, aged 8 weeks, in whom recurrence took place twenty-four hours after the first reduction, five days after the second reduction, and thirteen days after the third reduction. Dr. Chaffey[15] had a less satisfactory experience, for an intussusception recurred on five separate occasions until the patient—a boy aged 3 years—died of exhaustion. When recurrence is a very marked feature in a case, it is better to open the abdomen at once rather than to trust to repeated irrigation of the bowel, for it appears[16] that reinvagination can positively be prevented by shortening the mesentery at the point of invagination by folding it upon itself in a direction parallel to the bowel, and maintaining it in this position by a few catgut sutures. No absolute rule can be laid down, however, for a child is now under my care who apparently has been cured of an intussusception, though irrigation had to be done on five separate occasions before the tendency to recurrence was overcome.

There appear to be several reasons for this tendency to recurrence. The first and the least satisfactory is that the conditions which led to the original intussusception may persist. An intussusception would then recur after any method of treatment, but it is particularly likely to do so when the reduction has been brought about by distension of the large intestine. A rapid distension of the colon followed by its sudden emptying are exactly the conditions which lead to increased peristalsis of its active and as yet uninjured walls. All methods of treating intussusception by dilatation of the bowel are therefore open to the objection that they predispose to a fresh invagination of the congested, compressed, and partially paralysed portion of intestine which has just been released. A second objection to this method of treatment lies in the fact that the operator cannot see what he is doing, and that it is necessarily performed with uncertain guides. The reduction is therefore incomplete in some cases, for the last part of an intussusception is the most difficult to unfold, and in practice when the tumour has disappeared as a result of irrigation the operator is usually chary of continuing the process, and he is quite content to allow the fluid to escape as soon as possible. Cases are well known in which such an incomplete reduction has been found at the necropsy. Dr. Goodhart[17] records one where a local œdema of the submucous tissue, with a slight invagination of all the coats of a part of the cæcum, remained after an intussusception had been reduced by inflation. He thought that the invagination was sufficient to start a fresh intussusception, though he confesses that it is more likely that the swelling would have subsided if the patient had lived a longer time. Professor Greig Smith[18] also quotes a case in which the appendix was found unreduced after death, and still invaginated within the cæcum. The ileo-cæcal valve, too, is sometimes a cause of trouble after the reduction of an intussusception, theoretically because a hæmorrhage into its substance may make its segments gape, or may so stiffen them as to predispose to a fresh invagination of the ileum, practically because it may be mistaken in its inflamed state for the tumour of an intussusception. This mistake has been made more than once, and on one occasion[19] it led the surgeon to open the abdomen of a child, aged 6 months, in the full belief that a previous irrigation had failed to reduce the whole intussusception.

The after-treatment of an intussusception which has been

cured by irrigation must consist in keeping the patient absolutely at rest, in the administration of opiates, and in feeling the abdomen gently from time to time to ascertain that the tumour has not recurred.

### 2. Treatment by Abdominal Section.

When irrigation has failed to relieve an intussusception, the method must not be continued for too long a time, because the patient may become collapsed, even though no injury be done to the bowel. Abdominal section must then be performed at once, and this forms the second great method of treating intussusception. The failure of irrigation, because it leads to the necessity for laparotomy, increases the surgical interest of the case tenfold, but unfortunately it adds greatly to its gravity: for whilst the mortality of intussusception in infants treated without operation is calculated in the latest series of tables at 59 per cent., the mortality amongst the cases in which the abdomen had been opened is 67.2 per cent. Dr. Wiggin,[20] who appears to have compiled these statistics with great care, explains that this high rate of mortality is due to the inclusion in his tables of all cases in which laparotomy has been performed. The risk of abdominal section is reduced to 22.2 per cent., if only those cases be reckoned which have been operated upon within forty-eight hours of the onset of the symptoms, and if we only take into account the cases which have been submitted to operation since the year 1889, when the more perfect technique of abdominal surgery has become generally known. Such an estimate, however, is based necessarily upon published cases, and therefore upon a comparatively small number, and it is probably inaccurate, for no record has been kept of many unsuccessful operations.

The surgical interest of the case is heightened by the failure of irrigation to relieve an intussusception, for the curiosity of the operator is piqued to know what he will find. Irrigation fails to relieve the invagination in some simple cases, even when no adhesions are present; in others, slight adhesions at the neck of a simple invagination prevent its reduction, whilst it may be that the case is so complicated as to need the whole of his ingenuity, first to find an appropriate method of treatment, and afterwards to carry it on to a successful issue.

Shock is the great and immediate cause of danger in every case of abdominal section performed upon a young child for the relief of an intussusception, whether the invagination be simple or complex. Chilling of the body, bleeding and powerful nerve stimuli ascending to the spinal cord from the splanchnic region, are the causes of shock, and they should be reduced to a minimum. Chilling of the body is easily prevented by placing the patient upon a hot-water bed, and by swathing his arms and legs in cotton-wool, whilst the chest is covered with a roughly-made jacket of Gamgee tissue. The subcutaneous injection of one-fiftieth of a grain of strychnine, with enemata of brandy and hot water, will cause a temporary rally lasting long enough for a simple abdominal section to replace a piece of invaginated intestine in a child, though in a long operation these measures must be repeated more than once. The anæsthetic should be given sparingly. The incision should be made in the middle line, and at first it should only be long enough to admit two fingers and a thumb into the peritoneal cavity, for in the simplest cases it is unnecessary to drag the intestine to the wound. Indeed, it is better not to do so, because such a proceeding stretches the mesentery, and so stimulates the nerves that the splanchnic vessels are first contracted and afterwards dilated, leading to as great a lowering of blood pressure as would be caused by a very serious hæmorrhage. The less the intestine is handled, therefore, the better it will be for the patient, and an intussusception can often be reduced by squeezing it gently from below upwards. But it is much better to enlarge the incision and to bring the tumour into view if there is any difficulty in reducing the intussusception rather than to run any risk of tearing the serous coat by manipulating the intestine in too cramped a space. All goes well in the simplest cases, that is to say, in those which have been seen sufficiently early and in which the invagination, though too tight to be reduced by irrigation, is still easily reduced by a minimum of manipulation. In these cases it is only necessary to replace the invaginated intestine and to suture the abdominal wound to ensure the recovery of the patient. Rapidity combined with caution is the golden rule in all cases of abdominal surgery, and if it be followed in these cases the operation of laparotomy, even in a young child, is no more dangerous than is the ordinary operation for the relief of a strangulated hernia in an adult. The mortality rate of 22.2 per cent. applies more especially to this class of cases, and though it is still far too high, we may hope that as time proceeds and the cases are seen earlier, it will be still further and very greatly lowered.

Great care must be taken, even in the simplest cases, to prevent any cracking of the serous coat of the bowel during the reduction of an intussusception. This injury is always repaired by plastic inflammation, which is too often the starting point of a diffuse suppurative peritonitis, or if this danger be escaped it leads to the formation of adhesions which unite one coil of gut to another. Professor Senn[21] recognised the gravity of the accident when he recommended that the injured part of the bowel should be covered with a strip cut from the omentum and sutured round the intestine, so that its end should project just beyond the mesenteric border. A certain amount of danger, too, attends the last part of the reduction of an intussusception lest too great or too injudicious an exercise of force should tear the bowel at the neck of the tumour, where the tissues have become softened by inflammatory changes, for such an occurrence may require the instant performance of some form of enterectomy. Washing out the peritoneal cavity is wholly unnecessary in the simpler cases; it lengthens the operation and increases the shock without yielding any adequate result.

Even when a simple intussusception has been cured, and the surgeon has satisfied himself that he has done all that it is possible for him to do, a final difficulty may arise in replacing the inflated intestines within the peritoneal cavity. This difficulty is very commonly met with in children, and it may require that the originally small incision in the abdominal wall should be greatly enlarged, for less harm will be done by squeezing the distended intestines through a large hole than through a small one. The intestines sometimes have to be punctured in several places before they can be replaced, but I am always a little doubtful of the wisdom of such a proceeding, for the distension is great, the holes are small, and the kinks are numerous, so that it is not possible to produce any very great reduction by this method; besides the gas is produced within the intestine, and is formed very rapidly. Additional care must be taken in suturing the wound when the intestines are much distended, for it is quite easy to kill the patient by passing one of the sutures through the distended gut, an accident which is especially likely to happen in closing the angles of the abdominal wound.

An intussusception sometimes recurs after it has been reduced, but recurrence is less usual after an abdominal section has been done than when reduction has been brought about by irrigation. In a few cases[22] the intestine has remained so œdematous that the tumour has been felt even after the wound has been closed, leading the operator to suppose that invagination had recurred. Such a condition may be distinguished from true recurrence by the fact that the swelling rapidly disappears, and with it the symptoms of obstruction. This is a rare accident, but Mr. Pearce Gould met with a rarer one when he had to perform a laparotomy twice at an interval of three months for the reduction of two separate intussusceptions in the same patient. There is another condition which is equally uncommon in which after an abdominal section has been done and the intussusception has been reduced, the patient passes one or two healthy motions, and seems to be on the highway to recovery, but within a few hours or a few days he again becomes constipated, his belly becomes distended with flatus and he dies. A case of this kind recently came[23] under my care in the person of a boy aged 8 months who had suffered thirteen and a-half hours from symptoms of intussusception. Irrigation failed to reduce the intussusception, so I opened the abdomen and easily replaced the bowel without doing it any injury. The child afterwards passed two motions, one blood-stained the other natural, and took his food well, digesting it. Forty-five hours after the operation he began to vomit, the in-

testines became distended, and he died with all the symptoms of intestinal obstruction. The examination of the body in the *post-mortem* room showed that the intestines were distended with flatus to within a foot of the ileo-cæcal valve. The distension stopped suddenly, although there was no visible cause for its arrest either outside or within the intestine or abdomen. The colon, like the lower part of the ileum, was collapsed. There was no intussusception and no peritonitis. A similar case is recorded by Mr. Pick.[24] Brun's case recorded by Müller[25] seems to have been of a similar kind. It occurred in a boy aged 12 years, who died on the ninth day after excision of a piece of the small intestine for the cure of a chronic irreducible intussusception of the ascending colon, associated with a retrograde but reducible invagination of the upper part of the descending colon. The intestinal wound was found to be soundly healed after death, but the stomach and small intestines were greatly distended with flatus without any apparent cause.

The histological appearances to which your attention has been called already show that the bowel in these cases is paralysed at the seat of invagination, for it is sufficiently injured to destroy its functional activity, but not badly enough to destroy its vitality. If a similar case should unfortunately happen again in my practice, I shall inject hypodermically a grain or two of barium chloride in solution. The drug is a powerful stimulant of peristalsis, but its action is less severe than eserin. Either drug should be serviceable, for it is only in rare and advanced cases of intussusception that both the circular and longitudinal layers of muscle are involved; in the early stages one layer is injured more seriously than the other, and the circular layer more often than the longitudinal.

When an intussusception has been successfully reduced after laparotomy, the surgeon should satisfy himself before he closes the abdomen that he has overcome the only cause of obstruction, and that the case he is treating is really as simple as it appears to be, for an intussusception may be complicated by a variety of troublesome and dangerous conditions. Dr. Handfield Jones and Mr. Page[26] published the details of such a complicated case in which there were two intussusceptions of the colon and one of the ordinary ileo-colic type in a boy aged 5 years, and I have already mentioned the less uncommon cases of double intussusceptions. Double intussusceptions usually run in opposite directions, and are separated by an interval of healthy intestine, but occasionally[27] they may overlap each other so that the retrograde invagination, which is generally the distal one, has to be reduced before the upper one can be released.

Another complicated case, coming under the care of Dr. Whipham and Mr. Turner,[28] occurred in a woman aged 29, in whom an intussusception associated with a polypus was complicated with a volvulus at two different parts of the intestine. In yet another case—occurring in a girl of six months old—recorded by Mr. Clinton Dent,[1] a double intussusception, ileo-colic as well as ileo-cæcal, was still further complicated by an internal hernia which was apparently secondary. The hernia was strangulated by the sharp edge of a fold of mesentery attached to the ileum, and it was buried deeply in the cavity of the pelvis.

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(*To be continued.*)

DR. GARDNER, of Melbourne, has been elected a foreign correspondent of the Paris Société de Chirurgie.

## A CASE OF SUPRAPUBIC PROSTATECTOMY, WITH THE SUBSEQUENT HISTORY OF THE PATIENT.

BY A. W. MAYO ROBSON, F.R.C.S.,
Senior Surgeon to the General Infirmary at Leeds; Professor of Surgery in the Yorkshire College of the Victoria University.

THE appearance of the patient whose case is related below as he stepped into my consulting room after an interval of ten months, when from being a thin, feeble, decrepit old man, he had changed to a healthy-looking, brisk, and vigorous adult, suggested to me the propriety of reporting his case. I am indebted to my friend, Dr. H. Colligan Donald, who assisted me with the operation, for the notes.

D. J., aged 61, a saddler, was sent to me by Dr. Mitchell, of Topcliffe, in October, 1894, complaining of painful and difficult micturition. He gave the following history: About two years previously, that is, in 1892, he first experienced difficulty and pain in micturition, and after the act he passed involuntarily a few drops of water, wetting his dress. Soon after this he experienced a desire when in bed to pass water, compelling him to get up two or three times nightly. Before this, for some years, he had had to get up in the night once or twice, but he had thought nothing of this, as he was otherwise well. This feeling was always more pronounced and accompanied by pain if he had been exposed to fatigue or jolting of any kind during the day. Six months previous to my seeing him he developed cystitis, and passed a considerable quantity of blood with the urine, noticeably after the use of the catheter. One month before I saw him he had complete retention of urine, which was relieved by a large-sized soft catheter. Since then he had required to use the catheter from day to day, the frequency of micturition increasing. His general condition had always been good, and he had always led a temperate life, but owing to the suffering and distress during the day, and the frequent disturbances at night, he had become thin and looked very ill.

On examination I passed without difficulty a No. 12 catheter, drawing off 4½ ounces of residual urine. The sound failed to detect the presence of a stone, but the walls of the bladder felt roughened. The prostate as felt by the rectum was found to be enlarged, but not tender. Urine, alkaline, 1020, trace of albumen, no sugar, thick white deposit, which a microscopic examination showed to be composed of pus and phosphate of ammonium. He was averse to operation at the time, and returned home, where, under rest, careful catheterism, the use of salol and boracic acid, and the regulation of his diet, he improved considerably and felt fairly comfortable for about a year. He again consulted me in October, 1895, on account of the symptoms recurring with greater severity. I then sounded his bladder, detecting a calculus behind the prostate. By the rectum the prostate was felt to be enormously enlarged, and there was a thickened feeling over the region of the right ureter.

Operation having been decided on, I performed suprapubic cystotomy, removing a lithic acid calculus about the size of a pigeon's egg, which was encysted in a deep pouch behind the prostate. As it was manifest that the enlarged middle lobe of the prostate would continue to obstruct the exit from the bladder, I removed it by means of the ring-cutting forceps, after removing by scissors and forceps a wedge of prostatic tissue, so as to make the bottom of the bladder pouch level with the entrance to the urethra. Considerable hæmorrhage followed, which was controlled by washing out the bladder with tincture of hamamelis (half an ounce to the pint of boracic lotion) used as hot as the hand could bear it. The bladder was drained. The patient made an uneventful recovery, and was discharged at the end of six weeks, the opening into the bladder having healed, and urine passing in the natural way, at regular intervals, and without pain. Ten months after operation the patient came to see me, expressing himself as being in the best of health, having gained 2 stones in weight, and having no difficulty or discomfort of any kind. On two occasions only had he to use the catheter, these within a month after leaving the surgical home.

REMARKS.

The fashion has for a time turned from prostatectomy to

castration in the operative treatment of enlarged prostate, but I am by no means converted. The condition of some of my patients years after prostatectomy is such as to make me feel that in the operation suggested by my lamented colleague McGill and by Belfield, independently, but almost simultaneously, some years ago, we have to chronicle a real advance in the treatment of enlarged prostate which has failed to be relieved by catheterism and other milder measures. The details I gave in a paper at the International Medical Congress at Rome still holds good in my practice, both with regard to the preliminary preparation of the patient, the steps of the operation, and the subsequent treatment during convalescence.

## A CASE OF AMPUTATION IN MIDDLE AGE FOR ALBUMINURIA, FOLLOWING TUBERCULOUS KNEE: RECOVERY.

By J. J. H. HOLT, M.B., Ch.B.(Victoria),
Buckley, Chester.

The question of operation in cases of albuminuria is one often difficult to decide, more especially when it occurs in patients who are advancing in years. The following report may therefore be of some interest and use in helping to arrive at a decision in some doubtful cases.

J. C., a business man, aged 52, bachelor, was first seen by me in May, 1896. He had been suffering from a deformed knee since childhood, but called me in because he was feeling generally unwell, and complained of obscure lumbar pains and restlessness at night. He had been passing a considerable amount of urine, which was acid, light in colour, specific gravity about 1012, and was distinctly albuminous. Some finely granular casts were seen under the microscope. Physical examination gave no sign of enlarged liver or spleen. The heart and lungs were normal. The left leg was flexed at right angles, and the knee greatly deformed, much swollen, and inflamed. On the outer side there was a large granulating surface, in the centre of which was a sinus leading down to the knee-joint. It was discharging a thin serous-like pus, and was very tender. It was injured when he was 11 years of age, and had been discharging since he was 12. The family history evidenced a tuberculous tendency, two of his sisters having died of consumption at about 27 years of age.

The question of operation had been considered when he was 12, but had been decided against. In 1891 he was in bed twelve weeks with an attack of rheumatic fever. He made a good recovery and enjoyed fairly good health until August, 1892, when the knee became very painful and discharged more freely. It improved in about four months, and he was again comparatively healthy until about May, 1896. He then began to be troubled with pain in the loins and could not rest well at night. Hoping that the condition might be temporary and that possibly he might improve by resting, he was advised to take a holiday and use boracic dressings for the knee. He went away for a month, and felt better in health whilst away and for some days after his return. Subsequent examination of the urine, however, gave even more distinct evidence of albumen than it did a month previously. Regarding this, therefore, as an indication that the kidneys were becoming secondarily affected, he was advised to consult Mr. W. Whitehead, of Manchester, as to the advisability of amputation. He was strongly advised by that gentleman to undergo the operation, whilst at the same time he was informed of its risk. Declining health and increasing pain, however, made him decide to have it done.

Amputation was performed by Mr. Whitehead on August 19th. Owing to the unhealthy nature of the tissues, it was found necessary to amputate between the upper and middle third of the thigh. Notwithstanding the increased risk from the high operation the patient rallied well and made an excellent recovery. He was kept on a milk diet and simple aperients given to regulate the bowels. He was able to leave his bed early in September, and has progressed most satisfactorily ever since. The albuminuria steadily diminished and has now disappeared. He has resumed work, is sleeping well, is free from pain, and enjoys better health than he has done for years.

The case is interesting in showing the possibility of relieving secondary albuminuria even after long-standing suppuration. In this case the discharge had continued for forty years, but was followed by recovery, even after such a dangerous operation.

## A NOTE ON A FEW SURGICAL USES OF PICRIC ACID.

By C. M. ALLAN, M.A., M.B., C.M.,
Surgeon, Longton Cottage Hospital, etc.

In the British Medical Journal of December 26th, 1896, Dr. Maclennan drew attention to some uses of picric acid as a protective and healing agent in skin diseases.

When experimenting with various therapeutic agents, in a study—extending over fourteen years—of varicose ulceration of the leg and allied diseases, among others (including sulphurous, nitric, tannic, and oxalic acids and chlorine) I have used picric acid (a concentrated solution in rectified spirit diluted with two parts of distilled water, and applied with a spray), and found it the most successful in allaying the irritation and stopping the discharge, and irritation from the discharge, from eczematous and ulcerated surfaces.

In the case of ulceration or eczema, or of ulceration and eczema of the leg, the leg is, subsequent to the application of the acid, covered with a medicated adhesive plaster. The smarting and itching resulting from the disease and exposure to the air are immediately allayed, the inflammatory redness and irritation subdued, the parts kept aseptic or rendered so, and the fine coating of coagulated albumen and "epithelial *débris*" (which disappears before the application of the next dressing in a week) exerts an astringent and slightly compressive action on the dilated venous and lymph radicles in both ulcer and surrounding inflamed surfaces, and healing takes place rapidly, and with comfort to the patient.

In recent wounds, with or without great loss of substance, this treatment is equally beneficial, and is not so troublesome nor so unsuccessful as skin grafting, where the size of the wound would render that advisable. I have under my care a wound of the forearm with loss of skin which a hand could not cover, healing rapidly under this combined treatment after the Thiersch method had failed. In that most dangerous and most intractable form of hæmorrhage from wounds in hæmophilic subjects picric acid solution acts better than any form of treatment I have tried. Within the last few years I have had two such cases, one of which belonged to a distinctly hæmophilic family. The first, a cut several inches long, was sprayed with the acid while the blood was being mopped off with wool: and treated thus several times daily did better than with iron and other astringents. The second, an abscess of the glands of the neck after scarlet fever, which necessitated incision, was packed with picricised gauze and did well.

In cases of severe cellulitis arising from the introduction of some irritant poison, and when incision or amputation is necessary, the bleeding from the paralysed and dilated radicles becomes almost uncontrollable. If the incision is packed with gauze wrung out of the picric solution the bleeding is soon controlled. For the oozing after the amputation the spray is much more successful than hot water, yet a combination of both may be used with great advantage, the water being used first (as it would decompose the acid if both were combined) and the spray applied immediately after. The acid acts as an astringent and antiseptic hæmostatic, and the parts heal *cito, tuto, et jucunde.*

Our Correspondent in Hong Kong writes: The threatened outbreak of small-pox in Hong Kong has been successfully met by the vigorous measures adopted by the Government to stamp out the disease, as only an occasional case is now being reported. The number of cases since the beginning of December has been 25, 19 being in December, and 6 during the first thirteen days of January: and the number of deaths has been 11—7 in December and 4 in January to date. Ten of the cases and three deaths were in Europeans.

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

### A CASE OF TESTICLE STRANGULATED AT BIRTH: CASTRATION: RECOVERY.

THE infant son of W. S. was delivered by forceps (head presentation) on September 17th. Nothing abnormal was noticed at the time of birth, but four hours later the nurse called attention to the right testicle, which was found to be slightly larger than the left. By the next morning, the right testicle was twice the size of the left and appeared discoloured through the skin. It felt tense, round, and smooth. There was no enlargement of the cord to be felt. The only thing possible seemed to be strangulation from some cause in or near the testicle. That night the child was evidently in pain and cried incessantly, while towards morning it had some slight convulsions. On the morning of September 19th, Dr. Cave, of Crewkerne, saw the child with me, and agreed to the necessity of castration. He gave chloroform, and I removed the testicle and an inch of the cord. The testicle was round, smooth, and very tense, the insertion of the cord appearing like that of the stalk of an apple. Just above the testicle was a constriction which appeared shiny and fibrous. The testicle was a deep colour from engorgement. The size was $1\frac{1}{2} \times \frac{1}{18} \times \frac{1}{18}$ in. The child made a good recovery.

Mr. C. B. Lockwood, Assistant Surgeon to St. Bartholomew's Hospital, kindly examined the testicle for me and r ports as follows:

"The testicle and tunica vaginalis of a child. The spermatic cord is very thin, and is twisted apparently just above the tunica vaginalis. The whole cavity of the tunica vaginalis and the whole testis and epididymis were full of coagulated blood. The clot runs an eighth of an inch up the cord as far as the twisted part."

South Petherton. MARK R. TAYLOR, M.R.C.S., L.R.C.P.

### THE ASSOCIATION OF DIPHTHERIA AND SCARLET FEVER.

MANY of our best authorities twenty years ago were engaged in debating the question raised by Mr. Bevan in the BRITISH MEDICAL JOURNAL of January 30th (p. 263) as to the identity of the poisons of scarlet fever and diphtheria. The following case which occurred in my practice about that time is interesting in this connection, for it affords an instance in which there was no question of exposure to more than one infection. This case, occurring under other circumstances, would undoubtedly have been regarded as diphtheria.[1] Two children residing in the same farmhouse contracted scarlatina at their school, and were at once brought home; they presented typical examples of the disease, with erythematous sore throat, bright and well-marked rash, strawberry tongue, high temperature, and albuminuria. Their little sister, who had not been away from home, took infection from them, sickening within a week from their return. This child displayed from the commencement of her illness, considerable swelling of the cervical and submaxillary glands, accompanied by great prostration, and before long the tonsils, uvula, and cheeks were found to be covered thickly with false membrane. Were these symptoms due to the working of two distinct and separate poisons, or were they due to the poison of scarlatina?

Dr. Greenhow quotes a case recorded by Chavasse of typical diphtheria (occurring in the house with two cases of scarlatina) in which no subsequent desquamation took place, and no rash was present. The well-known group recorded by Dr. Duncalf, of West Bromwich, is still more striking. A man was attacked on October 1st with sore throat; the tonsils, uvula, and pharynx were thickly covered with false membrane, leaving a red and abraded surface when detached, and attended by collapse and a pulse which sunk to 60. On October 7th, a child, an inmate of the house, was attacked by scarlatina followed by desquamation and anasarca. On October 13th, a sister of the first patient, residing two miles away but visiting her brother in his illness, was attacked in her turn by scarlatina, took the infection to her home, where another brother soon developed what seemed to be diphtheria, having a sore throat accompanied by widely distributed false membrane, and attended by much prostration. Perhaps our belief in the "pathological independence" of the two diseases is stronger than ever to-day, but if cases such as that to which Mr. Bevan calls attention were more frequently recorded in the columns of the BRITISH MEDICAL JOURNAL, possibly we should eventually find cause to alter our opinion.

Tamworth. J. HOLMES JOY, M.A., M.D.Dub.

[1] Hastings Essay, 1896, *Diphtheria*.

### ANTIPYRIN POISONING: RECOVERY.

A GIRL, aged 19, whom I was attending for anæmia, and who was taking Blaud's pills, came to me one morning quite recently complaining of headache. I prescribed for her a draught containing R antipyrin grs. v, pot. brom. grs. vij., spt. ammon. co. ʒj, aq. ad ʒj. In about ten minutes after taking it a hurried message was sent for me to see this lady, as she was taken seriously ill. On arrival at her house within a few minutes the following conditions were present: Cold shivers; severe, gasping dyspnœa; the face was swollen, especially about the eyes, so that the patient could not see, and a view of the pupil could be obtained with great difficulty. The body was covered with a bright, red rash, like scarlatina, and resembling that of urticaria in that it presented weals, which varied from a small papule up to the size of a five-shilling piece. The temperature in the axilla was 97°, and the pulse, which was very intermittent, was only 50. She complained of no pain. The tongue was very dry, while the lips and general aspect were decidedly cyanotic. I immediately had the patient put to bed, applied warmth, and administered whisky to her, and strychnine with digitalis. Notwithstanding, she remained in this state for about eight hours, though the shivering passed off at the end of three hours. When beginning to rally, the breathing, which at one time was so bad that I thought I would have to resort to artificial respiration, first showed improvement, and in about four hours later, except that the rash, which had become fainter, was present, together with a slight puffiness around the eyes, she seemed to be very little the worse for her experience. Next evening she was up and felt well, though somewhat weak, and the subsequent day she went about her work as usual. The rash disappeared finally in about 30 hours.

This case I consider is interesting on account of the rapid onset of the attack, and the quick appearance of the rash, together with the severe symptoms after such a moderate dose of antipyrin.

EDWIN WEBSTER, L.R.C.P.Lond., M.R.C.S.Eng.

Brighton.

### BISMUTH SULPHOCARBOLATE AND BISMUTH OXYBROMIDE.

I HAVE prepared and used in a considerable number of cases the sulphocarbolate and the oxybromide of bismuth, and, as I have found them to have special advantages in certain cases over other compounds of bismuth, I think it worth while to direct the attention of the profession to them, and shall be pleased to arrange for the supply of samples of them to any medical practitioner who wishes to try them, if he writes to me to that effect.

Bismuth oxybromide is an impalpable, very faintly yellow powder, which forms a very satisfactory emulsion with tragacanth mucilage, and has advantages over other bismuth compounds for administration in mixtures. I have found it very serviceable in cases of dyspepsia associated with nervous derangements, in hysterical conditions combined with gastric pain and vomiting, and so on.

Bismuth sulphocarbolate is a purple-red powder, and I have used it very successfully in cases of fever with foul-coated tongue and smelling breath. It is excellently suited for cases of irritative dyspepsia, with fermentative changes in the food deranging digestion. I would recommend it strongly for trial in typhoid fever, and generally as an intestinal disinfectant.

Highgate, N. HUGH WOODS, M.D.

IN the penultimate round of the Hospitals Rugby Union Cup the ties are Guy's *v.* St. Bartholomew's, St. Mary's *v.* St. Thomas's.

# REPORTS
ON
## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

### LEEDS HOSPITAL FOR WOMEN AND CHILDREN.

CASE OF HYDROCELE OF CANAL OF NUCK.

(Under the care of Dr. Hellier.)

This case is a well-marked example of a somewhat rare condition. The diagnosis was established by operation, and there are points of special interest in the conditions present.

F. W., aged 26, unmarried, a dressmaker, was admitted on December 31st, 1896, complaining of a swelling in the right groin. This had been growing for seven years, and could be traced to no known cause. Lately it had been causing some uneasiness and pain after exertion. In other respects the patient's health was very good. On examination, a tumour was found in the right groin, having the size of a hen's egg, and being somewhat pear-shaped. It looked very much like an inguinal hernia. It was above Poupart's ligament: it reached the mons veneris but did not extend into the labium majus. It was obviously cystic, dull on percussion, and it could not be reduced by pressure, nor was it tender when handled. On coughing there was some impulse felt in the swelling, but this seemed to be not a distensile impulse but a transmitted one, but over the region of the internal abdominal ring there seemed to be some degree of typical hernial impulse.

On January 2nd, 1897, the patient was anæsthetised with ether by the hospital anæsthetist, Dr. Wear. The cyst was cut down upon and cautiously opened. A considerable quantity of greenish-yellow, serous fluid escaped. Then a cystic body presented inside the larger cyst, and for a moment suggested the presence of bowel; but it was immediately seen that this was a smaller cyst having a slender attachment within the other, which gave way as it was drawn out. It contained fluid similar to that which surrounded it, and, on being subsequently inflated, was found to be as large as a small plum. The larger cyst was then clearly seen to be a distension of the sheath of the round ligament, but did not communicate with the abdominal cavity; the round ligament lay in its lower wall. This cyst was dissected out. The pedicle which the sheath and ligament formed towards the internal abdominal ring was ligatured and divided. The aperture in the aponeurosis was carefully sutured separately and the wound closed with chromic gut. There was a slight bulging opposite the internal ring where the wall was weak. The wound healed by first intention.

Remarks by Dr. Hellier.—Hydroceles of the round ligament may sometimes communicate with the abdomen and be reducible. Sometimes they are caused by cystic distension of the round ligament itself, which is said to be hollow originally. This case was of a different kind. The secondary cyst was of uncertain origin, but was perhaps analogous to the serous cysts not infrequently seen in the peritoneum. A good account of hydrocele of the round ligament is given by Schroeder in the *Handbuch der Krankheiten der weiblichen Geschlechtsorgane*, Auflage ix, S. 535, and by Bandl,[1] but I can find no note of a second cyst being found within the hydrocele.

[1] Translated in *Cyclop. of Obstet. and Gynæcology*, Ed. by Grandin, vol. xii.

Brighton, Hove, and Sussex Throat and Ear Hospital.—At the annual meeting of this institution held January 30th at the Royal Pavilion, Brighton, Colonel Gervaise Boxall in the chair, it was announced that the new building which is to accommodate from 16 to 20 in-patients was in course of erection on a site close to the Queen's Road. The first section of the building, containing accommodation for the above number of patients, is to cost £4,250, towards which about £2,000 are still needed. The report shows that during the past year there were 115 in-patients, and 1,195 out-patients, with 6,526 attendances.

# REPORTS OF SOCIETIES.

## PATHOLOGICAL SOCIETY OF LONDON.

Henry Trentham Butlin, D.C.L., F.R.C.S., President, in the Chair.

*Tuesday, February 16th, 1897.*

### The Plurality of Ringworm Fungi.

Drs. Colcott Fox and Blaxall gave a demonstration of the plurality of fungi causing the lesions known by the clinical term "ringworm." Microscopical specimens and over forty lantern slides were exhibited. They had examined over four hundred cases, clinically and culturally, macroscopically and microscopically. Their results in the main confirmed the brilliant work of Sabouraud in Paris, but they differed from him in many details and a few important points. They discussed four groups of fungi, namely, microsporon Audouini, endothrix, ectothrix (the two latter were associated by Sabouraud as divisions of trichophyta), and, lastly, some rare forms of fungi giving rise to ringworm-like lesions, but yielding faviform cultures. The microsporon caused about 90 per cent. of scalp ringworms in London, and was sometimes associated with some macules on the face, neck, etc. It only occasionally formed circinations on the glabrous skin, and did not affect the beard or the nails. It was confined to the human being, though one had been isolated in France from the horse, which was communicable to man. The well-known uniform clinical macroscopical appearances were then described. Microscopically it was characterised by a closely adherent external sheath of small spores, set in mosaic, extending some distance beyond the mouth of the follicle, and by an infiltration of the hair shaft with mycelium mostly with scanty septa, and ending above the bulb in a striking fringe. Sabouraud regarded the external spores as ectospores, each terminating a lateral branch of the internal mycelia. The authors failed to confirm this complete development cycle in the hair. The macroscopical appearances of the cultures were demonstrated and shown to be distinctive. The true fructification was then described, as obtained by the authors from klatsch specimens of the aërial portion of the cultures. The authors objected to the hanging-drop method for moulds, and in demonstrating the curious appearances seen in the submerged portion of cultures they offered objections to these being regarded as the true fructification. They found the fructification to be on the same plan in microsporon as in endothrix and ectothrix, and they therefore did not place this fungus in a different botanical family. Chlamydospores were commonly seen in microsporon cultures. The endothrix fungi were so called from the fact that they were confined exclusively to the inside of the fully infected hair. The fungus was strikingly larger than microsporon, and occurred almost entirely in chains of mycelial spores. Microscopically they gave rise to two sets of appearances in the scalp. In one division an appearance superficially resembling a form of alopecia areata was produced (*la tondante peladoïde*). In another circinations left patches or little collections of a few stumps. In both divisions the hair tended to break off very short or in the follicle, and the stumps were dark and swollen. This should always attract attention. One learnt to recognise these clinical appearances. *La tondante peladoïde* was so far unknown in London, the other constituting only about 4 per cent. of scalp cases. Both were very common in Paris, but rare in the French provinces. Circinations on the glabrous skin were somewhat more common than in microsporon. It did not cause beard or nail lesions. It was believed to be exclusively human. The striking cultures, aptly termed crateriform by Sabouraud, were then demonstrated, and the fructification shown to be practically similar to that of microsporon. The ectothrix fungi were a still less homogeneous group, for they included pyogenic fungi producing markedly inflammatory and pustular lesions both on the scalp, beard, and glabrous skin, as well as others causing less degrees of inflammation and even simple, dry circinations of the glabrous skin: the latter were not uncommonly due to the fungi of this group. They caused all beard and nail affections (the latter very rare in London). All, at any rate those affecting adults, were believed by Sabouraud to be of animal

origin, a view the authors were in great measure able to confirm. Microscopically, the hairs were enveloped in the intrafollicular portion in a sheath of mycelial spores. Mycelia tended to grow out into the follicular epithelial contents. The hair always, the authors believed, was liable to be invaded by mycelial threads, and was sometimes packed. Thus the plan of microsporon might be simulated, but the chain formation, as in endothrix, was the rule, and was almost always evident. The great diversity of the microscopical appearances was demonstrated. This was due to the stage of infection of the hair, and to the fact that the size of the fungus varied greatly with the species. Sometimes it was very small, generally obviously larger than microsporon, sometimes very large. The cultures were then demonstrated and their peculiarities pointed out, and finally the fructification shown to be practically on the same plan as in the preceding groups. A remarkable series of fungi traced to the cat were also explained, which probably belonged to this group, but were somewhat difficult to distinguish from microsporon. These were so far peculiar to London. Fungi giving rise to faviform cultures but clinically to ringworm-like lesions were then considered. To Sabouraud's list of three species the authors added another obtained from dogs on two occasions. They had also isolated one from a circinate lesion of the glabrous skin in a child. The authors terminated their exposition by some remarks on the necessity of obtaining purity of cultures and the way to obtain this; on the doctrines of commensalism and pleomorphism; on the importance of cultivating these fungi under precisely similar conditions; and on the necessity of everyone working with an identical medium that results might be advantageously compared.

### HISTOLOGICAL CHARACTERS OF TESTICLE REMOVED IN THE RADICAL CURE OF HERNIA.

Mr. S. G. SHATTOCK described the minute appearance of the testicles removed in a case of spurious hermaphroditism during the radical cure for double inguinal hernia. The individual, aged 42, was well developed and masculine in character, and presented the usual genital conformation resulting from extreme hypospadias with cleft scrotum. The sexual glands lay within the inguinal canals and were undersized. One striking histological change was extreme thickening of the "basement membrane" around all the tubuli; there were no spermatozoa or spermatoblasts within the latter. The most interesting feature, however, was the highly pronounced groups of "interstitial cells" in the stroma. These were perfectly normal in type, and recalled the appearance presented by the adrenal cortex. It was the high development of these cells that led him to record the specimen. He had found that these cell-islets were absent in the infant, and they were generally known to be absent in the fœtus. Professor Klein had viewed them as arising from the Wolffian body (similar cells were present in the ovary); that might or might not be their source, but what the author insisted upon was that they could not be regarded as mere slumbering residues of an obsolete histological structure. Their absence in the child seemed to indicate that they were connected with the attainment of virile characters. In cryptorchids, as Mr. Joseph Griffiths had shown, though all the characters of virility developed, the testicles were spermless. How far might the former be due to the function of such islets? These cell groups bore a comparison with those of the pancreas, so fully investigated in the lower animals by Dr. Vincent Harris and Dr. Gow, and for which Professor Schäfer had suggested the function of producing the internal secretion. It was precisely upon this question of an internal secretion, however, that evidence was highly desirable, and here exact clinical observation could aid pathological inquiry. One result of double castration in the adult was obesity; but did others ensue? In certain cases marked mental alteration had been observed after castration of adults. How far were any such changes constant? It would be unsafe to argue from the results of castration in childhood to the adult; it was in regard to the latter that information was needed; the condition of eunuchs, or persons castrated in childhood, was well known from ancient history and modern observation. The obesity arising in castrated adults was comparable to that which ensued in the later stages of myxœdema where the overgrowth of subcutaneous connective tissue was usually ascribed to a change in metabolism brought about by the want of thyroid secretion. Did the mental symptoms bear any similar comparison? For the determination of these points no experiments could be better devised than the operations adopted for enlargement of the prostate, the only objection, perhaps, lying in the age of those subjected to operation. A fair number of such cases had already been treated by double castration; but this method was giving place to partial excision or division of the vas deferens. In the latter case the proper sperm-producing function of the testicle was put an end to, but the nutrition of the "interstitial cells" was not interfered with. Did different general results ensue in the two sets of cases? In conclusion, the speaker pointed out that if these questions came to be answered in the affirmative, the obvious indications given to practical surgery would be the inadvisability of removing both undescended testicles in double inguinal hernia, and of complete bilateral castration for tuberculosis of the epididymis when the disease was limited to the latter; some surgeons already were in the habit of leaving the body of the gland, though he thought that the frequency of tuberculous infection of this in cases of tuberculosis of the epididymis was in some quarters underestimated: and lastly, if experience showed "didymine" to be of any service, it should be prepared only from the glands of adult animals.

Mr. STANLEY BOYD observed that the effects of double castration in the adult were variable and inconstant. He cited the case of a man of fine physique from whom he removed the testicles for tuberculosis, one some while after the other. The removal of the first was followed by little result, but after the removal of the second the patient became mentally childish and wept without being able to explain why, or to control himself; these mental symptoms in time wore off. In a second case, that of an older man, on whom the speaker had performed double castration, the change observed was obesity. The results of double oöphorectomy in the treatment of carcinoma of the breast he thought very noteworthy, and as pointing to the formation of some internal secretion by the ovary, the absence of which retarded the growth of carcinoma. He knew of two such cases from personal observation. The change in the tumour could not be ascribed to the cessation of menstruation, as such growths often commenced after the menopause, or continued to increase after it. The facts known in regard to the thyroid secretion indicated how results that at first appeared most unlikely might nevertheless be true.

### CONGENITAL CYST OF THE MEDIASTINUM.

Dr. H. MORLEY FLETCHER exhibited a congenital cyst removed after death from the mediastinum of a child, admitted with cough and vomiting, cyanosis and dyspnœa. The cyst was about the size of a bantam's egg; it was loosely connected with the right bronchus, more firmly with the œsophagus; it contained a glairy milky fluid; the lining was ciliated columnar epithelium, and beneath the corium was a double layer of unstriped muscle fibre, circular and longitudinal. No cartilage was present in the cyst wall. It was obviously of congenital origin. He had found a record of three "peri-œsophageal cysts" connected with the back of the œsophagus by Lannelongue. It was evidently not due to traction, and, though it might have arisen in an accessory bronchus, the author inclined to connect it with the œsophagus.

Mr. W. G. SPENCER agreed in the latter view, the œsophagus in the embryo being lined with columnar ciliated epithelium.

### HYPERTROPHY OF THE LUNG.

Dr. F. J. WETHERED showed the lungs of a woman, aged 51, who had been in the Middlesex Hospital under the care of Sir Richard Douglas Powell. There was no history of any illness until five years before coming under observation, when she had an attack of bronchitis followed by pneumonia. About the middle of November, 1896, a cough developed, accompanied by much dyspnœa. On admission the physical signs were those of bronchitis. At the *post-mortem* examination, on attempting to remove the lungs, the base of the right was found firmly adherent to the diaphragm and side of the chest wall. Considerable

difficulty was experienced in removing the organ, and the right lower lobe was injured in the process. The upper lobe of the right lung was found to be greatly hypertrophied, being equal in size to about three-quarters of the whole of a normal lung. The edges were rounded and thick; the lung substance was firmer and more resilient than normal, and it was evidently a case of true hypertrophy of lung compensatory to the condition of the lower and middle lobes. The lower part of the lung showed a very interesting condition. On superficial examination the middle and lower lobes appeared to be mere appendages to the upper lobe, and owing to the thinness of the lung in one part, it was difficult to say which was lung substance and which was pleura. In the fresh specimen the lower lobe was bright red in colour and slightly aërated, a small piece cut off floating in water. The middle and lower lobes together measured about 4 inches by 3. These two lobes were entirely devoid of pigment, indicating that the collapse had been of long standing, and if not congenital that it had occurred in very early life. The bronchi and vessels had been dissected out, so that the lobes could be identified and the middle and lower lobes duly demonstrated. The middle lobe was extremely small. No obstruction in the bronchi could anywhere be found. There was no fluid in the pleural sac, and no evidence of external pressure in the bronchus. The left lung was emphysematous, and altogether larger than normal, there being an increase of true lung tissue. He was inclined to think that the condition of the middle and lower lobes was the result of a pneumonia in early childhood, basing the supposition on the size of the lobes, the strong adhesions to the diaphragm and wall of the chest, the absence of any indications of obstruction to the bronchi, and the entire absence of pigment.

Mr. J. H. Targett remarked that the impaction of a foreign body would not explain the collapse, as the collapsed or solidified portion would have been pigmented like the rest of the lung.

### Pulmonary Thrombosis in Congenital Disease of the Pulmonary Valve.

Dr. Lee Dickinson described this condition, which occurred in a child about 4 years of age. To the diseased segments of the stenosed valve polypoid vegetations adhered, and to these the thrombus, which was in part infective. He considered that thrombosis occurring in such circumstances was a rare event.

### Card Specimen.

Mr. J. Poland: Columnar-celled Chondro-carcinoma of the Testis.

## CLINICAL SOCIETY OF LONDON.

Thomas Buzzard, M.D., F.R.C.P., President, in the Chair.

*Friday, February 12th, 1897.*

### Gastro-Enterostomy.

Mr. Ernest Lane read notes of two cases, in each of which there was carcinoma of the pylorus. (1) A woman, aged 55, admitted into hospital in November, 1894, with all the symptoms of pyloric obstruction. The stomach was united to the commencement of the jejunum by means of Murphy's button, and perfect recovery ensued, the patient being alive and perfectly well at the present date, and showing no signs of further progress of the disease. The button was still retained in the intestine. (2) A man, aged 42, in a state of extreme emaciation from pyloric cancer. Gastro-enterostomy was performed with Murphy's button, and the patient's condition was temporarily greatly improved thereby. Nineteen days from the date of operation he developed symptoms of intestinal obstruction, to which he succumbed. The cause of death was found to be volvulus of the sigmoid flexure, but the stomach and jejunum were firmly united, and there was no leakage at the seat of the anastomosis; the button was still in position. Mr. Lane advocated gastro-enterostomy as a palliative measure in cases where the condition of the patient rendered pylorectomy impracticable.

Mr. Bidwell had seen cases in which operation had been followed by vomiting, due, as he thought, to closure of the aperture of the button by the opposite wall of the jejunum. He now attached the jejunum to the posterior wall of the stomach, and had found the distension of that organ rapidly subside. He did not think leakage was so apt to occur when sutures were employed as when Murphy's button was used; and when the operation was done by Halstead's method with sutures, it occupied about the same time as when performed with Murphy's button.

Mr. Barker did not think the vomiting after the operation was due to the pressure of Murphy's button, but to reflux of the intestinal contents into the stomach, owing to the paretic condition of the intestinal walls caused by the manipulation, for it occurred after the operation, whatever procedure was employed. He had known it cease when the patient was placed in the vertical, or rather semi-recumbent, posture. He thought the operation could be done as well with sutures as with Murphy's button or any other mechanical contrivance.

Mr. Lane, in reply, agreed with Mr. Barker as to the probable cause of the vomiting, which he had checked by washing out the stomach. He had used Murphy's button in five cases, without any leakage. In two instances the patient sank from exhaustion, and the line of union was found *post mortem* to be quite water tight.

### Sequel of Cases of Excision of Malignant Growth from the Large Intestine.

Mr. Walter Edmunds contributed this paper. The cases were read before the Clinical Society, in October, 1893. In the first a malignant growth in the cæcum was excised by excising the cæcum. An artificial anus was established. The patient remained in good health several years, dying of another cause five years and ten months after operation. There was no recurrence. The large intestine was greatly atrophied and contracted from disease, its diameter being about 1 cm. The second case, one of excision of a malignant growth in the sigmoid flexure, with re-establishment of the continuity of the bowel, survived the operation three years and three months; the cause of death was probably a recurrence in the lungs.

### Voracious Hunger and Thirst after Injury or Disease of the Brain.

Mr. Stephen Paget read this paper. He had collected notes of 14 cases pointing to the existence of special centres of hunger and thirst close to the centres of speech, probably in the anterior extremity of the temporo-sphenoidal lobe, near the uncinate gyrus. A short account was given of each case, including one in his own practice. Four of the patients had received a severe blow on the forehead; 2 had been struck on the side of the head, 2 had fallen heavily on the back of the head, 2 had presented signs of a fracture of the base, and 1 had fallen from a height, coming down in a sitting posture. In addition to these 11 cases of injury, there were 3 cases of disease: 1 had abscess of the left temporo-sphenoidal lobe, 1 had a suppurating cyst in the right temporo-sphenoidal lobe, and 1 had embolism of the left side of the brain. Eight of the 14 patients suffered from voracious appetite for solid food, without much thirst; 3 suffered both thirst and hunger; 3 had intense thirst without hunger. In none of them was the primary injury or disease fatal; it was, therefore, certain that the centres of hunger and thirst were not situated in the immediate neighbourhood of the vital centres. Three of them had well-marked aphasia; it was, therefore, probable that these centres lay close to the centres of speech, and not improbable that they were connected with the olfactory centre. This hunger and thirst was not the natural appetite of convalescent patients, nor the result of any general mental derangement, nor was it secondary to traumatic diabetes. With regard to treatment, no harm had come in any case from letting the patient freely indulge his craving for food and drink. The voracious desire lasted, as a rule, for many weeks or months, and then came to an end of itself.

Mr. F. C. Wallis recalled the case of a boy with temporo-sphenoidal abscess, which was tapped, and he afterwards had a voracious appetite. He would steal other patients' crusts, and howl if his own plate was removed. He did not increase in weight, however, and had no thirst. He died, and the whole of the temporo-sphenoidal lobe was found to be an abscess cavity, in which there could be no centres still existing.

Dr. W. S. Colman thought the symptoms rather pointed to shock of the whole brain than to irritation of special centres of hunger and thirst, of the existence of which he failed to see any evidence. Voracity was a common symptom after an an epileptic fit, though it generally soon passed off. These cases were on a par with the cases of loss of memory, lasting a short time after a fit, and for a longer time after severe injury.

Dr. Kingston Fowler mentioned the case of a boy in Middlesex Hospital with non-purulent discharge from the right ear, cerebral vomiting, deafness, and double optic neuritis, who was constantly yawning, and had an enormous appetite, eating three breakfasts, and other meals in proportion. He probably had a quiescent abscess of the temporo-sphenoidal lobe, though there was no certain diagnostic symptom of it.

Mr. T. Smith considered these cases less rare than had been supposed. In addition to his two cases mentioned by the author, he had seen others. One occurred years ago at St. Bartholomew's Hospital, the case being one in which he had opened an abscess in the temporo-sphenoidal lobe. The patient afterwards had a great appetite, and seemed consequently to be doing well, but although he continued to consume his food he died. He thought the paper furnished ground for supposing the existence of a centre for hunger and another for thirst. The cases showed the stimulus of a function, not its absence. The patients apparently possessed an ability to dispose of the food taken, for in spite of eating ten times as much as usual, they yet had no dyspepsia nor other abdominal discomfort.

Mr. Kesteven suggested that shock might act in the way of causing inhibition of the normal sensation of satiety after food.

The President could not call to mind such striking examples of hunger and thirst in cases of disease of the brain as the author had described. Physicians were prone not to see what they did not look for. Now they would look for these cases, and probably find them. He thought there was ground for locating the "hunger and thirst" centre in the temporo-sphenoidal lobe. He supposed it would be through the vagus nerve and its cerebral roots that the phenomenon would be produced, and those roots might be in the temporo-sphenoidal lobe; their exact site was, at any rate, unknown. He had found cases of ravenous hunger supervening directly after the gastric crises of Charcot's disease.

Mr. Paget, in reply, said the discussion had produced three other cases of voracious appetite, in each of which there was abscess of the temporo-sphenoidal lobe. Although in his paper the blows were received on various parts of the head, there was evidence that the portion of brain chiefly injured was the temporo-sphenoidal lobe. Some of the cases, too, had aphasia, which pointed to local injury rather than to general shaking-up of the brain. He had seen it stated that one olfactory centre was located at the front of the temporo-sphenoidal lobe.

Enteric Fever without the usual Intestinal Lesions.

Dr. E. W. Goodall contributed two cases of enteric fever in which necropsy showed the absence of the usual intestinal lesions. The first was that of a boy, aged 13, admitted into the Eastern Fever Hospital in July, 1894. He died twenty-one days after admission, on the thirty-fourth day of the disease. The chief symptoms were continued pyrexia, a soft and frequent pulse, moderate diarrhœa and abdominal distension, bronchitis, restlessness and delirium, and towards the end muscular tremor, prostration, and coma. Spots were not observed till late in the disease. *Post mortem* there was slight erosion of Peyer's patches, which were slate coloured, but no definite ulceration. The spleen was not enlarged; one parotid gland was suppurating. The second case occurred in 1888, and the account was taken from the hospital records. The patient, a man aged 30, died four days after admission, on the fifteenth day of his illness. During life there had been numerous rose spots, continuous pyrexia, delirium, and finally coma. At the necropsy the Peyer's patches were much swollen, but not ulcerated. The spleen was enlarged and pulpy. Fagge, Goodhart, Moore, Chantemesse, and S. Phillips had related similar instances. If a patient died either very early in an attack of enteric fever, or late during convalescence, intestinal lesions might be absent; in the one case not having taken place, in the other having healed. But it was uncommon not to find such lesions in cases fatal at an intermediate stage; in fact the first of the two cases related was the only one of such a kind out of 63 necropsies at the Eastern Hospital, though in 4 others, fatal early or late, no intestinal ulcers were present. It was stated by Murchison, and had been generally accepted, that severity of symptoms was not always in proportion to extent of ulceration; and that but one or two Peyer's patches or only a few follicles in the large intestine might be affected in cases that were fatal. *A priori* therefore, cases such as those brought forward might be expected to occur occasionally. Doubtless in many mild cases of enteric fever there was no intestinal ulceration. An analogy was to be found in scarlet fever, where the lesion, the faucial ulceration, was under observation. There were the mild cases without ulceration, the rapidly fatal malignant cases, also without ulceration, and cases fatal after three or four weeks, also wanting the faucia lesion.

Dr. Sidney Phillips had related two cases of the kind in 1891. Recently he had seen a man in whose stools typhoid bacilli were found, but in whom after death only one very small ulcer of the intestine could be discovered. Two other cases had also been reported in Dublin. As such cases were likely to be less fatal from hæmorrhage, etc., than those with ulceration, it was certain that cases of typhoid fever without ulceration must be fairly common. He thought there had been a change of type in typhoid fever; diarrhœa used to be one of the chief symptoms, now constipation was often found. The eruption, too, was now less pronounced than formerly, indeed it was often absent. There was now much tendency to relapses. He could not agree that such cases were very mild or very malignant. How was it possible to prove there was no ulceration in the many cases which recovered? The cases he had seen were those which had been going on for a long while and had had toxic symptoms. Dr. Barrs had recently advocated the feeding of cases of typhoid fever with solid food; he (the speaker) wished to protest against such a practice, which he considered apt to lead to perforation of the bowels and death.

Dr. L. Benham referred to two cases of typhoid fever in a husband and wife; one died of pneumonia, and no ulceration was found. Sir Russell Reynolds used to teach that rose spots were indicative of intestinal ulceration, and might be met with in tuberculous ulceration of the bowel. His own patient, however, had rose spots but no ulceration.

Dr. Goodall, in reply, said that enteric fever varied from year to year, and from one part of the century to another. He still thought these cases without ulceration rare. He had a hypothesis that the mild cases had no ulceration, and might be well in a fortnight; but it was impossible to prove, as they nearly all perhaps recovered. Malignant cases died within a week, and there was no time for the ulceration to occur. In cases with relapse the original ulcers, possibly of mild typhoid, might have healed and the new ones of malignant typhoid not yet formed. The rose spots bore no relationship to the amount of ulceration in the intestines.

## EDINBURGH OBSTETRICAL SOCIETY.

*Wednesday, February 10th, 1897.*

A. H. Freeland Barbour, M.D., Vice-President, in the Chair.

Specimens, etc.

Dr. Milne Murray showed a new modification of the Axis-traction Forceps consisting in adjustable and movable traction rods, thus saving the risk of the screws giving way.—Dr. R. C. Buist (Dundee) showed a Velamentous Placenta from a primipara. The placenta was bilobed, and the large vessels of the cord ran in the velamentous part in three different groups. There was no bleeding.—Dr. J. W. Ballantyne showed an Anencephalic Fœtus (a seventh pregnancy) and a Congenital Fibroma of the Scalp of a newborn infant.

Pressure in the Pregnant Uterus.

Dr. R. Milne Murray read a paper on the question, Is there a positive pressure in the pregnant uterus? He dealt mainly with two points: (1) the grounds on which he believed that there was a certain intrauterine tension during preg-

nancy; (2) why he considered the evidence to the contrary, as derived from the study of frozen sections, to be misleading and fallacious. The pregnant uterus was a sac, enclosed within a distensible capsule or shell, composed of the abdominal walls, diaphragm, pelvic floor, and the contents of abdomen and pelvis. The uterus was fixed to the floor and expanded upwards. At the beginning of pregnancy the intra-abdominal pressure was neutral, and when growth began the viscera were pushed aside or lifted up, thus leading to the gradual increase of intra-abdominal pressure. There followed an increase in the area of the abdominal walls, by a process of physiological growth. Reasons were given to prove that the abdominal walls bulged under tension by increased pressure behind them. Among these reasons were the growing thinness of the abdominal walls, the striæ gravidarum, the distress caused by flatulence, the shallowness of respiration, and the pelvic floor projection. The intra-abdominal pressure then was a gradually increasing quantity. The growth of the abdominal walls was not proportional to the growth of the uterus, therefore the pressure was to that extent increased. Then there had to be kept in mind the pressure, varying in amount and duration, due to changes in the bulk of the various organs—the bladder, rectum, stomach, etc. Next the physical conditions of the growing pregnant uterus were considered. The weight of the intestines lay on it. Before pregnancy the uterine cavity was a potential one. Later it contained a closed membranous sac. But the walls were not flaccid. If the cavity of the abdomen were opened and the uterine walls grew in area at a rate greater than the development of its contents in bulk, the condition of a flaccid sac devoid of positive internal pressure would be attained, but under no other circumstances could such a condition be conceived. For, assuming that the walls of the uterus increased at a rate greater than the bulk of the ovum, this increase would mean an increase of intra-abdominal pressure which would keep them in absolute contact everywhere that their contents did not separate them, and any further separation could only be effected by a pressure on the part of the ovum greater than that of the extrauterine region. Obviously, then, a positive pressure existed in the sac of the ovum, otherwise the growth of the sac against the abdominal pressure would be a physical impossibility. Till quite recently no one threw doubt on this. But it was now asserted that when the pregnant uterus was removed from the body its walls were loose, lax, and flabby. True, but the uterus was then dead, its walls had lost their vital tone, and, like any other dead muscle, was relaxed and lengthened. A living voluntary muscle if cut across separated; not so a dead muscle. The living uterus might be tense, and the dead flaccid. Such evidence was of no value. But this positive pressure was disputed mostly on the basis of evidence gathered from a study of frozen sections. Here again one had to object; a flaccid condition of the uterine sac might well be put down to *post-mortem* relaxation. Sectional anatomy was of enormous importance, but it had its limitations. The mere act of freezing meant a great disturbance, and the uterus might very well be found to be flaccid and collapsed. Evidence from such source was evidently fallacious in a high degree. When one came to ask, Was there any direct evidence that the growing uterine wall was drawn tight over its contents, so to speak, or in other words that there was a positive intrauterine pressure, one might point to the following: (1) The Porro uterus; (2) retraction in, for example, puncture of membranes; and (3) tension of anterior uterine segment and tilting of the os. Lastly, in an ovarian tumour there was obviously a positive pressure, for a puncture demonstrated that its contents were in a state of tension; yet its walls grew, though not at the same rate as the secretion of the fluid. Hence the author held (1) that the displacement of the viscera which occurred during the process of pregnancy could be accomplished only by a positive pressure inside the uterus—that is, the intrauterine abdominal pressure must be greater than the extrauterine abdominal pressure, the amount of the difference might be exceedingly small; and (2) any evidence to the contrary derived from the study of the *post-mortem* uterus or from frozen sections was fallacious, because allowance must be made for the *post-mortem* loss of tone in the tissues, and for the physical phenomena of fluid interchange during the process of freezing.

The discussion that followed was essentially a duel between the exponents of frozen sections and those who placed less reliance on that mode of inquiry and its accruing results. All admitted that Dr. Milne Murray had amply proved his thesis, though some objected to one or two links in the argument. The speakers were Drs. Barbour, Buist, J. W. Ballantyne, Haultain, Armour, Haig Ferguson, Fordyce, and McPhie; and Dr. Milne Murray replied.

## ULSTER MEDICAL SOCIETY.

Professor Symington, M.D., President, in the Chair.

*Thursday, February 4th, 1897.*

### Birth Palsy.

Dr. D. McDonnell read a paper on birth palsy, which he defined as paralysis caused by events taking place during or prior to delivery. The proximate cause was usually cerebral hæmorrhage, and the chief predisposing causes were: (1) The delicate structure of the blood vessels in the infantile brain; (2) hypervenous conditions of the blood; and (3) diseases of the vascular walls, especially syphilis. The principal exciting causes were trauma of the mother during gestation, and prolonged or difficult labour. The symptoms were arrested mental development, various forms of paralysis (hemiplegia, paraplegia, diplegia spastica, etc.), and morbid movements such as choreiform, athetoid, associated, and polymyoclonic. The diagnosis, prognosis, and treatment of the affection were considered.

### The Diagnosis of Scarlatina.

Dr. Lindsay read a paper on Helps to Diagnosis in Obscure Cases of Scarlatina. Among the symptoms most to be relied on he mentioned: (*a*) Initial vomiting, which had been very constant in his experience in children under 10, while it was, on the whole, rare in the diseases likely to be mistaken for scarlatina, such as measles, German measles, and diphtheria. He thought it was a good clinical rule to suspect scarlatina where there was a sudden attack of vomiting with sharp rise of temperature occurring without obvious cause in a young child. Vomiting was less constant in adolescents and adults. (*b*) Undue frequency of pulse out of proportion to the other symptoms. A pulse of 140 or 150 was common in scarlatina, and did not necessarily indicate danger. (*c*) The rash—this was usually scarlet and punctate, beginning on the upper part of the chest, over the clavicles, and about the flexures of the neck. It was often particularly well marked on the backs of the wrists. The face was flushed, and the "circumoral ring" of pallor was usually well marked, but the true scarlatinal rash was certainly very rarely present there. This was a point of great importance, as the rash of measles and German measles usually began, and was particularly marked, upon the face. Great variations of the rash of scarlatina might occasionally be met with. It was sometimes dark coloured and macular, and might even be distinctly papular. Under these circumstances the distinction from measles might be difficult, but the coryza and prodromal fever of measles would usually suffice for a differential diagnosis. Desquamation was the almost universal rule in scarlatina but might be absent. He had recently treated two cases in the same room, one of which desquamated and the other did not. Some strange variations from type might sometimes be seen in scarlatina. Thus the disease might be non-febrile throughout, sore throat might be entirely absent, and there might be no perceptible rash. Under these circumstances the diagnosis of scarlatina might be extremely difficult, or even impossible. It was difficult to prove a negative in the case of scarlatina. The disease most often confused with scarlatina was German measles, and so difficult was, in some cases, the distinction that some good authorities still doubted the independent existence of the latter disease. He was in the habit of relying upon the following points to discriminate the two affections: In scarlatina there was usually initial vomiting, which was absent in German measles. In scarlatina the appearance of the rash was preceded by a brief, but usually well marked, prodromal stage, characterised by vomiting, chills, headache, and sore throat. In German measles the rash was often the first symptom. The rash was always present on the face in German measles, very rarely in scarlatina. In scarlatina the constitutional symptoms were usually fairly well marked, even in mild cases, whereas in German measles it was common for patients to protest that they were perfectly

well. The sore throat often went on to ulceration in scarlatina, very rarely (if ever) in German measles. The enlargement of the post-cervical glands was very characteristic of German measles, while it was rare in scarlatina. Attention to these points would often suffice for a diagnosis, but there was a residue of cases in which the distinction between the two affections was practically impossible.

A discussion took place upon the paper, in which the following members took part: Dr. Darling, Dr. Lynass, Dr. Bigger, Dr. Mitchell, Dr. Rusk, Dr. Colville, and Dr. Fullerton.

Inguinal Hernia.

Dr. Mitchell showed the specimens of a case of inguinal hernia after operation in which the gut was gangrenous, and Murphy's button was shown *in situ*. He made some remarks on the ruinous consequences of delaying operation in these cases, and on the excellent results which were obtained when operation was promptly undertaken.

## LIVERPOOL MEDICAL INSTITUTION.

Richard Caton, M.D., F.R.C.P., President, in the Chair.

*Thursday, February 11th, 1897.*

Operation versus Glasses for Squint.

Mr. Richard Williams read a note on the importance of treating squint by operation. He pointed out that the routine practice with oculists was to give glasses in cases of squint, his practice was to correct any errors of refraction with glasses in squint cases, but he drew a marked distinction between giving glasses for errors in refraction and giving glasses for squint. He never ordered glasses for the squint itself, but always operated. As a defence of this practice he said there were many cases of squint in which no errors of refraction could be found. To give glasses in these cases was, he considered, useless. He further said that the annoyance of having to wear glasses was greater than the annoyance of a simple operation, which was sure to be successful.

Mr. Shears said that in young children with convergent squint, where one eye was markedly defective in vision and in fixation, the majority of surgeons were possibly overcautious in refusing to operate under the age of 6 years for fear of divergence resulting. When, however, the squint was alternating and the vision good in each eye he would hesitate to operate, even though the hypermetropia was very small in amount. The immediate operation would avoid the many inconveniences of spectacles, but he had sufficient faith in Donders's theory of squint to try first the effect of glasses.

Mr. Edgar Browne objected strongly to the treatment by glasses being opposed by operation. No opposition existed, as both methods were indispensable. To treat all cases by operation was to deprive us of all the advance of the past few years. Operation had for its chief aim the rectification of the malposition of the eyes, but the malposition was not the essential element in squint, but a symptom of something deeper. Squint was primarily an attempt on the part of the nervous system to compensate for a structural or functional defect in the peripheral sense organ. Clearly the rational treatment of such a condition involved the close study of the optical conditions and the re-education of the motor centres. Cases of concomitant squint presented three stages: (1) The periodic, (2) a period when one eye was definitely selected for fixing, and squint apparent but not necessarily permanent; (3) when the squint had become the position of rest. Cases in the first stage must not be operated on. In the second stage operation might be performed, but many would not need it if sufficient care in the treatment could be exercised. In the third all cases must be operated on.

Litholapaxy in Children.

Mr. R. W. Murray related 5 cases of litholapaxy, the ages of the patients ranging from 2 years and 10 months to 12 years. The results had been extremely satisfactory, and he warmly advocated a crushing rather than a cutting operation for stone in children.

Mr. Rawdon said that his experience of litholapaxy in children was limited to 2 cases, both little girls, aged 5 and 8 respectively; both cases were highly successful. He had more experience in lateral lithotomy in children, and had performed the operation 67 times, with 2 deaths. He felt, however, that in a few years the operation recommended by Mr. Murray would come to be regarded as the best general operation for stone in children.

Mr. Larkin had for some years considered that litholapaxy was the method of removing stone from the bladder, and only exceptional circumstances could justify any other operation. It was not a difficult operation when the stone was of the size usually met with in this country and the parts fairly normal.

Tubo-ovarian Abscess.

Dr. J. E. Gemmell read notes of a case of double tubo-ovarian abscess in which he had performed abdominal section. The disease had commenced in the Fallopian tube; there was occlusion of the fimbriated end of the tube as it was glued firmly to the ovary. He noted that there was a history of occasional discharge of pus from the uterus, pointing to an attempt at drainage through the uterus.

Fibrinous Rhinitis.

Dr. Hunt read notes of 4 cases of fibrinous rhinitis to illustrate its relation to diphtheria. In one patient it was followed in three weeks by an attack of true diphtheria; in another it came on a month after faucial diphtheria, whilst the paralytic sequelæ were still present; in a third instance two persons living in the same house with the patient were subsequently attacked with diphtheria. He thought the disease was in most cases only a modified form of diphtheria, in which the local symptoms were present without the systemic poisoning, for in over 50 per cent. of all cases the Loeffler bacillus had been found in the membrane.

Dr. Permewan, Dr. Carter, Dr. N. Roberts, Mr. Murray, and Dr. Given made remarks on the subject.

Permanent Cure of Nasal Duct Obstruction.

Mr. Bickerton read a paper on this subject. He wished to modify the title of his paper to permanent "relief" instead of "cure." He gave a historical sketch of the treatment of the affection from very early times down to the present date, and described a modification he had made in a certain form of style, which could be worn by the patient permanently for the relief of the distressing symptoms.

Mr. Shears said the modification of the title of the paper was important. If by his method the author was able to promise permanent relief in cases of chronic obstruction of the nasal duct, he should expect it to be efficacious in certain cases, but if he meant permanent cure in all cases he should not expect it. Mr. Shears held the opinion that long-standing obstruction of the nasal duct was incapable of cure in the true sense of the word. He thought that in a fair proportion of cases treatment by probes, and especially by prolonged irrigation with antiseptics through a hollow tube, so far relieved the symptoms that the fluid in the sac became quite clear, and the running over of tears only took place when the eye was subjected to strong stimulation. He wished to know whether the hollow style suggested caused much irritation, and whether it was intended that it should be worn permanently.

Mr. R. J. Hamilton said there was no cure but only a relief from the most distressing symptoms by the continuous use of these styles. A patient under his observation kept her nasal duct open by passing a probe herself about once a month, and had been doing so for about fifteen years. He thought many of these chronic cases might be taught the accomplishment without any risk.

## BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

J. W. Taylor, F.R.C.S., in the Chair.

*Friday, January 29th, 1897.*

Pathological and Clinical Section.

Cured Spina Bifida.

Mr. Gamgee showed a case of spina bifida treated by excision of the sac. At the operation on October 23rd, 1896, the sac was found to contain the lower end of the cord and the nerves, the latter of which had to be dissected off the sac. The sac was so thin that its layers could not be separated

sufficiently to pass a ligature round the pedicle, and so the opening into the spinal canal was closed with a buried suture. The child at the time of operation was 14 days old, and made a perfect recovery. During the past few weeks hydrocephalus had commenced to develop.

### Middle Meningeal Hæmorrhage.

Mr. Haslam read notes of a case of middle meningeal hæmorrhage in a man, aged 64, who had been knocked down by a tram. For two days and a half after the injury there were no symptoms of hæmorrhage, the patient being restless, drowsy, and at times wandering. Left-sided convulsions then came on, commencing in the face and extending to the arm and leg, and in three hours there was complete left hemiplegia. A scalp wound over the posterior portion of the right parietal bone was then opened up, and a minute fissure was seen in the bone and was traced forwards towards the motor area, where it became more evident. Bone was removed over this fissure and a large clot of blood removed from between the dura mater and the bone. The operation was followed by a complete relief of the hemiplegia, and for a few days the patient seemed much better. He then became restless, irritable, and was very difficult to keep in bed. His temperature rose, and there was considerable hyperæsthesia about the neck and on the left side of the body. The wound was reopened, but nothing was found to account for his symptoms, and he died a fortnight after admission. At the *post-mortem* there was found to be hæmorrhage beneath the dura mater and considerable laceration of the outer surface of the temporo-sphenoidal lobe. The lateral ventricles were enormously distended and the velum interpositum greatly thickened. The linear fracture extended into the base of the skull at the middle fossa.

### Transplanted Ovarian Cyst.

Dr. Thomas Wilson showed a glandular ovarian cyst which had been completely separated from the right broad ligament of a multipara, aged 37, and which had become adherent to the omentum, small intestines, front of the uterus, bladder, and peritoneum over the front of the sacrum. The cyst had undergone fatty degeneration; it consisted of one loculus, which showed remains of secondary cysts opening into its cavity; it was filled with thick, grumous, dirty-grey coloured fluid, of the consistence of laudable pus; under the microscope this showed a large number of large compound granular corpuscles, granular corpuscles somewhat larger than white blood corpuscles, and many free granules; no blood corpuscles, red or white, and no pus cells were seen. At the operation the left appendages were normal. On the right side the round ligament was normal; the Fallopian tube was natural in appearance for about three-quarters of an inch from the cornu of the uterus, and then ended abruptly in a rounded end, on which no orifice was discernible. The ovary and ovarian ligament could not be made out on this side. The removal of the cyst was easy, and the patient made a smooth recovery.

### Perityphilitis, Pylephlebitis and Hypophrenic Abscess.

Dr. Codd read notes of this case, and showed the specimen which had been removed *post mortem* from a man admitted on December 22nd, 1896, into the Wolverhampton General Hospital. He had had attacks of vomiting, abdominal pain after meals, and shivers a year ago. Present illness commenced a month ago with abdominal pain and vomiting. He alleged a violent assault at that time, which was disproved at the inquest. On admission, complained simply of weakness; no pain. Hæmic *bruit* found; no other signs. Temperature hectic. On December 28th had great pain and marked bulging over hepatic region, and liver was enlarged. A thin layer of pleural fluid behind the liver was aspirated, and 2 ounces drawn off. Œdema and distended veins presented over the bulged area. On December 30th exploration in fifth space in front (upper limit of dulness) gave pus, and hypophrenic abscess was then diagnosed. Later in the day peritonitis supervened, and surgical interference was negatived. He died on January 2nd, 1897. At the *post-mortem* examination there was found a hypophrenic abscess, which would have been easily accessible by the knife from the front. There was peritonitis on the right side of the round ligament of the liver, extending down to the pelvis and up under the omentum for 2 inches, and a communication existed between the hypophrenic abscess and the peritoneum. There was an old, almost obliterated, perityphlitic abscess shut off from the peritoneal cavity, and having no relation to the peritonitis. The appendix was ragged and necrotic. The liver was full of small abscesses following the ramification of the portal vein, the walls of these branches having almost completely disappeared. The trunk of the vein was full of thrombi and pus from its origin to its bifurcation. One abscess had burst between liver and diaphragm. There had probably been an old relapsing appendicitis, which had set up suppurative pylephlebitis, and one hepatic abscess had burst and set up the hypophrenic abscess, which, again bursting, had caused peritonitis.

### Miscellaneous.

Dr. Stacey Wilson read notes of a case of Double Pneumonia complicated by empyema, in which, for a time, the rate of breathing exceeded the pulse rate. The patient, who was a man, aged 22, made a complete recovery.—Mr. J. T. J. Morrison read notes of a case of successful Abdominal Section for Acute Intestinal Obstruction due to volvulus of the small intestine. Immediate and complete relief followed upon reduction of the volvulus, the patient making a quick recovery.—Mr. Barling showed a specimen of rare form of Hernia in the Pelvis.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

### Section of Medicine.

George F. Duffey, M.D., P.R.C.P.I., President, and subsequently Dr. Little, P.R.A.M.I., in the Chair.

*Friday, January 29th, 1897.*

### Morbus Pediculosus.

Dr. Knott read a paper on Morbus Pediculosus.

The President made some remarks, and Dr. Knott briefly replied.

### Diabetes Insipidus.

Dr. Burgess related a case of diabetes insipidus occurring in a girl 15 years of age, whose previous history was good up to two years ago, when the symptoms developed after a febrile attack. As well as could be determined, thirst preceded the polyuria. The amount of urine passed was 16 pints per diem; inosite absent: specific gravity, 1003. The patient has been under observation for eighteen months, during which time the urine was frequently examined. At no time was albumen or sugar present. During the above period there were no characteristic symptoms of either interstitial nephritis or amyloid kidney. Treatment comprised valerian, antipyrin, belladonna, ergot, and nitric acid. Beyond giving temporary relief drugs were found worthless.

The President had seen only one or two cases of the disease, which seemed generally to follow some debilitating illness. He would ask in what doses did Dr. Burgess give the valerian? Trousseau, who introduced the use of the drug, used to give very large doses of it—as much as 15 grains of the powdered root per day. According to some authorities antipyrin had been given with good effect.

Dr. James Little said diabetes insipidus was such a rare disease that some people doubted its existence; but Dr. Burgess had so carefully eliminated the symptoms of every other possible disease that they must accept his diagnosis as correct. As to valerian, the old-fashioned way of giving it was to prepare a good strong infusion, and give the patient a claret glass of it in the morning. He used to direct the infusion to be made by putting an ounce of the root to a pint of water. He believed the use of valerian in many nervous affections was very decided.

Dr. Falkiner said that, assuming that the efficacy of valerian in diabetes insipidus depended on the presence of valerianic acid, was it wise to use an indefinite preparation like the infusion at all? He thought the preparation to be given should be valerianate of soda, or of quinine, or of zinc. As far as he understood the pathology of this disease, he thought the only rational treatment of it was that by ergot. Another treatment was by the hydrobromate of arsenic. He was aware of a case of diabetes insipidus which had lasted for twenty-six years.

Dr. Parsons had only seen two or three cases of this dis-

ease, and none of them in Ireland. The disease in question might be very easily confounded with Bright's disease; but in the case before them the complete absence of the cardio-vascular signs, and the complete absence also of the smallest trace of albumen in the urine put out of court the possibility of the case having been one of chronic Bright's disease.

Dr. DOYLE mentioned a case of a gentleman, aged 30 years, who had been in the habit of taking large quantities of drink of all kinds. He suffered from alcoholic paralysis, had hemiplegia, and developed acute mania. He passed immense quantities of urine of a very low specific gravity. He (Dr. Doyle) gave him small doses of phosphorus, with the result that he got quite well and was now in perfect health.

Dr. S. M. THOMPSON mentioned the case of a young lady, whom he treated with phosphorus. There had been no lesion as a cause of the disease.

Dr. SHAW mentioned a case, which he attended, of a child, aged 5 or 6, who was attacked with the disease, the symptoms being intense thirst and excessive passing of water. This went on for two or three years. He treated the disease with opium. The patient eventually developed meningeal irritation and effusion on the brain.

Dr. J. BARTON related the case of a policeman—a man of large size—who came to him suffering from polyuria. He had been during all his previous life perfectly healthy, and had received no injury whatever; but all of a sudden he began to be very thirsty and to pass immense quantities of urine. His urine, on examination in Trinity College laboratory, was found to be perfectly free from albumen or sugar. He first gave him extract of belladonna, which did no good. He tried a good many other things, and finally gave pulverised opium: after having taken it for a fortnight the patient got perfectly well, and had had no return of the disease.

Dr. PEACOCKE asked had Dr. Burgess found anything to be effectual in alleviating the thirst. Phosphoric acid and other things had been recommended; but his experience was that they were failures. Some years ago he saw a case of diabetes insipidus in the Adelaide Hospital. The patient got gradually weaker and weaker, and eventually died. On a *post-mortem* examination nothing abnormal was found beyond a certain hypertrophy of the bladder.

Dr. JAMES LITTLE related a case which came under his notice a great many years ago of a clergyman who came home from Australia and suffered from excessive thirst and excessive secretion of urine. After having been many weeks under his care the patient gradually became comatose and died. The density of his urine was never more than 1003, and it was quite pale and did not contain albumen. At that time they did not estimate the amount of urea as was done now. On a *post-mortem* examination his bladder was found to be not much distended, but its walls were immensely thickened and there was no sign whatever of cystitis. Apparently there had never been any inflammation of the mucous membrane of the bladder. The ureters, however, were nearly as large as the small intestine of a child. He had nothing like what was known as surgical kidney. There appeared to have been an obstruction to the outgo from the bladder by reason of the enlarged prostate, but for some reason he had escaped cystitis. The process developed in the course of the disease appeared to have been mechanical. Not long ago he saw what he considered to be another case of this disease, and the gentleman was still alive.

Mr. LENTAIGNE remarked that, in the case of the clergyman just narrated by the Chairman, if a catheter had been used perhaps the case would have terminated differently.

Dr. BURGESS, in reply, said he did not think he reached, in the case he had submitted, the proper way of using the valerian, but it was the only drug that diminished the amount of urine. The only interest he claimed for the case was that it was one of polyuria which had been kept under observation for eighteen months. He tried the treatment alluded to by the President, but found it worthless. He did not try arsenic. As to the order in which the symptoms occurred, the account of her people was not to be absolutely relied on, but they said the first symptom that attracted their attention was the excessive thirst. The fever she had was evidently typhoid. He had tried opium as a remedy in this disease, but had not had happy results from it.

BRITISH LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL ASSOCIATION.—At a meeting on January 29th, Dr. MILLIGAN, President, in the Chair, Mr. LENNOX BROWNE related particulars of three cases of Fibroma of the Soft Palate which he had treated by electrolysis, and showed two of the patients. In one the growth had existed for twelve years, and was the size of a Tangerine orange. The patient underwent in all thirty-two sittings, with the result of its complete disappearance, and there had been no recurrence up to the present time (nine years). In another the growth was arrested, and the hæmorrhage, which had been a prominent symptom, ceased. In the third the growth had been reduced by one half. Mr. WYATT WINGRAVE had examined microscopically a specimen from one of these cases and two others treated by the same method. In each instance the cell nuclei showed very eccentric forms, probably indicative of a retrograde metamorphosis.—Mr. MAYO COLLIER exhibited (1) Abductor Paralysis (left) of eighteen months' duration without apparent cause. There was considerable enlargement and displacement of the heart, but no evidence of intrathoracic tumour. (2) Double Stenosis of Trachea from Adenoid Growth in the Thyroid Gland. The position of the upper obstruction was just below the cricoid cartilage. This was cured by removal. There was also narrowing about 1½ in. above the bifurcation of the trachea but no operation was considered practicable; improvement took place under arsenic and iron. (3) A case of Syphilis, where the cicatrices almost occluded the anterior nares, with severe implication of the larynx so as to threaten life. Mr. Mayo Collier also read notes of a case of Paroxysmal Dyspnœa apparently due to lingual varix. In the discussion of the case of stenosis of the trachea from adenoid growths in the thyroid gland, Mr. WYATT WINGRAVE suggested that the growths might arise from the para-thyroid, since they conformed to the histological structure of that organ. The PRESIDENT, Mr. MARSH (Birmingham), and Mr. BARK also joined in the discussion. With reference to the case of lingual varix, Mr. St. GEORGE REID spoke as to the relative value of the treatment by chromic acid, and that by the galvanic cautery. Mr. MAYO COLLIER had found the galvanic cautery more satisfactory in these cases than the application of chromic acid.—Mr. WYATT WINGRAVE showed a case of Functional Aphonia in a child, aged 10 years, which was cured by galvanism. He thought it important to insist on proper vocal exercise, and drew attention to the diminished sensibility of the laryngeal mucous membrane to the galvanic current in such cases. Mr. BARK referred to the frequency of relapse, and believed principally in general treatment for giving permanent results.—Dr. SANDFORD (Cork) read notes of a case of Hæmorrhage from the Lateral Sinus after mastoid operation, and notes of two cases of Epithelioma of the Auricle with recurrence after removal. Mr. MARSH was of opinion that in cases of hæmorrhage from the lateral sinus it was advisable to leave the plug in as long as possible. Mr. BARK, the PRESIDENT, Mr. MAYO COLLIER joined in the discussion.—Mr. F. MARSH showed a Rhinolith of irregular shape which he had removed from behind a deflection of the septum in a case where there had been a purulent discharge for a considerable period. The nucleus proved to be a mother-of-pearl button. He also read notes of a case of Cyst of the Pharynx associated with Cystic Bronchocele, probably of thyroid origin.

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GLASGOW EASTERN MEDICAL SOCIETY.—At a meeting on February 10th, Dr. ALEXANDER PATTERSON, President, in the chair, Drs. E. L. MARSH, of Glasgow City Fever Hospital, and A. R. FERGUSON, of Glasgow Pathological Institute, read short papers on the Serum Diagnosis of Enteric Fever, and demonstrated microscopically, by means of hanging drop preparations, the effect of normal serum, serum other than typhoid, and serum of typhoid respectively on Eberth's bacillus. The positive agglutinative action in the latter case and the negative results in the two former cases were strikingly evident. Reference was made specially to the practical details of the methods of serum collection, the form recommended for general practitioners being that in which the serum from a small blister is collected for examination by experts in sealed and previously sterilised ordinary vaccination tubes. The conjoint results of 99 cases (72 typhoid, 27 non-typhoid) personally examined by the authors were as follows: Of the 72

typhoid cases examined, 71 gave a positive result, either on one or after repeated observations, while in 27 cases of non-typhoid affections a uniformly negative result was obtained, although in 8 of these cases there was a previous history of typhoid fever. Remarks were made by Drs. J. LINDSAY STEVEN, MCDONALD, DUNLOP, and FINDLAY.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—At a meeting on February 10th, Dr. AUST-LAWRENCE in the chair, Dr. F. H. EDGEWORTH showed a patient with Intrathoracic Tumour. Dr. SYMES and Dr. BROOM made remarks.—Dr. T. FISHER showed numerous Pathological Specimens recently added to the Bristol Royal Infirmary Museum.—Mr. C. W. J. BRASHER showed a modification of Hale White's Tongue Depressor, with glass shield for infectious cases.—Dr. MICHELL CLARKE and Mr. MORTON read a paper on a case of Abscess of the Lung, with operation. Dr. ELLIOTT, Mr. EWENS, Dr. PARKER, Dr. FISHER, Dr. HARRISON, and Dr. SKERRITT discussed the subject.—Dr. B. J. BARON read a paper on the Symptoms and Treatment of Empyema of the Maxillary Antrum, with results of operation in eight cases. Mr. HARSANT and Professor FAWCETT spoke on the paper.—Dr. PARKER read a paper on the Diagnosis of Certain Diseases allied to Rheumatism. Dr. HARRISON made some remarks.

WIGAN MEDICAL SOCIETY.—At the annual meeting held on February 5th, Mr. C. R. GRAHAM, President, in the chair, the following office-bearers for 1897 were unanimously elected:—*President:* Mr. C. T. Street. *Committee:* Messrs. Street (President), Graham (Ex-President), Mitchell Roocroft, Monks, Brady, Cowan, and Benson. *Honorary Treasurer:* Mr. E. H. Monks.—*Honorary Secretary:* Mr. Wm. Berry.—Mr. DAMER HARRISSON, of Liverpool, read a paper on Brain Surgery, illustrating his remarks by means of lantern slides. A cordial vote of thanks was accorded to Mr. Harrisson for his paper, want of time preventing a full discussion.—Mr. HUGH E. JONES showed 3 cases of Double Optic Neuritis, and made some remarks.—Mr. COWAN showed a case of Jacksonian Epilepsy which had been considerably improved by trephining.—Dr. MILROY showed the following specimens: (1) Gangrene of Lung following poisoning by ammonia liniment; (2) Gangrene of Œsophagus with perforation said to have followed injury at football; (3) Dermoid Cyst of Ovary; (4) Sarcoma of Inferior Maxilla; (5) Cystic Kidney; (6) A Gall-Stone weighing 265 grains.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—At a meeting of this Society on February 3rd, Dr. GODFREY CARTER, President, being in the chair, Dr. HOWARD GLADSTONE gave a microscopical demonstration illustrating Malignant Disease.—Dr. MITCHELL showed a young woman, suffering from what was thought to be Thoracic Aneurysm.—Dr. ARNOLD EVANS read a paper on the Prevalence of Cancer from a Statistical Point of View. After remarking that by "cancer" was meant malignant disease in the widest sense, Dr. Evans pointed out that the Registrar-General's reports showed that the total number of deaths from cancer in England and Wales during the year 1894 amounted to 21,422, as compared with 11,300 in 1875; that the death-rate per million of the population had risen from 384 in the decennium 1861-70 to 589 in the ten yearly periods 1881-90, and that the increase had been steadily progressive from year to year. It was also pointed out that as the local variation in the death-rate from all causes required correction for the age and sex constitution of the population, so the same correction should be made in respect of cancer when comparing the mortality-rate in one district with that in another. When this correction had been applied by the Registrar-General to the recorded cancer mortality-rate in the registration counties, some which had a high crude mortality-rate from cancer found places in the list of those with medium or low corrected cancer death-rates. This point was clearly illustrated by means of coloured charts illustrating the areas of high, medium, and low cancer mortality-rates in the registration counties of England and Wales. One point which Dr. Evans thought required further investigation was the curious fact that even after correction of age and sex constitution all the most populous parts of the kingdom exhibited low death-rates from cancer. It was noted that the corrected cancer death-rates for males was subject to greater local variations than that for females. The opinion expressed was that the prevalence of cancer was on the increase, but that the increase was not so great as was shown in the Registrar-General's reports, the reasons assigned for this opinion being: (1) That the age constitution of the population is not the same as it was twenty years ago, a relatively larger proportion of people now attaining the age at which cancer is most likely to occur; (2) that greater precision in medical diagnosis has taken many diseases from ill-defined groups, and placed them under the heading of malignant disease, this opinion being supported by the fact that the increase in the mortality rate is greater in males than females; (3) that inquiries by the General Register Office in reference to vaguely specified diseases adds something to the list of deaths from cancer which would otherwise have been differently classified. Dr. RABAGLIATI pointed out that there had been great progress of late years in the treatment of fever and consumption, but that with regard to cancer the death-rate was on the increase. In discussing the etiology of cancer he laid great stress on the kind of food taken, being strongly of opinion that amylaceous and saccharine foods tended to give rise to cancer in some cases. He explained the fact that cancer was commoner in women than men by referring to the habit of frequent eating so common among women. His definition of cancer would be a "culmination of malnutrition due to over-feeding," and if one article of food were more to blame than any other in this connection, he would name bread. Dr. HIME disagreed with Dr. Rabagliati *in toto* as to the effects of starchy foods, and pointed out that cancer was not a disease of the blood vessels. With regard to heredity, a table was shown tracing cases of cancer through many generations of the same family. Dr. J. H. BELL discussed cancer as affecting the eye. He did not regard food as a cause of cancer. Cases of epithelioma of the eyelids and of glioma and sarcoma of the choroid were referred to; and it was pointed out that generally intraglobular growths if removed do not recur, and that all growths of the orbit are not necessarily malignant.

HUNTERIAN SOCIETY.—At the annual meeting held on February 10th, Dr. G. E. HERMAN, President, in the chair, the Council's report was read and adopted. The balance sheet was passed, after having been duly audited by Messrs. F. GORDON BROWN and HOPE GRANT. The thanks of the Society were accorded to the Auditors. The report of the HONORARY LIBRARIAN was read. It was proposed and seconded that a congratulatory message be sent to Lord Lister from the Society on his elevation to the peerage. Carried unanimously. Alterations in Rules 1, 61, 62, 64 were duly sanctioned by the Council. Mr. SYMONDS proposed and Dr. F. J. SMITH seconded a cordial vote of thanks to Dr. Herman, the President of the Society, for his valuable services during the past year. Carried unanimously. Dr. OLIVER proposed a vote of thanks to the Vice-Presidents, Treasurer, and Librarian during the past year. Carried unanimously. Dr. DAVIES replied on behalf of the Vice-Presidents, Treasurer, and Librarian. Dr. FORTESCUE FOX proposed a vote of thanks to the Auditors, Secretaries, and Council during the past year. Carried unanimously. Dr. HINGSTON FOX was proposed as Vice-President in place of Dr. Arthur Davies, who had accepted the office of Honorary Secretary. The SCRUTINEERS examined the balloting papers, and declared the officers elected as follows: *President:* Dr. G. E. Herman. *Vice-Presidents:* T. H. Openshaw, M.S.; Hingston Fox, M.D.; J. H. Appleford, M.D.; E. J. Smith, M.D. *Treasurer:* F. Charlewood Turner, M.D. *Trustees;* H. J. Fotherby, M.D.; Mr. F. M. Corner. *Librarian:* T. H. Arnold Chaplin, M.D. *Orator:* Peter Horrocks, M.D. *Secretaries:* A. H. Tubby, M.S.; Arthur T. Davies, M.D. *Council:* Sir Hugh Beevor, M.D.; Dr. J. S. E. Cotman: L. A. Dunn, M.S.; Fortescue Fox, M.D.; Mr. Hope Grant; J. W. Oliver, M.D.; W. Rawes, M.D.; Mr. H. J. Sequeira; St. Clair B. Shadwell, M.D.; L. E. Shaw, M.D.; Mr. G. B. Stevens; J. F. Woods, M.D.—After the annual meeting the Society adjourned to the theatre of the London Institution to hear the Hunterian Oration by Dr. HINGSTON FOX, on The Life and Times of Dr. William Hunter. The PRESIDENT proposed a hearty vote of thanks to the Orator, which was accorded with acclamation.—The

annual dinner took place on Friday, February 12th, at the First Avenue Hotel, the President in the chair. Fifty-three Fellows and guests were present. After dinner the usual loyal toasts were given by the President, and then the following were duly honoured: "The Hunterian Society," proposed by the President, and responded to by Dr. Gervis; "The Visitors," proposed by Mr. F. Gordon Brown, and responded to by Professor Stewart; "The Sister Societies," proposed by Mr. Charters Symonds, and responded to by Mr. Reginald Harrison; "The Hunterian Society's Lecturer," proposed by Dr. Horrocks, and responded to by Dr. Hingston Fox; "The President," proposed by Dr. Fox; "The Retiring Hon. Secretary," proposed by the President. The President, in replying to the toast of his health, mentioned that one of the Fellows present was Dr. Crosse, who was well acquainted with West Africa, having been Chief Medical Officer to the Royal Niger Company for nine years.—Dr. W. H. Crosse, having been called upon, made an interesting speech, in which he testified to the good work done by the Royal Niger Company under the Governor, Sir George Goldie, in suppressing slave-raiding, and then gave an amusing account of his experiences at Bida, which has been recently captured by an English force.—The intervals between the speeches were filled by music.

Association of Registered Medical Women.—At a meeting on February 2nd, Miss Cock, M.D., Vice-President, in the chair, Miss Sheppard, M.B., showed two cases of Leucoderma, by permission of Miss Webb, M.B., in whose out-patient department they had occurred.—Mrs. Flemming, M.D., showed a specimen from a case of Intestinal Obstruction. It had occurred in a patient on whom, five years previously abdominal section had been performed in the New Hospital for Women for a suppurating ovarian cyst, which had set up peritonitis. Symptoms of intestinal obstruction dated from nine days previous to admission. She was then moribund, and died three hours after admission, before operation could be performed. The obstruction was found to be due to a loop of small intestine having passed beneath a thin peritoneal band, attached at one extremity to the mesentery, and at the other to the intestine just beyond the constricted loop.—Mrs. Scharlieb, M.D., M.S., read a paper entitled A Glance at the Retroperitoneal Space. Attention had been called to this subject by Mr. Lockwood and by Mr. Anderson. Probably many subperitoneal growths were mistaken for growths originating in organs, wholly, or in part, behind the peritoneum. During the last five years four cases apparently belonging to this class had been operated on at the New Hospital for Women, three by herself. Details of these were given. Mrs. Boyd, M.D., also gave particulars of a case.

Birkenhead Medical Society.—At a meeting on February 12th, Dr. R. Sydney Marsden (President) in the chair, Dr. S. Wilkinson opened a discussion on Hypnotism in a paper giving some details of his own experience, and in the subsequent discussion the following members took part: Drs. Pinkerton, Brien, Harrington, McSweeney, and the President.—Dr. Wilkinson replied.

# REVIEWS.

A Pictorial Atlas of Skin Diseases and Syphilitic Affections in Photo-Lithochromes from Models in the Museum of St. Louis Hospital, Paris, with Explanatory Woodcuts and Text. By Ernest Besnier, A. Fournier, Tenneson, Hallopeau, and Du Castel, with the co-operation of Henri Feulard (Secretary), and L. Jacquet. Edited and Annotated by J. J. Pringle, M.B., F.R.C.P. Part v, 10s. 6d.; and Part vi, 10s. 6d. London: The Rebman Publishing Company, Limited. 1896.

We have, on previous occasions, expressed our admiration of the life-like pictures in this *Atlas*. In Part v we have an accurate representation of the special form of trichophytosis called agminate trichophytic folliculitis. According to Sabouraud this disease is caused by a tricophyton of the horse. A figure is given showing the microscopic appearance of a hair, and another showing a culture. The present position of the trycophytons is discussed, and the editor gives some useful references to the most recent literature. The next plate gives two pictures representing a rare affection called lupus pernio, or chilblain lupus, described by Tenneson as being a tuberculous affection, as distinct from lupus erythematosus as from lupus vulgaris. The disease is situated in exposed parts, and occupies badly defined areas. Then follows a face and neck, showing papulo-tuberculous syphilides, followed by some interesting remarks by Hallopeau on the pathology of syphilides. The next plate shows two vivid pictures, one of vacciniform infantile ecthyma; the other, in juxtaposition, simply infantile ecthyma.

Plate xxi, in Part vi, shows the lesions observed in the arm of a habitual cocaine and morphine consumer, resulting from the injections of cocaine and morphine, and they are reproduced on account of their resemblance to syphilitic manifestations. In the middle of the arm there is a scabby lesion, simulating the tubercular and crusted syphilide and the hard chancre. Accidents caused by the use of morphine, although seldom present to so marked a degree, are not rare. In the text there is a description of the various septic accidents caused by the needle in morphine injections. Plate xxii gives another example of ringworm of the body, showing three separate circular patches and three joining each other (the occurrence of more than one at a time being rare), and the patches being strictly circular. It is noted that the lesions coexisting on the same individual are similar to each other, and this plate contrasts with Plate xvii which represents agminate trichophytic folliculitis. The difference in appearance we know now to be due to plurality of the trichophytons. Plate xxiii gives an example of hyperkeratosis, the marked hypertrophy of the epidermis upon a substratum consisting of a specific infiltration of the corium of the plantar region. Plate xxiv gives a beautiful illustration of psoriasis figurata on the upper dorsal region of a man, in which the spots, circles, and gyrate figures are well displayed.

In all these plates the artistic execution is uniformly excellent.

A Young Congo Missionary: Memorials of Sidney Roberts Webb, M.D. By William Brock. London: H. R. Allenson. 1897. (Cr. 8vo, pp. 128. 1s. 6d.)

There are many of us, some with his faith, others without it, whose lives are as arduous, as full of self-denial and of unpaid devotion, as the life of Dr. Sidney Webb. The medical work that he did was not better or harder than that done by them. On the whole, his lines were cast in pleasant places; and there may be a medical missionary wherever there is a medical man. Yet he had a most rare strength of character, a most absolute singleness of purpose; he was, in the old phrase, an honour to the profession, and his death would seem almost to justify that lying Greek proverb, that those whom the Gods love die young.

He was born in 1867, was educated at Mill Hill School and at Edinburgh, was resident medical officer (1890) at the Mildmay Mission Hospital, Bethnal Green, took his M.D. degree in 1892, was married that year, and at the New Year, 1893, went as a medical missionary to Africa; and here, in the Congo country, he died of fever, after a few days' illness, in 1895, when he was only 28 years old. He enjoyed life, and was not afraid of death; and the story of his last hours is of singular beauty.

At Mill Hill he was a notable athlete, a terror at football, and an enthusiastic naturalist; popular, vigorous, outspoken. At Edinburgh he worked hard and played football hard; neither work nor play interfered with his steady vision of a missionary's life in Africa. Many children desire to "give something to the poor heathen;" and Sidney Webb was but 8 years old when he first wished to give himself to them. He never changed his mind, nor did he wait for his desire till he went to Africa. At Edinburgh, in Bethnal Green, on holidays with a "children's special service mission" at the seaside, he took open-air services, preached, exhorted, in season for some of his hearers, out of it for others. He was especially popular with boys, partly because of his skill in athletics; and when he went to Africa he had great influence for good over a large native school.

His two years in Africa seem to have been full of happiness and success; he was for ever busy with his dispensary, his school, and his religious work; he enjoyed the life, and died just when a career of increasing usefulness lay open before him.

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Twentieth Century Practice: An International Encyclopædia of Modern Medical Science. By leading authorities of Europe and America. Edited by Thomas L. Stedman, M.D. Vol. vii. London: Sampson Low, Marston, and Co. 1896. (Roy. 8vo, pp. 804. 30s.)

The seventh volume of the *Twentieth Century Practice* contains sections upon Diseases of the Respiratory Organs and the Blood, Functional Sexual Disorders in both male and female, and the chemical and microscopical examination of the urine. The respiratory diseases only include diseases of the pleura, asthma, hay fever, and diseases of the mediastinum and diaphragm. Diseases of the blood-forming organs also find to some extent a place among the diseases of the blood, and in addition rickets is, rather anomalously, treated here. Thus it will be seen that a somewhat strange assortment of diseases have found their way into this volume.

The diseases of the pleura have been entrusted to Dr. H. B. Whitney of Denver, and he has acquitted himself of the task with much success. The chapter on empyema is exceptionally good, and well up to the modern views, including the bacteriological. The streptococcus empyema is put down as of the most common occurrence in the adult. Asthma is described by Professor Rieger of Giessen. Much stress is laid in this article upon the distinction from dyspnœa, with which asthma is not infrequently confounded. The separation of primary from secondary or reflex asthma is also very properly emphasised. The exact causation and method of production of asthma is still veiled in much obscurity, as will be seen in the paragraphs dealing with pathogenesis. Hay fever is judiciously treated by Dr. Fletcher Ingals, and here electrical treatment occupies a prominent position in the therapeutics of this troublesome complaint. Dr. E. Main deals with diseases of the mediastinum and diaphragm.

Mediastinal tumours receive sufficient attention, and abscess of the mediastinum is briefly considered, but no substantive description of the disease known as mediastinitis (not necessarily suppurative in character) is given. Diseases of the diaphragm are treated well and fully, and include a chapter on rheumatism of the diaphragm, but the author rather strangely does not attempt to prove the existence of such a disease, and nothing is said about its supposed morbid anatomy.

Dr. Alfred Stengel of New York gives an almost exhaustive account of diseases of the blood, viewed from the strictly modern standpoint. Our knowledge of the blood and its diseases has made great advances of recent years, and yet notwithstanding the enormous labour spent on this subject there still remains much which needs elucidation. Purpura and also scurvy are included here. We miss any description of splenic anæmia unless it be included under Hodgkin's disease. This section on diseases of the blood is excellent, and well worthy of the book. Rickets is fully dealt with by Dr. Jules Comby of Paris.

The disorders of menstruation are entrusted to Drs. E. W. Cushing and C. G. Cumston, and an admirable short account of the subject is given. Functional disorders of the male sexual organs are most judiciously dealt with by Dr. Charles W. Allen in an article which is full of very necessary information. An adequate description of the chemical and microscopical examination of the urine is from the pen of Dr. J. M. French.

The seventh volume of the *Twentieth Century Practice* fully maintains the claim of the work to be an encyclopædia. The articles are full, well arranged, and the information contained in them is well abreast of present knowledge.

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Handbook of Diseases of the Ear: for the Use of Students and Practitioners. By Urban Pritchard, M.D., F.R.C.S. London: H. K. Lewis. 1896. Third edition, with illustrations. (Cr. 8vo, pp. 291, 43 illustrations, 6s.)

The third edition of this well-known work is enlarged, and a considerable portion of it rewritten, especially the parts dealing with mastoid troubles and intracranial suppuration. Other subjects, which have received special attention in this edition, are the removal of adenoid vegetations, operative removal of the ossicles, cholesteatoma, and diseases of the bony capsule of the labyrinth. We can recommend the articles on mastoid operation and removal of the malleus and incus, for the clear directions which they contain. Full particulars are also given on page 176 for the antiseptic removal of polypi, which the author says he has found very satisfactory. The spirit spray for the nose recommended on page 139 is too weak; it can be satisfactorily employed in strengths varying from 25 per cent. of rectified spirit to the same spirit without any water.

The book contains a large amount of sound practical common sense applied to otology. It bears the stamp of the author's own experience, and is not, like too many handbooks of the present day, a mere compilation from the opinions of others.

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Die Syphilis und Die Venerischen Krankheiten. [Syphilis and Venereal Diseases.] Von Dr. Ernest Finger. Fourth Edition. Leipzig und Wien: F. Deuticke. 1896. (Royal 8vo, pp. 324, 6 lithographic plates. M.7.)

Die Blennorrhöe der Sexualorgane und ihre Complicationen. [Gonorrhœa and its Complications.] Von Dr. Ernest Finger. Fourth Edition. Leipzig und Wien: F. Deuticke. 1896. (Super royal 8vo, pp. 401, 9 lithographic plates and 36 woodcuts. M.11.)

As previous editions of both these works have at different times been reviewed in the British Medical Journal, as both have now reached fourth editions, and as both remain practically unaltered in general form and arrangement of contents, though somewhat increased in bulk, a few remarks will be all that is necessary on the present occasion.

The first work, which is described as "a concise textbook for students and practitioners," deals, as will be gathered from its title, with venereal diseases generally, and the new edition has been revised, enlarged, and brought up to date, the portion of the book which treats of gonorrhœa being, as will readily be understood, a sort of abridgment of the second work, which is a diffuse and elaborate treatise on gonorrhœa and its complications only.

The first edition of this latter book appeared only eight years ago, and the author informs us in the preface that all three editions have been translated into English, while the third has been translated into French and Russian also. The chief additions in the present issue relate to the biology of the gonococcus, the anatomy of acute urethritis, gonorrhœal rheumatism, and some other complications, as well as to the treatment of gonorrhœa itself. The absence of references and of headlines to the pages still constitute what we have always considered a drawback to the usefulness of this work; but apart from this both books can be commended as containing a clear and satisfactory account of the subjects indicated in their respective titles.

The former work will be found a useful textbook for general use; the latter, as a monograph on gonorrhœa and all its belongings in full detail, will probably be more fully appreciated by the specialist than by the general practitioner.

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## NOTES ON BOOKS.

*The Transactions of the American Gynæcological Society for the Year 1896* (vol. xxi. Philadelphia: W. J. Dornan. 1896. Demy 8vo, pp. 490) form a solid volume, which in itself bears witness to the amount of work done by this Society during the past year, and an inspection of the contents shows that the work has been not only extensive and varied, but valuable. It would be impossible here even to mention the numerous papers republished. We can only allude to Dr. William M. Polk's presidential address, in which he gives a most interesting retrospect of twenty-one years' work in gynæcology and obstetrics. Dr. H. A. Kelly contributes an important paper on the Treatment of Extrauterine Pregnancy Ruptured in the

Early Months by Vaginal Puncture and Drainage. Dr. Henry C. Coe treats of Cæsarean Section, Suture of the Uterus *versus* Total Extirpation; Dr. J. M. Baldy deals with Surgical Injuries of the Ureters, and Dr. Archibald MacLaren makes a valuable contribution to the Statistics of Foreign Bodies in the Peritoneal Cavity. A question of particular interest to surgeons is discussed by Dr. Cyrus A. Kirkley in an article on Liability to Prosecution for Damages in Abdominal Surgery.

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*Kelly's London Medical Directory*, 1897. (London: Kelly and Co., Limited. Demy 8vo, pp. 566. 6s. 6d.)—We need not do much more than chronicle the appearance of this volume. It is now in its ninth annual edition. The work has been carefully revised; but the present volume presents no new features.

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*The Australasian Medical Directory and Handbook.* Edited and compiled by LUDWIG BRUCK. Fourth edition. (Sydney: L. Bruck; London: Baillière, Tindall and Cox. 1896. Demy 8vo, pp. 202. 10s.)—This useful work of reference is now in its fourth edition, and is, we learn from the title page, corrected down to September, 1896. In addition to the alphabetical list of names and a second list of practitioners in the various towns of the several Colonies of Australasia, the work contains abstracts of laws affecting medical men, lists of Government medical officers, and short notes on the climatic and seaside health resorts of Australia, Tasmania, and New Zealand.

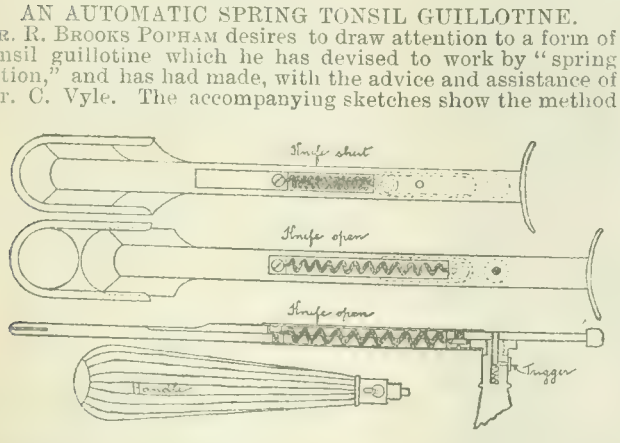
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*Dod's Parliamentary Companion.* Sixty-fifth year. (London: Whittaker and Co. 1897. 32mo, pp. 396. 4s. 6d.)—This is the seventy-third issue of this well-known reference book. It has been corrected down to the end of 1896, and contains names, addresses, and brief biographies of all the members of both Houses of Parliament, together with a section dealing with parliamentary terms and proceedings.

# REPORTS AND ANALYSES
AND
# DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

## AN AUTOMATIC SPRING TONSIL GUILLOTINE.

DR. R. BROOKS POPHAM desires to draw attention to a form of tonsil guillotine which he has devised to work by "spring action," and has had made, with the advice and assistance of Mr. C. Vyle. The accompanying sketches show the method




he has adopted of applying a spring to a Mackenzie instrument. One end of the spring is fitted to the distal part of the lower segment and is the fixed point, the other to the knife slide. On setting the instrument in the usual way by drawing back the proximal end, the spring is thus made tense, and is fixed and kept ready to be instantly released by a catch within the handle meeting a small hole in the top slide as it is drawn back and worked by a smaller spring in the handle. When ready to excise the tonsils the guillotine is released simply by touching a knob or trigger, as seen in the diagram. The spring is covered in and so arranged that it can easily be removed for cleansing purposes, and the strength is sufficiently strong to enable the knife, on being released, to instantaneously cut through the tissue. The advantages claimed for this instrument are: (1) Rapidity of action; it can be worked with one hand, leaving the other free for the thumb to press externally upon the tonsil, the left for the left, and *vice versâ*; (2) the easy and simple mode of working; (3) the instrument cannot get out of order, is simple in its mechanism, and seems to answer the purpose for which it is intended—namely, immediate excision when once the guillotine is favourably *in situ*, and being thus steady and not requiring any force from the operator, any movement or displacement from the tonsil otherwise necessarily induced is prevented.

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## MALT EXTRACT AND CREAM.

IN addition to the malt preparations we have already examined of Messrs. Evans, Gadd, and Co., of Exeter, they have sent us samples of malt extract mixed with separated Devonshire cream. It is a very pleasant and palatable preparation, containing a malt extract of high diastasic power and a good proportion of milk fat in the form of cream. In all respects it is well made, and would, no doubt, be found very beneficial in cases where malt extract and cod liver oil cannot be tolerated by the organs of digestion.

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## NON-FARINACEOUS INFANTS' FOOD.

MESSRS. CALLARD AND CO., of 65, Regent Street, have sent us a sample of infants' food, the essential characters of which are that it is stated to be free from starchy material and to contain a large proportion of albuminoids. Our analysis essentially endorses the statements as to its composition. It contains about 13 per cent. of albuminoids with a fair proportion of fat, and 73 to 75 per cent. of carbohydrates in the form of dextrine and sugar. The presence of much amylaceous material in infants' food is no doubt very pernicious, but we can hardly endorse as an alternative the substitution of artificial dextrin, especially in so large a quantity as is present in this preparation.

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## ANTISEPTIC ACCOUCHEMENT SET.

WE have received from Messrs. Maw, Son, and Thompson, 7 to 12 Aldersgate Street, E.C., a specimen of the articles sold under the above title. The box contains everything required for the lying-in room. The things are of good quality, and to the young and inexperienced expectant mother it will be a boon to be able thus to get in one package everything that she will need. The price is 25s. The following are the contents of the box:

Antiseptic accouchement sheet, 42 in. by 36 in.; antiseptic accouchement sheet, 30 in. by 27 in.; antiseptic binder, 54 in. by 18 in.; 1 dozen antiseptic napkins for infant; 1 box of Fuller's earth; 1 box of violet powder, with puff; 1 bottle tabloids of perchloride of mercury; 1 bottle of Maw's carbonised petroleum jelly; 1 cake of Maw's carbolic soap; 1 skein of accouchement thread for tying the cord; 1 dozen safety pins; 1½ dozen straight steel pins for fastening the binder; 1 dozen antiseptic towels, large size, with waistband: 1 dozen antiseptic towels, medium size; 1 mackintosh sheet, double faced, 60 in. by 36 in., for the bed; 1 mackintosh sheet, single faced, 60 in. by 36 in., for the floor; 1 packet of antiseptic dressings for the cord.

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## HORONIT.

THIS is a light and flaky substance resembling bran, which is recommended as a cheap and useful material for stuffing mattresses, beds, and splint pads. As it is made from horns and hoofs it would, as may be readily conceived, cause an unpleasant smell when confined and heated. Such disadvantage, however, has been removed by prolonged steeping of the flakes in a weak solution of peroxide of hydrogen. The advantages claimed for horonit by its inventor (Mr. Joseph T. Szék, Hotel de Provence, Leicester Square) are its cheapness, its non-conductivity, and its freedom from any tendency, when compressed and after long use, to run together into hard and compact lumps. The cost of its production is said to be very small, being about 1½d. per lb. Should these advantages be found to exist after full trial, horonit will certainly prove of much service, and greatly favour economy in institutions containing many inmates.

# BRITISH MEDICAL JOURNAL REPORTS.

## REPORTS ON THE HYGIENIC CONDITION AND ADMINISTRATION OF METROPOLITAN DISTRICT AND SEPARATE SCHOOLS.

### SUTTON: BOYS' AND INFANTS' SCHOOL.

WE have received the following letter for publication:

South Metropolitan District School,
Brighton Road, Sutton, Surrey.
Jan. 29th, 1897.

*To the Editor of the* BRITISH MEDICAL JOURNAL.

SIR,—The managers of the South Metropolitan District Schools have had their attention drawn to an article which appeared in your JOURNAL of the 2nd inst., written by "Your Own Commissioner" on the Sutton Schools, based on the evidence laid before the Departmental Committee, and upon figures appearing in the Appendix of the Committee's Report (p. 50, vol. iii).

On inquiry the managers find that the return from which the figures were taken was made by the medical officer of the schools under a misapprehension, he having given the totals of the fifty-two weeks' figures from the Local Government weekly return, with the result that the statistics quoted by your Commissioner are altogether erroneous and misleading. Instead of "the enormous figure of 8,429" appearing as the "number of cases treated in the infirmary during the year ending Lady Day, 1894," the figures should be 1,428; this in a school of 1,541 children, with 1,164 admissions during the year, shows that 50 per cent. of the children had been ill and not 700 per cent. The statement, therefore, that "each child had been ill seven times in the year" is certainly not warranted by the facts. The nature of the diseases from which these children suffered was as follows:

| | |
|---|---|
| Ophthalmia ... ... ... ... | 687 |
| Skin ... ... ... ... ... | 121 |
| Scalp ... ... ... ... ... | 265 |
| General ... ... ... ... | 318 |
| Whooping-cough ... ... ... | 19 |
| Chilblains ... ... ... ... | 18 |
| | 1,428 |

And not

| | |
|---|---|
| Ophthalmia ... ... ... ... | 4,678 |
| Ringworm ... ... ... ... | 2,815 |
| General diseases ... ... ... | 910 |
| Chilblains ... ... ... ... | 26 |
| | 8,429 |

Of these, 170 children came direct from the parish or union with the disease upon them, some of whom are still in the infirmary.

Then as to the "number of cases of children receiving medical treatment without being in the infirmary during the year ending Lady Day, 1894," quoted as 2,540. It appears that this number includes the same children who came before the medical officer on several occasions, every little ailment, such as a scratch, cut, bruise, or such like being included in the number.

The most serious mistake, however, made by your Commissioner is that where he quotes the number of deaths as being 46 in the year ending Lady Day, 1894, whereas the return from which he quotes states that the number 46 is for 3 years. The actual number of deaths in the year named was 7 only, or nearly 2 per 1,000, instead of 30 per 1,000, as stated. Furthermore, the statement that "250 children were in the same year attacked by measles, of whom 10 per cent. died," is altogether void of foundation, as the figures quoted apply to 3 years, and during the year in question no case of measles occurred in the schools, and consequently no death took place therefrom.

Annexed will be found a copy of a statutory declaration from our Medical Officer.

I am, Sir, your obedient Servant,

HENRY BURGESS,
Clerk to the Managers.

The following is an analysis of the cases treated in the infirmary of this school during the year ending Lady Day, 1894:—

| | |
|---|---|
| Ophthalmia ... ... ... ... | 687 |
| General cases ... ... ... ... | 318 |
| Skin disease ... ... ... ... | 121 |
| Scalp disease ... ... ... ... | 265 |
| Whooping-cough ... ... ... | 19 |
| Chilblains ... ... ... ... | 18 |
| Total ... ... ... ... | 1,428 |

Of these, 170 were admitted direct from the parish or union.

There were 7 deaths during the same period, and no case of measles occurred.

I declare the above statement to be true to the best of my knowledge and belief.

GEO. RICE, M.B.,
Brighton Road, Sutton, Surrey.

Declared before me at Sutton, 27th Jan., 1897.
S. MORE RICHARDS,
J.P. Surrey.

*** From the tone of this letter the casual reader might suppose that our Commissioner had fallen into a series of errors, and had misrepresented the statistics of the Sutton school. If the communication is read carefully, however, it will be perceived that what the managers really assert is that the medical officer of the South Metropolitan District Schools made an altogether erroneous and misleading report to the Poor-law Schools Committee appointed by the Local Government Board, whose report, evidence, and appendices were presented to both Houses of Parliament by command of Her Majesty. The medical officer has now made a "statutory declaration" by way of correcting his own published report. Our Commissioner based his observations entirely on the information supplied by that report, and we think, therefore, that the Clerk to the South Metropolitan District Schools is hardly justified in complaining that our Commissioner has made statements "not warranted by the facts" and "altogether devoid of foundation." If the second statement of the officers of the school is correct (as to which we shall say a word presently), it is no doubt clear that the 46 deaths, which our Commissioner supposed to have occurred in 1894, belong really to three years. But our Commissioner cannot be blamed for a misapprehension due to a confused return. To make the various points intelligible the simplest plan is to refer to the relevant portions of the table (XVI) from the Blue Book, vol. iii, page 50. For convenience we will deal with the questions under five groups:

I. TABLE XVI.—*Replies from Medical Officers of District Schools.*

| 4 | 6 | 7 |
|---|---|---|
| Number of cases of ophthalmia and skin diseases during each of the three years ending Lady Day: | How many deaths have occurred during the same period? | And from what causes? |
| 1. Ophthalmia.<br>2. Itch.<br>3. Eczema.<br>4. Other skin diseases.<br>5. Ringworm.<br>6. Scalp diseases.<br>7. Glandular swellings. | | |
| 1892. 1893. 1894.<br>1. ... ... Cannot give particulars for 1892-93. 4,678<br>5. ... ... 2,815<br>Several diseases 910<br>Chilblains ... 26 | 46 | Tuberculous disease ... 8<br>Acute meningitis ... ... 2<br>Measles ... ... 24<br>Whooping-cough 2<br>General diseases 10 |

I. It will be seen that the medical officer finds himself unable to give particulars for two out of the three years asked for, and then proceeds to give full details for one year, 1894. As the three questions obviously hang together as relating to the "same period," the answers were not unnaturally taken to refer to that one year only. The clerk now says that the answer to column 4 was all wrong, and also that column 6 does not refer to the "same period" as the only answer which was furnished under column 4. We can only say that the Sutton managers must not blame us for the misunderstanding.

II. TABLE XVI.—*Replies from Medical Officers of District Schools.*

| 1 Number of cases in Infirmary during the year ended Lady Day, 1894. | 2 Number of children in the Infirmary during the year ended Lady Day, 1894. | 9 Number of children in Infirmary on November 24th, 1894. | 11 Percentage of invalids in Infirmary. |
|---|---|---|---|
| 8,421 | 8,421 | 93 boys, 164 infants | 16 per cent. |

II. It will be seen that the medical officer replied by giving the same figure 8,421, cols. 1 and 2, for the number of cases as for the number of children in infirmary in one year (1894). We are now told that this number was "made under a misapprehension," and should have been 1,428. The blunder is sufficiently extraordinary even as the managers state it; but the new figure is difficult to reconcile with the statements made in cols. 9 and 11, namely, that 257 children were in the infirmary on a given day—November 24th, 1894—when there was apparently no epidemic prevailing, and that 16 per cent. of the whole school (namely, 257 out of 1,540) was in the infirmary. If the cases of sickness requiring infirmary isolation were 257 in one week, and if the total was, as now declared by the "statutory declaration," 1,428 in the year, it follows that each case must, on the average, have remained in the infirmary something like nine weeks. The medical officer's previous statement may have been wrong, but the "statutory declaration" only raises new difficulties. Perhaps the managers will reply that the two answers given by their medical officer in cols. 9 and 11 were "made under a misapprehension," but this is hardly possible in the face of other evidence which supports them. Miss Thompson, a lady manager of the schools, gave evidence that in December, 1893, there were 379 children in the infirmary, or 24½ per cent. of the whole (Qu. 7638), of whom 281, or 18 per cent., of the whole were there with ophthalmia; and we have ourselves also published official figures[1] showing that in February, 1895, there were 218 children, or nearly 15 per cent. of the whole school, in the infirmary. We hardly know how to assist the managers most. We have no wish to make out the hygienic state of the school worse than it is, but by accepting the corrected figures we have to believe that every child was kept in the infirmary on an average for a period which seems to reflect most serious discredit on the management.

III. TABLE XVI.—*Replies from Medical Officers of District Schools.*

| 13 How many children have been sent to the country or seaside during the last twelve months? | 21 State your opinion of the children's average physique. | 25 Are the children of average growth as compared with non-pauper children—girth, height, etc.? |
|---|---|---|
| 164 | On the whole, very fair. | The difficulty in answering this question arises from the fact that there is no real guide as to the age of the children on admission. I have made a number of comparisons, and find they do not come out badly; but, until we can get a certificate of birth on admission, we cannot arrive at a satisfactory result. |

III.—It is commonly said that the children who go to these schools are of a poorer physique, inferior growth, and hereditarily weakly. But this can hardly be urged as an explanation of the state of ill-health which, even on the new figures, prevails at the Sutton Schools, for in col. 21 we are told that, in the opinion of the medical officer, the average physique of the children is, "on the whole, very fair"; and in col. 25 he states that as regards, growth, girth, height, etc., he has made a number of comparisons with children living normal lives, and finds "they do not come out badly." It is also impossible to take refuge in the theory that the average is run up by a large number of tedious convalescent cases being kept in the infirmary, because we learn from col. 13 that 104 children had "been sent to the country or seaside during the last twelve months."

[1] BRITISH MEDICAL JOURNAL, January 9th 1897

IV. TABLE XVI.—*Replies from Medical Officers of District Schools.*

| 3 Number of cases of children receiving medical treatment without being in the Infirmary during the year ended Lady Day, 1894. | 12 Percentage of invalids not in the Infirmary. | 22 State number of cases for whom have been ordered tonics or special diet during the last 12 months. |
|---|---|---|
| 2,540 | 14 per cent. | There is a number of cases, but it is impossible to specify the number, as they vary daily. |

IV. It will be seen that the medical officer returns 2,540 as the "number of cases of children receiving medical treatment without being in the infirmary." In column 12 of the same table he returned a parallel figure—namely, that the percentage of "invalids" not in the infirmary was 14 per cent. This for a school of 1,541 children would give an average of 220. We are now told by the managers that these figures include every "little ailment, such as a scratch, cut, bruise." If the medical officer has returned a boy with a "scratch" as an "invalid in a Parliamentary paper without note or comment, it is a little difficult to understand him. It happens, however, that we have the means of elucidation, because the figures three months later, already referred to, indicate that there were on a given day 247 boys who were not in the infirmary, but who were suffering from open chilblains, bad heads, bad eyes, and other complaints out of a total of about 900 boys in the school. These figures, which were provided by the superintendent on the occasion of the visit of two of the Committee members, did not seem to us to include scratches, inasmuch as only 24 cases out of 148 among the senior boys are returned as due to any other cause beyond "scalp diseases, eye diseases, and chilblains." These 24 cases, according to ordinary probabilities, must have included many complaints such as we should expect to find returned under the heading of "invalids not in the infirmary." However this may be, the February total of 247 boys gives something over 25 per cent. The three definite categories alone, if we leave out "other complaints" altogether, still give more than the 14 per cent. which is reported by the medical officer, being in fact something over 20 per cent.

V. TABLE XVI.—*Replies from Medical Officers of District Schools.*

| 5 What other diseases have been prevalent in the institution during the last three years? | 8 What has been the death-rate during the last three years? |
|---|---|
| Measles about 250 cases, the mortality being rather severe. The exceptional mortality in the measles epidemic was due to the fact that, as usually happens at such times, the majority of children attacked were infants with a well-marked weak stamina. | Percentage of deaths for last three years, excluding the 24 cases of measles which occurred in one year, and which have been referred to before] = 0.45%. |

V. The managers of the Sutton Schools complain that our statement that "250 children were in the same year attacked by measles, of whom 10 per cent. died" is "altogether void of foundation." We must exonerate our Commissioner, for as col. 5 will show, the medical officer returned "measles about 250 cases, the mortality being rather high," and in col. 8 he expressly states the 24 deaths from measles "occurred in one year." As he had declined to give particulars for 1892 and 1893, our Commissioner inferred that the year in question was 1894. It appears now, however, from the clerk's letter that it was not in that year, but in 1892 or 1893. We cannot see that this makes any difference to our argument. The number of cases in that one year when the outbreak came remains 250 and the number of deaths 24, that is, 10 per cent.

We sympathise with the managers if their medical officer makes statements so liable to erroneous interpretation, but can hardly accept blame because we drew conclusions from the figures he returns to Parliament. Even as supplemented by the "statutory declaration," however, we cannot honestly say that the figures yield results creditable either to the management or hygienic condition of the institution.

## MIDWIVES REGISTRATION BILL.

MEMORANDUM.

The chief object of this Bill is to enable the public, and especially such of the poor as are in the habit of employing midwives, to distinguish between those midwives who have been trained and have given evidence of being competent for their duties, and those who have not.

This Bill provides that henceforth no woman shall call herself a midwife unless she has been placed on the midwives register, and that in order to be placed on the register she must produce evidence either (1) of having undergone a proper training and subsequent examination, or (2) of having (at the time of the passing of the Bill) been in *bonâ fide* practice as a midwife for a specified number of years. It is not proposed to make it illegal for a friendly neighbour to render assistance to a lying-in woman in an emergency.

A system of examination and certification by various voluntary bodies has been established for several years in the chief centres of population. It is proposed to place the duties hitherto undertaken by these voluntary bodies in the hands of a duly constituted Board, acting under State control. It is further proposed to make provision for the efficient regulation and supervision of the practice of midwives under rules approved by the General Medical Council, and for the exercise of discipline amongst those who are enrolled upon the register.

See Reports of Select Committee on Midwives Registration, together wi the proceedings of the Committee, Minutes of Evidence, Appendix and Index, ordered by the House of Commons to be printed June 17th, 1892 and August 8th, 1893.

ARRANGEMENT OF CLAUSES.

Clause.
1. Short title.
2. Definitions.
3. Registration.
4. Provision for existing midwives.
5. Constitution and duties of the Midwives Board.
6. Fees and expenses.
7. Appointment of registrar.
8. Supplemental provision as to register.
9. Local supervision of midwives.
10. Notice of death of a midwife.
11. Penalty for obtaining registration by false representation.
12. Penalty for wilful falsification of register.
13. Prosecution of offences.
14. Appeal.
15. Act not to apply to medical practitioners.
16. Extent of Act.

## A BILL FOR THE REGISTRATION OF MIDWIVES.

Be it enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal and Commons, in this present Parliament assembled, and by the authority of the same, as follow:

1. *Short Title.*—This Act may for all purposes be cited as the Midwives Registration Act, 1897.

2. *Definitions.*—In this Act

The term "midwife" means a woman who undertakes to attend cases of labour in accordance with the regulations to be laid down under this Act.

"Midwives register" means a register of midwives kept in pursuance of this Act.

"Midwives Board" means the Board constituted under this Act for the purpose of carrying out the provisions of this Act.

3. *Registration.*—(1.) From and after the first day of January one thousand eight hundred and ninety—, no woman shall be entitled to take or use the name or title of midwife (either alone or in combination with any other word or words), or any name, title, addition, or description implying that she is registered under this Act, or is specially qualified to act as a midwife unless she be registered under this Act.

(2.) Any person who, after the first day of January one thousand eight hundred and ninety——, not being registered under this Act, shall take or use the name of midwife or any other such name, title, addition, or description as aforesaid, shall be liable on summary conviction to a fine not exceeding five pounds.

(3.) No woman shall be placed on the midwives register until she shall have complied with the rules and regulations to be laid down in pursuance of the terms of this Act.

(4.) The certificate of registration under this Act shall not confer upon any woman any right or title to be registered under the Medical Acts in respect of such certificate, or to assume any name, title, or designation implying that she is by law recognised as a licentiate or practitioner in medicine or surgery, or that she is qualified to grant any medical certificate, or any certificate of the cause of death.

4. *Provision for Existing Midwives.*—Any woman who, before the expiration of two years from the passing of this Act, claims to be registered under this Act, shall be so registered provided she produces evidence, satisfactory to the Midwives Board, that at the passing of this Act she has either been in *bonâ fide* practice as a midwife for a period of two years, or holds a certificate in midwifery from the Royal College of Physicians of Ireland, or from the Obstetrical Society of London, or such other certificate as may be approved by the Board.

5. *Constitution and Duties of the Midwives Board.*—On the passing of this Act a Midwives Board shall be constituted by the General Medical Council, and shall consist

(1) Of twelve registered medical practitioners, three to be appointed by the Royal College of Physicians of London, three by the Royal College of Surgeons of England, three by the Society of Apothecaries, and three by the Incorporated Midwives Institute, and

(2) Of six persons to be appointed for terms of three years by the Lord President of the Council.

One-third of the elected members of the Board shall annually retire, but shall be eligible for re-election after the lapse of one year. The duties of the Midwives Board shall be as follow:

(*a*) To make rules for regulating the conditions of admission to the register, and the mode of conducting the qualifying examinations.

(*b*) To appoint examiners.

(*c*) To decide upon the places where, and the times when, examinations shall be held.

(*d*) To frame for approval by the General Medical Council rules regulating the admission to the register of women already in *bonâ-fide* practice as midwives at the passing of this Act.

(*e*) To prepare and publish annually a register of midwives.

(*f*) To frame for approval by the General Medical Council rules for regulating, supervising, and restricting within due limits the practice of midwives.

(*g*) To decide upon the conditions under which a midwife may be suspended from practice.

(*h*) To decide upon the removal from the register of the name of any midwife for disobeying the rules and regulations from time to time laid down under this Act by the Midwives Board or for other misconduct, and to decide upon the restoration to the register of the name of any midwife so removed.

(*i*) And, generally, to do, subject to the approval of the General Medical Council, any other duty which may be necessary for the due and proper carrying out of the provisions of this Act.

6. *Fees and Expenses.*—There shall be payable by every woman presenting herself for examination or registration such fees as the Midwives Board may, with the approval of the General Medical Council, from time to time determine. All fees paid by midwives or by candidates for examination shall be paid to the Midwives Board. The said Board shall devote such fees to the payment of expenses connected with examination and registration, and to the general expenses of the Board. Should these fees not equal the expenditure of the Midwives Board, the deficiency shall be supplied from the respective local county funds, in proportion to the number of registered midwives resident in the county.

7. *Appointment of Registrar.*—The Midwives Board shall appoint a registrar who shall be charged with the custody of the register, and shall also act as Secretary to the Board.

8. *Supplemental Provision as to Register.*—A copy of the midwives register for the time being shall be evidence in all courts that the women therein specified are registered according to the provisions of this Act; and the absence of the name of any woman from such copy shall be evidence, until the contrary be made to appear, that such woman is not registered according to the provisions of this Act. Provided always, that in the case of any woman whose name does not appear in such copy, a certificate under the hand of the registrar of the entry of the name of such woman on the register shall be evidence that such woman is registered under the provisions of this Act.

9. *Local Supervision of Midwives.*—Every local sanitary authority throughout England and Wales shall, on the passing of this Act, appoint its medical officer of health or other registered medical practitioner or practitioners, as the local supervising authority over midwives in the sanitary district. It shall be the duty of the local supervising authority—

(1) To exercise general supervision over all midwives practising within the sanitary district in accordance with the rules to be laid down under the provisions of this Act.

(2) To investigate charges of malpractice, negligence, or misconduct on the part of any midwife practising within his district, and, if he consider that a *primâ facie* case is established, to report the same to the Midwives Board.

(3) To report at once to the Midwives Board the name of any midwife practising in his district convicted of a misdemeanour or felony.

(4) To keep a current copy of the midwives register, accessible at all reasonable times for public inspection.

(5) To satisfy himself, in the case of any midwife practising or desiring to practise within his district, as to the validity of her claim to be placed on the register.

10. *Notice of Death of a Midwife.*—The local supervising authority shall at once report to the Midwives Board the death of any midwife, or any change in the name or address of any midwife in his district, so that the necessary alteration may be made in the register.

11. *Penalty for obtaining Registration by False Representation.*—Any woman who procures or attempts to procure herself to be placed on the register of midwives by making or producing, or causing to be made or produced, any false or fraudulent declaration, certificate, or representation, either in writing or otherwise, and any person assisting her therein, shall be deemed guilty of a misdemeanour, and shall on conviction thereof be liable to a fine not exceeding five pounds, or to be imprisoned, with or without hard labour, for any term not exceeding two months.

12. *Penalty for Wilful Falsification of Register.*—Any person appointed to keep the register of midwives, wilfully making or causing to be made any falsification in any matter relating to the register of midwives shall be deemed guilty of a misdemeanor and shall be liable to a fine not exceeding ten pounds, or to be imprisoned with or without hard labour for any term not exceeding three months.

13. *Prosecution of Offences.*—Any offences under this Act punishable on

summary prosecution may be prosecuted, and any fine under this Act recoverable on summary conviction may be recovered, in manner provided by the Summary Jurisdiction Acts

The expenses of any prosecution shall be defrayed out of the county fund of the district where the prosecution takes place.

14. *Appeal.*—(1) An appeal shall be allowed to the Privy Council should any disagreement arise between the General Medical Council and the Midwives Board respecting the carrying out of the provisions of the Act, or of any of them.

(2) Where any woman deems herself aggrieved by any order, conviction, judgment, or determination of or by any matter or thing done under this Act by any court of summary jurisdiction, such woman may appeal therefrom to the court of quarter sessions.

15. *Act not to Apply to Medical Practitioners.*—Nothing in this Act respecting midwives shall apply to legally-qualified medical practitioners.

16. *Extent of Act.*—This Act shall not extend to Scotland or Ireland.

[The Bill is backed by Mr. Tatton Egerton, Mr. Schwann, Sir Frederick FitzWygram, Mr. Skewes-Cox, Mr. Bonsor, Mr. Fenwick, Sir James Woodhouse, Mr. Harrison, Mr. John Wilson, Mr. Graham, Mr. Bill, and Mr. Heywood Johnstone, and was ordered by the House of Commons to be printed, February 9th, 1897.]

## ROYAL COLLEGE OF SURGEONS.

AN ordinary Council was held on February 11th; Sir WILLIAM MACCORMAC was in the chair. The minutes of the last quarterly Council were read and confirmed.

### THE LATE SIR SPENCER WELLS.

The following resolution was adopted:

The Council hereby record their deep regret at the death of Sir T. Spencer Wells, Bart., and desire to express their very sincere sympathy with his family in their loss. The Council feel that the College has lost one of its most distinguished Fellows, who, by his eminent services to the science of surgery, has wrought good to mankind and brought honour to his profession, and are assured that for these reasons, as well as for his kindly disposition, his loss will be widely felt and deeply mourned.

### THE MEMORIAL OF THE DEANS OF PROVINCIAL SCHOOLS.

The following recommendation from the Committee of Management was adopted: That the following reply be sent to the deans of the English provincial medical schools who had requested the Conjoint Board of London to consult with the medical schools before carrying out large and important changes in their curriculum:

Your letter of July 6th last, forwarding a resolution adopted by the deans of the English provincial schools at a meeting held in Birmingham on February 29th last, has been considered by the Royal College of Physicians of London and the Royal College of Surgeons of England, and we are desired in reply to point out that on several occasions the schools, both metropolitan and provincial, have been consulted on questions relating to the curriculum of professional study. There is no reason to suppose that the Royal Colleges will in the future be otherwise than desirous of ascertaining the feeling of provincial teachers when questions affecting their interests are under consideration. In the case of alterations which have been made from time to time, the Royal Colleges have not always considered it necessary to formally communicate with the teachers, whether provincial or metropolitan, for the reason that the opinions have been generally well known, and the alterations made with the general approval of the teaching staffs.

With regard to the case mentioned in your letter relating to the deletion of Elementary Anatomy from the First Examination, we may remark that very strong representations were made to the Royal Colleges to the effect that it was unnecessary to examine the candidate twice in anatomy, and that it was harassing and unsettling to the schools to be obliged to send up their students for more examinations than necessary. The Royal Colleges having accepted that view, no object was to be gained in giving a year's notice such as you propose; for, had they done so, candidates would simply have waited until the date had arrived, and so avoided the examination. It therefore appeared to the Royal Colleges advisable to at once give notice of their intention to discontinue that examination. We are desired to add that the practice of the Board has been to give a considerable notice, generally from six to twelve months, where any change has been made entailing an extra course of study or examination; but in the case of alterations involving omission of some course of study or subject of examination it has not been held necessary to give that notice.

### THE POLL OF THE FELLOWS.

The following report of the Committee on the circular to the Fellows was received and adopted:

The Committee have to report to the Council that the poll of the Fellows upon the question of the direct representation of Members of the College upon the Council was closed on January 31st, 1897, and have now to submit the following statement.

I.—CIRCULARS AND ANSWERS.

| | | |
|---|---|---|
| Number of circulars sent out ... ... | | 1150 |
| Valid answers received ... ... ... | 686 | |
| Invalid answers received ... ... ... | 18 | |
| Returned through post ... ... ... | 5 | |
| | | 709 |
| Unanswered ... ... ... ... ... | | 441 |

II.—ANALYSIS OF 686 VALID ANSWERS.

*Main Question.*—In your opinion is it desirable to give to Members of the College direct representation upon the Council?

| | |
|---|---|
| Fellows voting "No"... ... ... ... ... | 485 |
| ,, ,, "Yes" ... ... ... ... | 201 |
| Majority against ... ... ... | 284 |

III.—ANALYSIS OF THE 201 AFFIRMATIVE ANSWERS.

*Question 1.*—Should the representation be (*a*) by Members only, (*b*) by Fellows only, or (*c*) by Fellows and Members indifferently?

| | |
|---|---|
| In favour of (*a*) by Members only ... ... ... | 42 |
| ,, (*b*) by Fellows only ... ... ... | 40 |
| ,, (*c*) by Fellows and Members indifferently ... ... ... ... ... ... | 119 |
| | 201 |

*Question 2.*—Should Members be qualified to vote (*a*) without restriction as to standing, (*b*) or only after a certain number of years' standing, and, if so, what number?

| | |
|---|---|
| In favour of (*a*) without restriction as to standing | 67 |
| ,, (*b*) with restriction as to standing | 125 |
| Invalid answers and unanswered ... ... ... | 9 |
| | 201 |

*Question 3.*—How many seats on the Council should be assigned for the representation of Members of the College?

The answers to this question were too varied for convenient classification, but the number of seats apportioned ranged from two to one-half of the Council.

*Question 4.*—Should these seats be obtained (*a*) by an addition to the number of the present Council, which consists of twenty-four members? (*b*) Or by taking seats from the representatives of the Fellows and giving them to the representatives of the Members of the College?

| | |
|---|---|
| In favour of (*a*) by addition ... ... ... | 129 |
| ,, (*b*) by subtraction ... ... ... | 49 |
| Indirect answers and unanswered ... ... | 23 |
| | 201 |

The Council resolved that the following answers be sent to the deputation of Fellows, the deputation of Members, the mover and seconder of the resolution carried at the annual meeting of Fellows and Members on November 7th, 1895, and the mover and seconder of the resolution carried at the meeting of Fellows on January 2nd, 1896:

1. That the deputation of Fellows be informed that the poll of the Fellows in reference to the direct representation of Members of the College upon the Council has resulted in a large majority against such representation; and that, with regard to the questions raised by the deputation, no point brought forward would appear to the Council, either on the ground of urgency or desirability, to render it expedient that application should be made for a new charter.

2. That the deputation of Members be informed that the poll of the Fellows in reference to the direct representation of Members of the College upon the Council has resulted in a large majority against such representation; and that the Council are not prepared to apply for a new charter to give effect to any alteration of the constitution of the College in this respect, or to the other propositions submitted by the deputation.

3. That the mover and seconder of the resolution carried at the annual meeting of the Fellows and Members on November 7th, 1895, be informed that the poll of the Fellows in reference to the direct representation of Members of the College upon the Council has resulted in a large majority against such representation, and that the Council are not prepared to apply for a new charter to give effect to any alteration of the constitution of the College in this respect, or to the other propositions contained in the resolution.

4. That a copy of the report of the Committee on the circular to the Fellows be forwarded to the mover and seconder of the resolution carried at the meeting of Fellows on January 2nd, 1896.

### MEDICAL AID ASSOCIATIONS.

A letter was read from Dr. Michael Beverley, stating that, at a largely attended meeting of the profession resident in Norwich, and at a very numerously attended meeting of the Norfolk and Norwich Medico-Chirurgical Society, Sir Frederic Bateman and he were appointed a deputation to present a memorial to this College asking for guidance and advice with regard to their relations to, and consultations with, the medical officers of certain trading medical institutes and medical aid associations in Norwich and Yarmouth, and inquiring when the Council would receive such deputations.

A Committee was appointed to receive the deputation and report upon the questions involved to a subsequent meeting of the Council.

### EXAMINATION IN BACTERIOLOGY.

The Council agreed to the inclusion of bacteriology as a subject of study and examination under the Conjoint Board, and the addition, for this purpose, of the words "and in bacteriology" to Section i, Subsection 5, par. *d* (p. 5) of the Regulations of the Combined Examining Board in England.

### THE TEACHING UNIVERSITY SCHEME.

The following recommendations from the delegates of the

two Royal Colleges on the question of a teaching university for London were adopted, subject to the approval of the Royal College of Physicians:

1. That the Royal College of Physicians of London and the Royal College of Surgeons of England, in full accord with their previous action, express the earnest desire that Her Majesty's Government will, at the earliest opportunity, reintroduce a Bill for the reconstitution of the London University by Statutory Commission on the general lines of the report of the Cowper Commission, and do assure the Government that such a course will have their approval and support.
2. That the Royal Colleges should forward copies of this resolution forthwith, to the Lord President of the Council, the Right Hon. A. J. Balfour, and the Senate of the University of London.

Mr. Rivington resigned his position on the above Committee of Delegates.

Other Business.

A letter was read from Lord Lister, thanking the Council and Fellows for their congratulations.

The motion by Mr. Macnamara that the Council do hereby withdraw their representatives from the Civil Rights Defence Committee, acting on behalf of Mr. R. B. Anderson, F.R.C.S.Eng., was carried *nem. con.*

The motion by Mr. Heath, that the resolution of the Council of December 21st, 1893, relating to the appointment of representatives of this College on the Conjoint Finance Committee, be rescinded, and that the treasurers of the College be *ex-officio* members of such Committee, was carried.

Mr. Alfred Willett was chosen Bradshaw Lecturer for the ensuing collegiate year.

## THE MANCHESTER MEDICAL GUILD.

The third annual meeting of this guild was held on January 27th, the chair being taken by Alderman F. H. Walmsley, J.P. The annual report stated that forty-five new members had joined while two had resigned, so that the membership of the guild was 146. The Council had made a special inquiry into the question of club and allied practices, and presented an interim report. Altogether the Council had held twenty meetings, and had dealt with various matters affecting the local profession, whose interests it had endeavoured to safeguard and to maintain. Medical guilds had been formed at Stockport, Wigan, and other places, showing that the need for local organisation of the character was being more and more recognised. The report, together with the statements of accounts, was received and adopted.

The following honorary officers were elected—namely: *President:* F. H. Walmsley, J.P. *Vice-Presidents:* Henry Aldred, J.P., M.R.C.S.; Henry Ashby, M.D., F.R.C.P.; C. H. Braddon, J.P., M.D.; Samuel Buckley, M.D., M.R.C.P., F.R.C.S.; William Crosby, M.R.C.S.; J. Dreschfeld, M.D., F.R.C.P.; A. M. Edge, M.D., M.R.C.P.; C. E. Glascott, M.D., F.R.C.S.E.; Alfred Godson, M.A., M.B., J.P.; James Hardie, M.D., F.R.C.S.; Francis Hepworth, J.P., M.R.C.S.; Thomas Jones, M.B., F.R.C.S.; David Little, M.D., F.R.C.S.E.; T. N. Orchard, M.D.; D. Lloyd Roberts, M.D., F.R.C.P., F.R.S.E.; Henry Simpson, M.D.; F. A. Southam, M.A., M.B., F.R.C.S.; Graham Steell, M.D., F.R.C.P.; G. A. Wright, B.A., M.B., F.R.C.S.; Walter Whitehead, F.R.C.S.E., F.R.S.E.; Sam Woodcock, M.D., J.P.; A. H. Young, M.B., F.R.C.S.

The officers and Council were elected as follows: *Chairman:* J. Dixon Mann, M.D., F.R.C.P. *Vice-Chairman:* C. E. Glascott, M.D. *Treasurer:* C. G. L. Skinner, M.D. *Honorary Secretary:* Alexander Stewart, M.D. *Council:* S. Bagley, W. B. Bell, M.B.; I. Blore, M.D.; W. G. Booth, F. W. Boycott, M.B.; G. H. Broadbent, E. Vipont Brown, M.B.; R. J. Dearden, R. Forsyth, M.B.; C. R. O. Garrard, J. H. Godson, M.B.; W. E. Husband, E. L. Luckman, J. A. Palangue, G. H. Pinder, J. Ratcliff-Gaylard, F. Leyland Roe, A. B. Ritchie, M.B.; J. Prince Stallard, M.D.; and R. H. Wolstenholme. *Auditors:* R. G. Heathcote and H. Monteagle, M.D.

## SUBPŒNAS AND FEES TO MEDICAL WITNESSES.

Referring to our recent editorial comments on this subject, it would seem that some misapprehension still exists with reference to the question of the fees to which a medical practitioner is entitled under a subpœna served upon him to give evidence in a civil action.

In practice we are informed it is seldom, if ever, that any difficulty on the subject arises, for it would manifestly tend to the disadvantage of a plaintiff or defendant to have any conflict with his witness on the subject of his fees. But, apart from this, there is an authorised scale, and every professional witness, if resident in the town in which the trial is held, is entitled to one guinea per diem; if resident at a distance then from two to three guineas per diem, inclusive of everything except travelling expenses, and these for a professional witness would mean first-class railway fare to and from the place of trial, with cab hire, but not to exceed one shilling per mile one way.

If it is desired to ensure the attendance of a witness so as to be able to enforce the law in case of his refusal to attend, then all the formalities attending the service of a subpœna, which have been prescribed by a long series of cases, would have to be observed, and an important point would be the payment or tender to him of the proper conduct money. If the witness resides at a distance, this would mean his expenses of going to, remaining at, and returning from the place of trial. If he resides in town "within the weekly bills of mortality" it is possible that even now the payment or tender of one shilling would be sufficient to satisfy the requirements for enforcing his attendance at the trial, although in practice such a course would seldom, if ever, be resorted to. We distinguish the word "conduct money" from the fee which a witness is entitled to receive for his loss of time in attending to give evidence; for if a witness, on being served with a subpœna is only paid a sum sufficient for his expenses of attending the trial and returning, there can be no doubt of his right, at any rate before being sworn, to refuse to give evidence in a civil action until his fee has been paid according to the authorised scale. The comparatively speaking recent cases on this point of the Working Men's Mutual Society (*L. R.* 21, Ch. Div.) and Chamberlain *v.* Stoneham (*L. R.*, 24, Q. B. Div.) afford an illustration of this.

It is, however, as we have mentioned before, extremely rare for any conflict to arise with a witness on the subject of fees from the strictly legal point of view. A professional witness, if resident in the town in which the case is tried, is invariably paid a guinea on the service of the subpœna (which is taken into account in settling with him after the trial) if required to give evidence on trial in the High Court; and in practice understand the fees are not now limited to the strictly legal scale. The scale of fees to which we have alluded are really those which are allowed to a successful plaintiff or defendant upon taxation of his costs as between party and party, and apply only where a witness is called to depose to a question of fact on the issues raised in the action, a more liberal scale prevailing where expert or scientific evidence is given.

## THE INTERNATIONAL CONFERENCE ON RAILWAY AND MARINE HYGIENE.

The second International Conference on Railway and Marine Hygiene is to be held in Brussels in September, under the presidency of Professor Nuël, of Liége. The Organising Committee have selected the following subjects for discussion:

A. Organisation of the Medical Services.

What is the best mode of organising the medical service on railways?

The following questions have been specially submitted for solution by the Amsterdam Conference of 1895:

1. Should the medical service be an integral part of the administration, the medical men being considered as officials?
2. Should the medical service be attached to the benefit society of the employees and be simply approved by the administration?

B. Guarantees of Personal Fitness.

1. The influence of morbid predispositions in relation to the admission of candidates to the railway service and the various duties of railway officials.
2. The re-examination of employees.
3. Quantitative determination of the colour sense.
4. Defects of hearing in relation to the railway and marine services.
5. Malingering: (a) Visual, (b) Auditory.

C. Hygienic Rules and Regulations.

1. The means for preventing the propagation of communicable diseases among travellers as well as employees.
2. Should the use of intoxicating drinks be permitted to persons responsible for the safe conduct of railway and marine traffic?

3. The result of the measures taken to prevent overwork in the traffic-conducting industries.
4. The organisation of assistance in case of accidents.

The Conference is not confined to members of the medical profession. The cordial co-operation of all who are interested in the above questions is invited. In order to facilitate the preparation of the programme, any persons who wish to contribute papers or take part in the discussions are requested to communicate at their earliest convenience with Dr. Lantscheere, Rue de l'Association 56, Brussels. Further details of the arrangements for the Conference will be published at a later date.

## THE MONTREAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, AUGUST 31 TO SEPTEMBER 4, 1897.

[From our Special Correspondent.]

Since the last letter from here the various Committees have been busily at work, and the preliminary arrangements for the meeting may be regarded as completed.

### The Executive Committee.

As an indication of the interest taken in this meeting throughout the whole of Canada, it may be pointed out that the following leaders of the profession have accepted positions upon the Executive Committee, and have offered their co-operation:—Dr. W. Tobin, President of the Halifax Branch; Dr. G. L. Milne, of the British Columbia Branch; Dr. C. R. Church, President of the Ottawa Branch; and Dr. A. Catellier, President of the Quebec Branch of the British Medical Association; Dr. L. J. A. Simard, President of the College of Physicians and Surgeons of Quebec; Dr. A. F. Rogers, President of the College of Physicians and Surgeons, Ottawa, Ontario; Dr. J. A. Duncan, President of the British Columbia Medical Council: Dr. J. McLeod (Charlottetown), President of the Prince Edward Island Medical Board. The Presidents of the following medical associations have also joined the executive:—Dr. V. H. Moore (Brockville), President of the Canadian Medical Association; Dr. J. W. Daniel (St. John), President of the Maritime Medical Association; Dr. J. W. Coventry (Windsor), President of the Ontario Medical Association; Dr. H. H. Chown (Winnipeg), President of the Manitoba Medical Association; Dr. J. P. McDonald (Hopewell, N.S.), President of the Nova Scotia Medical Society; and Dr. A. J. McCully (Moncton, N.S.), President of the New Brunswick Medical Society.

### Railway Facilities.

With regard to the advantages offered by the leading railways of the Dominion, the local Executive Committee have received most favourable terms. All the leading lines in Canada offer to the Association and its guests to convey them at half fare over the greater portion of Canada. In this connection the Grand Trunk Railway will carry members at these rates as far as Sarnia, and the Canadian Pacific Railway upon the main line and all its branches as far as Port Arthur. Readers of the British Medical Journal need only to consult their maps to see what an enormous stretch of country is included under these privileges. In addition to this, the Canadian Pacific Railway will give the same rates to those wishing to cross the Continent. Return tickets will be given from Montreal to Vancouver for one single fare with the privilege of "stopping over" at the leading places of interest *en route*. In other words, members and guests of the Association will be able to travel throughout Canada with first-class accommodation at the rate of about ¾d. per mile. The opportunity thus given to study the country, to see some of the most marvellous scenery of the world, that, namely, which is passed through in crossing the Rocky Mountains, is almost unique. The cost for journeying thus from Montreal to the Pacific coast and back again, exclusive of sleeping accommodation and meals, is about £15.

The journey across to Vancouver and back can be easily made in a fortnight, and meals and sleeping accommodation may be placed at about a £1 a day. In order that those taking this tour may gain the fullest advantages and most comfort the Canadian Pacific Railway strongly recommends that not more than twenty-five members leave Montreal at a time.

### Members from the Far East and Australia.

Mr. D. McNicoll, Passenger Traffic Manager of the Canadian Pacific Railway, has addressed a letter to Dr. Armstrong, President of the Excursion Committee in Montreal, in the course of which he says:

> For members and their families boarding our transport steamers at Hong Kong, Shanghai, Nagasaki, Kobe, or Yokohama, on production of proof of membership to our agents in these parts, we will issue thence to Montreal first cabin tickets for £36 one way, and £63 return, the tickets being good by our steamers leaving Hong Kong about June 9th and 30th, and July 21st, and having a time limit of six months from the date of issue to date of embarkation at Vancouver on the return journey.

The terms thus offered to members from the Far East are remarkably low. It will be seen that they afford an opportunity to travel from Hong Kong to Montreal and to return for the sum of £63, leaving an interval of four months between the voyage out and the voyage back, thus rendering it possible for a visit to Europe to be paid. In fact, the Canadian Executive would recommend Australian members desiring to attend the meeting at Montreal to take advantage of these low rates and to travel *via* Hong Kong. Communications are, however, now being held with the Directors of the Canadian Australian Line with the view to reductions in the fares.

### Local Arrangements.

The Local Entertainment Committee is busy making arrangements to accommodate such visitors as are specially addicted to golf, tennis, bicycling, etc. We do not know whether many members of the Association are adepts at "la crosse," but if there are a sufficiency a committee is arranged to prepare for a match between them and the Caughnawaga Indians, or, if preferred, with a team of "la crosse" playing medical men. Dr. K. Cameron, 903, Dorchester Street, Montreal, the Secretary of the Committee, will be glad to enter into communication with those desiring particulars as to golf and other games. Arrangements have already been made for a Ladies Committee to entertain the wives and daughters of visiting members.

Dr. H. S. Birkett, 123, Stanley Street, Montreal, will be glad to answer inquiries of those wishing to obtain any form of fishing or shooting.

### Lodgings.

We are desired by the General Purposes Committee to point out that good lodgings without board can be obtained and reserved for members of the Association at rates ranging from 4s. a day upwards. To those wishing to obtain rooms such as are used by students in the city, which are at the same time bed and sitting rooms, even lower prices can be quoted.

Since our last letter the City Council of Montreal has generously offered £600 towards the expenses of the meeting.

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Father Damien's Successor.—According to the New York *Medical Record*, Father L. L. Conrady, who succeeded Father Damien in the charge of the leper colony at Molokai, Hawaii, has visited the United States with the object of fitting himself more thoroughly for his task by studying medicine. A brother of Father Damien has charge of the colony during Father Conrady's absence. The latter has been interviewed by the reporter of a San Francisco paper respecting leprosy, and gave it as his opinion, formed from long observation of lepers in Hawaii and Japan, that leprosy can be transmitted only by inoculation. He believes that a person who takes proper precautions as to cleanliness, and never allows any part of his skin that may be abraded or broken to come in contact with the person of a leper may live among them for years without contracting the disease. Father Damien, he said, had contracted it owing to his unwillingness to refuse attendance on a boy who had been badly hurt in an accident. "Father Damien was suffering from a badly bruised hand, but binding the wound with antiseptics and trusting for the best, he dressed the boy's wounds. His precautions were useless. He had become inoculated, and it was not long before the marks of a leper appeared upon him." There are at present 1,200 lepers in the colony at Molokai. Of these 1,156 are native Hawaiians, 25 are Chinese, and 19 are white (17 men, 2 women).

## BRITISH MEDICAL ASSOCIATION.

### SUBSCRIPTIONS FOR 1897.

Subscriptions to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

# British Medical Journal.

SATURDAY, FEBRUARY 20TH, 1897.

## QUIS VINDICABIT?

It is the wont of some to deplore the lax rules and loose morals of our order, to blame the Royal Colleges for not exerting discipline, and to urge our Association to take the position from which these bodies are thought to shrink. We question much whether these complaints do not rather reflect honour upon us than discredit. Our neighbour's sins, it is clear, we feel more acutely than we did. But this may be rather that our conscience is more tender than that his fault is greater. We heard an enthusiast not long ago exclaim: "There is one course of lectures that we all want, for which the fee is usually fixed at 'twopence extra.' Then perhaps we should learn manners." To which replied an elder: "We have learnt them. You should have seen what it was forty years ago." The testimony of age, so far as we have heard it, is always to this effect; and it accords with our expecting. For it is not to be believed that standing and general culture should have risen, as they certainly have, and yet that manners should have sunk. Rather is the explanation this, that better education has made us nice, and the Association has given us tongue. Faults that would before have passed unnoticed now rouse our anger, and being roused we do not refrain from roaring.

The interesting speech of the President of the College of Physicians at the dinner given to Dr. Roddick, of which a brief report was published in the British Medical Journal of January 23rd, p. 226, is an answer to the second complaint. His College, he said, far from neglecting this sphere of duty, takes great trouble to perform it. At every meeting many complaints reach the Censors of misdeeds among the children of the College, and each is investigated with strict impartiality, and with a labour which in the sum is of great amount. Where necessary the offender is reprimanded, or on rare occasions even expelled the College.

Any Fellow who attends the meetings of the College, to which these matters are duly reported, will bear witness that the President did not exaggerate the facts. At the Royal College of Surgeons, also, an Ethical Committee has been for some years in existence, and its proceedings are reported to the Council of the College. Very little, however, is heard about this Committee, and the profession as a body are hardly aware of its existence. Otherwise we imagine that opportunities would more often be taken of referring ethical questions affecting Members of the College to it.

It is true, we think, of all men that they err less of malice than of ignorance. When young we accuse readily and fiercely, but in age we have learnt how many times we have unconsciously offended others; how often we have been blamed for what we never meant; how different have seemed in our neighbour's eyes deeds that were quite innocent in our own. What is true of all is true also of doctors. Most offenders, says the President, receive their reprimand with grace, and atone with readiness. The College says, in words that echo in our ears from long ago, "*Aut disce, aut discede*," and to very few is it necessary to apply the latter remedy.

But all jurisdiction implies a law, and there are many offences which, being against no law, are out of jurisdiction. The College has of set purpose refrained from fixing the price at which its Fellows, Members, or Licentiates shall sell their labour. It is the fashion now among tradesmen to fix a minimum wage. We see no reason why alone among the professions we should class ourselves with trades. If professional honour means anything, it surely means a certain mutual trust. It is a mockery to claim that we are gentlemen if we insist that laws are needed to prevent us from thieving. Let us have some self-respect and a little patience. This class of offence is recent, and will yield to a public opinion already strong and daily stronger; but that some men in all professions are beneath public censure is a sorry truth that no legislation will do away with. Sweating associations may well be held outside the pale of what is allowable, for they can be brought within a definition. But it is, and always will be, impossible for any medical corporation to prescribe a scale of charges to its members.

Equally beyond law are many other matters to which offence has ere now been taken. We cannot legislate for little things. Freedom and the sense of responsibility is the claim of all men of honour, and, whatever we may think of each other, we surely do not wish to deny that title to ourselves. Let us not forget M. About's taunt to his compatriots, that each Frenchman as he shaved flattered himself that he saw in the glass the twenty-seven millionth part of a tyrant, but forgot that he saw also the whole of a slave.

The Colleges have behind them the power in the last resort to take away the diploma they have given. The Association has but the power to expel, yet, since in times past, expulsion from a medical society has brought ruin to the offender, this power will still deter from misbehaviour, and should still be exercised where needful. Yet to punish is an unwelcome task to the Association; our office is rather to bring peace than to wield a sword. Our Association has been, is, and long will be beyond measure useful in promoting the loyal kindliness that should obtain between us who practise physic. That this should grow is the chief aim of all who wish us well. If that end be reached, if there be goodwill among men, then we, as friends, may be able to dispense with etiquette, and still more with legislation.

## SUBJECTIVE COLOUR PHENOMENA.

We already owe to Mr. Shelford Bidwell an excellent experiment on subjective colour vision.[1] Our debt is materially increased by his recent communication to the Royal Society on Subjective Colour Phenomena attending Sudden Changes

[1] *Nature*, p. 466, September 6th, 1894.

of Illumination.[2] In the communication eight different forms of experiment are described. Of these, two appear particularly novel and interesting.

Two black cardboard discs, A and B, from each of which a sector of 60 degrees has been excised, are mounted 9 cm. apart on a horizontal spindle. The discs are so set that the one edge of the cut-out sector in A is opposite to the other edge of the cut-out sector in B. Between the discs and parallel with them is placed a sheet of white paper; on this across its middle a narrow strip of tinfoil is gummed. Two clear glass electric lamps are placed near the outer faces of the discs. To an observer looking at the plain side of the paper across the edge of one of the discs while they rotate slowly the sheet of paper appears successively (1) dark all over, (2) illuminated from behind by one of the lamps showing the shadow of the dark strip, (3) illuminated from the front, the dark strip not showing. When the speed of rotation of the discs is sufficient the strip is seen nearly continuously, and its colour appears not black but bright red.

In another experiment a sector of, as above, 60° is excised from a disc of white cardboard 15 cm. broad. The remainder of the disc is radially halved; one-half is painted black. The disc is attached to a horizontal spindle, and is illuminated by a lamp in front. A white card, on which black lines are drawn, is supported behind the disc, and viewed intermittently through the open sector as the disc is rotated about six times a second. When the direction of rotation is such that the opening of the sector succeeds the blackened 150°, the black pattern on the white card appears red. The explanation of the appearance of this subjective red colour is not easy.

Mr. Bidwell has happily devised particularly excellent methods for observing the phenomenon. The suggestions he makes toward the explanation of it do not however appear very convincing. It has long been well known (Fechner,[3] Helmholtz[4]) that colour sensations can be evoked by alternately observed black and white surfaces. This has been notably studied in the case of slowly rotating discs, and the instance of a black-white spiral on a disc has been especially discussed. Helmholtz evidently inclined to connect the colours seen with the fact that a strong white sensation usually, if the eye immediately thereafter be screened or in darkness, passes through phases of colour as it dies away. Fechner described the order of succession of the colour as running through green, green-blue, blue, indigo, violet, rose-red, and orange. Later observers (Brucke, Helmholtz, and others) have in the main observed the same order of sequence. The phenomenon referred to is the well-known "coloured fading of the positive after-image."

In this country renewed interest has been taken in the subject since the issue of a modification of Fechner's disc under the name of "the artificial spectrum top." This little disc can be bought, we believe, in the toy-shops for a few pence, and although simply a white card with black lines and surface on it, it gives by lamplight when spun on a pin pushed through its centre, a pretty play of colours, especially of orange and blue. For this modification of the old experiment various explanations have been put forward. One, which adopts Helmholtz's suggestion mentioned above, but adds the further assumption that the rapidity with which the eye perceives colour is greater for one end of the spectrum than for the other, was proposed two years ago by Professor Liveing.[5] An explanation offered by Captain Abney[6] follows more completely the line that persistence of sensation is unequal for the three (violet, green, red) components of white, just as suggested in Helmholtz's reference to the matter. Another suggestion, arising in America, and already incorporated in an American textbook of physiology,[7] looks upon the phenomenon as demonstrating that the speed with which a sensation of white light reaches its maximum varies for the three primary colour sensations respectively, red, attaining a maximum sooner than green or violet.

Mr. Bidwell attacks the problem in connection with the results of his own experimental researches. He suggests that a patch of retina in which, by reason of the concomitant play of white light of various wave lengths the "red," "green" and "violet" nerve fibres are all being excited, the state of excitement induced spreads in the case of the "red" fibres sympathetically to "red" fibres in the zone of retina bordering on, but outside, the illuminated patch. On cessation of the illumination of the patch, the circumjacent "red" fibres cease to be sympathetically excited, and for a moment cease to respond to luminous stimulation, so that in that zone the action of the others fibres—"violet" and "green"—predominate at that moment. A halo of colour complemental to that of the sympathetic red halo therefore appears, surrounding a dark image. This suggestion is ingenious, but we hardly think it likely to be the real explanation of the results obtained in the various modifications of the Fechner disc or in Mr. Bidwell's own most interesting experiments.

[2] *Proc. Roy. Soc.*, vol. lx, p. 368, December 24th, 1896.
[3] *Poggendorff's Annal.*, 1838.
[4] *Physiol. Optik*, 1860.

## ARMY MEDICAL REFORMS.

THE long—and, indeed, ominous—silence of the Secretary of State for War concerning pressing army medical reforms has been broken by Mr. Brodrick in his speech on the Army Estimates. We do not for a moment doubt Lord Lansdowne's profession of sympathy and admiration for army medical officers, but we fear his better self has been overborne by influences difficult to resist, and more difficult to overcome. We are are told the War Minister has given his best attention to the following questions: First, whether Scotch and Irish candidates have been scared from the army examinations by having to appear before London examiners. He concludes they have not, and he appears to have good grounds for the opinion. Secondly, he has induced the Indian Government to recognise the financial portions of the Royal Warrants—a point which, surely, ought never to have been contested by a subordinate Government. Thirdly, the six years' tours of foreign service are to be reduced. Fourthly, assistance—financial, we presume—is to be given towards the establishment of medical messes at the larger stations. Lastly, opportunity for "study leave" is to be afforded.

We are very far from minimising these important concessions, which will be accepted in the frank spirit in which they are made. But this must not be allowed to obscure the vital question, Will they rehabilitate the service, now discredited, in the eyes of the younger members of the medical

[5] *Nature*, p. 167, December 13th, 1894, Cambridge Philosophical Society. Also *Nature*, p. 200, December 27th, 1894.
[6] *Nature*, p. 291, January 24th, 1895.
[7] *An American Textbook of Physiology*, edited by Howell, p. 789. *Vision*, by Professor Bowditch.

profession? The answer is not doubtful; young medical men have declared they cannot serve in the army except on terms of official equality with their own brothers and cousins in the combatant ranks; while an unwarrantable class, or caste, barrier is maintained, they say, we cannot serve. How is this declaration now met? The proposals which have been submitted for new forms of army medical rank and title do not, it is said, appear "desirable for adoption." Why? No reason is assigned; probably, on the legal principle, give your judgment, but not your reasons. The late Mr. Stanhope, in his refusals, pleaded the authority of his "military advisers"; but no such compromising committal is made on this occasion. We have therefore reluctantly to state our conviction that, however good the present concessions are, they will prove inadequate to attract candidates to the service, because they are merely on the fringe and do not go to the root of the existing discontent.

From what can be learnt, the present examination—the result of which is not yet declared—has not been a success, even as a stopgap to the leakage going on in the ranks of the medical department. The existing vacancies may be fifty or sixty, but there is no prospect of their being filled. This large deficit exists in an establishment notoriously undermanned. The next question the military authorities will have to answer is this: What provision exists, or is made, for the medical *personnel* of our two army corps, supposed to be ready for sudden mobilisation? At present there are not more than 250 executive army medical officers, on full pay, available for such mobilisation in the three kingdoms. Is every home station to be stripped bare in the event of such mobilisation? As for five years' tours, they can only be effected by shortening the period of home service; because, the reliefs and the relieved stand in the proportion of about three to five. As for "study leave," it will be time enough to talk of it when the department is sufficiently manned to permit of ordinary private leave, even on the most urgent pleas. From all these considerations we fear we are no nearer the true solution of army medical difficulties than we were before Mr. Brodrick's able speech.

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Mr. H. Stansfield Collier, F.R.C.S.Eng., has been appointed Assistant Surgeon to St. Mary's Hospital in the vacancy created by the promotion of Mr. A. J. Pepper to the Surgeoncy.

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Mr. Victor Horsley will deliver the second of the Hunterian Society's Lectures on Wednesday next, at 8.30 P.M., at the London Institution, Finsbury Circus. The subject of the lecture will be Torticollis and its Treatment. Members of the profession will be welcomed as visitors.

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The return of Sir Charles Cameron as member for the Bridgeton division of Glasgow is a notable addition to the strength of the medical profession in the House of Commons. Apart from political considerations, it will, we believe, be a matter of congratulation to all members of the medical profession that he should again have a seat.

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Dr. F. G. Penrose has been elected Physician to St. George's Hospital in the place of Dr. Whipham, who after twenty years' service on the full staff becomes Consulting Physician. At the same time Dr. Cyril Ogle was appointed Assistant Physician. Dr. Ogle, who is a son of Dr. J. W. Ogle, Consulting Physician to the hospital, has held the posts of Curator of the museum for the last three years, and of medical registrar.

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## HYDROPATHIC ESTABLISHMENTS.

Some months ago we received from a correspondent two questions with regard to the medical aspects of hydropathic establishments. As the questions raised matters of considerable difficulty, it was thought desirable to submit the points to the General Practitioners and Ethical Committee of the British Medical Association. At their last meeting this Committee adopted the following resolutions:

Resolved: That this Committee is of opinion that in all cases respecting the payment of medical men in hydropathic establishments, it is most desirable that they should receive the whole of the fees charged to the patients.

Resolved: That, in the opinion of this Committee, patients residing in hydropathic establishments have the right to call in any medical attendant they think proper to attend them.

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## A MUNICIPAL PUBLIC HEALTH LABORATORY.

The Dundee Sanitary Committee has at present under consideration the question of providing a bacteriological laboratory for the medical officer of health, the equipment of which will cost £60. The community is to be congratulated on the attention given to the proposal by its councillors, for there is little doubt that a certain diagnosis at the outset in cases of diphtheria and typhoid fever would often save an epidemic, and this even from a financial point of view would be an economy that would repay the cost of the laboratory every year. A bacteriological laboratory is the logical sequel to the notification of infectious disease, and where as in Dundee the medical officer is a competent bacteriologist there is good reason for urging its establishment. The financial success of the privately managed research associations throughout the country shows that the individual citizen believes a sure diagnosis worth paying for. One idea is that this work should be done at the Royal Infirmary, but apart from the fact that the community has no right to lay such duties on a private institution, to place this work in the already too full hands of the hospital staff would scarcely secure that confidence in its results which is essential to its usefulness.

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## THE LUNACY PROBLEM IN LONDON.

Another stage in the history of this difficult question has been reached with the receipt by the London County Council of the report of its Asylums Committee. This recommended that before any definite steps were taken a deputation, consisting of three members of the Committee and two expert medical officers, should visit the following Continental asylums:—Paris: St. Anne's Hospital and Salpetrière Asylum. Berlin: Charité Hospital, Herzberge, Dalldorf and Bresdorf Asylums. Saxony: Alt-Scherbitz Insane Colony. Hanover: Bielefeld Asylum. Munich: Gabersee Asylum. Belgium: Gheel Insane Colony. The recommendation was postponed for a report on the system to be adopted in such inquiries, but we understand that there is every probabllity of its being carried into effect. This is undoubtedly a step in the right direction, for it cannot be questioned that we have much to learn from the examples of such institutions as, for instance, that at Alt-Scherbitz, which is figured in Dr. Paetz's book on *The Colonisation and Open-Air Treatments of the Insane.* There is unfortunately no disguising the fact that the scientific study of mental disease in England does not at the present time attain to the standard of many places on the Continent. This can hardly be otherwise under the present system. It is urged by those opposed to the present system that the superintendent of one of our large asylums is, so to speak, the governor of a colony of some 3,000 souls, for whose welfare he alone is responsible; how can he be in reason expected to find time from the performance of his administrative duties to devote to the study of psychiatry? His assistants are far too few in number. Further, the salaries

are low and the prospect of advancement small. We are but too frequently brought face to face with the anomaly of a recently qualified man who has never held a resident appointment, entrusted with the medical care of 500 patients suffering from maladies surpassing all others in obscurity. In such cases it may be shrewdly surmised that the diagnosis is not always made with minuteness nor the treatment carried out with thoroughness. Contrast with this the asylum directed by one of the greatest of German alienists, Kraepelin, who has twelve assistants in the treatment of 300 cases. The question of the establishment of a hospital for acute mental cases is one on which there is room for difference of opinion. A Commission was instituted in 1889 to inquire into the idea, which, though it received the approval of many recognised authorities, did not command the support of the superintendents of asylums. The advocates of the scheme urge that it affords the only means of increasing our power of curing insanity; its opponents designate it as cumbrous and expensive. The problem is one, however, not to be solved without expense, and we believe that the key to it may be found in the study of the defects of our present system and the good points of the methods employed abroad.

## INFANT PRODIGIES.

Hardly a year goes by in which we do not hear of some new child wonder. At one time it is an infant who, like the celebrated Nicholas Ferry, weighs less than a pound at birth, and can be cradled in a slipper. Then it is a giant baby, like the Welsh infant who died last year at the age of 14 months, and who turned the scale at 4½ stone. At another time the notoriety is founded upon a premature senility, like the child we heard of in Chicago who was said, with a certain amount of truth, to have run through all the stages of life, from babyhood to youth, and from youth to maturity and old age, in the short space of ten months. But perhaps more often the child becomes widely known by reason of some physical or mental accomplishment as violin or piano playing, the solution of arithmetical problems, or an extraordinary gift for languages. Of this last type was John Stuart Mill and the Rev. Dr. Jenkin Ryland, the latter of whom at 5 years of age read in Hebrew, and, when 10 years old, finished a translation of the whole of the Greek testament. One of the latest of these prodigies is a child named Otto Pöpler, who has been exhibited recently by Professor Carl Stumpf before a meeting of the Anthropological Society of Berlin. Though by no means of the same phenomenal ability as some of those child giants who have preceded him, yet he appears to be of the same class. He is now of the age of 4 years, and, like so many of his predecessors, he excels principally in memory and particularly in the memory of dates; but, unlike most of the memorising and calculating boys, he is not accomplished solely in one direction, but also shows an aptitude for languages and for general reading. It is a mistake to suppose that these prodigies always either degenerate or die young, and the future of Otto Pöpler may be watched with much interest.

## NOTIFICATION OF INDUSTRIAL ACCIDENTS.

Owing to the lack of compulsory notification of workmen's accidents in England estimates of their number are somewhat vague. One extensive inquiry has shown that, out of every 1,000 workmen, 129.3 met with an accident in each year in the course of their employment; 1 out of every 1,400 workmen was annually killed; 1 out of every 2,500 was totally disabled; 1 of every 300 was permanently partially disabled; while no fewer than 125 out of every 1,000 were temporarily disabled for an average period of between three and four weeks. It is for the protection of the community that notification of infectious diseases has been made compulsory. In the case of accidents no such plea can be urged; hence the object of the Government should be to encourage rather than to compel notification. On factory walls and elsewhere notices are conspicuously displayed recommending both employers and workmen to report accidents, and, unless notice of injury has been given within six weeks of its occurrence, no action for compensation can be maintained under the Employers' Liability Act. Although it is not likely that this restriction will be continued, a Board of Arbitration would probably take into consideration any undue delay in reporting an accident. Early reports cannot be expected unless liberty of revision at a later date is permitted, since it is often impossible to ascertain immediately the full extent and consequence of an internal injury. While friendly settlement outside any law court should be encouraged, no such settlement should be binding without notification both of the nature of the accident and of the terms of settlement.

## ETIOLOGY OF GOITRE.

The etiology of goître is one of the puzzles of medicine. The number of theories which have been started to account for it is very great, but none are altogether satisfactory, for none appear to be applicable to all the various conditions under which the disorder makes its appearance. Sir George Scott Robertson, K.C.S.I., in his interesting volume on *The Kafirs of the Hindu-Kush*, has a note upon the prevalence of goître among the Kafirs and Chitralis which is of interest, although the evidence he is able to advance is purely negative. "Goître is," he says in Kafiristan, "a common disease, but is almost exclusively confined to women. I saw only one man suffering from it, and his goître was of trifling size. Women sometimes have very large goîtres, but nothing like the immense tumours to be seen in Chitral. Before I went to Kafiristan, Chitralis declared to me that no Kafir suffered from goître, because he drank wine: and it is really a fact that it is only those in the Bashgul Valley who never drink wine, namely, the women, who are afflicted with goître. The Kafir women work in the fields, and the Mehtar's queens do not, but both get goître. It is the freedom from this disease which the Kafir males enjoy which is so puzzling. They certainly drink a little poor wine, generally with water, but that presumably cannot afford them protection against goître. They lead a free, open-air life, but so do the Chitralis, who yet have enlarged necks. Bashgul men and women live under the same conditions of life, drink from the same streams, and eat more or less the same kind of food. Why should one sex enjoy an immunity from a disease which is denied to the other, and which is denied to both sexes in the adjacent valley of Chitral?"

## THE INTERNATIONAL SANITARY CONFERENCE.

The International Sanitary Conference was opened at Venice on the afternoon of February 16th. Great Britain is represented by the Hon. Michael Herbert, C.B., and Dr. Thorne Thorne, C.B., who have the co-operation of Mr. H. Farnall, C.M.G., of the Foreign Office, who has an extensive acquaintance with questions affecting shipping and quarantine regulations, and of Surgeon-Colonel J. L. Notter, Professor of Military Hygiene at Netley, who has been appointed to advise as to questions connected with the transport of troops. The Indian Government will be represented by Surgeon-Colonel Richardson until the arrival of Surgeon-Major-General Cleghorn, who is expected this week. Count Bonin Longare, Italian Under-Secretary of State for Foreign Affairs, was chosen President of the Conference. Certain propositions put forward by Austria were debated. They raised the questions whether a large quarantine station should not be established in the Red Sea near Suez; how vessels arriving in Europe after leaving such quarantine station should be treated; and whether pressure could be brought to bear on the Sultan to forbid the Meccan Pilgrimage. These suggestions were accepted as the general programme of the Congress. The main discussion, however, will probably take place upon the French proposals as to the ratification of the Paris Convention, and as to the need for strong measures in India which would permit the severity of the measures taken

by Europe to be decreased. At the second sitting of the Conference on February 17th, Dr. Thorne Thorne, at the request of the French delegate, described the regulations in force in Great Britain, and stated that three cases of plague had already been successfully managed in England. He urged that no grounds had been shown for dealing with the plague otherwise than by the means found successful in dealing with cholera, and that in the absence of more precise scientific knowledge as to the etiology of plague, England must be guided by her experience which was already a century old. The correspondent of the *Times* states that an excellent spirit prevails in the Conference, and adds that the issue lies practically between England and France.

## SIR WILLIAM BROADBENT.

Sir William Broadbent was on February 17th presented with a service of plate subscribed for chiefly by the old students of St. Mary's Hospital and the medical staff. The presentation was made by the senior physician, Dr. Cheadle, who said it came from the many friends Sir William Broadbent had made during the nearly forty years he had been connected with the hospital, and added that though the occasion marked the termination of Sir William Broadbent's active services to the hospital all sincerely hoped that he would long retain his interest in it. Sir William Broadbent, in acknowledging the presentation, mentioned that he had first entered the hospital in 1858 as Resident Obstetric Officer. He looked upon the intervening period with pleasure. He owed to the hospital not only opportunities for work and observation, but the most valued friendships of his life. When he first joined there were only 150 beds, a number which had now been raised to 281, and he trusted that the time was not far distant when the Clarence wing would be completed.

## LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS.

The arrangements for the spring courses of lectures at the Royal College of Physicians of London are hs follows: The Milroy Lectures, on Quarantine, by Dr. W. H. Collingridge, M.O.H. for the Port of London, will be given on March 11th, 16th, and 18th. The Goulstonian Lectures, by Dr. A. P. Luff, on the Chemistry and Pathology of Gout, on March 23rd, 25th, and 30th. The Lumleian Lectures, by Dr. H. Charlton Bastian, F.R.S., on Some Problems in connection with Aphasia and other Speech Defects, on April 1st, 6th, and 8th.

## THE MIDWIVES REGISTRATION BILL.

The text of this Bill, brought into the House of Commons this year by Mr. Tatton Egerton is printed at page 473. Having been read a first time in due course the measure was put on the paper for February 12th, and the second reading stage was deferred until Friday, February 26th; but as every Friday has been taken by the Government for Supply, it is not likely to come on then. The only chance for it would be if Supply stopped before midnight. This does not often happen, but if it did the short time likely to intervene is not likely to suffice for the debate if any of the opponents of the Bill are present in their places. Its promoters have failed in the ballot for private members' days, therefore the Bill has very little prospect of being taken on a Wednesday afternoon, and there is a powerful obstacle in the way of its being taken at the tail end of an ordinary full-day sitting in the shape of a notice of opposition standing in the name of Sir W. Foster. A "blocking" notice has also been given by Mr. J. W. Maclure. We are informed that Mr. Schwann is endeavouring to arrange a deputation to the Duke of Devonshire on the subject in the hope that the Government may be induced to consider the question with the view to the introduction of a measure at some future date which should be of the nature of a compromise between the views of those who support and those who oppose the Bill in its present form. It is not likely that much more will be heard of the present Bill. A deputation from the Bradford and District Medico-Ethical Society, consisting of the President (Dr. Hime) and the Honorary Secretary (Dr. Dunlop) has had an interview with Mr. Wanklyn, M.P. for the Central Division of Bradford, to explain to him the objections to the Midwives Registration Bill. Having heard the views of the deputation, Mr. Wanklyn expressed himself as being in accord with them, and promised to oppose the Bill. Captain Greville, M.P. for the Eastern Division, was interviewed on the subject at the time of his election last year, and he expressed himself as being opposed to it. There is thus small chance of its becoming law, but medical men who are opposed to the measure should use their influence with their Parliamentary representatives to oppose the Bill.

## SMALL-POX AND VACCINATION IN ENGLAND.

Mr. Noel A. Humphreys's paper on English Vaccination and Small-pox Statistics at the Royal Statistical Society is an important document, bristling with statistics, of course. The author concludes with a series of conclusions, which may be summarised as follows: (1) The mean annual death-rate per million from small-pox at all ages in England and Wales was 408 in the twelve years recorded before compulsory vaccination, and fell to 126 in the forty-two years since compulsory vaccination. (2) The main part of this fall has occurred among children under 10 years. (3) The age incidence of fatal small-pox has entirely changed. Small-pox, from being mainly a disease of childhood, is now proportionately more fatal to adults. (4) Judging by the statistics of the last six chief local epidemics, the proportion of deaths of children from small-pox bears a constant ratio to the proportion of children officially returned as "unaccounted for" as regards successful vaccination. (5) Infant vaccination confers a practically complete immunity for the first ten years of life. (6) The increased mortality of adults is due to the waning of the protective effect of infant mortality, as shown by the steady increase in the fatality at successive age-periods above 10 years. (7) Both attack-rate and fatality are far lower in the vaccinated than the unvaccinated. (8) The type of disease is far milder amongst the vaccinated than the non-vaccinated, a point illustrated by tables. (9) Judged by the statistics of nurses and attendants, successful revaccination affords practically complete protection to adults, even to those brought into actual personal contact with the worst forms of the disease. He adds:—"It may well be doubted whether the State would be justified, in deference to the opposition of mistaken and misguided persons, however honest, in imperilling the lives of thousands of children who would remain unvaccinated as a result of the proposed relaxation of the law." Mr. Humphreys thinks, however, that the age for vaccination might well be extended to six months or even a year, which would reduce the opposition to vaccination to a minimum, as in Scotland and Germany.

## THE NEW YORK ACADEMY OF MEDICINE.

The New York Academy of Medicine celebrated the fiftieth anniversary of its foundation on January 29th, with appropriate pomp and circumstance. The Academy was founded at the end of 1846, with the following objects; (1) The cultivation of the science of medicine; (2) the advancement of the character and honour of the profession; (3) the elevation of the standard of medicine; (4) the promotion of the public health. It was not till 1875 that the Academy had a house of its own. In 1879 a library hall was built, and now the Academy boasts a collection of about 50,000 volumes, the largest medical library in the United States with the exception of that of the Surgeon-General of the Army at Washington. A few years later it became necessary to erect a larger building. This was done at a cost of more than £66,000, the amount being raised by subscriptions, donations, and the proceeds of the sale of the old house. The new building is free from

debt, and the Academy's property, as shown by the treasurer's report of December 15th, 1896, is now worth nearly £70,000. The new building, which was opened in 1891, is a structure of six storeys, with a frontage of 75 feet, and a depth of 100 feet. The library has space for 200,000 volumes. Among those present at the celebration were many of the most distinguished members of the profession in New York, and a number of representative citizens, including the President of the United States. An address was delivered by Dr. Abraham Jacobi, and Dr. Lewis A. Sayre and others also spoke. President Cleveland likewise delivered an address. While congratulating the medical profession on the wonderful advances that had been made in the alleviation of human suffering and the saving of human life, he put in a plea for the village doctor of fifty years ago, whose ministrations were held in lasting and tender memory by those who were now the living monuments of his faithful care. "We remember," said the President, "without abhorrence his ever-ready lancet and the scars of his bloodletting found in every household. We endure with complacency the recollection of his awful medicine case, containing bottles, powders, and pills, which, whatever might be thought of them now, seemed then to be sufficient for all emergencies—to say nothing of the tooth-pulling tools and other shiver-breeding instruments sometimes exposed to view. If he was ignorant of many of the remedies and appliances now in use he, in a large measure, supplied the deficiency by hard-headed judgment, well-observed experience, and careful nursing. Besides, it was in his favour that he did not have to bother his head with many of the newly-invented and refined diseases that afflict mankind to-day. He had no allotted hours for his patients, but was always on duty, and we knew the sound of his gig as it rattled past in the night." The President went on to urge that members of the medical profession should take a larger part than they did in promoting legislative action for the prevention of disease and the improvement of the public health. The President afterwards held a reception at the Academy.

## DOES DECIDUOMA MALIGNUM EXIST?

Nearly a year has passed since there was an active discussion on this "new disease" at the Obstetrical Society of London. The majority of the speakers expressed scepticism about the existence of the malady. The question is important. The chances of cancer near the menopause are considerable. Is it true that at the present time woman is threatened during her vigorous youth with a malignant disease the direct result of maternity? British authorities do not, as appeared during the discussion, share the fears inspired abroad by the writings of Sänger, Marchand, and other French and German authorities. It may relieve though it will not surprise our readers interested in obstetrics and gynæcology to learn that a scientific sceptic has arisen in Germany. Dr. Ernest Reinicke, of Dresden,[1] practically strikes half the reported cases of the new disease off the list. He reviews the subject carefully, on the basis of histological research, and concludes that as yet no case of true sarcoma deciduo-cellulare has been reported. All so called hitherto were simply instances of large-celled sarcoma of the uterus probably proceeding from the myometrium, True transition forms between decidua cells of pregnancy and these large sarcoma cells have not been detected. This is just what Drs. Kanthack and Eden made out in the discussion at the Obstetrical Society. Dr. Reinicke next declares, just as Mr. Doran did at the same discussion, that these new growths are simply coincident with and not caused by pregnancy. Such is Dr. Reinicke's opinion as to sarcoma deciduo-cellulare, one variety of this terrible deciduoma malignum. Let it be observed that before the new disease is established as a class, two varieties have been distinguished. Dr. Reinicke believes in the second variety, that in which the malignant disease is said to originate in chorionic villi. He declares that this is a malignant growth truly arising from a product of gestation. Marchand and Gottschalk are the principal authorities who describe this form of deciduoma. Unfortunately for this theory, Dr. Eden, who has done good work in relation to the development and histology of the placenta, has pointed out that there was doubt as to the occurrence of a preceding gestation in Gottschalk's case, and that the structures figured by that writer as sarcomatous villi bore little resemblance to any kind of villi. Dr. Eden gave reasons for believing that Marchand's cases were equally doubtful. Hence, on the researches of competent and unprejudiced workers, we may conclude that the existence of either variety of deciduoma malignum is very doubtful, and that the term itself should give place to "sarcoma coincident with pregnancy" as the correct denomination of the disease. Humanity need not tremble for womankind. The surprise occasioned by Sänger's original case has caused hundreds of enthusiasts to hunt up current records of anything resembling malignant disease within a year or two of pregnancy. Yet under 30 cases have been mustered. In many it is doubtful whether the patient was ever pregnant, and in some the primary disease was probably not even uterine. In short, simple sarcoma of the uterus has not been found to be getting more frequent. No new terror has been added to child-bearing.

[1] Zur Frage des Sarcoma deciduo-cellulare, *Archiv für Gynäkologie*, vol. liii, part 1, January, 1897.

## KISSING THE BOOK.

The variety and absurdity of the judicial illegalities which arise out of the Oaths Act seem to be inexhaustible. The latest instances are brought to our notice by correspondents in the Midlands. In one case the county court judge at Northampton, after agreeing fully that the medical objection to kiss a very dirty Testament was just and in the public interest, went on to say that he "objected" to the Scotch form of oath because it involves the repetition by the witness of certain words which Judge Snagge did not like to hear people repeat "especially in Northampton." We confess the reports we have seen do not enable us to follow the learned judge. The reference to Northampton presumably means that the judge thought many of the witnesses before him would not believe sufficiently in the doctrines referred to in the form. If that was his view it is sufficient to say that if a man cannot conscientiously say the Scotch words it is quite certain that he cannot conscientiously take the English oath either. The fact that the former compels him to say the words, whereas the latter does not, makes no legal, moral, or real difference whatever. If a witness does not believe he can always affirm. If he does not choose to do so the judge has no right to interfere. And, besides, it has been long since declared that the particular words of the Scotch form are not essential, and that the English words themselves may be used with the Scotch ceremony. We discuss the objection because it is new, but the result which the judge arrived at is a sufficient *reductio ad absurdum*. He wound up the incident by having "the book" wrapped up in clean paper, and the oath so administered to the witness! We have serious doubt whether an oath so administered is lawful at all. If a witness has to kiss a "book" the form is not safely and certainly fulfilled by kissing a wrapper in which it is concealed, any more than it would be by kissing a box or a carpet bag with the book inside. It is notorious that witnesses who are superstitious, and also dishonest, have an ancient practice of kissing their thumb instead of the book, on the theory that by this device they escape committing themselves to the oath. All officials who have to administer oaths in the old form are constantly alive to this danger, and frequently make the witness kiss the book a second time, so that there may be no doubt of the contact between his lips and the cover. That being so, it is clear that Judge Snagge is simply providing a device by which witnesses of this class, absurd as their theory may be, both in morals and in law, will be induced in practice to perjure themselves. We cannot, therefore, admire this

judge's law, but we are bound to protest still more strongly against the position taken up by the West Bromwich deputy coroner, Mr. A. A. Betham, who told a house-surgeon of the West Bromwich Hospital that it was "no part of his (the coroner's) duty to know the Scotch oath," and that consequently the witness must either swear in the ancient way or not be sworn at all. The deputy coroner's statement is absolutely untenable. Since the Oaths Act it is just as much his business to know the Scotch oath as it is to know the ancient one. We are sorry to see that he made the matter worse by the astounding declaration that if medical witnesses insisted on taking the Scotch oath he would dispense with their evidence and refuse the fee. It is to be hoped that if he or any other coroner takes this course, anyone who is deprived of his fee by this flagrantly illegal device will take action against the coroner. We altogether fail to understand why, in this very simple matter, some of our minor judicial authorities seem to be bereft of common sense. A correspondent has sent us the following curious extract from the *Derry Journal*: "During the hearing of civil bills at Coleraine Quarter Sessions, his Honour Judge Overend addressed the members of the Bar, said he had often remarked the reluctance on the part of witnesses to kiss the book when being sworn. Especially was this evident at Londonderry, where the Testament was in the dirtiest possible state, and the Clerk of the Crown had specially remarked it on a recent occasion, when a witness who had visible disease of the lips had taken the oath by kissing the book. It ought, in his opinion, to be more widely known that any form of taking the oath was equally binding, so that witnesses need not incur any personal risk in the matter." We assume that the report is inaccurate, and that Judge Overend, in speaking of other forms of oaths, was not referring to the principle of law by which a Chinaman may be sworn by breaking a plate, but was referring to the Oaths Act, to which we have so often called attention; under which in England or Ireland every witness is entitled to be sworn without "kissing the book," if he so desires. We are glad to see some, at least, of the judges have themselves observed the gross sanitary dangers which are inseparable from the old practice. There ought to be no prejudice in Ulster against the adoption of the Scottish form of oath, and we hope that the incident at Coleraine may lead to some such practice in the Ulster County Courts as that which Judge Emden has so usefully initiated in his section of the Metropolitan area.

## THE POLL OF THE FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

It will be seen in another column that the result of the poll of the Fellows of the Royal College of Surgeons "upon the question of the direct representation of Members of the College upon the Council," is decidedly unfavourable to the proposed change. It is true that the number of those voting is still somewhat small, 1,150 circulars having been sent out, and only 686 valid answers received. The number of invalid answers and circulars sent to a wrong address only raises the number of papers returned to 709, so that 441 Fellows received the circular who did not think it worth while to answer. These, however, may certainly be reckoned as either averse to change or indifferent to it. The conclusion, therefore, is indisputable that the present body of Fellows is opposed to the introduction of Members on to the Council; and this fully justifies the refusal of the Council, which is the nominee and organ of the Fellows, to apply for a new charter with a view to the proposed change. For the present, then, the question must be regarded as settled, but for the present only. If the Fellows had been prepared to forego their undoubted legal right to the exclusive management of the College, it would have been a proof of magnanimity and disinterestedness, as wise, we believe, as liberal: but such magnanimity was hardly to be expected, especially since the opinion widely prevails, and is sedulously fostered by the party opposed to change, that the direct representation of the Members is only the fad of a few busybodies, and that the great body of the Members are indifferent to it. This is really the crucial question. If the great body of Members desire the franchise, and the representation which is its natural accompaniment, that desire is, in our view, so reasonable, and the change is likely to be so beneficial to the College, that we agree with Mr. J. Hutchinson in regarding it as inevitable. But of course, Heaven will not help those who do not care to help themselves; we look, therefore, on this decision of the Fellows not by any means as a settlement of the question, but as a challenge to the Society of Members to show what force of public opinion is behind their agitation. We are informed that a meeting of the Executive Committee of this Society was held on February 16th, when the following resolution was unanimously agreed to:

That a requisition be forthwith prepared and forwarded to the College in accordance with the regulations, asking the Council to call a special meeting of Members at an early date, to consider the results and validity of the recent poll of the Fellows, and other matters of importance to the Members.

## THE DUXHURST FARM COLONY FOR INEBRIATES.

A correspondent writes: Medical men are very often consulted by chronic alcoholic patients, and there is no more difficult question than that of where to advise persons of the poorer classes or of limited means to place themselves for treatment. That there are large numbers of women of this class in need of treatment is as certain as it is certain that neither their own homes, nor the ordinary hospitals, lunatic asylums, or convalescent homes are the proper places to afford it. The attempt made by the promoters of the Farm Homes at Duxhurst to provide treatment on new lines is one which should be made widely known, not only because the scheme is theoretically a most enlightened one, but because the practical results already obtained have been beyond the most sanguine expectations. Duxhurst is about four miles from Reigate station by road. The estate upon which the village and farm stands is situated on a breezy hill with a fine view across country. The village consists of a number of one-storeyed thatched cottages standing round a central green. In each cottage six patients live together under the charge of a nursing sister. They are carefully selected and grouped together, and live quietly and naturally, not the ordinary life of an institution, but their own life—only under more advantageous circumstances. In this way an ideal of home life is maintained, and a wholesome rivalry exists in the village as to how each cottage is conducted and kept, while the misery of a year's isolation from home under the necessary amount of discipline is minimised. At Duxhurst the rules and restrictions are few in number, and after a few months the patients are put on their honour, and allowed to go beyond bounds. An equally interesting feature of the treatment is in the occupation of the patients. Given a woman in the ordinary condition of the chronic alcoholic—melancholy, purposeless, inconsequent, without will, appetite for food, or power of sleep, a prey to mental depression and nervous irritability—it follows that sedentary, unengrossing, or simply fatiguing kinds of work (such as needle or laundry work) are not the occupations best suited to her mental and physical needs. At Duxhurst the patients' daily work is carried on under medical advice in the open air. Flower and fruit raising in the open and under glass, seed growing, poultry and bee keeping, dairy work and fruit preserving, are carried on. An active, cheerful set of patients may be seen clipping hedges, planting, mowing, busy in the greenhouses, and showing skill, industry, and pleasure in their work. It is easy to conceive of many forms of physical and mental exhaustion which would benefit in the highest degree by this bracing, out-of-doors existence; and easy to picture the general physical and mental restoration which follows from it in this most difficult class of cases. The change is very quickly shown in the altered appearance of the patients. They are paid for their work. A great point

is made of the diet, which is exceedingly good and plentiful. Besides the homes there is a large dining and recreation hall, where entertainments, classes, etc., are held every evening; farm buildings, a hospital, and church. Babies are admitted with their mothers, and a holiday home for children on the estate is a source of interest to the patients which the colony could ill dispense with. Two things strike the visitor: the air of quiet refinement and self-respect which pervaded the village, and also the acknowledged position of the inmates—not as moral delinquents, but as patients eager to get well, and having minds and bodies not to be mortified, but fortified and cured. The view of alcoholism as a disease is, indeed, the keynote of the scheme. The village can so far accommodate under 50 patients. During the past year 3,000 applications for admission have been refused. These figures afford food for reflection, and suggest that our failure to provide adequate treatment for this disease is as much a reproach to us as the disease is assuredly a national calamity. Since the establishment of the Elmira Reformatory perhaps no work of a philanthropic character has been undertaken in a more scientific spirit and with more level-headed, practical sense. The enterprise should commend itself to the consideration of all who still regard the question of the treatment of alcoholism in women as unsolved.

## RIOTOUS STUDENTS.

There have lately been several outbreaks of riotous behaviour among students in different places abroad. At Athens the medical students rose in rebellion against the authorities, apparently with the object of getting rid of an unpopular professor. They took possession of the University buildings, shot a few harmless outsiders, and threw the city into a state of anarchy. The work of the University was suspended, and the Rector resigned. After a time the students appear to have capitulated and marched out with the honours of war. They then attended the funeral of one of the victims of the riot, and fraternised with the alarmed citizens. The ringleaders among them have, however, since been arrested, to the great indignation of their fellow students, who accuse the authorities of a breach of faith. At Bordeaux the other day the ceremony of inauguration of the new University of Bordeaux was marred by disorderly manifestations on the part of the students, who thought they should have had a larger share in the proceedings. Two or three medical students have been imprisoned for resisting the police. In Rome there has been trouble in consequence of a new regulation intended to facilitate the identification of students attending the lectures. The Rector appealed to the authorities, and the University buildings have been taken possession of by the military power. At Algiers, some 200 students recently made a demonstration at the gates of the Mustapha College to protest against the appointment of a Jew to a professorship. Antisemitic zeal runs high among the ingenuous youth of the College.

## THE FRENCH SURGICAL SOCIETY AND A RECALCITRANT PROFESSOR.

We learn from the *Concours Médical* of February 6th that there is at Sens an orthopædic institute conducted by a local parish priest. Thither for some years past have flocked crowds of sufferers from crooked spines, diseased hips, and other deformities, who have been operated upon by the clerical bonesetter. So numerous have been his patients that they form an important source of revenue to the innkeepers of Sens. The priest after a time thought it prudent to get a legally qualified practitioner to "cover" him, and he has been so fortunate as to find one in Dr. Guermonprez, Professor in the Catholic Faculty of Lille. Dr. Guermonprez is a member of the Paris Société de Chirurgie, and that body invited him to furnish an explanation of his conduct. To this summons the Professor has made what Touchstone would call the "reply churlish," by inviting the Society to mind its own business. It appears, in fact, that under its present statutes the Society has no right to expel a member. The question, therefore, is what is to be done with this provincial Ajax who defies its lightnings. As regards "covering" there is a clause in the law regulating the practice of medicine in France which makes a person possessing a regular qualification who "covers" one not so qualified liable to the penalties incurred for illegal practice. Professor Guermonprez would therefore seem to be in relation to his profession in the position of a past President of the French Republic, who was summoned *se soumettre ou se démettre.*

## GERMAN CONGRESS OF INTERNAL MEDICINE.

The fifteenth meeting of the German Congress of Internal Medicine will be held at Berlin on June 9th and three following days, under the presidency of Professor von Leyden. The subjects proposed for discussion are: (1) The Treatment of Chronic Articular Rheumatism (to be introduced by Professor Bäumler, of Freiburg, and Dr. Ott, of Marienbad). (2) Epilepsy (to be introduced by Dr. Unverricht, of Madgeburg). (3) Basedow's Disease (to be introduced by Professor Eulenburg, of Berlin). Communications have also been promised, among others, by Drs. A. Fraenkel and C. Benda, of Berlin, on Acute Leukæmia; by Professor von Jacksch, of Prague, on the Metabolism of Carbohydrates; by Professor O. Liebreich, on the Aims of Modern Medicinal Therapeusis; by Professor von Leyden, on the Prognosis of Spinal Diseases; by Professor A. Baginsky, on Infantile Summer Diarrhœa; by Dr. Fürbringer, of Berlin, on Lumbar Puncture; and by Dr. E. Pfeiffer, on the Etiology of Chronic Articular Rheumatism. The Secretary of the Congress is Dr. Emil Pfeiffer, Friedrichstrasse 4, Wiesbaden.

## CREMATION IN FRANCE.

It is not even in these days of advanced hygiene difficult to die, but in France at least it appears to be not very easy to be cremated. In fact, if a Frenchman wishes to give his heirs, executors, and assigns as much trouble as possible after he has departed this life, he could hardly do more than leave directions that his body should be disposed of in that manner. The following are the formalities that have to be gone through before his wishes can be carried out: 1. A request on stamped paper for leave to have the body cremated must be addressed to the Mayor of the Commune. 2. A certificate of death, also on stamped paper, must be got from the medical attendant. 3. This certificate must be countersigned by the Commissioner of Police. 4. A further certificate certifying the certificate of the medical attendant must be obtained from the civil medical officer. 5. The next step is to go before the mayor armed with the various certificates enumerated, to obtain the authorisation of that functionary. 6. This authorisation having been obtained, it must be presented to the prefect of police, who, after countersigning it, delivers three certificates for the removal of the body: one for the mayor, one for the *pompes funèbres* (corresponding to undertakers), and one for the authorities of the Père la Chaise cemetery. 7. The Prefecture of the Seine must next be visited to arrange as to the hour at which the cremation is to take place. 8. Next some one must go to the burial office of the commune to settle the details of the funeral, and to pay the bill. 9. On arriving at the cemetery, the authorisation of the mayor and the certificate of the prefect of police must be presented to the keeper in his office. 10. After the cremation has been carried out, the representative of the deceased's family must again go to the keeper's office and pay the tax of 125 francs (£5).

The will of the late Sir Benjamin Ward Richardson has been proved. The testator's personal estate has been valued at £7,970 14s. The deceased has bequeathed his patents, apparatus, manufactures, and substances of an inventive character to his son Bertram.

## THE VISIT OF THE QUEEN TO THE RIVIERA.

### Cimiez and the Hotel Regina.

The forthcoming visit of Her Majesty the Queen to Cimiez will lend special interest to the following short account of the position and construction of the Hotel Regina, which Her Majesty will occupy. We are indebted for this description to Dr. W. Allen Sturge, of Nice, and the facts which he records will show that the rumours which have found some currency as to its dampness and general unsuitability for a royal residence on account of the newness of the building are unfounded. It may be said at the outset that there is no cause for the slightest alarm in these respects, the position of the hotel, the methods of building adopted, and the special means taken to warm the building being such as to ensure complete dryness and warmth.

Cimiez is a suburb of Nice lying on a hill which rises immediately to the north of the town. There is no real village but the suburb consists of villas in gardens interspersed with groves of olive and orange trees.

### Position of the Hotel.

The upper part of this hill, on which the hotel is placed, consists of a plateau about 80 or 100 acres in extent, and about 200 feet above the sea, from which it is distant about two miles. Towards the south the ground slopes away, at an inclination of about 1 in 40, to the plain of Nice: while at the sides the plateau is bounded by two deep valleys, which, with a side valley running up from one of them, surround it on the three remaining sides so completely that the plateau is connected with the hilly ground behind (to the north) by a narrow tongue of land not more than 150 or 200 feet wide. Thus no water other than that which directly falls upon it can reach the soil of the plateau, and such as falls upon it tends to drain off quickly in every direction. The geological structure of the plateau is a hard conglomerate of pliocene age resting on jurassic limestone. The hill is so entirely separated from all surrounding heights that it catches every minute of sunshine from sunrise to sunset, and the hotel being on the extreme southern margin of the plateau is exceptionally well placed for sun exposure. Thus, then, it has the two great requisites of an absolutely dry foundation with the maximum of sunlight.

### The Construction of the Hotel.

With regard to the building, the stone employed is a compact limestone of the jurassic series. No mortar has been used, its place being taken throughout the building by hydraulic cement, which, as is well known, dries with great rapidity, the water it contains being taken up chemically in the process of "setting." Then, again, the drying powers of the Riviera air are beyond anything known in more northern latitudes, and for the reasons above stated they are at their maximum at Cimiez. The building was begun in October, 1895, and was roofed in early in June, 1896. This period of eight months was one of exceptional dryness. Only 7 inches of rain fell in the whole period, month after month passing by of brilliant sunshine, the air being abnormally free from moisture. Then followed the four hot summer months when no rain falls, and the country becomes parched and burnt. During these months the internal work was done in the hotel; the windows were put in and the house made ready to contend with the autumn rains. These were unusually heavy and prolonged, but the hotel was well protected so that no damage ensued. On the subject of our weather this winter there has been some exaggeration. It has been unusually wet, but, notwithstanding this, in the three months, November, December, and January we have had 21 cloudless days, 28 sunny, though not altogether cloudless, days, 15 dull days without rain, and 29 days on which rain fell. Thus rain has fallen on 29 out of 92 days—a large proportion, it is true, for the Riviera, but not such as to produce the effects attributed to it in some quarters.

We have considerable experience on this coast of the occupation of newly-built houses. Many large hotels have been inhabited as soon as finished. I need only mention the Riviera Palace at Nice, the Cap Martin Hotel at Mentone, and the Métropôle at Monte Carlo. In none of these, I believe, has any complaint of dampness been made; and what is perhaps a better proof, it will be found on examination that none of the delicate wall papers show spots or other results of damp. This very winter a large new wing has been opened at the Cap Martin Hotel, built since last season, and we hear nothing of the dangers of damp in connection with it. I have by me, as I write, two letters from friends of mine who have gone straight into new houses in Nice. One of them says, "We entered into residence six months after the work was begun; we suffered no inconvenience, and certainly caught neither cold nor any illness from the new house." The second says, "I have never noticed the slightest signs of dampness." Dr. Frank, of Cannes, stated to me recently that he has never seen the least harm arise from the early occupation of newly-built houses on this coast.

### The Warming of the Regina Hotel.

The warming of the Regina Hotel is by means of what are known as "steam radiators" of great power. Radiators are placed on every floor of the portion of the hotel to be inhabited by the Court. In addition to these there is a system of hot water pipes in connection with the general hot water supply of the house. There is also in Her Majesty's portion of the hotel a very powerful special system of hot water heating put in recently by special request. The warming of the house has been going on for the past five weeks, and will continue until Her Majesty's arrival, which is expected to take place about March 12th. Special precautions have been taken as regards the warming of the rooms selected for Her Majesty's personal use; slow combustion stoves have been burning in them night and day for some weeks past, and will continue to do so until within a few days of Her Majesty's arrival. Thus the walls will be thoroughly heated through, and assurance against all possibility of damp be rendered doubly sure.

The heating arrangements of the hotel have been carried out by the well known Swiss firm of Sulzer. The sanitation of the house throughout is by Jennings, and is according to the most modern British ideas.

## THE PRINCE OF WALES AND THE HOSPITALS.

A number of a clerical paper called *Church Bells*, for February 12th, has been forwarded to us by a correspondent. In it the Prince of Wales's hospital scheme is very sympathetically commented on, but it contains the following "three points, on which it is by no means unusual to hear objections raised to the hospitals of the metropolis," and which, therefore, the editor fears may check contributions. The whole tone of the article is so kindly and so reasonable that we think an answer desirable.

The objections are thus stated:

> In the first place, there is a widespread impression abroad that, in the case of certain hospitals, the expenditure on general administration is unnecessarily extravagant, and that a large annual reduction under this head could be made without impairing the efficiency of the treatment of those who seek an allevation of their sufferings. We are not in a position to state whether these apprehensions are justified; but we do affirm that, so long as they are allowed to exist, a large area from which support might otherwise be drawn is practically unavailable.
>
> In the next place, it is impossible to conceal the fact—which is well known to all who visit among the poor—that the system prevailing in many of the hospitals, regarding the treatment of out-patients, is deplorably unsatisfactory, and in some cases highly reprehensible. Instances have been reported in the daily papers of gross carelessness in dismissing patients who were totally unfit to bear the fatigue and exertion of proceeding to their homes. Several cases of culpable neglect have come to our notice. We readily admit that these are exceptions; but, while they take place and are known, it is not unreasonable that they should be accountable for checking the stream of charitable donations.
>
> In the third place, there is an uneasy feeling that a far larger encouragement is accorded by some of these institutions to the increase in the practice of vivisection than is warranted, even if we assume (without entering into the merits of the vivisection controversy) that the practice, under strict limitations, is necessary in the interests of suffering humanity. When it is realised how strongly the majority of people feel on this question, it is clearly to the interest of the hospitals that the true facts should be known.

As to the first objection, if "certain" hospitals only are implicated, their names should be given. All hospitals which

share in the distribution of the Sunday and Saturday funds give detailed and full accounts to those bodies, and the very fact of their sharing in the distribution is a guarantee to the public that no "extravagant expenditure" has been detected by the watchful and experienced officers of those funds.

As to the second, we hardly know how to deal with it, on account of its vagueness. Reforms are, in our judgment, necessary in the out-patient departments, but to starve the hospital funds by refusing subscriptions is hardly the right way to obtain them. We have very rarely indeed heard of any well-authenticated cases of premature dismissal of patients, though possibly such errors of judgment may sometimes occur. If they do, we hardly see how the fact applies. The writer surely does not mean that patients are deliberately sent away who are known to be unfit for removal. If so, he is grossly misinformed.

As to the third objection it is utterly ridiculous. No vivisection of animals is practised in any hospital that we ever heard of. All experiments on living animals are made under licences from the Home Secretary subject to careful inspection, and have no connection with the hospitals of any sort or kind.

If this is all that can be said against the hospitals of the metropolis, the editor of *Church Bells* need have no fear for the success of the Prince's fund.

## PROFESSOR KOCH ON THE RINDERPEST IN AFRICA.

### The Production of Immunity.

Professor Koch has lost no time after his arrival at the Cape in getting to work to study the rinderpest. Looking at the question from the purely practical side, he has inverted his usual method of procedure, and has commenced his investigations with the object of finding out a cure for, rather than of discovering the cause of, this disease in cattle. From certain points of view this is exceedingly interesting, as he appears to be so convinced of the utility of the serum treatment in this class of disease that he has at once tackled the serum method from two points of view. First, by producing a modified disease in certain susceptible animals, and secondly, by taking the serum from animals that have suffered from the disease, and injecting this either alone into diseased animals, or with virulent blood into healthy animals, hoping in the one case to cut short the progress of the disease, and in the other to set up such a modified or mitigated form, that the animal will recover and be protected.

Recent telegrams are to the effect that the process of immunisation has been found to produce active immunity within a fortnight, and that Professor Koch hopes shortly to obtain immunity in a still shorter period. As a result of his observations he is convinced that rinderpest can be eradicated within a short time and with little difficulty. How far such an optimistic prophecy will be fulfilled it is, as yet, difficult to state.

### Inoculability of the Disease.

As regards the disease itself Koch has been able to demonstrate that the ordinary methods of infection hitherto employed by those investigating the disease are exceedingly ineffective, and that a large proportion of those cattle that it was tried to infect by means of slime from diseased animals smeared on the mucous membranes, etc., failed to contract the disease. By injecting, hypodermically, the blood from diseased animals into the "dewlap" he has been able to produce a very severe form of the disease, which has an incubation period of from three to five days, the animals succumbing and exhibiting all the *post-mortem* appearances of rinderpest. By this method every experiment has been positive.

### Negative Evidence as to Bacteriology.

Following up the experiments of Dr. Simpson, of Calcutta, on the presence of certain micro-organisms in the bile, he has injected these into the dewlap in the same way, with the result that he has been forced to the conclusion that these organisms have no causal relation to rinderpest. He has also examined the organisms separated by Dr. Edington, and after careful experiment appears to have come to the conclusion that these also are in no way primarily related to the etiology of the disease. In fact, up to the present Koch has been able to separate no micro-organisms either from the mucous membrane or from the blood which have yet, by experiment, been proved to have any specific relation to the disease. He says on this point: "My examinations, having the discovery of the origin of rinderpest in view, will naturally be continued, but the greatest stress must be laid upon finding a process by which we are able so to attenuate the virus of rinderpest that we may use it as a preventive."

### Modified Rinderpest.

He finds in connection with this part of the work that Merino sheep, and Angora and Cape goats may all contract a modified form of the disease when they are injected with rinderpest blood. From these he is able again to infect other goats and sheep, setting up similar symptoms, rise of temperature, and the like. With this attenuated rinderpest he intends to make his experiments upon healthy cattle, and also upon antelopes, pigs, asses, mules, and dogs in order that he may determine whether these and other animals play any part in the dissemination of the disease throughout the colony. The modification of the virus by physical and chemical means is also occupying his attention, and he will no doubt have interesting observations to record on this question.

### Early Diagnosis and Symptoms.

Concerning the disease itself, Koch points out that Burdon Sanderson's observation, that the beginning of the rinderpest can be recognised by an elevation of temperature several days before other symptoms are manifest, is one of great importance, as it should enable stock breeders and holders to find out at an earlier date than hitherto when rinderpest has got into their herds. This observation seems, however, to be still more important from the etiological point of view, as it may be suggested that any organism present may, as in malarial infections, be found in the blood only during this febrile stage of the disease, and that this is one of the reasons that it has not yet been satisfactorily demonstrated. As regards the disease itself, Koch points out that the symptoms of the South African rinderpest differ in some respects from the descriptions given by other observers. He finds that the diphtheritic membranes on the mouth and palate are but slightly marked, whilst the early pathological lesions in the intestines are more prominent; in some cases bloody fibrinous casts of the walls being found in the form of "coherent masses about a yard long, which form a sausage-like complete cast of the walls of the intestines," surrounding a small canal filled with thin fluid excrement. These, if seen in the human subject, would be described as dysenteric casts, though they consist of detached epithelium embedded in a firm fibrin-like substance containing some blood.

During his short stay at the Cape Koch has been able to throw very considerable light on the subject of rinderpest, and if even a fraction of what he hopes for becomes accomplished fact, his journey will not have been fruitless, and the action of the Cape Government in inviting him out will have been more than justified.

## THE ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE COUNTY OF LONDON, 1895.

By aid of the enumeration which was made on March 29th, 1896, the population of London in the middle of 1895 was estimated to be 4,402,284, which was 11,217 less than it would have been had the rate of increase which prevailed between 1881 and 1891 been maintained. The increase was chiefly in the outer districts, there being in 1896 thirteen districts, all of them more or less central, in which a diminution of population had occurred since the census in 1891.

The marriage rate was slightly greater than in 1894, being 17.2 per 1,000 living, as also was the birth-rate. As compensating for this, the death-rate also was higher than the preceding year by more than 2 per 1,000, being 19.5 per 1,000. The rate at which people died was, however, very unevenly distributed, Hampstead by this standard, even when the death-rates were fully corrected, being by far the healthiest, while St. Luke was by far the most unhealthy district in

London; the "comparative mortality figure" for St. Luke's and for St. George-in-the-East being far more than twice as great as that for Happy Hampstead. In regard to infant mortality, Stoke Newington bears the palm, considerably less than half the number of infants under 1 year of age dying there per 1,000 born than die in St. Martin-in-the-Fields.

The death-rate from zymotic disease tells the same tale of the superior healthiness of the more open districts, Hampstead having a zymotic death-rate of only 1.05 per 1,000, against a rate of 5.22 in St. George-in-the-East and 5.39 in St. Luke.

In small-pox there was a decided diminution; nevertheless it is to be noted that the proportion of children under 5 dying of small-pox to those dying of that disease at all ages showed a tendency to increase. It would appear then that, with the growing neglect of vaccination of infants, the deaths of children from small-pox are contributing a larger share to the total deaths.

Scarlet fever was slightly more prevalent in 1895 than in the preceding year. The total death-rate, however, from that cause was lower, as also was the case mortality. In other other words, scarlet fever was more prevalent, but the type was less severe.

Mr. Shirley Murphy records the results of his further investigation into the relation between seasonal prevalence and seasonal case mortality: they are very curious. The curve showing the prevalence of scarlet fever rises high during the later half of the year, crossing the mean line at the end of June, and not falling again until the last week in December, except where it is interrupted by the "holiday depression" in August.

The curve of fatality is quite different. It does not overpass the mean until December, and then continues high until May, after which it keeps down with the curious exception that in August at the time the prevalence of the disease had fallen, during the holidays, the case mortality was as high as in any month in the year. So curious are these results that Mr. Shirley Murphy has carefully corrected them for age and sex, but still the curve retains its character, the fatality being highest in January and being lowest in October, just when the prevalence is at its height. Both in regard to scarlet fever and diphtheria the diagrams show very markedly the "holiday depression"—the sudden drop in the prevalence of these diseases so soon as the holidays commence. This, however, begins a week sooner in scarlet fever than in diphtheria, and it is interesting to note that, taking 3 to 13 as representing the school age, the holiday depression in regards to scarlet fever extend to the older children, and begins with them on the same week as with those at school, whereas in diphtheria the "depression" extends chiefly to the infants, and in them begins a fortnight later than in those attending school.

Measles and whooping-cough, although not notified, still remain the two infectious disorders which together cause the highest mortality in London; measles killing more than diphtheria and whooping-cough nearly as many.

The death-rates from typhoid fever should provide food for thought to the local sanitary authorities. Why should the city of London stand pre-eminent as having far the highest death-rate from typhoid fever of any sanitary area in the metropolis?

Why, again, should St. Saviour Southwark, with its high general death-rate and its very high phthisis death-rate (the highest one in London) pointing to poverty, destitution, and insanitation, show a typhoid fever rate the lowest of all but one, the very lowest being that of Holborn, where no deaths at all occurred from that cause, although both its general and its phthisis death-rate were among the highest in London? The report is a very interesting one, and will repay careful study by those interested in sanitary matters.

## THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.

The annual general meeting of the London and Counties Medical Protection Society, Limited, was held at 12, New Court, Lincoln's Inn, on February 16th; Dr. G. A. Heron in the chair.

The Chairman in opening the proceedings said the Society existed in a certain sense for the purpose of going to law, but during the past year they were fortunate in keeping out of the law courts. Nevertheless, a great deal of useful work had been done which would obviously suggest itself to all who considered the matter, but could not be stated in a report, because names and facts would have to appear which might do harm to a good many people concerned. The balance on December 31st, 1896, was £382 0s. 4d. The reserve fund stood at the end of the year at the sum of £164 16s., and, by order of the Council, £180 had been added, making the reserve fund £344 16s. In addition to that sum there was a guarantee fund which amounted in round figures to £1,700. If the reserve fund were added to the guarantee fund it would be seen that they had a little more than £2,000 to fall back upon.

Mr. Spencer Watson asked if the guarantee fund was invested.

The Chairman replied that it had never been called upon, and was in the pockets of the members, and would remain there until an emergency arose.

Mr. Spencer Watson proposed and Mr. Banning seconded, the adoption of the report and accounts, which was carried.

Mr. Jonathan Hutchinson was re-elected President.

The Chairman stated that the Council recommended that Sir Hugh Beevor and Dr. Major Greenwood should be included in the list of names for election to the Council, and Mr. Spencer Watson moved that the list as recommended by the Council should be accepted by the meeting.

Dr. Barkwell objected to the name of Dr. F. H. Champneys, because he was one of those who were trying to place upon the *Medical Register* a class of women that he felt sure the profession would not desire to see placed there.

After some discussion, there being no seconder, the motion was not put, and the list as recommended by the Council was carried.

In proposing the election of the Honorary Secretaries, the Chairman said the Society had been living until lately from hand to mouth, but now it was not so; there were reasonable prospects of better times near at hand, and one good way of spending part of their money would be in endeavouring to give Dr. Woods some substantial recognition for his efforts. Dr. Foulerton, the financial Honorary Secretary, should also be rewarded in a substantial manner.

Dr. Cleveland proposed:

That this annual general meeting recommends that each division of the Society should hold an annual meeting and furnish a list of officers elected at that meeting, and an account of other matters which have come under their consideration.

This was seconded by Dr. Barkwell and carried.

In reply to Dr. Barkwell, the Chairman explained that the rule had been to take as the boundary of their districts the postal areas, and it was the intention of the Council to go into the matter.

The proceedings closed with the usual vote of thanks to the Chairman.

## THE BATTLE OF THE CLUBS.

### The Lincoln United Friendly Societies.

The *Lincoln Gazette* publishes the Twenty-third Annual Report of the Lincoln United Friendly Societies. As to the true position of this institution it is difficult to form any reliable opinion; for when statements are put forward in a report which are obviously incorrect, it cannot fail to shake the faith of the reader in others, the truth or otherwise of which is uncertain.

Among such statements we read, "The Battle of the Clubs, as it was called, failed to secure the sympathy of the British public, or the British Medical Association, and after struggling for existence, has collapsed." Again, "An attempt was made to set up an opposition dispensary, and, as was foreshadowed, the whole affair suddenly collapsing, became defunct."

As these statements are absolutely incorrect, it is at least excusable to have doubts as to the rest.

That the medical profession in Lincoln have become unpopular with those members of the middle classes, tradesmen, and others, who do not scruple to abuse the club system, goes without saying; but that it has lost the sympathy of the artisans and working people, for whom alone medical aid on

these terms can justly be claimed, is by no means so certain. There seems every reason to believe that many are far from satisfied with the state of affairs, although they lack the energy to throw over their present masters, and to take the clubs into their own hands.

It is a significant fact, too, that one of the doctors was successful in a recent municipal election, in which the club question was given a prominent place, and in spite of the utmost opposition of the present leaders of the clubs.

On the whole, then, it may be said that the profession at Lincoln have no reason to be dissatisfied with the stand it has made against club abuse. It has set an example, which has been successfully followed in many places, and with a little more union among ourselves victory would be assured all along the line.

### INDUSTRIAL BRANCH OF THE HEALTH AND SICKNESS ASSOCIATION LIMITED.

A BODY styling itself the "Health and Sickness Association," with offices at 66, Finsbury Pavement, appears to be circularising the profesion. This enterprising Society intends "to widen the scope of operations so as to embrace the whole industrial population, and to set up a vigorous organisation in every district," and it intends to "give our policy holders the opportunity of having medical attendance in the same way as friendly societies give their members." For this purpose, instead of touting by agents, it intends to issue a "circular letter" to ask whether he or she requires medical attendance at the Society rates, which are 1s. 6d. and 1s. 0d. per quarter; according as the sickness allowance is 10s. or 20s. per week. Of these payments, 3d. is to be deducted for expenses, so that the doctor will get 1s. 3d. or 1s. 6d. per quarter.

Members of the profession, who might think this a tempting offer, are reminded that before they can attain to the privilege of becoming medical officers of the Society they must take up ten £1 shares in the Association. It is hardly likely that many practitioners will be fascinated by a prospectus of this kind.

# THE PLAGUE.

## THE TRUE DEATH-RATE FROM PLAGUE IN BOMBAY.

WE are indebted to Surgeon-Captain L. F. CHILDE, M.B.Lond., I.M.S., from the Sir Jamsetjee Jeejeebhoy Hospital, Bombay, for the following observations on this subject:

I wish to put before you the true death-rate from plague in Bombay, as the official figures by no means represent the actual state of affairs. Since August last, when the epidemic began, the general death-rate has been far higher than the average, and since December it has been enormous; only a part of this increase is ascribed to plague, the remainder being entered under "remittent fever" and "respiratory diseases." But it is quite certain that all these deaths are really due to plague, the fact being that in this, as in former epidemics, the disease is showing two forms—the ordinary form with well-marked buboes, and the malignant form without buboes; and all the supposed additional deaths from remittent fever, etc., are really due to non-bubonic plague.

My proof is this: I have now made *post-mortem* examinations on ten persons supposed to have died of fever, pneumonia, or bronchitis; none had buboes, but all had the plague bacillus in their blood and organs, and undoubtedly died of plague; also I have seen two other cases during life which somewhat resembled pneumonia, but their sputum contained the plague bacillus in abundance, and typical cultures could be obtained from it. *Post mortem* the diagnosis was amply confirmed. Hence, as the additional death-rate from all causes since December last has been about 200 per day higher than the average, this number represents pretty accurately the true number of deaths from plague.

I observe that in the BRITISH MEDICAL JOURNAL of January 2nd you suggest that the extra remittent fever deaths are really due to plague without buboes, and it is certain that your theory is correct. Under the present system in Bombay it is not possible to ascertain the true causes of death; death certificates are only given by qualified medical men, but a large number of persons are treated by native *vaids* or *hakims*, who are not required to give certificates. In these cases the cause of death is ascertained at the burial or burning ground from the friends of the dead person, and of course it is quite unreliable. Hence the only trustworthy figures are the total number of deaths, and there is no other disease specially prevalent in Bombay, all the excess above the normal must be due to plague. Morever, an immense number of persons have left the town, probable a third to half the population, yet the death-rate is still being calculated on the last census (800,000); it was given at 107 per 1,000 last week.

So, to sum up, my points are these: That plague is killing about 200 persons per day; that about 10,000 persons have died of it since August last; and that the true death-rate from all causes in Bombay at the present time is between 150 and 200 per 1,000.

### CHRONICLE OF THE EPIDEMIC.

#### NO EXTENSION IN BOMBAY.

There is no extension of plague to record this week; the several places recorded in the BRITISH MEDICAL JOURNAL of February 13th, such as Agra, Delhi, Bangalore, and Candahar, are in no worse plight than they were—namely, that they each have had a few cases of deaths of refugees from the plague-stricken area. So far as can be ascertained, in none of these places has plague got a hold of the resident community. The Punjab, Bengal, Afghan, and Beloochistan frontiers are being watched carefully, and segregation camps for railway passengers are established everywhere around the infected district.

#### EXHAUSTION OF THE VIRUS.

Plague is dying out in Bombay in the sections of the city first attacked. The telegrams of February 16th state that Mandvi, the district in Bombay first attacked, is now almost free of the disease. Mandvi was attacked in August, 1896; this fulfils our prophecy that seven months, and not less than seven months, would see the extinction of the disease in any district attacked. Every locality of Bombay must date the time of its expected freedom from disease at seven months from the time of the first appearance of the disease in anything like a prevalent form. We shall no doubt hear by-and-by of this and that measure being the cause of the disappearance of the disease. The curative properties of the onset of the south-west monsoon, the increase of the temperature during April and May will have supporters; the subsequent rainfall and so forth will be held to be the reason for the disappearance. Nothing but the exhaustion of the virulence of the bacillus, however, can be held to be of any scientific value in the argument, and it takes seven months to expend itself.

#### THE ACTION OF THE GOVERNMENT IN BOMBAY.

As a sample of what is being done in Bombay and elsewhere, the following extract is instructive: "Under Epidemic Diseases Act Government have empowered Municipal Commissioner, of his own authority, and without reference to the magistrate, (1) To prohibit use of dwellings unfit for habitation; (2) to require abatement of overcrowding; (3) to require vacation of buildings and premises for cleansing and disinfecting; (4) to forcibly enter deserted buildings and cleanse and disinfect them; (5) to remove earth of floors; (6) to cut off water connections; (7) to demolish whole or part of buildings unfit for habitation or dangerous to health; (8) to destroy infected bedding, clothing, etc. Arrangements have been made for emptying all outgoing trains at stations outside Bombay, and for strict medical inspection of all passengers."

Twenty-six medical subordinates have been sent to Bombay to assist in dealing with the plague. Special precautions are taken inland to prevent spread of the disease. All passengers are inspected at the stations where the trains from Bombay halt any time.

#### THE DEATH ROLL.

A summary of the deaths from plague from September 26th, 1896, to January 19th, 1897, is appended. In all 17 weeks are recorded.

| Week ending | No. of Deaths from Plague per Week. |
|---|---|
| September 26th, 1896 | 193 |
| October 6th, 1896 | 300 |
| ,, 13th, 1896 | 226 |
| ,, 20th, 1896 | 129 |
| ,, 27th, 1896 | 228 |
| November 3rd, 1896 | 225 |
| ,, 10th, 1896 | 174 |
| ,, 17th, 1896 | 242 |
| ,, 24th, 1896 | 314 |
| December 1st, 1896 | 315 |
| ,, 8th, 1896 | 591 |
| ,, 15th, 1896 | 840 |
| ,, 22nd, 1896 | 946 |
| ,, 29th, 1896 | 1,484 |
| January 5th, 1897 | 1,217 |
| ,, 12th, 1897 | 1,154 |
| ,, 19th, 1897 | 1,257 |
| Total plague deaths to January 19th, 1897 | 9,835 |

### Returns of the Native Medical Practitioners.

Mr. D. E. Kothavala, L.M.and S., writes that in the British Medical Journal of January 9th an injustice is done to the native medical practitioners of Bombay. Mr. Kothavala proceeds to explain that deaths in Bombay have not to be certified by a medical man, and that the discrepancies in the returns are not to be laid at the door of the medical men, who in every case have been faithful in the truth and accuracy of their reports. We are glad to have this explanation, and to know that we can rely on the returns of the native qualified practitioners; and we welcome the opportunity of removing any implied slight.

### Quarantine at French Ports.

Quarantine regulations at the French ports, especially Marseilles, are very stringent, and vessels from Indian ports are put to great inconvenience and expense as regards the forwarding of passengers and goods.

The P. and O. steamer *Caledonia*, from Bombay, with a large number of passengers and cargo, arrived at Frioul, the quarantine station for the port of Marseilles, on or about February 5th. In spite of all the efforts of the British Embassy at Paris, she was neither allowed to land her passengers nor discharge her cargo. Eventually the Peninsular and Oriental Company sent their steamer *Clyde*—employed at present on the Venice, Brindisi, Port Said Service—to Marseilles, whence she sailed with the *Caledonia's* passengers for London on February 9th. The *Caledonia* herself, appointed to leave Marseilles on February 11th with passengers for Bombay, left there on that date with the cargo which she had brought from Bombay for Marseilles still on board. Considering the great expense at which these large passenger steamers are kept up, the extra expense of provisions for passengers while in quarantine, as well as the cost to the company of providing the ss. *Clyde* to carry the passengers to London, is very large. Other cases that may be cited are the steamers *Persia* and *Branksome Hall*, which were unable to land their cargoes at Marseilles, and had to leave for England.

### Haffkine's Prophylactic Serum.

Surgeon-Major Hutch, Principal, Grant Medical College, and Surgeon-Captain Childs, Professor of Pathology in the same College, a Parsee medical man, and others, have been inoculated, says the *Homeward Mail*, against the plague, at the Petit Laboratory, Grant Medical College, Byculla, by Professor Haffkine.

Isolated cases of plague amongst Europeans continue to occur.

### Dr. Viegas on the Plague.

In a paper read before the Grant College Medical Society in Bombay, November 24th, 1896, Dr. A. G. Viegas states his experience of plague. There is nothing new in the paper, but merely a straightforward, clear account of how he first diagnosed the disease in Bombay, and his clinical observations in 79 cases he treated. Dr. Viegas rather favours the idea that plague was not imported, but that any town or locality within the plague belt is liable under certain conditions to generate the disease. He emphatically ascribes the outbreak to local insanitation; he rejects the grain theory of the origin of the disease, and also confutes the meteorological, dead rat, corner house, excessive rainfall, drought, and sugar and date theories of the cause of the outbreak. He repeats again and again that Mesopotamia is subject to outbreaks of plague every autumn. This has been so frequently repeated by different authors that Mesopotamia must be regarded as the cradle of plague, and if the disease is to be fought it must be attacked in its home. No treatment in Dr. Viegas's experience gives much hope: his only recommendation is early stimulation, alcohol being the most reliable.

A very interesting appendix is added, giving the correspondence between the sanitary authority and a firm of native merchants. From March 2nd, 1896, until November 6th, 1896, did the correspondence go on concerning a drain which was evidently in a disgraceful condition. With seemingly unpardonable neglect, the sanitary authority continued to allow the foul-smelling sullage to run from the gutter holes over the street.

## LITERARY NOTES.

We learn that Sir William Broadbent, Bart., has in the press a work on the *Prognosis and Treatment of Heart Disease*, which will shortly be published by Messrs. Baillière, Tindall and Cox.

The February number of the *Scottish Medical and Surgical Journal* contains among other papers an interesting contribution on hæmatoporphyrin in the urine by Professor McCall Anderson, and a note on dermatitis by Professor Waymouth (which by the way is spelt "Weymouth" both in the body of the journal and in the contents) Reid, of Dundee. It is announced that the March number will contain a paper by Dr. Joseph Bell, of Edinburgh, on The Relations of the Trained Nurse to the Profession and the Public.

The *Middlesex Hospital Journal*, the first number of which appeared in January, is intended to supply the one thing that (as we gather from the introductory article) has hitherto been lacking to the complete perfection of "Old Middlesex." The promoters are confident that the new journal "will from to-day enter on a career which shall endure so long as the hospital exists, and which will do much to unite in one great bond of fellowship all those who have worked in whatever capacity, as teachers or as students, as well as those who have taken part in the direction of its affairs." We hope this confident anticipation will be fulfilled, and certainly the journal has a solidity of appearance that gives assurance of a long life. An excellent portrait of the late Mr. Hulke is given as a frontispiece.

Messrs. Macmillan and Co. have issued a notice to subscribers to Professor Clifford Allbutt's *System of Medicine* to the effect that the delay in issuing volume II has been entirely due to the delay in the issue of the report of the Royal Commission on Vaccination. The articles which could not be completed until this report appeared are now, however, in the printer's hands. All the rest of the volume has been practically ready for months, and the whole of volume III and the greater part of volume IV is already in type. Subscribers may therefore feel assured that the whole *System* will be complete within a reasonable period.

# ASSOCIATION INTELLIGENCE.

### Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M., Saturdays, 10 A.M. to 2 P.M. Members can have their letters addressed to them at the office.

## BRANCH MEETINGS TO BE HELD.

Metropolitan Counties Branch.—A special general meeting of this Branch will be held in the Museum of Practical Geology, Jermyn Street, S.W., on Thursday, March 4th, at 5 P.M., to consider the medical defence scheme of the Committee of the Association, and to frame replies to the questions put thereon to the Branches by the Council of the Association, according to the memorandum already circulated among the members of the Branch.—Isambard Owen, M.D., and H. Betham Robinson, M.S., Honorary Secretaries.

Metropolitan Counties Branch: South London District.—A meeting of this District will be held on Wednesday, February 24th, at 4.30 P.M., at Guy's Hospital (by kind permission of the Treasurer). The meeting will be clinical entirely, and demonstrations will be given by members of the staff. All practitioners, whether members of the Associa-

tion or not, will be heartily welcomed.—SEYMOUR G. TOLLER, M.D., St. Thomas's Hospital, District Secretary.

SOUTH-EASTERN BRANCH.—A conjoint meeting of the three Kent Districts will be held at Chatham, on Friday, March 19th, at 4 P.M. Gentlemen desiring to read papers or exhibit specimens are requested to communicate with E. GROUND, Honorary Secretary, West Kent District, 1, Ashford Road, Maidstone, at their earliest convenience.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting of this District will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 11th, at 4 P.M., Mr. W. Gandy, of Upper Norwood, in the chair. Dinner at 6 P.M., charge 7s., exclusive of wine. The following papers will be read:—Dr. Herman: Puerperal Eclampsia. Mr. J. Charters Symonds: The Modern Treatment of Compound Fractures and of Fracture of the Patella. Dr. Seymour Taylor: Hospital Abuse. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary, HENRY J. PRANGLEY, Tudor House, Anerley.

BATH AND BRISTOL BRANCH.—The fourth ordinary meeting of the session of this Branch will be held at the Grand Pump Room Hotel, Bath, on Wednesday evening, February 24th, at 7.30, Dr. E. Markham Skerritt, President, in the chair. The following communications are expected:—C. E. S. Flemming: Poisoning by Antipyrin and Chloralose. F. K. Green: Notes of a Cerebral Case in which Pressure Symptoms were relieved by Trephining. Basil Trevelyan: (1) Unusual Swelling of Anterior Lip of Os Uteri complicating Labour. (2) Two Malformations of Rectum in Newly-born Children, with specimen. Preston King, M.D.: A Case simulating Ulcerative Endocarditis. S. E. Rigg: Different Methods of Dressing Burns.—W. M. BEAUMONT and J. MICHELL CLARKE, Honorary Secretaries, Bath.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting (clinical) will be held at the Infirmary, Cardiff, on Thursday afternoon, February 25th.—ALFRED SHEEN and D. ARTHUR DAVIES, Honorary Secretaries.

STAFFORDSHIRE BRANCH.—The second general meeting of the session will be held at the North-Western Hotel, Stafford, on February 25th at 4.30 P.M. The President, Dr. T. Ridley Bailey, will take the chair. Agenda: Minutes of the last meeting. Election of new member. Recommendation of Council to give a donation of 10 guineas to the Royal Medical Benevolent College. Consideration of the report of the Special Committee on Medical Defence. Dr. Greaves will move: "That this Branch of the British Medical Association regrets that public vaccinators are debarred from the benefits of the Poor Law Officers' Superannuation Act, 1896, and is of opinion that the Parliamentary Bills Committee should take steps to have the omission rectified, if possible, by the insertion of a clause or clauses in the Municipal and County Council Superannuation Bill." Exhibition of any clinical cases or pathological specimens. Dr. C. Reid: Notes on a Fatal Case of Chorea. Mr. Gerard C. Taylor: The Treatment without Splints of Fractures at the Lower End of the Humerus. Dinner at 6.30; charge, 5s. Members intending to dine are requested to notify the Secretary.—F. MILNES BLUMER, Honorary Secretary, Stafford.

## BORDER COUNTIES BRANCH.

A MEETING of the Border Counties Branch of the British Medical Association was held at Carlisle on February 12th; Dr. ALTHAM, President, in the chair. Between thirty and forty members were present.

*Medical Defence.*—The report of the Committee with reference to medical defence was considered.—Dr. CAMPBELL moved that the Branch was not in favour of the Association undertaking the duties of individual and collective medical defence.—Dr. HAMILTON seconded.—Dr. SOMERVILLE, supporting the motion, said he had come to the conclusion that it would lead to mischief if the Association took up this matter of the defence of individuals. The Association, he thought, had abundance of work. Anyone who went to their Council meeting would see that there was really more to do than they could well accomplish in the number of meetings that they held. The Association had been very prosperous while it confined itself to those matters which he thought were legitimately within its sphere; but if they they were to take up the subject of medical defence they would require to neglect other things. They had medical defence associations already. He saw an opening for any amount of mischief and consumption of time in discussing whether particular cases should or should not be taken up. He was of opinion that any Committee that was to manage medical defence should be somewhat autocratic in its powers, and not subject to review by a popular body, or by their annual gathering of the Association.—Dr. W. RUSHTON PARKER (Kendal) moved an amendment in favour of the Association undertaking the duties of individual and collective medical defence. It seemed to him that medical defence was a matter of considerable importance, and ought to be undertaken by some body which was generally respected by the whole profession, and which represented the whole profession generally. If there had been one defence union he would have been prepared to leave it to that; but, unfortunately, they had two, and they were not keeping very well together.—Dr. THOMSON seconded the amendment. He pointed ont that the scheme provided for the Committee having absolute power to give or withhold assistance, and that there was a maximum sum fixed for the Committee's expenditure beyond which the sanction of the Council had to be obtained, so he did not think the time of the Council should be taken up with needless discussion in regard to particular cases. The question of medical defence appealed very strongly to every one of them. They only needed to look at the public journals to see how frequently their brethren suffered from attacks made on them, whether in the civil or criminal courts, and it was a hardship to the working practitioner to be put to the expense of defending an unjustifiable case brought against him. If the defence were undertaken by the Association, they would practically block most of these cases, because people would hesitate before they brought forward actions which were practically unjustifiable in every way when the practitioner was backed by such a strong and healthy organisation as the British Medical Association. On a division, 4 voted for the amendment and 17 against it. The amendment was therefore lost. The original motion was then put and declared to be carried.

*Dinner.*—The members dined together in the County Hotel after the meeting.

[The scientific part of the proceedings will be published next week.]

## SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.

THE sixty-second meeting of this District was held on January 22nd at Sandown, Isle of Wight; Dr. R. ROBERTSON, President, in the chair.

*Re-election of Member.*—Dr. Pain, of Bembridge, was re-elected a member.

*Medical Defence.*—A letter from the General Secretary re medical defence was read.

*Subcommittee on Slaughterhouses, etc.*—The PRESIDENT reported that the Subcommittee appointed to consider the question of slaughterhouses, etc., were not yet ready with their report.

*Scirrhus of Lung and Pleura.*—Dr. WILLIAMSON (Ventnor) read a paper on pulmonary and pleural scirrhus secondary to scirrhus of the breast. It was founded upon the case of a patient aged 71 who had observed the breast affection two years previously, but who did not seek medical advice until eight weeks before her death, and only then on account of cough and paroxysms of dyspnœa. The progress of the case up to its termination was given in detail, the dyspnœa having been the leading symptom. Specimens were exhibited showing the scirrhous nature of the disease and the essentially subpleural situation of the lesion. The *plaques cireuses* of Cruveilhier and the umbilicated state of the visceral pleura were well seen; and the entire absence of pleuritic adhesions and pleural effusion, as well as the mixed nature of the physical signs in the chest obtained during life were commented upon. Dr. Williamson remarked on the infrequency of secondary cancer of the lung, especially of scirrhus; and, after dwelling upon the clinical symptoms, concluded by discussing the route taken by the infection in cancer of the lungs and pleura secondary to mammary cancer.—A discussion followed, in which Dr. GREEN (Ventnor) and Dr. BRERETON (Ryde) took part, and Dr. WILLIAMSON replied.

*Next Place of Meeting.*—Ryde was selected as the next place of meeting in April.

## BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE fifth ordinary meeting was held on Thursday, February 11th; Mr. M. A. MESSITER, President, being in the chair.

*Stricture of the Œsophagus; Gastrostomy by Frank's Method.*—Mr. F. MARSH showed a man, aged 60, on whom he had performed gastrostomy on January 15th, 1897. There was a history of difficulty of swallowing for twelve months, of inability to swallow solids for six months, and of fluids for two weeks prior to date of operation. The stricture, which was probably malignant, commenced at a distance of 6 inches from the teeth, and was extensive. The first constriction

admitted a fair-sized bougie, but a second one, immediately below this, was impassable. A No. 11 bougie had twice been passed some six weeks back, but subsequent attempts had proved futile. The incision was made parallel with the left costal margin and through the fibres of the rectus. A piece of stomach wall which would come most easily into the wound was selected and drawn out in shape of a cone by means of a silk suture passed through the coats. The base of the cone was sutured with a continuous silk suture to the cut edges of the peritoneum and fibres of the rectus. The skin and subcutaneous tissue above the upper angle of the wound was then freed from the fascia beneath, and a small incision (½ inch) was made ¾ inch above the upper angle of incision, and the apex of the cone brought into it. The first incision was then closed, and a small opening made in the stomach at the site of the silk suture, a piece of rubber tubing was inserted into the viscus, and fixed with a small steel pin passed through skin, stomach, and tube. Six ounces of warm peptonised milk were given before the patient was removed from the operating table. The result so far had been very satisfactory, the wound had healed by primary union, and the patient, though still emaciated, was gaining weight at the rate of a pound a week. There was no regurgitation from the stomach, the prevention of which by a curved fistula being the chief object of the method, and but little irritation round the orifice. The stricture was still impassable.

*Ruptured Tubal Gestation.*—Dr. Purslow showed a specimen from a case of ruptured tubal gestation. The patient had had three children, the last four years ago, and one miscarriage three years ago. She had never complained of pelvic trouble. After eight weeks' amenorrhœa she began to have uterine hæmorrhage and intermittent pains. These symptoms continued for three weeks, and were naturally attributed to abortion, but as the pains got worse Dr. Purslow was asked to see the patient in consultation. Examination under chloroform showed that the uterus was empty though slightly enlarged, the sound passing three inches, and that there was a tumour the size of an orange on the left side of the pelvis. Extrauterine gestation was diagnosed. On the day following the examination distinct and severe symptoms of internal hæmorrhage occurred. From these the patient rallied, and when again examined the mass was found to be much larger and less defined in outline. The abdomen was then opened, and a large quantity of partially clotted blood was found in the peritoneal cavity, and the left Fallopian tube was seen to be distended, and was removed. It presented clear evidence of pregnancy in the tube. The operation was performed one month ago, and an excellent recovery had followed.

*Other Communications.*—Mr. Barling showed a specimen of an enormous Central Sarcoma of the Humerus, for which he had been compelled to perform Berger's amputation three days ago. The patient was a man aged 53.—Mr. Christopher Martin read notes of a case of Rupture of the Liver, treated successfully by abdominal section, and showed the patient, a boy of 18, together with a portion of liver substance he had removed from the peritoneal cavity.—Dr. Thomas Wilson read a paper on Intermittents Cysts of the Ovary and Kidney, and showed a specimen of an ovarian cyst illustrating his paper.

# SPECIAL CORRESPONDENCE.

## BERLIN.

*Trachoma in East Prussia.—The Roentgen Rays as a Depilatory.—A Method in the Clinical Teaching of Laryngology.—Medical Examination of School Children.—Alcohol as a Disinfectant.*

Trachoma, or, as it is called, "the Egyptian eye disease," a contagious eye disease, which is endemic in the eastern provinces of Prussia, occupied the last meeting of the Berlin Medical Society. Surgeon-General Kirchner, of Koenigsberg, who read a paper introducing the subject, proved by an array of figures the serious dimensions that the epidemic has assumed of late years, and pleaded earnestly for vigorous measures to be taken against it. It is, he says, essentially a filth disease which Russian harvest workmen bring into the eastern provinces year by year, where it finds conditions highly favourable to its spread and continuance amongst a population indolent, poor, dirty, and addicted to drinking. As (where proper precautions are neglected) trachoma is highly infectious, it is not rare to find whole families victims to it, while schools have to be closed when a serious outbreak occurs. Even in the army it disables a great many men, though happily the number has considerably decreased during the last few years, since the inauguration of more stringent hygienic measures. Dr. Kirchner said that from 1873 to 1889 the figures had been:

Of 100,000 men—

| | | | | | |
|---|---|---|---|---|---|
| 2,099 | attacked by trachoma in the | | | 1st Corps | (East Prussia). |
| 1,649 | ,, | ,, | ,, | 2nd ,, | (West Prussia). |
| 1,031 | ,, | ,, | ,, | 5th ,, | (Posen). |
| 715 | ,, | ,, | ,, | 6th ,, | (Silesia). |
| 368 | ,, | ,, | ,, | 10th ,, | (Hanover). |
| 245 | ,, | ,, | ,, | 9th ,, | (Schleswig-Holstein). |

There were no cases to speak of in the rest of the army. Dr. Kirchner summed up by saying that the harm done by the epidemic was threefold: (1) Education suffers in the attacked provinces, the schools having to be closed from time to time; (2) the population's earnings decreased, as in consequence of the ensuing gradual contraction of the conjunctiva, and the encroachment of the disease on the cornea, the visual power diminishes until often enough total blindness sets in; and (3) the prevalence of the disease in the army weakens the national power of defence. He strongly advocated the following measures: (*a*) special trachoma hospitals; (*b*) special instruction for doctors, as those who come from the western provinces, never having seen the disease, are unskilled in detecting it; (*c*) gratuitous treatment; (*d*) periodic examinations of school children; (*e*) supervision of the floating population; (*f*) public instruction of the poorer population by schoolmasters, clergymen, etc., as printed instructions are hardly taken notice of; (*g*) collection of reliable statistics, and (*h*) appointment of special medical officials to carry out the above measures, and grants of sufficient funds by the State. Professor Hirschberg opened the discussion on Dr. Kirchner's paper. He said that two years ago he was commissioned by the Government to report on the prevalence of trachoma in the eastern provinces. He had examined 7,000 persons, and found 10 per cent. of the population affected, 2 per cent. seriously so. In the village schools the number of cases was greater than in the higher class town schools, but even in these latter the number was never below 5 per cent. As regarded Berlin, the disease was brought in frequently, but had never spread, so that many experienced practitioners had never even seen a case of it.

In the *Deutsche medicinische Wochenschrift* Professor Forster gives a case of undesired depilation through the action of Roentgen rays. In order to ascertain the position of a small projectile in a patient's head (it had lain there for twelve years without giving any trouble) Forster made a skiagraph—exposure twenty-five minutes. By mischance the plate was broken, and as the patient desired a visible record the whole proceeding had to be repeated. Three days after the hair began to fall out at the spot that had been exposed to the *x* rays, and eventually a patch about the size of a 5-franc piece became perfectly bald, whilst around it the hair could be pulled out by simply laying hold of it. Nearly all these hairs show a pointed root without follicle, which evidently remains in the tissue.

In the Berlin Laryngological Society, Dr. Kafemann, of Koenigsberg, read an interesting paper on some new aids to clinical instruction in therapeutics of the nose and larynx. His plan is to introduce into cadaver heads (which have been previously hardened and preserved in their natural shape by help of modern methods) all the tiny swellings, ulcers, etc., exactly as they occur in real life in the upper air passages, and to let the student diagnose them, and proceed to their removal exactly as he would in real life. At the close of his paper, Dr. Kafemann demonstrated his method, which is ingenious and not without practical value.

The Berlin School Deputation School Board has decided to subject the poorly-endowed children in the Berlin district schools to medical examination. All children who, after remaining two years in one class have not advanced to a

higher one, are to be examined. Further steps are meditated but are not yet decided on.

Absolute alcohol is strongly recommended by Professor Fuerbringer and Dr. Freyan, of the Friedrichshain Municipal Hospital, as a disinfectant for the hands. They have tried its germicide action more than 200 times, and prefer it to other disinfectants for the hands. They first wash and brush the hands, and then rub each hand for about two minutes with a piece of gauze or flannel dipped in the absolute alcohol, and finally rinse with a solution of carbolic or lysol, or of corrosive sublimate.

## MANCHESTER.

*Royal Infirmary.—Consumptive Hospital and New Departure in Connection with Sanatoria.*

The annual meeting of the trustees of the Royal Infirmary and Lunatic Asylum was held last week. The Monsall Fever Hospital has now been formally handed over to the Corporation upon the payment to the Infirmary of £4,900. The conditions of sale of the Fever Hospital provide in future for the gratuitous removal and treatment at the hospital of all cases of infectious disease arising in the infirmary itself, or at the convalescent hospital at Cheadle. Arrangements have also been made whereby the members of the infirmary staff are ensured facilities for giving clinical instruction. The total number of patients treated during the year was 42,577. About £1,000 has been received from the inmates of the infirmary and convalescent hospital, and as a matter of fact the patients have contributed over £5,000 during the last five years. The income of the infirmary and convalescent home during the past year was £25,220, while legacies equal to over £44,000 have been received. Lord Derby was re-elected Chairman. It is hoped that the joint Infirmary and Corporation Committee will soon be able to meet and to discuss the best means of advancing and solving the hospital problem in Manchester as far as regards the rebuilding of the present infirmary is concerned.

At the annual meeting of the Manchester Consumption Hospital held on February 15th, the Chairman had an agreeable tale to tell. The twenty-second annual report states that the hospital is now better known, has more friends, and occupies a higher position than ever before. Moreover, the total profits from the bazaar held last year amount to £8,900; of this sum it is proposed to use £2,500 to afford accommodation for ten new beds in Bowdon, but using some of the present ward accommodation for service purposes. The balance in hand, after providing for other claims, amounts to £3,000, which is to be permanently invested, and should yield about £100 a year; several cots have also been endowed. The Board have determined on a new experiment. As the number of beds cannot be increased, owing to want of space at Bowdon, they have decided to obtain privileges in other sanatoria for their patients. They have arranged for the use of four beds; probably there will be two at Bournemouth and two elsewhere as an experiment, which will cost about £200 a year.

# CORRESPONDENCE.

## THE ASSOCIATION AND MEDICAL DEFENCE.

Sir,—Referring to Dr. Moorhead's letter which appeared in the British Medical Journal of February 6th, I think a very large majority of members will dissent from his views. Undoubtedly medical defence, if undertaken by the Association, would do more to raise than to degrade the profession in the eyes of the public.

Dr. Moorhead objects to the scheme personally, as he suffers nothing by irregular competition. But there are other directions in which the scheme, if carried out, would be of service to Dr. Moorhead and to the few who are in a similarly fortunate position.—I am, etc.,

Maze Hill, S.E., Feb. 10th. H. Hunter Woods.

Sir,—May I be permitted on behalf of the branch of the profession to which I belong to express the hope that this scheme of compulsory membership of a "defence union" may not be tacked on to the British Medical Association, which was originally founded for a totally different purpose? It would be most unfair that the large number of members who belong to the public services should be compelled to contribute to an object in which they have no interest or concern.—I am, etc.,

Harlesden Road, N.W., Feb. 12th. W. J. Eames, Inspector-General R.N.

Sir,—I have read and studied this most important and urgently necessary scheme with due care; permit me, therefore, to make a few remarks on the most important points.

Most of—indeed, all of—us have professional relations with "hysterical neuropathics," male and female, at some time or other of our lives, and are fully alive to the danger of all this moral insanity around us, emphasised, as it has been, on the recollections of most of us by, in the one instance, the distressing case of that most unfortunate and much commiserated Dr. Bradley. We none of us can say when a like case may not be ours: all students of the works of Savage, Blandford, and Clouston, and observers generally I know will agree with me in this.

Let me, sir, beg of you as Editor and all the most influential members of the British Medical Association to do your best to force into the position of an accomplished fact this most urgently-needed and desirable scheme of "compulsory and non-evadable" subscription annually to "a British Medical Association medical defence fund" of all the members.

Human nature is everywhere human nature, and lots of us will procrastinate and apathetically often will not do a most necessary thing oftentimes unless compelled, and when the dark morning, when with (the most unexpected) lawyer's letter or police summons comes, non-members will say: "I wish to Heaven I had joined, and been compelled to, then I should have help out of this awful mess;" it is, and has been proved by experience, "there is nothing so certain of happening in this world to all of us as the unexpected;" therefore I say, let us be compelled to prepare by forming a numerous and powerful combination for mutual assistance, which is sure to lead to good results.

Dr. R. R. Rentoul's letter in the British Medical Journal of February 13th should be carefully read by the framers of the above. I for one much admire its shrewd and carefully thought-out business details, though I take leave to differ in one or two points.

1. I for one say, Let only members of the British Medical Association join who are in actual practice in the United Kingdom.
2. I fail to see the necessity of Branch membership. As long as a man is a member of the British Medical Association let him join.
3. I quite agree that the compulsory annual subscription of 5s. is too small. By all means let it be 10s. 6d. at least.
4. I quite agree with Dr. Rentoul in his paragraph 4. Let every member of the Defence Committee be paid £3 3s. per diem, with first class travelling expenses, and £1 per diem for hotel expenses. All men of business know from experience unpaid work is generally carelessly and badly done—which is worse, I take it, than not being done at all. Also let the secretary be a registered medical practitioner, and have quite £800 per annum, so as to make it worth his while to stick to his work.
5. Let only members of the British Medical Association—and with all insistence not more than six weeks in arrear with their 10s. 6d.—be eligible for defence.
6. Let members have right to appeal to a British Medical Association "Appeal Committee," otherwise rulings of Secretary and Defence Committee might become too careless and autocratic.
7. This scheme, common sense shows, is more than a "happy suggestion." It is a most urgently desirable and crying necessity to all of us general practitioners.

The letters of Messrs Moorhead, Beale, and Green plainly indicate what they are, I take it—elderly men, most honourable members of the profession, no doubt, who have "made their snug pile," and therefore, as may be expected, apathetically indifferent to the future interests of their less fortunate medical brethren, and to whom a matter of seven or eight hundred pounds is a matter of little moment in view of a possible action. Very well, gentlemen, resign be our remark, since you do not approve of "compulsory" preparation for the almost inevitable—to some of us, we do not know whom or when—"rainy day." "Unity of numbers," we know, is great strength.

Let all those whose calculative anticipations of the possible contingencies and probable eventualities of future coming events (we do not know to whom) are so faulty that they cannot or will not see the dire necessity for the bulk of the

profession to prepare for the bad luck and ill-fortune of the "rainy day," resign their membership of the British Medical Association. They will be few, sir, very few, take my word for it, and principally of the old fogey type. Common sense shows that, I think.

Thanking you in anticipation for the insertion of this, I am, etc.,

V. Bowen-Jones, L.R.C.P., etc.

Llanboidy, Carmarthenshire, Feb. 13th.

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Sir,—It is very important that we should not be too confident with regard to the medical defence scheme now before the Branches being passed, but that we should all ensure its being carried by attending the meetings of the Branches and voting in favour of it. In 1895 and 1896, in answer to a request made by a committee of members, twenty-eight Branches voted in favour of, and one against, the proposal that the Association should undertake the duties of medical defence. Now that the question has been officially brought before the Branches for their decision, it will be a matter for great regret if the proposal is lost by over-confidence, as apparently has happened in the case of the Birmingham and Midland Counties Branch, which last year voted in favour of the proposal, and this year has voted against it by a majority of five in a meeting of thirty-seven.

If we lose this opportunity it will be many years before we shall obtain another chance of effecting that organisation which is so essential to the welfare of the profession, and it is a matter in which each man should think and act for himself. In the correspondence this week on the subject there is one letter which refers to this movement as "savouring of a trade than of a profession." I presume that your correspondent means by this that in his opinion the scheme is a trades unionist movement, as has indeed been often asserted and as often disproved. We need not go over the arguments again which have been repeated *ad nauseam* to show that societies such as the Medical Defence Union bear very little resemblance to trades unions. If any one will refer to the article on trades unions in *Lloyd's Encyclopædic Dictionary* under that heading he will find a summary of the objects for which the Amalgamated Society of Engineers was founded, and if this summary is compared with the summary contained in the scheme at present under discussion, very little resemblance will be found between them. The scheme has been framed to carry out in an effective manner one of the two objects for which, according to the Memorandum, the British Medical Association was established—namely, "the maintenance of the interests and honour of the medical profession." Our present *laissez faire* policy may, in the opinion of some of us, be professional, but it permits the worst features of competitive trading to flourish without a check. On all sides we hear complaints of the deterioration that the medical profession is undergoing from the incidence of such evils as advertising, blackleg labour, sweating, and underselling, and that we are at the mercy of a public which does not fail to take advantage of us whenever we talk about the just defence of our interests as being unprofessional. If it does "savour of a trade" to help one another, and to promote union among ourselves and to stop practices which are associated with "cutting" trades, and unfortunately also with the medical profession, then it appears better that we should even savour of trade than that we should allow discreditable trade practices to go on. The term, however, is a misnomer. The scheme savours of "business," because it is a business-like attempt to deal with the problems that confront us, and it is by no means a reflection upon us, either as individuals or as a profession, to be considered business-like in our dealings.

Dr. Rentoul's excellent letter on the subject will commend itself to the profession, and the suggestions which he offers may with advantage be adopted in time. At first, however, we shall have to creep before we walk, and the scheme must be placed in working order on a sound financial basis before we can pay the members of the Standing Committee. The principle of payment is sound, and is admitted in the scheme, and should be adopted as soon as it can be safely done. With regard to unattached members, we must remember that they are as much members of the Association as are members of the Branches, and I believe legally that we would have no power to exclude them. The advantages of joining a Branch would be so obvious under the present scheme that probably the majority of unattached members would join Branches. In any case the unattached members are too numerous a section to be ignored, and we can only plead with our recalcitrant brethren, and point out how much they lose by not joining a Branch.—I am, etc.,

Bexhill, Feb. 14th. A. G. Welsford.

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Sir,—I have always respected any opinion which Dr. Donovan has expressed, but I think his letter published in the British Medical Journal of February 13th hardly does him justice, and is not phrased with his usual fairness and perspicuousness.

Dr. Donovan is aggrieved that at the special meeting of the Birmingham and Midland Counties Branch, held on January 25th last, the proposal that the Association should undertake medical defence was defeated, "thirty-seven being present," and he is convinced that if the "members of the Branch had an idea that there would have been opposition, the majority on the other side would have been a record one." My own opinion is against this conclusion, for if a whip-up is to be resorted to surely such is open to both sides; and it seems to me that Dr. Donovan assumes a little too much personal foresight when with confidence he indicates what the result would have been.

The Birmingham Branch consists of 400 members, and a special meeting was called to consider the Association's taking up medical defence. This question has been debated at previous meetings of the same Branch, and it has been ventilated in every possible way, for is it not the question of the hour? And yet only thirty-seven members showed by their presence on January 28th that they had sufficient interest in it to attend the meeting and record their vote. Such apathy was, I confess, unexpected, and may be legitimately used as an evidence that there is no general or keen feeling in reference to the Association being saddled with such an incubus.

At the present time there are three medical defence unions, their total membership (after many years' existence) being not much more than 4,000, a very small proportion of the medical profession, and to my mind this indicates very little enthusiasm or appreciation of the benefits of medical defence; and be it remembered that membership is open to all medical men, whether members of the British Medical Association or not. It is now contended with a vehemence, unwarranted by past history, that it is necessary that medical defence should be compulsory upon all members of the British Medical Association resident in Great Britain and Ireland. If this is worked out the present medical defence unions will be practically annihilated, and there will be only one portal, namely, membership with the British Medical Association. The minimum annual contribution for medical defence is to be 26s., instead of as at the present time, 10s. 6d.; so that the difference between these figures will be a penalty compulsorily inflicted upon those who may desire to receive at any time the benefits of medical defence alone.

The questions of quackery, etc., as belonging to medical defence are only incidental, and have been unwisely imported. They are outside issues, and naturally and legally fall under the supervision and action of the General Medical Council, and if this body requires rousing to its obligations this should be done constitutionally and properly, say by the Parliamentary Bills Committee of the British Medical Association.

I trust the members of the Branches, whose responsibility at the present juncture is great, will take a broad view of the important questions they are requested to answer, and in doing so carefully consider how best the interests of the British Medical Association as a scientific body may be preserved, and its prestige and almost international reputation continue unsullied.—I am, etc.,

Wolverhampton, Feb. 15th. T. Vincent Jackson.

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Sir,—I shall be obliged if you will permit me to make a few remarks upon the question of medical defence.

We medical practitioners are called upon to decide whether we shall allow the representative body of the profession to protect our privileges and interests, and take proceedings under the Medical and Apothecaries Acts.

From time to time a warning note is sounded in the

JOURNAL not to support the Association's scheme by isolated members who dissent from all such forward movements. And why? One member writes: "I like many other members, suffer nothing from irregular competition." Now, it is well known that few, if any of us, escape direct or indirect loss from irregular competition, but if there should be a few such happy individuals, is this any valid reason why the majority should continue to suffer? Moreover, does not irregular competition, euphemistically so called, degrade our profession in the eyes of the public?

Those who have the medical defence and the best interests of the general practitioner at heart should make it their business to attend their Branch meetings and loyally support the Association's scheme. It is to be expected that a few will protest, and that others, mostly those who are either not exposed to the dangers of the every-day practitioner, or to whom the success of quackery is a matter of indifference, will at first fail to see the advantages of the change.

Appeals to the benevolent to defray the heavy legal costs of the impecunious, incurred in litigation, still appear in the pages of the JOURNAL, and now that an insurance against this humiliation is for a small monetary consideration offered by the Association, I for one shall vote in favour of its carefully thought out scheme. If the hard-worked busy practioner from sheer apathy misses the opportunity of supporting a great Association when it freely offers him its powerful influence and aid, then, indeed, we are a disorganised profession.

The large income which the Standing Committee will have at its disposal will in time practically exterminate quackery, at least, of its more rampant type. By firm prompt action we shall teach the public that professional interests are watched by a strong and representative body. The organising Secretary mentioned in the Committee's report will doubtless act as an expert or consultant to the Branches, and to individuals in medico-legal matters, and it will probably be arranged that his services will be available to the Branches at a distance, when special guidance or assistance is required.

I observe in a recent number that a host of clerical and other alterations—not necessarily improvements—are suggested to the Committee's scheme, but I think the Standing Committee may be safely left to work out the details, judging from the masterly outline which they have given us in their report.—I am, etc.,

Camberwell, S.E., Feb. 15th. H. SHAPTER ROBINSON.

## THE MIDWIVES BILL, 1897.

SIR,—The above Bill was read a first time in the Commons on February 9th, and was down for second reading on Friday, the 12th. Fortunately, its second reading was not reached. A copy of the Bill can now be had from Eyre and Spottiswoode, East Harding Street, London, E.C., price 2d.

This Bill is, of all its predecessors, the most dangerous, because it attempts to leave out the chief debatable points, handing these over to the proposed "Midwives Board." But as this Board is to consist of practitioners to be elected, three each, by the College of Physicians, College of Surgeons, and Apothecaries' Society, and Midwives' Institute, and six by the Lord President of the Privy Council, we can form a fair idea of the composition of such Board. I should like to know whether the Colleges and Society have agreed to the above, or have consulted with their diplomates; and if not, what is to happen? My hope is that the Colleges and Society will refuse to dirty their hands with any so degrading a proposal.

Clause 5 (*b*) proposes that the representatives of the Colleges through the Board shall "appoint examiners." That is, the Colleges shall through the Board appoint examiners, both under the Medical Acts, to license medical practitioners; and also examiners to license an inferior class of midwifery practitioners, to be known under the misleading name of "midwives." Surely the Colleges and Society will never agree to carry on this double plan of downgrade examination, and so establish two classes of women licentiates. Another important point is that no provision is made for the payment of the expenses of the eighteen members of this Midwives Board.

If members of the General Medical Council are paid, why should not also members of the Midwives Board? Badly-paid public work is always badly-done work.

Again, no provision whatsoever is made for the election of representatives of the profession upon this Board. Why? The profession has for so far, five direct representatives upon the General Medical Council. Yet it is refused representation upon this Board. It is not as if all diplomates of the Colleges and Society were to be empowered to elect the representatives of the Colleges and Society upon this Board; because such would be elected by the councils of the Colleges. In these respects therefore, the Bill is glaringly deficient.

Clause 5 is worthy of the closest attention. It is either deliberately misleading or else badly drafted. It is to be noticed that the Board is to frame rules for "approval" by the General Medical Council, but if these rules are for "approval" only, what is the good of the General Medical Council discussing them? Should the words not be "for the approval or otherwise" of the General Medical Council?

Another grave flaw in the Bill is that it refuses to give the General Medical Council power to take any part in arranging the plan for the education of intending midwives. Clause 5 lays down the duties of the Board in subclauses *a*, *b*, *c*, and *e*; while Clause 5 Subclauses *d* and *f* lay down the duties of the General Medical Council. By this clause, therefore, the General Medical Council is to be empowered (*a*) to constitute the Board; (*b*) to "approve" (!) rules regulating the admission to the register of women already in *bonâ fide* practice;" and (*c*) to "approve" (!) rules for regulating, supervising, and restricting the practice of midwives. Therefore neither in Clause 5, nor in any other of the clauses, is the General Medical Council given the slightest power to say in what subjects the intending midwife is to be educated, and in what subjects she is not. This drafting is painfully at variance with the resolution of the General Medical Council November, 1889, which refers specifically and in detail to the "education, examination, and discipline which ought to be established."

Clause 9 is of interest to medical officers of health, as it proposes every local sanitary authority shall appoint its medical officer of health to act as the "local supervising authority," and it is proposed that he shall (*a*) supervise all midwives practising in his district; (*b*) investigate charges of malpraxis, etc.; (*c*) report to the Midwives Board any midwife convicted of misdemeanour; (*d*) keep a correct copy of the register of midwives; (*e*) satisfy himself of the right of any midwife to practise; and (*f*) notify the deaths of midwives to the Board. This will be no small work for any local medical officer of health, but when I state that no provision whatsoever is made in the Bill for the payment of such services, we can see how it is intended that the Bill should be administered. I hope every local medical officer of health will write to his M.P. asking him to oppose the Bill.

An important point is that all through the Bill those responsible for it have persistently refused to define the duties of the midwife—that is, they have refused to say whether she is to act as a nurse only, and under the direct supervision of a medical practitioner; or to conduct confinements on her sole responsibility. It is proposed to harness the Midwives' Board with the defining of her duties, and with defining the undefinable words "natural labour." Now until this is done in the Bill, and in the Bill only, we must strenuously oppose it. This is the pivot of the whole question.

When the Midwives Bill was before the General Medical Council in 1895 it was referred to a Committee of the Council. This Committee reported against the Bill as follows: "That the word 'midwives' should be struck out of the title of the Bill and out of the several clauses, and that the term 'midwifery nurse' be substituted for it." The Committee also agreed that instead of the midwife being empowered to attend natural labours without the supervision of a medical practitioner, the Bill should empower her, "but not to discharge any other duties but those of a midwifery nurse." When this report came up before the Council, the motion that the words "midwifery nurse be substituted for the word 'midwife' was defeated by only 14 votes to 12, two members being absent. Again, when it was moved by Dr. McVail, and seconded by Dr. P. H. Watson, that the duties of the midwife shall be to attend natural labours "under the direct supervision of a medical practitioner," this was lost on a vote by 14 to 9, no fewer than 7 members present being so undecided, refusing to vote. Does this look like unanimity of the General Medical

Council in supporting this society craze to repeal the Medical Act, 1886, and to supply the poor, and mark this the poor only, with an inferior grade of medical practitioners ?[1]

The lesson taught by the late election of Direct Representatives; the insult offered to the profession in Liverpool, when the medical staff of the Lying-in Hospital was discharged and a midwife placed over them; the action of the Leicester Board of Guardians in appointing a midwife to take the place of their district medical officer; the act of the Peterborough Guardians in petitioning every Poor-law authority to discharge their district medical officers, and to appoint midwives in their stead to conduct all confinements; the fact that the Midwives Bill of 1890 proposed to empower midwives to attend all kinds of labours and to use instruments; the fact that subsequent Bills propose to confine the midwife to attending "natural labours," and at the same time persistently shrank from giving a definition of natural labour; and the fact that those responsible for this impossible Bill now hope to get over all their difficulties by referring them to a Midwives Board only proves the truth of Lord Cranbrook's reply, when, in March, 1891, he said to a deputation in favour of the Bill, "It is an impossible Bill, and one which would not meet the merits of the case"—today is the day of faddists.

How can the Bill be defeated? The Bill is "backed" by the following members of the House of Commons: The Hon. A. de T. Egerton (Knutsford), C. E. Schwann (Manchester North), Sir F. FitzWygram (Fareham, Hants), Skewes Cox (Kingston, Surrey), H. C. O. Bonsor (Wimbledon, Surrey), C. Fenwick (Wansbeck, Northumberland), Sir J. T. Woodhouse (Huddersfield), C. Hamilton (Plymouth), J. Wilson (Durham, Mid.), H. R. Graham (St. Pancras), C. Bill (Leek, Staff.), J. H. Johnson (Horsham, Sussex).

If each practitioner in one or other of the above Divisions will write at once to these members of Parliament asking them to withdraw the Bill, as it is strongly opposed by the profession, great good will result. Also, if all other practitioners will write their M.P.'s asking them to oppose the Bill, and if they will get their local coroners, county councillors, chemists, and local political leaders to write to their M.P.'s, then the Bill will be withdrawn.

I would also urge that practitioners in Ireland and Scotland do the same. It is said the Bill does not apply to Ireland and Scotland. This is true in theory but false in fact, because the Midwives Board in England would license midwives to practise in Ireland and Scotland, just as now the Medical Bodies license practitioners to practise in the Isle of Man.

It is to be remembered that there are now nine medical Members of Parliament, namely, Sir W. Foster, Sir W. Priestley, Sir C. Cameron, Drs. R. Farquharson, J. G. Clark, C. K. Tanner, M. A. McDonnell, G. A. Fox, and R. Ambrose; and that, as not one of these would put their name to the back of the Bill, we can see how our opposition has gained in support. In 1890 no fewer than three medical M.P.'s backed the Bills of that year. I believe Sir R. B. Finlay, M.P., Mr. J. Dillon, and Mr. R. J. Price are of the medical profession.

If, then, practitioners resident in the Divisions represented by the above will write to them and ask them to oppose the Bill, I feel certain a courteous reply will be given.

I would just add there is little good in supposing that members of Parliament will be guided by what I alone write to them. The member of Parliament wishes to know not what I alone say or do, but what his constituents want. If the majority of practitioners in each constituency in the United Kingdom write to their M.P. to oppose the Bill then no Bill can pass.

In 1894 eight medical societies and nine Branches of the British Medical Association voted against the registration of midwives: only 392 for and 3,324 against registration.

In 1895 the annual meeting of the British Medical Association passed a very strong resolution against the proposal.

On April 15th, 1896, the Council of the Association resolved as follows:

"1. The Bill practically abrogates the existing Medical Acts as regards the practice of midwifery.

"2. That it is fraught with danger to the public, inasmuch as it contemplates the creation of an inferior order of practitioners to attend upon the poor.

"3. That it is unjust to the medical profession, inasmuch as it proposes to register an inferior order of practitioners, instead of a body of well-qualified midwifery nurses.

"Resolved: That the Council be requested to prepare a petition for presentation to the House of Commons, embodying reasons against the Bill." (British Medical Journal, May 2nd, 1896, p. 1117.)

Mr. F. Fowke informs me Sir W. Foster presented the petition, May, 1896.

In an editorial in the *Lancet* (January 23rd, 1897, p. 225) reference is made to a midwife who operated on an infant, it bleeding to death as follows: "Midwives are of great value to a community when it is fully recognised that they are specially trained nurses and nothing more."

I shall be glad to hear from any practitioners willing to do their duty, and who have received promises of support.—I am, etc.,

Liverpool, Feb. 14th. Robert R. Rentoul.

[1] See Minutes of General Medical Council, June, 1895, p. 65, and Appendix, to be had from Spottiswoode and Co., Gracechurch Street, London, E.C.

## SIR RUSSELL REYNOLDS'S ESSAYS AND ADDRESSES.

Sir,—Some misapprehension having arisen as to the authorship of the memoir of Sir John Russell Reynolds prefixed to the volume of my husband's *Essays and Addresses* recently published, I shall be glad if you will make it known by the insertion of this letter in your next issue that the memoir was written by Dr. Squire Sprigge, who was Sir Russell Reynolds's private secretary for five years, and only ceased to be so in 1894, when other and more important work was felt to have a prior claim on Dr. Sprigge's time.

My husband had on various occasions discussed his selected papers, and the question of publishing them with Dr. Sprigge, who was thus perfectly conversant with Sir Russell Reynolds's views on the subject.

Allow me to add that I am greatly indebted to Dr. Sprigge's kind and able assistance in editing the volume now published.—I am, etc.,

Frances Russell Reynolds.

Spanish Place, W., Feb. 18th.

## LORD LISTER'S PEERAGE.

Sir,—As another of Lord Lister's former pupils, I cordially hope that the excellent suggestion made by Dr. Elder will be immediately acted upon by the large number of practitioners who, like myself, are deeply indebted to our former master for his invaluable teaching.

The elevation of Lord Lister to the peerage is, as Dr. Elder has said, a good opportunity for expressing our gratitude to one from whom we have received so much priceless instruction imparted in his well-known kindly manner.

In fact, I think that not only a complimentary banquet should be given, but also some more permanent memento of our feelings towards him.

I shall have much pleasure in giving any assistance in my power to make the movement a success.—I am, etc.,

Tunbridge Wells, Feb. 16th. Cranley Marten Perry.

## THE SUPERANNUATION OF PUBLIC VACCINATORS.

Sir,—Many public vaccinators have written to me warmly approving of my suggestions, as appeared in the British Medical Journal of February 6th. Let me now advise that public vaccinators should rouse the profession to a sense of the injustice that has been done to them, and the anomalous position in which they have been placed by the adverse opinion of the Local Government Board. To that end let them follow the example of the South Staffordshire Branch of the British Medical Association by giving notice of their intention to move at the next meeting of their respective Branches the followingmotion:

That this Branch of the British Medical Association regrets that public vaccinators are debarred from the benefits of the Poor-law Officers Superannuation Act, 1896, and is of opinion that the Parliamentary Bills Committee should take steps to have the omission rectified, if possible, by the insertion of a clause or clauses in the Local Authorities Officers Superannuation Bill.

I, too, have given notice to the Secretary of the South-

Eastern Branch that I intend moving this motion at our next meeting.

As regards Mr. D. B. Balding, F.R.C.S., and Dr. Major Greenwood's joint letter, I think your remark in the JOURNAL of December 26th, 1896, p. 1842, is a sufficient answer—namely, that the Local Government Board did not come to their decision without good legal grounds. If such be the case, what hope can we have by an action at law? The editor of the *Lancet* is also of the same opinion. See the *Lancet* of November 7th, 1896, pp. 1320-21.—I am, etc.,

Tunbridge Wells, Feb. 15th. T. ELLIOTT, M.D.

P.S.—I have sufficient data in hand for the Parliamentary Bills Committee to take up the *quæstio vexata*, and will be pleased to lay it all before them. I hope they may see their way to do so. The Local Authorities Officers' Superannuation Bill is the correct name of the Bill, and not as I stated it in my former letter.

## A CENTRAL HOSPITAL BOARD FOR LONDON.

SIR,—I agree most fully with Dr. Lovell Drage that the question of hospital management is peculiarly one that ought to be taken in hand by our profession, and I think the excellent speeches of Dr. Isambard Owen and Dr. Frederick Smith at the Hospital Reform Association meeting show what important assistance could be rendered by members of the various medical staffs to those who are striving to get acknowledged abuses remedied if they would discuss among themselves the remedies suggested, and report to the hospital managers and to the profession the conclusions at which they arrive.

Hitherto one of the great stumblingblocks in the way of restricting attendance at the overgrown out-patient and casualty departments was that we were constantly told it could not be done without injuring medical education, which, of course, we were not in the least anxious to do, but now it is acknowledged that such fears are groundless, and that the teaching of students is rather hindered than helped by crowds of out-patients. One of the remedies long ago proposed for this state of things was to stop the indiscriminate supply of medicines, and Dr. Smith's speech seemed to indicate that this plan would not be considered so impracticable as has been sometimes supposed. Another suggestion that the out-patient departments should be used chiefly as consultative ones on cases sent by outside practitioners where difficulties of diagnosis had arisen, is one which would be heartily welcomed by hospital reformers. A third point well worth considering by the teaching staffs of hospitals seems to me to be how far it is right or fair to keep students who are paying for their education engaged for hours, day after day, in writing *Rep. mist.* with no earthly advantage either to themselves, to their teachers, or to the patients—I am, etc.,

Dulwich, S.E., Feb. 15th. H. NELSON HARDY.

## VACCINATION AGAINST TYPHOID FEVER.

SIR,—In a letter on Vaccination against Typhoid Fever, the writer indirectly attacks the value of sero-diagnosis, a method for which I hold myself partly responsible, and I trust you will therefore insert the following remarks:

Certain fallacies clearly underlie the whole letter, interesting contribution to the subject that it is. The letter disregards the quantitative measure of results, and involves a misconception of the term immunity. Immunity is always a matter of degree. The writer implies that it is always absolute. A sufficiently large dose of a sufficiently virulent culture will always kill, however highly immunised the animal. Hence the fact that experimentally the power to kill is always greater than the ability to immunise. In animals it appears that agglutinative power of the serum varies directly as the degree of immunity of the animal. Now the dilution in which the serum of a convalescent typhoid patient will act is always far less than that of the serum of a highly immunised animal. Therefore man's immunity is of a low degree. I have not met with a human serum which will agglutinate when diluted more than 400 times, whilst a highly immunised guinea-pig's serum will agglutinate when diluted over 10,000 times. But I have shown that some normal serums act in a dilution of 1 to 16, so that there is no reason why a patient whose serum will agglutinate in a dilution of, say, 1 in 20, the patient being just afebrile, should not have a relapse. That a partial degree of immunity has been conferred in such cases appears likely from the low mortality of relapsing cases, as Dr. Roberts of Liverpool has recently pointed out. Again, there is nothing inconsistent in Fraenkel's finding the reaction after only two days' illness, as that implies at least nine days since infection. It is obvious that if in three weeks the serum will act diluted 1 in 200, it might act diluted 1 in 20 in two days; for it must be remembered that Fraenkel neglects to give quantitative values for his observations.

Moreover, in immunising animals the first agglutinative reaction appears about three days after infection. The fact that animals can be immunised by the injection of dead bacteria, and their serum then shows agglutinative power, proves, in my opinion, the want of foundation of Widal's hypothesis that this phenomena is a reaction of infection only. And infection is a term which is, by common consent, restricted to the action of living *materies morbi*. Pfeiffer and Kolle's researches, which are only acknowledged repetitions of Durham and Gruber's work, confirmed, it is true, the already general opinion that the bactericidal properties and the agglutinative power of the serum are separate and independent. The two properties have never, even from the first, been by the majority of workers considered associated.

It appears, then, that the agglutinative power of a serum may be taken to be an indication of the degree of immunity in the animal. To make typhoid vaccination efficient it would appear to me essential to give injections until the serum acts in a solution of at least 1 in 400 on a virulent culture.—I am, etc.,

ALBERT S. GRÜNBAUM.

University College, Liverpool, Feb. 6th.

# OBITUARY.

## GEORGE DAVID POLLOCK, F.R.C.S.,

Surgeon in Ordinary to the Prince of Wales; Consulting Surgeon to St. George's Hospital.

MR. POLLOCK has so long filled a large place in the surgical world of London, that he has outlived most of those who knew his early career; we are, therefore, not quite certain as to the accuracy of all the following details. He was a younger son of the celebrated general who, in co-operation with Sale and Nott, retrieved the disaster which had fallen on the English arms through the massacre and destruction of the whole army in Afghanistan under General Elphinstone. General Pollock's part in these operations was especially brilliant. Many can still recall the profound anxiety with which the public watched his preparations for forcing the dreaded Khyber Pass, and their delight at the thoroughly soldierly and scientific manner in which Pollock cleared his enemies out of the pass, and brought his troops through it with hardly any loss at all. His services were not overlooked, and he died full of years and honours—one of the few field marshals of the British army. George Pollock's uncles were also distinguished men. Sir Frederick was long Chief Baron of the Exchequer, one of the most eminent judges on the Bench; and the third brother, Sir David (whose name was also given to the subject of this memoir) was President of the High Court in India. Many of their sons are still alive, and worthily maintaining the reputation of the family.

As the son of such a father and the scion of such a race, Mr. Pollock was brought up in traditions of honourable exertion and a strict sense of duty. He was born in India, but came to England as a child, and never, so far as we know, revisited the land of his birth, though he saw much of other parts of the world. For some time he was attached to the person of Lord Metcalf, who was then Governor-General of Canada, after having served with distinction in India. After his death, Mr. Pollock returned to England, and set himself seriously to obtain a footing at St. George's Hospital, where his student career had been passed under the tuition of Sir B. Brodie, Cæsar Hawkins, Keate, and other eminent surgeons. His industry, his sound anatomical and physiological knowledge, and his surgical talents made his rise at the school a rapid one. While Prescott Hewett was Lecturer on Anatomy, Pollock acted as demonstrator, and did much to

ensure the efficiency of the school; and when his senior gave up the teaching of anatomy, he succeeded him.

Though not a brilliant he was a very practical and successful lecturer, and he was always ready to help any student over the difficulties which beset the path of the young anatomist. His courteous, genial manners and his abounding kindness made him one of the most popular of the teaching staff, and many of the students of that day found in him one of the kindest as well as most skilful of medical attendants in their sickness, and not a few of them acquired in him a life-long friend.

Mr. Pollock was elected on the staff as Assistant Surgeon in 1853, Mr. H. C. Johnson having been promoted to fill the vacancy left by the retirement of Mr. R. Keate. He was then rapidly rising into good surgical practice, and at the hospital he soon became known as a daring and dexterous operator. He was especially fond of plastic operations, particularly those for fissured palate, a malformation which he had studied profoundly and in the cure of which he was peculiarly successful. Mr. Avery, of Charing Cross Hospital, was his friendly rival in this branch of surgery. The cure of that most distressing lesion, vesico-vaginal fistula, was another development of plastic surgery which owed much to his patience and his dexterity.

Ophthalmic surgery also attracted much of his attention. At that time the older hospitals were reluctant to admit specialists into their staff, and the ophthalmic department at St. George's was under the care of one of the surgeons of the hospital, Mr. Tatum. When he gave up the care of those patients, Mr. Pollock was appointed to the office, and acquired great dexterity and success in the operation for cataract and other ophthalmic maladies, as well as a certain amount of reputation and private practice in that province of surgery. But Mr. Pollock was also a bold and very successful performer of the great surgical operations, and was especially successful in the excision of the scapula for tumours growing from that bone. His name is not associated with any great improvement in the art of surgery, yet he was always most willing to give a trial to any promising invention, and the excellent method of skin-grafting, introduced by M. Reverdin, owed much of its early success in London to Mr. Pollock's adoption of it.

As a colleague, and an administrator of the hospital and school, no one could be more open-minded, more painstaking, or more trustworthy. His principles, and his family traditions, were of the strictest sect of Conservatism; yet, in medical matters, and especially in the great question of the reform of the College of Surgeons, Mr. Pollock was foremost among those who are styled "liberals." He early refused to become a candidate for a seat on the Council of the College, because of his (perhaps somewhat fastidious) dislike to have his fitness for the office vouched by the signatures of other Fellows. He held that a man who is worthy to seek such an office ought to be publicly known as being so, without hunting for vouchers. In this opinion he was supported by his friend Campbell de Morgan, and so the services of both those eminent surgeons were lost to the governing body of the College. In the last year of his life, Mr. Pollock so far overcame this reluctance as to stand for the Council, in the hope of promoting the aims of the Association of Fellows, of which he was the President; but he was not elected. In fact, many of his friends thought that he was past the time of life appropriate for such an office. This very candidature, however, exemplifies his ardent devotion to what he thought right, and the undaunted spirit which carried him on to the end of life in the active discharge of his duties, and with unabated interest in the progress of his profession.

Mr. Pollock resigned his office as Surgeon to St. George's in 1880; but he continued actively engaged in practice, and was remarkable among London surgeons for not following the modern method of taking a summer holiday. It is true that he indulged his love of country pursuits by cultivating a small estate near Ascot. About a year ago he removed from Grosvenor Street to a quieter part of town, but he never actually retired from practice; and the end of his life came upon him without any of the dreary period of useless inactivity which sometimes accompanies old age. His friends can look back on his career as one of honour and good service such as is rarely seen. He leaves sons to sustain the reputation of the Pollocks both in the Army and the Law. His loss will be long felt at the hospital which owed so much of its reputation to his surgical abilities.

We are indebted to Sir Joseph Fayrer, Bart., for the following tribute to Mr. Pollock's memory:

"It was with most profound regret that I heard of the death of my dear and much valued friend and colleague, George D. Pollock. I had seen him a few days previously, when, though he made no complaint about his health, I was struck with the marked change in his appearance; still I little thought I was not to see him again.

"The medical profession has recently sustained severe losses by death, but none will produce a greater blank in the roll of distinguished men than that of the great surgeon and thorough English gentleman now so much deplored.

"Mr. Pollock's life will no doubt be written in detail by someone who has known even better than I the great merits which throughout a long career have placed him in the front rank of his profession, and gained for him the confidence, esteem and affectionate regard in which he has been so universally and deservedly held.

"But I, who have known him intimately for the last twenty-four years, have been closely associated with him in public duties, and have received many kindnesses at his hands, had learned to regard him as the best and truest of friends and the wisest of counsellors, and to know that every action of his life was influenced by the highest and noblest principles. I cannot, therefore, refrain from a brief expression of the esteem in which I held his noble personal character, his pre-eminence as a surgeon, his high sense of the importance of his duties, the unremitting zeal, ability, and care with which he performed them, and, above all, the loyal and affectionate nature which endeared him to the friends who will ever hold him in loving remembrance.

"In offering this last tribute of respect I know I shall have the sympathy of many of my brother officers in the services with which he was intimately associated, and in which he was much interested, not only as an examiner, but by family connection.

"The name of Pollock has been borne by many distinguished men, including the great Field Marshal, his father, but by none has it been more usefully and honourably represented than by him who, though now taken from us in the fulness of age, we had hoped might have continued his useful career for some years to come."

"*Multis ille bonis flebilis occidit.*"

A memorial service in memory of the late Mr. George David Pollock will be held at St. Michael's, Chester Square, on Saturday, February 20th, at two o'clock.

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We regret to announce the death of Dr. Alexander Forbes, of Liberton, near Edinburgh. He was born in October, 1858; educated privately, then at George Watson's College and the Royal High School of Edinburgh, after which he entered on the study of medicine at the University of Edinburgh, where he graduated M.B. and C.M. in 1882. A month or two later he was appointed Medical Officer for the Parish of Liberton, where he soon obtained a large practice, and at the time of his death he was Physician to the Ravenscroft Convalescent Home, the Gilmerton Children's Convalescent Home, the Gilmerton and Alnwick Hill Home for Women, the Edinburgh Industrial School at Liberton, the Mount Vernon Convent; and Surgeon to Gilmerton and Niddrie Collieries and to the Clippens Oil Company. He was also a member of the British Medical Association and a Fellow of the Edinburgh Obstetrical Society. Some eighteen months ago it was discovered that he was suffering from aneurysm of the aorta. The end came suddenly on January 31st. To the very last he was about the duties of his practice; he literally died in harness. He was a man of tact and ability, and was rapid in his power of diagnosis. He made many friends, as was evidenced by the large gathering at his funeral. He took a lively interest in all forms of sport and athletics. His hobby latterly was keeping fancy pigeons, of which he had a large collection. He was married in 1885, and is survived by a widow and four young children.

# MEDICO-PARLIAMENTARY.

## HOUSE OF LORDS.

### THE PLAGUE SERUM.

THE EARL OF ONSLOW, Under-Secretary for India, in reply to Lord REAY, said the experiments referred to had not escaped the attention of the Government in Bombay, and M. Yersin had been commissioned by that Government to procure serum for use in Bombay, and he was expected to return to the city about the end of February or the beginning of March provided with a sufficient quantity of it. The prophylactic vaccine which Professor Haffkine had discovered, although it had not yet been tried for the curative properties of the serum, was likely to prove extremely valuable also. On January 2nd Professor Haffkine wrote that 21 animals had been immunised, and that he was looking forward to making trial of the new process. He also asked that 49 horses should be purchased to provide a further supply of serum—a request which the municipal commissioner at once took steps to carry out. With reference to the experiments conducted up to the present time the India Office were informed that 512 inoculations in all had taken place, and that no attacks were reported except 2 in the gaol, and, speaking generally, the Government of Bombay considered that inoculation appeared to afford considerable protection, but sufficient time had not yet elapsed to estimate the degree of protection, or how long it would continue.

## HOUSE OF COMMONS.

### THE ARMY MEDICAL SERVICE.

On the question that the Speaker leave the chair in order to go into Committee on the Army Estimates,

Dr. FARQUHARSON drew attention to the grievances of the Army Medical Department with regard to which, he said, he had put questions to the Government in June last year. He wished to know whether the War Office had done anything to remedy those grievances in the interval. Were they doing anything to attract candidates to the Army Medical Service, the number at present being lamentably deficient. He pointed out that there were sixty vacant appointments and only twenty-five or thirty candidates for them. With the prospective increase in the Army still more appointments would be available. The competition between young men to obtain commissions in the army was eager, and it was formerly so to obtain army medical appointments. The Army Medical Staff was much undermanned, and a large number of civilians had had to be appointed at many military stations to fill up the gaps. It had been proposed to lower the standard of examinations, and to give the "chronics" a chance by allowing those to enter who had been three times "plucked." He hoped this would not be the case. Field-Marshal Lord Roberts said the army needed as doctors the best men the medical schools could turn out. But, under the circumstances indicated, there seemed little chance at present of that ideal being realised.

Mr. POWELL WILLIAMS said that all he was able to say at the moment, in the absence of the Under-Secretary for War, was that the grievances of the Army Medical Department had been carefully considered in detail by the Secretary of State. The representations made had commended themselves to some extent to the Secretary of State, but he himself was not in a position to say at present that any distinct or specific step would be taken to remedy what was complained of. The question, however, might fairly be raised on the Estimates when the Under-Secretary for War was in his place.

The subject then dropped.

The House having gone into Committee of Supply,

Mr. BRODRICK, Under-Secretary for War, introduced the Army Estimates, on a vote of 15[illegible] men of all ranks. In the course of his speech, referring to the Army Medical Service, he said: Another thorny subject which we have had to deal with has been the condition of the Medical Department. For some time past, as the Committee is aware, we have had difficulty in procuring sufficient candidates for the Army Medical Department. Many reasons have been adduced for this, among which may be mentioned the question of rank and social condition, the examinations which were held to be conducted under less favourable circumstances for candidates from Irish and Scotch medical schools than for those attending London schools, the rate of pay in India, and the prolonged terms of foreign service. Lord Lansdowne has given the most careful personal attention to all these questions. He has received various deputations, and has spared no pains to get to the root of the difficulty. His conclusion is that, as regards the examinations, while every consideration should be given to eminent members of the Scotch and Irish medical schools in filling vacancies on the Examination Board, the Board should be constituted solely with reference to the professional eminence of its members without regard to the mere fact of their coming from one part or another of the United Kingdom. The falling off of Irish candidates, not being more than on a par with the falling off of other candidates, has no special significance or importance. Lord Lansdowne has also reviewed the whole circumstances attending the present titles of medical officers, a question which appears to be closely bound up with their complaints of a lack of social consideration. The truth appears to be this: When the system of attaching medical officers to regiments was abandoned, on grounds which at the time were certainly deemed to be sufficient for the system of appointing them to stations, medical officers lost their special and close personal contact with their regimental brother officers. Attempts have been made to give them a better position—first, by ranking them with combatant officers on the recommendation of Sir Andrew Clark as representing the schools, and then by conceding composite medical and military titles carrying with them substantive rank in their own department. These concessions, though welcomed at the time by the profession, have not altogether acted as was desired. Lord Lansdowne is anxious that every consideration should be shown to the officers of this most valuable and distinguished department. He has, after communication with the India Office, been able to secure to the medical officer an increase of pay in India, and the Indian tour will be decreased from six years to five. Assistance will also be given to form medical messes at the large stations, quarters will be offered in barracks where possible, and opportunities to study on return from foreign service will be given. But none of the proposals which have been submitted to the Secretary of State for giving new forms of army rank to the medical staff appear to him desirable for adoption. He does not believe that by such titles the Medical Department will obtain the status to which their talents and professional acquirements entitle them; and, anxious though the War Office is to meet the medical profession on all points, this is not one of those on which further action appears to be desirable.

The vote was agreed to.

The vote of £295,800 for medical establishment to defray the charge for the pay, etc., of the medical establishment, and the cost of medicines, etc., which will come in course of payment during the year ending March 31st, 1898, was also agreed to.

On the report of the last-named vote Dr. FARQUHARSON said he was glad to find that the affairs of the Army Medical Department were now attracting the serious attention of the War Office, and he was grateful to the right hon. gentleman for the concessions which he had made. The settlement of the long-vexed question of Indian pay would give satisfaction, and the reduction of the Indian tour of service from six to five years could not fail to have a beneficial influence on the health of the officers concerned. He hoped also that sympathetic consideration would be given to the very moderate and reasonable request of army surgeons that they should be granted an occasional period of study leave for the purpose of rubbing off rust, and keeping up with the progress of modern science. But these concessions, valuable though they were, would not satisfy the department unless the authorities could add to them the fulfilment of their great desire—for definite and distinctive rank in a royal corps. The Royal Engineers were a conspicuous instance of what persistent and constitutional agitation could do in attaining their wishes, and in most foreign countries the plan now suggested had been adopted, and worked with effective smoothness. Medical officers did not desire these titles for social purposes, but because the exigencies of modern warfare and the strictly military duties now imposed on them made it necessary that their official designations should be strictly military too. The compound titles, cumbrous though they are, had acted well by familiarising the combatant mind with the idea of military titles for doctors; and as the medical part of them was frequently dropped in purely official intercourse, the progress of evolution must soon induce the War Office authorities to give way on this point. In conclusion, Dr. Farquharson asked Mr. Brodrick as to the possibility of restoring to the department some of their old social advantages by attaching medical officers to the fixed establishment of regiments for a definite number of years.

Mr. JEFFREYS pointed out that there was terrible increase of venereal disease going on in the Indian army, notwithstanding the advance of medical science and the ability of the army medical officers. He wanted to know whether the Medical Department could not do something to check this. He had been informed by a captain that a number of men had to be taken on board ship wrapped in cotton wool, so miserable and helpless were they. The Government at the present time were greatly concerned about increasing the numbers in the army, but he thought it would be a better thing for them to make some serious attempt to diminish the number already in the ranks incapacitated by this disease.

Mr. BRODRICK said he recognised that there had been a very rapid development of disease in the Indian army, but he did not think the condition of things was quite as his hon. friend had represented. The blame in this matter did not lie at the door of the Medical Department, but at the door of the House. He need not go into the question of the repeal of the Contagious Diseases Acts, but he would remind the House that, in deference to the strongly expressed opinion of the House, the Council in India had abandoned the cantonment system, and that since then there had been a steady increase in the more acute forms of this disease. The matter was one so serious that the Secretary of State had appointed a Departmental Committee to consider the subject, and meanwhile it must engage the serious attention of everybody who had to deal with the military organisation of the country. Until the result of the inquiry was known he could not say more than this. As to the point raised by the hon. member opposite (Dr. Farquharson), the matter was not one which could be remedied by regimental officers. He should give it careful consideration.

It was resolved to agree with the Committee in the vote.

### THE M'GOVERN "CURE" FOR HYDROPHOBIA.

Mr. PATRICK ALOYSIUS M'HUGH asked the Irish Secretary whether he was aware that the Banbridge and Rathdrum Boards of Guardians had passed resolutions calling on the Local Government Board of Ireland to institute an inquiry into the merits of the treatment of rabies by Mr. M'Govern, of Cavan. And would he, as official head of the Local Government Board, and in view of the importance attached to this matter in Ireland, advise the Board to grant the inquiry asked for.—Mr. G. BALFOUR: Copies of resolution referred to have been received. In the year 1888 the Local Government Board were pressed to grant an inquiry similar to the one now asked for, and the Board stated that if Mr. M'Govern were willing to submit to the medical inspectors of the Board, the particulars of his alleged cure altogether with the recipe or the medicine or preparation given to his patients, the Board would direct such inquiry to be held. In reply, the Board were informed that the M'Governs could not disclose their remedy, which they declared they were bound to hold from father to son in their family. The Board then pointed out that no advantage could, under the circumstances, be obtained by holding such inquiry. It is obviously impossible for the Local Government Board for Ireland in any way to recognise the pretensions of persons who, like the M'Governs and the so-called cancer curers, have no professional knowledge, but lay claim to the exclusive possession of medical secrets, and are unwilling to submit their methods of treatment to the examination of competent judges.

### VACCINATION PROSECUTIONS.

Mr. CHAPLIN, in reply to Mr. LOGAN, said: It is the duty of Boards of Guardians to enforce the existing law as to vaccination, and the report of the Royal Commission does not in any way relieve them of their duty in this matter. I should not be justified in advising Boards of Guardians to suspend prosecutions under the vaccination law as suggested.—Mr. THOMAS BAYLEY asked the Home Secretary whether his attention had

been called to the fact that Frederick Pearse, of 63, High Street, Andover, had been prosecuted 63 times for the non-vaccination of his children, and had paid upwards of £42 in fines and costs, and that, notwithstanding the unanimous recommendations of the Royal Commission on Vaccination against repeated penalties, the said Frederick Pearse was committed to Her Majesty's prison on February 10th in default of payment of a further fine; and whether he would consider this case with a view to the release of the prisoner.—The Home Secretary: My attention has been called to the case of this man. I see nothing in the facts stated to justify me in advising any interference.

### Health of Soldiers at Gibraltar.

Mr. Brodrick, in reply to Sir H. Vincent, said the average stay of the last eleven battalions at Gibraltar has been three years. The reports on regiments leaving Gibraltar have not been such as are indicated in the question; the Foot Guards in London, as a rule, have one night out of bed on guard in every eight nights, and the guard duty at Gibraltar is about the same. The health statistics show that in the last ten years the admissions to hospital at Gibraltar were 39 per 1,000 less than in the United Kingdom; the number of men discharged as invalids were 8.71 per 1,000 at Gibraltar, while those discharged in the United Kingdom were 16.34 per 1,000, and the number of deaths at Gibraltar were 4.90 per 1,000, against 5.20 in the United Kingdom.—Colonel Lockwood asked if the right hon. gentlemen meant that the proportion all the year round was seven nights in bed to one out.—Mr. Brodrick said such was the information supplied to him—7.28 nights to one night out of bed.

### Private Lunatic Asylums.

Mr. Field asked the Home Secretary whether any regular inspection regarding the management of private lunatic asylums and their inmates was made and reported on by responsible Government officials; and, whether the system and working of private lunatic asylums would be inquired into and reported to the House.—The Home Secretary: All licensed houses are regularly visited by the Lunacy Commissioners—those in the metropolitan area six times a year, those outside that area twice. The latter are also visited six times a year by justices and a medical practitioner appointed for the purpose by quarter sessions. I am not aware of any necessity for such an inquiry as that the hon. member suggests.

### Hospital Accommodation at Sierra Leone.

In reply to Mr. Bill, Mr. Powell Williams said: The question of where the additional hospital accommodation for Sierra Leone shall be located is still under consideration. An increase to the garrison of Sierra Leone is provided in the estimates, and additional hospital accommodation will be required for the force thus added. It has not yet been decided where at Sierra Leone the whole of the necessary accommodation which will now be required, can most advantageously be provided.

### Reports, Etc.

On the motion of Mr. Pickersgill, a copy has been ordered to be laid on the table of the House of Commons, of the Report of the Chief General Inspector, the Medical Inspector, and the Architect of the Local Government Board on the Sheffield Cottage Homes for Children, together with the reply of the Sheffield Guardians, and the letter addressed to the Guardians by the Board on the sub(ect.

There have been laid upon the table of both Houses copies of a Return to the Lord Chancellor of the number of visits made and the number of patients seen by the several Commissioners in Lunacy during the six months ending on December 31st, 1896.

## NOTICES.

### Health of the Indian Army.

Major Rasch has given notice of his intention to ask the Secretary for India if he can say when the Departmental Committee of Inquiry on the Health of the Army in India will produce their report, and whether it will be placed in the hands of members when printed.

### Report on the Metropolitan Poor-Law Schools.

Mr. Pickersgill proposes on March 9th to call attention to the report of the recent Committee on Metropolitan Poor-Law Schools, and to the draft Order of the President of the Local Government Board relating to such schools; and to move a resolution.

# UNIVERSITIES AND COLLEGES.

## UNIVERSITY OF CAMBRIDGE.

Dr. Nansen.—It is proposed to confer the honorary degree of Doctor of Science on Dr. Fridtjof Nansen at a special Congregation on March 16th.

Anthropology.—Dr. Haddon is this term giving an elementary and an advanced course on Physical Anthropology, with practical work, at the Anatomical School. There is an unusually large attendance.

Medical and Surgical Examinations.—The following dates with reference to the forthcoming examinations are just published:

| | Names sent in. | Certificates and Fees. | Examination begins. |
|---|---|---|---|
| Third Examination, Part I: Surgery and Midwifery ... | April 1 | April 21 | April 27 |
| Third Examination, Part II: Medicine, etc. ... ... ... | April 1 | April 21 | April 27 |
| M.C. Examination .. ... ... | April 21 | — | April 30 |
| Second Examination: Pharmacy ... ... ... ... | June 1 | June 4 | June 14 |
| Anatomy and Physiology ... | June 2 | June 5 | June 16 |
| First Examination: Chemistry and Physics ... ... | June 1 | June 4 | June 14 |
| Biology ... ... ... ... ... | June 2 | June 5 | June 16 |

Degrees.—At the congregation on February 11th, Mr. R. W. Wakefield, of Trinity, was admitted to the degree of B.C., and Mr. E. C. Salt, of Emmanuel, to the degrees of M.B. and B.C.

## UNIVERSITY OF LONDON.

Intermediate Examination in Medicine.—The following candidates satisfied the examiners:

*Entire Examination.*—First Division: F. C. Borrow, St. Bartholomew's Hospital; P. C. Colls, King's College. Second Division: J. W. Aldred, Owens College; Cornelia Bonté Sheldon Amos, London School of Medicine for Women; H. R. Beale, St. Thomas's Hospital; H. S. Capper, University College; C. W. Chaplin, London Hospital; D. Davies, University College; H. G. Drake-Brockman, St. George's Hospital; Annie Chapman Gowdey, London School of Medicine for Women; J. L. Holt, Yorkshire College; W. S. Inman, Sheffield Medical School and Firth College; K. F. Lund, University, Cambridge, and University College, Liverpool; Louisa Martindale, London School of Medicine for Women; G. N. Meachen, Guy's Hospital; B. E. Potter, Charing Cross Hospital; H. M. Reeve, Guy's Hospital; W. H. Tattersall, Owens College; Ethel Miller Vernon, London School of Medicine for Women; W. B. Watson, St. Mary's Hospital.

*Excluding Physiology.*—First Division: F. F. Elwes, Middlesex Hospital; Eric Evans, London School of Medicine and Birkbeck Institute. Second Division: E. C. Bourdas, St. Thomas's Hospital; C. R. Brown, St. Bartholomew's Hospital; H. Burrows, St. Bartholomew's Hospital; W. H. Cazaly, B.A., St. Bartholomew's Hospital; J. M. Collyns, St. Bartholomew's Hospital; W. H. Coltart, Birmingham Medical School; W. S. Danks, St. Bartholomew's Hospital; J. B. Davey, Middlesex Hospital; E. P. H. Dudley, St. Bartholomew's Hospital; Susan Jane H. Eastwick-Field, London School of Medicine and Royal Free Hospital; A. Fraser, Guy's Hospital; C. S. Frost, St. Bartholomew's Hospital; T. H. Gandy, St. Bartholomew's Hospital; J. S. Gayner, St. Bartholomew's Hospital; E. C. Hadley, Mason College; W. W. Harrison, Guy's Hospital; P. M. Heath, University College; J. G. F. Hosken, St. Bartholomew's Hospital; S. A. Millen, St. Bartholomew's Hospital; A. Moon, Guy's Hospital; J. R. Morton, London Hospital; B. W. Moss, Guy's Hospital; D. T. Price, Bristol Medical School; C. G. Seligmann, St. Thomas's Hospital; W. G. Stewart, Guy's Hospital; P. G. Stock, University College, Bristol; Margaret Helen Style, London School of Medicine for Women; A. B. Vine, Middlesex Hospital; J. F. Walker, London Hospital; Charlotte Louise Weetman, London School of Medicine for Women; A. J. W. Wells, St. Bartholomew's Hospital; R. E. B. Wilmot, St. Mary's Hospital.

*Physiology only.*—First Division:—T. Aubrey, University College, Bristol; G. V. Miller, University College; W. B. Secretan, Guy's Hospital; J. G. C. Taunton, Mason College. Second Division:—F. Butterfield, Owens College and Manchester Royal Infirmary; A. H. Carter, Guy's Hospital; C. E. Durrant, St. Thomas's Hospital; H. D. Everington, St. Bartholomew's Hospital; H. E. C. Fox, Guy's Hospital; E. A. Gates, St. Thomas's Hospital; F. L. A. Greaves, St. Thomas's Hospital; Helen Beatrice Hanson, London School of Medicine for Women; H. W. Harding, St. Thomas's Hospital; R. Hatfield, St. Bartholomew's Hospital; E. Leach, Owens College; T. Marles-Thomas, University College; J. A. Mawson, Yorkshire College, J. A. O'Dowd, Mason College; G. C. Owsley, Guy's Hospital; A. Ricketts, University College; H. A. Schölberg, St. Bartholomew's Hospital; S. R. Scott, St. Bartholomew's Hospital; J. Thornton, London Hospital; L. A. Walker, St. Bartholomew's Hospital.

## ROYAL COLLEGE OF SURGEONS IN IRELAND.

Barker Anatomical Prizes for 1897.—A prize of £26 5s. is offered for competition, and is open to any student whose name is on the anatomical class list of any school in the United Kingdom. The preparations entered must be placed in charge of the Curator before June 1st, 1897, from whom all particulars can be obtained. The prize is offered for a dissection of the region in front of the sterno-mastoid; above the cricoid, with special relation to lateral pharyngotomy; the removal of tonsillar tumours and of infiltrated glands in cancer of the tongue. The cost and risks of transport must be borne by the student. The College will not be responsible for any damage the preparations may sustain; but those of unsuccessful competitors residing at a distance will be carefully repacked and handed to the carriers for delivery at such address as may be specified by the student.

# NAVAL AND MILITARY MEDICAL SERVICES.

## ARMY MEDICAL STAFF.

The undermentioned Surgeon-Majors, having completed twenty years' full-pay service, are promoted to be Surgeon-Lieutenant-Colonels from February 4th:—Michael R. Ryan, M.D., Edward O. Reynolds, Henry J. Robbins, M.D., John J. Morris, M.D., Aylmer E. Hayes, D.S.O., John F. Williamson, M.B., John T. Carey, M.B., Wm. J. R. Rainsford, F.R.C.S.I., Isaac Boulger, Thomas Boyd, Percy H. Johnston, M.D., Isaac B. Emerson, Eugenius A. Roche, Ulick J. Bourke, Joseph J. Lamprey, William H. Allen, Jones L. Peyton, M.B., Arthur W. Carleton, F.R.C.S.I., George A. Hughes, M.B., Brisbane W. Somerville-Large, F.R.C.S.Ed., Phineas B. Tuthill, M.D. F.R.C.S.I., John P. Hunt, M.D., F.R.C.S.I. The previous commissions of all these officers are: Surgeon, February 4th, 1877; Surgeon-Major, February 4th, 1889. Their war services are as follow: M. R. Ryan—Afghan war in 1878-79, including capture of Ali Musjid (medal with clasp); Egyptian war of 1882, and battle of Tel-el Kebir (medal with clasp and Khedive's star). E. O. Reynolds—Egyptian war of 1882, and battle of Tel-el-Kebir (medal with clasp and Khedive's star); Hazara expedition in 1888 (medal with clasp). H. J. Robbins—Afghan war in 1878-79, with the Koorum Valley Column, including Zaimusht expedition under Brigadier General Tytler, and was present with the 85th Regiment in the assault of Zawa (medal). J. J. Morris—Afghan war in 1878-79 with the Koorum Field Force, and in 1879-80 with the Cabul Field Force; the engagement at Charasiah and the actions around Cabul in December, 1879; was in medical charge of the 92nd Highlanders in the engagement at Charasiah in April, 1880 (men-

tioned in despatches, medal with two clasps). A. E. Hayes—Afghan war of 1878-80 (medal); operations near Suakin in December, 1888, including the engagement at Gemaizah (mentioned in despatches, medal with clasp, 3rd Class of the Medjidie, and Khedive's star), and operations on the Soudan frontier in 1889, including the engagement of Toski (mentioned in despatches, D.S.O., and clasp). J. F. Williamson—Afghan war in 1878-79; engagement at Charasiah on October 6th, 1879, and the operations round Cabul in December, 1879; with Sir Frederick Roberts in the march to Candahar, and present at the battle of Candahar (mentioned in despatches, medal with three clasps, and bronze decoration); Egyptian war of 1882, and present at the battle of Tel-el-Kebir (medal with clasp, and Khedive's star); Burmese expedition in 1887-88 (medal with clasp). J. T. Carey—Afghan war of 1878-80, and at the storming of the Peiwar Kotal (mentioned in despatches, medal with clasp); Egyptian war of 1882 (medal and Khedive's star). W. J. R. Rainsford—Afghan war in 1879-80 with the Khyber Field Force (medal); Egyptian war of 1882 (medal, and Khedive's star); also in the operations of the Soudan Frontier Field Force in 1885-86. I. Boulger—Afghan war of 1878-80 (medal). T. Boyd—Egyptian war of 1882 and battle of Tel-el-Kebir (medal with clasp and Khedive's star); Nile expedition in 1884-85, and had charge af the field hospital at Absarat (clasp). P. H. Johnston—Afghan war in 1879-80, with Zaimusht expedition, including the assault of Zawa (medal). I. B. Emerson—Afghan war in 1878-79 (medal). E. A. Roche—Afghan war of 1878-80 (medal). U. J. Bourke—Soudan campaign in 1885, engagement at Hasheen, and destruction of Temai (medal with clasp and Khedive's star). W. H. Allen—Egyptian war of 1882 (medal and Khedive's star); operations in Zululand in 1888. J. P. Hunt—Soudan Frontier Field Force in 1885-86 (medal and Khedive's star). J. L. Peyton—Soudan campaign in 1885 (medal with clasp and Khedive's star). A. W. Carleton—Afghan war of 1878-80, and engagement at Ahmed Kheyl (medal with clasp); Egyptian war of 1882 (medal and Khedive's star); also with the Nile expedition in 1884-85 (clasp). G. A. Hughes—Afghan war of 1878-80 (medal); Bechuanaland expedition in 1884-85; Ashanti expedition of 1895-6 (star).

Surgeon-Captain J. R. FORREST, who entered the service as Surgeon, February 2nd, 1884, is promoted to be Surgeon-Major, January 31st. He was in the Soudan campaign in 1885, receiving a medal with clasp and the Khedive's bronze star.

The undermentioned Surgeons on probation are appointed Surgeon-Lieutenants from January 28th: GEORGE E. F. STAMMERS, CHARLES F. WANHILL, WILFRID E. HUDLESTON, MARTIN P. CORKERY, FREDERICK J. GAINE, LEONARD A. WILLIAMS, ERNEST W. BLISS, MALCOLM M. RATTRAY, M.B.; JOHN H. POWER, RICHARD E. G. PHILLIPS, THOMAS H. M. CLARKE, M.B.; EDWIN W. P. V. MARRIOTT.

Surgeon-Captain HUGH RAYNER, M.B., is transferred from the Grenadier Guards, to which he was appointed April 14th, 1886, to the Royal Horse Guards, February 13th.

WE understand that Surgeon-Lieut.-Colonel J. J. Lamprey has sent in an application for leave to retire. He served as a volunteer for many years on the West Coast of Africa. During that time he creditably filled many appointments, acting as Colonial Surgeon, Cape Coast Castle and as acting Police Magistrate and Coroner for Sierra Leone. He was Senior Medical Officer of the West African Settlements during the yellow fever epidemic at Sierra Leone in 1884, an account of which was published in the BRITISH MEDICAL JOURNAL of September 26th, 1885. Surgeon-Lieutenant-Colonel Lamprey was appointed Medical Officer to the Anglo-French Boundary Commission, Sierra Leone, and accompanied it into the Western Soudan.

Quartermaster and Hon. Captain JOHN HORN is placed on retired pay, February 17th.

Sergeant-Major HUBERT JOHN SCOTT, Medical Staff Corps, is appointed Quartermaster, with the honorary rank of Lieutenant, *vice* Honorary Captain J. HORN, February 17th.

## INDIAN MEDICAL SERVICE.

SURGEON-GENERAL JAMES LANCASTER RANKING, late of the Madras Army, died at Leamington suddenly on February 9th, in his 80th year.

## MEDICAL STAFF CORPS.

IT is announced that the Medical Staff Corps is no longer to be instructed in the transport of sick and wounded by litters, and those means of conveyance have been withdrawn from the equipment of the corps.

## THE VOLUNTEERS.

THE undermentioned gentlemen are appointed Surgeon-Lieutenants in the corps specified, dated February 17th: WILLIAM H. R. FORSBROOK, M.D., 1st Volunteer Battalion the Royal Fusiliers (City of London Regiment); WILLIAM E. FOGGIE, M.B., 3rd (Dundee Highland) Volunteer Battalion the Black Watch (Royal Highlanders); EDWARD LAY PEYTON, M.B., 5th (Perthshire Highland) Volunteer Battalion the Black Watch (Royal Highlanders); JAMES C. POTTER, M.B., and ROBERT E. BROWN, 2nd Volunteer Battalion the Durham Light Infantry.

Surgeon-Lieutenant W. A. RENSHAW, 3rd Volunteer Battalion the Cheshire Regiment, and Honorary Assistant Surgeon C. L. EVERSHED, 2nd Volunteer Battalion the Royal Sussex Regiment, have resigned their commissions, February 17th.

## THE EXAMINATION FOR THE R.N. MEDICAL SERVICE.

BY the kindness of the Director-General we have been furnished with a copy of the revised regulations for entry into the Naval Medical Service. The examination, though generally following the same lines as heretofore, has been considerably altered in its details. The four compulsory subjects remain unchanged, but, whereas formerly each had 1,000 marks assigned to it, Medicine (with which are included therapeutics and the diseases of women and children) now carries 1,200 marks, as also does Surgery, while the papers in Anatomy and Physiology, and Chemistry, and Materia Medica each have, as a maximum, 600. Of the voluntary subjects the marks for French and German have each been raised from 150 to 200; but the number obtainable for natural science has been reduced by one-third. Till now the science subjects were Biology, Physics, and Physical Geography, and the candidate was allowed to take all or any of these, each one counting 300 marks. The new regulations have not altered the marks for the individual subjects, but Biology has now been split up into Zoology and Botany, and no candidate is allowed to compete in more than two of the four sciences thus defined. The net result is to decrease the number of marks obtainable in the compulsory subjects from 4,000 to 3,600, and those in science from 900 to 600, while the maximum for languages is raised from 300 to 400. The syllabuses for Zoology and Botany are, of course, considerably more extended than was the old Biology one, and those for Physics and Physical Geography have undergone but slight alterations, mainly of no more than a verbal character.

## CHANGES OF STATION.

THE following changes of Station amongst the officers of the Army Medical Staff have been officially notified to have taken place during the past month:

| | | From. | To. |
|---|---|---|---|
| Surgeon-Col. | J. P. Rooney | Gibraltar | Edinburgh. |
| Brig.-Surg.-Lieut.-Col. | R. Harman, M.B. | Shorncliffe | Madras. |
| ,, | W. B. Slaughter | Portsmouth | Bengal. |
| Surg.-Lieut.-Col. | S. H. Carter, M.B. | Malta | ,, |
| Surg.-Major | W. J. R. Rainsford | Aldershot | ,, |
| ,, | E. A. Roche | Newport | Curragh. |
| ,, | H. C. Kirkpatrick, M.D. | Winchester | Bombay. |
| ,, | N. Leader | Devonport | Newport. |
| ,, | J. Stevenson, M.B. | Manchester | Bombay. |
| ,, | K. S. Wallis | Bombay | Southern Dist. |
| ,, | J. W. H. Flanagan | Preston | Bengal. |
| ,, | T. Dorman, M.D. | Nova Scotia | Cork. |
| ,, | B. T. McCreery, M.B. | Punjab | Dublin. |
| ,, | D. Wardrop, M.B. | Bengal | Dover. |
| ,, | F. M. Baker, M.B. | Malta | Thames Dist. |
| ,, | J. L. Hall | Nova Scotia | Woolwich. |
| ,, | J. G. S. Lewis | Half-pay | Waterford. |
| ,, | G. H. Sylvester | Punjab | Aldershot. |
| ,, | D. L. Irvine | Gibraltar | Colchester. |
| ,, | H. J. Barnes | Bombay | Gosport. |
| ,, | R. Jennings, M.D. | Portsmouth | Hilsea. |
| ,, | R. Porter, M.B. | Hilsea | Winchester. |
| ,, | G. T. Trewman, M.B. | Curragh | Bengal. |
| ,, | W. G. Clements | W. Africa | Chatham. |
| ,, | H. E. R. James | Hong Kong | Home District. |
| ,, | J. W. Jerome | Glasgow | Malta. |
| ,, | A. A. Pechell | Chester | Hulme. |
| ,, | E. H. Lynden-Bell, M.B. | Bermuda | Maryhill. |
| ,, | C. E. Faunce | Portsmouth | Gibraltar. |
| ,, | G. F. Gubbin | Bermuda | Chatham. |
| ,, | G. D. Hunter, D.S.O. | Egypt | Cork. |
| ,, | A. de C. Scanlan | Half-pay | Woking. |
| Surg.-Capt. | J. R. Forrest | Waterford | Cork District. |
| ,, | G. Cree | Dover | Gibraltar. |
| ,, | L. T. M. Nash | Aldershot | Punjab. |
| ,, | A. A. Sutton | Bombay | Devonport. |
| ,, | F. J. W. Stoney | Dublin | Limerick. |
| ,, | D. M. Saunders, M.D. | Burnley | Gibraltar. |
| ,, | F. S. Clark, M.B. | Dover | Shorncliffe. |
| ,, | G. F. Alexander, M.B. | Punjab | Cork. |
| ,, | J. Paterson, M.B. | Bengal | Netley. |
| ,, | A. Wright | Woking | Nova Scotia. |
| ,, | R. J. Copeland, M.B. | Bombay | Gosport. |
| ,, | J. Girvin | ,, | Cork. |
| ,, | H. J. Parry, M.B. | ,, | Aldershot. |
| Surg.-Lieut. | K. M. Cameron, M.B. | Aldershot | Bengal. |
| ,, | P. Evans, M.B. | Gosport | Punjab. |
| ,, | J. M. Buist, M.B. | Dublin | ,, |
| ,, | J. Walker, M.B. | Belfast | Bombay. |
| ,, | F. Dove | Woolwich | ,, |
| ,, | D. Lawson | Gosport | Bengal. |
| ,, | E. B. Steel, M.B. | Chatham | ,, |
| ,, | F. Kiddle, M.B. | Devonport | Bombay. |
| ,, | H. E. Staddon | Spike Island | ,, |
| ,, | L. P. Tomlinson | Shorncliffe | Madras. |
| ,, | S. J. C. P. Perry | Dublin | ,, |
| ,, | G. B. Riddick | Portsmouth | Gosport. |
| ,, | A. J. MacDougall, M.B. | Piershill | Glasgow. |
| ,, | R. W. Clements, M.B. | Cork | Spike Island. |
| Quartermaster | J. Mathews | Edinburgh | Gibraltar. |

## ASSISTANT SANITARY COMMISSIONER, INDIA.

THE Secretary of State for India has sanctioned the extension of the term of office of Brigade-Surgeon-Lieutenant-Colonel D. D. Cunningham as Special Assistant to the Sanitary Commissioner to the Government of India for a further period of one year and ten months, with effect from December 1st, 1896.

## THE DONGOLA EXPEDITION.

IN his speech in moving for the special grant for the expenses of the last Soudan expedition the Chancellor of the Exchequer spoke of the small cost to life which this expedition had involved. No more, he said, out of the whole Egyptian force than 47 persons were killed in action, 235 fell victims to cholera, and rather more than 100 to other forms of disease during the months the campaign lasted. Probably with regard to that latter point as many lives would have been lost if the troops had remained at home. I do not think that any more complete success was ever obtained by any expedition that was ever undertaken. Although Sir Michael Hicks-Beach's speech did not mention the medical staff of the expedition, it will be universally recognised that no small part of the credit belongs to the Principal Medical Officer, Brigade-Surgeon-Lieutenant-Colonel Gallwey, and his staff.

## INCREASE OF THE ARMY VETERINARY DEPARTMENT IN INDIA.

THE Secretary of State has sanctioned an addition of two officers to the Army Veterinary Department Establishment in India to meet the in-

creased requirements of the remount depôts. The recent decision to create a reserve of 1,000 horses in connection with the mobilisation scheme will have the effect of augmenting these establishments and their wants. This announcement is significant in face of the short-handedness of the Army Medical Staff in India.

# MEDICO-LEGAL.

## EXTRAORDINARY CONDUCT OF A CORONER.

UNDER the heading "A Doctor's Insulting Message" the *East Anglian Daily Times* reports an incident that occurred at an inquest held by Mr. J. Harrison, one of the Essex coroners, at the Anchor Inn, Wivenhoe, on the body of Henry Robert Childs, who committed suicide by drowning.

It would appear that the coroner sent his officer to Dr. Hewlett, who attended the deceased some time before, to ask for information without summoning the doctor as a witness at the inquest. The latter consequently refused to give any information, intimating that if his evidence were required he ought to be summoned in the usual manner.

The coroner is reported to have thereupon got angry, and to have said, "You tell Dr. Hewlett from me that if he sends me messages like that I shall commit him for contempt of court, and he will find himself in a funny position." And he afterwards expressed his determination to "have the doctor before the court next time he held an inquest in Wivenhoe, unless in the meantime he had an apology," for he "had great powers, although he seldom exercised them."

The coroner may have "great powers," but it is questionable whether they extend to summoning a doctor before his court, and reprimanding him for doing that which he has a legal right to do. Complaints reach us occasionally from other parts of the country that attempts are sometimes made to worm information out of medical men before the inquest, in order to avoid the expense of summoning them as witnessses.

Medical men are quite right in refusing to become parties to such practices. If medical evidence is required at an inquest, it is the duty of the coroner to summon the medical witness in the usual way, and to pay him his legal fee. Medical evidence given secondhand by the coroner's officer is opposed to the first principles of law, and ought to be excluded from any court that claims the faintest resemblance to a court of justice.

## *IN RE* THE LONDON HEALTH ELECTRICAL INSTITUTE, LIMITED.

IN the Supreme Court, according to the *Times* report of February 15th, an appeal was heard, before the Lords Justices Lindley, A. L. Smith, and Rigby, from a decision of Mr. Justice Vaughan Williams dismissing a creditor's petition for the winding up of the above-named company. The company was registered in September, 1892, and was formed for the purpose of acquiring the business of the "Magneto-Electric Battery Company" and the "London Health Electric Institute," formerly carried on by Messrs. Spalding. The company was heavily indebted to the petitioners for printing and advertising. The company very soon got into difficulties in consequence, as stated by counsel, of the exposure of the Harness belt business, which was alleged to be similar to the business proposed to be carried on by the company, and it was admittedly insolvent at the date of the petition. After hearing counsel the Court dismissed the appeal, and in the course of the judgment Lord Justice Lindley stated that, with every possible desire to assist the creditors, the Court was bound to accept the decision of the House of Lords in Salomon *v.* Salomon and Co. Lord Justice A. L. Smith concurred, and further stated that if he could he would wind up the company and sweep it off the face of the earth, because he was quite certain its continued existence could not benefit a single human being. Lord Justice Rigby agreed with the learned judge below, both in his expression of regret and in his judgment that nothing could be done.

It is quite certain after this decision and the judgment of the House of Lords in the "one-man company case" referred to that an amendment to the Companies Act is imperatively required for the protection of the public.

## PARTNERSHIP ACCOUNT.

MEMBER writes: X. and Z. are both in practice in the same town. X. agrees to sell his practice to Z., giving a three-months' partnership introduction. The purchase money is to be paid on commencement of said partnership introduction. Do both X. and Z. or either of them show receipts and expenses during the three-months' partnership introduction? In other words, is a short partnership introduction the same as a real partnership, or it it only a nominal partnership?

*** We are advised that X. would be entitled to the full partnership benefits during the period of introduction in respect of that portion of the business sold by him to Z., but of course to no share in the profits of Z.'s own original practice.

## ASSISTANT AND PRINCIPAL.

AN ASSISTANT wishes to know whether he has any claim on his principal for (1) acting as an anæsthetist for him during an operation; (2) introducing new patients.

*** An assistant has no legal claim on his principal under these circumstances in the absence of special agreement to the contrary on entering his service.

## UNQUALIFIED PRACTICE.

QUACK.—Unqualified practitioners are liable to penalties under the Apothecaries Act if they prescribe and compound medicines for patients. It is not likely that the university would take cognisance of such a case, as the matter is outside its jurisdiction.

# PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

## THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

THE Registrar-General has just issued his return relating to the births and deaths registered in England and Wales during the fourth or autumn quarter of last year, and to the marriages during the three months ending September last. The marriage-rate was equal to 16.8 per 1,000 of the population, and exceeded the rate recorded in the corresponding quarter of any year since 1873.

The births registered in England and Wales during the three months ending December last numbered 235,561, and were equal to an annual rate of 30.1 per 1,000 of the population, estimated by the Registrar-General to be nearly thirty-one millions in the middle of the year. This rate was slightly above the mean rate in the corresponding periods of the ten preceding years, and exceeded that recorded in the fourth quarter of any of the four preceding years. The birth-rates in the several counties ranged from 19.6 in Rutlandshire, 23.6 in Sussex, and 23.8 in Westmorland to 34.2 in South Wales, 34.3 in Monmouthshire, 35.2 in Durham, and 35.6 in Staffordshire. In thirty-three of the largest English towns, including London, the birth-rate last quarter averaged 31.3 per 1,000, and exceeded by 1.2 per 1,000 the general English rate. In London the birth-rate was 30.7 per 1,000, while it averaged 31.7 in the thirty-two large provincial towns, among which it ranged from 22.6 in Huddersfield, 24.4 in Halifax, and 24.6 in Brighton to 35.7 in Cardiff, 35.9 in Salford, 36.2 in Wolverhampton, and 36.5 in Gateshead.

The births registered in England and Wales during the quarter ending December last exceeded the deaths by 95,932; this represents the natural increase of the population during that period. It appears from returns issued by the Board of Trade that 45,438 emigrants embarked during last quarter, for places outside Europe, from the various ports of the United Kingdom at which emigration officers are stationed. Of these, 24,798 were English, 3,808 Scotch, 5,230 Irish, and 14,602 were of foreign origin. Compared with the averages in the corresponding periods of recent years, the proportion of English and Irish emigrants showed a decline, and that of Scotch emigrants showed an increase.

During the fourth quarter of 1896 the deaths of 139,629 persons were registered in England and Wales, equal to an annual rate of 17.9 per 1,000 of the estimated population; this rate was 1.6 per 1,000 below the average rate in the corresponding quarters of the ten preceding years. The lowest county death-rates last quarter were 11.1 in Westmorland, 13.3 in Middlesex, 13.6 in Rutlandshire, and 14.1 in Surrey; while the highest rates were 19.7 in Warwickshire and in South Wales, 20.6 in Lancashire, 21.0 in Staffordshire, and 21.1 in Nottinghamshire. In the urban population of the country, estimated at nearly twenty-one millions, the rate of mortality during the quarter under notice was equal to 18.6 per 1,000; while in the remaining and chiefly rural population of nearly ten millions the rate was 16.2 per 1,000. These rates were respectively 1.1 and 0.2 per 1,000 below the average rates in the corresponding quarters of the ten preceding years. Among thirty-three of the largest English towns the mean death-rate was 18.8 per 1,000, or 0.9 per 1,000 in excess of the death-rate in the whole country. In London the rate was 18.1 per 1,000, while it averaged 19.4 in the thirty-two large provincial towns, among which the rates ranged from 14.6 in Croydon, 14.9 in Leicester, 15.4 in Derby, 15.5 in West Ham, and 15.6 in Portsmouth to 21.9 in Manchester, 22.6 in Preston, 22.9 in Plymouth, and 23.1 in Liverpool. In sixty-seven other large towns, with an estimated aggregate population of about three and a half millions, the mean death-rate was 18.2 per 1,000, or 0.6 per 1,000 below the rate in the thirty-three large towns.

The 139,629 deaths from all causes registered in England and Wales during the three months ending December last included 3,558 which resulted from measles, 2,522 from diphtheria, 2,376 from whooping-cough, 1,670 from diarrhœa, 1,557 from scarlet fever, 1,464 from "fever" (including typhus, enteric, and ill-defined forms of continued fever), and 9 from small-pox; in all, 12,996 deaths were referred to these principal zymotic diseases, equal to an annual rate of 1.65 per 1,000, against an average rate of 2.02 in the corresponding quarters of the ten preceding years. The mortality from diphtheria showed an excess last quarter, while that from each of the other principal zymotic diseases was below the average. Only 9 fatal cases of small-pox were recorded in England and Wales during last quarter, of which 8 were registered in Redruth district and 1 in Carnarvon district.

The rate of infant mortality in England and Wales last quarter, or the proportion of deaths under 1 year of age to registered births, was equal to 146 per 1,000, and was slightly below the mean proportion in the corresponding periods of the ten preceding years. In London the rate of infant mortality was 138 per 1,000, while it averaged 158 in the thirty-two large provincial towns, among which it ranged from 111 in Portsmouth, 129 in Bristol, 134 in Leicester, and 135 in Derby to 203 in Plymouth, 204 in Nottingham, 208 in Blackburn, and 235 in Preston.

The mean temperature of the air during last quarter at the Royal Observatory, Greenwich, was 42.4°, and was 1.2° below the average in the corresponding quarters of 125 years; the mean was 2.9° below the average in October, and 1.6° below in November, but showed an excess of 1.2° in December. The rainfall during the quarter amounted to 6.99 inches, or 0.13 inch below the average.

## HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 7,854 births and 4,128 deaths were registered during the week ending Saturday last, February 13th. The annual rate of mortality in these towns, which had increased from 19.2 to 20.8 per 1,000 in the four preceding weeks, declined to 19.6 last week. The rates in the several towns ranged from 12.5 in Croydon, 12.6 in Cardiff, 13.4 in Gateshead, and 14.2 in Halifax to 23.9 in Manchester, 24.2 in Huddersfield, 25.5 in Liverpool, and 26.2 in Plymouth. In the thirty-two provincial towns the mean death-rate was 20.3 per 1,000, and was 1.7 above the rate recorded in London

which was 18.6 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.6 per 1,000; in London the rate was equal to 1.6 per 1,000, while it also averaged 1.6 in the thirty-two provincial towns, and was highest in Nottingham, Salford, Bolton, and Oldham. Measles caused a death-rate of 1.1 in Oldham, and 2.6 in Bolton; and whooping-cough of 1.0 in Swansea, 1.5 in Burnley, 2.0 in Nottingham, and 2.2 in Bristol. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 62 deaths from diphtheria in the thirty-three towns included 37 in London, 4 in Birmingham, and 4 in Liverpool. Two fatal cases of small-pox were registered in London, but not one in any of the thirty-two large provincial towns. There were 38 cases of small-pox under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, February 13th, against 2, 9, and 21 at the end of the three preceding weeks; 20 new cases were admitted during the week, against 7 and 12 in the two preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 3,354, 3,311, and 3,153 at the end of the three preceding weeks, had further declined to 3,050 on Saturday last; 224 new cases were admitted during the week, against 249, 254, and 245 in the three preceding weeks.

## HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, February 13th, 908 births and 857 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 24.3 and 26.6 per 1,000 in the two preceding weeks, further rose to 28.8 last week, but exceeded by 0.2 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rate ranged from 21.4 in Leith to 40.9 in Perth. The zymotic death-rate in these towns averaged 3.6 per 1,000, the highest rates being recorded in Glasgow and Perth. The 458 deaths registered in Glasgow included 27 from whooping-cough, 23 from measles, 4 from "fever," 3 from diphtheria, and 3 from scarlet fever. Eight fatal cases of whooping-cough were recorded in Edinburgh, and 3 of whooping-cough in Perth.

## INCREASE OF SMALL-POX IN LONDON.

THE prevalence of small-pox in London has recently shown a marked increase, as is shown by the rapid rise in the number of notifications of this disease in the metropolis, and in the number of small-pox patients admitted into the Metropolitan Asylums Hospitals. On January 23rd only 2 cases were under treatment in these hospitals, but during the two following weeks 7 and 9 new cases respectively were admitted: during the week ending Saturday last, February 13th, the admissions further rose to 20, and 35 patients remained under treatment in these hospitals on that date. In addition to these, there were 3 patients in the Highgate Small-pox Hospital. During the last week of January there was an outbreak of the disease in Bloomsbury, 4 cases being removed to the hospitals. Then followed a serious outbreak in Camberwell, no fewer than 19 cases being removed from that parish to the Metropolitan Asylums Hospitals during first two weeks of February. Five cases were also admitted to these hospitals from Greenwich, the patients having been brought from the Seamen's Hospital. The notifications of small-pox in London during the past three weeks have 4, 8, and 23 respectively, or 35 in all; of these, 22 were notified in Camberwell, 3 in St. Giles, 3 in the Port of London, and 1 each in St. Pancras, Stoke Newington, St. Martin-in-the-Fields, Strand, Poplar, Bermondsey, and Lambeth.

## SOMEBODY BLUNDERED.

A LESSON as to how an epidemic may be set agoing comes from Dublin. A case of small-pox was detected, but all the hospitals being crowded with other infectious cases it was deemed best to isolate the patient in his residence. A man was employed to watch outside the house, and he was enjoined not to enter. He disobeyed, took small-pox, and died. Two governors of Cork Street Hospital call attention to the impropriety of allowing a man who was not vaccinated to do this work. Sir C. Cameron points out that the South Dublin Guardians had charge of the case, and that the man stated he had been recently revaccinated. He refused to allow the doctor to revaccinate him, but this does not appear to have been reported. We now learn that the male nurse has been attacked, and he also declined protection. There is, of course, a dispute as to who is really responsible. Somebody blundered. No one should have been allowed access to the sick man and his family without revaccination, and the sanitary authority should have insisted upon this. There appears to have been a great deal of "taking for granted." Lapses will of course occur, but sanitary boards, in the face of a possible outbreak of small-pox, ought to make no mistakes. A thorough investigation of the whole circumstances is due to the public, who feel that a big mistake has been made.

## THE NOTIFICATION OF MEASLES IN LONDON.

DR. CORFIELD has made a special report to the Vestry of the Parish of St. George Hanover Square, on the subject of the compulsory notification of measles in the district. He gives prominence to the results recorded in Edinburgh, where the system has not been followed by any diminution of the disease, but rather the reverse; and to the fact that in many towns where measles has been for a time notified under compulsory order, the resolution has ultimately been revoked. He further quotes the report of Dr. Theodore Thomson on the whole question, wherein are given data which do not go to show any very strong grounds for the adoption of the system as now generally enforced, since there seems to be no districts where all the steps needed to get the maximum benefit from the notification of the disease have been systematically brought to the aid of the precaution. Dr. Corfield naturally dwells on the high state of infectiousness of measles in the pre-eruptive stage as militating against the benefits to be gained by notification in the case of other diseases, and holds that the facts that hospitals are not generally available for the malady, and that even if they were that parents would seldom be willing to let their infants be removed, are calculated to diminish the usefulness of notification. The closure of schools and the education of parents as to the dangers attending the disease are, however, points to which he draws special notice; but, on the whole, he does not advise his vestry to run to the expense which would be entailed by the general notification of measles, as he does not believe that the benefits would be commensurate with the cost.

## WATERCLOSET FLUSHING REGULATIONS.

UNDER this heading attention was called in the BRITISH MEDICAL JOURNAL as long ago as January, 1894, to the anomalies of the existing law relating to the flushing capacity of watercloset cisterns. Section XXI of the regulations under the Metropolis Water Act of 1871 provides that cisterns hereafter fixed "shall not be capable of discharging more than 2 gallons at each flush." A series of experiments conducted by a committee of the Sanitary Institute pointed to the desirability of fixing the minimum quantity of flushing water at 3 gallons. The London County Council, having first communicated with London water companies with regard to the matter, applied at the end of 1894 to the Local Government Board, asking the Board to appoint a person of engineering knowledge and experience to report to them on the subject as provided for in Section XIX of the Act of 1871. An inquiry was ordered, as the result of which the amendment of the regulations relating to the flushing capacity of watercloset cisterns was not recommended. The question has now been reopened, inasmuch as attention has been called to the fact that some of the London water companies are serving notices on owners of houses to take out their 3-gallon flushing cisterns, and to substitute 2-gallon cisterns. It is pointed out that, although the water companies' regulations only permit a 2-gallon flush, the regulation has hitherto not been strictly enforced, at any rate not in the better class of houses. This action on the part of the water companies is now made the occasion of a protest against what is urged it is a retrograde movement, and a serious menace to the health of the metropolis.

## THE MEDICAL OFFICER FOR EAST SUSSEX.

SOME suggestions of the East Sussex County Council were considered at a conference of the sanitary authorities of the large combined (Cuckfield) district for which Dr. Fussell acted so ably and so long. This district the county council consider too large for one man to work efficiently, and they would have preferred an officer for the county with two or more assistants. To the salaries of these officers the county would have paid two-thirds instead of half as at present. As an alternative scheme the council suggested three fully-qualified health officers for these large combined districts along with a central consulting officer. The conference, however, preferred to adhere to the old arrangement, at the same time showing their want confidence in it by proposing to make the appointment only for a period of three years. It is scarcely likely that any experienced officer will be tempted by a salary of £693, out of which he has to pay working expenses, to burn his boats and go to East Sussex; but there are, doubtless, youths just qualified venturous enough to do so.

## THE ANTITOXIN TREATMENT OF DIPHTHERIA IN BIRMINGHAM.

THE Birmingham Health Committee has taken a wise step in inviting the Board of Guardians to a conference on the subject of the antitoxin treatment of diphtheria. This was held on February 4th, and the evidence laid before it on behalf of the remedy was well nigh overwhelming. In 1895 2,964 cases of scarlet fever were dealt with in the City Hospital, of which 25 developed symptoms of diphtheria while under treatment. All were injected with antitoxic serum, and only 2 died. In 1896, of the 3,389 scarlet fever patients, 70 developed diphtheria, and were injected with the serum, without a single death. In every case the diagnosis was confirmed at the British Institute of Preventive Medicine. On the other hand, it was to be noted that during the last three years the cases of diphtheria notified in Birmingham reached 2,056, with 459 deaths, a mortality of 21.4 per cent.: in 1896 alone the number of deaths was 246. In face of these terrible figures the Health Committee begged the Board of Guardians to have syringes and serum supplied to the district medical officers, in order that by the prompt application of ths treatment its greatest possible efficacy might be attained. The deputation of the Board replied favourably, and there is reason to hope that the course suggested will be adopted. The Health Committee is also anxious to promote the use of serum in general medical practice in the city, and to that end intends arranging a conference with the Medical Institute, and, if necessary, a meeting of the medical profession of the district. Dr. Hill, the medical officer of health, stated that of twenty-eight medical men in Birmingham who have notified cases of diphtheria during the last fortnight three only had used the serum.

## SANITARY REFORM AT SCARBOROUGH.

A PAMPHLET entitled "What Scarborough Needs" has been reprinted from the *Scarborough Post*. It embodies a series of articles on sanitary reform which have appeared in the colums of that paper. "The great need of the borough" is stated to be an isolation hospital, and a comparison is made between the provision for the isolation of cases of infectious disease which has been made in certain watering places and that which obtains in Scarborough. It is, moreover, pointed out that there is need of abolishing the privy system, and replacing it by a water carriage system. Again, attention is directed to the desirability of doing away with private slaughter houses in the borough, and erecting a public abbatoir. Many of the arguments used appear to possess much force, and it cannot be doubted that the corporation will duly consider the desirability of carrying into effect certain of the recommendations which are made; indeed it will come as a surprise to many to learn that they still need to be made.

## APPOINTMENT OF MEDICAL OFFICER OF HEALTH.

M.O.H. asks for advice under the following circumstances. He was appointed medical officer of health to an urban council in September, 1895, for one year. In September, 1896, hearing nothing from the council, he went on acting as medical officer, thinking that he had been reappointed. In January, 1897, the clerk to the council wrote "M.O.H." enclosing cheque for his salary for half of the quarter, but at the same time informed him that he had been reappointed for three

years: the clerk regretted being unable to send the salary for the rest of the quarter, as by an oversight the medical officer of health had not been appointed formally until half a quarter was over. Can "M.O.H." recover the salary which both the council and the clerk acknowledge to be justly due to him?

*** We think that in such a case as this the urban council would have power, either on its own initiative or with the approval of the Local Government Board, to pay the salary of the medical officer of health for the period of the half-quarter prior to the formal reappointment. It seems, however, to be a case in which a letter stating the facts should be addressed to the Council with a request that the approval o the Local Government Board should be obtained if necessary, and that the amount should be paid to the medical officer under the special circumstances of the case. The regulations of the Local Government Board of March 3rd, 1891, seem to provide that the salary of the medical officer of health should be paid up to the date on which he ceases to hold the office and no longer, but there is an express provision that the sanitary authority may, with the approval of the Local Government Board, pay to any officer a reasonable compensation on account of any unforeseen or special circumstances. It is of course open to suggestion that first appointment of our correspondent having been for one year only, he should have taken care to see that the appointment was duly and formally renewed; and the case in our opinion is certainly not one for litigation. Legal proceedings would, we believe, be of a special character, and if resorted to care should be taken to have the advice of a solicitor.

### LUNATICS IN WORKHOUSES.

M. O. asks the following questions: (1) A suicidal case is remanded to the workhouse after being seen by the police surgeon. Is the patient under the "control" of the medical officer of the workhouse, or of the police surgeon? (2) Is the medical officer of the union within his rights in certifying him insane if he considers him to be so? (3) Has any other medical man a right to see an inmate unless ordered by a justice of the peace?

*** (1) The patient is under the medical care of the medical officer of the workhouse. The police surgeon has no "control" whatever, though he or any other medical practitioner may be called on by the acting magistrate to certify for removal to asylum. (2) The medical officer of the workhouse is certainly within his rights in certifying to the insanity of any inmate, if he is satisfied on the point, and if he is called on by the acting magistrate to do so. (3) Under ordinary circumstances no medical man, other than the medical officer of the workhouse, has a right to see any inmate as a patient, either with or without an order of a justice of the peace, but if a case of lunacy is under the consideration of a magistrate, the latter can call to his assistance any medical practitioner, this being for certifying purposes only.

### DISPOSAL OF INLAND SEWAGE.

M. O. H. would be glad of information as to literature on the best and most recent method of disposal of sewage, adaptable for a rural populous industrial centre of about 6,000 inhabitants. A system of sewerage, owing to the distance from a tidal outflow, and for other reasons, would be inadmissible, and a sewage farm, owing to the shallow nature of the soil, would also be unsuitable. Any method based on chemical and bacteriological lines would suit best, and information as to description, etc., would be very acceptable.

### VITAL STATISTICS FOR 1896.

T. H. R.—The following are the rates for England and Wales for 1896, as to which our correspondent inquires: Birth-rate, 29.7; death-rate, 17.1; urban, 18.0; rural, 15.3; infant, per 1,000 births, 148; zymotic, 2.18; phthisis (not yet available).

### ISOLATION IN POOR DISTRICTS.

M.O.H. asks to be advised as to the most economical method of isolating infectious cases in a poor district.

*** He might consult the Memorandum on the Provision of Hospital Accommodation by Local Authorities (London: Eyre and Spottiswoode. 1d.). In the event of it not being possible to erect a small building for the purpose of isolation, the Memorandum in question contains the suggestion that "the requisite accommodation for (say) four cases of infectious disease in a village may at times be got in a fairly isolated and otherwise suitable four-roomed or six-roomed cottage which has been acquired by the authority, or by arrangement made beforehand with some trustworthy cottage holders, not having children, that they should receive and nurse on occasion patients requiring such accommodation."

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The first leper house for Esthonia (Russia) was opened at Kunda in December last. Already twenty lepers have been placed in it.

Mr. Leopold Rothschild has given an acre of land as a site for the Victoria Cottage Hospital at Acton, towards the erection of which, as a memorial of the Queen's reign, Mr. Passmore Edwards promised, on condition that the site be provided, to contribute £2,000.

# MEDICAL NEWS.

We are glad to be able to state that the fresh rumours as to the sanitary state of Madeira are unfounded. The health of the island is excellent.

The Istituto Lombardo di Scienze e Lettere of Milan has awarded the Fossati prize, of the value of £80, to Professor Mosso for an investigation of the temperature of the brain.

Successful Vaccination.—Mr. J. Aspinall Hunt, of Barrowash, has been awarded the extra grant by the Local Government Board for efficient vaccination in the Spondon district of the Shardlow Union.

At a special meeting of the Church Burial, Funeral, and Mourning Reform Association, to be held in the Westminster Palace Hotel, S.W., on Friday, February 26th, at 3 P.M., Mr. H. D. Greene, Q.C., M.P., in the chair, a paper will be read on Earth to Earth Burial by Sir F. Seymour Haden.

Medico-Psychological Association.—The spring meeting of the South-Western Division is to be held in the afternoon of April 27th, at Barnwood House, Gloucester. After the transaction of business and the election of members, Dr. Soutar will open a discussion on Recoveries in Asylums, and this will be followed by a contribution from Dr. Goodall on The Systematic Collection of Pathological Data in Asylums.

The annual general meeting of the Medical Defence Union will be held at the house of the Medical Society of London on Thursday, February 25th, at 5 P.M. The President, Mr. Victor Horsley, will take the chair, and will move the adoption of the annual report for 1896. It appears from this report that the number of members of the Union on December 31st, 1896, was 3,832, and that the amount of the guarantee fund was £5,601 9s. 6d. During the year upwards of 150 separate cases were legally advised upon and conducted by the solicitor to the Union.

"Arms and Legs" is the name of a Society in Rome, founded by the late General H. H. Maxwell, R.A., C.B., for the purpose of supplying the well-known Beaufort artificial limbs. The managers are three English ladies, and the subscribers seem chiefly to belong to the same nationality. From the eighteenth report we find that 47 limbs were supplied last year, at a total cost of 1,655.35 lire, or about £40. An interesting piece of information is that the Cavaliere Invernizzi, mechanician to the Society, made 333 Beaufort feet for Askari soldiers, who, fighting under the Italian colours at Erythea, were taken prisoners by the Emperor Menelik after the battle of Adowa, and were mutilated by the removal of either the right hand and left foot, or the left hand and right foot. A branch of the Society is about to be established in Florence, under Miss ffolliott, 11, Lungo Mugnone.

International Medical Congress.—A meeting of the English Committee of the International Medical Congress to be held at Moscow August 19th to 26th was held at 13, Harley Street, on February 13th, under the presidency of Sir William Mac Cormac. There were present, in addition, Sir Dyce Duckworth, Mr. Langton, Dr. Lauder Brunton, Dr. Ailchin, Mr. Henry Morris, Surgeon-Major-General Hooper, Dr. Champneys, Professor Thane, Dr. A. E. Garrod, and the Secretary, Mr. Makins, reported that fifty representatives of the various English universities, medical schools, and medical societies had joined the English Committee. The meeting discussed several matters relating to the Congress. We are requested to add that abstracts of all communications to the Congress should be in the hands of Professor W. K. Roth at Moscow not later than June 1st.

Guy's Hospital.—An interim report has been published on the initiation and progress of the Sustentation and Re-endowment Funds, started respectively in 1895 and 1896, with lists of donors and subscribers to September 30th, 1896. At that date the Sustentation Fund account stood at £34,417, of which £6,965 had been transferred to the Re-endowment Fund, and permanently invested in accordance with the express wish of the donors; whilst £11,206 had been taken to supplement the deficiency in the ordinary income of the hospital. The Re-endowment Fund on September 30th last

had reached £161,907, of which sum £18,826 had been devoted to the repayment of a loan to the hospital, £6,364 had defrayed the cost of the appeal and the festival, and the balance of £142,981 had been invested in approved securities. Further sums, amounting to about £10,000, payable by instalments, have been promised to this fund. Promises of annual subscriptions, amounting to £3,300, have also been received. The estimated expenditure for 1897 is £44,000, whilst the income is only £37,350, leaving a deficiency of £6,650, which shows the necessity of continued public support. This, too, is for the present reduced establishment; were the 150 beds which are still closed to be reopened the amount to be supplied during the year would be, not £6,650, but £15,650. The governors gratefully acknowledge the liberal response made to their appeal by the public, and have peculiar satisfaction in recognising that it came from every class and from all parts of the kingdom.

A DISCUSSION ON VACCINATION.—It may appear a matter of doubt whether open discussions, as usually conducted in the columns of the provincial press, as to the value of vaccination, produce much conviction either for or against vaccination in the mind of the average reader. Medical men, whose scientific training has taught them severely to examine the facts before them, and to present their conclusions in the simplest words, are too often confronted by such blatant opponents, and meet with such discourteous treatment at their hands that it requires no slight courage to enter the lists and fight against ignorance, and put the public in possession of at least the main facts upon which the law of the land is based as regards vaccination. It is with pleasure that we note the dignified manner in which a discussion on vaccination and small-pox has been recently conducted in the *East Anglian Daily Times*. For in spite of the Royal Commission and the Gloucester epidemic, we find antivaccinists in some other journals using a strength of language proportioned inversely to the strength of their arguments. In the East Anglian correspondence alluded to, we find that Jurin's fatality-rate for small-pox in the last century is given as being almost exactly the same as the present rate, as if vaccination had no existence. But we are not at the same time told on what authorities Jurin based his rate, although Dr. MacVail has told us this in his work on Vaccination, and has proved that Jurin was wrong. Mr. Vulliamy's opening letter is a model letter in its admirable marshalling of facts and clearness of expression. We are not sure that we understand one particular argument of his opponent, Mr. Rands—namely, that prevention and mitigation (of small-pox) cannot exist together—"consequently, his plea of mitigation disproves his faith in prevention." This is playing with words, for the prevention was not claimed as being absolute; on the contrary, it is distinctly asserted as not being absolute. Dr. James Ranken, in a vigorous letter in a recent issue of the *Kilmarnock Standard*, also supplies just what is needed. "Like Rip van Winkle," we are told, the antivaccinists of Gloucester "awoke out of their lethargic state, and were only too pleased to submit to the harmless but efficacious operation.....On June 20th, 1896, it was stated that of 9,000 unvaccinated children before the epidemic, now it is estimated 8,640 children have been vaccinated, and the epidemic is virtually stamped out." This is right. The lesson of the Gloucester epidemic and its sudden arrest should be brought home to the mind of every grown-up person in the kingdom, who has any doubts about vaccination.

## MEDICAL VACANCIES.

The following vacancies are announced:

BELGRAVE HOSPITAL FOR CHILDREN, 77 and 70, Gloucester Street, S.W.—Resident House-Surgeon. Appointment for six months. Board, lodging, and washing provided. Applications to George Greenway by March 6th.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL.—House-Surgeon. Appointment for six months. Board, lodging, and washing provided. Application to the Secretary of the Medical Committee by February 23rd.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Extra Acting Physician. Salary, £40 per annum. Resident Medical Officer and Resident Surgical Officer. Salaries, £70 and £50 respectively, with board, washing, and attendance in the institution. Applications to the Secretary, Children's Hospital, Steelhouse Lane, Birmingham, by March 3rd.

BOLTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon; doubly qualified, and age not to exceed 25. Appointment for one year. Salary, £80 per annum, with furnished apartments, board, and attendance. Applications to Mr. Peter Kevan, Hon. Secretary, 12, Acresfield, Bolton, by February 23rd.

BOROUGH OF BURTON-UPON-TRENT.—Medical Officer of Health; must reside within the borough and must not engage in private practice. Salary, at the rate of £350 per annum, exclusive of authorised disbursements. Applications, endorsed "Medical Officer of Health," to T. N. Whitehead, Town Clerk, Town Hall, Burton-on-Trent, by February 24th.

BRISTOL GENERAL HOSPITAL.—Physician Accoucheur and an Assistant Physician Accoucheur. Applications to the Secretary by March 5th.

BRISTOL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Assistant House-Surgeon. Doubly qualified. Appointment for six months (non-residential), with honorarium of 25 guineas. Applications, endorsed "Assistant House-Surgeon," by February 27th.

BRISTOL ROYAL INFIRMARY.—Resident Officer. Salary, £40 per annum, with board, lodging, and washing. Appointment for one year. Applications to the Secretary by February 22nd.

CANCER HOSPITAL (FREE), Fulham Road, S.W.—House-Surgeon. Appointment for six months. Salary at the rate of £50 per annum, with board and residence. Applications to the Secretary by March 2nd.

CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY, 41, Sloane Square, S.W.—House-Surgeon and Secretary. Salary, £95 per annum, with furnished rooms in the dispensary house. Allowance of £20 for coals and candles for the use of the institution, and further allowance for housekeeper. Applications to the Secretary by March 4th.

DARENTH SCHOOL FOR IMBECILES, near Dartford, Kent.—Assistant Medical Officer. Salary, £160 per annum, rising £20 annually to £200, with board, lodging, attendance, and washing. Doubly qualified. Application forms may be obtained at the Office of the Board, Norfolk House, Norfolk Street, Strand, W.C., where such forms filled up must be sent in by March 2nd.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Dental Surgeon; must be Licentiate of Dental Surgery. Applications to J. Francis Pink, Secretary, by March 8th.

DERBY BOROUGH ASYLUM.—Assistant Medical Officer. Salary, £100 per annum, with board and washing. Applications to Dr. Macphail, Rowditch, Derby, by March 1st.

EASINGTON UNION.—Medical Officer for the Workhouse and Medical Officer and Public Vaccinator for the Easington District. Salary as Medical Officer of the Workhouse, £60 per annum, and as District Medical Officer £40 and the usual fees for vaccination. Must reside in the Easington District. Applications, on forms to be obtained of the Clerk, endorsed "Application for Workhouse Medical Officer," to be sent to W. J. Malcolm, Clerk, Union Offices, Easington, Castle Eden, R.S.O., by February 22nd.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis Road, Shadwell, E.—House-Surgeon. Board, lodging, etc., provided, but no salary. Applications to the Secretary by March 12th.

EAST SUFFOLK AND IPSWICH HOSPITAL, Thorofare, Ipswich.—Second House-Surgeon. Doubly qualified; unmarried. Salary, £70 per annum, with board, lodging, and washing. Applications to the Secretary by February 20th.

GENERAL HOSPITAL, Birmingham.—House-Physician; must be graduate in medicine. Appointment for one year, but eligible for re-election for a further year. Salary, £70 per annum, with residence, board, and washing. Pathologist. Appointment will be subject to re-election to a limit of five years. A knowledge of bacteriology deemed essential. Salary, £100 per annum, with board and residence. £20 per annum being allowed till residence is provided in new hospital. Assistant House-Surgeon; must possess surgical qualification. No salary, but board, residence, and washing provided. Applications for each appointment to be sent to Howard J. Collins, House-Governor, by February 27th.

GENERAL INFIRMARY, Northampton.—Assistant House-Surgeon. Doubly qualified; unmarried, and not under 23 years of age. Salary, £100 per annum, with furnished apartments, board, attendance, and washing. Applications to the Secretary by March 4th.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL.—House-Surgeon; unmarried, doubly qualified. Salary, £75 per annum, with board, lodging, and laundry expenses. Applications to William J. Gant, Secretary, by March 1st.

LEICESTER INFIRMARY.—House-Physician. Salary, £80 per annum, with board, apartments, and washing. Appointment for twelve months, but eligible for re-election. Applications to the Secretary at his office, 24, Friar Lane, Leicester, by March 1st.

LIVERPOOL ROYAL INFIRMARY.—Honorary Physician. Applications to the Chairman of the Committee of the Royal Infirmary, Liverpool, by March 13th.

LONDON HOSPITAL MEDICAL COLLEGE, Mile End, E.—Demonstrator of Physiology. Salary, £100 a year. Assistant Demonstrator of Anatomy. Salary, £90 a year. Applications to Munro Scott, Warden, by March 8th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Resident Medical Officer; doubly qualified. Salary, 100 guineas per annum, with board, lodging, and washing. Applications to the Secretary to be posted not later than February 27th.

MANCHESTER CHILDREN'S HOSPITAL.—Junior Resident Medical Officer. Appointment for six months, but eligible for election as Senior Medical Officer for another six months. Doubly qualified; unmarried. Salary at the rate of £80 a year when Junior, £100 a year as Senior, with board and lodging. Also Medical Officer to the Dispensary. Unmarried; doubly qualified. Must give his whole time to the duties. Salary, £180 a year, without board or residence. Ap-

plication to the Secretary, Dispensary, Gartside Street, Manchester, by February 27th.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—House-Physician, House-Surgeon, Assistant House-Physician, and Assistant House-Surgeon. Salary for the two former £40 a year, and £20 a year for the latter. Must be doubly qualified. Applications to the Secretary by February 22nd.

PARISH COUNCIL OF KILMUIR, Skye.—Medical Officer. Salary, £75 per annum. Former officer was Medical Officer for the half of Snizort parish at an additional salary, which arrangement is still intended to be continued. Joint salary, £100. Applications to the Clerk of Parish Council, Uig, Skye, by February 24th.

POPLAR HOSPITAL FOR ACCIDENTS, Poplar, E.—House-Surgeon. Appointment for one year, re-election may take place annually up to three years. Salary, £110 for the first year, £120 second year, £130 third year, with board and residence. Applications to the House-Governor by February 22nd.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Senior Resident Medical Officer. Doubly qualified. Salary, £100 per annum, with board, residence, and washing. Appointment for six months, but eligible for re-election. Applications to the Secretary by March 15th.

ST. GEORGE'S AND ST. JAMES'S DISPENSARY, 60, King Street, Regent Street, W.—Physician, and also a Physician for the Diseases of Women and Children. Applications to the Secretary by February 22nd.

ST. LUKE'S HOSPITAL, London, E.C.—Clinical Assistant. Must be duly qualified and registered. Appointment for six months, with board and residence. Applications to W. H. Baird, Secretary.

ST. MARY'S CHILDREN'S HOSPITAL, Plaistow, E.—Resident Medical Officer. Appointment for one year. Salary, £80 per annum, with board and laundry. Applications to the Secretary by February 27th.

SHEFFIELD ROYAL HOSPITAL.—House-Physician. Unmarried. Appointment for one year. Board (exclusive of wine and beer) and lodging provided, and an honorarium of 25 guineas. Applications to Dr. Sinclair White, Secretary to the Honorary Medical Staff, by February 26th.

TIVERTON INFIRMARY AND DISPENSARY.—House-Surgeon and Dispenser, unmarried. Salary, £105 per annum, with lodging, attendance, fire, and lights. Must serve two years if required. Applications to Arthur Fisher, Honorary Secretary, by February 27th.

WEST HERTS INFIRMARY, Hemel Hempstead, Herts.—House-Surgeon and Dispenser; doubly qualified, unmarried. Appointment for two years. Salary, £100 per annum, with furnished rooms, board, light, fire, attendance, and washing. Applications to the Hon. Secretary by March 3rd.

YORKSHIRE COLLEGE, Leeds.—Demonstrator of Physiology. Salary, £150. Applications to the College Secretary by March 15th.

## MEDICAL APPOINTMENTS.

ADAMS, Edmund W., F.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer of Health to the Slough Urban District Council,

ALDRIDGE, Norman Elliott, M.B., C.M.Edin., D.P.H.R.C.P. & S.Eng., appointed Physician to the Royal South Hants Infirmary, Southampton, *vice* T. W. Trend, M.D., resigned.

BARNARD, Harold Leslie, M.B., M.S.Lond., F.R.C.S.Eng., appointed Surgical Registrar of the London Hospital.

BARTON, G. H., M.R.C.S.Eng., L.R.C.P.Edin., reappointed District Medical Officer to the Lincoln Union.

COLLINSON, Henry A., M.B., B.S., appointed Surgeon to the Richmond Rolling Mills Limited, Stockton-on-Tees.

DEANE, S. Robert, L.R.C.S.I., L.A.H.Dubl., reappointed District Medical Officer to the Lincoln Union.

EDMOND, George Maitland, M.D., appointed Physician to the Aberdeen Royal Infirmary.

FAWCETT, W. H., L.R.C.P., L.R.C.S.Edin., D.P.H.R.C.S.Eng., appointed Medical Officer for the Wimborne District of the Wimborne and Cranborne Union.

GREENE, Helen M., L.S.A.Lond., M.D.Brux., appointed to the Staff of the Provident Dispensary, Derby.

HUNTER, William Lovell, M.D.Dub., D.P.H.Eng., reappointed Medical Officer of Health to the Pudsey District Council.

JONES, S. Edwards, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Bangor and Worthenbury District of the Ellesmere Union.

LEES, C. A., M.R.C.S., L.R.C.P., appointed Medical Officer for the Somersham District of the St. Ives Union.

LEGGE, Sydney C., M.R.C.S.Eng., L.R.C.P.Lond., appointed Clinical Assistant to the Birmingham and Midland Hospital for Skin and Urinary Diseases.

LENEY, Lily, L.R.C.P., L.R.C.S.Edin., M.D.Brux., L.M.Rotunda, appointed Clinical Assistant to the New Hospital for Women, and Assistant Resident Medical Officer to the Canning Town Medical Mission.

LITTLETON, Philip R., M.R.C.S.Eng., reappointed Medical Officer of Health to the Ashbourne Urban District Council.

MACKINTOSH, Angus, M.D.,Glasg., L.F.P.S.Glasg. reappointed Medical Officer of Health to the Clay Cross Urban District Council.

MILLER, Arthur Dixon, M.R.C.S., L.R.C.P.Lond., L.D.S.I., appointed Dental Surgeon to the Birmingham General Dispensary.

MOON, Dr., appointed Resident Medical Superintendent to the Omagh Asylum.

OGLE, Cyril, M.A., M.B.Oxon., M.R.C.P.Lond., appointed Assistant Physician to St. George's Hospital, London.

PENROSE, F. G., M.D., F.R.C.P.Lond., appointed Physician to St. George's Hospital, *vice* T. T. Whipham, M.D.Oxon.

SANDFORD, Horace V., L.R.C.P.Lond., L.F.P.S.Glasg., reappointed Medical Officer of Health to the Hereford Town Council.

SIBBALD, Ian G., M.B., C.M.Edin., appointed Resident Medical Officer to the Northern Infirmary, Inverness.

SMYTH, Dr. T., appointed Medical Officer for the Milton Abbott District of the Tavistock Union.

STANLEY, Douglas, M.D.Edin., M.R.C.P.Lond., appointed Physician for Out-patients, Queen's Hospital, Birmingham.

TURNER, John Andrew, M.B., D.P.H., Medical Officer of Health to the Combined Districts of Leicester and Rutland, appointed Medical Officer of Health to the Combined Districts of East Herts and Essex.

WHIPHAM, Thomas T., M.A., M.D.Oxon., appointed Consulting Physician to St. George's Hospital.

## DIARY FOR NEXT WEEK.

### MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Professor Victor Horsley: Traumatic Neurasthenia. Mr. Hurry Fenwick: Twenty Lumbar Nephrectomies.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Dr. E. H. Starling: The Changes in the Circulation consequent on Heart Failure. Lecture I.

### TUESDAY.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Lecture by Dr. Gowers.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL, Gray's Inn Road, W.C., 4 P.M.—Dr. Dundas Grant: The Diagnosis and Treatment of Diseases characterised by Discharge from the Ear.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 P.M.—Mr. T. S. Ellis: On some Points in the Surgical Physiology of the Foot.

### WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Dr. E. H. Starling: The Changes in the Circulation consequent on Heart Failure. Lecture II.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND, 20, Hanover Square, W., 5 P.M.—Papers: Dr. Pye-Smith: Varicella Bullosa. Dr. Stowers: The Antecedent of and Sequel to a Case of Paget's Disease of the Nipple. Mr. G. Pernet: Recurrent Herpes Zoster, with Remarks on Etiology. Dr. D. Walsh: X Ray Therapeutics in Skin Diseases. Cases by Dr. Payne, Dr. T. D. Savill, Dr. Walsh, Dr. Abraham, and others.

THE CLINICAL MUSEUM, 211, Great Portland Street, 4 P.M.—Demonstration by Mr. Jonathan Hutchinson.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M.—Mr. Paget: Surgical Cases.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, 4 P.M.—Dr. Fowler: Clinical Demonstration in the Wards.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, 8.30 P.M.—Mr. Victor Horsley: The Second Hunterian Society's Lecture on Torticollis and its Treatment.

### THURSDAY.

NEUROLOGICAL SOCIETY OF LONDON, 11, Chandos Street, W., 8.30 P.M.—Communications on Muscle Spindles by Dr. F. E. Batten, Professor Victor Horsley, and Professor Sherrington.

### FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Dr. E. H. Starling: The Changes in the Circulation consequent on Heart Failure. Lecture III.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Lecture by Mr. Gunn on Inflammatory Affections of Optic Nerve, etc.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 P.M.—Clinical Evening. Patients in attendance at 8 P.M. The following cases will be shown: Dr. Sidney Coupland: Case of Multiple Subcutaneous Nodules and Bony Growth from the Skull. Dr. StClair Thomson: Case of Blood Tumour of the Auricle occurring spontaneously. Dr. Arthur Wilson: Case of Dual Consciousness; and other cases.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL, 4 P.M.—Mr. St. George Reid: Methods of Bacteriological Diagnosis (illustrated by lantern demonstration, etc.).

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTH.

KIDD.—February 16th, at Enniskillen, the wife of L. Kidd, M.D., of a daughter.

### MARRIAGE.

ACKLAND—MACRORY.—On February 13th, at St. Stephen's Church, Westbourne Park, W., by the Rev. J. H. Ellison, M.A., Vicar of Windsor, and Chaplain to the Queen, assisted by the Rev. J. Hallward, M.A., and the Rev. W. M. Snook, M.A., Robert Craig Ackland, M.R.C.S., L.R.C.P., third son of the late Robert Ackland, Esq., of Exeter, to Ruth Kathleen, youngest daughter of Edmund Macrory, Q.C., of 19, Pembridge Square, W., and Duncairn, co. Antrim, and granddaughter of the late Mr. Justice Manisty.

# LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

CANDIDATE asks: Is there any necessity to read any other Latin classic than *Celsus* for the M.R.C.P.Lond.?

T. S., with a view to the preparation of a popular lecture, asks for references to any special literature in connection with the progress of medicine during the past century.

J. P. F. wishes to hear of an institution where a gentleman of limited means in feeble health can obtain board and lodging for £52 per annum.

DR. TUCKER WISE (Montreux, Switzerland) desires to hear of an institution where a lady and daughter, both affected with pulmonary tuberculosis, but not confined to bed, could obtain board, residence, and medical supervision for two or two and a half guineas a week. An elevated inland situation would be preferred.

L. has observed recently a child who can fold up the auricles and so completely stop the ears. The child does so each night on being put to bed, opening them only on waking or soon after. He wishes to know whether any animals, primates or others, have the habit of plugging up the external auditory meatus when they desire to go to sleep.

C. H. W. asks for the name and address of a society which publishes leaflets on the feeding of infants.

*** The Obstetrical Society of London publishes *Rules for the General Management of Infants*, which can be obtained from Messrs. Longmans, Green, and Co., or at the Society's Library, 20, Hanover Square, W., price 1d. each, or by post 1½d.

### SODA WATER.

FIJI asks whether there is any foundation for the common belief that to take a large quantity of soda water or lemon squash is (1) weakening, (2) fattening?

### CONVULSIONS AFTER COCAINE.

P. S. would be glad to know if cases of epileptiform convulsions after the administration of cocaine—in dental practice or otherwise—have been observed at so long an interval as some days. A youth who, years ago, had a convulsive attack immediately after the application of cocaine to the gum, has recently had a similar attack five days after the application of cocaine to the interior of a tooth, a galvanic current being passed through it during the application. Can the cocaine have been its cause?

### AMBULANCE LECTURES.

PHENAD writes: I have been asked to give a course of ambulance lectures to a private class. Is there any syllabus of such lectures usually given? What book would outline the course for me?

*** The St. John Ambulance Association, 8, John's Gate, Clerkenwell, E.C., publishes a book entitled *First Aid to the Injured*, which would give the required information. In it is included a syllabus of instruction.

### CALLING ON PROFESSIONAL NEIGHBOURS.

A MEMBER writes that he is commencing practice in a town of 30,000 inhabitants. A house is being built for him, and in the meanwhile he is living a few doors away till it is ready. He wishes to know (1) whether he should call at once on his professional neighbours, or wait till he is in his new house; (2) should he call only on those in his district, or on all in the town?

*** 1. It is usual for a practitioner to call on his professional brethren when he commences practice, but it does not seem very material whether he waits till his new house is ready or not.

2. It is usual to call only on those practising in his particular district.

### TRANSFER OF PRACTICE.

XENOPHON asks advice in the following case: A. buys a practice from B., who introduces him to patients, either personally or by a card intimating his succession to the practice. Some of B.'s patients go to C., another practitioner in the neighbourhood, when the change takes place. Is there any reason why A. should not try to get those patients who have gone to C. to come to him, through the help of mutual friends? This, of course, only refers to patients who were B.'s at the time of the change of practice.

*** If the patients have gone to C. without any undue influence being used on his part, A. is not justified in taking any steps to recover them. For when A. buys a practice of B., he merely purchases the chance that B.'s old patients will continue to employ him; if, however, they prefer to go to C., they at once become C.'s patients, and A. has no more right to try to gain them for himself than he would have in the case of any other of C.'s patients.

### FUR COATS AND COMFORT.

A COUNTRY PRACTITIONER asks whether there are any objections to the use of fur-lined overcoats when driving long country rounds in cold weather.

*** We have referred this question to a practitioner of long experience, who writes: It is a question which is of considerable interest, not merely in regard to the use of that peculiarly luxurious form of clothing by the doctor himself, but as to his recommendation of it to his patients. The fact is that, as a form of clothing, the fur-lined overcoat—like so many other things in this imperfect world—contains both good and evil. The good is the fur, which, by virtue of the hair entangled in its finer meshes is a non-conductor, and prevents the outward transmission of heat, and by virtue of its stiffer hairs resists compression, and refuses to become sodden even in the presence of moisture. The bad is the skin from which these hairs grow, skin which in the "curing" processes to which it has been subjected has become almost impervious to vapours, and thus to a large extent partakes of the character of a waterproof. For active exercise, then, a fur-lined coat is by no means an ideal garment. The wearer walks about clothed in steam instead of clothed in air. The steam condenses against the outer pelt, and the whole arrangement becomes wet within. To the country doctor, however, sitting in his carriage and making no more effort than is necessary to hold the reins, things are different. Snugly ensconced within the recesses of his fur coat, while, looking out upon the winter, he sits bathed in a warm and homelike atmosphere, and, if he takes precautions to keep his feet warm, he may with confidence defy the climate. It is not, however, as a means of keeping warm himself during his long drives that the greatest benefits accrue to the medical practitioner from the use of a fur coat. Any form of woollen clothing, if thick enough, would keep him warm, and might be arranged so as to avoid the evils due to the imperviousness of the fur-lined coat; while if the mere retention of warmth were the object aimed at the fur coat would be better arranged the other way out, that is, with the fur outside. The real advantage of the fur coat, however, to the doctor does not so much depend on its not transmitting the heat as upon the fact that under whatever circumstances it is placed the fur always remains charged with air, the most non-conducting of all substances, and that it therefore always feels warm at once when it is put on. To a medical man who many times a day takes off his top coat and hangs it up in a chilly hall the putting on of the coat, especially if it is a little damp, is an even more chilly performance than the driving in the outer air. Whatever the fabric, if it is thick enough, the inside will get warm in five minutes. But that five minutes, just when one comes fresh from the warm bedroom, is the time of danger, and it is from that initial chill that one is saved by the use of a fur-lined coat—a garment which, for anyone who has to travel much, is, indeed, a good investment.

### PHOTOGRAPHY.

A MEMBER asks for a good prescription for making a combined toning and fixing bath. Such solutions can be bought, and act well, but there is no prescription for them in any book on photography for amateurs.

*** We extract the following, which may be of use to our correspondent, from *Vogel's Practical Pocket-book of Photography*, second edition, by E. C. Conrad, F.C.S. (London: Swan Sonnenschein and Co. 1s.):

*Combined Toning and Fixing Bath.*

| | | | |
|---|---|---|---|
| Distilled water ... ... ... | 2,000 c.cm. | = | 70 ozs. |
| Hyposulphite of soda ... ... | 500 g. | = | 7,716 gr. |
| Sulphocyanide of ammonium ... | 55 g. | = | 848 gr. |
| Acetate of lead ... ... ... | 20 g. | = | 308 gr. |
| Powdered alum ... ... ... | 15 g. | = | 231 gr. |
| Citric acid ... ... ... ... | 15 g. | = | 231 gr. |
| Nitrate of lead ... ... ... | 20 g. | = | 308 gr. |

This solution should be allowed to stand for some days; it is then filtered and mixed with 150 c.cm. = 5 ozs. of solution of chloride of gold (1 in 200). This combined bath will keep, and may be used repeatedly (after filtration), until it does not tone sufficiently. The prints are toned in it until they assume the desired colour. (Note: It is advisable to put the prints in a fixing bath (1 in 15) after toning, especially if an old bath is used.) It is not absolutely necessary to wash the prints before use, but the practice is much to be recommended, as then the bath remains fit for use much longer. Combined baths work when quite fresh more quickly than those which have been used for some time; it is, therefore, of advantage to mix a new bath with part of an old one.

## ANSWERS.

M. C. should ask his medical attendant to recommend a consultant. We cannot recommend individual practitioners.

PERSEVERE might consult the replies given to a similar query in the BRITISH MEDICAL JOURNAL, January 9th, 1897, p. 122, and of January 23rd, 1897, p. 247.

NEMO will find that correspondence with regard to the treatment of obesity took place in the JOURNALS of May 2nd, 1896, p. 1131, and June 6th, 1896, p. 1430.

STUDENT.—The regulations for students who began their professional education before October 1st, 1884, differ from those who began after that date. Our correspondent will of course be guided by the official publication of the College.

### A Suspensory Bandage for Riding and Driving.

In reply to the question of A. B. C. in the British Medical Journal of January 30th, p. 315, Dr. Percy Sharp writes to recommend the use of a suspensory bandage made by the Domen Belts Company, of 61, Moor Lane, E.C.; and Dr. J. G. Carruthers recommends a suspensory bandage made for him by Messrs. Poole and Lord, 322, Oxford Street, W.

### Cider.

Dr. Wm. Cox (Winchcombe, Glos.) writes: In reply to "Pomum," I would recommend Gloucestershire cider for his rheumatic or gouty patients. It is lighter and drier than other sorts, and if he will write to me I shall be happy to give him further advice on the subject.

### Biniodide of Mercury Solutions.

H. W. H.—The biniodide of mercury is a stable salt, and is not affected by light. A saturated methylated spirit solution, as far as our observation goes, is permanent, and light has no action upon it. The biniodide is almost insoluble in water, but it readily dissolves if iodide or chloride of sodium be added. Such solutions are permanent.

### Popular Books on Botany.

R. M. H.—*Flowers of the Field*, by Rev. A. Johns (London: Society for Promoting Christian Knowledge, 6s.), is very good, for British plants; the last edition was published in 1894. Hulme's *Familiar Wild Flowers* (London: Cassell and Co.) is a very good book, with coloured illustrations. It is also published in twenty-four monthly parts, price 6d., and the first number will be published on February 25th.

### Foreign and Colonial Degrees.

Licentiate.—The medical degrees of the McGill University, Montreal, are not as yet registrable on the Colonial List of the *Medical Register*. They cannot be so registered until the Privy Council has issued an order applying Section xvii of the Medical Act to Canada. No American degree obtained since June 25th, 1886, is registrable as an additional qualification. We are advised that the holder of an unregistrable degree could not style himself M.D. simply.

### Ruptured Frænum Præputii.

F.R.C.S. writes, in answer to "M.D.'s" query in the British Medical Journal of January 30th: Rupture of the frænum is not at all an uncommon occurrence. The etiology has almost always been, in the numerous cases I have seen, ulceration on one or both sides of the frænum, due to local venereal sores, with a fair amount of inflammation and œdema. The prognosis is very good, and the sexual function hardly comes under consideration, as it is unimpaired as soon as the ulcer is healed. With regard to attempting to restore the frænum by operation, in the first place, I doubt its feasibility, and, secondly, in the majority of cases the patient is better without a frænum. I recommend for treatment touching with silver nitrate 5j to 5j twice a week, and the application of an iodoform paste, made by mixing the powdered cystals with glycerine night and morning. If the smell is objected to, europhen in the form of powder, or a similar paste, may be substituted with very good results.

### Treatment of Primary and Secondary Syphilis.

F.R.C.S. writes, in reply to "D.E.B.:" The best treatment for the patient's primary sore, if still open, is iodoform or europhen made into a paste, as described in answer to "M.D." The constitutional treatment should be commenced in all cases of syphilis as soon as the disease is diagnosed, and I have found one of the most useful forms of mercury to be a grain of grey powder, given as a pill, with ½ grain of pulv. opii three four times a day after meals. This treatment should be continued for at least a year, and longer, if necessary, the average duration in my experience, being nearer two years than one. If advisable the dose may be decreased, but I believe that, as a rule, mercury is given in too small a dose and for too short a period. If the patient, as often happens, is anæmic at the beginning of the disease a grain or two of ferrum redactum may be added to the mercury with advantage. For some months, perhaps up to the end of the first year, I think the iodide of potash not only unnecessary but harmful.

## NOTES, LETTERS, Etc.

### The Administration of Antitoxins by the Mouth.

Dr. T. M. Allison (Newcastle-on-Tyne) writes: In the British Medical Journal of February 6th Dr. F. G. Proudfoot reports a case of tetanus treated by the administration of antitoxin hypodermically, and remarks "as to the antitoxin our great difficulty was to know how much to inject and how often." I have felt the same difficulty, and as injections of antitoxins in large quantities is attended with considerable constitutional and local risk, and as more frequent injections could not but increase the danger, may I suggest to Dr. Proudfoot and to the profession the advantages of giving antitoxins by the mouth at intervals and in doses regulated by the age, and by the results observed on the temperature, pulse, and general condition? In this way by the mouth, though in a very limited number of cases, I have employed the antitoxin of diphtheria and the antistreptococcic serum, the reactions with both being favourable, and appearing to be quite comparable with what one expects from the hypodermic method, whilst the advantages in administration are sufficiently obvious.

*** We have asked the opinion of Dr. Sims Woodhead on this suggestion, and he has favoured us with the following observations: As yet the administration of antitoxin by the mouth has found little favour with those who have worked most at this subject. Many have tried to obtain results by this method, but always unsuccessfully. The reasons against its adoption are the following: (1) The antitoxin, when passed through the stomach, is very materially altered, that is, it is digested and rendered almost inert. (2) If the stomach be not sufficiently active to destroy the antitoxin it will absorb the fluid exceedingly slowly. (3) Every moment is of importance, and the subcutaneous method allows the antitoxin to get into the circulation much more rapidly than by any other method, except when intravenous injection is resorted to.

### Dr. Rentoul's Election Expenses and those Incurred in Opposing the Four Midwives Bills.

Mr. Alfred Cox, M.B., Honorary Secretary (West View, Gateshead-on-Tyne), writes: The following is the second list of subscriptions to the "Rentoul Repayment of Expenses Fund." May I ask intending subscribers to forward their donations at once, so as to enable the fund to be closed at an early date?

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Mr. T. Howard Brocklehurst, M.R.C.S.Eng. (Weymouth), writes: Will you allow me to suggest that every medical man who recorded his vote for Dr. Rentoul should subscribe 1s. to this fund? This would realise over £300, and would be most gratifying to our good friend Dr. Rentoul, and show our appreciation of his valuable work.

### How to Stop the Inflammation from Vaccination when Running to Excess.

Dr. Philip L. Benson (Steeple Claydon, Bucks), writes: I was very much interested in a Memorandum under the above heading in the British Medical Journal of January 30th, and as prevention is better than cure I am emboldened to briefly give you my method of procedure as a public vaccinator. First of all, however, I must take exception to the following statement: "that inoculation from this source (calf lymph) is commonly followed by more severe local and general inflammation than arm-to-arm vaccination." I used calf lymph in about 60 cases last year as public vaccinator, and I always use it in my private cases, and I never have found that the inflammation set up is more severe than that resulting from arm-to-arm vaccination. I take the following from Whitelegge's work on *Hygiene:* "There appears to be no difference either in the course of the symptoms or in results between ordinary arm-to-arm and vaccination from the calf." I use the glycerinised calf lymph, and before proceeding to scarify the arm I wash the place with a piece of boric wool dipped in water. I then dry with another piece of boric wool. I treat the lancet which I use in the same way. On the day of inspection I open the vesicles, whether I want to use the lymph from them or not, and I give to the person in charge of each child a couple of pads made as follows: I cut a piece of boric wool about 2½ inches square and a quarter of an inch thick, and place a piece of alembroth gauze over one side of it. I direct the parent to place this pad with the gauze side next the skin, and to keep it in place with a piece of narrow tape. This first pad is kept on for about four days, when it is taken off and the second pad applied. This is kept on the arm until the scabs have come off. These pads can be made very readily and very cheaply, and since I have used them—for the last two or three years—I have had no bad arms.

Dr. Charles W. Chapman (London, W.) writes: Mr. Clement Lucas's note on the arrest of the above by means of dusting with iodoform, etc., is both opportune and valuable. The cause, however, of the excessive inflammation is not hyperactivity of calf lymph, but because the vesicles have purposely or accidentally been opened. If the vesicles are allowed to pass through their stages uninterfered with, and are carefully protected, the inflammation will be, if anything, less with calf than with humanised lymph. Although this statement is at variance with the general opinion it will nevertheless be found to be correct.

Surgeon-Major T. Murtagh writes that he has found a simple cold compress a useful application in such cases.

### An Appeal.

Messrs. George A. Davies, President, and Walter Basset, Honorary Secretary, of the Newport Medical Society (Newport, Mon.) write: At a meeting of the Monmouth Medical Society, held on February 3rd, a resolution was unanimously passed strongly recommending the case of Henry Ballard Hudson for the next election to a foundation scholarship of the Epsom Medical Benevolent College. The late Dr. Hudson was highly respected by all who knew him. The peculiarly sad nature of his illness (general paralysis) prevented disposal of his practice until after his decease, by which time it was practically of no value, thus leaving his widow in very necessitous circumstances, with a large family of children entirely dependent upon her for support. This being the only election for which he will be eligible on account of his age, the Newport Medical Society would earnestly impress on all subscribers the particular urgency for recording their votes in his favour.

### The Use of Antiseptics in Midwifery.

Dr. F. J. McNaught (North Bow) writes: General practitioners will never adopt the antiseptic midwifery as long as they can show results as good as, if not better than, any maternity in the United Kingdom. This they can do better practising in the slums of London or in agricultural districts, in spite of some of them not even taking the trouble to wash their hands before a *per vaginam* examination or to use an

emollient of any kind. The Creator has designed woman so exquisitely that if she is only treated fairly and skilfully by her medical attendant she will defy septic germs.

Antiseptics in midwifery are all very well in maternities where a large number of lying-in women are congregated, and where the mysteries of antiseptics strike awe into the unfortunate student, who, when qualified and practising on his own account, approaches a labour case in terror for fear he might have a septic speck on his eyelash. Soon experience drives away his fears. Meddlesome midwifery is the curse of the age. This is what it is necessary to put down on behalf of motherhood, not the introduction of antiseptics into private midwifery practice. I have no hesitation in asserting that no one will ever be able to convince the non-meddlesome practitioner that antiseptics are necessary or urgent. Surgery is the home for antiseptics; there they must remain, and feel proud of their glorious victories over their ever-decreasing foes—the bacilli and micrococci.

### TRANSILLUMINATION IN THE DIAGNOSIS OF EMPYEMA OF THE ANTRUM OF HIGHMORE.

MR. E. CRESSWELL BABER (Brighton) writes: Referring to the note by Dr. Barclay Baron on the above subject in the BRITISH MEDICAL JOURNAL of January 30th, although I have not systematically examined all my cases with the lamp after evacuation of the pus, still I have repeatedly seen the phenomenon mentioned by him, namely, the antrum remaining dark after the pus has been washed out. This is probably due to thickening of the lining membrane of that cavity, unless the bones be asymmetrical. In other cases the antrum has become more translucent, to a greater or less degree, after evacuation of the abscess. Transillumination is of course only a probable sign of the disease, the only certain means of diagnosis being exploratory puncture through the inferior meatus, or elsewhere, as described by me in the BRITISH MEDICAL JOURNAL of June 27th, 1896.

MR. J. G. TURNER, F.R.C.S. (London), writes: Referring to Mr. Barclay Baron's communication in the BRITISH MEDICAL JOURNAL of January 30th, p. 263, on persistent dulness on transillumination of the antrum of Highmore after evacuation of pus, I have notes of a case in which I remarked the same thing. In this case, after thorough scraping of the antrum for the removal of multiple polypi, darkness still persisted. My note is "probably from inflammatory thickening of bone or soft parts over it," and I expressed the same view in a communication to the *Clinical Journal*, October 14th, 1896, on Central Suppuration following Invasion by a Dental Cyst. In this case there was no thickened antral mucous membrane to interfere with transmission of light.

### THE NEW INFLUENZA.

WE had been congratulating ourselves on having got through the winter without the visitation of influenza which the experience of recent years had led us to look upon as almost inevitable, but it seems we have been cherishing a fond illusion. Influenza is not, it would appear, dead nor even sleeping, but very much alive among us, only—doubtless to gain some private ends—it is dissembling! This startling information has been imparted to the world by the *Westminster Gazette*. After stating that the disease has become "unpopular,"—just as if it were a politician who had lost his hold upon the mob—our contemporary discourses as follows:

"Patients have colds and the doctors call them catarrhs—it would have been 'the flue' five years ago, but now, February, 1897, it is not influenza at all. What the disease has done to irritate a profession to whom for several years it rendered such signal service is kept a complete secret. We have only to deal with the fact. All the same, *non obstantibus doctoribus*, London has plenty of influenza active all over it at this moment, and, what is more, it has taken a new line. It is no longer the familiar pains in the bones, splitting headache, and feverish symptoms. These have gone out. The new influenza takes the form of aggravated dyspepsia, which acts curiously on the nerves that run past the jaws and up over the eyes, so that the eyelids droop and throb, and are very painful. The doctors can, of course, explain the symptoms, and how indigestion gives you a pain in your eyebrow, but they have decided not to mention the word influenza."

People will doubtless be glad to be assured on such excellent authority that the old influenza has "gone out," for that proceeding had come to be associated in the public mind with the patient rather than with the disease. But what is this new avatar of the too familiar foe? We are inclined to think lightly of him, for he has evidently a very confused notion of the anatomy of the nervous system, a subject with which the bacillus of influenza (old style) had an acquaintance as extensive and peculiar as Sam Weller's knowledge of London. It is a pleasing novelty, also, that doctors should have imputed to them a wish to keep secret anything likely to alarm the public; but we are curious to know where, when, and how the alleged conspiracy of silence as to the prevalence of influenza was arranged.

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## BOOKS, ETC., RECEIVED.

Ergebnisse der Anatomie und Entwickelungsgechichte. Herausgegeben von Professor F. Merkel und Professor R. Bonnet. V. Band: 1895. Wiesbaden: J. F. Bergmann. 1896.

Das Sehen der Schielenden. Von Dr. A. Graefe. Wiesbaden: J. F. Bergmann. 1897.

Die medicinische und operative Behandlung kurzsichtiger Störungen. Von Dr. A. Mooren. Wiesbaden: J. F. Bergmann. 1897.

Bericht über die fünfundzwanzigste Versammlung der Ophthalmologischen Gesellschaft. Redigirt von W. Hess und T. Leber. Wiesbaden: J. F. Bergmann. 1896.

Jahresbericht über die Fortschritte auf dem gebiete der Chirurgie. Redigirt und Herausgegeben von Professor Hildebrand. 1 Jahrgang. Wiesbaden: J. F. Bergmann. 1896.

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# REMARKS ON ARTHRITIC GOUT.

By Sir WILLOUGHBY WADE, M.D., F.R.C.P.,
Consulting Physician to the General Hospital, Birmingham.

From a clinical point of view we may usefully divide the cases in which gout appears in connection with the joints into three classes.

1. The acute attack of regular gout. A description of this, based on that of Sydenham, may be found in every treatise on the practice of medicine, and does not therefore need to be reproduced here.

2. Chronic gout—possibly a sequela of an acute one, with much deposit of urates in a solid or semiliquid state. In this, with more deformity, there is much less pain and tenderness. Though these, with redness and superficial swelling, may from time to time be superadded with an increase of deposit within the joint.

3. Pains referred to the joints of a more or less fugitive character or tenderness felt, chiefly on use, which latter may, if excessive, be followed by increase of pain and even some redness and swelling; or even an attack of No. 1.

The current explanation of these phenomena is that there is an excess of uric acid in the blood. This excess is variously explained. First, as being due to excessive formation, or, secondly, as being due to deficient excretion, or, thirdly, as being due to storage within some organ—for example, liver or spleen—of uric acid. This, it is alleged, is, from causes we need not stay to inquire into, suddenly released and poured into the blood, which then contains an excess. It may be that two or all of these causes may be combined.

However this may be, we find therein no explanation of why the uric acid should pounce upon a joint. And, if possible, less why this joint should be the great toe, as it is in a vast majority of first attacks. Various explanations have been offered of this curious fact. The latest authority on gout, Dr. W. Ewart, reviewing these explanations in his excellent treatise,[1] says: "None of the alleged reasons are satisfactory, and the question remains one for speculation."

In a disease which has been so long and so attentively studied by physicians of the greatest eminence, it might seem improbable that any of its clinical features had escaped recognition. Yet some years ago I had the temerity to assert that such was the case.[2] It is a matter of much satisfaction to me to find that Dr. Ewart has been able to confirm the accuracy of these observations. He says: "The facts observed by Sir W. Wade, and confirmed by others and by the writer, possess great theoretical importance." Let me proceed to summarise them.

An acute attack of gout in a great toe will in due course begin to subside. The pain and tenderness, and swelling and redness, will be less. If at this epoch the toe be touched it will be found that, although the redness and swelling have lessened equably all over the joint, this is not the case with the tenderness. Some spots will be found which are not in the least tender, others where the tenderness is intense. Either then or subsequently it will be found that this tenderness is linear. It extends in a narrow line from the base of the great toe slantingly across the foot to the outer side, and may reach as far as the ankle. On either side of this narrow line tenderness there is none. This line is the site of a nerve trunk, which is distributed to the periphery of the great toe. If the covering of the first phalanx is sufficiently free from tenderness to permit it to be grasped it will be found that the joint may be moved without giving any pain. But care must be taken not to induce pain by stretching the nerve above mentioned. If the first phalanx is still too tender, the second may be seized and the tarso-metatarsal joint tested.

A similar experiment may be made with the thumb when that is the seat of the disease, and very often at an earlier stage of an attack. At whatever stage in either toe or thumb it may be made, it will almost always be found that the tenderness—that is, the pain elicited by movement—is in the soft parts and not in the joint. To return to the toe. Tenderness will be found in the sole in a line running nearly parallel to the inner margin of the foot. Here is situated a nerve trunk, distributed to the great toe-joint. Tenderness will also be found in two nerves running, one near the outer and the other near the inner margin of the under side of the great toe; and this before reaching the joint, over the joint, and probably also beyond the joint.

In cases of Class No. 3 we find similar tenderness, in some one or other of these nerves perhaps constant or perhaps inconstant. The same thing will be found in the wrist, hand, and fingers, and it is needless to enlarge further upon it.

What is this nerve condition? Why does it arise? And what is its connection with the arthritis? The occurrence of neuritis in gouty persons has long been known. Dr. Buzzard points out in his interesting Harveian Lectures[3] that in neuritis "sometimes the motor, at other times the sensory, and perhaps, on the whole, least commonly the vasomotor fibres bear the brunt of the attack, with a corresponding contrast in the symptoms. To gain a true idea of the frequency of neuritis it is necessary to remember this fact, and we shall otherwise be liable to overlook the true character of affections because they do not display all the characters of a typical neuritis" (p. 21). The context shows that Dr. Buzzard includes the trophic influence of nerves under the head of "vasomotor."

Is the nerve affection in gout a neuritis? Certainly in many instances it may well be assumed to be, but in others it bears more resemblance to neuralgia. For example, a gouty person walking quietly, perhaps about his room, is seized suddenly with intense pain about the ankle, he cannot move the foot; but in a few minutes the pain may have entirely ceased and he can walk comfortably. This is by no means uncommon, and has happened to myself several times. The transient, momentary pains of various parts are well known to gouty persons. It was these considerations which led me to write of "Gout as a Peripheral Neurosis," and not as a peripheral "neuritis." It is not easy to get opportunities of examining *post mortem* the changes undergone by the nerves in gout; but till this has been done it is impossible to say whether they are of an inflammatory nature or not, still less whether the inflammation affects one or more of the various layers of connective tissue, or the primitive sheath, or the medullary sheath, or the axis cylinder, or the lymphatic spaces, and, if more than one of these, in what order they are attacked.

Why does this arise? Probably there are two factors. First, injury. This may be of a very slight character, the pressure on the nerves of the foot in walking, the use of the thumb in writing, which has occurred to me twice whilst writing this paper. More severe injury. A gentleman, who had had repeated attacks of gout, whilst walking about Naples sprained his ankle and was immediately laid up by gout in that ankle, then in the other ankle, and in a few days with it in both knees. The whole attack lasted about six weeks. Whilst no doubt an acute attack of gout in one joint will often clear up the system and remove previous ill-health, on the other hand, as in this case, it is often the precursor of attacks in other joints, and seems not to remove, but to start, a state of goutiness.

The second factor is a something in the system, which enfeebles the nerves and prevents those of the gouty man resisting influences which non-gouty people, or, indeed, he himself when free from goutiness can, and do, encounter without any bad results. The equilibrium of the nerves is unstable. We can scarcely doubt that there is some toxic agent in the blood, and it is probable that some persons inherit such instability, or they may only inherit an instability of some organ which ought to prevent the formation of the toxic agent, or of one which should favour its excretion. It is quite easy to conceive that some persons inherit all three weaknesses. Inasmuch as nerves depend for their integrity upon the nerve cells from which they originate, it is conceivable that in gout the primary fault may be in these nerve cells. I should not refer to this but for the fact that some important authorities[4] regard gout as having its *primum mobile* in some nervous centre. Till this view receives more definite support than it can at present command, let us recognise

and appreciate that which we can feel and handle, namely, the peripheral neurosis.

The third question is, What is the connection of this neurosis with the arthritis? Let me recall some of the facts. Pains about joints may precede acute gout. These pains can be demonstrated to be in nerves and not in joint. Pains, redness, and swelling round a joint which is intact—that is, not painful on being moved; best seen in thumb. Pain, redness, and swelling, with tender nerves, remaining after joint has ceased to be tender; best seen in great toe. Without disputing that the joint may have been tender, it is quite impossible to prove it. Dr. Ewart says: "*The extent of the arthritis* associated with the periarticular swelling is matter of doubt. Sir. W. Wade's observations go far towards proving that there is much less arthritis than had hitherto been supposed—at any rate, that the *pain and tenderness* have not their seat inside, but *outside* the joint, and apparently in the nerves themselves." (Page 319. The italics are Dr. Ewart's.)

The patient's opinion is valueless in this respect; for a patient will refer the pain to the joint, when it can be demonstrated by proper examination that it is not there. All this goes to show that the essential element of the attack is to be looked for in the local nerves. But it is answered, and truly, Many years after a single attack, a uratic deposit may be found in a joint. If the attack is due to the deposit, how is it that the joint recovers before the deposit has been removed? A joint many times attacked may be found after death free from any deposit. It may have been absorbed. True; but it equally may have never been there.

The assumption that the attack is due to uratic deposit leaves unexplained why it is deposited. The neurotic theory, if it does nothing more, offers an explanation. The current view is curiously paradoxical. In an acute attack the deposit is so small that the joint quickly recovers. Yet it is acutely painful. In many chronic and subacute attacks the deposit is very copious, whereas the pain and tenderness are very small. This, then, is the paradox. In a painful disease which depends upon the deposit of urates, the greater the deposit the less the pain. It would seem that so long as the nerve is in a condition to become painful, it does not promote—perhaps retards—the deposit of urates. When by some further, at present unknown, changes it has lost the faculty of becoming painful, it does not retard, perhaps accelerates, such deposition. The inference to be drawn from all these facts is, I submit, as follows. The neurosis is the primary and essential element. If a sensory nerve is attacked we get pain and tenderness, if a vasomotor one we get redness and swelling; if the nutritive nerve of a joint, we get changes in the joint, one result of which may be a deposit of urates. I submit from this that this theory, more completely than any other, brings into line the various manifestations of gout. But it may be asked how it is that one toxin (uric acid) affects now an external, now an internal, sensory nerve; now a motor, now a vasomotor, now a trophic nerve, now an excretory one. This raises an important question, on which Dr. Ewart says (p. 143), "We still hesitate, then, to admit, without further investigation, that gout is primarily dependent upon uric acid as a cause, or that uric acid necessarily exerts any exclusive influence on the production of the phenomena of goutiness." Dr. Ewart's hesitation is shared by many. It is enhanced in my mind by the fact that different toxins have an elective affinity for different nerve tracts. Conversely we perhaps may infer that affections of different nerve tracts imply different toxins. That such may be the case in gout receives strong support from the ingenious and laborious researches of Dr. Haig.[5] This uncompromising advocate of the uric acid theory claims to have proved that other bodies chemically allied to, but not identical with, uric acid resemble it in their action upon the human body. This, then, is a matter which, like the state of the local nerves, deserves a much more critical investigation than either have as yet received.

REFERENCES.

[1] *Gout and Goutiness and their Treatment.* [2] *Gout as a Peripheral Neurosis.* [3] *On some Forms of Paralysis from Peripheral Neuritis of Gouty, Alcoholic, Diphtheritic, and other Origin.* [4] Sir Dyce Duckworth's *Treatise on Gout.* [5] *Uric Acid as a Factor in the Causation of Disease.*

OF 19 persons on whom the degree of Doctor of Medicine was conferred by the University of Geneva during 1896, no fewer than 7 were women.

## ANTIPNEUMOCOCCIC SERUM.

BY J. W. WASHBOURN, M.D., F.R.C.P.,

Physician to the London Fever Hospital; Assistant Physician to Guy's Hospital.

IN the year 1891 the researches of G. and F. Klemperer, Bonome, Foà and Carbone, Emmerich and Fowitzky, proved that the blood serum of rabbits immunised to the pneumococcus possessed the property of protecting other rabbits against infection with this micro-organism.

G. and F. Klemperer, Foà and Carbone, Foà and Scabia, and Janson have since treated cases of pneumonia in the human subject with the serum of immunised rabbits; while Andeoud has used for the same purpose the blood serum of patients convalescent from pneumonia. In these cases the quantity of serum used was of necessity small, and no exact determination of its strength was made.

To obtain a sufficient quantity of serum it is necessary to immunise large animals, such as the horse; and, to estimate its strength, it is necessary to use more reliable methods of cultivating the pneumococcus than have hitherto been employed.

In this paper I propose to give an account of the immunisation of a pony, to describe the method I have adopted for estimating the protective power of the serum, and to report two cases of pneumonia treated with the serum.

### IMMUNISATION OF PONIES.

In January, 1895, a pony was placed at my disposal by Professor Ruffer, then Director of the British Institute of Preventive Medicine. I take this opportunity of thanking the Council of the Institute for generously providing me with most ample opportunities for carrying out this work. The expenses of the purely scientific part of the investigation were defrayed by a grant from the Royal Society, but the greater expenses incurred in purchasing and keeping the ponies were borne by the Institute. I would also heartily thank Professor Ruffer for most valuable advice, and Dr. Bulloch for the great assistance he has rendered in carrying out the necessary manipulations. To both I am deeply indebted for freely giving me the results of their large experience in the immunisation of horses.

The pony was first injected with broth cultivations of the pneumococcus which had been heated to 60° C. for one hour, and subsequently with living cultivations. In October, after being under treatment for nine months, it was suddenly seized with intestinal obstruction, and died after a few days' illness. This was especially unfortunate, as a fairly high degree of immunity had been attained, and the blood already possessed some protective power.

The immunisation of a second pony was commenced in November, 1895. The pony was first injected with broth cultivations heated to 60° C. for one hour, then with living agar cultivations, and lastly with living broth cultivations. The injections were made into the subcutaneous tissue of the shoulder.

The temperature chart has unfortunately been mislaid and the record of the temperature has thus been lost. In a few instances a note of the temperature was also made in the report.

November 21st, 1895; 70 c.cm. broth cultivation heated to 60° C. for one hour. The temperature rose next morning to 103.5°, but soon subsided.

November 30th; 170 c.cm. broth cultivation heated to 60° C. for one hour. No pyrexia and no local reaction.

December 7th; a small loopful of a living agar cultivation. No local reaction.

December 13th; the whole of a living agar cultivation. No local reaction.

December 19th; two living agar cultivations. No local reaction.

January 4th, 1896; 6 living agar cultivations. A swelling appeared at the spot of injection and lasted five days.

January 13th; 50 c.cm. living broth cultivation. A swelling of the size of an orange appeared at the spot of injection and lasted a few days.

January 21st; 82 c.cm. living broth cultivation. A large

swelling appeared at the spot of inoculation, and lasted nine days.

February 7th; 150 c.cm. living broth cultivation. A diffuse swelling appeared, but soon subsided. The temperature reached 104.2° F.

February 21st; 100 c.cm. living broth cultivation injected into both sides of the neck. A swelling appeared on both sides, more marked on right side. This subsided in a few days. The temperature reached 103° F.

March 3rd; 112 c.cm. living broth cultivation injected into both sides of neck. The animal appeared ill for twenty-four hours, and there was some swelling at the spot of injection.

March 14th; 150 c.cm. broth cultivation injected into both sides of the neck. Some swelling occurred on both sides, but soon disappeared. Animal ill for twenty-four hours.

March 27th; 200 c.cm. broth cultivation injected into both sides of the neck. Marked swelling occurred on both sides, and lasted two days.

On April 3rd the near fore leg became hot, swollen, and tender, and in a few days an abscess formed and burst. The pus contained streptococci. Probably the infection was caused by a slight grazing of the skin against the wall of the stable. The animal became very ill, and we thought it would die. Owing to the unremitting attention of Dr. Bulloch, the abscess gradually healed, and in three weeks the animal was convalescent.

On August 25th, 1896, five months after the last injection, the animal was bled, and the serum was found to possess marked protective properties.

The bleeding was deferred so long partly on account of the inflammation in the leg and partly from an experience gained during the immunisation of the first pony. After the injection of 100 c.cm. of a living broth cultivation, an abscess formed at the spot of inoculation, which only healed after three weeks. A week later, that is to say a month after the inoculation, blood was removed, and some of the serum was injected into the peritoneal cavity of a rabbit. The animal died of pneumococcal infection, showing that the serum contained living pneumococci. A fortnight later more blood was removed, and the serum injected into the peritoneal cavity of a rabbit. No ill effects ensued, so that by this time the cocci had disappeared from the blood.

The pneumococcus which was used in immunising the pony was from a different source to that used in testing the serum. The cultivations were always made directly from the blood of an infected rabbit, and were used after twelve to eighteen hours' incubation at 37.5° C.

The effects observed after inoculating the pony were similar to those described after inoculation with cultivations of the streptococcus, that is, swelling at the site of inoculation, pyrexia, *malaise*, and loss of appetite. With small doses neither local nor general symptoms occurred.

### Estimation of Strength of Serum.

In testing the strength of the serum it was necessary to obtain a pneumococcus of a known virulence, and to employ a method of cultivation which would preserve the virulence unaltered.

After many trials, I have used for the latter purpose the surface of agar streaked with sterile rabbit's blood. This method had been used by me previously, and had been independently described by E. Fraenkel and Reiche.[1] Careful experiments have since been made by Dr. J. W. Eyre and myself upon this method. As our results will shortly be published in the *Journal of Pathology and Bacteriology*, it is unnecessary for me to enter here into details. It will suffice to say that great care is requisite in making the agar, which is never heated above 100° C.; and that the reaction is of great importance. The agar is neutralised with caustic soda, rosolic acid being used as an indicator. As soon as the neutral point is reached 4 c.cm. of normal caustic soda solution is added to each litre of agar. Upon such a medium the pneumococcus will preserve its initial virulence for as long as nine weeks, provided the tubes are carefully capped and kept in the incubator at a temperature of 37.5° C.

In all the experiments a loopful of the cultivation was made into an emulsion with a known quantity of sterile broth, and by dilution any fraction of the contents of the loop could be obtained. The loop was made in such a way that its contents did not vary, and the same loop was used throughout. It contained about 0.5 mg. of the cultivation. Cultivations twenty-four hours old were always used, and thus the loop contained either only living cocci, or at any rate the same proportion of living and dead cocci in each experiment.

The pneumococcus was obtained from the blood of a mouse which had died after inoculation with the sputum from a case of pneumonia. After 9 passages through rabbits, with intermediate cultivation on blood agar, it attained a fixed virulence, which was not increased by further passages. The virulence was carefully determined by a number of experiments. When introduced into the peritoneal cavity of rabbits 0.000001 of the loop invariably caused death from general septicæmia, and the blood was found immediately after death to be teeming with cocci. Sometimes 0.0000001 of the loop was fatal, but as a rule this dose was innocuous. The dose which was fatal when introduced into the peritoneal cavity of rabbits was also fatal to mice when injected into the subcutaneous tissue. Rabbits die in about thirty-six hours, and mice in three to seven days.

In testing the serum measured quantities were mixed with 10 times the minimum fatal dose of the cultivation. The mixture, immediately after being made, was injected into the peritoneal cavity of a rabbit. The smallest quantity of serum which protects the animal under these circumstances I propose to call a unit. For instance, if 0.03 c.cm. of the serum mixed with 10 times the fatal dose of the cultivation protects, then, each cubic centimetre of the serum contains approximately 33 units.

As 0.000001 of a loop generally represented the minimum fatal dose—0.00001 loop was the quantity mixed with the serum. But as 0.0000001 loop was sometimes fatal two control rabbits were used in each series of experiments. The one control was inoculated with 0.000001 loop and the other with 0.0000001 loop. In all the experiments the animal inoculated with 0.000001 loop died, and in most the animal inoculated with 0.0000001 loop survived. If the latter animal died the experiment was rejected, because the animals injected with the serum had been inoculated with 100 times instead of with 10 times the minimum fatal dose.

The following series of experiments made with the serum removed on August 25th, 1896, show that 0.03 c.cm. protects against 10 times the minimum fatal dose of the cultivation, while smaller quantities have no effect. Consequently each cubic centimetre of the serum contains 33 units.

I should state that Dr. Eyre and myself have tested in the same way the sera from horses not immunised to the pneumococcus, and from other animals, but in no case have we observed any protective properties. It therefore follows that the serum of the immunised pony is specific in its character. Our results will be shortly published in the paper I have already referred to.

Table I.

| | | | |
|---|---|---|---|
| Rabbit A | 2,900 g. | 0.0000001 loop | Not affected. |
| ,, B | 2,980 g. | 0.000001 loop | Died in 36 hours. |
| ,, C | 2,950 g. | 0.00001 loop+1 c.cm. serum | Not affected. |
| ,, D | 1,500 g. | 0.00001 loop+0.5 c.cm. serum | ,, |

Table II.

| | | | |
|---|---|---|---|
| Rabbit E | 1,600 g. | 0.0000001 loop | Not affected. |
| ,, F | 1,400 g. | 0.000001 loop | Died in 60 hours. |
| ,, G | 1,700 g. | 0.00001 loop+0.5 c.cm. serum | Not affected. |
| ,, H | 1,500 g. | 0.00001 loop+0.25 c.cm. serum | ,, |
| ,, I | 1,700 g. | 0.00001 loop+0.12 c.cm. serum | ,, |

Table III.

| | | | |
|---|---|---|---|
| Rabbit J | 2,100 g. | 0.0000001 loop | Not affected. |
| ,, K | 2,300 g. | 0.000001 loop | Died in 36 hours. |
| ,, L | 2,100 g. | 0.00001 loop+0.25 c.cm. serum | Not affected. |
| ,, M | 2,050 g. | 0.00001 loop+0.12 c.cm. serum | ,, |
| ,, N | 2,200 g. | 0.00001 loop+0.06 c.cm. serum | ,, |

TABLE IV.

| | | | |
|---|---|---|---|
| Rabbit O | 3,000 g. | 0.0000001 loop | Died in 36 hours. |
| ,, P | 3,600 g. | 0.000001 loop | Died in 60 hours. |
| ,, Q | 3,000 g. | 0.0000001 loop+0.03 c.cm. serum | Not affected. |
| ,, R | 1,600 g. | 0.0000001 loop+0.015 c.cm. serum | Died in 36 hours. |

NOTE.—In this case 0.0000001 loop was the minimum fatal dose.

In the following tables mice were used instead of rabbits, and the injections were made into the subcutaneous tissue. It will be seen that the minimum fatal dose is the same as for rabbits, and that the same quantity of serum protects:

TABLE V.

| | | | |
|---|---|---|---|
| Mouse A | 17 g. | 0.0000001 loop | Not affected. |
| B | 18 g. | 0.000001 loop | Died in 6 days. |
| ,, C | 17 g. | 0.00001 loop+0.03 c.cm. serum | Not affected. |

TABLE VI.

| | | | |
|---|---|---|---|
| Mouse D | 13 g. | 0.0000001 loop | Not affected. |
| ,, E | 13 g. | 0.000001 loop | Died in 7 days. |
| ,, F | 17 g. | 0.00001 loop+0.03 c.cm. serum | Not affected. |
| ,, G | 15 g. | 0.00001 loop+0.015 c.cm. serum | Died in 8 days. |

TABLE VII.

| | | | |
|---|---|---|---|
| Mouse H | 17 g. | 0.0000001 loop | Not affected. |
| ,, I | 17 g. | 0.000001 loop | Died in 6 days |
| ,, J | 20 g. | 0.00001 loop+0.03 c.cm. serum | Not affected. |

Before using the serum for the treatment of pneumonia in the human subject, it was necessary to ascertain, first, whether it would protect animals when injected after infection, and secondly, whether large quantities produced any ill effects.

THERAPEUTIC EFFECT OF SERUM.

In the following experiments the serum was injected into the peritoneal cavity of rabbits at different periods after inoculation. The tables show that a single dose of 66 units serum protects when injected five or six hours after inoculation, but that the same quantity injected as late as eight or twelve hours only retards the fatal event. It will be observed that the controls died in twenty-four to twenty-six hours, and therefore recovery ensued when the treatment was begun in the first quarter of the disease.

TABLE VIII.

| | | | |
|---|---|---|---|
| Rabbit S | 1,500 g. | 0.0000001 loop | Died in 24 hours. |
| ,, T | 1,500 g. | 0.000001 loop | Died in 24 hours. |
| ,, U | 1,600 g. | 0.000001 loop. Six hours later, 2 c.cm. serum (66 units) | Alive 6 weeks later |
| ,, V | 1,600 g. | 0.000001 loop. Eight hours later, 2 c.cm. serum (66 units) | Died in 4 days. |

TABLE IX.

| | | | |
|---|---|---|---|
| Rabbit W | 2,750 g. | 0.00001 loop | Died in 24 hours. |
| ,, X | 2,400 g. | 0.00001 loop. Twelve hours later, 2 c.cm. serum (66 units) | Died in 48 hours. |

TABLE X.

| | | | |
|---|---|---|---|
| Rabbit Y | 2,350 g. | 0.00001 loop | Died in 26 hours. |
| ,, Z | 2,500 g. | 0.000001 loop. Five hours later, 2 c.cm. serum (66 units) | Alive two months later. |

INNOCUOUSNESS OF SERUM.

The following experiments show that large doses of the serum produce no ill effects on rabbits:

Rabbit 1: 5 c.cm. serum injected into the peritoneal cavity. No rise of temperature ensued, and the animal neither lost weight nor appetite.

Rabbit 2: 10 c.cm. serum injected into the peritoneal cavity. No rise of temperature ensued, and the animal neither lost weight nor appetite.

NATURE OF SERUM.

From the foregoing experiments it will be seen that the serum possesses the power of protecting animals against infection when injected either at the same time or subsequent to inoculation. It is impossible to say whether it possesses antitoxic powers, because hitherto no satisfactory toxin has been obtained from cultivations of the pneumococcus.

CASES OF PNEUMONIA TREATED WITH SERUM.

The following are brief notes of two cases of pneumonia treated with the serum. One case was under the care of Dr. Pye-Smith, to whom I am indebted for permission to publish the notes. Other cases have been treated, and will shortly be published by the physicians in charge.

From such a limited material it would be rash to draw conclusions, although in Case II the treatment appeared to have a distinctly beneficial effect. I am induced to publish the results of my investigations at this early period, as I hope that the British Institute of Preventive Medicine will shortly have a sufficient quantity of the serum to supply to those who wish to use it in the treatment of pneumonia.

CASE I. *Pneumonia of Left Lower Lobe: Treatment with Serum: Recovery.*—R. F., 29, stevedore, admitted into Guy's Hospital on November 24th, 1896, under the care of Dr. Pye-Smith.

*Previous History.*—Six months ago was in bed for a week with cough. Has otherwise enjoyed good health. Admits that he drinks somewhat heavily.

*History of Present Attack.*—Was suddenly taken ill on November 18th, six days before admission, with pain in the chest, and shivering.

November 24th. *Condition on Admission.*—The skin is hot and dry, the tongue furred and tremulous, the breathing is rapid, and there is cough with rusty expectoration. Pulse 108, temperature 103.6°, respirations 33. The urine contains a trace of albumen, and the chlorides are slightly diminished. The chest is resonant in front, and cardiac dulness absent; rhonchi audible all over the front. At the back the right side is resonant, and loud rhonchi are present. On the left side a pleuritic rub is audible in the posterior axillary region, and there is impaired resonance from the middle of the scapula to the base with bronchophony, tubular breathing, and fine crepitations.

November 25th. During the night patient was slightly delirious. From 6 o'clock yesterday evening the temperature steadily fell, and reached 100.8° at 6 o'clock this morning. At 10 A.M. to-day it had again risen to 103.2°. The physical signs have not altered, except that impaired resonance at the left base is now replaced by complete dulness. At 2 P.M. the temperature had risen to 104.2°. At 2.20 P.M., 660 units antipneumococcic serum (20 c.cm.) injected. At 4 P.M. the temperature had fallen to 101.6°, but at 6 P.M. had again risen to 103.4°.

November 26th. During the night the temperature fell, and was 100.2° at midnight. At 10 A.M. to-day it was 103.2°. Pulse 116, respirations 40. Physical signs and general condition unaltered. At 10 P.M., 660 units serum injected. Temperature 101.2°.

November 27th. Is much better to-day. At 10 A.M., temperature 99.2°, pulse 88, respirations 28. There is no pain, the cough has almost gone, and the sputum is no longer rusty. The pleuritic rub has disappeared. There is still dulness at the left base, and the tubular breathing is replaced by *râles*.

From this time the patient rapidly convalesced, the physical signs gradually cleared, and by December 7th had completely disappeared.

On December 10th an urticarial rash appeared. On December 17th the patient was discharged from the hospital.

*Remarks.*—The injection of the serum was followed on both

occasions by a fall of temperature, and on the day after the second injection the crisis occurred. Inasmuch as this was on the ninth day of the disease, it is difficult to say whether the result was due to the treatment or not. The attack was a fairly severe one, but the pulse was good before the serum treatment was adopted.

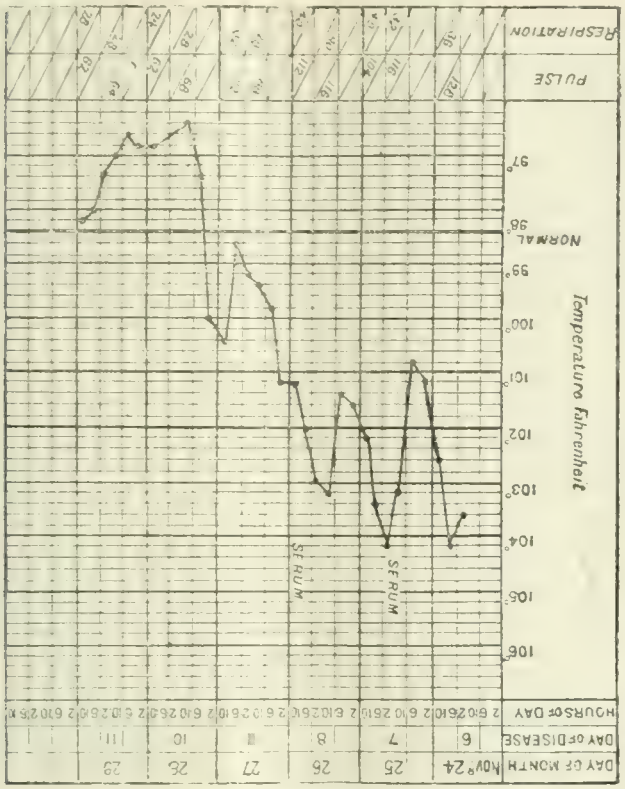



Chart 1.

CASE II. *Double Pneumonia: Treatment with Serum: Recovery.*—A. H., 25, law writer; admitted December 10th, 1896, into Guy's Hospital under care of Dr. Washbourn.

*Previous History.*—Was in the army, and was stationed in India for five years. Returned to England last month. Has been a heavy drinker.

*History of Present Illness.*—Was seized with a rigor at 4 P.M. on day before admission. Was very sick during the night.

December 10th. *Condition on Admission.*—Temperature 101.4°, respirations 44, pulse 140; tongue furred; skin hot and dry; rapid shallow breathing; pain in right side of chest; harsh vesicular murmur at right base, but no other physical signs in lungs; first cardiac sound rather blurred, and impulse to be felt in line with nipple and half an inch external; urine contains trace of albumen. A mixture containing acetate of ammonia ordered every six hours. At 10 P.M. temperature 103,8°; patient delirious, attempting to get out of bed; ¼ gr. morphine injected.

December 11th. Coughing up a little rusty sputum. On right side of chest behind there is dulness at the base, extending up to angle of scapula. Tubular breathing, bronchophony, *râles*, and a pleuritic rub audible over dull area. On the left side behind there is diminished resonance at the base extending up to angle of scapula. Small area of tubular breathing, and bronchophony just below angle of scapula. The apex beat still displaced outwards. Strychnine added to mixture, and two ounces of brandy ordered daily. At 1 P.M. very restless and delirious, ½ gr. morphine injected. At 4 P.M. the dulness on right side had increased upwards for 2 inches. At 5 P.M. 660 units antipneumococcic serum injected (20 c.cm.)

December 12th. Has passed a quiet night. This morning better: the physical signs are unaltered. Temperature 102.6°, pulse 112, respirations 60. At 11.30 A.M., 660 units serum injected. During the day patient was restless, and ⅓ gr. morphine was injected. At 6 P.M. the temperature rose to 104.5°. At 11 P.M. patient was delirious; ⅓ gr. morphine again injected; brandy increased to ℥iv.

December 13th. Temperature 100.4°, respirations 33, pulse 104. On the right side, the dulness has decreased by 2 inches; tubular breathing faint. On the left side, the tubular breathing replaced by fine *râles*. At 10.15 P.M. 660 units serum injected. Brandy omitted.

December 14th. Passed a quiet night, and is much better this morning. Temperature 99°, pulse 92, respirations 36. On right side dulness replaced by impaired resonance, and tubular breathing by *râles*. Left side has completely cleared.

December 15th. There was a rise of temperature to 102.8° during night, but it has fallen to 99.4° this morning. Patient is now convalescent.

From this time he rapidly recovered. On December 17th the heart sounds were normal, and the apex beat had returned to normal position.

On December 18th the physical signs in the chest had completely cleared. An urticarial rash appeared on the chest and limbs, and lasted two days.

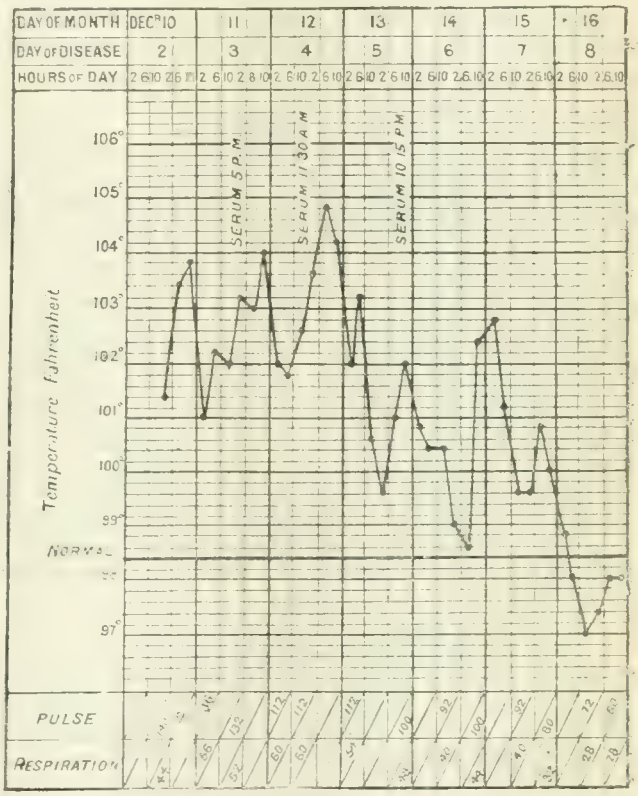



Chart 2.

*Remarks.*—The patient, though young, was a bad subject for pneumonia on account of his intemperate habits. The attack was a severe one, and both lungs were affected. There was a good deal of delirium; the pulse was 140, and the heart showed signs of dilatation on the second day of the disease. The serum appears to have exerted a beneficial effect upon the disease. On the day after the first injection the pulse-rate had fallen from 132 to 112. The process in the left lower lobe never advanced after the treatment was begun. It will be observed that the serum was injected at an early stage, namely, on the third day of the disease. In both cases an urticarial rash was observed during convalescence similar to the rashes occurring after injection with antitoxic and anti-streptococci sera.

### ADMINISTRATION OF SERUM.

The serum should be injected into the subcutaneous tis-

sue, and strict aseptic precautions should be taken. The skin should be well washed with an antiseptic, and the syringe should be boiled immediately before use. As to the dose, 20 c.cm (660 units) should be injected, and it would probably be well to inject more frequently than in the cases above recorded. I would suggest that the injection be made twice a day until the patient is convalescent. It is important to commence the treatment as early in the disease as possible.

REFERENCE.

[1] *Journal of Pathology and Bacteriology*, April, 1895; and *Zeits. f. klin. Med.*, 1894.

# THE HUNTERIAN LECTURES
ON
# THE PATHOLOGY AND SURGERY OF INTUSSUSCEPTION.

*Delivered at the Royal College of Surgeons of England.*

BY D'ARCY POWER, M.A., M.B.OXON., F.R.C.S.ENG.,

Hunterian Professor of Surgery and Pathology; Surgeon to the Victoria Hospital for Children, Chelsea.

## LECTURE III.—(*Concluded*).

### MORIBUND INTESTINE.

WHEN the surgeon has opened the abdomen and finds that the intussusception is greatly congested and has lost its gloss he must not too hastily assume that it is dead, yet it is often a matter of no slight difficulty to decide whether or not the bowel is capable of recovery. A piece of intestine which is only congested will bleed if it be pricked, even though it has lost its lustre and if it be gently stroked until its vessels are emptied the blood will be seen to pass along the vessels again as soon as the pressure is taken off them. A piece of intestine in such a condition must be handled very tenderly. It is unnecessary to remove it, and the patient is often so collapsed as to render any prolonged operation impossible, even if enterectomy were advisable. The wisest thing to do in such cases is to wrap a layer or two of gauze round the injured intestine as soon as the invagination has been released. One end of the gauze is left hanging out of the abdominal wound, the intestine is laid inside the peritoneal cavity, and the incision is lightly closed with temporary silk sutures. If the bowel ruptures the intestinal contents may then find their way out of the abdominal cavity, whilst if it recovers the gauze can be removed and the wound will close by granulations.

### *b.* IRREDUCIBLE INTUSSUSCEPTION.

We have hitherto considered the operation of abdominal section for the relief of comparatively simple cases of intussusception in which the ingenuity of the surgeon is not taxed unduly, for the intussusception is reducible. The really serious, and by far the most interesting, cases are those in which the intussusception is found to be irreducible after the abdomen has been opened.

Intussusceptions become irreducible under many different conditions. In the first place the intestine may be healthy, but it is kept invaginated by more or less extensive adhesions; by peculiarities of structure, such as twists in its axis or the forcing of one piece of intestine upon another; by great swelling of the intussusceptum, or by the presence of large tumours in the intussuscepted bowel. Secondly, an intussusception may become irreducible because the bowel is so gangrenous or ulcerated that the surgeon dare not exercise traction upon the tumour, nor dare he leave the injured intestine within the peritoneal cavity.

It has already been pointed out that slight and newly-formed adhesions do not necessarily render an intussusception irreducible, even by such a simple method of treatment as irrigation, though their presence is of unfavourable augury, because increased force is necessary to effect reduction. The adhesions formed in an ordinary case of intussusception which has been allowed to run its course unchecked may be very extensive and very dense. I found in experimental invaginations produced in cats that slight adhesions were formed between the intussusceptum and the returning layer of the intestine as early as twelve hours after the operation, and that the adhesions were formed earlier and were more rapidly converted into scar tissue in the enteric than in the ileo-cæcal invaginations. Clinical observations show how widely different is the tendency to the formation of adhesions in different persons. Mr. Marsh[30] performed abdominal section on a child about fifteen hours after the onset of symptoms, only to find that the intussusceptum had become so universally adherent to its sheath that it was impossible to effect a reduction. A similar experience befel Mr. Makins[31] in a child aged 4 years, who had suffered from symptoms of intussusception for forty-eight hours. The serous coats of the bowel were so firmly united to each other that they could only be separated with difficulty when the bowel had been laid open longitudinally after its removal from the body. On the other hand, the formation of adhesions is sometimes delayed for an indefinite length of time, as in the cases seen by Dr. Lettsom,[32] in which the symptoms of intussusception were of three months' duration, and by Dr. Leichtenstern,[33] where they had lasted eleven months, and yet the *post-mortem* examination showed that hardly any adhesions were present. Dr. Carver,[34] too, met with a remarkable case of the same kind, in which a boy aged 2 years and 9 months suffered from symptoms of intussusception for seven weeks. He had fæcal vomiting for twenty-five days, and the bowel protruded at the anus for a fortnight, yet the intussusception was easily reduced after the abdomen had been opened, as there were hardly any adhesions. The adhesions are formed more readily along the concave than along the convex side of the intussusception, and their extent, at any rate in the ileo-cæcal forms, depends, I assume, upon the varying relations of the mesenteric folds which were described in my second lecture. They are not necessarily associated with suppurative processes, and, in spite of the cases I have just quoted, they are more often found in chronic than in acute cases.

Gangrenous and ulcerating intussusceptions form the second great group of irreducible intussusceptions of the bowel—a group which can be further subdivided into those associated with peritonitis and those in which there is no peritonitis though the belly may be full of stinking gas. I have already occupied some part of your time with a consideration of gangrenous intussusception, so that I shall not deal further with its pathology or causation, except to say that it is only produced with the greatest difficulty in experimental invaginations upon animals. I have quite failed to produce it in cats and rabbits, even when the vessels going to the neck of the tumour have been securely tied.

The treatment of an irreducible intussusception is fraught with danger, whether it be irreducible from mechanical obstacles, on account of extensive adhesions, or because of gangrene. The prognosis in these cases was formerly considered desperate, and with a few rare exceptions the patients were left to die even by those advanced surgeons who had dared to do a laparotomy. But the advance of abdominal surgery has led to a recognition of the extraordinary readiness with which wounds of the intestine repair when their edges are kept in proper apposition, and we now have good hope that our efforts will be crowned with success even in the most unsatisfactory conditions.

#### 1. SIMPLE IRREDUCIBLE CASES.

In chronic cases, when the end of the intussusceptum is gangrenous; when the intussusception is short and when it is irreducible from adhesions landed to its neck from the presence of a polypoid tumour, or from a bulbous enlargement of the end of the intussusceptum, the method recommended by Barker,[35] Jessett,[36] and Greig Smith[37] may give excellent results. The broad principle underlying each modification of the operation is to ensure the union of the intussusc. piens with the intussusceptum by inserting a continuous suture at the neck of the tumour, then to slit open the intussuscipiens, remove so much of the intussusceptum as lies dead or free, stop the bleeding, and sew up the wound in the sheath. It is sometimes impossible to remove the intussusceptum after it has

been divided, and in such a case Leszczynski[38] left the piece of bowel in the large intestine to be dealt with by Nature, and the patient recovered.

These methods are useless when the intussusceptum is attached to the returning layer by firm adhesions for any great distance, as in these cases the two cylinders of intestine may form a continuous tube. Mr. Sidney Jones[39] recorded such a case occurring in a child, aged 9 months, in whom an intussusception proved fatal after the symptoms had lasted nine weeks. The *post-mortem* examination of the body showed that a probe could be passed along the whole length of the intussusception, which began at the ileum and protruded through the anus. The apposed serous surfaces were adherent along their whole length by firm fibrous tissue. An artificial anus would alone be serviceable in the treatment of such a case, or if the adhesions did not extend very low in the rectum Halsted's operation of lateral anastomosis[40] might be employed. These extensive adhesions usually occur in chronic cases, and the surgeon can therefore select his time and the method of performing the most suitable operation. It should be remembered, however, that death has resulted from starvation in experimental operations where long lengths of the intestine have been thrown out of action.

### 2. Enterectomy.

Partial operations are useless when the neck of the sac is ulcerated, when the sheath of the intussusception is gangrenous, or when the invagination is associated with malignant disease of the intestine, and it is exactly in these cases that the greatest and most satisfactory advance has recently been made in the surgical treatment of intussusception. The old operation of making an artificial anus for the relief of the worst cases of irreducible intussusception had long been condemned by the more thoughtful surgeons, and Mr. Howse[41] performed a formal enterectomy for the relief of a ruptured intussusception in a child aged 5 months in September, 1876. But it was not until 1885 that Professor Braun[42] in Germany, and in 1887 that Mr. Lawford Knaggs[43] in England called attention to the feasibility of section and subsequent suture of the intestine in these cases, pointing out the great advantage to be gained by the operation over the older methods.

Slow but steady progress has been made since the publication of these papers. Resection was at first associated with simple end-to-end suture of the divided intestine, which is theoretically the most perfect but practically the most difficult method of obtaining union. The results of simple end-to-end suture proved most unsatisfactory, and this method has now been abandoned for more complex operations, which have resolved themselves into the union with and union without the aid of mechanical appliances, the methods of Senn and of Maunsell respectively.

Personally, I have no hesitation whatever in giving in my adherence to the non-mechanical party, for it seems to me that its methods are more simple, whilst its results are at least as good as those obtained by the mechanical school. In cases of intussusception, where of necessity an immediate operation is required, it may cause the most serious results to be obliged to await the arrival of the proper appliance. Maunsell's method, too, is particularly suited for the ileo-cæcal form of intussusception which is the more common, for the two pieces of intestine vary greatly in their calibre, so that the invagination is easy. For the present, however, Murphy's button seems to have the advantage, though I think that it is but a temporary one, for in all the cases where it has been used successfully the intussusception has been of the enteric form, where the serous surfaces are smooth, and can be brought into sufficiently close approximation to ensure union by first intention. It must necessarily prove less useful in intussusceptions involving the large intestine because the appendices epiploicæ then render it impossible to bring the two surfaces into regular and uniform apposition.

My own experiments, carried on without a knowledge of the very valuable and more extensive work done along the same lines by Messrs. Ballance and Edmunds,[44] have satisfied me that in animals Maunsell's method yields the most satisfactory results. It can be performed at a moment's notice, and the entire operation from the first incision to the last suture in the abdominal wall can be completed easily in thirty minutes. The sutures are carried through the whole thickness of the walls of both pieces of the bowel, so that even an operator with an unsteady hand, or one who has not had much experience of abdominal surgery, has but little to fear, and the after-results are admirable, as may be seen in this specimen. It is part of the intestine of a cat from which ten inches of the ileum and colon with a small experimental intussusception of a week's duration were removed by Maunsell's operation on August 6th, 1896, the animal being killed on February 2nd, 1897. During this interval of 180 days the cat increased in weight from 2,070 grammes to 2,615 grammes. The line of union is marked externally by a slight bulging of the scar. The parietal layer of the peritoneum is adherent to the serous coat of the intestine for a distance of 22 mm. below the point of circular union. The longitudinal layer in the intestine is so completely healed that its position is only marked by three pinhole scars showing the situation of the sutures. Internally, the line of circular union is absolutely complete and it seems to be covered with healthy mucous membrane, though I have not yet had time to make a microscopic examination. The intestine is a little pouched at this spot because the scar has yielded. The line of the longitudinal incision is marked by a very faint scar in the valvulæ conniventes, but the lumen of the intestine is not narrowed by it. The valvulæ conniventes are modified over the actual line of union but they extend for a distance of 55 mm. before the large intestine begins.

I find that in performing Maunsell's operation especial care must be taken to suture securely the mesenteric borders of the intestine, for the bleeding and the increased thickness of the tissues at this point are apt to deceive the operator, so that he is likely to pass his needle through the wall of only one piece of the bowel. Leakage then takes place, and the animal dies. Several of my cats died from this cause, and in cases of doubt I now insert one or two sutures externally at this part after the intestine has been disinvaginated, taking care to pass the sutures into the submucous tissue, for otherwise they are likely to cut their way out when they are tied. A few point sutures is all that is needed to bring the cut edges of the mesentery together.

The outlook for cases of irreducible intussusception treated by enterectomy is distinctly favourable, whatever method be adopted. When Braun[45] published his statistics in 1885 he could only find a single case where recovery had followed enterectomy for the relief of intussusception. Rydygier in his addendum to Braun's list, published ten years later, has been able to collect the records[46] of 25 cases published between the years 1885 and 1895 in which recovery has taken place after the intestine has been resected or an anastomosis has been made between two pieces of bowel for the cure of intussusception. I find that four more recoveries are to be added to this list. Two of these occurred in America,[47] where the operation was done for the relief of chronic intussusception in women, and two were done in England for subacute gangrenous intussusception in children. One of these cases is recorded by Dr. Mitchell Banks,[48] who tells me that the boy is still alive and well. The other case came under the care of my colleague, Mr. Pickering Pick, and, though it is still unpublished,[49] he has very kindly given me leave to say that it was a girl aged 8¾ years who had complained of intense stomach-ache after she had jumped off a form at school. The abdomen was opened on the seventh day after the onset of symptoms, and a stinking intussusception was found 2 inches above the ileo-cæcal valve. It was cut away, and the two ends of the ileum were brought together with a Murphy's button, which was passed on the ninth day after the operation.

### Conclusions.

My time, Sir, has almost ended; not so my task, if, indeed, a labour of love can be called by so harsh a name. There is much more that I could have said upon this topic of intussusception, but I am satisfied for the present if I have advanced even but a little our scientific knowledge of so interesting an affection. For the sake of completeness I will sum up the conclusions at which I have arrived in this lecture. Intussusception is a condition which brooks no delay in its treatment, for something must always be done at once except, perhaps, in those slight cases which are indistinguishable from severe colic. In all doubtful cases purgatives should be completely withheld. I found in my experi-

ments that cats and rabbits bore a simple invagination with remarkable freedom from symptoms, and that after a varying period of time the invaginated bowel could be excised and the animal would recover. All the animals, however, to which purgatives were administered after the intestines had been invaginated died when enterectomy was performed. Clinical evidence teaches the same lesson, for all the records of cases show that the symptoms have been seriously increased when the patient has been purged. The routine treatment of intussusception is to chloroform the patient, and steadily to fill his large intestine with hot salt solution under a hydrostatic pressure, of not more than 3 feet in a child, the fluid being allowed to remain in the intestine at least ten minutes. The earlier this method is adopted after the appearance of the symptoms the better are the results obtained, but it should not be adopted in enteric intussusception, in cases where the symptoms are very acute, or in those where the absence of signs or symptoms, with a subnormal temperature, leads the surgeon to suspect that the intestine is becoming gangrenous. In these cases, and when the intussusception is not reduced after irrigation has twice been tried, and when after reduction the intussusception has thrice occurred, the abdomen must be opened. The surgeon must then be prepared to deal effectually with the conditions he may find by such operative means as he can carry out with the least amount of shock and in the shortest space of time that is compatible with the safety of the patient. This will be ensured if he uses the method with which he is the most familiar. But he should bear in mind that hardly a case can arise in which he is justified in closing the abdominal wound without at least an attempt to complete the operation by reducing or removing the intussusception. Such half measures as the formation of an artificial anus are hardly ever justifiable, and the results obtained by them are usually most disastrous. In the light of our present knowledge it appears that the use of a button or bobbin is most likely to give good results when enterectomy has to be done for an enteric intussusception, whilst Maunsell's operation is best adapted for the cure of ileo-cæcal and colo-colic forms of intussusception.

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## THE VALUE OF THE ELECTRIC LIGHT CYSTOSCOPE IN LOWERING THE MORTALITY OF NEPHRECTOMY.*

BY E. HURRY FENWICK, F.R.C.S.,
Surgeon to the London Hospital; Surgeon to St. Peter's Hospital for Urinary Diseases.

IT is accepted that the high death-rate of nephrectomy is largely due to the ablation of kidneys which have become affected by tubercle or by advanced malignant disease. When criticising in 1890[1] the influence of the Nitze method upon our knowledge and treatment of urinary disease, I pointed out how valuable the cystoscope would prove in helping us to determine the presence and the working capacity of the kidneys, a point of paramount importance in cases in which nephrectomy is contemplated. I have waited until I had completed 100 operations of all kinds on the kidney to sustain this contention. I am now sure that a judicious and skilful use of the instrument not only renders the surgery of the kidney more precise, but tends also to lower the death-rate, especially the high mortality of nephrectomy.

* Abstract of paper read before the Medical Society of London, February 22nd, 1897.

Of the 100 renal cases[2] in which I have operated I have lost 9. Of these 4 were *in extremis* at the time. I wish, however, to limit this article to the use of the cystoscope in nephrectomy, an operation I have performed 21 times with 2 deaths.

### CYSTOSCOPY AS A FIRST STEP IN NEPHRECTOMY.

There should be no misunderstanding about what ought to be considered a judicious cystoscopy. No patient with tuberculous deposits in the epididymis or prostate or obvious malignant disease of the bladder should be examined. Cystoscopy in other cases should be done with a perfect instrument, in a clear medium,[3] by a skilled hand, backed by an educated eye. Moreover, it is of the greatest advantage if the surgeon be prepared to operate directly the cystoscope is withdrawn. Rightly used the cystoscope is of the utmost value; carelessly employed it is mere meddling, and has a death-rate of its own. It would be better to do exploration on both kidneys rather than damage both these organs by those ascending septic changes which are induced by bungling on with the bladder. Some renal changes which call ultimately for nephrectomy commence very insidiously, and evoke no symptoms beyond an occasional appearance of blood or pus in the urine. Thus tubercle and carcinoma of the kidney, which are the very diseases which swell the mortality of nephrectomy, may be almost symptomless at first, and that time, "the psychological moment," in which an operation would be of use, is frittered away in hesitation and in doubt. Cystoscopy permits us to detect these cases in their early stages if blood or pus has been passed.

### ILLUSTRATIVE CASES.

*Calculous Pyonephrosis.*—I found five stones in a left-sided pyonephrosis in a patient who had no guiding symptoms to the cause of his extreme *malaise* and evening temperature. His urine contained flakes of pus. On cystoscopy, I, and several others, saw a thick white pipe of inspissated pus, being forced out of the left ureteral orifice (Fig. 1). This was just

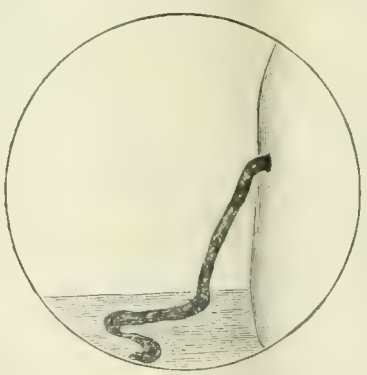


Fig. 1.

like soft maccaroni being forced through its gauge. As it slid down the bladder wall—for the pelvis was raised—it arranged itself in rolls, like the figures which treacle forms when dropped from a spoon.

*Tubercle.*—A lady, aged 32, was brought to me by Dr. Delamotte, of Staines, with pyuria, frequency, pain, and blood. She had been diagnosed to have a movable right kidney, also a displacement of her uterus, for



Fig. 2.

which she was six months under a gynæcologist. The light revealed the left ureteral orifice to be patent and tuberculous (Fig. 2). This was confirmed by finding the bacillus in the urine. The left kidney was removed. It was entirely transformed into tuberculous abscesses, with "dirt" stones.

*Early Malignant Growth.*—Dr. Boissier, of Banbury, brought me a patient, aged 59, with a diagnosis of papilloma of the bladder. Symptomless hæmaturia had been present for nine months. I cystoscoped, having obtained permission to do what was thought advisable after the examination. No papilloma was seen, but a jet of arterial blood poured from the opening of the right ureter. Then a clot (Fig. 3) was forced out of the



Fig. 3.

orifice as if from a mould, and its exit was succeeded by another spurt of blood. I turned the patient on his side and removed the right kidney. The growth occupied the middle of the gland (Fig. 4).



Fig. 4.

I was asked to cystoscope a patient, aged 70, who had been bleeding two years. The hæmaturia was symptomless. Blood was seen issuing from the right ureter. The patient was promptly turned on to his side, and the surgeon in charge of the case explored the kidney. Finding a healthy kidney he doubted the source of the hæmorrhage, and closed the wound. The hæmorrhage never ceased, and a year afterwards a villous growth was discovered in the urine. As villous growth of the bladder is comparatively common and that of the kidney very rare (8 cases) my diagnosis of the source of the blood was viewed with even greater suspicion. Four years after the onset I was again asked to see this patient and suggest treatment. He had not ceased bleeding for two years. His pallor was remarkable. I obtained permission to nephrectomise. Again the cystoscope revealed the hæmorrhage issuing from the right ureter, and I therefore turned the patient over, and removed the kidney. Its pelvis was filled with villous growth, its cortex was honeycombed with cavities, and lined with the same growth (Fig. 5).

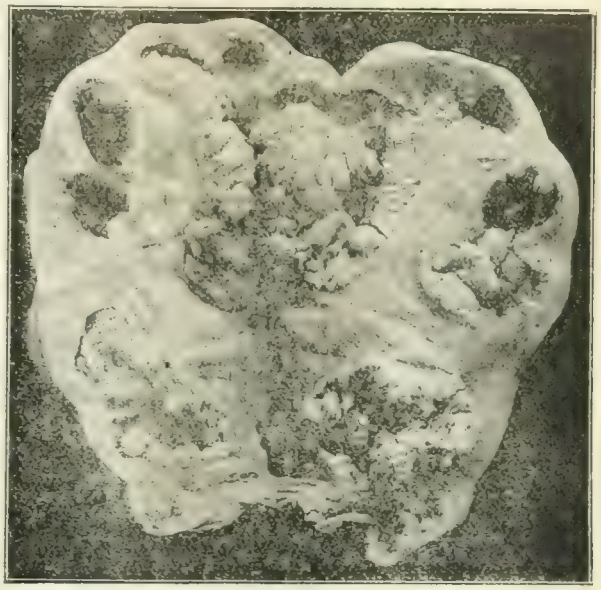


Fig. 5.

A patient, aged 32, introduced by Mr. Howse, had had profuse hæmaturia for eight weeks. The kidney was removed. The carcinoma was bulging the anterior surface (Fig. 6.)



Fig. 6.

*Deaths.*—I have had two deaths in the series of nephrectomies, one after removing a kidney with a carcinomatous nodule the size of a walnut. This death, which occurred among my earliest cases, was probably due to faulty technique, and a cystic kidney, which became inflamed after I had explored it for stone. The man died some weeks after with hectic symptoms. No *post-mortem* examination was allowed.

I submit that all cases of profuse hæmaturia—either symptomless or accompanied by slight renal pain—should be judiciously examined with the cystoscope without delay, an operation on the kidney or bladder being permitted and carried out coincident with the cystoscopy.

All cases of severe symptomless pyelitis without implication of the lower urinary or genital tracts should be judiciously cystoscoped to demonstrate the presence and working capacity of the kidneys and to locate the diseased kidney. In women Kelly's method [4] of catheterising the ureters is probably a more certain form of exploration.

When the kidney is not enlarged, as happens in such early stages, the lumbar incision is the better route for removal.

*Nephrectomies.*

SEPTIC.

| Initial. | Age. | Medical Attendant. | Diseased Condition. | Result. |
|---|---|---|---|---|
| C. | 24 | Dr. Percy Kidd | Enormous pyonephrosis | Cured. |
| B. | 44 | London Hospital | Left calculous pyonephrosis | ,, |
| D. | 36 | Dr. Welsford, of Tiverton. | Right calculous pyonephrosis | ,, |
| C. | 50 | Dr. Fitzgerald | Right pyonephrosis | ,, |
| MissW. | 28 | Dr. H. W. Webster | Left pyonephrosis | ,, |
| G. W. | 70 | Dr. Robb | Right pyonephrosis and villous growth | ,, |
| T. | 54 | Dr. F. W. Foott, of Enfield | Right pyonephrosis | ,, |
| S. | 26 | St. Peter's | Inflamed white kidney | ,, |
| H. | 45 | ,, | Right calculus pyonephrosis | ,, |
| J. | 36 | Dr. Stenson Hooker, of Hastings | Cystic kidney, nephritis, due to operator | Died eventually of septicity. |
| B. | 3 | Dr. A. Brown | Septic tuberculous pyonephrosis | Healed. |

ASEPTIC.

| | | | | |
|---|---|---|---|---|
| H. | 35 | Mr. Waren Tay, Dr. Sutton. | Enormous hæmohydronephrosis | Cured. |
| H. | 19 | Dr. Percy Kidd | Calculous hydronephrosis | ,, |
| T. | 37 | Dr. Samuel Fenwick | Advanced hydronephrosis | ,, |
| H. | 46 | —— | Carcinoma, lower end | Healed rapidly. |
| D. | 54 | Mr. Hall | Carcinoma of middle | Died of shock. |
| B. | 59 | Dr. Boissier, of Banbury | Papilliferous carcinoma | Healed rapidly. |
| Mrs. G. | 32 | Mr. Howse | Malignant adenoma | ,, |
| Mrs. C. | 50 | Mr. Jekyll | Carcinoma of a dilated calyx | ,, |
| K. | 35 | Dr. Nethercliff | Tubercle | ,, |
| Mrs. R. | 31 | Dr. Delamotte, of Staines | Tubercle and stone | ,, |

21 cases. 2 died.

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[1] BRITISH MEDICAL JOURNAL, 1890, Part ii. p. 894. [2] These 100 cases form a consecutive series, and were reviewed in a paper read before the Brighton and Sussex Medical Society, February 4th, 1897. [3] The more I cystoscope patients in their own urine, and the less I wash out the bladder, the better are my results. Of course if there is blood or pus the bladder must be thoroughly washed out before the cystoscope can be used. In this case I do not undertake to cystoscope unless I am allowed to operate coincidently, or unless the surgeon in charge is ready to start there and then with the operation. I never touch a case of obvious tubercle of the lower urinary tract. [4] Author, *Medical Annual*, 1896, p. 527.

## CONTRIBUTION TO OUR KNOWLEDGE OF SOLUBLE URATES: PRELIMINARY NOTE.

BY F. W. TUNNICLIFFE, M.D., M.R.C.P.,
From the Scientific Workroom, St. Bartholomew's Hospital.

MY attention having been drawn to a letter in the *Chemiker Zeitung* of January 20th, 1897, by Dr. C. Goldschmidt on piperidine as a uric acid solvent, I desire to publish the following results which have been obtained by me, in conjunction with my chemical collaborators, Drs. Rosenheim and Schidrowitz, independently. Our original intention was to complete, before publishing, our researches in regard to the solvency of the respective urates in the various media of pathological and physiological interest, as well as to determine the toxic equivalents of the respective bases. These researches, which we regard as of interest and importance, are at present approaching completion. The urates, the solubility of which we have determined, are (1) piperidine urate, (2) hexamethylenamine urate.

1. *Piperidine Urate.*—If 10 g. of uric acid be added to a solution of 5 g. of piperidine in about 50 c.cm. of water, the uric acid is completely dissolved in a very short time in the cold. The resulting urate of piperidine can be completely precipitated by a strong solution of sodium chloride, and can be subsequently purified by washing with alcohol and ether, in which liquids it is insoluble. The most interesting property of this salt is its solubility in distilled water, which we have determined at the following temperatures:—The solubility at 17° C. or 62° F. is 5.3 per cent., at 36° C. or 98° F. is 9.1 per cent., at 100° C. is 25 per cent. A solution of the salt in water has a slightly alkaline reaction to litmus.

2. *Hexamethylenamine Urate.*—If 4 g. of uric acid be added to a solution of 3.5 g. of hexamethylenamine in about 100 c.cm. of water, and the mixture kept for some time on a water bath, a clear solution is obtained which does not give any precipitate on cooling. The resulting product may be obtained in the solid form by a method identical with that described under piperidine urate. The solubility of this salt, determined at the following temperatures, is at 17° C. or 62° F. 0.7 per cent., at 36° C. or 98° F. 3.3 per cent. A solution of this salt in water has a slightly acid reaction to litmus.

For the purposes of comparison we thought it would be interesting to give the solubilities of the following known urates:

| | | | | |
|---|---|---|---|---|
| [1]Piperazine urate at 17° C. is soluble to the extent of 2.0 per cent. | | | | |
| Lithium urate at | 20° C. | ,, | ,, | 0.3 ,, |
| ,, ,, | 39° C. | ,, | ,, | 0.9 ,, |
| Potassium urate (acid salt) at | 20° C. | ,, | ,, | 0.7-0.8 ,, |

The physical conditions obtaining in the blood and other physiological and pathological fluids differ sufficiently from those in distilled water to render a separate research necessary before any suggestion can be made with regard to the probability of the above bases being of use in the treatment of lithæmia in the human subject. This matter we are at present investigating.

REFERENCE.

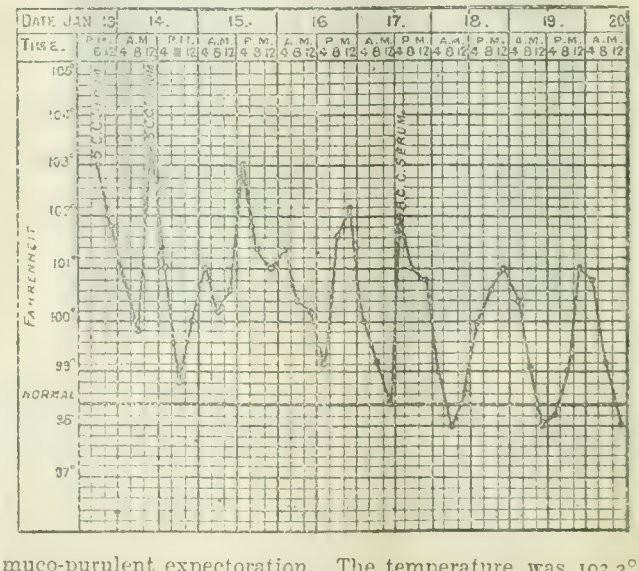
[1] Beilstein: *Handbuch der organischen Chemie*, B. I, 1334. We have been unable to confirm the high solubility ascribed to piperazine urate.

## SEVERE CASE OF TYPHOID FEVER IN WHICH ANTITOXIN WAS SUCCESSFULLY EMPLOYED.

BY P. R. COOPER, M.B.LOND., F.R.C.S.ENG.,
Bowdon, Cheshire.

As a supplement to the four cases recorded by Dr. Pope in the BRITISH MEDICAL JOURNAL of January 30th, the following brief report may prove of interest:

J. B., aged 29, a labourer, formerly a soldier, of strong physique (but rather alcoholic habits), had never been abroad, and his only previous illness had been an attack of "rheumatic fever" whilst in the army. He presented no cardiac lesion. On December 13th, 1896, he complained of severe pain and aching in the head, back, and limbs, shivering, general *malaise*, complete loss of appetite, and vomiting of everything taken by the mouth. He had also sore throat, enlarged glands in the neck, hoarseness, cough with thick




muco-purulent expectoration. The temperature was 103.2°, the pulse 96, and the respirations 30, the tongue was furred,

and the face dusky. No dulness could be detected over the chest, but there was general loud rhonchus with harsh breathing. The abdomen was retracted. There was no marked tenderness, but severe constipation. He had not been feeling quite well for a few days, but the onset of the illness was sudden. He attributed his condition to a severe wetting a few days before. Next morning, although the pains and cough were a little easier, the pyrexia continued. Examination of the chest showed no further development of physical signs, the constipation and anorexia were unaltered.

During the following week the temperature ranged between 102° and 104.5°; the pulse, however, remained fairly steady, the pains were easier, but anorexia and constipation continued, and tenacious muco-purulent expectoration, swarming with micro-organisms, chiefly cocci, was coughed up with great difficulty. The patient became markedly prostrate, rather sleepless and delirious. Careful daily examination of the lungs failed to show any patches of consolidation. The spleen was found to be enlarged, and the continued temperature and great prostration, in spite of absence of other typical symptoms, raised the suspicion of typhoid. On December 24th three fairly typical spots were discovered on the abdomen, and for the first time tenderness and slight tympanites were noticed in the right iliac fossa. The case was as soon as possible removed to the local fever hospital. On the evening of December 26th blood was first detected in the stools, which were extremely offensive and dark. The melæna continued nearly three days, the pulse being hardly at all affected. On December 31st the morning temperature was 99°, and the patient "felt splendid." He was fed chiefly on whey of milk and white of egg, and Benger's food. There was no tympanites, but the bowels were again confined.

A visit from his mother (whom he had not seen for some time, and with whom a slight difference existed), caused him some excitement, and the temperature again suddenly rose to 102°. During the next week almost a typical ascent was noticed on the temperature chart, and by January 8th the temperature was 104°. The patient was packed for half an hour, and perspired freely, but the temperature soon rose again to 103°. Again, the chief symptoms were bronchial rather than intestinal, severe coughing, rapid breathing, thick yellowish expectoration, rhonchi all over the chest, and *râles* in the throat; some loud, harsh, almost cavernous, breathing was heard under the right clavicle. On January 11th hæmoptysis was first noticed, and about the same time hiccough developed. The hæmoptysis continued nearly a week, the blood being intimately mixed with the gelatinous sputum. The hiccough proved extremely refractory, and soon attended every act of respiration. The patient's general condition became extremely grave: the tongue dry and shrivelled, the face pinched and dusky (purplish). He was mostly in a state of low muttering delirium, picked at the bedclothes, and passed urine and fæces unconsciously. The temperature kept above 103°, except when temporarily brought down by packing or phenacetin; the pulse was feeble, and markedly dicrotic. He was only capable of being momentarily roused to consciousness; he continued, however, to take plenty of nourishment and stimulant.

On January 13th his condition seemed so hopeless that it was decided, as a last resort, to try some antitoxin. Accordingly, at 6 P.M., 5 c.cm. of serum, procured from Messrs. Burroughs, Wellcome, and Co., were injected into the iliac region. Within a few hours the temperature began to fall, the patient perspiring freely. Next morning the temperature was 99.8°, and the pulse felt stronger; the patient had slept without hiccough. Unfortunately, however, the latter symptom immediately returned as the patient partly roused. By midday, January 14th, the temperature was again up to 103.4°, and the patient was much as before; so a second injection of 5 c.cm. of serum was given. This was quickly followed by a fall of temperature, with marked perspiration, and at 8 P.M. the thermometer registered 98.8°. The patient seemed certainly rather better, but the hiccough continued without intermission. About this time there was some very severe weather, with fogs and east winds, and although every care was taken to protect the patient from the effects of these, towards evening his chest symptoms became markedly aggravated. His breathing became rapid and laboured, the expectoration was very thick and tenacious, and he had not the strength to cough it up; cyanosis and hypostasis were both marked, the pulse grew feeble, more rapid and irregular, *râles* accumulated in the throat, swallowing became almost impossible, and urine and fæces were passed involuntarily. He appeared to be moribund. However, by morning he had rallied a little, and was able to take some food and brandy. A fresh relay of serum had been promptly forwarded by Messrs. Burroughs, Wellcome, and Co., and a third injection of 8 c.cm. of serum was now given, the temperature being 102° at the time. The patient again perspired freely, and the temperature fell forthwith, reaching 98° at 8 A.M. on January 18th. From this time the patient's general condition steadily and surely improved. The hæmoptysis ceased. The hiccough, however, still harassed him, but was less severe, first stopping during sleep, then gradually becoming less frequent, finally disappearing on January 21st. The bowels still remained very stubborn, and could only be made to act by enemata. On January 22nd he was allowed a little solid food—poached eggs and soft bread and butter. He has had so far an uneventful convalescence except for some rather troublesome boils. He is now steadily gaining strength and flesh; his cough is rarely troublesome; he sleeps well, and his appetite is excellent.

### Remarks.

There could be no doubt as to the grave condition of the patient when the serum treatment was resorted to. Ordinary treatment seemed to exert little if any beneficial effect; indeed, it is probable that the chlorine mixture (so strongly advocated by Dr. Yeo) rather aggravated the bronchitis, and may have done actual harm. The occurrence of intestinal hæmorrhage, and later hæmoptysis, and the extreme prostration and low typhoid condition into which the patient had fallen were all the gravest of symptoms. According to Poore,[1] hiccough of any persistence in the course of typhoid is often an indication of perforation and the onset of general peritonitis, but there were certainly no evidences of perforation here. It hardly seems possible to resist the conclusion that the injections of serum enabled the patient to "round the corner," and although not wishing to lay too much stress upon this one case, yet, taken in conjunction with the cases recorded in the British Medical Journal of January 30th, they seem to justify a further trial of this new remedy, which may probably prove of service even in the most desperate cases. The chart shows the temperature in the week during which injections were given.

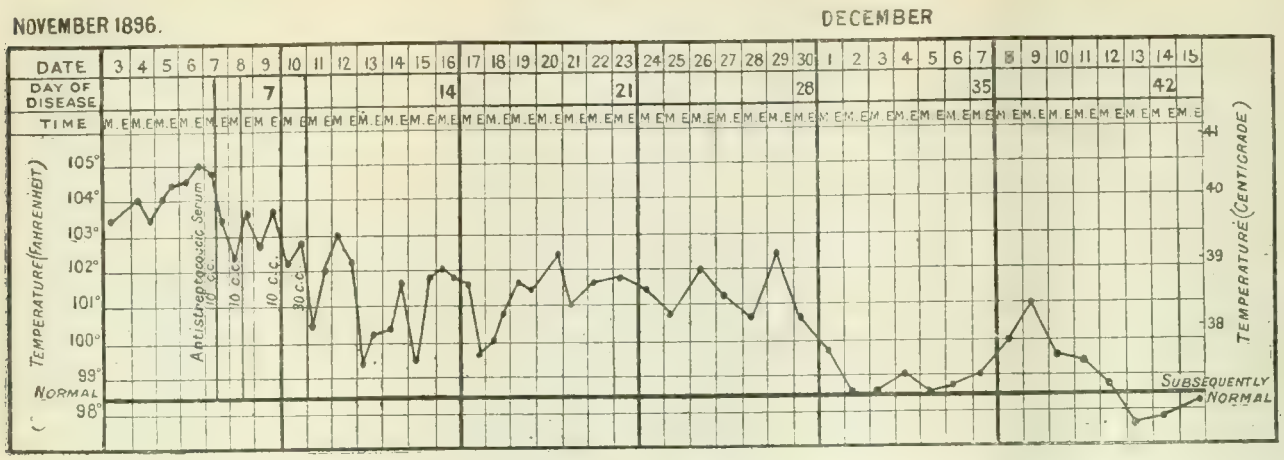
### Reference.

[1] Last edition of Quain's *Dictionary of Medicine*.

## A CASE OF SEVERE PUERPERAL SEPTICÆMIA; INJECTION OF ANTISTREPTOCOCCIC SERUM; RECOVERY.

By ARTHUR J. SHARP, M.D.Lond., F.R.C.S.Eng.,
Whitby, Yorks.

A. E., 23, primipara, was confined on November 2nd, 1896. The house and its surroundings were not ideally perfect. The patient was a weakly anæmic girl, subject to fainting fits, and the labour a most difficult one. The child was very large, and presented by the breech. This was difficult to recognise, as it did not descend into the pelvis at all readily. The child's sacrum was directed towards the mother's right sacro-iliac joint. The chief difficulties arose from the liquor amnii not exceeding ℥j or ℥ij, and from the legs being extended so that it was quite impossible to reach a foot. The case was watched patiently for twenty hours, by which time the pulse had risen to 120, and as hardly any progress had occurred in the last twelve hours it was felt that there was nothing to be gained by further delay. Counterpressure on the fundus and every other available device failed. The breech was eventually extracted by hooking two fingers of the right hand over the right groin and iliac crest of the child, whilst two fingers of the left were passed up its rectum and hooked into the hollow of the sacrum. The mother's perineum was badly lacerated, and there was almost uncontrollable hæmorrhage *post partum*. The child was resuscitated with great difficulty, and lived thirty hours. Fortunately I had




the assistance of Dr. A. C. Dutt. Antiseptic douching was employed from the first, and the perineum sutured. The temperature chart begins twelve hours after labour.

Quinine was given freely, also phenacetin, and douches of carbolic acid, chinosol, lysol, or sublimate twice daily. Iodoform or carbolic suppositories were placed in the vagina, and sublimated Gamgee pads used externally.

For the succeeding week the patient's condition was very precarious, the pulse ranging from 150 upwards. Happily she took nourishment well. On the second day after labour there was considerable tympanites.

Dr. Washbourn, of Guy's Hospital, consulted by letter on the fourth day after labour, very kindly recommended the use of serum, which was procured from the Institute of Preventive Medicine, and 10 c.cm. injected on the fifth, sixth, and seventh days. Most improvement seemed to follow the first one. Thirty c.cm. were given in one dose on the eighth day, and reduced the temperature about 2½°. The quinine was discontinued some time before the serum was commenced, so that the improvement seems wholly attributable to the serum. From this time the patient began to hold her own, and the temperature reached normal on the thirtieth day.

A specimen of blood taken from the finger on the eighth day was kindly examined for streptococci by the Institute of Preventive Medicine but with negative results. On the tenth day the lochia became purulent and abominably foul. Dr. Granger saw her with me, and we made out a mass of exudation in the left broad ligament and iliac region. By his advice antipyrin gr. iij was given every few hours.

On the fourteenth day the pus was ascertained to come from an abscess cavity the size, when distended, of a Tangerine orange, opening into the vagina by a valvular aperture. Upwards the track ran for nearly 2 ins. to the left of the uterus, and downwards and backwards a curved sinus wound round the left side of the rectum for 2½ ins., measured with a sound. The cavity and sinuses were irrigated twice daily with sublimate lotion, and packed with carbolic gauze wrung out of a mixture of eucalyptus oil, thymol, and carbolic acid. Iodide of potassium and small doses of mercury were given internally.

The patient was able to lie on a sofa for the first time on Christmas Day (fifty-third day), and at the time of writing the sinuses are soundly healed, though some further operation on the perineum will have to be undertaken subsequently. I venture to draw the following conclusions from the case:

1. That if proper precautions be taken, the risks attending the use of serum may be neglected. The serum was on each occasion injected into the abdominal fat, and the following precautions taken:—Syringe and needle boiled, skin scrubbed with soft soap and then lysol 2 per cent., then dusted with boric acid, and a dressing applied afterwards. No inconvenience whatever resulted from any of the punctures, and the patient's appetite was markedly stimulated.

2. That in this case, although streptococci were not detected, benefit attended its use sufficient to turn the tables in her favour.

3. That in a really serious septic case corrosive sublimate is the only reliable antiseptic, and should be used fearlessly in a strength of 1 in 2,000.

4. That in septicæmia after labour the focus of mischief may be other than uterine (Dr. Dutt).

## CASE OF BLOOD POISONING IN WHICH ANTISTREPTOCOCCIC SERUM WAS USED.

By SAMUEL BOAKE, L.R.C.P., L.R.C.S.I.,
Ilminster.

F. H., aged 38 years, came to me on October 28th, 1896, suffering from a whitlow of the right thumb. He stated that he had received a prick from a thorn a few days previously. The abscess was incised, and a little pus evacuated. From this date until November 6th the infection extended up the flexor tendon into the hand. The hand and fingers became densely swollen and painful. Incisions were made wherever fluctuation was detected, and the palmar fascia freely opened. A hot boracic arm bath, linseed poultices, quinine and iron were ordered.

From November 7th to 10th, the suppuration extended up the fasciæ of the muscles of the forearm, which became tensely swollen and red; the swelling extended to the axilla along the inner border of the arm. Several free incisions were made, and drainage tubes inserted. The several openings communicated, so that the forearm and hand could be well washed out. Pus flowed continuously from all the openings. There was retention of urine from November 29th to December 6th. The temperature varied between 101° and 103° F. Perspirations were profuse.

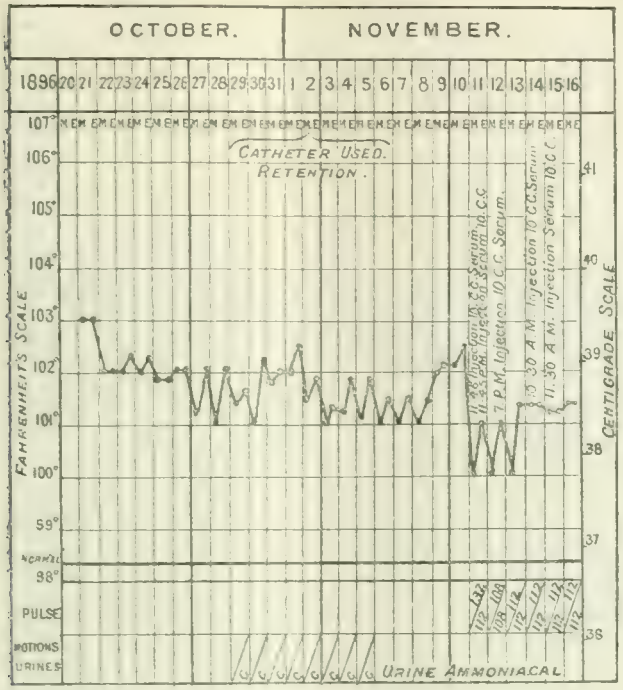
On November 12th, at 11.45 A.M., 10 c.cm. of antistreptococcic serum were injected under the skin of the abdomen, with antiseptic precautions. The serum was obtained from the British Institute of Preventive Medicine. At the same time more free incisions were made in the forearm. At 11.45 P.M. it was noticed that the swelling had markedly decreased. The patient stated that the perspirations had considerably lessened. A further dose of 10 c.cm. of serum was injected.

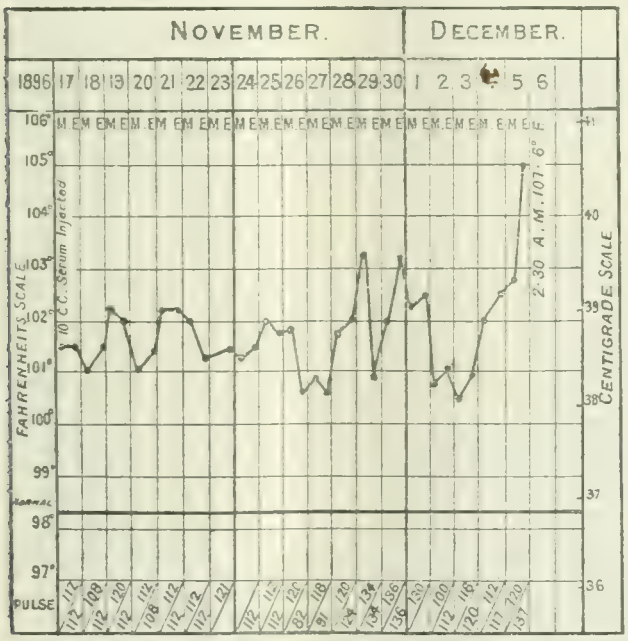
On November 13th the swelling above the elbow had completely disappeared.

On November 14th urticaria appeared on the trunk and limbs. The swelling of the forearm had greatly decreased. Ten c.cm. of serum were injected, and next day the same quantity was injected. The rash reappeared.

On November 17th, 10 c.cm. of serum were injected. The first phalanx of the little finger was felt to be bare, the tissues of the hand and fingers were swollen and baggy. From November 18th to 25th the temperature ranged between 101° to 103° F. Pus continually drained away, particularly from the forearm. Profuse perspirations again appeared. The swelling of the forearm had gone completely, but, as most of the

joints of the hands were suppurating and gangrene threatened, amputation was determined on, and on November 26th,




with the assistance of Messrs. Spicer and Balfour, of Chard, the arm was amputated above the elbow.

The patient rallied well after the operation, and seemed to be doing well for a few days. On December 4th the temperature commenced to go up; it was 105° all day on December 5th, reaching 107.6° F. at 2.30 A.M. on December 6th, on which day he died. The amputation wound remained healthy to the end.

Remarks.

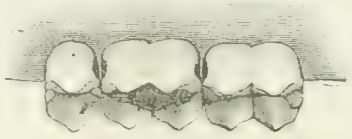
The swelling was rapidly extending until the serum was injected. It is difficult to decide whether the marked decrease in the swelling immediately following the injection of serum was due to its action or to the ordinary surgical treatment adopted—incisions to relieve tension and to establish free drainage. In a similar case I would be inclined to use the serum at an earlier stage of the disease.

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

### THE JUDICIOUS EXTRACTION OF THE FIRST PERMANENT MOLAR.

The medical profession have so many opportunities of instigating this treatment that its value may be demonstrated and insisted on. These teeth are often found the only defective ones in otherwise healthy mouths; their calcification commencing several months before birth, the proper completion of this function is liable to disturbance both by deviations in health of the mother and the many ailments of early infant life. Imperfect calcification of the teeth cannot be repaired after birth by medical treatment and intelligent diet and care, as rickets and many other infantile troubles, hence that susceptibility to decay now so prevalent.



This diagram illustrates the condition of things frequently seen in the mouths of the young. The centre tooth is the first permanent molar, largely decayed, with commencing cavities on right and left, originating cavities in the contiguous teeth. It is obvious that the removal, with an anæsthetic, of the first permanent molar rids the mouth of three cavities, and by exposing the commencing cavities retards or arrests their further decay, and, what is equally important, renders their treatment by filling easy and effective, and obviates the pain, of which the young are naturally intolerant, of the preparation for filling of cavities difficult of access between crowded teeth. As there are four first permanent molars, their removal rids the mouth practically of twenty cavities. Overcrowding and the disfigurement of prominent and projecting front teeth are much modified by the removal of these molars in youth.

W. Whitehouse, L.D.S.Edin.,
Consulting Dental Surgeon to the Royal Hospital for Women and Children, etc.,
Victoria Street, S.W.

### PERSISTENCE OF MALARIAL CRESCENTS.

The following case seems of interest as showing the persistence of the crescentic form of malarial parasite, even during and in spite of treatment.

Private W. D., aged 30, four years and seven months in India; had served in the following stations: Mhow, Indore, Quetta, Satara, Ahmednagar, and Kirkee. Had never suffered any ill-health till August, 1896, when shortly after returning from a week's "pass" to Bombay he was attacked by malarial fever. The type was ordinary quotidian, and not severe. Later it became irregular, and finally ceased about the end of September. It was uncomplicated, except by some hepatic tenderness during the earlier part of the attack. There was never any enlargement of liver or spleen. He arrived in this sanatorium on October 11th, much debilitated and anæmic, and almost immediately suffered from a return of fever. He was admitted to hospital on October 17th, and his blood was examined next day. It was found to be full of crescents and large spherical pigmented bodies. A specimen, prepared according to Dr. Manson's method and cleared with acetic acid, showed as many as two or three in field after field. The fever stopped after a few days of treatment, and was of no particular importance, but it was succeeded by great debility, loss of appetite, and insomnia. At first he put on weight, but later gradually lost it. He suffered also a good deal from neuralgia and occasional bilious attacks, with occasional fever, dependent on these disturbances.

The treatment adopted was at first quinine in large doses; later quinine in tonic doses with iron and strychnine; arsenic alone and in combination with iron and quinine. The best results were got from opium in 4 gr. doses per day. This produced a feeling of well-being, but had no effect on the insomnia, which persisted in spite of drugs. His blood was examined for the last time on January 2nd, and crescents were still found, though in greatly reduced numbers; one flagellated body was observed. It is worthy of remark, I think, that after twelve weeks' residence in a peculiarly healthy station, under treatment in hospital, the crescents should still have persisted. This fact would seem to point to their being of the nature of spores. Spherical pigmented bodies were not seen at the last examination.

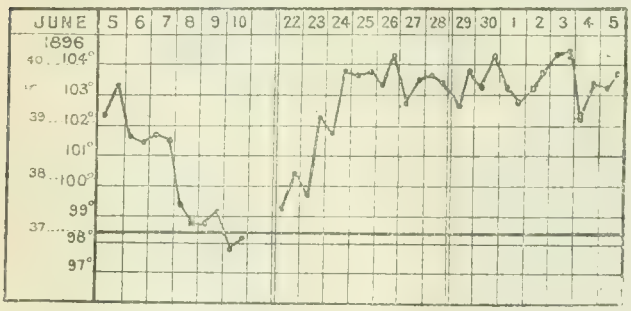
CHARLES H. MELVILLE,
Surgeon-Captain A.M.S.

Purandhar, Bombay.

## CONCURRENT SCARLET AND ENTERIC FEVERS.

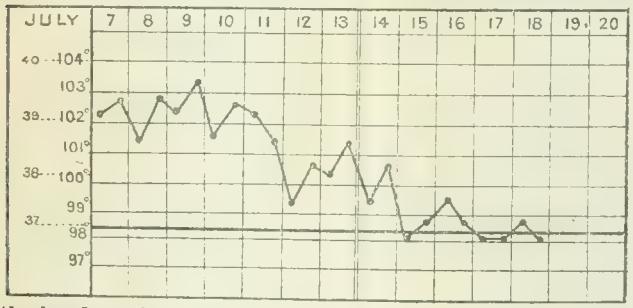
DR. COSGRAVE'S interesting paper recalls a case in which the enteric fever had a fairly long incubation period.

S. J., a male, aged 12, was admitted on June 5th, 1896, to the Birmingham City Hospital, with a well marked attack of scarlet fever. This was the second day of the illness. His parents and two brothers had been removed on the same day to the workhouse infirmary with enteric fever. Because of this fact the case was isolated, and the temperature carefully




watched, but it reached normal on the sixth day. The throat rapidly cleared, and the patient began to desquamate.

On the fourteenth day, there being no sign of enteric fever, we considered him safe; but on June 22nd, seventeen days after admission, there appeared the first sign of enteric fever. There was an evening temperature, with *malaise* and pain in




the head, and two days later he had the typical stools and deafness.

The enteric ran a mild course. During the following week a considerable crop of spots appeared, and the temperature reached normal about the middle of the fourth week.

The patient had contracted enteric fever, either with the scarlet fever or immediately after, since he left his home, where the infection was, on the second day of his illness.

J. G. MCNAUGHTON, M.D., C.M.,
Late Senior Resident Medical Officer, City Hospital, Birmingham.

Edinburgh.

## ANTISTREPTOCOCCIC SERUM IN PUERPERAL SEPTICÆMIA.

A. C. C., aged 30, a farmer's wife, in her first labour had few and slight pains. The conjugate diameter of the brim being very small, and the child large, extraction with the long forceps was very difficult, but she made a good recovery. Before her second labour I found that she had chronic Bright's disease, to which I attribute the increase of inertia in the uterus. The os dilated slowly in two or three days, and then the contractions were few and weak. Before the membranes ruptured there was a discharge of brownish-green offensive fluid from the vagina. The child was dead. As in the first labour, long forceps completed the expulsion of the child, under chloroform, which was also used when the placenta was removed.

Two hours after the baby was born the patient was pulseless, and breathing about 32 in the minute. The next day the morning temperature was 102°, the pulse 124; and she had persistent diarrhœa, which was relieved by opium. She gradually grew worse. The palate and fauces were lined with yellow exudation; there was sordes on the teeth, and other signs of failure appeared. On the seventh day she improved slightly. The temperature, which had been 103.5° on the previous day, fell to 101°. On the eighth day I injected 10 c.cm. of serum in the morning, and 10 c.cm. in the evening, into the right iliac region. But she died next morning.

The treatment consisted of antiseptic douches twice daily; opium, quinine and salicylate of soda by the mouth, sulphur blown into the throat, and opium by the rectum.

CAREY COOMBS, M.D.Lond.

Castle Cary, Somerset.

## CASE OF COPAIVA POISONING.

ON January 5th, 1897, I was called to see a young man, aged 26 years, on account of a rash which he had first noticed two days previously. He had been treated by a chemist for gonorrhœa for three weeks, during which time he had taken three capsules daily, each capsule containing (as I afterwards ascertained) ♏x of ol. copaivæ. At first sight the patient looked as if he had measles, the whole of his face and neck being covered with an elevated bright red rash. The face and eyelids were also much swollen. On further examination the rash, which disappeared on pressure, was found to cover his chest, abdomen, and upper and lower extremities. His skin was very irritable, and the scratches, which were numerous across his chest, bore evidence to the great amount of itching, of which he greatly complained. There was a very disagreeable odour about the patient, which he himself had not noticed. His temperature was 97.2°, pulse 110; urine specific gravity 1030, no albumen, no sugar. On discontinuing the capsules the patient gradually improved, although the rash was evident on the anterior aspect of his thighs seven days later.

WILLIAM H. THOMPSON, M.R.C.S.Eng., L.R.C.P.Lond.

Bradford.

## SUBCUTANEOUS EMPHYSEMA COMPLICATING MEASLES.

MISS B., aged 18, sickened for measles on January 10th; on January 12th the rash was fully developed, and the temperature 104°. She had a troublesome cough, but it was not more violent than is usual in measles. There was no evidence of the lungs being affected. On the evening of the following day she suddenly complained of a severe pain "all over her," with faintness and difficulty in breathing. The nurse was alarmed by her appearance, and when rubbing her chest to relieve the pain she found a large swelling over the left collar-bone, which on pressure being applied seemed to "disperse" over the chest and neck, with great relief to the urgent symptoms. On the following morning I saw her, and found a puffy swelling extending over the neck and upper part of the body, which on palpation imparted to the fingers the sensation of the typical crepitation of emphysema. She was then feeling fairly comfortable; the temperature was 101°. On the next day her temperature was normal, and she had an uninterrupted convalescence, the air in the subcutaneous areolar tissue becoming gradually absorbed.

F. C. BERRY, B.A., M.D.

Burnham, Somerset.

IT is stated that the Czar has assigned a sum of 65,000 roubles (£6,500) from the Imperial Treasury for the erection of residential quarters for the female students attending the St. Petersburg Medical Institute for Women. It is expected that the building will be opened during the course of the present year.

# REPORTS
ON
## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

### THE ROYAL INFIRMARY, EDINBURGH.
#### THE DEPARTMENT OF THE PROFESSOR OF MEDICINE.
(From our Edinburgh Correspondent.)

The department of the Professor of Medicine or Practice of Physic consists of 42 beds, besides two or three cots for children; of these 28 are for male patients and 14 for females. Attached to each of the large wards in the pavilion is a small side room, with 3 or 4 beds, which can on occasion be cleared out and used for very severe cases where isolation and quiet and required. There is also an out-patient room. There is a large theatre common to the three Professors of Clinical Medicine and to the Professor of Gynæcology.



Fig. 4.—Angio-fibroma of two years' standing.

The staff consists of the Professor of Practice of Physic, Sir Thomas Grainger Stewart, who is also *ex officio* one of the Professors of Clinical Medicine and who has been for a considerable time the Senior Physician to the Hospital; an Assistant Physician (Dr. George A. Gibson), a clinical tutor appointed by the University Court, a qualified resident house-physician, and a qualified non-resident out-patient clinical clerk. Following the clinic there are 93 clinical clerks, 13 of whom have charge of the eight books for recording the cases under the various "systems," diseases of the alimentary system, etc. The other 80 clerks work in pairs, senior with junior as far as possible. The majority of these clerks have to December 31st, 1896, had the opportunity of personally following and recording three or four cases each.

The week's work is made up of two special clinical lectures in the theatre by the four clinical professors in rotation, three ward clinics by the professor (the number of students is here so large that these "ward" clinics are in reality given in the theatre); one senior tutorial demonstration by the assistant physician, and two meetings for physical diagnosis by the clinical tutor. Once a fortnight one of the ordinary clinics is taken by the Professor of Gynæcology, when either the mode of physical examination is taught or operations performed.

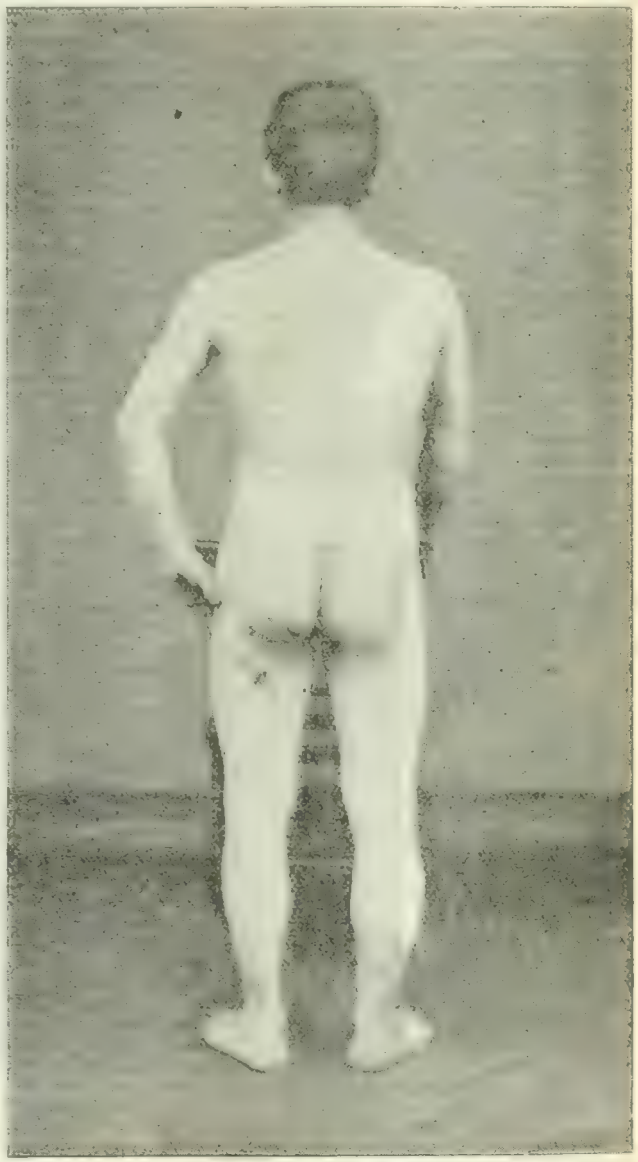


Fig. 5.—Angio-fibroma of two years' standing.

A word or two may be said on the mode of teaching. Some suitable patient is selected. The clerk or clerks responsible for the case have made the notes, and now read them at the beginning of the clinic. First the name, age, occupation, place of birth, residence, date of admission, date of examination, complaint, and duration of illness, are given. Then follows the history, family, personal, and general. Next the state on admission is reviewed in the following sequence: general facts (including height, weight, development, muscularity, obvious morbid appearances, as jaundice, etc.), alimentary system, hæmopoietic, circulatory, respiratory, integumentary, urinary, reproductive, nervous, and locomotory systems. It is preferred to retain this order throughout, in place of first taking up the affected system, since students may take up the wrong system, or overlook the fact that there are morbid conditions in two or more systems. Students are then called up to examine and confirm this report. The signs and symptoms are discussed and interpreted, and diagnosis, differential, and special, made. Finally, treatment is taken up.

As to the number of patients available in this department, there were in the wards, on October 1st, 40, and 99 were admitted between that date and December 31st, 1896. Some 350 out-patients were also seen. Among special indoor cases of interest during the period noted were:

1. A young man of 32, suffering from exophthalmic goître, who was treated with strophanthus, 5 minims thrice daily, and suprarenal tabloids of 5 gr. each, every three hours (Fig. 1). Under this treatment the pulse-rate was reduced from 110-120 to 80-90, the circumference of the neck diminished by about an inch, and the exophthalmos, nervousness, sweating, etc., lessened appreciably.

2. Two cases of recurrent erysipelatous lymphangitis—solid œdema of Hutchinson—treated by erysipelas antitoxin:

(*a*) A young woman of 25, complaining of persistent swelling of the eyelids and cheeks, of frequently recurring attacks of heat and redness in these parts, with accompanying *malaise* (Fig. 2). She had had erysipelas twelve years before, and she was said to have had at intervals subacute attacks of the same malady generally brought on by cold. Such was the swelling now that the palpebral aperture was greatly encroached upon. There was no pitting on pressure, though the swellings looked œdematous. There was some chlorosis and some post-nasal catarrh, but otherwise her health was good. The temperature remained normal. Erysipelas antitoxin was injected in doses graduated from 0.2 to 1 c.cm., extending over a period of about one month. The temperature after injection ranged from 100° to 104° F. The patient was dismissed, after fifty days in hospital, practically cured. She was seen six weeks later, and still remained well.



Fig. 6. Footprints of spastic paraplegia.

(*b*) A girl of 16, with more aggravated symptoms of the same kind, but complicated by severe tuberculous disease of the cervical glands starting with an attack of erysipelas some two years before (Fig. 3). There was post-nasal catarrh, chlorosis, increase of leucocytes, and tuberculous glands behind the angle of the right jaw. The eyes were all but occluded. Erysipelas antitoxin, in doses graduated from 0.2 to 1.3 c.cm., was injected, but there was scarcely any reaction. There has been slight improvement in the possibility of seeing. Whether the failure of the remedy in this case was due to the tuberculous disease or not is uncertain.

3. A groom, aged 18, complaining of a peculiar skin eruption over the face, back, buttocks, arms, and right leg, during a period of two years. Some of these were nævoid in appearance, some warty. They all appeared to begin as small reddish-purple spots, out of which blood could be expressed. Some became pedunculated, some bled profusely on very slight injury. The case was considered to be angio-fibroma, while some of the nodules on the hands might be called angiokeratoma (Figs. 4 and 5). Treatment: electrolysis.

The progress of the case was interrupted by a severe attack of influenza, followed by pneumonia, pleurisy, and slight empyema, with the opening up of an old disease of one of

the bones of the leg. Treatment has therefore had to be suspended. The patient is now improving in general health though threatened with phthisis at the apex of one lung. The angiomata generally seem to have somewhat diminished during this acute attack.



Fig. 1.—D. G., aged 32. Exophthalmic goître, treated by suprarenal tabloids (Burroughs, Wellcome and Co.). Thyroid swelling much lessened; tachycardia lessened by 20; exophthalmos less marked.



Fig. 2.—J. C., a woman aged 25. Recurrent erysipelatous lymphangitis (solid œdema of Hutchinson); first attack twelve years ago. Treated by erysipelatous antitoxin. After seven weeks in hospital dismissed apparently cured.

4. A woman, aged 29, admitted complaining of sub-occipital headache, giddiness, vomiting, and weakness. No optic neuritis, no deafness, no paralysis. Knee-jerks absent. Slight nystagmus on looking to the right. On walking there seemed a tendency to fall to the right. There was constipation and retraction of the abdomen. Explorato y trephining in the right cerebellar region was determined on, but she died of sudden heart failure the afternoon before the operation. On *post-mortem* examination a single cyst of the size of a small hen's egg was found in the right lobe of the cerebellum. The absence of definite localising symptoms will be noted. It should be added that the patient had a child of six months old which she was suckling on admission. The circumstance which seemed specially to warrant operative interference was the apparently hopeless condition of the patient from the nystagmus.

5. A man, aged 48, who, after a bout of heavy drinking, was suddenly seized with giddiness and a tendency to fall to the left side. There was vomiting, but no nausea. There was left tinnitus and some deafness. There was a sensation of rotation of the head. The condition appeared to be that of Menière's disease. The treatment was rest, strychnine and hydrochloric acid, and the patient left apparently cured after having been thirty-six days in hospital.



Fig. 3.—M. C., a girl aged 16. Recurrent erysipelatous lymphangitis (solid œdema of Hutchinson), of two years' standing, complicated by suppurating tuberculous glands behind the angle of the jaw. Treated by erysipelatous antitoxin, with very slight, if any, improvement.

6. Footprints of gait of splastic paraplegia. The method adopted for definitely recording the gait in these wards is the following. The patient having pulled on woollen socks, dips each foot in a whiting solution. He is then made to walk along the linoleum covering of the ward floor, an impression of the footprints is left and this is photographed. The photograph here shown (Fig. 6) is characteristic enough of spastic paraplegia, but a reference to a very curious hysterical case in the male subject recorded in the *Edinburgh Hospital Reports* for 1894 by Sir Thomas Grainger Stewart, makes the value of the method still more manifest. It occurred in the case of which notes were published in the British Medical Journal for January 6th, 1894, under the title of Allachæsthesia.

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By the will of the late Mr. George Gordon Nicol, of 5, Cambridge Gate, London, who died on January 16th last, important bequests have been left to Aberdeen. Of sundry trust funds, the income on which accrues to his wife during her lifetime, £20,000 are to be in trust for the University of Aberdeen, to found bursaries and scholarships or exhibitions to the English Universities, for Aberdeen students who are natives of Aberdeenshire. Besides other large bequests for the benefit of the town, funds are to be provided to found two beds in each of the three public hospitals in Aberdeen, as well as in several London hospitals.

# REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

W. H. DICKINSON, M.D., President, in the Chair.

*Tuesday, February 23rd, 1897.*

SOME POINTS IN THE SURGICAL PHYSIOLOGY OF THE FOOT.

Mr. T. S. ELLIS read a paper on this subject. He briefly referred to the view on which he had for many years been insisting—that the plantar arch is formed, is maintained, and, when destroyed, may be restored by renewal, in specially active degree, of the functions of the foot, that is, by muscular action. Until recently he had not been able fully to explain why the plantar arch was so rarely overformed as in hollow or claw foot. One, the principal, object of the paper was to show that the two features of the deformity which gave the alternative names were due to a common cause. Objections were taken to the ordinary anatomical teaching of "origins" and "insertions" of muscles as misleading. A model in wood of the essential features of the human foot was shown with the influence of cords imitating the muscles supporting the arch and acting as formators of it, and of those which control the formation of it, acting as limitors. It was shown by this model that the combined flexor brevis and adductor pollicis acted not only to hold down (as so-called flexors) the first phalanx of the great toe, but also as limitors of the arch. Removal of cords imitating these muscles produced immediately hollow and claw foot, and at the same time showed why in this deformity callosities formed on the sole. The particularly-marked deformity in the middle line, and the equinus position and attenuated calf were explained. The causes of this deformity and of flat foot were compared, and analogies in treatment given. Attention was drawn to the remarkably different and contradictory views of writers on flat-foot. The probability of results from treatment according to the author's views were justified by arguments. References were made to well-known laws of muscular action and application of them. He insisted on the importance of realising what was the real position of rest, and dissented from Mr. Arbuthnot Lane's view. References to the military march and objections to it were made, and the causes of footsore were referred to. Other reasons for reform were given. The position of rest natural to the great toe was described. The results according as it was packed over or under the second toe were given, and reference to hallux flexus, hallux rigidus, etc., was made. He briefly referred to hammer toe, and dissented from Sir G. Humphry's statement that the toes were not used. "Anterior metatarsalgia," "Morton's toe," etc., were referred to. The importance of the functions of the toes was demonstrated in the model, and the relation of the functions of the toes to the form of the plantar arch was dwelt on, and finally a plea for the better recognition of foot physiology as of practical importance was brought forward.

Mr. BARWELL admired the care and pains the author had taken on this valuable work. He, however, differed from him in many points. He considered that in walking the foot in front did not, as the author said, drag the body forward, but that the hinder foot pushed the body forwards, and here the flexor longus hallucis came into play: hence the author's view that the extensors were tractors fell through. The flexor longus hallucis entered the foot at the crown of the arch, and therefore did not extend, as a tie rod should do, from the anterior to the posterior buttress of the foot, but only from the crown of the arch to the anterior buttress. Then, again, he did not agree that the long and the short flexors of the toes acted antagonistically. He did not think the author's description of the position of the dancer's foot when on tiptoes quite accurate, inasmuch as the tip of the terminal phalanx was not the point of support, but the pulp of the terminal phalanx. He had found that dancers' feet were not really flat, as was shown by the high instep. With regard to the effect of wearing too short boots, the author considered that it produced hollow or claw foot. He, however, thought that the foot became flat as a result of the great toe becoming displaced, and the tendon of the flexor longus hallucis being thus put out of gear. It did not matter much whether this second toe was displaced over or under the great toe, but the important point was that the great toe should be kept straight.

Mr. DAVIES-COLLEY agreed with the last speaker as to the way in which the body was propelled in walking. The flexor longus hallucis drew the foot inwards, and if this muscle was alone concerned the feet would knock together in walking. The author had omitted some factors tending to depress the arch of the foot; it was largely effected by the weight of the body, but the extensor tendons on the dorsum of the foot played an important part by stretching the ligaments in the sole of the foot. Paralysis of the short muscles of the foot was a cause of some cases of pes cavus; normally they held the proximal phalanges flat on the ground, but when they became paralysed the phalanges became elevated, and pes cavus resulted. In the treatment of claw foot he had found it of use to remove a piece of the extensor proprius hallucis tendon, and to implant the proximal end upon the base of the first metatarsal bone. He was of opinion that the muscles of the foot did really act like the corresponding muscles of the hand.

Mr. ELLIS, in reply to Mr. Barwell's criticism of the action of the flexor longus hallucis, pointed out that if an amputated leg was taken, the big toe fixed, and the tendon of that muscle pulled upon, the two ends of the plantar arch were approximated. The dancer's foot was not, he agreed, absolutely flat, but there was not the increase in the arch that might have been expected from the excessive action of the muscles exerting a "forming" influence on the arch of the foot. He insisted that the flexor longus hallucis drew the foot outwards, and that the actions of the muscles of the hand and foot were dissimilar.

## MEDICAL SOCIETY OF LONDON.

C. B. LOCKWOOD, F.R.C.S., Vice-President, in the Chair.

*Monday, February 22nd, 1897.*

TRAUMATIC NEURASTHENIA.

MR. VICTOR HORSLEY read a paper on this subject in which he grouped the cases under four heads, according as there was or was not a distinct external injury, and according as the symptoms occurred at once after the receipt of the injury or at some undefined period thereafter. He pointed out that there was no essential difference between cases of traumatic neurasthenia and ordinary neurasthenia from worry or overwork. He referred to the hyperpyrexia which was sometimes met with in acute cases. In respect of the symptoms he insisted on the inability to concentrate the attention on any particular subject, on the disturbance of sleep, specially noticeable in the form of early waking, and the occurrence of nightmares or somnambulism. There was sometimes general paresis, with localised paralyses, spasms, and twitchings. The local paralysis usually took the form of hemiplegia of one—usually the left lower—limb. The changes affected the voluntary muscles rather than the so-called organic muscles, though these were sometimes affected. He particularly mentioned the fact that the tongue in these cases was often deviated to the opposite—the paralysed—side, being heaped up in an arched form on the normal side, and twisted on its longitudinal axis. Smell and taste were rarely involved in functional nervous disturbance, but sight was often affected, commencing with asthenopia. One also met with one-sided deafness, usually on the left, with tinnitus. Various subjective sensations of touch were complained of: paræsthesia, rarely analgesia, pins and needles, and a sensation of weight in the limbs, with or without loss of the muscular sense. The superficial reflexes were at first exaggerated and then abolished. The deep reflexes were almost always affected, and ultimately disappeared, and there was usually ankle clonus. The painful manifestations were usually distinctly localised, especially in certain spots—as, for instance, over the bregma, over the areas served by the posterior branch of the second cervical and the sixth dorsal nerve, the dorso-lumbar junction, etc. Patients often complained of palpitation, specially troublesome at night. The quantity of urine was usually greatly increased and the percentage of solids diminished. He expressed the view that all the symptoms were explicable on the assumption of a disturbance of the functions of the central nervous system, and his experience

had led him to believe that none of them with severe symptoms could be expected to recover until they had undergone a course of the Weir Mitchell treatment. Most of the cases usually recovered, but they remained very liable to relapses even after long intervals of apparent recovery.

Mr. Spencer Watson insisted on the importance of distinguishing clearly between the objective and the subjective symptoms, and observed that this had not been done by the author as clearly as one might desire. This condition only seemed to follow injury in persons naturally predisposed to neurasthenia; in fact, the accident merely acted as the precipitating cause. He asked whether the author had ever met with albuminuria or glycosuria in these cases.

Dr. Churton (Leeds) recalled that some years ago they used to have many cases of a condition to which, for want of a better term, they applied the term "miner's neurosis," the nature of which was ill-understood, and was ascribed to defective hygiene, syphilis, alcohol, tobacco, etc. It was found, however, that miners often received more or less severe blows on the head or spine, even to the extent of causing unconsciousness, to which they attached so little importance that they did not think it worth while to mention them. Nearly all these patients admitted having received blows of this kind, and then they had less difficulty in deciding the nature of the neurotic symptoms complained of. He had noticed the absence of knee-jerk in one case, but there was no trace of staggering with the eyes shut and the heels together. With regard to the composition of the urine in these patients, he pointed out that neurasthenic patients often refused to take sufficient food, and this would tend to reduce the percentage of solids. He referred to the case of a patient who had fallen 6 feet on to his head. He was slightly stunned, but continued to work for a period of six months, when he came to the infirmary with aphasia and hemiplegia, and died; but *post mortem* nothing could be seen in the brain to account for the symptoms. Fortunately the brain had been preserved, and was at the disposal of the author. He felt convinced that very few of the railway cases at present met with belonged to the class of malingerers, for long after the question of compensation had been settled, they sometimes developed myelitis, etc. In one case, however, a lady who had been thrown from a coach declared that she had lost the sense of smell, not being able to smell even ammonia. When he placed a piece of freshly-crushed asafœtida under her nose, however, she promptly started back.

Mr. Horsley, in reply, said he thought that the neurotic hypersecretion of urine reduced the proportion of solid constituents, though the deficiency of food might also contribute.

### Value of the Cystoscope in Reducing the Mortality of Nephrectomy.

Mr. Hurry Fenwick read a paper on this subject, which is published at p. 516.

The Chairman observed that the cystocope was gradually coming into general use. He himself had used it a number of times, and he had often seen it used by general surgeons without a mishap, and he agreed that it was a very important instrument of diagnosis. He said he had recently seen a red and inflamed condition of the mouth of the right ureter in a girl who was passing renal calculi, and in another case in which it was doubtful which kidney was affected with pyonephrosis he saw pus escaping from one ureter. He was surprised that the author should have declared himself against suprapubic cystotomy with scraping in cases of tuberculous ulceration of the bladder, for he had seen several cases in which great relief had been afforded by the operation.

Mr. Turner agreed with what the Chairman had said about suprapubic cystotomy and scraping in tuberculous ulceration of the bladder, for he, too, had seen cases in which marked benefit had followed the operation.

Mr. Horsley asked whether the author had ever found it necessary to follow Mr. Knowsley Thornton's technique of making an anterior incision before making the lumbar incision. He himself had twice operated for tuberculous ulceration, but in neither case was the patient relieved by the operation.

Mr. Hurry Fenwick, in reply, explained that when the ulcer was single and small it was difficult to say or certain whether it was tuberculous. Such ulcers when single were favourable cases for treatment by suprapubic cystotomy and scraping, but when the tuberculous ulceration was extensive and the mucous membrane around was infiltrated, suprapubic cystotomy could do little good, and even prolonged drainage of the bladder was of little use. He had never found it necessary to adopt Mr. Knowsley Thornton's double procedure, nor did he believe that it could assist in detecting hidden calculi. If absolutely necessary the lumbar incision could be enlarged and the hand passed in.

## EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

D. Argyll Robertson, M.D., President, in the Chair.

*Wednesday, February 17th, 1897.*

### Cases.

Dr. Joseph Bell showed a young woman whom, during convalescence from scarlet fever, he had trephined for Temporo-sphenoidal Abscess. The localisation of the cerebral evil had been done by Dr. Wyllie, the Visiting Physician to the City Hospital. She made a perfect recovery.—Mr. A. G. Miller showed a young man on whom he had successfully operated for Spina Bifida Occulta. The fluid drained away for a period of two weeks. The young man had had influenza two and a-half years before.—Mr. F. M. Caird showed: (1) A young woman three years after gastrostomy for Œsophageal Obstruction. She was fed through a valvular orifice in the stomach wall. (2) A patient two years after operation for Epithelioma and Stricture of the Penis. (3) A patient after removal of half of the thyroid for very exaggerated Exophthalmos. The condition was greatly improved.—Dr. John Thomson showed a boy, aged 15, with Chronic Enlargement of the Parotid Glands of two years' duration. The etiology or nature of the condition was unknown.—Dr. W. Allan Jamieson showed a case of Tertiary Syphilis, with seborrhœic complications, in a woman.—Dr. C. W. McGillivray showed a young man after Excision of the Condyles of the Humerus for Unreduced Dislocation with Fracture, in whom the resulting movement was very satisfactory.—Mr. David Wallace showed a patient after Operation for Infantile Bilocular Hydrocele.—Mr. C. W. Cathcart showed a case of Rodent Ulcer of the Groin Simulating Venereal Disease.—Mr. Miles showed (1) a patient after Double Amputation above the Knee for Spreading Gangrene, the result of Exposure; (2) a patient after Operation for Gall Stones, where there had been three recurring attacks of jaundice, the first attended with pain and peritonitis; and (3) a series of cases of Burns Treated by Picric Acid Dressing. The formula was picric acid 45 gr. absolute alcohol ℥iss, and water to ℥xx. The result was highly satisfactory—very little odour, discharge, or discomfort. The dressing might remain on three, six, or eight days without change.—Dr. William Russell showed a woman illustrative of a Floating Kidney with Gastrectasis; also a case of Displaced Hydronephrotic Kidney.—Dr. Stewart Stirling showed a case of Perforating Ulcer of the Foot.—Dr. James showed a case of Idiopathic Muscular Atrophy in a young man of 25, with no family history tending in the direction of such a malady. He also showed a boy who, with tuberculous disease of the ankle, had a train of curious nervous phenomena: Clonus, Exaggerated Reflexes, etc.—Dr. Norman Walker showed two sisters, one with Alopecia Areata and the other suffering from Ringworm. He also showed a young man, a miner, illustrating the Eczema Marginatum described in the books.

### Specimens.

Dr. Norman Walker showed photographs and sections from a case of Rodent Ulcer.—Mr. A. G. Miller showed the Temperature Chart of a case of Acute Tuberculosis after operation on the wrist-joint.—Sir Henry Littlejohn showed a specimen illustrating a peculiar Suicidal Wound of the Neck, where the superior thyroid artery had been cut through, and where the jugular, carotid, and vagus had escaped injury; also the exit wound of a pistol shot of the skull.—Dr. C. W. McGillivray showed the Excised Condyles of the Humerus from the patient above referred to; also a Ruptured Bladder and Calculi from a case of nephro-lithotomy.—Drs. Joseph Bell and Alexander Bruce showed specimens from two cases of Intussusception, a Perforated Appendix from a case with

marked symptoms, and a Perforation of a Tuberculous Ulcer causing rapid peritonitis treated by laparotomy.—Dr. Logan Turner showed specimens of a method of Exhibiting Museum Specimens. The history was on a label inside the wall of the jar, or on a septum in the jar. The method was a device of Mr. Simpson, of the Anatomical Museum of the University of Edinburgh, and was as yet "a secret device," but details would presently be made public.—Mr. David Wallace showed a specimen of a Rectal Carcinoma.—Mr. Cotterill showed specimens from a case of Enterectomy; specimen of Rodent Ulcer of the Forearm; specimen of Sarcoma situated between the bladder and the rectum; and parts removed from a diseased Knee-joint in a case of diabetes insipidus.

## BORDER COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

James Altham, M.B., C.M., President, in the Chair.

*Friday, February 12th, 1897.*

### Endemic Goître.

Dr. Louis E. Stevenson (Temple Sowerby) read a paper on this subject. He said it was the almost universal opinion that the disease was due to drinking water. Ancient writers mentioned the poisonous action of certain waters. Proofs were brought against the following substances supposed to be goitrigenous: calcium bicarbonate, calcium sulphate, carbonate and sulphate of magnesia. The presence of salts of lime and magnesium in many vegetable substances—for example, wheat, barley, oats, beans, and peas—was referred to. Two theories should be further investigated: (1) bacillary, (2) metallic. With regard to the former, the observations of Lustig and Carle were mentioned and the objections to this theory were stated. The universal absence of goître where rainwater was used (for example, Venice, parts of Holland, Belgium, etc.) was alluded to. The use of stagnant waters amongst certain tribes in Africa and Central America was not followed by production of goître. As regards epidemic goitre, the story of goître produced amongst Captain Cook's crew in mid-ocean was quoted. Epidemic goître was probably due to change of flow in underground waters, bringing the latter in contact with hitherto unused poison. The metallic theory was due to St. Lager. According to this view goître was probably due to decomposition of iron pyrites, one of the many sulphates probably being the cause, sulphate in its nascent state being probably most active. The presence of goître almost universally where iron pyrites is found was an argument in favour of this theory. Goître was also present in some places on chalk and chalk marl where marcasite was only an accidental mineral—for example, at Hambleden, in Buckinghamshire, Dr. Morris reported 50 cases of goître in a population of 2,000. Goître was found also in other series of the cretaceous system—for example, Haslemere, Horsham. The disease was most prevalent where water came in contact with gault and wealden clays; the same facts obtained in France. Goître was also present in coal measures of Nottingham (Manson), of Derbyshire, Belgium, and some of the United States, France, etc.; also in the essentially metalliferous Yoredale and lower carboniferous limestone (for example, Newby Mcrland, Asby, Kings Meaburn, etc., in Westmorland). It was also found on the silurian shales (for example, in southern uplands of Scotland); shales contained large quantities of iron pyrites in cubic and rhombic forms. It was absent in rocks, where iron pyrites were absent (for example, jurassic limestones in England and France). Other instances were given. The effect of heredity and intermarriage on this question was discussed.

Dr. Parker said that the gist of the paper was that a single case of goître was invariably caused by iron, and that probably there was no other cause. This theory did not appeal to his mind as likely to be correct. If it was not iron that caused goître, one would like to know what it was. He was inclined to think that some day the cause would turn out to be the inevitable germ, and that we should find some bacillus at the root of it.

Dr. Somerville thought that Dr. Stevenson had pretty well made out his case. He understood that Dr. Berry, Registrar of St. Bartholomew's Hospital, London, who had written a good deal on this subject, was of opinion that drinking water was the cause of goître, but did not know the exact element that caused it. He himself had practised in Peebleshire and Selkirkshire, and met with a good many cases there. The geological formation of these counties was certainly of the kind described by Dr. Stevenson. It belonged to the silurian shale. The rocks were full of cryptolites and iron pyrites. These cases were not so common now as thirty or forty years ago, and he was told by Dr. Berry that it was much the same all over the country. Possibly the diminution was due to people being very much more particular as to the water they drank, and possibly river water was less used than formerly. In reference to iron pyrites being the cause it had occurred to him that it might be some peculiar form of the iron salt. They knew that substances differed, and that two substances, when analysed by the ordinary rough chemical process, might appear identical in composition, and yet, from the peculiar arrangement of the atoms, have an entirely different physiological effect on a living animal. It might be some peculiar form of iron salt in the water that might be the cause of the goître, and another form of the salt, produced in a different way, might be quite inert, and produce no deleterious effect. The matter still required a great deal of investigation.

Dr. Maclaren questioned if anything they could take inwardly would cause goître. He knew of no organ that would grow through taking a chemical substance by the mouth, but Dr. Stevenson would have them believe that the thyroid was the one exception to that law in the human body.

Dr. Lockie thought the evidence was overwhelming that whatever was the particular ingredient in the water, it was water that caused goître. He did not think that Dr. Stevenson had laid sufficient stress on the question of hereditary predisposition.

Dr. Macdonald thought heredity must have a great deal to do with it. He practised it in a district not far from Dr. Stevenson's, and saw a good few goître cases. At present he knew a woman in the village who had an enormous goître. Some years ago he attended her in her confinement, and the baby was born with a distinct goître. She told him that her mother also had an enormous goitre, and she did not live in the same village. His experience was that they found these cases in certain families and not in others, while all were living under similar circumstances.

Dr. Bell said that he had been fifteen months in Carlisle, and had only seen two patients with goître.

Dr. Thomson said that in his experience females suffered more from goître than males.

Dr. Bird said that in this country it was more prevalent among women than men because women drank more water than men did. In India where both sexes drank water almost equally the disease was equally prevalent in both sexes.

Dr. Parker, referring to a remark as to whether drinking water was the cause at all, said he believed there was still a well somewhere in France where young fellows were in the habit of drinking for some months in order to get goître, so that they might not enter the army. If that was the case it proved that water was the cause.

Dr. Stevenson briefly replied.

### Experience with Thyroid Colloid and Thymus Tabloids.

Dr. Parker (Kendal) said that of all the different animal extracts which had come to the front recently, no one who had had experience of it could have any doubt as to the efficacy of thyroid extract. He presumed that nobody present doubted the efficacy of thyroid in myxœdema and cretinism. But there were a number of diseases where thyroid extract came in useful in increasing metabolic processes that went on in the body in getting the fat and other things burned up more quickly in the body than otherwise. The extract could therefore be given to persons who were exceedingly fat and wanted to lose a stone or two, and for those suffering from poor circulation, chilblains, or cold feet there was no doubt as to its efficacy. There was another set of cases in which thyroid extract had been used—namely, ordinary goître and exophthalmic goître. To give thyroid in the latter case seemed to be the height of folly. He had given thyroid for a day or two, and patients had found themselves worse, with

the pulse going up. But in ordinary endemic goître a good deal had been published to lead people to think that thyroid extract had been of very considerable value. If thyroid extract could be administered so as to have this immense influence in cases of myxœdema and cretinism, one would naturally ask whether it was possible to extract out of the extract of thyroid some constituent that would do the work equally well. About twelve weeks ago he had sent to him a number of tabloids made of the colloid constituent in the thyroid, and he used it instead of the extract of thyroid which he had previously experimented with. He had some experience with extract of thyroid, as he had used over 20,000 thyroid tabloids within the last two years. He began to use the colloid on two cretins, but unfortunately they had been treated for such a long time with thyroid tabloids that they were then being kept on that small quantity of thyroid which is necessary to prevent a relapse, and they were not good cases. He used $\frac{1}{10}$ grain of colloid tabloids instead of 5-grain thyroid tabloids, and from that time till now he had not been able to distinguish any difference whatever. A $\frac{1}{10}$ grain of colloid in the two cretins seemed to do precisely the same as a 5-grain tabloid of thyroid before. He then tried the colloid tabloids on a number of cases corresponding with the fat cases where he had used extract of thyroid. Extract of thyroid had such an effect that a person of 16 stone in one month was reduced by a stone without the slightest discomfort, and felt well all the time. He began with a one 5-grain tabloid, then in a day or two raised it to two, then three 5-grain tabloids a day, which would bring a 15-stone person to 14 stone, and if they went on they could reduced him to 13 stone, and so on. If that was the case, would these colloid tabloids do the same thing? He spent some weeks using them only for the cretins, so he had not enough experience to give elaborate details. A person weighing 17 st. 10 lbs. was reduced in one week to 17 st. 4 lbs., and in a few days more to 17 st. 2½ lbs. A young woman of 21 years of age, who thought she was getting unduly stout, weighed 9 st. 13 lbs., and when she was put under the colloid treatment in about eleven or twelve days she came down to 9 st. 5 lbs. There was one case that was a failure of all the persons he had tried it on. The person weighed 12 st. 5 lbs. He gave the same dose as he had given to the others, and after a fortnight or three weeks the woman weighed practically the same as before. He had found that in cases where persons took thyroid extract in undue doses—say four in the day—there was an increase of pulse, and the patient was hot and feverish, sickly, and lost appetite. He was doubtful whether these symptoms were produced by colloid, or whether it was an attack of influenza, which was prevalent in his district at the time. He had not been using the colloid long enough to give any further results, but several people with poor circulation, cold hands and feet, and chilblains, and so forth, had told him they felt warmer and less liable to cold in their extremities while taking them. A year ago he sent a note to the British Medical Journal to the effect that it was well known now that cretins generally had hernia, and that when they were put on the thyroid extract the hernia got less in five or six weeks, the majority vanishing. He threw out the theory whether it was not probable the hernias in cretins were caused by the fat deposited in the bowels—accumulations of fat in the abdomen which filled up and pushed out the bowels—and whether it was not reasonable to assume in ordinary cases that there was not really room for the contents, and that it pushed out at weak spots owing to overdistension. He began to treat three cases of ordinary hernia with thyroid extract. In one, so far as he had gone, the effect seemed encouraging. It was a boy who had hernia for a couple of years. He put him on extract thyroid and kept him on it. He lost weight, as they always did, but now he went about without any truss at all, and seemed to have less inclination to come down than before. If people thought there was anything in the thyroid, it was better to attempt the treatment of hernia with thyroid extract than to try radical cures. He had seen a case that morning. A few years ago a woman in Kendal had a huge umbilical hernia. She was a woman of 16 stone at that time. Not then knowing about the thyroid extract, he got the woman operated upon, and, so far as he knew, she was cured. Now she had umbilical hernia again, and he had put her on this new treatment, and was sanguine enough to think it would be better. They would have an opportunity of examining the tabloids in the next room. At present nobody knew the exact equivalent between thyroid extract and colloids. In his experience it seemed that one-tenth of a grain of colloid was fairly equal to 5 grains of extract of thyroid. Exophthalmic goître cases were a great deal more comfortable, and got on much better under the thyroid extracts than under anything he knew. He had used these extracts on a woman who had exophthalmic goitre with a pulse ranging from 180 to 200 and with very bad diarrhœa, who would have died in six or eight weeks, and she was now practically all right. Another case that he put on thyroid extract found herself considerably worse. He put her on thymus tabloids, and she was delighted with the result, and pleased to go on with them. The third case, a young woman, had an enormous goitre. It had not much effect on it, but all the other symptoms were abolished, and life was infinitely more tolerable than before.

Dr. Lockie said he had used thymus tabloids in two cases of goître. Both had got a good deal better. One was a patient in the infirmary and remained there under bromide and belladonna, and went out considerably improved; but she was not long away till she returned again. She was extremely nervous and sleepless. The house-surgeon gave a dose of paraldehyde, which caused sleep. She was then put on the thymus gland, and the pulse-rate was much reduced. She continued with these tabloids and went on improving. She had continued taking them after her discharge from the infirmary, and now her pulse was pretty nearly normal. It was difficult to say whether the thymus had any result there, as she was better when she took them, and continued to improve. In the other case the patient was put to bed and slowly improved. He believed her improvement had been permanent. It was exceedingly difficult in therapeutics to know how much to attribute to a drug, and how much to concomitant circumstances.

Other Communications.

Drs. Barnes and Maclaren (Carlisle) showed a case of Stricture of the Pylorus treated by Gastro-enterostomy, and contributed notes of the case.—A paper by Dr. Wilson of Morland On an Outbreak of Typhoid Fever in the Village of Morland, gave rise to an interesting discussion on the etiology of the disease and its treatment, special reference being made to some recent views on the dietary of typhoid cases.—Dr. Ogilvy-Ramsay (Carlisle) contributed a paper on the Prevention of Sepsis in the Lying-in Room. Stress was made of the absolute necessity of the most perfect aseptic precautions and definite rules laid down.—Dr. Crerar (Maryport) read a paper on a case of Otitis Media with Intracranial Suppuration, the patient recovering after operation. Dr. Crerar dwelt on certain of the ophthalmoscopic signs and their influence on the prognosis.

## PATHOLOGICAL SOCIETY OF MANCHESTER.

T. Harris, M.D., President, in the Chair.

*Wednesday, February 10th, 1897.*

The Bacteriological Diagnosis of Typhoid Fever.

Professor Delépine, after demonstrating all the most important methods used for the isolation of the typhoid bacillus from the organs of patients who have died from the fever and from the blood and secretions of living patients, as well as from external media, explained how the work of Pfeiffer, Bordet, Gruber, Durham, and Widal had improved our means of bacteriological diagnosis. He also referred specially to the fact that, though Grünbaum had obtained results inferior to those obtained by Widal, he had, like the French observer, been working at the same subject in the early part of 1896. Owing to the facts, however: (1) That Widal was not acquainted with his work; (2) that Widal's results were fully published nearly two months before Grünbaum's: and (3) that, in Professor Delépine's opinion, Widal's results were more reliable, and were the result of much more extended experience, he thought that the credit of the discovery belonged entirely to Widal. He thought also that, although Widal's method was an application of Bordet, Gruber, and Durham's work, it must

be clearly recognised as a real discovery. Widal's work differed quite as much from the work of Gruber, Durham, and Bordet as the work of these observers differed from that of Pfeiffer. It was certainly remarkable that after studying the action of the serum of immunised animals on the respective bacilli, Gruber and Durham should not have thought of seeing whether this method could be used to diagnose cases of fever in man soon after infection. This was also the more remarkable that Chantemesse and Widal, as far back as 1892, had advanced the view that the blood serum of typhoid patients acquired protective powers even before immunity had been established. It was quite as remarkable that Pfeiffer should have left it to Metchnikoff and Bordet to show that a considerable part of the reaction which took place in the peritoneal cavity of immunised guinea-pigs could be quite well and easily observed *in vitro*. But these were accidents which continually occurred in scientific work nowadays, when numerous observers were generally found to work under pressure of time at the same subject. Professor Delépine pointed out that having used Widal's method from the beginning of July, 1896, that is, immediately after the first announcement of Widal's discovery; and having with Dr. Sidebotham examined nearly ninety cases, he had come to the conclusion that when the test was applied with care it gave very reliable results. He pointed out errors which observers were likely to fall into from using unsuitable cultures and complicated methods of dilution, and attributed the success of his own experiments to the simplicity and accuracy of the method he had adopted from the first at a time when no description of other methods was available.

### CARD SPECIMENS.

The following preparations were shown:—Dr. ASHTON: Gynæcological Specimens.—Mr. BATTLE: Foreign Bodies from Intestine.—Dr. FOTHERGILL: Microscopical Sections and Drawings of Placental Polypus.—Mr. HEADRIDGE: Composite Odontome.—Dr. LEA: (1) Malignant Adenoma of Body of Uterus; (2) Paravorian Cyst with Twisted Pedicle.—Dr. MCNAUGHT: Entire Ovum retained *in utero* after death of fœtus.—Mr. J. E. PLATT: Epulis.—Dr. WAHLTUCH: Skiagraphs.—Dr. R. T. WILLIAMSON: Specimens of Blood from cases of Leucocythæmia.—Dr. YONGE: Nasal Polypus.

## MIDLAND MEDICAL SOCIETY.

T. S. SHORT, M.D., in the Chair.

*Wednesday, February 17th, 1897.*

### ANEURYSM OF INTERNAL CAROTID.

MR. PROSSER showed a woman, aged 70, who for many years had suffered from a pulsating tumour in front of the right outer ear. The diagnosis of aneurysm of the internal carotid had been made, and the right common carotid had been ligatured some time back. The pulsation disappeared after the operation and the swelling diminished; but before very long both reappeared, and have now been about stationary for some years. At one time considerable hæmorrhagic oozing occurred from the swelling, which was controlled by the local application of styptics.

### ECTOPIA TESTIS.

Mr. HEATON showed an infant of 14 months with a swelling in the left side of the perineum, just in front of the anus. The left testicle was absent from the scrotum and the latter undeveloped in its left half. The case was an illustration of the somewhat rare deformity of ectopia testis, as distinguished from undescended testis. He proposed to dissect up the organ from its abnormal position in the perineum and fix it in the scrotum, an operation which he had done with success in a similar case some two years ago.

### DUODENAL TUMOUR.

Mr. GANNER showed a pedunculated tumour projecting into the duodenum, about 5 inches below the pylorus. The peritoneal coat was dragged into the pedicle in the shape of a very narrow funnel about half an inch in depth. The elongation of the pedicle was probably partly due to the weight of the tumour, but in greater degree to the muscular contraction of the duodenum. It was a dissecting room specimen, and was removed from a man aged 49.

### RETENTION CYST OF LIVER.

Dr. KAUFFMANN showed the liver of a man killed by accidental violence. The organ was perfectly healthy but for a cyst on its upper surface, immediately beneath the capsule. The cyst had held about an ounce and a half of fluid, which was of watery consistency but bloodstained (? from the fatal accident). The wall was evidently lined with epithelium, and showed signs of septa. No indication of other cysts could be found. It was considered to be a retention cyst of the bile-carrying apparatus; and a smaller cyst from the museum, which had contained mucoid yellowish fluid, was shown as bearing out the supposition.

### AUDITORY HALLUCINATIONS.

Mr. PIETERSEN read a paper on auditory hallucinations. After a short review of the psychology of auditory hallucinations their occurrence in health was referred to, and their effects on the conduct of the individual were shown to mark the limits of sanity in such cases. A clinical review was then given of their characters and modes of occurrence their symptomatic value was discussed. The facial signs of obscure hallucinatory cases were touched upon, the difficulties of an absolute prognosis in all subjects of this sensory disorder were insisted upon.

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BRITISH GYNÆCOLOGICAL SOCIETY.—At a meeting on February 11th, Professor MAYO ROBSON, President, in the chair, on the motion of Dr. ROBERT BARNES, seconded by Dr. ELDER (Nottingham) a vote of condolence was passed with the family of Sir Spencer Wells in their sad bereavement.—Mr. BOWREMAN JESSETT showed (1) A case of Hæmatocele independent of Gestation; (2) Carcinoma of the Body of the Uterus; (3) Dermoid of the Ovary with Carcinoma of the Uterus. Remarks were made by Drs. HEYWOOD SMITH, SNOW, PURCELL, MACNAUGHTON JONES, and CLEMENT GODSON, and Mr. BOWREMAN JESSETT replied.—Dr. MACNAUGHTON JONES showed a Section from an Endotheliomatous Ovary, prepared by Dr. Ludwig Pick, and also a Section of a Fallopian Tube which he had seen removed from a patient, and stained and mounted within twelve months after its removal by this pathologist's method.—The PRESIDENT delivered his inaugural address.—Dr. C. H. F. ROUTH moved "That a hearty vote of thanks be given to the President for his interesting address, and that he be asked to allow it to be printed in the *Journal* of the Society. This was seconded by Dr. CLEMENT GODSON, and carried. The PRESIDENT briefly returned thanks.—Dr. MACNAUGHTON JONES, by special request, showed some Gynæcological Instruments and Appliances which he had recently seen used in the Frauenkliniks in Berlin, more particularly those necessary for Martin's colpotomy and Landau's vaginal panhysterectomy; and an Electric Lamp with a reflector which could be attached to any electrical connection, and was specially useful in the Trendelenburg position, being capable of throwing a light of 200-candle power into the basin of the pelvis.

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BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.—At a meeting on February 10th, Dr. MYRTLE (Harrogate) in the chair, twenty-four new members were admitted to the Society.—Dr. WILLIAM VICARY SNOW (Bournemouth) read a paper on the Climatic Treatment of Phthisis. He dealt with the following points: (1) The marked diminution of the death-rate from consumption; (2) the principles of climatic treatment; (3) the value of the climate of South Africa in the interior, and the necessity of better accommodation, sanitation, and food; (4) the superiority of mountain climates; (5) the value of a voyage up the Nile for the wealthy; (6) the good results of sea voyage and the climate of New Zealand; (7) the mistake so frequently made of sending patients, especially in an advanced stage of the disease, to Australia; (8) the possibility of carrying on the open-air treatment and its value, both winter and summer, in England in selected cases; (9) the contagion of phthisis from milk and meat, and the necessity of legislation. Dr. Snow concluded his paper by expressing a confident hope that in a few generations the disease would be banished from the British Isles. Dr. THEODORE WILLIAMS attributed some of the decrease in the mortality from phthisis to the Factory Acts,

which had secured better hygienic conditions for workers. If the establishment of consumption hospitals had also done something to reduce the mortality, it was no doubt due to the increased facilities they afforded for closer study of the disease. So much depended on the purse of the patient, that the climatic treatment of consumption was a difficult subject to deal with. But even when ideal climates could not be resorted to in particular cases, astonishingly good results could be obtained in inferior climates if only the orders given were faithfully carried out. In South Africa, which was a splendid place for phthisical patients, the lack of good hotels and the roughness of the life were the great obstacles to successful treatment. The benefit which sea voyages ought to produce was largely lost on account of the want of exercise which led patients to gravitate to the smoking room, and that often became practically a drinking room. He believed that results as good as, if not better than, those afforded by many foreign places to which consumptives were sent might be obtained by the more thorough employment of the open-air treatment in English resorts. Dr. Williams quoted the statistics from his Lumleian lectures as showing the superiority of high altitudes in the climatic treatment of consumption. Dr. Bagshawe (Hastings) spoke of the danger arising from subsoil moisture in connection with some of the resorts in the South of France, where the presence of decaying vegetable matter constituted an additional danger. It was well, therefore, to advise patients to go to modern villas and hotels on the hillsides in these places. It seemed to be the residuum of phthisis cases which physicians sent to home resorts, and it could scarcely be expected therefore that they should show such brilliant statistics as Davos or the Riviera. To these it was dangerous to send patients in a highly febrile hectic condition, and so they were sent to English resorts; while those with a limited amount of disease went abroad. Dr. Heron (London) doubted if an exceptionally large number of bad cases were sent to English health resorts or of good ones abroad. A cold winter climate was undoubtedly the best for young patients who could take active exercise and lead an out-of-door life. He quoted the experience of Hudson Bay life in support of this. Patients, he thought, went to the Riviera, with its delightful climate, to slide down to the grave as quietly and comfortably as they could; he did not think that life there was calculated to cure tuberculosis. Dr. Ward Humphreys (Cheltenham) suggested that something should be done towards formulating some rule which would guide to a proper decision in the choice of health resorts for various types and degrees of phthisis. To him there seemed to be three types: (1) Warm and genial climates, as at Falmouth and Sidmouth, where acute cases with a good deal of hectic and feverish disturbance should be sent; (2) more bracing and stimulating atmospheres suitable for cases which were slow in progress; (3) places where the sea-air supplied the great desideratum for cases which might be described as of a tuberculous nature, such as Ventnor, Barmouth, and Torquay. He suggested that sea-air sometimes acted injuriously by setting up and maintaining the febrile processes and causing the disease to run a more acute course than previously. Dr. Squire (London) maintained that the open-air treatment of consumption could be satisfactorily carried out in this country. By properly selecting the places—which was the essential matter—very good results could be obtained by sending patients from place to place in these islands. Dr. Laing Gordon (London) gave his experience of the disadvantages to be encountered in the South African resorts, and discouraged the sending of phthisical patients there haphazard and without proper instructions. After remarks from Dr. Cecil Latter (Folkestone), Dr. Douglas Kerr (Bath) suggested the postponement of further discussion till next meeting. This was agreed to.

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Harveian Society.—At a meeting on February 18th, Dr. Herbert Spencer read a paper on the Dangers and Diagnosis of Breech Presentation, and its treatment by External Version towards the end of Pregnancy. He gave statistics showing that from nearly one-fifth to nearly one-half of the children delivered in this manner were stillborn. He discussed the causes of the high rate of mortality and the injuries, fatal and non-fatal, to which the child was exposed in this method of delivery, and he described in detail the method of diagnosing presentation of the breech by abdominal palpation. He advocated the abdominal examination of all patients at the seventh month of pregnancy, and the treatment of breech presentation by external version at seven months and a half followed by the wearing of an abdominal belt. He mentioned 6 cases which he had treated in this way, and in which the children were born as vertex presentations and survived, and 26 cases similarly treated in Dr. Pinard's clinic with 1 immediate infantile death, 2 other children subsequently succumbing; and he urged a further trial of this little operation, which was very easy, safe, and painless, and had few contraindications. Dr. H. C. Phillips mentioned a case of breech presentation in which there was an imperforate anus and hydrocephalus which made diagnosis of the presentation no easy matter. Dr. Cock mentioned that he had twice performed the operation successfully at the eighth month. He had been led in each case to make an external examination, and found that the presentation was a breech one, and that the head was compressing the tender liver against the ribs, when the uterus contracted, causing the considerable pain for which the patients had consulted him. The external version had been of the easiest description, and the subsequent presentation at birth had been of the head. Dr. Boxall pointed out that in estimating the mortality of breech presentation it was important to bear in mind that frequently some underlying condition existed which favoured presentation by the breech in preference to the vertex. Such, for instance, occurred in minor degrees of contraction of the pelvis, in placenta prævia, and in some cases of fibroid and ovarian tumours, which conditions in themselves tended to increase the mortality apart from the presentation. Dr. Boxall fully endorsed Dr. Spencer's opinion as to the value of systematic examination of the abdomen, not only in breech labours but also in other obstetric cases, and considered that to obtain the full benefit of such examination it should be undertaken before examination *per vaginam*. Dr. Handfield Jones agreed with Professor Spencer's main contentions, but thought that mortality percentages based on maternity returns were too high. Dr. Gow quite agreed with Dr. Spencer's suggested method of treatment, although he did not believe that when properly conducted the mortality in breech deliveries was as high as that stated by the author. Dr. Dutch suggested that in some cases, the cord being short and twisted round the fœtus, there might be a risk on manipulation of detaching the placenta, thus exposing the patient to the danger of accidental hæmorrhage. Dr. Amand Routh emphasised the author's method of abdominal palpation by the flat of the hand instead of the finger tips. The hands and the abdominal wall must move together over the fœtus *in utero*. He had recently diagnosed at the eighth month a case of breech presentation with one if not both legs extended.

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Sheffield Medico-Chirurgical Society.—At a meeting on February 11th, Mr. Reckless, President, in the chair, Dr. Sorley read notes of the following cases: (1) Abscess of the Liver, (2) Cancer involving Pleura and Lung, (3) Concurrent Scarlet and Enteric Fever. The President, Dr. Burgess, Mr. Lockwood, and Dr. Richards discussed the cases.—Dr. Keeling related a successful case of Porro's Operation, and showed the uterus and ovaries which had been removed. The patient, aged 35 years, and married for about three years, was a rather small, slim woman, but not at all deformed. Her first child was born in January, 1895. Labour was normal. The term of her second pregnancy was completed in August, 1896, and on the 23rd of that month she fell in labour. During the previous week she had symptoms of eclampsia, and four convulsive fits occurred three days before labour set in. Relief was obtained by purgatives and bromide, and the convulsions ceased. On the day of labour pains began about 7 A.M., and continued through the day. In the afternoon the doctor, a skilful and experienced accoucheur, was summoned. On examination he could find no trace of os or cervix. Later Dr. Martin, of Sheffield, was sent for, but his examination was equally fruitless. Towards midnight Dr. Keeling was summoned, and he also failed to find any external os. An anæsthetic was then given; the whole hand was introduced into the vagina, and at last a dimple, surrounded by a slight ridge, was made out. This was believed (as it proved correctly) to indicate the position of the os and cervix, and an attempt was

made to open the os with a sound, the uterus being steadied from above and pressed down towards the pelvis. This expedient apparently succeeded, and first the tip, then the whole of the forefinger, was passed; but it was soon evident that an entrance had been made, not within the cervix, but behind it into the peritoneal cavity. In this emergency it was decided that the safety of the patient would be best consulted by Cæsarean section, and she was carefully moved for this purpose to the Jessop Hospital (a distance of four miles). Consent of patient and husband being given, the operation was commenced. The abdominal and uterine incisions were made in the usual way. Both child and placenta were extracted without difficulty; hæmorrhage at this moment was free, but scarcely excessive. The cavity of the cervix was then opened into the vagina, and the ovaries excised. Up to this point, Cæsarean section only had been contemplated, but the atony of the uterus was so marked, and the continuous oozing of blood so great, that it was thought better to complete by Porro's method. After securing the remainder of the broad ligament on each side and ligaturing the cervix, the uterus was cut away obliquely so as to form a front and back flap, the bottom of the cup-shaped wound scraped, iodoform freely applied, and the flaps sewn together. The stump was then drawn into the lower angle of the wound, and secured by ligatures left for the purpose; these were passed through the parietal peritoneum, but not through the skin. An additional stitch between parietal peritoneum and stump was inserted on each side, and in closing the abdominal wound the lowest silkworm suture was also made to take a hold of the peritoneum, closing the stump. The rest of the abdominal wound was closed as in ovariotomy. No drainage was used at first, but a gauze drain was found useful at a later stage. Rigid antiseptic precautions were observed throughout. For a few hours after the operation, the condition of the patient was very critical. She then rallied, and afterwards made an excellent recovery. The temperature never rose higher than 101.2°, and by the eleventh day it had fallen to normal. Two ligatures from the broad ligament (each with a small slough) came away, one on the twenty-first, the other on the twenty-sixth day after operation. The thick ligature round the cervix was not again heard of. The deep sinus at the lower angle of the wound had completely closed seven weeks after the operation, and the patient left hospital a fortnight later. There was at present no sign of hernial protrusion. Mother and child are quite well. Dr. Keeling briefly discussed the questions of complete occlusion of the os externum in labour, the justifiability of the operation which had been undertaken, the respective merits and applicability of Sänger's Cæsarean section, Porro's operation, and laparo-elytrotomy, and defended the method of dealing with the stump which had been employed in the case cited. The PRESIDENT and Mr. PYE-SMITH made remarks.

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NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—At a meeting on February 17th, Dr. MUTCH, Vice-President, in the chair, a discussion was opened on the Indications for and Results of Removal of the Uterine Appendages by Mr. CHICKEN, who said the conditions under which this operation might be performed were: (1) Whenever such coarse disease exists in ovary or tube as to destroy entirely their function; (2) when affected with malignant disease; (3) to induce an artificial menopause in certain cases; (4) as a means of preventing conception when the pelvis is contracted; (5) in certain cases of fibroids of the uterus the operation should not be performed for simple inflammation of tube or ovary, and he expressed strong disapproval of Tait's dictum that both ovaries should be removed when only one was diseased. He thought hernia not infrequently followed the operation because the abdomen was opened through the linea alba; he recommended an incision, not median, but through the rectus muscle. Dr. MICHIE advised the operation for all those cases where the tubes contained pus, as in this event resolution did not take place. Also in hydrosalpinx and hæmatosalpinx or in tubal gestation the operation should be performed without delay. It might be done for the arrest of the growth of myoma of the uterus, but in these cases care must be taken to remove all the ovarian tissue. He had undertaken this method of treatment for uterine myomata in about 50 cases, and in all except two had had a favourable result. For some forms of infantile uterus where intense pain had occurred at the menstrual periods Dr. Michie further drew attention to the frequent presence of the alcoholic habit in persons who suffer from uterine disease, and thought that this habit was responsible for some of the failures which were often attributed to the operation.—Mr. TRESIDDER thought that when the operation was done for nervous affections, such as hystero-epilepsy, little good resulted; even for uterine fibroids he thought it was still an open question what the nature of the result was. He certainly thought the results generally obtained were not so good as those of Dr. Michie, which gave 96 per cent. favourable. He differed from Dr. Michie that the menopause artificially produced presented no material distinction from that occurring physiologically, as he thought the nervous disturbance in artificial menopause was much more profound, dread of impending evil being a marked feature. Miss GRAY drew attention to the fact that the effect of the operation was not immediate either in the production of the menopause, or in its curative effect. Dr. BLURTON also emphasised this fact. Dr. ROTHERA related a case where the beneficial effects of waiting before resorting early to operation were exemplified, the fibroid sloughing and being expelled. He further related two cases where the operation was a failure: in one the patient was now bedridden; in the other, performed for menorrhagia, no benefit followed. He further thought that the induced menopause differed vastly in its nervous effects from the physiological. Dr. O'MULLANE and Dr. BOLTON related cases. Dr. MUTCH agreed with Dr. Michie that alcoholism was responsible for some of the failures of this operation. Mr. CHICKEN and Dr. MICHIE replied.—Dr. MICHIE showed a Pregnant Uterus which he had removed ten days before affected with myoma; it had become impacted in the pelvis. The patient made a good recovery. The operation was performed by the abdominal method, and the entire organ was removed.

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# REVIEWS.

ARISTOTLE ON YOUTH AND OLD AGE, LIFE AND DEATH, AND RESPIRATION. Translated with Introduction and Notes by W. OGLE, M.A., M.D., F.R.C.P., sometime Fellow of Corpus Christi College, Oxford. London: Longmans, Green and Co. 1897. (Roy. 8vo, pp. 142. 7s. 6d.)

[FIRST NOTICE.]

THIS book contains in a small compass very much that is of interest to physiologists and comparative anatomists as well as to students of Greek literature. Dr. W. OGLE is well known as a commentator on Aristotle's contributions to natural history by the admirable translation of the treatise *On the Parts of Animals*, published in 1882, which was accompanied—as the work before us also is—by a commentary greatly exceeding in value and interest the work itself. The present treatise does not afford so wide a field for investigation as the former did. Though headed "On Life and Death," or, more fully, on "Youth and Old Age, Life and Death, and Respiration," it really deals chiefly with the last topic, the others being passed over in six short chapters, whilst respiration occupies twenty, and is the subject of elaborate reasoning and careful controversy.

Aristotle has always occupied a foremost place in the history of the human intellect. For ages his writings exercised over the members of the mediæval Church an authority hardly less than that of Holy Writ, and this was the case even while his text was unintelligible to generations ignorant of Greek, and his meaning was only known through Arabic versions and Latin translations of those versions. Students of Dante have been opportunely reminded of this fact in the charming volume lately published by Dr. Moore, of Oxford,[1] where he shows how the poet, who most probably did not know a word of Greek, yet quotes or alludes to Aristotle in every part of his works, both in prose and poetry. Dr. Moore gives more than 300 passages either directly paraphrased by Dante or unmistakably referred to.

Most of these passages are taken from Aristotle's philoso-

[1] *Studies in Dante* Ser. I.

phical works, as must have been the case considering the nature of Dante's writings, but references to the biological treatises are not wanting (amongst them at least one from the present treatise); and Dante, who was no mean proficient in the natural science of his own day, calls Aristotle "that glorious philosopher to whom Nature most fully disclosed her secrets," says that "he is most worthy of faith and obedience," and "when Aristotle has uttered his divine sentence, any other man's opinion seems to me unworthy of notice."[2] How far Aristotle deserved this reputation in the realm of philosophy is not a question for us here. In that of natural science the gross errors with which his works abound, and his ignorance of many of the simplest facts in anatomy and physiology (to say nothing of chemistry, which then had no existence), have naturally led to the opposite extreme—namely, to the belief that he had no merit whatever as a natural historian or biologist. This is as far from the truth as the exaggerated reverence felt for him in Dante's time.

As a biologist and anatomist Aristotle had that greatest of all qualifications—a genuine love for his subject. He had also the most untiring energy, and an intellect unsurpassed for vigour and acumen amongst all the sons of men. He lived, it is true, in an age when all the apparatus which our men of science deem indispensable were unknown—when the hand was the sole thermometer, the eye the only lens, the sun the only clock: when men were restrained by religious scruples from violating the sanctity of a human corpse; two thousand years before the discovery of the circulation: and when not only the composition of atmospheric air was unknown, but the very fact that air was a substance at all was far from universally admitted, as plainly appears from the care which Lucretius, the interpreter of Epicurus, took to prove the corporeality of the atmospheric air. The marvel is indeed not that Aristotle did not contribute more to the world's knowledge of the details of the natural sciences, but that in the state of those sciences in his day he should not only have had the surpassing merit of laying down the great principle on which alone their progress is based—namely, that on every point recourse must be had to actual observation, not to what is called "*a priori* reasoning,"—but also that he should in a lifetime occupied by so many other studies have done so much to carry out his own precept. "However unsuccessful," says our author, "he may have been in the practical application of his method of inquiry, its simple enunciation was in itself an ample justification for the perpetual niche allotted to him in the temple of fame. By insisting on the absolute necessity of anatomical observation, he carried biology at one step from the world of dreams into the world of realities; he set the science on a substantial basis, and may indeed be said to have been its founder, for the vain imaginings of his predecessors can hardly be dignified with the name of science" (p. 29).

We are apt to forget how immense was the work of this mighty investigator. It is no small task even for a great scholar at the present day to obtain an adequate knowledge of the remaining works of Aristotle. Yet these are only a fragment of what he accomplished. Cicero says about Aristotle [Philosophi] *non modo rebus iis quæ ab illo dictæ et inventæ sunt allici debuerunt, sed dicendi quoque incredibili quâdam cum copiâ tum etiam suavitate* (*Top.* i, 1). We are not to suppose that so accomplished a Grecian and so profound a critic as Cicero would not see that the works of Aristotle which we now read are as destitute of "suavitas" as they are of "copia." But Cicero is here speaking obviously of his philosophical dialogues, which have not come down to us. Many others also of Aristotle's works have perished, amongst others, as Dr. Ogle reminds his readers, all his detailed anatomical descriptions, some of which were possibly illustrated.

That Aristotle's method was almost purely anatomical (including, of course, reasoning based on the structure which dissection revealed) is too plain to be denied. The want of instruments of itself forbade anything like accurate experiments. But as a dissector Aristotle seems to have been unwearied. His father was a physician, and author of several works on natural science, so that the taste for such investigations was probably instilled into him from childhood; and every page of his writings on natural history testifies to his constant study of the habits of animals, while his acute understanding easily detected the futility of the notions then current on physiological subjects.

The present treatise shows how Aristotle applied this method to elucidate the true essence and uses of respiration. Dr. Ogle says that of the "paramount necessity of experiment, and the inadequacy of mere observation for the solution of most problems, Aristotle had no conception" (p. 30). And he was also hampered by the want of opportunity for inspecting the human anatomy, though we cannot but believe that the ancients were not altogether unacquainted with the dissection of the human subject. But it is, of course, true that Aristotle's conclusions were founded mainly on the anatomy of the lower animals. And even the work before us, still more the more elaborate work, *On the Parts of Animals*, shows how diligent he was in taking the only way to knowledge that was freely open to him; for though he might occasionally find means to experiment on living animals (see note 139 to p. 132) and might sometimes have seen, or even dissected, the human viscera, such opportunities must have been rare. But if we compare his views on respiration with those which he here combats, we shall see how great is his superiority. He could not, at a time when the complex nature of atmospheric air was unknown, divine, or even understand, the nature of the respiratory process. But he excelled his predecessors, first, in seeing that it had a final cause in the animal economy, for most of them merely occupied themselves in speculations on its mechanism (necessarily futile because resting on no basis of anatomy), and gave themselves no trouble about the uses of respiration. "They looked on the process as something incidentally associated with life, but as in no way essential to its maintenance" (p. 23). The only pre-Aristotelian theories as to the use of respiration which have come down to our times were (1) that it served to keep the heart in action; (2) that it supplied the body with vital heat; or (3) that it supplied the fuel for such heat; and (4)—Plato's theory in the *Timæus*—that it regulated the action of the heart, and prevented it from stopping under fear or passion. It is said by Galen that Plato borrowed his physiological ideas from Hippocrates, so that this singular theory may be really that of the "Father of Medicine." As an anatomical reasoner Aristotle had no difficulty in making short work of these fanciful notions. He saw plainly enough that animal heat was due to food, and to some process analogous to combustion which goes on in the conversion of food into tissue. He saw, also, that in any fire a too fierce heat consumes the fuel prematurely, and that in respiration heat is parted with by the body, since the expired air is hot, while that inspired is cold; and from these facts he concluded that the function of respiration is to regulate the heat of the body, and prevent its rising to a height which would prove fatal; "and as such restriction of heat is a necessary condition of its maintenance, the ultimate effect of respiration, in spite of its transient refrigerating influence, is, to use the words of Galen, as quoted by Haller, *conservatio caloris naturalis per refrigerium*," p. 41. The theory is, no doubt, most ingenious: it contains an indisputable element of truth, for the lungs certainly do assist, though to a minor degree, in regulating the heat of the body, and in Dr. Ogle's words, "we shall, I think, find ourselves constrained to admit that, in Aristotle's days, no better hypothesis could have been devised to colligate the facts, or supposed facts, then available" (p. 44). We must recollect that the minute anatomy of the skin was unknown, and the sweat was believed to be a direct transudation from the blood through pores too minute to transmit its red particles.

So much for the book itself. In a future notice we shall deal with Dr. Ogle's share in it as translator and commentator.

[2] Moore, *op. cit.*, p. 92.

[3] According to ancient accounts even the large number of the works of Aristotle which are still preserved comprises only the smallest part of the writings he is said to have composed.—*Smith's Dictionary of Biography.*

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Bacteriological Diagnosis. By St. George Reid. London: Baillière, Tindall, and Cox. 1897. (Demy 8vo, pp. 64. 2s. 6d.)

This volume consists of a series of fragmentary notes, in the course of which the student is introduced to a host of new names and terms. We doubt, however, whether he

could, with the meagre descriptions given in this book, satisfactorily identify some of the most important and common microbes, as the proteus vulgaris, the bacillus coli communis, the typhoid bacillus, the cholera vibrio, the clostridium butyricum, the common anaërobic bacillus butyricus of Botkin, the bacillus sulcatus of water, the malignant œdema bacillus of Koch, the influenza bacillus, and the pseudo-influenza bacillus, the bacillus of swine fever and of fowl cholera; or differentiate them from allied forms.

With few exceptions, no mention is made of the differential effects of some of the more important microbes on the animal body as a diagnostic means. We doubt whether the author could give any authority for the statement that the bacillus diphtheriæ and the bacillus of bubonic plague do not grow on gelatine at 22° C. Nothing is said of the anaërobic nature of the bacillus of symptomatic charbon; the bacillus or leptothrix epidermidis is stated to be "never united in pairs or chains," the bacillus or spirillum of Finkler is implied to be obtainable "from the fæces of persons suffering from cholera nostras," and a number of similar statements are made which are either partly or wholly inaccurate.

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THE OPERATIONS OF SURGERY, INTENDED ESPECIALLY FOR THE USE OF THOSE RECENTLY APPOINTED ON A HOSPITAL STAFF, AND FOR THOSE PREPARING FOR THE HIGHER EXAMINATIONS. By W. H. A. JACOBSON, M.Ch.Oxon., F.R.C.S., Assistant-Surgeon to Guy's Hospital, Surgeon to the Royal Hospital for Children and Women. Third Edition. London: J. and A. Churchill. 1897. (Demy 8vo, pp. 1,352, 398 illustrations. 34s.)

BOTH experienced surgeons and surgical students will heartily welcome this fresh edition, as they may feel assured that the author, in its preparation, has by much industry and the fruits of a wide experience, done his best to maintain the value of his well-known work. It will be found that Mr. JACOBSON, not resting content with the success that has attended his first effort to publish a work on operative surgery more comprehensive in scope and more elaborate in detail than these in use some ten years ago, has undertaken the great labour of bringing it into line with the rapid advance of modern surgery. Perusal of the book in its latest form has led us to question the modest opinion of the author that much of it will require rewriting. It will, of course, be necessary to make both omissions and additions, but the bulk of the work will, we think, long remain an instructive and authoritative record of practical surgery. The new edition, though it contains but little more than an additional 100 pages, is really much fuller than its last predecessor, as a considerable portion of the new matter is given in small type. The number of illustrations has been increased from 235 in the second edition to 398, and is just double the number contained in the first edition of 1888. Many of the additional illustrations have been taken from some of the best German and French treatises on operative surgery.

As an indication that cerebral surgery has made but slight if any progress in the course of the past ten years, we find that very little has been added to the chapter on this subject. That it is fully dealt with, however, is proved by the new sections on trephining for idiocy and general paralysis, and for drainage of the lateral ventricles, all of which operations are regarded with disfavour. Pulmonary surgery must be regarded by Mr. Jacobson as quite stationary, for his chapter on the Drainage of Lung Cavities is identical with that in the previous edition.

The most important and extensive additions made by Mr. Jacobson to his new edition are to be found in the chapters on abdominal surgery. That on operations on the intestines is in itself a valuable addition to the modern literature of this subject, and is likely to prove to the hospital surgeon a very serviceable source for reference in the many complex questions which arise in dealing with injury or disease of some part or other of the intestinal canals. It begins with a suggestive discussion of the state at the present day of the question of operation in cases of acute intestinal obstruction, and after a much enlarged and improved section on operative interference in appendicitis, deals with the surgical treatment of perforating gastric and duodenal ulcers, and also of perforation of typhoid ulcer. The subject of the union of divided or injured intestine is also fully considered, and the relative claims of suturing and of the many devices that have been recently put forth to aid or replace the more simple measure are discussed at some length. Mr. Jacobson himself favours simple enterorrhaphy, and holds that in the hands of the surgeon who has taken care to acquire skill by practice the chief objections to this method will be very greatly reduced.

Those to which we have alluded are but a few of the many important modifications in this edition, which will tend to confirm the position already taken by Mr. Jacobson's book as one of the best and most useful textbooks on practical surgery in the English language.

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AN ADDRESS ON IMMUNITY TO DISEASE. By W. B. RANSOM, M.A., M.D., M.R.C.P. London: John Bale and Sons. 1897. (Demy 8vo, pp. 36.)

To those of us who are not bacteriologists the constant succession of new facts and new theories in this branch of science is bewildering. Yet its interest is so great, and its bearing on medicine so immediate, that we all wish to acquaint ourselves with its results, and to understand its teaching. Dr. RANSOM'S address is a full and clear analysis of the chief work that has been done; and we can heartily recommend every one who wishes to have this difficult subject clearly presented before him to buy it and read it. It was delivered to the Nottingham Medico-Chirurgical Society, and is to be understood by ordinary people; and it was written by Dr. Ransom, which is a guarantee that it is extremely well done.

He first (pp. 1-14) relates Metchnikoff's work on phagocytosis and chemiotaxis. Next (pp. 15-17) he gives the observations and experiments made upon natural or acquired immunity, and the various methods used for attenuating virus for the purpose of protective vaccination. Then he relates the growth of the idea of toxins and antitoxins, of venene and antivenene (pp. 18-21). The "humoral" theory, which considers the fluid rather than the cellular elements of the blood to be the protective part, is then discussed (pp. 22-24), and is followed by the history of antitoxic serums and their bearing on the theory of immunity (pp. 25-34). A brief account is given of their trial in snake bite, in tetanus, diphtheria, rabies, pneumonia, tuberculosis, acute septic disease, erysipelas, cholera, and typhoid.

Lastly, the author concludes that neither the old theory of "exhaustion of the soil," nor that of phagocytosis in its original form, nor that of the protective action of serum is complete, but that immunity is due "to a vital reaction of the cells of the body, and that in each case the injected substance stimulates to that reaction."

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LUNGENTUBERCULOSE UND IHRE BEHANDLUNG SPECIELL IN HAUS-SANATORIEN. [Lung Tuberculosis and its Special Treatment in House Sanatoria.] By Dr. S. UNTERBERGER, Senior Physician of the Military Hospital of Zarskoje-Sselo (Russia). St. Petersburg: A. Wienecke. 1896. Pp. 30.

IN this short monograph Dr. UNTERBERGER puts in concise form the salient points in the history of tuberculous disease of the lung which have from time to time led to such different conclusions as to its nature. The probabilities of its spread by actual contagion are fully discussed by means of selected quotations. The part played by the bacillus in the course of the disease is somewhat minimised by the prominence given to the influence of other micro-organisms. Very little space is allotted to the subject of treatment, but that little is important as advocating the establishment in all public hospitals, whether military or civil, of means for the application of rational treatment as employed in the private sanatoria in Germany. An account is given of the methods adopted by the writer in his own military hospital at Zarskoje-Sselo, and special stress is laid upon the value of these methods in rendering young people of both sexes more resistent to the disease. The number of private sanatoria in Russia would appear to be two only, one at Halila and the other at Lindheim, although the disease is extremely common throughout the country. The necessity for such means of carrying out the rational treatment of consumption is in

all countries becoming more widely recognised, and it is very desirable that more numerous sanatoria for consumption—such as that recently started by Dr. Pott at Bournemouth—should be established in this country. Dr. Unterberger's monograph indicates very clearly that even in a military hospital the enforcement of treatment on these lines may be productive of the best results.

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Water and Its Purification. By S. Rideal, D.Sc.(Lond.). London: Crosby, Lockwood and Son. 1897. (Cr. 8vo, pp. 292, with numerous illustrations and tables.)

This book is designed for the use of local authorities, sanitary officers, and others interested in water supply.

The methods by which pure water may be recognised, the impurities to which water is liable, the sources from which water may be obtained, questions of storage and distribution and of purification and filtration, and the softening of hard water, form the subject matter of the book. The results of recent research, in connection with outbreaks of disease which have been associated with polluted water, and in relation to the methods which may best be adopted for preventing contamination, and for removing impurities, are referred to, and the more newly devised methods which have been applied to the examination of water are discussed. The book is eminently up to date; indeed, the author makes frequent reference to reports and investigations which have been made or conducted within the last few years. To some extent it is true there is left in the mind of the reader an impression that there is something wanting in the presentation of the subject as a whole; the foreground is in accurate focus, but the precision of definition has been obtained at the expense of more distant features. This result is perhaps unavoidable in a work of this size, and as an epitome of recent work in connection with the subject the volume will be found particularly useful.

# NOTES ON BOOKS.

*The Local Government Annual;* an Official Directory, 1897. Edited by S. Egecumbe-Rogers. (London: *The Local Government Journal* Office. Crown 8vo, pp. 308. 2s. 6d.)—To this, the sixth annual issue, the editor has added a synopsis of the Acts of Parliament affecting local government passed during 1896, and has introduced an improvement by setting out in alphabetical order the names of the different rural district councils: he has, however, diminished the value of the book to medical men by substituting the name of the surveyor for that of the medical officer. Particulars of the Thames and Lee Conservancies, of county boroughs, and authorities for special sanitary purposes have been added to this edition.

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*Exercises in Practical Physiology.* By Augustus D. Waller, M.D., F.R.S. Part I. Elementary Physiological Chemistry. By A. D. Waller, M.D., F.R.S., and W. Legge Symes. (London: Longmans, Green and Co. 1897. Demy 8vo, pp. 24. 1s.)—The teacher of practical physiology will find many useful hints in this little book. It is evidently the outcome of the teaching carried out at St. Mary's Hospital in the practical class of physiological chemistry. The matter treated is purely practical, and, though the descriptions of the experiments are very short, they will be sufficient to remind the student who has performed the experiments himself of the nature and meaning of the various reactions described. Such brief reminders before an examination are useful.

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*Bournemouth Illustrated.* Ninth edition. Bournemouth: W. Mate and Sons. (Imp. 4to, pp. 98, 1s.) This book tells us almost everything about Bournemouth, including some information of sanitary interest. It is astonishingly cheap, and the illustrations, which are really excellent and numerous, would give anyone who has not had the opportunity of being there, a fair idea of the aspect of the health resort and its neighbourhood.

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*Die Behandlung der Syphilis nach den gegenwärtig üblichen Methoden.* [The Treatment of Syphilis according to the Methods now in Use.] Von Dr. F. Grimm, in Berlin. (Berlin: S. Karger. London: Williams and Norgate. 1896. Demy 8vo, pp. 112. 2s. 6d.).—In this small work, which bears a commendatory introduction by Professor Lewin, of Berlin, the author describes the various methods of treating syphilis now in vogue in civilised countries. He justly remarks that the literature of the subject during the last ten years has been chiefly concerned with the method of treatment by mercury, and with one or other of the various ways of introducing that drug into the human body; and as most of the papers are contained in publications not generally accessible to the medical practitioner, Dr. Grimm has written the present work for his benefit. Besides giving a description of the modes of treatment advised by various prominent European authorities, Dr. Grimm has added some observations of his own, and he also expresses the opinion that the subcutaneous injection of corrosive sublimate, which was introduced by Professor Lewin, is, on the whole, the simplest and most efficient way of administering mercury.

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*Die Erholungsausdehnung des Gesichtsfeldes unter Normalen und pathologischen Bedingungen* [The Recovery of the Field of Vision after Fatigue in Normal and Pathological Conditions]. By Dr. H. Wilbrand. (Wiesbaden: J. F. Bergmann. 1896. Demy 8vo, pp. 194. Eight Tables and 2 Figures in the Text. M. 6.)—Dr. Hermann Wilbrand is well known as the author of numerous investigations into the condition of the visual fields. He revels in perimetry, and from the study of scotomata and "restrictions" evolves ingenious speculations as to the nature of the visual act. The present monograph deals with the mode of recovery of the nervous energy of the retina after exposure to stimulation in health, and in such pathological conditions as neurasthenic asthenopia and congenital and acquired hemeralopia. The whole argument is based on a rigid acceptance of Hering's theory of dissimilation and assimilation of the "visual substance," but even those who are not convinced of the truth of Hering's doctrine will find interesting matter for study and reflection in the facts adduced by this industrious investigator.

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Transactions.

The Reading Pathological Society reached its jubilee in 1891, and in its *Transactions* (fifty-fourth session, 1895-96, vol. i. Reading: Messrs. Beecroft and Alexander. Demy 8vo, pp. 124) just published, an interesting retrospect of its work since its foundation on July 13th, 1841, by Dr. Jamieson B. Hurry, is reprinted. The present volume is the first of what it may be hoped will prove a regular series of *Transactions* issued by this energetic Society. Among the papers contained in the volume may be mentioned one by Mr. Alfred Ashby on the Relation of the Public Health Service to Pulmonary Consumption. Mr. J. Hopkins Walters makes some practical comments on deaths under chloroform; Dr. J. A. P. Price reports a case of chronic intestinal obstruction, simulating appendicitis, caused by constriction of the small intestine by Meckel's diverticulum in which laparotomy was performed most successfully; and Mr. F. Treves contributes an interesting review of the surgery of the peritoneum. We may be permitted to congratulate the Society on so excellent work as is here shown.

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*The Transactions of the Medical and Chirurgical Faculty of the State of Maryland, U.S.A.* (Baltimore: The Deutsch Lithographic and Printing Company. Demy 8vo, pp. 143) record the work of the Faculty at the sessions held at Baltimore and elsewhere during 1896. The volume is chiefly occupied with the reports of the Treasurer, Secretary, Executive Committee, Librarian, and so forth. The Presidential address by Dr. Charles G. Hill on the Effect of Thyroid Feeding on the Insane is a valuable contribution to this therapeutical question of the day. Dr. Solomon Solis Cohen's annual address, entitled Some Thoughts Concerning Disease and Recovery in their Relation to Therapeutics, is also interesting and suggestive.

# REPORTS AND ANALYSES

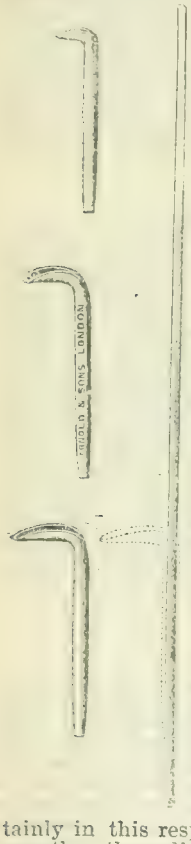
AND

# DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

## MODIFIED NASAL STYLE AND PROBE FOR RADICAL CURE OF NASAL DUCT OBSTRUCTION.

MR. BICKERTON of Liverpool has had a modified nasal style and probe made for him by Messrs. Arnold and Sons. It is shown in the accompanying drawing. Mr. Bickerton states that the instrument possesses the following advantages: 1. The introduction of the style is facilitated by use of the probe—(*a*) The probe may be passed first and the style then threaded over it, the horizontal limb being convenient to lay hold of; (*b*) The probe may be placed in the style, its end just projecting through, thus converting an open end with sharp margins likely to hitch against the mucous membrane of the tube or any obstruction, into a solid point which will more readily pass any stricture of the duct. 2. When *in situ* the style can be worn indefinitely, for (*a*) being hollow it allows the tears to pass down, and the obstruction is at once relieved; (*b*) the horizontal limb of the style lies in the slit inferior canaliculus, where it is not visible. 3. The open elbow of the style is less liable to blockage by mucus, and is more easily cleansed while *in situ*—as when blocked it is only necessary to pass the probe down in order to ensure patency.




## AMYL NITRITE PALATINOIDS.

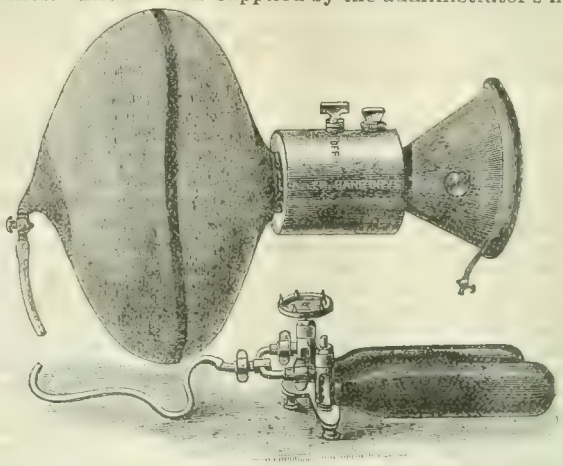
MESSRS. OPPENHEIMER, SON, AND CO., 14, Worship Street, E.C., prepare palatinoids of amyl nitrite. These are small jujube cachets or capsules containing 2 minims of the nitrite. The contents appear to be perfectly protected from evaporation, as there is not the slightest amyl nitrite odour in the bottle in which they are contained. The palatinoids can be easily ruptured, and as the palatinoid material is flexible they certainly in this respect are better for breaking with the fingers than the ordinary hard glass capsules.

## A STYLOGRAPHIC PEN.

WE have tried a specimen of the Calton stylographic pen made by the Jewel Pen Company, 58, Fenchurch Street. We have found it to be a satisfactory implement. It consists of a hard rubber holder tapered to a round point; the point and needle are, it is stated, made of platinum alloyed with iridium. It is claimed for the pen that it will hold enough ink for 12,000 words, and that it does not leak or blot. But its special feature seems to be the price, which, for the simplest pattern, is 3s.

## A MODIFIED ETHER INHALER.

MR. H. BELLAMY GARDNER (London) has devised, and Messrs. Allen and Hanburys (Wigmore Street) have made an ether inhaler with the view of obviating the disadvantages of the constricted air-way of many ether inhalers at present in use. The accompanying illustration shows the apparatus with its special metal expansion chamber. Its weight is the same as that of a small Clover's inhaler, but it contains 6 ounces of ether. The reservoir is cylindrical and surrounds a breathing channel 2 inches in diameter. A small shaft runs from the tap through the breathing chamber, and communicates below with the ether chamber. A metal plug fits this shaft, and through a pinhole which pierces both, a fine stream of ether is directed upon the sponge through which the patient breathes. The warmth supplied by the administrator's hand




is enough to cause a sufficient rise of temperature in the cylinder to propel a stream of ether from the pinhole orifice until the cylinder is empty. No water jacket is provided because the heat rendered latent by the evaporation of ether is not removed from the liquid in the reservoir but from the patient's breath. Mr. Bellamy Gardner states, after an experience of 70 cases, that in the type of anæsthesia produced by the inhaler the pupil is smaller than usual, there is a bright colour, the breathing though deep is remarkably free from stertor, and the induction even with ether alone is quiet and smooth.

The administration of gas and ether, he states, is thus conducted:

1. Fill the cylinder with 6 ounces of ether through the stoppered aperture, and screw this down tightly.
2. Turn on the ether tap to see that it works, then pack the sponge loosely into the breathing channel around the little trumpet orifice, and especially below it.
3. Attach the bag with tubing from the gas bottle; after emptying the bag of air a little gas is allowed to run into it, and the facepiece is accurately applied, whilst if lying recumbent the patient's head is turned towards the side.
4. After five inspirations turn on the ether tap, then off again, and during succeeding breaths the tap is opened and closed until the sponge being wet the signs of ether narcosis supervene.

After this a breath of air may be given, and the tubing detached from the bag for any contained gas to escape.

The cylinder, he adds, can be filled and carried about in that condition without leakage; there is no smell of ether at all before beginning the inhalation, and as the patient's breath does not pass into the reservoir, ether left in it is absolutely uncontaminated.

## AN AUTOMATIC SPRING TONSIL GUILLOTINE.

THE manufacturers of the guillotine described by Dr. R. Brooks Popham in the BRITISH MEDICAL JOURNAL of February 20th, page 470, are Messrs. Arnold and Co.

PRESENTATION.—Mr. P. E. Hill, M.R.C.S., has been presented by the members of the Crickhowell Branch of the St. John Ambulance Association with a silver mounted malacca walking stick bearing a suitable inscription.

METROPOLITAN DISTRICT RAILWAY.—At a recent general meeting of the proprietors the chairman stated that it was proposed to work the proposed line from Earl's Court to the Mansion House, which would be for express traffic only, by electricity; and that a scheme had been prepared for working the whole "inner circle" line by electricity. "If the atmosphere of the line," said the chairman, "could be made pure and cool it would be a great gain, and even if the deep level (Earl's Court and Mansion House) scheme were not carried out he saw no reason why they should not consider the possibility of embarking on the smaller scheme." All sections of the public who use the underground railway will indeed welcome a change of traction from steam to electricity, anticipating therefrom a far purer condition of atmosphere at the stations and in the carriages than that which at present prevails.

# THE EYESIGHT OF SEAMEN.

## COLOUR BLINDNESS AND DEFECTIVE SIGHT IN THE MERCANTILE MARINES.

## III.—THE PRESENT POSITION OF THE QUESTION.

### The Work of the British Medical Association on the Eyesight Question.

It would be difficult to mention all those belonging to this Association who have interested themselves in this question, for we should have to go back some fifty years.

The information we are now able to put so clearly and so strongly before our readers is the product of infinite labour in the past. Of late years the increased rate of speed attained on land and sea, and the increased responsibility attaching to those in command, have attracted more public consideration, and when in 1891, at the annual meeting of this Association, Mr. Beaumont, of Bath, Mr. McHardy, of London, and Dr. George Mackay, of Edinburgh, invited attention to this subject as it affected railway men, a Committee, with Mr. Macnamara, of London, as chairman, and Dr. George Mackay, of Edinburgh, as secretary, was appointed to obtain precise information, and to crytallise the work that had earlier been done. It would be difficult to overestimate the value and importance of the information which was then obtained, and for the returns collected with infinite pains from foreign countries, Dr. Mackay received the special thanks of the Association. Tests and regulations which would sufficiently ensure the safety of the public were formulated, and the knowledge gained of the inadequacy of the eyesight tests applied to those officials occupied with the safe conduct, signalling, and moving of trains, and of the rules and regulations in the mercantile marine, led to the unanswerable case which was placed before Mr. Bryce on February 1st, 1895.[1] His reply was of the customary character—earnest consideration to be given; new legislation and other difficulties in the way; Board most anxious, but its powers limited; and there we regret to have to admit the matter stands.

### The Right of Appeal.

(*a*) If the examinations were in the hands of experts, appeal to London would not be necessary.

(*b*) If examinations are still to be conducted by unskilled persons, there should be in every large port where examinations are held a local expert, nominated by the Board of Trade as a referee, to whom an appeal could be at once made.

The examinees are poor men, and frequently in active employment at the time of making application for officers' certificates. Under the present system, before a second examination can on appeal be obtained, much red tape has to be gone through.

1. The rejected candidate has to write to the local examiner, notifying his intention to appeal.
2. The local examiner notifies to London the failure and the wish to appeal.
3. The London authority notifies to the local examiner whether the appeal has been allowed, and, in case it has been granted, names a date for examination.
4. The local examiner notifies this decision to the appellant, and the date on which he has to present himself in London.

The loss of time to the seamen is serious. It is rarely that an appeal from the provinces is heard under a week's delay, and generally the lapse of time is greater. But there is also a financial hardship. The appeal being granted, the candidate has now to raise the money for his fare to London, maybe from Plymouth, Aberdeen, or possibly Ireland; keep himself in London for at least a day and a night, and find money for his return journey. A candidate rejected on appeal does not receive one farthing for expenses.

The form and colour tests are applied immediately before the examination in the subjects of seamanship and navigation. The sudden discovery of a defect in colour sight—coupled with the anxiety respecting the appeal, and journey to and from London—interferes greatly with that state of mind so essential for a successful examination in technical subjects. And even if the appeal is successful, some further time is wasted before the candidate feels competent to face the examiners again.

By appeal to a local expert, loss of time and waste of money would be avoided, and an immediate appeal and examination would save these unfortunate men days and weeks of mental distress.

### Recent Parliamentary Action.

On February 1st the attention of Parliament was invited to the subject by Mr. Ambrose, M.P. for Harrow, who asked the President of the Board of Trade whether of the number of sailors rejected by the Board of Trade as colour blind, according to the Board's 1896 report, 38 per cent. of those who were rejected and who appealed were, on appeal, passed; and whether the Board of Trade proposed to take any steps to revise their tests. Mr. Ritchie admitted the correctness of the percentage of successful appeals in the following sentence:

> Six thousand and eighty candidates were examined during the sixteen months ended December 31st, 1895, in colour vision; 101 failed, but of these 21 availed themselves of the right to appeal, and 8 passed on appeal.

And he went on to say that—

> The present system of sight tests is based upon the report of the Committee of the Royal Society specially appointed to inquire into the subject, and I am advised that no case has been made out for revising it.

Mr. Wolff, M.P. for Belfast, then asked the right hon. gentleman whether he would allow all boys of five years' apprenticeship to be examined, so that after having learned the trade of a sailor they might not at the end of the term possibly be put aside. To this Mr. Ritchie replied as follows:

> Anyone who desired to present himself for examination could do so. The only difference was that the examination was not compulsory in the case mentioned.

Mr. Wolff then interposed a further query, asking the President of the Board of Trade to make the examination compulsory in the case of boys. But to this request also Mr. Ritchie replied in the negative, stating that—

> In the case of boys it would not be sufficient, for large numbers of men became officers who did not enter the service in the manner suggested.

It is very disheartening to find the President of the Board of Trade adopting so reactionary an attitude upon the matter. His argument in favour of the *status quo* is a twofold one: he relies (1) on the opinion of his advisers, and (2) upon the verdict of the Royal Society, to support his action. Who the authorities may be who advised Mr. Ritchie that no case had been made out for a revision of Board of Trade testing methods, we do not know. Probably they are the permanent officials of the Board. From such advisers other counsel could hardly be expected, unless they were gifted with a greater frankness than is characteristic of permanent officials in general.

But most damaging to Mr. Ritchie's case is his statement—a statement we are convinced he has been inadvertently led to make without a previous knowledge of the facts—that the Royal Society's report on Colour Vision sanctions the present Board of Trade methods. As we have already pointed out in our first article,[2] the report alluded to advised the very measures which Mr. Ritchie declines to adopt. The report distinctly states on pages 24 and 25 that while

> The Committee are not prepared to give a list of those posts from which the colour blind should be excluded. Pilots, look-out men and officers on board ship, engine drivers, firemen, and signalmen on railways, evidently require sight unaffected by defects in colour or form, and there may be other positions both in the marine service and in that of the railways which should also be included.

And No. 2 of the final recommendations (page 3) ran:

> That the proper testing both for colour and form of all candidates for such employments should be compulsory.

Had such a humane suggestion been acted upon, then the misery and suffering which have been so glaringly manifested in the case of officers or candidates rejected for imperfect vision would have been materially reduced. The President has clearly no case whatever, for what can be more illogical than his refusal to render compulsory the testing of lads because "there are numbers of men who become officers" without first being indentured apprentices? Even a little justice is better than no justice at all, and the refusal to adopt a partial scheme of betterment because it does not give total relief is no argument at all. Such a confession clearly shows that the Board of Trade does *not* safeguard the seagoing com-

[1] British Medical Journal, 1895, vol. i, pp. 315, 321, 1112

[2] British Medical Journal, February 6th, 1897 p. 343.

munity from the perils of imperfect-sighted sailors. Mr. Ritchie, in effect, admits this, but declines to remedy the mischief.

Fortunately, however, there is another and potent court of appeal in such matters. The sterling common sense of the British public is surely if slowly awakening to a realisation of the very real perils which the employment of imperfect-sighted seamen entails, and that same public possesses sufficient sense of justice and humanity to insist that the tests shall be applied at the threshold of a sailor's career, and also that while incompetent examiners are entrusted with the administration of the tests, rejected candidates shall have the right of free appeal to competent authorities.

Until these reforms are obtained, we must employ all legitimate means in our power to induce or compel the Board of Trade to act up to the responsibilities they have assumed as guardians of British shipping. There is no *via media* in the matter. Colour-blind and defective-sighted seamen not only menace their own craft, but any other vessel they may meet. Such being the case, it is incumbent upon the Board of Trade not only to devise such an efficient system of testing as will ensure that no man whose sight is not normal shall be employed either on bridge or look-out, but also that this system shall be founded on the principles of justice and mercy.

# SPECIAL REPORT
ON
# MEDICAL EDUCATION AND THE PRELIMINARY EXAMINATIONS IN GENERAL KNOWLEDGE.

(*By Our Special Commissioner.*)

## I.—THE PRELIMINARY EXAMINATIONS DURING THE FIVE YEARS 1891-95.

### The Examinations Recognised.

It is well-known that the General Medical Council recognises a very large number of preliminary examinations in general knowledge as qualifying an intending student for admission to the *Medical Students' Register*. The Arts degrees of Universities in the United Kingdom, and of most, if not all, of those in India and the Colonies are thus recognised, as well as certain other examinations held more or less directly under the control of the Universities, such as for example the local examinations of Oxford and Cambridge, and those of the Oxford and Cambridge Schools Examination Board. But in addition to these University examinations a number of others are recognised. For some time past it has been the policy of the General Medical Council to withdraw the examinations in general knowledge from the medical corporations. Thus the examinations formerly conducted by the Royal College of Surgeons of England was discontinued at the end of 1881, and that of the Apothecaries' Society of London at the end of 1895.

The place of these examinations in England has been taken in part by the examinations of the College of Preceptors for a First or Second Class Certificate. With regard to this examination it may be observed that the Education Committee of the General Medical Council was recently instructed to consider whether the examination for a Second Class Certificate of the first or second division of the College of Preceptors should not be erased from the list of recognised preliminary examinations.

In Scotland the examinations, other than those conducted by the universities, are those conducted by the Educational Institute of Scotland and by the Scotch Education Department (Leaving Certificates). The preliminary examination of the Faculty of Physicians and Surgeons of Glasgow is also recognised, but the number of candidates who present this certificate is small.

In Ireland, in addition to the university examinations, those of the Intermediate Education Board of Ireland and that conducted by the Royal Colleges of Physicians and Surgeons of Ireland are recognised, but that formerly conducted by the Royal College of Surgeons in Ireland has ceased to be recognised since January 1st, 1892. The advisability of discontinuing the examination conducted by the Royal Colleges of Physicians and Surgeons in Ireland has on several occasions been urged on these bodies by the General Medical Council, and during its last session it adopted a report renewing this expression of opinion, and directed it to be forwarded to the Colleges.

During its last session, also, the General Medical Council resolved to represent to all bodies whose junior examinations in general education are recognised, that the Council desires that the stringency of the pass requirements in these examinations should gradually be increased. The Education Committee will present a further report to the Council in its November session this year on the steps that may be necessary for enforcing a higher and more uniform standard in the Junior Preliminary Examinations. If the recommendations of this Committee be approved it is proposed that they should be put in force on January 1st, 1900. We propose in this and subsequent articles to deal with certain questions connected with the present state of the recognised preliminary examinations, and to endeavour to ascertain the nature of the influence which they are exerting on medical students and on medical education.

### The Statistics of the General Medical Council.

In the first place we propose to make use of the statistics published in the *Medical Students' Register* during the five years 1891-95. These statistics show the examinations in preliminary education passed by students during the several years and qualifying them for registration, and also the places of medical study whereat students were registered as having commenced medical study in the several years. Unfortunately, as they stand these tables are not very intelligible. The first, for instance, does not, as it might have been expected to do, indicate the total numbers passing the various examinations in the several parts of the United Kingdom, nor in the Indian, Colonial, and foreign universities and colleges. Nor does it even show the totals for the universities and for other bodies in the United Kingdom and elsewhere. This defect we have remedied by making an analysis of the table. The second table in the *Register*, that showing the place of medical study, gives in respect to Scotland and Ireland the medical schools selected by students, with the exception of those who under former regulations registered as pupils with a registered practitioner. In England, however, the places of registration include a number of provincial hospitals without schools, and some other educational institutions not of a medical character. This table, therefore, does not show the actual number of students entering at the several schools, a defect which under present regulations is irremediable.

### Numbers passing the Examinations of Universities and Other Bodies.

For the purpose of comparing the numbers who pass a preliminary examination in connection with the universities with those who pass an examination held by some other body, we have taken out the numbers of all the examinations of the Universities of Oxford and Cambridge, including those of the Oxford and Cambridge Schools Examination Board, and all those held by the Universities of London, Victoria, Durham, Edinburgh, Aberdeen, Glasgow, St. Andrews, Dublin, the Royal University of Ireland, the Queen's University in Ireland (so far as it still comes into the statistics), and the Indian and Colonial universities. Examinations held by Continental bodies we have not classed with the universities, but they are the grounds for registration in a few cases only. In every year dealt with the Council has, through the Students' Registration Committee, specially recognised certain examinations to meet individual cases. These also are not numerous, and have been classed with the examinations conducted by bodies other than the universities.

The general result is indicated in the following table (A). In the first place it will be seen that the number of students registered in 1891 was higher than in any subsequent year. This large registration in 1891 was due no doubt to the fact that in 1890 notice was given that for students registering on and after January 1892 the medical curriculum would be extended to five years. There was, therefore, a rush to register in 1891, and this no doubt had an influence in keeping down the number of new students in 1892, and perhaps also in 1893, possibly even in 1894.

TABLE A.—*Showing the numbers who registered as Medical Students on the strength of Preliminary Examinations in General Knowledge conducted by Universities and other Bodies respectively, with the total in each, and the percentage of the total who passed Examinations conducted by Universities.*

| — | Universities. | Other Bodies. | Total. | Percentage of Universities. |
|---|---|---|---|---|
| 1891 | 1,369 | 1,036 | 2,405 | 56.91 |
| 1892 | 1,046 | 625 | 1,671 | 62.59 |
| 1893 | 1,054 | 693 | 1,747 | 60.33 |
| 1894 | 1,068 | 603 | 1,671 | 63.90 |
| 1895 | 1,219 | 619 | 1,838 | 66.32 |

To this Table has been added the percentage which the number of students who passed the examinations conducted by a university bore to the total in that year. It will be seen that, with the exception of the year 1893, the percentage has

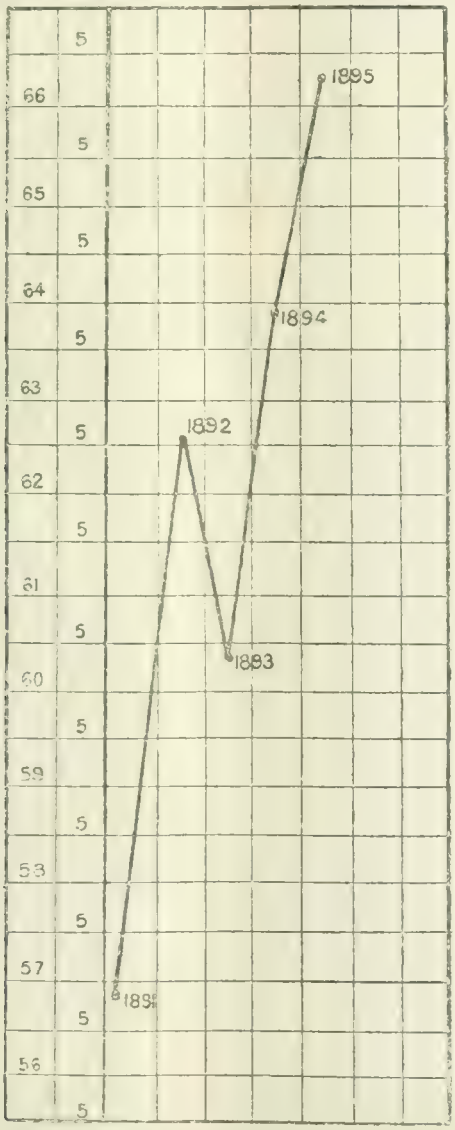



Fig. 1.—Percentage of students who passed preliminary examinations conducted by a University.

tended to rise, and that the increase in 1895 as compared with 1891 amounted to nearly 10 per cent. This upward tendency is illustrated graphically in the accompanying chart (Fig. 1), for which the percentages have been used as a basis.

### ENGLAND AND WALES.

A more detailed examination of the figures for the three divisions of the United Kingdom show that there has been on the whole a similar movement in each. In England the proportion in the first year of students who passed examinations conducted by the universities was lower than in Scotland or Ireland. The following table (B) shows the number of stu-

TABLE B.—*England and Wales.*

| — | Universities. | College of Preceptors. | Other Bodies. | Total. | Percentage. Universities | Percentage. College of Preceptors. |
|---|---|---|---|---|---|---|
| 1891 | 680 | 406 | 201 | 1,287 | 52 83 | 31.54 |
| 1892 | 565 | 258 | 96 | 919 | 61.47 | 28.07 |
| 1893 | 610 | 325 | 90 | 1.025 | 59.51 | 29.75 |
| 1894 | 635 | 251 | 87 | 973 | 65.26 | 25.79 |
| 1895 | 572 | 290 | 53 | 915 | 62.51 | 31.69 |

dents who passed examinations in preliminary knowledge in England, specifying those who passed examinations conducted by the universities, by the College of Preceptors, and by other bodies. The percentages that passed the examinations of the universities and the College of Preceptors respectively are shown also. On the whole there has been an increase in the proportion of those passing the examinations of the universities, while the proportion of those who passed the examinations of the College of Preceptors has either declined or remained stationary. It must, however, be noted that down to 1891 the examination of the College of Preceptors could be passed in parts, but that in and after 1892 it has been necessary to take up all the subjects of the examination at the same time.

### SCOTLAND AND IRELAND.

In Scotland the increase in the proportions of those who have passed the examinations conducted by the universities is less conspicuous, and there was, indeed, during 1892-3-4 a decline, as will be seen from Table C. In Ireland, as will be

TABLE C.—*Scotland.*

| — | Universities. | Other Bodies. | Total. | Universities per cent. |
|---|---|---|---|---|
| 1891 | 381 | 233 | 614 | 62.05 |
| 1892 | 264 | 177 | 441 | 59.86 |
| 1893 | 244 | 170 | 414 | 58.93 |
| 1894 | 233 | 143 | 376 | 61.96 |
| 1895 | 317 | 155 | 472 | 67.16 |

seen from Table D, the proportion remained practically un-

TABLE D.—*Ireland.*

| — | Universities. | Other Bodies. | Total. | Universities per cent. |
|---|---|---|---|---|
| 1891 | 222 | 163 | 385 | 57.66 |
| 1892 | 112 | 81 | 193 | 58.03 |
| 1893 | 113 | 83 | 196 | 57.65 |
| 1894 | 111 | 101 | 212 | 52.35 |
| 1895 | 230 | 102 | 332 | 69.27 |

altered during the first three years. In 1894 there was a notable decline in the number of those who passed the examinations conducted by the universities, and in 1895 a remarkable increase.

## DEATH UNDER ANÆSTHETICS.

CHLOROFORM.

WE are indebted to Dr. A. O. Grosvenor for the following particulars of the death of a patient whilst under the influence of chloroform on January 6th: The patient was a boy, aged 9, bright, intelligent, and of a highly nervous temperament. Chloroform was given with a view to excise the tonsils, which were large, and was deemed necessary owing to the highly sensitive temperament—he was not, in fact, able to bear even an ordinary examination of the throat in the usual way. Duncan and Flockhart's chloroform was used pure and fresh, given on a serviette from a drop bottle with plenty of fresh air below. He took the chloroform well without struggling or any irregularity of pulse or respiration. In about five minutes he was semi-conscious, an attack of vomiting came on and he vomited the porridge he had taken in the early morning, four hours previously. He was turned on his side and eased in the usual way to assist the escape of the contents of the stomach, which he did readily. The anæsthetic was recommenced; but in a few minutes he was a second time sick, which brought him somewhat conscious; he looked round, was given a mouthful of water to cleanse the throat, and lay down. He continued to inhale the chloroform quietly for a couple of minutes, when suddenly a peculiar facial expression occurred and respiration ceased at once, after the close or end of a free inspiration with an expanded thoracic wall, followed by a sudden rigidity, similar to an epileptiform convulsion which lasted for about a minute, with dilated pupils. The lips were a natural red colour, shortly afterwards a slight lividity of the lips and mouth occurred; this lasted but a few moments, and was followed by a return of the red colour, which remained throughout the process of artificial respiration and persisted after it was abandoned. At this critical moment the pulse was small and feeble, but soon ceased. Every available means was tried with a view to stimulate and resuscitate the brain and heart, whilst artificial respiration was carried on for a very prolonged period. There was no obstruction of the respiratory track by the enlarged tonsils, mucus, or vomited matters. The patient was never deeply under chloroform, about ℥iij being used. The probable cause of respiratory failure was a want of blood supply to the medulla, due to the contraction of the arterioles or to the irritation of the vagus, thereby altering blood pressure brought about by the chloroform. No necropsy was made.

## IRISH POOR-LAW SUPERANNUATION BILL, 1897.

IT was a severe disappointment to Irish Poor-law officials to find that the efforts made upon their behalf last session of Parliament to have the English Poor-law Superannuation Bill extended to Ireland were rendered nugatory by what looked very like a selfish regard for their own interests on the part of the English Poor-law associations; and we are rejoiced to see that a Bill for Ireland in practically the same terms is about to be introduced this session, and is backed by members representing all shades of Irish politics.

The need for such a measure is even greater in Ireland than in England—first, because Irish Poor-law officers, being much more dependent upon their official salaries than their English brethren, are much more frequently left stranded in their old age; and, secondly, because permissive superannuation in Ireland has too often been tainted with those curses of Irish Poor-law elections—religion and politics.

It is, therefore, all the more needful that the power of giving superannuation should be taken out of the hands of the guardians, and since it will cost the ratepayers nothing, the opposition to it by certain Boards of Guardians is not easy to understand.

There are two points in the proposed Bill to which we would wish to direct the attention of the promoters. In the Memorandum of the Bill we read; "While, moreover, an officer in possession of his faculties, and capable of discharging his duties is not required to take his superannuation at any age, power is given to Boards of Guardians to require an officer who has attained the age of 65 to retire, when they are of opinion that it would be expedient in the interests of the public service that he should do so."

Those who know the peculiar characteristics of certain Irish Boards of Guardians must be well aware that the application of such a rule would be a very dangerous power to leave in their hands without affording the officers affected by it the right of appeal to an impartial tribunal. This applies more especially to the dispensary medical officers of poor districts, who have in many cases such scanty earnings from private practice that the introduction of a younger practitioner would leave them with little to live upon except the small superannuation allowance, which would seldom exceed £100 a year.

Again, complaints have been made that under the English Bill a great hardship will be inflicted upon nurses and other officers who only take up Poor-law appointments temporarily, and we trust this will be remedied in the Irish Bill by making provision for the refund to such officers, when leaving the service, of the contributions deducted from their salaries.

We have sufficient belief in the fairness of Irish members of Parliament to feel sure that no serious opposition will be offered to the passage of this Bill into law if the Government can be induced to afford reasonable facilities for the slight discussion it will require.

## THE MONTREAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, AUGUST 31 TO SEPTEMBER 4, 1897.

THE TRANSCONTINENTAL EXCURSION.

OUR special correspondent in Montreal writes as follows under date February 12th:

We hear from England that a large number of members are proposing to join in the excursion offered to us by the Canadian Pacific Railway from Montreal across the breadth of the Continent to Vancouver. This is without doubt a most remarkable trip, and the opportunity offered to make it under the pleasantest circumstances at the pleasantest time of the year and at one half the usual rate may well incite members to take it. It had been thought in Montreal that from the very magnitude of the journey and the time required (about a fortnight) few members would find themselves in a position to undertake it. The success that would seem to be attending the offer renders it necessary for us to point out that both the local executive of the Association and the railway companies are most anxious not to render this excursion a failure by having too large a number for this excursion on any given day. For thorough enjoyment there must be no suspicion of overcrowding at any point of the journey. We are therefore led to suggest that those proposing to join in this excursion should at an early date send a letter or postcard to Dr. Birkett, the Secretary of the Excursion Subcommittee (123, Stanley Street, Montreal) stating their intention, so that tickets for this excursion be given out in order of priority. In all probability a series of parties to cross the Continent will be arranged on successive days.

IMBECILES UNDER THE ASYLUMS BOARD.—The Lunacy Commissioners have on many occasions expressed their opinion that the number of attendants employed at the Leavesden Asylum is insufficient to secure adequate administration, and they have recently reiterated this opinion, and stated that "in view of the changed character of many of the admissions into the asylum the proportion of attendants needs considerably increasing." The same complaint has also been made in regard to the asylum at Caterham. The result of the correspondence which has recently taken place on the subject is that at the last meeting of the Metropolitan Asylums Board, held on January 30th, a report came up from the Committee of the Leavesden Asylum asking for a special inquiry into the whole question of the number of attendants required at all the imbecile asylums under the management of the Board, especially in regard to the proportion which ought to exist between the patients and attendants in the infirmary wards. This is a subject to which we have several times drawn attention, and it is satisfactory to find steps being taken to obtain an inquiry into the whole of the circumstances involved.

## BRITISH MEDICAL ASSOCIATION.

### SUBSCRIPTIONS FOR 1897.

Subscriptions to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, FEBRUARY 27TH, 1897.

## WASTED RECORDS OF DISEASE.

The late M. Thiers defined statistics as the art of stating in precise terms things which one does not know. This satirical definition crystallises a prevalent notion of statistical science, which has always suffered from the inappreciation of the ignorant—though possibly not so severely as it has suffered from its erroneous application by novices. Without statistics nothing can be proved. Mathematics is, after all, the only exact science, and statistics comes next to it in exactitude if the data are honestly stated, correctly collected, and skilfully utilised.

The pertinence of these remarks in relation to the pamphlet on *Wasted Records of Disease*, by Mr. C. E. Paget, the medical officer of health of Salford, is obvious. The records of disease which are now unhappily so completely "wasted" form the crude material out of which the statistics can be framed for the advancement of medical knowledge and the benefit of the public weal. The "waste" of valuable material up to the present time is enormous, and we welcome Mr. Paget's attempt to draw attention to it and indicate the lines on which efforts at reform may be successful.

Great importance was attached to this subject by the earlier hygienists of this country. Simon, Rumsey, and Milroy all worked at it, with varying degrees of success, while the British Medical Association at an early date advocated the utilisation and systematisation of the available material for disease records, Mr. Ernest Hart working arduously and long in this direction. The various attempts made to secure or establish permanent systems of disease registration and the causes of their failure are ably sketched by Mr. Paget. He omits to mention, however, that in 1857-8 the returns of sickness of all kinds attended at the public expense made by medical officers of the various metropolitan workhouses and hospitals, and by the Poor-law medical officers, were officially printed and circulated in weekly and quarterly tables by the General Board of Health, meteorological tables being appended to each publication. This official publication and the voluntary efforts in connection with it fell to the ground in November, 1858, perhaps owing in part to the transfer of the medico-sanitary functions of the General Board of Health to the Privy Council.

It is, however, significant that forty years ago a department of Government was actively engaged in collating and circulating information as to various kinds of sickness in the metropolis. This fact is even more important than the tardy and unwilling circulation of returns of infectious disease from contributing districts, which the Local Government Board has in recent years undertaken; and the very imperfect and belated tabulation of these returns in the annual reports of the same Board. Were the publication of these returns transferred to the Registrar-General's Department, they might appear week by week, quarter by quarter, and year by year, in conjunction with the corresponding death returns, thus making a first step towards a comparative statement of morbidity and mortality, a great desideratum in our national returns. That this transfer from the already overburdened Local Government Board to the Registrar-General's Office will occur, we have little hope without organised agitation on the part of the British Medical Association, the Royal Statistical Society, and other bodies interested in the question. As Mr. Paget puts it: "Judging by precedent, it is quite certain that no progress in the development of disease registration will be at all likely to be made by Government in the absence of pressure from without."

It is a question whether the passing of the Infectious Diseases (Notification) Act has not somewhat delayed the wider question of registration of disease, especially that treated at the public expense or in charitable institutions. There has been a tendency to rest satisfied with what has been already achieved, forgetful of the consideration that not only the so-called zymotic diseases, but also such diseases as phthisis, rheumatic fever, and pneumonia, may be brought within the range of preventive medicine, the first desideratum for this, especially in the case of the two last-named diseases, being a more complete knowledge of their natural history, based on a complete return of cases in different localities and under varying circumstances of climate, soil, age, and sex. This question receives due attention from Mr. Paget, and he shows how Poor-law sickness, hospital and dispensary sickness, friendly society records of sickness, and the records of the Post Office and police, might all be utilised in arriving at a national utilisation of all disease records.

The Friendly Societies Act of 1875, Section x (5) (*b*), states that "the Central Office shall, with the approval of the Treasury . . . . collect . . . . publish and circulate . . . . such information on the subject of the statistics of life and sickness . . . . as the Chief Registrar shall from time to time think fit." The recently issued report by the Actuary to the Central Office of the Registry of Friendly Societies is a bulky volume, weighing close on 8 lbs. It is an admirable example of how not to do it, embodying, as it does, the minimum of useful information in the maximum of crude and undigested tabular matter. This is but one among many many other illustrations that reform in the administration of Government departments must come by persistent and influential pressure *ab extra*.

In the meantime it remains true that, as Mr. Paget says, "the nation's toll of sickness is not made use of for the nation's service; it is locked up and hoarded: it stands in the way of progress: it is uninvested capital; it is a standing reproach to enlightened government; it is waste, the sinfulness of which exceeds by far the waste of food, the waste of commerce, or the waste of war; and the neglect of it is nothing less than a violation of that law which, in its simplicity, stands first of all—*salus populi*."

[1] *Wasted Records of Disease*, by Charles E. Paget. Lecturer on Public Health, Owens College. London: Edward Arnold, 37, Bedford Street. 1897. 2s. 6d.

The best work has hitherto been voluntary in character; and we are glad to note in passing the reference to "the admirable report to the Parliamentary Bills Committee of the British Medical Association on 'Compulsory Notification in England and Wales in 1892'"—a report which was "a remarkable testimony to the public spirit of all concerned, and a no less significant reproach to the State for its own neglect in such a matter."

## POOR-LAW CHILDREN.

TEN years ago, or even five years ago, such a deputation as waited on the President of the Local Government Board on February 20th would not have gathered, nor would the press have published such full reports. This is so far satisfactory as indicating the interest the public now take in the children it supports, but otherwise there is but little cause for satisfaction.

Of the twenty-two Boards of Guardians or Managers who had replied not one had approved of the draft order by which a new twin Asylums Board was to be called into being for the care of those children who were suffering from certain classes of disease. One Board wanted the recommendation of the Departmental Committee to be carried out, and the whole of the children placed under a Central London Board; nine Boards approved of the principle, but disapproved of the new authority; twelve Boards were against the order as a whole; while nine more deferred their decision until after the meeting of the Conference on February 26th.

The deputation desired more information, and this Mr. Chaplin gave with an easy pleasantness which disarmed criticism for the moment. His new Board, he said, would take charge of the children whose diseases caused so much anxiety to the guardians, and would thereby leave more room for more children in the barrack schools; but he omitted to add that it was the conditions which must exist in an aggregated school, which cause so many to be suffering, and therefore that more room in these institutions would not be an unmixed blessing. He saw nothing, he said, from the visit he had paid to a school—which was by the way not a barrack school at all, but a village community—to justify the sweeping recommendations of the Departmental Committee, and he gently threatened that if the guardians did not see their way to accept this, the modicum of reform which he and the Government felt compelled to offer as a result of the Committee's report "a worse thing might befall them." He threw out uncertain hopes that in time his new Board might take over the care and organisation of the boarded-out children, as well as the management of the ship *Exmouth*, and he grew eloquent in praise of the often-condemned system of indirect representation.

In the meantime other public bodies and persons have given utterance to views on the subject. The London County Council has passed unanimously a resolution stating that "the establishment of a new and distinct metropolitan central authority for the care of a section of Poor-law children is undesirable and calculated to lead to needless expense; and that the constitution of the authority suggested by the Local Government Board is opposed to the resolution of the Council of June 5th, 1894."

The State Children's Aid Association[1] is a body which has recently come into existence, with Viscount Peel as its Chairman. On its governing committees are such educationalists and persons of experience as Sir William Hart Dyke, the Bishops of Hereford and Lichfield, Sir James Crichton Browne, Sir Henry Thompson, Mrs. S. A. Barnett, Dr. Barnardo, Mr. Ernest Hart, and many others, whose opinion will carry weight. This body has adopted a resolution that it "is of opinion that the creation of any such central Board as that proposed by the draft order of the Local Government Board would be of small advantage, unless the body of the children chargeable to the rates, and especially the ins and outs and those who are, or may be, boarded out, are transferred compulsorily to the care of the new authority, and unless the existing school buildings are also transferred with a view to the organisation of a better system and more individual treatment."

While expressing sympathy with this resolution, we would go a step further, and urge that no Board constituted as it is proposed this new one should be is a fit and proper body to carry such large responsibilities, and to expend so much of the public money as would be necessary. It is disadvantageous to multiply machinery, to establish a powerless authority, to build more institutions, and to remedy the result but not the cause of acknowledged evils. Yet all these disadvantages must accrue if the Local Government Board persists, in spite of the remonstrance of the guardians, the philanthropists, and the press, in establishing the New Sick Children's Asylums Board on the lines it has indicated.

The only possible remedy for the present disastrous state of things in London, the only hope of abolishing barrack schools, would appear to be the creation of a strong responsible Central Metropolitan Board, to which should be handed over the necessary buildings, appliances, and staff, so as to enable it to classify the children, to sell some of the buildings, and to utilise others for the varied purposes for which provision is required to meet the changing needs of a child's life.

## THE UNIVERSITY OF LONDON QUESTION.

SOME uneasiness is not unnaturally felt by those who desire to see such a reform in the constitution of the University of London as would provide the metropolis with a real teaching university owing to the fact that, although we have now reached the midway point of the first part of a parliamentary session, the Government has not yet reintroduced the Bill for appointing a Statutory Commission.

It will be remembered that Lord Cowper's Commission reported in 1894, and that in the following year, very late in the session, Lord Playfair introduced in the House of Lords a Bill for the appointment of a Statutory Commission to carry out the recommendations of the Royal Commission, but with full power to adjust minor differences of opinion and to settle all matters of detail. Owing mainly to the political crisis which shortly ensued this Bill was dropped, but last year the Duke of Devonshire, as Lord President of the Council, introduced into the House of Lords a Bill with similar scope, but modified in certain minor respects to meet objections which had been raised. This Bill passed the House of Lords, but not without the opposition of the then Bishop

[1] Its offices are at 10, Buckingham Street, Strand.

of London. The ominous hints dropped by Dr. Temple that opposition would be renewed in the House of Commons were carried into effect. Moreover, it appeared that in the House of Commons opposition would be offered from a totally different quarter, that is to say, on behalf of those graduates who object to the proposed scheme of reconstruction. The Government eventually dropped the Bill. The opposition to the Bill continues to come from the same quarters. On the one hand we find the friends of King's College opposed to the Bill on grounds upon which it would be somewhat out of place to enter here. They have been very clearly stated in an admirable article by Sir Joshua Fitch in the February number of the *Nineteenth Century*. The second ground of the opposition is the fear entertained by the non-collegiate graduates of the existing university, that if the university were to take on the functions of a teaching university for London, non-collegiate students would be at a disadvantage, and the value of the degrees granted in the future would be lowered. We have on many occasions expressed the opinion that this fear is chimerical, and we are glad to find this view supported by Sir Joshua Fitch, with all the weight of his great authority.

Hints have been dropped from time to time that it might be possible to bring about the necessary alterations in the powers of the existing University by a charter, but under the present charter of the University the consent of Convocation would have to be obtained to any new charter, a proviso which introduces serious difficulties. It is however, an open secret that a charter has been drafted which purports to be an attempt to turn the difficulty, and that it has been submitted to various persons concerned officially in the movement in support of the Bill for a Statutory Commission. How far this is a real effort to find a solution of the difficulties, and how far it is a mere move in a policy of irreconcilable opposition, we shall not pretend to determine, but it seems clear that no charter which would retain the right of veto now exercised by Convocation could be made acceptable to the medical and other educational bodies which are deeply interested in the creation of a teaching university. Moreover, it must be remembered that the suggestion that the difficulties might be overcome by the issue of a new charter was very thoroughly considered by the Cowper Commission, many of whose members were at the commencement of their inquiry disposed to favour this mode of procedure. The Royal Commission eventually arrived at the opinion that, to quote the words of Sir Joshua Fitch, "the charter ought, as in the older universities, to be superseded by statutes, having legislative authority, and capable of being modified when necessary by the will of Parliament."

Resolutions have now been adopted by the Senate of the University of London and by the Royal Colleges of Physicians and Surgeons, once more expressing an earnest hope that the Bill for the appointment of a Statutory Commission may be reintroduced at the earliest opportunity. A similar resolution will doubtless be adopted at their meeting this week by the delegates of the teaching bodies in London. The Bill is, we believe, ready, and it is understood that Lord Davey has consented to serve as Chairman of the Statutory Commission, which would include Lord Lister among its members. We venture to express the hope that the Duke of Devonshire will see his way to introduce the Bill at a date sufficiently early to permit of its being seriously considered in the House of Commons.

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On Tuesday, February 23rd, Lord Lister took the oath and subscribed to the Roll of Parliament on his elevation to the Peerage. His lordship took his seat with the usual formalities, being introduced by Lord Playfair and Lord Watson.

## THE SUPERANNUATION BILLS.

Our Lobby Correspondent writes: The Poor-law Officers' Superannuation (Ireland) Act (1896) Amendment Bill stands for second reading on Wednesday, March 10th, but it is the seventh order, and is not likely to be reached in time for effective discussion. Although no notice of opposition to it has so far been given, it is of course competent for any single member of the House to rise in his place and object to its further progress, which would be an effectual bar to it for that day at least. As to the second measure, the Poor-law Officers' Superannuation Act (1896) Amendment Bill, it is the eighth and last order on Wednesday, March 3rd. No notice of opposition has been given to it so far, but the same remark applies to that as to the other Bill.

## THE PLAGUE IN CALCUTTA.

So far, to judge by evidence advanced by the Health Department, Calcutta has escaped infection, although risks thereof have not been wanting. The curious cases of "non-venereal bubo" which occurred in the Shropshire Regiment, as reported in the British Medical Journal of January 9th, 1897, are held by some to be instances of pestis ambulans, which has lingered in the regiment during the two years since arrival in Calcutta from Hong Kong. If so, it is remarkable that the malady has been strictly confined to the regiment. In addition, as will be seen from the note we publish elsewhere, 5 cases of pestis minor and 1 of pestis major are said to have occurred in Calcutta, and to have furnished the characteristic bacillus. This, however, is denied by Dr. D. D. Cunningham. It is also reported that a number of dead and sick rats were found in two grain shops, whose blood yielded Kitasato's diplobacteria; also a child and a rat showed symptoms of plague in another house containing merchandise. Both grain and goods are said to have come from Bombay. Isolation of the sick, destruction of rats, and disinfection of houses and suspected articles were promptly carried out. Calcutta is undergoing a thorough cleansing, and medical inspection of passengers from infected places is being diligently practised. Whether the cases above referred to were veritable plague or not, the precautions which have been adopted to prevent its entrance and spread appear to have been very well judged, active, and successful.

## KILLED IN ACTION.

The death of Surgeon Charles James Fyfe, R.N., during the advance of the punitive expedition to Benin adds one more to the long list of the officers of the Naval and Military Medical Services who have been killed in action. During the advance Captain Byrne of the Royal Marine Light Infantry, was severely wounded, and it was while attending to him that Surgeon Fyfe was shot dead. This young officer, who was born in 1866, graduated in medicine and surgery at Glasgow University in 1888, and entered the Royal Navy as Surgeon in November, 1891. He had already seen active service prior to the Benin expedition. In 1894 he was mentioned in the *Gazette* for services rendered to the wounded under fire while employed in the expedition against Fodey Silah on the river Gambia. In the following year his professional zeal and attainments were again brought prominently to notice during the M'wele expedition, on the east coast of Africa, and again in August, 1896, when he was landed from H.M.S. *St. George* to attend the rebels wounded during the

bombardment of the Sultan's palace at Zanzibar. A medical officer of the navy or army knows that in entering the service he must take the risks of the soldier or sailor, and we need not perhaps sorrow too much for one who meets his death in doing his duty to his country. But we cannot help once more saying that it is time that the empty nonsense implied by speaking of such men as non-combatants should cease. We published recently a dry official account of the services of the surgeon-majors of the Army Medical Service, who, having completed their twenty years' full pay service, have obtained their promotion to the rank of surgeon-lieutenant-colonel. Of the 22 officers so advanced, no fewer than 18 have been under the enemy's fire for longer or shorter periods, and have received medals and clasps in common with the rest of the troops serving in the respective campaigns. And these officers are so-called "non-combatants"—"brave civilians!" We doubt whether from any other part of the "combatant" branch of the Army, 22 names could be taken successively with such a record, at any rate of officers who had served no longer than twenty years.

## THE INTERNATIONAL SANITARY CONFERENCE.

The International Sanitary Conference in Venice appears to be working smoothly, and it is understood that the representatives of foreign Governments have been very favourably impressed by the statement made by Surgeon-Major-General Cleghorn, who arrived on February 20th, as to the precautionary measures taken by the Government of India with reference to the prevention of the spread of plague. These measures, which have been enforced in Bombay and Karachi since October last, include a thorough individual examination of all pilgrims before embarkation, and of passengers on board vessels before starting. The attitude of the British Government towards the ratification of the Paris Convention of 1894 seems to have been all along one of harmony with the other signatory Powers save on three points. These have reference to (1) the space to be allotted to pilgrims on board ship, the Indian Government declining to agree to 2 square metres for each pilgrim on the lower deck of this class of vessels, though prepared to see 1½ square metres substituted; (2) the necessity that each pilgrim shall have ample means for his sustenance during the pilgrimage, which that Government has not seen its way to enforce; and (3) the application of a system of quarantine in the Persian Gulf to all shipping from the East, of which 98 per cent. is British. The announcement made to the Conference by Mr. Herbert, the diplomatic member of the British Delegation, to the effect that, subject to these reservations, Great Britain would consent to the application of the Convention to the British Empire with the exception of Canada, Australasia, and Natal, has produced a favourable impression on the Conference, which, it is announced, adopted unanimously a resolution calling upon Turkey to accept and ratify the Convention.

## THE TERMS OF POOR-LAW MEDICAL APPOINTMENTS.

The position of the district medical officers of the West Bromwich Union, which has engaged the attention of the Council of the British Medical Association, has been brought to the notice of the House of Commons by Sir Walter Foster. The present unsatisfactory state of affairs is that the terms on which these officers hold their appointments do not enable them to claim extra fees for extra services rendered to their patients such as are claimed by and paid to district medical officers of almost all other unions. The regulation contained in the Consolidated Order of the Local Government Board dated July 24th, 1847, which is still so generally in operation, is explicit. (Art. 177.) "No salary of any district medical officer shall include remuneration for operations and services of the following classes [these are subsequently stated], but such operations and services shall be paid for by the guardians according to the rates specified." How comes it that this regulation, framed with the object of providing some extra remuneration to district medical officers for attendance on cases of urgency, which required an extra amount of care and attention is not acted on at West Bromwich? The explanation appears to be, that in consequence of the guardians of this and some few other unions objecting to pay equitably for these extra services, the Local Government Board has, in consequence of special applications made to it by the guardians, suspended the operations of its own order in West Bromwich and the other unions referred to. This suspension remains in force as long as the Local Government Board thinks fit. The district medical officers at West Bromwich and others similarly affected by the suspension of the order will be grateful to Sir Walter Foster for having publicly ventilated this anomaly, and we venture to think that, if a well-considered application is made to the Local Government Board, this suspension of their order will very shortly be removed. As will be seen by the report published elsewhere in this issue, the reply given in the House of Commons by the present Parliamentary Secretary of the Board in answer to Sir Walter Foster's inquiry certainly justifies this hope, as Mr. Russell stated that any application of guardians or medical officers would be considered. It is, we fear, not very likely that the guardians will make any application of this sort. This must be done by the medical officers themselves. The Council of the British Medical Association would, there is reason to think, be ready to support such an application, which no doubt will also have the early consideration of the Poor-law Medical Officers' Association.[1]

## THE ARMY MEDICAL EXAMINATION.

The results of the recent examination for commissions in the Army Medical Staff show but too clearly that matters are, with an accelerated speed, going from bad to worse. This comes out in an analysis of the last three examinations, held within a period of thirteen months:

| | Vacancies. | Filled. | Not Filled |
|---|---|---|---|
| February, 1896 | 17 | 9 | 8 |
| August, 1896 | 26 | 13 | 13 |
| February, 1897 | 35 | 14 | 19 |

The last examination comes out the worst of all, because the most strenuous efforts were made to make it a success. Recruits were canvassed for, and the examination virtually lowered by admitting men even twice previously rejected; but all such efforts only brought a total of 41 applicants. Of these, however, 9 were rejected on physical grounds, some prudently withdrew, and of 28 who finally went in, only 14 passed as conforming to a minimum standard of qualifications. Of competition there was, of course, less than none. The result is that, officially, 19 commissions are going begging, but really double that number are waiting to be filled. The public may well ask how such a deplorable state of things comes about. We could answer, but prefer that the question should be put to the military authorities of the War Office. They well know the reason. Our universities and medical schools send forth every year a large number of highly qualified young medical men of superior physique, but only a beggarly remnant care to enter Her Majesty's army. Will no public man set himself to find out the reason?

## INDUSTRIAL ACCIDENTS IN GERMANY

The special articles on workmen's accidents in the *Daily Chronicle* ably sum up what can be said for a scheme of pensions. They show that the system which has prevailed in Germany since 1885 is not one of money payment, "and no questions asked." Government inspection of factories is still carried out, and there is no contracting out of criminal proceedings against employers or their agents in case of gross negligence. But the ordinary run of industrial accidents is squared by a system of pensions. Every accident which

[1] We are requested to state that the office of this Association has been removed from Bolt Court, Fleet Street, to 7, Copthall Avenue, London Wall, E.C.

keeps a man from work for more than three days is notified. Up to the end of thirteen weeks a sick fund, to which the employer contributes one-third and the workmen two-thirds, undertakes all accidents. After that date the injured man is indemnified through an accident fund, to which the employer contributes 90 per cent. and the workmen the remainder. Groups of employers, under the supervision and guarantee of the State, raise these accident funds and superinted their disbursement; they also are empowered to frame and enforce special trade rules for the prevention of accidents and for the suitable supply of the best medical and surgical treatment. Arbitration courts for the adjustment of disputed claims consist of an independent president, two employers, and two workmen, and there is a central court of appeal. In answer to the contention that "prevention is better than pension," it is claimed that the German system is one of "protection through compensation," and it is shown that the rate of mining accidents is 50 per cent. lower in Germany than in England. But it is admitted that, on the whole, there has been an apparent steady rise in the rate of industrial accidents since the year 1885. In that year only 23.78 per 1,000 accidents were notified, whereas in 1895 the figure was 37.90. Of serious accidents, that is, those passing the thirteen weeks' limit, there was also a steady rise until last year. In 1886 the rate was 2.89 per 1,000, in 1894 it was 6.25, and in 1895 it was 6.24. There has also been a steady increase in the proportion of accidents involving permanent partial disablement; in 1886 the rate was 1.18, and in 1895 it was 3.57 These figures seem to show that moderate compensation of all industrial accidents and compulsory insurance increase carelessness. But, on the other hand, it is shown that the proportion of fatal accidents has not increased, and that the proportion of totally and permanently disabled has diminished. In 1886 the rate of fatal accidents was 0.71, and in 1895 it was 0.67 per 1,000; and the rate of accidents involving total disablement for life has gone down from 0.46 to 0.14 per 1,000. The writer of these articles plausibly maintains that while other figures may fluctuate from changes in the method of notification, the rate of fatal accidents is a sure test of the working of the German system. Unfortunately it appears to remain practically unaltered. In Austria the principle of trade risk for all accidents, excepting those caused by the wilful act of the workman has been recognised since 1887, but no other European nation has adopted it.

## LUNACY REFORM.

Little good is done in this world without enthusiasm, which is generally an unreasonable agent. Mr. W. J. Corbet, M.P., is an enthusiast in lunacy reform, and he does not show himself altogether reasonable in his article in the *Westminster Review*. It is devoted to abuse of the Commissioners in Lunacy, condemnation of private asylums, and a protest against the propagation of the race by those who have been insane. The abuse of the Commissioners is chiefly directed against their assertion and belief that the increase of lunacy in England is more "apparent" than real. The Commissioners have some right to speak on the subject with authority; and while no one at all familiar with the subject doubts that the increase exists, it must at the same time be recognised that the apparent increase is greater than the real. There is ever, with the increasing keenness in the struggle for existence, a tendency for the feeble and incapable to be sent to public institutions. The result is that hundreds of harmless dements are sent to workhouses, and thence are transferred to the county asylums. Such people swell the numbers of admissions, the special money grant being an inducement to pass the quiet imbecile on to the asylum instead of keeping him in the poorhouse. The poor aged and chronic lunatic, moreover, lives longer in an asylum than he would at large; hence there is an accumulation of lunacy in all parts of the country. We do not deny that there is a real increase, and that this is a serious question, yet we do not think either the Commissioners or private asylums are responsible for this. Mr. Corbet has certain imperative ideas which dominate him. We are inclined to think he might do more good if, neglecting these ideas, he found out some way of increasing the staff of the Commissioners. Next as to his condemnation of private asylums, and the evils inseparable from private asylum keeping; we do not recognise any such inseparable evils. The best private asylums are as good as any public ones, and are certainly as free from scandals as the palatial hospitals and county asylums. Would the majority of cultured people prefer to be sent to hospitals rather than to nursing homes for surgical or medical treatment? Yet we see little difference in the two classes of cases. One effect of the unwarranted attacks on private asylums has been that instead of a few licensed houses under strict supervision, there are now hundreds of private houses kept by every kind of person, from discharged attendants to ex-M.P.'s, in which one or more insane persons are kept for the profit of the owner. Such persons have little or no training, and each is much more personally interested in his patient than the owner of a private asylum, who has more than one string to his bow. The existence of these homes points to the fact that ordinary persons prefer that their insane relations should not be in public institutions, hence private asylums or their equivalents are necessary. As to the suggestion that persons who have been insane should not marry, it is hardly necessary to say more than that we have not yet reached such a height of legislative perfection. A living alienist is reported to have said that if he had to select his own ancestry he would prefer that some member of it should have been insane rather than that his father should have been a churchwarden, for in the one case there might be a chance of originality, in the other none. Mr. Corbet does not show that he is competent to deal with the subject he has taken in hand. Very naturally he treats all forms of insanity as if they were one, but any such view must lead to false conclusions. In all sympathy with an enthusiast who believes he has a mission, we would advise him to learn more and say less; and though we have no special objection to an International Commission, we have little expectation of any arrest of insanity by such a means.

## OUT-PATIENT ABUSE.

A memorial to the President and Fellows of the Royal College of Physicians of London calling attention to the present system of administering medical relief in the out-patient and casualty departments at most of the hospitals and infirmaries of the country has, at the request of the Hospital Reform Association, been placed in the library of the British Medical Association, where it may be signed by those who consider that some united action is necessary.

## OYSTERS AND INFECTIOUS DISEASE.

Since public attention was first called in these columns to the probability of the dissemination of typhoid fever, and possibly of other diseases, by means of shellfish, we have published the admirable detailed report by Dr. Cartwright Wood upon his bacteriological investigations undertaken for us, and the Local Government Board has published an official report which confirms fully the importance of the subject. "There can be no doubt," Dr. Thorne Thorne wrote in summarising Dr. Klein's observations, "that oysters which have been brought into sustained relation with the typhoid bacillus are liable to exhibit that microbe within the shell contents, and to retain it for a while under circumstances not only permitting its rapid multiplication when transferred again to appropriate media, but conserving at the same time its ability to manifest its hurtful properties." Dr. Bulstrode's admirable report to the Local Government Board shows how sewage contamination takes place not only in oyster culture beds, but even in places where these shellfish are stored for the market, yet nobody seems to have a right to interfere, and the efforts of Corporations, like that of

Brighton, to obtain the necessary powers, have, in fact, been thwarted by the Central Health Department of the country. We trust that the Local Government Board do not intend to rest content with reporting, but that they will soon succeed in vesting local authorities, by statute, with the powers necessary to enable them to prevent the dissemination of infectious disease by means of shellfish grown at the outlet of sewers. So long as March, 1894, Dr. Newsholme, the Medical Officer of Health for Brighton, drew the attention of the Town Council to cases of enteric fever which he ascribed to the consumption of oysters from the Southwick beds. The Council officially drew the attention of the Local Government Board to the conditions at Shoreham Harbour, and the Port Sanitary Authority, who had also been communicated with, temporarily closed the oyster ponds. These were, however, again put into use in the course of the year. Representations were then again made both to the Port Sanitary Authority and to the Local Government Board. The former wrote to the effect that the matter was not within their jurisdiction. Brighton now attempted to act through the Steyning Rural Sanitary Authority, in whose district Southwick and its oyster beds lie. A deputation of the Brighton Council also interviewed the Local Government Board. In the last session of Parliament the Brighton Corporation attempted to get a clause inserted in their Improvement Bill giving them powers as to the importation, into their town, of shellfish which had been exposed to sewage contamination, similar to those already vested in local authorities in the case of milk suspected as being the cause of infectious disease. The Local Government Board opposed this clause, on the ground that the subject was being investigated by their inspectors, and that any legislation necessary should be general rather than local. While much is to be said in favour of this contention yet the history of sanitary legislation shows that local authorities have usually been the pioneers, and that many of the most important sanitary improvements in general Acts have been brought about by the adoption of clauses previously introduced and previously successfully worked by local authorities. We understand that the Corporation of Brighton are likely to be assisted by some of the other great towns who are becoming interested in this important question in a petition which they are now promoting to the Local Government Board, and we sincerely trust that the Government may take the matter in hand at an early date.

## THE GENERAL MEDICAL COUNCIL.

The Executive Committee of the General Medical Council, at its meeting on Monday, in accordance with the Standing Orders, filled up the vacancies caused by the fact that Mr. Wheelhouse and Sir Walter Foster have ceased to be members of the Council, by the appointment of Dr. Glover and Mr. Brudenell Carter. The Pharmacopœia Committee resumed its meetings on Thursday, under the Chairmanship of Sir Richard Quain, and its sittings will be continued on Friday and Saturday.

## UNIVERSITY COLLEGE HOSPITAL.

The evil days which have fallen upon this important hospital, which in its time has played so large a part in the advance of clinical medicine and surgery and in medical education seem at last to have been caused to pass away by a stroke of the pen. Lord Reay, the President of University College, was able to announce at the annual meeting of the members that Sir Blundell Maple, M.P., has placed at the disposal of the authorities of University College Hospital the sum of £100,000 for the purpose of rebuilding. It is very appropriate that a life of distinguished commercial success should thus be crowned by an act which will at the same time confer a great boon upon the labouring classes directly, and a boon of wider range indirectly, since a well-appointed hospital is an essential part of an efficient medical school. A resolution was adopted by the College recognising both of these points, and acknowledging that Sir Blundell Maple had laid University College under a deep obligation in providing the means to ensure the proper care and the proper training of medical students, which has always been one of the chief aims of the institution.

## MEDICAL EDUCATION IN MEXICO.

At the second Pan-American Medical Congress held in Mexico in November, 1896, Dr. Manuel Carmona y Valle, the President, in his inaugural address, gave an interesting sketch of the history of medical education in that city. The University of Mexico was legally established in 1553, thirty-two years after the Spanish conquest, but no provision for the teaching of medicine in it was made till 1578. In that year a chair of medicine was founded, called the *prima*, or morning class, this being the first chair of that science founded in the New World. The professor was supposed to teach the whole science, and he managed somehow to cover the ground in four years; the student appears, however, to have been required to work under some practitioner for a time. Candidates had previously to study Latin and to go through the course of arts, and astrology or mathematics, and to obtain the degree of Bachelor of Arts. In 1599 a second chair of medicine was founded, which was called *vesperas*, or evening class. In 1661 chairs of *methodus medendi* and of anatomy and surgery were established; and later a class of dissection and operative surgery was added. At the end of the curriculum the student obtained the degree of Bachelor of Medicine; subsequently, after a fresh examination, that of licentiate; and finally, after an interval, that of doctor. In 1768 a Royal College of Surgeons was established on the model of similar colleges then existing in Cadiz and Barcelona. In this College practitioners of a lower grade were trained; they were called "Romancist surgeons," to distinguish them from the "Latin surgeons" who studied in the University. At this College, also, phlebotomists, dentists, bonesetters, midwives, etc., picked up such scraps of knowledge as were required for the exercise of their several functions. After a time an ordinance was made that no one should be allowed to matriculate in this school who did not know Latin. In 1830 a further step was taken for the improvement of the professional education of the surgeons in the shape of an enactment that no one should be admitted to the school of surgery who had not previously obtained the degree of Bachelor of Philosophy. In 1831 the two branches of the profession were finally amalgamated; all candidates were required to submit to examination in medicine and surgery, and the faculty conferred a diploma in both, instead of the various diplomas of physician, "Latin surgeon," and "Romancist surgeon," which had previously been given. The numerous political changes which swept over Mexico in the years following 1833 affected the medical school, which was several times closed and more than once in danger of destruction. Largely owing to the public spirit of its professors, however, it managed to survive, and, under the enlightened administration of General Diaz, it has now developed into a highly efficient teaching institution. Before 1833 it had 11 professorships; from that date to 1877 only 5 were added. From 1877 to the present date 10 new chairs have been established, without counting a large staff of clinical teachers, assistants, and prosectors. At the present time no one is admitted to the study of medicine in Mexico who does not prove that he has passed a successful examination in his five-year course of preparatory studies, which include the following subjects: First and second year of mathematics; first and second year of French; first and second year of English; first and second year of Latin, Spanish, Figure and Landscape Drawing, Physics, Cosmography, Chemistry, Greek Roots, Universal and National Geography, Botany, Zoology, Logic, Ethics, Universal and National History and Literature. The medical courses must be taken in another five years, and include the following subjects: Descriptive Anatomy and Dissection, Normal Histology, Elements of Pharmacy, Physiology, Surgical Pathology (two years), Medical Pathology (two

years), Topographical Anatomy, Operations, Bandages and Apparatus, Therapeutics and Materia Medica, General Pathology, Surgical Clinics (two years), Medical Clinics (two years), Medical Jurisprudence, Hygiene and Medical Meteorology, Obstetrics, Clinical Obstetrics, Anatomy and Pathology, Bacteriology, Ophthalmological Clinics, Gynæcological Clinics, and Clinics of Infantile Diseases.

## THE ROYAL BOTANIC SOCIETY OF LONDON.

This ancient Society, which has been the source of so much quiet pleasure to many Londoners, now has under consideration the desirability of making a new departure, and of contributing in some way in a more active manner than has hitherto been possible to the advancement of the science of botany as well as of the art of horticulture. A proposal has been made to establish a Botanic Institute in the Gardens, and has been well received both by the Council of the Society itself and by leading men of science. The proposal is to be the subject of an address by Mr. W. Martindale at a meeting of the Society on this day (Saturday), at 3.45 P.M. This meeting will be held in the Museum in the Gardens, and we understand that discussion will be invited. Any final decision as to the scheme, however, must depend upon the renewal of the lease of the Gardens, which is held from the Crown, but there can be no doubt that the provisional adoption of any well-considered scheme for the practical study and teaching of botany in a well-appointed institute would greatly strengthen the appeal of the Society for a renewal of its lease.

## SEWER VENTILATION.

Dr. Walford, the medical officer of health of Cardiff, has presented to the Sanitary Committee of that town a report on "sewer ventilation," in which he discusses the matter generally, and gives a synopsis of replies received to inquiries which have been addressed to the medical officers of health of various towns as to certain points in connection with the subject. Out of 45 towns from which replies were received there were 18 in which the sewers were ventilated by ventilators opening at the street level, and 24 in which such ventilators were supplemented by pipes carried above houses. In 21 of the 42 towns having ventilators opening at the street level complaints of nuisance were stated to be numerous, and in 16 not numerous. In 2 towns pipe ventilation, carried from 30 to 80 feet high, were used, no street ventilators being employed. In Bristol the sewers are not ventilated at all, and this system is approved by the medical officer of health and city engineer, who desire no change. With regard to the question of the connection of illness with the system of ventilation adopted, there were 6 replies of a directly affirmative character, 11 replies were somewhat doubtfully expressed, and 28 were directly negative. A tabulated statement analysing the replies received is appended to the report.

## MONGOLIAN MEDICINE.

Dr. J. J. Matignon, an army surgeon attached to the French Legation in China, gives an interesting account of Mongolian medicine, based on information received from a Mongol who is physician-in-ordinary to the living Buddha of Ourga. Medicine among the Mongols is a monopoly of the Lamas. There is a school of medicine at Ourga, where, after a prolonged course of philosophy and Buddhist theology, three years are given to the study of the art of healing. Mongolian medicine is largely derived from Chinese, and, through that, from European medicine as it was two centuries ago. The European strain comes from the old treatises translated into Chinese by the Jesuits in the reigns of the Emperors Kien-Long and Kan-si. Mongols do not dissect, and their knowledge even of the position of the internal organs is vague. The number of diseases is fixed at 440. Works on medicine are very numerous, the chief one being a kind of encyclopædia, entitled *Khlantap*, which is divided into eight sections, and consists of 156 chapters. Their methods of physical examination are like Sam Weller's knowledge of London, "extensive and peculiar." Thus more than 70 varieties of pulse are described. The urine is examined with great minuteness in respect of its colour, smell, and clearness, samples passed at many different hours of the day being used. It is also subjected to a kind of auscultation, being beaten with a wooden spatula, and the vessel then quickly applied to the ear. In the case of rich patients the examination is made more thorough by tasting, a procedure which naturally is made the ground of a special charge. Mongols, like practitioners of former days in Europe, profess to be able to diagnose and treat all sorts of cases on the strength of an examination of the urine alone. The treatment is largely internal, and their pharmacopœia is mainly composed of vegetable substances. Every year in September the students make excursions under the direction of their teachers for the purpose of culling simples, which are dried, classified, and catalogued. Aromatic plants, such as cinnamon and benzoin, play a large part in their therapeutics. Animal and mineral substances are also used, but to a much less extent. The Mongol doctor carries his drugs about with him. Each medicament, dried and triturated, is put into a small leather bag, which is properly labelled; some practitioners carry as many as 300 of these bags enclosed in a larger one or in a box with a spoon to measure the doses. Like the ecclesiastical physicians of the Middle Ages, the Lamas are forbidden to practise surgery, although in cases of crushed limbs or other severe injury necessitating amputation they may direct a butcher how to use a knife. They practise venesection, however, use poultices for the maturation of abscesses, and vigorous massage for the relief of headache and other pains. Recent wounds are dressed with lichen of the steppes or with deer fat. They use counter-irritation by moxas, acupuncture, and ignipuncture, and they practise wet cupping by means of ox horns. Preparations of sulphur and lead are used as applications in diseases of the skin; and bathing in hot sulphur springs in syphilis. Fish's bile is credited with the power of curing cataract. Human bile, and that of the bear and of the hyæna, also frequently enter into the composition of their medicinal preparations. Anticipating Brown-Séquard, Mongol doctors seek to restore vigour to old men by the internal administration of ram's testicles. "Organotherapy" is also employed. Thus, the flesh of the sheep is given for vertigo, that of the antelope for diarrhœa, that of the water rat for nephritis and dropsy, that of the marmot for dysmenorrhœa, that of the beaver for spinal disease and impotence, that of the wolf in diseases of the stomach. They are acquainted with the parasiticide properties of mercury, and use it to destroy the vermin with which their countrymen are generally infected. The most prevalent diseases at Ourga are syphilis and skin affections, but typhus, typhoid, malaria, and other fevers are very common. In treating fevers they purge with rhubarb, and when that fails they give enemata or suppositories, the latter being composed of salt and sugar. They also give nux vomica, sudorifics, and ginger, and juniper is burnt round about the patient. Cholera is treated chiefly by acupuncture under the nails, on the tongue, and around the anus; and as a last resource by burning the pit of the stomach.

## AN ARSENIC DEATH-TRAP.

The district Coroner for Camborne held an inquest recently concerning the death of a girl 8 years of age, who died under exceptional circumstances, having fallen into a flue in which arsenic was accumulated at the East Pool dressing floors. The child, accompanied by an elder sister and two other girls, had taken her father's dinner to a tin burning factory, where the parent was employed, and whilst taking a short cut home, and walking with the others four abreast upon a much frequented pathway, she inadvertently put her foot

upon an iron plate, which gave way under her, and she was at once precipitated into an arsenic flue. Only a few minutes elapsed ere she was extricated by her father, who on lifting her to the surface thought her dying as she was unable to speak. The girl was covered with arsenic dust. Although professionally attended the patient died ten days after the accident. Here certainly is a case which shows the necessity for the application of the Employers' Liability Act and insistence by factory inspectors upon proper safeguards. It is almost inconceivable that arsenic flues in any factory should have been allowed at the level of the ground, and unprotected save by an iron plate. In some of these tin burning shops it would appear that granite plates instead of iron or tin are in use to cover the mouth of the flues, but it seems of little moment what is the nature of the covering of these chambers if their mouths are to remain at the level of the ground, for therein lies the danger. All such spaces which are the medium for the escape or accumulation of metallic or other forms of dust dangerous to health should not be allowed to have their exit at the level of a pathway and in close proximity to it, but should be carried several feet above the ground, fenced off by a railing, covered, and a notice affixed to it indicating that there is danger in the flue.

## SANITARY CONDITION OF THE BOMBAY PRESIDENCY IN 1895.

THE report of the Bombay Sanitary Commissioner (Surgeon-Major J. Clarkson) for 1895 indicates that the year was a comparatively healthy one. The registered birth-rate of the Presidency was 35.83 per 1,000 and death-rate 28.61. The results of birth and death registration, however, present such discrepancies and anomalies that they are obviously quite unreliable. For example, the proportion per cent. that still-births hold to all births in the City of Bombay is about 10, the ratio for the whole Presidency being 1.03. This circumstance exercises the Government considerably, and speculations are offered to account for it. There are 18,486 Europeans in the Bombay Presidency, whose birth- and death-rates were 19.37 and 19.31, and 8,519 Eurasians, with rates of 19.25 and 25.71. The latter appear very low in view of the known fecundity and morbidity of the race. The death-rate of Mohammedans was 20.55, and of Hindus 30.87. No attempt is made to explain this very marked difference. Cholera, small-pox, and fevers were considerably less prevalent than in 1894. The incidents of prevalence of cholera are given in great detail, but no new light is thrown on causation. Particulars of local sanitary work are minutely recorded; but broad discussions of sanitary questions and problems, such as might be expected in a general review of sanitary administration, are conspicuous by their absence. The report is uninteresting and dreary to a degree. The most interesting part of it is the report of the health officer of the Bombay Port (Surgeon-Major J. Crimmin, V.C.) in which particulars are given of the pilgrim traffic. It appears that on the outward voyage 61 deaths took place among 17,102 pilgrims, and on the homeward voyage 88 deaths among 11,866. The difference between the number of those who left and those who returned was 28 per cent. One hundred and forty-seven deaths took place in the lazarette at Camaran, of which 72 were due to cholera. The disease broke out among the passengers of three steamers on the fifth, sixth, and seventh days after they had been landed. The crews of these steamers did not suffer. In the case of one of them 684 pilgrims had to be brought back without completing the Haj, owing to detention at Camaran on account of cholera evidently acquired there. Surgeon-Major Crimmin observes that "as a compulsory quarantine station Camaran should be abolished, as the drinking water is bad and the sanitation primitive," and there can be no doubt regarding the correctness of his opinion. The station as at present managed is simply an instrument of legalised manslaughter.

## THE HEALTH OF THE BRITISH TROOPS IN INDIA.

A PRACTICAL step to bring before the Government and the general public the necessity for restrictive measures in regard to venereal disease in the Indian army was taken on February 19th by a lecture, and discussion thereon, at the United Service Institution. Lieutenant-General Sir JAMES HILLS-JOHNES, V.C., G.C.B., R.A., was in the chair, Major-General R. L. Dashwood was the lecturer, and the theatre of the institution was filled by some 230 naval, military, and medical officers, most of whom had seen active service.

Major-General DASHWOOD's lecture was based upon the facts and figures in the Annual Reports of the Sanitary Commissioner in India, and other similar official documents, and the deduction he drew from them was that since the abolition of the Contagious Diseases Acts in India (in 1888) cases of venereal disease had increased to a very alarming extent, and since 1872, when the rate of admissions to hospital was 179, had nearly trebled. The actual figures quoted by the lecturer showed considerably fewer admissions to hospital in 1891-92, but the reason of this was that when the dreadful results of abolishing these sanitary regulations became apparent, in many stations preventive measures were carried out by the subordinate authorities on their own account. The Principal Medical Officer's Report (in India) showed that the total number invalided for venereal diseases of all classes was 1,663, so that the numbers sent home were nearly a fifth of the whole strength. In regard to other foreign stations, venereal disease had increased since the abolition of the Contagious Diseases Acts. For 1885-7 in the West Indies, the admissions were 236 per 1,000; in 1895, 332; in China and the Straits for the same period but 164; in 1895 they were—China, 403; Straits, 623—an enormous increase. The lecturer then contrasted the admissions to hospital for venereal disease on the Continent, where sanitary regulations are carried out, namely, Prussia, 26.7; French soldiers, 43.8; Austrian, 65.7; Italian, 104. In 1895 the admissions in the United Kingdom were 195.

Brigade-Surgeon-Lieutenant-Colonel CLIMO wished to supplement the lecturer's statements from his own experience of thirty years in India. For the chief part of that time he was intimately acquainted with the lock hospital system, and he could therefore deal with the objections made against that system. These objections ranged themselves under three heads: (1) the gross immorality of the regulation system; (2) the injury done to women; (3) the failure of the Contagious Diseases Acts as remedial measures. As to the first objection, he could see no immorality in endeavouring to stop the diseases contingent on prostitution. Objectors alleged that the regulation of prostitution, with permission to live in regimental bazaars, was abetting vice; but with a large body of men collected in one place and deprived of women's society, the abolition of the Cantonment Act would be followed by worse things. All the facts went against the second objection mentioned, and for the twenty years he had watched the working of the Acts he had never seen a case of oppression. And, as regards the third objection, surely the lecturer had disposed of the case for the alleged failure of the Contagious Diseases Acts.

Vice-Admiral KENNEDY explained how a notice about his own ship in *Truth* led him to investigate, and he then found that of the 38 cases of bad health on the ship's list, 36 were venereal cases.

Surgeon-Major-General J. B. HAMILTON desired to speak of the facts of the case as known to him during thirty-seven years of service at various stations in India. In the days of his early experience there were remarkably few cases of venereal or enteric fever, probably because at that time the soldiers were married men; but when the army became young, by reason of the short service system, cases of enteric fever and venereal advanced *pari passu*. The younger men undoubtedly contracted more disease than the married soldiers had done. He went with his regiment to Suakim; every man in the regiment (220) was examined before leaving Dublin, but before reaching Suez there were 30 cases of venereal: therefore, from 7 to 8 per cent. of the regiment had to be left behind for this cause. Then again, in Lucknow, he had charge of the station hospital, with some 2,500 to 3,000

Europeans troops from 1880 to 1891. There was an average of 50 venereal cases, with only an odd case or two of secondary syphilis; but before 1881 there were seldom less than 25 chronic cases of secondary syphilis; and on the occasion of a camp instruction, when the Rifles, the Buffs, and other regiments came in, entirely without any sick, they had not been there more than two or three weeks before there were 420 men in hospital, mostly for venereal. As regards India generally, he estimated that there were about 5,000 men incapacitated from duty regularly on account of this disease. At Cawnpore he was appointed a magistrate by the local government, and by getting the police to prevent soldiers going into the city gonorrhœa cases were reduced from about 70 to one single case. On the other hand, what had the abolitionists done since the Acts were repealed? Had they sent missions to the fallen women? Had they attempted to improve the morals of the men? Had they prevented women being trained as prostitutes? No such attempts had been made by the abolitionist party. For his part, he believed the Contagious Diseases Acts saved hundreds of girls from prostitution from fear of what were then called the "water police." Another point that might be urged was that the statistics on this subject did not fully express the facts, especially in regard to invaliding, for scores of men were invalided every month on account of suffering from diseases arising from venereal, though not tabulated amongst venereal cases. As regards proposed remedies, he believed the re-enactment of the old Contagious Diseases Acts was impossible—the opposition in Parliament would be too great; but he held that venereal diseases should be put on exactly the same lines as other infectious diseases, and he saw no reason why women should be allowed to go about spreading this disease. Tickets to these women would not be allowed as a proof of cleanliness, but voluntary lock hospitals should be provided, and women known to be infected should be compelled to enter, and should be detained till cured. An infected woman should be arrested as a dangerous person to the public health.

Colonel P. H. Smith said that since the abolition of the Acts there was not a single prostitute less in India, and their state was a great deal worse. If the English public could be induced to believe that, something remedial would be done. The Indian authorities were powerless unless supported by the public opinion at home.

Mr. H. J. Wilson, M.P., opposed the regulation system in a speech read for him, because he suffered from a temporary loss of voice.

Mr. Jeffries, M.P., thought the Contagious Diseases Acts could never again be enforced in England, but he felt sure the resolution of the House of Commons stopping the regulations in India in 1888 was wrong. India should be allowed a free hand. He quoted statistics from Parliamentary papers showing the good of the Contagious Diseases Acts in Malta, and contrasted them with the lecturer's statistics *re* India.

Sir Henry Cunningham said it had been shown that restrictive measures, though inadequately carried out, did good, but Parliament insisted on their abolition, and disease increased. Yet no disease was so fraught with dreadful consequences to humanity, took more subtle forms, or afflicted so many innocent people. The number of men shown to be rendered *hors de combat* by venereal diseases was ample justification for remedial measures. There must be a counter-agitation to that of the abolitionists.

Field-Marshal Sir Donald Stewart, Major Rasch, and Dr. Drysdale having spoken,

Surgeon-Major-General O'Dwyer contrasted Malta with India. In Malta the Contagious Diseases Acts remained in force because the Maltese declined to repeal them. After quoting statistics in detail he showed that in 1895 venereal cases in India were 534 per 1,000, and in Malta 134—one-fourth of the number in India.

Of the remaining speakers, the regulation system was strongly advocated by Major J. K. Scott-Moncrieff, Mr. N. C. Macnamara, Major-General Tulloch, Lieutenant-Colonel Wintle, Lieutenant-Colonel Fawkes, and the Chairman; and was opposed by Mr. Maurice Gregory, Dr. Routh, Dr. Berdoe, and Rev. J. H. Lynn. The meeting lasted about three hours.

A suggestion to form a committee to agitate for restriction was not adopted, it being felt that the presentation of the report of these proceedings to the Government would be sufficient for present purposes.

## LITERARY NOTES.

The February number of the *Phonographic Record of Clinical Teaching and Medical Science*, issued by the Society of Medical Phonographers (London: Pitman, 1, Amen Corner), contains, in addition to correspondence and official announcements, a tribute to the late Sir Isaac Pitman, from the pen of the President of the Society, and an interesting report upon the work done by the manuscript magazines, which circulate through the post among groups of the members.

Professor Francis Darwin is preparing to publish a supplementary series of Charles Darwin's letters. His projected volume will include a full selection from those letters of a purely scientific interest which he was unable to print in the *Life and Letters*, as well as from any fresh material that may now be intrusted to him. Those of Darwin's correspondents who have not already done so are requested to allow him to make copies of any letters of his which they possess, even though they are apparently of only slight or restricted interest.

It has already been mentioned in this column that Dr. Toulouse has undertaken an exhaustive inquiry into the relations between intellectual superiority and nervous disease, and that he has already published the first results of his labour in the form of a detailed account of M. Zola's medical history, personal and family, physical constitution, peculiarities and habits. We are not surprised, however, to learn that M. Toulouse has met with considerable difficulty in finding further clinical material for his purpose. Madame Sarah Bernhardt and another famous actress, Madame Jane Hading, have declined to be bottled as specimens in the pathological museum of genius, and M. Berthelot, the distinguished chemist and late Minister for Foreign Affairs, has replied to the effect that he does not care to be stripped naked in public. M. Toulouse will probably have to be contented with persons whose "superiority" consists in the possession of a genius for self-advertisement.

According to a writer in *Notes and Queries*, the hero of the familiar ballad "Robin Adair" was a dashing young Irish surgeon who, about the middle of the last century, finding his way into London society, was fortunate enough to gain the affections of Lady Caroline Keppel, daughter of William second Earl of Albemarle and his wife Lady Anne Lennox, daughter of Charles, first Duke of Richmond. The match was not looked upon with favour by the lady's noble relatives, and it was during a period of enforced separation that Lady Caroline is said to have written the words of "Robin Adair," and set them to the old Irish air of "Eileen Aroon," which she had learnt from her lover. At length the course of true love ran smooth, and the pair were married on February 22nd, 1758. Within a few days of the wedding Adair was appointed Inspector-General of military hospitals, and, subsequently becoming a favourite of the King, he was made Surgeon-General, Serjeant-Surgeon to the King, and Surgeon of Chelsea Hospital. He died in 1790.

In a recent number of the *Scots Magazine*, Dr. W. W. Ireland has something to say on Hindustani doctors. Twenty years ago there were scarcely any regular practitioners in India among the natives save a few in large and wealthy towns: even now the number of them is small compared to the vast population, but in every village there is a Brahmin who can open a vein, or blister with euphorbia, give a dose of atees or katharinga for ague, or set a fracture. In India one may find something of the mediæval superstitions of Europe—astrology, alchemy, magic, exorcism, miraculous cures, vows and pilgrimages for the restoration of health. The practice of the hakim or physician getting no pay unless he effects a cure is common in the East; and, in fact, the gentle Hindu is even more reluctant to pay his doctor than the average European. Doctor Ireland gives some suggestive hints of the fraud and profligacy which made the system of pilgrimages to sacred shrines in search of health to a considerable extent an imposition on the credulity of the faithful.

# THE PLAGUE.

## CALCUTTA.

### Pestis Ambulans.

So many conflicting statements have been made with regard to the occurrence of mild cases of plague in Calcutta, that we think it well to publish the following particulars, based on authoritative information which has been supplied to us. It must be premised that the Medical Board of Calcutta consists of a president (who is not a medical man), two engineers, a merchant, Dr. Cunningham (the Inspector-General of Civil Hospitals), and Surgeon-Captain Dyson (Sanitary Commissioner for Bengal). We are informed that 5 cases of pestis ambulans and 1 fatal case of pestis major have occurred in Calcutta. The fatal case presented all the clinical symptoms of plague—high fever, enlarged and painful inguinal glands, petechiæ, and coma, followed by death in three days. Bacteria considered to be characteristic were found in the blood before death. All the cases were reported to the Medical Board, the constitution of which has been mentioned above. The Board decided that the cases were not plague, although medical men who had seen them were of a different opinion.

### Non-Venereal Bubo and Plague.

Besides the cases mentioned above, which were reported to the Board, the Shropshire Regiment, which came from Hong Kong in January, 1895, has had a succession of cases of fever accompanied by buboes, the nature of which perplexed the medical officers. Surgeon-Major Skinner, the medical officer in charge, in his letter in the British Medical Journal of January 9th, 1897, gives some details as to the outbreak and his views on the subject. The medical officers came to the conclusion that the buboes were not syphilitic, and attributed them to the following causes: climatic, constitutional, malarial, uncertain, and unknown.

On hearing of the first case of pestis ambulans which came from Bombay which was seen by Drs. Cobb, Tomes, and W. J. Simpson, the medical officer in charge of the station hospital brought these cases occurring in the Shropshire Regiment to the notice of Dr. Cobb, the Consulting Physician to the East Indian Railway, and of Dr. Simpson, the Medical Officer of Health for Calcutta, by whom the men were examined. Microscopical specimens of the blood from the fingers of ten were made, and in all a diplobacterium was found. From two of the soldiers blood was taken from the veins and put direct into culture tubes, and similar bacteria developed in a few days.

The symptoms of these soldiers corresponded to those described in a paper written by Dr. Cobb and Dr. Simpson in the *Indian Medical Gazette*, November, 1896. Some of the cases were, however, more chronic than those described. The important point with regard to the cases is the part which the Shropshire Regiment played in the outbreak of plague at Hong Kong, where they were employed in cleansing plague-infected houses, and where some of them died of plague, and a number were affected with the same glandular sickness, from which they have suffered more or less since their arrival in Calcutta from Hong Kong two years ago.

Dr. Cunningham subsequently examined the blood of these patients with negative results, but the fact remains that every microscopical specimen of the blood of the ten patients examined in October last, and taken under the strictest precautions, contained the same micro-organisms, and one not dissimilar to that described by Kitasato.

### Illness among Rats.

In two grain shops in Calcutta having communication with Bombay attention was drawn to the fact that a number of sick and dead rats were to be found on the premises. These sick rats on examination were found to be partially denuded of hair, their conjunctivæ were injected, they were dull and did not avoid people, and they seemed to have difficulty in moving about. Their blood was found to contain diplobacteria. On *post-mortem* examination the axillary and inguinal, and sometimes the submaxillary, glands were found to be congested and enlarged: and in one rat examined the whole cervical chain of lymphatic glands were suppurating. Micro-organisms were found in the liver and spleen of all examined. As a control experiment a large number of healthy rats were examined with negative results. The infected houses were cleansed and disinfected, all the rats destroyed, and one of the houses was closed and the inhabitants removed.

### Bombay Merchandise.

An instructive case occurred in another house in intimate commercial connection with Bombay. A little child was attacked with fever and glandular swellings, one of the swellings in the groin going on to suppuration. During the inquiry into the possible cause of the illness, and while inspecting the warehouse on the ground floor of the house, attention was drawn to certain bales of goods which came from Bombay, and among which the child was in the habit of playing. Here a sick rat, much in the same condition as those already described, was found. The blood of both the child and the sick rat was found to contain similar micro-organisms.

### Preventive Measures Adopted.

The measures of prevention, such as the isolation of sick patients, the disinfection of the houses and suspected articles, and the destruction of diseased rats have happily so far been successful, and, as far as is known, no other cases of plague have occurred in Calcutta. Dr. Cobb very promptly got the authorities of the railway to introduce medical inspection of passengers in September last, and he has now submitted a scheme for quarantine camps at certain junction stations on the lines from the infected districts, and it is hoped that these and the other measures mentioned may prevent plague from effecting a lodgment in Calcutta.

Vigorous measures are being taken to have the city cleansed; but the overcrowding is such that if plague comes to Calcutta it will not be easily got rid of. As there is no plague in Calcutta it is not likely that the disease will be conveyed from the port. There is a port health officer who examines the ship and gives a clean bill of health.

## CHRONICLE OF THE EPIDEMIC.

### Famine and Plague.

Which is the greater evil, plague or famine, is the question arising in the minds of the people of the Bombay Presidency. Reducing the matter to pounds, shillings, and pence it is answered by stating that famine will cost, say 10 million pounds and some thousands of lives, but plague will cost the country some scores of millions by loss of trade and tens of thousands of lives. The charitable fund which is being raised in this country is being devoted to the less expensive of the two calamities.

### Haffkine's Antitoxin.

The interest of the hour centres in Dr. Haffkine's inoculation experiments. Europeans as well as natives are submitting to the process. The *Bombay Gazette* of February 21st says: "Dr. Haffkine's antitoxin has now reached a stage when it can be largely used in those plague cases in which the patient is not moribund. The stables at Sewree, where sixty-five horses are under treatment, are being enlarged to accommodate 500 more. The treatment neither hurts nor harms the horses. The results from the use of the serum have been so successful that the municipality are opening a station in the town for free inoculation. Over a thousand natives and leading Europeans have already been inoculated. A sufficient supply of lymph can be made for all India and Afghanistan."

Dr. Yersin is on his way from Saigon to Bombay with a stock of serum.

### Improvement in Bombay.

The number of cases and deaths from plague in Bombay from Friday, January 29th, until Thursday, February 6th, read as follows:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Cases ... ... | 128 | 110 | 87 | 112 | 68 | 114 | 116 |
| Deaths ... ... | 69 | 76 | 88 | 86 | 97 | 98 | 93 |

The reading shows signs of improvement. The nearer the number of deaths approaches the number of new cases the nearer is the end of the epidemic. Towards the disappearance of the disease the deaths will of course exceed the new cases in large numbers. The telegrams from Bombay dated February 23rd, 1897, declare that there is a sign of improvement in the plague epidemic, and that the mortality returns are less. According to the public prints, it is stated that

Mandvie, the district first seized by plague in Bombay, was free of plague on February 2nd, and that the Byculla and Mazagon districts, the better quarters of the town, were the last to be seized, and that at the present moment they are the only districts that show double figures in their case or death returns. The B ward, one of the seven wards into which Bombay is divided, had only 2 new cases and 3 deaths during the first week of the current month.

### The Seven Months of Virulence.

The virulence of the epidemic is expended; the six to seven months of its wonted period of activity are over. The B ward was the first attacked, and its seven months of plague and pestilence have been fulfilled. Every other place attacked by plague has to run the gauntlet of a seven months' epidemic, and it is not in the power of man to stay it. We expect Bombay to be a port free of infection by the middle of April.

### Quarantine.

Meantime quarantine is being imposed on every hand at Goa, Egypt, Gibraltar, Marseilles, and even far away Natal is exercising strict vigilance on the immigrants from India. The dread in Natal is totally without precedent to justify it, as we have never heard of plague reaching south of the equator; the report that it has been in Uganda requires confirmation.

### Sanitary Legislation in Calcutta.

The Imperial Legislative Council in Calcutta has passed a Bill bestowing further power upon sanitary authorities for dealing with the prevention of the spread of epidemics. We welcome this measure, but we fail to find that a single medical man is on the Select Committee to which the Bill is referred. The ascendency of the medical authority is slow, but let us hope not less sure.

### The Constitution of Sanitary Boards.

In the meantime, everyone except the doctor is held to be specially suited to sit on Boards of Health, and legislate for sanitation. The moment disease prevails, rash, hysterical, and ephemeral steps are taken, doing a mere empiric good, and the landlord's pocket and the merchant's banking account determine sanitary needs. Disinterested scientific men qualified to pronounce an opinion are the only rightful occupiers of seats on such Boards, but their day is not yet. The state of Calcutta is to be laid at the door of greedy landlords and a weakly lenient Government, and not on the shoulders of the sanitary authorities, to whom neither power nor money is given.

### Small-pox and Cholera.

Small-pox is prevalent in Agra; cholera is reported in the native state of Rewa, and the Russians have obtained permission to place a sanitary cordon under Cossack guards along the Perso-Afghan frontier. These are some of the collateral medical and medico-political events of the week. No Mecca pilgrims are to be allowed to embark at any port of the Indian Empire until the plague epidemic abates.

### Articles Excluded at German Ports.

The articles excluded at German ports when they come from plague-infected ports are: Body linen, worn articles of apparel, bedding, waste and rags of every kind, carpets, human hair, untanned hides and skins, raw hair and bristles, wool, cloths, and hoofs. The prohibition does not apply to the personal effects of travellers nor to their household goods, which, however, must be disinfected before being landed.

### Suspicious Cases in the Persian Gulf.

The Constantinople Board of Health received a telegram from Dr. Lubicz, Sanitary Inspector of Bagdad, dated Bassora, the principal port of the Persian Gulf, February 3rd, stating that a young Indian woman who had arrived there from Karachi by the steamship *Khandalla* in a very feeble condition had died on the seventh day of her quarantine, but without presenting any indication of a suspicious nature. On February 2nd another young woman of robust health, who belonged to the same family and had come with the same passengers from the same place, was taken ill with high fever and fell into a comatose condition. A further telegram from Dr. Lubicz, dated February 6th, states that a young woman who was seized with fever on February 2nd died on the 5th; her chest, arms, and legs were covered with petechiæ. All the clothing and effects of the two young women were burnt immediately after their death.

## ROYAL COLLEGE OF PHYSICIANS OF LONDON.

An extraordinary Comitia of the Fellows was held on Tuesday, February 23rd at 5 P.M., Dr. Wilks, President, in the chair.

A letter from the Secretary of Mason College, Birmingham, was received referring to the proposed new statutes for that body. A communication was received from the Warden of St. Bartholomew's Hospital relating to the University of London question. Letters were received from the Secretary of the Royal College of Surgeons on matters concerning the two Colleges jointly. A letter was received from Sir F. Bateman enclosing a memorial from the medical men in Norwich respecting a medical friendly society in Norwich known as the Norwich Medical Institute having special reference to the question of meeting in consultation the medical officers to the Institute. Sir W. O. Priestley, M.P., proposed that the matter should be referred to the Council; this was seconded by Dr. Cullingworth. Dr. Moore, Dr. Coupland, and Sir R. Douglas Powell took part in the discussion which arose. The motion was adopted.

A letter was received from the Portsmouth Medical Union respecting alleged irregular practice by licentiates of the College. Dr. Dickinson proposed, and Dr. F. Roberts seconded, that it be referred to the Censors Board, which was agreed to.

A letter was received from Dr. Rentoul relating to the Midwives Registration Bill now before Parliament. A letter was also received from the Midwives Bill Committee relating to the same subject. Sir W. O. Priestley moved that the letters be referred to the Standing Committee on this subject. This was seconded by the Registrar and agreed to.

Dr. Allchin moved the adoption of a report from the delegates of the two Colleges on the question of a teaching university for London, asking the Government to reintroduce a Bill for the reconstitution of the London University by statutory commission at the earliest opportunity. He briefly recapitulated the various steps that had been taken by the College in connection with this subject. Within the last four months there had been a movement for effecting the change by means of a charter, and one he could say that would certainly not prove acceptable to the College. It was therefore necessary that the College should reiterate its desire to adhere to the policy previously adopted. It was intended that a meeting of the delegates of all the bodies interested should be held in a few days to consider a similar resolution. Dr. Moore seconded the resolution. The President thought the College could have no difficulty in adopting the resolution which had already been adopted by the Council of the College of Surgeons. The resolution was agreed to, and copies ordered to be sent to the Lord President of the Council, Mr. Balfour, and the Senate of the University of London.

The President submitted a resolution agreed to a meeting of the Presidents of scientific societies, convened by the President and Council of the Royal Society:

> That a fund to be called the Victoria Research Fund be established, to be administered by representatives of the various scientific societies, for the encouragement of research in all branches of science.

Dr. Dickinson was in favour of the College approving of the President taking part in this movement as the representative of the College.

Sir Dyce Duckworth moved:

> That a Committee be appointed to advise the College on the desirability of making a formal declaration of opinion to the Government in favour of the re-enactment of the Contagious Diseases Acts.

He said his object was solely in reference to the disease as met with at the military stations in India. He felt very strongly that this College ought to make a pronouncement to the Government on this subject before any further legislation was undertaken; the College ought to lead public opinion in this matter. Sir W. O. Priestley seconded this proposal,

and said he believed the subject was engaging the serious attention of some members of the Government; it was quite clear that something must be done. He suggested that perhaps a modification of the former Act might be found to meet the difficulty. The PRESIDENT spoke very strongly of the benefits found by all who had real experience of the working of the former Act. Sir Dyce Duckworth, Dr. Church, Dr. Payne, Sir Joseph Ewart, Sir William Roberts, Dr. Bowles, Dr. Barlow, and Dr. John Anderson were nominated as the Committee, and the resolution was agreed to.

A report from the Committee of Management was adopted.

## DIAGNOSTIC DIFFICULTIES IN INFECTIOUS CASES.

AN interesting matter came before the meeting of the Metropolitan Asylums Board held on February 13th. At a previous meeting questions had been asked as to the possibility of preventing the admission of patients who, although certified as suffering from diphtheria turned out ultimately not to be affected with that disease. On the one hand it was suggested that they ran great risks from being admitted into diphtheria wards, while on the other it was clear that the number of beds available for diphtheria patients was diminished by their being used for other cases.

According to the report of the General Purposes Committee the total number so admitted during the two years 1895-96 was 1,202. Of these only 26 subsequently contracted diphtheria, and of these again 5 died, one from tuberculosis and three others from causes "not strictly due to diphtheria."

In regard to the possibility of taking any further steps to prevent the admission of these wrongly certified cases, Dr. Goodall says: "The bacteriological test—especially if only one examination is made—is not sufficiently reliable. Moreover, a considerable number of cases sent to this hospital as diphtheria are found on or soon after admission to have scarlet fever. During the two years 1895-96 the number of such cases was 146. A negative bacteriological result in such cases would only lead to a scarlet fever case being left at home."

In regard to a preliminary bacteriological test Dr. Gayton says the conclusion could not be considered final, as sometimes bacilli are not found until after three or four examinations, and thinks the proceeding would inevitably produce friction between the Board, the notifying practitioner and the medical officer of health, while the onus cast upon the bacteriologist would be by no means inconsiderable.

Dr. Bruce also points out how many of these cases ultimately turn out to be suffering from scarlet fever.

Dr. Caiger thinks, and very rightly so, that "general practitioners would fight very shy of certifying for removal if their cases were likely to be rejected."

Dr. MacCombie says that excluding those which turn out to be scarlet fever, the majority are cases of follicular tonsillitis. "Diphtheria can, *as a rule*, be definitely excluded by bacteriological examination *within a few days* of admission." The words we have placed in italics show how difficult it must always be for a practitioner to be absolutely certain in his diagnosis in an early stage of the disease, and how limited the use of hospitals would be if absolute certainty were insisted on.

In regard to enteric fever, 425 cases wrongly diagnosed as such were admitted during the two years 1895-96. Of these only one subsequently contracted enteric fever, and this case was not fatal.

Most of the medical superintendents say that, although wrongly diagnosed, these cases were generally very ill, and could not be turned away. They rightly insist on the difficulties which sometimes exist in arriving at any early diagnosis.

Dr. Gayton says that there is "a disposition on the part of some medical men to adopt the rule—when in doubt call it enteric." But in view of the advantage of early removal from slum surroundings, and the danger of late removal in all cases, this does not seem a bad rule; and in fact if a careful investigation fails to reveal the nature of a febrile ailment, the chances of it being typhoid are generally very considerable.

Dr. MacCombie refers hopefully to Widal's test, if it should prove reliable, in determining whether the disease be enteric fever or not.

The report of the General Purposes Committee sums up the matter thus: "We find from the figures for the years 1895-96 that the danger from infection to the patients so admitted is very small, whereas the risk of serious consequences from their removal, both to the individuals concerned and to the community at large, would, in the opinion of the medical superintendents, be very great. We are, therefore, of opinion that no change should be made in the existing practice of at once admitting all who are duly certified."

THE Dowager-Empress of Russia haa sent a present of 1,500 gold roubles to M. Henri Dunant (not "Dupont," as given by Reuter), the chief founder of the International Red Cross Society, who is living at Appenzell, in Switzerland, in an almost destitute condition. Her Majesty has further undertaken to provide him with annuity of 1,000 roubles.

# ASSOCIATION INTELLIGENCE.

## NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1897.

MEETINGS of the Council will be held on April 14th, July 7th, and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 25th, June 17th, and September 30th.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M., Saturdays, 10 A.M. to 2 P.M. Members can have their letters addressed to them at the office.

## BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH.—A special general meeting of this Branch will be held in the Museum of Practical Geology, Jermyn Street, S.W., on Thursday, March 4th, at 5 P.M., to consider the medical defence scheme of the Committee of the Association, and to frame replies to the questions put thereon to the Branches by the Council of the Association, according to the memorandum already circulated among the members of the Branch.—ISAMBARD OWEN, M.D., and H. BETHAM ROBINSON, M.S., Honorary Secretaries.

DUNDEE AND DISTRICT BRANCH.—At the meeting of the Branch on Friday, February 26th, it will be proposed by Dr. J. W. Miller, and seconded by Professor Mackay: "That the resolution, of date March 13th, 1896, supporting the proposal that the British Medical Association should add to its functions that of Medical Defence, be rescinded; and that it is the opinion of the Dundee and District Branch that it is not desirable that the Association should undertake the work of Medical Defence, either individual or collective, for the following reasons: 1. It has become very evident that the members of the Association are far from being unanimous on the question. 2. A majority, even if large, has no right to enforce a compulsory payment on the minority. 3. The attempt to do so will almost certainly drive many members to resign their connection with the Association, and thus put a serious check on its hitherto continuous growth and prosperity. 4. The working out of any scheme of Medical Defence by the Association is beset with many difficulties which do not present themselves if this work is conducted by a separate organisation. 5. The frequent appearance of the British Medical Association in legal proceedings in defence of members, or against quacks, will lower its present high prestige in the public estimation as a great scientific body."—R. C. BUIST, M.D., Honorary Secretary, Dundee.

LANCASHIRE AND CHESHIRE BRANCH.—A special meeting of this Branch will be held in Liverpool about the middle of March to consider the subject of Medical Defence and other business. Due notice will be sent to each member of the Branch.—JAMES BARR, Honorary Secretary, 22, Rodney Street, Liverpool.

EDINBURGH (FIFE AND LOTHIANS) BRANCH.—A special meeting of the Branch will be held in the Royal College of Physicians, 9, Queen Street, Edinburgh, on Tuesday, March 9th, at 4.30 P.M. Business: Election of President, Report on proposed Ethical Committee of Branch, Consideration of Medical Defence Scheme, other competent business.—R. W. PHILIP, M.D., Secretary, 4, Melville Crescent, Edinburgh.

SOUTH-EASTERN BRANCH.—A conjoint meeting of the three Kent Districts will be held at Chatham, on Friday, March 19th, at 4 P.M. Gentlemen desiring to read papers or exhibit specimens are requested to communicate with E. GROUND, Honorary Secretary, West Kent District, 1, Ashford Road, Maidstone, at their earliest convenience.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting of this District will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 11th, at 4 P.M., Mr. W. Gandy, of Upper Norwood, in the chair. Dinner at 6 P.M., charge 7s., exclusive of wine. The following

papers will be read:—Dr. Herman: Puerperal Eclampsia. Mr. J. Charters Symonds: The Modern Treatment of Compound Fractures and of Fracture of the Patella. Dr. Seymour Taylor: Hospital Abuse. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary, Henry J. Prangley, Tudor House, Anerley.

## ABERDEEN, BANFF, AND KINCARDINE BRANCH.

A meeting of the Branch was held at Aberdeen on February 17th, Dr. Trail (Strichen) President, in the chair.

*New Member.*—Dr. Innes, King Street was admitted a member of the Branch.

*Election of President.*—Professor Finlay was elected President-elect, *vice* Dr. Blaikie Smith, who has resigned the membership of the Branch owing to his having left Aberdeen.

*Abuse of Medical Charities.*—The finding of the Council on the question of the abuse of the medical charities in Aberdeen was read, and in terms of their report a Committee was appointed to investigate the matter.

*Medical Defence.*—The question of medical defence was then considered, and, on the motion of Dr. Rose, seconded by Dr. McKenzie Booth, it was unanimously agreed:

That the Aberdeen, Banff, and Kincardine Branch is not in favour of the Association undertaking the duties of individual and collective medical defence.

## EDINBURGH (FIFE AND LOTHIANS), PERTHSHIRE, STIRLING, KINROSS, AND CLACKMANNAN, AND DUNDEE AND DISTRICT BRANCHES.

A combined meeting of these Branches was held in Edinburgh, on February 5th, in the Laboratory of the Royal College of Physicians and the large theatre and some of the side rooms of the Royal Infirmary. Dr. G. W. Balfour was in the chair.

*Demonstrations and Exhibits.*—In the Royal College of Physicians Laboratory, to which the members were invited through the courtesy of the Curator and Superintendent, various demonstrations were given and preparations and casts shown. Dr. Robert Muir demonstrated the Serum Diagnosis of Enteric Fever.—Dr. Gulland: Blood Films prepared by a new method.—Mr. J. H. Patterson (for the Superintendent of the Laboratory): Methods of Staining Diphtheria Bacillus.—Dr. W. F. Robertson: A new method of Staining Medullated Nerve Fibres.—Dr. D. A. Welsh: Parathyroid Glands in man and other animals.—Dr. John Macintyre (Glasgow) gave a most interesting lantern demonstration of X-ray Photographs, with special reference to the deep-seated tissues and cavities of the body. The recent advances made in skiagraphy were explained. Lantern demonstrations were also given by Dr. N. Raw (Dundee) of *x*-ray photographs of Arteries (injected), Viscera, and Bones: by Dr. Greig (Dundee) of some Hypertrophic Conditions of the Head; and by Dr. McGillivray (Dundee) of some Eye Sections. In the side room of Ward XXII a demonstration was given of the Walker Bed for Insomnia; and in the convalescent room of Ward IX Dr. Graham Brown demonstrated his Perigraph.—Mr. Cathcart showed some Venereal Cases in the Lock Ward.—Pathological Preparations, Casts, etc., were shown by Messrs. Caird, Cathcart, and Cotterill, and by Drs. Croom, T. R. Fraser, Gibson, Berry Hart, James, McGillivray (Dundee), Raw (Dundee), Shennan, A. R. Simpson, and John Thomson.—Instruments, Drugs, etc., were shown by Mr. Cathcart and some of the local firms.

*Cases.*—A Clinical Congress was held in the large surgical theatre of the Royal Infirmary, and a number of interesting cases were shown and briefly commented upon. Dr. Sym showed a case after Extraction of the Lens on account of a high degree of Myopia.—Dr. Gibson: (1) A case of Pylorectomy ten months after operation. (2) A case after operation for Cerebral Abscess.—Dr. McNab (Dysart) for Dr. Laing (Kirkcaldy): Three cases after Tracheotomy for Diphtheria, treated with anti-diphtheria serum.—Sir Thomas Grainger Stewart: (1) A rare form of Angioma. (2) A case of Probable Hæmorrhage into the Cervical Region of the Cord. (3) A case of Cerebral Paralysis from Birth.—Mr. Cotterill: (1) A case of recovery from Severe Spinal Injury. (2) A case of recovery from Cerebral Abscess.—Professor Fraser: A case of Typical Paroxysmal Hæmoglobinuria.—Mr. Caird: (1) A case of Gastrostomy. (2) A case after Removal of the Cæcum.—Dr. Macpherson (Larbert): A case of Hysterical Hemiplegia in a young male adult.—Dr. James: (1) A case of Cerebral Thrombosis in a chlorotic girl. (2) A case of Adult Rickets.—Dr. Allan Jamieson: (1) A Peculiar Affection of the Buccal Mucous Membrane, resembling Xanthoma; (2) A case of Dermatitis Herpetiformis. (3) Keratosis of Palms treated by a new method. (4) A case of Extensive Acne Vulgaris.—Mr. Hodson: A case after Excision of Larynx and Portion of Œsophagus for Carcinoma.—Dr. Byrom Bramwell: (1) A case of Ichthyosis. (2) A case of Paraplegia rapidly progressing towards recovery. (3) A case of Muscular Atrophy.—Dr. C. A. Sturrock (Dunfermline): Four cases after Trephining for Head Injuries.

*Dinner.*—The members dined together in the Balmoral Hotel at 6.30 P.M. Dr. G. W. Balfour occupied the chair, and the croupiers were Sir Thomas Grainger Stewart and Professor Chiene. After the loyal toasts, that of the "Navy, Army, and Reserve Forces" was proposed by the Chairman, and responded to by Surgeon-Captain Black, Dr. Spence (Burntisland), and Dr. Allan Jamieson. The "British Medical Association" was proposed by Professor Simpson, and acknowledged by the Chairman (Edinburgh), Dr. Duncan (Dundee), Dr. Urquhart (Perth), and Dr. Linton (Stirling). The "Health of the Chairman" was proposed by Sir Thomas Grainger Stewart; the "Guests" by Dr. Batty Tuke, President of the Royal College of Physicians, responded for by Dr. Buist (Dundee); the "Croupiers" by Dr. James Carmichael; and the "Secretary" by Dr. P. A. Young.

## METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

The third meeting of the session was held on February 9th, 1897, at St. Pancras Infirmary, Highgate, N.; Dr. Cleveland presided.

*Antistreptococcus Serum in Blood Poisoning.*—Mr. Stephen Paget read a paper on cases of blood poisoning treated with antistreptococcus serum, and gave an abstract of the general results of the treatment up to the present time. He said that the four diseases in which the serum had received a fair trial were scarlet fever (that is, the complications of it such as suppurating glands of ears, albuminuria, and so on), puerperal fever, erysipelas, and poisoned wounds. He brought forward statistics showing that the serum treatment showed a great advance in reducing the usual frequency and fatality of the complications of scarlet fever, preventing suppuration, causing the throat inflammation to subside and the pulse to become slower and stronger, and checking delirium. He also presented other statistics not so favourable. Very good results had been obtained by the use of the serum in erysipelas, and Mr. Paget said that although it was hard or impossible to estimate the exact significance of the results, yet it was noteworthy that two cases had been published in which the treatment was used for that especially fatal form of erysipelas, "erysipelas neonatorum," with excellent result. As regarded the efficacy of the serum in puerperal septicæmia, the difficulty of estimating it was almost insuperable, for various reasons which Mr. Paget mentioned. He said, however, that though the records of isolated cases showed several failures, yet the majority of them were full of encouragement. If the treatment were adopted at all it should be used early in conjunction with vigorous local treatment. In cases of poisoned wounds Mr. Paget considered that the serum treatment should always be adopted and at an early stage. He himself had derived great benefit from its use when so affected, and its use had been very successful in other cases.—An interesting discussion ensued, and Mr. Paget replied to the points raised.

*Cases.*—Dr. Chilcott, Medical Superintendent, showed a number of interesting cases in the wards of the infirmary, including the following: a Dermoid Cyst of the Testicle removed from a man, aged 56; cases of Spastic Paraplegia, Bulbar Paralysis, Sarcoma of Upper Jaw, Sarcoma of Head of Fibula, Syphilitic Ulceration of Hard Palate, Ichthyotic Condition of the Tongue, and Extensive Lupoid Ulceration of the Leg.

*Votes of Thanks.*—Hearty votes of thanks were passed to Mr. Stephen Paget, to Dr. Chilcott, to the guardians for their kind hospitality, and to the President.

# SPECIAL CORRESPONDENCE.

## PARIS.

*The New Pharmacy Law and the Herbalists.—Poisonous Matches.—Legacy to the University of Montpellier.—The Regulation of "Free Clinics."—Police Sanitary Regulations.—Measles in a Monkey.—General News.*

IN 1893 the Chamber of Deputies examined the Pharmacy Law Bill, and added the following clause: Certain simple medical remedies in general use, also medical plants of which the list will be inserted in the *Codex*, may be freely sold. The herbalists thus saw their trade destroyed. The Senate maintained the necessity of granting the right of selling the above articles only to those who had obtained the certificate of the Higher Pharmacy School, and the Bill was referred back to the Lower House. M. Bourrillon, the Deputy who reported on the Bill, reinstated the clause objected to with a slight alteration. The herbalists have drawn up a petition, to be sent to every member of the Chamber; they point out the utility of their trade to the poor, who are thus always sure of finding pure, unadulterated articles at a moderate price.

M. Cochery, Minister of Finance, has addressed to the *garde des sceaux* a letter stating that the administration has made strenuous efforts to minimise the danger of lucifer match making. The Direction Générale of the State lucifer match factories offers for sale amorphous phosphorus matches lower in price than others less dangerous to use, being less inflammable, and also made without risk to the health of the hands. The Minister of Finance wishes the use of white phosphorus matches to be suppressed in all the services of the State Administration.

The medical faculty of Montpellier is authorised to accept the important legacy bequeathed to it by the widow of Dr. Bouisson, which is as follows: The Grammont Chateau and grounds to be devoted to the creation of a scientific and humanitarian establishment; also the furniture and linen belonging to the chateau. The interest of £12,000 to be applied to defray the expenses of the establishment. A chapel to be built under the supervision of the executors. The interest of £1,800 to be given as a salary to the priest attached to the establishment. All the instruments, and the drawers containing them, likenesses, manuscripts belonging to the late Dr. Bouisson and Dr. Bertrand, the husband and father of Mme. Bouisson, and a marble bust of Dr. Bertrand are likewise included in the legacy.

A member has called upon the Chamber of Deputies "on account of the recent scandals which have occurred in what are termed free clinics," to frame a law forbidding such clinics to be established, and inflicting a penalty of £10 to £20, with terms of imprisonment varying from eight days to six months, upon all persons who organise such establishments without previously obtaining the authorisation of the Prefect of the Paris Police, of the Rhône Prefect at Lyons, and of the mayors of the other communes. These free clinics (which means clinics entirely independent of the jurisdiction of the medical faculty) are to be always subjected to the supervision and control of the above-mentioned authorities. All medical men convicted of having performed, or of having caused to be performed, a needless operation, of having taken advantage of a patient by prophecies of illnesses and promises of cure in order to extort money, will be punished according to the penalties enumerated in the 40th Article of the Penal Code. Medical men, chemists and druggists, will be forbidden to associate themselves with midwives or directors of mineral water stations, or of houses said to be *maisons de santé*, with the view of sharing the profits resulting from the sale of drugs they have prescribed, or of receiving a percentage. The same punishment will fall on all medical men who accept remuneration from other medical men or surgeons for procuring them patients or surgical operations.

The Chamber of Deputies has adopted the proposition to complete the law concerning the sanitary police measures. In future captains, officers, or whoever may be in command of a French or foreign vessel, medical men attached to a French or foreign vessel, who knowingly alter or disguise the absolute truth in the notification they are bound to make, or in the examination required by the sanitary laws, even if the public health be not threatened by such action, will be punished by one to five years' imprisonment and a fine of £4 to £120. Any of the crew or passengers guilty of the same offence, or refusing to submit to the regulations of the sanitary police, will be punished by one to five years' imprisonment and £4 to £120 fine.

Dr. Chaligny, an army surgeon, has communicated to the Académie de Médecine an interesting note on two cases of measles which occurred at Constantine simultaneously; one patient was a Zouave, and the other a monkey. The monkey was tended and caressed by the Zouave, who had been ailing for six days. He was admitted to the military hospital, and next morning unmistakable symptoms of measles appeared. Measles was prevalent at Constantine, but the exact origin of the illness could not be established. The keeper of the monkey who replaced the Zouave observed that the animal was depressed and ailing; this condition was followed by an eruption identical with that of measles. The illness followed the usual course, and the animal recovered.

It has now been decided that the medical night service shall be paid by a certain sum to be fixed according to the average number of visits which each medical man has been called upon to pay during the last three years, rated at 8s. a visit and 15s. for confinements.

The sum of £80,000 already announced as a donation of the Baroness Hirsch to the Pasteur Institute will, in a few days, be in the possession of that establishment. This sum will be applied to the foundation of different laboratories needed, and to the increase of the yearly remuneration of the scientists who devote themselves to the researches carried on at the Pasteur Institute.

## BERLIN.

*Lying-in Homes in Berlin.—The Dangers of Cycle Racing.—A Scandal at Wörishofen.—A Scientific Deputation to Bombay.—General News.*

AN influential committee, composed of physicians and of ladies well known in Berlin society, has been formed for the purpose of establishing lying-in homes, where poor women may be nursed and cared for—not for ten days only, as in the ordinary lying-in hospitals, but up to their complete recovery. Training schools for monthly and assistant nurses are to be connected with these sanatoria.

At the last meeting of the Berlin Medical Society Dr. Albu spoke on the dangers of bicycle racing. He said he had examined twelve bicycle racers on the ground at Halensee, near Berlin, both before and after races lasting from five to thirty minutes. In each case he found symptoms of acute dilatation of the heart after the race; the pulse was enormously accelerated, the lips and face were more or less cyanotic, and there was considerable albuminuria. The dilatation of the heart in some cases lasted several hours, and Dr. Albu thinks that repeated training and participation in races might transform it into chronic dilatation. Of course he added that these dangerous symptoms only accompany excessive exertions on the bicycle, whereas moderate bicycle exercise was universally recognised as healthy. In the debate that followed Professor Virchow drew special attention to the position or "seat" of the bicyclist. He said there was no doubt that the prone position must affect the abdominal organs.

A scandalous state of things in the management of Pfarrer Kneipp's establishment at Wörishofen has been disclosed by a lawsuit brought against one of the male nurses there by the parents of a former patient. The patient, it appears, was a weakminded young girl with a leaning to nymphomania. She had previously been placed in an asylum, but her parents had removed her from it and brought her to Kneipp's establishment, "confiding in the sanctity of the place." It seems almost incredible that the night nurse allotted to this poor half-witted creature was a young man; yet such is the fact. For eight or nine nights she was left alone with him, until one night, when he apparently ill-treated her, her screams brought in another male nurse, to whom the first one then resigned his charge. After some months the poor girl left Wörishofen, and in due time gave birth to a child.

The deputation sent out to India by the German Empire has left for Bombay. Its members are: Professor Gaffky, of

Giessen; Professor Pfeiffer, of the Koch Institute in Berlin; Dr. Dieudonné, of the Imperial Board of Health; and Dr. Sticker, Privatdocent at Giessen. Professor Robert Koch may yet join the deputation, provided that he can bring his researches into the nature of rinderpest to a close in time.

The officer's cross of the French Order of the Légion d'Honneur has been conferred on Professor Oscar Liebreich, director of the Pharmacological Institute in the Berlin University.

Professor Loeffler, of Greifswald, and Dr. Frosch, assistant at the Koch Institute, have been entrusted with the inquiry into the foot and mouth disease—for which a sum of 20,000 marks (£1,000) has been voted by the Government.

## ST. PETERSBURG.

*Congress of Syphilologists.*

The disastrous prevalence of syphilis and other venereal disease throughout Russia has long been a source of anxiety to the Government medical authorities in that country. Nearly two years ago the Government decided to make a serious attempt to deal with the evil, and at the suggestion of M. Durnovo, then Minister of the Interior, it was resolved to summon a conference of local representatives, medical practitioners and specialists, who should meet in St. Petersburg and evolve some plan of action. The conference was attended by between 400 and 500 members. It met in the rooms of the Medical Department, and was under the presidency of Dr. Ragozin, the Director of the Department. The deliberations lasted from January 15th (27th) to January 22nd (February 3rd). At the initial meeting M. Goremnikin, the present Minister of the Interior, made a brief speech, declaring the conference open. He stated that during the last two years the Medical Department had been collecting information from all over the country on the subject of the conference, and that this material, together with that gathered at the Government's request by local *zemstvos*, would be the basis of discussion throughout the week. The conference was divided into several sections, dealing with various aspects of the subject, such as syphilis in towns, in villages, among artisans and miners, in the army and navy, treatment, prostitution, etc.

The total number of resolutions passed by the conference was over 300. It is only possible here to give a brief summary of some of these in order to show the direction in which the Russian medical administrator looks to ameliorate the present state of affairs. The conference recorded its opinion that among the peasantry syphilis is more often spread by ordinary intercourse than sexually. General education is urgently needed, and popular lectures on health questions should be given by medical men. It was proposed that an inspection of every peasant should be made at stated intervals, but this proposal was negatived. One great difficulty is that of coping with large moving bodies of peasants, whether on pilgrimages, or emigrating, or seeking work in distant parts of the country. The conference resolved that a system of free medical aid should be provided in all towns through which such bodies of peasants are likely to pass, but that it is most undesirable to institute a system of giving bills of health to the peasants with their travelling passports, or after their return from their pilgrimage. As venereal disease is undoubtedly spread in villages by the return of time-expired soldiers, and by the stationing of troops in the neighbourhood, special measures were proposed to minimise this risk. Special measures were also recommended to prevent syphilis spreading in schools by supervising children the subjects of syphilis. Increased care in performing vaccination is also recommended.

Venereal diseases among artisans and labourers in factories and mines were the subject of a special section. It was resolved that there is need for increased powers of medical inspection. It should be possible to compel any workman infected with syphilis to undergo hospital treatment, at least during the infectious period. Pressure, in the form of persuasion not compulsion, should be brought on all the members of the household of such an infected person to submit to examination. Special measures should be taken to prevent the spread of venereal diseases in public fairs and markets, in the baths, in common lodging-houses, workmen's barracks, and other places of this sort.

The prevalence of syphilis in towns was the subject of prolonged discussion. In the large towns the disease is more common among females between the ages of 16 and 20 and among males between the ages of 21 and 45. Among all classes its prevalence is closely associated with that of alcoholism. As in the villages there is urgent need for educating the people to a knowledge of the subject. A most important measure in dealing with this evil is the provision of accessible medical aid. It is inadequate at present in nearly all towns, and an increase is urgently required. Special departments should be established at all existing hospitals, and free treatment should be within the reach of all. The Red Cross Society was called upon to use its powers in this direction.

Finally prostitution was referred to and was also dealt with, more fully, in a separate section of the conference. Among the conclusions on this subject were the following: Prostitution must be accepted as an evil which cannot at present be eradicated. An excessively strict supervision is apt to lead to a diminution of "controlled" women and an increase of "uncontrolled." The conference resolved that it is better to introduce the double system now practised in some towns. Under this system, in addition to the open supervision of the "controlled" women, there is a secret medical supervision of "uncontrolled" women; they have no ticket like the others, and their names are not of necessity known to the police, but they are encouraged to submit to the supervision of the medical officers. One form of prostitution which is specially apt to escape observation is that of women and girls by their own husbands, parents, or guardians. The law punishing such offences should be rigorously administered. Young girls under sixteen should be specially considered by the law and their safety provided for. The powers of parents and wards should be defined and strengthened; at present parents may be punished who do not prevent their daughters (if under age) from becoming prostitutes; but when the daughters come of age parents are not obliged, though they have the right, to prevent them from following a life of vice. The opening of immoral houses should on no account be allowed, and the immorality now commonly practised in the Russian baths should be put a stop to.

The prevention of syphilis in the army and navy, treatment of the disease, the use of mineral spas in treating venereal diseases, the training of medical men in these subjects, and many other aspects of the central subject were discussed by the conference, and a number of resolutions were passed which cannot be alluded to here. At the final meeting of the conference held on February 3rd, the president, Dr. Ragozin, summarised the work done by the different sections, and expressed his belief that it would lead to important results in the near future. Many of the recommendations of the conference could at once be put into action by the members themselves on their return to the provinces. Professors Ghé, Kapustin, and Tarnovski also spoke, and after the customary votes of thanks Dr. Ragozin declared the conference closed. That same evening the members of the conference entertained Dr. Ragozin at dinner.

## MANCHESTER.

*Manchester and Salford Sanitary Association.—Clinical Hospital for Women and Children, St. Mary's Hospital, and end of the Stanley Grove Scheme.*

The present is the season for societies, dispensaries, and hospitals to render the annual account of their stewardship, and in almost every case, after the recital of the great good done and benefits conferred during the past year, there comes the statement that funds are urgently needed to carry on the work. Thus at the annual meeting of the Manchester and Salford Sanitary Association the secretary reported an annual income of £144, "which was inadequate to pay ordinary standing expenses." But though the income was small—and a falling one—the record of good work accomplished was unusually encouraging. By means of lectures, the distribution of tracts, and personal visitation, the members of the Society are doing their best to spread a knowledge of the true principles of personal hygiene amongst the masses. What need exists for improvement in the hygienic conditions of the

Manchester and Salford poorer classes was clearly set forth by the chairman, Professor Leech. The corporation have done what they can to remedy the shortcoming, but what with a smoke-laden atmosphere, overcrowding, and other bad hygienic conditions in certain parts of the city and borough, the "death-toll" is an exceptionally heavy one; in 1895 it reached 24.4 per 1,000, as against 18.7 for the whole of England and Wales—that is, a difference of 6 per 1,000. Assuming that the population of Manchester is 500,000, this would give a "death-toll" for Manchester alone of 3,000 over and above the average of England and Wales. Account must also be taken of the 60,000 to 120,000 cases of illness each year in Manchester and Salford as the direct result of imperfect hygiene. From the statement of Professor Delépine it appears that the resources of the Pathological Department of Owens College are used for the benefit of the Corporation and the public, especially as regards infectious diseases. Professor Delépine explained that when a case occurred of suspected diphtheria or typhoid fever materials were sent to the bacteriological laboratory which enabled a diagnosis to be made at once. The result was communicated to the medical officer of health, and in this way a saving of two or three days was often effected in what might be a very serious case. But for the facilities offered by Owens College it would be necessary for the Corporation to equip and maintain on their own account a bacteriological laboratory. The claim of the Clinical Hospital for Women and Children also does not meet with adequate financial response. It is hard to face defects like these: In 1894, £748; 1895, £1,153, and in the year just closed, £969. Lastly, we come to one of the old foundations in Manchester. Apparently, in connection with St. Mary's Hospital, we have come to the end of a singular chapter in the history of medical charities in Manchester, the stages of which have from time to time been noted in the British Medical Journal. We refer to the proposed amalgamation of St. Mary's with the Southern Hospital, and the projected building of a new joint hospital on the Stanley Grove estate. The Chairman of St. Mary's Hospital at the annual meeting set forth the intense anxiety which the Board of Management had felt in declining to accept the offer of £70,000 embodied in the scheme of the Lewis Trustees for the amalgamated hospital, that is, of St. Mary's and Southern, on the Stanley Grove estate, and now apparently we have reached the last eventful episode in the year just closed, which, according to the Chairman, would be memorable in the annals of the hospital, as it had finally disposed of the negotiations extending over a period of three years between the trustees of the late David Lewis, the Committee of the Southern Hospital, and themselves. Here again we have a similar tale of excellent work done in face of a falling revenue. In the end the public of Manchester must judge for itself why it is impossible to assimilate £70,000 for the public good, and why it is that so many hospitals and allied institutions striving to benefit the sick poor should have to complain of want of financial support. Perhaps the whole system requires to be overhauled and investigated, with a view to a co-ordination of the numerous separate institutions, and thus to prevent that overlapping which is so liable to occur with numerous institutions under different management.

# CORRESPONDENCE.

## THE ASSOCIATION AND MEDICAL DEFENCE.

Sir,—Please allow me very heartily to endorse the views of those writers in the British Medical Journal who have opposed the scheme to degrade our scientific Association into trades protection union. I entirely agree with the resolution of the Dublin Branch that "medical defence does not lie within the province of a scientific body like the British Medical Association." I may be singular in my experience, but I can only call to mind at present two members to whom I have mentioned the matter who did not warmly oppose medical defence being taken up by our Association, and nearly all have said that they would have to reconsider their position if it were carried. I may add that two or three very influential non-medical men have asked me if it were true that the British Medical Association was being turned into a trades protection body.

For my own part, I believe if the scheme is carried it will be the beginning of the end, and will finally wreck our grand Association; and I think justly so.

I have been a member for nearly thirty years, and some of my happiest professional associations have been in connection with our Branch. I shall therefore deeply regret if I am forced to sever my connection with the Association.—I am, etc.,

Amhurst Road, N.E., Feb. 20th. Frederick H. Daly, M.D.

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Sir,—As an unattached junior member of your Association, may I make a few remarks with reference to the proposed Defence Union Branch?

Owing to special opportunities for so doing, I have found that many medical men located here and there are members of your Association solely because they like to have the Journal. The cost at a bookstall is 26s. a year, and you post it to them for 21s. This is economy with regularity.

As soon as the proposed subscription for defence work is approved, I very much expect many will discontinue their membership, especially among the unattached, and the more certainly if any additional compulsory subscription tops 26s.

If medical men are desirous of joining a defence union, why not join the one in existence? Does it not do its work sufficiently well, and is not its name sufficiently awe-inspiring to stop litigation by exacting neurotics and pompous busybodies.

Again, if this scheme is decided on why cannot the membership be optional? Why make it compulsory? Is the demand for it so little that without all join, the few cannot find the funds necessary?

Finally, why are unattached members paying the same subscription to be debarred from voting? Is this in keeping with the rules of the Association? I have no copy by me in order to judge.—I am, etc.,

Camden Road, N.W., Feb. 22nd. E. R. Fothergill.

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Sir,—As a member of over twenty-five years' standing, but belonging to that minority who feel no personal interest in medical defence, I venture to think that as members of an Association whose chief object has always been to promote the interests, honour, and dignity of the profession to which we belong, we should rise above mere personal considerations and cordially co-operate with the great majority of our professional brethren in any fair and honourable movement calculated to secure that object, which changed times may have rendered necessary. In revising the several schemes proposed, the amendments suggested by Dr. Rentoul appear least open to objection.—I am, etc.,

West Worthing, Feb. 22nd. Francis Parsons.

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Sir,—In the British Medical Journal of February 20th, p. 493, Mr. T. V. Jackson makes some remarks which are very wide of the actual facts.

He suggests that the "question of quackery, etc., naturally and legally falls under the supervision and action of the General Medical Council." I do not think this is so. The General Medical Council has nothing to do with quackery as it exists outside our profession.

The first Medical Act which I have come across in my reading in this country is "An Act concerning Physicians and Surgeons;" that is, the 3rd Henry 8th, Chap. 11, 1511, which provides a penalty of £5 per month against any unlicensed person who practises physic in London, or within seven miles. Is it suggested the General Medical Council should put this Act into operation? The next is the charter of the College of Physicians, London, dated September 23rd, 1518, Henry 8th, which empowers that College to have any unlicensed person fined £5 per month. This charter is confirmed by the 14th and 15th Henry 8th, Chap. 5, 1522; by the 32nd Henry 8th, Chap. 40, 1540; and by the 1st Mary, Sess. 2, Chap. 9, 1533. Does anyone suggest that the powers so given are to be put into operation by the General Medical Council? No practical person will so suggest. Next comes the 34th and 35th, Henry 8th, Chap. 8, 1542-43, not repealing the above as some have suggested, but giving

any person the right to apply outward cures, "for God's sake, and of pity and charity:" that is, our term for "not for gain." Next comes the 3rd George, Chap. 194, 1815, which empowers the Apothecaries' Society to prosecute and to have fined any unlicensed person practising as an apothecary £20. In this case no prosecution can be begun without the sanction of the Apothecaries' Society. Surely Mr. Jackson does not suggest that the General Medical Council is to put this Act into force! I go a step further and say it is contemptibly mean for any practitioners to suggest that a poor Society, such as the Apothecaries, should be put to very heavy expenses in collecting evidence and paying solicitors and counsel to fight cases under their Act. Why should they, I ask—in the name of that sadly deficient commodity among practitioners—common sense. I understand that this is the constant plea of the Society when asked to take up and initiate prosecutions. Let practitioners cease whining, fight their own battles, and not go about snarling like whipped curs.

Perhaps Mr. Jackson will suggest that it is the duty of the General Medical Council to institute prosecutions under Section XL of the Medical Act 1858, for the wrongful use of medical "titles." Here again I would say that the less the Council has to do with such prosecutions the better will it be. This fact is shown by the Act, because it is drawn so as to allow "any person" to prosecute, and no permission to prosecute need be obtained from the General Medical Council. Mr. Jackson is, or was, I think a member of the Council of the British Medical Association, and he should know that the General Medical Council is the highest Medical Court in this country: the judges having ruled that they have no power to revise or modify the judgment of the Council unless malice is proved. He should also know the truth of the legal doctrine:—"It is a well-established principle in British law and of practice that no person should act as a judge in a case in which he has any interest or bias." In other words, the Council cannot be both prosecutor and judge. If Mr. Jackson will read the two trials of Leeson *v.* the General Medical Council and Allinson *v.* the General Medical Council (reported respectively in the British Medical Journal of January 4th, 1890, p. 49, and June 11th, 1892, p. 1277) he will find that two judgments of the General Medical Council were carried, one to the Court of Appeal and the other to the Queen's Bench Division, because it was alleged that two members of the Council had actually contributed money to aid in the prosecution of two practitioners before the Council; that is, they had contributed to the funds of the Medical Defence Union. Lord Justice Fry then said: "It was a matter of public policy that judicial proceedings should not only be free from actual bias and prejudice, but that they should be free from *the suspicion* of bias and prejudice." Yet Mr. Jackson, in spite of all this warning from the judges of the High Court, suggests that the General Medical Council should constitute itself a sort of modern Judge Jeffries, and act both as instigator and judge! Does any sensible person think that a British Parliament would tolerate such offensive and degrading proceedings? The German Government has lately taken away powers somewhat similar to those possessed by our General Medical Council. Mr. Jackson should remember that Parliament has given the General Medical Council much stronger penal powers than it has given to other professional bodies. Neither the Law Societies of England and Ireland, nor the Society of the Supreme Court of Solicitors, Scotland, nor the Law Agents Society, Scotland, nor the Pharmaceutical Societies of Great Britain and of Ireland, nor the Society of Patent Agents are given penal powers such as the General Medical Council has. No solicitor can have his name struck off the Roll of Solicitors by the Council of the Law Society, every case having to go before the High Court. I mention these facts to show that the only effectual plan left us is to adopt the "scheme" for medical defence. If there be a few members of our Association who demand as their right that it is to be a scientific body, surely it will also be granted that others have an equal right to demand that it shall take up "medical defence."

My own idea is that this subject should not be referred to the Branches, but that a leaflet should be sent to each member in the Journal, and ask him to sign "Yes," or "No" to the proposal for medical defence. The average Branch meeting is usually a *fiasco*. To ask a member to leave his work, and perhaps get himself into trouble for neglecting his vaccination, Poor-law, hospital, medical officer of health, or other fixed duty to attend a Branch meeting to vote—and only vote—upon this question, is only bring ridicule upon the Association and its business arrangements. Those who oppose this proposal for medical defence are, perhaps unconsciously, working a terrible evil upon our profession.

I am more than nauseated with the low, contemptible, and chronic grumblings of some practitioners. Their constant cry is "Make some other person do the work. Ask the General Medical Council. Ask the Apothecaries' Society. Ask the College of Physicians." The contemptible snarling of some practitioners has driven and is driving the few good working men away in disgust. There is now the opportunity of wiping out the above feeling—a feeling of contempt for them which shows itself even in public life. Let them now be men and "face the music."—I am, etc.,

Liverpool, Feb. 22nd. Robert R. Rentoul.

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Sir,—As an unattached member of the British Medical Association, my principal objections to the proposal are the following, namely:

1. It would be derogatory to the social and scientific character of our Association—it would be the mixing of chalk with our Stilton.

2. It would be superfluous, because the existing medical defence societies are amply sufficient for the legitimate professional requirements of those who may need their aid.

3. It would be injurious to make it compulsory upon all members in the British Isles to pay the extra subscription, for I fear many would resign, so that the income as well as the prestige of the Association would be lessened.

4. It would be destructive should the regal scale of remuneration proposed by its leading promoters for the executive committee and its secretary be adopted. Herein is the shadow of the cloven foot, destined, I fear, to stamp the Association out entirely.—I am, etc.,

Swanley, Feb. 23rd. John Ince, M.D.

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Sir,—Whatever our views may be on the proposed scheme for undertaking medical defence by the Association, we must all agree that the question is a most important one, and that its acceptance or rejection must have an immense effect for good or ill on the Association.

The reports of the meetings of those Branches already held, where the question has been put down for especial consideration, are disappointing as showing that the subject is not of sufficient interest to the greater majority of the members to induce them to take the trouble to attend to discuss the *pros* and *cons.*, or even in one case where special circulars were sent to each member of the Branch to fill up and return the papers.

This important change should not be introduced unless at least a clear majority are sufficiently anxious for it to take the trouble to express their wishes; and I would suggest that each member who would come under the scheme should have a special communication asking him to fill up and return a postcard enclosed, with answers printed on it, "I am..... in favour of No. 1, No. 2, and No. 3," leaving a space to fill in "Not" if the voter is opposed to the movement.

Unless a clear majority are sufficiently interested to fill up and return the postcard, I maintain that the matter should be allowed to remain in the hands of the present societies; and the Association ought not to undertake the responsibility and risk of this new departure unless backed up by a clear majority of its members.

On the other hand, if a majority wish the change, it must be adopted at all risks; and in that event it is to be hoped the minority would have the good taste and *esprit de corps* to acquiesce in the decision, and that we shall hear no more of men threatening to resign unless they can get their own particular fad adopted.—I am, etc.,

Wimborne, Feb. 22nd. C. H. Watts Parkinson.

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The German Anatomical Society will hold its eleventh annual meeting this year in Ghent on April 24th and three following days under the Presidency of Professor von Waldeyer.

## THE DORSAL TEST FOR PERICARDIAL EFFUSION.

SIR,—Dr. Henry Waldo's remarks are the more important because his opinion is at variance with my observations, and the more welcome because they raise at once the practical issue. If the sign is misleading, the sooner it can be shown to be fallacious the better; if reliable, it is one we can ill afford to neglect.

Those who have once practised dorsal percussion in the adult—I have explained in the BRITISH MEDICAL JOURNAL of January 23rd, 1897, that in young subjects the test is not equally conclusive—in a case of pericardial effusion will, I believe, find it easy to follow the description given in my previous communication in the JOURNAL of March 21st, 1896. For the sake of others who have never tried this method in pericardial effusion, but only in cardiac enlargement and its consequences, it may be stated once more that this dulness is not a general basic dulness, such as that of pleurisy, pneumonia, or extensive collapse of the base, but a definite quadrilateral patch of lateral dulness, extending 2½ to 3 inches to the left, and 1½ to 2 inches to the right, of the spine, between the upper border of the tenth and the lower border of the twelfth ribs. It is situated, therefore, below the level of the floor of the pericardium and of its contents.

The value of the sign will be ultimately decided by the number of observers whose experience may agree with my own experience on the following points, namely: (1) That this dull patch is never absent in pericardial effusion; (2) that it is an early sign available before pericardial effusion has become extreme, in all cases where this dulness is not merged into that of an intercurrent left pleural effusion or of a pneumonia; (3) that it does not occur in an absolute dulness of the shape and situation described in cases of even considerable enlargement of the heart in the adult.

If these observations are correct, the absence of the dull patch would be in all cases a test for the absence of pericardial effusion; and in adult cases where pericardial effusion is suspected, and where the characteristic outline of pericardial dulness at the front of the chest is found, the presence of a typical dorsal dull patch would be a valuable confirmatory test of the presence of fluid.

A longer and more extensive trial than time has hitherto afforded will be necessary to determine the capabilities and the limitations of this method, and to render us familiar with those unusual exceptions which doubtless may arise in connection with this as with all other methods which have been found, practically speaking, reliable and of general applicability.—I am, etc.,

Curzon Street, W., Jan. 30th. WM. EWART.

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SIR,—Like Dr. Waldo, I have been interested in Dr. Ewart's paper upon the dorsal test for pericardial effusion. On reading the paper, however, it occurred to me that the differentiation of these areas of dulness from those due to other causes might in some cases be difficult. For example, in children, wedge-shaped patches of collapse may be present at the extreme bases of the lungs as a consequence of the upward and backward pressure of a greatly enlarged heart upon divisions of the bronchi. I have not asked Dr. Waldo about the case to which he refers in his letter of last week, but it seems to me that it is possible that the dulness he describes was produced by a pathological condition of this nature.—I am, etc.,

THEODORE FISHER,
Pathologist to the Bristol Royal Infirmary.

Clifton, Bristol, Feb. 2nd.

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## THE MIDWIVES BILL, 1897.

SIR,—I shall be glad, if you will permit me to do so, to explain to the profession some of the points in the letter by Dr. Rentoul which you publish in the BRITISH MEDICAL JOURNAL of February 20th.

First, with regard to the omission of the words "natural labour" the Committee was guided *inter alia* by the conviction that Parliament is not the most suitable place for discussing what is and what is not "natural labour." There is no necessity to define this term at all. The regulations for the practice of midwives will be drafted with a view to laying down what should and what should not be done by a midwife, and this will be sufficient for the purposes of the Bill. It will be the duty of the General Medical Council to "approve" of these regulations, and if it does not approve of them it can withhold its consent until it does so approve, or until the Privy Council has decided the matter. If the addition of the words "or otherwise" would make the matter still clearer, by all means let them be inserted. There is no disposition on the part of the framers of the Bill to restrict the powers of the General Medical Council; indeed, the Board is placed under its general superintendence (Clause 5 (i). This also applies to Dr. Rentoul's point as to the absence of power, under the Bill, on the part of the General Medical Council "to take any part in arranging the plan for the education of intending midwives." The duty, however, of formulating precise rules for regulating the education, examination, and discipline of midwives is that for which the Board is specially called into existence. Details of this kind are out of place in an Act of Parliament.

With respect to the constitution of the Midwives Board, and the appointment of a local supervising authority, I can hardly think that, in the light of recent events, Dr. Rentoul's plea for the direct representation of the medical profession on the Board is likely to meet with general support. The appointments are surely better left in the hands of responsible bodies such as those named in the Bill. Dr. Rentoul has omitted to notice that the six persons to be appointed by the Lord President of the Council need not be medical practitioners, and need not even be all of the same sex. These six persons represent the public, and are intended to guard its interests. Without them the Board would be too exclusively professional.

Lastly, with respect to the appointment of a medical officer of health as the local supervising authority. The precise words of the clause are: "Every local sanitary authority . . . shall . . . appoint its medical officer of health or other registered medical practitioner or practitioners as the local supervising authority over midwives in the sanitary district." If, therefore, the medical officer of health does not care for the remuneration or for the work he need not be appointed. As a rule, however, he will probably be found to be the most suitable person, especially as he has offices and staff at command.

Dr. Rentoul's amusing remark that "this Bill is, of all its predecessors, the most dangerous," may be left to take care of itself. Surely, however, none of your readers will be influenced by the reiterated assertions which Dr. Rentoul puts forward in the place of arguments. One or two of the statements he makes in his letter I have already taken occasion publicly to deny. They ought not to have been repeated.—I am, etc.,

ROWLAND HUMPHREYS,
Honorary Secretary of the Midwives Bill Committee.

Buckingham Street, Strand, W.C.

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SIR,—A great many members of the British Medical Association are anxious to know why the members of the Parliamentary Bills Committee have not been called together this year, and why no action has been taken to oppose Mr. Tatton Egerton's Bill for the registration of midwives at present before the House of Commons. This utter disregard for the interests of the medical profession will soon become a serious question for the consideration of the members of the British Medical Association. This apathy is strongly resented in our Branch, and at a recent meeting of our Council we felt constrained to undertake duties which should properly belong to the Parliamentary Bills Committee. The following resolutions were adopted:

(*a*) The Council of the Lancashire and Cheshire Branch of the British Medical Association disapproves of Mr. Tatton Egerton's Bill for the Registration of Midwives, and will endeavour to prevent its passing into law.

(*b*) That five members of the Council be and are now appointed as a deputation to wait upon the Lancashire and Cheshire members of Parliament, urging them to oppose the second reading set down for February 26th or any future date.

(*c*) That the members of the deputation be requested to draw up a circular pointing out the objections to the Bill and the reasons for opposing it; such circular to be sent to every member of the House of Commons and the House of Lords.

The members of the deputation are Dr. Brierley, Dr. Macfie Campbell, Dr. Gledhill, Dr. Arthur Helme, and Dr. Wood-

cock. Dr. Helme will also act as secretary to the deputation. —I am, etc.,

James Barr,
Liverpool, Feb. 20th. Honorary Secretary to the Lancashire and Cheshire Branch.

*** Dr. Barr is too hasty in assuming that no action has been taken to oppose the Bill for the registration of midwives now before Parliament. A special Subcommittee of the Parliamentary Bills Committee was appointed on October 20th, 1896, to deal with the Midwives Bill and the Medical Acts. Of this Subcommittee Mr. Victor Horsley is Chairman. As soon as it became known that Mr. Tatton Egerton's Bill was set down for February 26th, both the General Secretary of the Association and the Assistant Editor of the Journal communicated with Mr. Horsley, and steps were at once taken in consultation to ascertain the prospects of the Bill, and to ensure that it should not pass without full opportunity for discussion. As was stated in the Journal of February 20th, Sir Walter Foster immediately gave notice of opposition. The question of summoning a meeting of the Subcommittee was considered, but, as was stated also last week, it was found that, in the opinion of those well qualified to judge, the chance of the Bill coming on on February 26th was very small. It was ascertained, however, that Sir Walter Foster and other members of Parliament consulted were satisfied that they could deal with the Bill should it be reached after the Estimates to be taken on that night had been voted. We understand that a meeting of the Parliamentary Bills Committee will probably be held shortly.

## VACCINATION AGAINST TYPHOID FEVER.

Sir,—I propose, with your permission, to answer as briefly as possible the letter from Professor Wright and Surgeon-Major Semple which appeared in the British Medical Journal of February 13th.

Is the sedimentary or agglutinative phenomenon to be called a "reaction of infection" or a "reaction of immunity"? In my first letter I followed Widal in choosing the former term, for the reason that it does not involve the acceptance or rejection of any theory. The reaction may be in the direction of immunity, but at present it is, to say the least, an open question if a person, whose serum gives the positive reaction, is protected from typhoid fever, while the position assumed by the authors is that the presence of this phenomenon is to be regarded as a proof of that immunity—that is, actual protection against disease has been attained.

I suggested certain objections to these views: (1) The occurrence of a relapse in a patient who, in the preceding attack of typhoid, had reacted positively. (2) The development of the reaction at the commencement of the disease. Messrs. Wright and Semple maintain that these objections have already been overcome in their article. I have that article before me; in it I can find no reference to objection (1), while to objection (2) there is only a vague allusion as follows: "It would, however, appear, that every animal must be assumed to be working its way up to the acquirement of immunity from the very moment of infection to the time at which its struggle with the disease finally ceases." These words occur in the course of an argument to explain the fact that patients die from typhoid fever in spite of their having shown the "immunity reaction." In passing, I may say that I do not find any difficulty myself in understanding that a person, in presence of the lesions set up by typhoid fever, should die at a time when he is quite impregnable to the bacillus.

My third objection—that, according to Fraenkel, 8 out of 36 typhoid convalescents reacted negatively a few weeks later—is brushed aside failing bacteriological proof of the diagnosis. I hardly think that, familiar as Messrs. Wright and Semple are with the technical difficulties of establishing non-fatal cases bacteriologically, they really expected it. As regards the accuracy of clinical diagnosis, my experience is that where a competent observer has definitely diagnosed typhoid fever the percentage of error is remarkably small.

Finally, Messrs. Wright and Semple say that my "contention that the agglomerating power of the blood is not an absolute criterion of immunity is a contention with which we have absolutely no quarrel." But their system of vaccination rests partly on the assumption that it is. Its efficacy is expressed in terms of this reaction. Is the result for the person vaccinated to be simply a move in the "direction of immunity?"—I am, etc.,

February 22nd. H. G. T.

## ROBERT HOUSTON'S OVARIOTOMY, 1701.

Sir,—In concluding your quotation from Mr. Duncan's *Memorials of the Faculty of Physicians and Surgeons of Glasgow* of Houston's description of his case, you ask the question, Was this a true ovariotomy? You are kind enough to say that I have expressed an opinion to the effect that it was in my edition of 1883. But a far wider experience acquired since that date enables me to give expression to arguments quite irrefutable to the effect that Houston's case was a true ovariotomy, and these will be found in an article in last year's *Lancet* (May 16th) on the Evolution of Surgical Treatment of the Broad Ligament Pedicle.

Curiously enough in the current number of the *Medical Press and Circular*, a case is published by my colleague, Mr. J. W. Taylor (p. 106) of precisely the same kind as that of Houston, and which might easily have been cured as Houston's was, only the treatment of the broad ligament pedicle has become more complete and scientific since Houston's time. Mr. Taylor says (with which compare what Houston says and what he does *not* say), "This had gelatinous contents, which had already, to some extent, burst into the peritoneal cavity, causing peritonitis, and the tumour itself seemed on the borderland of malignancy." (They certainly have a very ugly look, but they never have proved malignant so far as I know, and Mr. Taylor's certainly has not.) "I found it quite impossible to remove it in the usual way: most of the pelvic portion was enucleated from below the peritoneum, but on reaching the side of the uterus no line of demarcation could be found between the uterus and the tumour. Indeed, the latter appeared to be growing directly into, and from the left side of the uterus. The operation was completed by including the artificial pedicle of the tumour and the left horn of the uterus together in a wire clamp, or *serre-nœud*, as, at this date, I know of no better way for treating the condition found."

Here is a perfect confirmation of Houston's facts as he describes them, and of my explanation[1] of what he omits. His omissions are the absolute proof of his accuracy.

Mr. Taylor has evidently not met with a case of this kind before, but as I have met with a good many I may tell him of a better way of dealing with what he very properly calls the "artificial" pedicle, for there rarely is anything approaching to a true pedicle in these cases; he might have secured any bleeding points, always few and often none, by separate ligatures, after washing the attachment of the tumour free from its glairy fluid, and then closing the wound on a drainage tube. Practically, this is what Houston did, and his patient lived 13 years. It would then be quite as absurd to say that Mr. Taylor's case was not a true ovariotomy as to deny that rank to Houston's. Both operations were intentionally undertaken, and were completed in each case as the operator best knew how—I venture to say in neither case in the best way possible, but that it is matter of evolution. Finally both were cured.—I am, etc.,

Birmingham, Feb. 7th. Lawson Tait.

## HOSPITAL REFORM.

Sir,—The speech of the Chairman of the London Hospital, at the meeting at St. Martin's Town Hall, was so evidently biassed that I should not trouble to answer it if he had not himself pointed out an abuse of the out-patient department which often comes under my notice. I refer to the protracted waiting which the unfortunate patients frequently have to undergo. This is one, and perhaps not the least, of the many evils entailed by the existing indiscriminate medical relief provided by the hospital out-patient departments. I am continually coming across the victims of the waiting room, and sometimes the evil effects are by no means trifling. One of these consulted me yesterday; she had been kept waiting for six hours. Mr. Holland will doubtless be surprised to hear that she was one of my richer patients, the wife of the landlord of one of the principal public-houses in the locality. She went unknown, of course, to me.

[1] *Lancet*, May 16th, 1896.

In such cases many of my fellow practitioners would say, "Serve them right for going." Perhaps so. But, in the interest of the really deserving and suffering patients who frequent these much-abused departments, I think an earnest endeavour should be made to prevent the patients deriving more harm than good from their relief-seeking expedition, and for anyone who is really ill—say a case of cancer or consumption—six hours' waiting without proper food in the unhealthy atmosphere of a crowded out-patient waiting room is calculated to much increase his sufferings and even to greatly shorten life.

No doubt there are difficulties in the way of securing appropriate and speedy treatment to all comers; but I think that if hospital managers like Mr. Holland can be got to see that prolonged waiting is neither a thing to be proud of nor a necessary sign of poverty, and if hospital surgeons and physicians would be a little more considerate in this matter, many wasted hours and many aches and pains might be saved.—I am, etc.,

SIDNEY DAVIES, M.D.Oxon.,
Chairman Woolwich Committee, Charity Organisation Society.

February 18th.

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SIR,—Some remarks which I made at the recent meeting appear to have been misunderstood, and as I am told that harm might accrue to a certain hospital, I ask your permission to explain my meaning further.

In my remarks I was careful to mention no individual hospital, since I am of opinion that it is the whole system of out-patient management throughout London which is at fault, and that no blame therefore attaches to one hospital more than another.

The purport of my speech was as follows: I asserted that I had been attending out-patients in London for about fifteen years, and the opinion which I had formed, fortified as it was by my figures, was that 50 per cent. of patients who came to my rooms ought not to have been there. Of this number, 25 per cent., I considered, could afford to pay for such medical advice as they required; whilst 25 per cent. were suffering from such trivial ailments that it was cruel to other patients that they should be allowed to occupy valuable time which might be devoted to the more careful study of deserving cases—cases which ought to be admonished as to diet and mode of life, as well as physicked. I refused to speak on the subject of patients who could afford to pay, as it was a subject more for the general practitioner than for me.

Only within the present year, in view of the present agitation, I have been careful to note the numbers of patients with small ailments who have come to my out-patient rooms, with the result that my opinion remains the same.

As regards the second paragraph. Here I repeat that I made no mention of any hospital, but said that Boards of Hospitals were eager to publish the fact that large numbers of out-patients were treated, this being a good form of advertisement.

This statement received confirmation a few days subsequently, when a lay member of the Board of Management to a large London hospital, at a public meeting, admitted that the publication of such increasing numbers of out-patients was "a legitimate form of advertisement."

This is the pith of the evidence which I gave before the House of Lords Committee. I could, were it necessary, refer to letters and editorial articles in the medical and lay press reiterating this complaint.

In making this criticism I am not speaking of trouble to myself; my only object is to benefit the patients who come under my care; and if I were asked to attend only those patients with slighter ailments, I would willingly do so, provided they are in numbers such as I can adequately deal with.—I am, etc.,

Seymour Street, W., Feb. 22nd. SEYMOUR TAYLOR.

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## CONSULTANTS' FEES.

SIR,—"F.R.C.P." writes in the BRITISH MEDICAL JOURNAL of January 9th, in a strangely illogical manner, on the subject of consultants' fees. After admitting the analogy in status between the consultants and barristers, he argues that it would be dangerous to make any change in the fees of the former, because the latter have no fixed scale. No doubt it may seem advisable to eminent Fellows of the College of Physicians that the scale should not be lowered, for in the present state of affairs the patient naturally expects to have a senior consultant when he has to pay the full fee. This is a state of affairs which might be modified on somewhat the following lines. It is customary for a solicitor to mark on the brief he sends to the barrister the fee for the work, this fee being determined partly by the nature of the case and the importance of the issue, and partly by the position of the barrister in the profession. In a similar manner it should be the custom for any member of the medical profession to send a patient to a consultant, or to summon a consultant into the country, by writing and fixing the fee beforehand. It would then be open to the consultant to refuse the case, in the same way as the barrister does, if he considers the remuneration insufficient.

One difficulty in this scheme is obvious. It does not meet the urgent cases for which a consultant is summoned by telegraph. In such the full fee would generally be offered, or the practitioner, knowing the pecuniary circumstances of his patient, would send for a friend or junior consultant who would be content with what he had arranged.

For the sake of the consultant, the general practitioner, and the public it is an advantage to encourage consultations, and many more would be held if the fees were not so high.

One of your correspondents raises the question as to what is a consultant, and points out that to see three patients for a guinea is to enter into competition with the general practitioner. There is hardly such a *rara avis* as a pure consultant, but the term may be applied to anyone who holds an appointment at a recognised hospital and only practises one branch of his profession, such as surgery, medicine, gynæcology, or some smaller speciality. Certainly such a man should value his opinion at a minimum fee of 1 guinea, and should not compete with the general practitioner by charging less.

In these cases the general practitioner is partly to blame; he sends his patients for consultation to men with big names and little time at their disposal. The junior consultant is by no means the only sinner. Many senior consultants do not strictly confine themselves to guinea fees or to their speciality.

I have not signed this letter, as it might be taken as an advertisement that I am prepared to accept less than full fees.—I am, etc.,

January 16th. M.D.CANTAB.

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## LORD LISTER'S PEERAGE.

SIR,—As an old pupil of Lord Lister's, I shall be happy to aid in the suggested complimentary dinner to this eminent man of science, who has done so much to elevate and ennoble our profession, as well as to place the sister arts of surgery and medicine on a scientific basis.—I am, etc.,

Hamilton Terrace, N.W., Feb. 22nd. NORMAN KERR, M.D.

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## "A WARNING TO SANITARY AUTHORITIES."

SIR,—The article headed "A Warning to Sanitary Authorities" in the BRITISH MEDICAL JOURNAL of February 6th has only recently been pointed out to me. Although I have not the slightest intention of entering into any controversy upon the subject, I must at any rate beg you to give equal publicity to the following remarks:

Ignorance of the real facts pertaining to the Gloucester Small-pox Hospitals and the administration of the same, and of the circumstances under which my report was written, has, to take the most generous view of the writer's remarks in the article referred to, induced him to attempt a criticism upon the report in question, if one may call such an attempt a criticism, which is clearly an endeavour not to criticise but to depreciate, and by veiled sarcasm to discredit the truth of the statement contained in the report which I felt it was my duty, in the face of all opposition, to present to the Sanitary Committee of Gloucester on May 2nd last. Most unfortunate circumstances of family bereavement and my own ill-health have all contributed to delay a report in detail of the whole facts of the hospitals at Gloucester, and their administration before and subsequent to my taking them over.

The line of your writer's reasoning is very much in accord with the reasoning and arguments of those who were clearly culpable for the deplorable administration which ended in April last, as your writer terms it, in absolute "chaos," and

necessitated the engagement of someone whose "counsels of perfection" were at any rate appreciated by his patients, and who absolutely denies that an increased death-rate was the startling result of the introduction of the most ordinary habits of cleanliness as applied to the treatment of the patients and the administration of the hospital generally, if nothing more. I shall be glad, therefore, if you and your readers will reserve their judgment until after the publication of the further and detailed report in course of preparation.—I am, etc.,

T. B. Brooke.

Metropolitan Asylums Board, South Wharf,
Rotherhithe, S.E., Feb. 23rd.

*** We regret that Dr. Brooke should have completely misinterpreted the view which we took of his report in the article to which he alludes. He is in error as to the source from which he supposes it to have been inspired. We have assumed the justness of most of the recommendations which the report contains, but that does not preclude our doubting the expediency of some of the others.

# MEDICO-PARLIAMENTARY.

*HOUSE OF LORDS.*

THE HEALTH OF THE ARMY.

The Earl of Dunraven proposes to "call attention to the prevalence of contagious diseases in Her Majesty's army, especially in India, and to move a resolution." His lordship has not yet fixed a day or the motion.

*HOUSE OF COMMONS.*

THE HEALTH OF THE INDIAN ARMY.

Major Rasch asked the Secretary for India if he could say when the Departmental Committee of Inquiry on the Health of the Army in India would produce their report; and whether it would be placed in the hands of members when printed.—Lord George Hamilton: It is hoped that the report will be complete in a few days. I propose, after I have had time to consider it, to make it public.—Lord G. Hamilton, in reply to General Russell, said: The members of the Departmental Committee appointed to report on the health of the army in India are Lord Onslow, President; Sir James Peile, member of the Council of India; Surgeon-Major-General W. Taylor, Army Medical Department; and Surgeon-Colonel J. Richardson, Indian Medical Service (retired). It is hoped that the report may be ready in a few days or consideration by the Secretary of State.

PAUPER CHILDREN.

In reply to Mr. Hazell, Mr. Chaplin said: Under the existing law the guardians, and the guardians alone, are responsible for the care and maintenance of children who, prior to the question of an order being made for removal to an industrial school being determined, are remanded to the workhouse. In many workhouses there is no suitable accommodation for these children, or only accommodation which does not properly provide for their being kept separate from other inmates. The provision of such accommodation for children of either sex in each of the thirty unions in the metropolis, with the necessary staff for supervision, will entail a very considerable expenditure, an expenditure greatly in excess of what would be entailed by separate provision for children of the class referred to. The total number of such children for which provision would be required would probably be not more than 100 or 120.

Mr. Talbot asked the President of the Local Government Board whether his attention had been drawn to a conference of guardians of the various unions and parishes of the metropolis and the managers of the district schools in the same area to consider the proposed order for the formation of a new Board for the management of various classes of children chargeable to the rates: and whether he would give an assurance that he would take no final action in the matter until it had been fully considered by the representative bodies of London.—Mr. Chaplin: I am aware of the proposed conference of guardians on the 26th instant, and I do not contemplate issuing the order before that date.

THE ARMY MEDICAL SERVICE.

In reply to Mr. Buchanan, Mr. Powell Williams said: Service in India is paid for by the Government of India. The Secretary of State for India has granted this increase of pay after full consideration, and the new regulations promulgating it will be issued by the Indian Government.—Mr. Buchanan asked if the proposal for this increase of pay originated with the Government of India, or if not, whether their consent was obtained before the extra charge was laid on the finances of India.—Lord G. Hamilton: I believe in the first instance it was suggested by the War Office, then correspondence ensued, and the India Office agreed to the proposal.—Mr. Buchanan: Were the Government of India consulted?

Lord G. Hamilton replied in the affirmative.

AN ALLEGED ILLEGAL OPERATION.

Mr. Pickersgill asked the Home Secretary whether his attention had been drawn to the case of Regina *v.* Greatorex-Smith, an indictment for performing an unlawful operation, tried at the Central Criminal Court on January 14th, before Mr. Justice Hawkins, when the learned judge expressed his strong disapproval of the course taken by Inspector Fox, first, in reading over to the prisoner on his arrest a portion of the statement which the young woman had made; and, secondly, in taking the prisoner to the bedside of the dying woman, and putting questions to her in his presence; whether Inspector Fox had been reprimanded by his superior officers for his conduct in this case; whether he was aware that it was a growing practice on the part of detective officers of the Metropolitan Police to attempt to get in as evidence statements which would otherwise be inadmissible by arranging that they should be made in the prisoner's presence or read over to him; and, whether he would take steps to caution the Metropolitan Police on the subject?—The Home Secretary: Yes, sir; I have seen the newspaper reports of the trial. It appears from these that the learned judge decided that under the circumstances the statement made by the young woman was inadmissible in evidence. This being so, it becomes of course a matter of regret that she should have been troubled in this way upon her deathbed. I am satisfied, however, after careful inquiry, that in very difficult and painful circumstances Inspector Fox did no more than was his duty in endeavouring to obtain the evidence of the young woman—the sole witness—by the only means in his power. I cannot think that his conduct deserves censure. If I thought there was a growing practice on the part of detective officers of the Metropolitan Police to attempt to get in as evidence statements which would otherwise be inadmissible by arranging that they should be made in the prisoner's presence, or read over to him, I would certainly take action in the matter. I think in this case Inspector Fox had a reasonable idea that he was acting in accordance with the law.

WEST BROMWICH GUARDIANS AND THEIR MEDICAL OFFICER.

Sir Walter Foster asked the President of the Local Government Board whether his attention had been called to the action of the West Bromwich Guardians in appointing a district medical officer at a fixed salary, which was to include payment for all those cases which the Consolidated Order of July 24th, 1847, expressly provided should be paid for as extras; and, whether Articles 177 to 183 of this Order had been suspended as regarded the West Bromwich Union; if so, whether he would inquire if the reasons which justified the suspension still held good, seeing that the Local Government Board last year called special attention to the articles of the Order which require that district medical officers shall have extra remuneration for operations and certain other cases.

Mr. T. W. Russell: The operation of the articles in the regulations relating to the payment of extra fees to medical officers in the West Bromwich Union was suspended in 1862, on the application of the guardians. The guardians stated that they proposed this arrangement in consequence of continual disputes in connection with claims by the medical officers as to fees. All the medical officers of the union who had been appointed since that time had been appointed at salaries inclusive of the extra fees. The Local Government Board have not received any communication from the guardians or the officers that the arrangement is not working satisfactorily.

Sir Walter Foster: I would ask whether it is not going back somewhat far to the suspension of an order some thirty years ago for authority, especially when the action is contrary to a recent circular of the Local Government Board?

Mr. T. W. Russell: If any application is made to the Local Government Board by the guardians or officers we shall consider it.

THE CASE OF ANNIE MAXTED.

Mr. Channing asked the Secretary to the Treasury, as representing the Postmaster-General, whether the attention of the Post Office authorities had been called to the case of Miss Annie Jane Maxted, appointed six months ago as an assistant or clerk to the department, then pronounced healthy and strong, compelled as a condition to appointment to be revaccinated, suffered in consequence it was stated for six months, terminating in death on February 2nd; whether there was any authority by statute to enforce the above condition; whether it was ordered by the department assuming the power; and whether, while the recommendations of the Royal Commission were unconsidered by Parliament the order would be continued.—Mr. Hanbury: The attention of the Postmaster-General has been called to the case of Miss Maxted, but the facts are not as represented to the hon. member. Miss Maxted was not pronounced healthy and strong six months ago; on the contrary, the medical officer who examined her reported that she was not strong, and was suffering from an enlargement of the superficial cervical glands. The cause of her death is certified to have been lymphadenoma (Hodgkin's disease), and as a secondary cause dermato melasma suprarenale (Addison's disease), and neither of these resulted from the revaccination. Revaccination as a condition of appointment in the Post Office is enforced, not by statute, but by Post Office regulation. The regulation has been in force since 1863; and in view of the remarkable immunity from small-pox enjoyed by Post Office servants under this regulation, it is not proposed to alter it.

ATTENDANTS IN IRISH LUNATIC ASYLUMS.

Mr. Patrick O'Brien asked the Chief Secretary for Ireland whether attendants at present in charge of lunatics in Irish workhouses would be eligible for service in the auxiliary asylums to be established under the proposed Poor-law Relief Bill.—Mr. G. Balfour: Competent attendants will of course be eligible for service in the central auxiliaries proposed to be established under the Bill.

MILITARY HOSPITALS.

In Committee on the Military Works Money Bill, Mr. John Brigg (the member for the Keighley Division of the West Riding of Yorkshire) took occasion to say that under the present *régime* of medical science hospitals were much more elaborate buildings than formerly. There were four military hospitals to be built under the Bill, and he complained that in the case of one of them—the hospital at Dublin—there were no means of discovering what the cost would be, as the cost of the hospital was inextricably mixed up with the cost of reconstructing the old barracks. In the case of Edinburgh, however, there was to be a hospital—the first of its kind there—and £18,000 was taken for it. Then they had the London Central Military Hospital. They knew nothing about what that was to be, nor did they know how to compare this expenditure with other expenditure they were called on to incur. When they had the hospitals they must not think that there was an end to the outlay, because they would want medical men to supply them, and nurses, and so forth. So that he looked jealously on this proposal. This might be the beginning of a large annual charge on the country. He did not know what was to be done to improve the health of the army, or the strength of the medical

service, or whether it would be necessary to make changes in the position of the medical staff in consequence of these hospitals, but something of the sort might have been in the minds of the men who had planned these things. Unless they were capable of satisfactory explanation the hospitals should be left out of the schedule.

## NOTICES.

### OYSTERS AND DISEASE.

Mr. HENNIKER HEATON proposes to ask the President of the Board of Trade whether he is aware that, owing to the publication by the Local Government Board of a Report on Cholera, and of another Report on Oyster Culture in relation to Disease, public confidence in the wholesomeness of oysters has been so much impaired that the annual consumption of oysters has fallen off to the extent of three-fourths, and a large number of the fishing population have been reduced to distress; whether he has observed that the reports alluded to condemn only a few small oyster layings round the coasts of England, while many of the chief layings, including the whole of those on the coast of Kent, were declared free from contamination; whether he is aware that the Kentish layings thus pronounced free from disease are more extensive than all those in the rest of the kingdom put together, and whether he is aware that they have suffered from the lack of demand equally with the polluted layings; whether, with a view to restore public confidence in a valuable article of diet and assist the fishing population, he will recommend the appointment of inspectors of layings, and also of all shops and stalls for the sale of oysters, authorised to enforce such conditions of sanitation as may effectually safeguard the public against disease; whether he is aware that foreign oysters are frequently introduced into this country from polluted layings, and that the only instance of enteric fever in an epidemic form arising in England from oysters was traced to the eating of Dutch oysters; and whether he will therefore recommend that it shall be made a penal offence to sell oysters brought from foreign layings without declaring their origin at the time of sale and without plainly marking such origin.

### BARRACK SCHOOLS.

Mr. PICKERSGILL has given notice that on Tuesday, March 9th, he will call attention to the report of the recent Committee on Metropolitan Poor-law Schools, and to the draft order of the President of the Local Government Board relating to such schools, and move a resolution.

## NOTES.

The vote for the Medical Department of the Local Government Board during the ensuing year shows a slight decrease as compared with that for the financial year now drawing to a close, the exact amount being £10,362 as compared with £10,426. The sums taken for auxiliary scientific investigation concerning the causes and processes of disease is £1,900, being the same as last year; and the amount for the National Vaccine Establishment also corresponds with the amount granted for 1896-97—namely, £1,957. In addition to that amount there is a sum of £1,810 for incidental expenses in the form of lymph, ivory points, supply and keep of calves, etc.

On the amount to be taken this year for the Lunacy Commission—£14,225—there is a net increase of £125 over that of last year.

The vote for medical establishments in the Army Estimates shows no novel feature. The net amount voted last week was £295,800, which is an increase of £1,000 on the amount taken last year, all of which occurred under the subhead of corps pay and extra duty pay of medical staff corps, nurses, clerks, and other subordinates.

Details are now to hand regarding the cost of the operations of the Royal Commission on Tuberculosis, which was appointed by Royal Warrant in July last year. The Government will invite the House of Commons to vote £1,934 for the expenses of the investigation during the year 1897-98, the main items being salary of the Secretary, £400 a year; travelling expenses of the Commissioners, staff, witnesses, etc., luncheons, etc., £1,100; shorthand writing, £300. In the report which the Secretary submitted to the Treasury last year, he found it impossible to say definitely whether the labours of the Commission would be concluded within the ensuing financial year, but added that every effort would be made to bring the inquiry to a close at the earliest possible period.

### ALLEGED INCREASE OF LUNACY.

There has been laid on the table in both Houses a copy of the special report of the Commissioners in Lunacy to the Lord Chancellor on the alleged increase of insanity.

# UNIVERSITIES AND COLLEGES.

## UNIVERSITY OF CAMBRIDGE.

MEDICAL EXAMINATIONS.—Part I and Part II of the Third Examination for the degrees of M.B. and B.C. will commence on April 27th. The names of candidates must be sent to the Registrary on or before April 1st. The examination for the degree of M.C. will commence on April 30th. Part I of the First Examination (Chemistry and Physics) and Part I of the Second Examination (Pharmaceutical Chemistry) will commence on June 14th. Part II of the First Examination (Elementary Biology) and Part II of the Second Examination (Human Anatomy and Physiology) will commence on June 16th. The certificates of candidates must reach the Registrary on or before the fifth day before the beginning of the examination for which they are entered.

ELECTORS TO PROFESSORSHIPS.—The following Electors to the several chairs have been appointed: *Anatomy*: Sir W. H. Flower, K.C.B. *Downing of Medicine*: Dr. S. Ringer. *Surgery*: Professor Allbutt. *Pathology*: Dr. D. MacAlister.

## UNIVERSITY OF EDINBURGH.

UNIVERSITY COURT.—At the last meeting of the Edinburgh University Court, held on Monday, February 15th, Dr. Heron Watson was reappointed a Curator of Patronage for three years as from April 13th next.

CHAIR OF PUBLIC HEALTH.—It was reported that in addition to the sum of £5,000, less legacy duty, bequeathed to the University in 1893 by the late Mr. A. L. Bruce, Edinburgh, towards the founding of a Chair of Public Health, a further donation of £1,063 for the same object had been intimated from Mrs. Bruce and other members of the family. It was also reported that an offer of £5,000 towards the same object has been received since the last meeting of the Court from a gentleman, whose name, at his own request, is not to be known for the present. The Court, considering that the amount of these donations approximates the sum which they think to be necessary for the endowment of the proposed Chair, resolved to request the Universities Commission to frame a draft ordinance instituting a separate Chair of Public Health in the University. The proposal for the separation of the subjects of Public Health and Forensic Medicine, and the foundation of a separate Chair for Public Health, cannot be effected without an ordinance by the University Commission. This of necessity will take some months to become law, and we understand that it is the intention of the Secretary for Scotland to recommend that the vacancy caused by the retirement of Sir Douglas Maclagan should be filled up under reservation of power to separate the subjects when it becomes possible to found the new chair. The Court approved of the arrangements which had been made by the Senatus for conducting the course of lectures in Public Health in consequence of the resignation of Professor Sir Douglas Maclagan.

REQUIREMENTS FOR MEDICAL DEGREES.—On the recommendation of a committee of the Court in conference with representatives of the Senatus, it was agreed to substitute the following regulations for B 1 of the Court's requirements for the degrees of M.B. and Ch.B. of date April 13th, 1896:—"B 1.—A course of clinical instruction in the diseases of children, given by the University lecturers and by recognised teachers in the Edinburgh Royal Hospital for Sick Children, or by a recognised teacher or teachers in a hospital recognised for the purpose, which shall extend over a period of at least six weeks, and in addition to the opportunities for surgical and for other medical instruction afforded by the hospital, shall include clinical instruction in the medical diseases of children, consisting of not less than four class-room lectures, ten meetings for clinical instruction in the medical wards, and four meetings in the out-patient department of the hospital, together with attendance at *post-mortem* examinations."

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen, having passed the necessary examinations and having conformed to the by-laws and regulations, have been admitted Members of the College, and are entitled to practise medicine, surgery, and midwifery:

Allen, C. P.
Allen, J. L.
Ambrose, G. P.
Arthur, J. H.
Ashford, W.
Baird, R. F.
Barton, C. N.
Beards, E. J.
Bebbs, R.
Bennetts, A. J.
Bernhardt, D. R.
Berry, H. G.
Berry, S. H.
Binckes, F. W.
Blackwood, J.
Bletchly, G. P.
Booker, C. W.
Bottomley, F. C.
Bremridge, R. H.
Buendia, N.
Burney, C. D. F.
Burt, A. H.
Caley, T. A.
Carnes, W.
Chevallier, C. L.
Clarkson, C. C.
Clough, W. H.
Cobbledick, A. S.
Coutts, J. M. S.
Dakin, T. B.
D'Amico, C. D. P.
Densham, W. A.
Dobie, R. D.
Dodson, G. E.
Dykes, C. R.
Eardley, W.
Eddy, J.
Edleston, R. S. C.
England, H.
Evans, W. F.
Farr, A.
Finch, W. S.
Fogarty, D
Fordham, J. W.
Fox, E. J.
Fulton, H.
Gilbert, L.
Godson, F. A.
Goffe, E. G. L.
Goldie-Scott, T.
Good, H. A.
Grant, A. J.
Greenwood, A. R.
Greenwood, H. H.
Grummitt, C. C.
Harding, W. J.
Harris, N. H.
Hartley, J. V.
Hasslacher, F. J. M.
Haynes, G. S.
Herrington, E. W.
Howlett, G. D.
Hudson, C.
Hughes, J. B.
Hunt, E. L.
Jennings, R. E. W.
Joynson, A. W.
Langdon, H. C. T.
Langworthy, E. S.
Lewis, C. E. M.
Liversidge, W.
Lynch, S. F.
Marriage, H. J.
Marsh, H. R.
Mayston, R. W.
Michod, F. A. H.
Millichamp, G. E.
Moore, J.
Mudd, F. B.
Neild, N.
Norrington, H. S. W.
Oxley, A. W.
Oxley, W. H. F.
Parker, L. E. L.
Parsons, H. C.
Parsons, H. F.
Priestley, T.
Reynolds, L. G.
Richards, W. J.
Roach, S.
Robinson, J. C. R.
Ross, M. W.
Scanlon, L. E.
Scowby, E. T.
Sessions, F. L.
Somers, C. D.
Stansfeld, J. S.
Stevens, H. J.
Sutcliffe, W.
Sworn, A. B. R.
Tarbet, W. E.
Taylor, F. E.
Temple, P. G.
Thomas, E. R.
Thomas, H. J.
Thomas, R. R.
Torrance, J.
Townsend, H. W. W.
Tulk-Hart, T. J. A.
Turnbull, H. P.
Vulliamy, J. T.
Walker, W. P.
Wall, J. B.
Wallis, W.
Ward, E. L.
Waters, J. F. W.
Waters, W. A. P.
Watkins, J. P.
Watson, G. T.
Whicher, S.
White, M.
Wiggins, W. D.
Willis, H. A. L.
Wills, B. S.
Wood, J. H.

The following gentlemen having passed the necessary examinations have, in conjunction with the Royal College of Physicians of London, been admitted diplomates in Public Health:

A. Boulton, M.R.C.S.Eng., L.R.C.P.Lond., Cambridge University and Charing Cross Hospital; A. McC. Erskine, M.B., B.Ch.R.U.Irel., Queen's College, Belfast, and Royal University of Ireland, Dublin; J. M. Evans, L.R.C.P.Lond., M.R.C.S.Eng., Glasgow and London Hospital; P. Gardiner, M.B., C.M.Glasg., Glasgow University, Edinburgh, and St. Mary's Hospital; P. W. Mcb. Howse, F.R.C.S.Eng., L.R.C.P.Lond., L.S.A., London Hospital; W. B. Jones, M.D.Lond., L.R.C.P.Lond., M.R.C.S.Eng., St. Bartholomew's Hospital; H. B. Mapleton, M.B., C.M.Edin., Edinburgh University and University College Hospital; E. Maynard, M.R.C.S.Eng., L.R.C.P.Lond., London Hospital; H. T. Parker, M.D.Lond., M.R.C.S.Eng., L.R.C.P.Lond., St. Bartholomew's Hospital; J. S. Richards, M.D.Lond., L.R.C.P. Lond., M.R.C.S.Eng., St. Bartholomew's, University College, and Guy's Hospitals; G. A. E. Roberts, M.R.C.S.Eng., L.S.A., Middlesex Hospital; C. H. Russell, L.R.C.P.Lond., M.R.C.S.Eng., Charing

Cross Hospital: S. C. Smith, L.R.C.P.Lond., M.R.C.S.Eng., Middlesex Hospital; E. J. Steegman, M.B., B.S.Durh., M.R.C.S.Eng., L.R.C.P.Lond., Durham University, St. Mary's Hospital, and University College Hospital.

Nine gentlemen were referred for six months.

### ROYAL COLLEGE OF SURGEONS IN IRELAND.

Fellowship Examination.—Mr. Ernest George Fenton, L.R.C.S.I., etc., having passed the necessary examination has been admitted a Fellow of the College. The following gentlemen have passed the primary part of the Fellowship Examination: Mr. F. Warren, L.R.C.S.I., Mr. J. M. M. Crawford, Mr. S. R. Godkin, and Mr. H. Pringle.

### SOCIETY OF APOTHECARIES OF LONDON.

Pass List, February, 1897. The following candidates passed in:

*Surgery.*—J. T. Brickwell, Guy's Hospital; E. C. Corfield, St. Bartholomew's Hospital; C. E. Covernton, Guy's Hospital; C. I. Ellis, Aberdeen and St. Thomas's Hospital; H. Fulton, Guy's Hospital; F. Harvey, St. Bartholomew's Hospital; H. Lewkowitsch, Breslau; H. H. Monckton, King's College Hospital; C. W. Moore, Manchester; A. W. Oxford, Charing Cross Hospital; F. M. Simmonds, Edinburgh; E. G. Smith, Westminster and London Hospitals; S. K. Vines, Birmingham.

*Medicine, Forensic Medicine, and Midwifery.*—G. W. Dutton, Middlesex Hospital; R. B. Greaves, Sheffield; J. L. F. de Gannes, University College Hospital; F. Harvey, St. Bartholomew's Hospital; G. E. H. Sargent, London Hospital; S. F. Smith, St. George's Hospital; L. W. Seymour, St. George's Hospital.

*Medicine and Forensic Medicine.*—H. R. Rice, Birmingham and London Hospital.

*Medicine.*—P. H. Collingwood, St. Thomas's Hospital; T. Jones, Middlesex Hospital; C. W. Moore, Manchester; A. P. Mürtz, King's College Hospital; F. M. Simmonds, Edinburgh.

*Forensic Medicine.*—E. P. Hewitt, St. Mary's Hospital; J. P. Race, Manchester.

*Midwifery.*—F. Adams, St. Thomas's Hospital; A. H. Grace, Bristol; M. Sharp, Royal Free Hospital.

The diploma of the Society was granted to the following candidates: Messrs. Dutton, Fulton, Grace, Harvey, Hewitt, Mürtz, Oxford, Race, Sargent, S. F. Smith, and Miss Sharp.

# NAVAL AND MILITARY MEDICAL SERVICES.

## ARMY MEDICAL STAFF EXCHANGE.

*The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.*

A Surgeon-Major, with over a year's service in India, wishes to exchange with Medical Officer going home next trooping season.—Medical Officer, No. 11 Section Hospital, Secunderabad, Deccan.

### THE NAVY.

The following appointments have been made at the Admiralty: Alfred M. Page, Staff-Surgeon, to the *Brisk*, February 14th; Albert X. Lavertine, Surgeon, to the *Pembroke*, additional, when the *Dreadnought* is paid off; Sydney Croneen, Surgeon, to Royal Marine Depot, Walmer, February 18th; Rowland A. Kirby, Surgeon, to the *Victory*, February 18th; Chaworth L. Nolan, M.B., Staff-Surgeon, to the *Melpomene*, February 18th; Henry E. South, Staff-Surgeon, to the *Melampus*, February 18th; John Jenkins, Staff-Surgeon, to the *Calliope*, February 23rd; Alfred H. L. Cox, Surgeon, to the *Alecto*, February 25th; Frederick J. Burns, M.D., Surgeon, to the *Wildfire*, April 1st.

Surgeons H. E. South, A. M. Page, A. Cropley, J. Jenkins, H. Elliott, M.D., E. D. Minter, and R. F. Bowie, having completed twelve years' service, are promoted to be Staff-Surgeons, from February 16th. Of these officers Staff-Surgeon Cropley was Surgeon of the *Calliope* at Apia, Samoa, in March, 1889, when it was caught in a "terrible hurricane which caused disaster unprecedented since the introduction of steam," the conduct of the officers and men receiving the high approval of the Lords of the Admiralty. Staff-Surgeon Minter was wrecked in H.M.S. *Victoria*, which was sunk off Tripoli in June, 1893, in collision with H.M.S. *Camperdown*, when the Admiral, Sir George Tryon, 21 officers, and 350 men were drowned.

### ARMY MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel Edmond Townsend, M.D., is promoted to be Surgeon-Colonel, *vice* M. Cogan, retired January 27th. Surgeon-Colonel Townsend was appointed Assistant-Surgeon April 1st, 1867; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1879; granted the rank of Lieutenant-Colonel April 1st, 1887; and made Brigade-Surgeon-Lieutenant-Colonel April 1st, 1893. He served in the Abyssinian campaign from December, 1867, to June, 1868, and was present at the action of Arogee (medal); throughout the operations in the Malay Peninsula in 1875-76, including the actions of January 4th, 14th, and 20th, and February 4th—severely wounded (medal with clasp); in the Zulu war of 1879, being present in the engagement at Ulundi (mentioned in despatches); in the operations against Sekukuni in 1879, and present at the storming of the stronghold (medal with clasp; and in the Egyptian war of 1882, when he was present at the battle of Tel-el-Kebir (medal with clasp, and Khedive's star).

The undermentioned Surgeon-Lieutenant-Colonels retire on retired pay February 24th: A. J. Robbins, M.D., Isaac Boulger, Thomas Boyd, Joseph J. Lamprey, Phineas B. Tuthill, M.D., F.R.C.S.I., and John P. Hunt, M.D., F.R.C.S.I. In last week's issue of the British Medical Journal full particulars will be found of the commissions and services of these officers.

The surname of Surgeon-Lieutenant L. Addams-Williams is as now stated, and not as in the *London Gazette* on February 14th.

Surgeon-Major Edward Richard Power, M.D., late of the Army Medical Staff, died at Plymouth on February 17th, aged 42 years. He joined the department February 3rd, 1878; was made Surgeon-Major twelve years thereafter; and retired from the service with a gratuity, November 11th, 1896. He was in the Egyptian war in 1882, receiving a medal and the Egyptian bronze star, and in the Soudan campaign in 1885, for which he was awarded a clasp.

### EXAMINATION FOR THE ARMY MEDICAL STAFF.

The following is a list of successful candidates for commissions in the Army Medical Staff at the recent examination in London, arranged in order of merit:

| | Marks. | | Marks. |
|---|---|---|---|
| S. L. Cummins ... ... ... | 2,272 | J. G. Walker ... ... ... | 2,005 |
| C. H. Hopkins ... ... ... | 2,207 | H. G. F. Stallard ... ... ... | 1,948 |
| J. McArdle ... ... ... ... | 2,159 | R. D. Jephson ... ... ... | 1,887 |
| P. Mackissack ... ... ... | 2,159 | H. L. W. Norrington ... ... | 1,876 |
| L. J. C. Hearn ... ... ... | 2,143 | J. Poe ... ... ... ... | 1,847 |
| J. McD. McCarthy ... ... | 2,065 | J. Crean ... ... ... ... | 1,828 |
| E. Brodribb ... ... ... | 2,055 | A. W. N. Bowen ... ... ... | 1,809 |

### INDIAN MEDICAL SERVICE.

The undermentioned Surgeon-Lieutenants, having completed three years full pay service, are promoted to be Surgeon-Captains from January 29th: *Bengal:* G. Lamb; H. Burden; J. Fisher, M.B.; E. S. Peck, M.B.; C. H. Evans; S. A. Harriss, M.B.; E. C. MacLeod; C. Thomson, M.B. *Madras:* A. E. Berry, M.B.; H. St. J. Fraser. *Bombay:* B. H. F. Leumann, M.B.; H. Bennett, M.B.

The following are the admissions as Surgeon-Lieutenants to the Indian Medical Service: *Bengal:* Andrew A. F. McArdle, Jasper M. Woolley, Clayton A. Lane, Thomas B. Kelly. *Punjab:* James H. Hugo, William H. Kenrick, Charles H. Watson. *Madras:* Reginald Bryson. *Bombay:* Charles H. S. Lincoln, Raymond H. Price, Edgar F. E. Baines, Geoffrey O. F. Sealy.

Inspector-General Edward Hare, C.S.I., late of the Bengal Establishment, died at Bath on February 13th, aged 84.

Surgeon-Lieutenant-Colonel C. H. Joubert, M.B., Bengal Establishment, is promoted to be Brigade-Surgeon-Lieutenant-Colonel from September 1st, 1896. He was appointed Assistant Surgeon, March 30th, 1872.

Surgeon-Colonel Rooney fills the post of Principal Medical Officer, Edinburgh, *vice* Carew, proceeded to India.

Surgeon-Captain A. E. Roberts has been appointed officiating Secretary to the Director-General Indian Medical Service, *vice* Surgeon-Major T. W. Leslie, proceeded home on three months' privilege leave.

### EXAMINATION FOR THE INDIAN MEDICAL SERVICE.

The following is a list of successful candidates in the recent Indian Medical Service Examination, arranged in order of merit:

| | Marks. | | Marks. |
|---|---|---|---|
| F. G. P. Murray ... ... ... | 2,823 | J. A. Dredge ... ... ... | 2,574 |
| S. Anderson ... ... ... | 2,814 | R. W. Knox ... ... ... | 2,530 |
| F. H. G. Hutchinson ... ... | 2,646 | A. Fenton ... ... ... | 2,506 |
| J. L. Marjoribanks ... ... | 2,603 | | |

### FURLOUGH FOR INDIAN MEDICAL SERVICE OFFICERS.

All furlough for Indian Medical Service officers who have not left their stations has been stopped on account of the famine and plague, on the recommendation of the Director-General of the Indian Medical Service.

### ARMY MEDICAL RESERVE.

Surgeon-Major E. Shedd is promoted to be Surgeon-Lieutenant-Colonel, February 24th.

Surgeon-Captain H. H. Smith, having resigned his appointment in the Volunteers, ceases to be an officer of the Army Medical Reserve, February 24th.

### THE VOLUNTEERS.

The undermentioned gentlemen are appointed Surgeon-Lieutenants in the corps specified, dated February 24th: Ronald C. Macdonald, M.B., 8th Volunteer Battalion the Royal Scots (Lothian Regiment); Eugene C. McCarthy, M.B., 4th Volunteer Battalion the Cheshire Regiment; Edward R. Williams, 1st (Pembrokeshire) Volunteer Battalion the Welsh Regiment; Herbert L. E. Wilks, 1st Wiltshire Rifles; John G. Ronald, M.B. 4th (Stirlingshire) Volunteer Battalion Princes Louise's Argyll and Sutherland Highlanders; Edmond U. F. MacW. Bourke, 18th Middlesex Rifles.

Surgeon-Lieutenant F. Lace, 1st Volunteer Battalion the Prince Albert's Somerset Light Infantry, is promoted to be Surgeon-Captain, February 24th.

Surgeon-Lieutenant R. C. Rodgers, 2nd Volunteer Battalion the East Lancashire Degiment, is appointed Second Lieutenant in the same corps, February 24th.

Surgeon-Lieutenant H. Sanders, 17th (North) Middlesex Rifles, has resigned his commission, February 24th.

Surgeon-Lieutenant J. P. Simpson, M.D., 1st Tower Hamlets Rifles, is promoted to be Surgeon-Captain, February 24th.

### VOLUNTEER MEDICAL STAFF CORPS.

Quartermaster William Kidston, the Glasgow Companies, has resigned his commission, February 24th.

The Volunteer Officers' Decoration has been conferred upon the following: Surgeon-Lieutenant-Colonel H. Thompson, 1st Volunteer Battalion the East Yorkshire Regiment, retired; Surgeon-Lieutenant-Colonel R. R. Brown, 1st Kent Volunteer Artillery (Eastern Division Royal Artil-

very: Surgeon-Lieutenant-Colonel F. ORTON, 3rd Middlesex Volunteer Rifles; Surgeon-Major R. CUFF, 22nd Middlesex (Central London Rangers) Volunteer Rifles, retired; Surgeon-Major G. HASTINGS, 3rd London Volunteer Rifles; Surgeon-Lieutenant-Colonel A. D. MACDONALD, M.D., 3rd (Dumfries) Volunteer Battalion the King's Own Scottish Borderers.

### THE MEDICAL STAFF IN INDIA

A CORRESPONDENT points out that one result of the sad famine in India is an aggravation of the financial difficulties of junior medical officers. Everything rises in price, without any compensation, to those who have difficulty in making both ends meet even if in good times. No appointments giving increased pay are open to surgeon-captains, such being always held by surgeon-majors.

### THE TEMPER OF THE WAR OFFICE.

THE Secretary of State for War would do well to ponder over the short article in the *United Service Gazette* of February 20th, with the above heading. An example is given (we believe founded on facts) of the feeling against conceding anything on the rank point to the Army Medical Staff by repeating the following remark made not long ago by an officer recently employed at the War Office, and now holding a high position on the staff of a general officer serving abroad: "Rather than give in one jot to the demand of the Medical Staff the War Office is prepared to mobilise a whole army corps with civilian doctors."

### MILITIA MEDICAL STAFF CORPS.

WE hear that in addition to the four companies of this corps already formed, two new companies are shortly to be added, which will require six additional officers. The conditions of service and pay in this corps are laid down in the Militia Regulations.

### A SIGNIFICANT BLUNDER.

PESSIMIST writes: At the taking of Benin the only officer killed was a so-called "non-combatant," Surgeon Fyfe, R.N., of H.M.S. *St. George*, who, in the telegram from Consul Moore, read by Mr. Goschen, to the House of Commons, is called a "naval serjeant"!

### SHORTHANDED.

A CORRESPONDENT writes: The Under-Secretary for War states that 77 civil medical practitioners are employed with troops at home. Yet when I, as an officer liable to recall for service, apply for employment it is refused. Civil practitioners are evidently preferred to retired army medical officers, a curious state of things!

*** The retired army medical officer can only be employed for a definite time, and in a definite place, under the regulations, but civil practitioners can be employed at "contract rates" for very short periods, and in places where retired officers would not elect to serve.

# MEDICO-LEGAL.

### CORONERS AND THEIR DUTIES.

AN inquest was held lately at Tranmere which, according to the report in the *Birkenhead News*, was conducted in a manner not conducive to the dignity of the office of the coroner. The inquiry was for the purpose of finding the cause of the death of an infant, the child of a labourer. In the first place the jury had been summoned to attend at one place, but after assembling the coroner, Mr. Henry Churton, sent for them to another. Whilst the jury was viewing the body the coroner took the evidence of the mother of the child, and on their appearance he did not have the deposition read to them, but stated that in his opinion the case was very simple, that the child had been cutting its teeth, and that in consequence of the pain it was seized with convulsions the previous Sunday. He also informed the jury that he had heard with astonishment that it was suggested that the fits were due to the child having been scratched by a cat, but that during all the years that he had held the office of coroner no death had ever previously been attributed to such a cause. He asserted that the child had cut its teeth prematurely, and that it was in consequence of the fits which resulted from this cause that a doctor had been consulted by the mother. The doctor, it appeared, was not at home, or if at home did not see the child directly, and it was dead when he did see it. The coroner was then informed by the police that the medical man was present in court, but he was not required to give any medical evidence. After a short discussion between him and the coroner, the jury were asked if they were satisfied that the death was due to "natural causes," and having expressed their acquiescence the coroner gave as the verdict that the death of the child was due to "Natural causes by the visitation of God."

It is stated in the newspaper report that the evidence given by the mother, which the coroner withheld from the jury, was to the effect that the child had been perfectly healthy. On the Friday previous to its death it was scratched on the face by a cat, and the cheek became much inflamed. On Sunday morning the child had convulsions, and she took it to a doctor, but it died on arrival at the house. The death certificate was naturally refused by the medical practitioner, and the case duly reported, with the result as above stated.

The inquisition of a coroner conducted as this was can only make those responsible for it ridiculous in the eyes of the law, and the attention of the Lord Chancellor should certainly be called to the case. There is no doubt that not only are many inquests in the country conducted in a very haphazard manner, but in many cases inquiries are not held when they should be. A correspondent has written calling our attention to the sudden death of a woman apparently previously healthy which occurred in his district; that the death was reported to the coroner, and that no inquest was held nor was he even communicated with. Although in this case death might have been assumed with reason to be due to natural causes, it certainly would be more in accordance with the law for the protection of the public that all sudden deaths should form the subject of an inquiry before the coroner. It is within the province of the coroner, however, to decide as to the necessity for holding an inquest, and too often his decision rests upon the inquiries made by his subordinate officer, who possesses generally scanty legal, and no medical, knowledge.

### UNQUALIFIED PRACTICE AND IMPERSONATION IN SCOTLAND.

JOHN SUTHERLAND, of Sauchiehall Street, Glasgow, was charged at the County Buildings, according to the report in the *Glasgow Citizen*, with a breach of the Medical Acts, and also with personating one Daniel Sutherland, his deceased uncle, who was at one time a medical practitioner in Glasgow, but was "struck off" the *Register* by the General Medical Council for unprofessional conduct.

It appeared by the evidence that the defendant was originally a draper's assistant, and that since his uncle's death he has by means of pamphlets and numerous advertisements in the Scottish papers been practising under the name and title of his uncle as a medical practitioner, calling himself Dr. Daniel Sutherland. The defence raised was that he had been assistant to his uncle for 14 years, and had so much experience that he thought there would be no harm in carrying on the practice after his uncle had died.

The Sheriff, in giving judgment, said he regarded the offence as a serious one. It was bad enough to say he was Dr. Daniel Sutherland, but it was a great deal worse for him to take advantage of the weakness and the folly of individuals, and profess to deal with illnesses of a serious nature. He had no hesitation in imposing a fine of £15 15s., with £10 costs.

We understand that this prosecution was undertaken by the General Medical Council through its Scottish Branch Council, and we congratulate the Council for their action. The case was one of great interest, and previous attempts to prosecute had been initiated, but by the advice of high law authorities in Scotland were not carried out, as there appeared certain difficulties in securing a conviction. It is satisfactory to note that these difficulties have been overcome, and a notorious offender brought to book by the General Medical Council.

### PROPRIETARY MEDICINES AND THE EXCISE.

THE Excise authorities, in prosecuting a chemist recently for selling under certain circumstances a bottle of medicine without a stamp, raised an interesting point. As reported in the *Daily Chronicle*, the evidence for the prosecution was that an official went to the chemist's shop and purchased a bottle of medicine which bore a label upon it describing it as "Cough, Fever, and Bronchitic Mixture," and also printed directions for its use. The bottle was unstamped. The proceedings were taken under 52 George III, cap. 150, an Act for "granting stamp duties in Great Britain so far as regards the duties granted on medicines and on licences for vending the same." This Act was an amendment of one passed in the forty-fourth year of the reign of George III, and required that "every owner, proprietor, maker of, compounder of, and every person in Great Britain uttering, vending, or exposing to sale or keeping ready for sale any drugs or other preparations or compositions whatever used or applied to be used or applied externally or internally as medicines or medicaments for the prevention, cure, or relief of any disorder or complaint incident to or in anywise affecting the human body," shall be required to take out a licence and stamp the said medicine, affixing a paper cover wrapper or label as supplied by the Commissioner of Stamps to such. It was contended that the label giving directions for the specific use of the mixture in the case reported brought it within the Act. Had the mixture been merely labelled "cough mixture," no proceedings would probably have been taken, but the words "Cough, Fever, and Bronchitic Mixture" were beyond a mere description, and made the sale an infringement of the Act.

The magistrate, Mr. Hopkins, convicted the defendant, fining him 40s. and 3s. costs.

We are glad to see the Excise authorities taking up cases of this class. Further, it has been suggested to us that if such a label as that described were placed upon a similar mixture compounded and dispensed for a customer by a chemist, there would also be an infringement of the Apothecaries Act, rendering him liable to a penalty of £20 and costs. The chemist by counter prescribing therefore brings himself into collision with two Acts of Parliament, both of which are for the protection of the public from unqualified practice of medicine.

### QUALIFICATION FOR COUNTY MAGISTRATES.

AJAX asks what is the qualification for a county magistrate.

*** (*a*) Freehold or copyhold estate in England or Wales, or leasehold estate originally created for twenty-one years or more, of the clear value of £100 in progression, or £300 a year in reversion (Geo. II, cap. 39). Or (*b*) from the occupation within the county for which he is appointed for the two years immediately preceding the appointment of a dwelling-house assessed at not less than £100, provided the occupier shall during that time have been rated to all rates and taxes in respect of the premises (38 and 39 Vict., Cap. 54).

### ROCHDALE AND DISTRICT MEDICAL SOCIETY.

WE are requested to state that at a meeting of this Society held on February 11th, Dr. Welsh, President, in the chair, Dr. Morris moved, Dr. Jameson seconded, and Dr. Pinck supported the following resolutions, which were carried unanimously: "That on and after June 1st, 1897, whenever any registered medical practitioner or practitioner entitled to be registered (other than practitioners empowered by the Medical Act, 1886), either directly or indirectly issues, or sanctions, or takes part in the issuing of, any instrument or document professing to empower the holder of such instrument or document to practise, or to hold himself or herself out as being thereby entitled to practise, any part or branch of medicine, surgery, or midwifery, such practitioner shall, on due proof being given of his or her so doing, be judged by the General Medical

Council to have been guilty of infamous conduct in a professional respect, and his or her name shall be erased from the *Register*, and registrable qualification taken from him or her." "Seeing that the Midwives Registration Bill would, if it became law, create an independent order of midwifery practitioners, this meeting, while anxious that the training of monthly nurses should be improved, records its emphatic protest against such proposed legislation, and determines to form a committee to watch the progress of and oppose any legislation such as that hitherto proposed for the registration of midwives." It was further resolved that copies of the resolutions should be forwarded to the President of the General Medical Council and to the five direct representatives.

# PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

## ENGLISH URBAN MORTALITY IN 1896.

IN the accompanying table will be found summarised the vital statistics of 1896 relating to the thirty-three large English towns dealt with by the Registrar-General in his weekly returns.

The 339,115 births registered during 1896 in these thirty-three large towns were equal to a rate of 30.7 per 1,000 of their aggregate population, estimated at nearly eleven millions of persons. This rate showed a decline of 0.7 per 1,000 from that recorded in 1895, and was 1.6 per 1,000 below the mean rate in the ten preceding years, 1886-95. In London the birth-rate last year was equal to 30.2 per 1,000, while it averaged 31.1 in the thirty-two provincial towns, among which it ranged from 20.5 in Huddersfield, 24.3 in Halifax, 24.7 in Brighton, and 25.1 in Croydon, 34.2 in Sunderland, to 34.4 in Wolverhampton, 34.9 in Liverpool and in Salford, and 35.8 in Gateshead.

The 208,534 deaths registered last year in the thirty-three towns were equal to a rate of 18.9 per 1,000: this rate showed a decline of 1.8 per 1,000 from the rate recorded in 1895, and with one exception was below the rate in any of the ten preceding years, during which it averaged 20.9 per 1,000. The death-rate in London during 1896 was equal to 18.6 per 1,000, while it averaged 19.1 in the thirty-two provincial towns, among which it ranged from 14.2 in Croydon, 15.7 in Derby, 16.1 in West Ham and in Brighton, and 16.5 in Huddersfield and in Bradford to 20.7 in Bolton, 20.8 in Birmingham and in Preston, 22.6 in Manchester and in Salford, and 22.7 in Liverpool.

During the year under notice 31,550 deaths were referred to the principal zymotic diseases in the thirty-three towns, equal to a rate of 2.86 per 1,000, which slightly exceeded the mean rate in the ten preceding years, 1886-95. The zymotic death-rates in these towns last year ranged from 1.10 in Halifax, 1.18 in Swansea, 1.58 in Bradford, and 1.60 in Huddersfield, to 3.14 in London, 3.32 in Hull, 3.42 in Manchester, 3.57 in Birmingham, and 4.10 in Salford. The 31,550 deaths referred to the principal zymotic diseases included 8,760 which resulted from diarrhœa, 7,830 from measles, 6,245 from whooping-cough, 4,202 from diphtheria, 2,406 from scarlet fever, 2,073 from "fever" (principally enteric), and 25 from small-pox. The death-rate from diarrhœa was equal to 0.79 per 1,000, and was slightly above the mean rate in the ten preceding years, 1886-95; in London the rate of mortality was equal to 0.72 per 1,000, while it averaged 0.85 in the thirty-two provincial towns, among which the highest rates were recorded in Wolverhampton, Birmingham, Leicester, Liverpool, Salford, and Preston. The rate of mortality from measles was equal to 0.71 per 1,000, and exceeded the mean rate in the ten preceding years; in London the death-rate from this disease was equal to 0.82 per 1,000, while it averaged 0.63 in the thirty-two provincial towns, and was highest in Plymouth, Norwich, Birkenhead, Manchester, Oldham, Hull, and Gateshead. The death-rate from whooping-cough was equal to 0.57 per 1,000, against 0.48 and 0.37 in the two preceding years: in London the death-rate from this disease was equal to 0.65 per 1,000, while it averaged 0.51 in the thirty-two provincial towns, among which the highest rates were recorded in West Ham, Cardiff, Birmingham, Bolton, Manchester, Salford, and Leeds. The rate of mortality from diphtheria was equal to 0.38 per 1,000, against 0.43, 0.48, and 0.35 in the three preceding years; in London the death-rate from this disease was as high as 0.60 per 1,000, while it averaged 0.23 in the thirty-two provincial towns, among which the highest proportional fatality from diphtheria was recorded in West Ham, Cardiff, Wolverhampton, Birmingham, and Burnley. The death-rate from scarlet fever was equal to 0.22 per 1,000, which, although it was below the mean rate in the ten years, 1886-95, exceeded the rate recorded in either of the two preceding years. In London the rate of mortality from scarlet fever was 0.21 per 1,000, while it averaged 0.22 in the thirty-two provincial towns, among which this disease was proportionately most fatal in Liverpool, Bolton, Manchester, Salford, and Oldham. The rate of mortality from differing forms of "fever" (including typhus, enteric fever, and simple and ill-defined forms of fever), which had been 0.19 and 0.20 per 1,000 in the two preceding years, declined again to 0.19 during the year under notice, and was below the mean rate in the ten preceding years; in London the "fever" death-rate did not exceed 0.14 per 1,000, while it averaged 0.22 in the thirty-two provincial towns, and showed the highest proportional fatality in Wolverhampton, Nottingham, Bolton, Salford, and Sunderland. During the year under notice 25 fatal cases of small-pox were registered in the thirty-three towns; of these, 9 occurred in London, 5 in Bristol, 4 in West Ham, 2 in Swansea, 1 in Bradford, and 1 in Leeds.

Infant mortality, measured by the proportion of deaths under one

*Analysis of the Vital and Mortal Statistics of Thirty-three of the Largest English Towns during the Year 1896.*

| Towns. | Estimated Population middle of 1896. | Births. | Deaths. | Annual Rate per 1,000 Living. Births. | Deaths. | Principal Zymotic Diseases. | Deaths from Principal Zymotic Diseases. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-Cough. | Fever. | Diarrhœa. | Deaths of Children under one year of age to 1,000 Births. | Rate per cent. of Uncertified Deaths. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 33 Towns | 10,846,971 | 339,115 | 208,534 | 30.7 | 18.9 | 2.86 | 31,550 | 25 | 7,839 | 2,406 | 4,202 | 6,245 | 2,073 | 8,760 | 167 | 1.5 |
| 32 Provincial Towns | 6,425,016 | 203,319 | 125,023 | 31.1 | 19.1 | 2.67 | 17,450 | 16 | 4,142 | 1,464 | 1,519 | 3,308 | 1,464 | 5,537 | 172 | 2.1 |
| London | 4,421,955 | 135,796 | 83,511 | 30.2 | 18.6 | 3.14 | 14,100 | 9 | 3,697 | 942 | 2,683 | 2,937 | 609 | 3,223 | 161 | 0.6 |
| West Ham | 261,297 | 8,658 | 4,268 | 32.6 | 16.1 | 3.00 | 797 | 4 | 117 | 55 | 187 | 158 | 61 | 215 | 165 | 3.7 |
| Croydon | 118,006 | 3,009 | 1,756 | 25.1 | 14.2 | 1.94 | 233 | — | 67 | 5 | 29 | 62 | 18 | 52 | 150 | — |
| Brighton | 120,499 | 3,022 | 1,975 | 24.7 | 16.1 | 1.63 | 199 | — | 55 | 6 | 19 | 32 | 14 | 73 | 135 | 1.7 |
| Portsmouth | 178,639 | 5,006 | 3,009 | 27.6 | 16.6 | 2.11 | 383 | — | 125 | 20 | 20 | 59 | 27 | 132 | 154 | 0.7 |
| Plymouth | 90,276 | 2,643 | 1,796 | 28.8 | 19.6 | 2.30 | 210 | — | 95 | 3 | 13 | 17 | 6 | 76 | 178 | 0.5 |
| Bristol | 230,623 | 6,465 | 3,961 | 27.6 | 16.9 | 1.90 | 444 | 5 | 143 | 59 | 37 | 61 | 18 | 121 | 142 | 1.2 |
| Cardiff | 162,690 | 5,591 | 2,784 | 33.8 | 16.8 | 2.27 | 376 | 3 | 38 | 28 | 62 | 105 | 13 | 127 | 165 | 1.3 |
| Swansea | 98,645 | 3,061 | 1,689 | 30.5 | 16.8 | 1.18 | 118 | 2 | 6 | 4 | 10 | 56 | 15 | 25 | 161 | 1.1 |
| Wolverhampton | 86,530 | 3,023 | 1,755 | 34.4 | 20.0 | 3.11 | 274 | — | 9 | 21 | 53 | 31 | 36 | 124 | 184 | 1.3 |
| Birmingham | 501,241 | 16,603 | 10,600 | 32.6 | 20.8 | 3.57 | 1,823 | — | 307 | 148 | 270 | 378 | 107 | 613 | 197 | 5.0 |
| Norwich | 108,630 | 3,400 | 1,919 | 30.8 | 17.4 | 2.33 | 257 | — | 117 | 4 | 24 | 9 | 21 | 82 | 164 | 1.6 |
| Leicester | 198,659 | 6,212 | 3,376 | 30.8 | 16.7 | 2.97 | 599 | — | 121 | 50 | 64 | 51 | 40 | 273 | 187 | 2.7 |
| Nottingham | 229,775 | 6,758 | 4,087 | 28.9 | 17.5 | 2.47 | 575 | — | 205 | 26 | 13 | 90 | 79 | 162 | 168 | 1.4 |
| Derby | 101,770 | 2,901 | 1,619 | 28.0 | 15.7 | 1.91 | 197 | — | 34 | 11 | 10 | 54 | 21 | 67 | 151 | 0.4 |
| Birkenhead | 109,343 | 3,527 | 2,133 | 31.7 | 19.2 | 2.97 | 330 | — | 115 | 32 | 22 | 59 | 26 | 76 | 177 | 1.0 |
| Liverpool | 632,512 | 22,416 | 14,617 | 34.9 | 22.7 | 3.01 | 1,938 | — | 306 | 227 | 157 | 294 | 206 | 748 | 173 | 3.4 |
| Bolton | 120,380 | 3,831 | 2,536 | 31.3 | 20.7 | 2.80 | 344 | — | 6 | 40 | 14 | 102 | 48 | 134 | 168 | 0.3 |
| Manchester | 529,561 | 17,787 | 12,184 | 33.0 | 22.6 | 3.42 | 1,834 | — | 570 | 197 | 81 | 360 | 122 | 504 | 176 | 1.3 |
| Salford | 210,707 | 7,480 | 4,848 | 34.9 | 22.6 | 4.10 | 879 | — | 202 | 104 | 49 | 189 | 71 | 264 | 199 | 2.1 |
| Oldham | 143,442 | 3,971 | 2,955 | 27.2 | 20.3 | 2.91 | 425 | — | 167 | 56 | 35 | 53 | 23 | 91 | 184 | 0.3 |
| Burnley | 102,805 | 3,245 | 1,830 | 31.0 | 17.5 | 2.19 | 229 | — | 63 | 4 | 48 | 28 | 13 | 73 | 170 | 1.4 |
| Blackburn | 129,459 | 3,649 | 2,351 | 27.7 | 17.9 | 1.82 | 238 | — | 41 | 9 | 10 | 47 | 34 | 97 | 171 | 2.7 |
| Preston | 113,864 | 3,776 | 2,403 | 32.6 | 20.8 | 1.86 | 217 | — | 4 | 3 | 12 | 43 | 26 | 129 | 203 | 4.3 |
| Huddersfield | 100,463 | 2,096 | 1,682 | 20.5 | 16.5 | 1.60 | 163 | — | 28 | 19 | 21 | 55 | 13 | 27 | 166 | 2.5 |
| Halifax | 94,775 | 2,337 | 1,669 | 24.3 | 17.3 | 1.10 | 105 | — | 16 | — | 21 | 33 | 20 | 15 | 149 | 1.7 |
| Bradford | 228,809 | 5,939 | 3,840 | 25.5 | 10.5 | 1.58 | 369 | 1 | 107 | 24 | 17 | 104 | 28 | 88 | 143 | 0.8 |
| Leeds | 402,449 | 12,574 | 7,670 | 30.7 | 18.8 | 2.28 | 937 | 1 | 199 | 71 | 49 | 246 | 87 | 284 | 169 | 0.6 |
| Sheffield | 347,278 | 12,011 | 6,797 | 34.0 | 19.3 | 2.91 | 1,024 | — | 200 | 102 | 56 | 205 | 101 | 360 | 173 | 3.5 |
| Hull | 220,844 | 7,171 | 4,245 | 31.9 | 18.9 | 3.32 | 745 | — | 260 | 57 | 51 | 113 | 62 | 202 | 173 | 2.8 |
| Sunderland | 140,386 | 4,873 | 2,828 | 34.2 | 19.8 | 3.00 | 428 | — | 143 | 27 | 8 | 76 | 53 | 121 | 158 | 0.9 |
| Gateshead | 98,436 | 3,583 | 1,910 | 35.8 | 19.1 | 3.10 | 310 | — | 137 | 26 | 18 | 35 | 22 | 72 | 172 | 0.9 |
| Newcastle-on-Tyne | 212,223 | 6,701 | 3,981 | 31.1 | 18.5 | 2.08 | 450 | — | 139 | 20 | 39 | 103 | 33 | 110 | 165 | 0.5 |

year of age to births registered, was equal to 167 per 1,000, and corresponded with the mean rate in the ten preceding years. In London the rate of infant mortality was equal to 161 per 1,000, while it averaged 172 in the thirty-two provincial towns, among which it ranged from 135 in Brighton, 142 in Bristol, 143 in Bradford, and 149 in Halifax to 184 in Wolverhampton and in Oldham, 187 in Leicester, 197 in Birmingham, 199 in Salford, and 203 in Preston.

The causes of 3,147, or 1.5 per cent. of the 208,534 deaths in the thirty-three towns during 1896 were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon; in the other towns the lowest proportion of uncertified deaths were registered in Plymouth, Derby, Bolton, Oldham, and Newcastle-upon-Tyne, and the highest in West Ham, Birmingham, Liverpool, Preston, and Sheffield.

## HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,715 births and 3,970 deaths were registered during the week ending Saturday last, February 20th. The annual rate of mortality in these towns, which had been 20.8 and 19.6 per 1,000 in the two preceding weeks, further declined to 18.8 last week. The rates in the several towns ranged from 13.7 in West Ham, 14.2 in Brighton, 14.9 in Huddersfield, and 15.1 in Portsmouth to 23.2 in Salford, 23.8 in Liverpool, 25.1 in Burnley, and 25.8 in Preston. In the thirty-two provincial towns the mean death-rate was 19.5 per 1,000, and exceeded by 1.7 the rate recorded in London, which was 17.8 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.5 per 1,000; in London the rate was equal to 1.4, while it averaged 1.5 per 1,000 in the thirty-two provincial towns, and was highest in Gateshead, Plymouth, Bolton, and Salford. Measles caused a death-rate of 1.0 in in Salford and in Gateshead, 1.8 in Bradford, 3.0 in Bolton, and 3.2 in Plymouth; and whooping-cough of 1.1 in Bristol, 1.2 in Blackburn, and 1.5 in Burnley. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 59 deaths from diphtheria in the thirty-three towns included 40 in London, 2 in West Ham, 2 in Cardiff, and 2 in Birmingham. One fatal case of small-pox was registered in London, but not one in any of the thirty-two large provincial towns. There were 74 cases of small-pox under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, February 20th, against 9, 21, and 38 at the end of the three preceding weeks; 3 new cases were admitted during the week, against 7, 12, and 20 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 3,311, 3,153, and 3,050 at the end of the three preceding weeks, had further declined to 2,901 on Saturday last; 227 new cases were admitted during the week, against 254, 245, and 226 in the three preceding weeks.

## HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, February 20th, 963 births and 761 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 24.3 to 28.8 per 1,000 in the three preceding weeks, declined to 25.5 last week, but exceeded by 6.7 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rate ranged from 19.9 in Edinburgh to 30.7 in Perth. The zymotic death-rate in these towns averaged 4.0 per 1,000, the highest rates being recorded in Glasgow and Perth. The 404 deaths registered in Glasgow included 38 from measles, 33 from whooping-cough, 10 from diarrhœa, 3 from "fever," and 2 from measles. Three fatal cases of whooping-cough were recorded in Perth, and 8 in Edinburgh.

## IRISH POOR-LAW SUBSTITUTES.

As a rule, Irish doctors stick to each other through thick and thin where the public services are concerned, but we regret to find that a certain medical member of the Belfast Board of Guardians has gone out of his way to reduce the remuneration of a brother practitioner. Owing to the illness of the medical officer of one of the Belfast dispensaries, another gentleman was appointed by the Dispensary Committee to the temporary duty at the not very exorbitant remuneration of £3 a week. When the minutes of this Dispensary Committee meeting came before the Board of Guardians, it was, according to the report of the Belfast *Evening Telegraph*, a medical man who proposed and carried a resolution to reduce it to £2 10s. a week. Further comment upon such conduct is unnecessary, but we would point out for the information of the parties concerned that if a Dispensary Committee enters into a contract with a medical practitioner to do Poor-law duty for a certain sum, he can refuse to take less; and if he brings an action he will get a decree for the full amount and costs. This question has been decided over and over again against Boards of Guardians, and we trust will be once more so decided in this case.

## DIPHTHERIA IN LONDON.

There was a slight increase in the mortality from diphtheria in London last week. The fatal cases of this disease, which had been 53, 46, and 37 in the three preceding weeks, rose again to 40 during the week ending Saturday last, February 20th, and were 5 above the corrected average number in the corresponding weeks of the ten preceding years. Of these 40 fatal cases, 6 were of persons belonging to Camberwell, 4 to Lambeth, 4 to Greenwich, and 3 to Hackney. The number of notifications of diphtheria in London, which had been 246, 219, and 220 in the three preceding weeks, rose again to 254 during the week ending Saturday last. Compared with the numbers in the preceding week, there was an increase in the number of new cases notified in each of the five groups of sanitary areas, but the increase was most marked in South London. Among the sanitary areas of West London the prevalence of diphtheria was most marked in Chelsea, where 10 new cases were notified. In North London there was a marked increase in the prevalence of the disease in Marylebone, where 7 new cases were notified, against but 1 in each of the two preceding weeks. Among the sanitary areas of East London there was a considerable increase in the number of cases notified in Mile End Old Town and Poplar. In South London the prevalence of diphtheria showed a marked increase in St. Saviour Southwark, Wandsworth, Lewisham, and Woolwich sanitary areas. In Camberwell 31 new cases were notified, corresponding with the number in the preceding week. The admissions of diphtheria patients into the Metropolitan Asylums Hospitals during last week were 104, against 95 and 104 in the two preceding weeks; and 853 patients remained under treatment in these hospitals on Saturday last, February 20th.

## SUPERANNUATION OF POOR-LAW OFFICERS.

The Yorkshire Poor-law Conference, held recently at Leeds, at the invitation of the Leeds Board of Guardians, appointed a committee to consider the amendments of the Poor-law Officers' Superannuation Act deemed to be necessary. This committee met on February 10th at Leeds, and appointed Mr. Bacon Franks its chairman, Alderman Wragge of York, vice-chairman, and Mr. Alfred Hobson of Leeds, honorary secretary. Mr. Hobson will proceed to obtain information in the matter, and the result of his inquiries will be submitted to the next meeting of the committee.

## POOR-LAW MEDICAL OFFICERS AND NURSES.

We see by the *Bromsgrove Messenger* that at a recent meeting of the Droitwich Board of Guardians it was seriously proposed to make such an alteration as would enable the guardians to save expense by appointing more nurses and fewer doctors, the proposer stating that such a change would be a great boon, as the extra fees paid to doctors were very high. A second guardian expressed the fear that the appointment of additional nurses would in the end be more expensive than at present. Not one of the speakers on this subject appeared to think of his duty to the sick poor as one of their legally-appointed guardians. Expense was the only subject really under consideration; efficient medical care and treatment appear to have been altogether forgotten or overlooked. The Droitwich guardians would doubtless be prepared to appoint an increased number of medical officers if their services could be procured gratuitously. We should, however, recommend them carefully to study the law in reference to Poor-law medical district appointments, and, if they do so, we question whether they will then think it advisable to devote any further time to the consideration of this proposal.

## OPHTHALMIA AT ELY SCHOOLS.

The result of the official inquiry into this outbreak resolves itself into a question of cheeseparing; the school is understaffed, the mistress and a housemaid having charge of 53 infants, the oversight of bathing, washing, and dressing. The medical officer is not in a position to give his undivided attention to the schools, so, though he gives instructions for the treatment and isolation of the affected children, he cannot see to the carrying out of them. There does not appear to be a fully-qualified nurse on the permanent staff of the schools.

## PAUPERS AND FEVER HOSPITALS.

From a report, in the *Daily Mail*, of an inquest held on February 12th, at the Vestry Hall, St. George-in-the-East, we gather that a child was taken to the London Hospital, where she was found to be suffering from diphtheria. The Asylums Board ambulance was sent for, and the child was removed, not to the fever hospital, but back to his own home, the nurse saying that a conveyance would be sent later to take it to the hospital. The child, however, died.

Under these circumstances the coroner found fault with the Asylums Board, "which was an enormous expense to the ratepayers, and, as a rule, attended to the cases by allowing the children to be quietly taken home again, and their only explanation was that they had no room."

As we have pointed out before, this is not quite fair to the Asylums Board. There is a complete organisation, through the district medical officers of health, for the notification to the Central Board of all cases requiring removal, and a responsible officer is engaged to weigh the evidence as to urgency, a very serious and anxious duty, so that when the applications exceed the available beds the most urgent cases shall be taken in.

A practice, however, grew up of looking upon cases which were reported from among the out-patients of the general hospitals as especially urgent, and a certain priority was given to them. Now the East End public were not slow to see the benefit of this arrangement, and they soon got into the way of taking scarlet fever and diphtheria cases to the out-patient departments of the great hospitals—notably, of the London Hospital—and leaving the authorities to get out of the difficulty as best they could. So long as the Asylums Board would accept the cases there was no difficulty, but it soon became obvious that this preceding entirely nullified all attempts to select the most proper cases for admission. The Asylums Board then, instead of removing such cases to the hospitals, took them home again. Which is the explanation of all the trouble.

The Coroner seems to have had an inkling of the true state of affairs, for he suggested that they ought to have gone to the relieving officer. We believe that this is a point that has not yet been raised, or at any rate seriously discussed. But there can be very little doubt that paupers have a first claim on the hospital accommodation at the disposal of the Asylums Board. Primarily this Board was a co-operative arrangement among the several unions of the metropolis. Non-paupers were let in afterwards, but the guardians have not lost their right to use the hospitals for their paupers in the first instance. We believe that if tested it will turn out that an order from a relieving officer will in law take precedence of one from the sanitary authority.

## NOTIFICATION FEES.

M. D., having occasion to notify three cases of fever in the persons of inmates of one household, certified all three on one form of certificate under the Notification Act of 1889. He has been paid only the sum of half a crown, on the ground that the local authority have received but one certificate, and he asks if he is not entitled to be paid as for three certificates sent in the "spirit of the Act."

*** There would seem to be no doubt as to the "spirit" of the Act having been complied with, and the withholding of the additional 5s. is

a quibble. But the strict letter of the statute seems to grant only a single fee in respect of "each certificate" (Sec. iv (2)); and Sec. ii (*b*) implies that "a certificate" shall be sent for "the patient," that is, for each separate case. It were well, therefore, that medical practitioners should leave no ground for question by any departure from the strict letter of the law.

DISPOSAL OF INLAND SEWAGE.

Dr. T. H. Redwood (Rhymney) writes: Having lately seen several chemical, and partly chemical, processes for the treatment of sewage in operation, I can recommend what is known as the "oxygen" to "M.O.H.," who can get all information on it from Mr. Thomas Shegog, 23, Ombersley Road, West Park, Newport, Mon., County Council Lecturer in Chemistry.

# OBITUARY.

We regret to hear of the death of Surgeon-Lieutenant John D. M'Millan, I.M.S. He was educated at Kinross and at George Watson's College, Edinburgh, and afterwards proceeded to Edinburgh University, where he attended the arts classes for two years. Subsequently he passed through the medical curriculum there with much success, and received the degree of M.B., C.M., in August, 1893. He passed the examination for the Indian Medical Service in 1894, and on arrival in India in March, 1895, was attached to the 15th Bengal Lancers. He was serving with this regiment at Loralai in Baluchistan, when he died on February 5th in his 27th year.

The tidings of the unexpected death of Mr. Enoch Davies, L.R.C.S., L.R.C.P.Ed., of Bryn-Teifi, Llandyssil, at the age of 52, were received throughout Wales with sincere sorrow. Mr. Davies had been suffering from an affection of the kidneys for some time, and in November last he consulted Sir William Roberts and Mr. Reginald Harrison. He was advised to undergo an operation, which was performed; but the shock proved to be too great, and he sank on the third morning. Mr. Davies was educated at the Carmarthen Grammar School and Frome, and studied medicine in the University of Glasgow and at University College, London. When he became qualified he joined his brother, Dr. John Davies, of Maesteg, as Assistant Surgeon to the Llynvi Iron and Coal Company's workmen, and soon afterwards he was appointed Surgeon to the Great Western Railway Collieries, Glyncorrwg, and others. Mr. Davies was an able, careful, and conscientious worker, and a shrewd clinical observer, and had acquired a reputation as a successful lithotomist. Ten years ago he resigned all his appointments and went to live at Bryn-Teifi. Here he devoted the whole of his time to political and social questions; he was a Poor-law guardian, Chairman of the District Council, and a member of the Cardigan County Council.

We regret to have to record the death, on January 26th, at his residence at Bristol, of Mr. William Cassel Pratt, at the age of 65. Mr. Pratt was the fifth of the nine sons of the late Dr. C. E. Pratt, of Kennington Oval. All nine brothers studied for the medical profession, and seven lived to enter on medical practice. Mr. W. C. Pratt received his medical education at Middlesex Hospital, and obtained the diploma of M.R.C.S.Eng. in 1855. In 1866 he became L.S.A., and in 1876 L.R.C.P.Lond. For over thirty years he was engaged in extensive practice in Newport, Monmouthshire, where he held the post of Medical Inspector of Seamen to the Board of Trade, and of Deputy Medical Officer of Health for the Port. Five years ago he retired from practice and settled at Clifton, where his genial disposition quickly gained him a large circle of friends. While in practice he gave himself up to the claims of his profession with simple and boylike enthusiasm, spending all his energies in work, and earning the gratitude of all without thought of reward. He was mercifully spared a lingering illness; the cause of death was adynamic pneumonia and cardiac failure.

Dr. Edwin Klebs, the well-known German pathologist who has been appointed Professor in the Rush Medical College, Chicago, will also occupy a position in the post-graduate medical school of the University of Chicago.

# MEDICAL NEWS.

A discussion on Indian sanitation will be opened at a meeting of the Sanitary Institute on Wednesday, March 10th, by Mr. Baldwin Latham, M.Inst.C.E. The chair will be taken at 8 p.m. by Sir W. Guyer Hunter.

French Congress of Alienists and Neurologists.—The eighth French Congress of Alienists and Neurologists will be held this year at Toulouse on August 2nd and following days. The questions proposed for discussion are: 1. The diagnosis of general paralysis. 2. Infantile hysteria. 3. The organisation of the medical service in lunatic asylums.

Small-pox in London.—It is satisfactory to note that the prevalence of small-pox in London, which had recently showed a rapid increase, showed a marked decline last week. The notifications of this disease in the metropolis, which had been 4, 8, and 23 in the three preceding weeks, fell to 3 last week.

Execution by Gas.—A special committee of the Allegheny Medical Society has reported in favour of the abolition of hanging and the substitution of gas as the means of carrying out the last penalty of the law, and recommending the presentation of a Bill to that effect to the Pennsylvania State Legislature.

The President of the Board of Trade has appointed a Committee to inquire into the ventilation of the tunnels of the Metropolitan Railway, with the view of remedying the present defects. He has been fortunate enough to secure the services on this Committee of Sir Douglas Galton, F.R.S., and of Dr. J. S. Haldane, who has made so many important contributions to an exact knowledge of the problems of ventilation, and of the effects of various noxious gases on life. The other members of the Committee are Major Marindin (who will act as chairman), Earl Russell, and Sir Charles Scotter.

Out-patient Inquiry. — At the annual Court of the Governors of the Royal Free Hospital, the Chairman, Mr. Justice Bruce, in moving the adoption of the report, said that every effort was made to prevent the abuse of the out-patient department. The almoner's report, he added, showed that over 70 per cent. of the applicants were fit persons for free relief, while the remaining 30 per cent. were so poor that they probably needed food rather than medicine, and were fit subjects for Poor-law relief. Out of 2,475 persons interviewed by the almoner, only 7 had been refused further treatment as being able to pay for medical relief.

Infants' and Midwives' Cordials.—The evidence given at an inquest held at Broughton on the body of a child, as reported in the *Reporter*, led the coroner to express a very strong condemnation of the practice of dosing infants. He considered it to be both unwise and illegal for midwives to administer medicines, and that it is their duty to call in the services of a medical man whenever medicine appears to be required. In the particular case now referred to there was no proof of the presence of any narcotic in the cordial, and it was stated by the midwife who made it to be free from morphine or laudanum, though these are too frequently the chief ingredients of the "cordials" administered to infants for the purpose of keeping them quiet, and not infrequently with fatal consequences. As a most mischievous form of domestic medical practice this system of dosing children cannot be too severely censured. It is particularly disquieting to find a midwife treating infants with a cordial manufactured by herself. It is a form of unqualified practice which must be strongly condemned.

Monkwearmouth and Southwick Hospital.—On February 16th a new wing of the Monkwearmouth and Southwick Hospital was formally opened by Lady Elizabeth Williamson in presence of a large gathering, which included Sir Hedworth Williamson, President of the hospital; Councillor Addison, Chairman of the Executive Committee; Dr. Modlin, Dr. Square, and many other members of the corporation, the clergy, the medical profession, and the general public. Councillor Addison made a graceful reference to the help which Lady Williamson had given in the work, particularly in connection with an "Old Paris" bazaar which had

brought in a sum of £2,600 after paying all expenses. Lady Williamson, in replying, said that Dr. Modlin had taken her over the whole institution, and as far as she was able to judge, the new wards appeared to be in a perfect state. Sir Hedworth Williamson also made a speech, which he concluded by reading the Masonic Prayer that the "Almighty Architect of the Universe" would consecrate and bless the hospital.

"HAMPSTEAD SPA."—We have already (vol. ii, 1896, p. 1155) had occasion to call attention to the chalybeate spring in the Well Walk at Hampstead. It is now reported that other springs of a similar character have been discovered on Hampstead Heath itself, including one on land which was acquired for the public only a few years ago. The London County Council, it is said, instructed its analyst to examine samples of the water from these springs, and his report testifying to their chalybeate properties seems to have raised enthusiastic hopes in the minds of some residents in Hampstead who should have known better. An unwise letter in the local newspaper, bearing the signature "M.B.," voices these hopes whilst it proclaims the innocence of the writer, who says: "It is no uncommon sight to see people tediously trying to obtain a bottleful of the water from the fountain in Well Walk, and I have been surprised on questioning them to hear of the great variety of ailments they state it has benefited." The belief in the healing properties of wells and fountains is far too deeply rooted amongst the rural population of these islands to be in any danger of extinction, and the opening chapters of *Sentimental Tommy* show how the manners and customs of remote country districts obtain at least a temporary domicile in London.

INTERNATIONAL MEDICAL CONGRESS.—The following are the questions on the programme of the Section of Children's Diseases in the twelfth International Medical Congress to be held in Moscow in August, 1897: (1) Diagnosis of Tuberculosis of the Lungs in Early Infancy; (2) Diagnosis of Tuberculous Meningitis; (3) Whooping-cough Complicated by Influenza; (4) The Diarrhœa Accompanying Diseases of the Respiratory Organs; (5) Affections of the Lymphatic System in Infancy; (6) The Normal Properties of the Blood and their Modifications in the Diseases of Various Ages; (7) Results of the Serum Treatment in Diphtheria and other Diseases; (8) Results of Puncture *en ceinture* in Hydrocephalus; (9) Arythmia of the Heart in Children; (10) Results of Laparotomy in Tuberculous Peritonitis; (11) Organisation and Results of the Working of Russian Foundling Hospitals and of such Institutions generally; (12) What is the Difference between Natural and Artificial Feeding of Infants from the Physiological and Pathological Points of View? (13) Hereditary Syphilis; (14) Hæmorrhagic Diathesis and Geographical Distribution of Rickets; (15) Influence of School Work on the Health and Physical Development of Children; (16) Hysteria in Early Infancy.

DUBLIN SANITARY ASSOCIATION.—The report presented to the annual meeting of this Association, of which Dr. J. W. Moore is President, condemned the proposal to use the Pigeon House Fort as a convalescent home for infectious cases. Dr. Duffey, President of the College of Physicians, in moving the adoption of the report, called attention to the high death-rate of Dublin, and protested against its being minimised because it happened to be in the infantile population. Dr. C. Joynt seconded the motion. The Registrar-General (Dr. T. W. Grimshaw) said it was a disgrace that the deaths should have occurred amongst those who could not help themselves. No worse thing could be said of a city than that its children were dying. The mortality of 49.8 was something appalling. The motion was passed. The President then delivered his address. He urged the appointment of properly qualified medical superintendent officers of health, and complained that the Public Health Act of 1896 did not provide for the improvements which the Council had urged upon the Government. He also dealt with the sanitation of health resorts, deaths from burns and scalds, and convalescent homes for persons recovering from infectious diseases. The President of the College of Surgeons (Mr. Thomson) moved a vote of thanks to Dr. Moore, which was seconded by Dr. Roche, supported by Dr. Fitzgibbon, and passed.

## MEDICAL VACANCIES.

The following vacancies are announced:

ANCOATS HOSPITAL, Manchester.—Resident Junior House-Surgeon to attend home patients and accidents. Salary, £30, with board and washing. Applications to A. Forrest, Honorary Secretary.

BELGRAVE HOSPITAL FOR CHILDREN, 77 and 79, Gloucester Street, S.W.—Resident House-Surgeon. Appointment for six months. Board, lodging, and washing provided. Applications to George Greenway by March 6th.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Extra Acting Physician. Salary, £40 per annum. Resident Medical Officer and Resident Surgical Officer. Salaries, £70 and £50 respectively, with board, washing, and attendance in the institution. Applications to the Secretary, Children's Hospital, Steelhouse Lane, Birmingham, by March 3rd.

BRENTFORD UNION.—Medical Officer and Public Vaccinator for parish of Chiswick. Salary, £150 per annum. Applications to W. Stephens, Clerk, Union Offices, Isleworth, W., by March 10th.

BRISTOL GENERAL HOSPITAL.—Physician Accoucheur and an Assistant Physician Accoucheur. Applications to the Secretary by March 5th.

CANCER HOSPITAL (FREE), Fulham Road, S.W.—House-Surgeon. Appointment for six months. Salary at the rate of £50 per annum, with board and residence. Applications to the Secretary by March 2nd.

CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY, 41, Sloane Square, S.W.—House-Surgeon and Secretary. Salary, £95 per annum, with furnished rooms in the dispensary house. Allowance of £20 for coals and candles for the use of the institution, and further allowance for housekeeper. Applications to the Secretary by March 4th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician, must be qualified. Appointment for six months. Salary at the rate of £30 per annum, with board and residence. Applications to T. Storrar-Smith, Secretary, by March 11th.

DARENTH SCHOOL FOR IMBECILES, near Dartford, Kent.—Assistant Medical Officer. Salary, £160 per annum, rising £20 annually to £200, with board, lodging, attendance, and washing. Doubly qualified. Application forms may be obtained at the Office of the Board, Norfolk House, Norfolk Street, Strand, W.C., where such forms filled up must be sent in by March 2nd.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Dental Surgeon; must be Licentiate of Dental Surgery. Applications to J. Francis Pink, Secretary, by March 8th.

DERBY BOROUGH ASYLUM.—Assistant Medical Officer. Salary, £100 per annum, with board and washing. Applications to Dr. Macphail, Rowditch, Derby, by March 1st.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis Road, Shadwell, E.—House-Surgeon. Board, lodging, etc., provided, but no salary. Applications to the Secretary by March 12th.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Junior Resident Medical Officer. Salary, £50. Applications to the Committee of Management by March 18th.

GENERAL INFIRMARY, Northampton.—Assistant House-Surgeon. Doubly qualified; unmarried, and not under 23 years of age. Salary, £100 per annum, with furnished apartments, board, attendance, and washing. Applications to the Secretary by March 4th.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL.—House-Surgeon; unmarried, doubly qualified. Salary, £75 per annum, with board, lodging, and laundry expenses. Applications to William J. Gant, Secretary, by March 1st.

HULL ROYAL INFIRMARY.—Honorary Assistant Surgeon to attend Out-patient Department; must be M.R.C.S.Eng. or F.R.C.S.Edin. or Irel., or Graduate in Surgery of the University of Oxford, Cambridge, or London. Appointment for five years. Applications to the Chairman, Committee of Management, before March 15th.

KING'S COLLEGE, London.—Professorship of Anatomy. Applications to the Secretary.

LEICESTER INFIRMARY.—House-Physician. Salary, £80 per annum, with board, apartments, and washing. Appointment for twelve months, but eligible for re-election. Applications to the Secretary at his office, 24, Friar Lane, Leicester, by March 1st.

LIVERPOOL ROYAL INFIRMARY.—Honorary Physician. Applications to the Chairman of the Committee of the Royal Infirmary, Liverpool, by March 13th.

LONDON HOSPITAL MEDICAL COLLEGE, Mile End, E.—Demonstrator of Physiology. Salary, £100 a year. Assistant Demonstrator of Anatomy. Salary, £90 a year. Applications to Munro Scott, Warden, by March 8th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Senior Resident Medical Officer. Doubly qualified. Salary, £100 per annum, with board, residence, and washing. Appointment for six months, but eligible for re-election. Applications to the Secretary by March 15th.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—Resident House-Surgeon. Salary, £80, with board, lodging, and laundry. Applications to the Honorary Secretary by March 8th.

ST. THOMAS'S HOSPITAL.—Resident Assistant Physician; must be M.R.C.P.Lond. Applications to Mr. E. M. Hardy, Treasurer's Clerk, by March 6th.

SHEFFIELD PUBLIC HOSPITAL FOR DISEASES OF THE EAR, THROAT, AND SKIN.—Honorary Physician for Out-patients (not suffering from Diseases of the Throat), also Honorary Physician for

Out-patient Department for Diseases of the Throat. Applications to J. B. Hallam, Honorary Secretary, by March 5th.

UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE.—Professorship of Anatomy. Applications to J. Austin Jenkins, M.A., Secretary and Registrar, University College, Cardiff, by March 8th.

WARWICK COUNTY LUNATIC ASYLUM.—Second Assistant Medical Officer. Salary, £130, rising to £150, with full board. Applications to the Medical Superintendent by March 5th.

WEST HERTS INFIRMARY, Hemel Hempstead, Herts.—House-Surgeon and Dispenser; doubly qualified, unmarried. Appointment for two years. Salary, £100 per annum, with furnished rooms, board, light, fire, attendance, and washing. Applications to the Hon. Secretary by March 3rd.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointments for six months. Board and lodging provided. Applications to R. J. Gilbert, Secretary Superintendent, by March 24th.

WEST RIDING ASYLUM, Menston, near Leeds.—Second Assistant Medical Officer. Salary to commence at £180, rising £10 annually to £230, with board and apartments. Applications to the Medical Superintendent by March 1st.

WHITECHAPEL UNION INFIRMARY, Vallance Road, E.—Assistant Medical Officer (Resident). Salary, £120 per annum, with rations, furnished apartments, coal, gas, and washing. Applications on forms provided to William Vallance, Clerk to the Guardians, Union Offices, Vallance Road, Whitechapel, E., by March 13th.

WOLVERHAMPTON EYE INFIRMARY.—House-Surgeon. Appointment for twelve months. Salary, £60 per annum, with rooms, board, and washing. Application to W. Blake-Burke, Secretary, by March 15th.

YORKSHIRE COLLEGE, Leeds.—Demonstrator of Physiology. Salary, £150. Applications to the College Secretary by March 15th.

## MEDICAL APPOINTMENTS.

ANDERSON, J. Sewell, M.R.C.S.Eng., L.R.C.P.Lond., appointed Resident Assistant Medical Officer to the Hull Corporation Asylum.

BEHRENDT, M. R. J., L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of Health for the Brumby and Frodingham Urban District.

BELL, F. O., M.B., C.M.Edin., appointed Medical Officer for the Workhouse and the Second Wareham District of the Wareham and Purbeck Union, *vice* H. F. T. Chambers, L.R.C.P., L.R.C.S.Edin., resigned.

CHRISTIE, Margaret Marion Traill, M.B., B.S., reappointed Second Assistant Medical Officer to the Greenwich Union Infirmary and Workhouse.

COPEMAN, A. H., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the South Welney District of the Downham Union.

DAVEY, Mr. E. L., appointed Medical Officer for the Walmer District of the Eastry Union, *vice* R. S. Davey, M.D.St.And.

FOULERTON, A. G. R., F.R.C.S., appointed Pathologist to the Chelsea Hospital for Women.

FOX, George M., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Workhouse of the Walsall Union.

HERBERT, Wm., M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon to the Royal Hants County Hospital, Winchester.

HOWLETT, Edmund H., F.R.C.S., appointed Surgeon to the Hull Royal Infirmary, *vice* J. Sherburne, M.B., resigned.

LISTER, T. D., M.B., B.S.Lond., F.R.C.S.Eng., L.R.C.P.Lond., appointed Pathologist to the East London Hospital for Children.

LUCAS, Claude R., M.R.C.S., L.R.C.P., appointed Medical Officer to Fairfield House Workhouse at Tooting Graveney.

MCANALLY, A. A., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer of the Workhouse and the Eastry District of the Eastry Union, *vice* A. E. Bower, M.R.C.S.Eng., L.S.A.

M'DONNELL, W. Campbell, M.R.C.S.Eng., L.R.C.P.Lond., appointed Surgeon to Stoke Newington and South Hornsey District of City of London Lying-in Hospital.

MARJORIBANKS, Dr. John, appointed Medical Officer to the Inverkip Parish Council.

NICKERSON, W. H. S., M.B., Ch.B.Vict., appointed Junior Assistant Surgeon to the Stockport Infirmary.

PARE, J. W., M.D., C.M.Edin., L.D.S.Eng., appointed Dental Surgeon to the North-Eastern Hospital for Sick Children.

PAYNE, G. S., M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health for the Thorney Rural District, *vice* V. E. Paley.

STORRS, C. S., M.B., B.C.Camb., appointed Clinical Assistant to Out-patients at the Chelsea Hospital for Women.

WALKER, F. J., M.D.Durh., M.R.C.S.Eng., appointed Medical Officer of the Workhouse of the Spilsby Union, *vice* J. W. Walker, M.B.Lond., resigned.

WHITWELL, James R., M.B., appointed Medical Superintendent to the Suffolk County Asylum, Melton.

## DIARY FOR NEXT WEEK.

### MONDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Mr. W. G. Spencer: The Pathology of Lymphadenoid Structures (Spleen, Lymphatic Glands, Bone Marrow). Lecture I.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Dr. F. de Havilland Hall: Diseases of the Nose and Throat in relation to General Medicine. (Lettsomian Lecture III.).

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 40, Leicester Square, W.C., 8 P.M.—Papers by Mr. J. H. Badcock and Mr. Allan Goadby.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M.

### TUESDAY.

PATHOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 P.M.—Papers:—Mr. J. Hutchinson, jun., and Mr. E. Frazer: (1) Series of Specimens of Epithelioma of the Penis. (2) Specimens illustrating the Changes in the Submaxillary Gland secondary to Cancer of the Mouth. Dr. F. J. Smith: Aneurysm of the Aorta in a Boy. Dr. Cyril Ogle: Dermoid Growth involving the Lung.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Dr. Ormerod: Clinical Lecture on Tabes and Allied Cases.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL, Gray's Inn Road, 4 P.M.—Dr. Dundas Grant: The Diagnosis and Treatment of the Forms of Tinnitus Aurium.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. Craig: Stupor, Katatonia, Dementia, and Senile Insanity. Hospital for Diseases of the Skin, Blackfriars, 4.30 P.M.—Dr. Payne: Eczema, its Treatment.

### WEDNESDAY.

LONDON POST-GRADUATE COURSE, Parkes Museum, 74A, Margaret Street, Regent Street, W., 4.30 P.M.—Professor A. Wynter Blyth: Lecture III. House Drainage.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Mr. W. G. Spencer: The Pathology of Lymphadenoid Structures (Spleen, Lymphatic Glands, Bone Marrow). Lecture II.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, 4 P.M.—Dr. Hector Mackenzie: Bronchiectasis.

THE CLINICAL MUSEUM, 211, Great Portland Street, 4 P.M.—Demonstration by Mr. Jonathan Hutchinson.

THE SANITARY INSTITUTE, Parkes Museum, Margaret Street, W., 8 P.M.—Discussion on Indian Sanitation, to be opened by Baldwin Latham, M.Inst.C.E., F.G.S., F.R.Met.Soc.

OBSTETRICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8 P.M.—Dr. Cullingworth: Inaugural Address. Specimens will be shown. Papers:—Dr. A. E. Giles: The Cyclical or Wave Theory of Menstruation, with observations on the Variations in Pulse and Temperature in relation to Menstruation. Dr. Blacker: The Treatment of Placenta Prævia by Champetier de Ribes.

### THURSDAY.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M. Mr. Cheatle: The Organisms which Infect Wounds.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 P.M.—Clinical evening.

NEUROLOGICAL SOCIETY OF LONDON, 11, Chandos Street, W., 8.30 P.M.—Communications on Muscle Spindles by Dr. F. E. Batten, Mr. Victor Horsley, and Professor Sherrington.

### FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Mr. W. G. Spencer: The Pathology of Lymphadenoid Structures (Spleen, Lymphatic Glands, Bone Marrow). Lecture III.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Lecture by Mr. Gunn.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, W.C., 3 to 4 P.M.—Professor Crookshank: Anthrax and Malignant Œdema. 4 to 5 P.M.—Staining Sections.

WEST KENT MEDICO-CHIRURGICAL SOCIETY, Royal Kent Dispensary, Greenwich Road, S.E., 8.15 P.M.—Discussion on Anæmia.

WEST-LONDON MEDICO-CHIRURGICAL SOCIETY, West London Hospital, W., 8 P.M.—Clinical evening. Cases will be shown by Mr. Keetley, Mr. Bidwell, Dr. Seymour Taylor, Dr. Chippingdale, Dr. Chapman, Dr. Potter, and Mr. McAdam Eccles.

### SATURDAY.

MEDICAL SOCIETY OF LONDON, 7 P.M.—Anniversary dinner at the Whitehall Rooms, Hôtel Métropole.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTH.

ACHESON.—On January 29th, at Simon's Town, South Africa, the wife of Surgeon J. H. Acheson, R.N., of a son.

### MARRIAGE.

HENSLEY—LOW.—February 24th, at the Priory Church, St. Bartholomew the Great, by the Rev. Sir Borodaile Savory, Bart., Philip John Hensley, M.D., F.R.C.P., of 4, Henrietta Street, Cavendish Square, to Marie, eldest daughter of Maximilian Low, Esq., late of Park Road, Haverstock Hill. At home Thursdays in May.

### DEATHS.

GOSSE.—December 29th, at Wallaroo, South Australia, John Gosse, M.R.C.S.Eng., in his 51st year.

POWER.—February 17th, at 3, Hoe Park Terrace, Plymouth, after a long and painful illness, Surgeon-Major Edward Richard Power, late Army Medical Staff, aged 42 years.

SMITH.—On February 21st, at 47, Castle Street, Dumfries, Catherine Mary, youngest daughter of J. Smith, M.D., in her 10th year.

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances*—Daily, 2. *Operations*.—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances*.—Daily, 1. *Operations*.—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR.—*Attendances*.—M. W. Th. S., 2; Tu. F., 5. *Operations*.—Daily.

CHARING CROSS. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations*.—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances*.—Daily, 1.30. *Operations*.—M. Th. F., 2

CITY ORTHOPÆDIC. *Attendances*.—M. Tu. Th. F., 2. *Operations*.—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations*.—F., 2.

GREAT NORTHERN CENTRAL. *Attendances*.—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30 Skin, W., 2.30; Dental, W., 2. *Operations*.—M. W. Th. F.

GUY'S. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations*.—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Attendances*.—Daily, 10. *Operations*.—M. Th., 2.

KING'S COLLEGE. *Attendances*.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations*.—M. F. S., 2.

LONDON. *Attendances*.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operations*.—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE. *Attendances*.—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations*.—M. Th., 4.30.

METROPOLITAN. *Attendances*.—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations*.—F., 9.

MIDDLESEX. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations*.—W., 1.30; S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Attendances*.—M. Tu. Th. F., 2. *Operations*.—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances*.—Daily, 2; Ophthalmic, W. S., 9.30 *Operations*.—Tu. F., 9.

NORTH-WEST LONDON. *Attendances*.—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations*.—Th., 2.30.

ROYAL EYE, Southwark. *Attendances*.—Daily, 2. *Operations*.—Daily.

ROYAL FREE. *Attendances*.—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 8; Dental, Th., 9. *Operations*.—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances*.—Daily, 9. *Operations*.—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances*.—Daily, 1. *Operations* —M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances*.—Daily, 1. *Operations*.—Daily.

ST. BARTHOLOMEW'S. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations*.—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th. 2.

ST. GEORGE'S. *Attendances*.—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 3; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations*.—M. Tu. Th. F. S., 1.

ST. MARK'S. *Attendances*.—Fistula and Diseases of the Rectum, males S., 8; females; W., 9.45. *Operations*.—M., 2; Tu., 2.30.

ST. MARY'S. *Attendances*.—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 8; Orthopædic, W., 10; Throat, Tu. F. 3.0; Skin, M. Th., 9.30; Electro-therapeutics, M. Th., 2.30; Dental, W. S., 9.30; Children's Medical, Tu. F., 9.15; Children's Surgical, S., 9.15. *Operations*.—M., 2.30.; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances*.—M. 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations*.—W. F., 2.

ST. THOMAS'S. *Attendances*.—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations*.—M. W. Th. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances*.—Daily, 1.30. *Operations*.—W., 2.30.

THROAT, Golden Square. *Attendances*.—Daily, 1.30; Tu. F., 6.30. *Operations*.—Th., 2.

UNIVERSITY COLLEGE. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30. *Operations*.—Tu. W. Th., 2.

WEST LONDON. *Attendances*.—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations*.—Tu. F., 2.30.

WESTMINSTER. *Attendances*.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, Tu. F., 9.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operations*.—Tu. W., 2.

# LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

### QUERIES.

F.R.C.S.E. writes: I have an Esbach's albuminometer (Hayward's improved)—what importance is to be attached to the readings on it as to the gravity of the case being inquired into?

J. A. O. wishes to hear of a hospital or institution in London or elsewhere where a young woman, aged 24, could be received as an in-patient for treatment by massage, physical exercise, etc., free or at a very small charge.

IDIOT AND IMBECILE ASYLUMS.

AJAX asks whether it has ever been proposed to make idiot and imbecile asylums chargeable to the Crown or County Council, as lunatic asylums are; and if not, why not?

*** We cannot say whether any such proposal has ever been made, nor can we explain why any such may never have been made. We are not aware of any ordinary lunatic asylum being charged to the Crown, and doubt whether a proposal to so change any imbecile or idiot asylum would meet with general approval.

### ANSWERS.

DELTA might consult the reply given in the BRITISH MEDICAL JOURNAL of December 12th, 1896, p. 1751.

INQUIRER.—We believe that our correspondent expresses the opinion generally held in the profession, and that nothing which has happened in recent years has given any grounds for believing that this opinion has been altered.

J. A. C. writes: "M. H." will find Hind Head, near Haslemere, a beneficial inland resort for a case of weak apex. The situation is between 800 and 900 feet above sea level, air dry, soil dry to a depth of 200 feet, and lies amongst the pines. If "M. H." likes to write to me, I would place him in communication with one or two people who would find suitable accommodation.

EMBRYO will find many many particulars of the Colonial medical laws and regulations in the BRITISH MEDICAL JOURNAL of January 2nd, 1897, p. 25. It is impossible to give any useful answer to a question so general as that which he submits, but we believe that there is no colony as to which it could be said that competition was distinctly less severe than in the United Kingdom. If there is any specific point upon which our correspondent desires information, we would endeavour to obtain it for him.

### NOTES, LETTERS, Etc.

MENARD'S OPERATION?

DR. T. LAFFAN (Cashel) writes: I missed Dr. Little's letter until too late for a notice of it in your next issue. I am sorry that he does not feel himself called upon to make an ample *amende* to me. I would ask your readers to read my paper in Vol. I of the BRITISH MEDICAL JOURNAL for 1888; and they will be enabled to form a correct opinion as to who it was first conceived the idea and gave it to the public of cutting down on the vertebræ, less for the removal of carious bone "than for the prevention of deep-seated and burrowing abscesses." These last words are taken from his letter in the JOURNAL of November 21st, 1896.

My proposal was not a vague one, and if it gave no directions for the dissection of the parts it was because I assumed a competent knowledge of their anatomy on the part of those who would attempt it.

TREATMENT OF CANCER BY OXYGEN GAS.

DR. CHARLES E. JENNINGS (Seymour Street, W.) writes: It is now known that a series of cases of chronic ulcer have been successfully cured by oxygen gas by Mr. George Stoker, and I venture to call attention to the well-known circumstance that epitheliomatous cancer often develops out of a simple chronic ulcer, and by such imperceptible steps as in the transition stage to render the diagnosis of cancer doubtful. It may well be that, without knowing it, Mr. Stoker may already have cured a case or two of cancer in its earliest stage—at least, such is a logical suggestion—though I am not aware that there is yet any positive evidence that treatment by oxygen gas would operate against cancer. But oxygen gas may so operate, and I cannot help thinking that it would be right to try the treatment in some forms of malignant ulceration where radical treatment is inapplicable.

THE EFFECT OF CHANGE OF FOOD ON COWS' MILK

COUNTRY PRACTITIONER writes: I have frequently noticed in bottle-fed children that when the feeding of the cows undergoes a complete change, such as from grass in summer on to turnip in winter, it is accompanied by a marked gastro-intestinal disturbance in the case of such children; in some cases it is very severe, and last summer I nearly lost a little patient from peritonitis following a severe enteritis arising from the change in the cows' feeding. I was perfectly satisfied that the feeding apparatus was clean. Have any of your readers any experience of such cases, and if so what means can they adopt to prevent too great alteration in the quality of the milk caused by such feeding?

DESICCATION AS A SUBSTITUTE FOR CREMATION OR EMBALMING.

THE REV. GEORGE A. HUMBLE, M.D., M.R.C.P. and S., Medical Missionary and English Chaplain (Viedma, Ria Negro, Argentina, South America), in the course of a letter on this subject observes: As probably most of your readers are aware, a large trade is carried on in Argentina of exporting animals in a dry state for consumption abroad, chiefly to Cuba and Brazil. Up to the present time the drying process has mostly been effected by exposure to the sun, but lately a patent has been taken out

for drying by means of artificial heat. An interesting account of the proceeding was given in the *Buenos Ayres Standard* for December 3rd, 1896. Lately a number of gentlemen, including several medical men, were invited to inspect the process. The heat is generated by means of a furnace, connected with an iron room immediately above. From this it is conducted to a second chamber, and then by ventilators to a third or drying chamber, in which are hung the carcasses of the animals; the heat being conducted through this room on its way to the open air absorbs the moisture in the carcasses of the animals, and this process is continued as long as any moisture remains in the meat. Before the animals are placed in the ventilator they are subjected to a bath of salt and water.

In the trial referred to after forty-two hours the carcasses were perfectly dry and ready for shipment, retaining their natural colour and flavour, and perfectly clean. It has occurred to me that a process similar to this, only on a smaller scale, might be advantageously used in the case of human remains, where it is desired to preserve them from decomposition; and that such a process would be far preferable to either cremation or embalming. Probably it would be advisable to use a stronger disinfectant than common salt, such as carbolic acid, and to enclose in an airtight coffin. I have in my possession three dried fingers which I amputated between twenty and thirty years ago; they have somewhat shrunk and become discoloured, otherwise they are in a fair state of preservation, and have no bad smell, only a slight odour of carbolic acid. The remains of David Livingstone, the celebrated missionary and explorer, were dried or desiccated in Africa before they were brought to England for interment in Westminster Abbey.

The great difference between cremation and desiccation consists in the fact that in the former process everything is completely destroyed by fire except the ashes which remain, while, on the contrary, in desiccation, everything is preserved except the water, which is driven off in the form of vapour. I should imagine that a building erected for a crematorium might be so modified as to answer for desiccation; and probably the inventor and patentee, Mr. George Guerrero, of the Estancia "La Postrera," F.C.S., Argentina, would give all information. Had desiccation been practised in years gone by, we might still have amongst us the remains, somewhat as they appeared in the flesh, of such men as Harvey, Hunter, Jenner, Simpson, and Pasteur; and I believe there are many eminent men living at the present time who, if they left instructions that their bodies should be desiccated, would in after-ages become objects of interest and veneration to thousands yet unborn.

### Pilocarpin in Eclampsia.

Dr. A. Humphrey Davy (Bournemouth West) writes: Will you allow me to mention a case of puerperal eclampsia which occurred in my practice, which bears out the remarks made by Dr. Macnaughton Jones in the British Medical Journal of February 6th, in which pilocarpin was used hypodermically. The patient went to full term, having, however, some retinal symptoms, muscular twitchings, and albuminuria when seen a few days previously. The convulsions set in some hours after labour commenced. Delivery was hastened by forceps, yet the convulsions continued with such violence that little hope of recovery was entertained. One-tenth gr. of pilocarpin (Burroughs and Wellcome) was then injected hypodermically. Soon after its physiological effects were manifested, the arterial tension became less, and the convulsions diminished in intensity and soon ceased altogether. The patient remained in a comatose state for some hours, but afterwards made a good recovery. The profuse salivation and perspiration appeared at first very alarming, but no untoward result followed. In future I intend to use a smaller dose—$\frac{1}{12}$ or $\frac{1}{15}$ gr.

### Artificial Feeding of the Insane.

Dr. Henry Sutherland (New Cavendish Street) writes: I have read with much interest Dr. Harris-Liston's paper on the artificial feeding of the insane in the British Medical Journal of February 13th, and I quite agree with all his views on this important question. I would point out, however, that feeding by the nose, which he says he now almost always uses as generally preferable, has its drawbacks as well as its advantages. It is absolutely impossible to feed some patients by this method. This is usually due to some contraction or irregularity in the anterior or posterior nares, which presents such a formidable obstruction to the passage of the tube, that nothing but dangerous forcing could overcome it. Another objection to nasal feeding is that it cannot be long continued. After using this method for a few days it is found that the nostrils become red and inflamed, and ultimately blocked altogether. Nasal feeding is also contraindicated in patients who possess an unusual amount of co-ordination of the muscles at the back of the pharynx, such being able to direct the point of the tube into the larynx, causing alarming symptoms.

Feeding by the nose is indicated in subjects who have good teeth, which it is important to preserve; in certain cases of passive melancholia, where the teeth are clenched with great force; in cases of severe bronchitis and emphysema, and in patients whom it is desirable to disgust, one operation of this kind being often sufficient to prevent the patient refusing his food again. Dr. Harris-Liston's hint as to smearing the tube with assafœtida is new to me, and most valuable. I prefer the mouth-tube funnel and gag for ordinary feeding cases.

### Medical Etiquette.

In its answers to correspondents, *Tit-Bits* in a recent issue says: "We should be glad if some medical man would tell us exactly what the etiquette of the profession is, because there is a great deal of indignation on the part of the public in respect to it. We take it that its origin is that one medical man does not want to interfere with the practice and the patients of another. At the same time, in cases of emergency, and where the other doctor could not be procured, we should say, any man who declined to attend to a serious case would be little short of a monster." No medical etiquette ever prevents another doctor going to a serious case when the doctor in attendance cannot be found; and when our contemporary further says, "If Mr. A. has been employing Dr. B. for a time, and is dissatisfied with his treatment, and calls in Dr. C., and the latter refuses on the ground that this is Dr. B.'s patient, that also would be a great injustice to the public," it is stating no more than is well recognised by the profession, namely, that every member of the public has a right to select his own doctor and to change him. Some rules, however, require to be laid down as to the way in which this change may legitimately be brought about. Laxity in this respect would tend to injure gravely the confidence each patient should have in the doctor of his choice by exposing him to the machinations of those who might find it to their advantage to instil doubts in the minds of a patient or his friends as to the character of the treatment pursued. This would be a great evil to the public. A medical man of any shrewdness knows that when he has lost the confidence of a patient, it is not to his interest to continue in attendance, and he will resign his office to another as soon as possible; but until he has lost this confidence there is certainly no room for an outsider to interfere, whether within or without the patient's family. Medical etiquette is, after all, no more than doing to another man as you would be done by, and it has yet to be shown that the reasonable adoption of such a rule can be opposed to the public welfare.

### Dr. Rentoul's Election Expenses and those Incurred in Opposing the Four Midwives Bills.

Mr. Alfred Cox, M.B., Honorary Secretary (West View, Gateshead-on-Tyne), writes: The following list contains all sums to hand up to date. Very little more than half the sum required has been subscribed. If the remaining 6,500 or so of Dr. Rentoul's voters will send on a small subscription—even 1s. each—our object will be more than attained.

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| C. E. A. | 0 | 2 | 6 |
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| J. H. Blight, Cardiff | 0 | 5 | 0 |
| T. Carlyle Beatty, Clacton-on-Sea | 0 | 5 | 0 |
| J. H. Buchanan, Sowerby, Thirsk | 0 | 5 | 0 |
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| T. S. F. Hudson, Tipton | 0 | 10 | 0 |
| K. Marion Hunter, Heathcote Street, W.C. | 0 | 10 | 0 |
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| D. W. Inglis, Hebburn-on-Tyne | 0 | 2 | 6 |
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| A. Jolly, Sefton Park, Liverpool | 0 | 10 | 0 |
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| James McArdle, Durham | 0 | 10 | 6 |
| D. Mackechnie, West Hartlepool | 1 | 1 | 0 |
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| C. H. Miles, Stantonbury | 0 | 5 | 0 |
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| G. W. McCoull, Stocksfield-on-Tyne | 0 | 10 | 0 |
| J. O'Connor, St. Anne's-on-Sea | 0 | 2 | 6 |
| J. R. Philpot, Parkstone, Dorset | 0 | 5 | 0 |
| J. Ronald Polson, Worcester | 1 | 1 | 0 |
| J. Hope Potter, Cullompton | 0 | 5 | 0 |
| J. M. Pringle, Lambley, Carlisle | 0 | 2 | 6 |
| J. W. Paton, Rockferry | 0 | 5 | 0 |
| A. Haw Ryall (?), Hunslet, Leeds | 0 | 10 | 6 |
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### Hospital Reform.

Dr. T. Garrett Horder, Secretary of the Hospital Reform Association, writes: It is perhaps worth recording that the following resolution was passed at a meeting of the medical profession held in London (under the presidency of the late Sir William Fergusson) on April 27th, 1871: "In order to improve the clinical teaching of the out-patient department of the general and special hospitals, it is very desirable that the present unrestricted system of gratuitous relief at these institutions be curtailed, partly by the selection of cases possessing clinical interest, and partly by the exclusion of those who on social grounds are not entitled to gratuitous medical advice." The resolution was proposed by Mr. Timothy Holmes, F.R.C.S., seconded by the late Dr. Anstie, and carried unanimously.

### A MOHAMMEDAN DEPUTY IN FRANCE.

DR. PHILIPPE GRENIER, the recently elected Deputy for Doubs, who has caused a good deal of sensation in France by appearing in the Legislative Chamber in Oriental dress, and by his persevering efforts to carry out the Mohammedan ritual in public at Versailles, was born at Pontarlier in 1864. He is the son of a cavalry officer, and his family is well known and much esteemed in his native district. He studied medicine in Paris, where he served as *externe* at the Hôpital Broussais under Dr. Talamon. He is described as a man of fine presence and bronzed complexion. As a follower of the Prophet he shaves his head, which he covers with a burnous, and in every way conforms to the ritual of his adopted religion. He is extremely popular in his own district, where he has gained the affection of the inhabitants by his liberality and his single-hearted desire for the public good. His political programme includes a number of reforms, all of a socialistic character. At the same time, however, he is sufficiently patriotic to insist on the necessity of a powerful army and navy. By way of strengthening the army he urges the forming of 200 regiments of Turkos and 100 regiments of Spahis. He asks for the naturalisation of all the Mussulmans of Algeria and Tunis. As a medical man, improvement in public hygiene occupies a foremost place in his programme and in particular he is, as might be expected from his religious belief, an ardent advocate of measures for the suppression of alcoholism. His political views do not, it must be admitted, show any marked eccentricity, although he ends his election address as follows: "I will be faithful until death, if it pleases God, to the device inscribed in the annals of our country; God and the country, Honour and the country, Humanity. Praise be to God alone and France for ever!—Signed, Dr. Philippe Grenier, Prophet of God."

### THE NEW TAPEWORM DAVAINEA MADAGASCARIENSIS.

THIRTY years ago Dr. Greult, of the Comoro Islands, sent to France two specimens of a tænia expelled from the alimentary canal of two children. Davaine examined them, and declared that they represented a new species, which he termed tænia madagascariensis. Unfortunately the heads were wanting in both specimens. In 1895 Dr. Daniels, of George Town, British Guiana, examined two tapeworms, also headless, discharged by an adult male native. He considered that they represented a new species, which he named tænia demerarensis. But Leuckart in 1891 had an opportunity of examining a perfect tapeworm discharged by a boy, aged 3, at Bangkok, Siam. The head had four suckers, and a retractile rostrum bearing about 90 very small, elongated hooklets. Leuckart identified that tapeworm with Davaine's T. madagascariensis. M. Blanchard, who publishes the above facts in the *Bulletin de l'Académie de Médecine* for January 12th, finds that this species is allied to tænia tetragona of domestic fowls, and other cestodes also found in birds. He classes them under the new genus davainea, which must include T. madagascariensis. He has examined Daniels's specimens, kindly lent to him by Dr. Patrick Manson, and finds them to represent the same species. It is a small tapeworm, only a few inches in length, with square proglottides, about 100 in number. The genital pore is lateral and on the same side in all the proglottides. The davainea madagascariensis is thus a special tropical human parasite. Its intermediate host must be common to the Comoros, Siam, and Demerara at least, and judging from the homologous case in the tænia of the hen, and the frequency of different species of insects, above all of black beetles (blatta orientalis and Americana) in the above country, the guilty organism is probably a blatta.

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## BOOKS, ETC., RECEIVED.

Address on Immunity to Disease. By W. B. Ransom, M.A., M.D., M.R.C.P. London: John Bale and Sons.

Musa Medica: A Sheaf of Song and Verse. By J. Johnston, M.D. London; The Savoy Press. 1897. 2s. 6d.

Infant Diet and Sterilised Milk. By a Physician. London: Sampson Low, Marston, and Co. 1896. 6d.

Transactions of the Ophthalmological Society of the United Kingdom. Vol. xvi. London: J. and A. Churchill. 1896. 12s. 6d.

La Craniotomia nell' Epilessia Traumatica. Per Dr. G. Sembianti. Milan: Ulrico Hoepli. 1897. L. 4.50.

Manuali Hoepli. Semeiotica. Breve Compendio dei Metodi Fisici di Esame degli Infermi. Per Dr. U. Gabbi. Milan: Ulrico Hoepli. 1897. L. 2.50.

Dental Surgery for Medical Practitioners and Students of Medicine. By A. W. Barrett, M.B., M.R.C.S., L.D.S.E. London: H. K. Lewis. 1897. 3s. 6d.

Refraction of the Eye. By A. S. Morton. Sixth Edition. London: H. K. Lewis. 1897. 3s. 6d.

Septic Conditions of the Infantile Alimentary Canal and their Treatment. By F. W. Ross, M.D. London: Rebman Publishing Co. 1897. 7s. 6d.

Aids to the Study of Bacteriology. By T. H. Pearmain and G. C. Moor, M.A. London: Baillière, Tindall, and Cox. 3s. 6d.

Practical Manual of Diseases of Women and Uterine Therapeutics. By H. Macnaughton Jones, M.D., M.Ch. Seventh Edition. London: Baillière, Tindall, and Cox. 1897. 15s.

A Textbook of Diseases of the Nose and Throat. By F. H. Bosworth, A.M., M.D. Third Edition. London: Baillière, Tindall, and Cox. 1897. 25s.

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Influence, Intellectual and Moral. By R. J. Anderson, M.A., M.D. Galway: M. Clayton. 1896. 6d.

Die Farbenblindheit und ihre Diagnose. Von Dr. M. Ohlemann. Braunschweig: J. H. Meyer 1897. M. 2.

The Menopause and its Disorders. By A. D. L. Napier, M.D., F.R.C.S., M.R.C.P., F.R.S. London: The Scientific Press. 1897. 7s. 6d.

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# AN INAUGURAL ADDRESS

ON THE

# UNDIMINISHED MORTALITY FROM PUERPERAL FEVER IN ENGLAND AND WALES.

*Delivered before the Obstetrical Society of London.*

By CHARLES J. CULLINGWORTH, M.D., F.R.C.P.,
President,
Obstetric Physician and Lecturer on Midwifery and Diseases of Women, St. Thomas's Hospital.

[After some introductory remarks, Dr. Cullingworth continued as follows:]

It appears to me that at the present moment there is no obstetrical or gynæcological subject that can compare in importance with this question of the undiminished death-rate from puerperal fever.

## Statistics.

Three or four years ago Dr. Boxall was appealed to by a physician to one of the insurance companies for facts bearing on the alleged diminution in the mortality of childbirth. The directors of the company were considering how far they would be justified in relaxing the rule by which 1 per cent. had hitherto been added to the insurance premium in the case of women expecting their first confinement. The result of the inquiry instituted by Dr. Boxall, in response to this appeal, proved that, so far from having diminished, the death-rate from puerperal fever in England and Wales had considerably increased.

The mortality returns of the Registrar-General are arranged under two headings—namely: (1) Puerperal fever or metria, and (2) Accidents of childbirth. The latter includes cases fatal from hæmorrhage, eclampsia, puerperal mania, pulmonary embolism, etc. Deaths occurring during childbed from pre-existing disease, or from causes not directly connected with childbirth, though taking place during labour or during the lying-in period, are left out of account. The returns under the two headings mentioned therefore comprise all the deaths known to have occurred from childbirth, though not all that occurred in childbirth. I am not concerned on this occasion with the mortality from the accidents of childbirth, though I may have to allude to them incidentally. My purpose is to call attention to the deaths from puerperal fever.

In the accompanying table is shown in detail the actual number of deaths returned annually under that head from the year 1847 to 1895 inclusive, with the death-rate estimated in relation to the number of registered births—that is, to the number of children born alive.

*Mortality from Puerperal Fever in England and Wales, 1847-95.*

| Year. | No. of Deaths. | Per 1,000 Births | Year. | No. of Deaths. | Per 1,000 Births | Year. | No. of Deaths. | Per 1,000 Births |
|---|---|---|---|---|---|---|---|---|
| 1847 | 784 | 1.5 | 1864 | 1,484 | 2.0 | 1881 | 2,287 | 2.6 |
| 1848 | 1,365 | 2.4 | 1865 | 1,333 | 1.8 | 1882 | 2,564 | 2.9 |
| 1849 | 1,165 | 2.0 | 1866 | 1,197 | 1.5 | 1883 | 2,616 | 2.9 |
| 1850 | 1,113 | 1.9 | 1867 | 1,066 | 1.4 | 1884 | 2,468 | 2.7 |
| 1851 | 1,009 | 1.6 | 1868 | 1,196 | 1.5 | 1885 | 2,420 | 2.7 |
| 1852 | 972 | 1.6 | 1869 | 1,181 | 1.5 | 1886 | 2,078 | 2.3 |
| 1853 | 795 | 1.3 | 1870 | 1,492 | 1.9 | 1887 | 2,450 | 2.8 |
| 1854 | 954 | 1.7 | 1871 | 1,464 | 1.8 | 1888 | 2,386 | 2.7 |
| 1855 | 1,079 | 1.7 | 1872 | 1,400 | 1.7 | 1889 | 1,852 | 2.1 |
| 1856 | 1,067 | 1.6 | 1873 | 1,740 | 2.1 | 1890 | 1,956 | 2.2 |
| 1857 | 836 | 1.3 | 1874 | 3,108 | 3.6 | 1891 | 1,973 | 2.2 |
| 1858 | 1,068 | 1.6 | 1875 | 2,504 | 2.9 | 1892 | 2,336 | 2.6 |
| 1859 | 1,238 | 1.8 | 1876 | 1,746 | 2.0 | 1893 | 3,023 | 3.3 |
| 1860 | 987 | 1.4 | 1877 | 1,444 | 1.6 | 1894 | 2,167 | 2.4 |
| 1861 | 886 | 1.3 | 1878 | 1,415 | 1.6 | 1895 | 1,849 | 2.0 |
| 1862 | 940 | 1.3 | 1879 | 1,464 | 1.7 | — | — | — |
| 1863 | 1,155 | 1.6 | 1880 | 1,659 | 1.9 | — | — | — |

It will be seen that in 1881 there was a rise both in the actual number of deaths and in the percentage. It is quite true that the figures of that year had been exceeded on two occasions previously, namely, in 1874 and 1875. But after those two years the figures fell again, whereas since 1881 the increase has been maintained. In that year, with a view to making the returns more complete, the Registrar-General, in certain cases in which the certificates of death were not satisfactorily filled up, wrote to the medical men who had signed them for further particulars. Thus, a letter was sent in every case in which a woman of child-bearing age was stated to have died of either peritonitis, septicæmia, or pyæmia. As a result of these special inquiries, which have been continued to the present time, numerous deaths have been added under the heading of puerperal fever. I am perfectly willing to concede that the sustained increase in the mortality from puerperal fever during the last fifteen years is to be partly accounted for in this way. But when this has been granted, we are still face to face with the fact that the mortality has not appreciably diminished during the past fifteen years, and that the year 1893 was conspicuous for a puerperal fever mortality only once exceeded since 1847, when the Registrar-General first issued a separate return. It is not pretended that the Registrar-General's returns give the figures with absolute correctness. No system that depends upon the accuracy of statement of a large number of people can ever be perfect; besides which, as I have elsewhere pointed out, there is a natural tendency on the part of medical men, partly on personal and partly on public grounds, to avoid attributing deaths directly to the effect of childbirth. If, however, the figures err, they err in the direction of being below the truth not in excess of it. Moreover, the causes of fallacy are not limited to a single year; they operate equally throughout a long series; hence they do not affect the comparison of one year with another, which is what I am now chiefly concerned with.

## Geographical Distribution.

In London the total death-rate from childbirth has considerably diminished. The diminution is due, however, not to any appreciable lowering of the mortality from puerperal fever, but to a lessened mortality from the accidents of childbirth. In the provinces, on the other hand, the total death-rate from childbirth remains practically unaltered; but whilst, as in the case of London, there has been a diminution in the mortality from the accidents of childbirth, the mortality from puerperal fever has increased to such an extent that instead of being accountable for less than a third of the total mortality it is now accountable for more than one-half.

In a paper read before the Epidemiological Society in March of last year (1896) Dr. Williams, the Medical Officer of Health for the County of Glamorgan, showed that, of the various districts and counties of England and Wales, those with the heaviest death-rate from puerperal fever, between the years 1848 and 1894, were Lancashire (2.4) which heads the list, North and South Wales, Northumberland and Cheshire (2.2.) Close behind them came Cumberland, Durham, the West Riding of Yorkshire, Derby, and London (2.1). Surrey had the lowest mortality, and very near to it came Cornwall, Sussex, Hants, Dorset, and Rutland (all under 1.4). Taking the shorter and more recent period embraced between the years 1885 and 1894, Lancashire, Cheshire, and North and South Wales still maintain their unenviable pre-eminence in the black list; Northumberland disappears from it; and Derbyshire and the West Riding of Yorkshire take its place.

## Wales.

It would be impossible here to enter into a detailed inquiry into the conditions of life and other circumstances which might serve to explain the relative mortality from puerperal fever in these various districts. It must suffice if I select one district, namely, that of Wales. I make this selection because, in the paper already alluded to, Dr. Williams has furnished very ample materials for forming an estimate of the determining causes of the high death-rate from puerperal fever.

After giving a table of the death-rate for each Welsh county for a period of ten years, Dr. Williams observes that density of population does not seem to be "a factor of much importance in determining puerperal mortality; on the contrary, both the mortality from puerperal fever and accidents of childbirth display a marked tendency to prevail in those counties where the only features in common between them is that they are mountainous, hilly, and sparsely populated, and that consequently locomotion is tedious, and medical assistance difficult to obtain in time. On the other hand, the mortality seems to be generally lowest in the flatter counties." He then proceeds to speak more particularly of the registra-

tion county of Glamorgan, of which, as the medical officer of health, he has an intimate knowledge. The county of Glamorgan "has an estimated population of some 800,000, over half the population of Wales. It covers 516,966 statute acres, and includes the two county boroughs of Cardiff and Swansea." The county is divided into eight registration districts, and it is instructive to follow Dr. Williams in his summary of the relative mortality from childbirth in each of these, and the conditions of life that prevail in them. In the Cardiff registration district the puerperal mortality exactly corresponds with the mean for England and Wales (2.0 per 1,000 births). "Its sanitary condition is satisfactory, and confinements are attended generally by the medical men and trained midwives." In the Pontypridd district the puerperal mortality is excessive (4.1). Its sanitary condition is generally unsatisfactory, and most of the confinements are "attended by untrained midwives." In the Merthyr Tydfil district the death-rate from puerperal fever is higher than in any other district in Wales—namely, 4.7 per 1,000 births. The greater number of confinements are attended by midwives, of whom only a few, if any, are trained. As to its sanitary condition, although that of Merthyr itself is highly unsatisfactory; that of the other parts of the district is fair.

The mean annual mortality from puerperal fever for the past ten years in the next district on the list, that of Bridgend, closely approaches that of the Merthyr Tydfil district, being 4 5 per 1,000 births. This district includes one small town, a small seaside resort, four mining valleys, "and an extensive rural district with an agricultural and mining population." In the mining valleys the greater number of colliers' wives are attended by unskilled and ignorant midwives, none of whom are trained or registered. The sanitary condition of the district is, in some localities, exceedingly unsatisfactory.

In the Neath Registration District there are five towns with a population varying from 4,000 to 12,000, "together with an extensive area studded with mining villages and farmhouses. In the mining valleys many confinements are attended by midwives, but in the towns only a few comparatively. The sanitary condition is fair." The death-rate from puerperal fever in this district is very variable. The mean annual rate for the ten years ending 1894 was 2.8 per 1,000 births, that is, higher than that of the Cardiff district, but much below that of the other three districts already mentioned.

In the Pontardawe Registration District, containing three mining and tin-plate towns, skilled medical assistance can be procured at short notice. The puerperal fever mortality is low (1.6).

The Swansea Registration District, besides the town of Swansea, includes a scattered mining population. The sanitary condition is unsatisfactory, and midwives are employed to a considerable extent. The death-rate from puerperal fever is fairly high (3 0).

In the Gower Registration District, which is largely agricultural, the sanitary condition is fair, but the rate of mortality from puerperal fever is high (3.8).

Dr. Williams points out that, as regards the towns, the puerperal fever mortality is much the same as in similar towns elsewhere. In the densely-populated mining valleys, on the other hand, the mortality is exceedingly high. He attributes this in a great measure to the systematic employment of unskilled and ignorant midwives. "From my experience in Glamorgan," he says, "I can prove without a doubt that they often spread puerperal fever broadcast, and are often not interfered with." "The condition of life," he continues, "consequent upon the physical features of the country, especially in North Wales, often make it impossible to obtain skilled assistance in time; and if any [assistance] is to be obtained it must be from untrained midwives." Even these are not always available, for, in such districts, friends and neighbours are often compelled to give the help that is needed.

I have considered the case of Wales at some length, because the information at our command is so definite. No one, I think, after hearing the above facts, can have any doubt as to the causes which mainly determine the excessive death-rate from puerperal fever in that country.

### Lancashire.

I have not time, as I said before, to inquire into the conditions of life amongst the working classes in all the districts in which the mortality from puerperal fever is excessive, but I cannot refrain from saying a word or two about Lancashire, with regard to which we have some very important evidence.

In the year 1892, Dr. T. E. Hayward, M.O.H. for Haydock (Lancashire), appeared before the Select Committee on Midwives Registration. The following is an abbreviated extract from the minutes of his evidence:

"Haydock is a coal mining district. The population is 6,535; there were 272 births registered last year; the average number for the past few years is 250.....I am in a position to state that scarcely a fifth part of those confinements are attended, at any age, by a doctor The work is done by women who practise as midwives," but who "are, with few exceptions, untrained, and in very many cases grossly ignorant and incompetent." "The same condition of things holds good more or less in the whole of that part of Lancashire." In support of that statement, he quoted the report of the medical officer of health for the county borough of St. Helen's, with a population of over 70,000, where it was stated that the great majority of confinements in St. Helen's "are attended by midwives, a large number of whom have no other qualification than that of being mothers themselves."

It will thus be seen that, at least in one important particular, the conditions under which the death-rate from puerperal fever is excessive in Lancashire are similar to those which prevail in Wales. It must not, however, be supposed that I am going to lay the entire blame for the present deplorable loss of life from puerperal fever upon the midwives. The evidence is incontestable that they are responsible for much of it; but, on this head, I have probably for the present said enough.

### Puerperal Fever in London.

By the kindness of Mr. Shirley Murphy, the Medical Officer of Health for the Administrative County of London, I have been supplied with a statement of the number of cases of puerperal fever notified in the various parishes within the London sanitary district during the five years 1891-95, and also with a statement of the number of births in each parish during the same period. From these two statements I have been enabled to draw up a list, showing the number of notified cases of puerperal fever to every thousand births in each of the forty parishes. In other words, I have constructed a table of the relative incidence of puerperal fever in the various parishes comprised in the London sanitary district during the five years 1891 to 1895. The result is somewhat unexpected.

*Table showing the Relative Incidence of Cases of Puerperal Fever in the Respective Parishes of the London Sanitary Districts, 1891-95.*

| Parish. | No. of Notified Cases per 1,000 Births. | Parish. | No. of Notified Cases per 1,000 Births. |
|---|---|---|---|
| Hampstead ... ... ... | 3.64 | Woolwich ... ... ... | 1.85 |
| Islington ... ... ... | 3.48 | St. Saviour Southwark ... | 1.71 |
| Battersea ... ... ... | 3.25 | Holborn ... ... ... | 1.62 |
| Wandsworth ... ... | 3.12 | Marylebone ... ... | 1.59 |
| Lewisham ... ... ... | 3.02 | St. George-in-the-East ... | 1.55 |
| Fulham ... ... ... | 2.86 | Shoreditch ... ... | 1.47 |
| Paddington ... ... ... | 2.85 | Newington ... ... ... | 1.47 |
| Greenwich ... ... ... | 2.77 | Poplar ... ... ... | 1 47 |
| St. James ... ... ... | 2.71 | St. George Hanover Square ... ... ... | 1.31 |
| Bethnal Green ... ... | 2.49 | City of London ... ... | 1.31 |
| St. Pancras ... ... ... | 2.48 | Mile End Old Town ... | 1 31 |
| Hammersmith ... ... | 2.46 | Rotherhithe ... ... | 1.31 |
| Lee and Plumstead ... | 2.41 | Clerkenwell ... ... | 1.30 |
| Stoke Newington and Hackney ... ... ... | 2.29 | Bermondsey ... ... | 1.07 |
| Kensington ... ... ... | 2.26 | St. George Southwark ... | 1 02 |
| Chelsea ... ... ... | 2 23 | St. Olave ... ... ... | 0.93 |
| Limehouse ... ... ... | 2.14 | St. Giles ... ... ... | 0.89 |
| Camberwell ... ... ... | 2 09 | Strand ... ... ... | 0.67 |
| Westminster ... ... | 2.06 | St. Luke ... ... ... | 0.53 |
| Lambeth ... ... ... | 1.86 | St. Martin-in-the-Fields | 0.00 |
| Whitechapel ... ... | 1.86 | | |

Rate for the whole sanitary district of London, 2 17.

The parishes that figure in the black list are Hampstead, Islington, Battersea, Wandsworth, and Lewisham. All these show a rate of over 3 cases per 1,000 births. After them come, in the order named, Fulham, Paddington, Greenwich, St. James, Bethnal Green, St. Pancras, Hammersmith, Lee and Plumstead, Stoke Newington and Hackney, Kensington and Chelsea. The rate in all these is higher than that for London generally. It will be observed that Westminster, Lambeth, Whitechapel, St. George-in-the-East, and Shoreditch, which might have been expected to appear high up in the list, show a much smaller proportion of cases than Hampstead and Islington, and even St. James, Kensington, and Chelsea. In St. Martin-in-the-Fields not a single case was notified, while Bermondsey, St. George Southwark, St. Olave, St. Giles, Strand, and St. Luke, all show a remarkably small percentage. One thing at least is clear, namely, that the prevalence of puerperal fever is not proportionate to the density of population.

The number of deaths recorded for the whole of London in the returns of the Registrar-General (1,305) so nearly approximates the number of notified cases (1,449), that it seems safe to infer that the cases notified were for the most part fatal, and that the result of the inquiry would not have been materially different if it had been based on the number of deaths in each parish, instead of on the number of notified cases.

I have alluded specially to the mortality in London, in

order to show that puerperal fever still claims its victims, not only in thinly-peopled country districts, but also in places densely populated, where, whatever the causes may be, the difficulty of obtaining medical assistance cannot be one of them.

### Puerperal Fever in Private Practice.

Although puerperal fever has practically become a thing of the past in our lying-in hospitals—witness the remarkable record of the General Lying-in Hospital and the equally remarkable results to which Dr. Godson was able to point[1] as having followed the introduction of antiseptics at the City of London Lying-in Hospital—it is impossible to ignore the fact that there has not been a corresponding diminution of mortality from puerperal fever in ordinary private practice. It was not to be expected that those who had already been engaged for some time in practice would at once assimilate the new ideas and adopt what appeared to many of them not only new but revolutionary and unnecessary methods. But as time wore on and a younger race of men came upon the scene it was not unnaturally hoped that an improvement would take place, that a mortality which had been conclusively shown to be preventable would show some signs of diminution. How is it that this hope has not been realised? Either the profession is not convinced of the possibility of stamping out puerperal fever by the methods that have been proposed, or it has failed to carry out those methods with the thoroughness that can alone ensure success. As a responsible teacher of midwifery, I have often asked myself the question how far the teaching is at fault. Do we teachers sufficiently impress upon the minds of our students the infinite importance of this subject? Are we ourselves careful to show by our own example the importance of the precautions that we lay down in the lecture theatre? Are we careful never to convey by thoughtless word or careless act the impression that the rigid adoption of antiseptic measures is excellent in theory but does not after all matter so very much in practice? If we are not, is it to be wondered at that when our students go out into the world and are released from the discipline of the school and hospital they should forget how much depends on attention to minute detail, and should discharge their consciences in this matter of antiseptics by pouring a few drops of carbolic acid or a drachm of tincture of iodine into the water in which they wash their hands, or by simply bidding the nurse administer a similarly prepared solution as a douche? I am not painting an imaginary picture. The methods at present employed by many who, if questioned, would be quite ready to proclaim their belief in antiseptics, and who assure one they have used "every antiseptic precaution," are often so crude and imperfect as to be a ludicrous travesty of genuine antiseptic midwifery.

The questions I have just been asking, I ask of myself as well as others. It is clear that something is wrong. We shall be most likely to find out what that something is by a process of self-examination, both on the part of teacher and taught, however disagreeable that process may be. A great deal has been written on the superiority of asepsis as compared with antisepsis, and it has become the fashion in some quarters to speak of antiseptics as though they had had their day, and to maintain that a condition of asepsis can be attained by cleanliness alone. It is well, however, to bear in mind that the triumphs of our lying-in hospitals have all been won by the scrupulous use of antiseptics, and that sterilisation, which is the essential element in aseptic surgery, is impossible in midwifery practice. When we have thoroughly washed our hands, as we all now recognise the necessity of doing before making an examination in the lying-in room, it costs very little trouble to adopt the additional safeguard of immersing them for a moment or two in an antiseptic solution. And as a matter of experience those who are most diligent in the use of antiseptics are also the most diligent in carrying out all the details of elementary cleanliness. I firmly believe that if the simple antiseptic precautions with which everyone is familiar were conscientiously adopted, puerperal fever would be as rare in private practice as it is now in the best lying-in hospitals. "The only way," as I have elsewhere observed, "to avoid (the present) terrible mortality, and to avoid also the terrible amount of puerperal disease, which, because it is not fatal, is apt to remain unrecorded, is for every practitioner in midwifery to recognise his personal responsibility in the matter."[2]

### The Remedies.

It will be gathered from what I have said that, in my opinion, the high death-rate from puerperal fever in this country is attributable mainly to the large number of confinements attended by ignorant and untrained midwives, and to laxity and half-heartedness in the use of antiseptic precautions in private practice. The remedy for the first of these evils is to insist that women who call themselves midwives shall possess at least such an elementary knowledge of the subject as shall enable them to know how to prevent septic infection. The remedy for the second evil is thoroughness. Nearly nine years ago I published, in the form of an introductory address at St. Thomas's Hospital, a plea for the more general adoption of antiseptics in midwifery practice. In that address I brought together, as concisely as possible, the evidence that had been gradually accumulated in proof of the preventability of puerperal fever, and I showed in a series of tables the magnificent results that had followed the introduction of antiseptic measures into the leading maternity hospitals of Europe and the United States.

I ought, perhaps, to apologise for returning to a subject that may seem to many to have been long ago threshed out. The temptation was indeed great to choose some newer topic for an occasion like the present. But the more I reflected on the matter, the more it was borne in upon me that it was my duty once again to raise my voice on behalf of the mothers of this country. The Obstetrical Society has always been foremost in the effort to reduce the present terrible mortality from childbirth. It seemed to me that I could not more suitably signalise my succession to this chair than by calling attention to the sad and disappointing fact that has formed the text of this address. If anything I have said shall have the effect of stirring the minds of my professional brethren on this subject, and of diminishing, to ever so slight an extent, the present terrible death-rate from a disease which is now generally acknowledged—nay, proved—to be almost wholly preventable, I shall feel that I have achieved something worthy of the occasion, and have done something towards justifying your choice of a President.

### References.

1 British Medical Journal, January 23rd, 1897, p. 105. 2 In an excellent little book of advice to mothers the writer, herself a woman, after doing me the honour to quote the foregoing passage, makes the following significant comment: "Now, I maintain," she says, "that women themselves have a personal responsibility in this matter also. They should not be content passively to allow their lives to lie in the hands of others who may, or may not, choose to use antiseptics. Women who are expecting their confinements should satisfy themselves beforehand that the doctor and the nurse engaged to attend will conscientiously use these safeguards" (Stacpoole, F.), *Advice to Women on the Care of the Health before, during, and after Confinement.* London: Cassell and Co. 1892. p. 81). This is plain speaking, but who will be disposed to find fault with it?

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The Cambridge and District Medico-Ethical Society.—We have received from the Hon. Secretary (Mr. Penberthy) of this Society a copy of the rules and regulations and the list of officers. The Society has for its objects to encourage cordial relations between medical men practising in the district, and to accord opportunities for discussion and interchange of views on the business side of medical practice. It also formulates a code of ethics for the guidance of members, and desires to obtain the combined action and consolidated influence of all concerned upon matters of difficulty which may arise in local medical practice. The management of the Society is in the hands of a Committee consisting of a President, Vice-President, Treasurer, Secretary, and eight other members, annually elected. Meetings are held once a quarter, as a rule, but can be convened for emergencies when required. A member who, in the opinion of a special meeting called for the purpose, persists in any course of action contrary to the rules and regulations of the Society, can be suspended or expelled, without appeal, on the votes of three-fourths of the members present at such meeting. It is arranged that should the conduct of any member be called in question, the special meeting to consider the same shall be called at seven clear days' written notice, and that the reason for the convening of the meeting shall be stated in such notice.

# OBSERVATIONS
ON THE
# ANTICIPATION OF POST-PARTUM HÆMORRHAGE,
WITH
# REMARKS ON THE ACTION OF ERGOT ON PREGNANT WOMEN.

By LOMBE ATTHILL, M.D.,
Ex-Master of the Rotunda Hospital, Dublin.

A discussion on the subject of the Anticipation of *Post-partum* Hæmorrhage took place at the annual meeting of the British Medical Association held in London in 1873, after the reading of a paper on the subject by Dr. Ewing Whittle, and in the number of the British Medical Journal for November 1st, 1873, a paper of mine appeared, in which I say: "Dr. Whittle's paper, though read just before the hour at which the Section adjourned, was listened to with great interest, and a short and animated discussion followed. The reason why this paper was listened to with such attention is obvious. Every practitioner present, from personal experience, dreaded *post-partum* hæmorrhage, and, while admitting the value of transfusion in extreme cases, rejoiced at the prospect of not being obliged to think of so difficult and uncertain a procedure; indeed, more than one member (during the debate which had previously taken place on transfusion) asked—Could no means be suggested for rendering this operation unnecessary? Dr. Whittle's paper professed to be a reply to this query, but I think the subject should be more fully discussed." This I then proceeded to do, and my example was followed by my lamented friend, the late Dr. Alfred McClintock, in an admirable paper read before the Obstetrical Society of Dublin, which will be found in the volume of the *Proceedings* of the Dublin Obstetrical Society for the session 1873-74.

I have no intention of wearying the reader with a summary of these papers. Anyone interested in the subject will find them, and a report of the discussion which followed, in the volume I have referred to; but the question then discussed was, how best to avert the anticipated danger in cases where labour was actually in progress, and though many of the suggestion were valuable, they too often fail to be efficient, because time does not exist to permit preventive treatment to take effect. Thus great stress was laid on the administration of ergot, but I have long since been convinced that, to be of real use, ergot requires not only to be administered some hours before its action as a uterine hæmostatic is needed, but also that the dose must be repeated, and that more than once, at intervals of about two hours, otherwise the effect is uncertain, and so transient, as to be of little value. I do not, therefore, propose to discuss this part of the subject, but to point out that in patients in whom a tendency to dangerous *post-partum* hæmorrhage is known to exist, or indeed is suspected to exist, the danger may in the majority of cases be averted, or at least greatly lessened, by treatment carried out antecedent to the expected date of the occurrence of labour.

I had not been long in practice before I became convinced that the theory then universally believed, that women should not take any drug, especially tonics such as quinine, iron, and the mineral acids, during the menstrual period was erroneous, and I took every possible opportunity of watching the effect of such medicines on women during menstruation, with the result I expected, namely, that no drug taken in its usual dose had any effect on the function in healthy women. This fact led me to administer drugs during pregnancy when necessary with equal freedom; and in the case of a lady whom I knew to have a tendency to *post-partum* hæmorrhage, I on one occasion administered quinine in 4 or 5-gr. doses up to the advent of labour for the cure of neuralgia, and on this occasion for the first time no hæmorrhage occurred with her. This struck me as remarkable, and it occurred to me that the unexpected freedom from hæmorrhage might have been due to the tonic effect of the quinine on the muscular fibres of the uterus; and, emboldened by the result in this case, I administered quinine to other patients in whose cases I feared the occurrence of hæmorrhage.

About this time the result of the action of ergot in a case of threatened abortion, to which I shall presently refer, induced me to prescribe ergot combined with strychnine for a patient, in whom from previous experience I feared *post-partum* hæmorrhage, for some days before labour set in, and I was gratified by finding that although there was a little hæmorrhage, it was as nothing compared with what had occurred in her previous confinements. From that time it has been my invariable rule to carry out this practice in all cases in which I had reason to fear the occurrence of hæmorrhage, and the results have been most satisfactory. I never once have had occasion to regret its adoption, and never observed the most trifling injurious effects on either mother or child to follow, and this although the ergot has been taken regularly for five or six weeks prior to the occurrence of labour. The following cases are typical ones, and very instructive.

About six years ago Dr. Wright, of Dalkey, sent for me to assist him in a dangerous case of hæmorrhage. More than two hours elapsed between his sending for me and my arrival, and before I did so his exertions had been successful. The hæmorrhage had stopped and the patient's life saved, but she was still in a very precarious condition; and Dr. Wright informed me that her previous confinements had also been attended with alarming hæmorrhage.

About eighteen months subsequently the lady, now residing in Dublin, requested me to attend her in her confinement which was again approaching, and I reluctantly consented to do so, on the condition that she would submit to a regular course of treatment prior to the expected date of her confinement. She had a great objection to medicine, and was unwilling to agree to this, but on explaining to her the *rationale* of the treatment she consented, and as soon as she had entered on the thirty-fifth week of utero-gestation I put her on the following mixture: Inf. ergotæ ad ℥vj; ext. ergotæ liq., ʒiij; liq. strychninæ, ʒj; a tablespoonful to be taken three times a day. This mixture she continued to take regularly for three weeks. I then discontinued it for five days, when I directed it to be recommenced.

This lady had in all her previous confinements (five in number) been taken with labour six or seven days before the expiration of the normal term of 280 days from the cessation of her last menstrual period, but on this occasion labour did not set in till the 288th day, a delay which caused her some uneasiness, but as I had before then remarked that in the case of patients under the influence of ergot the term of gestation was likely to be prolonged, I considered it a good sign, and my prognosis was verified. Labour was in all respects normal; the first stage occupied about five hours, a longer period than usual with her; the second an hour and a half; the placenta was expelled in about twenty minutes, and there was not a wineglassful of blood lost; in fact, I think it was the most bloodless labour I ever witnessed. This lady was again confined eighteen months later; the same treatment was adopted. Labour did not set in till the 285th day; there was no hæmorrhage.

Very recently a similar case occurred to me. A lady of rank wished me to attend her in her confinement. This I refused to do, especially as she resided some miles from town, but I promised her if she arranged with a medical man to sleep at her house I would go to her if any cause of anxiety appeared. She was the mother of ten children, and in her case also labour usually set in at about a week before the expiration of the normal term of pregnancy. Her two last confinements had been followed by alarming hæmorrhages, and her husband was very anxious about her. I treated her in exactly the same way as the last case. On this occasion, instead of labour setting in too soon, it did not occur till the 295th day from the date of her last menstrual period; and Dr. Glenn, who attended her, can verify my statement that there was no hæmorrhage to speak of, that the child was vigorous, and that neither mother or child exhibited any ill effects, though ergot and strychnine had been taken with short intermissions for nearly seven weeks.

I might easily quote other cases; but these are sufficient to prove—at least, to my satisfaction: (1) That ergot, alone or in combination with strychnine, may be taken with absolute safety to both mother and child by pregnant women, in the usual doses, and for a considerable time. (2) That when

taken continuously for not less than three weeks prior to labour, it tends to delay the setting in of uterine action, and I may add that in no case have I ever seen it bring on labour in a case in which uterine action had not already been excited. (3) That its exhibition for some weeks prior to the commencement of labour arrests the tendency to *post-partum* hæmorrhage, and facilitates the involution of the uterus.

When I was a student we were cautioned not to administer ergot to women in labour till the os was fully dilated, it having been shown that, unless the child was born within the space of two hours after the specific action of ergot was manifested, that is by the occurrence of short, sharp pains with hardly any appreciable interval, the child was likely to suffer, and was not infrequently born dead. This statement I can verify as being perfectly true, but then the death of the child was not due to any poisonous property possessed by the ergot, but to the utero-placental circulation being interfered with in consequence of the rapid, almost incessant, contractions of the muscular fibres of the uterus. That this is so is proved by the fact that where the ergot failed to induce its specific effect the child did not suffer. True it is, that, as stated by McClintock, some children were born dead even when ergot pains had not been induced, but remember he wrote at a period when the forceps were very rarely used. During the six months I spent as a pupil at the Rotunda, the forceps were never, so far as I know, once applied. Labour was allowed to linger on sometimes for days, and when the fœtal heart ceased to be audible the head was lessened and the woman delivered. Now, perhaps, we run to the other extreme, and apply the forceps too frequently, but that a child should be stillborn whether ergot was given or not, when labour was permitted to linger on for days, is not to be wondered at; that the death of the fœtus was, however, due to the administration of ergot, when the true ergot pains did not occur, I disbelieve, and this conclusion I arrived at, while still a pupil, and its truth I am now convinced of.

The routine of giving a dose of ergot, when *post-partum* hæmorrhage has set in, is generally a harmless, and sometimes a useful practice. In perhaps one in twenty cases it may induce the uterus to contract, but to be of any permanent use, the drug should be administered some hours previous to the occurrence of the hæmorrhage, and the dose should have been repeated at intervals of a couple of hours or less. If then we meet with a patient in labour in whom a tendency to *post-partum* hæmorrhage has been previously observed, ergot should be administered at once, and if delivery does not take place for a few hours, and if the dose be repeated, the result is likely to be satisfactory.

It is to be borne in mind that I am not discussing the methods by which *post-partum* or any other form of hæmorrhage occurring unexpectedly during parturition should be treated, but that I confine myself to advocating the value of the exhibition of ergot prior to the end of the period of utero-gestation in a certain class of cases, and I am far from underestimating the advantage of rupturing the membranes, the use of friction over or compression of the uterus, cold externally, or hot-water douches when necessity arises, but I wish, if possible, to prevent the necessity for such.

Although foreign to this subject, I wish to state my experience of the use of ergot in cases of threatened abortion; in these hæmorrhage without pain is often the first symptom, and that indicates that the ovum is partially detached: when wholly detached hæmorrhage as a rule ceases and the contents of the uterus are sooner or latter expelled. But it is seldom that we can say with certainty when it has become hopeless to save the ovum, and therefore it is our duty to persevere in our attempts to do so as long as possible; and of all methods to this end, absolute rest in bed for a considerable time is without doubt the best. But it is most irksome to a patient, specially a mother with probably young children needing her care, to submit to the restraint imposed on her by keeping her bed for weeks, and many will refuse to do so; indeed, some women become so prone to abort that it seems useless to try to enforce prolonged confinement to their room, and then it is obviously better that the ovum should be quickly got rid of.

Such a case occurred to me some five and twenty years ago. About that time I had as a patient a delicate young married lady, who in the course of the preceding ten months had twice aborted at about the tenth week of her pregnancy, and on each occasion alarming hæmorrhage had occurred. I attended her on the second of these. She became pregnant again within two months, and at the expiration of almost exactly the same time as on the previous occasions, hæmorrhage set in, which she knew was the forerunner of another miscarriage. I saw her a few hours later. There were no pains, but the os was patulous, and her state identical with what it had been in the early stage of her previous illness. I came to the conclusion that she must certainly abort, and I at once put her on ergot and strychnine, with the view of getting rid of the ovum rapidly. The dose of ergot was repeated every two hours, and I watched this lady all day, hourly expecting that she would have a recurrence of the hæmorrhage which had so alarmed her and me on the previous occasion. But instead of this the hæmorrhage lessened; night came on, and she slept. Next day the os was not the size of a split pea. This lady went to the full term and gave birth, to her great joy, to a son, now a strong man 6 feet high.

From that day on I invariably administered ergot to women threatened with abortion. In some it produced no effect whatever; in a few it induced uterine action, and the expulsion of the ovum followed. In the majority the threatening symptoms disappeared, and pregnancy proceeded normally; but in not one of them did I regret having administered ergot, and I am satisfied that if the ovum is not blighted, that is, ceased to be a living body, that ergot acts as a uterine tonic, and renders the organ in many cases fitted to undergo the further changes which take place in it during utero-gestation, but if the ovum is detached and blighted, then it becomes, as it were, a foreign body, and ergot is then likely to stimulate the uterus, and to expel its contents. This opinion is, of course, based only on the results of my personal observation, but of its correctness I have no doubt.

### Conclusions.

To sum up the whole subject as to the action of ergot in combination with strychnine, which is the formula I usually adopt, I venture to lay down the following as the result of my experience:

1. That when administered previous to the termination of pregnancy in the case of women in whom a tendency to *post-partum* hæmorrhage is known to exist, it tends in a marked manner to prevent the occurrence of hæmorrhage.

2. That when so administered in ordinary doses, it does not produce any injurious effect on either mother or child, and that its exhibition seems to delay the commencement of labour in such case.

3. It tends to make the involution of the uterus more perfect, and lessens the chance of the occurrence of subsequent uterine troubles, many of which depend for their cause on imperfect involution of that organ.

4. It will not bring on premature labour or induce abortion unless uterine action has previously been set going.

5. In cases of threatened abortion its administration frequently seems to act as a uterine tonic, and in some cases tends to avert the danger of a miscarriage, provided the ovum be not blighted.

6. That if the ovum be blighted, and specially if it be detached, ergot usually hastens its expulsion.

Since writing the foregoing, I observe in the Epitome which appears in the British Medical Journal of January 16th, an abstract of a communication made by Professor Schwab on the efficacy of quinine as an oxytocic. This drug, he maintains, "stimulates the uterine fibres when once they have begun to contract of their own accord. Like ergot, it does not set contractions going." I have never administered quinine as an oxytocic during labour, but it will be remembered that I have stated at the commencement of this paper that it was the unexpected immunity from *post-partum* hæmorrhage in a patient to whom I had administered quinine prior to labour, that induced me to carry out the preventive treatment I now advocate, and that it was quinine I first administered for this purpose. My observations, therefore, tend to confirm the views enunciated by Schwab as to the action of quinine on the uterine fibres, and further observations of the action of quinine as an oxytocic should be made. I do not think, however, it would prove as reliable a drug for

this purpose as ergot is. Schwab, too, confirms the opinion I have long held, that ergot does not originate uterine action.

## A CASE OF SUPPURATIVE OTITIS MEDIA COMPLICATED WITH CEREBELLAR ABSCESS.[1]

By H. SECKER WALKER, F.R.C.S.,

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On November 22nd, 1895, I saw, in consultation with Mr. J. W. Hutton, C. J., aged 14. He had had right otorrhœa for some years with a polypus in this ear. I had removed the polypus two years earlier, and the otorrhœa ceased. Four months before the date on which I saw him again he was attacked by pain in the left ear, which was followed by a purulent discharge, and lately this had been tinged with blood; the pain had returned and spread over the head and become constant, being located chiefly in the occipital region. The boy looked pale and had wasted rapidly. Five weeks earlier he had several attacks of shivering. He had vomited occasionally in the morning, constipation had been marked, and there had been some delirium at times.

On examination of the left ear a polypus was seen deep in the meatus, the discharge was very offensive, the mastoid region looked healthy, but there was tenderness on deep pressure. He was very deaf in both ears. The cervical glands were enlarged, and one or two superficial ones in front of the neck had ulcerated. The temperature had been between 99° and 100°, the pulse from 110 to 130. There was no optic neuritis, no paralysis, no spasm of any of the ocular or facial muscles. The grasp of the hands was weak, but not markedly more on one side than the other. The knee-jerk was increased on the left, normal on the right side. When spoken to he answered intelligently, and his answers were not delayed. In the presence of the above symptoms there could be no doubt about the condition of the mastoid process, but I did not then feel justified in diagnosing intracranial disease, as most of the above symptoms may be present in a simple case of disease of the mastoid cells.

The following operation was performed:

First Operation.

A curved incision, 2½ inches long, immediately behind the attachment of the ear was made down to the bone, the cartilaginous meatus stripped from its bony attachment and the ear turned forwards, the periosteum was pushed backwards, so that a considerable area of the temporal bone, including the external auditory meatus and the greater part of the mastoid process, was exposed together with the surface landmarks which are of such great assistance in this operation. Immediately behind and slightly above the centre of the external auditory meatus lies the mastoid antrum. The bone covering this was of a dirty grey colour. The chisel easily broke this down and entered the antrum, which was filled with yellowish putty-like stuff with a very offensive odour. After clearing out this the posterior wall of the meatus and the external wall of the attic were chiselled away, and the carious ossicles and remains of the membrana tympani and polypus in the middle ear removed so that the middle ear and antrum formed one cavity partly divided into two by a transverse ridge of bone which contains the facial nerve. It is important that this ridge should not be chiselled away, otherwise the facial nerve will be divided, resulting in more or less permanent facial paralysis on this side. This accident will be avoided by not cutting away bone below the upper third of the posterior meatal wall.

The roof and posterior wall of the antrum were found carious and perforated so they were removed, exposing the dura mater lying against the temporo-sphenoidal convolutions and the lateral lobe of the cerebellum. The dura mater in each of these situations was firm, and, as I thought, probably limited the disease. After well washing out the cavity it was packed with iodoform gauze, and the superficial glandular abscess in the lower part of the neck was scraped.

For the next ten days the boy did well; he became brighter, the headache and vomiting ceased, the temperature fell a little, becoming subnormal, the pulse averaged 112, and he was only troubled by obstinate constipation. On the eleventh and twelfth days vomiting and headache again occurred; there was still no optic neuritis. The condition of the arm muscles and knee reflexes remained the same, but the boy was more prostrate. These symptoms continued; it appeared as if there must be some intracranial disease, and the symptoms pointed to cerebral or cerebellar abscess. From the amount of disease in the posterior and lower part of the mastoid process lying near the lateral lobe of the cerebellum and the occipital headache, I thought this was the more likely place in the absence of any guiding symptoms. Dr. Churton and Mr. Teale, who kindly saw the case, agreed with me as to the probability of intracranial abscess, and were also in favour of the cerebellum being the seat of the disease.

Second Operation.

The opening into the posterior fossa of the skull made at the first operation was enlarged, the dura mater reflected, and a silver drain tube passed into the cerebellum for an inch. On the second trial about 5iij of very offensive pus welled slowly out of the tube. An unsatisfactory attempt was made to wash out the abscess cavity, two drain tubes were left in, and dressings applied. This was a fortnight after the first operation.

The patient improved and the headache ceased, but the vomiting still occurred occasionally. Two days later the symptoms all reappeared; the tube was pushed in a little further, more pus came away, and again an attempt was made to wash out the cavity.

The condition of the boy now underwent much improvement, and next morning he was sitting up in bed calling for his breakfast, and much interested in the *Yorkshire Post*. For three weeks the improvement was maintained. On December 30th he had several attacks of vomiting; the wound looked well and there was practically no discharge from the tube. Thinking that the presence of the drainage tube, acting as a foreign body, might be causing the vomiting, I removed it. For a fortnight again he did very well, and then all the old symptoms returned with redoubled force; in a few days he changed from being a comparatively healthy-looking boy to a mere skeleton.

Third Operation.

On January 31st I again opened the cerebellum, and this time a little further back. Pus was found without difficulty, and two decalcified bone tubes were introduced and carbolic lotion syringed gently through them.

From this time the boy made a rapid and complete recovery, the only drawback being that now for the first time with all this disease and surgical interference he developed an attack of double optic neuritis, which, however, disappeared in a few weeks without permanently damaging the vision.

The patient now has a cavity of considerable size in the left mastoid process, lined throughout with epidermis, and communicating with the external air by an opening behind the ear and by the external auditory meatus.

Remarks.

Recovery from cerebellar abscess is exceptional. As far as I have been able to learn there are only 10 previous cases on record. The difficulties in diagnosis, the absence of any special localising symptoms, or even in some cases of any symptoms at all, and the liability to a sudden fatal termination of the case before treatment can be carried out, are probably among the chief reasons why so few cases recover.

In reporting a successful case of cerebellar abscess, Dr. Acland and Mr. Ballance[2] have drawn attention to the occasional presence of certain paralytic symptoms which may be of great service in localising a cerebellar abscess, namely, muscular weakness of the limbs of the same side as the ear disease, affecting chiefly the arm, conjugate deviation of the eyes to the opposite side from weakness of the muscles, which draw the eye to the same side, and increased knee-jerk on the same side as the otorrhœa. That these symptoms have been present in some previously recorded and unsuccessful cases of cerebellar abscess a study of this interesting paper will prove, but their localising value had evidently not been understood; and, indeed, in one case the symptoms actually led the surgeon into the error of operating on the opposite and healthy side of the brain.

[1] Read before the Leeds and West Riding Medico-Chirurgical Society.

[2] *St. Thomas's Hospital Reports*, vol. xxiii.

Medical Students at Austrian Universities.—The following figures show the number of students at each of the universities of Austria during the current semester;—Vienna, 6,104; Graz, 1667; Prague (German), 1,391; Prague (Czech), 2,787; Innsbruck, 1004; Lemberg, 1,556; Cracow, 1,296; Czernowitz, 391. The total number of students belonging to the medical faculties of all these universities combined is 4,728, which is rather less than in the corresponding period of last year.

# THE LETTSOMIAN LECTURES

ON

# DISEASES OF THE NOSE AND THROAT IN RELATION TO GENERAL MEDICINE.

*Delivered before the Medical Society of London,*

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## Lecture III.

### Aneurysm.

In aneurysm of the aorta the laryngoscope is oftentimes of inestimable service in enabling the practitioner to make an early diagnosis, and consequently to allow of the institution of prompt treatment. It may be laid down as an axiom that given the left vocal cord is immobile in the cadaveric position, pressure of an aneurysm upon the recurrent laryngeal nerve is the first thing to be thought of, and it is only after an aneurysm has been excluded that other causes for the paralysis of the laryngeal muscles need be considered. This is more especially the case in males between the ages of 30 and 60. It must be remembered that, in accordance with Semon's law, "there is proclivity of the abductor fibres of the recurrent nerve to become affected sooner than the adductor fibres, or even exclusively in cases of undoubted central or peripheral injury, or diseases of the roots or trunk of the pneumogastric, spinal accessory, or recurrent nerves." Consequently the first effect of pressure on the recurrent nerve is to cause abductor paralysis on the affected side. Now, unilateral abductor paralysis presents such slight symptoms that in the absence of a laryngoscopic examination it is generally overlooked; still numerous cases have been recorded in which this condition has been observed as a symptom of thoracic aneurysm. When, however, the adductor fibres become implicated, and the cord passes into the cadaveric position, the effect on the voice is so marked that the patient feels that something is amiss with him, and consequently seeks advice.

Attempts have been made to distinguish aneurysms from other intrathoracic tumours by the mode of onset of the laryngeal paralysis. Schadewaldt[1] maintains that paralysis of the recurrent due to a mediastinal tumour develops gradually. Hoarseness sets in, but again passes off, and a paresis can be demonstrated only after a considerable time. In aneurysm he says the paralysis of the vocal cord is often the first symptom. Rosenberg,[2] however, denies that recurrent paralysis is present at first in aneurysms, whilst it only develops gradually in mediastinal tumours. At the beginning, even in aneurysms, an irritation of the recurrent may set in, which is manifested in laryngeal spasm. There is, of course, no general rule as to paralysis of the vocal cord preceding the heart symptoms, as Rosenberg[3] showed a patient at the Berlin Laryngological Society in whom the heart symptoms preceded the fixation of the cord by from three to four years.

In looking over the notes of 16 private cases of aneurysm of which I have full particulars, I find that they were all males, the youngest 29, and the eldest 61 years of age, the average age being almost exactly 47. Of these 16 cases, in 1 case there was bilateral paralysis of the abductors, the left vocal cord was in the cadaveric position in 8, in five there was impaired movement (loss of abduction) of the left vocal cord, and in 2 the laryngoscopic appearances were normal. The right vocal cord was only affected in the case of bilateral paralysis of the abductors.

The proportion of cases in which the left vocal cord was partly or completely paralysed is, of course, much greater in my practice than in ordinary general practice, inasmuch as several of the patients consulted me on account of hoarseness, and had no suspicion that they were suffering from any serious affection; still, this only emphasises the importance of a laryngoscopic examination in all cases of hoarseness; and, as I have said before, a loss of mobility of the left vocal cord in a middle-aged male, especially if the cord is in the cadaveric position, should at once arouse the suspicion of an intrathoracic aneurysm.

Tansk's[4] observations on 41 cases of aneurysm, mostly of the arch of the aorta, seen in the clinic at Pest, confirms what I have just stated. Hoarseness was observed in 22 cases and paralysis of the recurrent nerves in 19, usually on the left side, and bilateral paralysis was said to be very rare. The reason why the right vocal cord is so seldom affected depends upon anatomical considerations. The right recurrent nerve winds round the subclavian artery, and is, therefore, situated at a considerable distance from the arch of the aorta. Should, however, the sac of the aneurysm involve the innominate artery the right recurrent nerve may be implicated; or, as in an extremely interesting case communicated by Dr. Scanes Spicer[5] to the Laryngological Society, the aneurysmal tumour had displaced the lower part of the trachea backwards and to the right in such a way that the convexity of the deflected trachea pressed on the right recurrent and pneumogastric nerves, causing paralysis of the right vocal cord.

Lastly, as Sir George Johnson[6] suggested, centripetal irritation of the trunk of the left vagus may act on the nervous centre, and through it upon the nerve supply to the laryngeal muscles on the right side.

Before quitting the subject of aneurysm I should like to draw attention to the importance of observing the movements of the larynx externally in cases of dyspnœa. Whenever the obstruction is seated at the glottis it will be seen that the larynx moves up and down with the movements of respiration, and the activity of these movements are in proportion to the urgency of the dyspnœa. The term "respiratory excursions" has been applied to these movements of the larynx. If, however, the obstruction is seated in the trachea these excursions do not take place. In two of my cases I diagnosed during life the existence of direct pressure of an aneurysm upon the trachea in consequence of the absence of respiratory excursions, and at the necropsy my diagnosis was verified. One of these cases is of particular interest, inasmuch as it affords an example of bilateral stenosis of the air passage due to aneurysm.[7] In addition to the direct pressure of the aneurysm upon the trachea, there was also laryngeal obstruction due to paralysis of the crico-arytenoidei postici, and consequent adduction of the vocal cords. In cases of direct pressure upon the trachea the question of the utility of tracheotomy has to be carefully considered. In a case of double stenosis such as I have just mentioned, I should be prepared to advise it, as it is impossible to gauge how much of the difficulty of breathing is due to the upper obstruction and how much to the lower. Where, however, we have to deal only with the result of direct pressure upon the trachea, as occurred in my other case, I do not think that tracheotomy would be of any use. As soon as there is evidence of sufficient pressure upon the trachea to cause absence of respiratory excursions of the larynx, the patient is in a position of imminent peril. In some of these cases it is possible to recognise the direct pressure of an aneurysm upon the trachea by means of the laryngoscope. The bulging forward of the posterior wall can be seen, and with a good light and a tolerant patient pulsation may even be distinguished. Dr. Whipham[8] has put on record a case in which during life pressure upon the trachea just above the bifurcation was seen. In this case it was almost entirely due to the laryngoscope that the diagnosis of aneurysm was established.

### Diseases of the Digestive System.

The possibility of chronic gastric catarrh being kept up by the irritation produced by swallowing fœtid secretion from the nose and naso-pharynx should be borne in mind by the physician, who finds that his patient does not readily respond to the usual treatment. Whether as the result of the improvement of the general health, or from the cessation of the local cause of irritation, I have noted that symptoms of dyspepsia have disappeared after the nose and accessory sinuses have received attention. F. B. Türck[9] has made a careful bacteriological examination of the micro-organisms present in cases of chronic naso-pharyngitis and gastritis in the same subject, and he has found that they presented identical morphological and physiological appearances. Four cases are given in which treatment of the naso-pharynx cured the stomach also.

That the stomach may be involved secondarily to the upper air passages is pretty generally agreed, but the converse is

not so easy to prove; that is to say, that affections of the upper air passages may occur as a result of stomach derangements.

Various theories may be propounded to explain the connection between affections of the upper air passages and diseases of the stomach. We may appeal to the theory of reflexes, and say with M. Gross,[10] that "every affection of the stomach is reflected back on the other organs, and, inversely, every disorder of the organs reacts upon the stomach."

Or we may attribute to the ubiquitous bacillus the *rôle* of disturbing the functions of remote organs. I have already quoted Türck to show how the stomach may be affected by diseased conditions of the nose and naso-pharynx through bacteria.

Laryngismus stridulus due to over-distension of the stomach, or to the ingestion of unwholesome food has been long recognised, and I cannot help thinking that the virtue of emetics—notably ipecacuanha wine—in these cases is largely dependent on the fact that the spasm of the glottis is relieved as soon as the stomach is emptied of the contents which had caused reflex irritation.

Ariza[11] (Madrid) cites a case (*Virchow's Annalen*) of aphonia as a result of indigestion which was relieved by an emetic. He has for a long time been of opinion that the diseased stomach can give rise to reflex appearances in the larynx. He designates these conditions by the name of "gastric laryngismus," and divides them into three classes. Löri[12] states that diseases of the larynx can cause affections of the stomach, and *vice versâ*.

"Stomach cough" is a term often employed by the laity, and, like many another popular expression, it contains an element of truth. My friend Dr. Lauder Brunton in his interesting Lettsomian Lectures on Disorders of Digestion discussed this subject. He pointed out that "it is just at the pharynx, at the place where the respiratory and digestive tracts cross one another, that irritation is most likely to give rise to both coughing and vomiting."[13] He cites a pertinent case from his own practice. "A gentleman suffered from cough, which gave him a good deal of trouble; the back of his pharynx was congested, and I ordered him a gargle. For some time it was not a bit better, and then for some reason or another somebody else gave him several blue pills, and the cough disappeared." In speaking of the treatment of granular pharyngitis in my book on *Diseases of the Nose and Throat*, p. 181, I say that "it is most important that attention should be paid to the general health of the patient. If there be any symptoms of indigestion these should be seen to."

Further experience has only confirmed what I have therein stated, and I am convinced that the state of the pharynx is much influenced by the condition of the stomach and liver, and that, even though there be some trouble in the pharynx, it is not sound practice to adopt local treatment until the state of the digestive system has been inquired into.

### DISEASES OF THE LIVER.

In connection with hepatic diseases, I have only to remark that very severe epistaxis is not uncommonly an early symptom of cirrhosis of the liver, the bleeding occurring from dilated veins at the posterior part of the nose. The late Dr. Harkin,[14] of Belfast, laid especial stress on the connection between nose bleeding and liver disease; he regarded epistaxis as a sign of a blood dyscrasia, itself a secondary result of a disordered liver. In a middle-aged person the occurrence of epistaxis is almost as suggestive of cirrhosis of the liver as are piles.

Cahn,[15] of Strassburg, mentions a case in which typical attacks of paroxysmal rhinitis were caused by an affection of the biliary passages.

Hæmorrhages from, and ecchymoses in, the mucous membrane of the pharynx and larynx may be recognised in some cases of cirrhosis and cancer of the liver, also in acute yellow atrophy. A recent development of throat specialism is the doctrine that a varicose condition of the veins at the base of the tongue is one of the objective causes for many subjective throat symptoms of the nature of globus hystericus, or, as it is designated by the believers in this condition, "faucial," "pharyngeal," and "laryngeal tenesmus." A lengthy discussion which took place in the columns of the *Lancet* in the early part of last year has been the means of relegating lingual varix to its proper position.

The opinions expressed in a leading article in the *Lancet* (1896, vol. i, p. 859) on the subject are in entire concordance with my own views, and with those, I believe, of the great majority of laryngologists. That an enlargement of the veins at the back of the tongue does occasionally exist I am quite ready to admit, and I will go so far as to to say that in exceptional cases the enlarged veins may be called varicose, but that this condition is "an etiological factor in many obscure pharyngeal and laryngeal symptoms," does not agree with my own observations. When I have seen engorgement of the veins in the pharynx and at the base of the tongue, it has usually been associated with a state of general plethora in people past middle life, and I have found that with attention to diet, limiting the amount of alcohol taken, and the administration of saline aperients, the patients have speedily improved, and have not required any local treatment. In fact, I regard this condition as closely allied to the passive congestion of the rectal mucous membrane in liver disease, which so frequently leads to the formation of piles. Hence, I have mentioned the subject of lingual varices under the head of liver affections. I am sure that we shall all agree with Dr. McBride[16] that "if we are to cauterise every visible venous radicle which appears in front of the epiglottis, we shall put our patients to much needless inconvenience, and perhaps to some very unnecessary expense."

### BRIGHT'S DISEASE.

Epistaxis is a frequent symptom of chronic interstitial nephritis, and is occasionally met with in the other forms of Bright's disease. It may be quite an early sign of granular kidney; the urine should therefore be examined in cases of abundant or frequent epistaxis. The bleeding is dependent upon the altered blood state, changes in the vessels of the Schneiderian mucous membrane, and upon the cardiac hypertrophy and increased arterial tension. In itself it is seldom an important symptom, yet it may be the direct cause of death from excessive loss of blood; usually it seems rather to relieve the patient, especially if it occurs, as is frequently the case, in patients suffering from chronic interstitial nephritis. Its chief importance in Bright's disease, however, is from a prognostic point of view; it may be the precursor of a uræmic attack, or the next vessel to give way may be one seated in a vital part of the body, as for instance the brain; hence the occurrence of epistaxis in Bright's disease should lead the physician to take suitable measures to lower arterial tension, and to ward off as far as possible the danger which threatens his patient.

A moderate amount of bleeding is, as I have said before, a relief to the patient in most cases; should it become too profuse, it must be arrested in the usual manner. If the patient has not been on a milk diet, the occurrence of epistaxis should suggest the advisability of ordering it.

The effect of Bright's disease as a predisposing cause of œdema of the larynx is very differently estimated by various authorities. Morell Mackenzie[17] examined 200 cases of Bright's disease in the London Hospital, and did not find a single example of œdema of the larynx; and George Johnson, who had special opportunities of investigating diseases both of the larynx and of the kidneys, stated that he did not remember to have seen a case of œdema of the larynx as a direct result of Bright's disease. On the other hand, Peltesohn,[18] in the *post-mortem* records of the Königliche Charité for the years 1873-78 (inclusive) found 210 cases of œdema of the larynx, and in 25 of these cases there was disease of the kidneys.

The exact connection between Bright's disease and œdema of the larynx is still under discussion. The probable explanation is that Bright's disease determined the onset of œdema in cases in which, under ordinary circumstances, the local irritation would have been too slight to have caused it. Œdema of the larynx in connection with Bright's disease may occur late in the course of the disease, coming on gradually, or it may form the first symptom, there having been no previous manifestation to give rise to even a suspicion of the existence of disease of the kidneys. The œdema may come on so rapidly and to such an extent as to threaten life: tracheotomy should be performed early in these cases, but if possible subcutaneous injections of pilocarpin should be first tried.

### Locomotor Ataxy.

Nasal conditions associated with tabes are rare; "slow quiet destruction of the septum nasi and hard palate" has been recorded by Barrs,[19] and trophic ulceration of the ala nasi has also been noted.[20] That there is hyperæsthesia of the nasal mucous membrane is shown by the fact that laryngeal crises can at times be elicited by irritating the nasal fossæ. In the pharynx both the sensory and the motor nerves may be affected. All varieties of sensorial disturbance may occur, namely, anæsthesia, hyperæsthesia, and paræsthesia. On the motor side there may be paralysis, or spasm with contraction.

Pharyngeal troubles are usually met with in association with laryngeal symptoms. The mucous membrane of the larynx, like that covering the pharynx, may be the seat of anæsthesia, hyperæsthesia, or paræsthesia. On the motor side three kinds of affection are seen in the larynx as a result of tabes: 1. Spasm of the adductors. 2. Paralysis of the abductors. 3. Inco-ordination of the laryngeal muscles.

The term "laryngeal crisis" has been applied to those sudden attacks of dyspnœa in tabid patients, due either to spasm of the adductors or paralysis of the abductors; or what, perhaps, most frequently occurs, there is a mixed condition—that is to say, in addition to the spasm of the adductors, there is some loss of power, or even paralysis of the abductor muscles. According to Semon and Burger, the nocturnal occurrence of the crises in tabes is to be attributed to paralysis rather than to spasm.

Dr. Semon explains the onset of the crises by the hypothesis of an increased latent irritability of the adductor centres. A peripheral irritation, passing along the centripetal fibres of the superior laryngeal nerve to these centres, instead of giving rise, as under ordinary circumstances, to a simple attack of cough, starts off spasmodic cough, spasm of the glottis, and general convulsions, in proportion to the increased irritability of the centres in question. As I have already mentioned, there is in some cases of tabes hyperæsthesia of the pharyngeal and laryngeal mucous membrane, and slight irritation of the sensory area may cause, either directly or indirectly, spastic contraction of the glottis closers. This is shown by the fact that crises can at times be elicited by causing the patient to drink a glass of water, or by touching the larynx with a sound. The good effect in these cases of spraying the pharynx and larynx with cocaine is another proof.

Paralysis of one or both vocal cords is by no means an uncommon initial symptom of tabes, and may precede other evidences by some years. The existence, therefore, of laryngeal paralysis, and especially of abductor paralysis, without a definite cause, should give rise to a suspicion of tabes.

As a rule laryngeal crises do not occur until the tabid symptoms are well established, but they may represent the earliest symptoms of the disease. The attacks come on quite suddenly, and consist of fits of coughing, resembling whooping-cough. Dyspnœa accompanies the attacks, and in exceptional cases the spasm is so prolonged that the patient becomes cyanosed, and death has occurred under these circumstances. The crises are occasionally attended by vertigo, profuse perspirations, and lightning pains in the extremities. They are sometimes followed by convulsions and loss of consciousness. During a laryngeal crisis the vocal cords are in the median line; in the intervals the larynx may be found quite normal, but usually there is more or less impairment of abduction.

In the second variety of tabid laryngeal affection, which is by far the most common form, there exists a paresis or paralysis of the vocal cords more or less permanent in nature. Out of 71 cases of tabid patients suffering from laryngeal paralysis collected by Burger, in 43 cases there was either unilateral or bilateral paralysis of the abductors. In 8 of the cases there was unilateral abductor paralysis, five times on the left side, twice on the right, and in one case the side affected was not stated.

The remaining laryngeal affection of tabes is a true ataxy of the vocal cords, and it is, perhaps, one of the earliest laryngeal signs of tabes. In some cases the patient suddenly and unexpectedly loses his voice, or at least the power of distinct articulation, the voice becoming thick, dull, and discordant. On phonation the cords are seen to approximate suddenly, then remain still in a semi-adducted position, and again approximate in the median line. The cords, after having been thus violently brought together, separate during abduction into the most extreme inspiratory position.

During regular and deep respiration irregular movements of the vocal cords have been seen, that is, the vocal cords executed two or three movements of abduction or adduction instead of one.

### Syringomyelia.

The condition of the larynx in this disease has received very little attention in this country. Dr. Gowers[21] mentions the fact that paralysis of one vocal cord has occurred, but says nothing more on the subject. Cartaz[22] has, however, carefully examined 17 cases of syringomyelia, and states that in nearly one-half there was either a sensory or a motor modification.

In 4 cases there was abolition of reflexes, in 7 paræsthesia or anæsthesia, in 5 paralysis of one vocal cord, in 3 paralysis of the posterior crico-arytenoid muscle, once with most distinct atrophy of the vocal cord and once with paralysis of the recurrent.

According to Cartaz, sensory affections are more common than motor; they occur, however, independently of each other, corresponding generally to the side most affected. In some cases anæsthesia of the palate is complete when the syringomyelic symptoms are rather unilateral.

Weintraud[23] has reported two cases of syringomyelia with isolated unilateral abductor paralysis. This is of especial clinical interest as a precursor of complete paralysis of the vocal cord, because in general it runs its course without giving rise to any symptom. In one of the cases there was also paralysis of the trapezius.

Laryngeal crises, such as occur in tabes, have not been observed.

### Paralysis Agitans.

Observations on the condition of the larynx in paralysis agitans have been made by Fr. Müller[24] and A. Rosenberg.[25] The former describes the speech of a patient, aged 72, as being tremulous, and interrupted by intervals of silence. Charcot[26] compares the articulation of a person with paralysis agitans to that of a bad rider trying to talk when mounted on a high-trotting horse.

Müller observed that the passage of the vocal cords from the phonatory into the respiratory position was interrupted by two or three spasmodic movements of incomplete adduction. On agitation or prolonged speaking there were convulsive movements in the larynx during respiration. In the case described by A. Rosenberg, there was a difficulty in emitting a prolonged sound, and, above all, in maintaining the sound at its initial pitch, the voice always tending to fall. Laryngoscopically the cords were seen to approach promptly, but they did not maintain this position long. At another time the cords did not appear to obey the will immediately; there was a relatively long interval between the command and the commencement of the phonatory adduction. A narrow, elliptical chink was left between the cords, which increased or diminished in a rhythmic fashion corresponding with the movements of the head and upper extremity.

### Labio-glosso-laryngeal Paralysis.

Loss of the pharyngeal and laryngeal reflexes may be an early symptom. Kussmaul reports two cases in which this symptom was present some months before any paralytic affection appeared. Owing to the loss of the laryngeal reflex, foreign bodies may enter the larynx and cause attacks of suffocation, or give rise to broncho-pneumonia. The loss of reflex action is due to motor changes, as there is no loss of sensibility in the affected parts.

Löri[27] has only once met with anæsthesia of the pharynx, and never with anæsthesia of the larynx in bulbar paralysis. Laryngeal symptoms do not usually appear early in the course of the disease, nor are they usually very marked; in exceptional cases they may be entirely absent. According to Dr. Gowers,[28] though paresis of the laryngeal muscles is frequently met with, "laryngeal palsy rarely becomes complete, and it is still rarer for the power of abduction to be especially lost, common as abductor palsy is in some other forms of central degeneration."

A fair number of cases of abductor paralysis are, however, to

be found in the various laryngological journals; sometimes both sides are affected, but more commonly the paralysis is unilateral. Dr. Permewan,[29] for instance, has had the opportunity of watching the onset of abductor paralysis becoming absolutely complete and the supervention of adductor paralysis. Dr. Suckling[30] has also recorded a case of bilateral paralysis of the abductors, and Dr. Semon[31] has put on record a case in which there was complete paralysis of the left abductor and paresis of the right abductor.

In a patient brought to me some years ago by Dr. Andrew, the only abnormal laryngeal condition I discovered was paralysis of the arytenoideus. Dr. Watson Williams[32] records a case of thyro-arytenoid paralysis. So that, as might have been expected, paralysis is not confined to any particular muscle or group of muscles. Laryngeal manifestations may be the sole clinical expression of the extension to the bulb of spinal lesions. Laryngeal crises, which are so common in tabes, are hardly ever met with in bulbar paralysis.

### Epilepsy.

Dr. Ten Siethoff[33] has reported two cases of reflex epilepsy of nasal origin cured by intranasal treatment. The second case was accompanied by an olfactory aura. Similar cases have also been reported by Dr. Crossfield and Mr. Barclay J. Baron.[34]

Lichtwitz[35] has seen epileptiform convulsions attended with loss of consciousness resulting from irrigation of the right sphenoidal sinus, and, in a boy aged 10, crises resembling *petit mal* were cured after the removal of pus from the sphenoidal sinuses.

Kjellman[36] (Stockholm) has collected 15 cases of epileptiform convulsions which ceased after the cure of the following pathological conditions of the nasal cavities: polypi, foreign bodies, and swelling of the mucous membrane of the turbinated bones.

The cases to which I have directed your attention are reported by observers in different countries, and they all agree in describing cases of epilepsy as originating from various nasal lesions, and that cessation of the epileptic attacks has followed upon cure of the disease of the nose. It is consequently the bounden duty of the medical man called in to treat a case of epilepsy to make a thorough examination of the nose and accessory cavities. The tonsils may also be the exciting cause of epileptiform crises, as shown by a case recorded by M. M. Boulay[37] of Paris.

In Dr. Siethoff's second case it is stated that the attacks were always preceded by an olfactory aura. It must be remembered, however, that an olfactory aura does not by any means necessarily imply that the nose has anything to do with the onset of the disease. According to Dr. Gowers, when the auræ are due to organic brain disease, the uncinate gyrus has been sometimes involved. Olfactory sensations are usually of an unpleasant character. During the epileptic attack in the stage of tonic spasm the glottis has been found completely closed as in other cases of glottic spasm. Anæsthesia of the pharynx and larynx may be met with for as long as two hours after the attack.[38]

### Hysteria.

The neuromimetic conditions affecting the upper air passages are so numerous that I can only briefly describe some of the most important. It has been stated that a regular attack of hysteria may be produced by the irritation of certain parts of the nasal mucous membrane, the so-called hysterogenetic zones, and that after the application of the galvanocautery to these areas the attacks have ceased to occur. Though I have been examining the interior of noses for the last twenty years and have constantly used the probe, I have never succeeded in starting off an attack of hysteria. Hemianosmia has been met with in connection with hysterical hemianæsthesia. Sensory neuroses of the pharynx are common in hysterical patients. Anæsthesia, hyperæsthesia, and paræsthesia are all met with. It is most important to bear in mind that there may be some underlying condition, or reflex cause for these phenomena, and they should only be regarded as of hysterical origin after a careful and systematic examination has been carried out with a negative result. The motor neuroses of the pharynx may be due to spasm or paralysis. The so-called globus hystericus is nothing more or less than spasm of the pharyngeal muscles.

Hysterical paralysis of the muscles of the pharynx may, by causing dysphagia, give rise to the suspicion of malignant disease, especially if the patient is middle-aged. The diagnosis is readily effected by means of the œsophageal bougie, but it is important to use a full-sized instrument, as this often passes much more readily than a smaller one.

Anæsthesia of the laryngeal mucous membrane is an occasional manifestation of the hysterical condition. In some cases there is marked hyperæsthesia. Paræsthesia, in the form of burning, scratching, tickling, and the sensation of pricking in the larynx, are frequently complained of. Of the motor anomalies, paralysis of the adductors of the cords is by far the most common of the laryngeal neuroses due to hysteria. It constitutes the well-known hysterical or functional aphonia. A marked characteristic of this affection is the suddenness of its onset and the equal suddenness with which it may disappear. On laryngoscopic examination it will be seen that on attempted phonation in some cases the cords fail to approach the median line, in others the cords nearly meet; and again in others, though the cords meet in the middle line, no sound is produced.

In some hysterical patients, instead of the adductors being paralysed, they are liable to spasm, causing attacks exactly resembling laryngismus stridulus in children. The prognosis is usually good; in a young lady under my care, however, the spasm was so protracted that tracheotomy had to be performed to prevent death from suffocation.

A curious condition, to which the term inspiratory spasm, or perverted action of the vocal cords, has been applied, is occasionally seen in hysterical persons. In this affection the voice remains normal, but on attempts at inspiration the vocal cords, instead of separating, approximate in a convulsive manner. Sometimes they come in contact, and cause grave interference with respiration; at other times they remain in the cadaveric position, giving rise to inspiratory stridor. Another form of spasm is the "barking cough of puberty." A characteristic feature of these motor disturbances of the larynx is the curious way in which they may replace one another; for instance, at one time a patient may suffer from aphonia, or perverted action of the vocal cords, and this may be succeeded by an attack of spasm or a barking cough.

The question of the existence of abductor paralysis of hysterical origin is one of the greatest interest. Dr. Gowers[39] admits of its possibility and raises no difficulty. He writes: "Paralysis of abduction also occurs in hysteria, although rarely: it is always bilateral." And further on: "It is probable that many cases of so-called hysterical spasm of the glottis have been really abductor palsy." Hysterical adductor paralysis fits in quite well with our knowledge of a similar affection of other voluntary muscles, but hysterical paralysis of muscles which from the hour of birth to the last moment of life are incessantly at work is quite a different matter. Cases of so-called hysterical abductor paralysis are recorded, but I think that they are capable of another explanation.

In the differential diagnosis of hysteria from other affections[40] it is important to remember that "laryngeal paralysis due to hysteria is double; unilateral paralysis is always of organic origin."[41]

### Neurasthenia and Melancholia.

The subject of the various reflex nasal neuroses has received much attention of late years, and there has been a tendency, I think, to exaggerate the effect of the various intranasal lesions.

As I frequently examine the noses of patients—no matter what their complaint—I have come across numerous instances of deflected septa, nasal crests, and spurs in patients in whom there is no symptom of any nasal or reflex nasal affection. On the other hand, there is no doubt that these same conditions in neurotic or neurasthenic patients would produce symptoms of a reflex character curable by local treatment in conjunction with suitable general treatment. Some patients become quite hypochondriacal as to the state of the nose, and are constantly craving for an application of some kind or the other to be made to it.

It unfortunately happens occasionally that the very condition for which intranasal treatment is undertaken becomes aggravated. The case of a man 26 years of age suffering from depression is recorded.[42] As there was a moderate amount of

hypertrophic rhinitis the cautery and chromic acid were employed for its reduction. This was effected, but the depression instead of lessening became increased, possibly on account of the nerve terminal being included in the cicatrix produced by the cauterisations. Rethi, of Vienna, has cured these neuroses by extirpating the cicatricial tissue which had formed as a result of the treatment.

I have recently had under my care a lady, 40 years of age, who, on account of paroxysmal sneezing, in the language of her general practitioner, "suffered many things in the way of removal of bone, cautery, etc." She certainly lost the sneezing, but since it disappeared she has suffered from flatulent dyspepsia, acidity, intestinal catarrh, and constipation, accompanied by neuralgia and various sensations referred to the pelvic viscera. She has lost flesh, is terribly depressed, and is a typical example of neurasthenia. She dates all her present symptoms from the time she ceased to sneeze, and attributes them to the shock of the numerous and severe operative procedures carried out in her nose. Her medical man takes the same view, and I am disposed to agree with him.

Dr. Hamilton Potter[43] has also observed a certain number of cases in which surgical interference in the nasal cavities has given rise to the symptoms of neurasthenia. On the other hand, there are numerous observations in which the cure of the nasal malady has led to a cessation of the neurasthenic symptoms. A remarkable case of melancholia, cured by intranasal operation, is reported by Dr. Bosworth.[44]

### Headache.

Headache is so common a symptom that unless it is very severe or persistent I am afraid that it is apt to be treated with scant ceremony. It cannot be too often, or too energetically insisted on, that to treat a symptom without arriving at the cause thereof is quite contrary to the spirit of scientific medicine, and that the physician who orders antipyrin, phenacetin, or some of the other recently introduced derivatives from coal tar for the relief of headache, without discovering the cause, is placing himself on a level with the quack, who professes to cure every disease with his nostrum. Prominent among the causes of headache is disease of the nose. In fact there is hardly any nasal affection but has headache for a symptom. Hence a careful examination of the nose and accessory cavities should be carried out before headache is regarded as being of a neurasthenic or neuralgic origin. Chief among the nasal causes of headache may be mentioned hypertrophy of the turbinals giving rise to nasal stenosis; deflection of the septum may also have a similar effect, and, as above stated, almost any nasal affection. Headache may be the only symptom indicative of suppuration in one of the sinuses.

Kuhn[45] of Würzburg reports three cases of syphilis of the naso-pharynx, the chief symptom of which was otalgia. This experience points to the necessity of a careful examination of the naso-pharynx in all cases of otalgia. Scheinmann[46] of Berlin has written an excellent paper on Habitual Headache as the chief symptom of various Nasal Affections. He sums up in the following sentences:

1. Habitual headache finds its explanation in many cases in affections of the nose.
2. In severe and threatening nasal diseases it is often for a long time the only prominent symptom.
3. This knowledge imposes on us the duty, in habitual headache of unknown origin, of looking out for a local cause in the nose.
4. The presence of a neurasthenic condition does not exclude a local point of departure for habitual headache.
5. The demonstration of the nasal origin of headache has for the most part a favourable influence on the prognosis, as nasal therapy gives good and permanent results.

### Meningitis and Cerebral Abscess.

The close proximity of the nasal passages to the base of the brain would naturally lead us to suspect that inflammation of the membranes of the brain and cerebral abscess would result from intranasal lesions: and experience has fully confirmed this idea. Stoerk,[47] for instance, has reported six cases of purulent meningitis due to nasal affections: in two cases the starting point was syphilitic disease of the nose, in the remaining four it was caused by acute suppuration of the nose and accessory sinuses. A series of cases of a similar character was reported in the British Medical Journal.[48] In a case of Bosworth's[49] suppuration started in the ethmoid cells and spread to the sphenoidal sinus, death taking place from cerebral abscess.

Mr. Spencer Watson, in his book on *Diseases of the Nose* (second edition, p. 302) quotes many examples of the connection between intranasal disease and meningitis. Great caution must be exercised in the removal of necrosed portions of bone situated above the middle meatus. No force should be employed, and the close proximity of the brain must be borne in mind. The use of the galvano-cautery in the nose, and especially in the naso-pharynx, has been followed by meningitis, as also the operation for the removal of adenoid vegetations. New growths, especially those of a malignant nature, may by extension invade the cranial cavity and set up meningitis. One of the dangers of plugging the nostril for epistaxis is the possibility of thereby causing meningitis. I have seen this happen. An important point in regard to the occurrence of acute meningitis as a result of intranasal lesions is that the intracranial symptoms often come on very insidiously, and the nasal disease may be overlooked, the meningitis being attributed to some other cause. I would therefore insist on the importance of a routine examination of the nose in all cases of suspected inflammatory mischief of the brain or its membranes.

Dreyfuss,[50] of Strassburg, has discussed at length the whole subject of disease of the brain and its membranes as a result of nasal suppuration.[51]

### Cerebral Hæmorrhage and Epistaxis.

When called upon to advise in a case of nose bleeding in a person over 40 years of age, I always think of the remarks made by Sir Prescott Hewett in a presidential address given at the Clinical Society in 1873: "Severe epistaxis spontaneously occurring after the middle period of life—what apparently could be of so little importance clinically? How little thought, commonly, would be bestowed on nose bleeding under such circumstances, and yet it is oft-times the little cloud no bigger than a man's hand." I have already pointed out that epistaxis in middle life may be an early symptom of cirrhosis of the liver. I now wish to direct attention to those cases in which it precedes a cerebral hæmorrhage. In these cases it is frequently a symptom also of the granular kidney, the nasal hæmorrhage and the cerebral hæmorrhage being a common result of degenerate vessels and a hypertrophied left ventricle. In some of these cases, moreover, there is what Sir William Gull not inappropriately called renal epistaxis—bleeding from the kidneys.

If, then, a person after the middle period of life, in whom there is any sign of arterial degeneration, and especially any evidences of a granular kidney, consults you on account of epistaxis, there is need of great caution in the treatment to be adopted. I know of one case in which measures, unfortunately only too effectual, were taken to stop a habitual epistaxis, and in which hæmorrhage into the brain proved fatal some months later. Of course there are cases of persistent and repeated hæmorrhages from the nose which must be checked at all risk in order to save life from direct loss of blood; and there is another kind of case in which patients are fretted and annoyed by constantly recurring small hæmorrhages, preventing them going about; here, again, local treatment is necessary. If measures be taken to stop the epistaxis, as by the application of the galvano-cautery to the bleeding point, the patient should be kept under observation, the diet should be carefully arranged, the amount of butcher's meat diminished, and alcohol almost, if not entirely, prohibited. Great care should be taken to keep the bowels freely moved, and I have found the old-fashioned combination of blue pill and a saline in the morning most effectual in preventing portal congestion and diminishing arterial tension. Acting on these lines, I have not hesitated to take measures to prevent the recurrence of epistaxis when I considered it desirable.

Time will not permit me to do more than mention that, in connection with cerebral hæmorrhage, different forms of laryngeal paralysis and anæsthesia are met with, varying according to the site of the lesion.

### CONCLUDING REMARKS.

I have purposely refrained from saying anything about diphtheria, except when it occurs as a complication of other diseases, because the subject is too wide to be treated in an adequate manner in the time I could devote to it. Moreover, it is somewhat outside the limits I laid down for my own guidance when I commenced writing these lectures. For similar reasons I have not discussed the manifestations of tubercle, syphilis, and malignant disease in the nose and throat, as these are well described in the various textbooks on the subject. The plan I proposed to myself was to group together the various affections of the upper air passages as they may occur in connection with general or local diseases, and also to point out the diseases of remote organs which may arise as a result of affections of the upper respiratory tract. A secondary object I had constantly before me was to accentuate the importance of a systematic examination of the nose, naso-pharynx, pharynx, and larynx.

I am quite conscious that I have omitted many points of interest, but the very abundance of material has rendered the task of selection a difficult one. If, however, I have stimulated any of my hearers to pay more attention to the diseases of the upper respiratory tract and to the use of the laryngoscope, I shall feel that I have in some measure accomplished the task I undertook.

In conclusion, I should like to express my appreciation of the honour the Council did me in requesting me to deliver the Lettsomian Lectures, and I have to thank you, gentlemen, for your courteous attention.

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## REMARKS ON CHRONIC LYMPHADENOMA, WITH ILLUSTRATIVE CASES.


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Surgeon to and Lecturer on Pathology at the London Hospital; Surgeon to the Evelina Hospital.


THE following cases constitute a definite and by no means uncommon type, presenting some marked differences from the characters usually associated with lymphadenoma or Hodgkin's disease. In the first place it is stated that lymphadenoma usually proves fatal in two or three years; by Osler the period is extended to three or four years; whereas in the first case related below the disease was known to have existed for ten years.

It is also commonly asserted that the glands, at first distinct and movable, soon become adherent to each other and to the surrounding structures, forming conglomerate masses. This statement is certainly true of lymphadenoma originating in the mediastinal and retroperitoneal glands, and in some of the softer forms in the neck. But, in my opinion, it will be found that in the majority of cases where the disease affects the cervical glands, the most notable feature is their extreme mobility; and the facility with which they can be shelled out renders extensive operations easy of performance and rapid of execution. This mobility persists for long periods. I have been in the habit of teaching that this character constitutes an important diagnostic sign, differentiating the disease under consideration from cases of chronic tuberculous glands which have not softened. The capsules of such tuberculous glands are always thickened and adherent to each other and to the surrounding structures. Further, Case I shows that for many years lymphadenoma may remain limited to a particular region, spreading only by contiguity from gland to gland, or from one set to another set, as from the neck to the axilla; and without affecting the spleen or liver, or giving rise to any perceptible alteration of the blood, or to cachexia.

So striking are the differences between some of the cases cited below and the acuter cases of lymphadenoma that a question arises whether they should not be placed in an entirely different category as a form of sarcoma affecting a particular group of glands and spreading locally.

Billroth is the chief authority for placing such cases in a separate group, to which he gives the name of malignant lymphoma. By other writers the term lymphosarcoma is used, both for the more chronic and also for acute cases of lymphadenoma of internal parts. With Billroth's views I was at one time rather inclined to concur, but, after watching these and other cases, and on comparing the minute structure of the glands from both the acute and chronic cases of lymphadenoma, I came to the conclusion that there was no single feature by which the two groups could be differentiated. Cases also occurred occupying an intermediate position, of which the following is an example: A fireman was admitted to the London Hospital with chronically enlarged cervical glands, which were removed, and the case was classified as lymphosarcoma. Some time afterwards he came under my observation, having developed the disease in the tonsils, with nodules of lymphadenomatous tissue in the soft palate, and studding the posterior wall of the pharynx.

It is possible that when the cause of lymphadenoma is definitely known we may be able to subdivide the cases to which this name is now applied, and it may here be mentioned that P. Delbet claims to have found, in a case of lymphadenoma, bacilli in the blood of the spleen. A dog injected with cultivations was stated to have developed generalised lymphadenoma, and the bacillus was again demonstrated in its blood.[1]

With regard to the microscopic characters of the chronic cases of lymphadenoma quoted below and the more acute forms with which the name is usually identified, I do not find any appreciable difference. Nor do I find that the distinction between the hard and soft varieties, founded on the relative amount of connective tissue, can as a rule be substantiated.

Some slight differences exist indiscriminately in the character of the cells. In some instances the cellular elements are entirely composed of small young lymph cells; while in others a certain proportion of ripe or mature lymph cells (in which the nucleus is surrounded by a rim of protoplasm) is intermingled with the first named. The larger multinucleated cells, not infrequently described as existing in all cases of lymphadenoma, are more frequently absent than present; they may exist in the acute cases, and also in the chronic cases sometimes described as lymphosarcoma.

In earlier days doubtless leukæmia lymphatica was confounded with Hodgkin's disease. The former, the reader need hardly be reminded, with its acute soft enlargement of many and separate groups of lymphatic glands, its cachexia, its anæmia, its rapidly fatal issue, together with, in many instances, the absence of enlargement of the spleen, presents all the characters usually associated with lymphadenoma, from which, in fact, it can only be differentiated by the early and marked leucocytosis.

### TREATMENT.

Cases I and II appear to show that in chronic cases of lymphadenoma occupying accessible positions the timely and

thorough removal of the glands checks the progress of the disease, although it will certainly recur. Some of the later cases also demonstrate with what safety and facility enormous quantities of glands may be removed from the neck owing to the existence of the mobility which has been insisted upon.

Case I.—J. G., aged 41, was admitted to the London Hospital in April, 1888. Two years ago he noticed a lump in the middle of the posterior triangle of the neck on the right side. After an interval of twelve months this was followed by others. A month ago a similar lump appeared in the anterior triangle on the left side.

*Condition in 1888.*—There are five or six considerably enlarged glands in the posterior triangles on both sides of the neck and one in the anterior triangle on the left side. The glands are all firm, distinct from each other, and freely movable beneath the skin and on the deeper structures. The spleen is not enlarged.

*Treatment.*—No improvement followed the administration of arsenic during a period of two months. At two successive operations all the enlarged glands were removed. With two exceptions all the glands shelled out quite easily and were entirely without adhesions. Their surfaces were smooth and the section pale and homogeneous, without trace of softening or caseation. The patient had all the appearance of robust health and there was no pyrexia.

*Condition in June*, 1894.—He has now a fresh crop of glands on both sides of the neck. They are situated chiefly in the parotid and submaxillary regions and behind the ears; one is observed above the right clavicle and one in the right axilla. The glands were removed at two successive operations, and they all shelled out quite readily.

*Condition in 1895.*—This patient was again admitted in November, 1895, with very many considerably enlarged glands extending down both sides of the neck, chiefly along the course of the large vessels. There was one in the right axilla. The glands still continued movable. No appreciable enlargement of the liver or spleen. His general health and appearance remained good. He was treated with injections of Coley's fluid, which had then recently come into use, fifteen injections being given, extending over a period of three months. At first a slight reaction took place, but latterly the reaction was very violent, the temperature in some instances reaching 105° to 106°. The enlargement certainly subsided somewhat, but the treatment could not be considered in any respect curative. On some occasions injections were made into the enlarged glands, and this resulted in a softening and suppuration of one of them. An examination of the blood just before his discharge from the hospital showed per cubic mm.:

| | |
|---|---|
| Red corpuscles ... ... | 3,860,000 |
| White corpuscles ... ... | 15,000 |
| Hæmoglobin ... ... ... | 75 p. c. |

The red corpuscles were therefore nearly normal, and the white slightly increased, a condition by no means surprising considering the constitutional disturbances and pyrexia to which he had been subjected.

Case II.—H. L., aged 8, was admitted to the London Hospital, December 16th, 1891. This patient had a mass of enlarged glands on the right side of the neck, of a precisely similar character to the foregoing. They were removed. On November 14th, 1892, he was readmitted with a recurrence on the subclavian triangle on the right side; and the glands were all again removed, being still non-adherent. Another group of enlarged glands was removed in January, 1893. They occupied the posterior and sub-maxillary triangles on the right side. In May, 1894, he again returned with enlarged glands on the right side, situated behind the ramus of the lower jaw, in front of the sterno-mastoid, and just above the clavicle in the posterior triangle. All the enlarged glands were removed, and shelled out readily. His general health remained good. Since that date I have lost sight of him.[2]

Case III.—G. R., aged 13, was admitted to the London Hospital in January, 1890, with a large mass of enlarged glands on the right side of the neck, extending from the lower jaw to the clavicle. They were all non-adherent and freely movable. The enlargement had commenced four years previously. A few small glands were felt in the axillæ but none elsewhere were enlarged. He appeared healthy, not anæmic, and his spleen was not enlarged. A great quantity of glands, twenty to thirty in number, were removed at one sitting from the neck, the sterno-mastoid muscle being divided transversely, and turned upwards and downwards. All the glands shelled out with great facility. They were smooth, firm, homogeneous on section, and without appearance of softening or caseation. To exclude tuberculosis two guinea-pigs were inoculated in the groin with portions of gland, and, when killed two months later, they were found to be quite healthy.

Case IV.—J. W., aged 7, was admitted in May, 1890. The mother stated that an enlarged gland appeared below the angle of the jaw on the left side two years ago. The enlargement now affects the glands over the whole of the left side of the neck, those on the right side being only shotty. The patient is fairly nourished, and appears in good health. Thirty-two glands were removed from the left side of the neck, the largest attaining the size of a bantam's egg; all were easily shelled out. In this case, again, guinea-pigs were inoculated without result.

References.

[1] *Acad. des Sciences*, June 17th, 1895. [2] Since writing the above I have succeeded in finding this patient. He applied for admission at another hospital, where all the enlarged glands were removed except two. His spleen can be distinctly felt below the ribs; liver not enlarged; thorax natural; general appearance healthy.

An adventurous lady doctor, Mlle. Zurcher, is, it is stated, about to start for Abyssinia, where she proposes to practise her profession. She has been recommended to the Negus by an engineer who is presumably a *persona grata* at the court of that potentate. Mlle. Zurcher is a native of Zürich, and was in practice for some time at Berne, and afterwards at Dresden.



## A CASE OF FACIAL HEMIATROPHY.

By EUGENE S. YONGE, M.B.,

Assistant Medical Officer, Manchester Hospital for Consumption and Diseases of the Throat.

The patient, a woman aged 41, first noticed something wrong with her face twenty-one years ago, when she had an attack of intense facial neuralgia on both sides, lasting, with short intermissions, about six months. Her friends remarked at this period that the right half of her face had become slightly different from the left, and the asymmetry steadily grew more noticeable until nine or ten years ago, since when little or no change has been apparent. At the present time the atrophy is found to involve the right malar bone to the greatest extent, the corresponding frontal coming next in order. The skin on the affected side is furrowed, wrinkled, and thinned, and the superficial veins stand out in bold relief. A well-marked vertical furrow on the forehead separates the healthy



from the diseased portion. The jaw, which is somewhat atrophied, is shorter and shallower on the right side, and that half of the face, in consequence, does not appear as long as the opposite half. The cartilage of the nose is wasted unilaterally. The muscles evidence no change in size, voluntary power, or electrical excitability. The corresponding half of the tongue is slightly atrophied; sensation in the cutaneous area on the right half of the face is unchanged, and neither the temperature nor the secretion of saliva or tears is deranged.

I am much indebted to Dr. Haring, Honorary Assistant Physician to the Manchester Hospital for Consumption, for kind assistance in connection with this case.

The Spanish Wounded.—The wounded soldiers coming from Cuba and the Philippines are carried by the steamship (Spanish) companies as second-class passengers, and at times first-class cabins are offered to them if unoccupied. The railway companies are ready to carry the wounded as second class passengers, although the State allowance is only third-class fare. On board the steamers the soldiers are fed and treated, under the doctors, in the most liberal manner. The Queen of Spain has duly recognised with thanks the kindness shown by the heads of the various companies to the wounded.

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

### A CASE OF DISSEMINATED SCLEROSIS.

J. S., aged 55, a carpenter, had, during the hot weather of April, 1896, a sudden attack of unconsciousness generally characterised by the usual phenomena of an apoplectic attack, but followed by no paralysis of any kind, and followed by great prostration and weakness, and little else. The case was seen by another medical man, and thought to be a heat-stroke. It was treated in the usual way, and after a week or two the patient resumed his occupation.

Soon after it was noticed that his hand trembled in attempting to raise a glass to his lips or to write, but his health seemed otherwise good until the following month, when he had another attack exactly like the first, and followed by the same prostration and weakness. The case was seen by me and treated as before, with the addition that he took potassium bromide in 15-grain doses for two or three weeks after. He got quite well except for the tremors before mentioned.

In about six weeks time another attack occurred, with exactly the same symptoms and no addition to them in any way. Since the last attack mentioned (in June) the patient has had two other attacks, the last occurring in the beginning of January, 1897. After this attack I elicited that his memory was becoming feeble and that he had no recollection of events that had happened but a few minutes before. The knee-jerks were exaggerated, and there was impaired sensibility on both sides, more marked on the right. This, with the increased knee-jerk, the intentional tremors, and the apoplectiform attack seemed to point to disseminated sclerosis, and I sent the case up to Dr. Bastian, at University College Hospital, on January 25th, asking him to examine the patient, which he very kindly did.

He informed me that the case was undoubtedly one of disseminated sclerosis, and he pointed out the following remarkable facts about it:

1. That the intentional tremor should have followed directly upon the first "congestive" attack.
2. The absence of nystagmus.
3. The absence of any characteristic difficulty of utterance and of much tremor about lips and tongue.
4. The unusual amount of impaired sensibility, especially on the right side, and with this the absence of Romberg's symptom.

He remarked also that the ataxy of the arms is well marked, on the right side especially, where also the "intentional tremor" is most marked. Dr. Bastian prescribed a mixture containing doses of potassium iodide gr. vj, potassium bromide gr. viij, and liquor arsenicalis miij, and gave a grave prognosis.

Manningtree. A. CLIFFORD HACKNEY, M.R.C.S.

### DIABETES MELLITUS OF OVER NINE YEARS' DURATION: DEATH FROM ERYSIPELAS.

A. C., a cabinet maker, aged 60 years, consulted me on July 6th, 1887, suffering from thirst. His previous health had been good, with the exception that he had occasional attacks of muscular rheumatism. The amount of urine at this date was 85 ounces per diem. It was clear, acid, specific gravity 1036, no albumen, sugar present in considerable amount; there was a precipitate of uric acid. He was put on the usual diet. The urines of August 7th and August 14th were practically identical; that of August 22nd was 60 ounces in amount, specific gravity 1034, no albumen, sugar in same quantity, but no uric acid. The thirst decreased under treatment, which was entirely by diet, with the exception of some sodium salicylate to counteract the rheumatic tendency.

From time to time I saw him through the intervening years, being the medical attendant upon his family, and whenever the chance offered itself his urine was examined and gave similar results, sugar being present on every occasion. In spite of this he had no symptoms of any kind, went about his ordinary business, gradually going back to ordinary diet, and never showed any of the concomitants, such as eczema, carbuncle, cataract, or the like.

In October, 1895, he had a slight cerebral hæmorrhage, giving rise to giddiness, tingling, and numbness in the right arm and hand, from which he quickly recovered. In January, 1897, he developed erysipelas of the face. A specimen of his urine at this time was acid in reaction, specific gravity 1035, no albumen, sugar equal 7 per cent.; the amount of urine in twenty-four hours was 95 ozs. He never rallied at all, and died on the fifth day of the disease, becoming gradually comatose during the last twenty-four hours.

This is one of the longest cases on record. Prout, quoted by Hilton Fagge, had only 2 cases out of 700 in which the disease had been perfectly developed ten years before, and Dickinson had seen a case in which the urine was constantly saccharine for fifteen years. The interest of it lies in the fact that although the man was under observation from 1887 until his death in 1897, during which time his urine was never found free from sugar, its presence gave rise to neither symptoms nor sequelæ. Even the disturbance of a cerebral hæmorrhage was not too much for his vitality, and it was not until he was attacked by a disease, recovery from which demanded the integrity of his metabolic functions, that he finally succumbed.

Cupar, Fife. C. E. DOUGLAS, M.D.Edin., D.P.H.Camb.

### CONGENITAL OBLITERATION OF ŒSOPHAGUS WITH OTHER MALFORMATIONS.

ON December 30th, 1896, Mrs. T. was delivered of a female child at full term after a natural labour, this being her second confinement. When the child was born, I noticed that its hands presented a very unusual appearance, the fingers pointing upwards towards the elbow; there was entire absence of both radii and both thumbs. When at rest, the outer side of each hand (that is the index finger and its metacarpal bone) rested against the forearm, but by manipulation the hands could be brought down at right angles with the forearm but no further, and there was great resistance to supination. The ulna in each arm was a little curved and seemed shorter than normal, but in all other respects the child seemed perfectly developed.

On the third day, as soon as the mother's breasts became full of milk, she noticed that as the baby sucked the nipple, after drawing two or three times, the milk returned through its nose, and she had to take it from the breast. I examined the child's mouth, and found nothing to account for it, and as this regurgitation continued and the child began to waste, I suspected some obstruction in the œsophagus. I did not pass a bougie, as the nurse told me that the baby had frequent attacks of cyanosis with much choking, and it seemed so fragile and weak that I did not think it would be wise to attempt it.

In this way the child continued to live, but gradually wasting; it eventually died exhausted when it was 13 days old. I obtained permission to make a *post-mortem* examination, and I found that the upper part of the œsophagus was simply a *cul de sac* extending about ¾ in. below the larynx, and that the lower part, as it came up from the stomach, opened into the trachea near the point of its bifurcation. The stomach and intestines were quite empty and very thin, just as one would expect to see in a case of starvation. On opening the heart, I found the interventricular septum was not complete, being deficient in its upper part.

The case is an extremely interesting one, not only on account of the rare malformations, but also on account of the length of time the child lived without any nourishment whatever.

Herne Bay. C. KESSICK BOWES, M.B.

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MRS. WORTHINGTON, who died recently, has left her residence, Derwent Bank, Derwent, to the Derbyshire Infirmary for the purposes of a convalescent home. Should the infirmary authorities deem the mansion unsuitable they are empowered to sell it and benefit the institution to the amount of £10,000.

MEDICAL MAGISTRATE.—Mr. J. P. Legge has been appointed by the Lord Chancellor a magistrate for the borough of Derby.

# REPORTS
ON
## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

### ST. MARYLEBONE INFIRMARY.

A CASE OF STRANGULATED OBTURATOR HERNIA.

(By H. Sinigar, M.B.Lond., M.R.C.S., L.R.C.P., Assistant Medical Officer to the Infirmary.)

E. B., aged 64 years, was admitted suffering from abdominal pain, vomiting, and constipation of four days' duration. The symptoms began with severe abdominal pain soon after taking a hearty dinner. Pain was quickly followed by vomiting, which continued at intervals until admission. She said that up to the commencement of this attack her bowels had been perfectly regular, and no history of any previous gastro-intestinal disturbance could be elicited.

She was of spare frame, and had an anxious expression. There was no jaundice, the tongue was moist with a slight brown fur, and the pulse was small and feeble. The abdomen was resonant, and there was moderate distension of its lower half. The abdominal walls were flaccid, there was no marked tenderness, and no tumour could be felt. She referred her pain entirely to the epigastrium. The femoral and inguinal canals were normal, and there was no tenderness on examination of the femoral rings. No fulness could be detected in Scarpa's triangle, which, owing to her thinness, was plainly visible as a distinct hollow, equally deep on each side. She walked into the receiving ward, and did not complain of pain in the thigh. Nothing abnormal was felt on vaginal or rectal examination.

A simple enema given at once was returned unchanged. A second was given half an hour later, and a large, partly-formed, greyish-black motion was passed. After this she was much more comfortable, and did not vomit until seven hours after admission, when she suddenly brought up about 8 ounces of a brown fæcal fluid.

Another enema was given, and again the bowels acted. She then said she felt much better. Eight hours later she began to retch. She looked rather worse, the abdominal distension had slightly increased, and was obviously due to distended small intestine, the colon apparently being quite empty. As splashing sounds could be obtained over the stomach, the stomach tube was passed, and 52 ounces of brown fæcal fluid removed. The stomach was afterwards washed out with weak Condy. This was followed by considerable relief to her pain, but the pulse, which had been failing ever since admission, became gradually weaker, and she died without further vomiting forty-two hours after admission.

At the *post-mortem* examination a hernia of the ileum into the right obturator foramen was found. The specimen was sent to the Museum of the College of Surgeons, and we are indebted to Mr. Targett for the following report of it, which he forwarded to Mr. Lunn:

The portion of bowel obstructed consists of a coil of small intestine, but of this merely a small knuckle, not more than an inch in length, was strangulated. The ring of the constriction showed that the entire calibre was not included (Richter's hernia). The strangulation, however, was very severe, for nearly a half of the knuckle was in a state of sloughing. It is probable also that there was a perforation at the apex of the knuckle at the time of death. The bowel above the obstruction was congested and distinctly dilated.

Dissection of the sac showed that it had passed through the canal in the right obturator foramen. The extreme length of the sac was 2 inches: the diameter of its mouth was not more than ½ inch: and on reflecting the peritoneum it was seen that the lower and inner borders of the ring through which the sac passed was formed by a thin but very dense edge of fascia (obturator) lining the obturator internus muscle. The obturator vessels and nerves approached the neck of the sac from the outer side, and then parted company. The obturator artery gave off the pubic branch (which was of considerable size) before entering the ring. The pubic branch passed immediately under the neck of the hernia to the back of the pubes. The main trunk of the obturator artery entered the ring, and then passed obliquely across the obturator canal immediately underneath the hernial sac. In front, it divided upon the anterior surface of the thyroid membrane into its internal and external branches. The obturator vein accompanied it, but was remarkable for having a communication with a much larger vein lying upon the superficial surface of the obturator externus muscle. The obturator nerve and its branches were lying quite upon the outer side of the hernia, as seen from the front.

The hernial sac was reduced into the pelvic cavity with difficulty, owing to the obliquity of the canal and the small size of its deep (pelvic) orifice. It was then seen that the deep or posterior wall of the canal in which the hernia had been situated was formed (1) by the obturator fascia and origin of obturator internus muscle for half an inch or so: (2) by an edge of obturator membrane: (3) by the thick upper margin of the obturator externus muscle. The extreme length of this deep wall of the canal was 1½ inch. When dissecting the hernia from the front it was found that the sac was covered with a moderately thick layer of sub peritoneal fat, and outside this with a thin but distinct sheath of fascia. By the formation of the sac the peritoneum on the right wall of the bladder was drawn upon, and consequently the bladder was pulled over to the right wall of the pelvis. When put on the stretch the peritoneum between the right wall of the bladder and the neck of the sac was less than three quarters of an inch in length. The bladder was fasciculated, and presented two moderately large sacculi, which were situated a little in front of the orifices of the ureters.

Remarks.—The absence of any localising symptoms in this case made it impossible to come to an accurate diagnosis, beyond that there was obstruction involving the small intestine. This difficulty appears to have existed in many of the cases of obturator hernia which have so far been reported. The case also well illustrates the fact that it is possible to empty the rectum and colon by enemata, although there is complete obstruction of the bowel higher up. The question of laparotomy was carefully considered, but we were of opinion that the patient would not survive the shock of an operation, however short.

I have to thank Mr. John R. Lunn, Medical Superintendent, for permission to publish this case.

# REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

W. H. Dickinson, M.D., President, in the Chair.

*Monday, March 1st. 1897.*

Annual Meeting.

Report of Council.

After the minutes of the last annual meeting had been read and confirmed, the report of the Council was read by the Secretary, Dr. Norman Moore. The Society was in a flourishing condition, the number of Fellows elected during the past year exceeded that on any previous years, and the list of papers was so full that it had not been thought desirable to have any formal discussions. The Library Committee report showed that all the books had been recalled during the year, and that 3,000 volumes had been taken out. The Committee appointed to investigate the medical climatology of Great Britain and Ireland was proceeding with the work, and was going to describe the spas of Ireland. The Treasurer's report showed that the Society's financial position was sound, and that the 4 per cent. debentures had been replaced by a new loan bearing 3 per cent. interest.

Dr. Church (the Senior Treasurer) pointed out that the balance sheet for the first time showed the true position of the Society since their property had been valued. He further explained some points in the financial statement.

Mr. T. Holmes congratulated the Society on the balance sheet, and made some remarks on the amended method of keeping the accounts, and on the advisability of reducing the interest on the debentures from 4 to 3 per cent.

Dr. C. T. Williams re-echoed Mr. Holmes's congratulations, and was glad to hear of the increased number of new Fellows. As the Society was so prosperous he hoped that more financial aid might be extended to the Committee appointed to investigate the spas.

The President moved the adoption of the report of the Council, which, with a trifling alteration, was unanimously approved.

The President then moved the adoption of an alteration in the by-law which ordained that the Council should meet once a month; owing to the increased amount of work the Council proposed that the meeting should take place once a fortnight, at 5 P.M. This alteration was approved.

President's Address.

The President delivered the annual address. After referring to the increased number of new Fellows and the reduction of the rate of interest on the debentures, he drew attention to the house dinner which had been held last year. It was attended by 137 members and by many distinguished representative guests. It was a pleasant function, and per-

sonally he hoped it might become an annual one, as it tended to consolidate the Society. The death-roll was an unprecedently heavy one, and consisted of one honorary Fellow, Professor Du Bois-Reymond, and 23 ordinary Fellows, of whom 3 were past-presidents, and 7 were Fellows of the Royal Society. It included Sir George Johnson, Sir J. Russell Reynolds, Sir J. E. Erichsen, Sir Spencer Wells, Sir G. M. Humphry, Dr. E. Ballard, Dr. George Harley, Dr. Langdon Down, Mr. G. D. Pollock, Mr. Paul Jackson, Dr. William Sharp, and others. He had written obituary notices of all of them, but time only permitted of his reading a few. Professor Du Bois-Reymond's name was known to the whole world, and his researches into the electrical phenomena of muscle were epoch-making. Sir J. Russell Reynolds was a graceful writer, and possessed a literary and philosophical genius. As a teacher his lectures were cultured in style, and complete in instruction. He successfully edited *A System of Medicine*, and, together with his brother, wrote a novel *Yes or No*, which resembled Kingsley's *Two Years Ago*. He was Physician to the Queen's Household, and the crowning glory of his life was the Presidency of the Royal College of Physicians. Sir George Johnson, President of the Society in 1884, published in 1852 an important work on the kidney based on microscopic examinations, which showed the thickening of the arteries in granular kidney. This was a most valuable contribution. He had advocated the treatment of cholera with castor oil. All his work was destined to excite controversy, into which he threw himself energetically; and on the morning of the day of his death he was engaged in writing a controversial article on cholera. His work would be remembered long after his stately presence and courteous manners had been forgotten. Sir G. M. Humphry had, in association with Sir George Paget, converted an insignificant medical school into one of the greatest in the world. When he went to Cambridge the medical school was select rather large. He remembered his wonderful lectures on anatomy which made the dry bones live. All possible honours had been showered upon him. He was a voluminous writer, and all that he wrote was good. His striking personality and the work of his life will be long remembered. Mr. G. D. Pollock, whose friendship he had enjoyed for forty years, had had a long honourable career, and was distinguished as a colleague, a teacher, and a friend. He died at the age of 80, and honour, respect, and troops of friends attended his old age.

Mr. T. Holmes proposed that the best thanks of the Society be given to the President for his address, and that he be requested to allow his admirable address to be printed in the *Transactions*. He feelingly remarked that last year this vote of thanks had been proposed by his friend the late Mr. Pollock.

Dr. Gee seconded the proposal, which was carried.

The usual vote of thanks to the retiring Vice-Presidents (Dr. John Harley, Mr. J. Langton, Sir William Mac Cormac) and members of Council (Drs. Ewart, F. C. Turner, Semon, Sir William Dalby, and Messrs. Barker, Morgan, and Owen) were passed.

### Election of Officers and Council.

The following officers were elected for the ensuing session: *President:* William Howship Dickinson, M.D. *Vice-Presidents:* *William Marcet, M.D., F.R.S.; James Edward Pollock, M.D.; *Frederick James Gant; *Charles Sissmore Tomes, F.R.S. *Honorary Treasurers:* William Selby Church, M.D.; J. Warrington Haward. *Honorary Secretaries:* Norman Moore, M.D.; Robert William Parker. *Honorary Librarians:* Samuel Jones Gee, M.D.; Rickman J. Godlee, M.S. *Members of Council:* John Abercrombie, M.D.; *Robert Leamon Bowles, M.D.; *John Mitchell Bruce, M.D.; David Ferrier, M.D., F.R.S.; *Joseph Arderne Ormerod, M.D.; *William Watson Cheyne, F.R.S.; *Henry Hugh Clutton, M.B.; *Frederic S. Eve; *William Appleton Meredith, C.M.; Robert Alexander Gibbons, M.D. Those Fellows against whose names asterisks are placed were not on the Council or did not fill the same office last year.

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Infirmary Medical Superintendents' Society.—The February meeting was held at Lewisham Infirmary on the 27th, Mr. Walter Burney, President, in the chair. Dr. F. S. Toogood showed cases of Progressive Muscular Atrophy, Tuberculous Peritonitis, Abdominal Tumour, etc.

## PATHOLOGICAL SOCIETY OF LONDON.

Henry Trentham Butlin, D.C.L., F.R.C.S., President, in the Chair.

*Tuesday, March 2nd, 1897.*

### Aneurysm of the Aorta in a Boy.

Dr. F. J. Smith recorded this case. The only history forthcoming was that the patient, 9 years of age, was admitted with great dyspnœa, for the alleviation of which tracheotomy was performed, but death ensued a few hours later. After death the heart was found to be healthy, the œsophagus free of disease or of foreign body; one of the bronchi was full of blood.

Mr. J. H. Targett had dissected the preparation, and could only add that there was no assignable cause for the aneurysm, which was situated immediately beyond a congenital stenosis of the aorta in the usual position, namely, on the distal side of the attachment of the obliterated ductus arteriosus. In answer to Mr. S. G. Shattock, he stated that the vessels were free of disease, and there was nothing to suggest congenital syphilitic infection.

### Series of Specimens of Carcinoma of the Penis.

Mr. J. Hutchinson, jun., and Mr. E. Frazer illustrated the above by means of lantern slides. The authors exhibited the usual macroscopic forms of the disease. In the fungating variety the lesion often commenced in the furrow behind the glans, and both the urethra and the corpora cavernosa remained uninvaded—a matter of considerable practical importance, as partial amputation of the penis was a successful operation, and the complete removal by the Thiersch-Gould method was unnecessary in most cases. They considered that papillomata undoubtedly might become transformed into carcinomata. In contrast with prominent growths the disease might assume the form of a flat ulcer with indurated base. As in the tongue, so here, diagnosis by the President's plan of examining scrapings was highly valuable. In such cases the destruction might proceed widely without the growth of any obvious tumour. In one instance they had observed infection of the corpora cavernosa. Besides the squamous-celled form they had met with one example of what was probably glandular, arising within the meatus and, as shown by microscopic section, in the compound tubular glands opening into the fossa navicularis. In certain of the squamous-celled varieties cyst-like spaces were met with, the central parts being occupied by leucocytes and epithelial cells floating in a fluid; they had observed the same on one occasion in a carcinoma of the vulva; they did not think that these were hollow extensions of growth in the cavernous spaces, for were they so infection of the lungs should be frequent, whereas it was hardly known. In the urethral case cited, the nodule was only one-twelfth of an inch in diameter, and close within the meatus; nevertheless certain of the inguinal glands were as much as three inches in diameter, the infection having been rapid and notable in degree.

The President observed that information was especially needed as to the after-histories of operations for carcinoma of the penis. He did not regard the disease as very malignant, and thought the results of operation very good as compared with those of other parts.

Mr. J. H. Targett had seen cystic change in an epithelioma of the lower jaw, probably arising from the gum; the condition was possibly inflammatory in its character. In the diagnosis of the nature of primary carcinomata the structure of the secondary tumours was often of greater value than that of the primary itself.

Mr. S. G. Shattock, though not doubting that a certain cystic condition of squamous-celled carcinomata arose as described, could nevertheless add that in certain cases it was due to vacuolation and disruption of the cells without obvious diapedesis. He had described such a case in connection with the scalp, and had lately had the opportunity of seeing another such in the tongue from a patient operated upon by Mr. Watson Cheyne. He agreed with the authors as to the rarity with which the corpora cavernosa were infected.

### Changes in the Submaxillary Gland Secondary to Carcinoma of the Mouth.

Mr. J. Hutchinson, jun., described a condition often

clinically mistaken for carcinomatous disease. At times the salivary gland was invaded by direct extension from the lymphatic glands lying upon it; but the gland might be indurated solely from chronic inflammation, the histological changes being those of cirrhosis with atrophy of the secreting acini, and accumulations of leucocytes in more or less circumscribed areas. He had examined two such instances, and thought the changes most probably due to pressure upon Wharton's duct, though he confessed that such induration did not occur, at least regularly, where the duct was obstructed by calculus.

Mr. Cecil Beadles had notes of examinations of 15 cases where the submaxillary salivary gland had been removed in operations upon the tongue, mouth, and lip. In some there was diffuse cell infiltration, with or without collections of leucocytes, as in early abscesses; in some advanced cirrhosis; in one distinct abscess; in two only was there secondary carcinomatous infection; in one of the latter the gland was involved by direct extension from the floor of the mouth.

The President considered that infection of the salivary gland usually arose from extension from the circumjacent lymphatic glands.

### Dermoid Cyst Involving the Lung.

Dr. Cyril Ogle exhibited a right lung with a greatly dilated bronchus, into which there projected a close series of finger-like processes covered with skin and furnished with hair. The cavity into which these projected was itself 4 inches in diameter, and contained in addition an offensive dark red material and hair. Amongst the digitate processes was a tooth. In the mediastinum was part of a cyst, and the author regarded the dermoid as having arisen in this situation and subsequently come to involve and project into a bronchus. The patient, a man aged 28, died of hæmoptysis.

Mr. Rickman J. Godlee had operated upon a somewhat similar case a few years ago. Such mediastinal cysts might cause no symptoms, or they might produce empyema by opening into the pleura, or they might open into the lung and lead to hæmoptysis or be followed by phthisis. At times hairs were expectorated. This was so in his own case, and here an empyema arose: the cavity was opened and found filled with hair and digitate processes similar to those in Dr. Ogle's specimen. Such processes were found, as Mr. Bland Sutton had remarked, in the ovary as well as in these mediastinal dermoids. The speaker recounted a second case of a man with effusion in the left side and a swelling below the xiphoid cartilage, which was incised: an escape of pus followed, together with nodules of a greasy, yellow substance; the cavity reached behind the sternum, which was afterwards trephined. The sinuses resulting closed up, but were succeeded by another swelling above the sternum, which also closed after discharging. As to the exact nature of the lesion in this case, he could not be sure, though he thought it probably like that in the first. In Albers's *Atlas* there was an illustration of a dermoid involving the lung, furnished with such pilierous processes and in all ways resembling the class of cases under discussion.

## CLINICAL SOCIETY OF LONDON.

Thomas Buzzard, M.D., F.R.C.P., President, in the Chair.

*Friday, February 26th, 1897.*

### Clinical Evening.

### Unusual Syphilitic Eruption in an Infant.

Dr. S. West showed an infant who was in good health until 8 months old. Five months later she came under treatment. She then had a concentric eruption on both cheeks. The child also had a general lichenous eruption and condylomata of the anus. He thought it was an instance of a rare form of syphilitic eruption. A similar case was figured by Hutchinson in his *Atlas*.

### Subcutaneous Tumours with Osseous Growth from Frontal Bone.

Dr. S. Coupland showed a young man with two kinds of tumours (*a*) multiple subcutaneous fibro-neuromata, chiefly on the arms and trunk, which he had noticed since 10 years of age; (*b*) an osseous growth from the left frontal bone which had been growing for three years. During the last year nervous symptoms had supervened. It was an open question as to how far the nervous symptoms were due to tumours pressing on the cranial nerves and spinal roots, or were associated with the growth inwards from the frontal bone.

### Aortic Stenosis with Bradycardia.

Dr. Parkes Weber showed a young man suffering from persistent dyspnœa, syncopal attacks, and bradycardia. There was a history of syphilis, but the patient attributed the onset of his symptoms to an injury.

Dr. Ormerod had had under treatment an epileptic with aortic stenosis with bradycardia, in whom a diastolic murmur developed after a time.

Dr. S. West referred to the case of a man, aged 35, who had a loud aortic systolic murmur with a constant pulse-rate of 30 or under. He was under observation for several years, and did not develop a diastolic murmur, nor any special symptom.

Dr. Morison thought it unusual to have dyspnœa and rapid respiration in aortic cases associated with bradycardia.

### Dual Consciousness in a Girl with Hystero-Epilepsy.

Dr. Albert Wilson showed a girl, aged 15, whose case had been reported to the Society a year ago. Following an attack of meningitis periods of double consciousness had supervened. Her present condition was practically the same as it was when last brought before the Society, except that the abnormal periods were somewhat more prolonged, and during them she was almost blind, although there was no ophthalmoscopic change. She was semi-imbecile in her manner, but could draw and paint even during the blind state.

### Hæmatoma of the Auricle.

Dr. StClair Thomson showed a man, aged 33, in whom a blood tumour had spontaneously developed in the auricle of the left ear in the upper part of the antihelix. It was subsiding, without the scarring that was usual in insane cases, without any special treatment. He showed a photograph of an ancient bronze statue of a pugilist showing signs of many old hæmatomata.

The President pointed out that there were no signs of general paralysis, the pupils reacting to light and the knee-jerks being normal.

### Aneurysm of the Aorta Treated by Mineral Baths.

Dr. Bezly Thorne showed a man, aged 42, with aneurysm of the aorta, who had been previously treated with iodide of potassium and rest, afterwards by digitalis, calcium chloride and rest, without any benefit. He came under the author's treatment in November, 1896, with increased cardiac dulness and great dyspnœa on the slightest exertion. He was treated by mineral baths and graduated walking exercise, with a liberal nitrogenous dietary, and free ingestion of fluids to eliminate uric acid, etc. After six weeks he could walk with comfort during three hours a day. The apex beat retreated 1½ inch, but there was not much diminution in the dulness to the right of the sternum. The cardiac impulse became quiet and normal in extent. A skiagraph showing the outline of the aneurysm was made by Dr. Campbell Thomson before and after the treatment. There was no increase in the size of the aneurysm in spite of the exercise. He had had some recurrence of the symptoms, which promptly yielded to the same treatment.

### Raynaud's Disease.

Dr. Fletcher Little showed a young woman, aged 19, otherwise healthy, who had developed symmetrical gangrene of the first, middle, and ring fingers, which commenced during cold weather. There had been attacks of local asphyxia for some months previously. There was no similar affection of the toes. The cheeks were somewhat sclerodermatous, and the movements of the face were stiff, which gave rise to a constant simpering expression. The association of scleroderma with Raynaud's disease had been noticed by Raynaud himself. The patient had no hæmaturia nor menstrual irregularity. Nux vomica was the only drug that

had afforded relief in this and in another similar case under his observation.

Dr. SIDNEY COUPLAND thought the connection between scleroderma and Raynaud's disease was an important factor.

ATROPHY OF THE MUSCLES OF THE UPPER EXTREMITIES.

Dr. S. WEST showed a labourer, aged 39, who had suffered from weakness of the arms for two years. The deltoids and the muscles around the shoulder were strong and well developed, and the muscles of the hands were unaffected. The muscles of the arm and forearm, however, were very weak and much wasted. A few of the muscles in the arm showed the reaction of degeneration imperfectly. He inclined to the view that it was a case of myopathy rather than one of progressive muscular atrophy. Sensation was normal, and the knee-jerks were normal.

The PRESIDENT noted that the patient had a loss of expression at the lower part of the face, and thought the case was probably a myopathy.

HEMIPLEGIA WITH PSEUDO-BULBAR SYMPTOMS.

Dr. PARKES WEBER showed a man suffering from unilateral cerebral sclerosis with pseudo-bulbar symptoms. There was left hemiplegia of gradual onset (more than five years), and paresis of the soft palate. Occasionally he could not speak at all. If the soft palate were touched he could feel it, but there was little or no movement of its muscles. This was perhaps an individual peculiarity, the man's palate acting very slowly to stimuli.

A NEW METHOD OF TREATMENT OF LEG ULCER.

Mr. WALLIS showed a man who had a large intractable ulcer in front of the shin, the result of a traumatism, which had increased in spite of the ordinary treatment. He made two long longitudinal parallel incisions, each at its centre an inch and a half from the adjacent edge of the ulcer, and having separated the skin from the subjacent tissues he freshened the edges of the ulcer, and brought them together in the middle line, leaving two gaps representing the lateral incisions which he filled in by Thiersch grafts. The result, on the whole, had proved very satisfactory, although healing had not quite taken place.

## EPIDEMIOLOGICAL SOCIETY.

SHIRLEY F. MURPHY, M.R.C.S., Vice-President, in the Chair.

*Friday, February 19th, 1897.*

THE ROYAL COMMISSION ON VACCINATION: AN EXAMINATION OF THE DISSENTIENT STATEMENTS.

DR. MCVAIL read portions of a paper—printed copies of a proof of which were distributed to all present—in which he reviewed the statement of the dissentient members of the Royal Commission on Vaccination, mercilessly exposing their inconsistencies, sophistries, and misrepresentations. Dr. McVail argued that there was no reason to suppose that, but for the rise of inoculation, Mead would have applied his scheme for stamping out the plague by quarantine to what he called, and as such expressly excluded, "the more common contagion of small-pox," the two diseases holding then positions analogous to those of cholera and measles at the present time. But for downright impudence, the presentation of Sir James Simpson as a supporter of their policy of isolation as a substitute for vaccination had probably never been surpassed. Their conclusions as to the extent of inoculation, and the number of susceptible persons at different periods, were based on arbitrary and therefore intangible assumptions, but by throwing together all "zymotic" diseases, they ascribed to "sanitary improvement" the general reduction of the death-rate, ignoring the facts that in the period selected by them while the death-rate from "fever" had fallen as 100 to 71, that from small-pox had fallen as 100 to 17, and that the more accurate statistics of 1850-80 showed that the improvement was confined to typhus and typhoid, measles and scarlatina being uninfluenced by sewerage and water supplies. Their account of the labours of Jenner, of Jenner's criticism of the procedures of Woodville and Pearson, and their conversion to his views, as well as of the application of the variolous test to the several strains of lymph used by these operators, was disingenuous in the extreme. When thousands vaccinated by Jenner, Pearson, and Woodville were found insusceptible to small-pox, the dissentients suggest that they had been variolated, though they had ascribed the decline of small-pox to the disuse of variolation; but when such operations failed to protect they were vaccinations, until at length the dissentients endeavoured to extricate themselves from their dilemma by declaring that henceforth they would use the word vaccination "colloquially"! For the purpose of minimising the influence of vaccination, especially in early life, and the well-known fatality of small-pox occurring in unvaccinated children, they assumed the admissions to the hospital at Highgate, which had long been a small-pox hospital in name only, and took none but paying patients and none under 7 years of age, to be "a fair sample" of small-pox and of the extent of vaccination in London as a whole; refusing to entertain the evidence furnished by the representative and free hospitals at Homerton and Fulham, where the unvaccinated formed 46 per cent. of the admissions under 10 years of age. Affecting to doubt Dr. Barry's statistics of vaccination and small-pox at Sheffield, they proceeded to draw different conclusions from purely conjectural estimates of vaccination in Leicester, Dewsbury, and Warrington; and, though they had urged that in prevaccination times the fatality in different epidemics varied between 2.5 and 33 per cent. of attacks, they ignored the important influence of the milder type at Leicester on the death-rate, and the fact that whatever the degree of severity of the epidemic the ratio of fatality among vaccinated was always much less than among the unvaccinated—in Leicester 1 and 12, in London 2.2 and 24.2, in Dewsbury 2.6 and 25.1, in Sheffield 4.8 and 49.6, in Warrington 6.4 and 35.3, and in Gloucester 9.9 and 40.9—while in the totals for these six towns the percentage fatality was 5.2 and 35.4, and at Fulham and Homerton the rates were 11.4 and 46, and 10.5 and 43.4; patients alleged to have been vaccinated, though showing no marks, being included among the former. Arguing that the greater prevalence of small-pox, especially in childhood, in the latter half of the eighteenth century was due to inoculation, they ignored the preinoculation statistics of Geneva, which showed that, of 25,349 deaths, 6,792 occurred in the first year of life, 5,416 in the second, 4,116 in the third, 2,826 in the fourth, and 1,928 in the fifth year; 4,119 between the fifth and twentieth, 154 between the twentieth and thirty-fifth, and none at higher ages. Dr. Thorne's tables were misused, Dr. Ogle's more complete statistics, also before the Commission, were ignored, and by employing different standards of calculation the influence of sanitation was exaggerated and that of vaccination minimised. But, Dr. McVail argued, infants under vaccination age should benefit from improved sanitation equally with those above. In Scotland this age was six months, and infants under that had contributed to every 1,000 deaths from small-pox; 139 in the nine years preceding the Vaccination Act of 1863, and 138 in the twenty-four years following, whereas the deaths in the second half-year had been in the two periods as 153 and 47. In Germany vaccination was performed at any time during the second year, and 410 per 1,000 of the deaths occurred below 2 years of age, while in Sheffield, which according to the antivaccinationists was a fairly vaccinated but insanitary town, children under 10 years contributed 25 per cent., and in Leicester, unvaccinated but sanitary, 70 per cent. of the total deaths, similar ratios being observed elsewhere. Dr. McVail called attention to the position of the dissentients who, while abandoning various diseases whose increase, real or supposed, had been attributed by Messrs. Hopwood and Wallace to vaccination, but which had decreased of late, invoked Drs. Creighton and Crookshank alike, apparently unaware that, notwithstanding their efforts at discrediting vaccination, they differed essentially one from the other. Messrs. Collins and Picton had enlarged on erysipelas and syphilis, and, while the other Commissioners had been satisfied by the inquiries they had conducted for seven years that the danger and frequency of such infection had been greatly exaggerated, they held to a contrary opinion. But Dr. McVail again appealed to the statistics of syphilis in Scotland, which showed that while the proportion of deaths from this disease in the second half-

year of life or that following vaccination had remained stationary, that for the first six months had increased from 575 before to 612 and 647 in the periods following the passing of the Act, unvaccinated babies contributing nearly two-thirds and an increasing share of the deaths at all ages, while in the last 20 years syphilis as a cause of death had increased 69.3 per cent. in unvaccinated Leicester, against 24.7 per cent. in England and Wales, and erysipelas 41.5 per cent. in Leicester, against a decrease of 16.7 per cent. elsewhere. The dissentients did not attempt to define what would be "adequate hospital accommodation" for an unvaccinated population, nor did they realise the violent hostility that compulsory isolation of the sick and of all persons exposed to infection, whether in hospitals or in their homes, would provoke, and they seemed after all to have less faith in their own recommendations and more in vaccination than they were willing to admit even to themselves, for they confessed that they were struck by the immunity enjoyed by vaccinated children, and would, "in deference to the general belief," retain the entire machinery for vaccination and the supply of lymph as at present existing.

In the discussion that followed, Dr. Pringle described the horrors of small-pox in the unvaccinated provinces of India; Dr. Acland gave his experience in the investigation of alleged vaccinal disease, and Dr. Coupland expatiated on the impracticability of carrying out isolation on so vast a scale. The discussion was kept up by others to a late hour.

## LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

J. W. Teale, M.B., F.R.C.S., President, in the Chair.

*Friday, February 5th, 1897.*

### Cases and Specimens.

The following were shown:—Mr. Nunneley: A case of Acromegaly with Bitemporal Hemiopia and Incomplete External Ophthalmoplegia.—Mr. Mayo Robson: Patient from whom both Upper Jaws and the Nose were Removed a year ago for Rodent Ulcer.—Dr. Churton: Cases showing Rapid Absorption of Tuberculous Masses in Abdomen. (1) A boy, aged 10, with tuberculous peritonitis. The fluid exudation was rapidly absorbed, leaving two large masses, which now were rapidly lessening in size. (2) A woman, aged 37, showing same rapid absorption of fluid, and the presence of large masses in abdominal cavity, which now had entirely gone.—Dr. Braithwaite: Uterus Removed Entire for Fibroid Disease.—Dr. Bronner and Dr. Lockwood: A case of Cerebral Abscess of Aural Origin, operated on eighteen months ago.—Mr. Ward: (1) Sacculated Aneurysm-like Tumour from Internal Saphena Vein; (2) part of Calcified Wall of Old Empyema.—Dr. Barrs: (1) Raynaud's Disease; (2) Multiple Rheumatic Myositis.—Dr. Mantle: Heart showing Ulcerative Endocarditis, patient dying of Embolic Hemiplegia.

### Impacted Gall Stone.

The President described a case that had been under his care, of a lady, aged 70, wife of a medical man, who after general *malaise* and colic for a fortnight, was laid up with jaundice, which was diagnosed to be due to blockage of the common duct by a gall stone. After five weeks, as her health was giving way, and after a consultation with Mr. Pridgin Teale, of Leeds, an operation was decided on. On the day it was to be performed the patient begged off, as she was certain some change had taken place, and that the gall stone had changed its position. It was decided to wait, therefore, and there was a marked increase of bile in the motions. A fortnight later, after severe rigors, intense pain, followed by local and then general peritonitis, set in, and death seemed imminent, but she rallied under opium, and the third motion afterwards was free of bile. Unfortunately the one in which it is assumed that the gall stone passed was not examined, owing to the critical state of the patient. From that time the patient made a steady but gradual recovery, and was now quite well and walking about out of doors. There was complete blockage for eight weeks and three days.

A long discussion took place on this paper, in which Dr. Barrs, Dr. Churton, Mr. Pridgin Teale, Mr. Littlewood, Dr. Griffith, and Dr. Gordon Black joined.

### Cerebral Injury.

Mr. E. Solly (Harrogate) read notes of a case of cerebral injury, presenting certain unusual features. A lad, aged 9, fell from a wall about 8 feet high on to the ground, falling probably on the back of the head. He was able to walk home, a distance of about a quarter of a mile, without assistance, but shortly afterwards became gradually drowsy; some slight convulsive movements were noticed, but unfortunately no skilled observation of their order or character was forthcoming. The family medical attendant, on arrival, found the symptoms of coma supervening, and at once telegraphed to Mr. Solly to come over and bring trephining instruments, as he supposed the case to be one of meningeal hæmorrhage. In the interval of about forty minutes before Mr. Solly's arrival, the patient began to show sign of returning consciousness, and it soon became evident that no immediate operation was advisable. The improvement continued, and after passing through a stage of "cerebral irritation," lasting a few days, the boy made a perfect recovery, and is now quite well, exhibiting no sign of cerebral lesion whatever. Mr. Solly commented on the fact that the supervention of coma after an interval of consciousness following a head injury was generally taken as evidence of meningeal hæmorrhage; and for such, trephining, with a view of securing the damaged vessel, was usually held to be the proper treatment. This case he considered was worth quoting, as showing that the symptom, at any rate in children, did not point to the absolute necessity of immediate surgical interference.

### Implantation Cyst of Iris.

Mr. Whitehead read notes of a case of implantation cyst of the iris in a man, aged 29, upon whom iridectomy for recurrent iritis had been performed in India five months previously. The cyst formed within a period of three months, and caused glaucomatous symptoms. Tapping the cyst and removal of a portion of the cyst wall failing to afford relief, the eye was enucleated. A microscopical examination showed that the cyst was lined with laminated epithelium, and originated in the implantation of a portion of corneal epithelium in the substance of the iris during the performance of the operation of iridectomy.

## LIVERPOOL MEDICAL INSTITUTION.

Richard Caton, M.D., F.R.C.P., President, in the Chair.

*Thursday, February 25th, 1897.*

### Successful Brain Localisation and Operation for Idiopathic Insanity.

Dr. Street and Mr. Damer Harrisson related the case of a man who for two years had hallucinations of hearing, without any previous head injury. He became depressed, was unable to sleep, and took to drink. The voices were those of friends far away, and they goaded him to destroy himself in order to avoid disgrace. He had constant headache on the left side. He took six grains of opium daily without procuring sleep. He had attempted to cut his throat. Mr. Damer Harrisson trephined, making a large opening over the centre for hearing, and opened a serous cyst. The result was entire recovery, and the man was now at work.

### Membranous Cast of Trachea and Bronchi.

Dr. P. Davidson showed a membranous cast of the bronchial tubes, with numerous branches, coughed up by a child supposed to be suffering from diphtheria. Part of this examined microscopically was found to contain almost a pure cultivation of micrococci. No Loeffler's bacillus was discovered. Dr. Davidson, however, considered the case undoubted diphtheria. There was membrane on the tonsils and in the respiratory tract. Tracheotomy had been performed for dyspnœa. Diphtheria antitoxin had been injected. The patient was shown still wearing a tracheotomy tube. Dr. Davidson remarked that in several of the most marked cases of diphtheria he had seen no Loeffler's bacillus had been found in the membrane examined.

Mr. Bark drew attention to the value of curetting the trachea and bronchi through the tracheotomy wound in cases of diphtheria, where dyspnœa recurred after the operation.

### Treatment of Dacryocystitis.

Mr. Hugh E. Jones read a paper based on fifty consecutive

cases of mucocele, blennorrhœa, and abscess of the lachrymal sac; thirty-seven cases had neither cicatricial stricture of the nasal duct nor obvious disease of the nose. The remaining thirteen were divided amongst various forms of organic stricture and of coarse nasal disease. The cause of the obstruction in the large majority of cases was engorgement of the erectile tissue around the duct and catarrhal swelling of the lining membrane. Later the obstruction was due in a large measure to overdistension of the sac. The objects to be kept in view during treatment were: (1) to avoid interference with and to preserve as far as possible the physiological integrity of the organ; (2) to render the whole tract aseptic and to restore the mucosa to a condition of health: (3) to reduce reflex irritation of the lachrymal gland to a minimum. The prolonged use of probes (especially large ones) and styles (apart from direct injury) induced sclerosis of the tissues, made the canaliculus of no physiological use, and sometimes caused periosteal stricture of the duct. These means of treatment should be regarded as last resources. Partial slitting of the canaliculus followed by antiseptic irrigation, as suggested ten years ago by Edgar Browne, was by far the most scientific and most rapidly successful treatment. This fact encouraged the author to dispense with slitting the canaliculus in suitable cases, and he made instead an opening in the dome of the lachrymal sac above the tendo oculi. In incipient cases of obstruction injections of a solution of cocaine and pinol in paroleine (made with Anel's syringe through the undivided canaliculus) seemed the most rational, paroleine being very diffusible and cocaine reducing vascular engorgement.

Mr. Bickerton would adopt the irrigation treatment in all cases where nasal duct obstruction symptoms had existed a comparatively short time, but he dissented from the statements that undoubted cicatricial, periosteal, and bony stricture was rare, and that treatment by large probes, Stilling's knife, and styles should be classed with such extreme methods as excision of the lachrymal gland, and obliteration of the lachrymal sac. He further denied that the prolonged use of probes and styles in treatment induced sclerosis of the tissues, and sometimes caused stricture of the nasal duct. When nasal obstruction had lasted even a short time, the physiological integrity of the organ was lost and a pathological condition had taken its place, while the rendering of any tract connected with the nose aseptic was a surgical impossibility.

The rest of the discussion was adjourned.

### Practical Experience in the Treatment of Lateral Curvature.

Mr. Banks read a paper on this subject. He dealt with the early symptoms of lateral curvature of the spine, such as rotation of the vertebræ, projection of the transverse processes, and prominences of the scapula and ileum; with the theories of the production of these, with the general points to be held in view during cure, and, finally, with the details of treatment such as couches, seats, exercises, mechanical appliances to the body, correction of bad habits of posture, etc. The paper was illustrated by diagrams and specimens.

Mr. Robert Jones said that amongst early symptoms care should be taken to discriminate between the lateral deviation due to unilateral absorption in spinal caries and starting scoliosis. He strongly deprecated the use of shoulder straps and poroplastic jackets, which were only justified in extreme deformity where gravity and superincumbent weight were too much for muscular effort, and in cases of paralysis of spinal muscles. Exercises should be carefully taught by the surgeon and vigorously carried out by the patient. Massage in the form of muscle beating was of the greatest service applied to the structures on the convex aspect of the spine.

Mr. Rushton Parker was inclined to consider inability to carry weights and faulty attitudes rather as effects of the disease. He had regarded lateral curvature for many years as the expression of a general malnutrition of the body, and had often found the patients poorly fed by reason of poor appetite. He did not believe that the deformity was due in any measure to muscular weakness, but rather to ligamentous weakness from general malnutrition. In treatment he attached much importance to a rope with a cross-bar suspended from the ceiling at such a height above the head as to enable the patient when holding it to take off all the weight of the head and shoulders from the weakened spine. This was to be used as often as convenient. He recommended a diet such as the patient could eat and enjoy, whether containing meat or not; it must, however, be sufficient to keep the patient well.

Dr. A. Macleod Ross advocated symmetrical training of the upper limbs in order to avoid lateral curvature. Swimming was one of the best exercises in early cases of this disease.

## CLINICAL SOCIETY OF MANCHESTER.

A. T. Wilkinson, M.D., M.R.C.P., President, in the Chair.

*Tuesday, February 16th, 1896.*

### The Treatment of Epilepsy.

Dr. Ernest S. Reynolds reviewed some of the methods put forward during the last ten years for the treatment of idiopathic epilepsy. Surgical operations had been shown to be worthless, and of all the drugs other than bromides which had been recommended probably borax alone had any value. Flechsig's method of treatment by opium and bromides should be used only in very intractable cases. Of the new bromides proposed the strontium salt seemed to be the most useful. He concluded by advocating the establishment of more epileptic colonies, especially for the overcrowded northern counties.

### Multiple Sarcoma of Head.

Dr. Railton gave the history of and made some observations upon a case of multiple sarcoma of the head. The child, 3½ years old, had several tumours on the head, and one occupying the left orbit, pushing the eyeball forwards, and eventually pressing down the hard palate. The remarkable feature of the case was the composition of the blood, which had all the characteristics of leukæmia. There were hæmorrhages into the skin and from the nose, and Dr. Railton discussed the question of these being due to the alteration in the blood, to embolism from the growths, or to thrombosis from agglomeration of leucocytes. Unfortunately the patient was removed from the Clinical Hospital, and no *post-mortem* examination had been possible, consequently the case could not be considered complete, but so far as could be ascertained clinically there were no enlargements of any of the viscera nor of the lymphatic glands.

### Cases.

Dr. Tytler showed two surgical cases.

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Hunterian Society.—At a meeting on February 24th, Dr. G. E. Herman, the President, in the chair, Mr. Victor Horsley delivered the second Hunterian Society Lecture, and chose for his subject Torticollis and its Treatment. He first enumerated the different forms of torticollis, and gave a description of each, and then gave an account of their causation and of the experimental evidence as to their production. The treatment by drugs, electricity, and surgical methods suitable to each form was dwelt upon. The lecture was illustrated by several photographs thrown on the screen by limelight.—At the conclusion of the lecture a hearty vote of thanks proposed by the President, was carried unanimously.

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Society of Medical Officers of Health.—At a meeting on February 19th, Dr. G. P. Bate, President, in the chair, the resumed discussion on Dr. Bond's paper read at the previous meeting, and reported in the British Medical Journal or February 13th, was opened by Dr. Armstrong, who insisted on the amount of insufficient vaccination, which should be seriously urged on the Legislature by the Society. Dr. Newsholme held that the postponement of the operation to six months, as in Scotland, would prevent the ascription of the eruptions incident to early infancy to vaccination. Dr. Mitchell Wilson felt that the demand for "better control of common lodging houses" implied a censure of the sanitary authorities, unless it was meant to give them the power to vaccinate which they did not at present possess; but he did not see why it should not be exercised by the guardians in the case of tramps in the workhouses who were in a different position from the lodger who paid for his

accommodation. Dr. Armstrong here observed that the tramp at large was more dangerous to the community than the tramp in the casual ward or the lodging house. Dr. Bond complained that the Local Government Board actually discouraged the use of calf lymph by public vaccinators. Dr. Renner, too, urged the wider supply of calf lymph, not on points, but prepared with dilute glycerine, as had long ago been done in Italy, and which Dr. Copeman had shown to improve instead of deteriorate by keeping. The result of vaccination should be inspected before the eighth day, while it was still possible by additional insertion to complete an imperfect success. Dr. Cope, as a public vaccinator, maintained that the system of stations could not be superseded by home vaccination, in which the vaccinator would be subjected to trouble and annoyance, and might appear to a private practitioner as an opponent and a tout. Vaccination at school would be evaded, and probably involve him in actions for assault, if it did not also bring him into collision with School Board and other officials. At stations, which were necessary for instruction in vaccination, the effect of publicity was that the parents were civil and the infants cleaner than they might be at home. Dr. Willoughby pleaded for some indication in the certificate of the degree of success, but maintained that this should be, not the area but the number of successful insertions, which only could be verified after the lapse of months or years. He urged the necessity for revaccination about the end of school life, pointing out that it was to this alone that Frankfort for the last 70 years, and Germany for the last 25 years, owed their immunity from the disease. Small-pox was, except on the Russian and French frontiers, almost extinct in Germany, the deaths in that country being as 1 to 100 in Switzerland, 110 or 120 in England, 260 in France, and 640 in Holland. He approved of the use of calf lymph as a concession to vulgar prejudice, but urged on the Government the duty of creating and supplying new strains of lymph derived from the variolation of the cow, as had been done by Voigt, of Hamburg, in 1881, and subsequently by Haccius, Fischer, King, Simpson, and others, and the superiority of which to the old and relatively effete stocks, whether of human or so-called calf lymph, was shown by the fact that while fully 97 per cent. of vaccinations at the legal age in Germany generally were successful, in Hamburg, where for 15 years the new lymph had been almost exclusively employed, the great majority of the children born in that city were, when the time came, found to be still insusceptible. Dr. Bond briefly replied, expressing his belief that the alleged difficulties incident to vaccination in the home, which was the rule in Scotland, or in school, had been exaggerated, and might be overcome by tact.

North of England Obstetrical and Gynæcological Society.—At a meeting held on February 19th, Dr. Archibald Donald, Vice-President, in the chair, Dr. E. Stanmore Bishop showed: (1) Fibroid Uterus, with Cervical Carcinoma, removed by vaginal hysterectomy; (2) Fibroid Uterus, with Double Cyst, removed by vagino-abdominal section; ligature of the lower half of the broad ligaments, as the first step, and completed by suturing of the vaginal opening, closing the abdominal cavity; (3) Dermoid Cyst, removed by abdominal section, from a girl, aged 14; (4) Ovarian Abscess, with Fibroid Uterus.—Dr. Lloyd Roberts showed: (1) A portion of a Lead Pencil removed from the Female Bladder. The pencil shown was a "stub" of an ordinary long lead pencil, measuring 2½ inches in length, and deeply encrusted with a phosphatic deposit. At the part least mutilated by the forceps in removal the diameter of the pencil and crust was rather more than half an inch: (2) Left Ovary and portion of Fallopian Tube removed by posterior vaginal cœliotomy. The ovary was the size of a tangerine orange and cystic, and was firmly adherent to surrounding structures.—Dr. T. B. Grimsdale showed the Fallopian Tubes removed by abdominal section for tuberculous salpingitis; the tubes were studded with miliary tubercle in their peritoneal covering, and distended with fluid; they measured 6 inches in length, and were about the thickness of the index finger; the fimbriated end of the tube was enlarged.—Dr. Arthur Wallace read a case of Retention of Menstrual Blood in the right imperforate half of a septate vagina, and uterus bicornis et bicollis. The patient was 22 years of age, menstruation commenced at 16 and was regular. There was a swelling in the abdomen occupying the right iliac, lumbar, and umbilical regions, and measuring 4 inches in diameter. *Per vaginam* a swelling was felt, which appeared to lie outside the vaginal wall on its right side, and to be continuous by a constricted portion, forming a dumb-bell-shaped tumour, with the abdominal swelling. The vaginal tumour was aspirated, 18 ounces of treackly blood being evacuated.—Dr. Glynn Whittle read a paper describing ten cases of Puerperal Septicæmia treated by tinct. digitalis, the primary aim being direct control of the pulse. An accompanying benefit, but one following as a secondary result, was relaxation of tonic contractile spasm of the sphincter at the os uteri internum, leading to flow of the lochia and consequent diminution of temperature. Rapid improvement was usually effected, and complete recovery in about five or six days. The dose given was 10 minims every three hours, the dose being doubled or trebled if necessary, according to the indications of the pulse. In seven of the cases the uterine douche was not used. The maximum amount of tinct. digitalis swallowed by any one patient was 12 fluid drachms, 30 minims in five days. Criticism was especially directed to the fool's paradise of the uterine douche in unskilful hands, a calamitous record of treatment which had led to the loss of countless lives. Drs. Donald, Lloyd Roberts, Stookes, Davies, and Gemmell took part in the discussion which followed, and Dr. Glynn Whittle replied.

South-West London Medical Society.—At a clinical meeting on February 10th, Dr. Benjamin Duke in the chair, Mr. John Gay showed a Skiagraph of a case of Fracture about the Elbow in a child.—Mr. J. B. Howell showed a Fœtus with Spina Bifida.—Mr. A. E. Dobson read short notes on the following: (1) a case of Puerperal Fever; (2) a case of Unusually Slow Pulse; (3) a case of Removal of Foreign Body from the Ear.—Mr. T. A. I. Howell read notes of a case of Vaccination with Rare Complication.

# REVIEWS.

A Collection[1] of the Published Writings of William Withey Gull, Bart., M.D., F.R.S. Edited by T. D. Acland, M.D. Memoir and Addresses. London: New Sydenham Society. 1896. (Demy 8vo, pp. 256, with portrait.)

The editor of this collection, Dr. Acland, says in the preface that his aim has been to show what manner of man Sir William Gull was rather than to bring together papers illustrating his scientific acquirements. He has therefore given first an account of Gull's life, then a collection of aphorisms and reflections found among his papers, and lastly a series of addresses on general subjects delivered at Guy's Hospital and at medical societies and congresses.

The difference between a platitude and a prophecy lies in the speaker, and we suspect that those who knew and heard Gull during life will appreciate these papers more than those who seek to know what he was by reading them. The style of his writing is involved, but the strong and healthy nature of the man is well shown. Faith, says a great writer, is the moral pepsin. Nothing more proves a man's competence than a hopeful view of life. This was a characteristic of Gull, and one which no doubt enabled him to do much good to others. Patience and industry are virtues that he is never weary of inculcating, and while fully admitting the limitations of our knowledge he constantly recalls how far we have already advanced. Like all who think and work much themselves he was liberal in welcoming the work of other men. His addresses on collective investigation are a curious mixture of this hopefulness and a shrewd judgment that perhaps the time had not yet come for this inquiry.

But the most interesting thing about the man is that he is constantly surrounded by the invisible, and this the more as he the older grows. It is not common that men so gifted in understanding have yet, still more robust, the quality of faith. This lifts any man above the mass, and in bringing

[1] The annual subscription to the New Sydenham Society is £1 1s. Agent: Mr. H. K. Lewis, 136, Gower Street, W.C.

this so clearly before us Dr. Acland has given a wise and worthy presentment of a great character.

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The Sequels of Disease. Being the Lumleian Lectures delivered to the Royal College of Physicians, 1896. Together with Observations on Prognosis. By Sir Dyce Duckworth, M.D., LL.D. London: Longmans, Green, and Co. 1896. (Royal 8vo, pp. 240. 10s. 6d.)

We are very glad to welcome these scholarly lectures delivered to the Royal College of Physicians by one of its most distinguished Fellows; and not by a scholar only, but by one who has long enjoyed the large and varied opportunities of the post of Physician to St. Bartholomew's Hospital. We expressed our opinion of these lectures and of the address on Prognosis in warm terms of appreciation at the several times of their appearance; not much therefore remains to be said on the occasion of their issue in the present permanent and elegant form. The dedication in memory of the late President is a pathetic incident in the republication of these lectures, which owed their origin to his appointment.

In both parts of this volume the author has been, we will not say fortunate enough, but sagacious enough, to seize upon a good subject; if it be, as he modestly says, that so careful a tracking of the sequels of disease were a somewhat tedious process in oral delivery, at any rate his cautious inquiry is not tedious in the perusal. Sir Dyce Duckworth, in a generation of admirable analytical clinical work, does not hesitate to recall us for a moment to the no less excellent labours of the more ancient physicians, labours based upon a less analytic but perhaps on a more comprehensive survey of disease. Of the principles of such conception of the order of medicine we ventured to make some criticisms at the date of the appearance of the address on prognosis; criticisms to which the author kindly refers with a sufficient rejoinder. If our side of the shield were silver, his is no doubt of gold. To trace out the phenomena of disease in series, as distinguished from mere incidents, is to modern methods as natural history is to biology, and requires like faculties. By a broad conception of the larger orbits of morbid processes we shall gain truer conceptions of the nature of series and of the dependence of one place upon another. If by empirical observation we can establish some such geographical outline of the routes of disease, we shall be led on to perceive the obscurer affinities—the likenesses and unlikenesses—which bind or contrast the several inner facts of which these series consist. To this end Sir Dyce Duckworth has made a considerable contribution, a contribution which deserves our grateful acknowledgment.

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The Medical Annual and Practitioners' Index. 1897. Fifteenth year. Bristol: John Wright and Co. (Cr. 8vo, pp. 712. 7s. 6d. net.)

An annual in its fifteenth year of publication may claim to be above criticism as justly as the Emperor Barbarossa claimed to be above grammar. The staff of contributors to the present issue of the *Medical Annual* is cosmopolitan, including, besides Dr. De Havilland Hall, Dr. Saundby, Dr. Murrell, Mr. Mayo Robson, Mr. James Cantlie, and other British authorities, Professor Unna, of Hamburg; Professor E. Sonnenburg, of the Moabit Hospital, Berlin; Dr. G. Armauer Hansen, of Bergen; Professor Theophilus Parvin, of Philadelphia; and well-known foreign and colonial practitioners. The alphabetical arrangement of the articles is convenient for rapid reference to a particular point, but is troublesome to a reader who wishes to get a connected account of the progress made in any department of practice as a whole. The most serious objection is, however, the size of the book. This might easily be remedied without in any way diminishing its value by repressing the tendency manifest here and there to an overgrowth of superfluous information; for instance, as to patent foods, proprietary drugs, hydropathic establishments, etc. Still the book may be valued by some precisely for this quality, as the Scotchman is said to like sheep's head "for the fine lot of confused feeding" which it affords.

Altogether the *Medical Annual* is a work of great utility to the practitioner. A word of praise must be accorded to the publishers for the attractive form in which the work is produced, and in particular for the number and excellence of the illustrations.

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Microscopic Researches on the Formative Property of Glycogen. Part I, Physiological. By Charles Creighton, M.D. London: Adam and Charles Black. 1896. (Roy. 8vo, pp. 132; 5 coloured plates. 7s. 6d.)

This book does not deal with the vexed questions of the origin and fate of glycogen in the animal body, but is a record of a number of microscopic observations on glycogen in the embryonic tissues; this is followed by deductions regarding the meaning of its presence. The work is to lead up to a second part, stated to be in preparation, in which a similar *rôle* is evidently to be assigned to the glycogen found in pathological new growths.

The expenses involved in the research have been defrayed by the trustees of the Leigh Browne Endowment, founded in 1884 for the promotion of original research in biology, without recourse to experiments on living animals.

We do not propose to consider the propriety of a pathologist accepting a grant under such terms, but to deal with the work itself which Dr. Creighton has produced with such a difficult limitation set upon him.

As far as the facts recorded go, they do little more than confirm, and here and there amplify, Claude Bernard's original discoveries. The appearances of glycogen in the cells of different tissues during development are illustrated by a number of well-executed plates. In all cases the brown colour given by iodine is taken as a sufficient proof that the material in the cells which takes the dye is glycogen. In answer to the query, Have you tested for glycogen chemically? the author answers that if one considers the matter well there may be just as much certainty upon a microscopic slide as at the bottom of a test tube.

This is not quite the answer one has a right to expect from a scientific pathologist. It may be sufficient in cases in which a microchemical reaction is absolutely distinctive; but we can think of at least four other chemical substances which give with iodine a very similar colour to that which glycogen gives. Certainly of these, glycogen is the one which is most probably to be found in animal cells, but in a physiological inquiry it is not always the probable that happens. Happily, however, Claude Bernard was more thorough in his work, but then he had no Leigh Browne trustees to reckon with.

When we pass from mere description of microscopic preparations to deductions as to function, the result, as would be anticipated, is the reverse of instructive, except that we are again taught that mere jumping at conclusions from structure as to function is of little value when the conclusions are not tested by experiment. The main function of glycogen is regarded as a "formative" one. We have searched the book in vain for any definition of the meaning of this word. There is evidently some idea that glycogen plays the part of hæmoglobin, and takes the place of hæmoglobin before vascularisation occurs. Thus on page 26 we read: "The dynamic principle in the epithelium is glycogen, as it is hæmoglobin in the vessels. Glycogen is but the precursor of hæmoglobin as a formative agent." The use of the term "dynamic" does not help us much in understanding what formative means. Hæmoglobin is a complex substance which conveys oxygen to the tissues: there is not a tittle of proof that glycogen, a comparatively simple chemical compound, does anything of this sort. If we turn to the subject of the muscular tissues to which a large amount of attention is given, we find another enigmatic sentence at the very beginning: "The striped muscular fibre is the only great tissue of the body which contains glycogen both in the particulate or microscopically visible form of embryonic or developmental life, and in its mature or dissolved or chemically extractable form of functional activity." Our wonder as to what a chemically extractable form of functional activity can be is increased when we read later on about "chemical glycogen." Such sentences and phrases throughout the book are most bewildering. The author does not go so far as to say that the glycogen granules lay down the lines for the stripes

of the future muscle fibre, for he confesses that the resemblance, to which he devotes many pages of description, is after all only superficial. A stronger adjective might be used in regard to the statement that glycogen is the deputy or precursor of hæmoglobin in carrying *somewhat* to the tissues for their building up and differentiation. The italics are ours. What the something is that glycogen carries remains a mystery.

Such is a sample of the conclusions at which Dr. Creighton has arrived—ambiguous, shadowy, and as mysterious as the word "formative" itself. We see little gain in the publication of such a work as this: its method is not the method of science rightly so called.

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Femmes en Couches et Nouveau-Nés: Recherches Cliniques et Expérimentales [Women in Childbed and Newborn Children: Clinical and Experimental Researches]. Par Pierre B. Budin, Accoucheur en Chef à la Maternité. Paris: Octave Doin. 1897. (Post 8vo, pp. 616, 146 woodcuts and 7 plates. F.14.)

This book is a collection of the valuable articles and essays on the puerperium which have appeared during the past ten years in different French journals. Many have been noticed in the Epitome or elsewhere in our pages. A few chapters are new. The only grave defect is that there is no index. For a publication of this kind the preparation of an index would have been relatively easy.

The subject matter is of course above criticism, and obstetricians will eagerly turn to this record of the practice and opinions of so eminent an authority as M. Budin. The earlier part includes notes on the simplest obstetric procedures, such as ligature of the cord or graver problems, and on pathological curiosities observed in labour. The later pages are instructive to the obstetrician on account of the public questions to which they relate. We read of the relation of the State to maternity institutions and to the regulation of midwives. The limitations of a midwife's duties, the coloration of poisonous antiseptic powders, etc., are brought under our consideration. M. Budin is a firm believer in sublimate, and his colleagues mostly agree with him. The Minister of the Interior was specially urged that, as a part of the French Pharmacy Act, qualified midwives be allowed to purchase poisonous antiseptics. The negotiations about the right colouring matter for sublimate solutions seem to have been rather protracted, but nothing in relation to poisons is a trifle. No doubt M. Budin is right in preferring indigo-carmine. A blue liquid is the least likely to be taken for any drink or for any other medicine except sulphate of copper, which is itself a poison. On the other hand, it does not stain other things, so that fragments coming away during injection are not discoloured so as to be unrecognisable.

Beyond papers on contracted pelvis and other conditions endangering the child, there is much of interest on artificial feeding, on feeding bottles, and on the rearing of children and the general management of lying-in hospitals. M. Budin's own statistics are of the highest importance, but of course they cannot be condensed so as to instruct our readers in this review. They deserve careful study.

## NOTES ON BOOKS.

*Précis d'Electrothérapie.* By Dr. H. Bordier. Paris: J. B. Baillière et Fils. 1897. (Cr. 8vo, pp. 610, 146 figures. Fr. 8.)—This is a very useful book, inasmuch as it embodies, in a form convenient for reference, the recent work done in electrotherapeutics in France. One of the most active centres of medical electricity in Europe at the present time is Dr. Bergonié's department at Bordeaux, and in compiling this book the author has availed himself largely of the articles and papers which have appeared in Dr. Bergonié's *Archives d'Electricité Médicale*, to which Dr. Bordier himself has been a frequent contributor. The methods of Tesla, introduced into medical practice by d'Arsonval, of treating diseases by high frequency and high potential discharges, are here fully described and figured. These methods and the somewhat similar electrostatic modes of treatment may perhaps be taken as representing the fashion of the day in medical electricity in France. In England, when the general action of electricity upon the system is desired, the electric bath with an alternating or interrupted current is preferred. The reasons for this may depend upon the different habits of the two countries. The French methods are less troublesome, but to us they seem less thorough. Dr. Bordier has little or nothing to say about the electric bath, and this, of course, is a deficiency. In the chapters on apparatus some ingenious measuring instruments are figured and described. The chapters dealing with treatment are not very good. The detail might with advantage have been amplified. It is a relief to find that a fresh series of illustrations of the principal motor points (those of Dr. Castex) are given in the book. They appear correct and are plain to see.

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*The Medical Side of the Drink Question.* By Sir B. W. Richardson, M.D., F.R.S. Penny Temperance Classics. (London: Ideal Publishing Union. 1897. Crown 8vo, pp. 78. 1d.)—This collection of extracts from the writings of the late Sir Benjamin Richardson on certain more or less medical aspects of the alcohol controversy, with a new portrait, is a marvellous pennyworth. Its wide circulation would materially aid in dispersing the fog still rising from the venerable alcoholic superstition. With the exception of a few trivial errors, the editing merits a word of praise.

## REPORTS AND ANALYSES
AND
## DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

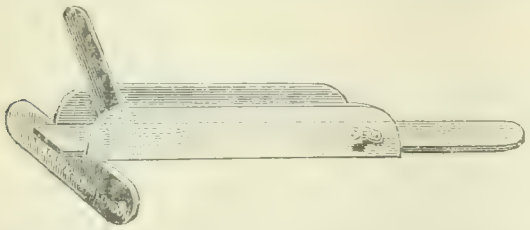
### A MODIFICATION OF THE TONSILLOTOME.



The illustration represents a tonsillotome devised by Dr. Frederick Spicer. The instrument does away with the necessity of an assistant to push up the tonsils. It works by a spring. Before use the blade is drawn back until retained by the catch, and the small pin inserted into the hole in the shaft. The instrument is introduced into the mouth horizontally until nearly in position, and then turned sideways over the tonsil while the operator pushes it up with the thumb of the other hand. During the last movement the pin falls out, and on pulling the trigger the tonsil is removed instantaneously with great precision. A guard is added to prevent the tonsil falling down the patient's throat. Messrs. Mayer and Metzler are the makers.

## A NEW PATELLA SPLINT.

MR. FREDERICK DALTON of Rottingdean has devised a splint for the treatment of fracture of the patella. It consists, as will be seen from the accompanying illustration, of a wooden trough with foot board, in which the limb is fixed. Along the upper border of the patella a padded cord is placed with lengths extending down both sides of the leg to a pin or screw, fixed in the sides of the troughs at about 5 or 6 inches



distant from the centre of the fracture; upon tightening this cord apposition of the upper with the lower portion of patella is obtained. It is claimed that by this method no constriction of adjacent tissue occurs to endanger early ossification and union; that by making the two pins (to which the cord is fastened) as rotating screws, tension is easily adjusted for exact apposition of the displacement, and that since the usual flexed position is unnecessary, another hindrance to the freedom of circulation is avoided.

## A RETINOSCOPY MIRROR.

DR. JOHN R. ROLSTON (Surgeon Royal Eye Infirmary, Plymouth) writes: Having come across a mirror of about 5 inches focus, I tried it for retinoscopy, and was at once struck with its usefulness for this purpose. For some considerable time I have used a mirror of the ordinary dimensions, with a central perforation of 4 mm., but having a focus of 14 cm. (5½ inches).

I have carefully tested this mirror with others, including those mentioned by Messrs. Stanford Morton and Barrett,[1] and in my opinion (and this has been substantiated by other competent observers) it has, and in a very high degree, the following advantages:

1. Retinoscopy can be practised at 85 to 90 cm., a much more convenient distance than at 1 metre or over, as is recommended for other mirrors.

2. The definition and movements of the shadow are much more pronounced, and especially in low degrees of ametropia, from which follows that

3. Retinoscopy is practised with much less fatigue to surgeons, and much less discomfort to patient, and it is more easily demonstrated to students.

I have found it necessary to make the usual deductions for concave mirrors, and use a moderate amount of light.

Messrs. Curry and Paxton, opticians, of 195, Great Portland Street, N.W., have made this mirror for me.

[1] A Clinical Investigation of the various Methods of Practising Retinoscopy, BRITISH MEDICAL JOURNAL, January 16th, 1886.

GERMAN SURGICAL CONGRESS.—The twenty-sixth Congress of the German Surgical Society will be held in Berlin on April 21st and three following days, under the presidency of Professor Bruns. The questions proposed for discussion are: 1. The Surgical Treatment of Gastric Ulcer (to be introduced by Professors Leube of Würzburg and Mikulicz of Breslau). 2. The Use of the Roentgen Rays in Surgery (Dr. Kümmel of Hamburg). 3. The Operative Treatment of Hypertrophy of the Prostate (Professor Helferich of Greifswald). A further report on the results of the collective investigation now being prepared on anæsthetics throughout Germany will be presented by Professor Gurlt.

WE have received the twenty-third volume of the *Minutes of the General Medical Council*, containing those for the year 1896, together with twenty-two appendices, consisting mainly of reports of the various Subcommittees of the Council. The volume contains also the minutes of the Executive Committee of the English, Scottish, and Irish Branch Councils. The price of the volume is 12s.; it is published by Messrs. Spottiswoode and Co.

# SPECIAL REPORT
ON
# MEDICAL EDUCATION AND THE PRELIMINARY EXAMINATIONS IN GENERAL KNOWLEDGE.

*(By Our Special Commissioner.)*

## II.—THE RELATIVE NUMBER OF STUDENTS IN THE THREE KINGDOMS.

IN a previous article we gave some particulars as to the preliminary examinations in the three kingdoms, and the number and proportion of candidates who passed these examinations during the five years 1891-95. In the present article we shall point out some of the variations and fluctuations in the number and proportion of students passing preliminary examinations and registering as medical students in England, Scotland, and Ireland.

On the whole, there is a general correspondence between the two sets of statistics, that is to say, a large entry occurs in all three countries simultaneously, and it would appear that, as a rule, the student registers in the same country as that in which he passes the preliminary examination. Further, it seems reasonable to assume that, as a rule, he commences, if he does not always complete, his medical studies at a medical school in the country in which he registers as a medical student. The following table contains the figures for the five years with which we are dealing:

TABLE E.—*Showing the Number of Students who passed a Preliminary Examination and the Number who registered as Students in England, Scotland, Ireland, and India and the Colonies respectively.*

| | England. | | Scotland. | | Ireland. | | India and Colonies. | | Special Recognition. |
|---|---|---|---|---|---|---|---|---|---|
| | Passed. | Registered. | Passed. | Registered. | Passed. | Registered. | Passed. | Registered. | |
| 1891 | 1,287 | 1,321 | 614 | 638 | 385 | 376 | 101 | 70 | 18 |
| 1892 | 919 | 905 | 441 | 464 | 193 | 183 | 110 | 89 | 8 |
| 1893 | 1,025 | 995 | 414 | 485 | 196 | 189 | 102 | 78 | 10 |
| 1894 | 973 | 978 | 376 | 423 | 212 | 204 | 104 | 66 | 6 |
| 1895 | 915 | 934 | 472 | 501 | 332 | 314 | 112 | 89 | 7 |
| | 5,119 | 5,133 | 2,317 | 2,541 | 1,318 | 1,266 | 529 | 392 | 49 |

The following table (Table F) shows the percentages of the total number of students who passed preliminary examinations, and of the total number who registered as students in the several countries. These points are further illustrated in the charts (Figs. 2, 3, 4).

TABLE F.—*Showing the Percentage of Students in each year, and for the five years 1891-95, which passed a Preliminary Examination, and the Percentages which registered in England, Scotland, Ireland, and India and the Colonies respectively.*

| | England. | | Scotland. | | Ireland. | | India and Colonies. | | Special Recognition. |
|---|---|---|---|---|---|---|---|---|---|
| | Passed. | Registered. | Passed. | Registered. | Passed. | Registered. | Passed. | Registered. | |
| 1891 | 53.51 | 54.92 | 25.53 | 26.53 | 16.00 | 15.63 | 4.19 | 2.90 | 0.74 |
| 1892 | 54.99 | 54.15 | 26.39 | 29.56 | 11.54 | 10.95 | 6.58 | 5.32 | 0.47 |
| 1893 | 58.67 | 56.98 | 23.69 | 27.76 | 11.21 | 10.81 | 5.83 | 4.40 | 0.57 |
| 1894 | 52.22 | 58.52 | 22.50 | 25.31 | 12.68 | 12.20 | 6.22 | 3.34 | 0.35 |
| 1895 | 49.78 | 50.82 | 25.68 | 27.25 | 18.06 | 17.08 | 6.09 | 4.84 | 0.38 |
| | 54.85 | 55.00 | 24.82 | 27.22 | 14.12 | 13.56 | 5.66 | 4.20 | 0.52 |

It will be seen that roughly England and Wales have rather more than half of the total number of passes, and of registrations (Fig. 2), but that there was a distinct fall in England's percentage at the end of the period of five years, while the actual decline in numbers was considerable.




Fig. 2.—Percentage of the total number who passed preliminary examinations and who registered in England and Wales in the several years. The dotted lines show the average.

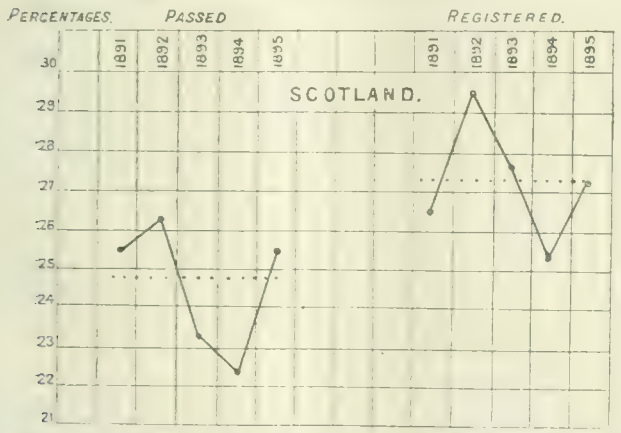



Fig. 3.—Percentage of the total number who passed preliminary examinations and who registered in Scotland in the several years. The dotted lines show the average.

In round numbers about one quarter of all intending medical students pass their preliminary examination in Scotland Fig. 3), but the proportion who register as medical students in Scotland was in every year greater than the proportion who passed preliminary examinations in that country. This excess of the number of registrations in Scotland is numerically very considerable, and appears to afford fresh proof that the conditions of medical education in that country offer special attractions. The total excess in the five years was 24.

In Ireland, on the other hand, the reverse holds good, the proportion of the total number registering in Ireland being in each year a little lower than the proportion passing preliminary examinations in that country (Fig. 4). The total deficiency in the five years was 152.

In England and Wales the proportions are not so consistent. In three of the years more students registered in England than passed preliminary examinations there, while in two the converse existed, but in the whole period of five years, the number registered in England and Wales was slightly in excess of the number who passed preliminary examinations there.

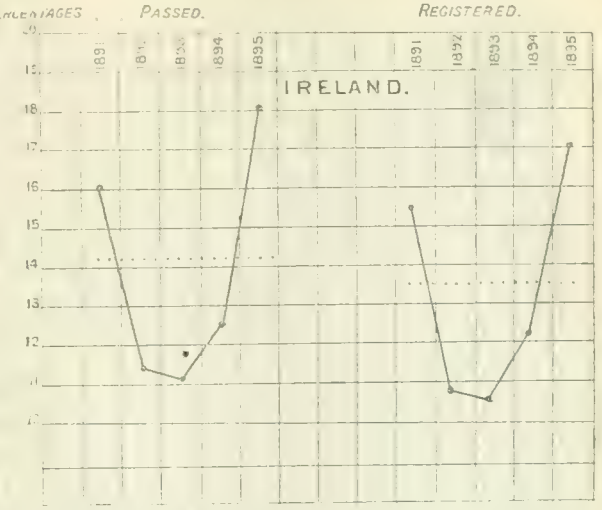



Fig. 4.—Percentage of the total number who passed preliminary examinations and who registered in Ireland in the several years. The dotted lines show the average.

It will perhaps be interesting to examine these figures a little more closely. In 1891 the excess of registrations over passes was—in England 34, in Scotland 24, a total of 58. On the other side of the balance sheet we find the surplus made up by a deficit of 9 in Ireland, by 31 students from India and the Colonies, and by 18 who were registered on the strength of examinations specially recognised by the Students' Registration Committee of the General Medical Council. In 1892 there was an excess of 53 registrations in Scotland, corresponding with a deficit of 14 in England, 10 in Ireland, 21 students from India and the Colonies, and 8 whose examinations were specially recognised. Again, in 1893 we find an excess of 71 in Scotland, corresponding to a deficit of 30 in England, of 7 in Ireland, together with 24 Indian or Colonial students, and 10 whose examinations were specially recognised. In 1894 there was an excess of 47 registrations in Scotland, and of 5 in England, corresponding to a deficit of 8 in Ireland, together with 38 students from India and the Colonies, and 6 whose examinations were specially recognised. In 1895 there was an excess of registrations of 19 in England and 29 in Scotland, a total of 48, corresponding to a deficit in Ireland of 18, together with 23 Indian and Colonial students, and 7 whose examinations were specially recognised.

It is, of course, not for a moment to be assumed that these deficits and excesses give any accurate information as to the destination of the individual students who made up the deficiencies or excesses in the several countries. They can have only a very general value, and are no doubt liable to various interpretations. On the whole, however, it would appear that these figures afford further justification for the opinion that for some reason or other Scotland does offer certain attractions to commencing medical students which are stronger than those offered either by the English or the Irish schools. So far as the comparison with England is concerned, there can be little hesitation in coming to the opinion that one of the inducements which tend to draw students to Scotland is the better organisation of the university system, and the greater facilities for obtaining a university degree.

As to the fluctuations in the percentages in the several countries, it must be confessed that they are not very easily explained. They are shown in the tables and in the charts, but we do not feel justified in drawing any conclusions from them. The fluctuations in Scotland were of less extent than in England or in Ireland, when judged by the percentages, but the differences in the actual numbers were very considerable—a point of no little importance at the present day, when practical instruction in laboratories plays so large a part in medical education, and makes such serious calls upon the finances of medical schools and colleges.

## THE PRINCE OF WALES AND THE HOSPITALS.

UNDER the above heading we noticed in the BRITISH MEDICAL JOURNAL of February 20th an article in *Church Bells* which put forward some objections to the success of the Prince's scheme which the editor apprehended from ill opinions popularly entertained of the system of our hospitals. The editor has replied to that notice in a very courteous and kindly letter, dated February 26th. We so clearly recognise this gentleman's good feeling towards our profession and towards our existing hospitals that we regret that his letter is longer than our space permits of our inserting entire, but we will try to lay its main points before our readers; and we do so the more readily because the objector is so evidently fair-minded. The first objection of *Church Bells* was that "there is a widespread impression that, in the case of certain hospitals, the expenditure on general administration is unnecessarily extravagant." We said: "If certain hospitals only are implicated their names should be given." The reply now is: "To do so would be to form an indictment against otherwise excellent institutions, and this we have not any desire to do at a time when such an accusation would materially damage the cause of hospitals in general, which is one we ourselves have sincerely at heart." We see no object in any such scruple, nor do we apprehend any such danger to the institutions accused. If they are extravagant both they and the public should know it. They would reform and save their money, and the public would get better returns for their subscription. We do not, however, believe that there is any foundation for the charge; and we submit to our esteemed contemporary that he is doing more harm in basing a general charge (or hinting at a general fault) upon the alleged misdoings of unnamed institutions than he could possibly do from saying plainly what and who he means.

The treatment of out-patients is the next point. And the treatment of out-patients, we admit (as *Church Bells* says and is entitled to say), requires reforms. But the editor goes on to speak of "recent cases of neglect," "censures of juries at inquests," etc., which he says caused, in a case known to himself personally, the withdrawal of a legacy of several thousands of pounds which had been left for the benefit of London hospitals, and he goes on to say "we saw in the *Daily Mail* of February 24th that the Society for the Protection of Hospital Patients have themselves appealed to the Prince of Wales, praying for a guarantee of better and more human treatment of those on whose behalf they act." This shows the confusion of mind under which our contemporary labours. The reforms which we admit are required in the out-patient system are mainly directed to limit the indiscriminate admission of patients, and to check an unrestricted and unthinking benevolence. What has this to do with alleged neglect, want of humanity, etc., or with the existence of a Society (which we never heard of) for the Protection of Hospital Patients from Ill-treatment? "We formulate no charge," says our correspondent. That is exactly what we complain of. We wish that he and every other person concerned would formulate and press home every charge which rests on any reasonable foundation. If any patient (in or out) has been neglected or ill-treated, this has been done by some negligent or malicious individual, in defiance of the wishes of his employers and the rules under which he acts, and his condign punishment would be the best thing possible for all parties, and particularly for the hospitals. But such criminal acts, even if they are real (which we disbelieve) have no more to do with the hospital system than with the system of the Church.

"To our third point," says our correspondent, "namely, that there is 'an uneasy feeling that a far larger encouragement is accorded' by some hospitals 'to the increase of the practice of vivisection than is warranted,' you refer as 'utterly ridiculous.' Nevertheless that feeling exists. Again we bring no charge. We merely state a fact which we are prepared to prove. Is this uneasiness unwarranted?" Yes, we reply, utterly unwarranted. The editor of *Church Bells*, though he will not, in his mistaken kindness, bring any charge, argues (1) from the report of the Society for the Prevention of Cruelty to Animals that there is a considerable increase in vivisection; (2) that the promoters must be "the authorities of our great hospitals," for the convincing reason that they cannot be anyone else. We adhere to our previous statement, that there is no connection whatever between these licences to perform experiments on living animals and our hospitals. Some of the persons holding such licences may be hospital surgeons and physicians, though we believe a much smaller proportion than our correspondent supposes, for men in that position have rarely leisure for such researches; in any case all this work is done quite apart from hospitals. The "authorities" of the hospitals, as such, have no part in it, and know nothing about it. If any of their medical officers are engaged in this necessary work, all honour to them. But they do this quite apart from their hospital practice, and it has no more bearing on the hospital system than has any other part of their private studies in medicine or surgery. It is part of what our correspondent well styles "the magnificent work done every year by the medical men of England, both in and out of hospitals."

In conclusion, we have to thank *Church Bells* for its kindly feeling, and to assure its editor that our hospital system, though, in our opinion, not free from defects, has nothing to conceal, and has nothing to fear from the freest possible discussion of any shortcoming or abuse.

### PROGRESS OF THE FUND.

No announcement can yet be made as to the total amount received for the Prince of Wales's Hospital Fund for London, as the number of individual donations and promises of subscriptions has been so large that the work of classification is necessarily lengthy. Among the most recent subscriptions has been 100 guineas annually from the Prince of Wales, and a donation of £12,500 from Lord Iveagh. The *Daily Telegraph* Fund on March 4th amounted to 332,263 shillings.

## PROFESSOR KOCH AND THE RINDERPEST IN AFRICA.

### NEGATIVE RESULTS OF BACTERIAL INOCULATIONS.

IN his further report to the Secretary for Agriculture, Cape Town, dated January 31st, Dr. Koch continues his account of the progress of his investigation on rinderpest made at the experimental station at Kimberley. He begins by further clearing the ground, and gives the results of the inoculations mentioned in his last report made with the cultivations separated by Dr. Edington and considered by him to contain the microbes of this disease. Neither of the inoculated animals developed any symptoms of rinderpest, nor were they in any way protected, as on being inoculated with rinderpest blood in the usual manner three weeks after the first inoculation a rise of temperature occurred on the fourth day and the animals manifested the typical symptoms of rinderpest, and Koch considers that as these animals contracted the disease as a result of the second inoculation there can be no doubt that Edington's microbes are not the cause of the cattle plague.

### INOCULATION EXPERIMENTS ON SHEEP AND GOATS.

As the outcome of his experiments on sheep and goats Professor Koch finds that the virus when inoculated into Angora, Merino, and Cape sheep has its virulence considerably exalted, as cattle inoculated with the virus passed through several generations in these sheep become diseased after a very short period of incubation, and succumb in seven or eight days, the pathological lesions being exceedingly severe. In the case of the Cape goat, however, there seems to be some diminution in the activity of the virus, as here the course of the disease produced in cattle inoculated from a Cape goat and in one case from an Angora was milder and of a more prolonged form, and the pathological lesions were comparatively slight. None of these smaller animals—goats or sheep—succumbed to the disease; and in order that the lesions in them might be studied it was necessary to kill one of them. The changes in the mucous membrane of the nose were identical with those found in cattle destroyed at about the same stage of the disease, but the fourth stomach showed little if anything abnormal; whilst the large and small intestines, and especially the rectum, were distinctly inflamed. Koch gives it as his opinion "that sheep and goats at first contract rinderpest in such a mild form that it cannot be diagnosed, and that the pest gradually becomes more virulent through being continuously propagated within the animals' systems. Then the symptoms become gradually more dis-

tinct, and in some cases the disease may even take a fatal course.

Protective Inoculation.

Mixing rinderpest blood with glycerine, its activity was lost almost immediately, the infective material thus differing from small-pox lymph, which is preserved by the addition of glycerine. Inoculation of blood mixed with carbolic acid appeared to produce no typical disease, but the animal injected with the mixture appears to be protected against an injection of untreated blood, which was not the case with the animals injected with the glycerine and blood mixture. Water and saline solution when mixed with the blood appeared to have little effect upon its virulence. Blood dried for four days at a temperature of 31° C., and then dissolved in water, produced no ill-effects in the animal inoculated, and also exerted no protective action, an animal that had received such an an injection contracting rinderpest readily when subsequently inoculated with fresh blood.

Antitoxic Serum.

During the course of the experiments 4 animals that have suffered from rinderpest on the experimental station have recovered. Two of these "salted" animals, as they are called at the Cape, and an animal that had not suffered from the disease, were inoculated with the rinderpest blood: "the result was that the latter died of rinderpest, whilst the other two never evinced the slightest symptoms of the disease, not even the slightest rise of temperature." Professor Koch goes on to say: "Having thus proved the thorough immunity of these animals. I drew from the stronger one a large quantity of blood, and inoculated one beast with 100 c.cm. serum. After this animal, which on the next day was inoculated hypodermically with 1.5 c.cm. (?) rinderpest blood, had remained well for six days it was reinoculated with a larger quantity of virus, namely, 1 c.cm. (?) of rinderpest blood. Another animal was vaccinated with a mixture of both serum and blood, which previous to the operation was kept for one night in the ice chest. This animal likewise did not show anything amiss during the next six days, and was then on the seventh day inoculated with a large quantity of rinderpest blood. Both these animals withstood even the second inoculation without any injurious results. These experiments clearly demonstrate that the serum of immune animals possesses a certain protective power; but before having made further experiments, it is not possible for me to say for how long a period this immunity will last, and if this period can be carried out in practice." Koch finds that birds are not susceptible to rinderpest: dogs and small rodents are similarly immune, whilst pigs appear to have a certain degree of susceptibility to the disease.

It is evident from these experiments that although Koch has not been able to demonstrate the etiological factor in the disease, he has been able to localise its seat (the blood) during some period of its development, and has also been able to demonstrate, as was foreshadowed in his previous report, that in rinderpest as in diphtheria an antitoxic substance collects in the blood, a substance which appears to interfere with the activity of the virus and to prevent the development of the disease. This is a most interesting phase of the serum treatment question, and there can be little doubt that if Koch can only determine the nature of the virus, he may be able to throw considerable light on the nature and treatment of some of the specific infective diseases in the human subject, in which as yet we have not been able to detect the primary causal agent.

German Balneological Society.—The seventeenth annual meeting of the German Balneological Society will be held in Berlin on March 11th and 12th. Among the communications promised are The Treatment of Syphilis and Balneotherapy, by Dr. Neisser, of Breslau; The Movement Cure in Diseases of the Brain and Spinal Cord, by Professor Eulenburg, of Berlin; The Treatment of Renal and Vesical Calculi by Mineral Waters, by Dr. Mendelsohn, of Berlin; Researches on the Effects of Artificial Baths, by Dr. Stifler, of Steben; Mineral Waters in relation to Chemical Analysis, by Professor Oscar Liebreich; Palpation of the Pelvic Organs in Warm Baths, by Dr. Schuster, of Nauheim; and the Hydrotherapy of Exophthalmic Goitre, by Dr. Winternitz, of Vienna.

## IRISH WORKHOUSE REFORM.

By W. R. MACDERMOTT, M.B.,
Poyntz Pass, Newry.

VII.—Old Age as a Factor in the Workhouse Mortality.

In the recent conference held in Dublin the workhouse death-rate, as given by Dr. Moorhead, was met offhand by the statement that the institutions were virtually hospices for the dying and aged, and we were solemnly cautioned against putting forward disingenuous and exaggerated statements reflecting on the authorities. Whatever statements Dr. Moorhead made, and whatever were made in the British Medical Journal, we may be sure they are tame, cold, and colourless compared to the expression the people would themselves give of the evil repute in which they hold the workhouses and their management.

How can we look with hope for rational and intelligent action on the part of the authorities when at a conference specially called to promote reform, we find their representatives treating as matter of doubt the data on which life insurance companies conduct their vast business with certainty? We can hope for little from men who not merely take the death-rates at various age periods as unknown and indeterminate quantities, but accuse us of being disingenuous and indulging in exaggeration, because with the insurance companies we take them as determinable values.

The expectation of life of the Irish pauper on admission to a workhouse is 4 years, which is that of a person 84 years of age. If the mean age of the pauper on admission was 84 the workhouse death-rate would be normal. It is claimed as far as age is a factor in it to be normal, only what we might expect. In fact the aged, relieved from the pressure of want and better cared for, as it is said, in the workhouses than outside, ought to live longer in them. Not only, however, is the death-rate of the aged claimed to be normal, but it is made to account for the general workhouse death-rate.

At the census of 1891 the number of workhouse inmates was found to be 42,348.[1] The number of these who were 85 years and upwards was only 931. But the number of deaths in the workhouses in the year 1891 was 10,029,[2] to which, of course, a constant of 931 persons 85 and upwards would make but an insignificant contribution at the normal or any rate. The number of inmates 75 years and upwards was only 5,264, which still would make no material contribution. Taking the low limit of 60 for old age of the 42,348 inmates, 38 per cent., or 16,327, were that age and all ages upwards. The whole number of deaths in Ireland in 1891 was 86,053, of which 43.4 per cent., or 37,697, was of persons 60 and upwards.[3] The whole number 60 and upwards in Ireland was 492,113, and the death-rate for them 76.5 per 1,000. At the normal rate, therefore, the 16,327 inmates 60 and upwards would account for only about 1,250 out of the 10,029 deaths. This is on the base of a daily average of 42,348, the number at the date of the census. The true daily average was only 40,914.[4] The death-rate 76.5 for the age period 60 and over was exceptionally high for 1891. It was only 72 in 1895. It follows from this that the absolute numbers of those over 75 in the workhouses give no explanation whatever of the enormous death-rate, and that at the normal rate the number of those 60 and upwards would give only from 1,100 to 1,200 out of the 10,000 deaths.

It is contended that the death-rate among the aged in the workhouses is normal, but if we allow the contention we shall have to make the 26,021 under 60 account for 8,800 deaths. But, apart from the fact that a large portion of the fluent quantity is made up of hardy vagrants of brief stay, by the census returns only 14,789 of the 42,348 were sick in hospital, and by the reports of the Local Government Board only one-fifth of the admissions were in sickness. At pages 29 to 33, and in the tables indicated of the General Report of the Census of 1891, will be found data enabling us to judge of the nature of the disease treated in the workhouses, and how far it can account for the death-rate. Of 3,030 cases of phthisis pulmonalis in the country only 400 were in the workhouses, of 434 cases of cancer only 107 and so on. On the other hand, of the 14,789 sick in hospital

[1] *General Report*, Census of Ireland, 1891, p. 442.
[2] *Report*, Local Government Board, Ireland, p. 9.
[3] *Report*, Registrar-General, Ireland, 1891, p. 268.
[4] *Report*, Local Government Board, 1895, p. 10.

1,088 were suffering only from skin disease. The absolute number of necessarily or usually fatal cases, like the absolute numbers of the very aged, are quite insufficient to account for the high mortality.

That mortality is abnormal throughout. For those over 60, instead of a normal figure of about 1,200 we have 2,283 set against age alone, with evidence that deaths from many diseases of age are not included.[5] But when we allow a doubled or trebled rate for age, and further, on any reasonable estimate, for incurable cases, an altogether abnormal balance remains to be set against the young and those suffering from curable disease.

The apologists for our Poor-law administration do not know the meaning of their own argument. If of the 37,000 persons 60 and upwards who die every year in Ireland from 10,000 to 13,000 died in the workhouses, at normal rate our social state would be very much worse than it is. It would be horrible that such a proportion of the aged should end in the workhouse. Our position is that a constant of 40,000 of all ages dying at an abnormal rate give the 10,000 deaths. That is bad enough, but it does not mean the intolerable social state which self-satisfied ignorance so lightly affirms for us.

## THE MEDICAL DEFENCE UNION.

The annual general meeting of the Medical Defence Union, Limited, was held at the Medical Society Rooms, 11, Chandos Street, on February 25th, Mr. Victor Horsley, F.R.S., in the chair.

In opening the proceedings the Chairman said that the negotiations for amalgamation with the London and Counties Medical Protection Society had been abruptly broken off by that Society, although the Council of the Medical Defence Union had agreed to place at the head of all reports and official documents the fact that the London and Counties Medical Protection Society was amalgamated with the Union, which was all that was required in the matter of historical record. In regard to the scheme issued by the Committee of the British Medical Association for medical defence, it was clearly drafted on the present principles of constitution and action of the Medical Defence Union, and so long as these principles were strictly observed the British Medical Association could successfully undertake the duties; but inasmuch as the matter involved the interests of the Union, he hoped that every member would attend the meetings of the Branches called to discuss this scheme. Whether the Association accepted or rejected the scheme, it seemed to him that the objects for which the Medical Defence Union was so successfully established would still be attained, because in the former case operations would be conducted on a larger scale; and, in the second case, if the Association failed to take the matter up, then, by reason of their being better informed on the subject, the profession would doubtless join the Medical Defence Union in greatly increased numbers, and so further and promote its work. The Chairman then drew attention to the work done during the year 1896. It was a momentous year, because the Union had not only been specially successful in defending its members, but had carried into the law courts various very important cases in order to see how far the Medical Acts protected the profession, and by the experience thus gained to push forward the work of amendment of these Acts, and to secure more correct enforcement of the law as it was evidently designed to be administered. In these operations, which were of the utmost value to the profession as a whole, the Union did not receive the credit which was justly due to its members, and he hoped that the nature of the work thus accomplished would be more generally recognised. The Council of the Union wished it to be known that the remarkably favourable results which the Union secured this year were primarily due to the tactful ability and skill of their solicitor, Mr. Hempson. The Council felt that in its work it was responsible to the Union from two points of view, medical and legal. As medical men the members of the Council could see most clearly what was expedient from the professional standpoint, but naturally relied upon the knowledge and experience of Mr. Hempson to correctly appreciate the chances of actions in the courts of law, and the result of the year's work had fully justified that reliance. The annual report was the most gratifying record of the continued and unabated development of the Union. The Chairman then moved the following resolution:

That the report of the Council now formally presented, and previously circulated to all the members of the Union, be received, adopted, and entered upon the minutes.

Dr. Ransom, in seconding the resolution, pointed out the helpless position of medical men in the matter of legal redress unless they belonged to a medical defence union, and quoted as an example the case of two surgeons who were accused on the evidence of a bonesetter of sending away from the hospital with which they were connected cases of unreduced dislocation. The only evidence which that Hospital Committee had before them was the word of a bonesetter. If those two surgeons had been members of the Medical Defence Union this attack on their reputation would not have been passed by without redress and compensation. He considered it would be possible in the case of lecturing quacks (who sold appliances at a high price to ignorant people and promised to cure cancer) to collect evidence sufficient for the purpose of prosecution. In one case the vicar of a parish was with difficulty dissuaded from collecting a fee of ten guineas to enable a quack to cure a case of cancer. Something should be done to prevent medical men giving their services to medical aid societies, which by advertising and touting were crushing the general practitioner out of the country. He also hoped that negotiations would be reopened with the London and Counties Medical Protection Society.

Dr. Mark Sharman (Rickmansworth) asked under what conditions the Union would be absorbed into the British Medical Association.

Dr. Benham said that he did not belong to the British Medical Association, and that the proposal by that Association ought to be opposed, because if it were accepted those members of the Union who did not belong would be subjected to the hardship of being left out.

Dr. Felce disapproved of absorption into the British Medical Association, because he thought that medical defence work might be a cause of dissent in the Association, and that the work of the Union was so extraordinarily successful, it was best left to conduct the business alone.

Dr. Snape said he understood that the Council of the Union would probably be translated bodily into the British Medical Association scheme for defence, and so the continuity of the mode of working of the Union be preserved.

Dr. Norman Kerr said that he would do all he could to induce his Branch of the British Medical Association to accept the proposed scheme, since what they all wanted was co-operation and more union.

Dr. Bousfield considered that the British Medical Association was not the best body to take up the work of the defence. He urged that the Union should authorise their solicitor to more frequently make use of the name of the Medical Defence Union in certain cases. On the matter of medical aid companies a strong expression of opinion should be forwarded from this Union to the General Medical Council insisting on the necessity of preventing unqualified persons trading as medical societies making a profit from the labours of salaried qualified men.

Dr. Beverley, in advising the Union again to move the General Medical Council on the subject of medical aid societies advertising and touting, observed that the General Medical Council was also being approached on this subject by means of representation through the qualifying bodies.

Dr. Louis Parkes pointed out the necessity for promptness in medical defence work, and feared that if taken up by the British Medical Association the work would be hampered by formalities.

Dr. Snape asked when the report of the Revision Committee would be issued.

The Chairman, in reply, said that concerning the questions asked regarding the negotiations for amalgamation, he himself was always in favour of amalgamation, and worked hard to bring it about. The Council of the Union opened the last negotiations, but these were broken off, as already explained, by the London and Counties Medical Protection Society, and the opposition to amalgamation in that Society was so marked, that he was afraid there was no use in again trying to reopen

[5] Report Local Government Board, 1895, p. 9.

the negotiations. In regard to the remarks respecting the scheme of defence by the British Medical Association, it must be quite obvious that if the Association did carry out such a scheme at a cheaper rate than the Union, that members would naturally transfer themselves, and so the Union would be gradually absorbed. Though that would undoubtedly be to a certain extent a hardship on those members of the Union who were not members of the Association, he nevertheless hoped that for the sake of unity and for the interests of the profession, in any case everyone would join the Association. As far as he was personally concerned, he should remain with the Union until such translation of its members, as he had pointed out as being obviously possible, rendered the further existence of the Union unnecessary, and and in such way compelled it to wind up. Dr. Bousfield had raised an important point in procedure in the question he asked as to whether the Council could not use the name of the Union more freely as a terror to evil doers. To that he would reply that although a very powerful weapon, the Council naturally could only use it on the ordinary lines of legal business, and that it was always used whenever the Council was satisfied that the member had an established legal claim. He did not think that any responsible council could act otherwise. As regards medical aid societies, it should be remembered that the Medical Defence Union was the first medical organisation to draw attention to the evil, and to fight actively against it. To this end it approached the General Medical Council, but although that body characteristically did nothing in the matter, he wished to point out to the members present that at least the opposition in the Council against taking action was weaker on the last occasion, as shown by the voting on the motion of Mr. Bryant. The Council of the Union would accept it as the evident wish of the meeting that they should again approach the General Medical Council in this matter, and he hoped that the results would be more favourable than in the past. The question had received an interesting development in that the qualifying bodies were being approached with a view to apply pressure on the General Medical Council, in order to induce that body if possible to act. He (Mr. Horsley) was obliged for the way in which members had spoken of the mode in which the business of the Union was conducted, especially as regards promptness, and explained that this was secured by the system according to which the General Secretary called a meeting of the Emergency Committee in cases requiring immediate consideration calling for decision to be arrived at within a few hours, and that where a few days' notice could be given the Executive Committee was called, or the full Council if the matter was of great political importance, and that the Council was in any case summoned monthly. The report of the Revision Committee had not been presented because of the breaking off by the London and Counties Medical Protection Society of the negotiations for amalgamation, but after what had fallen from Dr. Snape the Council would give the matter the earliest consideration.

The resolution was then put to the meeting and carried unanimously.

Drs. A. H. Jones, Campbell Pope, and J. Roche Lynch were elected members of the Council, and the proceedings terminated with the usual vote of thanks to the Chairman.

## EXPERT EVIDENCE.

[FROM A LEGAL CORRESPONDENT.]

Expert evidence has become somewhat discredited. Whatever be the point at issue, it is generally possible to find experts—often men of some eminence in their professions—who are willing to appear as witnesses, and put forward diametrically opposite views as to the true scientific result to be deduced from facts submitted to them. One consequence of such readiness to pose as advocates of the side on which they may happen to be retained has naturally been to lessen the reputation of men who may have pledged themselves, as advocates, to the support of opinions generally considered unsound by the profession of which they are members. The giving such evidence is by no means confined to the medical profession. The majority of the better known scientific witnesses are not indeed members of it. But some members, at any rate of the medical profession, have lately given utterance to the feeling, which probably is shared by many more, that such public conflicts of testimony are derogatory to those who give evidence, and to the scientific body of which they are members. It has been suggested that scandal and difficulty might be obviated if no doctor of any repute would consent to give scientific evidence without having first of all met all the other doctors who were to be called as witnesses in conference. If this suggestion could be carried out, it might no doubt prevent the fact that opinions often differ very widely being published to the world. But it would be very difficult to enforce it, and the public at large would probably not be satisfied to submit to any such arrangement. Many disputes which turn on questions of medical opinion are now referred to a medical arbitrator, who, either from his own knowledge or after hearing witnesses, decides the rights of the parties. If the suggestion should be acted on, the effect would be to relegate the decision of all cases in which medical testimony was required—or at any rate which mainly depended on such testimony—to the decision of a conference of doctors summoned as witnesses by the respective parties. Where the litigants were both of them members of the medical profession, they might be satisfied to abide by the decision of such a tribunal; though even that is open to question. In no other case does it seem probable that anyone would be satisfied. The witnesses subpœnaed by the parties, and necessarily qualified—at any rate in the first instance—to form an opinion by a consideration of the facts as presented by the point of view of one party only, must necessarily be exposed to the imputation of partiality. The present suggestion that medical winesses give evidence for the side that pays them is bad enough. But the imputation, which would certainly be made, that the decision could be secured by the side which paid best—that is, which could secure the more eminent or the more numerous medical witnesses, would be much worse. The adoption of a system which invited such an imputation would be most injurious to the reputation of the whole profession. The suggested remedy does not seem likely to make matters better.

Others, besides members of the medical profession, have long been aware that the present system by which litigants call as many scientific witnesses as they choose, to give theoretical evidence, is unsatisfactory. Tribunals as a rule give comparatively little weight to such evidence, and the expense attending it is generally out of proportion to the effect produced. It has been suggested that the number of such witnesses who may be called in any case should be limited. This would diminish the expense, but would leave the witnesses still in conflict, especially if they continue to base their theories on the facts as stated only by their own side. Even if scientific witnesses were not to be called until all the evidence as to fact on both sides had been given, they still must either be advocates or else usurp the functions of the tribunal before which they appear, and decide which version of the facts, where the witnesses differ, is to be accepted as true. A practical way out of the difficulty was provided by Parliament more than twenty years ago by the Judicature Act, 1873, which empowers the High Court, in any cause or matter in which it may think it expedient to do so, to call in the aid of one or more assessors specially qualified. Such assessors would advise the Court on scientific questions, and their advice would not be open to the suspicion of partiality or bias, as is the case where the expert occupies the position of a witness. When the power to try before a judge and assessors was conferred by Parliament great practical benefits were anticipated. As a fact it has hardly ever been used; and it seems as if not only the general public, but the majority of legal practitioners were unaware of its existence. Its use would often obviate the necessity of calling an array of scientific witnesses on one side and the other to explain matters as to which the Court requires information and should be able to get it free from partisanship. The medical men who dislike the idea of appearing as witnesses under the existing practice might well impress on litigants the desirability of having medical assessors appointed for the trial of cases in which they are concerned, and so of diminishing the occasions where a conflict of medical testimony can occur. The idea of absolutely preventing its recurrence seems Utopian.

## REPORT ON AN EXAMINATION OF "FACE POWDERS."

By William Murrell, M.D., F.R.C.P.,
Physician to the Westminster Hospital, and Lecturer on Pharmacology and Therapeutics.

At a conference of the hairdressers of Paris it was stated that the face powders commonly employed for the complexion no longer consisted of powdered rice, but were combinations in various proportions of chalk, white lead, bismuth, common starch, and alabaster. It was pointed out that if this were generally known it would be followed by a decreased sale, and would be prejudicial to the interests of the trade. It was mentioned incidentally that there was reason for believing that paralysis had been known to follow the use of these preparations. The matter being of medical interest was deemed worthy of investigation.

On inquiry it was found that the powders used for the complexion might be divided roughly into two categories.

In the first place, there were the face powders sold by chemists in packets bearing no distinctive name or trade mark. They were either prepared extemporaneously on the premises or were obtained in bulk from wholesale houses. Many specimens of these were examined, and were found to consist of potato starch or maize starch tinted with a vegetable substance and scented with orris root. No metallic ingredient was detected, and it was obvious, in the words of a retail trader, that "the price at which they were sold did not admit of sophistication."

In the second category came the powders packed in boxes and sold under some fancy name. Most of them were delicately scented, and were put up in an attractive form. Many of them were of French origin. In price they ranged from 1s. 6d. to 10 francs. Eight specimens were examined, and for their chemical analysis I have to express my indebtedness to my colleague Dr. Wilson Hake, Lecturer on Practical Chemistry at the Westminster Hospital. The results are shown in the accompanying table.

| | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. |
|---|---|---|---|---|---|---|---|---|
| Starch ... ... ... | 75 | 80 | 80 | 15 | 50 | — | 40 | 40 |
| Precipitated chalk and carbonate of magnesium ... ... ... | 15 | — | — | — | — | — | — | 10 |
| French chalk ... ... | 10 | 12 | — | 45 | 36 | 75 | 18 | 18 |
| Zinc ... ... ... ... | — | 7 | 20 | 40 | 14 | 25 | 40 | 30 |
| Bismuth ... ... ... | — | 1 | — | — | — | — | 1 | 1 |
| Lead ... ... ... ... | — | — | — | — | — | — | 1 | 1 |
| | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

The starch in specimens 1, 3, 4, and 5 was rice starch, whilst 2, 7, and 8 contained maize starch only. The starch was readily recognised under the microscope, and gave the iodine reaction. All specimens were carefully examined for mercury and arsenic, but none was found. Alabaster was also absent.

Respecting the preparations themselves it may be well to say a few words:

1. This was described as a rose leaf powder. It had a faint odour of rose, but was certainly not made from rose leaves.

2. This was sold as a rice powder prepared with bismuth. It contained no rice powder, and very little bismuth, certainly not more than 1 per cent.

3. This was a rice powder free from bismuth. The analysis proved the correctness of the statement, but it also showed the presence of 20 per cent. of zinc, probably in the form of calamine.

4. This was sold without any guarantee of purity, which was perhaps fortunate, as it contained 40 per cent. of zinc.

5. This was described as "Poudre Rosée." It contained 36 per cent. of French chalk and 14 per cent. of carbonate of zinc.

6. This was sold as "Poudre de Riz de Java," but no rice starch could be detected in it.

7 and 8. These were similar in composition, and were remarkable for containing three metallic ingredients—zinc, bismuth, and lead.

Another specimen examined gave very unexpected results, for it consisted solely of finely powdered boracic acid. It was entirely and completely soluble in water, and corresponded in all respects to this substance when examined chemically, microscopically, and with the spectroscope.

The question of how far the habitual use of these different powders might prove injurious to the health requires some consideration. It was ascertained on what is believed to be good authority that most women have their own particular or favourite powder to the use of which they adhere. It is often employed very freely, and is used as a medium for diffusing various agreeable and characteristic odours. A powder which rubs off is considered inartistic, so that preparations containing zinc or bismuth are much in demand.

It is well known that the susceptibility of different individuals to the influence of lead varies enormously—a very small quantity taken systematically, or even applied locally, may induce symptoms of chronic lead poisoning. Water containing one-twentieth of a grain to the gallon has been known to induce wrist drop, whilst most authorities would reject as unsafe a drinking water containing one-fiftieth of a grain in the gallon. A powder containing 1 per cent. of carbonate of lead, if used to any extent or for a prolonged period, might readily give rise to serious symptoms.

Zinc salts are, as is well known, capable of producing a condition similar to chronic saturnism and zinc colic, analogous to lead colic. The chief symptoms are constipation, loss of appetite, nausea and vomiting, and a metallic taste in the mouth. Preparations containing from 25 to 40 per cent. of the oxide or carbonate can hardly be regarded as desirable additions to the toilet table.

Preparations containing bismuth are apt to turn black when brought in contact with sulphuretted hydrogen, so that ladies who employ cosmetics containing the substance find it desirable not to frequent mineral springs which evolve this gas. The "bismuth breath," which resembles the odour of garlic, is probably due to the presence of a trace of tellurium, and might be induced by the external application of the drug.

Boracic acid is undoubtedly a most undesirable substance to use as a face powder. When borax is used internally in the treatment of epilepsy, it produces large red desquamating patches on the forehead and at the angles of the mouth.

Taking it on the whole, it may fairly be said that even if the French hairdressers have not fully established their case, they have, at all events, succeeded in demonstrating the necessity for considerable care in the selection of a powder for the complexion.

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The Prevention of Measles.—The sanitary authority of the city of Glasgow have issued a circular on the subject of the prevention of measles which, bearing the well-known initials "J. B. R." contains, as might be expected, good and important advice expressed with characteristic lucidity. We are not aware whether this is the first time that a circular of this sort has been issued in Glasgow, but our readers will recollect that several similar circulars, issued in other places, were reproduced in Dr. Theodore Thomson's recent report to the Local Government Board. Probably, like many other health officers, Dr. Russell has issued previous circulars from time to time. The leaflet now issued leaves little to be desired in point of clearness, brevity, and the admirable selection of the information to be conveyed. Glasgow is one of the few towns that ventures to attempt, on anything like a large scale, the hospital isolation of cases of measles.

The Fifth Year.—It has been decided by the Barony Parish Council that the appointment of clinical clerk at the Woodilee Asylum at Lenzie near Glasgow, shall be open to fourth and fifth year students who have taken out classes in practical pathology. Two such clinical clerks will be appointed for six months each, three months on the male and three on the female side, but in special cases an appointment for three months may be made. The clerks will be boarded in the asylum, and will be provided with railway season tickets between Lenzie and Glasgow, to allow of their attendance on special classes in Glasgow if they so desire.

# THE WORK OF THE METROPOLITAN PROVIDENT MEDICAL ASSOCIATION.

By O. WUNDERLICH, M.D.Brux., D.P.H.,
Surgeon to the Metropolitan Provident Medical Association.

The Metropolitan Provident Medical Association was founded for the purpose of relieving hospital abuse by means of the formation of provident dispensaries throughout the metropolis. It may be useful to inquire to what extent they have hitherto succeeded in their endeavours, and the following account deals with their work at a representative branch.

### Vital Statistics of the Tottenham Branch.

The Tottenham Branch—one of the largest of the Association—has been in existence about ten years. During the past three years I have kept accurate notes of all the cases under my care, and as the amount of work is considerable we may fairly assume that the following results represent the average working of such a provident institution. They refer, of course, only to my own patients—a fifth of the total number—and do not include those of other members of the staff.

The number of members that have been under treatment in the three years has been 510.

210 have been members for the whole of the 3 years, or 41.18 per cent.
96 ,, ,, 2 years, or 18.81 ,,
204 ,, ,, 1 year, or 40.00 ,,

35 left the Association after 2 years' membership, and 90 after 1 year's membership—a total of 125; 114 have joined only this year.

We find, therefore, that 15.78 per cent. leave the Association annually; and if these figures were spread over a longer period of years we should expect to have an average membership for each person of six years and a-half. Even without going into other figures we cannot help suspecting from this that members join for occasional needs and not for a permanent insurance.

We will now see how this membership is made up, and who the people are who specially avail themselves of this form of insurance. The membership falls naturally into two divisions—adults and non-adults—and we find that 254, or roughly one half, consists of adults over 18 years of age, and the other half, or 256, of children and young persons under 18.

If we examine more closely into the number of children at various ages, we find that babies are very readily entered as members by their parents, but that with each successive year they show a greater tendency to fall out of the ranks of the Association. So as to obtain exact figures, I have counted the number of members in each year at their then respective ages, and have taken the average:

The annual average membership of children under 1 year is 33
,, ,, 2 years is 25½
,, ,, 3 ,, 22
,, ,, 4 ,, 17
,, ,, 5 ,, 15
,, ,, betw. 5 & 9 ,, 28
But or the age of 10 to 19 it is only ... ... ... ... 34½

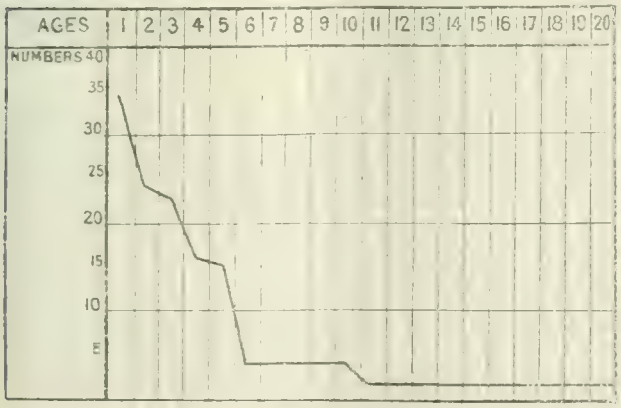



Table 1.

It thus appears that there are as many children under 1 year of age in the Association as there are boys and girls for the ten years 10 to 19, and of the total non-adult members, considerably more than half are under the age of 4.

Part of this sudden drop can be accounted for by the boys becoming members of juvenile friendly societies. Thus, of the 27 members between 11 and 17, only 4 were boys, whilst in the earlier years the proportion of males to females was normal. But this is not sufficient to account for it, and we must conclude that children leave the Association as they grow beyond the age at which medical attendance is oftenest called for. It very often happens that parents will leave one or two children as members, and will cease paying for those who are less liable to illness; this also results in a selection of younger and weaker members.

If we now deal with the adult membership, we find a sudden and remarkable increase of members after the age of 20. This increase consists chiefly of young married women. Indeed, of the 254 adults, only 40 are males, 30 are single women, 21 are widows, and the remaining 193 are married women. Of these 163, all but 34 are under the age of 40, so that of the total adult membership, 50.78 per cent. are married women between 20 and 40; that is to say, at the time of life when the duties and strains of maternity weigh most heavily upon them.

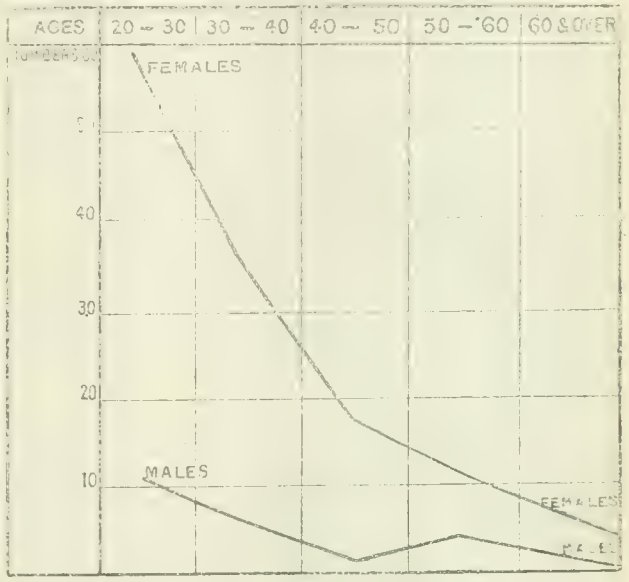



Table 2.

In tabular form the effect of this increase in the number of married women on the membership becomes very apparent, and one can also note a decrease after the age of 40, when the troubles of childbearing are pretty well over.

| Periods of Ten Years. | Average Membership. | Per-centage. | Single Women and Widows. | Males only. |
|---|---|---|---|---|
| 0-9 years ... ... | 143½ | 42.05 | — | — |
| 10-19 ,, ... ... | 34⅔ | 10.10 | — | — |
| 20-20 ,, ... ... | 68⅔ | 20.13 | 13½ | 10 |
| 30-39 ,, ... ... | 40⅔ | 11.92 | 1 | [illegible] |
| 40-49 ,, ... ... | 20 | 5.86 | 1½ | 1· |
| 50-59 ,, ... ... | 16½ | 4.85 | 1¹ | - |
| 60 and upwards ... | 17⅔ | 5.08 | 6½ | [illegible] |
| | 341 | 100.03 | | |

These figures are sufficiently curious, and I will only add that 56.89 of the total membership consists solely of children under 5 years and their mothers between the ages of 20 and 40. All the rest of the population—boys, girls, young adults, men, spinsters, widows, and the aged—are included in the percentage 43.11.

We find, therefore, that by far the most important duties of the Provident Association are to look after mother and offspring; to treat the numerous troubles incidental to childbearing and the diseases and ailments which are so common in the first years of life. Incidentally it may be [illegible] resting

to observe that the fecundity of the married women is unusually high. Farr gives the number of children born to 100 married women between the ages of 20 and 40 as 18.98. My figures give 23.44 under the same conditions.

This then is as far as we can go in determining the question as to whether the Association reaches the persons for whom it was intended. I conclude from these figures that it does not do so; and it only shows once again that an institution established towards a preconceived end may eventually do good work, though it may be diverted to a different object. Theoretically the object of such an institution is to enable persons to pay whilst in health for medical attendance during occasional periods of sickness. But here we find the Association devoted mainly to providing medical attendance at those periods of life when it will almost inevitably be wanted. This time having passed, the Association is dropped, and, when sickness eventually comes, the population is likely to be no more prepared to meet the expenses it entails than it had been without the Association.

### The Work Done for the Association.

The total number of attendances of the members during the three years is 5,423. Under this head are included both visits at the patients' homes and consultations at the surgery, excepting attendances at confinements. The total number of members' years during the three years is 1,026. This figure is obtained by multiplying the number of members of three years' standing by three, those of two years' standing by two, and adding them to the number of members of one year's standing. The third of the result, or 342, represents the average yearly membership. Dividing this number into the total attendances we find that each person was on the average seen about 5¼ times in each year (5.28). The number of confinements attended was 55. The number of deaths was 15. Seven children aged 1 and under died from various infantile diseases; 1 child under 2 died of tuberculous meningitis, and another child under 2 of splenic anæmia; three old people died aged 67, 77, and 80 respectively. One child died of diphtheria, and only one person died in the prime of life at the age of 38.

Of acute diseases the following are the only ones of any importance or giving much trouble: Hysterical mania, 1; chorea, 1; cardiac strain, 1; severe eczemas, 2; fibroid, 1; hemiplegia in an anæmic girl, 1; perimetritis, 1; rheumatic arthritis, 2; mild cases of rheumatic fever, 3; cases of congenital syphilis, 5; cases of typhoid in children, 2; severe case of whooping-cough, 1. But whilst severe cases of disease are the exception, slight ailments are very frequent, and a small number of members only are able to go the year through without medical attention, as the following figures show: Of the 385 members on my list at the end of the year 1896 only 23, or 6 per cent., did not require any attention during the year. In other words, 94 per cent. of the constituents were obliged to avail themselves of the medical benefits.

This record of work done entirely confirms the conclusions derived from the analysis of the membership. We have an almost entire absence of cases of acute and organic disease. Further, the attendance per head is not high, whilst the proportion able to dispense with attendance is small. We must conclude therefore that we are dealing with a section of the population who, though not subject to severe illness, are constantly troubled by minor ailments. The high birth-rate—53.45 per cent., and the mortality of infants under 1—6.81 per cent., show that we are dealing with healthy child-bearing women and their young children.

### Remuneration of the Medical Officer.

It is easy to see from these considerations that at the ordinary rate of provident payments the remuneration of the medical officer will be low. In a friendly society, where the selection of members is, on the contrary, from the healthiest individuals, and especially where the average age remains low, the more frequent occurrence of organic disease is fully compensated for by the number of members who have no occasion for treatment from one year's end to the other. The payments in the provident association under consideration have been £204 11s. 10d. for the three years, and the average remuneration per attendance works out at 9.05d.

I hope to give later on the exact value of each attendance in the friendly societies with which I am connected, but I can already say that over the three years it works out at something between 1s. and 1s. 3d., the exact amount for 1894 being 1s. 3d. The question naturally arises, Does it pay a medical man to do work at this rate? To this I would answer that the remuneration is sufficient providing that the members are drawn from a class that are not in a position to pay more. Looked at from the broadest point of view—that of the greatest gain to the greatest number, there can be no doubt that such payments obtained from the respectable poor are vastly to be preferred to the inadequate payments of a friendly society without a wage limit. In this branch of the Metropolitan Provident Medical Association the wage limit (though fully high) is strictly maintained, chiefly owing to the regular attendance of the medical men at the committee meetings.

Members' payments are on a sliding scale. We can obtain the average amount subscribed per head by multiplying the average remuneration into the average number of attendances. This works out at 3s. 11¾d. Allowing for deductions due to collecting, every individual is worth about 5s. to the society annually. It would be hard indeed to assert that for a family earning about 28s. a week, a fair wage in this district, such payments, amounting to 5d. to 7d. a week, are not so much as can be reasonably expected. The low remuneration for medical services arises not from the inadequacy of the payments, but from the inability to ensure the continuance of subscriptions from those who have no immediate claim on the doctor's services.

### Conclusions.

The membership, as we have seen, changes to the extent of 16 per cent. annually. The insurance is fitful, and is applied for only when there is the very greatest probability of its benefits being required. The analysis of the ages of the members and the work done for them show that the actual work of the Association consists in the constant and regular supply of medical services at those critical times which are included, for children, between the ages of 1 and 5, and for married women, between the ages of 20 and 40. At other times disease will find the same population medically unprovided for.

To such extent, therefore, as the working of the Branch which I have described represents fairly the average working of the Metropolitan Provident Medical Association, the conclusion is unavoidable that its object has not been attained. There is nothing to show that hospital abuse has been relieved by its operations.

Nevertheless, though the Metropolitan Provident Medical Association has failed in its endeavours to relieve hospital abuse, the work done has been valuable, and the remuneration has been in the circumstances just. This latter result is due, in my judgment, to the fact that in all its branches the medical men have the opportunity of exercising a close supervision on the wage limit and the admission of members. This condition of adequate control does not exist in older provident institutions, and, as is well known, attempts to enforce it have been resented.

The Metropolitan Provident Medical Association contemplates the extension of its work. If this policy be systematically accompanied by the provision of means for securing sufficient medical control over the wage limit, its results will be valuable and its operations will deserve the support of medical men. It will, however, fail to relieve the mischief of the "hospital loafer," for whose extinction it was mainly started, until it has also adopted some system for obtaining regular subscriptions in non-critical as well as critical periods of life, and has thereby placed its benefits on the basis of any other form of thrift or insurance. But so desirable a system is impossible in face of the ease with which free hospital treatment can be obtained. Provident associations can no more than private practitioners compete successfully with free hospitals; and it is futile to expect any serious relief of hospital abuse by such indirect means, however good in themselves, as the extension of the provident principle.

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The annual general meeting and dinner of the Infirmary Medical Superintendents' Society will be held at the Inns of Court Hotel on Saturday, March 27th, at 6.30 P.M.

## NOTES ON HEALTH RESORTS.

*Locarno* is situated on the northern shore of Lago Maggiore in the Swiss Canton of Ticino, about 670 feet above sea level. On the north, east, and west, are high mountains; on the south is the lake, and on the other side of it are, again, high mountains, so that there is protection from winds on all sides. According to Dr. Martin,[1] Locarno and its neighbourhood possess the most equable climate of the whole of Switzerland. The air is pure, moderately damp, and an advantage over some health resorts is the little amount of dust. The growth of oranges, figs, etc., testifies to the mildness of the climate. The lake helps to warm the air during winter, and by the alternating breezes it produces makes the heat of summer more endurable. The water supply is good, and there are sufficient promenades and beautiful walks and drives in the neighbourhood. Locarno is best suited for autumn and spring residence, but many persons can spend the winter there if one of the warmer winter stations is not required. The place is easily reached by the St. Gothard tunnel. The Grand Hotel affords first-class accommodation, and is warmed with hot air to about 52°-56° F., day and night. It has a south-eastern aspect, and stands about 40 feet above the lake, close to the railway station.

*Cirkvenica and Lussin.*—Among the localities of the Austrian Adriatic coast, Abbazia, on the east of Istria, is the best known health resort, with fair shelter and good accommodation. Trieste is too exposed to the Bora wind during the winter season, and though it can be used for sea bathing during summer, is very hot, and rather too large a town for a health resort. The following places are much less known. Cirkvenica is reached in an hour and a quarter by ship, and three hours by carriage, from Fiume. It is protected by the Velebit from the cold Bora wind, and by the island of Veglia from the hot sirocco. The sands are excellent for bathing. The mean monthly temperatures are lower than those for the Riviera, but appear to be higher than those of most other places on the Austrian coast. The mean relative humidity is greater than that of Riviera localities. Lussinpiccolo and and Lussingrande are comparatively recent claimants to the title of health resorts. Their climates are slightly moister and colder than that of the Riviera, but the mean monthly temperatures seem to be high for the north-western Adriatic coast. The mean annual temperature is said to be 59.2° F. English patients can, however, hardly be recommended to try these places until more is known about them. Gorizia (German Görz), about twelve miles from the north Adriatic coast, not far from the Italian frontier, beautifully situated on the Isonzo, has fair shelter, and is now a favourite resort of the Austrians for pulmonary affections. The island of Lissa, considerably south of Lussin, is likewise used as a marine health resort by the Austrians.

*Sorrento.*—We have received notes of this place from Dr. H. B. T. Symons. Sorrento is the principal town of the promontory forming the southern boundary of the Bay of Naples. The ancient Romans, no mean judges in such matters, held it in high esteem, and here, acting on the advice of Galen, came the Emperor Antoninus Pius. Sheltered on all sides, except the sea front, by a horseshoe of hills, some reaching an altitude of 5,000 feet, it is fairly screened from the east winds of the late winter and spring. During the winter months the temperature is seldom lower than 48° F. during the day; nor does that sudden drop of the thermometer occur at sunset which is found so unpleasant in less sheltered districts. The country round Sorrento is of great beauty, and is chiefly devoted to the culture of the orange, the lemon, the olive, and the vine. It has been termed the "Garden of the Hesperides." To those who desire active pursuits it may be stated that the municipality have recently inaugurated golf links, which it may safely be averred are, as regarding position, without equal in the whole of golfdom. The water is fairly good. Patients returning from Egypt or Algiers in March or April will find in Sorrento an excellent halfway resting place. The hotels are numerous, and one or two distinctly good. There is an English church, and an English practitioner is resident during the season, which extends from January to May.

*Amalfi* on the north of the Bay of Salerno has likewise a beautiful situation and fair shelter. It is one of the sunniest places in Italy, and suitable for residence during autumn, winter, and spring.

*Ischia.*—We are assured that the best accommodation on the island for English visitors (who should not arrange to arrive before the end of March or after the end of November) is at Casamicciola. The Hotel Pithecusa at this place is nearest to the hot baths of Gurgitello, and is not so exposed to the winds as the hotels of Bagno d'Ischia. The island has already been noticed in the British Medical Journal of January 9th.

[1] *Locarno*, by Professor A. Martin; English edition, 1806.

## MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

A general meeting was held at the Borough Asylum, Mapperley Hill, Nottingham, on February 18th, under the presidency of Dr. Julius Mickle. Four new members were elected.

### The Housing of the Insane.

A discussion on the housing of the insane and the size of asylums was opened by Dr. Rayner, who drew attention to the fact that the number of patients housed in county and borough asylums in England and Wales had increased from 15,844 in 1859 to 63,957 in 1896, the increase since 1892 having been 8,448, an average of more than 2,000 per annum. He thought it desirable in the interests of the insane and of the community to consider whether some improvement might not be made in the present plan of aggregating vast numbers in one building, by adopting plans of segregation in the degrees in which they may be useful and practicable. He divided the insane into the following groups: 1, the acute or hospital class; 2, the asylum class; 3, the employed or employable class; 4, the helpless or workhouse class; with a terminal group, the infirmary dement. He considered success in treatment to be evidenced, not only by the percentage of recoveries, but by the proportion of those who had improved so for as to be trusted with a great share of liberty. Skilled individual attention was the basis of treatment, but no amount of experience and skill would enable a physician to give the requisite attention to more than a certain number of cases, the amount of attention required varying greatly with the different groups. Individuality of responsibility was the corollary of individuality of attention, and should be delegated largely to assistant or deputy physicians. What was needed for London was not a lunatic hospital but receiving houses or infirmaries, or even special wards in connection with general hospitals in which cases not yet certified or certifiable could be received for treatment, and from which, if necessary, they could be sent to the asylum. With adequate preventive treatment in the stage preceding the certifiable condition a certain proportion of cases might be saved from becoming bad enough for asylum treatment. He also advocated the further development of the colony system and of "boarding-out" in suitable cases as a means of relieving our growing institutionalism. He concluded that: 1. The defect in the provision of treatment in the earliest stages of mental disorder is utter and complete. 2. The defect in dealing with the improved or occupation class is very great indeed. 3. The helpless workhouse class are massed in too great numbers and too much isolated from their friends. 4. The responsibility for treatment is not sufficiently and clearly delegated where the insane are treated in large masses. 5. The number of medical attendants is too limited. He considered an establishment under one director should be made up as follows: A male and female side, each having a hospital for 200 beds, an asylum of from 300 to 400 beds, with farm or occupation colonies for 500 or more distributed over an estate of 1,000 acres or more, and with annexes for the helpless imbeciles and terminal dements, supplemented by a special organisation for developing "boarding out" in town and country. Each of these divisions should be under a physician absolutely responsible for the treatment of the patients under his charge, aided by junior assistants but supervised by the physician-director. The line of advance in the treatment of the insane at present should be summarised as a need for "more brains and fewer bricks."

A discussion ensued, in which the following took part: The

PRESIDENT and Drs. E. WHITE, THOMSON, SPENCE, MCPHAIL, HAYES NEWINGTON, MERCIER, CLAPHAM, ALEXANDER, EVAN POWELL, KAY, and T. W. MCDOWALL.

Drs. VINCENT and MONTGOMERY showed cases of interest from the wards of Mapperley Hill Asylum.

## LITERARY NOTES.

MESSRS. J. AND A. CHURCHILL will shortly publish the following new books and new editions: *Deformities of the Fingers and Toes*, by Mr. William Anderson, Surgeon to St. Thomas's Hospital; *Antiseptic Principles for Nurses*, by Mr. C. E. Richmond; a fourth edition of Tomes's *System of Dental Surgery*, containing 40 new illustrations; a seventh, much enlarged, edition of Richardson's *Mechanical Dentistry*; and a fifth edition of Dr. Waring's *Bazaar Medicines*, revised and brought up to date by Dr. Aitchison.

Mr. Murray will shortly publish a book by Dr. Robson Roose, entitled *Waste and Repair in Modern Life*. We understand that the volume will also contain reprints of articles on infection and disinfection, the use of health resorts, the spread of diphtheria, the London water supply, etc., which have already appeared in one or other of the monthly magazines.

Messrs. Longmans, Green, and Co. have in the press *The Life and Times of Thomas Wakley*, by Mr. S. Squire Sprigge. Mr. Wakley was M.P. for Finsbury and Coroner for Middlesex, as well as the founder and first editor of the *Lancet*; his life, therefore, should supply plenty of interesting material for the biographer. The book is described as being practically an account of the development of the medical profession between 1820 and 1860.

Messrs. Longmans, Green, and Co. will also issue immediately an autobiographical work by the late Sir Benjamin Ward Richardson, entitled *Vita Medica*.

Under the somewhat fantastic title of *The Land of the Moon: the Story of Fifty-one Weeks' Captivity "under the Dome,"* a "Bethlem Royal Sanctuarist," gives an account of his experiences during a period of "therapeutic seclusion" in Bethlem Royal Hospital. The author, who is said to be a solicitor of long experience and good standing, calls his work (which will be published by Messrs. Downey and Co.) an "Auto-Study in Insanity."

Mr. John Beattie Crozier, M.B., author of *Civilization and Progress*, has in the press a new work entitled *History of Intellectual Development*. The first volume contains a history of the evolution of Greek and Hindu thought, of Græco-Roman paganism, of Judaism, and of Christianity, down to the closing of the schools of Athens by Justinian. Mr. Beattie Crozier obtained his medical degree at Toronto in 1872. He is also a Licentiate of the Royal College of Physicians of London (1873). He was awarded a Civil List Pension in recognition of his literary distinction in 1894.

In the *Occidental Medical Times* for January, Dr. C. F. Griffin of San Francisco, prints a facsimile of a hitherto unpublished letter by Edward Jenner. The letter is said to have come into the possession of Dr. L. C. Lane about twelve years ago. It was sent to him by a personal friend, Mr. Charles Botts, who found it in an old volume of medical anecdotes on a bookstall. Mr. Botts is not now living, but was at one time a well-known lawyer in San Francisco. He says, in a letter which accompanied the gift, "I am sure this original letter would be a very acceptable present to the celebrated museum of the London College of Surgeons, and I thought that it might be esteemed as a curiosity by you or the college of which you are the distinguished founder." The following is the text of the letter:

Cheltenham, January 16th, 1807.

DEAR SIR,—I congratulate you and Mrs. Phillips on the addition to your flock. It is my intention to be in town soon, but how soon I cannot at the present moment positively say. My movements will be regulated by those of the College of Physicians and the House of Commons. The former have not yet finished their inquiry, which will, when completed, be laid before the House.

This inquiry will lay low all these troublesome ghosts which have so long haunted the metropolis with their *ox-faces* and dismal hootings against vaccination.

However 'tis all for the best. You may depend upon it, the new investigation will prove the touchstone of the vaccine discovery.

I have not yet seen your *Monthly Mag.* for the present month. Probably you may not have inserted the very curious and interesting piece of intelligence I received from Madrid.

This supposition induces me to inclose it.—What a glorious enterprise! I have made peace with Spain, and quite adore her philanthropic monarch. Could not this be touched upon by some of those who, through you, introduce pathetic stories into the world?

A word more respecting your little one. Altho' I should be happy to shield it myself from the speckled monster, yet I would advise you not long to risk my coming to town. I would just add that I consider the vaccine lancet in the hand of John Ring just as safe as in my own.

Pray present my best wishes to Mrs. Phillips, and tell her I have not forgotten her civilities.—Your very faithful servant,

E. JENNER.

The geographical distribution of racial types in Europe will be the subject of a series of papers by Professor W. Z. Ridley in the *Popular Science Monthly*, beginning with the February number. The articles are to be illustrated by maps, diagrams, and some fifty hitherto unpublished portraits of race types reproduced from original photographs. Professor D. G. Brinton, of the University of Pennsylvania, who has seen Professor Ridley's collections relating to this branch of anthropology, writing in *Science*, expresses the belief that the articles will add much new material, and many valuable suggestions to a comprehension of the racial questions of modern Europe. "Such points as the cephalic indices, the distribution of blondes and brunettes, the comparison of stature and weight, etc., when studied from hundreds of thousands of individuals measurements, must lead to results more secure and perhaps quite differing from those hitherto published."

Carl Voigt, the famous comparative anatomist, has left behind him some reminiscences of his life, which have been published by Erwin Vägele, of Stuttgart, under the title *Aus meinem Leben*. Apart from the scientific interest of the work, it contains a large amount of good reading of a general kind—pictures of university life in Germany half a century ago, duels, political adventures, and alarums and excursions of a varied and exciting or amusing character.

We take the following from the January number of the *St. Bartholomew's Hospital Journal*:

Mr. Howard Marsh has kindly forwarded us a copy of a letter written by Mr. Crosse, of Norwich, introducing Mr. Humphry to Sir James (then Mr.) Paget fifty-seven years ago. How true was Mr. Crosse's opinion, and how truly prophetic his letter, subsequent events have shown. In the certainty that it will be of great interest to our readers we reprint the letter in full. It runs thus:

"Norwich, September 15th, 1839.

"DEAR SIR,—My excellent pupil, Mr. George Humphry, will enter at Bartholomew's. He is one of the right sort—a regular hard-worker; and if health can be maintained he will do your school credit. I shall feel obliged by your giving him all the opportunities of improvement you can; a little of your direction and encouragement will be of much service to him.—I am, yours very truly,

"J. G. CROSSE."

The letter was addressed to "—— Paget, Esq."

According to the existing law of the United States, scientific books and periodicals devoted to scientific research are admitted free of duty. The New York *Medical Record*, however, states that the Treasury Department has recently issued a circular to the Collector of Customs, in which it is said that certain books have been admitted under a too liberal construction of the law, and the Customs officers are notified that the words "scientific books and periodicals devoted to original research" relate to new discoveries in the field of science, and do not include textbooks, compilations, and discussions of scientific subjects already understood. It is still uncertain how much original matter will entitle a book to free entry as one "devoted to original research," but in a case which came up recently in Philadelphia concerning the importation of a medical work, appeal has been made to the Circuit Court. This may lead to a definitive decision of the question.

*Die Chirurgie* is the name of a new monthly journal devoted to surgery, which is published at Moscow, under the editorship of Professor Diakonoff.

Sun Yat Sen, the young Chinese "Licentiate in Medicine and Surgery, Hong Kong," whose capture by and detention in the Chinese Legation in London recently caused no little sensation when the facts became known, has recorded the story in a small volume, with the title *Kidnapped in London* (Bristol: Arrowsmith. 1s.). It is, perhaps, one of the oddest examples of the application of Eastern methods to Western conditions which has ever been recorded. The incident, if invented, could only have been excused in Mr. Anthony Hope, and it is not surprising that Dr. Cantlie and Dr. Manson found it almost impossible to get either the police or the Foreign Office, or indeed the newspapers, to believe that the story which they had unravelled could be true.

## BRITISH MEDICAL ASSOCIATION.

### SUBSCRIPTIONS FOR 1897.

Subscriptions to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MARCH 6TH, 1897.

## MEDICAL DEFENCE.

The report of the Council of the Medical Defence Union, which was presented to the annual meeting held last week, is an interesting document, especially at the present moment. In one of its earliest paragraphs stress is laid on the fact that while the greater number of questions which occupied the attention of its Council and committees during 1896, as in previous years, were concerned with the defence of individual subscribers to the Union who sought its aid, yet several matters arose upon which it was felt necessary to take action in the interests not of individual members, but of the general body of medical practitioners in the United Kingdom, whether members of the Union or not.

Several examples of the kind of work for collective defence thus done are given in the report. In several cases proceedings were instituted under the Apothecaries Act, and it is reported that in every instance the person charged was fined the full penalty, with costs. In another instance a person who called himself "oculist and aurist" was prosecuted, and a fine was imposed on the defendant for assuming titles which implied that he was recognised as surgeon. In another case which was taken into the courts a conviction was obtained and upheld on appeal for the user of the title of "M.D.U.S.A." This would appear to be the first successful prosecution for the assumption of that particular title. The report, however, goes on to point out that in a similar prosecution instituted in another part of the country, the magistrate had refused to convict, and had been upheld in this refusal by the Judges of the Appellate Court. This is not the only instance of opposite decisions being given in apparently similar actions brought under the Medical Act, 1858, and the experience of the Union during the past year fully justifies the statement of Mr. Justice Collins made from the Bench to the effect that the law as interpreted by some magistrates and judges is "in such a state of fog that it was impossible to say what were decisions of law and what were decisions of fact." This judicial pronouncement lends weight to the contention that the Medical Acts are not fulfilling the purpose for which they were designed, which was, to quote the words of the preamble of the Medical Act, 1858, that "it is expedient that persons requiring medical aid should be enabled to distinguish qualified from unqualified practitioners."

The need for the amendment of the law to which the Council of the Medical Defence Union point has already been under the consideration of the Parliamentary Bills Committee of the British Medical Association, which has a special subcommittee for dealing with this matter and the Midwives' Registration Bill. It would, however, appear that it would be practically hopeless to expect that time would be found in the House of Commons for the consideration of any private measure for the amendment of the Medical Acts. It will be desirable, therefore, to concert means to bring the need for an amending Bill forcibly under the notice of the Government. The position of affairs illustrates the extent to which the work so long undertaken with much success by the British Medical Association overlaps that part of the work of the Medical Defence Union which is defined in its Articles of Association as the suppression or prosecution of unqualified practitioners.

Both in the report of the Council of the Union and in the speech of its President, reported in another column, much prominence is given, and very justly, to the great amount of work which the Medical Defence Union is thus doing for the general good of the profession, and Mr. Horsley seemed disposed to complain that while this work of the Union with regard to collective defence was of the utmost value to the profession as a whole, the Union did not receive the credit which was justly due to its members for the public spirit displayed in enforcing laws, enacted, indeed, for the benefit of the public at large, but having a bearing so important on the interests of the medical profession.

These two aspects of medical defence—the individual and the collective—have been defined with sufficient precision in the report of the Committee on Medical Defence appointed by the Council of the British Medical Association. This report, published in the British Medical Journal of January 30th, page 277, and now under the consideration of the Branches, tabulates as among the duties involved in medical defence "(*d*) the protection of the privileges and interests of members of the medical profession generally, and also as affected by any particular legislation; (*e*) proceedings under the penal or any other clauses of the Medical Act, 1858; (*f*) proceedings under the penal clauses of the Apothecaries Act, 1815; (*g*) proceedings under any other Act affecting the interests of the medical profession."

The opinions expressed by those Branches of the Association which have already met to consider the question are conflicting. From the reports which have as yet been forwarded to the Journal it appears that while the Perthshire Branch, the North of Ireland Branch, the Oxford and District Branch, and the Bath and Bristol Branch have expressed opinions in favour of the Association taking up the work of medical defence, both individual and collective, the Aberdeen Banff and Kincardine Branch, the Border Counties Branch, the Staffordshire Branch, the Dundee and District Branch, the Dublin Branch, and the Birmingham and Midland Counties Branch have rejected the proposal at their recent meetings. Unfortunately at some of these meetings the attendance has been small, and we would strongly urge upon the members of all those Branches the meetings of which have not yet been held the importance of attending when the matter comes up for consideration, so that the expression of opinion may be sufficiently distinct and indisputable to enable the Council of the Association to form a correct estimate of the true opinion of the members of the Branches of the Association in the United Kingdom.

## OYSTERS AND INFECTIOUS DISEASE.

THE question of the dissemination of typhoid fever through sewage-contaminated oysters has occupied such a prominent position in our columns, and we have taken such a decided stand on the question that it is a matter of extreme interest and gratification to find that those engaged in the laying, fattening, and storage of oysters are practically at one with us as to the best methods to be adopted for doing away with many of the evils the existence of which has undoubtedly undermined public confidence with regard to the consumption of oysters. A scheme has been submitted to the Local Government Board as containing the views of the Whitstable and Sea-Salter and Ham Oyster Companies, two of the largest oyster companies in the kingdom, which shows that those engaged in the oyster trade are themselves ready to welcome reasonable precautionary measures. In this document the estimate of the decrease in the consumption of oysters is perhaps somewhat exaggerated when it is said that it has amounted to three-quarters during the last three or four years. There seems no reason to doubt, however, that there has been a very great diminution in the consumption of oysters, and that this has followed immediately as the result of the BRITISH MEDICAL JOURNAL report and that of the Local Government Board on oyster culture in relation to disease.

As was pointed out by Dr. Cartwright Wood in our columns, and by Dr. Bulstrode in his report to the Local Government Board, many of the oyster layings examined were in an exceedingly good condition, and were affected by no possible source of contamination; and these fortunately comprise the bulk of the large layings, especially in Essex and Kent. On the other hand, the condemnation of some of the smaller and less known beds was severe, and as it is impossible for the public to discriminate between those oysters coming from the good layings and the bad, oysters have for some time been "suspect," and we are assured that the oyster industry has practically almost failed. This matter has been brought forward in the House of Commons by Mr. Henniker Heaton, who asked whether the President of the Board of Trade "would recommend the appointment of inspectors of layings and of oyster shops and stalls, authorised to enforce conditions of sanitation; and whether he would recommend that it should be made a penal offence to sell oysters brought from foreign layings without declaring their origin at the time of sale, and without plainly marking such origin." The President of the Board of Trade, whilst for the present shifting the onus of responsibility on to the shoulders of the President of the Local Government Board, expressed himself willing, should it be found that the Board of Trade could take any useful action in the matter, to give careful consideration to any proposals which may be laid before him. Mr. Ritchie's joking observation "that the marking of foreign oysters would not be either a feasible or an efficient remedy" is true enough, but thorough inspection and regulation of the oyster trade under the Local Government Board or the Board of Trade, whichever may have powers, or may obtain powers from Parliament, for this purpose, should certainly be carried out at once. The scheme to which we have referred points out very pertinently that "the layings condemned in the recent report should be at once closed, and no oysters allowed to be sold from them until inspected and reported as free from sewage pollution by a Local Government Board inspector."

It would certainly appear that the Medical Department of the Local Government Board should be the authority to take action in a matter of such importance as the public health. The scheme further proposes that "all oyster layings, shops, stalls, or other places where oysters are sold to the public should be subject to some such provisions as are contained in Section IV, Infectious Diseases (Prevention) Act, 1890" (the Milk Clause), and this will be generally approved, although the necessity for the limitation suggested, that is, liberty to appeal against the inspector at quarter sessions, is open to question. Any powers given should be unrestricted by local authority; public confidence can only be restored by the action of a perfectly impartial and central authority.

The proposed "time limit" of thirty days before directly imported foreign oysters should be sold might even be extended, but it would be an exceedingly difficult matter to compel a declaration as to the source of any oysters. If, however, a thorough system of inspection could be instituted with a public announcement from time to time as to the results of inspection, the various oyster companies which were found to have their layings in a satisfactory condition would be able to protect themselves, and to reap a fair harvest by declaring the source of their oysters, and sending to their various customers the inspector's report. Under these conditions a clause imposing a heavy penalty for false declaration would be as fully efficient as a clause calling for compulsory declaration. It now rests with the Government to see that steps are taken to rectify the evils that have been brought to light, and we sincerely hope that the President of the Local Government Board will obtain for the medical authority of the Board powers to act on some such lines as those mentioned above.

## CAMBRIDGE DEGREES FOR WOMEN.

As will be seen from our University Intelligence, the Syndicate appointed last June to consider "what further rights or privileges, if any, should be granted to women students by the University, and whether women should be made admissible to degrees in the University," have at length presented their report. The Syndicate proves to be divided into a majority of 9 and a minority of 5, and the latter have also issued to the Senate a statement of the nature of a minority report. The majority—and to some extent the minority also—appear to agree that women who have been trained at Cambridge and have passed a Tripos examination are under some disadvantage. They obtain a Tripos certificate, but in the competition for teaching and other appointments they find that the significance of this certificate is ill understood, and candidates who have the stamp of a degree obtained elsewhere are preferred to them. Both sections of the Syndicate are also agreed in this: that it is undesirable to open to women the full membership of the University, with all the rights and privileges that implies. The University is governed in the last resort by the votes of its Senate, consisting of the graduates of M.A. status; its administration is carried on by Boards and Committees to which any member of the Senate is eligible.

Complete equality of the sexes in the work of the University, which would result if every degree were open to women as well as to men, is deemed by the Syndicate to be impracticable, even if it were desirable. But the majority propose to remove the admitted grievance on the part of women by a

method which can end only in complete amalgamation. They recommend that women who have done all that men are required to do, in the way of residence and examinations, shall be admissible to the *title* of B.A. They are to pay the same fees for the titular degree that men pay for the full degree; but they are not thereby to acquire a Bachelor's rights. After three years they may pay the full M.A. fees, and receive the *title* of M.A., but they will acquire no vote in the Senate, no power to sit on committees, no right to use the library, the museums, or the laboratories of the University. If they have made "valuable and original contributions to science or letters" they may five years later aspire to the *title* of D.Sc. or D.Litt.; but again they will gain none of the privileges of doctors. At every step they will pay exactly as much as if they were receiving a substantial academic status, though apparently they are to gain nothing but a shadowy title in return. It is apparent that in this scheme the removal of one more or less sentimental grievance is effected by the substitution of a succession of real and indefensible disabilities, and that the agitation for further concessions will not be stilled, but rekindled into greater energy than before.

The Syndicate are not prepared to recommend that any steps be taken to confer titles of degrees in Divinity or in Medicine upon women, or that facilities should be offered for titular graduation through any but the Honours or Tripos examinations. The anomaly of a titular M.D. degree, which confers no rights or privileges in regard to registration or practice, was apparently too great to be overcome; but it is arguable that a titular M.A. degree without the franchise of a Master of Arts is hardly less anomalous. Certainly the creation of a large body of titular graduates, excluded from everything that makes the status valuable, is a rash step for a university to take if it means to do no more. Public opinion, to say nothing of ordinary fair play, would inevitably force on the further step of complete enfranchisement. Thus the conclusion is unavoidable that the step proposed is intended not to be final; that it is offered as an easy transition to something much more far-reaching and comprehensive; and that it is meant to stimulate further demands which the University, having granted so much, cannot possibly refuse to grant.

The minority report proposes to avoid this result by offering to women titles which cannot be mistaken for those conferred on men, and which, being of new invention, have no traditional associations, and no suggestion of privileges withheld. The titles *Magistra in Litteris* (M.Litt.) and *Magistra in Scientiâ* (M.Sc.) are those put forward in a tentative way. They would have the advantage of conferring the coveted letters in lieu of the Tripos certificate, of suggesting a magisterial degree instead of the humbler baccalaureate, and of being open to women students only. If, moreover, these titles could be acquired on the strength of examination alone by women who had studied, say at the Royal Holloway College or Bedford College, the non-requirement of residence at Girton or Newnham would bar any future claim to full membership of the residential University like Cambridge. This plan has thus its merits from the conservative point of view, and may perhaps find favour among many who doubt the propriety of confirming the monopoly of the local women's colleges. It is at least logical and intelligible. It frankly denies membership to women, while it meets their demand for an academic designation. The proposals of the majority of the Syndicate in appearance do the same, but in such a way as to settle nothing; for the price of the substance they would yield only the shadow; and they would place women under new disabilities under the guise of concession. Should the Senate adopt these proposals, it can be only because it chooses to take "two bites at a cherry," for the concession of a man's title must be followed at no remote date by the concession of a man's status and rights, and the conversion of Cambridge into a "mixed University" in the fullest sense of the term.

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The Senatus of the University of Aberdeen has indicated its intention to confer, at the Spring Graduation Ceremonial, the honorary degree of LL.D. on Sir Thomas Grainger Stewart, Professor of Medicine in the University of Edinburgh, and on Mr. E. A. Schäfer, F.R.S., Professor of Physiology in University College, London.

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The course of lectures at the Royal College of Surgeons of England on Diseases of the Gall Bladder and Bile Ducts and their Surgical Treatment, will be given by Mr. A. W. Mayo Robson in the theatre of the College on Monday, Wednesday, and Friday, March 8th, 10th, and 12th at 5 o'clock on each day.

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Dr. Harry Crookshank Pasha, who for the last thirteen and a half years has been Director-General of Egyptian Prisons, has been appointed British Controller of the Daira Sanieh by the English Government in succession to Mr. Hamilton Lang, C.M.G., who has resigned in consequence of ill-health.

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The Norwegian Parliament has unanimously decided to appoint Dr. Nansen to a Chair of Zoology in the University of Christiania. The duties of the Chair will, it is understood, be just what the distinguished incumbent chooses to make them, and they are not likely to interfere with any further explorations of the Arctic or Antarctic regions which he may be disposed to undertake.

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The meeting of the Ophthalmological Society on March 11th will be devoted to a discussion on Retro-ocular Neuritis. The subject will be introduced by Mr. Marcus Gunn, while its medical aspects will be considered by Dr. Buzzard. Dr. Gowers, Mr. G. A. Berry of Edinburgh and Dr. Hill Griffith of Manchester intend to take part in the discussion. We are asked to state that medical men who are not members of the Society will be welcomed as visitors.

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## BERI-BERI IN RICHMOND ASYLUM, DUBLIN.

We are glad to learn that there has been no fresh case of beri-beri at the Richmond Lunatic Asylum, on the male side of the house, since November. Although since that date some sporadic cases have occurred up on the female side, it is considered that the epidemic is disappearing. We are also glad to learn that important sanitary works are in progress with the view of lessening the disastrous overcrowding, that the additional temporary buildings at Portrane are being pushed on, and that the new asylum there has been commenced.

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## THE WESTWARD ROUTE OF ORIENTAL EPIDEMICS.

The route by which Oriental epidemics may reach Western Europe is a matter which grows in interest and importance with every year owing to the increasing speed of communication. In 1892 the epidemic of cholera appears to have—following a route similar to that taken by the early visitations of the century—spread to Germany mainly by land through Afghanistan, Persia, and Russia. There is no doubt, how-

ever, that under existing conditions the most dangerous point is the Red Sea, owing in particular to the annual pilgrimage to Mecca. A correspondent who has had special opportunities of studying this subject draws attention to the fact that a considerable number of pilgrims go to Mecca in the year from Russia. "When in Russia in 1893," he writes, "I saw what a very large number of Mussulman subjects inhabit that country; and how, as traders, they penetrate to all its larger towns (even St. Petersburg and Moscow). The Haj is performed by thousands from the Indian Empire, likewise by thousands from the south-eastern portions of Russian Europe. Mecca, the meeting place of these religious devotees, may be regarded as a 'microbial exchange;' the conveyance of epidemic disease overland to Russia, and from Russia to the rest of Europe is thus explained. With regard to the present epidemic, such stringent measures have been taken, not only in the Red Sea ports, but also in the Persian Gulf, that I think there is every hope that the disease will not spread Mecca-wards. The Government of India has forbidden the departure of pilgrim ships from Bombay and Karachi, and has notified Calcutta and Madras as the pilgrims' departure ports. Madras and Calcutta have naturally protested against pilgrims from the infected ports being thrust into their hitherto unaffected neighbourhood." Since this was written the Government of India has taken even stricter measures to check the pilgrimage from India this year, and there seems little danger that the epidemic of plague will spread by land westward from Sind.

## THE POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

ALTHOUGH superannuation has been obtained by Poor-law medical officers, we are glad to see that the Poor-law Medical Officers' Association does not by any means intend to bring its useful career to an end. It is inevitable, having regard to the nature and constitution of Boards of Guardians, that disputes should from time to time arise between them and their medical officers, and it is most desirable that there should be in existence an effective organisation of the medical officers themselves for dealing with such questions and for insuring just treatment. As will be seen from a report on another page, Mr. J. Wickham Barnes has resigned the office of Honorary Secretary after many years of valued service, and that Mr. Arthur Greenwood has been appointed in his place. The offices of the Association have been removed to 9, Copthall Avenue, London Wall, E.C.

## NON-COMBATANTS ON ACTIVE SERVICE.

THE deaths of Surgeon Fyfe, R.N., on the field of battle, and of Surgeon Way, R.N., of sunstroke, during the Benin expedition, forcibly draw attention to the anomalous position of so-called non-combatant medical officers on active service. Surgeon Fyfe, the only officer killed at the taking of Benin, was shot dead while actually succouring a wounded comrade, Captain Byrne. He was clearly a man of the utmost nerve and gallantry, qualities observed several times before while under fire, and which caused him to be mentioned in despatches. Yet technically he was a non-combatant; and, in the sense that term is often unworthily paraded before an unthinking public, by implication was consequently not exposed to death risks in actual fighting. That use of the term is not only grossly mendacious, but grievously unjust to brave men, as the records of our wars but too plainly show. Moreover, the public must also know that it is the non-combatant fiction which is made the ground—we do not say so largely in the navy—but in the army, of refusing equal military status to medical officers as to other branches of the service. It is the main ground for refusing them due military honours and salutes; it is the pretext for insulting them on many social occasions, and for blackballing them in certain clubs. Can anything be more unjust or ungenerous to comrades who thus too often lay down their lives in the very fighting line, as Fyfe did? What more can any man, by whatsoever name called, take into the field of battle than his life? That medical officers do this cannot be denied; that they do it unselfishly and gallantly, as their duty, is known to all; and by none better than the very men who withhold from them their due. These plain facts should be fully ventilated in order that public opinion may be brought to bear on our military heads, who, by refusal to accord medical officers equal army status with others, are rapidly, and apparently complacently, destroying the medical service, upon the contentment and efficiency of which so much depends. If Fyfe's death in battle be the means of doing this, that gallant officer will not have died in vain.

## NEW MEDICAL CHARITIES FOR DUNDEE.

RECENT events will go far to place Dundee on a level with other large towns in the completeness of its medical equipment. Only a few weeks ago we had to record that £10,000 had been handed to the Royal Infirmary for the establishment of a maternity service, and that gift is now supplemented by a generous donor who gives £6,000 for the equipment of a women's hospital, including both maternity and gynæcological wards. The movement for the hospital accommodation of incurable disease has taken fresh impetus from the idea of making it the local memorial of the Queen's reign, and has been formally adopted at a public meeting for that purpose, and a strong committee has been appointed.

## PROFESSOR VON ESMARCH.

ON February 28th, Professor von Esmarch, of Kiel, celebrated the twenty-fifth anniversary of his marriage with Princess Henrietta Elizabeth of Schleswig-Holstein, whose life he had saved by an operation. The Princess is aunt to the present German Empress and to Prince Christian, son-in-law of Queen Victoria. Professor von Esmarch (who was "ennobled" by being granted the prefix "von" to his name in 1887) is now over 74 years of age. As a surgeon his name is a household word throughout the medical profession. His professional brethren throughout the world will, we are sure, unite with us in congratulating him and his illustrious spouse on their silver wedding and in heartily wishing them *In plurimos annos.*

## THE FOUNDER OF THE RED CROSS.

WE mentioned last week that the Dowager Empress of Russia has come forward to rescue one of the greatest of practical philanthropists from an old age of dependence, if not of actual want. It is a striking proof of the fact that "the world knows nothing of its greatest men," that in announcing the Empress's kindly act the papers spoke of the recipient of her bounty as "M. Dupont." The very name of the founder of the Red Cross has been forgotten in his lifetime. In fact, so utterly has he passed from the knowledge of his own countrymen that a Geneva newspaper recently referred to him as one long since dead. That is the way of the world. It remembers those who do it harm; conquerors and criminals *volitant vivi per ora virom.* As for those who do it good, their name perishes from among men. A short account of the career of the man to whom is due not only the Red Cross organisation, but the Convention of Geneva, may therefore be interesting. J. Henri Dunant was born at Geneva on May 8th, 1828. He comes of a family that has done the State service for more than two centuries. Quite early in life he devoted himself to philanthropic work among the poor of his native city. Miss Florence Nightingale's work among the sick and wounded in the Crimean war made a deep impression on him, and when, a few years later, he saw the realities of war with his own eyes in the campaign of Napoleon III. against the Austrians in Italy, in 1859, he described them in a pamphlet entitled *Un Souvenir de Solferino*, which sent a thrill of horror throughout the civilised world. From that time M. Dunant gave his life to the furtherance of the work which he had undertaken. In 1863 he entered on a pilgrimage at his own expense to the different countries of Europe, seeking audiences with sove-

reigns, ministers, and other persons of authority and influence, and everywhere striving to stir up men's minds to the importance of the purpose which he had in view. His object was to organise a conference of Governments which should devise some means of mitigating the horrors of war. His persevering efforts triumphed, and in October, 1864, the historic Conference was held at Geneva, the outcome of which was the Convention which has made modern warfare comparatively humane. By 1870 M. Dunant had spent half his fortune on the philanthropic work to which he had given his life, and a few years later he lost the remainder of it. For some time past he has lived in absolute retirement in an institution at Heiden, in the Appenzell Canton, Switzerland. The benefaction of the Dowager Empress of Russia will make him comfortable for the rest of his days; but is it not a reproach to the whole civilised world that such a man should have been allowed to become a pensioner on public charity? He passed by doing good: and because he had not the faculty of self-advertisement which goes to the making of a successful philanthropist in these days, his reward was the poorhouse.

## THE HEALTH OF THE TROOPS IN INDIA.

The subject of the effect of the repeal of the Contagious Diseases Acts in India upon the health of the British army in that country will, we understand, be discussed in the House of Lords on Friday, March 12th. We are requested to announce that at a meeting held at the Royal United Service Institution on Saturday, February 27th, a Provisional Committee was formed to obtain the protection of Her Majesty's forces in India from contagious diseases. The chairman of the Committee is the Right Hon. Sir James Fergusson, G.C.S.I., M.P., who was at one time Governor of Bombay. The vice-chairman is Sir Henry Cunningham, K.C.S.I., and the honorary treasurer Sir Terence O'Brien, both of whom have had long experience of India. The honorary secretary is Colonel F. C. Keyser, C.B. Among the medical members of the Committee are Surgeon-Major-General Hamilton, Dr. Frank Payne, Brigade-Surgeon-Lieutenant-Colonel Hill Climo, M.D., and Mr. B. Shilitoe.

## UNDER WHICH KING?

It is an old joke that when the Public Health Act of 1848 was passed it was not thought necessary to appoint a medical officer to assist in its administration; but when a few years later it was necessary to form a Burials Board it was then considered desirable to have official medical assistance. It is a matter for congratulation that the present Home Secretary selected a medical officer of health to fill the important post of Chief Factory Inspector, and the excellent supervision which the Home Office exercises through its medical inspector over burial grounds in towns is also a matter for satisfaction; but the anomalies of the present system of public health administration are most curious. Primarily a tailor's shop would be subject to the supervision of the local sanitary authority, but the medical officer would have to communicate with an official acting under the Home Office if he suspected that women or children were employed at improper hours. If the proprietor put a small motor to his sewing machines, and switched on the electric current to work them, the workshop would become a factory, the whole medical care of which would be transferred from the sanitary department to the factory inspector acting under the Home Office. Any prosecution of persons selling adulterated drugs would be at the instance of the local authority, but the certificate of the analyst appointed by them would be liable to be overruled by that of an official of the Inland Revenue. The seizure of unwholesome meat is the function of the medical officer of health or sanitary inspector, but the destruction of cattle suffering from infectious disease comes under an officer in the department of the Minister of Agriculture. The health management of a prison is under the care of the Home Office, of a workhouse under an authority working under the superintendence of the Local Government Board. The Keeper of the Queen's Conscience would take cognisance, through his visitors starting from the Royal Courts of Justice, of certain wealthy lunatics, while the Lunacy Commission in Whitehall would deal with the inmates of asylums generally. Mr. Charles Heneage has been corresponding with the Secretaries of State and heads of certain departments, pressing upon them the desirability of establishing a Ministry of Health somewhat on the lines suggested by the late Sir B. W. Richardson. He urges that a permanent minister with an office should have charge of essentially medical work, with properly officered subdepartments for (1) registration, (2) local government, (3) factories, etc., (4) analytical and chemical work, (5) veterinary medicine, (6) public works and prisons, (7) lunacy. His efforts are deserving of every sympathy, but it is impossible not to perceive that the function of the Local Government Board in its relations to local authorities is so complicated and covers so many different departments other than those dealing directly with public health that there are serious practical difficulties in the way of the establishment of a Ministry of Health. Action taken without sufficient consideration and discussion might well result in a conflict and division of authority not less illogical than now exist.

## THE HOSPITAL ACCOMMODATION FOR DIPHTHERIA IN LONDON.

Some months ago we drew attention to the curious arrangement according to which cases of diphtheria were being refused by the Asylums Board on the plea of want of room, while a far larger number of beds than were allocated to that disease were being used for scarlet fever, which was a much milder complaint, and one which, notwithstanding its wider spread, was causing a smaller mortality. The report presented to the meeting of the Asylums Board on February 27th leads us to return again to the same subject. The total number of beds available for scarlet fever cases would seem to be 3,871, of which 2,985 are occupied, leaving 886 beds empty. The total diphtheria beds, on the other hand, amount to only 690, all of which except 8 are occupied. During certain portions of the year there is no doubt a great run on the scarlet fever beds, but so long as the Board admittedly cannot take in all cases, why should they not do the best they can with the beds at their disposal by using them for the more serious disease? At the present time there is no very great difference in the numbers notified of these two diseases, the numbers in the last fortnight being 660 cases of scarlet fever and 511 of diphtheria. Why, then, should such a vastly greater number of beds be set aside for the less fatal ailment; and why should 866 of them stand idle (besides those that are unavailable because they are in the hands of the cleaners), while cases of diphtheria, a disease which carries off nearly a quarter of those attacked by it, are asking for admission?

## THE BILL FOR A TEACHING UNIVERSITY IN LONDON.

A meeting of the delegates of the institutions named in the report of the Cowper Commission was held at the Royal College of Physicians on February 26th, and, as we anticipated, adopted a resolution calling upon the Government to introduce the Bill for the appointment of a Statutory Commission to carry out the recommendations of the Commission. The resolution, which was moved by Lord Lister, seconded by Professor Rucker, and carried unanimously, was as follows:

> That this meeting of delegates represents to Her Majesty's Government the great injury caused to the educational interests of the metropolis by the delay in establishing a teaching university for London, and urges upon them the necessity of taking immediate steps for the constitution of a Statutory Commission for the reconstruction of the University of London on the lines of the recommendations of the Cowper Commission.

Lord Lister said that he had formerly despaired of seeing a

teaching university in London, although his varied experience as a professor in Glasgow, Edinburgh, and at King's College, London, had convinced him that the Scottish system of teaching and examination was much more beneficial to the progress of medical science and to the instruction of students than the purely examinational system of the University of London. Since the appearance of the report of the Cowper Commission, however, he had taken a more hopeful view. The motion was supported by Sir George Young, Sir Henry Roscoe, and the Rev. Dr. Wace. Lord Reay, the President of University College, said that in no other country in Europe would such a company of distinguished men of science and learning have urged on the Government of the country the necessity of founding a teaching university and have failed to obtain an immediate consent to its wishes. The House of Lords had done its duty, but the mischief had been done in the House of Commons. Foreign nations saw with astonishment the opposition which had been raised, and would be disposed to gauge our advance in civilisation by the action of Parliament in reference to the reconstruction of the University of London. The Government was bound for its own honour and for the honour of the country to bring the matter to a successful issue by obtaining the appointment of this Statutory Commission, which would in fact be a court of arbitration. At a special meeting of the staff of the medical school of Guy's Hospital, a resolution in similar terms was adopted unanimously.

## THE INDIA EPIDEMIC DISEASE BILL.

Indian papers received by last mail bring reports of a meeting of the Viceroy's Council, held at Calcutta on February 7th, at which an important discussion took place regarding the law which it has been found necessary to enact in order to enable local governments and bodies to grapple effectively with the plague. The Bill has now become law, and authorises inspection and, if necessary, detention of travellers by sea and land, and such measures of general and special sanitation as may appear needful. Sir John Woodburn, who is in charge of the Bill, made the remark that "the medical advice on which the Government of India relied in the earlier stages of the plague was that it would confine itself to the limits in which it broke out." "That anticipation of our advisers has," he adds, "proved to be incorrect." Elsewhere he states that Surgeon-Major-General Cleghorn, who represents the Government of India at the Venice Conference, entertains the view that "the plague is almost entirely due to local conditions." Local conditions are no doubt very important in the development and maintenance of plague in a locality, but the history of the disease proves irrefragably that it is communicable and portable by human agency, and it seems a pity that the chief medical authority in India should have minimised this element in its propagation. It is a matter for regret that there should have been so long a delay in the adoption of strong restrictive measures until the malady has, through the unchecked and unwatched movements of men, been disseminated, and a large loss of life has taken place which might have been prevented by earlier resort to those arrangements for inspection and segregation which have now been made.

## PUERPERAL CONVULSIONS AND FUROR OPERATIVUS.

No doubt eclampsia is a grave complication in pregnancy and childbed, and British and foreign obstetricians and scientists have done great benefit to humanity by strict investigation into its nature and causes. Special diet in pregnancy, and antisepsis during delivery, are now saving hundreds of eclamptic subjects. Owing to the perfection to which abdominal surgery has been brought, some of the great Continental authorities have undertaken extreme proceedings—even Cæsarean section—in order to hasten delivery, one of the first principles in the treatment of convulsions during labour. Veit of Leyden, however, analysing some recent statistics of the Prague Maternity, with which he was recently associated, shows in the February number of the *Monatsschrift für Geburtshülfe und Gynäkologie* that under modern treatment puerperal eclampsia involves little risk to the mother, and not very great danger to the child as long as the case is left to Nature, or treated by the usual resources of the obstetrician should the labour linger. Veit states that out of 4,380 births at the Prague Maternity, eclampsia occurred in 22; that is, 16 in 2,283 primiparæ, and 6 in 2,097 multiparæ. All the 16 primiparæ were saved; 1 child was dead before labour, and 2 were lost during that process: 1 of the 6 multiparæ was lost, whilst 1 child died before labour and all the remaining 5 were saved. When we remember what kind of patient a poor multipara often is, we cannot help feeling that the modern treatment of so grave a condition in a pregnant woman, often half-starved, or corpulent and not free from visceral disease, must be highly satisfactory; 5 out of the 16 primiparæ were delivered spontaneously, 11 by interference, labour being induced in 1, craniotomy practised in 3, and the forceps employed in 7. All the 6 multiparæ were delivered by art: in 1 premature labour was induced; in 1 craniotomy was found necessary, and in 4 the forceps was used. These statistics show that the intelligent and experienced country doctor can successfully cope with the eclampsia of pregnancy and labour. The means by which the necessary hastening of labour is effected are those operations with which he is best acquainted, nor need the medical authorities at lying-in institutions do more in order to save mother and child. Cæsarean section, Porro's operation, and symphysiotomy may be needed, it must not be forgotten, when there are mechanical impediments in an eclamptic woman, just as they may be nearly, or quite, as necessary in a healthy woman with a deformed pelvis. For the sake, however, of merely hastening labour in eclampsia, these great feats of surgery need not be dreamt of, nor, if attempted, could we expect such satisfactory results as the Prague doctors obtained by milder means.

## ROYAL EDINBURGH ASYLUM FOR THE INSANE.

The annual report of Dr. Clouston, the Physician-Superintendent of the Royal Edinburgh Asylum for the Insane at Morningside, once more shows the splendid work which is being done. There is no institution like Morningside in England, for it combines the pauper asylum, the hospital for small payments, and the sumptuous private asylum, all under one head. The paying patients increase and will increase with the present management, but one always feels a little afraid lest the enlarging and extending of these public institutions at the general cost is not somewhat dangerous, for with a change in head there may be a marked diminution of patients, yet the big places have to be kept up. Anyway, the new buildings seem to be fulfilling their function, and we are told that within eighteen years there will be a marked change in the constitution of Morningside, for the pauper patients will no longer be received, and more accommodation will be afforded to the class which most needs it, the lower middle class, whose members struggle against their friends being classed with paupers, and yet who cannot meet the great cost of ordinary private asylums. The report shows the amount of useful work which is being done at small cost. Thus the lowest paying class is received for £30 a year, including clothing, while the intermediate class only pays £42. The highest class may pay as much as they like. The medical report is quite a clinical lecture on insanity, its causes and treatment. Dr. Clouston is one of the great advocates of employment and feeding. He was, we believe, author of the term "gospel of fatness" in treating melancholia, and he has done most excellent work in this way. He also recognises the importance of not being too timid; there are superintendents who are very proud that no accidents ever happen because they give no chances; we think with Dr. Clouston that in employing patients risks must and should be run for the patients' sake. There is a sermon on the ill-effects of

alcohol, which is perhaps not unnecessary in the northern capital, though it may be doubted whether demonstrations given to teachers of the effects of drink would have much influence on the amount of the evil. Dr. Clouston thinks influenza is responsible for a change in the type of mental disease, and that there is a greater tendency to depression than formerly. This is true in England as well as in the north. The Superintendent gives the experiences of his autumn holiday, contrasting the methods of treating the insane, whether these are looked upon as God-inspired or Devil-possessed. Not only is splendidly useful work being done from the practical and paying points of view, but good scientific work is being carried on, and we believe no patient is allowed to be considered incurable at Morningside unless he has been subjected to treatment by the animal extracts. This all shows that the medical staff are trying in every way to combat serious and difficult diseases with the newest and best weapons. It is thus that the study of insanity will advance, and less ignorant dread of such diseases will exist.

## THE PUBLIC HEALTH (SCOTLAND) BILL.

The delay which has occurred in the second reading of this Bill has given rise to the most profound dissatisfaction in Scotland. Again and again the second reading was set down for an impossible hour, and had to be postponed. The feeling has accordingly got abroad that the Bill is not a matter of serious concern to the Government, and that Scottish business is to be allowed to drift. One of the reasons for the hesitancy of the Government in dealing with the matter arises undoubtedly out of the difficulty in determining the committee to which the Bill should be referred. The Government proposal was to remit the Bill to the Grand Committee on Law. This, it is contended, would be absurd. There are only half a dozen Scottish members upon this committee, all of them official members, whose time is already much occupied. On the other hand, Dr. Farquharson has proposed to refer the Bill to a Committee of Scottish members, with a sufficient number of English and Irish Unionist members added to constitute the Committee a microcosm of the House. To this the objection is urged that the non-Scottish Unionist members would not attend the meetings of Committee, and that the Government would consequently be liable to be out-voted. If, however, English Unionist members were selected who take an active interest in social and sanitary subjects, there would be no difficulty in forming a satisfactory committee. If the Government have any regard for their reputation in Scotland, they will no longer allow matters to drift.

## DIPHTHERIA IN LONDON.

There was a very marked increase in the mortality from diphtheria in London last week. The fatal cases of this disease, which had been 46, 37, and 40 in the three preceding weeks, rose to 62 during the week ending Saturday last, February 27th, and exceeded by as many as 27 the corrected average number in the corresponding weeks of the ten preceding years. Of these 62 fatal cases, 6 were of persons belonging to Islington, 6 to Shoreditch, 5 to St. Pancras, 5 to Lambeth, 4 to Poplar, 4 to Camberwell, 4 to Lewisham, and 3 to Bethnal Green sanitary areas. There was also a further increase in the number of notifications of diphtheria in London: the cases notified, which had been 219, 220, and 254 in the three preceding weeks, further rose to 275 during the week ending Saturday last, February 27th. Compared with the numbers in the preceding week, there was a slight decline in Central and in East London, and in South London the number of new cases almost corresponded with that in the preceding week; but there was a considerable increase in the number of new cases notified in West and in North London. Among the sanitary areas of West London the increased prevalence of diphtheria was most marked in Kensington and in Paddington, where 9 and 7 new cases respectively were notified, against 2 in the preceding week. In North London there was a general increase in the prevalence of the disease, which was most marked in Hampstead and in Hackney. Among the sanitary areas of East London there was a marked decline in the new cases notified in Shoreditch and in Poplar, and a slight increase in most of the other sanitary areas. In South London the prevalence of the disease remained almost stationary, the marked decline in the number of new cases notified in Lewisham and in Woolwich being balanced by a considerable increase in Rotherhithe and Greenwich. In Camberwell 32 new cases were notified, against 31 in each of the two preceding weeks. The admissions of diphtheria patients into the Metropolitan Asylums Hospitals during last week were 102, against 104 in each of the two preceding weeks; and 855 patients remained under treatment in these hospitals on Saturday last, February 27th.

## THE MIDWIVES REGISTRATION BILL.

On Thursday, February 25th, the promoters of this Bill postponed the date for which it was to be put down for second reading from February 26th to Friday next, March 12th. As the business of the House is at present arranged the first order of the day on March 12th is the Crofters' Holdings (Scotland) Act (1886) Amendment Bill, and the second is the Midwives Registration Bill. It is generally understood, however, that the Government will continue to take Fridays for Supply, in which case neither of the other orders could come on until after Supply has been disposed of. Notices of opposition to the Midwives Bill stand on the notice paper in the names of Mr. Maclure and Sir Walter Foster, and steps are being taken by Mr. Horsley, the Chairman of the Subcommittee of the Parliamentary Bills Committee, to induce other members of Parliament to give similar notices, with the view of ensuring that the Bill shall be adequately discussed. A meeting of the Parliamentary Bills Committee will be held on March 11th, when one of the subjects for discussion will be the Midwives Registration Bill, and an opportunity will be afforded of considering what final steps shall be taken with the view of preventing the Bill slipping through.

## THE PROPOSED BOTANICAL INSTITUTE FOR LONDON.

The proposal to establish a botanical institute in London, which was put forward formally by Mr. W. Martindale at a public meeting held in the Museum of the Royal Botanical Society on February 27th, received on the whole an encouraging amount of support. Mr. Martindale admitted that the educational side of the charter under which the Society held its gardens had of late been neglected, although the ground had been laid out in a manner well adapted for teaching purposes, to which end they had been most successfully used some years ago by the late Professor Bentley. He proposed the establishment of an institute of botany—which he suggested should be called the Albert Institute—in the gardens of the Botanical Society. He hoped that this would eventually become affiliated to the proposed teaching university for London. He admitted that much money would be required, but in view of the economic advantages which might be reckoned upon, this ought to be provided by the merchant princes of the metropolis putting their heads and their purses together. At the same time, the institute would in no way interfere with the social functions of the Botanical Gardens, while its establishment would greatly strengthen the hands of the Society in its application for a renewed lease. Mr. Martindale's paper called forth the noteworthy remark from a subsequent speaker that this was probably alone among the great cities of the world in being without a garden used for teaching purposes. Dr. D. H. Scott, of Kew, characterised the proposed institute as commanding the sympathy of any botanist, and emphasised its importance for purposes of research, particularly in vegetable physiology, and also in the practical bearing it would have upon the training of those who intended to enter

upon careers of forestry, agriculture, or colonisation. In these respects, at least, there would be no fear of undesirable competition with existing institutions. Professor F. W. Oliver, in supporting Dr. Scott, said that teachers in the metropolis took more than a Platonic interest in the scheme, and would be glad to assist the Society by serving with its council on an informal committee. The Rev. G. Henslow was much less hopeful, pointing out that a large sum of money would be required, and that if it were to be obtained he was unable to tell where the students would come from. The only people who might take advantage of it were the florists and horticulturists. Dr. Ringer, on the other hand, strongly advised the Council to act before the grounds were lost for ever. He was sure that medical students would go where they learnt most easily, and hence the institute would command their support. Mr. Carteighe spoke strongly as to the number of petty institutions in which "botany" was at present taught, and which he hoped the new institute would absorb. On the whole the meeting was favourable to the scheme, the difficulties being mainly want of money and the fear of competing with the present homes of botanical teaching. The first is one which the Council of the Society can no doubt solve if they go the right way to work; the second may also prove capable of adjustment if lecturers on botany would consent, like those on hygiene and on insanity, to hold some of their classes away from their own colleges. An arrangement could no doubt be made by which this could be done at the new institute, to the support of which some of the college fees might be contributed, and by this means its resources could be utilised to the utmost without the slightest clashing of interests.

## THE INTERNATIONAL SANITARY CONFERENCE.

THE most important immediate consequence of the International Sanitary Conference at Venice would appear to be the resolution adopted calling upon all Powers to prohibit and restrict pilgrimages by all material and moral means at their disposal. The Indian Government anticipated this resolution by authorising the British diplomatic representative to announce to the Conference that it had decided to prohibit this year's pilgrimage to Mecca entirely. The Netherlands representative stated that pilgrims from Java were required to be provided with a personal certificate, stamped at departure and on return. Persia announced the prohibition of pilgrimages to Mesopotamia, and Egypt reported that steps were being taken to deter pilgrims from Egypt from going to Mecca this year. Russia reported that, not only all Mohammedan, but Christian pilgrimages had been prohibited. Turkey alone declared that, as pilgrimage was one of the cardinal points of the Mohammedan religion, pilgrims could not be prevented from going to Mecca. It is understood that strong pressure will be brought to bear in Constantinople to obtain the Porte's assent, as also its ratification of the Paris Convention. Various subcommittees are occupied in considering matters of detail, and among other matters it is hoped that a system of international notification of plague may be established. A Reuter's telegram announces that the Sultan of Morocco, in consequence of representations made to him by Ministers of foreign powers, has given orders to the governors and kaids to dissuade his subjects from proceeding to the pilgrimage to Mecca this year.

## JOHN HUNTER AS A PHYSICIAN.

IN his recent oration, which was published in the BRITISH MEDICAL JOURNAL of February 20th, Mr. Christopher Heath gave an interesting account of John Hunter as a surgeon. There is indeed little fear of Hunter's work in surgery being forgotten. It is not perhaps so generally known that he was also a close observer in the field of clinical medicine, and that in some points he was considerably ahead of the physicians of his day. This less familiar aspect of Hunter's scientific character was well brought out by Dr. Newton Pitt in the Oration delivered by him before the Hunterian Society in 1895, and since published in pamphlet form.[1] Dr. Pitt states that in looking through Hunter's notes of cases one finds accounts of apoplexy, hemiplegia, aphasia, asthma, ague, angina pectoris, lead colic, cerebral tumours, uræmia, indigestion, deafness, gout, syncope, writer's cramp, heart disease, fever with intestinal ulceration — doubtless typhoid, cerebral abscess in association with middle ear disease, etc., showing the very large number and great variety of medical cases in which he was consulted. Specialisation had hardly begun then, and, like Abernethy and Astley Cooper at a later day, Hunter had a large medical, in addition to his surgical practice. It must also be remembered that in the last century medical and surgical cases were mingled together in the same wards. Hunter was especially interested in diseases of the heart, and his opinion was sought for in such cases. Dr. Pitt points out that there is no evidence that in Hunter's time physicians in England recognised or diagnosed lesions of the heart. Notes of cases cited by him, however, show that Hunter had diagnosed structural disease of the heart in some cases, that he had suspected it in others, that he had thought over the causation of the increased action and size of the organ, and realised that incompetence of the valves was a sufficient cause, but was puzzled by cases of large heart which he not infrequently met with, the cause of which was not apparent, but which was probably due to kidney lesions, which he, in common with his contemporaries, overlooked. His treatment was rest, laxative, and gentle bleeding—methods in strong contrast to those in vogue among the physicians who recommended vigorous exercise and other active measures. Hunter was one of the first to describe Cheyne-Stokes respiration. He himself had a typical attack of aphasia, and made acute observations on himself. He was also the subject of vertigo, and suffered from noises in his ears and insomnia. Nothing gave him relief until he took a tumblerful of hot water every night just before going to bed. This gave him a good night's rest. So impressed was he with the value of this simple therapeutic measure that he frequently prescribed it for patients with irritable stomachs, and with the greatest success. In addition to Hunter's greater merits, therefore, we may also claim for him the credit of having been a pioneer of the hot water cure.

## DISTRIBUTION OF THE PRINCE OF WALES'S FUND.

WE would commend to the earnest attention of our readers a letter in the *Times* of March 1st, from Mr. Loch, on the subject of the proposed distribution of the Prince of Wales's fund by the Hospital Sunday Fund. In commenting on the Prince's scheme we urged that this must only be regarded as a provisional arrangement, and Mr. Loch's letter will, we think, convince any dispassionate reader that in this opinion we were right. We have no fault to find with the Sunday Fund, and would leave aside altogether the controversy between Mr. Loch on the one hand and Sir Sydney Waterlow and Mr. R. Martin on the other—being quite willing to admit that the authorities of the Sunday Fund have done their best. But if the Prince's scheme is to be successful (as there seems every probability that it will), and if this success is attained at no expense to the Sunday and Saturday Funds, there will be an annual sum of about £170,000 to be distributed among "the London hospitals"—whatever that term may be interpreted to mean. We hardly think that any supporter, however enthusiastic, of the Sunday Fund could be found to maintain that it is equal to so great a task as the allocation and distribution of such a sum, or is fit to wield the authority necessarily implied in the performance of that task. A central Board of some sort, large or small, must be created, and its composition must be most carefully attended to, if endless waste and corruption are to be prevented. We are glad to see that the proposals of the Charity Organisation Society are attracting so much professional and public atten-

[1] *Reflections on John Hunter as a Physician*, London, 1896.

tion. The time is by no means too long for the careful discussion of the matter. Could not the great hospitals—that is, those with medical schools attached—meet, by their delegates, in consultation on a subject which so nearly concerns them?

# THE PLAGUE.

## KARACHI.

### Statistics.

Our advices from Karachi are to the effect that up to noon on February 10th 1,329 cases and 1,234 deaths had been reported.

| | Cases. | Deaths. |
|---|---|---|
| Week ending December 10th, 1896 | 1 | 1 |
| ,, ,, 17th, 1896 | 11 | 10 |
| ,, ,, 24th, 1896 | 21 | 20 |
| ,, ,, 31st, 1896 | 30 | 28 |
| ,, January 7th, 1897 | 107 | 103 |
| ,, ,, 14th, 1897 | 184 | 159 |
| ,, ,, 21st, 1897 | 210 | 200 |
| ,, ,, 28th, 1897 | 194 | 181 |
| ,, February 4th, 1897 | 321 | 295 |
| February 5th to 10th (inclusive) | 250 | 237 |

The high case mortality during the earlier period of the epidemic was due doubtless to the endeavour made by the inhabitants of the native city to conceal cases of the disease. Information regarding the deaths, which could not be easily concealed, was alone available; and any cases which may have recovered escaped notice. The death ratio during the earlier period of the epidemic in the affected areas was high as compared with the reported deaths from the disease. This was due probably to the information regarding the latter being defective, so that many deaths due to plague were recorded as caused by other diseases.

### Distribution.

The disease first was detected in the Muchi Meani quarter of the native town. It then spread eastwards to the old town quarter, where it raged, and is still raging, severely. From these two quarters the epidemic spread east and south-east to to the Napier and Market quarters. It is still most severely prevalent in the last-named quarters, but within the last week has spread northwards of the Muchi Meani quarter to the Lyari quarter, situated on the other side of the Lyari river, at present dry. There have been isolated cases in nearly all the other parts of the town, including the civil lines; but the cantonments and barracks have escaped so far.

The disease has been exported from Karachi to most of the larger towns up country. An exodus took place immediately on the first serious alarm, and many people must in spite of the watch kept on the railway stations have got away when in the incubation period of the disease. A rough estimate of the number of persons that has left by road, rail, and sea is 25,000 to 30,000.

Up to the present no information is at hand as to the disease having spread by sea from Karachi. As soon as the port was declared affected by the Permanent Medical Board the fact was notified on the bills of health issued by the port authorities, and quarantine was declared against Karachi on all sides.

### Precautionary Measures.

Up to the present the only measures which the existing legal powers sanctioned was the disinfection of infected buildings. All attempts to persuade persons to allow their sick to be conveyed to isolation hospitals, which were in readiness on all hands, failed, and in spite of the urgent requests of the sanitary authorities compulsory notification and segregration was not permitted. The Municipal Health Department, of course, paid increased attention to the sanitation of the town; disinfection of the infected houses was energetically carried on; sulphur was burnt in the streets, which were also sprinkled with carbolic lotion. Persons were forbidden to convey the sick from the infected area, nor were persons allowed to move for purposes of residence into an uninfected area until their kit had been disinfected, and they themselves declared free from the disease. For this purpose a cordon was placed between the station and cantonments.

### The Prophylactic Camps.

Later, every effort was made to induce persons to leave the infected areas, and take up temporary habitation in excellent huts provided for them on the outskirts of the town. These efforts were eventually successful, and now many thousands of the healthy persons from the affected areas have settled in these temporary segregation camps. The health in these camps has been, on the whole, good; the few cases of plague which occurred in them being undoubtedly imported when in the incubation stage. The results of housing the healthy in open, roomy huts here tallies with experience gained in the Kashmir epidemics.

### The New Compulsory Powers.

The new Dangerous Epidemic Diseases Bill, recently passed by the Legislative Council, gives now almost unlimited power to deal with the disease in the radical manner which the sanitary authorities have never ceased to urge from the first appearance of the outbreak in Sind.

The compulsory measures, as far as isolation is concerned, are already applied in the Sudder Bazaar. This quarter of the town lies between the camp and the affected areas, and has been placed specially under medical charge. Powers to enter, cleanse, whitewash, etc., etc., all houses; destruction of rubbish, removal of plague cases to isolation hospitals, etc., have been sanctioned; also, the supervision of the energetic cleaning and disinfecting of the affected areas is in the hands of Government Civil Servants, five of whom are supervising the work at present.

### Caste and Sex Incidence.

The caste incidence is most severe among the Hindu population; and the sex incidence upon males. Figures will be given later.

## CHRONICLE OF THE EPIDEMIC.

### Deaths exceeding New Attacks in Bombay.

The reported deaths from plague in Bombay for the week ending February 26th, 1897, number 730; in other words, a little over 100 a-day. This statement by itself proves nothing, but when it is stated that the total death-rate is much lower than in previous weeks, and that the "new attacks" and "deaths" are more nearly in equality we can gather that the epidemic is on the wane. We again repeat what we have so often stated before, that the approximation of the equality in numbers of attacks and deaths does not indicate an increased virulence of the bacillus, but is to be taken as evidence that fewer persons are being attacked:—

| | Feb. 5. | Feb. 6. | Feb. 7. | Feb. 8. | Feb. 9. | Feb. 10. | Feb. 11. | Feb. 12. |
|---|---|---|---|---|---|---|---|---|
| Cases ... | 123 | 103 | 81 | 118 | 155 | 115 | 113 | 126 |
| Deaths ... | 79 | 114 | 115 | 128 | 124 | 106 | 135 | 125 |

### Measures taken by the Bombay Municipality.

The Municipality is engaged in destroying some dwellings, altering others, digging up insanitary floors, limewashing, and other vigorous measures. Two new hospitals have been opened (February 21st.) The authorities are in alarm on account of the return of persons who left Bombay. This either indicates that Bombay is in a better state, or that the districts whither the inhabitants fled have proved no better or even worse than the quarters they left. We are afraid the latter statement is the true one, as the abatement in Bombay can scarcely justify a return at present.

### The Epidemic Hospital.

The Arthur Road Hospital—a large epidemic hospital in the city—has come in for severe condemnation; not only is the building unsuited for the time of the year, but the absence of doctors and nurses amounts almost to a slur upon our humanity. A description of the hospital in question, taken from the *Times of India*, February 13th, 1897, runs as follows:

The place for the location of the hospital is not what it ought to be. Imagine three large sheds in an entirely open treeless compound, each 117 feet long by 40 feet wide, open on all sides, with a roof supported on

two rows of iron posts, with iron trusses, covered with Mangalore tiles placed on wooden ribs. In its construction all the four sides of each shed have been left open, but now that the place is used as a fever hospital some loose *khapetás* are arranged on sides which afford but poor protection to the patients against the disagreeable cold north-easterly blast which blows every morning and evening during this season. In the absence of doors and windows, some *khapetás* on the sides are removed here and there to form them, which gaps give direct draft to certain patients right over their beds. Throughout the length of the shed there is a ridge ventilation in the middle, about a couple of feet higher than the main roof, but as the open sides of the ridge ventilation are not covered with venetians the cold wind in the early morning makes the sick people there miserable. Again, there is no wooden planking under the tiles, so the crevices between them, with here and there a tile broken, make the inmates shiver with cold on a dewy morning. [The floor is stated to be of mud.]

WANT OF DOCTORS, NURSES, AND COMFORTS.

It may be urged in defence that this building was hurriedly constructed to meet a great emergency, but this defence does not apply to the statements contained in the following quotation:

They [the public] will say "your hospital for the sick with plague is a disgrace to you. You have neither doctors, nurses, nor comforts. Why do you not at once spend money in this direction and remove this reproach from your city? How do you expect that the poorer classes will, when stricken, go to your hospital, where they hear that patients are neglected by reason of the want of attendants? How can you expect your nurses to do their work when they have no comfortable or sanitary accommodation during their few short hours of repose? How can you expect good work from your overdone medical officer in charge?"

Yet offers of help are being poured in at home. Nurses in England are offering their services free of charge, but the India Office does not move a finger towards despatching them.

We are glad to read later that something has been done to redeem the apathy as regards the treatment of the sick:

Something has been done during the past few days to improve the state of affairs at the Arthur Road Hospital. A medical graduate, Dr. P. N. Daveda, has been appointed to assist Dr. Choksey, and Drs. Underwood and Pilgamker have undertaken to give voluntary aid. In addition to these practitioners, Dr. Choksey has for a fortnight past had the voluntary assistance, for four hours in the day, of Mr. Richardson, Ph.D. and F.C.S., in nursing the patients. There are now four hospital assistants on duty—an addition of one—and three sisters are nursing during the day and one at night.

Even this is but meagre help. Sisters from the convents are being drafted into the hospitals as nurses. We admire the courage and devotion of these ladies, but properly trained nurses are what is wanted, and not the empiric nursing of well-meaning women.

EXTENSION OF THE EPIDEMIC.

Plague is reported as prevalent in the following places: Poona, Thana and Surat districts, Coorla, Bandora and Bhiwandi; in all these places plague is severe. In the following places the disease is less severe: Ahmednagar, Satara, Rutnagiri, Colaba, Kathiawar, Kolhapur, and Cutch. In In Afghanistan and Beluchistan there are no cases of plague up to the present. Fairs and pilgrimages throughout the Bombay Presidency are being stopped where necessary.

## THE BATTLE OF THE CLUBS.

BECKENHAM AND PENGE.

THE controversy between the medical practitioners in Beckenham and Penge and the clubs in these districts appears about to enter on a more acute phase. It will be remembered that the chief claims put forward by the medical profession were that a wage limit should be fixed, that the remuneration should be raised from 4s. to 6s. from each member annually, that every medical officer should be *ex officio* a member of the committee of the club which he attends; and that all new members should be examined by the medical officer who should be paid 1s. for such examination.

Later on a second circular letter was sent to each club secretary before the club delegates met, explaining the objects of the demands made, and clearly showing that the medical officers of the clubs were preparing to make a compromise with regard to two points, the wage limit, and the presence of the medical officer on the club committee.

The delegates at their meeting, however, would appear to have contented themselves with denouncing the proposals made by the medical officers, and carried by a majority a resolution to the effect that the proposals being inimical to to the best interests of the clubs, should be referred back to the Beckenham and Penge Medical Society. It was further intimated to that Society that it was the desire of the delegates that the proposal should be dropped for the present, but that at a later date any medical officer dissatisfied with the terms paid to him might apply to his club when his application would be considered.

We are informed that at the next meeting of the Beckenham and Penge Medical Society it was unanimously decided that in view of the uncompromising attitude of the club delegates, the members of the Medical Society had no option but to adhere to their previous circulars. The Medical Society decided further that if the clubs refused to accede to the demands each medical officer should on March 25th give to his club three months' notice of his intention to resign his appointment, and that in acquainting the club secretary of this decision he should point out that he was still willing to discuss the extension of the wage limit, and to accept, in place of the claim to membership of the club committee, an undertaking that no question affecting the conduct of the medical officer should be brought up except in his presence.

There the matter rests for the present, but it is understood that a meeting of the club delegates will be held this week, and that it will consider a proposal to obtain the services of a medical man from outside the district to undertake the duties of attending the members of all clubs at a fixed salary.

The controversy in this district therefore appears to be taking what would seem to be the usual course. The medical profession in Beckenham and Penge are undoubtedly following a wise plan, and one designed in the interests not only of themselves but of their club patients, in requiring reasonable remuneration and reasonable safeguards against the clubs being abused by persons belonging to a class which have no equitable claim to receive medical attendance at rates specially designed to meet the wants of the more necessitous members of the working classes.

DUNDEE.

THE lodges of the Ancient Order of Shepherds in Dundee do not seem inclined to join with the other friendly societies in increasing the salary of the medical officer. The Heather Bell and Hilton lodges having definitively refused to grant the increase the medical officers have resigned, and there being no prospect that any practitioner will accept the appointments, it will be a matter of some interest to see how the lodges will manage their business.

PORTSMOUTH MEDICAL AID ASSOCIATION.

THE *Portsmouth Evening News* publishes an account of the annual general meeting of the Portsmouth Medical Benefit Society. The wage limit is specially reprobated by the upholders of the present abuses, and one of them indignantly criticised the very reasonable opinion expressed by one of their medical officers "that it was not right for many of the members, who were possibly better off financially than himself, to be allowed to remain in the society, and that he thought some scheme could be arranged to exclude this class of members." "This," said the speaker, "was dictating as to who should and who should not belong to the society."

If the present opponents of reform would but consider, at least, the possibility of union in the profession, they must see that a wage limit will have to be conceded in spite of the noisy clamour about "dictating" to the members. Their only means of maintaining the present position is dissension among ourselves; for few can suppose that Acts of Parliament are likely to be passed to coerce the medical profession into undertaking the medical care of well to do persons at the rate of a penny a week.

A PROFESSIONAL JUBILEE.—Dr. M. W. Nencki, director of the chemical department of the Institute for Experimental Medicine, has recently celebrated the twenty-fifth anniversary of his appointment as Professor of Pathological Chemistry in the University of St. Petersburg. He was presented by his friends and former pupils with a *Festschrift*, which contains, amongst others, papers by Professor Thomas Arthus of Freiburg, and Dr. Kostanecky of Bern. The Council of the University of Kasan, with which Professor Nencki was connected at the commencement of his professional career, has elected him honorary member, a distinction which is considered a very high compliment in Russia.

THE number of students in the Medical Department of the University of Pennsylvania, Philadelphia, is stated to be 920.

# ASSOCIATION INTELLIGENCE.

## NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1897.

MEETINGS of the Council will be held on April 14th, July 7th, and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 25th, June 17th, and September 30th.

### ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M., Saturdays, 10 A.M. to 2 P.M. Members can have their letters addressed to them at the office.

## BRANCH MEETINGS TO BE HELD.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Railway Hotel, Taunton, under the presidency of Dr. Rutherford, on Thursday, March 25th, at 4.30 P.M., dinner at 5.30. Medical Defence: The question of whether or not the Association shall undertake the duties of individual and collective defence will be considered before dinner, and a vote on the question will be taken. A copy of a report on the subject has been forwarded to every member; and as the Council of the Branch are desirous of knowing as far as possible the definite opinion of every member, they hope answers will be sent in writing. Discussion: The following subject has been settled by the Council to be discussed after dinner, namely, Chronic Inflammation of the Female Pelvic Organs. The President will open the discussion.—W. M. KELLY, M.D., Honorary Secretary, Taunton.

MIDLAND BRANCH.—A meeting of the Branch will be held on Thursday, March 18th, at the Masonic Hall, Goldsmith Street, Nottingham, at 3.15 P.M. Business:—To consider the report of the committee to the Branches on medical defence. The JOURNAL for January 30th contains a copy of the report on p. 277. It is to be hoped that every member will endeavour to be present at the decision of these all-important questions.—W. A. CARLINE, Honorary Secretary and Treasurer, Lincoln.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—There will be a conjoint meeting of these Districts at the Grand Hotel, Brighton, on Thursday, March 25th. The chair will be taken at 3.30 P.M. by Mr. A. H. Dodd. Dinner at 5.30 P.M.: charge 6s., exclusive of wine. Dr. Elliott will move: That this Branch of the British Medical Association regrets that public vaccinators are debarred from the Poor Law Officers' Superannuation Act, 1896, and is of opinion that the Parliamentary Bills Committee should take steps to have the omission rectified, if possible, by the insertion of a clause or clauses in the Local Authorities' Officers Superannuation Bill, 1897. The following communications have been promised. The Chairman will show photographs of (1) Bilateral Herpes following the course of the External Cutaneous Nerves of Arm; (2) Subcutaneous Rheumatic Nodules of the Hands. Mr. T. J. Verrall: Some further remarks upon Appendicitis. Mr. Gerald Hodgson: Short Notes on Salicylate of Soda. Dr. Hinds will exhibit an Anencephalic Fœtus, and read notes of the same.—Notice of any business should be sent to Dr. HINDS, 14, The Steyne, Worthing, Honorary Secretary, West Sussex; or to Dr. BATTERHAM, Grand Parade, St. Leonard's, Honorary Secretary, East Sussex.

SOUTH-EASTERN BRANCH: NORTH, WEST, AND EAST KENT DISTRICTS.—A conjoint meeting of the above Districts will be held at St. Bartholomew's Hospital, Rochester, on Friday, March 19th, at 4 P.M., Surgeon-Colonel QUILL in the chair. The dinner will take place at the Sun Hotel at 6.30 P.M.: charge 6s. 6d., exclusive of wine. To facilitate the arrangements, gentlemen who intend to dine are particularly requested to signify their intention to the chairman, Surgeon-Colonel Quill, Fort Pitt House, Chatham, not later than Thursday, March 18th. The following communications will be made:—Dr. Ernest White: Puerperal Insanity. Dr. Tyson: Clinical Types of Pneumonia. Mr. Ludford Cooper: On 40 cases of Radical Cure of Inguinal Hernia. All members of the South-Eastern Branch are entitled to attend this meeting, and to introduce professional friends.—E. GROUND, Honorary Secretary West Kent District; T. RAVEN, Honorary Secretary, East Kent District; A. TENNYSON-SMITH, Honorary Secretary, North Kent District.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting of this District will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 11th, at 4 P.M., Mr. W. Gandy, of Upper Norwood, in the chair. Dinner at 6 P.M., charge 7s., exclusive of wine. The following papers will be read:—Dr. Herman: Puerperal Eclampsia. Mr. J. Charters Symonds: The Modern Treatment of Compound Fractures and of Fracture of the Patella. Dr. Seymour Taylor: Hospital Abuse. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary, HENRY J. PRANGLEY, Tudor House, Anerley.

SHROPSHIRE AND MID-WALES BRANCH. Clinical and Pathological Section.—The first meeting of this section will be held on Tuesday, March 16th, at 5 P.M., at the Salop Infirmary. The special general meeting of the Branch to discuss the report of the committee to the Branches on medical defence will be held on Tuesday, March 23rd, at 3 P.M. at the Salop Infirmary.—H. WILLOUGHBY GARDNER, Honorary Secretary, Swan Hill, Shrewsbury.

LANCASHIRE AND CHESHIRE BRANCH.—A special meeting of this Branch will be held in Liverpool about the middle of March to consider the subject of Medical Defence and other business. Due notice will be sent to each member of the Branch.—JAMES BARR, Honorary Secretary, 22, Rodney Street, Liverpool.

EDINBURGH (FIFE AND LOTHIANS) BRANCH.—A special meeting of the Branch will be held in the Royal College of Physicians, 9, Queen Street, Edinburgh, on Tuesday, March 9th, at 4.30 P.M. Business: Election of President, Report on proposed Ethical Committee of Branch, Consideration of Medical Defence Scheme, other competent business.—R. W. PHILIP, M.D., Secretary, 4, Melville Crescent, Edinburgh.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.—The next evening meeting will be held at the Medical Library, Pembroke Road, Portsmouth, on Tuesday, March 9th, at 9 P.M. Gentlemen desirous of making communications or showing specimens are requested to communicate with the Honorary Secretary, C. C. CLAREMONT, M.D., 57, Elm Grove, Southsea.

## DUNDEE AND DISTRICT BRANCH.

THE Dundee and District Branch met in University College, Dundee, on February 26th, Dr. RORIE presiding.

*The Association and Medical Defence.*—Dr. J. W. MILLER proposed the following resolution:

That the resolution, of date March 13th, 1896, supporting the proposal that the British Medical Association should add to its functions that of medical defence, be rescinded; and that it is the opinion of the Dundee and District Branch that it is not desirable that the Association should undertake the work of medical defence, either individual or collective, for the following reasons: (1) It has become very evident that the members of the Association are far from being unanimous on the question. (2) A majority, even if large, has no right to enforce a compulsory payment on the minority. (3) The attempt to do so will almost certainly drive many members to resign their connection with the Association, and thus put a serious check on its hitherto continuous growth and prosperity. (4) The working out of any scheme of medical defence by the Association is beset with many difficulties which do not present themselves if this work is conducted by a separate organisation. (5) The frequent appearance of the British Medical Association in legal proceedings in defence of members, or against quacks, will lower its present high prestige in the public estimation as a great scientific body.

After discussion, the resolution was carried by 17 votes to 7. The SECRETARY reported that in answer to his circular, of the members who could not be present, 6 had replied in favour of the Association undertaking the work, and 2 against.

## STAFFORDSHIRE BRANCH.

THE second general meeting of this Branch was held at the North-Western Hotel, Stafford, on February 25th; Dr. T. RIDLEY BAILEY, President, in the chair. Twenty-seven other members were present.

*Confirmation of Minutes.*—The minutes of the last general meeting were approved and signed.

*New Member.*—Samuel Poole, M.D.Edin., of Wolverhampton, was unanimously elected a member of the Branch.

*Donation to Royal Medical Benevolent College.*—On the proposal of Dr. TOTHERICK, seconded by Mr. JOHN ALCOCK, the recommendation of the Council to give a further donation of ten guineas to the Royal Medical Benevolent College was adopted.

*The Association and Medical Defence.*—On the consideration of the report of the Special Committee on Medical Defence a prolonged discussion took place, in which fourteen of the members present took part. Very strong protests were made by many of the speakers against the Association taking up the question of medical defence either as a voluntary or a compulsory scheme, while only two members spoke in favour of it. On the PRESIDENT putting the question: "Is your Branch in favour or not of the Association undertaking the duties of individual and collective medical defence?" the votes were: For, 2; against, 23; did not vote, 3. The Branch, therefore, pronounced strongly against the Association taking up medical defence.

*Public Vaccinators and Superannuation.*—The following resolution was adopted on the motion of Dr. GREAVES, seconded by Dr. C. REID:

That this Branch of the British Medical Association regrets that public vaccinators are debarred from the benefits of the Poor-law Officers Superannuation Act, 1896, and is of opinion that the Parliamentary Bills Committee should take steps to have the omission rectified, if possible, by the insertion of a clause or clauses in the Local Authorities' Officers Superannuation Bill.

*Exhibits.*—Mr. W. H. FOLKER showed a photograph of a girl, aged 4, with a Sarcomatous Growth filling the right orbit. The child had been admitted into the North Stafford Infirmary, blind, its right eye protruding, and suffering frontal pain. Mr. Folker removed the eye, and found a soft sarcoma filling the back of the orbital cavity, extending back to the optic foramen and through the sphenoidal fissure. The growth was removed as far as possible. The photograph was taken six weeks afterwards, showing the recurrent growth filling up and extending beyond the orbital cavity.—Dr. MCALDOWIE showed a Sarcomatous Tumour of Brain which had given rise to left-sided hemiplegia, with paralysis of right side of the face and right ophthalmoplegia, external and internal. *Post mortem* the growth was found in the right crus, which together with the right side of the pons was flattened and softened.—Mr. JOHN ALCOCK showed a Calculus, the size of a hen's egg, which he had removed from the perineum of an old man.—Mr. E. G. HUNT showed a Kidney of a man who had died from Cirrhosis of the Liver. There was a large perinephric hæmorrhage and a cavity in the substance of the kidney, probably due to a ruptured cyst, which might have accounted for the hæmorrhage. The bleeding was apparently recent, and there had been no kidney symptom during life beyond suppression of urine for twenty-four hours.

*Papers.*—Mr. GERARD C. TAYLOR read a paper on the Treatment without Splints of Fractures at the Lower End of the Humerus. The method which had been advocated by Mr. Christopher Heath and Mr. Robert Jones consisted in reducing the fracture and fixing the elbow-joint in the position of acute flexion. The only apparatus required was a collar-band and wristlet attached, so as to keep the hand close to the chin. The arm was left free and not bandaged to the side. No movement at the elbow-joint was permitted till the fifth or sixth week, after which gradual extension was encouraged. The chief points claimed in favour of this method were: (1) Acute flexion ensures the maintenance of reduction. (2) Circulation is not impeded. (3) The entire limb is open to inspection without risk of disturbing the injured part. (4) Owing to absolute fixation of the elbow-joint there is the least possible tendency to the formation of callus. A case of Transverse Fracture above the Condyles treated by this method eighteen months previously was shown in which all movements were normal and the thickening scarcely perceptible.—Dr. CHARLES REID read a paper on a Fatal Case of Chorea.

## METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

THE third meeting of the session was held, by kind permission of Dr. Aveling at the Oaklands, Upper Clapton, on February 18th. Dr. SHADWELL, Vice-President of the District, presided. Fourteen members and one visitor were present.

*Communication.*—Dr. GOODHART read a paper on Appendicitis from a Physician's Point of View. The causes, symptoms, difficulties of diagnosis, and treatment, were fully entered into. An interesting discussion followed, and Dr. GOODHART replied to the points raised.

*Votes of Thanks.*—Hearty votes of thanks were passed to Dr. GOODHART and to Dr. AVELING for his kind hospitality.

## METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.

A MEETING of this District was held at Guy's Hospital, by kind permission of the Treasurer, on February 24th, Dr. PERCY SMITH in the chair.

*Confirmation of Minutes.*—The minutes of the previous meeting were read and approved.

*Exhibition of Cases.*—A large number of interesting medical and surgical cases were shown and demonstrated on by Mr. L. A. DUNN and other officials of Guy's Hospital. The list included: (1) a case of Cerebral Tumour; (2) a case of Charcot's Disease of both Knee-joints; (3) Chronic Ulceration of Lip; (4) Congenital Cardiac Disease; (5) Friedreich's Disease; (6) Chronic Enlargement of Right Clavicle; (7) a patient in whom Pylorectomy had been successfully performed for Malignant Disease; (8) Bilateral Abductor Paralysis in a child; (9) a case of Cured General Peritonitis; (10) Odontoma; and several others. Discussions ensued.

*Vote of Thanks.*—There was a considerable attendance of members and visitors, and at the conclusion of the proceedings the CHAIRMAN proposed a hearty vote of thanks to the Guy's Hospital authorities, which was unanimously carried.

## METROPOLITAN COUNTIES BRANCH: WEST LONDON DISTRICT.

THE second meeting of the session was held at St. Mary Abbott's Infirmary, Kensington, by kind permission of the guardians, on February 17th, Mr. H. W. KIALLMARK, Vice-President, in the chair.

*Confirmation of Minutes.*—Dr. DUTTON, the Honorary Secretary, read the minutes of the last meeting, which were confirmed.

*Paper.*—Dr. R. MAGUIRE read a paper on some Points in Percussion and Palpation. He pointed out the uselessness of instruments in percussion, as they deprived the operator of the sense of resistance. The best results were obtained by resting the wrist on the chest or on the other hand, and percussing with the fingers through the movement of the wrist. He further demonstrated on a patient that through palpation, by carefully noting the force of resistance, one could mark out the organs more accurately than by percussion.—The CHAIRMAN remarked that a great pianoforte teacher had always taught his pupil to strike the keys through the action of the wrist.—Dr. SEYMOUR TAYLOR said it was in accordance with the way the hammer was made to strike the keys. He also mentioned that he had learnt to use the back of the hand in testing for vocal fremitus by watching engine drivers using the back of the hand when they were testing the heat of the different parts of the engine.

*Clinical Cases.*—Dr. POTTER, the medical superintendent, showed an interesting case of Chronic Lupus.—Dr. DUTTON asked if the thyroid treatment had been tried, as Mr. Lunn at the last meeting had showed a case where the thyroid treatment had been most beneficial.—Dr. CRAWFORD THOMSON asked if large doses of quinine had been given.—Dr. POTTER said neither treatment had been tried, as the disease seemed in a latent state. Dr. Potter also showed a well-marked case of Myxœdema, and several other cases.

*Votes of Thanks.*—Hearty votes of thanks were passed to Dr. Maguire for his instructive paper, to the medical superintendent and guardians for their kindness, and to the Vice-President.

*Tea.*—Dr. POTTER invited the members to tea.

## BATH AND BRISTOL BRANCH.

THE fourth ordinary meeting of the session was held at Bath on February 24th; Dr. E. MARKHAM SKERRITT, President, in the chair. There were thirty-one members present and one visitor.

*New Members.*—Mr. W. J. Bacque, M.R.C.S., L.R.C.P.Lond., of Bath; Mr. A. T. Morgan, M.D.Brux., L.S.A., of Bristol; Mr. J. Briscoe Stephenson, M.B., B.S.Durh., of Bristol; and

Mr. F. H. Walker, L.S.A., of Coleford, Bath, were elected members of the Association and of the Branch.

*Superannuation of Public Vaccinators.*—Mr. H. C. Hopkins proposed:

That this Branch of the British Medical Association regrets that public vaccinators are debarred from the benefit of the Poor-law Officers Superannuation Act, 1896, and is of opinion that the Parliamentary Bills Committee should take steps to have the omission rectified, if possible, by the insertion of a clause or clauses in the Local Authorities' Officers Superannuation Bill.

This was seconded by Mr. W. J. A. Adye, and carried unanimously.

*Communications.*—Mr. C. E. S. Flemming related a case of Poisoning by Antipyrin and Chloralose, and Mr. H. G. Terry, Dr. A. J. Harrison, and Dr. E. Markham Skerritt commented upon it.—Mr. F. K. Green read notes of a Cerebral Case in which pressure symptoms were relieved by trephining. A discussion ensued in which Mr. Morton, Dr. Michell Clarke, and Dr. Goodridge joined.—Mr. Basil Trevelyan described a case of Unusual Swelling of the Anterior Lip of the Os Uteri complicating Labour, and read notes of Two Malformations of Rectum in Newly-born Children, upon which Dr. Aust-Lawrence made some remarks.—Dr. Preston King read notes of a Case Simulating Ulcerative Endocarditis, which was discussed by Dr. Michell Clarke, Dr. Goodridge, Mr. J. H. H. Lawrence, Mr. C. E. S. Flemming, and Dr. E. Markham Skerritt.

## SOUTH WALES AND MONMOUTHSHIRE BRANCH.

A clinical meeting of this Branch was held at the Infirmary, Cardiff, on February 25th, the President (Dr. Redwood) in the chair. About twenty members were present.

*Cases, Specimens, etc.*—Mr. Brook (Swansea) showed (1) Cholelithiasis and Biliary Obstruction complicated by Peritoneal Abscess; (2) A Case of Calculous Pyelitis and Perinephric Abscess; (3) Specimen of Congenital Hernia of the Tube and Ovary.—Mr. Collins (Cardiff) showed Pathological Specimens.—Mr. C. A. Griffiths (Cardiff) showed (1) Removal of Uterine Appendages; (2) Removal of Cartilage from Knee Joint; (3) Perforation of Stomach (with notes).—Mr. Lynn Thomas (Cardiff) showed (1) Roentgen Photographs of Congenital Dislocation of Hip, etc.; (2) Three specimens of interesting Pelvic Tumours.—Dr. A. Sheen (Cardiff) showed Cases and Photographs.—At the conclusion of the meeting cases were shown in the wards.

## HONG KONG AND CHINA BRANCH.

A meeting of this Branch was held in Hong Kong on January 29th, Dr. Stedman (Vice-President) in the chair.

*New Member.*—Surgeon J. Menary, M.D., R.N., already a member of the Association, was admitted to this Branch.

*Communications.*—Dr. Atkinson and Dr. Paulim read papers on Diphtheria, the former basing his remarks on eight cases treated by him during 1896 in the Government Civil Hospital, Hong Kong, the latter on thirteen cases that have come under his care during the past three years and a half in Hong Kong and Shanghai.—Drs. Hartigan, Clark, and Stedman, and Surgeon Penny, R.N., took part in the discussion.

## BERMUDA BRANCH.

*The Queen's Commemoration.*—The Bermuda Branch has made suggestions for the commemoration of Her Majesty's "Diamond Jubilee," which are embodied in the following letter:

1. There exists a widespread feeling among the people of this Colony in favour of commemorating in a suitable manner the reign of Queen Victoria as being the longest in English history.

2. In view of this feeling suggestions are being made as to the form in which it may be embodied. We, the undersigned members of the Bermuda Branch of the British Medical Association, having a well-defined and well-worked-out scheme before us, together with a firm conviction of its worthiness, desire to place it before the eyes of the public so that it may receive timely consideration.

3. Our idea is to lay the foundation at least of a fund in connection with the cottage hospital for the payment of two trained nurses, to be be procured in the first instance from the Colonial Nursing Association in London. These nurses can be obtained from the head office in London, on a three years' agreement, at the rate of £60 per annum to each nurse, and board at the hospital when unemployed. A very generous offer has already been made respecting the travelling expenses of these nurses from London, and the Ladies Committee have reasonable grounds for hoping they will be sent out free as far as the hospital funds are concerned.

4. We venture to suggest the following considerations in support of our idea:

(*a*) The Queen gave the £70,000 contributed by three and a-half millions of women during her first jubilee to establish the Jubilee Nursing Fund.

(*b*) His Royal Highness the Prince of Wales, in response to a request for advice as to the most fitting plans for the commemoration of the completion of the sixtieth anniversary of Her Majesty's reign, is reported to have caused it to be announced that he is confident "Her Majesty would prefer the occasion to be marked by works of mercy among the sick and suffering, embracing any movement tending to lighten the lives and ameliorate the condition of the Queen's poorer subjects."

(*c*) As far as we are able to judge, there is no other object which appeals to every class of the community, or is so clearly matured for completion as this one.

5. We offer this suggestion in support of the original idea given us by an article which appeared in the *Colonist* newspaper, and the subscription list, published weekly therein.

(Signed) T. A. Outerbridge, M.D., M.C.P., President.
Chas. H. Butterfield, M.D.
Dudley C. Trott, M.B., F.R.C.S.
E. C. Wilkinson, M.D.
Geo. D. Leake, Brigade-Surgeon-Lieutenant-Colonel A.M.S., S.M.O. Bermuda.
R. W. Ford, Surgeon-Major A.M.S.
Eldon Harvey, M.O.H., M.R.C.S., L.R.C.P.

# SPECIAL CORRESPONDENCE.

## PARIS.

*The Health of the French Army.—The Depopulation of France.—The Public Health Bill.*

The Minister for War has presented to the President of the Republic a report on the sanitary condition of the army from 1895 to 1896, which states that the mortality in the army from 1887 to 1896 has fallen from 3.319 to 2.900, whilst the strength of the army has increased from 480,672 men to about 546,500. The Minister furnishes the following particulars concerning the use of sterilised water. The Lure d'Evreux and Chateaudun barracks, where typhoid epidemics constantly broke out, are now thoroughly healthy. This result of prohibiting the use of any but sterilised water for drinking purposes has induced the Minister to order that six water-sterilising apparatus be installed in all barracks where the drinking water is not above reproach. Further on in the report it is stated that the fact that the sterilising apparatus for water by steam pressure have been adopted does not afford unfavourable evidence against the Chamberland filter. The Avesnes, Beauvais, Caen, Vendôme, Lorient, Fontenay-le-Comte, Melun, Blois, Auxerre, Dinan, and Compiégne barracks have established the sanitary value of this filter. Nevertheless, the sanitary service held it to be its duty to profit by the many improvements which succeeding years have worked in these apparatus. It would have been unwise to have adopted them too speedily, and thus have exposed the barracks to the risks resulting from the use of apparatus not reaching the degree of perfection expected. Small-pox, according to the report, diminishes every year in the French army. In 1876, 1877, and 1878 there were 127, 92, and 98 deaths. In 1895 there were 61 cases only in the whole French army, and 6 deaths; in 1896 57 cases and 2 deaths. This improvement is attributed to revaccination, which has conferred immunity on the French troops sent to Algeria, Madagascar, and Tonkin, where small-pox is endemic and virulent. All the military hospitals, all the military centres, even the smallest throughout France and Algiers, have been provided with antidiphtheritic serum which is abundantly furnished by the Pasteur Institute, and liberally renewed whenever application is made. The deaths have fallen from 62 to 24 and 22. Scarlet fever, measles, and influenza are still very rife. The Minister attributes the frequency of these epidemics to the contact of the troops with the lay population, the returns after leave of absence, the arrival of the reservists, etc. The Minister, in his report, makes the following statement: It cannot be denied that all insanitary conditions existing in barracks result in an increased death-rate among the troops. This was proved at Dijon during the influenza epidemic quite recently, and at other places. It is equally true, as the Minister says, that sanitary improvements in the barracks are costly, and he can only make such improvements as his Budget permits, and those, he appears to imply, are not sufficient.

The statistics of the French population in 1895, about to be published in the *Journal Officiel*, show a deficit of 17,000 souls; thus the fears of increasing depopulation so loudly expressed in France are only too well founded. In 1890, 1891, and 1892 there were already more deaths than births. This unpleasant fact was believed to be satisfactorily explained by the fact that the influenza epidemics had the twofold effect of adding to the death-rate and decreasing the births. M. Jacques Bertillon, the eminent statistician, declares that if the birth-rate continues to decrease as it has done since the beginning of the present century, France will become weaker and weaker, and finally disappear. He says that the main cause of the evil is the pernicious belief that small families and riches are synonymous, which is spreading rapidly among the French nation. The results of this theory are shown by the following figures. Among 1,000 inhabitants there were annually the following proportion of births:

| | | | |
|---|---|---|---|
| 1801-10 | 33 births. | 1851-60 | 26 births. |
| 1811-20 | 32 ,, | 1861-70 | 26 ,, |
| 1821-30 | 31 ,, | 1871-80 | 25 ,, |
| 1831-40 | 29 ,, | 1881-90 | 24 ,, |
| 1841-50 | 27 ,, | 1891-95 | 22 ,, |

This decrease in the birth-rate is observed throughout France. On the borders of the Garonne the decrease has been specially rapid; it has been slower, but still very evident, in Brittany and the northern provinces.

M. Cornil reported in the Senate on the Public Health Bill which has passed the Chamber of Deputies, but appears—much to the indignation of the medical profession—to have been "shelved" in the Upper House. Professor Cornil stated that compulsory disinfection has resulted in considerably lowering the mortality from epidemics. The death-rate from 1872 to 1885 was 5,000 from 1891 to 1896 it was 2,850, the last year (1897) 1,700—exactly one-third of what it was twenty years ago.

## BERLIN.

*Remarkable Case of Mercurial Poisoning.—Periostitis of Mother-of-Pearl Workers.—Medical Reform.—The Plague Bacillus.*

A CURIOUS case of mercurial poisoning has occurred in a family living near Düsseldorf. During the night a thermometer, which had been left lying on the stove of the night nursery, burst, and the mercury fumes were breathed by two children sleeping in the room. Towards morning severe symptoms set in, but luckily the doctor, who was called at once, discovered the cause, and promptly-applied remedies saved the children.

Six cases of a very rare disease—the so-called periostitis of mother-of-pearl workers—have lately come to Berlin for treatment. Professor English, of Vienna, was the first to observe this disease some years ago, and later Professor Gussenbauer (Billroth's successor) made a special study of it. In all about 25 cases have been observed, all in children; but the 6 cases which have lately come under Dr. W. Levy's treatment in Berlin are all adults. The symptoms are very painful swellings of the bones of the extremities, accompanied by fever, continuing for weeks and even months, but rarely leading to suppuration. After a certain length of time recovery takes place, but if the old work is resumed relapse is almost certain. The cause is thought to be the constant breathing of mother-of-pearl dust (consisting of about 95 per cent. carbonate of lime and 5 per cent. concholine, an organic substance) mixed with the water that is used in polishing, turning, etc. The connection of cause and effect, however, is not entirely clear as yet, for the attempts to produce a similar disease in animals, both by inoculation of the watery mixture and by filling their breathing air with mother-of-pearl dust, have proved completely unsuccessful.

The Ministerial Committee for the Reform of Public Medicine and Hygiene has completed its plan of reforms and alterations so far that it will be ready to submit it for approval to a committee specially chosen for the purpose among well-known sanitarians and hygienists early in spring. Some members of the Prussian diet, interested in public medicine and hygiene, are to join this Special Committee.

At the last meeting of the Berlin Medical Society the plague bacillus discovered by Kitasato and Yersin was shown under the microscope by Dr. Kolle.

## MANCHESTER.

*Commemoration of Queen's Long Reign at Manchester, Salford, and Stockport.—Hospital Saturday.—Children's Hospital.—Victoria University Examinations.*

ALREADY numerous suggestions are being ventilated in Manchester for fitly commemorating the long reign of the Queen, and a committee has been formed in order to formulate definite proposals and to collect subscriptions. Amongst the proposals are more hospital accommodation and other kindred establishments, the erection of a statue of the Queen, and the acquisition of a public park. Salford has decided on its memorial—the erection of a central building for a nurses' home in a suitable position in the borough, for which a sum of not less than £10,000 will be required. Already £4,000 has been subscribed for this purpose. Stockport has decided to enlarge and improve their present infirmary.

So far the sums received for Hospital Sunday amount to £3,492, being a little less than at the corresponding period of last year. It has been decided to hold Hospital Saturday on May 8th.

At the annual meeting of the subscribers and friends of the Manchester Children's Hospital, Pendlebury, some interesting statements were submitted. "The past year had been fortunately a somewhat unusually healthy one, and there had been no marked wave of epidemic disease." The recurrence of outbreaks of epidemic disease in the wards was one of the greatest difficulties that the medical staff have to contend against, and even when every precaution is taken there is always a great liability to infectious diseases being introduced. One ward for twenty-eight beds has never been used, and even in spite of all economy the debt to the bank has grown from £1,200 to £1,440. At the out-patient department 11,503 cases were presented, and of these 903 were transferred to the hospital at Pendlebury, and 783 were made home patients.

The second and final written examinations for medical and surgical degrees of Victoria University begin at the several colleges on Monday, March 15th.

## MONTREAL.

*The Montreal Medico-Chirurgical Society.—The Jubilee Celebration and Nursing Proposals.*

THE present session of the Medico-Chirurgical Society has been fully equal in interest to its predecessors. Among the more interesting papers which have been read since October the following may be mentioned: A case of Syphilitic Nephritis in a male of 25, by Dr. N. D. Gunn; Hæmorrhage of the Bowels in a child of 27 months suffering from typhoid, by Dr. D. F. Gurd; two cases of Hypoplasia of one Kidney, associated with extensive Atheroma, by Dr. J. G. Adami (one of these was in a child of 13 years); a case of Congenital Dilatation of the Colon in an infant, by Dr. C. F. Martin; and a paper upon Hæmorrhagic Cysts of the Thyroid, by Dr. Archibald. Dr. G. E. Armstrong exhibited an Anomalous Case of Localised Areas of Gangrene of the Left Foot in a young woman of 24, occurring suddenly without any recognisable symptoms and without any ascertainable exciting cause. There was no evidence of hysteria, nor did the patches lie within the area supplied by one artery or nerve. There was a history of typhoid and swelling of the left leg four years previously. Dr. William Gardner exhibited a case of Uratic and Phosphatic Calculi and Sand, weighing more than 9 ounces, removed from the bladder of a woman aged 70. Among bacteriological contributions there have been a series of papers from Drs. Wyatt Johnston and McTaggart, on the Serum Diagnosis of Typhoid, a paper from Drs. C. F. Martin and R. B. Shaw, on the Presence of Tubercle Bacilli in the Fæces; a case of Senile Tuberculosis, in which at the necropsy the intestines were found unaffected. Drs. Wyatt Johnston and W. H. Jamieson brought before the Society three cases illustrating the Bacteriological Diagnosis of Leprosy for Public Health Purposes. All three patients were Chinamen, in two of whom leprosy was immediately diagnosed by making scrapings from the cutaneous eruption. In the third case leprosy was suspected, but was immediately shown not to be present by similar means, the case being

one of psoriasis. Drs. W. F. Hamilton and Adami reported a case of Rapidly Fatal Purpura, in which death was evidently due to secondary infection with the pyococcus aureus and the bacillus aërogenes capsulatus. In gynæcology and obstetrics perhaps the most important communications have given by Dr. Lockhart upon Primary Cancer of the Vagina, from Drs. William Gardner and C. F. Martin upon cases of Pelvic Hæmatocele (one of these was the hitherto unrecorded condition of tuberculous salpingitis leading to hæmatocele, another of cancer with similar complication, while a third was a case of ampullar tubal pregnancy), and from Dr. Clarence Webster upon Menstruation.

In Canada, as in the old country, there is the desire to commemorate the Diamond Jubilee by the establishment of nursing institutions. Lady Aberdeen, always to the fore in works of charity and benevolence, is actively founding an order of nurses whose especial duty it will be to minister to the sick in outlying districts and homesteads, while here in Montreal, at a recent meeting of the governors of the General Hospital, a proposal of the President (Mr. Wolferstan Thomas), to build a commodious nurses' home in connection with the hospital was heartily endorsed.

## CHICAGO.

*Pollution of the City Water.—Child Labour and Factory Inspection.—The New Isolation Hospital.*

Again the exceedingly serious question of the pollution of the municipal water supply has come up in a stronger manner than ever. During the early part of January a prolonged and heavy rainfall caused a flushing of all the sewers and an unusual overflow of water into the great city drain—the Chicago river. This sluggish stream, whose current is artificially diverted from its natural mouth at the lake shore by large pumping works located at Bridgeport, asserted its right to flow lakewards because of its increased volume, and very quickly caused a serious contamination of lake water even three and four miles out from the harbour. The Bridgeport pumps, even worked constantly and at their fullest capacity, cannot upon such occasions of uncommon precipitation control the lakeward current; and analyses of the city water being made at frequent intervals at once disclose an impure and dangerous state thereof. And although the public have been repeatedly cautioned to boil the tap water before drinking it, yet many relax their vigilance until such a condition as just mentioned, when the public press is appealed to for a prompt and decisive warning to the people. That accounts for newspaper editorials headed "Boil it!" and flaming headlines containing the same words. Among the well-to-do spring water is used upon the table. This is obtained from different country sources, even as far from the city as 150 miles. It is shipped in ten-gallon sealed cans, and delivered anywhere upon order, at a cost to the user of from 5 to 10 cents per gallon. The same water can be had in quart and half-gallon bottles, and can be ordered carbonated if desired. But the great mass of Chicago's population drink the city water, either boiling it or not according as they are educated or ignorant or perverse. Recently agitation has been taken up on behalf of the school children, who have no choice, but must use the city water from the school drinking fountains or else go thirsty. The Health Department, hoping to mitigate the evil somewhat, ordered the Board of Education to introduce approved filters into each school building; or better yet, and a recommendation that gives promise of being acted upon, to install in each school building a distilling plant or an apparatus for the boiling, settling, and cooling of water before its use by the scholars. Meanwhile, until such arrangements can be carried out, drinking water is to be supplied the various schools from the artesian wells located in the parks in different parts of the city. It will have to be carted to the schools and kept in large cans or barrels.

Of much interest to the hygienist and the social economist are the results of the Illinois child-labour laws and factory inspection. It was the baneful influence upon the health and morals of children and factory hands that demanded the creation of beneficent laws, and that insists upon their enforcement. In the State of Illinois the State Factory Inspector is a woman—Mrs. Florence Kelly—and an annual report is presented to the Governor of the work accomplished by herself and assistants, together with statistics and comparisons. A brief summary of the report for this last calendar year has been obtained, and although it covers the work in the State at large, yet most of the inspection was done in Chicago, and the figures and deductions may be taken as applying to this city. The report shows that during the year 6,607 factories and workshops were inspected, wherein were employed 162,019 men, 30,781 women, and 7,340 children. Of these 6,607 factories and workshops 2,378 were sweatshops, wherein were employed 6,383 men, 7,181 women, 128 boys, and 1,060 girls. Wherever child labour is mentioned the reference is to a person under 16 years of age. The tables of the report show the effect of the enforcement of the two parts of the law which remain in force. The child labour provisions have reduced, both absolutely and relatively, the number of children employed in manufacture. Although the sections intended to regulate tenement house manufacture have been enforced with equal rigour, the tables on sweatshops show an increase in the number of tenement houseshops in each year, and the greatest increase in the last year. The number of children found by inspectors at work in 1896 was 7,340, compared with 8,130 in 1894 and 8,624 in 1895. The actual decrease since 1895 is 1,284 children—1,060 girls and 253 boys. Outside the stockyards and the sweatshops the standard of size and health of the children improves. The change in this respect is conspicuous when comparison is made with the children in laundries and department stores, where the minimum age is not prescribed by law. In consequence of the requirements of the law, the employer is more observant of the children put to work, and children of better physique are employed. When the foreman has the child's name on the record and in the register, its health certificate and affidavit on file, the child possesses a distinctly added value for him as being sure not to involve him in a lawsuit, and its services are more likely to be retained. A large number of foreigners in the poorer parts of the city are employed in what are called the "garment trades," and it is here that we find the most insanitary conditions and the greatest strain upon the physical and moral nature of child life. The report states that the garment trades, in which the women and children outnumber the men as 17 to 11, are the most demoralised trades in the State, though they form one of the four leading industries and employ 29,431 persons (not including the thousands of women who work alone at home, of whom it has never been possible to make any census). While the average in all trades is 45 children to 1,000 males over 16 years of age, in these trades the number rises to 152 in 1,000; in the sweatshops the proportion is still greater, and the conditions under which the children work are incomparably worse. For every seven men at work in the garment trades there is a child at work; in the sweatshops there is a child for every five men. Under the conditions of tenement house manufacture sweaters are constrained to employ the cheapest possible labour, and their settled policy is to hire children and take the risks. Nothing less than the abolition of tenement house manufacture will, in the opinion of the inspectors, entirely abolish the employment of children in the sweatshops. This employment could, however, be reduced by the adoption of the New York requirement that the child must be able to read and write simple English before going to work, and the Ohio prohibition of the employment of children under conditions dangerous to health, life, limb, or morals. The educational status of the children found at work showed no improvement. From garment and cigar shops children are still taken into court as witnesses in factory cases who speak no English, some of them having lived several years in the State, in foreign colonies, going to school, if at all, where English is not taught. The necessity for a rigid sanitary inspection is shown from this report, wherein it is ascertained that nearly all the cigar shops inspected during the year were in tenement houses. The tables for the cloak and clothing trades show a large number of garment shops on tenement house premises, and over sheds and stables, and in upper floors, basements, and living rooms. It was also shown that an increasing number of candy kitchens are now found in cellars, some in connection with bakeries, but many of them independent workshops. Pickles,

jellies, and preserves are also made in filthy living rooms. With few exceptions the bread and cake bakeries are in tenement house cellars, in which work can be done only by the aid of artificial light.

The new small-pox or isolation hospital which was opened not long ago is regarded as the most complete and modern provision of this kind in America. At the front of the group of buildings stands the administration building, which is two and one half storeys in height, and contains reception rooms and quarters for the resident physician and nurses. A covered passage leads from the rear entrance to a central pavilion of two storeys, where are the dispensaries and the offices of the doctors and the head nurse. From this central pavilion covered passages lead to the three other buildings of the main group. The east wing is given up to the nurses and the kitchens, while the west wing is fitted up for patients whose symptoms are not well defined. The main wards for small-pox patients are in the large south building to which the fourth passageway leads. A special feature of the hospital is the discharging room. When a convalescent is ready to be discharged, he is given a medicated bath and sent into an adjoining room, where his disinfected clothing awaits him. When he is dressed he leaves the building through a door which is never opened except to let convalescents out. The remaining three structures are the stables, the morgue, and the disinfecting plant. All the windows of the morgue are covered by screens of fine wire gauze, so that the contagion cannot be carried out by flies or insects of any sort. In the barn are the quarters of the grooms, accommodations for five ambulances, and stalls for fifteen horses. The hospital has a capacity of 150 patients. In an emergency, however, twice as many can be cared for by the erection of temporary ward buildings. The permanent buildings are fireproof, the walls are brick, the floors of steel beams and hollow tiles, and the stairs and bedsteads of iron. Incandescent lamps are used in all the buildings, and a complete telephone system makes it possible for the physician in charge or the head nurse to communicate in an instant with the most distant part of the hospital.

# CORRESPONDENCE.

## THE RECONSTRUCTION OF THE UNIVERSITY OF LONDON.

*Tantæ molis erat.....condere.*

SIR,—Your leading article on this subject to-day is well timed, and will do much good. To many of your readers it must seem strange that reforms repeatedly approved by the votes of the Senate and the Convocation of the University itself, demanded by the most important Colleges in London, by all the medical schools, and by both the Royal Colleges, have taken so long to be carried out.

It is many years since the importance was perceived, first of bringing about a better union between the London colleges and medical schools and the University; secondly, of making the standard of teaching higher, the waste of teaching power less, and the mutual relations of the scattered London students closer; and thirdly, of making the University, its schools and colleges, less of a mere examining board, less of mere knowledge-shops, and less of technical high schools, but more a seat of learning, research, and discovery, such as befits the University of the greatest capital in the world. When the importance of these objects was first urged, it was by the Convocation of the existing University not less than fifteen years ago. The effort was soon after taken up by a few representatives of law, science, medicine, and learning who used to meet at Lord Reay's house to discuss the best ways of obtaining the above objects. When he went to India, the meetings were continued at the late Mr. Marshall's in Savile Row, the medical schools became interested in the matter, the London Branch of the Association took it up, and it advanced in public importance. When, however, the practical way of obtaining the end had to be decided, divergence of opinion became marked. The Senate which had long departed (except in our own medical faculty) from its original duty of examining collegiate students only, had become accustomed to the principles advocated by the late Mr. Grote, Mr. Lowe (Lord Sherbrooke), and Sir George Jessel, and at one time cared more for instruction than for education, more for degrees than for lectures, and for examinations than for learning. At length, however, the Senate was converted, partly by the movement of educated opinion, and particularly of Continental opinion on the subject, partly by the gradual introduction of new members as the seniors passed away. Under the guidance of Lord Justice Fry, a scheme of reconstruction was drawn up with the objects above specified. Now, however, Convocation showed itself the more conservative body, and, after a lively debate, rejected the Senate's proposal. Then appeared the dangerous divergence of views among those interested in the great object. The Royal Colleges, under Sir William Jenner's guidance, attempted to make a new "Westminster" University of one faculty only to give comparatively easy degrees in medicine to London students. This attempt soon proved abortive. The two chief colleges of arts and science, University and King's, then united together, and sought to unite with the medical schools to found a new "Gresham" University. There was at one time some danger of this attempt being successful, with the result that the existing University of London would have been condemned to be never anything than an examining board, that the new university would have been forced to keep down the standard of its examinations, and that with two universities in London, neither would have been able to challenge universal recognition and support. Meanwhile, a Royal Commission to inquire into the question had been appointed in 1889, of which the late Lord Selbourne was chairman. The majority reported in favour of the reconstruction of the existing university, but three of the members signed a minority report in favour of two universities in London.

A revised scheme of the Senate, altered in divers directions after conference with the representatives of Convocation, of University and King's Colleges, of the Royal Colleges, of the medical schools, and even of provincial colleges, was again introduced into Convocation by the present Chancellor of the University, but was again defeated.

A second Royal Commission, larger than the first, with Lord Cowper as Chairman, was appointed, and after protracted sittings produced in 1894 a report which not only approved the union of the present University with the London colleges and schools, but broadly and ably drew the outlines of the reconstructed and comprehensive University.

This "Cowper report" was accepted by the Senate by an almost unanimous vote, by Convocation with a large, and on a second challenge the following year by an increasing majority, by University College unreservedly, and by King's College under certain reserves, by the two Royal Colleges, and by every medical school in London.

All that remained was to appoint a Statutory Commission, which, as in the case of Oxford and Cambridge and the Scottish Universities, was to draw up definite regulations for the reconstructed University. Lord Rosebery's Government introduced a Bill for the purpose into the House of Lords with the great advantage of the advocacy of the eminent lawyer who was then Lord High Chancellor, but unhappily was unable to carry it through Parliament before the dissolution of 1894. Still more unhappily the present Government in its first year of office, although introducing a similar Bill, did not push it vigorously, and another year of inaction passed. This session the same Bill is expected, and it is said that the Chairman and some other members of the Statutory Commission have already been chosen.

But now a new and, we may hope, a last obstacle arose. By a union of some supporters of the old "Gresham scheme," who are all for collegiate teaching and examinations by College professors, with some of the opposition in Convocation who are all for mere examinations independent of collegiate teaching, joined by certain other eminent persons who thought they could solve the long-debated question by a simple method that would satisfy all parties, it was proposed that instead of appointing the promised Statutory Commission the Government should "proceed by way of Charter," that is, that they should throw away all the fruits of ten years' labour, and begin again with a new (and hitherto unrevealed) scheme, which would be accepted by the Senate and by Convocation, by University and King's Colleges, by the Royal

Colleges and the medical schools, and would not be objected to in Parliament.

Obviously this was a mere attempt to undo all that had been done. Happily the device was too transparent to deceive. Resolutions expressing adhesion to the report of the Cowper Commission, and renewed demands for the long delayed Statutory Commission have been once more adopted by University College, by both the Royal Colleges, by the medical schools, by the Senate, by a committee of graduates of which Mr. Cozens Hardy is chairman, and by a meeting of delegates from all the colleges and medical schools which were mentioned in the Cowper report.

We may now hope that Government will no longer continue the injurious and vexatious delay which has so long put off the logical conclusion of all that had preceded. We still have opponents—some avowed and others less frank—but if we refuse to listen to any of them, and push steadily and unitedly for the appointment of the Statutory Commission, we shall obtain a result which will be well worth all our labour and all our disappointments.—I am, etc.,

Athenæum Club, Feb. 27th. P. H. Pye-Smith.

## THE ASSOCIATION AND MEDICAL DEFENCE.

Sir,—I am one of those who believe that the Association would do well to undertake medical defence, so that in time to come every newly-qualified practitioner would subscribe for this insurance against that malicious persecution to which we are all liable in the conscientious practice of our hazardous profession. But I would be no party to forcing this additional work on the Association, unless the great bulk of the members should approve of the step. My approval of the Association going in for this is no reflection on the existing medical defence societies, which have done this necessary and important work most excellently.—I am, etc.,

Hamilton Terrace, N.W., Feb. 27th. Norman Kerr.

Sir,—As a humble member of the Association, I cannot help saying that it is a pity that members think it their duty to unite and condemn the idea of the Association taking up the defence of its members. I understood that the principle had been adopted, and adopted by overwhelming majorities. Members have had three distinct opportunities of expressing their views on the subject: first at Birmingham, secondly at Carlisle, and thirdly at their own Branch meetings. To criticise the details of the scheme put forward by the Special Committee is quite another matter, and is deserving of imitation.

Those who have been more or less responsible for the medical defence scheme feel that the adoption of such a scheme would prove of material benefit not only to the profession at large, but to the Association in particular, and for these reasons: The Defence Committee will be in a position to lessen the number of quacks and other unqualified practitioners; it will be able to defend its members from unjust attacks and from all the expense and worry necessarily connected with legal proceedings. It will be able to defend the interests of those members who hold official positions. It has been argued that all this work has been done, and successfully done, by the defence societies already in existence. This is true, but only to a limited extent. As those who have had personal experience of the prosecution of quacks know full well, the expenses are very great, and it is only occasionally that such prosecutions can be initiated. With a membership like that of the Association, this difficulty would not occur. Moreover, the moral force of the Association would be much greater than that of all the existing defence societies put together.

Others argue that the Association is a purely scientific body, and that it is *ultra vires* for it to concern itself with the material well-being of its members. Surely, Sir, those who have advanced this plea have forgotten that the Association possesses such a committee as the Parliamentary Bills Committee, that the British Medical Journal has taken up such questions as the condition of the poor children in the Poor-law schools; and that it has successfully waged a war against the treatment of the poor in many of our workhouses. These subjects can hardly be included or classified as scientific subjects.

For the foregoing reasons I therefore sincerely hope that the eminently practical scheme of the Committee will receive the hearty support of a large majority of the members. Nothing will tend so much to make the Association fully representative of the profession, and to increase its prestige, as this scheme. Some members may think fit to retire, but I honestly believe that for one resignation, the Association will receive the nominations of at least twelve new candidates.—I am, etc.,

Cardiff, Feb. 27th. T. Garrett Horder.

Sir,—The suggestion of Dr. Watts Parkinson entirely meets my views. He proposes to send out a postcard to every member, asking each to state upon it whether he is or is not in favour of medical defence being taken up by the Association, and he says: "Unless a clear majority *are sufficiently interested to fill up and return the postcard* I maintain that the matter (of medical defence) should be left in the hands of the present societies." The italics are mine, and I have emphasised that portion of Dr. Parkinson's sentence because I feel quite sure the vast majority do not take any interest in it at all. If they did they would join the existing societies in much larger numbers. It would be no fair test of the wishes of the members to count the replies for and against, because we all know the negligence of our profession in replying to circulars unless they are particularly interested.

I also entirely agree with Dr. Parkinson's last paragraph where he says: "On the other hand, if a majority wish the change it must be adopted at all risks, and in that event it is to be hoped the minority will have the good taste and *esprit de corps* to acquiesce in the decision, and that we shall hear no more of men threatening to resign unless they can get their own particular fad adopted."

Much as I should regret to see this matter of medical defence taken up by the Association, I am quite ready to bow to the will of the majority of my fellow members when fairly ascertained; and in such an important change every member, whether attached to a Branch or unattached, and whether residing in these islands or abroad, is entitled to have the opportunity of expressing his opinion, and this opportunity can only be afforded in the manner suggested by Dr. Parkinson.

However, I do not believe the medical defence section will care to try that experiment. It would be entirely too full of risk of utter defeat. I trust these gentlemen who are so anxious to remodel the Association will be warned in time. I doubt not for one moment their good intentions and honesty of purpose, but I pray them to look back and see how slowly and with difficulty the Association has been built up, and to hesitate before they introduce what may result in internecine war among the members and its eventual disintegration.—I am, etc.,

Cootehill, March 1st. T. H. Moorhead, M.D.

## THE GENERAL MEDICAL COUNCIL AND UNQUALIFIED PRACTICE.

Sir,—In the British Medical Journal of February 27th Dr. Rentoul says in effect that as it would, in his opinion, be an objectionable position for the General Medical Council to prosecute quacks or illegal practitioners under the powers conferred by certain Acts of Parliament, he is convinced that for this purpose "the only plan left us is to adopt the scheme for medical defence."

Probably this statement or expression of opinion might have had influence if there were no Medical Defence Unions, whereas we have three, which are doing the work admirably. Dr. Rentoul's statement therefore becomes a false assumption that there is no alternative between the General Medical Council or the British Medical Association doing defence work.

By what right does Dr. Rentoul assume that this work, placed in the hands of the Association, would be done more worthily or effectively than it is being done? Where then is the necessity of imperilling the scientific position of the British Medical Association by forcing it to become a competitor and underseller of the existing Medical Defence Unions?

The more-power-at-your-elbow argument, used as a reason

why the Association should take up medical defence, is simply bunkum, for cases brought into court are not adjudicated upon either by magistrates, juries, or judges because the plaintiff or the defendant has the support of a large and powerful organisation, but by the merits of the case as indicated by the facts and opinions given in evidence. In other words, case are not fought out in English courts according to the power and influence at the back of the plaintiff or defendant, but upon the right or wrong of the cause of action between the parties.

In reply to the casual remark of Dr. Rentoul as to whether I am or was a member of the Council of the British Medical Association, I may state that I have the honour and privilege and very great pleasure of representing upon that body the Staffordshire Branch.—I am, etc.,

Wolverhampton, March 1st. T. Vincent Jackson.

Sir,—Dr. Rentoul's letters to the medical journals are long but not logical. In one published in the British Medical Journal of February 27th he asks "if Mr. Jackson will suggest that it is the duty of the General Medical Council to institute proceedings under Section xl of the Medical Act, 1858, for the wrongful use of medical titles," and later adds "does any sensible person think that a British Parliament would tolerate such offensive and degrading proceedings."

It will be within the knowledge of all members of the profession who study the proceedings of the General Medical Council that many actions have been instituted by that body most wisely against persons who wilfully and falsely use medical titles. The cases of Steel, Allinson, Allbutt, Bell (of Wardour Street), and last, but not least, that of Sutherland, reported in the Journal of February 27th, were all prosecuted by the General Medical Council, and such prosecutions redounded to the honour and dignity of the prosecuting body. The cases quoted by Dr. Rentoul—Leeson *v.* General Medical Council and Allinson *v.* General Medical Council—had nothing whatever to do with Section xl of the Medical Act. The prosecution for breaches of Section xl take place at the police-court, and the prosecuting body having nothing to do but to establish the facts of the case by the evidence tendered to the magistrate could never be held to be acting as "instigator and judge," as Dr. Rentoul seems to imagine. It is to be hoped that Dr. Rentoul's anti-progressive suggestions will never be carried out by his colleagues on the Council. For years the profession has urged the General Medical Council to take up that part of its duty in the execution of the Medical Acts by prosecuting unqualified practitioners, and within the last four years has hailed with satisfaction the fact that the Council has agreed to do so, and has in several instances successfully put the law in motion. Now it appears that our latest direct representative desires to put the clock back, and to leave the prosecution of illegal practitioners to some person or persons unknown and unnamed. It does not appear by his letter who is to do this important and necessary work, and he even objects to the Apothecaries Society being burdened by the execution of the Apothecaries Act. Let us hope that the General Medical Council, having once advanced in this matter, will never retrace their steps, even if an attempt be made to "head them back" by their youngest colleague.—I am, etc.,

Devonshire Street, W. Feb 27th. A. G. Bateman.

Sir,—Dr. Robert Rentoul has been severe upon us general practitioners in his letter appearing in the British Medical Journal of February 27th. He states that common sense is a sadly deficient commodity among us, and that we ought to cease whining and fight our own battles. He refers to Mr. Jackson's remark about "quackery naturally and legally falling under the supervision and action of the General Medical Council," and attempts to prove by quoting from a number of Acts of Parliament that legally the General Medical Council has nothing whatever to do with the question of quackery. Legally this may be so; but we practitioners have enough of that "commodity" that Dr. Rentoul refuses to believe we have to see that if it be so legally, that that is only the letter of the law, the spirit undoubtedly being that the General Medical Council should fight for the general practitioner, who is not unwilling to shirk his part, but who has probably neither the opportunity nor the time to do what he would otherwise wish to do for his profession.

If any one subject is more deserving of our respect and consideration than any other at this time, in our opinion, the question of quackeries and their accompanying evils should be one of the foremost. That a great body of scientific and honourable men can allow the public to be fooled in the way that they are every day of our lives at this time by lying advertisements and clever scheming rogues is, in my mind, a subject which should ever be considered one of the most important in the mind of such a body as the General Medical Council. To read in almost any paper that one takes up that "Dr." So-and-So's pills will cure diabetes, Bright's disease, or consumption, or that "Professor" Somebody or other's elixir will drive away every form of tumour from the female frame after a few doses, is to me positively wicked, and an insult to the honour of England and its medical faculty.

If the General Medical Council can be in existence and afford to ignore such a vital question because legally such a thing does not come under its notice, then, Sir, the sooner Dr. Rentoul is less blinded by the details of the law, the the better it will be for himself, for the General Medical Council, on which he is a representative, for the British public, whose credulity is daily being imposed upon, and, in an indirect way, for us poor "common-senseless" general practitioners.—I am, etc.,

Youlgreave, March 1st. T. Wilson Parry.

## THE DECLINE OF THE ARMY MEDICAL SERVICE.

Sir,—Mr. Brodrick's recent statement in the House of Commons on the Army Medical Department will have been read with profound regret by all who know the facts and have the welfare of the army at heart. It is not so commonly known as it ought to be that the Army Medical Service is in a highly unsatisfactory condition, and this want of knowledge is so far unfortunate that it tends to perpetuate a state of affairs which, if properly understood, would be promptly put an end to.

In the first place the establishment is greatly below its proper strength. When, in 1889, the number of medical officers was reduced to 891, the reduction was pronounced by Sir Thomas Crawford, then Director-General, to have exceeded what was safe; since that time the army has increased in numbers, and it has just been proposed to add another 8,000 men. We shall, therefore, be well within the mark in saying that the present minimum establishment ought to be 900, and when the new troops are added it should be at least 930. This month the number is only 817, and 20 retirements are expected in the next few weeks.

Secondly, with 28 candidates competing (!) for nearly 60 vacancies, and 14 failing to qualify, we can scarcely speak of maintaining a proper standard of proficiency. There would not even have been as many entries as there were had not the War Office actually lowered the standard by setting aside the rule which formerly prevented twice-plucked men from again presenting themselves.

Thirdly, the organisation is most unsatisfactory. As Lord Morley's Committee stated in 1883: "The hospital services are now in this anomalous position: there is a department without subordinates, and a corps without officers. Such absence of discipline as has been commented upon in the Egyptian and other campaigns is apparently in a measure due to the unsatisfactory relations of the Army Medical Department to the Army Hospital Corps." Moreover, medical officers have no definite rank, and when Mr. Brodrick spoke the other day of "new forms of army rank" he was evidently confused in his own mind, inasmuch as medical officers have no army rank at all, and the only "army rank" which exists is the rank which they are wisely seeking to obtain. "In the military service rank is everything,"[1] and without definite rank the duties of a medical officer are rendered much more difficult to perform.

In short, the service is deficient in numbers, defective in organisation, and in danger of becoming officered by an entirely wrong set of men. How serious such a state of things is to the army at large, and therefore to the country, may be left to the common sense of the public. The force

[1] Report of Lord Herbert's Commission, 1858.

which England can put into the field in case of an extensive war is admittedly a small one. To such a force the inroads of unchecked or unprevented disease, an undue mortality from wounds, even an unduly protracted convalescence of the sick, must be matters of the gravest moment, and an inefficient medical service means all these, and more. It is time, therefore, that the cause of the present state of affairs should be clearly understood. Certain grievances have just been dealt with by the War Office, and not too soon, but they were merely the fringe of the question. The real cause of existing defects has not been touched—has, in fact, been deliberately passed by. It is this. Able and self-respecting men will not enter a service where their position must be always uncertain and is often unpleasant. This uncertain position of medical officers is not a mere "social grievance," it is a military defect, being primarily the outcome of want of definite rank and of the position of the medical service, which is outside the army instead of being, as it ought to be, an integral part of it.

What, then, is the remedy?

1. The grant of army rank would enable medical officers to enter the army on the same footing as their friends in other branches. It would not involve any extension of their present command: the late Sir Andrew Clark removed all doubt on that score.

2. The army rank given should be denoted by simple military titles, the only titles understood by officers and men alike; five years' experience of compound titles has shown them to be utterly unworkable.

3. At the same time the Army Medical Staff and the Medical Staff Corps should be amalgamated into an army medical corps, as Lord Morley's Committee recommended in 1883. This corps would then form an integral part of the army, and the title Captain or Colonel, Army Medical Corps, would be as rational and as easily understood as the title Captain or Colonel Army Service Corps, or any other corps.

Such being the remedy, it may be a matter of surprise to some that so simple a change has not long since been effected. Officers of all branches of the army are recognising the wisdom of the claim and the desirability of admitting it. But one obstacle remains—the prejudice of the military authorities at the War Office. These military authorities seem to have forgotten that the duty of the War Office is to make our small army perfect in all its departments, and that officials at headquarters are just as responsible for medical arrangements as they are for artillery or ammunition. How long it is wise for them to postpone the inevitable is a matter for themselves. But how long the deterioration of the army medical service is to continue, or how far it is to be permitted to proceed, is a matter for the country.

The service has every confidence in Lord Lansdowne, and if its reform rested in his hands alone, there would be no doubt of the best being done. Even as it is, it may be confidently anticipated that his lordship will do his utmost to secure a just and wise settlement. But matters are urgent, and the country cannot afford to let them drift into a worse state than they are in at present. It is therefore earnestly to be hoped that the whole question will again occupy the attention of the War Office at an early date. When it does it will be expected that a more thoughtful investigation than the military officials have evidently yet seen fit to give to it will yield a more satisfactory result than that which Mr. Brodrick has announced.—I am, etc.,

February 28th. M.D.

## THE TREATMENT OF MALIGNANT DISEASE BY THE INJECTION OF TOXINS OF ERYSIPELAS.

Sir,—The publication, in the British Medical Journal of January 23rd, of Mr. Marmaduke Sheild's interesting case of sarcoma of the breast treated with the mixed toxins of erysipelas and bacillus prodigiosus, having caused some discussion as to the value of this method of treatment, I may, perhaps, be pardoned for introducing a few lines on the subject.

I am exceedingly glad that Mr. Butlin has, in the Journal of January 30th, published his experience, unfavourable though it has been, for it is impossible to make a true estimate of the value of the method without studying all of the cases that have been treated. It would have been better, perhaps, if Mr. Butlin had mentioned the class of cases in which he had tried the toxins. In regard to the statement he quoted from the *New York Medical Record* of October 17th, 1896, to the effect that the method was being abandoned in America, I will simply say that since that date three successive cases have been published,[1] and the history of a fourth has been communicated to me by letter from a well-known Boston surgeon, Dr. Horace Packard. My own results up to August, 1896, may be found in the *American Journal of Medical Sciences* for September, 1896.

I should like to distinctly emphasise the point that those who have criticised the method have been very prone to overlook the fact that I have never recommended it except in inoperable cases, and practically only in sarcoma. I have in all my papers urged great caution in using so powerful a remedy; but the fact that in a total, now of nearly 200 cases, treated by myself, only in 2 very advanced cases could death be attributed to the toxins, shows that the method, when used with proper precautions, is not attended with great risk.

The following are a few of the most important conclusions derived from my experience:

The different forms of sarcoma respond very differently to the toxin treatment. The melanotic variety is scarcely at all affected; round-celled sarcoma, especially of bony origin, seldom yields good results; the spindle-celled variety gives by far the best results. In 8 out of 15 cases that I have treated, the tumour has entirely disappeared, and all of the remainder have shown marked improvement. This disappearance may result in permanent cure, as is shown by the fact that 4 of my cases have passed the three-year limit. The results in carcinoma have been generally unsatisfactory, and it follows that this method of treatment should not be advocated except in inoperable sarcoma.—I am, etc.,

New York, Feb. 15th. William B. Coley.

## THE TREATMENT OF EPILEPSY.

Sir,—I observe in one of your recent annotations that in the *Neurol. Centralblatt* for January of this year Flechsig has been called upon to defend his treatment of epilepsy by a combination of opium and bromides. For many years past, and as the result of a large experience at the Glasgow Royal Infirmary, I have been in the habit of teaching and of insisting upon what I believe to be a therapeutical fact, that the best treatment for epilepsy is found in a combination of bromide of potassium with tincture of belladonna. With this combination, and the removal of all sources of peripheral irritation when lasting, I consider 90 per cent. of cases of epilepsy curable. Not less than 15 grains of the bromide should be given three times daily, and the dose of the tincture of belladonna, to begin with, should not be less than 15 drops. Both drugs should be pushed in obstinate cases until a modified toxic effect results. I sometimes conjoin bromide of camphor and a small dose of ext. bellad. in form of pill, with ext. gentianæ at bedtime. I can recommend this treatment with confidence to gentlemen whose practices specially embrace cases of epilepsy.—I am, etc.,

Glasgow, March 1st. D. Campbell Black.

## THE URIC ACID DIATHESIS.

Sir,—The British Medical Journal for December 26th, 1896, arrived to-day, and I have just seen the letter on the above subject by Surgeon-Lieutenant-Colonel Freyer.

First, as to the question of the immunity of women from stone in the bladder, I certainly never wished it to be taken as the sole, or even as the predominant, factor in this immunity, that the dietetic habits of the women vary from those of their lords and male offspring. I have given the subject too much attention to permit myself the belief that the question is so simple.

I certainly had not overlooked the difference in the urethral equipment of male and female, which are sufficiently obvious, but not being altogether satisfied that these structural differences supplied a complete explanation of the immunity

[1] Warren. *Boston Med. and Surg. Journ.*, December 26th, 1896; Packard, *Five Years in Surgery*, Boston, 1896 (press of S. Usher); Stone, *N. Y. Med Record*, November 21st, 1896; *vide* also *Transactions N. Y. Surg. Soc.*, Annals Surg., February, 1897.

of the female, I was merely concerned to mention to Dr. Haig a possible contributory factor, based on the fact that male children in India are more highly appreciated by parents than the girls, and that the boy at an early age is put to mess with the father and the male adults of the family, who are always catered for and served first, the women and girls eating subsequently.

I bring no charge of gluttony, nor of cruel disregard on the part of the men towards their women, but I still think that when it may be a case of the ingestion of an extra grain of uric acid or its formative equivalent, the man and boy stand the best chance of getting it.

I am not aware of any fundamental structural difference between the urethral-vesical apparatus of British and native Indian women, and yet, whereas in England the proportion of calculus cases in women to those in males is about 1 to 63 (Sir H. Thompson's cases), I find that in India, out of a total of 2,342 cases of which I have notes, the proportion is 1 to 14, and it would probably be even higher if custom allowed the women to take more advantage of surgical aid.

The statement made by me and quoted by Dr. Haig contained a fact and an opinion, and is declared to be a "record" for mistakes. I have dealt with the opinion, which is of very minor importance in face of the larger question at issue between Dr. Freyer and Dr. Haig.

As regards the fact, I too am prepared to recommend a reference to the authorities (Hunter and the Indian dispensary reports), with the full assurance of its being completely substantiated.

Out of a total of over 4,000 cases of calculus operated on annually in India, one-half are reported from the Punjab, in a population of 20 millions, 1 million of whom are reported by Hunter as rice eaters, 97 per cent. of the arable area being under wheat, barley, and millets. Next come the North-West Provinces, with less wheat, but still only 3 per cent. of the cultivable area under rice, which is said (Hunter) to be eaten by 4 millions out of the 47 million inhabitants—a doubtful point to anyone who knows the North-West Provinces—and from this area from 900 to 1,000 stone cases are reported annually; thus, three-fourths of the cases are reported from a wheat-, barley-, and millet-eating population of about 70 millions (or fewer).

On the other hand, the ratio of calculus incidence to population is lowest—and there is a huge contrast between lowest and highest—in Bengal, Madras, and Burmah, where rice is the most important food staple. The contrast is seen even in one provincial area, namely, Lower Bengal; for Behar, the western part thereof, which is pre-eminently a wheat-producing and wheat-eating country, furnishes altogether a disproportionate number of the cases in the Bengal statistics.

Dr. Freyer asserts that "at least four-fifths of the inhabitants of the North-West Provinces and the Punjab are Hindus." I refer him to the Census Reports, and he will find that, while he is right (and under the mark) for the North-West Provinces, the numbers in the Punjab (the home of stone) are 11½ millions of Mohammedans to 9 millions only of Hindus.

His statement that the great bulk of the former are vegetarian is a little too sweeping. The well-to-do eat meat daily; the frontier tribes, who suffer largely from calculus, also take meat pretty regularly; while the bulk of the population as a rule take it at least once or twice a week; and, though this be regarded as small, it is in contrast with other parts of India, and runs with the special calculus incidence, whatever be its value as a causal factor.

In this connection I must add that I have definite statistics from the Punjab dispensaries, showing that out of a total of 1,446 cases, 1,199 were Mohammedans and only 247 Hindus, a ratio of 5 to 1. These cases were not picked out to demonstrate a foregone conclusion, but are taken as reported. It is difficult to explain this special proclivity of Mohammedans unless the food factor be taken into consideration.—I am, etc.,

Simla, Jan. 12th. ERNEST ROBERTS, Surgeon-Captain I.M.S.

*** We shall not be able to find space for further communications on this subject.

## MILK DIET IN TYPHOID.

SIR,—Probably many will be led by Dr. Barrs's paper to reconsider their views on the dieting of typhoid patients. Apart from the febrile condition, the vital question in typhoid is not what kind of food we put into the stomach, but what the character of that food will be when it reaches the ulcerated portion of the small intestine; bearing in mind, too, that if there be much diarrhœa, the passage may be a very rapid one. How far does milk, which is the recognised staple in typhoid, answer our requirements?

I believe that in many cases milk in anything like large quantities is ill borne, and that apart from the special causes which produce diarrhœa in typhoid, a very frequent effect is to produce constipation, which is largely due to the hard, dry character of the fæces. Cases of gastric ulcer are treated often with milk alone, and rationally enough, for the milk comes directly in contact with the ulcerated surface, but one of the difficulties in doing so is often the resulting constipation, and anyone who takes the trouble to watch cases treated by a diet consisting wholly, or almost wholly, of milk, will in many instances, find the stools hard and irritating.

Digestibility is, as Foster points out (*Physiol.*) largely a question of mechanical division, and a well-pounded and minced beef-steak is a most digestible thing when lightly cooked or raw, as evidenced by the success often obtained in feeding quite young children on them.

In order to be digested at all, milk, however diluted, must produce a curd by the precipitation of the casein; so that we have actually less control over the mechanical division of milk than other food stuffs. A gastric juice which was too feeble to digest finely divided meat fibre would almost certainly be too feeble to dispose of even small milk curds; and as a matter of fact, when milk is given in at all large quantities, curds are often found in the evacuations, even without much diarrhœa. This curdling can, of course, be avoided by peptonising the milk prior to use, and this process is a most valuable one in many typhoid cases, especially if there be vomiting, but the result is not always liked by the patients.

But there are other objections to milk as the main diet not so easily removed. Though suitable to some extent to the febrile digestion, the deficiency in nitrogenous and carbohydrate elements is far greater than is often demanded by the weakness of the digestive powers alone, and is prolonged far beyond the period that this would render necessary in any case, on account of the intestinal lesions, so that in a long case of typhoid the patient may literally be starved.

Moreover as Bunge has pointed out, milk is very deficient in iron salts as compared with most of the usual constituents of our diet, the average being about 2.5 mg. per 100 gr., as compared with 5.5 in wheat, 16.6 in beef, 6.4 in potatoes, and considerably more in green vegetables.

Theoretical considerations are notoriously fallacious, but we may perhaps see in this some reason for the prolonged anæmia and debility which is so common after typhoid, looking to the extreme importance of the iron salts in the blood formative processes, and the strain put on them by the disease. The deduction from all this is that if, as Dr. Barrs has found, the other constituents of the food natural to man can safely be given, it should certainly be attempted, and it is fairly certain that on theoretical grounds alone far better results will, as he claims, be attained as regards the after-effects of typhoid.—I am, etc.,

Brighton, Jan. 29th. G. HOBHOUSE, M.D.

## TREATMENT OF MYOMA.

SIR,—During the past seven years I have treated about thirty patients with fibroma by galvano-chemical cauterisation, and have seen three times as many similarly treated in different countries, and am emphatic in my opinion that it is a safe and reliable method when faithfully and intelligently carried out. Electricity is most beneficial in comparatively soft, bleeding myomata. It always stops hæmorrhage if properly carried out, and generally relieves pain and pressure symptoms. The following notes of two cases successfully treated may serve to exemplify the value of electrolysis:

Mrs. A., aged 34, married six years, sterile. On examination a large intramural fibroid was found projecting through the anterior wall of the uterus. Posterior *cul-de-sac* occupied occupied by a hard painful swelling about the size of a hen's egg; the uterus measured 4½ inches. Menor

rhagia and dysmenorrhœa; flow usually lasting twelve days, sometimes three weeks. This condition continued about a year and a half, during which the patient was almost continuously under treatment, and was seen several times by a gynæcologist. Seventeen applications of continuous current, strength ranging from 30 ma. to 120 ma. completely relieved patient of her symptoms. Menorrhagia was stopped; both menstrual and intermenstrual pain ceased. The swelling at the back of the uterus disappeared entirely, and the intramural growth could only be made out with difficulty. After an interval of about three years this lady was delivered of a healthy child.

Miss C., aged 40. Interstitial fibroma. Menorrhagia, flow lasting usually three weeks. Constant pain. Appendages had been removed seven years previously at a Liverpool hospital, but hæmorrhage and pain if anything worse since operation. When first seen (nearly four years ago) the patient was a complete wreck: and confined to bed altogether. Sixteen applications, the greatest strength being 130 ma., completely relieved the patient of her symptoms. She has continued well, and is now able to support herself and an aged mother by sewing. There was no diminution in size of growth.

Mr. Tait confesses that after waiting patiently for twelve years he is still unable to express an opinion on the relative value of the various surgical procedures for the treatment of myoma. The late Thomas Keith did not, perhaps, wait so long, but he was at all events very emphatic in his opinion when he said that this was not a question of surgery but that it was a question of humanity.—I am, etc.,

Liverpool, Feb. 2nd. T. Gerald Garry, M.A.O.

## "THE INFLUENCE ON THE ACTION OF THE AURICLE OF VARIATIONS IN ITS CAPACITY."

Sir,—In the British Medical Journal of January 23rd there appears an article with the above title by Dr. D. W. Samways, in which he details a series of experiments with two bags of different capacities distended under the same pressure, and applies the conclusions drawn to the working heart.

In the year 1892 I read before the Royal Academy of Medicine in Ireland, and published both in its *Transactions* and in the *Journal of Anatomy and Physiology*, a paper on A Few Applications of a Physical Theorem to Membranes in the Human Body in a State of Tension, a copy of which I now enclose, where the same experiment was described in the same connection, with this difference, that my paper treats the subject mathematically.

Both Dr. Samways and I have shown that a small contracting sac has a mechanical advantage over a large one, but he pushes the matter to an absurdity when he contends that the left auricle by its contraction sends blood into the contracting ventricle. There are no valves between the auricle and the lungs, and therefore raising the intra-auricular pressure during contraction of the ventricle could only result in the blood following the path of least resistance, namely, back into the pulmonary veins. To add another reason may seem "wasteful and ridiculous excess," but it will be found that the mean radius of curvature of the contracted auricle is nothing like small enough to enable it to raise the pressure of its contents to anything approaching that of the ventricle when the relative thicknesses of the walls are taken into account.

By taking the formula given in my paper, p. 367,

$$P = t\left(\frac{1}{r} + \frac{1}{r_1}\right)$$

where $P$ is the pressure of blood, $t$ the thickness of the wall at any point, and $r$ and $r_1$ the maximum and minimum radii of curvature at that point, and applying it to the contracted auricle and dilated ventricle in question, its value will be found to be greater for the ventricle than for the auricle.—I am, etc.,

Dublin, Jan. 30th. Robert H. Woods, M.B., F.R.C.S.

## CARDIAC TONICS IN ACUTE BRONCHITIS AND BRONCHO-PNEUMONIA, ESPECIALLY IN CHILDREN.

Sir,—In reply to Dr. T. C. Railton's letter in the British Medical Journal of January 30th criticising my communication under the above heading, I would point out to him that I did not suggest "that the cyanosis of broncho-pneumonia is due to heart failure," but included blueness of the skin and mucous membranes, with other clinical phenomena *accompanying* this event. When the heart fails it is usually at the time when the cyanosis is becoming marked, rendering it more intense. That there is often a period in the course of these cases—not in the early stages—when heart tonics may be employed with advantage was the gist of my remarks, which point Dr. Railton seems to have missed. Alcohol appears to me to be contra-indicated when there is great obstruction of the pulmonary circulation. The value of oxygen inhalations greatly depends upon the condition of the heart muscle, so that heart tonics might be given with benefit concurrently with the inhalations.

I fail to conceive Dr. Railton's objection to spongio-piline, especially in the early stages of these diseases, as it may if necessary be used wrung out of hot mustard and water.—I am, etc.,

Portsmouth, Jan. 30th. J. G. Blackman.

## THE MIDWIVES BILL, 1897.

Sir,—I would call attention to the very absurd financial proposals made in Clause 6 of the above Bill. It proposes that, if the income of the Midwives Board, from fees for examination and registration, be not sufficient to pay the expenses of the Board "the deficiency shall be supplied from the respective local county funds." This proposal could only be made by persons utterly ignorant of taxation, and it converts the whole proposal into a screaming farce. As well might they propose that the expenses of the Board be defrayed out of the poor-rate. The absurdity of the proposal will be seen if it were suggested that the governing bodies of the solicitors, chemists, veterinary surgeons, etc., were to be kept going by the county rates. I have called the attention of the "County Councils Association" to this great financial blunder, and I am now in a position to state that the Parliamentary Committee of that Association has passed a resolution in favour of opposing Clause 6. I have also called the attention of the "Association of Municipal Corporations" to it.

Neither has this eminently parochial proposal escaped the General Medical Council, because at the meeting of its Executive Committee on February 22nd last it has forwarded objections to the Lord President of the Privy Council, in which it is pointed out:

(*a*) That, if the Bill pass, the General Medical Council will have to devote part of its time to the business of the Midwives Board.

(*b*) That, as the funds of the General Medical Council are obtained solely from practitioners, it is unfair that such money be used in connection with the Midwives Board.

(*c*) That, although the Act does not refer to Scotland and Ireland, (?) the money paid by practitioners in these two countries would go to defray part of the expenses of the Board.

(*d*) That the Treasury should make a grant to the General Medical Council and to the Board.

I think this suggestion in the Bill—that practitioners should not only hand over all their confinements to midwives, but that they should actually help to supply the funds for administering a Midwives Act—is a piece of the most sublime impudence. Of course the Midwives Association and the practitioners who back these midwives up would not dare to make such a proposal to any business men. It would be hooted out of existence. However, they think that practitioners have so failed to organise their political influence and honour that any gross insult can be offered to us.

I have always contended that if we recognise midwives we must also recognise medical herbalists and bonesetters. Fortunately events support my contention. In July, 1896, the medical herbalists held their annual meeting at Hull, when the President said: "The law needed to be widened, so as to admit all schools of medical thought." Who can honestly question the accuracy of this President's statement, when he has the action of practitioners connected with the Obstetrical Society of London trading in midwifery diplomas? I would wish all success to "The Medical Herbalists Association of Great Britain," of which Mr. C. H. Hassell has been re-elected President, if the Midwives Bill pass. I wonder why some other medical society, with a status similar to that of the Obstetrical, if such can be found, does not start granting diplomas purporting to qualify the holders to practise minor medicine and surgery. Let me tell them there is money in it! From 1872 to 1894 a few practitioners connected with the London Obstetrical Society have put into their own pockets about £2,324 through the

"granting" of diplomas; while a few practitioners in Liverpool have followed suit to the tune of £1,435 in twelve years. Now, if a few members of "the God-like profession" with a high contempt for "filthy lucre," openly "make a ring" in this money-making business, why, I ask, in the name of everything fair and equitable, should other poor practitioners not do likewise? A few years ago some simple-minded persons who were not members of "the Christ-like profession" started the "General Council of Safe Medicine, Limited." They also, following the noble example of the "Christ-like" practitioners granted "a few diplomas." Why not? Did we practitioners not set them the example—the noble, honest, above-board, and essentially gentlemanly example?

Sir, the Medical Act, 1886, enacts that if any man or woman wish to lawfully practise any part or branch of physic, such person must (*a*) pass an entrance examination, (*b*) study for at least five years, (*c*) pass qualifying examinations, and (*d*) be registered. This Act was passed in the sole interest of the public. Why, then, do a few practitioners connected with the Obstetrical Society and the Midwives Association wish to repeal this enactment?

I would urge that practitioners go on coaching their members of Parliament in the real aims of the instigators of this outrageous Midwives Bill. Certain trading in diplomas has been going on, and it is hoped to make this very questionable trading lawful by having a Midwives Bill passed. The medical herbalists and bonesetters and midwives are all busily engaged in asking the members of Parliament to vote for this Bill, while constant and persistent lobbying is going on. I am glad to see that at Rochdale and Burnley practitioners have appointed committees to oppose the Bill. May I suggest that the practitioners in every town and city in the United Kingdom at once establish local medico-ethical societies for the purpose of defeating this dangerous, degrading, and retrograde Bill? By local organisation all just aims can be accomplished by us. Co-operation with organisation—two points too frequently ignored by practitioners—must prevail; therefore I urge the immediate formation of medico-ethical societies in every town.—I am, etc.,

Liverpool, Feb. 28th. ROBERT R. RENTOUL.

## THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

SIR,—I find that in my letter to you of February 8th the name of the party whose diploma was recalled on October 21st, 1896, was through oversight misspelt "Adie" instead of "Ady." The full name of the person referred to is James Charles Ady.

I have been requested to ask you to correct the error.—I am, etc.,

Edinburgh, Feb. 26th. JAMES ROBERTSON, *pro* Secretary.

# OBITUARY.

## FREDERIC JOHN MOUAT, M.D. AND LL.D.EDIN., F.R.C.S.ENG.,

Deputy Inspector-General of Hospitals, Bengal Army (retired).

THIS distinguished officer, whose demise has already been announced in the BRITISH MEDICAL JOURNAL, was born at Maidstone, in Kent, on May 18th, 1816. His father was Surgeon Mouat of the King's Hussars and the 13th Light Dragoons, and his elder surviving brother is Surgeon-General Sir James Mouat, V.C., K.C.B.

Dr. Mouat was, in the first instance, intended for the army, and received his first scientific education in Paris. He studied medicine at University College, London, and afterwards at the University of Edinburgh. After a distinguished career as a student, he became a Member of the Royal College of Surgeons of England in 1838, taking the M.D. degree at Edinburgh in the following year. In 1844 he became a Fellow of the College of Surgeons. In 1886 the honorary degree of Doctor of Laws was conferred upon him by the University of Edinburgh.

Soon after graduation he entered the Indian Medical Service, being posted to the Bengal Presidency as Assistant-Surgeon in January, 1840. In 1853 he was promoted to Surgeon, attaining the rank of Surgeon-Major in 1860, and retiring with the rank of Deputy Inspector-General of Hospitals in November, 1870.

Of Dr. Mouat's work in India it is impossible to give an adequate idea within the limits of a short sketch like the present. The mere list of the multifarious appointments which he held during his thirty years' service gives striking proof of the versatility of his talents, and of the high estimation in which he was held by his official chiefs. After a very short period of military duty with European and native infantry and artillery, he officiated as Deputy Apothecary and Assistant Opium Examiner to the Government. He afterwards held successively the appointments of Professor of Chemistry and Materia Medica, as well as Secretary and Treasurer to the Bengal Medical College, Chemical Examiner to the Government, Secretary to the Council of Education of Bengal, Professor of Medical Jurisprudence, Professor of Medicine and Clinical Medicine, and finally Inspector-General of Gaols in the lower provinces of the Bengal Presidency.

From 1841 to 1853 as Resident Officer of the Medical College he was charged with the discipline and general control of that institution in all its departments. In fact, he discharged all the duties now attached to the office of Principal, and the high character and flourishing condition of the College were in large measure due to the untiring zeal, the enlightened spirit, and the great administrative ability which he brought to its management. During his period of office he thoroughly reorganised the College, framing a new set of rules and obtaining its recognition by the Royal College of Surgeons of England and its affiliation to the University of London. He established the Bengali class, remodelled the system of clinical instruction, and raised a large public subscription for the enlargement of the great hospital attached to the College.

As a teacher of the practice of medicine, both systematic and clinical, Dr. Mouat displayed the qualities of earnestness and thoroughness which was characteristic of all his work. He was a fluent lecturer, and spared no pains to keep himself and his pupils well abreast of the progress of medical science. He was a strict disciplinarian, and tolerated no perfunctoriness in his pupils and assistants; but he was not less exacting from himself, and was an example to those under him of punctuality and conscientiousness in the discharge of all his duties. But though strict he was beloved by all, and the parents of students often travelled long distances to thank him for his care of their sons. Burdened as he was with teaching and administrative work, he found time for literary work. He compiled, illustrated, and translated into Hindustani a large volume on anatomy for the use of the military class. He likewise translated the London *Pharmacopœia* into Hindustani for the same class. He also published a thick folio anatomical atlas, with text in English and Hindustani.

Dr. Mouat took a leading part in the promotion of the higher education in India. He was for ten years Secretary to the Council of Education in Bengal. During that period he examined and reported on the Colleges, including one of engineering, in the North-West Provinces, and edited several educational works. As early as 1846 he projected the scheme of Universities for India, which was promulgated in 1854 by Sir Charles Wood, with no substantial change of principle and little variation of detail. Dr. Mouat was in truth the originator of Universities in India, as until he submitted his scheme to the Council of Education in Bengal, no such proposal had been made. The very large part which he took in establishing and perfecting the system of public instruction in India was fully acknowledged by the President of the Council of Education in a letter addressed (in 1854) to the Secretary to the Government of Bengal. It was also gratefully acknowledged by the Hindu and Mohammedan communities in Calcutta, which, on his retirement in 1870, presented him with addresses testifying to his initiative and indefatigable efforts in the matter.

From the end of 1855 till his retirement from the service Dr. Mouat was Inspector-General of Gaols in the Lower Provinces of the Bengal Presidency. To this new sphere of duty he brought the same efficiency and zeal which had marked his work in other directions. The results of his labours may be summed up in the statement that he improved gaol discipline, largely increased the profits from

prison labour, decreased the cost of gaols, and lessened the sickness and mortality in these establishments.

In 1857, during the Mutiny, Dr. Mouat was appointed President of a Committee sent to explore the Andaman Islands with a view to the selection of a convict settlement. This was a difficult and even dangerous enterprise, but it was accomplished so successfully that he received the thanks of the Governor-General in Council, who directed that a harbour discovered by the Committee on the west coast of the Great Andaman should be called Port Mouat in his honour.

Though Dr. Mouat's labours in India fully entitled him to repose, he could not be idle. On his return to England he was appointed an inspector under the Local Government Board. In this capacity he did much valuable work which is buried in Blue Books in the form of reports on the cost of maintainance in the district and separate Poor-law schools of the metropolis; on the prevalence of ophthalmia in the Industrial Schools, Kirkdale; on the statistics of childbirth in the lying-in wards of the workhouse infirmaries of England and Wales, etc. He was elected President of the Statistical Society, and in that capacity delivered inaugural addresses in 1890 and 1891. He also read before this society in 1880 a most valuable paper on the education and training of the children of the poor.

He was a good and ready speaker in French and Hindustani, as well as in English, and had considerable skill with the pen. In collaboration with Mr. Saxon Snell he published a large and copiously illustrated work on hospital construction, on which his experience and special knowledge made him an authority.

Of Dr. Mouat's exceptional intellectual endowments and of his extraordinary energy, the work which he accomplished is a sufficient proof. He was a man of strong character, but of the truest kindness of heart. Personally he lived up to the highest standard of morality and duty, and he was proud of his profession and had its honour and interests much at heart.

Dr. Mouat was twice married—first in 1842 to Mary Rennards Boyes, and secondly in 1889 to Margaret Kay, daughter of Mr. John Fawcus, J.P., who survives him. There was no issue.

He founded and endowed a scholarship for medical students in the University of Edinburgh, and he had intended to endow another at Calcutta, but the failure of a bank crippled his resources so much that he was unable to carry out this project. A part of his valuable library was given to the Calcutta Medical College at the time of his retirement, and a part of his existing professional library will be given to the University of Edinburgh. A marble bust of him executed by Mr. Hamo Thornycroft, R.A., was bequeathed by him to University College, London.

His remains were cremated at Woking in accordance with his expressed wish.

## HENRY TERRY, M.R.C.S., L.S.A.

We regret to announce the death of Mr. Henry Terry, the oldest and one of the most respected of the medical practitioners of Northampton. He was the son of a medical man who held a prominent position in the town, and who had been present at the battle of Waterloo. Mr. Henry Terry studied medicine at St. George's Hospital, and obtained the diplomas of M.R.C.S. and L.S.A. in 1843. He was Surgeon to the Northampton Police and to the Borough Gaol, and was a Medical Inspector under the Factory Acts. He was also for some years Medical Officer to the Hardingstone Union, a post which he held till failing health prevented his discharging the duties connected with it, when he retired on a pension. Mr. Terry was one of two gentlemen who in 1856 initiated the establishment of the South Midland Branch of the British Medical Association, and for the first two years of its existence he was one of its Honorary Secretaries. He was afterwards President of the Branch in 1875. Although for several years before his death he had retired from practice, he continued to take a keen interest in the Association, and was a regular attendant at its meetings. He was also strongly interested in meteorological science, and was for some years President of that section of the Northampton Natural History Society. Mr. Terry was a man of cultivated mind and of genial and amiable character. He will be greatly missed by his professional brethren and his fellow citizens of the town of Northampton.

## Surgeon RICHARD HENRY WAY, R.N.

Surgeon Richard Henry Way, whose death on February 21st from heat apoplexy at Warrigi, during the Benin Expedition, is announced by telegraph, was born in London on July 3rd, 1867. On the death of his father shortly afterwards, his mother returned to her native place, Wincanton in Somersetshire, where his early life was spent. He received his medical education at University College, London, and obtained the diplomas of M.R.C.S. and L.R.C.P. in 1892. After a short experience as assistant at Swindon, he held the office of House-Surgeon to the Eccles and Patricroft Hospital for a year. He entered the naval medical service in November, 1894, and was gazetted to H.M.S. *Howe* in May, 1896. When this ship was ordered home in December, he returned thither with her, but was almost immediately afterwards sent out on the *Malacca* with the Benin Expedition.

We regret to record the death on January 4th of Charles Alexander De Silva, M.R.C.S., L.R.C.P. He was born in 1864, and, after attending the Colombo Academy, entered the Ceylon Medical College in May, 1881. He obtained the licence in 1886, and in the following year proceeded to London, where he attended the Middlesex Hospital, and afterwards spent some time in Edinburgh. He obtained the diplomas of M.R.C.S. and L.R.C.P.Lond. in 1889, and in the following year returned to Ceylon. After serving at Marawilla and as House-Surgeon to the General Hospital, Colombo, he was appointed Demonstrator of Anatomy in the Ceylon Medical College, and subsequently was nominated Assistant Physician of the General Hospital and Medical Officer and Dispensary Medical Officer in Colombo, offices which he retained down to his death. Mr. De Silva had been married in October last, and had only just resumed his duties, when he was attacked by acute nephritis, which proved fatal after an illness of three weeks' duration. He was very highly esteemed by the medical profession in Ceylon, and a medical friend who knew him from the commencement of his studies writes: "The hearts of all who knew or heard of him are too sore yet to speak adequately of the very heavy loss they have sustained. But what of the poor of Colombo? They have lost a brother—not a mere friend. His name will never be forgotten, his memory will be ever cherished." The funeral was attended by all the medical practitioners in Colombo, but Sir William Kynsey, C.M.G., the Principal Civil Medical Officer, was prevented by indisposition from being present. The funeral service was conducted by the Bishop of the Diocese. Mr. De Silva was a loyal member of the English Church, and about a year ago presented to the church which he attended a set of choir stalls in teak. Mr. De Silva was a member of the British Medical Association from the time of the establishment of the Ceylon Branch.

Dr. Henri Colladon, of Geneva, who recently died at the age of 55, was a prominent figure in the profession of Switzerland. He belonged to a family which for three centuries has been distinguished in law as well as in medicine. Born at Geneva in 1841, Colladon studied medicine first in Paris, and afterwards, following an old Genevan tradition now abandoned, at Edinburgh, where he graduated in 1869. He then visited London and Vienna, where he worked at otology under Professor Politzer. Returning to Geneva in 1870, he took the doctor's degree there with a thesis entitled Some Considerations on the Treatment of Diseases of the Skin. He devoted himself specially to diseases of the ear, however, and soon became the leading aurist of Geneva. He was President of the Geneva Medical Society in 1884. He was a man of straightforward character and genuine kindness of heart, which made him popular alike with patients and with his professional brethren. His contributions to medical literature almost all relate to subjects connected with his special line of practice.

Dr. Alphonse Edme Bourgoin, Professor of Pharmacology and Director of the Central Pharmacy of the Paris Hospitals, who recently died suddenly at the age of 61, was born in 1836. After taking the degree of Medicine in the Paris Faculty, he

became *Professeur Agrégé* in 1866. He was elected a member of the Académie de Médecine in 1879. In 1893 he became a member of the Chamber of Deputies. He was the author of numerous works on chemistry and pharmacology, among which may be mentioned his *Traité de Pharmacie Galénique* (1880), and his contributions to Frémy's *Encyclopédie Chimique*, in which he was one of the principal collaborators. In his later years Dr. Bourgoin came forward as an opponent of Pasteur.

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DR. KARL HERMAN SÄTHERBERG, of Stockholm, who died recently, was the pioneer of the Swedish movement cure, and one of the most distinguished poets of Sweden. He was born at Tumba in 1812, and was educated at Strengnäs and Upsala, where he took his medical degree. In 1847 he became the President of the Orthopædic Institute in Stockholm, a post which he retained until 1879. His lyrical and descriptive poems, of which "Alphilda" is the best known, fill several volumes, and he was the author of a cycle of verse descriptive of the career of Linnæus, and entitled "The King of Flowers." In 1896 Sätherberg published his memoirs. His contributions to medico-gymnastic literature are considerable.

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DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Wannebroucq, Dean of the Faculty of Medicine, and some time Professor of Clinical Medicine in the University of Lille, aged 67; Dr. Max Lesage, Member of the Chamber of Deputies for the department of Oise; Dr. C. Corradi, Lecturer on Diseases of the Ear, Throat, and Nose in the University of Turin; Professor Arantes Pedroso, President of the Eschola Medico-Chirurgica of Lisbon; Dr. Bonnefoy, of Vexin, one of the leaders of the vegetarian crusade in France, and author of a work on the subject, entitled, *Principes d'Alimentation Rationelle et de Cuisine Végétarienne:* Dr. L. C. Chevalet, formerly physician in ordinary to Prince Charles the Third, and Prince Albert the First of Monaco, aged 80; Dr. Zographos, formerly physician in ordinary to the Sultan Abdul-Medjid, and member of the Superior Ottoman Council of Public Instruction, aged 76; Dr. Max von Schleiss-Löwenfeld, Privy Councillor and the oldest member of the profession in Munich, aged 88; Baron C. von Ettingshausen, Professor of Palæontology and Botany in the University of Graz, and author of *Physiotypia Plantarum Austriacarum*, aged 50; Dr. Herman Hager, one of the first authorities on pharmacy in Germany, and author of numerous works relating to the subject, aged 81; Dr. T. G. Rowand, formerly Professor of Materia Medica, Pharmacy, and General Therapeutics in the University of Pennsylvania, aged 68; Dr. Karl Hertz, of Bonn, one of the oldest specialists in mental diseases in Germany, aged 80; Dr. A. Prussak, Professor of Otology in the St. Petersburg Military Medical Academy, aged 57; and Dr. Henry Hartshorne, sometime professor of the institutes of medicine in the Philadelphia College of Medicine, of the practice of medicine in the University of Pennsylvania, author of numerous works on medical subjects, aged 73.

# MEDICO-PARLIAMENTARY.

*HOUSE OF COMMONS.*

THE MIDWIVES' REGISTRATION BILL.

THIS BILL, which was formally on the paper to be read a second time on Friday, February 26th, though with no prospect of the stage being taken on that day, was on February 25th deferred till Friday, March 12th.

FOOD ADULTERATION.

Mr. CHAPLIN, in reply to Mr. KILBRIDE, said: The question whether a Bill will be introduced in the present session on the subject of food adulteration must depend on the progress made with other Government Bills. The Bill which has been prepared deals with the subject as a whole; but it would be premature to make any statements on matters such as those referred to in the second part of the hon. member's question.

RABIES.

Mr. BIGWOOD asked the President of the Board of Agriculture whether his Department were now prepared to adopt the recommendation of the Departmental Committee and make a determined effort to stamp out rabies by exercising directly the powers which they already possessed under the Diseases of Animals Act.—Mr. LONG: There appears to me to be great force in the recommendations of the Committee to which my hon. friend refers, and I hope to be in a position to make some further announcement on the subject at no distant date.—Mr. BIGWOOD: Within ten or fourteen days?—Mr. LONG: I hope so.—In further reply to Mr. BIGWOOD, Mr. LONG said: It is the case that two outbreaks of rabies have occurred in the county of Middlesex during the present year. The reply which I have made to the question of my hon. friend the member for the Hornsey Division will, I think, afford the information for which my hon. friend asks in the second paragraph of his question.—Mr. STEPHENS asked the President of the Board of Agriculture whether he was aware that, the muzzling orders for dogs in the counties of London, Surrey, and Hertford having been taken off, it was in contemplation to remove the muzzling order in the county of Middlesex; whether it was true that fresh cases of rabies within the area of the foregoing counties had occurred quite recently; and whether, the Departmental Committee having reported that muzzling was not only an efficient but the only means which was now practicable for the extermination of rabies, he would issue a muzzling order for an area and with conditions which would be likely to bring about the extermination of rabies.—Mr. LONG: The answer to the first paragraph is in the affirmative. I regret to say the second paragraph is the same. In reply to the third, I would say that the circumstances which have recently occurred point clearly to the necessity for the issue of a muzzling order applicable to the whole of the metropolitan district irrespective of the boundaries of particular local authorities. The form which such an order should take is now engaging my attention, especially with regard to the description of muzzle to be used.—Mr. STEPHENS asked when the order was likely to be issued.—Mr. LONG said he was afraid he could not give the exact date, but he hoped to be able to make an announcement shortly.

VENEREAL DISEASE IN THE INDIAN ARMY.

In reply to Mr. ROBERT CAMERON, Lord G. HAMILTON said: The terms of the reference of the Departmental Committee now sitting on the subject of venereal disease in the Indian army were as follows: To examine the official returns of venereal disease among British troops stationed in India, and to report what changes, if any, have taken place during recent years in the prevalence of such disease and in its character and intensity; also to obtain and report any information which may be available with regard to the presence of venereal disease and its character and intensity among foreign armies. The report is now under my consideration, and will be published. The evidence on which it is founded being almost entirely documentary, has not been separately recorded, but is embodied or referred to in the report. I am at present unable to say what course may be taken by Her Majesty's Government, but undoubtedly the House will have an opportunity of discussing any decision we may arrive at.

VACCINATION.

Mr. G. BALFOUR, in reply to Mr. PINKERTON, said: The Local Government Board have power to issue any regulations they think fit to prevent the spread of dangerous infectious diseases, such as small-pox, and thus to compel compliance with the vaccination laws. No Boards of Guardians in Ireland have, I may add, refused to do their duty in this respect.

OYSTERS IN RELATION TO DISEASE.

Mr. HENNIKER HEATON: I wish to ask the President of the Board of Trade whether he is are that, owing to the publication by the Local Government Board of a report on Cholera, and of another report on Oyster Culture in relation to Disease, public confidence in the wholesomeness of oysters has been so much impaired that the annual consumption of oysters has fallen off to the extent of three-fourths, and a large number of the fishing population have been reduced to distress; whether he has observed that the reports alluded to condemn only a few small oyster layings round the coasts of England, while many of the chief layings, including the whole of those on the coast of Kent, were declared free from contamination; whether he is aware that the Kentish layings thus pronounced free from disease are more extensive than all those in the rest of the kingdom put together; and whether he is aware that they have suffered from the lack of demand equally with the polluted layings; whether, with a view to restore public confidence in a valuable article of diet and assist the fishing population, he will recommend the appointment of inspectors of layings, and also of all shops and stalls for the sale of oysters, authorised to enforce such conditions of sanitation as may effectually safeguard the public against disease; whether he is aware that foreign oysters are frequently introduced into this country from polluted layings, and that the only instance of enteric fever in an epidemic form arising in England from oysters was traced to the eating of Dutch oysters; and, whether he will therefore recommend that it shall be made a penal offence to sell oysters brought from foreign layings without declaring their origin at the time of sale and without plainly marking such origin.—Mr. RITCHIE: I have little doubt that the reports referred to, have, to some extent, impaired the confidence of the public in the wholesomeness of oysters, but I venture to think that my hon. friend over-estimates the decrease in their consumption. I am aware that whilst only a certain number of beds are condemned, others have suffered from the reduction in demand. The trade has brought the matter to the notice of my right hon. colleague, the President of the Local Government Board, whose province it is to deal with questions affecting the public health, but if it should be found that the Board of Trade can take any useful action in the matter, I shall be ready to give careful consideration to any proposals which may be laid before me. As at present advised I do not think that the marking of foreign oysters would be either feasible or an efficient remedy.

THE POLICE AND CRUELTY TO CHILDREN.

The HOME SECRETARY, in reply to Mr. PICKERSGILL, said: There are instructions to the Metropolitan Police prescribing their relations with the National Society for the Prevention of Cruelty to Children, and under them the police notify to the Society particulars of all cases of cruelty to children which come to their notice. Five hundred and thirty-one such cases came to the notice of the police during 1896, 182 of which were transferred to the Secretary for prosecution. These is no other society with which the police have similar relations.

THE QUALITY OF ARMY RECRUITS.

Major RASCH asked the Under-Secretary for War whether the standard for infantry had been reduced to 5 feet 3½ inches and 32 inches chest measurement for recruits under 20 years of age: and whether this was

caused by the impossibility of filling existing establishments or to raise the new battalions.—Mr. Brodrick: Recruiting varies with the state of the labour market, and temporary relaxations as regards height and girth have to be made from time to time when trade is brisk. In March of last year the supply of recruits was so abundant that we were able to exact the full standard, and discontinue special enlistments below it. Recruits now are scarcer, and therefore young men under 20 whom the examining medical officer pronounces to be likely to develop to the full standard will, until further orders, be accepted at the figures named in the question.

### Private Lunatic Asylums.

In reply to Mr. Field, the Secretary for Ireland said: The management of private lunatic asylums in Ireland is regulated by 5 and 6 Vic., cap. 123, under which no approval of the appointment of a visiting physician is required. If the words "revenue accruing" are intended to refer to the amount received by way of fees on licences issued to private asylums, there will be no objection to grant a return such as is indicated if the hon. member will move for it in the usual way.

### Verminous Persons.

Mr. Hazell has presented a Bill to permit local authorities to provide cleansing and disinfection for persons infested with vermin. The measure, which passed the first reading unchallenged, is "backed" by Lord Balcarres, Sir Albert Rollit, Mr. Burt, and Mr. Field.

### Report on Vaccination in Scotland.

The Thirty-second Annual Report on Vaccination (Scotland) has just been presented to Parliament.

### Notices.

Major Rasch has given notice that on the first opportunity he will call attention to the health of the British army in India, and move a resolution.

Mr. Field to ask the Secretary of State for the Home Department whether the Government will consider the advisability of the suppression of private asylums, and make other and more suitable provision for paying patients.

Mr. Pickersgill to call attention to the report of the recent Committee on Metropolitan Poor-law Schools, and to the draft order of the President of the Local Government Board relating to such schools, and to move a resolution.

Mr. Bartley to ask the Secretary to the Treasury whether his attention has been drawn to the Supplement of the Fiftieth Report of the Commissioners in Lunacy (No. 304 I), which contains eleven elaborate plans, about 3 feet by 2 feet each, in great detail, of five lunatic asylums now being erected; and whether he could state the cost of producing this volume with these expensive plans.

General Russell to ask the Secretary of State for India whether his attention has been called to the great increase of enteric fever in India; whether the medical authorities can give any explanation of this increase; and whether the Government propose to take any steps for the better enforcement of sanitary regulations at the various stations where this complaint has recently been most prevalent.

### Petitions.

Petitions in favour of the Plumbers Registration Bill were presented in the House of Commons from Glasgow and Perth, and in favour of prohibition of vivisection from Bristol.

# UNIVERSITIES AND COLLEGES.

### University of Cambridge.

Degrees for Women.—The report of the Syndicate on Women's Degrees has been issued: it is signed by nine members. The remaining five dissent, and have published a minority report. The majority favour the grant of the academic titles of B.A., M.A., etc., to duly qualified students of Newnham and Girton who have resided nine terms and passed a Tripos examination. It is not suggested that degrees in medicine or divinity should be thus attainable by women. The minority propose that new titles should be granted not implying membership of the University, which it is not intended to concede. They would open there to students of other institutions like the Royal Holloway College, who gain honours in a Tripos, and suggest that *Magistra in Litteris* or *in Scientia* would be appropriate. The majority's proposals are objected to on the ground that it is unfair to exact from women the same conditions and the same fees as from men for titles that confer no rights: and that this step would give rise to a standing grievance on which fresh agitation would inevitably be based. The proposals are sure to be hotly debated, and a formal discussion of them by the Senate at large is arranged for March 13th.

Degrees.—At the Congregation on February 25th the following were admitted to the degrees of M.B. and B.C.: G. E. Hadow, M.A.; L. B. Rawling, B.A.; H. W. P. Young, B.A.; all of Gonville and Caius College.

Electoral Boards.—Professor A. W. Williamson, F.R.S., late of University College, London, has been appointed a member of the Electoral Boards for the Professorship of Chemistry and the Jacksonian Professorship of Organic Chemistry.

### University of Dublin.

At the Spring Commencements, March 2nd, the following degrees in Medicine, Surgery, and Midwifery were conferred by the University Caput:

*Baccalaurei in Medicinâ, in Chirurgiâ, et in Arte Obstetriciâ.*—H. J. Brownrigg, J. A. Devine, K. E. L. G. Gunn, A. T. Johns, J. Milne, J. H. Moorhead, H. E. Rutherfoord, J. D. Smylie, G. Taylor.

*Doctores in Medicinâ.*—J. B. Anderson, P. P. Carton, G. D. Collen, J. A. Devine, H. C. Earl (*stip. cond.*), H. W. Irvine, A. R. Parsons (*stip. cond.*), C. A. Stevenson, G. B. White.

*Doctor in Medicinâ.*—L. L. Proksch (*in absentiâ*).

### University of Brussels.

The following candidates, we are informed, were successful at the February examination at Brussels for the M.D. degree:

T. R. Gaudoin, L.S.A.; J. O. Moore, L.R.C.P., F.R.C.S.Irel.; C. Butler, M.R.C.S., L.R.C.P.

### Royal College of Physicians of Ireland.

At a recent meeting of the President and Fellows, the President admitted to the Licences in Medicine and Midwifery the following candidates who have been successful at the Final Examinations held in January, 1897, under the Conjoint Scheme with the Royal College of Surgeons in Ireland:

T. E. Cottu, P. D. Glynn, T. C. Mackenzie, J. M'Carthy.

At the business meeting in February, the President admitted as a Licentiate in Medicine the undermentioned candidate, who passed an examination for registered medical practitioners held on February 8th, 9th, and 10th:

A. C. Duffey, M.B. Univ. Dub.

# MEDICO-LEGAL.

### Unsatisfactory Verdicts at Coroners' Inquests.

In order that a jury should arrive at a satisfactory conclusion as to the cause of death, all the scientific evidence necessary should be laid before them. In an inquest upon the body of William Joyner at St. Albans last week it does not appear, judging from the report in the *Herts Standard and St. Albans Citizen*, that such evidence as was required was tendered by the coroner to the jury. The cause of death was not cleared up by an exhaustive *post-mortem* examination made by Dr. Dobbin, who stated that for certain reasons he was "unable to exclude poisoning without a chemical analysis." The coroner himself thought that such an analysis was necessary, and adjourned the inquest in order that the contents of the stomach might be submitted to the county analyst. At the adjourned inquest, however, the coroner stated to the jury that "he and Head Constable Blatch had been to a lot of trouble to find out any points of suspicion in this case. He had not found any suspicious grounds, neither did he think there were any. In fact, they found such proof positive that the case was not one of poisoning that it was not deemed necessary to have a chemical analysis of the contents of the stomach." The jury then returned a verdict of death from "natural causes." The coroner, we venture to think, would have acted with greater wisdom had he carried out his original intention of having the contents of the stomach analysed. It is no part of the coroner's duty to investigate, apart from the jury, the value of suspicious circumstances which surround a sudden death, but it is his duty to lay before them all the scientific evidence which alone can make it certain whether poison was the cause of the death or not. In the absence of a chemical analysis "proof" cannot be said to be "positive."

### The Suppression of Quackery in New York.

Since the law providing for the criminal prosecution of quacks was re-enacted, in April, 1895, the New York County Medical Society has caused eighty-three persons to be arrested for practising illegally in the county, and has obtained convictions in fifty-one cases. These persons have paid 3,690 dollars (£738) in fines, and, in addition, a number of them have been sent to gaol. The legal department of the Society has a large number of cases still pending.

### Death Certificates.

R. T. L. asks for our opinion on the following case: He was called to see a child who died in about two hours after he had seen him. On inquiry he found the child had been attending a hospital for some time; that his mother should have brought him to the hospital the preceding Saturday, and that she intended taking him there the following Saturday. Under these circumstances our correspondent refused to sign the death certificate, and advised the mother to apply to the hospital officer. She did so, but he also refused to sign, as he had not seen the child for three weeks. An inquest was held, and the coroner censured our correspondent for not signing the certificate, and intimated that on a future occasion of the kind he would disallow his fee. Our correspondent asks: (*a*) Was he right in refusing to sign the certificate; (*b*) if he acted in the same way in a similar case can the coroner legally disallow his fee; and (*c*) if he cannot do so how can he enforce payment?

*** In reply to our correspondent's first question (*a*) if our correspondent was *bonâ fide* able to give a certificate of the cause of death, although he had not attended the deceased throughout his last illness, we think such certificate might have been properly given by him; and this remark also applies to the hospital officer, the Act of Parliament providing that in case of the death of any person who has been attended during his last illness by a registered medical practitioner that person must sign and give . . . . a certificate . . . . ; (*b*) we do not think the coroner can legally disallow the fee of a medical witness whom he has caused to be subpœnaed to give evidence at an inquest: and (*c*) we think that if he did so the fee could be recovered by an action against the coroner, who by Section xxvi of the Coroners' Act, 1887, is required immediately after the termination of the proceedings at an inquest to pay the fees of every medical witness, not exceeding the fees fixed by that Act.

L. R.C.P. will, we think, find that his question is answered by the above reply.

### A Question of Contract.

P. writes that he is an assistant to a general practitioner and conducts for him a branch practice; that he is medical officer to several clubs,

holding such appointments in his own name; that the agreement between our correspondent and his principal provides that the former shall have "half the club fees." Now besides the regular weekly premiums which each member of the club pays, and which is collected by agents, our correspondent is in the habit of charging extra fees for surgical operations, writing special certificates, and dentistry work, etc. In the case of operations where an anæsthetic is required the principal is asked to administer it. The questions put by our correspondent are these: whether he is entitled to half of the above extra fees or not; also does half the club fees mean half the weekly premiums or half the gross amount received through the club patients? Similarly in regard to the fees for notification of infectious diseases there is a question as to whether one-half of the amount received for notifying diseases of the club patients should not belong to our correspondent.

*** We are advised that without seeing the agreement between our correspondent and his principal it would be difficult to express any very definite opinion, but from the facts stated we should be inclined to think that "half the club fees" would mean one-half of the emoluments received from the club appointments; the fact of the principal administering an anæsthetic when required necessitating perhaps some special arrangement. The fees for notification would also, we think, form part of the club emoluments.

### CHARGES FOR WATER SUPPLY.

QUERE writes that he has kept two horses for the last five years, and that for the first time this year a charge has been demanded by the local waterworks company, namely, 6s. for the half year. Our correspondent inquires whether he as a medical man in general practice, using the horses for his professional work, is liable. He states that he has referred the company to the Public Health Act, 1875, and the Waterworks Act, 1863.

*** This question would seem to be regulated by the Local Acts of the Staffordshire Potteries Waterworks Company and the General Waterworks Acts, and we find that by the Local Act 16 and 17 Vic., C. CXCVIII, a sliding scale of charges is prescribed for a supply of water for domestic purposes, with an addition for baths and waterclosets. There is also a provision for the supply of water (among other things) for washing carriages or for horses at a rate not exceeding 8d. per 1,000 gallons, but the sections are very long, and we cannot quote them here. We are advised that on the construction of Sections XLV and XLVII of the Local Act above mentioned, if our correspondent pays the percentage prescribed by the Act on the assessable value to the poor rate of the coach house and stables, as well as on his dwelling house, probably no extra charge could be made in respect of the horses. For instance, if the house and stables are rated to the poor under £30, the water rate should be £5 per cent. on the annual value; if above £30, and not exceeding £50, the rate should be £4 10s. per cent.; if above £50, the rate should be £4 per cent. In addition, if the annual value exceeds £20 per annum but does not exceed £40, the sum of 8s. for one water closet or private bath, and 2s. for each additional bath or closet: and where the annual value exceeds £40, then the sum of 10s. for one water closet or private bath, and 2s. for each additional bath or closet. In the first instance, the attention of the company might be called to the sections of the Act we have referred to, and any further complaint they have to make considered. There are numerous local Acts of the Staffordshire Potteries Waterworks Company, but the sections of the Act above mentioned appear to be the only ones which deal with the amount chargeable for water rate.

### "WALLACE'S SPECIFIC, No. 1."

PROCEEDINGS were taken at Bow Street, according to the *Times'* report, lately against Joseph Wallace, described as an "homœopathic practitioner," of Albany Terrace, Regent's Park, and Arthur Russell Salsbury, described as an "occult bookseller," of Oxford Street, W., for selling a poisonous drug to a person not known to them without inquiry and without entering the fact of such sale in a book, and without being chemists registered for the sale of such drugs.

The prosecution was undertaken under the Pharmacy Act by the Treasury, for whom Mr. Bodkin appeared. From the evidence given by the police it appeared that Wallace lived at a private house in Albany Terrace, from which was published and circulated a magazine entitled the *Herald of Health*, which was devoted to advocating the use of preparations known as Wallace's Specifics; and that one of these preparations described in the book as No. 1 was openly sold to a detective unlabelled poison, no questions being asked as to the name and address of the purchaser. It was analysed and found by Dr. Luff to contain an appreciable quantity of aconitine. An alleged death from using this preparation had been the subject of an inquest.

The defence raised was that the quantity was so infinitesimal that if the contents of the whole bottle was swallowed at once no fatal or injurious effects would follow, and evidence was called to prove that it would take twelve or thirteen bottles to cause death. It was also represented that that Wallace was a homœopathic chemist, and that it would be against his principle to employ such a drug except in the most minute proportions.

Mr. Lushington, in his judgment, said that he could not doubt that there was more than an infinitesimal quantity of poison present, and fined Wallace £5 and £10 10s. on the first summons, and £5 and 2s. costs on the second. Salsbury, having pleaded guilty on both summonses, and for whom it was urged that he was only an agent of Wallace, was fined £2 10s. and 2s. costs on each.

# NAVAL AND MILITARY MEDICAL SERVICES.

## ARMY MEDICAL STAFF EXCHANGE.

*The charge for inserting notices respecting Exchanges in the Army Medical Department is 8s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.*

A SURGEON-CAPTAIN in Hong Kong, with two years and a half more time to do, will exchange to India or the colonies. Apply X., care of Secretary, Hong Kong Club.

SURGEON-MAJOR, who came home end of December, is open to offers of exchange; colony preferred. No. 663, BRITISH MEDICAL JOURNAL Office, 429, Strand, W.C.

### THE NAVY.

FLEET-SURGEON W. D. WODSWORTH has been placed on the retired list, with the rank of Deputy Inspector-General, February 27th. He was appointed Surgeon, June 10th, 1863; Staff-Surgeon, September 7th, 1877; and Fleet-Surgeon, December 29th, 1883. He was the Senior Fleet-Surgeon on the active list.

The following appointments have been made at the Admiralty: ROWLAND A. KIRBY, Surgeon, to the *Britannia*, February 23th; MICHAEL FITZGERALD, Fleet-Surgeon, to the *St. George*, February 26th (Staff-Surgeon ALEXANDER G. P. GIPPS is to have medical charge of the *Malacca* hospital ship, vice Fitzgerald).

### ARMY MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL A. T. SLOGGETT and Surgeon-Captain W. H. PINCHES have been granted, the former the order of the Osmanieh of the 4th class, the latter the order of the Medjidieh of the 4th class, in recognition of their active and distinguished service before the enemy during the recent expedition to Dongola.

Surgeon-Lieutenant-Colonel E. O. REYNOLDS has also accepted retired pay, March 3rd. He was appointed Surgeon, February 4th, 1877: Surgeon-Major, February 4th, 1889; and Surgeon-Lieutenant-Colonel from February 4th. He served in the Egyptian war of 1882, being present at the battle of Tel-el-Kebir (medal with clasp, and Egyptian bronze star), and with the Hazara expedition in 1888 (medal with clasp).

The first Christian name of Surgeon-Lieutenant RATTRAY, M.B., is MALCOLM, and not as stated in the *Gazette* of February 16th.

Brigade-Surgeon-Lieutenant-Colonel W. H. STEELE, M.D., F.R.C.S.I., retires on retired pay, March 3rd. His commissions are thus dated: Assistant-Surgeon, October 2nd, 1866; Surgeon, March 1st, 1873; Surgeon-Major, October 2nd, 1878; and Brigade-Surgeon-Lieutenant-Colonel, October 31st, 1892. He was with the 33rd Regiment in the Abyssinian war of 1867-68 (medal), and served on board the hospital ship *Victor Emanuel* during the Ashanti war of 1873-74 (medal).

The following officers, their tour of duty having expired, will proceed from India to England during the trooping season 1896-7, and will be detailed for duty with troops on the homeward voyage: Brigade-Surgeon-Lieutenant-Colonel A. H. ANTHONISZ, Surgeon-Lieutenant-Colonel E. A. MAPLETON, Surgeon-Major J. F. BRODIE, Surgeon Major H. L. BATTERSBY, Surgeon-Major T. F. MACNEECE, Surgeon-Major S. J. RENNIE, Surgeon-Major H. O. TREVOR, Surgeon-Captain H. E. WINTER.

Deputy-Surgeon-General J. C. HORNSBY WRIGHT, M.D., died at Hampstead on February 26th. He was appointed Assistant-Surgeon, November 8th, 1852; Surgeon, January 14th, 1862; Surgeon-Major, November 8th, 1872; Brigade-Surgeon, November 27th, 1879; and Honorary Deputy-Surgeon-General on his retirement from the service, August 29th, 1880. He served throughout the Eastern campaign in 1854-55 with the Royal Artillery, and was present at the battles of Alma, Balaklava, and Inkerman (where he was wounded and his horse shot under him), and at the siege and fall of Sebastopol (medal with four clasps and Turkish medal). He was also in the Abyssinian war in 1868 (medal).

### INDIAN MEDICAL SERVICE.

SURGEON-COLONEL W. P. WARBURTON, Bengal Establishment, has been appointed to officiate as Director-General of the Indian Medical Service and Sanitary Commissioner with the Government of India during the absence of Surgeon-Major-General Cleghorn in Europe; and Brigade-Surgeon-Lieutenant-Colonel T. H. HENDLEY will officiate as Inspector-General of Civil Hospitals, North-West Provinces, during the absence of Surgeon-Colonel Warburton.

Brigade-Surgeon-Lieutenant-Colonel B. FRANKLIN, C.I.E., Bengal Establishment, Surgeon to the Governor-General, is directed to officiate as Inspector-General of Civil Hospitals, Bengal, from February 3rd, and is granted the temporary rank of Surgeon-Colonel from that date.

Surgeon-Lieutenant-Colonel WILLIAM A. D. FASKEN, M.D., Bengal Establishment, died at Futtehghur, North-West Provinces, India, on February 1st, aged 48. He was a son of Deputy-Inspector-General William Fasken, M.D., R.N., and entered the service as Assistant-Surgeon, March 30th, 1872, attaining the rank of Surgeon-Lieutenant-Colonel twenty years thereafter.

### THE STATE OF THE ARMY MEDICAL SERVICE.

THE *United Service Gazette* has returned to the charge on the above subject in a leading article in its issue of February 27th. It strongly presses on the authorities the urgent need of an amalgamation of the Army Medical Service and Medical Staff Corps into a Royal Corps, and says that when this recommendation of Lord Morley's Committee is carried out the rank and titles point will be effectually settled. No fewer than three military papers of standing issued last week draw earnest attention to the condition of the Army Medical Staff and its affairs. How much longer Lord Lansdowne will ignore these questions is a matter of eager speculation.

# PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

## HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,642 births and 4,096 deaths were registered during the week ending Saturday last, February 27th. The annual rate of mortality in these towns, which had declined from 20.8 to 18.8 per 1,000 in the three preceding weeks, rose again to 19.4 last week. The rates in the several towns ranged from 12.8 in Huddersfield, 13.3 in Brighton, 13.5 in West Ham, and 13.6 in Halifax to 23.1 in Bristol, 23.2 in Oldham, 24.1 in Liverpool and in Salford, and 24.1 in Norwich. In the thirty-two provincial towns the mean death-rate was 19.7 per 1,000, and exceeded by 0.7 the rate recorded in London, which was 19.0 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.8 per 1,000; in London the rate was equal to 1.8, while it also averaged 1.8 per 1,000 in the thirty-two provincial towns, and was highest in Salford, Bolton, Birmingham, Sunderland, and Plymouth. Measles caused a death-rate of 1.0 in Salford, 1.8 in Bradford, 2.6 in Bolton, and 4.8 in Plymouth; scarlet fever of 1.0 in Leicester; and whooping-cough of 1.2 in Wolverhampton, 1.4 in Birmingham, 1.5 in Burnley and in Sunderland, and 1.6 in Bristol. The mortality from "fever" showed no marked excess in any of the large towns. The 88 deaths from diphtheria in the thirty-three towns included 62 in London, 4 in Birmingham, and 3 in West Ham. One fatal case of small-pox was registered in London, but not one in any of the thirty-two large provincial towns. There were 43 cases of small-pox under treatment in the Metropolitan Asylums Hospitals on Saturday last, February 27th, against 21, 38, and 34 at the end of the three preceding weeks; 18 new cases were admitted during the week, against 12, 20, and 13 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 3,153, 3,050, and 2,901 at the end of the three preceding weeks, had further declined to 2,817 on Saturday last; 237 new cases were admitted during the week, against 245, 226, and 227 in the three preceding weeks.

## HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, February 27th, 915 births and 756 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 28.8 and 25.5 per 1,000 in the three preceding weeks, further declined to 25.3 last week, but exceeded by 5.9 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rate ranged from 12.4 in Leith to 30.7 in Perth. The zymotic death-rate in these towns averaged 2.0 per 1,000, the highest rates being recorded in Dundee and Glasgow. The 393 deaths registered in Glasgow included 24 from measles, 10 from whooping-cough, 4 from scarlet fever, and 2 from diphtheria. Five fatal cases of measles and 4 of whooping-cough were recorded in Edinburgh, and 1 of small-pox in Leith.

## INFECTIOUS DISEASE NOTIFICATION.

R. H. C. raises the question whether, if a case of infectious disease be seen in consultation, the consultant is required to notify even if the case has already been notified by the medical man first in attendance?

*** We understand that the view conveyed in a letter addressed to the Town Clerk at Uppingham, under date December 29th, 1899, is still held by the Local Government Board. The operative sentence in the letter is as follows: "If two practitioners are in actual attendance on or are called in to visit a patient, whether at the same period or successively, and their attendance or visiting is connected with the medical treatment of the patient, both are bound to send certificates, and these must be duly paid for by the sanitary authority."

## DISTRICT MEDICAL OFFICERS AND SPECIAL FEES.

G.C.H., who is a district medical officer, asks (1) whether, having attended a pauper patient in a miscarriage at the fourth or fifth month, he is entitled to any special fee for the case. (2) He examined a pauper lunatic at the request of the relieving officer, and gave the usual certificate of insanity; the guardians refuse to pay any fee for this, as the patient was not sent to an asylum, but removed to the workhouse, and the magistrate has not ordered a fee to be paid. He asks whether there are any decisions of the Local Government Board in reference to such cases, which he thinks must be numerous.

*** (1) The miscarriage having occurred at a non-viable period of pregnancy, no such fee can be claimed. (2) If our correspondent filled up the usual statutory form for the transfer of the patient in question to an asylum, the removal to the workhouse after this would appear to have been a direct infringement of the Lunacy Acts. Should he have been called on by the magistrate to certify, he is entitled to a fee for so doing, whether the patient is sent to an asylum or not; but he cannot recover this fee if the guardians decline to pay it, and if the magistrate declines to make an order on them to do so. There is then an appeal to the Quarter Sessions of the county. The Local Government Board have little or nothing to decide in reference to lunacy cases: these are ruled by Lunacy Acts 1890 and 1891. Our correspondent should procure a copy.

The Board of Agriculture has revoked the order for the muzzling of dogs in Richmond and West Ham.

# MEDICAL NEWS.

An epidemic of measles is going on in Edinburgh, and during the week ending February 27th 297 new cases were reported.

The Middlesex Hospital has received a donation of 1,000 guineas from Mrs. Sarah Moore Thompson, for the purpose of endowing a bed in the cancer wards to be called the "Moore Thompson" bed.

The Honorary Secretary of the Association for Promoting Compulsory Registration of Midwives announces that a meeting in support of the Midwives Registration Bill will be held under the presidency of Mrs. Creighton, the wife of the Bishop of London, at London House, St. James's Square, on March 18th, at 3 P.M.

The next examination for the certificate in nursing and attending on the insane granted by the Medico-Psychological Association of Great Britain and Ireland, will be held on Monday, May 3rd. A schedule, to be obtained from the Registrar, Dr. Spence, Burntwood Asylum, near Lichfield, must be filled up, signed, and returned to him by candidates for this examination not later than Monday, April 5th.

The Duke of Westminster presided over a meeting at Grovesnor House on February 26th of the Executive Committee of the Commemoration Fund on behalf of Queen Victoria's Jubilee Institute for Nursing the Poor in their own Homes when subscriptions to the amount of £28,250 were announced. Further measures were resolved upon to increase public interest in the work.

At the recent annual General Court of Governors of Middlesex Hospital, Dr. Cecil Yates Biss, who has been connected with the hospital for sixteen years as assistant physician, was nominated physician to out-patients. At the same meeting it was announced that Princess Christian had consented to lay the foundation stone of the new cancer wing of the hospital on July 1st.

Interhospital Football.—The final tie of the Hospitals Cup, Rugby Union, will be played next Tuesday, when St. Thomas's, the holders, play Guy's. Guy's had great difficulty in disposing of St. Bartholomew's in the penultimate round, the match on the first occasion ending in a draw. In the penultimate round of the Association Cup, St. Bartholomew's will meet Guy's Hospital on Monday. The winners will play the London Hospital.

International Pharmaceutical Congress.—The eighth International Congress of Pharmaceutical Chemists will be held in Brussels from August 14th to 21st. In addition to questions of general pharmacy and applied chemistry, matters connected with hygiène, public health, and sanitary legislation will be discussed. The special attention of the members of the Congress will be called to the subject of drinking water. The preparation of antitoxic serums and of various organic substances which have recently been introduced into therapeutics will also be debated.

University of Dorpat.—The annual report of the Russian University of Jurjew (better known by its old name of Dorpat), recently issued, shows that on December 1st, 1896, the total number of students was 908, of whom 530 belonged to the medical faculty, 166 to the theological, 109 to the faculty of law, 73 to the physico-mathematical, and 30 to the philological histological faculty. There were also 277 students of pharmacy and 25 unattached students. The teaching staff of the University consists of 84 persons, including 36 ordinary and 26 extraordinary professors, 9 *Docenten*, 9 *Privatdocenten*, and 2 prosectors. The number of degrees and licences conferred during the year 1896 in all the faculties was 579. Of these, 451 were conferred by the medical faculty as follows: 10 received the degree of Doctor of Medicine, 164 a licence to practise medicine, and 6 a qualification as district doctor. The remainder of the qualifications granted by this faculty were made up of licences to dentists, pharmacists, and midwives. The number of patients treated in the University clinics from December 1st, 1895, to the corresponding date 1896 was 19,004.

THE LIVERPOOL MEDICAL CLUB, LIMITED.—At a meeting of this club on February 17th, Dr. Adam presiding, the subject, of the Abuse of Medical Charity was introduced by Dr. Ernest Barnes, who pointed out that hospital abuse was equally prevalent in most of the large provincial cities as in the metropolis. In Liverpool he estimated that half a dozen of the chief institutions (not including those under the Poor Law) registered about 400,000 individual attendances, according to their reports, out of an estimated population of 644,129. The causes and effects were also considered, and one or other of the following schemes were advocated: (1) Formation of local hospital Boards, (2) method for catering for intermediate classes, (3) formation of local committee under the auspices of the Hospital Reform Association. Mr. F. C. Larkin, and Drs. G. Stopford Taylor, Rentoul, Adam, Tisdall, and Dunn took part in the discussion, and a resolution was unanimously passed recommending the directors to form a local committee to inquire into and report upon the matter as an initiative step.

PASS AND PLUCK IN PARIS.—In view of letters which have recently appeared in some French medical journals in which the stringency of the medical examinations in France as compared with Great Britain, and the superiority of the French degrees, were somewhat offensively vaunted, certain statements which have lately been made by well-informed French writers as to the examinations of the Paris Faculty are of especial interest. The *Gazette des Hôpitaux* has shown by the evidence of figures that it is so easy to become an M.D. of Paris that of the many who register as students of that school, only six in a thousand—less than 1 per cent.—fail to attain that dignity. It is only in the preliminary subjects that there is any plucking to speak of; in medicine, surgery and midwifery, the rejections amount to no more than 6 or 7 per cent.; and in the last ordeal, the thesis, the proportion of candidates who fail is 0.33, equivalent to about 1 in 300. As some 600 degrees are conferred annually by the Paris Faculty, this means that not more than two candidates come to grief at this final stage in each year. It is doubtful whether even this infinitesimal proportion of plucked is not exaggerated. The *Progrès Médical* goes so far as to say that the practice of medicine may now be considered free in France to all who have passed an examination in general knowledge corresponding to our matriculation. The leniency of the Paris examiners has indeed become a scandal so flagrant that not only the medical but the lay press is calling for a drastic reform. The teaching would also seem to be in need of reform if we may judge from a report on the work of the Medical Faculties recently presented to the Academic Council. It is there stated that of the 74 hospital clinics in Paris, only one-third are satisfactory. A fourth, it is said, leaves much to be desired. Of the remaining two-thirds or three-fourths nothing is said, but this can hardly be taken to mean that they are worthy of praise.

THE TREATMENT OF INEBRIETY IN ENGLAND.—During the year 1896, of the 35 admissions into the Dalrymple Home at Rickmansworth, 14 were under the Inebriates' Acts, and 21 private, 20 remaining under treatment; 55 in all. This home continues to set the excellent example of presenting, in tabulated form, an analysis of the work done up to date. Of the 442 patients discharged since the opening of the home, 211 were under the Acts, and 231 privately. One hundred and fifteen entered for the full legal period of twelve months. The average age at admission was 35.6 years. Though the United Kingdom furnished the great majority of the patients, there were contingents from France, Switzerland, Cape Colony, Australia, New Zealand, United States, Canada, South America, India, Japan, and the Straits Settlements. One hundred and one had received a college education, 25 having had only elementary education. Merchants numbered 51, clerks 42, lawyers 27, the medical profession 37, clergymen 9, engineers 14, manufacturers 22, the services 23, the liquor trade 9, literature 13, art 8, farming 14, publishing 1, teaching 11, journalism 3, architecture 3, natural science 1, and gentlemen of no occupation 99. There was a family history of insanity in 29, and of inebriety in 218. Father or mother, or both parents, had been inebriate in 76, and grandparent or parents in 44. There was morphinomania, chlorodynomania, or cocainomania in 14. Three hundred and eight were regular and 131 periodic inebriates, while there were 3 cases of morphinomania without alcohol. Four hundred and eleven were social and 31 solitary drunkards. The average period of addiction was 7½ years. There was one case of absinthomania, with 31 cases of drunkenness in wine, and 7 in beer. The exciting cause in 57 was nerve shock, in 52 traumatism (16 from injury). One hundred and twenty-three suffered from various diseases complicating inebriety. The average duration of residence was 6½ months. As regards after-history 149, over one-third of the whole number discharged, had done well. It would be a public benefit if other homes issued a similar record of cases.

INTERNATIONAL MEDICAL CONGRESS, MOSCOW.—The following programme and speakers have been arranged upon for the meetings of the Section for Nervous and Mental Diseases. 1. Pathology of the Nerve Cell:—Professor von Gehuchten: The Minute Anatomy of the Nerve Cell. Professor C. Dana: The Pathology of Acute Alcoholism and Alcoholic Œdema of the Brain, with special reference to changes in the Nerve Cells. Professor van Giesen: Normal and Pathological Cytology of the Ganglion Cells. 2. Pathogenesis and Morbid Anatomy of Syringomyelia:—Professer F. Schultze: Pathogenesis of Syringomyelia. Dr. E. Schlesinger: On some points in the Pathogenesis and Morbid Anatomy of Syringomyelia. Dr. L. Minor: Clinical and Anatomical Observations on Traumatic Central Hæmatomyelia, and the formation of Cavities secondary to Affections of the Spinal Cord. 3. Pathology and Treatment of Tabes Dorsalis:—Professor H. Obersteiner: The Pathogenesis and Treatment of Tabes. Professor Pierret: The Pathogenesis of Tabes and its Cerebral Localisation. Professor Leyden: Pathogenesis and Treatment of Tabes. Professor Benedikt: The Theory of Tabes Dorsalis. Professor Darkshewitsch: On the Nature of the Changes in the Spinal Cord in Tabes. Professor Erb: The Treatment of Tabes. Professor Grasset: The Treatment of Tabes. Professor Eulenburg: The Treatment of Tabes. Dr. J. Althaus: Pathogenesis and Treatment of Tabes. Professor Benedikt: Nerve Stretching in Tabes. Dr. Frenkel: Treatment of Tabetic Ataxy. Dr. Raichline: Some Considerations in the Treatment of Tabes, Indications, and Contraindications. Dr. Hirschberg: (*a*) On Juvenile Tabes Dorsalis. (*b*) On a so-called Rare Form of Tabes. 4. Operative Treatment of Diseases of the Brain:—Professor Oppenheim: On the Failures of Brain Surgery dependent on Mistaken Diagnoses. Professor S. Sachs: The Surgical Treatment of Epilepsy. Dr. A. Voisin: A case of Jacksonian Epilepsy successfully treated by Craniectomy. Professor Lombroso: New Forms of Epilepsy. Professor B. Sachs: Hereditary Spinal Affections. Dr. A. Koniloff: Retrograde Degeneration. Drs. Ballet and Enriquez: Treatment of Basedow's Disease. Dr. A. Raichline: Clinical Neuropathy. Dr. Crocq: A New Symptom of Brain Disease. Dr. Holst: The Treatment of Neuroses in Asylums. Dr. A. Robertson: Some New Methods of Treatment in Diseases of the Nervous System. *Mental Diseases*—1. Obsession and *Idées Fixes*:—Professor Pitres: The Semeiology of Obsession and *Idées Fixes*. Dr. Jas. Shaw: The Pathogenesis and Differentiation of Verbal Obsessions and Pseudo-Hallucinations. 2. Pathology of General Paralysis of the Insane and its Delimitation from Allied Forms of Mental Disease:—Dr. J. Althaus: Delimitation of General Paralysis. Professor Homen: New Contributions on a Singular Hereditary Disease assuming the Form of Progressive Dementia. 3. Hypnotism and Suggestion in their Relations to Mental Disease and Logical Medicine:—Drs. Bernheim, A. Robertson, and Tokarsky: The Application of Hypnotism and Suggestion in the Treatment of Mental Diseases. Dr. Gorodichze: Psychotherapy in the Different Forms of Emotional Delirium.

## MEDICAL VACANCIES.

The following vacancies are announced:

BOROUGH HOSPITAL, Birkenhead.—Junior House-Surgeon; doubly qualified. Salary, £60 per annum, with board, lodging, and washing, but no wine, spirits, or beer. A further sum of £20 to £25 a year is usually obtained for notification of infectious diseases and other sources. Applications to the Chairman of the Weekly Board by March 15th.

BRENTFORD UNION.—Medical Officer and Public Vaccinator for parish of Chiswick. Salary, £150 per annum. Applications to W. Stephens Clerk, Union Offices, Isleworth, W., by March 10th.

BRISLINGTON HOUSE ASYLUM, near Bristol.—Resident Medical Officer; doubly qualified. Salary from £200 a year, with board, lodging, and washing. Applications to Dr. Bonville Fox.

BRISTOL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Assistant House-Surgeon; doubly qualified. Appointment for six months. Non-residential, and an honorarium of 25 guineas. Applications, endorsed "Assistant House-Surgeon," by March 17th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician, must be qualified. Appointment for six months. Salary at the rate of £30 per annum, with board and residence. Applications to T. Storrar-Smith, Secretary, by March 11th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Dental Surgeon; must be Licentiate of Dental Surgery. Applications to J. Francis Pink, Secretary, by March 8th.

DUNDEE ROYAL INFIRMARY.—Resident Clinical Assistant, qualified. Board, lodging, and washing provided. Applications to Nathan Raw, Medical Superintendent, by March 17th.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis Road, Shadwell, E.—House-Surgeon. Board, lodging, etc., provided, but no salary. Applications to the Secretary by March 12th.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Junior Resident Medical Officer. Salary, £50. Applications to the Committee of Management by March 18th.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Four Clinical Assistants and Eight Qualified Clerks in the Out-patient Department. Applications to the Honorary Secretary of the Medical Committee by March 18th.

GENERAL INFIRMARY, Leeds.—Resident Casualty Officer. Salary, £100 per annum, with board, lodging, and washing provided. Applications to the Secretary of the Faculty, General Infirmary, Leeds, by March 20th.

HANTS COUNTY ASYLUM.—Assistant Medical Officer; doubly qualified, not more than 25 years of age, and unmarried. Salary, £100 per annum, increasing to £125 after twelve months' service, with furnished apartments, board, washing, and attendance. Applications endorsed, "Applications for Appointment of Medical Officer," to the Committee of Visitors, Knowle, Fareham, by March 23rd.

HOLBEACH UNION.—District Medical Officer for the Long Sutton and Tydd Medical District. The candidate will also be appointed Public Vaccinator for the District. Salary for the Sutton District, £30 per annum; for the Tydd District, £21 per annum, and fees for surgical operations and midwifery. Applications to Richard P. Mossop, Clerk to the Guardians, by March 10th.

HULL ROYAL INFIRMARY.—Honorary Assistant Surgeon to attend Out-patient Department; must be M.R.C.S.Eng. or F.R.C.S.Edin. or Irel., or Graduate in Surgery of the University of Oxford, Cambridge, or London. Appointment for five years. Applications to the Chairman, Committee of Management, before March 15th.

LIVERPOOL ROYAL INFIRMARY.—Honorary Physician. Applications to the Chairman of the Committee of the Royal Infirmary, Liverpool, by March 13th.

LONDON HOSPITAL MEDICAL COLLEGE, Mile End, E.—Demonstrator of Physiology. Salary, £100 a year. Assistant Demonstrator of Anatomy. Salary, £90 a year. Applications to Munro Scott, Warden, by March 8th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer; doubly qualified. Appointment for six months. No salary, board and washing, and an honorarium at the end of the term of appointment. Applications to the Secretary by March 12th.

PARISH OF ST. MARY, Islington.—Two Resident Assistant Medical Officers at the Workhouse and Infirmary, St. John's Road, Upper Holloway. Salary of the First Assistant will be £120 per annum, and the Second Assistant £80 per annum, with rations, apartments, and washing. Applications on forms provided to Edwin Davey, Clerk, Guardians' Offices, 141, St. John's Road, Upper Holloway, N., by March 16th.

RIPON DISPENSARY AND COTTAGE HOSPITAL.—Resident House-Surgeon and Dispenser; unmarried. Salary, £70 per annum, with board and lodging. Applications to F. D. Wise, Honorary Secretary. Duties to commence April 1st.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Senior Resident Medical Officer. Doubly qualified. Salary, £100 per annum, with board, residence, and washing. Appointment for six months, but eligible for re-election. Applications to the Secretary by March 15th.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—Resident House-Surgeon. Salary, £80, with board, lodging, and laundry. Applications to the Honorary Secretary by March 8th.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—Assistant House-Surgeon. Board, residence, and laundry provided; no salary. Applications to the Honorary Secretary at the hospital by March 11th.

ST. THOMAS'S HOSPITAL.—Resident Assistant Physician. Applications to Mr. E. M. Hardy, Treasurer's Clerk, by March 6th.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—Assistant House-Surgeon for six months, renewable for a further similar period. Board and residence provided, with an honorarium of £10. Applications to Hemsley H. Shanks, R.N., Honorary Secretary, by March 16th.

SOUTHPORT INFIRMARY.—Junior House-and Visiting-Surgeon; doubly qualified. Honorarium at the rate of £30 per annum. Appointment for six months, renewable. Residence, board and washing provided. Applications to Joseph Worrall, Infirmary Office, Southport, by March 16th.

TOWNSHIP OF MANCHESTER.—Assistant Medical Officer at the Workhouse at Crumpsall, and Resident Assistant Medical Officer at the Workhouse, New Bridge Street. Salary, £110 per annum, with furnished apartments, fire, light, washing, and attendance. Must reside at the Workhouse in New Bridge Street. Must be unmarried and doubly qualified. Applications, endorsed "Medical Appointments," to George Macdonald, Clerk to the Guardians, Poor Law Offices, New Bridge Street, Manchester, by March 10th.

UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE.—Professorship of Anatomy. Applications to J. Austin Jenkins, M.A., Secretary and Registrar, University College, Cardiff, by March 8th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointments for six months. Board and lodging provided. Applications to R. J. Gilbert, Secretary Superintendent, by March 24th.

WHITECHAPEL UNION INFIRMARY, Vallance Road, E.—Assistant Medical Officer (Resident). Salary, £120 per annum, with rations, furnished apartments, coal, gas, and washing. Applications on forms provided to William Vallance, Clerk to the Guardians, Union Offices, Vallance Road, Whitechapel, E., by March 13th.

WOLVERHAMPTON EYE INFIRMARY.—House-Surgeon. Appointment for twelve months. Salary, £60 per annum, with rooms, board, and washing. Application to W. Blake-Burke, Secretary, by March 15th.

YORKSHIRE COLLEGE, Leeds.—Demonstrator of Physiology. Salary, £150. Applications to the College Secretary by March 15th.

## MEDICAL APPOINTMENTS.

ASHBY, William, L.S.A., appointed Medical Officer for the Ninth District of the St. Saviour's Union.

BABINGTON, S. N., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital.

BARKER, Dr. T., appointed Medical Officer of the Corfe Castle District of the Wareham and Purbeck Union.

BEBB, Mr. Richard, appointed Second Assistant Medical Officer to the Bethnal Green Infirmary.

BEHRENDT, M. R. J., L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of Health to the Brumby and Frodingham Urban District Council.

BINCKES, F. W., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Electrical Department at St. Thomas's Hospital.

BISS, Cecil Yates, M.D.Camb., appointed Physician to Out-patients at Middlesex Hospital.

BUCK, Joseph, L.R.C.P., L.R.C.S.Edin., etc., reappointed Medical Officer of Health to the Hunslet Rural District Council.

CROSSFIELD, A. K., L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer for the Dittisham District of the Totnes Union.

CUPPAIDGE, J. L., M.D.Dub., M.B., appointed Medical Officer for the Stoke Gabriel District of the Totnes Union.

DAWNAY, A. H. P., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Skin at St. Thomas's Hospital (extension).

D'OLIER, Dr., appointed Medical Officer for the Arundel District of the East Preston Union.

DRINKWATER, R., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Llangollen District of the Corwen Union.

ECCLES, Horace Dorset, M.R.C.S., L.R.C.P., appointed District Surgeon, Impendhle, Natal; Public Vaccinator and Medical Officer of the Indian Circle, Impendhle.

FAIRBAIRN, J. S., B.A., M.B., B.Ch.Oxon., L.R.C.P., M.R.C.S., appointed House-Physician to St. Thomas's Hospital.

GERVIS, F. H., L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital.

GILBERT, L., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital.

GURNEY, Alexander C., M.B.Lond., M.R.C.S.Eng., L.R.C.P.Lond., appointed Senior House-Surgeon of the Blackburn and East Lancashire Infirmary.

HAINS, L. L. J., L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer for the Harberton District of the Totnes Union.

HAMILTON, S., B.A., M.B., B.Ch. R.U.I., appointed Medical Officer and Public Vaccinator to the Marshfield District of the Newport, Monmouth Union.

HICHENS, P. S., M.A., M.B., B.Ch.Oxon., L.R.C.P., M.R.C.S., appointed Senior Ophthalmic House-Surgeon to St. Thomas's Hospital.

HOLDEN, J. F., M.B., C.M.Edin., appointed Assistant House-Surgeon to the Preston and County of Lancaster Royal Infirmary.

HOME, A. L., L.R.C.P., M.R.C.S., appointed Senior Obstetric House-Physician to St. Thomas's Hospital.

HOPKINSON, E., B.A.Oxon., L.R.C.P., M.R.C.S., appointed Junior Ophthalmic House-Surgeon to St. Thomas's Hospital.

JONES, C. E., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Throat at St. Thomas's Hospital (extension).

JONES, J. M., L.R.C.P.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Glynceiriog District of the Corwen Union.

LAKEMAN, T., L.R.C.P.Lond., M.R.C.S., reappointed Medical Officer for the Ugborough and North Huish District of the Totnes Union.

LINDSEY, Colin D., M.R.C.S., L.R.C.P., appointed Medical Officer to the Rockingham Railway and Jarrahdale Timber Company.

LOWNE, B. T., M.D.Durh., F.R.C.S.Eng., appointed Medical Officer for th Third District of the Hartley Wintney Union.

MACEVOY, H. J., M.D., B.Sc Lond., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Ear at St. Thomas's Hospital.

MACWATTERS, J. Courtenay, M.R.C.S.Eng., L.R.C.P.Lond., appointed Resident Obstetric Officer to the Bristol Royal Infirmary for one year.

MAPLETON, G. H., M.B., C.M.Edin., appointed Medical Officer for the Goudhurst District of the Cranbrook Union.

MARTIN, Dr., appointed Certifying Factor Surgeon for Clevedon, *vice* J. B. Coumbe, F.R.C.S.Eng., resigned.

MARTINEAU, A. J., L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital.

MONCKTON, William, L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health to the Portishead District Council.

MURRAY, William, M.A., M.B. and C.M.Aberd., appointed Junior House-Surgeon to the Preston and County of Lancaster Royal Infirmary, *vice* T. H. C. Derham, M.B., C.M.Edin.

PATERSON, W. H. J., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital.

RICHARDS, L. W., M.B., B.S.Durh., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Throat at St. Thomas's Hospital (second term).

ROBBS, Charles E., M.B.Camb., M.R.C.S.Eng., appointed Medical Officer to the Workhouse of the Gravesend and Milton Union.

SCATCHARD, J. P., L.R.C.P., M.R.C.S., appointed House-Physician to St. Thomas's Hospital (extension).

SELIGMANN, C. G., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Electrical Department at St. Thomas's Hospital (extension).

SIKES, A. W., B.Sc.Lond., L.R.C.P., M.R.C.S., appointed House-Physician to St. Thomas's Hospital (extension).

SMITH, K. R., M.D.Lond., reappointed Medical Officer for the Halwell District of the Totnes Union.

SMITH, W. T., M.R.C.S.Eng., reappointed Medical Officer of Health for the Lepton Urban Sanitary District.

STAINER, E., M.A., M.B., B.Ch.Oxon., appointed House-Physician to St. Thomas's Hospital.

STEPHENSON, D., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Soothill Nether District of the Dewsbury Union.

STONE, W. G., M.A., M.B., B.Ch.Oxon., F.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Ear at St. Thomas's Hospital.

STRANGE, R. G., L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital.

TAYLOR, G. E. O., L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital.

TOMBLESON, J. B., B.A., M.B., B.Ch.Oxon., appointed Junior Obstetric House-Physician to St. Thomas's Hospital.

TUKE, A. W., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital.

UBSDELL, Henry, M.R.C.S., L.S.A., reappointed Medical Officer for the Staverton and Rattery District of the Totnes Union.

WADE, R., M.R.C.S.Eng., L.S.A., appointed Medical Officer of Health to the Highbridge Urban District Council.

WHITTINGTON, R., B.A.Oxon., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Skin at St. Thomas's Hospital.

WILDING, Walter F. W., M.R.C.S., L.R.C.P.Lond., reappointed Medical Officer of Health to the Hindley District Council.

YOUNG, Edward, L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Hawkhurst District of the Cranbrook Union.

## DIARY FOR NEXT WEEK.

### MONDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor A. W. Mayo Robson: Diseases of the Gall Bladder and Bile Ducts and their Surgical Treatment. Lecture I.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Mr. C. B. Lockwood: A Review of the Operation for Excision of the Knee, together with an account of a new procedure—Osteoplastic Excision of the Knee. Mr. Clinton Dent: Some Cases of Intestinal Neurosis.

### TUESDAY.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Lecture by Mr. Horsley.

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 4.30 P.M.—Dr. Abraham: Lichen Planus and Acuminatus. Bethlem Royal Hospital, 2 P.M.—Dr. Craig: Delusional Insanity, Paranoia.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL, Gray's Inn Road, 4 P.M.—Dr. Dundas Grant: The Diagnosis and Treatment of Aural Vertigo.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 P.M.—Mr. H. E. Durham: On the Clinical Bearing of some Experiments on Peritoneal Infection. Mr. A. M. Sheild: A Case of a large Solid Tumour removed with success from the Retroperitoneal Space.

### WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor A. W. Mayo Robson: Diseases of the Gall Bladder and Bile Ducts and their Surgical Treatment. Lecture II.

LONDON POST-GRADUATE COURSE, Parkes Museum, 74A, Margaret Street, Regent Street, W., 4.30 P.M.—Professor A. Wynter Blyth: Sources of Water.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, 4 P.M.—Dr. Habershon: Pathological Demonstration.

THE CLINICAL MUSEUM, 211, Great Portland Street, 4 P.M.—Demonstration by Mr. Jonathan Hutchinson.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, 8.30 P.M.—Pathological Evening: Dr. A. T. Davies: Ulcerative Endocarditis. Also Specimens by Dr. F. J. Smith, Mr. T. H. Openshaw, and Mr. A. H. Tubby.

LARYNGOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 5 P.M.—Cases and Specimens will be shown by Mr. Knyvett Gordon, Dr. Lambert Lack, Dr. Dundas Grant, Dr. J. B. Ball, Mr. H. T. Butlin, and Dr. StClair Thomson.

THE SANITARY INSTITUTE, Parkes Museum, Margaret Street, W., 8 P.M.—Discussion on Indian Sanitation, to be opened by Mr. Baldwin Latham.

SOUTH-WEST LONDON MEDICAL SOCIETY, The Surveyor's and Sanitary Offices, High Street, Wandsworth, 8.30 P.M.—Mr. Edmund Owen: A Common and an Acute Inflammation of the Bones of Children and Young Persons which sometimes escapes recognition.

### THURSDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Dr. W. Collingridge: On Quarantine. Milroy Lecture I.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, Cavendish Square, W.—Card Specimens at 8 P.M. Mr. H. Juler: Case of probable Congenital Pigmentation of Retina. 8.30 P.M.—Discussion on Retro-ocular Neuritis. Speakers: Mr. Marcus Gunn, Dr. Buzzard, Dr. Gowers, Mr. Berry, Dr. Hill Griffith, and others.

GREAT NORTHERN MEDICAL AND CHIRURGICAL SOCIETY, Great Northern Central Hospital, N., 8 P.M.—Clinical Evening. Dr. James MacMunn will show "some new Instruments, mostly urethral," and Mr. Macready a case of Scrotal Hernia, with Lipoma in the inguinal region. Cases will also be shown by Dr. Hodgins and Dr. Remfry, and Pathological Specimens by Dr. Freyberger.

BRITISH GYNÆCOLOGICAL SOCIETY, 20, Hanover Square, W., 8.30 P.M.—Specimens by Mr. Mayo Robson and Dr. Purcell. Papers: Dr. Armstrong: On Dr. Beatson's Treatment of Inoperable Cases of Cancer of the Mamma. Dr. Snow: On the Value in Abdominal Malignant Disease of Exploratory Laparotomy *per se*.

### FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor A. W. Mayo Robson: Diseases of the Gall Bladder and Bile Ducts and their Surgical Treatment. Lecture III.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Lecture by Mr. Ballance.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, W.C., 3 to 5 P.M.—Professor Crookshank: Tuberculosis and Leprosy.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 P.M.—Dr. E. W. Goodall: A Case of Scarlet Fever in which Death was due to Spontaneous Thrombosis of the Veins of Galen. Dr. A. E. Garrod: A Case of Sclerema Neonatorum. Mr. C. B. Lockwood: A Case of Peripheral Hyperostosis considered in relation to Pulmonary Hypertrophic Osteoarthropathy. Dr. H. D. Rolleston: A Case in which excessive Urobilinuria followed and apparently depended on the administration of Trional.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### MARRIAGES.

MEYRICK-JONES—BLYTH.—On February 24th, at St. Mary's, Chelmsford, H. M. Meyrick-Jones, M.B., B.S., of Guilsborough, Northampton, son of the Rev. G. Meyrick-Jones, of Clapton Court, Crewkerne, to Georgiana, eldest daughter of the late Robert Blyth, solicitor, of Mount Pleasant, Chelmsford.

WRIGHT—MIALL.—February 25th, at Charles Church, Plymouth, by the Rev. John Charles Wright, Vicar of St. George's, Leeds, brother of the bridegroom, assisted by the Rev. N. Vickers, Vicar of the parish, Joseph Farrall Wright, M.R.C.S.Eng., L.R.C.P.Lond., son of the late Rev. Joseph Farrall Wright, formerly Vicar of Christ Church, Bolton-le-Moors, to Rose, second daughter of E. R. Miall, retired Paymaster-in-Chief.

THOMSON—MARR.—On February 25th, at Ellon, Aberdeenshire, by the Rev. T. Young, B.D., Surgeon-Captain James Thomson, Army Medical Staff, to Mary Eva, eldest daughter of Surgeon-Major G. Marr, Indian Medical Service (retired).

### DEATH.

FASKEN.—On February 1st, at Futtehgurh, North West Provinces, India, Surgeon-Lieutenant-Colonel Fasken, M.D., dearly beloved elder son of William Fasken, M.D., Deputy Inspector-General of Hospitals and Fleets, Royal Navy, aged 48 years, deeply regretted.

CRAIGIE.—On February 2nd, at Pietermaritzburg, Natal, John Craigie, M.D., C.M., formerly of the Knoll, Stockland, Devon, only son of the late Captain David Craigie, R.N., C.B., aged 54 years.

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Attendances*—Daily, 2. *Operations.*—Tu. F. S., 2.

Central London Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily.

Central London Throat, Nose, and Ear.—*Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—Daily.

Charing Cross. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations.*—W. Th. F., 3.

Chelsea Hospital for Women. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2

City Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

East London Hospital for Children. *Operations.*—F., 2.

Great Northern Central. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30 Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

Guy's. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations*—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.

Hospital for Women, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

King's College. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations.*—M. F. S., 2.

London. *Attendances.*—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operations.*—M. Tu. W. Th. S., 2.

London Temperance. *Attendances.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations.*—M. Th., 4.30.

Metropolitan. *Attendances.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations.*—F., 9.

Middlesex. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations.*—W., 1.30; S., 2; (Obstetrical), Th., 2.

National Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

New Hospital for Women. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30 *Operations.*—Tu. F., 9.

North-West London. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

Royal Eye, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

Royal Free. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 8; Dental, Th., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

Royal Orthopædic. *Attendances.*—Daily, 1. *Operations*—M., 2.

Royal Westminster Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily.

St. Bartholomew's. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th. 2.

St. George's. *Attendances.*—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations.*—M. Tu. Th. F. S., 1.

St. Mark's. *Attendances.*—Fistula and Diseases of the Rectum, males S., 3; females; W., 9.45. *Operations.*—M., 2; Tu., 2.30.

St. Mary's. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 3.0; Skin, M. Th., 9.30; Electro-therapeutics, M. Th., 2.30; Dental, W. S., 9.30; Children's Medical, Tu. F., 9.15; Children's Surgical, S., 9.15. *Operations.*—M., 2.30.; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

St. Peter's. *Attendances.*—M. 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

St. Thomas's. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children. *Attendances.*—Daily, 1.30. *Operations.*—W., 2.30.

Throat, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Th., 2.

University College. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30. *Operations.*—Tu. W. Th., 2.

West London. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations*—Tu. F., 2.30.

Westminster. *Attendances.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, Tu. F., 9.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operations.*—Tu. W., 2.

# LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not Later than Midday Post on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any Circumstances be Returned.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not to his private house.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

### QUERIES.

Subscriber would like to know the best saddle for girls aged 11 and 13 to use whilst bicycling.

W. A. C. desires to know the results of the use of hypnotism in cases of dipsomania (periodic and not severe.)

Puzzled asks what is the motive for the employment of sulphur in the form of flowers of sulphur with hot water—the steam from which is inhaled in diphtheria or in any other disease.

Dr. James Clapperton (Stockbridge, Hants) asks to be informed where he could place a patient of weak intellect. She is aged 30. Her parents who are very poor could only afford to pay 10s. a week for her maintenance, but she would be willing to work in the kitchen.

Alpha would much appreciate any information respecting some institution where a young man, a confirmed victim of the cocaine habit, could be placed, where the possibility of getting the drug would be out of the question, and the treatment of his present condition taken in hand. He is not in a position to pay more than one or one and a-half guinea a week.

#### Traumatic Neurosis.

Phenad asks for the reference to Charcot's observations on traumatic neurosis and the wasting of muscles connected with that condition.

#### Treatment of Dandruff.

W. D. B. asks for advice in the treatment of two patients, both males, who for some years have complained of itching of the scalp, falling of hair and scurf. They are both under 30 years of age, and have derived no benefit from the application of cantharides, sulphur, or mercury.

#### Therapeutic Uses of Chelidonium.

Dr. Charles J. Cooke (Plymouth) writes: In connection with the subject of treatment of cancer by celandine, to which attention was drawn in your article on February 6th, will you allow me to bring forward the following interesting passage, which occurs in Withering's *Botany* published in 1801, a copy of which is in my possession: "The juice of every part of this plant (chelidonium majus) is yellow and very acrimonious. It cures tetters and ringworms. Diluted with milk it consumes white opaque spots in the eyes. It destroys warts and cures the itch. There is no doubt but a medicine of such activity will one day be converted to more important purposes."

#### Coal Gas Poisoning.

Dr. George Dickinson (Leamington Spa) writes: In a case to which I was recently called deceased had lain for ten or eleven hours in a steadily increasing mixture of coal gas and air. He had no sense of smell, and therefore no doubt went to sleep in the usual way, not noticing that the gas was turned on. The point in the case that I ask for information upon is that the pupils were contracted nearly to a pin point, not quite so completely as we see under opium, but nearly so, and until the moment before death the pupils were not affected, though quantities of oxygen gas were inhaled. The colour throughout was ashy grey, and the breathing consisted of occasional spasmodic gasps, perhaps seven or eight per minute.

#### Post-Graduate Study in Paris.

M.D. writes: Being desirous of taking out a six weeks' post-graduate course at the Paris hospitals, I should be very much obliged for information how to proceed; for instance, the fees demanded, and the best way to go about it. Also if rooms could be obtained in the students' quarter at a reasonable rate, and the best way to secure them immediately on getting to Paris. Also if some of the arrangements could be made before leaving home, so that no time might be lost on getting there, thereby being enabled to get rooms, enter my name at the hospitals, and get to work at once.

#### Public Health Appointments.

K. C. B. asks: (1) Having obtained the D.P.H., is it difficult to get an appointment as medical officer of health? (2) Are such appointments to be obtained in the Colonies, and where is information to be had?

*** (1) There are, we believe, many well-qualified practitioners possessing the D.P.H. who have been trying for years, unsuccessfully, to obtain appointments as health officers. The number of such appointments is, of course, limited. The number of diplomas issued is not. Remembering that to a large extent the public health service is a new one officered by young men, it will be understood that the flow of promotion must necessarily be slow. With the enormous number of well-qualified men who rush for any such vacancy, local authorities, perhaps unnaturally, rely to a large extent on what is personally and locally known of the candidates. (2) Different Colonies have different regulations. Some of the better appointments are advertised in this country, as in the recent instance of the medical officer for Cape Town. In other cases some local practitioner is selected as a sort of superintending health officer. Our correspondent would probably obtain information from the London agents of the several Colonies. They are occasionally instructed to look out for competent men.

#### Small-Pox Hospitals.

A. J. T. asks to be referred to a few instances of hospitals for small-pox in English towns of from 25,000 to 50,000 inhabitants, quoting number of beds of each and salary of visiting surgeon attending same.

*** We have been unable to discover that there is any official information upon this subject in existence, and we cannot hear of any town

with a population of 25,000 which possesses separate small-pox hospital accommodation. The following notes may be of use to our correspondent: Leeds, census population 367,505, has a separate small-pox hospital with its own administration, cut off from the site of the proposed new general fever hospital, and a few years ago had a temporary wooden small-pox hospital on an entirely different site from any other hospital. Bradford, population 216,361, has a pavilion specially constructed for small-pox close to the pavilions for other infectious disease. Sheffield, population 324,243, has a small-pox hospital, separate from its general fever hospital, outside the town. Huddersfield, population 95,422, had for a time a wooden small-pox hospital, separate from the general fever hospital, but the corporation are now building a new general fever hospital close to this temporary hospital. There is a specially built small-pox hospital at Barnsley, population 35,427, but we are not aware that it is distinct from the Corporation hospital. At Newcastle, population 186,300, there are three infectious diseases hospitals, a small-pox hospital, and a cholera hospital on the moor, and a general fever hospital at Walker-on-Tyne. At Greenock, population 63,086, there used to be a specially-built small-pox hospital occasionally used for other purposes. At Hull, population 200,044, there is a separate fever hospital attached to the port sanitary authority which is generally used for small-pox, but also occasionally for other diseases, and a distinct fever hospital, for diseases other than small-pox, belonging to the corporation. We believe that many of the smaller towns which possess small-pox hospitals use them for other purposes, or use the ordinary infectious diseases hospitals for small-pox if it become epidemic, but we should be glad to have information on this point from any medical officer of health who would be good enough to send brief details.

## ANSWERS.

SUBSCRIBER.—The question appears to turn upon purely legal considerations, and should therefore be submitted to a solicitor.

J. T. S.—The manner of conducting the business is obviously open to grave objection.

DELTOID will find information in reply to a similar query in the BRITISH MEDICAL JOURNAL of November 28th, 1896, p. 1619, in answer to "Whitechapel."

ROSSENDALIAN.—The full name should be ascertained and forwarded to the Registrar of the General Medical Council, with a request to be informed whether the person in question is registered or not. A small fee is charged by the Council for the information.

DR. TUCKER WISE (Montreux) writes to thank the numerous correspondents who have been good enough to reply to his inquiry respecting a convalescent home for a lady and her daughter. The ladies are now suited.

LUX.—There is no central office to which application should be made by an intending probationer. Applications might be made to one of the large hospitals—St. Mary's, Middlesex, or the London—or to the Superintendent of the Nightingale Home, St. Thomas's Hospital. There are also training schools at many large hospitals in provincial towns.

MEMBER.—The following extract from the *Code of Medical Ethics* (London, 1890) will probably suffice to meet our correspondent's inquiry: "The consultant has no claim to be regarded as a regular attendant on the patient, and his attendance ceases after each consultation unless otherwise arranged . . . Should the practitioner who has been called in consultation be subsequently requested to take charge of the patient, he should courteously but firmly decline."

G. H.—*Pediatrics* appears twice a month. It is devoted to the diseases of infants and children. It is owned by Dr. Dillon Brown, of New York. The English editor is Dr. George Carpenter, and the English publishers, Harrison and Sons, of 45, St. Martin's Lane, W.C. The *Archives of Pediatrics*, which appears monthly, is edited by Dr. Floyd M. Crandall, of New York. It can be obtained in England from the Rebman Publishing Company, 11, Adam Street, Strand. The *British Gynæcological Journal*, being the journal of the British Gynæcological Society, is published quarterly in London by John Bale and Sons. The price of the last number issued was 3s. 6d.

### THE NATIONAL DEPOSIT FRIENDLY SOCIETY.

A. T. S.—This institution has already been commented on in our columns, and we have pointed out that the medical officers are much better remunerated under its regulations than under those of nearly all other provident institutions.

### CORONERS' INQUIRIES.

RESIDENT.—It is quite clear that no inquiry of a legal nature into the cause of a sudden death can be deemed satisfactory which does not include the evidence of skilled medical practitioners. To accept the evidence—so-called—of hospital porters, or even policemen duly certified by St. John Ambulance Association, in place of medical witnesses is as illegal as it is unworthy of the dignity of a legal tribunal.

### CRÈCHES.

J. A.—It is not possible to ascertain with any accuracy how many *crèches* have been established; they are to be found in most of the large towns as part of the parochial (religious) organisation, or as an independent philanthropic venture. On the whole, they have been a success, but that depends entirely on the management. Indirectly they educate the people by giving them a higher standard of the value of child life, and by showing the results of the scientific rearing of infants. Some most successful *crèches* are to be found in London. A course of lectures on the care of young infants is given under the auspices of the London County Council as part of the technical instruction, but no Council, so far as we are aware, has given a grant for lectures on the hygiene of infancy apart from hygiene in general. In some cases an informal *crèche* is attached to a school in London to enable the older girls to attend school, but this is not recognised by the department. Mrs. Homan, 12, Essex Villas, Phillimore Gardens, W., can give information as to the working of these *crèches*.

### RUPTURED FRÆNUM PRÆPUTII.

DR. SPENCER SMYTH (Tunbridge Wells) writes: Some years since I met with a youth who had divided the frænum with a penknife in order to draw the prepuce freely back, as he regarded it somewhat tight for sexual functions; no ulceration at the time was discernible, only the simple incision. As to restoring it by operation, better, as stated by "F.R.C.S.," not to attempt it, as in most the patient is better *minus* frænum, particularly if somewhat contracted. In this instance it has certainly not interfered in any way with sexual doings.

### DEATHS UNDER ANÆSTHETICS.

L. B. writes: I quite agree with your expression of indebtedness to Dr. Grosvenor for his frank relation of the case of death under chloroform published in the BRITISH MEDICAL JOURNAL of February 27th; and I only venture to make a few remarks in order that the lessons to be learned from this the last of an alarmingly increasing list of fatalities during the administration of this anæsthetic for the operation of tonsillotomy, may not be lost sight of. Chloroform, when administered for removal of enlarged tonsils—whether faucial or pharyngeal—is more liable to produce a fatal result than in almost any other operation, either major or minor, in the annals of surgery. During the last five years, thirty deaths have been recorded, and in a considerable proportion death occurred before the operation was commenced. A moment's reflection would supply the reasons for this exceptional liability, of which one alone may be mentioned, namely, that it is almost unique to find a child of 9 years of age with enlarged tonsils who has not also his nasal respiratory passages blocked by adenoids. On the other hand, nitrous oxide gas is a safe and efficacious anæsthetic for this operation. In conclusion, may I ask how, if "no necropsy was made," can the reporter be certain that "there was no obstruction of the respiratory tract.....by vomited matter?" As the case certainly reads, the fatality was much more likely due to a regurgitation of such material into the trachea, than to any of the causes mentioned.

### THE ESTIMATION OF ALBUMEN.

DR. CHARLES W. HAYWARD (Liverpool) writes: In reply to your correspondent "F.R.C.S.E.," I may at once say that neither the older pattern of Esbach's albuminometer nor the improved pattern can give any clue to the importance to be attached to the presence of albumen in any specimen of urine. The real signification of the amount, or indeed of the presence, of albumen in the urine is a question which must be decided in each case on its own merits, from the presence or absence of casts, epithelium, etc., and the occurrence of the albumen either constantly or only at intervals, or only at certain periods of the day, and by all the other symptoms and circumstances of the case. Esbach's test is an eminently satisfactory one, but with the original pattern of instrument accuracy in cases where the amount of albumen was small was impossible. The modifications I made in the shape and the tables supplied with the instrument were designed to assist accurate observations of the real amount of albumen present in each case, in order that we may be able to get reliable data from which to satisfactorily answer your correspondent's question, and carefully watch the causes and consequences of variations of the quantity of albumen in any case. In a report of a case recently published by a member of the staff of one of the well-known London hospitals, the amount of albumen present was seriously stated as being "40 per cent. of the urine passed." Now if we take 40 ounces of urine in the twenty-four hours, this would work out to 16 ounces of solid albumen passed *per diem*, which is only about half an ounce less than the total amount of albumen in the patient's blood, *plus* the total amount in a day's dietary. It was to prevent such misleading data that I tried to improve the accuracy of the test, and by noting the reading of the scale and referring to the accompanying table, an absolutely accurate record of the solid albumen passed in the day can be obtained. If such accurate observations were made in all cases, we should soon have reliable statistics which would greatly assist in solving the difficult questions still unanswered in regard to albuminuria.

## NOTES, LETTERS, Etc.

### THE TREATMENT OF RABIES AT THE PASTEUR INSTITUTE.

IN the paragraph under this heading in the BRITISH MEDICAL JOURNAL of January 16th, referring to the results of the treatment, the decimal points were accidentally omitted; instead of 94 per cent. to 13 per cent., it should have stated the mortality had fallen from 0.94 to 0.13 per cent.

### HYDROPATHY IN THE TREATMENT OF MUSCULAR AND ARTICULAR RHEUMATISM AND GOUT.

DR. F. H. ATKINSON (Surbiton) writes: Although we are all more or less acquainted with the value of mineral water baths in the treatment of gouty and rheumatic affections, we know very little, I think, of the effect of ordinary hydropathy in these cases. About two years ago I managed to get in for a rather severe attack of gouty neuritis of the right upper arm and arthritis of the right shoulder. Acting upon advice I took some salicylate of potash and actæa, but without any great benefit. I next went to Buxton and took the baths for a fortnight on two separate occasions. From these a certain amount of good was undoubtedly derived, but still the movements remained very imperfect and painful. Fearing the shoulder might become more or less permanently fixed, I made up my mind to see what could be done by the use of the Turkish bath. Mr. Metcalfe, the superintendent of the bath at

Richmond, advised me to abstain from massage, to take frequent Turkish baths, and follow them upon each occasion by a shallow salt bath at a temperature beginning at 80° and lowered on each occasion till I could bear the water at 70°. On one occasion he ordered me a hot sulphur bath, on another a dripping sheet, and on another a cold pack. After the bath the shoulder had to be rubbed with Chili plaster, and then kept constantly covered with a wet compress. The result of the treatment, I am glad to say, has been that the arm is entirely free from pain and the movement is perfect.

### Dr. Rentoul's Election Expenses and those Incurred in Opposing the Four Midwives Bills.

Mr. Alfred Cox, M.B., Honorary Secretary (West View, Gateshead-on-Tyne) forwards the following further list:

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| J. A. B. ... ... ... ... | 0 | 5 | 0 |
| H. S., Leeds ... ... ... | 0 | 10 | 0 |
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| W. H. ... ... ... ... | 0 | 5 | 0 |

The following corrections should be made in the last list: E. C. Barnes, Hammersmith Road, 5s., instead of 7s. 6d.; H. Walker, Hammersmith Road, 5s., instead of 2s. 6d.

### How to Limit the Inflammation of Vaccination.

Surgeon-Major Poynder, Medical Staff, writes, in reference to the method suggested by Mr. C. Lucas, that he finds painting the whole of the inflamed and œdematous parts, and about a quarter of an inch beyond, with tincture of iodine, stops the inflammation. He has thus painted the arm, forearm, and hand, and also the axillary glands, if necessary, as well as the inflamed vesicles, and repeats the application daily till the inflammation subsides. The treatment was suggested by the beneficial effect of tincture of iodine on erysipelas.

### The Health of the British Troops in India.

Lieutenant-Colonel L. G. Fawkes, R.A. (Blackheath) writes: It has been brought to my notice that in your published report of the proceedings at the United Service Institution, when the question of the Contagious Diseases Acts was discussed, you state that I advocated strongly the regulation system. This is not correct, as I read a very strong letter from Mr. Archibald, a Master in the Supreme Court, against the regulation system. I should be glad, therefore, if you would correct this in your next number. What I did say was that the licensing authorities ought to refuse dancing licences to those music halls where the men when half drunk are in the midst of prostitutes of the lowest type, these places being in the close vicinity of barracks.

Major G. K. Scott Moncrieff, R.E. (Chatham), writes: My attention has been drawn to a statement in the British Medical Journal dated February 27th, where, under the heading "The Health of British Troops in India," it is stated "the regulation system was strongly advocated by Major G. K. Scott Moncrieff."

Will you please contradict that statement? I did not strongly advocate the regulation system. Any statement that I made was to the contrary effect.

### The Association of Diphtheria and Scarlet Fever.

Dr. E. L. Pritchard (Norwich) writes: An interesting case, showing the difficulty of diagnosis between these two diseases occurred recently in my practice. I attended at the end of September last a little girl with well-marked scarlatina. She was sent to the local isolation hospital and duly cured and discharged. Shortly after this, on December 2nd, 1896, her two brothers, aged 8 and 3, were also attacked, and both showed well-marked symptoms, including rash, sore throat, and fever. The elder brother desquamated freely later, and made a perfect recovery. On December 7th the younger boy became worse—wandering at night and sleeping a good deal during the day. Two days later a thin purulent discharge made its appearance from the nostrils. The cervical and submaxillary glands were much enlarged and the tonsils completely closed the throat and were sloughing; the pharynx could not be seen. There was albumen in the urine. The patient passed through the usual course seen in diphtherial cases, gradually improving until December 14th, when paralysis of the palate showed itself, milk passing out of the nostrils on being administered by the mouth. Four days later this symptom passed off, and the patient appeared to be doing very well, when, on December 21st, pneumonia set in, and he died of exhaustion on the following day. Was this a case of scarlatina followed by diphtheria, or did the scarlatina produce the paralysis of the palate, the enlargement and matting together of the glands, and the nasal discharge? I was unable to trace any possibility of diphtherial infection, and the brother, who shared his bed until the appearance of the nasal discharge, showed no sign of this disease. It seems to me to be a case of what Professor Osler describes as the anginose form of scarlatina, and believes to be due to the scarlatina poison, but I believe this can only be cleared up by careful bacteriological examination, which I regret was not carried out in my case.

Dr. Spencer Smyth (Tunbridge Wells) writes with reference to Dr. Joy's note on this subject: A few years since, when practising in a London district, I had to visit a gentleman suffering from sore throat, which, upon inspection, was pronounced diphtheritic, the fauces being lined with the characteristic false membrane, which, under treatment after a few days was thrown off, leaving the parts raw. On the seventh day of illness the temperature became high, followed in a few hours by a well-developed rash of scarlatina, with its characteristic tongue and in due course free desquamation of the skin followed. Both diseases were at the time prevalent in the neighbourhood, and it was noticed that in a few houses some of the inmates were attacked with diphtheria, others with scarlatina. Albuminuria was present in most cases, but quickly yielded to warm baths and pulv. jalapæ comp.

### The Administration of Antitoxins by the Mouth.

Dr. T. M. Allison (Newcastle-on-Tyne) writes: On January 9th Mrs. H. (primipara) was delivered instrumentally, the perineum being torn and stitched. By January 12th and 13th the perineal wound had become infected, the lochial discharge was offensive, and the temperature and pulse rate elevated. Douches and constitutional remedies were employed, but the condition did not improve. On the night of January 14th the wound was bathed in pus, the posterior vaginal wall was hot and swollen, and the lochial smell perceptible throughout the room, whilst the breath had a sweetish odour. The temperature registered 101°, the pulse 120, and the patient was excitable and nervous. There was no pain or tenderness over the abdomen. The case being looked upon as one of septic absorption the uterine canal was douched with corrosive solution, and the wound dusted with sulphur, after which the temperature went half a degree higher (to 101.5°). Four c.cm. of serum antistreptococcic (Institut Pasteur) were then given by the mouth. An hour afterwards the temperature fell to 98°, the pulse-rate had diminished, and after a good night the patient, although weak, felt almost herself, the morning temperature being 98.4°. In the afternoon (15th) the temperature was 99.6°, but it never rose above normal subsequently, the patient making a good recovery, the only noteworthy symptom being an urticarial rash, which appeared after some days on the face and body, but which was unaccompanied by fever, and subsided without treatment. In this case there seemed to be prompt absorption and effective action of the remedy, and that the antitoxin was not inert after passing the gastric defences is, I think, confirmed by the urticarial rash, an after-effect also of hypodermic injections.

### Artificial Feeding of the Insane.

Dr. G. S. Walker (Brondesbury) writes: In the British Medical Journal of February 27th, Dr. Henry Sutherland states that artificial feeding of the insane through the nose cannot be long continued, and that after using this method for a few days the nostrils become red and inflamed, and ultimately altogether blocked. Now I have, within the last few years, had two cases in my house in which I had recourse to this treatment, one of them for six weeks, and in the other case three times a day for five months, and in neither case did I have the least trouble of the kind mentioned.

### Hospital Reform.

A Member of a Junior Staff writes: There is one aspect of this question to which I have as yet seen no reference either in the lay press or in the medical journals. I allude to the pecuniary support of the hospitals by the members of the medical staff of the respective institutions. At one time it was considered that medical men made sufficient sacrifices to the cause of charity in devoting two or three afternoons a week to their hospital (unremunerative) work, and their pecuniary support was only called for in cases of dire necessity, and was never expected to be much more than nominal. Of late years, however, if a hospital is in want of money the very first people to be appealed to are the members of the medical staff, and, as far as my own experience goes, there is hardly a week, certainly not a month, but brings with it either an appeal for a subscription, or an invitation to take tickets for a concert, theatrical performance, ball, bazaar, or some such function. The curious thing about these functions, too, is that though they are usually termed "public," I have found that in the majority of those which I have attended the public are conspicuous by their absence, and they are supported chiefly by the staff, the students, the sisters, and the nurses.

If the abuse to which I allude continues to grow at the same pace that it has done during the last year or two, I believe that both the profession and the public will find themselves in a very awkward position as regards the hospitals. For instance, are the public prepared to see the whole duties of management taken over by those engaged in the professional work of the hospital? for this cannot be prevented when the staff and their immediate friends supply most of the funds. I think that this possibility is not nearly so remote as is often imagined, for I am sure that not only is the actual amount of money already subscribed by the staff of the respective hospitals very considerable, but it is quite out of proportion to their incomes, and especially so when it is compared with the subscriptions and incomes of many of the lay com-

mittees and boards of management; moreover, by these constant appeals to the profession the public are slowly, it may be, but surely being educated to look upon hospitals as institutions to the support of which they are less morally bound to contribute than is the medical man. Is such a condition of things either right or desirable? I trust that you will be able to give me a small space in your columns to enter my protest against what I believe to be a very undesirable condition of affairs. I have purposely omitted to say much which might be said upon the subject, because I am in hopes that this letter may be the means of obtaining expressions of opinion from others of greater weight.

### MOSQUITO BITES.

DR. N. C. SMILLIE, a member of the Montreal Branch, Gaspa, P. Q., writes in reference to some recent remarks in the BRITISH MEDICAL JOURNAL on mosquito bites: The plan we generally adopt to arrest the very unpleasant operations of the pest in this locality, where they prevail to a great extent in our woods and in the vicinity of the salmon and trout streams is as follows: I use a mixture of castor oil, lanolin, lard, or in fact, any substance of a greasy viscid nature, and some active volatile substance, such as creasote oil, menth pip., or even a nasty mixture of Stockholm tar and castor oil. These preparations will keep off the insects if rubbed or smeared on the parts exposed to attack, for example, the forehead, behind the ears, chin, wrists, and hands. The chief object is to get something volatile which will "keep its strength" for a time, the longer the beter; hence these applications must be renewed often in order to do good work. I can, however, bear testimony to their efficacy. Of course, one does not wish to sleep with this dirt on one's face, so at night, like your Indian friend, we seek the protection of a net.

### PICRIC ACID AS A THERAPEUTIC AGENT.

DR. WM. MACLENNAN (Glasgow) writes: In the BRITISH MEDICAL JOURNAL of February 6th, Dr. Henry Waldo writes a memorandum on a possible effect of picric acid when applied to an extensive "dermatitis." He (and also Dr. C. M. Allan, BRITISH MEDICAL JOURNAL, February 20th) endorses the opinion I have expressed, in my paper in the JOURNAL of December 26th, 1896, when I drew attention to the great value of picric acid in the treatment of certain inflammatory skin affections, but he expresses a fear that it may be absorbed and give rise to symptoms resembling those usually associated with carboluria. This appears to have happened in one case in which Dr. Waldo employed it. May I say, in reply, that I have used picric acid in a very large number of cases, and have applied it freely to large areas of inflamed and denuded skin, without ever once having seen any unpleasant symptoms follow its use? When picric acid is administered internally, even in considerable doses, the unpleasant symptoms to which it may give rise are not those suggestive of carbolic acid poisoning. Thus, while Dr. Waldo's experience in the one case to which he refers in his memorandum, is interesting, and should be borne in mind, it need not, I think, deter any one from making a free use of this valuable therapeutic agent in any case where its astringent and antiseptic properties suggest its use. As I have shown, the immediate coagulation of albumen which follows its application to a raw or discharging surface, limits its own action, and must in almost every instance practically render absorption impossible.

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## BOOKS, ETC., RECEIVED.

Herbert Fry's Royal Guide to the London Charities. Edited by John Lane. Thirty-third Annual Edition. London: Chatto and Windus. 1896. 1s. 6d.

De Doostumme i Norge. Af V. Uchermann. Christiania: A. Cammermeyers. 1897.

Pathologie et Traitement de la Luxation Congénitale de la Hanche. Par Dr. A. Lorenz. Paris: G. Carré et C. Naud. 1897. Fr.8.

Vorlesungen über Kinderkrankheiten. Von Dr. E. Henoch. Neunte Auflage. Berlin: August Hirschwald. 1897. M. 17.

Traité Pratique des Maladies Vénériennes. Par Dr. H. Berdal. Paris: A. Maloine. 1897.

A Plea for the Unborn. By H. Smith. London: Watts and Co. 1897. 2s. 6d.

A Pictorial Atlas of Skin Diseases and Syphilitic Affections in Photo-Lithochromes from Models in the Museum in the Saint Louis Hospital. Edited and annotated by J. J. Pringle, M.B., F.R.C.P. Part VII. London: Rebman Publishing Co. 1897. 10s. 6d.

Die mikroskopische Diagnose der bösartigen Geschwülste. Von Dr. D. Hansemann. Berlin: August Hirschwald. 1897. M. 7.

Medicinische Abhandlung Festschrift des Stuttgarter ärztlichen Vereines zur Feir seines 25 jährigen Bestehens am 6 Marz. 1897. Redigirt von Dr. A. Deahna. Stuttgart: E. Koch. 1897.

A Manual and Dictionary of the Flowering Plants. By J. C. Willis, M.A. London and Cambridge: C. J. Clay. 1897. 10s. 6d.

Practical Points in Nursing for Nurses in Private Practice. By Emily A. M. Stoney. London: The Scientific Press. 7s. 6d.

Transactions of the American Gynecological Society for the year 1896. Philadelphia: W. J. Dornan. 1896.

Ambulance Lectures on Home Nursing and Hygiene. By S. Osborn, F.R.C.S. Third edition. London: H. K. Lewis. 1896. 2s.

Transactions of the American Ophthalmological Society. Vol. VII. Hartford: Published by the Society. 1897.

Guy's Hospitals Reports. Edited by E. C. Perry, M.A., and W. H. A. Jacobson, M.A., M.Ch. Vol. LII. London: J. and A. Churchill. 1896.

Catechism Series. Anatomy: Part III. Head and Neck. Edinburgh: E. and S. Livingstone. 1s.

The Medical Side of the Drink Question. By Sir B. Ward Richardson, M.D., F.R.C.P., F.R.S. London: Ideal Publishing Union. 1897.

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# LECTURES
ON
# DISEASES OF THE GALL BLADDER AND BILE DUCTS.

*Delivered at the Royal College of Surgeons of England.*

By A. W. MAYO ROBSON, F.R.C.S.,
Hunterian Professor of Surgery and Pathology, Royal College of Surgeons of England.

## Lecture I.

### Anatomy of the Gall Bladder and Bile Ducts.

Had time permitted, the anatomy of the gall bladder and bile ducts would have formed a subject of sufficient interest for my first lecture, but the number and importance of the matters I propose to consider clearly demonstrate such to be an impossibility, if I am to nearly complete my syllabus. Some of the more important anatomical points, however, I must not omit.

*Congenital Malformations.*—There is apparently no part of the biliary apparatus, except the liver, which may not be absent. While it is not to be wondered at in the case of the gall bladder and cystic duct, since they are normally wanting in certain animals and are frequently obliterated by disease in the human subject, it affords serious food for thought that life has been possible for six months where even the hepatic and common ducts are represented by mere fibrous cords.

Hour-glass-shaped gall bladder is probably not uncommon, and may be either congenital or due to ulceration. On numerous occasions I have found the ordinary position of the gall bladder vacant, and the shrunken viscus to be situated near the transverse fissure of the liver under cover of the pylorus, with the transverse colon adherent over it. On two occasions I have found the gall bladder, containing gall stones, displaced very much to the right; in one instance the liver was almost bifid, the left lobe predominating and pushing the right, and with it, the gall bladder, so far round as to make it project into the lumbar region.

The common bile duct has recently received much attention at the hands of several observers, and the papers by M. le Dr. Quénu in the *Revue de Chirurgie* for 1895, and by Dr. Fenger in the *American Journal of Medical Science* for February and March, 1896, are both of great practical utility. The former gives a number of exact measurements and describes a small vessel, a branch of the pancreatico-duodenal artery, as also some branches of the portal vein and hepatic artery, crossing over the duct, which might be seriously in the way in the operation of choledochotomy. Dr. Fenger also clearly shows how the portal vein, gradually winding round the common duct, comes to be placed on the outer side of the upper third, even overlapping the front of it, and the termination of the cystic duct, thus demonstrating that the middle portion of the "ductus communis" and the upper two-thirds of the cystic duct are the only convenient situations for choledochotomy.

In palpating the common duct for gall stones the surgeon frequently feels several more or less hard nodules within the free border of the lesser omentum, by the side or in front of the common duct, and unless it be borne in mind that three or four lymphatic glands normally exist here, they may be apt to mislead, especially as they are not unusually considerably enlarged where there is gall-stone irritation. I have frequently felt them as large as beans, and at times the size of filberts.

The large peritoneal pouch, to which Mr. Rutherford Morison drew attention in a paper in the British Medical Journal for March 3rd, 1894—bounded above by the right lobe of the liver, below by the ascending layer of the transverse mesocolon, covering the duodenum internally, externally by the peritoneum lining the parietes down to the crest of the ilium, posteriorly by the ascending mesocolon covering the kidney, and internally by the peritoneum covering the spine—has long been recognised, but perhaps not sufficiently appreciated in gall-bladder surgery. It is interesting to note that it is capable of holding nearly a pint of fluid before it overflows into the general peritoneal cavity through the foramen of Winslow or over the pelvic brim.

A deformity of the liver, congenital or acquired, may at times lead to a difficulty in diagnosis or in treatment. I refer to a tongue-shaped prolongation of the right lobe, which may project below the costal margin for several inches, and simulate a tumour of the liver or an enlarged gall bladder.

In some instances the gall bladder projects beyond the apex of the linguiform projection, as in a case described by my friend Dr. Hellier.[1] Professsor Riedel has described this projection, which is sometimes known as Riedel's lobe. It is said to be uniformly due to cholelithiasis, but in one case at least in my experience it was not associated with gall stones.

### Catarrh, Acute and Chronic: Catarrh of the Gall Bladder and Bile Ducts.

The larger bile ducts and the gall bladder being lined with mucous membrane having cylindrical epithelium and ordinary racemose glands, are, like other mucous passages, subject to catarrh which may be acute or chronic. As, however, acute and chronic catarrhal jaundice are subjects of medical rather than surgical interest, I can only briefly consider them; although the latter, from its frequent association with serious disease such as cholelithiasis, cancer, or hydatids, may have some important surgical bearings.

(*a*) Acute catarrh is supposed to give rise to the evanescent form of icterus known as catarrhal jaundice, which, more frequently occurring in young persons, usually comes on as a sequence of dyspepsia or as a result of exposure to cold, and is ordinarily unaccompanied by pain or serious illness, but for which help is sought on account of the marked objective symptom of jaundice.

When it is borne in mind that the bile ducts have only a limited calibre, that the mucous lining is capable of swelling so as to occlude the passage, and that the secretion of bile takes place under very low blood tension (according to Naunyn 110 mm. to 220 m.m. of water), and is therefore arrested by slight backward pressure, it is easy to comprehend how catarrh in this situation should lead to jaundice, though absolute proof of the correctness of the theory is wanting, since simple catarrhal jaundice furnishes no *post-mortem* subjects.

Gastro-intestinal catarrh, exposure to cold, extension to the bile ducts of inflammation from the parenchyma of the liver, carcinoma of the liver, gall stones, hydatids, pneumonia, and other acute inflammations and infectious fevers must be mentioned as causes of catarrh, direct or indirect.

Although it is well known that in cancer of the liver jaundice is a very variable sign, it is not always recognised that the icterus is at times dependent on the associated catarrh, which may be relieved by treatment though the original disease persists.

(*b*) Chronic cholangitis, or chronic catarrh of the bile ducts, may be simply a sequel to the acute form, and may then give rise to a more or less persistent jaundice leading to a suspicion of serious organic disease.

Although there are dyspeptic symptoms due to the associated gastro-intestinal catarrh, with jaundice and some loss of weight, the retention of strength and the absence of serious sequelæ, such as ascites and hæmorrhage, generally enable a good prognosis to be given, especially as the symptoms usually yield to proper treatment.

Catarrh of the bile ducts probably always accompanies jaundice from whatever cause. It is common as a concomitant of cancer of the liver or of the bile ducts, and is frequently the cause of the accompanying icterus. This accounts for the relief to the jaundice afforded by treatment in a necessarily fatal disease: whereas, when the jaundice is simply dependent on the mechanical pressure of the growth in the ducts, the jaundice will be only slightly, or not at all, influenced by remedies. The same remarks apply to hydatid disease, to abscess, and to other organic diseases of the liver.

Gall stones are probably always accompanied by catarrh, which, giving rise to the formation of thick ropy mucus, leads to attacks of pain when passing, and it seems not unlikely that some of the minor seizures of pain not followed by jaundice, or if so only to a slight extent, and where no gall stones are subsequently found in the evacuations, are of this nature.

Although the jaundice in cholelithiasis is usually produced by a gall stone obstructing the common or hepatic ducts, I

am convinced that in many cases jaundice is present when the concretion is in the gall bladder or in the cystic duct, the obstruction to the flow of bile being caused by an inflammatory swelling of the mucous membrane of the bile channels caused by extension from the seat of obstruction; in other words, the jaundice is dependent on catarrhal inflammation. Riedel[2] states that about two-fifths of the cases of jaundice in cholelithiasis arise in this way.

The treatment of chronic catarrhal jaundice is at first medical, and if the disease prove obstinate a course at Harrogate or Carlsbad will be likely to do good if the ailment be functional; but that failing, the question of some organic cause that may be removable by surgical treatment should be considered.

Dr. Thudichum, who published a treatise on gall stones in 1863, describes a catarrh of the finest ramifications of the bile ducts, which causes their lining to be shed in the shape of biliary casts. He considers that these often form the nucleus of gall stones where the catarrh is associated with decomposition of bile due to bacteria invading the obstructed bile ducts. This has been termed by Meckel "lithiatic catarrh;" perhaps a better term is "desquamating angiocholitis," or stone-forming catarrh of the bile ducts. It doubtless has great etiological importance in reference to gall stones, especially when associated with decomposition due to the presence of micro-organisms in the stagnant fluid in the ducts.

(*c*) Catarrhal cholecystitis, or chronic catarrh of the gall bladder without jaundice, forms a distinct and definite disease, and I have seen several cases in which cholelithiasis has been diagnosed and operation advised, but where neither the gall bladder nor ducts contained anything firmer than thick ropy mucus, which was apparently the cause of painful contractions of the gall bladder simulating gall-stone seizures. In these cases, of which I have seen two, and Dr. Byron Robinson has recorded another, the gall bladder is usually distended, but it rarely forms a distinct tumour, and there is an absence of pain on pressure over it. Unless gall stones have been present at some time, there are usually no adhesions of the gall bladder or ducts to the neighbouring viscera, proving that the inflammation has not extended through to the peritoneal coat, as it usually does when dependent on cholelithiasis. This catarrh may be the sequence of gall-stone irritation, but in other instances may probably be due to the dependent position of the fundus of the gall bladder, or to constant constipation and accumulation of fæces in the hepatic flexure of the colon interfering with the regular emptying of the gall bladder.

I believe that in not a few of the cases where adhesions are found around a contracted gall bladder and no concretions are met with, the attacks are kept up by catarrh of the gall bladder and ducts, which it is next to impossible to diagnose from the ordinary gall-stone seizures. The benefit derived from a systematic course of treatment in these cases renders it advisable that medical should always precede surgical treatment.

The diagnosis from cholelithiasis may usually be made by observing that the attacks are less severe and less prolonged than in true gall-stone seizures; that no gall stones are found in the evacuations after an attack; that jaundice seldom supervenes, and if it does is only very slight; that there is no tenderness on pressure between the ninth costal cartilage and the umbilicus; and that the affection will usually completely yield to treatment. Should medical teatment fail to relieve, it may be difficult to distinguish chronic catarrh of the gall bladder from cholelithiasis; but if under the belief that the case is one of gall stones the gall bladder be exposed and no concretions found, drainage of the gall bladder will be likely to effect a cure.

If, after a few weeks of general treatment, the symptoms are not relieved, the case will probably be thought to be one of gall stones, and operative treatment will be considered advisable.

If the gall bladder and ducts be found free from gall stones, cholecystotomy and drainage should nevertheless be performed, and it will be found useful after the third day to gently syringe a little warm water through the drainage tube daily so as to wash out the ducts, and after a fortnight or more the tube may be left out and the wound allowed to close. General treatment directed to the cause should be continued for some time afterwards.

My proposal, in fact, is to treat obstinate catarrh of the gall bladder as we do catarrh of the urinary bladder—first, by medical and general remedies; and those failing, to secure physiological rest by means of drainage.

### SUPPURATIVE INFLAMMATION OF THE BILE PASSAGES AND THEIR RELATION TO MICRO-ORGANISMS.

At first sight suppurative inflammation of the gall bladder and bile ducts would seem to be capable of description in small compass and under one heading, but the subject is by no means as simple as it would appear. For instance, simple empyema or suppurative catarrh of the gall bladder, which is closely allied to suppurative cholangitis, differs *in toto* from phlegmonous cholecystitis, which however is also associated with pus in the gall bladder, that may quite properly be called an empyema, but which is one of the most fatal of diseases if not operated on expeditiously, as not only is there a tendency to gangrene, but to a rapidly-spreading lethal peritonitis.

The different clinical characters of suppurative inflammation can probably be accounted for by the presence or absence of certain organisms; and although the bacteriology of this region is still in its infancy, sufficient good work has been done to make a review of it well worth considering.

Normal bile is generally sterile; this was proved by Nettel[4] in 1884, who experimented on dogs, and the fact has been confirmed by Gilbert and Girode,[4] and later by Naunyn,[5] who found it sterile in two cases within a few hours of death. The fluid secreted by the gall bladder may also possess slightly antiseptic properties.

Frequent inoculative experiments on animals have confirmed these observations, thus explaining a well-known fact that in many cases bile has been extensively poured out into the peritoneal cavity without setting up peritonitis; but the fact of healthy bile doing no harm for a time must not lead operators to be careless of extravasation when operating for disease of the gall bladder or bile ducts, as in such cases the bile is seldom or never sterile, and in that condition it is capable of producing severe peritonitis.

Bloch has demonstrated that the bile in cases of disease of the gall bladder or bile ducts always contains micro-organisms; hence he thinks it advisable to perform cholecystotomy in two stages, in order to avoid soiling the peritoneum and producing infective peritonitis.

When the flow of bile along the ducts is arrested, micro-organisms often invade the gall bladder either from the blood or the intestine.

Charcot and Gombault[6] demonstrated the organisms within it after ligaturing the common duct in dogs. In simple catarrhal empyema of the gall bladder, organisms, though probably present, are not always easily discovered; for instance, in a case where a tumour of the gall bladder had been present for a year, and from which I removed 16 gall stones and 2 ounces of thick, creamy muco-pus, Dr. Buchanan failed to find any organisms.

In this case the walls of the gall bladder were not thickened, and the serous coat was free from inflammation. Moreover, there were no adhesions except over the cystic duct where the largest gall stone had been impacted.

On the other hand, Mr C. B. Lockwood[7] found streptococci and other organisms, but no amœbæ coli in an empyema of the gall bladder. Terrier[8] states that he has proved organisms, both bacilli coli communis and streptococci, to be present in all cases of inflammation of the bile passages.

In acute or phlegmonous cholecystitis the walls of the gall bladder are swollen and œdematous, and may be infiltrated with pus. In three out of five of such cases Naunyn found the bacilli coli communis in the pus. Drs. Gilbert and Girode[9] found typhoid bacilli in the pus from a case of empyema of the gall bladder, which came on as a sequence of enteric fever. Gilbert and Dominici[10] also assert that they produced suppuration in the gall bladder and liver of rabbits by injecting a culture of typhoid bacilli into the common duct.

These biological facts are borne out by the clinical observations of Dr. Murchison and Dr. Hale White, who have found evidence of inflammation and ulceration in the gall bladder

in well-marked and fatal cases of typhoid fever, there being no obstruction to the passage of bile or other cause than the specific disease to account for the trouble. Chiari[1] investigated systematically a series of twenty-two cases of typhoid fever. With the exception of three cases, one of which was in the infiltrating and two in the necrotic stage, he obtained typhoid bacilli invariably out of the gall bladder, and in fifteen cases they were obtained in pure culture. How do they reach the gall bladder? There are three possibilities: either they enter by the bile ducts or from the blood, or directly through the wall of the gall bladder. The last-mentioned manner must be very exceptional. Their entrance from the blood has been apparently disproved, and it is therefore probable that they enter by the bile ducts.

### Simple Empyema.

Suppurative catarrh or simple empyema or suppurative cholecystitis of the gall bladder is, as a rule, associated with gall stones, but tumours of the bile ducts, typhoid and other fevers, and other unexplained conditions, may also be the predisposing factors, though infection by pyogenic organisms is probably in every case the true exciting cause.

Empyema of the gall bladder must always be looked on as a serious affection, both on account of its causes and its sequelæ, but from a clinical standpoint there is one form which is decidedly less serious than the other. The less serious I prefer to discuss first under the term simple empyema of the gall bladder; the more serious form I shall consider as a distinct and special disease under the name of phlegmonous cholecystitis.

In simple empyema the symptoms will at first depend on the cause, and as this is, in the great majority of cases, cholelithiasis (Courvoisier found empyema to be caused by gall stones in forty-one out of fifty-five cases) there will be the usual history of gall-stone seizures, followed by a swelling under the right lobe of the liver, and by a continued instead of an intermittent pain.

At first the constitutional symptoms may be only slightly marked, but after a while the loss of appetite, fever, and general *malaise*, usually lead to loss of flesh and weight. As a rule there is no jaundice, or only a slight icteric tinge, dependent on associated catarrh of the bile ducts. Tenderness is nearly always present in consequence of the local adhesive peritonitis, which is rarely absent.

The tumour, if seen in an early stage, will move with respiration, descending with the liver and being felt as a rounded swelling. After a time the swelling may become more diffused and general, and the movements during respiration will be less marked or may cease, owing to inflammation extending to the abdominal walls. If the suppuration extends beyond the gall bladder, the pus may make its way through the parietes, and an abscess may form under the ribs, as in the case under the care of the late Mr. McGill in Leeds Infirmary, where a superficial abscess was opened under the right costal margin, giving exit to a quantity of pus and a number of gall stones. The pus usually, however, selects a more tortuous passage, and, following the suspensory ligament of the liver, it reaches the umbilicus. The abscess may even burst at a distance from its origin, for instance, over the pubes, or over the cæcum. There are generally peritoneal adhesions which prevent extravasation into the general peritoneal cavity, but the pus may make its way into neighbouring organs such as the liver.

In speaking of fistulæ, I shall have to mention cases in which an empyema has burst into the colon, duodenum, right renal pelvis, stomach, portal vein, vena cava, etc.

If we bear in mind the pouch of peritoneum I have described, it is not to be wondered at that a collection of pus should at times form in that region resembling a perirenal abscess, though inside the peritoneum and limited by adhesions.

Needless to say, an abscess of the gall bladder only requires treating on general surgical principles by opening and drainage; but, at the same time, the cause must not be overlooked, as it may often be removed at the same time that the abscess is evacuated. Where the pus is in the gall bladder cholecystostomy will be advisable. After exposing the gall bladder it will be wise to aspirate before opening it, in order to avoid soiling the tissues with pus. The walls of the gall bladder may be found so rotten as to be incapable of holding sutures; or, as in a case lately recorded by Dr. Willie Meyer there may be small abscesses in the inflamed wall of the gall bladder itself. In such cases cholecystectomy may be required. In abscess due to empyema of the gall bladder forming at a distance from the seat of origin, it may be wise at first simply to open and drain the abscess, and on some future occasion to perform cholecystotomy.

### Acute Phlegmonous Cholecystitis and Gangrene of the Gall Bladder

Acute or phlegmonous inflammation of the gall bladder was described by Courvoisier in 1890, under the name of acute progressive empyema of the gall bladder, and he states that it usually terminates fatally in a few days from diffuse peritonitis. It is also mentioned by Potain and Osler, and cases have been published by Mr. Arbuthnot Lane and Mr. Marmaduke Sheild.

*Symptoms.*—Although the condition is usually associated with gall stones, acute cholecystitis may arise quite independently, in this way resembling appendicitis, which may occur without the presence of foreign bodies. Typhoid and typhus fevers, cholera, malaria, sepsis after operation, puerperal fever, and other unknown conditions may give rise to it. Whatever be the cause, the disease usually manifests itself somewhat suddenly with pain on the right side of the abdomen, rapidly becoming general. A rapid and feeble pulse, quick thoracic breathing, fever, intense depression, marked tenderness on pressure, especially over the right side of the abdomen, rapidly developing tympanites, persistent vomiting, and an extremely anxious expression of countenance are usually present. The acute peritonitis, which is significant of the disease, may be localised at first, but later becomes general. Jaundice may or may not be present, and although an elevation of temperature is usual, it is by no means constant and affords only slight assistance in the diagnosis or prognosis. If the disease be of the very acute or gangrenous variety death speedily occurs, but if of the subacute form an abscess may develop around the gall bladder and the peritonitis may become localised, the disease then resembling a perityphlitic abscess in its course.

*Diagnosis.*—The diagnosis of phlegmonous cholecystitis practically resolves itself into the diagnosis of the cause of acute peritonitis, starting on the right side of the abdomen; the chief affection for which it is likely to be mistaken is acute appendicitis. In appendicitis the pain begins at a lower point in the abdomen and passes towards the umbilicus, whereas in gall bladder trouble it begins below the right costal margin and passes towards the epigastrium and back to the right scapular region. In all gall bladder inflammations there is almost invariably a tender spot a little above and to the right of the umbilicus, or to be more exact, at the junction of the upper two-thirds with the lower third of a line drawn from the ninth rib to the umbilicus. In appendicitis there is in the same way a tender spot at the junction of the outer third with the inner two-thirds of a line drawn from the umbilicus to the anterior superior spine of the ilium, known as McBurney's point. The symptoms of acute peritonitis and paralytic obstruction of the bowels are common to both. Fortunately the treatment by exploratory incision is appropriate to the various conditions mentioned, so that no serious error is likely to arise in case of mistaken diagnosis.

*Treatment.*—As soon as the diagnosis of phlegmonous cholecystitis can be established, and it is found that the patient is getting worse, an exploratory incision should be made and the gall bladder incised and drained, the cause, if found, being removed. If, however, gangrene be discovered, the gall bladder should be removed, the indications for that measure being as distinct as in the case of a gangrenous vermiform appendix. If in the subacute cases the inflammation becomes localised and a swelling with tenderness be found beneath the right costal margin, incision and drainage are called for, when at the same time cholecystotomy may be performed, and if gall stones be present in the gall bladder or ducts they may be removed. If the patient be too ill to bear a prolonged operation the latter procedure may be left to a subsequent occasion.

Gangrene of the gall bladder is probably only an extreme degree of phlegmonous cholecystitis. It is extremely rare, and, so far as I know, the case reported by Dr. I. W. Hotch-

kiss in the *Annals of Surgery*, February, 1894, is the only one recently recorded, though on looking through Guy's museum I found a well-marked specimen of gangrene of the gall bladder (No. 1,397). In order to explain the occurrence of gangrene three factors have to be borne in mind: (1) Thrombosis of the nutrient vessels. (2) Bacterial infection. (3) Absence of drainage and therefore tension.

The two latter are present in both gall bladder and appendix inflammation, but the first factor is more frequent in the vermiform appendix, which is only supplied by one nutrient artery, whereas the gall bladder has a very free blood supply, not only through the branches of the cystic artery, but also through their anastomoses with the hepatic vessels, where the gall bladder is fixed to the liver. In Dr. Hotchkiss's case there was an abnormal circular constriction of the gall bladder with lymph infiltration, which was apparently sufficient to cut off the blood supply from the extremity of the gall bladder.

### INFECTIVE OR SUPPURATIVE CHOLANGITIS.

Infective or suppurative cholangitis, or suppurative catarrh of the bile ducts, is a subject of deep interest to the surgeon, since the medical treatment of this ailment, as of angiocholitis in general, is somewhat limited in its beneficial results. Until recently infective cholangitis was a frequently fatal disease, it being serious not only on account of its causes, but from the combined effects of biliary obstruction and stagnation with septic infection, and their local and constitutional effects.

*Causes.*—Cholelithiasis is by far the most common cause, and in the museums there are several cases illustrating it. Hydatid disease causing infective cholangitis is apparently not rare, as specimens in the museums of St. Bartholomew's, Guy's, St. George's, and Middlesex Hospitals show. I have successfully operated on a case of this nature, and Mr. Jonathan Hutchinson, jun., on another. Malignant disease is a common cause. There is an excellent example in St. Thomas's Hospital Museum, where the ducts throughout the liver are dilated and filled with pus, the infective cholangitis being dependent on malignant disease of the papilla of the common bile duct. Typhoid fever furnishes the museums with several specimens of infective cholangitis and cholecystitis. The causes mentioned may be truly termed predisposing, since the true exciting cause is the presence of pyogenic organisms. The B. coli communis produces an exudative inflammation of the ducts, and may actually cause abscesses within the walls of the biliary passages. Hepatitis and liver abscess frequently follow on cholangitis, and this is usually followed by general and fatal infection of the system. Endocarditis is at times set up, and as it has been known to follow cholangitis without hepatitis,[12] and cholangitis without abscess, this cause should never be lost sight of in any case of ulcerative endocarditis. The bacillus in these cases in the vegetations on the inflamed endocardium has been found to be identical with the one found in the bile.

*Symptoms.*—In suppurative cholangitis there is progressive enlargement of the whole liver, which may descend as low as the umbilicus, the swelling being uniform, smooth, and tender to pressure. If the cause be in the common duct, and the gall bladder has not previously become contracted, there will be the additional enlargement caused by its distension; but when contraction has taken place, and also when the obstruction is in the hepatic duct, there will be an absence of the signs of empyema of the gall bladder. Pain may be entirely absent, as in one case on which I operated, where the disease was dependent on cancer of the common duct; but where it is dependent on gall stones the pain may be severe and paroxysmal, each attack being accompanied by ague-like seizures and an intensification of the jaundice. Jaundice is always present, and is usually both persistent and intense. Continued fever, with occasional rigors and profuse perspiration, forms a feature of the disease, and with this there are rapid loss of flesh and strength. Pneumonia and pleurisy, ending in empyema, are sufficiently common to be characterised as distinct concomitants of suppurative cholangitis; in less acute cases hepatic abscess may develop.

*Treatment.*—Unless evacuation and drainage of the infected contents of the bile passages can be accomplished, treatment is practically useless. Cholecystomy should, therefore, be performed, and free drainage established and continued unt the bile is sterile or nearly so. If a localised abscess be discovered in the liver, it should be opened and drained; and though it is scarcely to be expected that operation can always be successful in these serious cases, the chance of permanent benefit is worth snatching at—even in the most desperate conditions. Of general means, warm applications to the hepatic regions, an initial mercurial purge, followed by milder laxatives, intestinal antisepsis by administering bismuth and salol, the relief of pain by sedatives if called for, and the treatment of symptoms as they arise, will afford some amelioration, though they will probably only give temporary relief.

The chief credit of specially operating for cholangitis belongs to M. Terrier, who writes in the *Revue de Chirurgie* for 1895, p. 966:

> Thanks to the opening in the gall bladder, a certain number of important therapeutic results follow: (1) The septic contents of the gall bladder are evacuated; (2) calculi which are most frequently present there are removed; (3) the other biliary passages more or less obstructed, either by calculi or by swelling of their walls, are rendered as free as possible; (4) the septic bile is allowed to escape, and mechanically washes out the lower passages, carrying away through the drainage tube many of the infectious ailments; (5) the relief of pressure prevents absorption of the septic elements; (6) the relief to the kidneys by allowing the bile to escape freely is also of importance, as they are thus enabled to perform their function more freely in relieving the system of septic and other materials.

### ULCERATION.

Ulcers of the gall bladder or bile ducts vary greatly in number, size, and depth, as also in clinical importance. Although cholelithiasis is the most frequent, typhoid fever and cancer are quite common causes. Cholera and tubercle are said to produce ulceration of the bile passages, but I have been unable to find any specimens in illustration. Ulceration is chiefly of importance on account of the serious sequelæ—stricture, perforation, fistula, peritonitis (local or general), hæmorrhage, septicæmia, and pyæmia. The inflammation accompanying ulceration usually extends to the peritoneal coat at the site of the ulcer, and leads to a plastic peritonitis, which causes the adjoining organs to adhere to the inflamed surface, thus in the greater number of cases keeping the peritonitis local. The adhesions may, however, either by the anchoring of normally mobile organs or by subsequent contraction, themselves become sources of inconvenience or danger. On the other hand, the peritonitis may become general, and under such circumstances prompt surgical treatment will be required or death will speedily follow.

*Hæmorrhage.*—As the ulcer extends the vessels usually become thrombosed, but occasionally severe hæmorrhage results, leading either to hæmatemesis or melæna. It is to be borne in mind that hæmorrhage is predisposed to in these cases by the aplastic condition of blood occurring in long-standing jaundice. As ulceration is always associated with the presence of pyogenic organisms septic absorption frequently occurs, leading to constitutional disturbances in the shape of septicæmia and pyæmia as described under infective choleangitis. Although cancer may lead to ulceration, it seems probable that long-standing ulceration of the gall bladder or bile ducts may predispose to malignant disease, as they are so frequently associated.

### STRICTURE.

Stricture of the bile ducts is one of the rarer sequelæ of ulceration, by which it is probably always preceded, except in those cases dependent on malignant disease, which I do not propose to consider under this heading; the only other common cause is cholelithiasis. Stricture may only render itself evident after the original cause has passed away, as in three cases of stricture of the cystic duct and one of the common duct, where I myself removed the cause in the shape of gall stones, and subsequently had to treat the strictures which afterwards developed; and in another case of stricture of the common duct, where the history of gall stones was indubitable, though none were found when the abdomen was explored.

*Symptoms.*—If in the cystic duct stricture leads to a gradual enlargement of the gall bladder, which may or may not give rise to pain. If in the common duct, jaundice supervenes, at first being only slight, but ultimately becoming severe, and being associated with all the usual symptoms of chronic

icterus; the liver enlarges, and may descend to the level of the umbilicus. The gall bladder may also enlarge, though if gall stones have been the cause the gall bladder may have become contracted and so be incapable of distension. Stricture of the hepatic duct is probably extremely rare, for I can only find an account of one case by Dr. Wyeth. A form of stricture, not common, may be found in the gall bladder, converting that ordinarily pear-shaped cavity into the form of an hour glass. I have met with this condition twice in operating, and a specimen in the Middlesex Museum shows it very well.

Needless to say, stricture of the bile passages will scarcely call for diagnosis apart from its cause, though different treatment will be demanded when the disease is recognised at the time of operation. In stricture of the cystic duct the gall bladder should be removed; or, as an alternative, the gall bladder may be short-circuited into the intestine, as in the case reported by Mr. Paul in the *Lancet* for March 24th, 1895. In stricture of the common duct, cholecystenterostomy must be performed, otherwise a permanent biliary fistula will certainly follow. At times, however, this may be impracticable, and in such cases drainage alone may be feasible.

### Perforation of the Gall Bladder and Bile Duct.

Perforation of the gall bladder or bile ducts must always be serious on account of an escape of the visceral contents into the peritoneal cavity, the imminence of the danger, however, depending on two factors—first, the nature of the extravasated fluid; and, secondly, the time allowed to elapse before surgical relief is afforded. The presence of healthy bile in the peritoneum, such as might occur from an injury such as a stab, a bullet wound, or a blow in a healthy individual, may be tolerated for some time without serious damage, as in a case recorded by Thiersch, who successfully removed over forty pints of bile from the abdominal cavity after the gall bladder had been ruptured by a blow. Such a fortunate result cannot, however, always be looked for, as is shown by the specimens in some of the museums, although from the histories appended to them it is probable that the fatal event might in most cases have been averted by early operation.

*Rupture of the Bile Duct due to Injury.*—Mr. Battle has reported a fatal case of rupture of the common bile duct in a boy, aged 6 months, who had been run over by a cab. This is apparently the first recorded case of such an accident, but I found in Guy's Museum (No. 1417) a specimen from a case of Mr. Bryant's, where there is a laceration of the hepatic duct near its origin, in which death occurred from peritonitis after a week's illness, two pints of bile-stained fluid mixed with blood clots being found in the peritoneal cavity.

Gunshot wounds of the gall bladder are rare. Courvoisier has mentioned six cases, of which two died within a few hours, a third in six weeks from pyæmia, and a fourth from septicæmia. The case related by Hans Kehr is, therefore, of considerable interest, as immediate laparotomy with suture of a bullet wound in the gall bladder of a man, aged 30, was followed by recovery.

It is of far more serious moment when the extravasated bile is diseased, as it for the most part is where there is distension of the gall bladder, or any disease of the bile ducts; for in such cases the bile is infective, and rapidly sets up a diffuse peritonitis, which, unless speedily operated on, ends fatally. Even in such cases, if the diagnosis be made at once, and early operation done, the prognosis is good, as is shown in cases reported by myself and Mr. Arbuthnot Lane.

One of the most remarkable cases of perforation of the gall bladder, following typhoid ulceration, successfully treated by abdominal section, is reported by Dr. Monier Williams and Mr. Marmaduke Sheild, in the *Lancet* of March 2nd, 1895. The patient was a married woman, aged 31, who was operated on on the fifty-first day of the disease, when the gall bladder was found to be rigid, thickened, and of a dark plum colour, with a sharply circular, sloughy ulcer, the size of a threepenny piece, near its neck, the gall bladder containing 1½ ounce of thick offensive pus; the abdomen was washed out, the distended intestines were emptied by puncture, and gauze packing with drainage adopted, the result being a complete cure.

In cases of rupture of the gall bladder from sudden pressure, induced by straining at stool, by vomiting, sneezing, efforts in parturition, and even by blows over the hepatic region, there is in all probability in the greater number of such cases, a predisposition to rupture in the shape of thinning by ulceration or by long-continued distension, otherwise the accident would be much more common. The risk of such an accident shows conclusively to my mind that it is folly to permit patients with distended gall bladders, even though symptoms be only occasionally present, to go unoperated on.

A careful operation in these cases is almost devoid of risk, but rupture is hazardous in the extreme. Massage in cases of distended gall bladder I look on as the height of folly, though it has been advised by those who should know better. Attempts to force impacted calculi onward by pressure are well calculated to rupture the thinned wall of the gall bladder or bile ducts, or to cause perforation through the base of an ulcer, leading to extravasation of germ-containing fluid into the general peritoneal cavity, and probably to fatal peritonitis.

In the greater number of cases perforation occurs slowly, as in the case of an aged woman I saw with Dr. Chadwick a few days before the patient died, where jaundice had been present for five years, and at the necropsy a large gall stone was found lying in a cavity outside of but pressing on the common duct. The adventitious cavity was shut off from the general cavity of the peritoneum by adhesions of the neighbouring viscera. In some cases the primary perforation may lead to the formation of a second cavity bounded by plastic lymph, which may again rupture and lead to a fatal peritonitis.

The perforation may occur into adjoining parenchymatous organs, and on several occasions I have removed numbers of gall stones from cavities in the liver produced by ulceration and perforation of the gall bladder or bile ducts and direct passage of the contents into the liver tissue. In such cases there are the usual signs of liver abscess following on the ordinary symptoms of gall stones, which may have been present for years. If the ulceration and perforation occur from the common duct into the substance of the pancreas, acute pancreatitis may follow; or without perforation, an infective inflammation may pass from the common bile duct to the pancreas, as in a case recently reported by Dr. Kennan in the British Medical Journal for November 14th, 1896, in which a woman aged 38 died of collapse after two days' illness, characterised by epigastric pain, vomiting, and abdominal distension. A *post-mortem* examination revealed acute pancreatitis with a large number of stones in the gall bladder and common bile duct, one of the concretions protruding into the duodenum.

If the ulceration advance towards the adjoining hollow viscera, adhesions as a rule form, and the perforation is effected quietly. In one case of this kind which I saw after a history of cholelithiasis followed by severe stomach symptoms, the gall stones were vomited, and complete recovery followed. Rarely gall stones have perforated into the pelvis of the right kidney, producing symptoms of renal calculus. Not infrequently the perforation may occur after adhesion to the parietal peritoneum, when the events described under simple empyema, of a superficial abscess discharging gall stones, may follow. Specimens in the museums show that although adhesions may have formed, the process of ulceration into a neighbouring cavity is by no means always free from danger of perforation into the general peritoneal sac. There is also another danger which should by no means be despised, and that is absorption, with subsequent septicæmia or pyæmia.

The symptoms of perforation of the bile passages are those of perforative peritonitis from other causes, but there will usually have been premonitory symptoms pointing to the origin of the disease, such as jaundice, and a sudden pain beneath the right ribs. Jaundice, if not present before the accident, usually comes on from absorption of biliary pigment by the peritoneum, and if the bowels can be moved the motions will usually be clay coloured.

*Treatment.*—In these cases medical treatment is useless, and to give opium for the relief of pain so disguises the symptoms that a fatal sense of security is given for a time, and when the mistake is discovered it is too late to operate. As soon as it is clearly made out that perforation has occurred, or even if it be suspected that such is the case, the abdomen should be opened in the right semilunar line. If pus and bile be found they should be rapidly wiped away with gauze or wool sponges, and if the extravasation has gone beyond the local area of disease, the abdomen should be flushed with hot boracic lotion. The patient may be too ill to bear a pro-

longed operation, and, if so, free drainage will probably do all that is necessary. If the patient be in sufficiently good condition to permit a search for the rupture, and it can be found, it may be closed by fine silk or catgut sutures; but, as a rule, it will be wise to open and drain the gall bladder at the same time. Should marked cholecystitis be found the question of cholecystectomy may be worth considering, but when the patient is in a critical condition it is a mistake to attempt too much, and, as a rule, cleansing and free drainage will be all that are necessary or advisable at the time, the removal of the cause being left until the patient is better able to bear a prolonged operation.

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# THE MILROY LECTURES

# ON QUARANTINE.

*Delivered before the Royal College of Physicians of London, March, 1897.*

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[ABSTRACT.]

DR. MILROY'S STUDY OF QUARANTINE.

I WAS led to choose the subject of quarantine for these lectures not only because I deem it to be of the utmost practical importance to a commercial country, but also because of the close relation of the subject with the name of Dr. Gavin Milroy, the founder of these lectures. To his labours to overthrow an obsolete and oppressive system, and to further the interests of commerce without jeopardising the public health, is due to a large extent the present free and unrestricted intercourse enjoyed with all parts of the world by our merchant navy. Though it was not his lot to see the full fruition of his work, his name will always be honourably associated with the public health defence.

## DEFINITION.

In considering the question of quarantine it is important to define the term, inasmuch as the word has been applied indiscriminately to many different systems. Limiting the word to preventive measures designed to prevent the importation of disease into a country by means of maritime commerce, it may be defined as "the enforced detention and segregation of vessels arriving in a port, together with all persons and things on board, believed to be infected with the poison of certain epidemic diseases for specified periods." At first such periods were purely arbitrary, and bore no reference to the possible incubation period of the diseases against which they were directed. Later, with the advancement of medical science, there was some attempt in a crude way to make the detention correspond with the supposed duration of incubation or latency of the poison. The essential point of quarantine at its earliest inception up to its fully developed existence at the present day is that it estimates the danger, and thereupon the precautions to be taken, according to the state of health of the port from whence the vessel has arrived, and has no reference to the condition as regards health or sickness of the vessel and its inhabitants. Though quarantine has been employed as a protection against many diseases, originally it was against the danger of plague only that it was directed.

## EARLY QUARANTINE REGULATIONS.

The first known law for the seclusion of persons from infected districts for a probationary period was enacted under the Emperor Justinian in 542. The earliest definite regulations against the spread of disease are those contained in letters sent by Duke Bernados to the prefects in 1374, when plague was devastating Lombardy, in which it was ordered that any person who should be attacked with any disease should forthwith leave the city or camp in which he was at the time, and should go into the fields or the woods until he either died or was set free; and further following exactly the idea of the Jewish Levites the priests of the parish churches were ordered under severe penalties to examine the sick, and report the nature of their sickness to certain officers appointed for the purpose. Those who attended on the sick were ordered to remain isolated for at least ten days after the death of a patient before they held any communication with other persons. None but those appointed for the duty were to be allowed to attend upon the sick under penalty of confiscation of goods and life. In 1383, when the plague again invaded Lombardy, Bernados ordered that no persons should be allowed to enter his kingdom from any infected place under penalty of the yoke *(sub pœna furcarum)*; while in 1399 John Galeaz, Duke of Milan, for the same reason had guards placed at the gates of the city with instructions to prevent anyone entering who had come from a plague-stricken district. It was at the same time enacted that no house in which a case of plague had occurred should be again inhabited until it had been purified by fire, and freely opened up for eight or ten days. These, however, were but solitary instances of precautionary measures. While trade was small and confined within narrow limits the danger from infection, scarcely yet believed in, called for no extraordinary measures of defence. Soon commenced the great movement of the Crusades. Whatever the motives of those who took part in them, one great result was the opening up of trade with the East.

The laws of quarantine, at first very imperfect and very varied in their form and restriction in various States, all alike had their origin and bases in the one fundamental idea—namely, the doctrine of communication of disease by means of contagion.

According to Boccaccio, Florence had adopted measures for its preservation from imported disease in 1348; but to the Venetians must be given credit for the first complete code of quarantine regulations. Venice was at that time the great centre of trade with the East, and its inhabitants were therefore more exposed to the importation of disease than those of any other State. According to Baker,[1] it is probable that their first regulations were issued as early as 1127, but in 1448 a complete code was issued which served as a model for all others up to a very recent period. It laid down as a principle that plague—against the introduction of which quarantine was established—was a contagious disease capable of being conveyed by contact, and by contact alone as regards persons, and capable of engendering a contagious matter—a fomes—capable of adhering to certain inanimate substances, of being retained by them for an almost indefinite time without losing its activity, and, on the other hand, incapable of attracting itself to other inanimate substances, and which might consequently be handled with absolute impunity and security. All merchants and persons coming from the Levant were compelled to remain in the house of St. Lazarus[2] for a period of forty days before admission into the city.

## ORIGIN OF BRITISH QUARANTINE REGULATIONS.

The merchants settled in Turkey appear to have established certain definite precautions against the plague, and British merchants, who were not established there until close on the sixteenth century, doubtless influenced by their predecessors, at once began to adopt similar protective measures. These, however, were optional on their part, and were not required by the law of the land.

In 1603 an Act for the "relief and ordering of persons affected with plague" was passed, but this provided only for the isolation of persons in the country, and contained no provisions as to maritime quarantine. In the year 1636 the question was referred to the College of Physicians, and certain *Directions* were issued by them. The second article states:

> It is likewise necessary that there be care taken that neither man nor goods may come from any suspected places beyond the seas, or in places within the land, without certificate of health, or else either to be sent suddenly away, or to be put to the pest house (or such like place) for forty days, according to the custom of Italy

When these articles were republished in 1665, the changes made justify the inference that quarantine had been at that time definitely established, and it was no longer necessary to recommend its imposition

### British Quarantine Legislation.

The first quarantine Act in England was passed in the ninth year of the reign of Queen Anne. Up to this period all quarantine regulations were issued by the King in Council without the intervention of Parliament. This is clearly shown in the preamble of the Act. This Act, like nearly all the subsequent ones, was passed under the influence of panic, the plague then raging in the Baltic.

Upon another alarm of plague at Marseilles in 1720 a second Quarantine Act was passed to continue in force for three years only, and the outbreak of plague at Marseilles was the occasion for the passing of two Acts in the following session. All these three Acts, being temporary, expired, whereupon the Act of Queen Anne again came into force. In the first year of the reign of George II another Act, nearly word for word with that of George I, was passed. The power of prohibiting intercourse with any country for twelve months was conferred, and also power to prevent any person coming from an infected place under a penalty of £500. The exporter of goods was to forfeit double their value in addition to loss of ships and goods.

This Act again was only temporary, and expired in 1731. In consequence, however, of the appearance of plague abroad, it was revived in 1733 for a further period of two years. On it expiry in 1735, and until 1753, the Act of Queen Anne was once more the quarantine law of the land. In 1752 Parliament once more dealt seriously with the question, and two Quarantine Acts were passed in the following year, and came into force twelve months later. This was the first time that the Legislature had approached the subject deliberately, and without the fear of an epidemic hanging over them, and as a consequence the Acts passed were far more thorough and complete.

In the 26 chap., George II, the 12th clause enacted "That no goods nor merchandise liable to retain the infection of the plague, and coming from the Levant without a clean bill of health, shall be landed in Great Britain until it shall appear to the satisfaction of His Majesty that the same goods or merchandise have been sufficiently opened and aired at the lazarettos of Malta, Ancona, Venice, Messina, Leghorn, Genoa, Marseilles, or one of them." The powers as to dealing with individuals were very vaguely expressed: "They shall be subject to such orders as they receive from proper officers."

In spite, however, of the care bestowed upon the Quarantine Act, it was still from an administrative point of view very unsatisfactory. In all cases the details were left to the Privy Council—a body which had neither the time nor the means to attend to them properly.

In 1805 another Act was passed which, while in no way interfering with the existing system of quarantine, materially modified the charges which had been so serious a burden to the commerce of the country. A report of the Select Committee on the foreign trade of the country in 1824 states that the quarantine charges in many cases amounted to 35 per cent. of the value of the cargo, and one instance is given in which they exceeded 90 per cent., although there had been no sickness on board the vessel.

The last Act in this country was the sixth George IV, cap. 78, which repealed all former regulations and enacted that all vessels arriving from any places from whence His Majesty, by the advice of his Privy Council, shall have declared it probable that the plague or other infectious disease or distemper highly dangerous to the health of His Majesty's subjects may be brought, and all persons and goods shall be liable to quarantine.

By the 39 and 40 Vict., Cap. 36, the powers of the Privy Council were ordered to be carried out by Her Majesty's Commissioners of Customs; and this continued until the repeal of the Quarantine Act in 1896. Long before this, however, the enormously-increased importance of our foreign trade and the obvious futility of the strict enforcement of quarantine had excited the attention of thinking men.

Dr. McLean was one of the principal movers in this direction, and his able statement of opinion led the House of Commons in 1817 to refer the matter to a Select Committee, which arrived at the opinion that the plague is "communicable by contact only, and differs in this respect from epidemic fever," and added that "they saw no reason to question the validity of the principles upon which such (quarantine) regulations appear to have been adopted." But Sir William Pym, the Superintendent of Quarantine, recommended considerable relaxation of quarantine, giving as his reason that he had never known a single instance of a case of plague occurring in a vessel from the Levant, and his belief that, with due regard to ventilation, infection would not spread. Twenty years later Sir William Pym could say: "That there was no evidence to show that a single case of plague had ever been known to occur in any country from the manipulation of suspected or infected merchandise landed in a lazaret." The records of lazarets also proved that the disease seldom or never spread, even from the sick, to any other of the inmates or to the officials of the establishment.

Up to the beginning of the present century quarantine had been directed against plague only. Yellow fever was at that time scarcely thought of, and cholera was not recognised as a danger to Europe. The experience of quarantine (1831-1832) as a protection against cholera was most unfavourable, and so clearly was this recognised that on the second visitation in 1847 it was not relied upon.

### International Regulations.

A proposal for a general Congress of delegates from States having ports on the Mediterranean had been made by the French Government in 1838, but fell through owing to various difficulties which arose. A further attempt by the British Government to bring about a general conference in 1843 failed, owing to the view of Austria that such conference would be premature until exact information had been obtained from a Committee of Medical Authorities appointed to report as to:

1. The maximum and minimum terms of quarantine for persons.
2. The terms of quarantine necessary for goods and merchandise; and
3. The best measures for disinfection of objects susceptible of contagion.

Towards the close of 1844 a Commission was appointed by the Royal Academy of Medicine in France to report upon the whole subject. After a deliberation of more than twelve months they presented a most exhaustive report. Among its conclusions were:

That plague had arisen spontaneously in Egypt, Syria, Turkey, and in other countries, but could always be reasonably attributed to certain determinate conditions, the chief of which are residence upon marshy soil in low crowded, badly ventilated dwellings, especially in a warm, moist climate and atmosphere, exposed to the actions of putrescent animal and vegetable matter, unwholesome and insufficient food, and great physical and moral wretchedness.

That plague was not to any great extent transmissible beyond or away from epidemic foci for the following reasons:

That it was doubtful whether goods or clothing can convey plague during an epidemic, and certain that they cannot after.

That the period of incubation was as a general rule three to five days.

The Commission advises:

1. That for vessels having a medical officer on board from Egypt, Syria, or Turkey with a clean bill of health, the period of quarantine should be a full ten days, calculating from the date of departure, provided that no case had occurred on board. That with a foul bill this period should be fifteen days for a healthy vessel.
2. For merchant vessels without a medical man the same periods should be imposed, but that they should in all cases date from the time of arrival. The report itself is exceedingly valuable and instructive, but its conclusions do not in any way justify the severity of the practical recommendations.

In 1865 was published the eighth report of the Medical Officer of Health of the Privy Council, and the remarks therein made by Sir (then Mr.) John Simon,[3] marking by their clearness, power, and scientific accuracy a distinct epoch in the position of this country, remain and will remain as a record of his acumen and far-sightedness in this as in many other directions. But quarantine was not yet got rid of. Originally established to prevent the importation of disease, when this object was shown to be futile the system was still retained in order to prevent interruption to trade. It was clear that while other countries kept up the practice any official abandonment would only lead to an indiscriminate quarantining of British vessels. That this was no imaginary danger has been shown on many occasions.

In 1853 the countries where quarantine was most rigorously carried out were Spain, Portugal, Greece, and Sweden. As soon as cholera appeared in this country Spain called upon Gibraltar to impose quarantine upon all arrivals from our ports, and on account of some delay all communication with the mainland was at once cut off except such as was carried on by smugglers, and in self-defence the authorities were

compelled to yield. This same pressure during the present year has caused Gibraltar to impose quarantine upon vessels from Indian ports. Any hesitation to comply would have involved a complete cessation of the important defence works in course of construction there.

Again, in 1825, when some vessels with foul bills of health were admitted to pratique by order of the Government the whole United Kingdom was put in quarantine by the Mediterranean Powers, and every arrival from Great Britain subjected to a lengthy detention. And to quote one more recent instance, the *Helene*, a small German vessel which arrived in London in August, 1893, with two cases of cholera on board, was refused pratique at a South American port nine months later, the reason assigned being that she had not yet undergone quarantine, having been only subjected to disinfection in this country.

At the close of the cholera epidemic in 1851 on the invitation of the French Government, delegates attended at Paris from France, Great Britain, Austria, Russia, Turkey, Greece, Spain, Portugal, and some other Powers to consider the question. They decided:

That henceforth only two degrees of quarantine should be recognised, namely, quarantine of observation and quarantine of rigour, the quarantine of suspicion being abolished.

That only two forms of bill of health should be allowed, namely, clean and foul, and that these should be granted after the health of the port of departure has been properly ascertained, and not on conjecture as heretofore. That the measures taken should apply equally to the vessel, crew, and passengers in consequence of the health of the port of departure, and that no regard should be paid to the condition of health or sickness during the voyage in determining the nature of the quarantine which was to be directed against the infected country generally.

The diseases against which quarantine was to be employed were reduced to three, namely, cholera, yellow fever, and plague.

It is worthy of note that Austria opposed the inclusion of cholera, on the ground that she had tested quarantine against it in 1831, and found it not only useless but dangerous. England, France, and Sardinia alone opposed quarantine entirely, and stated that they had retained it only in consequence of the position of other European Powers. Spain and Portugal, while admitting that the utmost protection could be afforded by measures of general sanitation, held that till these have been universally carried out reliance must be placed on compulsory segregation.

Although the deliberations of the Conference lasted for more than three months, the total result was unsatisfactory in the extreme.

### Medical Inspection.

It had begun to be understood in this country that whatever advantages were supposed to be gained by quarantine could be more effectually gained by other and more reasonable methods. In 1848, when the old system was discontinued upon the recommendation of Dr. Southwood Smith, it was explained that, in place of the rigorous detention of vessels from infected ports with their crews and passengers for a lengthened period, a system of strict sanitary supervision of the vessels themselves and of all persons on board by a medical officer should be substituted.

The Social Science Quarantine Committee in 1861, after having submitted a long list of questions to Her Majesty's Customs and others, from the information thus obtained formulated a most valuable report, which was published by the Board of Trade. It recommended:

1. That under ordinary circumstances vessels which have had no sickness during the voyage, and are in good sanitary condition on arrival, should be admitted to free pratique without regard to the health of the port of departure.

2. When any detention of a vessel is necessary, either from the fact of sickness existing or on account of the foul or unwholesome condition of the vessel, a careful examination should be made of her and of all the persons on board by the quarantine medical officer, who should have power and should be charged with the responsibility of adopting such measures as each case demands. The healthy should not be detained, and the sick should be removed to hospital as speedily as possible. Where small-pox exists on board ship all unprotected persons should be vaccinated.

3. Vessels from abroad should be required to pump out their bilge water and clean their bilges before entering harbour, and the hold should be aired so far as possible before arrival.

4. Before a bill of health is given an examination should be made as to the sanitary condition of the vessel and the health of the crew, and the results of such examination noted on the bill of health.

5. Medical quarantine officers should be required to keep accurate records of all matters relating to quarantine, and to prepare an annual report thereon.

In 1868 a strong deputation, representing the medical profession, presented a memorial to the Privy Council, in which they urged that the subject of quarantine had for the last twenty years been under the notice of the public, and that the present system had utterly failed during its trial in 1831-32, and had moreover been productive of great inconvenience.

In 1873, so far as cholera was concerned, quarantine was officially abandoned, and medical inspection substituted by an order of the Local Government Board.

### The International Sanitary Conference of Vienna.

In 1874 another International Conference was held at Vienna, the object being "to arrange among the Powers interested compulsory regulations having as their object to bring about a perfect uniformity in the measures to be adopted against this common danger," and also to consider as to the advisability of establishing a permanent or temporary International Sanitary Commission. Twenty European States were represented, also Persia and Egypt.

This Conference reaffirmed the decisions arrived at at the Conference in Constantinople in 1866 that cholera originated in India, that it was transmissible by human agency, and that it might be conveyed from an infected place by means of clothing which had been worn, and especially by such as had belonged to persons suffering from cholera. They unanimously decided that the disease could be conveyed by fluids, especially by water. There was a want of unanimity on the question of danger of infection from merchandise. The incubation period of cholera was fixed at a few days, a week at the outside.

As to quarantine, a resolution of a Committee (appointed to consider the question) to the effect that when cholera had broken through the chief points of irruption, quarantines in the ports of Continental Europe were useless, inasmuch as land communications deprived them of all their value, was carried by a majority of 12 to 8 only. In the majority were Great Britain, Germany, Russia, Austria-Hungary, and Italy, France being the only Power of the first rank among the minority. The next resolution of the Committee, "Under these circumstances it is necessary to establish in the ports of Europe, instead of quarantine, a rigorous sanitary inspection of every vessel coming from an infected port, in accordance with the following regulation," was also adopted. Thus for the first time was medical inspection formally adopted in the place of quarantine by a majority of the European Powers, and in the case of those who still clung to the old system some important modifications were adopted. While, however, so large a minority refused to accept the decision of the majority, it was obvious that but little could be accomplished.

### The British Cholera Regulations.

In 1883 regulations were again issued by the Local Government Board for dealing with cholera, and these contained several important modifications from the order of 1873. The duty, in the first place, of deciding as to the state of health of the vessel on arrival devolved, as heretofore, upon the officers of Her Majesty's Customs, and the subsequent treatment of any vessel found to be infected upon the port sanitary authority. Independent authority was, however, given to the medical officer of health to visit and examine any vessel from an infected port, whether she had previously been visited by the Customs or not, and a form of certificate was given for the medical officer to use in any case in which he had reason to believe a vessel was "infected" within the meaning of the order. Upon the delivery of this certificate the vessel was entirely under the control of the medical officer of health.

In 1890 regulations were again issued, and power given to the medical officer of health to require in the case of an infected vessel (defined in the order as a vessel in which there is, or has been during the voyage or during the stay of such ship in a port in the course of such voyage, any case of cholera) the name and address of all passengers on board who were found on medical inspection to be healthy before they were allowed to leave. By forwarding such names and addresses to the sanitary authority of the district to which they were about to proceed, it was placed in the power of each district by timely notice of such arrival to protect itself by keeping such persons under observation so long as deemed advisable.

### The Dresden Conference.

In 1893 was held at Dresden the last International Sanitary Congress, at which were represented Germany, Austria-Hungary, Belgium, Denmark, Spain, France, Great Britain, Greece, Italy, Luxemburg, Montenegro, the Netherlands, Portugal, Roumania, Russia, Servia, Sweden and Norway, Switzerland, and Turkey. England was professionally represented by Dr. Thorne Thorne, the Medical Officer of the Local Government Board, to whose able advocacy of medical inspection the Conference in a great measure owes its successful results.

Three committees were appointed—the first to deal with the duties of a Government when cholera appeared in a country, the second to deal with the measures necessary to prevent cholera entering a country or spreading from one part of a country to another, while the third devoted itself to the Danube traffic. The convention was finally signed by the delegates of Germany, Austria-Hungary, Belgium, France, Great Britain, Italy, Russia, Switzerland, Luxemburg, Montenegro, and the Netherlands. This Convention, which will of necessity exercise a powerful influence upon all sanitary regulations of this country, will last for five years from the date of ratification. It will be renewed every five years by tacit consent, unless renounced by one of the high contracting parties six months before the expiration of this term. Such renunciation will affect only those countries which shall have notified. The Convention will remain in force for the other States.

Although the agreement arrived at does not establish a perfect system it marked a prodigious advance, and it must not be forgotten that there were great difficulties to be overcome and many prejudices to combat which could only be met by concession whenever possible without sacrificing the broad general principles involved.

The keeping under observation of healthy persons arriving in infected ships was thus agreed to by England, on the distinct understanding that this in her case would not involve any actual detention, but would be covered by the forwarding of the name and address to the sanitary authorities of the district to which they were about to proceed.

Shortly after this protocol had been signed a Bill was prepared to abolish quarantine in this country, but, owing to the change of Government and various other difficulties, it was not until September, 1896, that the Public Health Act became law. By this act the powers of the Privy Council to deal with cholera, yellow fever, and plague were transferred to the Local Government Board, who were thereby empowered to make regulations for the various sanitary authorities concerned.

These regulations now in force practically extend the cholera regulations with certain modifications to these three diseases. If a vessel is found to be infected by the officer of Customs, she is reported to the medical officer of health, who detains her and deals with her at his discretion. He has, moreover, the power of boarding any vessel for the purpose of ascertaining whether she is so infected without the previous intervention of the Custom authorities.

Thus for England quarantine has been formally abolished, and our protection henceforth against the importation of infectious disease will be medical inspection, without any vexatious detention of a healthy vessel merely because she has arrived from an infected port.

This shortly has been the history of quarantine in this country, and it now remains for time and experience to demonstrate to other countries the value of our system in order to induce them to accept the same conclusions. With many this will be readily brought about, while others will have more difficulty in arriving at the same opinions.

References.

[1] *Nautical Magazine*, 1806, p. 602. [2] Hence the term "lazarette" in use at the present day. There has always been considerable doubt as to the origin of the period of forty days which gave rise to the name of the system. It seems probable that it was derived from the Jewish ceremonial, and was continued under various systems and laws until it became a settled period, the origin of which was lost, and the only justification for which was its antiquity. [3] Report of the Medical Officer to the Privy Council, page 40.

*(To be continued.)*

## NOTE ON INTESTINAL GASES, PHYSIOLOGICAL AND PATHOLOGICAL.

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Lowestoft

It is hardly necessary to reassert that there are only three possible sources of gas in the gastro-intestinal tract, namely, (1) air swallowed, (2) gases transfused from or secreted by the blood, (3) gases arising from the fermentation of food stuffs. Apart from gases the result of fermentation, it is usually held that the most frequent cause of gastric flatulence is air swallowed with the food or saliva; in support of this statement we are told that the nitrogen in the gases of such cases occurs in about the same proportion as it exists in atmospheric air, and that carbonic acid gas is present in the same proportion as the oxygen in the air. The oxygen is presumed to be absorbed, and the carbonic acid gas transfused from the blood. This one can readily understand if one remembers that 100 volumes of arterial blood contain 20 volumes of oxygen and 40 volumes of carbon-dioxide, while in 100 volumes of venous blood there are 8 to 12 volumes of oxygen and 46 of carbon-dioxide, the nitrogen in both arterial and venous blood being merely 1 to 2 volumes to the 100.

In intestinal gases we find again that nitrogen is in a greater proportion than all the other gases. In meteorism resulting from a case of typhoid, according to C. A. Ewald, an analysis by puncture gave 8.3 per cent. carbonic acid gas and the remainder nitrogen. In a woman with a tight stricture of the rectum the gases obtained by means of a stomach tube consisted of 6.9 per cent. carbonic acid gas, 11.6 per cent. hydrogen, and 81.03 per cent. nitrogen. I do not intend to deal with the more simple problem of the presence of marsh gas after eating leguminous vegetables, or with the formation of sulphuretted hydrogen. The rapid production of intestinal gases after abdominal operations, in peritonitis and gastritis, in hysteria, in certain affections of the lungs and heart, renders the theory of an excretion of gases from mucous membranes of the intestines exceedingly probable.

I could enumerate from my notebooks numbers of cases in which such an explanation seems the only possible solution of the problem. As a step in the investigation of this subject, it occurred to me that in fishes we had an example of a physiological secretion of gases. The sound or air bladder in the fish is in some cases not connected in any way with the intestinal tract, although in many it is connected with the œsophagus, and in others, as the herring, with the caudal extremity of the stomach. The fact that in many species this connection is entirely absent, and in all cases is but a mere pore, renders it certain that the gases in the so-called air bladder must be obtained from the blood.

Since the cod is supplied with a particularly large sound, which has absolutely no communication with the intestinal tract or gills, I chose it for investigation. The wall for the most part consists of a dense, white, non-vascular, homogeneous membrane, but within the sound at one spot is a lobed, cauliflower-like, vascular organ, which lies free in the cavity of the sound. The function of this organ is apparently that of the secretion or absorption of gases. The next step in the investigation was carefully to collect and analyse the gases obtained from a fresh cod. This was done by means of an aspirating needle attached to an india-rubber bag, similar to those used in the making of air balls for children. I entrusted two specimens to Mr. Lincolne Sutton, public analyst of the city of Norwich, and the result of his analysis was: Bag 1: oxygen, 12.18 per cent.; nitrogen, 87.82 per cent. In Bag 2: oxygen, 17.95 per cent.; nitrogen, 82.05 per cent. If these gases contained carbonic acid gas, it was a mere trace, too small to measure. In his report Mr. Sutton remarked that the atmospheric gases in solution in natural waters contained about 34 per cent. of oxygen, and, on the contrary, in these specimens the proportion of nitrogen to oxygen was greater than in atmospheric air. This most interesting fact concerning gases, the origin of which is without doubt the result of a secretive process from the vessels of the vascular organ within the sound, suggests a series of problems upon which further investigation may throw valuable light.

In the first place, one can at present only speculate on

how the presence of such a large proportion of nitrogen is produced, although knowing the small proportion of nitrogen which exists free in the blood of warm-blooded animals it seems probable that an actual metabolic process must be brought into play. But we may fairly conclude from these analyses that the presence of a large proportion of nitrogen in the mixture of gases contained in any viscus does not necessarily imply that the origin of that gas is the atmospheric air. If one can argue that what is the case in cold-blooded vertebrata is probably true as regards warm-blooded animals it seems that we must reconsider our deductions concerning intestinal gases based on the fact of the predominating volume of nitrogen in both gastric and intestinal flatus; in other words, we have no right to assume that when we find nitrogen in about the same proportion as it exists in air that that nitrogen is the nitrogen of the air and that the other constituents have been altered by the peculiar nature of the environment, in the stomach the oxygen being replaced by carbonic acid gas, and in the intestines by hydrogen, carbon-dioxide, and marsh gas.

## THE TREATMENT OF LACHRYMAL OBSTRUCTIONS BY STYLES.

By R. SHALDERS MILLER, F.R.C.S.,
Windsor.

THIS little section of surgical therapeusis has probably been less successful than the operative treatment of other disorders of the eye and its subsidiary apparatus.

Since 1877, when I first became a clinical assistant at Moorfields, it has been my habit to treat all organic strictures of the lachrymal duct—that is, all parts of the outfall from the lower *punctum lacrymale* to the exit in the inferior turbinate sinus of the nose—by means of styles, in most cases permanently retained. Except for temporary wear, they should be made of pure platinum wire, about 25 gauge, and I always make them myself for each individual case. The shape, direction, and length of the nasal duct being variable, this special adaptation is the key to success in the use of styles, which consist of a vertical stem, with a short arm bent at or about a right angle to the stem. Usually this arm is made double by recurving the wire back to the stem, so that the arm consists of two thicknesses of wire, parallel and quite close together, the recurved part lying vertically beneath the other. In this way the slit in the edge of the lid is just filled up, but no metal is visible unless the lid be everted. Sometimes the furrow produced by slitting up the canaliculus is very shallow; then the arm of the style is single.

The length of the arm should be such that it completely but easily fills the slit-up canaliculus: it must not be tight. The stem should always be long enough to project through the lower opening of the ductus ad nasum in the inferior nasal sinus. The measure can be readily taken by passing a probe. The practical effect of a style in maintaining the patency of the lachrymal exit depends upon the lateral movements of the lower lid, imparted by those long straight muscular fibres which take origin at the tendo palpebrarum, and run horizontally outwards to the surface of the malar bone, and are anatomically quite separable from the oval bundles of the orbicularis proper. The tubular styles of the instrument makers are worse than useless; they soon become choked with mucus and dust. Also, in the case of the grooved styles, the necessarily thin edges of the furrow cause irritation and the production of a granulation which stops the way. The stem of a style should not be straight except in the case of a very short duct, but somewhat concave outwards.

The lower opening of the duct may be obstructed by an excessively incurved lower turbinate, but even this is scarcely an excuse for turbinotomy. I have found no difficulty in pushing a probe through the turbinate bone, and a style, made long, follows. Some of my patients have worn a platinum style for eight or more years without its ever having been removed from the moment of its first introduction.

In every case of lachrymal abscess a style ought to be used, for a time at least; in most instances it is needed permanently, but a temporary one must be first inserted of a form modified according to the amount of swelling in the part. Such style may be of lead or silver, and several different forms and sizes are sometimes desirable in succession, to suit the changing size and shape of the lid and canthus. I have found it necessary to make an eyed probe of lead, pass it through the duct and anterior naris, and, by means of a thread attached, pull a fine drainage tube through, and thus restore a lachrymal passage that had been obliterated by an encysted abscess for sixteen years. A platinum style was afterwards worn with a perfect result.

The wire has been drawn for me by Messrs. Curry and Paxton, and by Messrs. Coxeter and Son, and I have used some yards of it. It is well annealed, and very easy of manipulation.

## PERFORATING ULCER OF THE FOOT.

By CAREY COOMBS, M.D.,
Castle Cary.

A FEEBLE old woman, aged 72, showed me an ulcer in the sole of her foot about 1 inch long and wide, and $\frac{1}{3}$ inch deep, with hard white edges and a pale pink base. It had existed for thirty years, but she had not asked advice because she was afraid I should "cut it." The removal of some fragments of carious bone and the use of carbolic lotion gave her much relief, and the ulcer grew less.



The illustration shows the ulcer and the deformity of the foot resulting from the loss of phalangeal and metatarsal bones, but the shortening of the other foot is much more marked. In thirty years I have met with about twelve cases of this disease, about half of them in the great toe, which has in two cases required amputation. One old man who had lived for several years in Newfoundland, and who had a large plantar ulcer, consented to Pirogoff's operation: but when, under chloroform, the foot was thoroughly explored, so many fragments of the tarsal and metatarsal bones were removed, that it was thought better to leave the greater operation. The foot healed after a few weeks. The interest of this case arises from the family history; the woman's father suffered badly, the uncle slightly, from the disease. Two of her sisters, one brother, her daughter, and a niece have all had sore feet.

The ulcer begins as a swelling like a soft corn, under the great toe or sole; in the centre of this is the opening of a sinus leading down to the diseased bone. The ulcer rarely attains $\frac{1}{4}$ inch in diameter on the toe, but in the sole where

there is much more pressure it may be 2 inches across. Cold, damp, and scanty animal food are its proximate causes. The belief that it is allied to the bone changes in tabetic disease has prompted the use of nerve-stretching for its relief.

Chipault[1] publishes five successful results of stretching the internal and external plantar nerves. (Perhaps this treatment was suggested by the relief given to horses suffering from an analogous disease by neurotomy. Caries of the navicular bone has long been treated in this way.) Boyer, Cloquet, and Nélaton in France, and Hancock in England have described cases, and suggested treatment for perforating ulcer.

Reference.
1 British Medical Journal Epitome, October, 1895.

## A CASE OF OBSTRUCTED LABOUR DUE TO CONGENITAL DISEASE OF KIDNEYS.

By WILLIAM JAMES SPENCE, L.R.C.P., L.R.C.S.Edin.,
Syston, Leicester.

On January 2nd a message was left at my house requesting me to call whilst out on my round and see Mrs. S., who was expecting to be confined. At about 10.30 I was told that the membranes had ruptured at 8 P.M. the previous day, since which time there had been a continual dribbling of the liquor amnii, with weak pains at long and irregular intervals, but during the last hour and a half the pains had left her.

I found the os dilated to the size of a shilling, and through it I could make out the head presenting normally. I left with instructions that she was to remain in the bedroom, and that I was to be sent for immediately upon the recurrence of pains. Shortly before midnight I was sent for again, and upon arrival found the head somewhat lower and the os all but fully dilated. The pains recurred at intervals of about ten minutes, but were feeble, and little or no progress was made during the next hour or so. At a quarter past 1 I gave her a full dose of ergot, and some twenty minutes later the pains became stronger and more frequent, and as a result the head gradually but slowly descended, and was finally protruded about 2. The umbilical cord passed once round the child's neck, but this was easily rectified by slipping it over the head. The pains continued, and I assisted them by gentle traction upon the child's head, but without avail; the body remained firmly impacted, and no further progress was made. After careful exploration I tried traction upon the axillæ, but there was still no advance. I next brought down the arms, and after strong and continuous traction my efforts were successful and the child was born. As soon as the head was born the child gave three or four gasps, but was dead upon completion of delivery. The child, a female, was fully developed, weighed 9½ lbs., and measured 20½ inches in length. Upon examination of the body the cause of the delay was very apparent; the abdomen was enormously distended with two large indurated masses, one on either side. They occupied both flanks, almost meeting in the middle line, were movable, and could easily be manipulated through the abdominal parietes.

About 4 P.M. the same day, with the consent of the father, I opened the abdomen and removed the masses, which proved to be two enormously hypertrophied kidneys, weighing 25 ounces. An ounce or two of serous fluid escaped when I opened the abdomen, but there appeared to be no other abnormality.

The mother was 41 years of age, and had been married 17 years. She was first pregnant seven years ago. Since then she has had five children born at full term and one miscarriage. The miscarriage occurred a year last July, and she informs me that she was very ill at the time. The labours have all been tedious but otherwise normal. The diseased kidneys were placed in perchloride solution, and two days later I showed them to Dr. Bond, of Leicester, who kindly made sections of them, which he sent up to the Clinical Research Association, of 1, Southwark Street, London Bridge.

Mr. J. H. Targett, F.R.C.S., reported as follows: "Sections of this kidney have the usual structure of congenital cystic disease. I have examined several specimens of this disease in the fœtus, and they have all the same characters. Multiple small cysts are embedded in the loose vascular connective tissue, in which few glomeruli are to be seen. These cysts are lined with flattened epithelium, which looks like a string of beads when detached from the wall of the cyst. I have also noticed that the pelvis and ureters are very small if not actually impervious in these cases. As a cause of dystocia the condition is well known."

## A MODIFICATION OF HELLER'S METHOD OF STAINING MEDULLATED NERVE FIBRES.

By W. FORD ROBERTSON, M.D.,
Pathologist to the Royal Edinburgh Asylum.

In the British Medical Journal of November 28th, 1896, in the course of a report of a meeting of the Manchester Pathological Society, a short account was given of Heller's method of staining medullated nerve fibres, on the subject of which a communication had been made by Dr. R. T. Williamson. I had for some time previously been making observations on the staining action of osmic acid upon nervous tissues hardened in the chrome alum-copper fluid used in Weigert's new method for the neuroglia. After reading the description of Heller's method, which is carried out upon sections of tissues hardened in Müller's fluid, I applied the same staining process to the tissues with which I had been experimenting. The results obtained were most striking, the medullated fibres being deep black, and standing out with extraordinary distinctness on a practically colourless ground. I have carefully compared these preparations with others made according to the original Heller's method, and there can be no question of their superiority, the medullated fibres being much darker, and the other tissues more thoroughly bleached. It therefore seems desirable to publish an account of this modification.

Weigert's chrome alum-copper fluid is composed of chrome alum 2½ per cent., copper acetate 5 per cent., acetic acid 5 per cent., formalin 10 per cent. The chrome alum is boiled in the required amount of water, and when dissolved the acetic acid and copper acetate are put in. This solution is filtered when cold, and the formalin is then added. It has recently been pointed out to me that 10 per cent. of formalin is an unnecessarily large proportion of this agent. It has been found that this strength prevents staining of the chromatic granules of the protoplasm of the nerve cells, and that much weaker solutions harden quite satisfactorily. Probably, therefore, only about 2 per cent. of formalin should be used. Harden the tissues in this chrome alum-copper fluid for ten days or longer. Prolonged action of the reagent does not render them brittle. Wash the pieces for some hours in water after removing from the hardening solution for examination. Cut sections either by the celloidin or gum-freezing method. The latter is in most cases quite sufficient for brain tissue. The sections may be preserved in alcohol in the ordinary way. The following is the procedure that I have found most satisfactory in carrying out Heller's process upon these tissues: Place the sections in 1 per cent. osmic acid for half an hour (in the dark), then in 5 per cent. pyrogallic acid for half an hour, ¼ per cent. potassium permanganate for three to four minutes (brain sections for not more than one minute), 1 per cent. oxalic acid for three to five minutes. Wash the sections in water after treatment with each solution. Dehydrate, clear, and mount in balsam.

I have now applied this modification of Heller's process extensively to healthy and morbid nervous tissues, and I am satisfied that it presents great advantages as a method for demonstrating medullated fibres. The staining result is probably as distinct as that furnished by the Weigert-Pal method, and it can be obtained in a much shorter time. The whole process can be carried out within a fortnight from the time the tissues are placed in the hardening solution. The preparations are admirably adapted for lantern demonstration and for photography, and they are suitable for high as well as low power microscopic examination. They show degenerating fibres very distinctly, while tracts in which the myelin has wholly disappeared are colourless. The method gives excellent results with the delicate medullated fibres of

the brain, and on this account I believe indeed that it furnishes what has for long been a great desideratum, especially for the study of the morbid changes occurring in this tissue element in insanity. The sections may be satisfactorily counterstained in various ways, hæmatoxylin especially giving good results. The nerve cells are beautifully preserved and stain fairly well. As yet, however, I have not been able to obtain satisfactory staining of the chromatic granules of the protoplasm. It seems probable that this circumstance is due, as indicated above, to the strength of the formalin in the hardening solution, and that, if this was reduced to about 2 per cent. these granules could be readily coloured by the stains generally employed for the purpose.

## A RAPID METHOD OF FIXING AND STAINING BLOOD FILMS.

BY G. LOVELL GULLAND, M.A., B.Sc., M.D., F.R.C.P.E.,
Assistant Physician to the Royal Infirmary, Edinburgh.
[From the Laboratory of the Royal College of Physicians, Edinburgh.]

THE method by which permanent microscopical preparations of blood are made is generally that devised by Ehrlich or one of its numerous modifications. These methods all involve the preliminary drying of the blood film on the cover glass. The hæmoglobin of the red corpuscles is then fixed, either by prolonged heating to between 110° and 120° C., as in the original method, or by treating the dried film with alcohol and ether, corrosive sublimate, or some other fixative. The process, in any case, is long and troublesome. Muir's method,[1] in which the films are fixed without drying by dropping them into a saturated solution of sublimate, was a great advance, inasmuch as it gives a much more accurate fixation of leucocyte structure than can ever be obtained by drying, while the red corpuscles, though they often show a certain amount of shrinkage, are less deformed than by Ehrlich's method. But the process is a long one if it is carried out as advocated by Muir, whilst if, in the attempt to shorten it, the washing out of the sublimate is not thoroughly done, crystals are apt to appear in the finished preparation.

It has been my aim, therefore, for some time past to discover a method which should give an accurate fixation, which should be as rapid as possible, and which should yet be sufficiently flexible to prevent preparations being spoilt by even considerable deviations from the exact method. The last point is essential if the method is to be of use to practitioners who are not specially skilled in microscopical technique. I trust that this will be the case, for I am convinced that many interesting blood cases go unrecorded for want of an easy way of staining and preserving blood films.

In its most rapid form the process is as follows. A small drop of blood, drawn in the usual way, is taken up on the centre of a cover glass held with forceps, and distributed evenly between that and another cover. The utmost care must be taken to avoid all pressure, as the after-appearance of the red corpuscles depends almost entirely upon the way in which this manœuvre is carried out. The covers are then gently and rapidly slid off one another, and dropped with the wet side downwards into the fixing solution. This is made up of:

| | |
|---|---|
| Absolute alcohol saturated with eosin ... | 25 c.cm. |
| Pure ether ... ... ... ... ... ... | 25 c.cm. |
| Sublimate in absolute alcohol (2 grm. to 10 c.cm.) ... ... ... ... ... ... | 5 drops (more or less) |

The quantity required for use at one time, which may be 5 to 10 c.cm. for four cover glasses, should be poured into a wide-mouthed bottle or flat dish, and may be used several times over if it be preserved from evaporation. (I generally keep the three liquids in different bottles and make up the required amount in the above proportion just before using it.) The fixation of the elements is practically instantaneous, but the cover glasses should be allowed to remain in the solution for at least three or four minutes, to fix the film to the cover. They are then taken from the solution by forceps (steel forceps will do), and washed rapidly but thoroughly by waving them to and fro in a small basin of water. They are then stained for one minute (not longer) in a saturated watery solution of methylene blue, and again rapidly washed in water. Next they are quickly dehydrated in absolute alcohol, which at the same time removes the excess of methylene blue, cleared in xylol, and mounted in xylol balsam on a slide.

The whole process need not occupy more than six or seven minutes, but on the other hand any portion of it may be prolonged without injury to the specimen. The fixation may be continued for twenty-four hours, the washing for the same time, but if the staining with methylene blue be prolonged for more than a minute or two it becomes necessary to use an inconveniently large amount of absolute alcohol to remove the excess of the stain, and the eosin is apt to be washed out at the same time. The red corpuscles are stained pink, nuclei a deep blue, the bodies of the leucocytes in varying shades of pink; the eosinophile and basophile granules in the leucocytes are well brought out; the blood plates are stained a fainter blue than the nuclei, and organisms are also well stained.

This is simply the most rapid clinical form of the method. Any other acid stain which is soluble in alcohol and not precipitated by sublimate may be used instead of eosin, and the stain may be omitted from the fixative altogether, so that the cover glass after fixation in the alcohol-ether-sublimate may be stained in any way that is desired.

The method is no less useful for fixing pus, sputum, and anything else which can be spread in a film, only with these it is generally advisable to prolong the fixation.

The cover glasses used must be scrupulously clean; the simplest way of ensuring this is to put them for a few minutes in glacial acetic acid, then wash them with plenty of water so as to remove the acid thoroughly, and dry them with a fine handkerchief. A large quantity should be treated at one time and stored up.

The thinner the film the better the fixation. As it is not possible in specimens mounted in balsam by whatever method exactly to reproduce the appearance of red corpuscles as seen in freshly drawn blood, it is desirable to control balsam preparations by examining fresh blood, or still better by pricking the finger through a drop of 2 per cent. osmic acid solution, and examining the preparation thus made as a fluid mount. This is specially desirable where the red corpuscles are altered in shape to a slight extent; greater degrees of poikilocytosis can easily be made out in balsam preparations.

[1] *Journ. of Anat. and Physiol.*, vol. xxvi, 1892.

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

### TRANSILLUMINATION IN THE DIAGNOSIS OF EMPYEMA OF THE ANTRUM OF HIGHMORE.

IN March, 1896, I saw a patient, a young woman, in whom I found good reason for suspecting the presence of pus in the right maxillary antrum. I therefore made an exploratory puncture with a Lichwitz's trocar through the outer wall of the inferior meatus, and established the diagnosis by washing out the antral cavity with weak carbolic lotion syringed through the trocar, and finding that the fluid as it escaped through the ostium and anterior nares was rendered turbid by a quantity of foul-smelling curdy-looking pus. I had previously ascertained that the nasal fossa was free from discharge. This procedure was undertaken for the purpose of diagnosis only, and it was intended to follow it up by making a permanent opening in the alveolus, but to suit the convenience of the patient this was postponed; and when I saw her again shortly afterwards the one syringing had apparently practically effected a cure, as she stated she had lost her symptoms and had had no discharge. On examining the nose there was no sign of pus, therefore it was decided to defer making the alveolar opening for the time being. Since then I have seen her at frequent intervals, but have never succeeded in discovering any pus in the nares, though she has suffered from slight postnasal catarrh, which made her think that her old discharge was flowing backwards into the throat. The other day she was examined by means of the transilluminator, with the result that a "very decided absence of the suborbital

crescent" was observed. I again punctured the antrum as before, and expelled by syringing a very little white curdy-looking matter—certainly not more than half a drachm—quite insufficient I should say to account for the opacity, which I think must have been due to greater thickness of the anterior antral wall on the right side.

The idea which suggests itself to me is, Why trouble with the transilluminator in cases of suspected empyema of the maxillary antrum when we have at hand such a simple and certain method of clinching the diagnosis as puncturing? It is practically painless (with the aid of cocaine) and free from danger. I have adopted it in a considerable number of cases, and have not seen the slightest ill consequence. I make it a rule to employ it in all cases of persistent purulent discharge from the nose, with the view of proving or excluding the presence of pus in the maxillary antrum, and have been astonished at the number of cases in which I have met with a positive result.

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## LEECHES IN PUERPERAL ECLAMPSIA.

MRS. A., a primipara, aged 23, of slight build and rather anæmic, was delivered by me of twins—boy and girl—early on January 23rd, 1897. In both cases the head presented; the duration of labour was nine hours, and there was no difficulty experienced in any of the stages. A few hours after delivery she complained of slight headache, and at intervals had hallucinations of sight and hearing. Potassium bromide allayed the symptoms, and everything appeared to be going on well until fourteen hours after delivery, when I was suddenly summoned, as her friends thought she was dying. On arrival I ascertained that she had had a severe fit. She was in a dazed, semi-conscious state; her speech was incoherent, mouth drawn to one side, tongue badly bitten, and there was a wild expression about the eyes.

After a short time she had several convulsions, and these were repeated at intervals of twenty minutes. At first she was partly sensible between the paroxysms, and could answer questions, but as they increased in frequency and severity complete unconsciousness prevailed. Sedatives, wetcupping, and chloroform were tried without any improvement. The chloroform had to be stopped owing to the weak cardiac condition, and the embarrassed respiration arising from the swollen state of the tongue.

A dozen leeches were now applied over both loins, and soon afterwards there was a marked abatement in the character and frequency of the fits. They however continued at lengthened intervals for twenty-two hours after onset of symptoms, when they ceased. Consciousness gradually returned, her memory in reference to the circumstances before and after birth was a complete blank for seven days, but she made an excellent recovery, and was able to sit up on the twelfth day.

She is the eldest of a family of seven, and has always enjoyed good health. She never suffered from kidney disease, is a highly emotional woman, and during pregnancy worried herself in anticipation of parturition. I had not the opportunity before labour of examining the urine, but I found that it contained a small quantity of albumen afterwards.

My colleague, Dr. Ritchie, to whom I am greatly indebted for guidance and assistance in this case, informs me that in his experience, extending over a period of wellnigh thirty years, he has had eleven cases of eclampsia, in nine of which he employed leeches. Out of the eleven he had three deaths, but it must be noted that in one of these the patient was kept under the influence of chloroform for twelve hours and no leeches were used; while in the other two the convulsions continued for twelve hours before he had the opportunity of applying them. I believe, and I am confirmed in this opinion by Dr. Ritchie, that given a case of puerperal eclampsia, a successful result is to be expected if twelve to twenty-four leeches can be applied over the renal region soon after the commencement of fits. Whether the local depletion has some powerful counter-irritant effect in the modification or abolition of the convulsions I am not in a position to say, but the fact remains that in the cases I have seen the issue has always been successful.

Hoyland, Barnsley. B. WIGGINS, L.R.C.P., L.R.C.S.EDIN.

## SPURIOUS CONSTIPATION.

I HAVE recently had under treatment three cases of so-called chronic constipation, for which the patients had been in the habit of taking aperients for a long time and which were cured by forbidding the further use of all kinds of aperients.

The histories of these cases were almost identical. No action of the bowels could be obtained unless aperients were used. No sooner was their use discontinued than constipation set in again, and recourse had to be had to aperients once more. In one of the cases this had been going on for about ten years, and the patient, who came to me for some quite different ailment, was so much addicted to the habit that I had the greatest difficulty in persuading her to accept my advice. She did so eventually, and the result was so surprisingly satisfactory that she sent me a friend of hers, who curiously enough was also cured of her long-standing constipation by the same "treatment."

The third case was that of a colleague who had always had very regular action of the bowels until he suffered from a sharp attack of diarrhœa some months ago, since which he had had to use some aperient daily in order to relieve his constipation. He had absolutely no other complaint, and all his organs were perfectly normal. I explained to him that he was in all probability suffering from no constipation at all, but that he was continually expelling by force from his bowel what residuum of fæces there was in it, and if he would let Nature have her way he would in all likelihood recover his regular habit as soon as his colon contained the requisite amount of residual fæces. My theory turned out quite correct. After waiting impatiently three or four days without taking any aperient, my friend was completely cured of his "constipation;" in fact, he tells me that the motions are at present perfectly natural in size and appearance, just as they were prior to the attack of diarrhœa, whilst they were always more or less watery when produced by aperients.

It would appear from these cases that "spurious constipation" is by no means a rare occurrence, especially after attacks of diarrhœa, and that its existence is not as generally known as it should be, although it is mentioned in some textbooks. The pretty universal opinion among the public that a daily evacuation of the bowel is an absolute necessity, even when very little food is taken, must be known to every medical man, and it is to the knowledge of this widespread belief that most patent medicine vendors are indebted for the fortunes which they have amassed. This belief is, however, quite erroneous. The daily action of the bowels, like so many other functions, depends very much upon various circumstances—as, for instance, the kind and amount of food consumed, the amount of liquid taken, the amount of exercise, the amount of residual fæces, and, above all, the idiosyncrasy of the individual. Bearing in mind these different circumstances, one should not immediately agree with the patient that he is suffering from constipation, to be relieved by aperients, when he complains that the action of his bowels is irregular, but, on the contrary, endeavour to eradicate the erroneous impression from his mind, which is the stepping-stone to hypochondriasis and patent medicine consumption.

In conclusion, I wish to say that my remarks do not refer to constipation as a symptom of either acute or chronic disease.

Manchester. JOSEPH DULBERG, M.D.

## BLOODLETTING IN URÆMIA.

IN textbooks on medicine among the measures recommended in the treatment of uræmia, at least when well marked and associated with coma and convulsions, bloodletting is almost universally mentioned.

So far, however, as one can judge from the usual channels of information, it is rarely resorted to by the modern practitioner. Bloodletting generally has been so overdone in the past, that it is now regarded with pronounced disfavour. Impressed by its general recommendation in uræmia, I determined to give the treatment a trial on the first favourable opportunity. A strong, full-blooded, powerful man in the prime of life came into my consulting-room. I found him suffering from acute Bright's disease. He was sent home, recommended to bed, and prescribed for.

Sent for two days after, I found him suffering from symptoms of uræmia—headache, stupor, but as yet no convulsions or coma. Before, however, the remedies I prescribed could be obtained and used, uræmic convulsions and coma developed.

Sent for again, I found his condition most dangerous, and gaining the consent of his friends, removed about 8 ounces of blood from the arm. The convulsions after this diminished in intensity, and three hours later entirely ceased. Next day his breathing being still stertorous, and he being still comatose, and seeing that he was a full-blooded man with a pulse still strong, I allowed 8 ounces more blood to escape. The improvement in the character of the breathing was immediate. The following day sensibility had returned, and recovery has been uninterrupted, indeed rapid, the usual remedies being, of course, also used.

I feel convinced that the improvement following phlebotomy in this case was not a mere coincidence, and believing that the old-fashioned remedy saved the man's life, I shall act similarly for the future.

Campbeltown. T. HARVEY THOMSON, M.D., C.M., D.P.H.

# REPORTS
ON
## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

### HEREFORD GENERAL INFIRMARY.

#### A CASE OF PARTIAL RUPTURE OF THE SPINAL CORD WITHOUT FRACTURE OF THE SPINE.

(By A. M. WATTS, M.R.C.S., House-Surgeon.)

*History.*—J. L., while driving on January 2nd last fell out of his cart. He was partly under the influence of drink at the time, but picked himself up and walked as far as his residence, a distance of a mile, put his horse away, and then sat down in a chair by the fire. Some time afterwards (three hours from the time of the accident) he noticed that he had no power in his right hand, then that his left was paralysed, and then that he could not move his legs; the paralysis came on so rapidly that it seemed to affect all his limbs almost simultaneously. On arriving home his neck felt a little stiff, but he had no pain in it. He had always been a healthy man, and was not in the habit of drinking to excess.

*Condition on Admission* (January 4th.)—The patient is a man aged 65; he lies in bed on his back, respiration entirely diaphragmatic. He answers questions rationally, and has no cerebral symptoms; movement of his neck causes pain; there is no bruising of the skin, and no irregularity of the spinous processes; when the patient is lying still he has no pain in his neck, nor in the course of the nerves. He can raise his arms from his sides to a horizontal position, and he can move them inwards across his chest; he can flex but cannot extend his forearms; he has no movements of hands or fingers. Knee-jerks and plantar reflexes absent; loss of all sensation of trunk and lower limbs below the level of the third costal cartilage; no hyperæsthesia above that level. Also loss of sensation on the anterior and posterior surfaces of the forearms on the inner halves, on the whole of the dorsum of the hands, on the inner part of the palms, and on the palmar aspects of the little fingers. He has retention of urine and constipation. Chest normal; pulse, 56, full and regular; temperature subnormal; the urine acid, specific gravity 1025, trace of albumen.

*Progress.*—No alteration in the amount of paralysis or anæsthesia was noticed, and the patient's mind remained clear until his death, which was due to œdema of the lungs, and took place twelve days after the accident. The reflexes remained absent and the pulse slow.

*Diagnosis.*—From the absence of any signs of fracture of the spine, and also from the absence of pain in the course of the nerves and hyperæsthesia, the injury was thought to be probably limited to the spinal cord. As the patient had absolute loss of reflexes up to the time of his death, a total transverse lesion was diagnosed, the seat of it being between the origins of the sixth and seventh cervical nerves, as the musculo-cutaneous and external anterior thoracic nerves escaped, while the musculo-spirals and medians (with the exception of their cutaneous branches) and ulnars were paralysed. The circumflex nerves were not paralysed, although they come off with the musculo spirals from the posterior cord of the brachial plexus, but their fibres seemed to be derived, and also the cutaneous fibres of the musculo-spirals and medians, from the sixth cervical nerves.

*Treatment.*—There was little to be done except to keep the patient's spinal column at rest, to prevent bedsores, and to relieve his retention of urine by the passage of a soft catheter.

*Post-mortem Examination.*—The spine was exposed by a vertical incision over the spinous processes. No irregularity nor signs of fracture could be detected, so the spinal canal was opened by removing the spinous processes and laminæ, but no hæmorrhage was found in it. The spinal dura mater was seen to be torn transversely across in its left half, so it was, together with the spinal cord, removed. On dividing the dura mater longitudinally on its posterior aspect the cord was exposed, and the left half found to be torn across in the line of the wound in the dura mater, which extended round to the middle line anteriorly. An antero-posterior longitudinal section was then made of the spinal cord; at the seat of the rupture and for a distance of half an inch above it the cord was found to be very soft in consistence and greyish in colour, the limits of the grey area above being distinctly defined by a somewhat irregular transverse line. This condition of the cord apparently existed through its whole transverse section. On comparing the cord with the bodies of the vertebræ on its removal, the rupture was seen to be exactly opposite the articulation between the sixth and seventh cervical vertebræ; a little movement could be obtained in this articulation, but the posterior common ligament was intact.

REMARKS.—As a rupture of the spinal cord is a somewhat uncommon accident, I think that it is worth while putting this case on record, especially as there was apparently no fracture of the spine; and although a little mobility between the sixth and seventh cervical vertebræ was found, the posterior common ligament was not ruptured. The case is also interesting for the following reasons: (1) After the accident the patient walked a mile, and the paralysis did not come on until three hours afterwards. (2) Because the paralysis on the one side of the body was exactly similar to that on the other. (3) Although there was absolute loss of reflexes, still the cord was not entirely divided.

My thanks are due to Mr. Thomason, under whose care the patient was admitted, for permission to publish the notes.

### BEDFORD GENERAL INFIRMARY.

#### A CASE OF ALCOHOLIC PSEUDO-TABES.

(By S. J. Ross, M.B.Vict., House-Surgeon to the Hospital.)

THE patient, a man aged 45, while returning home one night, fell and cut his forehead. When I saw him half an hour afterwards he gave me the following history. When a youth, and up to the age of 30 years, he was greatly addicted to the abuse of alcohol. Fifteen years ago he was troubled with numbness and tingling in his fingers and toes, and was advised to give up alcohol. This advice was followed, but still the same symptoms persisted; and he noticed five years later that his gait was not at all certain, and people often remarked that he was drunk, when they saw him returning home in the dark. He was then troubled with severe "lightning pains" in his legs, and occasional vomiting. He had also a sensation of a band being tightly tied around his waist. Moreover, during the past twelve months he had been troubled with a hacking cough, and had had one rather severe attack of hæmoptysis.

The case appeared like one of locomotor ataxia. He had the girdle pain and the lightning pains in his legs. Absent knee-jerks, gastric crises, and characteristic gait; but on examining his eyes I found that they reacted normally to light and accommodation. So with this fact and the history I came to the conclusion that it must be a case of alcoholic pseudo-tabes. His lung symptoms were due to a cavity in the right apex, with consolidation of the left apex. Lately, I heard that the man died rather suddenly after an attack of hæmoptysis.

# REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

W. H. Dickinson, M.D., President, in the Chair.

*Tuesday, March 9th, 1897.*

### On the Clinical Bearing of Some Experiments on Peritoneal Infection.

Mr. H. E. Durham, who read this paper, said that recent researches had shown that a considerable degree of general resistance against pathogenic microbes was afforded by inducing leucocytosis. This resistance might be materially increased by the addition of the specific (passive) immunity afforded by appropriate serums. The work of Issaeff on these matters was especially referred to, and was confirmed by original observations. It was suggested that these principles should be utilised in the treatment of local infective conditions, which required transperitoneal operation. The nature of the material to be used in producing the leucocytosis of the peritoneal cavity was discussed. Whilst the probable infecting agent could not be diagnosed before operative interference, there was considerable evidence from the researches of quoted authors and from original observation that streptococci were an important factor in fatal peritonitides in man. It was therefore suggested that intraperitoneal injection of antistreptococcic serum should be given the day before proceeding to operate on "dangerous" cases through the peritoneum; by this means specific passive immunity would be afforded against streptococcal invasion as well as increased general resistance against other microbes. Another point which was brought forward was the importance of paying attention to the cleansing of the omentum and upper part of the peritoneum in lavage of the peritoneum for suppurative peritonitis. This was consequent upon the observation that these regions might lodge abundant microbes (sufficient to cause fatal effect) after inoculation (intraperitoneal), whilst the peritoneal fluid was sterile. One such case in a man, and a number of similar conditions in experimental animals, had been observed. Attention was called to the hitherto overlooked paths of lymph absorption from the peritoneal cavity: the lymph tracks of the anterior mediastinum were those especially concerned. Specimens were demonstrated in illustration of some of the points raised.

Mr. Lockwood agreed that after operations death was often put down to shock when in reality it was due to septic infection from the peritoneum. In such cases of what had been called "mycotic peritonitis" there were often no naked-eye signs of inflammation. It was important for surgeons to be able to distinguish between streptococcal peritonitis, which was extremely virulent, and peritonitis due to the colon bacillus, which was often curable. Two years ago, while operating on a case of pyosalpinx, he made a naked-eye diagnosis of streptococcal peritonitis, which was subsequently confirmed bacteriologically. His grounds for coming to this conclusion were the presence of minute pellucid points on the peritoneum, somewhat resembling the colonies of streptococci seen on the surface of a gelatine culture. He compared erysipelas and peritonitis, in which the disease was essentially in the lymph spaces and not on the surface. The author had spoken of vermicular movements of the intestines occurring in peritonitis. It would be interesting to know whether this was based on clinical or on experimental data. Personally he considered that peritonitis stopped peristalsis.

Mr. Harrison Cripps after referring to Mr. Lockwood's valuable work in connection with peritonitis, said that in his experience, based on from 200 to 300 ovariotomies, etc., the cases in which there were fœtid abscesses in connection with the tubes or ovaries were not, as might be expected, liable to be complicated by peritonitis. The fœtid abscesses seemed to immunise the peritoneum. The class of case that was specially liable to peritonitis after operation was that in which there was no previous sepsis. He thought that in practice it would be very difficult to clean the opposed surfaces of the liver and diaphragm.

Mr. H. E. Durham in reply to Mr. Lockwood said that though the signs of peritonitis were not marked, some evidence, such as injection or swelling of the glands, was present. He emphasised the importance of using the serum the day before the operation. Different forms of peritonitis were due to varying degrees of virulence, not to different forms of bacteria. He suggested that the minute pellucid points on the peritoneum were masses of leucocytes rather than colonies of bacteria. He thought that in the fœtid abscesses referred to by Mr. Cripps the colon bacillus was present. Wounds which smelt usually contained less virulent microbes than those which did not. Very slight oozing from an abscess, not sufficient to set up peritonitis, would tend to increase the resistance of the peritoneum. Colonies of microbes were likely, even when the peritoneal fluid was sterile, to collect between the liver and the diaphragm, and in necropsies he had had no difficulty in getting his fingers between these structures.

### A Case of Large Solid Tumour removed with success from the Retroperitoneal Space.

Mr. Marmaduke Sheild, in this paper, related the case of a rapidly-growing abdominal tumour in a woman, aged 52, who was the subject of complete uterine prolapse. The tumour was diagnosed as an ovarian cyst. At the operation, however, it was found that the growth was a soft solid, and lay apparently behind the peritoneum, mesentery, and intestines. The operation for its removal was described, the patient recovering. The structure of the growth was that of a fibromyoma. It was exceeding soft and œdematous, containing an enormous quantity of serum. Attention was drawn to the rarity of these cases, the difficulty of their diagnosis and treatment, and allusion was made to the few recorded cases in the literature of this country of solid tumours originating in the retroperitoneal space.

Mr. Eve thought it probable that the tumour originated in the root of the mesentery, where it was known that smooth muscular tissue existed. In the tumour removed by Sir Spencer Wells he had found that the fibrous tissue was undergoing fatty metamorphosis. Mammary sarcomata resembled retroperitoneal sarcomata in that they were encapsuled.

Mr. Lockwood had described two cases of retroperitoneal sarcoma, and considered that they differed in their behaviour from sarcoma in the limbs. The retroperitoneal growths spread widely behind the intestines, which were displaced forwards. He had noticed that areas of resonance varying in position were present in these cases, and thought this might be a valuable point in arriving at a correct diagnosis in these cases, always a matter of difficulty.

Mr. Harrison Cripps pointed out that retroperitoneal sarcomata did not recur after removal, were encapsuled, and altogether resembled fibro-cellular tumours rather than sarcomata. Many of these tumours arose from the uterus expanding the broad ligament, and thus might be described as retroperitoneal. Sometimes the pedicle connecting the tumour with the uterus was very thin. In the author's case the growth had to be peeled off the bladder. This suggested a uterine origin. In operating on such cases it sometimes occurred that the peritoneum was not found, even after successive layers of tissue had been divided; there was then considerable danger of wounding the bladder, and it was advisable to open the peritoneum at the upper limit of the incision.

Dr. Norman Moore pointed out that sarcomata of the kidney might, though of very considerable dimensions, be encapsuled like retroperitoneal sarcomata.

Mr. Sheild, in reply, said that he believed Sir James Paget was the first to describe the smooth muscular fibres in the pelvic ligaments and the tumours arising from them. Dr. Halliday Croom had recently described in the *Edinburgh Medical Journal* cases of detached uterine tumours. In connection with the varying areas of resonance noticed in these cases it was interesting to find that these growths had been diagnosed as ascites, and tapped accordingly. Mr. Cooper Forster had met with this experience, and quite recently Mr. W. W. Kerr had described a case in which a man, aged 53, was, after being tapped thrice without any result, operated on; an enormous fibro-fatty tumour was then found. He thought tumours of the kind he had brought forward were much commoner than the published records would lead one to believe.

## MEDICAL SOCIETY OF LONDON.

Reginald Harrison, F.R.C.S., President, in the Chair.

*Monday, March 8th, 1897.*

### Osteoplastic Excision of the Knee.

Mr. Lockwood read a communication entitled "A Review of the Operations for Excision of the Knee," together with an account of a new procedure—Osteoplastic Excision of the Knee. The operation had been done in cases of progressive tuberculous arthritis, in which other methods of treatment had failed. Each case of tuberculous arthritis ought to be taken on its merits. Some were mentioned which had been treated by the ordinary excision, some by erasion, and some by drainage and rest. The ordinary method was described. Within the last few years the author had thrice had to remove wedges of bone to straighten limbs upon which it had been done. He attributed such bad results to faults in the operation, such as the removal of the patella, the division of all the ligaments, and the flat, smooth section of the femur and tibia. After referring to the mechanical arrangement of the knee, cases were given in which the following operation had been done: The joint was opened below the patella by cutting through the ligamentum patellæ: then all the synovial membrane was taken away, all healthy ligaments being left uncut. The crucial were difficult to keep, and required to be treated with caution, because they were specially diseased. Next the articular surface of the patella was sawn off, and the trochlear surface of the femur and the front of the tibia sawn for it to lie on. The articular surfaces of the tibia were next removed with slanting cuts so as to make the upper end of the tibia into a wedge. The lower end of the femur was cut to correspond, a deep notch being made with its apex at the intercondylar notch. The lateral ligaments having been kept when the limb was extended, the wedge of the tibia was jammed into the notch of the femur. Owing to this method the tibia could not displace sideways, or rotate on its axis, or slip backwards, being held by the ligaments. Flexion was prevented by fixing the patella to the femur and tibia, by wiring the femur and tibia, and by the splint. The result had been a remarkably solid union of the bones without any more risk than that of the ordinary operation.

The President observed that the method appeared to be original, and by the preservation of the crucial ligaments displacement forwards was prevented, while lateral displacement was obviated.

Mr. Marmaduke Sheild suggested that if they could see the results of their excisions of the knee-joint after an interval of some years they would often feel greatly disappointed. He mentioned a case in which a year after the operation the leg appeared to be quite straight, but some years later the distortion was so pronounced that amputation appeared to be necessary. Mr. Davy, of Westminster, used to dovetail the bones for the purpose of preventing lateral displacement. Sir George Humphry used to perform excision of the knee-joint for a great many conditions, and his results were remarkably successful. His great point was absolute fixation of the limb upon a long back splint, which was not removed even in order to apply the dressings. The splint devised by Mr. Howse seemed to fulfil every requirement. The ordinary operation with a splint would not, however, accomplish what the author's plan seemed likely to effect, namely, the prevention of subsequent displacement. Personally he feared to leave the patella in these cases, for it was often a focus of disease. The author's plan appeared to him to be applicable to other than tuberculous cases.

Mr. Stanley Boyd pointed out that in the treatment of tuberculous disease in young subjects they were called upon to decide between excision and arthrectomy, and whenever possible he preferred the latter in order to preserve the epiphyses. The author's operation also did this to some extent. He himself had had more trouble with flexion than with lateral displacement in these cases. As they shortened the limb he did not understand how the ligaments could assist in fixing the joint, and in his own experience no method that he had tried in respect of the extensor apparatus of the joint had given satisfactory results. The best plan was to divide the patella and ligament longitudinally, and turn the halves outwards. He had done that operation in a man aged 50 who had recovered a movable joint. If they could preserve the epiphyses and at the same time ensure bony ankylosis, then they would have gained a distinct advantage. The splint he employed was Thomas's, which was admirably suited for these cases.

Mr. G. R. Turner pointed out that the author's method resembled a procedure introduced by Senn for remedying ununited fractures of bones.

Mr. Stanley Boyd raised the question why there was such difficulty in obtaining union between these particular bony surfaces, and he suggested that it might be due to the fact that they disturbed the periosteum so little.

Mr. Lockwood, in reply, explained that the contraction of the muscles tended to keep the bones in apposition.

### Intestinal Neuroses.

Mr. C. Dent, in a paper on this subject, said it was often very difficult to distinguish between symptoms pointing to some surgical affection and the condition under consideration. When the symptoms were such as to justify the suspicion of a condition amenable to surgical intervention, he thought it would be right to perform an exploratory operation in order to clear up the diagnosis, but he did not approve of laparotomy in cases believed to be due to neurosis merely because it had sometimes happened that an operation with negative results so far as the discovery of any obvious lesion had afforded more or less relief. He related some cases illustrating this point: A man, aged 35, had long suffered from symptoms of intestinal stenosis, and under an anæsthetic a tumour could be felt just above the umbilicus, but an exploratory laparotomy failed to reveal the existence of any tumour. He recovered and greatly improved in general health. Another man, aged 27, came with symptoms of renal calculus, but on cutting down on the kidney through the loin he found nothing. The symptoms disappeared, but a few weeks later the man had another attack, with pain and a rise of temperature to 103°, rigors, vomiting, etc. This continued for five or six days, and then suddenly subsided. He then complained of tenderness on the right side of the abdomen, where one could feel a swelling like a thick cord. The symptoms increasing in intensity, the patient asked that something should be done, so he opened the abdomen in the right semilunar line and found a small adhesion of the omentum to the front of the cæcum. The first few inches of the ascending colon were much contracted, without, however, materially encroaching on its lumen, and he supposed this gave rise to the sensation of tumour. The symptoms were again relieved for a time, and when vomiting recommenced he resorted to washing out the stomach, which gave marked relief, but by-and-by he developed symptoms of gall stone. A third patient, a man, aged 50, developed pain over the right ischium, spreading over the whole of the abdomen, suggesting hysterical flatulence. The author was consulted as to an operation, which he discountenanced, and the patient improved greatly under a course of abdominal massage.

Mr. Marmaduke Sheild said he had had an opportunity of studying the author's case of the man with symptoms of renal calculus, and he confessed he had been puzzled. He had thought of opening the abdomen in the middle line, but Mr. Dent's return saved the patient from this operation. The relief afforded in some of these cases of obscure renal trouble might be explained by the dislodgment of gravel, etc., in the course of the manipulations. He remembered the case of a man who presented the classical symptoms of renal calculus, though on operating he could find no trace of stone; but the symptoms disappeared after the operation, and did not return. In the case of a woman at St. George's, he had come to the conclusion that it was an instance of neurotic vomiting, but at Dr. Owen's suggestion he opened the abdomen, fully expecting to find nothing. The result, however, was to show that she had tuberculous peritonitis, and there was a band pressing on the stomach which he divided with scissors, and she recovered with complete relief from her symptoms. This case showed that if they sometimes operated in error on the strength of the symptoms, they might in others abstain from operation on a mistaken diagnosis.

Mr. Lockwood opined that they would not get to the bottom of these cases until surgeons more generally recorded the

cases in which they had opened the abdomen and found nothing. It was worthy of note that the author had several times met with adhesions pointing to past disease of some kind.

The President referred to the unaccountable amount of distress experienced by some patients with varicocele, which he thought suggested a disturbance beyond that which was apparent.

Mr. Dent briefly replied.

## OBSTETRICAL SOCIETY OF LONDON.

C. J. Cullingworth, M.D., President, in the Chair.

*Wednesday, March 3rd, 1897.*

### The late Sir Spencer Wells.

A letter of condolence on the death of Sir Spencer Wells from the Berlin Obstetrical and Gynæcological Society was read.

### Specimens.

The following were shown:—Dr. W. Duncan: Five Fibromyomata removed by abdominal section.—Mr. A. F. Stabb: A Uterus with Interstitial Fibroid, removed by abdominal hysterectomy, in a girl, aged 26. The President and Mr. Alban Doran made remarks.

### Presidential Address.

The President delivered his inaugural address on the Undiminished Mortality from Puerperal Fever in England and Wales, which was published in full in the British Medical Journal of March 6th.

Dr. W. S. Playfair moved a cordial vote of thanks to the President for his most interesting and instructive address, and said he could conceive no topic more useful nor one more likely to have a beneficial effect. This was seconded by Dr. Champneys, and carried unanimously.

### The Cyclical or Wave Theory of Menstruation.

Dr. Arthur E. Giles read a paper on this subject, based on observations on the temperature and the pulse before, during, and after menstruation. The temperature observations embraced fifty menstrual periods in 45 patients; from the 50 cases a composite curve had been drawn up, which might be regarded as the type of the temperature curve in relation to menstruation. It showed that the temperature was lowest at the middle of the intermenstrual period; it gradually rose, attaining its maximum two days before menstruation. There was a sudden drop on the day preceding the flow, with a second slighter drop at the end of the period. It rose slightly for the first week after the cessation of menstruation, and there was a third fall at the beginning of the intermenstrual period. The observations of Jacobi and Reinl had similarly been employed in the construction of composite curves: these presented features similar to those shown by the author's curve. Sphygmographic tracings of the pulse had been obtained from seven patients, covering nine menstrual periods and forty observations. They showed that the blood pressure was greatest on the first two days of menstruation and on the day preceding; it was lower during the remainder of the period, rising again slightly after its cessation. The total variation, both in temperature and pulse, was comparatively limited. The author then discussed the bearing of these facts on the cyclical theory of menstruation, and concluded that this theory as ordinarily stated was insufficient as an explanation of the theory of menstruation. But taken in a modified form the cyclical or periodic theory might be accepted as giving a connected idea of the meaning of menstruation, which might be regarded as the conclusion of the reproductive phase of an alternation of nutritive and reproductive activity, or in other words as a repeated preparation for the reception and nutrition of a fertilised ovum. In the absence of such an ovum menstruation occurred as a "missed pregnancy."

## EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

D. Argyll Robertson, M.D., President, in the Chair.

*Wednesday, March 3rd, 1897.*

### Exhibit.

Dr. James Cameron showed the Typhoid Vaccine of Professors Wright and Semple, of Netley.

### Physics of the Intracranial Cavity.

Dr. James read a paper on this subject. He referred to the various theories that had been advanced to account for the possibility of variations in the quantity of blood which the brain contained from time to time. He pointed out that the proportion of blood in the brain was not great, only about 5 per cent. of its weight, and it was extremely probable that during the period of rest as distinguished from activity in the brain there was no great change in this total amount. During the most intense mentalisation there was only one part of the brain as it were active, so that with a great amount at one part there was less at others, and hence no difference in the total amount. Then during sleep, although brain katabolism was at its minimum, anabolism was going on, and this meant a necessity for blood. The respiratory and pulse movements occurring so markedly in open fontanelles or in cases of trephine openings had been interpreted as indicating great variations in the bulk of the brain with its contained vessels. But those movements were great simply because at the fontanelle membrane or the trephine opening there was a minimum of resistance; elsewhere through and over the brain the movement was very slight indeed. The author held that there was no need to suppose in the normal condition any ebb and flow of— or effusion and absorption of—cerebro-spinal fluid. He believed that the total amount of blood and cerebro-spinal fluid in the brain was practically always the same, the difference being simply one of rapidity of flow, and consequently of difference in the relative amounts of arterial and venous blood. The various pathological conditions occurring in the brain were considered from the point of view of cerebral physics—the effects of hæmorrhage, the occurrence of miliary aneurysms, the symptoms and phenomena of general paralysis and of brain tumour. In connection with all these the possible advantages and disadvantages of trephining were discussed. With reference to trephining for the relief of headache simply in brain tumour, the author stated that in giving his advice as to this operation in any given case he could not exclude from his mind the idea that the relief of tension which this operation induced might at the same time permit of more active growth in the tumour.

The paper was discussed by Drs. Cappie, Lovell Gulland, Elder, Cotterill, and Surgeon-Major Black; and Dr. James replied.

### The Importance of Asepsis in Genito-Urinary Surgery.

Mr. David Wallace read a paper on this subject, alluding to the views of surgeons who took part in the discussions upon the papers read by Sir Andrew Clark on Catheter Fever, he summed up the opinion of that time by saying—1. The *rôle* of micro-organisms was not appreciated at its true value, although they were believed by some to have an influence. 2. That the nervous system was believed to have an important influence on the condition, and measures were directed to counteract this influence rather than the effect of organisms. He then asked the question, Do we, while recognising the importance of the nervous system, use sufficient or proper precautions to prevent the direful result of the micro-organismal cause? In illustration of the effect of sepsis in vesical cases he gave the history of a patient with residual urine, in whom, after the passage of a catheter, toxæmia came on, cultures from the urine showing that the condition was due to the staphylococcus pyogenes aureus. The symptoms were manifested on the third day after catheterisation, and were characteristic of the continuous urinary fever described by Sir Henry Thompson. Improvement resulted from washing out of the bladder, *plus* the use of injections of iodoform emulsion, but eventually suprapubic cystotomy was performed, and the patient recovered. The bladder condition as a rule was favourable for the growth of organisms when the catheter was required, so that, as Bouchard states, "Not only does a bacterium come in contact with a man, but with a suitable soil and favourable conditions." He next referred to Melchior's work *Cystite et Infection Urinaire*, and drew attention to the difficulty experienced by that observer in obtaining sterile urine from healthy bladders, and pointed out that probably not only were the meatus and surrounding parts septic, but probably also the anterior part of the urethra, the deep part of the urethra being probably sterile and protective to

the bladder, just as Guyon states that "the healthy bladder is protective to the kidneys and ureters." In cases of retention, from whatever cause, in tuberculous affections, and, indeed, wherever the urine could not be completely evacuated by the patient, or where there was disease of the bladder, the strictest antiseptic precautions should be taken. The surgeon should aim at avoiding sepsis as strictly as he did when operating upon unbroken skin. Septic cystitis was frequently a result, in the female, of catheterisation, and advocated that the catheter should be passed by sight, not by touch, and only after purification of the vulva and meatus. Further, that the gum elastic instrument should be eliminated from the nurse's bag, and only the red rubber or silver catheter used, as they could be thoroughly purified. He summed up as follows: 1. That in all urinary surgery organisms may have an important *rôle*. 2. When the bladder is diseased or distended, the risk of sepsis by instrumentation is enormously increased. 3. If sepsis do occur the gravity of the condition is profoundly greater. 4. The anterior part of the urethra is a septic canal, while the deeper part is probably aseptic. 5. Purification of instruments is insufficient to prevent sepsis. 6. Precautionary measures should be taken to prevent contamination from the meatus, surrounding parts, and anterior urethra. 7. In retention cases, to minimise the risk of infection, the bladder should be washed out after the withdrawal of the urine. 8. In prostatic cases, with residual urine, after washing out, some sterile fluid should be injected.

The paper was discussed by Drs. James Ritchie and Lovell Gulland, and by Messrs. Shaw McLaren, Miles, and Cotterill; and Mr. Wallace replied.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Anatomy and Physiology.

Johnson Symington, M.D., President, in the Chair.

*Friday, February 5th, 1897.*

### The Organic Sulphates of the Urine.

Dr. Coffey read a note on the organic sulphates of the urine. These, he said, were compounds of certain organic bases—phenol, indol, skatol, kresol, etc., which arose in the alimentary canal from the putrefactive decomposition of proteids. As such putrefaction was of normal occurrence, they appeared in normal urine, where they formed about one-tenth of all the sulphates present; they were considerably increased in diseases in which there was deficient absorption, or diminished secretion of hydrochloric acid in the gastric juice—conditions accompanied by increased putrefactive change. From a clinical point of view they were of importance, inasmuch as they were an accurate index of the amount of putrefaction in the alimentary canal. Many physicians, however, appeared to be content with demonstrating the presence of one of these sulphates, namely, indican, in such cases, but as there was no fixed relation in the quantity of this substance to that of the total of organic sulphates, this method was not satisfactory. The sole method by which one could correctly determine the amount of putrefactive change was by estimating the ratio of organic sulphates to total sulphates (organic and inorganic) present. This view was established by the results of the cases now reported. The urine of a patient suffering from dilatation of the stomach was examined, and gave a yield of 0.35 g., 0.36 g., and 0.355 g. organic sulphates in 1,500 c.cm. urine, forming in each case about one eighth of the total sulphates. In these cases the indican appeared to be present in very small quantities, the reaction to Jaffé's test being very feeble. The method followed in estimating the sulphates was Salkowski's. An analysis of the HCl in the gastric juice, made at the same time by Dr. Dempsey, showed a diminution to one fourth of the normal.

Dr. Purser thought that it was rather the proportion of the conjugated to the total sulphuric acid than the absolute amount of the former which was important.

Dr. McWeeney thought the operation too complicated for general clinical purposes. The estimation of indican yielded results that would in most cases prove sufficient.

Dr. Coffey, in reply, said that he found Jaffé's test for indican satisfactory enough, but that he thought his cases established the view that this particular organic sulphate might not be notably increased, while the gravimetric method indicated a distinct increase in the total of organic sulphates as compared with all the sulphates of the urine.

### Photographs of Early Human Embryos.

Dr. A. Francis Dixon exhibited a number of lantern slides illustrating early human embryos.

In reply to the President and Dr. Birmingham, Dr. Dixon said he had always used methylated spirits for preserving his human embryos. Nitric acid was best for preserving fowl embryos. In photographing the specimens were placed in glass cells with dark bottoms, the cells were completely filled with spirits, and the cover slided on, so as to exclude all air bubbles. Special care had to be taken with the lighting.

### The Applied Anatomy of the Rectum.

Dr. Edward H. Taylor presented a communication upon the applied anatomy of the rectum, illustrated by lantern slides, of frozen sections, and of dissections specially prepared to illustrate the structures met with in perineal and sacral excision of the rectum. Having demonstrated the principal relations of the rectum in both sexes, he referred to its sphincteric apparatus, constituted by the two sphincters and the levatores ani muscles. It was evident, from the antero-posterior direction taken by the fibres of these muscles by the sides of the rectum, that in contracting they compressed the bowel laterally. In perineal excision of the rectum he laid stress upon the importance of always making an attempt, even when the sphincteric zone of the rectum had to be removed, to reconstruct a modified sphincteric apparatus, and showed how this might be done by carefully preserving as much of the levatores ani muscles as possible, and afterwards connecting them with the healthy end of the gut by a series of deep sutures. The applied anatomy of sacral excision was then considered, and illustrated by photographs of dissections.

The President was glad to see that Dr. Taylor had emphasised the distinction between two parts of the rectum—the sphincteric and the supra-sphincteric areas; he (the President) would go further, for he held that they were functionally and anatomically distinct—the former was capable of acting as a reservoir, while the latter, which he had called the anal canal, was not.

Dr. Birmingham expressed the opinion that the internal sphincter was not a real functional sphincter of the anus at all. The anal canal was merely an antero-posterior slit, with its lateral walls in contact; a contraction of the internal sphincter which surrounded this passage, and had no fixed attachment, would tend rather to relax than to close the canal. Its use was to force the fæces through the canal during defæcation. The levatores ani, he believed, were the chief sphincter. The explanation of the very slight change of the reflexion of peritoneum from rectum to bladder brought about by distension of the bladder, was to be found in the fact that the base of the bladder was practically unaffected by distension.

Dr. Purser was inclined to agree with Dr. Birmingham's view of the nature of the internal sphincter. It had been shown that, even after removal of the spinal cord, the external sphincter preserved its tone and underwent rhythmic contraction, which would seem to show that it had a regulating nervous mechanism within itself.

Section of State Medicine.

J. M. Redmond, M.D., President, in the Chair.

*Friday, February 19th, 1897.*

### The Present State of the Typhoid Question.

Dr. McWeeney gave an account of some of the most recent researches into the distribution and identification of the typhoid bacillus. He dealt, in the first instance, with the results obtained by Cartwright Wood in his recent experimental investigation of the relation between oysters and the typhoid bacillus. One could not but subscribe heartily to Dr. Wood's proposition that "the only principle which can be applied with safety to this question is to judge the sea water as we should a drinking water, and to condemn all oysters which originate from beds subject to more or less recent con-

tamination." The other research which he desired to lay before them was published in the current number of the *Annales de l'Institut Pasteur* by Drs. Remlinger and Schneider, of the French Army Medical Department. Their object was to ascertain whether the typhoid bacillus occurred in Nature apart from cases of the disease. They employed Elsner's method for the raw material—soil, water, and fæces of non-typhoid patients—and, in addition to the eleven characters relied upon by Lösener they applied the serum test by bringing serum from a horse immunised against Eberth's organism, in contact with the organism under examination. With the same object they used the serum of typhoid patients. Finally, they inoculated suspected cultures into guinea-pigs with and without protective serum injections. Only when the suspected organism reacted precisely in the same way as typical typhoid bacilli under the same circumstances did they consider the identification complete. Bacilli answering all the above tests were isolated from various samples of drinking water, soil, and fæces of patients who had never had typhoid fever. They were obliged to conclude that the typhoid bacillus was extremely diffused in our midst, and needed only favourable circumstances, such as temporary individual vulnerability, in order to effect a lodgment in the human system. Attacks and epidemics might therefore originate without connection with any previous case of the disease, which amounted to a reinstatement of Murchison's views. In conclusion, the speaker demonstrated naked-eye reactions of typhoid serum on the specific bacilli. Tubes prepared by Wright's method were handed round, showing the precipitation of the bacilli by serum from a typhoid patient, whilst a central tube treated with a similar amount of non-typhoid serum was turbid owing to the diffusion of the mobile organisms.

Dr. J. W. Moore said that he noticed two points in Dr. McWeeney's paper—first, the power of oysters to communicate the germs of various diseases, as of septicæmia, malaria, and perhaps erysipelas, etc. He believed that all clinical physicians had seen that the eating of oysters was connected with cases that certainly were not altogether cases of typhoid fever, and were often accompanied by diarrhœa, high temperature, etc. He believed that oysters were capable of conveying many diseases. The second point he noticed in the paper was the *de novo* theory of typhoid and typhus; on this point he had never been able to agree with Murchison. He believed that in typhoid fever, possibly the spores resisted very largely the action of heat, cold, etc., and might be called into sudden activity by certain favouring circumstances. There was no doubt a micro-organism of typhus, although it had not been discovered, and it was possible that it had a widespread distribution, and might also be called into action by favouring circumstances.

In reply to Dr. Moore, Dr. Green (A.M.D.), Dr. Parsons, Dr. Grimshaw (Registrar-General), and Dr. Horne, Dr. McWeeney said Dr. Moore had referred to the spores of typhoid bacillus, but he (Dr. McWeeney) thought that the typhoid bacillus did not form any spores. With regard to Dr. Green's question on the effect of sea water on the cholera bacillus, the effect was practically the same as on the typhoid bacillus. Dr. Parsons had asked if he was of the same opinion as the French experimentalists. He did not question their results, because they had worked very diligently and with very great detail, and he thought that their results had been honestly arrived at. It was well known that the tetanus bacillus was very widely distributed. With regard to the Registrar-General's remarks about the soil, Drs. Remlingen and Schneider had found the bacillus in soil which was not in the vicinity of cases of typhoid. In patients who had not had typhoid fever, and who were not suffering from the disease at the time, the bacilli had been found, and his audience might draw their own conclusions. He himself had had a good deal of experience in attempting to isolate the typhoid bacillus, and he had on many occasions found a bacillus which closely resembled it in many of its reactions. He believed that bacilli bearing a very close resemblance to typhoid bacilli were everywhere around us.

Baltimore, Maryland, is represented in Congress by two members of the medical profession—Dr. Isaac A. Barber and Dr. William S. Booze.



## LEEDS AND WEST-RIDING MEDICO-CHIRURGICAL SOCIETY.

Pathological Meeting.

James Braithwaite, M.D., Vice-President, in the Chair.

*Friday, February 19th, 1897.*

Specimens.

Dr. Churton showed a specimen of Sarcoma of the Kidney. The patient had been under observation eight years, at the beginning of which time the question of operation was entertained. There was no secondary growth elsewhere.—Dr. Wardrop Griffith showed (1) Specimens of changes in the Osseous System; among these was one of osteoarthritis of the spine, with ossification and thickening of the anterior common ligament of the bodies, causing ankylosis of right vertebræ; at one point this splint-like mass was fractured, and a false joint had developed. (2) Large Sarcoma of the Kidney, simulating a hepatic enlargement during life. (3) Mediastinal growth, causing, in addition to pressure symptoms, an external protuberance over the upper part of the sternum, with absorption of that bone. (4) (with Mr. Littlewood) Intestine from a patient who died of Empyema, but who was operated on two years ago for a stinking abscess in the region of the cæcum; the only evidence of any operation was a slight dimple in the peritoneum opposite the skin incision, and some very slight and extremely delicate adhesions around the appendix, which did not prevent any evidence of disease beyond slight thinning of its mucous membrane at one point, and in the peritoneum; close to this was a small mass of cheesy-looking pus the size of a pea.—The Chairman showed some sections of Glandular and other forms of Fungosities of the Uterus.—Dr. Barrs showed the Viscera from a case in which the diagnosis lay between splenic anæmia and idiopathic anæmia. The spleen was very large. The patient was a young man, aged 21, and the clinical symptoms were those of idiopathic anæmia.—Mr. C. J. Wright showed large masses of Molar Tissue removed from the Uterus on two occasions four weeks after the birth of a full-term living child. The patient, a 3-para, aged 36, had a natural labour, but the uterus still remained large, leading to the supposition that there was another fœtus. On the twenty-seventh day she was brought to Mr. Wright with a protrusion from the vagina the size of a cocoa nut. Dense offensive membranous masses which filled a pint basin were removed; and the next day (under ether) the uterus was emptied and cleansed. The patient made a rapid recovery. She had lost her husband during early pregnancy. There had probably been a twin conception, with one ovum blighted. The masses consisted of granulation tissue, and contained a few bits of placental structure.—Dr. Selby (Doncaster) showed: (1) A Tuberculous Kidney, which had become converted into a fibrous structure containing embedded calcareous masses, removed *post mortem* from a man aged 52, the subject of fibroid phthisis, who died of suppression of urine of fifteen days' duration. The other kidney had undergone compensatory hypertrophy, and was hyperæmic, but otherwise healthy. There was no obstruction of the ureter. (2) Double Calculous Pyonephrosis removed *post mortem* from a man aged 21. The right kidney contained numerous calculi with a quantity of fœtid pus; the left was converted into a loculated pyonephrosis containing about two pints of very foul pus. The patient was at work until a week before his death, which occurred from acute septic pyelonephritis. (3) A Uterus, the subject of malignant disease, removed by vaginal hysterectomy.—Dr. Hellier showed: (1) Schäffer's Gynæcological Plates; (2) Uterus removed by vaginal hysterectomy for carcinoma; the patient recovered; (3) Broad Ligament Cyst; (4) a "Merry Thought" from a fowl, showing an old fracture perfectly united.—Mr. Littlewood showed: (1) Sixty Calculi removed from the bladder of a patient aged 69 by suprapubic operation; (2) Hydatid Cyst removed from the back of the neck; (3) Suppurating Testicle from a case of gonorrhœa; (4) Two specimens of Vermiform Appendix associated with abscess.—Mr. Secker Walker showed the two halves of an Eyeball incorporated with a malignant tumour which filled the orbit. The interior of the globe was completely filled with the growth, which was of the nature of a spindle-celled leuco-

sarcoma. The growth extended backwards as far as the optic foramen.—Mr. Basil Hall showed the following plaster casts: (1) Congenital Talipes Calcaneo-Valgus of right foot, and in same patient Congenital Talipes Calcaneo-Varus in the left foot; (2) Acquired Talipes Calcaneus; (3) Pes Cavus; (4) Deformity of Foot secondary to genu valgum; (5) Talipes Equino-Varus; (6) Double Congenital Talipes and Equino-Valgus.—Mr. Thompson showed the Large Intestine of a patient who had died suddenly twenty-four hours after the administration of ether *per rectum* for an operation on the mouth. The mucous membrane was congested, and almost all over was marked by extravasations of blood. The operation lasted forty minutes, and 4 ounces of ether used.

## MANCHESTER MEDICAL SOCIETY.

Graham Steell, M.D., F.R.C.P., President, in the Chair.

*Wednesday, March 3rd, 1897.*

### Syphilitic Stenosis of the Trachea.

Dr. Moritz showed the larynx and trachea, and related the further history of a patient whom he had shown to the Medical Society in March, 1895.[1] The patient was then suffering from an agglutination of the vocal cords, the consequence of syphilis, and had been tracheotomised. Interlaryngeal operations proved only of temporary benefit, and the patient refused to undergo any further operative interference. In October, 1895, she again began to suffer from urgent dyspnœa, which was found due to stenosis of the trachea. This was gradually and efficiently dilated by means of Schroetter's catheters, introduced through the tracheal opening. The patient did not show herself from April until September, 1896, when she again became dyspnœic. But now Schroetter's catheters of even a larger size (No. 4 or 5) could be passed without meeting with any apparent obstruction, and gave no relief. It was therefore concluded that there was another stricture lower down. The patient died in October, 1896, from suffocation. She was seen shortly before her death, and though the inspirations were accompanied by some stridor, the dyspnœa was mostly expiratory, and at each expiration a peculiar click-like sound as that of the closing of a valve was heard. At the *post-mortem* examination the larynx was found entirely occluded by cicatricial tissue down to the lower edge of the cricoid cartilage. The mucous membrane of the trachea was free from cicatrices. The lumen of the trachea showed a slight constriction at its lower part, whilst above this there was a fusiform dilatation, in which the rest of the trachea was involved. At the constricted part the tracheal cartilages were extensively softened, and to this condition the dyspnœa and click-like sound were due. There was, further, a stenosis of the right larger bronchus just before its bifurcation. The right lung was emphysematous, the left lung normal. Dr. Moritz also made some observations of the comparative facility of inspecting the trachea through a tracheotomy opening by means of aural or nasal specula (Zaufal's), with the head of the patient well extended backwards.

### Subphrenic Abscess.

Dr. McNaught related a case of subphrenic abscess probably due to rupture of stomach and complicated by empyema successfully treated by incision and drainage of abscess, and subsequent incision and resection of rib.

### Roentgen Rays in Surgery.

Mr. G. A. Wright showed (with lantern slides) a collection of skiagrams illustrating the uses of the process in general surgery.

### The Detection of Sugar in the Urine.

Dr. R. T. Williamson referred to the difficulty of detecting with certainty small quantities of sugar in the urine. Every test had some weak point, but by the following combination of tests a definite conclusion could be arrived at easily: (1) Apply Fehling's test; if no oxide of copper were reduced, or if there were a good reduction and other indications of diabetes were present, no further test was required. In some cases other indications of diabetes were absent or the reduction of copper was slight. In such cases (2) try the phenylhydrazin test, simplified method. (Test tube filled for half an inch with powdered sodium acetate, for half an inch with phenyl hydrazin hydrochlorate in powder, and the tube half filled with urine; keep boiling over a lamp for two minutes.) A negative result showed that the substance reducing Fehling's solution was not sugar, and no further test was required. A positive result (deposit which under the microscope consists of yellow needle-shaped crystals in sheaves) indicated glucose; if scanty, possibly glycuronic acid. Lactose yielded small yellow globules with very short spines. (3) Try the fermentation test for twenty-four hours, using two tubes, one containing the suspected urine, the other normal urine for control, yeast equals one-tenth by volume. Excess of gas in the former tube indicated glucose; a negative result showed glucose to be absent, or less than 0.1 per cent. If the result were negative at the end of twenty-four hours (4) apply Fehling's test to the mixed urine and yeast. If Fehling's solution was no longer reduced, glucose which had been destroyed by the yeast was indicated; if Fehling's solution was still reduced, the reducing substance was not glucose.

[1] See British Medical Journal, 1895, i, p. 649.

Laryngological Society of London.—At a meeting on February 10th, Mr. H. T. Butlin, President, in the chair, the following cases were shown:—Dr. Edward Law: (1) Cleft Palate in a boy aged 16, who had been twice unsuccessfully operated on; the posterior extremities of the inferior turbinates were much swollen, and adenoids were present; (2) Cleft Palate in a woman aged 22, where the cleft was completely filled by hypertrophy of the mucous membrane of the inferior turbinates. Opinions were divided as to whether it was better to operate or not.—Dr. Lack demonstrated (1) a method of Examining the Larynx of very young children, by passing the index finger into the mouth and hooking it round the hyoid bone, pulling the latter forwards and upwards, while the laryngoscope was used in the ordinary way; the method had always been successful in his hands; (2) a case of Bilateral Abductor Paralysis, with Unilateral Paresis of the Soft Palate and Pharynx. Dr. James Taylor thought there was probably a medullary lesion.—Dr. Watson Williams showed a coloured drawing of a Tuberculous Larynx, where *curettement*, lactic acid and guaiacol had produced great improvement.—Dr. StClair Thomson showed a case of Lupus of Larynx and Tuberculosis of Lungs, said to be a rare combination (Bosworth).—Mr. Charters Symonds showed: (1) Perichondritis of Larynx arising in second stage of syphilis; and (2) Ulceration of Right Ventricular Band, with impaired Mobility of the Cord; Drs. Baber, Bennett, and Williams thought the case one of tubercle rather than malignant disease; (3) Advanced Tuberculous Ulceration of Septum, which had been freely curetted and treated with lactic acid; Mr. Bowlby pointed out how these cases sometimes defied the most active and energetic treatment.—Dr. Bennett showed (1) Case of Frontal Sinus Suppuration of nearly three years' duration, much relieved by removal of anterior portion of the middle turbinate and a mucous polypus. The question for decision was, Ought an external radical operation to be performed? Dr. Hill and Mr. Spencer inclined to a radical operation, Dr. Baber deprecated any forcible intranasal treatment, Dr. Spicer advised the use of Grünwald's cannula for washing out the sinus, and Dr. Herbert Tilley thought that the uncertain results of the operation and the comparative comfort produced by intranasal treatment ought to be carefully laid before the patient before operating externally. (2) Tumour of Uvula, removed from a child aged 6 years. The tumour was of simple nature, and about the size of a walnut.—Mr. Lawrence showed a Case for Diagnosis. The patient was a woman, aged 25, with swelling of the gum over the right alveolus, ulcerated mass over the left cheek and a breaking-down glandular mass below it, an abscess on the right side of the lower jaw, and superficial ulceration of palate. Messrs. Bowlby and Spencer thought the lesions tuberculous, Mr. de Santi that it was a mixture of tubercle and syphilis, and Dr. Lieven that the palate ulceration was syphilitic.—Dr. Herbert Tilley showed a case of Perichondritis of Larynx, with appearances simulating Paralysis of Cords.—Dr. Scanes Spicer showed a case of Doubtful Early Malignant Disease of the Larynx.—Mr. Spencer showed a case of Hypertrophic Pharyngitis and Tonsillitis, with Chronic Enlargement of Parotids and Submaxillary Glands. The patient, aged 25, had had tuberculous

lesions, and for two months enlarged, hard, and painless salivary glands. Dr. Lack thought the disease possibly syphilitic, while Dr. Bennett suggested a course of arsenic.

Harveian Society.—At a meeting on March 4th, Dr. R. H. Milsom, President, in the chair, Dr. G. A. Sutherland showed a girl, aged 11 years, suffering from Tachycardia and Cyclic Albuminuria. There were other disturbances present in connection with the heart and the kidneys, but he considered that they were functional rather than organic in origin. The President stated that he had a patient whose pulse had averaged 128 to 130 beats in the minute, and frequently reached 140, for the last ten years. Although he had been seen by many physicians, the cause of the quickness had never been determined. Dr. Cock mentioned a case in a healthy lady of 36 whose pulse was normally 100; that this quickness had persisted after an attack of puerperal septicæmia from which she suffered ten years ago.—Mr. Jackson Clarke showed a child, aged 5 years, who had a marked lateral deviation to the left in the dorsal region of the spine. There was a slight deformity present at birth, and this had become worse during the first two years of life owing to the child having suffered from rickets. At the end of this time the case came into the hands of his colleague, Mr. John Poland, who had applied the splint (Chance's) which he demonstrated. No farther deviation had occurred since the splint had been worn. Mr. Noble Smith remarked that the case of lateral curvature shown by Mr. Jackson Clarke was probably due to rachitic softening of the vertebræ. Only 1 or 2 per cent. of the cases which he had seen were clearly rachitic. Sometimes lateral curvature occurred in young people whose muscles were well developed, and he showed photographs of such cases in youths whose muscles were obviously strong. He also showed photographs of cases of lateral curvature in which a condition of osteoporosis existed. The popular treatment by exercises alone was only suited to those few cases which were hysterical or very slight, and for the very large number of patients who suffered from real lateral curvature, mechanical help was necessary, and if judiciously applied was always successful. The splint which Mr. Jackson Clarke had shown, and which was used at the City Orthopædic Hospital, was very efficient.—Mr. E. W. Roughton showed: (1) A case of Sacro-iliac Disease, which had been completely cured by thoroughly scraping out the joint. Practically the only symptom of disease in this case was a cold abscess, which formed over the dorsal aspect of the joint, yet when cut into the joint was found to be completely disorganised. (2) A case of Congenital Deformity of both Hands in a woman. The three central digits were shortened. A skiagram showed that the change lay in the metacarpals, not in the phalanges.—Mr. Sefton Sewill showed a case of Empyema of the Antrum. He described the operation of opening the antrum through the alveolus of a molar or a bicuspid tooth, and showed the instruments he employed. He next described the drainage apparatus, consisting of a gold tube of as large calibre as possible, its lower orifice closed during mastication by a split pin. This tube fixed to a gold plate held *in situ* by bands round adjacent teeth provided efficient drainage, and had this advantage—that patients could syringe out the antrum without removing the apparatus. He laid stress on the necessity of treating coexisting nasal disease before opening the antrum, it being most important that fluid should pass freely through the tube and through the ostium maxillare. Drs. Pegler, Scanes Spicer, and W. Hill discussed the case.

West London Medico-Chirurgical Society.—At a meeting on March 5th, Mr. Bruce Clarke, President, in the chair, Dr. Clippingdale showed a boy, aged 10, with Congenital Ichthyosis. The areas of skin free from disease were the front of each elbow, the back of each knee, and the face and neck.—Dr. C. W. Chapman showed a man, aged 41, with Aneurysm of the Thoracic Aorta.—Dr. H. P. Potter showed a man, aged 56, with a Sarcoma of the Upper Jaw which had been observed for about nine months. It measured 5 inches from side to side, and $4\frac{3}{4}$ inches from above downwards. The submaxillary glands were slightly enlarged.—Mr. McAdam Eccles showed a man, aged 52, who had had his Superior Maxilla removed for Sarcoma. The glands at the angle of the jaw were removed at the same time. The patient made a good recovery.—Mr. Swinford Edwards showed a man, aged 50, with Papillomatous Dermatitis around the Anus which had lasted four months. The anus was entirely surrounded with papillæ. There were no signs of syphilis in other parts.—Dr. Seymour Taylor showed: (1) A boy, aged 14, with Hydrocephalus. The head began to enlarge at 7 months, continuing until the 10th year. The left side was more enlarged than the right. He had signs of a descending lesion affecting the crossed pyramidal tract on either side of the spinal cord. He was fairly intelligent. He had a lateral spinal curvature, (2) A boy, aged 8, with Congenital Spastic Paraplegia. Parents healthy. No history of forceps delivery. Rigidity of both the upper and lower extremities, especially the latter; also flexion and abduction with increase of deep reflexes. Remarks were made by Mr. W. S. Colman and Mr. McAdam Eccles.—Mr. Keetley showed: (1) A case of Congenital Dislocation of the Hip-Joint after Operation. (2) A man from whom he had removed a Mammary Sarcoma.—Mr. L. A. Bidwell showed a man, aged 46, from whom he had removed an Epithelioma of the Abdominal Wall. The patient first noticed a pimple on the abdomen twelve months before, which had gradually increased in size.—Mr. Swinford Edwards showed a man, aged 32, from whom he had removed a Renal Calculus.

Nottingham Medico-Chirurgical Society.—At a meeting on March 3rd, Dr. W. B. Ransom, President, in the chair, Dr. Handford read a paper on the Different Varieties of Aortic Regurgitation, and emphasised particularly the essential difference between those in which the lesion was stationary and those in which it was progressive, as well as the difference between the rheumatic and the atheromatous cases. The chief characteristics of the rheumatic cases were: (1) The disease comes on at a much earlier period of life than atheroma, and is the main cause of aortic regurgitation arising between 5 and 35 years of age; (2) the arteries are generally sound; (3) the heart muscle is comparatively sound; (4) apart from fresh attacks the valvular disease soon ceases to be progressive. In all these respects rheumatic aortic regurgitation differs essentially from the atheromatous, and the prognosis is very much more favourable. Not infrequently free regurgitation may exist for many years with a complete absence of symptoms, even though the patient lead an active and perhaps an athletic life. The atheromatous cases were by far the most numerous and serious, and presented the following distinctions: (1) The disease is essentially a degenerative one, and arises in middle life, rarely before the age of 35, except when syphilis is the main cause; (2) the arteries are always involved to a considerable extent; (3) the heart muscle is rarely sound; (4) the disease is almost always progressive; (5) it affects the male much more frequently then the female. Of the atheromatous cases there were four chief subdivisions, according to the mode of production: (1) The syphilitic, arising generally between 30 and 50, affecting sometimes mainly the aorta and branches, sometimes mainly the valves, difficult to distinguish from fusiform aneurysm, and rapidly progressive; (2) those arising from laborious work in strong muscular men, especially colliers, iron workers, and those who use the sledge-hammer, generally between 40 and 55 years of age; (3) the arterio-sclerotic, arising between 50 and 65 in the gouty and men who habitually eat and drink too much, especially when combined with hard mental work; (4) cases arising from "old age," about 70. No general rule could be laid down for all cases as regards the use of digitalis. It was most useful where there was consecutive mitral disease with dropsy: next in the rheumatic cases and those arising from laborious work; the latter could often be enabled to continue their work by the aid of daily doses of digitalis. The chief cause of failure of compensation was degeneration of the ventricle from fibroid change, the progress of which depended mainly upon the degree of occlusion of the coronary arteries. Where the fibroid change was advanced digitalis had little tonic stimulating effect upon the heart, and not only failed to do good but did positive harm, because it still caused tonic contraction of the small arteries, and increased the work of the failing heart. Digi-

talis was of great use in failure of compensation from temporary causes. It generally did harm in the syphilitic, the arterio-sclerotic, and the aged cases. The PRESIDENT agreed that the condition of the cardiac muscle was the most important guide in the use of digitalis. Dr. CATTLE emphasised the clinical difficulty in deciding whether a heart was "fatty." —Mr. A. R. ANDERSON showed a man on whom he had successfully operated nine months previously for Actinomycosis originating in the vermiform appendix, and honeycombing the whole thickness of the greater portion of the anterior abdominal wall.—Dr. C. BELL TAYLOR showed (1) a case of Double Iridectomy from one blow without injury to vision; (2) Cataract in a patient, aged 70, dispersed by Electricity; (3) Cyclitis followed by Atrophy of both Globes, with Secondary Cataract and Synechiæ in which good vision had been restored by operation.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.—At a meeting on March 2nd, Miss COCK, M.D., Vice-President, in the chair, Miss COOKE, L.R.C.P. and S.Edin., read a paper entitled a Short Account of the Introduction of Western Medical Science amongst the Women of Korea. She dealt with the difficulties to be overcome owing to the conservatism of the inhabitants, and concluded by saying that in spite of their preference for methods of work and instruments, which had remained unchanged for 900 years, it had at last been found possible to build and equip a small hospital there on modern lines.—Mrs. BOYD, M.D., read a paper on a case of Intestinal Obstruction, complicated with Malposition (apparently congenital) of the Colon. A woman, aged 39, had suffered for six years with symptoms suggestive of gastric ulcer, for which she was admitted into the New Hospital. During convalescence, and after a change in diet, she was suddenly attacked with symptoms of acute obstruction. On the fourth day there was coffee-ground vomiting, and a tumour appeared in the right hypochondrium. The vomiting was temporary, and the distension and constipation variable. Laparotomy was performed on the tenth day, and a coil of compressed small intestine released from beneath the mesentery. Vomiting returned, and the patient died collapsed thirty-six hours after the operation. At the necropsy there was found a volvulus of the cæcum and ascending colon with a large part of the small intestine. The transverse colon passed upwards in front of, and then over, and down behind the pyloric end of an hour-glass-shaped stomach, the two viscera thus constricting each other. The small intestine, with its mesentery, was situated in front of the junction of the stomach and duodenum on the right and outer side of the transverse colon. Mrs. Boyd drew attention to the double cause of obstruction, and attributed the final attack to the volvulus. The complication of previous gastric with the intestinal symptoms gave rise to great difficulty in diagnosis. The interlocking of the stomach and transverse colon appeared to be unique; it was regarded as congenital, and was referred to an abnormal rotation of the primary intestinal fold at a very early period of development. Mrs. FLEMING, M.D., who made the *post-mortem* dissection, illustrated this view by diagrams, and demonstrated the specimen, which has been presented to the Museum of the Royal College of Surgeons.—Mrs. NASH, L.R.C.P.and S.Edin., read a paper on a case of Partial Suppression of Urine of Seven Weeks' Duration.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on February 25th, Mr. RECKLESS, President, in the chair, Mr. HARRY LOCKWOOD again showed his case of Myositis Ossificans to demonstrate the progress of the disease.—Mr. HARVEY showed (1) an adult with Facial Hemiatrophy; (2) a child with Marked Congenital Asymmetry of the Head and Limbs.—Mr. ARCHIBALD YOUNG showed a case of Intrathoracic Growth. —Dr. WEARNE CLARK (Chesterfield) showed photographs of a case of Raynaud's Disease, and related particulars and made general remarks.—Mr. DALE JAMES showed a case of Raynaud's Disease.—Dr. RICHARDS (Chesterfield) showed an album with many photographs of Varieties and Stages of the Small-pox Rash.—Dr. ARTHUR HALL showed a Brain with Multiple Hæmorrhages; the most conspicuous was a primary ventricular hæmorrhage. Dr. Hall also showed a case of Syphiloderma which at one time so closely simulated scrofuloderma as to be mistaken for it.—Dr. EASTES read notes of a case of Tetanus. Dr. SORLEY, in discussing Dr. Eastes's paper, related the history of a case of tetanus recently treated at the Sheffield Union Infirmary. The points of interest of the case were the absence of evidence of injury, the occurrence of a rigor which apparently marked the commencement of the symptoms, trismus, marked opisthotonos, no clonic spasms except perhaps the occurrence of severe paroxysms of pain beginning in the epigastric region and passing round the body and shooting upwards along the spinal column. Nourishment of a fluid kind was freely taken, while the patient was conscious up to the end, which came suddenly, the patient dying in a rigor attitude. The brain and spinal cord were healthy. The whole course of the disease lasted five days. No antitoxin was employed. Mr. RICHARD FAVELL, Mr. SNELL, and Dr. WHITE made remarks.

LIVERPOOL MEDICAL INSTITUTION.—At a meeting of the Pathological and Microscopical Section on March 4th, Mr. F. T. PAUL in the chair, the following specimens were exhibited:—Mr. T. H. BICKERTON: Tumours, Intraocular, mounted in glycerine jelly.—Dr. BUCHANAN: Specimens and drawings of Tuberculous Tumour of the Iris removed by Mr. Bickerton. The patient, a negro boy aged 4, in June, 1893, had a small speck in the iris which rapidly grew, the eye being enucleated in October. Twelve months later symptoms of cerebral tuberculosis set in, and the boy died. The sections exhibited bacilli, giant cells, and early tubercle in iris and choroid.—Mr. G. NEWBOLT: 1. A Villous Tumour of Bladder passed by a patient. 2. Vermiform Process removed from a Femoral Hernia in a woman on account of strangulation.—Dr. LESLIE ROBERTS: 1. Parasitic Flora of Skin, cultures and specimens. 2. Psoriasis. 3. Lichen Planus. 4. Morphœa.—Mr. THELWALL THOMAS: A Dissection of the Neck in a case where all the carotid arteries and jugular veins had been divided with many nerves in the left side of the neck in a man whose case was recorded in the BRITISH MEDICAL JOURNAL, December 7th, 1895. He lived over two years, and died from lung mischief and empyema on the right side. From the root of the neck to the base of the skull on the left side, only one small part of the external carotid could be found giving off the lingual and superior thyroid arteries; the stumps of the common carotid and internal jugular veins were merged in a cicatrix which also included the cut ends of the sympathetic and pneumogastric nerves. The circle of Willis was normal, the only apparent attempt at collateral circulation being a large vertebral on the left side, the deep cervical artery being smaller on the left than on the right.—Mr. F. C. LARKIN: Acute Necrosis of Os Calcis; Appendix Cæci removed from a Strangulated Hernia in a child in which the cæcum was also present and Hypertrophic Prostate.—Dr. A. W. CAMPBELL: 1. Tuberculous Growths in White Matter of Spinal Cord (posterior columns). 2. Tumour of Posterior Nerve Root in Sacral Region and Heterotopia Spinalis.—Dr. J. WIGLESWORTH: Cerebral Asymmetry. The CHAIRMAN, Mr. LARKIN, Professor BOYCE, and Drs. BUCHANAN and CAMPBELL took part in the discussion.—Dr. GRÜNBAUM read a note on the Smegma Bacillus, and mentioned that he had succeeded in growing the organism in milk.—The CHAIRMAN, Professor BOYCE, and Dr. N. E. ROBERTS discussed the paper.

FOLKESTONE MEDICAL SOCIETY.—At a meeting on March 3rd, Dr. FITZGERALD in the chair, Dr. C. A. OSBURNE read a paper on the Treatment of the Insane by Coloured Lights, and quoted cases in which this method had been tried. He did not find that melancholics experienced much benefit when submitted to the red light, but there was marked improvement in five cases of acute mania when placed in the violet or red chambers. A description of the mode of preparation of the coloured chambers was also given. His conclusions were that the treatment should have more extended trial, and that it had something more than a moral effect upon these cases.—After an interesting discussion, in which many of the members joined, Dr. OSBURNE replied.

PRESENTATION.—Dr. Douglas, of Scarborough, has been presented with a silver cigar case by the members of a ladies' class in sick nursing, which he had conducted during the past winter.

# REVIEWS.

**Aristotle on Youth and Old Age, Life and Death, and Respiration.** Translated with Introduction and Notes by W. Ogle, M.A., M.D., F.R.C.P., sometime Fellow of Corpus Christi College, Oxford. London: Longmans, Green and Co. 1897. (Roy. 8vo, pp. 142. 7s. 6d.)

[Second Notice.]

In our former notice (February 27th) we directed chief attention to the part of Aristotle's work which deals with the physiology of respiration: because it is in the growth and completion of these great physiological doctrines that we can most clearly trace the gradual progress of man from error and mere "vain imaginings," through facts more or less imperfectly observed and reasoned on with more or less accuracy to the clear light of demonstrated truth. Nor can such chapters in the history of the human mind ever lack interest. Those who listened with delight lately to the Harveian orations of Dr. Church and Dr. Payne will agree how instructive and how enthralling such inquiries may be made. But they require, in him who has to conduct them, adequate knowledge and a sympathetic spirit, which will allow the commentator to place himself in the position of the ancient philosopher who had to work in so very different a set of circumstances. Dr. Ogle certainly has both requisites. Without any blind adoration of his author—in fact, while freely pointing out the faults of Aristotle's method, as well as the many deficiencies in his scientific knowledge, he is yet capable of appreciating that mighty genius which was able to sound the depths of all the learning and philosophy of his day, and which won for Aristotle the undivided and absolute monarchy of all science and philosophy for about 1800 years. Dr. Ogle has also that intimate knowledge, not only of the present state, but also of the growth and past history of physiology and comparative anatomy, which is necessary in order to comment adequately on Aristotle's biological treatises. Few works which have fallen under our notice have seemed to us more agreeable in style and more abounding in instruction than the introduction and notes to Dr. Ogle's two translations. In illustration of this we could cite from almost every page of the book. We will select the account which Aristotle here gives of the uses of the blowhole in the cetaceous mammalia, and Dr. Ogle's comments on his author's text. The reader must recollect that all this is to be regarded in the light of Aristotle's theory, that the function of respiration is "*conservatio caloris naturalis per refrigerium.*"

Aristotle speaks as follows. The footnotes are Dr. Ogle's comments.

As regards those aquatic animals that are cetaceous,[1] that is to say, the dolphins, the whales, and such animals as have the so-called blowhole (αὐλός), anyone might fairly feel puzzled, though a rational explanation can be given, even as to these. For though they are apodous, and though they have a lung, nevertheless they take in sea water. The explanation, however, which we give of this is that the water is not taken in for the purpose of refrigeration, for these animals have a lung, and their refrigeration is effected by respiration. This, too, it is that explains why they keep their heads above the surface when they are sleeping, and snore: as is, at any rate, the case with the dolphins.[2] Moreover, when they chance to be caught in the fisherman's nets, they soon perish, being suffocated by the stoppage of their respiration.[3] Again, they are to be seen on the surface of the water, coming there in order to breathe. Inasmuch, however, as they must necessarily take their food in the water, the water must of necessity get admission to their mouths, and must as necessarily be again discharged; and it is to meet this necessity that they are all provided with a blowhole. For it is through this passage that they discharge the water they have taken into their mouth, just as fishes discharge it through their gills."[4] The position of the blowhole is a further indication of this; for it does not lead to any of the organs that are rich in blood, but is situated in front of the brain; and here it discharges its water (pp. 90, 91).[5]

We have endeavoured to put our readers in a position to estimate Dr. Ogle's merits as a commentator and editor of Aristotle's biological treatises, as far as a single example can do this. It remains to speak of him as a translator. Now it is far from an easy task, even for a good Greek scholar, to translate these works into readable English. Not only is Aristotle's style crabbed and his matter obscure; not only does the text present the difficulty which is inevitable when the author is labouring to express ideas which he himself only partly understands, but the text of this, as of the other similar treatises, has undergone hopeless corruption, so that sometimes it is really impossible to discover the meaning, and comparatively often, though the general intention is obvious, it is hard to see what the original text was. In his former translation Dr. Ogle thus accounts for the state of the text:

We have only to remember the strange vicissitudes to which the original manuscripts of Aristotle's treatises are said to have been subjected. Hidden underground in the little town of Scepsis, to save them from the hands of the Kings of Pergamus, who were then collecting books to form their famous library, and who, in so doing, apparently paid little regard to the rights of individual owners, they were left for the better part of two centuries to moulder in the damp—"*blattarum et tinearum cpulæ*;" and, when they were at last again brought to light, fell into the hands of Apellicon of Teos—a man who, as Strabo says, was a lover of books rather than a philosopher, and who felt no scruples in correcting what had become wormeaten and supplying what was defective or illegible.[6]

As to the present treatise he says the text

is far from being in a satisfactory condition.....There are no few passages where a translator must content himself with giving what appears to be the general drift of meaning, while he altogether ignores some unintelligible detail. The text is also much marred by frequent and annoying repetition, and the idea irresistibly suggests itself that the transcriber had two somewhat different versions before him, and that, instead of simply selecting the better of these, he attempted to combine the two and did this so unskilfully as to cause iteration and confusion (Preface).

Out of this chaos Dr. Ogle has produced a most readable and on the whole a very lucid treatise, and that without (as far as we have compared the translation with Bekker's text) any undue violence to his author. His translation is not, indeed, exactly word for word; but here he might shelter himself behind Voltaire's authority: "Malheureux faiseurs de traductions littérales! C'est là qu'on peut dire que la lettre tue!" To say, however, that his method is rather that of a paraphrase, as one of his critics does, seems to us unjust. We believe that Dr. Ogle follows the text as closely as is consistent with what is after all the chief object, namely, the production of a readable translation. This could be proved only by comparing in many places the translation with the text; and having done so we repeat our opinion that as a translation merely Dr. Ogle's work is excellent. We will quote one section (from περὶ ἀναπνοῆς, ch. 16, in Bekker's arrangement), which seems a fair specimen, and is of interest besides as introducing the question why animals die when confined in a limited quantity of air or water—a question which Aristotle had meditated on carefully, as one which he saw must throw much light on the nature of respiration.

The natural constitution of animals, then, is such that they all, without exception, require refrigeration, because of the cardiac fire in which their soul is incorporate. In animals that in addition to a heart have also a lung, this refrigeration is effected by breathing; but in such animals as fishes, which though they have a heart have no lung, it is effected by the passage of water through the gills, these animals being of aquatic nature. As regards the position of the heart in relation to the gills, the treatises on anatomy must be consulted for pictorial representa-

[1] In his notes to the *De Partibus*, Dr. Ogle thus sums up Aristotle's views on the cetacea: "The term 'cete' was used prior to Aristotle for any sea animals of large size, whales, dolphins, sharks, tunnies, etc. But Aristotle confines it to the spouting cetacea. These are made by him to form a distinct group, intermediate between the viviparous quadrupeds and the fishes .....It is one of Aristotle's triumphs as a zoologist to have separated the cetacea from fishes. Here he tells us that they have lungs; elsewhere that they are viviparous, have mammæ (the concealed position of which he accurately describes), and suckle their young. He states, also, that they have testes, which no fish has, in his sense of the word; and, lastly, he points out that they have true bones, and not merely fish spines—a fact which *possibly* was known to Herodotus. Ogle's Translation of Aristotle *On the Parts of Animals*, p. 252.)

[2] This statement is often repeated by Aristotle.....Whether dolphins really snore when asleep, I do not know; but their snorting is especially heard at night. *Cf.* Bates's *Amazon*, 3rd ed., p. 75.

[3] When in the net, so that they are kept under water, and cannot rise to the surface, they die: and this can only be, says Aristotle, because they are animals that breathe, and consequently require to come to the surface.

[4] Cuvier (*Règne Animal*, i. 285) gives the same account as Aristotle of the use of the blowhole, and it is still the popularly received view. But it is now known by naturalists to be erroneous. The real use of the blowhole is to provide a more perfect safeguard than the epiglottis itself would do against the intrusion of water into the air passages. For the cetacean larynx is lengthened out into a rigid tube, which is thrust up into the blowpipe so as completely to shut off the air passages from the cavity of the mouth, and the blowing or spouting is due, not to the expulsion of water from the mouth, but to spray or condensed vapour driven up by the force of expiration when the animal rises to the surface.

[5] Aristotle apparently means that if the blowhole was intended to allow of the escape of heat from the blood, that is to say, if it were an instrument of expiration, it would lead to some organ, such as the lung, which is rich in blood. This, however, it does not do, but is nearest to the part which has least blood and least heat, namely, the brain.

[6] Ogle, Introduction to the Translation of the Treatise *On the Parts of Animals*, p. xii, with a reference to rote's *Arist.*, i, 51.

tion,[7] and the Natural History of Animals for detailed description. It may be well, however, to give here a short account of the matter, and the arrangement in summary is as follows. The position of the heart in fishes would appear to the eye to be different from its position in land animals. In reality, however, it is the same in both cases, for the point of the heart is in both turned in the direction in which the animal inclines its head; but inasmuch as the head is not moved in the same direction in fishes as in land animals the heart in the former has its apex turned towards the mouth.[8]

From the extremity of the heart a tube, resembling a sinewy blood vessel, runs to the central place, where all the gills unite with each other.[9]

The tube here described is the largest, but there are also others on either side of the heart, and these run to the extremity of each gill, and it is through them that the cooling, due to the continuous passage of the water through the interstices of the gills, is imparted to the heart.

Corresponding to the motion of the gills in fishes is the motion of the thorax in animals that breathe, for this moves upwards and downwards in frequent alternation as the breath is taken in or expelled.

Animals that breathe in a limited amount of air that is unrenewed are suffocated [and the same happens to fishes in a limited amount of water];[10] for the air or the water soon becomes hot, being heated by contact with the blood; but if the medium be hot, refrigeration is arrested [pp. 96-98.]

A reference to the Greek text will show how well Dr. Ogle has succeeded in setting forth in lucid English the sense of a crabbed, difficult, and more or less corrupt passage, and how judiciously he has restored to the corrupt portions a meaning which is in agreement with other writings of his author, and which we can hardly doubt was Aristotle's meaning. And the whole book is written in equally easy and fluent language, while the introduction and notes give an admirable account of the progress of physiology in one of its main provinces.

We congratulate Dr. Ogle on this addition to his previous contribution towards the elucidation of Aristotle's biological works, and hope that his well-earned leisure will be used in other similar studies.

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THE PRACTICE OF MEDICINE. By HORATIO C. WOOD, A.M., M.D., and REGINALD H. FITZ, A.M., M.D. London and Philadelphia: J. B. Lippincott. 1897. (Royal 8vo, pp. 682. 20 dols.)

IT is difficult to criticise a textbook. So long as we have examinations with us, so long, we suppose, will writers compete for the patronage of the examinee. This effort produces a set of books which resemble each other in many particulars, and differ in very few.

The present is a typical instance. Its information is sound, and is conveyed in a practical way. Some few articles, such as that on typhoid fever, are decidedly above the average; others are, on the other hand, rather below it. It is perhaps unfair to ask for originality in a textbook. It is rather meant as a compendium of current opinion. But on looking for a few points to test its accuracy, we found some rather unexpected omissions and confusions.

Thus no mention is made of the inhalation of oxygen in pernicious anæmia, a treatment which has been for some time before the profession, and has been by some highly recommended. On page 20 hæmophilia is defined as a congenital tendency towards multiple hæmorrhages. On page 21 it is added that Senator has reported a case of unilateral renal hæmophilia which was cured by removal of the kidney; and on page 22 we read that the slightest surgical procedure ranks with hæmophilous patients as a major operation in its danger. It would be difficult to leave a student less enlightened than does this self-contradictory tissue of statements. Under exophthalmic goitre no mention is made of the most terrible accident of the disease, complete destruction of the eyes. In cerebellar localisation, the authors are apparently unaware of the recent discovery that affections of the lateral lobes of this part of the brain tend to produce paresis of the limbs on the same side of the body. No mention is made of the treatment of migraine by diet. Whatever may be the explanation, there is no question that many cases can be completely cured in this way. In the section on the heart, it might be thought that paroxysmal tachycardia, a disease which now has a considerable literature, and which is of extreme interest, deserves more than the perfunctory description which it receives. The more recent methods of treatment of heart diseases by exercises are dismissed in one short sentence as founded on failure of diagnosis—a most surprising assertion.

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ALLGEMEINE UND SPECIELLE BALNEOTHERAPIE MIT BERUCKSICHTIGUNG DER KLIMATOTHERAPIE [Treatise on Balneotherapeutics with remarks on Climatotherapeutics]. Von Dr. KARL GRUBE. Berlin: August Hirschwald. 1897. (Roy. 8vo, pp. 244. M. 7.)

THIS book is conveniently divided into six chapters. In the first one the author considers the physiological and therapeutic effects of simple water and of climate. The latter he divides into (1) marine climates, (2) inland climates of low level, and (3) those of high altitude.

In the next chapter the effects of the internal and external uses of the different classes of mineral water are discussed under eight headings, namely, simple thermal waters (*Wildbäder*), simple acidulated waters (*Sauerbrunnen*), alkaline waters, bitter waters (sulphated), common salt waters, earthy waters, chalybeate waters and sulphur waters. At the end of each of these eight sections are tables showing the proportion of active ingredients contained in the chief members of the group; in some groups the temperatures are added, and in the simple thermal group the altitudes of the different spas are likewise given.

The third chapter deals with sea-bathing, mud, peat, and sand baths, pine, aromatic, and astringent baths, as well as with "cures" of milk, whey, grapes, etc.

The fourth chapter is devoted to the subject of after-cures and intermediate stations, with a few words on winter health resorts. The uses of balneotherapy in various diseases and disorders are discussed at some length in the next chapter, and the last and longest chapter contains what the author calls a "balneography," that is, short notices of the different health resorts arranged in alphabetical order.

The style is very clear, and we believe the book will find favour with those who read German. We heartily agree with the author that when a place adopts the name of "health resort," it ought to consider itself responsible for the water supply, drainage, etc., as well as other general arrangements for the welfare of its guests being good.

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APPENDIX X TO THE SECOND EDITION OF THE DESCRIPTIVE CATALOGUE OF THE PATHOLOGICAL SPECIMENS CONTAINED IN THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND. By JAMES H. TARGETT, F.R.C.S., Pathological Curator of the Museum. London: Taylor and Francis. 1896. (Roy. 8vo, pp. 38. 2s.)

AMONG the more instructive specimens added to the College Museum since 1895 is a larynx from a man aged 33, who was killed by a blow on the neck delivered by an assailant much shorter than himself. There was a multilocular cyst connected with the pyramidal lobe of the thyroid body, and the hyoid bone and superior cornu of the thyroid cartilage were fractured. For the purposes of general surgery and medical jurisprudence, injuries of the neck from blows deserve study. Operators will be interested in specimens illustrating perforation of the vermiform appendix. In the first case, a

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[7] Or perhaps "resort must be had to dissection for ocular demonstration." By *αἱ ἀνατομαί* Aristotle sometimes means actual dissection, and sometimes his treatise on anatomy.

[8] The substratum of fact for this fanciful notion is that in fishes the aortic bulb (see next note) which Aristotle takes to be the apex of the heart runs directly forwards, pointing therefore to the head; and the head, closely amalgamated with the body, can of course only move in the forward direction, but in mammals the apex of the heart inclines towards the sternum, towards which the head also moves when nodded.

[9] The heart of almost all fishes terminates anteriorly in an aortic bulb (This is Aristotle's apex, and considered by him to be part of the heart). From the bulb is given off in the middle line a stout vessel, the branchial artery (this is Aristotle's largest tube or duct). From this central branchial artery are given off, on either side, the aortic arches (these are the smallest ducts which run to the extremity of each gill). Aristotle speaks of these aortic arches as given off on either side of the heart itself. Probably the fish he examined was a ray, and here the branches which supply the three hinder pair of gills are given off so close to the bulb that they may be almost said to come from it; and the bulb, as already mentioned, was held by Aristotle to be part of the heart itself.

[10] The words introduced in brackets are required to give meaning to *ἑκάτερον*, and are further justified by the passage in *Hist. An.* viii, 2, 38: "Eels and other fishes are suffocated if kept in a small quantity of water that is unrenewed, and the same happens to air-breathing animals when shut up in a limited quantity of air." Perhaps *ἢ ὕδατι* should be read after *ἀέρι*.

boy aged 7 was seized with pain after a meal. On the third day he was admitted into Guy's Hospital in a moribund condition. The appendix contained two oval concretions and was perforated, the canal communicating with the retrocæcal pouch of the peritoneum. This patient died before an operation could be undertaken. The second patient was a girl aged 9. She fell from a tramcar, and was admitted into hospital two days later. The usual operation was performed, a localised abscess in the peritoneum evacuated, and the appendix, sloughy and perforated at its extremity, removed. A large fæcal concretion lay within its canal. The child recovered. Comparing her fate with that of the boy, these specimens bear witness to the importance of immediate operation when acute symptoms set in. The tumour of the small omentum, weighing 19 lbs., and successfully removed by operation, deserves notice. The placenta velamentosa (4,722 C.) should be inspected by obstetric students who do not always understand the precise nature of this anomaly. In the Teratological series the specimens most likely to interest others than pure scientists are Nos. 441 A. and B., illustrating congenital absence of the tibiæ, necessitating amputation. Mr. Targett has made a good selection of pathological material for this appendix.

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Allgemeine Brunnendiätetik [General Dietetic Rules for Spa Treatment.] By Dr. J. Beissel. Berlin: August Hirschwald. 1897. (Demy 8vo, pp. 165. M 2.40.)

This little book gives a great variety of information as to the choice of a health resort, general rules to be observed there, diet, after-cure, etc. The author says that he has published it in the hope that he may thereby provide many spa-guests and patients with an adviser, and many of his colleagues with a reference book. A drawback to its use for reference is that, as in so many foreign books, there is no index. This disadvantage is, however, minimised in the present case by the arrangement of the work under as many as twenty-eight different headings. Thus, what is said on the subject of diet is divided into (1) General rules: (2) Dietetics for the various diseases which are most frequently treated at health resorts: (3) Special precautions in diet to be observed during the use of different kinds of mineral waters. On the latter subject there is considerable diversity of opinion. Some hold, with J. Ruff, that the use of Carlsbad water does not prevent the taking of any food, except that which is unsuitable for the disease in which the mineral water is prescribed. Others hold with the author, who says (p. 146) that all things which irritate the mucous membrane of the digestive tract, are badly borne, even by healthy persons, when taking Carlsbad water; for example, pepper, mustard, sour fruit, and sour wines, rich fatty articles, sweets, spirits, and tobacco-smoking. The subject of suitable "diet" for the mind during spa-treatment is not overlooked, and several pages are devoted to the rules (or absence of rules) observed by spa-guests in former ages.

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Practical Points in Nursing for Nurses in Private Practice, with Glossary and Appendix. By Emily A. M. Stoney, Superintendent of Training School for Nurses, Carney Hospital, Boston, U.S.A. London: The Scientific Press, Limited. 1897. (Demy 8vo, pp. 456, 78 illustrations. 7s. 6d.)

We are beginning to think that of treatises on nursing there is no end; but the one we have now under consideration has been written especially for private nurses, thus dealing with a phase of work seldom, if ever, the theme of a textbook. We confess to a feeling of sympathy with the private nurse when sent forth to her first case fresh from the training school, and can spare some sympathy for the patient who is to form the unconscious means of giving the nurse her first experience in the mysteries of private nursing.

Miss Stoney's book has been arranged under headings for handy reference, and the various details of nursing have been dealt with individually, and not in connection with particular diseases: for instance, the administration of medicines is handled in the abstract, the various ways of giving them, the precautions to be observed, the action to be anticipated, the apparatus that is used. The same arrangement is followed in treating of baths, so that the reader can quickly ascertain the point on which she is seeking information. Obstetric and gynæcological nursing are treated in full under these headings, then follow accidents and emergencies, nursing in special medical cases, and nursing of sick children. This last section appears to us rather meagre, especially in the management of sick children, and in the rules given for feeding; the writer makes no mention of nasal feeding, so useful in difficult deglutition.

Considering that this book is written to guide nurses when left to their own resources, it might have been well to have given a few cautions as to the dangers that may occur in nursing tracheotomy; the writer suggests tying the tube at the side of the neck; as the patient is more often than not a child the tube should be tied behind the neck.

The hints given in the early part of the work to nurses in relation to the patient, the friends, the medical attendant, and general behaviour in the house are excellent, and we hope that they may be widely read. There is a good index, and the appendix contains some hints on feeding, and several recipes for use in the sick room.

The Glossary is very full, and intended for handy reference. The illustrations in some instances require more reserve in treatment.

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# NOTES ON BOOKS.

*Herbert Fry's Royal Guide to the London Charities.* Edited by John Lane. Thirty-second annual issue. (London: Chatto and Windus. Cr. 8vo, pp. 342. 1s. 6d.)—This well-known annual contains an alphabetical list of London charities, showing the date of their foundation, the address, objects, the annual receipts of each, the number of persons benefited, the official from whom information may be obtained, and the names of the chief executive officers. It is furnished with a classified index, and is altogether an extremely well-arranged work of reference.

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*Bibliographischer Semesterbericht der Erscheinungen auf dem Gebiete der Neurologie und Psychiatrie.* Von Dr. G. Buschan. Zweiter Jahrgang. 1896. Erste Hälfte. (Jena: Gustav Fischer. 1896. Roy. 8vo, p. 160, 4 mks.)—This publication is a striking proof of the enormous proportions which medical periodical literature has now attained. It is a bibliography of papers treating of nervous and mental diseases published during a period of less than a year, yet it extends to 156 pp., each containing some twenty entries. It was published in February, and brings the list down to the end of the first half of 1896. We may be grateful to Dr. Buschan for appending a mark to such papers as, in his judgment, contain no original matter, and we may be grateful both to him and to the publisher for issuing a bibliography entailing so much labour and expense.

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*Willing's British and Irish Press Guide.* (London: James Willing. 8vo. 1s.).—We have received a copy of the 24th annual issue of this work (1897). Following the precedent of former years it has been carefully revised and brought up to date. This volume contains a list of daily, weekly, and other newspapers, reviews and periodicals, annuals, guides, directories, almanacs, journals, proceedings and transactions of learned societies, etc., issued in England, Wales, Scotland, and Ireland, and the British Isles, with full particulars of their time and place of publication. It also contains a list of telegraphic news and reporting agencies and list of the principal colonial and foreign journals. It is a very convenient and practical work of reference.

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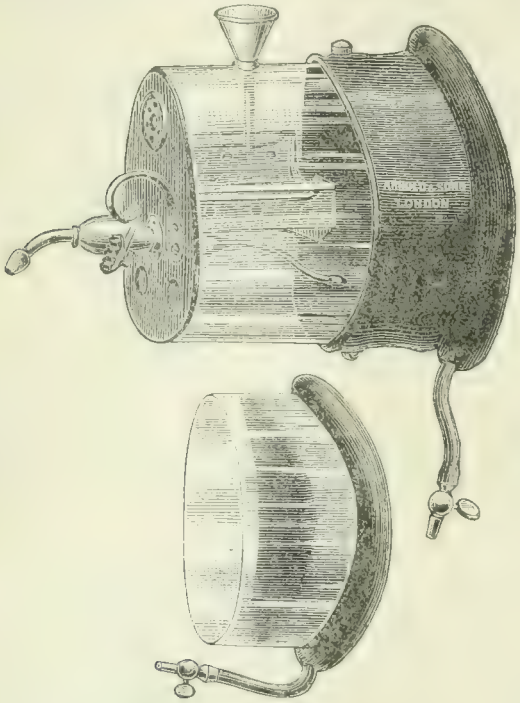
Transactions and Reports.

The seventh volume of the *Transactions of the American Ophthalmological Society* contains the report of the thirty-second annual meeting which was held at New London, Connecticut, in 1896, together with the text of the papers read. The volume is very fully illustrated, many of the reproductions being of great excellence.

# REPORTS AND ANALYSES
AND
# DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

## OXYCHLOROFORM ADMINISTRATION.

Messrs. Arnold and Sons have constructed an apparatus for Mr. Nicholson, of Liverpool, which enables oxygen to be administered at the same time as chloroform. It consists of a celluloid face piece (as the woodcut shows) fitted with a



removable air cushion to render an accurate fit possible. The top of the facepiece is perforated by a metal tube, which is carried down in such a way that when the facepiece is on the patient's countenance, the tube discharges opposite his lips. This tube allows oxygen to enter, and communicates, by a length of tubing, with an india-rubber bag of about two gallons capacity, and covered with netting to prevent bursting. The oxygen enters the bag from an iron storage bottle, to which it is connected by tubing, and can be admitted at will into the facepiece by pressure upon a finger rest which opens a valve. Normally the valve remains closed by a spring. The chloroform is dropped through the funnel fitted in the celluloid facepiece upon a double thickness of flannel or domett, which, stretched across a nickel-plated frame, is fixed horizontally across the long axis of the facepiece. There are also perforations in the top of the facepiece to allow free entry and exit of air. It is claimed that this apparatus allows the anæsthetist to maintain complete control alike of the supply of chloroform and of oxygen.

## PREPARATIONS OF CHELIDONIUM MAJUS.

In a recent issue of the British Medical Journal some particulars were given with regard to the use of celandine (chelidonium majus) in the treatment of cancer in the manner described by Dr. Denisenko, of Brjansk in Russia. There has been, however, a great difficulty in obtaining the drug in this country. A small supply of a succus which Mr. Martindale (10, New Cavendish Street) had made from the fresh plant was mentioned in the Journal of January 2nd, 1897, p. 25. We have now received from Mr. Martindale a sample of succus chelidonii, made from the fresh root, recently collected. It consists of the expressed juice preserved with a trace of chloroform. It is a turbid greenish fluid, miscible with water, having a faint aromatic odour and a bitter flavour; the dose is 10 minims, increased to 30 or 40. We have also received a preparation intended for hypodermic injection. It is prepared by inspissating the juice to an extractive condition, redissolving in water, and sterilising. One part solid is contained in two parts fluid, and the dose is stated to be about 15 minims. It is intended for injection into the vicinity of the growth in the manner described in the note published in the Journal of February 6th, 1897, p. 354. Mr. Martindale adds that he is informed that in three cases in which the succus chelidonii has been used the effect has been "more than palliative."

## A NEW EAR CHANNEL.

Messrs. Reynolds and Branson (Briggate, Leeds) have forwarded us a new ear channel for minimising the objections attaching to syringing the ear. It is a flattened funnel with an orifice on its inner side, the size of which can be graduated so as to accommodate auricles of different dimensions. There is an outflow pipe by which the liquid after use can be conveyed into a receptacle placed at a convenient distance. The apparatus is well suited for the purpose. A small modification would add to its value, namely, a plate of perforated zinc or wire work, which would catch and retain any foreign bodies, or plugs of cerumen removed in the course of the syringing, which might otherwise find their way down into the pipe. They would thus be lost to view, and would be apt to block up the tube.



## MOSETIG BATTIST.

This article which by special consent has been named after Professor Albert Mosetig of Vienna, who has carefully tested it, is likely to prove a clean and useful covering for dressings, and to take the place of such materials used for the same purpose, as may be objected to on account of being impregnated with oil or wax. This battist, which is supplied by the Hamburg and Vienna India Rubber Company, 9 to 14, Tower Chambers, Moorgate, is stated to be produced from the finest materials. It is impermeable and non-adhesive, and is capable, without being impaired in any way, of withstanding for two hours such a degree of heat as may serve to render it aseptic. It seems to be less likely than many other appliances of a similar kind to become sticky or cracked when submitted to variations of temperature and prolonged storage. It is evidently a light and really elegant application which is free from unpleasant smell, and from its resistance to the action of heat or of the ordinary antiseptic fluids may be easily rendered clean and pure from time to time, and so prove economical in use.

## THE BINAURAL VESICAL SOUND.

Surgeon-Captain Richard Heard writes: In the British Medical Journal of January 9th appears a description by Dr. Kenneth Stewart of his acoustic bladder sound. So far as I understand his description the idea is much the same as that which first suggested itself to my mind when designing my instrument, but I believe such a sound could not be easily manipulated without the fingers of the operator coming in contact with the conducting part of the instrument, thus impairing the sounds transmitted. In my sound the handle is perfectly free, and the fingers are kept well below and behind the tubing of the stethoscope, and this fault is avoided. Moreover, I think simplicity in any instrument is a thing to be aimed at, and the fewer pieces in it, consistent with efficiency, the better.

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Medical Graduation in France.—During the academic year 1895-96 the degree of Doctor of Medicine was conferred on 1,059 persons by the seven medical faculties of France. The number of degrees conferred by each of the several faculties is as follows: Paris, 594; Lyons, 148; Bordeaux, 107; Montpellier, 82; Toulouse, 56; Lille, 50; Nancy, 32. The total number of medical degrees conferred in France in 1894-5 was 969, and in 1893-94 it was 919.

# BRITISH MEDICAL JOURNAL REPORTS.

## REPORTS ON THE HYGIENIC CONDITION AND ADMINISTRATION OF METROPOLITAN DISTRICT AND SEPARATE SCHOOLS.

BASED ON THE EVIDENCE LAID BEFORE THE DEPARTMENTAL COMMITTEE.[1]

*(By Our Own Commissioner.)*

### VI.—Hanwell.

#### The Occupants and the Staff.

The Central London District houses the children chargeable to St. Saviour's and the City of London in palatial schools at Hanwell. The number of officers is 180; they supervise, teach, wash, tend, make, mend, and cook for 1,139 children, but some 300 of these children are the victims of ophthalmia. The ophthalmic school, however, cannot be dealt with here, but will be treated in a separate article on the eye diseases of barrack school children.

The Hanwell Schools seem to obey the law—now too well established to need further elucidation—that the statistics of disease rise in relation to the number of children aggregated.

#### Sickness and Mortality.

Besides ophthalmia, the medical officer, Dr. Littlejohn reports that in the year ending Lady Day, 1893, he had to contend with an epidemic of measles—97 cases; another of whooping cough—22 cases; and a third of influenza 69 cases (Appendix XVI, col. 5). Whooping cough (36 cases) and influenza (103 cases) troubled still more children in the following year. Added to this, the infirmary must have been fairly inhabited by other classes of patients of whom we find that the total in one year is 691, the total of one day 94. The death-rate, however, is low—only 10 in three years, death resulting from meningitis, croup, pneumonia, syncope, gastritis, convulsions, and other diseases.

#### Small Institutions and Pauper Palaces Compared.

Interesting as statistics are, they become more instructive when used for purposes of comparison. That this is possible to us we have to thank Dr. Downes, who puts into his evidence most interesting tables comparing the health results of the two systems of institutional education pursued by Poor-law authorities, namely, the Barrack and the Village Community system.

Hornchurch is built on the latter plan, some 11 cottages, each housing 30 children, being built within a ring fence. Hanwell is a pauper palace. It used to be in one block, but some few years ago the managers, at considerable expense, divided the 600 feet of barrack dormitories into four blocks (539), arranged so as to contain altogether 746 children (533). For sleeping and washing purposes the children are divided into large groups, but for dining, playing, schooling, and worshipping (486) they are still aggregated. The breaking up of the children into groups, even in this modified form, must be counted as an improvement which is not shared by other schools, and must be remembered as an advantage for Hanwell, in comparison with other barrack schools when statistically compared with them for hygieuic results.

Dr. Downes's tables are as below (8967) (8978). Taking the average of the last four years, the total sickness in the Hornchurch Schools on given dates was:

| | |
|---|---|
| January 7th, 1893 ... ... ... ... ... | 28 |
| July 8th, 1893 ... ... ... ... ... ... | 19 |
| January 6th, 1894 ... ... ... ... ... | 32 |
| July 7th, 1894 ... ... ... ... ... ... | 25 |
| Average ... ... ... ... ... | 26 |

Taking the average of the last four years, the total sickness in the Hanwell Schools on the same given dates was:

| | |
|---|---|
| January 7th, 1893 ... ... ... ... ... | 187 |
| July 8th, 1893 ... ... ... ... ... ... | 211 |
| January 6th, 1894 ... ... ... ... ... | 330 |
| July 7th, 1894 ... ... ... ... ... ... | 311 |
| Average ... ... ... ... ... | 260 |

The average number of children at Hornchurch in 1893 was 335; that at Hanwell 879 (8979, 8969), the smaller school being three-eighths the size of the latter. But after taking these figures into consideration, we yet get nearly four times as much illness under the one system as the other. The percentage at Hornchurch is 8 per cent., and at Hanwell nearly 30 per cent.

The personal equation of the medical officer has to be considered in making these returns, one man being more ready to include small ailments in a list than would seem necessary to another; but we have Dr. Downes's testimony that both the medical men whose returns we are considering are "capable men" (8982); and he proceeds to support his contention of the better hygienic condition of children when not aggregated, by comparing Hornchurch and Brentwood. Both being served by the same medical officer, the question of varying standard is here eliminated (8982), and yet the figures show 10 per cent. at the Village Community, 17 per cent. in the Barrack School. The better results obtained in Brentwood barrack school as compared with those in Hanwell barrack school are to be attributed to the fact that there are fewer children within its walls, Brentwood numbering but 329 children, or a little more than one-third of the number herded together at Hanwell.

#### An Impossible Task.

We have already commented with surprised appreciation on the quantity of work that is given by many managers and officers in the effort to make this unnatural system work at all; but Dr. Littlejohn's labours command more than a passing word. For twenty-four years he has given labour and thought, time and strength, to the impossible task of cultivating health in unhealthy subjects under unhealthy conditions. Through all his evidence there is a note of sadness, a sense of failure, which he must be the first to feel, face to face with such statistics as we have printed, and after the expenditure of such minute care as is evidenced by the following statement:

"1. Boys and infants are examined, stripped twice a-week, once by me, once by surgery attendant (boys), or by their nurse (infants). Girls are examined, stripped, by girls' chief attendant and matron's assistants once a-week.

"2. Ophthalmic cases: (1) Twice a-week; also (2) at intervals of some weeks, a more complete examination is made."

#### Defective Teaching.

But on other matters besides medical ones Dr. Littlejohn claims to be heard. On the kind of teaching given under the direction of the Local Government Board, he says:

"If you take the case of a child who comes there when he is 4, and remains there over ten years perhaps; he goes to school every day except Sunday, and at the end of ten years all he has been practically taught is reading, writing, and arithmetic. My own opinion is that there should be a much more liberal system of teaching; that the children should have something brought under their notice which would interest them more than the 'three R.'s' (428). I am not recommending this so much for the sake of teaching it as for the general effect it would have on the children; it would expand their minds and do them good, but I do not believe that the children in our schools.....if you were to ask them, would be able to tell you the names of the trees that grow around them. I know children who have walked down the fields repeatedly to the farm, and who do not know what a turnip is." (429)

#### The Effect of Education on Health.

On this important matter, embodying as it does not only educational success but all the hygienic consequences which follow the existence of normal healthy interests, the Committee say (paragraph 152):

"There seems to be no reason why the general standard of elementary education should remain, as undoubtedly it is, lower than that attained in elementary schools; or why the scheme of intellectual instructions should not, in the Poor-law schools, also include some acquaintance with the world in which the scholars live and the words they use, as well as some 'hand and eye training.' Considering the inevitable disadvantages under which these children have begun the struggle of life, we think that the State, since it must adopt the responsibility of adopting them, should give to them as

[1] The previous articles appeared in the British Medical Journal of January 2nd, p. 39, 9th, p. 90, 16th, p. 163; 23rd, p. 214; and February 6th, p. 340.

generous an education as possible, and one well fitted to enable them to lead an honourable and industrious life."

Mr. Haddon, for many years a manager of the Hanwell schools, testified to the inadequacy of the apparatus:

When I was a 'manager, he stated (3323), everything was very primitive; the desks were bad, the books were bad, the classrooms were very much behind the times. There was no gymnasium, reading-room, or swimming bath (3324, 5, 6, 7), while the industrial training was (3328) the sort of industrial training that went on at Mr. Squeers's academy; it simply consisted in helping in the work of the establishment.

The Inertness of the Local Government Board.

That things have improved since attention has been directed to pauper children we are ready to believe, but all too long have these conditions lasted, and in some cases still continue, and for these and kindred evils the witness threw the blame, first on the managers, and secondly on the Local Government Board. It took "nine or twelve months" to carry out the simplest (3360) or most self-evident reforms, there was (3363) "a considerable majority of the Board hostile, and we had to beat it down by persuasion," and (3364) "persistence. I am bound to say," he adds, "that I do not think the majority were anything but ignorant on the subject. They did not mean ill."

From the Local Government Board the few enlightened managers got but little sympathy in matters of education (3362). "Everything was got in the face—of what I should call the face—of the Local Government Board," and (3363) "the Board of Management was hostile and the Local Government Board indifferent."

# SPECIAL REPORT
ON
## MEDICAL EDUCATION AND THE PRELIMINARY EXAMINATIONS IN GENERAL KNOWLEDGE.

*(By Our Special Commissioner.)*

### III.
### MEDICAL TEACHING AND EXAMINATION.

Preliminary Education: The Student's Career.

Nothing is of more importance to us as a body than our system of recruiting. Yet from the General Medical Council who "sit beside their nectar," to the luckless parent "far below them in the valleys" whose son has just failed for the *n*th time, the education of the medical student is the subject of continuous complaint and criticism. In the first place, as to preliminary education, we have already given some statistics as to the examinations which are accepted by the General Medical Council as satisfactory proof of a sufficient general education. But at their last session a strong attack was made upon that of the College of Preceptors, which in England admits about a quarter, or rather more, of all students, and upon various other examinations in Ireland and Scotland.

There were two reasons for the attack. The large percentage of rejections at the great English Pass Examinations of the Conjoint Board had been much a subject of complaint, and the Council were perhaps not sorry to find a plausible reason in an inadequate standard of general knowledge. Secondly, these entrance examinations had been apparently for some time objects of suspicion to several members of the Council, and it was felt that the standard ought to be raised.

With this latter feeling we have every sympathy. But while on the one hand we are not disposed to think so ill of the College of Preceptors as does the Council, and are at any rate of opinion that every attempt to raise the standard must be general, not partial, we are on the other hand convinced that there are much more radical defects in our present system than a low entrance examination, and indeed we think that this has very little to do with the present complaints.

As regards the College of Preceptors, whom we are not in the least interested to attack or defend, we have asked the opinion of a schoolmaster at a large public school who has considerable experience of it. He thinks it affords a reasonable presumption of a boy's capacity to get through his medical education. Men who have been rejected at the College of Preceptors have been known to matriculate and pass the first examination at one of the universities very shortly afterwards. The description of the examination given by Mr. Bryant[1]—that the qualifying marks were only 400 out of a total of 1,400—is wrong in both figures. Our students have to obtain 550 marks out of a total which may be as low as 900, but which, owing to the bad system of allowing a large number of voluntary subjects, can be raised to 1,500. As a matter of fact, the total is usually 1,050. According to Mr. Carter,[2] "it is a matter of almost constant occurrence for candidates who have been rejected at the Examination in Arts of the Society of Apothecaries to go and pass the examination at the College of Preceptors."

We have been enabled to follow the fortunes of 206 students from one of our great schools at the examinations in anatomy and physiology of the Conjoint Board, and the following are the results:

| Registered Certificate. | Passed without Rejection. | Rejected Once. | Rejected Twice. | Rejected more than Twice. | Total. |
|---|---|---|---|---|---|
| Oxford examination ... ... | 7 | 3 | 1 | 0 | 11 |
| Cambridge examination ... ... | 6 | 7 | 4 | 2 | 19 |
| London matriculation* ... ... | 40 | 26 | 5 | [illegible] | 69 |
| Apothecaries' Society ... ... | 12 | 15 | [illegible] | 0 | 29 |
| College of Preceptors ... ... | 36 | 31 | 3 | 4 | 74 |
| Oxford and Cambridge Schools ... | 2 | 0 | [illegible] | 0 | 2 |
| Totals ... ... ... | 103 | 82 | | 6 | 206 |

* Includes 3 registered from the Preliminary Scientific Examination.

The failure of the London University men may be otherwise explained, but at least the table shows either that the Preceptors is rather a higher examination than that of the Apothecaries (which is now defunct), or else that the entrance examination has very little to do with the student's chance of success.

Another test, that of general impression, is perhaps worth making. We find that those well placed to form an opinion are very doubtful if the average of first and second year men at the school above mentioned is below that of men at the university. Allowing for their being usually a year younger, they should be inclined to rank them almost or quite as high as undergraduates. The men of the third and fourth years at this school are composed of university and non-university men in roughly equal proportions, and it is stated to be impossible to distinguish the two classes broadly.

Let us not, however, be misunderstood. We should be glad to see the general standard of entrance raised. It has been steadily rising for the last twenty years, and we hope it will continue so to do. But we do not believe that the present large percentage of rejections at the second examination of the Conjoint Board is in any great degree owing to a low entrance examination. We attribute it to other causes, which we shall now attempt to indicate.

The First Two Years.

Supposing a student now to join the medical school in October, he learns during his first winter anatomy and elementary biology, and he passes an examination in the latter in March. In the summer he begins the study of physiology, and also prepares for an examination in chemistry and physics, which he ought to pass in July. His second winter is devoted to anatomy and physiology, which he ought to pass in March.

If he fail in his chemistry examination[3] he has to read this

[1] British Medical Journal, 1896, i, p. 1461.
[2] *Ibid.*
[3] Out of 515 candidates in 1896, 18 or 36 per cent., were rejected.

subject again during the next winter. This interferes with his dissection and his physiology. He cannot finish these subjects in time to go up in March, and he in consequence has to pursue them during the next summer, at a disadvantage to himself and at great inconvenience to the school.

Upon this point a teacher of experience at a large school has written as follows:

"I believe that there are two very grave defects in this system. One is the institution of elementary biology. The aim has been to give the student a greater grasp on man by making him learn about the different forms of life. It should be otherwise. Teach him about the different forms of life by giving him a greater grasp on man. Of the latter he can never know enough; but earthworms and dogfishes, though interesting, are not indispensable. The attitude of a medical man ought to be not, 'Dear me, this is a man. How different from the dear dogfish!' but, 'Dear me, here's a strange beast. Why, that must be the stomach! It is not very unlike mine.' Biology is a grand study; so is astronomy. The one has as much bearing as the other upon medicine."

Another view which has been advanced to us may be put thus:

"Would you let a man pass into the medical profession whose ignorance of other animals, and of evolution generally, would make him a laughing-stock?—Yes; I would if it made him a better doctor. Why should doctors know about dog fishes, or why should they be expected to know? This is a form of the theory that a medical student wants his mind widening, and that the way to do it is to force extras into it under pressure. The more you expand it in that way, the thinner it gets. You had much better let it grow of itself. If medicine does not widen a man's mind, it is quite certain that nothing else will."

Whatever the impression made on various minds by arguments such as these, it will at least be generally admitted that human physiology is so vast and important a subject that the first two years are by no means too long for learning it. It is a deliberate sacrifice of physiology to make a student pass on earthworms in his first March.

Secondly, chemistry and physics ought not to interfere with the natural course of study. We agree that some knowledge of these subjects is necessary for medical men. In this respect, among others, chemistry differs from the dogfish. But it is a disgrace to the teaching colleges that under their system over a third of the students should be referred in chemistry and physics, and their whole course of training stopped thereby.

These subjects should be passed before entering as a medical student. They are at the foundation of all scientific training, and a "general" education ought to be held incomplete unless the subjects have been taught and learned. The general public who think it disgraceful in a boy not to know Latin, ought to think it equally necessary for him to know what oxygen is: and the medical schools, who are by far the largest scientific teaching body, may very well tell them so. The advance of natural science, and the extraordinary way in which it has affected all forms of thought, is the great feature of the last half of this century. It is not too much to ask that the public should be impressed with the idea that blank ignorance on the simplest natural facts is disgraceful. These elementary scientific subjects, lying at the base of all other sciences, and necessary for the comprehension of the outside world, ought to be taught at school as much as Latin and arithmetic. Whether the necessary examinations in these subjects should be passed by boys while yet at school, or on leaving school, is a question which admits of argument. But if what is advanced above be admitted, it is difficult to see any other way. We can afford to make our own terms. The profession is overfilled, and the number still pressing into it is too many. There is no danger that our recruits will fail us. If we say that this must be done, schoolmasters will very quickly contrive a way to do it.

### The Second Examination of the Conjoint Board in England.

The number of candidates who fail in anatomy and physiology at the Conjoint Board in England is almost exactly 50 per cent. of those who go up. For a pass examination this is too high a mortality. There must be something wrong with the system of teaching or with that of examining.

We do not find any evidence that the fault lies with the teachers. Teaching was probably never so good or so practical as it is now. In the school to which we have already referred the anatomical teaching is very thorough. Each student is under supervision, is constantly questioned on his part, and attends regularly two demonstrations a week in his first year, and more in his second year, all given upon the body, with constant reference to the skeleton. The physiological teaching includes the handling and personal use of a complete set of the standard instruments, chemical analysis of all the principal fluids of the body, and microscopic examination of each tissue and each organ.

No complaint which appears worthy of notice is made about the written part of the examination. The questions are carefully set, and are straightforward. But matters are very different with regard to the *vivâ voce* examination. Such a universal body of complaint betokens some very serious defect. The students complain bitterly of the rudeness and harshness of some examiners; the teachers of the unfairness of others. And these complaints are justified by fact. It is not creditable that one man should be known to students for his lack of courtesy, or that another should be for years an examiner in a subject of which he has no practical experience. A well-known teacher said to us, "What are we physiologists to do? We give the men a year's sound practical all-round training, and at the end comes A., who thinks that unless a man is deeply read in electro-biology he cannot know his work: or B., to whom physiological chemistry is of supreme importance; or C., by whom histology is insisted upon to excess. If I choose to cram my men for this or that examiner I can get them through. With an all-round training a large number will be spun."

Personal defects in the examiner count, we believe, for a great deal. The remedy lies in constant supervision. We find that the opinion prevails that this can best be exercised by personal attendance on the part of the teachers. Complaints of examiners sent by the teachers to the Councils are not unknown, and are attended to, but they must be specific and carefully attested. Thus made, they are powerful for good. The examiner's colleague ought to exercise a check upon him; too often he does not. The Colleges themselves ought to supervise, but their action is limited to an occasional visit by the Registrar, or one of the Council. Practically it is urged that unless the teachers attend there is no check on the examiner.

### The Standard.

Much, too, depends upon the standard set. The muscular attachments on a long bone sounds a simple thing, but a minute accuracy which is almost photographic is now required. Both the sciences have enormously multiplied the mass of details that the student requires to learn, whereas the principles below them have hardly advanced at all. It is idle to say that the men should learn their work practically. The knowledge which the examiner requires he has indeed so learnt, but by years of constant repetition. The student has no time to learn things so. He cannot see the tendinous part of the soleus more than once or twice, and if he is to be examined minutely on it, must perforce learn its description by heart. It is so with all his work. He does not learn from observation; he learns his book first, and verifies in practice what he has already read. Being a mass of details with little connecting principle, the two sciences have become an exercise of memory rather than of reason, a study which young men can acquire by diligence, but in which elder men, who have more sense, more diligence, but a worse memory, will fail time after time to satisfy the examiner. Somehow or other, examiners, who certainly set the standard, must be brought to see the error they are making. They must be made to understand that this minute accuracy of detail is not necessary. They must be taught or teach themselves how to test a man's value more truly, and with a broader view.

### The Method of Marking.

This evil tendency is exaggerated by the system of small marks. It is unfair not to be able to approach more nearly to the truth than 10 per cent. in the written or 20 per cent. in the oral examination. No one, it is allowed, is perfect, and the examiner knocks off a mark as a matter of course on that account, but one mark out of ten is one thing, and two or

three out of a hundred, which is what happens where a large total mark is given, is quite another. Marking is nearly always done by a system of subtraction for faults, whether of omission or commission. In consequence of this, small totals inevitably mean unfairly low marking, because the examiner has either to take off nothing at all or an amount which is unfairly large.

We have said nothing here of the disastrous effect of the two parts of the First Examination—chemistry and elementary biology. Here we have dwelt upon the examinations alone, and in them we desire most emphatically to claim, first, that examiners are often unsatisfactory; secondly, that they set too high a standard, and, lastly, that the system of marking inevitably tends to raise this higher still. Improvement in the first is in the hands of the teachers, of the second in the hands of the examiners, and of the third in the hands of the Colleges. It is urgently needed in all three directions.

### Remedies that have been Proposed.

There are so many different complaints that the remedies proposed must also vary. It is said by Mr. Teale and Dr. Pettigrew that the number of examinations prevents serious and steady work. We have already made this criticism on the examinations of the first year. One of them ought in our judgment to be abolished, and the other to be made preliminary to any actual medical study. The second examination is of course indispensable. After it is passed the student passes materia medica and pharmacy at some time or other, and with this exception is free from all examinations until he reaches the end of his course. Then he is examined separately in medicine, surgery, and midwifery, which he may take up singly or together. Pharmacy is a vexatious though a small subject. What a man wants in after-life, what he now never possesses when he qualifies, is a knowledge of how to prescribe and dispense. The examination, on the other hand, is almost entirely on the characters of drugs which he will never want to recognise again, and which if he does he will by that time have forgotten. It is, in other words, a "cram" examination. That the other three examinations must be kept separate is not seriously disputable. The only real blot upon them is the one question allotted to forensic medicine. If, as occasionally happens, the examiner chooses to make this a question in toxicology, then a student may have a thoroughly good knowledge of all the points which need ready action, but may be ploughed on a matter which no man would be required to deal with in a hurry, and which no man in his senses would carry out without consulting a book. He will be ploughed on what he cannot remember, not on what he has not studied and understood. This, again, reduces forensic medicine to a "cram" subject. This is the only criticism we have to make. As at present arranged a man must have two and may have three years between his Second and his Final—a time surely sufficient for serious study.

The Second Examination is attacked by Mr. Thomas Cooke. In his opinion it is a gross mistake to have divided anatomy and physiology. He would have the examiners, not specialists, but men of a general knowledge of both anatomy and physiology. This would result in a much sounder valuation of the details of both subjects, and would improve the character of the examination. Yet we are obliged to believe it an impossible idea. At present anatomical examiners are rarely specialists, for they are nearly always surgeons who teach anatomy. Physiologists, on the other hand, have specialised from dire necessity. A man in practice cannot teach physiology well now. Twenty years ago he could and did. And if the teachers are becoming specialists it is impossible to have practitioners for examiners. Their views and methods would be antiquated, their special knowledge would be inadequate: they would be laughed out of court.

Mr. Hutchinson, on the other hand, wishes for a great increase in the number of examinations. He wishes the student always to be working for some definite examination. When dressing in the eye wards he should prepare for an examination in ophthalmic surgery and pass it; when working in the *post-mortem* room he should prepare for an examination in pathology. He wishes also to import many allied sciences—botany, biology, geology, climatology, and others, in all of which a student may, and as we read Mr. Hutchinson's views ought, to be examined. This is the antipodes of Mr. Teale, and it may well be urged that such a plan would make of the medical student, not a thoughtful, well-informed gentleman, but a man overburdened with information on every subject, and not necessarily thoughtful about a single one. Mr. Hutchinson himself is an extraordinary example of the wide scientific knowledge he advocates, and he is one of the most thoughtful of us all. But he is this because it is his nature so to be, and we do not agree that his system of education "innumerabilibus sollicitudinibus" would make one man like Mr. Hutchinson, whom Nature has not already so made.

### Conclusion.

For an ordinary pass degree, such as is the licence of the Conjoint Board in England, it is wrong policy to add subjects for the sake of widening the mind; for any degree it is wrong to examine in such a way that the memory rather than the understanding is tested. Any such examination is a "cram" examination, which does harm rather than good, and a man's mind can be widened a great deal more by thorough knowledge of necessaries than by a smattering of "accomplishments." Chemistry and physics are necessaries, but they should not be allowed to interfere with the learning of anatomy and physiology; anatomy and physiology examinations should be conducted on broader lines. The examinations should not be increased, but the Final should remain a triple test. Lastly, examiners should be watched by the teachers, and resolutely attacked by formal methods when need arises, and the present very faulty system of marking should be altered.

### A Correction.

In the article published on February 27th, page 538, it should have been stated that the Preliminary Examination of the Faculty of Physicians and Surgeons of Glasgow was discontinued in October, 1892.

## A SCHEME FOR THE ESTABLISHMENT OF PROVIDENT MEDICAL ASSOCIATIONS THROUGHOUT THE COUNTRY.

By Frederick Pearse, M.D.,
Honorary Secretary Portsmouth Medical Union.

The trend of affairs between the medical profession and the friendly societies seems to be in the direction of abolishing the existing club doctor. The societies are everywhere amalgamating and engaging the exclusive services of their medical officers, but inasmuch as these officers have so far been overworked, have been placed in a dependent position, and have been sweated out of their just monetary reward, this condition of things is not likely to be permanent. On the other hand, in a few places provident medical associations have been started under the exclusive management of the medical profession. The plan of the societies is to get the whip hand of the doctor; the plan of the doctors is to remedy the abuse of the medical club benefits by the well-to-do.

The societies may be said to have their organisation complete, but it is obvious that upon their scheme they will be unable to obtain either the best medical skill or the best professional attention. At present they do not recognise this, but seem actuated by the desire to be placed in the position of employer to the medical man, and to carry out a cheeseparing policy as to his remuneration.

What the medical profession must do is to get the control of the medical benefits belonging to all club organisations into their own hands. The working classes know full well how to arrange their sick pay and other benefits, and are very jealous when these are abused. The medical benefit can very easily be divorced from its present associations, and the members of all societies could then be free to select their own medical attendant. At present there is no one to look after the interests of the club doctor in any of these institutions. He is consequently much abused and badly paid.

To achieve the result indicated medical men in every town and district should combine and establish a provident medical association, with the object of controlling the administration of medical relief to the working classes. Such an association may be stated to have for its object:

To provide medical advice and physic for the working classes according to a sliding scale, and adjusted to their means, with the advantage of a selection of their medical attendant.

The working of such an association should be extremely simple. The acting medical officers should be the executive body, with the support of any or all of the other practitioners as honorary staff and members of a general committee or council.

With regard to appointments on the medical staff several important questions arise. In order to combat the evils of private medical clubs and medical aid associations men must give these up before being allowed to join with their neighbours on the staff of this mutually benefiting organisation. Then, again, the council of practitioners in any district must have the power within certain limits to expel from the staff any member who has been guilty of conduct injurious to the interest of the association or of the local profession, or discreditable to the whole medical profession. Homœopaths must be excluded, simply because anything like joint work or consultation with homœopaths is impossible. Beyond these limits every practitioner should be free to join in this work.

So much for the constitution and the governing body. With regard to the members' payments, is there any scale capable of adaptation to various districts? The following graduated tariff seems to me the most just that has been constructed:

Scale of Subscriptions.

| | Each member at the rate of |
|---|---|
| Single members: | |
| Earning 20s. a week and under ... ... ... | 4s. per annum. |
| Earning from 20s. to 30s. a week ... ... ... | 5s. ,, |
| Married members: | |
| Earnings of family 20s. a week and under ... | 4s. ,, |
| Family tickets at the rate of 20s. per annum. | |
| Earnings of family from 20s. to 30s. a week ... | 5s. ,, |
| Family tickets at the rate of 30s. per annum. | |
| Earnings of family from 30s. to 40s. a week ... | 6s. ,, |
| Family tickets at the rate of 42s. per annum. | |

Single persons earning over 30s. a week, and married persons where the income of the family exceeds 40s. a week are not admitted.

Persons renting houses over £20 a year will be assumed to be earning over £2 a week.

Candidates for membership are of course examined, and invalid or unsound lives are accepted at special rates.

The great advantage and the great attraction of this scheme is the option it gives members to select their own medical attendant. This is a privilege which has been almost denied to the poor hitherto. There are, of course, some of the rules common in all friendly societies with regard to the doctor to be added.

One very important point requires further discussion. Every club doctor knows how some members unnecessarily send for their assistance, very often at inconvenient times to the doctor, merely to suit their own convenience. To obviate this and to prevent useless calls, except in cases of sudden urgency, some extra charge should be demanded for special visits. Probably the sum of 1s. would be suitable to all parties.

Another advantage which this scheme of co-operation of all the medical men in a town or district would afford is in giving facilities for consultations. Members of the acting staff might co-operate "with one another" in cases requiring additional assistance at the following rates:

| | s. | d. |
|---|---|---|
| Consultation fees ... ... ... ... | 10 | 6 |
| Administration of chloroform, etc. ... ... | 10 | 6 |
| Assistance at midwifery case or at operation ... | 10 | 6 |

A further development might go in the direction of appointing certain men who had devoted themselves specially to a subject as specialists to the Association. It would at any rate give opportunities for special work, even if there was not much pay to be made out of it.

The subscriptions of the members can be paid in weekly or monthly, and one or two or more persons may be appointed to receive and account for these payments. It is undesirable to appoint a collector, because he becomes immediately a canvasser, and is open to persuasion in favour of individual practitioners. If, however, a collector be found necessary he ought not to be paid on commission, and he ought to be bound by rigid instructions not to advocate one medical man in favour of others.

The expenses of such an Association are thus reduced to a minimum. No particular building is required, as the patients go to the surgeries of the medical officers. Printing, stationery, and salary of clerk are alone taken out of the doctor's fund.

Such a scheme as this will give the poor all the advantages of an ordinary private patient. The scheme is sufficiently comprehensive to provide for the medical relief of all the working classes between those who are in receipt of parochial relief and those who are able to pay the lowest private fees in any district.

There are undoubtedly a large number of the struggling working classes in which the weekly payment of subscriptions to a medical benefit is the only method by which the doctor gets paid at all. A certain class of these people are not to be trusted for a private account of even a few shillings. The provident scheme is, therefore, favourable to the profession.

It is the well-to-do working man who has been trained up in the custom of getting the doctor's aid for next to nothing, and who has yet to be taught that he will be expected to contribute according to his means.

A comparatively simple organisation of easy supervision—with an attractive scheme—should enable the medical profession in each town and district to remedy the present abuses of the club system. It is necessary, however, for each section of the profession—be it in town or country—to show a united front, and make a determined stand, otherwise a few weak-kneed individuals might cause the whole profession to lose the advantages of combined action.

## ARCHÆOLOGICA MEDICA.

### XXVII.—"DOVER'S ANCIENT PHYSICIANS' LEGACY."

In the *Bulletin of the Johns Hopkins Hospital*, vol. vii, p. 1, Dr. Osler has given an interesting account of "Thomas Dover (of Dover's Powder), Physician and Buccaneer." In this paper Dr. Osler speaks of the confusion that exists as regards the various editions of *Dover's Ancient Physicians' Legacy*. The *Dictionary of National Biography* states that the first edition of this book was published in 1733. Dr. Osler points out that this is an error, and states "that it is due to the fact that in this year appeared an edition of the *Legacy* not stated on the title-page to be a second edition. This is the earliest copy in the library of the Royal Medical and Chirurgical Society and in the Radcliffe Library." Dr. Osler probably was unable to examine both these copies and so clear up the difficulty. The 1733 edition in the Royal Medical and Chirurgical Society's Library bears internal evidence that it is not the first edition, as on p. 181 there is a heading "Addenda: The substance of several letters sent to the Author since the publication of the last edition; with further remarks." There is a copy of this book also in the library of the Royal College of Surgeons. The Radcliffe 1733 book is different from that of the Royal Medical and Chirurgical Society, and is evidently the second edition, as it does not contain the addenda referred to above, but leaves off at the end of the "Hospital Surgeon." This clears up the chief difficulty as regards the early editions. The second and third have nothing on their title pages to show the edition; the fourth and fifth, also published in 1733, are so called on their titles.

Dover took his M.B. at Cambridge, but did not proceed to the degree of M.D. Dr. Osler states that "on the title page of the first edition, however, the letters M.D. occur after his name." This is a mistake; the 1732 edition has M.B., the second and third have Thomas Dovar, M.D. The two last-named editions are both "printed for the relict of the late R. Bradly, F.R.S.," and the D is in all probability a misprint. From the fourth to the eighth editions the author's name is spelt Dover.

Although additional matter was incorporated in the later editions, Dover does not seem to have remodelled his book. In the first edition there is a postscript headed, "Having omitted the following letter from *Anthony Balam* Esq. in *Great Russell Street*, which I designed to have inserted when I was speaking of *Quicksilver*, I shall give it my Readers in this place." This matter appears in the same form in all the subsequent editions, and was never incorporated in its proper place.

It is interesting to compare the testimonials sent to Dover by grateful patients as they are printed in the different editions of his book. As time went on the author improved these, if he left untouched the other parts of his work. There is a testimonial from one Will. Moses of Lewisham: in the later editions a postscript is added which does not appear in the earlier ones. "P.S.—I have removed from Greenwich to Lewisham: shall always be proud to kiss your Hand." Another patient, in the earlier editions, says, "I think it my Duty to return you my hearty Thanks"; later on this has grown into "ten millions of Thanks."

The testimonial of John Pott is worthy of a patent medicine advertisement of the present day. It runs thus: "I had likewise a nephew who was in a most languishing condition for three weeks, his Body being distorted in such a manner that his Shoulder and Hip were almost drawn together. No assistance could be found, till, by your Direction he took Quicksilver, which at thrice taking, set him perfectly strait."

The following notes on the different editions may be useful for identification:

First Edition. The Ancient | Physician's | Legacy to his Country, being | what he has collected himself in | Fifty-nine Years' Practice | or | An Account of the Several Diseases in- | cident to Mankind described in so plain a | manner, that any person may know the | nature of his own Disease. | Together with the several remedies for | each Distemper faithfully set down. | Designed for the use of all Private Families. Homines ad Deos nullâ in re propius accedunt quam salutem hominibus dando. Cic. By Thomas Dovar, M.B. London: Printed for the author and sold by A. Bettesworth and C. Hitch in Paternoster Row; W. Mears at the Lamb in the Old Bailey, and Lawton Gilliver at Homers' Head over against St. Dunstan's Church, Fleet Street. 1732. Price, stitched, 5s. The book consists of 155 pages and 1 blank; page 155 is misprinted 255.

Second Edition. The words "himself" and "described" are omitted; instead of "disease," read "distemper;" after the latter word is added "and the several remedies proper for it, wherein the extraordinary effects of mercury are more particularly considered." The Latin quotation is omitted. The title goes on thus: "By Thomas Dovar, M.D., with remarks on the whole by a Learned Physician. To which is added (being a proper Supplement to the Work) a New Translation of a Treatise of Mercury, and the wonderful cures performed by it; written by the learned Belloste, author of the Hospital Surgeon. With a compleat index to the whole. London: Printed for the Relict of the late R. Bradly, F.R.S., and sold at the Pamphlet Shops and Booksellers in Town and Country. 1733. [Price, sewed in Blue Paper, Two Shillings.]" This edition has 107 pages of matter and 5 pages of index.

Third Edition. Title similar to second, but the book has 216 pages of matter and 4 pages of index. At page 181 are the Addenda, spoken of before; page 208, "some remarks upon the late controversy concerning the use of mercury." These two items are not in the first or second editions.

The other editions present no difficulty; it will, therefore, be only necessary to specify them: Fourth, 1733; fifth, 1733; sixth, 1742; seventh, 1762; eighth, 1771.

Watt states that the seventh edition was published in Edinburgh. The copy of this edition in the Library of the Medical Society of London was issued in London. If Watt is right there must have been two editions numbered seven, or two sets of title pages to the same edition.

The 1732 book is dedicated to John Tracy, Esq., of Stanway. The relict of the late R. Bradly has no dedication to the second and third editions. In the latest editions the name "John" is altered to "Robert," but the wording of the dedication remains the same.

It is rather curious that the two unnumbered editions should have been issued by a different publisher from the first edition, and that for the later ones Dover should have gone back to the original publishers, Bettesworth and Hitch. At first sight it looks as if the relict of the late R. Bradly had pirated the book; but this is hardly likely, as her editions just fit in for the second and third.

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The King of Sweden has appointed Mr. P. Michelli, Secretary of the Seamen's Hospital, Greenwich, to be a Knight (1st Class) of the Order of Wasa.

## THE BATTLE OF THE CLUBS.

### Beckenham and Penge.

In an article dealing with the controversy between the medical practitioners and the clubs in these districts, published in the British Medical Journal of March 6th, page 616, we stated that there was some probability that the clubs would take steps to obtain the services of a medical man from outside the district to undertake the duty of attending the members of all clubs at a fixed salary. At a recent meeting of the delegates of the clubs to consider the matter a resolution was adopted favouring the establishment of a medical institute and dispensary, and a committee was appointed to take the necessary preliminary steps. At the same time, we are glad to note some signs of a more conciliatory spirit, for it is reported that at the suggestion of the chairman of the meeting it was agreed that an intimation should be conveyed to the medical officers suggesting a compromise for the present year to allow time for negotiations in the hope of adjusting the controversy.

### Amalgamation of Clubs.

J. B. J. asks advice under the following circumstances: He has been invited to reside in a town where there are some half-dozen clubs that propose to amalgamate, and appoint him their surgeon, he engaging not to take hospital or parish work, and being remunerated by them at a uniform figure. These clubs are at the present time held by various surgeons in the town, with whom he is on friendly terms. What course should he adopt?

*** So long as these clubs have surgeons our correspondent would be acting contrary to professional rules by entering into any negotiation with them on this subject.

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Presentation.—Alderman J. B. Richardson, M.D., J.P., of Torquay, was recently presented with his portrait in oils in recognition of the manner in which he and Mrs. Richardson had discharged the duties of Mayor and Mayoress during the year 1894-5. Mrs. Richardson was at the same time presented with a bound album containing the names of 220 subscribers.

Antirabic Vaccinations in St. Petersburg.—Dr. V. Kraïouchkine's annual report of the department for the preventive treatment of hydrophobia in the St. Petersburg Imperial Institute of Experimental Medicine, published in the last number of the *Archives des Sciences Biologiques* issued by that institution, states that during 1895 the total number of persons who presented themselves for treatment was 397; of these 95 were not subjected to inoculation. In 40 of these cases it was ascertained that the animal which inflicted the bite was healthy; in 12 the patients declined to undergo the treatment, chiefly on account of the slight probability of infection having been conveyed by the bites; in 19 the clothes had not been torn at the points where the animal's teeth had been applied; in 20 there was no mark of a bite; in 3 the date of the bite was already so remote that inoculation was not considered to be necessary, and in 1 hydrophobia had already developed. Of the remaining 302 who were inoculated, 13 ceased of their own accord to attend soon after the beginning of treatment; 11 had not been bitten, but in rendering aid to persons who had been bitten their hands, which bore scratches, etc., were soiled with the saliva of the rabid animal; in 7 cases after the treatment had been completed it was discovered that the animals were not rabid, and 2 insisted on going through the course because they had drunk the milk of a rabid cow, and were afraid of the consequences. Deducting these 33 cases, together with the 95 who did not undergo the treatment, there remain 269 cases to be reckoned in the statistics. All these patients had been bitten by dogs except 12, who had been bitten by wolves, and 9 by cats. Of the 269 patients 2 died, and in 1 of these hydrophobia developed during the treatment. Reckoning both the fatal cases, the mortality was therefore 0.7 per cent. If the one in which the disease developed during the treatment be excluded, the death-rate was 0.4 per cent. During the year 531 animals were sent to the institute; of these 490 were sent on suspicion of rabies, 25 to be slaughtered because they had been bitten by other rabid animals, and 16 for a course of preventive inoculations. Among these animals there were 502 dogs, 25 cats, 1 horse, 1 cow, 1 wolf, and 1 squirrel. Of 490 animals examined *post mortem* or kept under observation, 149 proved to be rabid.

## BRITISH MEDICAL ASSOCIATION.

### SUBSCRIPTIONS FOR 1897.

Subscriptions to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MARCH 13TH, 1897.

## THE EXTENSION OF THE SERUM TREATMENT OF DISEASE.

Within the short space of a few weeks no fewer than three new therapeutic and prophylactic serums have been brought prominently forward, all of them by men of repute, and all of them apparently after careful study of the conditions under which the several diseases occur and of their course and nature. We have already referred to Yersin's experiments carried out in China and in Paris, the results of which are sufficiently remarkable; but if the programme of the Indian authorities be carried out in its entirety we are likely to hear much more of the action and effects of this serum, as it is stated that application has been made for no fewer than sixty horses for immediate use, whilst a much larger number has been asked for should the experiments be as successful as those of earlier date. The great difficulty in regard to the immunisation of horses set apart for the production of anti-plague serum seems to be that the bodies of the plague bacilli, even when deprived of their vitality, still contain such an acrid substance that they almost invariably set up a local suppuration when injected in any but the smallest quantities—quantities quite insufficient to produce antitoxin enough to be of value in the treatment or prophylaxis of bubonic plague, though sufficient to render the animal itself much less susceptible to the action of the disease germ. We cannot believe, however, that the difficulties are insurmountable, and the time may be confidently anticipated when "anti-plague" serum will be used wherever an outbreak of this loathsome disease occurs.

In the meantime Haffkine has tried to utilise the bacilli themselves as a vaccine. Adapting his cholera inoculation method to bubonic plague, he seeks by injecting the dead or partially devitalised bodies of the plague bacillus to produce an active immunity or insusceptibility similar to that described above as occurring in the horse. It is perhaps too soon to speak of the results obtained by this method of treatment, but as the principle on which the method is based holds good in the case of cholera, as shown by results, we may hope that similar good results may be obtained with plague. It is evident, however, that these two methods of treatment can and must be used for entirely different purposes.

Yersin's method may be used for the protection of people in an affected district, but as the immunity produced appears to be purely passive in character, it must necessarily be of short duration, and should the epidemic be prolonged, since the protective serum is excreted from the system, the infected person will again be susceptible to the attacks of the disease. Haffkine's method undoubtedly has an advantage over Yersin's in this case, as an active immunity is obtained, an immunity which not only extends over a considerable period, but is also more marked, except for the first week or two, than that obtained by the injection of protective serum. Haffkine's inoculation, however, does not produce results at once, whilst from the fact that he actually injects the plague bacillus and poison he is unable to apply his method in any case in which the disease has already broken out, as he would simply obtain a cumulative action, the injected poison going to help the poison already developed during the course of the disease. It is in the treatment of the fully or partially developed disease that Yersin's method will, should results redeem promises, be specially valuable. No time or energy will be wasted in the production of antitoxin in the tissues of the patient. That part of the work will have been carried on for him in the tissues of the horse, and the "anti" body will be injected directly to begin its work of antagonising the plague poison at once, and so allowing or stimulating the tissues to get rid of the poison-forming bacilli. In these two cases we have good examples of both what is called active immunity and what is known as passive immunity. In the one case we have the tissues actively immune because they have as it were become acclimatised to the presence of the bacilli and their poisons, whilst in the other case the animal enjoys an immunity because there has been introduced a protecting substance from without. In the first form the tissues produce their own protecting substances and themselves become profoundly and continuously modified, whilst in the other the protecting substance is introduced from without and the tissues are modified in a far less and more transient degree.

The second serum "cure" and prophylactic agent is that already referred to in these columns. From the further and fuller report appearing in the present issue of the Journal (page 683) it will be seen that Professor Koch has succeeded in obtaining from "salted" cattle or cattle that have recovered from an attack of rinderpest, a serum of low antitoxic value, so low, indeed, that it requires 100 c.cm. of this serum to protect an animal against an inoculation with a small dose of rinderpest blood. Here again the immunity is passive and temporary. Such serum, though it cannot be used on a large scale, may nevertheless be useful in certain cases, as by mixing 20 c.cm. of such serum with virulent rinderpest blood and then injecting the mixture, an immunity equal to that enjoyed by an animal that has recovered from a natural attack of the disease can be obtained, an immunity that is certainly active, and continues for some time.

In a former note it was pointed out that Koch had been unable to find Simpson's bacillus in the bile of cattle that had succumbed to an attack of rinderpest. Working with the bile of such animals, he now finds that a single injection of 10 c.cm. is sufficient to produce a high degree of active immunity, which, however, does not set in until about the tenth day; it is so decided, however, that four weeks after the injection of the bile, 40 c.cm. of active rinderpest blood—a twenty-thousandth part of which is a fatal dose—may be injected. This is a most important statement, and brings

the protective inoculation against rinderpest into line with Haffkine's prophylactic inoculation against the plague. The most noteworthy fact is that every farmer who has a case of rinderpest amongst his stock has at hand a quantity of material with which he may protect such animals as have not contracted the disease, or have not yet been exposed to infection.

The third of the serums recently reported comes from the Hungarian Bacteriological Institution in Buda-Pesth. It has there been found that the serum of swine which have suffered from swine fever contains an active "anti" body, which, in the hands of those who have investigated this subject, has given most encouraging results. So fully convinced are they of its efficacy that they have persuaded their Government to instruct all the agricultural societies in the country to adopt this method of treatment, and to send in reports on the results obtained. All these new facts have great interest for those engaged in the study and treatment of disease, whilst their bearing on active and passive immunity, and on treatment and prophylaxis, are of an importance that can scarcely be exaggerated or, at any rate, overestimated.

## OLD AGE PENSIONS AND MEDICAL RELIEF.

THE question of pensions for the working classes in case of invalidity and old age is occupying at present much attention in France and England. This question is by no means without medical interest, for medical opinion must often be asked as to what constitutes invalidity, whether it arises from old age, premature senility, rheumatoid arthritis, nervous affections, etc., whether in other cases it is the result of accident, and also in many cases whether the invalidity is likely to be permanent or amenable to time and treatment.

Mr. H. C. Burdett[1] does not overlook the importance of providing for sickness and invalidity in schemes for old-age pensions. He proposes to apply the principles of the Royal National Pension Fund for Nurses, of which he was founder, to a national system for old-age pensions. He quotes statistics to show that the working of the present Poor-law system has become so extravagant and wasteful that some new system is needed to replace it. Mr. Chamberlain has proposed in effect that the State should pay a subsidy to encourage people to buy deferred annuities. Mr. Burdett believes that old-age pensions should be of not less than 7s. per week, and should commence at 60 years of age; he considers that provision of sick pay should be left as far as possible to the friendly societies.

According to his scheme the Government is to guarantee an annuity of £18 per annum at 60 years of age to each member of the working classes who contributes through the Post Office Savings Bank amounts equivalent to 1s. every week from the age of 20 to the age of 60. Out of the payments of each contributor the Savings Bank is to hand over 14s. a year for sick pay premiums to any friendly society which the contributor wishes to join, provided the society in question be financially sound. The societies would thus be saved the expense of collecting numerous small contributions from their members. Besides the annuity guaranteed by the Government at 60, each contributor will therefore receive from his friendly society a sick pay allowance of 10s. a week in case he should be totally incapacitated by sickness or accident between the ages of 20 and 60.

According to Sir Henry Longley's evidence, nearly a million a year is at present available in gifts, etc., for the use of the poor. Mr. Burdett proposes that some of this million should be appropriated by the Government to provide a bonus of about £6 8s. 6d. for each contributor who reaches the age of 60; this he estimates as the probable sum necessary in addition to the accumulated contributions of each workman to pay for the annuity of £18.

Mr. Burdett's scheme thus roughly sketched out derives additional weight from the apparently satisfactory working of the Nurses' Royal National Pension, after which it is modelled. If some scheme like this be ultimately adopted, and if not made compulsory like the German system, at least be made acceptable to the mass of workmen, it is possible that the number of paupers at present maintained in the workhouses and workhouse infirmaries will be considerably reduced.

It is probable that the cost per in-patient treated at the London hospitals is much in excess of that at the hospitals of Paris and Berlin. The same excess of cost exists in other English institutions as compared to similar foreign ones. On the other hand it may be surmised that, owing to greater expenditure, more real comfort, if not greater efficiency, is obtained by English systems in comparison to foreign ones. Moreover, the English hospitals maintained by foundation funds and private contributions cannot strictly be compared to the large foreign hospitals maintained at public expense; these latter correspond somewhat more to English Poor-law infirmaries, which, if the hospitals were to fail, would have to do most of their work. In order to appreciate the contrast between the two classes of hospitals, let any visitor to Paris compare the comfort—almost luxury—of the little English hospital there with the arrangements of the large and efficient, but decidedly less comfortable, public hospitals of that city.

Arguments based on statistics of expense need not always carry the greatest weight, but there are other considerations to be entertained in relation to alterations in the system of sick relief which might accompany the introduction of compulsory insurance of the working classes. We will refer only to a medical consideration. It is stated that the general arrangements for workmen in large factories are hygienically better in Germany than in England, and, if this be so, it is probable that the German system of relief in case of sickness and accidents, where a large part of the insurance money must be paid by the employers, has substantially contributed towards it. If arrangements for maintenance of workmen's health are really so much better in Germany than in England it forms a strong argument in favour of a system resembling that in force in Germany.

[1] *A Practical Scheme for Old-age Pensions*, reprinted from the *Times*, 896.

SIR HENRY LITTLEJOHN has been appointed to the Chair of Forensic Medicine in the University of Edinburgh.

THE last issue of the *London Gazette* contains a formal notice that the honour of a baronetcy has been conferred on Dr. Richard Douglas Powell.

DR. W. J. COLLINS was at the meeting of the London County Council on March 9th elected chairman in the room of Sir Arthur Arnold.

The discussion on the Contagious Diseases Acts in India, which had been fixed to take place in the House of Lords on March 12th, has now been postponed until after Easter, when the Earl of Dunraven will bring the subject forward.

We regret to have to record the death of Dr. G. B. Barron, of Southport, which occurred on March 10th. Dr. Barron, who was aged 76, had been for fourteen years a member of the Council of the British Medical Association, as one of the representatives of the Lancashire and Cheshire Branch, of which he was at one time President. He was regarded with much affection and esteem by all who knew him.

The festival dinner of the Irish Medical Schools' and Graduates' Association will take place on St. Patrick's Day, Wednesday, March 17th, at the Café Monico. The guest of the evening will be Lord Lister, P.R.S.; and amongst those who have accepted invitations are Sir John Gorst, M.P.; Sir Algernon West, K.C.B.; Sir Ambrose Shea, Professor Clifford Allbutt, F.R.S.; Mr. Marcus Stone, R.A. The chair will be taken by Professor Alexander Macalister, F.R.S.

A special exhibition of meteorological instruments in 1837 and in 1897 has been arranged in commemoration of the completion of the sixtieth year of the Queen's reign by the Royal Meteorological Society. The exhibition, which will take place at the house of the Institution of Civil Engineers, Great George Street, Westminster, will remain open from Tuesday, March 16th, to Friday, March 19th. On Wednesday, March 17th, at 7.30 p.m., Mr. G. J. Symons, F.R.S., will give a lecture on meteorological observations in 1837 and in 1897.

## INFLUENZA IN LONDON.

Although the deaths from influenza last week slightly exceeded those recorded in any week since the middle of December last, there does not appear to be any general prevalence of influenza in the metropolis. The deaths directly referred to influenza in London last week were 18, the numbers in the three preceding weeks having been 14, 17, and 13 respectively. Each fresh outbreak of the disease has hitherto been accompanied by a marked increase in the mortality attributed to diseases of the respiratory organs, but the mortality from these diseases in London has lately been unusually low, and last week was nearly 50 per cent. below the average.

## THE COLD-BATH TREATMENT OF FEVER.

By the death of Dr. Brand, of Stettin, we have lost a physician who may be said to have effected a complete revolution in the current views as to the treatment of fever; a change of opinion which extends far beyond the circle of those who follow his special method of treating one particular fever. The principle which he may be said to have established is this, that high febrile temperature, apart from its cause, exerts an injurious and disturbing influence on the patient's condition, and that it is of the highest importance to keep it in check. It may be said that before him it was the general practice to keep fever patients as warm as possible, and since to keep them as cool as possible. He was not of course the originator either of this opinion or even of the particular method of reducing temperature which is associated with his name. This, however, must be ascribed to Dr. Currie, who had many followers and successors both in this country and abroad, but to Dr. Brand belongs unquestionably the merit of having devised and systematically carried out a plan of treating typhoid fever, the results of which were such as to cause a complete change in the opinion and practice of the profession. His particular method of reducing temperature in typhoid fever by repeated cold baths has met with enthusiastic support and also great opposition, but after an experience of nearly forty years (the first edition of his *Hydrotherapie des Typhus* was published in 1861) it may still be said that in all the hospitals in which it has been systematically carried out, and it is especially adapted to hospitals, it has greatly lowered the rate of mortality, and probably no other mode of treatment gives better results. The methods of controlling temperature must, however, necessarily vary according to circumstances, and be adapted both to internal and external conditions, but the establishment of the great principle which now almost seems a truism, that high febrile temperatures should be reduced, the profession owes to him. A great Irish physician wished to have inscribed upon his tombstone "He fed fevers," on Dr. Brand's tomb might be inscribed "He kept fever cool."

## THE BENIN EXPEDITION.

Special arrangements have been made by Sir James Dick, the Director-General of the Naval Medical Department, for the reception of the sick and wounded on the arrival of the hospital ship *Malacca* at Plymouth or Portsmouth as the case may be. The *Malacca* left Brass on her return voyage for England on March 3rd. If she arrive off Plymouth in the early morning she will leave her sick there. If at nightfall, she will go straight on to Portsmouth, and land her sick at the Haslar Naval Hospital. The hospitals at both places are ready to receive the patients at once.

## MUMPS IN THE FLEET.

There has been a rather extensive outbreak of mumps on board the battle ship *Prince George*, and it has been deemed best that she should remain at Spithead, as she would not have been allowed to communicate with Gibraltar or with the Channel Fleet there, to which she belongs. The enforced detention is a great disappointment to the officers and men, who would have been glad to exchange the ordinary routine of life on board for the greater variety and excitement, as well as the greater liberty, which might have awaited them at Gibraltar; but even *ennui* can hardly excuse the extraordinary theory which seeks to connect the outbreak of mumps with what is described as the "extreme sweating" of the ship. We had supposed that it was well known to the general public that mumps is an extremely infectious disease, an outbreak of which may easily follow the introduction of a single case into a community, since a patient begins to be infectious before the symptoms render it possible to make a diagnosis of mumps. The "sweating," which is really a condensation of moisture, is common to all iron ships, and is rather less in the *Prince George* than in many others, because her beams are covered with cork.

## THE PLEASURES OF CONVALESCENCE.

Charles Lamb has well described the "monarchal privileges" of a person while in the throes of acute illness, when he is unto himself the very "omphalos" of the world, and everything about him is ordered for his behoof. Compare with this self-centred sovereignty of the sick bed the fallen estate of the convalescent. The doctor takes his leave, and, to quote Elia: "Farewell with him all that made sickness pompous—the spell that hushed the household—the desert-like stillness, felt throughout its inmost chambers—the mute attendance—the inquiry by looks—the still softer delicacies of self-attention—the sole and single eye of distemper alonely fixed upon itself—world-thoughts excluded—the man a world unto himself—his own theatre—

What a speck is he dwindled into."

Yet there is something to be said on the other side. Convalescence has pleasures of its own, which have been classified by an Italian physician with a talent for analysis as follows: There is first of all the negative pleasure from the cessation of physical and mental suffering. Then there is the semi-negative pleasure arising from the satisfying sense of having disappointed the hopes of those to whom our

exit from the earthly stage would have been agreeable. A positive pleasure may be obtained from the contemplation of the danger that we have escaped. Other positive pleasures arise from the recollection of the sympathy and affection shown by various persons during our illness, and from the letters, visits, and congratulations of friends and acquaintances during convalescence. Pleasures of a still more positive kind are given by the increased enjoyment of food and drink which returning appetite brings with it, and by the feeling of continuous progress towards the recovery of strength of body and of mind. Last but not least among the positive pleasures of convalescence are the blessed sense of rest so welcome to the toiler, the freedom from anxiety and worry, and the delight of forming plans for change of scene and amusements and occupations likely to complete one's restoration to health. Our *confrère* paints the pleasures of convalescence so alluringly as almost to make one wish to fall ill in order to enjoy them. He discreetly leaves out of sight the fretting at the loss of money, time, and opportunity, the dread of complications and the forebodings as to future mischief, that, for the medical man at least, so often overshadow all the pleasures, negative and positive, of convalescence.

## THE MIDWIVES REGISTRATION BILL.

Our Lobby Correspondent writes: The prospects of the Midwives Registration Bill do not improve with the advance of the session. Mr. Schwann is not sanguine of his chance of being able to obtain a hearing for the second reading of his Bill this year, and the Secretary to the Midwives Bill Committee, writing a few days ago, tells me "there is no chance of the Bill coming on on the 12th, as it is blocked by Sir Walter Foster and Mr. Maclure. There is no reasonable prospect of its ever reaching the second reading this session, unless the Government give facilities which I do not expect at the present moment." —A deputation of the Lancashire and Cheshire Branch of the British Medical Association and the Manchester Medico-Ethical Association recently had an interview with the parliamentary representatives of the counties of Lancashire and Cheshire and some other members for the purpose of laying before them reasons for offering an active opposition to Mr. Tatton Egerton's Bill for the registration of midwives. The chair was occupied by Mr. J. W. Maclure, and the other members of Parliament present were Lord Balcarres, Sir Blundell Maple, Mr. Tatton Egerton, Mr. Isaacson, Mr. C. Schwann, Sir Henry Howorth, Mr. T. P. O'Connor, Colonel Forster, and Mr. Lees Knowles. The deputation stated several points which were regarded as essential parts of any Bill to be drafted for the registration and control of midwives, and the danger of all such legislation was touched upon. Objection was taken to the present Bill as a whole on the ground that the necessary amendments would entirely alter its complexion, and that it could not be expected or hoped that such alterations could be carried out during the progress of the Bill through Committee. Considerable interest was shown in the matter by the members of Parliament who received the deputation; and subsequently an informal conversation took place, in the course of which the members of the deputation had a further opportunity of explaining their views.

## THE CAIRD HOSPITAL FOR WOMEN, DUNDEE.

By the munificence of Mr. J. K. Caird, a hospital for women is to be added to the Royal Infirmary, Dundee, which, like the Jessop Hospital at Sheffield, will include maternity and gynæcological departments. The conditions of the gift are that the institution shall be managed "on humanitarian principles, free from any restriction of a religious nature, and without distinction of any kind being made in the admission and medical treatment of patients, or in their classification in the hospital reports, in regard to questions of religion or religious belief, or of marriage or non-marriage." The proposed buildings will consist of three blocks, erected on the pavilion principle, from designs by Mr. Murray Robertson. The cost will be £6,000, and a suitable site has been selected in the grounds of the infirmary. The centre or administrative block will be the residence of the nurses and officials connected with the wards, and will contain sitting and bedrooms for nine nurses, with accommodation for six more if necessary. The north block, or maternity hospital, will contain, on the ground floor a reception room, a delivery ward with two beds, a large ward with four beds, a nurse's room, and a kitchen. On the first floor will be another large ward, three private wards for paying cases, together with a nurse's room, and the usual conveniences. The south, or gynæcological block, will be similarly arranged, containing on the ground floor two wards, each for four patients, and between them a small private ward. Midway between the wards, and opening into the corridor, will be a fine operating theatre, fitted with every modern improvement. On the first floor will be a ward of four beds and three private wards. The whole hospital will contain thirty beds, seventeen on the south side, and thirteen on the north, and will prove a most valuable adjunct to the infirmary, which is greatly to be congratulated on the excellence of the design, as well as on the generous spirit of the donor.

## NON-COMBATANTS IN ACTION.

Last week we commented on the heroic conduct of Surgeon Fyfe, R.N., who was killed at the taking of Benin. We now have to chronicle the gallant act of another non-combatant on the same occasion, as stated in a Central News telegram. Fyfe was killed by a Benin sharpshooter, who greatly harassed him at his work in succouring the wounded. When Fyfe fell Staff-Surgeon Martin, R.N., of the *Forte*, who was on the spot, carried him off the field, but too late to save a life already lost. The Victoria Cross has frequently been given for similar gallantry to that displayed by Martin, and we hope his devotion will not go unrecognised. We would simply ask those who lay such stress upon the difference between combatant and non-combatant officers to define wherein it lies in respect to the circumstances under which Fyfe and Martin were placed at Benin.

## MEDICAL SOCIETY OF LONDON.

The 124th anniversary dinner of this Society, which was attended by about 150 Fellows and guests, was held at the Hôtel Métropole, on Saturday, March 6th. Mr. Reginald Harrison, the President, occupied the chair. The toast of the evening was proposed by Mr. Thomas Bryant, who referred to the fact that his father had been President of the Society sixty years ago, having received the Fothergillian medal for an essay on diseases of the larynx three years previously. It was at a dinner in celebration of this event that Sir B. G Babington had first conceived the idea of the laryngoscope. Mr. Bryant himself had been Secretary when John Hilton was President, and had passed the chair just twenty-five years ago. He alluded to the fact that the Medical Society of London comprised within its ranks members of every branch of the profession, and stated that with the exception of the Guy's Hospital Society, which was two years its senior, it was the oldest body of its kind in London. Mr. Harrison, in replying, said that in spite of its years the Society was free from the maladies of old age, and was celebrating its 124th birthday in the enjoyment of excellent health. Mr. Frederick Treves proposed "The Sister Societies," cavilling humourously at the female designation. In coupling the name of Lord Lister with the toast, he said that sixty years, though a long period for a sovereign to reign, was but a moment in the history of surgery, but that the name of Lister had made that moment memorable for all time. Behind the cunning of Fergusson and the skill of Syme there was always a lurking shadow—the shadow of death—and this had been removed by him who in this commemoration year had been

honoured by the first medical peerage. Lord Lister, who was very warmly received, said that the Royal Society particularly welcomed all work which brought abstract science into relation with the art of healing. For himself he could only say that his peerage was as undesired as undreamed of. It was conferred upon him without his being consulted, but, had he been asked, the only thing which would have induced him to accept it would have been his loyalty to his own profession. The other toasts were "The Visitors," proposed by Sir Wm. Dalby, and responded to by Mr. Butlin and Mr. Bigham, Q.C., M.P.: "The President," proposed by Sir William MacCormac; and "The Officers and Council," proposed in a witty speech by Sir James Crichton-Browne, and responded to by Mr. Pearce Gould and Mr. G. R. Turner. The dinner was a great success, and the enjoyment of the evening was heightened by the playing of the Bijou Orchestra, and an excellent programme of vocal and instrumental music.

## DUBLIN SLAUGHTER-HOUSES.

A recent discussion in the Dublin newspapers shows that there are still sixty-six slaughter-houses in use in that city. Of course in any well-regulated community such a thing would be impossible, particularly when a modern abattoir has been built and equipped at great expense. In estimating the causes which promote epidemics these insanitary centres must be counted as most dangerous. The Corporation says it has not the power to close them without remuneration. Then why not pay the necessary compensation? The cost would be covered by a very small rate to which few would object. But the Corporation not only tolerates these, but hundreds of dairy cows which are kept from year to year within the city bounds. It is quite farcical to constitute such a body a health authority. There are few of its members who have spirit enough to take a bold stand, and if they did so they would be probably controlled by the influence of the vested interests.

## SMALL-POX AND VACCINATION IN GLOUCESTER.

The *Citizen* newspaper, which is published in the city of Gloucester, and has, we believe, a considerable circulation in neighbouring parts of the country, has published an article in a recent issue in which it takes exception to the comments which we thought it expedient to make under the heading "A Warning to Sanitary Authorities," on a report by Dr. Brooke to the city Sanitary Committee on the subject of the Gloucester Small-pox Hospital. Had the writer of the article in question dealt with our comments in an intelligent way we should have been prepared to consider his criticisms and to make any corrections in our statements which might have appeared to be justified. But he has preferred to ignore the substance of them altogether and to content himself with animadverting on the style in which the article was written, and then proceeds, in a way which, we regret to say, is but too common in dialectics of this kind to allege that they were "inspired" from "a local source that seems as though it would never dry up so long as any opportunity offers for misrepresentation and evasion or any confiding editor is left unimposed upon." The editor of the *Citizen*, who certainly does not seem himself to be lacking in the confidence with which he credits us, then quotes from Dr. Brooke's letter to us in the British Medical Journal of February 27th that portion in which he also takes exception to our comments. In a few words which we appended to Dr. Brooke's letter we endeavoured to disabuse his mind of this misconception. The editor of the *Citizen* has not thought fit to quote this note, but concludes his article with a reference to "unworthy efforts to suppress the facts of a horrible scandal," and threatens that "the truth will yet be told and an authoritative pronouncement made, to the confusion of those individuals who have been so busily occupying themselves with 'darkening counsel by words without knowledge.'" What this last mysterious innuendo means we are unable to say, but if the Gloucester *Citizen* intends by it to insinuate that we have allowed the columns of the British Medical Journal to be used for the purpose of concealing the shortcomings of the Gloucester City Council, whatever they may have been, he shows very little acquaintance not only with the principles upon which this journal is conducted, but also with the policy which it is the duty of every supporter of vaccination to pursue in the interests of science and truth. No one would welcome such an investigation as that which the *Citizen* threatens more heartily than we, in common with all other believers in vaccination, would do. It is only by such a procedure that the "misrepresentation and evasion," of which we fear there has been only too much in connection with the Gloucester epidemic, can be brought to light. But the practical question is, How is such an investigation to be obtained? The Local Government Board, judging from the answers of the President to recent questions in the House of Commons, do not seem to feel disposed to undertake it. And we can well understand their reasons for avoiding it, in view of the seven years' experience of the Royal Commission in conducting a similar inquiry. Perhaps the editor of the *Citizen*, who has already for some years past used his paper with so much effect in the crusade against vaccination, will bring his influence to bear on his friends in the Gloucester Town Council to induce that body to put more pressure on the Local Government Board to hold an inquiry.

## PRESERVATIVES IN PHARMACY.

In the various preservatives used in pharmacy, Mr. William Martindale found an interesting topic for the paper read before the Pharmaceutical Society on Wednesday, March 9th. Those who are responsible for the directions contained in any pharmacopœia may perhaps be forgiven for overlooking the interest of this subject to the practical pharmacist. Directions may be given for various preparations, and these may be sufficiently good if only these preparations are employed in a fresh state. Undoubtedly for many that are frequently in demand it is inconvenient to prepare them as they are required, and if on this account the chemist finds it desirable to keep them in bulk, a serious loss may be entailed if the preparations are prone to develop organisms, hence the need of the employment of certain preservatives. In his paper Mr. Martindale considered *seriatim* the preservatives which are in general use, and he has done good service in indicating the limitations of their actions. Incidentally it may be observed that he explains, on the score of their preservative action, the presence of many substances like glycerine, syrup, and sugar in numerous pharmacopœial preparations. The practical difficulties of pharmacy were well illustrated in connection with the use of salicylic acid; this is officially present in the solution of cocaine, and has proved very serviceable, since in the absence of salicylic acid, hydrochlorate of cocaine has a great tendency to develop fungoid growths. When attempts have been made to extend the sphere of utility of salicylic acid, as with solutions of morphine or apomorphine, crystalline salicylates are found to separate. That the pharmaceutical use of preservatives does not always coincide with the general range of utility was evidenced by experiment. Mr. Martindale stated that without the aid of boric acid and other preservatives many of our articles of daily food would be at famine prices, but he exhibited a specimen of a torula grown in a saturated solution of boric acid in distilled water.

## THE TREATMENT OF DIPHTHERIA IN BIRMINGHAM.

Though possessed of excellent infectious hospitals for the treatment of scarlet fever and small-pox, Birmingham is at the present time most inadequately provided with means of isolating and treating diphtheria, and the authorities are at length beginning to realise the fact. During the past three years the number of cases reported has shown the disease to be considerably on the increase, the numbers being 316 in

1894, 640 in 1895, and 1,100 in 1896. The two large hospitals —the General and the Queen's Hospital—do not admit cases of diphtheria unless they require immediate tracheotomy. There are six beds in a special ward at the Children's Hospital for diphtheria cases, and these at present represent the total number of beds available for ordinary cases of diphtheria. About eighteen months ago, when the General Hospital found itself unable any longer to admit all cases of diphtheria owing to pressure on its beds and the want of efficient means of isolation, a resolution was passed by the staff of that hospital calling the attention of the Health Committee of the City Council to the fact, and suggesting their undertaking the isolation of such cases, but nothing was then done. Lately, however, the necessity of some better means of coping with the epidemic has become more and more urgent, and a meeting of the medical profession of the city has been held to consider the best means of dealing with it. The meeting was summoned by Dr. R. Saundby, as President of the Medical Institute; Dr. A. H. Carter, as President of the Midland Medical Society; and Mr. M. A. Messiter, as President of the Birmingham and Midland Counties Branch of the Association. It was attended by some fifty medical men, and also by various members of the Health Committee of the City Council who were invited. Dr. Saundby presided, and after some discussion, in which stress was laid on the value of antitoxin as a remedy for the disease, and the difficulties under which practitioners at present laboured in obtaining a supply of it when wanted, the following resolution was passed:

That this meeting of medical practitioners practising in Birmingham recognises fully the extent of the present epidemic of diphtheria in the city, and cordially shares in the desire of the Health Committee of the City Council to do all that is possible to limit its spread and diminish its mortality. That, in the opinion of this meeting, these objects may be best attained by the prompt notification and isolation in a special hospital of all cases as soon as recognised; further, that this meeting considers that there is sufficient evidence to prove that the use, with due precaution, of diphtheria antitoxin is not dangerous, and that when employed early and in sufficient doses, this remedy has been followed by a diminished mortality.

This resolution Alderman Cook, as representing the Health Committee, promised to bring before the City Council.

## PROFESSOR A. W. HUGHES.

PROFESSOR ALFRED HUGHES, whose generous gift to the University College of South Wales and Monmouthshire of his anatomical collection, or in the alternative of a sum of money sufficient to replace it, was noticed recently in the BRITISH MEDICAL JOURNAL, was on March 8th entertained at dinner by the Medical Students' Club. The chair was taken by the President, Dr. D. R. Paterson, who was supported by Dr. Edwards, the Vice-President, and about fifty students. In proposing the health of Professor Hughes, Dr. Paterson referred to the influence which Professor Hughes had exercised upon the success of the medical school during his four years' stay in Cardiff, and emphasised the regret which teachers and students alike felt when they learnt that he would be compelled for family reasons to resign the Chair of Anatomy in the College. Mr. Kinlock and Mr. Ward, on behalf of the students, presented Professor Hughes with a spirit stand and salver having the following inscription: "Presented to Professor Alfred W. Hughes, by the past and present students of the Cardiff Medical School as a token of their regard and esteem for him as a professor and friend." Professor Hughes responded, expressing his appreciation of the honour which had been done him, and concluded by proposing the toast of the Cardiff Medical School, which was acknowledged by Dr. Edwards.

## FEES OF MEDICAL WITNESSES.

A CORRESPONDENT brings to our notice a most oppressive incident which has happened in the court of the stipendiary magistrate at Bradford within the last few days. On March 3rd a charge of assault was brought, and the detective superintendent said that the complainant was unable to appear. The junior house-surgeon at the Bradford Infirmary, Dr. Gladstone, who is highly qualified and much respected, had, it seems, been telephoned to by the police, and had obliged them by coming down to the court, although it was no part of his duty to do so. When he was called upon to give evidence, he asked to be paid his fee. The stipendiary curtly replied, "You will get your fee if a fine is paid, but if the man goes to prison you must take your chance like other people." Dr. Gladstone very properly remonstrated that this was not public or hospital work, it was police work. The stipendiary then had the ill manners to tell him that by his action he was "doing a great deal of harm"—whatever that may have meant—and Dr. Gladstone rejoined in similar terms. The stipendiary then seems to have got angry, and made a statement which we are advised was incorrect, namely, that "it was his duty to give evidence when he was asked." At this point the detective appeared to think the situation was becoming awkward, and said that he would try to get on without the house-surgeon. The criticism is obvious that if he could get on without him it was very absurd to send for him by telephone, and then propose to pay him nothing for his trouble. We are still more surprised to learn that at the Board meeting of the infirmary on the day following the chairman expressed the wonderful opinion that the house-surgeon ought to tender an apology to the stipendiary. We submit, on the contrary, that it is the stipendiary who owes an apology to the house-surgeon. The whole system of compelling medical men to give evidence in matters which are no part of their duty, and which often involve great trouble and loss of time and work, is most unsatisfactory; and cases like this have at least this advantage—that they call public attention to the mischief.

## EXPERIMENTS ON ANIMALS.

THE Hon. Stephen Coleridge has published in the daily press a letter from himself, as Treasurer of the Victoria Street Society for the Prevention of Vivisection, to H.R.H. the Prince of Wales, asking that the Prince's Hospital Fund may be so distributed that none of it may go to any hospital in whose school any experiments are made on animals. The Victoria Street Society must of course make some move of this kind; nor are we here concerned with the impertinence and vulgarity of the letter, but only with its inaccuracies. Mr. Coleridge actually writes of laboratories, attached to hospitals, where "hapless dumb animals, daily and hourly, are slowly cut up alive without even the pretence of anæsthetics." It is past all understanding how an educated man can write such ridiculous nonsense.

## A DEPARTMENT OF PUBLIC HEALTH FOR SOUTH WALES.

Two years ago proposals to found a department of public health in connection with the University College of South Wales and Monmouthshire were brought before the College authorities, the Technical Instruction Committee of Cardiff, and the County Councils of Cardiff, Glamorgan, Swansea, and Monmouth. These proposals were favourably received at the time, and the scheme has since been vigorously pushed, and has elicited much discussion in the public press. The County Council of Glamorgan have shown, perhaps, the greatest interest in the matter, and recently they have expressed their willingness to contribute the sum of £2,000 towards the building fund, and some sum, as yet unspecified, towards its upkeep. This is, however, conditionally granted, conditionally on the scheme receiving the financial co-operation of the other public bodies concerned. That the other public bodies will not fail in this support there seems now to be little doubt, and we may hope that in a year or two South Wales may boast of having, by a reasonable and judicious combination of her forces, solved the very difficult problem of providing an efficient, and therefore costly, department of public health. It is proposed that the department should consist

of a lecture room, a large laboratory for general purposes, and several smaller laboratories for special bacteriological and other work, together with a museum for specimens and models. The following work would be undertaken by the department: The medical officers of health and public analysts of the combined districts could carry on their routine laboratory investigations, such as the analyses of water, food, air, etc.: the bacteriological investigations of the same, together with that of diphtheritic membranes, sputum, cholera evacuations, the tissues of diseased animals, the serum diagnosis of typhoid, and the local distribution of antitoxin, etc.; and in this work they would have the assistance of a trained bacteriological specialist. The department could further be utilised for the prosecution of original work, and for the purpose of teaching public health. The training of medical men as medical officers of health would be undertaken, as well as the training of sanitary inspectors. Evening-class popular lectures on hygiene could be organised, and the lecturers properly provided with means of illustrating their discourses. The promoters of this scheme have been much encouraged by finding that quite recently similar ideas have independently recommended themselves to organisers of public health elsewhere. Dr. Sims Woodhead, at the last meeting of the British Association, ably advocated a very similar plan, and some discussion of a still more recent date in the pages of the British Medical Journal has convinced the promoters of the scheme that they have been working on lines which will meet with the general approval of the profession. The enormous development which has during the last few years taken place in sanitary science and the vital importance of the subject necessitate not only the output of every endeavour to keep abreast of the science, but suggest that we must anticipate still greater developments in the near future.

## DR. ARNISON, OF NEWCASTLE.

Dr. Arnison, Senior Surgeon to the Royal Infirmary, has retired from office, in accordance with the statute that no honorary surgeon shall continue to hold office beyond the age of 60 years. At the dinner of the Newcastle Clinical Society on February 18th Dr. Arnison, in responding for the Royal Infirmary, announced that he did so for the last time as surgeon to that institution, as the following day would be his birthday, when he attained the age of 60. He has held office for more than thirty years, and has also resided for three years in the infirmary. Dr. Arnison's many friends heard with much regret and some anxiety that on the very day of his retirement he was seized with an attack of influenza. It was severe for a few days, but he is now recovering. The House Committee at their monthly meeting passed a resolution thanking Dr. Arnison for his great services to the institution, and they recommend to the governors that he be appointed a consulting surgeon. It is expected that Mr. Morison, the senior Assistant Surgeon, will be elected without a contest as Dr. Arnison's successor.

## RETROPERITONEAL TUMOURS.

At the annual meeting of the British Medical Association held in Carlisle last year Mr. William Anderson, in a paper read in the Section of Surgery, and published subsequently in the British Medical Journal of October 19th, 1896, laid the foundation of the surgery of the subperitoneal tissue. An interesting debate bearing on retroperitoneal tumours took place at the meeting of the Royal Medical and Chirurgical Society on March 9th in connection with Mr. Marmaduke Sheild's case of successful removal of a large fibromyomatous tumour arising from the retroperitoneal space. The origin of such tumours may be difficult to determine, as they tend to spread far and wide behind the peritoneum: some may be derived from the smooth muscular tissue which extends from the uterus into the broad ligament, and has, we believe, been termed the uterine platysma: while Mr. Eve suggested that the smooth muscular tissue said to be present at the root of the mesentery might be the starting point of some fibromyomata. Probably many of the growths described as retroperitoneal sarcomata are, like most "sarcomata" of the breast, allied more closely to soft fibromata than to malignant tumours, as evidenced by the facts that they displace rather than invade adjacent tissues, and do not recur after removal, though that operation may be extremely hazardous from the extent and size of the growth. The retroperitoneal fibromata may be extremely œdematous or may contain fat, as in Sir Spencer Wells's case examined by Mr. Eve. Occasionally they may be almost or entirely composed of fat, and form enormous tumours, which may somewhat resemble malignant tumours or more closely ascites. From malignant tumours their course and the absence of cachexia distinguish them, while the effects of paracentesis differentiate them from ascites. Mr. Lockwood drew attention to the areas of resonance which vary in their position as a clinical feature of retroperitoneal growths; but this fact, together with fluctuation, met with in fatty tumours, would tend to make the resemblance of ascites and retroperitoneal lipomata all the more close. No wonder, then, that such semisolid growths have been subjected to paracentesis. In the January and February numbers of the *Montreal Medical Journal* Professor Adami has given an interesting account of such lipomata arising from the perirenal fat.

## THE LONDON WATER SUPPLY.

The proposal of the Government to appoint a Royal Commission to inquire into various questions relating to the purchase of the interests of the London water companies in their undertakings is one which is not likely to be received with enthusiasm by those who are anxious to see an early improvement in the water supply to the metropolis. However useful they may be in other respects Royal Commissions unfortunately spell delay, and this is a matter in regard to which one cannot but look on delay with considerable anxiety. The suggestion of a permanent Commission to investigate the grievances of water consumers is, on the other hand, one which, if properly carried out, and if the Commission were furnished with sufficient powers, might be of great advantage to the public, into whatever hands the duty of providing London with water may ultimately fall.

## THE MILITARY PRESS AND THE MEDICAL DEPARTMENT.

Our able contemporaries, the *Army and Navy Gazette* and the *Broad Arrow*, have lately published important articles on the present state of the Army Medical Service. The former, which takes the broader view of the situation, suggestively points out that, of ten recommendations submitted by the Parliamentary Bills Committee of the British Medical Association to Sir—then Mr.—Campbell Bannerman, Secretary for War in 1893, six have now been conceded; but the chief—consolidation of the Medical Service into a corps, and revision of titles—are still unrealised. It declares the Medical Service to be "in a deplorable state of inefficiency," and states that the attempt to keep the Medical Staff of the Army in the position of "camp followers" is a mistake indeed! The *Broad Arrow*, in commenting on Lord Lansdowne's recent concessions, which it applauds, also commends him for not attempting to "dabble further in military titles," "because the compromise of a few years ago has been a failure, and as a failure it will stand." We fail to see the logic here; because a compromise has been an admitted failure therefore it must be allowed to stand! Because it has not worked therefore it must be left unworkable! But what caused its failure, and who made it unworkable? Certainly not the medical, but the combatant officers. Our contemporary seems to think the ancient policy of "more money" and "more time at home" will work a cure; but really gives itself away in the statement that "the root of the difficulty lies in the fact that the position of the medical officer is not a happy one." . . .

Socially he is uncomfortable," because "a certain class of combatant officers contrive to make him ill at ease." To this we give a cordial endorsement, but submit that "more money" and longer "home service" will not avail. The only cure of the admitted difficulty is by placing the medical officer in such a position of secure army rank and title that no combatant officer would dream of, much less dare, to question his status, or insult him by a kind of social boycott. This is the true remedy—not financial or roster tinkerings. The sooner the military authorities realise that no independent young medical men worth their salt will enter a service in which they are liable—perhaps at the hands of their own brothers and cousins—to lead a life which daily wounds their self-respect, and subjects them to social and other discomforts, the better it will be for the service.

## ALCOHOL AND BACTERIOLOGY.

Dr. Sims Woodhead, the President of the British Medical Temperance Association, speaking at a reception given last week at the London Temperance Hospital, said that the stage of opinion when it was supposed that alcohol was a necessary article of diet had now been passed. It should only be given in the same way as any other drug, and when nothing else would do as well. Statistics showed that alcoholics were more liable to phthisis, and experiments made recently in America indicated that animals to which alcohol had been given were more easily invaded by the micro-organisms which produced suppuration and anthrax. This agreed with the experience that those who took much alcohol were more liable to be attacked by cholera and to succumb during an epidemic than others. He added that experiments made in Manchester had shown that even small doses of alcohol produced some degenerative changes in the viscera.

## CHLOROFORM AND OXYGEN ANÆSTHESIA.

The use of oxygen as an antidote to chloroform has been suggested quite from the early days of that anæsthetic. From time to time various apparatuses have been invented whereby oxygen and chloroform can be administered simultaneously, but none has met with general adoption. In another column we describe the most recent claimant for recognition—the invention of Mr. T. G. H. Nicholson, of Liverpool, who has for some time[1] advocated this particular method of producing anæsthesia. For the plan it is claimed that by supplying oxygen *pari passu* with the chloroform it is possible to maintain the normal tissue metabolism; for it is assumed that chloroform, by lowering blood pressure and diminishing vagal action, hinders aëration of the tissues, thus tending to produce molecular and systemic asphyxia. Mr. Nicholson believes that when oxygen is given with chloroform regular respiration is always maintained, and he even goes so far as to say that watching the respiration and pulse in the sense of anticipating danger becomes then unnecessary. The experience of Kreutzmann, Neudörfer, Loysell, and more recently of Northrop, Hassler, and others, is certainly favourable to the use of oxygen with chloroform. It is, however, most important to remember that chloroform acts not only through its influence upon circulation and respiration, but as a protoplasm poison, and lowers the vitality of the cells of all structures exposed to it. We do not at present know whether oxygen is capable of preventing these deleterious tissue changes, or if it allows more chloroform actually to enter the circulation than would otherwise be possible. The vagal depression following the use of chloroform has been pronounced by Bomford to be protective in so far as it lessens the intake of chloroform. In like manner, molecular asphyxia may, by lessening the actual conveying power of the blood preserve from such an excessive absorption of the anæsthetic as would take place if tissue metabolism remained unaffected, as it is said to do in the presence of oxygen.

[1] British Medical Journal, July 25th, 1896, p. 233.

## THE DUNDEE CORPORATION AND SIR ORACLE.

Sheriff Campbell Smith is still engaged, to his own entire satisfaction if with little benefit to the community, in correcting the errors of the sanitary authority of Dundee. In connection with a recent case in which a summons had been issued, parties had arrived at an extra-judicial settlement and had lodged a joint minute. This did not prevent the sheriff from having his usual dig at the corporation. Judges rarely exhibit any desire to increase the work of their courts. But Sheriff Campbell Smith expressed the opinion that it would have been well to have gone into the details of the case, although in the same breath he expressed the opinion that "it was not a very suitable case for trial for both parties"—a most oracular utterance. What it appears, however, the sheriff was desirous of getting out was the names of the members of the Town Council who had voted for the proceedings being taken. Balked in this, he went on to state that he "simply did not believe that there was any sanitary authority in Dundee worthy of the name." And the learned sheriff laid down his theory of sanitation. "He believed that the laws of Nature operated invariably, while medical theories had been changing ever since medicine came into existence—for the last 2,000 years." Luckily for Dundee she has one citizen who still stands where people stood 2,000 years ago. One disadvantage, however, appears to attach to these 2,000-year old views: in consequence, perhaps, of their great age they work slowly. The case above referred to has been six months in court, while another relating to an underground dwelling referred to appears to have been in court for about two years. The attention of the Lord Advocate ought to be directed to these matters.

## SANITARY GUIDANCE OF THE GOVERNMENT OF INDIA.

The proposal to establish a quarantine station at Diamond Harbour on the Hooghly for the purpose of inspection and detention of pilgrims from all parts of India previous to embarking for Mecca raised, as we elsewhere chronicle, quite a storm of alarm and protest in Calcutta. The project having been abandoned, this excitement has been allayed; but the question is being asked, How came the Secretary of State for India and the Government of India, with whomsoever the idea originated, to entertain and sanction a scheme so acutely fraught with peril to the health and commerce of the capital of India: calculated, moreover, to spread the plague far and wide? One reply has been offered which is not without justification, namely, that there is no authority associated with either of these supreme centres of rule competent to give weighty and constraining advice on the sanitary aspects of questions directly or indirectly concerning the public health. In this connection we may refer to Sir John Woodburn's declaration, quoted last week, that the Government of India was misled by its medical advisers regarding the earlier and more effective measures which ought to have been adopted to stay the progress of the plague in India. Probably the object in view would be best met by the creation of an Imperial Board on the model of the Medical Department of the Local Government Board in this country, to which such questions might be referred. The Government of India possesses in the Director-General of the Medical Department, who is also Sanitary Commissioner, an experienced adviser on medical and sanitary questions; but this official may, as in the present case, hold peculiar views regarding the communicability of some particular disease or other topic which may induce Government to neglect precautions and measures consonant with prevalent doctrine and usage.

The lady superintendent of the Ladywell Sanatorium at Eccles (Miss Thomas) was recently presented by the Health Committee with an illuminated address and a purse of 20 guineas.

# THE PLAGUE.

## CHRONICLE OF THE PLAGUE.

### Hot Weather and its Effect.

The hot weather is upon them in Bombay, and the effect of its influence upon plague will be as carefully noted as it has been eagerly anticipated. We attach little or no importance to the effect of temperature *per se*, but there is no doubt that warm weather brings with it a cessation of the nocturnal overcrowding which no doubt plays an important part in the spread of the disease. The poorer classes can now sleep on the verandahs, the roofs of the houses, and in the streets, and thereby relieve the congestion which obtains in native houses during the cold weather.

### Attacks and Deaths.

In Bombay the number of deaths is well-nigh on a level with the cases recorded:

| | Feb. 13. | Feb. 14. | Feb. 15. | Feb. 16. | Feb. 17. | Feb. 18. | Feb. 19. | Total. |
|---|---|---|---|---|---|---|---|---|
| Cases ... | 126 | 113 | 126 | 138 | 114 | 130 | 114 | 863 |
| Deaths ... | 125 | 118 | 115 | 132 | 108 | 137 | 119 | 854 |

In Poona the disease is not now increasing, and in Karachi it has considerably diminished.

### Bombay Special Committee.

The primarily infected districts of Bombay have had no recurrence during the past week; but in the suburbs no hitherto infected districts have become plague stricken. The Special Committee appointed consists of four members—General Gatacre, Mr. Snow (Commissioner), Surgeon-Major Dimmock, and Mr. James (Municipal Engineer). They are to carry out, under the orders of Government, stringent measures to suppress and prevent the spread of the plague in Bombay.

These measures, the Governor states, should comprise organisation, first, for the discovery of all cases; secondly, for the treatment of all cases in the hospitals; and thirdly, for the gradual segregation, so far as possible, of those persons who have been living in the same room with the plague stricken, or have been in close attendance upon them. The Committee are given the fullest powers to enforce the measures.

Lord Sandhurst, in a letter to the Municipal President, says that the appointment of the Committee casts no slur upon local bodies, nor is it a blow at local self-government. It is simply an imperial necessity.

We wish the Committee all success, and we consider that the apology of Lord Sandhurst to the municipal body of Bombay, although no doubt a gracious act, is a gentle reminder that bickerings in times of peace and indecision in time of danger do not recommend themselves to the outside world as the best way of exercising their sanitary authority. The action of the several bodies in Calcutta is scarcely to be understood by those of us who are not behind the scenes. Their last act, the refusal to allow their medical officer of health to proceed to Bombay to become acquainted with the sanitary procedures there is but in keeping with their previous acts, and what is to be expected from a medical board burdened with such a false constitution.

### Calcutta and its Sanitation.

If any town ever deserved the severe visitation of an epidemic for its sanitary sins, it is Calcutta. Moreover, they have defied interference, relegated the sound advice of their medical officer to the waste-paper basket, and continued a system which may have done very well for India in the days of Hindu supremacy, but is totally at variance with modern methods and needs.

### The Plague Belt not yet Over-reached.

The papers in India do not accept the previous records of the southern limits of plague—namely, 19° north of the equator—but up to the present moment there is no proof in India that it has gone south of that. Poona is the furthest south point at which it has appeared, and although cases may occur further south, they have as yet been only isolated cases which have been reported from beyond the 19° lat.

Plague has never been known in Calcutta, and there seems no reason to gainsay the fact that it is outside the plague belt. Many points will no doubt be settled in the pathology and epidemiology of plague during the present outbreak, but we will hope that no scientific man will be led into the trap of belief that quarantine or inspections have had anything to do with checking its spread. One might as soon try to stop the wind by a five-barred gate as to attempt to stop plague by quarantine or cordons.

### Ancient Records of Rats being Attacked.

One Indian paper gives an extract from the journal of the Emperor Jehangir. In it is related the fact that rats were attacked by plague. It is further evident that antivivisection laws did not obtain in these good old days, for Jehangir caused the rat to be shown to a cat, which immediately pounced upon the rat, but soon left off, as "it found the rat diseased." The cat was attacked in a few hours by a serious illness, which lasted three or four days, but it was ultimately restored to health.

### Yersin's Arrival.

Dr. Yersin has arrived in Bombay from Saigon with enough plague serum to inoculate 400 patients. We anxiously await the result.

### Haffkine's Results.

The following statement shows the results of Professor Haffkine's prophylactic treatment against the plague in H.M. House of Correction, Byculla, Bombay:

| Dates. | Non-Inoculated. | | Inoculated. | |
|---|---|---|---|---|
| | Attacks. | Fatal. | Attacks. | Fatal. |
| Day of Inoculation. January 30th, 1897, before inoculation | 6 | 3 | *Nil* | *Nil* |
| January 30th, 1897, after hours of inoculation ... ... ... ... | *Nil* | *Nil* | *3 | *3 |
| From the day after inoculation: | | | | |
| January 31st, 1897 ... ... ... | 2 | 1 | 1 | *Nil* |
| February 1st, 1897 ... ... ... | 1 | 1 | *Nil* | ,, |
| February 2nd, 1897... ... ... | 1 | 1 | ,, | ,, |
| February 3rd, 1897 ... ... ... | — | — | — | — |
| February 4th, 1897 ... ... ... | 1 | 1 | *Nil* | *Nil* |
| February 5th, 1897 ... ... ... | 2 | 1 | ,, | ,, |
| February 6th, 1897 ... ... ... | 5 | 1 | 1 | ,, |
| Total after the day of inoculation ... | 12 | 6 | 2 | *Nil* |
| | In an average population of 173 3-7. | | In an average population of 148 3-7. | |

* These three cases were undoubtedly infected with plague prior to inoculation.

### The International Board of Health at Constantinople and the Pilgrimage.

[We are indebted to Dr. E. D. Dickson, British Representative on the International Board of Health at Constantinople, for the following additional notes in continuation of his communication to us published in the British Medical Journal of January 31st. The present communication brings the account down to February 28th.]

The Constantinople Board of Health has been informed by Dr. Lubicz that after the death of the second young woman who was ill, and had arrived at Bassora in the steamship *Khandalla*, this ship left Bassora with all its pilgrims, to return to India, owing to the interdiction by the Turkish Government of the pilgrimage to Kerbela.

On February 13th, the Constantinople Board of Health increased the term of quarantine on arrivals from Bombay and Karachi to fifteen days, and applied this quarantine also to arrivals from every part of British India, and a quarantine of twenty days on arrivals which had had cases of plague on board ship.

On February 16th, a Commission was instituted at Bassora,

under the presidency of the Vali—Governor-General—for the purpose of carrying out the instructions, it would receive from Constantinople, and of applying sanitary measures and military cordons wherever it might deem them necessary. Another Sanitary Commission was also appointed for the purpose of applying quarantine measures along the Arabian shore of the Persian Gulf, extending from Fao to Bahrein, with a central lazaret (of tents, I presume) at Adjir; and Dr. Camposampiero—Ottoman Sanitary Delegate at Tehran—has been ordered to come to the Persian Gulf and watch the Persian quarantine stations of Bender Bushir, Lingah, and Bender Abbas.

In the meantime, the Persian Government is said to have closed its communications with Afghanistan and Beluchistan except by the roads leading from Herat to Meshed, from Candahar to Berjum, and from Beluchistan to Bampur, where medical inspectors are to be stationed, and it has also interdicted the pilgrimage of Meshed to arrivals from Afghanistan and India. The Russian Government, moreover, is said to have established two medical stations of observation on the Russo-Persian frontier—one at Dussack and the other at Gaüdam.

Up to February 14th several steamers have arrived at Bassora and at Camaran from Bombay and Karachi, and 17,000 pilgrims have reached Jedda in good health. I am not able to state, at this moment, how many of these pilgrims actually came from Bombay and Karachi, but one thing is evident from the reports received by the Board of Health from its sanitary officers stationed at Bassora, Camaran, and Jedda, namely, that excepting the two female passengers who arrived at Bassora from Karachi in the ss. *Khandalla* early in February, and who died there apparently from plague, and the two pilgrims said to have died from plague on board the ss. *Pekin*, during its voyage from Bombay to Camaran, in the beginning of January, no other case of this disease has shown itself either upon passengers or upon the crews of the ships that have come to Bassora, Camaran, and Jedda. It is therefore very difficult to account, on sanitary grounds, for the panic caused in Europe and in Turkey by the outbreak of plague at Bombay. The more so when it is remembered that plague does not fly across a country as cholera does, and that it is certain to abate under a high temperature, and disappears when the thermometer rises above 104° F.

### KARACHI.

Our correspondent in Karachi writes that during the week ending February 11th, 284 cases of plague and 266 deaths were reported. Of the total number of cases, 166 were in males, and yielded 147 deaths; while 118 cases occurred among women, with 117 deaths. A further classification shows that 118 cases and 109 deaths occurred among Hindus, while 166 cases and 157 deaths occurred amongst Mohammedans. The death-rate for the whole town from all causes for the week ending February 11th was 170.52. The death-rate for the same week in the most seriously affected parts of the town was: Old Town, 124.90; Machi Meani, 335.16; Napier, 346.06; Maillet, 331.55; Lyari, 275.76. The mean death-ratio for the whole town for similar weeks during the past five years was 38.13.

The total plague cases and deaths reported from the date of the outbreak (December 10th, 1896) up to February 17th was 1,588 cases, and 1,468 deaths.

### THE MECCA PILGRIMAGE.

Our Calcutta Correspondent writes under date February 17th: By a Government order, both Bombay and Karachi were closed on February 1st as ports for the Mecca pilgrim traffic. In view of this order, pilgrims began to seek other ports, and the two most convenient appeared to be Madras and Calcutta. Madras at once took alarm, and sent to the Imperial Government a protest against the city and port being subjected to so great a danger, and asking that the pilgrims should be prevented from coming to Madras. The Government replied that the only concession which could be made was to give authority to place the pilgrims in quarantine for ten days before their arrival in Madras.

Considerable alarm was created in Calcutta when it became known that pilgrims from Bombay had actually arrived at a station some twenty miles from Calcutta, and that after two days' detention all except six had been allowed to proceed on their journey. The alarm grew greater when it was announced by the *Englishman* that the Calcutta Medical Board had arranged to form a quarantine camp at Diamond Harbour, some miles south of Calcutta. It was proposed that the pilgrims should be detained in this camp for seven days, and that if at the termination of this period no cases of plague had occurred among that particular batch of pilgrims, they should be allowed to embark for Mecca. It was strongly urged that it was a most injudicious measure to apply quarantine to pilgrims from infected areas on the confines of Calcutta, and it was maintained that if the expedient was to be resorted to at all it should be before the pilgrims were permitted to travel across the continent from Bombay to Calcutta. On the following day a notification appeared in the *Government of India Gazette* stopping the pilgrimage to Mecca altogether, so that this particular source of danger to Calcutta is removed, at any rate for the present.

The events of the last few months, and the want of a co-ordinated and settled policy in sanitary matters cannot fail to lend weight to the contention that an efficient sanitary organisation for India should be called into existence without delay.

### POONA.

Poona, at which plague is now reported to be prevalent, is the permanent headquarters of the Bombay Army and the seat of the Bombay Government during the monsoon, June to September inclusive. The population of the city is 118,657, and the death-rate in ordinary times about 30 per 1,000. The sanitary condition of Poona has been in an unsatisfactory condition for a long time, but the plague scare will no doubt stir up the apathetic municipality to put their house in order, as regards improving the filtration and distribution of the water supply and the drainage, which are most defective. The drains are old flat-bottomed covered channels, which do little more than store the filth and conceal it from view until it is scoured away by storm water periodically by the monsoon rains. On public health grounds it would be safer to keep these cloacæ uncovered, except in the most crowded areas where open drains would seriously interfere with locomotion. Even if the sight of so great an accumulation did not compel improvements to be carried out the action of the sun and air would help to neutralise much noxious matter, and stagnation of the contents would be more easily prevented. This is an evil common to many Indian towns, and as a hidden enemy is more dangerous than an open foe, the same can be said of filth as a cause of disease. So long as it moves freely it is comparatively harmless; if it stagnates it becomes deadly.

The sanitary condition of the camp and cantonment at Poona is, on the whole, better than that of the city, but the want of drainage and the objectionable method of night soil removal constitute a standing menace to the health of the inhabitants. The old back-to-back native and infantry barracks should be burnt down like the hovels in the Marine lines, Bombay, which have so long been an eyesore, and in such striking contrast to the other beautiful palatial buildings on the Esplanade. Dampness of soil is caused in many of the wards by canal irrigation in close proximity to the inhabited area. This practice should have been prohibited some years ago. There are no fewer than 76 burial grounds within municipal limits, and animals are slaughtered in six different enclosures and yards in the city; the cesspits are generally in an offensive condition. Poona is well provided with educational institutions, but it is matter for serious consideration whether it is not at least as much the duty of Government to expend its funds in improving the sanitary condition of towns and villages.

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THE Indian Nursing Service will henceforth be regarded as a general service, the lady nurses being borne on one establishment, and their promotions regulated accordingly. This arrangement does away with the old classification by Presidencies.

MEDICAL STUDENTS IN SWITZERLAND.—The total number of students of medicine in the five Universities of Switzerland in the current winter semester is 1,085, of whom 449 are foreigners. Of the whole number, 237 are women. Last winter there were 1,004 students, of whom 221 were women.

## PROFESSOR KOCH AND THE RINDERPEST IN AFRICA.

Further Experiments on the Production of Immunity.

Professor Koch has presented an additional report to the Secretary of the Agricultural Department of Cape Colony. This report is as follows:

Immunity Produced by Blood Serum.

I have the honour to report herewith to you on several very important facts resulting from my investigations at the rinderpest experimental station. In my last report I was already in a position to inform you that the blood serum of cattle which have recovered from rinderpest had a certain immunising effect upon healthy stock when inoculated with it. Its protective properties, however, are not very great, for 100 c.cm. of such serum are required to protect an animal against an inoculation with a small dose of rinderpest blood. This immunity is in its nature merely a "passive" one, and will only last during a short period. For protective inoculation on a large scale such serum is not applicable, but I succeeded in immunising within a fortnight several animals by means of a mixture of serum and virulent rinderpest blood to such a degree that they were enabled to withstand an injection of 20 c.cm. of rinderpest blood, a ten-thousandth part of which is a fatal dose. From this fact I judge that the immunity of these animals is of a much higher degree, and I believe it is an active immunity equal to that of a beast which has contracted rinderpest and has then recovered. It is particularly important to know that only 20 c.cm. of such serum are required to immunise one animal, and 1 litre—nearly one and three-quarters of an imperial pint—suffices for fifty head of cattle. My further investigations concerning this *modus operandi* will aim at finding: whether this immunity is obtainable in a still shorter period, whether a still smaller dose of serum will suffice, and if it may be obtained with but one injection.

Immunity Produced by Bile.

A second and equally important fact is that one is able to render immune healthy cattle with the bile of such as have succumbed to rinderpest. In this case a single hypodermic injection of 10 c.cm. is sufficient. This immunity sets in on the tenth day at the latest, and is to such an extent that even four weeks afterwards 40 c.cm. of rinderpest blood could be injected without any injurious effect. I therefore conclude that the immunity produced in such a manner is of an "active" nature. The local result of an injection is merely a hard somewhat painful swelling of the size of a man's fist, and which gradually disappears in the course of a few weeks, provided, however, that the bile is not in a state of decomposition, as is not uncommon when an animal suffers from rinderpest. Under such circumstances an abscess may form, which, however, does not seem to be detrimental to the process of immunisation. Both the above-mentioned facts convince me that rinderpest can be eradicated with but little difficulty, and within a comparatively short time by putting these methods into practice. The method of immunising cattle with serum may be employed in order to separate from infected areas those tracts of country which are still free from the scourge, by means of forming a broad belt between them in which all the cattle are inoculated with the vaccine. The protective properties of the bile will be of inestimable service.

Practical Application of the Method.

In infected parts nearly every case of rinderpest supplies a greater or lesser quantity of vaccine for those animals which are still healthy. I cannot but urge upon you the importance of bringing this method immediately to the notice of those cattle owners whose animals are suffering from or threatened by the disease, for I am sure thousands of cattle may daily be saved by its application. The *modus operandi* is very simple in both these methods, but it will nevertheless be desirable to teach as early as possible veterinary surgeons and other persons fitted for such work. I am willing to give a course of instruction at the experimental station in Kimberley. It may further be advisable at once to take into serious consideration the establishment, in other parts of the country, of branch stations of the central laboratory in Kimberley, to furnish them with the necessary equipment, and to appoint suitable persons to take charge of them. With reference to your telegram, dated February 6th, I beg to add I do not now consider it essential to experiment on camels, as our experiments performed on cattle have been so favourable.

## INTERNATIONAL MEDICAL CONGRESS.

The preparations for the Congress at Moscow are now in an advanced state, and the programme of work in several of the Sections is nearly complete. Communications may, however, be announced as late as June 1st next.

The Secretary-General, Professor W. K. Roth, announces that the English Consul, Mr. Medhurst, is in communication with the principal members of the English colony residing in Moscow with a view to the entertaining of guests at the Congress; further, that there will be ample hotel and lodging accommodation at reasonable rates. It is hoped that the members of the Congress will be received at a Court reception by the Czar, and arrangements are being made for *fêtes* at St. Petersburg after the termination of the meeting at Moscow.

Railway Arrangements.

The cost of railway tickets will be approximately as follows: A circular ticket from London, *viâ* Paris, Strassburg, Munich, Vienna, Oderburg, and Granica (frontier station for Moscow), and home *viâ* Eydtkuhnen (frontier station for St. Petersburg), Königsberg, Berlin, Cologne, Brussels, Calais, and London, available for 60 days, first class, £17 5s.; second class, £12 4s. 6d.; 56 lbs. of baggage free to Avricourt on the out journey, and from Blaudain on the home journey; for the rest of the journey all baggage must be paid for. The tickets for the Russian portion of the journey must be taken at the frontier stations, the cost being as follows: From Granica to Moscow, first class, 38 roubles 43 k.; second class, 24 roubles 68 k. From Moscow to St. Petersburg, first class, 20 roubles 76 k.; second class, 12 roubles 21 k. From St. Petersburg to Eydtkuhnen, first class, 17 roubles 00 k.; second class, 10 roubles 74 k. No return tickets are issued on the Russian railways. Taking the rouble at 2s. 3d., the approximate cost of the railway travelling will thus be, first class, £26; second class, £18, and it will be necessary to give eight days' notice to Messrs. Cook in order to obtain the circular tickets. The Secretary-General holds out some hope of the fares on the Russian railways being considerably reduced.

All visitors will need to be provided with passports. Forms of inscription as members of the Congress may be obtained from Mr. Makins, 47, Charles Street, Berkeley Square, W.

## LITERARY NOTES.

We are requested by the Rebman Publishing Company to announce that owing to a fire which recently broke out on the premises of their binders, a large consignment of the issue for 1897 of the *American Year-book of Medicine and Surgery*, edited by Dr. George M. Gould, of Philadelphia, has been completely destroyed. In consequence of this accident they regret that they will be unable to deliver copies to subscribers for about three weeks.

Messrs. Blackwood announce a work by Dr. Louis Robinson, under the title of *Wild Traits in Tame Animals*. It is described as a series of "familiar studies in evolution."

We have received another volume of the *Pathological Atlas*, edited by Professor Bollinger, and published by Lehmann, of Munich, to which we referred recently. This volume deals with diseases of the urinary and sexual organs, of the nervous system, and the bones. The coloured illustrations are in most instances excellent, and the price (12 marks) must be regarded as extremely moderate.

During 1896 the number of students who made use of the Library of the Medical Faculty of Paris was 165,230, and the number of volumes given out was 260,000. There were added to the library 6,491 books and pamphlets, theses from provincial and foreign faculties, and transactions of societies, French and foreign, besides donations. Under the last category the receipts were very few. The library suffers greatly from financial depression, not having money enough (according to the *Gazette des Hôpitaux*) to complete its collection of scientific works, or even to have its pamphlets and periodicals bound.

M. Pozzi, the eminent French gynæcologist, has undertaken the editorship of a new periodical, the *Revue de Gynécologie et de Chirurgie Abdominale*. It is to appear every two months, and the January-February number has already been published.

# ASSOCIATION INTELLIGENCE.

## COUNCIL.

### NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday the 14th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

March, 1897.

### NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1897.

MEETINGS of the Council will be held on April 14th, July 7th, and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 25th, June 17th, and September 30th.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M., Saturdays, 10 A.M. to 2 P.M. Members can have their letters addressed to them at the office.

## BRANCH MEETINGS TO BE HELD.

SOUTHERN BRANCH.—A special general meeting of this Branch will be held at the Shaftesbury Hall, Southampton, on Thursday, March 18th, at 2 P.M., to consider the report of the Medical Defence Committee to the Branches, and to frame replies to questions submitted by the Council of the Association, and to receive the report of a Subcommittee appointed by the Branch Council to revise the by-laws of the Branch.—H. J. MANNING, Honorary Secretary, Salisbury.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The next meeting of the above District will be held at the Evelina Hospital for Children, by kind permission of the Committee of Management, on Friday, March 26th, at 3 30 P.M. Cases of clinical interest will be shown and demonstrated on by members of the staff. All gentlemen, whether members of the Association or not, will be heartily welcomed.—SEYMOUR G. TOLLER, District Secretary, St. Thomas's Hospital, S.E.

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT.—The next meeting of this District will be held at the Angel Hotel, Godalming, on Thursday, March 25th, at 4 P.M. Mr. A. Arthur Napper, of Cranleigh, will preside. Dinner at 6 P.M.; charge 6s., exclusive of wine. The following papers will be read:—Mr. Sheild: Cases of Appendicitis at St. George's Hospital during the past Three Years. Mr. Waterhouse: The Treatment of Nævi. Dr. Adamson will exhibit microscopical specimens and cultures of Ringworm Fungus. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary, ALEX. HOPE WALKER, Cranleigh.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—There will be a conjoint meeting of these Districts at the Grand Hotel, Brighton, on Thursday, March 25th. The chair will be taken at 3.30 P.M. by Mr. A. H. Dodd. Dinner at 5.30 P.M.; charge 6s., exclusive of wine. Dr. Elliott will move: That this Branch of the British Medical Association regrets that public vaccinators are debarred from the Poor Law Officers' Superannuation Act, 1896, and is of opinion that the Parliamentary Bills Committee should take steps to have the omission rectified, if possible, by the insertion of a clause or clauses in the Local Authorities' Officers Superannuation Bill, 1897. The following communications have been promised. The Chairman will show photographs of (1) Bilateral Herpes following the course of the External Cutaneous Nerves of Arm; (2) Subcutaneous Rheumatic Nodules of the Hands. Mr. T. J. Verrall: Some further remarks upon Appendicitis. Mr. Gerald Hodgson: Short Notes on Salicylate of Soda. Dr. Hinds will exhibit an Anencephalic Fœtus, and read notes of the same.—Notice of any business should be sent to Dr. HINDS, 14, The Steyne, Worthing, Honorary Secretary, West Sussex; or to Dr. BATTERHAM, Grand Parade, St. Leonard's, Honorary Secretary, East Sussex.

SOUTH-EASTERN BRANCH: NORTH, WEST, AND EAST KENT DISTRICTS.—A conjoint meeting of the above Districts will be held at St. Bartholomew's Hospital, Rochester, on Friday, March 19th, at 4 P.M., Surgeon-Colonel Quill in the chair. The dinner will take place at the Sun Hotel at 6.30 P.M.; charge 6s. 6d., exclusive of wine. To facilitate the arrangements, gentlemen who intend to dine are particularly requested to signify their intention to the chairman, Surgeon-Colonel Quill, Fort Pitt House, Chatham, not later than Thursday, March 18th. The following communications will be made:—Dr. Ernest White: Puerperal Insanity. Dr. Tyson: Clinical Types of Pneumonia. Mr. Ludford Cooper; On 40 cases of Radical Cure of Inguinal Hernia. All members of the South-Eastern Branch are entitled to attend this meeting, and to introduce professional friends.—E. GROUND, Honorary Secretary West Kent District; T. RAVEN, Honorary Secretary, East Kent District; A. TENNYSON-SMITH, Honorary Secretary, North Kent District.

SHROPSHIRE AND MID-WALES BRANCH. Clinical and Pathological Section.—The first meeting of this section will be held on Tuesday, March 16th, at 5 P.M., at the Salop Infirmary. The special general meeting of the Branch to discuss the report of the committee to the Branches on Medical Defence will be held on Tuesday, March 23rd, at 3 P.M. at the Salop Infirmary.—H. WILLOUGHBY GARDNER, Honorary Secretary, Swan Hill, Shrewsbury.

LANCASHIRE AND CHESHIRE BRANCH.—A special meeting of this Branch will be held in Liverpool about the middle of March to consider the subject of Medical Defence and other business. Due notice will be sent to each member of the Branch.—JAMES BARR, Honorary Secretary, 22, Rodney Street, Liverpool.

NORTH WALES BRANCH.—The spring intermediate meeting will be held at Portmadoc on Tuesday, March 30th. Members wishing to read papers, communicate cases, or propose new members should intimate on or before March 20th to W. JONES MORRIS, Honorary Secretary, Is-y-coed, Portmadoc.

EAST ANGLIAN BRANCH.—A meeting of the East Anglian Branch of the British Medical Association will be held at the Norfolk and Norwich Hospital, Norwich, on Thursday, March 25th. A luncheon will be provided for members of the Branch at the Café Royal, London Street, at 1.30 P.M.; tickets 2s. 6d. each. 2.30 P.M. Meeting of Council. 3.0 P.M. Meeting of Branch for business. Agenda: (1) Votes of condolence with families of the late Sir G. Murray Humphry and Mr. J. Kilner. (2) To consider the question of medical defence being undertaken by the British Medical Association. (3) Dr. Beverley will move the following resolutions: (*a*) The members of the East Anglian Branch desire to obtain from the Council of the British Medical Association an expression of opinion on the question of consultations with the medical officers of medical aid associations and medical institutes. (*b*) That the Council of the British Medical Association be requested to memorialise the General Medical Council on the urgent necessity to take steps to prevent the growing evils of medical aid associations and medical institutes. (4) To appoint an Ethical Committee, in accordance with the resolution passed at the Chelmsford meeting. In view of the important questions put down for discussion, it is hoped that members will make every effort to be present at this meeting. A copy of the Report of the Committee to the Branches on Medical Defence was sent to each member of the East Anglian Branch at the end of January, and the scheme formulated by this Committee was also published in the BRITISH MEDICAL JOURNAL of January 30th, 1897, page 277. In order that the opinion of the members of the East Anglian Branch may be obtained in as full and complete a manner as is possible members who are unable to attend the meeting are requested to fill in a postcard and return it so as to reach the Secretary of the Branch not later than the day previous to the meeting. —EDGAR G. BARNES, MICHAEL BEVERLEY, and THOMAS CARR, Honorary Secretaries.

STIRLING, KINROSS, AND CLACKMANNAN BRANCH.—This Branch will meet in the Crown Hotel, Alloa, on Wednesday, March 17th, at 3 P.M., for discussion of the Report of the Committee to the Branches on Medical Defence. Members wishing to show any case, specimen, or apparatus are requested to bring it to this meeting.—C. J. LEWIS, Honorary Secretary, Sutherland House, Stirling, N.B.

GLOUCESTERSHIRE BRANCH.—The next meeting of this Branch will be held at the General Hospital, Cheltenham, on Tuesday, March 16th, at 7 P.M., under the Presidency of Mr. W. R. Buchell. Agenda: Mr. W. Devereux (Tewkesbury): A case of Atrophic Cirrhosis of Liver followed by Cyst in Left Lobe. Dr. Herbert Bramwell (Cheltenham): Notes on Pathology and Treatment of six cases of Fracture of Anatomical Neck of Humerus, with specimens. Dr. S. T. Pruen (Cheltenham): Notes on the Maximum Doses of some of our more Potent Drugs.—S. T. PRUEN, Honorary Secretary, Cheltenham.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—An ordinary general meeting of the Branch will be held in the Palace Hotel, Aberdeen, on Wednesday, March 17th, at 8 P.M. Dr. Levack: Notes on Eye Injuries from Steel and Stone. Dr. Ferdinands: A case of Sympathetic Ophthalmitis occurring eighteen years after Enucleation (delayed) of the Injured Eye.—C. THISELTON URQUHART and J. SCOTT RIDDELL, Joint Honorary Secretaries Union Street, Aberdeen.

Perthshire Branch.—A meeting of this Branch will be held at the Perth District Asylum, Murthly, on Wednesday, March 17th, at 12.30 P.M. The rearrangement of the main building to form modern asylum hospitals and the recent additions of detached convalescent houses for quiet patients will prove of special interest to the members, and Dr. Robertson has kindly promised to show cases of importance. Lunch will be supplied at the Asylum.—A. R. Urquhart, Honorary Secretary, James Murray's Royal Asylum, Perth.

West Somerset Branch.—The spring meeting of this Branch will be held at the Railway Hotel, Taunton, under the presidency of Dr. Rutherfoord, on Thursday, March 25th, at 4.30 P.M., dinner at 5.30. Medical Defence: The question of whether or not the Association shall undertake the duties of individual and collective defence will be considered before dinner, and a vote on the question will be taken. A copy of a report on the subject has been forwarded to every member; and as the Council of the Branch are desirous of knowing as far as possible the definite opinion of every member, they hope answers will be sent in writing. Discussion: The following subject has been settled by the Council to be discussed after dinner, namely, Chronic Inflammation of the Female Pelvic Organs. The President will open the discussion.—W. M. Kelly, M.D., Honorary Secretary, Taunton.

Midland Branch.—A meeting of the Branch will be held on Thursday, March 18th, at the Masonic Hall, Goldsmith Street, Nottingham, at 3.15 P.M. Business:—To consider the report of the committee to the Branches on Medical Defence. The Journal for January 30th contains a copy of the report on p. 277. It is to be hoped that every member will endeavour to be present at the decision of this all-important question.—W. A. Carline, Honorary Secretary and Treasurer, Lincoln.

## METROPOLITAN COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

### Medical Defence.

A special general meeting of the Metropolitan Counties Branch of the British Medical Association was held in the Museum of Practical Geology, Jermyn Street, S.W., on Thursday, March 4th, 1897, to consider the report of the Committee of the Association on medical defence. Mr. H. T. Butlin occupied the chair.

The Chairman, in opening the proceedings, said it would be within the recollection of the meeting that about a year ago a special general meeting of this Branch was held to consider whether it was desirable that the British Medical Association should undertake medical defence. The meeting was but scantily attended, but those present voted almost unanimously in favour of the Association undertaking those duties, and the resolution carried by the Branch was ordered to be sent up to the Council, the Council at the same time being invited to draw up some scheme for carrying out that resolution. In pursuance of that request, made not only by this Branch but by other Branches of the Association, the Council appointed a Committee to consider the matter and to draw up a scheme. Several schemes were submitted to the Committee, and at length they drew up the scheme which was placed before the meeting, which was a sort of combination of the schemes suggested to the Committee both from inside and outside the Association. That scheme had not yet been placed before the Association, except in order to ask the permission of the Council to send it to the Branches for their consideration. He was sorry that at so important a meeting there should be such a small attendance. The Branch consisted of some 1,200 members, and a very small proportion, he must confess, had attended to consider the matter. The Council had asked for replies to certain questions, and he proposed to take them in order. The first question was: "Is your Branch in favour or not of the Association undertaking the duties of individual and collective medical defence?" He asked that some gentleman should move a resolution embodying that question.

Dr. F. H. Alderson proposed:

That this Branch is in favour of the Association undertaking the duties of individual and collective medical defence.

He did not think that the value of the meeting should be gauged by the number present, but rather by the persons present, most of whom were representative men. He had much pleasure in proposing the resolution, because he thought the Association could do the work better, more economically, and more successfully than any other society or combination of societies. For moral and ethical reasons, and also for economical reasons, he considered the Association ought to undertake the duties of medical defence.

Mr. H. Nelson Hardy, in seconding, said that it was now about eleven years since that matter was first formally brought before the Council of the Association. Since that time all the arguments that could possibly be adduced against it had been successfully combated, and finally disposed of. When it was first brought forward they were told that it was a most admirable idea, but there were legal obstacles in the way. These legal difficulties had been looked into, and had been overcome. Then they were told that the expense of carrying out the scheme would be very great, and this point had been met. Then a counter scheme was brought forward, but this scheme had not been a success. So matters had dragged on, and now they were threatened that if the present scheme was adopted, those who did not agree with it would resign. That was to say, if the scheme of the majority was carried out, the minority would send in their resignations; so that he could only say that similar threats had been made in connection with other matters before, and those who had heard them, and had seen what they resulted in, would not be very much frightened by the threat now made.

Mr. Thomas Bryant hoped that the meeting would give a decided veto to the proposition before them. Although Mr. Hardy had said that the arguments against the Association's undertaking medical defence had been combated, he for his part had not been convinced by what had been said in favour of it. He did not think that the British Medical Association should take upon itself the duties of a prosecuting body. The Association was a scientific association, and it had quite enough to do to follow in those lines. Besides this, the question of medical defence was in good hands outside the Association, and good work had already been done by those societies which had undertaken these duties. Unlike Mr. Hardy, he felt certain that if they attempted to force this scheme upon the Association they would produce a rupture which was not likely to be healed, as there was a decidedly strong feeling among a large number of thinking men in the profession that it would be far better the Association should not undertake medical defence.

Dr. Lovell Drage supported the resolution. He said that the previous speaker had only dealt with one side of the resolution—individual medical defence, and had omitted altogether the question of collective defence, which he (the speaker) considered a much more important point.

Dr. Isambard Owen moved as an amendment that the words "individual and" be left out, as he did not think individual medical defence was a safe thing for the Association. It was work which was fraught with the very gravest dangers to the harmonious working of the Association.

Mr. J. Brindley James seconded and Dr. W. F. Cleveland supported the amendment.

Dr. E. A. Snape asked whether collective medical defence included the suppression of quacks and the prosecution of unqualified practice. That was what was wanted.

Mr. Eastes said that two subjects had so far been specially mentioned as worthy objects of collective medical defence; namely, the influencing of legislation in medical questions by deputations to the Houses of Parliament, etc., and the suppression of quackery. As to the former, that was the chief duty of the present Parliamentary Bills Committee, and was well done by that Committee. As to the latter, he much feared that if it were undertaken it would cost a very large sum, probably thousands of pounds, and would result in nothing except the enrichment of the legal profession at the expense of the medical, and in wide advertisement of any quackery that might be prosecuted.

Mr. Victor Horsley thought an answer should be given to Dr. Snape's question before any further discussion took place.

The Chairman: By whom?

It was suggested that the mover of the amendment might answer the question.

Dr. Isambard Owen said that it was not for him to define the words "collective medical defence"; it was rather a matter for the Council of the Association, who had used those words in the question they had asked the Branches.

Mr. Victor Horsley, speaking as a member of the Association, and not with reference to the position he held as President of the Medical Defence Union, said that last year it was decided that the Association ought to take up the question of medical defence. If now they were going to rescind that resolution by answering the first question in the

negative, he thought it ought to be on some very solid grounds—grounds more solid than mere hypothetical dangers. Those who opposed the scheme were the members of the Association who were in comfortable circumstances, and who said, "I don't want to be defended; I will defend myself." That was a matter of courage, but he regretted to find that they also said, "I decline to be compelled to pay 5s. a year to defend my weaker brethren." That, in his opinion, was a most unfortunate argument for members of the Association to bring forward. The very reason for their becoming members of the Association was in order to help one another.

Mr. W. RIVINGTON supported and Dr. B. O'CONNOR opposed the proposal that the Association should undertake the duties of medical defence.

Dr. CAMPBELL POPE also opposed the resolution, on the ground that if the Association did undertake medical defence it would become a large trade union, and its position with regard to the public would be totally changed.

The amendment was then put to the meeting and lost, 27 voting for it and 32 against.

The original resolution was also lost, 20 voting in favour of it and 42 against.

The proceedings then terminated.

## YORKSHIRE BRANCH.

A MEETING of this Branch was held at Wakefield on March 3rd, Mr. ATKINSON, President, in the chair.

*New Members.*—The following were elected:—Drs. and Messrs. Benson (Sheffield) and Garrett (Dewsbury, members of the Association and Branch; Sharp, Chevers, Mackay, Wilson, Whitcombe, McDonnell, Farrow, Young, Addison, Knight, Dufty (members of the Branch). Drs. Major and Goyder were elected auditors.

*Additional Meeting.*—It was decided to hold an additional Branch meeting in January.

*Ethical Committee.*—The question of the formation of an ethical committee was again deferred.

*The Association and Medical Defence.*—Mr. LAWSON TAIT proposed and Dr. BLACK seconded:

That the Yorkshire Branch are not in favour of the Association undertaking the duties of individual or collective medical defence.

This was carried unanimously.

*Conference on the Vaccination Commission.*—A subcommittee was elected to confer with the Council of the Yorkshire Branch of the Incorporated Society of the Medical Officers of Health, and to arrange a conference to consider the report of the Commission on Vaccination.

*Homœopaths.*—The report of the council on the question of homœopaths, passed in 1885, was read.

*Communications.*—Mr. LAWSON TAIT read a paper on the Modern Treatment of Myomatous Tumours of the Uterus.—Dr. ADOLPH BRONNER read notes on the Treatment of some of the Common Causes of Nasal Obstruction.

*Dinner.*—Eleven members dined together at the Bull Hotel.

# SPECIAL CORRESPONDENCE.

## PARIS.

*The Plague Scare at Marseilles and its Effect on Trade.—The After-care of Hospital Patients.—Rabies at Toulouse and in Madagascar.—The late Sir Spencer Wells.—General News.*

THE measures adopted at Marseilles to protect France from the plague are causing much commercial disturbance. The Tribunal of Commerce has delivered judgment in two lawsuits between important firms. On one side there was the impossibility of fulfilling contracts to supply oleaginous seeds. The tribunal decided that the prohibitory decrees constituted an over-ruling cause, impossible to be foreseen and independent of the will of importers; therefore they are not responsible, and the contract must be annulled without indemnity being awarded. Other lawsuits of the same character are coming on. This decision is very serious for the merchants who rely on the arrival of seed cargoes to supply the oil and soap factories abounding at Marseilles.

The fifth committee of the Municipal Council met on March 6th, and completed the organisation of the committees of patronage of hospitals. The object of these committees is to have hospital patients visited, their families looked after, and work provided for them on leaving the hospital, thus ensuring for them the ease of mind which is necessary to maintain the physical cure established by hospital treatment. The lady patronesses of the committees will undertake this task, and the condition of the families depending for their support on hospital inmates will be made known to the *bureau de bienfaisance*. There have always been lady hospital visitors who have succoured and comforted hospital patients, but their charity has been intimately allied with religious zeal. The committees in question leave religious belief entirely out of the question.

Rabies increases at Toulouse. Since December 15th eighteen mad dogs have been killed. If it is taken into account that each dog before being killed has bitten three or four others, and that the incubation period lasts several weeks, the danger is alarming. Dr. Rémond, Professor at the Toulouse Medical Faculty, has submitted these facts to the consideration of the Municipal Council, and urges the Council to compel the municipal administration to take rigorous measures for preventing people from being bitten. Rabies has appeared at Madagascar. The son of Dr. Benson, residing at Fianarantsoa, has been bitten by a mad dog, and has succumbed.

At the Société Médicale de Paris the President, in announcing the death of Sir Spencer Wells, took occasion to recall the fact that Nélaton, being unacquainted with ovariotomy, went to London to see the English surgeon operate. He returned to Paris, bringing with him an enormous ovarian cyst, and a thorough conviction of the advantage of the operation.

The heirs of M. Dolbeau, the well-known surgeon, formerly professor at the Paris Medical Faculty, have proceeded against M. Lissagaray and his publishers. M. Lissagaray, in his *Histoire de la Commune*, accuses Dolbeau of having delivered a patient into the hands of the Versailles army. The heirs demand that this passage should be suppressed, and the verdict published in ten journals.

The death of Dr. Contjean, *préparateur* at the Pasteur Institute, is announced at the age of 34. Dr. Contjean swallowed some sublimate, which he mistook to be bicarbonate of soda.

## MELBOURNE.

*A Fungus in Pineapple.—Nicotine Poisoning.—Coccidiosis.—A Cure for Tick.—Tuberculin as a Diagnostic Agent in Cattle.—A Heat Wave.—An Australian Doctor in Somaliland.—Victorian Branch of the British Medical Association.*

PINEAPPLES are regarded in tropical and semitropical countries as possessing antiscorbutic properties. From their succulency they are also largely consumed to quench thirst. Lately a fungus (mucor racemosus) has invaded the fruit, and has produced changes in its chemical constituents, so much so that such diseased fruit, if taken somewhat largely of, produces intestinal irritation. The cause of the introduction of the fungus has been ascertained to be the excessive use of horse manure and other animal droppings. It has been recommended that only bone dust manure should be used in the cultivation of pineapples. It might not be out of place here to mention that pineapples are rarely raised from seeds. The seeds of pineapples under cultivation seldom reach maturity; they are propagated from the tops and suckers. It has been found that tops and suckers of diseased fruit also contain the spores of the fungus.

In the northern parts of Victoria a species of tobacco-plant—nicotiana glauca—is found growing wild. Travellers overland reaching these districts, and who have not had green vegetables for months at a time, have frequently boiled the succulent leaves for use as a vegetable. On partaking of such a diet, nausea and vomiting have immediately set in, and so saved the lives of the men. Recently many animals have died from eating this plant. The contents of the

stomach smelt just like green tobacco, and all the usual tests for nicotine being resorted to proved the poisonous plant to be the cause of death.

For some time past investigations have been made into the nature of coccidiosis. The coccidium oviforme causes irregular lumps in the livers of rabbits, varying in size, some being as large as a pea. They have not been discovered in any other animal, and in Victoria one investigator inclines to the belief that it is an embryonic stage in the life-history of the intestinal worm of some animal.

Up till now the only satisfactory treatment of tick in animals has been submersion in oil. Dr. A. A. Brown has discovered that a watery solution of sulphuretted hydrogen readily kills any of the ixodidæ. This discovery is valuable from an economic point of view.

Owing to the large export of our meat, special efforts are being made to prove the efficacy of tuberculin as a diagnostic agent in tuberculosis of cattle. But so far, experiments only confirm what is remarked of the tuberculin in other parts of the globe, that it is unreliable in many instances. Recent applications made with every precaution, where reactions indicated disease, proved *post mortem* that no tuberculous lesions existed.

A great heat wave is extending itself over the country districts. Telegrams report 115° F. in the shade, birds falling dead from trees, bush fires in all directions. The weather in the city is sultry, but a change is expected within twenty-four hours.

Dr. Fiaschi, whose report on the mutilated and evirated of Adowa appeared a short while ago in the British Medical Journal, has read a paper on Medical and Ethnological Observations in Somaliland and Erythrea. "No white man," he says, "resides in all the big triangle from Cham Sir to Obbia, and the only knowledge the natives have of civilisation is from the occasional visit of a gunboat." Dr. Fiaschi attended gratuitously crowds of Somali. Three things particularly struck him: first, the absence of any disease which he had not seen in Europe or Australia; secondly, the great prevalence of tuberculosis in all its forms; and thirdly, the absence of cancer. Of other diseases were the sequelæ of malarial fevers, psoriasis, and leucoderma. Of venereal diseases, syphilis was frequent near the coast. A great demand exists for iodoform, a handful of which will purchase a sheep. The Abyssinian prostitutes are subject to medical examination twice a week. They attach no disgrace to the profession, and easily find a husband afterwards. In the discussion following Dr. Fiaschi's very interesting paper Dr. Spencer observed that leucoderma was most marked amongst people of mixed blood. In Simu, where the inhabitants are of very mixed blood, one sees persons whose faces are spotted, piebald, and even with one side white, the other black or brown. Dr. Sydney Jones believed the absence of cancer from among the Somali was due to their abstinence from meat, and he had an impression that the increase of cancer in Australia was in great measure owing to the large consumption of meat.

At the annual meeting of the Victorian Branch Dr. M. U. O'Sullivan delivered a very interesting address in which he expressed the great loss to all branches of science due to the death of Baron von Mueller. He dwelt on the value of the Roentgen rays, on our indebtedness to bacteriology, on the etiology of malignant tumours, on heredity and disease, on the necessity for a hospital for infectious diseases, and on the injudicious use of the bicycle for ladies. The Hon. Librarian (Dr. Meyer) drew attention to the liberal gift of books made to the Branch by the kindness of Mr. Ernest Hart, which had now been catalogued and placed in suitable shelves. The following office-bearers were elected for the ensuing year. President, Dr. R. A. Stirling; Vice-President, Dr. R. S. McAdam; Hon. Secretary, Dr. W. Kent Hughes; Hon. Treasurer, Dr. J. R. M. Thomson; Hon. Librarian, Dr. F. H. Meyer; Local Editor, Dr. J. W. Springthorpe.

A Sero-therapeutic Hospital in Paris.—With the help of funds supplied by Madame Lebaudy, a site in the neighbourhood of the Pasteur Institute in Paris has been purchased, on which will be built a private hospital, altogether independent of the Assistance Publique. It is intended for the treatment of infectious diseases by serumtherapy.

# CORRESPONDENCE.

## THE ASSOCIATION AND MEDICAL DEFENCE.

Sir,—The war is being waged in earnest over medical defence, and it is to be devoutly hoped the scheme will be thoroughly purged of its dross before it emerges from the fire. I believe every practitioner feels that no representative body is so well fitted to look after his interests as the British Medical Association; but no man would care to see its usefulness crippled by commitment to any hasty and ill-advised measure. Members need only study the first half dozen paragraphs of the final official draft to understand the *modus operandi* of the contemplated defence. These few lines involve the principles of compulsion or expulsion, of representation, and of finance—each of which requires the closest attention of members to rescue the Association from a position of possible ruin and collapse.

For instance, take para. 1: "It *must* (implies *obligation*) be *obligatory* (implies *must*) upon all members of the Association *resident in Great Britain and Ireland*." Now this much alone plainly means that the Association intends throwing in its lot to sink or swim by this scheme, that the question of medical defence can no longer be shelved by it, and that members must either join the union, or go; and yet, as will be seen later on, the Association is going to be no party to a subvention even, the working of the scheme must be from separate funds, and the poor members are to be further bled for its support. What I contend is that, if this scheme is to be so compulsory, it must constitute a part and parcel of the management and expenditure of the Association, and be as much the right of every guinea membership as is its present action with regard to Parliamentary Bills, Scientific Grants, and the other functions of its score of Committees. If this step were taken by the Association no one would or could complain, no more, at any rate, than he might to-day of the working of the other Committees. For the necessity of medical defence is admitted by all, and probably no body is so well able to establish and maintain it on an impregnable footing as the Association: but when this self-same Association turns round upon its members, and says in so many words "we are going to make a monopoly of medical defence and charge you each one guinea and a half for participation, and if you do not like it, well! you can throw up the Journal, leave our meetings, and join another, or no, association," then I say it is time that one and all should fully face the consequences.

Again, take para. 3: Here compulsion, or obligatoriness, has been thrown overboard, and it is left optional for "members of the Association *resident abroad*" to do as they like. The framers of this scheme were bold in the extreme when dealing with members *at home;* but, when they came to apply it to those *abroad*, they must have felt timid, and thought it prudent to draw in their horns, lest the foreign worm might turn upon them. But surely if the Association is going to force defence down the throats of any, it should dispense the remedy to all alike: otherwise a compulsory organisation at home will be kept up at great expense, partly for the benefit of a few of the more keen-eyed ones abroad. Nay, let the Association be consistent all round, and make the thing compulsory or voluntary, and have no shilly-shallying.

So much, then, for home compulsion or expulsion, and foreign option. Let us now look at representation in para. 4; It is therein suggested that not less than *five* of the nine members on the Defence Committee shall be drawn from the Council of the Association, a body consisting of 64 home representatives and 25 officers; and that "not more than *four* (one? or two? or three?) *may* (not shall) be members of the Association who are not upon the Council." According to the British Medical Journal of December 19th, 1896, there were at the end of November 8,347 Branch members and 5,664 unattached members in Great Britain and Ireland; and if, from these 14,011, we deduct the 89, we have a possible representation of four for the remaining 13,922. Not only is such *misrepresentation* farcical, but it must be borne in mind that the favoured few, who are supposed to safeguard the interests of the Association above all things, are merely required to contribute like the despised many, while the pecuniary interests at least of the Association are to be in no sense touched by

this scheme. Such a constituted committee looks too much as if it were intended that the experiment should be in the hands of headquarters, and that if it failed, the loss should fall on the members, and not on the Association; if not so, the Committee is a puzzler, because it would be rash to assume that there are better brains in the Council than out of it.

Para. 4 also might make it clear that the Committee "be appointed" *at the annual meeting of the Association* (or at some other time and place) "to carry out," etc.; and it might fitly conclude, after the word "Council," with *and of whom three shall retire annually by rotation.* Why call the Medical Defence Committee, in this and following paragraphs, a "Standing Committee?" Are not all Committees standing till they fall? But for its irony, it might be more appropriately designated a Falling Committee; but whether standing or falling, such a qualification carries no meaning, whereas a "Defence Committee" is pregnant of significance.

Next let us touch upon the finance of Paras. 2 and 6. At the outset I protest against any extra charge whatever being compulsorily levied upon the members of the Association for any object, good or bad, unless that object be an integral part of the very life and work and purse of the Association. Other Committees, with diverse objects, are worked from the common fund, and so must the Defence Committee if the Association is to direct affairs. Once let the Association show its treasury to have been so far drained that it cannot carry on its noble mission without an increased subscription, then and not till then can it dictate with authority to its members what more they must contribute. Equally can the Association any day reduce its subscription to half-a-guinea as increase it to a guinea and a-half so long as its balance sheet justifies such change. But for the Association to issue a command to its members to contribute to an "entirely distinct" organisation, whilst itself cries hands off—see Paragraphs 12 and 13—would be as untenable and as illegal as it would be to compel one to invest in his neighbour's business, or in the Medical Sickness and Accident Society, or in any other desirable or undesirable concern. The Association, in fact, has no power in the matter other than running a Defence Committee on the lines of its other Committees, excepting of course advising the formation of a Defence Union or Society amongst its members.

Whether it would be wise of the Association to raise its present subscription in order to pursue defence with a vengeance, I know not; personally I would gladly submit to Paras. 1 and 5 of Mr. Butlin's scheme (Scheme B of the Appendix). The merits of this scheme have been sadly overlooked, inasmuch as Branch membership is voluntary, which fact alone would obviate the difficulties advanced by many of your correspondents, and leave them still free to receive their JOURNAL, to attend the meetings, and to aspire to office. If the Branches agree to this, their surplus revenues, like those of the Association, could be utilised to defend a just cause, and would be relieved of the degeneracy from an embarras of riches.

Viewing the whole subject dispassionately, it has been a valient endeavour to solve a pressing problem, and the especial thanks of the profession are due to Mr. Horsley and Dr. Welsford for their convincing advocacy; nevertheless a discordant note might call forth renewed interest and wider enthusiasm, and help in presenting a practical and beneficent programme to the constituencies when the time comes for their voice and vote.—I am, etc.,

Langland Bay, March 6th. A. LLOYD JONES.

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SIR,—The recent meeting of the Metropolitan Counties Branch is eminently instructive. Last year the Branch passed resolutions in favour of the Association undertaking the individual and collective defence of the profession. This year the Branch refuses to pass a resolution of a like nature. The President of the Branch, and the Treasurer of the Association, himself proposes a scheme for carrying out the principle and then comes to a meeting and votes against the principle upon which his scheme rests. Last year the Branch held its meeting at a democratic hour, this year at an aristocratic hour, with the result that it comes to an opposite conclusion. Not only so—this year the representative of the Royal College of Surgeons on the General Medical Council comes down and says that the principle of medical defence is opposed to the scientific and respectable constitution of the Association.

Now it will occur to most people who know anything of the ordinary principles of public business that this is a condition of affairs which is absurd. A principle is affirmed, then it is negatived. A scheme is prepared, based upon the principle originally carried, the result of much deliberation and hard work. What are the grounds for all this waste of time and labour? First, let us take the question of respectability. We all know the great attribute of extreme respectability to be mediocrity. Surely it is to mediocrity that this question of respectability appeals. In no other profession or calling is the question of organisation neglected, but in no other profession but that of medicine and surgery are the claims of mediocrity so fully recognised. Is it to be conceded that the present managers of the Association are incapable of carrying out a large scheme for the organisation of the profession?

Next let us take the argument of science. Why should votaries of any scientific calling be debarred from the advantages of organisation? In political life organisation is found necessary, and as the result of this politicians turn a deaf ear to the appeals of those who are incapable of organisation. I will ask this: If organisation does not debase those who govern the country, why should it debase those who govern the medical profession? Further, if it does not debase those who elect politicians, why should it debase those who ought to have the power of electing the rulers of the medical profession? Now what is the reason of this clamour about science and respectability?

The College of Surgeons devotes 46 per cent. of the fees received from examinees to the pockets of the examiners, and 65.1 per cent. of the amount paid to 46 examiners to 10 gentlemen. Besides this it excludes from the body corporate a very large percentage of those who belong to it. This I may call the science of keeping power and treasure in the hands of the few, and a very pretty science it is. If this is the science of the College of Surgeons, it cannot be a matter of astonishment that its representative comes to a meeting and protests in the name of science against those who are excluded from any voice in the management of that body corporate forming a political organisation of their own. The members of the Association may be quite clear about this, that it is no use complaining of the mismanagement of their affairs if they are unwilling to form a political organisation when they have the chance, and that at small cost to themselves. The pow-wow of mere parochial politicians is very well in its way, no doubt, but it will not advance great interests; these can only be advanced by organisation.

The medical profession has a chance now of forming an organisation capable of dealing with matters connected with its internal machinery, and with matters which are connected with the interest of the general community as well as its own. If it decides that it does not desire organisation, it must not complain, as it is now doing, of want of attention to its interests. In connection with this conclusion, it must be remembered that no counter-scheme for organisation has been proposed. If there were, the profession could decide between the alternatives. As it is, the principle of organisation is at stake, and I write this in the hope that the members of Branches who have not yet voted will bear this in mind, and remove the stigma of being a mere disorganised rabble from the profession of which they are members.—I am, etc.,

Hatfield, March 7th. LOVELL DRAGE.

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## EXPERT EVIDENCE.

SIR,—I have read with great interest the article in the BRITISH MEDICAL JOURNAL of March 6th by "A Legal Correspondent" on this very important subject.

Touching his reference to the provisions of the Judicature Act, 1873, empowering the High Court to call in one or more assessors to assist the Court on scientific questions, it is true that such a procedure is authorised by the Act in question, but, apart from Admiralty cases, it is infrequently resorted to in practice. The reasons for this are not far to seek, and may be briefly summarised as follows: It has been clearly laid down by Cockburn, C.J., that one party cannot force a trial before assessors if the other party desires a jury, and it

is seldom that an action involving medical and scientific questions is elected to be tried by a judge without a jury. It follows therefore that where either party has by the rules of Court signified his desire or is entitled as a matter of right to have the issues in the action tried by a judge with a jury, the provision of the Act is overriden by the existing rules of Court.

Your correspondent would rather imply that the appointment of assessors can be obtained by either of the parties in litigation as a matter of right by merely applying for and claiming it. Such, however, is not the case. The provision in question empowers the Court to call in assessors, and does not empower the litigant in any circumstances, as a matter of right, to demand that assessors shall be called in. It is a matter entirely in the discretion of the Court itself whether or not such assessors should be called in, and such discretion will only be exercised in very exceptional cases, in which neither party desires to have the issues involved tried by a judge with a jury.

No general principles as to the cases in which the Court would elect to call in assessors can be laid down, as each case must depend upon the particular questions and difficulties of a scientific or technical nature raised or involved in it.—I am, etc.,

W. E. Hempson,
Solicitor to the Medical Defence Union.

King Street, Cheapside, E.C., March 10th.

## THE DIAGNOSIS OF SCARLET FEVER.

Sir,—The remarks of your correspondent, Dr. Armstrong, on the diagnosis of scarlet fever in the British Medical Journal of December 26th, 1896, p. 1827, have much interested me, as they recall to mind some of my experiences of the summer of 1895. One case in particular was that of a female child, aged 4, in whom at first the only symptoms were feverishness and sore throat. The rash, which appeared thirty-six hours later, was first observed on the face, being most marked on the forehead, with a well-marked hectic flush on the cheeks, the rash being seen in the outlying parts. On the evening of the same day the rash had spread to the neck, chest, abdomen, and back, being most marked on the chest and back. The condition of the tongue was by no means typical, being covered with a brownish-white fur, red at the tip and edges, the fungiform papillæ being only slightly enlarged. The difficulty here was to establish a diagnosis between scarlet fever and measles, as the patient, though a very nervous child, had up to then been free from illnesses of any kind. The difficulty was increased by the fact that it was, and proved to be, the only case of scarlet fever in the town of over 17,000 inhabitants. The peculiarities of this case were (1) that the fur on the tongue did not clear up so as to exhibit the characters of the "strawberry tongue:" (2) the rash did not show itself on the limbs except one or two small patches, whilst after the first few days it rapidly disappeared, and was followed by only the very faintest desquamation.

The rash owes its value in diagnosis to its appearance, not to its position. Too much stress is laid upon the position of the various rashes in determining diagnosis, an attempt, as it were, being thus made to set up an artificial diagnosis by limiting the directions in which Nature should work. The tabulated list, taken from the various published records given in your correspondent's memorandum, proves nothing except that the general consensus of opinion was, and is, that the rash appears early on the face, and that when fully developed it is most conspicuous on the chest and back. What distinguishes the rash of scarlet fever from that of measles and rotheln is (1) the bright scarlet hue, (2) the minute red spots set closely together. The rash in measles is much paler, with yellowish or brownish tinge, and the spots are not arranged so closely together. I cannot imagine any case of scarlet fever or measles in which the sole factor in diagnosis was the rash; neither am I inclined to believe that cases of scarlet fever ever occur without symptoms of pyrexia.

In the first place the diagnosis of any fever is not determined from any one sign or symptom alone, but by taking into consideration the whole surroundings of the case, the existence of cases elsewhere, previous history, and the various signs and symptoms. And again, what is meant by latent scarlatina is scarlet fever in its mildest form, in which some of the symptoms are very slight, the cases run an atypical course, or the whole of the signs and symptoms are so mild and evanescent as not to call for any serious attention on the part of the patients' friends; but that they do not exhibit in some part of their course the ordinary symptoms of pyrexia, as elevation of temperature, acceleration of pulse and respiration, a rash, sore throat (however slight), it is quite impossible to believe; as otherwise, how are we to explain the supervention in such cases of desquamation, or the signs and symptoms of albuminuria and dropsy, and other sequelæ?—I am, etc.,

D. Franklin Williams, M.R.C.S., L.R.C.P.

Liverpool.

## TURPENTINE IN PURPURA HÆMORRHAGICA.

Sir,—In the British Medical Journal of December 26th, 1896, p. 1827, Dr. Wm. Barker Russell relates a case of rapidly fatal purpura hæmorrhagica. Dr. Russell will, I hope, pardon me for calling his attention to the value of turpentine in the treatment of this disease, for the drug may fairly be called a specific.

Nineteen years ago I was consulted by E. F., aged 26, for a purple rash over the arms and legs, the number of spots increased, and in a few days hæmorrhage occurred from the gums, to be followed in rapid succession by bleeding from the nose, bladder, and bowels. At the rate the patient was losing blood, he could not possibly survive long. The remedies used by Dr. Russell were tried without the least effect. As a result of examining various books, I gave turpentine, ℥ xv, every two hours; improvement soon set in, the bleeding progressively diminished, and a complete recovery ensued.

I have seen the patient at intervals by casually meeting him, but he has practically had no illness since the purpura.—I am, etc.,

Weymouth Street, W. Chas. W. Chapman.

## THE TREATMENT OF SEWAGE.

Sir,—In December, 1894, after experimenting with a small model "Cosham" tank, I stated to my authority that I had no doubt that the natural purification precipitating tank system would prove successful on a large scale. Our four large tanks were ordered to be converted into the Cosham tanks, each holding about 120,000 gallons. During 1895 and 1896 the results have proved very satisfactory, and we are now able to treat the sewage efficiently, and have no complaints as to the fouling of the river from the riparian owners below the works. This system commends itself by—

1. Its proved capability of successfully treating what is admittedly the worst sewage in England; in three of my analyses the crude sewage contained 3.c4, 4.48, and 4 64 parts of albuminoid ammonia per 100,000 parts, but after going through the Cosham tank this was reduced to 0.43, 0.46, and 0.27 parts respectively. In six analyses I obtained an average purification of 77 per cent.

2. It is simple in construction, cannot get out of order, and any existing tanks can be converted to this system.

3. The greater part of the greasy matter is trapped by and retained in the first chamber by means of the flocculent chambers.

4. Seven-eighths of the sludge and solid matters are deposited in the first chamber, and the whole of the chambers can be cleaned out by two men in twenty minutes. Ocular demonstration can be obtained of the condition of the sides and bottom, so that all sticky and offensive matter can be quickly and easily removed. This is a very great advantage, as any refuse clinging to the sides of the tank is prone to rapid decomposition, and so spoils the tank effluent. In other systems special provision must be made for periodically cleansing the tank.

5. From the rapid co-mingling of the suspended solids and fatty matters in the first chamber—which is in an agitated state, boiling up as the sewage enters from the chemical chambers—no chance is given for a waste of chemicals; on the old system they are washed away and settled at the bottom.

6. Less chemicals are used, owing to the rapid conglomera-

tion of the suspended matter and the churn-like action in the first chamber.

7. Less labour is required, the tank being automatic in its action. It is filled every day, and the next day's sewage automatically presses out the previous day's treated effluent. I have proved that :

(*a*) Few complaints were made as to the foul state of the river in 1895, and none in 1896, although the summer of the latter year was both dry and hot.

(*b*) Less labour is required and less chemicals used. During the half year ending December 31st, 1896, we have effected a saving at the rate of £200 a year.

(*c*) Better results were obtained than by any other system we have tried.

(*d*) The character of the effluent—clear and with but little suspended matter—has been so satisfactory as to enable us to turn it into the river without filtration.—I am, etc.,

E. PEACOCK,
Nuneaton. Medical Officer of Health.

## THE EFFECT OF THE OUT-PATIENT SYSTEM ON PRACTICE.

SIR,—There is one aspect of the out-patient question that has not as yet been brought forward, but it should be considered because, as supply is regulated by demand, it must soon lead to a great increase in the number of men holding hospital appointments conferring "consultant" rank, and to a corresponding diminution in the number of general practitioners; probably the diminution of the latter will be even greater than the increase of the former, owing to the fact that much of the scientific and social prestige of the profession goes to the former, and little but routine work undertaken solely for pay comes to the latter. It is for the rising consultants to say whether there is such an amount of paying work amongst them that they could make both ends meet if they had to share half their present fees with the holders of the new posts, and whether fewer general practitioners will lead to more consultations.

1. On the one hand it is becoming clear that most of the present out-patient physicians and surgeons find it impossible single-handed, or even with the aid of one or more clinical assistants, to get through their work. On a recent occasion 222 new patients presented themselves in a morning for three surgeons to treat at a hospital well known for the immense amount of work got through. There would be at least as many old patients also attending.

2. On the other hand, the five-years' course is tending to diminish the number of men who will take work as clinical assistants; these posts are unpaid and unhonoured. A house-surgeon or house-physician has got a good start in the profession and with the public; a clinical assistant might, for all most people know, be someone in the laundry who looked after the bedding. The work is often very heavy. I have myself been in the out-patient room from 9.0 to 4.0, or from 2.30 to 10 30, with an hour out for dinner. No hospital that I have worked in has given me even bread and cheese, and yet when once a clinical assistant has served a six months' apprenticeship—often sooner—a very large amount (sometimes the whole) of the clinic is put in his hands. This is not an imaginary picture, but derived from experience of seven hospitals in London where I have been for periods varying from three to eighteen months. Of the value of the knowledge to me as an education I have no doubt. As to whether the patients I have seen were aware that they had deserted their old and experienced general practitioners for a man who had paid the hospital a pupil's fee only some months before, I do not say anything.

The point I wish to bring out is this, that at present the out-patient system depends on the idea that the guineas of the rich pay for the free consultation of the poor. Therefore unless the former increase, the latter should not be increased, for otherwise the consultants will not be able to make both ends meet. That they are not doing so now is evidenced by the increased use made of clinical assistants.

There is one suggestion often made by one side and scornfully rejected by the other, that all patients should be recommended by medical men. May I suggest a modification of this? Let those patients who produce a letter of introduction from their doctor be seen first. Next those with an open note or card from their doctor to any man under whom they may come. Let those who have neglected to take this trouble come last, and if time fails or the number is limited, let them be offered the choice of the assistant or the infirmary. Many cases might then be sent back to their doctor with a confirmation or correction of his diagnosis, often all they want. Valuable histories of past illness or previous treatment would often throw light on obscure conditions, and the careless would soon be taught by experience. No one could complain, for the *raison d'être* of the process would be the getting past histories. Of course it would do more if properly worked.—I am, etc.,

March 8th. M.B., M.R.C.S.

## GOÎTRE AND CRETINISM.

SIR,—By an oversight I did not see Dr. Nicholson's letter in the BRITISH MEDICAL JOURNAL of October 31st, 1896, till recently. The letter contains numerous criticisms against the iron pyrites theory of endemic goître and cretinism.

With regard to the presence of goître on the silurian shales of the southern uplands of Scotland, Mitchell counted 93 cases of goître in the upper valley of the Nith. According to Kay, around Sanquhar five out of six women were goitrous. The disease has also been observed in parts of the counties of Roxburgh, Selkirk, and Peebles, and in fact wherever these silurian shales are found observers seem to have noted the presence of goître. Secondly, as to the coal measures, Manson noted the frequency of goître in the coalfields of Nottingham. The disease has also been found in the coal measures of Derbyshire. Saint Lager found cases of the malady on the pyritous schists containing anthracite in several districts of the departments of the Isère, Hautes-Alpes, Savoie, etc. Other instances could be enumerated.

The analyses of goîtrigenous waters is certainly unsatisfactory, but I think a true scientific analysis of any water can only be ascertained by daily examination for six months, as is now being done at the instance of the London County Council in the case of many of the London waters. Water should especially be examined after a heavy rainfall; and another point that requires attention is the examination of the well and spring deposits. I cannot agree with Dr. Nicholson that negative evidence is of no value. I think it is only by a process of elimination that one can arrive at the probable, if not certain, causation of an obscure disease like endemic goître. At the present time I feel convinced that there is more evidence in favour of the iron pyrites theory than any other. Goître has been produced in animals by the administration of iron pyrites and ferrous sulphate, whereas other supposed goître-producing substances have utterly failed to produce an augmentation of the thyroid.

I cannot enter into any discussion on the question of goître in the Eden Valley, except tomention that, so far as my own researches have gone, all the evidence is in favour of the ferrous sulphate being the *fons et origo mali*.—I am, etc.,

LOUIS E. STEVENSON.

Temple Sowerby, Penrith, Feb. 10th.

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## THE NURSING MANIA.

SIR,—Your correspondent, "A Provincial Physician," appears to me to dispose of this question somewhat summarily in his first sentence. If it be indeed true that "the majority of the profession would heartily endorse the views so ably expressed by Lady Priestley," then, indeed, it would be high time that the profession, and more particularly those concerned in the training of nurses, took some steps in the matter.

But I venture to suggest that "A Provincial Physician" starts from a premiss that is not so generally accepted as he appears to think. With every respect for your correspondent I would beg to take the somewhat irregular course of moving the direct negative. And this course I also adopt as a result of personal experience, now extending over nearly a quarter of a century. In that time I have had many nurses from different institutions, both London and provincial; and at the hospital with which I am connected I have seen many

nurses come and go. And amongst all, as a matter of fact, I can only recall one who would in any way fit the word portraits of Lady Priestley.

Speaking of nurses as a class I am bound to say that I have ever felt the deepest gratitude to them for the unwearying care and devotion they have shown. I have never met with a nurse who has not concientiously and loyally carried out my instructions; and those who undertake abdominal surgery—surely of all surgery the most dependent on good and conscientious nursing—know full well the comfort and feeling of security which the knowledge of having a trustworthy nurse gives.

There may be, and probably are, nurses of the type sketched by Lady Priestley. But I feel sure they are not to be found amongst the nurses sent out by our best known London and provincial institutions. I cannot help thinking that Lady Priestley's nurses are of a rare, and seldom seen, description, and have been simply utilised as a peg whereon to hang a magazine article.—I am, etc.,

February 10th. A Provincial Surgeon.

## MEDICAL ETHICS.

Sir,—The attitude adopted by the Bradford Medico-Ethical Society should be taken to heart as a lesson for all kindred societies. I venture to suggest that if all our Branches were to adopt the code, especially in respect to visiting other practitioners' patients, adverse criticisms, and unqualified assistants, the Association would have done a grand work, and the profession would have gained enormously in public opinion and in brotherly love. Much as I deprecate medical aid associations, I think we have still greater evils to contend with, and it is too often a fact that those men who are loudest in their condemnation of such societies and of those who lend their aid to the working of them are all the while employing unqualified assistants without proper supervision, or else the golden rule of "Do ye unto others," etc., is being broken wholesale by them.—I am, etc.,

February 15th. Nemesis.

## PUERPERAL FEVER IN ENGLAND AND WALES.

Sir,—In the inaugural address Dr. Cullingworth[1] asks himself and others the question, why the mortality from metria has not diminished since 1847, considering that for many years antiseptic measures have been so strongly advocated by teachers. He thinks there must either be faulty teaching or want of due care in carrying out the necessary methods, and firmly believes that if the simple antiseptic precautions with which everyone is familiar were conscientiously adopted puerperal fever would be as rare in private practice as it is now in the best lying-in hospitals. I am sure Dr. Cullingworth in thus impressing upon the profession the importance of personal hygiene does not wish to convey to the public that metria commonly arises through want of care on the part of the medical attendant or that there are not many causes over which we have no control arising from the patient, the accidents of childbed, or the nature of the surroundings to which the puerpera is exposed, the last being rarely as favourable to what exists in a well-ordered lying-in hospital. The general practitioner has to take the responsibility of results, while he is generally debarred by usage and social conditions from protecting adequately himself and patient from the sources of mischief. Two important facts are stated, that childbed mortality in private practice was no greater, or even less, prior to the antiseptic period, and that it prevailed more in those districts which were mountainous, hilly, and sparsely populated, where medical assistance was difficult to obtain.—I am, etc.,

John A. Lycett, M.D.,
Senior Surgeon, Wolverhampton Hospital for Women.

Wolverhampton, March 6th.

# INDIA AND THE COLONIES.

## AUSTRALASIA.

Insanity.—In the sixth issue of *The Seven Colonies of Australasia*, recently published, Mr. T. A. Coghlan gives the number of insane persons under official cognisance in Australasia on December 31st, 1894, as 12,610. This represents 3.0 per 1,000 of the population. This rate is higher than that of England or Scotland. The number of insane persons per 1,000 of the population in each Colony is as follows: New South Wales, 2.9; Victoria, 3.5; Queensland, 3.0; South Australia, 2.5; Western Australia, 1.8; Tasmania, 2.3; New Zealand, 3.2.

## NATAL.

The Tsetse Fly.—We learn from Pietermaritzburg that Surgeon-Major Bruce has discovered that the trypanosome of "fly disease" is not confined to the domestic animal, but is found in the blood of the buffalo, wildebeeste, koodoo, bush-buck, hyena, and other animals, so that the connection between wild animals and the disease is pretty well demonstrated. Surgeon-Major Bruce says that the tsetse fly is found in enormous numbers in the fly country, sometimes as many as 200 or 300 being seen on a horse at the same time. As yet we have no explanation as to the reason for the disappearance of this fly with the disappearance of the large game from a country.

# UNIVERSITIES AND COLLEGES.

## UNIVERSITY OF CAMBRIDGE.

Botanical Collection.—A handsome gift consisting of some 4,000 specimens of Pyrenean and Alpine plants, collected between 1858 and 1893 by the late Mr. Charles Packe, M.A.Oxford, has been presented by his widow to the University Herbarium. This represents a very valuable addition to the fine European collection in the Botanical Museum.

State Medicine.—The Syndicate for State Medicine has been empowered by the Senate to frame and publish from time to time a statement of the conditions under which candidates for the Diploma in Public Health are admitted to examination. The conditions are to be consistent with the rules of the General Medical Council.

# OBITUARY.

## OLIVER PEMBERTON, F.R.C.S.,

Consulting Surgeon to the General Hospital, Birmingham, and Coroner for the City.

On Sunday evening, March 7th, after a comparatively short illness, Mr. Oliver Pemberton, of Birmingham, passed away at his residence, Quarry House, Whitacre, near Birmingham. By his death Birmingham as a city loses one of its most remarkable and distinguished citizens, and the medical profession in Birmingham a prominent and well known member.

Mr. Pemberton was the second son of Thomas Pemberton, of Warstone House, a well known Birmingham manufacturer, who for many years was one of the borough justices of the peace. He was born on August 15th, 1825, at Warstone House, and received his education at King Edward's School. From his earliest years he showed a leaning towards a literary and professional career rather than the commercial pursuits of his family, and at the age of 17 he was apprenticed to Mr. D. W. Crampton, one of the surgeons to the General Hospital, and entered Queen's College as a medical student. Soon afterwards he went up to London, and studied for four years at St. Bartholomew's Hospital under Burrows, Lawrence, and Stanley, taking the diploma of Member of the College of Surgeons in 1847. He then returned to his native city, and entered the General Hospital as "Physician's Assistant." When the duties of this office were altered and in its place resident medical and resident surgical officerships were created Mr. Pemberton was elected Surgical Officer, having the late Dr. Heslop with him as his colleague.

From this time onward he devoted himself to the surgical side of his profession, and in 1852 was elected Honorary Surgeon to the hospital in the place of Mr. Richard Wood. This position as Honorary Surgeon he filled for close upon forty years, resigning in 1891, when he was appointed Her Majesty's Coroner for the city. At the annual meeting of the governors of the institution in 1892, he was unanimously elected Consulting Surgeon, a position which he held till his death.

Mr. Pemberton was connected with the Birmingham Medical School, and took an active interest in its management for nearly forty years. He was Professor of Anatomy from 1853 to 1858, and from 1867 till 1892 was one of the Professors of Surgery. He took a leading part in the transference of the Medical Department of Queen's College to Mason College, and as Member of the Council and later on as Bailiff of the latter institution displayed always an active interest in the welfare of the medical school. In 1878 Mr. Pemberton was elected a Fellow of the College of Surgeons, and seven years later, in 1885, was chosen a Member of the Council of the College, a position he continued to hold until his death.

[1] British Medical Journal, March 6th.

Throughout his life he took an extremely active and prominent part in the medical life of Birmingham. He was one of the founders and promoters of the Medical Institute; in 1874 held the Presidency of the Midland Medical Society, and was at one time on the council of almost every medical society in the city.

His contributions to medical literature were both numerous and varied. In 1857, in conjunction with Dr. Blunt, he commenced the *Midland Quarterly Journal of the Medical Sciences*, and in that periodical began the first of a series of papers he afterwards published on Cancer. Between 1857 and 1859 he contributed a number of articles to the British Medical Journal on Lithotomy in Children, Excision of the Ankle Joint, and various other subjects. His chief book, *Clinical Observations: The Various Forms of Cancer*, was published in 1867. Speaking of it, Sir James Paget said that it was "an example of good surgery and good taste."

He wrote several papers, and added largely to our knowledge of the surgical treatment of aneurysm, a subject in which he always took a deep interest, and in which the abundant material he had at his command made him a great practical authority.

Mr. Pemberton also took an active interest in the municipal life of his city. In 1879 he was elected to the City Council as the representative of St. Stephen's ward, and was several times re-elected. As a member of the council he rendered valuable service to the city on the Health Committe and the Water Committee. In 1891, when the office of coroner fell vacant, he resigned his seat on the council, and was appointed coroner by a large majority. He continued to hold the office until his death.

Mr. Pemberton married, in 1851, the daughter of Mr. Daniel W. Harvey, M.P. for Colchester and Southwark, and at one time Chief Commissioner of Police for the city of London. He leaves behind him his widow, two sons, and three daughters, to mourn his loss.

We are indebted to Dr. Saundby for the following personal note:

I must leave to others better qualified to express an opinion the appreciation of Mr. Pemberton's work as a teacher and operating surgeon, but I was his hospital colleague, I enjoyed his intimate friendship for more than twenty years, and I was often associated with him in one department of practice—railway cases—in which he enjoyed a very high reputation, and in which he had an opportunity of displaying some of his best and most marked characteristics.

As a friend he was always amiable, affectionate, sympathetic, appreciative, and staunch; he made many friends and kept them, and even where divisions arose I know that his own feelings underwent no change. He spoke ill of no one, and the utmost approach to censure he ever expressed was a half-humorous, half-contemptuous sentence which had no sting in it. He had a fine temper and a most perfect equanimity, which in his best days nothing could ruffle; he not only made no enemies, but he had such a talent for harmonising discordant elements, that he was a peacemaker among his colleagues, and a bond of union among men of opposite opinions.

Of his private friendships it is not fitting for me to speak, but I know it was a source of great pride and pleasure to him to have enjoyed the friendship of some of the most eminent surgeons of his day. He had a hearty, enthusiastic admiration for surgical genius, and was proud to call such men his friends. No one admired more sincerely the late Professor Syme, the late Sir William Savory, and Sir James Paget, with all of whom he was on terms of intimate friendship; his respect and regard for Lord Lister were equally great, though his personal relations with him were, perhaps, not quite so close. He had outlived many of his contemporaries and most of those with whom his own best years were associated, but he thoroughly appreciated the advances of modern surgery, and ungrudgingly recognised the merit of the great changes which had taken place during the last twenty years of his life, although their effect was to leave him stranded among the monuments of the past.

He was diligent, punctual, and methodical in business: these qualities stood him in good stead in the large amount of official work he always enjoyed as medical adviser to various railway companies, accident insurance companies, etc. It was in his railway work that I was from time to time associated with him, and in this he seemed to me to be at his best; he possessed an eminently fair judicial turn of mind, he was remarkably impressive in manner and speech, he had a good memory and had acquired a large medico-legal experience, so that he was one of the best medical jurists in the country.

When late in life he sought the office of coroner for the city of Birmingham these qualifications made him eminently suited for the post, and enabled him to fill it with general public approbation.

His death leaves a great gap in the public life of the city, as well as in social and medical circles, although for the last two years his age and failing health had compelled him to withdraw from much in which he took an interest, and in which he would still have gladly shared. To his friends his loss is great and grievous; to his family it is boundless and irreparable, but it is some consolation to them to know that they enjoy the widest sympathy from a large circle which could claim no intimate association with him yet cherishes the memory of a gentle and large-hearted man, whose charm left an ineffaceable impression on all with whom he had to do.

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## ERNST BRAND, M.D.,

Stettin.

Dr. Ernst Brand, of Stettin, who has just died, was born on January 2nd, 1827, at Feuchtwangen, in Bavaria, where his father was a local magistrate. He received his preliminary education in the Ansbach Gymnasium, and studied medicine in the University of Erlangen, afterwards gathering further clinical experience in the hospitals of Prague, Vienna, Paris, and London. His marriage with a lady belonging to a Stettin family was the cause of his deciding to settle in that town. In 1851 he began his researches on the treatment of typhoid fever by cold baths. He embodied the results of his experience in a work entitled *Die Hydrotherapie des Typhus*, which was published in 1861; a second edition appeared in 1877. Although Brand was not the first who treated fevers by cold affusion, Antonius Musa having cured the Emperor Augustus by this method, and Dr. James Currie, of Liverpool, having given numerous examples of its successful use in his *Medical Reports on the Effects of Water, Cold and Warm, as a Remedy in Fever and other Diseases*, published in 1798, he is certainly entitled to the credit of having established the method as a recognised therapeutic measure. By its means in the German and Swiss hospitals the rate of mortality has been reduced from an average of about 20 per cent. to one varying from 6 to 13 per cent., and in military hospitals and private practice, where the patients come under treatment earlier, the results have been even more favourable. In the Prussian army from 1868-74, before the introduction of the cold-bathing treatment, the mortality was 15 per cent. From 1874-81, since its introduction, it was 9 per cent. Equally good results have been obtained in France, where the treatment was introduced in 1873 by Frantz Glénard at Lyons, and in 1887 by Juhel-Rhénoy in Paris. In this country it has perhaps hardly had a fair trial, and authorities such as Collie, Gairdner, Jenner, and Bristowe have spoken doubtfully or unfavourably of it, but Dr. Cayley advocates its more extensive use.

Dr. Brand's work is all the more remarkable that he was a private practitioner with no hospital in which the treatment could be tried, and no students to furnish the skilled assistance so valuable in such observations.

During the war of 1870-71 he had charge of the hospital for French prisoners at Stettin, and his services were recognised in a letter of thanks from the French Government. It is also to Brand that the holiday colonies, which have been the means of giving health and strength to so many a poor child, owe their establishment. From the beginning of his career to the end he was a true philanthropist as well as a physician.

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We have to record the death of Mr. Edwin Turner, M.R.C.S., L.S.A., who had for thirty years been in practice at Wordesley, Staffordshire. Mr. Turner, who was born in 1836

at Dudley, received his early education there. After a short term of apprenticeship he went to St. Bartholomew's Hospital, and entered the profession in 1863. Dr. Turner was well known and highly respected in the district in which he practised, and was for some time Medical Officer of Health for the Stourbridge Rural District. The good services which he rendered in this capacity were recognised by the Kingswinford District Council at a recent meeting.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. Leo von Halban, Professor of Forensic Medicine in the University of Cracow, formerly editor of the Polish medical journal *Przeglad lekarski*, and author of numerous contributions to the literature of his speciality, aged 59; and Dr. E. Boyer, Professor of Hygiene and Therapeutics in the Faculty at Beyrout, Syria, aged 37.

# NAVAL AND MILITARY MEDICAL SERVICES.

## THE STATISTICAL REPORT OF THE HEALTH OF THE NAVY FOR 1895.[1]

This valuable report is remarkable for its conciseness, and the readiness with which any complex statistical question may be settled by reference to it. The system adopted has been in use since the year 1856. The items of each year are compared with those of the preceding year, and the ratios are contrasted with those of the last eight years. In this way the amount of increase or decrease can be more satisfactorily determined under particular circumstances. Under the heading of Total Force we find a summary of general statistical particulars, and the returns are supposed to be satisfactory on the whole; but it is interesting to notice how the total numbers may be affected by purely local conditions, epidemic visitations, operations in malarious districts, and even a single catastrophe, as in the loss of 48 officers and men at Chemulpo through the foundering of a sailing pinnace belonging to H.M.S. *Edgar*.

The total force in the service afloat, corrected for time, in the year 1895 was 67,960 officers and men, of whom 40,710, or 59.9 per cent., were between the ages of 15 and 25; 19,740—29.04 per cent.—were between the ages of 25 and 35; 6,440, or 9.47 per cent., were between the ages of 35 and 45; and 1,070, or 1.57 per cent., were above 45 years of age.

There were 65,196 cases entered on the sick list, showing a slight increase as compared with the previous year, but a decrease as compared with the average ratio of the last eight years, and the same remarks will apply to the daily number of men under treatment—that is, 2,789.32, or 41.04 per 1,000. A similar statement will also apply to the loss of service from disease and injury, which was estimated at 14.98 days for each person.

Out of the total number of persons invalided in the first instance, that is, 1,717, many on arrival in England or after some treatment in the home hospitals were again able to join the active force. Thus, out of the above number 1,114 were finally invalided and 603 restored to the service. The death-rate from disease alone was 4.64 per 1,000, or 316; and from injury 1.95 per 1,000, or 133; the total number of deaths being 449.

Under the head of General Diseases, Group A, Subgroup 1, we find the ordinary zymotics usually represented by higher numbers on the home station. Of 1,879 cases of simple continued fever, 123 were on the home station, 505 on the Mediterranean, 67 on the North American and West Indian, 160 on the Cape of Good Hope and West Coast of Africa, 450 on the East Indies, 303 on the China, and 135 in the Irregular Force.

Notwithstanding the admitted control of hygienic principles over the source of enteric fever, there were 270 entries for this disease during the year, that is, 82 on the Mediterranean station, 65 on the home, 56 on the East Indian, and 67 scattered amongst all the other stations and the Irregular Force. The deaths were 50, and the invalidings 26.

[1] Eyre and Spottiswoode, East Harding Street, Fleet Street, E.C., and Westminster, S.W.; John Menzies and Co., 12, Hanover Street, Edinburgh, and 90, West Nile Street, Glasgow; or Hodges, Figgis, and Co., Limited, 104, Grafton Street, Dublin. (1s. 10d.)

The general prevalence of influenza during the year is worthy of note. Thus, there were in all 2,627 cases, of which 1,521 were on the home station, 557 on the Mediterranean, 79 on the North American and West Indian, 10 on the South East Coast of America, 32 on the Pacific, 120 on the Cape of Good Hope and West Coast of Africa, 111 on the China, 2 on the Australian, and 95 in the Irregular Force; 6 cases were fatal.

Under Subgroup 2, the cases of malarial disease were 2,152, with 14 deaths and 192 invalidings. The highest number (1,067) was reported from the Cape of Good Hope and West Coast of Africa station.

Subgroup 4. Venereal Diseases.—From a naval point of view it is obvious that an increase or decrease in the yearly records of these diseases on any station must largely depend upon the facility of communication with the shore. Hence, while we are aware that syphilis is largely on the increase, particularly in India, as shown by the military returns, the present report indicates a decrease of 20 per 1,000 on the South-east Coast of America Station, 14.78 on the Pacific, 10.29 on the East Indian, 7.6 on the Mediterranean, 6.89 on the Home, and 6.41 in the Irregular Force. Bearing this in mind it is curious to observe that gonorrhœa and its sequelæ should be on the increase, but the comparison must be made with primary syphilis alone, which would be 3,296 against 5,345 representing both gonorrhœa and its sequelæ. If 1,651, the number for secondary syphilis, were added to the primary 3,296, the result would be 4,947 which would 398 only short of 5,345, the number for gonorrhœa and its sequelæ.

The records of the two principal naval hospitals—Haslar and Plymouth—are of interest in this connection. Thus, in the medical wards of Haslar the number of cases for the year was 2,161, while the surgical cases under treatment was 4,124, or, roughly speaking, double those in the medical, the total being 6,285.

Venereal diseases alone made up 2,219, or somewhat more than all the medical cases put together, nearly equivalent to one-third of the total number, and half that of the surgical cases. They may be thus tabulated:

| | 1895. | 1894. |
|---|---|---|
| 1. Primary syphilis | 652 | 741 |
| 2. Secondary | 373 | 366 |
| 3. Gonorrhœa and its sequelæ | 1,194 | 919 |
| Totals | 2,219 | 2,026 |

Dealing with the Plymouth Hospital in a similar way, the number in the medical wards was 1,436, in the surgical 2,695, total 4,131. The venereal diseases (1,517) tabulated thus:

| | 1895. | 1894. |
|---|---|---|
| 1. Primary syphilis | 510 | 581 |
| 2. Secondary | 283 | 310 |
| 3. Gonorrhœa and its sequelæ | 720 | 730 |
| Totals | 1,513 | 1,621 |

On comparing the above figures, it will be seen that at Haslar, while there is a decrease in the amount of primary syphilis, there has been an increase in the secondary form, and in the cases of gonorrhœa and its sequelæ yielding an adverse excess of 193. On the contrary, at the Plymouth Hospital, an improvement is observable under all three heads, with a favourable excess of 104.

Under Class II, Local Diseases, the following items are worthy of note, namely: Diseases of the respiratory system 8,109; invalidings 223, deaths 81. Diseases of the digestive system 8,624; invalidings 184, deaths 21. Diseases of the connective tissue and skin 11,643; invalings 34, and 1 death. Wounds and injuries 11,613; invalidings 105, deaths 122.

The utility of this report is much enhanced by well-executed charts showing the limits of the several naval stations, and a large appendix of tables for reference reflects much credit on the compilers.

## THE NAVY.

The following appointments have been made at the Admiralty: Michael J. McCarthy, M.D., Staff-Surgeon, to the *Wildfire*, for Yarmouth Hospital, March 11th; Cornelius Bradley, M.D., Surgeon, to the *Melampus*, March 11th.

Surgeon Richard Henry Way, M.R.C.S., L.R.C.P., as was briefly noticed in the British Medical Journal of March 6th, died at Warrigi on February 21st, while in service with the Benin Expedition, at the age of 29. He was appointed Surgeon, November 14th, 1894.

## ARMY MEDICAL STAFF.

Surgeon-Lieutenant-Colonel J. Ring, M.D., is promoted to be Brigade-

Surgeon-Lieutenant-Colonel, *vice* E. Townsend, M.D., from January 27th.

Brigade-Surgeon-Lieutenant-Colonel Ring entered the service as Surgeon September 30th, 1873, becoming Surgeon-Major 12 years, and Surgeon Lieutenant-Colonel 20 years, thereafter. He was in the Zulu war of 1879, receiving the South African medal with clasp, and in the Boer war of 1881, being present in the engagements at Lang's Nek, the Ingogo River, and Majuba Hill (mentioned in despatches).

Surgeon-Captain J. W. JENNINGS is seconded for service with the Egyptian army, January 1st.

Surgeon-Captain J. C. MORGAN, who is serving in the Punjab Command, has been appointed Staff-Surgeon and Medical Officer in charge of Headquarters Establishments for two years, from April 1st, 1896.

## ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT A. B. LYON M.B., is promoted to be Surgeon-Captain, March 3rd.

Surgeon-Lieutenant F. J. L. WARWICK, M.B., is promoted to be Surgeon-Captain, March 10th.

## INDIAN MEDICAL SERVICE.

SURGEON-LIEUTENANT JOHN DUNCAN MCMILLAN, M.B., Bengal Establishment, died in Beloochistan on February 5th, aged 27. He entered the service January 29th, 1895, and at the time of his decease was in officiating medical charge of the 15th Bengal Lancers.

## THE VOLUNTEERS.

SURGEON-LIEUTENANT V. J. BLAKE, M.B., 1st Hampshire Artillery (Southern Division Royal Artillery), has resigned his commission, March 3rd.

Surgeon-Lieutenant A. A. HOWELL, 3rd Volunteer Battalion the Royal Fusiliers (City of London Regiment), has resigned his commission, and is appointed Lieutenant in the same corps, March 3rd.

Surgeon-Lieutenant E. H. DOUTY, M.B., 3rd (Cambridgeshire) Volunteer Battalion the Suffolk Regiment, is promoted to be Surgeon-Captain, March 3rd.

The undermentioned gentlemen are appointed Surgeon-Lieutenants in the corps specified, March 3rd: CONRAD T. GREEN, 1st Volunteer Battalion the Cheshire Regiment; VICTOR J. BLAKE, M.B., 5th (Isle of Wight, Princess Beatrice's) Volunteer Battalion the Hampshire Regiment; HENRY S. HUGHES, 1st Volunteer Battalion the South Staffordshire Regiment.

Surgeon-Lieutenant W. F. M. JACKSON, 1st Volunteer Battalion the South Staffordshire Regiment, has resigned his commission, March 3rd; he retains his rank and uniform.

Surgeon-Captain H. F. STOKES, 1st London Rifles, is promoted to be Surgeon-Major, March 3rd.

Surgeon-Major G. HASTINGS, 3rd London Rifles, is promoted to be Surgeon-Lieutenant-Colonel, March 3rd.

Surgeon-Lieutenant GEORGE LYON, M.B., 6th Volunteer Battalion the Gordon Highlanders, has resigned his commission, and is appointed Captain in the same corps, March 3rd.

Lieutenant H. MARRIOTT, 4th Volunteer Battalion the Cheshire Regiment (late Surgeon-Captain), is promoted to be Captain, February 17th.

The undermentioned gentlemen have resigned their commissions, March 10th: Surgeon-Captain T. B. GRIMSDALE, M.B., 4th Lancashire Artillery; Surgeon-Lieutenant J. HIGHET, M.D., 2nd Volunteer Battalion the Royal Scots Fusiliers; Surgeon-Lieutenant E. R. W. SPRATLY, 1st Volunteer Battalion the Cheshire Regiment.

Mr. DONALD LAMOND, M.B., is appointed Surgeon-Lieutenant in the 1st (Ross Highland) Volunteer Battalion the Seaforth Highlanders.

## "THE STUDENT."

WE have received with pleasure a copy of a weekly periodical with the above name, published in connection with the University of Edinburgh. It contains, among other matter, a notice of the Army Medical Department, and of the causes which prevent young medical men from that great school entering that branch of the public service. The situation is evidently fully grasped, and the indifference of the War Office to the claims of medical officers should, it says, be met by "a petition or protest from the universities of Scotland, who for many years have furnished recruits for the Army Medical Department." We wish our young contemporary success in fighting that battle.

## THE SIR GILBERT BLANE MEDAL.

THE Sir Gilbert Blane gold medal, which, according to the trust, is awarded every two years to each of the two medical officers of the Royal Navy who shall produce the most approved journals of their practice, "in the form in which they have been kept from day to day," while in medical charge of a ship of war in the Royal Navy, has been awarded to Fleet-Surgeon E. H. Saunders for his journal of H.M.S. *Nile* and Surgeon V. G. Thorpe for his journal of H.M.S. *Penguin*.

## THE OPERATIONS IN MATABELELAND AND MASHONALAND.

THE *London Gazette* of February 9th contains despatches from Sir F. Carrington, the general in command of the forces during the recent operations against the rebels in Matabeleland and Mashonaland. After speaking of the valuable services rendered by all the troops under his command during the arduous work of the campaign, Sir F. Carrington draws special attention to the services of some of the officers, and speaks thus of the medical officers: "Surgeon-Lieutenant-Colonel Gormley acted as Principal Medical Officer on my staff. He accompanied the mixed force to the Shangani, and accompanied me through Matabeleland and Mashonaland.....Surgeon-Captain C. H. Hale did much good work in Mashonaland, especially at the operations against Mashingombi." Of the medical officers belonging to the local forces the following mention is made: "Dr. Strong, Principal Medical Officer to the forces in Matabeleland, organised a medical staff corps and field hospital under great difficulties with complete success. Dr. Sutcliffe, Dr. Redpath (of the Red Cross Society), rendered most valuable services in the field hospital. Their skill and readiness were very conspicuous."

## WOOLWICH AND SANDHURST.

THE report of the Board of Visitors for the year 1896 has been published. So far as sanitary points are concerned, the following is, briefly, what has been noted: At the Royal Military Academy, Woolwich, the health of the cadets was very good. The average daily sick had been 1.92 out of an average strength of 174—a daily percentage of 1.1. It is stated that accommodation has been provided at the Herbert Hospital for infectious cases. Such a recommendation has been made for years past, and the need was much felt. The medical officer of the Academy reported himself satisfied with the sanitary condition and with the quality of the supplies. The Board, however, recommended a regular periodical testing of the drains. The Board is not satisfied with the time-table as regards hours of meals. The quality of the gas supply is stated to be bad. The area for outdoor games is too limited, and the Board consider more space a "matter of urgency."

As to the Royal Military College at Sandhurst the average daily sick had been 4 with an average strength of 360—a daily percentage of 1.1. A mild form of influenza had occurred. The Board express regret that no steps have been taken to improve the canteen arrangements used by the subordinates, some 200 in number. The food was of good quality; the Board are not satisfied with the kitchen arrangements at the College. The food is badly served owing to want of means for keeping it hot after it has been dished. There is no suitable place for keeping the milk and butter; and it is recommended that the kitchen be rearranged under expert advice. The Board consider that some light refreshment is necessary between breakfast and lunch.

A covered swimming bath would be highly desirable, and a qualifying examination in swimming both at Woolwich and Sandhurst is suggested by the Board of Visitors. The gas supply at Sandhurst also is stated to be inferior.

## VENEREAL DISEASES AMONG THE TROOPS IN INDIA.

A DISTINGUISHED army medical officer sends us notes on this most important subject as follows:

Public attention being directed to the lamentable extent of these diseases among our soldiers in India, the destructive type of Indian syphilis must also be kept in view before the true proportions of the evil can be estimated.

Syphilis in the East among Europeans shows special malignity, and with no tendency to assume a milder form as in this country. It is difficult to account for this virulence, which, as Alfred Cooper says, is "a subject which has not yet received much attention." Years ago, in Netley Hospital, the writer was surprised at the extreme potency of the syphilitic virus displayed among soldiers invalided from India. It was clear some other factors were at work in these cases besides the virus itself, for the constitutional wreckage was fearful. He ascribed it at the time to a combination of the syphilitic and malarial cachexiæ; a mixture which attacked every tissue, from the hair to the bones. It is stated that Mr. Jonathan Hutchinson and other specialists recognise such combinations, especially between the syphilitic and tuberculous diathesis. The syphilitic virus apparently aggravates cachexia arising from whatever cause, and particularly all affections connected with defective nutrition. Persons of a strumous type are specially sensitive to syphilitic poison: those of a neurotic or rheumatic habit suffer less, but live to disseminate the taint.

The actual number of our soldiers constantly sick from venereal diseases represents but a fraction of the waste going on in the ranks from these affections. Especially is the connection between syphilis and circulating diseases, which cause a large amount of invaliding, well recognised. Much of the rheumatism, eye and ear affections, as well as nervous and mental disorders, which cause so much invaliding and loss, clearly springs from syphilis. So also skin diseases, including the intractable and destructive Delhi sores. The indirect moral effect is also the cause of much drunkenness. The loss to the country and to the working classes, from which the ranks are mostly filled, is incalculable.

The effect on recruiting is also very bad; when recruits see the shocking wrecks discharged from the army they naturally dread to follow in their footsteps. The disease is also disseminated among the home population. Berkeley Hill states that 43 per cent. of the out-patients annually treated at Guy's Hospital have a syphilitic taint. It is impossible to regard an army saturated with syphilis as efficient; no amount of skilful military tactics or strategy will make up for physical defect and weakness among the rank and file.

The nation must face facts, and not be dominated by misguided sentiment: 50,000 of its youth are annually drafted into the army, and a large number of these men are physically ruined by venereal diseases, which can just be as successfully combated by preventive sanitary measures as cholera or small-pox. The Government of India should be allowed a free hand in this matter; and, if it fails, then it should come under liability the same as any other employer of labour. The system of short service, and the return into civil life annually of a large number of men increase the risks of unlimited contamination of the population at home, and also gravely increase the responsibility of those who, from ill-directed moral sentiments, refuse to allow venereal diseases to be met in the same way of prevention as any other which afflict mankind.

## "SQUEEZING OUT."

LOOKER-ON writes: The injustice of debarring Surgeon-Colonels of promotion, because over 57 years of age (which, by the way, has never been officially promulgated), together with the granting of extension of time to certain Surgeon-Major-Generals, is one of the causes of the present unpopularity of the Army Medical Service. The existing system and policy is to squeeze out all Surgeon-Colonels, Brigade, and Surgeon-Lieutenant-Colonels who can be brought to retire. With such depletion at the top, and no candidates, the department will soon be *non est*. It is time the Commander-in-Chief instituted inquiry.

*** The Commander-in-Chief must be perfectly well aware of the condition of affairs. It is not inquiry, but speedy and definite reforms, that are wanted.

### MEDICAL GRIEVANCES.

A.M.S. writes: I am deeply grateful for the stand the BRITISH MEDICAL JOURNAL and the Parliamentary Bills Committee are making on behalf of medical officers. The Indian papers are discussing what has been called the "glaring scandal" of the trial by court-martial of a surgeon-major without a single medical officer on the court. Surely the prisoner's own department should have been represented at the trial.

### MEDICAL STAFF IN INDIA.

SIXTEEN YEARS' SERVICE writes: The Medical Staff have many real troubles in India, so that it is undesirable small complaints should be ventilated. One of your correspondents complains of the pressure of "famine" prices on junior medical officers; but this misfortune is shared by all, and therefore not a complaint for the medical more than other officers. Then I do not agree with him that surgeon-majors monopolise the extra-paid appointments, they, in truth, are nearly all held by surgeon-captains, as anyone can verify. Your correspondent's experience of India cannot be very extended, and he should avoid trivial complaints and obvious inaccuracies.

# MEDICO-LEGAL.

### MEDICAL EXPERTS: PROPOSED LEGISLATION IN AMERICA.

THE Committee on Legislation appointed at a recent meeting of the Minnesota State Medical Society has prepared a Bill dealing with the matter of medical expert testimony for presentation to the Legislature in the present session. The Bill makes it the duty of the prosecuting attorney in all criminal cases in which medical testimony is to be called to apply for the appointment by the Court of a commission of experts. In civil cases it is provided that either party to the action may apply for the commission, and if it appears to the Court that medical expert testimony will probably be necessary and material under the issues joined, the Court or judge may, upon being informed of the nature of the matters upon which it is desirable to have the opinion of such experts, appoint such number of persons, not fewer than three nor more than five, having the special qualifications prescribed in the Act. Each witness so appointed must make a solemn declaration that he has not communicated with, nor been communicated with, by any person except the other expert witnesses appointed by the Court touching the action or any of the matters or things concerning which he has been summoned to testify. The expert witnesses appointed under the Act may be examined and cross-examined at the trial in the same manner as other expert witnesses; but if upon preliminary cross-examination with reference to his qualifications it shall appear that he has given any information or expressed any opinion to any person other than the experts associated with him, his appointment shall be forthwith revoked, and he shall be allowed no compensation as an expert in the action. In criminal cases it is provided that each expert witness shall receive such compensation as the Court in its order of appointment shall prescribe, which shall be not less than 10 dollars (£2) nor more than 100 dollars (£20) per diem while in actual attendance at the trial, with mileage to the same amount as is allowed to other witnesses, these charges to be paid by the county. In civil actions it is provided that the party applying for the appointment of such experts shall give security (to be approved by the Court or the judge) for the payment of the fees and mileage, the amount being the same as in criminal trials.

### PROFESSIONAL SECRECY.

DR. F. L. HALL, a member of the Illinois State Legislature, has introduced the following Bill in that body:

A Bill for an Act to provide for secrecy in communications between physicians and patients in suits at law or in chancery, where the patient is a party in interest to such suit.

SECTION 1. Be it enacted by the People of the State of Illinois, represented in the General Assembly, that no person duly authorised to practise as a physician or surgeon shall be compelled or permitted as a witness in the trial of any cause at law or in chancery in this State wherein his patient is a party in interest to such cause, to disclose any information which may be acquired in advising or attending any patient in a professional character, and which information was necessary to enable him to advise or prescribe for such patient as his physician, or to do any act for him as a surgeon, unless the consent of the patient to the making of such disclosure is first had and obtained.

### DENTAL PROSECUTION AT EDINBURGH.

WE learn from the *Edinburgh Evening Despatch* that Alexander Emslie was prosecuted at the Sheriff Court on March 4th under the Dental Act, 1878, for taking and using a name, title, addition, or description implying that he was qualified to practise dentistry. The prosecution was at the instance of the British Dental Association. The defendant was convicted and fined £3 3s. and £2 2s. costs. At the same Court another person was charged with similar contravention of the Act, but the case was not concluded at the first hearing and was adjourned for a week.

### RICHARDS v. THE QUEEN.

IT will be remembered that at the Swansea assizes in November a medical practitioner named Richards and an unqualified person named Jones were put upon their trial charged with the alleged murder of a woman named Lily Maud Challenger, who it was said died after an illegal operation had been performed. The indictment was of the ordinary kind, that the "prisoners of their malice aforethought did kill and murder the woman." At the trial Mr. Justice Mathew in summing up told the jury that they could find Richards guilty of being an accessory after the fact. The jury returned a verdict of "guilty of manslaughter" against Jones and of being an accessory against Richards. At the Court of Queen's Bench, before Justices Cave and Wright, on March 3rd, this verdict, according to the report in the *Morning Advertiser*, was set aside as far as Mr. Richards was concerned. It was argued successfully that a man indicted originally as a principal could not afterwards be convicted as an accessory after the fact to the crime for which he was so indicted. It was not competent, the counsel contended, for the jury on this indictment to find Richards guilty of being an accessory after the fact, and therefore the plaintiff in error was entitled to judgment in his favour. The Attorney General stated that he could not resist the application. It seemed to him that as long as the law stood as at present, where there was only a count in the indictment for murder, the prisoner arraigned on that count could not be convicted of being an "accessory" after the fact. Mr. Justice Cave gave judgment for the plaintiff in error, and an order for his immediate release.

### FEES TO MEDICAL WITNESSES AT CORONERS' INQUESTS.

N. E., who is one of four unsalaried medical attendants at a cottage hospital, was summoned to give medical evidence at an inquest on the body of a man whom he had attended for a fortnight in the hospital, and who had died from the effects of an injury. After hearing all the evidence and the verdict having been given, the coroner said he was sorry he could give our correspondent no fee, it being contrary to the Act, as the man had died in the hospital.

*** It is provided by the Coroners' Act, 1887, that where an inquest is held on the body of a person who has died in a public hospital, infirmary, or other medical institution, the medical officer whose duty it may have been to attend the deceased person as medical officer of such institution shall not be entitled to the prescribed fee or remuneration for attending to give evidence at an inquest. No distinction is made in the Act between a salaried and an unsalaried medical officer. We concur with our correspondent in his opinion that a hardship is thus often inflicted on country practitioners who must travel some distance and waste valuable time without fee or reward, and this remark as to hardship probably applies to other practitioners also. We are advised that it would not be open to a medical witness at an inquest to refuse to be sworn unless his fee was paid, as would be the case in civil actions.

### MEDICAL WITNESSES' FEES AT INQUESTS.

C. F. H. writes: I am subpœnaed to attend an inquest on the bodies of two persons murdered. At the opening of the inquest at which I was present there was an adjournment for a month, and I am again subpœnaed and again attend; there is a second adjournment, and I am subpœnaed a third time. I give my evidence and am tendered and accept two guineas under protest, feeling assured that I am at least entitled to three guineas. I am informed by the coroner that the fee of two guineas is for giving evidence respecting the death of two persons.

*** We fear that the sum of two guineas is all that our correspondent can claim, and that the coroner was right. The coroner can only pay the fees prescribed by the Act of 1887, although under the circumstances of this case they are clearly inadequate.

### THE PHARMACY ACT AND THE TITLE OF "CHEMIST."

JUSTITIA.—It is provided by the Pharmacy Act, 1868, that it shall be unlawful for any person to sell or keep open shop for retailing, dispensing, or compounding poisons, or to assume or use the title of "chemist" or "druggist" . . . . in Great Britain, unless he shall be registered under that Act, and conform to the regulations as to keeping, dispensing, and selling poisons as may from time to time be prescribed by the Pharmaceutical Society. A reference to the *Register of Chemists and Druggists*, which is published annually, will disclose whether the persons referred to are registered or not. If one only of the persons referred to is registered, or if any sale of poisons by the unqualified person can be established, the matter should be brought to the notice of the Pharmaceutical Society, 17, Bloomsbury Square, W.C., who (if they deemed the case a proper one in which to sue) would doubtless take the necessary proceedings for enforcing the prescribed penalty.

# MEDICO-PARLIAMENTARY.

## *HOUSE OF LORDS.*

### PROTECTION OF INFANT LIFE.

THE EARL OF DENBIGH has introduced a Bill to amend the law for the better protection of infant life.

### THE DUBLIN EYE AND EAR HOSPITAL BILL.

This Bill, which has passed through Committee in their lordships' House unopposed, was on Tuesday reported with amendments.

## *HOUSE OF COMMONS.*

### SUICIDE BY THE INSANE.

Mr. WILLIAM CORBET asked the Home Secretary if he would give a return for the year 1896 of the insane who committed suicide (in continuation of Parliamentary Paper, No. 262, of Session 1896).—THE HOME SECRETARY: I am not aware that any useful purpose would be served by continuing the return which was granted the hon. member last year, and, as it proved a very troublesome one to prepare, I am afraid I must decline to do it. The number of insane persons generally who committed suicide will, of course, appear in the judicial statistics in the ordinary way.

### PRIVATE ASYLUMS.

Mr. FIELD asked the Secretary of State for the Home Department whether the Government would consider the advisability of the suppres-

sion of private asylums, and make other and more suitable provision for paying patients.—The HOME SECRETARY: No, sir. I am not aware of any sufficient reason for disturbing the arrangement made only six years ago by Parliament with regard to licensed houses.

ENTERIC FEVER IN INDIA.

In reply to General RUSSELL, Lord G. HAMILTON said: I have noticed with regret the increase of enteric fever in India, the causes of which are still very obscure. The Government of India have adopted various measures for improving the sanitation and water supply of cantonments, and the question as to the means of checking this disease is one which is constantly engaging their attention.

POOR-LAW SCHOOLS.

Mr. COHEN: I beg to ask the President of the Local Government Board if he will lay upon the table of the House the answers he has received from the guardians at the various metropolitan parishes to the draft order prepared by the Local Government Board for placing certain classes of children under the care of a new central authority in London.—Mr. CHAPLIN: In a large proportion of the communications I have received on the subject I was asked to defer a decision until a conference was held on the subject. This conference was held on February 26th, and resolutions were passed by large majorities to the effect (1) that it was desirable that separate provision such as is indicated in the draft order should be made for certain special classes of children, and (2) that it should be urged upon the Local Government Board, before constituting a new Board, to consider whether the duties created by the new order might not with advantage be conferred on some existing authority or authorities. At the conference referred to every Board of Guardians and the managers of each district school in the metropolis were represented by delegates, and I have received no communication from any Board of Guardians on the subject since the conference took place.—Mr. LOUGH asked if the right hon. gentleman would consider favourably the recommendation to reconsider the decision to consider a new authority rather than give the work over to one of the existing authorities.—Mr. CHAPLIN: The whole matter is under consideration.—Mr. PICKERSGILL asked the President of the Local Government Board whether, inasmuch as the priority given to the Education Bill has deprived the House of an opportunity which had been obtained for the discussion of his draft order relating to Metropolitan Poor-law Schools, he would postpone the final issue of the order until the House had been enabled to consider the matter, either on the vote for the Local Government Board or on some other occasion.—Mr. T. W. RUSSELL: I see no sufficient reason for deferring a decision with regard to this matter, and I cannot give any such assurance as is suggested.—Mr. PICKERSGILL subsequently put the same question to the First Lord of the Treasury.—Mr. BALFOUR: I cannot give any pledge as to the date on which the Vote for the Local Government Board will come on, but I think it comes generally within the terms of the statement I made on a previous occasion, namely, that the important votes put off towards the end of last session would have some advantage in point of priority in the present session.

THE MUZZLING ORDER.

In reply to Mr. STEPHENS, Mr. W. LONG said: The new orders which I have it in contemplation to make with regard to rabies will be issued with the least possible delay, but I would point out that those orders are intended to give effect to the recommendation of the Departmental Committee that a determined and systematic attempt should be made to stamp out rabies not only in the metropolitan area, but throughout the United Kingdom. The adoption of this policy involves the settlement of several difficult questions, which are now engaging my active consideration, but in any event adequate notice of the new requirements must be given to the public before they can take effect. In these circumstances I have suggested for the consideration of the Middlesex County Council whether the most convenient course to be taken by them during the interim would not be that their regulations should be brought into harmony with those now in force in the other districts comprised within the metropolitan area.—Mr. STEPHENS asked whether the right hon. gentleman meant that the Middlesex County Council should take off the order now?—Mr. W. LONG: The Middlesex County Council must take the course which in their judgment is the best in the interests of those over whom they have jurisdiction. I think it may be more convenient that there should be an interregnum.

ADULTERATION OF FOOD PRODUCTS.

Mr. KEARLEY asked the First Lord of the Treasury whether the Government had come to any decision as to the introduction this session of a Bill to carry out the recommendations of the Select Committee on Food Products Adulteration.—Mr. BALFOUR: The President of the Local Government Board said the other day that the introduction of a Bill would depend on the course of public business. I cannot add anything to that.

NOTICES.

Mr. WILLIAM CORBET proposes to call attention to the annually increasing numbers of the insane, not only in the United Kingdom, but in every civilised country of the world; and to move that it is desirable, in the interests of humanity, steps shall be taken to convene an international conference to inquire into the cause of such increase, and to report whether any and what measures can be adopted to arrest the spread of the disease.

Major RASCH will call attention to the health of the British army in India; and move a resolution.

Mr. HEYWOOD JOHNSTONE has given notice of his intention on Monday, March 15th, to move for a return showing in each union in England and Wales (1) the number of confinements in the workhouses in 1896; (2) the number of orders given to visiting medical officers in respect thereof, under Article 182 of the General Order of the Poor Law Commissioners of July 24th, 1847; (3) total amount paid to the medical officers in respect of such orders; (4) the number of orders given to district medical officers under Article 182 in respect of confinements other than in the workhouse in 1896; (5) total amount paid to the medical officers in respect of such orders; (6) the number of orders given to district medical officers in 1896 under Article 183; (7) total amount paid in respect of such orders; and (8) number of district nurses appointed under the General Order of the Local Government Board of January 29th, 1892.

Mr. STEPHENS proposes to ask the President of the Board of Agriculture whether he is aware that a dog was killed by the police at Hendon on March 4th, and that, upon *post mortem* by the county veterinary inspector rabies was found to be markedly present; and whether further effort can be made to expedite the completion of arrangements for the muzzling order he has decided to issue.

Major RASCH has postponed till Tuesday his notice to ask the First Lord of the Treasury whether, on the Report of the Departmental Committee on the health of the British troops in India, the Government will give facilities for its discussion.

PETITIONS.

The Scottish Trade Protection Society has presented a petition in favour of the Plumbers' Registration Bill. They have also petitioned against the Shop Assistants (Half Holiday) Bill, and the Shops Bill.

NOTES.

POOR-LAW SCHOOLS.

Mr. Pickersgill placed on the notice paper the following resolution for Tuesday, March 9th, namely: "That this House deprecates the formation of the proposed Metropolitan Children's Asylums Board, on the ground that it will add to the confusion of authorities and to the cost of administration, and that the provisional purposes which alone it is intended to serve might, if necessary, be attained by the utilisation of existing agencies, and further, this House is of opinion that the real needs of the case can be permanently satisfied only by the constitution of one Central Metropolitan Authority for the maintenance of the children of the State, which should be completely separated from the administration of Poor-law relief." The hon. member who put the notice on the paper had, of course, no expectation that it could be taken on Tuesday, that day being in the hands of the Government for their Voluntary Schools Bill. His desire, however, is to keep the subject of the report of the Committee on Poor Law Schools, and the Draft Order of the President of the Local Government Board, before the notice of the House.

The Earl of Dunraven, who proposes to call attention to the prevalence of disease amongst hill troops, especially in India, and who had fixed March 12th for raising the subject in the House of Lords, has postponed the matter until after Easter. It is understood that this arrangement has been made to meet the convenience of peers who desire to take part in the discussion.

The sum which the House of Commons is asked to vote to defray the expense of medical services, including the cost of medical establishments at home and abroad, is £161,400 as compared with £156,200, the estimate for the financial year now drawing to a close, the increase being, therefore, £5,200. The subhead under which the largest increase comes is that for hospitals and infirmary provisions and stores, medicines and instruments, £3,000. There is also a sum of £1,000 subsistence, etc., to seamen at sick quarters, etc., not in charge of naval officers. The sum proposed to be taken as regards contributions in aid of lock wards at Portsmouth and Devonport Hospitals and the Lock Hospital at Hong Kong is £2,350, being the same as the estimate for the current year.

A Bill to restrict the hours of labour in bakehouses to forty-eight hours per week has been brought in by Mr. Woods, Mr. John Burns, Mr. Lough, Mr. Holborn, Mr. Samuel, and Mr. Arch.

The second reading of the Poor-law Officers' Superannuation Act (1896) Amendment Bill has been formally postponed until Monday. There is, of course, no prospect of the stage being taken on that day.

# PUBLIC HEALTH
## AND
## POOR-LAW MEDICAL SERVICES.

## NOTES ON WORKHOUSES.

### SMALLBURGH UNION, NORFOLK.

WE have commented in severe terms on the want of cleanliness in the Irish workhouses, but we must look at home. A correspondent sends us a press report of Smallburgh Workhouse, where the visits of a lady guardian elicited the fact that there were no appliances for keeping the inmates or their clothing clean. Smallburgh is a large house with a very small number of inmates; one of the houses that we recommended should be closed, so that there should be no difficulty in finding space for baths and lavatories, or for providing for the isolation of those whose clothes or persons require such treatment. It is a scandal on a public body that these lapses in the elementary principles of proper management should be incessantly recurring, and incidentally it shows the value of these surprise visits.

THE INSPECTOR ON SICK NURSING IN THE DERRY WORKHOUSE. THERE is a thoughtful leader in the *Derry Journal* on this subject. The inspector, when he met the guardians, placed before the Board its plain duty to the sick under its care. Especially he drew their attention to the serious and dangerous position of the wards at night, left in the charge of a "probationer" (the number of patients being rarely under sixty), and to this was added the charge of the infirm wards, these wards, be it noted, being in a separate block at a little distance. The inspector urged the guardians to appoint a trained nurse; but, with all due deference to official opinion, we say that is not the remedy. How can one nurse, however well trained, nurse sixty or more patients through the night? By all means have the trained nurse, but give her two or three probationers, and then the nursing may be something worthy of the name. The whole article is worthy of careful study, especially its arguments to the point that economy if necessary is not to be carried out at the expense of the sick and infirm. For the condition of Derry Workhouse Infirmary we refer our readers to the report of our Commissioner, published in the BRITISH MEDICAL JOURNAL of November 16th, 1895.

## THE DEATH RATES OF LONDON SANITARY AREAS IN 1896.

IN the accompanying table will be found summarised the vital statistics of the forty-three sanitary areas of the metropolis, based upon the Registrar-General's returns for the year 1896. The mortality figures relate to the deaths of persons actually belonging to the respective sanitary areas, and are the result of a complete system of distribution of deaths occurring in the public institutions of London among the various sanitary areas in which the patients had previously resided.

The 135,796 births registered in London during 1896 were equal to an annual rate of 30.2 per 1,000 of the population, estimated at 4,421,955 persons in the middle of that year. In the three preceding years the birth-rate was 30.9, 30.1, and 30.5 per 1,000 respectively. In the various sanitary areas the birth-rates showed, as usual, wide variations, owing principally to the differences in the age and sex distribution of their populations. In Kensington, St. George Hanover Square, St. James Westminster, Hampstead, St. Martin-in-the-Fields, and London City, the birth-rates were considerably below the average; while they showed a marked excess in St. Luke, Shoreditch, Bethnal Green, Whitechapel, St. George-in-the-East, Mile End Old Town, and St. George Southwark sanitary areas.

The deaths of persons belonging to London registered during the year were 81,721, equal to an annual rate of 18.2 per 1,000 of the population, against 20.9, 17.4, and 19.4 in the three preceding years. The rate in 1896 was 1.6 per 1,000 below the mean rate in the ten preceding years, 1886-95, and with one exception was lower than in any year on record. The lowest death-rates last year in the forty-three sanitary areas were 11.9 in Hampstead, 12.7 in Stoke Newington, 13.4 in Lee, 13.6 in St. George Hanover Square, 14.3 in Wandsworth and in Lewisham, and 15.3 in Paddington; in the other districts the rates ranged upwards to 22.7 in Strand, 22.8 in St. Saviour, Southwark, 22.9 in Limehouse, 23.4 in Holborn, 24.0 in St. George Southwark, 24.5 St. George-in-the-East, and 25.1 in St. Luke.

During the year under notice 14,000 deaths resulted from the principal zymotic diseases in London: of these, 3,692 were referred to measles, 3,192 to diarrhœa, 2,931 to whooping-cough, 2,663 to diphtheria, 940 to scarlet fever, 582 to different forms of "fever" (including 5 to typhus, 564 to enteric fever, and 13 to simple and ill-defined forms of fever), and 9 to small-pox. These 14,009 deaths were equal to an annual rate of 3.11 per 1,000, against 3.05, 2.64, and 2.62 in the three preceding years; this rate exceeded by 0.40 per 1,000 the mean rate in the ten years 1886-95, and was higher than the rate recorded in any year since 1887, when it was also 3.11 per 1,000. In the various sanitary areas the zymotic death-rates ranged from 1.39 in St. George Hanover Square, 1.44 in London City, 1.83 in Hampstead, 1.88 in Lee, 2.15 in Westminster, and 2.24 in St. James Westminster to 3.02 in Woolwich, 3.94 in Chelsea, 3.99 in Limehouse, 4.24 in St. George Southwark, 4.25 in Bethnal Green, 4.31 in Shoreditch, and 4.81 in St. Olave Southwark. Compared with the averages in the ten preceding years, the mortality from small-pox, scarlet fever, and "fever" was below the average, while that from each of the other zymotic diseases showed an excess. The 9 fatal cases of small-pox registered in London last year showed a further decline from the numbers recorded in the three preceding years, and included 2 which belonged to Lambeth, 2 to Greenwich, and 1 each to Paddington, Islington, Holborn, Shoreditch, and Newington sanitary areas. During the year under notice 236 cases of small-pox were admitted into the Metropolitan Asylums Hospital, and only 3 remained under treatment at the end of the year. Measles caused the highest proportional fatality in St. James Westminster, St. Marylebone, Strand, Shoreditch, Bethnal Green, St. George Southwark, and Woolwich sanitary areas. Scarlet fever was proportionately most fatal in St. Luke, Shoreditch, St. George-in-the-East, Mile End Old Town, St. Olave Southwark, and Plumstead sanitary areas; 16,271 scarlet fever cases were admitted into the Metropolitan Asylums Hospitals during 1896, and 3,599 patients remained under treatment at the end of December last. Diphtheria caused the highest proportional fatality in Chelsea, Islington, Limehouse, Mile End Old Town, St. Olave Southwark, Bermondsey, Camberwell, Greenwich, Lewisham, and Plumstead sanitary areas; there were 5,409 admissions of diphtheria patients into the Metropolitan Asylum Hospitals during last year, and 829 cases remained under treatment at the

*Analysis of the Vital and Mortal Statistics of the Sanitary Districts of the Metropolis, after Distribution of Deaths occurring in Public Institutions, during the Year 1896.*

| SANITARY AREAS. | Estimated Population middle of 1896. | Births. | Deaths | Annual Rate per 1,000 Living. Births. | Deaths. | Principal Zymotic Diseases. | Deaths from Principal Zymotic Diseases. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-Cough. | Typhus. | Enteric Fever. | Simple and Undefined Fever. | Diarrhœa. | Phthisis. | Deaths of Children under 1 year of age to 1,000 births. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LONDON | 4,421,955 | 135,796 | 81,721 | 30.2 | 18.2 | 3.11 | 14,009 | 9 | 3,692 | 940 | 2,663 | 2,931 | 5 | 564 | 13 | 3,192 | 7,567 | 160 |
| *West Districts.* | | | | | | | | | | | | | | | | | | |
| Paddington | 124,838 | 3,068 | 1,947 | 24.2 | 15.3 | 2.52 | 320 | 1 | 103 | 22 | 65 | 49 | — | 13 | 1 | 66 | 161 | 156 |
| Kensington | 170,680 | 3,719 | 2,314 | 21.4 | 16.8 | 2.65 | 459 | — | 173 | 40 | 70 | 99 | — | 10 | 1 | 60 | 247 | 178 |
| Hammersmith | 104,551 | 3,007 | 1,828 | 28.3 | 17.2 | 2.80 | 298 | — | 62 | 21 | 52 | 62 | 1 | 13 | 2 | 85 | 149 | 179 |
| Fulham | 115,068 | 4,068 | 2,057 | 34.8 | 17.6 | 3.59 | 419 | — | 101 | 29 | 77 | 69 | — | 9 | — | 134 | 194 | 175 |
| Chelsea | 96,657 | 2,651 | 1,850 | 26.9 | 18.8 | 3.94 | 388 | — | 110 | 23 | 115 | 63 | — | 10 | 1 | 66 | 179 | 168 |
| St. George Hanover Sq. | 80,041 | 1,407 | 1,108 | 17.3 | 13.6 | 1.39 | 112 | — | 32 | 11 | 24 | 16 | — | 9 | — | 20 | 104 | 149 |
| Westminster | 53,477 | 1,223 | 978 | 22.5 | 18.0 | 2.15 | 117 | — | 18 | 10 | 20 | 25 | — | 9 | — | 35 | 122 | 170 |
| St. James Westminster | 22,955 | 496 | 397 | 21.3 | 17.0 | 2.24 | 52 | — | 31 | 3 | 2 | 3 | — | 3 | — | 10 | 44 | 149 |
| *North Districts.* | | | | | | | | | | | | | | | | | | |
| Marylebone | 141,114 | 4,416 | 2,855 | 30.8 | 19.9 | 3.16 | 453 | — | 195 | 26 | 74 | 70 | — | 20 | — | 68 | 280 | 141 |
| Hampstead | 75,812 | 1,462 | 916 | 19.0 | 11.9 | 1.83 | 141 | — | 58 | 7 | 30 | 22 | — | 7 | — | 17 | 86 | 123 |
| St. Pancras | 241,066 | 7,040 | 4,442 | 28.7 | 18.1 | 2.47 | 608 | — | 133 | 37 | 99 | 128 | — | 31 | — | 180 | 474 | 168 |
| Islington | 337,639 | 9,924 | 5,871 | 28.9 | 17.1 | 3.04 | 1,043 | 1 | 275 | 57 | 255 | 247 | — | 47 | 1 | 160 | 499 | 150 |
| Stoke Newington | 33,615 | 841 | 434 | 24.6 | 12.7 | 2.35 | 80 | — | 5 | 8 | 19 | 16 | — | 5 | — | 27 | 28 | 126 |
| Hackney | 213,774 | 6,435 | 3,414 | 29.6 | 15.7 | 2.81 | 612 | — | 95 | 36 | 103 | 147 | 1 | 37 | 1 | 192 | 306 | 146 |
| *Central Districts.* | | | | | | | | | | | | | | | | | | |
| St. Giles | 38,158 | 1,054 | 737 | 27.4 | 19.0 | 2.29 | 89 | — | 41 | 7 | 7 | 14 | — | 4 | — | 16 | 113 | 147 |
| St. Martin-in-the-Fields | 13,003 | 214 | 214 | 16.2 | 16.2 | 2.28 | 30 | — | 11 | 3 | 3 | 5 | — | 3 | — | 5 | 26 | 164 |
| Strand | 23,820 | 570 | 550 | 23.5 | 22.7 | 2.44 | 59 | — | 28 | 6 | 3 | 8 | — | 1 | — | 13 | 70 | 193 |
| Holborn | 30,932 | 883 | 736 | 28.1 | 23.4 | 3.21 | 101 | 1 | 33 | — | 12 | 27 | 1 | 5 | — | 22 | 102 | 194 |
| Clerkenwell | 66,195 | 2,223 | 1,393 | 33.7 | 20.7 | 3.78 | 255 | — | 53 | 15 | 42 | 42 | — | 15 | — | 88 | 145 | 184 |
| St. Luke | 41,478 | 1,568 | 1,059 | 46.7 | 25.1 | 3.82 | 101 | — | 35 | 21 | 26 | 23 | — | 4 | — | 52 | 123 | 154 |
| London City | 31,409 | 546 | 626 | 17.1 | 19.6 | 1.44 | 46 | — | 6 | 7 | 11 | 7 | — | 10 | — | 5 | 51 | 137 |
| *East Districts.* | | | | | | | | | | | | | | | | | | |
| Shoreditch | 122,265 | 4,387 | 2,636 | 35.9 | 21.4 | 4.31 | 536 | 1 | 143 | 39 | 74 | 126 | — | 17 | — | 136 | 232 | 180 |
| Bethnal Green | 129,151 | 4,869 | 2,902 | 37.8 | 22.1 | 4.25 | 557 | — | 153 | 35 | 75 | 160 | — | 20 | 1 | 113 | 236 | 170 |
| Whitechapel | 78,886 | 3,241 | 1,955 | 41.6 | 20.6 | 2.62 | 210 | — | 51 | 20 | 48 | 36 | — | 9 | 1 | 45 | 193 | 141 |
| St. George-in-the-East | 47,589 | 2,098 | 1,187 | 44.5 | 24.5 | 3.26 | 158 | — | 28 | 18 | 30 | 17 | — | 5 | — | 60 | 124 | 154 |
| Limehouse | 58,347 | 2,042 | 1,357 | 35.2 | 22.9 | 3.99 | 236 | — | 62 | 15 | 49 | 61 | — | 3 | — | 46 | 133 | 176 |
| Mile End Old Town | 111,226 | 4,300 | 2,252 | 39.0 | 19.9 | 3.61 | 409 | — | 84 | 34 | 97 | 83 | — | 16 | — | 95 | 156 | 157 |
| Poplar | 169,379 | 6,011 | 3,550 | 35.7 | 20.6 | 3.70 | 637 | — | 147 | 33 | 105 | 158 | — | 26 | — | 108 | 302 | 176 |
| *South Districts.* | | | | | | | | | | | | | | | | | | |
| St. Saviour Southwark | 25,276 | 790 | 587 | 30.9 | 22.8 | 3.23 | 83 | — | 17 | 5 | 18 | 19 | — | 1 | — | 23 | 80 | 213 |
| St. George Southwark | 60,301 | 2,213 | 1,472 | 36.9 | 24.0 | 4.24 | 260 | — | 77 | 17 | 40 | 55 | — | 7 | — | 64 | 165 | 181 |
| Newington | 121,191 | 4,276 | 2,527 | 35.7 | 20.5 | 3.35 | 410 | 1 | 98 | 29 | 71 | 66 | — | 18 | — | 127 | 245 | 184 |
| St. Olave Southwark | 11,673 | 419 | 261 | 35.4 | 22.0 | 4.81 | 57 | — | 11 | 5 | 9 | 13 | — | 2 | — | 17 | 26 | 153 |
| Bermondsey | 85,508 | 3,203 | 1,873 | 37.6 | 21.6 | 3.78 | 328 | — | 75 | 20 | 73 | 97 | — | 11 | — | 52 | 176 | 160 |
| Rotherhithe | 40,432 | 1,346 | 834 | 33.6 | 20.3 | 3.82 | 157 | — | 43 | 10 | 26 | 36 | — | 11 | — | 31 | 90 | 159 |
| Lambeth | 296,036 | 9,579 | 5,084 | 32.9 | 16.9 | 2.42 | 729 | 2 | 182 | 65 | 139 | 140 | 1 | 24 | 1 | 175 | 489 | 136 |
| Battersea | 165,864 | 5,358 | 2,985 | 33.0 | 17.7 | 3.64 | 614 | — | 179 | 32 | 82 | 138 | — | 16 | 1 | 166 | 242 | 177 |
| Wandsworth | 188,908 | 4,825 | 2,749 | 26.5 | 14.3 | 2.71 | 520 | — | 151 | 29 | 40 | 158 | — | 21 | — | 121 | 187 | 150 |
| Camberwell | 253,975 | 7,662 | 4,602 | 30.7 | 17.8 | 3.59 | 928 | — | 266 | 52 | 260 | 196 | 1 | 37 | — | 176 | 398 | 156 |
| Greenwich | 176,293 | 5,723 | 3,323 | 33.0 | 18.5 | 3.72 | 666 | 2 | 193 | 51 | 140 | 127 | — | 32 | 1 | 120 | 281 | 157 |
| Lee | 38,714 | 861 | 526 | 22.6 | 13.4 | 1.88 | 74 | — | 14 | 8 | 17 | 18 | — | 2 | — | 15 | 50 | 141 |
| Lewisham | 83,795 | 2,130 | 1,216 | 26.2 | 14.3 | 2.56 | 218 | — | 39 | 7 | 75 | 28 | — | 9 | — | 60 | 89 | 136 |
| Woolwich | 41,334 | 1,288 | 861 | 31.3 | 20.5 | 3.92 | 165 | — | 72 | 9 | 31 | 22 | — | 2 | 1 | 28 | 88 | 172 |
| Plumstead | 59,610 | 1,950 | 936 | 33.6 | 15.4 | 3.54 | 214 | — | 59 | 18 | 55 | 35 | — | 4 | — | 33 | 82 | 133 |

end of December. Whooping-cough was proportionally most fatal in Shoreditch, Bethnal Green, Limehouse, Poplar, St. George Southwark, St. Olave Southwark, and Bermondsey sanitary areas; enteric fever in St. Martin-in-the-Fields, Clerkenwell, City of London, and Rotherhithe sanitary areas; and diarrhœa in Fulham, Clerkenwell, St. Luke, Shoreditch, St. George-in-the-East, and St. Olave Southwark sanitary areas.

Infant mortality in London during 1896, measured by the proportion of deaths under one year of age to registered births, was equal to 160 per 1,000, and exceeded by 5 per 1,000 the mean rate in the ten preceding years. The lowest rates of infant mortality did not exceed 123 in Hampstead, 126 in Stoke Newington, 133 in Plumstead, 136 in Lambeth and in Lewisham, and 137 in City of London; while they ranged upwards in the other sanitary areas to 179 in Hammersmith, 180 in Shoreditch, 181 in St. George Southwark, 184 in Clerkenwell and in Newington, 193 in Strand, 194 in Holborn, and 213 in St. Saviour Southwark.

## HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,412 births and 3,822 deaths were registered during the week ending Saturday last, March 6th. The annual rate of mortality in these towns, which had been 18.8 and 19.4 per 1,000 in the two preceding weeks, declined to 18.1 last week. The rates in the several towns ranged from 12.6 in Derby, 12.9 in Croydon, 13.6 in Birkenhead, and 13.9 in Huddersfield, to 21.0 in Birmingham, 21.4 in Plymouth, 22.7 in Salford, and 23.0 in Norwich. In the thirty-two provincial towns the mean death-rate was 18.6 per 1,000, and exceeded by 1.2 the rate recorded in London, which was 17.4 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.6 per 1,000; in London the rate was equal to 1.6 per 1,000, while it also averaged 1.6 in the thirty-two provincial towns, among which the highest rates were 2.8 in Blackburn, 3.0 in Bolton, 3.4 in Salford, and 5.3 in Plymouth. Measles caused a death-rate of 1.2 in Salford, 2.6 in Bolton, and 3.2 in Plymouth; whooping-cough of 1.2 in Blackburn, 1.5 in Burnley, 1.6 in Swansea, and 2.1 in Plymouth. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 67 deaths from diphtheria in the thirty-three towns included 43 in London, 4 in West Ham, and 3 in Birmingham. Six fatal cases of small-pox were registered in London, but not one in any of the thirty-two large provincial towns. There were 43 cases of small-pox under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, March 6th, against 38, 34, and 43 at the end of the three preceding weeks; 6 new cases were admitted during the week, against 20, 3, and 18 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 3,050, 2,901, and 2,817 at the end of the three preceding weeks, had further declined to 2,746 on Saturday last; 211 new cases were admitted during the week, against 226, 227, and 237 in the three preceding weeks.

## HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 6th, 978 births and 743 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 28.8 to 25.3 per 1,000 in the three preceding weeks, further fell to 24.9 last week, but was 6.8 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rate ranged from 18.0 in Leith to 32.4 in Perth. The zymotic death-rate in these towns averaged 3.2 per 1,000, the highest rates being recorded in Glasgow and Perth. The 374 deaths registered in Glasgow included 18 from measles, 2 from scarlet fever, 3 from diphtheria, 24 from whooping-cough, 3 from "fever," and 9 from diarrhœa. Ten fatal cases of measles and 7 of whooping-cough were recorded in Edinburgh.

## POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

AT a meeting of the Council, held on the 23rd day of February, 1897, Mr. D. B. Balding, F.R.C.S., Chairman of Council, presided. Dr. W. Gayton was elected Treasurer in the place of Mr. C. M. Frost; Mr. Arthur Greenwood, Honorary Secretary, in the place of Mr. J. W. Barnes: Mr. F. H. Oliver, Auditor, in the place of Dr. W. Smith. The office of the Association was changed from 3, Bolt Court, Fleet Street, to 9, Copthall Avenue, London Wall, E.C., the offices of Messrs. Beckingsale and Co., solicitors to the Association.

It was unanimously resolved: "That the passing of the Poor-law Officers' Superannuation Act had by no means rendered the further existence of this Society unnecessary, and that it was highly desirable that the Poor-law medical officers of England and Wales should still have an Association to watch over and protect when necessary their special interests in the somewhat serious differences which of necessity occasionally arise between them and the various Boards under which they hold office."

Application was made by several public vaccinators that counsel's opinion should be taken respecting the legal position of those officers under the recent Superannuation Act, and after some discussion it was resolved that one-third of the cost of putting a case before some eminent counsel should be defrayed by the Association, if the remainder were subscribed by those of the class interested.

[The publication of this report was unavoidably delayed.]

## LEICESTER AND THE BATH TREATMENT OF FEVERS.

WE recently made some remarks upon a discussion between the Leicester Guardians and their medical officer in respect of the use of baths in the treatment of fevers. On February 18th we received copies of some Leicester journals containing letters and a report of a formal discussion of this subject at a weekly meeting held on the previous day. We are requested to comment upon these occurrences, but we must say with regret that they seem to us not very worthy either of the guardians themselves or of the medical officer; the former seem to have displayed a lack of common sense, and the latter of temper. The present is one of the daily instances of the propriety of discussing matters of this complexity in private, at any rate, in the first instance. Had the guardians approached their medical officer privately in a spirit of teachableness we feel sure that Dr. Bryan would have satisfied the guardians both on the questions of therapeutics and of his own openness of mind as a man of science, and explained to them the anxious responsibility of the arduous post which he holds. We trust that the two parties will meet thus on mutually courteous terms, and ascertain each other's points of view without all this parade of letters between the parties and angry comments in the council chamber. Nothing embroils such differences so much as letter writing.

The guardians are right in supposing that the bath has made great advances of late in the treatment of infectious fevers; it is certain, from the observations of Dr. Osler and many others, that by the systematic use of baths the mortality and duration of illness may be much reduced. On the other hand, the practice is in the experimental stage; it is very much disliked by the patients and their friends: it needs very close supervision by medical men and a picked staff of experienced nurses; and finally, if carried out in all cases, costly and cumbrous apparatus is required. Of all this Dr. Bryan was in a position to inform the guardians fully.

But can we wonder that Dr. Bryan is annoyed if, instead of inviting him to the meeting, and asking from him the information which he is well able to give on a subject which was first worked out by a physician of our own country and developed by many able physicians in England and on the Continents of Europe and of America, the guardians wrote letters to their medical officer in which, unintentionally enough no doubt, some assumption of his backwardness in learning or practice is implied; and in which, for his better understanding, he is referred to the assertions of some pragmatical amateur in physic? It is incredible that gentlemen who, as we gather from the letters, certainly desired to write with courtesy, should not have had sense of humour enough to avoid such a mistake. What if the manufacturers of Leicester in their turn had been lectured upon their ignorance, lack of enterprise, and blindness to the need of a higher technical education; and if, moreover, they had been assured of the truth of these allegations on the authority, let us say, of a medical man or of the bishop of the diocese? Would they not have lost their tempers and asked, as tartly as Dr. Bryan asks, whether they themselves were not the most likely persons to know how to manage their own businesses?

The guardians are within their duties when they offer to their medical adviser any facilities, however troublesome and expensive, which on consideration he may think may be introduced with advantage into the fever hospital. However, blundering as were the observations of the guardians, we do not see in their correspondence any intentional discourtesy. Long after the rest of the world, at any rate of the medical world, they seem to have heard of this water treatment: and they wanted to be informed about it. Now we think that Dr. Bryan, whose temper may perhaps have been irritated by previous badgerings, did not mend matters by the tone of his reply, nor by the incautiousness of some of his words, and thus in his haste he gave the clerk an opportunity of scoring some advantage, at any rate in discretion. If we may attempt to smooth these troubled waters in the interest of all parties, not forgetting the patients in the hospital, we would suggest that the guardians should seek a personal interview with Dr. Bryan, who, we feel sure, will explain to them fully and patiently the advantages and disadvantages of the water treatment, as set forth, for instance, in the recent report of Dr. Osler in the fourth volume of the *Johns Hopkins Reports* published at Baltimore in 1894. There (in respect of one of the fevers, namely, typhoid) the subject is thoroughly reported upon by a most eminent and able observer. In the next place, if the Chairman of the Board will accompany Dr. Bryan to one of the great fever hospitals such as the London Fever Hospital, the Stockwell Hospital under the management of Dr. Caiger, or the Homerton Hospital under Dr. Goodall, or, again, to the children's hospitals at Berlin or Munich under the care of Professors Baginsky and Ranke respectively, the latest experience of the treatment will be learned upon the highest available authority; but to refer a responsible medical officer for instruction in his own business not to the most eminent members of his own profession but to some obscure lay pretender to the art of medicine, must on consideration, we feel sure, appear to them as an idle, if not a ridiculous, thing. Doctors are at least as able and vigilant in their business as manufacturers.

We see by the *Leicester Post* of February 20th that Mr. Pickering was on the previous day fined £2 for removing a patient suffering from scarlet fever to his sanatorium in a cab.

## DIPHTHERIA IN BOARD SCHOOLS.

ON March 3rd Mr. Braxton Hicks held an inquiry at the Town Hall, Wandsworth, concerning the death of an infant living in Merton Road, Wandsworth, from diphtheria. The father stated that five of his six children had suffered from diphtheria, and that the first child attacked was his son who attended the Merton Road Board School and St. Michael's Sunday School. The coroner said that at an inquest held a fortnight previously concerning the death from diphtheria of a child who had been attending the same Board school, the jury recommended that the Board school and the St. Michael's Church Sunday School should be closed. This, however, had not been done.

The medical officer of health for Wandsworth parish stated that since January 1st 37 cases of diphtheria had been notified from No. 1 Ward, which included Merton Road. Dr. W. R. Smith, the medical officer of the London School Board, who gave evidence, contended that it was utterly impossible for any of the cases mentioned by the medical officer of health to have emanated from the Merton Road school. The jury returned a verdict of death from diphtheria, adding that in view of the fact, as stated in evidence, that the epidemic was on the wane, they did not recommend the closing of the schools at present, but they requested the coroner to advise the managers to close them in the event of the disease increasing. In consequence of another death from diphtheria having occurred at Wandsworth, making the thirteenth fatal case since the beginning of the year, the managers of the St. Michael's Church Schools have ordered the schools to be closed.

MEDICAL STUDENTS IN RUSSIAN UNIVERSITIES.—The number of students in the University of Kharkoff on January 1st was 1,452, of whom 846 belonged to the medical faculty. Kieff, at the same date, had 2,361, of whom 996 were students of medicine.

# MEDICAL NEWS.

The Queen has sent to the East London Hospital for Children and Dispensary for Women, Shadwell, the sum of 20 guineas as Her Majesty's annual subscription.

Arrangements are now in progress for the meeting of the British Association at Bristol in 1898, and at a recent meeting convened by the Mayor a large number of names were added to the local executive committee. The British Association has already met twice in Bristol, in 1836 and 1875.

Presentation.—Mr. R. T. Cæsar, jun., of Maidstone, has been the recipient of an oak stationery case, presented by the boys attending the ambulance instruction given in connection with Sir Charles Booth's Trust Continuation Classes, as a mark of their respect and esteem.

The resignation by Dr. J. C. Howden of the office of physician-superintendent of the Montrose Royal Lunatic Asylum, which he had held for forty years, has been accepted, and the Committee resolved to appoint him consultant-physician, and to assign him the highest pension allowed. The Committee resolved that the salary to be paid to his successor should be £750 a year.

Interhospital Football.—In the final tie for the Hospitals Cup, Rugby Union, which was played at Richmond on March 9th, St. Thomas's, the holders, succeeded in retaining the trophy after a very close game, defeating Guy's by one try. In the Association Cup Guy's defeated St. Bartholomew's by two goals to one, and will therefore play the holders, London Hospital.

The annual meeting of the Medico-Psychological Association of Great Britain and Ireland will be held at Newcastle at the College of Medicine towards the end of July. It is proposed that a considerable part of the time of the meeting shall be devoted to discussions, papers, and demonstrations on subjects connected with insanity, and the structure and functions of the brain and nervous system. Communications may be addressed to the Honorary General Secretary, Dr. Percy Smith, 11, Chandos Street, Cavendish Square, London, W.

The annual report of the Queen Charlotte's Lying-in Hospital states that, during the year 1896, 1,151 patients were delivered in the hospital with 10 deaths, the rate of mortality being 8.68 per 1,000; 8 of these had grave complications (3 suffering from puerperal convulsions, 3 from placenta prævia, 1 of these admitted moribund, 1 from accidental hæmorrhage, 1 from severe heart disease). One died from hæmorrhage following severe lacerations. The 3 fatal cases of convulsions developed septicæmia, and 1 other. In the out-patient department 1,122 patients were delivered, of whom only 2 died, giving the death-rate of 1.78 per 1,000.

Presentation.—Dr. J. H. Fergusson, of Killygordon, co. Donegal, was recently presented by a number of his friends with an address, a complete laboratory (bacteriological, chemical, and hygienic), and a purse of sovereigns. A brass plate on a mahogany box containing a microscope bears the following inscription: "This microscope, together with other bacteriological and hygienic instruments, was presented to Dr. J. H. Fergusson, F.R.C.S.I., D.P.H., Mem. San. Inst., etc., by a number of his friends as a token of their esteem for his high medical and scientific attainment. Killygordon, January, 1897."

Deplorable Statistics.—The following harrowing description of the condition of Spanish troops in Cuba comes from Madrid. The latest alarming reports received from Cuba go to prove that the strength of General Weyler's troops has been brought to a startlingly low figure. Fully 80 per cent. of the troops are composed of mere boys from 17 to 24 years of age, who were ordered out to Cuba after receiving from six weeks' to two months' military training in barracks. Each battalion left the Peninsula 1,000 strong, yet at the end of November one of them at Candelaria, in the Province of Pinar del Rio, was reduced to 320 men, and this is a comparatively high figure; another battalion mustered no more than 82 men. One column went to the front having 4,000 men, and in a short time it dwindled down to 800 men. "The same thing," writes Señor Pena, "has occurred on a higher or lower scale throughout the army." As for the hospitals they are stated to be in a very bad condition. There are, of course, many members of the medical staff who do their very best for the wounded, but their laudable efforts are practically lost owing to the disorganisation prevailing everywhere, the want of food, drugs, surgical instruments, beds and bedding in the pestiferous houses and shanties called hospitals, where the wounded are packed together and often exposed to rain, wind, and cold.

State Treatment of Inebriety in America.—The fifth annual report of the Massachusetts Hospital for Dipsomaniacs and Inebriates at Foxboro, the only institution of the kind established and carried on by Governmental authority, is of special value, in view of the expressed intention of the British Cabinet to introduce a Bill into Parliament for amended legislation for habitual drunkards. There has been an increase of 59 in the number of patients committed during the past year, all under 40 years of age, constituting an addition to the daily average number of 20.18, with the material reduction of the weekly per capita cost to £1 5s. 6d., the cost having been substantially reduced each year since the opening of the hospital. In treatment physical training has occupied a prominent place, including gymnastics, baths, etc. Difficulties having arisen from the reluctance of the patients to take the muscular exercise essential to cure, an order was made last year requiring a six months' course of treatment for every patient, a discharge being refused unless the prescribed medicines, exercises, and baths had been taken, and a certain amount of work done. It is noteworthy that the commitment of patients to this hospital is a judicial order to the trustees to keep them until it shall appear that they "will not be subject to dipsomania or inebriety," etc. The determination of the proper time for release being essentially a medical question, the rule has been made elastic, so as to suit the varying necessities of different cases. Work, which is held by all authorities to be an important element of cure, is found in farming, gardening, carpentry, painting, broom making, stable work, and the like. It is intended to add a receiving house for the temporary care of acute cases. Of the 270 admitted during the year, 21 were 15 years or under at their first attack, and 95 from 15 to 20 years. The average age at first attack of the 270 was 23 years. Of the 210 discharged, 32.38 per cent. had done well (abstinent). Of the 135 patients remaining in hospital, 76 were supported by the State, 48 by towns, and 11 were private patients.

International Congress of Leprologists.—The suggestion to hold an International Congress of Leprologists and Representatives of all Governments to discuss the best measures for the suppression of leprosy was, we believe, originated by Dr. Goldschmidt, formerly of Madeira, now of Paris. The following leprologists have announced their approval of this scheme: Dr. Louis F. Alvarez, Hawaii; Dr. Bouffe, Paris; Dr. Justin F. Donovan, Jamaica, West Indies; Dr. J. G. Kerr, Canton, China; Dr. Azevedo Lima, Rio Janeiro, Brazil; Dr. P. A. Morrow, New York; Dr. A. Mouritz, Molokai, Hawaiian Islands; Dr. O. Petersen, St. Petersburg; Dr. A. Blaschko, Berlin; Dr. J. de D. Carrasquilla, Bogota; Dr. S. P. Impey, Cape Town, South Africa; Dr. S. Kitasato, Tokyo, Japan; Dr. Sousa Martens, Lisbon; Dr. H. Munro, London (St. Kitts, West Indies); Dr. A. Neisser, Breslau; Dr. A. C. Smith, Tracadie, Canada; Hon. Wm. O. Smith, President Hawaiian Board of Health. The Governments of Hawaii, Columbia, South America, Cape Colony, and South Africa have agreed to send official delegates, and those of Great Britain, United States of America, France, Russia, Germany, Italy, Spain, Mexico, the republics of South America, Japan, and China have been appealed to to take part in the Congress. Queen Victoria has expressed through her Private Secretary, Sir Arthur Bigge, her interest in the enterprise. Bergen was first thought of as the most suitable place of meeting of the Congress. As the Scandinavian Government did not appear to favour the idea, the promoters of the Congress next turned their minds to London. There they found an obstacle in the existence of disbelief in contagiousness. Then Moscow was proposed. Finally Drs. Hansen, Koch, and Lasser received the consent

of the German Government to invite delegates from all countries for an official conference in Berlin. The date of the Congress has not yet been fixed.

## MEDICAL VACANCIES.

The following vacancies are announced:

ANCOATS HOSPITAL, Manchester.—Resident Junior House-Surgeon. Salary, £50 per annum, with board and washing. Applications to Alex. Forrest, Honorary Secretary.

BOROUGH HOSPITAL, Birkenhead.—Junior House-Surgeon; doubly qualified. Salary, £60 per annum, with board, lodging, and washing, but no wine, spirits, or beer. A further sum of £20 to £25 a year is usually obtained for notification of infectious diseases and other sources. Applications to the Chairman of the Weekly Board by March 15th.

BRADFORD INFIRMARY.—Dispensary Surgeon; unmarried, doubly qualified. Salary, £100 per annum, with board and residence. Applications, endorsed "Dispensary Surgeon," to William Maw, Secretary, by March 22nd.

BRISTOL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Assistant House-Surgeon; doubly qualified. Appointment for six months. Non-residential, and an honorarium of 25 guineas. Applications, endorsed "Assistant House-Surgeon," by March 17th.

DERBYSHIRE ROYAL INFIRMARY.—Honorary Surgeon. Applications to Walter G. Carnt, Secretary, by March 22nd.

DUNDEE ROYAL INFIRMARY.—Resident Clinical Assistant; qualified. Board, lodging, and washing, provided. Applications to Nathan Raw, Medical Superintendent, by March 17th.

ENNISCORTHY DISTRICT ASYLUM.—Assistant Medical Officer; doubly qualified, unmarried, and not more than 30 years of age. Salary, £100 per annum, with allowance of furnishd apartments, rations, etc., valued at £100 per annum. Applications to the Medical Superintendent.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Junior Resident Medical Officer. Salary, £50. Applications to the Committee of Management by March 18th.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Four Clinical Assistants and Eight Qualified Clerks in the Out-patient Department. Applications to the Honorary Secretary of the Medical Committee by March 18th.

GENERAL HOSPITAL, Birmingham.—Assistant House-Surgeon: must possess a Surgical qualification. Appointment for six months. Board, residence, and washing provided.—Surgical Casualty Officer, non-resident. Salary, £50 per annum. Appointment for one year, but eligible for re-election. Applications to Howard J. Collins, House Governor, by March 27th.

GENERAL HOSPITAL, Nottingham.—Assistant House-Surgeon. Appointment for six months. Board, lodging, and washing provided; no salary. Applications to the Secretary by March 31st.

GENERAL INFIRMARY, Leeds.—Resident Casualty Officer. Salary, £100 per annum, with board, lodging, and washing provided. Applications to the Secretary of the Faculty, General Infirmary, Leeds, by March 20th.

GRAVESEND HOSPITAL.—House-Surgeon; doubly qualified. Salary, £80 per annum, with board and residence. Applications to Frederick Mitchell, Honorary Secretary, by March 20th.

HANTS COUNTY ASYLUM.—Assistant Medical Officer; doubly qualified, not more than 25 years of age, and unmarried. Salary, £100 per annum, increasing to £125 after twelve months' service, with furnished apartments, board, washing, and attendance. Applications endorsed, "Applications for Appointment of Medical Officer," to the Committee of Visitors, Knowle, Fareham, by March 23rd.

HASTINGS, ST. LEONARD'S, AND EAST SUSSEX HOSPITAL.—Third Honorary Assistant Surgeon. Applications to William T. Gant, Secretary, by April 3rd.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Applications to the Secretary by March 31st.

HULL ROYAL INFIRMARY.—Honorary Assistant Surgeon to attend Out-patient Department; must be M.R.C.S.Eng. or F.R.C.S.Edin. or Irel., or Graduate in Surgery of the University of Oxford, Cambridge, or London. Appointment for five years. Applications to the Chairman, Committee of Management, before March 15th.

KENSINGTON AND CHELSEA SCHOOL.—District Medical Officer (non-resident) to the Cottage Home School at Banstead, near Epsom. Salary, £140, rising £10 every two years to a maximum of £180. Must not exceed 45 years of age and be doubly qualified. Applications, on forms provided, to be sent to John H. Rutherglen, Clerk to the Managers, Guardians' Offices, Marloes Road, Kensington, by March 22nd.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Appointment for twelve months, subject to re-election for an additional term of twelve months. Board, residence, and washing provided, and an honorarium of £42 for twelve months. Applications to the Secretary at his Offices, 24, Friar Lane, Leicester, by March 22nd.

LONDON LOCK HOSPITAL, 91, Dean Street, W.—House-Surgeon to the Male Hospital; doubly qualified. Salary, £50 per annum, with board, lodging, and washing. Applications to the Secretary by March 27th.

LONDON SCHOOL OF MEDICINE FOR WOMEN, 30, Handel Street, Brunswick Square, W.C.—Demonstrator of Physiology. Salary, £30 per annum. Applications to the Secretary by March 23rd.

MANCHESTER ROYAL EYE HOSPITAL.—House-Surgeon: must devote his whole time to the duties. Salary, £70 per annum, with residence, board, and washing. Applications, endorsed "House-Surgeon," to the Chairman of the Board of Management by April 1st.

NEWPORT AND MONMOUTH HOSPITAL.—House-Surgeon; doubly qualified. Salary, £100 per annum, with board and residence; no stimulants provided. Applications to the Secretary by March 25th.

PARISH OF ST. MARY, Islington.—Two Resident Assistant Medical Officers at the Workhouse and Infirmary, St. John's Road, Upper Holloway. Salary of the First Assistant will be £120 per annum, and the Second Assistant £80 per annum, with rations, apartments, and washing. Applications on forms provided to Edwin Davey, Clerk, Guardians' Offices, 141, St. John's Road, Upper Holloway, N., by March 16th.

POPLAR HOSPITAL FOR ACCIDENTS, East India Road, Poplar, E.—Assistant House-Surgeon. Salary, £80 per annum, with board and residence.—Second Assistant House-Surgeon. Salary, £50 per annum, with board and residence. Applicants for the former appointment should state whether they may be considered candidates for the latter appointment in the event of their non-election to the first. Applications to the House Governor by March 23rd

QUEEN CHARLOTTE'S LYING IN HOSPITAL, Marylebone Road, N.W.—Assistant Resident Medical Officer. Appointment for four months. Salary, £50 per annum, with board and residence. Applications to the Secretary by March 31st.

RIPON DISPENSARY AND COTTAGE HOSPITAL.—Resident House-Surgeon and Dispenser; unmarried. Salary, £70 per annum, with board and lodging. Applications to F. D. Wise, Honorary Secretary. Duties to commence April 1st.

ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN, Dyke Road, Brighton.—House-Surgeon; doubly qualified. Salary, £80 per annum, with board, lodging, and washing; no stimulants. Applications to the Chairman of the Medical Committee. Election on April 2nd.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Senior Resident Medical Officer. Doubly qualified. Salary, £100 per annum, with board, residence, and washing. Appointment for six months, but eligible for re-election. Applications to the Secretary by March 15th.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant Physician; must reside within a mile and a-half of the Infirmary. Applications to T. A. Fisher Hall, Secretary, by March 18th.

ST. LUKE'S HOSPITAL, Old Street, E.C.—Clinical Assistant. Appointment for six months. Board and residence. Applications to W. H. Baird, Secretary.

ST. SAVIOUR'S UNION, Surrey.—Medical Superintendent and Second Assistant Medical Officer at the Infirmary, East Dulwich Grove, S.E. Remuneration of the former, £400 per annum, with unfurnished house, coals, gas, and water, and of the latter £80 per annum, with furnished apartments, board, and washing. Applications, endorsed "Application for Medical Superintendent" or "Second Assistant Medical Officer," to H. C. Jones, Clerk, Union Offices, John Street West, Blackfriars Road, S.E., before noon on March 22nd.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—Assistant House-Surgeon for six months, renewable for a further similar period. Board and residence provided, with an honorarium of £10. Applications to Hemsley H. Shanks, R.N., Honorary Secretary, by March 16th.

SOUTHPORT INFIRMARY.—Junior House- and Visiting-Surgeon; doubly qualified. Honorarium at the rate of £30 per annum. Appointment for six months; renewable. Residence, board and washing provided. Applications to Joseph Worrall, Infirmary Office, Southport, by March 16th.

SUSSEX COUNTY HOSPITAL, Brighton.—House-Physician; doubly qualified, unmarried, and under 30 years of age. Salary commencing at £50 per annum, with board and residence in the Hospital, and washing. Applications to the Secretary by March 17th.

UNIVERSITY COLLEGE, Bristol.—Medical Tutor. Stipend, £125 per annum. Applications to E. Markham Skerritt, M.D., Dean, by March 31st.

VICTORIA HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Edinburgh.—Resident Physician. Board and lodging provided and an allowance for conveyance at the rate of £24 per annum.—Non-resident Medical Officer for Out-patients. Salary at the rate of £60 per annum. Appointments for six months. Applications to Messrs. Wallace and Guthrie, W.S., 1, North Charlotte Street, Edinburgh. Honorary Secretaries, by March 24th.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—House-Surgeon; unmarried. Salary, £60 per annum, with board and residence. Applications to the Honorary Secretary by March 22nd.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointments for six months. Board and lodging provided. Applications to R. J. Gilbert, Secretary Superintendent, by March 24th.

WESTMINSTER GENERAL DISPENSARY, 9, Gerrard Street, Soho.—Dispenser. Salary, £50 per annum; must possess the minor or major qualification. Applications to Joseph H. Meade, Secretary.

WOLVERHAMPTON EYE INFIRMARY.—House-Surgeon. Appointment for twelve months. Salary, £60 per annum, with rooms, board, and washing. Application to W. Blake-Burke, Secretary, by March 15th.

YORKSHIRE COLLEGE, Leeds.—Demonstrator of Physiology. Salary, £150. Applications to the College Secretary by March 15th.

## MEDICAL APPOINTMENTS.

BECKETT, Francis M., M.R.C.S.Eng., reappointed Medical Officer to the Ely St. Mary's District of the Ely Union.

BELL, Charles William Josceline, L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer for the Ynrborough District of the Louth Union.

Burton, Robert G., M.D., L.R.C.S.Edin., reappointed Medical Officer of Health to the Greenford District Council.

Byass, T. S., M.R.C.S., L.R.C.P.Lond., appointed District Medical Officer to the Wallingford Union, *vice* W. C. Byass, M.R.C.S.Eng., L.S.A., resigned.

Caiger, Herbert, M.B.Lond., F.R.C.S.Eng., appointed Railway Medical Officer, Burghersdorp, Cape Colony.

Davey, Mr. E. L., appointed Medical Officer of Health for the Walmer Urban District, *vice* R. S. Davey, M.D.St.And., L.S.A.

Drewitt, Dr., appointed Second Assistant Medical Officer to the Chelsea Union.

Dunn, L. A., F.R.C.S., M.S., appointed Consulting Surgeon to the St. Mary's Children's Hospital, Plaistow, E.

Ennals, Charles Thomas, M.R.C.S.Eng., L.S.A., reappointed Medical Officer for the Burwell District of the Louth Union.

Fagge, R. H., M.R.C.S.Eng., L.R.C.P.Lond., appointed House-Surgeon to the Leicester Infirmary, *vice* M. B. Foster, M.R.C.S., L.R.C.P., resigned.

Farnfield, W. W., M.R.C.S., L.R.C.P., appointed Resident Medical Officer to St. Mary's Children's Hospital, Plaistow, E.

Forbes, Duncan McDouald, L.R.C.P.Edin., L.F.P.S.Glasg., appointed Deputy Medical Officer for the Eastwood District of the Basford Union.

Fox, George M., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Workhouse of the Walsall Union, *vice* John Wood, M.A.Oxon., M.B.

Harris, Spencer C., L.F.P.S.Glasg., L.M., L.S.A., reappointed Medical Officer for the Ely Trinity District of the Ely Union.

Hawley, Arthur, M.R.C.S.Eng., L.R.C.P.Lond., L.S.A., appointed Honorary House-Surgeon to the Coventry and Warwickshire Hospital, *vice* Frank Iliffe, M.R.C.S.Eng., resigned.

Haworth, F.G., M.B., C.M., D.P.H., reappointed Medical Officer of Health for the Borough of Darwen.

Hedges, John A., M.R.C.S.Eng., L.S.A., appointed Medical Officer of Health for the Eaton Bray Rural District, *vice* H. W. A. Sandell, L.R.C.P.Edin., M.R.C.S.Eng.

Hopkins, G. Herbert, F.R.C.S.Eng., L.R.C.P.Lond., appointed Visiting Surgeon to the Lady Bowen Hospital for Women, Brisbane, Queensland.

Lawrence, Alfred Edward Aust, M.D.Aberd., M.B., C.M., appointed Consulting Physician Accoucheur to the Bristol General Hospital.

Leedham-Green, Charles A., M.D.Heidelb., F.R.C.S.Eng., appointed Surgeon for Out-patients, Queen's Hospital, Birmingham.

Lowe, P. R., appointed House-Physician to the Leicester Infirmary, *vice* R. H. Fagge, appointed House-Surgeon.

Mapleton, George H., M.B., C.M.Edin., appointed Medical Officer for the Goodhurst District of the Cranbrook Union.

Millar, William, M.B., C.M.Glasg., appointed Medical Officer and Public Vaccinator for the West Green and St. Ann's District of the Edmonton Union.

Morcom, Augustus, L.R.C.S.Edin., L.S.A., reappointed Medical Officer of Health for the Dunstable Town Council.

Newnham, William H. Christopher, M.A., M.B.Camb., M.R.C.S.Eng., appointed Physician Accoucheur to the Bristol General Hospital, *vice* A. E. Aust Lawrence, M.D.Aberd., resigned.

Pope, George S., L.R.C.P., L.R.C.S.Edin., appointed Medical Superintendent of the new Asylum at Middlesbrough.

Prosser, Thomas Gilbert, M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health for the Monmouth Town Council.

Pullen, Ralph S. McD., appointed Surgeon to the Provident Institution of the Royal Albert Hospital, Devonport; and Honorary Anæsthetist to the South Devon and East Cornwall Hospital, Plymouth.

Randall, Ernest B., M.D.Lond., M.R.C.S.Eng., appointed Honorary Medical Officer to St. Mary's Children's Hospital, Plaistow, E.

Rayner, David Charles, F.R.C.S.Eng., L.R.C.P., appointed Assistant Physician Accoucheur to the Bristol General Hospital, *vice* William H. C. Newnham, M.A., M.B.Camb., resigned.

Ridgway-Macauley, Mr. W. G., appointed Medical Officer for the Western District of the Freebridge Lynn Union, *vice* F. A. Barrington, L.R.C.P., L.R.C.S.Irel.

Robinson, H. B., F.R.C.S., M.D.Lond., M.S., appointed Consulting Surgeon to the St. Mary's Children's Hospital, Plaistow, E.

Shepherd, Richard Le Fleming, M.B., C.M.Edin., reappointed Medical Officer for the Hainton District of the Louth Union.

Tuxford, Arthur, M.B.Edin., appointed Medical Officer of Health to the Rural District Council, Boston Union, *vice* L. Wilkinson, M.B.Edin., resigned; and reappointed Medical Officer to the Fever Hospital, Boston.

Ware, Ernest E., M.D.Lond., B.S., M.R.C.S., appointed Honorary Medical Officer to the St. Mary's Children's Hospital, Plaistow, E.

Williams, C. W., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Smallburgh District and the Workhouse of the Smallburgh Union, *vice* A. W. Knox, M.D.Aberd., resigned.

Young, Edward, L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Hawkhurst District of the Cranbrook Union.

## DIARY FOR NEXT WEEK.

### MONDAY.

Royal College of Surgeons of England, 5 p.m.—Professor Charles Stewart: Joints and Flexible Bonds of Union in Plants and Animals. Lecture I.

### TUESDAY.

London Post-Graduate Course, Hospital for Diseases of the Skin, Blackfriars, 4.30 p.m.—Dr. Payne: Impetigo. Bethlem Royal Hospital for Lunatics, 2 p.m.—Dr. Craig: Alcoholic Insanity, Insanity with Syphilis, Insanity with Organic Brain Disease.

Central London Throat, Nose, and Ear Hospital, Gray's Inn Road, 4 p.m.—Dr. Dundas Grant: The Diagnosis and Treatment of Visible Abnormalities in the Auricle and External Meatus.

Royal College of Physicians of London, 5 p.m.—Dr. W. Collingridge: On Quarantine. Milroy Lecture II.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 p.m.—Lecture by Mr. Horsley.

Pathological Society of London, 20, Hanover Square, W., 8.30 p.m.—Mr. S. G. Shattock: *Sable Intestinal*. Mr. A. A. Bowlby: Unusual specimen of Gummatous Disease of the Kidney. Mr. D'Arcy Power: Some Points in the Minute Anatomy of Intussusception. Mr. J. H. Targett: Giant-celled Tumours of the Integuments. Dr. Champneys and Mr. Power: Congenital Occlusion of the Duodenum by Complete Transverse Septum.

### WEDNESDAY.

Royal College of Surgeons of England, 5 p.m.—Professor Charles Stewart: Joints and Flexible Bonds of Union in Plants and Animals. Lecture II.

London Post-Graduate Course, Parkes Museum, 74A, Margaret Street, Regent Street, W., 4.30 p.m.—Professor A. Wynter Blyth; Sanitary Appliances.

West London Post-Graduate Course, West London Hospital, W., 5 p.m. Dr. Whitfield: Medical Cases.

The Clinical Museum, 211, Great Portland Street, 4 p.m.—Demonstration by Mr. Jonathan Hutchinson.

North-West London Clinical Society, North-West London Hospital, 8.30 p.m.—Exhibition of Clinical Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, 4 p.m.—Dr. Maguire: The Cardiac Affections of Renal Disease.

Royal Meteorological Society, 25, Great George Street, Westminster, 7.30 p.m.—Mr. G. J. Symons: On Meteorological Observations in 1837 and 1897.

Royal Microscopical Society, 20, Hanover Square, W., 8 p.m.

### THURSDAY.

Royal College of Physicians of London, 5 p.m.—Dr. W. Collingridge: On Quarantine. Milroy Lecture III.

Society of Anæsthetists, 20, Hanover Square, W., 8.30 p.m.—Casual Communication: Professor Holiday. Dr. Silk: The Occurrence of Pneumonic Troubles after the Administration of Anæsthetics.

Hospital for Sick Children, Great Ormond Street, W.C., 4 p.m.—Mr. J. H. Morgan: Clinical Surgical Lecture.

### FRIDAY.

London Post-Graduate Course, Bacteriological Laboratory, King's College, W.C., 3 to 5 p.m.—Professor Crookshank: Actinomycosis and Glanders.

Royal College of Surgeons of England, 5 p.m.—Professor Charles Stewart: Joints and Flexible Bonds of Union in Plants and Animals. Lecture III.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 p.m.—Lecture by Mr. Ballance.

Epidemiological Society of London, 11, Chandos Street, Cavendish Square, W., 8 p.m.—Dr. James Niven: On the Prevention of Tuberculosis.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

Bonar.—On February 28th, at 114, Via del Babinno, Rome, the wife of Thomson Bonar, M.D., of a son.

Durrant.—On February 27th, at Market Harborough, the wife of T. Arnold Durrant, Surgeon, of a daughter.

Le Mottée.—On March 7th, at Aldershot, the wife of Surgeon-Lieutenant-Colonel G. H. Le Mottée, A.M.S., of a son.

### MARRIAGE.

Beadles—Barwick.—On February 13th, at St. Stephen's, East Twickenham, by the Rev. W. Murdoch Johnson, M.A., Vicar, assisted by the Rev. Arthur R. Beadles, M.A., brother of the bridegroom, and the Rev. Ernest Hartley, M.A., Vicar of St. Luke's, Hackney, Harold Shatford Beadles, M.R.C.S.E., youngest son of the late Dr. Hubert Beadles, of New Southgate, to Lily, sixth daughter of Joseph Barwick, Esq., of Lawrence House, St. Margaret's, Twickenham.

### DEATHS.

Barron.—On March 10th, at his residence, Summerseat, Southport, George Bretherton Barron, M.D., in his 76th year.

Dickinson.—On March 3rd, at his residence, Denmark Villas, Hove, Thomas Dickinson, M.R.C.S., L.S.A., formerly of Sloane Street, Chelsea, aged 67.

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances*—Daily, 2. *Operations.*—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR.—*Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—Daily.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30 Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations.*—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations.*—M. F. S., 2.

LONDON. *Attendances.*—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operations.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations.*—M. Th., 4.30.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations.*—F., 9.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations.*—W., 1.30; S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30 *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Tu., 2.30.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 3; Dental, Th., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 1. *Operations* —M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., W. S., 9; Eye, W. Tu. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th. 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations.*—M. Tu. Th. F. S., 1.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males S., 3; females; W., 9.45. *Operations.*—M., 2; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 3.0; Skin, M. Th., 9.30; Electro-therapeutics, M. Th., 2.30; Dental, W. S., 9.30; Children's Medical, Tu. F., 9.15; Children's Surgical, S., 9.15. *Operations.*—M., 2.30.; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M. 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Th., 2.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations.*—Tu. F., 2.30.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1; Obstetric, Tu., F., 1; Eye, Tu. F., 9.30; Ear, M., Th., 9.30; Skin, W., 1; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

# LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

### QUERIES.

W. H. wishes to know the cheapest form of telephone service for a surgery a mile distant.

DOUCHE writes: Is there in London a well-appointed establishment where good-class patients (male and female) can be sent for cold and hot douches?

DR. A. H. CRESSWELL, of Courtsole Cliffe, desires to hear of an institution in or near Bournemouth to which a boy, aged 9, suffering from commencing phthisis could be sent. Expenses not to exceed £1 1s. a week.

A MEMBER would like to know of any recent work treating of the diseases peculiar to modern life or brought on by modern occupations and conditions. He has Richardson's, but would like a more recent work.

*** The *Hygiene, Diseases, and Mortality of Occupations*, by J. T Arlidge, M.D. (London: Percival and Co. 1892. 21s.), contains a most excellent account of diseases in their relation to occupation.

#### COCAINE IN INFANCY.

INQUIRER asks whether there would be any danger in the hypodermic use of cocaine in the case of a baby 11 months old, preparatory to removing a small nævus? What should the dose be?

#### DISINFECTOR FOR SMALL DISTRICT.

D. R. H. writes: My authority has been persuaded to obtain a disinfection apparatus. Could any medical officer of health recommend one which would be suitable for a rural district of about 2,000 inhabitants? Would a movable steam one be useful? Has any medical officer of health had any experience of one which would not be too expensive?

#### POSTURAL ALBUMINURIA AND LIFE INSURANCE.

CILIUM writes: I shall be glad if either you or any of your readers can tell me of an insurance office which accepts on ordinary terms lives subject to postural albuminuria (the cyclical albuminuria of Pavy). The life concerning which I inquire is otherwise eligible for ordinary rates. It has just been accepted by one office, with an addition on account of the albuminuria; but in view of the absolutely favourable prognosis in this condition there seems to be no good reason for the addition.

### ANSWERS.

CANTAB. should consult an experienced medical agent.

H.H.—We are not aware that the question has been considered by the General Medical Council.

LUNA.—Of the larger works in the English language on diseases of the ear we may mention Politzer's *Textbook* (London: Baillière, Tindall, and Cox. 21s.), and of the smaller Barr's *Diseases of the Ear* (Glasgow: Maclehose and Sons. 12s. 6d.).

#### SMALL-POX HOSPITALS.

DR. JAMES RANKIN (Kilmarnock) writes: A. J. T. will get all particulars of small-pox hospital, built about one mile out of Kilmarnock, and used specially for this purpose (population of Kilmarnock, 30,000), by applying to Mr. J. Robertson, Sanitary Inspector, Kilmarnock. The hospital was built and furnished by the Corporation of Kilmarnock, and arrangements are made in event of outbreak to be supplied by nurses from Queen's Jubilee Nurses Association. It is, of course, shut at present. No small-pox exists.

#### HYPNOTISM IN DIPSOMANIA.

MR. THOMAS H. CHEATLE, M.R.C.S. (Burford, Oxford), writes (in reply to "W. A. C." in the BRITISH MEDICAL JOURNAL of March 6th, page 637) to say that he is acquainted with a case in which hypnotism appears to have had a good effect. The patient is a man aged 50, a confirmed dipsomaniac, with a craving in addition for morphine, chlorodyne, and drugs of a similar kind. He was hypnotised a few times by an amateur, and lost all taste for alcohol and morphine. He then stayed at a farm for three or four months, and returned to his family and business. He has not craved for alcohol nor taken morphine since.

#### BRITISH CLIMATES FOR EARLY PHTHISIS.

H. W. writes, in reply to "M. H." in the BRITISH MEDICAL JOURNAL of January 9th: I should advise the patient to reside upon a chalk soil, and I mention several localities in order of merit: 1. The higher part of Wendover, Bucks; Whiteleaf, Princes Risborough, Bucks; Sarrat, near Chesham, Bucks, all upon the Chiltern Hills, and almost free from phthisis except occasional imported cases from London. 2. Sutton, Surrey—the higher part. 3. Many parts of Surrey on the Bagshot sands, notably Weybridge Heath, Horsell Common, near Woking, parts of Chobham; Weybridge and the parts around St. George's Hill were recommended by the late Dr. C. J. B. Williams, and I have known many sufferers from pulmonary affections receive great benefit by a residence there. On St. George's Hills the soil is dry and the walks sheltered by hundreds of acres of pines, so that an invalid can spend much of the winter out of doors. 4. Carisbrooke, Isle of Wight.

#### POST-GRADUATE STUDY IN PARIS.

MR. L. N. ROBINSON (9, Rue Leopold Robert, Paris) writes: In answer to "M.D.'s" question in the BRITISH MEDICAL JOURNAL of March 6th, the following may be of service: On presenting proof of qualification (by diploma or registration certificate) at the Faculté de Médecine he will receive a card admitting him to all the lectures in the University, and this will permit him to follow any clinics in any of the State hospitals he may wish. For this there is no fee. For laboratory work the fees

vary. As to rooms in the students' quarters, there is no difficulty: board and lodging can be got *en pension* for 6 francs per diem and upwards, though it might be more advisable to take a room in one of the numerous hotels, and feed at a restaurant, which is cheaper. Should your correspondent wish for further information, I shall be pleased to give him what information I can if he will write direct to the above address.

Dr. Harry Grey (San Remo) writes: In answer to "M.D.," unless he wishes to take a course on some special subject, as, for example, bacteriology, it is quite unnecessary to make, previously, arrangements to join clinics. For surgical work, skin diseases, eye, etc., one can find in Paris clinics at every hour of the day. There are absolutely no fees, not even for the lectures, and except for necropsies (medico-legal) at the Morgue, for which one must have a card. No enrolment is necessary. This card is obtained at the Secrétariat de l'Ecole de Médecine on production of registration certificate; no fee. If "M.D." wishes to attend lectures he should of course avoid vacations. The next is the first half of April, I think. The only thing that should be done before leaving home is to obtain introductions to professors of the subjects he intends to study. As regards rooms in the Quartier Latin he can live for 30 francs a month, and comfortably for 60. On arrival a speedy acquaintance with one of the old students will help him to decide on what to see and what to avoid, or if he will communicate with me I shall be happy to give him the benefit of my own experience.

### Treatment of Dandruff.

In reply to the question asked by "W. D. B." in the British Medical Journal of March 6th, "Cutis" writes: The following treatment of this condition will be found quite simple and perfectly effectual: Shampoo the scalp well for ten minutes once a week with liquid soap (Mouilla), or in default of this with spiritus saponis alk. (Hebra); then rub in a little Behrendorf's pomade soufrée (May Roberts). This is sold in collapsible tubes convenient for use, an element of importance when treatment has to be continuous, as in seborrhœa capitis. Generally speaking, once a week is sufficient to keep the scalp clean, although at first if the scurf is copious it may be shampooed and dressed every day. If patches of seborrhœal eczema exist on the scalp, on the brow, or on the nucha, as is common, use an ointment containing 3 drachms of pusol to an ounce of vaseline, and gently rub it in.

## NOTES, LETTERS, Etc.

Erratum.—In the report of the Border Counties Branch in the British Medical Journal of February 27th, p. 528, in Dr. Somerville's remarks, second column, fifth line from top, "cryptolites" should read *graptolites*.

### A Disclaimer.

Dr. Albert Wilson writes to disclaim any knowledge of how the *Daily Mail* obtained information with regard to the case which he showed at a recent meeting of the Clinical Society.

### Oysters and Typhoid Fever.

Mr G. H. Baxter (Hutton, Essex) writes: With reference to Mr. Henniker Heaton's statement in the House of Commons as to the only instance of enteric fever in epidemic form arising in the United Kingdom from oysters being traced to the eating of Dutch oysters, I beg to state that the only case of epidemic known to me is the outbreak at Stirling. This outbreak was at first attributed to the consumption of Dutch oysters, but the careful inquiry then made brought to light the fact that it was really due to a burst drain in the Town Hall. Query: May not other cases that have been reported as oyster poisoning be of a like nature to the above?

### Lincoln Medical Protection Fund.

Dr. W. A. Carline (Lincoln) writes: Will you kindly publish the accompanying statement of accounts of the above fund? Since the last list published I have received the following subscription:

T. M. King, M.A., 4, Mortlake Road, Kew ... ... £1.

*Receipts.*

| | £ | s. | d. |
|---|---|---|---|
| From 282 subscribers ... ... ... ... | 381 | 17 | 0 |
| Bank interest ... ... ... ... ... | 0 | 16 | 0 |
| | £382 | 13 | 0 |

*Payments.*

| | | | |
|---|---|---|---|
| Printing, addressing, and postage of appeals (8,000) ... | 35 | 14 | 0 |
| Rent of house for Provident Medical Association ... | 17 | 10 | 9 |
| Printing rules and cards, and cost of drugs for same ... | 7 | 5 | 2 |
| Rents and taxes for same ... ... ... | 1 | 19 | 1 |
| Sundry expenses ... ... ... ... | 1 | 4 | 6 |
| Rent of extra (furnished) house, 4 weeks ... ... | 7 | 0 | 0 |
| Treasurer's postage, etc. ... ... ... ... | 1 | 6 | 0 |
| Medical officers, including payments for removal of their furniture: | | | |
| Mr. Johnston ... ... ... ... | 122 | 0 | 7 |
| Mr. Whitwell ... ... ... ... | 09 | 3 | 3 |
| Dr. McDade ... ... ... ... | 89 | 9 | 8 |
| | £382 | 13 | 0 |

(Signed) Geo. Mitchinson, Charles Brook, C. Harrison, } Trustees.
W. A. Carline, Hon. Treasurer.

### The Influence on the Action of the Auricle of Variations in its Capacity.

Dr. D. W. Samways (Mentone, France) writes: Since the publication of my former communication under the above heading in the British Medical Journal of January 23rd, my attention has been directed to a very instructive paper published in the *Journal of Anatomy and Physiology*, vol. xxvi, by Mr. Robert H. Woods, entitled, "A few applications of a physical theorem to membranes in the human body in a state of tension." This paper was read before the Royal Academy of Medicine in Ireland on January 15th, 1892. In this paper Mr. Woods showed mathematically not only that the blood pressure inside a contracting cardiac chamber varies inversely as the radius of the chamber, but that if the increasing thickness of the contracting walls be also taken into consideration, the blood pressure must finally increase inversely as the cube of the radius.

In my Paris thesis (*Le rôle de l'oreillette gauche notamment dans le rétrécissement mitral*, July, 1896) I gave the expression $P = 2\frac{t.e}{r}$ where $P$ = the blood pressure sustained by each unit of surface of the cardiac wall; $t$ = the muscular tension per unit of section; $e$ = the thickness of the cardiac wall at any time; and $r$ = the radius of the cardiac chamber at the time.

Now $e$ varies as $\frac{1}{r^2}$ therefore $P$ varies as $\frac{1}{r^3}$. The auricle consequently on contracting and reducing its diameter by one half would be able to increase the intra-auricular blood pressure eightfold, supposing that the force of contraction of its constituent muscular fibres remain constant while they shorten. Such an intra-auricular blood pressure would equal or almost equal the minimum pressure the ventricle could generate before it forced open the aortic valves, after which the intra-ventricular pressure cannot, of course, appreciably increase. The intra-auricular pressure would, however, continue to increase rapidly as the chamber continued to decrease in size, and might easily exceed the aortic, that is, the maximum, intra-ventricular pressure.

It is quite true that instead of thinking that regurgitation from the ventricle to the auricle is only prevented by the auriculo-ventricular valves, we should admit a second factor of almost equal importance, and that is the contracting auricle. It is the auricle which largely prevents regurgitation from the ventricle during the first phase of the contraction of the latter, for the auriculo-ventricular valves do not shut when the ventricle contracts. They appear to shut about the time that the auricle relaxes and ceases to support them, a time closely coinciding with the moment at which the aortic valves open.

In mitral stenosis cases the prolonged contraction of the hypertrophied auricle defends the mitral orifice till still later in the ventricular systole, and while it remains contracting and contracted can easily prevent regurgitation from the ventricle, though the mitral orifice be very incompetent.

### The Treatment of Malignant Disease by the Injection of the Toxins of Erysipelas.

Dr. Herbert Snow (London, W.) writes: May I point out, in the first place, that "shrinkage and apparent disappearance of the tumour" are always put forth as to the credentials of every new remedy applied in the same mode—that is, by acupuncture in one form or another—from time immemorial. Secondly, that often-repeated needle pricks are the really essential agencies in effecting that result; it does not in the least matter what is injected, or whether anything is injected at all. Thirdly, that life is never prolonged a single day, and may be materially shortened; death, resulting as usual in malignant disease, from the metastases and blood infection much more than from the effects of the local lesion. As examples in my own experience I would cite galvano-puncture in various forms, carbolic acid, methylene blue. When thus pricked the nodule, especially if soft and vascular, loses blood and serum, and becomes less tense, this shrinkage being subsequently enhanced by cicatricial contraction. The idea that erysipelas is antagonistic to sarcoma or carcinoma was first announced from the States about eighteen years ago. Nothing lending it the smallest countenance has ever been noticed at the Cancer Hospital.

### Treatment of Hiccough.

A Member writes: In Dr. Cooper's severe case of typhoid in which antitoxin was successfully employed, reported in the British Medical Journal of February 27th, I note that hiccough proved very refractory. May I suggest that the inhalation of oxygen be tried where this symptom proves troublesome? I have once seen great relief to trying hiccough procured by its use.

### "Every Parent Read This"

Such is the headline of a red-lettered leaflet of the Dorking and District Anti-compulsory Vaccination League. Some figures are given as to Gloucester, but the case mortality of the unvaccinated as compared with the vaccinated is carefully omitted. The authors of such leaflets cannot credit their readers with much intelligence.

### The Dorsal Test for Pericardial Effusion.

Dr. Wm. Ewart (Curzon Street, W.) writes: A misprint, which might possibly mislead and which your kindness may allow me to correct, occurs in my letter on this subject in the British Medical Journal of Feb. 27th, p. 558. In the sentence, "a definite quadrilateral patch of lateral dulness," etc., "absolute" should be read instead of "lateral." The patch, extending on either side of the eleventh and twelfth dorsal spines, is essentially median in position, though it is decidedly larger and duller on the left than on the right. Again, in the sentence "(3) that it does not occur in an absolute dulness," etc., "as an absolute dulness" should be understood.

### The Battle of the Clubs in the United States.

The physicians and surgeons of Santa Clara County, California, have resolved that "rendering professional services at a stipulated fee *per capita per annum* is derogatory to the dignity of the medical profession," and henceforth will not "enter into any contract or agreement, or renew any existing contract or agreement, either written, verbal, or implied, to render medical or surgical services to any lodge, society, association, or organisation." They also refuse to treat individual members of these bodies for less compensation than the general public pay for similar services.

### A CONSULTATION BUREAU.

THE following advertisement recently appeared in a New York weekly medical journal:

CONSULTATION BUREAU.

I have completed arrangements by which any physician having a difficult case, and who wishes expert advice, may obtain it by sending me a concise statement of the same, distinctly written. The reply will be returned as promptly as possible, and signed by the physician consulted. The applicant should name the one whose opinion he desires, or, if preferred, I will apply to one of those who stand highest in the profession here.

Each application must be accompanied by a remittance of $15.00.

In urgent cases the telegraph can be used. Correspondence invited.

The most surprising thing to our mind in this remarkable advertisement is the apparent confidence of this consultation agent that he will be able to get an opinion from any leading luminary that may be selected on a "concise statement" of the case without seeing the patient. Morgagni and Boerhaave used to do this, but surely the day of these telepathic oracles of medicine is past. Another point which strikes us is the fee. We do not know how it is in America, but in this country most medical shrines could be visited at less expense without the help of any intermediary. Or is the perplexed practitioner supposed to be anxious for guidance without the patient's knowledge? Conducted on such a system medical practice would be too costly a luxury for any but millionaire philanthropists.

### ARTIFICIAL FEEDING OF THE INSANE.

DR. J. C. MARTIN (Assistant Medical Officer Donegal District Asylum, Letterkenny) writes: In the BRITISH MEDICAL JOURNAL of February 27th, Dr. Henry Sutherland, in his note on "Artificial Feeding of the Insane," states that feeding by the nose cannot be long continued, and that it is followed by bad results, the nostrils becoming red and inflamed, and ultimately blocked altogether. As against this argument I beg to state that there is at present a patient in this asylum who has been regularly fed through the nose since August, 1895, and is at the present date fed regularly three times a day by this means. He is a fine healthy man, and is thriving wonderfully under this treatment. The constant passage of the tube has in no way caused any evil results, either by causing the nose to inflame or blocking the passage.

### A FRENCH ARMY SOUP.

THE soup proposed for adoption in the French army is composed as follows: Beef tallow, 100 kilos.; carrots, 5 kilos.; leeks, 7 kilos.; onions, 7 kilos.; celery, 1 kilo.; parsley, ½ kilo.; garlic, ½ kilo.; basil, ⅕ kilo.; thyme, ⅕ kilo.; laurel leaves, ⅕ kilo.; with a certain amount of salt, pepper, cloves, etc. The whole is boiled and strained. It cools and forms a solid mass, and is cut into tablets like chocolate. One tablespoonful with water added makes about 1½ pint of soup. It is suitable for hot climates.

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LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) Alpha; Dr. H. Alston, St. Juan, Trinidad; Messrs. Arnold and Sons, London; A.M.D.: Dr. F. P. Atkinson, Surbiton. (**B**) J. W. Batterham, M.B., St. Leonards-on-Sea; Mr. E. S. Bishop, Manchester; Rev. T. P. Brocklehurst, South Merstham; Dr. Bond-Stow, Glenwood Springs, Colombo; Mr. Clark Bell, New York; Mr. G. H. Baxter, Hutton; Dr. A. Bronner, Bradford; Mr. C. Braine, London; Dr. E. G. Barnes, Eye. (**C**) Dr. W. L. Christie, Clifton; Mr. A. H. Creswell, Cliffe-at-Hoo; Dr. C. C. Claremont, Southsea; Dr. H. J. Campbell, Bradford; Colonial; Cantab.; Dr. J. Crosfield, London; Cilium; Mr. W. Chapman, London; Mr. R. T. Cæsar, Maidstone; Dr. W. A. Carline, Lincoln; Mr. T. Cheatle, Burford. (**D**) Dr. A. Davies, London; J. D. Duncan, M.B., Carlisle; Dr. L. Drage, Hatfield; W. Dudley, M.B., Kidderminster; Douche; D. R. H.; Dr. A.: Dr. A. A. E. Dickey, Colne; Dr. G. H. Darwin, Manchester. (**E**) Epidemiological Society of London, The Secretary of the, London; Dr. J. Edmunds, London; Enquirer. (**F**) Dr. D. Ferrier, London; G. K. Finlay, M.B., Littleborough. (**G**) Mr. A. Greenwood, London; Dr. A. S. Grünbaum, Liverpool; Dr. G. L. Gulland, Edinburgh; Mr. J. Garth, Preston. (**H**) Mr. T. A. J. Howell, London; A. W. Holmes, M.B., Ashton; Hope: Mr. T. G. Horder, Cardiff; Dr. J. Haddon, Hawick; Dr. T. W. Hime, Bradford; Dr. R. G. Hebb, London; Mr. T. F. S. Hudson, Tipton; F. G. Haworth, M.B., Darwen; Harveian Society, The Secretary of the, London; Dr. A. D. Heath, Birmingham; Dr. L. Henry, Melbourne; Mr. G. H. Hopkins, Brisbane. (**J**) Mr. T. W. Jerrard, London. (**K**) Colonel F. C. Keyser, London; G. E. Keith, M.B., London; Dr. W. M. Kelly, Taunton. (**L**) Mr. T. G. Linsley, Hartlepool; Dr. C. Leedham-Green, Birmingham; J. Lyell, M.B., Perth; Dr. C. J. Lewis, Stirling; Locum T. (**M**) Dr. J. W. Moore, Dublin; Mr. H. J. Manning, Salisbury; M.B., M.R.C.S.; Mr. J. W. Mullen, Salford; Dr. W. Milligan, Manchester; Mr. W. J. Morris, Portmadoc; R. C. Macdonald, M.B., Linlithgow; Mr. P. H. Marsden, Liverpool; Member; Dr. J. C. Martin, Letterkenny; J. G. McNaughton, Edinburgh; G. P. Mathew, M.B., London: Medical Reports; M.D.; Mr. W. Marriott, London. (**N**) Mr. N. H. Nixon, London; Non-Removal; G. P. Newbolt, M.B., Liverpool; W. H. Newnham, M.B., Clifton. (**O**) H. Ormerod, M.B., Bristol: Mr. P. O'Donaghue, Loughrea; Mr. E. A. Onyon, Eye. (**P**) Mr. J. R. Pearson, Harrogate; Mr. J. F. Pink, London; Dr. F. Page, Newcastle-on-Tyne; Dr. T. H. S. Pullin, Sidmouth; Dr. W. R. Parker, Canterbury; Dr. G. Parker, Clifton; Dr. L. Phillips, Birmingham: Dr. S. T. Pruen, Cheltenham: Pharmaceutical Journal, The Editor of the, London. (**Q**) Queen Charlotte's Lying-in Hospital, The Secretary of the, London. (**R**) Mr. L. N. Robinson, Paris; Dr. R. R. Rentoul, Liverpool: Dr. H. D. Rolleston, London. (**S**) Dr. J. B. Spence, Burntwood; Dr. S. H. Snell, Grays; Mr. J. Snowman, London; Mr. L. E. Stevenson, Penrith; Mr. J. H. Sproat, Wells; Mr. C. S. Smith, London; Mr. P. L. Sclater, London; Sheffield Medico-Chirurgical Society, The Secretary of the, Sheffield; Messrs. Street Bros., London; Subscriber; D. W. S. Scott, Manchester; Mr. W. R. H. Stewart, London; Surgeon; Dr. W. H. Sturge, Folkestone. (**T**) Mr. J. Tyson, Philadelphia; Mr. W. E. Thomas, Bridgend; Dr. S. G. Toller, London; Mr. W. T. Thomas, Liverpool: Dr. A. Tuxford, Brighton; Miss H. A Turner, Stourbridge: Dr. N. Tirard, London; Dr. D. Thomson, London. (**U**) Messrs. John Underwood and Co., London: Dr. C. T. Urquhart, Aberdeen. (**V**) Mr. W. Vincent, London. (**W**) J. F. L. Whittingdale, M.B., Sherborne; Messrs. J. Woolley, Sons, and Co., Manchester; Mr. A. H. Walker, Cranleigh; Dr. R. T. Williamson, Manchester; W. H.; Dr. A. M. Wilson, London; W.: Mr. B. W. West, Leicester; Mr. F. S. Watson, Princes Risborough; Mr. L. K. G. Wilson, London. etc.

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## BOOKS, ETC., RECEIVED.

Ueber Marion Sims und seine Verdienste um die Chirurgie. Von Dr. R. Olshausen. Berlin: August Hirschwald. 1897. M. 0.83.

Meat and Milk Inspection. Issued by the Provincial Board of Health of Ontario. Toronto: Warwick Bros. and Rutter. 1896.

Clinical Papers on Surgical Subjects. By H. W. Page, M.A., M.C., F.R.C.S. London: Cassell and Co. 1897.

Allgemeine und specielle Balneotherapie mit Berücksichtigung der Klimatotherapie. Von Dr. K. Grube. Berlin: August Hirschwald. 1897. M. 7.

Injuries and Diseases of the Ear. By M. Yearsley, F.R.C.S. London: Rebman Publishing Co. 1897. 2s.

The Practitioner: a Journal of Practical Medicine. Edited by Malcolm Morris. New Series. Vol. IV. July to December, 1896. London: Cassell and Co. 1896.

Anomalies and Curiosities of Medicine. By G. M. Gould, A.M., M.D., and W. L. Pyle, A.M., M.D. London: Rebman Publishing Co. 1897. 34s.

International Clinics. Edited by J. Daland, M.D., J. M. Bruce, M.D., and D. W. Finlay, M.D. 1896-97 series. Vols. I, II, and III. London: T. Lewin and Co. 1896. 12s. 6d. each vol.

Catechism Series. Surgery: Part IV. Edinburgh: E. and S. Livingstone. 1s.

An Account of the Life and Works of Dr. Robert Watt. By J. Finlayson, M.D. London: Smith, Elder and Co. 1897. 3s. 6d.

Willing's British and Irish Press Guide, 1897. London: James Willing. 1s.

Ueber Eierstockstuberkulose. Von Dr. J. Schottlaender. Berlin: Gustav Fischer. 1897. M.9.

Quantitative Estimation of Urine: New System of Rapid Analysis. By J. Barker Smith, L.R.C.P. London: Baillière, Tindall, and Cox. 1897. 1s.

Klinische und experimentelle Beiträge zur Pathogenese der mercuriellen Stomatitis und Salivation. Von Dr. A. Lanz. Berlin: Oscar Coblentz. 1897. M.7.50.

A Contribution to the History of the Respiration of Man. By W. Marcet, M.D., F.R.C.P., F.R.S. London: J. and A. Churchill. 1897. 12s. 6d.

Moods: Their Mental and Physical Character. By F. Phillips. London: J. and A. Churchill. 1897 1s.

Encyclopædic English-German and German-English Dictionary. Part II, German-English, Lief I, A-Anbannen. London: H. Grevel and Co. 1897. 1s. 6d.

Das Wesen der Rhachitis und Skrophulose und deren Bekämpfung. Von Dr. K. Elze. Berlin: G. Borntraeger. 1897. M. 2.40.

*** In forwarding books the publishers are requested to state the selling prices.

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# A LECTURE
ON
# THE DIURETIC TREATMENT OF RENAL DROPSY.

*Delivered at King's College Hospital.*

By NESTOR TIRARD, M.D.Lond., F.R.C.P.,
Physician to King's College Hospital, and to the Evelina Hospital for Sick Children.

We have recently had under observation in the hospital a case in which we have been able to witness the beneficial influence of the diuretic plan of treatment. The patient, you will remember, is a man, W. C., aged 63, who had been under my care in the Craven Ward since July 7th. He originally came to my out-patient room complaining of shortness of breath and swelling of the hands and legs. This œdema appeared only to have commenced in the previous December, and at that time the swelling started in the legs. The family history was somewhat vague, and the only point of importance was that his father had died of apoplexy. You may remember that at the time of first seeing him I pointed out how frequently in my experience apoplexy and chronic kidney disease were associated in successive generations; in fact, in insurance work, this association is almost as marked as the hereditary character of phthisis. The patient in question appeared not to have suffered from any serious illness previously, and although we endeavoured to extract history of alcoholism from him, he would not make any admissions beyond stating that he did not object to whisky. So far, therefore, with the exception of the possible influence of heredity and the possible influence of alcoholism, the history was extremely vague.

On December 24th, 1895, he got a chill and had to go to bed, and his legs then began to swell. From that time the swelling increased gradually, and he became weaker, and lost weight. About a month before admission he first noticed shortness of breath, which only troubled him on endeavouring to take rapid exercise. At no time in the past had there been any complaint of lumbar pain.

His condition on admission presented the usual features of severe dropsy with advanced kidney disease. He was very anæmic: his eyes had the characteristic watery appearance; when in bed he was obliged to be propped up with pillows, owing to the difficulty of breathing in the recumbent posture; there was considerable œdema of his hands and legs and scrotum: the pulse was of high tension, beating 104 to the minute; there was so much dulness over the left side of the chest that the area of cardiac dulness was obscured. The first sound of the apex of the heart was reduplicated, the second sound over the aortic valves was accentuated; so far as could be made out the heart appeared to be somewhat displaced to the right. With regard to the lungs, on the left side there was absolute dulness at the base of the lung, and the breath sounds over the dull area were very much diminished in intensity, while vocal resonance and vocal fremitus were absent: there were moist sounds to be heard at the right base, and the percussion note over this area was somewhat dull. The thorax presented the characteristic appearance of emphysema, being barrel-shaped, and laterally expanding very little on deep inspiration. The urine contained a considerable amount of albumen, and some blood; microscopically, hyaline, granular and fatty casts were seen. The general evidence, therefore, pointed to dropsy affecting the extremities, to a collection of fluid within the left pleural cavity, and to œdema of the lower part of the right lung; and the problem that we had to consider was to what extent these symptoms could be relieved either by medicine or by operation.

Meanwhile a fresh complication presented itself. On the second night after admission the patient was seized with a sudden attack of dyspnœa. From the very first his breathing had been rapid and difficult, and there had been frequent cough, but this attack of dyspnœa came on so suddenly and was so severe as to suggest the possibility of a form of uræmic asthma. The patient had to lean forward in bed and rest upon his knees, gasping for breath. The house-physician very rightly determined to relieve the respiration as much as possible by removing fluid from the left side of the thorax, and he aspirated and withdrew 34 ounces. This immediately gave so much relief that some doubt was expressed whether the sudden attack of dyspnœa was really asthmatic, or whether it was an intensified form of dyspnœa due to the pre-existing œdema and hydrothorax. Two nights later another attack of dyspnœa occurred suddenly at 9 o'clock, and the symptoms were then noted to be more typically asthmatic in character; the expirations were prolonged, the inspirations of a gasping nature, and he became almost collapsed, with cold, clammy, and profuse perspiration. During this attack the inhalation of nitrite of amyl was employed, but it had no appreciable effect in diminishing the urgency of the symptoms. At midnight the attack passed off almost as suddenly as it had commenced.

Here, then, we had this new complication to face: the patient, in addition to having the dropsy and other symptoms above enumerated, clearly had attacks of dyspnœa of a spasmodic character, resembling true spasmodic asthma, and these attacks were, in all probability, to be ascribed to uræmia. I may remind you that various forms of treatment were adopted with the view of relieving the asthmatic condition, and that very little benefit was obtained either from nitrite of amyl or bromide of potassium. Breath mixture, containing ether and ammonia, gave slight relief. One thing we considered quite clear in connection with this case, and that was that it had to be treated purely as a case of uræmia; in other words, we had to consider measures calculated to relieve the kidneys of their work, or to increase their eliminative powers, and in the absence of any indication of recent engorgement of the kidney, we determined to follow a diuretic course. During the first three weeks of the patient's stay in the hospital, the amount of water passed ranged from 24 to 34 ounces a day.

It is needless to follow the treatment in detail. He had a pint of imperial drink every three hours, and he also was treated with digitalis. Under the influence of the Imperial drink the amount of water passed increased in quantity up to 60 ounces, and while it ranged between 50 and 60 ounces the patient was free from asthmatic attacks; but the effusion in the pleural cavity and the dropsical condition were not markedly relieved by this form of treatment, and we had several times to remove fluid from the left side of the chest.

On returning to town in September I found that the patient had been aspirated repeatedly, and that he had had trinitrin added to his medicine; but the amount of œdema of the extremities was so great that we discussed the advisability of removing fluid from the legs by operation, and decided against so doing on account of the extremely weak condition of the patient; in fact, he appeared to be quite *in extremis*. At this time, therefore, we employed diuretin in place of any other form of diuretic, giving 20 gr. three times daily, and the relief of the urgent symptoms has been remarkable. The quantity of urine passed has again increased, the œdema of the legs, and more particularly of the hands and arms, has diminished, and the patient has been free from asthmatic attacks.

This case illustrates well the occasional advantage to be derived in renal dropsy from a diuretic line of treatment, yet while laying stress upon the importance of its employment in suitable cases, I would warn you against endeavouring to apply it to all cases; and, further, against drawing conclusions too hastily about the amount of permanent good to be obtained. Even when one has decided to postpone operative measures as far as possible, it is by no means easy to determine what form of treatment should be adopted; in fact, in our selection of remedies for renal dropsy we must be guided by the stage of the disease. In acute renal dropsy far more harm than good would be likely to accrue from any endeavour to follow a diuretic course; while even in renal dropsy from chronic Bright's disease, the line of treatment must vary in accordance with whether we believe that the dropsy is fairly recent, or whether it has been long existent.

You will have noted that in this case, although some good was derived from digitalis, greater benefit resulted from the employment of diuretin, and you will remember that both of

these drugs are diuretics. It may be well to remind you that Manquat classified diuretics as follows:

(1) Mechanical diuretics, with the subdivisions (*a*) cardio-vascular diuretics; (*b*) aqueous diuretics.

(2) Renal diuretics, subdividing into (*a*) functional epithelial diuretics; (*b*) irritant epithelial diuretics.

You will see from this classification that digitalis and diuretin probably belong to different groups. Digitalis stands as a "cardio-vascular diuretic," which will act partly by increasing the blood pressure generally, and partly by increasing the speed of the flow of blood through the glomeruli; in fact, digitalis is to be grouped together with convallaria, squills, ergot, strophanthus, and caffeine. Of the "aqueous diuretics" in the above classification, we made use both of Imperial drink and of milk; and these act by increasing the volume of the blood, and by thus directly raising an arterial tension. All classifications of remedies are necessarily imperfect. Some of the "aqueous diuretics," notably milk, might with equal propriety fall into the second group of "renal" diuretics, which act directly on the renal epithelium. Huchard has grouped together the indications for diuretic medication as set forth by various authors in the following way: (1) To maintain the action of the kidney; (2) to evacuate fluid effusions; (3) to soothe and diminish irritation of the genito-urinary organs; (4) to modify the urinary excretion, to prevent urinary calculi; (5) to exert a derivative action through the renal passages; (6) to hasten elimination of toxic substances from the organism; (7) to free the blood of morbid matters which are capable of elimination by the kidneys.

With cases of acute dropsy such as occur subsequently to scarlet fever, you well know that our practice is to stimulate the action of the skin so far as possible by the employment of diaphoretics, or by using the hot-air bath or the wet pack; and while we endeavour in this way to relieve strain upon the engorged vessels of the glomeruli, we almost as a matter of routine administer hydragogue purgatives, by means of which we hope, by reducing the volume of blood within the vessels lining the intestine, to exert an absorbent action through the vessels of the remoter tissues. There are few facts in medicine which appear to be more conclusively proved than that the total quantity of fluid circulating within the blood vessels always tends to remain the same, so that when the vessels are depleted at one part of the body, the loss is replaced by absorption from other parts. The truth of this observation you will remember one has often pointed out in out-patient practice, where I have been able to show you the shrivelled, wasted appearance of patients who are the subjects of acute diarrhœa, when the drain from the vessels of the intestine has obviously led to absorption of the fluids in the subcutaneous tissues; in fact, we endeavour by our medication in cases of acute renal dropsy to imitate one of the natural processes in minor deviations from health. By stimulating the action of the skin in these cases we still further tend to diminish the quantity of fluid circulating within the vascular system, and hence in both ways we favour the return of fluid from the subcutaneous tissues, and we diminish the strain upon the engorged capillaries of the kidney. You will see, then, that the whole treatment is intended not to increase the work of the kidney, but to diminish the strain upon the renal vessels, and thus to afford a time of physiological rest during which the kidney may regain its normal condition. Any attempt to diminish dropsy during the acute stage of the disease by the action of diuretics is likely to be attended with disastrous results, since the diuretic necessarily throws work upon an organ which is incapable of bearing any extra strain. In the same way, when we are dealing with chronic Bright's disease which has caused dropsy, the question of diuretic medication is not always one which can be considered. Sometimes patients with renal dropsy are passing a very fair average amount of urine, but more generally the degree of dropsy varies inversely with the degree of urinary excretion. If we find that the vascular system is showing much sign of failure, we may be tempted to employ diuretics which belong to the first group of Manquat's classification. Commonly we use the acid tartrate of potash in some form, either as the Imperial drink, or in the form of the compound jalap powder of the *Pharmacopœia*. Sometimes the purgative action of the latter is increased by the addition of scammony, but mostly the compound jalap powder is employed alone. The number of diuretics that may be employed is almost endless. Some practitioners recommend digitalis, while others prefer other drugs which act through the vascular system—such as strophanthus, or caffeine, as mentioned above.

In the patient before us you will remember that we employed both digitalis and caffeine in the early stages of the disease. As these appeared not to exert sufficient diuretic effect, our house physician, Mr. Lansdown, wished to compare the results with those obtainable from diuretin. This remedy is the sodio-salicylic compound of theobromine, which has been before the profession for the past seven or eight years without having been generally adopted. The statements that have been made concerning diuretin have been extremely various. Dr. Gram, of Copenhagen, originally stated that theobromine was a diuretic which acted directly on the kidneys, and differed from caffeine in not affecting the central nervous system, and therefore not causing sleeplessness and restlessness. Theoretically, therefore, theobromine should be preferable to caffeine as a diuretic, but in the free state the alkaloid is very sparingly soluble, and gives rise to disturbance of digestion. Diuretin, on the other hand, was credited with producing the beneficial effects of theobromine without the unpleasant symptoms.

In the *Year Book of Treatment* for 1892 attention was drawn to the statements of a physician of St. Petersburg, who concluded that diuretin had no influence on the heart, that it was very unreliable as a diuretic agent, and that it could not be used with advantage as a substitute for digitalis, adonis, strophanthus, and other allied remedies. In the course of the following year the claims of theobromine appeared to have been still further considered, and Dr. Ralfe, in summarising what had been written during the year, stated that as regards the action of diuretin on renal dropsy, the experience of many observers was rather at variance. Thus one spoke of its extraordinary and surprising effect in cases of contracted kidney and its failure in acute nephritis, while another thought that its action was best noted in the latter, though good effects were also noted in the chronic form. One observer stated that the diuretic action of the drug was continued after its administration had been stopped, while even this observation was contradicted. Dr. Ralfe stated that he had been disappointed in its action as far as acute and subacute attacks of nephritis were concerned, though in some cases of contracted kidney with dilated heart it had exercised a slight influence in increasing diuresis, but not sufficient to encourage its use. He also stated that while increasing the water it also increased the elimination of urea and salts.

M. Huchard, in the *Journal des Praticiens*, July 6th, 1895, while writing on the beneficial effects to be obtained from the use of theobromine, incidentally observed that diuretin was an uncertain product, and that it was much less active than theobromine.

Askanasy, quoted in the *Medical Chronicle* of May, 1896, said that while he found that diuretin had a diuretic action in a certain number of cases, it did not appear materially to influence the amount of albuminuria. In 20 cases of affections of the heart and vessels with œdema it proved efficacious in 17, markedly increasing the diuresis. Diuretin often showed itself efficacious when digitalis had failed, but in the cases observed the action did not continue long after the withdrawal of the drug. This author agrees with Dr. Ralfe in saying that it sometimes produces such inconveniences as vomiting, colic, and weakness. He found that it acted very favourably on attacks of cardiac dyspnœa, and angina, in nephritis, and in valvular lesions; and he believed that in cases of angina the action of diuretin was primarily on the heart, perhaps owing to a stimulation of cardiac energy. In our patient we have not seen any inconvenience from the use of the drug; his digestion has not suffered in any way from the dose that we have employed.

The clinical value of diuretin was considered by Louis Vintras in the *Lancet* of April 25th, 1896, who thought that diuretin was of little value when there was much albumen present, or when employed in cases of acute nephritis; and that it was especially applicable to cases where the kidney trouble was secondary to morbid lesions in other organs, and the epithelial layer of the urinary tubules was the seat of disease. While agreeing with him that diuretin is likely to prove useless in cases of acute nephritis—in fact from what

one has already said, you will see that I consider diuretics contra-indicated in the acute stage—yet I must observe that in our case there was from the first a large amount of albumen present, and that this has not apparently proved prejudicial to the use of the drug.

It is obviously unsafe to draw conclusions from one case, and it is no part of my purpose to-day, gentlemen, to attempt to reconcile these different statements. It must be a sufficient satisfaction to find that in the case before us great relief was obtained after we had used diuretin in place of other remedies, and that this relief of urgent symptoms coincided with the excretion of an increased quantity of fluid. In the early days of our employment of diuretin the asthmatic attacks first yielded, and afterwards we noticed that the amount of dropsy became considerably less. That the benefits obtained from this mode of treatment were not mere coincidences is shown by a slight return of asthma when, the patient having become accustomed to the use of the remedy, the amount of fluid excreted again became reduced; and you will have seen how the asthmatic seizures passed off at first with an increase in the amount of diuretin administered, and subsequently after the employment of digitalis in addition to the diuretin. I do not consider that the treatment is likely to produce any lasting beneficial effect. In all probability we shall have, sooner or later, to relieve the pleura again by aspiration, and perhaps to relieve the tension in the extremities by acupuncture or by Southey's capillary tubes. But these measures we endeavour to postpone as late as possible, since frequently the strength fails rapidly after draining large quantities of fluid from the extremities, and there is always some risk of exciting inflammatory changes in the neighbourhood of the punctures.

# LECTURES
ON
# DISEASES OF THE GALL BLADDER AND BILE DUCTS.

*Delivered at the Royal College of Surgeons of England.*

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## Lecture II.
### Fistula.

Fistulæ in connection with the bile passages are by no means uncommon, and their variety is considerable. They result from operation, or from disease, and in the latter case they are due to ulceration resulting from gall stones or cancer. The fistulous channel may either be direct or indirect. In the latter case the perforation occurs first into an adjoining parenchymatous organ or into a localised abscess, and then into the nearest hollow viscus or on to the surface of the body at some part. A fistula may also arise from a local abscess forming outside the biliary passages around the primary focus of inflammation, and then bursting into the adjoining cavities, which are thus made to communicate.

Although the establishment of a fistula is at times dangerous, and at others excessively annoying or uncomfortable, in many cases it forms one of Nature's methods of cure in certain forms of disease of the gall bladder or bile ducts, and the surgeon in forming a permanent biliary fistula in otherwise incurable jaundice, or in making an anastomosis between the bile passages and the intestine for the like purpose, is taking a leaf from Nature's book.

Many of the fistulæ are mere pathological curiosities, quite undiagnosable, and capable only of being discovered *post mortem*. Many must form and heal, leaving the patient cured, and thus never be discovered; for, contrary to what one might suppose, fistulæ between the bile passages and other hollow viscera in the majority of cases heal spontaneously, leaving only visceral adhesions, so that the fistulæ are comparatively rarely found *post mortem*.

Courvoisier and Naunyn[1] tabulate 384 of these fistulæ; Roth, Schroeder, and Schloth record 43 in 10,866 necropsies. My operations extend to 170 cases, in 12 of which there were fistulæ following. Several of the fistulæ were inevitable, as the ducts were strictured; in others they were intentional, as in cancerous obstruction, producing jaundice.

*Biliary Cutaneous Fistula.*—Courvoisier's statistics gathered from reported cases would seem to prove that this is the commonest form of fistula. It may be pathological or post-operative. Pathological surface fistulæ usually open at the umbilicus, the abscess following the course of the remains of the umbilical vein, but they may form at any part of the abdominal wall, even near the pubes or on the left side of the abdomen. Calculi of various sizes—from a single one 3 inches in diameter, reported by Gutteridge,[2] to multiple small facetted ones the size of shotcorns—may be discharged in this way, leading to recovery and permanent cure, but until all the calculi are discharged the fistula is liable to remain open.

Post-operative fistulæ may be mucous or biliary. Mucous fistulæ are occasionally seen after the operation of cholecystotomy, where the obstruction in the cystic duct has not been overcome or where that duct is the seat of stricture. A mucous fistula, as a matter of fact, causes very little inconvenience, as only about 1 ounce of fluid is discharged daily; but if the opening be allowed to close, the accumulation produces pain, and it is therefore necessary for a patient under these circumstances either to wear a small tube and a pad of absorbent wool or to submit to operation; where there is stricture of the cystic duct the gall bladder should be removed, in other cases clearing out stones may suffice. The operation of cholecystotomy will not be followed by fistula if the bile ducts have been cleared and if the opening in the gall bladder be sutured to the aponeurosis and not to the skin.

Biliary fistula following on operation is quite a differen matter from mucous fistula, as although in some cases it is compatible with good health, the inconvenience caused by 30 ounces of bile flowing from the fistula daily produces so much discomfort that in all the cases which have come under my notice the patients have preferred to accept the risks of operation rather than to retain their disability. If the ducts be clear and the fistula be small the application of the actual cautery to the margin of the fistula will frequently result in its closure. That failing, the abdomen may be opened, the gall bladder detached, and the opening sutured. Or the less severe method may be first tried of dissecting the fistula with its peritoneal covering intact away from the skin margin, afterwards doubling in the mucous edges, suturing them accurately, and over this applying one or two layers of buried sutures before bringing together the skin. Where, however, the ducts cannot be cleared, and the gall bladder is large enough to permit of it, the operation of cholecystenterostomy may be performed. If the fistula be dependent on gall stones or fragments in the ducts, the ducts may be syringed through a catheter daily with olive oil or with a 0.5 per cent. solution of sapo animalis, as recommended by Dr. Brockbank; or a solution of turpentine in ether may be used.

Biliary intestinal fistulæ, as might be expected from the contiguity of the gall bladder to the duodenum and colon, are the most common, and as a rule they are due to ulceration produced by gall stones. Usually the ulceration proceeds quietly and produces very few symptoms until the gall stone sets up obstruction in its passage down the intestinal canal. But the process is not always accomplished without symptoms, such as pain over the liver, more or less jaundice, and fever of an irregular type, to be subsequently followed by signs of more or less complete obstruction; the frequency of the latter event varies with the height of the fistulous opening into the bowel. Hæmorrhage into the stomach or intestines may occur in these cases.

When a gall stone is impacted in the common duct just before entering the duodenum, ulceration and perforation of the duct are apt to occur, the concretion thus escaping into the duodenum by an enlargement of the ostium of the common bile duct from ulceration or sloughing. Roth, who has paid special attention to this condition, found it 5 times in 25 cases of biliary fistula. These gall stones are usually smaller than those causing gall bladder intestinal fistula, are seldom larger than filberts, and do not often cause intestinal trouble.

I have only one case to advance from my own experience, and in that instance the vomiting of gall stones made the

diagnosis probable, though the complete recovery of the patient, a woman of 50, rendered it impossible to be absolutely certain that the surmise was correct.

### INTESTINAL OBSTRUCTION.

Intestinal obstruction from gall stones is such a distinct complication of cholelithiasis calling for special treatment that I think it will not be beyond my province to consider it; and as the chief variety of obstruction is necessarily associated with fistula, it seems to me convenient to consider it here.

So much has been written about obstruction for gall stones that at first sight it might seem to be a somewhat common ailment; such, however, is not the case, as may be gathered from the fact that, on inquiring of the registrars and pathologists, I found only four such cases had been treated during a period of twelve months in some of the largest hospitals in the kingdom, representing 80,000 in-patients, and several hundred thousand out-patients attended to during the same time.

Again, only one case, according to Dr. Brockbank, had occurred in the Mancester Royal Infirmary between 1883 and 1896, during which time 50,000 in-patients had been treated. There are clearly four classes of obstruction of the intestines depending primarily on gall stones. The varieties are: 1. That, due to local peritonitis in the gall bladder region, leading to paralysis of the bowels. The symptoms may be so severe as to resemble strangulation by a band, or acute intussusception. The diagnosis will not, as a rule, be difficult, as the history of the occurrence of previous attacks of spasms, though not of necessity followed by jaundice; the similarity to these of the commencement of the attack in question; the severe and persistent pain, at first localised to the right side of the abdomen; the absence of distension at the commencement, and then the occurrence of distension on the right side only, becoming general later; the lateness of the onset of fæcal vomiting, and only after continued retching; the existence of collapse at an early stage owing to the severity of the pain, which is usually relieved by a morphine injection; the usual absence of visible peristalsis; and, lastly, the onset of jaundice, if the concretions have reached the common duct, afford so much guidance that error will not often occur, especially if the patient be a woman of middle or old age. But difficulties may arise, as I have found in two cases of my own.

These cases will, as a rule, yield to general and medical treatment, and it will only occasionally be necessary to resort to operation during the seizure if the symptoms are not subsiding, though subsequent surgical treatment may be required.

The second variety, volvulus of the small intestine, dependent on the violence of the colic caused by an attack of gall stones, or on the contortions induced by the passage of a large concretion through the small intestine, is probably uncommon, though two cases have come under my personal observation.

In this class of cases a positive diagnosis is probably, for the most part, out of the question, except after the abdomen is opened, as volvulus of the small intestine is an extremely rare event, and we know that a large gall stone may quietly ulcerate its way into the gut without any preliminary warning, the symptoms only arising when the concretion is passing through the small bowel; but in my own cases, in addition to the signs of acute obstruction, there was a well-marked localised swelling near the umbilicus, becoming hard during the paroxysms, pointing to the site of the obstruction; and in the second case there was not only the previous history of cholelithiasis, but the characteristic onset of a gall-stone attack followed by acute symptoms.

*Treatment.*—In this class operation holds out the only hope of success, as, the obstruction being mechanical, nothing short of remedying the cause can be of use.

The fourth class is characterised by obstruction coming on after the original cause has disappeared, and depends on adhesions left by local peritonitis due to gall-stone attacks, or on narrowing caused by the healing of a fistulous opening through which a large gall stone has made its way into the intestinal tract.

The third class is the most important variety of obstruction dependent on gall stones, and is the one furnishing not only the greatest number of cases, but a considerable number of museum specimens. It is dependent on the mechanical obstruction and damage to the bowel produced by the passage of a large concretion through the intestine.

In a paper read before the Royal Medical and Chirurgical Society in 1894, I related notes of cases illustrating this condition; and since then I have successfully operated on another case, and similar ones have been reported by Mr. J. Hutchinson jun., Mr. Lund, and Dr. Everley Taylor.

The following, among other cases which I could relate, will serve to illustrate the passage of gall stones without operation:

On August 26th, 1895, I was asked by Dr. Lever, of Harrogate, to see a lady, aged 73, suffering from acute intestinal obstruction of three days, with fæcal vomiting of twenty-four hours' duration. As there was a previous history of gall-stone attacks years before, and as the pain of the present attack started over the hepatic region, we decided to wait and treat the case medically, with the result that a large gall stone was passed naturally after two days, and the patient made a good recovery.

On April 27th, 1896, I received the following notes of a case from a former Leeds house-surgeon, Dr. Wilkinson, of Anerley Hill. My patient is a lady, aged 65, and the facts are briefly an attack of biliary colic followed by symptoms of acute intestinal obstruction, stercoraceous vomiting, etc.

Obstruction lasted three weeks, giving way finally under rest, opium, and copious enemata, and three weeks later a gall stone was passed *per vias naturales* about the size of a pigeon's egg, and weighing 5 drachms, 41½ grains. There was a well-marked facet on the stone, and the patient had only the faintest tinge of jaundice.

In making a study of the reported cases, and especially of museum specimens, one cannot help feeling astonished at finding fatal obstruction depending on quite small concretions, and the comparatively easy passage of very large gall stones. For instance, side by side in Guy's Museum are specimens Nos. 1456, 1457, 1458, and 1459, showing by no means large calculi—one, in fact, only weighing 55 gr.—all of which nevertheless caused fatal obstruction; and specimens Nos. 1449, 1450, and 1451, showing large stones safely passed *per anum*, though in one case the stone was 3¾ inches in circumference, and in another 3 in. long and 1¼ in. in diameter. A case of Dr. J. Blackburn's, 3⅜ in. long by 1½ in. broad, actually produced no symptoms except when at the anus; it is now in the Hunterian Museum (No. 143A).

Schuller (Strassburg, 1891), in reviewing 139 published cases, found that the subjects were women in 74.3 per cent., and out of these 75 per cent. of the cases occurred in women over 50, though instances were found from 18 to 94. Lobstein[3] (Heidelberg) gives the most common age as between 40 and 60.

It is a curious fact that, although the calculi usually produce intestinal trouble within a few days of reaching the intestine, in some cases they may remain in the bowel for long periods—for example, in a case of Mr. Eve's[4] ten years and in one of Mr. Smith's[5] probably fifteen years. In Courvoisier's elaborate statistics, out of 53 cases examined, he gives the site of obstruction as 21.4 per cent. in the duodenum and jejunum, 65.4 per cent. in the ileum, 10 per cent. at the ileo-cæcal valve, and 2.4 per cent. in the sigmoid flexure.

Museum specimens amply demonstrate that the gall stones producing obstruction of the intestine in nearly every case enter the bowel through a gall bladder—duodenal fistula. They rarely enter through the colon; in fact, I can only find two specimens of the latter in the London museums.

The disease is a peculiarly fatal one. Out of 280 cases collected by Schuller, Dufort, and Courvoisier, 156 died, or 52 per cent. Kirmisson and Rochard,[6] out of 105 collected cases, gave the mortality as 50 per cent. The cases that recovered lasted on the average eight days; those that died ten days, but the duration of obstruction may vary from one to twenty-eight days. A case reported by Sargent in the BRITISH MEDICAL JOURNAL, 1879, actually died, apparently from the intensity of the pain, after symptoms lasting only half an hour. Lobstein[7] collected 92 cases; of the 61 not operated on, 32 recovered, the remaining 29 died of peritonitis or exhaustion; of the 31 operated on 12 recovered, but as many of the 19 which died were moribund when operated on their death cannot be charged to operation.

The symptoms are those of acute intestinal obstruction from other causes, with early fæcal vomiting and severe abdominal pain. The higher in the gut the impaction the more violent as a rule will be the symptoms. The obstruction can only very rarely be felt through the abdominal walls. If there is no previous history to guide one it is quite im-

possible to say whether or not the attack is one dependent on the cause in question or on a volvulus or band, or internal hernia, which, if left, must inevitably lead to death, and that speedily. The age and sex, together with the history of chronic dyspepsia and pain in the hepatic region, are, however, well worth bearing in mind, as well as the early and persistent vomiting and visible peristalsis limited to the small intestines.

*Treatment.*—If the diagnosis could always be made with certainty I think this a condition in which medical and expectant treatment might be fairly given a trial, since we have ample evidence of large gall stones having safely passed without other treatment. But we must not forget that 52 per cent. of cases treated on medical and expectant lines are fatal, and although surgery has not yet shown a much greater percentage of recoveries, it is because surgical means are frequently only resorted to when the case is hopeless and after all other means have been tried.

When it is borne in mind that there are no symptoms peculiar to this form of obstruction, and that the course pursued by an obstruction by a band or by an internal hernia may be exactly the same as in gall-stone obstruction, the surgeon who waits beyond the period when an operation may be undertaken with every hope of success is incurring a very serious responsibility.

With regard to the method of treatment after the abdomen is opened and the cause found, if the gall stone can be easily crushed through the intestinal coats, without too much force being required, so much the better, but that failing enterotomy should be performed, as it can be done very quickly and with very little damage to the bowel. Should the patient be too ill to bear a search being made for the obstruction, enterotomy, or perhaps short circuiting, might be performed in order to give temporary relief, the cause of the obstruction being afterwards removed, if this is not effected naturally.

As to when operation should be performed, no definite rule can possibly be formulated which will apply to all cases. The surgeon will as a rule not be called in before decided symtoms of intestinal obstruction have manifested themselves, and until medical means have been fully tried. In such cases it would seem to me to be idle waste of time to delay surgical intervention until the patient is so exhausted that operation is only undertaken as a *dernier ressort* when the subject is almost moribund. If, however, the case be seen at an earlier stage, morphine will have to be given to relieve the pain, and I have usually recommended ext. belladonnæ in ¼-grain doses every four hours, the stopping of all food by the mouth, and the administration of one or more large siphon enemas, given slowly with the buttocks elevated. If relief does not speedily follow, and the diagnosis is not clear, chloroform anæsthesia may assist in two ways. In the first place it enables a thorough examination of the abdomen, and at times a diagnosis of the cause to be made; and, secondly, the manipulation, if made methodically, may reduce a hernia or volvulus, or may possibly help onwards an obstruction. This failing and the symptoms persisting I should operate, and at this comparatively early stage, I feel sure, with every prospect of success.

### Tumours of the Gall Bladder and Bile Ducts.

If by tumour be understood new growth, then tumours of the gall bladder and bile ducts are not common; but if we accept the usual interpretation of the term, and include all enlargements as tumours, we shall find them by no means rare.

I propose to consider the subject under the following classification, which appears to me to include all the chief varieties:

I. *Tumours of the Gall Bladder*
- (A) Distension:
  - (*a*) With bile.
  - (*b*) With concretions.
  - (*c*) With pus "empyema."
  - (*d*) With mucus "hydrops."
- (B) New growth:
  - (*a*) Malignant.
  - (*b*) Simple.

II. *Tumours of the Bile Ducts.*
- (A) Distension.
- (B) New growths:
  - (*a*) Malignant.
  - (*b*) Simple.

*Distension of the Gall Bladder.*—A tumour of the gall bladder though distension with bile must be a rare phenomenon, though it is sometimes described as an accompaniment of a gall-stone attack, where the concretion is impacted in the common duct; even in such a case it must be a symptom of short duration, since if the impaction be complete the bile speedily becomes absorbed, and gives place to distension by mucus. A perceptible tumour formed by distension with gall stones is also rare, unless it happens that some have become impacted in the cystic duct, when a gradual enlargement from the retained mucus will follow. I have removed as many as 750 gall stones from a gall bladder during an operation, and yet that gall bladder could not be felt as a distinct tumour. Occasionally a large single gall stone may form a hard perceptible swelling below the liver, but such is very rare. Calcified gall bladder, which is due to cholelithic catarrh, may lead to the formation of a hard rounded painless tumour, and this is evidently not very uncommon, if we may judge of its frequency by specimens in the museums.

Hydrops and dropsy of the gall bladder are terms used to denote distension of the gall bladder by mucus. It may result from any obstruction in the cystic or common ducts, provided that the gall bladder has not atrophied as the result of previous gall-stone irritation. It is due to the gradual accumulation of the natural secretion of the mucous lining, and may attain such a size as to be mistaken for an ovarian cyst, as in cases reported by Mr. Lawson Tait and by Professor Kocher, though it is uncommon to find the tumour of greater size than 15 to 20 ounces capacity. As an extremely rare event the walls of the gall bladder may form an adipose tumour, as in a specimen from Guy's Museum, No. 1403; the walls of the gall bladder, infiltrated with fat, being one-third of an inch thick. It was removed from a man, aged 66, suffering from kidney disease and cirrhosis of the liver. If the obstruction be associated with inflammation the contents of the gall bladder may become purulent, and an empyema of the gall bladder result.

*Signs.*—Enlargements of the gall bladder may vary from a tumour just perceptible to the touch to one of such a size as almost to fill the abdomen, though one of greater size than a large pear is exceptional. The same tumour may also vary in size at different times, this variation being frequently found in gall-stone obstruction. The direction in which the gall bladder enlarges is well known, but the position of the tumour will vary with the size of the liver. If uncomplicated, it will have a smooth, rounded, and pear-shaped outline, the larger end being below, quite free, and movable from side to side, the upper end being fixed and passing under the lower margin of the liver at the fissure of the gall bladder. A distinct sulcus between the liver and gall bladder is nearly always perceptible to the touch if the warmed flat hand be laid over the right side of the abdomen and the patient be told to take a deep breath, when the tumour and the liver will descend together and pass under the fingers.

In some cases additional information may be obtained by placing the patient in the genupectoral position, and passing the flat hands round the abdomen from behind, when a tumour of the gall bladder will rest distinctly on the hand, and on deep inspiration it can be felt to move just beneath the abdominal walls. In some of the larger swellings a thrill, almost like the hydatid fremitus, may be felt on gently flicking the tumour with the finger nail. Percussion by no means always elicits dulness coextensive with the tumour, especially if the surrounding intestines be distended, so that dulness on percussion is a very variable sign, and palpation will be found more reliable. Tenderness on palpation is a variable symptom depending on the presence or absence of local peritonitis.

Jaundice may complicate tumours of the gall bladder, both being dependent on the same cause, a blocking of the common bile duct. Although not absolutely pathognomonic of malignant disease, the combination should always raise a suspicion of cancer of the head of the pancreas or of the liver or bile ducts, especially if it be associated with great loss of flesh and strength, and with absence of characteristic gall-stone pain.

I have observed in a considerable number of cases distension of the gall bladder with jaundice to be associated with malignant disease, but much less often the combination

of tumour, jaundice, and gall stones, the explanation of this apparent anomaly being that the gall bladder frequently becomes diminished in size and adherent, as the result of gall-stone irritation, or that when the common duct becomes blocked by a calculus, jaundice occurs without distension of the gall bladder, as it is unable to expand. If, however, the common duct becomes blocked by gall stones before the gall bladder has contracted and formed adhesions, there may be the combination of jaundice and tumour. Gall-bladder tumours usually contain mucus, occasionally pus, rarely bile.

In obstruction of the common duct by gall stones, the gall bladder, though usually contracted, may be found distended by bile at first and mucus later, though, as a rule, the swelling subsides more or less rapidly and no tumour persists, the gall bladder shrinking. When the obstruction becomes absolute, as in malignant disease of the head of the pancreas, the tumour formed is persistent: and although the block is in the common duct, bile soon ceases to reach the gall bladder, and the tumour is always found to contain mucus.

*Diagnosis.*—Tumours of the gall bladder may have to be diagnosed from: (1) Movable right kidney; (2) tumour of the right kidney or of the suprarenal capsule: (3) tumour of intestine or fæcal impaction; (4) tumour of liver; (5) pyloric tumour; and (6) abnormal projection of liver.

The diagnosis of enlargement of the gall bladder from movable right kidney is, as a rule, easy in thin persons. They resemble one another in that each forms a moderate-sized, distinctly defined, rounded and movable tumour on the right side of the abdomen, which is found to descend on inspiration. The previous history may throw light on the case, especially if jaundice has been present. By inspection of the abdomen, a gall-bladder tumour is often apparent, moving rhythmically with the respiratory movements when the patient is recumbent, but a floating kidney can rarely be so detected.

The general outline of the tumour as detected by palpation may afford valuable assistance. The gall-bladder tumour can usually be moved to a limited extent inwards and outwards by manipulation, but under no circumstance can it be depressed into the pelvis. On relieving it of pressure it tends to resume its old position under the liver. Floating kidney has a generally wider movement, can be depressed into the pelvis, and when relieved of pressure tends to pass towards the right loin, especially when the patient is recumbent. A valuable diagnostic sign is the sulcus often felt between the lower margin of the liver and the gall-bladder tumour. In the case of renal tumour as well as in movable kidney, by distending the intestine with gas the kidney will be pressed back into the loin, but the gall bladder will be pushed up towards the liver, and made more prominent. The last test is usually also sufficient to enable a diagnosis to be made between a distended gall bladder and a tumour of the right suprarenal body; but this is not always reliable.

In tumour of the intestine or of the pylorus the associated stomach or bowel symptoms are usually sufficient to enable a diagnosis to be made, but when in doubt distension of the stomach or bowel with gas will help to clear it up, or examination under an anæsthetic will afford assistance.

Tumour of the liver itself, either cancer or hydatid disease, may be almost indistinguishable from one of the gall bladder, though the presence of nodules in the liver, with the history and other symptoms of malignant disease will usually be sufficiently distinctive in cancer, while the less localised and more generally fluctuating swelling, together with the longer history and absence of pain, will distinguish hydatid tumour.

Puncture with an exploring syringe would of course give valuable information, but this should not be lightly undertaken, as it is not devoid of risk, death having occurred on more than one occasion as a direct result of this apparently slight operative procedure. If it is decided to employ an exploring needle the aspirator should always be used, in order that the tense cyst may be completely emptied. In case of doubt, especially where the symptoms demand interference, exploration of the tumour through a small abdominal incision can be undertaken with very little risk, and at the same time further treatment, where called for, can be carried out.

Of the tumours dependent on new growth, cancer of the gall bladder is the most important, innocent growth, except of inflammatory origin, being extremely rare. Cancer of the gall bladder is by no means frequent, and as a primary affection is somewhat rare. It is usually secondary to gall stones or to cancer of adjoining organs, and in the latter case is not amenable to surgical treatment.

Malignant tumour of the gall bladder may probably assume one of four varieties: (*a*) Columnar-celled carcinoma originating in the mucous glands (the common form); (*b*) spheroidal-celled carcinoma starting in the surface epithelium; (*c*) sarcoma starting in the connective tissue; and (*d*) squamous epithelioma. The disease may occur as a uniform thickening of the walls of the gall bladder, and in the centre of the mass is often formed a cavity containing gall stones.

The very frequent association of cancer of the gall bladder with gall stones is an undoubted fact, and in all probability there is a connection between the two diseases. Zenkert[1] found gall stones in 85 per cent. of cancers of the gall bladder; and Masser, from an analysis of 100 cases, gives the proportion associated with gall stones as 69 per cent.; while Courvoisier found gall stones present in 74 out of 84 cases of primary cancer of the gall bladder; and other observers give an even higher proportion.

The two theories which have been current to explain the coexistence of gall stone with cancer of the liver, are first, the "irritation" theory, that gall stones are formed first, and by acting as foreign bodies set up irritation which leads to malignant growth; and secondly, the "concentration" theory, that gall stones arise as a secondary result from stagnation of the bile in the ducts, caused by their obstruction from malignant growth.

Mr. C. Beadles, in a paper before the Pathological Society of London,[2] stated that out of 100 *post-mortem* examinations at the Cancer Hospital, 4 were cases of primary carcinoma of the liver, and all had calculi in the gall bladder; 36 had secondary carcinomatous growths in the liver, but there were no gall stones present in any of them.

*Symptoms and Signs.*—If the growth be primary, there will be the history of a more or less rapidly-growing tumour developing under the right costal margin, accompanied at first by a sense of discomfort, shortly changing to pain which, though at first localised to the right hypochondrium and epigastrium usually before great advance has been made, extends round the side to the right infrascapular region. When the enlargement is first noticed, it is felt as an egg-shaped swelling beneath the liver, descending on inspiration. The tumour is hard to the touch, and very slightly or not at all tender to pressure. At a later stage, it becomes more fixed and more diffused, and nodules may develop and be felt on its superficial surface.

According to the invasion or not of the hepatic or common bile ducts, so will be the presence or absence of jaundice, but in nearly half of the cases some degree of icterus will be found as the disease advances, owing to the presence of catarrh of the bile ducts.

Interference with the action of the bowels even to partial or complete obstruction at times occurs. General failure of health, continued wasting with loss of strength, ascites, and marked cachexia characterise the later stages.

Perforation may occur and hasten the end by the onset of general peritonitis. Where gall stones with jaundice complicate cancer of the gall bladder exacerbations of pain will usually be accompanied by rigors and fever—"ague-like attacks," with an intensification of the icterus, and in such cases petechiæ in the skin, with hæmorrhage from the nose and rectum usually supervene.

*Diagnosis.*—Cancer of the gall bladder may usually be diagnosed by the progressive character of the disease, and by the presence of the characteristic hard tumour; but it is by no means always easy to diagnose cancer from a tumour formed by matted intestines due to local peritonitis in the neighbourhood of the gall bladder.

When in doubt exploration is probably the best method of settling it, as at the same time treatment may be carried out. Cancer of the right suprarenal body may afford a difficulty in diagnosis, and the same applies to cancer of the pylorus, which, however, is accompanied, for the most part, by characteristic stomach symptoms.

*Treatment.*—The alleviation of symptoms, especially of

pain, by sedatives is practically all that can be done, except in those rare cases where the disease is limited to the gall bladder, when cholecystectomy may be performed.

### Tumours of Bile Ducts.

Tumours of the bile ducts *per se* only occasionally form a projection so large as to be distinguished through the abdominal walls. The common duct has, however, been found dilated to such a size as to form a cystic tumour presenting all the characteristics of a distended gall bladder, the gall bladder itself being atrophied.

Terrier has recorded four cases in which an external fistula led into the common bile duct, and I have had two of a similar nature, in one of which I performed choledochostomy after cholelithotrity, and in the other choledochenterostomy after cholecystectomy.

Although hitherto the results of choledochostomy have not always been favourable, probably in consequence of the fact that extreme distension of the bile duct is often accompanied by infection of the biliary passages, it would be well to reserve our opinion as to the prospects of the operation until we have more experience of it.

The new growths found in the bile ducts may be simple or malignant. Of the malignant we must take into consideration the two classes—primary and secondary; the former arising most frequently as the result of gall-stone irritation, the latter by extension from neighbouring organs.

Primary malignant growth may be: (*a*) Cylindrical-celled carcinoma; (*b*) spheroidal-celled carcinoma; (*c*) sarcoma; (*d*) squamous epithelioma. In the Hunterian Museum, specimen No. 2809 is a melanotic sarcoma of the gall bladder.

Out of the 11 cases of malignant disease of the bile ducts recorded by Dr. Rolleston, only 4 were associated with gall stones. He thinks that calculi are less frequently associated with primary cancer of the bile ducts than with cancer of the gall bladder. In Dr. Rolleston's paper a case is referred to, which makes it probable that an adenoma preceded cancer. Papilloma is probably an earlier stage of cancer, and is rare. Cancer is usually secondary to gall stones, though they may not always be found, having passed into the bowel before operation. Although these tumours are usually seen in the common duct, they may occur in the cystic or in the hepatic ducts. In Musser's 18 cases the hepatic ducts were alone involved three times, the cystic and hepatic ducts once, and the common duct fourteen times. In Rolleston's 11 cases the common duct was always the seat of the tumour. These growths are usually found between 50 and 60, and, unlike cancer of the gall bladder, where 75 per cent. of cases occurred among women, this disease attacks both sexes equally, the symptoms of course vary with the ducts affected. Suppurative cholangitis is apt to supervene, the case then taking on a more acute course, and being accompanied by fever, ague-like attacks, and rapid loss of flesh and strength. Needless to say, the disease is uniformly fatal, though operation may delay the final catastrophe.

Cancer of the ampulla of Vater has received some attention from M. Hanot,[10] M. Durand-Fardel,[11] M. Rendu, and Dr. Rolleston.[12] Two forms at least are described: one arising from the intestinal walls of the ampulla, and the other from the orifice of the common bile duct and the pancreatic duct. They are characterised by intermittent jaundice, wasting, and cachexia, but as a rule pain is absent.

*Diagnosis.*—The diagnosis of new growth in the bile ducts from gall stones is practically impossible, as the symptoms are the same, and in fact the two frequently coexist. The absence of pain in some cases and the rapid deterioration of health may afford a little help, but in some cases the pain may be as acute as in cholelithiasis. Cystic dilatations of the bile ducts are often indistinguishable from enlargements of the gall bladder, for which they are usually mistaken, but they may resemble a cyst of the pancreas or a hydatid tumour of the liver; but as the treatment in all these conditions is abdominal section, no harm will be done if the diagnosis is only completed when the abdomen is opened.

*Treatment.*—The operative treatment of these tumours is in its infancy, and has thus far not proved uniformly satisfactory. Any growth should be removed if possible, but where that is impracticable the dilated gall bladder or ducts may be opened and drained, or better still drained into the duodenum or jejunum by means of one of Murphy's buttons. If the cause be a removable one, such as a gall stone, it should be taken away. Choledochostomy has not yielded good results in cystic dilatation of the bile ducts, whereas the results of choledochenterostomy establish its claim to be considered the best method of treatment.


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# THE MILROY LECTURES

# ON QUARANTINE.

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[Abstract.]

### The Causes of the Failure of Quarantine.

Having thus sketched the history of quarantine and its final suppression by medical inspection, the chief causes which have gradually led to its abandonment may be summarised as follows:

1. That the quarantine system was based upon a theory which is no longer tenable.

2. That it has never been found possible to maintain it absolutely, and that consequently a country has been subjected to a barbarous, unnecessary, and costly system, without even the satisfaction of knowing that the experiment was complete.

3. That, where carried out as strictly as possible, it has not had the effect of arresting the importation of disease.

4. That sanitation and a rational system of medical inspection have proved more efficacious, and at the same time less burdensome.

The whole history of quarantine is a series of illustrations of its futility, and proves it to be, as Sir John Simon so graphically described it, an elaborate system of leakiness. Theory must give way to practice, and the real test of quarantine as a system to be relied upon by the Government of a country for its protection must eventually be that of actual experience.

As soon as investigation was made into the facts it was extraordinary how little evidence there was of the value of the system for the purpose which it was intended to serve.

An effective quarantine is practically impossible in a commercial country. In early days, when trade was relatively of small volume, this was apparent, and the enormous growth of commerce has simply emphasised the fact. The question could only be considered at the present day with reference to the period of incubation, and it would obviously be accepted that any vessel was safe if there had been no case of disease during a period at least equal to that of the possible latency of the disease.

### The Inefficiency of Quarantine.

It is scarcely possible for those not actually interested in shipping to realise how serious a matter quarantine has been for shipowners, not only in the remote past, but even up to a very recent date. First in importance probably would come without doubt the loss occasioned by delay and uncertainty of detention, and even in some cases actual prohibition of intercourse with infected port or ports supposed to be infected.

Dr. Bowring, after extended travel and experience of quarantine, says that "the pecuniary loss inflicted by the system may be estimated by millions of pounds sterling in delays, demurrage, loss of interest, deterioration of merchandise, increased expenses, fluctuations of markets, and other calculable elements: but the sacrifice of happiness, the weariness, the wasted time, the annoyance, the sufferings inflicted by quarantine legislation—these admit of no calculation, they exceed all measure."

It seems impossible that trade could ever have been carried on under the vexatious and harassing restrictions at one time in force—obviously trade as understood at the present day could not have existed. Thus so recently as 1827 all vessels bound up the river Thames from ports east of Gibraltar were compelled to run into the Medway and perform quarantine in Stangate. Such a waste of time and money would be utterly out of the question at the present day. Apart from the detention, which was an essential part of the system, there existed the greatest uncertainty at all times as to the existence of the disease which rendered such detention compulsory. The merest rumour or suspicion of disease was often held sufficient to justify the imposition of the most rigorous quarantine, and this must of necessity have been the case. Even at the present time, with all the facilities that now exist of postal and telegraphic arrangements, it is always difficult to obtain accurate information as to the existence and nature of diseases prevailing in foreign countries.

The policy of concealment is constantly adopted in order to avoid the actual or imaginary interference with trade which may follow the declaration of the presence of an epidemic, and the officially confirmed facts are obtainable only after the disease has spread to such an extent that its existence can no longer be denied. First cases of cholera are called "sporadic," or the term "cholerine" is used with the hope that they may not become sufficiently numerous to call for investigation on the part of other countries.

This in itself is a strong argument against such restrictive measures as interfere with the carrying on of trade. It not only leads to concealment, in itself a serious danger, but further, on account of the desire to keep the true facts secret, prevents the authorities from taking due measures to prevent the spread of the infection. On account of the delay in obtaining accurate information, action may be taken by other countries in self-defence on mere rumour, otherwise sufficient time would elapse for vessels to reach a country before the port of departure was authoritatively known to be infected. The same danger arose at the close of an epidemic, it being found necessary to continue restrictive precautions for a certain or rather an uncertain period after all danger was officially declared to be at an end.

### THE PROHIBITION OF THE IMPORTATION OF RAGS, ETC.

A somewhat similar danger still obtains with reference to cargoes such as rags, clothing, etc., considered as capable of conveying infection, and this danger appears to be fatal to the policy recently in vogue in this country of issuing orders for limited periods prohibiting the importation of such goods unless previously disinfected. The immediate result of such orders has been to seriously interfere with a special class of traffic for a certain period. Assuming that such materials do carry infection (and the evidence is by no means clear on this point), it must be remembered that although shipped at a certain port they are not necessarily produced or collected within its immediate neighbourhood.

Thus rags might be introduced into this country from an infected district, without any precautionary measures, because they were shipped from a country not declared infected, or on the other hand materials sent from an infected port might have been obtained from a district where no disease had appeared.

Again, no orders were issued until the disease was well established, and therefore these goods might be freely imported from an infected district up to the time of the promulgation of the order.

Now, one effect of such an order is necessarily to increase the cost of the material owing to the compulsory disinfection. The traffic would therefore to a certain extent (varying according to the state of the market and the laws of supply and demand) be arrested, and stocks would be accumulated in the infected countries. As soon as the epidemic was at an end, and the prohibitory order revoked, these stocks would be shipped, and thus the very goods collected in the infected country during the prevalence of disease, and detained for a certain time, would be once more freely admitted.

If these goods were capable of conveying infection, it would be far more reasonable to insist upon their disinfection at all times. If this were a settled principle, arrangements would be made whereby they could be disinfected at small cost, and the dislocation of trade avoided.

### THE COSTLINESS OF QUARANTINE.

To keep up quarantine, with all its elaborate machinery of medical officers, lazarettos, quarantine guard, etc., involved enormous expense. All this vast machinery of defence had to be maintained in working if it were to be suddenly brought into use. Lazarettos fully equipped with all the necessary officers, attendants, and guards could not be provided suddenly. Hence the expense was continuous, though the actual need for the use but occasional. For although all vessels from certain countries were detained, this was done only with the object of arresting disease arising from those which were actually unhealthy, the quarantine being a probation to establish the fact of infection or otherwise. According to returns between the year 1720 and 1843 (123 years) only twenty-five vessels with plague actually on board arrived at all the ports of France and Italy. Ten of these at Marseilles, five at Venice, nine at Leghorn, and one at Genoa. The total number of cases at Marseilles, including all doubtful ones, was only 32, with 18 deaths. For these few cases the two countries were put to an enormous outlay, and the vessels arriving there subjected to serious and vexatious delay, with its attendant heavy expense.

The most serious objection to quarantine, however, apart from its futility, is the actual danger to health which is involved from the detention of a large number of persons under conditions in most cases insanitary, and in all more or less unfavourable to the preservation of health on board an infected vessel or in confined lazarettos within range of the infection if such existed. For either there was no necessity for their quarantine, or they were unreasonably kept more or less exposed to the risk of infection, which was unjustifiable.

### QUARANTINE OR SANITATION?

The maintenance of the system extended its pernicious influence much farther. It engendered in the minds of the inhabitants of those countries who maintained it a false feeling of confidence for which there was no foundation, which led them, believing themselves sufficiently protected against the importation of disease, to neglect those measures of sanitation which alone are of any avail against the spread of infection. It is a matter of history that in those countries where quarantine has been most rigorously carried out that there common sense precautions against disease have been most disregarded and the general principles of national hygiene most neglected. The reasons are not far to seek; in the first place, they feel they have done what is necessary to protect themselves, and cannot therefore realise the value of sanitary measures of rational sanitation which are so essential for the health of the country. The large sums expended by this country in carrying out works of sewerage and water supply and in public health administration have not been wasted. If quarantine had succeeded in preventing the entrance of those diseases against which it was directed its beneficial results would have stopped there, whereas the expenditure on sanitary works has not only enabled us to cope with these same diseases in a more thorough and rational way, but has been instrumental at the same time in greatly improving the general state of health of the community.

The public mind has been educated to the necessity for sanitary improvement and the important part which it must play in protecting the people from the ravages of disease. All attempts to conceal or minimise outbreaks of infectious disease have been avoided and the means adopted for coping with them are as widely made known as possible.

An attempt is made, and to a great extent happily successful, to intercept by means of medical inspection at the ports all cases of imported disease. Where this attempt fails, reliance is placed upon the sanitary condition of the district to which the infection may be conveyed. If the sanitary condition of such district be good, its system of drainage and sewage satisfactory, and its water supply pure and abundant, then experience confirms the theory that there is but little to fear from the spread of the disease, and that it may reasonably be expected to be confined within narrow limits.

### Abuses of the Quarantine System.

Unfortunately in most countries where quarantine is practised the restrictions have been so severe that the interests of commerce have trained for their own purpose a band of mercenary officials and an elaborate system of bribery and corruption. This has been encouraged by the fact that in several cases the formality has been found utterly impossible, as, for instance, on the visit of a sovereign or ambassador of a foreign Power. In such instances the detention was, perforce, dispensed with, and the rule once broken through, it is not difficult to see how in other cases the desire to avoid delay and expense led to the purchase, direct or indirect, of a like privilege, until in some countries the system was eventually practically reduced to one of blackmail. Those who paid best received the most attention, and the supposed protection by probation became an absolute fiction.

While it is not right to condemn a system because of the abuses which have crept in, still these have been so constantly associated with quarantine that they have, with a certain amount of reason, at last come to be considered as an inseparable part of it.

Before the Select Committee in the House of Commons, which sat in 1824, evidence was given by merchants to the effect that foul bills of health were deliberately issued without any justification, so that a market could be made in Holland while British vessels would be delayed here, the issue of such bills being arranged by the Greek merchants at such times as the state of the market rendered it desirable in their interests to forestall British vessels.

Again, for political purposes, quarantine has been made use of with effective results. At one time, during an insurrection in Sicily, it is stated on good authority that a quarantine of eighty days was imposed upon certain vessels bringing help to the rebels, during which interval the rising was successfully dealt with.

The true defence against epidemics is a healthy condition of the people, fostered by all the care and attention that can be given it by our legislators and sanitary authorities, and it is upon this that England in the main relies.

### The Sanitary Control of Shipping.

The Public Health Act, in addition to ordinary sanitary powers, provides for the isolation and treatment of infectious sick and the disinfection of houses and clothing, while the Notification Act compels the fact of such disease to be reported to the sanitary authority whose duty it is to put these preventive provisions in force.

As the ordinary zymotic diseases such as diphtheria, enteric, typhus, and scarlet fevers, and small-pox, are always in our midst to a greater or less extent, and, as the existing powers of sanitary authorities are deemed ample to cope with them here, it is clearly logical to believe that they would be sufficient to combat any cases of the same disease brought by vessels to our shores.

But this is not at present the view taken by many authorities in this country. Because such cases happen to be on board a vessel, instead of arising within our own limits, it is suggested that such ship should be submitted to a course of detention and isolation which in the case of a house has scarcely ever been thought of. The compulsory notification, removal to hospital, and subsequent disinfection, are ample to ensure safety, and there is no more justification for the detention of healthy persons on board a ship on which a case of small-pox has occurred than there is for the enforced isolation of the inmates of a house in which the same disease has appeared. Yet, in the one instance, the question has never been discussed, at least in this country, while the other has had many strong advocates.

With reference to those diseases which do not ordinarily exist in this country more stringent measures may be justifiably employed, though these must be of such a nature as not to interfere unnecessarily with the interests of commerce.

The term "medical inspection" as employed in this country means that in each port a medical officer of health is engaged whose duty it is to visit every ship on which any case of cholera, yellow fever, or plague is suspected to exist, the suspicion or fact to be derived from the master of the vessel (except when a surgeon is carried) or a custom-house officer.

This is surely a misuse of the term. If medical inspection means anything, it implies that a medical officer visits every vessel from "foreign," and examines any cases of sickness on board, whatever their nature, and every person on board, if the vessel has arrived from a port which is known to be "infected." This is a system which, while in no way interfering with trade, affords the utmost protection which is possible or even desirable. The isolation of the sick and disinfection of the vessel follow exactly the same lines as those employed on shore (varying only as the nature of the infection requires this or that treatment for its destruction).

This is not advocating any novel experiment, nor the use of untried measures. During the last twenty-five years there has been ample experience of what may fairly be called the English system, and its value has been sufficiently demonstrated to justify future reliance upon it. Realising the fact that the trade interests—nay, the very existence of the empire would be imperilled by a return to the obsolete system, which has failed wherever tried, the Government will still depend for their safety upon a rational system of medical inspection at the ports and the first line of defence, and upon the maintenance of an increasingly high standard of sanitation throughout the length and breadth of the land for the second line of defence in the event of the first line being broken through. At the last International Conference many of the European Powers were inclined to follow the same lines, but, unhappily, this has not been a lasting conversion.

### The Sanitary Condition of Vessels.

Ships travelling to all parts of the globe are obviously exposed to the danger of infection from the diseases of any port in which they may happen to lie. Sailors when in port as a rule frequent the lower quarters of the town, and are, therefore, at each port exposed to a fresh risk of infection. Thus their chance of becoming infected is greater and more varied than that of the corresponding class on shore. In the case of merchant ships the majority of seamen are during the voyage beyond the reach of medical aid, and therefore, for the sake of humanity alone, their surroundings should be made as hygienic as possible. The calling of the seaman would appear at the first sight to be a healthy one, since he spends a large part of his time in the open air, removed from close and confined atmosphere of towns. There are undoubtedly many advantages in his calling, but, on the other hand, he suffers from frequent exposure to wet and cold, and hence is unduly subject to various forms of rheumatism. From the limited air space, and the fact that, owing to the system of watches, forecastles are always occupied and, therefore, never thoroughly ventilated, all forms of lung disease are exceedingly common. These causes, and the violent exertions that they are called upon at times suddenly to undergo, fully account for their high mortality and sickness-rate. In the Royal Navy the death-rate in 1892 was 5.58 per 1,000, while in 1886 in the merchant navy, for sailing ships the rate was 21, and for steamships, 9.6.

Although during the last twenty-five years great improvements have taken place, and much more attention has been paid to naval hygiene, it is still a fact that so far as sanitation is concerned the sailor is a long way behind his fellow worker on land. He is entirely dependent for food on the vessel in which he lives, and, provided a scale which is given him on engagement is adhered to, there is no law to require that such scale should be either reasonable or sufficient. As a matter of fact, the majority of diet scales in use in our merchant service are not sufficiently nutritious or varied for men doing hard work, nor indeed are they by any means the best that can be provided for the money that is expended upon them. Better dietaries and better cooking are urgently needed.

A larger amount of cubic space than that required by law (namely, 72 cubic feet per head) is absolutely necessary, and what perhaps is more important, some guarantee that such space should be properly utilised and fitted for the purpose for which it is intended to serve. At the present time there is a grave anomaly with reference to this question. Before a house can be erected, a plan showing the drainage and sanitary arrangements must be submitted to the sanitary authority,

with whom rests the responsibility of approving or otherwise, while in the case of a vessel no such provision obtains.

As a general rule, in designing a vessel a certain space is set aside for the crew, and when she is completed this space is utilised in the best way possible by an artisan without reference to the sanitary authority and without any control, except that exercised by the Board of Trade under the powers limited (from a sanitary point of view) of the Merchant Shipping Acts.

The arrangement and fitting of crews' quarters under the supervision of a sanitary authority, advised by an expert, would be a benefit both to owners and seamen, and would be of great value in preserving the health of those on board. The constant and close supervision of vessels while lying in port, and the prompt abatement of all nuisances and conditions likely to prove injurious to health, are essential. A foul ship is itself more to be dreaded than anything she may have on board.

The United States Government have always laid great stress upon the sanitary condition of vessels leaving foreign ports for their shores. They require a bill of health with actual information as to the health of the vessel on leaving.

Rohé quotes as an illustration of the value of this system from a report by the medical officer of the Marine Hospital at Naples that eight vessels left that port during the year 1893, when cholera was epidemic. These vessels were under similar conditions as to water supply and food, and carried passengers of similar class and origin. In four leaving without any sanitary conditions, there were 50 deaths, 90, 84, and 230 respectively. Of the four leaving for the United States on which sanitary precautions were compulsory, one which left before cholera was declared had 3 deaths, the other three had none: and further, every vessel leaving Naples had cases of cholera on board except those on which these regulations were carried out.

## LEFT TRAUMATIC SUBCLAVIO-AXILLARY ANEURYSM CURED BY LIGATURE OF THE THIRD STAGE OF THE SUBCLAVIAN ARTERY.

By FRANCIS T. HEUSTON, M.D., F.R.C.S.I.,
Senior Surgeon to the Adelaide Hospital, Dublin.

A. N., a pensioner, aged 50 years, was placed under my care at the Adelaide Hospital by my friend Surgeon-Major F. A. B. Daly. He had served in the army for twenty-one years, during eighteen of which he was in the band as a clarinet player, and was discharged from the service in July, 1887, in good health. In the summer of 1892 a heavy board fell on his left shoulder, and although he had no pain until May, 1895, he attributes his affection to this accident. In November, 1895, he consulted Surgeon-Major Daly for pain in the left shoulder, clavicular and scapular regions. The superficial veins over the left clavicle were slightly enlarged, and a slight difference was noticed in the radial pulses, but no *bruit* could be obtained; aneurysm being suspected, he was given large doses of potassium iodide, and his diet was regulated. This treatment gave such relief that he resumed his work as night porter at the United Service Club.

In January, 1896, the pain in the shoulder and back returned with increased violence, and at times shot down the left arm and to the region of the diaphragm. He was then admitted to a civil hospital in this city, but was soon discharged without relief, his case not being recognised. He then again consulted Surgeon-Major Daly, who found his symptoms to be much better marked than when he saw him before, and that a well-marked tumour had developed in the left posterior inferior triangle of his neck.

The patient was admitted to the Adelaide Hospital under my charge on February 26th, 1896. He is a well-built, healthy-looking man, and states he has a severe continuous pain in his left shoulder and back, in the region of the scapula. This pain is relieved by placing his arm over his head. The left arm is greatly swollen and œdematous, its superficial veins are markedly distended and tortuous, the left clavicle is raised and the supra- and infraclavicular depressions obliterated owing to a tumour which occupies the subclavian triangle and the axilla as far as the lower border of the pectoralis minor. This tumour has a distensile pulsation, and well-marked *bruit* and thrill. There is marked difference between the right and left radial pulse, and visible pulsation of the carotid and brachial arteries.

Ligature of the subclavian artery being decided on, the usual transverse incision for exposing the third stage was made, and the artery exposed as it passed from beneath the scalenus muscle. It was of normal appearance, but its sheath was very adherent. A strong catgut ligature was passed round the vessel and tied, the ends of the ligature being removed, the deep structures were united by catgut hidden sutures, and the skin by silkworm. The wound was dressed with zinc sulphite gauze, and the arm swathed in cotton wool.

The subsequent progress requires little note; the wound healed by first intention, although a stitch abscess occurred at the site of the most anterior skin suture. Pulsation returned in the radial artery on the eighth day after operation, and the patient left hospital on the twenty-third day to resume his duties at the United Service Club.

The patient was shown at the Surgical Section of the Royal Academy of Medicine in Ireland on May 1st, two months after operation. Since leaving hospital he had been engaged at his usual work as night porter at the United Service Club. The left radial pulse was small, but the artery was of good tension. The tumour had lessened considerably in size, and had no pulsation or *bruit*. All the other symptoms had disappeared. Eleven months have now elapsed since operation, and the patient continues in perfect health.

On referring to Edmond Souchon's article on Aneurysms of the Subclavian Arteries in the *Annals of Surgery* for November and December, 1895, it will be found that out of 120 aneurysms of the third stage of the artery, 35 implicated that of the left, and 85 that of the right side, and that of 31 traumatic aneurysms operated on by proximal ligature 19 recovered (about 66 per cent.), 4 of those being on the right and 15 on the left side.

## A CASE OF REUNION OF TENDON NEARLY FIVE YEARS AFTER ITS DIVISION, WITH GOOD RESULT.

By R. CARMICHAEL WORSLEY, M.R.C.S., L.R.C.P.,
Ramsgate.

L. B., a cook, in 1890, when aged 30, broke a window and cut her right wrist badly. The wound was six weeks in healing, some fragments of glass working out. The thumb, index finger, and middle finger afterwards became firmly flexed into the palm. A year after the accident, the tendons of the index and middle fingers were cut down upon and reunited by suture, with good result, after long extension on splints; the extension movements of the index finger, however, remained weak and imperfect. In December, 1895, the thumb was strongly adducted and flexed into the palm. The extensor primi internodii and extensor ossis metacarpi pollicis had escaped division, but the extensor secundi internodii pollicis had been cut, and its retracted ends could be obscurely felt in the scar tissue on the radial side of the wrist.

On January 16th, 1896, assisted by Dr. Bowden and by Dr. Tamplin, who gave the anæsthetic, I cut down on the scar, having made the limb bloodless, and found the ends of the tendon separated by 1½ inch of fibrous tissue traversing the scar. This band contained in its centre some gelatinous-looking substance, which on microscopic examination proved to consist of a few genuine tendon bundles running through the fibrous material. It was impossible to bring the ends of the true tendon together without splitting them, and as I was anxious to obtain strong union I excised an inch only of the fibrous band, and brought the ends together with one stout and two fine silk sutures. Rigid antisepsis was aimed at, and the forearm and hand placed upon a splint, with the thumb over-extended on a wire arm. The wound healed by first intention. There was very severe pain for a long time up the

forearm and arm, owing to stretching of the flexors, which had been so long contracted. This pain had prevented my practising any continuous extension preliminary to operation. Morphine gave but little relief, and insomnia was troublesome. After a week, very gentle passive movement was begun and kept up daily for a minute or two, the thumb being kept overextended on the splint. On the nineteenth day a new splint was applied, fitting the radial side of the forearm, and fixing the thumb out, while the fingers had freedom, and the patient was able to do her work. In three weeks from the operation she was able to perform feeble extension of the thumb, but flexion took place if it was left off the splint. The constant current was now applied to the muscle for ten minutes daily (15 cells Leclanché).

Three months after operation the thumb became loosened from the splint in the night, and contracted towards the palm, but not to the former extent. It was secured and always kept on the splint except when exercised and galvanised daily.

In June, 1896, improvement continued, but slowly. If the bandage was taken off the thumb became flexed and adducted to beyond the line of the index finger. Movement in the direction of extension was stronger, however. There was still some pain in the forearm.

In October the patient could leave off the splint for fifteen to twenty minutes, and use the thumb a little. She was advised to take the splint off frequently and exercise the muscles. The current from ten cells was used. On October 27th the patient wrote a letter, using the thumb. On November 1st the splint was off for three-quarters of an hour, and she had a light steel spring attached to the thumb, rivetted to a leather wrist strap, which exerted a pull equal to 3 ounces. The tendon could be distinctly felt, with some thickening at the site of union. Since the operation the extensor indicis is much stronger, which I attribute to the disturbance of the adhesions throughout the old scar which then occurred.

At the time of writing—November, 1896—the thumb is practically, except for a little weakness, as good as the other one, and the patient will very soon, I hope, be able to dispense with all artificial support.

### Remarks.

I have thought this case worth recording in view of the long time that had elapsed since the division of the tendon, and the resulting confirmed deformity, which had induced more than one surgeon to advocate amputation. The ultimate good result I attribute to: (1) Early passive movement, very limited in extent, and gentle, not enough to disturb union of the tendon, but sufficient to prevent its adhesion to the scar tissue, there being no tendon sheath present. (2) Perseverance in over-extension of the thumb on splints, to overcome the action of the long-contracted flexor muscles. (3) Daily application of the constant current to the extensors of the thumb, long disused, and persistence in active exercises of the same muscles.

## THE BACILLUS OF FRIEDLAENDER IN PHARYNGITIS AND TONSILLITIS.

By W. C. C. PAKES.

Assistant Demonstrator of Bacteriology at Guy's Hospital.
[From the Laboratory at Guy's Hospital.]

MM. Nicolle and Hébert have published an account[1] of the occurrence of the pneumobacillus of Friedlaender on the throat of patients suffering from tonsillitis, follicular tonsillitis, or membranous pharyngitis. Upwards of 1,600 serum tubes inoculated from the throats of patients were examined by them, and they found the pneumobacillus of Friedlaender eight times, six times alone. Since November, 1894, upwards of 500 serum tubes inoculated from the throats of patients in the wards or out-patients of Guy's Hospital have been examined. In 5 cases I have found the bacillus of Friedlaender; twice it was found on the surface of the serum in pure cultivation, twice in association with the Klebs-Loeffler's bacillus, and once with the staphylococcus aureus.

### Bacteriological Examination.

In each of the 3 cases which were not pure on the serum I succeeded in obtaining pure cultures on the second subcultivation by inoculating three agar tubes from the once inoculated platinum spatula. The morphological characters which they exhibited were:

1. Non-motility.
2. Polymorphism.
3. Decoloration when stained by Gram's method.
4. The presence of a well-developed capsule, especially when taken from the heart blood of the inoculated mice after death.

The cultural characters were as follows:

1. Whitish, semi-translucent, sticky growth in bouillon.
2. Aërobic and anaërobic growth in gelatine, causing no liquefaction.
3. Whitish, moist, raised growth on slanted gelatine, the growth slipping to the bottom of the tube after four or five days.
4. Abundant gas production in glucose gelatine shake cultivation.
5. Slimy and almost transparent growth on agar and blood serum.
6. Formation of acid in dilute lactose bouillon.
7. Coagulation of milk with an acid reaction (in 4 cases before the ninth day, in 1 case on the eleventh day).
8. Brownish abundant growth on potato.

*Pathogenicity.*—Mice were inoculated at the root of the tail with a small quantity of a young agar culture from each case. In 2 cases the mice were dead on the second morning; in the other 3 cases they were dead on the third morning. The typical capsulated bacilli were found in the heart blood and spleen of each mouse, and from the heart blood pure cultures were recovered.

My notes of the cases are unfortunately not as full as those of MM. Nicolle and Hébert. The patients were all attending at the out-patient department of Guy's Hospital, and although three of them promised to come again in about a fortnight, not one of them came.

Cases I and II were both children. There were small yellowish plugs on both tonsils, which were spreading towards one another. Klebs-Loeffler bacilli were found in conjunction with the bacillus of Friedlaender. The children were sent to a fever hospital and were lost sight of.

Case III.—A man, aged 30, complained of a sore throat, which he had noticed for a few days. The fauces were red, and the tonsils red and swollen: there was a slight colourless exudation on both sides of the fauces. There was no constitutional disturbance, and the patient said that he felt perfectly well except for the sore throat. The cultivation on coagulated blood serum was a pure one of Friedlaender's bacillus. On the following day the throat had the same appearance, and the second cultivation again proved to be a pure one of the same bacillus.

Case IV.—A man, aged 20, complained of a sore throat, which he had noticed for about a week. The fauces were red and injected, and there were two or three whitish plugs over the crypts of the tonsils, but no sign of membrane. The culture on blood serum was found to consist of the bacillus of Friedlaender and staphylococcus aureus. Two days later the throat was still inflamed, but less sore. A second cultivation revealed the presence of the same two organisms.

Case V.—A girl, aged 6, was brought to the hospital because she had a sore throat. The tonsils were red and swollen, and a few plugs of whitish material were present. The temperature was 100° F. A pure cultivation of Friedlaender's bacillus was found on the blood serum. No further observation was made.

### Reference.

[1] *Annales de l'Institut Pasteur*, January, 1897.

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

### CASE IN WHICH ACUTE PAIN IN THE REGION OF THE STOMACH AND PANCREAS WAS APPARENTLY PRODUCED BY THE CONTINUOUS USE OF SACCHARIN.

A., aged 49, first seen 3½ years ago, complained of great pain in the epigastric and right hypochondrial regions. It began in the epigastrium about one hour before rising, and radiated through to the back and across the liver. It disappeared gradually after rising, and never lasted more than an hour. In bad attacks he described the pain as agonising, stabbing in character, coming on in paroxysms which lasted about two minutes, followed by a short period of comparative relief.

I saw him in one or two bad attacks, and they simulated very much biliary or renal colic. There was never any jaundice or change in the urine, nor had he ever passed gall stones. There was distinct tenderness on deep pressure in right hypochondriac region.

In spite of treatment by dietary and medicine for three months, he was no better, and had lost 1 stone in weight. He went to Homburg and took a course of the waters, but returned no better. For nine months scarcely a day passed without pain. He had lost 1 st. 6 lbs., and was very despondent. He never vomited, and took food fairly well. He consulted a physician, and his case was diagnosed as pro-

bably pancreatic or pyloric colic, and appropriate treatment given. His symptoms, however, continued; he lost over 2 st. in weight, looked very ill indeed, and was at times disabled from following his occupation.

He had been taking saccharin tabloids, each containing gr. ½, six or more daily for 3½ years, instead of sugar. I ordered him to stop the saccharin tabloids. His pain gradually disappeared, and after the first week had entirely gone. It is now twelve months since, and he has gained his weight again, is perfectly well, and has had no return of pain.

Saccharin, it has been stated, if taken by the mouth for a considerable length of time continuously in fairly large doses, produces acute neuralgic pain in the solar plexus and its branches.

I think it is probable that the pain my patient suffered was directly connected with the saccharin he took. He had suffered 2½ years, and had had the benefit of the opinion and treatment of two of leading London physicians. It disappeared almost immediately on withdrawing the saccharin fourteen months ago, and he has continued well ever since.

Salisbury. R. G. HOGARTH, F.R.C.S.

## THREE CASES OF FUNCTIONAL APHONIA.

CASE I.—In January, 1876, a young lady, aged 19 years, on the morning after attending her first public ball was found totally unable to articulate a single word; in all other respects she was quite well. She remained in this condition for fifteen days, when, having occasion to pick up something on the floor, her nose burst out bleeding, and immediately afterwards she recovered her speech.

CASE II.—A woman, about 30 years of age, whilst returning from her work (factory operative), was very much frightened by witnessing a collision between two carriages. On arriving home she was totally unable to articulate, and remained in this condition five days, when, a friend coming suddenly into her house, she immediately recovered her speech.

CASE III.—A girl, aged 11 years, whilst playing in the street on January 2nd, felt a sudden pain on the top of her head, and was taken home, when she was found to be totally unable to articulate a single word; in all other respects she appeared well. She remained in this condition for four days. On the morning of this day her nose bled freely. I happened to call soon after, and she answered my questions easily.

No special line of treatment was enforced in any case. Case I was certainly of an excitable nature, but not hysterical; Case II was of a highly hysterical temperament; Case III was a bright, intelligent child, inclined to be nervous.

I would suggest that in Cases I and III there must have been slight hæmorrhage, which caused pressure on a nerve centre, which was relieved by the free hæmorrhage from the nose. In Case II no bleeding from the nose occurred, yet the recovery was just as sudden. The relations and friends of these patients naturally became greatly alarmed, but recovery is really simply a question of time.

Ilminster. EDWARD STEPHENS, L.R.C.P., M.R.C.S.

## ON THE EXCRETION OF ALBUMEN IN THE APPARENTLY HEALTHY.

THIS phenomenon has now been known for a long time, and has been the subject of investigation by a large number of recent observers. These are referred to in the Sydenham Society's translation of Senator's *Monographs*, and in Fagge and Pye-Smith's *Medicine*, vol. ii.

During the winter 1895-96 I made 294 observations on 142 soldiers in Ireland. The men whose urine I tested were all healthy, as evidenced by their medical history sheets, which were in my possession, and I examined every man to see that he was free from gonorrhœa. Out of the large variety of tests proposed for albumen I chose (*a*) the heat test, (*b*) Heller's nitric acid test, because they are the tests most commonly employed clinically, and they are on the whole the most reliable. I am aware that quantitatively my results are of little value, because I did not know the total quantity of urine passed by each man. The men were marching 16 to 20 miles daily, and carrying their full packs and rifles, and I tested their urine before and after the march. I found that of the 142 men 14 presented albumen in their urine. In 9 of these 14 cases albumen was not found on testing for it before and after a subsequent day's march. The invariable effect of the march was either to abolish the albumen found before the march or to lessen its amount.

J. R. FORREST,
Bengal. Surgeon-Captain, A.M.S.

# REPORTS
## ON
## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

### THE LEEDS GENERAL INFIRMARY.

#### A CASE OF IMPLANTATION CYST OF THE IRIS.[1]

(By A. L. WHITEHEAD, M.B., B.S.Lond., late Resident Ophthalmic Officer to the Infirmary.)

THE following case is remarkable both on account of the rarity of the condition and of the shortness of time within which the cyst developed:

The patient was a man, aged 29, who had served as a soldier in India and had been invalided home in consequence of the condition of his eyes. In October, 1893, he had an attack of double iritis, said to have been rheumatic; ten months later, after the acute inflammation had subsided, iridectomy was performed on both eyes by an army surgeon in India. In the following October he was seen by Mr. Tweedy at the Moorfields Hospital, and there was then no sign of any cystic formation, although vision was defective and the tension of the eyeball was noted as full. Sight gradually failed, and, the eye becoming very painful, he attended at the Leeds Infirmary in January, 1895, five months after the performance of the iridectomy. The conjunctiva of the right eye was then much congested, the cornea hazy, and the upper two-thirds of the anterior chamber occupied by a thin-walled semi-transparent cyst, below which the lower margin of the pupil and a portion of inflamed iris could be seen; tension was + 2, and vision reduced to perception and projection of light.

Paracentesis of the cyst through the cornea was performed with temporary relief, and a month later a portion of the cyst wall was removed. The glaucomatous symptoms passed off, and vision improved.

The patient then left the Infirmary, and was not seen until eight months later, when he attended with all his previous symptoms much aggravated, the eye being in a condition of absolute glaucoma. Removal of the eye was recommended and carried out. The specimen was hardened in formalin, embedded in celloidin, and sections stained with hæmatoxylin and eosin.

A vertical median section of the eye showed that the cyst occupied about two-thirds of the anterior chamber. Anteriorly the cyst wall was firmly adherent to the posterior surface of the cornea; posteriorly it was closely connected with the substance of the iris, which was much thinned and spread out so as to form the outer wall of the cyst; behind the iris was situated the capsule of the lens, also firmly adherent and incorporated into the cyst wall. The vitreous was partially fluid, and the retina and choroid atrophied. The internal lining membrane of the cyst was formed by a layer of laminated epithelium varying in thickness from a depth of 2 or 3 to 5 or 6 cells.

The character of this lining epithelium leaves no doubt as to the origin of the cyst. Normally there is nowhere in the anterior chamber or iris epithelium of this character. It must have been brought into the iris from without.

This has occurred during the performance of the iridectomy; a small piece of corneal epithelium has been implanted into the substance of the iris, the epithelium continued to grow, a cavity formed within the cells through the accumulation of fluid, and the cells were pushed apart and converted into a lining for the cyst.

REMARKS.—Implantation cysts of the iris arise subsequently to injury or operation by the transplantation of corneal or conjunctival epithelium or eyelashes into the iris or anterior

[1] A communication read before the Leeds and West Riding Medico-Chirurgical Society.

chamber. An eyelash becomes the starting point of an opaque cyst containing cholesterin and fat globules, whereas from the epithelium a semi-transparent thin-walled cyst originates. That these cysts are true implantation cysts was first recognised in 1869 by Hulke[2], who regarded them as originating from a portion of Descemet's membrane, torn away from the back of the cornea by the penetrating foreign body, and carried before it into the iris.' Masse,[3] however, in 1881, by grafting pieces of conjunctival and corneal epithelium into the eyes of rabbits, was able to produce artificially cysts of the character above described, and thus demonstrate the true source of origin. The treatment of these cases is very difficult, and the results not very encouraging. Nothing short of complete removal of the cyst, together with the adherent iris, will effect a permanent cure. In such a case as the one above described, this would not have been possible except by such a wholesale removal of the iris and ciliary region as would have caused subsequent shrinkage of the globe. If the cyst is too large for complete removal and glaucoma sets in, the only course open is the complete removal of the eyeball.

I am indebted to Mr. J. A. Nunnely, Senior Ophthalmic Surgeon to the Leeds Infirmary, for permission to publish this case.

# REPORTS OF SOCIETIES.

## PATHOLOGICAL SOCIETY OF LONDON.

Arthur E. Barker, F.R.C.S., Vice-President, in the Chair.

*Tuesday, March 16th, 1897.*

### "Sable Intestinal."

Mr. S. G. Shattock described the "sand" as consisting almost solely of spheroidal aggregations of vegetable sclerenchymatous cells, about half a millimetre in diameter, and in all ways like those so well known to occur in the fruit of the pear. They were quite free of adventitious crystalline deposits. A closely similar case brought before the Society in 1892 by Professor Delépine appeared to have been the first, and hitherto the last, recorded in this country. Professor Delépine's more closely corresponded with the original description of Laboulbène (1873) in that the cell islets were admixed with crystalline depositions of phosphate, oxalate and carbonate of calcium. The patient, a lady aged 45, under the care of Mr. A. E. Hind, of Jersey, had suffered for about seven years with left hydronephrosis. She visited Vichy a few years ago, where the sand-like material passed by the bowel was thought to come from the kidney by some fistulous communication, evidently owing to its microscopic resemblance to uric acid gravel. After an aperient she would frequently pass as much as 2 ounces of the "sand." The patient was fond of pears: and these were the only articles in her dietary capable of furnishing it. The accumulation of orange pips, fruit stones, etc., above intestinal strictures was well known, but an explanation of the retention of such minute residua was not easy. In the case recorded the pressure of the hydronephrotic kidney may have led to obstruction sufficient to have retarded the progress of the indigestible material in question. The term "sable intestinal" should not, the author concluded, be applied to biliary gravel, which was at times passed in considerable quantity by the intestine.

### Unusual Specimen of Gummatous Disease of Kidney.

Mr. A. A. Bowlby recounted the above case, in which the enlargement of the organ led to the diagnosis of malignant tumour. The patient was a woman, aged 40, who presented a renal "tumour" of firm consistence, and movable enough to suggest at first a movable kidney. Albumen was at times present in the urine. As the swelling increased in size, the kidney was excised, when it was found to present the gross characters seen in a gummatous testis; microscopic examination revealed no traces of renal tissue. There was a history of syphilis, though no physical signs of it. The lesion was presumably unilateral as the urine was at present quite normal and the general health good. So far as the author knew, there was no case hitherto recorded in which the clinical results of syphilitic disease simulated the growth of a malignant tumour.

The Chairman was unable to recall anything in the literature of renal surgery or in his own experience of a similar kind.

Dr. William Hunter and Mr. J. H. Targett concurred in this, the latter observing that fibrotic scarring of the kidney from syphilis was not so very uncommon.

Dr. Abraham had seen a somewhat similar case in a child of 6 months with congenital syphilis, though no actual enlargement of the kidney was diagnosed clinically. The urine contained albumen, and death ensued shortly after admission.

### The Minute Anatomy of Intussusception.

Mr. D'Arcy Power exhibited a series of lantern slides to illustrate some points in the above. After drawing attention to the fact that intussusceptions in the adult were often associated with polypi, the author showed some sections taken from a case of intussusception reported by Mr. Lockwood in 1892. The specimen was obtained from a woman who died shortly after an abdominal section and enterectomy for the relief of intussusception of a few days' duration. Microscopic examination showed that the intestine had undergone very chronic changes, for the villi had become converted into mere tags of connective tissue, whilst all the coats of the intestine had been chronically inflamed. Other sections exhibited were taken from a specimen brought before the Society by Dr. Peacock in 1864. The case from which the specimen was obtained occurred in the practice of Mr. Hacon, of Hackney, to whom Mr. Power was indebted for additional information. The original specimen consisted of a piece of intestine measuring 40 inches in length, which had been passed by a lady aged 32. It was voided without any blood, but enveloped in fæcal matter on the eighteenth day after the onset of severe intestinal obstruction. The patient died unmarried on July 30th, 1889, from some affection of the lung, but she never again had any acute intestinal symptoms, though subject to constipation. Microscopic examination showed that all the coats of the intestine had undergone sclerosis. The line of the mucous membrane was distinct, though none of the details of its structure could be seen, but the submucous coat was indistinguishable from the muscular, and the muscular layers from each other and from the peritoneum. The whole thickness of the section consisted of dense fibroid tissue like that found in an old scar. The author then demonstated by means of sections taken from other cases, in which pieces of intussuscepted bowel had been passed and the patient had recovered, that the intestine might undergo a process of tryptic digestion before it was expelled. He afterwards showed sections from a case of double intussusception which he had exhibited before the Society in 1886. One of the intussusceptions was of the ordinary ileo-colic type, and presented the changes usually found in acute invagination; the other was retrograde and colo-colic. It had been formed much later than the ileo-colic invagination, and he thought that it had been produced when the child was so exhausted that the wall of its alimentary canal hardly responded to the effects of pressure. The slight congestion of the blood vessels in the submucous tissue, and the great enlargement of the vessels in the serous coat and in the mesentery showed that the patient was not absolutely moribund at the time the second intussusception took place.

The Chairman had noted, with regard to a slightly bifid condition of certain of the villi in some of Mr. D'Arcy Power's sections, that the anteater exhibited a similar disposition, and inquired whether in the cat (one of the animals used in the experiments) a similar conformation was present. He was anxious to know whether the whole of the mucosa was destroyed when the intussusception was of long-standing, as this bore upon the practical aspect of the question. In some cases clinical data showed that even after a few hours the gut might be irreparably damaged, whilst in others of long standing no harm might ensue. His practice was to regard an intussusception as a strangulated hernia: if the injection of air or water failed to reduce it he proceeded at once to operation, and the microscopic results brought forward by Mr. Power confirmed the soundness of this practice

[2] Hulke, *Ophthalmological Hospital Reports*, vol. vi.
[3] Masse, *Gazette d'Oph.*, Paris, 1882.

in showing the amount of damage done to the bowel by the displacement.

Dr. SIDNEY COUPLAND inquired how long a time elapsed before the separation was accomplished after sloughing.

Mr. J. H. TARGETT asked whether the process of tryptic digestion was that by which the detachment of the sloughing intestine was effected. The same process of digestion might possibly obtain in the case of sloughing or shedding of the mucosa from other causes than intussusception.

Mr. A. A. BOWLBY thought that the frequency with which spontaneous cure followed the sloughing of intussuscepted intestine was much exaggerated. He had only himself seen a single case, and it was an error to look forward in practice to its possible occurrence.

Mr. W. G. SPENCER wished to know whether the experiments on tryptic digestion were carried out under aseptic conditions. The depression of the apices of the intestinal villi was possibly due to contraction of the muscle fibre in them.

Mr. D'ARCY POWER, in reply, observed that in the cat the villi were not normally bifid. The experiments on tryptic digestion were carried out in presence of the ordinary intestinal bacteria; digestion after two or three hours was so complete as to destroy all the material used. Practically spontaneous cure by sloughing should never be looked forward to, though he could add a specimen (in Guy's Hospital Museum) which was obtained from a child who recovered after voiding 12 inches of the bowel.

GIANT-CELLED TUMOURS OF THE INTEGUMENTS.

Mr. J. H. TARGETT cited four cases of the above: (1) A lady, aged 65, in whom there was such a growth in connection with the ungual phalanx of the forefinger; there were others in a similar situation on other of the fingers. (2) A tumour from the left forearm, between the skin and deep fascia, and sarcomatous in nature. (3) From a man, aged 40, from between the skin and deep fascia of the chest; this was also sarcomatous, since recurrence ensued. (4) A subcutaneous tumour from the palm. In no case was there a history of tubercle or syphilis. The author could not suggest any explanation for the situation of such tumours in the subcutaneous tissue. Those about the fingers might be related to the periosteum and bone.

Dr. JAMES GALLOWAY cited, as showing that it was unsafe to class all such formations as tumours, an interesting case where in a young man there had been noticed for three or four years in the precubital space a few solid swellings. One was removed for histological diagnosis. It contained many giant cells. Tuberculosis was excluded; but after a while enlargement of the testicle was observed, and this, under the administration of iodide of potassium, disappeared together with the other swellings, which the author concluded were syphilomata. In the tropics there were also certain obscure forms of granulomata, not tuberculous or syphilitic, yet not to be classed as sarcomata. The presence of leucocytes and basophil cells was an important means of arriving at the diagnosis of inflammatory formations.

OCCLUSION OF THE DUODENUM BY A COMPLETE TRANSVERSE SEPTUM.

Dr. F. H. CHAMPNEYS and Mr. D'ARCY POWER exhibited this specimen, obtained from a child who lived five days after its birth. The stomach was well formed and healthy in every respect. The pylorus was marked by a thickened ring, and immediately beyond it the first and a portion of the second part of the duodenum was distended into a large sac. The dilated portion tapered off in the fresh state into the funnel-shaped third portion, and there was a slight *post-mortem* intussusception at the junction of the second with the third portion of the duodenum, but there was nothing to show why the distension ceased suddenly at this point. The jejunum was contracted, but both the small and large intestine contained dark-coloured meconium. The dilated duodenum formed a large and thin-walled sac, measuring $6\frac{3}{4}$ inches along its convex border, and it was thrown into a series of folds, owing to the irregular contraction of the peritoneal attachment to its upper border. Distension of the sac showed that the third part of the duodenum formed a sharp kink or "knee" with the distended part, and through this kink no fluid could be forced by moderate pressure. The sac was laid open after it had been hardened in spirit, and it was then clear that the lumen of the intestine was completely interrupted by a septum stretching across it at a point immediately upon the gastric side of the middle of the second part of the duodenum. The anatomical position of the septum was fixed very accurately since the common bile duct entered the intestine just beyond it. A microscopical examination of the septum showed that it was a direct continuation of the mucous, submucous, and circular muscular coats. Complete interruption of the intestine was not unusual, and the museum of St. Bartholomew's contained two such specimens, in one of which the interruption was at the beginning of the jejunum, and in the other in the ileum. The specimen shown, however, differed in the fact that the intestine was continuous, though the septum completely occluded its lumen. They surmised from its position near the opening of the common bile duct that it was due to some error in the developmental process connected with the formation of the liver. The child began to vomit an hour or two after birth. The vomiting was profuse, a slightly yellow watery fluid being brought up. There was obvious obstruction as shown by the jaundice, and exaggerated intestinal peristalsis visible through the abdominal wall.

Mr. S. G. SHATTOCK observed that the explanation of the occlusion probably lay in the direction referred to by Mr. D'Arcy Power. A precisely analogous stenosis was furnished by the œsophagus when it corresponded invariably with the spot at which the pulmonary diverticulum arose. It seemed as though the growth of liver or lung from the wall of the tubular structures of the primitive intestine exhausted, so to speak, the original tissue at the spot; as there were surplus productions of tissue, so there might be an original hypoplasia of the tissue from which such voluminous organs had their origin. Sometimes the longitudinal muscle fibres were continued over the œsophageal constriction, at other times there was a loss of continuity and the upper segment of the canal might be distended. He took Mr. Power to imply that there was not a true septal formation in the duodenum, but that this was a secondary appearance due to the distension of the intestine.

Mr. W. G. SPENCER and Mr. RAYMOND JOHNSON also made remarks, the latter referring to stenosis of the aortic arch and of the ileum at the site of Meckel's diverticulum.

CARD SPECIMENS.

Dr. R. HEBB: Tuberculous Pericarditis.

## CLINICAL SOCIETY OF LONDON.

THOMAS BUZZARD, M.D., F.R.C.P., President, in the Chair.

*Friday, March 12th, 1897.*

THROMBOSIS OF THE VEINS OF GALEN AFTER SCARLET FEVER.

DR. E. W. GOODALL related a case of scarlet fever in which death was due to spontaneous thrombosis of the veins of Galen. A girl, aged 8, was admitted into the Eastern Fever Hospital with a moderately severe attack of scarlet fever. On the evening of the eleventh day, when apparently convalescent, she was seized with a succession of general convulsions, which after a few hours gave rise to more or less general rigidity and gradually deepening coma. There was pyrexia, the temperature rising shortly before death to 107.4° F. The pulse was very frequent. There was no optic neuritis, and the urine was free from albumen during the whole of the illness. At the necropsy *ante-mortem* clot was found in the veins of Galen and in the straight sinus. The clot was hardly, if at all, adherent. Both choroid plexuses were covered with a thick layer of recent lymph. The optic thalami were in a condition of red softening, the left being almost diffluent. Beyond slight ulceration of the tonsils there was no other lesion. There was no middle-ear disease. The case was brought forward on account of its rarity, as when spontaneous thrombosis occurred after a specific fever it was usually located in the heart or one of the vessels of the lower extremities. A similar case was brought before the Society in 1896 by Dr. Lee Dickinson, but in that case no cause for the thrombosis could be found.

Dr. COUPLAND had seen with Dr. Wightwick a somewhat

similar case following measles. The patient was a young lady who seventeen days after the onset became strange in manner and had involuntary passage of urine and fæces. Intense headache and coma supervened, the left arm was flexed and rigid, the other limbs being flaccid; knee-jerks could not be obtained, there was albuminuria, and the temperature ran from 104° to 108° before death. There were no convulsions during the illness. Thrombosis of the sinuses was diagnosed, and at the necropsy *ante-mortem* clot was found in the straight sinus. The optic thalami had undergone red softening, also a small area of the crus.

Dr. Lee Dickinson said that most cases of spontaneous thrombosis were chlorotic. They primarily depended on the condition of the blood and not on phlebitis. Recent work by Wright and others led one to hope that undue coagulability of the blood would be recognised and remedied, and thrombosis thus prevented.

Dr. Goodall, in reply, said his patient was not particularly anæmic. The illness had run an ordinary course, and no examination of the blood had been made.

### Sclerema Neonatorum.

Dr. A. E. Garrod described the case of a male child, of healthy parents, not in specially bad circumstances. Three or four days after birth patches of induration of a purple colour were noticed on the buttocks. When first seen, at the age of 7 weeks, the child was well nourished, and showed no constitutional symptoms, and there was no depression of temperature, which was taken on seventeen occasions, and varied from 100° F. to normal. Areas of scleremalous induration were situated over the buttocks, thighs, back, and deltoid regions, and there were a few outlying islets in other situations. The skin over the buttocks had a pink tint. The induration was massive, and the legs could not be extended at the hips. There was nowhere any pitting on pressure. The distribution of the sclerema was very symmetrical. The edges were map-like and well defined. The urine was pale, clear, and contained no albumen. The induration gradually cleared up, and recovery was complete in about five months. The treatment adopted was inunction with mercurial ointment, and later with cod-liver oil. In this case, as in one previously recorded by Dr. Garrod, the disease had evidently passed through its period of activity before the child was first seen, and this explained the absence of constitutional symptoms. In favourable cases the initial fall of temperature might be comparatively slight. The vigorous condition of the child, the absence of privations, and the fact that it was born in summer were all factors tending to a favourable termination.

### Peripheral Hyperostosis.

Mr. Lockwood read a paper, and Dr. Lewis Jones exhibited skiagraphs, describing the case of a girl, aged 10, suffering from peripheral hyperostosis, which was considered in connection with pulmonary hypertrophic osteo-arthropathy. The hands and forearms, also the feet and legs, were much enlarged. The enlargement was mainly due to a thickening of the diaphysis of the leg bones. The soft parts might have been altered, the legs being œdematous. The girl had a sharp angular curvature of the spine in the dorsal region, but no abscess. The lungs were catarrhal at the base, and dulness at the apex indicated tubercle. The various bony thickenings seemed quite painless, and without evidence of inflammation. The photographs showed an actual hyperostosis. The absence of any joint affection seemed to separate this case from others of so-called pulmonary hypertrophic osteo-arthropathy. The thickening could hardly be due to periostitis. It was analogous, he thought, to the thickening on the concavity of the shaft of the bone sometimes seen in rickets.

Mr. Makins had seen a somewhat similar case in a child, aged 12, with spinal caries, who had big hands and feet resembling those of acromegaly, but in whom skiagraphs showed that there was nothing abnormal in the bones. The change in the bones in Mr. Lockwood's patient resembled that seen in intrauterine rickets, where the bones became fusiform.

The President said that the child had improved. What treatment had been adopted? The diagnosis would lie between hypertrophic pulmonary osteo-arthropathy and acromegaly, and he would class it with the former. The spinal curvature was lower down than in acromegaly, and the hand as a whole was not broadened, although its bones were thickened. There was a little over-extension of the distal phalanges of the fingers, but neither transverse striation nor longitudinal fissuring of the nails, generally found in these cases, was present here.

Dr. Kingston Fowler asked how long clubbing of the fingers had been present? That condition suggested bronchiectasis. In a case where there was enlargement of metacarpo-phalangeal joints, with great clubbing of fingers, the condition was proved at the necropsy to be extra-articular, and the clubbing quite disappeared after death.

Mr. Lockwood, in reply, said the disease probably had many types; in this case the joints were normal. There had been changes in the nails, but they had disappeared as the child's health improved. This he attributed to her removal from miserable surroundings to good food and nursing in hospital.

### Excessive Urobilinuria following the Administration of Trional.

Dr. Rolleston brought forward the case of a woman, aged 57, who for two years had suffered from dropsy, "jaundice," and progressive shortness of breath. On admission she had a dilated heart, slight œdema, and a dirty yellow skin. There were purpuric patches on the thorax and abdomen. The urine was high coloured, but contained no bile, nor was there any albumen. On the evenings of November 2nd, 7th, and 9th, 20-grain doses of trional were given. On November 9th the urine was of a deep orange colour, and as the possibility of hæmatoporphyrinuria due to trional suggested itself, the administration of the drug was stopped. Dr. Buckmaster examined the urine spectroscopically, and found no trace of hæmatoporphyrin, while urobilin was present in excess, as shown by the fact that after dilution a well-marked band of urobilin was seen. The urine remained of this peculiar colour, though gradually diminishing in tint, until death on November 17th. On November 13th the temperature began to go up and delirium set in, which lasted until death from exhaustion. At the necropsy there was a localised empyema between the lobes of the right lung, a dilated heart, and a "nutmeg" liver, which was not cirrhotic. It appeared probable that the patient had for some time been subject to urobilin jaundice, the source for excessive urobilin being the purpuric patches and the "nutmeggy" liver, and that the trional brought about an increase in the urobilinuria. Urobilin and hæmatoporphyrin were closely allied, while sulphonal and trional resembled each other both chemically and physiologically. Sulphonal was known to give rise to hæmatoporphyrinuria. It seemed reasonable to believe that trional would give rise to excessive urobilinuria, and that it would be specially liable to do so when there was excessive chronic venous congestion of the liver.

Dr. A. E. Garrod said that hæmatoporphyrinuria (which was present to a slight extent in all healthy persons) did not when excessive in amount necessarily imply abnormal hæmolysis, but a perversion of ordinary hæmolysis. Urobilin probably had quite another origin, and could be produced in the laboratory by the action of the micro-organisms of the intestine on bile pigment. The administration of opium would occasionally produce it, perhaps in consequence of the lengthened stay of the intestinal contents in the bowels which opium caused.

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## OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

E. Nettleship, F.R.C.S., President, in the Chair.

*Thursday, March 11th, 1897.*

### Retro-ocular Neuritis.

Mr. Marcus Gunn, in opening a discussion on this subject, characterised retro-ocular neuritis as a distinct clinical group of cases, and said that owing to objective signs being not always present, reliance had to be placed on the subjective symptoms; hence the affection was liable to be considered a hysterical one. The action of the pupils, however, was a most important help in the diagnosis, as in hysterical amblyopia the action was unimpaired, while in retro-ocular neuritis the pupil was inactive, or where the contraction on exposure

to light was normal it was not maintained on continual exposure. Occasionally one or both optic papillæ were involved, but the changes were never gross. In papillitis due to intracranial disease the visible changes preceded the loss of vision, whereas in retrobulbar neuritis failure of central vision was one of the earliest symptoms, the visible changes in the nerve occurring later. During the stage of swelling in papillitis the conductivity of the nerve was unimpaired; it was only during subsidence, when the exudation was shrinking, that the nerve fibres were compressed, whereas in retro-ocular neuritis the pressure on the nerve fibres within the pial sheath, especially where enclosed in the bony optic foramen, produced a very early effect, and was recovered from as soon as the pressure was diminished. One of the most prominent symptoms was the presence of a central scotoma for colours and for light, indicating an affection of the macular fibres. This might be owing to the situation of these fibres in the nerve, or to their great functional activity and consequent sensitiveness to pressure; or it might be due to the fact that the principal lymph current traversed the centre of the nerve. The periphery of the visual field was sometimes contracted; if this were partial it would be a valuable sign in localising the lesion; in taking the visual field care should be exercised in using test objects of a standard size. There was pain on movement, a varying amount of amblyopia, or even where visual acuteness was not diminished, there was slowness in reading the test objects, which occasionally seemed to be moving; vision was worse in bright light, or after exhaustion or want of food. The sensation of movement of objects might be explained by a breaking up of the medullary sheath, leading to imperfect insulation of the axis cylinders, or by alternating activity of exhausted fibres. The local causes of the neuritis were orbital cellulitis, exposure to cold, general septicæmia, periostitis of the optic foramen extending from the adjacent sphenoidal cells, or the cause might be a local manifestation of a general disease, such as syphilis, rheumatism, or gout, the latter having a tendency to recur. Finally, the optic nerves might be affected as part of the central nervous system. Retrobulbar neuritis had also affinities with toxic affections of the nerve.

Dr. Buzzard dealt with the medical group of cases exhibiting the features of retro-ocular neuritis. In 50 per cent. of the cases of insular sclerosis there was pallor of one or both optic nerves, or a red-grey injection of the nerve, and a varying amount of amblyopia. *Post-mortem* examination of cases of insular sclerosis showed islets of gelatinous tissue of a warm red-grey colour, varying in size, few or profuse, without order, but generally bilateral in the brain. Microscopically these islets showed interstitial inflammation, increased amount of the fibrous elements of the neuroglia, some naked axis cylinders, and evidence of fibrous change in the neighbourhood of the blood vessels; the same change probably took place in the optic nerves. Clinical observation supported the view of the change being an inflammatory one; degeneration did not proceed in the direction of the nerve fibres, therefore the disc pallor could not depend upon atrophy descending from these foci, but was due to interference with the blood supply leading to atrophy. The local signs were pallor of the optic discs of varying degrees, not confined to the temporal portion; the lamina cribrosa was visible, and the discs were sharply cut. The colour of the disc varied from time to time, and the disc was sometimes slightly swollen: the vessels were occasionally affected. Contraction of the visual fields also occurred sometimes after diphtheria.

Dr. Gowers drew attention to the fact that the axis cylinder was not a single conducting fibre, but in itself contained as many fibrils as there were fibres in a nerve; this had an important bearing on the consideration of the pathological conditions in which the optic nerve was involved. In connection with the rheumatic origin of neuritis he quoted an instance of a young man who after a bath suffered from proptosis, paralysis of the ocular nerves, and tenderness of the eye; he attributed the symptoms to acute rheumatic cellulitis of the orbit. As to the cases of insular sclerosis in which the optic nerve was affected, the appearances did not suggest to him islets of degeneration in the optic nerve; in many of them the appearances were identical with those seen in tabes dorsalis. Retro-ocular neuritis was very frequently the result of a blood poison, like gout, and called for treatment. When the inflammation occurred at the chiasma it might simulate an intracranial tumour.

Dr. Berry thought we were rather too much disposed to diagnose retro-ocular neuritis: the elements of diagnosis were not clearly marked; nearly all the symptoms occurred in other diseases, and even when pallor of the disc appeared the diagnosis was still doubtful. He had often suspected the influence of diseased teeth on the condition of the nerve, but he could not satisfy himself of its reality. In regard to migraine attended with scotoma, he had reason to believe that it was sometimes due to retinal change. Poisons like toxins and ptomaines were not likely to produce uniocular neuritis. In many cases ascribed to hysteria he thought that the symptoms were only the forerunners of other diseases.

Dr. Hill Griffith said that, excluding tobacco cases, he had notes of twenty-seven cases of retro-ocular neuritis, in eight of which the affection was bilateral; there were twelve males and fifteen females. He proceeded to give an analysis of the cases.

Mr. Richardson Cross thought that in a large number of cases no cause could be assigned.

Dr. Little, speaking of the cases apart from toxic causes, dwelt upon the occurrence of pain, central scotoma, and diminished visual acuity, and the small amount of ophthalmoscopic change. All his cases made good recoveries, although in one there had been total loss of perception of light.

The discussion was then adjourned till March 24th.

## EDINBURGH OBSTETRICAL SOCIETY.

*Wednesday, February 17th, 1897.*

Alexander Ballantyne, M.D., President, in the Chair.

### Specimens, etc.

Dr. N. T. Brewis shewed (1) Kelly's Bougies for ureters and kidneys, and also his Catheters; (2) a small Stone passed by the urethra (this had been detected lying in the ureter, where it had given rise to considerable pain); (3) two large Calculi removed from the bladder of an old woman by a vesico-vaginal opening; (4) a Tumour (which proved to be an œdematous fibroid) extracted by the vagina by the aid of a midwifery forceps; (5) an old Ovarian Tumour filled with dark blood, where the Fallopian tube was dilated and filled up with pus. —Dr. J. W. Ballantyne showed Photographs sent by Dr. Michin, of Charkow, Russia, illustrating two cases of thoracopagous double monsters, one of a fœtus dicephalous tribrachius tripus, and one of a pelvis fissa and ectopia vesicæ, three of hemicephalus, and one of micromelus. All were from the Charkow clinic.

### The Extraperitoneal Incision in Extrauterine Gestation at Mid-term.

Dr. D. Berry Hart read a paper on this subject. Practically there were three possibilities in intact forms of extrauterine gestation. In the first two months it was in the Fallopian tube, while in the third month it began to develop between the layers of the broad ligament, and at the fourth and fifth month it was usually embedded in the pelvic connective tissue and broad ligament. In the latter case it might go on developing extraperitoneally, but, as a rule, the fœtus escaped into the peritoneal cavity, the placenta remaining extraperitoneal or tubal, and usually non-pediculated, although it might occasionally be more or less stalked. Dr. Hart had now operated on five cases at mid-term, intact (save one), and extraperitoneal. Three had well-developed fœtuses and placentæ; in one only the placenta was present, and in one only extravasated blood was found, although all the characteristic signs and symptoms of an extraperitoneal four-months gestation sac were present. The author briefly related his five cases, and then considered the question of diagnosis and treatment. The diagnosis of extraperitoneal gestation, intact and at the mid-term, was fairly easy if seen then and for the first time. There was a history of amenorrhœa or irregular menstruation, of attacks of severe pain and occasional fainting, associated with a tumour at the level of the brim, usually lateral or moored to the side. The uterus might be mapped out separately, and was somewhat enlarged.

The diagnosis was more puzzling if the case had been under observation all the time, but the increasing swelling would make one suspicious, and when about the third or fourth month the tumour was about the level of the brim and turned round to one side, doubt changed to certainty. The expulsion of a decidua was often a help, if the medical man in attendance were not misled into considering it a mere abortion. Dr. Hart attached great importance to lateral fixation. He had not been able to give any criterion by which one could say that a fœtus and placenta were present, or merely a blood clot. In only one of his cases did he hear the placental *souffle*. As to treatment, nothing should be done that was not operative. But before operation one had to settle certain pathological points, so as to make treatment rational. He believed that the gestation was extraperitoneal, that the possibility of its being an ovarian pregnancy was most remote, and that the primary intraperitoneal gestation was a myth. For operative purposes he looked on the case as one where there was probably a fœtus and a placenta in the extraperitoneal tissue, and that these and these alone required to be removed. He advocated, therefore, extraperitoneal incision where possible: immediate removal of the fœtus; tamponnade of the sac till the placenta was thrombosed (unless it could be separated easily), and bleeding thus avoided. He thought it best to open the abdomen in the middle line first, because thereby one found out more exactly the relations, and if the peritoneal reflexion were lifted high in front it might be cut in extraperitoneally. If, however, the lateral elevation of the peritoneum was present, one could precisely determine where to cut, and thus hit the extraperitoneal aspect of the sac exactly. The special advantage of the extraperitoneal abdominal incision was the ease of the tamponnade, the fact that one plugged against deep resistant structures, and above all the convenience in after-treatment of plugging and removing the sac contents from above. The patient was less disturbed, and all bleeding, application of pressure, and watching the patient, immensely simplified. He left the extraperitoneal wound large enough to admit four fingers. It was found to cicatrise firmly. He had not adopted the vaginal route, for these reasons: If a fœtus and placenta were present, as there might be in an apparent hæmatocele of four months' standing, the arrest of the hæmorrhage was very difficult, the tampon infinitely less effective and more dangerous, and the after-treatment much more troublesome.

### The Treatment of Uterine Fibromyomata by Electro-negative Puncture.

Dr. F. W. N. Haultain read notes of three cases of special interest: (1) A married woman, aged 36, with a large uterine fibroid and much hæmorrhage. The appendages had been removed on October 29th, 1893, but without benefit. Exaggerated pressure symptoms were developed, first retention and then incontinence of urine, agonising pains in the back, cramps of the lower extremities, with albuminuria probably from pressure on the ureters. She was only free from pain when under the influence of morphine. All forms of medicinal treatment had been tried. She came under observation on December 7th, 1894. The true pelvis was filled with a tumour, which encroached on the vagina to such an extent that it was impossible to reach the cervix, which was high above the symphysis pubis. The upper border of the growth reached three fingers' breadths above the umbilicus. Electro-negative puncture through the posterior vaginal wall was begun on December 14th, with a current of 150 milliampères. This was repeated on the 21st and 23rd. After the second application she was entirely free from pain, an experience she had not had for months. Weekly applications were continued, and after the seventh she had absolute control over the bladder in any position. After twenty applications, as the pain had absolutely ceased, and the hæmorrhage was greatly less, treatment was discontinued on March 19th. In July, under the influence of the pressure of her corset and a long walk, the pressure pain, urinary troubles, increase of albuminuria, and severe vomiting recurred. Electric treatment was renewed, and after ten applications the tumour had passed into the abdominal cavity, and the cervix could be reached with ease. Intrauterine positive electricity was now begun, and ten such applications given up to October 10th, 1895. Since that time she had been in absolute health, menstruation had been regular, and lasting about five days, the tumours springing from the fundus uteri, freely movable in the abdomen, the upper border two fingers' breadths above the umbilicus. The tumour was thus essentially of the subperitoneal type, and had become accidentally incarcerated in the pelvis, where it had continued to grow, and after diminution in bulk had returned to the abdomen. (2) An unmarried woman, aged 38, in February, 1893, had for a week complete retention of urine (calling for the regular use of the catheter) on account of a large fibroid. For some weeks before she had occasional transient attacks of urinary retention, which occurred about her menstrual periods. There were no other well-marked pressure symptoms. She was stout and plethoric, and was suffering from dull and constant headache, with a feeling of weight and fulness. She menstruated regularly but scantily for about two days. There was a large solid swelling in the abdomen reaching to two fingers' breadths above the umbilicus, and continuous with a large solid mass in the pelvis, which so obstructed vaginal examination that the cervix could not be reached. The pelvic portion could not be dislodged. On March 24th electro-negative puncture was begun with a current of 180 milliampères. Spontaneous micturition was accomplished that same afternoon, and from that day to this the catheter had never again been required. The first menstrual period was profuse, and lasted ten days. Fifteen electro-punctures were made within the next ten weeks, and by the middle of May the electrode could be introduced into the uterus. The cavity measured $4\frac{3}{4}$ inches. Fifteen applications with one electrode in this situation were given. The intrauterine pole was maintained negative. The patient was seen six weeks ago, when the tumour was still pelvic on the posterior uterine wall, about the size of a small cocoanut; the uterus and tumour freely movable together. Uterine cavity $3\frac{1}{2}$ inches. The woman said she was in perfect health; menstruation regular, but much increased in amount. Evidently in this case the tumour was intraligamentary, as, though freed from incarceration, it still retained its position in the pelvis. (3) A married woman, aged 46, had suffered from complete urinary retention for three days. There had been previous transient attacks. Menstruation was regular and normal. A large tumour was impacted in the pelvic brim, tilting the uterus high above the symphysis. The tumour could not be moved into the abdomen. Electro-negative puncture was adopted, and the same afternoon she was able with difficulty spontaneously to void urine, but retention recurred the following day. After the third application retention did not occur. In all five applications were given, when the patient's extreme nervousness led her to refuse further treatment. She said she felt quite well, and the catheter had not been required. The following is the method of treatment: Vagina thoroughly disinfected by daily douches of 1 in 4,000 corrosive sublimate, one being given shortly before the application is made. Immediately previous to the introduction of the puncture needle, a small pledget of cotton-wool soaked in 10 per cent. solution of cocaine is placed in the vagina at the proposed seat of puncture, which is made by means of a thin steel electrode insulated to within three-eighths of an inch of its point. By a rotatory movement this is pushed into the tumour for at least an inch and a half, and then attached to the negative pole. The circuit is completed by the usual positive abdominal pad, when a continuous current of from 120 to 180 milliampèresis passed through the tumour for five or ten minutes. After removing the needle the vagina is again syringed with an antiseptic, and a pledget of iodoform gauze introduced and left forty-eight hours. The two essentials aimed at are thorough antisepsis, and the introduction of the electrode through the capsule of the tumour. Thus the danger of local sloughing was avoided. Induced contraction of the muscular capsule played an important part in the diminution in size of the growth. The most conspicuous benefit derived in all the cases was rapid removal of pressure symptoms. Doubtless this was due to actual shrinkage, which shrinkage was permanent. In the first case electric treatment was successful after the removal of the uterine appendages had failed, although it would appear from the writings of certain eminent gynæcological surgeons that many cases previously

electrically treated find their way to them to be cured. In the second case increase of the menstrual flow, with disappearance of the continued headache, was a striking result of treatment. It would appear that some exceptional cases of fibromyomata, though associated with an enlarged uterine cavity, instead of having increased menstrual flow, were associated with an abnormal diminution and the resulting discomforts of plethora. In Case 1, after thirty punctures the tumour rose out of the pelvis into the abdominal cavity; therefore, there were no adhesions formed at the seats of puncture to increase the difficulties of future operations as some writers had urged against this form of treatment. Dr. Haultain concluded by urging (1) that electricity has a decided curative action in some cases of fibromyomata when nothing else short of the knife can be recommended; (2) that from the absence of mortality in its employment, and also in that it no way increases the danger of subsequent operation, electricity should in a large proportion of cases of fibromyomata be employed before recourse be had to serious surgical interference.

The paper was discussed by Drs. MILNE MURRAY, BREWIS, and LACKIE; and Dr. HAULTAIN replied.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF PATHOLOGY.

J. B. STORY, M.B., F.R.C.S., President, in the Chair.

*Friday, February 26th, 1897.*

BUBONIC PLAGUE.

IN the absence of Dr. JOSEPH REDMOND, the SECTIONAL SECRETARY (Dr. McWeeney) demonstrated microscopic preparations by Dr. Yersin of the plague bacillus discovered by Dr. Yersin and, independently, by Kitasato. One of the slides was a gentian-violet stained smear preparation from the bubo of a Chinaman dead at Hong Kong of the disease, and showed enormous numbers of short oval bacilli in pairs and single forms with an unstained spot in the centre like the bacillus of chicken cholera, lying amongst the lymphoid elements and pus cells. The other was a preparation from the blood of a mouse which had succumbed to septicæmia, consequent on the inoculation with a pure cultivation of the bacillus. Here the organism took the shape of a diplococcus, or very short diplobacillus. The speaker then gave a summary of our present knowledge of this organism, including its habitat in the soil, its tendency to attack rats, etc., through which its virulence became so heightened that it could attack the healthy human system, and the successful results claimed by Yersin for serumtherapy.

The communication was discussed by the CHAIRMAN and Dr. PARSONS; and Dr. MCWEENEY replied.

## ULSTER MEDICAL SOCIETY.

Professor SYMINGTON, M.D., President, in the chair.

*Thursday, March 4th, 1897.*

LORD LISTER.

ON the motion of the PRESIDENT Lord Lister was unanimously elected an honorary member of the Society. A number of new members were elected.

STAINING OF CENTRAL NERVOUS SYSTEM.

The PRESIDENT and Dr. WALTER SMYTH showed a series of specimens of the central nervous system, stained by Weigert's method, being a portion of an investigation into the medullation of the cerebral fibres.

CRANIO-CEREBRAL TOPOGRAPHY.

The PRESIDENT and Dr. R. J. JOHNSTONE showed a series of sections and models to illustrate cranio-cerebral topography. The brain had been hardened by injecting the entire head with formol and subsequently with a solution of gum. The result of these injections was a marked improvement in the condition of the brain after the frozen sections had thawed.

STRUCTURE OF UTERINE FIBROIDS.

Dr. TENNANT read a paper on this subject. A description was given of the myxomatous degeneration which affects uterine fibroids. The degeneration commenced in and around the middle coat of the arteries, and spread thence to the surrounding muscular bundles. The bearing of this fact upon the theory that myomata were a growth from the arterial walls was pointed out. Reference was made to the connection between the degeneration of the arterial coats and hæmorrhage, and a description was given of the common occurrence of angioma and lymphangioma in uterine myomata. Microscopic preparations were shown to illustrate these points.

Professor THOMPSON, Professor BYERS, Dr. LORRAIN SMITH, Dr. CAMPBELL, and the PRESIDENT took part in the discussion which followed Dr. Tennant's paper.

UNNA'S CLASSIFICATION OF EPITHELIOMATA OF THE SKIN.

Dr. LYNASS read a paper on this subject. The classification of Thiersch was based on the form and development of the cells, but Unna had proved that it was mostly impossible to determine the exact point of origin of the epithelial new growth—that is, whether it sprang from the surface epithelium, the hair follicle, the sweat or sebaceous glands. Unna based his classification on the form or manner of growth of the invading epithelium. This determined the gross histological appearance. In the first class—the cylindrical epitheliomata—the growing cells were situated in contact with the vascular connective tissue, as they were in the normal process of epidermal growth. Cylinder-like processes shot out through the cutis, and the growing cells with their mitotic nuclei could be seen in sections at the margins of the cylinders. If the cylinders sprouted and these subprocesses joined a reticular arrangement was formed, but if the connective tissue resisted the growth of these sprouts, so that instead of coalescing they clustered round the cylinder like the acini of a lobule of a gland, the acinous variety was observed. In the most benign growths the connective tissue hardening gave a pointed form to the cylinders, growing ceased at their extremities, and they became styloid. All these were varieties of the cylindrical form of growth, and the dividing cells were marginal. When, on the other hand, the growing cells were scattered throughout the epithelial mass, the growth was more irregular and abnormal, fungating epithelial masses were formed, through which the cells with mitotic nuclei were widely spread and equally distributed. These formed a second class—namely, the fungating epitheliomata. The most abnormal class was the alveolar. In these the cells grew irregularly throughout the epithelial mass, and some marginal cells seemed to move off into the surrounding connective tissue. These multiplied, and on section an alveolar appearance was seen. Dr. Lynass showed slides illustrating each of these varieties. He also showed slides illustrating Widal's method of diagnosing typhoid fever.

CASES AND SPECIMENS.

Surgeon-Major W. WATSON PIKE read notes of a case of Injury to Neck of Femur, with skiagraph, and notes of a case of severe Secondary Syphilis complicated by Diphtheria.—Dr. CECIL SHAW showed a Bacillus isolated from a case of Tonsillitis, which appeared not to have been described before. It was non-liquefying, caused the gelatine to fluoresce, grew at ordinary room temperature, and showed an extraordinary difference in size on different media, being on an average 0.8 $\mu$ long on gelatine and 2.7 $\mu$ long on potato. The growth on potato and in broth was deep red. It was non-pathogenic when tested on mice.—Dr. OSBORNE showed various microscopic specimens.

## PATHOLOGICAL SOCIETY OF MANCHESTER.

T. HARRIS, M.D., F.R.C.P., President, in the Chair.

*Wednesday, March 10th, 1897.*

PRIMARY TUBERCULOUS TENOSYNOVITIS.

MR. THORBURN and Dr. MOORE showed specimens of primary tuberculous tenosynovitis removed by the former from the extensor aspect of the wrist; the disease had originated in the sheath of the extensor minimi digiti, which tendon was infiltrated and almost destroyed, while the sheath for the common extensors was only secondarily invaded. Mr. Thorburn dwelt upon the importance of recognising "compound ganglion" as a tuberculous lesion, and on the importance of its careful excision as well as upon the perfect functional results obtained in the hand by this method. Macroscopically

the sheath presented dark-red, sacculent appearance. It contained a small collection of fluid at its upper end, and a single rice body. The interior of the sheath was generally the seat of irregular fungosities and deposits of fibrin. Microscopically it corresponded closely with the descriptions of previous observers.

In reply to various speakers, Mr. Thorburn pointed out that, although among children tuberculous tenosynovitis was most common in the ankle, in adults it generally involved the region of the wrist, the probable reason being that adults threw a far greater strain upon the latter joint than children did; hence, also, the comparative frequency of tuberculous disease of the wrist-joint itself in the adult as compared with the child.

The Pathology of Missed Abortion.

Dr. G. W. E. Fothergill gave a demonstration on this subject. The changes occurring in ova retained *in utero* for several months after the death of the fœtus were demonstrated by means of drawings, microphotographs, and sections. When the fœtal circulation ceased the vessels of the placenta were rapidly obliterated. The fœtal epithelium covering the chorion and its villi degenerated, and the maternal blood between the villi formed clots, which were altered into dense laminated fibrin. The decidual cells then multiplied and invaded the fibrin, which they gradually replaced, filling the intervillous space with layers and bands of decidual tissue. At the same time they disintegrated the fœtal epithelium, which came to be represented by scattered heaps and rows of nuclei, and finally disappeared. The amnion remained almost unaltered, but adhered closely to the chorion, and the united membranes were thrown into folds and convolutions, covering the rounded lobes of altered placental tissue. The fœtal portion of the placenta did not grow after the death of the fœtus, though the maternal portion containing the decidual cells remained active. It was therefore improbable that malignant new growths could arise from fœtal placental elements.

Sarcoma of Forearm with Malignant Family History.

Mr. C. E. Richmond mentioned a case of tumour of the forearm occurring in a girl, aged 19. The father's aunt died of cancer of the breast; the father's brother, aged 34, died of "tumour of the thigh," which developed after injury; the mother's sister, aged 60, died of "cancer of the face," which developed after injury; another sister of the mother's died of "tumour of the womb." There was a history of less than five months' duration in which from a slight enlargement the left wrist had reached 19 inches in circumference. The tumour was a periosteal sarcoma commencing at the lower end of the radius. Microscopically it consisted of large spindle and large round cells, appearing in parts to be arranged in an alveolar manner by strands of a somewhat structureless-looking matrix. This matrix, however, was due to a kind of hyaloid transition of the tumour cells themselves, as all stages of the process could be observed in the sections shown.

Unusual Condition of Spleen.

Mr. Richmond also showed this specimen. In life the spleen had occupied almost the entire left half of the abdomen, but not entering the true pelvis. There were no marked symptoms of leucocythæmia, though the blood showed certain variations from the normal; no history of ague or of syphilis. At the necropsy the spleen was found to be enormously enlarged, and to be enclosed at its upper and back parts and sides by a thick layer of very dense fibrous tissue, which, though not very vascular, contained blood vessels, some of them the size of the radial artery. The spleen pulp was hardly anywhere normal, and on section showed strands and stellate masses of similar dense fibrous tissue. Microscopically the lobules of the spleen pulp were seen to be separated and compressed by fibrous bundles. The growth surrounding the spleen was outside the capsule, and consisted of simple fibrous tissue; the view was advanced that it consisted simply of "organised inflammatory deposit."

Card Specimens.

The following were shown:—Dr. Brindley: (1) Adventitious Spleens; (2) Aneurysms bulging into Right Auricle and Rupturing into Pericardium.—Dr. Harris and Dr. Fitchie: Lung affected with Chronic Pneumonia and Bronchial Dilatation.—Dr. Harris: Chronic Capsulitis of Liver and Spleen.—Mr. Ray: Aortic Aneurysm, with Secondary Aneurysms of Carotid and Subclavian after Ligature.—Mr. Richmond: Unusual Lesion of Spleen.

## LIVERPOOL MEDICAL INSTITUTION.

A. C. E. Harris, M.D., F.R.C.S.Edin., Vice-President, in the Chair.

*Thursday, March 11th, 1897.*

Folliculitis Decalvans.

Dr. Stopford Taylor showed a case of folliculitis decalvans in a man aged 30. The inflamed follicles occupied the outer two-thirds of the right thigh, surrounding a small bald and pitted area the size of the palm of the hand.

Treatment of Dacryocystitis.

Mr. Edgar Browne, in opening the adjourned discussion on this subject, said the only treatment worth considering must comprehend the pathology of the disease, and aim at restoring the organ as nearly as possible to its natural state. Many of the treatments in vogue violated these conditions. The canaliculi were capillary tubes, and had been purposely made small by Nature. If Nature had designed a drain pipe she would have made it larger. The collecting sac and discharging duct were potential tubes, capable of dilatation, but not habitually dilated. The inferior opening was exceedingly small. The apparatus was of the nature of a siphon, acting by suction and capillary attraction, and not simply by gravitation. The necessity of preserving the capillary character of the canaliculi had led him many years ago to suggest partial slitting of the wall. It was essential to preserve a portion of the tube, and not convert it into a gaping groove. What Nature had for good reasons made small it was a mistake to enlarge. He used therefore small probes, and endeavoured not to overdistend the nasal opening, or indeed any part of the passages. Stricture was not a primary cause of obstruction but the result of inflammation of the duct. No one believed in idiopathic stricture of the urethra. The primary cause was bacterial infection of the lining membrane of the duct and the vascular structures surrounding it. His treatment by irrigation had stood the test of years. Mr. Jones's cases were convincing. He would reserve the style for exceptional cases, where the structures had become distorted by long continued inflammation. It was quite unphysiological and, moreover, unnecessary in the majority of cases, which yielded to a rational and carefully considered treatment.

Mr. Shears also took part in the discussion.

Mr. Hugh E. Jones, in reply, said that the controversy as to the relative importance of inflammatory swelling or true stricture of the duct as causes of mucocele had been going on for nearly 200 years. He had attempted by an examination of his cases to produce evidence on the subject, and this evidence went to show that true cicatricial stricture was very rare; it further explained how it was that antiseptic irrigation of the nasal duct was the most rapidly successful form of treatment. He had been convinced by unmistakable cases that prolonged use of probes and styles often irreparably damaged the canaliculus, and occasionally caused stricture of the duct. Support for these statements was to be found in the writings of Bowman, Arlt, De Wecker, and George Critchett. It had been said that it was practically impossible to render the lachrymal passages aseptic; but the successful extraction of cataract in cases which had up to a short time before operation been the subject of blennorrhœa of the sac, and which had been treated by antiseptic irrigation, proved that the passages and conjunctiva could be made sufficiently aseptic for all practical purposes.

Stone in the Bladder.

Mr. Rushton Parker related in outline ten cases of stone in the bladder occurring in nine male patients. Four were subjected to lithotomy and four to lithotrity, whilst on one both operations were performed. Of the five cases of lithotomy, two were in boys aged 11. In one the lateral perineal operation was performed, in the other the suprapubic operation. Both stones were oxalate of lime. Two of the patients

were men aged 66 and 69 respectively; both these calculi were phosphatic, with cystitis and ammoniacal urine, and previous retention, due in one case to stricture, in the other to enlarged prostate. In the fifth case, a man aged 40, the stone was also chiefly phosphatic, with a nucleus of uric acid. A calculus in this case was found in the roof of the bladder a month after lithotrity had been performed. Of the five cases of lithotrity, one was in a man aged 62; the stone weighed ¾ ounce, the patient returned to his home in a week, and is now well. Next a farmer, aged 40; his stone weighed ¼ ounce. After the crushing operation his symptoms were improved, but a month later lateral lithotomy was performed, as stated above. Next a farmer, aged 70, from whose bladder a phosphatic calculus and about 4 inches of rubber catheter were removed by the lithotrite. Next a workman, aged 36, having a small oxalic calculus weighing a few grains. Lastly, a man aged 20, having a phosphatic calculus formed round a nucleus of "chewing gum," a stick of which he had passed into his urethra.

### THE PLACE OF HYSTERIA IN GYNÆCOLOGY.

Dr. IMLACH read a paper on this subject. Following popular usage, he claimed that the term "hysteria" should be applied only to a special disorder of mental and physical development in girls and young women, and should never be extended to the functional neuroses of men. The public cared more about the ethics of the subject, the neglect of self-restraint and the perversion of conduct, than about the physical stigmata and attached theories. Our knowledge of the feeble control of undisciplined reason over preternaturally exalted impulses should temper ethical severity. Even the premeditated crime of an angry woman might be almost outside the region of responsible conduct. The nature of hysteria was to be deduced from the nature of the woman who was subject to it. Marshall Hall's reflex nervous theory might explain them both; or the more developed theory of Hughlings Jackson might serve. Dr. Imlach, however, advocated a psychical explanation as more nearly in accordance with facts. Finally, he referred to the peritoneal tenderness so common in incipient hysteria, and its treatment.

Dr. GLYNN, Mr. G. HAMILTON, and Dr. E. T. DAVIES took part in the discussion; Dr. IMLACH replied.

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HUNTERIAN SOCIETY.—At an ordinary (pathological) meeting on March 10th, Dr. G. E. HERMAN, President, in the chair, Dr. ARTHUR DAVIES showed a Heart taken from a girl aged 8 years, which exhibited a marked condition of malignant endocarditis, affecting the mitral valve and part of the left auricular wall; infarcts were found in the spleen and kidneys.—Dr. SCHORSTEIN showed the Heart of a man aged 41, in which the mitral and posterior aortic valves were affected by malignant endocarditis; infarcts in kidneys, but no albumen or blood at any time in urine; infarcts were also found in the left middle cerebral artery and of the superior mesenteric artery, with an aneurysm which had burst into the peritoneal cavity. Remarks were made by the PRESIDENT, Dr. SEQUIERA, Dr. ADAMS, and Dr. F. J. SMITH.—Dr. SCHORSTEIN also showed a specimen of Acute Colitis, with perforation in the sigmoid flexure. The patient had pneumonia, with an alcoholic history. The bacillus coli was not found in the colon but was present in the lung.—Mr. TUBBY quoted a case of Rice Water Stools followed by a very foul empyema.—Dr. T. GLOVER LYON showed a Kidney affected with miliary tubercle, taken from a patient with severe heart disease; no deposit in lungs, but present between bladder and rectum. Remarks were made on the relation between heart disease and tuberculosis by Dr. HINGSTON FOX, DR. SCHORSTEIN, Dr. A. DAVIES, and Dr. LYON.—Dr. PERKINS showed a Stomach with ulceration opening into the splenic artery, causing fatal hæmorrhage, in a woman aged 66.—Dr. F. J. SMITH showed (1) a specimen of Tuberculous Meningitis, taken from a girl, where there was entire absence of symptoms with the exception of rather severe headache at the onset, mental dulness passing into coma, and great activity of knee-jerks; (2) a specimen of Tumour of Brain, situated at the base and involving the corona cerebri and right optic tract; there was no observable symptom till within thirty-six hours after death.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—At a meeting on February 24th, Dr. MALCOLM BLACK, President, in the chair, reference was made to the death of one of the Honorary Presidents of the Society, Sir Spencer Wells, and it was resolved to send an excerpt from the minutes expressing sympathy with his relatives in the loss that they and the profession had sustained by his death.—Dr. E. ARTHUR GIBSON showed a Uterus containing a large Myoma in its anterior wall, which he had removed by abdominal hysterectomy on the previous day, other means having failed to arrest recent violent attacks of hæmorrhage.—Dr. JENKINS read notes of three gynæcological cases from the Victoria Infirmary: (1) The history and *post-mortem* appearances of a case of Puerperal Fever. When the parametritic infiltration had declared itself and the process seemed to be extending, she was examined under chloroform, and it was believed that the two large swellings felt near the uterus were tubal and contained pus. The swelling on the left side was punctured and pus appeared, but further puncture on both sides yielded nothing but a little blood. Pus was observed then to issue from the rectum. The patient died two days later. At the necropsy the great omentum was found to be adherent to the parietal peritoneum at the pelvic brim, and projected into the cavity forming the greater part of the swellings above described. A similar condition in the omentum was seen in a previous case of puerperal fever which he had examined about a year ago. It was thus evident that masses of omentum might assume all the characters usually associated with inflammatory tumours of tubal or ovarian origin, and so completely obscure the condition of the pelvic organs. In such cases the radical vaginal operation was the only one that need be considered. Puncture was only likely to set up further inflammatory mischief. (2) A case of Tubal Abortion with unusual complications. This patient had had extremely severe pain in the lower abdomen as she stepped out of bed eighteen days after a normal menstruation. After examination he had concluded that she was suffering from hæmatosalpinx dependent on a tubal pregnancy. Several weeks later she entered the hospital. He performed abdominal section, and found the right adnexa enveloped in adhesions, the vermiform appendix thick and adherent to tumour, the right ovary as large as a hen's egg, and containing pultaceous matter and hair, and showing a fresh corpus luteum in the small part of normal tissue left. The right appendages and the vermiform appendix were removed, and the patient made a good recovery. (3) Congenital Absence of the Portio Vaginalis Uteri and Patency of Gärtner's Duct. This patient, aged 21, was admitted complaining of amenorrhœa. The external genitals and hymen were well developed. The vagina was 1½ inch in length, and there was no portio vaginalis uteri. *Per rectum* a small uterus and tubes and ovaries could be felt. At the apex of the vagina were two small apertures, one the median, the other to the right; the first admitting a probe ⅛ inch, the other for fully 2 inches, and its point being felt 1½ inch from the right uterine margin.—Dr. EDGAR described three cases of Broad Ligament Cysts, in two of which he had performed abdominal cœliotomy, in the one for a small intraligamentous cyst on the right side, and also a hæmatoma of the left ovary; and in the other for a parovarian cyst of the right broad ligament, with matting together of the left appendages which contained pus. In his third case, in which there was a tense elastic mass posterior to the uterus, and reaching from side to side of the pelvis, he operated through the posterior vaginal fornix. There being a large cervix, with deep multiple laceration, he first curetted the uterus, and amputated the cervix. He then opened into the pouch of Douglas by a transverse incision, punctured the cyst, pulled it down, and, after applying a figure-of-8 ligature, removed it. To repair a rather badly torn perineum he immediately afterwards performed Lawson Tait's operation of using the continuous catgut suture in layers. Recovery was uninterrupted and speedy. Dr. Edgar also showed two Dermoid Cysts of the Ovaries removed from the same patient at one operation, the larger of the two having become strangulated owing to torsion of the pedicle, the smaller simulating a sactosalpinx in its shape.—Dr. A. W. RUSSELL showed Fragments of Vesical Calculi removed from a patient upon whom Cæsarean section had been performed five years ago. Several of the pieces had as their nucleus a bit of silk suture, and in

one the knot was seen. This was the second case that had come under his observation. Remarks were made by Professor Murdoch Cambron, who had done the Cæsarean section in both cases, and had removed the calculi in the previous case, and also by Dr. Edgar, who had removed the calculi in this case; and by Dr. Bell Todd, who had previously seen the patient. —Dr. Russell then reported a case of Puerperal Toxæmia, with symptoms of mania, in which the antistreptococcic serum had been used, and recovery had followed.

Glasgow Eastern Medical Society.—At a meeting on February 25th, the President, Dr. Alexander Patterson, in the chair, the following resolutions were passed: *Re Procurator-Fiscal.*—(*a*) That if the Fiscal, or his representative, asks any medical practitioner for information regarding suspicious deaths or accidents, no information be given unless requested in writing, fee for which to be one guinea. (*b*) That the medical practitioner in charge of the case ought to be conjoined with the official *post-mortem* examiners, fee for which to be one guinea. *Re Police Commission.*—That attendance on all street accidents (this including close or stair accidents) whether the medical practitioner is called in by a citizen or a policeman, be paid for by the Commissioners. *Re Parish Councils.*—That the English and Irish parochial surgeons being dismissible by the Local Government Board only, it is desirable that the Scottish surgeons be put upon the same footing. *Re Registrar-General.*—That all certificates of death should be paid for by the Registrar-General. *Re School Board.*—For certificates required by the School Board from medical practitioners a fee of 2s. 6d. should be paid by the Board. *Re General Medical Council.*—That our Society should use its influence in endeavouring to throw open to all registered practitioners the election of all the members of the General Medical Council. Resolutions as to hospitals and dispensaries and clubs and societies have been postponed or are still under consideration. Resolutions to the same effect were passed by the Glasgow and West of Scotland Branch of the British Medical Association at a meeting on May 22nd, 1896. A report of the proceedings of this meeting appeared in the British Medical Journal of July 4th, 1896, p. 20.

South-West London Medical Society.—At a meeting on March 10th, Dr. Benjamin Duke in the chair, Mr. Edmund Owen delivered an address upon a Common and an Acute Inflammation of the Bones of Children and Young Persons which sometimes escapes Recognition. The disease referred to was known as "acute septic osteomyelitis," although it had been called by various other names. Everyone admitted the importance and danger of the affection. Mr. Owen next described the pathology of the disease. He showed how micro-organisms are especially prone to affect the junction of the diaphysis with the epiphysis in long bones, this being a point at which new and delicate tissue was formed and growth was most rapid. It was at this point that the disease in question almost always commenced. The organisms might be introduced into the body by means of damaged food, or impure air or water. They infected the tissue of the part described, and there elaborated a poisonous ptomaine. Abscess rapidly followed, and the staphylococcus pyogenes aureus was always found. (Specimens were exhibited showing the morbid changes.) The disease was a common one. Out of a total of 165 cases collected by him, 96 were in males and 69 in females, the figures working out about 5 boys to 3 girls. In these 165 cases the femur was affected in 83, the tibia in 47, and the humerus in 20. Next in order came the fibula: and in still smaller proportions came the radius, ulna, clavicle, and os calcis. The chief predisposing causes were depression of the system, fatigue, and, above all, injury of the part. It was apt to come on in young recruits after a fatiguing march. The local symptoms were those of deep-seated acute inflammation, pain, great tenderness on pressure, early redness and heat of the surface, especially where the bone was thinly covered by muscles. The constitutional symptoms were those of fever due to absorption of ptomaines. There were headache, delirium, and high temperature; rigors in adolescents, convulsions in children. Many of the subjects of the disease died quickly of pyæmia. The disease might be, and had been, very often mistaken for rheumatism and erysipelas. The characteristic points were the part of of the bone affected and the marked tenderness on deep pressure, even when there was no redness. In rheumatism the joint itself would be affected, and not the parts above or below. In erysipelas all the local symptoms were superficial. In periostitis the same applied, and the shaft of the bone would probably be primarily affected rather than the ends. The treatment was by early incision, and whether pus were found or not the bone should be drilled or gouged. In some cases (especially in infants) the adjacent joint was attacked, and it must then be laid open and irrigated. Occasionally amputation was necessary, or the patient might die of acute septic poisoning. Other bones and joints were often secondarily affected, and Mr. Owen showed a case illustrating this in which the inferior diaphysis of the left femur was first attacked, then the right humerus, and subsequently the right knee-joint.—The President and Dr. Gilbert Richardson having briefly thanked Mr. Owen for his address, the latter answered various questions put by members.

Bristol Medico-Chirurgical Society.—The sixth meeting of the session was held on March 10th, in the Medical Library of University College, Dr. Aust Lawrence in the chair.—Dr. B. J. Baron showed a patient with Web in the Larynx, due to thyrotomy for removal of growths on the vocal cords. Dr. P. W. Williams made remarks.—Mr. Morton showed the following cases: (1) Charcot's Disease of Hip Joint. (2) Subclavian Aneurysm. (3) Hypospadias. (4) Large Fatty Growth in the Thigh. (5) Papilloma of the Tongue. (6) Several Nodules on the Dorsum of the Tongue, associated with general leucoplakia.—Dr. Michell Clarke showed the following cases: (1) Athetosis. (2) Amyotrophic Lateral Sclerosis. Dr. E. L. Fox made remarks.—Mr. Harsant showed a specimen of Stricture of the Œsophagus, in which gastrostomy was successfully performed. Mr. Firth, Dr. P. W. Williams, and Dr. Aust Lawrence spoke on the subject. — Professor Fawcett showed the following specimens: (1) Skull with Complete Absence of Left Lateral Sinus; (2) Mickel's Diverticulum; (3) Five Months' Fœtus, showing the position in its membranes; (4) Brain Convolutions, etc.; (5) Coloured Dissections, mounted in plaster-of-paris; (6) Model of Deep Abdominal Viscera; (7) Dissection of an Anencephalous Monster.—Dr. Newnham showed a specimen of Ruptured Tubal Pregnancy, successfully operated on. Dr. Aust Lawrence, Dr. W. C. Swayne, and Dr. J. G. Swayne spoke on the subject.—Dr. Aust Lawrence showed a similar specimen.—Mr. C. W. J. Brasher read a paper on Division and Ligature of the Vasa Deferentia for Prostatic Hypertrophy in a patient aged 87. Mr. Paul Bush related a similar case, and Mr. Morton discussed the operations.—Mr. Munro Smith read a paper on Dislocation of Peroneus Longus, Treated by Operation.

Bradford Medico-Chirurgical Society.—At a special meeting on March 12th, Dr. Godfrey Carter, President, in the chair, Professor Watson Cheyne delivered an address on Tubercle, with especial reference to Tuberculous Joints. The address was profusely illustrated by a series of very beautiful lantern slides, showing the histological character of the tuberculous change in the tissues, and also a number of sections of tuberculous bones and joints, bearing specially on their surgical treatment. The lecturer having given a short account of the history of a tubercle and the changes which took place in the tissues surrounding it, showed that only a small proportion of the affected structures contained tuberculous material, and that when this small proportion had been dealt with, the merely inflamed tissues would under favourable circumstances regain their normal condition. He pointed out the important bearing this fact had on the surgical treatment of tuberculous oints, and condemned strongly the formal excision of joints in young people as opposed to the careful erasion of all tuberculous material from such joints, the likelihood being that by excision the epiphysial line would be interfered with, and subsequent growth of the bone rendered impossible.—Professor Cheyne touched shortly on the Treatment of Tuberculous Joints by Extension, and said that [the extension was not in-

tended to drag the bones apart, but merely to tire out the muscles whose contraction would tend to keep the diseased surfaces in contact. He also spoke favourably of the treatment by injection with iodoform emulsion. In conclusion, the lecturer expressed the very decided opinion that the bacillus was the one cause of the tuberculous change, and showed a representation of typical tuberculous changes in the limb of a goat in which a culture of the tubercle bacillus had been injected into the nutrient artery of the bone. A discussion followed, in which Mr. Pridgin Teale, Dr. Jalland, Mr. Littlewood, Professor Trevelyan, Dr. Rabagliati, Mr. Horrocks, and others took part.—About fifty members and visitors met for dinner after the address.

# REVIEWS.

On Ringworm: An Inquiry into the Plurality of its Fungi. By T. Colcott Fox, M.B.Lond., F.R.C.P., and Frank R. Blaxall, M.D.Lond., D.P.H. London: H. K. Lewis. (Roy. 8vo, pp. 70, 11 collotype plates.)

Probably most men who have been in the habit of examining ringworm hairs in liquor potassæ have been struck by the fact that in some specimens the ringworm spores were larger than those in others, but until Sabouraud showed that these different sizes corresponded with different varieties of fungi the true explanation does not seem to have occurred to anyone. This talented French observer has pointed out a new field of research, which, in his hands, has already yielded important results to pathology and mycology. The varieties in the ringworm fungus appear to be considerable, and there is no doubt that subsequent investigation will add to those already known. Speaking broadly, he has shown that there are two great classes, the one a small-spored fungus, the microsporum Audouini, with possible varieties, and the class of large-spored ringworms, to which he reserves the name of trichophytons. These trichophytons are divisible into two great groups—the endothrix, which attacks the interior of the hair, and the ectothrix, which more especially locate themselves between the hair and the shaft, which they also enter.

These varieties of ringworm can also be distinguished by clinical symptoms. They breed true, and are fairly uniform in the appearances which they produce and in the epidermic structures which they especially affect. Some of them are at home on the skin of certain animals, but can also grow on the human skin, in which their special qualities can be recognised.

Dr. Colcott Fox and Dr. Blaxall have done excellent, laborious, and fruitful work in reviewing experimentally Sabouraud's investigations. They have been able, on the whole, to confirm the most important parts of his work. In some details they have enlarged and corrected it. The amount of time they have given to the study of the subject will be understood when we say they investigated no fewer than 432 cases; but only those who have personal knowledge of the labour involved in isolating and cultivating organisms and in studying the effects of all the various media necessary can appreciate the amount of time which they have bestowed on this important question. The small volume in which they have recorded their experiments and their conclusions is creditable to English scientific medicine. It is clear, and although concise as regards extent, it is full as regards information, and it is rendered specially valuable by being illustrated by no fewer than eleven plates, in which the varieties of the ringworm fungus, the naked-eye appearances of cultures, and microphotographs of the fungi when artificially cultivated, are copiously illustrated.

Those who wish to inform themselves regarding the present position of this new branch of inquiry will find all they want in this publication, whilst to those engaged in similar researches it will be almost indispensable. The methods of preparing media, the effects produced by modifying their constitution and the methods of preparing and examining the fungi which are cultivated, are lucidly set forth. We venture to say that Drs. Fox and Blaxall, by their work and the publication of its results, have given an impetus to the study of this difficult question in English-speaking countries which will have a far-reaching effect, and which, we do not doubt, will receive the acknowledgment which it deserves.

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The Fall of the Congo Arabs. By Sidney Langford Hinde, Medical Officer of the Interior, British East Africa, late Captain Congo Free State Forces. London: Methuen and Co. 1897. (Cr. 8vo, pp. 316, 1 large map. 12s. 6d.)

The medical profession has for generations yielded a fair proportion of those adventurous spirits who have explored the still unknown districts of the world, and have helped to extend the area open to the commerce and the influence of the civilised world. Two of the most recent books of exploration in little known countries are written by members of the medical profession. Sir George Robertson, now British Resident at Chitral, was an officer of the Indian Medical Service when he undertook the adventurous journey into Kafiristan, which he has recently described in a fascinating volume. Captain Hinde went out to the Congo Free State with a commission as medical officer; subsequently he held a commission as Captain, and in the volume before us he gives a graphic description of the great Congo tropical forest, of the savage, and generally cannibal tribes which inhabit it, of the rivers by which it is intersected, and the swamps by which it is interspersed. The object of the book is to relate the military operations which checked the process of formation of a great Arab empire in West Africa, and finally brought about the downfall of the Arab power. The operations were of a confused and often haphazard kind, and the author admits that the forces of the Congo Free State were extremely fortunate in achieving so notable a victory in so short a time. In a country, however, where the only lines of communication are caravan paths 10 inches wide, traversing dense forest, or plains covered with grass taller than a man, where to leave the track is to run the risk of sinking into a swamp or becoming lost in the thick tall grass, regular military operations are almost impossible, and surprises inevitable.

Another obstacle which was always liable to upset a commander's plans was epidemic small-pox, and so well was this understood that on one occasion the Arabs deliberately sent into a town from which they had been recently expelled by the Congo State forces all the small-pox cases in the district. On this, as on more than one other occasion, small-pox spread among the native auxiliaries, and little or nothing could be done to check its ravages, as the vaccine matter obtained was never active. "Though on several occasions," the author states, "vaccine was sent to me from Europe, and packed in a dozen different ways, in no single instance could I get it to take." The methods of preparation are not stated, though it would have been interesting to have been told whether any of the specimens sent were glycerinised. Some facts proving in a striking manner the efficacy of vaccination are given. Thus, it is stated that the Hausa troops "were with one exception all vaccinated, and this man was the only one in the company who caught small-pox, and he died of it. In the Elmina Company there were only two men unvaccinated, both of whom got small-pox, and one died of it. Of our Lower Congo porters very few had had small-pox, and only some half dozen had been vaccinated. Among this body of 200 men rather over two-thirds took small-pox, and there were 65 deaths amongst them."

As to the future of these regions, the author remarks that "in our present state of ignorance, colonisation, as opposed to settlement, by Europeans is out of the question." Upon this point he expresses a view not very dissimilar from that so skilfully maintained recently in these columns by Dr. Sambon: "Increased knowledge of diseases, and of the treatment of those peculiar to tropical climates, may some day render it possible for a healthy European colony to spring up in this rich land." He insists on the necessity for the habitual use of woollen clothing, and resort to an extra wrap in the evening. The consequences of a sudden chill may be very serious, and Dr. Hinde states that the white population of the Congo district are coming to the conclusion that a house or station set on a hill is always a danger to health. The sickness and death-rates of the stations at high altitudes compared with those in the valleys, or actually on the river

banks, are, he says, "enormously in favour of those low down, despite the accepted theory with regard to malaria." The healthiest men are those employed on the steamers and boat services. The explanation is that they and the dwellers in valleys experience a more equable temperature, while the change at night from the hot moist moist still atmosphere of the valley to the cooler and more windy hill station is liable to be followed by chill.

The book contains many exciting stories, and gives a striking picture of the savagery of the natives of the Congo basin, and of the terribly trying nature of its climate, from which the author barely escaped with his life.

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The Medical Register, 1897. London: Published and Sold for the General Medical Council by Spottiswoode and Co. (Royal 8vo, pp. 1,555. 6s.)

The Dentists' Register, 1897. London: Published and Sold for the General Medical Council by Messrs. Spottiswoode and Co. (Royal 8vo, pp. 236. 3s. 4d.)

The new issue of the *Medical Register* is more bulky than ever, since it contains 877 more names than the issue for 1896. The number last year was 33,601, this year it is 34,478. The new names added to the *Register* in 1896, and appearing for the first time in this volume, numbered 1,385, and 52 names were restored to the *Register*; the names removed in consequence of death and other causes numbered 560. We learn that a large number of corrections of addresses have been made in consequence of information received in connection with the recent elections of direct representatives.

The number of names upon the *Dentists' Register* is in the present edition 4,860, as compared with 4,935 in the issue of 1896. This decline of 75 is to be attributed to the fact that the only persons whose names can now be added to the *Dentists' Register* are those who hold the qualification of Licentiate in Dental Surgery, whereas the erasures from the *Register* due to death and other causes affect not only Licentiates but practitioners who are on the *Register* in virtue of having been in practice before the Dentists' Act, 1878. The percentage of Licentiates in Dental Surgery to the whole number on the *Register* continues to show a steady increase. In 1879 the percentage was 9.13; in 1896 it was 28.88; and in 1897 31.25.

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The Annual Charities Register and Digest. With an Introduction. By C. S. Loch. London: Longmans, Green, and Co., and the Charity Organisation Society. 1897. (Royal 8vo, pp. clxxx, 652. 4s.)

This is a classified register of charities in the metropolis, or available for the use of its inhabitants, giving in each case general particulars of the scope and objects of the charity, the extent of its work, and a brief note on its finances. The term "charities" has been interpreted in a liberal sense, and does not exclude those which are in parts self-supporting, nor the hospitals and asylums of the Metropolitan Asylums Board, nor municipal asylums for lunatics. Moreover, the interpretation given to the phrase in the title, "available for the metropolis," has also been wide, so that convalescent homes and similar institutions in different parts of the country are enumerated. The list itself is divided under a number of general heads, and to many of these sections introductions have been prefixed containing some general observations on the kind of provision existing. Thus Mr. Warrington Haward has written an introduction to the section on cripples, Dr. Rayner to that on lunatics, Dr. Norman Kerr to that on inebriates, Lieutenant-Colonel Montefiore to that on "relief in sickness," which includes hospitals, infirmaries, dispensaries, convalescent homes, surgical aid societies, medical and surgical homes and nursing institutions. The volume is furnished with an elaborate index, which renders reference easy; and Mr. C. S. Loch, the Secretary to the Council of the Charity Organisation Society, London, has provided a revised general introduction containing references to recent legislative measures likely to concern those engaged in charitable work. This introduction, which is published separately (price 2s. 6d.), is an outline of the principles upon which charitable work should be conducted, and we could wish that all charitably disposed persons would obtain a copy and devote some hours of careful study to Mr. Loch's sober and authoritative pages. The *Charities Register and Digest* has hitherto been published about every four years. It will in future appear annually, and we trust that the sale of the volume, which will be found of the utmost value as a book of reference and as a guide, will justify the decision of the Society to reduce its price from 10s. 6d. to 4s.

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Practical Manual of Diseases of Women and Uterine Therapeutics for Students and Practitioners. By H. Macnaughton Jones, M.D., M.Ch. Seventh edition, revised and enlarged. London: Baillière, Tindall and Cox. 1897. (Demy 8vo, pp. 934, 565 illustrations. 15s.)

The author, like most writers in the United Kingdom, understands what is meant by the word "manual." Unlike the Continental "Handbuch," often a bulky publication in several volumes, bound in paper, this work, though greatly enlarged in the last edition, remains compact, strongly bound, and portable. The success of the *Practical Manual* has long been assured. It contains what readers want to read, the author not confining himself to his own theories and rejecting the opinions, practice, and instruments of others. Altogether, it is a very good summary. Progress in the surgery of uterine myoma is well recorded. Thus, diagrams are given of Doyen's panhysterectomy. A chapter is devoted to deciduoma malignum. No doubt it is right to turn the attention of the British obstetrician and practitioner to the recently reported cases of rapidly diffused malignant disease following labour or abortion. The author is somewhat sceptical about the foreign interpretation of "deciduoma," and most British authorities will agree with him. There are plenty of drawings of new instruments and appliances, and altogether the seventh edition is a capital summary of recent progress in gynæcology, native and foreign.

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An Account of the Life and Works of Dr. Robert Watt. By James Finlayson, M.D. London: Smith, Elder, and Co. 1897. (Demy 8vo, pp. 48, with a portrait. 3s. 6d.)

Dr. Finlayson has done good service to all lovers of medical biography as well as tardy justice to Watt himself by compiling so interesting an account of the illustrious author of the *Bibliotheca Britannica*. Watt, who may almost be called the father of modern bibliography, was one of those extraordinary men who are more common in Scotland than in England. The son of a small farmer, he was born in Ayrshire in 1774; he was first a ploughboy, then a working mason like Hugh Miller, a hauler of stones to build bridges and sewers, and afterwards a joiner and cabinet maker like John Hunter. He borrowed books from the library of Robert Burns, and had himself taught enough letters to enter the University of Glasgow in 1793, where he soon gained the Greek Prize. He then taught school, went to Edinburgh to study anatomy, and gained a prize for an essay on regeneration, and afterwards as a member of the divinity class another for an essay on prayer. Like Allen Thomson he was a member of the three great Scotch universities, for he graduated M.D. from King's College, Aberdeen, in 1810. Watt began to practise as a physician in that year at Glasgow, though he had been admitted a Licentiate of the Faculty there as early as 1799, and had practised at Paisley. In Glasgow he gave lectures upon the theory and practice of medicine, and became a physician to the Royal Infirmary. All this, as well as the interesting story of the conception, birth, and after-fortunes of the *Bibliotheca Britannica*, Dr. Finlayson tells in the most attractive style. The portrait prefixed to the volume affords an excellent representation of the man who died untimely at the age of 45, worn out by his toil on that work which has since become one of the standard reference books in literature. This account of Watt, with the appendix containing a list of his works, of the important dates in his life, and of the sources from which Dr. Finlayson has obtained his information, tells us all that we need know of one who shortened his life to confer a benefit on his fellows. Of Watt it might truly be said: "Dii laboribus omnia vendunt." Who could have foreseen that one who was a ploughboy at 13, and was a practising member

of the medical profession, could yet have found time to compile almost single-handed "a general index to the literature of Great Britain and Ireland, ancient and modern, including such foreign works as have been translated into English, with a copious selection from the writings of the most distinguished authors of all ages and nations"? Even this stupendous work did not exhaust his energies, for he wrote important papers, some of which have an interest lasting to our own times.

A CORRECTION.

We regret that by the error of a clerk, the price and number of pages of *The Practice of Medicine* by Drs. H. C. Wood and R. H. Fitz, and published by the J. B. Lippincott Company, was incorrectly given in the BRITISH MEDICAL JOURNAL of March 13th. The correct price is 21s. and the number of pages 1098.

## NOTES ON BOOKS.

*International Clinics: A Quarterly Collection of Clinical Lectures and Specially-prepared Articles on Treatment.* Edited by JUDSON DALAND, M.D.Philadelphia; J. MITCHELL BRUCE, M.A., M.D., F.R.C.P.Lond.; and DAVID W. FINLAY, M.D., F.R.C.P.Lond. Volumes I, II, III. Sixth Series. London: T. Lewin and Co. 1896-97. (Royal 8vo, with numerous Illustrations. 12s. 6d. net per volume).—In the present issue of this serial the clinical papers which it contains are classified under general headings, such as treatment, medicine, neurology, surgery, gynæcology and obstetrics, ophthalmology. As each volume is supplied also with an index, the work is very convenient for reference. It would be impossible to review in detail a collection of essays such as this, and it would perhaps be invidious to select some one or two articles for special analysis. Suffice it to say that the articles all deal with points of practical clinical importance, that they are written by physicians and surgeons of experience, that they are sufficiently illustrated, and that the selection of writers is such as fully to justify the title of international.

*Dental Surgery for Medical Practitioners and Students of Medicine.* By A. B. BARRETT, M.B.Lond., M.R.C.S., L.D.S. Third edition. (London: H. K. Lewis. 1897. Pp. 166; 86 illustrations. 3s. 6d.)—We must congratulate the author upon having by corrections and alterations made a considerable improvement in his book. The facts are more correctly stated, and the chapter on caries materially improved. Some of the chapters appear to be redundant, and there is a large amount of material available on the borderland between surgery and dentistry which would be of great practical use to medical practitioners and students if the author could make room for it in a future edition.

*Ambulance Lectures on Home Nursing and Hygiene.* By SAMUEL OSBORN, F.R.C.S. Third Edition. (London: H. K. Lewis. 1896. Fcap. 8vo, pp. 176, 25 illustrations. 2s.)—This little volume having passed in a short time through two editions has evidently proved valuable to those for whom it was intended, and we have little doubt that the third edition will meet with a ready sale. It is essentially practical, the author not being satisfied by saying what should be done, but he clearly explaining how it is to be done, and that too by a method that can be carried out by anyone. For instance, he improvises a bronchitis kettle with an ordinary tea kettle and peashooters, and in the absence of a hot bottle suggests a flat tile, heated, and wrapped in flannel, as a substitute. He gives reasons for most of the recommendations he makes, which renders it much easier for the learner to remember what he is told. The illustrations, which are chiefly confined to the chapter on bandaging, will be found useful for those who have to teach themselves.

LADY DOCTORS IN GREECE.—Two young Greek ladies, the sisters Angelica and Alexandra Panagiotatos, recently took their degrees as doctors of medicine in the University of Athens. The elder is aged 22, the younger 20. They are natives of Corfu, where they began their studies, continuing them later in the French School at Athens, and afterwards in the University of that classic city.

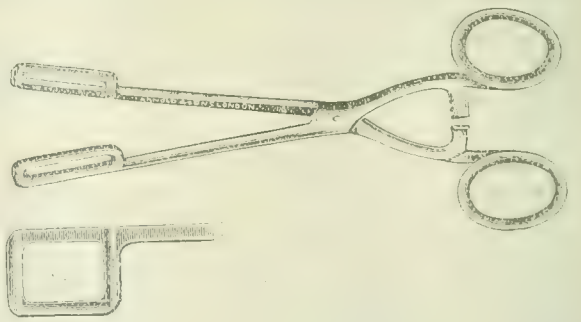
# REPORTS AND ANALYSES
AND
# DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

## BEEF JUICE: EXTRACT OF RED BONE MARROW.

MESSRS. ARMOUR AND CO., of 59, Tooley Street, have submitted to us samples of beef juice and glycerine extract of red bone marrow. The beef juice is very pleasant in flavour, and according to our analysis it contains 23.8 per cent. extractives (including ash), of which nearly one-fourth is coagulable when the beef juice is heated. It is therefore a high-class preparation of meat juice. The use of bone marrow in certain cases of anæmia has suggested to Messrs. Armour and Co. the preparation of a glycerine extract which would contain all the active ingredients of red bone marrow, and at the same time would be palatable and not become rancid. The use of this glycerine extract is said to have been very successful in America in promoting the development of the red blood corpuscles. It is a very pleasant preparation, and is worthy of a trial in cases where the red bone marrow is likely to be beneficial.

## TONSIL FORCEPS.

MR. G. KIRKMAN FINLAY, M.B. (Littleborough, near Manchester), has devised a pattern of tonsil forceps with parallel movement of blades, which is illustrated in the accompanying drawing. The following advantages are claimed for it—that it is (1) impossible to wound the carotid, as the blades of the forceps seize the tonsil in a plane at right angles to the line of the artery; (2) that it is easy of application; (3) that when the forceps is applied it is retained in position by the catch, thus enabling the operator to dispense with assistance; (4) it can be applied to either side with equal facility;



and (5) the grooves on the blades of the forceps obviate any tendency on the part of the tonsil to slip from the grasp of the instrument. The opposed surfaces of the blades are serrated, and by means of a catch in the handle can be fixed at varying distances from each other. One of the blades carries a chisel-shaped blade $\frac{1}{16}$ of an inch broad; it works on a flat rod, as shown in the drawing. When the blade is pushed, by means of the rod attached to it, the edge is stopped at a distance of a quarter of an inch from the end of the instrument. A needle is mounted on the rod to transfix the excised portion of the tonsil. The forceps are made by Messrs. Arnold and Sons.

FRENCH OTOLOGICAL AND LARYNGOLOGICAL SOCIETY.—The French Otological and Laryngological Society will hold its annual meeting this year in Paris on May 3rd. The questions proposed for discussion are: 1. The Treatment of Ozæna. 2. Recurrent Paralysis. 3. The Ear, the Nose, and the Larynx from the Medico-Legal Point of View.

FRENCH OPHTHALMOLOGICAL SOCIETY.—The annual meeting of the French Ophthalmological Society will be held this year in Paris from May 3rd to 6th. The question proposed for discussion is the Part played by Auto-infection in Ocular Affections.

## PARLIAMENTARY BILLS COMMITTEE.

A meeting of the Parliamentary Bills Committee was held at the office of the Association, 429, Strand, W.C., on Thursday, March 11th, 1897.

*Present:*

Mr. Victor Horsley, F.R.S., in the Chair.

Dr. C. Parsons, Treasurer.

Mr. S. H. Agar (Henley-in-Arden).
Mr. D. B. Balding (Royston).
Dr. A. G. Bateman (London).
Mr. G. Brown (London).
Dr. J. S. Cameron (Leeds).
Dr. W. A. Carline (Lincoln).
Dr. W. Douglas (Leamington).
Brig.-Surg. Lieut.-Col. E. F. Drake-Brockman (London).
Mr. George Eastes (London).
Dr. R. Esler (London).
Mr. E. H. Galton (London).
Dr. C. E. Goodall (London).
Dr. W. Gordon (Exeter).
Dr. A. J. Harrison (Clifton).
Mr. J. H. Hemming (Kimbolton).
Mr. T. C. Langdon (Winchester).
Dr. A. R. Manby (East Rudham).
Dr. W. J. Mickle (London).
Dr. James Murphy (Sunderland).
Dr. H. H. Phillips-Conn (Reading).
Mr. A. Brown Ritchie (Hulme).
Dr. G. E. Shuttleworth (Richmond).
Mr. James Taylor (Chester).
Mr. T. J. Verrall (Brighton).
Mr. F. Wallace (London).
Dr. W. L. Winterbotham (Bridgwater).

On the proposal of Mr. George Eastes, seconded by Dr. Spottiswoode Cameron, Mr. Victor Horsley was voted to the chair.

The minutes of the last meeting having been circulated were taken as read and confirmed.

Letters of apology were received from Dr. Bruce Goff, Dr. Bridgwater, Dr. Batten, Dr. Neal, Dr. Urquhart, Dr. Cleveland, Mr. Evan Jones, Mr. Spanton, Dr. James Ritchie, and Dr. T. M. Dolan.

The Chairman announced that Dr. Cleveland, owing to the death of his wife, was unable to be present. It was resolved:

That the Parliamentary Bills Committee desire to record a vote of condolence with Dr. Cleveland, and expresses its deep regret at the loss he has sustained.

### The Army Medical Service.

The Chairman called upon Dr. Gordon, who said that in accordance with the resolution of the last meeting a communication had been made to Lord Lansdowne, enclosing a copy of the report of the Subcommittee (see page 732), and asking whether he would wish to receive a deputation on the subject. The letter was so worded that he could without discourtesy to the Committee refuse or accept the proposed deputation. The War Office acknowledged the communication, and subsequently wrote for six extra copies of the report, so that there was no doubt it had met with careful consideration. The first answer they received was the statement made recently in the House of Commons by Mr. Brodrick. That had been reported in the British Medical Journal, together with the suitable reply given to it by Dr. Farquharson. It would be seen that some of the things which had been asked for had been granted. But the matters on which the Committee laid most stress had been left ungranted, indeed one of them definitely refused. Besides Dr. Farquharson's speech on the Army Estimates, he had ascertained in the House that the real number of vacancies was in excess of the number announced. Sir Walter Foster had also asked a question, which brought before Parliament a very important point. He had elicited the fact that the War Office had actually lowered the standard of the entrance examination by abrogating the rule which hitherto prevented candidates from competing more than twice. The Subcommittee had considered the concessions granted and had amended their report.

After further discussion, it was proposed by Dr. Gordon, seconded by Mr. Galton, and resolved:

That the Report of the Subcommittee be approved and adopted, and the recommendations contained therein carried into effect.

[The subcommittee recommended that the Report and Appendix should be sent to the medical schools, together with a circular letter requesting the deans to bring it under the notice of those contemplating entering the Army Medical Service; that the Report be published in the British Medical Journal; that copies of the amended report should also be sent to the editor of each London and provincial paper for his information and comment; that thanks be tendered to Dr. Farquharson for his speech on the Army Estimates, and to Sir Walter Foster for his question in the House; and that the Secretary of State for War be requested to receive a deputation on the subject of the Army Medical Service.]

### Lunacy Acts Amendment.

The Chairman said he would ask some member of the Subcommittee appointed to consider the amendment of the Lunacy Acts to move the adoption of the following report:

At a conference held on Friday, March 5th, 1897, between the Subcommittee of the Parliamentary Bills Committee of the British Medical Association and the Special Committee of the Medico-Psychological Association of Great Britain it was conjointly recommended that in order to provide more efficient treatment of the incipient and non-confirmed insane, the lunacy law in England and Wales should be amended on the general lines of the Scotch Lunacy Act, Section xli, 21 Vict., Cap. 71, with certain modifications hereafter to be considered.

Dr. Douglas said he had much pleasure in moving that the report containing the resolution be adopted. It was within the cognisance of everybody that there was a very large number of cases of incipient insanity which ought to be under some kind of control, but in the present state of the law this was impossible. In Scotland this difficulty had been met by an Act of Parliament, and it had not been necessary to bring any case before the law courts to ask for a decision. It was hoped that the matter would work equally well in England. He begged to move:

That the report of the Subcommittee be approved and adopted, and the recommendations contained therein carried into effect.

The resolution was seconded by Dr. Shuttleworth and carried.

### Superannuation Allowance to Public Vaccinators.

The General Secretary reported that he had obtained the opinion of the Solicitor to the Association upon the question as to whether public vaccinators were included in the Poor-law Officers Superannuation Act, the following being a copy of his reply:

14, Austin Friars, London, E.C.,
March 10th, 1897.

My Dear Sir,

*Public Vaccinators and Superannuation.*

I return herewith the print of the Poor-law Officers Superannuation Act, 1896, and print of letter from Dr. Elliott to the Chairman of the Parliamentary Bills Committee on the question of the Superannuation of Public Vaccinators.

In view of the opinion of the Local Government Board (which is probably the opinion of the law officers of the Crown) that a public vaccinator who is paid fees under a contract with a Board of Guardians is not an "officer" as defined by Section 19 of the Poor-law Officers Superannuation Act, 1896, I could not advise the question being tested by means of legal proceedings, except on the advice of eminent counsel.

My own opinion, however, is that the Local Government Board is correct, and that a public vaccinator is not an officer within the meaning of Section 19.

Under these circumstances I think that the Parliamentary Bills Committee should endeavour to secure the insertion of a clause or clauses in the Local Authorities Officers Superannuation Bill now before Parliament with a view of bringing public vaccinators within the scope of the Poor-law Officers Superannuation Act, 1896.

Yours faithfully,

F. Fowke, Esq. James R. Upton.

The Chairman said, having heard Mr. Upton's opinion, it was for the Committee to decide what steps were next to be taken. If they followed Mr. Upton's advice, the Committee might appoint a Subcommittee to draft clauses with a view to their being brought before the House.

It was proposed by Dr. Murphy, seconded by Dr. Douglas, and resolved:

That a Subcommittee be appointed consisting of Mr. Wallace, Mr. Galton, Mr. Eastes, and Dr. Esler, to consider the question of drafting a clause to meet the matter of the superannuation of public vaccinators.

### The Sale of Food and Drugs Act.

The Committee considered the following memorandum, which had been prepared on this Bill:

*The Food and Drugs Act Amendment Bill.*

The Bill introduced by Mr. Kearley and read for the first time on January 27th, has been drawn up with the intention of removing various difficulties which have obstructed the administration of the existing Acts relating to the adulteration of food and drugs, and one of its most important provisions in that respect concerns the establishment of a Board

of Reference having power to fix standards for the composition of manufactured articles, the amount of permissible deterioration or "natural poverty," the amount and kind of foreign substances to be allowed for preservation or flavouring, and generally to control the appointment of analysts, the labelling of mixed or altered articles, as well as the mode of procedure to be followed in bringing questions under the consideration of the Board. In all these respects the formal resolutions of the Board are to be subject to approval by the Privy Council before becoming effective so as to constitute non-compliance with their terms an offence.

The want of an authority competent to consider many questions arising in the administration of the law relating to adulteration has long been experienced, and the proposed constitution of the Board of Reference provides not only for the protection of public interests, but also for those of persons engaged in trade. It is to consist of ten members, the principal officer of the Government laboratory at Somerset House, one nominee respectively of the Local Government Board, the Board of Agriculture, the General Medical Council, the Institute of Chemistry, the Pharmaceutical Society, the London Chamber of Commerce, the Association of Chambers of Commerce of the United Kingdom, and two nominees of the Society of Public Analysts. The appointment of persons so nominated is to be subject to the approval of the Local Government Board, and the Board of Reference is to have power to elect three other persons as members. The remuneration of the members of this Board of reference is to be determined by the Local Government Board, and, like other expenses of the Board of Reference, paid out of moneys to be provided by Parliament.

The second clause of the Bill gives useful definitions of terms, such as food, drug, etc., and the fourth clause provides for the public advertisement of convictions, in newspapers and upon the premises occupied by persons convicted of offences. In the definition of offences the chief difference from the Act now in force is the mode of statement, but in Clause 7 there is a provision that a prosecution for the sale of an article not of the nature, substance, and quality demanded shall not be defensible by the allegation that the inspector purchasing it was not prejudiced by the sale. The exemptions remain unaltered, and in the event of the Bill being passed, it would be for the Board of Reference to determine whether any added matter or ingredient is injurious to health, or is required for the production or preparation of an article for commercial purposes, etc., and does not have the effect of fraudulently increasing the bulk, weight, or measure of the food or drug, or concealing its inferior quality. These questions and others of a similar nature would be taken out of the hands of magistrates and transferred to the Board of Reference for decision. In fact, the decision of so many questions —likely to be raised in prosecutions where adulteration is alleged to have been practised—would have to be referred to the Board that it would in reality be a kind of tribunal before which all such prosecutions might be at once instituted without the formality of procedure before a magistrate.

In regard to the appointment of analysts and inspectors power is still left in the hands of local authorities subject to the approval of the Local Government Board, and in any case of failure to carry out the provisions of the Act in regard to such appointments the Local Government Board is to have power to compel the local authority to appoint a competent analyst and inspectors with suitable remuneration. According to Clause 30 every local authority appointing an inspector or analyst is to have not less than one sample taken for every 1,000 inhabitants, and in case of failure the Local Government Board is to take steps for the provisions of the law being carried out within the district at the cost of the local authority. A very considerable extension of the power of taking samples of suspected articles is provided for in the Bill, and purchasers of such articles can as heretofore have analyses made at a nominal charge by the public analyst of the locality, or by the analyst of some other place, for such sum as may be agreed upon between them. An analyst's certificate is to be sufficient evidence of the facts therein stated, unless the defendant requires that the analyst shall be called as a witness, and on the request of either party in a case of prosecution the justices shall cause samples of the article in question to be sent to the Commissioners of Inland Revenue for chemical examination and report by the chemical officers of their department at Somerset House. Persons charged with offences are not to be liable to conviction if they show to the satisfaction of the Court that they were not aware of the adulteration, and could not have obtained the knowledge, or that they purchased the article with a written warranty from a person resident in Great Britain or Ireland, and in such case the prosecutor is to have power to proceed against the person giving the warranty. In regard to all these provisions it is probable that in most cases of prosecution the ultimate decision would rest with the Board of Reference.

Dr. CAMERON said that he had gone over the proposed Bill with regard to food and drugs, and he was of opinion that the Bill itself was a very good one. He would be disposed to recommend that the second reading should be supported.

After some further discussion, it was proposed by Dr. CAMERON, seconded by Mr. GEORGE BROWN, and resolved:

That the Parliamentary Bills Committee support the Bill as at present before the House of Commons; and that a Subcommittee consisting of Dr. Cameron, Mr. Galton, Mr. George Brown, and the Chairman be appointed to watch the progress of the Bill through the House.

### POOR-LAW OFFICERS' SUPERANNUATION (IRELAND) BILL.

A memorandum on this Bill from Dr. Moorhead having been read, the following resolution, proposed by Dr. DOUGLAS, was carried:

That Dr. Moorhead be communicated with, and that his suggestions, together with the Bill, be handed to the Subcommittee appointed to consider the superannuation of public vaccinators.

### PUBLIC HEALTH (SCOTLAND) BILL.

A memorandum on the Public Health (Scotland) Bill having been read, it was proposed by Dr. CAMERON and seconded by Mr. EASTES, and resolved:

That the Parliamentary Bills Committee apply to the Chief Secretary for Scotland to receive a deputation on the subject, and communicate with Dr. Farquharson to ask in what way the Committee could forward the progress of the Bill.

### THE MIDWIVES BILL.

The CHAIRMAN said that he had taken action, as Chairman of the Subcommittee appointed to consider this question, to get this Bill, backed by Mr. Tatton Egerton, Mr. Schwann, Sir Frederick Fitzwygram, and others, blocked in the House of Commons when brought on for second reading.

It was proposed by Dr. DOUGLAS, seconded by Mr. VERRALL, and resolved:

That the Subcommittee appointed to consider the Obstetric Nurses Bill be empowered to watch and take any action that urgency may demand.

### THE CONTAGIOUS DISEASES ACTS.

The following resolution from the Council of the Metropolitan Counties Branch was considered:

The Council of the Metropolitan Counties Branch begs to urge upon the Parliamentary Bills Committee the desirability of taking into consideration the results of the repeal of the Contagious Diseases Acts, as recently reported in the daily press, and to take such active steps as they may deem necessary to remedy the evil.

The following memorandum was submitted:

*Memorandum on Venereal Diseases among White Troops in India.*

THE so-called Indian Contagious Diseases Acts took the form of cantonment regulations, and were not—as they could not be—applied to large purely civil centres in India. A cantonment is a camp area within which troops are quartered, and such has always been under the special police and magisterial control of an officer familiarly known as the "bazaar master." He exercises certain summary powers over persons resident within the cantonment area, including the native bazaar, often large and populous, where the natives reside who minister to the wants of the military and their camp followers.

The Vote in the House of Commons in 1888 denied power to the Government of India to frame sanitary or police regulations regarding venereal diseases within cantonment areas; that power should now be restored, and left to the Government of India to re-enact such regulations as would bring those suffering from venereal diseases in cantonments under

similar rules to those labouring under small-pox or other infectious diseases.

The revival of the Contagious Diseases Acts in the old form is, perhaps, neither necessary nor desirable, but the cantonment magistrate should be armed with powers to arrest or detain public women found to be suffering from and spreading venereal diseases within a cantonment area. It should be left to the Government of India to determine the method of such control, either by notification, *plus* or *minus* inspection, or otherwise. Segregation and retention of the diseased in suitable hospitals are essential.

Such regulations must be regarded as natural and sanitary, without abstract theories as to the moral or immoral character of any infective virus. Such regulations would not offend any native susceptibilities, for in the East prostitution is regarded as perfectly natural and legitimate among women unfettered by matrimonial ties. Indeed, public women in India belong to a class or caste whose calling is recognised, and who have a location to themselves in all the larger native cities.

Nor must the regulation of such women in cantonments be twisted into any argument as to publicly providing prostitutes for the British soldier. There is no halting place between regulation and absolute prohibition, and any Government mad enough to attempt the latter would bring about open revolt.

It was imagined by some that fear of contracting disease in its worst forms (and the more malignant the better in such an argument) would deter the British soldier from consorting with unregulated native prostitutes. This notion has proved absolutely fallacious; the strongest instinct in the nature of man is above all fear. Under "free trade" in prostitution, incontinence and the virulence of syphilitic disease have waxed worse and worse year by year. This is amply proved by reference to the annual Army Medical Reports. Take the last for 1895, page 124, on venereal diseases throughout India:

"Taking all these forms of venereal disease together, the ratio of admissions amounts to 536.9 per 1,000, which is more than that of the preceding year by 25.2, and in excess of the average rate by 127.6, while for constantly sick the ratio was 46.31, representing a loss of 3,164.84 men to the efficient strength of the force from these diseases, higher than the ratio in 1894 by 3.17, and above the average by 14.39."

The average here referred to is the preceding nine years.

It appears from the above that numbers equal to a brigade of infantry are constantly non-effective through venereal disease in the force of 70,000 men in India by which we hold that country. That is the direct effect, but the indirect, that is the abrogation of sanitary regulations, is much worse, nay even incalculable; for many ailments causing invaliding, and even death, although not classified under venereal diseases, nevertheless spring from them. The shocking constitutional deterioration and break down under venereal taint which medical officers in India witness fill them with mingled pity and disgust that such things should be permitted by really humane men.

To sum up losses and gains under this so-called moral but really cruel crusade:

1. Prostitution greater than ever.
2. Virulence of disease much increased.
3. Direct inefficiency alarming, indirect, incalculable.
4. Taint spread at home by returned time-expired men.
5. Soldiers' morals not elevated by fear of venereal diseases.
6. Moral gain absolutely *nil*.
7. Physical suffering wantonly aggravated.

See annual Army Medical Reports, although all that can be said statistically is summed up in the quotation given from Blue Book for 1895. See also Lecture by Major-General Dashwood at Royal United Service Institution on February 19th and discussion thereon.

Mr. Eastes said that when the discussion on this subject first began in the papers at the end of January, he gave notice to have the matter put on the agenda of the meeting of the Metropolitan Counties Branch, and he had the pleasure then of moving the resolution, which was carried unanimously. Since then affairs had moved on a little. A Departmental Committee was now considering the whole question, and also, he believed, a large Committee of officers belonging to different branches of the service had been formed to consider the same question of re-enacting the Indian Contagious Diseases Acts if it were possible to do so.

It was proposed by Mr. George Eastes, seconded by Mr. E. H. Galton, and resolved:

That the Parliamentary Bills Committee put itself in communication with the private committee recently formed, to consider the question of the Contagious Diseases Acts, to ascertain in what way this Committee can help.

### The Sale of Carbolic Acid.

The Chairman stated that a favourable reply had been received from the Privy Council with respect to the Memorandum on the sale of carbolic acid which had been submitted to the last meeting of the Committee and directed to be forwarded to the Lord President of the Privy Council. The reply stated that the matter was under the consideration of the Council.

### Shellfish and Disease Dissemination.

The following memorandum on the sale of contaminated shellfish which had been prepared was then considered:

*Memorandum on Oysters and Other Shellfish and Typhoid Fever.*

In 1880, at a meeting of the Association at Cambridge Sir Charles Cameron described contamination of oyster beds at Dublin, and suggested dangers of infectious disease being carried by these and other shellfish.[1] During the intervening time many observers were noting cases of disease following suspiciously the use of shellfish. In March, 1894, Dr. Newsholme, of Brighton, drew the attention of his Corporation to a series of cases of enteric fever following the consumption of oysters from the Southwick beds. The Brighton Corporation tried to act directly in the matter, but found they had no legal control. In December, 1894, the Corporation interviewed the Local Government Board upon this matter. At the close of that year (1894) many cases of enteric fever, apparently associated with the eating of oysters, occurred in London and elsewhere, and on January 5th an annotation appeared in the Journal[2] drawing attention to the matter. The following week[3] a paper by Sir William Broadbent was published in the Journal. In it he narrated several cases in which the only assignable cause of an attack of typhoid fever was the eating of oysters. The matter was looked upon as so important that a Special Commission was appointed by the Journal Committee to investigate the matter. The first portion of the report appeared on January 19th, 1895, and the report continued to appear until the end of March.[4] In this report very strong reason was shown for thinking that sewage contamination of oyster beds, and what was still more important, of oyster fattening beds, was anything but uncommon. In a leading article in the Journal of January 12th an analysis was given of the report by Dr. Conn upon a singular outbreak of enteric fever at the Wesleyan University, Middleton, Connecticut. The way in which members of certain fraternities who met at oyster suppers on a particular date were attacked with typhoid fever, and strangers who joined in these suppers from other parts of the country were also attacked, while members of other fraternities not indulging in these particular festivities escaped, pointed strongly to the shellfish as the cause. The attention directed to the matter in the Journal elicited letters from Dr. Johnston Lavis[5], of Monte Carlo, Dr. Gayton[6], of the Asylums Board, and many others, giving additional information about the matter. The Journal also[7] published results of the investigations of Professor de Giaxa, of the Bacteriological Laboratory at Naples on the reproductive powers of cholera, anthrax, typhoid, and other bacilli in salt water. These and other articles[8] kept the matter before the attention of the profession, and the strength of the demand for legislative powers was greatly increased when the report of the Local Government Board on the cholera outbreak, long delayed, was at length pub-

[1] British Medical Journal, 1880, ii, p. 471.
[2] British Medical Journal, 1895, i, p. 41
[3] British Medical Journal, i, p. 61.
[4] British Medical Journal. 1895, i, pp. 159, 207, 259, 380, 711
[5] British Medical Journal, 1895, i, p. 559.
[6] British Medical Journal, 1895, i, p. 227.
[7] British Medical Journal, 1895, i, p. 390.
[8] British Medical Journal, 1895, i, pp. 560, 217, 268, 881, and 1

lished, and the information about Cleethorpes, Grimsby, and the relation of their oyster beds to gastro-enteric disturbance made public. In the meanwhile, the Brighton Corporation, feeling the importance of this question in their own neighbourhood, had attempted in their local Bill, deposited at the end of 1895, to get a clause inserted enabling them to deal with the evil as it affected their town. The Local Government Board, however, who had undertaken an investigation of this matter, threw difficulties in the way of private legislation, and since that time have themselves published a very full report, founded chiefly upon the inspections of the oyster beds and oyster fattening grounds by Dr. Bulstrode, and the bacteriological examination of oysters by Professor Klein. In analysing these reports, Dr. Thorne Thorne showed how grave was the danger which actually existed.

It is time that the matter should enter on another and more practical stage. It is abundantly proved that oysters can convey typhoid, and that oyster beds and oyster fattening grounds are in many cases exposed to sewage contamination, that the oyster will stand a considerable amount of this treatment and continue to live, and that there is no authority having complete control of these matters. The Inspector of the State Fish and Game Commission, Albany, U.S.A.,[9] reported to his Commissioners that one such oyster preparing ground was subject to contamination, and the Commission immediately gave him the necessary authority to stop the sale of oysters from that bed.

It is suggested:

(1) That the Local Government Boards, being the central health authorities, should have power to inspect all oyster layings and to prevent the sale of oysters from such as may be found to be liable to pollution until such time as improvements shall have been effected which would prevent the possibility of sewage pollution.

(2) That all oyster layings, shops, stalls, or other places where oysters are sold to the public should be subject to provisions similar to those contained in Section IV (the Milk Clause) of the Infectious Diseases Prevention Act, 1890.

(3) With regard to foreign oysters it is suggested that all such oysters should be deemed to be directly imported foreign oysters unless they have been laid for thirty days at least on approved layings in this country, and all purveyors of oysters should be required to declare whence their supplies are derived, with a penalty for false declaration.

(4) Any regulations for the control and inspection of oyster layings, shops, etc., or for the control of the import trade, should apply to the whole of the United Kingdom.

It was proposed by Dr. Cameron, seconded by Mr. Verrall' and resolved:

That a recommendation to the effect contained in the Memorandum be forwarded from this Committee to the Local Government Board.

### The Case of Surgeon-Captain Fowler.

A letter was read from Surgeon-Captain Fowler, thanking the Committee for the action it had taken on his behalf.

A vote of thanks to the Chairman for presiding, proposed by Dr. Douglas, brought the proceedings to a close.

[9] British Medical Journal, 1895, i, p. 268.

French Obstetrical Society.—The fifth session of the French Obstetrical Society will be held in Paris on April 22nd and two following days. The questions proposed for discussion are (1) habitual abortion; (2) fibromata in pregnancy and labour.

A Medical Nun.—Many religious orders devote themselves almost entirely to the care of the sick, and nuns in various parts of the world manufacture and administer remedies by no means solely of a spiritual kind. There is, however, at least one regularly qualified female member of the medical profession who is also a member of a religious community. This is Sister Raphael, M.D., of the Order of the Sisters of St. Joseph, in Kalamazoo, Michigan. Sister Raphael took her doctor's degree before she took the veil. She has a regular "office" in the convent, and is held in high esteem by the profession of Kalamazoo. One of the imates of the Gray Nuns' Convent in Montreal is a qualified dentist.

## ARMY MEDICAL REFORM.

Report of the Subcommittee appointed to Consider the Question of Advancing Army Medical Reform.

In preparing this report we had before us:

The Report and Minutes of Evidence of Lord Herbert of Lea's Commission, 1858.

The Report of Sir Ralph Thompson's Committee, 1878.

The Report, Minutes of Evidence, and Appendices of Lord Morley's Committee, 1883.

The Report and Minutes of Evidence of Lord Camperdown's Committee, 1889.

The Army Estimates for various years.

The Queen's Regulations.

The Army Medical Service Regulations, various years.

Field Army Establishments, service abroad.

The Army List.

The Army Act.

Certain Foreign Army Lists, Regulations, and Reports.

Lord Wolseley's *Soldier's Pocket-book*.

The correspondence on the subject in the British Medical Journal since 1888.

Confidential information from many sources.

What has perhaps struck us most forcibly in reviewing the above evidence has been the apparent indifference manifested through a long series of years by the War Office, not merely to claims of admitted justice, but even to the serious necessities of the Medical Service.

### PART I.
### THE ARMY MEDICAL SERVICE AS IT IS.

For the success of any establishment four conditions are essential:

1. The establishment must be sufficient.
2. The individual standard must be sufficiently high.
3. The organisation and working must be as perfect as possible.
4. The conditions of service must be such as at least to preclude serious discontent.

How does the Army Medical Service satisfy these four essential conditions?

#### I.—The Establishment must be Sufficient.

It is admitted on all hands that it is now insufficient, so we need say little on this head. To illustrate the extent to which the reduction has been carried, we may, however, quote the following figures:—For the year 1888 to 1889 the total number of medical officers, including those serving in India (not of the Indian Medical Service) was 943, but on the ground of expense it was decided to reduce this number by 52, taken from the Executive Establishment (that is, brigade-surgeons, surgeon-lieutenant-colonels, surgeon-majors, etc.), leaving a total which should still be 891 (see Evidence, Camperdown Committee, 8, 56, 2, 3). That reduction was considered at the time by the then Director-General, Sir Thomas Crawford, to have exceeded what was safe (Evidence, Camperdown Committee, 20). At the present time the numbers are only 830 (*Army List*, September, 1896). To show how the numbers are still falling we submit the following table:

| Date of Examination. | Vacancies. | Candidates. | Passes. |
|---|---|---|---|
| August, 1895 ..... | 13 | 23 | 10 |
| February, 1896 ... | 17 | 18 | 9 |
| August, 1896..... | 25 nominally, about 40 at the time of examination | 27 | 13 |

#### II.—The Individual Standard must be Sufficiently High.

Lord Roberts has told us that the army wants the best stamp of medical men our schools turn out. The necessity for maintaining the supply of such men, not merely in war, but in time of peace, particularly at outlying stations, where no other medical help is available, is very apparent. However the medical officers may suffer if the medical service deteriorates, the army as a whole must suffer physically. A high

standard in medical officers is necessary, but it is quite certain that pay alone will not induce the best men to enter the service. This has long been recognised. In the Report of Lord Herbert's Commission, p. lxv, we find the following:

"It is not, however, by money alone that the ablest and most accomplished medical men will be attracted to the Army Medical Service; the rank, the position, and the honours which can be obtained constitute perhaps the strongest inducements to the highest class of minds."

Again, in the Report of Sir Ralph Thompson's Committee (35), we read:

"It can scarcely be hoped that the pecuniary attractions of the public service will rival, except perhaps quite at the commencement of the career, those of civil life. Honours and distinctions must strike the balance."

Yet now, in spite of pay, allowances, and retired pay, of which, at least at home and in the Colonies, no complaint is made, the conditions of the service have been rendered in other respects so distasteful that it is impossible to fill vacancies which are fast increasing, much less to secure the men of whom Lord Roberts has said the service should consist. When we find 27 men with an average age of over 24 years, competing (!) for about 40 vacancies, and 14 failing to pass, we can scarcely talk of maintaining a high standard.

### III.—The Organisation and Working Must be as Perfect as Possible.

At the time of the Crimean war, army surgeons had few duties except those of professional attendance on the sick and wounded. They might plausibly be described as "doctors, and doctors only." They had no direct or considerable command of men, no sanitary powers of importance, and were dependent for their hospital sergeants and orderlies on the commandants of their regiments. This was the defective system whose breakdown caused the frightful suffering and mortality of the campaign. So terrible was the catastrophe that a public outcry arose for reform, and on October 1st, 1858, with the issuing of Lord Herbert of Lea's Warrant, the Army Medical Service entered on an entirely new phase of existence.

It was then made clear—and let it still remain clear—that army medical officers must be something more than doctors; must not merely cure disease but prevent it; not merely professionally aid the wounded but take military charge of them, remove them from the field and superintend their transit to the base; and that to undertake these new duties they must have sufficient authority and new organisation. From that time to the present, in spite of the drawback of excessive reduction of establishment, the organisation of the service, both in peace and war, has steadily advanced. New duties have necessarily entailed command, which in the case of the higher administrative ranks, while limited, is yet of an extensive and complicated kind. The medical officers have command over all bearer companies, field hospitals at the front, and hospitals on the line of communication and at the base, and this command is not merely that of the *personnel* of these units, but of all officers and men attached to them for duty or received as sick, involving in an army corps many hundreds, it may be some thousands, of men.

Thus, in an army corps with a cavalry division, numbering altogether about 42,000 men, with nearly 12,000 additional troops on the line of communication, the principal medical officer of the army will have under his orders the following:

About 50 medical officers attached to combatant units, with about 100 non-commissioned officers and men thereof, and 384 regimental stretcher bearers; also 13 field hospitals, and a variable number of hospitals on the line of communication and at the base; also 8 bearer companies; also the principal medical officers of divisions and at the base, with their several staffs; also officers, non-commissioned officers and men of the Army Service Corps, attached for duty, with their wheeled transport: altogether, about 1,500 officers of the Medical Staff and non-commissioned officers and men of the Medical Staff Corps, 664 officers, non-commissioned officers and men of the Army Service Corps, 1,011 horses, wheeled transport for 480 men, as well as all sick and wounded, for whom there is hospital accommodation for 2,500.

The principal medical officer could not possibly be held responsible for the working of these complicated units if he himself and those under him were denied necessary command. The importance of their duties can, indeed, scarcely be overrated, for it is an acknowledged fact that the success of an army in the field largely depends on the prompt and continuous removal of sick, wounded, and non-effectives from the front. It is clearly of the very utmost importance, therefore, that medical officers should be vested with authority necessary to ensure the thorough and rapid discharge of such important duties.

Again, with the progress of medical science all sanitary questions have assumed an unsurpassed military importance, and in dealing with them no man can be held responsible if not vested with the necessary initiative and authority for action—always, of course, subject to the orders of the general officer in command, on whom rests the ultimate responsibility.

Now, what is the authority with which medical officers have been vested, in order to cope with responsibilities of such magnitude? We are told by the historian of the Crimea that the disasters of the winter of 1854, and especially the ravages made in our army by disease, were largely due to the inferior position occupied by the Medical Department, and the small amount of attention given to the counsel of its official head.

He says: "We see the Director-General preparing early for the adoption of measures soon perceived to have been exactly those needed for the care of our stricken soldiery, yet, because poorly armed with authority, striving always or too often in vain."

It was this lack of authority, of initiative, which Lord Herbert of Lea's Commission sought to remedy, and did remedy for a time by the clear assertion of relative rank.

Relative rank was defined as "rank which shall carry with it all precedence and advantages attaching to the rank with which it corresponds," except with reference to command, and the presidency of courts-martial. It included—and we consider this very important—the right to sit as members or Presidents of mixed boards, a right which, besides indicating the reality of the new rank, ensured a proper representation on sanitary boards of the only men who could thoroughly understand sanitary matters.

Little by little, however, this relative rank was interfered with and attenuated. Medical officers were declared in Army Orders as "junior" in the rank of Major. The right of sitting as Presidents on mixed boards was taken away in 1867, and in 1887 relative rank itself was abolished altogether. It is no doubt easy to quibble over the words "relative rank," and to say that they never meant anything definite, but when "relative rank" was defined by Lord Herbert of Lea's Warrant, all branches of the army believed it to have a definite meaning as rank, and so long as they believed this, and it was not attenuated by side orders and regulations, it served the purpose for which it was intended. Now, however, that we have the authority of a Secretary of State for War (Mr. Stanhope) that "relative rank" is a meaningless expression, it is, of course, incapable of being revived. It is, however, not to the point to assert that by its abolition the army medical officers lost nothing. For the high-handed manner in which the rank was taken away from them, together with the undefined substituted departmental rank since given, has, in the opinion of men of wide experience, lowered the position of medical officers as regards real army status, even below that at the time of the Crimea.

Medical officers contend justly that they have now no defined, named, or comprehensible army rank, like other officers, and we have the evidence of those who have lately been on active service, that without definite and comprehensible army rank they cannot properly carry out the duties which they are required to perform. On this point they are most explicit. We are perfectly aware that this statement has been traversed by military officers; but no one, except the medical officers themselves, can fairly judge of the difficulties they encounter, and, unless we are to doubt their good faith, such difficulties unquestionably exist. If these difficulties are felt in a small war, how much more will they be felt in a great one, especially as a large contingent of civilian

camp followers and others will then be engaged, who will naturally only understand or respect simple military titles?

We have, in short, a Medical Service of elaborate organisation, and medical officers charged with momentous responsibilities and duties, for which they have considerable, although limited, command; but the uncertainty of their army position relative to other branches of the service necessarily imperils and interferes with the carrying out of their onerous duties.

Combatant officers affirm that medical officers have no real army status and title; and if status is thus denied, how is authority to be enforced?

### IV.—THE CONDITIONS OF SERVICE MUST BE SUCH AS TO PRECLUDE SERIOUS DISCONTENT.

We would ask how much contentment is likely to exist while the following remain true?

A. *The Medical Service is treated as if it were outside the Army instead of being, as it ought to be, an integral part of it.*—(Evidence, Camp. Comm., 2458, 2481, 1712, 1509, 1511, 1563, 1400, 1403, 1404, 1417, 295, 275). Although the danger to life on active service is as great as in any other branch of the army, medical officers have been described as "civilians;" although their duties constantly bring them under fire, and no other branch of the service has gained a greater proportion of Victoria crosses, they have been alluded to as a sort of "camp followers." This we consider is the outcome of want of due army status, and of their anomalous organisation.

B. *Army Medical Officers have to contend with certain social discomforts, the risk of which is quite enough to deter any man with self-respect from entering the Service.*—It is with reluctance we allude to this matter, and we only do so because to omit reference to it would impair the value of our report. The unpalatable details have already received sufficient publicity. In considering them we have taken carefully into account all sides of a very difficult question; we have done so we believe with impartiality, and we have reached a very definite conclusion. That conclusion is that such discomforts are not primarily the result of the medical officer's own individual action, but of two other causes, namely:

1. The want of that recognised army status (position), which, as Lord Herbert of Lea's Commission laid down distinctly nearly forty years ago, rank alone can give.

2. The position of the Medical Service as a department attached to the army, instead of being an integral part of the army. The remedy is plain; Army rank and simple military titles to denote it, in a Consolidated Army Medical Corps. We have dealt thus shortly with this matter, not because we underrate its reality or importance, but because we do not feel that any good purpose would be served by enlarging upon it here. It is no visionary grievance, and no statesman who purposes to deal with army medical matters can afford to ignore it as such.

C. *The total severance of Medical Officers from Regiments has cut men unnecessarily adrift from contact with their non-medical brother officers.*—The old regimental system with its regimental hospital is dead and done with, and can never be revived in its old form; but it is a question for serious consideration how far medical officers could be connected with regiments for a term of years. This is no new suggestion. Medical officers were to serve, "as a rule," five years with a regiment from 1873. This was not the old "regimental system," for we have Lord Cranbrook's authority that that was "put an end to in 1873." (Sir Ralph Thompson's Report, 70.)

Such a connection of medical officers with regiments prevented the present undesirable frequency of change of medical adviser—common sense tells us that is undesirable—and it brought medical and other army officers into touch with each other. It is apparently the desire of many officers of all branches of the army that, if practicable, some form of connection with a regiment should be restored. The Camperdown Committee advised it, but its advice was set aside, we imagine on the score of expense, as the reduced establishment did not admit of it. If, however, the service is to be made really efficient, the establishment must be again increased, and with its increase this question might once more be taken into consideration. It is the system adopted in foreign armies. (See their Army Lists.) It is practically the system laid down for service in the field. (See Field Army Establishments Service Abroad.)

D. *The Increased Tours of Foreign Service exercise a prejudicial effect on the health of Medical Officers whose mortality is already in excess of the average of that of other officers.*—Formerly the tours were five years in India and other comparatively good climates, and three years in comparatively bad climates. Previous to the appointment of the Camperdown Committee these tours had been increased to six years and four years respectively. The mortality of medical officers has always been greater than that of other officers (Report, Sir R. Thompson's Committee, 37; and Report Camp. Comm., Appendices, 13, 14, and 15). It had become nearly twice as great for the years 1882 to 1887. Of the first batch of men (29) who went out to India under the six years' rule, 6 died, 10 were invalided home, 1 invalided to the hills; total 17 died or were invalided out of 29 (Memoranda with Deputation of Parliamentary Bills Committee, BRITISH MEDICAL JOURNAL, May 20th, 1893, page 1047). Sir Thomas Crawford (Camperdown Commission, 68 and 69) attributed this high death-rate "to the hardships and privations and general severity of their foreign service," which should (same evidence, 75) be half the total service instead of considerably exceeding half. In these views Sir Wm. Mackinnon concurred (same evidence 2293 to 2296). The Camperdown Committee recommended that the tour of foreign service should not exceed five years except in case of emergency, but this recommendation was set aside. These long foreign tours constitute a very serious physical grievance. They are the direct outcome of excessive reduction of establishment. They are, moreover, the cause of increased expenditure on account of increased invaliding as well as increased voluntary retirement. The slight saving in passages to and fro cannot make up for this, and it is doubtful if there is any such saving owing to the increased invaliding home. It should be remembered in reckoning the cost of passages that medical officers, unless ill, are usually employed on board ship in looking after the troops.

E. *The Government of India have hitherto refused to carry out the latter Warrants financially.*—The Warrant of 1879, based on the recommendations of Sir Ralph Thompson's Committee, increased the rates of pay of the medical officers, and this increase was considered at the time, and since, to be in no way excessive. (Report of Sir R. Thompson's Committee and of Lord Camperdown's.) Part of this increase consisted in giving to medical officers, on appointment, the relative rank of Captain, with correspondingly increased pay, instead of as formerly the relative rank of Lieutenant for the first six years. A new rank of Brigade-Surgeon, carrying of course its own rates of pay, was interpolated between the Deputy-Surgeons-General and the Surgeons-Major. As a set-off to this increased expenditure the establishment was reduced, and the reduction in India, together with the establishment of station hospitals, effected a saving to the Indian Government of £41,000 annually (Camperdown Committee, 1810), but out of this saving they declined to recognise financially the relative rank of Captain on appointment or the new rank of Brigade-Surgeon. Of this, however, the War Office gave no intimation in the schedule given to candidates, who were drawn into the service on the distinct understanding that their rates of pay were to be as laid down in the Warrant of 1879. Not a word was said in the schedule by the authorities about the attitude of the Indian Government; and until arriving in India men did not discover that things were not as they had been represented to be. (Camp. Comm., Appendix 7).

Those who enter the service now do so with their eyes open, but seeing that the rates of pay at home are acknowledged to be but fair, it is obviously unfair that they should thus be reduced in India, where other officers have their pay increased. The saving to the Indian Government is, after all, comparatively small, and not worth the discontent it very justly causes. There are other complaints which may also be referred to. When the regimental hospital system was done away with and station hospitals established, the Indian Government thereby saved a very large sum annually; but although the charge of station hospitals threw a large additional responsibility on the officers appointed to them, these officers received no additional charge pay, but hospital charge

pay was allowed to the officers of the Indian Medical Service. Again, a medical officer in India cannot do his work without a horse, and, like all medical men everywhere, is liable to be called to patients at all hours, yet horse allowance is not given him. All these points are, of course, primarily for the consideration of the Indian Government, but inasmuch as they are largely responsible for the discontent in the service, it concerns the War Office to see that they are adjusted.

F. *The under-officering of the executive has made ordinary leave difficult to obtain and study leave scarcely possible.*—The first is notorious. With regard to study leave, we should have thought that any Government anxious to maintain the efficiency of its medical officers would have taken care that facilities were given them for keeping in touch with the ever-advancing medical and surgical science of the day by periodical visits to the great medical schools. This was expressly recommended by Lord Herbert of Lea's Commission and by Lord Camperdown's Committee, but on neither occasion has the recommendation been attended to. As things are, with an undermanned service, such leave is, of course, impossible; when the service is restored to its proper numbers, this matter should certainly receive more attention than it has hitherto had at the War Office.

G. *There are no means for specially recognising or rewarding professional merit.*—A great deal has been said by certain military authorities about the necessity for medical officers being "good doctors" (Evidence, Camperdown Committee, 1545, 1563, and Sir Redvers Buller's recent speech at Netley). Much has also been said of the high esteem in which "good doctors" are held in military circles (Evidence, Camperdown Committee, 1711, 1722, 249, 1400, 1416, 2445, and Lord Wolseley's recent speech at Netley), but except on two historic occasions on which a civil K.C.B. was conferred, no notice has ever been taken of professional merit by itself.

### Conclusion.

We have thus considered how the Army Medical Service satisfies the four essential conditions which we laid down at the outset. It satisfies none of them, In other words, it is at present in the most unsatisfactory possible condition. Justly discontented, with duties and responsibilities second to none in importance, but without the army status necessary for their proper fulfilment, exposed to hardships and dangers in excess of those in any branch of the army, yet without the military recognition which others receive; with an undue amount of foreign service, with no opportunity of advancing their professional knowledge, or the slightest encouragement to do so; with an anomalous and disjointed organisation between men and officers, and in face of indefinite postponement of reform, it is no wonder that the British Army Medical Service is on its way to extinction. It is impossible for anyone acquainted with this state of things to regard with equanimity the prospects of a great war. If such a calamity were to overtake us, it is difficult to see how we could avoid the utter collapse of the medical arrangements. A spectacle of misery and mortality, to equal which we must look back to the horrors of the Crimea, would not be a matter for astonishment.

## PART II.

## THE NECESSARY REFORMS.

Only two forces seem ranged against army medical reform:

1. Unwise economy.
2. Unreasoning prejudice at the War Office.

The first is to blame for the reduction of the establishment to its present numbers; the second for the refusal of army rank. Without a sufficient establishment nothing, of course, can be properly done, and such must be paid for like everything else; but without the concession of army rank we do not see how any reform can be of permanent value, since without it the service, however satisfactory in other respects, cannot possess that position which can alone secure its efficiency.

The reforms which seem to be required to restore contentment within the Army Medical Service, and confidence in it in the outside medical profession, are these:

A. The grant of army rank and military titles in a consolidated Army Medical Corps. This is by far the most pressing need.

B. Certain administrative reforms, namely:

I. Financial extension of Royal Warrants to India.
II. Reduction of foreign tours.
III. Fair amount of leave.
IV. Study leave.
V. Recognition and rewards for professional merit.
VI. Reconsideration of the possibility of connecting medical officers with regiments for a term of years.

These administrative reforms, important in themselves, are however quite secondary to the organic reform in rank and title. They can be met by revision of army orders and regulations, and do not involve radical changes, except that of an increase of establishment.

### A.—Rank, Title, and a Corps.

A. Medical officers at present are said to possess "substantive departmental rank" (*vide* Royal Warrant of 1891, Army Order 187, preamble and clauses), but no definition of such rank is given in the Pay Warrant (*vide* "Definitions," Pay Warrant, 1896, Articles 1314 and 1316). On such account the rank is not unfairly held, by other branches of the army, to confer no army status at all, and is so regarded both in military and social usage. The denial to medical officers of the right to sit as presidents of mixed boards and Courts of Inquiry indeed indicates the inferiority of the rank which they possess.

The titles of medical officers are as unsatisfactory as their rank. When the compound titles were conferred it was hoped they might prove a satisfactory compromise, but five years' experience has shown them to be cumbrous and unworkable. We may profitably recall in this connection the written opinion of the late Sir Andrew Clark in 1891 (letter to Mr. Stanhope).

"Paragraph 8. In this paragraph you are pleased to concede to the army medical officers the composite title recommended by the Camperdown Commission, and you 'trust that this concession will put an end to the regrettable agitation which has obscured the true bearings of this important matter.' Unfortunately, however, this is the concession of title alone, and of nothing else. But it is not the title by itself for which the medical officers contend; it is for some such title as will carry with it the guarantee of rank, since they declare that without such rank they are unable to discharge in the prompt, thorough, and acceptable manner which they desire the military duties and responsibilities now imposed upon them; and they earnestly maintain that title without an accompanying guarantee of substantive military rank is absolutely worthless for the remedy of any grievance of which they have just cause of complaint."

The only rank which can confer on medical officers the necessary status is army rank, and the grant of army rank must take precedence of all other reforms in any scheme which aims at being of permanent value. At the same time the titles must be the only titles which are understood and respected (as titles) in the army—that is, simple military titles. In fact, we do not see what other titles can be given. Sir Ralph Thompson said the same thing in his evidence before Lord Camperdown's Committee. He said: "I think we have got up to such a point now, that I do not see how you could make one step further without giving titular rank. I see no other way than by calling the medical officer Colonel or Major, etc."

If the present Army Medical Staff and the Medical Staff Corps be consolidated into an Army Medical Corps, the titles "Captain" or "Colonel So-and-So, Army Medical Corps," will be at once reasonable and comprehensible.

As things now are, the civil title "Surgeon," on which the War Office has no claim whatever, is placed first, indicating the branch of the service to which the bearer belongs; whereas in other branches of the service the particular functions of the officer come after his military title—Artillery, Army Service Corps, etc.

The formation of an Army Medical Corps with army rank and simple military titles would have these advantages:

(1) It would make the Medical Service an integral part of the army, which it ought to be, deserves to be, and without which its present degeneration must, we fear, continue.

(2) It would give the status and authority to the medical

officer, which he must have for the satisfactory discharge of his duties.

Objections Met.

But against these changes certain objections have been urged which we shall consider *seriatim*, and we cannot do better than again quote Sir Andrew Clark. (Same letter.)

*a.* "It is averred that 'to incorporate the medical staff into the general army and to give its officers substantive rank and military titles.....would have the effect of placing a medical officer in military command over troops in the field whenever one might happen to be the senior officer present.'"

"Now this is the supreme objection made to conceding the claims of the medical officers, and, strange to say, it is absolutely without foundation, for in various places in the books of official regulations express provision is made for the granting of rank and title without command in the field, and for the granting of rank and title either with no command at all or with such a limited command as may be defined on appointment. In the Royal Warrant of 1890, paragraph A, we read as follows:

"'An officer permanently transferred from the Commissariat and Transport Staff to the Supernumerary List of our Army Service Corps shall not hold any military command outside our Army Service Corps, except over such officers and men as may be specially placed under his command.

"'An officer of our Army Service Corps detailed for barrack duties shall not hold any military command except over such officers and such men as may be specially placed under his command.'"

"And again, even more explicitly, we read in Article 70 that 'an officer of our army employed in any of the cases specified in Article 55 (H) or (I) shall not be entitled by virtue of his military rank to assume any military command in our regular army, unless called out for military duty by our Secretary of State.'

"Surely neither the claims of reason nor the necessities of experience could require more conclusive proof that the granting of military rank and title does not necessarily imply or involve the granting of military command in the field."

If we take the Army Act, Article 71 expressly states:

"For the purpose of removing doubts as to the powers of command vested or to be vested in officers and others belonging to Her Majesty's forces, it is hereby declared that Her Majesty may, in such manner as to Her Majesty may from time to time seem meet, make regulations as to the persons to be invested, as officers or otherwise, with command over Her Majesty's forces, or any part thereof, or any person belonging thereto, and as to the mode in which command is to be exercised; provided that command shall not be given to any person over a person superior in rank to himself."

*b.* That they would be contrary to "military instinct." To this the reply is obvious. "Military instinct" in this connection is another name for unreasonable prejudice, and must just be got over. We are confident that this feeling is confined only to a few.

*c.* "That the military titles would cause confusion." Why should "Captain So-and-So, Army Medical Corps," cause more confusion than "Captain So-and-So, Army Service Corps,"—or any other corps? Simple military titles cause no confusion in the case of Paymasters, Army Schoolmasters, etc., and are already actually given to the Quartermasters of the Medical Staff Corps whom the medical officers command.

*d.* "That such concessions would cause jealousy and ridicule." The latter would, we take it, be merely the expression of the former, but we do not for a moment believe that such a feeling would be common, or that gentlemen would permit anything like jealousy to influence them in matters of so much moment.

*e.* "Medical titles are higher than military." Medical titles have nothing whatever to do with the military authorities. The War Office does not confer them and cannot take them away.

*f.* "To further militarise the service would lead medical officers to neglect the medical aspect of their duty for the military."

Do Engineers or Service Corps men neglect their proper duties because they have army rank and title?

*g.* "That it would be injurious to the dignity of the medical profession."

The medical profession will take charge of its own dignity.

There has, in short, been no valid reason whatever urged against the granting of army rank and title.

As regards the formation of a corps, that has been advocated, or acquiesced in, by several distinguished military authorities. (See Sir Ralph Thompson's report; also evidence of General Sir Donald Stuart before the Camperdown Committee, and the Report of Lord Morley's Committee, para. 211.)

The formation then of a Consolidated Army Medical Corps, with army rank and military title is the first and great essential.

B.—Administration Reforms.

I. The financial extension of Royal warrants to India need not involve a very serious outlay.

II. The reduction of foreign tours will probably necessitate a considerable increase of executive establishment, and therefore an increase of expenditure; but as this increase is necessary it must be met.

III. A fair amount of leave. (The same considerations
IV. Study leave. apply as to the above.)

V. Some means should be considered of recognising and rewarding professional merit.

VI. With the increased establishment the possibility of connecting medical officers with regiments for a term of years should be reconsidered.

Conclusion.

Such, in brief, is the necessary reform. Such reform should not merely remove discontent and put an end to the unedifying spectacle of a squabble between the War Office and the whole medical profession, but would secure what Lord Roberts and many other distinguished men so much want, namely, the officering of the medical service with the very best stamp of medical man. Such men would then enter the army on the same footing as their brothers and cousins in other branches, would by their connection with regiments acquire the military discipline and tone which they should have, and form those friendships which add so much to the happiness of a career. Reasonable tours of service at home and abroad would tend to maintain good health, whilst study leave and the prospect of professional honours would make them the thoroughly efficient body of men they ought to be, and confer an incalculable boon on the army at large.

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Indian Sanitation.—An interesting discussion on sanitation in India took place on March 10th at the Sanitary Institute. It was opened by an excellent paper read by Mr. Baldwin Latham, M.I.C.E., who described the difficulties encountered in India in carrying out sanitary works—difficulties depending on the climate, particularly the high temperature and heavy unequally distributed rainfall; the situation of towns, mostly on dead levels; the density of their population, the irregularity of their streets, and the prejudices and habits of the people. He contended that sanitary works (especially for the supply of good water) had greatly benefited the public health in India, and strongly advocated their execution in Indian towns on improved principles. Subsequent speakers pointed out that the great majority of the Indian population dwelt in villages, and that village sanitation was much more important than town sanitation. The habits of the people were, it was confessed, in many respects opposed to healthy existence, but this was due rather to ignorance than to absence of cleanly instincts. Indeed, in their persons and homes they practised the most laborious cleanliness as a matter of religious rite, and what was really wanted was sanitary education; this was being in many ways carried out, but the task was a huge one, and patient effort necessary.

The annual meeting of the Royal National Pension Fund for Nurses was held last week under the presidency of Mr. Walter H. Burns, who said that the past year had been uneventful but prosperous. Over 800 nurses had entered the fund, showing a large increase over the average of preceding years. Sick pay had amounted to £1,158, against £909 in the previous year. The funds of the Society were accumulating at the rate of over £60,000 a year, and now amounted to £311,000, exclusive of the benevolent branch.

## BRITISH MEDICAL ASSOCIATION.

### SUBSCRIPTIONS FOR 1897.

Subscriptions to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MARCH 20TH, 1897.

## THE CHILDREN OF THE METROPOLIS.

The reply to the question, Who controls State-supported children? is given in a very ingenious and interesting chart just issued by the State Children's Aid Association. It shows that no fewer than 4 Government departments, 32 directly-elected bodies, 7 indirectly-elected bodies, and 547 voluntary committees, are more or less engaged in looking after the London State-supported children. The table is designed to show the confusion which follows the multiplicity of the governing bodies concerned with the care of this class of persons. The more it is studied, the greater the confusion will appear. Such confusion means absence of responsibility, increased expense to the ratepayers, and loss to the children.

It might have been thought that the variety of authorities is due to the endeavour to place a particular class of children under some one department, but the chart dispels even this amount of faith in administrative simplicity.

The Local Government Board deals with one set of certified homes for deficient children, the Education Department deals with another set designed for the same class of children, while the Metropolitan Asylums Board manages the institutions for the imbeciles, it being subject to the Commissioners in Lunacy as well as to the Local Government Board.

It might have been supposed that the Home Office would have limited its care for children to those who were on the fringe of criminality, but we find it extending its authority over, and partly supporting, schools managed by the London School Board and by the London County Council.

The Education Department inspects homes for the deaf and dumb and the blind, which work is also done at other schools inspected by the Local Government Board. The same department also, through its Science and Art Branch, inspects and awards grants to a very large number of institutions. It has, for instance, relations and partly supports schools under the Home Office, the Local Government Board, and the London School Board.

As to the truant children, they are alternately under the Education Department and the Home Office. Thus: On their way to the Truant School they are under Sections xi (1) and xii of the Elementary Education Act, 1876; in the school they are under the Home Office, Section xviii of Industrial Schools Act, 1866; when discharged from school on licence they pass again to the Education Department, but if they again play truant power derived from the Home Office brings them back to the school. Mr. Chaplin's new Board, there can be no doubt, will but add a fresh confusion to the already tangled and overlapping condition of things.

It appears to be certain that it is Mr. Chaplin's present intention to carry through his new Board, and that without delay, and this in the face of opposition from every side. Within the House of Commons remonstrances have been made amongst others by Mr. Ernest Flower, Mr. Walter Hazell, Mr. Cohen, Mr. Thomas Lough, Mr. Pickersgill, Dr. Farquharson, and Mr. Talbot.

Outside the House every responsible body has condemned the proposal, but all have only been more or less courteously snubbed by the President or his representatives. There is, however, still some chance that the Metropolitan Asylums Board may be the authority chosen to carry out the duties assigned to a Central Board, and for this as for a less evil some Boards of Guardians and some reformers are pressing. For ourselves, we cannot but regard this course also as regrettable. To hand over to any Central Board the evil consequences of a condemned system, and to leave that system in full force, can be even at its best regarded only as a patch. It is, moreover, a patch which is likely to deceive the public, who will be lulled into confidence by being told that the hygienic condition of the schools is much better than it was, and there will be no material proof that the evils which exist in these large institutions—which are inherent to the system of aggregation—are still in full force, still corrupting morals, still sapping the independence of a class which is in peculiar need of moral tonic and mental stimulant. We can but concur in Mr. Mundella's opinion, expressed with his usual force, and gaining weight by the knowledge of the immense labour he expended as Chairman of the Poor-law Schools Committee: "I am deeply disappointed at Mr. Chaplin's proposals; they seem to me to tend to the perpetuation of barrack schools."

There is, as we have consistently affirmed, but one efficient reform, and that is the constitution of a London Central Board, with full possession of all the institutions, which would be able to use the suitable ones for the sick and abnormal, while scattering the normal children among the non-pauperised population until they are absorbed into it.

## THE QUARANTINE SUPERSTITION.

That the Milroy Lectures should be devoted to a discussion of the question of quarantine and should be productive of such an able demonstration of its inutility as that given by Dr. Collingridge, the medical officer of health for the Port of London, is peculiarly appropriate in view of the fact that just now, with the terror of the plague before them, so many nations are showing a tendency to throw aside in their panic all the teaching of modern experience and to return to their old faith in this discredited shibboleth.

It may be admitted that in its root idea quarantine was founded upon true conceptions of the mode of diffusion of epidemic diseases. Those who advocated and attempted to enforce it, founding their endeavours on the practical and perfectly true observation that it is by man that these maladies are carried from place to place, held far more accurate ideas as to the origin of epidemics than those who, even since their time, have attributed them to influences which, if not supernatural, at least verged on the immaterial.

It may even be admitted that infection might be kept at

bay by a military *cordon sanitaire* with strict orders to shoot. But that is not quarantine as it is understood to-day, or as it can be practised by any nation; and if we wish to grasp the absurdity of the performance as applied to modern traffic we must recognise that every nation, unless it is willing to go back to barbarism, now depends for very life upon commerce with its neighbours. At all hazards trade must go on, yet directly quarantine ceases to be an absolute barrier to man it ceases to be a barrier at all to infection, for one sick man who may get through is as dangerous as a dozen in setting up an epidemic if the conditions in the place where he arrives are favourable for the development of the disease.

The experience which Europe has gained during recent outbreaks of cholera has been ample to show the utter uselessness of quarantine, even when carried out with a rigour which can only be enforced with exceeding difficulty between commercial nations, and cannot be enforced at all by nations which depend for their food on supplies coming from abroad. The whole history of quarantine is but a long series of illustrations of its futility as carried out in practice, and proves it to be, as Sir John Simon so graphically described it, "an elaborate example of leakiness." The hardships inflicted upon individuals, and the enormous losses incurred by traders when quarantine is imposed, lead to all sorts of attempts to evade the restrictions placed in the way of transit from place to place. The result has always been that, where quarantine has been practised, the interests of commerce have trained for their own purpose a band of mercenary officials and an elaborate system of bribery and corruption, until in some countries the system has been practically reduced to one of mere blackmail. Those who paid best got through most easily, and thus, notwithstanding all the expense, annoyance, and loss to which those countries had subjected themselves, the protection afforded them became an absolute fiction.

But, putting its inefficacy on one side, one of the disastrous effects of the quarantine system has been that, alongside of it, there has always grown up a system of deliberate suppression of the truth in regard to the early stages of epidemics; a policy of concealment which has had the most pernicious influence in favouring the spread of epidemics. This is a consequence which appears almost inseparable from the system. The losses caused by quarantine are so vast, and the inconveniences so great, that no municipality will willingly admit the existence of any quarantinable disease until its prevalence is so great as to be entirely undeniable. Again and again has it happened that the dread of the commerce of a town being placed in quarantine has led to the early and manageable stages of an epidemic being hushed up, with the result that in the end the outbreak has burst all bounds and become utterly uncontrollable.

The tyranny of quarantine is unendurable if it is carried out with anything approaching efficiency, as an instance of which it is to be noted that in the English Acts passed in the reign of George II power was given "to effectually prohibit commerce for the space of twelve months with any country which is or shall be affected with plague;" and as to its extravagance and expense, outside and beyond the losses entailed by its interference with trade, it is worth recording that during the 123 years between the dates 1720 and 1843 only 25 vessels having plague on board arrived at all the ports of France and Italy, and that for the sake of these few cases these countries were put to the enormous expense of supporting quarantine establishments for all that time. The expense, the loss, the danger to those brought under its provisions, the abuses which always attend its enforcement, the encouragement it gives to the concealment of the early stages of epidemics, and finally its well-proved inutility, all of which are well brought out by Dr. Collingridge, ought to be enough to absolutely condemn quarantine in the eyes of all impartial inquirers.

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The discussion on Retro-ocular Neuritis, which was commenced at the meeting of the Ophthalmological Society on March 11th, will be continued at the adjourned meeting to be held on Wednesday evening next, March 24th, at 8.30 P.M.

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Professor E. von Bergmann, of Berlin; Professor Felix Guyon, of Paris; Sir W. Hales Hingston, of Montreal; and Dr. T. G. Roddick, of Montreal, President-elect of the British Medical Association, have been, on the nomination of the Council, elected Honorary Fellows of the Medical Society of London.

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## THE NATIONAL JENNER MEMORIAL.

A public meeting to promote the National Jenner Memorial will be held in the theatre of the University of London, Burlington Gardens, on Wednesday, March 31st, at 4 P.M. The chair will be taken by the Duke of Westminster, K.G., and among those who will address the meeting will be Lord Herschell, Lord Playfair, Lord Lister, and Professor Michael Foster. A large general committee has already been formed as a consequence of a meeting held on December 7th, 1896, at St. George's Hospital.

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## "TEMPORARY INSANITY."

Recently the Brighton coroner referred to the automatic way in which the verdict of "suicide during temporary insanity" is given, and though we agree with him that this kindly verdict is too frequently given if the interests of truth only are to be served, yet it is not clear that any moral or social harm follows this sympathetic untruth. In the case under consideration a man who had attempted suicide had been brought up and tried before the assizes, and acquitted. Two doctors seem to have seen him, and to have decided that at that time he was not of unsound mind, yet the poor fellow, after being at home and being depressed for a fortnight, killed himself. The earlier stages of melancholia are generally free from delusions, and therefore would be considered by some medical men as uncertifiable. It will never be possible to stop all melancholiacs from self-destruction, and for their cure some risk must often be run, and generally the verdict of temporary insanity is justifiable in such cases.

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## ST. GEORGE'S HOSPITAL.

On March 13th, the medical staff of St. George's Hospital gave a reception, which was numerously attended, to view the new operating theatres and laboratories of the hospital. The guests were received by the Senior Surgeon, Mr. Pick; the Senior Physician, Dr. Cavafy, and the Dean, Dr. Isambard Owen. The operating theatres are now among the most perfectly arranged in this country, the floors consisting of hard mosaic, the walls of smooth white tiles, and the students' benches of white marble. The arrangements for boiling and keeping the instruments are excellent, and it may be noted that the washstands in the surgeons' room are supplied by means of pedals instead of taps. Particular attention has also been paid to a consideration hitherto much neglected in operating-rooms—that of ventilation. The laboratories are also thoroughly well adapted to their aims. They were utilised on the occasion of the *soirée* for the purpose of showing recent developments in the sciences to

which they are devoted. Of particular interest were the exhibition of the plague bacillus and the serum test for typhoid by Dr. Slater in the bacteriological laboratory, and the unique collection of slides of malarial and other hæmatozoa shown by Dr. Patrick Manson. Dr. Buckmaster had on view an instructive series illustrating the new methods of staining the central nervous system, and also some physiological experiments, notably that of Gad, in illustration of the action of the cardiac valves. Mr. Turner showed some beautiful anatomical models fresh from Paris, and a collection of fœtal bones illustrating ossification, which is said to be the finest in England. Skiagraphy was looked after by Messrs. Clinton Dent and J. H. Montague, while Mr. Adams Frost gave a lantern demonstration of the ophthalmoscopic appearances of the fundus. Mr. Gardner demonstrated the properties of liquid oxygen, and Mr. E. J. Spitta showed a number of photomicrographs. Dr. Rolleston exhibited many pathological curiosities, both macroscopical and microscopical. The specimens of blastomycetes from cancer sent by Sanfelice also excited much attention. In the Dean's room were some interesting school records, including autographs of John Hunter. A demonstration of a method of colour photography by Mr. Davenport was greatly appreciated, as also was the selection of music performed by Hemming's quintette.

## THE PREVENTION OF INSANITY.

The London County Council has taken a most enlightened step in instituting a scholarship for the study of the working and effects of preventable social and industrial causes of insanity. Whether the increase in the number of insane persons in asylums be due to an actual increase in the amount of insanity, or to a greater accumulation of cases which in former times might not have found their way into such institutions, it is at least certain that if any effectual attempt is to be made to prevent insanity we must obtain more precise knowledge as to the causes which produce its various forms. The scholarship is of the annual value of £150, and is tenable in the Pathological Laboratory of Claybury Asylum. The scholarship, which will be called the "Scholarship in Sanitary Science," will be awarded in the first instance for one year, but may be renewed for the second and possibly for a third year upon a satisfactory report being received from the Superintendent of the Pathological Laboratory, under whose direction the scholar will be required to work. He will be required to give his whole time to the work, and in making the selection preference will be given to a candidate who is a qualified and registered practitioner and has completed his academic course. The appointment will be made by the Technical Education Board, and candidates, who must be ordinarily resident within the administrative county of London, must apply with a full record of their previous work and references to their professional teachers, to the Secretary of the Board, St. Martin's Place, W.C., not later than March 22nd.

## PECULIAR PEOPLE AND THEIR TREATMENT.

From the evidence reported in the *Dover Standard* as given at an inquest held at Dover recently, it appears that the Peculiar People do not confine their peculiar methods of treatment to the members of their individual sect, but extend their care—or rather want of it—to persons outside their denomination suffering from infectious or contagious diseases, and thereby become a grave danger to the health of the community. We learn from the report referred to that an inquest was held upon the body of a nurse named Ellen Clark, who died in the Home of Rest, St. James's Street, Dover. No medical practitioner had been called in to see her, nor had any medicine been administered to her, the Home being managed by the Peculiar People. The deceased was a nurse from the Mildmay Hospital, Stoke Newington, and came down to Dover for a short holiday. She was sent to the Home of Rest by a Mrs. Isabella Baker, who gave evidence that the Home was under her charge and belonged to her. When the deceased arrived at the Home she was observed to be very tired, and faint and sick, and after a short time became worse, and another nurse visiting the same Home considered that the illness was from typhoid fever. No medical advice was sought, however, until after the death of Miss Clark, which took place on February 28th. It was admitted by the Lady Superintendent of the Home that the disease was recognised as typhoid from the second or third day, but no notification was sent to the authorities, nor was it considered necessary for a medical man to be sent for. "We trusted to our prayers and the Word of God to save the girl's life, and would rather trust to this than medical aid," so ran the evidence of those responsible for the well-being of the inmates of this "Home of Rest." The jury returned a verdict of death from natural causes, but added a rider that the authorities of the Home of Rest were greatly to blame for not calling in medical aid. The verdict might have been more strongly worded. So-called religious beliefs should not be permitted any longer to imperil the lives not only of those who hold to these beliefs but those of the community at large. We have been as a nation always tender with the religious idiosyncrasies of the various creeds inhabiting our empire, but we must not permit the health of the public to be endangered by the senseless fads of a sect, however large or small. Tolerance of such persons and of such beliefs is mistaken and dangerous.

## WORKMEN'S FUNDS AND HOSPITAL ABUSE.

The annual meeting of the subscribers and friends of the Leeds General Infirmary was held at the Board Room on March 10th. Mr. R. Benson Jowitt, the Treasurer, presided, and there was a large attendance. In moving the adoption of the report the Chairman gave great prominence to the question of hospital abuse, and strongly animadverted on a recent article in our contemporary, the *Lancet*, which, according to the speaker, tended to increase hospital abuse wholesale by urging the working people of Leeds to claim free admission to the out-patient room on the ground of their annual contribution to the support of the infirmary. He said that the article in question had been copied into the *Workpeople's Hospital Magazine*, a periodical largely circulated, and was calculated to spread among the working classes most pernicious views on the subject of charity. The Vicar of Leeds seconded the adoption of the report, which after some discussion was unanimously agreed to. In an editorial article in its issue of March 10th the *Yorkshire Post* also comments on the report of the *Lancet* commissioner, and refuses to accept the answer made by our contemporary that the views expressed were those of informants at Leeds. It strongly condemns claims of this kind being made by workmen, and points out that it is absurd for the working classes to suppose they can get "for 4s. 4d. a year the benefits of an institution commanding the services—gratuitous services—of the highest skill in the medical profession, and costing for its maintenance £25,000 a year;" adding that contributions given to the infirmary by every class ought to be loyally given in proportion to the means of the giver, and not in a mercenary spirit. Much that the *Yorkshire Post* says cannot be gainsaid, but it is to be regretted it does not accept with better grace the *Lancet's* explanation of the report of its commissioner. It cannot be supposed that the *Lancet* upholds the views condemned by Mr. Jowitt and the *Yorkshire Post*, nor that it has any other object in issuing the commission complained of than to check abuse of hospitals, which is recognised even by Mr. Jowitt himself as requiring serious consideration. It is interesting to learn that the working men of Leeds and the neighbourhood contribute £6,000 annually towards the support of the infirmary, making up nearly one-fourth of its annual income; and it serves to show that the working classes of that city are largely interested in seeing that those able to pay for medical treatment do not improperly take advantage of their generosity. It is not conceivable that the

Yorkshire workmen, so well known for their sturdy independence and love of self-help, can entertain for a moment the notion that subscriptions given to a charity entitle them to its benefit without regard to their needs; and if such mischievous ideas ever become prevalent it will only be by reason of their being constantly witnesses to its wholesale abuse in other ways. It is intelligible enough that if they saw little regard being paid to the station and means of those who were given medical assistance at the infirmary a feeling might be engendered that they, in consideration of their contributions, were equally entitled with other improper recipients to the bounty of the institution.

## THE HOSPITAL SATURDAY FUND FOR LONDON.

THE annual address of the Chairman of the Hospital Saturday Fund will be perused with increased interest this year on account of its reference to the Prince of Wales's Fund. There is no doubt that those connected both with the Sunday and Saturday Funds have looked with some apprehension on the Prince's scheme as likely to divert popular support from their funds; and in especial that the action of the *Daily Telegraph* in organising a shilling contribution has seemed peculiarly likely to damage the Saturday Fund, as, indeed, is plainly stated in this address. It is therefore encouraging to find Mr. Acland speaking in the following cordial terms of the Prince's Fund: "I should like to add that all my dealings with the secretaries and others whom I have met connected with the Prince of Wales's Fund have been of the happiest description. It is not easy for them to adhere to the declaration of the Prince of Wales not to trench upon the ground occupied by the Saturday Fund, and at the same time to do justice to their own fund and to the efforts of those, whether employers or employed, who desire to organise collections in the workshops for the Hospital Fund. I cannot, however, forbear from saying that it is quite clear that they are using every legitimate effort to do both, to give the fullest consideration to the work which has already been done by this organisation and to leave the field clear for the fuller and more complete development of your work among the working classes. Our attitude towards the Prince of Wales's Fund, therefore, should be one of cordial sympathy." The only other matters which it seems necessary to remark on at present in Mr. Acland's interesting address are (1) his proposal to give up the street collection, which we sincerely regret was rejected by the majority of his Council, and (2) the permanent accommodation of the officers of the fund in a house of their own—a great convenience to the numerous clients and agents of the society.

## LIBERATED LUNATICS.

JUST at present every crime which is not traced by the police is attributed to lunatics at large. Someone has said that the wise man investigates while the lunatic explains; now it seems that the lunatic is to be considered the cause of all unknown troubles. From time to time the public is in a state of fear lest everyone with a peculiarity or a kink in his mind should be sent to an asylum; then next it is afraid that too many of these mentally weak are allowed to be at large. The public is a very unreasonable body, and medical opinion should do what it can to guide it. There is probably far less real danger from the patients who are discharged from asylums than from those who in the early stages of disease are not sent to asylums sufficiently soon. The idea that Miss Camp was murdered in the train by a liberated lunatic has not a single grain of evidence to support it. No one knows the full details of her life, and no one can tell what cause for jealousy may have been present. There may have been some insane unreasonable passion aroused in some comparative stranger who was unknown to her friends. There is quite a considerable number of persons at large who are truly "madly in love;" such persons, if men, make love to comparative strangers, to public characters, such as actresses, barmaids, and the like, and nothing will persuade them that their passion is not returned. Such persons not infrequently cause trouble, and may destroy their love rather than part with her. It is true that in most cases the insane person who acts thus betrays himself or else commits suicide. We do not pretend to explain this case by this theory, but we do not think that an escaped lunatic need be called in as the probable cause. There seems, however, to be little doubt that the brutal crime committed on a boy at Godalming was perpetrated by a man who had been recently in the Fulbourne Asylum, and we shall anxiously watch for evidence as to his state on discharge, Of course, certain patients recover, and have, at the solicitation of friends or even on the suggestion of the Commissioners, to be discharged, though the medical officers may have doubts as to the stability of the patients. We fear no method can be suggested by which accidents will not arise from this cause, for it is ridiculous to think that every person who has once been insane must be kept in an asylum all his life. Very many of the chronic cases of insanity which fill to overflowing the county asylums have had several attacks from which they have recovered sufficiently to perform their functions in society, and it is quite impossible to say when a relapse may occur. In many of the lower orders discharge from an asylum means a return to old vicious habits of life, which speedily lead to fresh attacks of insanity, and though the patients are handed over to the persons who are supposed to have authority over them, it often happens that no real authority exists. The overcrowding of many county asylums often causes the medical officers to discharge on probation, or as relieved, patients who would be better in some convalescent home. It is for such cases that the After Care Association is founded. It could do much more good work if more means were at its disposal.

## THE TREATMENT OF SPINAL CURVATURE.

THE letters and telegrams of newspaper correspondents in France have recently contained more than one reference to a method of forcibly straightening the spine in cases of curvature which has been introduced or revived by Dr. Calot, who has been followed by Dr. Phocas. We have even seen in an illustrated paper a drawing showing the mode in which the operation is carried out. The wide dissemination of glowing statements with such headings as "A Hunchback Straightened" is, we fear, calculated to raise false hopes and to bring about the application of a method which to say the least is still in the experimental stage, to cases for which it would be utterly unsuitable. An English surgeon of large experience, of whom we have made inquiries, writes with regard to this proposition to straighten the spinal column by force: "In lateral curvature it can only be effected by the wide rupture of ligaments and muscles which have become shortened in adaptation to the altered outline of the column. In Pott's disease it would be in the highest degree dangerous. When the vertebral bodies have been destroyed, if the column is straightened a great gap must be formed, but in the straightening it would seem certain that the nerves, where they leave the foramina, and which must have been carried out of their proper bearings during the formation of the curvature, would be subject to laceration. As to the spinal cord itself it would undoubtedly be liable to severe injury. It appears to me both in regard to scoliosis and Pott's disease to merit nothing but condemnation."

## THE BOTANIC GARDEN AT CHELSEA.

CHELSEA seems to be gaining for itself an unenviable notoriety as the happy hunting ground of busybodies and faddists. No sooner have they received a check in regard to the Pasteur Institute than some one suggests that the Botanic Garden belonging to the Apothecaries' Society should be purchased for a "mere song" and presented to the public as a memento of the Jubilee. For more than two centuries the Society of Apothecaries have maintained this

garden at their own charge and for the sole object of the advancement of botany as a science, and very excellent work has been done. The garden was conveyed in trust to the Apothecaries' Society by Sir Hans Sloane after the Society had rented it for many years on lease. The deed of conveyance expressly states that it is to be maintained "for the manifestation of the power, wisdom, and glory of God in the works of creation." Besides, it is very doubtful whether the Society of Apothecaries could sell the garden even if they wished to do so, for the lease of 1722 recites that if certain conditions be not fulfilled, or if the Society shall at any time convert the garden into buildings for habitation, or to any other use save such as are necessary for a physic garden, it shall be lawful for Sir Hans Sloane, his heirs, and assigns to enter upon the premises and to hold the same for the use and benefit and in trust for the President and Fellows of the Royal Society; and in case the Royal Society shall refuse to comply with these conditions, then in trust for the Royal College of Physicians of London, subject to the same conditions as the Society of Apothecaries were originally charged with. Power is also reserved for the President or the Vice-President of the Royal Society and for the President of the Royal College of Physicians once or oftener in every year to visit the said garden and examine if the conditions under which it is held are duly observed and complied with.

## HEALTH OF THE QUEEN.

We are glad to be in a position to state authoritatively that the report that the Queen has suffered in health since reaching Cimiez owing to a shock received on the day of her arrival is absolutely untrue. Her Majesty's health is quite satisfactory.

## GLASGOW'S PLAN FOR COMMEMORATING THE QUEEN'S REIGN.

A public meeting of citizens of Glasgow and neighbourhood was held on Friday of last week, at the request and under the presidency of the Lord Provost, to consider what steps should be taken suitably to commemorate the Queen's lengthened reign. A large and representative meeting responded to the Lord Provost's invitation, and the preliminary resolution, in which it was agreed to present to the Queen a humble address of congratulation, was received in the manner to be expected from a loyal city like Glasgow. The scheme of the Lord Provost was then put before the meeting. It proposes to raise a fund for the reconstruction of the older portion of the Glasgow Royal Infirmary, and this proposal, though adopted by the meeting, has received and is yet receiving hostile criticism. The Royal Infirmary is the oldest of the hospitals of Glasgow. It was founded over one hundred years ago by Royal Charter on the site of the Archbishop's Palace, and it has an accumulated capital of about £160,000, its annual revenue from interests, rents, etc., being over £5,000. But there are two other general hospitals in Glasgow of much more recent date, both entirely supported, like the Royal, by voluntary contributions, and both in need of additions to their funds. It may well be asked, therefore, why the example of the Prince of Wales's scheme for London should not have been followed, and a fund raised for the three general hospitals of Glasgow? The Royal Infirmary being so old a structure originally, has had from time to time additions made to it, the oldest portion retaining its original chief architectural features. Architecturally it is, therefore, long since antiquated, and besides being antiquated, the frequent additions and extensions have made it a patchwork. To right and left and behind it lies the cathedral burying ground, and beyond and behind that stretches the great necropolis of Glasgow. All round it are railways, north and south of it are railway works and goods stations, while in its immediate neighbourhood are chemical works, foundries, sulphur works, bleach works, canal and canal basins, and up to its very walls a teeming population. The amenity of its site is, therefore, very different from what it was in 1794, when the hospital was opened. It is surely time to consider whether a more suitable site could not be found for Glasgow's oldest hospital, time to stop wasting money on further extensions and patchwork, and surely long since time for the second city of the empire, as its citizens delight to think it, to re-erect the Royal Infirmary wholly, on one consistent plan, designed in accordance with modern views and requirements. If this were proposed it probably would be considered a sufficient reason for setting aside the claims of the other hospitals. It may be that no suitable site is obtainable within reasonable distance of the city, and it may be that sufficient money will not be subscribed for total reconstruction even on the present site. But the spending of £100,000 or so on the present infirmary, as is proposed, will definitely determine the continuance of the hospital in its present situation for at least the next half century, and the people of Glasgow will be well advised if they secure that such a determination is not arrived at hastily and without full discussion of possible alternatives. In any case, and whatever be the site, if money is not subscribed sufficient for rebuilding the whole infirmary, any partial reconstruction should be in accordance with a complete plan, the remainder of which might be left to the future. We venture to think that Glasgow would look with a more liberal eye upon a great scheme, worthy of the occasion it is designed to celebrate, than upon the present partial proposal.

## LEGAL PITFALLS IN VACCINATION.

Those of our readers who have had the opportunity of observing the methods by which the agitation against vaccination is carried on under the auspices of the National Antivaccination League will know that one of the engines which that body has used for the purpose with very considerable effect is the construction of ingenious technical defences for those persons who are summoned before the magistrates for non-compliance with the requirements of the Vaccination Acts. Mr. H. Schultess Young, who appears to be retained as the legal adviser and acting counsel of the League, has for some months past been exercising his critical faculties mainly at the expense of vaccination officers and clerks to Boards of Guardians, and although he has had some falls in the conclusions which he has tried with these myrmidons of the law, he has on the whole scored well against them. The prosecutions have in many instances been got up in a slovenly manner, and they have too often been left to the conduct of the vaccination officers themselves, who have fallen easy victims to Mr. Schultess Young's power of fence. Such a result is the less excusable because Mr. Schultess Young has frankly laid bare to the world in general the armoury from which he draws his weapons of defence. In his interesting and instructive little book entitled *Legal Defences to Prosecutions under the Vaccination Acts and to Illegal Vaccination*, which we learn from the title-page is "published for the Legal, Medical, and Statistical Association" (145, Fleet Street, E.C.), Mr. Schultess Young has provided his opponents, for the modest consideration of 2s., with, if we may so say, "the whole bag of tricks" with which he exhibits his legal sleight-of-hand. We now more particularly desire to call the attention of public vaccinators especially to the importance of carefully observing the instructions laid down for them in the conduct of their work by the Local Government Board, or they may possibly find themselves impaled in the same way as Dr. Matterson, the Public Vaccinator at Newark, has lately been by one of Mr. Schultess Young's darts. From a report, which we take from a local paper, of a case recently heard before two of the Newark magistrates, it appears that an inhabitant of that town having been summoned before the Bench for failing to have his child vaccinated, was represented by Mr. Schultess Young, who, it is stated, was "instructed by the Newark Antivaccination League." In this case the defence appears to have been on the ground that the instructions of

the Local Government Board had not been complied with by the public vaccinator. To support this contention he first called evidence to show that the infants who were vaccinated by Dr. Matterson at the public station "were not first carefully examined in the way directed by the Local Government Board in their instructions to medical officers, and that lymph was taken from children who were not in a proper state of health for the matter taken from them to be used in operating upon other children, whereby infection might be readily transmitted to hundreds of the children of the poor who were compelled to have their babies vaccinated free, as provided by law, or not at all." So far as the second count of this indictment is concerned, there does not appear to have been any evidence submitted in support of it, except the negative evidence that the children operated on were not properly examined, and that it was consequently possible that one or other of them might have been in an unhealthy condition. This arm of his defence was probably only adopted by Mr. Schultess Young to strengthen collaterally his principal gravamen. To support this latter he called three Newark mothers whose children had been vaccinated by Dr. Matterson, and who averred that he had not examined them "behind the ears, in the folds of the skin, or in the lower parts of the body." But Mr. Young's most effective witness was Dr. Matterson himself, who acknowledged that though he always examined behind the ear all children who were vaccinated by him, he did not examine them in the the groin and lower parts of the body. The reason which he gave for not doing so is suggestive: it was because "many parents objected very strongly to that," adding that "a doctor was not a mere automaton to be tied down by hard-and-fast rules, and he relied upon his personal discretion." Dr. Matterson was also able to adduce as further justification of the latitude which he claimed the facts that he was liable at any time to a visit from a Local Government inspector, that his work had always been favourably reported on, and that he had received large grants from the Government for the highly satisfactory way in which he has performed his duties as public vaccinator. Upon this evidence Mr. Schultess Young argued that the defendant in the case had a reasonable excuse for not submitting his child to be vaccinated, in the fact that the instructions of the Local Government Board had not been properly carried out. The Mayor, who presided on the occasion, ruled that it was necessary, before this line of defence could be raised, that evidence should be adduced to show that the child was actually taken to the vaccination station, and that if it were alleged that the public vaccinator did not perform his duties properly, this was a matter for complaint to the guardians by whom he was appointed and paid. This seems, upon the face of it, to be good law, but it did not satisfy Mr. Schultess Young, who gave notice of intention to appeal. So we are likely to hear more of this case, and to have the decision of a higher court on the validity of the defence thus ingeniously raised. Meanwhile, we would suggest to public vaccinators the desirability of adhering as closely as possible, so long, at any rate, as vaccination by human lymph is required by the Local Government Board, to the instructions given to them by that body. Irrespective of considerations of general propriety, by which they ought in such a matter to be guided, they can never be sure that there is not "a chiel amang them takin' notes," which may possibly land them in a *mauvais quart d'heure* with Mr. Schultess Young, and an unfavourable decision from a bench of magistrates, who may not be so clearly advised on this point as those at Newark were.

## HOSPITAL REFORM.

WE are asked to call renewed attention to the memorial to the Royal College of Physicians promoted by the Hospital Reform Association, a copy of which lies in the library of the British Medical Association, for signature. The memorial sets out that the present system of administering medical relief in the out-patient and casualty departments at most of the hospitals and infirmaries of the country is fraught with danger to the community at large, because demoralising to those who receive it, and calculated to increase pauperism; unjust to the hospitals because their funds are wasted on undeserving objects, unjust to the members of the medical staffs of the hospitals because they are overworked; injurious to sound clinical teaching because the out-patient departments are overcrowded; and unjust to the general body of practitioners because they are deprived of patients whose means would warrant the employment of private practitioners. It is undoubtedly desirable that the question of the abuse of out-patient and casualty departments should be brought under the notice of the Colleges of Physicians since the Fellows of the Colleges furnish the majority of those who occupy the office of physicians to the various hospitals. It is a question which they will approach with a wide knowledge of certain of its aspects, and one upon which the opinion of the Colleges would be much valued by the profession, while it would doubtless have great weight with the lay members of hospital Boards. That the memorial, however, should have as much weight with the Colleges as the importance of the subject deserves a larger number of signatures should be appended; down to the time of writing the list is very scanty.

## IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.

A SPECIAL interest was lent to the St. Patrick's Day festival dinner of the Irish Medical Schools' and Graduates' Association by the presence of Lord Lister as the guest of the evening. The President, Professor Alexander Macalister, was able to announce to him that he had been elected an honorary member of the Association—an honour shared with Sir James Paget and Professor Virchow, of Berlin. The toast of "The Guests," coupled with the name of Lord Lister, was given in a felicitous speech by Dr. Cagney; and Lord Lister, in reply, spoke in terms marked by genuine emotion of the many spontaneous expressions of gratification on the honour done him by his elevation to the peerage which he had received on all hands from the profession of which he was proud to be a member. The toast was acknowledged also by Sir John Gorst, M.P., who dwelt on the advantages which the United Kingdom derived from the close union of its several parts. The toast of "The Irish Medical Schools' and Graduates' Association" was given by Professor Clifford Allbutt, who questioned whether any disabilities remained for the Association to remove, and the President, in reply, while acknowledging that this was the case, yet claimed that it had a useful function to fulfil in promoting and maintaining friendship among Irishmen in England. The toast of "The Universities" was given by Dr. Abraham, Chairman of Council, and acknowledged by Professor Jebb. An extremely agreeable festival, which was attended by over 200 ladies and gentlemen, was thus brought to a conclusion.

## SIR WILLIAM MAC CORMAC IN BELFAST.

THE President of the Royal College of Surgeons is a native of Belfast, and it was fitting that his natal city should mark in some public manner its recognition of the eminent position to which he has attained. The recognition has been twofold—first, the reception by President Hamilton on the part of the Queen's College of the portrait of Sir William Mac Cormac, which has been presented to him by his friends and admirers, especially those resident in England; and secondly, a dinner given in his honour by the medical profession of Belfast and Ulster. The former ceremony took place on March 15th in the Library of Queen's College. President Hamilton occupied the chair, and there was a large attendance of the professors and students, the medical practitioners of Ulster, and the general public. President Hamilton having cordially expressed his sympathy with the object of the day's proceedings, called upon the Marquis of Dufferin to un-

veil the portrait. Lord Dufferin spoke with all his accustomed grace and felicity, and was enthusiastically received. Sir William Mac Cormac made a very appropriate and feeling reply, in the course of which he observed that he had always had a sincere affection and regard for the Queen's College, and had watched its progress and increasing success with the greatest pleasure. He recalled with affection the names of many of the former professors there—Reichèl, MacDonall, Wilson, Craik, Andrews, Carlisle, and Ferguson, and he was glad to see there the last survivor of the original professoriate, namely, Professor Hodges. He heartily wished long life and prosperity to the College. On the motion of Professor Strahan, one of the most active movers in the presentation, seconded by Professor Purser, a hearty vote of thanks was passed to Lord Dufferin. The same evening the dinner in honour of Sir William Mac Cormac was given in the Great Hall of the College. Professor Cuming presided, and about seventy gentlemen sat down. After dinner, the Chairman gave the usual loyal toasts, which were duly honoured: and in proposing the toast of the evening, "Our Guest," Professor Cuming traced Sir William Mac Cormac's progress from the days when they were students together, and through the varied stages of his career to his present eminent position. He dwelt on his skill and courage displayed in the field of military practice, on his gradual rise to a leading place among European surgeons; on his kindness, his hospitality, his staunchness in friendship. The toast was enthusiastically honoured. Sir William Mac Cormac, in reply, spoke in high terms of the educational facilities afforded by Queen's College, Belfast, and expressed in feeling terms his sense of the honour done to him. Sir William Stokes then proposed the toast of "The Queen's College" in an eloquent speech, and President Hamilton made a felicitous response. The last toast, "Our Chairman," was proposed by Sir William Mac Cormac, and Professor Cuming made an appropriate reply.

## SIR HENRY D. LITTLEJOHN.

As we announced briefly last week, the Queen has been pleased, on the recommendation of Lord Balfour of Burleigh, the Secretary for Scotland, to appoint Sir Henry D. Littlejohn, M.D., LL.D., to the Chair of Forensic Medicine in the University of Edinburgh, in the place of Sir Douglas Maclagan, resigned. Sir Henry D. Littlejohn, who was born in Edinburgh, was educated at the High School and University of his native town, where he took the degree of M.D. in 1847. He then proceeded to further medical studies at various London and Continental schools, after which he engaged in practice in a Scotch country town for a few years. In 1854 he was elected a Fellow of the Royal College of Surgeons of Edinburgh. In 1856 he was appointed Surgeon of Police for Edinburgh, and later Medical Officer of Health. Through his indefatigable efforts and boundless energy Edinburgh has, in Scotland at least, led the van in all matters of sanitation, and all this began at a time when such matters received very little practical attention. Sir Henry first made plain that he was the leading medical officer of Scotland by publishing his report on the sanitary condition of Edinburgh, a report which has had far-reaching effects. Later still his report on the great Edinburgh small-pox epidemic, prepared in conjunction with Sir James Marwick, ultimately led to the passing of the Vaccination Act for Scotland in 1863. By his influence Edinburgh adopted the system of compulsory notification of infectious disease in the year 1879, ten years before the date of the legal enactment on that group of maladies. It is mainly to his untiring efforts that Edinburgh owes the disappearance of the "rookeries" (as they were called), perfect breeding cages of disease; and the almost entire disappearance of such scourges as typhus and small-pox. In these, and in all other matters relating to the public health, he has ever been in the forefront—so much so that when in 1893 the British Institute of Public Health held its sittings in Edinburgh, he was by acclamation elected President; and his Alma Mater homologated that election by conferring on him, at the time, the honorary degree of LL.D. Shortly after his appointment as Edinburgh Surgeon of Police, Sir Henry Littlejohn was recognised by the University as a lecturer on Medical Jurisprudence and Public Health in the Extra-academical School, and his class has always been a large and popular one. Sir Henry Littlejohn was medical officer to the now defunct Scottish Board of Supervision, and he continues medical officer to the Local Government Board. He has for long been confidential adviser to the Crown in affairs criminal. He has been President of the Royal College of Surgeons of Edinburgh, and President of the Edinburgh Medico-Chirurgical Society, and in 1895 he received the honour of knighthood. Numerous memorials had been sent to Lord Balfour of Burleigh in support of his candidature. Thus some 200 medical practitioners in Edinburgh and its neighbourhood urged his claims to the Chair. Like memorials went from medical practitioners in Fifeshire, and from medical practitioners and others in Liverpool, Sheffield, Glasgow, and Dundee.

## THE WAR OFFICE AND VOLUNTEER MEDICAL OFFICERS.

Mr. Brodrick's reply to Colonel Dalbiac, intimating the determination of the War Office to adhere to their decision to refuse to medical officers the joining allowance paid to all other volunteer officers, is in accordance with the general system of dealing with the "doctors" which commends itself to the military mind. There is no question here of a fresh grievance of the distressful Army Medical Department; this particular emanation of the bureaucratic intellect is an injustice and an insult to the whole medical profession. In itself the allowance is a matter of trifling importance; in spite of commercial depression, the battle of the clubs, and the all-devouring maws of the hospitals, medical men as a class are not so poor that the withholding of a bonus of £10 10s. can be of much consequence to them. But, why should the War Office make a point of treating them differently from other officers? This apparently fixed determination on the part of the army authorities to refuse to medical men anything implying community of military character with "combatant" officers will simply make the volunteer medical service as distasteful to men of spirit as the Army Medical Department. Perhaps, however, the exceptional treatment of the volunteer medical officers is to be taken as a subtle form of flattery, implying that the patriotism of the medical profession does not need the stimulus of a gratuity.

## THE RELATION BETWEEN SANITARY SCIENCE AND PRACTICAL MEDICINE.

In an introductory lecture in the Faculty of Medicine of McGill University, Montreal, Dr. Robert Craik, Professor of Hygiene in the University and Dean of the Faculty, after dwelling on the functions of hygiene, personal, public, and international, pointed out that while medicine dealt both with the prevention and cure of disease, hygiene in attacking the former aided in the noblest part of its work. He traced out the average course of existence of individuals in a prosperous community, and showed how it became perverted by disease. Parentage became unwholesome or depraved, birth difficult or untimely, growth irregular or stunted, progeny misshapen, feeble, or altogether wanting, and age laden with infirmities. Death might come at any time in a virulent and painful form, and even the lifeless clay might, by reason of its virulence, spread pestilence and death among thousands of innocent victims. Health represented peace, happiness, and prosperity; disease entailed grief, misery, and disaster. To blot out the latter and develop the former to still greater excellence was the aim of hygiene, and the means to this end was the study of the causes of disease. Hence arrangements have been made in McGill University for securing for hygiene the co-operation of workers in other departments of the

Faculty. Sanitary chemistry and physics are to be treated by the Professor of Practical Chemistry, bacteriology by the Professor of Pathology and the Lecturer on Bacteriology, and it is hoped that reciprocal arrangements may speedily be made with the departments of architecture and engineering. The course of hygiene, public health, and preventive medicine thus remodelled and extended will henceforth take rank as a full course, reaching its full importance as one of the principal courses in the third year's curriculum.

## VOX RECLAMANTIS.

THE *Sun*, like the leopard, has its spots, but, unlike that member of the feline family, it can change them. Our contemporary has for some time been understood to be in the eruptive stage of a new political complexion. Its issue of March 11th, however, appears to indicate that it is in process of conversion into a medical paper, and this suggestion appears to be confirmed by the fact that copies of this particular issue have been sent broadcast through the post to medical men in London. While congratulating the *Sun* on this evidence of a wish to rise to higher things, we venture to suggest that a little more care in the selection of the matter provided for the edification of its readers would be advisable. Dr. Mortimer Granville's paper on what he calls the "Influenza Jubilee" contains a good deal of autobiographical, historical, and etymological information, but as a contribution to medical knowledge we cannot conscientiously say that we consider it likely to establish the reputation of the *Sun* as a scientific organ. The article is a fine example of the art of saying little in the greatest possible number of words. It purports to teach the reader who wishes for information about influenza "what it is and what to do with it." On the former point one has to be content with the intimation that it is "a Chinese marsh fever." As to the latter we are told that we must "rid ourselves of it," by making "the 'spring cleaning' of 1897 a veritable expurgation of influenza and all other organic abominations propagandist of disease," although just above we read the discouraging statement that "unless fortune favours us and the winds be propitious, the influenza, like the poor, will be always with us." But if there is little hope for the community, there would seem to be even less for the individual, for we are told that it "leaves its germs behind it within the organism as well as in the shape of imperishable seeds outside," and anyone who has once had influenza is likely to be "ill influenzally" for the rest of his life. The only chance for such unfortunates is to "devote their undivided energy to the development of the highest possible standard of average general health." Again, however, not the least hint is given how this is to be done. If Dr. Mortimer Granville speaks with the inspiration of an oracle, he has also its vagueness. In fact almost the only definite piece of information vouchsafed is the name of the medical prophet who has taken three columns of a public newspaper for his tripod. On this point there is no vagueness, for the name is writ large, both at the top and at the bottom of the article—and it is the name of a Member of the Royal College of Physicians of London.

## CONGENITAL TEETH.

IN reporting some cases of congenital teeth not long ago, Dr. J. W. Ballantyne took occasion to point out that the fact that infants are occasionally born with one or more teeth already cut was well known to the ancients. Indeed, as he showed in a paper on the Teratological Records of Chaldea,[1] instances of the kind are mentioned in the very ancient cuneiform inscriptions found at Nineveh. As showing the meaning which was ascribed to the occurrence, Dr. Ballantyne quotes the following passage from Holland's translation of Pliny's *Natural History*: "Certaine it is also that some children are borne into the world with teeth, as M. Curius, who thereupon was surnamed Dentatus, and Cn. Papyrius Carbo, both of them very great men and right honourable personages. In women the same was counted but an unluckie thing, and presaged some misfortune, especially in the daies of the KK. regiment in Rome; for when Valeria was born toothed, the wizards and soothsayers being consulted thereabout, answered out of their learning by way of prophesie. That looke into what citie she was carried to nource, she should be the cause of the ruine and subversion thereof: whereupon had away shee was and conveyed to Suessa Pometia, a citie of that time most flourishing in wealth and riches; and it prooved most true in the end, for that citie was utterly destroyed." M. Schurig, in his *Embryologia Historico-Medica*, published in 1732, collected a number of cases recorded by other writers up to that time. Tradition has it that several men famous in history were born with teeth. As instances, Dr. Ballantyne names Richard the Third, Louis the Fourteenth, Richelieu, Mirabeau, and Mazarin. Shakespeare refers in several places to this belief regarding Richard. In *Richard the Third* the Duchess of York says:

> Marry, they say my uncle grew so fast,
> That he could gnaw a crust at two hours old;

In the same play, Queen Margaret refers to Richard as:

> That dog that had his teeth before his eyes.

Richard himself says:

> For I have often heard my mother say
> I came into the world with my legs forward;
> * * * * *
> The midwife wonder'd and the women cried
> "O Jesus bless us, he is born with teeth!"
> And so I was; which plainly signified,
> That I should snarl and bite and play the dog.

Congenital teeth are rare. Of 17,578 infants born in the Paris Maternity between 1858 and 1868, only three had teeth, that is, not much more than 1 in 6,000. Yet Dr. Ballantyne has collected seventy records of cases from literature, and doubtless, as he says, many have escaped notice. In respect of sex, the female shows a slight preponderance, which, if there be any truth in Richard's theory of the significance of congenital teeth, may perhaps be expected to increase with the evolution of the New Woman.

[1] *Teratologia*, 1894, i, p. 134.

## THE MATERIAL RELICS OF THE GREAT.

THE recent instances of the cremation of distinguished medical men has caused some discussion as to what is the most reverent way of treating "remains." Mummification is out of the question, for a mummy is almost as repulsive as a corpse mouldering in an ordinary coffin. It is this that makes many men prefer the prospect of cremation, with possible preservation of part of their ashes. A singular idea struck the rulers of France during the Great Revolution. In 1793, under the influence of a fanaticism yet more terrible to the living, the Convention ordered the destruction of the bones of the kings of France in the royal vault of St. Denis. This act of desecration is specially odious to the anthropologist. How interesting it would have been to examine carefully the cranium and skeleton of Dagobert, who died in the seventh century! His remains were ruthlessly scattered over the street. A very different step taken by the Convention has been till recently forgotten. The bodies of several great men were exhumed and taken to the national mint to be made into a phosphatic glass. Cups were then to be moulded out of this material, so that citizens could drink toasts in gratitude to the great dead out of their very remains! As usual, the order was revoked very soon, and moderate republicans reinterred what red republicans had exhumed. D'Arcet, who was charged with attempting the vitrification of the bones, retained the lower jaw of Molière; some bones of La Fontaine were also preserved. The systematic preservation of integral parts of the skeleton would, however, be displeasing to the public mind, and would seem almost as ghastly as Isabella's pot of basil.

# THE PLAGUE.

## CHRONICLE OF THE PLAGUE.

### The Effects of the Plague Serum.

A correspondent sends us the following interesting particulars of the symptoms produced by the injection of anti-plague serum: Surgeon-Colonel W. Hume Henderson, finding it impossible to induce the Mussulmans at Karachi to allow themselves to be inoculated with the plague serum, had himself inoculated in front of the Mussulmans' camp. He was injected with a teaspoonful and a half of serum in each side, just below the waist. Immediately afterwards he returned home and went to bed. An hour later, 1 P.M., his temperature was 99.4° F., the pulse was 104, and he had slight headache. At 2 P.M. the temperature was 100°, at 4 P.M. 102.4°, at 5 P.M. 103.6°, at 6 P.M. 101.5°, at 7 P.M. 101.2°. Next morning, at 10 A.M., the temperature was 100°, the wounds were red and sore, and all the lower part of the body was aching considerably. At noon on the same day the temperature was still 100°, and Surgeon-Colonel Hume Henderson still had pain in the loins and was unable to move. On the third day the temperature was 99°, all symptoms of fever had passed away, but the glands in both groins were enlarged. The serum used was Haffkine's.[1] In another case inoculated by Surgeon-Colonel Hume Henderson the temperature ran up to 104°, with severe headache and general febrile symptoms. On the following day the temperature was 100°, but the patient felt well.

### Ahmedabad.

Ahmedabad is the second city in importance in the Bombay Presidency as regards population and commerce. The population according to the last census was 144,192, but since 1891 a considerable number of cotton mills have been built, and probably the population has by this time increased to 150,000 or more. The death-rate a few years ago was 48 per mille, including the mortality from cholera and measles for the year. The water supply is pumped from wells sunk in the sandy bed of the Salurmuttee river above the town. It is stated to be pure and of good quality. The drainage of the city is carried out by sections, and the sewage utilised successfully on a plot of ground to the south of the city. This was the first sewage farm in the Bombay Presidency, and does credit to the municipality and its enlightened President, the Honourable Mr. Runchorlall, C.I.E. He has known how to accomplish an immense amount of good work in the face of deep-rooted prejudice and opposition by patience, perseverance, and great tact, and deserves the highest honours that can be conferred on him. The old water supply was pumped up from the river below the city, as was the case formerly at Poona, and with a similar deleterious effect on the health of the inhabitants. "Tanka" water stored in reservoirs beneath dwelling houses frequently in close proximity to pit privies is still used by Jains, and Kunbis drink impure river and well water, but their eyes are gradually being opened to the danger of this practice. Proper markets for meat are great desiderata, and careful inspection of food is a matter which does not receive the attention it deserves in any of the municipal towns throughout the Presidency.

### Precautions in France.

At a meeting of the Comité Consultatif d'Hygiène Publique de France held on February 27th a report was presented by Dr. Martin on behalf of a Commission which had been appointed to consider the question of the measures which it may be necessary to adopt in connection with the disinfection of merchandise coming from countries infected with plague. The conclusion arrived at by the Commission is that the sanitary code of January 4th, 1896, may be applied in dealing with this matter, and that no additional restrictions are necessary. The fact that plague has prevailed for many months in India and certain Eastern ports, and that no manifestation of the malady has been observed in French ports, is commented upon, and the opinion is expressed that Yersin's plague serum affords the means of rapidly checking the spread of the malady. It is pointed out that in putting in force the sanitary code referred to attention must be particularly directed to the inspection of passengers arriving from places infected by plague, and in the event of suspicion being entertained as to the nature of any glandular swelling, bacteriological examination is to be instituted. Inquiry is, moreover, to be made with regard to dead rats, and if many carcasses of these animals have been found on the vessel bacteriological investigation is to be undertaken with a view to the detection of the plague bacillus. The landing of certain kinds of merchandise, including rags, hides, and skins, is prohibited, and under the code in question carpets must be submitted to disinfection. It is further pointed out that a supply of plague serum should be made available for the inoculation of passengers arriving in suspected or infected vessels. The measures of precaution described under the code should, the Commission think, be of general application to all ports, though at the time when the code was put in force special modifications might be deemed necessary in the case of particular ports.

[1] British Medical Journal, March 13th, p. 673.

### The Bombay Plague Committee.

Medical and sanitary affairs in the Bombay Presidency may now be said to be entirely in the hands of the Plague Committee, the constitution of which we related last week. The municipality of Bombay have been practically superseded, and the Governor of Bombay has now matters in hand with the assistance of what is practically an advisatory committee. It was time some such body took the plague epidemic in hand, as the disease is no longer, and has not been for some time, confined to the city of Bombay, but has been and is spread broadcast throughout the Presidency. The enormous amount of the work undertaken by this Committee may be gathered from the following facts telegraphed by the Governor of Bombay to the Secretary of State for India: "For the week ended March 11th: 130 dwellings condemed, 109 recommended for alterations, tiles removed from 1,027, floors dug up in 492, and 547 lime-washed, 299 vacated, 3 have been destroyed by fire." A truly Herculean record of labour.

### Death-rate Diminished in Bombay.

The death-rate is receding in a substantial degree, the record for the past four weeks reading as follows:

| | February | | March | |
|---|---|---|---|---|
| Weeks ending ... ... ... ... | 22nd | 29th | 5th | 12th |
| Deaths from all causes ... ... | 1,772 | 1,525 | 1,370 | 1,274 |
| Deaths from plague ... ... ... | 843 | 730 | 635 | 521 |

The improvement is to be estimated by the diminution in the death-rate from all causes, as the report of plague cases cannot still be regarded as accurate.

### Spread Northward.

The general drift of extension is no doubt along the valley of the Indus. Sukkur, a town on the Indus some 500 miles up the river from Karachi, seems afflicted by what is termed a "continuance of local cases." The town is an important railway junction for the meeting of railways from Karachi, the Quetta district, and the North-West, and its position renders it of great sanitary importance at the present moment. It is in this direction, and in this direction only, that we anticipate plague will spread, and it is along this track that special vigilance will have to be maintained. Eastwards and southwards from Bombay is not the natural path for plague to travel, but northwards, and especially north-eastwards, up the Indus valley is the region of its natural selection and its endemicity.

### The Southern Limit.

The latest report gives several towns to the South of Bombay as being affected by the disease. This is of special interest epidemiologically, as several places indicate that plague can travel further south than the 19° North latitude previously recorded. The most southerly point it is reported to have reached is the city and district of Kolapore, 16.5° north of the equator. Kolapore is on the main line of railway south from Bombay, and hither many refugees betook

themselves, more especially from Poona. In previous records, before India was so well known, anything occurring within the Bombay Presidency was stated as occurring in Bombay, and referred to the city. It is just possible when we read that plague had never reached further south than Bombay in India, the term meant the Presidency; if so, the plague area may not yet be overstepped in reality. The Governor of Bombay in his report mentions that plague in Karachi is dying out in the quarters first attacked, but spreading to previously unaffected regions. This is in consonance with all reports from India, especially Bombay, where in the Port Trust Estate district, the region first affected, no case has now been seen for well nigh four weeks.

### Nurses for the East.

A second batch of six nurses has started for India, making twelve in all. We conclude that the supply of medical men is sufficient, as there is no demand for volunteers, nor is there likely to be at this late period of the epidemic.

### Yersin's Curative Serum.

Dr. Yersin is reported to be very busy inoculating the plague-stricken with his serum. His anticipations have in large measure been realised (according to the daily papers) as so far the serum has proved a match for the disease. When failure occurs it is when the patients have been *in extremis*.

### Haffkine's Prophylactic Serum.

We congratulate Dr. Haffkine upon his recovery from his recent illness. The excellent work he has done, and the indefatigable way he has thrown himself into the fight with plague will long be remembered in India with gratitude. Last week we gave a tabular statement of the results of Dr. Haffkine's prophylactic treatment, and we are informed that no fewer than 2,790 persons have been inoculated up to March 17th. No (plague free) persons inoculated have died of plague, and but few have been attacked. All those attacked subsequent to inoculation (save only three) have recovered. This is an excellent record. Only three of that number have been attacked by plague, and none have died of the disease. The feverishness and general symptoms which attend the inoculation are described above and in the British Medical Journal of March 6th, 1897. So evanescent are the consequences of inoculation that several persons have been operated upon three or four times. The prophylactic treatment of Dr. Haffkine, so far as its results show, seems to be a safe, effective, and reliable method of preventing plague.

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## KARACHI.

### Statistics.

Our correspondent writes that during the week ending February 18th the death-rate from all causes in the Karachi municipal area was 150.39. This was a decrease in the death-rate of the week previous, but the mean of the total death-rates for the corresponding weeks of the previous five years was 39.72.

In the most affected areas the death-rate from all causes show the following high figures:

| | | | | |
|---|---|---|---|---|
| Lyari Quarter = | ... | ... | ... | 298.74 |
| Napier ,, = | ... | ... | ... | 236.78 |
| Market ,, = | ... | ... | ... | 200.47 |
| Gaol ,, = | ... | ... | ... | 370.05 |

The death-rate from all causes in the two quarters where the plague first appeared was as follows:

| | | | |
|---|---|---|---|
| Muchi Meani Quarter = | ... | ... | 150.82 |
| Old Town ,, = | ... | ... | 27.15 |

During the week under report 266 cases and 235 deaths were officially notified from plague. This brought the totals of cases and deaths from the date of outbreak (December 10th, 1896) to February 18th, up to 1,629 cases and 1,498 deaths.

The quarters most affected during the week were the following:

| | | Plague Cases. | Deaths. |
|---|---|---|---|
| Lyari Quarter | ... ... | 119 ..... | 113 |
| Napier ,, | ... ... | 55 ..... | 37 |
| Market ,, | ... ... | 22 ..... | 23 |
| Gaol ,, | ... .. | 23 ..... | 20 |

Among males there were 156 cases and 135 deaths; among females, 110 cases and 100 deaths. Among Mussulmans, 171 cases and 164 deaths; Hindus, 94 cases and 70 deaths; and 1 Jew was attacked and died.

### Concealment of Cases and Spread of the Infection.

Cases have been reported from every quarter of the town excepting the camp. The disease, which is at present located within the area of the native city, has in many cases been conveyed into hitherto unaffected areas by persons who hope to conceal their sick from observation by removal. Recently, for example, a case was detected which had managed to pass the cordon round the native town. To escape observation the patient had walked from the native city to the Sadar Bazar, where he died twelve hours later.

### Disinfection and Isolation.

In the native city disinfection and cleansing of infected houses is now being carried on wholesale, large gangs of men working under the supervision of European officials. The fact that the judge, assistant collectors, officers of the Indian Medical Staff, etc., are working among the sick, and personally superintend the disinfecting arrangements, compensating for property destroyed on the spot, etc., has given much confidence to the natives. The usual method adopted in dealing with an infected house is as follows: Immediately after the removal of the corpse the house is entered under the supervision of a European "plague superintendent;" the floors, etc., are lightly sprayed with perchloride of mercury solution to lay the dust. Rubbish, rags, old matting, bedding, etc., are removed and burnt in front of the house. Wearing apparel which has been used by deceased is burnt. Things too valuable to burn are soaked in strong disinfectants. The heavy kit is removed into the centre of the room, and the walls, roof, floor, and furniture are well sprayed with perchloride of mercury solution. This is done in the sick room and all rooms, passages, etc., adjoining it. The whole house is then lime-washed inside and out; the adjoining houses are similarly lime-washed if necessary. On returning from the funeral the residents are allowed to collect their disinfected belongings and move out into a health camp, where they are kept under observation for ten days. The doors and windows of the infected house are kept open after the lime-washing is completed. In the health camps poor people who are thrown out of employ for their ten days' isolation are helped from the local plague relief fund.

### Treatment.

With regard to treatment little can be done radically where the people refuse to allow their sick to be removed into hospital. It is naturally unsatisfactory and difficult to deal with the disease under the peculiar surroundings that pertain to the ordinary native household. Until compulsory segregation is universally established and all cases are removed to the plague hospitals we can hope to do little in this direction. At present our chief exertions are towards the prevention of the spread of the disease.

### The Pilgrimage.

With regard to the Mecca Haj this year, it is easy to see that Government is doing everything in its power to induce the Mussulman community to forego the pilgrimage altogether. To issue a peremptory prohibition of the Haj might lead to most serious political difficulties. The following Government resolution, passed under the Epidemic Diseases Act, 1897, will give an idea of the action being taken in this direction:

In exercise of the powers conferred by Section 11, Subsection 1 of the Epidemic Diseases Act, 1897, the Governor-General is pleased to direct that no person resident, permanently or temporarily, in the Bombay Presidency or Sind, and no person who, though not resident in the Bombay Presidency or Sind, has entered the Bombay Presidency or Sind with the object of proceeding on a pilgrimage to Hedjaz shall, until further orders, be permitted to embark on any ship at any port in British India with the object of making the pilgrimage to Hedjaz. The Governor-General in Council is further pleased to direct that all persons who have entered the Bombay Presidency or Sind with the object of proceeding to the Hedjaz shall be placed in a camp of observation until such time as the medical officer in charge shall satisfy himself that all risk of occurrence of plague among them has been completely abated. They shall then be sent to their homes, and the railway expenses of their journey shall be met by the State.

The following day these further orders were issued:

Each local government shall segregate in suitable localities within the provincial limits for at least seven days all persons who intend to make the pilgrimage. Then when the Commissioner of Police, Calcutta, signi-

fies that a ship is ready to sail, each batch of pilgrims shall be sent in a special train direct to Diamond Harbour, and the vessel shall put to sea as soon as possible.

### Precautionary Measures at Rangoon.

The authorities at Rangoon are taking energetic steps for the protection of the town against the importation of plague. The senior medical officer has been specially deputed for the inspection of vessels arriving from infected ports, and a sum of Rs. 42,000 has been sanctioned by the municipality towards cleansing the city. The Senior Civil Surgeon, Rangoon (Surgeon-Lieutenant-Colonel Johnstone) has been relieved of his ordinary duties in order to allow him to give up his whole time to the inspection of vessels arriving from infected ports.

## THE MONTREAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, AUGUST 31 TO SEPTEMBER 4, 1897.

### The Transatlantic Voyage.

Dr. Henry Barnes, the President of the British Medical Association, informs us that he has been in communication with the Allan Line and the Dominion Line, and that these companies have consented to grant to members of the British Medical Association proceeding to Canada to attend the Montreal Meeting of the British Medical Association the same terms as they have granted to members of the British Association, upon condition that they should sail on or before August 5th. After that date it is expected that the boats will be full, and that, consequently, no reductions can be made. The Allan Line has arranged to despatch the *Parisian* for Quebec and Montreal on August 5th. The following are the rates:

£18 18s. berths reduced to £16 16s. single; £30 return.
£15 15s. „ „ £14 0s. „ £25 „
£12 12s. „ „ £11 11s. „ £22 „
£10 10s. „ no reduction „ £20 „

Members desiring to sail earlier than August 5th, should communicate with Messrs. Allan Brothers and Co., 19, James Street, Liverpool.

The following are the special rates quoted by the Dominion Line of Royal Mail Steamers. The steamers leave Liverpool on Thursday, and Montreal and Quebec on Saturday.

*Special Fares for Sailings up to August 5th, 1897.*

Single £18 18s. berths reduced to £16 16s. Return, £35 14s. reduced to £32.
Single, £15 15s. berths reduced to £14. Return, £29 14s. reduced to £25.
Single, £12 12s. berths reduced to £11 11s. Return, £23 10s., reduced to £21.
Single, £10 10s. berths, no reduction. Return, £20.

For further particulars apply to Richards, Mills and Co., Managers, 24, James Street, Liverpool.

### Members from Australasia.

We are informed that the Canadian and Australian Line offers to Australasian members tickets from Sydney to Montreal at a reduction of 25 per cent. from the ordinary fares. Return tickets will be available for six months, at the same reduction below the ordinary return fare.

## THE INTERNATIONAL MEDICAL CONGRESS.

### Section of Pathology.

The Secretaries of the Organising Committee of Section III (General Pathology and Morbid Anatomy) of the forthcoming International Medical Congress of Moscow request us to state the following communications have been promised: (1) The Constancy of Species among Pathogenic Microbes from the Botanical Point of View, and the Specificity of Diseases, by Professor Hueppe (Prague); (2) The Genesis of the Different Forms of Diabetes, by Professor Lépine (Lyons) and Professor Minkowski (Strassburg); (3) the Pathological Physiology of Thromboses and Intravenous Blood Coagulation, by Professor Cornil (Paris), with the collaboration of Dr. Marie; (4) the Physiological Pathology of Myxœdema, by Professor Brissaud (Paris), Professor Ewald (Berlin), and M. V. Gley (Paris); (5) Theories of Immunity, Production of Antitoxins, and the Part played by them in Artificial Immunity, by Professor Behring (Berlin) and Professor Bouchard (Paris); (6) Inflammation: *Rôle* of the Blood Vessels and Parenchyma, by Professor Stricker (Vienna), and Professor Klemensiewicz (Gratz).

### Section of Surgery.

In the Section of Surgery the following communications have been promised: Dr. E. Braatz (Königsberg), Treatment of Infected Wounds; Professor E. von Bergmann (Berlin), Surgical Treatment of Tumour of the Brain and Jacksonian Epilepsy, results of operative treatment; Professor T. Tuffier (Paris), Surgery of the Lung, particularly in the formation of tuberculous cavities and in pulmonary gangrene; Professor Czerny (Heidelberg), Treatment of Cancerous Stricture of the Œsophagus, Pylorus, and Rectum—results of the various operative methods; Professor L. Ollier (Lyons), Gonorrhœal and Syphilitic Affections of Joints; Professor Dollinger (Buda-Pesth), Principles of Construction of Prothetic Apparatus in Tuberculous Disease of the Bones and Joints. Communications have also been promised by Professor Lorenz (Vienna), M. Lucas-Championnière (Paris), Dr. Senn (Chicago), Professor Bassini (Padua), Professor Bloch (Copenhagen), Bottini (Pavia), and several others. The following have promised to take part in the work of the Section: Professor Albert (Vienna), Professor J. Ashurst (Philadelphia), Professor Duplay (Paris), Professor Gussenbauer (Vienna), Professor Lannelongue (Paris), Professor Le Dentu (Paris), Professor Lennander (Upsala), Professor Macewen (Glasgow), Mr. H. Morris (London), Professor Ogston (Aberdeen), Professor Péan (Paris), Professor Rose (Berlin), Professor Rydygier (Cracow), Professor M. Schede (Bonn), Professor Scriba (Tokyo), Professor Tillaux (Paris), Professor Trendelenburg (Leipzig), and Professor Watson (Boston, U.S.A.).

## IRISH POOR-LAW SUPERANNUATION BILL.

Mr. Geo. Murnaghan, M.P., has addressed a letter to the Omagh Board of Guardians, from which we quote as follows:

I have to acknowledge the receipt of your communication of February 22nd, with a copy of the resolution passed on February 20th, 1896, by the Board of Guardians of the Omagh Union, approving of the Poor-law Officers Superannuation Bill being extended to Ireland. It seems to me that if the members of your Board had closely examined the clauses of the Bill they would have arrived at a different opinion as to its merits. Are they aware that it proposes to take away from the Boards of Guardians the voice they now possess in fixing the amount of pension their officers are to receive? Do they know that it aims at guaranteeing financial benefits to the Poor-law officers, and the only fund out of which those benefits can be paid is that of the poor rate? The Chief Secretary stated so in the House of Commons during the last session of Parliament, and it is well that the guardians and ratepayers should know it.

We confess we are entirely at a loss to understand by what process of reasoning Mr. Murnaghan has arrived at these conclusions. Technically he is correct in stating that the superannuation allowance proposed by the Bill will come out of the rates, in so far that the salaries of the Poor-law officials came out of the rates, but it was, to say the least, a *suppressio veri* not to add that the ratepayers would be none the poorer for the passage of the Bill into law, but, on the contrary, it would effect a saving in the rates of a sum which in the year 1896 amounted to £13,800.

Perhaps Mr. Murnaghan considers that the actuaries who struck the rate of deductions from Poor-law salaries to meet the superannuation allowance did not know their business. If so, he would have done well to say so, and have any doubt on that point removed.

Then he saddles the Chief Secretary with a statement which we feel quite certain that gentleman never made in the sense Mr. Murnaghan would wish the guardians to believe, and we trust some member of the House of Commons will ask a question which will enable Mr. Balfour to clear this up.

We believe the real object of Mr. Murnaghan's opposition is to be found in the following passage: "Are they aware that it proposes to take away from the Boards of Guardians the voice they now possess in fixing the amount of pension their officers are to receive?" We are well aware of it. In fact, it is the sole reason which has reconciled Poor-law officers to the principle of the Bill. It is intended to free them at their own expense so far as superannuation is concerned from the despotism of the village tyrant.

If Boards of Guardians had administered the permissive superannuation law with fairness or reasonable regard for the

merits of their officers there would have been no need and no demand for the proposed measure, but the well-known jobbery and corruption of Poor-law administration made the existing law a scandal and a fraud upon both officers and ratepayers. £13,800 a year is being paid in pensions to Poor-law officers. An inquiry into the sums paid and the merits of the recipients would be the strongest argument for relieving Boards of Guardians from this form of patronage. We hope when it comes up for second reading Mr. Geo. Murnaghan will find himself in a minority of one.

## ROYAL COLLEGE OF SURGEONS.

AN ordinary Council was held at the College on March 11th; Sir WM. MCCORMAC occupied the chair. The minutes of the last meeting were read and confirmed.

The following resolution was carried:

That the Council record their very deep regret at the death of Mr. Oliver Pemberton, whom they highly esteemed as an able colleague keenly interested in the welfare of the College and the advancement of surgical science, and in all the relations of life upright, honourable, and true; and they desire to express their sincere sympathy with Mrs. Pemberton and her family in their bereavement.

Messrs. W. H. Bennett and W. J. Walsham were elected members of the Court of Examiners; and Mr. J. N. C. Davies-Colley was elected a member of the Board of Examiners in Dental Surgery.

The following requisition, signed by 30 members of the College, was received:

*To the President and Council of the Royal College of Surgeons of England.*

GENTLEMEN,—We the undersigned Members of the College hereby respectfully request you to call a meeting of Members at an early date, in accordance with your regulations, in order that the Members may have an opportunity of consulting together upon the following matters:

1. The result and validity of the recent poll of the Fellows.
2. A proposal urging the Council to take a similar poll of the Members on the question of representation.
3. The validity of the present mode of appointment of the representative of the College on the General Medical College.
4. The refusal of the Council to carry out the by-law in the case of Mr. R. B. Anderson.

The Council resolved that it was not desirable to summon a meeting of Members for the objects mentioned in the requisition.

An address of condolence was read from the Obstetrical and Gynæcological Society of Berlin on the death of Sir Spencer Wells, Bart., past President of the College. The Council recorded their grateful appreciation of this kind expression of sympathy on the part of the Berlin Society.

Messrs. Jessop and Robson were appointed delegates of the College at the Congress of the Sanitary Institute which will be held at Leeds in September next.

## MEDICAL SICKNESS AND ACCIDENT SOCIETY.

THE usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, on February 26th.

There were present the Chairman, Dr. De Havilland Hall, the Treasurers—Dr. G. E. Herman and Mr. H. H. Clutton; Dr. J. B. Ball, Mr. W. J. Stephens, Dr. J. Pickett, Dr. M. Greenwood, Mr. F. S. Edwards, Dr. W. Knowsley Sibley, Dr. F. J. Allan, Mr. E. Bartlett, Dr. A. S. Gubb, and Dr. Walter Smith.

The accounts presented showed that, as is usual at this period of the year, the Society was receiving a large number of claims arising from the sickness of the members. These are for the most part for short periods, generally from seven to twenty-one days, and about half are produced by throat affections traceable to exposure to bad weather. The country members are more particularly liable to this class of illness, and a considerable proportion of these claims arise in Ireland.

The Committee carefully considered the report of a sub-committee appointed to consider what changes in the rules could be suggested with a view to making the Society more attractive to members of the medical profession, and some important suggestions will be submitted to the members of the Society at the annual general meeting in May next. A comparison has been made between the terms offered by the Medical Sickness and Accident Society, and those of some of the companies now offering sickness assurance to the public, and it is found that the Medical Sickness and Accident Society is quite 30 per cent. cheaper than any other institution doing this class of business. It is intended to distribute among the members a short statement showing these facts, and it is hoped that they will use this in bringing the Society under the notice of their professional friends.

Prospectuses and all particulars can be obtained on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

## THE BATTLE OF THE CLUBS.

### WIGAN AND DISTRICT MEDICAL GUILD.

THE first annual general meeting of this Guild was held on March 11th, under the presidency of Mr. J. B. Stuart, F.R.C.S.E. The Honorary Secretary, Dr. F. Rees, stated that the motto of the Guild was "defence, not defiance." Organisation was absolutely necessary in the interests of the profession. Small individual fights waged in scattered localities were not to be approved of, since, if they failed, they were apt to depress medical men in other districts. The rules adopted were practically the same as those of the Manchester Medical Guild, as it was desired that the two should keep in close touch. He hoped that similar guilds would be formed in all the chief towns of Lancashire, and would be happy to give information with the view eventually of forming a county federation. Dr. Mitchell Roocroft was elected Chairman, Dr. C. R. Graham Vice-Chairman, Dr. M. Benson Treasurer, and Drs. Cooke, Parker, Wilson, Chronnell, Wolstenholme, Berry, Monks, Brady, Angior, Cowan, Blair, and J. King, members of the Council.

### DUNDEE FRIENDLY SOCIETIES.

The position of the club question in Dundee has been complicated by the acceptance of the surgeoncy of the Heather Bell Lodge by Dr. Sang (17, Tay Street). This is all the more regrettable as the younger members of the profession had with absolute unanimity declined the post to which the salary of nearly £100 a year is attached. The fact that Dr. Sang, who graduated in 1871, has yielded to the temptation is not likely to add to his reputation.

### BECKENHAM AND PENGE.

At a meeting of the Beckenham and Penge Medical Society the following resolution was, we are informed by Dr. Primrose Wells, the Honorary Secretary, adopted unanimously:

That it is detrimental to the honour of the medical profession that a member should hold any appointment under medical aid societies, because they are speculating companies, increasing their profits by imposing on the medical profession, to whom their success is largely due. This Society therefore protests, and pledges itself not to take any such appointment; and it is their earnest hope that their professional brethren will do likewise, and so suppress these impositions, which if encouraged and allowed to continue, must seriously injure the *bonâ-fide* work of the general practitioner amongst the middle and lower classes.

The proposal for a compromise which, as we mentioned last week, it was thought likely would be made on behalf of the clubs, has not proved acceptable to the members of the Beckenham and Penge Medical Society. The proposal amounted, we are informed, to an offer of 5s. a week instead of 6s., and a reduction of the fee for certificates to a second or third club to which the sick member belonged from 1s. to 6d. The Medical Society at its last meeting redrafted the scheme which the medical men are willing to accept. It is as follows:

1. That when any question is to be brought up for discussion which concerns the medical officer or his work, he shall receive due notice of the meeting, together with a statement of the business to be transacted and an invitation to attend.
2. That the principle be recognised that the medical list is only intended for the artisan classes and those in a similar position. That it be understood that members who are able to pay medical fees shall not avail themselves of the doctor's fund, and that any breach of this understanding reported by the medical officer to the Committee shall receive their prompt attention. N.B.—To obviate the difficulty arising in those societies in which the subscription to the medical fund is compulsory, any member who is not eligible shall have his subscription returned on an understanding that he will not claim medical attendance.
3. That the subscription to the medical fund be 6s. per annum.

4. That a careful list of names and addresses of members who are subscribers to the medical fund be sent to the doctors within twenty-one days after the commencement of each quarter, together with the fees for that quarter. Note.—Subscription to the medical fund is an insurance against sickness, and it is the universal custom for all insurances to be paid in advance.

5. That all new subscribers to the medical fund shall be examined by the doctor, and the fee for such examination shall be 1s. N.B.—It is recommended in the interest of the benefit societies that members should only be admitted after medical examination. The fee for such examination shall also be 1s., except in the case of those societies whose rules enact a larger fee. (It will, of course, be understood that in the case of a member joining the society and the medical fund at the same time a single fee only will be charged.)

6. That the medical officer shall give all certificates for his own club without fee; but where the member requires certificates for other clubs they shall be paid for at the rate of 1s. each when declaring on the club but 6d. subsequently.

These proposals are now under the consideration of the club, and we understand that if they are not accepted the medical officers will hand in notices of resignation on March 24th.

### New Clubs and General Practice.

United writes: The discussion which is now going on in the British Medical Journal, relative to the British Medical Association becoming also a Medical Defence Union, is one that cannot fail to be of the deepest interest to every medical practitioner, being a question of such vital importance to the welfare of the profession in the future.

With regard to the various arguments that are being brought forward *pro* and *con*, there is this striking difference between them, that whilst on the one hand, those in favour of such a course are logical and practical, on the other hand those opposed to such a change are of a merely theoretical character, relying chiefly on that old hackneyed expression, "the dignity of a noble profession."

When we see on all sides every body of men, be they capitalists, lawyers, or working men, combining together for mutual protection and defence, are we then solely to stand disunitedly looking on, whilst the very bread is being being taken from our children's mouths? and that, too, solely, from fear of lowering "the dignity of a noble profession;" to wit I presume, "consultation and medicine, fourpence; superior ditto, sixpence." Why, sir, at the present rate, unless some decisive steps are taken, I venture to predict that in ten years, except for consultants, there will be no private practice left.

Take my case as an instance: Some years ago only the orthodox Oddfellows' and Foresters' societies existed; since then, however, juvenile branches for both sexes have been tacked on to the parent societies, paying only 3s. per head per annum; whilst female societies have sprung up in all directions, contributing at the same rate, 4s. per annum per member, as the males. To have to attend working men, their wives and families, at such poor rates of payment is bad enough, but when prosperous tradesmen and their belongings are thrown in, it becomes a gross injustice, and the time for action has arrived. I even have been honoured by a visit from a town councillor, as member of one of these societies, who was careful first of all to explain that "of course Dr. —— (mentioning the name of the leading practitioner in the town) was his ordinary medical attendant, but that he did not see why he should not have something for his money as regards slight ailments." But mind you, sir, these very same tradespeople would raise a terrible outcry if I dared to patronise the Civil Service Supply Association, or any kindred company.

If we really do wish to live and also to restore "the dignity of a noble profession," it can only be done by uniting under one flag, and no body can more successfully carry that banner to victory than the British Medical Association. At the present time many men are only members of the British Medical Association for the sake of the Journal, but no sooner is it decided that the Association is to take up medical defence also, than I feel confident recruits will flock in from all sides, even though an extra subscription be required.

Much apathy exists on this question amongst consultants because their pockets cannot be affected, but surely they ought to feel for their poorer and more hardworked brethren. If only they could be induced to bring the weight of their authority to bear, the matter would soon be a *fait accompli*. In my opinion, and in that of many other professional brethren with whom I have come in contact, a grand combination of all medical men under the ægis of the British Medical Association is the only remedy for a disease that is rapidly reducing the profession to a trade, and its members to pauperism.

Another hardship I may mention in connection with the above societies is that no payment whatever is made for medically examining candidates on admission as to their soundness, although such an examination protects the society from unhealthy, *ergo* expensive, members.

## LITERARY NOTES.

According to the *Publisher's Weekly*, of New York, the number of new books on medical science and hygiene produced in the United States in 1896 was 119, and of new editions 48. For 1895 the corresponding figures were—new books 141; new editions 22. Of 150 new books (including new editions) manufactured in the United States, 149 were by American authors, while one is credited to "English and other foreign authors." The number of medical books by English authors imported, bound or in sheets, into the United States, was 17.

The April number of the *Science Progress* will contain, among other articles, one by Professor H. Marshall Ward, of Cambridge, on the Physiology of Respiration; and one on Coagulation of the Blood, by Professor Halliburton.

*Science*, of February 5th, refers to an article by Dr. J. H. McCormick, which recently appeared in an American antiquarian periodical, in which he deals with the principles of the general development of the arts applied to medicine. Dr. McCormick points out that in many tribes, geographically remote, at the same stage of culture, similar ideas and methods in reference to the practice of medicine and the power of drugs prevailed. Magical formulas were employed for the cure of disease, and mysterious and eccentric remedies were in vogue, all quite analogous in like stages of culture everywhere. The conjurations of the ancient Egyptians, *mutatis mutandis*, would pass for those of the Cherokees or Nahuas. The author draws the inference that those who assert that such similarities are evidences of historic unity, and that they should be explained by some ancient community of culture, do not correctly apprehend modern psychology. This teaches, as its fundamental principle, that like conditions lead to similar trains of thought, and those to analogous results.

In the *Practitioner* for March, Mr. Greig Smith discusses the question, Was Robert Houston of Glasgow the first ovariotomist? He answers it with a decided negative. There appears to him to be no doubt or obscurity in the matter. Houston, he says, believed with his compeers that ovarian dropsy was a simple dropsy of the ovary, and was to be treated by tapping, or, if there were secondary cysts, or "hydatides," by incision. "His case was one of incision, and he clearly describes it as such. No one of his contemporaries says it is anything more than incision. One of them indeed [Donald Monro, in his *Treatise on the Dropsy*, 2nd edition, London, 1756] definitely claimed it as such, and uses its success as an argument against extirpation." Mr. Greig Smith, however, adds that we must give the Glasgow surgeon credit for successfully performing a bold operation, even if it was not ovariotomy.

In the March number of the *Westminster Review* Dr. Prosser James takes the opportunity afforded by Lady Priestley's confession of ignorance of the existence of an organisation for supplying men with nurses of their own sex, to call attention to the Hamilton Association for Providing Trained Male Nurses, which has been at work for eleven years with a considerable measure of success. The association was named after the late Miss Jane Hamilton, to whose benevolence its existence is entirely owing. Among its early supporters were Sir Andrew Clark, Sir Prescott Hewett, Sir George Burrows, Sir Richard Quain, and Sir E. Sieveking, besides a number of ecclesiastical dignitaries, naval and military officers, and other persons of influence and position. The Association has from its foundation had a philanthropic rather than a commercial character.

# ASSOCIATION INTELLIGENCE.

## COUNCIL.

### NOTICE OF MEETING.

A meeting of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday the 14th day of April next, at 2 o'clock in the afternoon.

Francis Fowke, *General Secretary.*

March, 1897.

### NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1897.

Meetings of the Council will be held on April 14th, July 7th, and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 25th, June 17th, and September 30th.

### Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as

eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M., Saturdays, 10 A.M. to 2 P.M. Members can have their letters addressed to them at the office.

## BRANCH MEETINGS TO BE HELD.

PERTHSHIRE BRANCH.—The following communication has been addressed to the Honorary Secretary by Dr. Ferguson: "To the Secretary of the Perthshire Branch of the British Medical Association: Sir,—We, the undersigned members of the Branch, hereby request you, under the terms of Rule VIII of the constitution, to call a meeting of the Branch on Monday, 22nd instant, to reconsider the question of Medical Defence, and especially to consider a motion to be proposed by Dr. Ferguson, and seconded by Dr. R. Stirling, to the effect that: 'The resolution of the meeting of the Branch of January 29th, 1897, anent medical defence, be rescinded; and that the Branch are of opinion that the schemes intimated to members by circular, dated December 16th, 1896, should not be adopted.'—We are, Sir, yours respectfully, James Ferguson, Robert Stirling, Leigh Hunt, William Robertson, Colin M. Macaulay. Perth, March 11th, 1897." A meeting of the Branch is therefore called for Monday, March 22nd, within the Rooms of the Literary and Antiquarian Society, George Street, Perth, at the usual hour, 4 P.M.—A. R. URQUHART, Honorary Secretary, Murray's Asylum, Perth.

LANCASHIRE AND CHESHIRE BRANCH.—A special meeting of this Branch will be held in the Medical Institution, Liverpool, on Tuesday, March 30th, at 2.30 P.M., to consider the subject of Medical Defence and other business. A Council meeting will be held at 1.30 P.M. on the same day. Applications for membership should be sent at once to the Honorary Secretary. A dinner will be held at University Club at 6 P.M. Gentlemen wishing dinner tickets should apply before March 26th.—JAMES BARR, Honorary Secretary, 72, Rodney Street, Liverpool.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The next meeting of the above District will be held at the Evelina Hospital for Children, by kind permission of the Committee of Management, on Friday, March 26th, at 3 30 P.M. Cases of clinical interest will be shown and demonstrated on by members of the staff. All gentlemen, whether members of the Association or not, will be heartily welcomed.—SEYMOUR G. TOLLER, District Secretary, St. Thomas's Hospital, S.E.

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT.—The next meeting of this District will be held at the Angel Hotel, Godalming, on Thursday, March 25th, at 4 P.M. Mr. A. Arthur Napper, of Cranleigh, will preside. Dinner at 6 P.M.; charge 6s., exclusive of wine. The following papers will be read:—Mr. Sheild: Cases of Appendicitis at St. George's Hospital during the past Three Years. Mr. Waterhouse: The Treatment of Nævi. Dr. Adamson will exhibit microscopical specimens and cultures of Ringworm Fungus. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary, ALEX. HOPE WALKER, Cranleigh.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—A special meeting will be held at the Greyhound Hotel, Croydon, on Thursday, April 1st, at 6 P.M.; P. T. Duncan, M.D., of Croydon, in the chair. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends. Agenda: Discussion on Medical Defence.—HENRY J. PRANGLEY, Honorary Secretary, Tudor House, Anerley, S.E.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—There will be a conjoint meeting of these Districts at the Grand Hotel, Brighton, on Thursday, March 25th. The chair will be taken at 3.30 P.M. by Mr. A. H. Dodd. Dinner at 5.30 P.M.; charge 6s., exclusive of wine. Dr. Elliott will move: That this Branch of the British Medical Association regrets that public vaccinators are debarred from the Poor Law Officers' Superannuation Act, 1896, and is of opinion that the Parliamentary Bills Committee should take steps to have the omission rectified, if possible, by the insertion of a clause or clauses in the Local Authorities' Officers Superannuation Bill, 1897. The following communications have been promised. The Chairman will show photographs of (1) Bilateral Herpes following the course of the External Cutaneous Nerves of Arm: (2) Subcutaneous Rheumatic Nodules of the Hands. Mr. T. J. Verrall: Some further remarks upon Appendicitis. Mr. Gerald Hodgson: Short Notes on Salicylate of Soda. Dr. Hinds will exhibit an Anencephalic Fœtus, and read notes of the same.—Notice of any business should be sent to Dr. HINDS, 14, The Steyne, Worthing, Honorary Secretary, West Sussex; or to Dr. BATTERHAM, Grand Parade, St. Leonard's, Honorary Secretary, East Sussex

NORTH WALES BRANCH.—The spring intermediate meeting will be held at Portmadoc on Tuesday, March 30th. Members wishing to read papers, communicate cases, or propose new members should intimate on or before March 20th to W. JONES MORRIS, Honorary Secretary, Is-y-coed, Portmadoc.

EAST ANGLIAN BRANCH.—A meeting of the East Anglian Branch of the British Medical Association will be held at the Norfolk and Norwich Hospital, Norwich, on Thursday, March 25th. A luncheon will be provided for members of the Branch at the Café Royal, London Street, at 1.30 P.M.; tickets 2s. 6d. each. 2.30 P.M. Meeting of Council. 3.0 P.M. Meeting of Branch for business. Agenda: (1) Votes of condolence with families of the late Sir G. Murray Humphry and Mr. J. Kilner. (2) To consider the question of Medical Defence being undertaken by the British Medical Association. (3) Dr. Beverley will move the following resolutions: (*a*) The members of the East Anglian Branch desire to obtain from the Council of the British Medical Association an expression of opinion on the question of consultations with the medical officers of medical aid associations and medical institutes. (*b*) That the Council of the British Medical Association be requested to memorialise the General Medical Council on the urgent necessity to take steps to prevent the growing evils of medical aid associations and medical institutes (4) To appoint an Ethical Committee, in accordance with the resolution passed at the Chelmsford meeting. In view of the important questions put down for discussion, it is hoped that members will make every effort to be present at this meeting. A copy of the Report of the Committee to the Branches on Medical Defence was sent to each member of the East Anglian Branch at the end of January, and the scheme formulated by this Committee was also published in the BRITISH MEDICAL JOURNAL of January 30th, 1897, page 277. In order that the opinion of the members of the East Anglian Branch may be obtained in as full and complete a manner as is possible members who are unable to attend the meeting are requested to fill in a postcard and return it so as to reach the Secretary of the Branch not later than the day previous to the meeting. —EDGAR G. BARNES, MICHAEL BEVERLEY, and THOMAS CARR, Honorary Secretaries.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Railway Hotel, Taunton, under the presidency of Dr. Rutherfoord, on Thursday, March 25th, at 4.30 P.M., dinner at 5.30. Medical Defence: The question of whether or not the Association shall undertake the duties of individual and collective defence will be considered before dinner, and a vote on the question will be taken. A copy of a report on the subject has been forwarded to every member; and as the Council of the Branch are desirous of knowing as far as possible the definite opinion of every member, they hope answers will be sent in writing. Discussion: The following subject has been settled by the Council to be discussed after dinner, namely, Chronic Inflammation of the Female Pelvic Organs. The President will open the discussion.—W. M. KELLY, M.D., Honorary Secretary, Taunton.

## GLASGOW AND WEST OF SCOTLAND BRANCH.

*The Association and Medical Defence.*—DR. JAMES H. NICOLL, Honorary Secretary of the Glasgow and West of Scotland Branch, writes, under date March 13th: "I have to inform you that, at the recent meeting of the Branch to discuss this matter, it was decided by a large majority of those present that this Branch is not in favour of the Association undertaking the duties of individual and collective medical defence."

## SYDNEY AND NEW SOUTH WALES BRANCH.

THE usual monthly meeting of the Branch was held at the Royal Society's Rooms, Sydney, on December 18th, 1896, Dr. SYDNEY JONES, President, in the chair. There were thirty members and three visitors present.

*Confirmation of Minutes.*—The minutes of the previous meeting were read and confirmed.

*Communications.*—Dr. R. S. BOWKER exhibited a patient on whom he had performed an operation for Sarcoma of the Head of the Humerus.—Dr. FIASCHI read a paper on Medical and Ethnological experience in Somaliland and Erythrea. A discussion ensued, in which Drs. FOREMAN, SPENCER, J. A. DICK, RENNIE, and SYDNEY JONES took part. Dr. FIASCHI replied. —Dr. R. S. BOWKER read some notes on a case of Nephrectomy. Drs. CHISHOLM, WORRALL, HUGHES, and SYDNEY JONES discussed the paper; Dr. BOWKER replied.—Dr. BOWKER read notes on a case of Sarcoma of the Shoulder.

## QUEENSLAND BRANCH.

THE third annual meeting of this Branch was held on January 14th, 1897, Hon. Dr. MARKS (President) in the chair. Eleven members were present.

*The late Dr. Lyons.*—The PRESIDENT referred in feeling terms to the death of the late Dr. William Lyons, of Brisbane, and moved that a letter of condolence and sympathy be addressed to the members of his family, expressing the deep regret and sympathy felt by the members of the Queensland Branch of the British Medical Association.—Dr. TAYLOR also spoke of the great courtesy and kindness which the late Dr.

Lyons always evinced to those with whom he was associated, and said that both on this account and on that of the good work he did as a practitioner, a very large proportion of the inhabitants of Brisbane would miss him.—The motion was carried unanimously.

*Report of Council.*—The Secretary then read the annual report of the retiring Council. Drs. Halford and Hirschfeld were appointed to scrutineer the ballot for office-bearers.—In moving the adoption of the report, Dr. Taylor congratulated the Council on so good a record for the year's work. He felt that the Branch would, as in the past, assist very materially in the education of the public towards those necessary reforms referred to in the report.—Dr. Hopkins seconded the adoption of the report, and in doing so said that he thought it would be a good thing to try to make the meetings of the Branch the most important in the colony. He felt that the influence of the great parent Association was becoming more and more apparent.—The report and balance sheet were adopted.

*Vote of Thanks to the Hon. Secretary.*—Dr. Hopkins moved and Dr. Francis seconded that the Branch place on record, by a special vote of thanks, their appreciation of the energy which had been devoted to the interests of the Society by the Hon. Secretary.—The President, who spoke in the same kindly vein of the Secretary's work, then put the motion, which was duly carried.—The Secretary, in reply, said that he thanked the members for their appreciation of his work, and said that he would like to emphasise the fact which he had learned, that the best commendation that a Secretary of a Branch could have was to see full meetings of the members. He felt that his energies had been largely kept up to the mark by the good attendances which had been the rule.

*Proposed Change of Day of Meeting.*—Dr. Jackson gave notice that at the next meeting he would move that the day of meeting for both the Council and the members be altered from Thursday to Friday. The last Friday in the month for the Council and the first for the ordinary meeting. This would enable country members to obtain the advantage of the excursion fares which were to be had on the first Friday in every month.

*Election of Office-bearers.*—The scrutineers reported that the results of the election of office-bearers was as follow:—*President:* Dr. E. H. O'Doherty, returned unopposed. *Vice-President:* Dr. Peter Bancroft. *Council:* Drs. Halford, Hopkins, Francis, Marks. *Treasurer:* Dr. Orr. *Auditors:* Drs. Comyns and Ure. *Secretary:* Dr. Jackson.

*Retiring President's Address.*—The retiring President then read an address on Medicine as a Department of the State.—A vote of thanks was then moved and carried to Dr. Marks for his address, members expressing a hope that some of the conditions foreshadowed might at no distant date become facts.

*Installation of New President.*—The President (Dr. E. H. O'Doherty) then took the chair, and in doing so said that he felt that he had to thank the members for the kindness and the honour shown to him in electing him President. He felt very diffident about accepting the position, but hoped that with the kindly feeling of the members and the assistance of the retiring President the Branch would be able to get along under his presidency.

## BRITISH GUIANA BRANCH.

The first quarterly meeting of the British Guiana Branch was held on January 21st at the Public Hospital, Georgetown: Dr. D. Palmer Ross, President, in the chair. Twenty-two members were present.

*New Member.*—The election of Dr. Francisco as a member of the Branch was announced.

*Anderson Defence Fund.*—A further subscription was voted to the Anderson Defence Fund, bringing the total to £10.

*The Association and Medical Defence.*—A motion was proposed by Dr. Godfrey, which was subsequently amended to read as follows:

That in reply to the request for the opinion of this Branch on the scheme of medical defence, as drafted by the Committee appointed for that purpose, the Branch considers that as the scheme does not in any way affect the members of the Branch, who are not allowed to participate in the advantages thereof, if any, they decline to give any additional opinion to those of a general nature which were carried (No. 1 by 18 to 1, No. 2 by 18 to 1, No. 3 by 19 to 0) at the annual meeting in November, after a full discussion, and that the Secretary be instructed to forward those resolutions to the General Secretary.

This motion was carried unanimously (by 22 to 0). The following are the resolutions referred to:

1. That this Branch is of opinion that it would be inadvisable for the British Medical Association to undertake the management or direction of any scheme of combined medical defence, and that any such step would injuriously affect its influence and position.

2. That the Branch recognises that some plan of united medical defence is at present needed, and considers that there would be no objection to the British Medical Association or its Branches contributing to the fund of any such organisation as the Medical Defence Union so long as their general line of action was approved of.

3. That as in this Colony neither the parent Association nor the local Branch could undertake such duties, they should object to any compulsory increase in the subscription for that purpose.

*Clinical Meetings.*—The President announced the intention of holding monthly clinical meetings.

*President's Address.*—The President delivered his Presidential Address.—Dr. Anderson proposed and Dr. Shannon seconded a vote of thanks, which was carried in the usual manner.

# SPECIAL CORRESPONDENCE.

## PARIS.

*The Prevention of Tuberculosis.—The Control of Alcohol.—Help for Indigent Mothers.—Plague Serum for Egypt.*

Dr. Grancher, Dr. Thoinot, and Dr. Clairin have drawn up a fresh report on tuberculosis in schools and among private patients and the means of combating it. More than a third of the population are attacked by this disease, which kills a sixth of every generation. M. Brouardel affirms that no Paris epidemic, not even that of 1832, has surpassed the death-rate of tuberculosis. Professor Grancher asserts that "tuberculosis, of all diseases, is the most curable." The Municipal Council and the Director of the Assistance Publique, struck by this statement, declare that their responsibilities will become serious if the present report is allowed to become a dead letter. The measures formulated in the report concern the hospital treatment of tuberculous patients, the protection of the hospital staff and servants from the risk of contracting the disease and the organisation of home medical treatment. In schools the children are to be taught not to expectorate and to understand the danger of so doing. M. Brouardel has given the Superintending Council documents in which it is stated that at Sydney a fine of £1 is imposed on everyone expectorating in public. In France such a fine would quickly fill the coffers of the State. Teachers and medical men are called upon to lecture to the pupils on the subject. Dispensaries are to be subsidised in order to provide cod-liver oil and creasote as a preventive measure without waiting to distribute it as a curative one. The Central Hospital Pharmacy is to be authorised to deliver to the dispensary remedies at cost price. In schools the following rules are to be adopted with regard both to professors and to pupils. The pupils of the "Ecoles Normales" at Batignolles and at Auteuil are to be submitted to a serious medical examination. In these establishments a special superintendence is to be organised with regard to tuberculosis. All the masters are to be submitted to a rigorous examination, and a certificate is to be required of them before being appointed. These certificates are to be given by the medical inspectors, who are to receive salaries for the work. All tuberculous patients are to be supervised, and if necessary excluded from the establishment, unless other measures can with safety be adopted. According to the number of years of service entrance into a special house of retreat will be given, or home relief will be provided. Schools are to be thoroughly disinfected, and that frequently. It is also recommended that the necessitous poor should be supplied with pure milk. Should the municipal budget be insufficient to provide for the expense resulting from the observance of the precautions prescribed, it is probable that a special tax will be instituted for the purpose. In certain parts of France the peasants have the habit of giving the water in which their linen has been washed to their cattle as drinking water. M. Guinard has made some inter-

esting experiments concerning this habit. In one case the transmission of tuberculosis was undeniable. He inoculated on February 7th a rabbit and eight guinea-pigs with water in which pocket-handkerchiefs used by tuberculous patients had been washed. On the 18th of the same month two of the guinea-pigs died, without manifesting any symptoms of tuberculosis. On February 22nd the rabbit died without presenting any symptoms of tuberculosis. On February 23rd and 24th two guinea-pigs died, presenting an abundance of tuberculous lesions. In March another guinea-pig died, also tuberculous. On May 17th the remaining guinea-pigs were in good health.

The text of the new law concerning the control to be exercised over alcohol in the interest of public health has been distributed to all the Deputies. The Government proposes to exercise control over alcohol of all kinds and of every source. The decrees, which will be drawn up later in accordance with the advice of a technical committee, will settle the details of the organisation to ensure the control of the alcohol supply which is to be exercised from the moment it leaves the factories until it is offered for sale.

The Mutualité Maternelle has held its sixth general meeting. M. Barthou, Minister of the Interior, was in the chair. This Association was founded by the Syndic Chambers of Needlework, Embroidery, etc. The workpeople in these trades, by paying 2s. 6d. a year after 9 months' membership are entitled to receive 2s. 6d. a week during the 4 weeks subsequent to giving birth to an infant. At December 31st, 1896, there were 1,912 members of the Mutualité Maternelle; 684 mothers have been helped at the last distribution. The expenses of baby clothes, cradles, and doctors' fees amount to 2,280 francs. The mortality among the infants thus protected is less than 7 per cent.; the average Paris mortality, according to Dr. Bertillon, is less than 35 to 40 per cent.

The Egyptian Marine Sanitary Council has decided to obtain from the Pasteur Institute a considerable quantity of plague serum to be distributed among the sanitary stations, especially the Tor encampment. It has also decided to take possession of a Genest-Herscher disinfecting stove at Suez.

## BERLIN.

*The Influenza Epidemic.—Leprosy in the Memel District and Elsewhere.—Hydropathic Departments in Clinics.—Overcrowding of Berlin Hospitals.—Hypnotism and Insurance.—Proposed Alterations in the University of Bonn.—The Balneological Congress.—General News.*

At the last meeting of the Berlin Medical Society, Professor A. Fraenkel, Directing Physician of the Urban Municipal Hospital, spoke on this year's influenza epidemic and its sequelæ. As usual, inflammation of the lungs is the most frequent complication, and next come cardiac affections and disturbances of the circulation generally. At present the epidemic is beginning to decline; its maximum was reached in February.

The "publications of the Imperial Board of Health" give some further information on the subject of the leprosy cases in the Memel (East Prussia) district. It seems probable that these cases do not descend—as do those of Norway, Sweden, Finland, etc.—from the leprosy of the Middle Ages, but that they have been introduced from the Baltic provinces since about the year 1870, chiefly from 1882 to 1890. Infection seems to result from long-continued living together in small rooms, especially from sleeping together, and perhaps also from wearing infected clothing. Heredity of the disease has not been proved in the Memel district. Since the interest of the sanitary authorities in the question was first aroused, 37 cases have been observed; of these, 25 are of the tuberous, the rest of the anæsthetic form. There have been no cures as yet; in general the disease ran its course in five to ten years, ending in death. At present there are 6 cases alive, 4 in hospitals, 2 in their families. A case of leprosy has just been brought into the municipal hospital of Frankfort-on-the-Oder. It is an exotic case, for the patient, a young man aged 21, was born in Brazil, and remained out there till 1894, when he came to Germany, his father's country. It seems that the disease began in childhood, but luckily it is an exceptionally mild case.

In the last number of the *Deutsche medicinische Wochenschrift* the eminent clinician Professor Vierordt, of Heidelberg, strongly advocates the affiliation of hydropathic departments to policlinics. He thinks that such institutions would be of the greatest use in the early stages of phthisis, in light bronchial and cardiac affections, nervous affections, etc., and besides would assist in establishing hydropathy on a sound scientific basis. The Heidelberg University Policlinic opened a hydropathic department about a year and a half ago; it has given the most satisfactory results, both as regards instruction and treatment.

All the Berlin hospitals are suffering from overcrowding at present. Many cases have occurred where patients have had to be refused, or have had to wait their turn for admission. A new and enlarged building for the Charité Hospital, which has for years been the subject of official discussion and endless red-tapeism, is an absolute necessity, and its delay may have serious consequences.

A curious case of hypnotic suggestion is going the round of the newspapers. It appears that a Hamburg practitioner was consulted by a young married lady, who complained of terrible hallucinations, driving her to suicide. She came to him unknown to her husband, who, she said, was devoted to her, and whom she could not bear to distress by the knowledge of her affliction. Beyond the hallucinations complained of, there seemed nothing to indicate mental disease; but a sudden light dawned on Dr. D., when, in the course of further conversation, his patient told him two facts—one that her husband had lately insured her life for a large sum, and the second that he was fond of making hypnotic experiments. Dr. D. found it easy to hypnotise his patient, but met with obstinate resistance when he commanded her to divulge what had been suggested to her to do. He did not, however, relinquish his efforts, but continued the hypnotic *séances* in the presence of a witness, and at last overcame the resistance of his patient, who acknowledged that her husband had commanded her to commit suicide after two months, and to keep his command secret from everyone. The insurance company is one that pays even in cases of suicide if the suicide be committed more than two months after insurance.

Professor Kayser, the successor of Hertz as Director of the Physical Institute in the University of Bonn, is invalided, and his symptoms seem to point to influences from insanitary surroundings. In consequence, the Prussian Cultus-Minister has ordered a thorough examination into the institute building. Professor Finkler, of Bonn, and Professor Proskauer, Assistant at the Berlin Koch Institute, are entrusted with the work, and will submit proposals for alterations, or even partial rebuilding, to the Medical Department of the Ministry.

Professor Oscar Liebreich is prevented by an attack of influenza from presiding over the Balneological Congress which has just met in Berlin. Professor Winternitz (Vienna) is taking Liebreich's place as president. Among the papers read are: The Therapeutics of Active Motion in Diseases of the Brain and Spine, by Professor Eulenburg; Curableness, by Dr. Hansemann; Hydropathy in various Forms of Morbus Basedowii, by Professor Winternitz, etc.

A case of cerebral meningitis, the bacteriological examination of which shows it to belong to the true epidemic kind, has been brought into the Berlin Charité Hospital. It is the first case of this year; last spring there were a number.

## BRISTOL.

*The General Hospital.—Proposed Queen's Commemoration Convalescent Home.*

The annual report for 1896 of the General Hospital, which was made public on March 8th, shows that, while the number of patients goes on increasing, the receipts, both in the form of legacies and subscriptions, continue to decrease. What are classed as ordinary receipts amounted to £9,600, being less by £562 than they were in 1895, while the legacies showed a falling off of £1,102. The expenditure in 1896 amounted to £10,633. During the year 2,333 in-patients had been treated—an increase of 174—and 30,166 out-patients, as against 26,645

in 1895. Perhaps the most serious thing is the decrease in the number of subscribers.

The Charity Organisation Society have forwarded by their Chairman, Canon Tetley, a memorandum of their views on the convalescent home proposed to be erected and endowed in commemoration of the sixty years' reign of the Queen. The memorandum stated that, while fully recognising the noble and generous spirit that animated the projected enterprise, it means the creation of another institution and another charity to be administered. Further, it points out that the suggested endowment of £25,000 will give an income of about £750, and this sum, allowing that each bed costs £25 to £30 to maintain, will only permit the home to contain about 30 beds—and not 80, as stated in the mayor's letter of March 12th to the citizens—while, if the patients are not strictly "convalescent," the cost per bed will be materially increased. It also calls attention to the serious effect the proposed scheme may have on the existing convalescent homes in the neighbourhood at Weston, Clevedon, and Walton, which are largely dependent on Bristol support, and to the fact that one at Shirehampton has had to be closed recently, partly from want of subscriptions. The memorandum also broaches the question of abuse, stating that great care will have to be exercised in administration, and that "character and circumstance should be fully considered in determining the persons who are to benefit by the scheme. Because a person is sick, it is no reason in itself that free medical treatment should be given; because a person who has been so treated needs convalescent treatment it is no reason in itself that such further treatment should be free." Further it calls attention to use made of medical charities by those capable of paying for advice, "at all events with the aid of provident dispensaries. The withdrawal of free medical relief, and of an incentive to independence, and even pauperism, from this class, would not only cause a gain in character and self-reliance, but would make possible more adequate assistance to those who should legitimately benefit by hospital treatment. Wasted effort and wasted charity mean larger and larger appeals for support, and the fact that these appeals are often enforced by the argument of the numbers assisted constitutes in itself a plea for reform." Mr. H. O. Wills, a member of the well-known local firm of tobacco manufacturers, has promised £10,000 to the proposed convalescent home, provided the sum of £50,000 is subscribed; Mr. E. Robinson, £2,000; Mr. J. S. Fry, £3,000; Mr. F. J. Fry, Sir W. H. Wills and Sir Fred Wills, £1,000 each. The total, not including Mr. H. O. Wills's offer, amounts to £12,473.

# CORRESPONDENCE.

## "MODERN PHYSIOLOGY" AND THE MODERN STUDENT.

Sir,—I was much interested by the perusal of the article in the British Medical Journal of March 13th with regard to the examinations of the Conjoint Board. One point (treated on p. 670) specially appealed to my recollections of former times when I was myself serving on the Examining Board of the College of Surgeons. I refer to the division in that examination of anatomy from physiology. To that division I was so much opposed that I resigned my seat on the Board, when the proposal was carried against my protest. I contended that the pass examination ought to be exclusively practical, that it should be conducted in all its parts by practising surgeons, that no man should examine in any part of it who was not competent to examine in all, that no subject should be made part of the examination which was not essential, and that no subject once introduced should ever afterwards be dropped. These views were not shared by the majority of the Council: the separation of the two subjects was effected: physiology, the groundwork of all practice, is still excluded from the final examination, and "specialists" are admitted as examiners, who do not practise surgery, and can know little of the applications of physiology to practice. I contended at that remote period that this change would favour cramming and would discourage practical knowledge, while it would probably increase the number of rejections. It seems, from what I read and hear, that such have been its effects in the judgment, at any rate, of many eminent authorities.

But what mainly concerns me at this moment is the opinion published in your article. Mr. Thomas Cooke's proposal, on which you comment, is identical with mine as far as you quote it. "It would," you say, "result in a much sounder valuation of the details of both subjects, and would improve the character of the examination." Well, then it surely would be a good thing. But you go on to say that it is impossible, because "physiologists have specialised from dire necessity," and a man in practice cannot teach physiology well, and therefore the special knowledge of a surgeon acting as a physiological examiner would be inadequate, and he would be laughed out of court. But what I should like to ask those who are better acquainted with the present system than I can claim to be is whether it really leads to a sounder knowledge of physiology, and one more useful in practice, than the elder race of students possessed. From what I can gather, it seems that the average student of the present day passes a few feverish weeks or months in "getting up" "minute details of chemical and experimental physiology" (the phrase is that of a recent writer in another journal) which he drops as soon as he has passed, and that when he goes up for his final examination he knows no more of physiology than he probably does of Greek. Yet surely the great leading facts of physiology are matters of primary importance for the practical surgeon; and if it be true that "a man in practice," as you say, "cannot teach physiology well now," it must be equally true that he cannot learn it well. Physiology then must have changed greatly since the days of Hunter, or Brodie, or even Marshall, and not for the better; and it would seem hard to exact from students a knowledge which Nature appears to have denied to their seniors.

But I am deeply convinced that it is not so. The "specialised" physiology of the present day is no doubt in its own way most estimable and valuable, mainly as a means of advancing the science, but it is not equally valuable as a basis for everyday practice; and I believe that if not for academical at any rate for practical purposes a man in practice can both teach and examine well in physiology. Otherwise I cannot see the justice of making the student's diploma depend on his acquiring the knowledge which *ex hypothesi* he is not to use when he has obtained his licence to practise.—I am, etc.

Sussex Place, W., March 17th. T. Holmes.

## THE ASSOCIATION AND MEDICAL DEFENCE.

Sir,—The meeting of the Metropolitan Counties Branch will certainly prove instructive if it leads the other Branches to avoid the mistakes committed by those responsible for summoning and conducting it. The business was stated in the printed notice sent out to be to consider the report of the Committee of the Association on Medical Defence, and to make reply to the Council of the Association on the three questions propounded, and one would naturally have imagined that the energies of the officials of the Branch would have been directed to obtaining replies from the members to those three questions, taking care that nothing was done by them in their official capacity to prejudice the case on one side or the other, when they must have been aware that differences of opinion existed amongst those whom they for the time represented.

Instead of this, however, we find that in the printed notice sent out, signed by the two Honorary Secretaries, a note was appended stating with all the prominence that could be given by well leaded out type that the recommendation of the above Committee was that an obligatory additional subscription of from 5s. to 10s. per head should be imposed on all members of the Association resident in Great Britain and Ireland. It only needed that anyone should turn to the scheme itself to see that this was anything but a fair or true statement of the present scheme. Mistake No. 1.

It being, as I have said, the plain duty of the officers of the Branch to obtain answers to the three questions propounded, what was our astonishment to find one of the Honorary Secretaries proposing an amendment which, if it had been carried, would have rendered it impossible to obtain a reply to the first question so far as "individual" medical defence was concerned, and to find that the President, on being ap-

pealed to on the point of order, declared that though the Council of the Association had asked for a reply "Yes or No," "we were going to answer in whatever way we liked." Mistake No. 2.

The motion proposed by Dr. Alderson, which had reference only to the first question, having been lost, the President thereupon declared the business at an end, thus precluding any expression of opinion on the scheme itself, and rendering it impossible for anyone to say what is the opinion of the Branch either on the scheme or any proposed amendments to it. Mistake No. 3.

In all fairness, however, I must add that the mistakes made in connection with this meeting were not all on the part of our opponents. A very glaring instance of misdirected zeal on the part of a prominent member of the Lancashire and Cheshire Branch was shown to me at the meeting in the shape of a postcard urging members of the Metropolitan Counties Branch to attend and vote for medical defence, which was justly resented as an unwarrantable interference on the part of an outsider.—I am, etc.,

Dulwich, March 15th. H. NELSON HARDY.

SIR,—I am glad to learn from the BRITISH MEDICAL JOURNAL of March 13th that the first question before the meeting of the Metropolitan Counties Branch held on Thursday, March 4th, was negatived. There is no member of the Association more strongly convinced that medical defence should be, and could best be, carried out by the British Medical Association than I, and there is no member who more deeply deplores the action of the Council in making the subject compulsory. The action of the College of Surgeons, and, indeed, of any licensing body in opposing the scheme is obvious. Medical defence taken up by the Association is but the first step to true organisation. Dr. Lovell Drage appears surprised that this year the Branch should vote in opposition to last year. Why? In the first place a full year for consideration of the proposal has passed, therefore this vote may fairly be considered the expression of matured thought. In the second place, no vote that is taken at a meeting can possibly, in the medical profession at least, be representative, for it is quite impossible for a doctor to say at what hour he will be free.—I am, etc.,

Devonshire Street, W., March 12th. GRIFFITH C. WILKIN.

## HOSPITAL ABUSE AND HONORARY APPOINTMENTS.

SIR,—In bringing about the critical period which the medical profession is now passing through, no one cause probably has had a greater influence for evil than the almost insatiable desire of medical men throughout the profession for honorary work. Much as this sacrifice of well-earned remuneration would be to their credit if it were only a question of charity, it is to be feared that the motives more often are of a less lofty nature, in which the desire for self-advancement take the largest share. It therefore remains to be seen whether medical men are professionally justified in giving their charitable services when they are not prepared to part with the financial equivalent.

It is a mistake to suppose that free hospital treatment presses most on medical men who practise among the lower classes. They are able to compete with the hospitals by supplying advice and medicine at a price at which it pays patients to get private attendance in preference to the drudgery of hospital out-patient visits.

The general practitioner, however, who practises among the better middle class suffers from a deprivation of income through the reduction of fees which this competition necessarily entails. He suffers a further loss through his patients being seen at hospitals for nothing. His margin of profit is so meagre that he has to make the most of his opportunities, and hence the result that in many instances, such as operations or difficult cases of diagnosis, he usurps the legitimate place of the consultant.

The consultant, on the other hand, has cut the ground from under the feet of the very person whom he ought to rely upon for a continuous supply of consultation fees. He also finds him in competition with himself. Further, he finds that hospital managers are making ever-increasing claims upon his time. The services he gives to hospital not only remain unremunerated but actually turn out to his own damage. No wonder, then, that he sees himself compelled to make a bid for the better class of private practice.

This excessive competition would at once cease with the adequate remuneration of the hospital staffs. This is the proper remedy for the evils resulting from hospital abuse which the medical profession complain of, and its recognition would have been more general but for certain objections which may be briefly considered here.

Even supposing that it were ethical to squander in honorary services an equivalent of millions every year, there can be no justification for such a proceeding if it takes place at the cost of the general welfare of the medical profession.

It is suggested that the filling of these honorary appointments is justified by the special experience which they enable medical men to obtain. The desire in a skilled man for further experience is in no other profession recognised as a ground for asking or accepting his services without paying their present value.

It is said that these honorary services are in the nature of a gift, which it would be unjust to deprive hospitals of. It is very doubtful whether hospital physicians and surgeons are really willing to contribute the munificent amounts which their services represent. At present hospital staffs have no choice in the matter, though nothing would be easier than to put to the test the extent of their charitable intentions. Let their services be paid on a reasonable professional basis, and those who are genuinely willing to aid the hospital funds will to that extent be in a position to do so by direct contribution. Apart from the fact that such an arrangement would be far more equitable than the one that obtains at present, several advantages would result. The contributing members of the medical profession would be recognised as subscribers. They would have a representation on the hospital Boards, and so be able to bring their experience to bear on the subject of hospital abuse generally. They would no longer be open to the reproach of presenting their gratuitous service as a means, cloaked under the style of science or of charity, for obtaining professional advancement at the expense of their brother practitioners. Moreover, it will be to the interest of hospital managers to exercise a more careful discretion in bestowing services which they purchase on really deserving cases than they now do in the case of services which cost them nothing.

The injury caused by the diversion of professional fees to the relief of charitable subscribers affects every branch of the medical profession, and its results are felt both directly and indirectly. A position such as this cannot endure. To the public this is no more than one among many grave matters. It has a far greater importance to medical men. So long as the profession continues to acquiesce in the unprofessional "sweating" of the hospital staffs, or the still more alleged unprofessional trading on the advantages to be derived from honorary appointments, the evils in question will continue. The ultimate result can only be to weaken the numbers and the quality of those who are willing to join the ranks of the medical profession, whilst the flower of the rising generation will be attracted by those professions in which services are not given for an equivalent in advertisement or other indirect benefits, but are reasonably and directly remunerated.—I am, etc.,

O. WUNDERLICH, M.D.Brux., D.P.H.

Tottenham, N., March 16th.

## THE MORTALITY FROM PUERPERAL FEVER.

SIR,—We all must be deeply concerned in Dr. Cullingworth's lucid address on the undiminished mortality from puerperal fever. In the pathetic statistics given, one sees the mortality greater in the decade 1885-95 than the previous one, 1875-85, and this worse than 1865-75. This in a Listerian age amounts to an indictment of the midwifery practitioners, and calls for a retrospection of our education, experience, and practice. With regard to education, the examining boards in my day (and that is not very long ago) only required three months' teaching, and that included development and disease of women. It is not to be wondered that I cannot recollect hearing of the antiseptic management of labour, yet I got "placed" in the final class examination. Then, if we refer to a standard work of ten years ago, we find incision of the perineum and whether the husband may remain in the

room discussed but never a word about the toilet of the perineum; *post-partum* hæmorrhage is fully treated but *post-partum* antisepsis ignored.

We are told to take with us among other things liquor ferri perchloridi but not liquor hydrargyri perchloridi; a hypodermic syringe but not a collapsible tube of antiseptic lubricant, and so on. My personal experience began in the East End of London as unqualified assistant with a minimum of knowledge and a maximum of work; then, taking no precautions, I delivered about two hundred women (one with small-pox) without a death. Then came a period of qualified practice in more or less sanitary neighbourhoods with several cases of puerperal septicæmia, culminating in the death of a valued patient, a sad illustration of the proverb "A little knowledge is a dangerous thing." Since, I am devoutly thankful to say, I have been more fortunate, owing chiefly to the recognition of the sources of danger. First of these is the omission of preparatory toilet—cleansing and clean linen. Second, using a septic lubricant—impure lard, or, as I once had, vaseline on which was a streak of gangrenous pus. Third, using polluted well or rain water as a douche (this is generally available in the country). Fourth, usually quoted dangers—nurses' hands, instruments, sponges, etc.

Perhaps it would be useful to give my present practice for comparison to many who work among the middle and lower classes, who are not able to obtain trained nursing. When I am engaged I always give printed directions to the patient, explaining their importance, and making her personally responsible for the nursing. The fewest possible internal examinations are made, using sublimate for the hands. In cases of natural labour the douche is not used as a rule, but when necessary I administer it myself, using a glass vaginal tube. The labia and perineum are usually swabbed with sublimate solution.

It is not surprising nor so incriminating to us in private practice when we remember that at the commencement of the last decade of Dr. Cullingworth's figures the teaching of midwifery in England was inadequate, the drainage of our small towns and villages conspicuous by its absence, and the sanitary condition of our country houses abominable. But I think we all must agree that the high death-rate is mainly attributable to the ignorant and untrained midwives; it is a rare thing to find in a small town a trained midwifery nurse. It must be admitted that a woman has the natural right, backed up by ample precedent, to be attended by one of her own sex, and we who are able to weigh the risk and responsibility against the meagre credit of a safe delivery will certainly offer no opposition to a rational remedy. This we contend is not offered by the Midwives Bill, which was drafted by consultants who are not in touch or sympathy with general practice. But is it to be wondered at that the long-suffering general practitioner resents a Bill which has been stigmatised as absurd and sublimely impudent? What is really needed is a Registration Bill for medical, surgical, and midwifery nurses; this is partly met by the Midwifery Nurses Bill drafted by the Subcommittee of our Parliamentary Bills Committee.—I am, etc.,

Sittingbourne, March 10th. WILLIAM GOSSE.

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SIR,—Dr. Cullingworth's address before the Obstetrical Society of London on puerperal fever showed how far enthusiasm can carry an earnest man. He is surprised why puerperal fever should show no diminution with all the teaching and other advances of antiseptics. To those of us who are in regular midwifery practice this is no surprise.

In these days students are taught to look upon childbearing as a disease, and as something terrible. We find the young practitioner loaded with a bag, full of a wonderful array of interesting appliances—interesting to the curious, but most alarming to the poor patient he may be called upon to attend. The duty of the teacher is to tell the student that childbearing is natural, that in most cases no interference is necessary, and, when necessary, interfere as little as possible. He should be told that antisepsis means cleanliness, that in ordinary cases no douching is necessary; that, above all things, he should endeavour to keep his patient's mind free from excitement. Those who are most anxious and themselves most excitable, are those who are most unfortunate in their obstetrical practice. Over-trained nurses are most dangerous, and without doubt cause much mischief. An obstetrical nurse should be a healthy, clean, cheery, but quiet person.

Young practitioners need not be alarmed by Dr. Cullingworth's remarks. They may rest well assured that they will rarely see puerperal fever if they remember that childbearing is natural, and that cleanliness is important in all things.—I am, etc.,

Hawick, N.B., March 15th. JOHN R. HAMILTON, M.D.

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SIR,—There is one point in connection with this subject that I think has not been made plain, and it is this: that many—possibly the majority—of the labours followed by puerperal fever in rural districts are never attended by medical men at all.

I have been twelve years in country practice, and have attended only two typical cases of puerperal fever. I was engaged to attend the confinements, but when the events took place I was not sent for, and had nothing whatever to do with the labours. In one of the cases the midwife was nursing her father, who was dying of senile gangrene of the foot, and she had two cases on hand at the same time. In the other I could get no particulars inculpating the nurse, but she went from home the day after the confinement, and I did not see her.

We sign the death certificates for these cases, but are we to be statistically credited—or shall I say debited—with them?

Very many of the cases have never had a doctor at all, only a midwife, very often old and feeble, and always ignorant. When I came here at first the downright opposition to ordinary cleanliness on the part of some of the older, bolder, and reputedly more skilful of the midwives was appalling. All septic conditions were the result of catching cold, and the poor puerpera was denied a clean nightdress and clean sheets, and left to stew in her discharges. The wonder was that such cases should ever escape septic infection.—I am, etc.,

March 15th. BUCOLICUS.

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## EXPERT EVIDENCE.

SIR,—Mr. Hempson's letter in the BRITISH MEDICAL JOURNAL of March 13th very properly directs attention to what many consider a defect in our judicial system, namely, that in many instances the Court has no power to order the case to be tried in the manner most appropriate for arriving at a correct determination. The fact that this is so must be admitted. The answer is that our system of legal procedure is still imperfect, and has not emerged from the experimental stage. In old times all cases were tried by juries. This mode of trial—by representatives of the average common sense of the community—may in theory be the best that can be devised, but in practice is quite unsuited for the trial of many classes of actions.

This has long been recognised; and the Judicature Act, 1873, provided a partial remedy by legalising alternative modes of trial. It did not, however, substitute trial with assessors for trial by jury; but left to the parties to an action the right they previously had of insisting on trial by a jury, even though the case should be one which in the opinion of those best qualified to judge would be much better tried before a judge and assessors. The result, no doubt, often is that a cantankerous and misguided plaintiff or defendant can and does prevent his case from being tried in the manner most appropriate to it. The rules, in their tenderness for old ideas, sanction such conduct; and there is no immediate prospect of their being altered.

My former communication was intended to point out that the law does not oblige scientific witnesses to assume the unenviable and undignified position of contradicting each other on matters professional in open court, but provides a mode of trial by which this may be obviated. The law cannot compel the litigants to try their cases thus; but if they are willing to do so the machinery is available. Professional men who dislike appearing as witnesses under the ordinary system may often, if they choose, bring effective pressure on those who propose to call them, and thus in suitable cases lead to greater use of the procedure, which would minimise the grievance of which they complain.—I am, etc.,

March 15th. YOUR CORRESPONDENT.

"DOVER'S ANCIENT PHYSICIANS' LEGACY."

Sir,—The library of this Society contains a copy of the second edition of *Dover's Ancient Physicians' Legacy* dated 1732, which agrees almost entirely with your first edition. You state "fifty-nine years' practice," but this may be a clerical error, the number on our title page being forty-nine. The author's name is given in our copy as Dover, both on title page and at end of dedication. Our page 155 is misprinted 255, and the following unnumbered page is occupied by a N.B. and an erratum. This second edition was published by Bettesworth and Hitch. Possibly a third edition with their imprint was issued, and, if so, the relict of R. Bradly may really have pirated the work, and been responsible for the "Dovar, M.D."—I am, etc.,

John Wm. Knapman, Librarian.

Pharmaceutical Society of Great Britain, March 12th.

*** Mr. Knapman's letter is very interesting, and throws considerable light on "the relict of the late R. Bradly's" edition of the *Ancient Physicians' Legacy*. This copy in the Pharmaceutical Society's library goes far to prove that Mrs. Bradly's editions were pirated. If anyone can draw attention to a copy of the third edition published by Bettesworth and Hitch this would settle the question. "Fifty-nine" in the account of the first edition is an error; it should read "forty-nine."

"SURPRISES AND MISTAKES."

Sir,—In relation to the valuable and instructive address by Mr. William Thomson, delivered at the Surgical Section of the Royal Academy of Medicine in Ireland under the above heading, and published in the British Medical Journal of November 28th, 1896, the following case will prove of interest. It certainly was one which "according to all rule ought not" to have lived, and shows equally "what Nature may do unaided by the surgeon's skill."

The case occurred in my father's practice (Mr. Nowell Stowers), and the following is his record:

"On August 13th, 1858, I was called to see F. G., aged 18 years, and found him suffering intense pain in the abdomen, great tenderness in the right inguinal region, hot skin, rapid pulse, and furred tongue, but no vomiting. The history obtained was that his bowels had been constipated for some days, that he had taken two doses of castor oil without effect, that he then obtained two calomel and colocynth pills, and that these latter had acted very violently previously to my seeing him. I prescribed leeches, to be followed by hot poultices to the abdomen, calomel and opium internally, and rest in bed. The inflammation subsided in a few days, but tenderness about, and a circumscribed fulness in, the region of the ileo-cæcal valve continued. At the end of the month, after further treatment, but little tenderness remained, and the bowels acted freely. On September 2nd the nurse drew my attention to an unusual substance which had passed *per anum*, which on examination I found to be about 12 inches of small intestine, together with a large quantity of dark liquid, probably an admixture of fluid fæces and blood. After further treatment, together with absolute rest in the recumbent position, the patient convalesced satisfactorily, and was able to leave London for change of air on October 18th. The only inconvenience which followed was a somewhat relaxed condition of the bowels, and he is now in the enjoyment of perfect health. The portion of intestine passed (which had undergone considerable structural change) was kindly examined by my friend Mr. Paget, and consisted of a portion of the ileum (about 12 inches in length), together with the ileo-cæcal valve and appendix."

I have in my possession the letter written by Mr. (now Sir James) Paget, dated September 24th, 1858, congratulating my father on "the very rare and favourable result" of his case, and asking him to send the specimen, together with its history, to the museum of St. Bartholomew's Hospital, and to publish the latter.

I will only add my unbounded pleasure and thankfulness that my father, Sir James Paget, and the patient are all three living at the present time, and able to confirm this report nearly thirty-nine years after the occurrence.—I am, etc.,

Harley Street, W., March 15th. J. H. Stowers.

# OBITUARY.

## G. B. BARRON, M.D.,

Southport.

Dr. Barron, of Southport, whose death at the age of 76 was briefly announced in the British Medical Journal of March 13th, was the son of Mr. William Barron, surgeon, of Tarleton, Lancashire. He received his medical education at King's College, London, and obtained the diploma of M.R.C.S.Eng. in 1847, in which year he settled in Southport. He had thus been for half a century in practice at Southport, and did not live to carry out his intention of retiring from practice and settling at Worcester.

Dr. Barron possessed qualities of heart and mind which early assured him conspicuous success in practice. His character was marked by integrity and uprightness, and fearless exposition of the view that he considered to be right. He was at one time Physician to the Southport Convalescent Hospital and North Meols Dispensary. He early took interest in the public life of the town of Southport, and was one of the first Improvement Commissioners. When the town was incorporated in 1867, he became a member of the Town Council, a position which he held, with a short break, until 1880. When the volunteer movement commenced, he became a Lieutenant of the 13th Lancashire Rifle Volunteers; subsequently he was appointed Surgeon, and when he retired, with the Honorary rank of Surgeon-Major, he was awarded the volunteer decoration. In 1860 he took the degree of M.D. at the University of Aberdeen, and in 1877 he was placed on the Commission of the Peace for the county of Lancashire.

He took a deep and active interest in the work of the British Medical Association. In 1883 he was elected one of the representatives of the Lancashire and Cheshire Branch on the Council of the Association, an office which he held at the time of his death; and in 1885, when the Branch held its annual meeting at Southport, he filled the office of President. His presidential address on that occasion is still fresh in the memory of many who attended the meeting, and may be characterised as having been marked by a happy combination of local patriotism and broad scholarship. On the Council of the Branch Dr. Barron's presence was always welcome, and he always seemed to bring to bear on current subjects of debate a healthy freshness of view tempered by regard to precedent, the result, no doubt, of a frame of mind fostered by his familiarity with public life in other departments. Several articles on medical and other subjects were written by him at various times.

Dr. Barron was a Conservative and a Churchman, but he was held in high estimation by those who differed from him in these respects, and on several occasions was solicited by prominent Liberals to allow himself to be nominated as Mayor of Southport, but he always declined the honour.

His funeral, which took place on March 13th, was attended by a large number of representatives of the municipality, and of various public bodies with which Dr. Barron had been identified.

He leaves a widow and one son, Dr. Herbert Barron, who is Physician to the Southport Convalescent Hospital.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are: Dr. Caussanel, Clinical Professor of Children's Diseases in the Medical School of Algiers; and Professor Giovanni Angelo Simoncelli, of Naples, a distinguished specialist in mental diseases.

A new laboratory for hygiene has recently been opened at the University of Freiburg. The Director is Professor Schottelius.

A medical skiagraphical society is being formed. A meeting was held in London last week, with Mr. Sydney Rowland in the chair, to consider the preliminary steps. Among those who are interested in the new society are Mr. C. W. Mansell-Moullin, Drs. Macintyre (Glasgow), Low, Cheatle, Fenton, Dr. Norris Wolfenden, and others. Any medical men wishing to join can obtain particulars from the Honorary Secretary, David Walsh, M.D., 5, Pump Court, Temple, London, E.C.

# NAVAL AND MILITARY MEDICAL SERVICES.

## CHANGES OF STATION.

THE following changes of Station amongst the officers of the Army Medical Staff have been officially notified to have taken place during the past month:

| | | From. | To. |
|---|---|---|---|
| Brig.-Surg.-Lieut.-Col. | W. S. Pratt, M.B. | Head Quarters ... | Gibraltar. |
| ,, ,, | H. H. Stokes ... | Netley ... ... | Straits S'm'nts. |
| Surg.-Lieut.-Col. | J. C. Dorman, M.B. ... | Bengal ... ... | Cork. |
| ,, ,, | G. A. Hughes, M.B. ... | Brighton ... ... | Canterbury. |
| Surg.-Major | J. Anderson, M.B. ... | Aldershot ... | Malta. |
| ,, | J. Tidbury, M.D. ... ... | Cork ... ... | Southern Dist. |
| ,, | C. Seymour, M.B. ... | Bengal ... ... | Thames Dist. |
| ,, | T. Dorman, M.D. ... ... | Cork ... ... | Queenstown. |
| ,, | J. G. Harwood ... ... | Bengal ... ... | Aldershot. |
| ,, | A. Asbury ... ... ... | Dublin ... ... | Malta |
| ,, | J. L. Hall ... ... ... | Nova Scotia ... | Woolwich. |
| ,, | D. O'Sullivan ... ... ... | Dublin ... ... | Bengal. |
| ,, | H. W. Murray, M.B. ... | Gibraltar ... ... | Aldershot. |
| ,, | W. Heffernan ... ... ... | Woolwich ... | Bombay. |
| ,, | R. Jennings, M.D. ... ... | Hilsea ... ... | Portsmouth. |
| ,, | S. C. B. Robinson ... ... | Malta ... ... | York. |
| ,, | E. Butt ... ... ... ... | Newry ... ... | Dundalk. |
| ,, | F. A. Harris ... ... ... | Bombay ... ... | Dover. |
| ,, | A. S. Rose, M.D. ... ... | Punjab ... ... | Glasgow. |
| ,, | T. E. Noding ... ... ... | Shorncliffe ... | Bengal. |
| ,, | F. J. Lambkin ... ... ... | Jamaica ... ... | Hilsea. |
| ,, | W. L. Reade ... ... ... | Ashton-u-Lyne ... | Bombay. |
| ,, | R. H. S. Sawyer, M.B. ... | Gibraltar ... ... | Dublin. |
| ,, | F. J. Jencken, M.B. ... ... | Netley ... ... | Bombay. |
| ,, | R. J. L. Fayle ... ... ... | Shorncliffe ... | Malta. |
| ,, | J. M. Irwin, M.B. ... ... | Gibraltar ... ... | Brighton. |
| ,, | C. R. Bartlett ... ... ... | Piershill ... ... | Bengal. |
| ,, | A. A. Pechell, M.B. ... ... | Hulme ... ... | ,, |
| ,, | E. D. Farmar-Bringhurst ... | Madras ... ... | York. |
| ,, | R. P. Bond ... ... ... | St. Lucia ... ... | Chester. |
| ,, | J. Riordan, M.B. ... ... | Malta ... ... | Bengal. |
| ,, | G. B. Russell, M.B. ... | Dublin ... ... | Holywood. |
| ,, | J. R. Forrest ... ... ... | Cork ... ... | Belfast. |
| Surg.-Capt. | H. E. Cree ... ... ... | Punjab ... ... | Thames Dist. |
| ,, | W. H. Starr ... ... ... | ,, ... ... | ,, ,, |
| ,, | W. S. Boles, M.B. ... ... | Shoeburyness ... | Madras. |
| ,, | H. Rayner, M.B. ... ... | Grenadier Gds. ... | R. Horse Gds. |
| ,, | H. P. G. Elkington ... ... | Tower ... ... | Gibraltar. |
| ,, | J. Fayrer, M.B. ... ... | R. Horse Guards | Bengal. |
| ,, | E. Eckersley, M.B. ... | Woolwich ... | Sierra Leone. |
| ,, | F. J. Morgan ... ... ... | ,, ... ... | Tower. |
| ,, | A. L. Borradaile, M.B. ... | Colchester ... | Bombay. |
| ,, | W. T. Mould ... ... ... | Bengal ... ... | Shorncliffe. |
| ,, | A. W. Bewley ... ... ... | Punjab ... ... | Dublin. |
| ,, | W. W. O. Beveridge, M.B. ... | Devonport ... | Bombay. |
| ,, | J. D. Ferguson ... ... | Belfast ... ... | Dublin. |
| ,, | F. W. Hardy ... ... ... | Ceylon ... ... | Devonport. |
| Surg.-Lieut. | W. S. Harrison, M.B. ... | Bury ... ... | Madras. |
| ,, | H. A. L. Howell ... ... | Hounslow ... | Bombay. |
| ,, | R. M. Le H. Cooper, M.B. ... | Dover ... ... | Grenadier Gds. |
| ,, | H. Hewetson ... ... ... | Curragh ... ... | Belfast. |
| Quartermaster | H. Lockhart ... ... | Chatham ... ... | Chester. |

Surgeon-Lieutenant-Colonel J. R. Rahilly, retired pay, has relinquished the medical charge of the troops at Gravesend: and Brigade-Surgeon J. W. Hulseberg, retired pay, that at Maidstone, where he has been succeeded by Brigade-Surgeon-Lieutenant-Colonel H. J. O'BRIEN, retired pay.

## THE NAVY.

THE following appointments have been made at the Admiralty: MATTHEW F. RYAN, Fleet Surgeon, to the *Howe*, March 12th; CHARLES JAMES, Staff-Surgeon, March 23rd: ROBERT HARDIE, M.B., Surgeon, to the *Eclipse*, March 23rd; CHARLES G. MATTHEW, M.B., Surgeon, to Chatham Hospital, March 23rd; JAMES P. WILLIS, M.B., Surgeon, to the *Black Prince*, March 23rd; MICHAEL J. SMITH, M.B., Surgeon, to the *Jason*, March 16th; ALBERT X. LAVERTINE, Surgeon, to the *Theseus*, March 16th.

## ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN A. A. WATSON is promoted to be Surgeon-Major, March 17th.

## INDIAN MEDICAL SERVICE.

SURGEON-LIEUTENANT-COLONEL E. W. YOUNG, M.D., Bombay Establishment, has retired from the service, from March 1st. He was appointed Assistant-Surgeon, September 30th, 1876, and Surgeon-Lieutenant-Colonel twenty years after.

Brigade-Surgeon-Lieutenant-Colonel T. H. HENDLEY, C.I.E., Bengal Establishment, is granted the temporary rank of Surgeon-Colonel from February 14th, while officiating as Inspector-General of Civil Hospitals, North-West Provinces and Oude.

Surgeon-Colonel W. P. WARBURTON, M.D., Bengal Establishment, is granted the temporary rank of Surgeon-Major-General from February 16th, while officiating as Director-General, Indian Medical Service, and Sanitary Commissioner with the Government of India.

Brigade-Surgeon-Lieutenant-Colonel S. M. SALAMAN, M.D., Bombay Establishment, retires from the service from March 31st. His commission as Assistant-Surgeon dates from October 1st, 1869; that of Brigade-Surgeon-Lieutenant-Colonel from May 7th, 1894.

Surgeon-Major D. F. DYMOTT, M.B., Madras Establishment, also retires from the service from May 14th. His first appointment to the department bears date March 31st, 1880: his commission as Surgeon-Major twelve years thereafter.

Deputy-Inspector-General CHRISTOPHER B. CREASE, Madras Army, retired, died at Bath on March 11th, aged 77.

## THE HONOURABLE ARTILLERY COMPANY OF LONDON.

MR. EDWARD H. MYDDELTON-GAVEY is appointed Surgeon-Lieutenant, March 17th.

## THE VOLUNTEERS.

SURGEON-LIEUTENANT R. JACKSON, M.B., 2nd Lancashire Engineers, Royal Engineers (Volunteers), is promoted to be Surgeon-Captain, March 17th.

Surgeon-Lieutenant J. B. OKELL, 1st Nottinghamshire (Robin Hood) Rifles, has resigned his commission, March 17th.

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WE understand that Brigade-Surgeon-Lieutenant-Colonel Maurice Knox, who is at present in charge of the Cambridge Hospital at Aldershot, is about to retire on the completion of thirty years' service. In him the Army Medical Department will lose a most efficient and popular officer, and his retirement on the eve of promotion, and with the certainty of rising to the highest rank in the department before him, is a striking proof of the small attraction which the service under present conditions has for the kind of men most fitted to adorn it.

## REVISED FIELD SERVICE (MEDICAL) CODE.

THE Government of India have sanctioned the publication of a revised edition of the Field Service Departmental Code (Medical), in supersession of that published in 1892, which has been cancelled.

## CHARGERS FOR I.M.S. OFFICERS.

IT has been ruled that a Surgeon-Captain or Lieutenant in medical charge of a native regiment is not entitled to passage for a charger when moving on duty.

## ANTI-CHOLERA INOCULATION IN INDIA.

SURGEON-CAPTAIN J. C. T. VAUGHAN, Deputy Sanitary Commissioner, Western Bengal Circle, has been appointed in the place of Professor Haffkine to conduct anti-cholera inoculation work, and will have his headquarters at Purulia, in Manbhum. District officers have been specially warned to inform Dr. Vaughan of any outbreak of cholera occcrring within their jurisdiction.

The Government of India have sanctioned the grant of an allowance of Rs. 150 and Rs. 50 respectively to commissioned medical officers and assistant surgeons required to travel about outside Calcutta on anti-cholera inoculation duty.

## EDUCATION IN THE MEDICAL STAFF CORPS.

THE Secretary of State for War has, according to the *Aldershot News*, had his attention directed to the educational standard of the recruits recently enlisted for the Medical Staff Corps. It has been decided that in future only men of "good education" and "intelligence" are to be enlisted for the corps.

## THE ARMY MEDICAL STAFF AND THE WAR OFFICE.

AN article in the *United Service Gazette* of March 13th, headed as above, by "Retired A.M.S." should give the War Office some food for reflection. It is a plain and indisputable statement of the present position, and sets forth the why and the wherefore of the demand for proper army titles (not compound and cumbersome), and the reason for an amalgamation of the Army Medical Staff with the Medical Staff Corps into a "Royal Corps." It is strange that the Secretary of State for War does not give effect to Lord Morley's and Lord Camperdown's Committee's recommendations on this important point of the fusion of what are now separate bodies of one special department of the army. Such a state of abnormal affairs exists in no other department of the army, and why should it apply to the medical service only?

## WHAT THE *WORLD* SAYS.

OUR contemporary, commenting on the condition of the Army Medical Staff, says: "The army doctor may have his faults, but they are as nothing compared with the follies of the officials in Pall Mall, who go out of their way to lower a noble profession in the eyes of soldiers, and then wonder how it is that they cannot induce the right stamp of young medical men to accept Her Majesty's commission."

## COURT-MARTIAL ON A MEDICAL OFFICER.

MUCH comment has been excited in the Indian press concerning the trial by court-martial of Surgeon-Major P. S. O'Sullivan, M.D., Senior Medical Officer, Mian Mir. We have not learnt the charges, but it would seem he elected to be tried rather than retire with a gratuity; and requested that his own particular service might be represented on the court, which was refused. This refusal is called in India "a glaring scandal" and "raises the question, Is an army surgeon an officer?" In a trial by general court-martial of an officer of any other branch of the service, that particular branch would certainly be represented on the court. Then why not the medical officer? Because he has no proper army status.

## A MILITARY STATION HOSPITAL FOR LONDON.

SEVERAL of the daily journals have announced that a central military hospital for London is to be erected where old Millbank prison stood. We are glad to hear it, for such a hospital is much wanted. The Guards' Hospital at Rochester Row is out of date and on a very bad site. But we fear it will be some years before the promised hospital is fit for occupation.

## THE ARMY STATUS AND TITLE QUESTION.

WE have received a number of communications on this important subject, all regretting the refusal of the War Minister to grapple with it, and showing that the other concessions, however good, do not touch the central grievance which causes so much discontent in the medical service and profession, and prevents candidates coming forward for the army:

ONE ABOUT TO RETIRE writes: No valid reason is advanced for the refusal to amalgamate the Army Medical Services into a corps. "Undesirable" is no reason; the refusal to give medical officers the army status so freely accorded to all others must be because the War Office holds the medical profession unworthy of it, which is a deliberate insult to a great and important body of men. Suppose the entire profession resented the slight, and declined to serve the War Office in any capacity, what then?

RETIRED writes: The military authorities do their level best to break down all resistance of the Army Medical Department by the following methods:

1. Overwork.
2. Difficulty in obtaining leave.
3. Perpetual foreign service from an undermanned establishment.
4. No "study leave." That promised will be believed in when given.
5. Increase of the army; no augmentation of the Medical Staff.
6. Supersession of the Active List by the employment of civilians and retired officers: probably about 150 are so employed.
7. Such employment is unfortunately accepted by civilians on scandalously low terms.

An army such as ours, without an efficient medical service, will prove a source of weakness, and only lead to a repetition of Crimean disasters.

SHOULDER TO SHOULDER writes: If the War Office imagines that the concessions announced, without redress to the central grievance of status, will in future attract candidates, they will find themselves grievously mistaken. The old Sappers and Miners were in the same intolerable position as the medical service is now, and had to petition Parliament by Bill of Rights for redress of their grievances. Young medical men will not enter the service to meet with studied insults and social rebuffs at the hands of a military oligarchy. It is time a stop was put to the farcical so-called competitive examinations.

### NON-COMBATANTS.

A.M.D. writes: I beg to call your attention to the statement of services of the late Deputy-Surgeon-General J. C. H. Wright, in the *Morning Post* of March 3rd:

"Took part in the Crimean war; served in Royal Artillery, and was at Alma, Balaclava, and Inkerman, being wounded and his horse shot under him in the last-named battle."

But he was only a doctor and a non-combatant. I wish I could persuade the Secretary of State for War to read Newnes's *Heroes of the Victoria Cross*, and judge for himself of the gallant deeds of medical officers on the field of battle. The unjust and ungenerous nature of their army position would surely be brought home to him.

# MEDICO-LEGAL.

### THE POWERS OF THE COMMISSIONERS IN LUNACY.

IN the High Court of Justice, Queen's Bench Division, before Mr. Justice Cave and Mr. Justice Grantham, on March 13th, judgment was given in a case of more than passing interest. According to the law report of the *Times* this was a rule calling upon the Commissioners in Lunacy to show cause why a mandamus should not be issued requiring them to direct the discharge of Captain R. C. Cockerill, at present detained as a lunatic in Holloway Sanatorium. This case has already been before the courts on several occasions. The points are as follows: A patient is legally detained in an asylum, but thinking himself unjustly detained, and being able to interest a legal firm on his behalf, he applies for special visitation by two lunacy experts, who, according to a clause in the Lunacy Act, are permitted to visit such a patient in an asylum with the Commissioners' consent. These medical men need not report that the patient is of sound mind; all they need do is to certify that the patient is not likely to be dangerous to himself or to society. The Commissioners having received such report *may* discharge, but they contend they can use their discretion as to whether they do discharge the patient or not. In the case of Captain Cockerill they decide that he is still so unsound in mind that he ought not to be discharged. The present appeal was to force them to discharge the patient. Thus the endeavour was made to override the special judgment and jurisdiction of the Commissioners in Lunacy by an ordinary law court. Mr. Justice Cave and Mr. Justice Grantham agree in their judgment, which was that the rule must be discharged. It was clear, the judgment continued, that Section XLIX of the Lunacy Act, 1890, empowered the Commissioners to order a patient to be discharged. But it was argued that the section not only empowered but required them, under certain circumstances, to order the discharge. The general management of lunatics was in great measure entrusted to the Commissioners, and most elaborate provisions were made enabling them to exercise care of, and control over, lunatics. It would be most extraordinary if the Legislature, after making all these provisions, had with a single stroke of the pen given a power to supersede the decision of the Commissioners to two medical men with regard to whose qualification no rule was laid down; for the section could not be read as enabling the Commissioners to select the medical men who should make the examination. They were merely to be medical men against whose qualification as medical men there was nothing to be said. It was argued that upon receipt of certificates of two such men the discharge of the lunatic must be ordered. It could not be conceived that that could be the intention of the Legislature. The Court was therefore not satisfied that it was the duty of the Commissioners to order the discharge. Then if the Commissioners had a discretion, the Court entirely repudiated any suggestion that their discretion could be reviewed by the Court.

### VACCINATION IN COURT.

AN important test case has been decided at Newark. The defendant had not sent his child to the vaccination station, but yet contended that the medical officer did not properly examine the children before vaccinating, in the way the law directs. The Bench fined the defendant 20s., or in default seven days' imprisonment, but offered to state a case at Mr. Schultess Young's request.

At Guildford an amusing *finale* occurred. The vaccination officer, Mr. Mursell, said he had posted a second notice to an individual requiring the vaccination of his child, but could not produce any minute of his appointment as vaccination officer when asked for such by Mr. Young. The Bench dismissed the case because, although they were satisfied Mr. Mursell had been appointed, he could not prove that his notice to the father of the child had been received. Truly justice's justice this.

### UNSATISFACTORY VERDICTS AT CORONERS' INQUESTS.

WE have received a letter from Mr. Brabant, the Deputy Coroner for Herts, in which he takes exception to the comments in the BRITISH MEDICAL JOURNAL of March 6th, on the conduct of an inquiry held by him. The letter is too long for publication, and as it contains nothing which would prove our comments to have been superfluous, we do not deem it necessary to reopen the matter.

### NOTICE TO CLUB SURGEONS.

ALPHA writes to ask what is the legal notice required to be given to its surgeon by a Foresters' Court, where that officer has been paid annually, and the rules state that he is to be paid 1s. per member per quarter.

*** Legal notice is not necessarily calculated according to the payment of salary, and only requires to be a reasonable one. Three months would probably be considered reasonable in this case.

### SCHOOL BOARD CERTIFICATES.

J. M. F.—There is no power on the part of the School Board to compel medical practitioners to use any special form of certificate. If such special form is required, together with precise statements as to the nature and probable duration of the illness, the fee payable should be at the expense of the Board. All certificates required by any State, district, or parochial authority for the purpose of the execution of any Act of Parliament should be paid from the public purse through such authority.

### RECOVERY OF FEES.

A CORRESPONDENT inquires if an M.R.C.S. can recover in court for pure medical fees—that is, for attendance and medicine.

*** We are advised that the reply to the above question (if M.R.C.S. holds that qualification alone) must be in the negative in a case requiring medical treatment only, and provided that the requisite defence is duly raised in the action. In the case of a firm, however, of which one member holds a surgical qualification only and the other a medical and surgical qualification, it would seem that such firm may recover on a joint claim for attendance and medicines supplied in both capacities.

### MEDICAL RETICENCE AND HOSPITAL REGULATIONS.

MEDICAL REPORTS writes: As a local solicitor is pressing my Committee to make a rule that information shall always be given to solicitors about patients prior to possible civil actions, I beg to ask the enclosed questions, which will probably be of importance to all hospital residents, and medical staffs also.

1. Is it legal to give information about a patient to a solicitor unless required to do so in court? (*a*) If information be verbal. (*b*) If by a written report.
2. Should a fee be demanded (*a*) for verbal information, (*b*) for a written report and opinion?
3. Could a committee legally compel its medical officer to give such (*a*) verbal information, (*b*) written report?
4. If they compelled it by rule, would they be liable, or the medical officer, for any action for damages which might arise out of the information or report?
5. Would it be legal for a hospital secretary to provide copies of the medical notes in the "casebooks" to a solicitor in lieu of a fee given to the institution?

*** "Medical Reports," raises a novel and a very serious development of the question of the medical secret. In order to answer with safety his table of questions, we have taken legal advice, and we can best meet the case by printing the full opinion.

"The relation of a patient in a hospital or infirmary to the medical officers of the institution is clearly not the same, either for legal purposes or otherwise, as the relation between a private patient and the doctor in whom he reposes, as incident to the fact of employment, a personal confidence. Nevertheless, just as there would be a moral relation of confidence between a medical man and a person whom he gratuitously attended, which relation, in certain events, would be considered by courts of law, so I am of opinion that the information obtained by medical officers concerning a patient in a hospital or other charitable institution is not absolutely at the disposal of the doctor. If the governors of such an institution, acting within their legal powers, made a rule that any part of the medical information obtained in clinical treatment should be public or available for third parties, and if this rule were sufficiently well known to enable one to assume that the patient in entering the institution had assented to it, the whole question of a patient's right of veto would disappear by reason of his implied consent. I think, in virtue of such a rule, it would be legal for a hospital to allow copies of entries in the casebooks to be taken. If it did so, and if any question in the nature of defamation were raised (which is very unlikely), I think the medical man would be in any case

protected from consequences, and that the responsibility, if any, would rest on the institution itself.

"As regards the other questions, it is obvious that verbal statements are more dangerous. Whether a medical man under the circumstances supposed is entitled as a matter of medical ethics to inform a third party—possibly hostile—of facts or opinions tending to the discredit of a patient whom he has treated in hospital is a question which the authorities of the profession should decide. As to the legal position, I can hardly suppose that the governors of any such institution would endeavour by rule to compel their medical staff to make such statements, and I think a medical man would be quite justified in refusing to comply with such a rule if it were made. It is in any case quite clear that it could not in practice be enforced if the medical men seriously objected. If, however, a house-surgeon did give a statement of this nature to a solicitor, I am of opinion that, unless the patient's implied consent could be alleged or unless his actual consent had been given, the house-surgeon would be liable to an action for defamation, if the patient afterwards chose to impugn the statement. In such an event I think that the house-surgeon's statements, whether of fact or of legal diagnosis, would not be 'privileged' in law, and that if they had tended to the discredit and damage of the patient, the only safe defence would be that they were true in substance and in fact. As I have had occasion to say before in writing about this subject, the plea of 'justification' in delicate matters of diagnosis must almost always be a dangerous one: and if I were consulted by a house-surgeon under such circumstances I should advise him to decline to make any statement going into what may be called his private knowledge otherwise than in the witness box.

"I ought to add that so far as concerns the effect of any rules that might be made by the governors of such an institution the effect would be different in an institution, such as a Poor-law infirmary, governed by a public body whose regulations might have legal force, and might in that manner be held more effectually to limit the rights of the patients to safeguard the medical officers from responsibility."

# MEDICO-PARLIAMENTARY.

## *HOUSE OF COMMONS.*

### Health of British Officials and Soldiers Abroad.

Mr. Chamberlain, replying to Mr. Price, said: I regret to state that during the first seven months of 1896, which were exceptionally unhealthy, no fewer than five deaths occurred amongst the English civil officials at Sierra Leone, of whom there are about thirty, and three were invalided home, besides two (including the Governor) who were invalided to the Canary Islands. The periods for which officials have to serve in Sierra Leone and the Gold Coast before obtaining ordinary leave are as stated, but in case of illness sick leave is granted sooner. It does not appear that Europeans are more subject to illness during the later months of their stay than during the earlier ones, and, while I am anxious that everything possible should be done to improve the conditions of life on the Coast, I do not think that a sufficient case has yet been made out for reducing the tour of service in Sierra Leone to twelve months, and throwing a considerable burden on the finances of the Colony. Sierra Leone, as far as statistics go, is more healthy than the Gold Coast.—Mr. Brodrick, in answer to Mr. Sinclair, said: In the return from the 2nd Battalion of the Essex Regiment stationed in India, dated February 1st, the health is described as "indifferent," but the numbers in hospital were about normal, and the prevailing diseases appeared to be of a specific character. The average tour abroad of an infantry battalion is seventeen years. The 2nd Battalon, Essex Regiment, left England in 1882, and is ninth on the roster for return home.

### Volunteer Medical Officers.

In reply to Colonel Dalbiac, Mr. Brodrick said the advisability of extending the joining allowance, now given to officers of the Volunteer forces, to the medical officers, had been carefully considered, and it had not been thought necessary to do so.

### Vivisection.

Mr. MacNeill asked the Home Secretary, in view of the fact that in the return showing the number of experiments performed in the year 1895 on the bodies of living animals in these countries, amounting in all to 4,679, of which 3,119 were performed under special certificates dispensing with anæsthetics, the term "experiment" meant the whole series of experiments carried out on a particular line of research, and that 200 or 300 animals were at times used in a single experiment, while 80 or 90 was a common number, whether there was any record kept of the number of animals used in the 4,679 experiments of 1895; and whether he would, under the powers conferred upon him by 39 and 40 Vict., c. 77, Sect. IX. direct that the inspectors in making reports for the vivisectors' return for 1896, should state the number of animals used in each experiment.—The Home Secretary: The hon. member is under an entire misapprehension. The number of animals used does not exceed the number of experiments given in the returns. In reply to further questions by Mr. MacNeill, the Home Secretary said the inspectors both visit registered premises during the performance of these experiments, and see the bodies of animals upon which experiments have been performed. Certificate A is never allowed except for inoculations and similar trivial operations, and in every case a condition is attached to prevent unnecessary pain. The safeguards against the infliction of unnecessary pain are the character of the persons to whom licences are given, the careful inquiry that is made by the Home Office beforehand, and, lastly, the stringent conditions under which licences are given and certificates allowed, and which it is the duty of the inspectors to see are properly observed.

### Rabies.

Mr. Long, in reply to Mr. Stephens, said: I am aware of the case of rabies at Hendon on March 4th. Every possible effort is being made to expedite the completion of the arrangements we propose to make for the suppression of rabies.

### Hard Labour in Military Prisons.

Mr. Pickersgill asked the Secretary of State for the Home Department whether his attention had been called to the observation made in the last report of the medical officer of Aldershot Military Prison that crank labour is worse than useless, being detrimental to the mental and physical condition of the prisoners; and whether he would state in how many local and convict prisons respectively crank labour continued to be used.—The Home Secretary: I have seen this remark of the medical officer of Aldershot prison. Productive crank labour is in use in nine local prisons; unproductive crank labour, which is being discontinued altogether as other forms of hard labour can be found to take its place, still remains in eleven. Crank labour is a form of hard labour, and, therefore, not in use as labour in the convict prisons. It is occasionally resorted to, however, as a form of punishment.

### Exercise of Prisoners.

In reply to Mr. Pickersgill, the Home Secretary said: I am aware that a convict under a sentence of penal servitude, with the exception of his daily attendance at chapel and hour of exercise, passes the first nine months of his sentence in separate confinement. I believe the hon. member to be misinformed as to the opinions held by the principal officers of the prisons in which convicts are received with regard to the effects of this confinement. The amount of exercise necessary for the health of each prisoner is left by statute to be determined by the prison surgeon, and I am perfectly content that under that statute the surgeons shall exercise a liberal discretion.

### Reformatories for Inebriates.

The Home Secretary, in response to Mr. Hobhouse, said: I cannot say when the Bill for the establishment of reformatories for inebriates is likely to be introduced. The Bill has been for some time in a forward state, but there are still remaining some important points which require to be settled.

### The Case of Mrs. Beggs.

Mr. Murnaghan asked the Secretary for Ireland whether his attention had been called to the verdict of the coroner's jury recently given at Belfast at the inquest on the body of Mrs. Beggs, who died in the Belfast Lunatic Asylum. Whether he was aware that the eminent doctor who conducted the *post-mortem* examination found a number of her ribs and breast bone broken, and that the jury found that the bones were not broken at the time she was taken from her home to the asylum. Whether the doctors of the asylum had at any time, and, if so, at what date, discovered that her bones were broken. And whether, considering the facts disclosed at the inquest, the Government would, in the interests of inmates of lunatic asylums, have further inquiry made into the matter?—Mr. G. Balfour, in reply, said that the facts were as stated in the first and second paragraphs of the question. The verdict of the coroner's jury was that the injuries were not received at the patient's house, and that there was no evidence to show when and how they had been received. Deceased was admitted to the asylum on January 5th, and on January 21st the asylum doctors discovered the injuries. An inquiry had been held into the matter by the Inspectors of Lunatic Asylums, who would forward their report to the Board of Governors of Asylums.

### The Proposed Sick Children's Asylum Board.

Mr. Flower asked the President of the Local Government Board whether he was aware that considerable dissent was expressed at the conference of Metropolitan Poor-law Guardians held to consider the draft order of the proposed Sick Children's Asylum Board from the proposed constitution of that Board; whether he had received a resolution from the London County Council recording emphatic condemnation of the proposed establishment of a new and distinct metropolitan central authority; and whether, in view of the public expressions of opinion thus evinced, he would consent to postpone the official promulgation of a permanent order until the opportunity of discussing it had been given to the House?—Mr. T. W. Russell: I understand from the report of the proceedings at the conference referred to that the voting on the resolution to the effect that it was desirable that separate provision, such as indicated in the draft order, should be made for special classes of children, was 63 for and 15 against; and that the resolution to the effect that the Local Government Board before constituting a new Board should consider whether the duties created by the new order could not be carried on by some existing authority or authorities was carried by a majority of 42 votes, 56 voting for and 14 against the resolution. The Local Government Board have been informed of the resolution which has been passed by the London County Council to the effect that, while recognising the necessity for alteration in the present mode of dealing with the class of children referred to, the Council are of opinion that the establishment of a new and distinct metropolitan central authority for the care of a section of Poor-law children is undesirable, and calculated to lead to needless expense. The Board have also received a copy of a report of the General Purposes Committee of the Metropolitan Asylums Board (which report was adopted by the managers on Saturday last) expressing their willingness to undertake the care of all or any of the classes of children referred to. The representations which have been made in favour of the managers of the Asylums District undertaking the duty in preference to the constitution of a new Board of managers will receive the careful consideration of the Board. I cannot, however, give any undertaking such as that which my hon. friend suggests.

### Children in the Darenth Asylum.

Mr. Chaplin, in reply to Mr. Pickersgill, said: I am informed that

there are no children in the Darenth Asylum who are feeble-minded but not imbecile. The children at the asylum are legally paupers. It is not the intention to remove the children from there.

LUNACY IN ENGLAND AND WALES.

The HOME SECRETARY, replying to Mr. HOBHOUSE, said: The inquiry into the causes of the increase of lunacy in England and Wales has been made, and the report laid on the table of the House. I am informed that copies of the report will be delivered almost immediately.

LUNATICS AND THE IRISH WORKHOUSE.

Mr. CLANCY asked the Secretary for Ireland whether he had received a copy of a resolution of the Rathdown Board of Guardians as to the insufficiency of accommodation for children and the lunatic poor in the Rathdown Union Workhouse and other workhouses in Ireland; whether it was the intention of the Government to comply with the wish expressed in that resolution that legislation should be proposed at an early date dealing with that subject; and, whether the Government intended to reintroduce, and make an effort to pass into law, this session its Bill of last session dealing with the reform of workhouse management and the amalgamation of unions.—Mr. G. BALFOUR: The reply to each of the three paragraphs of this question is in the affirmative.

THE REGULATION OF WOOLSORTING.

Sir CHARLES DILKE asked the Home Secretary whether he had received communications from the Bradford Chamber of Commerce, and from the Yorkshire Textile Workers' Federation, asking for the proposed new regulations governing woolsorting; and whether he could name a date at which the regulations would be ready.—The HOME SECRETARY: The special rules are being served upon the occupiers of factories and workshops to which they apply, and copies have also been sent to the bodies named and others who have made application.

PRIVATE LUNATICS IN IRELAND.

On the motion of Mr. FIELD, a return has been ordered of the number of cases treated in private lunatic asylums in Ireland, the number of cures effected, and the amount of revenue derived from patients during the years 1895, 1896, and 1897.

PETITION.

A petition has been presented from Aberdeen in favour of the Midwives Registration Bill.

NOTES.

The Midwives Registration Bill was put down for second reading on Friday in last week. Reference to the stage has been several times made in these columns, and it was pointed out in advance that the measure had no chance of being taken on the 12th. The event has proved the accuracy of the prognostication. The Bill was called on after 12 o'clock, when the Speaker was going formally through the orders prior to putting the question for the adjournment of the House, and at a time when it is only necessary for a member desiring the postponement of a Bill (other than the Budget Bill or some other measure originating in Committee of Ways and Means) to remark "I object" in order to secure his object. Objection was taken in this case, and the second reading was accordingly deferred until Thursday, March 25th.

The second reading of the Poor-law Officers' Superannuation Act (1896) Amendment Bill was further postponed from Monday until Tuesday and from Tuesday until Monday next. The second reading of the Poor-law Officers' Superannuation (Ireland) Bill was also postponed until Thursday. In the case of the last named Bill notices of opposition to the stage have been given by Mr. Murnaghan, Mr. Minch, Mr. P. A. McHugh, and Mr. Flynn. The second reading stages of the Shops (Early Closing) Bill and the Shops Bill have been deferred to Friday, March 26th, and of the Injuries to Workmen (Employers' Liability) Bill till Tuesday, May 11th.

# UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

MEDICAL DEGREES.—At the Congregation on March 11th the following were admitted to the degrees indicated:

*M.D.*—C. W. Windsor, M.A., M.B., B.C.

*M.B.*—W. G. Richards, B.A., Christ's.

*M.B. and B.C.*—H. C. Haslam, B.A., Caius; F. G. Thomas, B.A., Caius; A. S. J. Pearse, M.A., Trinity; J. T. Wills, B.A., Caius; R. de S. Stawell, B.A., Trinity Hall; C. B. Stewart, M.A., Christ's.

APPOINTMENTS.—Professor A. W. Rücker, F.R.S., has been appointed Reade Lecturer, and Mr. F. F. Blackman, M.A., of St. John's College, University Lecturer in Botany. Dr. A. Willey has been re-elected to the Balfour Studentship for one year.

DEGREES FOR WOMEN.—The discussion on degrees for women has extended over three days, the majority of the speakers being hostile to the proposals of the Syndicate. As a result the report is referred back to the Syndicate for consideration. Special numbers of the *Reporter* containing the proposals and a report of the speeches delivered upon them will be issued in a few days, and may be obtained from the University Press (price 7d.).

DR. NANSEN.—A welcome of unprecedented warmth was given to Dr. Nansen on March 16th, when he received the honorary degree of Doctor of Science. His popularity with the undergraduates was unquestionable, for after the ceremony they "chaired" him round the market place. In the afternoon he gave, for the benefit of the Indian Famine Fund, a lecture in the New Theatre, which was attended by a crowded and enthusiastic audience.

UNIVERSITY OF EDINBURGH.

AT the meeting of the University Court held on March 15th it was announced that the donor who had offered £5,000 towards the foundation of a chair of Public Health had now promised to increase the endowment to £8,000. It was also reported that the Houldsworth Scholarship, of the annual value of about £40, tenable for from one to three years, had been transferred to the University for research in pharmacology.

UNIVERSITY OF GLASGOW.

WE are informed that at a meeting of the University Court on March 11th Professor Simpson was granted leave of absence on account of ill-health, and Hugh Galt, M.B., C.M., D.P.H.Camb., was appointed to act as *locum tenens* of the chair of Forensic Medicine during the year.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen, having previously passed the necessary examinations, and having now attained the legal age of twenty-five years, have been admitted Fellows of the College:

W. W. Linington, L.R.C.P.Lond., St. Mary's Hospital; F. C. Sprawson, L.R.C.P.Lond., King's College Hospital.

The following gentlemen having passed the necessary examinations, and having conformed to the bye-laws and regulations, have been admitted Members of the College:

M. Blieden, M.D.Pa., University of Pennsylvania, U.S.A., and St. Bartholomew's Hospital; L. C. Preston, M.B. and B.S.Dur., L.S.A. Lond., University of Durham and Middlesex Hospital.

# PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,679 births and 3,919 deaths were registered during the week ending Saturday last, March 13th. The annual rate of mortality in these towns, which had been 19.4 and 18.1 per 1,000 in the two preceding weeks, rose again to 18.6 last week. The rates in the several towns ranged from 12.2 in Newcastle-upon-Tyne, 12.8 in Huddersfield, 13.8 in Burnley, and 15.1 in West Ham, to 23.3 in Liverpool, 24.5 in Bristol, 25.2 in Salford, and 25.3 in Bolton. In the thirty-two provincial towns the mean death-rate was 18.8 per 1,000, and exceeded by 0.4 the rate recorded in London, which was 18.4 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.6 per 1,000; in London the death-rate was equal to 1.5 per 1,000, while it averaged 1.6 in the thirty-two provincial towns, among which the highest rates were 2.6 in Liverpool, 3.3 in Manchester, 5.4 in Salford, and 6.4 in Bolton. Measles caused a death-rate of 1.2 in Cardiff, 1.3 in Manchester, 3.7 in Salford, and 5.6 in Bolton; and whooping-cough of 1.1 in Sunderland, 1.2 in Manchester, and 1.3 in Nottingham. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 72 deaths from diphtheria in the thirty-three towns included 53 in London, 4 in Liverpool, and 3 in Birmingham. One fatal case of small-pox was registered in London, but not one in any of the thirty-two large provincial towns. There were 30 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, March 13th, against 34, 43, and 43 at the end of the three preceding weeks; no new cases were admitted during the week, against 3, 18, and 6 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 2,001, 2,817, and 2,746 at the end of the three preceding weeks, had further declined to 2,685 on Saturday last; 218 new cases were admitted during the week, against 227, 237, and 211 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 13th, 972 births and 690 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 28.8 to 24.9 per 1,000 in the four preceding weeks, further fell to 23.1 last week, but was 4.5 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 17.8 in Greenock to 25.7 in Glasgow. The zymotic death-rate in these towns averaged 2.8 per 1,000, the highest rates being recorded in Glasgow and Edinburgh. The 354 deaths registered in Glasgow included 19 from measles, 1 from scarlet fever, 2 from diphtheria, 17 from whooping-cough, 3 from "fever," and 6 from diarrhœa. Seven fatal cases of measles and 12 of whooping-cough were recorded in Edinburgh.

DIPHTHERIA IN LONDON.

THE fatal cases of diphtheria registered in London, which had been 40, 62, and 43 in the three preceding weeks, rose again to 53 during the week ending Saturday last, March 13th, and exceeded by 21 the corrected average number in the corresponding weeks of the ten preceding years. Of these 53 fatal cases, 8 were of persons belonging to Wandsworth, 5 to Camberwell, 4 to Kensington, 4 to St. Pancras, 4 to Hackney, and 4 to Bethnal Green. There was a decline in the number of notifications of diphtheria in London; the cases notified, which had been 254, 275, and 264 in the three preceding weeks, further fell to 221 during the week ending Saturday last, March 13th. Compared with the numbers in the preceding week, there was a slight increase in North London: but there was a decline in the number of new cases notified in West, Central, East, and South London. Among the sanitary areas of West London the decline in the prevalence of diphtheria was most marked in Paddington and Chelsea, but in Kensington the 10 new cases notified exceeded those recorded in any recent week. In North London there was a serious increase in the prevalence of the disease in Hackney, 20 new cases being notified, against 7, 14, and 12 in the three preceding weeks. The 11 new cases in Islington, however, showed a marked decline from those notified in recent weeks. Among the sanitary areas of East London the decline in the prevalence of diphtheria was greatest in Mile End Old Town, where the new

cases fell to 4, having been 13 and 10 in the two preceding weeks. In most of the sanitary areas of South London the prevalence of the disease showed a decline, which was most marked in Lambeth, Greenwich, and Camberwell. In Wandsworth, however, there was a slight further increase, 26 new cases being notified during the week, against numbers rising from 6 to 25 in the four preceding weeks. The admissions of diphtheria patients into the Metropolitan Asylums Hospitals during last week were 97, against 104, 102, and 112 in the three preceding weeks; and 834 patients remained under treatment in these hospitals on Saturday last, March 13th.

## POOR-LAW MEDICAL APPOINTMENTS AT LANCASTER.

IT is reported that the appointment of medical officer to the Lancaster Workhouse is now vacant. This has been held in the past, together with one of the districts of the same union, for thirty-five years by the present retiring officer. The vacancies thus occasioned have led the guardians to offer a salary of £40 per annum for the workhouse with its 220 inmates, 64 of these being infirmary patients, and £60 per annum for the district, containing a population of 32,600, extending over an area of 8,000 acres, or about twelve square miles, with certain extra fees, which have sometimes averaged for the whole union less than £20 per annum. It is reckoned that the vaccination fees will amount to a further £30 per annum, but this will of course only be if the successful candidate is allowed to contract with the guardians for this extra duty.

The remuneration reported to be now offered appears to us to be quite inadequate, and we recommend any aspiring candidate to consider seriously whether the work which would fall upon him if elected to the vacant office would not be altogether out of proportion to the remuneration offered. It is to be borne in mind that these Poor-law appointments, both workhouse and district, are becoming more onerous, and that they involve very serious personal responsibilities. Any material assistance in the hard work of the office must be given, if at all, by a legally qualified practitioner, who must be provided at the personal expense of the principal, and before accepting office a substitute must be nominated by him to undertake his work, in case of his own inability to perform it, either from accident or illness, or any other unavoidable cause. We may take it that there can be no doubt as to the inadequacy of the remuneration proposed, and our opinion as to this is supported by the fact that an amendment was moved by one of the guardians, that more liberal terms should be offered. This, however, when voted on, was rejected by a majority of one only, and so the economical party carried the question, we are afraid not only to the serious disadvantage of the future medical officer, but also to that of the many patients who will of necessity fall under his care.

## SMALL-POX IN LONDON.

As many as 6 fatal cases of small-pox were registered in London last week, a higher number than in any week since August, 1895. All these deaths occurred in the Metropolitan Asylums Hospital at Dartford; 3 were of persons belonging to Camberwell, 2 to Strand, and 1 to St. Martin-in-the-Fields sanitary areas. During the past five weeks 52 cases of small-pox have been notified in London, including 30 in Camberwell, 6 in Strand, 5 in the Port of London, 3 in St. Giles, 2 in Stoke Newington, and 2 in Lambeth sanitary areas. There were 42 small-pox patients under treatment in the Metropolitan Asylums Hospitals on Saturday last, March 6th, against 35, 31, and 43 at the end of the three preceding weeks: and 5 new cases were admitted last week, against 19, 3, and 18 in the three preceding weeks.

## NEIGHBOURLY ASSISTANCE.

IN his report on the sanitary condition of the parish of St. John, Hampstead, Dr. Edmund Gwynn, M.O.H., states that whenever he receives information of a case of infectious disease, the source of illness as regards which is shown to have been in another district, he sends word to the health officer of the district concerned. This is as it should be, and is one of those courtesies which tend to make smooth the path of the sanitary officer bent on securing the greatest amount of benefit by the discharge of his duties, and yet often baffled by some missing link in the chain of evidence which such a neighbourly act may supply.

## VARIOLA VACCINE.

THE experiments of Badcock, Ceeley, Reiter, Thiele, and others in the variolation of the calf and the production thereby of fresh strains of vaccine lymph, had been carried out at a time when the necessity of a strict scientific control of such investigation with a view to the exclusion of all possible sources of error, was not appreciated as it is now, and unmerited doubts had been cast on their conclusions as to the true nature of vaccine, as a modified form of variola, rather than a disease *sui generis*, and protective against small-pox simply because, as Sir John Simon expressed it, "it is or was small-pox." But in 1881 Voigt, of Hamburg, took up the question afresh, with the intention of vindicating the soundness of Jenner's theory, and after several failures was successful in transforming virulent variola into excellent vaccine. Haccius of Geneva, Fischer of Karlsruh, Preyer of Stettin, Simpson and King in India, and others have repeated the process more recently, so that from a scientific point of view the question may be held as conclusively settled. But the practical results of Voigt's procedure, as will be seen in the last reports of the Imperial Board of Health of Germany, is to the effect that the lymph thus obtained is of superior efficacy. While the successes in the primary vaccinations vary in different places between 94.7 and 99.8 per cent., Hamburg standing highest in the list, those of the revaccination of children leaving school, that is, in their 13th or 14th year, though generally as high, and at Stuttgart actually reaching 99.6 per cent., have within the last few years suddenly fallen at Hamburg, until they do not exceed 69.8 per cent. in the hands of the same vaccinators, and with the same lymph that had previously given almost uniform success. The explanation is obvious, namely, that whereas everywhere the ordinary lymph humanised or so-called calf is employed, that obtained by Voigt fifteen years ago has been exclusively used in Hamburg ever since, and the protection afforded by it is, in at least 30 per cent. of the cases, maintained after the lapse of twelve or thirteen years, when that of other lymphs has become enfeebled or lost. As the immunity enjoyed by Frankfort in the epidemic of 1871 led to the adoption of compulsory revaccination at puberty throughout the empire with conspicuous success, so now it is believed that the example of Hamburg will not be lost, and efforts will be made to extend the use of the new lymph and the production of fresh strains in other places.

## UNREASONABLE SCEPTICISM.

IN the report for the past year of Dr. Morris, the health officer of the Wellingborough rural district, we find some facts concerning a milkborne outbreak of typhoid fever. Cases of the disease having occurred at a farm, there suddenly cropped up in sequence in another locality a dozen cases of the disease after absolute freedom of the invaded locality for a period of upwards of three years, all these dozen cases being in persons taking milk from the fever-infected farm. Other cases followed, and probably were of secondary origin. Be that as it may, Dr. Morris attributed the outbreak to the agency of infected milk. So far good. But the local press "abused" him for his opinion, and "called upon" him to "contradict it as being false;" and he relates how he gave his authority an account of "several" outbreaks which had been traced to infective milk. Such ignorance on the part of lay writers is, in the present state of knowledge of milk as an agent for the dissemination of disease, hardly credible.

## AN INFANT SUFFOCATED IN LOUGHREA WORKHOUSE.

IN consequence of the death of an infant from suffocation in the "nursery" at this workhouse, the guardians, at a recent meeting, took into consideration the matter of appointing a competent nurse. The verdict of the coroner's jury was that the infant was asphyxiated through unintentional neglect, and the jury added: "We consider the so-called nursery is not a fit place for young children, owing to the fact revealed by the evidence that there is no responsible nurse in charge." This comes as an indirect confirmation of the report on that workhouse, furnished by our Commissioner, which at the time was indignantly denied by the guardians. We wish that we could see a more repentant spirit in them now. After the usual debate on the useless expenditure involved by employing a paid officer for the nursery, the question was adjourned for a fortnight.

## SIDMOUTH, DEVON.

THE report of Dr. T. H. S. Pullin, Medical Officer of Health for Sidmouth, for 1896, gives the death-rate as being only 16.0 per 1,000, or 13 0 per 1,000 if visitors be excluded, the latter swelling the mortality by coming to the town when fatally ill. For the previous twenty years the death-rate, including visitors, was on the average 17.4 per 1,000. In 1896 the infantile death-rate was 43 per 1,000 births, and no death was chronicled from zymotic diseases, whilst only 3 cases of notifiable disease were heard of, and these were all imported. Only 1 death was due to phthisis, and that one in the person of a visitor. In the matter of sewerage, house drainage, and by-law enforcement the Council are moving quickly, and generally Sidmouth seems alive to the need for maintaining its reputation as a "health resort."

## BOARDS OF GUARDIANS AND VACCINATION.

THE idea appears to prevail in many quarters that the Report of the Royal Commission on Vaccination has made some difference in the law on the subject. The Ashton-under-Lyme Guardians had quite a discussion the other day as to whether they were to wait for fresh instructions from the Local Government Board before taking further action as regards vaccination. The Chairman thought that Mr. Chaplin, as President of the Local Government Board, ought to be compelled to "do something"—so the newspaper report runs. Of course prejudice found a voice, for one speaker said that "if they took a lesson from Gloucester they would be convinced that had that city looked after its sanitary condition it would never have had an attack of small-pox." By the advice of a sensible lady guardian the discussion was adjourned.

## COUNTY MEDICAL OFFICER FOR SHROPSHIRE.

AT a meeting of the Shropshire County Council, on March 13th, Dr. W. N. Thursfield was unanimously elected to the post of County Medical Officer of Health, at a salary of £750 a year, to include travelling expenses. Dr. Thursfield, who will commence his duties on July 1st will be required to devote his whole time to the duties of the office. These, as defined, are practically the same as those of the corresponding office in the adjoining county of Stafford. We are glad to be able to record this addition to the number of county councils which have now appointed health officers to advise on the important sanitary powers and duties entrusted to these bodies, and to supervise their exercise.

## A BURIAL DIFFICULTY.

THE alleged recent refusal of the officers of the guardians of a London union to bury a child which had died of measles, and whose parents were in a state of destitution called forth some remarks from the magistrate to whom the medical officer of health applied for a burial order. A somewhat comical suggestion was made in the course of the case to the effect that the guardians thought that if they buried this illegitimate child at the expense of the parish they would be encouraging people to live in a state of immorality. There seems, however, to be some disagreement as to whose duty it is to bury in a case of this kind. We know of one local authority which takes the bull by the horns and buries such cases at once without applying to the guardians of the poor, the Health Committee for that district considering that it really does not matter whether the ratepayer takes money out of his right hand pocket or his left hand pocket, but that so far as the public health is concerned *bis dat qui cito dat.*

## BY-LAWS AS TO HOUSE DRAINAGE.

THE medical officer of health and surveyor of St. James, Westminster, have reported to the vestry of that parish upon the by-laws proposed to be made by the London Council, under the Metropolis Management Act

of 1855, for regulating the dimensions, form, and mode of construction, and the keeping, cleansing, and repairing of the pipes, drains, and other means of communicating with sewers, and the traps and apparatus connected therewith. The main contention of this report appears to be that the proposed by-laws are unnecessarily prolix and obscurely worded, and suggestions are given as to the way in which the by-laws might be simplified and shortened. The by-laws, as redrafted by the officers of the vestry, would be conciseness in itself, but if their principles admit of general application, the occupation of the legal draftsman would be gone. The report also contains certain comments and suggestions with reference to matters of detail.

### NOTIFICATION OF TWO ATTACKS.

M. O. H. receives notification of a case of erysipelas on the 11th of the month, and another certificate on the 25th of the same month, about the same patient. The practitioner who sent both certificates explains that there were two distinct attacks.

*** If, as we gather, there is no doubt about his *bona fides*, and our correspondent is willing to admit that there were two distinct attacks of the disease, separated by an interval of health, we think the fee should be paid for each certificate. Erysipelas, like diphtheria, does not cause anything like complete immunity, and information of a further attack, even though in the same patient, may indicate that the action taken by the sanitary authority on receipt of the first certificate has not removed the morbific cause.

### ZYMOTIC DEATH-RATES.

M.O.H.—The following are the death-rates per 1,000 for England and Wales for 1896, as to which our correspondent inquires:

| | |
|---|---|
| Scarlet fever ... ... ... ... | 0.18 |
| Diphtheria ... ... ... ... | 0.29 |
| Measles ... ... ... ... ... | 0.56 |
| Whooping cough ... ... ... | 0.41 |
| Fever ... ... ... ... ... | 0.17 |
| Diarrhœa... ... ... ... ... | 0.55 |

### NOTIFICATION BY M.O.H. TO HIMSELF.

MABLE asks: Is it customary for the M.O.H. carrying on private practice to send in notifications of his own cases to himself?

*** It is occasionally done, but though specially legalised by Section XI of Act of 1889 does not seem a commendable proceeding. Of course such cases should be entered in any register kept of infectious cases.

### SPECIAL FEES FOR ATTENDANCE ON CASES OF PREMATURE LABOUR.

J. O. desires the answer given to "G. C. H.," which appears at p. 633 of the BRITISH MEDICAL JOURNAL for March 6th, 1897, to be reconsidered, on the ground that Poor-law medical officers are not too well paid; and he points out that Taylor quotes a case of a child having been born alive as early as the fourth month of gestation.

*** This case, if correctly reported, must have been quite exceptional; and even if the child was born alive, there is nothing in Taylor's work to indicate that the life of this infant was anything more than intrauterine life, and this the majority of judges now on the Bench do not (for legal purposes) regard as complete life. If our correspondent, who has quoted Lumley in his letter to us, will refer to *Glen's Poor-law Orders*, 10th edition, he will find the following in a footnote: "Attendance when a woman is only four or five months gone with child does not entitle to an extra fee." Any Board of Guardians would naturally be ruled by this, and would consequently decline to pay a special fee, notwithstanding any such exceptional case as "J. O." refers us to.

### COMPULSORY REMOVAL TO ISOLATION HOSPITAL.

NON-REMOVAL asks if a medical officer can enforce the removal to a fever hospital of a child suffering from scarlet fever, in direct opposition to the wishes of the parents and the private medical attendant.

*** The Public Health Act, 1875, Section CXXIV, provides that "any person who is suffering from a dangerous infectious disease, and is without proper lodging or accommodation.....may on a certificate signed by a legally qualified medical practitioner.....be removed by order of any justice to such hospital, etc." The question as to what constitutes "proper lodging or accommodation" would, it seems to us, be one as to fact, to be decided by the justice signing the order. Many health officers consider inefficient isolation as "want of accommodation." We believe there has been no ruling in any higher Court. Our correspondent would probably find the medical officer of health very unwilling to press the matter if well assured of the thoroughness of the isolation.

### REARRANGEMENT OF MEDICAL DISTRICT.

ANXIOUS ENQUIRER, who is a district medical officer living in his own district, wishes to ask whether he can be compelled by the guardians to submit to a rearrangement of his district, by which his work would be increased, and this without further remuneration. He writes: "Can I resist this alteration?"

*** We fear our correspondent is in the hands of the guardians, as by Art. 5 of the Poor-law Board's Order of May 25th, 1857, the guardians have power to make the proposed change, and if the present holder of the appointment does not acquiesce therein, they may then, with the consent of the Local Government Board, after six months' notice, determine his office. A vacancy would then ensue, and our correspondent might not be elected to the new appointment.

## HOSPITAL AND DISPENSARY MANAGEMENT.

### ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AT VENTNOR.

THE report presented to the annual meeting of governors of this hospital over which Dr. J. Sinclair Coghill presided, showed that the work had gone forward steadily and satisfactorily. An effort is being made to increase the accommodation by the erection of another block of houses, and H.R.H. Princess Henry of Battenberg has promised to lay the foundation stone of the new block in July. The total receipts in 1896 amounted to £11,831 (including £2,543 from a festival dinner but nothing whatever from legacies), and the expenditure was £12,031. The number of patients treated was 810, some of whom were resident as long as thirty weeks, though the average stay was eight weeks; 32 died, and 79 per cent. were improved in health by treatment. Mr. P. B. Burgoyne was unanimously elected treasurer.

### ROYAL EDINBURGH ASYLUM FOR THE INSANE.

THE statutory annual meeting of this corporation met on Monday, February 22nd, when Dr. Clouston, the Superintendent, gave his report. From this it appeared that the number of admissions was 47 above the average of the past five years, and considerably the largest admission rate on record. One hundred private patients and 370 rate-paid patients were admitted during the year, an increase of 40 in the pauper class over the average of the past five years. The most unsatisfactory fact in regard to the admissions was that on account of this large number of rate-paid patients the West House was so full that they could admit very few private patients at the £28 and £42 rate. This was a hardship of the most clamant kind on a section of the community that had the strongest claims on any philanthropic institution for the treatment of mental disease. One of the most striking facts to be seen by looking into the cases of the year was the unusual prevalence of drink in both sexes. It was put down in 105 cases as being the probable cause. That was 22 per cent. of the whole, a proportion never before reached in the statistics of the asylum. The number of women in whom drink was the cause of insanity was 40, or 18 per cent., which was absolutely unprecedented in that asylum. The excess might be accidental. It was not so in the previous year. Could it be that the hard winter of 1894-95 made work scarce and drink unattainable to many, while the open winter and good trade of 1896 made money plentiful and drink very attainable? It was well known that a long frost filled our poorhouses and emptied our gaols. He feared it was the common experience that we had in our cities a large class whose self-control was small, and whose brain stability was not great, so that prosperity to them always meant self-indulgence, and self-indulgence meant to some of them an attack of alcoholic insanity and the asylum. A free country for the many must always be too free for the submerged tenth. To them temptation was always to be got rid of by yielding to it. This was one of the years—very rare before 1890, but common now—in which the cases of depression of mind equalled or out-numbered those of morbid elevation mind. In the seven years before 1890 the average number of cases of mania was 46 more than those of melancholia, while in the last seven years they had only a yearly average excess of 18 cases of mania, and in the three years beginning with 1890 the cases of melancholia actually exceeded those of mania. He believed the explanation of that change of type of mental disease to be the influenza, which first appeared in this country in 1890, and had never since left it. Probably no such destroyer of nervous energy, and no such producer of nervous disease, as the influenza poison had appeared in the world in recent times. To him that was the most striking medical fact of his time. Of the 302 patients discharged, 169 were recovered, being 36 per cent. of the admissions, which was 4½ per cent. below their average, and 2 per cent. below the average of the Scottish public asylums for the past six years. The number of deaths was one more than in any previous year, and he attributed that high death-rate to their very large admission rate and to the number of old and broken down cases of paralysis sent to them. Since the beginning of the present year their oldest inmate had died, after a residence in the asylum of nearly 52 years. One of the patients who died was a remarkable man. What occurred in him was only seen in man, and not in the lower animals, and was a very surprising fact. It was the loss of the higher mental faculties of initiative, will power, and capacity to work for a living, that being combined with sound bodily organs capable of doing their work for half a century after the death of the higher attributes of mind. A scheme was now in process of being worked out, and, indeed, was almost complete, for associating most of the Scottish asylums in pathological work, and he believed it would be attended with far-reaching results.

### THE DENTAL HOSPITAL OF LONDON.

THE report presented to the thirty-ninth annual meeting of the Dental Hospital of London drew special attention to the school connected with the hospital, the work of which, like that of the hospital, was hampered by the unsuitable character of the present premises. Arrangements have been made to begin at once the erection of the new hospital on the more commodious site which has been acquired. During 1896 the number of cases treated at the hospital, many of them for preservation rather than for extraction, was 57,654.

THE Duke of Connaught, K.G., will take the chair at the festival dinner of the National Hospital for the Paralysed and Epileptic, which will be held in the Whitehall Rooms of the Hôtel Metropole on Friday, April 2nd.

# INDIA AND THE COLONIES.

## INDIA.

ENTERIC AND THE WATER SUPPLY AT BANGALORE.—The temporary advanced water supply at Bangalore has been opened in the station by the Military Works Department. The larger contracts in connection with the permanent scheme were entered into on February 9th. If the home supplies of plant and machinery are secured promptly, the project of the new water supply is expected to be complete by the middle of 1898.

THE GOVERNMENT BACTERIOLOGIST.—Pending the completion of the bacteriological laboratory in Kumaon Dr. Lingard has been home to select an assistant, for an establishment of this kind, remarks a Bombay paper, certainly needs two specialists. If left in the hands of a single man, whenever he is called out into the country for an investigation, the work of the laboratory comes to a standstill. Dr. Lingard has, it is stated, succeeded in enlisting a disciple, and it now only remains for the builders to finish their part of the work to give the new establishment a start.

THE POLICE HOSPITALS OF THE MADRAS PRESIDENCY.—Surgeon-Major-General's Sibthorpe's report for 1895-96 shows that the strength of the Madras police amounts to 441 officers and 20,655 men. For the medical treatment of the sick of the force there are 61 hospitals under the charge of medical subordinates most of whom are entrusted with other duties in addition. The sick of the police are also treated in other civil hospitals when more convenient of access. Seven hundred and seventy-four cases were treated of officers and 42,494 of men, giving ratios of 1,755 and 2,057, which represent a large amount of illness. These men in discharge of their duty undergo much exposure, and suffer much from malarial fevers, bowel complaints, and rheumatism. Forty-six deaths took place in hospitals and 169 out of hospital, yielding together a ratio per 1,000 of 14.1. Pneumonia and beri-beri are conspicuous among death causes. Ten cases of small-pox and 49 of cholera were treated, and 309 cases of venereal disease. The report enters with great minuteness into administrative details, and is not of much general interest.

MADRAS HOSPITALS AND DISPENSARIES.—Surgeon-Major-General Sibthorpe's triennial report for the years 1893-94-95 gives a most exhaustive view of the provisions and arrangements for medical relief in the Madras Presidency excluding the city of Madras, which is dealt with in a special report, the number of institutions grew from 443 to 486, or 1.4 to every 100,000 of population in these three years. Of these 213 are hospitals affording accommodation for 3,060 patients. The attendance of patients rose from 3,257,204 to 3,839,354; surgical operations from 121,038 to 141,765; the percentage of women treated from 41 to 43; the death-rate among indoor patients fell from 7.51 to 5.89 per cent. of treated, and the average cost of each 1,000 treated from Rs. 255 to 253. The chief diseases treated were, as usual, malarial fevers, worms, rheumatism, skin diseases, ulcers, and diseases of ear and eye. The record of operations is creditable to officers and subordinates; it includes a great many obstetric operations. The expenditure on medical relief amounted to Rs. 9,77,247, of which Government gave 10.21 per cent.; 19,333 cases of labour were attended by the district midwives. Special lying-in accommodation is being provided in many places, and separate arrangements for women and children, with female practitioners in charge, have been made in 15 places. The absence of skilled nursing in country hospitals is a subject of regret. The sale of packets of quinine through the agency of the post office is making satisfactory progress.

THE HOSPITALS AND DISPENSARIES OF THE CITY OF MADRAS.—Surgeon-Major-General Sibthorpe's report for 1895 presents the statistics of these institutions for that year, and a triennial report for the years 1893-4-5. It is a very elaborate compilation, comprising administrative and professional details in minute display. The year was a healthy one, the registered death-rate of the town being 37.7 per 1,000; there were only 322 deaths from cholera, and 3 from small-pox. The attendance of patients fell somewhat short of that of 1894, but exceeded that of 1893; 1,927 cases of natural labour were treated; 1,251 beds are available in these hospitals, of which 83 per cent. were occupied throughout the year. Of the patients treated, 44 per cent. were men, 28 women, and 28 children. The death-rate among indoor patients was 5.66 per cent. The number of surgical operations underwent a substantial increase. The surgical practice of the Madras hospitals is excellent. Important operations, general, ophthalmic, and obstetric, are performed with good success. Interesting details are given of the work done. The report of the Government Maternity Hospital is admirably drawn up by Brigade-Surgeon-Lieutenant-Colonel A. M. Branfoot. Dr. G. L. Walker, in his report of the Government Leper Hospital records cases which indicate that the persevering use of chaulmoogra oil (guocardia odorata) is beneficial in leprosy. The total cost of these institutions amounted in 1895 to Rs. 4,26,175, of which Government contributed Rs. 3,11,661.

THE NORTH INDIA SCHOOL OF MEDICINE.—There is no doubt that in India there is great scope for women practitioners of medicine in consequence of the objection to the admission of men to the zenanas. We have received an "appeal" from the North India School of Medicine giving an account of the work already accomplished by that institution under great difficulties. It appears that a medical school for the training of medical women from all parts of North India has been started under duly qualified practitioners of both sexes. The President of the General Committee is the Rev. J. C. R. Ewing, D.D., the Indian Secretary of the Zenana and Bible Medical Mission; and the lecturers are Miss E. M. Brown, M.D.(Brux.), L.R.C.P.& S.Edin.; Miss Dodson, M.D., L.S.A.; and Miss Galletly, M.B. The medical school is situated at Ludhiana, in the Punjab, and lectures are given in Hindustani and English to the twenty students already entered in their curriculum. It is desired to affiliate the school with the University at Lahore, and pecuniary assistance is asked for to increase the existing hospital and school accommodation, to build an "infectious" ward, to provide models, diagrams, etc., for teaching purposes, and to guarantee the salary of two more permanent members of the teaching staff at £100 each.

NURSING AT THE EDEN HOSPITAL, CALCUTTA.—In order to obviate the inconvenience experienced by the authorities of the Eden Hospital, Calcutta, owing to frequent attempts of nurses to evade orders issued by them, the Government of India have directed that in future officers commanding corps shall inform candidates for the service that they will be required to nurse all patients, European or native, in the hospital take a regular tour of duty by day and night in all the wards of the hospital attend in the out-patient department, and to study theoretical midwifery from books.

# MEDICAL NEWS.

INTERHOSPITAL FOOTBALL.—The final tie for the Association cup was played on March 17th at the Essex County Ground, Leyton, when Guy's beat London by one goal to none.

DR. FRANK PAYNE asks us to state that he has not joined the Committee appointed in connection with the question of the operation of the Acts for the Prevention of Contagious Diseases in India at a recent meeting at the Royal United Service Institution.

THE *London Gazette* of March 12th announces that Harry Maule Crookshank, F.R.C.S.Edin., has received the Queen's permission to accept the Order of the Second Class of the Osmanieh, conferred upon him by the Khedive of Egypt in recognition of his services as Inspector-General of Egyptian Prisons.

SUSPECTED STEAMER AT BARRY.—The steamer *Fort Salisbury* arrived on March 12th, at Barry Dock, flying the yellow flag in accordance with the regulations to indicate that it had come from a yellow-fever stricken port. The vessel was inspected by the medical officer of health, who found that no case of infectious disease had occurred on board. One of the crew was suffering from pneumonia and was removed to hospital, a fact which appears to have given rise to an unfounded apprehension that fever existed on board.

THE election of a physician to the Liverpool Royal Infirmary in place of Dr. Davidson, resigned, will take place on Wednesday, March 24th. The candidates are Dr. Bradshaw, Senior Assistant Physician to the Infirmary; Dr. Abram, the other Assistant Physician; and Dr. James Barr, Physician to the Liverpool Northern Hospital. A report having got abroad that Dr. Bradshaw was about to retire from the contest, we are authorised to state that he has no intention of doing so.

THE FACTORY GIRLS' COUNTRY HOLIDAY FUND.—The last year's report of the work done by this Society shows that 1,050 women and girls have been sent for a week or two to the country through its agency. Indirectly this Society contributes its share to the health of the nation, since it aims at improving the moral and physical fibre of the individual, and thus adding something to the sum total of the well-being of the people. Any effort to redeem the cheerless lot of these toilers in our factories from the monotony of their surroundings is a humane and beneficent action well worthy of the philanthropist.

SIR WILLIAM KYNSEY, C.M.G., was on February 13th entertained at luncheon by the members of the Ceylon Branch of the British Medical Association. The chair was taken by the President of the Branch, Dr. Vanderstraaten, who in proposing the health of the guest referred to the cordial relations which had always existed between Sir William Kynsey and the members of the Ceylon Medical Department, of which he is principal medical officer. Sir William Kynsey, in reply, spoke of the efficient and loyal service rendered by its members to that department. He referred in terms of high praise to the Ceylon Medical College, without which, he said, it would have been impossible to carry out the extension of the Medical Department which had been admitted on all hands to be necessary, and which had proved to be most successful. The honour of knighthood which the Queen had conferred upon him had been unsought, and was for that reason all the more appreciated. In conclusion, he proposed prosperity to the Ceylon Branch of the British Medical Association, coupling with it the name of Dr. Loos, and to the Ceylon Medical Department, coupling with it the name of Dr. Rockwood. These gentlemen having responded, the toast of the Army Medical Staff was given by Dr. Garvin, and acknowledged by Surgeon-Lieutenant-Colonel Duke. The toast of "The Guests" was proposed by Dr. Keyt and responded to by the Hon. W. T. Taylor and Mr. F. Dornhorst.

NOTTINGHAM GENERAL HOSPITAL.—At a meeting of the Monthly Board of the Nottingham General Hospital on March 8th, the Committee appointed to consider the desirability of extending the institution, presented a report to the effect that the number of beds available is only 175, as it was twenty years ago, while the population of the town and county is now estimated at about 500,000. The hospital is always practically full, and much delay frequently and necessarily occurs in the admission of patients who require treatment. The committee expressed the opinion than an addition of at least 50 beds is urgently needed. Moreover the structure and internal arrangements of the hospitals are in some important respects defective. The erection of an entirely new building would be the most satisfactory solution, but if sufficient funds are not forthcoming for such a purpose, the committee suggest that new wings of the most approved construction should be erected, the present building being used for administrative and other purposes. Plans carrying out this idea have been prepared by Sir Douglas Galton and Mr. Aston Webb. To carry out the scheme fully and satisfactorily with all necessary accessories, the committee think that a sum of £50,000 should be raised. The report was adopted.

## MEDICAL VACANCIES.

The following vacancies are announced:

BIRKENHEAD UNION.—Assistant Medical Officer for the Infirmary, Workhouse, and Schools; doubly qualified. Salary, £80 per annum, with board, washing, and apartments. Applications, endorsed "Assistant Medical Officer," to John Carter, Clerk to the Guardians, Clerk's Offices, 45, Hamilton Square, Birkenhead, by March 29th.

BRADFORD INFIRMARY.—Dispensary Surgeon; unmarried, doubly qualified. Salary, £100 per annum, with board and residence. Applications, endorsed "Dispensary Surgeon," to William Maw, Secretary, by March 22nd.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Dental Surgeon. Must be Licentiate of Dental Surgery. Applications to J. Francis Pink, Secretary, by April 5th.

DERBYSHIRE ROYAL INFIRMARY.—Honorary Surgeon. Applications to Walter G. Carnt, Secretary, by March 22nd.

DEVON AND EXETER HOSPITAL, Exeter.—Assistant House-Surgeon, doubly qualified and unmarried. Salary, £40 per annum, with board and lodging, not including alcoholic liquors and aërated waters. Applications to Albert E. Boyce, Secretary, by March 29th.

DISTRICT INFIRMARY, Ashton-under-Lyne.—House-Surgeon, doubly qualified. Salary, £100 per annum, with board and lodging. Applications, marked "Application for the office of House-Surgeon," to William Bottomley, Hon. Sec., 120, Stamford Street, Ashton-under-Lyne, by March 31st.

GENERAL HOSPITAL, Birmingham.—Assistant House-Surgeon; must possess a Surgical qualification. Appointment for six months. Board, residence, and washing provided.—Surgical Casualty Officer, non-resident. Salary, £50 per annum. Appointment for one year, but eligible for re-election. Applications to Howard J. Collins, House Governor, by March 27th.

GENERAL HOSPITAL, Nottingham.—Assistant House-Surgeon. Appointment for six months. Board, lodging, and washing provided; no salary. Applications to the Secretary by March 31st.

HANTS COUNTY ASYLUM.—Assistant Medical Officer; doubly qualified, not more than 25 years of age, and unmarried. Salary, £100 per annum, increasing to £125 after twelve months' service, with furnished apartments, board, washing, and attendance. Applications endorsed, "Applications for Appointment of Medical Officer," to the Committee of Visitors, Knowle, Fareham, by March 23rd.

HASTINGS, ST. LEONARD'S, AND EAST SUSSEX HOSPITAL.—Third Honorary Assistant Surgeon. Applications to William T. Gant, Secretary, by April 3rd.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Applications to the Secretary by March 31st.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Junior Resident Medical Officer. Salary, £25 per annum, with board, lodging, and washing. Appointment for six months, but renewable for a further term. Applications to the Secretary Superintendent by April 7th.

KENSINGTON AND CHELSEA SCHOOL.—District Medical Officer (non-resident) to the Cottage Home School at Banstead, near Epsom. Salary, £140, rising £10 every two years to a maximum of £180. Must not exceed 45 years of age and be doubly qualified. Applications, on forms provided, to be sent to John H. Rutherglen, Clerk to the Managers, Guardians' Offices, Marloes Road, Kensington, by March 22nd.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Appointment for twelve months, subject to re-election for an additional term of twelve months. Board, residence, and washing provided, and an honorarium of £42 for twelve months. Applications to the Secretary at his offices, 24, Friar Lane, Leicester, by March 22nd.

LONDON COUNTY COUNCIL.—Scholarship in Sanitary Science of the value of £150 a year tenable in the Pathological Laboratory of Claybury Asylum. Scholarship awarded in the first instance for one year, but may be renewed. Applications to the Secretary, Technical Education Board, St. Martin's Place, W.C., by March 22nd.

LONDON LOCK HOSPITAL, 91, Dean Street, W.—House-Surgeon to the Male Hospital; doubly qualified. Salary, £50 per annum, with board, lodging, and washing. Applications to the Secretary by March 27th.

LONDON SCHOOL OF MEDICINE FOR WOMEN, 30, Handel Street, Brunswick Square, W.C.—Demonstrator of Physiology. Salary, £30 per annum. Applications to the Secretary by March 23rd.

MANCHESTER ROYAL EYE HOSPITAL.—House-Surgeon; must devote his whole time to the duties. Salary, £70 per annum, with residence, board, and washing. Applications, endorsed "House-Surgeon," to the Chairman of the Board of Management by April 6th.

MONTROSE ROYAL ASYLUM.—Medical Superintendent. Salary, £700 per annum, with free house, fire and light. Appointment an annual one. Applications, endorsed "Physician Superintendent," to Alexander Lyell, Solicitor, Clerk to the Board of Managers, 81, High Street, Montrose, by May 1st.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (ALBANY MEMORIAL), Queen Square, Bloomsbury, W.C.—House-Physician. The Junior House-Physician is a candidate, and applicants should state whether they are prepared to accept either appointment. Salary as Senior House-Physician is £100, and of the Junior £50, per annum, with board and apartments. Applications to B. Burford Rawlings, Secretary and General Director, by April 1st.

NEWPORT AND MONMOUTH HOSPITAL.—House-Surgeon; doubly qualified. Salary, £100 per annum, with board and residence; no stimulants provided. Applications to the Secretary by March 25th.

POPLAR HOSPITAL FOR ACCIDENTS, East India Road, Poplar, E.—Assistant House-Surgeon. Salary, £80 per annum, with board and residence.—Second Assistant House-Surgeon. Salary, £50 per annum, with board and residence. Applicants for the former appointment should state whether they may be considered candidates for the latter appointment in the event of their non-election to the first. Applications to the House Governor by March 23rd.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Assistant Resident Medical Officer. Appointment for four months. Salary, £50 per annum, with board and residence. Applications to the Secretary by March 31st.

RIPON DISPENSARY AND COTTAGE HOSPITAL.—Resident House-Surgeon and Dispenser; unmarried. Salary, £70 per annum, with board and lodging. Applications to F. D. Wise, Honorary Secretary. Duties to commence April 1st.

ROXBURGH DISTRICT ASYLUM, Melrose.—Assistant Medical Officer. Salary, £100 per annum, with board, rooms, attendance, and washing. Applications to the Medical Superintendent by March 31st.

ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN, Dyke Road, Brighton.—House-Surgeon; doubly qualified. Salary, £80 per annum, with board, lodging, and washing; no stimulants. Applications to the Chairman of the Medical Committee. Election on April 2nd.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Senior House-Surgeon. Candidates must state whether in the event of the Junior House-Surgeon being appointed they would be willing to accept the office of Junior House-Surgeon. Applications to Robert J. Newstead, Secretary, by March 31st.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—Assistant House-Surgeon. Board, residence, and laundry found. No salary. Applications to the Honorary Secretary.

ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM, City Road, E.C.—House-Surgeon. Must be F. or M.R.C.S.Eng. Salary, £50 per annum, with board and lodging. Applications to E. Penman, Secretary, by March 29th.

ST. SAVIOUR'S UNION, Surrey.—Medical Superintendent and Second Assistant Medical Officer at the Infirmary, East Dulwich Grove, S.E. Remuneration of the former, £400 per annum, with unfurnished house, coals, gas, and water, and of the latter £80 per annum, with furnished apartments, board, and washing. Applications, endorsed "Application for Medical Superintendent" or "Second Assistant Medical Officer," to H. C. Jones, Clerk, Union Offices, John Street West, Blackfriars Road, S.E., before noon on March 22nd.

UNIVERSITY COLLEGE, Bristol.—Medical Tutor. Stipend, £125 per annum. Applications to E. Markham Skerritt, M.D., Dean, by March 31st.

VICTORIA HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Edinburgh.—Resident Physician. Board and lodging provided and an allowance for conveyance at the rate of £24 per annum.—Non-resident Medical Officer for Out-patients. Salary at the rate of £60 per annum. Appointments for six months. Applications to Messrs. Wallace and Guthrie, W.S., 1, North Charlotte Street, Edinburgh, Honorary Secretaries, by March 24th.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—House-Surgeon; unmarried. Salary, £60 per annum, with board and residence. Applications to the Honorary Secretary by March 22nd.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointments for six months. Board and lodging provided. Applications to R. J. Gilbert, Secretary Superintendent, by March 24th.

WEST SUSSEX COUNTY ASYLUM.—Assistant Medical Officer. Under 30 years of age, and unmarried. Salary, £150 per annum, with board, lodging, washing, and attendance. Applications, endorsed "Assistant Medical Officer," to E. H. Blaker, Clerk to the Committee, West Pallant, Chichester, by April 5th.

## MEDICAL APPOINTMENTS.

ARKLE, C. J., M.D.Lond., M.R.C.P., appointed Assistant Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

BARLING, A. S., M.R.C.S., L.R.C.P., appointed Honorary Surgeon to the Royal Lancaster Infirmary.

BARROW, Geo. A., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer to the Out-patient Department of the Children's Hospital, Manchester.

BEVAN, Richard, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health to the Ashford Urban District Council.

BRISCOE, Wm. Thos., M.D.Dub., reappointed Medical Officer of Health to the Chippenham Town Council.

CULLEN, Joseph, L.R.C.P., L.R.C.S.I., appointed Medical Officer for the Castleknock Dispensary District.

FERNANDES, R. N., M.B., C.M.Edin., appointed Medical Officer for the Acworth District of the Pontefract Union, *vice* Dr. Wood.

FOSTER, H. G., L.R.C.S.Edin., L.S.A., appointed Certifying Factory Surgeon for Attleborough, Norfolk, and reappointed Medical Officer of Health, Swaffham Rural District Council.

GIBSON, E. Arthur, M.B., C.M.Glasg., L.M.Rotunda, appointed Obstetric Physician to the Glasgow Training Home for Nurses, *vice* Dr. A. W. Russell.

HARVEY, George, L.R.C.P.Edin., L.R.C.S.I., reappointed Medical Officer of Health to the Matlock Bath, Urban District Council.

JEFFREY, C., M.B., C.M.Aberd., appointed Medical Officer for the Altofts District of the Wakefield Union, *vice* J. Howard, L.R.C.P.I., M.R.C.S.Eng.

JONES, J. O., M.B., C.M.Edin., appointed Medical Officer of the Workhouse of the Holywell Union, *vice* J. W. Parry, L.R.C.P., L.R.C.S.Edin., resigned.

JONES, Richard, M.D., D.P.H.Camb., reappointed Consulting Medical Officer of Health to the Merioneth County Council, and reappointed Medical Officer of Health for the Festiniog Urban District.

JONES, S. L., M.R.C.S., L.R.C.P., appointed Junior Medical Officer of the London County Asylum, Colney Hatch, N.

JOSCELYN, Arthur E., M.R.C.S., L.R.C.P., L.S.A., appointed Medical Officer with charge of out-patients to the Miller Hospital, Greenwich, *vice* W. T. B. Donelly, M.B., deceased.

LAKE, Wellington, M.R.C.S.Eng., L.S.A., D.P.H.Camb., Medical Officer of Health of the Guildford and Woking Districts of West Surrey, appointed Deputy Coroner for West Surrey.

LEON, G. A., L.R.C.P., M.R.C.S., appointed Honorary Medical Officer to the Sidmouth Cottage Hospital, also Medical Officer to the Sidmouth Dispensary and Rational Sick and Burial Club, *vice* Dr. Leonard Williams.

LITTLEJOHN, Harvey, M.A., M.B., B.Sc., F.R.C.S.Edin., appointed Lecturer on Medical Jurisprudence and Public Health at the School of Medicine, Surgeon's Hall, Edinburgh, *vice* Sir H. D. Littlejohn, resigned, on his appointment as Professor at the University of Edinburgh.

MACKINNON, Charles, M.B., C.M.Glasg., reappointed Medical Officer for the South District of the Cirencester Union.

MILLAR, William, M.B., C.M.Glasg., appointed Medical Officer for the West District of the Edmonton Union, *vice* W. H. Paine, L.R.C.P.Lond., M.R.C.S.Eng., resigned.

MORTON, W. Britain, M.D.Lond., L.R.C.P., M.R.C.S.Eng., appointed Resident Medical Officer at Brislington House, Bristol.

MURPHY, William, M.B., C.M.Edin., reappointed Medical Officer of Health to the Holbeach Urban District Council.

NEALON, J. A., M.D.R.U.I., appointed Medical Officer of the Workhouse and the Linton District of the Linton Union, *vice* Wm. Taynton, L.R.C.P.Edin., M.R.C.S.Eng., resigned.

NETTLE, William, M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health to the Liskeard Town Council.

NEWMAN, George, M.D.Edin., D.P.H.Camb., appointed Medical Officer of Health for the Parishes of Charterhouse, Furnival's Inn, and Staple Inn.

PALIN, H. Venables, M.B., C.M., L.R.C.P., L.R.C.S.Edin., L.S.A.Lond., appointed Public Vaccinator of No. 3 District Wrexham Union.

PARTRIDGE, Thomas, M.R.C.P.I., M.R.C.S., appointed Medical Officer Officer of Health to the Nailsworth Urban District.

POPE, G. Stevens, L.R.C.P. & S.Edin., Assistant Medical Officer, Cane Hill Asylum, appointed Medical Superintendent of the New Middlesbrough Asylum, Marton, Yorkshire.

SCOTT, H. Ainslie, M.B. & Ch.B.Vict., M.R.C.S., L.R.C.P., appointed Junior House-Surgeon to the Ancoats Hospital, Manchester.

SHARP, Edward, M.R.C.S.Eng., reappointed Medical Officer of Health to the Truro Town Council.

SIMPSON, Dr., appointed Medical Officer for the Coningsby District of the Boston Union, *vice* J. F. Carruthers, M.B., C.M., resigned.

STANLEY, Douglas, M.D.Edin., M.R.C.P.Lond., appointed Extra Acting Physician to the Children's Hospital, Birmingham, *vice* Dr. Powell, appointed Acting Physician.

STEPHENS, James Wm., L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health to the Cardigan Town Council.

STOBO, Robert, M.B., C.M.Glasg., appointed Medical Officer of Health to the Sunderland Rural District Council.

SYMES, Wm. S., L.R.C.P., L.R.C.S.I., reappointed Medical Officer of Health to the Newbold Urban District Council.

TOMEY, George Parsons, B.A., L.R.C.S.I., L.R.C.P.I., L.M., appointed Medical Superintendent, Lincolnshire County Asylum.

TUXFORD, Arthur, M.D.Edin., appointed Medical Officer of Health to the Boston Rural District Council, *vice* J. Wilkinson, M.B., resigned.

WALLACE, J. J., M.B., B.Ch.R.U.I., appointed Medical Officer for the Workhouse and the Weobley District of the Weobley Union, *vice* W. F. Walker, resigned.

WATERS, Alfred John G., L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health to the March Urban District Council.

WIGGINS, Charles, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health to the Bexhill District Council.

WILLIAMS, C. R., M.B., C.M.Edin., reappointed Medical Officer of Health to the Ashby-de-la-Zouch Urban District Council.

## DIARY FOR NEXT WEEK.

### MONDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor Charles Stewart: Joints and Flexible Bonds of Union in Plants and Animals. Lecture IV.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Mr. Harrison Cripps: Three cases of Intestinal Anastomosis, two of them involving Double Resection. Dr. T. D. Savill: Senile Decay, its Pathology and Treatment, illustrated by cases and by the projection microscope.

### TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital for Lunatics, 2 P.M.—Dr. Craig: General Paralysis. Hospital for Diseases of the Skin, Blackfriars, 4.30 P.M.—Dr. Abraham: Urticaria.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Dr. A. P. Luff: On the Chemistry and Pathology of Gout. Goulstonian Lecture I.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL, Gray's Inn Road, 4 P.M.—Dr. Dundas Grant: The Diagnosis and Treatment of the Dangerous Sequelæ of Suppurative Inflammation of the Middle Ear.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 P.M.—Surgeon-Captain C. W. Duggan: The Parasite of Malaria in the Fevers of Sierra Leone (communicated by Dr. George Thin). Dr. S. West: Pulsating Empyema (Empyema Pulsans).

### WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor Charles Stewart: Joints and Flexible Bonds of Union in Plants and Animals. Lecture V.

LONDON POST-GRADUATE COURSE, Parkes Museum, 74A, Margaret Street, Regent Street, W., 4.30 P.M.—Professor A. Wynter Blyth; Air, Cubic Space.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, 4 P.M.—Dr. Acland: Empyema.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, 8.30 P.M.—Mr. W. Rawes: Mental Disorders of the Climacteric Period.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Continuation of the discussion on Retro-ocular Neuritis. Speakers: The President, Messrs. Jessop, Silcock, Holmes Spicer, Risien Russell, Macnaughton Jones, Adams Frost.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M.—Dr. Mansell Moullin: The Use of Pessaries in Flexion and Relapse.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND, 20, Hanover Square, W., 5 P.M.—Cases will be shown by Drs. Abraham, Savill, and Walsh, Mr. Jackson Clarke, and others.

### THURSDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Dr. A. P. Luff: On the Chemistry and Pathology of Gout. Goulstonian Lecture II.

### FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor Charles Stewart: Joints and Flexible Bonds of Union in Plants and Animals. Lecture VI.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, W.C., 3 to 5 P.M.—Professor Crookshank: Typhoid and Diphtheria.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 P.M.—Dr. William Pasteur: An Epidemic of Infantile Paralysis among Children of the Same Family. Mr. C. B. Lockwood: Case of Malignant Stricture of the Œsophagus treated with Symonds's Tube: Safety String Swallowed: Gastrostomy. Dr. J. W. Washbourn and Mr. W. A. Lane: Case of Cerebral Tumour: Successful Removal. Mr. Richard Barwell: Remarkable features in a case of Extravasation of Urine.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

BRYANT.—On March 8th, at 9, Coburg Terrace, Anlaby Road, Hull, the wife of W. A. Bryant, M.B., C.M., of a daughter.

HUSKIE.—At Hamilton House, Moffat, N.B., on 28th February, the wife of David Huskie, M.A., M.B., C.M.Edin., of a daughter.

### MARRIAGE.

JEKYLL—LANGDON.—March 11th, at Holy Trinity Church, Barnstaple, North Devon, by the Rev. Rowland Newman, Rector of Hawkridge, Somerset, cousin of the bridegroom, Lewis Nugent Jekyll, M.R.C.S., L.R.C.P.Lond., of Leytonstone, Essex, second son of the late Rev. Joseph Jekyll, of Hawkridge, Somerset, to Agnes Maria, youngest daughter of the late William Langdon, of Northmolton, North Devon.

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances*—Daily, 2. *Operations*.—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances*.—Daily, 1. *Operations*.—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR.—*Attendances*.—M. W. Th. S., 2; Tu. F., 5. *Operations*.—Daily.

CHARING CROSS. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations*.—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances*.—Daily, 1.30. *Operations*.—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances*.—M. Tu. Th. F., 2. *Operations*.—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations*.—F., 2.

GREAT NORTHERN CENTRAL. *Attendances*.—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30 Skin, W., 2.30; Dental, W., 2. *Operations*.—M. W. Th. F.

GUY'S. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations*.—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Attendances*.—Daily, 10. *Operations*.—M. Th., 2.

KING'S COLLEGE. *Attendances*.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations*.—M. F. S., 2.

LONDON. *Attendances*.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Tu., 9; Dental, Tu., 9. *Operations*.—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE. *Attendances*.—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations*.—M. Th., 4.30.

METROPOLITAN. *Attendances*.—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations*.—F., 9.

MIDDLESEX. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations*.—W., 1.30; S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Attendances*.—M. Tu. Th. F., 2. *Operations*.—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances*.—Daily, 2; Ophthalmic, W. S., 9.30 *Operations*.—Tu. F., 9.

NORTH-WEST LONDON. *Attendances*.—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations*.—Tu., 2.30.

ROYAL EYE, Southwark. *Attendances*.—Daily, 2. *Operations*.—Daily.

ROYAL FREE. *Attendances*.—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 3; Dental, Th., 9. *Operations*.—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances*.—Daily, 9. *Operations*.—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances*.—Daily, 1. *Operations*.—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances*.—Daily, 1. *Operations*.—Daily.

ST. BARTHOLOMEW'S. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 3; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations*.—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th. 2.

ST. GEORGE'S. *Attendances*.—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations*.—M. Tu. Th. F. S., 1.

ST. MARK'S. *Attendances*.—Fistula and Diseases of the Rectum, males S., 3; females; W., 9.45. *Operations*.—M., 2; Tu., 2.30.

ST. MARY'S. *Attendances*.—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 3.0; Skin, M. Th., 9.30; Electro-therapeutics, M. Th., 2.30; Dental, W. S., 9.30; Children's Medical, Tu. F., 9.15; Children's Surgical, S., 9.15. *Operations*.—M., 2.30.; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances*.—M. 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations*.—W. F., 2.

ST. THOMAS'S. *Attendances*.—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations*.—M. W. Th. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances*.—Daily, 1.30. *Operations*.—W., 2.30.

THROAT, Golden Square. *Attendances*.—Daily, 1.30; Tu. F., 6.30. *Operations*.—Th., 2.

UNIVERSITY COLLEGE. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30. *Operations*.—Tu. W. Th., 2.

WEST LONDON. *Attendances*.—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations*.—Tu. F., 2.30.

WESTMINSTER. *Attendances*.—Medical and Surgical, daily, 1; Obstetric, Tu., F., 1; Eye, Tu. F., 9.30; Ear, M. Th., 9.30; Skin, W., 1; Dental, W. S., 9.15. *Operations*.—M. Tu. W., 2.

# LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

### QUERIES.

HISTORICUS asks for a list of the best works on the history and development of medicine as a science.

DR. HERBERT DANVERS (Bordighera) asks to be referred to a full description of the "Terrain Cur" as practised by Oertel.

M. G. S. writes: An unmarried woman, aged 38, suffers from a serous discharge from the nipple of the left breast. This has been troubling her for two or three months. She is quite regular, and has never borne any children. What may be the cause of this discharge, and how should it be treated?

M.B. asks for advice upon the following case: A gentleman, aged 53, light, and of excitable temperature, is troubled with itching of the skin of the leg above the ankle and below the knee, worst when warm. He has a good appetite, feels well, has no sugar or albumen in urine, and no other definite symptoms of disease of any kind.

G. W. B. asks advice as to treatment of a child aged 4 years. It has had seborrhœa corporis for two years. With a daily application of ung. acidi borici most patches, but not all, almost entirely disappear, but become worse if treatment be omitted for one day. Another child, of the same family, aged 6 months, has had seborrhœa capitis from a fortnight after birth; it is spreading. The other children are healthy.

SUBSCRIBER wishes to be advised as to a German-English and a French-English Dictionary of medical and general scientific terms.

*** *A German-English Dictionary of Medical Terms*, by Frederick Treves, F.R.C.S., and Hugo Lang, B.A. (London: J. and A. Churchill. 12s.) would probably serve our correspondent's purpose as far as German is concerned. We know of no French-English medical dictionary. Littré's *Dictionnaire de Médecine*, otherwise excellent, is only in French, though a list of English equivalents of medical terms is given. Messrs. E. C. Clifton and Adrian Grimaux's *New Dictionary of the French and English Language* (Paris: Garnier Bros.) is a general dictionary, but contains a considerabl number of the technical terms used in medicine.

GLEET.

COLONIAL asks for advice as to the treatment of a patient who contracted gonorrhœa two years ago, and from which he suffered for about six months (having resided in the tropics for a year after getting infected). Then a gleet set in, and whenever treatment is stopped for about a month or less the urethra becomes red and congested with a profuse yellow discharge, which, however, soon yields to any of the ordinary drugs internally, or better to strong astringent injections. The urethra feels nodular to the finger, and red and apparently granular when inspected through a speculum. The whole trouble appears to be in the spongy portion of the urethra. The patient is in robust health, with a good appetite.

HOME FOR EPILEPTIC CHILD.

SURGEON asks where a home could be found for a congenital idiot aged 3, subject to constant epileptic seizures. The patient's friends are of the poorer class, but a small payment could be made.

*** We are not aware that any of the existing institutions admit congenital idiots at as low an age as three years. As the child lives in Hampshire, the only institution for which he or she is eligible is the Earlwood Asylum, Redhill, Surrey, but cases are not admitted there until the age of seven years. At present, it seems possible only to treat the epileptic seizures from which the child suffers, and wait patiently until the child attains the age of seven years. If the parents can pay something, it will not then be necessary to obtain so many votes for admission as would otherwise be required.

### ANSWERS.

PATER will find the information he requires in the Educational Number of the BRITISH MEDICAL JOURNAL, published on September 5th, 1896, p. 581.

LOCUM T. would probably find no difficulty in seeing the practice at any hospital in London on sending his visiting card to the member of the staff whose clinic he wishes to visit. At hospitals without teaching schools attached he would no doubt be able to attend as often as he liked. He could obtain admission to the Museum of the Royal College of Surgeons on presentation of a recommendation signed by a Member or Fellow.

ACCESSORY PANCREAS.

DR. ERNEST F. NEVE (Kashmir) writes: In answer to "R.H.S.C.'s" query in the BRITISH MEDICAL JOURNAL of January 16th, p. 183, I would refer him to Klebs's and Zenker's cases—five, I think, in number—published in the *Zeitsch. d. Ges. d. Wien. Aerzte*, 1850, xlvi, p. 732. The condition is very rare.

HYPNOTISM IN DIPSOMANIA.

DR. D. CLARK LAIRD (Milngavie, Dumbartonshire, N.B.) writes: About six months ago I was asked by the friends of a confirmed dipsomaniac to try and break him of the habit, and hypnotism was suggested by them. As I had never employed it I arranged a meeting with Dr. McLennan, of Glasgow, who had taken a great interest in the subject. Dr. McLennan hypnotised the patient several times in my presence, and then left me to go on with the case. So far it has been a complete success. The patient informs me that since the first day of treatment he has not had the slightest inclination for alcohol. I may add that he was

quite willing, should hypnotism fail, to be confined in an asylum for any length of time. He is still being hypnotised once a week.

### Boracic Acid as a Face Powder.

L. A. P.—Patients vary much in their susceptibility to the action of boracic acid. When applied freely to the skin of the face, it not uncommonly acts as an irritant. The case is recorded of a boy who had a burn which was treated with boracic acid. On the fifth day he developed an extensive erythematous eruption over the trunk, limbs, and face, and on the ninth day he died. At the *post-mortem* examination nothing was found to account for death, and prior to the appearance of the rash the patient was progressing favourably. As the favourite seat of the boracic acid eruption is the face, it certainly does not appear to be well adapted for habitual use as a complexion powder.

## NOTES, LETTERS, Etc.

### A Curious Encysted Hydrocele.

Dr. A. A. G. Dickey (Colne, Lancashire) writes: The patient called at my surgery, and said he had three testicles, and wanted one of them removed. He was a stonemason, a married man with four children. On examination, there was a tumour about the size of a large marble in the left side of the scrotum. It seemed to be connected by a pedicle with the external abdominal ring. It was not connected with the testicle or the epididymis, and was freely movable. It had first appeared, he said, about two years earlier. On puncturing with a hypodermic needle, a syringeful of slightly opalescent fluid was drawn off. The fluid gave the reaction for albumen. I would be pleased to hear if any member has ever met with a similar case.

### Self-Righteousness Made Easy.

A correspondent at St. Leonard's-on-Sea sends us a printed form which he found at the house of one of his patients: "On account of the terrible cruelties perpetrated on living animals in Vivisectional Laboratories and in Pasteur and Preventive Medicine Institutes, I hereby undertake not to employ as Medical Attendant anyone who is licensed to vivisect in any Laboratory whatever." As none of the medical men of St. Leonard's hold licences any resident there may safely sign and return this form without fear of the consequences. If only all the antivivisectionists would promise not to be attended by anyone whose skill and knowledge were due to experiments made by other men, then the agitation would soon come to an end.

### Dr. Rentoul's Election Expenses and those Incurred in Opposing the Four Midwives Bills.

Mr. Alfred Cox, M.B., Honorary Secretary (West View, Gateshead-on-Tyne), writes: The total amount to date is £92 17s. I now ask with confidence that those supporters of Dr. Rentoul, whose support is not limited to words (which are cheap) should at once forward their subscriptions. If this list were some testimonial to a rich and highly-placed member of the profession who did not need it I suppose we should have had to get clerical assistance in acknowledging all the donations. As it is, however, a question of repaying a hardworking practitioner money spent in furthering our interests, it takes nearly three months to raise a paltry £92. This is indeed gratitude, and will doubtless act as an incentive to other men to spend time, money, and health in medico-political work.

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### The Association of Scarlet Fever with Diphtheria.

Mr. Sydney C. Legge (Harborne, Birmingham) writes: Two years ago I was acting as *locum tenens* in a populous district. There was at the time an epidemic of scarlet fever, and I saw a great many cases. Amongst others I was called in to see a child about 7 years of age. Her temperature was high, there was the typical rash of scarlet fever, and her throat was red and inflamed. The following morning I was asked to see the baby, aged 1½ year. I was told that she refused her milk and was very restless. Her temperature was raised and her throat red and inflamed. There was no rash. Twelve hours later I was called up by the father, who said that the baby was dead. I went at once, and found that he was correct, the child evidently having died in convulsions, the hands being clenched, the back arched, and the limbs rigid. The girl's condition became worse: the tonsils, fauces, and back of pharynx became covered with a yellow membrane; the cervical and submaxillary glands greatly enlarged; she became delirious and comatose, and died on the fourth day of her illness. The drains, etc., in connection with the house were found to be very defective. They were attended to, and the house thoroughly disinfected. The two remaining children, who had been sent away at the outset, on their return contracted scarlet fever, which, I am informed by their medical attendant, ran a mild and favourable course.

The fact that the cases differed in severity so greatly seems in favour of the "double infection" theory in the case of the first two children. In these cases I would suggest that diphtheria was grafted on to scarlet fever. The tonsils being already inflamed and their resisting powers consequently diminished would form a suitable nidus for the bacilli of diphtheria. On the other hand, it is only reasonable to suppose that the attention paid to the sanitary arrangements accounted in great measure for the mildness of the attack in the remaining children. I may add that no other case of scarlet fever ended fatally, although some were of a severe nature.

### A Bogus Certificate

An inquest was held on the body of an unknown man at Llandaff recently who was found dead in his bed at lodgings which he had taken in the name of Jenkins. Upon the police searching the body, a certificate purporting to be signed by a medical practitioner of London, stating that "W. Jenkins was suffering from heart disease, and might die at any moment," was found. The evidence given by Dr. Arthur, of Llandaff, who had been summoned by the police on discovery of the body, was that there had been rupture of the thoracic aorta, which had caused immediate death, and a verdict of death from natural causes was returned. From a communication we have received it appears that the certificate in question had not been written by the medical practitioner by whom it was alleged to have been signed; and that, on being shown to him, it was declared to be a forgery. How and from whom the certificate was procured is not discoverable.

### "The Influence on the Action of the Auricle of Variations in its Capacity."

Dr. D. W. Samways (Mentone) writes: I am quite willing to admit that Mr. R. H. Woods called attention before I did to the fact that "a small contracting sac has a mechanical advantage over a large one." I did not know of his excellent paper when I wrote my article with the above title in the British Medical Journal of January 23rd. For a hollow sphere with thin walls I agree with him that "the pressure on the contents varies inversely as the cube of the radius when the exertion of each individual fibre is taken as constant." I disagree with him, however, when he says of me, "He pushes the matter to an absurdity when he contends that the left auricle by its contraction sends blood into the contracting ventricle." His objection is (1) that the auricle is not valved towards the pulmonary veins. That is true, but it is sphincter-ed; the cardiac contraction commences on the great veins near the auricle and closes them, and a closed sphincter requires an infinite force to dilate it from within; or, in other words, a weak sphincter when closed can easily resist intracardiac blood pressure. There are few errors in medicine more extraordinary than that which supposes the pulmonary veins unprotected from the intra-auricular blood pressure

Dr. B. Foster, in his *Clinical Medicine*, records a case of "pure tricuspid stenosis" in which "the right auricle measured a quarter of an inch in thickness in many parts." In this case "the jugular veins were distended, and a slight undulatory pulsation was observed in the right veins occurring prior to the heart's systole." Such a pulsation, I maintain, corresponds with that which occurs in a water pipe in which the flow of water is suddenly arrested by closing the stopcock. It is an inertia effect consequent on the veins contracting and closing near the auricle and arresting the oncoming blood column, and is no evidence of regurgitation. An auricle of a quarter of an inch in thickness acting backwards would produce something quite different from a "slight undulatory pulsation," and we should, moreover, have to suppose that it hypertrophied out of pure mischief.

The auricle has been known in certain pathological conditions (calcification of ventricles)[1] to maintain for a long period the whole expense of the circulation. To do this it must produce a far greater pressure in the aorta than in the pulmonary veins, and the dividing line between the maximum and minimum pressures must be at the junction of auricle and pulmonary veins. Mr. Woods is surely in error too in saying that in "applying the formula $P=t\left(\frac{1}{r^1}+\frac{1}{r}\right)$ to the contracted auricle and dilated ventricle in question, its value will be found to be greater for the ventricle than for the auricle." In the paper to which he refers he has shown that $t \propto \frac{1}{r^2}$, and that in the case of a sphere where $r_1=r$ $P$ consequently $\propto \frac{1}{r^3}$. If, then, the contracted auricle have a radius one-third that of the full ventricle, the intra-auricular pressure could be increased twenty-seven-fold, and thus be two or three times greater than that in the dilated or full ventricle. Mr. Woods's mathematics thus support my contention.

Mr. Woods's third objection to my theory of auricular action is that "it will be found that the mean radius of curvature of the contracted auricle is nothing like small enough to enable it to raise the pressure of its contents to anything approaching that of the ventricle." Mr. Woods does not indicate how this will be found, and at present it appears to me pretty clear that when towards the end of the auricular contraction the mean radius of curvature of the auricle is less than half what it was at the beginning, the auricle is prepared for the oncome of the ventricular contraction, and can resist the tendency to regurgitation through a small valvular leak. As the auricular contraction further progresses it can more than resist it, especially in mitral stenosis cases where the auricle is further aided by hypertrophy.

### The Malarial Parasite.

M.D. writes: I have taken considerable interest in Surgeon-Major Ross's paper on the Malarial Crescent. The production of the flagellum he

[1] Dr. A. Gerard, *Thèse de Paris*.

attributes to a change of density of the medium in which the germs are propagated, sometimes to too much water, at other times to loss of water, it seems to me that the logic is a little defective. I would suggest as a reason the death, so to speak, of the blood. We know how sensitive the blood is, and might it not be than when once the drop of blood in his experiments leaves the blood vessels it becomes dead matter, and suits the further development of the germs in that stage of their existence; even the alimentary canal of the mosquito is nutrition on dead matter.

### THE TREATMENT OF EPILEPSY.

DR. J. H. SPROAT (Senior Assistant Medical Officer Somerset and Bath County Lunatic Asylum) writes, with reference to the letter in the BRITISH MEDICAL JOURNAL of March 6th, in which Dr D. Campbell Black recommends the use of bromide of potassium and belladonna in the treatment of epilepsy: Authorities on epilepsy have hitherto looked upon the prognosis of the disease as being very grave. Gowers says: "The prospect of spontaneous cessation of the fits is small, and the tendency of the disease is to self-perpetuation." In the Somerset and Bath County Asylum, which contains more than 120 epileptic patients, the bromide and belladonna treatment has been systematically persevered with for a number of years, and attention has also been paid to the removal of any peripheral irritation which might exist, but without a single recovery which could be in any way attributed to the above treatment.

### THE RECONSTRUCTION OF THE UNIVERSITY OF LONDON.

M.B.LOND. writes: If the University of London be reconstructed into a teaching university, the average London student will be no nearer an M.D. degree than he was before, unless the present standard be lowered. It may be easier for him to obtain his M.B. degree if he is examined by his teachers; but the University of London requires what no other university in Great Britain requires, namely, that an M.B. must pass a very stiff and prolonged examination for the M.D. degree. As the average M.B. settles down into general practice he is not allowed to go in for his M.D. till five years after he has passed his M.B. If he has a good-class practice he finds it almost impossible to leave it for a fortnight to come up for examination in December, the busiest time of the year. And not only that, but he has very little time for reading, to keep himself up to the London University standard, and most of his reading time has to be wasted on mental physiology, a vague, indefinite subject, of which the University gives no syllabus, and on which there is no English book published that covers the questions put. To a general practitioner an M.D. degree is more useful than it is to a consultant, as the hospital appointment gives the consultant his position. An M.B. degree is unsatisfactory, as it does not give the right to the prefix "Dr." Nearly every week some one or another says to me, "I ought to call you 'Doctor,' ought I not?" All I can answer is, "No."

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## BOOKS, ETC., RECEIVED.

The Wasted Orchards of England. By the "Gardeners' Magazine" Special Commissioner. London: W. H. and L. Collingridge. 6d.

La Bacteridie Charbonneuse. Assimilation, Variation, Sélection. Par F. Le Dantec. Paris: Masson et Cie. Fr. 3.

Les Poisons de l'Organisme. Poisons des Tissus. Par A. Charrin. Paris: Masson et Cie. Fr. 3.

Sight Testing for the G. P. By F. Davidson. London: A. La Riviere.

An Introduction to the Study of the Anthropoid Apes. By A. Keith, M.D., F.R.C.S., F.Z.S.. London: Page and Pratt. 1897. 2s.

Physiology. Students' Notebook (for the Laboratory). By A. J. Hall, B.A., M.B., M.R.C.P. Part I. Physiological Chemistry. London: Baillière, Tindall and Cox. 1897. 2s. 6d.

Handbuch der Laryngologie und Rhinologie. Herausgegeben von Dr. P. Heymann. Lief 12 und 13. Wien: Alfred Hölder. 1897.

Vita Medica: Chapters of Medical Life and Work. By Sir Benjamin Ward Richardson, M.D., LL.D., F.R.S. London: Longmans, Green and Co. 1897. 16s.

Veröffentlichungen aus dem Gebiete des Militar-Sanitatswesens. Herausgegeben von Medicinal-Abtheilung des Königlich Preussischen Kriegsministeriums. Heft II. Berlin: August Hirschwald. 1897. M. 2.

Häufigkeit und Prognose der Zangenentbindungen auf Grund des gynäkologischen und geburtshülflichen Materials der Tübinger Universitats-Frauenklinik. Von Dr. E. Winternitz. London: Williams and Norgate. 1897. 1s.

Die Lepra im Kreise Memel. Von Dr. A. Blaschko. London: Williams and Norgate. 1897. 2s. 6d.

A Handbook of the Diseases of the Eye and their Treatment. By H. R. Swanzy, A.M., M.B., F.R.C.S.I. Sixth Edition. London: H. K. Lewis. 1897. 12s. 6d.

Ligaments, their Nature and Morphology. By J. B. Sutton. Second Edition. London: H. K. Lewis. 1897. 4s. 6d.

The Narrative of my Experience as a Volunteer Nurse in the Franco-German War of 1870-71. By Anne Thacker. London: Abbott, Jones and Co. 1897. 3s. 6d.

Considérations sur l'Antéflexion Pathologique de l'Utérus et son Traitement. Par Dr. M. Lévy. Paris: G. Carré et C. Naud. 1897. Fr. 5.

The Ethics of Diet. By Howard Williams, M.A. London: Ideal Publishing Union. 1896.

Forensic Medicine and Toxicology. By C. O. Hawthorne, M.B. Second Edition. Glasgow: A. Stenhouse. 1897. 4s. 6d.

Die Meningitis Serosa Acuta. Von Dr. G. Boenninghaus. Wiesbaden: J. F. Bergmann. 1897. M. 2.80.

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# THE GOULSTONIAN LECTURES
ON THE
# CHEMISTRY AND PATHOLOGY OF GOUT.

*Delivered before the Royal College of Physicians, March, 1897.*

By ARTHUR P. LUFF, M.D., B.Sc., F.R.C.P.,
Physician in charge of Out-patients in St. Mary's Hospital; and Lecturer on Forensic Medicine in St. Mary's Hospital Medical School.

[Abstract.]

## Lecture I.

When I accepted the duty of delivering the Goulstonian Lectures for this year I was deeply sensible of the honour conferred upon me, and of the serious responsibility that I incurred. As the youngest Fellow of this College I should, perhaps, not have ventured to discourse to you on the subject of gout—a subject which has been so enriched and so ably dealt with in the past by many distinguished Fellows of this College—were it not that I thought the occasion was a convenient one briefly to review the various opinions held as to the causation and nature of gout, and, at the same time, to place before you the results of some experimental work that I have been conducting on the chemistry and pathology of this disease. As I propose to continue and extend this line of work, I can only in these lectures lay before you the results that I have so far obtained, and the conclusions I have arrived at from those results. I must, therefore, request your indulgence for the somewhat fragmentary nature of the experimental work.

Gout is the manifestation of a number of morbid tendencies, some of which may be inherited and some acquired, and which result in the different diseases associated with the arthritic diathesis. If the joints are affected articular or regular gout results; if other organs or tissues are affected then irregular gout is produced.

Gout is associated with the presence of an excess of uric acid in the blood, and the questions I propose to discuss in these lectures mainly resolve themselves into the mode or modes by which the uric acid is produced and introduced into the blood, the source or sources of its production, the relationship that it bears to the gouty paroxysm and to the other manifestations of gout, and the factors or conditions which influence its formation and its injurious action.

Uric acid was discovered in the urine by Scheele in 1775, and in 1787 Wollaston demonstrated its presence in gouty concretions. It was not, however, till 1847 that Sir Alfred Garrod first found uric acid in the blood of gouty patients in the form of a sodium salt.

The various views held as to the primary cause of gout may be classified into the three following groups:

1. Excess of uric acid regarded as the primary cause.
2. Morbid changes in the structure of tissues regarded as the primary cause.
3. Nervous disturbance regarded as the primary cause.

### 1. Excess of Uric Acid regarded as the Primary Cause of Gout.

(1) *The Uric Acid Compound regarded as Acting Passively and Physically while in the Crystalline State.*—Sir Alfred Garrod and Sir William Roberts are the two principal exponents of the view. The former regards the inflammation attending each paroxysm of gout as the mechanical effect of the deposition of sodium biurate in an articular cartilage predisposed to its reception by being the seat of former injury or disease. The deposition is determined by the blood for some reason or other becoming incapable of holding the compound in solution. Sir William Roberts also regards uric acid in solution as innocuous, harmful effects accruing only from its crystallisation in the blood and tissues. He attributes irregular gout to the precipitation of sodium biurate crystals in the structures of the organs implicated, and considers that scattered needles of the salt may form the foci of gouty thromboses. Such crystals have been found by Cornil and others in the neurilemma of peripheral nerves, in the cerebral meninges, and elsewhere.

(2) *The Uric Acid Compound Regarded as Acting as a Poison or Irritant while in the Dissolved State.*—Many writers and observers have supported the view that, apart from the local trouble in the joints caused by the deposited sodium biurate acting as an irritant, the soluble uric acid compound which is circulating in the fluids of the body acts as a poison, the toxic effects of which are responsible for a number of the symptoms associated with the gouty state.

Pfeiffer holds that a compound of uric acid is deposited, without ill effect, in both healthy and diseased parts of the body, and that an acute attack of gout is caused by some of this being redissolved by increased alkalinity of the blood to form a concentrated solution with toxic properties. But we know that uric acid is deposited as the sodium biurate, and it will be shown later on that the solubility of this is not heightened by increased alkalinity of the solvent.

Sir W. Roberts advances against the toxicity of uric acid in solution, first, the absence of experimental proof, and, secondly, the fact that on the eve of an attack of acute gout the fluids of a patient's body are saturated with sodium biurate, and yet no toxic symptoms precede the arthritic manifestations. Furthermore, in leucocythæmia and other severe anæmias the blood is frequently highly charged with uric acid, but toxic symptoms are entirely absent.

Kolisch considers that gout is produced by the accumulation of alloxur bases and similar precursors of uric acid in the blood owing to defective action of the kidneys, which normally convert them into uric acid, as which they are excreted. He is supported by Weintraub, but opposed by Schmoll, who fails to find increased excretion of alloxuric bodies in chronic gout.

### 2. Morbid Changes in the Structure of Tissues regarded as the Primary Cause of Gout.

(1) *Necrotic Changes in the Affected Tissues due to the Presence of Dissolved Urates regarded as the Primary Cause of Gout.*—Ebstein,[1] who is the main exponent of this view, holds that a necrotic process is produced in the cartilages or other implicated tissues by uric acid in one form of combination, as the result of which uric acid in another form of combination is deposited in the necrosed areas, uratic crystals forming only in necrosed and never in healthy tissues. He holds that the neutral sodium urate in a dissolved state acts as an irritant, causing venous stasis, and eventually necrosis in the implicated tissues. The process of necrosis generates a free acid, which converts the neutral urate present in the fluids of the body into the acid urate, which is accordingly deposited in the necrosed tissues.

Ebstein bases his theory on two sets of experiments, the first of which consisted in the examination of the organs and tissues of birds which he had endeavoured to render gouty by preventing the elimination of their urinary secretions; the second in observations of the irritant effect of sodium urate solution upon the cornea. The first research was carried out in two ways (*a*) by ligaturing both ureters of cocks, (*b*) by administering to them repeated small subcutaneous injections of neutral potassium chromate, which he considers to inhibit the passage of uric acid through the kidneys by its action on the renal parenchyma, both methods resulting in the formation of uratic deposits in the articulations, tendon sheaths, liver and muscles; these deposits were much larger in the latter case, in which the animals could be kept alive for a longer period. He concluded that a necrotic process had supervened upon the action of some necrotic agent (presumably uric acid) and had led to the deposition of the urate

I do not think that the morbid processes occurring under these conditions in fowls can be considered as in any sense comparable with those occurring in connection with gout in man. Ebstein found uratic deposits in the liver and muscular tissues of the birds experimented on—localities where they are not found, at all events to any appreciable extent, in human gout. From this one may fairly conclude that the two processes cannot be considered as comparable. Moreover, since the fowl produces and eliminates by the kidneys so large a quantity of urates, the more or less sudden stoppage of kidney excretion must necessarily result in the damming back of it and the rapid accumulation of it in the blood and tissues, where, as Sir William Roberts[2] suggests, it would probably first collect in a state of solution as the quadriurate, which would then be precipitated in the tissues as the gelatinous biurate, and this in its turn would be changed into the crystalline biurate.

The second series of experiments, which Ebstein regards as proving that sodium urate is the cause of tissue necrosis, consisted in the injection of a saturated solution, prepared at 100° F., of uric acid in 5 per cent. sodium phosphate into the peritoneal cavity, anterior chamber, cornea, and other organs of a rabbit; further, in the introduction of uric acid in powder into the conjunctival sac. By comparing the result of this upon the cornea with that of injecting a simple solution of sodium phosphate or water containing calcined magnesia in suspension,

he arrived at the conclusion that uric acid and its salts produced definite necrotic changes.

The objection to this method of experimentation is that, in the first place, the solution of uric acid in sodium phosphate does not contain the neutral sodium urate, which is the body on which Ebstein relies for the production of the initial irritant effects leading on to the necrotising process. The solution would contain the sodium quadriurate, or the biurate, or a mixture of the two. Moreover, as Sir William Roberts has pointed out, such a saturated solution would soon begin to deposit its urate in the form of the gelatinous biurate, which, infiltrating the affected area of the corneal tissue, would act as a mechanical irritant. It is clear, therefore, that all the corneal changes observed by Ebstein can be accounted for by the assumption that they are caused by a mechanical irritant.

Neubauer's experiments, in which he administered enormous quantities of uric acid to rabbits without causing any apparent inconvenience, also oppose this view. Moreover, it may well be asked why, if urates are to be regarded as irritants, the kidneys, which normally excrete them constantly, ever escape damage. Furthermore, not only is there no proof that the neutral sodium urate which Ebstein regards as starting the gouty changes ever exists in the human body, but there is strong evidence that it never can so exist, as it is an extremely caustic and unstable body which is decomposed in the presence of carbonates such as those in the blood. And Pfeiffer has shown that the injection of strong solutions of the biurate cannot cause necrosis, a result which must apply still more to the weak solutions found in the blood. Ebstein's further assumption that the necrotic process generates an acid converting the neutral into the acid urate shows an imperfect acquaintance with the chemistry of the subject; for Sir William Roberts has shown that uric acid is primarily taken up by the blood and lymph not as a neutral urate but as a quadiurate, and that the formation and deposition of the crystalline biurate are not favoured by the intervention of an acid. Ebstein's assertion that he is able to demonstrate necrotic changes in areas from which he has dissolved out crystalline urates in not in accord with the results of other competent observers, and I myself have been unable to find in such cases any changes beyond what might be produced by mechanical pressure followed by some inflammation and degeneration.

If, too, the sodium biurate is only formed and deposited in necrosed areas, how is it that crystals of sodium biurate are occasionally found free in the synovial fluid of a gouty joint? As Sir William Roberts[3] remarks, "it will scarcely be contended that necrotising and necrotic processes can take place in synovia."

Sir Dyce Duckworth,[4] in a modified sense, believes that a soluble urate may act as an irritant. Although he considers that gout is primarily due to a disorder of the nervous system, he entertains the additional view that the urate in solution may set up degeneration and necrotic changes in tissues.

(2) *Inflammatory or Degenerative Changes in the Affected Tissues regarded as the Primary Cause of Gout, such Initial Changes not being caused by Urates.*—Dr. Ord in 1872 considered that gout was due to a special form of degeneration in some of the fibroid tissues, resulting in an excessive formation of sodium urate, which is then discharged into the blood, and is subsequently deposited in those parts least freely supplied with vascular and lymphatic structures. Dr. Ord, whose views in this particular have been supported by Dr. Norman Moore and Mr. Bowlby, also considers that uratic deposits only occur in tissues which have previously began to degenerate.

Dr. Berkart holds that the uratic deposits are most frequently connected with a form of panarthritis chiefly affecting the smaller joints of the extremities. This probably originates in some kind of atrophy of the bone, followed by degeneration of the cartilages and fibrous tissues of the joints, leading to necrosis of the tissues close to or within the joint. The necrosis is the cause of the local symptoms, and the whole process results from a profound disturbance of nutrition.

Dr. Berkart attributes the presence of the urates in the blood in part to leucocytosis, and in part to the formation of uric acid from the disintegration of the tissues; so that he regards the uratic deposits as an epiphenomenon and not as the cause of the gouty paroxysm.

### 3. Nervous Disturbance regarded as the Primary Cause of Gout.

Cullen, the great opponent of the humoral theory in the latter half of the last century, considered that gout mainly depended on an affection of the nervous centres. Sir Dyce Duckworth,[5] while accepting the view as previously mentioned, that uric acid has some connection with gout, considers that gout is primarily dependent on a functional disorder of a definite tract of the nervous system, and that the part specially involved is possibly situated in the medulla oblongata, where, it may be, there is a trophic centre for the joints. One reason that Sir Dyce Duckworth[6] gives for considering this possible is the relationship of gout to diabetes, the consideration of which has led him to the belief that the portions of the nervous system involved in the two diseases cannot be far apart from one another. In consequence of this disorder of the neurotrophic system defects of nutrition arise, which not only cause undue formation of uric acid, but also inhibit the normal destruction of that body in the tissues; at the same time the renal excretory power for uric acid appears to be temporarily inhibited as part of the process of the gouty paroxysm. He draws the following distinction between inherited and acquired gout: In primary, or inherited, gout the toxæmia is dependent on the inherited gouty neurosis. In secondary, or acquired, gout the toxæmia arises from the digestive and excretory organs becoming overloaded, and then if with this toxæmia there is depression and exhaustion of the nervous system, the gouty neurosis may be established by the morbid blood condition affecting the nutrition of the nervous system.

Dr. Edward Liveing[7] considers that there is much to be said in support of the view that gout is a manifestation of a disorder which has its primary seat in the nervous system.

Dr. P. W. Latham[8] regards some change in the nervous system as the most important factor in the etiology of gout. He thinks that such change is localised in the medulla oblongata, or the spinal cord, or in both, and that this nervous disorder may be either hereditary or acquired. He argues that if a portion of the medulla oblongata involving some of the roots of the vagus be the part affected the metabolism of the liver may be interfered with, and so lead to the formation of uric acid. He also considers that if from any cause uric acid is circulating in the blood it would act as a poison upon any weak spot in the nervous system, and that it is intelligible that it might act upon portions of the spinal cord which control the nutrition of the joints, and so cause nutritive changes or inflammation in the joints connected with that portion of the cord. In consequence of the inflammation or nutritive changes in the joints sodium biurate becomes deposited in them or in the tissues around the affected joints. Dr. Latham explains the phenomena of a gouty paroxysm by direct stimulation of sensory nerves by uric acid. He considers that the gout associated with chronic lead poisoning may be explained by the lead acting in such cases more particularly on such portions of the spinal cord which are concerned in gout.

Dr. Ralfe held the view that the accumulation of uric acid in the blood in gout was due to non-conversion into urea of the uric acid normally formed in the tissues, and he considered that the conditions which prevent the normal destruction of uric acid in the tissues depend probably on disturbance of innervation. From a careful consideration of these various views as to the primary cause of gout I am of opinion that the greatest mass of evidence is in favour of the view that a compound of uric acid is the *materies morbi*.

All observers are agreed that an abormal quantity of uric acid is found in the blood in gout. This over-charging of the blood with uric acid must be due to one or more of the following causes:

1. Normal production and deficient excretion of uric acid.
2. Over-production and normal excretion of uric acid.
3. Diminished destruction of uric acid by imperfect oxidation, or by some other means.

This last theory may be dismissed at once. There is no proof that the process of oxidation destroys uric acid; on the contrary, there is proof that uric acid is produced by a process of oxidation. Moreover, not only is there no proof that uric acid is produced during health in the organs and tissues of the body generally, and that it subsequently undergoes more or less destruction, but there are good reasons for believing that uric acid is, in health, only formed in the kidneys, and never appears in the general circulation except under pathological conditions.

With regard to the second theory of over-production and normal excretion of uric acid, there is abundant experimental proof to show that an increased production of uric acid, as in leucocythæmia and severe anæmia, does not lead to gout so long as the kidneys remain in a normal condition. In addition gout is essentially a disease of middle age, and is only very exceptionally met with in childhood and in youth,

although the formation of uric acid is greatest in early life, and apparently diminishes with the advance of age.

*View that Deficient Excretion of Uric Acid is Connected with Gout.*—That there is a deficient excretion of uric acid in gout is, I think, justified by the following facts. Judging as far as is possible by averages, recent accurate estimations of the excretion of uric acid show that in gouty subjects there is a decrease in its daily excretion, as compared with healthy individuals.

Pfeiffer [9] compares the quantities of uric acid contained in the urine of gouty patients of various ages, and in whom the complaint had not yet become chronic, with the quantities contained in the urines of subjects at the same age. For purposes of comparison the quantities of uric acid found by him were calculated in grammes per 100 kilogrammes of the body weight. His results are given in the following table:

| Age. | Gouty Subject. | Healthy Subject. |
|---|---|---|
| | Gramme. | Gramme. |
| 30 to 40 | 0.885 | 0.965 |
| 40 to 50 | 0.818 | 0.882 |
| 50 to 60 | 0.701 | — |
| 60 to 70 | 0.661 | 0.752 |

This table indicates that the amounts of uric acid excreted by gouty subjects were always rather lower than the quantities excreted by healthy persons of the same age.

In the following table are the results of the daily determinations that I made for eight successive days respectively of the total uric acid excretion in the urine of three persons, namely: (*a*) a male patient suffering from an attack of subacute gout supervening on chronic gout; (*b*) a male patient suffering from chronic gout and lead poisoning, with recent pain in the right metatarso-phalangeal joint, and in both ankle-joints; (*c*) a healthy man. The quantities of uric acid in the three cases are given in grammes, and are calculated per 100 kilogrammes of the body weight. All the individuals were between 40 and 50 years of age:

| Subacute Gout. | Chronic Gout. | Healthy Subject. |
|---|---|---|
| Gramme. | Gramme. | Gramme. |
| 0.260 | 0.578 | 1.105 |
| 0.263 | 0.617 | 1.027 |
| 0.315 | 0.665 | 1.020 |
| 0.350 | 0.715 | 1.376 |
| 0.442 | 0.443 | 1.175 |
| 0.556 | 0.372 | 1.030 |
| 0.506 | 0.593 | 1.252 |
| 0.494 | 0.594 | 1.203 |
| Average 0.398 | Average 0.572 | Average 1.148 |

These results, I think, justify the view that deficient excretion of uric acid occurs in connection with gout. I shall have occasion in a subsequent lecture to discuss in detail the probable *rôle* taken by the kidneys in the production of uric acid and in the development of gout.

*Estimation of Uric Acid in Urine.*—After repeated trials of the various methods which have been recommended for this purpose, I have come to the conclusion that the one devised by Mr. Gowland Hopkins [10] is by far the most reliable, and I have accordingly adopted it in my experiments. It consists in saturating the urine with powdered ammonium chloride, allowing it to stand for two hours, with occasional stirring, and then filtering. The precipitated ammonium urate is washed three or four times with saturated ammonium chloride solution, washed off the filter into a small beaker with a jet of hot distilled water and heated just to boiling with excess of hydrochloric acid. The beaker and contents are allowed to stand in the cold for two hours, when the uric acid separates out completely and is collected on a filter and washed with cold distilled water. [The filtrate should be measured before washing and 1 mg. added to the final result for each 15 c.c. of filtrate.] The uric acid is washed off the filter with hot water, warmed with sodium carbonate till dissolved, then transferred to a flask and mixed with 20 c.cm. of pure sulphuric acid. The mixture is titrated warm with a twentieth normal solution of potassium permanganate till a permanent pink colour is obtained; 1 c.cm. of the permanganate=0.00375 g. uric acid.

*Quantitative Determination of Uric Acid in the Blood.*—I have tested the methods devised by Salkowski and Leube, von Jaksch, and Klemperer by adding a known percentage of uric acid to bullock's blood which I had proved free from that substance, and then endeavoring to estimate it in the mixture. Very erroneous and discordant results being obtained, I devised the following plan, which I have used exclusively in my experiments: The fresh blood is allowed to flow direct into its own volume of rectified spirit (containing 2 per cent. formalin to prevent decomposition), with which it is agitated. The mixture is evaporated to dryness over a water-bath and the resulting solid finely powdered: 100 g. of the powder (=500 of the liquid blood) are mixed with a litre of boiling water, the whole being kept boiling for half an hour and then filtered, first through glass wool and then through filter paper. The filtrate is evaporated to 50 c.cm., again filtered, and finally subjected to the Gowland Hopkins process for the estimation of uric acid. By this means 80 to 87 per cent. of the uric acid can be extracted, but no more, and I have found no solvent of greater power than the distilled water.

Admitting that an excess of uric acid in the blood, and that its deposition therefrom in cartilages and other tissues is the direct exciting cause of a gouty paroxysm, the two questions that naturally arise in the mind are: 1. Where is the uric acid formed? 2. How is the uric acid formed? I believe that uric acid is formed in connection with some diseases, notably blood diseases accompanied by leucocytosis, in a different manner to that in which it is produced in health, and also in different organs. I also hold the opinion that the source of the uric acid contained in the blood in gout is the same as that from which the uric acid eliminated in the urine in health is derived. I propose, therefore, first to consider the various views as to the seat or seats of formation of uric acid in health and in gout.

## Seat or Seats of Formation of Uric Acid in Health and in Gout.

*View that the Kidneys Form as well as Excrete Uric Acid.*—This theory is maintained by Sir Alfred Garrod,[11] who concludes that uric acid in the blood, if not absorbed from the stomach, must arise from that formed in and by the kidneys, the blood changing the salt from the ammonium to the sodium urate. Kolisch[12] also regards the kidneys as the most important of the uric-acid-forming organs. Dr. Latham considers that the kidney is the seat of the final formation of uric acid by the conjugation of substances manufactured in the blood. Zalesky compared the effects of extirpating the kidneys and of ligaturing the ureters in serpents, which excrete almost pure uric acid; the animals lived about the same time in either case, but in the latter only were uratic deposits found in the tissues. This he takes to confirm the above theory, which is supported also by the observation of Garrod and others that the administration of uric acid or its injection into the blood caused an increase of urea in the urine, but not of uric acid.

*View that the Liver and Spleen Produce Uric Acid.*—The view that the liver is the main manufactory of uric acid probably depends on the fact that the excretion of this substance is greatest during digestion; this fact is, however, compatible with the idea that the liver forms only the precursors of the acid which are combined in the kidney. Schroeder states that uric acid is normally found in the blood of birds, and that it continues to be formed and, indeed, accumulates in the liver and blood after the removal of the kidneys. This is directly opposed to Zalesky's experiments; further, if uric acid is formed in the liver and conveyed to the kidneys, it must be present in the blood, and I shall shortly show that the blood of birds is entirely free from uric acid. Minkowski[13] succeeded in keeping geese alive from six to twenty hours after extirpation of the liver; after the operation their urinary excrement contained only 2 or 3 per cent. of uric acid, instead of the normal 60 or 70 per cent. These results are, however, equally compatible with the view that the liver is the seat of production of the antecedents of uric acid.

Dr. Murchison regarded the liver as the seat of production of uric acid, and the presence of the latter in the blood or tissues as the result of functional derangement of the liver, as the result of which the metabolism of some of the albumen is arrested at the stage of uric acid formation, instead of going on to the complete stage of urea formation. Charcot regarded the liver as the principal seat of production of uric acid. He considered that a functional derangement of the liver caused the production of excessive quantities of uric acid, and its consequent accumulation in the blood. Meissner regards the liver of fowls in the normal condition as the principal source of uric acid, but considers that the spleen and the nervous tissues share in the formation. Ranke was of opinion that his experiments led to the conclusion that the spleen was the principal organ concerned in the production of uric acid. It has, however, never been possible to show that the spleen takes any active part in developing the gout.

*Views that Uric Acid is produced in various Tissues.*—Ebstein,

who attributes in cases of gout the main production of uric acid to the muscles and bone marrows of the affected extremities, admits however that the kidneys may take a part, not only in the secretion, but also in the manufacture of uric acid. Robin was the first to suggest that uric acid was normally formed in all the tissues, and that the condition in gout was only an exaggeration of the physiological one. Chrzonsczewski, Cantani, and Senator also considered that uric acid is formed in cartilage and fibrous tissue, but most observers agree that it is only deposited, and does not originate in tissues of the connective group. Dr. Haig asserts that in addition to the formation of uric acid in the animal body, the amount present depends greatly on that taken in. He does not, however, produce any proof of the storage of uric acid in the system apart from gout, and it must further be remembered that in diseases such as leucocythæmia, in which large quantities of uric acid are formed, they are not stored but eliminated.

*Does Uric Acid occur Normally in the Blood of Man and other Animals?*—The solution of this question is of great importance in relation to the problem as to whether uric acid is formed in or carried to the kidneys. I am able to confirm the conclusions of Garrod, von Jaksch, and Klemperer that uric acid is absent from the blood of healthy persons. Of other mammals I have examined the blood of the ox and sheep, and have found no trace of uric acid in them, a result which is again in accordance with those of Sir Alfred Garrod. In the blood of the turkey, goose, duck, and fowl I found, like him, no uric acid, but plenty of urea. Sir John Davy also failed to find uric acid in the blood of snakes.

This mass of experimental evidence, which shows that uric acid is never present in the blood of human beings in health, and also that it is never present in the blood of birds and serpents, although their urinary excretion is almost entirely composed of a compound of uric acid, conclusively supports the view advanced by Sir Alfred Garrod, and held by Dr. Latham, and in a modified sense by Kolisch, that uric acid is normally produced in the kidneys. How is it possible in all these cases that uric acid could be absent from the blood if the view be correct that uric acid is formed in the system generally, and is conveyed in the blood to the kidneys, which play, as it were, merely the part of a filter in the removal of uric acid from the blood? I consider that the evidence brought forward renders such a view impossible.

References.

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# LECTURES
## ON
# DISEASES OF THE GALL BLADDER AND BILE DUCTS.

*Delivered at the Royal College of Surgeons of England.*

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### Lecture III.

### Gall Stones or Cholelithiasis.

The importance of this subject may be gathered from the facts that *post-mortem* records on persons of all ages and both sexes prove gall stones to be present in from 5 to 10 per cent. of all Europeans, in Strassburg the record being 12 per cent. (Schroeder), in Kiel 5 per cent., and in Manchester 4.4 per cent. (Brockbank).

*Surgical Treatment.*—After medical treatment has been fairly and fully tried, and failed, I think all are now agreed that surgical measures should be resorted to. While cholecystotomy is generally recognised as the operation to be aimed at in the treatment of affections of the gall bladder or bile ducts, especially in cholelithiasis, it is often impossible to say what operation will have to be done until the abdomen is opened.

The indications for operating would seem to me to be as follows:

1. In frequently recurring biliary colic without jaundice, with or without enlargement of the gall bladder.
2. In enlargement of the gall bladder without jaundice, even if unaccompanied by great pain.
3. In persistent jaundice ushered in by pain, and where recurring pains, with or without ague-like paroxysms, render it probable that the cause is gall stones in the common duct.
4. In empyema of the gall bladder.
5. In peritonitis, starting in the right hypochondrium.
6. In abscess around the gall bladder or bile ducts, whether in the liver, or under, or over it.
7. In some cases where, although gall stones may have passed, adhesions remain and prove a source of pain and illness.
8. In fistula, mucus, muco-purulent, or biliary.
9. In certain cases of chronic jaundice, with distended gall bladder dependent on some obstruction in the common duct, although the suspicion of malignancy be entertained. In such cases the increased risk must be borne in mind, as malignant disease may be the cause of the obstruction, and operation in such cases is attended with greater danger than ordinary.
10. In phlegmonous cholecystitis and in gangrene, if the case be seen and recognised at a sufficiently early stage of the disease.
11. In gunshot injury, or in stab wounds over the region of the gall bladder.
12. In suspected rupture of the gall bladder without external wound.
13. In some cases of chronic catarrh of the gall bladder or bile ducts.
14. In suppurative cholangitis.

Of the operative measures undertaken for diagnosis, sounding and aspiration of the gall bladder must be referred to. The former is both uncertain and dangerous, and may more safely be replaced by a small exploratory incision, which can be extended for treatment if required. Aspiration of a distended gall bladder through the unopened abdomen, though apparently a simple procedure, is not unattended with danger, death having followed in more than one instance. Murphy says it is fatal in 25 per cent. It is only in very exceptional cases that it can do any good. Here, again, I infinitely prefer to make a small exploratory incision, then to empty the gall bladder by the aspirator, and afterwards to explore the bile passages with the fingers. If, however, aspiration without exploration be decided on, a small needle should be used and the cyst emptied as far as possible, in order that intracystic tension may not lead to extravasation through the needle puncture. With regard to technique, it may be well for us first to consider a simple abdominal section in the gall-bladder region.

*Position of Patient.*—It has been proposed to suspend the upper part of the trunk when the patient is on the operating table by straps placed under the armpits in order to allow the intestines to fall away from the liver, and thus to afford a better view of the parts to be operated on, just as the Trendelenburg position does in the case of the pelvic organs; but this is inconvenient, and, as a rule, impracticable. I think it will be found that a narrow firm sand bag covered with flannel, placed at the liver level on the operating table under the back, which is thus arched over it, will do all that we require, as it brings the common duct from 2 to 3 inches nearer the surface, opens out the costal angle, and tends to make the intestines slip down from the liver.

*Incision.*—A vertical incision in the right semilunar line is the one I prefer. If more room be required it can be obtained either by extending the vertical incision or adding a transverse one, either internal or external to the vertical line. It is advisable to avoid as much as possible dividing muscular fibres, as they retract and can only with difficulty be approximated in suturing the wound. The transversalis fascia and peritoneum are best divided together, without separating them, as together they form a strong membrane, whereas singly they are too weak to hold stitches if there be tension. Kocher employs an oblique incision parallel to the right costal margin, which of necessity divides muscle, but which exposes the parts freely, as the wound at once gapes widely. Although for cholecystotomy the transverse incision is quite unnecessary and to my mind usually inadvisable, where it is necessary to expose or manipulate the common duct it presents the advantages of better exposure and more efficient drainage.

*Arrest of Hæmorrhage.*—As a rule pressure forceps and an occasional ligature effect all that is desirable or necessary, but in cases of long-standing jaundice, especially if accom-

panied by malignant disease, additional precautions are advisable on account of the tendency to hæmorrhage. In such cases I give chloride of calcium in 30-gr. doses every four hours for a few days before operation to make the blood more plastic and to lessen the tendency to bleeding. In jaundiced cases I also prefer to ligature all bleeding points rather than to trust to pressure forceps for hæmostasis.

In order to remove the danger of ventral hernia, I suture the abdominal wall, layer by layer, employing chromic carbolised catgut for the deep and silkworm gut for the superficial sutures; but if the operations have been very prolonged and the patient be suffering from shock it may be advisable to suture the parietes *en masse*, using silk of medium thickness, and passing the sutures from within outward at intervals of half an inch. Where it is considered wise to employ gauze packing it is well to apply the sutures and to leave them long, so as to be able to draw the edges of the wound together after the tampon has been removed, without putting the patient to the inconvenience of inserting stitches later. Cholecystotomy or cholecystostomy is unquestionably the operation *par excellence* in the treatment of gall stones.

The indications for the operation are:

1. In all cases where the gall bladder is sufficiently large to permit of drainage after gall stones have been removed from the gall bladder or ducts.
2. In cases where there are gall stones in the ducts but the patient is too ill to bear a prolonged operation, the gall stones being deliberately left for treatment by some solvent solution.
3. In empyema of the gall bladder, where that viscus is not too much disorganised to be permitted to remain.
4. In certain cases of chronic catarrh of the gall bladder or bile ducts.
5. In suppurative cholangitis.
6. In obstruction of the ducts due to hydatid disease.
7. In dropsy of the gall bladder.
8. In idiopathic rupture, or laceration, or gunshot injury of the gall bladder or ducts.
9. In cases of choledochotomy in order to avoid tension in the sutured duct.
10. In certain cases of obstructive jaundice dependent on malignant tumour, which is occluding the ducts; but in these cases the increased danger must be borne in mind.
11. In some case of phlegmonous cholecystitis or gangrene, when the patient is too ill to bear cholecystectomy.

*Technique.*—If the gall bladder be found distended it is aspirated and then opened, the parts being isolated by thin flat sponges. If, as is often the case, the gall bladder be small and atrophied, it will probably be surrounded by adhesions, which require careful separation. If the operation has been undertaken for gall stones they are removed by means of forceps passed through the opening in the gall bladder, or better still by the scoop; if large they may be directly needled or crushed before removal.

Supposing the bile passages to have been cleared, or for some reason further manipulations are considered inadvisable; a non-perforated rubber drainage tube is inserted into the gall bladder, and the edges of the incision in it are brought up and sutured by fine chromic catgut, to the aponeurotic layer of the abdominal wall, not to the skin, thus avoiding the danger of fistula. Where there is time I prefer to suture the peritoneum of the gall bladder to the parietal peritoneum and the mucous margin to the aponeurosis, thus more completely shutting out the peritoneal cavity.

In ordinary simple cases the drainage tube is shortened on the second and third day and removed on the fourth or fifth, but if there have been much cholecystitis or cholangitis it is better to drain for a week, or even longer. Dr. Terrier, in operating for suppurative cholangitis, suggests that the discharge should be bacteriologically tested from time to time, and that the tube should not be removed until the bile is sterile or nearly so, for at first it is loaded with organisms, and if all goes well these diminish, and finally disappear.

In the case of a contracted gall bladder situated deeply, the operation may be both prolonged and difficult. Where I have been unable to bring up the gall bladder, I have at times succeeded in tucking down the parietal peritoneum to the edges of the gall-bladder opening, and so effecting suture of the contiguous margins; but in several cases where I could not effect this, I have with complete success utilised the right border of the omentum by suturing it to the margin of the gall-bladder opening and to the parietal peritoneum, thus forming a tube of peritoneum around the drainage tube and shutting out the general peritoneal cavity. Where occlusion in this way cannot be effected, the insertion of a drainage tube into the gall bladder without suture of the margins to the parietes seems to be efficient. The method of packing around the tube with iodoform gauze in such cases is one in which I have great faith, as I have found it to be a safe means of occluding the peritoneal cavity.

Dr. Murphy has invented a "button tube" for use in cases where the gall bladder is contracted and cannot be brought to the surface, but the contracted gall bladder is as a rule too small to permit of its employment.

In certain cases, where the gall bladder is contracted, after opening and clearing it and the ducts, the incision may be immediately closed by suture, the line of incision being isolated by a gauze drain; or in other cases cholecystectomy may be performed, and the cystic duct ligatured, the gauze drain being again employed; or, as suggested by Morison, the incision in the gall bladder may be deliberately left patent, and the bile allowed to run into the right kidney pouch, from which it is removed by a drainage tube in the loin. The operation of cholecystotomy has been modified in several ways; for instance, the opening has been closed and then fixed to the abdominal incision, which has been closed over it. This operation is known as cholecystendysis (Courvoisier). It can only be of use where the ducts are known to be thoroughly cleared, where there is no fear of subsequent stricture, and where there is no catarrh or inflammation of the bladder or bile passages.

The so-called "ideal" operation suggested by Langenbuch,[1] in which the opening in the gall bladder is sutured and the viscus returned without fixing it to the surface, has been thought by some to be attended with greater risk than the operation of cholecystostomy. I think the serious objection to it is that the benefits of drainage are not obtained as in the operation of cholecystostomy. A real use for this modification is found in cases where it has been necessary to open a contracted gall bladder, but where, on account of the depth, it is found impracticable to bring it to the surface, as also when, from the contraction of its cavity, it is found impossible to insert a drainage tube.

Another modification suggested by Bloch is that in two stages: The operation consists in incising the parietes until the peritoneum is reached, the cavity of which, however, is not opened; the wound is then packed with gauze and left for several days, when adhesions will have formed between the gall bladder and the parietal peritoneum. The gall bladder can then be safely opened. Or if the peritoneum be opened the gall bladder is fixed, but not opened until adhesions have formed. As the method is only available for the simplest cases—namely, where the gall bladder is distended, as it does away with all chance of exploring the ducts by the hand within the abdomen, and as it is frequently followed by fistula, I would only mention it to condemn it as clumsy and uncertain, and no safer than the ordinary operation of cholecystotomy. I think, however, this operation presents considerable advantages when undertaken in the presence of chronic jaundice associated with distended gall bladder, as in such cases there is usually malignant disease either of the head of the pancreas or of the bile ducts, and when the peritoneum is exposed but not opened pressure can be applied to arrest the oozing of blood, which cannot always be stopped by ligatures or forceps.

### Calculi in the Common Bile Duct.

After cholecystotomy has been performed and the gall bladder cleared of its contents, it may be found impracticable to remove other gall stones impacted in the cystic or common ducts, either by means of forceps or scoop introduced through the gall-bladder incision, or by digital manipulation from without. Under such circumstances the gall stones may be crushed or removed by "choledochotomy," or under certain circumstances "cholecystenterostomy" may be performed.

Before proceeding to a description of cholelithotrity or choledochotomy it may be advisable to refer to the special condition of cholelithiasis, where the gall stones are in the common duct, which, according to Courvoisier, occurs in about 4 per cent. of all cases: in my own cases I found the percentage to be no less than 20.

Fenger has dwelt on the great importance of the ball-valve action of floating stones in the common bile duct as explaining the remittences of jaundice in many cases where it might have been supposed that the jaundice would be per-

sistent. The gall bladder is frequently atrophied, so that jaundice with distended gall bladder is presumptive evidence in favour of malignant disease, but that jaundice without distended gall bladder favours the diagnosis of cholelithiasis.

I think the condition is due to a combination of causes:

1. All cases of cholelithiasis are accompanied by inflammation of the walls of the biliary passages, as shown by the almost universal presence of adhesions round the gall bladder.
2. Gall stones in the common duct seldom cause complete obstruction, either because they are floating in the duct or because they only partially fill it; there is, therefore, no sufficient backward pressure to cause dilatation of the gall bladder.
3. The muscular coat of the gall bladder, though feeble, is sufficient to enable it to contract, which it doubtless does in efforts of expulsion when there is any obstruction in the common duct.
4. The contraction from being at first intermittent becomes in the long run constant, and the accompanying inflammation fixing the contracted gall bladder, it atrophies.

The special symptoms pointing to stone in the common duct are absence of enlargement of the gall bladder, with frequent mild attacks of pain followed by an intensification of the jaundice, which in many cases never quite disappears. The pain is in the epigastric rather than in the right hypochondriac region, and passes through to the right dorsal or lumbar rather than to the right infrascapular region. Where jaundice is continuous and intense without much variation, especially if the gall bladder be enlarged, there is usually malignant disease, or some other cause than gall stones.

1. In a few cases a concretion of moderate size may be manipulated backwards into the cystic duct, and thence extracted by scoop or forceps; but it is seldom practicable, on account of the contraction of the gall bladder and cystic duct.
2. Occasionally a small stone may be pressed into the duodenum, but this is rare, and not infrequently it may be pushed into a dilated diverticulum of Vater, and so be missed, and the whole operation rendered futile.
3. Cholecystostomy with subsequent treatment by solvent injections is well worth bearing in mind, on account of its simplicity and safety, together with the certainty of giving immediate relief with a modicum of risk, and putting the patient in better condition for subsequent treatment, should such be necessary.
4. Cholelithotrity, or crushing the stones *in situ*.
5. Needling concretions through the duct walls.
6. Choledochotomy, or incising the duct and removing the calculi.
7. Choledocho-duodenotomy, or reaching the duct through the opened duodenum, for stones impacted in the duodenal end of the duct.
8. Cholecystenterostomy, or short-circuiting the obstruction.
9. Choledochenterostomy, or uniting the duct to the gut in case of largely dilated ducts; and
10. Choledochostomy, or attaching the dilated duct to the surface and draining it.

Cholelithotrity was first suggested and put in practice by Mr. Lawson Tait. The ordinary incision for cholecystotomy may be large enough; but if the patient be stout, or the ducts cannot easily be reached, it may have to be increased so as to allow the hand to pass into the peritoneal cavity, in order that the fingers may locate and grasp the stone *in situ*. If the right hand be used, the thumb will enter the foramen of Winslow, and the index finger will pass in front of the common duct, or, in case of the left hand being used, these digits will be reversed, when the whole force of the opposing finger and thumb can be brought to bear on the concretion.

Usually the gall stone flattens out into a wafer shape, and in altering the position of the digits, the edges of the wafer are compressed, and the concretion is either converted into pulp or breaks into innumerable fragments, which can be passed on towards the duodenum or subsequently washed through.

The disadvantages of cholelithotrity are, first, the fear of seriously damaging the ducts by the manipulation; and, secondly, the danger of leaving fragments permanently in the passages, which may then grow by further deposit of cholesterine. The first danger need not be feared, if the finger and thumb only be used as the compressing force.

The question of needling impacted concretions by the passage of a needle through the walls of the duct was raised by my colleague Mr. Teale in 1895. The operation is generally regarded as inadvisable on account of the almost unavoidable damage to the ducts and the fear of infection. The latter danger of leaving fragments in the ducts may be overcome by at the same time performing cholecystomy and later syringing the ducts with sterilised water until they are clear of *débris*, or if any fragments should be unavoidably left, by applying through the fistula some solvent solution, such as olive oil or 5 per cent. sapo animalis.

Choledochotomy is the name given to the operation of incising the bile ducts for the extraction of gall stones, in cases where the concretions cannot otherwise be removed. Courvoisier performed the first successful operation on January 22nd, 1890, and two others, both successful, in February and March of the same year.

The cholecystotomy incision must be extended to 4 or 5 inches, and after the separation of adhesions the wound must be held open by a retractor on the right and preferably by an assistant's finger on the left, as the fingers can at the same time retract the pylorus and stomach on the left, and the colon and omentum below without inflicting injury, as retractors are apt to do. A sandbag placed under the lower dorsal spine makes the region of the common duct more accessible.

The operator should now, after having separated adhesions, have a good view of the common duct within a free border of the lesser omentum, and on inserting his left index finger into the foramen of Winslow, or on grasping the duct between the index finger and thumb, he can, without difficulty, bring the duct well within reach, the concretion making a distinct projection.

Over the prominent stone, a vertical incision as low down and as far forward as possible should be made, sufficiently large to allow the concretion to pass. Through this opening a probe can be passed or even a finger, in order to explore the ducts thoroughly, so as to remove other stones if present. The incision in the duct may now be closed by interrupted sutures in two layers, first the muscular and fibrous coats being approximated, and secondly the serous margins; but if this be impracticable, the muscular and serous coats may be sutured together and additional Lembert's sutures may be applied over all.

If a gall stone be felt in the hepatic duct, it may be reached by opening the common duct and passing a scoop or forceps through this opening. Fenger has in this way explored the ducts and removed stones quite in the liver substance.

A large drainage tube should be left in the abdomen, and it may be wise to gently pack iodoform gauze over the duct, and to bring the end out by the side of the drainage tube, if there be any doubt about the closure of the wound in the duct. The tube may be removed in twenty-four or forty-eight hours if there be only a little discharge, and the gauze should be gradually removed day by day until it is all away.

Mr. Knowsley Thornton has recommended drainage by a glass tube above the pubes, and Mr. Morison by a stab wound in the right loin. Mr. Frederick Page considers all drainage unnecessary, but Mr. Greig Smith opposes this view, and I have lost a case of cholecystectomy through neglecting to drain.

Choledocho-duodenostomy is a term applied to the modification of the operation of choledochotomy, where a gall stone is impacted in and removed from the diverticulum of Vater, through an incision in the duodenum.

McBurney,[2] Pozzi, and Kocher have performed this operation with success. The operation is difficult, and should only be done where the gall stone cannot be brought into the more accessible part of the common duct.

Cholecystectomy, or excision of the gall bladder, indications:

1. Bullet wound or other wound of the gall bladder where suture is impracticable.
2. In phlegmonous cholecystitis.
3. In gangrene of the gall bladder.
4. In multiple or in perforating ulcers.
5. In chronic cholecystitis from gall stones where the gall bladder is shrunken and too small to drain safely, and where the common duct is free from obstruction.
6. In mucous fistula due to stricture of the cystic duct.
7. In hydrops of the gall bladder due to stricture of the cystic duct, as also in certain cases where the gall bladder is very much dilated.
8. In certain cases of empyema where the walls of the gall bladder are very seriously damaged, and in
9. Cancer of the gall bladder.

It is contra-indicated in all cases of non-patency of the common duct, and it should not be resorted to under the idea that it will prevent the formation of gall stones, as calculi may form in the bile ducts within the liver or below it.

The operation is performed through the usual incision for reaching the gall bladder.

The peritoneum covering the gall bladder just below the liver is incised parallel to the hepatic margin, and the gall bladder is freed by means of a finger or a blunt dissector as far back as the cystic duct, the latter part of the dissection

being done subperitoneally as much as possible. The duct is ligatured and divided, the stump being asepticised either by the cautery or by the application of a 1 in 500 solution of perchloride of mercury. The peritoneum is now sutured over the top of the duct. There is usually little bleeding, and that is easily arrested by sponge pressure or by one or two ligatures.

Unless there be oozing, or unless the wound has been infected by pus or gall-bladder secretion, drainage may perhaps be thought unnecessary, but the adage, "When in doubt drain," is a good one, and it can do no harm to leave an efficient drainage tube in the right kidney pouch for twenty-four or forty-eight hours after extirpation of the gall bladder. Packing with iodoform gauze in these cases is better than using a tube, as it serves the double purpose of arresting oozing from the lacerated liver and acting as a drain.

Cholecystenterostomy consists in establishing an artificial opening between the gall bladder and intestine, preferably the duodenum. The first operation was performed by Winiwarter, in 1880. In its place it is an extremely useful operation, but as it leaves the cause of the obstruction unremedied, it ought not to be resorted to, except occasionally, where a more radical operation is impracticable or inadvisable. Dr. Murphy, of Chicago, favours the procedure before other methods.

My own conclusions are that the operation is indicated:

1. In biliary fistulæ, depending on stricture or other permanent occlusion of the common duct.
2. Very occasionally in cancer of the head of the pancreas or malignant tumour of the common duct, leading to chronic jaundice and distended gall bladder; but in such cases the mortality will necessarily be so high that the justifiability of the operation is questionable.
3. Occasionally in impaction of gall stones in the ducts, where the patient is not in a fit condition to bear the more prolonged operation of separating adhesions, and crushing or removing the concretion by choledochotomy.
4. In certain cases of obstruction of the cystic duct where cholecystectomy is impracticable.

*Contra-indications.*—1. In any obstruction of the bile ducts which can be cleared away with reasonable probability of success.

2. In malignant disease of the head of the pancreas or common bile duct, leading to distension of the gall bladder, the mortality is so great (8 operations with 7 deaths) that it is hardly worth doing.
3. In contracted gall bladder, where it is impracticable to insert the button.
4. Where there are extensive adhesions which would lead to kinking of bowel.
5. In very large gall bladder with obstruction of the cystic duct, where cholecystectomy should be done.

The operation may be performed (*a*) by means of simple suture, (*b*) by means of my decalcified bone bobbin, (*c*) by means of Murphy's button. I decidedly prefer to make the union by means of the Murphy button, both on account of its efficiency and the expedition with which it can be used.

The operation of cholecystenterostomy is performed through the same incision as is made for cholecystotomy, and after the gall bladder has been aspirated and the intestine clamped either by an india-rubber tourniquet or by intestinal clamps the junction is effected. If sutures be employed a semicircle of interrupted silk sutures is inserted to unite the contiguous serous surfaces of the gall bladder and gut, the viscera are then opened, and the mucous margins of the two openings are united by interrupted catgut stitches, after which the circle of catgut stitches and then the circle of serous sutures is completed. If the bone bobbin be used two continuous sutures only are employed, a silk stitch to unite the serous surface one-third or half an inch from the visceral openings, and a catgut suture to join the mucous margins of the visceral openings.

The whole process occupies a very short time, and is really very simple; it is, however, necessary to bear in mind that the button has to separate by causing the approximated margins of the openings to slough, and that the true bond of union is only slight at first, so that it is well to keep the patient absolutely quiet for at least a fortnight, lest the new bond of union should give way and permit of extravasation of the visceral contents.

In considering the question of cholecystenterostomy it has to be borne in mind that the operation can only be done when the gall bladder is of moderate size or dilated, and that it is inapplicable to the difficult class of cases where a gall stone is impacted in the common duct and the gall bladder is atrophied. When it can be done the anastomosis should be made to the duodenum, but if preferred a free loop of jejunum may be selected and brought over the hepatic flexure of the colon. In only exceptional cases should the anastomosis be made between the gall bladder and colon.

From a report up to date which Dr. Murphy has been so kind as to furnish me, cholecystduodenostomy has been performed with the aid of the anastomosis button in sixty-seven non-malignant cases, with only three deaths. My own cases are eleven in number, with one death.

Choledochostomy is the term applied to the direct surface drainage of a dilated bile duct, of which Iverson and I have each had a successful case. The operation was first performed by Terrier.

Where it is impossible to clear the ducts, instead of performing choledochostomy, the operation of choledochenterostomy may be done, the union of the dilated duct to the duodenum being made by means of a Murphy's button. The operation was first performed by Sprengel.

In concluding my lectures I must thank you, Mr. President, and my audience, for the kind forbearance which you have shown in listening to details which I fear may at times have been somewhat wearisome. My wish has been to show the importance of the subject I have taken up, and some of the results which may be looked for by appropriate surgical treatment, and if I have succeeded in exciting your interest and in making it evident that in the greater number of diseases of the gall bladder and bile ducts surgical treatment is well worth considering, after a fair, though not too prolonged, trial of medical means, my aim will have been accomplished.

References.
1 *Cent. f. Chir.*, 1887. 2 *Annals of Surgery*, October, 1893

## REMARKS ON THE MORPHOLOGY AND CHEMICAL PRODUCTS OF THE DIPLOCOCCUS PNEUMONIÆ, AND SOME RESULTS OF VACCINATION.

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In these remarks it is merely intended to give a brief summary of some of the results obtained, reserving the discussion of these and the mass of details to a subsequent communication.

Sputa were obtained from cases of pneumonia in various hospitals, at all stages of the disease. In every case the capsulated diplococcus was found. It always existed as a paired body, and it was invariably found in association with numerous other bacteria. An attempt was made to isolate these organisms by means of plate cultivations. The pyogenic cocci were nearly always found, especially the staphylococcus aureus. Various bacilli also were cultivated, some decolorising with Gram's solution. Inoculation of many of these bacilli was attended with negative results, but one of them induced an illness characterised by wasting and chronic diarrhœa. Further cultivations of this bacillus proved it to be the bacillus coli communis.

Special mention must be made of the circumstance that the bacillus septicæmiæ of rabbits is frequently found in human saliva. It looks like a diplococcus, but can easily be known by its characters and growth in gelatine and agar. If this organism gains admission to the culture, its intense septicæmic effect will be found in all sub-cultures. Its effects have frequently been mistaken for those of the diplococcus.

The diplococcus is a very difficult organism to work with. In the first place, it is by no means so easy to get a pure growth as might be supposed, it varies often in virulence, and the broth cultures must be quickly utilised (within two or three days), as the virulence quickly dies out. This refers chiefly to broth cultivations; if kept on blood the organism will always retain its virulence for a considerable period.

The rabbit is well known to be highly susceptible to this coccus, and this was the animal selected for the investigation, a few side experiments were also made on guinea-pigs.

Death always occurred from the second to the fourth day after inoculation of virulent sputum. Sputum taken at the crisis was less virulent, and that taken some days after the crisis produced a mild inflammation, and the animals frequently recovered. When the animals were allowed to die, cultivations from their blood were usually impure; the pyococcus aureus was a special source of impurity, and various other cocci and bacilli were found. These impurities may be introduced with the sputum injected, or, on the other hand, they may be absorbed *post mortem* from the animal's intestines.

To get a pure culture the animal should be killed within twenty-four hours after inoculation, and cultivations made from the blood. Even then failure may result. There is, however, a very delicate test (in fact the only one found) for the purity of the growth. On the surface of sloping agar a streak culture forms a very fine dew-like moisture, absolutely transparent with reflected light. If the slightest trace of opacity can be detected, the culture is impure. This may seem a very hard condition, but repeated trials completely fulfilled it. This dew-like growth might easily be mistaken for watery droplets on the surface of the agar. After a few days or a week the cocci begin to die, and then a slight opacity makes its appearance. In broth at 37° C. a cloudiness, without any film, appears after six or eight hours. This lasts for about thirty-six hours, when the cocci subside, and the broth again becomes transparent. On tilting the flask the cocci appear as a granular sediment, which runs down the bottom after the manner in which sand runs down an incline.

Examination of the agar or broth cultivations shows that the organism has changed its character. It has no longer a capsule (although on agar, capsules were occasionally seen in virulent cases), and it presents three forms. These are: single cocci, diplococci, and short chains (streptococci). The chains consist of from three to fifteen elements, but the great majority are composed of seven or eight cocci. These cocci are nearly spherical, but in most cultivations the individual cocci and diplococci are oval (often with pointed ends) or approach to short bacilli. The diplococci often remind one of a grain of wheat or barley divided in the middle. In the blood of susceptible animals the same varieties are seen, but surrounded by a capsule.

If a pure virulent culture from blood or peptone broth be inoculated, either subcutaneously or into the internal cavities, it produces at the site of inoculation intense congestion, exudation of sanguineous serum and fibrin. It never produces pus or any other lesion. Many observers have stated that purulent infiltrations have been formed (after the lapse of some time) by the diplococcus. This was also observed in these experiments, in some cases, after a week or two, but inoculations from the pus never gave a pure growth on agar. The conclusion cannot be avoided that in all such cases (as also in cases of purulent inflammations in man, set down to the diplococcus) other organisms are present, and unless the agar test be fulfilled the statements of these observers cannot be accepted.

In like manner, it may be remarked that the morphology of the organism varies considerably. It is a curious circumstance that other cocci alleged to be the cause of pneumonia have always been capsulated organisms—for example, that described by Klein. How do these observers know that they have not been working with certain varieties of the diplococcus pneumoniæ?

In broth cultures the majority of the cocci die in a few days, but many of them retain their vitality at least for months, and new cultivations can be made from them. Some of these are often unusually large, stain very deeply, and are probably of the nature of arthrospores.

### CHEMICAL PRODUCTS OF THE DIPLOCOCCUS IN RABBITS AND THE RESULTS OF THEIR INOCULATION.

The blood of inoculated animals which gave a pure growth on agar was used for these experiments. In one or two cases the organism was thereafter passed through a guinea-pig, when it seemed to acquire increased virulence. In all cases control inoculations were made. The injections were chiefly made into the pleural cavities, so as to obtain the characteristic local lesion. The animals so inoculated were always killed as their symptoms indicated. There was nearly always severe pleurisy, the false membrane being grey or blackish grey. Congestion of the lungs was frequent; in two cases pneumonic consolidation of an entire lobe was found, the air vesicles being full of granular fibrin; and pericarditis was often present also.

#### MODE OF PREPARATION.

The local lesions, lungs, spleen, and blood were minced and pounded, and immediately placed in a large quantity of rectified spirit. The tissues were never taken from an animal which died after inoculation.

After standing for four weeks the spirit was filtered off, and the residue extracted with water. This was accomplished in twenty-four hours, and was assisted by an electrically-driven "shaker." The watery extract was filtered from the coagulated proteid, refiltered, and then, as also the alcoholic filtrate, evaporated *in vacuo* at 37° to 40° C. The concentrated liquids were then mixed, and thrown into a large excess (8 to 10 times their bulk) of absolute alcohol. A large precipitate fell, which was again extracted with absolute alcohol, filtered, and washed with alcohol. This precipitate was then dried at 37° C., and the resulting product was a very fine cream-coloured powder, which gave all the characteristic reactions of an albumose. It was soluble in water, completely precipitated by saturation with neutral ammonium sulphate, and gave a distinct biuret reaction. The entire quantity obtained from the lungs, spleen, and blood of six rabbits was less than three-quarters of a gramme.

The alcoholic filtrates were also added and evaporated *in vacuo* to a very small bulk at 37° C. This was again thrown into absolute alcohol and allowed to stand for ten days. It was again filtered, evaporated, and the residue washed with alcohol. This residue was then a reddish-yellow amorphous substance having a somewhat viscous consistence. It was agitated and re-agitated with ether, when a considerable quantity of fatty matter and free acid was dissolved out. The precipitate in ether was finally thrown into chloroform, and the final product was a yellow amorphous substance, nearly altogether freed from its previously viscous character. The quantity obtained of this substance amounted to 0.5 g. When tested it was found to be strongly acid, very soluble in water, and gave no colour reactions with Millon's reagent or potassio-mercuric iodide, nor was any biuret reaction given. Whatever else this substance contained, it was evident that it contained a large quantity of an organic acid. Both the ether and residue gave Uffelmann's reaction for lactic acid.

#### EFFECTS OF THE ALBUMOSE.

Both the albumose and organic acid were then tested on rabbits. The former was injected in doses of 0.02 gramme (1) intravenously (in saline); (2) into the chest; (3) underneath the skin of the ear. The result of the intravenous injection in a rabbit weighing 2,480 grammes was initial shock and fall of the temperature over 1°. In an hour or two the temperature began to rise, and in three hours had risen to 104.8° F. (the normal temperature of a rabbit is about 102.6° F.). Next day it had fallen to 103.4° F., and then gradually sank to the normal. No other pathological effect was produced, but the animal lost slightly in weight.

The result of the intrathoracic injection was very interesting. There was no initial depression, but marked dyspnœa soon set in. This continued and was accompanied by a rise of temperature to 103.8° in three hours. Next day the dyspnœa was still present, and the temperature 103.4°. On the third day the animal was killed. There was right-sided pleurisy, and the entire lower lobe of the right lung was completely consolidated. No other lesions were found. Inoculations were made from the blood, and the serum in the pleural cavities in solid and liquid media, and no growth whatever took place. The injection beneath the skin of the ear in a rabbit weighing 2,550 grammes gave the following results: The temperature slowly rose to 104° on the following day, and the ear was inflamed. Next day the ear was greatly inflamed and swollen, and a bloody serum issued from one or two cracks in the skin. The temperature rose to 106.2° on the third day. It then gradually fell, and the inflammation subsided, until on the sixth day it was nearly all gone. The animal lost 60 grammes in this time.

#### EFFECTS OF THE ACID RESIDUE.

The organic acid was also injected (1) intravenously; (2) into the chest, in doses of 0.1 gramme. No result followed the injection into the lung. In the case of the intravenous injection the temperature rose a little over 1° in the course of a few hours. Next day it had returned to the normal, and the animal remained well.

#### CHEMICAL PRODUCTS OF THE DIPLOCOCCUS IN ARTIFICIAL MEDIA.

Subcultures were made from different sources, and grown in veal peptone broth. As the commercial peptone used for the broth contains much albumose, it was resolved also to try cultivations in broth made without peptone, and the organism grew freely in this medium. In addition, an artificial serum was made containing pure alkali albumin, and the various salts which exist in normal blood, in their respective propor

tions. The serum was prepared according to the formula given by Dr. Sidney Martin in his anthrax investigations.[1] The reaction of the broth must be alkaline, to ensure a successful growth.

As soon as the organism has grown the previously alkaline medium becomes distinctly acid, and this acidity is permanent. After two days' growth the cultures were filtered through a Chamberland filter, and the clear toxin evaporated at 38° C. to a sixth of its bulk, thrown into absolute alcohol, and the copious precipitate obtained treated exactly in the same way as already described in the case of the tissues extraction. In like manner the alcoholic filtrate was evaporated and the residue purified. Both products in appearance and chemical reactions were exactly similar to those obtained from the tissues, one being an albumose and the other an organic acid, a lactic acid reaction being obtained. Injected into animals also they produced precisely similar effects to the tissue products. A large dose of the albumose (½ g.) was also injected into the peritoneum. The temperature rose to 105.4°, and continued high (nearly 104°) for about three days, and the animal lost greatly in weight.

An interesting result was obtained from the filtered broth without peptone. After two days' growth a distinct biuret reaction was obtained, which was entirely absent from the control broth, and in which no other proteid could be detected. A copious precipitate was also given with alcohol and ammonium sulphate. It seems evident from this important reaction that a proteid is formed by the organism from nitrogenous material, the proteid thus being excreted after digestion as an albumose. It is perhaps hardly necessary after this to add that the albumose was also formed in the artificial serum.

The views of Dr. Sidney Martin may be alluded to in this connection. He has explained the production of toxic albumoses in diphtheria and certain other conditions by the digestive action of the chemical enzyme or toxin produced by the organism on the albumins of the tissues or of artificial serum. The enzyme he supposes to exert this action outside the organisms themselves. Thus in the case of diphtheria the enzyme is absorbed from the lesion, and exerts its digestive action on the albuminous constituents in the spleen and elsewhere.

It must be said that the result in the case of the peptoneless medium is opposed to Martin's view. Even granting that an undetected amount of albumin was originally present, it cannot account for the quantity of albumose precipitated. It seems clear that the albumose must have been formed by the living bodies of the organisms. That it is formed by a chemical ferment from and outside the organism has not been proved by Martin. In order to do so it would be necessary to isolate the enzyme and show the direct conversion of proteid. As the enzyme is carried down by all precipitants of the albumose, their separation has never yet been effected (except of course by the action of heat, which destroys the enzyme at 70° to 80° C.). In the case of a disease like diphtheria, where albumose is found in a distant organ, presumably without the presence of bacilli, there is no reason why it may not be absorbed from the primary lesion.

It remains to be observed, however, that though (in the case of the pneumococcus) an albumose is formed by the organism, there is no adequate proof that this proteid is in itself a true toxin. The true toxin may in all probability be united to, or mixed up with, the proteid in some undiscovered fashion, as has indeed been supposed by several investigators, and this proteid may be an albumose, a globulin, an albumin, or a peptone.

### Vaccination against the Diplococcus: Immunity: Production of an Antitoxin.

Cultures in veal broth were continued for six generations. These were made several times to test the variability of virulence. Doses of one and two cubic centimetres were injected into the flank from these various cultures, but taking care that each growth was only two days old at the time of inoculation. From the weakest cultures no appreciable reaction was observed from these doses. Notwithstanding this, it was evident from the subsequent inoculation of virulent cultures, that they conferred some resistance. This was proved from the effect on control animals. It was then found that if a cubic centimetre from the second and third generations of a culture of a standard virulence was first injected, and after two or three days the same dose given of the first generation that the animals afterwards survived doses of sufficient virulence to cause death in control animals in thirty-six hours. The result of this virulent inoculation in the vaccinated animals was a marked reaction, the temperature rising to 105° F. or even 106° F. But no further signs of illness were shown, and the animals partook of their food as usual. After the fourth or fifth day, the temperature generally fell quickly, and no further reaction was obtained with subsequent injections. The filtered broth cultures were also tried. Compared with most other diseases, the broth toxin of pneumonia is feeble. The clear filtrate was therefore evaporated *in vacuo* at 37° C. to small bulk. Only the toxin of the first broth culture was employed. Small doses of this concentrated toxin were injected in the same way into the flank, and gave a temperature reaction of one to two degrees. In this manner resistance to virulent cultures was conferred. Evaporation of the toxin is, however, a tedious process, and quite as good, if not better, results were obtained by injecting the alcoholic precipitate from the broth in the manner already described.

To obtain an efficient antitoxin, the animal must be perfectly immune, and the temperature must be got up to 105° or 106° F. This may be done by the final administration of virulent cultures, but much the best way is to employ larger doses of the concentrated toxin from a first cultivation or else the albumose.

As this part of the subject is merely touched upon in this communication, it may be added that the serum from two immune animals was made the subject of experiment. Injected in small doses (¼ c.cm. to 1 c.cm.), complete protection was conferred from measured doses of moderate virulence injected at the same time, and life was much prolonged in the case of the most virulent doses.

I must express my indebtedness to Dr. Woodhead, Director of the Laboratories, for some valuable suggestions.

Reference.

1 Local Government Board Reports, 1889-90. I am also indebted to Dr. Martin for kindly supplying me with a quantity of dried serum alkali albumin.

## THREE CASES OF INTESTINAL ANASTOMOSIS.*

By HARRISON CRIPPS, F.R.C.S.,
Surgical Staff, St. Bartholomew's Hospital.

Case 1. *End-to-End Anastomosis of Ileum to Ileum.*—The patient, a young woman, was under my care at St. Bartholomew's Hospital. Obstruction followed after an abdominal section for hysterectomy. A temporary enterotomy was performed by my colleague, Mr. Bruce Clarke. She recovered from this, but rapidly commenced to run downhill from malnutrition, for the obstruction was high up in the ileum, and all food only partly digested escaped from the enterotomy opening. All attempts to close this failed on account of the obstruction below. Ten weeks later I performed abdominal section. The strictured portion was found 7 inches below the enterotomy opening. The bowel was divided just below the obstructed portion, and again just above the site of the enterotomy opening, the intervening portion, about a foot in length, being removed and the ends united. I will not go further in the details of this case, for I mentioned them at the time in this Society. The patient recovered, and it may be of interest to know that from that time to this—nearly three years—she has been and remains in perfect health, without ache or discomfort, is thoroughly well nourished, and able to earn her own living.

Case II. *Double Anastomosis of Large and Small Intestine.*—Mr. Y., aged 55, brought to me by Dr. Webber, had passed many years in India. He considered himself a healthy man up to eight months ago, when he commenced to suffer pain from time to time in the abdomen. The pain was of a paroxysmal character, and was referred to the pit of the stomach. It generally came on soon after taking food, but occasionally at other times. He has had two or three attacks of diarrhœa, but is more often constipated, and has never passed blood-stained mucus. He has not lost flesh, and has had no vomiting.

*Examination.*—Has a large, fat abdomen. On a line with the left nipple, about 4 inches below the ribs, a tumour can be felt the size of a large fist. It descends on inspiration, and admits of some mobility both from side to side, and from above downwards. It is possible to get the hand between the tumour, and what should be the position of the lower part of the stomach. The disease had been diagnosed as cancer of the stomach. Dr. Webber and I did not agree with this, and believed it to be the colon. The patient was extremely anxious that an operation should be done if there was the remotest possibility of giving him relief.

*Operation.*—In the presence of Dr. Webber, and assisted by my colleague Mr. Bruce Clarke, the abdomen was opened by an incision commencing 1 inch below the ensiform cartilage and extending to the umbilicus. On introducing the hand, and raising the omentum, the tumour was seen to be a mass of malignant disease in the transverse colon near the splenic flexure. Adherent to, and incorporated into it from an extension of the growth, was a coil of the ileum about 6 inches in length. The whole, together with adherent omentum, formed one mass the size of a cocoa-nut. It was fairly movable, and could be drawn well up into the wound; the stomach was not implicated. The operation was continued by passing and clamping a piece of thin india-rubber tubing round the ileum on each side of the implicated loop, and about 3 inches free of it. The coi

* Read before the Medical Society of London, March 22nd, 1897.

as then clamped on either side an inch and a half nearer the portion incorporated with the tumour. After protecting surrounding parts, the bowel was cut across just beyond the pressure forceps on either side, a V-shaped piece of the mesentery being included. The cut ends were then accurately joined by Lembert sutures, about ten to the inch. The transverse colon, after being clamped in a similar manner, was cut across, its mesenteric attachment, which was very thick, being clamped and tied in portions. Incorporated with the tumour was about a pound and a half of thickened omentum. This, after being tied off in portions, was removed with the tumour. The length of the transverse colon removed was 7 inches. The cut ends of the transverse colon were united to each other in a similar manner to that in which the ileum was joined. A small quantity of fæcal matter, on making a section of the colon, escaped on to the sponges but was at once washed up. The amount of blood lost in the operation was small. The intestines and viscera showing at the bottom of the wound were well swilled over, but the remainder of the abdominal cavity was not flushed; the wound was closed with silkgut sutures. The patient passed a fair night, but there was some abdominal distension and vomiting. Vomiting continued, and the abdomen became distended and tympanitic. The patient gradually sank without further symptoms, and died on the fifth day.

CASE III. *Intussusception and Lateral Anastomosis of Ileum to Colon.*—A lady, aged 23, had had the operation of ovariotomy performed nine months previously. She remained in good health till three weeks ago, when after a monthly period she had considerable pain about the abdomen. She did not remain in bed. Eight days ago she had severe colicky pains referred to the umbilicus and pelvis. Since that time the pains continued, being very severe at times. She has passed no motion for eight days. Four days ago she began to vomit, the vomit increasing in severity, and for the last twenty-four hours being of a distinctly fæcal nature. The patient looked pinched and ill, and the pulse was quick and feeble, the temperature normal. On examination the abdomen was found moderately distended, with a good deal of gurgling. The distension was obviously more marked on the right than on the left side. *Per vaginam* an obscure swelling could be felt high up in the neighbourhood of the broad ligament. Nothing further could be made out by the rectum. A gravitation enema having failed to give relief, an operation was decided upon after consultation with Dr. Champneys and Mr. Meredith. The patient's condition was such as to forbid anything like a severe operation, especially as the cause and site of obstruction were quite unknown. It was therefore decided at once to give relief by performing a temporary typhlotomy, or by opening the ileum as low down as possible.

Assisted by Mr. Meredith I made an inch and a half incision over the neighbourhood of the cæcum. The cæcum appeared to be blocked, but not distended. A greatly distended coil of small intestine protruded into the wound, and with the finger I made out that this was the ileum close to the cæcal valve. The distended part of the bowel was then fixed to the parietal peritoneum and skin, so that a portion of it—the size of a threepenny piece—was exposed, the rest of the wound was closed with silk gut sutures, everything being accurately shut off, the exposed bowel was opened with a tenotomy knife, and exit given to several pints of fluid fæces. The symptoms were almost immediately relieved, vomiting ceased, and the distension disappeared. On the eighth day the little opening was blocked up by some foreign body. On seizing this with a pair of forceps it proved to be a sloughed portion of small intestine 9 inches long, including the whole thickness of the bowel, together with a considerable piece of mesenteric attachment. The piece of bowel was obviously an intussusception that had sloughed off. Up to this time since the date of operation no fæcal matter had been passed by the rectum, but from this date small quantities were passed from time to time. The great bulk of motions, however, came through the artificial opening, the material was fluid and ill-digested, the wound around was excoriated and very tender, and the patient commenced to emaciate rapidly, so that two months after the original operation she only weighed 4 st. 4 lbs. On two occasions the opening was closed by a specially devised plug. On each occasion, after about twelve hours, the abdomen became distended, and the patient commenced to vomit, manifesting all the symptoms of acute intestinal obstruction, and the plug had to be removed. It was now becoming very obvious that the patient would quickly die of malnutrition unless the passage into the large intestine could be restored. With this view, after consultation with Dr. Champneys and Mr. Meredith, the following plan of operation was decided on: To firmly plug the existing opening temporarily to enable the skin to be thoroughly cleaned, then to open the abdomen altogether free of the old scar, making the cut higher up and nearer the middle line, and then, without in any way disturbing the adhesions of the existing opening, to make a lateral anastomosis between the commencement of the ascending colon and the ileum, as near its termination as possible. It was considered undesirable to meddle with the old opening on the following grounds: First, the unsound and septic condition of the skin immediately round it; secondly, the extremely feeble condition of the patient made it undesirable to prolong the operation a moment longer than necessary; thirdly, the opening would act as a safety valve against distension and pressure whilst the lateral anastomosis union was becoming firm.

Assisted by Mr. Bruce Clarke, I performed the operation by uniting the ileum to the ascending colon for 3 inches opposite their mesenteric attachments, and making an opening a little over 2 inches long between them. The operation took a little over thirty minutes, and the abdominal opening was closed with silk gut sutures. The patient was extremely ill for two or three days, with a very feeble pulse of 150 to 160. She then rapidly recovered. After the fifth day copious actions began to be passed by the rectum, a very small quantity only coming through the old enterotomy wound. On the eighth day a little plug of special construction—an account of which I have already published in the BRITISH MEDICAL JOURNAL, vol. i, 1896, p. 1383—was introduced. By its means the escape of any fluid was completely prevented; the skin around rapidly became perfectly dry and sound. All the motions passed the right way; the patient gained strength and weight. The edges of the fistulous opening were on two occasions pared and united. The effect of this was to diminish the opening to a little more than a pinhole size, but neither time was it completely closed. As the patient suffered comparatively little inconvenience, she preferred to wait awhile before any further measures were adopted to bring about its complete closure. The patient is now in good health.

The first case recorded is of interest, from the lapse of time (three years) since the operation was performed, and from the knowledge that the patient is now in perfect health, suffers no sort of inconvenience, is thoroughly well nourished, and able with ease to earn her living in domestic service. After so long a period it is impossible to think that stenosis is the least likely to occur at the point of junction, so that the case may be fairly claimed as one of complete and permanent cure.

Case II is of interest from the nature of the operation performed, being one of double anastomosis, a portion of both the large and small intestine being excised. I have not been able to follow or look up the most recent literature on this subject, but I should be interested to know whether any of the members present have had a case of double anastomosis, or whether they can refer me to any such record. The particular point of interest would be not so much the surgical detail of the operation, which is quite practical, but whether a patient can survive such an operation. In my case I practically had no alternative to the method I adopted. The patient himself, who thoroughly realised his condition, begged that, if possible, whatever the state of affairs was that I found inside, I would not abandon the operation, and that he would run any hazard if the operation would afford him the least prospect of relief. On opening the abdomen it was obvious that I must either undertake the hazardous operation described, or close the abdomen and leave the patient to his fate unrelieved. I decided to give him the chance.

The third case is one of considerable interest as illustrating what I have long held to be the right method of treating acute intestinal obstruction in cases where the nature of the obstruction is doubtful, and the patient's general condition too grave to admit of an extensive and prolonged operation. The patient when I saw her was rapidly becoming exhausted from the shock and almost constant vomiting produced by complete obstruction. I hold that in such a case what is required is to give immediate relief to the distended bowel with the least possible disturbance to the abdomen. In these circumstances, if relief be given, the vomiting quickly ceases, and if the patient is not already too far gone she will get over the shock, and temporarily recover. Time is thus gained further to consider what may have been the cause of obstruction, and the best plan of dealing with it. To open an abdomen in a patient already suffering severely from shock, with an abdomen blown up and distended from delay in treatment, to search for the cause of obstruction, and at once to perform an anastomosis, is to my mind almost certain death.

On the other hand, a few weeks after temporary enterotomy, the surgeon can operate with far more hopeful prospects. There has been an opportunity for thoroughly preparing the patient for an aseptic operation. The intestines not distended no longer offer a formidable mechanical impediment to operative manipulation as they do when tightly distended, by crowding over everything; and, above all, the patient having rallied from the shock of prolonged obstruction, is in a far more favourable condition to withstand what may be a long and formidable operation. The surgeon, too, is no longer hurried, and he is able to attend to minute points of detail in the stitching—so important to success—in a manner which he could not do when every minute is of precious importance.

Lastly, the enterotomy opening, as in my case, will serve as a temporary safety valve after performing an anastomosis. The opening, of course, from the very fact that it was made in the distended intestine, means that it was above the point of obstruction, and will consequently, if an operation is subsequently performed, be above the new junction. Thus there will be no fear of undue distension at the line of junction by wind or fæces. The enterotomy opening being small, it may gradually close of itself after the obstruction beyond has been relieved. If it does not do so, it can be subsequently closed by operation. I do not in this short paper mention bobbins and buttons, for I have on several occasions stated my views on this matter, and with further experience I am more than ever inclined to regard them as incomparably inferior to accurate hand-stitching, and further I regard them as the direct cause of deaths otherwise avoidable.

# THE MODERN TREATMENT OF MYOMATOUS DISEASE OF THE UTERUS.*

By LAWSON TAIT, F.R.C.S., Etc.

It is now nearly thirty years since I first began to engage myself in the practical treatment of diseases of the uterus, and it was in this city and in connection with the institution in which we are assembled as its house and dispensary outdoor surgeon. From Edinburgh, where I was in immediate contact with the two Simpsons and less intimately with Matthews Duncan, I had come away with the belief that myomatous disease of the uterus was a mere pathological curiosity, of no importance clinically, and one for which nothing was required to be done, and for which practically nothing was done.

I had, however, to learn conclusions concerning this disease similar to those concerning others—that locality or local influences are influential in determining not only the prevalence of certain diseases, but also in determining their clinical features and personal importance. I had to learn that the severity and course of syphilis are far less severe in Wakefield than as I saw it in Edinburgh, whilst in the Midland Counties and Birmingham it is comparatively a trivial ailment. I had to see in Wakefield four or five cases of cancer of the uterus for one which presented itself in dispensary practice in Edinburgh, and in Birmingham probably this terrible ailment is twelve times more abundant.

My first convictions concerning myoma were that it was not only more frequent, but far more severe in its symptoms than as I saw it in Scotland, and that medicines had no kind of influence on it whatever.

My first surgical experiences were, of course, the removals of myomatous polypi which had been extruded from the uterus, and as these were always completely and at once satisfactory it dawned upon me that some of the cases of enlarged uterus, which evidently were affected by nodules then known as fibroid tumours, might have their symptoms due to masses capable of removal, I followed the example of Marion Sims, who had then first begun his treatment of such cases by dilatation and extraction of them piecemeal. This practice was followed largely by Péan, and subsequently extended by him in the practice of their removal by *morcellement* after abdominal section. The preliminary dilatation by sponge tents had been abandoned by common consent as too horribly dangerous. The tents of laminaria were substituted, and I shall never forget the satisfaction with which I got my first supply. A case was then under my care in which everything seemed favourable, and I inserted with care a very large-sized tent, with the result that my patient died in about forty-eight hours without my ever being able even to start the process of enucleation. A *post-mortem* examination revealed the fact that the overwhelming force of expansion in the tent had split the uterus right across the fundus, and had killed the patient. I put those tents all carefully away, and have never used one since.

The facts now known show that it was our ignorance of the true pathology of the disease and our mistaken nomenclature which led to our blunders. Now that we divide myoma into the hard multinodular and the soft œdematous solitary tumours, we see from the records that the successes of Marion Sims, Péan, and others, must have been with the soft œdematous myomata, and the failures were with the hard multinodular. The great bulk, probably 98 per cent., of the polypi we remove after uterine extrusion belong to the soft œdematous group, and their extrusion is due to the accident of their growth in or very near the cervix, or to their attachment being very limited in area. But as a rule they are not so favourably situated, and therefore they grow to enormous size and grow very rapidly. They may always be attacked by vaginal enucleation until their size stands in the way, tumours of great weight having been removed by Péan's *morcellement*, and there seems little risk in the operation either from hæmorrhage or from subsequent blood poisoning, provided sponge tents have not been employed, and the operation be done with perfect cleanliness, that is, with perfect aseptic precautions. They are always solitary as I have said, and I have never known one to recur.

In this particular it is clear, therefore, that the surgical pendulum is rushing unduly to the other side. Hysterectomy, that is, the complete removal of the uterus, is being done frequently for cases of this disease, which could have been dealt with quite as easily by vaginal enucleation; and if my own experience is confirmed that these tumours do not recur, I ask that the surgical rule should be adhered to, and that the uterus, healthy and capable of resuming its normal shape, direction, and function on recovery from enucleation, should be left; and that its removal or permanent injury should be undertaken only when the tumours are so large as to render enucleation impossible or more dangerous than removal of the tumours by abdominal section.

Removal of polypoid nodules in cases of multinodular myoma gives benefit of course, but in my own experience this has been only temporary, and whilst it certainly should be employed as a temporary and palliative measure, reckoning should be made with the further progress of the disease.

For multinodular disease the operation of election is removal of the appendages. At the meeting of the British Medical Association at Cardiff in 1885, I published my first series of 108, with a mortality of 1 per cent., a result enough to establish any operation in its primary relations. But I went further than that, and in November, 1890, I published the secondary results of the same series, giving the results of every one of the cases save two, when the patients could not be traced; and that evidence was in the main not my own, but was contributed by practitioners who were interested in the cases and had watched them. No other operation in the history of surgery has ever been sustained by an inquiry like this, and I venture to assert that it is the only way in which an operation can be estimated justly. It would matter very little if an operation had no primary mortality at all if it left the majority of its subjects maimed, halt, or insane at the end of two years. The absence of this kind of inquiry is the cause of so much change of fashion in surgery, to say nothing of medicine. If we took the trouble to ascertain and record our secondary results, our proceedings would be, to say the least of it, more logical and in every way more profitable.

In the cases of soft œdematous myoma the operation of removal of the appendages has been prematurely discredited by one of my own cases, in which I had to do hysterectomy (or rather amputation) of the uterus and tumour some months afterwards (British Medical Journal, January 8th, 1887) by reason of the continuance of the symptoms and the great increase of the tumour. When I came to examine the mass removed I found my failure to be due to the fact that I had practically failed to remove one of the Fallopian tubes. But this explanation was made to the ears of the deaf—those who still adhere to the belief that the ovaries are the cause of menstruation. If it occurred with some frequency that the tumour increased and the symptoms persevered after complete removal of both ovaries and tubes, it would be time to talk about the inefficiency of the proceedings; but in my own practice, covering now over a thousand cases, I know of the one case only: and if others of my failures had been met with in the practice of other surgeons, I do not think I should have been long allowed to remain in ignorance of the fact.

The third operation, in order of importance and severity employed in the treatment of the myomatous uterus is the supravaginal amputation. I need not here go into the question as to whether this should be completed by an extra- or intraperitoneal treatment of the pedicle. With the former I now get runs of success of thirty, forty, and even as high as fifty-two consecutive cases. But with every kind of intraperitoneal treatment of the pedicle which I have tried, the mortality has been terrible, and I am done with it for ever. It is clearly on this account, although none of its advocates have admitted the fact, that it is now proposed to remove the whole uterus—that is hysterectomy, the name of "panhysterectomy" being as absurd as it is unnecessary.

This has achieved a very considerable amount of success: it is comparatively easy to perform, and it certainly has the enormous advantage of enabling the operator to control the arteries outside the limits of the shrinking uterine tissue, and

* Read before the Yorkshire Branch of the British Medical Association, at Wakefield.

therefore he secures the advantages of the intraperitoneal method without the risk of hæmorrhage when it is attempted to tie uterine tissue.

There are, however, many countervailing disadvantages which have not been considered, I should say have not yet entered the minds of those who are its most enthusiastic supporters. The present paper is specially for the purpose of reviewing a discussion reported in the British Medical Journal as having occurred at the meeting of the British Gynæcological Society on January 14th. A paper was then read by my colleague and former assistant, Mr. J. W. Taylor, on Two Cases of Panhysterectomy after Previous Treatment by the Clamp Operation.

In the discussion the cases were used as arguments for the operation of complete hysterectomy as against the clamp amputation, and it was said that the British Gynæcological Society had declared for the last three or four years that "panhysterectomy was the best operation for myoma." If the Society had said any such thing (and I can find no evidence that it has done so) its opinion has been, to say the least of it, premature. Mr. Bowreman Jessett went further, and is reported as having said that Mr. Taylor's cases showed that by using the clamp "one or several myomata might be left behind, needing such a second operation," as in Mr. Taylor's second case. This allusion to Mr. Taylor's second case is clearly a mistake, seeing that the first tumour was a cystic tumour of the ovary, when for reasons good enough in themselves Mr. Taylor had to revert to the clamp treatment of the pedicle, as he frankly confesses that at that time he knew no better way of treating the condition found. But the uterus was perfectly healthy, and it remained so for some five years, during which time it fulfilled its function of pregnancy. Surely in these days when we have to run the risk of hearing our surgical judgments overhauled by a jury of inquiry, and our surgical operations condemned in the witness box by nurses, it becomes us to repudiate such advice as is given by Mr. Bowreman Jessett. Still more is this conclusion to be advanced when we consider Mr. Taylor's first case, which is probably the one to which Mr. Jessett referred. Mr. Taylor's experience of her was "that she was an unmarried lady" 33 years of age, who had been operated on four years ago by another surgeon. At the second operation Mr. Taylor found that practically the whole of the uterus appeared to have been retained by the patient, as the appendages of both sides were discovered beneath the greater mass of tumour. Mr. Taylor removed the tumour with the whole of the uterus and the appendages. He does not describe in detail the relations of the tumour to the uterus, whether it was uninodular or multinodular; nor, indeed, does he give any reasons why the uterus and the appendages were removed with the tumour. There may have been good reasons, but they are not given.

It happens that the first operation was performed by me on July 18th, 1892. There was a uninodular mass attached to the fundus by a good thick pedicle, which I clamped in the ordinary way. The ovaries, tubes, and the uterus were perfectly healthy, and in accordance with surgical rule I left them.

In his description of the case[1] Mr. Taylor says she was much disappointed at the result[2] of the previous interference, and this may be true of the patient, but it is a very mild description of the position taken up by a relative who accompanied her in a visit to my consulting rooms just before she was placed under Mr. Taylor's care. The attitude of the latter was that I was to blame for not operating, so that a further growth of tumours should have been prevented. Of course the evident answer to this absurd complaint was threefold: First, that regrowths of myoma under such circumstances are to me a wholly new experience. A suggestion that it might occur would of course have to be entertained, but that it ever had occurred up to that time required proof. The second answer: Why should I have removed a perfectly healthy uterus and set of appendages in a young woman of 28, seeing that our rule is, and always has been, against such a proceeding? We might just as well expect complaint that a surgeon had not amputated at the hip-joint for a crushed tarsus because two years after the patient got a badly-crushed thigh. Thirdly, who would dare, after our experience of the actions against Dr. Cullingworth, to remove healthy organs in such problematical contingency as the one before us? Verily the surgeon's lot will in future be a most unhappy one if he runs risk of action at law on the one hand for removing healthy organs, and on the other hand of being abused for not removing organs in which no trace of disease existed. In any event, these two cases of Mr. Taylor's contribute not a scrap of evidence in support of the contention of Mr. Bowreman Jessett. The materials for a full discussion of the respective merits of the two ultimate alternatives for the treatment of the myomatous uterus are not yet in existence, and both patience and care must be exercised till they are obtained.

References.

[1] *Medical Press and Circular*, February 3rd, 1897. [2] Of course Mr. Taylor is mistaken here in the word he uses. The second growth was a *sequence* of the first operation, but in no sense a *result*.

## A CASE IN WHICH THE TONSIL, FLOOR OF MOUTH, AND HALF THE TONGUE, WERE REMOVED BY EXTERNAL PHARYNGOTOMY FOR EPITHELIOMA.

By CHARLES A. MORTON, F.R.C.S.,
Surgeon to the Bristol General Hospital.

I was induced to undertake the very extensive removal of malignant growth in this case by a study of the records of similar operations in Mr. Watson Cheyne's Lettsomian Lectures for last year. The important points in connection with the operation are so fully discussed in those lectures, and such a complete table of the recorded cases there given, that I need do little more than relate the details of my own case.

Secondary hæmorrhage has so often followed ligation of the external carotid artery in what cannot be an aseptic wound (as it communicates freely with the throat) that I decided not to tie this vessel, but to divide and turn apart the divided portions of the lower jaw, so as to gain free access to the tonsillar region for the purpose of dealing readily with all bleeding vessels. I did not simply drain the wound with a drainage tube, but packed it with cyanide gauze, as is usually done after Kocher's excision of the tongue.

To feed the patient by a tube passed into the stomach and left there is also, I think, a very great advantage, as no food gets into the mouth, and painful and difficult attempts to swallow are not necessary: moreover, the patient at once begins to take large quantities of liquid nourishment. Before operating in this case, I used this method of feeding the patient in a case of Kocher's excision of the tongue and floor of mouth, and at the present time I am employing it in a case of excision of the body of the lower jaw and tongue, and in both cases with great advantage. The patient now under my care, on the third day after the operation, was taking four pints of milk with brandy and beaten-up eggs in the twenty-four hours, without any difficulty or discomfort. In using this method I followed a suggestion of Mr. Arthur Barker, given in his record of a case of Kocher's excision of the tongue, published in 1887. The tube (which should be about the size of No. 14 of the œsophageal tubes) is apt to get blocked with milk curd, and to prevent this it is well to syringe a little water through after each time of feeding.

T.J., aged 55, came under my care at the Bristol General Hospital, on June 3rd, 1896, with a history of a "pricking soreness" at the back of his tongue and in his throat, which had only been present for five weeks. At the time he came under observation he could only swallow liquids, and those only on the left side of his throat, and with much pain and difficulty. Inspection of the interior of his mouth showed a a hard, ulcerated, warty growth on the back of the right side of the tongue, which involved the floor of the mouth between the back of the tongue and the jaw, and the junction of the tongue and anterior pillar of the fauces, and extended on to the tonsil. There was only one enlarged submaxillary gland to be felt. When under the anæsthetic at the time of the operation I felt the hard growth in the tongue extending to the middle line, and was just able to get the tip of my finger below it, down the pharynx.

*Operation.*—The operation was performed on June 12th. I first opened the trachea and inserted a Hahn's cannula, and

later on plugged the lower part of the pharynx with a sponge as well. This effectually prevented the entrance of any blood into the trachea during the operation. After the examination of his throat and tongue by the finger when under the anæsthetic, he got very cyanosed. The cause was not very apparent, but directly the trachea was opened much blood-stained mucus was expelled by coughing, and his colour at once became natural. No doubt this blood-stained mucus had passed into his trachea at the time of the digital examination. The tracheotomy was not performed on account of the cyanosis, but as a needful stage in the operation. The left lingual artery was then tied, and the mouth on the right side opened exactly as is done in Kocher's excision of the tongue, the right lingual artery being tied at the same time. Some enlarged submaxillary lymphatic glands were removed. The growth was found to have infiltrated deeply into the tongue towards the hyoid bone, and I had to divide the tongue close above the great cornu, and somewhat beyond the middle line, thus leaving rather less than half the organ. I then separated the cheek upwards from the jaw just in front of the masseter, and divided the jaw at the junction of the body with the ascending ramus, so that on traction outwards of the latter I could see fairly well into the tonsillar region. I found the growth fixed to the external pterygoid muscle, a portion of which I removed with it. The pharyngeal wall, where infiltrated by the growth, was also adherent to the external carotid artery, but I managed to peel it off. I did not separate the tongue from the tonsil and diseased portion of the pharynx, but removed them all in one piece. The growth had not invaded the jaw, but I had to strip off the periosteum with it. I wired the jaw at the end of the operation, and sutured the stump of the tongue to the soft tissues on the inner side of the front of the jaw. There was very little shock from the operation, which was a long one, and at the end his pulse was only 100.

*The Growth.*—The mass of growth in the tongue was about the size of a walnut, and of the typical hardness of epithelioma, and presented its microscopic appearance.

*After-History.*—The tracheotomy tube was retained for ten days and the stomach tube for rather more than a month, but by firmly plugging the external opening into the pharynx he could swallow fairly well three weeks after the operation. By July 18th the opening in the neck had so far contracted that it would just admit the end of the thumb; and on August 22nd, when he was discharged, it was only a minute sinus. He could then eat mincemeat, and speak so as to be understood, and had gained flesh to a considerable extent. He had no pyrexia after the operation or any lung trouble. When seen in October the sinus in the neck was found to have closed, and he had returned to work as driver on a locomotive engine. I showed him at a meeting of the Bristol Medico-Chirurgical Society on November 11th, 1896, five months after the operation, and there was then no sign of recurrence of the growths, nor is there any recurrence at the present date—January, 1897.

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

### FATAL TRAUMATIC RUPTURE OF HYDATID OF LIVER.

A. C. came under observation in April, 1896, aged 17½, complaining of sickness and five months' amenorrhœa. She was found to have an abdominal tumour, suggestive of a six or seven months' pregnancy or a large uterine fibroid, lying quite symmetrically, inseparable from the liver either by palpation or percussion, but with difficulty capable of being separated from an apparently normal uterus by bimanual examination. The tumour was hard and firm throughout, except in one spot below and to the left of the umbilicus, where fluctuation could be made out. In the right iliac region a hard, irregular, tomato-like mass could be felt. The tumour was stated to have been discovered six years previously near the right groin, and to have gradually grown upwards and to the left. It was thought to be probably ovarian; but as the removal of the indigestion left the patient in excellent health and spirits, and as the tumour remained apparently quiescent during six months' observation, no operative interference was suggested.

In March, 1897, the patient accidentally stumbled in her muddy farmyard, falling upon her face on the grass; she went indoors, and soon afterwards, feeling sick, went upstairs and lay down, vomited, and died within half an hour. On palpating the abdomen shortly afterwards, the large central tumour could no longer be felt, although as distinct as ever two days previously; but the tumour in the right groin remained as of old. On opening the abdomen, the liver was found firmly adherent to the adjacent parts, and about thrice its normal size, due to five large hydatids. Three of these were as large as cocoanuts, very tense, full of colourless liquid, one occupying the right iliac fossa, another the left hypochondrium, and a third projecting from the under surface; a fourth extending down from near the portal fissure, was of similar size, but full of bile-stained liquid; while the fifth, as large as one's head, lay collapsed in the middle line, and contained some blood-stained liquid. All the cysts contained daughter cysts, varying in size from a currant to a peach, while the cyst walls were profusely studded inside with brood cysts. The other organs seemed healthy.

Kendal. Wm. Rushton Parker, M.A., M.D.Cantab.

### CASE OF FEMORAL HERNIA IN WHICH THE VERMIFORM APPENDIX WAS FOUND IN THE SAC: EXCISION OF SAC AND APPENDIX: RECOVERY.

Mrs. McK., aged 21, was admitted to the Stanley Hospital on January 29th, 1897, suffering from a painful swelling in the right groin. She gave the following history: Two years ago, when lifting a heavy garden seat, a lump appeared in the groin, and attained the size of a hen's egg. It disappeared on lying down, and caused the patient no inconvenience; her bowels were always regular. On January 27th, two days before admission, whilst lifting a heavy bedstead, she felt a sudden sharp pain in the situation of the swelling in the groin, and this gradually became worse until she came to the hospital.

On admission, there was a hard, tense swelling, the size of a hen's egg, in the right groin; it was tender, gave rise to no impulse on coughing, and was irreducible. Her bowels had not moved for three days, and, though she was not sick yet, she complained of nausea and was rather collapsed.

Under an anæsthetic I cut down on the tumour, and opened a hernial sac which contained the vermiform appendix. This was thickened and congested. Having pulled the appendix down I removed the damaged portion, and brought peritoneal flaps over the cut end of the stump. I then returned the stump by pushing it back with a director into the peritoneal cavity. The ring was very small, and would not admit the tip of the little finger. The sac was then removed and a radical cure effected. There were no bad symptoms, and the patient left the hospital cured on February 20th, 1897.

On looking up the literature of the subject I can only find two recorded cases of this form of hernia—one by Annandale, in which the appendix was perforated, and the other by Jacobson. Annandale removed the appendix and fixed the stump in position. Jacobson returned the appendix after division of the border of Gimbernat's ligament, but states that he would remove the appendix in another case if there was time to make the necessary suturing secure. I removed an inch and a half of the appendix, and it contained no concretion.

G. P. Newbolt, F.R.C.S.,
Honorary Surgeon, Liverpool Stanley Hospital.

### METHYLENE BLUE IN RHEUMATOID ARTHRITIS.

In looking through the recent works on rheumatoid arthritis I find no mention of the use of methylene blue in the treatment of this disease. In several very obstinate cases which have lately been under my care, I have administered this drug with the greatest benefit, each case showing marked improvement soon after commencement of treatment. Not only does the arthritic process appear to be altogether arrested, but the drug has a favourable influence on the general condition, improving nutrition and leading to increase of body weight. A 2 gr. tabloid (prepared by Messrs.

Burroughs, Wellcome, and Co.) is the most convenient form of administration, one to be taken twice daily after food. The patient should be warned that one of the first effects of the drug is to colour the urine blue.

Pyoktanin (methylene violet), on the other hand, has very little effect on the urine, is not well borne, and has not given good results in rheumatoid arthritis.

Although my experience has been limited, I venture to think that the success has been sufficient to warrant my drawing attention to this treatment, and I hope that others with more opportunities will give the method a trial.

Parkstone. J. R. Philpots, L.R.C.P., L.R.C.S.Edin.

## A NOTE ON TRIONAL.

A safe, efficient, and easily administered hypnotic is a distinct addition to our armamentarium, and as fulfilling these conditions, the result of a six months' constant use of trional may be of interest.

I have given it to produce sleep in cases of pneumonia, bronchitis, alcoholism with delirium, insomnia from mental worry, and other forms of nervous insomnia, and I have invariably found it satisfactory. It is rapid in its action, and it has these advantages over sulphonal or the bromides, that it is more certain and does not produce the disagreeable sequelæ of sleepiness, lassitude, and depression on the day following its exhibition. Nor have I observed any derangement of the digestive system in connection with its administration. An initial dose, gr. xx or xxiv, may usually be reduced to xv or less, and in this way trional becomes invaluable for breaking a pernicious habit of sleeplessness, where a few good refreshing nights may restore the normal habit of sleep. Even in cases of confirmed insomnia, which have been treated unsuccessfully by chloral, paraldehyde, and the whole gamut of hypnotics, each drug having in turn to be increased in dose until it finally loses all power or becomes dangerous, trional in my hands has afforded marked relief without apparently any ill-effect, and has given tranquil refreshing sleep without any increase of the initial dose.

One patient, a retired navy surgeon, a museum of complaints—mitral insufficiency, gout, eczema, albuminuria, and marked emphysema—who has had every known hypnotic for his obstinate insomnia, has been taking by my advice trional 15 to 20 grains for the last five months almost every night. He has never had to increase the dose, and I have never detected anything but a good result from his continued use of the drug. I am confident that his heart has much benefited by the regular sleep, and his nocturnal attacks of dyspnœa are now unknown. I find trional is easily taken in cachets or suspended in hot milk or water.

Guilford Street, W.C. J. Arthur Browne, B.A., M.B.

## NOTES ON CASES.

1. *Enuresis Nocturna: Removal of Nasal Polypus: Recovery.*—A young man, aged about 20 years, had suffered from nocturnal enuresis from childhood. He was treated both in hospital and in private practice, and all the usual remedies were tried without result. Two years ago he first came under my care, when I began by giving bromide of potassium and pushing belladonna to the limits of safety. This was followed by no good results. His nasal voice and open mouth drew my attention to his nose, where I found a nasal polypus. It then occurred to me that if a nasal polypus can cause asthma it might also by reflex action cause, or keep up when once caused, urinary incontinence, especially during sleep, when the inhibitory influence of the brain is at rest. The polypus was removed, and after a night or two the incontinence ceased, and has not since recurred.

2. *Infantile Marasmus.*—In these cases, referred to by most writers on diseases of children, we can detect no other sign of disease except the marasmus itself, with perhaps occasionally a certain muddiness of the skin. The surroundings of the child may be of the best; the food may be good; there may be no suggestive rash, no vomiting, no diarrhœa, no tubercle, no prematurity to explain the condition. From a knowledge of the parents of one of these infants it occurred to me that the syphilitic taint might explain many, if not all, of these cases. I have had within the past year some opportunity of putting this theory to the test. Within that time about seven or eight of these infants have come under my care. Some of these cases were in an almost hopeless state, but the rapid way in which they one and all responded to a course of mercury left no doubt upon my mind as to the etiology of the condition.

3. *Diabetes.*—Certain cases have been reported in the medical press of the Continent which support suggestions I made for the treatment of pancreatic diabetes in an article in the British Medical Journal of July 21st, 1894. These suggestions were founded on the results of certain experiments by M. Kaufmann, and they offered an explanation why pancreatic extract administered by the mouth has failed to cure pancreatic diabetes. A method was described by which, imitating Nature, pancreatic juice can be got directly into the portal circulation, and not into the general circulation through the lymphatics of the intestine. If no fallacy has crept into the experiments of M. Kaufmann I am at present unable to see why, if these suggestions are carried out, pancreatic diabetes should remain an incurable disease. Since making the suggestions I have had no opportunity of testing this opinion, but the following cases support it. Spillman, at the French Congress of Internal Medicine,[1] mentions two cases of wasting diabetes. In each case whenever pancreatic juice was administered in the manner suggested the sugar diminished and the weight remained stationary. Again, Borman[2] mentions a similar case in which, after a few weeks' treatment, the patient left the clinic with weight increased by 8½ pounds, with strength and health improved, and sugar, thirst, and urine greatly lessened.

J. McNamara, M.D., B.Ch., B.A.O.R.U.I.

West Kensington.

## GRASS SPIKELET IN CONJUNCTIVAL SAC.

With reference to Mr. Dunn's case in the British Medical Journal of January 30th, I may mention that I removed a similar grass spikelet from under a child's conjunctiva about eighteen months ago. The spikelet in this case was under the conjunctiva at the upper and outer part of the eyeball. It was easily withdrawn by the end of the broken stem, which could just be seen projecting through the conjunctiva when the upper lid was everted. There was slight conjunctivitis and some ecchymosis of the upper lid, but hardly any tenderness and no pain. The eye had become inflamed after the girl had been playing in a hayfield a week previously. It had quite recovered a few days after the spikelet was removed.

Taunton. R. Liddon Meade-King, M.D.Durh.

## TREATMENT OF FRACTURES ABOUT THE ELBOW-JOINT.

A boy, aged 8, had fallen on his right elbow; when seen after the accident there was a good deal of swelling and some deformity of the joint. Under anæsthesia it was thoroughly examined; the forearm was dislocated backwards, and the condyles readily moved on one another with crepitus. The dislocation was reduced, and the arm placed on an internal angular splint, cold and pressure applied for five days. It was then taken down; massage with firm but gentle passive movement commenced daily for three weeks, the arm being always replaced on an internal angular splint. Finally the splint was removed, and active movements commenced. Some months have now elapsed; there is complete extension of the arm, and no interference with its mobility in any way.

*Remarks.*—Having read Mr. Arbuthnot Lane's interesting paper on this treatment, and knowing the frequency with which limitation of movement, especially extension, follows this form of fracture, it seems to afford a contrast in result to the routine treatment of fracture into the elbow joint.

Malcolm Margrave, L.R.C.P.Lond., M.R.C.S.Eng.

Newton Abbot.

## EXOPHTHALMIC GOITRE IN A MAN.

Mr. J., a clerk, aged 25, who came under my care in March, 1896, had enjoyed good health until six months previously. He presented all the characteristics of Graves's disease—decided enlargement of the thyroid, prominent eyes, palpitation, and a pulse of 136. He was given the usual remedies,

[1] *La Semaine Médicale*, August 19th, 1896

[2] *Wien. med. Blätt.*, October 17th, 1895.

but without much improvement. I determined to try thymus gland extract, and he was given 5 gr. tabloids obtained from Burroughs and Wellcome. At first he took one a day after food, but gradually got up to 3. From this time he rapidly improved, his eyes became less prominent, the thyroid smaller, and the pulse slower. He continued to improve, and is now practically cured, the eyes being normal in appearance, the thyroid its regular size, and the palpitation gone. In conclusion, I may say he took the tabloids for about seven months.

W. Sutcliffe, M.R.C.S.Eng., L.R.C.P.Lond., L.S.A.
West Bromwich.

# REPORTS
ON
## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

### ROYAL NAVAL HOSPITAL, YOKOHAMA.

PENETRATING GUNSHOT WOUND OF THE LEFT CHEST, FOLLOWED BY PYO-HÆMOTHORAX.

(Communicated by the Director-General, R.N.)

[Reported by Fleet-Surgeon Charles Godding, H.M.S. *Centurion*, and Staff-Surgeon Howard Todd.]

W. M., chief stoker H.M.S. *Centurion*, while witnessing some tricks with a loaded revolver on shore at Hakodate on August 5th, at 11 P.M., while standing about 3 feet away, received a bullet in the left chest, between the second and third ribs, and 2 inches to the left of the sternum and 3½ inches from the left nipple. He made an attempt to come on board, but soon collapsed, and was later brought to the ship at 3 A.M. On August 6th he was suffering severely from shock; the pulse was 130 and thready, respirations 60; he was quite conscious, and complained of pain all over his chest. There were powder marks on his shirt, and his under flannel was blood-stained. On removing his vest, a small, dark, contused wound of entry, with a little blood oozing from it, and extensive subcutaneous emphysema all over the front of the left chest, and extending into the left axilla, was seen. He had slight cough and hæmoptysis. The treatment consisted in iodoform dressing of the wound, ice to suck, and control of the chest movement by a many-tailed bandage. The revolver was American, 0.38, bullet 147 grains, powder 12 grains. At 9 A.M. on August 6th he had recovered sufficiently to allow of a gentle examination, when some fulness was detected about the left scapula, but no crepitus or wound: reaction now set in, with dyspnœa and a hard bounding pulse, which tincture of aconite in 5-minim doses relieved.

On August 8th the heart's apex was displaced towards the sternum, and there was a slight pericardial rub; on percussion the left chest was hyper-resonant anteriorly, but dulness commenced at the mid-axilla and extended backwards to the base of the lung; a friction rub was heard all over the left chest, and there was marked compensatory breathing on right side.

On August 11th the apex beat was still displaced towards the sternum.

On August 17th the temperature was 99.4° in the morning, 99.6° in the evening, pulse 84, respiration 24; there was dulness, absence of vocal fremitus, and breath sounds from left mid-axilla to back of left chest.

On August 25th a foreign body was felt above the eighth left rib, immediately internal to the vertebral border of the left scapula; it was at once cut down on, and proved to be the bullet, which weighed 145 grains, showing a loss of 2 grains; its apex was flattened on one side, and deeply grooved and indented. A digital examination of the wound failed to discover the track of the bullet or any connection with the chest.

On September 1st the patient was sent on board a man-of-war for passage to Yokohama.

On September 9th, when he was admitted to the Royal Naval Hospital, Yokohama, his condition was as follows: Weight, 132lbs.; had slight cough accompanied by white mucoid expectoration, not containing tubercle bacilli; tongue furred, anorexia, night sweats, and hectic pyrexia; left chest dull from anterior left axillary line to spine and upwards to the level of the seventh rib, absence of local fremitus, and respiratory murmur over dull area, no adventitious sounds; right side of chest moves better than left, and respiratory murmur exaggerated. An exploratory puncture was made with a large aspirator needle in the sixth left interspace in the mid-axillary line, but no fluid appeared in the syringe on raising the piston.

On September 16th the heart's impulse was displaced so much to the right and upwards that it could not be felt below the left nipple line. The voice sounds were ægophonic over the left base. As hectic persisted an exploratory puncture was made in the seventh intercostal space, at the angle of the left scapula, with negative results.

On September 26th friction was heard in the left axilla, the physical condition of the left chest was unchanged, and hectic persisted.

On October 5th he complained of some dyspnœa, and there was slight hæmoptysis. On percussion resonance was tympanitic above fourth left rib. Distant breath sounds could be heard in left axilla and over the centre of the left scapula. Assisted by Staff-Surgeon Morley and Surgeon May the patient was put under chloroform, and Staff-Surgeon Howard Todd pushed an aspirator needle into the chest below the left scapula angle, and blood-stained fluid was withdrawn to 12 ounces. The fluid did not appear to be pure blood, but seemed thicker, and not bright scarlet or the colour of venous blood. The puncture was sealed with collodion.

On October 6th he expressed himself as much easier. There was no dyspnœa, the breath sounds over the left base were more distinct, and accompanied by friction. In front the dulness in left axilla was much diminished.

On October 17th, as hectic persisted, A.C.E. mixture was administered by Surgeon May, and Staff-Surgeon Howard Todd excised 2 inches of the left eighth rib internal to the left scapula angle. The periosteum, which was much thickened, was freely incised, and 20 ounces of purulent sanguineous fluid escaped, in gushes. A large drainage tube was inserted, and the wound dressed with iodoform and cyanide gauze. The subsequent treatment was irrigation with warm listerine, and early removal of the drainage tube.

On January 16th, 1897, the man was walking about, and weighed 144 lbs. A small sinus remained unhealed over the site of the incision. The left chest moved less than the right on taking deep breaths, and was somewhat contracted. Vocal fremitus was very much diminished over the left base. The breath and voice sounds were almost absent to level of eighth left rib.

### ROMFORD WORKHOUSE INFIRMARY.

A CASE OF RUPTURE OF THE LEFT VENTRICLE.

(Under the care of J. A. Fraser, Medical Officer.)

[Reported by J. H. Busteed, L.R.C.P. and S.E., Assistant Medical Officer.]

E. S., a woman, aged 52, single, was admitted into the Romford Workhouse Infirmary on December 24th, 1896, suffering from chronic rheumatism. On seeing her next morning, she complained of pains in her knees and neuralgic pains in the head, and on examination the diagnosis was confirmed. She had been admitted some months previously for the same complaint; the heart sounds were normal, and there was no evidence of any cardiac trouble. On Sunday, the 27th, I found the patient sitting up comfortably in bed, and both she and the nurse informed me that she was very much better, and free from the pains of which she had complained. An hour and a half later I was summoned urgently from another part of the building, and on arrival neither radial pulse nor cardiac impulse could be felt, and injections of brandy and hot fomentations over the precordial area were employed without any response. I then learned that the patient had eaten her dinner, and a few moments afterwards gave three piercing screams, and dropped back dead. Being unable to certify as to the actual cause of death, I was ordered by the coroner to make a *post-mortem* examination, and found on opening the chest that the pericardium was distended with fluid, and on opening it obtained a pint of bloody serum, and found in it an organised blood clot weighing half a

pound, less 2 drachms; the heart itself presented a rupture close to the apex of the left ventricle, the clot being continuous into the ventricle, and on opening the latter it was found to be ruptured throughout the entire thickness, due to the softening of the wall at that spot, and full of organised blood clot blocking the aorta; on removing the clot the valves were found to be deeply injected. The mitral valve showed recent vegetations on its upper surface. The right side of the heart was absolutely empty, and the whole heart badly nourished. Both kidneys were slightly granular on the surface, but the capsules peeled off readily, and on section both showed small syphilitic nodules. The liver presented a large angioma 2 inches long by 1 inch broad on the outer surface of the upper portion of the right lobe containing a quantity of blood. The lungs were slightly œdematous. The uterus was large, and presented a mass of fibroids scattered over its outer surface. The brain was soft, but otherwise normal. No ascites; no anasarca; no gastric crises.

The curious features, apart from the extreme rareness of rupture of the left ventricle, seem to be: (1) The fact that the heart sounds were normal, and that there were no signs of cardiac mischief, or history of cardiac distress. (2) That such an occurrence should have taken place in a woman whilst at absolute rest in bed, and not undertaking any violent strain or exertion. (3) The continuity of the clot blocking the aorta, left ventricle, and lower part of the pericardium.

It is curious also to note that in the two cases reported in the *Lancet* of 1872, vol. ii, both were preceded by pain, dyspnœa, sickness, and vomiting, whereas in this case death was almost instantaneous, being only preceded by the three piercing screams, the result probably of pain and of acute dilatation previous to the rupture, and by no other symptoms.

# REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

W. H. DICKINSON, M.D., President, in the Chair.

*Tuesday, March 23rd, 1897.*

THE PARASITE OF THE MALARIAL FEVERS AT SIERRA LEONE. This paper, by Surgeon-Captain C. W. DUGGAN, was communicated by Dr. GEORGE THIN. The author described the symptoms of the severe malarial fevers which prevailed at Sierra Leone, and gave the results of his observations on the parasite of malaria which was associated with these fevers. Both Europeans and natives suffered from malarial fevers on that coast. During two years' residence there he examined blood from the finger in nearly 400 cases, and made special study of 50 cases; 11 of these cases were given in some detail in the paper. His description of the symptoms which ushered in and lasted during the attack did not differ materially from that given by previous observers. In all the cases he found parasites in the blood from the finger. The form in which they were seen was as a very minute ring-shaped body, which in a later stage slightly enlarged, and contained a few very minute grains of pigment. A more advanced stage than this was not observed in the peripheral blood with one or two exceptions. In blood taken from the surface of the brain, in a fatal case, he found sporulating forms. The parasite was very small, and even in the sporulating stage only took up about a third of the red corpuscle; he had counted five spores in one parasite. In the majority of the cases, after some days' fever, the crescent forms of the parasite were observed, and the author described various stages in its development. In one case only did he observe appearances in the parasite which could be interpreted as being possibly due to spore formation. In all the cases observed by the author only once was there a case of tertian fever, and in it the tertian parasite was observed. This occurred in a man who had suffered from malarial fever two years previously in the West Indies. With that exception, in all the other cases the parasite was found to present the same size and appearances. The quartan parasite was never observed, and the tertian parasite only that once. All the appearances observed were analogous to similar appearances described by Marchiafava as being found in the summer-autumn fevers of Rome, and morphologically the author was not able to detect any difference between Marchiafava's parasite and that of Sierra Leone. The crescent body in shape and size resembled that described by Laveran and the Italian authors. In dried and stained preparations of the small parasite in the finger blood, a deeply-stained nucleolar body could sometimes be observed at one point in the periphery: at other times in the centre of the parasite surrounded by an unstained zone, whilst the periphery stained; sometimes two such nucleolar bodies could be observed. In the stained preparations the very fine pigment was observed on the periphery of the parasite. Remarks were made regarding the treatment of these fevers.

Dr. G. THIN had had ample opportunities of judging of the author's able and careful manner of working at the malaria parasite, and therefore considered the results of his experience as set forth in the paper to be of great value. The uniformity with which the same parasite was found, and the absence of the tertian and quartan parasites was very striking. His observations also tended to confirm the specificity of various forms of the parasite for types of malarial fever. Malignancy in malaria was related to a special form of organism. The high rate of mortality from malaria on the West Coast of Africa was not sufficiently recognised, and he thought some steps ought to be taken to lessen the risks incurred by Europeans there. He quoted a fatal case in which the incubation period was only twenty-four hours instead of three to four days, as was usually thought to be the case. The author had malaria during his first year's residence, but during the second year he took 5 grains of quinine daily, and was almost entirely free from malaria. This showed that during a temporary residence in an agueish district quinine could ward off the malaria.

Dr. MANSON pointed out that but for microscopic examination cases of malarial pyrexia would easily be mistaken for sunstroke. In many instances soldiers were discharged, their temperature having become normal, after being in hospital with malaria for three or four days. This was to be regretted, for if they were kept under observation and their blood examined, crescents were often found to reappear about the tenth day; such cases were liable to recurrent attacks. They ought, therefore, to be kept under observation in hospital for three or four weeks until the crescents had ceased to be present; if they persisted the patient should be sent home, since such cases were liable to be attacked by the pernicious forms of malaria. He had always been able to see the flagellated organisms develop on a slide if certain measures were adoped; the measures were of the following kind: exposing the blood to the air for one minute before putting the cover slip on it, as suggested by Surgeon-Major Ross; by mixing water with the blood, as employed by Dr. Marshall; or by first breathing on the slide, a plan of his own. He had seen the flagellated forms in the blood of a patient from Old Calabar, which was not very far distant from Sierra Leone; he had also seen the "Ottonati" or brassy forms in such cases. With regard to mosquitos, they did not act as carriers of the parasite from one man to another, they seldom fed more than once; but the parasite developed inside the mosquito, and then passed out of the mosquito's body when it died.

Surgeon-Captain DUGGAN, in reply, said that mosquitos were only present for one month out of the twelve at Sierra Leone, and that on this account he did not think that they had much to do with malaria.

PULSATING EMPYEMA.

Dr. SAMUEL WEST read this paper. He said distinct pulsation in empyema was a rare phenomenon. It was of two kinds: (1) A general shock, usually communicated to a considerable area of the chest wall—intrapleural pulsation, as it has been called. (2) Expansile pulsation localised in an external tumour—extrapleural pulsation. In either case it was usually on the left side, synchronous with the heart, and almost invariably systolic in time. It was most frequent in males and in adult life, but might occur in either sex, or at any age. Similar pulsation had been described with serous effusion and pyo-pneumothorax. Intrapleural Pulsation: Usually felt only—and rarely visible—over a considerable part of the side. When localised to the upper intercostal space it

was probably like the fluctuation of ascites, and due to a surface wave. It was met with only where the effusion was large, and the diagnosis presented no difficulty. If felt near the sternum, or near the heart, the question of aneurysm might arise. Pulsating pneumonia and intrathoracic growth had been mentioned as causing difficulty in diagnosis, but both these conditions were very rare. Extrapleural pulsation was met with in empyema only when pointing. Its seat was near the heart, but might be at a distance from it. There might even be two or more external tumours, all of which pulsated. Such pulsating empyemata had been met with in strange places: for example, the loin. The diagnosis was but rarely a matter of difficulty. It was with aneurysm that these cases were most likely to be confused. In one case the pulsating tumour was in the third left intercostal space, and after being regarded and treated as an aneurysm for three years, burst and disappeared. Localised emypyemata near the heart did not necessarily pulsate, nor need aneurysms. The difficulties of diagnosis were greater between a local abscess in the chest wall which pulsated and an aneurysm, than between an aneurysm and a pulsating empyema; a case was mentioned. Puncture with a fine needle could do no harm even in an aneurysm, and would at once settle the diagnosis. Pulsation being as a rule absent in empyema, it was evident that its occurrence required peculiar conditions. There were three different kinds of pulsation, and the same explanation would not fit all. 1. The general shock with large effusions was probably the same as that occasionally felt through a solid growth or even a massive pneumonia, and was a shock rather than a pulsation. 2. The wave-like pulsation, often limited to one or two of the upper intercostal spaces in front, was probably a surface wave like the so-called fluctuation in ascites. 3. The distensile pulsation was like that obtained in a large abscess, and for this it was necessary that the fluid should be contained within more or less resistent walls, and be under some tension. The pulsation of the heart must be transmitted to every large effusion on the left side, but usually it expended itself not upon the more rigid external walls, but upon the lung and mediastinum, which offered less resistance. If the lung and mediastinum also were rigid—that is, adherent and thickened—they might offer as great resistance as the external wall, and then pulsation would be manifest in the latter, especially on the least resistent parts—for example, the intercostal spaces, or on the other parts where the empyema was pointing. The thickening and rigidity of the lung and mediastinum was what was usually found *post mortem* in such cases. Pulsating empyemata were usually said to be fatal, and this statement was approximately true when the pulsation was distensile. The prognosis was so bad not because the empyema pulsated, but because the peculiar conditions requisite for pulsation—namely, the fixation of the heart and the changes in the mediastinum and lungs—were such as prevented cure. Of the other cases, the majority recovered when treated in the usual way.

Dr. Norman Moore had only seen one example of this rare condition. In that case the empyema pointed in no fewer than four different places.

Mr. W. G. Spencer had operated on one case in which there was intrapleural pulsation, and from what he had seen in chest operations he could confirm Dr. West's opinion that waves were propagated in the pus from the heart or from the thoracic aorta.

## MEDICAL SOCIETY OF LONDON.

Reginald Harrison, F.R.C.S., President, in the Chair.

*Monday, March 22nd, 1897.*

### Three Cases of Intestinal Anastomosis.

Mr. Harrison Cripps read notes of three cases with remarks thereon, which will be found at p. 777.

Mr. Lockwood said that in one case he had been deterred from performing a double enterorrhaphy by the feeling that a fatal result would speedily ensue; and he was strengthened in this view by the remembrance of a case in which it had been attempted. He agreed that the most favourable site for anastomosis was the small intestine, the contents being fluid and unlikely to displace or burst through the sutures. He asked the author whether he believed he really gained any advantage by removing a wedge-shaped piece of mesentery. The trouble this proceeding had entailed on him on one occasion had decided him not to do it again. He thought Maunsell's operation added to the duration of the operation without any corresponding advantage, and he thought it was easier to perform an end-to-end junction with Lembert suture. He agreed, also, that it was important as far as possible to perform the operation when the intestines were empty, but he did not think that distension was as absolute a bar to success as the author had stated. He referred to a case in which he had successfully operated under this condition, a part of the success, however, being probably due to the youth and vigour of his patient.

Mr. Sheild said that in his own comparatively slight experience of these cases he had invariably made use of his fingers in preference to any sort of apparatus. He urged that surgeons ought to know how to operate without any such apparatus, for it might be necessary to perform the operation quite unexpectedly, when the particular appliance might not be available.

Mr. Bidwell remarked that after Maunsell's operation he had sometimes found it necessary to insert a row of Lembert sutures, and under these circumstances he thought that it was not worth while resorting to this procedure, which necessarily prolonged the operation. He alluded to the case of a patient on whom he had performed anastomosis 2½ years ago. He had seen and examined her a month since, and there were then no signs of contraction. He recalled that Billroth had made the same observation as to the greater safety of operations on the small intestines, and he said they must all admit that operations on the large intestine were much more risky.

Mr. Wallis mentioned that in two or three cases he had seen gangrene of the sutured ends follow removal of too large a piece of mesentery. He referred to the method recently described by Mr. Allingham, a method devised by Mr. Greig Smith, which dispensed with the removal of the wedge-shaped piece of mesentery, a proceeding which took up a great deal of time at the operation in securing the small vessels.

Mr. Cripps, in reply, said he had adopted Maunsell's method in the first case, but in the second he had discarded it because it seemed to him to prolong the operation. There was no difficulty in effecting end-to-end anastomosis, and it took less time than by Maunsell's method. He pointed out that a piece of mesentery had to be removed under any circumstances, so that it was, after all, only a question of where they should carry the incision.

### Senile Decay: its Pathology and Treatment.

Dr. Savill read a paper giving the results of numerous observations on the anatomical changes in old age, and explained the use of a new stain (acid orcein), which served to differentiate the various coats of the arteries in spite of the changes they might have undergone. He showed a selection of photographs illustrating the results of his investigations.

Professor Clifford Allbutt referred to the occurrence in elderly people of a condition of heightened blood pressure of the causation of which he was unable to offer any adequate explanation. He alluded to various explanations that had been offered of its occurrence, and showed that none of them afforded the necessary enlightenment. The heart was usually dilated and hypertrophied, and, although not a very fatal disease, it might ultimately result in death with signs of cardiac yielding. This condition, he said, promptly yielded to a course of sulphate of magnesia, iodide of potassium, and mercury, but was apt to recur if the treatment were not persisted in.

Dr. Chapman called attention to the occurrence in old people of a patchy form of pneumonia, and asked the author whether he had met with examples of this form of pneumonia.

Dr. Savill, in reply, suggested that the rigidity of the large vessels afforded a sufficient explanation of the changes in the smaller vessels, the changes in the larger vessels being appreciable during life. He had met with many cases of chronic or latent pneumonia of the kind referred to by the last speaker.

## SOCIETY OF ANÆSTHETISTS.

G. H. BAILEY, M.R.C.S., President, in the Chair.

*Thursday, February 18th, 1897.*

### CESSATION OF RESPIRATION UNDER A. C. E.

MRS. DICKINSON BERRY reported a case of cessation of respiration under A. C. E. with ultimate recovery, which occurred at the New Hospital for Women. The patient, a woman, aged 37, an alcoholic subject, was anæsthetised by the house-surgeon. Two or three minutes after the administration was commenced she began to struggle very violently. This passed off, and the surgeon was beginning to examine the abdomen when respiration suddenly stopped and the patient became livid, the pulse shortly after becoming quite imperceptible. After 10 minutes of complete cessation of breathing, during which time artificial respiration was maintained, the movements of the chest returned, and the patient rapidly recovered. Mrs. Berry asked, first, how far the blame might be laid on the special anæsthetic used; and secondly, how often in these cases, so frequently recorded, of death, or threatened death, occurring before anæsthesia was complete, are the symptoms really due to an overdose, the struggling and apparent resistance of the patient to the anæsthetic prompting the anæsthetist to give it in too concentrated a form.

### THE CAUSATION OF CHLOROFORM SYNCOPE.

Dr. LEONARD HILL read a paper on this subject, which will be published.

Dr. DUDLEY BUXTON in the main agreed with the conclusions of Dr. Leonard Hill. Nélaton's plans of inversion or semi-inversion were long ago recognised as among the most valuable for resuscitating those apparently dead from chloroform. When the patient was pale, had been "bled into his own veins," inversion proved salutary; when there was excess of blood in the heart, as in asphyxial conditions, the "foot down" position had been recognised as safer than the inverted posture, and this accorded with Dr. Hill's experiments. It was impossible to criticise the individual tracings which had been thrown upon the screen, but some points in them might be reviewed. The experiments—justly called ingenious—of cross-circulation done by Gaskell and Shore were open to the doubt lest even such expert manipulators had not failed to establish the cross-circulation completely, and restricted the cerebral circulation of the fed to the main circulation of the feeder and *vice versâ*. Certainly in some instances Surgeon-Lieutenant-Colonel Lawrie had assured the speaker that the experiments failed from that cause. The protection theory of Dr. Bomford, which assumed that vagal action by slowing the heart while the arterial tension was lowered was fallacious, because even if the conveyance of chloroform-laden blood to the nerve centres was lessened, so equally was the deportation of the chloroform already in the tissues brought to a standstill. The work of the Hyderabad Commission from the standpoint of the physiologist certainly did, as Dr. Hill had said, leave much to be desired, and the speaker had always regretted that his suggestion had not been carried into effect and a control set of experiments been performed in England. But he felt that however much they, as practical anæsthetists, might differ from the findings of the Commission, they must not fail to appreciate the zeal, acumen, and generous spirit in which its work had been done. Personally he must always entertain a keen sense of gratitude to Surgeon-Lieutenant-Colonel Lawrie for his enthusiasm and whole-hearted efforts to find out the truth. Physiologists, to whom so much of their knowledge of the action of anæsthetics was due, differed very widely in their opinions, and it was possible that even some of Dr. Hill's most convincing arguments might, in the light of further developments, lose some of their weight. At present one should keep an open mind and hear both sides before finally pinning one's faith to extreme views.

Mr. LEAF thought it important to determine how far the fall of blood pressure was due to the action of chloroform on the vasomotor system, and how far to the direct action of chloroform on the heart. In most cases the latter played no part. If chloroform were pushed during the struggling stage, there was generally a sudden fall of blood pressure, and the heart might stop beating for some considerable time. This was caused partly by distension on the right side, partly by inhibition through the vagi, both being the result of interference with the normal respiratory movements, but it was not caused by any paralytic action of chloroform on the heart muscle. In support of this, he mentioned two cases in which both vagi had been divided and chloroform pushed. In both cases respiration ceased first, and at the time of its cessation the heart was beating vigorously and effectively, showing that it had not been injuriously affected, and this was further shown by the fact that both animals recovered spontaneously. Prolonged inhalation minimised the inhibitory functions of the vagi, and rendered the heart beats more effective. In one experiment the pericardium was filled with chloroform, the heart continued beating vigorously, and only ceased when artificial respiration was discontinued. That chloroform might cause dilatation Professor MacWilliam had shown. In these cases the heart beats had more resemblance to a flap than a true contraction. He thought this occurrence would explain those rare cases where throughout the administration the breathing had been kept regular, and yet the pulse failed first. Finally, he thought it most important, as Surgeon-Lieutenant-Colonel Lawrie had always insisted, that the chest movements should be absolutely unhampered and carefully watched.

Dr. GHANY, of Hyderabad, upheld the teachings and conclusions arrived at by Surgeon-Lieutenant-Colonel Lawrie. He criticised the paper and the tracings shown, and maintained, as the result of large experience with chloroform in Hyderabad, that it never caused primary cardiac syncope.

Professor HOBDAY stated that he had made the subject under discussion that evening a special study during the past two or three years, and had made carefully-recorded notes of about 600 administrations of chloroform to animals. He had observed in small animals—such as the dog and cat—that when the vapour was concentrated (say 5 to 10 per cent.), it was not at all uncommon to get the heart and respirations apparently to cease together, or to have the heart apparently cease before the respiration; but in each case in which the thorax had been opened immediately the heart was seen to be distinctly beating, although not with sufficient force to be perceived outside the chest wall even with the aid of the phonendoscope, or to force the blood along the vessels. He had devised an apparatus by which the vapour of chloroform could be given well mixed in the proportion of from 1 in 4,000 to 1 in 16,000 parts of air with the greatest facility, and he had found that with such dilution as this the respiration was the first to fail in almost every case. In conclusion, he would like to ask whether any member present had had any experience in the use of hydrocyanic acid as an antidote to chloroform. During the past year he had published some experiments in the *Journal of Comparative Pathology and Therapeutics* with reference to the subject and he was firmly convinced of its value, so much so that now he preferred it before all others; in animals, when symptoms of danger occurred, his plan was to place a full medicinal dose of Scheele's acid on the back of the tongue by means of a drop tube, and immediately commence artificial respiration. Theoretically, too, as well as practically, this drug reasoned out correctly as an antidote; was, in full medicinal doses, one of the strongest and most rapid respiratory stimulants available, and, in addition, it was a temporary cardiac stimulant, besides which it was rapidly absorbed from mucous membranes without producing any irritation.

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## ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

LOMBE ATTHILL, M.D., President, in the Chair.

*Friday, February 12th, 1897.*

### EXHIBITS.

DR. ALFRED SMITH showed a Double Pyosalpinx, where the tubes were greatly distended by pus, and which presented the unusual and unique condition of having the fimbriated extremities joined together intimately by a firm short adhesion. He removed them from a patient aged 35, who sought relief for a constant pain "up through her." Result: recovery.—Dr. KIDD exhibited for Dr. LANE a Multilocular Ovarian Cyst removed from a girl, aged 18, who became a patient in the City of Dublin Hospital.

### Fœtal Urogenital Organs.

Dr. P. J. Barry exhibited specimens of "fœtal urogenital organs" removed from a full-time male child, which survived its birth thirty minutes after a normal but tedious labour. The following abnormalities were also noted: Six fingers on each hand, thumbs being duplicate; six toes on each foot, big toes duplicate and others "webbed;" talipes equinovarus; cleft palate; tongue rudimentary and lower jaw badly developed; kidneys enlarged; ureters greatly distended, and nearly as large as small intestine; bladder distended, and greatly hypertrophied; penis small; glans penis small; no meatus; urethra impervious; the lungs, heart, stomach, large and small intestines normal and quite healthy. Dr. Barry added that the child was dead when he saw it. The bladder was enormously distended. The quantity of liquor amnii was the ordinary amount.

Dr. Ernest Tweedy said the remarkable feature of this case seemed to be that there should be no diminution of the liquor amnii.

### Specimens.

Dr. Jellett showed for Dr. Purefoy (1) Ovarian Cyst with Fibroma of Ovary incorporated in it, removed from a patient, aged 35, who had been sent up from the country with a diagnosis of pregnancy. She made an uninterrupted recovery. (2) Hæmatosalpinx removed from a patient, aged 25. The patient made an uninterrupted recovery. (3) Pyosalpinx removed from a patient, aged 20, married a year and seven months; last pregnancy was an abortion a year previously; uninterrupted recovery. (4) Fibro-cystic Tumour of Uterus, 16 lbs. in weight, removed by panhysterectomy. The patient who was very weak and anæmic, had noticed the tumour for three years. The patient died of collapse five minutes after she was put back to bed. (5) Ovarian Cyst removed from a girl, aged 18; uninterrupted recovery. (6) Ovarian Cyst with Twisted Pedicle, removed from a patient, aged 40. She had been very weak prior to the operation, but improved rapidly after it. (7) Ovarian Cyst and Tube of Same Side, removed for inflammation. The patient made an excellent recovery as far as abdomen was concerned, but on the fourth day after operation she developed a very left-sided parotitis. An abscess formed which was opened and drained, and she left the hospital quite recovered six weeks after the operation. (8) Dermoid Tumour of Both Ovaries, removed from a patient, aged 29. One tumour burst during removal. The patient made an interrupted recovery.—Dr. Alfred Smith exhibited two Ovarian Sarcomata, which he removed from patients aged respectively 19 and 32. Both patients were making good recoveries.

### The Anticipation of Post-partum Hæmorrhage.

The President read a paper on this subject, which was published in the British Medical Journal of March 6th, p. 576.

Dr. Horne said he could bear out a great many of the statements in the paper as to the influence of ergot before labour. They used to be taught to avoid administering it before the second stage of labour had commenced. But he had had opportunities of seeing one of the patients to whom Dr. Atthill administered it for some weeks before her confinement, and he could bear out his statement that very little blood was lost.

Dr. Alfred Smith said the rule he used to follow when he was in the Rotunda under Dr. Macan, and which he had since followed himself, was this: If the patient gave a history of previous *post-partum* hæmorrhage they always examined the urine for albumen, and if they found it they concluded that there was a tendency to *post-partum* hæmorrhage. His present practice in such cases was to treat the patient for albuminuria. The great danger was in the third stage of labour. On the proper management of that stage depended the chief security against *post-partum* hæmorrhage. He (Dr. Smith) had never had in private practice a case of *post-partum* hæmorrhage where the labour was otherwise normal. He had seen severe cases of it in the Rotunda when he was a student: but rarely when there was proper attendance in the third stage of labour. The mixture of ergot and strychnine which Dr. Atthill used he (Dr. Smith) frequently used in cases of threatened abortion or miscarriage.

Dr. Ernest Tweedy said they met many cases of *post-partum* hæmorrhage; and he believed that what gave rise to it was endometritis. His own experience was that it was to that that *post-partum* hæmorrhage was nearly always due. He would ask Dr. Atthill did he think ergot a useful drug to administer in cases of endometritis.

Dr. F. W. Kidd said he had had some experience of Dr. Atthill's administration of strychnine and ergot in cases of anticipated *post-partum* hæmorrhage. As to quinine, a certain amount of regard should be paid to experience of the use of that drug in other countries, and especially in India, where it was very much used in large quantities in cases of malarial fevers. His impression was that in the early stages of pregnancy they avoided quinine, but that in the latter stages it was not supposed to have any injurious effect on the pregnancy. Since his student days he had seen but one severe case of *post-partum* hæmorrhage. As to the administration of ergot in hospitals, it should be borne in mind that the ergot they got in hospitals was supplied by contract, and was often unreliable. Dr. Tweedy had said that all the cases of this hæmorrhage that he had seen were due to endometritis. How could he prove that?

Dr. E. Tweedy, in explanation, said he understood Dr. Atthill's paper to be entirely confined to cases of atonic hæmorrhage in which there had been no tearing of the cervix. And he believed that such hæmorrhage was always due to endometritis. Myoma and kidney diseases were causes of *post-partum* hæmorrhage, but only because they gave rise to endometritis, which was almost always the cause of a bleeding uterus.

The President, in reply, did not say that either ergot or strychnine were absolutely efficacious to prevent *post-partum* hæmorrhage, but if administered at the proper time, where a tendency to such hæmorrhage was known to exist, they tended in a marked way to prevent its occurrence. One thing of which he was certain was that the mixture he recommended tended to prolong the period of gestation. In cases of neuralgia the action of quinine was beyond all doubt. In the same way, ergot when properly administered was a most efficient drug, and what he asked the members to do was to make trial of it. But it would not excite uterine action unless there was a foreign body in the uterus. His observations about the preventive treatment of *post-partum* hæmorrhage were based entirely on private practice, for hospital practice did not afford opportunities of watching the patients. Quinine he had not tried. He was afraid he could not agree with what Dr. Tweedy had said as to endometritis being invariably the cause of this hæmorrhage. But he was prepared to say that ergot was absolutely useless in cases of endometritis. His paper was founded on most careful observations made during twenty-five years. He could say with confidence, after fifty years' practice, that he could never put forward any treatment which, he was more convinced, was—not absolutely certain—but more useful than that which he now advocated. It would give satisfaction in the majority of cases, would reduce the size of the uterus, and prevent sub-involution, which was the *fons et origo* of many ills.

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## Section of Surgery.

William Thomson, P.R.C.S.I., President, in the Chair.

*Friday, March 5th, 1897.*

### Nephrolithotomy and Nephrectomy.

Mr. Myles read a paper on this subject. Having given details of several cases of successful operations for removal of renal calculi, he drew attention to one case in which nephrotomy for renal abscess had been performed and the kidney explored with the finger, but no stone detected. Subsequently, the pyrexia persisting in spite of drainage, the kidney was removed through an incision in the linea semilunaris. On cutting the organ open, it was found to contain a calculus about the size of a hazel nut, and to consist of a series of abscess cavities. One case mentioned was operated on from the loin for the purpose of fixing a floating kidney; but, on exposure, the kidney was found to be cystic, and it was accordingly removed. Mr. Myles discussed the connection between the cystic character of the kidney and its mobility, inclining to the belief that the mobility was the cause of the cysts, by intermittent blocking of the

channel through kinking of the ureter. He advocated removal when the cystic condition was established, as it would be found impossible to fix the kidney owing to the strain placed on it by pressure from the viscera in the irregular surface projections. The advisability of needling the kidney for exploratory purposes from the loin, as a substitute for lumbar or abdominal exploration, was discussed. With a large number of abdominal illustrations, taken from sections of the frozen cadaver and dissections of the kidney from behind in a subject with organs hardened *in situ*, Mr. Myles pointed out the difficulties and dangers of the operation. In addition, he detailed his attempts to obtain Roentgen photographs of stone in the kidney, and showed the practicability of this by exhibiting a photograph of a cadaver in the kidney of which he had placed a large renal calculus. He pointed out the difficulties of diagnosis in surgical diseases of the kidneys, detailing one case in which he had opened what he believed to be an abscess due to appendicitis, which proved to be due to a renal calculus which had ulcerated through the kidney and set up ulceration around it. In discussing the operation of nephrectomy, he expressed himself in favour of the lumbar incision, this being enlarged, if necessary by a vertical incision at its anterior extremity.

The PRESIDENT said he did not believe in sticking a needle into the loin in the hope of finding the kidney or of hitting a stone.

Professor BENNETT said it was possible for a calculus to be present without giving rise to any symptoms. He had himself, a few years ago, recorded a case of a man who had died from ascites, and *post-mortem* examination disclosed a calculus in the kidney.

Mr. BALL said that in experimenting with the *x* rays one ought to be cautious in drawing conclusions as to the presence of a stone. The skiagraph was of no use, he said, in cases of cholesterine calculi. Calculi containing a large quantity of lime or phosphate gave a good skiagraph, but lithic acid was almost as transparent as cholesterine. With reference to palpation as an aid to diagnosis, he considered that it could not be very much relied on.

Mr. TOBIN considered the anterior incision better if there was no pus in the urine and no rise of temperature.

Sir WILLIAM STOKES considered Mr. Myles needlessly apprehensive of peritoneal troubles from the anterior opening. A more satisfactory view, he thought, could be obtained from the anterior opening. He considered the *x* rays an important aid to the diagnosis of renal calculus, and would probably be of much greater aid when brought to perfection. He agreed with the President in his remarks about exploration with the needle.

Mr. M'ARDLE thought the *x* rays of great value in the diagnosis of calculi. He had experimented with tubes somewhat different from the usual kind, and had found that cholesterine crystals were shown very clearly, so that the question of translucency was of no weight at all. With regard to needling he had himself practised it, as well as passing sutures through the kidney in his first operations on floating kidney, but he had now abandoned the practice as the results had been unfavourable.

Mr. R. LANE JOYNT said that from skiagraphy negative results were sometimes obtained.

Mr. MYLES replied.

## BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

PATHOLOGICAL AND CLINICAL SECTION.

C. W. SUCKLING, M.D., in the Chair.

*Friday, February 26th, 1897.*

### CHARCOT'S DISEASE OF HIP-JOINTS IN A CHILD-BEARING WOMAN.

DR. THOMAS WILSON showed a case of tabetic arthropathy affecting both hip-joints in a child-bearing woman, aged 32, in whom symptoms of tabes began at the age of 16, and dislocation of the hips occurred at 26. No evidence of syphilis, congenital or acquired. There had been five full-term deliveries, and one miscarriage at the fifth month. The dislocation of the hips entailed a rotation downwards of the pelvic brim, which had come to look a little downwards as well as forwards; this alteration appeared to have given rise to incarceration of the gravid uterus at the third month of the fifth pregnancy; with this exception no influence on the mechanism or physiology of pregnancy or labour could be traced.

### CASE TREATED BY ANTISTREPTOCOCCIC SERUM.

Mr. GAMGEE read notes of a case of acute infective epiphysitis of the upper end of the femur in a boy, aged 8, treated by incision and by the injection of antistreptococcic serum. The symptoms commenced on November 11th, 1896. On November 14th the temperature was 105.2°, and on the 15th 102°. The incision was made on the 15th, when about an ounce of pus was let out. The first injection of serum (3 c.cm.) was made on November 17th, and during the eight hours following the temperature fell from 103° to 100°. The injection was repeated every twelve hours, and almost invariably had the effect of reducing the temperature. After injection of one dose of 5 c.cm. the temperature fell from 103° to 99° in seven hours. The patient recovered. It was impossible to say how much of the improvement was due to the serum and how much to the incision.

### ABSCESS OF LUNG.

Dr. FOXWELL showed a lung from a man, aged 47, who had exhibited symptoms of simple fluid effusion only, with thickened adherent pleura. At one point was a ragged ulcerated excavation in the pleura the size of a crown, which involved the lung tissue deeply. Before death fluid containing shreddy lymph and having a gangrenous odour had been withdrawn and gangrenous abscess of the lung diagnosed. In the *post-mortem* room, however, it was found impossible to decide whether the gangrene originated in lung or pleura.

### CEREBRAL TUMOUR.

Dr. DOUGLAS STANLEY showed a specimen of cerebral tumour. The patient was a man, aged 44, who had suffered for some years from pain on the right side of the head extending from the occipital region forwards and passing down towards the jaw; it was inconstant in character, but severe when present. He latterly was troubled with vomiting. There was no specific history. On examination tenderness was found on percussing over the temporal region. There was no paralysis or sensory disturbance. No strabismus nor alteration of any cranial nerves, motor or sensory, could be found. On *post-mortem* examination a tumour the size of a hen's egg, and weighing 1 oz., was found on the under surface of the right temporo-sphenoidal lobe, adhering to the dura mater; it proved to be a cylindroma.

### TSCHERNING'S THEORY OF ACCOMMODATION.

Mr. PRIESTLEY SMITH showed a model illustrating Tscherning's theory of the accommodation of the eye, and briefly described the observations, founded on those originally made by Thomas Young, which showed that the theory of Helmholtz is no longer tenable.

### SPECIMEN.

Mr. MARSH showed a specimen of Disseminated Polypi of Intestine.

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ORDINARY GENERAL MEETING.

M. A. MESSITER, M.R.C.S., President, in the Chair.

*Thursday, March 11th, 1897.*

### HERNIA CEREBRI.

DR. RICKARDS showed a man, aged 24, who was admitted to the hospital at the end of January, 1897, with a hernia cerebri the size of half a Tangerine orange. The tumour, which was soft, fluctuating, and pulsating, came from the interior of the skull through an irregular aperture having a diameter of about an inch. There was no thickening of the exterior of the skull or tenderness at this part, and the scalp, which was sound, moved freely over the tumour. The aperture was situated over the ascending parietal convolution. The patient complained of pain on the right side of the head, and was unable to walk about, owing to the pain or giddiness. He gave the following history of himself: In October, 1896, he felt giddy while at work, and an hour afterwards he had eight epileptiform fits; in November he had pain on the right side of the head, and, putting his hand to the seat of pain, he

found a hard lump there; at Christmas he had two more fits. He could not say when the lump became soft. While in hospital he had two slight fits preceded by a sensory aura in the right hand and arm. Under 40-grain doses of iodide of potassium three times a day the hernia gradually disappeared, and the aperture is nearly closed. The giddiness and headache had nearly gone, and he had gained a stone in weight. He had syphilis in 1891.

Division of Isthmus in Enlargement of Thyroid Gland.

Mr. Vincent Jackson showed a young woman, aged 19, who had recently undergone an operation for the removal of an excessive parenchymatous hypertrophy of the thyroid gland—namely, the division and excision of the isthmus. When 9 years old she noticed a fulness of the front of her neck: this continued to increase until the bronchocele became in all directions very prominent, measuring circumferentially 18 inches; finally dyspnœa, increasing in character, was a source of anxiety. The isthmus appeared to be overlapped by the inner edges of the lobes, and it passed from the lower border of the thyroid cartilage to behind the sternum. The large tumour was smooth in all directions. There was no hereditary history. For eight months before seeking surgical treatment the patient had daily been taking medicine, but in spite of so doing the size and pressure effects of the goître were more manifest, and the voice became husky. On October 9th, 1896, under chloroform, the thyroid isthmus was exposed, and after division excised. Since then rapid diminution of the tumour had taken place, the circumferential measurement being only 12¾ inches.

Fibroid Tumour of Uterus.

Dr. Purslow showed a fibroid tumour of the uterus weighing 2¼ lbs., which he had successfully removed *per vaginam* by enucleation and *morcellement*.

Nævus of the Orbit.

Mr. Eales showed a woman, aged 21, with the following symptoms: Under ordinary circumstances there was little wrong to be perceived, though she complained of pain about the left eye and occasional diplopia. If she was made to stoop, on rising there was marked proptosis of the left eye, which was protruded downwards, forwards, and outwards, but rapidly regained the normal position: there was no pulsation or murmur over the temple to be detected, and no visible enlargement of the superficial vessels. She had a large nævus of the tongue on the left side, partly cured by operation performed by Mr. Chavasse some years ago, and a scar in the left side of the neck, said to be due to an operation for nævus in that situation. Mr. Eales considered the case to be one of deep-seated nævus of the orbit.

Papers.

Mr. Marsh read a paper on Cerebral Abscess in Chronic Suppurative Otitis Media.—Mr. Barling read a paper on Notes of Cases of Cerebral Abscess.

## MIDLAND MEDICAL SOCIETY.

A. H. Carter, M.D., President, in the Chair.

*Wednesday, March 3rd, 1897.*

Mediastinal Tumour.

The President showed a case of mediastinal tumour in a man aged 55. The sole pressure signs were: Intense venous hyperæmia of the head and face, coupled with prominence of the superficial veins of the neck and the arms, more particularly the right. There was an area of dulness extending unduly beyond the right edge of the sternum at the level of the second and third costal cartilages. Pulsation in this area was doubtful. The onset of the symptoms had been insidious, and the patient had not lost weight or strength appreciably. The diagnosis lay between aneurysm and tumour—if the latter, probably lympho-sarcoma. The President summed up the various factors of the case, and gave his opinion that the swelling was probably aneurysmal.

Colectomy for Carcinoma.

Mr. F. Marsh showed a woman, aged 32, who was admitted into the Queen's Hospital on July 22nd, 1896, for chronic intestinal obstruction of five months' duration, which, however, had been complete for ten days. The abdomen was tympanitic and very tender. Nothing definite could be detected by external, rectal, or vaginal examination. Enemata having failed to give relief, an exploratory opening was made in the middle line of the abdomen on July 24th, and a constricting growth was felt in the upper part of the sigmoid colon. The median incision was therefore closed, and a second was made in the usual site for iliac colotomy. With a little difficulty a loop of the sigmoid colon with the part involved was brought out through the wound and fixed, in the manner first described by Mr. Marsh in 1890, by passing a glass rod through the mesocolon. The following day a small opening was made in the colon above the constriction to allow the escape of flatus and liquid fæces, and on July 31st the whole of the protruding loop with the growth was removed with the thermocautery. Owing to the yielding of adhesions in the lower angle there was after the final severance smart hæmorrhage from a large mesenteric vessel, which was stopped by pressure forceps left on to prevent the lower segment of the colon from slipping back into the abdomen. The patient made a rapid recovery, and left the hospital eighteen days later with a very satisfactory artificial anus. The growth was a large annular adenoid carcinoma, with a large amount of fibrous tissue extending about 1½ inch in the length of the colon, and completely obstructing it. As the patient was in a collapsed condition at the time of operation, and abdomen and intestines greatly distended, Mr. Marsh thought it wise to deal with the obstruction in the manner described, and to wait for a few months before performing an intestinal anastomosis. By so doing the patient incurred less risk to life, and, if any recurrence ensued, it would be ascertained at the time of the second operation, and be dealt with then accordingly. On November 10th the patient was readmitted, and on the 20th an elliptical incision was made round the artificial anus, which had become much contracted and indurated, and the tissues with the ends of the colon excised. The lumen of the lower segment had considerably diminished from disease, and there was in consequence little difficulty in inserting the largest-sized Murphy's button which was used to approximate the two ends. There was no recurrence either locally or in the abdominal glands. There was very little constitutional disturbance, flatus was passed freely a few days after the operation, and the button was felt in the rectum and extracted on the eleventh day. The patient steadily gained weight after the colectomy, and had no difficulty with the action of the bowels since the anastomosis. She was now in robust health.

Melano-Sarcoma of Skin.

Mr. Marsh also showed three melano-sarcomatous growths removed from the skin of the arm, the axillary gland, and the scalp. The patient, a lady aged 45, had always had a mole on the skin of the right upper arm. Two years ago this was removed, as it had increased in size, but a few months later a recurrence of pigmented growth was noticed in the scar. About six months later a pigmented spot, somewhat resembling a comedo, appeared in the middle line of the scalp. This was excised under cocaine in July, 1896, but soon recurred in the scar. Three months ago, after riding a new horse, she noticed that the right axillary glands were painful and enlarged. Under treatment the enlargement somewhat subsided, and she did not think it necessary to continue treatment, although after a short interval a gradual increase in size took place. When seen with Mr. Oakes a few days prior to operation, there was a patch of skin over the upper part of triceps infiltrated with melanotic growth in an irregular plaque-like manner, the axillary glands on the same side being enlarged, and adherent to deeper structures, and also an irregular nodule of melanotic growth in the middle line of the scalp about the size of a hazel nut. These patches were freely excised, and one large gland, the size of a small hen's egg, and three or four small ones, were removed from the axilla. The large gland exhibited distinct melanosis, but the smaller ones were not visibly pigmented.

Spinal Caries.

Mr. Jordan Lloyd read a paper on practical observations in symptoms, diagnosis, and treatment of spinal caries. He referred to the variability of the cardinal symptoms of

deformity, rigidity, and pain in the several regions of the spine, and described the best methods of examining the vertebral column in its different parts. He thought that Sayre's plaster-of-paris support gave the best results in the majority of cases, and insisted on the advantage of recumbency as far as was consistent with good general health in all cases. Chronic abscesses were best left alone until they came quite near to the surface. He referred to a series of cases of laminectomy for paraplegia with the best results.

## NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

G. E. Williamson, F.R.C.S., President, in the Chair.

*Thursday, March 11th, 1897.*

### Liver Abscess.

Dr. Macdonald showed a man whose abdomen had been opened in Hamburg for an abscess following dysentery, but there seemed to be no positive evidence of its hepatic origin. He went home apparently recovered, but a month later was seized with pain in his right side, and developed a swelling in the hepatic region and a typical pus temperature. The abscess was opened, and characteristic chocolate-coloured pus escaped. The patient had recovered, but at the site of the first incision a hernia developed, into which the stomach had prolapsed. The patient had now troublesome gastric symptoms, for which he required a third operation.

### Tuberculous Peritonitis Treated by Operation.

Dr. Macdonald showed three children operated upon for tuberculous peritonitis. The fluid had been washed out, adhesions broken down, and the wounds sutured without drainage. All had made good recoveries.

### Bone Marrow Injection after Amputation of Breast.

Dr. Macdonald showed a woman whose breast and axillary contents were excised for scirrhus in January, 1895. She was operated upon for recurrence three times subsequently, and was free from any local return of growth. She presented the swelling over the sternum characteristic of marrow injection, and had pain in her lumbar spine.

### Paul's Tube.

Mr. Page showed a girl, aged 12 years, who when 5 years old had suffered from tabes mesenterica. She recovered, and though not robust had not been ill since. Some days before her admission to the infirmary she was suddenly seized with abdominal pain, and developed peritonitis. She was admitted with a large pericæcal abscess, which was incised and drained. For two days she was much relieved, but on the fourth day she was in great pain, had a much distended abdomen, neither flatus nor fæces had passed for two days, and she was frequently vomiting fluid with a distinct fæcal odour. A small opening was made in the middle line below the umbilicus, and the first distended coil drawn out, and a Paul's tube secured in it. The vomiting ceased at once, and for more than a month the evacuations all escaped by the fæcal fistula. This had closed spontaneously, the bowels were now acting regularly by the natural channel, and the patient was well.

### Pulsating Tumour of Neck.

Dr. Drummond showed a woman, aged 54, with dulness and pulsation under the manubrium sterni, and a pulsating swelling extending into the neck. The patient had no dyspnœa such as could scarcely fail to be present with a large aneurysm in this situation from direct pressure on the trachea. The diagnosis was fusiform dilatation of the aortic arch and high origin of the innominate.

### Alcoholic Œdema.

Dr. Drummond showed a man who had partaken freely of all sorts of liquor, and was admitted to the infirmary a month before with advanced œdema affecting his whole body surface. Everywhere his skin pitted deeply on pressure, and in addition he was in a dazed mental condition. There was no albumen in his urine, and beyond the cardiac feebleness and dilatation due to alcohol he had no heart affection; with rest, nourishment, and abstinence from alcohol he was now almost well mentally and bodily.

### Bilateral Abductor Paralysis.

Mr. Ouston showed a young woman whose symptoms had commenced after a serious illness, probably typhoid. Fourteen years before she had complained of gradually-increasing dyspnœa, and had paroxysms threatening life. Laryngeal examination showed complete abductor paralysis. Tracheotomy had been performed, and she was now entirely relieved, but it seemed probable that she would be permanently dependent on the tube. No cause could be found or explanation given of her condition.

### Miscellaneous.

Professor George Murray showed typical examples of Exophthalmic Goitre and of Spleno-medullary Leukæmia.—Dr. Limont showed several patients with Skin Disease. The most interesting were two cases of Rodent Ulcer, one of which had destroyed the side of the nose, and involved the nasal bones. The other had commenced in an unusual situation at the junction of the left ala of the nose into the cheek. A case of the band form of Morphœa in a child causing great deformity and incapacity, and a case of Universal Seborrhœic Dermatitis of fourteen years' duration, nearly well after a month of treatment.—Mr. Rutherford Morison showed a patient and Skiagraph of his Forearm, which had been recently fractured. The arm was much disabled, as the power of supination was markedly diminished. He also showed a dissected specimen of the same fracture which illustrated the pronation of the lower fragment of the radius and the supination of the other.—Mr. Ouston showed a series of cases illustrating varieties of Inflammatory Diseases of the Maxillary Antrum. He advocated an opening above and behind the apex of the socket of the right canine tooth, the patency of which was to be maintained by a lead style worn as long as necessary.

## LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

J. W. Teale, M.B., F.R.C.S., President, in the Chair.

*Friday, March 5th, 1897.*

### Fruit of Cream of Tartar Tree from the Transvaal.

Dr. Sharp said it was stated in textbooks that the cream of tartar tree was Adansonia Gregorii, a native of N. Australia, but it was not possible to say in the absence of leaves, etc., whether the specimen which he laid on the table belonged to this species or to A. digitata, which was a native of Africa, and was called the baobab, monkey bread, or Ethiopian sour gourd. The fruits of both A. digitata and A. Gregorii had a very similar composition. The extract of the leaves of the former at least evidently contained an agent which checked excessive perspiration, and the pulp of both species was employed as a remedy in dysentery, and the juice expressed from the pulp was used as a drink in the fevers which prevailed in the districts. Two German observers found tartaric acid and cream of tartar in the pulp, but there seemed to be some doubt as to the species; while an English observer, whose specimen was also doubtful as to species, found chiefly acidmalate of potassium. Dr. Sharp owed the specimen to the kindness of Mr. Richard Reynolds.

### Tetany in a Woman.

Dr. Hellier showed a case of tetany in a woman, aged 29. Five years ago, when near the end of her second pregnancy, labour was caused by a fright. Since then she has suffered at frequent intervals from attacks of painful tonic contractions of the wrists and elbows, the fingers being extended and adducted. The attacks lasted eight or nine hours, and she was rarely free for two or three weeks. The facial muscles contracted on percussing the facial nerve. She complained also of "jumping" in the tongue. Treatment by thyroid extract was just being begun.

### Phosphatic Calculus.

Dr. Hellier also showed a phosphatic calculus which he had removed *per urethram* from a bladder several months ago after the operation for vesico-vaginal fistula had been successfully performed. Its weight was 160 grains.

### Trephining for Fractured Skull.

Mr. Littlewood showed an old case of trephining. The

patient was a lad, aged 19. In June, 1893, he was trephined over the left Rolandic area a month after a fracture of the vertex. He made a good recovery, and did hard work until June, 1896. He then commenced with vomiting, headache, nystagmus, and weakness on the right side, and was under medical treatment until January 10th, 1897. As he made no improvement operation was decided on. Mr. Littlewood turned down the old flap and exposed the trephine opening; it was about 2 inches in its longest diameter, and was closed with firm fibrous tissue. This membrane was cut through near the bony margin, except at the lower part, and separated from the brain, to which it was adherent over an area about ½ inch in diameter, and replaced without stitching, so as to allow the brain to bulge through the opening. The scalp flap was stitched over this. Patient made a good recovery, and had not vomited since the operation. Mr. Littlewood remarked it was difficult to understand why the operation had succeeded in such a remarkable way.

### General Suppurative Peritonitis.

Mr. Lawford Knaggs showed, with Dr. Griffith, the appendix, cæcum, and heart from a young man with aortic disease, who died a few hours after laparotomy for general suppurative peritonitis. The appendix had sloughed in its whole length, and was detached from the cæcum, but whether accidentally or as a result of the inflammatory process was uncertain. There was no evidence of previous mischief, such as thickening or distension in the appendix, and there was no foreign body likely to have caused trouble. The stump on the cæcum was completely occluded. In the heart the aortic and mitral valves were the subject of old and recent endocarditis. The appearances raised a very strong suspicion that the appendicitis was due to embolic plugging of the artery, but a search in the dried parts had not led to the discovery of an embolus.

### Gastric Ulcer.

Dr. Barrs reported two cases of gastric ulcer, presenting points of special interest, mainly in the treatment adopted. (1) A domestic servant, aged 20, was admitted to the hospital for profuse and repeated hæmatemesis. The case was one of great severity, and at one time the profound anæmia placed life in the most obvious danger. Nevertheless, at the end of four days the patient was taking scraped beef, and six days later was eating ordinary diet without discomfort. In the beginning ordinary methods of treatment had been adopted, including the use of nutrient enemata and suppositories, but these had to be abandoned at the end of twenty-four hours on account of the great distress which their use entailed, and the rectal discharge which they set up. Dr. Barrs expressed the opinion, based upon the observation of this and other cases, that the so-called nutrient suppositories and enemata had little or no nutritive value, and stated his entire disbelief in the existence of any digestive power in the rectal secretions or contents. The chief indications for treatment in such cases consisted in the administration, either by the mouth or by the rectum, or by both, of sufficient water to keep the patient free from thirst (usually a most urgent symptom in profuse hæmatemesis), and to abstain from all attempts at feeding until the patient was able to take solid food by the mouth without pain or vomiting when well-cooked meat was probably the most valuable and most easily-digested aliment. The dangers, such as they were, which arose from feeding by the mouth in cases of gastric ulcer, were due more to the bulk of the meal than to its composition. Dr. Barrs also advocated the administration of bismuth carbonate in large doses—20, 30, or 60 grains; not in the usual mixture form but simply stirred up in water. (2) A domestic servant, aged 23, was sent into the infirmary by her medical attendant because he feared that perforation had taken place the night before. There had been profuse hæmatemesis at the moment when perforation was supposed to have taken place. Six hours after admission the patient was in such agonising pain in the abdomen, with all the other usually described signs of acute peritonitis, that abdominal section was determined upon. Mr. Littlewood opened the abdomen between the umbilicus and the ensiform cartilage. No gas was found in the peritoneal cavity, and no evidence of peritonitis could be found, and after a careful search the wound was closed, and the patient, surgically speaking, made an uninterrupted recovery, but she still suffered from a certain amount of pain after food, and occasionally vomiting with slight hæmatemesis. Dr. Barrs had not a doubt that the operation was justified by the signs present in the case, though no perforation was found. Perhaps the occurrence of profuse hæmatemesis ought to be regarded as strongly negativing the likelihood of perforation at the same time. It was quite possible, and very probable, that small perforations of the stomach in cases of chronic ulcer did take place and give rise to intense pain, and all other signs usually associated with perforation, without producing anything more than the most localised peritonitis, from which the patient readily recovered.

In the lengthy discussion which took place Mr. Pridgin Teale agreed with Dr. Barrs that the chief use of nutrient enemata was in the fluid which they contained. He mentioned a case of ulcer in which hæmorrhage proved fatal.

Mr. Jessop also thought solid suppositories were useless, and now used bovril or Valentine's extract.

Dr. Trevelyan pointed out that the usual excess of hydrochloric acid in cases of ulcer would favour digestion of nitrogenous food. He advocated the use of bismuth in large doses, and supported the mechanical view of its action. He very strongly differed from Dr. Barrs as to the value of rectal feeding.

Mr. Littlewood had kept patients alive and improving for ten days by nutrient enemata.

Mr. G. L. Wells mentioned a case of sudden rupture of ulcer which had given rise to no symptoms.

Dr. Churton said that experiments on animals had shown that gastric juice did not prevent the healing of ulcers. For two or three days after hæmorrhage, however, he gave only teaspoonfuls of tepid water by the mouth, never ice, which would cause gastric movements. There was no reason why perforation should be accompanied by hæmorrhage, the final fact being merely rupture of a thin film of fibrous or peritoneal tissue.

### Cases, Specimens, etc.

Dr. Churton showed: (1) A child, aged 5 years, admitted into the Leeds Infirmary on February 8th, having been ill a month, but not in bed. The lips were then very pale; there was a loud systolic pulmonary murmur; loud venous hum in the neck; the spleen projected an inch beyond the costal margin; no ascites, nor œdema; liver not enlarged. The urine was turbid when passed from the presence of active bacteria. All the symptoms except the bacteruria and frequency of micturition had much improved. There was a suspicion of (dilute) congenital syphilis; the case was apparently not "primary splenomegaly." (2) A man, aged 41, with syphilitic spinal meningitis in the lower cervical region, causing paretic symptoms in the left arm and spastic symptoms in the left leg. He had completely recovered a year ago under treatment by mercury and repeated (nine or ten) blisters to the nucha; recently the symptoms had returned, but were again disappearing under the same treatment. The patient begged for the frequent repetition of the blister on account of the diminution of pain which always followed the application.—Mr. Whitehead showed microscopical preparations of (1) Sarcoma of the Choroid, from a woman aged 42, who showed no signs of recurrence five years after removal of the eye. The section showed the growth to be entirely unpigmented and originating in the external layers of the choroid. (2) Melanotic Sarcoma of Choroid from a man aged 45 who died subsequently with metastatic deposits in the liver. The growth was a much pigmented spindle-celled sarcoma. (3) Glio-sarcoma of the Retina from an infant; the growth was advanced and filled the eyeball. (4) Incipient Glio-sarcoma commencing in the Granular Layers of the Retina. Both (3) and (4) were from the same patient, in whom there was no recurrence after the removal of both eyes.—Dr. Trevelyan showed: (1) A case of Coarse Tremor of the Right Arm with Weakness occurring in a boy aged 11. The left third nerve was partially paralysed. There were no other cerebral symptoms. (2) Sections from a Dry Brain containing a central tumour as large as a hen's egg in the posterior part of the right hemisphere. During life there was much difficulty in localising the disease.—Dr. Bronner showed a Knife in shape

like a sharp-edged ophthalmic tenotomy hook with a probe point which he recommended for slitting up tonsils, the probe end being inserted into the distended follicles.—Mr. NUNNELEY showed: (1) A case of Optic Neuritis occurred during an attack of mumps. (2) A case of Pulsating Exophthalmos.

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BRITISH GYNÆCOLOGICAL SOCIETY.—At a meeting on March 11th, Professor MAYO ROBSON, F.R.C.S., President, in the chair, the PRESIDENT showed a specimen and read notes of a case of Suppurating Ovarian Cyst completely blocking the pelvis.—Dr. F. A. PURCELL showed a Fibro-myomatous Uterus removed by Panhysterectomy. Drs. MACPHERSON LAURIE, BANTOCK, and G. ELDER joined in the discussion.—Dr. ARMSTRONG (Buxton) opened a discussion on Dr. Beatson's Method of Treatment of Inoperable Carcinoma. He had been much impressed by what he had seen in Glasgow of Dr. Beatson's work, and by his candid and scientific attitude in the matter. Dr. BEATSON (Glasgow) said that in his first case the mamma, axillary glands, and part of the pectoral muscle had been removed and found to be cancerous; three months later the disease recurred and further operation was found to be impossible. Thyroid was given to a physiological extent, but without effect. The ovaries and tubes were then removed, and the thyroid again pushed. In little more than two months she had much improved; in five months the cancerous tissue had become yellow and fatty, and in six it had gone. Now, at the end of twenty-one months, the tissues were sound, and the woman was in good health. The case seemed to him to throw some light on the nature of carcinoma. He wished to specially consider three points: 1. The possible mode of origin of the cancer cells. Did they arise from the normal epithelium of the part, or had they an independent origin? The current view was that they were due to a transformation of the normal cells. But another idea was suggested by secondary growths. In the case of cancer of the liver secondary to a breast tumour they found that the breast cells had become transplanted to the liver, while there was no proliferation of the liver cells themselves. Now if the liver growth arose from the proliferation of a single cell implanted there, why might not such a process have occurred in the first place? 2. The relation of cancer cells to surrounding tissues. In a fast growing carcinoma no blood vessels were found; therefore, the growths must be nourished by surrounding lymph and neighbouring cells. As some tissues formed better pabulum than others, the fact was explained that some tissues were very resistant to cancer. At the growing margin of the tumour the degenerate tissue cells testified to its parasitic action. At the centre of the growth, where no nourishing cells were present, the cancer cells tended to break down with a fatty, hyaline or mucoid degeneration. 3. What was the exciting cause of the cell proliferation? Three explanations had been given: (1) the recent parasitic theory, which he regarded as not proven; (2) Cohnheim's theory, that it was due to the inclusion of epithelial cells; (3) Goodsir, in a recent suggestive paper, held that every organ had a nutritive centre in the shape of a few cells which normally disappeared after they had done their work, and which, if they persist, might give rise to new growths. He had ventured to put forward a theory that the cancer growth was due to a return to activity of the germinal epithelium. It had seemed to him possible that in the case, for instance, of cancer of the breast, actual germinal cells might be present derived from the ovary. The influence of removal of the ovaries or osteomalacia led him to think that it might be possible by the same means to influence the spread of cancer. He also employed the thyroid extract because of well-known influence of this substance on lymph channels and spaces by the means of which the extension of cancer took place. His later cases included five of cancer of the breast and four of uterine cancer, but with these the results had not been satisfactory. His conclusions were that early and wide removal of the growth was the proper treatment for cancer; if recurrence took place removal of the ovaries and tubes might be tried if the patient was young; if near the menopause, he should, in addition, give thyroid extract; but, if secondary deposits had occurred, he regarded further treatment as useless.—The PRESIDENT said they were all agreed that early and wide removal was the proper treatment for cancer, and he was glad to hear that Dr. Beatson thought so, too.—Mr. MARMADUKE SHEILD observed that as to the nature and origin of cancer they were still in absolute ignorance. At the Pathological Society twenty years ago a discussion on this subject was held and the speeches were characterised by unusual eloquence rather than by the amount of exact information conveyed. He was sorry that Dr. Beatson had both given thyroid and removed the ovaries, for it was in consequence difficult to gauge the exact effect of either measure. Thyroid extract had a depressant action on the circulation, and in this way might check cancer growth. It was to be noted that cancer occurred mostly at or about the menopause, when the ovaries ceased to be active; but he thought that occasionally in younger women removal of the appendages might be tried, after consultation. But it was a procedure very liable to abuse. It was a curious fact, in this connection, that in the case of the male removal of the testes was sometimes followed by hypertrophy of the breasts. It was a well-known plan of "cancer curers" to depress the system by liquid diet and free purgation; retrogression of the growth sometimes resulted. Illness might have the same effect. He had seen a patient with secondary malignant nodules. She fell ill with pneumonia, and took very little food. On recovering from this the nodules had gone, but within three months the growth returned, and she died. The effect of erysipelas in some cases of cancer had led to the employment of Coley's fluid, a preparation derived from a cultivation of streptococci and bacillus prodigiosus, and then filtered and treated so as to form a sterile fluid. The idea was derived from an observation of Fehleisen; but occasionally, as in two cases he had seen, erysipelas attacking a carcinoma had led rapidly to a fatal result. He had tried Coley's fluid in 4 cases, 2 of carcinoma and 2 of sarcoma. The first was recurrent breast cancer; he injected 3 minims of Coley's fluid on three occasions, but it made the patient very ill, and she would not continue the treatment. The second was a scirrhus of the breast; the treatment and effect were similar. The third was a sarcoma of the thigh; the growth increased and broke down, and masses soon appeared in the abdomen. The fourth was also sarcoma, and the nodules disappeared under the injections, but apparently from necrosis; they were not absorbed. The patient died of pyæmia, and general deposits were found in the body, the organism being the staphylococcus. Butlin had found Coley's fluid of limited use in sarcoma, but of no use in carcinoma. Coley himself had lately restricted its use to cases of spindle-celled sarcoma. It probably acted by setting up local inflammation; and he believed that injections of tuberculin might have the same effect.—The discussion was then adjourned.

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HARVEIAN SOCIETY.—At a meeting on March 18th, Dr. MILSON in the chair, Dr. BOXALL read a paper entitled Some Common Troubles following upon Childbirth. The chief facts relating to the mortality from puerperal fever were fully stated as statistics, and illustrated by charts. Puerperal fever had not diminished in the last 50 years, but had rather increased, especially in the provinces. In the General Lying-in Hospital during the antiseptic period (1879 to 1896) the mortality had been greatly diminished, and in all cases where the patient had been under hospital treatment throughout, not only had the mortality been diminished but septicæmia had been eliminated, and the death-rate had been lessened below that of private practice. Similarly, satisfactory results had been obtained in other lying-in hospitals at home and abroad. Stress was laid on the superiority of solutions of perchloride of mercury as an antiseptic and on the details of its use. Dr. Boxall had found numerous cases of retroversion, subinvolution, laceration of the cervix, etc., in patients leaving the General Lying-in Hospital, conditions requiring treatment being found in 56 out of 200 patients examined. He, therefore, recommended the routine examination of all cases before attendance ceased.—Dr. CULLINGWORTH bore testimony to the great value of the statistics collected by Dr. Boxall, and also to the value of antiseptics, and dwelt on the results that had led to the discontinuance of the use of "salufer" as an antiseptic.—After remarks by Dr. MORTON and Dr. HAZELL, the PRESIDENT observed that Dr. Boxall had made no reference to zymotic diseases in connection with the

subject. He would have liked to hear something about the effect of influenza, for he had seen two cases where the poison was very virulent, and in both instances proved fatal.—Dr. Bonall, in reply, said that the douche was indicated before, during, and after labour. It was to be given into the vagina, not directly into the uterus, though some of the lotion—he advocated a 1 in 2,000 perchloride of mercury solution—always entered the uterus, and should be squeezed out after douching. The dorsal position should be maintained throughout.

Sheffield Medico-Chirurgical Society.—At a meeting on March 11th, Mr. Reckless, President, in the chair, a letter from Lord Lister in acknowledgment of the Society's resolution of congratulation on his elevation to the peerage was read and entered on the minutes.—Dr. Porter showed: (1) A case of Lead Poisoning, with fine general tremor like that of disseminated sclerosis; (2) a cases of Lateral Sclerosis.—Dr. Burgess showed: (1) a case of Syphilitic Laryngitis; (2) two cases of Muscular Atrophy.—Dr. Anderson demonstrated the method of Serum Diagnosis of Typhoid Fever. He showed under microscopes (1) a hanging-drop culture, to which serum from a patient suffering from typhoid fever was added; and (2) a similar hanging-drop culture, to which serum from a healthy person was added. He referred to the researches of Pfeiffer, Gruber, and Durham, and pointed out the bearing of their observations on the later work of Widal and Grünbaum. He described the microscopic and macroscopic methods of observing the reaction, and showed capillary tubes illustrating the later method. He insisted on the necessity of avoiding contamination in the collection and examination of the blood, and thought it was always better to obtain a clear serum, which was most easily done by collecting the blood in sterilised pipettes, and then blowing it into a sterilised test tube as Durham suggested. It was necessary to dilute the serum, but more extended observations were required to fix the limit of dilution and the time limit of observation of the reaction. Bacilli from old agar cultures were very rapidly agglomerated by typhoid serum, and were more powerfully affected by normal blood than young growths twenty-four hours old. With very virulent cultures the reaction was delayed. He had examined 35 cases: 29 were clinically typhoid, and of these 27 gave the reaction within half an hour, but in 2 the reaction was incomplete after twenty-four hours: 3 cases of acute lobar pneumonia, 1 of pleurisy, and 2 of gastritis gave no reaction.—The President, Dr. Hargreaves, Dr. Richards, and Dr. Burgess made remarks.

Birkenhead Medical Society.—At a meeting on March 19th, Dr. R. Sydney Marsden, President, in the chair, a discussion on Gastro-enteritis in Children was opened by Dr. G. S. Stansfield, who gave statistics drawn from the experience of Tranmere Workhouse as to the prevalence of this disease and the relative mortality. He also quoted statistics of the comparative mortality in various foundling hospitals with diverse methods of feeding. He pointed out the necessity of correct feeding both in material, quantity, and time, and expressed his appreciation of the rules for feeding of infants drawn up and printed as a leaflet by the Liverpool Children's Infirmary. He entered at some length into the contamination of milk, and concluded by giving an epitome of medicinal treatment.—The President, Drs. Pinkerton, Brien, Wilkinson, and Harris took part in the discussion; and Dr. Stansfield replied.

At a recent meeting of the Maternal Friendly Society M. Barthou, Minister of the Interior, attributed the shrinkage of the French population to the hard conditions of life of the working class women. The crèche or infant day asylum could not supply the place of the mother, who had to stay in a workshop or factory. The Minister, quoting Drs. Lagneau and Bertillon, stated that the quota of infant mortality due to want of maternal care was at least 150,000 a year, and that half the children of the Paris working classes died before the age of six months. The Minister would be in favour of a long obligatory rest from outdoor work for women with infants if he did not see that the State would have to support them while resting.

# REVIEWS.

My Will: A Legacy to the Healthy and the Sick. By Sebastian Kneipp, Privy Chamberlain to the Pope and Parish Priest of Wörishofen, Bavaria. Translated from the ninth German Edition. London: H. Grevel and Co., 1896. (Pp. 396. 6s.)

Father Kneipp is in a literal sense a celebrity of the first water. He has treated princes, cardinals, archbishops, and duchesses, and other grand folk; if rumour is to be trusted, he has had the Pope himself among his patients. Of believers of the commoner sort the name is legion. He has transformed the Bavarian village of Wörishofen, of which he is the parish priest, into a Mecca where Hagar's well is replaced by several large bath houses. He has a staff of eight doctors—two from Switzerland, one from Bohemia, one from Paris, one from Holland, one from Canada, and two from Germany—who throw over the unlicensed prophet the ægis of their professional qualifications.

A medical society has been formed to study the system, and there is a journal, the *Centralblatt für das Kneipp'sche Heilverfahren*, for the propagation of the master's teaching. It is no wonder, therefore, that Wörishofen has taken its place among the shrines where men's faith makes them whole, and it is not unlikely that there is a solid foundation for the rumour that the water which works the "miracle of cure" has been a Pactolus for the priest of the shrine.

Father Kneipp tells us that he has known the healing power of water and has been making experiments with herbs for half a century. Nevertheless, he sorrowfully admits that he has not found any herb to ward off death, and even water fails in the end. Being now declined into the vale of years, he is philanthropically anxious that the knowledge which he has gained should not die with him and be lost to the world. Therefore he has put it all into this book, which he leaves as his last will and testament, whereby all mankind is to be benefited.

His system is simpler even than that of Sangrado, and anyone may, with less trouble than Gil Blas, "learn the whole art at once." His therapeutic doctrine is summed up in the words of Pindar, "Water is the best." This health-giving element he applies externally by ablutions of various kinds—"upper washings," "lower washings," and what Trilby would call "the altogether." It is also used in the form of local baths, douches, bandages, and compresses of every variety. The "wet shirt" in particular is efficacious "in all light maladies as a dissolver and dispenser of all impure matter." Cold water, he tells us, with an iteration which would be "damnable" in a mere medical writer, strengthens and fortifies, and the colder the water the better.

Father Kneipp's views on etiology and pathology have the simplicity characteristic of genius. The great cause of disease he holds to be blood obstruction, in consequence of which "the blood remains cooped up, neither able to advance nor to retire properly; and the result of this superfluity at a particular point is a great heat which will inevitably develop in illness.....Both blood and secretions are rendered unhealthy when the blood is unwholesome or lacking in nourishment." With the light of this principle to guide him, there are for Father Kneipp no dark places in pathology. "What is dropsy," he asks, "but a disease of the juices which converts them into salt and water?" His account of asthma is equally lucid and exhaustive; "it is due to the want of proper transpiration; that which should be discharged remains behind in the head and chest. Asthma is nothing more nor less than a convulsive or cramped condition, which in consequence of cold establishes itself in the chest and strangles everything."

It follows naturally from all this that "the means employed to restore a sick man to health must be of a dissolving and eliminating character in order to rid the body of all its morbid and impure elements." One gathers that Father Kneipp looks upon the feet as the most effective emunctories; hence he lays great stress on the advantages of going barefoot, which "acts like a plaister, drawing all the impurities to the foot and then getting rid of them." He urges old and young to spare ten minutes or so daily to walk barefoot on dewy

grass, or on fresh fallen snow, or, if there is nothing better, on wet stones; this, he says, is "very bracing, and draws the blood downwards," thus preventing catarrh, diseases of the bladder, kidneys, debility, etc.; it is also a preventive of consumption, and "the best protection against microbes."

Of late years Father Kneipp has made a concession to the weakness of the average man so far as to allow the use of sandals, of which he tells us some 60,000 pairs are now sold in Wörishofen every year.

Father Kneipp is no specialist, but takes the whole art of healing for his province. He treats diseases of the eye, the skin, the throat, and, in fact, thinks nothing in the human body foreign to his water cure. The pathology of cataract is exhaustively discussed as follows:—"There are three kinds of cataract which are called cataract, gutta serena or amaurosis, and glaucoma." He cures cataract and amaurosis by head douches and eye baths. He has had the greatest success with glaucoma, which is caused by a violent rush of blood to the inner eye, "which explains how it is that people suffering from this form of eye disease usually have protruding eyes of a greenish tinge." We have no doubt that this clinical observation is correct as far as the patients with glaucoma who seek relief from the Kneipp treatment are concerned. He also cures gout, "gravel and stone disease," loss of hair, diphtheria, consumption, and paralysis of the brain, a disease of which he has probably had an almost unrivalled experience. Heart disease yields not less readily to the all-conquering water. In his diagnosis of cardiac lesions he is greatly assisted by inspection of the feet, which are generally "emaciated, and without visible veins."

Of his skill in the treatment of urinary diseases a striking example is related, which we wish we had space to give in full in his own words. The points of special interest can, however, be given briefly. A priest had made a long railway journey without emptying his bladder. "When he got home no urine would pass, and the doctor was summoned, but before he arrived an opening formed itself in the bladder, and the urine sought another outlet. On the right foot under the calf a hole appeared through which the urine flowed. The priest had the urine drawn off four times daily by a catheter, so that it would not pass through the wound. The effluvia from the wound was the purest urine, judging by the smell and by experiments on its contents." The afflicted divine lived in this condition for fourteen years; he was able to do his work, but "his life was one of suffering"—to others, we should imagine, as well as to himself. At last he came into the hands of Father Kneipp, who was able to "relieve his suffering with water." But even the Healer of Wörishofen has his failures, for the end of this strange eventful history is that in time "the internal organs grew weaker, and he died as it seemed of consumption."

On the whole, we do not think the world would lose much, except perhaps in the way of amusement, if Father Kneipp were to revoke the "Will" which he has made in its favour. We do not doubt, however, that by his free use of cold water—especially among those whose faith in the "tub" is less active than that of our own people—and by his insistence on a simpler mode of life, he has done much good in this artificial neurotic generation. Through the abysmal absurdity of his doctrine there is visible a bottom of practical good sense. His success has, as Professor Kussmaul has lately pointed out, a lesson for which legitimate practitioners of medicine would do well to keep an open mind.

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DIPHTHERIA AND ANTITOXIN. By NESTOR TIRARD, M.D.Lond. London: Longmans, Green and Co. 1897. (Demy 8vo, pp. 141. 7s. 6d.)

IN this little monograph, which, as the author says, had its origin in sundry papers read before meetings of the British Medical Association in recent years, Dr. TIRARD gives an exceedingly careful and comprehensive account of the causation and spread of diphtheria, the symptoms, complications, and sequelæ of this disease, its diagnosis and prognosis, and, after chapters on general and medicinal treatment and the treatment of laryngeal diphtheria, a chapter on the treatment by antitoxic serum.

Dr. Tirard, whose experience of the treatment of diphtheria at the Evelina Hospital entitles his writings to careful consideration, goes into the whole question of diphtheria and its treatment from the point of view of the physician who is anxious to do the very best he can for his patients. In the earlier part of his book he lays special stress on the fact that albuminuria and suppression of urine have always been associated with diphtheria, and he points out that Henoch, in 1889, considered that albuminuria occurred in about one-half of all cases of diphtheria—a proportion quite as great as in any statistics that have been published of cases treated with antitoxic serum. Dr. Tirard goes on to say that his experience corresponds with that of Henoch, and that he regards the albuminuria, as a rule, as merely one of the side phenomena of the disease, and that its appearance need cause little anxiety unless the albumen exceeds about 30 per cent. The other symptoms of diphtheria are treated in a most careful manner, illustrative cases being given wherever possible. The portion of the chapter relating to paralysis is especially good, and his remarks on the condition of the pulse in determining the degenerations of the heart muscle and the implication of the pneumogastric nerve, as indicated by sickness, diarrhœa, and abdominal pain, are very important, these two sets of conditions being referred to degenerative changes set up by the diphtheria poison.

It is impossible to mention all the good points of this book, but at the present juncture it may be well to give the opinion of a man who has had considerable experience of diphtheria both before and after the introduction of the treatment by antitoxic serum, and of one who, as he himself confesses, had for some time looked upon this new remedy with considerable suspicion. By the time, however, he came to write this work, he had so far changed his opinion that he is now in a position to state that "antitoxin seems to have robbed diphtheria of most of its terror, and my experience, both in hospital work and in private practice, is that if used sufficiently early and sufficiently boldly, there is prospect of still further reduction in the mortality." After a statement of this kind it is scarcely necessary to quote in detail the cases and the statistics from which he draws his conclusions, but there can be no doubt that, as set forth by Dr. Tirard, they amply bear out his statements, which are directly at variance with those made by several other observers who have from time to time published "opinions." We can strongly commend this book to those who wish to examine for themselves evidence that has been obtained at first hand.

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MEDICAL AND SANITARY REFORM IN INDIA. Calcutta: Thacker, Spink and Co. London: W. Thacker and Co. 1896. (Demy 8vo, pp. 70. 1s. 6d.)

UNDER this title a pamphlet has been published in Calcutta, in which the writer points out certain defects in the constitution of the medical and sanitary services in India, and suggests certain changes which he considers would contribute to greater efficiency. The drawing up of schemes of reform and reconstruction of these services appears to be very naturally prevalent in India at the present time. That defects exist and reforms are desirable in certain circumstances and directions is undeniable. India is a country of rapid developments and in a state of acute transition, and administrative adaptations to fluctuating conditions have been and will be continually necessary. The medical and sanitary services of the country have had to endure this process of adaptation as well as other services. In its origin and inception the Indian Medical Service consisted of a few ship doctors, and step by step the present complicated organisation, fulfilling so many and so varied purposes, has been elaborated; and the changes and developments which the circumstances of the present and future suggest or demand can be accomplished without revolution or difficulty.

The writer of this pamphlet does not seem to possess a very profound knowledge of Indian conditions. In some instances his partial knowledge has led him into error, as when he states (p. 8) that "On ultimate promotion to the administrative rank of surgeon-colonel, any officer in civil employment reverts to military duty, and is given medical administrative charge of a military district." This may be true of the Bombay and Madras Presidencies, but in

Bengal there are five administrative appointments open to medical officers in which the duties are exclusively civil and sanitary.

The scheme formulated by the author is the creation (*a*) of a homogeneous military medical service for the performance of all medical and sanitary duties connected with the Imperial (European) and local (native) armies, with a combination of the station hospital and regimental systems: (*b*) of an autonomous civil medical service, consisting of two branches—covenanted for higher appointments, recruited as at present by competition in England, and uncovenanted, on lower pay and pension, for second-rate appointments, recruited by competition in India: and (*c*) of a huge sanitary department. It is, perhaps, more easy to advance symmetrical administrative schemes than to carry them out.

A homogeneous military medical corps is an object to be aimed at, but the army at present is very heterogeneous. An autonomous civil medical service is an impossibility in a country ruled as India is and must be, and sanitation by a department is equally impracticable in India. "Sanitary progress," to quote from a paper reprinted as an appendix to this pamphlet, "must depend on sanitation becoming part and parcel of the rule of the country and life of the people, as in England." It is to be hoped that many of the changes which are requisite to render the medical and sanitary services of India more effective can be accomplished without any violent revolution by the old-fashioned processes of development and adaptation. The rules of Government are sufficiently elastic to permit of a larger employment of indigenous medical men, to raise their status and pay, to widen the area of recruitment of educational staff, to found institutions and establish agencies for scientific investigation, and to assist local authorities in their sanitary efforts by a specially educated and trained executive, and so forth. Such root and branch reforms as are here indicated may lead meantime to quicken the measures needed.

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Aetiologische Studien über Lepra [Studies on the Etiology of Leprosy]. Von Dr. Edward Ehlers. London, Edinburgh, and Oxford: Williams and Norgate. 1896. (Demy 8vo, pp. 66. 1s. 10d.)

This pamphlet of sixty-four pages contains information that is interesting to those who specially occupy themselves with the study of leprosy. After an account of some of the most prominent features in the history of leprosy, Dr. Ehlers gives in more detail an account of the disease as it has existed in Iceland in past times and as he found it there now. Thirty-five of forty-seven cases were found on a tract of coast on the south-west side of the island, and he states that the south-west corner of the island had always been the place where epidemics first began and were most severe. No wonder, therefore, he remarks, that it is most specially endemic in that part.

A summary is given of the facts ascertained regarding leprosy in the Sandwich Islands, and a fresh experiment is related in support of Dr. Arning's successful inoculation in these islands. The account given is extracted from a paper by Dr. Coffin on Leprosy in Mauritius and Reunion. It is the custom in these islands to utilise ordinary prisoners as nurses in the leper asylums. A prisoner, who on a previous occasion had been thus employed in a leper asylum, preferred being there to being in the ordinary prison. He therefore scratched himself on the right arm with an instrument which he previously dipped in pus which came from an ulcer in a leper. None the less he was sent to the common prison and not to the leper asylum, but two years later he developed tubercular leprosy, which began in the seat of inoculation, and he died in 1895.

Dr. Ehlers believes in the contagion of leprosy, and, on the authority of Dr. A. Reisner, relates the following facts: In the year 1892 to 1893 five new leper patients were received into the leper asylum at Riga from St. Nikolai and the "Russian" poorhouse. This led to an examination of all the paupers, and 25 additional lepers were found who must have been attacked by leprosy within the previous three to four years, although they had been ten to fifteen years in the institution. This gave a total number of 31 lepers, of whom 22 were in the St. Nikolai and "Russian" poorhouses. Of these 22 patients, 4 had been attacked before being received into the poorhouses, and the disease must, it is urged, have been imported by them, and have found favourable ground for development in the institutions, for in 9 cases it was the patients who slept in the beds next the lepers who were seized. In 5 cases the disease developed in consequence of a year's close intimacy with a leper. Only in 4 cases could the affection be described to casual association with the other lepers in the institution. There was no leprosy in the families of the affected persons.

The appearances in the various forms of leprosy are shown in seventeen figures, and the results of a careful and close analysis of the connection of lepers with leper families in Iceland are given although concisely, yet in sufficient detail.

In reference to the views of Zambaco Pasha, Dr. Ehlers ascribes the fact that leprosy is still found in Brittany to the survival there of the leprosy of the Middle Ages, the leper asylums having been closed before the death of the last of their patients, and possibly also to the close intercourse that takes place between the fishermen of Brittany and the west coast of Iceland. Every year about 4,000 French fishermen visit Iceland, and the greater number of them are inhabitants of Brittany.

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# NOTES ON BOOKS.

*Refraction of the Eye.* By A. Stanford Morton, M.B., F.R.C.S. Sixth edition. (London: H. K. Lewis. 1897. Cr. 8vo, pp. 82. 3s. 6d.)—We are glad to welcome a new edition of this excellent little manual; the learner here will find clear directions for the investigation of all the various states of refraction of the eye which are commonly met with. The subjective tests of vision, the various ways of estimating the kind and degree of refraction by the ophthalmoscope, and the method of employing the shadow test are all well and clearly described. If the instructions are followed the student will avoid the pitfalls which commonly await him in this intricate subject, but we endorse the opinion of the author in urging the necessity of practice in working at personally a large number of refraction cases in order to acquire proficiency in prescribing correct glasses. The worked-out examples of retinoscopy are still given in terms of the concave mirror, although an increasing number of observers find the plane one more satisfactory. We note that no reference is made to Javal's optometer, which is widely used for estimating the amount of astigmatism on the Continent and in America.

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*Notes on the More Common Diseases of the Eye.* By R. W. Doyne, F.R.C.S. (London: H. K. Lewis. 1896. Cr. 8vo, pp. 54.)—The author thinks it is difficult, if not impossible, for medical men who have been many years in busy practice to follow a comprehensive book on diseases of the eye; he hopes, therefore, that these notes, amounting in all to 41 pages, will be of use in giving a general idea of the more common eye troubles and the principles that underlie their treatment. As far as it goes the book is well written, and as far as the limitations of space allow it gives a general account of the eye troubles most commonly met with, but these "short aids" to knowledge are of doubtful utility. If the practitioner learns to rely on the knowledge to be obtained from these brief pages, we fear he will only fall into the very difficulties from which it is the intention of the author to keep him.

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Dangerous Oils and Lamps.—Mr. Richard Price, in his evidence before the Select Committee inquiring into dangerous oils and lamps recently, said he had tested every kind of lamp known, and he found that thin glass founts were very common. The chief cause of general accidents was the overturning of lamps and the breaking of the glass fount, and the consequent spreading of the oil. These accidents mostly occurred through carelessness in carrying the lamps, and their defective construction. Another prolific source of danger and accident was the grossly negligent and ignorant practice of blowing down the chimney. There was no such thing as a positively safe oil—not even colza oil.

# REPORTS AND ANALYSES
AND
# DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

## HUMANISED MILK.

We have received a sample of the "humanised milk" prepared on Gartner's principle by the Friern Manor Dairy Farm Company, Limited, of 20, Farringdon Street. From the results of our analysis, and having regard to the figures representing the composition of human milk which are given by various authorities, we consider that the sample submitted to us was correctly and properly described as "humanised milk," the percentages of fat, sugar, proteids, and mineral matter being within the limits which can fairly be taken, although the amount of fat (2.9 per cent.) may perhaps be regarded as somewhat low. The sample was free from chemical preservatives, and was well put up in a hermetically closed glass bottle. Some doubts have recently been expressed as to whether "humanised milk" prepared from cow's milk can always be substituted for human milk with satisfactory results; but the evidence put forward in support of this view requires confirmation. In any case a well prepared "humanised milk" must, in a large number of cases, prove to be of considerable value, and we are glad to be able to recommend the preparation offered by the Friern Dairy Company upon the results of the analysis of the sample sent to us.

## AXIS TRACTION FORCEPS.

Dr. R. Cadell Macdonald, of Linlithgow, has devised a form of axis traction obstetric forceps which he claims gives perfect axis traction, while being at the same time no larger than the ordinary forceps. The tractor apparatus is contained in the handles, and when not in use folds away; when in use the tractor handles are kept together by a toothed contracting rod, which replaces the ordinary screw. It can, he states, be instantly adjusted or relaxed, so as to permit the circulation to continue during the intervals between the pains. A further advantage which he claims for the instrument is that there are no traction rods to be inserted into the vagina, thus diminishing the risk of sepsis, laceration, etc. The instrument, which has been made by Messrs. Woolley Sons and Co., of Manchester, is illustrated in the accompanying drawing (Fig. 1).

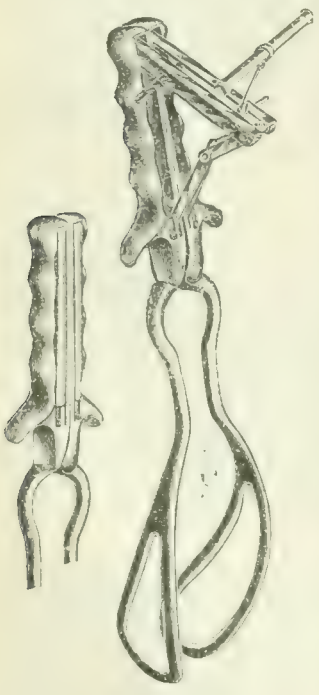


Fig. 1.

Dr. A. Lewis McMillan, of Kelvinbridge, also sends us a description of a form of axis traction forceps, which he has had in use for five or six years. He was led to design them from feeling that an easy method of removing the traction rods would be a distinct improvement on the ordinary Simpson axis traction forceps, since it would facilitate cleaning, and would permit the use of the forceps as ordinary long forceps. He consequently had the method of removing the rods designed by the late Dr. Angus Macdonald applied, with some slight modification, to the Simpson forceps; the special points in Dr. McMillan's modification are shown in the accompanying diagram (Fig. 2). A slot is cut downwards at the lower end of the fenestra of the blade, which slot on the inside expands in a circular manner through part of the thickness of the blade. At the upper end of the rod a pin projects at right angles, with its head flattened from side to side, and having its longest diameter at right angles to the length of the rod. The rolls are adjusted by holding them at right angles to the length of the slots, dropping the pins into the slots, and allowing the rolls to swing into place. The lower rod is made so as to impinge on the shaft of the blade, but the upper rod is made so as to allow free movement across the shaft of the upper blade, this latter being absolutely necessary in locking the forceps. The handles of the forceps are made of metal, fish-tail or other form. "Personally," Dr. McMillan adds, "my preference lies with a handle moulded as in diagram. The ebony handle is replaced by a mould of light pine wood, sheathed with copper, and plated. It is light to handle, and can be boiled without damage. The hollow fish-tail is not so comfortable in the hands when wet. The transverse traction handle is also made of hollow metal. Thus these forceps can be used with rolls adjusted, high up in cavity of pelvis or above brim; without rolls, low down in cavity or at outlet. This does away with an extra pair of forceps for low operations when traction rolls are rather in the way. The formation of pin and slot is so arranged that there is no risk of the rolls slipping out of place while in use. The rolls being removed allows the instruments to be packed away into less space than the ordinary Simpson axis traction forceps."

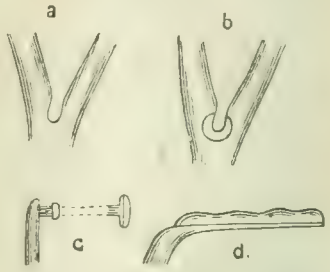
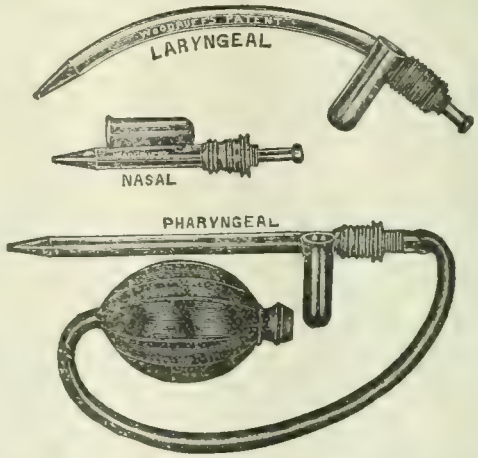



Fig. 2.—a. Lower blade, outside view. b. Lower blade, inside view. c. End of rod. d. Handle.

## A CELLULOID SPRAY PRODUCER.

The woodcuts here appended represent a spray producer for the larynx, pharynx, and nose, made of transparent celluloid, presenting certain of the advantages of glass without the risk of fracture. They can be taken to pieces to allow of mechanical cleansing, although of course they will not stand




sterilising by means of boiling. The nozzles are made in various sizes and forms. The coarseness or fineness of the spray produced can be varied by use of a comparatively simple mechanism. They are made by Mr. Thomas Woodruff, pharmaceutical chemist, of Willington, Manchester.

The Eton guardians recently voted a medical officer £55 10s. 8d. per annum pension, under the new Poor-law Officers' Superannuation Act. The deductions from the officer's salary to qualify for the pension did not amount to 12s.

## RECENT WORK WITH THE NEW PHOTOGRAPHY.

### SKIN PICTURES BY THE X RAYS.

By David Walsh, M.D.,
Physician to the Western Skin Hospital.

In the course of certain experiments with the *x* rays the writer found that it was possible to obtain a record of the coarser fissures of the skin surface. The primary object of investigation was to note the results of a skiagraph *in situ* of the commoner pigments and drugs applied to the skin. It was found that oxide of bismuth, powdered freely over the back of a finger, gave a good tracing of the creases over the knuckles. Following up this clue a fairly perfect record was obtained of the skin markings of the palmar surface, as shown in Fig. 1. The best results were obtained by using putty kneaded into the skin, then rubbed up with glycerine and powdered with subnitrate of bismuth.



Fig. 1.

As to the practical value of such a skin skiagraph there is little to be said at present. That a record can be obtained of every local peculiarity seems to be undoubtedly proved by the plate; over the phalanx of the thumb a small convoluted cicatrix of the surface markings may be clearly seen by means of a lens. Such a permanent record might be of value in the identification of criminals, after the fashion invented by M. Bertillon, of Paris. It seems more than likely, however, that a similar end might be reached by simpler means. The addition of the surface lines gives a striking prospective effect that is wanting in the ordinary skiagraph. The tracing is evidently due to the heaping up in the furrows of a substance opaque to the rays.

The surgeon does not always find it easy to cut down upon a needle or other small object, even when it has been precisely localised by an *x* ray photograph. In those parts of the body where surface markings exist it would be easy to reproduce them in the skiagraph. In this way a complete surface map, with numerous lines of longitude and latitude, would be available as a guide to the knife of the operator.

The accompanying skiagraph was taken for the writer by Mr. W. Cox, watchmaker, of Parkstone, Dorset, with a powerful apparatus constructed by himself.

### NOTE ON THE SEXUAL SENSE OF MOTHS.

By W. F. Lloyd, M.R.C.S.,
Royal Infirmary, Windsor.

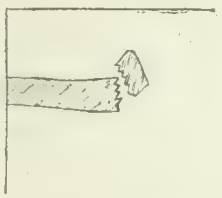
I think I am right in stating that the sexual sense of moths has long required some explanation, and it struck me some nine months ago that in the then recently-discovered *x* rays we had such an explanation. The sexual sense was found to act through bodies opaque to light, and I think it has also been demonstrated that it was not carried by particulate matter. If then the female moth emits *x* rays, and the male moth has organs capable of receiving these rays, a fuller explanation of the phenomenon would be possible. The matter could easily be put to the test by making experiments to see whether the female moth emits these rays. I have long thought of making this experiment, but time and material have been wanting, so I now publish the theory, hoping that someone may be found to put the matter to the test. I do not know whether the light emitted by the glow-worm has ever been sufficiently explained; but an explanation seems possible from this theory, for if the glow-worm gives out *x* rays, they might also be used to excite some phosphorescent substance on the body of the glow-worm. This would indicate the evolution of the sexual sense, from a sense conveyed by *x* rays to a sense conveyed by sight. Whether the sense organs of the glow-worm bear out this view I do not know, but I believe that antennæ are supposed to be the sense organs of the sexual sense.

### THE PATHOLOGY OF COLLES'S FRACTURE.

I.—Alexander Don, M.A., M.B., C.M.Aberd.,
Assistant Surgeon Dundee Royal Infirmary.

The cases recorded by Mr. J. Lynn Thomas in a recent issue of the British Medical Journal suggested to me that the following cases, which came under my treatment in October last, might be of interest:

Case I.—Mrs. L., aged 55, fracture on right side produced by a fall on the outstretched hand. The position assumed by the parts after the injury was apparently the typical one. A skiagraph shows the styloid process broken off at its base, and dragged outwards along with carpus and end of radius, and also considerable opening up of the radio-ulnar joint. The skiagraph taken transversely through the joint, but which is rather blurred in the bony outlines, shows the end of the radius as in Fig. 2.



Fig

Case II.—Mrs. R., aged 52. The left arm had been doubled under her in falling. The skiagraph is almost identical with that of Case I, the position of course being reversed, but there is fully a quarter of an inch between the ends of the radius and ulna due to opening up of joint.

II.—William S. Haughton, M.B., B.Ch.,
Assistant Surgeon to Sir P. Dun's Hospital, and Demonstrator of Anatomy School of Physic, Trinity College, Dublin.

The letters from Mr. Lynn Thomas and Mr. Clement Lucas are of especial interest in connection with the fracture of the

lower end of the radius, described by Colles, and bearing his name. They call attention to a condition associated with this fracture, which usually either passes unrecognised, or has not sufficient weight laid on it clinically. I refer, of course, to fracture of the styloid process of the ulna. Out of a miscellaneous collection of fractures skiagraphed by me during the past ten or eleven months I chance to have four specimens of Colles's fracture. Three of these are recent and one of old standing. In each of the three recent cases there is fracture of the styloid process of the ulna. The history of these three cases is briefly as follows:

CASE I.—Female patient, aged 55, a very large heavy woman, fell with her right hand extended, palm downwards, and followed up the fall on her hand by falling and rolling on her forearm. Clinically the signs were those of a typical Colles's fracture. The skiagraph shows the typical displacement of carpus and hand, but the line of fracture in the radius starts about one-third of an inch from articular surface externally, extending obliquely upwards and inwards to about 2 inches above articular surface internally. There is deep impaction of the upper into lower fragment. The styloid process of ulna is separated by about one-sixth of an inch from head of bone, and looks downwards and a little outwards.

CASE II.—Male patient, aged 50, tripped near top of a long flight of concrete steps, and fell with arm almost vertical on the palm of his hand. Clinical signs same as in Case I. Skiagraph shows transverse fracture of radius about three-quarters of an inch from articular surface, with deep impaction of upper into lower fragment. The styloid process of ulna is separated from the rest of the bone by an interval of one-sixth of an inch.

CASE III.—Male, aged 45 (about), coachman, was driving a high dog cart. The horse slipped and fell, and the patient was thrown forcibly forwards to the ground with his right arm extended, palm downwards, but holding whip still in his hand. Amongst other injuries he sustained a Colles's fracture, and the skiagraph of this shows a transverse fracture of radius about three-quarters of an inch above articular surface, with deep impaction. The ulnar styloid process is also separated by about one-sixth of an inch.

CASE IV is a Colles's fracture of old standing, and there is no history of the accident. In this the fracture of the ulnar styloid is doubtful, but the skiagraph suggests it, since there is an irregular knob of bone on the ulna just in the styloid area (not present in normal ulna of opposite side), and also a little island of bone in the interosseous space between the ulna and cuneiform bones.

Thus in my four cases there is evidence that three at least have the associated fracture of the styloid process of the ulna.

With regard to Mr. Lynn Thomas's interesting observation of the "longitudinal single fracture" of the lower end of the radius, an examination of specimens of old Colles's fractures obtained in the dissecting room sometimes shows one or more radiating lines, visible on the articular surface of the radius, which suggest a fissured fracture extending into the joint, and possibly caused by the wedge-like action of the convex surfaces of the scaphoid and semilunar bones impinging against the concavity of the articular surface of the radius.

The difficulty of "skiagraphical distortion" referred to by Mr. Lynn Thomas could be easily got over, if all *x* ray observers of this fracture adopted a uniform *modus operandi*—for example, if we place the lower surface of the focus tube eight inches from the plate, and the anodic mirror of the focus tube vertically over the middle of the wrist at the level of the radio-carpal articulation, uniform results must follow.

Since writing this letter, I see a note in the BRITISH MEDICAL JOURNAL of February 6th on the "Interpretation of Skiagraphs." While fully appreciating the necessity of considerable experience in skiagraphy, and an accurate knowledge of osseous anatomy to interpret a skiagraph intelligently, I cannot agree with the writer. The skiagraphs as published in the BRITISH MEDICAL JOURNAL on January 2nd of Mr. Lynn Thomas's case, show quite distinctly a "solution of continuity of bone" between the styloid process of each ulna and the rest of the bone.

I have examined a large number of skiagraphs of the lower end of ulnæ in my collection, and in no case was there any doubt as to the exact position of the styloid process; the usual skiagraphic appearance of which in its normal position being by no means faint unless the rest of the ulna presented a "nebulous" appearance.

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WE have received from Mr. Greig Smith (Bristol) a skiagraph of a fracture at the wrist-joint in the case of a lady aged 55. We regret that we find that the skiagraph cannot be reproduced satisfactorily, as it is not strong enough to bear the process. Mr. Greig Smith points out that the ulnar fracture traverses the shaft of the bone, and is not fracture of the styloid process only. He adds: "As it seems clear that we have not yet got at all the facts connected with Colles's fracture, I would suggest that a series of skiagraphs of the injury be taken, compared and studied at some large hospital where the supply of such injuries is abundant."

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## X RAYS DERMATITIS: IS THERE SUCH A MALADY?

By. J. LYNN THOMAS, F.R.C.S.,
Assistant Surgeon to the Cardiff Infirmary.

THAT dermatitis has followed the exposure to a Crookes's tube in action no one will deny. I would venture to doubt whether the *x* rays have much or anything to do with the causation of the dermatitis which has followed the exposure to a Crookes's tube in the cases recently recorded. Dr. Crocker's case is very interesting, but not at all convincing of the true cause or causes of the skin lesion.[1]

Perhaps the most mysterious phenomenon known to exist outside a Crookes's tube in action is that of the Roentgen rays; nevertheless there are other phenomena such as the kathodic rays, and other manifestations of Crookes's "radiant matter." The glow which surrounds the wires connecting the tube with the induction coil has some effect upon one's tissues within its field of action. When one holds one of the corners of the fluorescent screen within about half an inch of the wire, one feels nothing, but every joint of the screen shows by its blaze that the current is passing through; of course one must not put the screen near enough to receive a shock. I do not say that the *x* rays do not cause the dermatitis or the bald patch in Dr. Dudley's case, but I fail to find any convincing proof.

It has also been suggested that the Roentgen rays are the cause or one of the causes of sunburn. A couple of hours' exposure to the sun in summer in my own case will invariably cause sunburn; a walk up to the Grand Mulet and back to Chamounix caused vesication, some of the blebs being nearly half an inch in size, whilst daily exposures to the full blaze of the *x* rays in a light-tight box for months has not produced the slightest disturbance on my face. I mention this as an illustration of my extreme susceptibility to the sun's rays and my complete insusceptibility (so far) to the Roentgen rays. Skin and grease are very transparent to the *x* rays, in other words, they do not offer any appreciable resistance to their passage; nevertheless the one is assumed to be pathogenically affected by the *x* rays, whilst the other is suggested as a preventive.

Again, in the case of Dr. Dudley the 2-inch bald "spot corresponds with the size of the *x*-ray field close to the tube," but I must confess that I am at a loss to know how that area could be measured, as most of the Jackson-type tubes we use have practically half a sphere of *x*-ray area.

The lower margin of Dr. Crocker's case of Roentgen rays dermatitis is well defined, and "the transition from healthy to diseased skin being quite abrupt, and corresponding to where the trousers were turned down." Were these trousers transparent to the *x* rays? Most trousers are transparent (or very nearly) to the *x* rays, and therefore do not impede their passage, whilst in this case without any definite knowledge of the action of the trousers towards the *x* rays, we are led to conclude that the trousers played some important part in the limitation of the dermatitis.

An old lady, aged 60, had a stone in the bladder. I exposed her for 65 minutes to a Crookes's tube, and had a photograph of the upper part of the femora, the ossa innominata, and of the stone. The next day she developed cystitis, which continued for a week, when my friend and colleague Dr. Wallace removed the stone. It would be rash of me to suggest that the *x* rays were the cause of the cystitis, although she said she never had a like trouble before.

I have not seen any attention drawn to the action of the induced current from the neighbourhood of the Crookes's tube upon the skin of the patient. This phenomenon can be easily tested without any apparatus when using the Roentgen rays. It is present in every case I have tested for it, after the tube has been acting for a few minutes. It does not matter whether the *x* rays are directed to or from the part under the tube; that is to say, the tube may be placed in the ordinary position for skiagraphing, or turned through half a circle, so

[1] BRITISH MEDICAL JOURNAL, January 2nd, 1897.

that the dark half of the tube is towards the patient, the effect is the same.

By standing by the patient on the side of the wires conducting the current from the coil to the tube, and then placing the tip of the fingers on the skin of the patient, and gliding the fingers to and fro underneath the Crookes's tube, the operator will then find that his sense of touch is completely perverted, the sensation being very much like that felt on the stroking of a purring cat; it is peculiar, and slightly weird the first time it is felt; the same sensation is felt by standing on the opposite side, but not so marked. In some people it can be felt from head to foot, but is most intense directly under the tube. Is there any reason why we should exclude this factor as a cause in the dermatitis, or the bald patch following exposure to the Crookes's tube? Perhaps less than including the *x* rays.

Again, there is not the slightest reason why a dermatitis should not appear at the exit as well as at the entrance of *x* rays through the skin (in those who are susceptible), in the hand, for example: but, so far, the lesions are confined to the side next to the Crookes's tube. It is chiefly on account of the above facts in connection with the working of the Crookes's tube that I hazard a doubt as to the connection of the Roentgen rays and the dermatitis or other after-exposure-to-Crookes's-tube lesions.

We want more definite knowledge with regard to the properties of Crookes's "radiant matter" outside the tube, before we pass the verdict of "guilty" upon the suspicious connection of the Roentgen rays and the dermatitis, and until that is forthcoming it seems to me to be a case of "not proven."

[Since writing the above on January 4th, I have read of a case where the dermatitis appeared also on the opposite side of the trunk; but as I am away from books, etc., I am unable to find out particulars as to what the patient was resting on, or whether braces with metal were worn during the exposure to the Crookes's tube.]

## THE TRANSPARENCY OF BONES TO X RAYS IN CASES OF TUBERCULOUS DISEASE.

By T. E. Espin, M.A.

In the middle of December, 1896, a youth of 16 was brought to me with a locked wrist. A year previously he had run his arm against a wall, and apparently sprained it. This came right, but about four months previous to his coming to me trouble set in, and gradually increased till the use of the wrist was lost. Placing the wrist before the fluorescent screen the bones of the carpus were ill-defined, and the ulna and radius, metacarpal bones, and phalanges abnormally transparent. When the two wrists were placed side by side the difference in transparency was very remarkable. Not only are the bones of the carpus diseased, but the lack of contrast due to the transparency of all the bones is remarkable. The case is at present under treatment at the Newcastle Infirmary, and is undoubtedly tuberculous. The point was an interesting one, and I anxiously waited for another case to settle the question as to whether not only the bones attacked by disease were transparent, but the whole of the bones in the immediate neighbourhood.

Last week a young man came to me with a tuberculous knee. He had part of the radius of the left arm taken out a year ago, and had had a tuberculous abscess as well. He was thoroughly examined, and all the bones of both arms and legs were found to be abnormally transparent. There seems, therefore, good ground for believing that in cases of tuberculous disease of the bones there is an abnormal transparency not only in the part affected but in all the bones of the neighbourhood.

Case III is of interest also, in showing that such a fracture may be overlooked. Mrs. McK., aged 45, could give no history of any injury. A fortnight previous to my seeing her she found her right wrist swollen and painful in the morning. Rubbing with a liniment was prescribed. I suspected a fracture, but could make out nothing except thickening with the screen. A skiagraph was taken, and showed a fracture similar to Case I. but with the parts in perfect apposition. The treatment adopted in each case was the application of short anterior and long posterior splints and examination, after setting, with the screen, when any malposition could be detected and, if necessary, rectified.

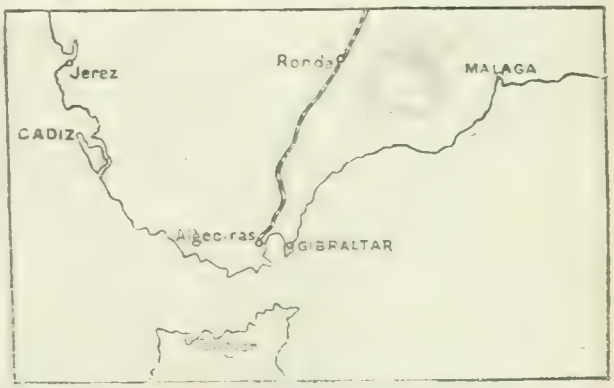
## NOTES ON HEALTH RESORTS.

### RONDA, IN ANDALUCIA.

By William Turner, M.A., M.D.,

Surgeon to the Colonial Hospital, Gibraltar: Honorary Secretary to the Gibraltar Branch of the British Medical Association.

Until recently little has been known of the locality and consequently little has been written regarding the climatology of the southern spur of the province of Andalucia, which has now been opened up to the tourist and the health seeker. Most travelled Englishmen are acquainted with the ancient fortress of Gibraltar, and many have been pleasurably struck, on escaping from the discomforts of an English winter, with the wealth of sunshine and the mildness and equability of climate of this western end of the Mediterranean. Comparatively few, however, have visited and explored the neighbouring Spanish province, for the simple reason that until the year 1892 this could only be accomplished on horseback, and involved much roughing and expenditure of time. These impediments have now in great measure been removed, thanks to the enterprise of an English company, who have opened a line of railway (the Ferrocarril Algeciras-Bobadilla) running from near Gibraltar through some of the wildest and most picturesque mountain scenery in Europe, to connect with the main trunk of the Andaluces Railway, going northward from Malaga to Madrid. At a point on this line, eighty miles distant from Gibraltar, is the little town of Ronda, situated high in the mountains, 2,600 feet above the sea level, and it is to this spot that attention is chiefly directed in these remarks.




The number of tourists who arrive in Gibraltar during the winter and spring months is very large indeed, and rapidly increasing, but finding the accommodation on the Rock so limited, they are compelled to move on to other quarters—to Tangier, Malaga, and Granada—in order to obtain the requisite hotel accommodation. Although the number and quality of the Gibraltar hotels and boarding houses have of recent years been greatly increased, it seems useless to hope that they can ever supply the demand of foreign visitors. Space for building can hardly be got, and no encouragement can be given by the authorities to further its development as a health resort, as this would obviously be incompatible with its primary function as a fortress and important naval station.

The inhabitants of Ronda are alive to these facts, and the municipality is exerting itself to provide accommodation there which will meet the wants of English visitors. Sanitary improvements are receiving careful consideration and attention. A new and pure water supply is being introduced from distant hills, and will be completed within the next few months. The roads in the neighbourhood are being placed in a condition of better repair than hitherto; and the railway company have acquired an excellent site on the outskirts of the town, where it is intended to erect a large hotel, to be placed under efficient English management, and where invalids may expect to find the comforts of an English home.

Ronda is reached in four hours from Gibraltar. Passengers are conveyed from Gibraltar to the railway terminus at Algeciras in steamers of the company running in connection with the trains, the trip across the bay occupying twenty-five minutes. At present only four trains for passengers are run daily—two up and two down the line. The country traversed is at first flat agricultural land, skirting the bay of Gibraltar. The route is continued through a large tract of cork forest owned by the Duke of Medina-Celi until the watercourse of the Guadiaro River is reached—a rapid mountain stream, the bed of which is followed pretty closely to the end of the journey. The ascent in many parts is very steep, and the scenery brought into view is rugged and mountainous in the extreme. Several old Moorish and Roman strongholds, built in characteristic fashion on the top or on the slopes of the hills are passed on the route until the valley of Ronda opens out, with its far-famed gardens, rich in every variety of fruit trees—orange and lemon, olive and fig, cherry and apple, pomegranate and loquat, peach and apricot, walnut and almond, while much of the land is cultivated in barley and vine, and every kind of green vegetable is there produced. The whole valley is studded with white prosperous-looking farms, each nestling in its little clump of orange and cypress trees.

The town of Ronda lies on a high plateau of porous conglomerate and limestone rock. Surrounding it on the east, south, and west is an extensive range of rocky mountains—the Sierra Rondeña, and even on the north side the ground rises gradually for some considerable distance, so that almost complete protection against wind storms is afforded; and the air, whilst it is pure, dry, and stimulating, is mostly calm and mild. Snow lies on the tops of the distant hills at intervals for two or three months in winter, and even in the town itself snow occasionally falls, but never remains throughout the day.

Unquestionably Ronda is one of the most picturesque cities in Europe. The old Moorish town is divided from the new quarter by the Tajo, a stupendous rent in the mountain some 200 feet wide and about 350 feet deep. The old town is only accessible from the south-east by a narrow and difficult ascent guarded by a fort. It was the last stronghold of the Moors in Spain, and was taken by stratagem by Ferdinand and Isabella in the year 1485. The town hangs on a rock girt by the river Guadalvin, which lower down becomes the Guadiaro. The view from the Alameda, or public garden, over the mountain panorama to the south is very fine, the gardens themselves being situated on the verge of the cliff, whence there is an almost sheer descent of nearly 1,000 feet into the valley below. The site for the projected hotel lies in close proximity to the Alameda, and commands the same view of mountain and valley. The town is lit by electricity generated by the river as it flows in a magnificent cascade through the Tajo. The same water power is utilised for a long series of flour mills, of which a most interesting view is to be had from the bridge which connects the old town with the new.

The population of Ronda is about 28,000 of a hardy spirited type, proverbially long lived. The chief industries are agriculture, wine and fruit-growing, flour-making, and the manufacture of olive oil and wine, which latter is of excellent quality and might almost compete with the lighter vintage of Jerez and Sanlucar. Ronda is also the chief market town of the province; its horse fair is the most important in the district, and its bull ring is one of the oldest and best in the south of Spain. Here the picturesque costumes of the Andaluz can be seen in their perfection. The streets are open but not well paved, the habitations are mostly low cottages built after the usual Spanish type, with the characteristic patios filled with shrubbery and flowers in the centre. They are kept scrupulously clean and neat by the frequent and liberal use of whitewash. Food supply is abundant in the town and neighbourhood, flour is one of the principal articles of commerce, game is fairly plentiful, and fish in great variety is brought from Estepona on the Mediterranean coast and from villages on the Straits of Gibraltar.

The hotels as at present constituted are not of the highest class, and cannot be said to supply all the luxuries which English invalids in a feeble state of health are accustomed to require, yet the ordinary comforts of living are obtainable in such houses as the Hotel Gibraltar, Hotel America, and Hotel Rondeña, and every effort is being made to improve these so as to render them attractive to visitors.

The roads are sufficiently good to admit of long carriage and bicycle rides into the country, and horses may be hired for excursions into the hills or to explore the villages in the vicinity. A golf course and tennis courts will be instituted in connection with the new hotel, and other pastimes will doubtless follow. Some shooting and fishing might likewise be had.

No systematic observations on the meteorology of Ronda have as yet been made. This much can be said: the rainfall is low and the number of rainy days is small even in winter; little or no rain falls in summer. It is a curious fact that by far the larger part of the rain in this district falls during the night, and the soil is so porous that little trace of wet is to be found by the time the sun has risen clear of the hills. It follows that a very large number of the days are cloudless and sunny, so that invalids can spend much of their time out of doors, even though the air be somewhat low in temperature. The peculiarly invigorating quality of the atmosphere is constantly remarked upon by visitors from the sea level at Gibraltar and Malaga, and rapidly tells in the improvement of appetite and the capacity for prolonged exertion.

The climate of Ronda may be regarded as occupying a middle position, not only geographically but physically, between the extreme dry cold of Davos and the moist warmth of Madeira, possessing many of the advantages and escaping some of the disadvantages of both. The dry crisp air, free from microbial taint, the high altitude and stimulating properties of the former are in great measure imitated, whilst the effect of exposure to extremely low degrees of temperature is avoided. The relaxing properties due to excessive moisture and a somewhat excessive heat of the latter are entirely absent. Compared also with the climatic conditions of the Riviera, the temperatures are not very dissimilar, whilst the peculiarly enervating influence which is so frequently complained of by those who are accustomed to winter on the French coast is never experienced at Ronda. There are, no doubt, certain classes of lung affections which derive much benefit from residence on the Mediterranean littoral, and should such cases fail to improve in Ronda they could be quickly and comfortably moved to quarters in Tangier or Malaga, both of which stand high in repute for the mildness and equability of their climate and their suitability for most forms of pulmonary disease. Tangier lies within three hours' sea journey from Gibraltar, and Malaga can be reached in four hours by rail from Ronda. Granada, too, which is in many respects similarly situated to Ronda, and possesses many local attractions, is separated from it by only five hours' run by rail.

The routes from London are, first, the overland journey from Charing Cross *vid* Dover, Paris, Madrid, Cordova, and Bobadilla, but this is a somewhat trying and more expensive mode of approach, and occupies sixty-five hours of almost continuous travelling, unless the journey is broken for rest. Through tickets, including breaks of journey at all important points, can be had at Cook's offices in London. The alternative route is by sea from London, *vid* Plymouth to Gibraltar, through the much maligned Bay of Biscay. P. and O. steamers run weekly, the Orient Line having fortnightly boats, and the time occupied is about three days from Plymouth. The comfort of these steamers cannot anywhere be surpassed, and, provided there is no special indication against sea travelling, most people would do well to select this route.

These notes, in response to the suggestion of eminent English medical men who have lately visited Ronda, are intended more as a preliminary notice of what may be regarded as a new and promising health resort, calling attention to its drawbacks as well as laying claim to its advantages, and do not profess in any way to supply the data for instituting a comparison with other foreign health stations. Many English invalids object (on the ground of distance from their home) to Cairo, the Canary Islands, Madeira, the Cape, and all the fashionable watering places of the day which are not within easy reach of England, preferring to seek their cure in the sanatoria of the British Isles, and it is for them especially that Spain seems to offer a sort of compromise.

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The Clothworkers' Company have granted £500 to the special fund of £100,000 now being raised on behalf of Charing Cross Hospital.

## BRITISH MEDICAL ASSOCIATION.

### SUBSCRIPTIONS FOR 1897.

Subscriptions to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MARCH 27TH, 1897.

## THE INTERNATIONAL SANITARY CONFERENCE OF VENICE.

We learn that the British and Indian delegates were amongst the number of representatives of their respective Governments who signed the International Convention which had, after five weeks of work, been finally agreed upon by the International Sanitary Conference which has been sitting at Venice. Such a result could only have been brought about on information supplied to Her Majesty's Government to the effect that the results of the Conference were of a satisfactory nature, and on this information being endorsed by the Government, who in turn had to advise the Queen to grant the power of plenipotentiaries to sign the Convention on her behalf to those delegates who received instructions to represent this country and our Indian Empire. The actual terms of the Convention have not yet been issued in their final form; but knowing as we do the strong attitude of opposition to needless quarantine restrictions which has for so long a period been a guiding principle of our English public health administration, and also the objection which British India has always manifested towards restrictions imposed on shipping leaving her ports, we feel certain that a very considerable success must have been achieved at Venice, and that the labours of the British and Indian technical delegates, Dr. Thorne Thorne and Surgeon-General Cleghorn, have been rewarded.

When the Conference was first proposed, success, as we deem it, was not anticipated. Foreign nations were panic-stricken at the notion that plague—which has never ceased to prevail in Persia, Mesopotamia, etc.—had reached British soil; and many at once resorted to measures of which, it is to be hoped, some are already heartily ashamed. Indeed, it is now well known that the three able representatives of France at the Conference, M. Barrère and Professors Brouardel and Proust, must have been strongly opposed to the extraordinary action taken by the authorities of Marseilles, for they from the very first manifested a stronger tendency than has ever before been manifested by that nation to come into line with the views of the British delegates; and it is no secret that the British and French delegations were able to work hand in hand in nearly all the principal matters with which the Conference had to deal. Italy and the Netherlands have also for many years been to the fore in regard of dealing with public health matters; and although the attitude of Southern Italy as regards Indian arrivals at Brindisi has been almost as antiquated and purposeless as that into which our own colony of Malta precipitated itself in a moment of panic, we believe that the Italian Government will be only too glad to avail itself of the progress in the direction of intelligent administration which the new Convention lays down, in order to extricate itself from a position which has brought it no credit.

In short, the quiet insistence of Great Britain in avoiding quarantine, and in relying on isolation of the sick and the supervision of others in their own homes, in the face of plague as well as of cholera, is stated to have made a very distinct impression on the delegates of the eighteen nations represented at Venice. And this attitude was to them the more striking because when Indian possessions are affected, it is Great Britain which runs so exceptional a danger. We reserve any complete reference to the actual conclusions embodied in the Convention, but we would refer to one clause which will enable British ships to pass through the Suez Canal without detention, and this although the period of incubation of plague will not have elapsed by the time they reach Suez. Mediterranean nations have always hitherto objected to proposals as to this which have been made at former Conferences, and now that a disease which some dread even more than cholera is concerned, it must be regarded as a great advance when those same nations accept the English proposal in the case of a disease which on their decision is to be deemed—for the purposes of control—as having an incubation period of ten days. Thus vessels from Bombay may now sail straight to Brindisi if they carry guards on board through the canal; and it speaks well for Italy that she, whose Mediterranean ports are first touched, should have been ready to support and accept this proposal.

## THE DEPARTMENTAL REPORT ON VENEREAL DISEASE.

This anxiously-awaited report was presented to Parliament a few days ago. We are flattered to find that, both in the facts it elicits and the conclusions it draws, it is in substantial agreement with recent comments in the British Medical Journal, especially with the Memorandum on the subject published last week in the report of the preceedings of the Parliamentary Bills Committee.

The Departmental Committee were asked simply to confer and report upon the prevalence and intensity of venereal diseases among the British troops in India, and compare the same with similar statistics in foreign armies.

The Committee have executed their orders thoroughly, and spoken out manfully, for there can be no mincing of matters now on this lamentable subject. The evils disclosed call upon all honest and patriotic men to speak out without hesitation or reticence.

The report, an abstract of which appears in another column, gives an historical survey, showing that greater accuracy in nomenclature and classification of venereal diseases since 1887, ought to prevent the opponents of the old Contagious Diseases Acts riding off, as was their wont, on side issues over the returns. It then touches on the influence of short service, and the results of the repeal of the Cantonment Acts, through the vote in the House of Commons in 1888.

It then shows the steady and alarming increase of admissions from both primary and secondary syphilis, and the concurrent accumulating virulence of these diseases since 1887. Next comes an account of a visit to Netley Hospital, and the horrible ravages of syphilis seen there, enough to make the angels weep. Then it touches on the grave dangers of the population at home, through the yearly discharge of large numbers of men saturated with Indian syphilis.

Finally, it contrasts the prevalence of venereal diseases in our own compared with foreign armies; and shows that we suffer from them both at home and abroad from ten to twenty times as severely as Continental armies: a disgrace, surely, to a nation which prides itself on its humanity.

And do such results flow from demoralisation in the army? The summary says: "This deplorable state of things does not appear to be attributable to increased immorality in the army. Drunkenness and crime have greatly diminished." Venereal diseases and discipline are not thus intimately bound up.

Some appendices show the result of the vote in the House of Commons on the Cantonment Acts.

Accompanying the report is a memorandum by the Army Sanitary Commission, with whom rests apparently the suggestion of remedies. This body confesses to have at one time pronounced the Cantonment Acts a "failure;" facts are, however, now too strong for such a very doubtful opinion, and it candidly climbs down, and calls for a reapplication of police and sanitary measures in the protection of the soldier.

The Army Health Protection Association, India, which was started at a meeting held at the Royal United Service Institution on February 27th, is daily growing in numbers and importance. The Right Hon. Sir James Fergusson, Bart., G.C.S.I., M.P., is Chairman; Sir Henry Cunningham, K.C.I.E., is Vice-Chairman; Sir Terence O'Brien, K.C.M.G., is Honorary Treasurer; and Colonel F. C. Keyser, C.B., Naval and Military Club, Piccadilly, is the Honorary Secretary. A large number of military officers and civilians are members of the General Committee. The Association has been formed with the objects of: (1) Giving to the public a correct account of the facts of the case, and clearing away the ignorance and misunderstanding which at present beset the subject. (2) Bringing to bear on the Government the force of a combined, rational, and well-informed public opinion.

This body has issued a memorandum setting forth a large array of facts and figures relating to its objects, and the Parliamentary Bills Committee of the British Medical Association, at its recent meeting, resolved to put itself in communication with this Committee.

It is clear the Government must act, and give the Indian Government the power to act, which should never have been taken from them by an ignorant vote. Let them act fearlessly and intelligently; they will be backed by all whose opinion is worth having or asking. There need be no attempt at conciliating fanatics, who, on this subject, seem absolutely deaf both to reason and humanity. These people are already astir and, we see, "deprecate the revival of Acts disastrous and immoral." Could anything be more disastrous than the present state of things—anything more immoral than to tolerate their continuance? What should be the precise steps taken will require much consideration; and they should be guided by a committee of experts.

## WATER GAS.

The letter from Surgeon-Lieutenant-Colonel Cayzer in this issue (page 821) deals with a matter of public interest which ought to receive careful attention. Gas companies and corporations all over the country are introducing, if they have not already done so, carburetted water gas as a substitute or partial substitute for coal gas.

From the point of view of economy and convenience in production there is no doubt that water gas presents many advantages. On the other hand, its use seriously increases the danger of poisoning by gas, and the economy of production has probably already been paid for by a very considerable sacrifice of life. It is unquestionably the case that, as a well-known gas manager is said to have tersely remarked, in reply to complaints, "Water gas is supplied for illumination, not for inhalation."

While it is possible that the danger arising from the introduction of carburetted water gas has sometimes been exaggerated, there can be no question of the reality of this danger. Both ordinary coal gas and water gas owe their poisonous action to the presence in them of carbonic oxide; but, while coal gas usually contains about 5 to 10 per cent. of carbonic oxide, water gas contains about 30 to 40 per cent. Roughly speaking, therefore, water gas is four or five times as poisonous as coal gas.

Carbonic oxide itself owes its poisonous properties simply to the fact that it has a strong affinity for hæmoglobin, and that the compound known as carboxyhæmoglobin is incapable of combining with oxygen in the lungs. The oxygen-carrying power of the hæmoglobin is thus abolished, and death results from the consequent cutting off of the oxygen supply to the brain and other tissues. A mixture of 1 part of carbonic oxide to 1,000 of air, if breathed for about an hour, puts out of action about half of the hæmoglobin contained in the blood, and reduces a man to a state of almost complete helplessness. About 2 parts per 1,000 will cause death in animals, and would probably do the same in man if the period of exposure were sufficiently long. It is, however, a mistake to suppose that much lower percentages than those named would ultimately cause danger or death from progressive accumulation of the poison in the blood. After an hour or two absorption by the hæmoglobin fortunately ceases, so that the symptoms, if any, do not increase. With less than 1 part in 1,000 of air the maximum effect on the blood is so small as to be practically of little or no importance. Another misapprehension is that the compound of carbonic oxide and hæmoglobin is perfectly stable, and cannot be broken up in the body. It has been conclusively shown that this compound is dissociable, and that when fresh air is again breathed the carbonic oxide is within five or six hours eliminated in the expired air, the hæmoglobin being left behind uninjured.

The action of carbonic oxide is so very gradual and stealthy that persons exposed to it are commonly rendered incapable of movement before they are aware that there is anything wrong. In the case of an escape of gas into a bedroom, for instance, a person might awake and become aware of the smell, but be utterly incapable of getting out of bed or summoning assistance.

Usually only a certain percentage of carburetted water gas is mixed with the coal gas, but when there is any unusual demand, as in times of fog, almost pure water gas may be

supplied to the consumers. The reason of this is that water gas can be far more rapidly prepared than coal gas; hence sudden demands are met by the manufacture of water gas rather than of coal gas. As water gas contains from 30 to 40 per cent. of carbonic oxide it is evident that a mixture containing as little as one part of water gas in 200 of air may produce fatal effects, whereas in the case of coal gas at least one part in 50 would be required.

The only safeguard against insidious poisoning by accidental escapes, whether of coal gas or of carburetted water gas, is afforded by the sense of smell, which will detect a much smaller proportion than would be necessary to produce dangerous effects. In the case of persons asleep this safeguard would, however, be non-existent, and nearly all the cases of gas poisoning at present occurring are due to escapes of gas during the night, the victim being found in the morning dead or dying.

To what extent the recent introduction of water gas has increased the usual number of deaths from gas poisoning it is impossible to say, and reliable figures on the subject would be of much practical value. Besides the cases referred to by Surgeon-Lieutenant-Colonel Cayzer, reports reach us from Liverpool, Belfast, and other towns, of a number of recent cases, but in the absence of comparative statistics and of definite information as to the composition of the gas actually supplied, it is hardly possible to arrive at any satisfactory summing up of the facts of the case. It appears to us to be little short of a scandal that, in defiance of the gravest warnings from medical men, so many of the gas companies and corporations should be permitted to render their lighting gas more and more poisonous, as they are undoubtedly doing at present. They have in some cases sheltered themselves behind "expert" opinion of the usual type, but the broad facts of the case, as we have stated them above, are absolutely clear, and no amount of special pleading will explain them away.

## ARMY MEDICAL REFORM.

No one who reads the report of the Subcommittee of the Parliamentary Bills Committee, recently published, carefully, can pretend doubt or ignorance of the full bearing of a controversy with the War Office, now brought to a focus.

A copy of it was sent some time ago to the Secretary of State for War, and as six additional copies were asked for and supplied, there can be no doubt it is now quite well known in every branch of the War Office. Since the report was drafted Mr. Brodrick has announced several important concessions bearing on foreign tours, Indian pay, and study leave; but at the same time he declared that the central and cardinal reforms of corps consolidation and revision of titles were deemed "undesirable." This leaves the root of the difficulty untouched.

We lately pointed out that six out of ten reforms suggested by the Parliamentary Bills Committee to the War Minister in 1893, and then declined, have since been conceded. Had Mr. (now Sir) Henry Campbell-Bannerman then consolidated the medical corps, and revised the titles as suggested on the American system, that is, Captain and Surgeon instead of Surgeon-Captain, the present difficulties would probably never had arisen, and the demand for purely military titles not been made. But he missed the opportunity; and we think, in view of a previous refusal, the Committee are now fully justified in pressing for pure military titles in a consolidated corps; for it becomes ever more clear, as the controversy proceeds, that military titles and army status are interdependent, and cannot be dissociated.

Such is now the national importance of this medical controversy, that it has been taken up by the daily press; and it is curious to watch the arguments advanced therein by writers on either side.

We will only notice one—that medical officers are generally accused of wishing to "usurp" military titles, being non-combatants. The answer is obvious: Why, then, have these titles been ungrudgingly conferred on pure non-combatant officers, as ordnance paymasters, schoolmasters, and bandmasters? Medical officers must at least be partly combatant officers, or how comes it they constantly have members killed or wounded in action, as Fyfe at the recent capture of Benin? The usurpation argument might have some force if military titles were appanages solely of combatant officers, but they are not.

Dispassionate observers regard the intense opposition towards giving medical officers military titles as something phenomenal. It is rumoured that a prominent official would rather resign than grant them. Well, great as such a catastrophe would be, we might still find comfort in the adage—No man is necessary. But the question is far above individual likings or resignations; it is simply, How is the army to be provided with medical officers, who decline to serve under present conditions?

The *London Gazette* for March 19th announces that the Duke of York has been pleased to make the following appointments: Mr. Frederick Treves, F.R.C.S., to be Surgeon-in-Ordinary to His Royal Highness; Mr. Alan Reeve Manby, M.D., to be Surgeon Apothecary to His Royal Highness at Sandringham.

An opportunity will, it is announced, be given by the Government of discussing the important subject of the health of the English soldiers in India. The report of the Departmental Committee just issued discloses a very serious state of things which, it is urged, will require immediate administrative action.

The fifth "James Forrest" Lecture was delivered recently at the Institution of Civil Engineers by Dr. G. Sims Woodhead, whose treatment of the subject: Bacteriology in its relation to the natural operations affecting the work of sanitary engineers, was much appreciated by a large audience.

The Queen has granted to Surgeon-Major Frederick Samuel Heuston, Army Medical Staff, authority to wear the insignia of the Imperial Order of the Double Dragon of the Third Class (Third Rank) which the Emperor of China has conferred upon him in recognition of his services to the wounded during the late war between China and Japan.

## THE ALLEGED ABUSE AT THE LEEDS GENERAL INFIRMARY.

At a very fully-attended meeting of the Board of the Infirmary held on March 19th, Mr. R. Benson Jowitt in the chair, The following resolution, moved by Dr. Barrs, and seconded by Mr. Charles Lupton, was unanimously passed:

That a Committee be appointed to consider the lines which an inquiry into the alleged abuse of the out-patient and in-patient departments of the infirmary should follow, and to report to the Board, and also to select an officer for the approval of the Board whose duty it shall be to inquire into the financial status of all infirmary patients.

## LORD LISTER.

The portrait of Lord Lister, P.R.S., by Mr. W. W. Ouless, R.A., is now finished. Its presentation to the Royal College of Surgeons will take place in the Lecture Theatre of the College, Lincoln's Inn Fields, at 5 P.M. on Monday next, March 29th. Lord Lister has promised to be present.

## THE IRISH WORKHOUSE REFORM ASSOCIATION.

This Association which aims at carrying out the reforms suggested by the Commissioner of the British Medical Journal, and has applied for reprints of our reports, has now been fairly launched under the presidency of Lord Monteagle. A subcommittee has been appointed to take charge of the proposals regarding the pauper nursing in the hospitals, and we hope for some good results from its efforts. It will ask the Local Government Board to receive a deputation in order that this particular scandal may be brought before the notice of that body.

## VACCINATION IN CHRONIC SKIN DISEASES.

In reference to the recent extension of serum treatment in various forms of disease, Sir James Grant, of Ottawa, calls our attention to a communication by him published in the *Medical Times and Gazette* as long ago as March 14th, 1863. Sir James Grant there recorded that he had observed very marked improvement, and indeed recovery, in certain obstinate cases of skin disease after vaccination. Thus a case of a secondary syphilide, and another of an extensive psoriasis, got well in four weeks after successful vaccination; and two other cases, described as "psoriasis palmaris" and "tinea nummularis" respectively, got well in less than three weeks after vaccination. Although Sir James Grant's explanation in the language of the period: "That the vaccine acted as an alterative and blood purifier," would probably be differently expressed nowadays, the fact that skin eruptions of diverse origin got well so soon after inoculation with vaccine is worthy of being recalled in these days of serum therapeutics, and suggest a wide field of investigation on the influence of toxin serums of various kinds on obstinate forms of dermatitis.

## THE PUBLIC HEALTH (SCOTLAND) BILL.

This measure came up for second reading on Monday evening, but made no progress. The discussion was quite of a Committee stage character, and, we fear, further discussion of a like type is to be anticipated next time the Bill comes before the House. For this, it must be admitted, the Government are largely to blame. They have determined that the Bill shall pass through the Committee stage before the Grand Committee on Law, upon which Scotland is represented only by gentlemen of the long robe. This is, we understand, generally taken as meaning that the Bill will be driven through without discussion or amendment, and such a course of procedure is highly resented even on the Government side of the House.

## INCREASED EXPENDITURE ON ALCOHOL.

There has been a large and striking increase in the amount spent on alcoholic intoxicants during the year 1896. The increase in British spirits was £1,069,720, on beer £4,425,724, and on wine £1,103,114, amounting in all to £6,598,558; but a decrease on foreign spirits of £41,140 has to be deducted, leaving an actual increase in the cost of intoxicating liquors of £6,557,418. We are here presented with a year's alcoholic expenditure not only six millions and a half greater than in 1895, the preceding year, but larger by £1,683,471 than the amount similarly expended in the previously highest year, 1876. It ought, however, to be borne in mind that, as the population has varied, the average amount consumed per head in 1896, namely, £3 15s. 6d., is not so high as it had been in some of the preceding years, having gone up in one year to £4 9s. With all allowances of this kind, it still remains a serious and alarming fact that the annual alcoholic expenditure was over a million more than it had ever been before. Whatever the cause or causes of this startling increase, it behoves the medical profession to exert the weight of its influence on the educational powers that be to follow the laudable example of the French Minister of Education, and order instruction on the composition and effects of alcohol to be given in every school.

## ALCOHOL AND SURGICAL CASES.

From reports by the surgeons of three Liverpool dispensaries Dr. Whitford, J.P., calculates that in 1895 of 15,083 "casual cases," 7,804 (more than half) were for injuries received while the patients were intoxicated.

## YELLOW FEVER.

We are glad to be able to state that the report as to a death from yellow fever on board the ss. *Port Salisbury* is quite erroneous. Dr. George Neale, the Port Medical Officer of Barry, informs us that the vessel left Delagoa Bay, called at Las Palmas, and four days from the latter place a man died from malarial fever. Another of the crew was taken ill, and on examination after arrival at Barry it turned out to be nothing more serious than single lobar pneumonia, from which he is rapidly recovering.

## PERMISSIVE SUPERANNUATION ALLOWANCES.

At a recent meeting of the Surrey County Council the question of officers' pensions was, after formal notice, very fully discussed, and we are glad to see that a very able statement on the subject was made by the chairman, who pointed out that permissive pensions frequently lead to great unfairness, as a public officer might spend many years of his life doing efficient work, and might gain a reputation for ability and rectitude in his official capacity, and yet, owing to a change in the constitution of his board or council, might at the time of his retirement from office be comparatively unknown to his employers, and might consequently be refused any form of superannuation allowance, however much his services during past years might have rendered him deserving of it. There is another fact in connection with permissive pensions which has never yet been sufficiently noticed—namely, that a fairly liberal board or council which has always given fair remunation to its officers and servants is generally ready to grant a fair pension, whereas an illiberal authority which has invariably underpaid all its officials will on the same principle invariably refuse to grant any form of pension, and thus create a double hardship. This has, we regret to say, been very common in the past. Mr. Halsey has evidently fully studied this subject, and has come to the conclusion that permissive pensions for public services are even "calamitous." We believe this opinion to be sound, and we hope that his statements as put before the county councillors of Surrey will lead them to see that some change in the law is desirable, which will at once put an end to the present unsatisfactory system by which pensions are now awarded or refused for public services.

## THE MONEY VALUE OF SURGICAL SCIENCE.

In speaking at the Mansion House recently, in support of the fund which is being raised for the Royal London Ophthalmic Hospital, Moorfields, Mr. Jonathan Hutchinson took occasion to refer to the financial aspects of ophthalmic science, declaring that in no other direction could money be so profitably invested. The prevention of blindness in all its various forms he described as an economic matter of the greatest national importance. By way of illustration of his meaning he referred to the disease of the eye known as glaucoma. In its acute form, he pointed out, it usually attacked very healthy persons, those who were still in the prime of life. It shifted from one eye to the other very quickly, and if not cured it left its victims hopelessly, irrevocably blind. A timely operation would cure it permanently, but the opportunity, if lost, was gone for ever. Supposing,

he said, a man who was earning £1 a week to be attacked by glaucoma at the age of 45 or 50, it might be taken that he had at that age 10 or 15 years of useful wage-earning life before him—to be moderate, say an average of 10 years. A successful operation would therefore save to that man, and through him to the community, £520. He would probably be in the hospital a fortnight, at a cost, say, of £1 a week, and he would probably want a month's rest afterwards before returning to work, so £8 must be deducted. There still remained a clear gain of £512. Now glaucoma, although one of the most definite instances which could be quoted, was only one amongst many, in some respects not one of the best, because it rarely occurred before middle age. Think, he said, of the financial value to the community which resulted from the saving of the eyes of an infant or a young child. Cataract was more common than glaucoma, and stood by its side. It, however, was again a malady which occurred only at a time of life when the further prospect of wage earning had become limited. Mr. Hutchinson suggested that the Royal London Ophthalmic Hospital saved the eyes of twenty glaucoma patients a year, and of 400 suffering from cataract. He would take the latter at half the value of the former per case, because the patients were usually older, and the cure was sometimes less complete. Making allowance for all this, however, he estimated the saving under the "glaucoma" heading to be £10,400, while that under "cataract" came to no less than £104,000. That was what was done every year at that hospital, and if it were remembered that the calculations applied to other like institutions and to private practice as well, some idea might be formed as to the financial indebtedness of the community to ophthalmic science.

## NEW SCHOOL BUILDINGS AT GUY'S.

The physiological wing of the new school buildings at Guy's Hospital, which is being erected at a cost of £13,000, is now approaching completion, and will be opened by the Prince of Wales in May. It comprises a theatre capable of seating 500 students, a histological laboratory for 120 students, a similar laboratory for physiological chemistry, three research laboratories for histology, physiological chemistry, and general physiology; a gas room, a calorimeter room, a balance room, and dark rooms for photographic and spectroscopic work, besides several class rooms. We understand that plans have been prepared for a much larger building, to include a new museum, library, anatomical and physiological departments, at an estimated cost of £35,000. When the whole scheme is carried out the old museum block will be pulled down, in order to give better air space to the medical wards, and to afford additional recreation ground for the patients. As the expenses of the building are entirely borne by the medical school, only the physiological wing has at present been undertaken.

## THE CHEMIST OF THE LONDON COUNTY COUNCIL.

It is not infrequent for men who have rendered great services to a community to resign their office, and for the loss the community has suffered only to be recognised too late. The resignation of Mr. W. J. Dibdin of his position of chemist of the London County Council must be regretted by all who are at all familiar with the work he has done. Apart altogether from the services he has rendered to the metropolis in steadfastly insisting that the gas consumers of London shall have value for their money, he will be specially recollected in connection with the treatment of London sewage and the purification of the water of the Thames. To him far more than to anyone else are Londoners indebted for the fact that the Thames has been converted from an offensive stream polluting the foreshore for miles below the outfalls into a stream which can be used for traffic without disgust to the traveller, and by the pleasure-seeking public with enjoyment. To him, further, we owe the saving of the vast cost which would have been incurred if the London sewers had had to be continued for many miles so that the sewage could be discharged nearer the mouth of the river: and it was expected that the work he was doing at the outfalls would bring London within measurable distance of so successfully treating the sewage at this point as to render unnecessary the expense of barging the sludge out to sea. Like the work of many officials, his is scarcely known to the public, but it certainly must be known to those whom he has directly served; and we are at a loss to understand how any officer who has for many years served London with such marked profit to it can be allowed to be tempted by private practice to leave his office. In private practice we do not doubt his success. The loss is to the public, and the public may well ask why private practice should be able to present to him greater attractions than those which should be offered to him in the service of the London County Council.

## THE HEALTH OF THE PRIME MINISTER.

We are glad to learn that Lord Salisbury is convalescing rapidly from his recent attack of influenza. It began on March 20th, and was attended by high fever and gastro-intestinal derangement, and for forty-eight hours he was compelled to keep his bed. The fever ceased on Monday, and on the following day Lord Salisbury was able to attend the Cabinet Council. Convalescence has proceeded in a satisfactory manner, and, acting on medical advice, Lord Salisbury left London for Beaulieu, his place near Nice, on Thursday morning. The Houses of Parliament are maintaining their evil reputation in regard to influenza. It will be remembered that in the earliest of these recent visitations the epidemic spread with great rapidity among members of both Houses, and among the officers of Parliament. This year, before the epidemic had attracted much attention in London generally, many members of Parliament suffered sharp attacks, among them being Mr. Balfour and other members of the Cabinet and Front Benches. The Registrar-General's statistics show that there was a distinct increase in the number of deaths directly referred to influenza in London last week. On the other hand the mortality from diseases of the respiratory organs, which is usually very much increased by the prevalence of influenza, is still unusually low in London; in fact, last week it was 40 per cent. below the average for this time of the year. Influenza is a protean disorder, and the cases now occurring appear to be in some respects of a new type, being generally characterised by a short period of high fever, and a special tendency to disorders of the digestive system which do not always pass away until long after the fever itself has ceased.

## A NAUSEOUS INTOXICANT.

Attention has recently been drawn to the fact that much of the drunkenness amongst the extremely poor inhabitants of Edinburgh is caused by the consumption of a mixture of methylated spirit with paraffin oil. It appears that a certain proportion of the newly distilled whisky kept in bond undergoes decomposition, and it is thus rendered unfit for consumption. This material is treated with methyl, removed from bond, and is sold by retail dealers for use in furniture polishing and other similar occupations. It was found, however, that the addition of methyl did not deter the poorer workman from drinking the spirit, and consequently the authorities decided to add a small quantity of naphtha or paraffin oil. In spite of its nauseating character, however, this mixture, popularly known as "dynamite," is very widely consumed, and in the poor closes of the city one may see, in the words of the report, "Groups of men and women, in a more or less hopelessly intoxicated condition, a bottle of 'dynamite' in one hand and a corn-beef can in the other from which they continued to drink the liquid diluted with water from a neighbouring well." It can hardly be supposed that the liquor is relished, or that any amount of indulgence would lead to an acquired taste; the object is simply to get drunk, and the compound

enables this end to be attained quickly and cheaply, for it is six or eight times less expensive than whisky. The injurious effects arising from this pernicious habit are not dwelt upon, but although the small quantities of methyl and naphtha may give rise to no discomfort to those accustomed to their use, yet the impure and raw spirit which is the basis of the compound must eventually work havoc, especially upon the nervous system. It will be remembered that ether drunkenness has become very prevalent in Tyrone and the North of Ireland, but our detailed exposure of the widespread practice and the discovery that it was a fraud on the revenue led to its prompt suppression at the instance of the Treasury. A similar intervention might be equally useful here.

## THE VETERINARY SURGEON.

THE Royal College of Veterinary Surgeons is "up in arms," we are told, against two clauses in the Public Health (Scotland) Bill, and there are indications that strings are being pulled to move agricultural societies in opposition to these clauses. From the clamour which has arisen over the question, it is evident that the agricultural associations have been impressed with the idea that the Bill contains matter of a terribly revolutionary character. On further inquiry, however, we find that what the veterinary surgeons referred to "urge," is that the clause in the Bill which authorises medical officers of health to examine "animals" and "meat," as they are already authorised under the English and London Public Health Acts, "should be so altered that veterinary surgeons shall in future be *the* inspectors of animals intended for food, and of meat." The italics are ours. They further "urge" "that veterinary surgeons only shall be qualified (*sic*) as inspectors of dairies." This is rather a large demand. Local authorities and the public at large who are perfectly satisfied with the existing arrangement, which has worked perfectly well, will have something to say in the matter. Had the veterinary profession proposed the addition or insertion of such words in the clauses in question as "or any veterinary surgeon appointed by the local authority for the purpose," no one would have objected, and medical officers of health would have welcomed the appointment of such colleagues. But there is not the least chance of the community suffering itself in respect of its food supply, to be given over bound hand and foot to the veterinary profession and their clients the agricultural associations.

## THE INFANT LIFE PROTECTION BILL.

THE Infant Life Protection Bill recently introduced into the House of Lords by Lord Denbigh is practically identical with the Bill of last session as amended by the Select Committee, but it differs in some important particulars from the Bill as originally introduced. The most important difference in this regard is undoubtedly that with reference to the registration of houses as baby farms. In the place of registration, the Bill provides for a system of notification to the local authority, with the power of inspection and supervision by such authority. To such an arrangement as this we can see no objection; moreover, slight reflection will show that it has obvious advantages over the more cumbersome, intrusive, and difficult plan of registration. But while the clause to this effect in the Bill is not likely to excite any controversy, the same cannot be said with regard to the exclusion from the operation of the Bill of houses in which only one child under 5 years is kept. There is a clause to the effect that the Act shall apply only to houses in which more than one infant of less than 5 years is kept for hire or reward. If the Bill comes to be seriously discussed and reaches the Committee stage, this clause should be amended so as to include all houses in which one infant is received for reward. From the very commencement of this movement for the protection of infant life we have consistently maintained that to permit one infant to be kept by foster parents independently of the Legislature, is equivalent to allowing a loophole for abuse. Upon this subject the National Society for the Prevention of Cruelty to Children, through Mr. Waugh, has expressed itself very emphatically as to the inexpediency of the arrangement. The Act of 1872 was largely inoperative, and indirectly evaded by means of the clause permitting baby farmers to keep one child under 12 months independently of the Act. It may be trusted, therefore, that this unquestionable error will not be repeated under the present circumstances, and that the same protection will be extended to one child as is provided for in a baby farm where two or more children are received.

## THE PROGRESS OF CREMATION.

THE report of the Council of the Cremation Society of England shows that the number of cremations carried out at Woking during 1896 was 137 as compared with 150 in 1895. With the exception of this one year, however, the figures show a progressive increase. Thus in 1885 the number of bodies cremated was 8; in 1886 it was 10; in 1887, 13; in 1888, 28; in 1889, 46; in 1890, 54; in 1891, 99; in 1892, 104; in 1893, 101; and in 1894, 125. This, with the figures already given for 1895 and 1896, makes a total of 870 cremations for the twelve years. It must be borne in mind that there are now three crematoria in Great Britain besides the one at Woking—namely, at Manchester, where 52 bodies were burnt in 1896; at Glasgow, where there were 11 cremations during the same year; and at Liverpool, where 2 have been performed.

## THE SURGERY OF THE GALL BLADDER AND BILE DUCTS.

THE lectures delivered by Mr. Mayo Robson at the Royal College of Surgeons, the publication of which is concluded in this number of the BRITISH MEDICAL JOURNAL, were founded not only on his own experience and on the views of other authorities on the particular region involved, but also on a diligent search through the museums of many of the most important London and provincial hospitals and of the Royal College of Surgeons. He was thus able to bring together a collection of pathological specimens of the most instructive nature. The history of gall-bladder surgery falls into two periods. Before 1890 many operations had been performed for cholelithiasis and allied conditions, but an enormous impulse was given to the question by the classification of the methods of procedure in Courvoisier's great work in 1890, to say nothing as to the advances made by him in pathology and diagnosis. Since then progress has been rapid, and books and papers referring to it numerous. Just two years ago[1] we summarised the then state of knowledge in this department, and it is a matter of some interest to refer to the progress which has been made since that time. With regard to the methods of diagnosis there is but little advance to record, for the *x* rays are not as a rule appreciably stopped by gall stones, and although several new positions have been devised in which it has been suggested the patient should be placed for diagnostic purposes, little or no practical benefit has accrued from their use. Still there can be no doubt that though the methods of investigation may not have altered, the diagnostic skill of surgeons as regards this region has increased. In respect of pathology, the only important progress has been in the direction of bacteriology, the association of diseases of the gall bladder with such diseases as typhoid fever on the one hand and ulcerative endocarditis on the other having now been definitely established. In the matter of technique, the past two years have not brought forth any radically new operation, although they have in some ways added a good deal to our resources. Thus Mr. Robson gives a choice of no fewer than ten operative procedures for a stone impacted in the bile duct. Time has, moreover, exercised an important influence in deciding the comparative value of operations. Thus when the article above referred to was written, cholecystenterostomy was preferred to cholecystostomy on account of the frequency with

[1] BRITISH MEDICAL JOURNAL, March 16th, 1895.

which the latter operation was at that time followed by biliary and other mucous fistula. Now, however, improved technical skill has practically done away with this disadvantage, and cholecystostomy must be considered in most cases the operation of election. Thus, while of Mr. Robson's first 10 cases of operations on the gall-bladder fistulæ resulted in 5, of his last 160 only 7 developed them. Hans Kehr, whose experience of these operations is probably larger than that of any other operator, had had 204 cases without a single fistula. When the operation is done in two stages—a proceeding which seems to be dying out—fistula is much more frequent. Kehr's results probably represent the most brilliant work hitherto done in biliary surgery; his mortality in cholecystostomy is less than 1 per cent.; in choledochotomy, admittedly the most difficult and prolonged of operations upon the bile ducts, it is 6.6 per cent., while of 21 patients on whom he performed cholecystectomy, but 1 died. It may also be mentioned that Murphy has performed cholecystenterostomy by means of his button in 67 non-malignant cases, with but 3 deaths. Apart from the improvement in technical skill, the most important stride made during the last two years is the result of the bacteriological examinations made by Terrier and his pupils. In consequence of these, Terrier now never withdraws the tube from a biliary fistula till its contents are sterile, whereby the disappointment of relapses and worse catastrophes is averted. Such is briefly the present position of this interesting branch of surgery. It is still in its infancy, and he would be a bold man who should seek to assign a limit either to the improvement of its technique or the spread of its applicability.

## THE NATIONAL JENNER MEMORIAL.

WE understand that the proposal which will be brought before the public meeting to promote a National Jenner Memorial on Wednesday next will be to establish a fund for promoting investigations and researches on the lines which Edward Jenner initiated. It will be proposed that the fund should be administered in connection with the British Institute of Preventive Medicine, and should bear Jenner's name. The meeting, as already announced, will be held in the theatre of the University of London, at 4 P.M.; the chair will be taken by the Duke of Westminster, and the principal speakers will be Lord Herschell, Lord Lister, Lord Playfair, Sir Alfred Lyall, and Professor Michael Foster.

## DEATH OF A MEDICAL CENTENARIAN.

LESS than a year after our own "Grand Old Man" of medicine, Mr. William Salmon, of Pennlynn Court, Glamorganshire, who died on May 10th, 1896, at the age of 106, another medical centenarian has within the last few days passed away in the person of Dr. de Bossy, of Havre. Dr. de Bossy was born in Paris during the Reign of Terror, on April 9th, 1793. His father thought it prudent to exchange the French capital for the calmer atmosphere of London, and young de Bossy received his early education and also began his medical studies in this country. He led an adventurous life for many years, practising his profession in Calcutta, in the Ile de France, and in the Ile de Bourbon, thus experiencing several varieties of tropical climate. Finally he settled down in Havre, where he saw patients almost to the end. When past his century of years, he would climb steep stairs to the sick room. A year or two ago he was awarded a medal for his attention to sufferers from cholera. He seems to have followed no particular rule of life, except to keep himself employed in useful work, and always to look on the bright side of things. He said of himself that he had throughout his life used everything, but abused nothing. In some things, however, his interpretation of the term "abuse" would probably not be altogether suited to the endurance of the average man. Thus, being questioned once as to the effect of coffee on the human organism, he is reported to have answered that it was an excellent thing, and he had often taken as many as forty cups a day in the tropics. He did not smoke, but took snuff, and did not restrict himself in point of diet. He was in the habit of rising at 7, and went his rounds on foot, having given up the use of a carriage some years ago on account of the jolting. On Sundays he rested, and if the weather was fine went into the country. Dr. de Bossy's father lived to the age of 108; he is therefore to be looked upon as an example of Sir George M. Humphry's statement as to the main cause of longevity: "The prime requisite is the faculty of age in the blood by *inheritance;* in other words, that the body has been wound up, as it were, and sent into the world with the vital force necessary to carry on the living processes through a long period; that this is the case with every organ, and that the several organs are so adjusted to one another as to form a well-balanced whole."

## STEAMING IN COTTON-WEAVING SHEDS.

THE report of the Departmental Committee appointed by the Home Secretary to inquire into the working of the Cotton Cloths Factories Act, 1889, etc., has recently appeared. Since the introduction of artificial moisture into weaving sheds, particularly in the manufacture of fairly heavily-sized goods, there has been complaint on the part of operatives that it is injurious to health. After careful investigation by the Committee, there was not found sufficient evidence to support this statement. On the contrary, the testimony supplied by Dr. Wheatley, the Medical Officer of Health for Blackburn, and Dr. Barclay, showed that since the introduction of "steaming" the mortality amongst weavers in humidified sheds is less than that amongst other mill hands and the population of the town generally, especially for phthisis. Whilst the Committee see no occasion for recommending any alteration in regard to the processes known as "steaming" or "humidifying" in the cotton mills, they recognise the necessity for the employment of pure water for these purposes, and the great need that exists for diminishing the amount of carbonic acid present in the air of weaving sheds. In some of the factories they found that the air contained as much as 1.3 parts of carbonic acid per 1,000. It is their opinion that by a system of ventilation which can be easily adopted, and without draught, 2,000 cubic feet of air per head per hour can be obtained, and thereby better health and a larger measure of comfort secured to the workers.

## THE EGYPTIAN SANITARY DEPARTMENT.

LORD CROMER devotes a long section in his recent report to the epidemic of cholera in Egypt. During the first or winter phase of the last epidemic 1,018 deaths occurred, and during the final phase, from April to October, there were 17,087 more, making in all a total of 18,105 deaths out of the 21,693 cases that were notified or detected. In the course of the 1883 epidemic the number of fatalities ascribed to cholera was 58,369, but, as Lord Cromer very justly observes, it cannot be doubted that the mortality was in reality far in excess of this figure. In his opinion the reduced mortality in 1895-96 was due to two causes: First, the great advance that has been made in medical science, with the result that the proper methods for arresting the propagation of cholera are now more fully understood; secondly, the improved organisation of the Egyptian Sanitary Department. Sanitarians do not always obtain due recognition of their labours, but in the present instance the handful of Englishmen who were more immediately concerned in combating the cholera epidemic have every reason to be satisfied with the meed of praise accorded to them by Her Majesty's representative in Egypt. It is with great pleasure that we reproduce this graceful tribute to merit in Lord Cromer's own words: "It is indeed difficult to speak too highly of the services rendered by that department during the recent epidemic. Whether the Egyptian people generally are fully cognisant of the efforts which were made on their behalf, is more than I can say; but of this I am well assured, that the energy, perseverance, and skill displayed by Rogers Pasha and the officers working under his orders

have saved the lives of thousands of Egyptians, and have minimised an evil which, without the display of those qualities, might well have been of no common magnitude. Amongst the many achievements, which of late years have been accomplished under the auspices of the English officials now in the service of His Highness the Khedive, none, I venture to think, deserve higher praise than the strenuous efforts which were made to arrest the recent cholera epidemic." At the end of his report, Lord Cromer tells us that the two most important events in connection with Egyptian affairs during the past year were the Dongola expedition and the epidemic of cholera. Unquestionably this was so. It is true the epidemic is said to have cost us more than £E40,000, but this amount merely represents public disbursements, and no account is taken of the incidental loss and expenditure incurred by individuals in their private capacities. Taken together, these items must make up a considerable sum. It is unfortunately impossible to set down in black and white how much the sanitary workers did actually save the country by keeping the disease within bounds, but no intelligent person will deny that an immense saving of money did accrue, and this fact should certainly not be lost sight of by the financial authorities when next the question of a grant for sanitary reform is under discussion. If the late outbreak had been allowed to attain to the dimensions of that of 1883, it is no more than reasonable to infer that the winter influx of visitors would have suffered a serious diminution. People disposed to pass the inclement season abroad would have selected some other sojourning place, whereas in point of fact the last two seasons on the Nile have been quite as successful as usual. The intelligent travelling public evidently reposes perfect confidence in the efficiency and vigilance of the Anglo-Egyptian sanitary department, and happily events have unmistakably shown that this confidence is most worthily bestowed.

## BACTERIOLOGICAL EXAMINATION OF WATER IN INDIA.

In compliance with instructions from Surgeon-Major-General Gore, the Principal Medical Officer of Her Majesty's Forces in India, acting under the orders of His Excellency the Commander-in-Chief, Surgeon-Major Davis, in Medical Charge Station Hospital, Rurki, and late Assistant Professor of Military Hygiene Army Medical School, Netley, has proceeded to Subathu with the view of making a bacteriological analysis on the spot of the water of a series of springs proposed to furnish a new supply at that station and Dugshai, where enteric fever has been prevalent at intervals. Surgeon-Major Davis's valuable report, the first of its kind made in India, is now under the consideration of the authorities. This step is the outcome of Surgeon-Major-General Gore's recent visit to Rurki, where he had a personal interview with Surgeon-Major Davis. The latter officer *en route* to Subathu *viâ* Agra received every assistance he required from Professor Hankin's laboratory at the latter station. Surgeon-Major-General Gore is showing a highly commendable energy in supporting all modern methods of obtaining a pure and wholesome drinking water for our troops, and of testing from time to time such supplies when, and if deemed, suspicious.

## LESSONS IN HOSPITAL MANAGEMENT FROM RUSSIA.

An article on this subject appears in *London* on March 11th. Like most of these contributions from abroad it is practically useless to us, since it relates to communities under a system of government which is impossible in England. The writer refers to the town of Kharkoff, in which he says the Alexandra is the chief hospital. He proceeds: "A hospital rate is raised, but little assistance from this source is required by the Alexandra Hospital, as the principle is adopted of making the people who use the institution and benefit from its treatment contribute towards the maintenance. Everyone engaged in manual service—workmen, artisans, domestic servants of all classes—have to pay a tax of 1s. 6d. a year in order to obtain hospital treatment. The tax is practically compulsory, as no one will engage a workman or a servant unless they can produce a hospital ticket. If anyone goes to the hospital without a ticket the employer is fined £1 for having engaged the defaulter." We quite agree that if such a tax could be introduced and levied in England our hospitals would be relieved of their pecuniary difficulties; but as no one out of a lunatic asylum would propose such a tax, and no Government however powerful could enforce it, it is unnecessary seriously to discuss the scheme. Only let us not forget in connection with the many suggestions which are now made for obtaining Government or municipal assistance for our hospitals, that with such assistance is necessarily associated controlling power. The London hospitals are, it is true, suffering somewhat from want of money. They would suffer far more, and far more fatally, from want of independence.

## SICKNESS, ENDOWMENT, AND LIFE ASSURANCE.

From time to time prospectuses of new companies prepared to grant policies for sickness and other forms of assurance are submitted to our consideration. In none of these, however, are the terms to be compared with those offered by the Medical, Sickness, and Accident Society, a society which was started by medical men for medical men, and we should strongly advise our readers before giving way to the persuasive appeals of agents for other companies, to study the respective advantages. From the most recent of these prospectuses we extract the following: At age 30 an annual premium of £3 17s. 6d. provides during incapacity from illness (including accident) £2 per week for 13 weeks, and £1 per week for the remainder of incapacity. At the same age for an annual premium of £3 11s. 3d. the Medical, Sickness, and Accident Society provides during incapacity from illness (including accident) £2 2s. per week for 6 months, and £1 1s. per week for remainder of incapacity. In addition to this the members of the Society have the prospect of a bonus after each quinquennial valuation, as the surplus funds belong to the members. Nevertheless, we would urge those who are not members of the medical profession to make provision against sickness and accident in one of the societies which undertake these risks, together with an endowment policy as a provision for old age and life assurance in the event of early decease.

## HEALTH OF THE FRENCH ARMY.

The French *Journal Officiel* has published an interesting report by the Minister of War on the health of the army, which may be useful to our own services. "From this it appears," says the *Globe*, "that there is a steady improvement in the hygiene of the French troops, thanks to the new methods of sanitation. Typhoid fever has disappeared in some garrisons which it formerly decimated, thanks to the use of spring water or the Pasteur-Chamberland germ filter. General Billot further proposes to introduce steam sterilisers into the barracks as the funds will allow, and to facilitate the boiling of all the water used by a garrison. When an epidemic comes he intends to instal an apparatus for the purpose in the headquarters of each *corps d'armee* or military government." The French army grows less and less subject to small-pox. Revaccination has preserved the troops in Algeria, Madagascar, and Tonquin, among native populations who are scourged by it. Inoculation for diphtheria and croup is now in force and the serum liberally supplied by the Pasteur Institute has been a great success. Scarlatina and influenza are still frequent, but easily overcome. General Billot thinks there is no reason to be alarmed at the plague as far as France and Algeria are concerned, because of the precautionary measures taken to check and suppress an outbreak.

# THE PLAGUE.

## KARACHI.

Our correspondent writes that: During the week ending February 25th the total death-rate from all causes in Karachi was 167.34. The mean death-rate for the corresponding weeks for the previous five years was 37.07. The highest death-rates from all causes were noted in the Lyari quarter, 328.62; the Napier quarter, 242.35; Runchore Lines, 235.73; and the Gaol quarter, 236.83. In all of these portions of the town the disease is bad, but especially so in the first-named quarter, the Lyari.

With regard to the actual number of plague cases and deaths, during the week ending February 25th 270 cases and 217 deaths were reported, the total from the date of the outbreak to February 25th being 1,899 cases and 1,715 deaths. By sex the cases were 179 males and 91 females. By caste the cases were 94 Hindus and 176 Mussulmans. By sex the deaths showed 142 males and 75 females. By caste the deaths showed 67 Hindus and 150 Mussulmans.

The disease is cropping up in all parts of the town and suburbs which have any communication with the infected areas. The epidemic has for the last few days shown itself in a more hopeful light. The case and death incidence is less, the proportion of cases to deaths is a higher one, more recoveries are reported, and the disease in many of the newer cases appears of a milder type.

I should like to write more, but am too weak. Four days ago I was inoculated with Haffkine's serum (5 c.cm. in flanks). I am still very unwell, and my temperature at 8 o'clock this morning (four days after inoculation) was still at 101°. I will give you an account of my experiences later.

### Suspension of the Mecca Pilgrimage.

The following extraordinary *Gazette* has been published in the Home Department on the question of the suspension of pilgrimage to Hedjaz: It having been under the consideration of the Government of India and Her Majesty's Government, the latter have come to the conclusion that in consequence of the strong opinions of all the European Governments, including Turkey, regarding the danger of the plague being communicated to Europe, it is impossible to meet their demands by any measure short of suspension of pilgrimage for the time being. The Governor-General is pleased, therefore, under the Epidemic Diseases Act, 1897, to order the suspension of pilgrimage to Hedjaz for the current season.

### Precautions in Kashmir.

The Kashmir Medical Department has taken prompt preventive measures against plague. The approaches to the valley by the Abbotabad and Murree routes have been guarded by posts, and medical inspection and segregation camps have been established and stringent rules issued.

## SURAT.

Surat is, after Ahmedabad, the most important city in the province of Guzerat, and was our first possession in Western India. Sir Thomas Roe landed here on September 24th, 1615, having left England on March 6th, and was received in an open tent with distinguished honour by the chief officials of the city.

Surat has been from remote antiquity celebrated for the number of its inhabitants, commercial wealth, and the concourse of foreigners who thronged its streets and took refuge in its harbour from the Indian Ocean. The largest fleets of the East India Company were despatched to Surat, as the Directors could find no place so well suited for the attainment of their object. The inscriptions in the English cemetery there show that the principal person in the factory was styled "Chief for the Honourable Company of English Merchants Trading in the East." At that time perhaps no city in the world contained a more heterogeneous assemblage of people, as the inhabitants had opened communications with the coasts of Africa, Arabia, and the Persian Gulf. The bazaars teemed with riches, and no better market could be found in India for the sale and purchase of all manner of manufactures, merchandise, and produce. Tea was imported to Surat from China at this period, although not exported to England till many years after.

In the accounts of the Company's Secretary for September 30th, 1664, there is a charge of £4 5s. "for 2lbs. 2 ounces of tea for His Majesty." In 1690 upwards of 41,000 lbs. of tea were exported from Surat to England, after which the Company opened their trade direct with China. This shows what an important place Surat was when Bombay was in the hands of the Portuguese, and merely a swampy island.

According to the census of 1891 the population of Surat was 108,631, and the death-rate exceeded 30 per 1,000, The water supply is scanty and unsatisfactory, but a new scheme has been under discussion for several years. Rain water from the roofs is stored in masonry cisterns beneath the floors of the houses, but this system is liable to contamination from pit privies and leakage from drains. The well water generally is brackish, and the river is polluted by villages above the city, besides being affected by the tides, so much as to render the water undrinkable. The river water is, however, during the still tide useful for washing and watering the streets, but this latter practice during the cool season is often carried to excess, causing discomfort to pedestrians and rendering the narrow lanes chilly and unhealthy.

The worst feature from a sanitary point of view, however, is the system of cesspools in front of the houses. They generally overflow into the streets, or their contents are emptied by hand periodically and sprinkled about the roads.

The "Maharaj" residence, an enclosure, used to be in a disgraceful state, and no doubt is still in the same overcrowded and insanitary condition, with its step well and stream of sewage pouring into the street.

There is a bench of magistrates in this city, but none of them have the courage to issue the necessary order, or to inflict a fine on a sacred personage like the Maharaj for a breach of municipal rules or abatement of a nuisance on his premises. The method in which honorary magistrates in Indian towns deal with nuisances is not as a rule calculated to deter the people from committing such offences, and so educating them to civilised and cleanly habits.

## BOMBAY.

### Quarantine Absurdities.

The elaborate and altogether unnecessary precautions against contagion from homeward-bound passengers from Bombay taken by the French and Italian authorities in Egypt and at Brindisi are, we read, inclined to err on the side of the ridiculous. At Port Said and Brindisi the passengers receive their letters in tin cans, and, should the shore authorities be compelled to read any written communication from the ship, they wash their hands in disinfectants immediately after perusing the documents. At ports where launches come alongside the homeward-bound ship the passengers on the latter mark their disapprobation of the quarantine regulations by hurling on board rolls of paper and other missiles, none of which the panic-stricken harbour authorities dare to handle, but immediately kick overboard, to the loudly-expressed merriment of their tormentors.

### Medical Volunteers.

The organisation of the sanitary and medical equipment in the Bombay Presidency may now be said to be completed. The Sanitary Committee have now entire charge of all appertaining to the treatment of plague, and their powers seem to be ample. Of the four medical officers sent out Dr. Lowson is retained in Bombay as adviser to the Governor, Surgeon-Major Reade is on service in the city, Surgeon-Captain Beveridge is in Poona, and Surgeon-Captain Borrowdaile is at work in Karachi. In addition to these, medical officer have been asked to volunteer for service in the famine-stricken districts, and where plague is prevalent. The Army Medical Staff have been appealed to, and the sum of 300 rupees a month added to their ordinary pay during the period of their special service.

### The Prophylactic and Curative Serums.

Haffkine's prophylactic serum is being extensively inoculated, and both Europeans and natives are accepting the treatment readily. Yersin has arrived in Bombay, and ample opportunity is afforded him of practising his methods; so far, favourable accounts of its curative powers are to hand. General and genuine sorrow is expressed throughout India when it was known that Professor Hankin, who has done

such excellent work in connection with the plague, was himself attacked. It appears that, not feeling well, he had gone to Agra to recruit; but there symptoms of plague set in, and he was inoculated with Haffkine's serum as soon as possible. We are glad to know that he is proceeding satisfactorily, and his recovery is regarded as certain.

STATISTICS.

The following is the total number of cases and deaths arising from plague during the week ending March 4th, 1897:

| | Feb. 26. | Feb. 27. | Feb. 28. | Mar. 1. | Mar. 2. | Mar. 3. | Mar. 4. | Total. |
|---|---|---|---|---|---|---|---|---|
| Cases ... | 114 | 108 | 106 | 77 | 116 | 102 | 81 | 704 |
| Deaths ... | 134 | 99 | 100 | 88 | 91 | 90 | 85 | 687 |

The latest telegraphic accounts we have for the week ending March 19th state the deaths from plague in Bombay city to be 488, giving an average of 69.71 per day, in place of 687, or a daily average of 98.14 per day. In the district of Mandvie, where plague first appeared, and where it had, for well nigh a month, disappeared, a few cases have again occurred. It would seem, however, that almost all, if not all, the cases have occurred in people who have come into Mandvie from other districts.

SEGREGATION.

Segregation is being carried out in a manner which will no doubt do good. Previously the practice was left in abeyance, out of respect to native prejudice; but now that the strong hand is being shown, there is but little real opposition. Here and there a crowd will become excited, and attempt to rescue a patient being taken by ambulance to the epidemic hospital, but that is the most of it. The Mohammedans send in petitions that they should be specially excepted, but when told such is impossible, they submit to the inevitable. Caste will receive a shock, no doubt, by these restrictions and regulations, but whilst it is right to allow religious instincts free play, so long as they are sanitarily harmless, it is a very different matter when valuable lives are being sacrificed, trade ruined, and the whole world keep in dread of an epidemic, all to gratify the supposed wishes of the Hindu gods. Sanitary affairs are in future to be ordered by men qualified in sanitation and possessing a diploma stamping their acquaintance with the science and art thereof, and are not to be dealt with by any member of the community, be he European or Asiatic, whose daily employment is to engage in trade or commerce.

NORTHWARD SPREAD OF THE EPIDEMIC.

The general drift of the spread of plague is northwards up the Indus valley, and Sukkur, a town some 500 miles up the river from Karachi is pronounced infected. The returns from Karachi read as follows:

| | Feb. 23. | Feb. 24. | Feb. 25. | Feb. 26. | Feb. 27. | Feb. 28. | Mar. 1. | Total for 7 Days. |
|---|---|---|---|---|---|---|---|---|
| Cases ... | 32 | 50 | 33 | 38 | 35 | 27 | 30 | 245 |
| Deaths ... | 29 | 45 | 22 | 36 | 28 | 29 | 31 | 220 |

Medical inspection on the railways is being strictly enforced; but all sorts of plans to evade the law are practised. At Sukkur the experiment of seven days' quarantine against arrivals from Karachi has failed, as people have rebooked at stations further north.

QUARANTINE AT CALCUTTA.

The Calcutta authorities have quarantined all vessels arriving from Goa. Goa is a Portuguese settlement some distance south of Bombay; plague is not known to exist there, but it is a common practice for intending emigrants to run down by train from Bombay to Goa, and there embark for other ports in India.

THE FUTURE.

Dr. Weir, Health Officer of Bombay, writing to a friend in Calcutta on the subject of the probable duration of the plague, says, "My belief is that the outbreak is over. The disease is being stamped out, although local recrudescences may be apprehended. I am convinced that the spread of the disease is not influenced by human communication, and that all the measures for the examination of passengers, however right in themselves, are futile."

## HEALTH OF THE TROOPS IN INDIA.

THE report of the Departmental Committee appointed to consider the prevalence of disease among the British troops in India was issued on March 20th. The Committee consisted of the Earl of Onslow (Chairman), Sir James Peile, Surgeon-Major-General W. Taylor, M.D., and Surgeon-Colonel J. Richardson, Mr. F. W. Newmarch acting as Secretary.

THE EFFECT OF IMPROVED SANITATION ON THE GENERAL SICKNESS-RATE.

According to the report, the general health of the troops in India has been improving ever since the Mutiny, and the improvement would assuredly have been greater in recent years but for the growing influence of venereal disease in predisposing to, and aggravating so many other complaints. Improved sanitation has had the very greatest effect upon every disease other than this; this alone has not only been unchecked in recent years, but has increased to an extent which is appalling and disastrous. In 1895 an average of 45 men per 1,000, or 3,200 in a force of 71,031 British soldiers in India, were constantly in hospital over this disease. Many cases have in the last few years been treated without admission to hospital, and do not, therefore, figure in the returns.

FAILURE OF SYPHILITIC MEN ON FIELD SERVICE.

A large number of men who are nominally cured are only fit for service under peace conditions, and would break down on field service. Among 5,822 men detailed for field service with the Chitral Relief Force, 462 or nearly 8 per cent. had to be rejected for this disease; 279 more, or an additional 4½ per cent., had to be transferred from the field hospitals to the base for the same cause. In the great majority of these cases the disease had been contracted before the men crossed the frontier. On a basis of 8 per cent. rejected before starting on field service, and 4½ per cent. more subsequently invalided for disease contracted before crossing the frontier, 8,880 men out of a total force of 71,031, would have to be put down as useless from this one cause for field operations.

COMPARATIVE STATISTICS.

After referring to the passing of the resolution in the House of Commons in 1888, demanding the abolition of the lock hospital system and the increase in disease which has followed, the report compares the figures furnished by our own returns with those relating to foreign armies, where preventive regulations are in force. The ratio of admission per 1,000 strength for all forms of this disease, taking the mean of three years, is as follows: Germany, 27.3; Russia, 43.0: France, 43.8; Great Britain—Home, 203.7; India, 438.0. In conclusion, the Committee observes that in 1895 disease attacked the British troops in India to an unprecedented extent. The military efficiency of the army was most seriously impaired, and the increasing prevalence and intensity of contagious and inheritable disease among a body of 71,000 men, of whom many thousands are annually coming home to mingle with the civil population, was a growing danger to the health of the community. This deplorable state of things does not appear to be attributable to increased immorality in the army. Drunkenness and crime have greatly diminished. The attention of successive Commanders-in-Chief in India, and of none more than Lord Roberts, has been given to the provision and improvement of recreation rooms, libraries, regimental workshops, etc., to the encouragement of cleanliness, and, so far as the climate admits, of active exercise and sports. Much also has been done by societies, such as the Army Temperance Association (which is aided by a Government grant of Rs.8,000 per annum) and the Army Health Association, towards encouraging self-control among the soldiers. In a despatch dated November 4th, 1896, the Government of India state that they have been careful to adopt such means as lie in

their power to protect the British soldier from temptation likely to lead to the contraction of disease; but they express their strong conviction that without some fresh powers no instructions or regulations can have any material effect in mitigating this scourge. The short-service system does not appear to be responsible for any increased tendency to indulgence during the last few years. The hard fact remains that among a body of men, mostly very young and nearly all obliged by the conditions of the service to remain unmarried, removed from home ties and restraints into a country where climate and environments induce to indulgence, comparatively few escape, with the disastrous consequences under present conditions which have been described.

### Remedial Measures.

The Army Sanitary Commission, in a separate report to the War Office, state that the results of experience in India since 1885, when a number of lock hospitals were closed, and in subsequent years, when all restrictive measures were gradually removed, show that a progressive increase of disease has taken place among the British troops serving in India, and there is, unfortunately, no assurance that this increase has reached its limits. Admitting that the measures adopted with the object of protecting our soldiers only partly attained their purpose, and that the reintroduction of those measures, as they were previously applied, would prove an inadequate remedy, they ask "What can be suggested to take their place?" They say there is abundant evidence to show that in France, Germany, and Russia, where restrictions prevail, in marked contrast with the figures relative to the British army in India, the prevalence of disease in the armies of those countries has been reduced to admission ratios as low as 26.7 to 43.8 per 1,000 of strength. As to the mode in which restriction could be applied in India, the local military medical and civil authorities should best be able to offer suggestions and give advice. The Commission think that an inquiry into the causes which led to the large increase shown by the returns for the year 1895 to have taken place in the number of admissions into hospital at some stations, and to their decrease at others, might be useful. When, for example, they find that the ratio of admissions into hospital from disease in a garrison of 2,623 men at Lucknow decreased from 586.7 in 1894 to 489.0 in 1895, and that in the same years in the neighbouring stations of Cawnpore, with a garrison of 902 men living under apparently the same conditions, this ratio increased from 689.6 to 967.6, it seems to suggest either that some influence adequate to account for so great a contrast was brought to bear upon the troops themselves, or that the contrast was due to differences affecting the native population in and around the two cantonments. In any case, the Commission observes, such an inquiry as that suggested could not be useless.

The Commission restates the opinion it expressed on January 25th, 1894: "But we entirely concur in the suggestion contained in the military despatch from the Government of India that the authorities should have power, as in the case of other infectious diseases, to expel from cantonments women 'when they are known to be diseased, and refuse to submit to treatment in hospital.' We would also strongly advocate that the power of commanding officers should be as much enlarged as practicable in the direction of diminishing the temptations to young soldiers, by preventing women, for example, from coming about the lines after dusk, and also in putting places out of bounds where soldiers are believed to have contracted disease."

The Commission concludes: "We consider that the same but stronger reasons exist for applying similar methods of treatment in the case of this contagious disease to those that are adopted in other contagious diseases with the view of preventing or limiting their spread. The measures that are necessary to prevent women in a diseased condition from spreading contagion apply also to soldiers under the same circumstances. Officers commanding stations, regiments, or corps, on the recommendation of medical officers, should, in the opinion of the Army Sanitary Commission, be vested with discretionary powers to order the medical inspection of soldiers for the detection of venereal disease whenever deemed advisable, or where the disease is believed to be concealed or unusually prevalent. The Commission recommend that a soldier who has suffered from venereal disease should be subjected to inspection for a year after the date of his having contracted it."

## VACCINATION IN INDIA.

[From a Correspondent.]

In any scheme of Indian sanitary legislation that may be brought forward in the near future for the purpose of improving the sanitary defences of our Empire, the defective state of the vaccination laws should be made the subject of inquiry, and amended wherever it is found necessary.

### Vaccination in the Bombay Presidency.

In the Western Presidency vaccination is compulsory in the cities of Bombay and Karachi only, but the results there have proved so satisfactory that it is matter of amazement and regret that other municipal towns have not long ago followed the worthy example set by these two corporations. It is no exaggeration to say that vaccination work in Bombay city and Karachi for the last decade would on close examination be found of better quality than the results of operations anywhere in England. It is feared that the plague panic will demoralise the establishments, and seriously interfere with the work, although the able and experienced superintendents, Assistant Surgeon S. V. Kantak and Mr. Sant Sing, have proved themselves equal to overcoming the difficulties of almost any emergency, such, for instance, as those of cholera and small-pox epidemics. Animal lymph has been exclusively used in Bombay for many years, and in Karachi also, with occasional breaks when the supply of calves failed, and the arm-to-arm system had to be relied on for keeping up the supply of lymph, and continuing the work with equal success and popularity. In the districts humanised lymph has been most successfully used for many years, but animal lymph has lately been introduced in a few small municipal towns and the more populous centres. Strange to say, the chief difficulties and opposition to the carrying out of vaccination are experienced in towns where the Vakil and Brahmin elements are strongest, the party that correspond to the antivaccinationists at home, who are equally obstinate and deaf as well as blind to reason and facts.

In the districts the vaccinators peregrinate from village to village taking a vaccinifer child with them when it is necessary to establish lymph in a distant village or hamlet. The child's mother receives a small allowance, which should be increased to make it equivalent to a day's pay for a labourer. On the whole, vaccination is favourably received by the rural population; the trouble is with the urban inhabitants, who are misled by agitators and adventurers. There is no gainsaying the truth that vaccination has been an inestimable blessing to India, and deserves the most careful attention of Government to prevent its falling into discredit, especially in these days of serum treatment. Here we have, after nearly a century's use, a serum prophylactic for the most loathsome of diseases, and it behoves us to maintain it in its original activity and purity. This can only be done by specialists who have devoted much of their time to the subject, and can distinguish a spurious from a true protecting vaccine vesicle. The danger, where vaccination is carried out on such a large scale as in India is that bad work is apt to creep in amongst good work, unless the most stringent care is exercised.

### Vaccination in Native States.

In India, with its teeming population, there should be both unity and uniformity in the practice of vaccination. There is only one standard of the means of protection from small-pox, and there can be no guarantee that this standard is maintained unless it is tested by experts. The Government of India have allowed native States to carry on vaccination in their own way without official control and supervision. Superintendents of vaccination in India, past and present, know the difficulty of getting vaccinators to do good work under their own eyes. The quality of vaccination in native States without Government supervision may therefore be easily understood by experienced officers. Without comparison of results recorded in the registers with cicatrices on children's arms and a careful examination of lymph and

fresh work, returns are a delusion and a snare, and figures utterly untrustworthy.

Bad work does infinite harm to the cause of vaccination by giving a sense of false security and accumulating material, in respect of unprotected individuals, for an outbreak of small-pox, which in such circumstances is as dangerous and deadly as the plague. On this point the Government have been forewarned by their own responsible servants, whose experience and opinions have been ignored and their reports pigeonholed in secretariats by young civilians afraid of hurting the feelings of native chiefs by telling the truth.

This is an example of our present policy in India, which can hardly make for good. If the importance of the subject were put in its true light by the Government to native chiefs, they would welcome inspection and reports of vaccination in their territories, from His Highness the Gaekwar downwards. In the event of European medical officers not being available for such duties, Government should employ specially qualified native medical officers—like the present Superintendent of Vaccination in Bombay city, for instance—who should be held responsible for all the subjects of native States being as well protected from small-pox as British subjects are at present throughout India. A lower standard than this should not be tolerated by the State, as unfortunately is the case under the present arrangements.

## THE SICK AND WOUNDED FROM BENIN.

THE sick and wounded from the Benin Expedition have for the most part been admitted to the Naval Hospital at Haslar. Numerous cases of African fever have been under treatment on board ship, and twenty-one were admitted into Haslar. Other cases, to the number, we understand, of over seventy, have been taken to the Cape of Good Hope Hospital by the flagship *St. George*. The fever appears to have been contracted on shore at the towns of Egigi, Warigi, and Benin city. In some instances the symptoms did not declare themselves till after return to the ships. One of the most serious cases of fever is that of a staff engineer, but there is also one case complicated by a non-penetrating gunshot wound of the chest. Among the wounded the most serious cases are a case of gunshot wound of the right heel, a case of fracture of the left thigh, and a case of gunshot wound of the hand which has necessitated amputation of the finger; there is also a case of gunshot wound of the pelvis which is of a serious character. Captain Byrne died from heart exhaustion shortly after his admission to St. Thomas's Home, whither he had been removed at his own express wish and with the concurrence of his relatives. He came to London in the hospital ship *Malacca* and was removed in an ambulance to the Home. The cause of the failure of the heart was exhaustion due to prolonged African fever. Captain Byrne was shot in the spine. When admitted at St. Thomas's Home the wound, we are informed, was entirely healed. A skiagraph was taken showing the bullet lying to the right of the spinal column, and a consultation was held, but before any operative procedure could be undertaken death occurred suddenly from exhaustion.

EDINBURGH MEASLES EPIDEMIC.—The cases of measles reported for the week ending March 20th number 604, as against 401 in the week ending March 13th, 397 in the week ending March 6th, and 297 in the week ending February 27th.

The late Rev. Francis Jacox, of St. John's Wood, has by his will bequeathed £1,000 to Charing Cross Hospital to endow a bed to be called the "Francis Jacox bed"; £1,050 to the Middlesex Hospital to found a bed on the like terms; and £3,000 to St. Mary's Hospital, Paddington, for three beds on the same conditions.

A MEETING to draw up rules and to settle other details in connection with the new X Ray Society will be held on Friday, April 2nd, at 5 P.M., at the rooms of the Medical Defence Union, 20, King William Street, Strand. Any persons interested in the subject, who may wish to be present, are requested to communicate with the Honorary Secretary, *pro tem.*, Dr. Walsh, 5, Pump Court, Temple, E.C.

# BRITISH MEDICAL JOURNAL REPORTS.

## REPORTS ON THE HYGIENIC CONDITION AND ADMINISTRATION OF METROPOLITAN DISTRICT AND SEPARATE SCHOOLS.

BASED ON THE EVIDENCE LAID BEFORE THE DEPARTMENTAL COMMITTEE.[1]

*(By Our Own Commissioner.)*

### VII.—HANWELL.

IN a previous article we commented on the opinion of Dr. Litteljohn and another witness as to the value of much of the educational advantages given to the children in Hanwell and other Poor-law schools under the Local Government Board inspector.

#### HANDICAPPING THE INSPECTOR.

Side by side with these opinions we must in fairness record those of Mr. Holgate, the Education Inspector of the Local Government Board. It is his duty to inspect 16,544 children. In the year 1893, 1,330 of these were prevented from coming to the examination by disabling illness (15702) a number which, if translated into School Board figures, would result in the absence on examination day of 8 per cent., or 48,000 in all, of the ordinary children who are attending ordinary elementary schools in London. This is in itself a method of handicapping the inspector, but his powers are also deliberately curtailed.

The school plans are not only "not submitted to the educational inspector of the Local Government Board, but more they are refused," (15432) and "the school inspector has no powers with regard to the plans" (15435). Suppose, he says in evidence, that I find a school overcrowded (15436) "my utmost power is to make a special report to the Local Government Board. I have no means of doing it on this, which is my sole formal report; and I may not make any remark to that effect in my report in the visitors' book to the managers;" and (15726) "What you would have liked would have been the power to have given more detailed reports direct to the Board of Management?" asked one of the Committee. "I should," was the answer; and years ago (15727) it was represented to the Local Government Board that he wanted that power, "but it was not given me" (15728).

What an anomaly, to employ a gentleman as an inspector, and to refuse to him the power of writing a report to the managers of the school which he inspects, calling their attention to such matters as the method of lighting a schoolroom, the size of a class, or the necessity for new spelling books! Attention to such details is what constitutes the difference between a well-managed and an ill-conducted school; but the Local Government Board—overworked and overweighted as it is by matters of vast importance to the public health and wellbeing—can hardly be expected to concern itself on such details. Why not, then, have given the inspector the right to report direct to the Managing Board? It is impossible to reply to such conundrums of conduct, except to suggest that some enemy of the department has instigated it to suicidal policy.

#### SCHOOLS TO BE CONTROLLED BY THE EDUCATION DEPARTMENT.

Failure is the only word for the results attained by the Local Government Board on educational as well as on other matters connected with these schools. "At present," stated one witness, "the standard is notoriously lower than the standard which you find in the public elementary schools; that is admitted by the Local Government Board itself I believe" (3383). "If the schools were placed again under the Education Department, the inspectors of the Education Department would require that a large number of these reforms should be carried out" (3381). "These questions which are now open questions would then be closed questions, and one would not have to plead at a meeting of managers that new desks should be provided, that the children should have better

[1] The previous articles appeared in the BRITISH MEDICAL JOURNAL of January 2nd, p. 39, 9th, p. 50, 16th, p. 163; 23rd, p. 214; February 6th, p. 340; and March 13th, p. 367.

books, that the schoolrooms should be adequately fitted up, or that there should be good class-rooms at all" (3382).

On this matter the Committee conclude that "one of the most effective means of improving the existing institutions as places of education would be the complete incorporation of the education of the Poor-law children into the general system of elementary instruction as administered by the Education Department. At present the institutions are visited and reported on by a special class of educational officers who see no other than Poor-law establishments, who compare them with one another, and who are necessarily unfamiliar with the state of other elementary schools, and with the changes which are taking place in the system of public instruction outside." It would probably conduce to the simplification and economy of the public service, as well as to the freshening and efficiency of the schools, if they were examined annually by the inspectors of the Education Department, and subjected to the ordinary tests. It is evident that the effect would be to improve the status of the masters and mistresses engaged in the schools, to make interchange of employment easy between all classes of public elementary teachers, and to remedy the grievance of those who complain that they are regarded as forming a class apart, out of sympathy with other members of the same profession.

### Character Run into a Mould.

Disciplined by rules, organised by repression, "undoubtedly," it is stated, "the general tendency of living in the school is, as it were, to run all the children into a mould" (490). "All those who come with any certain characteristic lose it, and become one of a type," was given as the opinion of a medical witness: and he added, what we have so frequently affirmed, that the fault lay in the system, and not in the administration. "You cannot individualise children in a big school like ours" (430).

### Children who cannot Play.

Educated as the children are in dull surroundings, it is not a matter of surprise that they cannot play. We have it on the authority of one of the annual reports issued by the Local Government Board that (15784) "the children got through the small modicum of playtime in a most miserable fashion, which the officers set over them did not interest themselves to dispel," and the children at Hanwell hardly seem to form an exception to this statement. Of them a witness states (495): "They are not very ready to learn a new game" (494). "Unless you go and play with them, as a rule they will not play" (495). Dancing, however, seems to remove this general apathy. Once set going they can dance (15785): "You will see excellent dancing in the infants, and very fair even in the elder girls," said the inspector, referring to Hanwell, but generally the children are dull.

This is partly due to the fact that, as a rule, they have no playthings, and that they are also deprived of their natural playmates, the baby brother or sister, and the animals which children so love to pet. In Hanwell the girls and boys are entirely separated from the infants, who play tamely because deprived of the example and courage of the elder, bigger, and consequently braver child. The girls hang about the yard, their arms round each other's shoulders, their heads together whispering or giggling, uninterested in the drear flags or bare buildings. Efforts have been made to provide some of them with lockers in which to keep such personal possessions as they may be the owners of, but the effort can be little more than an effort, for when numbers are congregated together it is impossible to individualise each child.

### The Cultivation of Depraved Habits.

In the family the baby, or the cat and its kittens, are the daily playthings. They never lose their interest, and blend, as the best playthings do, with duties until each is indistinguishable; but the baby sister is in the next yard behind the high wall. The little brother has probably not been seen for many weeks, as he is "bad" in the infirmary, and there is nothing left for the girls over 8 to do but to talk to one another. What such talk often results in may be gathered from Dr. Barnardo's evidence (9243, 9246, 9247, and 9250).

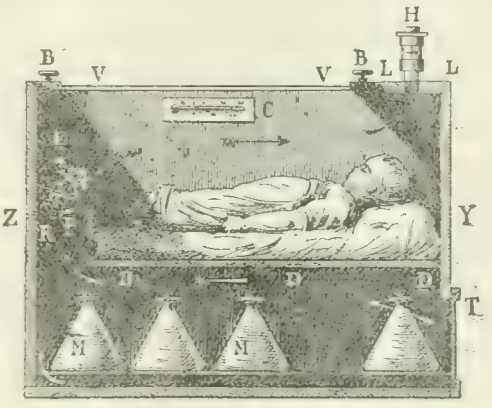
"I have dealt altogether with about 250 children, taken from unions all over the country.....I have also had a good many girls from district schools.....a good many of that 250. I think I may say I have had very few girls come from Poor-law institutions who have not, apparently, been more or less contaminated. When these children were sent down to our village home, or to our other homes, the fact crept out in a few days in their own communications with other girls in the cottage.....They have already got into depraved habits, and, of course, depraved talk also, and the girls always much worse than the boys. I have had no such degree of depravity with boys as compared with girls.....In the main, the originating cause is, I think, very much owing to the unnatural and artificial life they lead. I believe the daily monotony of even the best barrack institution affords no channel for the nervous energy of the inmates to run safely in. The normal excitement of ordinary life—excitement which comes to all children in the natural family—are the most healthy stimuli in the formation of character. The dull monotony of institutional life, and its weary routine which reduces everything to the dead level of colourless experience, has much to answer for in the evil habits contracted by these girls.

"I do not know why it is, but when a number of females are massed together, girls or women, they seem to react on each other in a degrading way. One cannot tell why the standard gets lower. Now, when you mass boys together this does not necessarily follow."

## HUMAN INCUBATORS.

The use of incubating apparatus for the treatment of infants born prematurely, or who may have sunk into a marasmic condition, though not very commonly resorted to in this country, has now passed beyond the experimental stage. Dr. M. Cursham Corner informs us that he has had such an incubator in use at the East End Mothers' Lying-in Home for the last five years, and we are indebted to him for some details as to its use. He employs a temperature of 80 to 90° F. (26.7° to 32.2° C.), according to the nature of the case, and keeps the children in it for from a few days to two or three weeks. The results are most satisfactory, but he finds that premature children weighing only 2 to 3 lbs. are not saved by its use. He attributes its good effects largely to the fact that it saves its occupants from being overburdened by the weight of clothing which would otherwise be required for the purpose of retaining their body heat.

We are indebted to the courtesy of the editor of *Nature* for the opportunity of reproducing the accompanying sectional drawing of the form of incubator now employed by Dr.




Tarnier, in Paris. The original apparatus was first used as long ago as 1880, and differed but little in principle from that here figured, although the latter has the advantage of being both simpler in construction and lighter in character. It consists of a box measuring externally 65 × 30 × 50 centimetres, and having walls 25 millimetres in thickness. The cover is divided into two sections, one being a wooden fixture L, about 13 cm. wide, and having a circular opening 4 cm. in diameter at its middle part, to which may be attached a

small helix H, the rotation of which indicates the existence of a draught of air through the case. The other section is a glass shutter, V, which also serves as a door. The interior of the case is divided into a lower and upper compartment by means of a shelf, D, extending almost across. The circulation of the air is as follows: air from the outside penetrates into the lower compartment through an opening, T, in the side; it there acquires a suitable temperature from the heaters, M, and rises into the upper compartment, moisture being obtained by its passage through a wet sponge, E. These heaters are capable of holding three-quarters of a pint of water, and five of them can be used at a time in the apparatus. Four, however, are found sufficient to maintain the required temperature of 31° to 32° C., provided that of the room is not less than 16°.

The average time during which the infant is kept in the incubator is seven to fourteen days, but in certain cases the period has been extended to as much as five weeks. It may be taken out every two hours to be fed, but it must only be exposed to the air as short time as possible, and care must be taken that the room is of a suitable temperature. The decrease of mortality is most noticable. The usual percentage of deaths of infants under 2,000 grammes (about 70 ounces) is 66, but by the use of the incubator this high figure is reduced to 36 per cent. Of those children born prematurely, few only survive; whereas it is now possible to save about 45 per cent.

Messrs. Hearson and Sons, incubator manufacturers, have also patented a "Thermostatic Nurse," the temperature of which is maintained by a water tank heated by gas or oil to a temperature which is automatically regulated by a most ingenious device.

## THE COLONY FOR EPILEPTICS.

AN appeal has been issued by the Duke of Devonshire, Lord Herschell, Sir W. H. Broadbent, Sir James Crichton-Browne, and Mr. C. S. Loch, Secretary of the Charity Organisation Society, on behalf of the Colony for Epileptics recently established at Chalfont St. Peters by the National Society for Employment of Epileptics.

They point out that of the many provisions for the afflicted which have so distinguished this country during Her Majesty's reign, one form of infirmity is still almost overlooked, and in England there are probably no fewer than 40,000 epileptics who lack the care which is bestowed upon their fellow-sufferers amongst other nations. Both in Europe and America many institutions or settlements have been established on the lines of the famous "Colony of Mercy" at Bielefeld, in Westphalia, which affords a home for nearly 1,400 epileptics.

Under ordinary circumstances epileptics of the poorer classes live under conditions so unsuitable that in many instances they sink into a state of insanity, and at last find refuge in the asylums. The object of the colony is to save them from this fate by taking them in hand at an earlier stage, and enabling them to lead lives of usefulness and activity. The care of the insane is a heavy burden on the country, and the preventive methods of the colony will, we believe, be found in the long run to be economical as well as humane.

Amongst the numerous candidates waiting for admission to the colony, about one in ten drops out of the list every year through insanity or death; whilst at the colony itself, since its establishment nearly three years ago, only one death has occurred, and only one patient has had to be transferred to an asylum. The average number of epileptics in residence at the colony has been twenty-seven.

Besides the the two homes at present in occupation at the colony, two others, the funds for which have been specially given, are in course of erection; and additional funds have been offered by generous friends, and notably by Mr. Passmore Edwards, for the erection of several other homes, which will be commenced shortly. Within a year there will, therefore, it is hoped, be accommodation at the colony for about 160 epileptics, men, women, and children. Even then the provision will be small in comparison with the need. But while the funds for building the new homes are provided, these great extensions will involve considerable incidental outlay, for which as yet little provision has been made. A laundry will be needed for the female colonists, and school accommodation for the children. The sewerage system will need extension, and the Committee are of opinion that for the security of the colony when its numbers increase there must be a resident medical officer, for whom a house would have to be provided.

It is estimated that on the most economical basis the outlay for absolutely necessary purposes will be £10,000, whilst for the extension of the colony on a scale really proportionate to the demand for admission, a far larger sum would be needed.

Epileptics are received at the colony impartially from all parts of the kingdom, and appeal is therefore made for help to the charitable public throughout the country, and the hope is expressed that during this memorable year the effort begun to help a suffering and hitherto almost neglected class of our afflicted brethren, may be placed upon a footing sound, hopeful, and commensurate with their great necessities.

Contributions, which will be duly acknowledged, should be sent to the Secretary, Mr. G. Penn Gaskell, at the Society's Offices, 12, Buckingham Street, Strand, London, W.C., or to the Bankers, Messrs. Hoare and Co., 37, Fleet Street, London, E.C.

## THE APOTHECARIES' HALL OF IRELAND AND THE GENERAL MEDICAL COUNCIL.

A COMMITTEE of the Privy Council, consisting of the Duke of Devonshire (Lord President), Lord Macnaghten, Lord James of Hereford, and Lord Rathmore, sat on March 22nd for the purpose of hearing the application on the part of the Apothecaries' Hall of Ireland as to the appointment of examiners to assist at the qualifying examinations held by that body.

The Apothecaries' Hall was represented by Mr. Haldane, Q.C., M.P., and Mr. B. Stephen Foster; and the General Medical Council by Sir Robert Reid, Q.C., M.P., and Mr. Muir Mackenzie.

Mr. HALDANE stated that the case was before their lordships in May last,[1] when they adjourned the matter so as to give an opportunity to the Apothecaries' Hall again to consult the General Medical Council so as to come to some arrangement for the appointment of assistant examiners conjointly with the Dublin College of Surgeons. They had not been able to come to an agreement, and again the Apothecaries' Hall appealed to the Privy Council against the refusal of the General Medical Council to appoint assistant examiners. The Apothecaries' Hall was one of the bodies scheduled under the Medical Act of 1858, and recognised by Parliament as a licensing body. In 1886 there was a second Medical Act passed, which provided that the General Medical Council should supervise examinations in medicine, surgery, and midwifery; and the Act further provided that the examinations were to be scrutinised in order that the qualifications imposed should be up to the mark of the General Medical Council, and, if not, then the General Medical Council could appoint assistant examiners. From 1891 the General Medical Council commenced a series of visitations of the examinations of the Joint Board of the College of Surgeons and the Apothecaries' Hall, with the result that the examinations were insufficient. The General Medical Council then made a recommendation that the College of Surgeons should leave the combination with the Apothecaries' Hall, and practically the Hall were put in the position that they could not get any of their people on the *Medical Register*. The Apothecaries' Hall now desired the Privy Council to intimate an opinion that the General Medical Council should appoint assistant examiners and control the examinations.

Lord MACNAGHTEN: What advantages does a student get out of the Apothecaries' Hall?

Mr. HALDANE: He pays lower fees than he would under the College of Surgeons or the College of Physicians.

Lord MACNAGHTEN: What do you ask us to do?

Mr. HALDANE: If you intimate to the General Medical Council that it is proper that assistant examiners should be appointed by them, then the whole matter will be placed in their hands, and we shall be satisfied.

Lord MACNAGHTEN: Supposing the General Medical Council decline?

Mr. HALDANE: Then the statute provides that your lordships shall exercise your powers. It comes to this—although technically the only question here is whether these examiners should be appointed, substantially the question is whether the Apothecaries' Hall is to cease to exist if this application is refused.

The DUKE OF DEVONSHIRE: If the Apothecaries' Hall is done away with, what will happen?

Mr. HALDANE: There will be no class of general practitioners in Ireland when the present apothecaries die out.

Lord MACNAGHTEN: There are plenty of practitioners in Ireland, and not many of them have the licence of the Apothecaries' Hall.

Mr. HALDANE: There are 550 who hold the Apothecaries' Hall qualification in Ireland along with some other qualification.

The DUKE OF DEVONSHIRE: If the application is refused there will still be two qualifying bodies left, namely, the College of Surgeons and the College of Physicians.

Mr. HALDANE: That is so.

Lord MACNAGHTEN: Don't they give extramural degrees?

Mr. HALDANE: Yes; they are like degrees of medicine given by the University of London, which are of a very high standard indeed, such as to make students despair.

[1] BRITISH MEDICAL JOURNAL, May 16th, 1896.

Lord Macnaghten: Ought there to be an easy way of getting into the medical profession then?

Mr. Haldane: I do not say an easy way, but an efficient way. This is really an application to take away the existence of the Apothecaries' Hall by a side wind.

Lord Macnaghten: How many students resort to the Apothecaries' Hall?

Mr. Haldane: It has qualified 250 students in the last ten years, and it has 550 gentlemen practising in Ireland who hold its diploma.

The Duke of Devonshire: What is the Corporation of Apothecaries?

Mr. Haldane: They are general practitioners called apothecaries, and if they are done away with poor people will be unable to get medical assistance at a cheap rate. I hope your lordships will consider our case favourably. We are quite willing that the General Medical Council shall control the examinations and appoint the examiners so that there need be no fear of the standard of examinations being lowered.

Sir Robert Reid, on behalf of the General Medical Council, then addressed their lordships. He said the Apothecaries' Hall had failed to perform its duty under the Act to examine the students, and they were not a fit body to entrust with the examinations in the future.

Lord James: If these assistant examiners were appointed by the General Medical Council all the past evils will be removed because they would have full control.

Sir Robert Reid: But we do not think that the whole responsibility and control should be put on our shoulders when the Apothecaries' Hall are incompetent to carry on their duties.

Lord Macnaghten: Why don't you accept the offer of the Apothecaries' Hall to appoint such persons as you think fit?

Sir Robert Reid: It was not intended by the statute, and it cannot be conveniently done: and the General Medical Council do not want to be substituted for this inefficient and incompetent body. If the Apothecaries' Hall cannot get anyone to combine with them with regard to examinations in surgery it is not our function to relieve them of the responsibility by appointing surgery examiners.

Lord Macnaghten: I do not think the Apothecaries' Hall intended to give up the whole thing.

Sir Robert Reid: I understood that to be the substance of my learned friend's contention.

Lord Macnaghten: But under your inspection.

Sir Robert Reid: If we have not the control of these examinations, then it would not be reasonable to take it, especially after the General Medical Council have expressed themselves so dissatisfied. As to the injury that would be done by refusing those gentlemen what they ask, there are only between thirty and forty persons in the whole of Ireland who hold as their sole qualification the qualification of the Joint Board of the Apothecaries' Hall and the College of Surgeons.

Lord James: What has become of the Royal College of Surgeons; have they combined with anyone?

Sir Robert Reid: They have combined with the Physicians. At the last six examinations there were only 12 or 14 candidates, or an average of about 2 per examination, so that the Apothecaries are fast dying out. As to the apprehension of my learned friend that the refusal of the Privy Council to accede to the request of the Apothecaries' Hall would destroy the general practitioners, that is quite groundless. Anyone who has got the qualifications can practise.

Lord James: Does not the power to select your own examiners give you some assurance that the examinations would be conducted properly?

Sir Robert Reid: Yes, it would give us some assurance, but we want substantial control, and the conduct of Apothecaries' Hall in the past does not give us confidence.

Lord Macnaghten: You ought to follow the provisions of the Act which require you to appoint inspectors from time to time to attend the qualifying examinations.

Sir Robert Reid: We have done so with very unsatisfactory results. How long are we to go on doing it?

Lord Macnaghten: So long as it is necessary to secure the maintenance of a standard of efficiency.

Sir Robert Reid: But that is a very serious duty.

Lord Macnaghten: I do not see that it imposes any very great extra duty on you.

Sir Robert Reid: We might be satisfied to appoint examiners; but the question before the General Medical Council was whether it would be wise to do so, and they decided in the negative. The scheme of the Act is that there shall be a medical body undertaking this duty—that two of them shall combine, and the General Medical Council is to be a sort of Court of Appeal; and the essence of the Act is that there shall be one valid, living, efficient, corporation doing its duty, but the Apothecaries' Hall is just the contrary of all this.

In reply, Mr. Haldane, to meet the request of Lord James, said that they would send a statement of the number of students of the Apothecaries' Hall for the last eight years, and this would be verified by a Dublin accountant.

The Duke of Devonshire intimated that the decision of their lordships would be sent to the parties in due course.

## THE RELEASE OF LUNATICS FROM ASYLUMS.

[From a Correspondent.]

Currency has been given to a statement that "the managers of the London County Asylums are responsible for many undoubted lunatics being free from any control," and further that the "L.C.C. sanctions, through its officials, the release of lunatics who ought still to be in custody." If this is so it is a very serious indictment, and demands examination.

The Act provides that patients must be sent out on recovery, or may be released "on trial," or to their friends on an "undertaking" that they will be properly cared for, and not allowed to be chargeable again to the rates. The percentage of persons discharged "recovered," calculated on the admissions (see L.C.C. Report of the Asylums Committee, 1896, p. 109) is about the same now as usual, varying from 42 per cent. to 23 per cent. in the ten years 1885-95, and as a matter of fact in 1893 it declined to 22.18 per cent. Since the advent of management by the L.C.C. the numbers of those discharged "recovered" have not been much different (certainly not higher) than under the *régime* of the magistrates. As to the patients discharged "on trial," no summary is made, but little objection can be made to this form of discharge (a plan much advocated by the Lunacy Commissioners) because the patients remain under lunacy certificates, and are only really set free when it is seen that they have done well during the period of probation. With reference to the third form of discharge (on an "undertaking") inquiry shows that considerable trouble is taken by the various committees to ascertain the means of those who propose to remove their relatives, and also that a strict investigation is made into the habits and the nature of the disorder of the patient whom it is proposed to remove. The statistics of "readmissions" of those discharged "recovered" indicate that up to the year 1895 (the figures for 1896 are not yet published) the rate is about what it has been for many years.

Whether a person is "cured" or not is to a great extent a matter of opinion; and though it cannot be allowed that patients are discharged who are actually insane, yet it would be better in many cases to insist upon a more prolonged detention. The medical directors of asylums are, there is reason to believe, of the same opinion, but there are two circumstances which tend to make a prolonged detention very difficult. One is the hurry of the relatives to have the patients home where social duties suffer from their absence; the other is the clause of the Lunacy Act, which calls for the recertification of the patient in very definite terms—a thing not always very easy to express on paper.

There has been great pressure on the available space of the London County Asylums, and therefore every disposition to discharge patients as soon as possible in order to give accommodation, but there is not any proof that this pressure has unduly influenced the number of discharges; indeed, the figures quoted prove the contrary.

The public is a good deal swayed in its degree of nervousness by events of the day. At one moment there is a shriek that persons are wrongfully detained because someone succeeds in convincing a jury that he is perfectly sane; at another there is a rebound consequent on someone who has been discharged from an asylum committing a violent assault. Both states of panic are unreasonable, but there seems to be a peculiar fascination for the lay mind to discuss in a severely critical manner some of the most abstruse psychological questions.

The curious thing is that they are quite content to see the housebreaker or "dangerous character" going about again after a short detention in a prison where there is little hope that his vicious nature has been ameliorated, but the unfortunate lunatic who is discharged after a short residence in an asylum is viewed with dread, even though he has lost all the signs of his insane state. Whatever be the cause, there is no gainsaying the fact that there are numbers of people in a decidedly insane state in the general population who might, were it not for the hesitation that exists in the profession as to signing certificates, be confined in asylums. There is a greater probability of insane acts being done by these persons than by patients discharged from asylums as recovered; yet, though the writers of letters to papers have nothing to say about this class of persons from whom there is a real danger to the community, they are in terror of those whose capabilities of maintaining their relations with the external world have been at any rate tested and examined by experts.

Until the whole of the insane population of London have been gathered in under the central body—a process which will not for some years be completed—it is not possible to give quite reliable statistics; but, in the meantime, there is no reason for doubting that the same care which appears hitherto to have been exercised in the discharge of patients will be continued, and the medical directors of asylums may be

confidently relied upon to let no questions of expediency, or pressure from without of any sort, interfere with the conscientious discharge of a patient when he has recovered, no matter what the period during which he has been detained.

## THE ALLEGED INCREASE OF LUNACY.

The Special Report of the Commissioners in Lunacy to the Lord Chancellor on the alleged increase of insanity, which has been issued recently, is an excellent piece of work, and if statistics can give confidence to anyone these tables should be comforting. While it must be recognised that all such returns must be incomplete, the results before us give evidence of a painstaking search for the truth without prejudice. There is no denying that the numbers of the recognised insane have increased enormously of late years: thus we see that there were in 1859 36,762 persons in England and Wales who were recognised as insane; in 1896 the numbers had risen to 96,446, the ratio per 10,000 of population having risen from 8.67 to 31.38. These numbers are sufficiently alarming, and the general statements that the increase was only apparent and was due to accumulation did not satisfy the public, and it seems, in fact, that this is only a partial explanation. It is found that the increase has occurred almost entirely among the pauper classes; this is shown by the following figures:

In 1859 there were 31,401 pauper lunatics, or 15.95 per 10,000 of population
In 1896 ,, 87,417 ,, ,, 28.44 ,, ,,

whereas among the private patients the figures are:

1859, 4,670 private patients, or 2.38 per 10,000 of population
1896, 8,265 ,, ,, ,, 2.69 ,, ,,

On appearances it seemed that there must be considerable increase in acute insanity, for there was found to be a large increase of cases which were reported as suffering from their first attack, but on looking into these cases it was found that very many of these were admitted to asylums for the first time but had been in workhouse or home care for long periods.

It was found that there was a direct relationship between the opening of new asylums and the number of such patients admitted. Fresh, abundant, and convenient asylum accommodation led to many workhouse cases being sent to asylums. Supporting this idea that a flow of chronic patients took place from workhouses is the fact that there has been a steady decrease of mental cases in workhouses, and further the official census shows that there has been a decline in the numbers of insane kept at their own homes. The increase in recognised pauper lunatics depends, then, on very liberal drafts from the reserve of lunatics in home and workhouse care resulting from increased confidence in the asylum treatment, in nearness of asylums to the homes, and to the density of population and the struggle for existence making it important that no labour should be lost in the unremunerative care of relations. The effect of this on the moral tone of the people is not for us to consider here. The report shows that the increase is derived almost wholly from the pauper classes, and this is hardly evidence that the increase is due to over brain work and pressure of the modern modes of life.

The increase of private patients was in the proportion of 2.69 per 10,000 in 1896 to 2.30 in 1859. This is reassuring, but it must be remembered that it is in this class that the reserve of lunatics remains unrecognised. This reserve is not likely to be called upon owing to the prejudice against asylums in the classes which can afford to treat their relations otherwise. There is, in our opinion, a largely growing reserve of such patients.

One very important point is referred to by the Commissioners in regard to the 4s. grant for the maintenance of all lunatics in asylums; this goes to reducing local rates, but this in turn leads to patients being sent to asylums, which become overcrowded and have to be enlarged at a really increased general cost to the public.

The Commissioners sum up their report as follows: "We think, by means of the figures within our reach, we have demonstrated the probability that much of the apparent increase of insanity has been due, not to an increase in the incidents of that disease, but of the aggregate of persons affected by it, and to their redistribution. In other words, that insanity has not greatly increased out of proportion to the increase of population, but that the numbers of the insane have greatly so increased, and that they have been so redistributed as to give the impression of an actual increase in the disease." They then suggest the causes that have produced the augmenting accumulation as follows: "Greater accuracy of registration, a better recognition of forms of insanity, the removal of many persons from workhouses, the grant of 4s. per lunatic by the Government as a relief to local taxation, increased popularity of asylums, increased transfer of patients from the unregistered to the registered class, and an increase of old and broken-down cases which would otherwise have been kept at home, the greater density of population in towns, the increase in the number of cases treated in asylums for temporary attacks of alcoholic insanity, the opening of new asylums, and a material diminution in the persons discharged relieved." As this in brief gives the result of this Commission, it is not necessary to enlarge upon many important facts that are brought out in the report.

## HOSPITAL OFFICERS AND FEES FOR INQUESTS.

Fees to medical witnesses for giving evidence in cases conducted by the coroner or other public officials on behalf of the public are admittedly inadequate, and complaints on the subject reach us frequently. But it seems useless to complain; they have been fixed by statute or by rules having the force of a statute, and no one having to disburse public money can pay more. The scale of fees payable in some cases has been in force from a date prior to the memory of most men now alive, and so has the prestige of antiquity to support it; but one enactment which bears hardly on a section of the medical profession was passed by Parliament in recent times.

The Coroners Act, 1887, which professed to codify previously existing law, deals, in Sections xxi and xxiii, with medical witnesses and *post-mortem* examinations. A coroner is empowered to summon as a witness the medical practitioner who had attended a deceased person during his last illness. He may also direct the medical witness to make a *post-mortem* examination. A practitioner who has attended an inquest in obedience to a summons is entitled to a fee, which is by no means excessive, and to a further fee for making a *post-mortem* examination if directed to make it, but not otherwise. The Act, however, says expressly that where an inquest is held on the body of a person who has died in a public hospital, etc., whether the same be supported by endowments or by voluntary subscriptions, "the medical officer whose duty it may have been to attend the deceased person as a medical officer of such institution shall not be entitled to such fee or remuneration." Why this clause should have been enacted in its present form seems difficult to comprehend. The effect is that the public are enabled to get for nothing valuable services from a number of gentlemen who are not their servants, and who while attending inquests or making *post-mortem* examinations by the direction of a coroner are taken away from their ordinary professional duties.

In some cases medical officers of hospitals have demurred to attending inquests, and still more to making *post-mortem* examinations, without fee, and coroners have waxed indignant and threatened penalties if they should refuse to attend. Whether a witness summoned under such circumstances would practically incur any penalty for ignoring the summons may be a moot question. The Act makes him liable "unless he shows a good and sufficient cause for not having obeyed the summons," and possibly—especially where a *post-mortem* examination was directed—the pressure of other duties might be considered a sufficient cause for not discharging onerous and honorary work. Still, the governing bodies of hospitals would generally dislike friction between their staff and public officials like coroners, and the witnesses usually attend and do as they are directed—while grumbling, perhaps, all the time.

In one sense the resident medical officers of a hospital have not, perhaps, themselves any great ground of complaint; they usually receive a salary for their services and have no private practice, and they know that attendance at inquests comes in the ordinary routine of the hospital duties

they have undertaken. But if inquests are frequent attendance on them makes a serious inroad on the time and energies of the medical staff, and necessitates the employment of a greater number of house-surgeons than might otherwise be requisite. From this point of view the trustees of the endowment or the subscribers may not unreasonably complain and say that they see no reason why they should provide money in relief of the rates which ordinarily and but for this statutory enactment would have to defray these expenses.

The question was recently discussed by the Surrey County Council, on a proposal to pay fees out of the county fund to hospital witnesses. The words of the Coroners' Act cited above were, however, considered to make such payments impossible, and the motion was withdrawn after some sympathetic words from the chairman. The County Finance Committee are to consider the matter, and take such further steps as they think necessary. While the statute remains unaltered the Council, if they authorised payment of fees to hospital witnesses, would run a considerable risk of having the sums so paid disallowed by the auditor, and of being called on to refund the amount out of their own pockets. There would, however, be no objection to their giving directions to the coroners—who are their officers—to summon hospital witnesses as seldom as possible, and to instruct other practitioners who can legitimately be paid for the work to perform *post-mortem* examinations. If such a course were adopted, the grievance would be minimised. But the law is certainly unfair, and should be altered whenever Parliament can be got to attend to such a non-sensational matter.

## THE WEST INDIAN BRANCHES AND THE "BRITISH MEDICAL JOURNAL."

We have received from the President of the Jamaica Branch of the British Medical Association the following report with reference to the recent visit of Mr. Ernest Hart to some of the West Indian Islands. A dinner was given on February 18th, to Mr. Ernest Hart, Editor of the British Medical Journal, by the members of the Jamaica Branch of the British Medical Association, Dr. Da Costa, the President, presiding. After the usual toasts to "The Queen," etc., Dr. Da Costa said that a very interesting, but at the same time a very difficult, duty devolved upon him. It was a pleasure to have in their very midst one with whose name they had been so long familiar, and it was difficult for him to say anything in Mr. Ernest Hart's appreciation which had not been already better said. Their guest could in no sense be said to be a stranger to them. Week after week, for years past, he had confronted them in the pages of the Journal. It needed not the legend "Ernest Hart" to be attached to indicate that that bright, terse, crisp, and forcible English which never wearied, ever attracted, was his. He was also almost daily uppermost in their thoughts, for there was never a wrong to be righted, an oppression to be relieved, nor an Augean stable to be cleansed, but that they turned instinctively to the Editor of the Journal, which made them almost regret that they had not at present a stable upon which he might direct his talents. Dr. Da Costa was afraid that the members of the Branch did not realise to what extent they were indebted to him. Year after year, when it was attempted to introduce into the Legislature measures which were most unfavourable to them it was his duty as Secretary to keep Mr. Hart informed, and in return he invariably received the cheering assurance that they might rely always on his material and moral support. It was unnecessary for him even to recapitulate his various achievements. The history of Ernest Hart would be the history of the advance of medicine and sanitation in the latter part of the nineteenth century. He asked them, therefore, in no conventional spirit, but with an enthusiasm and a spontaneity worthy of the subject, to join him in drinking to the health of their colleague Mr. Ernest Hart.

In replying, Mr. Ernest Hart said that the President's task was that of an agreeable and kindly character, but he was conscious of having done little to deserve such encomiums and so kind a greeting. He had no idea how kind Dr. Da Costa was going to be, and his speech did not fit in with the one he wanted to make. His real speech was generally made in a hansom cab on the way home. Mr. Hart had reserved to himself the pleasure of dining with this Branch, although he could not accept the invitations of many of the other Branches. The Jamaica Branch was the first and eldest, and was indeed the premier Branch of the Colonies. If they were able to be useful to any one Branch they felt that it was the proudest feather in their cap. They regretted when they found that the Branches could not use the power which they wished to use for them. The Association relied on the vigour of its Branches. This Branch was like a nation without a history; they had no private grievances; they had no complaints to make, and they were indeed a happy family. In coming through the islands Mr. Hart said he had been treated with great kindness; this was due to the loyalty of the Branches. In Barbados the medical officers were elected by the people of the districts. It was a self-supporting system which worked happily, but might not suit other colonies, as every colony had its own characteristics. Dr. Archer had told him that they were satisfied that the arrangement worked well. In Trinidad—a beautiful island, but each island he visited seemed more and more beautiful than the last—and Jamaica was the most beautiful of all—the profession was in direct relationship with the Government. But Dr. Lovell lived among his subordinate officers, treated them like brothers; they had no grievances, and were a happy family. In Dominica—which was a lovely island—they lived in the future. He had arrived in St. Lucia on the same day as the British Medical Journal, which was a happy coincidence, for in that very number there was an article by Dr. Galgey on the presence of the ankylostoma duodenale in the pernicious anæmia of the tropics. His work showed how much could be done by the busy general practitioner to promote scientific knowledge. Since coming there he was reminded that he had been anticipated some years ago by Dr. Strachan of the Kingston Public Hospital, whose work had been reported in the Journal, and referred to in the last edition of Fagge. In Trinidad the Government would do whatever they were asked by the medical fraternity, for it was happy in having a surplus. But there an economical Government had solved the problem by paying as little as possible—paltry subsidies, and it got the population to pay the balance, and fixed arbitrary fees which the subsidised were forced to accept. On the question of pensions, Mr. Ernest Hart stated that he thought it hard that the Government should pay small fees and fix arbitrary rates for remuneration for private practice, and then discharge the medical officer without pension after he had given his best years to the service. The men in the service could not make representation, but if all the Branches agreed and brought the matter before the Parliamentary Bills Committee it would be taken up and something might be done to alter this state of things. In going through the Maternity Hospital—a most charming place and an institution which was a credit to the Colony—he had been struck by the absence of a medical library. If one were started and application made they might obtain help, for the Association had surplus books. Their Government might help also with a subsidy, and they might make contributions themselves by exchanges with foreign journals. They might have, in addition to the purely local annual meeting, much larger and wider gatherings, quinquennial meetings, which the other islands looked to Jamaica to initiate. They could then discuss sickness, see other men, and get far better acquainted with them than they could through writing. By the kindly grasp of the hand, by looking into a man's eye, one was better able to tell what he was worth. Mr. Ernest Hart said that he went from them with warm recollections, warm individual remembrances, and he could not express how grateful he was for the warmth of their reception, which exceeded everything he had hitherto experienced.

Several other toasts to the medical fraternity and others brought a very agreeable evening to a close.

During the recent pleasure cruise in the ss. *Lusitania* to the West Indies Mr. Ernest Hart called at Barbadoes, Trinidad, Granada, St. Lucia, Jamaica, and Bermuda. At each of these islands a delegation from the local Branches of the British Medical Association visited Mr. Hart on the ship, and tendered private hospitalities and an official welcome on the part of the respective Branches. At Barbadoes he was entertained by Dr. Archer, at whose hospit-

able house he met the officers and many of the members of the Branch; and at Trinidad he enjoyed similar hospitalities from the hands of Surgeon-General Lovell; at Bermuda he was entertained at a luncheon given by the President and members of the Branch; and similar welcome was tendered to our Editor at each of the islands, where the briefness of his stay, lasting in many cases only a few hours, rendered it impossible for him to avail himself of all the kind welcomes offered.

We have received reports of many of these entertainments and of the speeches made, but are unable to find room for them. Mr. Ernest Hart wishes, however, to express his warm thanks to those who showed so much good will to the JOURNAL and so much loyalty to the Association, as well as personal kindness to himself. Owing to the shortness of his stay he found it impossible to offer individual acknowledgment to more than a few of those to whom he is indebted, but desires here to offer his thanks to the many friends to whose kindness he was indebted, and to beg them to excuse his inability to make more individual and personal acknowledgment. Nothing could be more gratifying or satisfactory than the high esteem everywhere expressed for the JOURNAL, which appears to be in the hands of almost every practitioner in the West Indies, and constitutes their principal bond of union and communication with the British profession, of loyalty to the Association, and personal kindness to its Editor, for which he desires to return his renewed acknowledgments.

## THE BATTLE OF THE CLUBS.

DUNDEE.

A CORRESPONDENT writes: In May last year a declaration in the following terms was circulated among the medical practitioners in Dundee: "We, the undersigned medical practitioners in Dundee, declare that in the event of any medical officer of a friendly society resigning his appointment on the ground of the society declining to grant the terms asked for in the above resolutions, we will not on any conditions accept the appointment of medical officer to such society." Among the appended signatures is that of "William Sang, M.D."

## LITERARY NOTES.

A NEW candidate for favour in the world of medical journalism has just appeared under the title of *Treatment*. The first number, which was published on March 11th, is in our hands. It claims to be a journal of practical medicine and surgery, and will be published every second and fourth Thursday of the month. It has a very extensive staff of specialists, and its programme is to deal largely by abstract and critical comment with all those subjects which are within the domain of specialism, but also to record progress generally in practical medicine and surgery. Treatment is the central idea of this publication, of which the object is essentially therapeutic. It is well got up, and the first number contains a great deal of interesting matter. It is difficult to foretell the future of a new venture of this sort; but no doubt such a journal will, as the programme claims, be particularly useful to the busy practitioner, by enabling him with a minimum expenditure of time and trouble, to keep abreast of the progress made in the practical departments of medicine. It is brought out by the Rebman Publishing Company.

A history of Bethlem Royal Hospital is to be published by Messrs. Bliss, Sands, and Foster. It is by Mr. W. R. Baggallay, late steward of the hospital, and Mr. C. R. B. Barrett. The story of Bedlam goes back to pretty remote times, for the hospital is referred to by Shakespeare. The book will contain much curious information, and will be illustrated by portraits of some of the more famous criminal lunatics who at one time or another have been held captive within its walls.

A new edition of the works of James Thomson has just appeared in the Aldine Series. A noticeable volume of the *Seasons*, bound in calf, has just been sold by auction at Boston, U.S.A., on the fly-leaf of which there is written, "From the Author, James Thomson, to John Armstrong, Esq., M.D." Dr. Armstrong and Thomson were life-long friends. The former dabbled in verse, and wrote *An Essay for Abridging the Study of Physic* and other medical works.

SEVEN English nurses left London for Athens on March 18th.

# ASSOCIATION INTELLIGENCE.

## COUNCIL.

### NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday the 14th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

March, 1897.

### NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1897.

MEETINGS of the Council will be held on April 14th, July 7th, and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 17th and September 30th.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M., Saturdays, 10 A.M. to 2 P.M. Members can have their letters addressed to them at the office.

## BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The fifth ordinary meeting of the session will be held in the Physical Lecture Room, University College, Bristol, on Wednesday evening, March 31st, 1897, at 7.30 P.M., E. Markham Skerritt, M.D., President. Professor A. P. Chattock will give a demonstration on the Roentgen Rays, after which the following gentlemen will show Skiagraphs illustrating Deformities, Malformations, Fractures, and Tumours of Bones and Joints, the Presence of Foreign Bodies in the Tissues, etc.: Dr. W. Cotton, Messrs. A. Prichard, C. F. Pickering, W. H. Harsant, C. A. Morton, J. Paul Bush, W. M. Beaumont, W. M. Barclay, G. Monro Smith, J. Ewens, and Drs. Shingleton Smith, James Swain, J. O. Symes, W. N. Neville, and R. G. P. Lansdown.—J. MICHELL CLARKE, W. M. BEAUMONT, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH.—A special meeting of this Branch will be held in the Medical Institution, Liverpool, on Tuesday, March 30th, at 2.30 P.M., to consider the subject of Medical Defence and other business. A Council meeting will be held at 1.30 P.M. on the same day. Applications for membership should be sent at once to the Honorary Secretary. A dinner will be held at University Club at 6 P.M. Gentlemen wishing dinner tickets should apply before March 26th.—JAMES BARR, Honorary Secretary, 72, Rodney Street, Liverpool.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—A special meeting will be held at the Greyhound Hotel, Croydon, on Thursday, April 1st, at 5 P.M.; P. T. Duncan, M.D., of Croydon, in the chair. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends. Agenda: Discussion on Medical Defence.—HENRY J. PRANGLEY, Honorary Secretary, Tudor House, Anerley, S.E.

NORTH WALES BRANCH.—The spring intermediate meeting will be held at the Masonic Hall, Portmadoc on Tuesday, March 30th, at 1.45 P.M. Mr. Richard Williams, M.R.C.S.Eng., President, in the chair. Luncheon at the Royal Commercial Hotel, at 1 P.M. prompt; tickets 3s. each. Agenda: After formal business, to receive report of Council of Branch, on (1) admission of a member referred to it by Council of Association; (2) an ethical question referred to it by Editorial Committee of Association; (3) communications from General Medical Council *re* matter of unqualified assistant. To consider report of the Committee to the Branches on Medical Defence (copy sent to every member on January 14th). Mr. Lawson Tait will move: "That in the opinion of this meeting it is not

consistent with the objects of the British Medical Association to take up the question of medical defence." To report the arrangements of the annual meeting at Montreal, on August 31st and following days. The following papers will be read: R. H. Mills-Roberts, F.R.C.S.Edin., Llanberis: On Amputation at the Hip-Joint in certain cases of Hip Disease. W. Thelwall Thomas, F.R.C.S., Liverpool: (1) Collection of Photographs of Surgical Disease. (2) Treatment of Piles. Thomas H. Bickerton, M.R.C.S., Liverpool: The Evolution of Styles in the Treatment of Nasal Duct Obstruction. Lawson Tait, F.R.C.S.: (1) A case of Gall Stones persisting from the age of 15 to 54 removed by Cholecystotomy, the operation being followed by acute Cancer of the Bile Ducts. (2) A case of Cystic Distension of the Liver by Hydatids. Hepatotomy—Recovery. W. Jones-Morris: A note on Puerperal Mortality.— W. JONES MORRIS, Honorary Secretary, Is-y-coed, Portmadoc.

## EDINBURGH (LOTHIANS AND FIFE) BRANCH.

### EXTRAORDINARY MEETING.

AN extraordinary meeting of the Edinburgh (Lothians and Fife) Branch was held within the Royal College of Physicians on March 9th, for the consideration, more particularly, of the proposed scheme of medical defence, Dr. ARGYLL ROBERTSON (Vice-President) in the chair.

*The Association and Medical Defence.*—On the suggestion of the CHAIRMAN the Branch considered first the general principle of the scheme as implied in Question 1 appended to the Report of the Committee of the Council of the Association—namely, "1. Is your Branch in favour or not of the Association undertaking the duties of individual and collective medical defence?"—It was thereupon proposed by Dr. BATTY TUKE, and seconded by Dr. IRELAND:

That Question No. 1 be answered in the negative.

—An amendment was moved by Dr. JAMES RITCHIE, and seconded by Dr. ANDREW BALFOUR to the effect:

That Question No. 1 be answered in the affirmative.

—A further amendment was proposed by Dr. WILLIAM RUSSELL, and seconded by Dr. N. WALKER:

That before expressing an opinion on the scheme of medical defence a *plébiscite* of the members be taken as to whether they are in favour of the Association taking up medical defence.

—A vote having been taken, the amendment of Dr. Russell was declared to be carried, and became the finding of the meeting. The Secretary was accordingly directed to issue a reply postcard to the members inviting their reply to Question No. 1. It was resolved to adjourn the meeting till Tuesday, March 16th, when the result of the *plébiscite* would be announced for the guidance of the further deliberations.

### ADJOURNED EXTRAORDINARY MEETING.

*Result of the Plébiscite.*—An adjourned extraordinary meeting was held in the Royal College of Physicians on Tuesday, March 16th, for the further consideration of the proposed scheme of medical defence. Dr. G. W. BALFOUR (President) occupied the chair. The SECRETARY announced the result of the *plébiscite* as follows: Of 217 postcards issued, 133 had been returned; of these, 65 replied in the affirmative, 59 in the negative, 7 in the affirmative more or less conditionally, and 2 contained no vote. It was thereupon moved by Dr. JAMES RITCHIE, and seconded by Brigade-Surgeon ALEXANDER:

That this Branch return an affirmative answer to the first question, but that there be appended to the answer the results of the *plébiscite* reported to this meeting.

An amendment was moved by Dr. IRELAND, and seconded by Dr. A. SYM:

That this meeting, considering the size of the minority opposed to the scheme of defence, decline to accept approval of the proposal.

On a vote the motion of Dr. Ritchie was carried by 13 to 9, several members declining to vote. Question 2 was then considered, namely: "2. Is your Branch in favour, or not, of the scheme as finally drafted by the Committee?" It was proposed by Dr. JAMES RITCHIE, seconded by Dr. ANDREW BALFOUR, and carried unanimously:

That Question 2 be answered in the negative.

After consideration of the provisions of the proposed scheme it was moved by Dr. RITCHIE, and seconded by Dr. CLOUSTON:

That the scheme for medical defence be obligatory upon all members of the Association practising in Great Britain and Ireland.

An amendment was proposed by Professor STRUTHERS, and seconded by Dr. A. SYM:

That subscription for medical defence on the part of members of the British Medical Association should be voluntary, subscribers alone to be entitled to assistance from the funds subscribed for medical defence.

A further amendment was proposed by Dr. N. WALKER, and seconded by Dr. STOCKMAN:

That this meeting considers that the expenses of the new departure should in the meantime be defrayed from the general fund of the Association.

On a vote the amendment of Dr. Struthers was carried by 20 to 4 over the motion of Dr. Ritchie, and by 16 to 6 over the amendment of Dr. Walker. It became, accordingly, the finding of the meeting. It was moved by Dr. M. JOHNSTON, and seconded by Dr. BOYD:

That a sum not exceeding £2,000 per annum of the annual revenue of the Association may be voted by the Council towards such voluntary medical defence.

An amendment was moved by Dr. A. SYM, and seconded by Dr. MATTHEW (Corstorphine) to the effect:

That no funds of the Association shall be used for medical defence.

On a vote the motion was carried by 7 to 4, and was accordingly declared to be the finding of the meeting.

## MIDLAND BRANCH.

*The Association and Medical Defence.*—A special general meeting of this Branch was held at Nottingham on March 18th to consider the report of the Committee to the Branches on medical defence; the PRESIDENT (Dr. Handford) in the chair. It was proposed by Dr. RANSOM and seconded by Mr. BOND that

The Midland Branch is of opinion that the time has not yet come for the British Medical Association to undertake the work of medical defence.

Of the fourteen members present at the meeting, thirteen voted for the resolution; one member not voting either way.

## STIRLING, KINROSS, AND CLACKMANNAN BRANCH.

A MEETING of this Branch was held at Alloa, on March 17th. Dr. MACPHERSON presided over a good attendance.

*Confirmation of Minutes.*—The minutes of the last meeting were read and signed by the Chairman.

*New Member.*—Dr. Richard Wyse, Blair Cottage, Polmont Station, was elected a member of the Association and of the Branch.

*Specimens, etc.*—Dr. SKEEN showed: (1) Cast of an undeveloped Forearm showing Rudimentary Thumb-nail. Also Skiagraphs showing the state of the Undeveloped Bones of the Forearm. (2) Cranium and Brain from an epileptic patient, aged 48, operated on at the age of 8 years for an injury to the head and brain. A large trephine wound existed in the right side of the cranium, and there was removal or sloughing of the motor area on the right side. The patient had very slight paresis of the left arm and leg, considering the fact that the whole motor area for these parts was destroyed. The hemisphere was much shrunken.—Dr. LEWIS showed a case in which the Rectum was Excised ten months ago for Carcinoma.

*The Association and Medical Defence.*—The report of the Committee of the Association to the Branches, and the Draft Scheme for Medical Defence were considered, and the following resolution, proposed by Dr. MOORHOUSE, was carried by a majority of 9 to 8:

That this Branch is not in favour of the Association undertaking the duties of individual and collective medical defence, for the following reasons:

(1) It would be derogatory to the interests of the Association as a scientific body, and to its influence in legislative affairs to undertake work of this nature.

(2) No measures have been taken to ascertain the opinion of unattached members of the Association, and the members of Branches are far from unanimous in desiring the change.

(3) The existing medical defence unions have hitherto fulfilled these objects satisfactorily.

## PERTHSHIRE BRANCH.

A SPECIAL meeting of this Branch, called by requisition, was held in the Literary and Antiquarian Society's Rooms, Perth, on March 22nd, 1897. Dr. PATON (Vice-President) was called to the chair. The following members were also present: Drs. Niven, Robertson (Scone), Liddell, Macaulay, Henderson, Hunt, Ferguson, Robertson (Perth), Stirling, and the Secre-

tary. The SECRETARY intimated apologies for non-attendance from Drs. Taylor and R. Robertson.

*Confirmation of Minutes.*—The SECRETARY thereafter read the minutes of previous meetings, and explained the circumstances under which this meeting had been called. The minutes were approved.

*The Association and Medical Defence.*—It was moved by Dr. FERGUSON, seconded by Dr. R. STIRLING:

That the resolution of the meeting of the Branch of January 29th, 1897, anent medical defence, be rescinded, and that the Branch are of opinion that the schemes intimated to members by circular, dated December 16th, 1896, should not be adopted.

This motion had been signed by Dr. Hunt, Dr. Robertson (Perth), and Dr. Macaulay, in addition to the mover and seconder, and formed the request under Rule 8 on which the meeting was held. After discussion the motion was put, and the SECRETARY called the roll. Five voted for the motion and five for the previous question. The Chairman gave his casting vote against the motion, and declared it to be lost.

Thereupon it was moved by Dr. LIDDELL, seconded by Dr. ROBERTSON (Scone):

That, in consequence of the representations made by members dissenting from the finding of the meeting of the Perthshire Branch, as recorded in the BRITISH MEDICAL JOURNAL of February 6th, 1897, the Branch respectfully suggest to the Council of the British Medical Association that in this matter of medical defence, affecting, as it does, the constitution of the Association and the liabilities of its associates, a *plébiscite* of the attached and unattached members should be taken before the questions at issue are finally determined.

This was carried unanimously.

# SPECIAL CORRESPONDENCE.

## PARIS.

*Foreigners in French Hospitals.—The Depopulation Question.—The Anthropometric System.—The Home Treatment of Indigent Tuberculous Patients.—Hydrophobia.—The Boulogne Hospital.—Medical Scandal.—General News.*

AT a recent meeting of the Superior Council of the Assistance Publique Dr. Chevallereau's report on the admission of foreigners into French hospitals was discussed. The Council recorded the following decision. That it is advisable that treaties of reciprocal help be concluded between France and other nations in accordance with the first article of the law of July 15th, 1893; that these treaties be based on the principle of reciprocity in paying the expenses incurred. Until these treaties are concluded and put in practice the report recommends the French hospitals should, though not legally, be bound to continue to treat foreigners who are injured or who are suffering from acute diseases and epidemic affections. With regard to chronic illnesses foreign patients should be admitted into hospitals only when there are beds vacant, and when the financial condition of the hospitals is good. Previous to their admission the consul of the country to which they belong must be called upon to promise to defray all expenses incurred.

The question of the depopulation of France is still a prominent subject of discussion. M. Bertillon's proposal that every child born shall reduce the taxes paid by its parents is somewhat criticised, and by many not considered to be an efficacious measure, putting on one side the question of the liberty of the individuals attacked by it, and the "bachelor tax" proposed by M. Bertillon to stem the "depopulation." The statistics published by the *Journal Officiel* show the evil to be greater than Dr. Bertillon described. Not only do the deaths exceed the births, but the latter decrease every year, as do marriages, whilst deaths and divorces increase.

M. Julien Dumas has moved, in the Chamber of Deputies, that the Government be called upon to systematise the anthropometric service, in order that the mensuration method be freed from its present abuses. The proposition has passed. The *Rappel* has interviewed M. Bertillon concerning the modification of the anthropometric service announced by the Minister of the Interior in the Chamber of Deputies. M. Bertillon expressed himself as follows: "I have 320,000 notes. If the small number of complaints is taken into consideration it is easily realised that the accused rarely object. Moreover, I have often been able to set free people falsely accused owing to mistaken identity. Instead of complaining of mensuration those thus benefited overflow with gratitude."

Dr. Séailles, President of the Medical Society of the Bureaux de Bienfaisance, ably exposes the difficulties to be combated in treating the tuberculous poor in their own overcrowded dwellings. The miserable food and the vitiated air destroy all appetite. The most important part in the treatment of tuberculous patients is to feed them up with such nourishment as they can digest, and thus prevent malnutrition. In the treatment of the poor this becomes a difficult problem, which Dr. Séailles tries to solve. He begins by stating that measures must be adopted to provide the patients with suitable nourishment in such a way that it will be absorbed by them, and not by their relations in common with them. Every morning a ticket signed by a practitioner should entitle these patients to receive at the dispensary a litre or half a litre of milk mixed with glycerophosphate of chalk, sodium chloride, or any other substance befitting their condition—meat powder, barley, etc.

Hydrophobia has reappeared in a patient treated at the Pasteur Institute. M. Davoust and six others were bitten by a mad dog and treated at the Pasteur Institute. After the twenty days had elapsed they returned to their homes, believed to be cured. A few days ago M. Davoust observed that the wound in his hand inflicted by the dog had broken open. He felt generally ill, and complained of pains in the left arm and shoulder. M. Davoust returned to Paris, intending to be treated again at the Pasteur Institute. On the night of his arrival he was seized with hydrophobia. It was necessary to strap him down and remove him to a hospital, where he was isolated until death ensued. A little girl was bitten by a dog, but not treated, because the animal, examined by a veterinary surgeon, was declared to be free from rabies. Nevertheless, the child subsequently showed symptoms of rabies, and died. The parents proceeded against the veterinary surgeon, stating, acting on his opinion, they abstained from placing their daughter under treatment, which otherwise they should have done. The surgeon was declared by the court not responsible, inasmuch as there are two periods, one in which the lesions indicative of rabies are not evident, and one in which they are detected. A Custom House official, in order to ascertain the contents of a basket, passed his hand underneath the cover; when he drew out his hand it was covered with foam and hairs. The basket contained the dead body of a dog, addressed to an inhabitant of Conflans, to be submitted to an examination by a veterinary surgeon. The necropsy of the animal revealed indications of hydrophobia. The Custom House officer is being treated at the Pasteur Institute.

The Boulogne Hospital has been publicly inaugurated by a brilliant ceremony. The President of the Republic was present, and visited the wards, chatting pleasantly with the inmates, who all praised the comforts and good food provided for them. One old lady was so enthusiastic that she asked to embrace the President, but this satisfaction the inflexible "protocol" forbids. A lunch terminated the proceedings, and the President drank to the health of the founders and supporters of the hospital.

The trial of Dr Boisleux and Dr. La Jarrige, for practising abortion on the person of Miss Thomson, commenced on March 22nd. In the evidence for the prosecution it was stated that Miss Thomson expressed to Dr. La Jarrige her belief she was pregnant, and her desire to escape the consequences. M. Mansuy, the father of the child about to be born, took her to Dr. La Jarrige, who assured her "that a simple operation termed 'curettage' would relieve her of all trouble and responsibility," and gave her Dr. Boisleux's address. Miss Thomson had previously applied to a midwife, who refused to interfere. Miss Thomson was received into Dr. Boisleux's private clinic, and the next morning she was placed under the influence of chloroform in the presence of Dr. La Jarrige and a young American medical student staying at Paris to complete his studies, who was pressed into the service in entire ignorance of the circumstances. As soon as the patient was half anæsthetised she was removed to the dining room and placed on the dining room table. When completely insensible Dr. Boisleux com-

menced the operation, and Dr. La Jarrige's coachman was called in to help to support the patient. It is stated that the first stage of the operation soon showed the condition of the patient; also that Dr. Boisleux did not manifest any surprise, but calmly continued what Dr. La Jarrige has since termed his "butcher's work." Laparotomy became necessary, the intestines passed through the perforation made during the "curettage." Dr. Barberin and M. Namel were called in, who were surprised to see what had been removed from the patient; two days later the patient died. Permission for burial was refused. A series of similar cases in which Dr. Boisleux had operated was mentioned. In three years Dr. Boisleux has performed 94 operations, 25 of these for laparotomy. Twenty-six deaths ensued.

The Municipal Council has voted £40 for the purpose of providing the surgical wards with the means of examining patients by the *x* rays of Roentgen.

## BERLIN.

*The Rebuilding of the Charité.—Ambulance Stations.—State Examination of Antitoxic Serum.—A Hygienic Exhibition.*

At last the long-promised schedule of the plan for rebuilding the Charité Hospital has been submitted to the Prussian Diet by the Government. The estimated cost is 9,380,000 marks (£469,000), and by a clever contrivance of the Minister of Finance, Herr von Miguel, the funds are to be raised by means of the transfer of the Royal Botanical Gardens from their present central position in the Potsdamer Strasse to Dahlem, a place some miles from Berlin, and the sale of their present site for building purposes. This financial exchange, well adjusted as it seems, is undoubtedly questionable from a hygienic point of view, as the beautiful grounds and park of the gardens are a boon to thousands during the spring and summer months. Many influential voices have been raised in protest, but alas, to no purpose. In Prussia the millions required by the State for army and navy purposes leave but a small margin for such objects as hospital building, and as a new Charité building is an absolute necessity, Herr von Miguel's plan must be submitted to. During the last few years the number of patients in the Charité has generally varied between 1,700 and 1,800, but it has decreased to 1,600 since the closing of the notorious "attic department." The new building, though it will be far more commodious than the present one, is not intended to hold more than 1,250 beds, and this diminution of accommodation is one reason the more why the municipal authorities should hurry on the execution of the long-planned fourth municipal hospital. All the large Berlin hospitals are overcrowded as it is, and every year, as the population increases, more space is required.

Ambulance stations, furnished with every medical and surgical requisite, have been erected at different parts of Berlin, where the densest crowds are expected during these two days of the Centenary festivities. The *personnel* has been has been drawn from the Berlin permanent accident stations as well as from the volunteer ambulance corps, an excellent and well-schooled organisation which is under military direction. To show how far forethought has been carried, it may be added that every preparation has been made in case of a mass accident (panic, stampede, etc.).

Negotiations are going on for the erection in Frankfort-on-the-Main of a State institute for the examination of antitoxin serum, or rather for the removal of the present institute at Steglitz, near Berlin, to Frankfort, where it would be established on a broader basis as an "Institute for serum examination and experimental therapeutics." Friends of decentralisation will welcome this project, which—as Frankfort is not a university town—probably owes its origin to the fact that the Höchst works, where Behring's serum is manufactured, are situated close by.

A national German exhibition "For the Hygiene of Childhood at Home and at School" is to be held in Breslau at the end of May. The exhibition will be divided into three sections: 1. Babyhood. 2. The age from 2 to 6 years. 3. From 6 years onwards. The committee is an influential one, and numbers among its members the medical professors of the Breslau University, the directing physician of the leading children's hospital, some of the municipal authorities, etc. A ladies' committee is also to be elected.

## LIVERPOOL.

*Election of a Physician to the Royal Infirmary.*

The meeting of electors to appoint a successor to Dr. Davidson, who recently resigned his position as physician to the Liverpool Royal Infirmary, took place on Wednesday, March 24th, at the Law Association Rooms. Applications for the post were received from Dr. Bradshaw and Dr. Abram, the two assistant physicians to the infirmary, and from Dr. Barr, physician to the Northern Hospital. A few days before the election Dr. Abram and Dr. Bradshaw withdrew their applications, so that ultimately Dr. Barr was appointed without opposition. Dr. Barr has already been on the staff of a Liverpool Hospital for close on twenty years, having been first one of the physicians to the Stanley Hospital, and for the last ten years physician to the Northern Hospital. He was at one time medical officer to H.M. prison at Kirkdale, and is secretary of the Lancashire and Cheshire Branch of the British Medical Association, an office which, on account of the size and activity of that Branch, involves no small amount of labour. He has also for many years been the editor of the *Liverpool Medico-Chirurgical Journal*. His name is known in connection with his tank treatment of typhoid fever by prolonged immersion, and he is the author of several papers on heart disease. There is no doubt a very strong feeling of disappointment on the part of the assistant physicians and assistant surgeons that the almost invariable practice of promoting the assistants should have been departed from. Whatever may be thought of the principle followed in this case, there is no question as to Dr. Barr's fitness for the post to which he has been preferred, and he may reckon on the cordial good will and co-operation of all his colleagues in his new sphere of work, the assistants no less than the seniors.

# CORRESPONDENCE.

## LORD LISTER AND THE ROYAL COLLEGE OF SURGEONS, ENGLAND.

Sir,—Lord Lister was elected a member of the Council of the Royal College of Surgeons, England, in 1880. He served his eight years of office, and then retired. Despite the fact, however, that he was one of the most distinguished members of his profession who during recent years has been elected to the Council, it is nevertheless the case that he was allowed to retire from that body without having attained to the dignity of being chosen its President. Surely it is not too late yet to make amends for this omission. It seems to me that the College should take some steps to mark their appreciation of the unique honour which has been conferred upon scientific medicine by the elevation of one of its highest representatives to the peerage. The act would be merely a graceful one were the Fellows of the College of Surgeons to invite Lord Lister to come forward as a candidate for a seat on the Council at the next election, and for the Council afterwards to ratify the invitation, after his election, by appointing him President of the College. Doubtless it has been a matter of surprise to the public that Lord Lister, who is now also President of the Royal Society, and who has been so honoured by the Queen, has never received any recognition of the value of his work from his own College, of which he is so distinguished an ornament.—I am, etc.,

Wimpole Street, W., March 22nd. Percy Dunn.

## WATER GAS.

Sir,—The danger of poisoning by the use of water gas seems to be but little noted. Yet the poisonous carbon monoxide is distributed as water gas in many populous districts.

My course of study last year led me over the ground which is covered by this question, and in January last I was asked by a Committee of our local district council to give them some information on the subject. Two deaths from carbon monoxide poison had occurred, and had been dealt with at coroners' inquests here: 3 other dangerous cases had occurred, and to my own knowledge 3 cases of modified poisoning from the same cause have occurred since I met the Committee in January.

I enclose some correspondence I have had with the press and my report read to the Committee. I have forwarded my letter to Professor Mann, and he has signified his concurrence with me.

Our district of Garston is the one in which the water gas of Liverpool is made, and we had the gas in slightly varying proportions supplied for some time, until the subject has been ventilated publicly. There is little, if any, now. The manufacture of water gas and its distribution are becoming large questions, and I think they are worthy of mention in the BRITISH MEDICAL JOURNAL, which devotes so much space to matters of public health.

In my communication I have not dealt with the illuminating power, which goes from good to bad, and to worse by clogging the burners, nor have I spoken of the deficiency of caloric. Bulk for bulk coal gas is represented by caloric 5.3, and water gas by 2.7, and the carbon deposits are marked in rooms and in the burners, even with the incandescent light. The question of health and danger alone concerned me with the Council and the press.

I do not enlarge upon the subject now as my brethren will be well aware of the nature of the water gas, and it would be presumptuous in me if I attempted to teach them this branch of toxicology. I only wish to call their attention to it. I have had much correspondence on the subject, and would be happy to answer any queries from any fellow practitioner as far as I can.

I need hardly add that the deaths and dangerous poisonings have been caused by escape of gas from unignited burners or from leakages, and not from the gas in combustion when fully burned. I have not entered into the question of relative cost of coal gas and water gas; that is one for financiers, although the enhanced cost of the enriching oils must tell there also, nor have I mentioned the subjects of illegality and breach of contract; those are for the lawyers.—I am, etc.,

THOMAS CAYZER,
Grassendale, March 13th. Surgeon-Lieutenant-Colonel A.M.R.

## MODERN TEACHING AND THE MODERN STUDENT.

SIR,—I heartily agree with so much in your article of March 13th that I trust you will allow me to single out one or two points for, as I hope, moderate and fair criticism.

Mine shall first be the pleasant task of saying a good word for a now very generally abused body of men, the dreaded examiners.

If I may take it, as a starting point, that, as Mr. Holmes puts it, "the average student of the present day" passes "a few feverish weeks or months in getting up the minute details" of his examination subjects, which he afterwards "drops" to the extent of "knowing no more about them than he probably knows of Greek," what ground can there be for present complaints against the examiners? It will be admitted that the practised examiner soon gauges his man. He distinguishes at once between the knowledge (?) glibly rattled off in unimpeachable phraseology—false or crammed knowledge—and that brought out, often painfully, in terms laboured and perhaps inappropriate, but which are at least the student's own English, and represent the student's thought. The first candidate answered A1: but he probably knows no more of his subject "than he does of Greek"—shall he be passed? The other answered—well, as a youngster can when hauled over points which would puzzle the Presidents of our Colleges. Shall he be plucked? To my mind, it is to the standing honour of our examiners that they, as a rule, pass the second candidate, and pluck the first.

Professor Struthers has the touching remark that "he feels quite sorry for them"—for the poor plucked candidates who, "with half the pains they have taken, if taken in the right way, would probably have passed." And so we all feel; but can we close our eyes to the fact that most students nowadays constantly take the wrong way? The examiners, as trustees to their Colleges and to the public, try to correct the error by such means as are open to them: they pluck. In what other way could they protest? To my mind there is no body of men who have done their duty under difficulties better than the College examiners.

On the other hand, the fault of the teaching of to-day, if any, is not that it is not earnest. Quite the reverse. Take the school you refer to. Each student "attends regularly two demonstrations a week in his first year, and more in his second, all given on the body, with constant reference to the skeleton; and is constantly questioned on his 'part.' The physiological teaching includes the microscopic examination of each tissue and each organ, the chemical analysis of all the fluids of the body, and the handling and personal use of a complete set of the standard instruments; and the student is under supervision." What more? You almost understate your case when you put it so moderately that "you can find no evidence that the fault lies with the teachers."

What more? If one wished to complain *que la mariée est trop belle*, one could but blurt out ill-humouredly that there is so much teaching that there is no time to learn—that we have here "the forest that no one can see on account of the trees."

There is something in the view. You very well put it that, if the student "is examined too minutely, he must perforce learn his descriptions by heart." But so also if he is taught too minutely. The teaching is the student's only gauge of what the examination is to be. Teach too minutely, describe a host of little things that the student cannot see, and he sets to learn by heart either his notes of the lectures or some cram substitute. And here steps in the debased art of the diagram and the model, which intentionally falsify under pretext of representing. Would that I could adequately describe the depths of reckless untruthfulness of many such representations—embodiments of mere words which it is their sole object to mnemonise, and which they thus transform in the mouth of the student who but imperfectly understands them into nothing less than impudent travesties of patent and often pregnant fact. It will be plain that I cannot particularise within the compass of a letter. A thesis would be required; this I hope to submit to my profession in due course.

Meanwhile—notwithstanding examiners and teachers—"cram" goes on merrily apace, and we all bear the mark more or less "in our right hand or on our foreheads." And the young man at the portals of a profession, passing through which should ennoble a lifetime, gives up by degrees all higher objects, and but aims at standards lower and again lower, at merely qualifying—qualifying for what?

The view is abroad—and it is one resting on such simple syllogistic argument that it would at first seem incontrovertible—that present evils must rest either with the teachers or with the examiners. If the results of the examinations are unsatisfactory you must blame, people naturally say, either the instructors of the candidate, or those who examine him. Not necessarily so. The conditions are more complex, I apprehend, than the above argument would imply. The fault may be in the conditions under which either teacher or examiner, or both, are working, and, for the time being, have to work. In such case neither may be at fault. This I believe to be the fact that dominates the present position.

The real fault is in the textbooks; it is that of the specialists. With the textbooks full of this host of little things that the student cannot see—nor the teacher either, as a rule—what is the teacher to do? He must, he says, go by the acknowledged textbook, or he will be supposed not to know his subject matter. But must he? If he goes by the swollen new textbook, what does he really do? He first crams it up himself, and then crams it into his pupils: "each tissue," "each organ," "all the fluids," "a complete set of standard instruments," etc. It is the forest.

I pity the teachers nowadays almost as much as the pupils. But why should not the teachers show themselves men of grit? Why should they not set aside the tyranny of the specialist? Why should they not simply "go to Nature," as the noble veteran Professor Struthers puts it, "who has spent a lifetime in medical education, and in endeavouring to improve it," instead of going to textbooks and taking their pupils to the textbooks? It is the textbooks—the textbooks of the specialists—that are doing all the harm; doing all the harm to pupils and teachers, and somewhat to the examiners as well, though, naturally, examiners suffer least and last.

I thank you for the good word you say for my remedial suggestion. It was really Mr. Holmes's. I quite agree with what you say as to the stringency or otherwise of the entrance examination having little or nothing to

do with the student's future success in medicine. Your remarks on this point quite harmonise with my experience. I heartily re-echo the vigorously expressed sentiment of your correspondent, "Biology is a grand study; so is astronomy; but one has as much bearing as the other upon medicine."—I am, etc.,

Thomas Cooke,
Surgeon (Out-patients) Westminster Hospital.

Brunswick Square, March 23rd.

## THE LATE HUNTERIAN ORATION.

Sir,—Probably few Members of the College of Surgeons have read the Hunterian Oration, and fewer still attended its delivery by Mr. Heath a few days ago, or no doubt some notice would have been taken of the unfair advantage he took on that occasion to enter into medical politics and attack the Members. It matters little what Mr. C. Heath's views once were on subjects of reform. He has evidently seen the error of his ways, and wishes to atone for past sins.

When he attacks the Members, as he does in the last few lines of the Oration, he should be careful to state "the truth, the whole truth, and nothing but the truth." He speaks of the "puny battles" of the Members, and ignores the fact, which he well knows, that over 5,000 signatures of Members of the College lay at the Privy Council Office, asking for reform and the admission of its 15,000 Members to some voice and share in the management of this institution. This reform the Members will fight for to the bitter end, and have little fear of ultimately obtaining it.

The late poll of the Fellows on this subject shows how rapidly the Members are gaining ground; 201 Fellows voted in their favour; and, although 481 voted against them, sight must not be lost of the fact that no fewer than 441 did not answer at all, and we have every reason to believe that these gentlemen would be more favourable to the Members than to the Council, as the whip went round bringing every vote possible against us. Let all Members of the College combine and rescue this noble institution from its present condition.—I am, etc.,

Joseph Smith,
President of the Society of Members, Royal College of Surgeons of England.

Chiswick, March 2nd.

## THE SOCIETY OF APOTHECARIES AND THE RECORD REIGN.

Sir,—I do not know if the Society of Apothecaries are intending to make any commemoration of the record reign of Her Majesty the Queen, but if you will allow me through your columns to make a suggestion to them, and also as a means of improving the status of their licentiates under the new regulations, I shall be greatly obliged. My suggestion is that the Society should this year apply for a Royal Charter, and rename the Society the Royal College of Apothecaries, and thus enable the licentiates under the new regulation to be designated licentiates of the Royal College of Apothecaries, London, and thus distinguish them from the old licentiates.—I am, etc.,

J. T. Roger Miller, L.S.A.L.(Trip.Qual.), L.M.R.C.P.I.

Malton, March 23rd.

## THE QUEBEC MEDICAL SOCIETY.

Sir,—In the British Medical Journal of February 23rd there appears, about next summer's Montreal meeting, the following paragraph: "A local Branch of the Association is being founded in Quebec (Canada), and supplies a long-felt want in that locality where no medical society yet exists." In justice to our old city and to my *confrères* of this district, I beg to state that there does exist here, apart from the local Branch of the British Medical Association, and without in the least wishing to minimise the latter's importance, such a Society under the name of "Quebec Medical Society," which boasts of an average membership of over sixty, holds monthly meetings in the rooms of Laval University, and naturally recruits itself among the city and surrounding districts' physicians only. Medical Quebec is unanimous to join Montreal in preparing the Association a right royal welcome next August. Hoping you will kindly publish this little rectification, I am, etc.,

Charles Verge, M.D., M.Q.M.S., M.B., M.A.

Quebec City, Canada, March 5th.

# NAVAL AND MILITARY MEDICAL SERVICES.

### THE NAVY.

The following appointments have been made at the Admiralty: William G. K. Barnes, Staff Surgeon to the *Undaunted*, March 23rd; John J. Dinnis, M.D., Staff Surgeon to the *Edgar*, undated; Jeremiah Sugrue, M.D., Staff Surgeon to the *Australia*, March 28th; Cecil H. Rock, Surgeon to the *Undaunted*, March 23rd; Daniel J. P. McNabb, Surgeon to the *Edgar*, undated; Elystan G. E. O'Leary, Surgeon to the *Research*, March 19th; John Grant, Surgeon to the *Pembroke*, additional, for disposal, March 22nd, and afterwards to the *Pelorus*, March 30th; Sidney T. Reid, Surgeon to the *Hibernia*, March 23rd; John W. Slaughter, M.B., Surgeon to the *Victory*, for the *Malacca*, on voyage home, undated.

### ARMY MEDICAL STAFF.

Surgeon-Captain G. M. Dobson, M.B., is promoted to be Surgeon-Major, March 24th. He was appointed Surgeon-Captain January 31st, 1885, and served with the Soudan Frontier Field Force in 1885-86 (medal and Egyptian bronze star), and in the operations against the Eastern Lushai Clans in 1892 (medal with clasp).

It is announced that the revised scales of pay, approved of by the Secretary of State, for the Army Medical Staff in India, and certain grades of the Indian Medical Service, will come into effect on April 1st. The new rates of pay will shortly be published in an Army Circular. In order to meet the strain on the Indian Medical Service caused by officers being required for famine and plague duty, the Government of India have sanctioned the employment in that service of volunteers from the Army Medical Staff, on a special allowance of Rs. 300 a month in addition to their India pay and allowance.

### ARMY MEDICAL RESERVE.

Surgeon-Captain H. W. Roberts is promoted to be Surgeon-Major, March 24th.

### INDIAN MEDICAL SERVICE.

The following promotions, which have been already announced in the British Medical Journal, have received the approval of the Queen:—*Bengal:* Surgeon-Lieutenant-Colonel C. H. Joubert, to be Brigade-Surgeon-Lieutenant-Colonel, September 1st, 1896; Surgeon-Major C. H. Beatson, to be Surgeon-Lieutenant-Colonel, September 30th, 1896; Surgeon-Lieutenants G. Lamb, H. Burden, J. Fisher, E. S. Peck, C. H. Evans, S. A. Harriss, E. C. MacLeod, and C. Thomson to be Surgeon-Captains, January 26th. *Madras:* Surgeon-Lieutenants A. E. Berry and H. St. J. Fraser, to be Surgeon-Captains, January 29th. *Bombay:* Brigade-Surgeon-Lieutenant-Colonel G. Bainbridge, M.D., to be Surgeon Colonel, October 4th, 1896; Surgeon-Lieutenants B. H. F. Leumann and Hugh Bennett, to be Surgeon-Captains, January 29th.

### THE HONOURABLE ARTILLERY COMPANY OF LONDON.

Surgeon-Captain H. G. Read has resigned his commission, March 24th.

### MILITIA MEDICAL STAFF CORPS.

Surgeon-Lieutenant J. T. Simpson is promoted to be Surgeon-Captain on increase of establishment, April 1st.

### THE VOLUNTEERS.

Surgeon-Major F. Smith, M.D., 2nd Kent Artillery, is promoted to be Surgeon-Lieutenant-Colonel, March 24th.

Surgeon-Lieutenant H. H. Du Boulay, 1st Dorsetshire Artillery (Southern Division Royal Artillery), has resigned his commission, and is appointed Lieutenant, March 24th.

Surgeon-Captain J. Nightingale, M.B., 1st West Riding of Yorkshire Artillery (Western Division Royal Artillery), has resigned his commission, and is appointed Second Lieutenant, March 24th.

Surgeon-Major C. Richardson, 2nd West Riding of Yorkshire (Leeds) Engineers, has resigned his commission, retaining his rank and uniform, March 24th.

Surgeon-Lieutenant C. Boyd, 3rd Volunteer Battalion the Queen's Royal West Surrey Regiment, is promoted to be Surgeon-Captain, March 24th.

Surgeon-Major W. R. Dambrill-Davis, 5th Volunteer Battalion the Cheshire Regiment, is promoted to be Surgeon-Lieutenant-Colonel, March 24th.

Surgeon-Lieutenant C. J. Arkle, M.D., 14th Middlesex (Inns of Court) Rifles, is promoted to be Surgeon-Captain, March 24th.

### VOLUNTEER MEDICAL STAFF CORPS.

Surgeon-Captain J. E. Squire, M.D., the London Companies, is promoted to be Surgeon-Major, on increase of establishment, April 1st.

Surgeon-Lieutenant H. D. Buss, the London Companies, is promoted to be Surgeon-Captain, March 24th.

### SIR ALFRED LETHBRIDGE.

Brigade-Surgeon Sir Alfred Swain Lethbridge, M.D., K.C.S.I., who has recently retired from the Bengal Medical Service, has rendered in various capacities service of conspicuous merit and utility to the Government of India. His career, which has covered a period of thirty years, has been spent in civil employ and largely devoted to gaol administration. He has had no war services or decorations, but, like many members of his distinguished department, has nevertheless contributed important aid to administrative, sanitary, and political progress in India. He is best known as Inspector-General of Gaols in British Burmah and Bengal. In these capacities he substantially advanced economical, industrial, and sanitary reforms in prisons. Latterly he has held the important office of Superintendent of Operations for Suppression of Thugee and Dakaiti, which implies a supervision of the criminal classes of India for

the purpose of extinguishing organised crime; and he has at the same time sat as a member of the Viceroy's Legislative Council. He has been President of the Factory Commission, the native passengers' ship Commission, and has assisted largely in many social inquiries and discussions. He always brought thorough industry, sound judgment, and genial co-operation to bear on any task he took in hand, and will be greatly missed in many ways in India.

### SANITARY MATTERS.

A CORRESPONDENT affirms that the regulation directing the principal medical officer of districts to dispose of sanitary matters *by order* of the general officer commanding, is an absolutely dead letter, and that thereby medical action throughout the army is weakened and vitiated. The regulation ought to be mandatory, and not permissive. Nothing sanitary is referred to the medical department unless the military officer thinks he wants a medical opinion. The regulation was only obtained by pressure of public opinion, and is now allowed quietly to drop.

# MEDICO-LEGAL.

### CHARGE OF MURDER AGAINST A BOTANIST.

AT Leeds Assizes on March 17th, James Henry Aldridge, aged 55, a Bradford botanist, was indicted for the murder of Harriet Blagborough of Halifax, whose death, it was alleged, was the result of an illegal operation. The prisoner was found guilty, and was sentenced to death.

### FEES OF MEDICAL WITNESSES.

UNDER this heading we commented in the BRITISH MEDICAL JOURNAL of March 13th, page 678, on the remarks which the stipendiary magistrate of Bradford had permitted himself to make to a medical witness who desired payment for his services in attending to give evidence in a case of assault. We are informed that at a special meeting of the Bradford and District Medico-Ethical Society the following resolution was adopted: "That this meeting of the Bradford and District Medico-Ethical Society, having considered the reports of the proceedings in the case of Thomas Coe, tried in Bradford on March 3rd, 1897, as published in the *Bradford Observer*, the *Bradford Telegraph*, the *Bradford Argus*, and the *Yorkshire Post*—of which to its knowledge no correction or contradiction had been published—is of opinion that the stipendiary used language on that occasion which was uncalled for, and was discourteous and disrespectful to Dr. Gladstone, and was unworthy of the magisterial bench; and that the language was aggravated by the introduction of irrelevant matters calculated to prejudice Dr. Gladstone in the opinion of the public and of the Infirmary Board, and to intimidate him into giving evidence; and that copies of this resolution be sent to the papers above-named, to the Home Office, and to the medical papers."

### SCHOOL SANATORIA.

AT the Portsmouth County Court recently Mr. Montague H. Foster, headmaster and proprietor of Stubbington House School, near Gosport, sued Lieutenant-Colonel L. Marshall, of 63, Harrington Gardens, London, for £21, board and sanatorium charges for twenty-one days, in respect to his son, who was a pupil at plaintiff's school. The defence was that the charges were exorbitant; a sum equivalent to 5s. a day, and the doctor's fee (£1 11s. 6d.) had been paid into court. Mr. Cababe, barrister, who appeared for plaintiff, said that in the summer of 1894, just before the vacation began, there was an outbreak of chicken-pox at Stubbington House School, and one of the defendant's boys caught it. He was removed to a sanatorium near the school, which plaintiff had established for sick boys, and later on Mrs. Foster wrote to Lieutenant-Colonel Marshall, saying that, although the boy was not free from infection, he would be fit to travel in a few days. On July 27th the defendant wrote declining to have his boy home until he was absolutely recovered, at the same time threatening plaintiff with heavy penalties under the Infectious Diseases Act if he did not keep the lad until he was free from infection. He was, therefore, kept at the sanatorium, necessitating the staying on of the nurse and servant during the whole of the holidays. Plaintiff told the defendant that if the boy stayed at the sanatorium his charge would be a guinea a day. For the defence, Mr. Randolph, barrister, called Mr. Leonard Marshall, cousin of defendant, one of the masters at Charterhouse School, who said that if a boy was an inmate of the sanatorium at the school during the holidays a charge of 3s. a day was made. He added, however, that a sum of 1s. extra was charged in respect of every boy attending the school to go towards expenses in case of sickness. His Honour said that defendant had brought the trouble upon himself by what he could not help but characterise as extraordinarily indiscreet conduct. The form of the letters written by him was conceived in the worst possible taste. He gave judgment for plaintiff for the full amount claimed, less the sum paid into court, and costs.

### CORONER'S INQUEST: USELESS VERDICT.

HOUSE-SURGEON (Ireland) informs us of the result of an inquest in which he was called as a medical witness. It appears that a child, 6 weeks old, well-nourished, was brought to the hospital dead, with a report that it was found dead in bed with the parents, and close to the mother's side, and that it was in its usual health the night before. There were no external marks of violence nor any special indications of the cause of death. On being called to give evidence, the magistrate acting as coroner suggested various causes of death, and, no *post-mortem* examination having been ordered, our correspondent was unable to assign one, so the jury returned a verdict, under the direction of the magistrate, of "death from natural causes." "House-Surgeon" complains that the magistrate, in summing up to the jury, reflected upon the fact of the doctor not being able to assign a cause of death, and virtually censured him by telling the jury to disregard his evidence.

*** This case is a sample of many others which occur in which the verdict is useless, and in which the most important part of the evidence is omitted. This could only be obtained by a *post-mortem* examination. We regret to say that some coroners are remiss in this particular, and frequently from such omissions the inquest becomes a mere farce, the coroner and jury notably failing in their duties. "House-Surgeon," who was sworn previously to giving evidence, was correct in not venturing to assign a cause of death, although, as he says in his letter, the external appearances and circumstances in connection with the case were not inconsistent with a death caused by suffocation.

In answer to a second question, "House-Surgeon" is bound to obey the summons of the coroner, whether the inquest is held inside or outside the hospital; and if a deceased person is brought to the hospita dead, he is entitled to receive fees under the Medical Witness Act.

# UNIVERSITIES AND COLLEGES.

### UNIVERSITY OF OXFORD.

MR. ELLIS, of Epsom College, has gained a scholarship in classics at Lincoln College.

### UNIVERSITY OF CAMBRIDGE.

MR. GILL, of Epsom College, has obtained a mathematical exhibition at Magdalen College.

### UNIVERSITY OF EDINBURGH.

THE winter session in the medical classes of the University of Edinburgh and Extra-Academical School was closed on Friday last, March 19th, to be resumed for the summer session on Tuesday, May 4th.

CHAIR OF PUBLIC HEALTH.—As has already been stated in these columns, the late Mr. A. L. Bruce left a sum of money for the purpose of founding an endowment for a chair of Public Health in the University of Edinburgh. That sum was augmented by members of Mr. Bruce's family, till it amounted to £5,000. Next Mr. John Usher, of Norton, came forward and presented the sum of £8,000 further to augment the endowment. The Lord Provost of Edinburgh has now intimated that he has learned that an Edinburgh firm has undertaken to subscribe the remaining £1,000 necessary to make up the sum required by the University Commissioners to establish the chair.

The appointment of Sir Henry Duncan Littlejohn, LL.D., M.D., to the chair of Forensic Medicine in the University of Edinburgh, vacant by the retirement of Sir Douglas Maclagan, M.D., is officially gazetted.

### CONJOINT BOARD IN IRELAND.

PRELIMINARY EXAMINATION.—The following candidates have passed this examination:

*Honours Division* (in order of merit).—J. Parker, T. A. Dillon, W. E. Meredith.

*Pass Division.*—A. W. Allen, R. M. Atkins, H. L. Becker, W. S. Carter, J. P. Condon, J. A. J. Cowley, C. D. C. Cummins, M. J. Dowling, J. F. Farrell, L. Gordfoot, W. J. Greehy, C. M. Griffin, M. R. J. Hayes, T. Hunt, G. Levis, R. C. Nicholl, M. A. A. O'Brien, M. J. O'Meara, J. O'Regan, R. H. G. Oulton, P. W. Power, D. L. Rogers, A. M. Sayers, W. Shorten, H. T. Stark, J. Stuart, C. Waters.

DIPLOMA IN STATE MEDICINE.—The following candidates have passed this examination:

*Honours.*—F. A. Craig, M.B.R.U.I.; J. E. Hancock, M.R.C.S.Eng., L.R.C.P.Lond.

### SOCIETY OF APOTHECARIES OF LONDON

PASS LIST, March, 1897. The following candidates passed in:

*Surgery.*—E. C. Bailey, King's College; G. E. Brooke, Cambridge, and London Hospital; R. Holt, Royal College of Surgeons in Ireland; G. F. May, McGill University; J. Ponsonby, Guy's Hospital; L. W. Seymour, St. George's Hospital; A. Stein, Middlesex Hospital.

*Medicine, Forensic Medicine, and Midwifery.*—H. M. Church, McGill University; J. F. Fox, Cork and Westminster Hospital; F. T. Knott, London Hospital; W. L. G. Morgan, St. Thomas's Hospital.

*Medicine and Forensic Medicine.*—C. H Church, McGill University; H. Lewkowitsch, Breslau; M. S. Martin, Calcutta.

*Medicine and Midwifery.*—E. L. C. Muspratt, King's College.

*Medicine.*—J. Cater, King's College; A. J. Pedley, Birmingham; A. W. Robertson, St. Bartholomew's Hospital; E. G. Smith, London Hospital.

*Forensic Medicine and Midwifery.*—W. Mawer, St. Bartholomew's Hospital; A. R. O'Fflahertie, London Hospital.

*Forensic Medicine.*—E. J. E. Coop, Birmingham and St. Thomas's Hospital; A. M. Weir, Royal Free Hospital.

*Midwifery.*—C. I. Ellis, Aberdeen and St. Thomas's Hospital; A. Gandier, Toronto University; C. G. Schultz, St. Mary's Hospital; A. Stein, Middlesex Hospital.

The diploma of the Society was granted to Messrs. Brooke, Ellis, Gandier, Morgan, Pedley, Ponsonby, Robertson, Seymour, Smith, and Stein.

# OBITUARY.

THE death is recorded, in his 84th year, of Mr. RICHARD SKINNER HENNING, one of the oldest medical practitioners in Tunbridge Wells. He qualified as M.R.C.S.Eng. and L.S.A. in 1849. He had been resident in Tunbridge Wells for nearly half a century, and 45 years ago was assistant to the late Dr. Hargreaves. He leaves a family of sons to regret his loss.

# MEDICO-PARLIAMENTARY.

*HOUSE OF LORDS.*

INFANT LIFE PROTECTION BILL.

This Bill is down for second reading in the House of Lords on Monday, March 29th.

THE PHARMACY ACTS.

A copy of the Order in Council, dated March 19th, 1897, approving of a regulation made by the Pharmaceutical Society of Ireland, has been laid before the House.

*HOUSE OF COMMONS.*

NAVY MEDICAL SERVICES.

THE report of Committee of Supply on the Navy Estimates has been brought up and agreed to, the following resolution, amongst others, receiving the assent of the House: "That a sum, not exceeding £161,400, be granted to Her Majesty, to defray the expense of medical services, including the cost of medical establishments at home and abroad, which will come in course of payment during the year ending on the 31st day of March, 1898."

VIVISECTION.

MR. MACNEILL asked the Secretary of State for the Home Department whether the inspectors appointed for the purpose of securing a compliance with the provisions of 39 and 40 Vic., c. 77, to visit places licensed for the practice of vivisection had hitherto been persons who either had practised vivisection in the past or shown the strongest sympathy with the practice of vivisection; were there any of those inspectors who were opposed to the practice of vivisection; and whether he would consider the advisability of not confining the inspection of licensed places for vivisection to inspectors who were advocates of the system.—THE HOME SECRETARY: The inspectors have been appointed by my predecessors without regard to their advocacy of or opposition to the system established by statute under which experiments may be performed on living animals. If occasion arises I shall pursue the same policy. The scientific knowledge required in an inspector implies a knowledge of experiments on animals; and I am satisfied that the inspection is carried out with the strictest regard to the law and to considerations of humanity.—MR. MACNEILL: I beg to ask the Secretary of State for the Home Department whether his attention has been directed to the account in the press of a *soirée* to which 400 guests were invited, in honour of the completion of the new laboratories in connection with St. George's Hospital Medical School, the report stating that in the physiological laboratory were displayed illustrations of new methods employed in the serum diagnosis of cholera and diphtheria; and whether St. George's Hospital has a licensed laboratory for the performance of experiments on the bodies of living animals; and, if so, why has not this hospital been included in the last return of places licensed for vivisection.—THE HOME SECRETARY: I have seen a newspaper account of the reception referred to, but do not gather from it that anything illegal took place. There is no licensed laboratory at St. George's Hospital.

THE NEW SICK CHILDREN'S BOARD.

MR. BEMROSE asked the President of the Local Government Board, with reference to the proposed order for a new Sick Children's Board, how many replies had been received from Boards of Guardians and managers, and how many of these expressed approval of the order as it stood?—MR. CHAPLIN: Since the date of the Conference I have received communications from seven Boards of Guardians out of thirty, and two school districts out of six. Three out of the seven Boards of Guardians either approve the draft order or suggest as an alternative that the Metropolitan Asylums Board should take charge of the cases. One Board prefers the Metropolitan Asylums Board if there is to be any change at all, to which it is opposed. Another suggests that the classes referred to should be assigned to some school or group of schools, and the remaining two object. Of the two school districts one approves and the other objects.

THE COUNTY COUNCIL AND THE WATER SUPPLY OF LONDON.

MR. CHAPLIN, replying to SIR F. DIXON-HARTLAND, said: I have ascertained that the London County Council have, subject to the passing of the Annual Maintenance Vote, assented to the expenditure of £1,500 on plans of sections of the Wye portion of the Welsh scheme, and that the expenditure is considered to be authorised by Section 111 of the London Water Act, 1802. The Local Government Board have no authority to intervene to prevent the expenditure; it will, of course, devolve on the district auditor in the case of the payments referred to, as in the case of any other payments by the County Council, to consider whether the expenditure has been legally incurred.

SUPERANNUATION OF POOR-LAW OFFICERS.

MR. T. W. RUSSELL, in reply to MR. ASHTON, said that the Local Government Board had no definite information as to how far the contributions for salaries of Poor-law officers under the Poor-law Officers' Superannuation Act would suffice to pay the allowances under the Act, but it had to be borne in mind that in the great majority of cases of officers to which the Act referred, the guardians, prior to the passing of the Act, were empowered to award superannuations without any contributions from the officers. The Act had conferred upon the officers the right to a superannuation, instead of its being optional with the guardians to grant superannuations, as was previously the case as regarded all officers who devoted their whole time to their duties, it being at the same time made obligatory on the officers to whom the Act applied to contribute a percentage of their salaries towards the cost of superannuation. The Local Government Board had seen the communication which Dr. Fatkin had addressed to the Leeds Board of Guardians, but could not undertake to have prepared actuarial calculations to determine the proportion of the cost of pensions would fall on the ratepayers if the Bill before the House became law, and looking to the thousands of authorities to which the Bill referred the Local Government Board did not think there were any data on which any actuarial calculations which could be relied upon could be made.

OPHTHALMIA IN PAUPER SCHOOLS.

DR. FARQUHARSON: I beg to ask the President of the Local Government Board whether the managers of the London pauper schools have for some years had the option of sending the children affected with ophthalmia to the Hanwell Ophthalmic Hospital, but have frequently not availed themselves of the opportunity; and, can he state why the Sutton Board kept a boy, named Reid, affected with purulent ophthalmia, first for many months in the Herne Bay Convalescent Home, and later moved him into the Sutton School Infirmary, although Dr. Downes, the Medical Inspector of the Local Government Board, had expressly recommended the managers to remove the lad to the Hanwell Ophthalmic Hospital?—MR. T. W. RUSSELL: It is not the case that the guardians generally in London have had the option of sending all the children affected with ophthalmia to the school referred to, as the accommodation has been inadequate for the reception of all children suffering from that disease. With respect to the boy Reid, the Local Government Board are informed by the managers of the South Metropolitan School District that on June 5th, 1894, they received a report from the medical officer of the Herne Bay Establishment to the effect that William Reid was suffering from chronic ophthalmia and might be benefited by treatment at Hanwell; and that the managers directed that the boy should be sent to Hanwell as soon as he could be received there. On June 22nd, 1894, a letter was sent to the clerk to the managers of the Central London School District, asking if there were vacancies in the school. On the 17th of the following month a further letter to the same effect was written, and on July 21st the reply was that there were no vacancies. Under these circumstances the boy was transferred to the Brighton Road School at Sutton, and was treated for ophthalmia in the infirmary there.

THE BLACK WATCH.

LORD G. HAMILTON, replying to SIR H. MAXWELL, said: It appears from the monthly returns, which have been received up to November last, that enteric fever prevailed in the regiment of the Black Watch at Sabathu, in the Punjab, during April, May, and June, increased in July, August, and September, but diminished greatly in October, while no cases were reported in November. The report as to the health of British troops for the year 1896 has not yet reached me; but I will ask the Government of India to expedite it, and also to furnish information as to the water supply at Sabathu, Dagshai, Kassauli, Solon, and Jutogh.

THE RICHMOND LUNATIC ASYLUM.

MR. CAREW asked the Chief Secretary for Ireland whether his attention had been called to the present alarming condition of the Richmond Lunatic Asylum in Dublin; whether he was aware that, with accommodation available for only 1,000 patients, 1,714 were housed there in October last, and that, in consequence of this overcrowding, beri-beri—a loathsome disease hitherto confined to the densely-populated and filthy quarters of Chinese and other Eastern cities—had appeared, and, of 113 patients attacked last year, 7 died up to December last; would he explain why, notwithstanding the repeated protests of two of the members of the Board of Control against overcrowding, no practical steps had been taken by that body to stamp out the disease; and whether, in the circumstances, the Government would see that immediate precautions were taken to prevent its spreading.—MR. G. BALFOUR: The Irish Government has been giving close and constant attention to the accommodation at the Richmond District Asylum, and to the outbreak of beri-beri there. The number of patients on the asylum register at the end of 1896 was 1,723, of whom 59 were at Portrane. The present accommodation of the Richmond Asylum is for 1,308 patients, in addition to which provision has been made for 80 patients at Portrane, and for 40 in the residence of the Resident Medical Superintendent (surrendered for that purpose), thus bringing up the present accommodation to 1,518. Further temporary accommodation for 220 patients is now being provided at Portrane. The number of deaths at Richmond from beri-beri during 1896 was 8, as against 123 deaths from various other causes. I may observe that the general death-rates in this asylum for 1895 and 1896 were the lowest recorded since the opening of the asylum. In 1895 the percentage of deaths from all causes was only 7.1, and in 1896 7.8, and comparing these rates with the death-rates in the principal English asylums during 1896, I find that, with two exceptions, the rates in the English asylums were much higher than at Richmond. Every effort has been, and is being, made by the Board of Control to stamp out the disease known as beri-beri, and to provide adequate accommodation for the patients.—MR. CARSON: Is it proposed to make any permanent enlargement of the asylum? The right hon. gentleman spoke of a "temporary arrangement."—MR. GERALD BALFOUR: I understand that a private Bill is in course of preparation, or of being passed through the House for the purpose.

BOARDED-OUT CHILDREN.

On the motion of MR. MUNDELLA, a return has been ordered of payments made by Boards of Guardians for children boarded out beyond the union under the boarding-out order and of the particulars as shown in form submitted.

BUBONIC PLAGUE.

Papers have been presented relating to the outbreak of bubonic plague in India, with a statement showing the quarantine and other restrictions recently placed upon Indian trade up to March, 1897.

THE PHARMACY ACTS.

There has been placed on the table a copy of the Order in Council, dated March 19th, 1897, approving of a regulation made by the Pharmaceutical Society of Ireland.

BILLS DEFERRED.

The second readings of the Poor-law Officers' Superannuation Act (1896) Amendment Bill, the Poor-law Officers' Superannuation (Ireland) Bill, and the Plumbers' Registration Bill have been formally deferred until Monday, March 29th.

NOTICES.

DR. FARQUHARSON proposes to ask the President of the Board of Agriculture on what evidence the cases of canine hydrophobia recently reported in the metropolitan district were diagnosed; how often was the certifying surgeon able to base his conclusions on (1) symptoms observed

during life, and (2) an examination of the nervous centres of the suspected dog by the scientific methods practised at the Brown Institute; and whether the department will in future require precise scientific detail before a dog is pronounced to be mad.

Mr. SAMUEL SMITH has intimated that on the Civil Service Estimates he will call attention to the report of the Poor-Law Schools Commission, and the steps proposed to be taken by the Local Government Board in consequence thereof.

# PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

## NOTES ON WORKHOUSES.

### PAUPER NURSES IN THE SOUTH DUBLIN UNION.

THE Philanthropic Association has recommended to the guardians of this union to replace the pauper nurses with probationers to be trained under the medical staff, at the same time bringing under the notice of the Board the system of blackmailing carried on by these said pauper nurses. The Chairman, who evidently lives in a paradise of his own creation, said "that he had a higher opinion of the supervision of the sisters of mercy than to think they would tolerate any such thing." We quite agree with him, and we go so far as to say that we believe that the sisters of mercy are breaking their hearts over this and other sad practices incident to the employment of pauper nurses; but so long as guardians will understaff the wards, supplementing this inefficient staff with the social failures and loose characters which come into the workhouses, so long will this system of blackmailing exist. It is known to every official in the workhouse, whether English or Irish, but very few dare say so; the officials are only too thankful to get the work done at any price with the miserable material to their hands, and so the bribes are winked at. As the result of the discussion by the South Dublin Board a resolution was put that the Visiting Committee should inquire into the system of employing nurses, and report. This resolution was put, and negatived.

### TYPHOID FEVER AT CARDIFF WORKHOUSE.

CARDIFF WORKHOUSE has kept fairly abreast of the times. Dr. Sheen, the medical officer, has always been on the alert to suggest improvements or to point out defects, and his Board as a rule has listened to him. But, as is often the case with old buildings, there is a weak point which reveals itself by causing some epidemic; the old nursery in this workhouse has just been an instance in point. It is in bad repair, is ill-arranged, and stands over a network of old drains, from which it is presumed there has been a leakage of foul air into the nursery block. Dr. Sheen has brought this offending block to the notice of his Board, and it is agreed to take down the buildings. We draw attention to this action on the part of the Cardiff Board, hoping to point a moral to other Boards who try patching rather than spend money in building. This latter course is true economy in the end.

## HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,381 births and 3,936 deaths were registered during the week ending Saturday last, March 20th. The annual rate of mortality in these towns, which had been 18.1 and 18.6 per 1,000 in the two preceding weeks, further rose to 18.7 last week. The rates in the several towns ranged from 9.6 in Derby, 12.0 in Croydon, 12.3 in Norwich, and 12.9 in Brighton to 23.4 in Manchester, 24.5 in Wolverhampton, 25.4 in Preston, and 26.9 in Salford. In the thirty-two provincial towns the mean death-rate was 19.2 per 1,000, and exceeded by 1.3 the rate recorded in London, which was 17.9 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.6 per 1,000; in London the rate was equal to 1.5 per 1,000, while it averaged 1.7 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.4 in Blackburn, 2.8 in Cardiff, 6.4 in Bolton, and 8.3 in Salford. Measles caused a death-rate of 1.2 in Cardiff, 1.5 in Gateshead, 5.6 in Bolton, and 6.1 in Salford; and whooping-cough of 1.1 in Bristol, 1.5 in Burnley, 1.6 in Swansea, and 2.4 in Blackburn. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 61 deaths from diphtheria in the thirty-three towns included 37 in London, 4 in Birmingham, 4 in Liverpool, 3 in West Ham, and 3 in Huddersfield. No fatal case of small-pox was registered during the week either in London or in any of the thirty-two large provincial towns. There were 29 cases of small-pox under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, March 20th, against 43 and 30 at the end of the two preceding weeks; 2 new cases were admitted during the week, against 18, 6, and 0 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 2,817, 2,746, and 2,685 at the end of the three preceding weeks, had further declined to 2,622 on Saturday last; 206 new cases were admitted during the week, against 237, 217, and 218 in the three preceding weeks.

## HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 20th, 877 births and 693 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 28.8 to 23.1 per 1,000 in the five preceding weeks, rose again to 23.3 last week, and was 4.6 per 1,000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 18.0 in Leith to 32.4 in Perth. The zymotic death-rate in these towns averaged 3.6 per 1,000, the highest rates being recorded in Glasgow and Perth. The 335 deaths registered in Glasgow included 21 from measles, 2 from scarlet fever, 3 from diphtheria, 24 from whooping-cough, 8 from "fever," and 8 from diarrhœa. Twelve deaths from measles and 5 from whooping-cough were recorded in Edinburgh, 2 from diphtheria in Dundee, and 3 from whooping-cough in Perth.

### INFLUENZA IN LONDON.

THE deaths directly referred to influenza in London last week were 24, and showed a further increase upon the numbers recorded in the three preceding weeks, which had been 13, 18, and 19 respectively. The average number of deaths from this cause in London in the corresponding week of the past seven years, during which influenza has been more or less prevalent, was as high as 61. Of the 24 fatal cases recorded in London last week, 8 were of children and young persons under 20 years of age, 8 of persons aged between 20 and 40 years, and 8 of persons aged upwards of 60 years. Influenza appears to be more prevalent in South London than in other parts of the metropolis, especially in Wandsworth, Camberwell, and Plumstead. The mortality from diseases of the respiratory organs continues to be unusually low; the 317 deaths referred to these diseases last week in London being as many as 206, or nearly 40 per cent., below the average.

### MICROBES IN LONDON WATER.

PROFESSORS W. CROOKES, F.R.S., and J. Dewar, F.R.S., in their report to Major-General A. de Courcy Scott, R.E., water examiner for the metropolis, issued on March 22nd, showing the composition and quality of daily samples of the water supplied to London last month, state that of the 168 samples analysed by them one was recorded as "clear but dull," while the rest were found to be "clear, bright, and well filtered." The rainfall at Oxford was 2.4 inches, being an excess of 0.65 inch on the average for the corresponding month during the last thirty years. The analysts add: "The quality of the London waters during February has been uniformly good, with one exception. Since the beginning of this year, we have much enlarged the scope of our inquiries, and have examined bacteriologically the clear water well at the Hampton Works of the Grand Junction Water Company, as well as that at the Kew Works of the same company. On some occasions during the month the Hampton water has given high results; these were at once communicated to the engineer of the company, and the matter is receiving serious attention."

### PAYMENT BY HEALTH RESULTS.

IN August last a petition was presented to the Marquis di Rudini, signed by 2,000 Italian medical men, in which attention was directed to the need of systematising the application of the principles of preventive as opposed to curative medicine throughout the kingdom, of making uniform regulations with regard to infectious diseases, and of promoting among medical men a real interest in all matters pertaining to public health. The outcome of the representations made is now embodied in a scheme of proposed sanitary legislation (*Progetto di legge sanitaria*), which has been prepared by Professor Carlo Ruata, of Perugia. This scheme sets out the functions of the several bodies (from the central health office to the local officials) who are concerned with sanitary administration; it provides for the notification of certain infectious diseases and regulates in certain particulars the practice of medicine and pharmacy. A code of regulations is appended to the general scheme, the scope of which has been above indicated. A striking feature among the proposals here made is that which regulates the stipend of the health officer by the extent to which the mortality in his district undergoes diminution. A further incentive is afforded by the proposed institution of a system of rewarding by the presentation of medals those in whose districts the best results are manifested. Perhaps a more substantial benefit than those just referred to is that which it is proposed to confer by a scheme of pensions. The new law contemplates a uniform system of statistical returns, and contains several provisions which should materially improve Italian health administration.

### SPECIAL FEE FOR PUERPERAL PERITONITIS.

T.M., who is a district medical officer, asks whether he is not entitled to a special fee, and, if so, what fee, for attendance on a case of puerperal peritonitis, the patient having been recently confined when he is first called to attend by relieving officer's order.

*** Our correspondent does not say at what period after confinement his attendance was required; but if the case was one of peritonitis, and undoubtedly of puerperal origin occurring not many days after confinement, he would appear to be entitled to a special fee of £2 (Art. 183, Consolidated Order).

### FEES FOR LUNACY CERTIFICATES.

H. C. A.—As the amount of the fee was not arranged beforehand, it cannot be specifically stated that "H. C. A." is entitled to any particular sum. "H. C. A.'s" charge appears, however, to err on the side of moderation. The customary fee for a lunacy certificate, given in the course of the ordinary day's round, is a guinea, and a charge of three guineas for two lunacy certificates, the granting of which involved two days' absence from home, is surely the irreducible minimum.

### ATTENDANCE OF PRIVATE PRACTITIONER ON A CASE OF PAUPER MIDWIFERY.

A.T.S. states that he lives very near a pauper patient who is about to be confined, and that the parish doctor lives at a distance. "A.T.S." considers he will in all probability be summoned to attend the case, and he wishes to know whether he can claim a fee of the guardians if he attends without any order to do so.

*** Under the conditions stated, our correspondent could not claim a fee.

PRESENTATION.—Dr. Trimble has been presented by the ladies' sick nursing class, which he has conducted at Bamber Bridge, with a cigar case as a mark of their esteem.

# MEDICAL NEWS.

The Lord Chancellor, on the recommendation of the Lord Lieutenant, has placed the name of Dr. James Grey Glover (Highbury Place) on the Commission of the Peace for the County of London.

Hospital Saturday Fund.—The twenty-third annual report of the Hospital Saturday Fund states that the receipts for the year were as follows: Workshop collection, £16,337; street collection, £4,884; donations, £185; interest, £101; and ambulance (donations, sales, and fees), £105. The workshop collection shows the satisfactory increase of £1,074, and the street collection of £241.

Dr. Harvey Littlejohn has resigned the post of medical officer of health for Sheffield on his appointment as lecturer on medical jurisprudence in the medical school of the Royal Colleges of Physicians and Surgeons, Edinburgh. The appointment had been held by Sir Henry Littlejohn, who resigned it recently on being elected to the chair of Forensic Medicine in the University of Edinburgh.

Male Nurses.—The Secretary of the Male Nurses' (Temperance) Co-operation, 10, Thayer Street, Manchester Square, W., informs us that the third year of the organisation's work has been most successful. The average earnings, after paying all expenses, have been at the rate of £101 18s. 2d. per man; the staff employed has been more than doubled, and now numbers nearly 100 men. A sick fund has been established to provide for the nurses during illness.

A Home of Comfort for the Dying has been opened at "Dowran," Southsea, in charge of the Winchester Diocesan Deaconesses, for the reception of better-class patients, clergy, missionaries, churchworkers, nurses, governesses, etc., who are suffering from progressive and incurable disease. Patients when possible should pay towards their support. Application should be made to the Mother Superior, St. Andrew's Home, Portsmouth.

Metropolitan Coroners' Salaries.—At a recent meeting of the London County Council, on the recommendation of the Public Control Committee, the Council rescinded a resolution passed in 1892 fixing 30s. per inquest as the basis for the revision of all coroner's salaries in London, and fixed the salary of Dr. Danford Thomas, Coroner for the Central District, at £2,263. It was also resolved to revise the salary of Mr. Wynne Baxter, Coroner for the Eastern District, and to fix the amount at £1,952 per annum.

Edinburgh Hospital for Infectious Diseases.—At a meeting of the Edinburgh Medico-Chirurgical Society on March 17th, the places of the proposed hospital for infectious diseases at Colinton Mains were considered. The city architect, Mr. R. Morham, demonstrated the plans by limelight. After discussion, the following resolution was passed on the motion of the Chairman (Dr. W. Craig, Vice-President) seconded by Dr. Joseph Bell: "That the Society approve of the site selected, and generally of the plans." It was further agreed, on the motion of the Chairman seconded by Professor Struthers: "That the number of beds to be provided (600) is not more than the wants of Edinburgh demand."

The Home Hospitals Association.—The nineteenth annual meeting of the Home Hospitals Association was held on March 16th, Mr. Hugh Hammersley presiding. The report testified that the past year had been one of satisfactory progress, 283 patients having been admitted. In moving the adoption of the report, the Chairman referred to the fact that the hospital was the only home hospital in London that was carried on on commercial principles; it was established simply to benefit the middle and upper classes. Since its commencement in 1880 they had never asked for contributions from the public, but had always balanced their receipts with their expenditure. He alluded to the favour with which the hospital was looked upon by the medical profession, 67 medical practitioners having had patients there during the past year.

The report of the Society of Medical Phonographers issued by Dr. Neil, the secretary, shows that in the year just closed there was a net increase of 60 members, bringing the number up to 280 distributed over every English-speaking country, except Canada, as well as throughout Europe, India, China, and Japan. Of medical students 43 have joined the Society, but now that shorthand is a mark-bearing subject of the Preliminary Examination an increase in the number of student members is not unreasonably looked for. The Society has representatives at all the chief centres of medical education. It has instituted an examination of its own among medical students, and awarded prizes for proficiency in shorthand, and its monthly journal, the *Phonographic Record*, has maintained a high standard of excellence.

The Proposed Lunacy Hospital for London.—The Commission of inquiry appointed by the London County Council to study the system of treating pauper lunatics on the Continent will consist of three members of the Asylums Committee and three officers. The Commission will shortly visit the Salpètrière Asylum and the St. Anne's Hospital in Paris, the Charité Hospital at Berlin, the Insane Colony of Gheel in Belgium, the Alt-Scherbitz Asylum at Leipzic, the Gabersee Asylum at Munich, the Bielefeld in Hanover, and the Herzbergen, Dalldorf, and Bresdorf Asylums. A motion made at a recent meeting of the London County Council to disallow the travelling and out-of-pocket expenses of the members of the Commission was defeated.

Lead Poisoning and Employer's Liability.—In Germany there is no special law relating to the employment of glazes in the manufacture of earthenware. It is, however, prescribed by the General-Ordnung that everything that is injurious to the health of workpeople shall be avoided. Lately a manufacturer in that country, after having introduced into his factory the best mechanical contrivances for the removal of dust and securing excellent ventilation, and having provided dining rooms and baths for his employees, was made responsible for the loss of eyesight to a "dipper" who had been supplied with a raw white lead glaze solution. There is no restriction in Germany as to the percentage amount of lead which these glazes shall contain. Experience is a valuable monitor, and since the unfortunate occurrence which made the dipper in question a pensioner at the hands of the factory owner, the use of raw white lead glaze has been abandoned in that particular factory, and fritted lead, which is said to be innocuous, is now used instead. We are not disposed to go the whole length with the manufacturer in his statement that fritted lead is absolutely harmless. In the report of the Potteries Committee of the Home Office it is shown by Mr. Laurie, after careful experimentation, that fritts are much less soluble in artificial gastric juice than white lead; but that if these contain, in addition, borax, the solubility of lead increases with the percentage of borax present in the fritt.

The Insane in Syria.—Mr. Theophilus Waldmeier, who has been doing mission work in Syria for some years, and who founded the Friends' Mission on Mount Lebanon, has had many opportunities of witnessing the barbarous cruelty inflicted upon the lunatics in that and surrounding districts. He has issued a strong appeal for funds to enable him and the executive committee that has been formed to build an asylum for these unfortunates. His descriptions of the vaults and chains, torturing and cruelty, the ignorance and superstition which surround the care and treatment of these insane Syrians is even worse than the conditions under which the insane lived in our own kingdom at the end of the last and the beginning of the present century. Dr. Clouston, of Morningside, and Dr. Yellowlees, of Glasgow, both bear testimony from personal observation to the need there is for the establishment of an institution for the insane such as Dr. Waldmeier advocates. A considerable sum (nearly £3,000) has already been subscribed towards the £10,000 needed. Committees have been appointed in this and other countries to aid in the work. The London Committee is a strong and representative one, and Sir Richard Tangye, 35, Queen Victoria Street, E.C., is the treasurer for Great Britain. He will be glad to receive subscriptions and give any further information. We wish this most humane and laudable undertaking every success.

Royal Meteorological Society's Exhibition.—The exhibition arranged by the Royal Meteorological Society in commemoration of the Queen's reign was open from March 16th to 19th in the large library of the Institution of Civil

Engineers, Great George Street, Westminster. Of the instruments exhibited those which were in use in 1837 were not very numerous, but many of them were somewhat quaint and of great interest. Sir E. H. Verney, Bart., showed an old barometer with a large spirit thermometer, which latter has an arbitrary scale, decreasing as the thermometer increases, "extream cold" being 90° and "extream hot" 0°. The instruments in use during 1897 were not very numerous, and comprised various forms of barometers, thermometers, hygrometers, rain gauges, anemometers, nephoscopes, sunshine recorders, actinometers, aneroids, electrical and miscellaneous instruments. Many of the instruments are self-recording, and were shown in action. The most interesting exhibit was a railed-off enclosure about 12 feet square, covered with green baize, representing a typical climatological station of the Royal Meteorological Society. The exhibition also included a number of charts and photographs, which were of great interest, particularly those by Mr. J. Leadbeater of ice crystals on window panes. Mr. W. H. Dines showed an experiment illustrating the formation of the tornado cloud; and Mr. Birt Acres exhibited some exceedingly interesting studies of form and movement of clouds and waves projected on the screen by his cinematoscope.

THE ORAL INSTRUCTION OF THE DEAF AND DUMB.—A festival dinner in aid of the funds of the Association for the Oral Instruction of the Deaf and Dumb was held on March 17th in the Whitehall Rooms of the Hôtel Métropole under the presidency of the Duke of York, who, in proposing the toast of the evening, "Prosperity to the Association," referred to its history during the past thirty years, and to the great impression which had been made upon him by a visit to the institution a short time before. The quickness with which the pupils answered questions testified not only to the value of their training, but to the superiority of the oral system over others. This satisfactory state of affairs was mainly due to the present director, Mr. William van Praagh, whose patience, energy, and perseverance were beyond all praise. The great necessity for the future was the establishment and recognition of a properly constituted college for the training and certification of teachers of the deaf and dumb. The present institution, though it endeavoured to be self-supporting, had been compelled to borrow money from its bankers, and had purchased, but not paid for, the freehold of the house in Fitzroy Square. To place it upon a sound financial basis the sum of £7,000 was required, and he reminded those present that this was only the third public appeal that the Association had made within thirty years. The Duke of Fife having replied, subscriptions to the amount of £3,300 were announced. Sir F. Milner, M.P., then proposed the toast of "The Committee and Executive," to which Mr. van Praagh responded.

## MEDICAL VACANCIES.

The following vacancies are announced:

ADMINISTRATIVE COUNTY OF THE PARTS OF HOLLAND, Lincolnshire.—Public Analyst and District Analyst. Remuneration as Public Analyst, annual fee £10 10s., together with fee of 10s. 6d. for each analysis; as District Analyst £1 for each analysis. Applications to H. Chaderton Johnson, Deputy Clerk of the County Council, Sessions House, Boston, by April 12th.

BETHLEM HOSPITAL.—Two Resident Clinical Assistants, doubly qualified. Appointments for six months. Apartments, complete board, and washing provided. Applications endorsed "Clinical Assistantship" to the Treasurer, Bridewell Hospital, New Bridge Street, E.C., by April 5th.

BIRKENHEAD UNION.—Assistant Medical Officer for the Infirmary. Workhouse, and Schools; doubly qualified. Salary, £80 per annum, with board, washing, and apartments. Applications, endorsed "Assistant Medical Officer," to John Carter, Clerk to the Guardians, Clerk's Offices, 45, Hamilton Square, Birkenhead, by March 29th.

BRISTOL HOSPITAL FOR SICK CHILDREN AND WOMEN.—House-Surgeon, doubly qualified. Salary, £100 per annum, with rooms and attendance. Applications endorsed "House-Surgeon" to the Secretary by April 5th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Dental Surgeon. Must be Licentiate of Dental Surgery. Applications to J. Francis Pink, Secretary, by April 5th.

DEVON AND EXETER HOSPITAL, Exeter.—Assistant House-Surgeon, doubly qualified and unmarried. Salary, £40 per annum, with board and lodging, not including alcoholic liquors and aërated waters. Applications to Albert E. Boyce, Secretary, by March 29th.

DISTRICT INFIRMARY, Ashton-under-Lyne.—House-Surgeon, doubly qualified. Salary, £100 per annum with board and lodging. Applications, marked "Application for the office of House-Surgeon," to William Bottomley, Hon. Sec., 120, Stamford Street, Ashton-under-Lyne, by March 31st.

ENNISCORTHY DISTRICT ASYLUM.—Assistant Medical Officer, qualified in medicine, surgery, and midwifery, not more than 30 years of age, and unmarried. Salary, £100 per annum, with allowance of furnished apartments, rations, etc., valued at £100 per annum. Applications to the Medical Superintendent. Personal attendance before the Board of Governors required on April 14th.

GENERAL HOSPITAL, Nottingham.—Assistant House-Surgeon. Appointment for six months. Board, lodging, and washing provided; no salary. Applications to the Secretary by March 31st.

GUEST HOSPITAL, Dudley.—Resident Assistant House-Surgeon. Appointment for six months. Board, lodging, and washing provided. No salary. Applications to the Secretary by April 1st.

HASTINGS, ST. LEONARD'S, AND EAST SUSSEX HOSPITAL.—Third Honorary Assistant Surgeon. Applications to William T. Gant, Secretary, by April 3rd.

HOLBEACH UNION.—District Medical Officer for the Lutton and Gedney Union. Salary, £37 10s. per annum, and fees for surgical operations and midwifery. Will also be appointed Public Vaccinator for the District. Applications to Richard P. Mossop, Clerk to the Guardians, by April 7th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Applications to the Secretary by March 31st.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Junior Resident Medical Officer. Salary, £25 per annum, with board, lodging, and washing. Appointment for six months, but renewable for a further term. Applications to the Secretary-Superintendent by April 7th.

LONDON COUNTY ASYLUM, Hanwell, W.—Fifth Assistant Medical Officer, between 23 and 30 years of age, doubly qualified. Salary, £120 per annum, rising by £5 a year to £150, with board, furnished apartments, and washing. Applications to R. W. Partridge, Clerk of the Asylums Committee, Asylums Committee Office, 21, Whitehall Place, S.W., before April 3rd.

MANCHESTER ROYAL EYE HOSPITAL.—House-Surgeon; must devote his whole time to the duties. Salary, £70 per annum, with residence, board, and washing. Applications, endorsed "House-Surgeon," to the Chairman of the Board of Management by April 6th.

MONTROSE ROYAL ASYLUM.—Medical Superintendent. Salary, £700 per annum, with free house, fire and light. Appointment an annual one. Applications, endorsed "Physician Superintendent," to Alexander Lyell, Solicitor, Clerk to the Board of Managers, 81, High Street, Montrose, by May 1st.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (ALBANY MEMORIAL), Queen Square, Bloomsbury, W.C.—House-Physician. The Junior House-Physician is a candidate, and applicants should state whether they are prepared to accept either appointment. Salary as Senior House-Physician is £100, and of the Junior £50, per annum, with board and apartments. Applications to B. Burford Rawlings, Secretary and General Director, by April 1st.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Assistant Resident Medical Officer. Appointment for four months. Salary, £50 per annum, with board and residence. Applications to the Secretary by March 31st.

RIPON DISPENSARY AND COTTAGE HOSPITAL.—Resident House-Surgeon and Dispenser; unmarried. Salary, £70 per annum, with board and lodging. Applications to F. D. Wise, Honorary Secretary. Duties to commence April 1st.

ROXBURGH DISTRICT ASYLUM, Melrose.—Assistant Medical Officer. Salary, £100 per annum, with board, rooms, attendance, and washing. Applications to the Medical Superintendent by March 31st.

ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN, Dyke Road, Brighton.—House-Surgeon; doubly qualified. Salary, £80 per annum, with board, lodging, and washing; no stimulants. Applications to the Chairman of the Medical Committee. Election on April 2nd.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—House-Physician, doubly qualified. Appointment for six months. No salary, but board, etc., provided. Assistant Physician to have care of outpatients, must be F. or M.R.C.P.Lond. Applications to the Secretary by April 17th.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Senior House-Surgeon. Candidates must state whether in the event of the Junior House-Surgeon being appointed they would be willing to accept the office of Junior House-Surgeon. Applications to Robert J. Newstead, Secretary, by March 31st.

ST. LUKE'S HOSPITAL, Old Street, London, E.C.—Clinical Assistant; must be qualified. Appointment for six months, with board and residence. Applications to W. H. Baird, Secretary.

ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM, City Road, E.C.—House-Surgeon. Must be F. or M.R.C.S.Eng. Salary, £50 per annum, with board and lodging. Applications to E. Penman, Secretary, by March 29th.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—Curator of Museum and Demonstrator of Pathology. Applications to the School Secretary, Mr. Frederic H. Madden.

SWANSEA GENERAL HOSPITAL.—House-Physician. Appointment for one year; at end of first six months to act as House-Surgeon. Salary, £50 per annum, with board, apartments, laundress, and attendance. Applications to J. V. Morris, Secretary, 9, Castle Street, Swansea, by April 17th.

UNIVERSITY COLLEGE, Bristol.—Medical Tutor. Stipend, £125 per annum. Applications to E. Markham Skerritt, M.D., Dean, by March 31st.

UNIVERSITY COLLEGE, London.—Assistant Ophthalmic Surgeon. Applications to the Secretary by April 7th.

UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE, Cardiff.—Demonstrator in Physiology for the Summer Session. Applications by March 31st.

VICTORIA HOSPITAL, Folkestone.—House-Surgeon and Dispenser. Salary, £80 per annum, rising to £100. Applications by April 13th.

WEST SUSSEX COUNTY ASYLUM.—Assistant Medical Officer. Under 30 years of age, and unmarried. Salary, £150 per annum, with board, lodging, washing, and attendance. Applications, endorsed "Assistant Medical Officer," to E. H. Blaker, Clerk to the Committee, West Pallant, Chichester, by April 5th.

WESTON-SUPER-MARE HOSPITAL.—House-Surgeon, unmarried, doubly qualified. Salary, £60 per annum, with board and residence in the hospital. Medical Officer to the Provident Dispensary attached to the hospital, doubly qualified. Salary, £80 per annum, with board, lodging, and washing. Applications to the Honorary Secretary for the former by March 30th and for the latter by April 3rd.

WOLVERHAMPTON EYE INFIRMARY.—House-Surgeon. Appointment for six months. Terms £70 per annum, with rooms, board, and washing. Applications to W. Blake Burke, Secretary, by April 24th.

WONFORD HOUSE HOSPITAL FOR THE INSANE, near Exeter.—Assistant Medical Officer, doubly qualified, and not more than 28 years of age. Salary, £150 per annum, with furnished apartments, board, and washing. Applications to Dr. Deas, Medical Superintendent by April 6th.

## MEDICAL APPOINTMENTS.

ADAMS, James, M.D.St.And., M.R.C.S.Eng., reappointed Medical Officer of Health to the Barnes District Council.

ADAMS, Joseph, M.B., C.M.Edin., reappointed Medical Officer for the Runcorn Rural District.

COLLINS, H. A., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Saxmundham District of the Plomesgate Union, *vice* M. E. Ling, M.R.C.S.Eng., L.S.A., resigned.

CORBEN, C., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the Caldecott District of the Chepstow Union.

COWEN, G., M.D.Dub., M.B., B.Sc., appointed Medical Officer for the Malden District of the Kingston Union, *vice* E. Child, M.R.C.S.Eng., L.S.A.

CROOKS, James, M.D.and C.M.Trin.Toronto, L.R.C.S.Edin., L.S.A.Lond., appointed Medical Officer and Public Vaccinator for the Eighth District of the Lexden and Winstree Union, and the Seventh District of the Sudbury Union, *vice* H. D. Palmer, M.R.C.S.Eng., L.S.A.Lond., resigned.

DAVEY, E. L., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the Third District of the Dover Union, *vice* R. S. Davey, M.D.St. And., M.R.C.S.Eng., deceased.

DAY, T. M., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the Harlow District of the Epping Union, *vice* R. N. Day, M.R.C.S.Eng., L.S.A., resigned.

EATON, John, M.D.Glasg., M.B., C.M., appointed Medical Officer and Public Vaccinator for the Cleator District of the Whitehaven Union, *vice* A. Matthews, M.R.C.S.Eng., deceased.

EDWARDS, Dr. A., appointed House-Surgeon to the Greenock Infirmary.

FELLOWS, F. M., M.B., C.M.Edin., appointed House-Surgeon to the General Hospital, Great Yarmouth, *vice* K. W. Montserrat, resigned.

FLOYD, Stephen, M.D., appointed Medical Officer of Health to the Llandrindod Wells Urban District Council. *vice* F. H. Roberts, M.R.C.S. Eng., L.R.C.P.Lond.

HARPER, J. R., M.R.C.S., L.R.C.P.Lond., reappointed Medical Officer for the No. 2 District of the Barnstaple Union.

HARRIS, S. C., L.F.P.S.Glasg., L.S.A., reappointed Medical of Health to the Ely Urban District Council).

HAWARTH, Frederick G., M.B., C.M.Glasg., D.P.H.Camb., reappointed Medical Officer of Health to the Darwen Town Council.

HUTCHISON, R., M.D., appointed Demonstrator of Physiology at the London Hospital Medical College.

IREDALE, J., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health to the Mablethorpe Urban District Council.

JOHNSTONE, G. W., L.R.C.P.Edin., L.F.P.S.Glasg., reppointed Medical Officer of Health to the Upholland District Council.

JOHNSTONE, J. P., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the 1st A District of the Langport Union, *vice* T. G. Brooke, M.R.C.S. Eng., L.S.A.

MANBY, E. P., B.A., M.D., D.P.H., appointed Assistant Lecturer on Public Health at University College, Liverpool.

MARSHALL, Dr. H., appointed Medical Officer for the Third District of the Battle Union, *vice* F. M. Wallis, M.R.C.S.Eng., L.S.A., resigned.

METCALFE, R., M.D.St.And., reappointed Medical Officer of Health for the Leyburn Rural District.

MILLAR, W., M.B., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Wilton District of the Sculcoates Union, *vice* R. A. Mossman, L.R.C.P., L.R.C.S.Edin., resigned.

NEECH, Jas. T., L.R.C.P.Edin., D.Sc.Vict., reappointed Medical Officer of Health to the Atherton Urban District Council.

NORMAN, M. P., M.D.Dub., B.Sc., appointed Medical Officer of the Workhouse and the Coddenham District of the Bosmere and Claydon Union, *vice* F. Gull, M.R.C.S.Eng., L.S.A., resigned.

O'CONNOR, G. P., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Fourth District of the North Witchford Union, *vice* C. Farrar, L.F.P.S.Glasg., L.S.A., resigned.

PARKE, T. H., M.R.C.S.Eng., L.R.C.P.Edin., L.S.A., appointed Medical Officer for the Tideswell District of the Bakewell Union, *vice* J. L. Parke, M.R.C.S.Eng., L.S.A., resigned.

PHILPS, E. G. M., M.R.C.S., L.R.C.P., appointed Clinical Assistant to outpatients at the Chelsea Hospital for Women.

PICKERING, Harold J., L.D.S.R.C.S.Eng., appointed Dental Surgeon to the Felstead School, Essex.

POLLARD, J. E., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Third District of the Dover Union.

PRICE, G. Basil, M.B., B.S.Lond., L.R.C.P., M.R.C.S.Eng., appointed Resident Medical Officer to the London Temperance Hospital, Hampstead Road, N.W.

RICHARDS, John, M.B.Edin., appointed Assistant Medical Officer in the Derby Borough Asylum.

RIMELL, Mr., appointed Medical Officer for the Tydd, Sutton St. James, and Long Sutton Districts of the Spalding Union.

SIMON, Robert M., M.D.Cantab., F.R.C.P., appointed to the Professorship of Forensic Medicine at Mason College, Birmingham.

SKINNER, R. A., M.R.C.S.Eng., appointed Medical Officer for the Tenterden District and Workhouse of the Tenterden Union.

SPENCER, Dr., reappointed Medical Officer for the Seventh District of the Mansfield Union.

THEOBALD, A. J. A., M.B.Edin., appointed Medical Officer for the Reading and Wokingham School District, *vice* C. E. Watson.

TURNER, John A., M.B.Edin., appointed Medical Officer of Health for the Buntingford, Hadlam, Hertford, Stansted, and Ware Rural Districts and the Bishop's Stortford, Hertford, Hoddesdon, and Ware Urban Districts.

WOOD, Wm. John H., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Skirbeck District of the Boston Union.

## DIARY FOR NEXT WEEK.

**TUESDAY.**

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Dr. A. P. Luff: On the Chemistry and Pathology of Gout. Goulstonian Lecture III.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital for Lunatics, 2 P.M.—Dr. Craig: Puerperal, Lactational, and Climacteric Insanities. Hospital for Diseases of the Skin, Blackfriars, 4.30 P.M.—Dr. Payne: Erythema.

WEST END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, 73, Welbeck Street, W., 4 P.M.—Dr. Dundas Grant: Cases of Affections of the Throat and Ear associated with Diseases of the Nervous System.

**WEDNESDAY.**

LONDON POST-GRADUATE COURSE, Parkes Museum, 74A, Margaret Street, Regent Street, W., 4.30 P.M.—Professor A. Wynter Blyth; Infectious Diseases.

**THURSDAY.**

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Dr. H. Charlton Bastian: On some Problems in connection with Aphasia and other Speech Defects. Lumleian Lecture I.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 P.M.—Mr. G. Buckston Browne: Is it ever Impossible to Pass a Catheter through the Urethra into the Bladder?

**FRIDAY.**

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, W.C., 3 to 5 P.M.—Professor Crookshank: Erysipelas and Suppuration.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office order or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

FAWCETT.—At Barton House, Thornaby-on-Tees, Yorks, on March 6th, the wife of Henry Fawcett, M.B., of a son.

ORCHARD.—On March 12th, the wife of Alfred Orchard, M.R.C.S.Eng., L.R.C.P.Lond., of a son.

SMITH.—March 19th, at Forth Lodge, Willesden Green, the wife of E. Newlyn Smith, M.D., of a son, stillborn.

### MARRIAGES.

MOCATTA—GASTER.—On March 23rd, at the Spanish and Portuguese Synagogue, Lauderdale Road, Maida Vale, by the Rev. Haham Gaster, brother of the bridegroom, assisted by the Rev. S. Conquy, Leah, youngest daughter of Abraham Mocatta, of 30, Inverness Terrace, W., to Anghel Gaster, M.D., M.R.C.P., son of Chevalier A. E. Gaster, of Bucharest.

RAY—WYCKOFF.—On March 18th, at St. Stephen's, South Kensington, by the Rev. A. W. Milroy, of Carisbrooke, assisted by the Vicar and by the Rev. H. Vyvian Tyrrell, Walter John Orbell, M.R.C.S., L.R.C.P. Lond., elder son of the late Walter Ray, of Tostock, Suffolk and Ventnor, Isle of Wight, to Marie Estelle (Stella), elder daughter of W. S. Wyckoff, of New York.

### DEATH.

PARSONS.—On March 17th, at Paddock House, Willesden, Thomas Edward Parsons, M.R.C.S.Eng., L.S.A., aged 52. R.I.P.

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances*—Daily, 2. *Operations.*—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR.—*Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—Daily.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30 Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations.*—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations.*—M. F. S., 2.

LONDON. *Attendances.*—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operations.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations.*—M. Th., 4.30.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations.*—F., 9.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations.*—W., 1.30; S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Attendances*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30 *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations*—Th., 2.30.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 3; Dental, Th., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances*—Daily, 1. *Operations*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., W. S., 9; Eye, W. Tu. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th. 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations.*—M. Tu. Th. F. S., 1.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males S., 3; females; W., 9.45. *Operations.*—M., 2; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 3.0; Skin, M. Th., 9.30; Electro-therapeutics, M. Th., 2.30; Dental, W. S., 9.30; Children's Medical, Tu. F., 9.15; Children's Surgical, S., 9.15. *Operations.*—M., 2.30.; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M. 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children) 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Th., 2.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations.*—Tu. F., 2.30.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1; Obstetric, Tu., F., 1; Eye, Tu. F., 9.30; Ear, M. Th., 9.30; Skin, W., 1; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

# LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

### QUERIES.

E. B. B. writes: Are there any kinds of fruit a diabetic patient may eat?

MEMBER asks where he can procure the books necessary to teach a blind child to read. The blindness is not congenital.

T. W. wishes to know if the boots with asbestos soles designed for the use of soldiers are now manufactured, and where they can be obtained.

RUSTICUS asks for suggestions in the treatment of a child, aged 5 years, suffering from numerous warts on hands and face. Several have been destroyed by glacial acetic, but others crop up.

X. Y. asks for the names, prices, and publishers of any English or foreign journals devoted to the study of hydrotherapeutics. In the case of French or German publications he would be grateful for the name of an English agent.

W. D. D. asks: (1) Is Beehag's tonsil guillotine a more satisfactory instrument in practice than Mackenzie's? (2) Is the use of asbestos for pistons of exploring and hypodermic syringes an advance on the ordinary leather ones? Does it last as long, and is there any difficulty in making it fit the barrel accurately?

A. B. D. (Queensland) writes: Mrs. C. expects her sixth confinement in October. She has never been able to suckle her children beyond the first few days, the milk disappearing. She is a well developed woman, though small, but the breasts are small, and when full of milk are extremely painful. She is very anxious to be able to suckle her next child, and is willing to undergo any reasonable amount of discomfort to that end.

#### CLIMATE OF NEW ZEALAND.

LUX would be glad of information respecting the climate of New Zealand, and which part is most suitable to a case of incipient phthisis. Is there any book on the subject? Would there be fair prospects of practising there, or is the colony overdone with doctors? Is the climate of any other of our Colonies more suitable to such a case?

#### A CASE FOR DIAGNOSIS.

M.D. asks for suggestions as to nature and treatment of the following case A gentleman, aged 31, temperate, and fond of athletics and games, complains of severe pain localised in the pulp of the terminal phalanges of the three smaller toes in both feet. This pain only comes on when the feet get warm, and to relieve it the patient has to take his boots off and put his feet on some cold surface; cold causes the pain to disappear at once. He has had the pain one year. There is no history of gout, and nothing to be seen or felt in any way abnormal about the toes.

#### ALTERATION OF SANITARY ARRANGEMENTS.

ONE WHO WILL SUFFER asks if the sanitary officials, or any one of them, can compel him to alter his ash pit and his drain.

*** Unless the *lex loci* differs from the general law, it is the authority and not the officials who demand the alteration. The notice from the inspector is issued on instructions from the authority. It might be well if he would call on the medical officer of health and lay his difficulties before him.

#### THE DIAGNOSIS OF INFLUENZA.

MURUS AHENEUS writes: I shall be glad to know what the characteristic symptoms of the present outbreak of influenza are. I have had several cases of illness attended with diarrhœa of the "pea soup" character, gastro-intestinal catarrh, and violent abdominal pain. The temperature usually rose above 100°, but was never high. Only in one case (unattended with gastro-intestinal catarrh) was there severe bronchitis, and in this patient the slate-coloured sputum was markedly apparent. Dr. Klein, in his work on the *Micro-organisms of Disease*, says this colour is characteristic. I have not made any cultivations of the sputum, but I am not inclined to diagnose as influenza these attacks of abdominal pain and diarrhœa, unless of course the type of disease has altered, and I would be glad to know if it has, and what the present symptoms are.

#### EARLY CASES OF HYDROPHOBIA.

DR. ROBERT WILKINSON (Anerley Hill, S.E.) writes: I should esteem it a great favour if you could ascertain particulars for me of a case of hydrophobia (Mrs. Brent) which was reported (being one of the earliest known cases) in the medical journals sometime between the years 1812 and 1820.

*** We regret that we are unable to give Dr. Wilkinson the reference for which he asks. The difficulty is probably due to his only sending the name of the patient and not that of the author of the paper containing the case he is anxious to see. If Dr. Wilkinson has this latter information he will have little difficulty in tracing the case, as there were very few journals in existence at the period mentioned. These journals can all be seen in the library of the Royal College of Surgeons. It may interest Dr. Wilkinson to know that there are many cases reported of a much earlier date than the one to which he refers.

### ANSWERS.

BETA will find the amount of the stamps required under various circumstances on the bonds of assistants in the article in the BRITISH MEDICAL JOURNAL of August 11th, 1894, p. 345.

MICROBE.—Dr. Woodhead's first report on filters was published in the BRITISH MEDICAL JOURNALS of November 10th, November 17th,

November 24th, December 15th, and December 29th, 1894. A further report on pressure filters is in course of completion, and about to be published.

J. T.—*The Spas and Mineral Waters of Europe*, by Herman Weber, M.D., and F. Parkes Weber, M.D. (London: Smith, Elder, and Co. 6s.) will probably meet our correspondent's requirements. It was published last year.

G. H. AND W. R. C.—In reply to a similar query last year, we stated that the Cottage Hospital at Cheshunt, Herts, which has six beds, cost £1,010. That at High Wycombe for fourteen beds, which, however, seem much crowded together, cost for building and furniture £1,500. The Maidenhead Cottage Hospital gives very satisfactory accommodation for eight patients, the total cost being £2,275. The average annual cost of maintenance in a large number of cottage hospitals is given by Mr. Burdett as £41 per bed on the whole number, and £66 per bed occupied. *Cottage Hospitals*, by Henry C. Burdett, is published by the Scientific Press, Southampton Street, Strand, W.C.—In reply to a further question from one of our correspondents, we have communicated with Dr. Horace Swete, of Worcester, who informs us that his pioneer book on *Cottage Hospitals* is now out of print. He at one time contemplated the issue of a second edition, but he considered that Mr. Burdett's book covered the ground completely, and he therefore did not carry out his intention.

GLEET.

E. C. writes, in reply to "Colonial": A thorough urethroscopic survey will probably discover some definite cause for the long-standing discharge, and if the former is treated *secundum artem* a permanent cure will be effected.

F. S. E. writes: If "Colonial" has satisfied himself that no stricture exists, he should thoroughly explore the urethra with the aid of electric light, when, judging from what has been revealed by the speculum, he will probably find some granular or papillomatous patches in the bulbous urethra, which should be cauterised once or twice a week with argent. nit., commencing at 10 grains and running up to 30 grains to the ounce. The urethra is said to feel "nodular to the finger." This suggests to my mind either multiple strictures or follicular abscesses, the treatment for which I need not here discuss.

SCOTUS writes: The trouble is in all probability aggravated, if not altogether kept up, by a stricture, therefore the first step would be to dilate the urethra fully, and keep it so by the regular passage of bougies. As as adjunct to that an injection should be used consisting of the four sulphates, thus: R Zinci sulphatis gr. ij, aluminis sulphatis gr. ij, cupri sulphatis gr. ½, ferri sulphatis gr. ij, aq. ad ℥j. The injection to be retained in the urethra five minutes, and its use to be continued a fortnight after all symptoms have disappeared. Painting the perineum and under surface of the penis with equal parts of lin. and tinct. iodi. has been found useful. Abstinence from sexual intercourse and alcohol must of course be insisted on until thoroughly well. Failing the above remedies, then the granular spots would require stimulation, but this must be done with the aid of the endoscope, and requires special skill. The method is described in Reginald Harrison's lectures on *Chronic Urethritis*.

## NOTES, LETTERS, Etc.

MR. T. W. MORGAN, D.Sc., of W. E. Lowe and Co., chemists, 8, Stafford Street, Old Bond Street, W., writes to say that he is not the Dr. Morgan mentioned in the case of Bull *v.* Morgan.

THE RED BOOK.

WE have received a number of letters from physicians and surgeons practising in London protesting against a circular which they have received from the proprietors of the Royal Red Book. The circular states that it is proposed to publish a list of physicians and surgeons practising specially. The proprietors state in the circular that they propose to offer the publication of information as to the specialty practised "against the names in the street list, the alphabetical list, and the special list (under the names of the diseases) of such as may desire it and are willing to subscribe to the book" the sum of £1 1s. annually, to cover the insertion in both the editions of the year and a copy of one edition only. As one of our correspondents observes, the proprietors have been very ill advised in issuing such a circular, and we hope to hear that it has been withdrawn.

LEGAL PITFALLS IN VACCINATION.

MR. H. S. SCHULTESS YOUNG (Temple, E.C.) writes to correct a slight error which crept into the paragraph with the above heading, published in the BRITISH MEDICAL JOURNAL of March 20th. He desires to state that he was instructed by Mr. Cheverton, solicitor, London, and Mr. Norledge, solicitor, Newark, and not by the Newark Antivaccination League. Mr. Schultess Young proceeds to discuss in the other paragraphs of his letter questions connected with revaccination, and the use of calf lymph, and the bearing of his interpretation of the facts upon the decisions of various magisterial benches in vaccination cases.

AN OVERRATED NARCOTIC.

UNDER the head of "Neuralgia's Worst Enemy," the *Daily Mail* publishes the following:

"Science knows very little about the pituri, the strangest narcotic known to man. Until recently it has been considered a dangerous poison. This is true in its green state, but when roasted and properly treated by Australian tribesmen, it is not only harmless, but a most soothing and beneficial narcotic. Its influence softly steals away the senses until the whole nervous system is naturally at rest, and perfect sleep results. After its influence is over the soothed senses bound back to new life. There are no after-aches and pains, and no craving for the drug. It is invaluable in the treatment of insomnia and neuralgia. The secret of its whereabouts is little known outside of one tribe, who carefully guard their secret. It is a shrub 6 ft. to 12 ft. high, found only in the ridge of barren sand hills. About a month after the tropical rains the young shoots are gathered. They are dried by the natives by a special process, then twisted in with a flaxen cord which is worn around the neck. When needed, the end is chewed until the wearer falls asleep. Neuralgia is entirely unknown to those who use pituri. All efforts to transplant it have failed."

The correspondent who forwards it to us observes that unless corrected the foregoing article may prove of dangerous public influence, and states that the facts are briefly as follows:

The name pituri is given to the dried leaves and twigs of *Duboisia hopwoodii* (F. v. M.). It is used as a masticatory by the natives of Central Australia. It is alleged to have stimulating properties like coca in assuaging hunger, and as a stimulant enabling those who are its devotees to undergo much fatigue and long journeys with but little food. It contains a liquid alkaloid—piturine—allied to nicotine. For further accounts of its properties, *vide Pharm. Jour.*, vol. 3, iv, p. 184, and for its chemical properties, *Pharm. Jour.*, vol. 3, xi, p. 815. The chemistry of it was worked out by Liversidge in 1880, and Dr. Bancroft draws attention to its properties in a paper before the Queensland Philosophical Society as far back as March, 1892.

SECRET REMEDIES FOR INEBRIETY.

THE January number of the *Quarterly Journal of Inebriety* has the following: "A valued correspondent writes us that he has gathered from correspondents and newspaper clippings the following facts: During 1896, 22 so-called Keeley gold cures suspended and dissolved; 27 gold-cure homes, where specific treatment for alcohol and opium was given, have gone out of business. Five new companies have been formed to sell rights to use secret inebriate cures. Three ex-superintendents of gold-cure establishments have committed suicide. To this we would add that in three years we have made notes of the relapse of nineteen physicians who have been medical directors of gold-cure establishments. Ten of these persons came for treatment in regular asylums, where no specifics were used."

INFANT BURIAL.

"SOME people think," says the *Globe*, "that it is comparatively easy in England to get rid of superfluous children, and the statistics of infant mortality would seem to bear them out. That they are wrong is shown by a case heard at West Ham recently. An inquest was being held on an infant, when the evidence showed that the bodies of children were buried in the cemetery on the certificate of a woman who was not even a qualified midwife, and could only just sign her own name. The coroner: Is it easy to get these bodies buried?" The woman: "Oh no, sir, there is a 2s. fee to pay."

THE REPEAL OF THE CONTAGIOUS DISEASES ACT, 1866.

DR. J. BERESFORD RYLEY (Welbeck Street, W.) writes: In face of the appalling report by the Departmental Commission appointed by Lord George Hamilton to inquire into the health of the British troops in India, it may be opportune and interesting to briefly consider the operations of the above Act, both from the sanitary and moral aspects, during the time I assisted to administer it at Woolwich and Chatham. My colleague, Dr. Stewart, and I had about 400 prostitutes of the lowest class in our district: and when they were first brought up to be examined they came in a condition so absolutely filthy, and were so dissolute and disorderly in their bearing, as to render the examinations revolting in the highest degree to us. But by a little quiet and judicious expostulation on our part, they soon became ashamed of their disgraceful state, and vied with each other in cleanliness of person and apparel and decorousness of behaviour.

With respect to the amount of venereal diseases prevalent amongst them at that time, I am not able to give the exact figure, not having the necessary statistics at hand, but I know that I am well within the mark when I say that at least 30 per cent. of them were suffering from some form of these complaints, and many from the most virulent type, and that within eighteen months we had practically stamped out the original infection from our district. Had the area over which the Act operated been sufficiently extended, it was our belief that syphilis and gonorrhœa might almost have been eradicated from among human ills.

With regard to the moral benefits rendered by the operation of this Act, I may say that many young prostitutes were rescued from their life of infamy because of our being in a position to communicate with the various charitable individuals and organisations in the neighbourhood regarding any special circumstances that might come under our notice, such, for instance, as a soldier's wife, married without the sanction of the authorities, being suddenly left destitute, and thus driven into prostitution by reason of her husband being ordered abroad or removed to some distant garrison town. It was said by the opponents of the Act that in the majority of cases there were no objective symptoms to indicate the presence of an infective disease in a woman. It would be out of place in this letter to enter into the details of this question, and therefore I will merely state that my colleague and I seldom found any difficulty in differentiating between a septic and aseptic condition of the sexual organs submitted for examination.

ETHER AS A SUBSTITUTE FOR ALCOHOL.

A FEW months ago the Russian authorities converted the sale of *vodka* in the frontier Governments into a State monopoly. This step was taken with the object of checking drunkenness amongst the peasantry: and in order that the end might be attained the more quickly and surely, it was arranged that alcohol should be sold only in fairly large quantities, and for consumption off the premises. The effect of the scheme has indeed been to check the consumption of alcohol. But the devil that has been cast out has only given place to another worse than itself. The cutting-off of alcohol has created a demand for ether, the consumption of which has reached such proportions in Western Russia that the medical men of the district have addressed an appeal to St. Petersburg begging the central Government to interfere. The first introduction of ether drinking in Ireland was

the direct consequence of Father Mathew's temperance crusade, and the prohibition of the sale of alcohol in Norway had a like result. Byron's doctrine that "man being reasonable must get drunk" is doubtless unphysiological as well as immoral. The fact remains, however, that the use of stimulants is in accordance with a craving so universal among mankind under the most diverse conditions of climate and mode of life that it must be taken as representing a natural want. Let temperance be promoted by all means, but this desirable object can hardly be attained by the substitution of a delcterious beverage for one in itself less harmful.

### The Reconstruction of the University of London.

M.B. Royal University writes: Will you allow me to contradict the statement of "M.B.Lond." in the British Medical Journal of March 20th that "the University of London requires what no other university in Great Britain requires, namely, that an M.B. must pass a very stiff and prolonged examination for the M.D. degree." The M.B. graduates of the Royal University have to go through a very thorough examination, written, clinical, and *viva voce*, including practical bacteriology and other subjects, the examination extending over a week, in order to obtain the M.D. I may further add that the M.Ch. degree of the Royal University has been accepted by the Army Medical Department in lieu of the F.R.C.S. for promotion, whereas I believe I am correct in stating that the M.S.Lond. has not been so recognised. Though Englishmen forget these facts Irishmen remember them.

### The Danger of a Chronic Suppurating Ear.

Dr. Chas. J. R. Lawday (Dartmouth) writes: The following case which came under my care recently, is interesting so far as it goes in showing that "everybody who has a chronic suppurating ear goes about in deadly peril." A clergyman, aged 38, who had suffered from a suppurating ear for some considerable time, and had consulted a specialist, who strongly advised an operation, complained to me a week before his death that he had more pain than usual behind the ear. He was then using a syringe and boracic lotion to keep the ear clean. I plainly told him of the danger of brain trouble, and at the same time advised him to again see a specialist, but he strongly objected to see anyone. I therefore undertook to do what I could under the circumstances. This was on Tuesday. Upon examination I found an exceedingly offensive discharge coming from the ear; the tongue was badly coated, breath offensive, and the bowels constipated. I blistered behind the ear, gave a couple of blue pills, and ordered complete rest. On Wednesday the patient was much about the same; the bowels had not acted, and I gave two pills, and blistered. On Thursday there was no alteration in the patient's general condition: the bowels had not acted; the tongue was foul, and I gave two pills and blistered. On Friday the bowels acted; the pain was not so much behind the ear, more at the base of the head; a blister was applied over its seat. On Saturday the patient was feeling much better in all ways, the pains in the head gone, and he went to his usual choir practice at night. The tongue was cleaner. On Sunday he did his church duty, but towards midday complained of shooting head pains, not localised. I strongly advised him to again go to bed, but he persisted in doing night service, after which I saw him. He was now somewhat more feverish. The tongue was again very dirty. He had vomited during the day. I gave him a cooling mixture and two pills. On Monday, upon visiting patient, he came downstairs to meet me, but as he seemed very weak I ordered him back to bed, and gave an injection which acted freely. He complained of no head pains, but was drowsy. On Tuesday he was very drowsy, but easily aroused, and able to converse slowly. The pupils were dilated. I ordered ice to the head, and sent for Dr. Soper to come in consultation, but as the patient rapidly became quite insensible, and was evidently sinking, we agreed that nothing further could be done. The patient remained in this condition until his death on Wednesday afternoon. Bearing in mind that the patient would not allow any surgical interference, the question is, What else could have been done? To my mind, nothing. I may say that at no time did the temperature exceed 100° F., neither was the pulse at all increased.

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**LETTERS, COMMUNICATIONS, Etc., have been received from:**

(**A**) Mr. G. Alviella, Brussels; J. M. Atkinson, M.B., Hong Kong; Dr. F. P. Atkinson, Surbiton; A. T. S.; Mr. D. Ainley, Halifax; A. M. B. (**B**) Dr. D. Buxton, London; Mr. H. S. Beadles, London; R. Boyce, M.B., Liverpool; Dr. E. H. Brown, Darbhango; Dr. M. A. Boyd, Dublin; Dr. E. C. Baber, Brighton; Mr. G. G Bird, London. (**C**) Mr. F. H. Cooke, Birch, Colchester; Colonial Member, British Medical Association; Mr. E. J. Cross, St. Neots; Dr. W. A. Carline, Lincoln; Dr. C. Coombs, Castle Cary; Mr. J. Crooks, Colchester; W. R. Carter, M.B., Brighouse; J. H. Cook, M.B., London; A Constant Reader; Mr. E. Cotterell, London; T. Clifford, M.B., Stalybridge; Dr. J. M. Clarke, Bristol; County Practitioner. (**D**) Mr. H. Danvers, Bordighera; Dr. A. Dalton, Wantage; Mr. H. Dwyer, London; Dr. A. B. Drockwar, Southport, Queensland; Mr. C. E. Durrant, Market Harborough; Mr. H. P. Dunn, London; Messrs. Down, Bros., London. (**E**) Edinburgh Branch, British Medical Association, Secretary, Edinburgh; Mr. F. Elvy, Eastbourne; Mr. A. R. Edwards, Aix-la-Chapelle; Dr. J. Ewens, Bristol. (**F**) F. S. E.; Dr. E. R. Fothergill, Tunbridge Wells; Dr. Finny, London; G. K. Finlay, M.B., Littleborough. (**G**) Mr. J. A. Grant, Ottawa; Dr. D. Graham, Boston, Mass.; Mr. J. B. Gabe, Morriston; Mr. G. P. Gaskell, London; Mr. A. P. Greene, Buenos Ayres; Mr. T. Gill, Lancaster; Messrs. A. Granville and Co., London. (**H**) T. Houston, M.B., Belfast; Mr. W. F. Haslam, Birmingham; Dr. J. S. Haldane, Oxford; Dr. T. W. Hime, Bradford; Hygiene; Dr. R. Hutchison, London; Dr. J. O. Holliek, Birmingham; T. E. Hayward, M.B., Haydock; Miss J. Henry, Shanklin; Harveian Society of London, Secretary, London; Dr. W. P. Herringham, London; Dr. J. M. Hobson, Croydon; Mr. W. G. S. Harrison, Folkestone. (**J**) Mr. A. E. Joscelyne, London; Mr. W. A. Jones, Edinburgh; Dr. J. McJohnston, Glasgow; Mr. H. H. Johnston, Frodsham. (**K**) Mr. H. R. Ker, London; Dr. L. Kidd, Enniskillen; Professor Koch, Kimberley; Dr. R. Kirkwood, Largs; Dr. J. Knott, Dublin. (**L**) Dr. C. J. Lewis, Stirling; Mr. F. W. Langridge, Ilfracombe; Dr. A. Lawson, London; Dr. W. Leask, Birkenhead; Mr. C. Leedham-Green, Birmingham; L.R.C.P.; Messrs. J. B. Lippincott and Co., London; G. V. Lockett, M.B., Kingston, Jamaica; J. M. Lazenby, M.B., Whitley; Dr. R. F. Licorish, Bridgetown, Barbados; Leeds and West Riding Medico-Chirurgical Society, Secretary, Leeds. (**M**) Dr. C. Muthu, London; Mr. J. Y. Mac Alister, London; Mr. W. Marriott, London; W. R. MacDermott, M.B., Newry; Messrs. J. Moore and Sons, London; Mr. R. Morison, Newcastle-on-Tyne; Dr. J. McNaught, Waterfoot; M.R.C.S.; M.D.; M.D.Brux.; J. T. J. Morrison, M.B., Birmingham; Mr. F. W. McGachen, Dunstable; Microbe; M.B., M.A.; Murus Aheneus; Dr. G. V. Miller, Sunderland; Mr. F. H. Madden, London; Dr. J. Mackenzie, Burnley; Dr. J. W. Moore, Dublin; Mr. J. T. R. Miller, Malton; Dr. S. R. Macphail, Derby. (**N**) Mr. G. Neale, Barry; A "Non-combatant"? who has had Bullets flying round him whilst Dressing the Wounded; Mr. J. T. Neech, Tyldesley. (**P**) H. C. Patrick, M.B., Vienna; Mr. C. J. Pickering, London; Messrs. Potter and Clarke, London; Mr. H. J. Prangley, London; Mr. G. Pernet, London; Progress; Mr. H. H. Phillips, London; Mr. R. Pollock, London; Mr. G. Pim, London. (**R**) Mr. H. J. Robson, Leeds; Royal Academy of Medicine in Ireland, General Secretary, Dublin; Dr. J. S. R. Russell, London; Dr. R. R. Rentoul, Liverpool; Rusticus; A Retired Medical Officer; Mr. St. G. Reid, London; Dr. B. Ryley, London; Mr. T. P. Roberts, Harrogate. (**S**) Dr. T. C. Shaw, London; Mr. A. T. Simpson, Morpeth; Mr. M. Stalker, Scarborough; Dr. R. M. Simon, Birmingham; Dr. W. Sykes, Gosport; Mr. R. W. Stuart, Dunrossness; Mr. P. L. Sclater, London; Dr. J. O. Symes, Bristol; Sheffield Medico-Chirurgical Society, Secretary, Sheffield; Dr. E. H. W. Swete, Worcester; R. D. Shiels, M.B., Dunbar. (**T**) Mr. R. T. Tobin, Dublin; Mr. J. Taylor, Tanderagee; Dr. C. L. Tuckey, London; Mr. J. E. Tuke, Harrogate. (**V**) S. Vincent, M.B., Birmingham; Mr. S. G. Vinter, Devonport. (**W**) Mr. J. G. Willis, Ilkeston; Dr. A. Walker, St. Leonards-on-Sea; Mr. W. Watson, Rochester; Dr. A. Mc. C. Weir, East Sheen; Miss Wilson, London; Mr. J. D. Windle, London; Mr. A. Wynter, Beckenham; J. A. Waring, M.B., Nottingham. (**X**) X. Y. (**Y**) Mr. H. S. S. Young, Oxford; etc.

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## BOOKS, Etc., RECEIVED.

Handbuch der Gynäkologie. Herausgegeben von J. Veit. Zweiter Band. Wiesbaden: J. F. Bergmann. 1897. M. 18.60.

Ergebnisse der allgemeinen Pathologie und pathologischen Anatomie des Menschen und der Tiere. Herausgegeben von O. Lubarsch und R. Ostertag. Zweiter Jahrgang: 1895. Wiesbaden: J. F. Bergmann. 1897. M. 25.

Winke zur Diagnose der peripheren und centralen Nervenkrankheiten. Von Dr. C. A. Oliver. Wiesbaden: J. F. Bergmann. 1897. M. 0.80.

The Annual Charities Register and Digest. London: Longmans, Green and Co. 1897. 4s.

El Cólera en la República Argentina. Por Dr. J. Penna. Buenos Aires: J. Peuser. 1897.

A Textbook of Materia Medica, Therapeutics, and Pharmacology. By G. F. Butler, Ph.G., M.D. London: Rebman Publishing Company. 1897. 22s. 6d.

Das Interferenzprinzip als Grundprinzip aller Energieverwandlund und aller Entwickelung. Von Dr. Hallervorden. Würzburg: C. Kabitzsch. 1897.

Twentieth Century Practice: An International Encyclopædia of Modern Medical Science by Leading Authorities of Europe and America. Edited by T. L. Stedman, M.D. Vol. viii. London: Sampson Low, Marston and Co. 1897. 21s.

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# THE LUMLEIAN LECTURES

ON

# SOME PROBLEMS IN CONNECTION WITH APHASIA AND OTHER SPEECH DEFECTS.

*Delivered before the Royal College of Physicians, April 1st, 1897,*

By H. CHARLTON BASTIAN, M.A., M.D.Lond., F.R.S.,

Censor of the College; Physician to University College Hospital and to the National Hospital for the Paralysed and Epileptic.

[Abstract.]

## Lecture I.

Mr. President and Gentlemen,—The modern interest in, and development of knowledge concerning, aphasia and other speech defects dates from the publication of certain memoirs by Broca, some six and thirty years since, when he attempted to localise what he termed the "faculty of articulate language" in a limited convolutional region of the left cerebral hemisphere.

The special tendency of aphasia and other forms of speech defect to be associated with disease of the left rather than of the right hemisphere is now a well recognised fact. This holds good for right-handed but not as a rule for left-handed persons. In these latter aphasic defects are produced by disease in similar parts of the right cerebral hemisphere. It is believed, therefore, that motor incitations for acts of speech are accustomed to pass off in the main from one cerebral hemisphere, and that whether this shall be from the left or from the right hemisphere becomes determined principally by the increased dominance, or slightly earlier development, of one of them, brought about more or less remotely in association with right- or with left-handedness.

Although we shall deal here with what are known as "acquired defects of speech"—that is, such defects as may have supervened after the power of speaking has been attained—still, it seems desirable that a very brief reference should be made as a preliminary to defects of speech resulting either from congenital disease or from diseases occurring at some date prior to the manifestation of articulate speech. The most important of these congenital defects is deafness, which of itself entails mutism, the individuals thus afflicted being known as "deaf mutes." It must be borne in mind, however, that this mutism or dumbness may also be brought about by absolute deafness occurring from any cause after birth, but before the child has begun to talk, or even after it has learned to talk, up to the fifth or the seventh year. In addition to this class of cases there are also those of congenital idiotcy without deafness, in which the child never learns to talk. There are also other cases, allied to the last, in which, owing to some intracranial lesion occurring either before, during, or soon after birth, the brain becomes so damaged as to arrest the development of the child's mental as well as of its motor powers. In other cases the occurrence of epileptic fits seems to be the retarding cause.

One of the most remarkable cases known to me of deferred speech in connection with the occurrence of epileptic attacks happened in one of my own patients. In the year 1877 I was consulted concerning the health of a boy, the son of a leading barrister, who was then 12 years old, and had been subject to epileptic fits at intervals. The first of these fits occurred in infancy, when the patient was about 9 months old. Towards the end of the second year the fits seemed to have ceased, the hearing was (as it had been) good, and the child appeared to be of average intelligence—to be well, in fact, in all respects except that he did not talk. When nearly 5 years old the little fellow still had not spoken a single word, and about this time two eminent physicians were consulted in regard to his "dumbness." But before the expiration of another twelve months, as both his mother and father assured me, on the occasion of an accident happening to one of his favourite toys, he suddenly exclaimed, "What a pity," though he had never previously spoken a single word. The same words could not be repeated, nor were others spoken, notwithstanding all entreaties, for a period of two weeks. Thereafter the boy progressed rapidly, and speedily became most talkative. When seen by me he spoke in an ordinary manner without the least sign of impediment or defect.

Such a sudden beginning to speak for the first time without previous prolonged trials and failures is a matter vastly transcending in importance the sudden resumption of speech when it has been for a time suspended in consequence of brain disease. No explanation of such a fact seems possible except on the supposition that speech has now become a truly automatic act for human beings, and that if children do not speak at birth this is in the main due to the circumstance that their nervous systems are still too immature.

Some curious cases of congenital speech defect were described by Hadden to which the term "idioglossia" has been applied. These children have to a certain extent a language of their own, so that when asked to repeat phrases they make use of definite sounds of their own instead of those proper to the words that should be employed. The sounds which they substitute are said to be always the same for the same words. Some of these patients seem to have been capable of writing correctly from dictation, and they have also shown a fair amount of general intelligence.

### The Various Kinds of Word Memory.

Sir William Hamilton's definition of memory implies the notion of an organic change taking place in definite nerve elements on the occurrence of each sensory or intellectual process, that is, the notion of a permanent nervous modification of some kind *plus* the possibility of its renewal in more complete form from time to time. We may therefore suppose that on fitting occasions, by the intervention of associational activity, there will be revival in more complete form of something like the original molecular activity in the nervous elements concerned with the primary perceptional or intellectual process of this or that kind. It is not essential that the memorial revival of the sensory impression or of the intellectual process should, after multitudinous repetitions, be associated with any distinct conscious phasis. What Hamilton termed the *retentum* may, indeed, be revived as a mere unconscious nerve action—a link in a perceptive process or in a chain of thought represented merely (as John Stuart Mill put it) by "certain organic states of the nerves." This latter consideration is especially worthy of note from the point of view of the importance of revived kinæsthetic impressions for the guidance of movements, seeing that their revival may be unattended by any distinct conscious phasis; and much the same thing may often be said concerning that memorial recall of words in the auditory centre which immediately precedes speech.

Clinically, however, amnesia includes both these conditions, and ought, from an anatomical or localising point of view, to be divided into two generic groups: (*a*) Cases in which there is centric defect (either structural or of marked functional type), with which there will often be loss of memory of words as well as loss of recollection; and (*b*) cases in which there is merely commissural defect (mostly structural), with which there may be loss of recollection of words, but no necessary loss of word memory. It will be one of my objects in the present lectures to dwell upon the fact (which I pointed out some ten years ago) that it is often in the case of speech defects extremely difficult, if not impossible, from clinical evidence alone to decide whether the underlying lesion or default leading to a particular kind of amnesia be centric or commissural in seat. And yet from the point of view of the localisation of the lesion such a decision may be a matter of much importance, seeing that if the lesion were centric we should look for it in one part of the brain, while if it were commissural it might be found in a region comparatively remote therefrom.

In the case of words there are three distinct kinds or physiological types of memory to be considered—one of them existing in two forms, so as to make four varieties in all. These varieties of verbal memory are as follows: 1. Auditory memory: the memory of the sound of words—that is, of the auditory impressions representative of different words. 2. Visual memory: the memory of the visual appearances (printed or written) of words—that is, of the visual impressions corresponding with different words. 3. Kinæsthetic memory: (*a*) The memory of the different groups of sensory impressions resulting from the mere movements of the vocal organs during the utterance of words (impressions from muscles, mucous membranes, and skin)—that is, of the kinæsthetic impressions corresponding with the articulation of different words, which for the sake of brevity I have proposed to speak of as "glosso-kinæsthetic" impressions; and (*b*) the memory of the different groups of sensory impressions emanating from muscles, joints, and skin, during the act of writing individual letters and words—that is of the kinæ-

sthetic impressions corresponding with the writing of different letters and words, which I have for similar reasons proposed to speak of as "cheiro-kinæsthetic" impressions.[2] The organic seat of each of these different kinds of word memory is in relation with its own set of afferent fibres; and the several centres must also be closely connected with one another by commissural or associational fibres, so that the memory of a word or the recollection of a word in one or other of these modes doubtless involves some amount of simultaneously-revived activity in one or two of the other word centres. In the majority of persons, as I pointed out in 1869, the revival of words in the auditory centre is the most potent process, and that which occurs first in order of time, but this is subject to individual variations. This seems to be now very generally admitted.

### The Localisation of the Different Word Centres.

Although I am not a believer in the complete topographical distinctness of the several sensory centres in the cerebral hemisphere, I consider it clear that there must be certain sets of structurally-related cell and fibre mechanisms in the cortex, whose activity is associated with one or with another of the several kinds of sensory endowment. Such diffuse but functionally unified nervous networks may differ altogether from the common conception of a neatly-defined "centre," and yet for the sake of brevity it is convenient to retain this word and refer to such networks as so many "centres." Looking to the extremely important part that words, either spoken or written, play in our intellectual life, and to the manner in which they are interwoven with all our thought processes, it becomes highly probable that most important sections of the auditory and the visual sensory centres must be devoted to the reception, and consequently to the revival in thought, of impressions of words; these may be called auditory and visual "word centres" respectively. Similarly, there must be what I have termed kinæsthetic word centres of two kinds (the one in relation with speech movements and the other with writing movements) holding a like all-important relation to the expression of our thought by speech and writing.

The visual centre as a whole is more or less diffused through the occipital lobe, the region whose destruction gives rise to word blindness corresponds with the angular gyrus. Clinico-pathological evidence seems to locate the auditory word centres in the posterior half or two-thirds of the upper temporal convolution.

The situation of one of the two kinæsthetic word centres can be rather more certainly localised. Having elsewhere stated very fully my reasons for believing that the so-called "motor centres" of Ferrier and others are really sensory centres of kinæsthetic type by means of which movements are guided,[3] I shall not now attempt to set forth the evidence in favour of this opinion, but shall merely state my belief that Broca's region, namely, the posterior part or foot of the third frontal and the inferior part of the ascending frontal convolution, is in reality the part of the brain to which I have been alluding as the "glosso-kinæsthetic" centre. The situation of the "cheiro-kinæsthetic" centre cannot be localised with nearly as much confidence. The tendency for some years has been to follow Exner, who believes it to be situated in the posterior part of the second frontal gyrus.

For the purpose of our discussion, then, it may for the present be assumed that the two kinæsthetic word centres are situated as above stated: that the auditory word centre is situated in the posterior half or two-thirds of the upper temporal convolution; and the visual word centre in the angular and part of the supra-marginal convolutions. It must also be assumed, upon grounds subsequently to be set forth, that the last-named word centres are connected together by a double set of commissural fibres. We must likewise suppose that two other important sets of commissural fibres exist between the different word centres—namely, one set through which the auditory word centre acts upon the glosso-kinæsthetic centre for the production of speech movements, and another by means of which the visual word centre acts upon the cheiro-kinæsthetic centre for the production of writing movements. In the study of speech defects it is, therefore, necessary to consider the effects of lesions in the following situations: (*a*) In the different kinds of word centres; (*b*) in the different commissures by means of which these centres are connected with one another; (*c*) in the internuncial fibres

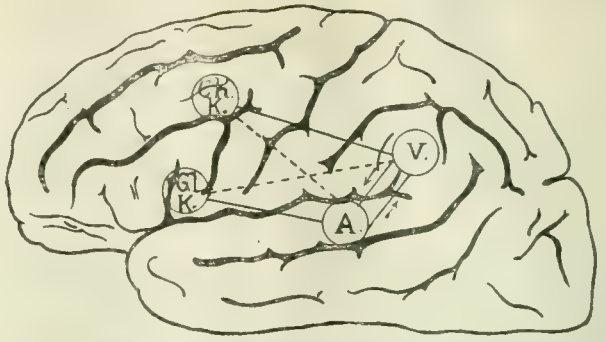



Fig. 1.—Diagram showing the approximate sites of the four word centres with their commissures.

connecting the two kinæsthetic word centres with their related motor centres, in the bulb and in the cervical region of the spinal cord; and (*d*) in these motor centres themselves which are concerned with the actual production of speech and writing. But before dealing with any of these problems in detail a few other aspects of the questions relating to word memory, as well as the modes of activity of the brain in perceptive and speech processses require to be considered.

### The Primary Site of Revival of Words in Silent Thought.

It seems clear that words are the symbols with which our thoughts are inextricably interwoven, and that the revived feelings, ideas, or "images" of words may enter into thought processes by a more or less simultaneous renewal of activity in different regions of the cerebral cortex. There may be a revival of sounds of words as we hear them in ordinary speech; there may be a revival of visual impressions of words as we have seen them in written or printed characters; and, lastly, there may be a revival of the feelings of muscular contractions concerned in the pronunciation of words. Of these modes of "ideal" recall of words the two former are distinct and easily recoverable, while the latter is vague and difficult of conscious realisation. It is, however, a matter of extreme importance for the due understanding of the different kinds of speech defect that we should definitely know in what sensory region of the cortex words are principally recalled to mind during ordinary thought processes. Two distinct views radically opposed to one another have been advocated on this subject.

There is the view (1) that words are revived as "motor processes"—that is, as faint excitations of the processes occurring in motor centres during the articulation of words; and (2) there is the view that words are revived in ordinary thought in the main as auditory ideas or images. The former view has for a long period been promulgated by Hughlings Jackson, and has more recently received the strong support of Stricker, both of them regarding Broca's region as a motor rather than as a sensory centre. The latter view is that which the writer has now for many years advocated, holding that motor centres, wherever they may be situated, are parts whose activity appears to be wholly free from subjective concomitants. No "ideal" reproductions seem ever to take place in such centres; they are roused into activity by outgoing currents, and, so far as we have any evidence, the induction in them of molecular movements which immediately afterwards issue through cranial and spinal motor nerves to muscles are, like those which they engender, simply physical phenomena.[4] It is true that the altered condition of the muscles and of contiguous parts induced by these outgoing stimuli together engender a body of ingoing impressions, the terminus for which is the kinæsthetic centre. This latter is therefore a true sensory centre, and in it images of movements, or "ideal movements," may be revived in a more or less vague manner as already indicated.

But even if we adopt what appears to me to be the more legitimate view, that articulatory movements as well as move-

ments in general are represented in the cerebral cortex only by sensory centres, there are still, I think, good reasons for rejecting the notion that the "material of our recollection" in the use of words during silent thought is primarily revived as glosso-kinæsthetic impressions in Broca's centre. In the first place, it must be evident from the mode in which speech is acquired by the child that during the few months in which words enter into simple trains of thought, before he has acquired the power of articulating them for himself, they must be revived as auditory impressions. Secondly, there is, as we have seen, a much greater definiteness of impression and readiness of recall for auditory than for articulatory feelings; and so far, therefore, there is a greater fitness in the former for serving as the "material of our recollection" of words in ordinary thought processes. Thirdly, there is reason to believe that revived auditory feelings continue after the acquirement of speech by the child to have the same relation to his thought processes as they must have had before his acquirement of the power of speaking. If this were not so, it would be impossible to understand why total deafness supervening in a child in full possession of speech as late as the fifth, sixth, or even the seventh year, will certainly entail dumbness unless the child be drilled in lip reading, that is, unless the primary incitation to acts of speech be gradually transferred from the auditory to the visual centres. Fourthly, because, as we shall subsequently find, there is much evidence against this view to be derived from the study of speech defects, and none that I am aware of telling unmistakably in its favour.

It seems to me to be an error to attempt to settle such a question by endeavouring to ascertain which form of word memory reveals itself most in consciousness; and I venture to think that, in so doing, Stricker and Ballet[5] rely too much upon what is in reality an untrustworthy method—that of introspection—which inevitably brings the expressive side of speech into undue prominence.

The real linguistic counters for thought are then, in my opinion, auditory and visual memories of words. And, in regard to these two, I believe that in the very large majority of persons it is the auditory word memory which is first revived in silent thought. This view is now very generally adopted, as may be seen by reference to the works of Ross[6] and Bernard.[7] It appears also to be the view of Herbert Spencer.[8] Although, however, the first stage in the revival of words seems to occur in the auditory centre, the molecular disturbance thus initiated is immediately transmitted to a varying extent in two directions. It is transmitted to the visual word centre on the one side and to the glosso-kinæsthetic centre on the other—to the latter strongly where the thought is to issue in speech, and to the former strongly where it is to issue in writing.

There can be no doubt that in some persons the visual centres as a whole are more highly developed and organised than the auditory centres, and *vice versâ*. The existence of such differences has been thoroughly shown by Francis Galton,[9] who says: "There are a few persons in whom the visualising faculty is so low that they can mentally see neither numerals nor anything else; and again there are a few in whom it is so high as to give rise to hallucinations." In this general sense persons may well be classed as "visuals" or "auditives" respectively; and we may thus indicate for this or that person which is the more potent sensory endowment.[10]

Supposing, however, that a person is a visual in this general sense, it should not, in my opinion, be taken as necessarily implying that visual memories of words are for him the first to be revived in silent thought. If it were so we should expect to find speech greatly interfered with in many cases of simple word blindness, but this seems comparatively rarely to be met with, the contrast in this respect being most striking between destruction of the visual and destruction of the auditory word centres respectively. It seems that in either case the primary revival of words occurs in the auditory centre, but that in a "visual" the visual centre has acquired some power of compensating defects in the auditory word-centre which is absent in "auditive."

It will be found that very many recorded cases of speech defect lend support to these views, and that this, in fact, is the real practical outcome of all that has been said by Charcot and his followers as to the division of persons (in reference to the interpretation of speech defects) into four categories—"auditives," "visuals," "motors," and "indifferents"—a doctrine which has been fully set forth by Ballet. I contend that this doctrine must not be taken to mean anything more than that the different kinds of word memory referred to in the first three types may be met with in different degrees of excellence, and that in the fourth type there is no one kind of memory which is developed to a preponderating extent. In the latter class there would be no ground for supposing that the ordinary rule as to the primary revival of words taking place in the auditory centre is ever altered. As to the existence of persons representative of the third class I have already expressed my doubts—that is to say, I can find no good reasons or evidence to show that words ever arise in silent though primarily in the kinæsthetic centres. I doubt whether these memories are capable of separate voluntary recall, and do not believe there is any evidence to show, as Bernard says,[11] that "the motor centre for speech may become independent of the sensorial centre which had presided over its education."

The case is altogether different in regard to individuals of the second class—the "visuals"—because not only does the power of memorial recall in the visual centre vary immensely in different persons, as we have seen, but there is also good reason to believe that in a small minority of persons the primary revival of words during a process of silent thought may take place therein, just as it does in the act of reading. Something of this kind we are bound to suppose must occur in a word-deaf person whose auditory word centre is destroyed and who is yet able to speak—a rare conjunction that has occasionally been met with; just as we are bound to suppose that when a congenitally deaf and dumb child is taught to speak by the lip-reading process he brings this about by means of a primary revival of visual images, which act directly upon the glosso-kinæsthetic centre, and thence upon the motor centres in the bulb.[12] Undoubtedly, too, it would seem that there are certain exceptional persons, who, as it were, read rather than hear their thoughts; in whom, as Ballet says, the visual images of words acquire such an importance that they alone constitute the medium of their internal speech. Still, in spite of these exceptions, the general rule is that auditory images constitute the most potent representations of words, whilst visual images form the most potent representations of ordinary external objects.

### The Revival of Words for Speech is a Complex Process.

The views just expressed refer, as I have said, to the seat of the primary revival of words in memory, because there is strong reason for believing that the activity when once initiated does not limit itself to a single centre. It must be borne in mind that the structural relations existing between the different seats of word memory and the modes in which these are functionally related is in accordance with what occurs in ordinary processes of perception.[13]

It is of importance to remember that for ordinary persons (that is, for those who are neither congenitally blind nor congenitally deaf) the four memories of words seem to be mainly called into play in definite couples, namely, the auditory and the glosso-kinæsthetic revivals taking place during articulate speech, and the visual and cheiro-kinæsthetic revivals taking place during ordinary writing. By this I mean that in expressing oneself in spoken words memories of such words are first principally revived in the auditory centre, and that the nerve units thus called into activity immediately rouse through commissural fibres (see Fig. 2, *c*) the corresponding glosso-kinæsthetic elements before the pronunciation of the word can be effected through the aid of the motor centres in the bulb. Probably in a healthy brain there is some amount of concurrent activity during speech in related portions of the visual word centre. Again, when expressing our thoughts by writing, though the memories of the words are probably first revived in the auditory word centre, corresponding memories are almost simultaneously revived (through the intervention of the audito-visual commissure *b*) in related parts of the visual word centre, and from this region stimuli pass by another commissure (*d*) to corresponding cheiro-kinæsthetic elements before the actual writing of the words

can be effected through the instrumentality of motor centres in the cervical and upper dorsal regions of the spinal cord. There can be no doubt, in fact, that the functional association existing between the auditory and the glosso-kinæsthetic centres, as well as that between the visual and the cheiro-kinæsthetic centre, is of the closest kind. No less intimate, however, is the bond of association between the activity of the auditory and the visual word centres themselves. These latter centres are often necessarily called into associated activity in immediately successive units of time. This happens, for instance, in two such common processes as reading aloud and writing from dictation.

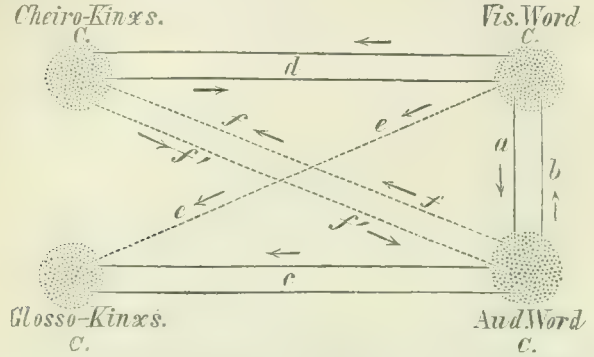



Fig. 2.—A diagram illustrating the relative positions of the different word centres and the mode in which they are connected by commissures. The connections indicated by dotted lines indicate possible but less habitual routes for the passage of stimuli.

In reading aloud the primarily excited visual word centre must arouse, through (*a*) the visuo-auditory commissure, related parts of the auditory word centre, since this is the part which ordinarily calls the glosso-kinæsthetic centre into activity, whence properly co-ordinated incitations issue from the cortex, in order to call into play the motor centres in the bulb. Again, in writing from dictation the sounds of the words reach the auditory word centre, and the activity thus aroused becomes transmitted through (*b*) the audito-visual commissure to related parts of the visual word centre, this being the part that usually rouses the cheiro-kinæsthetic centre into activity, whence properly co-ordinated incitations issue from the cortex in order to call into play the motor centres in the cord concerned with the act of writing. In certain exceptional cases it seems that the ordinary functional coupling of the auditory with the glosso-kinæsthetic and of the visual with the cheiro-kinæsthetic word centres is not adhered to. Thus the deaf-mute thinks in the main with revived visual symbols (either of hand or of lip movements), and it is from the organic seats of these that incitations pass to related parts of the glosso-kinæsthetic centres (*e*, *e*). A similar stimulation of these centres direct from the visual word centre seems occasionally to obtain in persons who are not deaf-mutes. We have already assumed it to be possible for some few "visuals," and subsequently for the interpretation of certain cases of disease in which the auditory word centre has been damaged we shall find ourselves obliged to have resort to such a supposition. Again, in those who have been born blind, but have nevertheless learned to write, a direct association must become established between the auditory and the cheiro-kinæsthetic word centres (*f*, *f*). The same kind of associated activity between these two centres must exist in certain other persons not born blind, seeing that some patients suffering from word blindness, owing to destruction of the visual word centre, are able, nevertheless, to write either spontaneously or from dictation.

This functional unification of the word centres of which I have been speaking does not, however, remain in a state of isolation. As the functions of hearing, speaking, and writing develop the various impressions reinforce each other as well as that of sight.

### On the Different Modes of Excitation of the Word Centres, and on the Reason of their Functional Predominance in the Left Hemisphere.

It is important to recollect that word centres are naturally called into activity in states of health in three modes—sensory, associational, and voluntary—failures in any of which lead to various kind of speech defects.

As to the causes which have determined the greater or almost exclusive influence of the left hemisphere in inciting speech movements only conjectures can be offered. It is, however, now pretty generally agreed that the immediate or proximate cause is to be found in the fact of the predominant use of the right hand, and this is shown by the great majority of cases of aphasia from lesions affecting the right hemisphere occurring in left-handed people.[14]

This problem has been considered by Pye-Smith,[15] and also in a more exhaustive manner by William Ogle,[16] but can only be briefly alluded to here. It has been thought to depend largely upon tribal or social customs and early tuition of young children by their mothers, though doubt has been thrown upon these views as giving any adequate explanation of the problem. William Ogle looks rather to certain peculiarities in the mode of origin of the left and right carotids respectively as calculated to favour a slightly freer blood supply to the left cerebral hemisphere. It is practically certain that the great preponderance of right-hand movements in ordinary individuals must tend to produce a more complex organisation of the left than of the right hemisphere.

Many years ago I ascertained a fact which at the time seemed very difficult to understand—namely, that the specific gravity of the cortical grey matter of the brain in the left frontal, parietal, and occipital regions is often distinctly, though slightly, higher than that from corresponding regions of the right hemisphere. Full details as to this will be found in a paper On the Specific Gravity of the Human Brain, published in 1866.[17] Now such an increase in specific gravity might easily be produced by the greater number of cells and associational fibres which the extra sensory and derivative functions above referred to would necessarily entail.

A greater convolutional complexity of the lower part of the left frontal lobe, as compared with the right, has been found to exist, and is thought to be a result of the preponderant activity of the left hemisphere in the production of articulate speech. Some evidence in favour of this view is to be found in the fact that Broadbent, in his examination of two brains taken from left-handed persons that were submitted to him by William Ogle, found in them the reverse condition—that is, that the greater convolutional complexity was in the right rather than in the left anterior lobe.[18]

There still remains the question why one cerebral hemisphere only should be efficiently educated for the perception of speech and for the production of speech movements, when, seeing that the bulbar motor centres are bilateral, it might seem that such centres would be likely to receive their stimuli from both hemispheres. In partial reply to this question Moxon, in a very able paper, long ago suggested[19] that the call upon attention was so great for the production of the extremely elaborate movements concerned in speech that the necessary concentration of attention would be much facilitated if this process of education were limited to one hemisphere. Whatever may be thought of this ingenious suggestion, nothing better has hitherto been forthcoming.[20]

The most important points to be borne in mind in reference to this subject would seem to be these. All the movements concerned in speech are movements produced by symmetrically placed muscles on the two sides of the body; there is just as much reason, therefore, for the registration of kinæsthetic impressions resulting from speech movements in the right as in the left third frontal convolution. Again, it cannot be supposed that auditory impressions from spoken words do not pass from each ear to similar regions in the opposite cerebral hemisphere; and our present knowledge makes it equally improbable that the visual impressions of words are not registered in a visual word centre in each hemisphere. For each of these three sets of afferent impressions, therefore, there is, as I believe, no question of an "overflow" from one to the opposite hemisphere; on the contrary, each hemisphere receives its own proper share of ingoing impressions, and doubtless registers them in a more or less similar fashion.

Again, it may be taken as established, for reasons which will subsequently appear, that the separate centres composing each of these pairs are brought into functional union by means of

commissural fibres forming part of the corpus callosum. So far, therefore, we seem bound to admit that each hemisphere has the chance of being equally educated, so far as the mere reception of speech impressions is concerned. It is, however, when we come to the executive side of speech functions that the difference begins to appear between the relative activity of the two sides of the brain. For reasons which we have previously been dimly endeavouring to indicate, the executive speech functions become relegated to one hemisphere, and this leading hemisphere—generally the left—becomes for this and for the other reasons which we have adduced more highly organised. The fact that the volitional impulses for the incitation of speech pass off from this hemisphere leads of necessity to the gradual perfecting of the associational channels between the auditory and the glosso-kinæsthetic centres, as well as between the auditory and the visual word centres of the left hemisphere, and also to the perfecting of the outgoing channels of communication between these sensory centres and the true motor centres in the bulb. The corresponding associational and outgoing channels in the opposite hemisphere, however, being but little used, may remain comparatively undeveloped. This difference in the degree of activity of the two hemispheres would tend to become more and more accentuated in future years, and would in all probability lead to a much higher grade of functional activity, even on the receptive side, in the three kinds of word centres pertaining to the leading hemisphere.

Views of this kind as to the partial education of the word centres of the opposite hemisphere will be found to be of considerable importance when we come to speak of the modes in which destruction of one or other of the word centres in the leading hemisphere may be compensated, or, in other words, of the way in which a cure may be brought about in this or that form of speech defect.

### Does Conception take place in a Centre altogether apart from Perception?

The first authoritative writer on defects of speech who started the notion of the existence of an altogether separate centre for conception or ideation was Broadbent. This he did in very important memoir, On the Cerebral Mechanism of Speech and Thought, published in 1872.[21] Whilst there adopting some views which I had previously published on the subject of the cerebral processes that occur in perception,[22] he made a departure from them in the direction above indicated. The functions that I spoke of as being carried on in the perceptive centres he divided into two stages—perceptive and conceptive, dependent upon different centres. In a subsequent communication these views were still further developed by Broadbent.[23] The centre for concepts was then termed the "naming centre," whilst a related higher motor centre was postulated as a "propositionising centre," in which words other than nouns were supposed to be registered, and where sentences were formulated preparatory to their utterance through the instrumentality of Broca's centre.

This supposed convergence of impressions from the various perceptive centres into a new region in which "conception" and "naming" take place is a view totally different from my own, which I put forward nearly thirty years ago.[24] The work which Broadbent supposes to be done in his "naming" or "concept centre" is, according to my view, carried out by the simultaneous activity of the different perceptive centres, and certain annexes which are derivative developments therefrom, of which I shall subsequently speak. And, again, I have postulated, instead of a single separate "naming centre," the existence of four "word centres" as important and intimately correlated parts of the more general auditory, visual, and kinæsthetic centres. Consequently I never seek to explain certain cases of speech defect, as he and others whom I am about to mention not infrequently do, by supposing the existence of lesions in a localised centre for "concepts," or of lesions involving the commissural fibres proceeding to or issuing from such a centre.

With variations in detail, views similar to those of Broadbent as to the existence of a special centre for concepts were subsequently published by Kussmaul[25] and Charcot,[26] whilst the views of the latter were adopted and further promulgated by Bernard[27] and Ballet.[28] The existence of a separate centre for concepts is also postulated by Grasset.[29] Diagrams that have attracted much attention were also published by Lichtheim in illustration of his well-known paper on aphasia.[30] They likewise show a centre for concepts altogether apart from the sensory centres, and in his endeavours to explain the different kinds of speech defect he refers two of his types to a destruction of supposed afferent and efferent fibres proceeding to and from this conceptual centre. While therefore his diagrams and his language in many parts of his paper would make one think that he adopted in full the view as to the existence of a wholly separate centre for concepts, he says towards the end of his paper[31]: "this has been done for simplicity's sake," and that he does not "consider the function to be localised in one spot of the brain, but rather to result from the combined action of the whole sensory sphere." This statement, though it is quite in accordance with my own view, seems to me to invalidate much of his exposition, and to make it almost impossible for him legitimately to suppose, as he does, that two of his types of speech defect are to be explained by the supposition of the existence of a lesion involving either the afferent or the efferent fibres pertaining to such a widely diffused centre. In addition, there is the serious defect that his diagrams are at variance with his views on this important subject.[32]

My dissent from these particular views of Broadbent was expressed in 1880,[33] and again more strongly against them as well as against the allied views of Kussmaul, Charcot, and Lichtheim, in 1887.[34] I am glad to say that this dissent from these doctrines has been followed by that of A. de Watteville,[35] Ross,[36] Allen Starr,[37] and Wyllie,[38] all of whom have likewise decided against the propriety of postulating the existence of a separate centre for ideas or concepts. My opposition to this postulation of a separate "centre for concepts" was based originally upon psychological considerations. It seemed to me wholly unnecessary and at variance with what appeared to be the real nature of the process of perception.

Then, again, I am unable to find any clear evidence from clinical data tending to prove the existence of a separate "centre for concepts"—or, in other words, any existing forms of speech defect that can only be explained by supposing the existence of a lesion in such a centre or in the course of its afferent or efferent fibres. I am convinced that the supposed necessity for assuming the existence of a "centre for concepts" when seeking to interpret different forms of speech defect, may in many cases be obviated by a fuller recognition of the different degrees of functional excitability that may obtain in the auditory and the visual word centres respectively.[39]

Again, as it would be quite easy to show, perceptive processes vary greatly in complexity, and merge by insensible gradations into processes of conception. It seems thoroughly legitimate, therefore, to suppose that these latter more specialised modes of mental activity, whilst having their roots in perceptive centres, must be completed in outgrowths therefrom, that is, in parts of the brain which are in close relation structurally and functionally with the several sensory centres. I have commonly spoken of such regions as "annexes" of the perceptive centres. Of late Flechsig has called special attention to four areas of the cortex that differ from the sensory areas, inasmuch as they are neither in relation with afferent nor with efferent fibres. He assumes[40] that these regions subserve higher mental functions than those carried on in the sensory or perceptive areas, and terms such regions "association areas." These regions seem, therefore, to correspond with what I have referred to above as "annexes of the perceptive centres." They occupy a large proportion of the cerebral cortex, and are thus located by Flechsig: (1) in parts of the prefrontal lobes; (2) a large portion of the temporal lobes; (3) a considerable area in the posterior parietal region; and (4) the island of Reil. These four fairly well-defined areas are, as aboved stated, not directly connected with afferent or with efferent fibres; and in addition to this, two other reasons are given for supposing them to be concerned with the carrying on of higher functions. Flechsig points out, in the first place, that these regions remain immature and completely devoid of myeline for several months after birth, though the sensorial centres have arrived at comparative maturity; and, secondly, that these association

centres are the parts which are especially developed in the brain of man as compared with that of the lower animals.[41]

It is only fair to Broadbent to point out that more than twenty years previously he had cited almost exactly these regions of the cerebral cortex as parts that were neither in direct relation with peduncular fibres nor with those of the corpus callosum, and that he had attributed to these regions just the same functions as those now assigned to them by Flechsig.[42]

It is, I think, perfectly legitimate to suppose that the annexes to which I have previously referred tend to be developed in the directions above indicated by Broadbent and Flechsig, though how much of these territories they occupy must remain altogether uncertain. It seems also probable there is no sharp line of demarcation between these annexes and the several sensory areas, and that the combined sensory areas together with the annexes are accustomed to be thrown into functional activity more or less simultaneously. Thus the processes of perception and conception, together with revival of linguistic symbols, are probably almost as inseparable in their localisation as they are in their nature and modes of occurrence, and their anatomical substrata must be supposed to occupy a very considerable extent of the cortex of both hemispheres.

A final question now remains for consideration related to this other which we have just been considering. It is this: Where are we to look for the registration and revival of words in the cerebral cortex? Something additional may now be said concerning the sites of the word centres which could not well have been said at an earlier period, and that is, that each of them is probably to be found partly on the confines of its percept centre and partly on that of its related annexe. This supposition is made because some words (especially names of things, persons, and places) are in closest relation with sensory centres; whilst others, such as verbs, adjectives, prepositions, and other parts of speech constituting the framework of language, are in closer relation with conceptual processes. These two modes of functional activity are, as I have said, absolutely inseparable from one another, and therefore the several word centres must be in most intimate relation both with the sensory centres and with their annexes.

If the views above expressed be anything like an approximation to the truth, it may be judged how vain it would be to attempt to base our explanation of any of the different kinds of speech defect upon the supposed existence of some one separate centre for "ideation," "conception," or "naming" which is connected by means of commissures (long enough and separate enough to permit of isolated damage) with sensory centres on the one side and with motor centres on the other. I am pleased to find that the views at which I have arrived on this important subject—while they differ so much from those held by some of the most authoritative writers on speech defects, are nevertheless in very close accord with those formed by one very distinguished writer and thinker on these subjects—namely, the late Dr. James Ross. All that has been set forth above is thoroughly in harmony with the dictum of Max Müller, who says: "Though sensations, percepts, and concepts may be distinguished, they are within our mind one and indivisible. We can never know sensations except as percepts, we can never know of percepts except as incipient concepts."

REFERENCES.

[1] These forms of word memory were first definitely stated by me to be purely sensory in papers on the Physiology of Thinking (*Fortnightly Review*, 1869) and on the Muscular Sense (BRITISH MEDICAL JOURNAL, April, 1869); and the name "kinæsthetic" was subsequently (*The Brain as an Organ of Mind*, 1880, p. 543) applied to the complex groups of impressions resulting from movements of this or that part of the body. [2] Other French writers as well as Ballet attribute to Charcot the doctrine that "le mot n'est pas une unité, mais une complexus" (*Le Langage Intérieur*, 1886, p. 13) because he also dwelt upon these four different kinds of word memory. Charcot's lectures on Aphasia were delivered in 1883, but M. Ballet will find a full description of these four different kinds of word memory in my book *The Brain as an Organ of Mind*, 1880, p. 696, or in the French translation (*Le Cerveau et la Pensée*, tome ii, p. 222), published in 1882. [3] *Brain*, April, 1887, and April, 1892. [4] *The Brain as an Organ of Mind*, 1880, p. 599. [5] *Le Langage Intérieur*, 1886, p. 55. [6] *On Aphasia*, 1887, p. 114. [7] *De l'Aphasie*, 1885, p. 49. [8] *Principles of Psychology*, vol. i, 1870, p. 187. [9] *Inquiries into Human Faculty*, 1883, p. 83. [10] On this subject many interesting details have been given by Ballet, *loc. cit.*, pp. 17-45. [11] *Loc. cit.*, p. 48. [12] In the case of a deaf and dumb child taught to speak and understand others by means of hand and finger movements their thought counters would be combined visual and kinæsthetic impressions, or in the case of one who had been taught to read much from early life they might be "visual typographic images." On the other hand, in the case of a congenitally blind person who has been taught to read aloud by means of raised letters and words excitation of the centres for touch and kinæsthesis would constitute the initial processes in the act of reading aloud, although revived auditory impressions might constitute, as in ordinary persons, their habitual thought counters. A patient of the former class, whose history has been reported by E. Fournier (*Essai de Psychologie*, Part II, chap. v), says: "Je sens quand je pense que mes doigts agissent, bien qu'ils soient immobiles. Je vois intérieurement l'image que produit le mouvement de mes doigts." [13] *The Brain as an Organ of Mind*, p. 176. [14] According to Seguin, out of 266 cases of aphasia, he found 243 with right and 17 with left hemiplegia; that is, somewhere about 6 per cent. W. Ogle, on the other hand, from inquiries among 2,000 hospital patients, found that 8s of them were left-handed; that is, about 4½ per cent. Left-handedness, curiously enough, was found to be "twice as common in men as in women." He shows, too, how very frequently there is hereditary transmission of this peculiarity. [15] *Guy's Hospital Reports*, xvi, 1871. [16] *Med. Chir. Trans.*, 1871. [17] *Journal of Mental Science*, pp. 28, 32. [18] *Med. Chir. Trans.*, 1871, p. 294. [19] *British and Foreign Medico-Chirurgical Review*, 1886, p. 481. [20] Moxon's paper is, indeed, in other respects remarkable, looking to the date at which it was written. Thus, he speaks of spoken words as represented in Broca's region by "educated associations of movements;" and the meaning that he attaches to this phrase is rendered evident further on when he dwells upon the "inconceivable pitch of education which is given to these supramotory departments, if I may so call them, of the brain, which hold ready for use the memorial forms of outgoing words," or still better where he says, "the situation of the ideas of associated motions which forms the faculty of speech is supramotory, whilst the situation of the ideas of associated sensations, which form the faculty of language comprehension, is suprasensory." [21] *Med.-Chir. Trans.*, 1872, pp. 180, 181, and 191. [22] On the Muscular Sense and the Physiology of Thinking. BRITISH MEDICAL JOURNAL, May, 1869. [23] *Brain*, i, 1878. [24] BRITISH MEDICAL JOURNAL, May, 1869. [25] *Ziemssen's Cyclopædia*, vol. xiv, p. 779. [26] *Le Progrès Médical*, 1883. [27] *De l'Aphasie*, 1885, p. 45. [28] *Le Langage Intérieur*, 1886. [29] *Leçons de Clinique Médicale*, 1896 (Montpellier). [30] *Brain*, 1885. The reader will find several of the diagrams previously referred to in an article on the Sensory Side of Aphasia, by E. A. Shaw, in *Brain*, 1893, p. 492. [31] *Loc. cit.*, p. 477. [32] I shall later on state what I believe to be the interpretation of his seven types of speech defect, when it will be seen that they may be explained without any necessity for supposing the existence of lesions in any such parts. [33] *The Brain as an Organ of Mind*, p. 636. [34] BRITISH MEDICAL JOURNAL, November, 1887. [35] *Le Progrès Médical*, March 21st, 1885. [36] *On Aphasia*, 1887, p. 123. [37] *Brain*, 1889, p. 97, where Starr says: "The results of pathological observation fail to give any support to the hypothesis of an 'ideational centre,' which Broadbent and Kussmaul have introduced into the diagrams." [38] *The Disorders of Speech*, 1894, pp. 230 and 235. Wyllie, however, I think, tends to convey an erroneous impression by representing in a diagram on p. 276 of his work the seats of word revival in a lower plane and of percept revival in a higher plane, and assuming that the stimulation of Broca's centre takes place from the seat of percept revival rather than from the auditory word centre. This seems to be also the position of Lichtheim, judging from his Fig. 7, and what he says in reference thereto, *loc. cit.*, p. 477. [39] Examples will be given later, when speaking of the defects due to disabilities in the auditory word centre. [40] *Neurol. Cent.*, 1894, pp. 674 and 809; and *Gehirn und Seele*. Leipzig, 1895. [41] Since the above was written I have received from Déjerine the reprint of a communication made by him to the Société de Biologie, on February 21st, 1897, in which he contests these views of Flechsig. [42] *Med.-Chir. Trans.*, 1872, p. 178.

# THE GOULSTONIAN LECTURES

ON THE

# CHEMISTRY AND PATHOLOGY OF GOUT.

*Delivered before the Royal College of Physicians, March, 1897.*

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[ABSTRACT.]

## LECTURE II.

### THE SOURCES AND FORMATION OF URIC ACID IN PATHOLOGICAL CONDITIONS, OTHER THAN GOUT, IN WHICH IT APPEARS IN THE BLOOD.

ALTHOUGH I hold the opinion that in health uric acid is only formed in the kidneys, and that the uric acid found in the blood in gout is absorbed from the kidneys after formation in those organs, yet it must be borne in mind that there are other diseases besides gout in which uric acid appears in the blood, and in connection with which it has most probably not been absorbed from the kidneys, but has been formed elsewhere in the system.

*Blood Disorders accompanied by the Presence of Uric Acid in the Blood.*—Von Jaksch[1] found uric acid in the blood of cases of primary and secondary anæmia, of pernicious anæmia and of splenic tumour, also in conditions inducing dyspnœa such as heart disease, pleurisy with effusion, pulmonary catarrh, pneumonia, and emphysema. Klemperer has confirmed this, and Laache,[2] Bartels, and others have shown that the

presence of uric acid in these patients' blood is associated with a great increase in the amount excreted in the urine. Von Jaksch concluded that the uric acid in the blood resulted from diminution of the oxidising activity of the red corpuscles which leads normally to the destruction of the uric acid formed in the body. Horbaczewski's view that the acid arises from leucocyte disintegration would equally fit the facts, particularly when it is remembered that experimental evidence shows that the process of oxygenation can in the presence of nuclein produce uric acid instead of destroying it.

*Renal Diseases accompanied by the Presence of Uric Acid in the Blood.*—Von Jaksch[3] found uric acid in the blood of all the cases of renal disease that he examined, the proportions being especially large in cases of granular kidney disease and uræmia. Von Jaksch's results were confirmed by Klemperer, who examined the blood of cases of contracted kidney, and found uric acid always present in the blood.

*Lead Poisoning accompanied by the Presence of Uric Acid in the Blood.*—Sir Alfred Garrod[4] examined the blood of nine patients suffering from plumbism, and who had never suffered from gout, and found appreciable quantities of uric acid in the blood of seven out of the nine. This is no doubt due mainly to the kidney condition, though the increased leucocytosis may possibly play some part in it.

*Fevers and Absence of Uric Acid in the Blood.*—Von Jaksch found no uric acid in the blood of patients suffering from typhoid fever, intermittent fever, and acute rheumatism, nor in connection with the diseases of the liver, stomach, and intestines, when accompanied by anæmia. His observations seem undoubtedly to prove that the presence of uric acid in the blood is not a factor in the production of the so-called uric acid intoxication of fever. Fever, indeed, appears to influence unfavourably the production of uric acid.

A proposition that I wish to put forward is that the seat or site of formation of uric acid is a different one in gout to what it is in those blood diseases and disorders in which uric acid occurs in the blood without the development of gout. In gout I believe that all the uric acid present in the blood is absorbed from the kidneys, owing to some affection of those organs—functional or organic—which interferes with the proper excretion of the uric acid manufactured in the kidneys. In cases of contracted granular kidney disease, and in cases of plumbism, the uric acid present in the blood is, I believe, derived from the same source—namely, from the damaged kidneys. In blood diseases and disorders the uric acid present in the blood is probably derived from the nuclein of the leucocytes, and, as the kidneys are in a sound condition, it is readily excreted by them.

An interesting question which I will now consider is whether gout ever occurs without preceding kidney mischief of some kind or other.

### Association of Kidney Affections with Gout.

In the first place I think that the old idea must be abandoned that the kidneys can only eliminate a certain amount of uric acid. That the healthy kidneys are capable of separating from the blood and excreting large quantities of uric acid is shown by the observations previously referred to.

*Views as to the Association of Gout and Kidney Disease.*—Sir Alfred Garrod, Sir William Roberts, and Levison all attribute the accumulation of uric acid in the blood of gouty persons to deficient excretion rather than to increased production. Vogel[5] estimated, in three cases of chronic gout, the intake of nitrogen by analysis of the food and the output of nitrogen in the urine and fæces. He found that there was a nitrogen retention greatly in excess of what could be attributed to a retention of uric acid. Vogel states that his patients behaved in this respect like sufferers from renal disease, although the clinical signs of granular kidney mischief were wanting in all the cases. It must be borne in mind that the absence of the clinical signs of kidney disease does not necessarily imply integrity of those organs.

*Association of Renal Disease with the Presence of Uric Acid in the Blood and with Uratic Deposits in the Joints.*—As previously mentioned, Von Jaksch found considerable quantities of uric acid in the blood of all the cases of diseases of the kidneys that he examined, and his results were confirmed by Klemperer. Drs. Ord and Greenfield[7] found uratic deposits in the joints of a considerable proportion of patients suffering from kidney disease, and their results have been confirmed and extended by Dr. Norman Moore.[8] Levison states that all the *post-mortem* examinations of patients dying of granular kidney disease at the Communal Hospital, Copenhagen, during a period of fourteen months showed uratic deposits in one or other of the joints, although most of the patients are not known to have had any gouty definite attack. By the kindness of Dr. Cyril Ogle, Dr. F. J. Smith, Dr. Hebb, and Mr. Jackson Clarke I am able to give the results of seventy-seven similar examinations made in London hospitals.

| | No. of Cases. | Uratic Deposit in Joint or Joints. |
|---|---|---|
| Known to have had gout ... ... | 10 | 10 |
| Never known to have had gout ... | 67 | 31 |
| Totals ... ... ... | 77 | 41 |

If from the 67 cases a selection is made of those described as "markedly granular" or as "typical granular kidneys," then the proportion of cases in which uratic deposits were found in the joints appears as follows:

| | No. of Cases. | Uratic Deposit in Joint or Joints. |
|---|---|---|
| Marked granular kidney disease ... | 26 | 20 |

Thus it is seen that among the cases of marked granular disease of the kidneys occurring in persons who were never known to have suffered from ostensible gout during life, uratic deposits were found in the joints of 77 per cent. of the cases.

It has been urged that, if kidney disease, with the consequent diminished excretion of uric acid, be the primary factor in the causation of gout, signs of kidney mischief would always manifest themselves prior to an attack of gout, and that very few such cases have ever been recorded. But, in the first place, it must be remembered that such signs are not usually looked for, and, in the second place, they need not necessarily reveal themselves clinically. It is well known that contracted granular kidney is not always evidenced either by the occurrence of albuminuria or of dropsy.

The contention that, if organic renal failure existed, the urea excretion would probably be equally affected together with that of uric acid, does not hold good if the view is adopted that uric acid is produced in the kidneys while urea is only eliminated by them.

*Kidney Disease and Gout alike caused by certain Toxic Agents.*—Certain toxic agents which predispose to or which excite kidney disease are also known to produce gout. Lead gives rise to both chronic kidney disease and gout. In chronic lead poisoning proliferation of the epithelium of the urinary tubules first occurs, followed by granular atrophy and excessive formation of interstitial tissue. Very similar changes occur in the gouty kidney, and it seems reasonable to assume that the changes in that organ in both chronic lead poisoning and in gout so affect the excreting apparatus of the kidneys as to seriously diminish their power of eliminating uric acid.

Sir Alfred Garrod has shown that lead poisoning leads to the accummulation of uric acid in the blood. He also found that the medicinal administration of lead acetate caused the amount of uric acid in the urine to diminish.

Alcohol is another body which in excessive quantities gives rise to kidney mischief, and which may also give rise to gout.

*Probable Anatomical Seat of the Kidney Affection causing Gout.*—The anatomical seat of the presumed kidney affection giving rise to the development of gout is probably in the epithelium of the convoluted tubes, as that has been shown by Levison[9] to be the primary seat of disease in granular kidney, and by Oliver[10] to be the seat of the kidney affection associated with lead poisoning. The increase of interstitial tissue is probably a secondary change.

My own belief is that a functional affection of the kidneys always precedes any gouty manifestations, and that this functional affection may subside if the exciting cause be removed, or it may pass on to a structural lesion. It is the liability to this functional affection of the kidneys which, in my opinion, constitutes the hereditary factor of gout. If this view be correct, it is obvious that the kidney condition must always be considered in the treatment of gout, and that given diseased organs incapable of eliminating the normal amount of uric acid, either some other channel for its elimination must be secured, or its formation must be limited to the diminished output, so that absorption of it into the general circulation may be avoided.

The retention of uric acid in certain cells of the kidney, and its subsequent absorption into the blood, is analogous, as Sir Alfred Garrod has pointed out, to an attack of jaundice. When no obstruction exists to the exit of bile from the biliary passages, no appreciable amount of its colouring matter is found in the blood, but when its free elimination is checked, then absorption of it into the blood speedily takes place.

### Origin of Uric Acid.

I now propose to review the theories which have been put forward as to the origin and antecedents of uric acid and the chemical processes by which it is formed. A commonly received notion is that uric acid represents a less complete oxidation of the nitrogenous constituents of the tissues than does urea; this is based on the facts that urea can be obtained as an oxidation product of uric acid, and that in certain reptiles in whom respiration is languid and the temperature low, uric acid is excreted and no urea. But birds, in whom respiration is more rapid and the temperature higher than in mammals, also excrete practically pure uric acid.

Another common view is that in gout there is an excessive formation of uric acid due to a too highly nitrogenous diet, and especially to an animal one. But Virchow has often found gout in poorly nourished convicts, while birds fed entirely on grain may develop uratic deposits around the joints, while on the other hand uric acid is absent from the urine of some of the carnivora. Furthermore, Bleibtreu's experiments, confirmed by Hirschfeld, show that although the increased ingestion of nitrogen leads to an augmented excretion of uric acid, it is immaterial whether the proteids taken in be animal or vegetable.

That the production of uric acid is not dependent, at all events to any great extent, on diet is also shown by the fact that the same diet which in one class of animals will produce uric acid will in another class produce urea. Thus in the urine of the carnivorous lion and tiger there is a quantity of urea, and but very little uric acid, on the other hand the carnivorous python and boa excrete uric acid and no urea. Graminivorous birds excrete uric acid and no urea; whilst herbivorous mammals excrete quantities of urea and but little or no uric acid.

Sir William Roberts,[11] comparing the functions of the kidneys of birds and serpents with those of mammals, considers that an immense functional evolution has taken place in the mammalian kidney; that the evolution of mammalian urine has probably turned mainly on the point that the mammalian plan required that the renal excretion should be voided, not in the solid or semi-solid form, but as a watery solution. This modification would require the discarding of the sparingly soluble uric acid as a medium for the elimination of nitrogen and the substitution of a nitrogenous substance readily soluble in water, such as urea. He considers it possible that the reason why this substitution has not been completely effected is that in that particular the mammalian type has not yet reached its ideal perfection, and that the residuum of uric acid in mammalian urine may be something in the nature of a vestigial feature.

*View that Uric Acid is Formed from Urea in the Kidneys.*—In mammalia, including man, and in birds, uric acid is absent from the blood in health, while urea is always present in the blood. The blood of the renal artery is much richer in urea than the blood of the renal vein.

One very strong argument against the formation of uric acid in the liver, spleen, connective tissues, etc., is that it is never present in the blood of mammals (including man) and of birds in health. If it were formed in such organs or tissues it must be conveyed in the blood to the kidneys. Since, according to Sir Alfred Garrod's and my own investigations, urea, and not uric acid, is found in the blood of birds, and since uric acid, and not urea, is found in the urinary excrement of birds, it seems highly probable that urea is at least one of the sources of formation of uric acid, and that the change is effected in the kidneys.

Dr. P. W. Latham's[12] explanation of the formation of uric acid in the animal economy is that the amido bodies—glycocine, taurine, leucine, and tyrosine—are normally converted in the liver into urea, but if from any cause the metabolism of glycocine be interrupted, there would then be present in the liver glycocine and urea, which would produce hydantoic acid and then hydantoin, and the latter, which is freely soluble, would then pass on in the circulation to unite in the kidneys with urea or with biurate to form an ammonium salt of uric acid. Therefore, according to this view, the imperfect metabolism of glycocine is the primary and essential defect in connection with the abnormal formation of uric acid in the human system.

The production of uric acid from urea and glycocine may be shown in a single equation as follows:

$$3CH_4N_2O + C_2H_3(NH_2)O.OH = C_5H_4N_4O_3 + 3NH_3 + 2H_2O$$

Urea Glycocine Uric Acid

Horbaczewski produced uric acid by the interaction of urea and glycocine, and this result was confirmed by Dr. Latham.

Glycocine is certainly formed in the human body, and probably is one of the antecedents of urea, for in man glycocholic acid, a compound of glycerine and cholic acid, passes in the bile into the intestines, and having served its purpose, and its constituents having been set free, the glycocine, together with the other amido bodies—taurine, leucine, and tyrosine—pass in the portal blood to the liver, and probably in the hepatic cells are converted into urea.

That glycocine is concerned in the production of uric acid is somewhat probable from the fact that in the carnivora, whose urine contains little or no uric acid, the bile contains no glycocholic, but only taurocholic acid, and therefore yields no glycocine.

It is quite possible that there is another means by which uric acid may be formed from urea. Gerard[13] has succeeded in converting uric acid into urea by the agency of micro-organisms derived from the air, and Magnier de la Source has effected a similar conversion by purely chemical agencies. The reaction is one of hydration, the uric acid uniting with the elements of water, and yielding urea and tartonic acid, as shown in the following equation:

$$C_5H_4N_4O_3 + 4H_2O = 2CH_4N_2O + C_3H_4O_5$$

Uric acid Urea Tartonic acid.

We may therefore conclude that the conversion of urea into uric acid by the agency of certain of the kidney cells is at least possible, either by the conjugation of urea and glycocine, or by the interaction of urea and tartonic acid, the last-mentioned body being possibly derived from lactic acid.

*Uric Acid Formation and Liver Disease.*—If uric acid be formed in the kidneys from urea and glycocine brought from the liver, it can be readily understood that alterations in the metabolism of the liver must necessarily affect the formation and excretion of uric acid. This would explain why liver trouble of some kind or another is so commonly associated with gouty dyspepsia, and it also renders intelligible the fact that several observers—for example, Dr. Murchison, Dr. George Harley, and Sir Dyce Duckworth—have been unable to dissociate the connection between liver troubles and gout, and have therefore attributed the formation of uric acid to the liver.

*View that Uric Acid is formed from Nuclein.*—Horbaczewski[14] has shown that uric acid, as well as xanthin and hypoxanthin, can be prepared from spleen pulp. By digesting fresh spleen pulp with hot water till changes set up by bacterial agency are started, he found that the fluid, when freed from albuminous bodies, contained xanthin and hypoxanthin, but no uric acid. By treating this fluid with arterial blood, and keeping the mixture at 40° to 50° C., uric acid forms in it after several hours.

Horbaczewski found that the nitrogen contained in the uric acid so formed was about equal in amount to the nitrogen

contained in the xanthin and hypoxanthin (xanthin bases). Horbaczewski brings forward proof that the substance which yields xanthin bases and uric acid is the nuclein of the spleen cells. It was found that when pure nuclein, prepared from spleen pulp, was dissolved in very weak alkali, and digested with blood at 40° C., uric acid was formed. The question as to whether a similar decomposition occurs in the blood of ordinary human beings has been solved by the administration of nuclein, which Horbaczewski finds to increase the excretion of uric acid; similar results have been obtained by Umber[15] by giving thymus, liver, and other organs as food.

From his experiments Horbaczewski concludes that uric acid is formed in health by the disintegration of nuclein, and that sudden variations in uric acid production may be due to the breaking up of leucocytes and conversion of their nuclein into uric acid or xanthin bases within the system. It is well known that permanent or temporary leucocytosis—even that following on an ordinary meal—is accompanied by increased uric acid excretion, and Gumprecht[16] further confirms Horbaczewski's views by showing that in those exceptional cases of leucocythæmia in which the excretion of uric acid is normal or lessened, that of alloxur bases (that is, those containing an alloxan and a urea nucleus) is correspondingly increased. But although I think that in such cases, where uric acid is present in the blood, it is probably derived from leucocytic nuclein, it is in my opinion wrong to draw the further inference that the source of the uric acid excreted in health is the nuclein derived from leucocytes throughout the body. If such were the case uric acid would be found in the blood in health: but, as previously shown, it is not. Moreover, in birds there is no special leucocytosis to account for the large formation and excretion of uric acid that occurs.

*View that part of the Uric Acid is Introduced Ready-formed in Food.*—Dr. Haig, who, in my opinion, wrongly ascribes to uric acid an almost universal *rôle* in the causation of disease, claims that the uric acid excreted in the urine comes from two sources: 1. The uric acid which is formed in the body out of nitrogenous food. 2. The uric acid introduced into the body ready formed in certain articles of diet, such as meat, meat extracts, soup, tea, coffee, etc. He considered that flesh diet increases both the introduction and the formation of uric acid, a view which is opposed to the previously quoted experimental results obtained by Bleibtreu, and by Hirschfeld.

As far as I can ascertain from Dr. Haig's writings he has never identified by the murexid test this uric acid reported to be present in these various articles of diet. Apparently these estimates depend solely on the application of Haycraft's process to the articles of diet, and the subsequent calculation of the silver precipitate so obtained in terms of uric acid. That Dr. Haig's peculiar view as to the direct introduction of uric acid in articles of diet is an error is shown by the absence of uric acid from the blood of man and animals in health. Dr. Haig has also advanced the theory that normally there is a constant ratio of 1 to 35 between the uric acid and urea formation, and that if the uric acid excretion falls below this ratio, it is due to the reaction and storage of uric acid in the liver, spleen, kidneys, joints, and fibrous tissues, whereas an increase in the proportion of uric acid to urea is due to the washing out from its storage places of the deposited uric acid.

This theory of the existence of a normal ratio of uric acid to urea and of every departure from it being due to a pathological cause is disproved by the following experiments:

1. Bleibtreu and Schultze,[17] experimenting on themselves, showed that the ratio between uric acid and urea can be considerably altered by means of the diet without the general health being influenced.

2. Dr. Herringham and Mr. Groves,[18] as the result of a series of experiments that they made, entirely fail to corroborate Dr. Haig's observations, and think that either what was true for his system was not true for theirs, or that Dr. Haig's results were, to quote their own words, "inaccurate and deceptive owing to his having employed a very uncertain and inaccurate method for the estimation of uric acid."

3. The results of the determinations that I have made of the total daily eliminations of uric acid and urea in the urine of a healthy adult man, and which consist of observations extending over a period of fifty days, show that the ratio of uric acid to urea varied from 1 : 28 to 1 : 55 (the average being 1 : 42), although throughout the entire period the individual remained in good health.

These results show that no constant ratio exists between the excretion of uric acid and urea in any given individuals. Variations in the diurnal elimination of the former cannot be due to its being washed out from various tissues and organs into the blood, for it is never found in the blood of healthy persons. They depend, probably, on the amount of glycocine leaving the liver and passing into the kidneys, which in itself may be influenced by diet, exercise, and the nervous system. Dr. Latham[19] states that insufficient exercise tends to the formation of glycocine; thus, horses put to hard work eliminate benzoic acid, while those kept in the stable excrete glycocine compound hippuric acid.

*Different Modes of Formation of Uric Acid in Health and in Blood Disorders.*—From a consideration of the various views as to the origin of uric acid, I think it is evident that there are two distinct and different ways in which it may originate: (1) In health I believe that it is only formed in the kidneys, probably from urea and glycocine, and that it is at once eliminated in the urine. If from any functional or organic affection of the uric-acid-eliminating cells of the kidneys its proper secretion is inhibited, then it is absorbed into the general circulation, and constitutes the store from which the uratic deposits of gout are formed. (2) In diseases which are accompanied by leucocytosis, I believe that uric acid may be formed from the nuclein of leucocytes in the spleen and possibly throughout the system generally, but that such uric acid is readily eliminated by the kidneys which remain sound as regards their uric acid secreting structures; consequently, gouty deposits never occur in connection with such diseases.

## Causes of Uratic Deposition in Gout.

*Form in which Uric Acid exists in the Circulation.*—Sir William Roberts[20] has shown that the amorphous urate deposit of human urine is of the same composition as the solid, or semi-solid, urinary excrement of birds and serpents, the only difference being one of physical form. Dr. Bence Jones[21] was the first to show that the amorphous urate deposit yielded to water a soluble moiety consisting of true biurate, and left a sediment consisting of pure uric acid, and from the results of his analyses he inferred that the amorphous urate deposit consisted of, or at least often contained, a molecule of biurate in loose combination, with a further molecule of uric acid. Sir William Roberts took up and continued the investigation dropped by Dr. Bence Jones thirty years before, and has conclusively shown that a third order of uric acid salts—the quadriurates—exists, and that the amorphous urate deposit of human urine, and the urinary excretion of birds and serpents, belong to this order, and consist of a true and definite compound of biurate and uric acid in the proportion of one molecule of each. Sir William Roberts concludes that the quadriurates are the physiological combinations of uric acid.

As I have been unable to ascertain that any quantitative determination of the bases present in the amorphous deposit has been made, I investigated this point in the following manner:

Several gallons of acid urine from febrile patients were taken, and the precipitate collected on a filter, decomposed by boiling with excess of HCl, and again filtered and evaporated to dryness. The residue, containing the bases as chlorides, was taken up with distilled water, filtered, and again evaporated to dryness. Part of the residue was analysed qualitatively, and found to consist of ammonium, sodium, and potassium, with minute traces of calcium and magnesium. In the remainder the amounts of the first three bases were estimated and found to be, in percentages—ammonium 46, sodium 40, potassium 14, corresponding to 7, 5, and 1 molecules of their respective quadriurates.

The uric acid which is formed in the kidneys is probably at once converted into the mixture of these three quadriurates, which in the normal state are then excreted, dissolved in the urine. If, however, any absorption of them takes place into the blood, as probably occurs in the gouty state, the ammonium and potassium quadriurates would be converted by the sodium carbonate of the blood into sodium quadriurate, which would constitute the sole compound of uric acid circulating in the blood. It is from this body that the sodium biurate, of which the gouty deposits consist, is formed.

*Formation of the Sodium Biurate from the Quadriurate.*—Sir William Roberts investigated the behaviour of uric acid

with blood serum and with a standard solvent containing 0.5 gr. sodium chloride, and 0.2 gr. sodium bicarbonate in 100 c.cm. of distilled water. He found that each, at the temperature of the body, dissolved 1 part in 500 of uric acid, sodium biurate being only about one-twentieth as soluble. The chemical action involved is the conversion of the uric acid into quadriurate by the sodium carbonate present, the excess of which effects a further conversion into biurate, which, on account of its less solubility, is eventually precipitated.

Sir William Roberts infers from these results that, in the normal state, uric acid is primarily taken up in the system as quadriurate, and that as such it circulates in the blood. The detained quadiurate, circulating in a medium rich in sodium carbonate, is gradually transformed by the latter into sodium biurate, and as this form is almost insoluble, precipitation of it occurs or is likely to occur.

The reason that in leucocythæmia and other blood diseases no uratic deposits occur is that the uric acid produced in the various organs or tissues is discharged into the blood as a quadriurate; and as this requires some hours for its maturation before it is possible for it to deposit sodium biurate, there is abundant time for the kidneys to eliminate it provided these organs are sound. In connection with gout, if the view is correct that defective elimination of uric acid by the kidneys always occurs, the conditions are quite different.

### SEATS OF URATIC DEPOSITS IN GOUT.

Uratic deposits are found almost exclusively in structures belonging to the connective-tissue class—in cartilages, ligaments, tendons, and in the cutaneous and subcutaneous connective tissue. They are conspicuously absent from the muscular tissue and from the substance of the liver, spleen, brain, and lungs. Uratic deposits have been very occasionally found in the following places: In the mitral and aortic cardiac valves, in atheromatous patches in the aorta, in the walls of veins, in the crico-arytenoid ligaments, in the vocal cords, in the walls of bronchial tubes, in the mucous follicles of the pharynx, upon the meninges of the brain and spinal cord, upon the spinal nerve sheaths, in the sclerotic coat of the eye, and the fibrous envelope of the retina. It is always in the fibrous tissue which participates in the formation of the nervous envelopes that the deposit is found.

*Anatomical Seat of the Deposit in Cartilages.*—The uratic deposit first occurs in the central portion of articular cartilage—a point farthest from the network of nutrient capillaries and a point where nutrition is more easily retarded. It is also probably the point of greatest pressure, hence a long walk, a dance, or similar violent exercise may precipitate an attack of gout.

Ebstein states, as the result of the examination of a typical gouty knee-joint, that directly under the surface of the cartilage a very shallow tissue layer exists in which crystals are wanting, and in the layer immediately beneath this the crystals are most plentiful. He agrees with Sir Alfred Garrod that only two-thirds of the thickness of the cartilage is usually infiltrated, although exceptionally—as shown by Cornil and Ranvier—the whole cartilage may be infiltrated.


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AN effort is being made throughout the country to raise a children's tribute towards the Queen's Commemoration Fund for the Queen's Jubilee nurses. The fund has already reached the sum of £30,000. A lecture entitled "The Children's Story of the Queen's Reign" will be given in the chief provincial towns. The Duke of Westminster has given the use of Grosvenor House for the first lecture on Monday, March 29th.

## AUDITORY APHASIA WITH AMUSIA.


BY P. BLAIKIE SMITH, M.D.,
Consulting Physician, Aberdeen Royal Infirmary.


BEFORE entering upon a description of the case which is the subject of my paper, I think it advisable, for the better comprehension of what is to follow, to refer briefly to some points in connection with auditory aphasia.

Auditory aphasia—more commonly known as word deafness—includes those disorders of hearing and speech which result from destruction, partial or complete, of the posterior half of the first temporal convolution on the left side. This convolution is the storehouse for the sound images of words, and hence, when it is destroyed, the power of understanding spoken language is lost. The patient is not deaf—he hears quite well, but he fails to understand. He hears language as sounds, but he cannot comprehend their meaning. He is in the position of a man listening to an unknown tongue; he hears the sounds of the spoken voice, but he is unable to interpret their significance.

But auditory aphasia may include something more than word deafness. Not only does the patient fail to comprehend spoken language, but he may have lost the power of producing language. The word storehouse is destroyed or isolated, and he cannot therefore reproduce in the form of spoken language the thoughts that arise in his mind; he has, so to speak, forgotten how to speak, and his attempts at speech merely result in the emission of an unintelligible jargon, "gibberish aphasia," or, short of this, in efforts which reveal a very greatly diminished vocabulary, and a failure to recognise the true meaning of the words to which he gives utterance.

Agraphia is frequently present, but though the patient cannot write, just as he cannot speak, yet he may copy what is placed before him, for he generally comprehends word symbols—that is, he is not word blind.

Occasionally the musical faculty, which seems to reside in the left first temporal convolution, is lost or sensibly impaired.

In auditory aphasia, then, there may be defects in the reception or interpretation as well as in the production of spoken language, and agraphia and amusia—musical aphasia—may coexist.

### DESCRIPTION OF CASE.

The patient, a man aged 51, by occupation a seaman, was admitted under my care in the Aberdeen Royal Infirmary on March 10th, 1895. His history, obtained mainly from his wife, was as follows: For some years back he had suffered from breathlessness and palpitation of the heart, and a year ago he became so breathless and ill that he sought admission into the Aberdeen Royal Infirmary. During his stay in hospital (he was not then under my care) his symptoms pointed to cardiac weakness, for the heart's action was feeble and irregular, the sounds were faint but free from murmur, and there was much cyanosis and dyspnœa. After a short stay in the infirmary he was discharged greatly improved, and he soon resumed his occupation as a sailor. He continued in fair health until February 11th, 1895, when, on the afternoon of that day, while at sea, he suddenly became dazed and stupid, and found that he could not understand what was said to him. He remained in this condition for several days, during which it was discovered that he could neither read nor write. He often attempted to read, but it was evident that his efforts were fruitless, for he was frequently observed to be puzzling over a book or newspaper, which he held as often as not upside down in his hands. He rarely spoke, and when he did speak his language was at times not at all intelligible. After a few days the power of writing and of reading (silently as well as aloud) was restored, and voluntary speech returned to a considerable extent, but no improvement was manifested in his hearing. At no time of his illness did he lose consciousness, nor was there ever any evidence of paralysis.

On admission his expression resembled that of a deaf man, but he was not deaf, for if asked (in writing) whether he heard conversation he stated that he heard a sound, but that he did not understand what was being said. At the same time he was not absolutely word deaf, for when requested to

put out his tongue, or shut his eyes, or hold out his hand he usually performed all these actions correctly if addressed slowly and distinctly and in monosyllables. It was manifest that his comprehension of spoken words was aided by the close watch which he kept on the lips of the speaker, for if the same phrases were repeated in such a way that he could not see the face of the person addressing him he at first completely failed to comply with the requests made. It was interesting to note that after a few trials he seemed to become acquainted with the sounds, and readily did what was required of him. Any attempts to engage him in ordinary conversation were futile, and invariably elicited the reply: "I hear you, but I don't understand what you say."

Notwithstanding his difficulty in comprehending spoken language, there was no impairment of ordinary hearing. He heard and recognised a watch ticking at a considerable distance from either ear, and he recognised and named everyday sounds, such as the noise of street traffic, the bark of a dog, a railway whistle, and the noise produced by poking the fire. He seldom spoke voluntarily, but when he did his articulation was perfect. His remarks were always short and simple, apparently his vocabulary was small, and every now and then he would misapply a word. He could write readily and distinctly, and he read aloud with ease and with intelligence. When shown various objects, for example, watch, pencil, penknife, and coins of different values, he could name them all correctly and without hesitation. His musical faculty was impaired. Previous to his illness he could sing to some extent, and was fairly well acquainted with Scotch and other melodies, but when tested at the organ soon after admission he failed to recognise such well-known airs as "Auld Lang Syne" and "We're a' Noddin'," and was equally at a loss with the "Old Hundredth" and "God Save the Queen." The only air with which he showed familiarity was "Comin' thro' the Rye," and this he hummed with tolerable accuracy. He recognised by sound that the musical instrument which was played was an organ, and he could distinguish sacred from secular music. His intelligence seemed unaffected, and his memory, though good for past events, was miserable as regards the present. He was emotional, and easily depressed by trifling occurrences. Nowhere was there evidence of paralysis. The movements of the pupils and eyes were normal, and the appearance of the discs was natural. All the reflexes were in perfect order. The sounds of the heart were feeble but free from murmur; the left ventricle was slightly dilated; the arterial system as indicated by the condition of the superficial arteries, was atheromatous. The urine was healthy.

During the patient's stay in hospital his condition decidedly improved. At first he seldom spoke, but latterly he expressed himself with considerable freedom and fluency. He frequently volunteered remarks, and he rarely misused a word. His power of comprehending speech also increased to a certain extent, but it was still very defective when he left the infirmary on April 11th. The treatment which I adopted consisted mainly in attempts to remedy the imperfect perception of speech by speaking to the patient slowly and distinctly, and by the repetition of short words and phrases, exactly as one would do in trying to teach colloquially a foreign language.

Since the foregoing was written I have again examined the patient. He was still partly word deaf, and also, I fancied, a little deaf to ordinary sounds, but his faculty of expression had evidently further improved since he left the hospital. His speech was wonderfully accurate; only once or twice did he fall into error, using the word "pacified" for "satisfied," and "extinctly" for "distinctly." He told me that he had been to church the day before, but that he could only now and then comprehend what the preacher was saying though he heard his voice distinctly. With the view of verifying this statement I read to him a few sentences taken at random from a book, and I found that he could not understand a single word that I said.

On testing his musical faculty, it was at once apparent that a marked improvement had taken place since its condition was last investigated. He now recognised the "Old Hundredth" and "Auld Lang Syne," singing a few bars of the latter air, and he stated that other tunes which were played were quite familiar to him, though he had forgotten their names. But his musical capacity could hardly be considered completely restored, nor could his powers be pronounced absolutely satisfactory, for, after listening attentively to "God Save the Queen," he came to the conclusion that the air which he heard was "Auld Sang Syne," with variations!

In commenting upon this case I would first direct attention to the account given of the onset of the symptoms. Clearly on February 11th a pathological lesion, some haemorrhage or softening took place in the patient's left brain, resulting in the production of auditory and visual aphasia along with agraphia—he could not understand language, he could barely speak, he could not write, and he was evidently unable to read. In a few days agraphia and visual aphasia passed away, but the auditory aphasia persisted, thus indicating that the lesion must have involved the left auditory centre, and that the visual word centre had suffered only from the inhibiting effects of the injury in the neighbouring convolution.

On reviewing the symptoms previously detailed it is apparent that the case is far from being one of complete auditory aphasia. The patient has considerable powers so far as the production of language is concerned, but his capacity for understanding speech is greatly diminished, and his musical faculty is still capable of further cultivation. In all probability the symptoms are the outcome of a lesion which has damaged but not destroyed the left auditory centre, thus bringing about the changes which I have already detailed.

Lastly I would draw attention to the improvement which has taken place in the patient's condition since he first came under notice. This observation is in keeping with what seems to be a well-established fact—namely, that of all the forms of aphasia the auditory variety is the most susceptible of amelioration or cure, a circumstance believed to be due to the faculty possessed by the right auditory centre of acquiring through a process of slow education the special functions located in the corresponding convolutions of the opposite side.

[Shortly before leaving Aberdeen for San Remo I had another opportunity of examining the patient whose case is related above. He was then free from aphasic symptoms and there was no evidence of amusia.]

## CASE OF PTOMAINE POISONING FROM EATING TURKEY.

By E. S. WORRALL, M.R.C.S.Eng., L.R.C.P.Lond.,
Crouch End.

On February 15th, at 6.20 P.M., I received an urgent call to Mrs. M., and found her in a collapsed condition, cold and clammy, the pulse 75, and the pupils contracted. I was unable to arouse her so as to obtain any answer to questions. There were no signs of injury from a fall or blow, no typical smell in the breath, and on looking carefully round the room I could find nothing to account for her condition. On questioning the servant and the mother's help, who were in the house all day, I found that Mrs. M. had not been well on the previous day, February 14th, when she complained of pain in the abdomen and vomited three times; and on the morning of February 15th she had vomiting and diarrhœa, and complained of pain in the abdomen. She took no breakfast and no food whatever that day, but a half-wineglassful of coca wine in the morning and about midday a little brandy and water, vomiting immediately after. About 2 P.M. she went to lie down on the sofa, where she remained till after the children came from school, about 5 P.M. Soon after she was heard to call out to her daughter, who went to her and found her on the sofa, and was alarmed as her mother seemed very ill, and could not talk properly. Later on I was sent for as above stated.

On further inquiry I ascertained that they had all been unwell after eating turkey at 2 P.M. the previous afternoon. The cook informed me that the turkey seemed all right when she was preparing it for roasting, but that when it commenced to cook she noticed it had an unpleasant smell, and the husband of the patient remarked on this when it was brought to table. All, however, seem to have eaten some of the bird, and Mrs. M. ate very little, but partook freely of

the gravy made from the giblets. The children, three girls and a boy, had only a little, and chiefly off the breast, as also did Mr. M. The son wanted to eat more, but Mr. M. took it from him as he did not think it good. In the evening and next morning Mr. and Mrs. M., three of the children, the mother's help, and the cook all felt unwell, three of them vomited, and all had pain in the abdomen and diarrhœa.

I administered an emetic to Mrs. M., which I repeated in a quarter of an hour. These did not act, and I at once passed the stomach tube and well washed out the stomach with warm water, little else returning than the water and a little mucus. The husband returned from the city at 8.30 P.M., and was much alarmed when I told him of his wife's condition. He himself had felt uncomfortable pains after leaving home early in the morning, and had been to a chemist's and taken a good draught of aperient water. I told him there was little doubt that it was due to poisoning by ptomaines from eating the turkey. I remained with the patient the greater part of the night. At about 11.30 P.M. she passed a copious motion under her, which was very foul smelling. I administered hypodermics of ether, etc., but could not arouse her by any of these means; she remained quite unconscious, breathing quietly; the abdomen was not distended, the pupils were moderately dilated and did not react to light; the conjunctival reflex was absent. In the morning I got Professor Sidney Martin to see her in consultation. He entirely agreed with the diagnosis, and advised continuation of the treatment with the hypodermic injection of ether and of strychnine. Nutrient enemata of peptonised gruel were administered. Reaction had now set in; the temperature was 101.6° in the axilla, and the pulse was 136. Dr. Martin also recommended me to use warm boracic lotion for repeated washing out of the large intestine. This I did, turning the patient gradually over from the left side, and back then to the right side, and back again in order to wash out as much as possible of the large intestine. The patient, however, remained comatose, never recovered consciousness from the time I first saw her, till death occurred at 2.10 A.M. on February 17th, she having been unconscious for 31½ hours. There was a rise of temperature on the evening of February 16th to 103.6°. The following is a copy of the notes I made at the necropsy, at which Mr. H. S. Elworthy, F.R.C.S., kindly assisted.

Height 5 feet 2 inches. Fairly well nourished. Pericardium contains a normal amount of clear fluid. Heart the size of deceased's closed fist, weight as removed 8½ ozs. Pulmonary valves normal, aortic valves normal; some irregular thickening of mitral valves (old). Tricuspid valve normal; some recent clot and fluid blood in the cavities. Heart muscle normal, no induration or degeneration noticed. Aorta, coronary arteries, and large blood vessels quite healthy; no staining. Tongue slightly furred; œsophagus normal, but some slight redness near the lower end. Larynx healthy, trachea and bronchi slightly red and infected. Right pleura no fluid and no adhesions, left pleura same. Right lung dark-coloured on section, somewhat œdematous, otherwise healthy; left lung same; cut portions of both float in water. Peritoneum slight dulness and stickiness generally, where covering ascending colon more marked. Stomach no ulceration, some petechial patches about the lesser curvature, contents ⅜ ounce fluid (kept, No. 1). Intestines: Petechiæ along upper part of small intestine, more in large intestine in transverse colon; no glands seen in mesentery. Liver: Surface smooth, weight 3 lbs. 7 ozs., consistence diminished, cut surface greasy; gall bladder full of green bile. Spleen not enlarged, consistence normal, dark in colour. Right kidney 3⅝ ozs., capsule only slightly adherent, more friable than normal; left similar; both cloudy-looking on section. Bladder healthy, urine none present. Suprarenals normal. Uterus small, cavity tending to obliteration, otherwise healthy; slight amount of mucus seen at external os: ovaries normal. Meninges healthy, some slight amount of fluid under membranes, vessels on surface fairly full; nothing abnormal noticed on surface of brain; vessels at base quite healthy. Brain weighs 50½ ozs., healthy on section; about a drachm of clear fluid in the ventricles; left posterior cornu somewhat enlarged; small œdematous swellings on the choroid plexus on each side. Crura, pons, cerebellum, and medulla normal in appearance externally and on section.

REMARKS.

The course of the case seemed clearly to indicate poisoning by food. There was the partaking of tainted food which affected all the members of the household, some more than others. In the patient who died there was at first the combination of *malaise*, weakness, and gastro-intestinal symptoms which usually accompany food poisoning. These were, however, not accompanied by fever. This appeared later, and with the more severe symptoms may be taken to indicate bacterial poisoning as distinguished from chemical poisoning.

THE German Otological Society will hold its sixth annual meeting this year at Dresden on June 4th and 5th.

## A NEW METHOD FOR LOCALISING BRAIN LESIONS.

BY ROBERT H. COX, F.R.C.S.I.,
Shanghai, China.

THIS method supplies a simple and infallible means of mapping out on the scalp the positions of any (or all) of the underlying convolutions of the cerebral cortex, a result accomplished, with the "cerebro-graphometer" and its chart, almost automatically.

The cerebro-graphometer consists entirely of the mechanical device known technically as "lazy-tongs," formed into a circle with two accessory loops, one bearing the numerals and the others the letters A to V.

The chart shows, on a gnomonic projection, the boundaries of the lobes and convolutions of a hemisphere of the brain, with the lines of latitude and longitude corresponding to the numbers and letters of the instrument (Fig. 1).

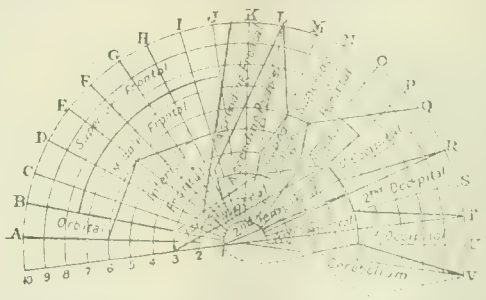



Fig. 1.—A diagrammatic map (on a gnomonic projection) of the external surface of a hemisphere of the brain, showing the boundaries of the lobes and convolutions, and the lines of latitude and longitude corresponding to the engraved rivets of the instrument.

Localising is performed as follows: Extend the instrument and apply the end of the lettered loop, marked V, to the occipital protuberance and the other end to the glabella, then press down the loop to the scalp in the middle line and close the circle round the head, so that the 10 on the numbered loop will lie on the lettered loop. Consult the chart for the bearings, and place the number 10 on the letter of longitude, when the number of latitude will rest over the part sought for.

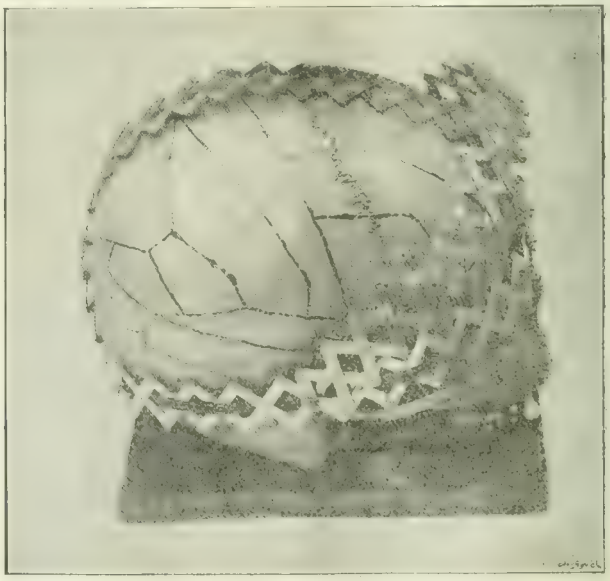


Fig. 2.—The same projected on the right side of the skull; also shows the instrument in position for localising.

Fig. 2 shows the instrument in position for localising; also the evolutions mapped out.

The instrument is equally applicable to all sized heads, and forms its own unit of measurement for each, thus eliminating the errors caused by using standard measures for varying surfaces. It is compact, light, durable, and may be rendered aseptic by boiling. Messrs. Arnold and Sons, London, are the makers.

## LIST OF INDICES

### TO IMPORTANT REGIONS OF THE BRAIN CORTEX.

| | DESCRIPTION. | | INDEX. |
|---|---|---|---|
| *Motor Centres:* | *External Aspect:* | | |
| | | Inferior Extremity | $\frac{L\,K}{8}$ |
| | | Superior ,, | $\frac{K}{6}$ |
| | | Face | $\frac{I}{4}$ |
| | | Lips and Tongue (Broca's lobe) | $\frac{C}{4}$ (*Left Side*) |
| | | Head and Eyes | $\frac{I}{7}$ |
| | *Mesial Aspect:* | | |
| | | Leg | $\frac{K\,L}{10}$ |
| | | Trunk | $\frac{J\,K}{10}$ |
| | | Arm | $\frac{I\,J}{10}$ |
| | | Head | $\frac{H\,I}{10}$ |
| *Sensory Centres:* | | Hearing | $\frac{J}{2}$ |
| | | Sight | $\frac{R}{6}$ |
| *Special Convolutions:* | *Frontal:* | Ascending | $\frac{I}{4}$ @ $\frac{K}{5}$ |
| | | Superior | C @ J |
| | | Middle | C @ I |
| | | Inferior | $\frac{E}{2}$ |
| | *Parietal* | Ascending | $\frac{J}{3}$ @ $\frac{L}{8}$ |
| | | Superior | M @ P |
| | | Supramarginal | $\frac{M\,N}{4\,3}$ |
| | | Angular | $\frac{O}{5\,2}$ |
| | *Occipital* | 1st | $\frac{Q}{6}$ |
| | | 2nd | $\frac{S}{8}$ |
| | | 3rd | $\frac{J}{8}$ |
| | *Temporal* | 1st | $\frac{C}{7}$ @ $\frac{N}{3}$ |
| | | 2nd | $\frac{J}{7}$ @ $\frac{Q}{4}$ |
| | | 3rd | $\frac{T}{3}$ |
| *Special Fissures:* | Rolando's | | $\frac{H\,I}{3\,5}$ @ $\frac{L}{10}$ |
| | Sylvius' | | $\frac{E}{2}$ @ $\frac{M}{3}$ |
| Middle Meningeal Artery | | | $\frac{E}{3}$ |
| Cerebellum | | | $\frac{V}{7}$ |

NOTE.—The Letters and Numerals correspond to those on the instrument.

When two letters are placed thus—L K—it means a point half way between them

When an index is given thus— $\frac{I}{7}$ @ $\frac{K}{5}$ —it means the portions at these two points and that between them; when like this— $\frac{M\,@\,P}{9}$ @ $\frac{N}{2}$ —it means that portion from M to P on the line of latitude marked 9, down to N on the line marked 2

## NOTES ON A SUCCESSFUL CASE OF PYLOROPLASTY.

BY

THOMAS OLIVER, M.D., F.R.C.P., Physician to the Royal Infirmary, Newcastle-on-Tyne.

and

FREDERICK PAGE, Surgeon to the Royal Infirmary, Newcastle-on-Tyne.

The following case seems to us to be of sufficient value to be recorded on account of the severe nature of the operation performed upon a patient rapidly dying from sheer starvation, and who, shortly after the shock and the immediate consequences of the operation were recovered from, gained strength and put on flesh at such a rapid rate as to render her hardly recognisable by her most intimate friends. To the medical officer of the convent, Dr. Ruddock of Newcastle, the writers gladly acknowledge their indebtedness, not only for his skilled assistance at the operation, but for permission to publish the notes of the case.

On November 2nd, 1896, one of us, Dr. Oliver, saw in consultation with Dr. Ruddock, a nun, aged 25, in one of the Roman Catholic convents of this city, a French Canadian by birth. She was extremely emaciated, pale, and so feeble that she could not sit up in bed. After having suffered from dyspeptic symptoms for several years, followed by marked declension of health, she was transferred from the West of England to Newcastle in the hope that our bracing atmosphere would act as the much needed restorative. Anorexia, gastralgia, and recurrent vomiting were the symptoms which caused her to seek medical relief. Of late, debility, anæmia, and emaciation had made rapid strides. At first the vomiting only occurred after meals and gave relief to pain, but latterly it had been occurring at irregular and rather lengthened intervals—three to four days—when large quantities of liquid would be ejected, frequently coffee ground in character, occasionally of an ashy-grey colour, and usually with a most offensive odour. Previous to February, 1896, menstruation had been irregular, but since that date it had been in complete abeyance. The bowels were constipated, the urine normal. When seen by Dr. Oliver, the patient was too ill to be subjected to a prolonged examination. The temperature was normal, pulse 78, small and flickering. The face was pale, and expressive of lengthened suffering; tongue moist and clean. The heart and lungs were healthy. Abdomen was slightly protuberant, especially in its lower half anteriorly. Liver dulness was normal. Stomach: the area over which a normal resonant note could be heard was increased, whilst occupying the lower half of the abdomen, and extending almost to the suprapubic line was a cystic swelling, dull on percussion, the dulness varying with change of position of the patient. Fluctuation was well marked. On auscultation, and even without it, a splashing sound could be easily heard. Nothing was felt at the pylorus. Dilated stomach was diagnosed, and as the patient was extremely ill a fresh attempt was made by means of strong beef tea enemata, containing a few drops of laudanum, administered four times a day, to get her into a better condition for the surgical treatment which seemed to us the only chance left her. As the enemata were retained she soon began to gain in strength and vitality, but the improvement was only temporary. As consent had meanwhile been obtained for the surgical procedure, it was decided, after consultation with Mr. Page, ill as the patient was, and hopeless almost as was her condition, to perform without further delay abdominal section.

### Note by Mr. Page.

On November 26th abdominal section was performed. Upon opening the abdomen in the middle line above the umbilicus, the stomach was found to be enormously dilated. The pylorus was thickened and fixed. Mikulicz's operation was performed. The stricture only permitted a pair of sinus forceps to pass through from the stomach to the duodenum. For some hours it was very doubtful as to whether the patient would rally; but gradually she did so, and made a rapid and most satisfactory recovery. Pyloroplasty for the treatment of non-malignant stenosis of the pylorus does not seem yet to occupy, in the estimation of British surgeons, the position it deserves. Gastroenterostomy still appears in this country to be the operation resorted to in many cases of simple stenosis and yet few surgeons, I am sure, who in their own practice contrast the results of the two operations will be inclined to adopt gastroenterostomy.

It has been said that "recurrence of the stricture is a physical impossibility" after this operation—a somewhat rash statement, perhaps. The operation has now been practised for some years, and I have certainly not heard of recurrence. The man upon whom I operated in the year [illegible]—the first case of pyloroplasty in Great Britain—remains and is at his ordinary work, and I know of other cases neighbourhood where there has been no recurren great danger arises from the operation being de long. Two of my patients died from the direct operation within a few hours of its performance

The patient, when seen early in March by Dr. Oliver, seemed in perfect health. Although less than four months since the operation, she had gained upwards of 26 lbs. in weight.

## A CASE OF PARALYSIS OF THE SIXTH NERVE FOLLOWED BY DIPLEGIA: RECOVERY.[1]

By D. J. WOOD, M.B., C.M.Edin.,
Cape Town.

On March 28th, 1896, G. H. came to me complaining of double vision. Diplopia had come on gradually during two days, and he was unable to get about properly. There was convergent squint, absence of rotation outwards, and, when tested with lights, the cause was found to be pure right sixth nerve paralysis.

The history was found entirely negative. He was a healthy, well-built lad of 18, singularly free from disease as a child and since. A year ago he had had a severe headache for two days consequent on exposure to the sun when fishing, but otherwise he had been well. His father was a sufferer from gout, perhaps also from rheumatism which had caused distortion of several joints, especially those of the hands. Syphilis was inquired for in both father and son, and was denied, no doubt truthfully.

The diagnosis seemed fairly certain that it was a case of so-called rheumatic paralysis in a case of inherited gout. Iodide of potassium 30 grains daily and milk diet were prescribed.

I saw him next on April 3rd. The day after seeing me he noticed a feeling of numbness in the toes of the left foot, which increased until the leg fell "asleep." Next day it was worse, and the face and hand participated, and by April 2nd there was left hemiplegia from the lower part of the face down and complete in quality.

The orbicularis palpebrarum and frontalis were normal in action: voluntary motions were abolished in the lower left side of the face, but an involuntary smile was fairly symmetrical. The knee reflex (left) was slightly increased; there was no anæsthesia, and I take it that the numbness alluded to was an expression of motor weakness, as sensation was perfect.

As on the first examination, the vision was normal (acuity and fields), the eyes were healthy, and the heart and arteries apparently sound.

The condition seemed now much more serious and to point to a lesion in the upper part of the pons on the right side pressing on the right sixth nerve in its course, and damaging the motor tract and facial fibres before decussation (to the left). Judging from the onset there seemed a chance that the damage was caused from below the pons, but there were no signs of a gross lesion, and repeated inquiries only strengthened the negative history. Temperature was normal. After five days the arm, leg, and face began to grow stronger, and the improvement continued.

On April 15th fresh symptoms appeared, the hemiplegia was nearly gone, but there was some difficulty in speaking and swallowing. The left side of the palate drooped, and as it apparently did not properly close the upper part of the pharynx, the patient could not prevent his breath from escaping through the nose, and a pseudo-dyspnœa resulted. The iodide was increased to 60 grains daily, and liq. hyd. perch. ℥ss added.

Next day the articulation was worse, and a paralysis appeared on the right side of the face, similar to that which had disappeared from the left side. The movements of the tongue were impaired in all directions, but specially forwards and to the right. There was still no anæsthesia, pain, sense of illness, nor any trace of optic neuritis. There was, however, some mental weakness of which the patient was aware: he laughed continually when spoken to or looked at, and though conscious of the absurdity, could not control himself.

On April 19th the original hemiplegia had entirely gone, but speech was so bad as to be scarcely intelligible, and the patient preferred to write. Consonants "t" and "d" were spoken "nee," "k" and "q" as if "h" and "wh," labials "m" and "n" were imperfectly finished off, "r" was produced fairly well. Owing to the paralysis of the lips the mouth remained open, and fluids escaped from the right side during drinking. The voice also was rather low pitched and husky.

From this time general amelioration set in, in less than a week the face was largely under control, speech more intelligible, and the mouth kept shut.

On May 21st, eight weeks from the commencement, there remained only slight weakness of the right face, some huskiness of voice, and the sixth nerve paralysis which ushered in the condition. Unfortunately the larynx was not examined, but I am inclined to think there was some paresis or other abnormality present.

### Remarks.

It will be at once evident that we have here an unusual and atypical form of disease. We may begin by excluding entirely the suggestion of hysteria as the cause. At no period did any of the symptoms afford any ground for such a diagnosis.

The case resembled an acute or subacute disturbance of motor nerve structures in or near the lower part of the brain. From ordinary bulbar paralysis we separate it by its greater acuteness, the higher nerve centres involved, and the recovery of the patient. Pseudo-bulbar paralysis is even more improbable.

Peripheral neuritis seems more likely, but the absence of any toxic cause, and the fewness of the nerves effected, do not warrant the supposition. To account for the right sixth nerve paralysis, followed by the left hemiplegia, one must practically admit the disease to be in the right side of the pons, where also one must look for the cause of the facial paralysis. The locality is further narrowed by the fact that the sixth nerve is probably damaged below the point of decussation (nucleus or below), while the facial fibres (for the left face) were involved before decussating, and this could only be if the lesion were in the upper part of the right side of the pons. The latter right facial paralysis would be accounted for by the disease spreading down the right side of the pons till it reached the right facial nucleus or nerve. Extension of the disease from the right sixth nucleus to the right seventh nucleus would be easy on account of their close relation.

The connection between the nerve cells supplying the lower facial muscles and the hypoglossal nucleus affords a possible explanation of the paralysis of the tensor palati from the close connection between the hypoglossal and accessory nuclei. The point may be noted that the only infranuclear lesion, that of the sixth nerve, remained long after the others had vanished. Paralysis of the right sixth nerve had not entirely disappeared before the end of July; and diplopia to the right side, slight in degree and due probably to contraction of internal rectus, still (September 8th, 1896) persists.

The nature of the disease is even more obscure than its locality. Syphilis and other infective diseases seem entirely excluded, but I am not so certain that with a rheumatic history, even in a heart apparently healthy, we can exclude the chance of an embolic lesion with subsequent degeneration of the nerve substance.

The nearest case seems one related by Gowers of an acute poliomyelitis of the pontine and medullary nuclei and nerves, but in our case there was no symptoms of inflammation.

[1] Read at a meeting of the Cape Town Branch of the British Medical Association.

## A CASE OF WANDERING ŒDEMA, PROBABLY OF SEPTIC ORIGIN.

By E. W. G. MASTERMAN, F.R.C.S.,
Damascus.

The following case recently under my care in this city seems to me to present features of a sufficiently unusual kind to be worth recording.

J. T., a Jew, aged 8, was on December 30th, 1896, suddenly seized with pain in the left leg. Shortly after œdema of the leg was noticed gradually ascending from the foot to the

knee. The next day (December 31st) the left arm began to be painful, and to swell rapidly, and towards evening some swelling about upper eyelids was noticed. On January 2nd, 1897, I was called to see him for the first time, and these are my notes:

"The boy presented an extraordinary appearance. Both upper eyelids are tensely œdematous, and also the area between the eyes and over both temples. The lower eyelids are not at all affected, so that the eyes can be seen (with some difficulty) by drawing down the lower lids. The œdema is tense and does not pit. It is very tender. There appears to be no œdema in other parts of the head, but the great enlargement of the temples, etc., gives the appearance of a very large head. The left arm is very swollen and tender. There are a number of irregular raised purpuric patches about the extensor surface of the forearm. The left leg is slightly œdematous (much less, according to the friends, than it was). On the left heel is a small abrasion, said to be since commencement of the illness. There is no œdema elsewhere, and except for the purpura the œdema is pale and not inflammatory. Pulse slightly quickened, and temperature a little over 100° F. Urine examined, no albumen.

January 3rd. To-day both upper and lower eyelids excessively swollen, also temples, behind ears and the occipital regions on both sides. No œdema to be detected on top of head. Eyes absolutely closed.

On January 4th the œdema of the face had very much improved, and he could open his eyes. The swelling in the left arm was better. The purpuric spots were now brownish, raised, and the largest of the size of a threepenny piece. The œdema everywhere pitted on pressure, but was still tender. There was very slight fever, and the patient felt much better.

On January 5th the right arm had begun to swell, and purpuric spots like those on the left arm had appeared. There was a large purpuric spot around the wrist, and many smaller ones on the extensor surface of the forearm. The œdema of the face and left arm and leg had much improved.

On January 7th the face was almost normal, but œdema with great tenderness had appeared on the back. Scarcely any œdema of the left limbs remained. The temperature was 101.2°.

On the evening of January 9th he was seen in extreme pain. The right arm had suddenly become tensely swollen from the elbow downwards, and fresh purpuric spots had appeared, and also a couple of vesicles. There was also considerable abdominal pain and tenderness of the back. The œdema elsewhere had practically disappeared. The temperature was about 101°."

From this time onward there was steady improvement. Œdema gradually disappeared and fever quite ceased. The contents of the vesicles became purulent, and then they dried up.

On January 17th, however, he was suddenly seized with an acute attack of dysentery. Blood and matter was very copious, and tenesmus severe. Under treatment these symptoms rapidly disappeared, and since the 21st convalescence has been interrupted.

As regards treatment, quinine internally, and ext. belladonnæ c. glyc. externally, were used at first; later, lotio plumbi c. opio was found more soothing as an external application. The dysentery was treated in the ordinary way with pulv. ipecac. and mist. ol. ricini.

### Remarks.

The interest of the case lies in the very wandering nature of the œdema, and especially in the sudden swelling of the face and equally sudden disappearance of œdema. The fever, the purpuric spots, and possibly the dysenteric symptoms, point to a septic infection, and possibly it may have been a septic infection from the abrasion of the heel. There were, however, never any red lines visible on the limbs, nor were the lymphatic glands enlarged or painful. The following case, which I had a short time previously, may throw some light on the above. A boy, aged 18, came to me with a small but intensely painful abscess of the axilla, which I opened. Two days later the whole arm on that side became tensely swollen and painful, and the temperature went up to 103°. In two days more the boy was unable to leave his bed, on account of a similar swelling affecting both legs. The arm and the abscess rapidly improved, but it was two weeks before the fever left him and the condition of the legs improved. They, however, remained œdematous for several weeks more. Here, however, there were distinct red lines in the course of the superficial veins, and I think the diagnosis of a septic phlebitis, due to infection from the axilla, was clear. Although some of the symptoms were different, I am inclined to think, the first-mentioned case was of the same nature, though the *rationale* of the anatomical distribution of the disease is a mystery to me.

## TECHNIQUE OF THE TREATMENT OF SYPHILIS BY INTRAVENOUS INJECTION OF MERCURY.

By JAMES B. BYLES, M.B.Lond.,
Late House-Surgeon at the London Male Lock Hospital.

Having read in the British Medical Journal of December 12th, 1896, Mr. Ernest Lane's able paper on the Treatment of Syphilis by Intravenous Injection of Mercury, I feel it would be of interest to describe in detail the method of carrying out that treatment, together with a few points gained by experience in the wards of the Male Lock Hospital, London, by attention to which the small operation may be successfully performed. That each separate injection be successful is of primary importance, due to the fact that it has to be repeatedly performed while the only veins available are those of the upper arm and forearm, so that if a mistake is made the treatment is probably interrupted owing to the pain and swelling occasioned. The apparatus required is exceedingly simple, and may be narrowed down to a hypodermic syringe with a glass piston, two platino-iridium needles, the solution to be used and a piece of rubber tubing for a tourniquet. The patient has his arm bared to the shoulder, and a couple of turns taken round the upper part with the tourniquet, the ends of which he may be allowed to hold and let go when required. A prominent vein is now chosen for the injection, and as a general rule I should suggest that those actually at the elbow-joint should not be selected, for here, owing to the frequent movements of the part, even the small injury caused by the needle prick may give rise to some slight periphlebitis, placing that arm *hors de combat* for the time. Choose rather the cephalic vein or one of the superficial veins of the forearm.

The syringe is now filled with the solution to be used, the needle affixed and sterilised in the flame of a spirit lamp. All air bubbles should be cleared from the syringe, but should any minute ones remain, they will be out of harm's way against the base of the piston, being driven there by holding the syringe at a slightly higher level than the needle whilst injecting. The best form of syringe is one with a glass rod as piston running through a washer of asbestos; it has a capacity of 20 minims, but one holding 40 minims would be better. This syringe may be sterilised for all practical purposes by boiling.

To insert the needle into the vein chosen, hold the syringe almost horizontally, and in the direction of the blood-stream. It is an important point that if the needle has failed to enter the vein, movement of the needle, especially depression, will give rise to dimpling of the skin, whereas if the needle is in the vein, not only is movement of it free, but in many cases blood will pass into the syringe and colour the solution.

The patient is now told to release the tourniquet gently. After this has been done, the least possible quantity of injection is to be thrown into the vein; if the patient feels nothing the vein has been successfully entered and the injection may be completed; if, however, the patient complains immediately of smarting pain withdraw the needle, as the vein has been missed, and the solution is passing into the subcutaneous tissue.

By careful attention to these details the painful bruising arising from a misplaced injection is rendered a matter of impossibility. In a few cases some staining may appear at the site of injection a day or two after, from a few drops of blood from the vein having escaped into the surrounding

tissue; in still fewer cases there may occur some slight periphlebitis, especially in those cases where an injection has been made actually at the bend of the elbow. This swelling will subside in a few days, and in no case do I believe any phlebitis to have been present. After withdrawing the needle, I usually close the puncture with a wisp of wool and collodion. In future injections the site should be varied as much as possible by alternating the arm used, and by the selection of different veins.

Should any periphlebitis unfortunately occur, it is advisable to give that arm a rest till the swelling has subsided or make the injection above it. The amount of injection required by different patients varies to a great extent, but can be regulated very exactly by the state of the patient's gums; in most cases 20 minims to 40 minims every other day will be found to be sufficient. As to the solution used for the injection, in all ordinary cases, with no symptoms calling for the exhibition of iodides, I have tried both the liq. hydrarg. perchlor. *B. P.* and the 1 per cent. solution of the cyanide, and have not found the one in any way superior to the other. But in tertiary cases and in syphilitic ulceration of a tuberculous form, in cases of rupia and bad throat, etc., where iodides are indicated, I certainly consider patients have improved more rapidly on solutions of sodium iodide ℥j in liq. hydrarg. perchlor. ℥js, the dose for an injection being 20 to 40 minims.

In some rare cases, where even small injections of mercury such as 20 minims every other day, have tended to cause salivation and in which the disease was proceeding unchecked, I have found great advantage in following up the mercury injection by one of a dilute solution of sulphate of atropine, such as 20 minims of a solution containing ℥j of the liq. atropinæ sulph. *B. P.* in ℥vij of distilled water. Here the easiest way to proceed is, after giving the mercurial injection, to detach the syringe from the needle *in situ* in the vein, fill with the atropine solution, reaffix and inject, the patient meanwhile holding his arm with the needle in it above his head in order to prevent bleeding.

With regard to the advantages of intravenous injection over other forms of treatment for bad cases of syphilis, and also cases where mercury cannot be taken by the mouth, it is only necessary to show that it is as good in its results as inunction, and that that is the case Mr. Ernest Lane laid particular stress on in his paper of December 12th, 1896. For it is acknowledged that a month or six weeks' course of inunction forms the best foundation for the patient's two years' course of mercurial treatment, enabling him afterwards to go on with the drug in the usual way per the stomach without disturbance to that organ and the rest of the alimentary tract, even though before his treatment by pills or mixture had had to be discontinued. The technical advantages of intravenous injection over inunction are very great and practically incomparable. The patient can be got under the influence of the drug very rapidly and with certainty; once under he can be kept so with the greatest nicety, as it is possible to regulate the dose to a few minims. In inunction it sometimes occurs that the amount absorbed is at one time exceedingly small, and at another so large that the patient is almost salivated.

Some cases where inunction is especially called for are covered to such an extent by cutaneous ulceration that it is impossible to carry out, whereas no such objection may apply to the intravenous injection. In the one case, also, the surgeon knows the treatment is being carried out regularly and correctly, whilst no such guarantee exists in the other. From the patient's point of view also the advantage of the injection every other day, occupying only a few minutes, is very great when compared with the treatment by inunction, with all its attendant discomforts of publicity, due to the necessity for a hot bath every night, time occupied, and a collection of underclothing soiled with blue ointment. All these disadvantages practically prevent a patient from carrying out his treatment by inunction, and it is for these reasons that I consider intravenous injection to be particularly suitable for those cases of syphilis in private who require something more than the ordinary treatment by the mouth.

PROFESSOR VON KÖLLIKER, the venerable histologist of Würzburg, has had the title of "Excellency" conferred upon him.

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

### HERPES OF MUCOUS MEMBRANE AND SKIN.

THROUGH the kindness of Dr. Washington Isaac, with whom I saw the patient in consultation, I am enabled to send the following notes of this very interesting case:

I. L., aged 41, first seen on December 27th, 1896. He complained of sore throat, particularly on the right side, and dysphagia. On inspection the right tonsil and pillars of the fauces appeared red and swollen.

On December 29th I saw the patient with Dr. Isaac. He then complained of pain in the throat, extending up to the right ear. The right side of the throat was found to be red and swollen, and two or three yellow spots were seen on the tonsil and posterior pillar of the fauces. Temperature 100.4°.

On December 31st I again saw the patient with Dr. Isaac. He was hoarse and complained of acute pain in the throat extending up to the ear, and entirely preventing sleep. There was now a typical herpetic eruption on the soft and hard palate on the right side, extending forwards to within an inch of the teeth, and sharply limited on the inner side by the median raphé of the palate. Nothing abnormal to be seen in the larynx. Temperature 100.4.

The next day the earache was worse. A band of herpetic vesicles appeared on the right edge of the tongue, extending from the pillars of the fauces to within an inch and a-half of the tip of the tongue.

On January 2nd the patient was still in much pain. Three or four vesicles appeared in the concha and below helix of right ear.

On January 3rd the throat slightly easier, the ear about the same. A few vesicles appeared on the right temporal and parietal regions.

On January 4th there was general improvement, which was maintained on January 6th, but the patient was still unable to take solid food.

On January 8th he had an attack of hiccough and vomiting, and suffered from complete anorexia.

On January 9th the hiccough was very troublesome, and there were only short intervals of relief. On January 10th the hiccough was very severe, and threatened to suffocate the patient; the spasms came on very rapidly, only about four or five seconds between them. One attack lasted three and a-half hours. On January 11th hiccough ceased, and frequent retching supervened.

By January 14th the retching and vomiting had gradually subsided, and on January 15th solid food was taken. On January 26th he was extremely prostrate. The throat remained painful, and there were occasional stabs of pain through the right ear.

As regards treatment morphine subcutaneously was the only remedy that relieved the pain. This case is interesting on account of the implication of the mucous membrane as well as the skin; the great severity of the pain, and especially the pain in the ear; the presence of hiccough and vomiting, and the great prostration which followed the attack. I would suggest that the hiccough and vomiting were due to an irritative lesion of the phrenic and vagus nerves similar to the lesion met with in the spinal ganglia and nerves in cases of herpes zoster.

F. DE HAVILLAND HALL, M.D., F.R.C.P.
Wimpole Street, W.

### TREATMENT OF BRONCHITIS AND BRONCHO-PNEUMONIA IN CHILDREN.

FOR the last few years I have disregarded all entreaties and have absolutely refused to allow poultices to be used in any cases of bronchitis and broncho-pneumonia in children that I have been called upon to attend. I hold that poulticing the chest in these diseases is unscientific and prejudicial to the welfare of the patient. The difference in the temperature of the poultice when applied and when removed is such that one might as well be continually moving the child from a warm room out into the cold every few hours. The weight of the poultice must also be taken into consideration. A large

number of medical men order the nurse to apply them back and front. The weight of the poultice at the back is a matter of indifference: the average weight of a well-made linseed-meal poultice for the front of the chest is, I am informed by the district nurse, 6 ounces. Even allowing for the fact that the respiration in these cases is to a large extent diaphragmatic, I find from observations that the chest wall rises on an average to the extent of one-sixth of an inch at each respiration. Supposing the child breathes 40 times a minute= 2,400 an hour=57,600 in twenty-four hours—this will work out that the poultices are a handicap to the muscles of the chest wall of the child, to the extent that in twenty-four hours 21,600 lbs. have to be lifted to the height of one-sixth of an inch, or 300 lbs. one foot. I submit that the disadvantages of poultices are enormous, and more than counteract any beneficial influences they may have. Better results, in my experience, are obtained if the patient's thorax is covered with a loosely-fitting jacket made of Gamgee tissue, and the chest rubbed night and morning with a liniment composed of equal parts of olive oil and turpentine, and medicines prescribed suitable to each case and to the stage of the disease. I think if this treatment were adopted there would be fewer cases of heart failure, and consequently less need for the employment of inhalations of oxygen or the use of digitalis, strychnine, or alcohol.

Manchester. A. W. Senior, M.R.C.S., L.R.C.P.

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## THE RELIEF OF THIRST IN MALIGNANT VOMITING.

By "malignant" vomiting I mean vomiting in which everything solid and liquid is vomited, and in which, whatever be the nature of the causative disease, death is due to the starvation and thirst caused by the vomiting.

Now, such patients complain more bitterly of the thirst than of the want of food, which last can be in an imperfect way and to an uncertain extent mitigated by the use of nutritive enemata. But the thirst cannot be relieved in this way, as any attempt to utilise the lower bowel at all extensively for the administration of fluids is followed by purgation, so that the last condition of that man is worse than the first.

The only way in which thirst can be relieved is by the injection of water into a vein or the cellular tissue. I venture to suggest that this method is not utilised as systematically or to the extent that it might be, and as a small contribution to the subject send you particulars of the exact amount injected in a recent case in a given time.

A man, aged 53, had been vomiting for six weeks, and had had total vomiting for three weeks. Nutritive enemata had been given for over two weeks. He complained bitterly of thirst, which he said was much worse than the want of food. The dryness of the mouth and tongue also caused him great distress.

On January 27th I injected 45 ounces of boiled water, with a little salt, half into the cellular tissue of the left upper part of the abdomen and the rest into the cellular tissue over Scarpa's triangle on the left side.

On January 28th I injected 46 ounces into the left lower abdomen.

On January 29th I injected 50 ounces into the left flank, a short distance behind the place where the first injection was made. In all, a gallon all but 19 ounces was injected in three days.

The man experienced great relief and temporary benefit; his pulse became stronger, and he made very much more urine. He rallied sufficiently to undergo very well an exploratory abdominal section, which, unfortunately, disclosed a state to which there could only be one ending.

A little soreness followed each injection, but in twenty-four hours the fluid was almost entirely absorbed, and I imagine that if the abdomen were divided into four equal areas at least 2 pints of water might be injected daily, taking each area consecutively, and when you had dealt with the fourth area the first would be ready for another injection.

If a serum could be discovered sufficiently inactive, eventually it might be possible also to administer food in this way, which would be a great improvement on the enemata method, of the efficacy of which I have some doubts.

Blackpool Wm. Hardman, M.B.

## CONCURRENT SCARLATINA AND ENTERIC FEVER.

Taken in connection with Dr. Cosgrave's paper on this subject in the British Medical Journal of January 16th, 1897, and the case reported by Dr. McNaughton in the Journal of February 27th, the following case of concurrent scarlatina and enteric fever may prove of interest.

I was called to see E. J., aged 19, on February 4th. She presented symptoms of influenza, which was epidemic in the district. In a few days the catarrhal symptoms cleared away but the temperature remained up. On February 8th enteric fever was diagnosed; the temperature 102° F.; the tongue foul and coated; the abdomen tender, and there was diarrhœa with "pea soup" motions. As tending to confirm the diagnosis it may be mentioned, though the source of infection was not definitely traced, that a case of undoubted typhoid fever, since fatal, occurred about this time in a neighbouring house. During the first week of illness retention of urine gave some trouble. On February 11th characteristic rose spots appeared on the abdomen. On February 14th the diarrhœa had stopped, and the bowels being constipated were relieved by an enema, which was repeated every four or five days. On February 15th a scarlet rash was observed on the arms, legs, chest, and abdomen; the throat was slightly congested. The rash remained out three or four days, and on its disappearance desquamation commenced on the arms and fingers, and gradually became general. The typhoid spots, which had disappeared or had been obscured by scarlatinal rash, again became visible on February 19th. From February 20th the temperature fell in a manner characteristic of typhoid, and reached normal on February 26th. There was no further rise of temperature, and the patient made a good recovery. This case supports the conclusion Dr. Cosgrave has drawn from his cases, that "the coexistence of the two diseases does not seem to add to the danger of either," and that, seemingly, the one has a mitigating effect on the other.

J. Bernard Gabe, L.F.P.S.G., L.S.A.Lond.

Morriston, R.S.O.

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## ACUTE SPREADING GANGRENE, ASSOCIATED WITH GLYCOSURIA: OPERATION: RECOVERY.

W. McN., aged 59, had been under treatment for over three years suffering from transient attacks of glycosuria. The case presented the characteristic features of transient diabetes associated with obesity (lipogenic type).

On November 12th, 1896, he called me in to see him on account of intense pain about the perineum, headache, and general *malaise*. His temperature was 102.4°, pulse 110, and respiration 18. Physical examination of the chest disclosed nothing abnormal; examination of the perineum revealed a tender, semi-fluctuating swelling, occupying the right side of the perineum, extending from anus to scrotum, and outwards to the gluteal fold. There was a red diffuse blush over its surface. The scrotum was swollen and œdematous. The urine contained sugar; a copious precipitate being given on boiling with Fehling's solution.

This local perineal swelling quickly extended; the skin over it became red and brawny, and on November 14th the patient's condition was extremely serious, neither local or constitutional treatment having had any influence. His temperature was 102.8° in the morning; pulse 120; slight delirium. Sugar was still present in the urine.

The perineal swelling had assumed an ugly appearance; there were dark circumscribed areas of gangrene over the surface of the swelling and scrotum, surrounded by a red areola. The scrotum, penis, and prepuce were swollen and œdematous. Palpation gave a distinct emphysematous and boggy sensation to pressure. A consultation was held, and it was decided to operate. Chloroform having been administered the patient was placed in the lithotomy position, and several longitudinal incisions were made into the swelling; the posterior extending deeply into the ischio-rectal fossa and buttock and the anterior into the scrotum. Through the gaping incision the deep tissues were seen to be of a dark green colour and gangrenous. Large sphacelated masses of this gangrenous tissue were removed piecemeal with scissors and the skin trimmed. The odour emanating from the wound was foul in the extreme. A large cavity 5 inches deep remained about the region of the right ischio-rectal fossa, communicating in front with incisions over the scrotum.

The wounds were washed with 1 to 500 perchloride of mercury solution, dusted freely with iodoform, and packed with iodoform gauze.

On the day following the operation (November 15th) the patient felt much better; the temperature had subsided, and his general condition improved. The appearance of the wound, however, was not promising, the skin between the incisions had sloughed; this was cut away, and further sloughs removed. A larger cavity now remained some 10 inches long antero-posteriorly, the right testicle being exposed in front. Sugar continued to be present in the urine. Subsequently the wound was dressed frequently; the patient's constitutional condition, in spite of the severe traumatism and presence of sugar, daily improved.

On November 20th the wound was clear of all sloughs, leaving a raw surface having a reddish-yellow unhealthy appearance burrowed with honeycombed cavities, the edges deeply undermined. A dressing of eucalyptus oil was now applied. So far sugar had been present daily in the urine, but for the first time on November 24th no reaction was given on boiling with Fehling's solution. From this day the patient's general and local condition improved rapidly. Progress continued with absence of sugar until November 29th, when it again appeared, and the patient's condition retarded. The presence of sugar persisted until December 13th, when it again disappeared, only to reappear on December 30th, on which day there was some swelling and redness about the edges of the wound, with a pustular rash. Sugar was present until January 4th, 1897, when it again disappeared, and has been absent since. It is sufficient to state that from this time the patient made a gradual uninterrupted recovery. The wound is now healed, and the patient is able to enjoy a short walk out of doors.

Nottingham. A. Waring, M.B.

# REPORTS
ON
## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

### ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

#### TWO CASES OF HIGH ARTERIAL TENSION TREATED WITH ERYTHROL TETRANITRATE.

(By Arthur Burton, M.A., M.B.)

Since few cases have been recorded in which erythrol tetranitrate has been used, the following reports illustrating the effects of this new vaso-dilator may be of sufficient interest to justify their publication. In one case the drug was administered for the relief of the asthmatic attacks of chronic nephritis, in the other case for the relief of cardiac pain. In the latter case the effect of the drug in reducing arterial tension is shown by sphygmograms.

Chronic Nephritis: Asthmatic Attacks.

Case I.—W. C., aged 47, was admitted under Dr. Mac Alister on July 21st, 1896. His father, who had been a heavy drinker, was subject to gout, and died of hemiplegia. The patient, who had previously been a plasterer, had kept a publichouse for the last five years, and had been accustomed to drink about six pints of beer daily. He never had gout or symptoms of lead poisoning. Until a month before admission he had had no cough or shortness of breath, and had never noticed any œdema, or alteration in the condition of his urine. A month before admission he was seized suddenly with shortness of breath while walking. During the day he began to cough, and breathing became difficult and attended with a wheezing noise. On the following day his legs began to swell, and the quantity of urine was diminished. The bowels acted daily, and there was no headache or vomiting. The patient was very stout, and had considerable œdema, most marked in the eyelids, feet, and legs. The complexion was sallow and the conjunctivæ watery. The pulse was regular (120) with increased tension; no atheroma was detected. The heart's impulse could not be felt. The area of deep precordial dulness was normal but there was no absolute dulness. The second sound was accentuated at the apex and at the aortic area, otherwise the heart's sounds were normal.

The chest was in the position of deep inspiration, and moved but little with respiration, which was chiefly abdominal. Over the whole chest expiration was prolonged and accompanied by wheezing rhonchi. A few *râles* were heard at both bases on deep inspiration. The liver dulness was normal, and there was no ascites. There were no signs of retinitis. The urine was acid, pale in colour, and clear. After boiling, the coagulated albumen amounted to one-half. There was a deposit of granular casts and desquamated renal cells. The urine passed during the first twenty-four hours amounted to 26 ounces, and the percentage of urea was 1.5. He was given a milk and farinaceous diet and saline aperients. During the first ten days asthmatic attacks of considerable severity occurred each night. During the daytime his breathing was fairly easy, although always attended with a wheezing sound. The asthmatic attacks were promptly relieved by the inhalation of 3 minims of amyl nitrite, until the evening of July 31st, when he had an asthmatic attack of unusual severity. This attack was quite unaffected by amyl nitrite, but was relieved by the inhalation of chloroform, which was not given to the extent of producing anæsthesia.

On the following day the patient commenced taking 1 grain of erythrol tetranitrate with extract of gentian in a pill twice a day. From this time there were no asthmatic attacks, and the breathing gradually lost the wheezing sound. For the week preceding the commencement of this drug, the daily excretion of urine averaged 59 ounces, and the coagulated albumen occupied one-half of the volume of urine. During the following week, while taking 2 grains of erythrol tetranitrate daily, the average daily excretion of urine was 78 ounces, and the amount of albumen varied between one-fifth and one-third. About half an hour after taking the pill the patient complained of a throbbing sensation in the frontal region, which spread to the occiput and lasted for about three hours. This sensation was only felt during the first three days of the administration of the drug, and after that time no inconvenience was experienced.

On August 10th the œdema had quite disappeared, and on August 15th the patient was discharged, having been free from asthmatic attack for the fortnight during which he had been taking 2 grains of erythrol tetranitrate daily.

Cardialgia.

Case II.—C. P., aged 66, a farm labourer, was admitted under Professor Bradbury on October 28th, 1896. He had never had gout, rheumatic fever, or syphilis, and until a year before admission into the hospital he had always had very good health, being able to do hard work as a wood sawer without pain or difficulty. A year previously he became an out-patient of the hospital, complaining of pain in the region of the left nipple. There was no pain elsewhere, and no cough or shortness of breath. The pain had no reference to food, but was brought on by exertion, and passed off after resting for about an hour. During the last seven months before admission the pain steadily increased in severity and in frequency of occurrence, so that a small amount of exertion was sufficient to induce an attack of pain. There had never been any violent paroxysm of pain, nor radiation of pain down the arm. During the year he had lost a stone in weight, but his appetite and digestion remained good.

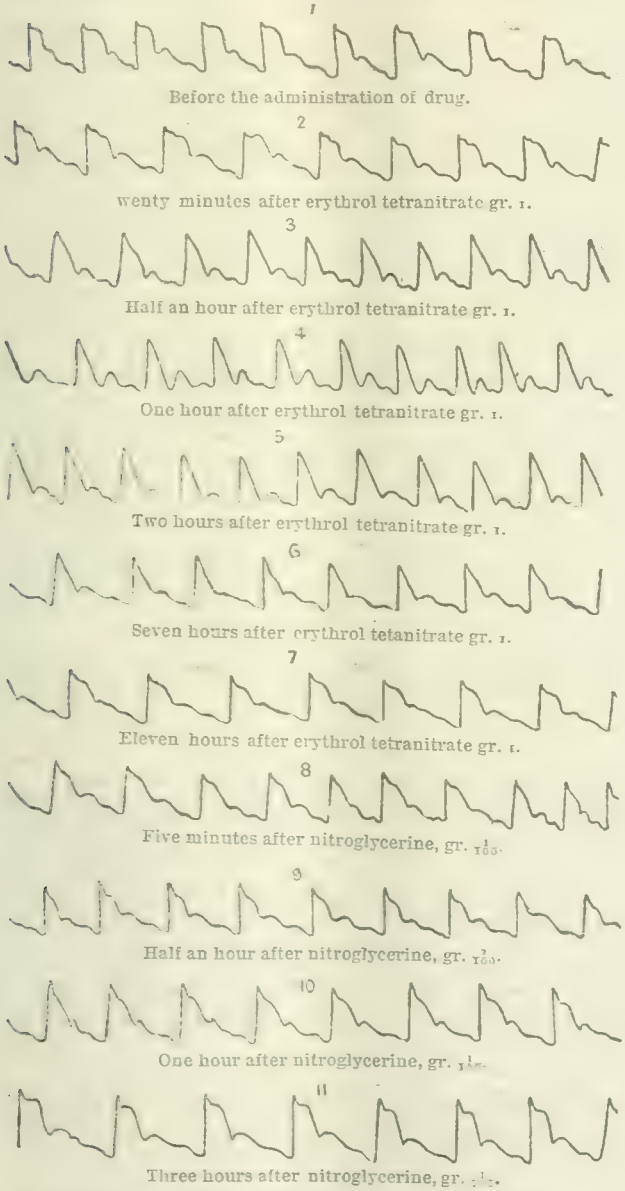
On admission he had the appearance of a rather thin but healthy man. The pulse was regular, with occasional intermission, and a rate of 56 beats per minute. The tension was increased, and the radial artery was thickened and tortuous. At each pulsation the brachial artery was seen to be thrown into curves. The chest was somewhat emphysematous, the cardiac dulness being diminished. The heart's impulse could not be seen or felt, but the sounds were normal. No abnormal pulsation was detected in the neck or epigastrium.

For the first week the patient was kept in bed, with ordinary diet, no medicine being given except occasional aperients. During this time he had frequent attacks of precordial pain, lasting one or two hours, and occurring at all times of the day, irrespective of meals, though this pain was much less severe than it had been before his admission to the hospital, while he had not been confined to bed. At the end of the

week he commenced to take one grain of erythrol tetranitrate with extract of gentian in a pill every eight hours. Unlike the other case reported, the patient experienced no headache or other discomfort when the drug was commenced. The pain became less, and after a week the patient was able to be out of bed all day, walking about the ward without any pain.

After a fortnight's regular administration the drug was omitted. It was subsequently resumed at irregular intervals, and nitroglycerine was also occasionally given in doses of one hundredth of a grain for purposes of comparison, but there was no recurrence of pain during the patient's stay in the hospital.

The comparative effects of erythrol tetranitrate and nitroglycerine upon arterial tension are shown by the accompanying sphygmograms. Thus it will be seen that erythrol tetra-




nitrate produces little effect until half an hour after its administration. The maximum effect is produced at the end of an hour, this effect being maintained until three hours after the dose. From this time the arterial tension begins gradually to rise, but does not return to its previous condition until about ten hours after the dose.

With nitroglycerine, however, reduction of arterial tension is seen at the end of five minutes. The greatest effect appears from half an hour to an hour after the dose, and by the end of three hours the arterial tension resumes its usual condition.

These observations are in accordance with the statements made by Professor Bradbury in the Bradshaw lecture (1895), in which erythrol tetranitrate was first brought before the notice of the profession,[1] and correspond with the results obtained by Dr. Oliver by the method of arteriometry, which were published in the Croonian Lectures of 1896.[2]

It may be added that better results have been obtained by the administration of erythrol tetranitrate in the solid form, either in pills or tabloids, than by the administration of a solution of the drug, which in some cases has produced vomiting.

# REPORTS OF SOCIETIES.

## CLINICAL SOCIETY OF LONDON.

Thomas Buzzard, M.D., F.R.C.P., President, in the Chair.

*Friday, March 26th, 1897.*

Epidemic of Infantile Paralysis in the Same Family.

Dr. Pasteur read a paper on an epidemic limited to one household. Every one of the seven children in the family was attacked in rapid succession within the space of three weeks with fever of moderate severity accompanied by severe headache. In three of the children, aged 11, 9, and 5, paralytic symptoms supervened within seven days of the commencement of illness. The type of paralysis varied in the different cases. In one there was flaccid paralysis of the left arm; in another right hemiplegia with marked and persistent muscular rigidity of the arm and leg, with more transient paralysis of the face and soft palate on the same side; whilst in the third case there was paralysis with rigidity limited to the left lower limb. In two more the primary fever was followed by tremors lasting a few days; whilst in the remaining two the primary fever was not followed by any nervous disturbance. As regarded the cause of the outbreak, it was possible to exclude the acute exanthemata, diphtheria, and influenza. The points of resemblance with infantile paralysis were held to justify the diagnosis of that cause in spite of the remarkable characters of the paralysis. The cases proved that a poison giving rise in one instance to a paralysis indistinguishable from the acute atrophic paralysis of childhood was also able to determine lesions in other parts of the nervous system. They further strongly confirmed the growing impression that infantile paralysis is an acute infective disease.

Dr. Ormerod said that in two of the cases some points raised a suspicion that the disease was epidemic cerebro-spinal meningitis, though it was rare in this country.

Dr. Beevor said the first case resembled anterior poliomyelitis. The second case was of cerebral type, the soft palate being affected. The rigidity was, however, in favour of meningitis, whilst the absence of pain was opposed to that view. The last case resembled infantile paralysis, though the stiffness, which was the first symptom, was a difficulty.

Dr. Cayley thought the term "infantile" inappropriate, as the disease was not limited to childhood, and "anterior poliomyelitis" was also inappropriate, as it was only one manifestation of a disease that often involved other parts of the nervous system.

The President thought it was the first time that the infective character of infantile palsy had been before a British medical society in a concrete form. Many persons suspected an infective factor, and a Stockholm observer seemed to have proved that acute anterior poliomyelitis was infectious. He himself thought there was an unrecognised toxic agent, and described the case of a boy whose little sister had, just before his illness, undergone a similar attack except that no

[1] British Medical Journal, November 16th, 1895.
[2] British Medical Journal, June 6th, 1896.

paralysis supervened. He suggested that careful bacteriological examination of these cases should be made.

### SYMONDS'S ŒSOPHAGEAL TUBE: SAFETY STRING SWALLOWED.

Mr. LOCKWOOD related the case of a man, aged 65, who, whilst wearing a Symonds's tube for a malignant ulcer of the œsophagus, swallowed the string. Every effort to extract the tube failed. Inasmuch as only liquids could be swallowed in small quantities, and he was rapidly becoming thinner and weaker, the question of œsophagotomy or gastrostomy was debated. It was determined not to do œsophagotomy, because it was uncertain whether the tube was still in the œsophagus, and also whether the stricture was still safely permeable. Gastrostomy was done, and gave much relief. Three weeks after the malignant growth perforated the trachea, and the man died of broncho-pneumonia. Afterwards the tube was found in the stomach, but had probably escaped into it a few days before death.

Mr. CLUTTON said intubation had given much comfort, but gastrostomy had recently become so free from risk that he personally would prefer gastrostomy.

Mr. MAKINS said that a patient had worn a tube for months when the string broke; as he could not bring the tube up, he passed another tube, and pushed the former one down. This procedure probably did not entail much risk.

Mr. LOCKWOOD said such a procedure was not practicable in his case. Intubation, he thought, was in many respects preferable to gastrostomy, and should always be tried first.

### REMOVAL OF BRAIN TUMOUR.

Dr. WASHBOURN and Mr. ARBUTHNOT LANE described this case. The patient, a woman aged 46, was seized with a fit on May 4th, 1896. It commenced as a convulsive twitching of the right thumb, thence extended to the forearm and to the upper arm, the elbow being forcibly flexed. The right leg was similarly affected, the knee being bent. She did not lose consciousness. After the fit the right arm and leg were weak, and the right side of the lips and tongue numb. During the interval preceding her admission into Guy's Hospital (on August 27th, 1896) she had a similar fit about every fortnight, at the menstrual periods, which were very frequent. She gave no history of headache or vomiting. On admission the right side was distinctly weaker than the left. Whilst under observation she had similar fits. As she did not improve under antisyphilitic remedies it was decided to explore the brain on the left side. On September 19th a large area of bone was removed, and the dura mater, which was healthy, exposed. Next day she had two fits. On September 21st the dura mater and arachnoid were divided, when a tumour was exposed. It grew from the pia mater and deeply indented the brain directly in front of the upper limit of the fissure of Rolando. The tumour was sharply defined and shelled out readily. Though not invading the brain substance, a minute portion of grey matter was found adhering to its under surface. From before backwards the growth measured 2 inches, transversely about 1½ inch; its depth equalled its breadth. The convolutions depressed by it were the upper portion of the precentral gyrus, the adjacent area of the first frontal gyrus, with part of the second frontal gyrus, the marginal gyrus, and probably to some extent the gyrus fornicatus. Aphasia with paralysis of the right arm and right side of the face followed the operation. The aphasia soon disappeared. When she left the hospital on January 24th, 1897, she had complete motor paralysis of the right hand and forearm, with impaired sensation in the fingers. She had lost the pain in her arm which existed previous to the operation, and which was temporarily increased by it. The facial paralysis had also disappeared. She had no recurrence of the fits after the removal of the tumour. At the present date, March 26th, 1897, movement was returning in the fingers, but the rest of the arm was paralysed.

Dr. SEYMOUR TAYLOR thought it curious that fits commenced in the hand, the tumour being in such a position, and that after operation the paralysis was chiefly localised in the arm and hand. He considered the paralysis was probably due to an injury of the cortex.

The PRESIDENT remarked that iodide of potassium was only given for a fortnight. He would have given it a longer trial in larger doses before recommending such an operation.

Dr. WASHBOURN said that not the slightest benefit accrued from its administration, and that there was not the least suspicion of any syphilitic taint.

### A REMARKABLE CASE OF EXTRAVASATION OF URINE.

Mr. BARWELL related the case of a man, aged 36, who previously to November, 1896, was perfectly healthy. One night, after coitus, in which nothing unusual occurred, he went to sleep, and on waking next morning found the scrotum much swollen; during the next few days the swelling increased, and although feeling perfectly well he sent for Dr. Nixon on the 27th. On the 29th he saw the patient in consultation. He had a subnormal temperature, a feeble quick pulse 108, tongue furred, and slight constitutional symptoms. He had felt quite well up to four hours before, and even then was only "a little down." The scrotum was greatly distended, boggy, red, and stung with blotches of dark brown discoloration; the penis was but slightly swollen or reddened, and free of sloughy spots; the perineum, much distended to within a very short distance of the anus, exhibited two sphacelated spots. He never had any difficulty in passing urine, which flowed in a full stream. Deep incisions were made in the perineum and scrotum, exposing the superficial muscles of the urethra and the testicles. The sodden tissues were full of urine, with the usual ammoniacal sloughy odour. One bleeding vessel being rotten was secured by leaving on it a pair of forceps; the very soft state of all tissues rendered interference with the urethra inadvisable. Five days after the incisions were made he lost about four ounces of blood by the rupture of a vessel in or close to the right testicle. Rupture of the urethra as an immediate result of coitus had once or twice been reported, but invariably in the penile portion of the tube, never, as far as the author was aware, in the membranous part. A No. 12 catheter passed into the bladder without encountering the slightest obstacle, and treatment for the urethra was, therefore, unnecessary. The man lost by sphacelus about four-fifths of the scrotum, but the parts healed, and the whole was quite sound exactly six weeks after, the testicles being enclosed in a new bag, which though it looked tight interfered neither with comfort or function.

Mr. MAKINS said that not rarely one met with extravasation of urine without obvious cause, and instanced the case of a clergyman whose perineum was full of extravasated urine, though nothing amiss could be discovered when a catheter was passed. Possibly its occurrence after coitus, in the author's case, was simply a coincidence.

## OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

E. NETTLESHIP, F.R.C.S., President, in the Chair.

*Wednesday, March 24th, 1897.*

### ADJOURNED DISCUSSION ON RETRO-OCULAR NEURITIS.

MR. JESSOP, after referring to ordinary typical cases, those due to diseased teeth, to fractures about the orbit, and to migraine, went on to speak of insular sclerosis and retro-ocular neuritis. Some years ago he published a case in the *St. Bartholomew's Hospital Reports* which began with diplopia and optic nerve atrophy, and four years later developed into insular sclerosis. It was thought to be ataxic at first, the remarkable feature about the case was the frequent variation in vision, although the aspect of the nerve and the visual field did not change; for this reason the case was suspected to be hysterical; there was no central scotoma. In diphtheritic cases with contraction of the visual fields he had found that recovery was the rule.

Mr. SILCOCK, speaking of the cause of the involvement of the axial fibres of the nerve, criticised the view that the central lymph channel was the reason for it. He suggested that as the axial fibres were furthest from the source of blood supply in this part of the nerve this might be the reason for their involvement. He had lately seen one case of retro-ocular neuritis in a diabetic person in which the central scotoma was attributed by Sir W. Broadbent to high arterial tension; the scotoma disappeared after treatment. If the patient exceeded strict limits and took a glass of wine sugar appeared in the urine and there was dimness of sight; he

thought the failure might be explained by the œdema which accompanied angio-sclerosis. As to the direct influence of cold in producing the affection, the optic nerve was deeply buried in the head, and he could not imagine how it could be affected; if cold produced retrobulbar neuritis why did we not sometimes get it after using ice compresses to the eye? Then in the cases depending on general causes, the physicians' cases, gout and rheumatism, he would like to know definitely what was the actual pathological condition present; unless we knew this we were using terms without definite meaning.

Mr. Holmes Spicer spoke of the uncured cases of retro-ocular neuritis, and their possible relationship with other nerve degenerations. It was not uncommon to meet with patients, mostly males beyond middle life, who had sudden failure of central vision, and of central colour perception; the changes at the optic disc were pallor, a slight amount of swelling, and some constriction of the vessels at the margins of the disc due to alteration of pressure within the nerve behind the eye. Most of the patients were smokers, but the cases differed from ordinary tobacco amblyopia in the severity and persistence of the changes in the optic disc, and in the continuance of the defect after removal of the cause. It was difficult to follow such cases up for long periods, but of seven cases of which he had been able to obtain a record after twelve months, three had definite signs of nerve degeneration in other parts, such as loss of power in the limbs, although the interval had been as great as ten years in one case; another had great variations in acuteness of vision without evident cause, a feature of the insular sclerosis cases. Many of the senile cases seemed to be due to a want of vitality in the optic nerve, although it was not evident why this nerve should be affected more than others.

Dr. Risien Russell wished to emphasise certain points in connection with Dr. Buzzard's case of insular sclerosis in which he had made the *post-mortem* examination. The appearances in the optic nerves, tracts, and nervous system were a marked increase of interstitial tissue with destruction of the nerve elements. One point brought out was that with complete destruction of the optic nerves from the globes to the front of the chiasm, and similar destruction of large portions of the optic tracts, there existed a considerable portion of medullated nerve fibres at the chiasm. This condition was opposed to the view of Gowers as to the identity of the optic nerve changes in insular sclerosis and tabes; if the morbid process in the optic nerves and tracts had begun in the nerve elements, there ought to have been a continuous process of degeneration throughout the chiasm without the interposition of healthy fibres. He alluded to the clinical difference between insular sclerosis and tabes, pointing out the frequent improvement of sight in the former, its rarity in the latter; the frequency of total blindness in tabes, its rarity in insular sclerosis. He referred to a case of which he showed sections of the optic nerve that evening. A man, aged 51, was taken with blindness of both eyes and paralysis twenty-five years ago. One eye got well, and the patient recovered use of his limbs, till two years ago, when he developed postero-lateral sclerosis. There was bare perception of light in the right eye, and feeble action of the pupil; the disc was atrophic. The patient died four months ago. The optic nerve was destroyed from the chiasm to the globe, with increase of connective tissue; this condition ceased in front of the chiasma, which, with both optic tracts, was quite normal.

Dr. Macnaughton Jones thought retro-ocular neuritis was comparatively rare. He had found it present in cases in which alcohol and tobacco, or syphilis, or mental worry or eye strain were the cause. He was sceptical as to hysteria being a cause, also the teeth, and he had not found gout to cause it, but there were certain cases due to zymotic causes, to after-effects of certain fevers.

Mr. Adams Frost gave a summary of 13 cases. It was monocular in all but 3; the failure was rapid; there was no perception of light in 5 of the cases when at their worst. Generally there was slight muddiness or hyperæmia of the disc; in 2 cases there was severe papillitis. Prognosis was good; 7 of the 13 made complete recoveries. In absolute central scotoma no pupil reaction was obtained from central light stimulation; pain was not always present.

Mr. Doyne thought the cases were of two kinds—binocular and monocular. In the binocular cases recovery was less frequent than in the monocular ones; 9 of them were males and 2 were females; of the monocular cases, 5 were females and 2 males. He had found weakness of limbs in some of the cases after a time. As to the action of the pupils, the sluggishness was a degree of contraction sluggishness and not time sluggishness. He had not found the latent period increased.

The President had looked up records of 150 cases. He grouped them into (1) single idiopathic cases, of which the greater number recovered; the recoveries, 54 in number, were 38 females and 16 males; none of them were under puberty, and only 9 were over 40; in the majority no cause could be found; the non-recoveries were 11 females and 8 males; 6 were under 40 and 13 over 40; pain was much worse in these, and the ophthalmoscopic signs did not occur till late; the seat was probably the optic foramen. In Group 2 there was failure of both eyes followed by recovery and no recurrence. Group 3 consisted of general nerve cases which were spread over a long time, and were probably disseminated sclerosis; the ophthalmoscopic signs were slight; he did not think they were the same as tabes. Group 4 consisted of local, probably sphenoidal, sinus cases.

Mr. Gunn and Dr. Buzzard replied on the whole discussion.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Medicine.

G. F. Duffey, M.D., P.R.C.P.I., President, in the Chair.

*Friday, March 12th, 1897.*

### Significance of Dilatation in Functional and Organic Diseases of the Stomach.

Dr. Boyd read a paper on this subject.

Dr. Doyle said he believed that a tube with as large a lumen as possible was the best for lavage. Lung troubles, such as chronic bronchitis, were causes of partial dilatation of the stomach, brought about by the passive congestion interfering with the nutrition of the organ. Another cause was the badly kept condition of the teeth of the poorer classes, and the short time given by them to the proper mastication of their food, which was usually of a starchy nature.

Dr. Potter had frequently found a large teaspoonful of vegetable charcoal, taken an hour or two after meals, very beneficial in the treatment of dilated stomach.

Dr. Tweedy considered that the constipation which usually occurred in connection with dilatation of the stomach could be explained by mechanical means. He referred to a case which he had formerly shown, where the stomach filled almost the entire abdominal cavity, the condition having been brought about practically by the continual eating of large quantities of potatoes, and he thought that the pressure of the stomach filled with a large quantity of food of this nature, which could not be got rid of as quickly as it ought to be, was one cause of constipation. Constipation could also be accounted for on anatomical grounds. The first portion of the duodenum was about 2 inches in length and freely movable, while the second portion was fixed. It was therefore evident that a dilated stomach filled with starchy food could, by drawing down the pylorus and with it the first part of the duodenum, produce a mechanical kink at the junction of the first and second parts of the duodenum, sufficient to cause obstruction to the free passage of food.

The President was not quite sure that Fagge was correct in saying that there was fibroid thickening of the pylorus in cases of complete distension. Fagge described acute dilatation of the stomach, and mentioned at least one case in which dilatation occurred so suddenly that coma set in and death followed. The President believed that muscular wasting was really at the bottom of many forms of dilatation, but the exact cause of the wasting he did not know. He asked if the pylorus had ever been stretched as a treatment in this country. The extent of the dilatation could be made out by giving the patient effervescent powders, or by filling the stomach with large quantities of fluid.

Dr. Boyd replied.

### Relapse in Scarlatina.

Dr. E. MacDowel Cosgrave read a paper on two cases of relapse in scarlatina. (1) A girl, 9 years of age, was admitted into Cork Street Fever Hospital on November 12th, 1896,

suffering from a severe attack of scarlatina anginosa, the temperature falling to normal on the ninth day. On the twenty-eighth day, whilst desquamation was occurring in large flakes on the feet, the child had an attack of vomiting, the temperature ran up to 105.8° F., and a punctiform rash appeared, the tongue and pharynx being also typically affected, and albumen appearing in the urine. On the eighth day of the relapse secondary desquamation commenced and gradually spread over the body. (2) A girl, aged 9 years, with a younger sister, was admitted to Cork Street Hospital on November 27th, 1896, suffering from well-marked scarlatina. Eighteen days after admission, whilst free desquamation was going on, the child complained of headache and sore throat, the temperature rose to 105.8°, and a punctiform rash appeared; desquamation where occurring was increased, and where finished was repeated.

Dr. J. W. MOORE agreed that true relapses had occurred in Dr. Cosgrave's cases. It was an interesting fact that by means of isolated hospitals it was possible to produce many cases of relapse in scarlatina, provided that the patients were kept in the wards long enough. It was now believed that the cause of the relapse was a true reinfection, and that immunity was not established by the first attack, from which fact it would be learned that scarlatina convalescents should not be kept for any length of time in the wards in which they had been ill. He thought that the Dublin hospitals were at fault in this matter. Cases of scarlatina should be removed as soon as possible after the patients got up.

Dr. MACDOWEL COSGRAVE replied.

### TREATMENT OF CANCER WITH CELANDINE (CHELIDONIUM MAJUS).

Dr. JOSEPH REDMOND read a paper on the treatment of cancer with celandine (chelidonium majus). He exhibited patients suffering from epithelioma of the tongue and of the lip, and read notes of two cases of cancer of the œsophagus, and the other of cancer of the liver. All cases were improving under treatment with celandine.

The PRESIDENT said it was remarkable that so little pain had been caused by the use of the drug, seeing it was an irritant and an active narcotic poison. Had Dr. Redmond noticed the administration of the drug followed by any effect on the secretions—that was, did it produce any purgative effect? Formerly the drug was given in hepatic diseases, and seemed to have done good by internal administration.

Dr. NINIAN FALKINER recommended the use of the juice, freshly made, to other preparations of the drug.

Dr. CRAIG, in referring to Dr. Redmond's case of œsophageal stricture, said that the symptoms were particularly symptoms of dyspepsia. He had found patients come to hospital complaining of inability to swallow anything, and yet attempts to make such patients swallow food were often successful.

Dr. J. W. MOORE said that some of the cases brought forward by Dr. Redmond were a little open to doubt as being cases of cancer, and that the symptoms were much more like acute dyspepsia. The mental phase in cases of cancer was to be regarded, and patients suffering from the disease grasped at any straw, and began to think they were going to be cured. Again, it was possible for the secondary effects in cancer to be relieved by remedies without doing the primary cause any good. Condurango had been used in the treatment of cancer but without much benefit. Another treatment for cancer was to give the patient erysipelas, and good results had been sometimes achieved.

Dr. REDMOND, in reply, said that he had never noticed any intense diarrhœa after administration of the drug. Concerning Dr. Craig's remarks about œsophageal stricture, he (Dr. Redmond) had made sure that his patient could not swallow, and at the same time he was getting worse.

## CLINICAL SOCIETY OF MANCHESTER

A. T. WILKINSON, M.D., M.R.C.P., President, in the Chair.

*Tuesday, March 16th, 1897.*

### EMPYEMA OF THE FRONTAL SINUS.

DR. MILLIGAN showed: (1) A female, aged 18, recently operated upon for suppuration of the left frontal sinus. The symptoms present were pain over the region of the sinus, and a purulent discharge from the left nostril. Empyema of the maxillary antrum was excluded by the transillumination test. The sinus was opened according to the method suggested by Mayo Collier, and was found full of pus. At thorough cleansing, the infundibular tract was freely dilated, and a rubber drainage tube passed down into the nose. After the end of five weeks' local treatment, all suppuration was found to have ceased. The edges of the wound were closed by means of horsehair sutures, and rapidly united. No further trouble has since been complained of. (2). A man, aged 19, suffering from double frontal sinus empyema, and from suppuration of the fronto-ethmoidal cells. For some years he had suffered from the presence of nasal polypi. After having cleared the nasal passages of all polypi, a purulent discharge was found to proceed from the region of the infundibula. No antral empyema could be detected, and according opened [of the frontal sinuses was suggested, and was carried out in the manner advocated by Mayo Collier. Both sinuses were found to contain pus, and in both the mucous membrane was thickened and congested. Palpation with the probe showed the presence of bare (necrosed) bone. The parts were carefully curetted, and drainage tubes of large size passed into the nasal passages. For many months most careful local treatment, syringing, and the application of chloride of zinc, had been carried out, but with only partial success, the suppuration still being fairly free, and fœtid if the treatment was not carried out each day. Stoker's method of applying pure oxygen to the suppurating surfaces had also been faithfully tried, but without any beneficial effect. Should no more marked improvement take place shortly, it was proposed to turn both sinuses into one large cavity, to scrape again, and to pack with iodoform gauze, and so allow the parts to granulate up.

### TOXÆMIA AS A CAUSE OF PUERPERAL MANIA, WITH NOTES OF A CASE.

Dr. ARNOLD W. W. LEA, after reviewing the various etiological factors in cases of puerperal insanity, stated that in a large proportion of instances the exciting cause was found to be of toxic origin. The toxæmia was not necessarily derived from the uterus. It was probable that any deficiency in the activity of the various excretory organs, namely, kidneys, liver, and intestines, might cause it, and this more especially as the blood of the puerperal woman was loaded with effete products of metabolism, the result of the rapid involution and absorption of muscular fibres, which went on in the uterus during the few weeks after delivery. Many authorities stated that 60 to 70 per cent. of all cases of puerperal insanity would be found to be from this cause. In most cases undoubtedly the toxæmia was the result of septic absorption from some part of the genital passages. Dr. Lea read notes of a case in which septic absorption from the uterus appeared to have been the cause of the mania, as shown by the beneficial effects of intra-uterine treatment. The patient, a primipara, aged 25, had a tedious labour, followed by *post-partum* hæmorrhage, which, no doubt, was a factor in the etiology. There was no hereditary tendency. She had a natural, though somewhat prolonged, labour. The placenta was adherent, and as hæmorrhage was considerable, was removed by hand. She progressed favourably for five days, the temperature remaining below 100°. On the sixth day acute maniacal symptoms supervened. There was no rigor. The temperature was 100.6°. A few hours later she presented the typical signs of puerperal mania. The lochia were offensive. The uterus was explored and curetted under an anæsthetic. Fragments of decidua and blood clot were evacuated. In twelve hours the symptoms completely disappeared. Three days later they again returned. The previous treatment was repeated, and the uterine cavity packed with gauze. The maniacal symptoms rapidly and permanently subsided, the patient making an excellent recovery. In this case the absorption was from a purulent endometritis. If, however, pelvic cellulitis or peritonitis were found to be present, such favourable results could hardly be anticipated. It was, however, extremely important to examine thoroughly the condition of the uterus and appendages in all cases of mania arising during the puerperal period.

### CASE.

Dr. BURY showed a case of Ataxic Paraplegia.

## MIDLAND MEDICAL SOCIETY.

A. H. Carter, M.D., President, in the Chair.

*Wednesday, March 17th, 1897.*

Election of Officers.

Mr. J. W. Taylor was elected President for the ensuing session; Mr. Garner was re-elected Treasurer; and Dr. Kauffmann and Mr. Christopher Martin were elected Secretaries.

Sarcoma of Head of Humerus: Interscapulo-Thoracic Amputation after Berger's Method.

Mr. F. Marsh showed a girl, aged 10, whose left upper extremity he had removed for a sarcoma of the head of the humerus. When admitted into the Queen's Hospital on January 12th there was a globular uniform enlargement of the head of the humerus, the skin over it being tense and shiny, with a few dilated veins on the anterior surface. The enlargement was smooth, tense, and semi-fluctuating, tender on pressure, and more painful when the arm was moved. The first symptom, pain, was noticed three months previously, and was thought to be "growing pain," as there had not been any injury. The swelling was not noticed until two months later; as the swelling increased the pain became worse. The mobility of the joint was impaired from the first, and movement always increased the pain. She had lost flesh, and had both eaten and slept badly. There was no family history of phthisis or cancer. An exploring needle passed into the swelling withdrew dark-coloured blood only. She was kept under observation for a time, and as the swelling uniformly and steadily increased, the limb was on February 1st removed by Berger's method, the only departure being the division and forcipressure of the suprascapular artery prior to the formation of the flaps, leaving only the posterior scapular artery to be secured subsequently. Extremely little blood was lost, but there was considerable post-operative shock and restlessness. A rapid recovery was made, the wound healed by primary union, and she was up on the sixth day. She had since much improved in health and spirits, and had steadily gained weight. The growth was an endosteal mixed celled (spindle and myeloid) sarcoma of the head of the humerus. It had invaded the joint and caused a fracture through the anatomical head of the humerus.

Papilloma of Larynx: Thyrotomy.

Mr. F. Marsh showed a man, aged 63, with a history of partial loss of voice for twelve months. A few words could be clearly spoken, and then aphonia almost invariably came on and he could not make himself understood. He had been under treatment for chronic laryngitis, as a rigid and pendulous epiglottis concealed the greater part of the larynx. A few days prior to the operation, on February 12th, a more complete view had been obtained, and what appeared to be a papilloma was seen beneath the anterior third of the true cords. On account of the difficulty of laryngoscopy and the possibility of the growth proving an epithelioma, removal by thyrotomy was determined upon. An incision was made in the middle line of sufficient length to expose the thyroid cartilage above and the upper four rings of the trachea below. The cricothyroid membrane and the thyroid cartilage were then divided and a pedicle and branched papilloma, attached to the under surface of the cords at the anterior commissure, was removed with forceps and scissors. There was but little hæmorrhage. The thyroid cartilage was sutured with strong chromic catgut, the Hahn's cannula was removed and the openings in the trachea and cricothyroid membrane were closed with catgut sutures. There was no subsequent dyspnœa or other troublesome symptom. The greater part of the wound healed by primary union. The man could now speak without difficulty, and his voice was fairly clear. The growth was a true papilloma. Mr. Marsh called attention to the age of the patient and the innocent nature of the growth, and to the advantage of the immediate closure of both the laryngeal and tracheal openings. In this case he was of opinion that the tracheal opening could have been safely dispensed with.

Fibromyoma of Uterus.

Dr. Thomas Wilson showed (1) a fibromyomatous uterus with the ovaries and tubes, the whole weighing 10¼ lbs., removed by total abdominal hysterectomy from a patient, aged 49. There were many tumours; the largest was in the posterior wall, measured 8½ ins. in its longest diameter, and showed advanced myxomatous degeneration. Some of the other tumours showed similar degeneration to a less extent. The ovaries were much enlarged; the Fallopian tubes and the round ovarian ligaments were all hypertrophied. (2) A fibroid, the size of a fœtal head, removed through the vagina along with the uterus from a multipara, aged 40, who had been well until seventeen months before the operation, when her menses began to be profuse and painful. Eight weeks before operation there was retention of urine, requiring the use of the catheter for a fortnight. At the operation the fibroid lay for the most part in the vagina, but a portion, the size of an orange at the upper end, had grown outwards into the right broad ligament. After the fibroid had been shelled out of the broad ligament a large cavity was left, with thin flaccid walls, from which there was very free bleeding. It was therefore decided to remove the uterus, and this was done by the usual ligature method. There was some difficulty arising from the œdematous swelling of the right side of the cervix and of the vagina, and from the displacement of parts on this side. Recovery was interrupted by an attack of thrombosis of the right femoral veins, which began on the ninth day after operation and ended in recovery in about a fortnight. Some trouble also arose from the heart, which was found before operation to be considerably dilated and weak in action. The patient was sent home in a satisfactory condition on the thirty-second day after operation.

Paræsthesia of Legs.

Dr. Short read a paper on an unusual form of paræsthesia, marked by a feeling of coldness and numbness in the legs. The peculiar alteration in sensation was entirely subjective, and not associated in any of the cases with objective alteration in sensation, motion, or nutrition. Nine cases of this condition were cited. The patients were all men of ages varying from 19 to 49. The complaint made was chiefly of a cold feeling, generally associated with numbness, over the front of the thigh, round the knee-joint, and down the back of the leg in the calf and heel. One or two of the cases also experienced the feeling down the back of the thigh and down the shin. The sensation was comparable to that produced by cold wet clothes placed next to the skin. In addition there was an irritable condition of the mind due to the presence of the abnormal sensation, and absent when it was in abeyance. The symptom was periodic, resembling in this respect neuralgia, and at certain times might be entirely absent. In some of the patients whose cases were described the feeling was present continuously with periodic exacerbations. Chill appeared to be the cause in three of the nine cases related, but not in the others. An important point in connection with these cases was that there was no bodily condition or objective sign of any coincident illness which might be assigned as the cause, such as anæmia, dyspepsia, etc.; in all other respects the cases were apparently quite well. Dr. Short had found that the faradic brush applied to the legs relieved the symptoms immediately, but only temporarily, and for permanent relief had to be repeated. Antipyrin and gelseminum also gave some relief in one or two of the cases. Of the many other drugs tried, none had any appreciable effect. The condition was considered to be one of neuralgia, with possibly slight neuritis in several of the worst cases.

## LIVERPOOL MEDICAL INSTITUTION.

Richard Caton, M.D., F.R.C.P., President, in the Chair.

*Thursday, March 25th, 1897.*

Calculus in the Ureter.

Mr. Larkin read a note on this subject. In cases of nephrolithotomy where no stone was found at the operation, he recommended a thorough examination of the ureter, by turning the kidney out through the wound on to the loin, and passing a probe along the whole length of the ureter into the bladder. On three occasions he had thus been able to detect a stone in the ureter.

Plastic Operation for Lupus.

Mr. Robert Jones advocated the performance of a plastic

operation in cases of intractable lupus localised on the cheek. He showed a patient on whom twenty-five operations had been performed without success. Mr. Jones excised the lupus, carefully avoiding the facial nerve and Stenon's duct, and reflected a large flap from the front of the neck. This was adapted to the raw surface occasioned by the removal of the lupus. The edges of the skin incision in the neck were then brought together. The result was very satisfactory.

Mr. Paul mentioned that he had successfully covered the back of the hand, from which he had excised a large patch of lupus, with a Tagliacotian flap from the abdomen.

Mr. R. W. Murray also made remarks.

### Malaria in Central Africa.

Mr. Stanley Kellett Smith read a note on certain clinical points in malarial fever which presented themselves during an exploration of the country west of Lake Nyassa. There were under observation 10 white men and about 700 blacks. It was found that in bodies on the march there was a close connection between fairly rapid alterations of level and the determination of malarial manifestations. Whenever the route lay across level or gently sloping country, fever was rare, but quick change from high veldt to low veldt, and *vice versâ*, was always marked by a great increase in the number of attacks. This point was illustrated by fever maps of the white members of the expedition, and by a sectional survey of the main line of march. Mr. Smith supported the probability of gradually acquired immunity, and drew attention to the prophylactic value of small daily doses of quinine sufficient to cause slight aural disturbance.

Dr. Buchanan drew attention to the fact that according to the clinical maps shown, the points of extreme difference in altitude, where outbreaks of fever took place, whether high or low, were also points at which "stations" were situated, and asked whether there might not be some special influence which might have determined the outbreaks apart from the differences in level. Although great differences in altitude were experienced between the stations, yet no cases of fever were recorded *en route* between the stations.

Dr. Carter said the theory was fascinating from its simplicity, but thought it should not be adopted without careful consideration. He had been struck by the fact that most of the cases seemed to occur after marches uphill where the two factors, cold and fatigue, came into play. With reference to prophylaxis, he would suggest the trial of arsenic, the advantages of which had been pretty generally recognised. He thought highly of Warburg's tincture, especially in the more depressing forms of "bilious remittent fevers," as they were termed.

Dr. Alexander Davidson, Dr. Archer, and Dr. G. Johnston also made remarks.

### Excision of the Rectum.

Mr. Paul read a paper on a second series of 14 cases of excision of the rectum. Two were for syphilitic stricture, 2 for villous tumour, and 10 for cancer. Short lengths of bowel were excised by the perineal and the vagino-perineal incisions when the disease was situated in the lower third, by a posterior median proctotomy when in the middle third. For extreme excisions a sacral flap was employed. The best results were obtained after the removal of a short length of bowel, followed by suture of the upper to the lower end. Approximation after extensive excision was considered bad practice, being more dangerous and little if any better in result than when the stump was brought out and attached to a glass tube. The 4 non-malignant cases were cured. Of the malignant cases, 2 died from the operation, 2 died since from recurrence, and the remaining 6 were under observation. Of the previous series of 14 cases, all malignant, 3 were cured (1 of these having been watched for ten years, and the other 2 for four years). A fourth was probably well, but could not now be found. Two died from the operation, and the remaining 8 all died of recurrence after an average period of two years.

Dr. Alexander, Mr. Banks, Mr. G. Hamilton, Mr. Damer Harrisson, and Dr. Briggs took part in the discussion.

Mr. Paul replied.

Epidemiological Society.—At a meeting on March 19th, Mr. Shirley Murphy in the chair, a paper on the Prevention of Tuberculosis was read by Dr. James Niven (M.O.H. Manchester), who, after reference to the work of Villemin, Koch, and Cornet on the etiology of the disease and the manner of its propagation, said the Registrar-General's returns showed an enormous reduction in the mortality from phthisis and tuberculosis within the last forty to fifty years, which might fairly be referred to sanitary progress; but he feared that much of it was illusory, and really due to better diagnosis or changes in nomenclature, though he did not deny the influence of improved sanitation, especially in the cure of the disease in its early stages. That such recoveries were of very frequent occurrence was shown by the evidence of healed tuberculous lesions in 20 to 50 per cent. of necropsies on persons dying of other diseases in hospitals at home and abroad. Congenital tuberculosis must be extremely rare. Boltz, in 2,576 necropsies on children under 15 years of age, failed to find the least trace of tubercle in any under 1 month, and of those between 3 and 6 months only 8.6 per cent. were tuberculous, though from the 6th to the 12th month 18.3 per cent., and in the following years about 30 per cent. were more or less affected. The observations of Koch on rodents and of Bang and Siedanigrotzky on cattle, and the certainty with which the presence of the disease, even in the absence of other symptoms, could be detected by means of tuberculin were of the utmost value as regards both man and beast. A single small injection was quite harmless, but the sputa of all patients with chronic coughs should be examined for the bacilli. The prevalence of tuberculosis among cows was really alarming, but, as Bang had shown, the disease might be eliminated by separating all those that reacted to the test, and fattening them for the butcher or using them for breeding, provided their calves were taken away so soon as born; such calves should be tested when a few months old, as should all animals when purchased, and the others twice a year until no more reacted. The supply of milk so certified should be encouraged in every way, and tuberculous milk should not be given even to pigs unboiled. Diseased milk was doubtless the cause of much tuberculosis among children, but the sputa of consumptive persons was by far the most potent factor in the spread of the disease. Spittoons should always be used in the sickroom, and provided in workshops, lodging houses, railway carriages, etc., and workmen and persons going about should carry one of Dettweiler's portable spittoons. Heredity, in the strict meaning of the word, was as improbable as in the case of small-pox, though the children of consumptives were, like all persons with feeble constitutions, narrow chests, or prone to catarrhs, more susceptible to infection. Such individuals, however, if early placed amid healthy surroundings, would not develop the disease; but there was always danger in close association with tuberculous patients, and the rooms and houses occupied by these, especially in so-called health resorts, should be periodically disinfected. Dr. Niven concluded by giving directions for the management of the sick room, the prevention of the spread of tuberculosis in workshops, etc., and the control of dairies, as attempted in Manchester, which he urged on the attention of sanitary authorities, and especially of county councils.—Dr. Ransome deprecated treating the patient as a leper, but would rather improve his surroundings; the bacilli would grow for a long time on damp surfaces in a close dark atmosphere, but sunlight was fatal to them. He believed in the reduction of the mortality through improved sanitary conditions, and hoped that by continued progress, milk control, and the precautions Dr. Niven had indicated, the disease might be practically stamped out.—Dr. Heron maintained that infection was rarely effected save by prolonged and intimate association, and quoted experiments of Koch in confirmation.—Dr. Payne dwelt on the importance of house disinfection, as he had on a former occasion adduced numerous instances of infection of rooms by consumptive tenants.—Surgeon-General McLeod appealed to the evidence of army statistics, and contrasted the mortality in the Royal navy and great liners with that of the lower class of merchant vessels.—Dr. Willoughby believed that the prevalence of consumption among the native population of health resorts, and the way in which each was in its turn discarded in favour of

others more remote, was the result of their becoming saturated with infection; and he quoted a case of intrauterine tuberculosis in a calf reported by Johne, as well as the tuberculisation of calves of healthy parentage by the milk of tuberculous cows.—Dr. S. Buchanan thought that the hospital statistics mentioned by previous speakers proved not only the frequency of recovery, but that infection was easier than Dr. Heron had stated.—After some remarks by Drs. Bulstrode and Goodall, Dr. Niven briefly replied.

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Hunterian Society.—At a meeting on March 24th, Dr. G. E. Herman, President, in the chair, Dr. Hingston Fox showed a case of Cerebellar Tumour (?). The patient was a woman, aged 34, with staggering gait, weakness of right hand grasp, and double optic neuritis. No spasm of muscles of back or conjugate deviation of eyes. Weakness and pains in the legs, with vertigo and headache, began a year ago. Phthisis was present in the family. Remarks were made by Dr. F. J. Smith.—Mr. William Rawes read a paper on Mental Disorders of the Climacteric Period. He first pointed out that medical men were frequently consulted at this period about symptoms which were the precursors of mental disease, and that the climacteric period was liable to considerable variation as to the age at which it appeared, and also as to its duration. In fifty-six cases the average was just under 47. Most women suffered from some form of neurosis at the climacteric, and any physical malady was liable to be aggravated; whilst many were brought dangerously near the brink of mental disease. Still it was doubtful if the menopause was sufficient to determine an attack. Heredity was a potent factor in the production of insanity; it was traceable in 48 per cent. of the cases. The prospect of recovery was not so gloomy as supposed. Previous attacks, from whatever cause, rendered the menopause a source of great risk. Alcoholism was another factor. The prognosis was much more favourable when the alcoholism had been a phase in the insanity and not a habit indulged in for years. Grief and mental anxiety were the most common causes which produced a rapid onset of insanity at this period, whilst remorse was a frequent cause of the restless cases of melancholia. Worry caused by pecuniary losses was a contributing factor, but the most important, on account of its bearing upon treatment, was a combination of circumstances which might be termed isolation and introspection; its influence was traceable in 80 per cent. of the cases. This occurred especially in women who, having led active lives, had now little to do. Melancholia was by far the most common character of mental disease at the climacteric; it occurred in 60 per cent. of cases; 25 per cent. had mania, 15 per cent. delusional insanity, 46 per cent. showed a suicidal tendency, hallucinations of hearing in 30 per cent., of taste 13 per cent., of vision 26 per cent., of smell 10 per cent. About 50 per cent. of the cases recovered. Treatment consisted in change of environment, open air, exercise, diet, electricity or massage, and tonics. The patient should also take up some form of congenial occupation. If delusions led to attempted suicide the patient should be certified, but when this was necessary, she should be told in a perfectly candid manner why it had been done. Deception was wrong from every point of view.—Dr. Savage agreed as to there being no special form of climacteric insanity, but rather a distinct grouping of symptoms which might precede, accompany, or follow the menopause. Symptoms following surgical removal of ovaries were often only exaggerations of ordinary climacteric symptoms. Travelling was not suitable in many cases.—Remarks were made by Drs. F. J. Wood and Robert Jones; and Dr. Rawes replied.

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North of England Obstetrical and Gynæcological Society.—At a meeting held at Sheffield on March 19th, Mr. H. Briggs (Liverpool), President, in the chair, Dr. Hellier (Leeds) showed (1) a Placenta from a patient who had suffered from hæmorrhage during gestation; premature labour was induced at the sixth month. On the fœtal surface of the placenta there was a ring of whitish yellow fibrous tissue, 1 in. broad and ½ in. thick, with sharply defined edge, and about 3 in. in diameter: it was probably due to previous hæmorrhage. (2) The Temperature Chart of a case of Puerperal Fever showing the rapid subsidence of the temperature after the use of antistreptococcus serum. (3) A simple Chart in the form of a calendar for recording the occurrence of menstruation or any other periodic symptom.—Dr. Lloyd Roberts (Manchester) showed (1) a Cystic Tumour. The physical signs were those of a simple ovarian cyst, but on opening the abdomen it was found to be retroperitoneal and without any pedicle; the cavity of the cyst consisted of the calices of a cystic kidney, and on microscopic examination disorganised kidney structure was found. (2) An Omental Tumour removed by abdominal section, weighing 1½ lb., apparently ligamentous in character, but one part more fibrous, giving rise to a suspicion of malignancy.—Dr. Rumboll (Leeds) showed the Uterine Appendages removed for Severe Dysmenorrhœa; on one side there was hydrosalpinx, and on the other fibrous thickening of the Fallopian tube.—Dr. Sinclair (Manchester) showed microscopic sections of a typical case of Adenoma Malignum of the Body of the Uterus, in which he had performed extirpation.—The President showed a Uterine Fibroid, weighing 15½ lbs., removed by abdominal hysterectomy.—Dr. Rabagliati (Bradford) related three successful cases of kolpopanhysterectomy for cancer. In one recurrence took place in the posterior part of the cicatrix eight and a-half months later. In another the operation was successful, but recurrence was found in the posterior part of the cervix in nine weeks and four days. In the third so far (ten weeks) there has been no recurrence. All the cases were operated upon by Martin's method, and in all the microscopic report was epithelioma. Dr. Rabagliati gave an account of the statistics of the recurring uterine cancer, laying stress on the favourable returns presented from Germany, and on the special anatomical considerations which made the prospect of non-recurrence of uterine cancer more favourable than in other cases of cancer. His own experience of general cancer had been very disappointing, almost all the cases having succumbed to a recurrence in from six months to four years. Cancer might be a preventable disease (he thought it was), but there seemed practically no hope of cure for it by the knife alone.—Dr. Sinclair (Manchester) read a paper on Twisting of the Pedicle in Ovarian Tumours. The cases on which the remarks were based were four consecutive ovariotomies, in which the symptoms produced by torsion had produced considerable embarrassment in the minds of the medical men in charge owing to the anomalous nature of the symptoms, and to the patient's ignorance of having a tumour. In all the cases referred to in the paper ovariotomy had been performed without delay, the result in each case being satisfactory.

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# REVIEWS.

The Enlarged Cirrhotic Liver. By Arthur Foxwell, M.A., M.D., F.R.C.P. Birmingham: Cornish Brothers. 1896. (Demy 8vo, pp. 34. 3s. 6d.)

This monograph includes two papers, the one read before the Birmingham and Midland Counties Branch, and the other before the annual meeting of the British Medical Association. The first paper on the non-alcoholic form of cirrhosis of the liver is based upon 84 cases, including 11 cases of phthisis (introduced for comparison) where the hepatic enlargement was not due to cirrhosis. The second paper on the alcoholic form contains observations with the records of 67 cases, and in two-thirds of these the liver was enlarged. According to the author's view, prolonged alcoholic excess produces a chronic inflammation of the periportal tissue, but the intralobular tissue is also affected and the parenchyma injured. The liver may become suddenly greatly increased in size after any special indulgence owing to acute hyperæmia, but with abstinence from alcohol this swelling soon subsides. As the case progresses, the liver either permanently enlarges or less frequently grows smaller. There is not more fatty infiltration, nor are jaundice and cerebral symptoms more marked, nor is ascites less common in the large than in the small liver. Thus in alcoholic cirrhosis the liver is generally enlarged in all stages of the disease, and whether enlarged or contracted, the symptoms and course are much the same, and the pathology identical. As the author points out, a more

careful examination, and therefore a surer diagnosis, will be made if it is understood that an enlarged liver is frequently present in alcoholic cirrhosis. Practically no new light is thrown upon the etiology of the non-alcoholic and enlarged cirrhotic liver in the first paper. It is pointed out that the spleen more often enlarges when the irritant is brought through the systemic as against the portal circulation. Many of the doctrines mentioned above are opposed to the usual teaching of the day, yet the clinical experience of everyone will show how inadequate that teaching is to account for all facts observed in cirrhosis of the liver. The author has rendered good service in giving a thoughtful consideration to a subject of no little difficulty, and yet of considerable importance.

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ROMAN FEVER: THE RESULTS OF AN INQUIRY DURING THREE YEARS' RESIDENCE ON THE SPOT INTO THE ORIGIN, HISTORY, DISTRIBUTION, AND NATURE OF THE MALARIAL FEVERS OF THE ROMAN CAMPAGNA. By W. NORTH, M.A. London: Sampson Low, Marston, and Co., Limited. 1896. (Demy 8vo, pp. 440. 25s.)

IN 1885 the author of this book was appointed a Research Scholar in Sanitary Science of the Grocers' Company of the City of London, and in that capacity went to Italy to inquire into the nature and origin of Roman fever. Such an inquiry naturally involved extensive study and observation of the conditions associated with malarial fever in Rome and elsewhere; and as the inquiry widened, two renewals of the scholarship enabled him to give two full years to following up the outline suggested by his first year's work. The book contains a large amount of information regarding the peculiarities of climate and soil and the local conditions intimately connected with malarial fever, digested and arranged in such a way as to make it available for subsequent students of this disease.

Mr. NORTH minutely examined the conditions of the Roman Campagna, spending much time in its most fever-stricken localities, and necessarily paying the penalty of contracting the disease himself. At the same time he has studied the extensive Italian literature which of late years has been published on this subject (for the Italian Government itself has not been idle in this matter), and the result is an accumulation of data regarding the mode of life of the inhabitants of the affected localities, the losses involved to Italy by the prevalence of this disease, and the changes which have taken place in regard to the salubrity of the Campagna, as it became less inhabited and less fit for human inhabitation, which are of great interest to pathologists and to political economists. The author concludes that in the Roman Campagna waterlogging of the subsoil, and the meteorological conditions which commonly result from it in warm climates, are the most important factors in the production of malarial fever, and that the diminution of intensity of the disease which occurs with increasing altitude is due to the difference of level and distribution of the subsoil water.

The excessive water in the subsoil, although aiding in the causation of the disease, will not alone produce it, and is not even absolutely necessary to its production. The only condition that is constantly present is sudden and excessive change of temperature, most commonly due to great radiation, especially at sunrise and sunset. The distribution of malaria throughout the world is described. The topography and geology of the province of Rome, and the physical characteristics of Italy are elucidated by excellent maps, and we note in passing that it was found that the loss caused to the railways of Italy by malarial fever owing to the sickness of their employees, in extra pay, in extra labour and medicine, not including the cost of maintenance in hospitals, amounted to £60,000 a year. The author concludes that no geological formation is *per se* malarious or the reverse, and that we are not at present justified in drawing any inferences as to the precise relations of the structure and composition of the soil to the disease.

It is known that a solitary individual arriving in an uninhabited country, without eating its food or drinking its water, may be stricken by the disease and die. Many instances are quoted by Mr. North to show that in the Campagna, in the communes in which the rural population is small, and the house accommodation most inadequate, malaria is at its worst. The rural population can hardly be said to be housed at all, for even if we reckon "caves and straw huts as dwellings, the provision is utterly inadequate." The food of the shepherds of the Campagna is only too often badly-made maize bread and worse water to drink. Meat they never or hardly ever taste. Milk, cheese, and wine are luxuries reserved for great festivals.

The history of the disease in the province of Rome is sketched, and it is shown how parts of the Campagna that were previously comparatively healthy became gradually more and more malarial, localities which are now uninhabitable having been the sites of flourishing towns a thousand years ago.

In dealing with the relation of malaria to the altitude of the soil it is shown that, broadly speaking, a height of 600 feet represents the limit of all the large malarious districts, although there are important exceptions to this rule. Examination of the malarial parts of the Campagna shows that a difference of fifty or sixty metres is sufficient to cause a difference in the intensity of the malarial infection. Some striking examples are given of the extreme localisation of the malarial poison. Tor Pignattara near Rome is notoriously unhealthy, whilst 400 yards further along the road, and barely 65 feet above the level of the stream, the inhabitants enjoy comparative immunity. The difference appears to be due to a question of the distribution of the subsoil water. Instructive examples are given showing that the intensity of the disease increases as the subsoil water approaches the surface, while a soil which is waterlogged to such an extent as to be always visibly covered is rarely very unhealthy. The very dangerous soils are those in which by reason of continual variations in the level of the subsoil water air is continually sucked in or driven out.

The well-known connection of malaria with temperature is well brought out in a chapter on climate and meteorology, temperature and rainfall. For example, in 1878, there was a rainfall of 101.6 millimetres during March, April, and May, with a percentage of cases of fever that season of 6.65. In 1879, 369.9 millimetres of rain fell during these months, and that season the percentage of cases of fever was 11.83. The explanation given is that when the soil is soaked with water in the spring and beginning of summer the maximum difference between the maxima and minima of the thermometer during the hot months is excessive, and is accompanied by a corresponding increase in the intensity of the fever in the autumn.

Mr. North, after observing that in the dense populations of towns malaria is less in proportion to the overcrowding, and that all towns are less malarial than the open country, suggests that the aggregation of human habitations acts by equalising local temperatures, and that in all probability the covering of the soil with pavements and buildings contributes to this result by preventing free communication between subsoil water and the atmosphere above it.

Passing over the description of the phenomena of the disease, the chapter on periodicity, and a summary of the pathological anatomy, quoted chiefly from Laveran, with a reproduction of Laveran's drawings, we come to a chapter on the period of incubation. The author considers that we have no right to speak of a definite period of incubation which, "if it can be said to exist at all, may vary almost from hours to years." The reasoning in this chapter is greatly weakened by the fact that it does not contain an analysis or criticism of the definite results obtained by recent Italian observers, who produced definite types of disease, with fairly regular periods of incubation, by injecting malarial blood.

In discussing the mode in which malarial fevers may be acquired, the habits of Italian workmen in malarial districts are related, and we are told it is believed that by lighting fires on halting at night fever is driven away. The author suggests that the heat and smoke do good by diminishing the radiation.

In a chapter on the etiology of malaria all the recent explanations of the disease, beginning with Dr. Salisbury's in the United States (1862-66), are impartially described and illustrated by plates. The bacillus of Klebs and Tommasi-Crudeli is fully described and figured, and the parasite of

Laveran is also described and illustrated. A coloured plate illustrates the researches of Drs. Celli and Guarnieri on the plasmodium malariæ. This chapter is perhaps the most unsatisfactory in the work, and the author's views are not supported by the record of any independent research. It was open to him to attempt to show that the appearances accepted by so many competent observers as demonstrative of the existence of a hæmatozoon were caused by changes in the red blood corpuscles. Of this he does not give a shadow of proof. A practised and competent observer can, by observing the blood, and without any previous information regarding the case, frequently be in a position to state that the patient, though quite free from fever, will, within a certain number of hours, have an attack of, say, quartan ague; he may predict a double quartan or a double tertian, or in another type of case he can still, judging only by what he sees under his microscope (crescent cases), state that there is great probability that the patient has suffered and will suffer from attacks of fever at long intervals. All these facts receive no explanation from the author, and are compatible only with the theory of parasitism. These facts and the result of the inoculations by the Italians form the crux of the whole question, and it is now no longer open to anyone to throw doubt on them, unless he is prepared to show that the data on which the theory is based are inaccurate. The same facts to which we have alluded show how mistaken is the author's assumption that if malaria be the result of a pathogenic organism in the body, it must be the same organism in all cases, of whatever type, in that "the first step towards recovery from the continuous form is its conversion into a remittent; and then, again, into quotidian, tertian, and quartan, though the whole of these stages are not necessarily passed through in all cases." Such a statement could hardly be made by anyone who had had sufficient clinical experience of cases of malarial fever occurring in different parts of the world. Many cases of fever of the summer-autumn type occurring in the tropics—and mostly associated with the crescent form of parasite—recover without getting quartan, or tertian, or quotidian; and when the clinical history is complicated with these phases two forms of parasite—mixed infection—can generally be discovered.

The author brings forward a theory of his own to explain malarial fever, and discusses at considerable length the question of the body temperature and the limits of the heat-regulating mechanism of the human system. In the Roman Campagna during the summer and autumn the air is heavily laden with moisture, and at night almost constantly saturated. The effect of this excessive moisture is to impede the natural process of evaporation by day, while at night the abstraction of heat from the body is enormously intensified by the cold vapour in which it is immersed. "The exposure of the organism to sudden and violent changes of temperature and atmospheric moisture, by causing excessive strain upon the thermotaxic apparatus destroys, either temporarily or permanently, the 'harmony' existing between the components of this apparatus, thereby altering the form and period of the resultant curve."

As the author himself states that the evidence in support of his theory is not of that definite and positive character that is required in these days from investigators, we will not further discuss it. His statements that a pathogenic organism in malarial fever (if by this he means the hæmatozoon of Laveran or the hæmatozoa of the Italian writers) is a *modus operandi* utterly unknown, that its nature is far from being determined, and that its connection with the disease is shadowy in the extreme, in our opinion prove that, notwithstanding the diligence with which he has studied the works of Laveran himself and the Italian observers, he has not realised the value and import of their observations. Such a statement could only be justified by a criticism of a much more searching nature than any which we find in the volume before us.

Although we regard the chapters on etiology and on the suggestions of malaria being a purely nervous disorder as the least satisfactory in the work, we think it our duty to express our opinion that the many facts which the book contains in relation with climate, temperature, meteorology, and the conditions of life in the malarial districts of Italy, justify us in recommending it to the study of those who are interested in the prevalence and suppression of malarial fever.

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A Textbook of Special Pathological Anatomy. By Ernst Ziegler, Professor of Pathology in the University of Freiburg. Translated and edited from the eighth German Edition by Donald MacAlister, M.A., M.D., and Henry W. Cattell, M.A., M.D. Sections 1-8. London and New York: Macmillan and Co. 1896. (Royal 8vo, pp. 628. 17s.)

We are glad to welcome a new edition of this standard work. Since the publication in 1884 of the first English edition very great advances have been made in our knowledge of the subject matter. These have been duly embodied in five successive German editions that have in the meantime appeared. The original work has accordingly changed so much in character and contents that the present edition is practically a new work. The volume before us embodies the first eight sections of the German work. Section 1 dealing with the blood and lymph is a very short one, occupying only ten pages, of which nearly three consist of references. Section 2 considers the vascular mechanism, dealing successively with the morbid changes in the constituent parts of the system; the sections dealing with endocarditis being specially noticeable. Section 3 is again a short section, and deals with the spleen and lymphatic glands. In Section 4, which deals with the bony system, is perhaps the best account extant of the pathological anatomy of a most difficult subject. This section is beautifully illustrated, and should serve to remove much of the confusion which at present exists in the terminology. The muscles and tendons are dealt with in the next section, while in Section 6 the nervous system is considered. In this section much of the recent work on degenerations and sclerosis is included. Finally the diseases of the skin in Section 9 conclude the volume. It would of course be quite impossible to give a summary of the vast amount of material which this work contains. It is certainly the most complete account of this branch of medical science which exists. The work is too well known to require further notice at our hands, and we can only congratulate the editors on having placed it within the reach of English readers.

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Aids to the Study of Bacteriology. By T. H. Pearmain and C. G. Moor, M.A. London: Baillière, Tindall, and Cox. (Cr. 8vo, pp. 160. 3s. 6d.)

Until there has been a talk of a general examination in bacteriology for medical students, we have been spared the infliction of "aids to bacteriology;" but we must now bow to the inevitable; and Messrs. T. H. Pearmain and C. G. Moor have written a small book in which, with greater or less success, they have attempted to give in condensed form "examination information" on the subject of bacteriology. If this is the kind of book that the average medical student is to master, we should regret that any examination in bacteriology had ever been instituted. The facts set forth are presented in a bald fashion, and will be of little use to the student except for mere cramming purposes. We are sorry that Messrs. Pearmain and Moor have not rested content with their *Applied Bacteriology*, which we have already reviewed favourably. In that we had an intelligent and intelligible description of bacteriological processes, principles, and methods; but in the small work under consideration these characteristics are not so manifest, and in one or two places we have statements which we should like to put down to carelessness, but which really must be put down to a want of comprehension of the very principles involved. For instance, on page 90, Haffkine's "antitoxin" treatment of cholera is mentioned, and that this is not a mere slip of the pen we have evidence in the following sentence: "The results are much more successful than those that have hitherto attended the antitoxin treatment of diphtheria." The facts and the principles involved are here so misunderstood that the authors must be writing without having given much study to the question. The account of hydrophobia and Pasteur's method of treatment, taken as an example of the treatment of a subject, is exceedingly sketchy, and no one who reads it will be very much wiser. The

same applies to malaria, in the description of which we have a hash of the descriptions of Manson and others, but nothing certainly that gives any indication of the difficulty of finding the malarial parasites, their size, their relation to the blood corpuscles, and similar questions. The worst of a book of this kind is that the student who has been able to commit to memory some of the facts contained in it is under the impression that he has gained a knowledge of bacteriology, an impression that will be rudely shaken when he comes to face any examiner who has a practical knowledge of methods and an acquaintance with the principles of bacteriology.

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PUERPERAL MORTALITY. By W. WILLIAMS, M.A., M.D., D.P.H.Oxon. Reprinted from the *Transactions* of the Epidemiological Society, N.S. Vol. xv. 1895-96. London: Shaw and Sons. (Demy 8vo, pp. 36.)

THIS pamphlet contains a collection of statistics to show what is the puerperal mortality in England at the present time. The author has constructed maps which show the parts of England in which there is a high, low, or medium death-rate from puerperal fever and the accidents of childbirth. His labour cannot be said to have been bestowed upon an unworthy or an unnecessary subject; for it is a discredit and reproach to the medical profession that now, when puerperal fever has been abundantly and repeatedly proved to be a preventable disease, it yet slays as large a percentage of child-bearing women as it did before antiseptics were thought of.

The author shows that density of population is not a factor of much importance in determining puerperal mortality. He shows that some of the counties in which the highest rate of mortality occurs are those in which deliveries are largely attended by midwives; and he states that "midwives spread puerperal fever broadcast, and are not interfered with" simply because they are ignorant. The author holds that the training of midwives is a typical form of technical education, and should be undertaken by county councils. The Midwives' Registration Bill would, he thinks, meet the case to a great extent. He states "that a very large number of poor women who are unable to obtain the services of medical men are attended in childbirth by midwives alone," and that the mortality in childbed could be diminished "if they were attended by sober and intelligent women, acquainted with the plain doctrines of health, and possessing an elementary knowledge of midwifery."

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A BOOK FOR EVERY WOMAN. Part II. Woman in Health and Out of Health. By JANE H. WALKER, L.R.C.P.I., L.R.C.S., M.D.Brux. London: Longmans, Green, and Co. 1897. (Crown 8vo, pp. 166. 2s. 6d.)

"THIS book," the author says, "is written with the desire and in the hope of raising the standard of general health among women." In setting before us an ideal of vigorous health and its principal means of attainment, Miss WALKER'S book, which is essentially a book of elementary common sense, will probably do its part to this end. The questions of hygiene, food and drink, clothing, occupation, and recreation, and other subjects are discussed. Things are, here and there, very pleasantly put, though one fears in places that Miss Walker's conversational style may detract from the weight of her utterances. The chapter on the importance of good cooking is excellent. "This side of greediness intelligence can hardly be better applied than in the arrangement and preparation of a suitable diet for every one of us." A suitable diet, especially for the young and hard worked is, in Miss Walker's view, a very liberal one, and she defends the working woman's glass of beer. The book is decidedly slight and sketchy, but, nevertheless, a readable and an amusing one. One rises from its perusal feeling braced and withal pleased in reflecting that a solid portion of humanity is unconsciously engaged in living in so many respects as this book tells one it should. There is a large-heartedness about the book also which leads one to suppose that Miss Walker would not be too heavily "down on" sundry lapses from her counsels of perfection; for instance, a preference for Indian to China tea, provided always that it continued to suit the individual's digestion

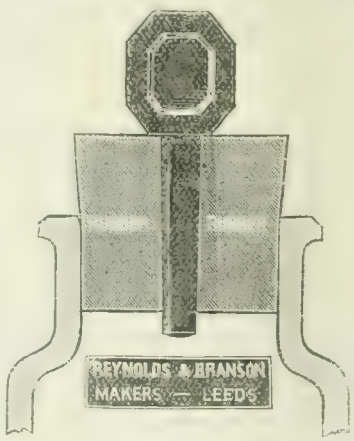
# NOTES ON BOOKS.

*Injuries and Diseases of the Ear* (being reprints of papers on Otology). By MACLEOD YEARSLEY, F.R.C.S. (London: Rebman Publishing Company. 1897. Cr. 8vo, pp. 48. 2s.)—This little book consists of reprints of six articles which have appeared in the *Medical Times* and in *Pediatrics*, some of which have been rewritten and added to. The subjects treated of are artificial membranes, foreign bodies in the ear, what not to do in diseases of the ear, the use of the pneumatic speculum, the care of the ear in children, and aural reflexes. The author is a strong advocate of the pneumatic speculum not only as a means of diagnosis, but also for purposes of treatment. In the last article he discusses the respiratory and other reflexes due to ear disease, also epileptiform convulsions and oculo-motor symptoms from the same cause, instancing some observations of his own on dilatation of the pupil during the use of Siegle's speculum. We cannot say that the author brings forward anything very novel in these essays, but he gives a good short account of the present-day knowledge on the different subjects.

# REPORTS AND ANALYSES
AND
# DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

## A RUBBER CORK FOR THE VISITING BAG AND SURGERY.

MR. HERBERT J. ROBSON, of Hillary Place, Leeds, has designed, and Messrs. Reynolds and Branson have manufactured for him, a rubber cork shown in the accompanying illustration, which he has found very useful in his visiting bag and for other purposes. One of the chief reasons why a rubber cork will not hold secure is that the pressure of the air inside the bottle is greater than the pressure outside, and thus there is a tendency for the cork to be readily dislodged. As shown in the accompanying illustration, through the centre of the cork is a hole which allows the escape of air that would otherwise be compressed when the bottle is corked. The cork being *in situ*, into this hole is then plunged the glass or vulcanite plug, which not only renders the cork airtight, but which, by widening its diameter, renders it also more secure.




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INDIAN MEDICAL SERVICE DINNER.—The officers of Her Majesty's Indian Medical Service have resolved to hold an annual departmental dinner in London. We understand that there will be a large gathering of the service at the first dinner, which will be held this year on May 20th at the Café Monico. The chair will be taken by Surgeon-General Sir Joseph Fayrer, Bart., K.C.S.I., F.R.S., and amongst those who have intimated their intention of being present are: Surgeon-Generals Sir A. Christison, Bart., M.D.; J. M. Cuningham, C.S.I., Q.H.S.; W. R. Rice, C.S.I., Q.H.P.; W. R. Hooper; Sir Guyer Hunter, K.C.M.G., Q.H.S.; Deputy-Surgeon-General Sir Joseph Ewart; Sir Trevor Lawrence, Bart.; Surgeon-Major Sir G. Robertson, K.C.S.I.; Surgeon-Colonels Roberts, Costello, Keegan, etc. Officers who have not already intimated their intention of joining should send in their names without delay to the Honorary Secretary, Mr. P. J. Freyer, 46, Harley Street W.

## LORD LISTER.

An exceedingly interesting ceremony took place in the theatre of the Royal College of Surgeons, Lincoln's Inn Fields, on the afternoon of March 29th, when the portrait of Lord Lister, P.R.S., painted for subscribers by Mr. W. W. Ouless, R.A., was presented to the College. Among those present were Sir W. MacCormac, President; Mr. N. C. Macnamara and Mr. J. Langton, Vice-Presidents; Mr. T. Bryant, Mr. C. Heath, and most of the other members of the Council; Lord Lister, Sir James Paget, Mr. Jonathan Hutchinson, Mr. H. Power, and a large number of other Fellows and some Members of the College. The portrait of Lord Lister, which was veiled, stood on an easel facing the audience.

Mr. J. N. Davies-Colley, Hon. Sec. to the Subscribers' Committee, in making the presentation, said that he had been asked to say a few words concerning the portrait which they were about to unveil and present to the College. All present were well acquainted with the great work in surgery which would be for ever associated with the name of Lord Lister. He was old enough to remember the state of hospital wards in the old septic days more than thirty years ago. At that time wounds were dressed with evil-smelling poultices and wet lint, and the mortality from pyæmia and other septic diseases was terrible. But a great light was soon to dawn, for about that time the idea had occurred to Professor Lister of Glasgow that the process of fermentation and decomposition upon which Pasteur's researches had recently thrown so bright a light, had an important bearing upon the surgery of wounds. With wonderful patience and sagacity he set to work to devise and perfect a system of treatment founded upon the recognition of this fact. His theory and the methods of treatment which he had recommended after a comparatively short period of incredulity and opposition were almost universally adopted. The result had been to revolutionise surgery. Not only had the mortality following grave accidents and the ordinary operations of surgery enormously diminished, but surgeons were now able to perform with safety operations upon the bones, joints, and serous cavities of the body, which would have appeared to the great surgeons of the past as little short of madness. During the sixty years in which the Queen had reigned, there had been no lack of distinguished men in every profession—warriors, statesmen, writers, and men of science—but he ventured to maintain that none of them had done half so much as Lord Lister for the removal of human suffering, and the saving of life both in this country and in every part of the civilised world. The Queen had already shown her appreciation of his signal services by raising him to the peerage. Men of science had made him the President of the Royal Society. Mr. Davies-Colley trusted also that before long the hundreds of thousands who owed their health or life to his discoveries would show their gratitude by founding an institution or raising some great monument in his honour. In the meantime, his professional brethren, most of them Members and Fellows of that College, had thought that they ought to do something to show how much they owed to his teaching. Within the walls of the College there were collected the portraits and busts of most of the great surgeons of whom this country was proud; and the most important function of the College was to promote the science of surgery. It seemed, therefore, to them that there was a peculiar fitness in obtaining a portrait of one who had done so much to advance scientific surgery, and in placing it here by the side of the portraits of John Hunter, Astley Cooper, and others who had done similar work in the past. With this object in view they had obtained the assistance of one of the most distinguished painters, Mr. Ouless, and he trusted that they would think the likeness was worthy to be added to the collection. It only remained for him to thank Lord Lister for the kind assistance he had given in carrying out their object, and in the name of the subscribers to present the portrait to Sir W. MacCormac, the President, as the worthy representative of the Royal College of Surgeons. He then unveiled the picture amid loud applause.

The President said that, in accepting for the College the portrait which had been presented in weighty and well-chosen words, he would like to mention that when he had visited Lord Lister, at the time when he was Professor in the University of Glasgow, he was much struck with the patience and perseverance he displayed in the conduct of his experiments and the wonderful faith he exhibited in the result of his discovery, which had since altered the whole of surgical procedure. In those days there was much opposition and doubt expressed, and it was said that the new antiseptic theories and practice were not true, whilst afterwards it was declared that they were not new. Since then they had been acknowledged and acclaimed throughout the world as both new and true, and a revolution in surgery of a most beneficent character had resulted. That this was so was easy to prove. For example, at the time when all scientific France, and all the world outside of it, celebrated the jubilee of Pasteur, Lord Lister's name was mentioned in the Sorbonne, and was hailed with such enthusiasm that Pasteur led Lord Lister forward by the hand and, perhaps to his inconvenience, kissed him before that great assembly. Again, a similar ovation awaited him at one of the meetings of the International Medical Congress in Berlin. Further, Lord Lister's statue had been placed over the portals of the great Policlinic Hospital at Rome. He would not dwell on the incalculable benefits which had flowed from the application of antiseptic principles to all surgery. Every surgeon must feel a debt of personal gratitude to the man who had enabled them to practise operations in surgery with safety heretofore unknown. Lord Lister had received many honours and distinctions, but he could well believe that there was none so dear to him as the esteem, the gratitude, and the confidence which his colleagues felt for him, not only in that College, but everywhere where surgery was practised. Countless congratulations had flowed in upon him on the occasion of his receiving from Her Majesty a great titular distinction. This honour was one upon which his brethren, the Fellows of the College, most heartily congratulated him, and yet "true dignity is never gained by place, and never lost when honours are withdrawn." He congratulated Lord Salisbury, himself a man of science, upon the discernment he had shown in selecting so worthy a representative as Lord Lister for the honour. It only remained for him to say, on behalf of the Fellows and Members of the College, that they were rejoiced to know that this portrait of a man who had done so much for his fellow men would hold a place of honour within those walls. In the name of the Council, it now became his great privilege and pleasure to accept the gift, which he considered an admirable work of art and an excellent likeness of their most honoured and distinguished colleague.

Lord Lister at once rose, and all present also rising greeted him with loud applause. He thanked the President and Mr. Davies-Colley for the exceedingly generous expressions they had used regarding himself. It would be affectation to deny that he felt this occasion to be one of extreme gratification. He could not but be conscious that it was a very high personal honour and a remarkable token of esteem and kindly feeling on the part of his colleagues in the noble profession of surgery; but he felt it still more gratifying as an indication of the general acceptance of the principles which he for so long a time had tried to establish and promulgate. He was glad that meeting could not be regarded in any sense as a mere meeting of congratulation on the distinction, great as he felt it to be, which it had pleased Her Majesty to confer upon him, because this project of a portrait had been started before that honour was thought of. This circumstance made the occasion still more markedly a tribute to the truth and importance of antiseptic principles, which were being more and more recognised throughout the profession and with increasing benefit to mankind. He was reading only that day a pamphlet recently sent to him by Dr. Coley, of New York, in which it was stated that he had done 360 antiseptic operations for the radical cure of hernia with only one death, which was not caused by the operation (for the site of the hernia was found *post mortem* to be perfectly healthy) but by the anæsthetic, ether, given to a child with weak lungs. Such an achievement was enough to cause gladness in the heart of any man who loved his fellow men. He could not help remarking that such results could not have been obtained by the mere recognition of the truth of the

mportance of antiseptic principles. Such success implied that the operator was not only convinced of the truth of those principles but also that he vigilantly maintained throughout his operations that earnest care which was necessary to prevent those principles from being contravened. He suspected that with regard to these matters there was still a great deal to be learned and done in the profession; a great deal of improvement was yet possible. It would ill become him, however, on that occasion to lecture his surgical brethren, a large proportion of whom, he was proud and pleased to think, did not require any such treatment. Rather let him endeavour to express his boundless gratitude to those who originated this movement, and to those who had contributed to it. This was indeed an honour such as in his wildest dreams he had never thought of. Words entirely failed him to express his thankfulness to his profession on this occasion. No person could say it his own portrait was a good one, but he could at least thank Mr. Ouless for the infinite pains which he had expended over every detail on the canvas. Lastly, he must express his thankfulness to the Council of that great College for deigning to accept the portrait.

The proceedings then terminated.

It was apparent to all present that the artist has produced an excellent likeness of Lord Lister, who is represented seated in an easy chair in a thoughtful mood. We understand that the portrait will probably be exhibited in this year's Academy at Burlington House.

## ROYAL COLLEGE OF PHYSICIANS.

AN extraordinary comitia of the College was held on Monday, March 29th; Dr. WILKS, President, in the chair.

Communications were received from the Royal College of Surgeons reporting certain proceedings of the Council of that body.

A communication was received from the General Medical Council enclosing a report from the medical department of the navy pointing out that three licentiates of the College had at a recent competitive examination shown deficiency in preliminary education. In the brief discussion which followed it was shown by the REGISTRAR that this was a matter with which the College could not deal. When any of the College examiners reported to him, and it happened about ten times a year, that a candidate had shown deficiency in this respect, it was his duty, and he invariably carried it out, to report the fact to the General Medical Council, at the same time telling them the place where the candidate in question had passed his preliminary examination, but here they could do nothing, as they had not the names before them.—Sir DYCE DUCKWORTH said that the subject of preliminary examination was receiving attention, and that it was intended to insist on much greater stringency in future.

A letter was received from a Member of the College resigning his diploma; the resignation was accepted.

In response to an invitation from the Sanitary Institute that the College should send two delegates to the forthcoming Congress to be held in Leeds in September, Drs. Barr and Chadwick were appointed.

Communications were received from the Medico-Chirurgical Society of Norwich and the Beckenham Medical Society communicating resolutions with reference to the medical officers of medical institutes.

### VENEREAL DISEASE IN BRITISH TROOPS IN INDIA.

The following report was received from a Committee appointed at the last comitia to consider the advisability of approaching the Government on the subject of the increase of venereal disease in India.

The members of the Committee were: Dr. Wilks (President), Sir William Priestley, Sir William Roberts, Dr. Church, Sir Dyce Duckworth, Dr. Payne, Dr. Bowles, Dr. John Anderson, Dr. Liveing (Registrar).

Your Committee beg leave to report as follows:

They have referred to a number of official and other reports and publications bearing upon the subject of the prevalence of venereal disease in the British army in India, and some of their number proceeded to Netley in order to inspect the numerous patients at present under treatment in the wards of the Royal Victoria Hospital with the view of personally ascertaining the nature and type of the disease from which they are suffering. On the day they visited the hospital it contained 752 patients, of whom 219 were syphilitic cases. The last troopship brought 312 invalids, among whom were 76 cases of syphilis. It is difficult to describe the painful impression made by the inspection of these sick soldiers. Almost every variety of constitutional syphilitic disease was represented, those of a virulent form being very numerous, and the results of the disease were in many cases deplorable, while the appearance of the sufferers was most pitiable. The records of the hospital show that the number of such cases has largely and steadily increased in recent years, and that almost all have arrived from India.

In order to discuss the statistical aspect of the question usefully and satisfactorily, it would be necessary to enter to some extent upon the recent medical history of the British army in India. It is not proposed to do so, nor is there any need for it, because a departmental committee of the India Office has just issued a special report on the subject. Your committee is quite satisfied from the evidence before it that the amount of syphilis among the European troops serving in India has enormously increased during the last few years, whereas whilst the Contagious Diseases Acts were in full operation (1872-1884) the amount remained almost stationary.

The extent of syphilis in the British army in India, and its rapidly increasing prevalence, are most serious. Whether this disease be regarded in relation to the large amount of inefficiency it causes in the British army, and consequent weakening of the military power at the disposal of the Government of India; to its present, and often life-long, effect on the health and constitutions of the individual sufferers and their future wives and children; or in relation to its remoter consequences on the well-being of future generations, it appears to us to be a matter of serious moment and to call for the gravest consideration.

The constitutional form of the disease is one of the most serious, insidious, and lasting of all the contagious diseases that afflict humanity. Other contagious complaints, for example, small-pox or scarlatina (which in this and other civilised countries are made the subject of legislative interference in the interest of the population at large), are transmissible only for a limited time and not by inheritance; yet the sufferers are separated during the course of the disease, and for such longer periods thereafter as experience has found to be necessary for safeguarding others from infection. With syphilitic disease it is far otherwise; it is the most lasting in its effects and most varied in the character of its specific manifestations; it frequently gives rise to consequences far removed from its initial symptoms, most seriously implicating and affecting various organs of the body; it complicates other diseases, its contagious properties extend over lengthened periods of time, during which the sufferers are often a source of danger to innocent people, while they may be, and frequently are, as parents, the source whence specific infection is transmitted to their children.

It follows, therefore, that if all reasonable measures to limit the spread of infection are justifiably taken in the case of other contagious or infectious diseases, they are far more necessary in the case of the disease in question.

About 13,000 soldiers return to England from India every year, and of these, in 1894, over 60 per cent. had suffered from some form of venereal disease. These figures are quoted as showing more forcibly than words can, the risk of contamination, not only to the present population of this country, but also to its future generations. Of these men a number die, or, remaining invalids, are more or less incapacitated from earning their own livelihood, and thus become a burden on the rates.

The far-reaching effects of syphilis are so serious, that it is of the first importance that the earliest indications of the disease should be medically treated without any loss of time; neglect of this measure tends to increase its virulence in all its stages.

As regards the unfortunate women who pursue their calling in a diseased condition, it is simply a matter of humanity to them that they should have the benefit of medical treatment, with rest and care in hospital, until they are cured.

In view of this lamentable prevalence of disease, your Committee makes the following recommendations and suggestions:

That as the civil, military, and medical officers in India are best acquainted with the local conditions now existing, and affecting this prevalence of venereal disease, so they are the best judges of the most efficient means of dealing with it. Your Committee, therefore, suggests that power be given to the Government of India to take such steps for the mitigation of this evil as these officers may advise.

That, for the protection of the healthy population, venereal diseases in both sexes—in the soldiers as well as the women—be subjected to the same restrictions as are other contagious diseases; such restrictions having for their object the detection and prevention of such diseases.

With regard to the unfortunate women, such measures necessarily include examination as well as treatment; and it may be desirable in India that the examination should be performed by persons of their own sex, who have been sufficiently trained and educated for the efficient discharge of this duty.

Syphilis requires prolonged constitutional treatment, during which th sufferers should be under frequent medical supervision, although not necessarily hospital in-patients.

Your Committee also suggests that no women should be employed as coolies in, or in the immediate vicinity of, the barracks; as there is evidence that such women are frequently the source of aggravated forms of venereal disease.

In making these recommendations your Committee considers that they should apply not only to the women, but also to the men with whom they consort; and is of opinion that it would be highly advantageous if medical officers in the army found some means, by elementary reading room lectures or otherwise, of acquainting young and inexperienced soldiers with the grave and far-reaching consequences that are likely to result from immoral conduct, as well as from the concealment of the primary symptoms of the disease, the early treatment of which is of the utmost importance.

The PRESIDENT said that at the last meeting, as far as he remembered, there was a unanimous feeling in the College on the subject, but since then he had received several letters taking the opposite view from people doubtless well meaning but ignorant; some had said that it was immoral even to talk

about prostitutes. He wished that some people who had written in that foolish strain could have accompanied the members of the Committee on the occasion of their visit to Netley Hospital, where they saw the wards filled with youths—almost boys—suffering from all the worst types of constitutional syphilis. He did not think that anyone could have gone there without feeling that something must be done, and it was the bounden duty of the College to do something to strengthen the hands of the Government in their endeavour to grapple with this question. He concluded a brief but eloquent address by quoting the opinion of Sydenham, the father of English medicine, on the duty of medical men in regard to syphilis.

The Senior Censor formally moved the adoption of the report.

This was seconded by Sir Dyce Duckworth, who urged that it was the business of the College to approach the Government and take a lead in the formation of public opinion in this matter, and to take care that the Government should not take any steps in it without being advised by the College.

Sir Joseph Fayrer said that the College had never performed a public duty of more importance, and he entirely approved of the report. Former experience had shown that the Contagious Diseases Acts were not sufficiently far-reaching for India, so that the mere re-enactment of them would not suffice to meet all the requirements of the case; more power must be given to commanding officers in charge of cantonments, magistrates, and others, and then very speedily great improvement would take place. These resolutions of the College would strengthen the Government in their endeavours to deal with a disease which was absolutely preventable, and which ought to be prevented.

Sir William Priestley said that the Indian authorities were anxious for some pronouncement to enable them to do something more effectual than simply to reintroduce the Contagious Diseases Acts. He had no doubt that some measure of compulsory examination of women in India would be necessary, as well as some pressure to send women when suffering from disease into hospital to be cured.

Dr. Playfair doubted the wisdom of suggesting that the examination of prostitutes suspected to be diseased should be entrusted to women, especially as the supply of such examiners was likely to be very limited.

Dr. Church, in reply to this point, said that he had the highest authority for stating that there were already in India a sufficient number of female hospital assistants to permit of some being sent to every cantonment.

The report was then unanimously adopted, and ordered to be transmitted to the Government without delay.

### Further Business.

A report from the Council on a subject referred to it was then taken into consideration, and after some discussion it was referred to the Council again.

On the motion of Dr. Cullingworth, seconded by Sir W. Priestley, a report from the Midwives Registration Bill Committee was adopted as follows:

1. That the College reaffirms the general principle that it is desirable in the interests of the poor to provide by statute for the examination and registration of midwives.

2. That the College gives its general approval to the Midwives Registration Bill, 1897, reserving to itself the right of criticising its details.

Reports from the Committee of Managements and Laboratories Committee were received and adopted.

## THE RIVERS POLLUTION PREVENTION BILL.

Under the Rivers Pollution Prevention Act, 1876, much useful sanitary work has been and is being accomplished throughout the country. Those with whom rested the responsible duty of putting the Act into operation were, however, in course of time face to face with a defect which, to say the least, limited the effectual checking of stream pollution to a considerable extent. Under Clause 3 it was enacted that:

Every person who causes to fall or flow, or knowingly permits to fall or flow, or to be carried into any stream, any solid or liquid sewage matter, shall (subject to this Act mentioned) be deemed to have committed an offence under this Act. Also that a person other than a sanitary authority shall not be guilty of an offence under this section in respect of the passing of sewage matter into a stream along a drain communicating with any sewer belonging to or under the control of any sanitary authority, provided he has the sanction of the sanitary authority for so doing.

Thus the householder was not liable to penalty because the sewage of the household was conducted to the stream along a sewer belonging to or controlled by a sanitary authority, and the sanitary authority was not infrequently exempt owing to the difficulty of proving that the sanitary authority offended "knowingly." This defect was remedied by a short amending Act passed in 1893, which provides that "Where any sewage matter falls or flows or is carried into any stream after passing through or along a channel which is vested in a sanitary authority, the sanitary authority shall, for the purposes of Section 3 of the Rivers Pollution Prevention Act, 1876, be deemed to knowingly permit the sewage matter so to fall, flow, or be carried."

Still, the Committees appointed for the prevention of the pollution of the Mersey and Irwell, and the West Riding of Yorkshire rivers, have in many respects powers (within the areas under their jurisdiction) not conferred in the Rivers Pollution Prevention Acts, 1876 and 1893; and the Rivers Pollution Prevention Bill now before us, prepared and brought in by Sir Francis Powell and others, has been drafted mainly with a view of making such powers generally applicable. Indeed, the memorandum which prefaces the Bill states that its principal object is to improve the law for preventing the pollution of streams by extending to county councils, joint committees, and rivers Boards in England, the main provisions of the Mersey and Irwell Act of 1892, and the West Riding of Yorkshire Rivers Act, 1894. In particular, the prohibition as to putting solid matter into streams is much more explicit and full; thus it is made an offence to put or throw, or cause to be put or thrown, or fall, or knowingly permit to be put or to fall, or to be carried, or to cause or knowingly to permit to be put in such a position as to be liable to fall or to be carried into any stream the solid refuse of any manufactory, manufacturing process, brickyard, mine, pit shaft, or quarry, or any ashes, cinders, or clinkers, or any building rubbish, or any sludge, or any solid sewage matter, or other waste or putrid solid matter. Therefore it would (should the Bill pass into law) no longer be necessary to prove that the solid matter deposited interferes with the due flow of the stream or pollutes its waters. As regards liquid sewage pollution, it is provided that under the Bill, on the application of any sanitary authority which, at the passing of the Act, is sending liquid sewage into streams, the Local Government Board may, by order, grant time to such authority for executing any works or doing any acts necessary to prevent the commission of the offence, and the time granted may be extended by subsequent order.

The law as regards pollution of streams by noxious or polluting liquids from manufactories will be but slightly strengthened by the Bill under consideration. The owner of works in existence at the date of the passing of the Rivers Pollution Act, 1876, cannot be deemed to have committed an offence if he show that he is using the best practicable and available means to render harmless the poisonous, noxious, or polluting liquid discharged into the stream. Perhaps mention should be made of a clause which seeks to prohibit the sending of polluted liquid from canals into streams. There is no clause corresponding to this in either the Mersey and Irwell Act or the West Riding Act.

According to the new Bill, offences may be prosecuted and penalties recovered in a summary manner before a court of summary jurisdiction. For the first offence, under the Act, the penalty shall not exceed £20, for a subsequent offence the penalty shall not exceed £50, and a penalty not exceeding £2 for every day on which the offence is continued after conviction. Either party in any proceedings may appeal against the decision of a court of summary jurisdiction to the court of quarter sessions, or against the decision of that court to the High Court. Or if any defendant shall desire that the questions involved in any summons shall be decided in the High Court, he may at any time, within three days after service of summons, give notice to the local authority of his desire, and shall be entitled, on application to the registrar of the district of the High Court in which he resides, to an order that the summons and all proceedings thereunder shall be removed into the High Court. Justices of peace, under the pro-

visions of the Bill, are not to be deemed incapable of acting in cases arising by reason of being members of a local authority, or ratepayers contributing or to be benefited by any rate out of which the authority's expenses under the Act are to be defrayed.

It is further provided in the Bill that the Local Government Board may, by provisional order made on the application of a county council or county borough concerned, constitute a joint committee or other body, representing all the administrative counties or county boroughs through or by which a stream or any tributary thereof passes, and may confer on such committee or body all the powers of a local authority under the Act, or such of them as may be specified in the order. Ordinarily, where there is no joint committee, every local authority is empowered to enforce the provisions of the Act in relation to any stream within or passing through or by any part of their district, in respect of any offence affecting their district, whether committed within or without their district. Subject to certain restrictions, proceedings may also be taken by any person aggrieved. It is further provided that any local authority may contribute towards the cost of a prosecution instituted by another local authority. Power of entry to take samples of effluents is provided for, as in the Mersey and Irwell Act. Ordinarily the expenses of the local authority are to be met as general expenses incurred in the execution of the Public Health Acts—or, in the case of a county council, as expenses incurred in the execution of the Local Government Act, 1888—but the Local Government Board is empowered to order in certain cases the rating of areas specially benefited.

The provisions of the Bill are satisfactory as far as they go, but they are certainly limited by such definitions as "solid matter" shall not include particles of matter in suspension in water, or "pollution" shall not include innocuous discoloration, which are reproduced from the definitions clause in the Act of 1876.

The great obstacle in the way of keeping out of rivers and streams polluting liquids from factories and works remains untouched. Should the Bill pass it will still be law that no one can be deemed to have committed an offence against the Rivers' Pollution Prevention Acts if he shows to the satisfaction of the Court having cognisance of the case that he has been polluting the stream since 1876, and that he is using the best practicable and reasonably available means to render harmless the noxious stuff he discharges into the stream.

## HAMPSTEAD HEATH IN THE JUBILEE YEAR.

We are glad to be able to state that the Home Office has decided that the cemetery which it was proposed should be established in close proximity to Hampstead Heath is not to be allowed. We congratulate the thousands who use that beautiful open space, and, we may add, we congratulate ourselves, for the articles which appeared in the British Medical Journal were copied extensively or used by the press, and awakened public interest at a time when there was danger that the cemetery company would obtain their desire before the public had become aware of their intention. At this jubilee season, when national rejoicing is largely taking the form of personal pecuniary generosity, it would make for the national health and well-being if attention was directed to the further extension of those open spaces which are limited in area, as well as to the establishment of other and smaller spaces in the thickly populated quarters of our large towns.

No one will credit us with indifference to the scheme started by His Royal Highness the Prince of Wales for the support of the great London hospitals, and we note with satisfaction that it bids fair to be adequately responded to; but it has always been the pride of our profession to exert its best influence to maintain health as well as to cure sickness, and there are but few direct or indirect forces so potent to this end as open spaces. In the large ones exercise can be taken, pure air can be breathed, wholesome interest in natural objects can be aroused and developed. In the smaller spaces, such as those opened and supported by the Metropolitan Public Gardens and Playground Association, which are, as a rule, to be found as veritable oases in those quarters of the great noisy desert of London, where the houses are more than usually close, and the streets more than usually crowded and narrow, the poor can obtain comparative rest and quiet and a sight of flowers which more than one country-bred person has felt to be "a good lotion for sore eyes."

Without, in any way, endeavouring to stem the flow of the money of the charitable into the boxes of the hospitals, we should yet like to see a counter plea put up on behalf of that other adjunct of the physician's labour—open space—and we believe that if this were done, a large number of persons whose interests and sympathies do not lie in the direction of supporting the sick limited to one class of society, would come forward and give liberally towards a plan fit to memorialise the longest English reign by giving to both sick and well, and to all classes of the community, increased opportunities of health, joy, and recreation. To some such scheme Lord Hobhouse and his influential Committee have given the weight of their names, but to make it more definite, and at the same time more closely connected with the medical profession, it has been suggested that special efforts should be made to obtain and present to the public the estate of our late valued colleague, Sir Spencer Wells, which we understand is in the market. The view from the flagstaff by the White Stone Pond on Hampstead Heath has been rendered immortal by painters and poets alike, but if Sir Spencer Wells's estate were used for building the beauty of the view would be gone, for the Heath itself is, just at that spot, so limited that it largely depends on Sir Spencer's grounds for much of its loveliness, as well as for the sense of air and space, which are nine-tenths of the sources of enjoyment. No sum has been definitely fixed for the purchase, but £25,000 would go far to obtain that portion which is more immediately important to the public, and if that sum could be raised among the public and his admirers, we should have at the same time a worthy tribute to one of the pioneers of our profession, and a fitting memorial of this year of loyal rejoicing.

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The assistant surgeons engaged at Her Majesty's prisons have petitioned the Commissioners for an increase of salary. The present maximum pay is £300 per annum, with free quarters or an allowance in lieu.

The Lord-Lieutenant of Cambridgeshire has given, as a jubilee gift to the county, a second £1,000 towards defraying the cost of the new operating theatre at Addenbrooke's Hospital. This is the third £1,000 Mr. A. Peckover has given to the same institution since he was appointed to the lord-lieutenancy.

Presentation.—On March 16th, at St. Saviour's Infirmary, East Dulwich, Dr. H. Elwin Harris, Medical Superintendent, was presented by the staff of the institution with a gold watch and chain, suitably inscribed, on the occasion of his resigning his apppointment. The presentation was made by the Rev. G. Elliott.

The *London Gazette* announces that the Duke of Westminster, Lord Lieutenant of the County of London, has appointed Frederic Hetley, M.D. and J.P., of Norbury Lodge, Upper Norwood, to be a Deputy-Lieutenant for the said County of London.

A course of ten lectures on Tropical Diseases will be given at the London School of Medicine for Women by Dr. Patrick Manson. The lectures will be given twice a week, commencing on Monday, May 3rd, at 6 p.m. The fee for the course, which will be open to all qualified practitioners, is 1 guinea, and the lectures will, as far as possible, be illustrated by cases.

Mutter Lectureship of the College of Physicians of Philadelphia, U.S.A.—The next course of ten lectures instituted by the late Professor Thomas Dent Mutter, M.D., LL.D., on some point or points in surgical pathology, will be delivered in the winter of 1899-1900 before the College of Physicians of Philadelphia. The compensation is 600 dols. The appointment is open to the profession at large. Applications, stating in full subjects of proposed lecture, must be made before October 1st, 1897, to Committee on Mutter Museum, John H. Brinton, M.D., Chairman, N.E. Cor. 13th, and Locust Street, Philadelphia, Penn., U.S.A.

## BRITISH MEDICAL ASSOCIATION.
## SUBSCRIPTIONS FOR 1897.

Subscriptions to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, APRIL 3RD, 1897.

## SOME ASPECTS OF THE PRINCE OF WALES'S HOSPITALS FUND.

With the eminently successful launching of the Prince of Wales's Fund in aid of the London hospitals, the hospital question, with all its difficulties and problems, may be said to have entered upon a new phase. This effort may be regarded as the first which has been made to promote a universal appeal to the public with the object of benefiting the admirable institutions concerned. The Hospital Saturday and Sunday Funds have undeniably been of immense service in the past, and each has done its share in rendering less burdensome the condition of financial depression into which the London hospitals have, perhaps unavoidably, fallen. But whether, in view of the special efforts which are now being made under the auspices of the Prince of Wales's Fund to raise money for the hospitals, the Hospital Saturday and Sunday collections will be continued, remains to be seen. It is somewhat doubtful, however, whether the philanthropic public have not a limited purse for charitable objects such as those under discussion, and if large and special donations be given to one charity other charities suffer from the depletion in the contributions available for such purposes. It is argued, therefore, that if the Prince of Wales's Fund be organised and successfully carried out upon the full basis upon which it is being promoted, the funds already existing for assisting the hospitals will undergo more or less diminution.

We believe, however, that it will ultimately prove to be greatly in the best interests of the hospitals that a powerful organisation such as that contemplated in connection with the Prince of Wales's Fund should without delay be established upon a firm footing. The absence of such an organisation has long been felt to be one of the weak spots in the system of hospital administration. Presumably the Fund will be independent of everybody and everything, that is to say that the administrators of it will act impartially in the best interests of the hospitals as a whole. Herein, then, appears to be the most important function in the discharge of which the organisation will be concerned. It may be hoped that the committee, hereafter to be formed, of the Prince of Wales's Hospital Fund will become the parliament of hospital finance in London. The assumption of this position would enable the authorities of the Fund to take in hand and deal with the scandalous abuse of the hospitals which exists. Regarded from this point of view, the great importance of the Prince of Wales's undertaking becomes self-evident. On every hand we find meetings held to advocate hospital reform; Commissions under Government to investigate and advise as to the best way of bringing the managers under control and reducing the financial abuses over which they preside; and reports by the Charity Organisation Society and other similar criticising organisations exposing the evils which prevail.

It is clear, then, that if with their duties of distributing the Fund, the committee combine those of criticising and enforcing reforms upon the hospital managers, some progress will in time be made towards solving the difficult question of hospital abuse. In this connection, it may be said that the work undertaken by the Hospital Sunday Fund has been good, but it was not complete. Regarding this body as the most influential organisation of the kind up to the present in existence, it would have been quite easy for them to have undertaken to bring pressure to bear upon the hospital managers with a view to the introduction of reforms for dealing with the abuse which prevails. But the Distribution Committee of the Fund refused emphatically to consider the resolution of Dr. Glover to raise the question. If the Hospital Sunday Fund, by virtue of its powerful position as the administrator of so much financial relief to the London hospitals, had extended its work and discharged the duty of calling upon the managers of hospitals to protect their institutions from being abused, by the introduction of certain reforms, there can be no question that much of the abuse now prevalent would have been suppressed.

But the abuse of the hospitals is by no means confined to the out-patient departments. The fact that this is so has not as yet been sufficiently appreciated or pointed out. Mention may be made here of two instances of this abuse, both of which occurred recently to a prominent practitioner in the West End. A lady, who had always been accustomed to pay a guinea a visit, consulted him with respect to an illness from which she was suffering, and she was told that it would be absolutely necessary for her to undergo an operation forthwith. A fee of 15 guineas was agreed upon, to include the operation by a surgeon and the after-attendance, and further arrangements were made for the treatment to be carried out in her own house in the West End. The medical man, however, heard nothing further for some time. At length his patient called upon him, and then informed him that she had been persuaded by her friends to go to the —— Hospital. She presented herself as an out-patient in the ordinary way, was in due course admitted into the hospital; the operation was performed, and the whole transaction cost her nothing. The object of her second visit to her medical man was that of seeking his opinion as to whether or not the operation had been properly performed.

The second case soon after this was a more serious one. The patient readily agreed to pay 25 guineas for the operation and after-attendance. The result however, was the same as in the former instance. The patient applied at a hospital; no questions were asked; she was admitted to the wards, the operation performed, and everything necessary was done for nothing at the expense of the charitable public.

It is, however, needless here to amplify further these cases. They belong to the category of the undoubted defects in the system under which hospital charities are admin-

istered. There is no use in attempting to ignore these facts. The abuse exists, and will continue to do so unless and until some stringent reforms are introduced in this regard. An opportunity, therefore, is now open to the authorities of the Prince of Wales's Fund to commence some cleansing operations. Let the public place all their confidence in the Fund initiated by His Royal Highness. Let them give of their substance, willingly and to the full extent of their means, in the expectation, among other things, that His Royal Highness will place himself at the head of a movement, by means of his Fund, of introducing reforms into the administration of the London hospitals, by which some definite steps will be taken to suppress the abuses of these charities which have now become notorious.

Those interested in this subject will naturally regard with close attention the list, when it is decided upon, of the gentlemen who will be chosen to form the committee of the Prince of Wales's Fund. This will be the first step in its definite organisation, and it will be a good augury for the Fund if the list in question meets with universal approval. Upon this committee, of course, the Charity Organisation Society, like other similar bodies, should be represented, and every effort made to obtain as strong a combination as possible of those who have shown by their previous experience and work their determination to promote the best interests of the London hospital charities.

## VENEREAL DISEASE IN THE EUROPEAN ARMY OF INDIA.

We commented last week on two important official reports on this subject, namely, the report of the Departmental Committee which was appointed last November by the Secretary of State for India, under Lord Onslow, and a memorandum by the Army Sanitary Commission. These documents fully confirm the impression which has been gradually gaining strength in this country regarding the extreme gravity of the situation, and the urgent necessity which exists of prompt recourse to preventive measures. The health and efficiency of the army are being seriously compromised by these contagious diseases, and the mischief is by no means confined to the army, but is being spread by the marriage of discharged soldiers among the community at large to such an extent that constitutional deterioration and hereditary enfeeblement of a considerable section of the population of Great Britain are taking place.

Another addition has, since we wrote, been made to the large mass of evidence and discussion which is being accumulated on this question. We refer to the report of a committee which was appointed by the Royal College of Physicians on February 23rd last, "to advise the College on the desirability of making a formal declaration of opinion to the Government in favour of the re-enactment of the Contagious Diseases Acts, or some such modifications of them as may prevent the spread of these contagious diseases." This report will be found *in extenso* on another page. Some members of the committee visited Netley Hospital and found, among 752 patients, no fewer than 219 syphilitic cases. Many of the cases were of virulent type, and their terrible condition is vividly described in the following extract from the report of Lord Onslow's Committee: "Recovery is hopeless, and what to do with them has become a question of serious difficulty. It is impossible to send them to their homes; their friends refuse to receive them. Death alone can solve the difficulty, and release them from their suffering."

The Committee very properly lays stress on the extent of syphilis in the army. Other venereal maladies occasion inconvenience and suffering, but it is the prevalence and effects of syphilis to which attention ought mainly to be devoted. "The constitutional form of the disease is one of the most serious, insidious, and lasting of all the contagious diseases that afflict humanity." The remarks made in amplification of this indisputable statement possess all the force of solid fact, and the great importance of the early treatment and of the early detection of syphilis to that end is pointedly declared. The recommendations and suggestions offered by the Committee are reasonable and must command the assent of those who have given enlightened thought to the matter. The report is worthy of the distinguished and influential body from which it has emanated, and ought to carry weight.

What the outcome of all this agitation will be it is difficult to forecast; but it seems probable that sentimental opinion will have to yield to humanitarian considerations and the instinct of self conservation and common sense. Lord Roberts is reported to have recently spoken as follows to an interviewer on this subject: "I regard it as a great pity that the Indian authorities should have been interfered with by the House of Commons in this matter. It is absolutely necessary to preserve the health of European soldiers in India, and the Government of India should have power to deal with this particular disease, and that in the same way as other loathsome diseases. A man or a woman believed to be suffering should be examined, and if found to be diseased should be required to go to hospital or to quit the cantonment." This puts the case in a nutshell, and tersely states the ideas which are gradually gaining strength in the public mind. The mischief which is now so painfully in evidence arose from a former Secretary of State for India having under Parliamentary pressure removed venereal diseases from the list of contagious maladies, to prevent which cantonment authorities were empowered by the law to take action. Restore these diseases to that list and half the battle is won. There is no need to resort to measures which may bear the semblance of pandering to the lusts of a vicious soldiery, or of outraging continent and self-respecting men, and occasionally perhaps virtuous women, by systematic inspection. The principle of the new departure is simply that of the notification of infectious diseases and the segregation and treatment or the expulsion of the infected. It is undoubtedly capable of being worked humanely and decently, and to that end it is contemplated to appoint female hospital assistants to examine and treat suspected or diseased women. At the same time, other influences and measures can be carried out to the end of reducing this suffering and disablement. The cantonment police can take measures to exclude that great element of danger which arises from the hovering of women in the neighbourhood of barracks; places can be declared out of bounds; recreation and sports can be encouraged; temperance promoted; perhaps marriage facilitated, and moral reform agencies put in operation.

Those who advocate the adoption of hygienic measures to restrain the communication of these contagious maladies are

by no means hostile to the employment of every possible religious and moral influence which is calculated to check their causation, but the history of mankind in every country and clime has proclaimed the futility of such influence as preventives of this class of contagious disease, and a comparison of the statistics of other armies with those of our own place the efficacy of hygiene on a basis of demonstration. It is contended that because the diminution of venereal disease in the army both at home and abroad was not more marked during the period in which the Contagious Diseases Acts were in force, therefore that the rules and proceedings resorted to under this law were inutile. It is even argued that the effect of these measures was to increase venereal disease, and the great augmentation which has taken place in India since the abolition of all preventive measures has been attributed to the continued operation of their pernicious influence. These are ingenious perversions of the plain meaning and teaching of these statistics. The fact is that the figures cover very large areas and a great diversity and complexity of conditions, and that general conclusions drawn from them are extremely vague and doubtful. The only certainty about them is that they represent a large and increasing amount of preventable disease.

It may also be conceded that the measures adopted to reduce that aggregate were inefficient, probably because they were both partial and insufficient. To ascertain the truth as regards the efficacy of these measures, it is necessary—as was recently pointed out by Surgeon-General A. J. Payne in a letter to the *Times*—to undertake a special inquiry, and to study both statistically and otherwise the conditions and experiences of special places and special bodies of men under various kinds and degrees of protection.

To abandon all efforts to control and restrict these evils because the efforts already undertaken were not so successful as was anticipated or might be wished seems to be the very height of unreason and folly.

## THE MONTREAL MEETING.

We publish in another column the official programme of the sixty-fifth annual meeting of the British Medical Association. It will be observed that a general meeting of the members for the transaction of business, the consideration of reports of the Council and committees, will be held in Exeter Hall, London, on July 27th, and on the conclusion of this business the meeting will be adjourned to August 31st, when the Association will reassemble at Montreal. On Tuesday, August 31st, after morning service in the cathedral, Dr. T. G. Roddick, of Montreal, President for 1897-98, will deliver his address, and on the afternoon of the same day Dr. William Osler, formerly a distinguished student and professor of McGill University, Montreal, and now the professor of medicine in the Johns Hopkins University at Baltimore, will deliver the Address in Medicine. Those who know Dr. Osler's wide acquaintance with the practice and the literature of medicine will look forward to an intellectual treat, and will, we are well assured, suffer no disappointment. In Mr. Mitchell Banks of Liverpool, who is to deliver the address in surgery on the following day, British surgery will be represented by one who has won distinction in the practice of that art but in the conduct of the public affairs of the profession.

Arrangements have been made for eleven Sections which have now been constituted with the necessary officers. It will be seen that in accordance with the distinctly expressed desire of our Canadian brethren, presidents for the various Sections have in the majority of cases been selected from among British physicians and surgeons, but among the officers of Sections Canada is largely represented, though as far as possible it has been arranged that one of the secretaries of each Section shall be resident in the United Kingdom.

Of the arrangements for the convenience of members attending the meeting at Montreal, we have already on several occasions given full particulars, and further details will be published from time to time. The work of the Canadian executive committees, however, has already been so thoroughly carried out that little can remain to be added. The accommodation afforded by hotels of Montreal is ample, and the Excursions Committee have made most comprehensive arrangements for affording to members attending the meeting an opportunity of seeing some of the most interesting scenery not only in the immediate surroundings of Montreal, but also along the Canadian Pacific Railway, which traverses the Rocky Mountains, as well as in other distant parts of the Dominion.

With regard to ways and means, it may be said generally that special terms have been arranged with most of the steamboat lines and railway companies, and that it will be possible to attend the meeting in Montreal, and to take an agreeable holiday on the St. Lawrence and in other parts of Canada, at rates which a few years ago would have seemed incredible. In making these arrangements, our Canadian brethren have not overlooked the requirements of members of the Association living in the distant colonies, for they are rightly desirous that the truly imperial character of the Association should be specially recognised upon this the first occasion on which it has met outside the bounds of the United Kingdom. We are, we know, only giving voice to their aspirations when we say that a specially warm welcome will be given by them to members of the Colonial Branches of the British Medical Association.

Dr. T. Lauder Brunton, F.R.S., has accepted an invitation from the Executive Committee to give one of the general addresses at the forthcoming Congress at Moscow.

The progress of sanitation during the Queen's reign is to be appropriately represented by a special section in the Imperial Victorian Loan Exhibition at the Crystal Palace.

Since 1889, up to the present time, the population in the casual wards in London has grown from 34,000 to 128,000, and this in addition to the enormous growth in the number sleeping in "shelters."

The Queen has promised a donation of £100 to the Building Fund of the Royal London Ophthalmic Hospital, and the Prince of Wales will lay the foundation stone of the new building now in course of erection in the City Road shortly after Easter.

Among the pictures which will be most attractive to members of our profession at the next Academy will be the portrait of Dr. Wilks, by Mr. Percy Bigland. Seated in an armchair, in his robes of office as President of the College of Physicians, with a table at his side, he is facing the spectator with a kindly expression. The likeness is a good one; the painter had a good subject, and we think he has succeeded

in doing both himself and his subject justice. We hope that ultimately the picture may find a permanent resting place within the portals of the College.

A discussion on the Notification of Measles will take place at the sessional meeting of the Sanitary Institute, on April 7th. The chair will be taken at 8 p.m., by Dr. E. B. Forman, Chairman of the Public Health Committee of the London County Council, and the subject will be introduced by Dr. H. R. Kenwood, M.O.H. Stoke Newington.

The Chair of Anatomy in King's College, London, vacant by the resignation of Dr. Curnow, has been filled by the election of Mr. Alfred W. Hughes, until recently Professor of Anatomy in the University College of South Wales and Monmouthshire, at Cardiff. Professor Hughes, who was a distinguished student of the University of Edinburgh, was Lecturer on Anatomy at Surgeons' Hall, Edinburgh, when on the establishment of the medical school at Cardiff in 1893, he was appointed the first professor of anatomy there.

## PUBLIC VACCINATORS AND SUPERANNUATION.

We are informed that the Council of the Poor-law Medical Officers' Association have instructed their solicitors to obtain counsel's opinion in reference to public vaccinators as affected by the Superannuation Act, 1896.

## THE NEW ROYAL COMMISSION ON THE LONDON WATER SUPPLY.

It is understood that the Royal Commission to be appointed to consider the question of the water supply of London will be a small one, and that, with the exception of one or two Parliamentarians, it will consist of experts almost exclusively. The terms and reference to the Commission have been announced by Mr. Chaplin, and will be found in our Medico-Parliamentary columns.

## COUNTRY TYPHOID.

A small outbreak of typhoid fever has recently been investigated by Dr. Thresh, medical officer of health to the Essex County Council, which illustrates on the one hand the utter recklessness with which matters of drainage and of water supply are too often managed in country districts, and on the other shows how little dependence can be placed on the chemical examination of isolated samples of drinking water as an index of its suitability for dietetic purposes. In November and December last two cases of typhoid fever occurred in Halstead, both in the same house, but in quite a different part of the town from the subsequent cases. They were removed to the new isolation hospital. On December 28th a man who had not left the town for some months was attacked, and there was this peculiarity about the water supply of his house—that it was derived from a spring on Mount Hill, which supplied no other house in the town. It did, however, supply a drinking fountain. Between January 22nd and 30th four children residing on Mount Hill were notified, and they all admitted drinking the water from the fountain in going to and from school. As this water had been observed to be turbid after a heavy rainfall early in December a sample was sent for analysis, with the result that it was reported to be "all that could be desired," and of "considerable organic purity." Notwithstanding the favourable report of the analysis, however, Dr. Roberts, the medical officer of health, promptly plugged up the fountain, and thereby undoubtedly prevented what might have been a very serious outbreak. On further search it was discovered that the drinking fountain and the house where the affected man lived were supplied with water from a subsoil spring on the side of the hill. From its source it was conveyed, by means of ordinary old-fashioned land drains, to a small cistern near the fountain, the surplus water going to some works close by, where the affected man lived. In its course it was carried under the road, just below the main sewer, which consisted of glazed earthenware with clay joints. The length of pipe immediately over the water carrier was broken into several pieces, and the three adjacent pipes had broken or cracked sockets. Now this sewer, besides accommodating a few cottages on Mount Hill, conveyed the sewage from the new isolation hospital, to which the first cases of typhoid fever from a distant part of the town had been removed. There was in fact an almost exact repetition of what happened at Over Darwen in 1874, when upwards of 2,000 persons out of a population of 21,273, were attacked with typhoid fever from the fouling of a broken water conduit by sewage from a house in which there was an imported case of typhoid fever. No doubt in both cases temporary fouling of a usually pure water had often occurred without leading to much mischief, but so soon as the pollution contained the specific infection the disease broke out. Since Dr. Thresh examined the place three more cases have occurred amongst children, all of whom had drunk water from the drinking fountain. One of them, in fact, admitted that he had, at some little trouble, withdrawn the plug which Dr. Roberts had inserted. Halstead is to be congratulated on the independent course taken by its medical officer. We wonder, however, how many other country sanitary authorities have arranged their isolation hospitals so as to drain into their water supplies.

## GAG BEARING REINS.

The Duke of Portland has directed public attention anew to this subject, which at various times during the past fifty years has called forth severe censure from lovers of animals. Observation in our parks and principal West End thoroughfares will at once convince the observer as to the common use of these "instruments of torture" and of the opportuneness of the remarks of the Master of the Horse. That bearing reins are under comparatively rare circumstances necessary to the control of the animal and the safety of the public cannot be disputed; and that properly adjusted bearing reins in certain cases add much to the comfort of the driver and detract little from that of the horse is beyond doubt. Some animals having free use of head and neck become dangerous, while others have the habit of carrying their heads so heavily as to become a burden to the driver. These, however, are the exceptions, and in the vast majority of cases in which tight bearing reins are used no such arguments are tenable, and the cruelty perpetrated can only be regarded as a sacrifice to fashion or indifference. Bearing reins exercising any restraint over the animal are rarely used by the true horseman who drives himself for pleasure. Usually they are fads of the coachman, but the responsibility rests with the owner, and the cruelty accompanying their use might well exercise some of the vigilance of the Society for Prevention of Cruelty to Animals. With the painful restraint of head and neck movements there is corresponding loss of that pacefulness so fascinating to the true lover of animals. Indeed, the tight, cruel, gag bearing rein is at once evidence that the animals wearing them are not the property of a horseman, or one who gives due consideration to his property.

## POTTERY WORK AND LEAD POISONING.

In the British Medical Journal of March 27th we drew attention to Lead Poisoning and Employers' Liability in Germany. The death of a boy, aged 13 years, from acute plumbism, in the Potteries, has supplied an opportunity to the daily press for again dilating upon the extremely dangerous nature of a trade which kills in four months' time. The lad, never very robust, was employed as a "dipper" in a pottery, and whilst going to the factory was suddenly seized with a convulsive fit, followed by a succession of eclamptic seizures, in one of which he died. Other signs of lead poisoning were present, such as wrist-drop and a blue line on the gums. At the inquest the coroner described as death traps the dipping houses of potteries in which children of

tender years were allowed to work. It has again and again been shown how rapidly young people succumb to the harmful influences of lead, and how desirable it is that the age of workers in such trades should be raised, and only those allowed to labour therein who are healthy, cleanly, and well fed. Raising the age alone is not sufficient. The question of lead poisoning was carefully investigated some time ago by a Home Office Committee, and their report was published. The large number of deaths from plumbism within the last few months is the strongest proof for the necessity of the action taken by the late and the present Home Secretary, and ought to strengthen the hands of Sir M. W. Ridley in carrying out the recommendations embodied in that report, and those made by the Potteries Committee. It is not creditable to any industry that death should follow after four months' exposure, and employers should lose no time in placing those whose circumstances oblige them to labour in such an occupation beyond all possible risk to health and life.

## THE ARMY MEDICAL STAFF IN PARLIAMENT.

Captain Norton, M.P., has done a public service in drawing attention in the House of Commons to the condition of the Army Medical Service. It is by no means the first time that Captain Norton has shown his interest in departmental affairs, and army surgeons owe him a debt of gratitude. The reply given by Mr. Brodrick to the points embodied in the question put to him by Captain Norton causes very considerable surprise and no small degree of incredulity. It is inexplicable how the Army Medical Service can be now pronounced sufficient if mobilisation of army corps were ordered, seeing that the department is and has been undermanned and below its establishment for a considerable time, and that candidates to fill the vacancies announced during the past year are not forthcoming. It will be interesting to know what are the "one or two other matters affecting the service" that "are still under consideration" which the Under-Secretary of State for War refers to in his answer to Captain Norton. We trust they are the formation of a "Royal Medical Corps" and recognisable titles giving army rank. Till these are granted the position will not be hopeful.

## LORD LISTER AND THE COLLEGE OF SURGEONS.

Those gentlemen who gave Lord Lister's portrait to the Royal College of Surgeons have done a good work that will abide. Long after the present generations of surgeons are gone, men will see for themselves what he was like who made a new thing of surgery. But we hope that the picture will be put in the hall or on the staircase of the College, not in the Council chamber. It was given not to the Council but to the College; and it should be hung where every Member of the College, and every candidate for the Membership, may see it. The Council might take for the Council chamber that group of their predecessors which now hangs in the hall, and might give us Lord Lister's portrait in its place. For this is the whole purpose of the gift, that it should be set for ever in the sight of all men who are or desire to be Members of the College. Some of us may still remember with what awe, when we were students, we looked at the portraits and the sculpture in the College: how we felt the hopeless difference between their quiet authority and our frantic anxiety to satisfy the examiners, between their everlasting success and our immediate fear of failure. The faces of Paget, Lawrence, and Marshall—no student could be without some sudden touch of reverence as he stood before them. Lord Lister's portrait, with that look of "toil unsevered from tranquillity," which is the best feature of every good man's face, would approve, encourage, or console many students yet to be born and examined, appearing even to sympathise with their haste to enter an overcrowded profession. Mr. Davies-Colley spoke of the fitness of placing Lister side by side with John Hunter and Sir Astley Cooper, but neither of them revolutionised the daily work of surgeons; there is Listerism, but not Hunterism or Cooperism. What Lister has done is what we all do; "all can raise the flower now all have got the seed." And because he represents not great achievements that we cannot perform, but one great principle that we all obey, his portrait should be set where every Member of the College, every student, and every visitor may see it and honour him.

## INCREASE OF INFLUENZA IN LONDON.

There was a marked further rise during last week in the number of fatal cases of influenza recorded in London. The deaths directly referred to this disease, which had increased from 13 to 24 in the four preceding weeks, further rose to 33 during the week ending March 27th, and exceeded the number registered in any week in the metropolis since February, 1895. In the corresponding periods of the past seven years, during which influenza has been more or less fatally prevalent, the deaths attributed to this disease have averaged 47. Of the 33 deaths from influenza recorded in the metropolis last week, 9 were of children and young persons under 20 years of age, 6 of persons aged between 20 and 40 years, 6 of persons between 40 and 60, and 12 of persons aged upwards of 60 years. The disease appears to be especially prevalent in Kensington, St. Luke, Brixton, and Streatham. Notwithstanding the continued increase in the deaths from influenza, the mortality from diseases of the respiratory organs in London continues very low; the deaths referred to these diseases, which had been 344 and 317 in the two preceding weeks, further declined to 312 last week, and were as many as 164, or nearly 35 per cent., below the average.

## THE BUBONIC PLAGUE.

A Bluebook has just been issued containing papers relating to the outbreak of bubonic plage in India, with a statement showing the quarantine and other restrictions recently placed upon Indian trade up to March, 1897. The papers comprise telegrams, letters, and despatches which have passed between the India Office and the Governments in India, with a letter from Mr. D. W. Lauchlan Slater, F.I.A., manager and actuary of the Oriental Government Security Life Assurance Company, Limited, to the president of the Venice Sanitary Conference.

## "MEMBRANOUS CROUP" OR "DIPHTHERIA."

The Metropolitan Asylums Board recently asked the opinion of the Local Government Board as to the question whether, having regard to the fact that in the new edition of the *Nomenclature of Diseases* recently published by the Stationery Office with the authority of the Royal College of Physicians "membranous croup" is stated to be a synonym for laryngeal diphtheria, the Board consider that patients certified as suffering from "membranous croup" without qualification may properly be admitted into the hospitals of the Asylums Board. The Local Government Board replied that the term "membranous croup" *per se* is not sufficiently definite, inasmuch as membranous inflammation of the larynx may arise from causes other than diphtheria. This decision would appear to be in accord with the classification in the *Nomenclature*. It may be observed that the *Nomenclature*, which was compiled by a very representative committee appointed by the College of Physicians, to which Dr. Frank Payne acted as Secretary, consists properly of the names placed first immediately after the numbers. Synonyms are added only for the sake of explanation, and their mention only implies that such a term is sometimes, or by some persons, applied to the disease in question. It is expressly stated in the explanatory note to the index that synonyms are not to be employed in the registration of diseases. The entry, "laryngeal diphtheria, synonym membranous croup" implies that all diphtherial cases are to be returned as laryngeal diphtheria, and not as membranous croup. The editors of the *Nomenclature*, it would appear, did not feel themselves justified in deciding absolutely the disputed question whether there is or is not a membranous inflammation of the larynx

apart from diphtheria. Consequently in that part of the list which deals with diseases of the larynx they have provided a place for the return of non-diphtherial membranous croup. Should such cases occur, they should be classified as "membranous inflammation of larynx or croup," and such a return would imply that the cases are considered to be distinctly not diphtheria; if considered to be due to diphtheria, it is expressly directed to be returned under that head. The simple return "membranous croup" is not verbally recognised in the *Nomenclature*, but logically it should be held to mean that the case is not one of diphtheria. Cases of membranous inflammation with respect to which the medical man making the return cannot make up his mind whether they are diphtherial or not should be returned as cases in which the diagnosis is doubtful.

## THE OWEN MEMORIAL STATUE.

MR. THOMAS BROCK'S fine bronze statue, more than life-size, of the late Sir Richard Owen, the eminent palæontologist, has just been placed in the central hall of the Natural History Museum, Cromwell Road. It is a fine and characteristic statue on a pedestal of Numidian marble, and stands facing Boehm's seated figure of Darwin. It represents Owen at the age of about 72, wearing the gown of the Hunterian Professor of the Royal College of Surgeons, in which capacity he was occupied for so many years of his earlier life in the care and development of the collections in the museum in Lincoln's Inn Fields. In his left hand Owen holds a fossil bone, probably the femur of a "Moa" (*dinornis elephantopus*), the great wingless bird from New Zealand, which he first described and with which his name will always be popularly associated in connection with the generally-accepted statement that Owen reconstructed the entire skeleton of this bird from the evidence of its existence which he obtained from this single bone when it was brought to him. The statue is the result of the movement which originated at the memorable meeting held in the rooms of the Royal Society on January 21st, 1893, the Prince of Wales in the chair, when it was unanimously resolved "that the eminent services of the late Sir Richard Owen in the advancement of the knowledge of the sciences of anatomy, zoology, and palæontology should be commemorated by some suitable memorial." A committee was formed consisting of the Prince of Wales, the Duke of Teck, Lord Kelvin, the Presidents of the leading scientific Societies, the late Mr. Huxley, Sir James Paget, Lord Walsingham, Sir William Flower (who acted as Treasurer), and many other distinguished scientific men. Sufficient funds were subscribed by the public for a bronze statue, and Mr. Brock was entrusted with the work.

## ENGLISH THERMOMETERS.

IN the course of the public discussion as to the proposed Physical Laboratory, the need for the establishment of which has been so strongly urged upon the Government by a representative deputation of the Royal Society, it was stated that no high-class mercurial thermometers are now made in England, but that they are made in Germany. Mr. James J. Hicks has taken up the cudgels in defence of the English manufacturers, and asserts, with many cogent reasons in support, that the very reverse is the case, and Professor Rücker, to whom the statement is attributed, has since explained that the "phrase 'high-class thermometers' was not intended to apply to instruments used for ordinary purposes, or even for meteorological or clinical work;" he intended to refer to "hydrogen thermometers," which he and the Kew Committee have "to obtain from abroad," and he wishes "that such thermometers were manufactured in England." Speaking more especially of clinical thermometers for which Mr. Hicks and other English makers are renowned, the tubes being made from Whitefriars glass, it may fairly be said that for clearness and evenness of bore they leave nothing to be desired. From many years' experience of them we can say that they are worthy of unqualified praise, many of them, and these we are informed include some fifty per cent. of those sent out by Mr. Hicks, do not require any correction at all, so that they are in fact, so far as the test is applied, perfect. In order to make allowance for variation which time produces, the best English makers do not have their thermometers graduated until they have been stocked a year or more. Our experience of German thermometers has not been so satisfactory. We have known the Kew Observatory refuse to give certificates for clinical thermometers of German make, which were on the duplicate scale of Centigrade and Fahrenheit, because they were too inaccurate to pass muster with any allowance for correction. Still we know that latterly German thermometers have much improved, and those verified at the Reichsanstalt, Charlottenburg, are greatly in advance of what were formerly supplied. The German nitrogen thermometers leave little to be desired for chemical work.

## THE STATISTICS OF GALL BLADDER SURGERY.

WE find on further investigation that some of the data given in our article on this subject in the BRITISH MEDICAL JOURNAL of March 27th may, if not supplemented by other facts, give rise to a certain amount of misconception. By a slip of the pen it was stated that Dr. Murphy had himself performed 67 cholecystenterostomies with but 3 deaths. It should have been said that he has collected and recorded these cases, which were done by the method and with the apparatus devised by him, and which include the work of several other surgeons besides himself. The figures relating to Kehr's operations also require a word of explanation. He divides cholecystotomy into two categories, complicated and uncomplicated, and it is in cases coming under the latter head that his mortality has been less than 1 per cent.; in complicated cases it is quite high, much higher in fact than Mr. Mayo Robson's. The latter has published, as a supplement to his recent lectures, a laboriously and carefully compiled abstract of the 170 cases of hepatic and biliary disease in which he has operated. We regret that want of space prevented the insertion of this in the JOURNAL, as it forms a most valuable contribution to the statistics of the subject.

## BARRACK SCHOOLS AND THE HOUSE OF COMMONS.

IT is not often that the House of Commons is sufficiently roused on a non-party question to induce its members to present a memorial, but this occurred on March 25th, when 100 members of Parliament, headed by Mr. Ernest Flower and Mr. Pickersgill, presented a document to the President of the Local Government Board, praying that the official promulgation of the proposed Sick Children's Asylum Board should be postponed until Parliament has had an opportunity of discussing the matter, the grounds of the demand being that the Board suggested is in defiance of the majority report of the late Departmental Committee, and tends to perpetuate the barrack school system. To this memorial every Unionist London member put his name, as well as representatives of all shades of public thought. In reply, the Local Government Board vote on account was taken first—instead of last as arranged—on the following Friday, and for four hours the House debated the new order, with the result that, being hard pressed by Sir Albert Rollit, Mr. Ernest Flower, and Mr. Geoffrey Drage from his own side, and strongly condemned by Mr. Mundella, Mr. Atherley Jones, Mr. Samuel Smith, and others from the Opposition side of the House, Mr. Chaplin asserted that he had seen reasons to withdraw from his first proposal to establish a new Board to deal with diseased and deficient children, and intimated that he now purposed to place them under the Metropolitan Asylums Board. As we said in a recent article, we consider this course less, but only a little less, unsatisfactory than the establishment of a new Board, inasmuch as it does nothing to remedy the conditions which exist in aggregated schools, and which alone necessitate so much special provision for an undue amount of sickness.

The only course that now remains for practical politicians is to press the Government to extend the duties and responsibilities as well as powers of the Metropolitan Asylums Board to certain other classes of children who need special arrangements for the maintenance of health or the prevention of disease. We refer to those in the probation wards and those now often freely mixing with the adults in the London infirmaries and workhouses.

## THE VISIT OF THE DUKE OF YORK TO HASLAR HOSPITAL.

On March 31st, the Duke of York visited Haslar Hospital to see the sick and wounded from the Benin Expedition now under treatment there. On his arrival at the hospital the Duke was received by Sir James Dick, Medical Director-General: by Inspector-General Alexander Turnbull, who is in charge of Haslar; by Deputy Inspectors-General Coppinger and Bolster: and by Fleet-Surgeons Tyndall and Gimlette. His Royal Highness first visited the wards occupied by the invalids from Benin, and received from Inspector-General Turnbull the assurance that all his patients were progressing as favourably as could be expected, including Private T. Samuels, who was admitted to hospital in a very critical condition, suffering from a bullet wound and from fever; and also Chief Engineer Hobbs, who was severely wounded towards the end of the operations. The Duke afterwards visited the pensioners, who number eighty, and subsequently lunched with Inspector-General Turnbull and the medical staff. Before leaving, the Duke of York expressed to Inspector-General Turnbull his great satisfaction with the progress the patients were making, and his high appreciation of the admirable condition in which the wards were maintained.

## THE PROTECTION OF INFANT LIFE.

Lord Denbigh's Bill for the Protection of Infant Life passed the second reading in the House of Lords on March 29th. As no opposition was offered by the Government it may be that the chances are good for the Bill to become law in the course of the session. However, as we have already pointed out, the Bill will altogether fail to achieve its object if passed in its present form. There must be no concession with respect to the exclusion of one child from the operation of the Act: this fatal error of the Act of 1872 must not be repeated. It was only in deference to the wishes of certain philanthropic persons that the clause in the Act of 1872, enabling a baby farmer to keep one child for hire independently of the law, was inserted. Apparently for the same reason this clause has been retained in Lord Denbigh's Bill. But it needs no demonstration to show that had the Act of 1872 been made to apply to all children, a baby farmer like Mrs. Dyer could not have practised her nefarious trade. We earnestly trust, in view of the extreme importance of the matter, that in the Committee stage of this otherwise excellent Bill this objectionable concession, to which allusion is here made, will be removed.

## WORKHOUSE INFIRMARY NURSING.

In the seventeenth annual report of the Workhouse Infirmary Nursing Association we note two facts: that whilst there is an increasing demand for trained nurses for the workhouse infirmaries, there is a falling off in the number of women who apply to fill these posts; and, of those who do apply, the hon. secretary says "we have found the class of applicants deteriorating, and have been reluctantly compelled in some cases to select candidates below the standard we desire to train." The report includes one from the visitor attached to the Association, in which the subject of the increasing difficulty in obtaining nurses for Poor-law work is freely handled, and the reasons for that increasing difficulty are very plainly stated. These, in brief, are the monotonous character of the work, the anomalous position of the nurses, halting between that of a superior servant and an inferior officer; the want of consideration with which they are treated either by the resident officials or by the Board; and the incessant friction almost inevitable between an unskilled and a skilled officer; add to this list the hardship inflicted on nurses under the recent Poor-law Officers' Superannuation Act. This is a formidable catalogue of the disabilities attaching to the position of the workhouse infirmary nurse. It is in the power of the Local Government Board to remove many of these grievances, and until they are removed the spirit of dissatisfaction and the desire of change will prevail among infirmary nurses. The Association has maintained an up-hill fight, hampered by want of funds, by want of sympathy on the part of the general public, and now by want of suitable candidates for training. We trust that extended acquaintance with the excellent work done by this society will lead to more support, both financial and moral.

## THE RED BOOK.

Under this heading we referred with disapproval briefly last week to the circular issued by the proprietors of the Royal Red Book, to the effect that they propose to publish a list of physicians and surgeons practising specially. We have received so many letters on the subject since we first drew attention to it, that we feel compelled to return to the matter, and to point out that the scheme is one which is extremely distasteful to the leading members of the medical profession who practise various specialities. The scheme is to insert after the name in the Street List and the Alphabetical List the speciality which the physician or surgeon practises, and to publish a special list of such persons as "may desire it," classified "under the names of the diseases." The publishers, in their circular, state that they cannot undertake to make these additions to their reference books "unless the additional matter is likely to pay for itself," and they therefore ask for an annual subscription of one guinea, in return for which they will insert the announcement in both the yearly editions, and will supply a copy of one edition. From the correspondence which reaches us, we judge that the list will neither answer its purpose nor "pay for itself." One distinguished correspondent writes; "I trust for the honour of the profession that this list will not be a long one, and that the attention of the College of Physicians will be drawn to this new mode of advertising." In this view, which is expressed also by many other correspondents, that to cause one's name to be inserted in such a list of specialists would be contrary to the established rules of our order, and a form of advertising which would be strongly condemned by the general body of the profession, we entirely concur. As we ventured to observe last week, we hope to hear that the publishers of the Red Book have reconsidered the matter, and have resolved to withdraw the circular, which is viewed with strong disfavour by, we believe, the majority of medical and surgical specialists in London, and would, we feel certain, for this reason fail in attaining the object which the proprietors state that they have in view.

## THE OUT-PATIENT ROOM AS A FIELD FOR RESEARCH.

A correspondent writes: How great a field for clinical research lies open and unused in out-patient rooms is a matter for reflection. It is not wonderful, for in this department the time is short and the work heavy, and the patients' attendances or non-attendances are due to so many causes remote from the progress of the disease for which they are under treatment that it has seemed to many useless to try to obtain valuable generalisations from incomplete particulars. Definite results are hardly to be hoped for, and individual experience is reduced to its minimum value for want of systematic recorded observation of the cases and their treatment. The recorded observations of any one man extending over a number of

cases and a year or two of time are of value; how much more would this be true of a scheme of concerted action, followed concurrently by investigators in one or in several hospitals. One great gain would be that a man wishing to compare his conclusions with those of others would probably have at his disposal data less inadequate and makeshift than they too often are at present, and would probably less often be obliged to support first-hand theories by second or third hand facts, or with facts the scarcity of which is as often as not the measure of their aptness. No very elaborate changes would be necessary in order to turn waste material to good use. A few short printed lists of questions or observations concerning the diseases for the time being under study, with dates and results of treatment shortly noted, would probably suffice to place a quantity of excellent material in the hands of those disposed to put it to scientific use. A little order, and a few intelligent assistants supervised by a registrar, all of whom might be obtained to their own great advantage among medical students or newly qualified men, would under capable direction serve to set going and maintain a most valuable system of investigation. Climate or season, material conditions, heredity, susceptibility, and idiosyncrasy are among the various influences and conditions which might be made, even in a fluctuating out-patient practice, to yield information of inestimable value. The above reflections have been suggested by a study of an experimental analysis of a year's out-patient letters in one department of a children's hospital. The notes were taken with no particular aim in view, and yet as they stood they recorded much and might easily have recorded more. They indicated various seasonal variations in disease: for instance a marked group was formed by rheumatisms of every variety, including cases of morbus cordis and chorea, of which nearly all presented themselves for treatment during the summer. Diarrhœa, of course, emphasised itself as a summer malady, while anæmia showed a marked preference for the spring months. Marasmic and wasting diseases in children, even among those said to be entirely breast-fed and not ostensibly due to specific diseases, stood significantly highest in the month of August. In cases of pleurisy in an early stage, but at times accompanied by effusion, very satisfactory results were noted from the administration of salicylate of soda in fair doses. In cases of whooping-cough, in which the paroxysms of coughing were severe and the bronchitis only moderate, the benefit of antipyrin was markedly shown. The drug treatment of broncho-pneumonia did not yield any definite results, but in cases in which a treatment consisting of very hot baths and plenty of fresh air out of doors was carried out surprisingly good results were noted. These conclusions, drawn from a brief inspection of imperfect material, are not, of course, particularly new or valuable, but the point is that while so much is being said of the difficulty of finding clinical material, either for teaching or other purposes, they suggest a neglect of existing material which is both blameworthy and unaccountable.

## THE BICYCLE AND THE APPENDIX.

The bicycle is taking the place of the cigarette as a pathological scapegoat. When so heavy and so complex a burden of diseases has been laid upon it, one more might seem to be of little importance, were it not that this last straw is—appendicitis. Yet as everyone rides a bicycle nowadays, and as (if we may believe some modern authorities) nearly everyone has had or will have appendicitis, the wonder is that the connection between the two series of phenomena has not been perceived sooner. The discovery, it is scarcely necessary to say, comes from America, where there is, we are assured, a "boom" in appendicitis. The condition is caused, it is alleged, by the contractions, too frequent or too violent, of the psoas-iliacus which bicycling involves. Hence results contusion of the appendix, followed by desquamation of its mucous membrane; this makes a breach through which infective agents find their way into the walls of the appendix and set up inflammation. The straining caused by going uphill makes the danger all the greater. In persons who have already suffered from appendicitis, bicycling may easily lead to rupture of adhesions and to the development of an acute condition. Some little time ago an American practitioner was so impressed by the dangers to which the possession of a vermiform appendix exposed mankind that he suggested its systematic removal in childhood as a prophylactic measure. In these days, when bicycling is so fashionable, this proposal may perhaps have to be taken into serious consideration.

## AMERICAN MEDICAL CONGRESSES.

The forty-eighth annual session of the American Medical Association will be held at Philadelphia on June 1st and three following days under the presidency of Professor Nicolas Senn, of Chicago. The address in medicine will be delivered by Dr. Austin Flint, of New York; that in Surgery by Dr. W. W. Keen, of Philadelphia; and that in State Medicine by Dr. J. B. Hamilton, of Chicago. The Congress of American Physicians and Surgeons will hold its fourth sesion at Washington, D.C., on May 4th, 5th, and 6th, under the presidency of Dr. W. W. Welch, of Baltimore. Fourteen of the most important medical societies, including the Physiological Society and the Society of Anatomists, will take part in the Congress. One of the three general meetings will be devoted to a discussion on Internal Secretions considered in their Physiological, Pathological, and Clinical Aspects. The American Pediatric Society will hold its ninth annual meeting at Washington on May 4th, 5th, and 6th, under the presidency of Dr. Samuel S. Adams.

## THE BRITISH TROOPS IN INDIA.

Lord George Hamilton's despatch to the Government of India in relation to the measures which can be adopted by that Government for checking the prevalence of veneral disease among British troops, sets forth that no measure should be adopted which can be represented as an encouragment of vice. No registration, licensing, or compulsory examination of women must be instituted and they must not be allowed to reside in regimental bazaars nor to accompany regiments on the march. The measures which may be taken are the application of cantonment rules already in force with regard to cholera and small-pox, to all contagious and infectious diseases, including venereal diseases. There would be no obligation on women to attend hospitals, but as an alternative to doing so they should be required to leave the cantonment. Any compulsion would be of precisely the same kind as has been accepted as necessary and enforced without objection in the case of diphtheria and typhoid fever. The despatch points out further that valuable aid towards checking the spread of venereal disease might be found in warnings addressed to the soldier newly arrived in India, and in extended efforts to improve the moral and physical condition of the troops in India by enlarging their means of instruction, occupation, and recreation. The suggestion for the employment of female hospital assistants under the direction of the medical officer for the examination and treatment of infected women is approved, while that for the medical inspection of soldiers who have been in hospital for these diseases is said to be deserving of serious consideration.

The Society for the Study of Inebriety.—The Society for the Study of Inebriety will hold a reception in honour of Alderman Sir Joseph Ewart, M.D., F.R.C.P., J.P., ex-Mayor of Brighton, and Vice-President of the Society, in the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, on Tuesday afternoon, April 8th, at 3.45, when Dr. C. R. Drysdale will read a paper on Alcohol in Therapeutics *re* Inebriety, and the Rev. A. K. Cherril one on Are Acquired Characters Transmissible?" Tea and coffee will be served from 3.15.

# THE PLAGUE.

## CHRONICLE OF THE EPIDEMIC.

### Slow Decline in Bombay.

The contradiction of the news that the plague had broken out among the British troops at Colaba, Bombay, is very welcome. A feeling of disappointment seems to settled down upon the Bombay authorities that the death-rate has not declined further. The latest telegraphic accounts, however, give the number of deaths from plague as 455, March 26th, as compared to 488 for the week ending March 19th, or as 65 to 69.71 deaths per diem for the respective weeks, a slight improvement.

### The Work of the Plague Committee.

The house-to-house visitation is being carried out systematically, the whole of Bombay being run through once in five days. As a sample of the enormous amount of work being done under the direction of the Plague Committee, we read: "For the week ending March 18th, 1897—117 dwellings condemned, 110 recommended for alterations, tiles removed from 1,492, floors dug up in 411, and 3,350 limewashed, 465 vacated, and 163 demolished." This is truly a prodigious sanitary undertaking, and one sufficient to tax the powers of even a well-regulated city like Bombay.

### Spread Northward.

Plague still continues its north-westward spread up the Indus. In Karachi the numbers have fallen this week to 185 (March 26th), compared with 192 for the week ending March 19th. Higher up the Indus, however, at Sukkur, the number of deaths is considerably increased, and at Hyderabad (Sind) the plague is worse. It is satisfactory, however, to note that there are as yet no indications of a development to the eastwards towards the Calcutta districts, nor have we any information that leads us to suppose that plague has travelled much further south than Poona.

In the Kolapore district, where we mentioned plague had reached its furthest south point, the disease does not seem to have settled seriously, as there have been but 5 cases and 2 deaths for the whole district during the week ending March 29th.

### Bacteriological Investigations.

Some very important points in connection with the spread of plague will no doubt be finally settled by the investigations carried on just now in India. Perhaps the most important will be the possibility of infection by grain, clothing, and general merchandise. The question should be easily settled, if our modern ideas and beliefs are sound, namely, that plague is spread by the dissemination of a bacillus. In connection with this subject, Professor Hankin has made exhaustive experiments with the principal commodities shipped from the port of Bombay, and has reported that their export can be continued without danger. The plague bacilli can only live for a very short time in the staple exports, and if even any of them found a home in a ship's cargo, they would be dead long before the vessel reached Aden. This has a very important bearing upon the questions of quarantine, and the Government of India are just now considering the advisability of acting upon it. The establishment of the non-infective character of ordinary merchandise would revolutionise our present notions of communicability. What the bacteriologists maintain experience bears out for the most part, as no direct importation by merchandise has ever been proved.

### Yersin's Curative Serum.

We have no direct scientific report concerning Dr. Yersin's curative treatment; but the following extract from the *Times of India* explains what is being done:

On the invitation of General Gatacre, Dr. Yersin began his operations on the patients located in the Parel Government House Hospital, which is in charge of Surgeon-Captain Thomson. He had treated 13 cases, all of whom have progressed favourably. The results shown were immediate. The serum injections made in each case varied from 3 to 4 according to the intensity of the disease. Each of the 700 tubes he has with him contains one dose, and the strength of the serum is not quite what it ought to have been. However, Dr. Yersin has telegraphed for another consignment, and he expects to receive about a thousand tubes of a greater strength, which will lessen the number of doses required in each case. The injection is harmless to the patients, as it does not create any intense reaction. Although Dr. Yersin works very hard towards the recovery of the patients placed under his treatment it is adjudged too early to pronounce on the ultimate results destined to be achieved by the application of his serum. The symptoms towards recovery, however, are most speedy, and marvellously beneficent. Within 12 hours of the injection the fever subsides. The fluid injected is non-irritating; it is straw-coloured; each injection is 12½ drachms. Dr. Yersin is of opinion that the plague in Bombay is imported by rats, who are the first to be attacked, and through them it infects persons who are not cleanly themselves, who wear filthy clothes, and live in filthy habitations and in insanitary surroundings. It infects through these persons some healthy people, but occasionally only. The greatest safeguard against it is cleanliness in person, clothing, habitation, surroundings, free ventilation, and sunlight. It naturally decreases in virulence after about seven months, but it may spread to other parts. Dr. Yersin expects to receive his consignment of the stronger serum by the next mail steamer. It is not only curative but prophylactic, and confers immunity from plague for one month.

### Death Returns in Bombay.

The following is the number of cases of plague and deaths therefrom during the week ending March 11th in Bombay city:

| | Mar. 5. | Mar. 6. | Mar. 7. | Mar. 8. | Mar. 9. | Mar. 10. | Mar. 11. | Total. |
|---|---|---|---|---|---|---|---|---|
| Cases ... | 86 | 114 | 104 | 88 | 86 | 90 | 86 | 654 |
| Deaths ... | 82 | 78 | 81 | 83 | 83 | 75 | 56 | 538 |

The expectations of subsidence with the onset of the hot weather have not been fulfilled. We append the meteorological observations for March 10th:

*Government Observatory, Colaba, Bombay.*

Means of observations taken at 6 A.M., 10 A.M., 2 P.M., 4 P.M., and 10 P.M.:

| | | |
|---|---|---|
| Barometer corrected to 32° F. ... ... ... ... | 29.061 | inches. |
| Temperature of air ... ... ... ... ... | 76 6 | degrees. |
| Wet bulb thermometer ... ... ... ... | 68.2 | ,, |
| Dew point ... ... ... ... ... ... | 63.8 | ,, |
| Relative humidity of air ... ... ... ... | 0.658 | ,, |
| Extent of cloudy sky (the whole sky cloudy—10) ... | 2.0 | ,, |
| Maximum temperature of air (read at 8 A.M. next day) | 81.6 | ,, |
| Minimum ,, ... (read at 8 A.M.) ... ... | 71.5 | ,, |
| General direction of wind from midnight to midnight ... ... ... ... | N., N.N.E., N.W., N.N.W. | |
| Movement of wind in twenty-four hours from midnight to midnight ... ... ... ... | 308 | miles. |

N. A. F. Moos,
Director, Government Observatory.

### Volunteers.

The Plague Committee are enlisting the services of the European and native military forces stationed in Bombay. Officers, non-commissioned officers, and men have alike volunteered with gratifying promptness for special plague duty. European non-commissioned officers and men are to receive (March 13th) a short hospital training in order to qualify them for detecting and treating plague cases, and they will then be posted to the various district hospitals.

### Method of Managing Plague Cases in Bombay.

The method of procedure is somewhat as follows:

Upon the discovery of any case of plague, the district health officer, who is in each instance to reside in his district, is to be immediately notified. Twenty light stretchers with bicycle wheels are now being constructed at the G.I.P. Railway works, and one of these will be sent to fetch away the patient. Should any objection be made by the patient or his friends, the health officer is to visit the infected house and persuade him to consent. Provision is being made to obviate any interference with family ties. Should the family of the patient elect to accompany him to the hospital, they will be accommodated in adjacent mat huts, and provided with food free of charge. Access to the patient will be afforded them. Whether the relations and friends of patients go with them to the hospital or not, they will be removed from the house, if it be a small one, or from the room in which the case occurred if the building happens to be a chawl or tenement, until the place has been thoroughly disinfected by men detailed for the purpose. In the case of *purdah* women, they will be attended by women only, and lady doctors are to be told off to deal with such cases. The Parsee, Hindu, Jain, and Khoja hospitals remain under the control of their respective communities.

### Mohammedan Opposition.

The Mohammedans are very bitter in their opposition to house-to-house inspection, and also to personal inspection of their women. The following incident shows how acute their feelings are upon the subject:

A tragic instance of the horror in which the ignorant natives regard all preventive measures occurred yesterday. A Mohammedan leaving this city with his wife by rail was asked to submit to medical inspection. He unwillingly assented in his own case, but refused to allow his wife to undergo inspection. The officials insisted, and the Mohammedan, suddenly drawing a dagger, stabbed his wife to the heart, and then, resisting furiously, wounded the doctor and attempted to stab himself.

## THE NATIONAL JENNER MEMORIAL.

A PUBLIC meeting for the purpose of raising a fund for a national memorial to Edward Jenner in celebration of the centenary of his discovery of vaccination was held in the theatre of the University of London on March 31st. The chair was taken by the DUKE OF WESTMINSTER, K.G., who said that at the preliminary meeting held in December last there had been on the whole remarkable unanimity. An overwhelming conviction obtained in the minds of all sensible people in every civilised country that the world owed a deep debt of gratitude to Jenner. Well authenticated facts and figures showing the immunity from the disease in the years since the discovery proved to the hilt the immense value of Jenner's system of prevention by inoculation. It was high time that his native land, after 101 years had passed since the first successful vaccination, should take steps not only to preserve his great legacy to the world, but also to give facilities for the progress of science in the direction of the prevention of disease.

Lord HERSCHELL, the Chancellor of the University, proposed the first resolution, which was:

That the present is an appropriate time to inaugurate a work of national utility in honour of Edward Jenner.

He said that as Chairman of the Royal Commission on Vaccination he had undertaken the task of digesting and analysing the material brought before the Commission, with the view to preparing a report for its consideration. He laid down, in the first instance, the tests that would furnish an answer to the question, Was vaccination or was it not a preventive of the disease of small-pox and a cause of the modification of the disease where it occurred? He applied those tests, he could truly say, entirely ignorant of the conclusions to which they would lead. He was himself surprised at the force of the evidence which was afforded in favour of vaccination. After quoting a few statistics, Lord Herschell said that it was difficult for any human reason to resist the case in favour of vaccination. Jenner had been attacked because he had asserted or expected that the effects of vaccination would be permanent. Time alone could give an answer to that, and those who availed themselves of a century's experience to assail Jenner were the very persons who themselves refused to yield to the teachings of experience as to the efficacy of vaccination. Jenner was the first to illustrate a principle which seemed destined to play an important part in the history of preventive medicine. That alone was strong evidence of the value of Jenner's discovery.

The resolution was seconded by Professor MICHAEL FOSTER, who gave instances of the extension of the Jennerian principle to other diseases by Pasteur and other observers. It had been said that this was a bad year to start the fund, because on all hands the public were being asked for money; but he hoped that if all that was desired was not attained this year, the appeal would be continued next year, and until a sufficient fund was raised to ensure that a worthy opportunity should be afforded for carrying on and extending Jenner's work worthily in his own country.

Sir ALFRED LYALL, in supporting the resolution, referred especially to the blessings which vaccination had already conferred upon the people of India. In that great country, where small-pox had been extremely virulent, the fact that there was a goddess of small-pox who was propitiated by prescribed ceremonials and rites was evidence of the terror which the disease inspired. With the increase of the British empire went the spread of vaccination. Already the number of persons vaccinated annually was some seven millions, and though that might seem a small proportion out of a population of three hundred millions, still he looked forward to a time when the grateful people of India would abandon the worship of the goddess of small-pox, and would erect in its stead some worthy memorial to Edward Jenner.

The resolution was then put and carried unanimously.

Lord LISTER, who on rising to move the second resolution was warmly received, said that he would, in the first place, correct a mistake into which he had inadvertently fallen in his address to the British Association last year. He had said in error that owing to the compulsory revaccination of recruits small-pox was unknown in the huge German Army. A great parade had been made of correcting this statement. If he had said that fatal small-pox was unknown in the Germany Army it would have been the literal truth. In the period from 1874-5 to 1886-7 the only death from small-pox among German soldiers was that of a man who was shown not to have been properly vaccinated. In 1886-7 there were 7 cases of small-pox, in 1885-6 4 cases, and as these occurred among a force of 344,000 men, and as the figures of other years were similar, it might be said that though he had fallen into error it was not a serious error. He then proceeded to analyse some of the statistics quoted against other observations he had made in his address to the British Association, and show that after 1834, when revaccination of recruits was rendered compulsory, there had been a remarkable and very rapid decline in the number of deaths from small-pox in the German Army, that even during the Franco-Prussian war, when the reservists, in some of whom the protection afforded by vaccination might well be supposed in some cases to have worn itself out, were called out, though there was an increase in the mortality from small-pox, it was slight, almost insignificant, as compared with the ravages the diseases committed in the French Army, in which revaccination was not compulsory. He then said that the resolution which he would propose was as follows:

That a subscription be set on foot with a view of promoting, in connection with the British Institute of Preventive Medicine, but in a manner distinguished by Jenner's name, researches on the lines which he initiated.

It would not, he said, be disputed that the work of Pasteur in connection with the protective inoculation of animals against anthrax and other diseases was an extension of the principle which Jenner had grasped. The indebtedness was indicated in the term which Pasteur had given to the materials which he used for his protective inoculation, for he had applied to them the general term "vaccines." He would only quote two very recent instances of the application of the principle discovered by Jenner. The one was Dr. Koch's recent discovery that by using the bile of an animal which had died of rinderpest to inoculate a healthy animal, that animal was rendered immune to the pestilence for some months at least, time could alone decide for how long. This was an exact parallel to the discovery of Jenner, and the simplicity of the method was such that it placed in the hands of any farmer the possibility of protecting the whole of his herd on the appearance of the first case. The second example was the work now being done in India with regard to plague. Persons who spoke slightingly of scientific attempts of this kind did not appreciate the actual heroism of such a man as Haffkine, who set at nought worldly prospects and risked life itself in this noble work of seeking to check this terrible scourge of the human race. Success appeared to have attended his efforts, and though full details of M. Yersin's work in India were not yet available, yet the remarkable results which he had obtained in China, and the character of these results left upon the mind the strong impression that he had found a sure means of curing the disease. Two such examples, both taken from a period so recent, and so brief were sufficient to prove the practical importance of work of this kind. And it was such work which the British Institute of Preventive Medicine was seeking to do—nay, was already doing. That Institute had been the first in this country to supply the diphtheria antitoxic serum, the use of which had effected so remarkable a reduction in the mortality of the disease in those cases in which it could be employed early. The Institute had never ceased to improve the serum until that which was issued now had six times the curative power of that first employed. The Institute also prepared tuberculin, which was capable of rendering such important services to the public health by facilitating the early diagnosis of tuberculosis in cattle; and mallein, which rendered similar services in the case of glanders. The Institute might claim, therefore, to be a work of utility, and it was a national institution, for it had upon its governing body representatives of public bodies in all three kingdoms. Thanks to the generosity of their chairman, the Institute was in possession of a site upon which, owing also in part to his generosity, it had now nearly completed the erection of a suitable building for carrying on its work. But its income was only some £700 a year; the scope of its work was

thus cramped, its officers, who gave their services in the true spirit of scientific devotion, were inadequately remunerated, and, unless a large measure of public support was accorded, the full benefits which the Institute was capable of rendering to the country could not be realised. If the response to the movement inaugurated by that meeting was as liberal as it should be, the Council of the Institute were prepared to agree that its name should be changed to that of the "Jenner Institute." If the response were less generous, they might still hope that the sum received would be sufficient to found a Jenner professorship of bacteriology, and in addition, or as an alternative, of a Jenner scholarship.

The resolution having been briefly seconded by Lord Davey, and supported by Mr. Brudenell Carter, was put to the meeting, and carried unanimously.

## THE BATTLE OF THE CLUBS.

### Cork.

The dispute at Cork between the friendly societies and the local profession seems to have entered upon a new phase. It would appear that recently a considerable number of the members of the Queen Street and St. Luke's Benefit Societies have sought to be enrolled as members of a private club, to be conducted by Dr. Lee, their old medical officer, offering to pay 10s. per annum per member, and agreeing to a stipulation that no member should be eligible who earned more than £100 per annum. The proposal was submitted to the local profession, and on their approval being given Dr. Lee consented to the arrangement.

An article on the subject in a recent issue of the *Cork Constitution* is so worded that it might give rise to the misapprehension that Dr. Lee was acting independently of his professional brethren. The most emphatic denial may be given to this; the profession at Cork is more united than it has ever been, and has scored an important victory.

There can be no doubt that some provident scheme is necessary to meet the wants of a certain section of the community, and it would be a great advantage in opposing the friendly societies throughout the country if the profession could come to an agreement in this matter, and were to use its united efforts to establish in those places where it might be desirable suitable provident dispensaries. Then it would be clear to all that medical men are quite willing to treat the self-respecting poor at a rate well within their means, and that their only object in opposing clubs is to prevent the well-to-do from availing themselves of benefits meant only for the needy.

It should not be forgotten that a certain element of charity must be present when medical attendance is conscientiously given at the present club rates. It is useless to argue that if a practitioner takes a large number of provident members, say at a penny a week, he is paid by the number. As the members increase so does the sickness to be attended, and, taking the general average of sickness per 1,000 at all ages, whether he have 50 or 1,000 members, he cannot be properly remunerated at that rate. At the outside he can only get bare subsistence, and, if he may be willing to do this for the poor, it is quite another thing when those able to pay him better ask the same of him. Then the duty he owes to himself, the profession, and the public at large bids him refuse.

### Yarmouth.

It appears that all the practitioners of the town, with one exception, have refused to recognise Mr. Devlin, the newly appointed doctor to the Friendly Societies' Institute. Dr. Collier, one of the Poor-law medical officers of the borough, is the only one who has stood aloof from his brethren, and, as a consequence, he finds it difficult to get any of them to be his deputy, so that the institute has been compelled to permit Mr. Devlin to act in this capacity. Commenting on the state of things, the *Yarmouth Mercury* of March 20th says: "But for Dr. Collier's public spirit, we could conceive a critical case, in which Dr. Devlin, desiring to have a second opinion, would be very awkwardly placed. And if anything happened, what would be the moral position of the medical gentlemen of the town?" It would be a more instructive question to ask what would be the moral position of those who, to force the doctors of the town to undertake professional work on degrading terms, have not scrupled to bring about the present difficulty. If a contingency such as that suggested by our contemporary were to happen, it would be idle for them to seek to shelter their negligence under the cover of pseudo-humanitarian censures of the local profession. The medical men of Yarmouth are quite willing to give their services to any members of the friendly societies as ordinary members of the public, and they cannot be expected to do more. It is no part of the duty of a Poor-law medical officer to act as deputy for a colleague. The Local Government Board requires the latter to appoint his own deputy, subject to their approval. It very rarely happens, however, that colleagues refuse to act for one another, and when such a refusal occurs, it may be taken for granted there are strong reasons for it. They who are cognisant of what has taken place at Yarmouth during the last year will not be surprised at the difficulty in which Dr. Collier now finds himself.

### Friendly Societies and the Medical Profession.

The annual conference of the Affiliated Friendly Societies of the United Kingdom was recently held in the Assembly Room of the "Hearts of Oak" offices, Fitzroy Square.

According to the report of our contemporary, the *Daily Chronicle*, a resolution was carried condemning

> The organised attempts made by medical men to impair the usefulness of the medical aid section of the work of friendly societies, especially in reference to the boycotting directed against medical men in the service of friendly societies, medical institutes, or associations, and in regard to the restrictions sought to be imposed by medical men as to the class of persons eligible to receive medical benefits through friendly societies.

This resolution, and others that have been proposed from time to time at meetings of friendly societies, show clearly that at last the profession is actually doing what it has been threatening to do for a long time past.

The union against the indiscriminate cheapening of professional services has not come a day too soon, and much of the bitterness that has been engendered in the minds of certain sections of the public would never have arisen had our brethren been wiser in the past, had they long ago refused to be humiliated and degraded by clubs, medical institutes, and such like associations.

It is true the excuse has always been that the poor labourer or artisan could not afford to pay more than a penny a week, and that it was necessary medical attendance should be found for him rather than he should be driven on the parish; but, plausible as the argument may seem, club surgeons have for a long time known well that many others besides the poor were availing themselves of their services at the same rate. The extent to which this abuse has spread may be fitly shown by the wrath excited by the endeavour to reform it, and to restrict medical attendance at such rates only to the really poor.

The profession is not likely to be intimidated by the bluster of these resolutions. Much as some friendly societies may desire it, Parliament is not likely to coerce us for their benefit. Even Mr. Labouchere, despite some remarks in a recent number of *Truth*, would probably shrink from such legislation.

### Beckenham and Penge.

It will be remembered that the controversy between the medical clubs and the medical profession in Beckenham and Penge, which has been for some time in progress, has reached a stage at which the medical profession, acting through the local medical society, had stated finally the conditions upon which they would be willing to continue to act as medical officers to the clubs, and that it was feared the clubs would as a body reject their proposal. We are glad to learn that the Foresters' Club have decided to accept their medical officer's terms contained in the recent circular of the Beckenham and Penge Medical Society, subject only to the proviso that the class limit shall not be retrospective. This proposal will, we understand, be considered at an early meeting of the Medical Society.

Medical Magistrate.—The name of Mr. Simeon Snell, Ophthalmic Surgeon to the Sheffield General Infirmary, has been added to the Commission of the Peace for that city.

## THE METROPOLITAN PROVIDENT MEDICAL ASSOCIATION.

THE annual meeting of the Metropolitan Provident Medical Association was held on March 27th. The Executive Committee were able to announce the receipt of a handsome donation of £1,000 from the Baroness de Hirsch towards the formation of new branches.

The report shows that the Association has nineteen branches. The total number of cards was 10,619, showing a small increase on the previous year, with a corresponding increase in the members' payments, which now amount to £4,870. It is noticeable that the payments to the medical staff have increased in a greater proportion than the number of cards.

The Chairman, Mr. BOUSFIELD, referred to the efforts that were being made to deal with the question of hospital outpatient departments. Some radical change could not much longer be delayed, and everything pointed to the probability that the work would be handed over to provident associations, friendly societies, and similar institutions. It therefore was of the utmost importance that the organisation of the Metropolitan Provident Medical Association should be complete when this time should arrive. An interesting experiment was made during the year. In view of the ever-increasing number of applications for chest hospital letters the Hospital Saturday Fund made a special grant to the Association, in return for which they undertook to sift the cases. The applicants were referred to one or other of the medical officer, who in return for a small fee states whether, in his opinion, the case is one for hospital, or whether it is more suitable for home treatment. If the latter is found to be the case the patient receives a letter entitling him to a fortnight's treatment, which carries a fee of 3s. 6d. The fee may appear small, but the cases are always of a slight nature, the more serious being sent to hospital. Mr. Acland, in his annual address to the Hospital Saturday Fund, reported that of the 1,101 cases so dealt with 51 per cent. were never heard of again. Of the remainder 313 were found suitable for chest hospitals, and letters were accordingly issued; 20 were sent to general hospitals, and 212 to the Metropolitan Provident Dispensaries. Another matter of considerable interest to the medical profession was the endeavour to determine by means of a conference a fair rate of payments for women's provident medical clubs. Several meetings were held, but it was unfortunately found impossible to come to any definite conclusions. It was stated that the chief cause in bringing about this abortive result must be sought in the want of organisation of the medical profession, in the absence of which it is impossible to reconcile their conflicting interests.

## LITERARY NOTES.

AT a meeting of the Section of Pathology of the Royal Academy of Medicine in Ireland, on February 26th, Dr. McWeeney quoted the following as a specimen of the directions said to have been issued by the London College of Physicians for the cure of the plague during the great visitation of 1665:

Pull off the feathers from the tails of living cocks, hens, pigeons, or chickens; and holding their bills, hold them hard to the botch or swelling, and so keep them at that part till they die, and by this means draw out the poison. It is good to apply a cupping glass, or embers in a dish, with a handful of sorrel upon the embers.

The March number of the *Phonographic Record of Clinical Teaching and Medical Science*, in addition to notes of a case of turning and delivery of a living child through a contracted pelvis, and a reference to Dr. Timothy Bright, who in 1588 published the first English system of shorthand writing, contains a very graphic and practical account of points of interest in a ship surgeon's life, by Mr. Lamming Burton.

Dr. George M. Gould, the editor of the *American Yearbook of Medicine and Surgery*, complains that Messrs. Wm. Wood and Co., of New York, the proprietors of the *Medical Record* and *American Journal of Obstetrics*, have refused to permit his contributors and collaborators to use in their abstracts of medical progress articles and illustrations which have first appeared in these journals. Dr. Gould argues that this prevents the dissemination of medical knowledge, and is therefore not only an injustice to the authors, but an injury to medicine.

# BRITISH MEDICAL ASSOCIATION.

## SIXTY-FIFTH ANNUAL MEETING.

NOTICE IS HEREBY GIVEN that the Sixty-Fifth Annual General Meeting of members of the British Medical Association, for the transaction of business, the consideration of Reports of Council and Committees, will be held in the Exeter Hall, London, on Tuesday, the 27th day of July next, at 11.0 o'clock in the forenoon. The meeting will be adjourned to August 31st, to be held at Montreal, for the scientific business of the meeting, Reading of Addresses, Meetings of Sections, etc.

FRANCIS FOWKE, *General Secretary.*

April, 1897.

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THE adjourned annual meeting of the British Medical Association will be held at Montreal on Tuesday, Wednesday, Thursday, and Friday, August 31st, September 1st, 2nd, and 3rd, 1897.

*President.*—HENRY BARNES, M.D., Physician to the Cumberland Infirmary, Carlisle.

*President-Elect.*—T. G. RODDICK, M.D., Professor of Surgery in McGill University, Montreal.

*President of the Council:* ROBERT SAUNDBY, M.D., F.R.C.P., Physician to the General Hospital, Birmingham, 83A, Edmund Street, Birmingham.

*Treasurer:* CHARLES PARSONS, M.D., Dover.

An Address in Medicine will be delivered by W. OSLER, M.D., F.R.C.P., Professor of Medicine in the Johns Hopkins University, Baltimore, U.S.A.

An Address in Surgery will be delivered by WILLIAM MITCHELL BANKS, F.R.C.S., Surgeon to the Liverpool Royal Infirmary.

The Scientific Business of the Meeting will be conducted in Eleven Sections, as follows, namely:

### A. MEDICINE.

*President:* STEPHEN MACKENZIE, M.D., London. *Vice-Presidents:* J. E. GRAHAM, M.D., Toronto; W. BAYARD, M.D., St. John, N.B.; J. P. ROTTOT, M.D., Montreal: F. W. CAMPBELL, M.D., Montreal; JAMES STEWART, M.D., Montreal; H. P. WRIGHT, M.D., Ottawa. *Hon. Secretaries:* H. A. LAFLEUR, M.D., Montreal; W. F. HAMILTON, M.D., Montreal; WILLIAM PASTEUR, M.D., 4, Chandos Street, Cavendish Square, London, W.

### B. SURGERY.

*President:* CHRISTOPHER HEATH, F.R.C.S., London. *Vice-Presidents:* Sir WILLIAM HINGSTON, M.D., Montreal; Hon. M. SULLIVAN, M.D., Kingston, Ontario; Hon E. FARRELL, M.D., Halifax, Nova Scotia; I. H. CAMERON, M.D., Toronto; F. LE M. GRASETT, M.D., Toronto; JAMES BELL, M.D., Montreal; GEORGE E. ARMSTRONG, M.D., Montreal. *Hon. Secretaries:* ROBERT C. KIRKPATRICK, M.D., Montreal; THOMAS WALKER, M.D., St. John, N.B.; JORDAN LLOYD, F.R.C.S., Broad Street, Birmingham.

### C. PUBLIC MEDICINE.

*President:* E. P. LACHAPELLE, M.D., Montreal. *Vice-Presidents:* F. MONTIZAMBERT, M.D., Quebec; ROBERT CRAIK, M.D., Montreal; P. H. BRYCE, M.D., Toronto; Sir JAMES GRANT, Ottawa; R. H. POWELL, M.D., Ottawa. *Honorary Secretaries:* WYATT JOHNSTON, M.D., Montreal; E. PELLETIER, M.D., Montreal; HENRY HARVEY LITTLEJOHN, M.B., C.M., Surgeons Hall, Edinburgh.

### D. OBSTETRICS AND GYNÆCOLOGY.

*President:* WILLIAM JAPP SINCLAIR, M.D., Manchester. *Vice-Presidents:* WILLIAM GARDNER, M.D., Montreal; JAMES PERRIGO, M.D., Montreal; J. A. TEMPLE, M.D., Toronto; J. C. CAMERON, M.D., Montreal; T. JOHNSTON ALLOWAY, M.D., Montreal; JAMES ROSS, M.D., Toronto. *Honorary Secretaries:* D. J. EVANS, M.D., Montreal; W. BURNETT, M.D., Montreal; ARTHUR E. GILES, M.D., 58, Harley Street, Cavendish Square, London, W.

E. Pharmacology and Therapeutics.

*President:* D. J. Leech, M.D., Manchester. *Vice-Presidents:* A. D. Blackader, M.D., Montreal; James Thorburn, M.D., Toronto; C. R. Church, M.D., Ottawa; J. B. McConnell, M.D., Montreal; F. J. Austin, M.D., Sherbrooke; Walter George Smith, M.D., Dublin. *Honorary Secretaries:* F. X. L. de Martigny, M.D., Montreal; J. R. Spier, M.D., Montreal; Charles Robertshaw Marshall, M.B., Pharmacological Laboratory, Downing College, Cambridge.

F. Pathology and Bacteriology.

*President:* Watson Cheyne, F.R.C.S., F.R.S., London. *Vice-Presidents:* J. G. Adami, M.D., Montreal; J. Caven, M.D., Toronto; J. Stewart, M.D., Halifax; J. C. Davie, M.D., Victoria, B.C.; L. C. Prevost, M.D., Ottawa; M. T. Brennan, M.D., Montreal. *Honorary Secretaries:* W. T. Connell, M.D., Kingston, Ontario; C. F. Martin, M.D., Montreal; Rubert W. Boyce, M.B., University College, Liverpool.

G. Psychology.

*President:* R. M. Bucke, M.D., London, Ontario. *Vice-Presidents:* D. Clarke, M.D., Toronto; T. J. Burgess, M.D., Verdun, Quebec; A. Vallee, M.D., Quebec; G. Wilkins, M.D., Montreal. *Honorary Secretaries:* J. V. Anglin, M.D., Montreal; George Villeneuve, M.D., Montreal; J. G. Blandford, M.R.C.S., D.P.H., London County Asylum, Banstead, Sutton, Surrey.

H. Ophthalmology.

*President:* Edward Nettleship, F.R.C.S., London. *Vice-Presidents:* F. Buller, M.D., Montreal; R. A. Reeve, M.D., Toronto; Ed. Desjardins, M.D., Montreal; A. A. Foucher, M.D., Montreal. *Honorary Secretaries:* W. H. Smith, M.D., Winnipeg; Jehin Prume, M.D., Montreal; Thomas Herbert Bickerton, M.R.C.S., 88, Rodney Street, Liverpool.

I. Laryngology and Otology.

*President:* Greville Macdonald, M.D., London. *Vice-Presidents:* W. Tobin, M.D., Halifax; G. A. S. Ryerson, M.D., Toronto; H. S. Birkett, M.D., Montreal; G. R. McDonagh, M.D., Toronto. *Honorary Secretaries:* A. Chretien, M.D., Montreal; H. D. Hamilton, M.D., Montreal; W. Permewan, M.D., 7, Rodney Street, Liverpool.

J. Anatomy and Physiology.

*President:* Augustus D. Waller, M.D., F.R.S., London. *Vice-Presidents:* F. Shepherd, M.D., Montreal; A. B. Macallum, M.D., Toronto; T. Wesley Mills, M.D., Montreal; A. Primrose, M.D., Toronto; J. B. A. Lamarche, M.D., Montreal; D. B. Fraser, M.D., Stratford, Ontario. *Hon. Secretaries:* J. M. Elder, M.D., Montreal; W. S. Morrow, M.D., Montreal.

K. Dermatology.

*President:* Malcolm Morris, F.R.C.S.Ed., London. *Vice-Presidents:* J. E. Graham, M.D., Toronto; F. J. Shepherd, M.D., Montreal; J. A. S. Brunelle, Montreal; G. L. Milne, M.D., Victoria, B.C. *Hon. Secretaries:* Gordon Campbell, M.D., Montreal; J. M. Jack, M.D., Montreal; James Galloway, M.D., 21, Queen Anne Street, Cavendish Square, W.

Programme of Proceedings.

Tuesday, August 31st, 1897.

10 A.M.—Cathedral Service.
11.30 A.M.—Windsor Hall: Opening Ceremonies. Address by the President-elect, Dr. T. G. Roddick.
2.30 P.M.—Windsor Hall: Address in Medicine by Dr. W. Osler.
4 P.M.—Garden Parties, etc.
9 P.M.—*Soirée* at Laval University.

Wednesday, September 1st, 1897.

10 A.M.—McGill University: Opening of Sections.
3 P.M.—Windsor Hall: Address in Surgery by Mr. T. Mitchell Banks.
4.15 P.M.—Excursion down the St. Lawrence; Garden Parties, etc.; Golf Match, etc.
9 P.M.—Reception at City Hall or at Sollmer Park.

Thursday, September 2nd, 1897.

9.30 A.M.—McGill University: Sectional Meetings.
4.30 P.M.—Excursion across the Island, etc.
7.45 P.M.—Annual Dinner of the Association, Windsor Hotel.

Friday, September 3rd 1897.

9.30 A.M.—McGill University: Sectional Meetings.
1.30 P.M.—Lunch on the Mountain.
3.30 P.M.—Windsor Hall: Concluding General Meeting.
4 P.M.—Excursion down the Lachine Rapids; Garden Parties, etc.
9 P.M.—*Soirée* at McGill University.

Saturday, September 4th, 1897.

Excursions to Ottawa, Ste Agathe, and Montagne Tremblante, etc.

ANNUAL MUSEUM.

Regulations Regarding Exhibits.

1. Communications on general matters connected with the Museum and applications from intending exhibitors should be addressed to the Honorary Secretaries, Drs. J. W. Stirling or J. M. Jack, 2204, St. Catherine Street (British Medical Association Rooms).

2. Applications for space must be in the hands of the Secretaries before July 25th, accompanied with a brief descriptive account of each exhibit for insertion in the Museum Catalogue. Information of the allotment of space will be furnished as promptly as possible, and on receipt of cheque for the cost of such space, a card for the admission of the exhibit will be forwarded.

3 All cheques to be made payable to J. W. Stirling, M.B.

4. All exhibits should be directed to the British Medical Museum, Victoria Skating Rink, Drummond Street, Montreal, Canada, with the name of the Section for which they are intended. Packages must also be addressed to a firm's representative at the Museum.

5. Exhibits must be delivered between August 27th and 28th; they must each bear a card indicating the name and address of the exhibitor; they must be arranged in their allotted space before 2 P.M. on August 28th, and it is desirable that they be not removed till September 6th.

6. Signs or placards must be so arranged as not to interfere with adjacent exhibits: on the central tables no sign or placard must reach higher than 2 feet 6 inches from the table.

7. The Committee will not be responsible for any risks or expenses incurred; they reserve discretionary power to exclude any exhibit they may consider unsuitable; they will only receive exhibits conditionally upon strict compliance with the foregoing regulations, and in all matters of doubt and difficulty their decision shall be final.

8. The Museum Committee or its representatives must be recognised as being in full control of the exhibition building and its management.

Tables occupying the centre of the Hall, and other prominent positions, are to be let by private tender; other tables varying in charges from 4s. to 2s. per square foot. Certain floor space will be let at 1s. per square foot.

# ASSOCIATION INTELLIGENCE.

## COUNCIL.

### NOTICE OF MEETING.

A meeting of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday the 14th day of April next, at 2 o'clock in the afternoon.

Francis Fowke, *General Secretary.*

March, 1897.

### NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1897.

Meetings of the Council will be held on April 14th, July 7th, and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 17th and September 30th.

Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should

apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M., Saturdays, 10 A.M. to 2 P.M. Members can have their letters addressed to them at the office.

## BRANCH MEETINGS TO BE HELD.

NORTH OF IRELAND BRANCH.—The spring meeting will be held in the Museum, College Square North, Belfast, on Thursday, April 22nd, at 12 noon. Members who wish to read papers, show patients, or bring any other business before the meeting should kindly communicate on or before Wednesday, April 14th, with JOHN CAMPBELL, Honorary Secretary, 21, Great Victoria Street, Belfast.

DUNDEE AND DISTRICT BRANCH.—The annual meeting of this Branch will be held in University College, Dundee, on Friday, May 7th. A dinner will afterwards take place in the Queen's Hotel. Those intending to show patients at the clinical congress are requested to intimate as soon as possible the nature of the cases to the Honorary Secretary, R. C. BUIST, Annfield House, Dundee.

## SOUTH-EASTERN BRANCH: NORTH, EAST, AND WEST KENT DISTRICTS.

A CONJOINT meeting of the three Kent districts was held at St. Bartholomew's Hospital, Rochester, on March 19th, Surgeon-Colonel QUILL in the chair. There were twenty-three members present, including Dr. Hoar, President of the Branch.

*Confirmation of Minutes.*—The minutes of the last meetings of the three districts were read and confirmed.

*Arrangements for Future Meetings.*—Dr. Hackney (Hythe) was appointed chairman of the annual meeting of the East Kent District, to be held at Canterbury in May. Dr. Sturges (Beckenham) was appointed chairman of the forthcoming meeting of the North Kent District at Beckenham. Maidstone was selected as the place for the next meeting of the West Kent District.

*Nomination of Representatives of the Branch on the Council of the Association.*—On the motion of Dr. HALLOWES, seconded by Dr. BELL, Mr. Verrall, Dr. Parsons, and Dr. Galton were nominated.

*Public Vaccinators and Poor-law Superannuation.*—Dr. ELLIOTT made some observations on the exclusion of public vaccinators from the Poor-law superannuation scheme, and the matter was referred to the Council of the Branch for consideration.

*Battle of the Clubs.*—Dr. TENNYSON SMITH proposed, and Dr. HOAR seconded, a resolution expressing sympathy with the members of the Beckenham and Penge Medical Society in their struggle with benefit clubs.

*Communications.*—Dr. ERNEST W. WHITE (City of London Asylum) read a paper on Puerperal Insanity. He carefully distinguished true puerperal insanity from the insanity of pregnancy or that of lactation. He gave the time limit as six weeks subsequent to parturition. The causes and symptoms were discussed, especial reference being made to the varying temperatures often observed, and treatment in detail was described.—Dr. TYSON (Folkestone) read a paper on the Clinical Types of Pneumonia. He related, shortly, the past history of pneumonia, asserting that ordinary sthenic croupous pneumonia was the only form of the disease described 50 years ago. He thought that this classical form of the disease was not so common to-day as formerly; that the type of the disease had to some extent changed. The term "congestion of the lung" he thought was too frequently and too loosely used by the profession; still, he believed that such a condition might exist apart from the first stage of pneumonia. The following clinical forms of pneumonia were then described in detail: The pneumonia of influenza—septic, epidemic, typhoid or asthenic, senile, and alcoholic pneumonia. The paper concluded with a plea for a more precise classification of the disease, both from a bacteriological and also from a clinical point of view. As a clinical physician Dr. Tyson took up the latter side of the subject.

*Dinner.*—After the meeting the members dined together at the Sun Hotel, under the presidency of the Chairman.

## EAST ANGLIAN BRANCH.

A GENERAL meeting of this Branch was held at the Norfolk and Norwich Hospital on March 25th, Dr. A. R. MANBY, President, in the chair.

*New Members.*—At a meeting of the Council it was unanimously resolved that the following members of the British Medical Association be elected members of the East Anglian Branch: Ernest W. James, M.R.C.S., L.R.C.P., Hingham, Norfolk; J. Ryder Richardson, M.B., B.C., Saxmundham, Suffolk; John Shepheard, M.R.C.S., L.R.C.P., North Walsham; William D. Spurrell, M.R.C.S., L.R.C.P., Aldborough, Norfolk; Arthur Sykes, M.R.C.S., L.R.C.P., City Asylum, Hellesdon, Norwich; John T. Thomas, L.R.C.P., L.R.C.S., M.O.H., Lowestoft.

*Luncheon.*—Previous to the meeting the members present, numbering fifty-six, lunched at the Café Royal.

*Votes of Condolence.*—It was proposed by Sir FREDERIC BATEMAN, seconded by Dr. BEVERLEY, and unanimously resolved:

That votes of condolence be sent to the families of the late Sir George Murray Humphry, the late Mr. John Kilner, and the late Dr. E. B. Crowfoot.

*The Association and Medical Defence.*—The question of the Association undertaking medical defence, collective and individual, was discussed, the PRESIDENT, Mr. MAYO, Dr. ELLISTON, Dr. BARNES, Dr. GARRETT ANDERSON, Dr. COOPER PATTIN, Dr. BEVERLEY, Mr. WALKER, Mr. MOXON, and other members taking part in the discussion.—A letter of Dr. Sinclair Holden in favour of the Association undertaking medical defence was also read.—The GENERAL SECRETARY reported that he had sent out 290 cards asking for answers to the three questions propounded by the Council of the Association from those members who were unable to attend the meeting. Fifty-one such members replied, whilst 58 attended the meeting, leaving 181 who did not in any way reply. Of the 51 replies received: 22 were in favour of the Association undertaking medical defence, 24 were opposed to it, 3 returned doubtful replies, 2 were in favour of collective, but not of individual defence. Thirty-four members replied to the second question; of these 20 were in favour of the scheme as finally drafted by the Committee, 11 were against it, and 3 returned doubtful replies. Three members only suggested amendments to the scheme of the Committee, each suggesting that the subscription should be voluntary instead of compulsory.—It was proposed by Mr. MAYO, and seconded by Mr. MOXON:

That, in the opinion of the East Anglian Branch, it is not desirable that the British Medical Association should undertake medical defence.

A division being taken, 58 members being present, 30 voted in favour of the resolution and 4 against it. The remainder did not vote.

*Medical Aid Associations.*—Dr. BEVERLEY moved, and Dr. COOPER PATTIN seconded, the following resolutions, which were unanimously carried:

(*a*) The members of the East Anglian Branch desire to obtain from the Council of the British Medical Association an expression of opinion on the question of consultations with the medical officers of medical aid associations and medical institutes.

(*b*) That the Council of the British Medical Association be requested to memorialise the General Medical Council on the urgent necessity to take steps to prevent the growing evils of medical aid associations and medical institutes.

On the motion of Dr. BARTON, seconded by Mr. WYLLIS, it was unanimously resolved:

That the Branch representatives be directed to bring these resolutions before the next meeting of the Council of the Association, and that the General Secretary be instructed to forward copies of the same to the Branches throughout the United Kingdom, and to obtain their opinion thereon.

*Ethical Committee.*—It was proposed by Dr. Elliston, seconded by Dr. Barnes, and unanimously resolved:

That the Branch Council be appointed the Ethical Committee of the Branch.

## READING AND UPPER THAMES BRANCH.

*The Association and Medical Defence.*—At a special general meeting of this Branch on March 23rd, 1897, the following resolution was proposed by Dr. A. Thomson, of Maidenhead, seconded by Mr. G. May, F.R.C.S., of Reading, and carried unanimously:

That the members of the Reading and Upper Thames Branch are of opinion that the question of medical defence does not lie within the province of a scientific body like the British Medical Association; that they disapprove of the proposal that medical defence should be undertaken by the Association; and that they view with grave misgiving the effect upon the fortunes of the Association which the incubus of a system of medical defence would almost certainly have, but they are in favour of the Council of the Association voting a handsome sum annually towards the suppression of irregular practice.

## METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.

A meeting of this District was held at the Evelina Hospital for Sick Children on March 26th, Dr. Percy Smith in the chair.

*Confirmation of Minutes.*—The minutes of the last meeting were read and approved.

*Special Meeting.*—It was decided that there should be a special meeting of the Committee at Bethlem Hospital, at 4 P.M. on Friday, April 9th, when officers for the ensuing year would be nominated.

*Demonstrations in Wards.*—In the wards a number of interesting medical and surgical cases were shown and demonstrated on by members of the staff as follows: Dr. Carpenter: (1) A case of Multiple Papillomata of Larynx; (2) a case of Tuberculous Peritonitis; (3) a case of Pseudo-hypertrophic Muscular Paralysis: (4) a case of Infantile Hemiplegia. Mr. Makins: (1) A case of Pes Cavus; (2) Extroversion of Bladder. Mr. Eve: Two specimens of Mesenteric Cysts. Mr. Tubby: Two cases of Syphilitic Arthritis. Mr. Abbott: (1) Congenital Deformity of Elbow: (2) Birth Fracture of Leg.

*Vote of Thanks.*—At the conclusion of the proceedings a hearty vote of thanks was proposed by the Chairman to the staff of the Evelina Hospital, and this was carried unanimously.

## SOUTH MIDLAND BRANCH.

*The Association and Medical Defence.*—At the meeting of the Committee of Management of the above Branch, held on March 23rd, the opinion of the members on the question of the Association taking up medical defence was presented by the Secretary, with the following result: 137 circulars were sent out, with 43 replies (about one-third), 94 not being returned. Of the 43 who replied 29 were in favour of the Association taking up medical defence, and 13 against it, giving a majority of 16 in favour; 25 were in favour of the Council's scheme (A), and 3 against, showing a majority of 22 in favour. Seven members offered suggestions or amendments.

## WEST SOMERSET BRANCH.

The spring meeting of the West Somerset Branch was held at Taunton on March 25th, under the Presidency of Dr. Rutherfoord. Eleven members were present.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*The Association and Medical Defence.*—The Honorary Secretary reported that, in accordance with instructions from the Branch Council, he sent a circular letter to every member of the Branch, and enclosed in it a copy of the Report of the Committee to the Branches on Medical Defence. The circular letter was as follows:

The question of whether or not the Association shall undertake the duties of individual and collective defence will be considered and a vote on the question will be taken. I am requested to forward to you the accompanying copy of a Report on the subject; and, as the Council of the Branch are desirous of knowing as far as possible the definite opinion of *every* member, they hope, if you are not intending to be present, that you will send your answer in writing.

Only 11 absent members had sent in answers, several stating their reasons *pro* and *con.*; 6 of them were favourable and 5 unfavourable. The letters were handed to the President and by vote of the meeting were read. The question was then fully discussed, and, on a division being taken as to whether or not the meeting was in favour of the Association undertaking the duties of individual and collective medical defence, 5 hands were held up in favour and 6 against.

*Chronic Inflammation of the Female Pelvic Organs.*—After dinner this subject, which had been fixed by the Council for discussion, was introduced by the President. He proposed that, owing to the want of time, the discussion should be limited to chronic ovarian hyperæmia, chronic oöphoritis, and chronic salpingitis (all cases of tubal abscess, ovarian cystoma, or any in which an operation was undoubtedly desirable he purposely excluded). Typical examples of each of these three conditions were introduced; their pathology, symptoms, and physical signs were briefly noted, and the treatment most usually adopted was more fully entered into. The difficulty often experienced by general practitioners in the successful treatment of cases of chronic oöphoritis was noted, and was attributed quite as often to the refusal on the part of the patient to follow out carefully the directions prescribed as to want of knowledge on the doctor's part. General treatment and massage were advocated, while much local treatment, and especially local massage, were condemned. Electricity, though useful in a few cases, was unsatisfactory as a rule. When every means had been tried by the medical attendant, and had been carefully and honestly carried out by the patient without a successful result, the question of an operation would have to be most anxiously considered. Even now patience was advised, as not infrequently cases recovered which were supposed to be hopeless as far as medical treatment was concerned. This part of the subject was more fully entered into, and the opinions of the late Sir Spencer Wells and other experienced abdominal surgeons were quoted, to show that extreme caution was necessary before advising a patient to submit to any operation, as such a proceeding might turn out to be not only a mistake but a blunder.

*Vote of Thanks.*—A vote of thanks to Dr. Rutherfoord for his instructive paper and for the able and impartial way in which he had conducted the business of the meeting was passed with great cordiality.

## WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.

*The Association and Medical Defence.*—A meeting of this Branch was held on March 26th to discuss the question of medical defence by the Association. The following postcard was sent to each member of the Branch prior to the meeting:

1. Are you in favour or not of the Association undertaking the duties of individual and collective medical defence? (British Medical Journal, January 30th, 1897.)
2. Are you in favour or not of the scheme as finally drafted by the Committee?

If not, what amendment do you suggest?

Of 70 postcards sent only 26 were returned (including 2 by members who afterwards attended the meeting), leaving 24. Of these 13 were in favour and 11 against. Eleven members attended the meeting, and of these 5 were in favour and 6 against. Thus only a total of 18 members of the Branch expressed themselves in favour of the scheme, 17 against it, while 35 were indifferent.

*New Members.*—The following members of the Association were elected numbers of the Branch: Mr. G. C. Hall, Ombersley (late Indian Branch); Mr. A. Watts, Hereford Infirmary; Dr. Dunkley, Kempsey, Worcester.

## SHROPSHIRE AND MID-WALES BRANCH.

A special general meeting of this Branch was held at the Salop Infirmary on March 23rd; the President (Dr. Lloyd, of Chirk) in the chair. Fourteen members were present.

*The Association and Medical Defence.*—The President, in opening the discussion upon this subject, reminded the members that this Branch had three times recorded their opinion in favour of the Association undertaking the duties of medical defence, namely, in 1886, again in 1895, and again last year. He then invited discussion upon question No. 1: "Is your Branch in favour or not of the Association undertaking the duties of medical defence?"—Mr. Lawson Tait proposed and Mr. Eddowes seconded

That question No. 1 be answered in the negative.

—Dr. McCARTHY proposed and Dr. CURETON seconded an amendment:

That question No. 1 be answered in the affirmative.

—After much discussion the amendment was carried 9 votes to 3.—Question No. 2 was next put: "Is your Branch in favour, or not, of the scheme as finally drafted by the Committee?"—After further discussion 4 voted for the scheme and 7 against.—Mr. LAWSON TAIT proposed and Mr. EDDOWES seconded

That in the opinion of this Branch the proposed scheme of medical defence ought not to be made obligatory.

—Dr. McCARTHY proposed and Dr. CURETON seconded an amendment, adding the words:

Unless sanctioned by the majority.

—The amendment was carried by 5 votes to 3.

*Vote of Thanks.*—A vote of thanks to the chair terminated the proceedings.

### SOUTHERN BRANCH.

*The Association and Medical Defence.*—A special general meeting of this Branch was held at Southampton on March 18th to consider the report of the Medical Defence Committee to the Branches. Dr. WATSON presided. The number of members present was 26 of a total of 235. The Chairman invited discussion on the first question: Is your Branch in favour or not of the Association undertaking the duties of individual and collective medical defence?—Dr. LANGDON moved, and Dr. BLACKMAN seconded, that this question should be answered in the affirmative.—Dr. KEALY strongly opposed the proposal. He considered it a most degrading thing to associate medical defence with the British Medical Association. One result of the adoption of the motion would be that the Association would get rid of a large number of its members. He could not help thinking it would be a retrograde step, and one that would impair the future development of the Association as a body of scientific, well-mannered men.—Dr. TREND said he was entirely in sympathy with Dr. Kealy's remarks.—Dr. BULLAR remarked that many of Dr. Kealy's observations were of the nature of prophecy, and prophecy was always open to doubt.—Dr. HEMSTEAD thought the time was ripe for the Association to undertake the defence of its members. But he would propose that the means of that defence should be available to those members who subscribed to a special fund for the purpose. All legal prosecutions should be undertaken by the General Medical Council; if that body had not the necessary powers, they should be obtained for it.—Dr. GREEN (Portsmouth) said there was no degradation in working men belonging to trades unions, and no degradation for their profession to combine, not for aggressive but for defensive purposes. He considered that the British Medical Association should be the home of the British medical man, and was just the body to take up their defence. After some further discussion Question No. 1 was answered in the affirmative by 16 votes to 5. Five did not vote. Questions No. 2 and 3 were answered by a general assent to the Council's scheme, subject to the following amendments:

Section v.—Strike out everything after "assistance," and substitute the words "and to decide the manner in which it shall be rendered."

Section xiv, subsections *a* and *b*.—Strike out the words "medical profession" and substitute the words "British Medical Association;" and in subsection *b* after the words "against them" to add the words "affecting their professional character."

Section xiv.—After subsection *g* to add *h*: "These resolutions are understood not to apply to disputes which may arise between members of the British Medical Association."

### HONG KONG AND CHINA BRANCH.

A MEETING of the Hong Kong and China Branch was held in Hong Kong on February 26th, Dr. STEDMAN, Vice-President, in the chair. There were present 14 members and 4 visitors.

*New Member.*—Staff-Surgeon J. Lloyd Thomas, R.N., already a member of the Association, was admitted a member of this Branch.

*The Association and Medical Defence.* — Mr. STEDMAN moved:

That this Branch is in favour of the Association undertaking the duties of individual and collective medical defence, and cordially supports the scheme drafted by the Association's Committee on medical defence.

Dr. CLARK seconded the motion, which was carried unanimously.

*Communications.*—Dr. JORDAN exhibited a recent Liver, showing eight distinct abscess cavities in its substance.—Dr. JORDAN described the Roentgen *x*-Ray Apparatus, and demonstrated the use of it on an old fracture of the radius, on a case of excision of elbow by himself where perfect use of the joint had been recovered, and on the feet of a small-footed Chinese girl.

## SPECIAL CORRESPONDENCE.

### PARIS.

*The Medical Scandal: Verdict and Sentence.*

IN the further progress of the medical scandal case the evidence given by Colonel Latour d'Affaure concerning the death of his wife at Dr. Boisleux's clinic made a great impression. In 1888 Madame Latour d'Affaure consulted Dr. Tillaux, who perceived that an operation was necessary, but it was not performed, as he considered it possible that the patient was pregnant. Later, Dr. Labbé operated, but the pains seemed to increase; as the patient's general condition was satisfactory her husband was not alarmed. In 1893 the lady consulted Dr. Le Villain, who practises at Royat in the summer and at Nice in the winter; he announced her to be suffering from metritis, and that curettage would suffice. She returned to Paris, and implored Dr. Labbé to operate, but he refused. She returned to Royat, and was treated by Dr. Le Villain. She informed her husband that Dr. Boisleux, a distinguished gynæcologist, a man of principle and religious sentiment, was expected at Royat. Dr. Le Villain and Dr. Boisleux assured her that Dr. Labbé had given up practice, and that he was *vieux jeu*. Madame Latour entered Dr. Boisleux's clinic on August 7th, her wish to go to the "Sœurs" in the Rue Oudinot was overruled by Dr. Boisleux because the "expense would be greater." Four days after the operation the patient died. Colonel Latour d'Affaure, on reaching Dr. Boisleux's clinic, found his wife in her coffin, and it was impossible to have the coffin opened. Notwithstanding his overwhelming grief he was struck by the disorder: surgical instruments, bottles with anatomical specimens, an open cupboard filled with a confused mass of dressing materials, a table with the remains of a meal, a portrait of a doctor with a glass in his hand, etc. Madame Baudy, the nurse, assured the Colonel that Dr. Boisleux tore the hair from his head when the lady died. She was asked if there had been previous deaths, and answered "not for the last two years." The cause of death was stated to be cholera, at another time the result of an operation for an abscess, at another for a fibroma. The Colonel declares, now he has seen the clinic, that he is convinced that his wife died from septicæmia. Dr. Labbé gave evidence that the patient, when he examined her, was *aussi saine qu'une jeune fille*. Dr. Brouardel, Dean of the Paris Medical Faculty, one of the medical experts entrusted to make the necropsy, gave the following evidence concerning the death of Miss Thomson: The body was free from decomposition. There was a recent abdominal wound closed by seven sutures. The abdomen revealed peritonitis, there was rupture of the uterus, and traces of the presence of a recent placenta were observed. It was concluded that abortion had been practised, and that peritonitis had set in resulting in death. These conclusions were made known to Dr. Boisleux and Dr. La Jarrige. Dr. Brouardel admitted that the most distinguished medical men may make mistakes in diagnosis concerning cases of pregnancy, but maintained that Dr. Boisleux's examination was imperfect, otherwise he would have perceived that Miss Thomson was pregnant. He could not state the exact date of the pregnancy, but was inclined to put it at four months. In presence of the perforation of the uterus laparotomy was necessary. Asked if the operation ought to have been stopped when the *débris* of the fœtus was observed, Dr. Brouardel replied in the negative. He firmly maintained that peritonitis was the cause of death. The prisoner expressed his admiration and respect for the expert's

scientific acumen, but asserted that he differed from him. The patient's temperature was not raised, and the peritoneum did not present any trace of infection. The expert replied that temperature is a secondary matter; there are cases of latent peritonitis, and infection is not immediately manifested. Dr. Boisleux maintained that embolism was the cause of death. Dr. Brouardel answered there was not the slightest indication of embolism; therefore he asked if Miss Thomson did not die from peritonitis, what was the cause of death? Dr. Boisleux stammered that he did not know, that there are so many cases which escape detection. Dr. Brouardel answered by a shrug of the shoulders. Dr. La Jarrige, who was the first to diagnose embolism, was called upon to explain himself. He declared he was not sufficiently skilled to discuss the question with Dr. Brouardel, and would abide by his decision. He stated he did not believe in the pregnancy mentioned by M. Mansay. Miss Thomson complained of pains in the lumbar region, and metritis was thus suggested to him. "You did not examine the patient," observed Dr. Brouardel; "that is the important fact." The prisoner's counsel observed that Dr. Brouardel, after the necropsy, did not conclude that a criminal abortion had taken place. Dr. Brouardel assented. The counsel asked if he did now, and was informed by Dr. Brouardel that such a decision was not his business. He clearly detected a perforation of the uterus; whether it was criminal or not was not for him to decide on. A juryman asked the opinion of Dr. Brouardel on the statement of Dr. Boisleux "that women, after several months' pregnancy, have been operated on without the surgeons having an idea of their condition." "It is possible," replied Dr. Brouardel; "the most skilful may make mistakes, and they may be pardoned if a scrupulous examination has been made: but Miss Thomson had not been examined." M. Thoinot, another medical expert, gave similar evidence. The American doctor who was present at the operation stated that the day after the operation Boisleux expressed his indignation that Dr. La Jarrige had not told him Miss Thomson was pregnant. Dr. Boisleux asserted that he had examined the patient before operating. Dr. Charrin, Dr. Rousseau, and Dr. Vallon, Professor d'Arsonval, M. Jacquemard, Government General Inspector of Commercial Technical Teaching, and others, appeared in court to express their esteem for Dr. La Jarrige. Dr. Vallon declared he considered him incapable of doing wrong; he might be imprudent, but nothing more. Several patients, male and female, too numerous to cite by name, praised Dr. La Jarrige: he had either cured them or some of their relations. He had brought up the six children of his brother who was in a difficult position. He helped his patients who were in need of suitable nourishment; in one instance he sent six bottles of champagne. Colonel Borie dwelt on the admirable conduct of the accused at Gravelotte. The witnesses for the prosecution all testified that the operations performed on their wives or relations were represented by Dr. Boisleux to be free from danger. They were kept away, and when death occurred three or four days afterwards, no intimation of danger had been sent them. The dirt and disorder of the clinic were generally admitted. The evidence for the defence ran in quite a different key. Dr. Boisleux only asked moderate fees. Mme. Swesnoska, M.D., declared him to be skilful and observant of all antiseptic precautions. Dr. Piogey declares him to be a *savant* of the highest order, and declared "he had discovered the microbe of puerperal fever," a statement which was corrected by Dr. Brouardel. During the evidence given by Dr. Boisleux's ex-patients, the accused was moved to tears on hearing their expression of gratitude for the treatment and care they had received. Dr. Delineau declared that when Dr. Boisleux operated on Miss Thomson he was not aware of the gravid condition of the uterus. "The vigorous way in which he went to work, resulting in perforation, was a proof of this. If he had intended to perform a criminal operation there were many other means free from legal responsibility." The Avocat-Général, M. Bonnet, in summing up for the prosecution, pointed out that Dr. Boisleux's witnesses left untouched the crushing evidence concerning the twenty-six deaths for which he was responsible. It was undeniable that the prisoner had treated indigent patients: but what doctor had not? Gratuitous operations might be a means of publicity instead of disinterestedness. As to the plea that there were simpler methods for procuring abortion, these would not permit the excuse of erroneous diagnosis in cases of failure. M. Bonnet was in a state of doubt when he began to examine the case, but after a careful study of it he was convinced of the guilt of the two prisoners.

Maitre Henri Robert eloquently defended Dr. Boisleux. He minutely examined and apparently refuted the facts detailed in the accusation. Dr. La Jarrige admitted he had not told Dr. Boisleux that Miss Thomson feared she was pregnant. Had he known this condition he would not have become pale when, during the operation, the fact was revealed. He would not have pronounced the word "gravide." He would have avoided having witnesses—the coachman, the nurse, the American doctor. His reticence with regard to the medical Government officers is easily explained: "Dr. Boisleux would not betray the professional secret." Maitre Robert's address was loudly applauded. The jury apparently had come to a decision without the help of the arguments used in the defence for the prisoners. After twenty minutes deliberation the jurors delivered judgment of guilty on every clause in the accusation. Extenuating circumstances were admitted. Cries of "Oh, oh," were heard coming from all parts of the court. The prisoners were terribly affected. Dr. La Jarrige fainted; Dr. Boisleux sobbed. Both were sentenced to five years' imprisonment. When the sentence was delivered the uproar and tumult in court were indescribable. Nothing was heard but "à bas les jurés."

An appeal will be made to the Cours de Cassation.

## BERLIN.

*An Improved Tuberculin: Forthcoming Paper by Professor Koch.—The Suppression of Leprosy in Prussia.—Hygienic Reform in Prussia.—Death of a Notable Hypnotist.—Institute for the Examination of Serum.—General News.*

The forthcoming number of the *Deutsche medicinische Wochenschrift* will contain a paper by Professor Robert Koch on tuberculin. He claims to have succeeded in obtaining a preparation (tuberculin R) that has an immunising and curative effect. Not only was the restoration of diseased organs in tuberculous guinea-pigs proved, but he says early cases of phthisis and lupus cases were without exception materially improved by the treatment. He does not use the word "cured," he adds, until a sufficiently long time has passed without relapse. The new preparation has had no alarming by-effects whatever. The new tuberculin is injected subcutaneously; the initial dose is $\frac{1}{10}$ milligramme, increased by degrees to higher doses. The new drug is manufactured and brought on the market by the Höchst Works, the same who manufacture Behring's antitoxin.

The Prussian delegates for the study of leprosy are to start for Russia immediately. They go first to St. Petersburg, and thence proceed to the different affected Russian districts, and it is calculated that their journey will take about three weeks. On their return they will go at once to Memel (East Prussia), and join the municipality there in attacking the preliminary arrangements for the projected leprosy hospital. The Berlin police authorities (hygiene department) have issued regulations enjoining notification of every case suspected of being leprosy. The case must be notified either by the doctor in attendance, or else by the head of the family, by the landlord, clergyman, or schoolmaster, if the information has been obtained from the doctor in attendance. A fine of 30s., or in default imprisonment, will be inflicted in all all cases of non-compliance with this regulation.

The reform of Prussian state arrangements for hygiene and medical matters is at last moving a step forward. A specially chosen Committee will meet to deliberate on the schedule of reform proposals early in May, and its labours will be joined by eight distinguished members of the medical department in the Prussian Ministry of Education. The independent Committee includes some influential members of the Prussian Diet, and such men as Professor von Bergmann, Professor Virchow, Dr. Langerhans, Dr. Kruse, Dr. Leut. Reform to really good purpose may therefore be hoped for.

The hypnotist, Carl Hansen, who has just died in great poverty in Altona, near Hamburg, was a notable personage in Germany early in the eighties. He was the first to give hypnotic *séances*, or rather performances, in

public halls, creating the greatest sensation all over the large towns in Germany. At last there were uproarious scenes in the course of his Berlin performances, as it came out that he "worked" with "trained" media, and that a great portion of the phenomena was simply a hoax. In consequence, all public hypnotic experiments were forbidden in Germany—a very sensible prohibition.

When the Institute for Serum Examination is removed to Frankfort, Professor Paul Ehrlich will go with it, and continue as its director. A bacteriological department is to be added, and the institute is to be entrusted with the supervision of the slaughterhouses, the drainage system, and other works connected with the public hygiene of the city of Frankfort.

The Berlin hospital "Bethanien" looks back on fifty years of existence. To celebrate its jubilee it has decided to build a new pavilion for infectious diseases of women and children.

The German Society of Agriculturists has begun experiments on a large scale with formaldehyd as a remedy against foot-and-mouth disease.

Dr. Rudolf Leuthold, Physician in Ordinary to the German Emperor, has been raised to the nobility. Dr. Leuthold, who is now between 60 and 70 years of age, was appointed Second Physician to the late Emperor William the First in 1880, and has held his present post since the accession of the present Emperor in 1888.

Professor Max von Pettenkofer, of Munich, has been invited by Lord Playfair, President of the Society for Public Hygiene in London, to come to England in order to receive the Harben gold medal.

## BRISTOL.

*Hospital Sunday Committee.—The Royal Infirmary.—The Children's Hospital.*

At the invitation of the Mayor a public meeting was held on March 29th at the Guildhall to consider the advisability of forming a representative committee to manage the Hospital Sunday Fund. Hitherto the church and chapel collections have not been held all on the same day, nor have all the medical charities of the city received their part of the fund. At the preliminary meeting of the clergy and ministers of all denominations held some time ago, it was decided that some better and concerted action should be taken; that the collection should be made at the places of worship on the same day, and that all the medical charities (subject to investigation as to their fitness) should receive a portion of the sum collected. On the Mayor taking the chair, Canon Cornish explained the objects of the proposal, stating that the fund received during the last few years was far from what it should be, and expressed his belief that by more energetic and combined action, a sum of money could be collected which would more adequately represent the generosity of the public for an object which must commend itself to all classes, whatever their religious beliefs. The motion that a committee was desirable was seconded by the Rev. Urijah Thomas, and carried unanimously. A committee of 33 was then appointed, consisting not of gentlemen specially chosen as representatives of the medical charities, but of well-known and prominent citizens, including laymen, clergymen of various denominations, and four medical men. A meeting of the committee will shortly be called to arrange the details for the collection.

The report of the Royal Infirmary for the past year was read at the annual meeting held on March 23rd, the President and Treasurer, Sir Charles D. Cave, being in the chair. During 1896 there had been an increase of in-patients by 107, out-patients by 678, and out-patient attendances by 10,026. This had caused an additional expenditure of £200, but the annual subscriptions, though showing a slight improvement of £83, were still far short of what was desired or required. The infirmary had got less by donations, but had received £10,000 from Miss Mary Cannington for investment in consols, the income to be expended on the maintenance of one of the wards. From the Hospital Sunday Fund £275 had been received. The Treasurer, in referring to the financial state of the institution, mentioned that the debt had now reached the sum of £10,000, and that unless the public came forward with larger and increased subscriptions it would be necessary to close some of the wards or sell out capital to meet the annual expenditure. In the course of his speech he referred to the question of hospital abuse, pointing out how unfair it was on medical men that persons able to pay should seek for gratuitous advice and attendance. He trusted that many would take his words to heart, and that another year there would be less cause to complain.

The annual meeting of the subscribers to the Hospital for Sick Children and Women was held on March 20th, the Duke of Beaufort occupying the chair. The report stated that the deficit for 1896 amounted to £478, which, added to the accumulated deficit of previous years, made a total of £668. From the Hospital Saturday Fund the institution received £145; from the church parades of friendly societies £252; from the teachers and children of elementary schools £338; and from church, chapel, and Sunday school collections £245. The number of patients attending during the year was less than in the previous year, and it was partly to this falling off in the out-patient department that the deficit was due, as the patients pay for admission and for each visit. Considerable structural alterations have been recently made in the operating room, which also contributes to the adverse balance.

# CORRESPONDENCE.

## THE HALF-YEARLY MEETING OF THE FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Sir,—As Mr. Heath has not responded to my challenge to prove or withdraw the innuendo contained in his letter of February 6th that I was not an efficient examiner at the College, I ask you to allow me to point out the legitimate inference from his silence. These are:

1. That he intended to convey to your readers such an impression, and wishes it to adhere.
2. That on the publication of my letter of February 13th he found himself quite unable to substantiate his innuendo.
3. That though unable to substantiate it, he will not do me the ordinary justice to disavow it or to withdraw it.

Now, if Mr. Heath is unable to substantiate his imputation, and to invalidate the strong claims derived from my five years' tenure of office as anatomical examiner, it is clear that he is not in a position to prove that I was not passed over for the surgical examinership in consequence of my speeches at the College in 1885 and 1886. That I was so passed over I had evidence at the time to prove, and it is this circumstance which elevates this question above merely personal considerations. A system of administration under which independence of thought and action among those who have "collegiate interests" can be penalised with impunity evidently requires to be reformed, and in the cause of that reform as well as from a due regard for my own reputation, I now call upon Mr. Heath to apologise for an imputation which he cannot substantiate.—I am, etc.,

Wimpole Street, W., March 23rd. Walter Rivington.

## THE IRISH POOR-LAW MEDICAL SERVICE.

Sir,—At last the Poor-law system of Ireland is likely to receive some attention from the Legislature, and we who have been anxious watchers for its reformation to dawn upon us are eager to welcome the first dim light of a brighter day to come.

Our success in obtaining redress for our grievances must depend upon our being unanimous as to our wants, and I write to put forward a few ideas on the subject, trusting that they may meet with the approval of others in the service, and lead to some practical results.

Interested as I am in workhouse reform, it is my firm conviction that all our energies and efforts should be directed to secure, as an initial step, admission of candidates to posts in the Poor-law medical service by competitive examination, as is done in military service, instead of by the present system of election, with its disgraceful accompaniments of canvassing, jobbery, and deceit, a mode of entrance humiliating to the candidate, and a disgrace alike to the medical profession and to the body of electors. Can it be believed that the all-essential points in a candidate for Poor-law office should be his politics, his religion, the strength of his local

friends or of his opponents; in short, anything or everything except the knowledge of that profession, costly to obtain, on which depends his usefulness to the community?

The distinguished young medico of the present day, thoroughly conversant with the science of bacteriology of modern surgery and all the latter-day wonders of the profession, no matter how high his distinctions, will be readily rejected for the veriest passman if he has but local influence, and to him in preference will be entrusted the lives of the suffering poor. The majority of our guardians are, so far as medical science is concerned, like Gallio—they "care for none of these things:" the enlightened minority who do are powerless by reason of their smallness of number.

Of a truth the supply of doctors is unlimited, when men of ability are found anxious to undertake the onerous and never-ceasing duties of a remote dispensary district or union infirmary. The supply is certainly in excess of the demand; then why not adopt the best means to secure the best-qualified, instead of continuing a mode dependent on the intelligence of electors, some of whom have been known to be unable to read, much less understand, the testimonials sent to them?

The great task of Irish workhouse reform should begin with a united effort to secure selection by examination, and, this gained, all other much-needed reforms would fittingly follow. In its absence I cannot but look upon other reformatory measures as so many new patches upon a very old and worn garment.—I am, etc.,

Rathdrum, March 28th. R. R. Leeper.

## THE DIPLOCOCCUS PNEUMONIÆ.

Sir,—In the British Medical Journal of March 27th there appeared a paper by Dr. A. G. Auld entitled Remarks on the Morphology and Chemical Products of the Diplococcus Pneumoniæ, and Some Results of Vaccination. The almost entire absence of references might lead the reader to suppose that many of the conclusions arrived at by Dr. Auld were new and original. I feel sure that this must be due to a want of acquaintance with the literature of the subject rather than to any attempt on Dr. Auld's part to establish a claim to priority with regard to well-recognised facts. For instance, in his account of the production of immunity, Dr. Auld appears to be ignorant of the work in this connection, which has been done since the beginning of the present decade.

G. and F. Klemperer, Bonome, Foà and Carbone, Emmerich and Fowitzky, Issaef, not only described a large number of methods of producing immunity, but also proved that the serum of immunised animals possessed protective powers. Many other observers have made similar investigations; and in this country Washbourn confirmed these results in a paper published in the *Journal of Physiology* in the early part of 1895. Again Dr. Auld's observations with regard to the probable formation of spores in broth cultures, were forestalled several years ago by Emmerich and Arksrow, and these results were also confirmed in Washbourn's paper.

Although the majority of Dr. Auld's observations upon the pathogenesis, morphology, and cultural characteristics of the pneumococcus are identical with those which have been described, some are totally at variance with those of other observers. Dr. Auld tells us that pure cultivations of the pneumococcus never produce pus when introduced into the subcutaneous tissues of the rabbit; and that purulent infiltrations in man are never due to a pure infection. The formation of pus in the rabbit was described by Washbourn in the paper above referred to, and my own personal observations fully bear out his statements; whilst the mass of evidence respecting the presence of pure cultivations of the pneumococcus in purulent infiltrations in the human subject is so conclusive as to render it unnecessary to controvert Dr. Auld's statement on this point, by reference to any particular observer.

In conclusion, I may remark that the transparency of the growth of the pneumococcus in agar streak-culture, upon which Dr. Auld lays so much stress, is by no means an invariable characteristic of this micro-organism. Different appearances are produced according to the composition of the agar, and the race of the pneumococcus. In fact there are some varieties of the pneumococcus which will produce a thick, opaque layer upon the surface of the medium in question.—I am, etc.

Trinity Square, S.E. Jno. Eyre, M.D.

## THE TREATMENT OF SEWAGE.

Sir,—Having in my county one of the Cosham tanks advocated by Mr. Peacock, I feel it my duty to warn your readers against imagining that this tank will do any more than any modern form of precipitating tank with proper arrangements to intercept the insoluble organic matter in which the Nuneaton sewage is peculiarly rich.

I will not trouble you with other analyses of the effluent from these tanks than those sent by Mr. Peacock: he tells us the albuminoid ammonia in the effluent has been 0.43, 0.47, and 0.27 parts per 100,000, and this he regards as so satisfactory as to enable them to turn it into the stream without filtration. What can the Warwickshire County Council be doing to allow such an effluent to be turned into any stream? The analyses published are of a liquid little better than average raw sewage.—I am, etc.,

Sidney Barwise, M.D. (State Med.), D.P.H.,
County Medical Officer, Derbyshire.

Derby, March 15th.

## THE DIAGNOSIS OF SCARLET FEVER.

Sir,—The opinion expressed by Dr. D. Franklyn Williams at the close of the second paragraph in his letter which appeared in the British Medical Journal of March 13th coincides with most of our experience. The following exceptional case came under my notice about two years ago: A rash was accidentally discovered on the chest, and soon spread over the body. It was scarlet, punctiform, and typical of scarlet fever, while neither tongue nor throat presented any appearance of disorder. The temperature and pulse were normal. Neither rigor nor vomiting had occurred; headache, *malaise*, and anorexia were absent. The patient recollected having felt a slight stiffness about the angle of the jaw when yawning in bed the previous night. The temperature was taken thrice daily, and found normal until the third day (of the rash), when it rose to 101°, owing to acute rheumatism, but fell to normal on the joints becoming well in a few days. Desquamation commenced on the eighth day, eventually occurring over the whole body, and occupying fully six weeks. Here was a case in which the rash was the only means of diagnosis.—I am, etc.,

Eaton W. Waters, M.B., M.A.O.

Moldgreen, Huddersfield, March 14th.

## THE MORTALITY FROM PUERPERAL FEVER.

Sir,—None of your correspondents seem to me to have hit the cause of our present unsuccessful midwifery practice, and that is the totally inefficient initial preparation of our newly-acquired medical practitioners. Their predecessors, as pupils, learnt a thoroughly practical knowledge of the branch of our profession under the supervision of experienced and successful family practitioners; the present generation are launched into the world of medicine after perfunctory attendance on a very limited number of confinements, and their practical ignorance is frequently appalling. Some years ago, while practising in a thickly-populated district of Yorkshire, I had occasion to see much of newly-qualified assistants, and the above is the conclusion I arrived at. I will give two instances. In the first my assistant, an M.B., C.M.Edin., sent for me to go on a stormy night a mile or two into the country to assist him to put on the forceps. He had been with the patient many hours, had vainly attempted to deliver with instruments, and was at his wit's end. When I arrived I found the patient with an entirely undilated os. My friend had mistaken the undilated uterus for a child's head, and had attempted to apply the forceps to that, fortunately without success.

In the second case my assistant, also curiously enough an M.B., C.M.Edin., but not the same man, was walking out with me, when we were called in, in passing, by a midwife to help her with a difficult cass. I found that forceps were needed, and asked my friend to kindly hasten home and bring my forceps. He, however, raced off instead to his own rooms, which were half a mile further away, and returned with a

brand new pair of Simpson's axis-traction forceps, which he was anxious to have used. As I was not accustomed to these more complicated instruments, I told him he had better apply them himself. In this very simple and uncomplicated case he was quite unable to even apply the forceps to the child's head, and after about twenty minutes' unsuccessful attempt I was obliged to deliver the woman myself. Now, both these men were as clever and nice men as one could wish to meet or to work with. The fault was not theirs, but that of the system under which they were launched in such an unprepared condition. In order not to be suspected of maligning a particular medical school, I may say I have had assistants from London hospitals who knew their business quite as little, or even less.

Until our examining bodies, composed principally of pure surgeons and consulting physicians, realise that the midwifery practice of the ordinary general practitioner is the most important part of his ordinary duties, on which his reputation largely depends, and requires as much preliminary practical training as his surgical dressing at least, so long shall we have such dismal statistics as those of Dr. Cullingworth's as a permanent blot and disgrace to our boasted nineteenth-century medical advance.—I am, etc.,

March 21st. M.D.

## COACHING FOR THE BRUSSELS UNIVERSITY.

SIR,—We read among the advertisements published in your paper for March 6th the following lines:

M.D.Brux.—An M.D.Brux. (honours), M.R.C.S., L.R.C.P., tutor at the University of Brussels, authorised by the Conseil Général, is now coaching candidates for the exam. by correspondence. Personal tuition will commence in Brussels as formerly the first week in April.—M.D., 57, Rue de la Madeleine, Brussels.

We should be much obliged if you would let your readers know that the Conseil d'Administration of our University has authorised nobody to coach candidates for our examinations. Of course, everybody is entitled to give such coaching on his own responsibility, but there are no tutors officially attached to the University. Copies of rules and regulations can be obtained directly from the Secretary, Rue de Sols, Brussels.—I am, etc.,

GOBLET D'ALVIELLA,

Brussels, March 17th. Rector.

## HOSPITAL OFFICERS AND FEES FOR INQUESTS.

SIR,—Under the above heading in an article appearing in the BRITISH MEDICAL JOURNAL of March 27th, you draw attention to the inadequate remuneration often paid to medical witnesses giving evidence in our various courts of justice, including that presided over by the coroner; and in that special court you point out that the fees payable to medical witnesses are fixed by statute law, which at the same time excludes from receiving payment the medical officers of hospitals and other medical institutions, whose duty it may have been to have attended the deceased person, dying in such hospital, etc. I would desire to add to your observations the fact that the Coroners' Act, 1887, was only a consolidated Act, and after it passed, the law as to coroners, etc., remained unaltered. The "Medical Witness Act," which became law in 1842, was passed mainly through the exertions of the late Mr. Thomas Wakley, M.P., and Coroner for Middlesex, and it was only by showing the loss sustained by medical practitioners giving evidence, etc., on behalf of the Crown, and for the ends of justice, that he succeeded in getting the Bill passed, and then only by the exclusion of those from its benefits who, as medical officers, resident or otherwise, of public hospitals, etc., were supposed to suffer no pecuniary loss, they not being in general practice, and possibly excluded from it, by the nature of their appointments. But it should be remembered that at the time the Bill was passed and became law, there were only 26 hospitals in existence in London, and of these only 11 were general hospitals. At the present time there are 110 hospitals in London alone, besides the Metropolitan Asylums Board's; and in the outskirts, and indeed all over the country, there are already a very large number of cottage hospitals not contemplated under the Act, the honorary medical officers of which, though nearly always in general practice and non-resident, are by this Act deprived of receiving fees for giving evidence and making *post-mortem* examinations should one of their patients die in such an institution, and upon whom an inquest is held. It is true that the coroner might direct the *post-mortem* examination to be made by some medical practitioner not in any way connected with the hospital; but this would hardly prevent his having to call as a witness the medical practitioner or house-surgeon who may have attended the deceased during life. Again in London and in all hospitals where medical schools are attached, the resident medical officers rather desire than otherwise to be present at, if not to make, the *post-mortem* examination, and record the result as a completion to the diagnosis and observations made during life.

With regard to the statement in the article that coroners are the "officers of the County Council," permit me to correct the error. Thanks to a wise Legislature, coroners are absolutely independent officers of the Crown, and the only person who has jurisdiction over them is the Lord Chancellor. Although town councils and county councils, by a recent Local Government Act, have the honour conferred upon them of electing coroners, and paying their salaries, and reimbursing them for advancing money for the payment of expenses incurred in the holding of inquests, witnesses' fees, etc., yet they have no controlling or directing power over them, otherwise the independence of the coroner would be seriously interfered with, and his position jeopardised. Some years ago, when the whole subject was fully discussed in the columns of the BRITISH MEDICAL JOURNAL, I expressed an opinion that the only way to settle the difficulty was by an alteration of the law, and I still think so. Coroners must uphold the law as it now stands, for if they did not, and made disbursements contrary to the law, they run the risk themselves of not being reimbursed by the local authorities; and if these authorities erred, they would certainly, as you intimate in your article, be surcharged by the Government auditors, who are extremely adept at discovering delinquencies and errors of the smallest kind. Under all circumstances I would suggest, as the only remedy, that a vigorous effort be made to get the obnoxious clause repealed, and I know of no more forcible body to accomplish this than the Parliamentary Committee of the British Medical Association, backed by each individual member, who at the time for action must exert himself, and urge upon his representative in the House the justice of the claim. By this method, and by no other, can our profession be relieved from submitting to an intolerable grievance and an imposition upon a hard-working and too-patiently-suffering profession.—I am, etc.,

GEO. DANFORD THOMAS, M.D.,

March 29th. Her Majesty's Coroner for London.

# OBITUARY.

## CHARLES LEOPOLD HUDSON, F.R.C.S.,

Assistant Surgeon to the Middlesex Hospital.

WE have to record with the most extreme regret the death on March 29th, at the early age of 35, of Mr. Charles Leopold Hudson, Assistant Surgeon and Surgeon to the Ear and Throat Department, Middlesex Hospital.

Mr. Hudson began to suffer from ill-health during the last summer vacation, but returned to work at the Middlesex Hospital—where, in addition to his other offices, he held that of Surgical Tutor—at the beginning of the winter session. Very soon, however, he became incapacitated by paraplegia, which developed very rapidly. Gradual improvement had commenced, when he was seized with symptoms of cerebral hæmorrhage, which quickly proved fatal.

Charles Elliott Leopold Barton Hudson was born at Bungay, Suffolk, where his father resided. He received his early education at Bungay, and in 1880, at the early age of 18, he entered as a student at the Middlesex Hospital. As a student he had a very brilliant career, carrying everything before him. He was appointed Demonstrator of Physiology, and in 1884, the same year as that in which he obtained the diplomas of M.R.C.S. and L.R.C.P., he held in succession the offices of House-Surgeon and House-Physician. Afterwards he was appointed Surgical Registrar to the London Temperance Hospital.

In 1887, on a vacancy occurring in the post of Pathologist to the Middlesex Hospital, he was appointed to that office, and at about the same time Warden of the Medical College.

In 1890 he became Surgical Registrar to the hospital, and so continued until his appointment as Surgeon to the Throat and Ear Department in 1893. In 1894 he was selected for the office of Surgical Tutor, and proved himself to possess to a conspicuous degree the faculties required in a good teacher. He was highly esteemed by the students who came under his influence, and his loss will be keenly felt by them. In 1895 he was appointed Assistant-Surgeon to the Middlesex Hospital. In 1893 he had become Assistant-Surgeon and Surgeon to the Aural Department of the Hospital for Sick Children, Great Ormond Street.

In 1890, when the Royal Commission on Tuberculosis was appointed, Mr. Ritchie, who was then President of the Local Government Board, nominated Mr. Hudson as Secretary to the Commission.

In this position Mr. Hudson's tact and ability were conspicuously displayed, and those who worked with him on this Commission will long remember the energy that he put both into the organisation of the work and the publication of the Appendix to the Report of the Commissioners. No trouble was too great and no means were to be left untried to get the very best evidence that could be obtained for the guidance of the Commissioners, whilst the Index that was drawn up by Mr. Hudson was in its way a model of what an index summary should be. The same qualities of mind and character were displayed by him during the period that he was able to act as Secretary to the Committee appointed by the Board of Agriculture to report on swine fever, and there can be no doubt that part of the success that attended the work of these two Commissions was the result of his appointment as Secretary. One who has had much to do with him in connection with these Commissions says that he always found him extremely courteous, careful of the most minute details; willing and anxious to help on all occasions, and possessing a most wide and accurate knowledge of what had already been done and what was still to be elucidated. Had Mr. Hudson done no other work, his contributions to the success of the two reports would have left a mark that will not soon be effaced.

Mr. Hudson held the commission of Surgeon-Captain in the Middlesex (Duke of Cambridge's Hussars) Yeomanry Cavalry and Army Medical Reserve. He took much interest in the Volunteers, and was a teacher in the Volunteer Ambulance School of Instruction.

He married in January, 1895, the daughter of Mr. Septimus Vaughan Morgan, and leaves her a widow with two children.

The funeral ceremony took place on April 1st, and the first part, which was held at St. Paul's Church, Great Portland Street, was attended by a large number of friends, members of the staff of the Middlesex Hospital, and many students of that school.

The death at so early an age of a man who had so many claims on the esteem of the profession, and who had shown himself able and public-spirited in many responsible offices, will be a source of great regret to all, and much sympathy will be felt with the young family thus so sadly bereaved. By those who had the advantage of his personal acquaintance his loss will be keenly felt. A warm friend and courteous antagonist, he possessed much social charm, and was held in much affection by a large circle of friends. He took a keen interest in politics, and had shown himself a good speaker on public platforms. The early termination of a career which seemed to promise so much is a distinct loss to the profession to which he was so much attached.

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### WILLIAM HICKMAN, M.B.Lond., F.R.C.S., J.P.,

Surgeon-in-Ordinary to H.R.H. the Duke of Edinburgh and of Saxe-Coburg Gotha.

Dr. Hickman died on March 27th in the 61st year of his age. He was educated at University College, and also studied in Paris. In 1860 he took the degree of M.B. at the University of London, and in the following year became a Fellow of the Royal College of Surgeons by examination.

He displayed great ability early in life, and contributed papers of scientific and clinical interest to medical papers and societies; he also was for a time Surgeon to out-patients to the Samaritan Free Hospital. His special talents, however, did not lie in the direction of hospital and pathological work. Besides being an able and popular practitioner, he was an excellent judge of the problems of medical politics. His voice was heard in questions relating to the Council and diploma holders of the College of Surgeons, and he wrote a pamphlet entitled "Pleas for the Amalgamation of the Royal Colleges of Physicians and Surgeons into a Degree-Conferring Royal College of Medicine."

As early as 1884 Dr. Hickman took an active part, as a Fellow, in College reform. He showed in our pages that, as in most other elections to positions of trust and responsibility, it is usual for candidates to express publicly their views on the various topics agitating the constituency at the moment of candidature, there was no reason why the College elections should be an exception to that rule. Hickman's principle is universally accepted by the Fellows in these days. At the same time he strongly urged, in our pages, the establishment of a Royal College of Medicine. He set forward prominently the truth so serious to the practitioner that the letters M.D. command a higher social and commercial value than the longer row of capitals representing the diploma of even the best of colleges. This natural desire for an "M.D." had led to well-known evils—the taking of inadequate foreign degrees for example. Hickman's idea was not the lowering of the London University standard, but the granting of powers to the two Royal Colleges in London to confer the degree "Doctor of the Royal College of Medicine." M.D. of the R.C.M. appeared to him a good title for the English physician. These views were published in an extended form in the pamphlet above noticed.

Dr. Hickman also studied minutely the influence of free and provident dispensaries and hospitals on the general practitioner. In February, 1883, when President of the Harveian Society, he delivered a long address on the subject. Hickman was an authority on the question, having been surgeon both to a dispensary and a hospital. Mr. Timothy Holmes had already shown the abuses of indiscriminate hospital charity, but Dr. Hickman in his address expressed his ideas in a manner likely to enlighten and impress a Society meeting, statistics being excluded. Before the same Society Dr. Hickman dwelt on another grave feature of the hospital system. Students in these days began their education in great medical schools, where the training is most suited to make a staff surgeon or physician. Hence medical education, as conducted, does not turn out good general practitioners. Under the old apprentice system the young beginner saw at once the wage by which he would make his bread. In the hospital his attention is too much turned to brilliant operating and to subtle feats of auscultation.

In short, Dr. Hickman was a staunch and loyal advocate of the general practitioner, a class of which he was a brilliant ornament. He practised for some time in Dorset Square, N.W., and for many years was unofficially employed as physician to the Duke of Edinburgh. In February, 1892, he was officially gazetted Surgeon-in-Ordinary to His Royal Highness. He latterly practised in Harley Street, where he died on March 27th.

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## NAVAL AND MILITARY MEDICAL SERVICES.

### A RESERVE OF NURSES.

The Secretary of State for War has approved the formation of a reserve of nurses to supplement the regular nursing service in the army in the event of a war on any extended scale. In time of peace the newly constituted reserve will be controlled by a committee under the control of Princess Christian, and in time of war the nursing sisters, or as many of them as may be required, will be entirely under the control of the War Department. The Army Nursing Reserve will consist of one hundred or more nursing sisters, a certain number of whom may be detailed by the military authorities as acting superintendents. Candidates must not be under 25, or over 35, years of age. When called up for duty a sister will receive £40 per annum, with £20 additional when performing the duties of acting superintendent. The allowances and gratuities on leaving are on a liberal scale, and no doubt is felt by the authorities that the service will be an extremely popular one. Full particulars can be obtained on application to the Army Medical Department, War Office.

## THE NAVY.

THE following appointments have been made at the Admiralty: RICHARD W. STANISTREET, Surgeon, to the *Britannia*, March 19th; JOHN P. J. COOLICAN, Staff-Surgeon, to the *Wildfire*, additional, for the *Sans Pareil*, March 30th; ROBERT HICKSON, Surgeon, to the *Philomel*, March 29th.

Deputy-Inspector-General WM. FORREST MACCLINTON, M.B., died at 68, Lansdown Road, W., on March 22nd, in his 74th year. He was appointed Surgeon, August 10th, 1849; Staff-Surgeon, June 10th, 1858; Fleet-Surgeon, July 15th, 1870; and Honorary Deputy-Inspector-General, on retirement, April 1st, 1881.

Surgeon THOMAS GIBBONS, B.A., M.B., of the *Jason*, at present lying off Kingstown, was drowned in Kingstown Harbour on March 14th. Surgeon Gibbons, with three brother officers—Second Lieutenant A. A. Ellison, Engineer G. G. Knight, and Assistant H. W. H. Cox—travelled from Dublin to Kingstown by the last train on Saturday night. They arrived about 12.15 A.M., and embarked in a small boat, which sank midway across the harbour. A boat put off from the *Jason*, and a second from the coast-guard station picked up the four naval officers, but the two boatmen were drowned. Medical aid on board the *Jason* restored three of the rescued officers, but Surgeon Gibbons succumbed. The deceased officer was appointed Surgeon in the Navy, May 15th, 1895, and was appointed to the *Jason* in March, 1896.

## INDIAN MEDICAL SERVICE.

SURGEON-COLONEL ROBERT BOWMAN, Bombay Establishment, Principal Medical Officer Sind District, is permitted to retire from the service from March 31st. His first commission dates from March 31st, 1866; that of Surgeon-Colonel, from February 26th, 1893. He was in the Abyssinian war in 1867-68, when he was in medical charge of the 3rd Sind Horse, and has the medal granted for that campaign.

Brigade-Surgeon-Lieutenant-Colonel T. H. HENDLEY, C.I.E., Bengal Establishment, Residency Surgeon, Jeypore, and Administrative Medical Officer, Rajpootana, is granted the temporary rank of Surgeon-Colonel, with effect from February 14th, 1897, while officiating as Inspector-General of Civil Hospitals, North-West Provinces and Oude, *vice* Surgeon-Colonel W. P. Warburton, appointed to officiate as Director-General, Indian Medical Service, and Sanitary Commissioner with the Government of India.

Surgeon-Lieutenant-Colonel A. K. STEWART, M.B., Bombay Establishment, has retired from the service, from March 31st. He was appointed Assistant Surgeon, March 31st, 1876, and Surgeon-Lieutenant-Colonel twenty years thereafter. He served in the Afighan war in 1880, took part in the defence of Candahar, including the sortie of Deh Khojah (twice slightly wounded), and was present at the battle on September 1st; he was mentioned in despatches, and received the medal with clasp.

## THE ARMY MEDICAL STAFF RATES OF INDIAN PAY.

THE following are the revised scales of pay which have been sanctioned by the Secretary of State for the Army Medical Staff in India, and for certain grades of the Indian Medical Service, with effect from April 1st. For the scale in Article 306, Army Regulations, India, volume i, part i, the following is to be substituted:

| | Per Mensem. Rs. | a. | p. |
|---|---|---|---|
| Brigade-Surgeon-Lieutenant-Colonel ... ... | 1,150 | 0 | 0 |
| Surgeon-Lieutenant-Colonel ... ... ... | 1,056 | 9 | 7 |
| After twenty-five years' service... ... ... | 1,093 | 2 | 0 |
| Surgeon-Major on appointment ... ... | 789 | 3 | 0 |
| After fifteen years' service ... ... ... | 825 | 11 | 5 |
| Surgeon-Captain, Surgeon-Lieutenant... ... | 350 | 0 | 0 |
| Surgeon-Captain after five years' service ... | 450 | 0 | 0 |
| Surgeon-Captain after ten years' service ... | 500 | 0 | 0 |

These rates of pay, however, will not be applicable to officers of the Indian Medical Service, except surgeon-captains and surgeon-lieutenants holding no specific appointments. The grade pay laid down in Article 306 C., Army Regulations, India, vol. i, for officers of the Indian Medical Service, is to be revised as follows:

| | Rs. | a. | p. |
|---|---|---|---|
| Brigade-Surgeon-Lieutenant-Colonel ... ... | 900 | 0 | 0 |
| Surgeon-Lieutenant Colonel ... ... ... | 852 | 3 | 7 |
| After twenty-five years' service ... ... | 888 | 12 | 0 |
| Surgeon-Major on appointment ... ... | 640 | 14 | 6 |
| After fifteen years' service ... ... ... | 677 | 6 | 11 |
| Surgeon-Captain or Surgeon-Lieutenant ... | 300 | 0 | 0 |
| Surgeon-Captain after five years' service ... | 400 | 0 | 0 |
| Surgeon-Captain after ten years' service ... | 450 | 0 | 0 |

These rates of pay will be drawn by all medical officers in receipt of staff salary, or holding no specific appointment except as provided in Article 320 of the regulations quoted.

A brigade-surgeon-lieutenant-colonel in charge of a native regiment is to receive 1,100 rs. per mensem, consolidated pay.

## THE RECRUITS OF 1896.

OUR Lobby Correspondent writes: Beyond the general facts given in the annual report of the Inspector-General of Recruiting, there are usually several points of interest to medical readers. Sir F. Grenfell states, for instance: "During the year reductions as follows were made in the minimum height of recruits for the Cavalry of the Line and Foot Guards. From February 8th, 1896, the cavalry standard was reduced by one inch, owing to the rapidity with which the recruits develop and increase in weight, and in order to prevent any undue strain upon the horses in mounting the heavy men. The standard of height for the Foot Guards was also, from December 24th last, reduced by half an inch. On the other hand, the standard for the Royal Artillery (gunners) was raised by half an inch on September 7th last." Figures are given showing that the steady decrease in numbers especially enlisted under the standard to which attention was directed in the last report still continues as the proportion of such enlistments, which had fallen from 32.9 in 1891 to 19.9 in 1895 now reaches nearly 18 per cent. He further observes "that 1,324 of the recruits who were enlisted under standard during the first six months of 1896 were remeasured on January 1st, 1897, and that 912 of these, or 68.9 per cent., were then found to have reached the full standard; and also that, out of 694 who were enlisted under standard between July 1st and September 30th last, 57.9 per cent. had already reached the standard by the end of the year. These results may fairly be attributed to the new system of gymnastic training, which was specially drawn up with a view to the gradual development of the physical powers of the young soldier, and which came into force on March, 1896."

A table is given showing the number of recruits who have presented themselves for medical examination during the past five years, the number of those who were rejected, and the percentage of rejections. From these it appears that during the period the percentage of rejections remains practically the same. It was in 1892 20, in 1893 20 5, in 1894 21, in 1895 20 5, in 1896 20.6.

Another table shows the number of men who were discharged as invalids in their first and second year of service during the last five years, and the proportion of such invalids to the effective strength. From this it would appear that the proportion of invalids per 1,000 effective under two years' service was in 1892 14, in 1893 15, in 1894 12, in 1895 16, and in 1896 18.

It will be seen, therefore, that in both these tables the year 1896 presents larger percentages, though, perhaps, only to a small degree, than any of the previous years under review.

# MEDICO-LEGAL.

## CORONERS' INQUESTS.

IT has been assumed that the object of an inquest before a coroner was to find out as accurately as possible, aided by medical skill and scientific witnesses, the cause of death. According to the *Stalybridge Reporter*, an inquest was held recently upon the body of a man who had been well and favourably known in the town for many years. The history of the death was that whilst sitting in his chair after having just returned home from a walk, he fell forward unconscious and expired almost immediately. Upon the arrival of medical aid life was pronounced extinct. No medical witness was called according to the report, but the coroner stated to the jury that "it was quite clear that Mr. — died very suddenly from failure of the heart's action, no doubt produced by indigestion. The wind would gather in the stomach and press upon the heart, and then he would collapse, dying straight away." The jury returned a verdict of "Death from natural causes" Such an inquest as this shows the necessity of amending the laws relating to coroners. The regulations are out of date, and too much is left to the discretion of the presiding officer.

## UNQUALIFIED PRACTICE AT BIRMINGHAM.

AN inquest was held recently at Birmingham upon the body of Elizabeth Round, aged 35. From the report given in the *Birmingham Daily Post* it appeared that the deceased had suffered from a stye in the eye, and had visited and procured medicine from a dispensary which was called "The Midland Homœopathic and Magneto-Electric Institute." Some little time after she became worse and died. The proprietor of the institute was called to give evidence, and stated that he had no qualification as a medical man, but had been a chemist. On being asked what the letters "M.E.F.S.Sc.," which were affixed to his name, meant, he answered that they represented the titles "Medical Electrician and Fellow of the Society of Science and Arts." The medicine which he gave deceased consisted of pulsatilla, "a homœopathic medicine used for blood purifying." The medical evidence was to the effect that the heart of the deceased was weak and dilated, and that death was the result of heart disease. A person suffering from such a cardiac condition should not have taken pulsatilla. The coroner, in summing up, stated that it was highly improper that an unqualified person should attempt more or less to impose upon the unintelligent public by holding himself out by the manner of his advertisement to be a properly qualified medical practitioner. The jury returned a verdict of "Natural death."

## RECOVERY OF CHARGES.

M.B.M.A. writes that he lately attended a child in his village. The parents live elsewhere, and the child was being cared for by a woman living in a small cottage in the village in question. This woman was paid 6s. a week by the father; the child died. Our correspondent states that on sending his bill to the father, he refused payment on the ground that he was a minor. His wife, who is also a minor, lives with her mother. The man referred him to his wife for payment, stating that it was "her affair." Our correspondent inquires if his proper course will be to take out a county court summons against the father, and, if so, whether the fact of his being a minor would prevent his obtaining judgment.

*** Medicines and medical aid are necessaries for which an infant may contract and render himself liable, but in this case the contract would have to be implied. We are advised that it is probable that a contract would be implied, and that the father would be liable in such a case, and that his plea of infancy would not avail. At any rate, our correspondent might take out a county court summons against the father if, after a notification that legal proceedings would be taken in default of payment, he still refuses to pay. The circumstances are a little peculiar, and we cannot, of course, tell with certainty what view the county court judge may take.

PRESENTATION.—Dr. Thomas Sharples has recently been presented by the members of the ambulance class which he has conducted in the Lostock Hall, Preston, with two volumes of Dr. Nansen's new work, *Farthest North*.

# MEDICO-PARLIAMENTARY.

## HOUSE OF LORDS.

### THE INFANT LIFE PROTECTION BILL.

THE EARL OF DENBIGH, in moving the second reading of this Bill on Monday last, said that last session he had introduced a measure having a similar purpose to the present one. The object sought was so to amend the law relating to the protection of infant life that it should no longer be the dead letter it at present was, except in the district under the control of the London County Council, at whose request he had introduced his amending Bill. Registration of houses was now only required in cases where more than one child of less than 12 months old was kept, so that any person was free to take in one child of less than 12 months, and any number above that age. The evils arising from this—apart from cruelty and neglect—were the cause of a mortality rising even as high as 90 per cent. The Select Committee to which the Bill of last year was remitted, decided that notification to the local authority of the intention to keep infants would meet the needs of the case, such notification not to be insisted upon where only one child was to be kept. The present Bill would in no way interfere with charitable societies who entrusted children to foster parents to nurse, nor would it put any difficulty in the way of the vast amount of good done by voluntary societies. The people the Bill sought to restrict were those who had farmed children as a profession—who had children handed over to them, together with a lump sum of money. In the interests of humanity it was necessary to do something to restrict this trade in children, who were in extreme cases taken with the deliberate intention of murdering them. Some objection had been taken to the permissive character of the Bill, but the desire was to save expense to rural districts. The authority under the Bill for administering the law was the District Council, but it was urged by some that the Board of Guardians would be the better authority. On all matters of detail such as these the Bill was open to amendment.—The BISHOP OF WINCHESTER, in supporting the second reading of the Bill, said it had been made clearly evident that the existing machinery for infant life protection was unworkable. He thought the provisions of the present Bill would improve matters at a minimum of personal hardship and public expense, and would go far to put an end to the lingering sufferings inflicted from sheer ignorance or callous indifference by foster parents on children entrusted to them. A leading feature of the question was the fact that the children it was sought to protect were in the main number illegitimate, and he thought it was desirable that more complete statistics of the mortality among children of illegitimate birth should be available. In London in 1895 there were 2,119 inquests upon children under 12 months old, and as the ratio of illegitimate children to legitimate born was as 1 to 25, the mortality should bear the same proportion. But they had to face the fact that, instead of the illegitimate children numbering 90 upon whom inquests were held, they numbered 322. Dr. Tatham, of Manchester, had also furnished them with some figures as to the death-rate among these two classes of children in the city, from which it appeared that the mortality among legitimate infants in Manchester averaged 174 per 1,000, whereas that of illegitimate infants amounted to 392 per 1,000, or nearly 40 per cent. Very severe blame could not be attached to the unfortunate mother, who to earn a livelihood was obliged to board out her child at the least possible expense, but undoubtedly some such machinery as that proposed in the Bill to deal with and control the persons receiving foster children was urgently required.—Lord BELPER, on behalf of the Home Secretary, expressed sympathy with, and approval of, the objects of the measure, but thought the Bill would not have much effect upon those dreadful cases of baby farming which were brought to light from time to time, although it would do something to ameliorate the general treatment of foster children, and to prevent the suffering arising from ignorance and carelessness which in the majority of cases had more to do with the sufferings of infants than deliberate cruelty. After the evidence produced before the Committee which last year considered this subject, he thought that the strongest advocates of registration where only one child was kept would agree that that provision had been wisely omitted from the present Bill as impossible to be maintained. He thought the alteration from registration to notification would have the effect of encouraging entries being made. In agreeing on behalf of the Home Office to the second reading, he would ask that the Committee stage of the Bill should be deferred until after Easter, so that the details of the measure might be considered by the Home Office, and any necessary amendments prepared.—The Bill was read a second time.

### CONTAGIOUS DISEASES IN INDIA.

There have been presented in both Houses copies of representations received by the Secretary of State for India from the Royal College of Surgeons of England and the Royal College of Physicians, relative to the prevalence of venereal disease among the British troops in India; and of a despatch to the Government of India regarding the measures to be adopted for checking the spread of venereal disease among the British troops in India.

## HOUSE OF COMMONS.

### BARRACK SCHOOLS.

ON Friday, March 27th, on the vote on account for the Civil Service and Revenue Departments, Sir A. ROLLIT moved to reduce the vote relating to the Local Government Board, in order to draw attention to the proposed Sick Children's Asylum District, which was proposed by the President of the Local Government Board, and which formed the subject of a draft order that had been circulated among the Boards of Guardians of the metropolis. He submitted that the order had caused the greatest alarm amongst local authorities in London, and expressed a hope that it would be either withdrawn or modified. The ratepayers, he maintained, regarded with the greatest misgivings the scheme for the creation of a new Central Board, the building of a new institution, special hospitals, seaside convalescent homes, and the employment of a host of inspectors. He objected to the adoption of the Poor-law Schools Committee's report before there had been full opportunity given for discussing it. The guardians should not be deprived of their functions without due consideration, and the Local Government Board must remember that the condition of affairs which had existed in the past had been the outcome of their own inaction. Finally, he held that the creation of the proposed new Board would not only lead to unnecessary expense, but was rendered unnecessary by existing organisations, such as the Metropolitan Asylums Board and the St. Pancras Board. What was needed was not revolution, but reform. He pointed out that the draft order had not been favourably received by the representative metropolitan bodies, and that it would complicate rather than simplify the present system. He hoped the President of the Local Government Board would carry out the recommendations of the Departmental Committee, and appoint a Central Board to deal not only with the sick, feeble, and imbecile, but with all pauper children.—Sir W. FOSTER was not enamoured of the idea of handing over the control of these abnormal children to a separate body, but considered that the better course would be to leave the responsibility to the guardians subject to the supervision of the Local Government Board. If there were a sub-department of the Board charged with the care of children, sick as well as healthy, they would do a great deal to improve not only the education of such children, but to stamp out those diseases which had been a scandal to Poor-law administration.—Sir C. DILKE was of opinion that if Boards of Guardians were more and more induced by the example and teaching of the Local Government Board either to board out or emigrate children, and to adopt the cottage home system, coupled, under the direction of the Board, with seaside homes for children suffering from certain diseases, without the remedy of the creation of a new central authority everything would be done which the House really desired. He thought that Parliament had thrown too much work on the Local Government Board. With regard to the Local Government Board, work had been heaped upon it session after session, and Parliament had not made a point of seeing that it was adequately manned; but a Departmental Committee was sitting to consider the question of reorganisation, and its report would doubtless be followed by valuable results.—Mr. DRAGE was as disappointed as anyone at the delay on the part of the Government in giving effect to the report of the Departmental Committee on Poor-law Schools. If a new authority were appointed to take charge of pauper children, it should be the Metropolitan Asylums Board. He thought that provision should be made for the care of those children called the "ins and outs," whose parents were unfit to have charge of them, that the law as to half-timers should be enforced, and that more women inspectors in connection with the boarding-out system should be appointed, one being obviously insufficient.—Mr. S. SMITH thought the draft order of the Local Government Board very inadequate. The public, he said, were convinced that the barrack school system was a mistake, the children being brought up like automatons without the slightest development of individual character. The children were starved, mentally and morally. In many of the large schools as many as 30 and 40 per cent. of the children were affected with ophthalmia, and went forth into the world handicapped with weak and defective eyesight. He failed to see why they should be unnecessarily exposed to this terrible evil. It was the result of their being herded together in the huge barrack schools. He favoured the boarding-out system, under which ophthalmia was not found to prevail. He also approved of emigration, but above all he wished to see the pauper schools abolished. They were terribly expensive, one having cost £177,000, and did the minimum of good at the maximum of cost. He defended the Boards of Guardians from attacks which had been made upon them, declaring that they were opposed to pauper schools, and in favour of restoring poor children to a wholesome family life.—Mr. CHAPLIN explained the circumstances under which the order of the Local Government Board came to be issued. The Poor-law Schools Committee published its report last year, but at the close of last session it was impossible for him to put before the House any definite policy, but he had come to the conclusion that the report must be dealt with. Some people thought that the report might be ignored altogether, but he did not share that view. If dealt with the choice of methods lay between the acceptance of the recommendations of the Committee on the one hand, or some such proposals as those he had issued. He had elected to proceed by order rather than by legislation, because he had feared there would not be an opportunity of passing a Bill this session. The order had been issued in a tentative form. It had been sent to the Boards of Guardians whose views he had become acquainted with, and he hoped that in the final form in which the order would be issued it would meet with general approval. The great difference between the report of the Committee and the order of the Local Government Board was that the Committee recommended the appointment of a central body to take over the charge of all the Poor-law children in the metropolis, while the order contemplated the appointment of a central authority to take over the control of certain classes of children only—children suffering from ophthalmia and diseases of the eyes, skin and scalp diseases, or mental or physical infirmities, and such as required the benefits of sea air or homes for convalescents. He felt that it would be a serious affair to take away from the guardians all control over the children, and that there was nothing to justify him in transferring them *en bloc* to a new central authority. He agreed with hon. members as to the evils of the barrack school system, but it was not possible to do away with it at once by a stroke of the pen. He desired to reduce them wherever possible. The transfer under the order of the classes of children he had named was the first step towards facilitating changes in the size and, to some extent, in the very construction of these great schools. It used to be alleged that ophthalmia was the creation of these schools and inseparable from them, but Dr. Stevenson had investigated the matter recently. He had examined 17,000 of these children, and found that there was in the Poor-law schools of the metropolis only one case of the severe type of ophthalmia, that disease, therefore, being practically extinct. Of the milder type the cases had been reduced from 42 per cent. in 1874 to less than 5 per cent. in 1897. There was one barrack school with 750 children in which there was not a single case of ophthalmia, and another in which the cases were only 4 in number. With regard to the new authority he had thought an

entirely new one should be appointed, and had issued the order in that form, but it had become evident that there was a large preponderance of opinion in favour of the Metropolitan Asylums Board, and he had willingly reconsidered the position. He thought the ultimate result would be that the children would be placed under the care of the Metropolitan Asylums Board.—Mr. MUNDELLA congratulated the right hon. gentleman upon having retraced his steps with regard to the order, and upon having assigned the children to the care of the Metropolitan Asylums Board. The children should be dealt with by one central authority, and that the guardians should be represented on the committee of management. To call into existence a new authority to deal with something like a thousand children suffering from various diseases would be most unreasonable and extravagant. With regard to ophthalmia, Dr. Stevenson had told the committee "long ago the majority of young adults coming under treatment for ophthalmia at the London hospitals had formerly been inmates of metropolitan pauper schools." He possessed returns from a number of ophthalmic surgeons which showed that a large proportion of such cases had come from those schools. Not only was the barrack school a vicious but it was a most wasteful system, the annual cost of the children in some of the establishments being £29 per head. If those schools could be swept away with a stroke of the pen to-morrow, an invaluable service would be rendered to the Poor-law children of the metropolis.—Mr. T. W. RUSSELL showed that many of the institutions to which pauper children were sent were in no sense barrack schools. And as to ophthalmia, the House should not lose sight of the following important statement made by Dr. Stevenson: "Apart from internal conditions, however, there can be no doubt that one great cause of the prevalence of ophthalmia in Poor-law schools comes from outside. The disease creeps into these institutions from the slums and courts of London, carried thither by the children who claim admission."—Mr. COHEN thought that healthy children should be confided to the care of the London County Council.—Mr. ATHERLEY JONES was disappointed with the ministerial announcement, believing that the control of the education of pauper children should be handed over to the Education Department. He pointed out that Dr. Stevenson had said that at Sutton and some other schools the percentage of children suffering from ophthalmia was 20 per cent. in one instance and from 14 to 9 per per cent. in others, which was to be attributed to overcrowding.—Sir A. ROLLIT withdrew his amendment.

### RABIES.

Dr. FARQUHARSON asked the President of the Board of Agriculture on what evidence the cases of canine hydrophobia recently reported in the metropolitan area were diagnosed. How often was the certifying surgeon able to base his conclusions on (1) symptoms observed during life, and (2) an examination of the nervous centres of the suspected dog by the scientific methods practised at the Brown Institute. And whether the department will in future require precise scientific detail before a dog is pronounced to be mad.—Mr. LONG: Ten cases of rabies were reported in the metropolitan district during the first two months of the present year. In every case a *post-mortem* examination was conducted by the veterinary inspector of the local authority, whilst in two of the cases the dogs were seen alive by veterinary surgeons, and in two others inoculation experiments were made at the Brown Institution. It is essential that the declaration of disease should continue to be made by the veterinary inspector of the local authority as contemplated by the Act, but it is proposed that in each case a full report should be made by that officer for the information of my own veterinary advisers.

### MEDICAL AND OTHER OFFICERS IN SCOTCH PRISONS.

Mr. ORR-EWING asked the Chancellor of the Exchequer whether, in view of the fact that the estimates for the year contained no proposal to increase the salary of any superior officer in the Scottish prison service, he would explain to the House why the recommendations of the Secretary for Scotland on this subject had not received favourable consideration at the hands of the Treasury.—Mr. HANBURY: I do not know how the hon. member became aware of the confidential communications between the Scotch Office and the Treasury referred to in this question. The Secretary for Scotland made six proposals; four of these were approved in full, one was approved in part—we gave the two extra doctors he asked for, and made a suggestion as to rearranging the salaries of the medical staff generally instead of increasing the salaries of two in particular. The sixth request—that is, that for increased pay to chaplains, was refused on the ground that it was not necessary.—Mr. ORR-EWING asked whether, in view of the fact that the salaries of Prison Commissioners and prison warders in Scotland and England had been conformed to the same rate of pay, he could state what the reason was why those of the chaplains and medical officers were not so conformed, the fact of a discrepancy unfavourable to Scotland having been pointed out by them to the Commissioners and the Secretary for Scotland.—Mr. HANBURY: The hon. member is wrong in his premiss. The salaries of the Prison Commissioners are not the same, nor are those of the prison warders. Without admitting that the pay should be the same, when the circumstances are different, the Treasury has expressed its readiness to consider the redistribution of emoluments in the case of medical officers.

### ADULTERATION OF FOOD PRODUCTS.

Mr. JEFFREYS asked the First Lord of the Treasury whether his attention had been called to the evidence given by the influential deputation from the Central and Associated Chambers of Agriculture and other representative bodies, received by the President of the Board of Agriculture on March 2nd, that a Bill to give effect to the recommendations of the Select Committee on Food Products Adulteration would receive general support from all quarters of the House; and whether, under those circumstances, the Government would introduce and press forward such a measure in the present session.—Sir JOHN LENG asked whether the right hon. gentleman was aware that in large cities like London, Manchester, Birmingham, and Glasgow much objection was taken to a recommendation of the Committee on Food Products Adulteration directed against the free sale of a wholesome and nutritious article of food much used by the working classes; and whether, seeing that this recommendation was carried by a majority against the Chairman of the Committee, who had described it in the House as of a highly contentious character, and in view of the numerous measures promised in Her Majesty's gracious Speech, he would defer the introduction of another Bill which would be keenly contested both in and out of Parliament.—Mr. CHANNING: Before the right hon. gentleman answers that question, may I ask whether he is aware that the deputation had the warmest support of members of this side of the House as well as on the other side?—Mr. BALFOUR said: I cannot at this moment make any promise as to the introduction or passage of such a Bill, but I will consult with my right hon. friend the President of the Board of Agriculture as to whether in any case it might not be desirable to bring a Bill before the House and read it, at all events, for the first time in order that the public may be able to judge of the character of the provisions which, in the opinion of the Board of Agriculture, it is desirable to introduce.

### THE ROENTGEN RAYS IN NAVAL SURGERY.

Sir JOHN COLOMB asked the First Lord of the Admiralty whether Captain Byrne, Royal Marine Light Infantry (since dead), was brought rom Portsmouth to be treated at St. Thomas's Hospital for gunshot wounds received in action at Benin because the Royal Naval Hospital, Haslar, was not supplied with the necessary apparatus for examination by the Roentgen rays; and if he would take the necessary steps to cause the chief naval hospitals to be furnished with the necessary appliances for the examination of wounds and for the scientific education of the surgeons of the Royal navy.—Mr. GOSCHEN: Captain Byrne, a most able officer, whose death is deeply to be deplored, went to St Thomas's Hospital for treatment for a gunshot wound at his own request, expressed almost immediately after his arrival on board the hospital ship *Malacca* on February 26th. This wish he reiterated most strongly on his arrival at Portsmouth. It had, so I am informed, no connection with the question of the examination of his wound by Roentgen ray apparatus. The development of this new science is being closely followed by the naval medical authorities, and care will be taken, as assured data are obtained, to supply the naval hospitals with all necessary appliances. The naval hospitals are now authorised to have ray radiographs taken when necessary.

### ST. STEPHEN'S SCHOOL, LEWISHAM.

Lord HUGH CECIL asked the Vice-President of the Council whether he was aware that the school of St. Stephen's, Lewisham, had suffered a serious temporary diminution of attendance owing to the fear of infectious disease; whether the managers of the school acted in accordance with the regulations of the Department in keeping it open, in spite of what was an unreasonable panic; whether, seeing that the school would suffer severely in its grant in consequence, and that under Article 101 of the Code, had it been closed, the period in which it was so closed would not have been reckoned in calculating the attendance, the Education Department could discriminate in favour of a school in this position and allow them the full grant; and whether, if the Department had no such power, they would consider the propriety of applying to Parliament to extend their discretion in the matter.—Sir J. GORST: The facts are as stated; but the Committee of Council have no power to exercise the discretion suggested. The case is very exceptional, and the matter will be considered in connection with next year's Code.

### THE ARMY MEDICAL SERVICE

Captain NORTON asked the Under-Secretary for War what steps he proposed to take in order to fill up the vacancies in, and complete the establishment of, the Army Medical Staff; and whether, in case of mobilisation, the Army Medical Staff was now sufficient for the medical needs of army corps.—Mr. BRODRICK: It is intended to give an increase of pay in India and a shorter tour of service there; assistance in forming medical messes at large stations; quarters in barracks, where possible; and better opportunities for study on return from foreign service. One or two other matters affecting the service are still under consideration. It is hoped that these additional advantages will increase the number of candidates for this service. My answer to the second part of the question is in the affirmative.

### THE LONDON WATER QUESTION.

Mr. CHAPLIN, in response to Mr. W. F. SMITH, said: The terms of the reference to the Royal Commission on the London water question are as follows: (1) To inquire and report whether, having regard to financial considerations and to present and prospective requirements as regards water supply in the districts within the limits of supply of the metropolitan water companies, it is desirable, in the interests of the ratepayers and water consumers in those districts, that the undertakings of the water companies should be acquired and managed either (*a*) by one authority or (*b*) by several authorities; and, if so, what should be such authority or authorities. To what extent physical severance of the works and other property and sources of supply of the several companies, and the division thereof between different local authorities within the limits of supply, are practicable and desirable, and what are the legal powers necessary to give effect to any such arrangements. (2) If the undertakings are not so acquired, whether additional powers of control should be exercised by local or other authorities, and, if so, what those powers should be. (3) Whether it is practicable to connect any two or more of the different systems of supply now administered by the eight metropolitan companies, and, if so, by whom and in what proportions should the cost of connecting them be borne, and what are the legal powers necessary to give effect to any such arrangement.—Mr. MARKS asked when the Metropolitan Water Consumers Bill would be introduced.—Mr. CHAPLIN: That Bill will be introduced, I hope, as soon as I see a reasonable prospect of proceeding with it, but I do not think there is any chance of my seeing that prospect before Easter.—Sir F. DIXON-HARTLAND asked whether the Government would agree to the return of the amount expended by the London County Council on negotiations and inquiries with respect to the purchase of the London water companies which stood on the paper.—Mr. CHAPLIN: I am not aware that there is any objection to giving the return asked for.

### THE CASE OF MRS. BEGG.

In reply to Mr. MURNAGHAN, Mr. G. BALFOUR said: The report of the inspectors of lunatics who held an inquiry at the Belfast District Asylum

into the circumstances attending the death of Jane Beggs deals with the matter at considerable length, and has been communicated to the Board of Governors of the asylum. The superficial physical examination of this woman was made by the assistant medical officer of the asylum on the day after her admission—namely, on January 6th. She was also examined on the same date by the resident medical superintendent. On January 8th a further examination was made by the visiting physician. The result of that examination by the assistant medical officer on the 6th instant was as follows: "State of bodily health, healthy; heart sound; lungs sound; bruises on legs, arms, and sides; small scars in same positions; œdema of hands and ankles." The strait waistcoat was put on on January 6th, and was taken off on January 8th. The inspectors have not been able to ascertain definitely whether deceased's ribs and breast bone were broken before or after that time, though in their opinion the weight of evidence favours the presumption that they were broken before that time.

### Health of the Troops in India.

Sir James Fergusson asked the Secretary for India if he would ascertain the views of the Government of India with reference to the protection of the health of the British troops in India before stating to the House the action which Her Majesty's Government proposed to take.—Lord G. Hamilton: I have for some time past been in communication with the Viceroy, and I propose to lay on the table of the House a despatch addressed to the Government of India in which the views of Her Majesty's Government are stated at length.—General Lawrie: Can the noble lord say when it is probable that the answer from the Government of India will be obtained?—Lord G. Hamilton: I think it better for my hon and gallant friend to read the despatch.—Major Rasch: In order to dispel misconception on this question, will the noble lord use his influence with the Government to give the House facilities for its discussion?—Mr. Balfour: I hope and believe the despatch is of such a character as not to call for any debate in this House. Perhaps the despatch had therefore be better read first by hon. gentlemen.

### The Midwives Registration Bill.

The second reading of this Bill has been further deferred to Thursday, April 8th.

# UNIVERSITIES AND COLLEGES.

## UNIVERSITY OF EDINBURGH.

First Professional Examination.—The following candidates have passed in the subjoined subjects:

*Botany.*—Mary Anderson, H. Bishop, G. B. Butt, V. A. P. Coghill, Catharine Fraser, H. J. George, E. M. Glanville, C. W. Howe, L. T. M'Clintock, A. C. M. M'Hattie, J. H. M'Kee, M. M. Meikle, G. I. Ovens, D. E. Pratt, L. S. Sandeman, B. A. Spence, and R. Thompson.

*Zoology.*—F. H. Bridgman, A. Cartner, H. L. Clift, J. Cook, H. J. Hoile, W. Hutchison, C. E. Hutson, A. R. Johnston, J. Lindsay, Elizabeth M'Elney, J. M'Turk, J. Y. Peebles, W. H. Prentice, G. A. P. Ross, G. H. Steven, G. L. Thompson, H. P. Thompson, T. L. Thomson, P. S. Tiliard, E. A. Walker, A. R. Wallis, C. E. Watts, A. G. Waugh, T. S. B. Williams, F. E. Wilson, H. T. Wolfenden, J. Woods, R. T. Young, A. P. Coskey, W. H. Dickinson, T. G. H. Dodds, C. Douglas, W. A. Duncan, J. M. Dupont, J. R. Edward, A. P. R. Fennell, N. C. Fischer, J. M Glasse, R. A. Glegg, M. H. Graham, A. L. Gurney, J. Haegert, J. Halliday, W. Hamilton, N. C. R. Hansen, A. W. Hauman, T. J. H. Hofmeyer, J. P. P. Inglis, F. F. C. Jagger, E. Johnston, W. Lee, Isabella Logie, R. J. M'Clelland, G. M'Neill, H. C. Martin, A. F. G. Masson, W. H. Meyer, G. R. Mill, Sophie Palmer, C. T. Moller, P. Murray, W. Murray, D. A. Ogilvie, J. F. Orr, D. E. S. Park, T. B. Paterson, W. S. Patton, S. G. Peill, G. Pereira, H. G. Pesel, A. C. etersen, A. H. Reid, J. S. E. Robertson, M. W. Robertson, F. E. oss, L. Rundall, Henrietta W. Rusack, C. W. V. Rutherford, T. B. Shaw, M. W. Smart, Margaret M. Smith, T. A. Smyth, C. W. Somerville, G. B. A. Speirs, W. C. Speirs, J. P. Steven, I. S. Stewart, G. C. Strathairn, W. L. L. Alston, R. V. C. Ash, R. T. Baillie, G. S. Blandy, V. C. de Bonville, J. C. Boyd, E. S. Brett, A. Brock, A. Brown, K. A. Kappie, C. W. C. Crooke, E. M. Glanville, Mabel D. Gulland, H. W. Gush, C. W. Howe, E. Jones, E. Macmillan, R. Murray, A. O'Flaherty, Dorothy E. Pratt, M. S. Scott, P. Shaw, H. L. Spark, J. Brownlee, D. I. Brownlie, G. C. Burgess, D. G. Carmichael, A. W. S. Christie, Paula T. Copeland, and R. M. Liddell.

## UNIVERSITY OF GLASGOW.

The following have passed the First Professional Examination for the degrees of M.B. and Ch.B in the subject or subjects indicated (B., botany; Z., zoology; P., physics; C., chemistry):

M. Aikman, M.A. (C.); A. Anderson (Z., C.), J. Anderson (C.), T. Anderson (Z., P.), W. Archibald (Z., P.), J. O. Barclay (B., C.), J. S. Barr (Z., C.), T. T. Bathgate (B., C.), G. T. Bogle (Z.), H. E. Brown (Z., C.), W. M. Brown (Z., P.), J. D. Brownlie (C.), J. J. Burke (Z., P., C.), E. C. Burnett (Z., P.), J. M. H. Caldwell (Z., C.), S. J. Cameron (B., C.), J. J. Y. Campbell (Z.), R. D. Campbell (Z., P.), R. P. Cartwright (Z., P.), G. H. Clark (Z.), J. T. Clark (Z., P.), J. B. W. Cook (Z.), J. Craig (P., C.), E. H. Cramb (B., P.), A. Currie (Z., P.), D. B. Davidson (Z.), A. Doig (B., C.), D. Douglas, M.A. (B., Z., C.), J. Downie (B., C.), R. N. Dunlop (Z., P.), G. B. Eadie (Z., C.), W. Elder (Z., P.), W. W. Farrar (B., Z., P., C.), D. J. Fletcher (B., C.), A. Fraser, M.A. (C.); G. Garrey (B., P.), D. G. S. Gartshore (B., Z.), J. Gemmell (P.), W. Gemmill (P.), E. Gillespie (C.), G. Gordon (Z.), A. Gow (Z. P.), A. P. Granger (Z., P.), J. Gregor (B., C.), C. H. Gunson (C.), G. P. Harlan (Z., C.), F. J. Henry (Z., P.), M. Hunter (Z., C.), W. J. Isbister (Z., P.), J. D. Keir (Z.), R. D. Kennedy (C.), W. B. Kerr (C.), N. M. Leys (C.), D. M'F. Livingston (B., C.), F. Lochrane (Z., C.), D. D. Logan (B., Z., C.), E. Magoveny (Z., P.), J. Mains (B., C.), R. M'N. Marshall (C.), J. Millar, M.A. (Z.); R. J. Mills (Z., P.), W. A. Milne (Z., P.), H. S. Minto (Z., P.), A. D. Mitchell (Z.), A. H. Muir (Z., P.), A. MacCulloch (P.), C. Macdonald (Z.), W. J. M'Feat (B., Z.), G. S. M'Kinnon (C.), H. A. M'Lean (Z., P.), D. H. Macphail (P.), B. M'Phee (P.), J. M'Pherson (C.), D. M. MacRae, M.A. (B., Z.); J. D. Nisbet (Z., P.), D. S. Paterson (Z., C.), J. Paton (Z., P.), J. Patrick (C.), R. Ramsey (B., Z., P., C.), T. H. Rankin (C.), P. M. Reid (B.), J. W. Renton (B., Z.), W. Robertson (Z., P.), W. G. Rodger (Z., P.), A. T. Ross (Z., P.), D. Russell (B., C.), J. Samson (B., P.), M. A. Sinclair (Z., C.), M. B. G. Sinnette (Z.), A. Smellie (Z., P.), D. Spence (C.), D. Steel (Z., P.), A. Stewart (B., C.), J. Stewart, M.A. (B., C.); J. A. Sutherland (Z.), R. R. Swan (Z., P.), J. N. Todd (Z., P.), J. G. Tomkinson (Z., P.), J. W Turner (Z., P.), J. Unsworth (P., C.), R. W. Valentine (Z., P.), J. Walker (Z., P.), W. D. Walker (Z., C.), G. S. Wallace (Z., P.), R. Watson (Z., P.), A. S. Wilson (Z., P.), D. A. Wilson (P.), J. Wilson (Z., P.), J. Wilson (Z., P.), H. P. Wright (B., C.), J. Young, (Z.). Women—Martha Adams (P., C.), Margaret Edith Bryson (P., C.), Gertrude Jane Campbell (B., Z.), Janet Bisland Higgins (P., C.), Jessie Seath M'Ewen (P., C.), Mary Janet Pirret (P., C.), Mary Emma Potter (P., C.), Margaret Mitchell Ritchie (B., Z.), Mary Ann Thompson Ritchings (C.), Agnes Brymner Sinclair (C.), Agnes Bankier Sloan (P., C.), Elizabeth Macfarlane Sloan (P., C.), Mabel Talbot (P., C.), Edythe Marjorie Stewart Walker (B., Z.), Henrietta Fraser Young (C.).

The following have passed the Second Professional Examination (Old Regulations) for the degrees of M.B. and C.M.:

W. H. Jamison, D. G. Lindsay.

The following have passed the Second Professional Examination for the degrees of M.B. and Ch.B. in the subject or subjects indicated (A., Anatomy; P., Physiology; M., Materia Medica and Therapeutics):

R. F. Ballantyne (M.), J. N Baxter (M.), J. F. Bennett (A., P.), A. Brownlie (A., P.), J. J. Buchan (M). W. A. Burns (A., M.), T. B. Calland (P.), R. D. Campbell (A., P., M.), J. Carruthers, M.A. (A., P., M.), J. R. Chalmers (A., P.). W. Crerar (A.), J. Cullen (M.), C. C. Cumming (A., P.), J. R. Currie, M.A. (M.). A. W. W. Davidson (A., P.), D. C. Douglas (A.), J. Drummond (A., P.). B. Dunlop (P., M.), H. C. Ferguson (A., P.), W. Gibson (A., P.), J. G. Green (P.), D. S. Harvey (M.), T. Inglis (P.), N. Jamieson (A., P.), A. Kerr (A., P.), A. S. Lang (M.), R. Lunan (A.), R. Millar (A.), H. Miller (A., P.), N. M. Miller (A., P.), E. W. Milne (M.), J. H. MacDonald (A., P.), P. M. M'Fadyen (A., P.), J. M'Gilchrist (A., P.), C. F. Maclean (A), N. F. MacLeod (A., P.), A. R. Maclurkin (A., P.), J. M'Millan (A., P.), W. G. Neill (M.), A. D. Nicolson (M.), J. Patton (A., P.), W. A. Riddell (A., P.), A. Robin (A., P.), J. Scott, M.A. (A., P.), J. Shearer (A., P.), D. A. Simon (P., M.), A. J. Smith (M.), D. J. Smith (A., P.), J. Smith (M.), J. J. Smith (P., M.), P. A. Steven (A., P.), A. G. Stewart (A., P.), A. Taylor (M.), C. P. Thomson (A., P.), W. B. Thomson (A.), H. N. Turner (M.), W. Webster (M.), A. S. Wells, M.A. (A., P.), W. Wright (A.), J. D. Young (A., P.). Women: Sarah Davidson (A., P.), Marjorie King Henderson Fleming (A.), Jessie Downie Grainger (A., P., M.), Jane Grant (M.), Mabel Hardie (A., P.), Jessie Sophia Beatrix Hunter (P., M.), Ina Lochhead M'Neill (A., P.), Jean Effie Prowse (M.), Sara Maude Robertson (A.), Maud Spencer (A., P.), Gertrude Florence Fleetwood Taylor (A., M.), Grace Lorrain Young (A., P., M.).

The following have passed the Third Professional Examination for the degrees of M.B. and C.M.:

(*a*) *Including Pathology.*—J. Donald, G. Murray, A. Stevenson, A. J. T. Swann.

(*b*) *Not including Pathology.*—J. J. Edgar, W. H. Jamison, G. Moreland, J. M'Caig, D. W. Smith, A. Waugh.

The following have passed the Third Professional Examination for the degrees of M.B. and Ch.B. in the subject or subjects indicated (P., Pathology; M., Medical Jurisprudence and Public Health):

J. Aitken (P., M.); G. Alexander (P., M.); A. S. Allan (P.); A. J. Ballantyne (P. M.); A. A. Barclay (P., M.); W. Bennett (P.); J. S. Beveridge (P., M.); G. MacL. Blair (P., M.); J. G. W. Boleyn (P.); A. Clark (P., M.); R. Crawford (P. M.); R. Douglas, M.A. (P. M.); K. M'K. Duncan (P., M.); J. F. Fleming (P.); R. Fullarton, M.A. (P.); A. Garrow (P.); H. S. Heap (P.); J. Henderson (P., M.); W. W. Keir (P., M.); A. Lawrie (P., M.); A. Matheson (P., M.); J. B. Miller (P., M.); J. A. Mitchell (P. M.); M. Macdonald (P., M.); L. A. Mackenzie (M.); R. R. Macnicol (M.A. (P., M.); J. M'Whir (P. M.); R. Niven (P., M.); P. L. Pearce (P.); J. W. Scott (P., M.); J. Shaw, M.A. (P., M.); J. L. Simpson (P., M.); J. M. Sloan (P. M.); P. D. Strachan, M.A. (P., M.); J. D. C. Swan (P., M.); D. R. Thomas (P., M.); W. L. Thomson (P., M.); W. J. A. Walker (M.); R. A. H. Watson (P.); E. R. Weir (P.); J. P. Wilson (P., M.); W. Wyper (P., M.). Women: Daisy Annabelle Bennett (P., M.); Agnes Forbes Blackadder (P., M.); Jane Lorimer (M.); Eva M'Call (P., M.); Minna Amelia Macfarlane (P., M.); Annie Louise M'Ilroy (P. M.); Margaret Wallace Howie M'Neil (P.); Mabel Catherine Poulter (P. M.); Agnes Renton Robson (P., M.); Marion Jamieson Ross (P., M.); Sara Whiteford (P.).

## UNIVERSITY OF ST. ANDREWS.

The following registered medical practitioners, having passed the required examinations, had the degree of Doctor of Medicine conferred upon them on March 26th:

C. G. Bunn, M.R.C.S.Eng., L.R.C.P.Edin., L.S.A.Lond.; E. Buxton, M.R.C.S.Eng., F.R.C.S.Edin., M.R.C.P.Edin., D.P.H.; T. A. Dixon, M.R.C.S.Eng., L.R.C.P.Edin., Surgeon-Major A.M.S.; E. M. Garstang, M.R.C.S.Eng., L.R.C.P.Edin.; W. R. Hadwen, M.R.C.S.Eng., L.R.C.P.Lond., L.S.A.Lond.; A. H. Hoffman, L.R.C.P.Edin., L.R.C.S.Edin., L.F.P.S.G.; T. W. Jackson, M.R.C.S.Eng., L.R.C.P. Edin., L.S.A.Lond.; A. Mallagh, L.R.C.P.Edin., L.R.C.S.Edin.; H. Williams, M.R.C.S.Eng., L.R.C.P.Edin.; R. P. Williams, L.R.C.P. Edin., L.R.C.S.Edin., D.P.H.

## THE VICTORIA UNIVERSITY.

Faculty of Medicine, Final Examination.—The following candidates have satisfied the Examiners:

*Part I.*—E. L. Anderson, University College; W. J. S. Bythell, Owens

College; H. M. Cockcroft, Owens College; H. Davies, Owens College; J. E. Healey, Owens College; W. A. Helm, Owens College; R. B. Jones, University College; R. Kelsall, Owens College; J. Kemp, Owens College; F. T. A. Lovegrove, University College; H. A. Mawdsley, University College; J. Milne, Owens College; T. O'Neill, Owens College; W. Sankey, Owens College; J. H. Sheldon, Owens College; A. T. Sissons, Owens College; H. Stansfield, Yorkshire College; J. Williamson, Yorkshire College; D. S. Wylie, Owens College.

*Part II.*—H. S. H. Callum, Yorkshire College; H. Coates, Owens College; J. S. Dockray, Owens College; O. B. Goldschmidt, Owens College; H. Hamer, Owens College; W. F. Jackson, Owens College; K. H. Jones, Owens College; G. G. Lawson, University College; H. Mackennal, Owens College; F. E. Marshall, University College; A. B. Smallman, Owens College; J. E. Smith, University College; F. E. Taylor, Yorkshire College; H. C. Woodhouse, Owens College; W. Wright, Owens College.

*Honours: Class I.*—J. S. Dockray, Owens College.

*Honours: Class II.*—H. Coates, Owens College; H. Hamer, Owens College; K. H. Jones, Owens College; A. B. Smallman, Owens College; J. E. Smith, University College; F. E. Taylor, Yorkshire College.

SECOND EXAMINATION.—The following candidates have satisfied the examiners:

*A. Anatomy and Physiology.*—G. P. Alderson, University College; T. P. Allen, Owens College; W. J. W. Anderson, Yorkshire College; J. D. Andrews, Yorkshire College; W. E. Bamber, Owens College; H. N. Bridge, Owens College; W. H. Broad, University College; P. A. Browne, University College; A. H. Capamagian, Owens College; G. Carter, Yorkshire College; *W. Crabtree, Owens College; C. H. Dawson, Owens College; S. S. Depree, University College; R. J. Ewart, University College; T. L. Fennell, Owens College; C. H. Ferguson, University College; A. E. Finney, Owens College; C. Garner, Owens College; A. Greenwood, Owens College; C. H. Greenwood, Yorkshire College; I. W. Hall, Owens College; E. F. Hill, Owens College; H. C. R. Hime, Yorkshire College; A. E. Horsfall, Yorkshire College; C. E. Horsfall, Yorkshire College; S. K. Hutton, Owens College; W. A. Illingworth, Yorkshire College; F. W. Johnson, Yorkshire College; L. R. Lempriere, Owens College. H. Lett, Yorkshire College; S. F. Linton, University College; C. J. N. Longridge, Owens College; J. W. Miller, University College; W. H. Morrison, Yorkshire College; A. Morton, Yorkshire College; R. A. Needham, Owens College; A. S. Parkinson, Yorkshire College; A. E. Rayner, Owens College; C. E. Silvester, Owens College; H. Slater, Owens College; H. Terry, Owens College; T. J. Thomas, University College; A. R. Thompson, Yorkshire College; H. West, University College; J. D. Windle, Owens College; P. R. Wrigley, Owens College.

*B. Materia Medica and Pharmacy.*—J. W. Aldred, Owens College; H. M. Birkett, Yorkshire College; *W. Crabtree, Owens College; S. S. Depree, University College; T. L. Fennell, Owens College; R. F. Ferris, Owens College; F. H. Flack, Owens College; J. P. Good, Owens College; E. F. Hill, Owens College; H. S. McLellan, Owens College; B. C. Middleton, Owens College; R. F. Moore, Owens College; W. H. Morrison, Yorkshire College; W. Parker, Owens College; J. H. Stephens, Owens College; J. W. Watson, Owens College; H. West, University College; S. C. Wilkinson, Yorkshire College; E. Young, Owens College.

* Awarded the University Scholarship in Medicine.

## CONJOINT BOARD IN ENGLAND.

THE following gentlemen have passed the Second Examination in the subjects indicated:—

Monday, March 29th:

*Anatomy and Physiology.*—R. C. Turnbull, Student of London Hospital; G. R. Potter and B. Gowing, of Yorkshire College, Leeds; T. Adam and H. A. Mason, of Firth College, Sheffield; C. F. Walters, C. A. H. Gee, F. W. Cotton, and A. Coleridge, of University College, Bristol; R. S. Burd and A. J. Awdry of Mason College, Birmingham; W. Nicholson, J. Hoyle, and G. E. Seville, of Owens College, Manchester; W. J. Young, W. A. Bailey, and R. Jaques, of University College, Liverpool; C. R. Moss, of Oxford University and University College, Liverpool; W. W. James, of Middlesex Hospital.

*Anatomy only.*—W. M. James, of Cambridge University; and T. A. King, of Cambridge University and St. Thomas's Hospital.

Twenty gentlemen were referred in both subjects, 1 in Anatomy only, and 3 in Physiology only.

Tuesday, March 30th:

*Anatomy and Physiology.*—E. Russell-Risien and E. Wethered, of St. Bartholomew's Hospital; A. E. Soden, of McGill University, Montreal, and St. Bartholomew's Hospital; A. Pearson, A. C. Ransford, F. Curtis, and W. H. Edwards, of Guy's Hospital; E. W. Goble, of Guy's Hospital and Mr. Cooke's School of Anatomy and Physiology; Z. Mennell and J. W. Little, of St. Thomas's Hospital; S. J. Kerfoot and L. E. Hertslet, of London Hospital; A. G. Pitts and B. A. Nicol, of Charing Cross Hospital; J. H. Addinsell, of University College, Liverpool, and King's College, London; W. Wijeyesaker, of Ceylon Medical College and University College, London; H. H. B. Cunningham, of St. Mary's Hospital; E. M. Saunders of King's College, London.

*Anatomy only.*—H. J. Butler of Carmichael College, Dublin, and St. George's Hospital.

*Physiology only.*—W. G. D. Miller of Cambridge University and University College, London; L. F. Enthoven of Cambridge University and Mr. Cooke's School of Anatomy and Physiology; T. L. Butler of St. Mary's Hospital, and O. S. Kellett of Cambridge University, London Hospital, and Mr. Cooke's School of Anatomy and Physiology.

Thirteen gentlemen were referred in both subjects, 4 in Anatomy only, and 1 in Physiology only.

Wednesday, March 31st, 1897.

*Anatomy and Physiology.*—R. Gauld of London Hospital; H. S. Stannus, R. J. Harris, and S. W. Hanbury of St. Thomas's Hospital; S. N. Chowdry of Calcutta University and St. Thomas's Hospital; J. W. Nunn and H. E. Ashley of St. Bartholomew's Hospital; W. Bastian and G. W. M. Pritchett of University College, London; W. A. Durance, H. Hallilay of Westminster Hospital; W. V. Chalmers-Franeis of Westminster Hospital and Mr. Cooke's School of Anatomy and Physiology; J. F. Robinson and F. C. Cross of Guy's Hospital; J. M. Jefferiss and D. B. Truman of King's College, London; and E. J. Manning of St. Mary's Hospital.

Nineteen gentlemen were referred in both subjects.

# PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

## HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,697 births and 3,939 deaths were registered during the week ending Saturday last, March 27th. The annual rate of mortality in these towns, which had increased from 18.1 to 18.7 per 1,000 in the three preceding weeks, was again 18.7 last week. The rates in the several towns ranged from 12.9 in Croydon, 13.2 in Bristol, 13.6 in Derby, and 13.7 in Brighton to 22.3 in Bolton, 23.2 in Norwich, 24.0 in Nottingham and in Manchester, and 24.2 in Salford. In the thirty-two provincial towns the mean death-rate was 19.2 per 1,000, and exceeded by 1.3 the rate recorded in London, which was 17.9 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was equal to 1.6 per 1.000, while it averaged 1.8 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.4 in Birmingham and in Blackburn, 3.9 in Burnley, 6.8 in Salford, and 7.7 in Bolton. Measles caused a death-rate of 1.2 in Cardiff, 1.5 in Burnley, 5.6 in Salford, and 6.4 in Bolton; and whooping-cough of 1.0 in Swansea and in Burnley and 1.6 in Blackburn. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 64 deaths from diphtheria in the thirty-three towns included 43 in London and 3 in Birmingham. No fatal case of small-pox was registered during the week either in London or in any of the thirty-two large provincial towns. There were 21 cases of small-pox under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, March 27th, against 43, 30, and 29 at the end of the three preceding weeks; 2 new cases were admitted during the week, against 6, 0, and 2 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 2,745, 2,685, and 2,622 at the end of the three preceding weeks, had further declined to 2,585 on Saturday last; 224 new cases were admitted during the week, against 211, 218, and 206 in the three preceding weeks.

## HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 27th, 976 births and 673 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 23.1 and 23.3 per 1,000 in the two preceding weeks, declined again to 22.6 last week, but was 3.9 per 1,000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 16.1 in Greenock to 30.7 in Perth. The zymotic death-rate in these towns averaged 3.2 per 1,000, the highest rates being recorded in Glasgow and Edinburgh. The 318 deaths registered last week in Glasgow included 10 from measles, 3 from scarlet fever, 22 from whooping-cough, 2 from "fever," and 4 from diarrhœa. Sixteen fatal cases of measles and 9 of whooping-cough were recorded in Edinburgh.

## TENURE OF OFFICE IN THE POOR-LAW MEDICAL SERVICE.

THE Maldon (Essex) Board of Guardians appear to be specially desirous of acquiring greater power over their medical officers, and are anxious for such a change in the regulations of the Local Government Board as will enable them and other guardians to appoint to office for three years only. The following letter of theirs, sent as a circular to other Boards, together with a copy of their own resolution, will show that this change, if introduced, will at once place all medical officers entirely at the mercy of their respective Boards, which, when dealing with them, do not appear fully to understand what mercy really is:

"Maldon, Essex, March 15th, 1897.

"DEAR SIR,—By direction of the Board of Guardians of the Maldon Union, I send you a copy of a resolution as to the appointment of district medical officers, which was unanimously passed at the last meeting of the Board on the 3rd instant, and I am to ask you to bring this resolution before your Board of Guardians at their next meeting, and if they should approve of the resolution, our Board will be obliged by their sending a similar memorial to the Local Government Board.—Yours truly,

"ALFRED C. FREEMAN, Clerk.

"To the Clerk of the Guardians."

The resolution was as follows: "That it is desirable that Boards of Guardians should have greater control over district medical officers, and therefore that it is desirable that appointments of these officers should in future not be made for a longer term than three years, and that a memorial be sent from this Board to the Local Government Board, asking that their rules and orders as to these appointments may be modified accordingly, and that a copy of such memorial be sent to every Board of Guardians in England and Wales, asking them to take this matter into consideration, and, if they should approve of the resolution, to send a similar memorial to the Local Government Board."

Before any such proposal can be seriously entertained the guardians of the poor must show the public that they are fit to be entrusted with additional powers over any of their officers, either medical or others. Their acts and deeds and the general treatment which the officers of the service now so frequently receive at the hands of these public bodies must be sufficient to indicate that such a change as that proposed at Maldon

(even if under any circumstances desirable, which we much doubt) is not one which at the present time they could be safely entrusted with. Some reform in the medical treatment of the sick poor is no doubt much required, but this reform is not that which will of necessity be associated with a decrease of expense, nor will it be on the lines indicated by the action of these Essex guardians. We believe that the communication of the Maldon Board sent to others, when read at their meetings, was ordered to lie on the table.

### FAILURE TO NOTIFY.

It will be remembered that about three weeks ago an inquest was held at Dover on the body of Ellen Clarke, a Mildmay nurse, who had died of typhoid fever at the "Home of Rest," and had not received any medical care or attention, the proprietors of the home being what is known as "Peculiar People." We commented on the danger run by the public if so-called religious beliefs were permitted to override public health regulations, and observed that the failure to notify might be made the subject of legal proceedings. We note that the matron of the home, Anne Nation, has since been summoned on the information of the medical officer of health for breach of the Infectious Diseases Notification Act, and after a patient hearing a fine of 10s. and £1 11s. 6d. costs was imposed.

### INCREASE OF SALARIES.

We are glad to see that, when the Appleton local authority lately reappointed Mr. Edward Gayler as their Medical Officer of Health, they also added £10 to his salary as such. An increase of £100 was also made to the salary of Mr. F. M. Williams, the Health Officer to the Borough and Port Authorities of Plymouth, in consideration of the increased area of the borough, of some further duties laid upon him in connection with the fever hospital, and of losses in consequence of the discontinuance of quarantine. Mr. Williams, it will be remembered, showed promptness and ability on a recent occasion when a troopship brought cholera to our coast. The majority in favour of the increase was a very large one.

### DISEASES OF OCCUPATION.

A table has been published showing the number of cases of lead poisoning, reported as having occurred in factories and workshops during February, classified by industries, which gives the following figures: In china, earthenware, and glass works 28, in whitelead and colour works 35, smelting 4, tinning and enamelling 3, tile making 5, other industries 13, making a total number of 88 cases from lead poisoning. The same table includes 1 death from anthrax.

### NOTIFICATION TO MEDICAL OFFICER OF HEALTH BY HIMSELF.

Our answer to question of "Mable" on March 20th has brought letters from two correspondents, who take exception to the remark that the practice (that is, of course, the practice of charging for the information) is not exactly one we would commend. Both lay stress on the miserable remuneration many medical officers receive. One (notwithstanding the advice that such cases should go through the ordinary infectious disease books) seems to think we wanted to make the knowledge of the medical officer of health's own cases less public. We can assure our correspondents that all the arguments they have used had been carefully considered before the answer was penned. The demanding of payment for the information is a mere question of expediency. There is no suggestion that it is wrong to do so. Nay, we expressly pointed out the section which made it legal. Our correspondents are fortunate, however, if neither of them has on his Council the sort of man who remarks: "Our medical officer of health did his best to get us to adopt compulsory notification for the benefit of the town, but he gets a good thing out of the half-crowns himself"; or, "We pay our medical officer of health to prevent cases of infectious disease, and he charges us half-a-crown for every case in his own practice where he doesn't do so." The sting in such remarks is due to the small portion of truth that underlies the fiction. But the matter is worse if, in some such case as the one referred to on the same page of the British Medical Journal (p. 762) in which "Mable's" question appeared, the medical officer of health should feel a difficulty in advising the full payment of fee to his brother practitioner, lest he should appear to be establishing a rule which might at no distant date profit himself considerably.

### BACTERIOLOGY AS AN AID TO ECONOMY.

Dr. Niven, in his quarterly report for the last quarter of 1896, states that full advantage was taken by medical men in Manchester of the arrangement made for the bacteriological examination by Professor Delépine of specimens taken from the throats of persons suspected to be suffering from diphtheria. Of 75 specimens examined, the majority contained no discoverable diphtheria bacilli, and in nearly all these negative instances inquiry elicited the fact that the medical attendant no longer deemed the case one of infectious disease. In this way, a marked diminution in the number of cases of unequivocal diphtheria has been brought about. Not only so, but much saving has been effected by the corporation and occupiers of houses because of the lessened need for stripping, fumigating, etc., in addition to the saving of cost of hospital treatment and maintenance of cases which would have been removable on the score of primary diagnosis alone as diphtheria patients. The risk run by patients thus wrongly removed is also obviated, and life possibly saved thereby. But we assume there is no slackness of precaution at home in cases thus pronounced on bacteriological evidence, or lack of evidence, as non-diphtherial.

### DISTRICT MEDICAL OFFICERS AND THE SUPERANNUATION ACT.

G. C. H., who has already accepted the provisions of the Act, and has paid a contribution out of his salary towards the common fund of the Union, writes to ask whether he can now decide to resign the benefit of the Act.

*** We do not see how our correspondent can now contract himself out of the provisions of the Act. We apprehend that it is too late to do so

# MEDICAL NEWS.

The ninth meeting of the International Congress of Hygiene and Demography, which was to have been held at Madrid in October of the present year, has been postponed till April, 1898.

A New Convalescent Home.—The Bishop of Chichester opened the Rustington Convalescent Home for Working Men erected at Littlehampton by Mr. Henry Harben, J.P., of Hampstead, at a cost of £50,000, while other members of his family will contribute an additional £20,000 as an endowment. The building has been constructed on the latest and most scientific principles.

Roentgen Rays.—On the evening of April 12th Mr. Campbell Swinton will give a paper on recent investigations in *x*-ray work at the Camera Club. The paper will be illustrated by some original experiments, and Mr. Swinton will exhibit a novel form of Crookes's tube which he has designed for practical *x*-ray work, by means of which, by a simple adjustment, *x*-rays of different penetrative qualities can be obtained at will.

The Treatment of Inebriety in Russia.—The excellent results obtained in Russia during the last few years by the treatment of inebriates in special homes have been so striking that it is now generally admitted to be the only means in dealing efficaciously with patients of this kind. The number of special hospitals for inebriates is, therefore, rapidly increasing in that country. Hospitals are being erected in Moscow and in Kieff, and the Government has recently made a grant of nearly £7,000 towards the erection of one in Kasan.

Presentation.—Dr. L. L. B. Williams, on the occasion of his leaving Sidmouth, was entertained by his friends at a dinner, when he was presented with a silver punch bowl bearing the following inscription: "Presented to Dr. L. L. B. Williams in recognition of public and professional services during his residence at Sidmouth, March, 1897."

Of 50 new knights of the Legion of Honour recently nominated by the French Minister of the Interior, no fewer than 13 are doctors. Besides these, Dr. Empis has been promoted to the rank of Commander and Dr. Guyot to that of Officer. Dr. Yersin, whose name is associated with the serum treatment of the plague, has been promoted to the rank of Officer by the Minister for the Colonies. Dr. Yersin holds an appointment in the French Colonial Medical Service.

Anticigarette Legislation.—The New York Assembly Committee on Public Health has reported favourably on a Bill prohibiting the sale of cigarettes to minors, and providing that dealers in cigarettes shall pay a licence fee of 50 dollars (£10). An amendment to the Bill forbids the sale of cigarettes within 250 feet of a school or church. An ordinance to the same effect has been passed by the City Council of Chicago. Any violation of the provisions of this ordinance is punishable by a fine of from 50 to 200 dollars (£10 to £40) for each offence, and 25 dollars (£5) for each day the violation of the law is continued.

Washington's Medical Nephew.—It is not generally known that a nephew of the first President of the United States was a member of the medical profession. Dr. Bailey Washington entered the United States navy as a surgeon in 1810. He died August 5th, 1854. He was the surgeon of the *Enterprise* when she captured the *Boxer* during the war of 1812. He afterwards acted with great efficiency on Lake Ontario under Commodore Chauncey, and was selected by him as fleet surgeon, although a junior officer in the service. He was afterwards fleet surgeon under Commodores Rogers, Elliot, and Patterson in the Mediterranean, and closed his active sea service during the Mexican war. At the time of his death he was consulting and visiting surgeon of the navy-yard and marine barracks in Washington.

At a recent meeting of the British residents held at the British Agency, Cairo, it was unanimously decided that the Diamond Jubilee memorial in Cairo should take the form of an additional storey to the contagious ward of the Deaconess's

Hospital, the ground floor of which was erected in honour of the jubilee in 1887. The Princess of Wales has had brought to her notice the proposal to erect at Acton a cottage hospital as a Diamond Jubilee memorial, and has expressed her warm approval of the undertaking, and intimated that it is entirely in accordance with the Queen's wishes. Acting on the suggestion of Mr. Montagu Sharp, the deputy chairman of the Middlesex Sessions, it has been decided that at Hanwell the memorial of the Queen's long reign shall take the form of erecting and maintaining a cottage hospital.

EDINBURGH ROYAL INFIRMARY. — At their meeting on Monday, March 29th, the Managers approved of the appointment of the following gentlemen to positions on the resident staff: Edwin Bramwell, M.B., C.M., to Professor Sir Thomas Grainger Stewart's wards; J. Brunton Blaikie, M.B., C.M., to Professor T. R. Fraser's wards; George S. Small, M.B., C.M., to Professor Greenfield's wards; Cecil Burleigh Crampton, M.B., C.M., to Dr. Affleck's wards; E. E. Porritt, M.B., C.M., to Dr. James's wards; William Riach, M.B., C.M., to Dr. Smart's wards; Robert B. Purves, M.B., C.M., to Professor Annandale's wards; John Stevenson, M.B., C.M., to Professor Chiene's wards; Walter J. H. Hislop, M.B., C.M., to Dr. A. G. Miller's wards; James D. McCrindle, M.B., C.M., to Dr. P. McLaren's wards; John W. Simpson, M.B., C.M., to Dr. MacGillivray's wards.

COMPLIMENTARY DINNER TO PROFESSOR COATS, OF GLASGOW. —When it became known to some of Professor Coats's old pupils that he would be in Manchester in March, acting as Examiner in Pathology in Victoria University, it was deemed a fitting opportunity for entertaining him at dinner. Dr. James Gardner communicated with a number of old Glasgow students practising in the neighbourhood of Manchester, and the suggestion was cordially taken up. Accordingly a dinner was held on March 23rd, at the Moseley Hotel. The chair was occupied by Mr. Wm. Berry, F.R.C.S.I., J.P., M.O.H. for Wigan, and there were between thirty and forty others present. The usual postprandial toasts were honoured, and the toast of the evening, "The Health of Professor Coats," was proposed from the Chair and duly honoured. Professor Coats suitably replied. The evening was pleasantly spent, the toast list being interspersed with songs by Drs. Williams, Lawton, Marshall, Hunt, Ballantyne, and others.

## MEDICAL VACANCIES.

The following vacancies are announced:

ADMINISTRATIVE COUNTY OF THE PARTS OF HOLLAND, Lincolnshire.—Public Analyst and District Analyst. Remuneration as Public Analyst, annual fee £10 10s., together with fee of 10s. 6d. for each analysis; as District Analyst £1 for each analysis. Applications to H. Chaderton Johnson, Deputy Clerk of the County Council, Sessions House, Boston, by April 12th.

BETHLEM HOSPITAL.—Two Resident Clinical Assistants, doubly qualified. Appointments for six months. Apartments, complete board, and washing provided. Applications endorsed "Clinical Assistantship" to the Treasurer, Bridewell Hospital, New Bridge Street, E.C., by April 5th.

BRISLINGTON HOUSE, near Bristol.—Second Assistant Medical Officer; between 23 and 28 years of age. Doubly qualified. Salary, £100 per annum, with board, lodging, etc. Appointment for six months. Applications to Dr. Bonville Fox.

BRISTOL HOSPITAL FOR SICK CHILDREN AND WOMEN.—House-Surgeon, doubly qualified. Salary, £100 per annum, with rooms and attendance. Applications endorsed "House-Surgeon" to the Secretary by April 5th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Dental Surgeon. Must be Licentiate of Dental Surgery. Applications to J. Francis Pink, Secretary, by April 5th.

ENNISCORTHY DISTRICT ASYLUM.—Assistant Medical Officer, qualified in medicine, surgery, and midwifery, not more than 30 years of age, and unmarried. Salary, £100 per annum, with allowance of furnished apartments, rations, etc., valued at £100 per annum. Applications to the Medical Superintendent. Personal attendance before the Board of Governors required on April 14th.

GENERAL INFIRMARY, Leeds.—Resident Surgical Officer. Salary, £100 per annum, with board, residence, and washing. Applications to the Secretary of the Faculty by April 17th.

GERMAN HOSPITAL, Dalston, N.E.—Honorary Ophthalmic Surgeon. Must be a native of Germany or fully conversant with the German language. Doubly qualified. Applications to H. Gülich, Superintendent, by April 21st.

GOVERNMENT OF NEW SOUTH WALES.—Bacteriologist and Assistant to the President of the Board of Health of the Colony; not more than 40 years of age and doubly qualified. Salary, £600 per annum. Applications to Saul Samuel, Agent-General for New South Wales, 9, Victoria Street, S.W., by April 20th.

GUEST HOSPITAL, Dudley.—Resident Assistant House-Surgeon. Must be qualified or four years' students. Appointment for six months. Board, lodging, and washing in hospital. No salary. Applications to the Secretary, Guest Hospital, Dudley, by April 8th.

HOLBEACH UNION.—District Medical Officer for the Lutton and Gedney Union. Salary, £37 10s. per annum, and fees for surgical operations and midwifery. Will also be appointed Public Vaccinator for the District. Applications to Richard P. Mossop, Clerk to the Guardians, by April 7th.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Junior Resident Medical Officer. Salary, £25 per annum, with board, lodging, and washing. Appointment for six months, but renewable for a further term. Applications to the Secretary-Superintendent by April 7th.

HOSPITAL FOR WOMEN AND CHILDREN, Leeds.—Non-Resident House-Surgeon. Appointment for twelve months. Salary, £90 per annum. Applications to the Secretary of the Faculty by April 14th.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, 26, Margaret Street, Cavendish Square, W.—Physician in Ordinary; also Visiting Physicians.—Full particulars to be obtained at the Infirmary.

LIVERPOOL HOSPITAL FOR CANCER AND SKIN DISEASES.—Honorary Assistant Surgeon. Applications to Mr. A. N. Talbot, 3, Rumford Street, Liverpool, by April 20th.

MANCHESTER ROYAL EYE HOSPITAL.—House-Surgeon; must devote his whole time to the duties. Salary, £70 per annum, with residence, board, and washing. Applications, endorsed "House Surgeon," to the Chairman of the Board of Management by April 6th.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Dental Surgeon; must be L.D.S.R.C.S.Eng. Applications to Charles H. Byers, Secretary, by April 10th.

MIDDLESEX HOSPITAL.—Assistant Surgeon and Aural Surgeon; must be F.R.C.S.Eng. Applications to F. Clare Melhado, Secretary, Superintendent, by April 26th.

MONTROSE ROYAL ASYLUM.—Medical Superintendent. Salary, £700 per annum, with free house, fire and light. Appointment an annual one. Applications, endorsed "Physician Superintendent," to Alexander Lyell, Solicitor, Clerk to the Board of Managers, 81, High Street, Montrose, by May 1st.

ROTHERHAM HOSPITAL AND DISPENSARY. — Assistant House-Surgeon. Appointment for six months. Board, lodging, and washing provided. Applications to the House-Surgeon by April 14th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — Pathological Curator of the Museum; must be Fellows or Members of the College. Applications to the Secretary by April 15th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—House-Physician, doubly qualified. Appointment for six months. No salary, but board, etc., provided. Assistant Physician to have care of out-patients, must be F. or M.R.C.P.Lond. Applications to the Secretary by April 17th.

ST. SAVIOUR'S UNION, Surrey.—Medical Superintendent at the Infirmary, East Dulwich Grove. Salary, £400 per annum, with unfurnished house, coals, gas, and water. Applications, marked outside "Application for Medical Superintendent," to Howard C. Jones, Clerk, Union Offices, John Street West, Blackfriars Road, S.E., by April 12th.

SHEFFIELD UNION WORKHOUSE INFIRMARY.—Junior Assistant Medical Officer at the Infirmary, Fir Vale, Sheffield. Doubly qualified. Appointment for six months. Honorarium of £12. Furnished apartments, board, and washing provided. Applications to Joseph Spencer, Clerk to the Guardians, Union Offices, West Bar, Sheffield, by April 10th.

SWANSEA GENERAL HOSPITAL.—House-Physician. Appointment for one year; at end of first six months to act as House-Surgeon. Salary, £50 per annum, with board, apartments, laundress, and attendance. Applications to J. V. Morris, Secretary, 9, Castle Street, Swansea, by April 17th.

UNIVERSITY COLLEGE HOSPITAL, London.—Assistant Ophthalmic Surgeon. Applications to the Secretary by April 7th.

VICTORIA HOSPITAL, Folkestone.—House-Surgeon; will be also required to dispense. Salary, £80 per annum, rising to £100, with board, residence, and washing. Applications to the Secretary by April 13th.

WEST SUSSEX COUNTY ASYLUM.—Assistant Medical Officer. Under 30 years of age, and unmarried. Salary, £150 per annum, with board, lodging, washing, and attendance. Applications, endorsed "Assistant Medical Officer," to E. H. Blaker, Clerk to the Committee, West Pallant, Chichester, by April 5th.

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY. — Medical Officer to the Provident Dispensary attached to the Hospital; doubly qualified. Salary, £80 per annum, with board, lodging, and washing. Applications to the Honorary Secretary by April 8th.

WOLVERHAMPTON EYE INFIRMARY.—House-Surgeon. Appointmen for six months. Terms £70 per annum, with rooms, board, and washing. Applications to W. Blake Burke, Secretary, by April 24th.

WONFORD HOUSE HOSPITAL FOR THE INSANE, near Exeter.—Assistant Medical Officer, doubly qualified, and not more than 28 years of age. Salary, £150 per annum, with furnished apartments, board, and washing. Applications to Dr. Deas, Medical Superintendent by April 21st.

## MEDICAL APPOINTMENTS.

ARNOLD, E. G. Emerson, M.B., B.S., appointed Clinical Assistant to the Chelsea Hospital for Women.

AITKEN, J., M.B., C.M.Edin., appointed Medical Officer of the Workhouse of the Lancaster Union.

Bailey, T. R., M.D.Edin., appointed Medical Officer for the Fourth District of the Wolverhampton Union.

Bond, William James, M.B.Glasg., L.R.C.S.Edin., reappointed Medical Officer for the Seventh District of the Aylesbury Union.

Bramwell, Byrom, M.D., F.R.C.P.Edin., appointed Physician to the Edinburgh Royal Infirmary, *vice* John Wyllie, M.D.Edin., retired.

Carter, F. R., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Sixth District of the Leeds Union, *vice* J. B. Carter, L.R.C.P.Edin., M.R.C.S.Eng.

Collingridge, William, M.D., D.P.H., M.R.C.S.Eng., reappointed Medical Officer of Health for the Port of London.

Corben, C., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Caldecott District of the Chepstow Union, *vice* H. H. Hefferan, M.R.C.S., L.R.C.P.Lond., resigned.

Corser, F. R. S., M.B.,C.M.Edin., reppointed Medical Officer for the Bourton Subdistrict of the Stow-on-the-Wold Union.

Cowper, John, M.B.,C.M.Edin., reappointed Medical Officer of Health to the Shanklin District Council.

Cox, Roland, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health to the Teme Rural Council.

Crooks, Dr. J., appointed Medical Officer for the Seventh District of the Sudbury Union, *vice* H. D. Palmer, M.R.C.S.Eng., L.S.A., resigned.

Dening, Edwin, L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer for the Stow Subdistrict of the Stow-on-the-Wold Union.

Dixon, A. Francis, B.A., M.B., appointed Professor of Anatomy at the University College of South Wales and Monmouthshire, *vice* A. W. Hughes, M.B.Edin., F.R.C.S.Eng., resigned.

Edward, David, M.B., C.M.Edin., reappointed Medical Officer for the Llanbrynmair and Cemmaes Districts of the Machynlleth Union.

Fisher, John Bell, M.B.,C.M.Edin., reappointed Medical of Health for the Whitehaven Rural District.

Goodfellow, James Anderson, M.B.,C.M.Glasg., reappointed Medical Officer of Health to the Brampton and Walton Urban District Council.

Grant, A. J., M.R.C.S., L.R.C.P., appointed Clinical Assistant to the Chelsea Hospital for Women.

Herbert, J. W. C., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Pendlebury District of the Salford Union.

Honnywill, Alfred Oram, L.R.C.S., L.R.C.P., L.M.Edin., appointed Surgeon to the Sutton District of the London, Brighton, and South Coast Railway Provident Society; also Medical Referee to the Prudential Assurance Company.

Hughes, A. W., M.B.,C.M.Edin., F.R.C.S.Eng., appointed Professor of Anatomy at King's College, London.

Jeffrey, Dr., appointed Medical Officer for the Altofts District of the Wakefield Union.

Kruger, C. H., M.B.,C.M.Edin., appointed Clinical Assistant to the Chelsea Hospital for Women.

Larking, Arthur Ernest, M.D.Durh., M.R.C.S.Eng., reappointed Medical Officer for the Eighth District of the Aylesbury Union.

Lee, H. G., M.D., reappointed District Medical Officer to the Aylesbury Union.

Linington, William West, F.R.C.S.Eng., appointed Resident Casualty Officer at the General Infirmary, Leeds.

Lownds, James Richard, B.A.Camb., L.R.C.P., L.R.C.S.Edin., L.F.P.S. Glasg., appointed Medical Officer of Health to the Brixworth Rural District Council.

Lyster, A. E., M.R.C.S.Eng., L.S.A.Lond., appointed Medical Officer and Public Vaccinator for the Fourth District of the Chelmsford Union, *vice* W. Hart, L.R.C.P.Edin., M.R.C.S.Eng., resigned.

Mathews, James S., L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer for the Machynlleth District of the Machynlleth Union.

Nash, E. H. T., M.R.C.S., L.R.C.P., appointed House-Surgeon to the Ipswich and East Suffolk Hospital.

Nunn, P. W. G., L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health to the Bournemouth Town Council.

Padbury, G. J., M.B., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Hawkchurch District of the Axminster Union, *vice* C. A. Morgan, M.R.C.S.Eng., L.S.A., resigned.

Plummer, Selby W., M.D.Durh., appointed Certifying Surgeon under the Factory Act for the Durham District, *vice* Mr. Boyd.

Prosser, Frank, M.B., C.M.Glasg., reappointed Medical Officer of Health to the Rainsford District Council.

Rimell, A. T., M.R.C.S.Eng., L.R.C.P.Edin., appointed Medical Officer and Public Vaccinator for the Tydd, Sutton St. James, and Long Sutton Districts of the Holbeach Union.

Ronaldson, James Bruce, M.D.St.And., F.R.C.S.Edin., appointed Medical Officer of Health to the Dunbar Town Council.

Roxburgh, William, M.B., C.M.Glasg., appointed Parochial Medical Officer for the Troon District, *vice* J. Highet, M.D.,C.M.Glasg.

Smith, J. W., M.B.Edin., F.R.C.S.Eng., appointed Honorary Anæsthetist to the Victoria Dental Hospital, Manchester.

Tilley, Herbert, M.D.,B.S.Lond., appointed Surgeon to the London Throat Hospital, Great Portland Street.

Tothill, F.C., M.B.,C.M.Edin., appointed Medical Officer for the Ashford District of the Staines Union, *vice* H. Roe, resigned.

Westmacott, F. H., F.R.C.S.Eng., L.R.C.P.Lond., appointed Honorary Anæsthetist to the Victoria Dental Hospital, Manchester.

Williams, William Robert, L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer for the Penygroes District of the Machynlleth Union.

Young, Meredith, M.B.,C.M.Edin., D.P.H.Vict., appointed Medical Officer of Health for the Borough of Crewe.

## DIARY FOR NEXT WEEK.

### MONDAY.

Odontological Society of Great Britain, 40, Leicester Square, W.C., 8 P.M.—Communication and Demonstration by Mr. A. Hopewell Smith.

### TUESDAY.

Royal College of Physicians of London, 5 P.M.—Dr. H. Charlton Bastian: On Some Problems in connection with Aphasia and other Speech Defects. Lumleian Lecture II.

Pathological Society of London, 20, Hanover Square, W., 8.30 P.M.—Dr. S. West: Actinomycosis of the Pleura and Chest Wall. Mr. W. Harrison Cripps: (1) Cyst of Omentum; (2) Concretion of Rectum. Dr. J. Fawcett: Traumatic Hydrocephalus. Dr. J. W. Washbourn and Dr. G. B. Smith: Infective Venereal Tumours in Dogs. Mr. Cecil F. Beadles: Tuberculous Peritonitis associated with an Inguinal Pouch of the Peritoneum. Mr. J. Berry: Cyst of the Omentum. Dr. S. West and Dr. F. W. Andrewes: Healthy Œsophagus Ruptured by Vomiting. Dr. Parkes Weber: Case of Osteomalacia or Generalised Myelomatous Growth in the Bones of an Old Man. Dr. W. M. Ord: Intestinal Concretions of Carbonate of Lime. Card Specimens by Mr. A. H. Tubby, Mr. Cecil F. Beadles, and Dr. Parkes Weber.

London Post-Graduate Course, Bethlem Royal Hospital for Lunatics, 2 P.M.—Dr. Craig: Moral and Impulsive Insanities and Lunacy Law. Hospital for Diseases of the Skin, Blackfriars, 4.30 P.M.—Dr. Abraham: Lupus Erythematosus.

### WEDNESDAY.

London Post-Graduate Course, Parkes Museum, 74A, Margaret Street, W., 4.30 P.M.—Professor Wynter Blyth: Hygiene Disinfection and Disinfectants.

Obstetrical Society of London, 20, Hanover Square, W., 8 P.M.—Specimens will be shown by Mr. Targett, Dr. Drummond Robinson, and others. Papers:—Dr. G. F. Blacker: The Treatment of Placenta Prævia by Champetier de Ribes's Bag. Dr. Thomas Wilson: Chronic Axial Rotation of an Ovarian Cyst giving rise to Extreme Twisting of the Elongated Uterus.

The Sanitary Institute, Parkes Museum, Margaret Street, W., 8 P.M.—Discussion on Notification of Measles to be opened by Dr. Henry R. Kenwood. Drs. W. H. Corfield, H. E. Armstrong, L. W. Darra Mair, A. Bostock Hill, A. Newsholme, L. C. Parkes, and F. Vacher will take part in the discussion.

### THURSDAY.

Royal College of Physicians of London, 5 P.M.—Dr. H. Charlton Bastian: On some Problems in connection with Aphasia and other Speech Defects. Lumleian Lecture III.

British Gynæcological Society, 20, Hanover Square, W., 8.30 P.M.—Specimens by Mr. Skene Keith and Dr. Purcell. Adjourned discussion on Dr. Beatson's Treatment in Inoperable Cases of Cancer of the Mamma. Dr. Snow: On the Value in Abdominal Malignant Disease of Exploratory Laparotomy *per se*.

### FRIDAY.

London Post-Graduate Course, Bacteriological Laboratory, King's College, W.C., 3 to 5 P.M.—Professor Crookshank: Tetanus, Rabies, and Cholera.

Clinical Society of London, 20, Hanover Square, W., 8.30 P.M.—Mr. Howard Marsh: A Case of Sarcoma of the Prostate Gland. Mr. Raymond Johnson: Multilocular Ovarian Cyst in a Child aged 5 years; Axial Rotation; Ovariotomy. Mr. W. G. Spencer: Hydatid Cysts removed from the Left Pleura, from behind the Mesentery, and from the Right Lobe of the Liver. Mr. C. B. Lockwood: A Case of Wound of the Mesentery, with subsequent Gangrene of the Intestine.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

Carlier.—On March 26th, at 39, Morningside Drive, Edinburgh, the wife of E. Wace Carlier, M.D., B.Sc., etc., Lecturer on Experimental Physiology in the University of Edinburgh, of a daughter.

Eades.—On March 31st, at Manor House, St. Peter's, Ipswich, the wife of S. O. Eades, L.R.C.P., L.R.C.S.Edin., of a daughter.

Eccles.—On March 25th, at Harley Street, W., the wife of W. McAdam Eccles, M.S., F.R.C.S., of a son.

Glendinning.—On March 20th, at Larchfield, Abergavenny, the wife of James Glendinning, M.D., Medical Superintendent, Monmouthshire Asylum, Abergavenny, of a son.

Thomson.—On March 29th, at Mealsgate, near Carlisle, the wife of T. P. Thomson, M.B., C.M., of a son.

### MARRIAGE.

Stokes—Hillis.—On March 27th, at St. Cyprian's, Natal, Whitley Stokes, M.B.Univ.Lond., Blyde House, Pilgrim's Rest, South Africa, eldest son of Sir Henry E. Stokes, K.C.S.I., 37, Onslow Square, London, W., to Lilian, eldest daughter of John D. Hillis, F.R.C.S., 135, Leinster Road, Dublin.

### DEATH.

Taylor.—On March 21st, at his residence, Fair Lawn, Haulgh, Bolton, Alfred Taylor, F.R.C.S., L.R.C.P., etc., aged 36. No cards.

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances*—Daily, 2. *Operations*.—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances*.—Daily, 1. *Operations*.—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR.—*Attendances*.—M. W. Th. S., 2; Tu. F., 5. *Operations*.—Daily.

CHARING CROSS. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations*.—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances*.—Daily, 1.30. *Operations*.—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances*.—M. Tu. Th. F., 2. *Operations*.—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations*.—F., 2.

GREAT NORTHERN CENTRAL. *Attendances*.—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30 Skin, W., 2.30; Dental, W., 2. *Operations*.—M. W. Th. F.

GUY'S. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations*.—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Attendances*.—Daily, 10. *Operations*.—M. Th., 2.

KING'S COLLEGE. *Attendances*.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations*.—M. F. S., 2.

LONDON. *Attendances*.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operations*.—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE. *Attendances*.—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations*.—M. Th., 4.30.

METROPOLITAN. *Attendances*.—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations*.—F., 9.

MIDDLESEX. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations*.—W., 1.30; S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Attendances*.—M. Tu. Th. F., 2. *Operations*.—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances*.—Daily, 2; Ophthalmic, W. S., 9.30 *Operations*.—Tu. F., 9.

NORTH-WEST LONDON. *Attendances*.—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations*.—Th., 2.30.

ROYAL EYE, Southwark. *Attendances*.—Daily, 2. *Operations*.—Daily.

ROYAL FREE. *Attendances*.—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 3; Dental, Th., 9. *Operations*.—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances*.—Daily, 9. *Operations*.—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances*.—Daily, 1. *Operations*.—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances*.—Daily, 1. *Operations*.—Daily.

ST. BARTHOLOMEW'S. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations*.—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

ST. GEORGE'S. *Attendances*.—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations*.—M. Tu. Th. F. S., 1.

ST. MARK'S. *Attendances*.—Fistula and Diseases of the Rectum, males S., 3; females; W., 9.45. *Operations*.—M., 2; Tu., 2.30.

ST. MARY'S. *Attendances*.—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; o.p., M. Tu., 1.30; Eye, Tu. F. S., 9; Ear, M. Tu., 3; Orthopædic, W., 10; Throat, Tu. F. 3.30; Skin, M. Th., 2.30; Electrotherapeutics, M. Th., 2.30; Dental, W. S., 9.30; Children's Medical, Tu. F., 9.15; Children's Surgical, S., 9.15. *Operations*.—M., 2.30.; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances*.—M. 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations*.—W. F., 2.

ST. THOMAS'S. *Attendances*.—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations*.—M. W. Th. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Tu., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances*.—Daily, 1.30. *Operations*.—W., 2.30.

THROAT, Golden Square. *Attendances*.—Daily, 1.30; Tu. F., 6.30. *Operations*.—Th., 2.

UNIVERSITY COLLEGE. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30. *Operations*.—Tu. W. Th., 2.

WEST LONDON. *Attendances*.—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations*.—Tu. F., 2.30.

WESTMINSTER. *Attendances*.—Medical and Surgical, daily, 1; Obstetric, Tu., F., 1; Eye, Tu. F., 9.30; Ear, M. Th., 9.30; Skin, W., 1; Dental, W. S., 9.15. *Operations*.—M. Tu. W., 2.

# LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

### QUERIES.

H. W. W. asks for information as to the diagnosis of feigned insanity.

H. P. J. desires to know what London hospitals take female probationers at the age of 21, and what hospitals or infirmaries take male nurses.

A CONSTANT READER asks what books in English would afford information on heredity in relation to disease.

M.B. would be glad to hear of a home or institute in or near London where an old person would be received on payment of a small weekly sum.

M.M. would be obliged if any member could recommend a respectable home for a young girl, aged 16, whose intellect is weak. The parent, a widow, could pay a small sum per week.

M. N. T. wishes to know if marriage is permissible to a man aged 36, in easy circumstances, the subject of mitral incompetence resulting from rheumatism two years ago. There is good compensation, and little if any discomfort. He would also be obliged for the names of any books which treat of this point.

DR. E. C. CRIPPS (Cirencester) writes: I am very anxious to get particulars or details of any scheme for establishing a "district nurse" in a town of about 7,000 inhabitants, and should be grateful for information from any medical man who has been instrumental in starting, or is acquainted with the best method of establishing, such an institution. There is a cottage hospital of nine beds in the town to which I allude, to which all the medical men are attached. Is it best to work it in conjunction with that, or separately, and what are her exact duties, and how is she ordered and controlled?

NORTH BRITON writes that he has been told, on what he regards as good authority, that it is the custom of some medical practitioners to compound with inspectors of poor for lunacy certificates by taking half the legal fee, the other half going to the official putting the "job" their way.

*** The practice described by "North Briton" is a reprehensible one, but perhaps it may not be easily put down. Publicity would seem to be the means indicated, but our correspondent would be wise to take care not to involve himself in an action for damages for libel.

H.D. writes that he is asked to stand as a candidate at a vestry election. If he accepts, his name and address, with those of other candidates, will be posted in the parish. Would it, he inquires, be contrary to professional etiquette, and ought he to refuse to become a candidate?

*** It is certainly desirable that members of the medical profession should take their part in public work. In the promotion of his candidature our correspondent will no doubt know how to take a course worthy of the dignity and of the characteristic reticence of the profession.

L.R.C.P. asks for advice. Had an attack of pleurisy with effusion two years ago. Tubercle bacilli have recently been discovered in sputum. There are no physical signs. Would the Riviera or South Africa be the most suitable place to go, and could an English medical man practise in Monte Carlo or Italy without additional qualification? The law of France will not allow him to practise in France without a French degree, but does this law apply to Monte Carlo and San Remo? Of Africa, which is the most suitable locality?

*** With regard to the question of practice, our correspondent will find the information which he requires in the Student's Number of the BRITISH MEDICAL JOURNAL of September 5th, 1896, p. 594. In Italy medical practice among foreigners is open. In the Principality of Monaco certain British qualifications are accepted as equivalent to the French diploma of Doctor of Medicine.

#### KNEE-JOINT EFFUSION AND CYCLING.

SURGEON asks if any cycling reader has ever experienced the effusion of fluid into the knee-joints after cycling, and if so, what remedies have been resorted to, and with what result. After riding for a few (10 or 15) minutes, he gets fluid effusion in both his knee-joints, which takes (even after this short time) two or three days to subside with rest.

#### POST-GRADUATE STUDY IN VIENNA.

DR. J. B. HAY (Crieff, N.B.) would be glad of information regarding eye, nose, and throat work in Vienna, as to how the clinics are arranged, what facilities for study of these special branches are offered, and if a knowledge of German is absolutely essential. He is anxious to go there in July and August, or August and September, and would be glad of hints as to how this can best be done.

#### THE PARIS HOSPITALS.

COLONIAL MEMBER B.M.A. writes: I shall shortly be in Paris, and want to see some surgery there. Can you tell me (1) the hospital at which the most (general) surgery is done; (2) the usual hour for operations in Paris; (3) where I can get information about the staffs of the Paris hospitals as one would get the names of the staffs of the London hospitals, for example, out of the *Medical Directory*. Also can you tell me (4) if the season at Vichy is perennial; (5) (if you will) the name of the leading English physician there.

*** A Parisian hospital physician informs our Paris Correspondent that at all the hospitals except special hospitals, such as those for children, women's hospitals, etc., generally surgery is done. Operations are done before 12 o'clock, when the rounds are finished. The staffs of

each hospital will be found in the *Agenda Médical* for 1897, published by Asselin et Hougeau, Place de l'Ecole de Médecine. Dr. Rose Cormack is the only English doctor at Vichy. The season is from May 1st until October.

### Materia Medica.

J. D. W. writes: I am reading materia medica for the M.B. degree. I should be much obliged if you will inform me, through the British Medical Journal, if there is any museum in London where I could examine specimens of organic materia medica.

*** We fear we cannot answer this query satisfactorily. The medical schools should afford such means of studying materia medica. The Pharmaceutical Society can only accommodate those who are its registered students, or those who join its classes. Some of the schools of pharmacy which advertise in the *Pharmaceutical Journal* might accommodate our correspondent, but we have no personal knowledge of them.

### Motor Cars and Motor Cycles.

Progress inquires as to a motor cycle for combined town and country practice, and "Alpha" asks whether there is any motor car able to stand the wear and tear of every-day work in a hilly town.

*** We had received by an earlier post a letter from Mr. James E. Tuke, of Burleigh Villa, Harrogate, who writes that he has been using a motor car regularly, and has found it a great success. He continues as follows: Mine is a four-seated victoria with hood and a 4½ h. p. motor. It will carry four, and go up gradients as steep as one in eight. I have run sixty miles a day for three days in one week, and have often made twenty or thirty calls in the day with it. The cost of running varies from ½d. to 1d. per mile according to size and gradients. As I am enthusiastic about them, I have written a small book, giving a description of steam, oil, and electrical methods, and a short history of their development, with hints on working and management, illustrated. I shall be pleased to send copies of this to all who are interested, on receipt of six stamps.

## ANSWERS.

A.M.B.—We regret we are unable to supply the information desired.

R. N. B.—We do not find any such name in the *Medical Register*. It might be well to apply to the Registrar, General Medical Council Office, 299, Oxford Street, London, W.

A correspondent writes to reply to "X.Y." in the British Medical Journal of March 27th, p. 830, to suggest the *British Balneological and Climatological Journal*, price 2s. (Messrs. Bale and Sons, 85-7, Great Titchfield Street, Oxford Street, W.).

### Court Plaster.

M.R.C.S. writes with reference to some correspondence which took place recently in the British Medical Journal as to court plaster, that a very excellent material is sold in any quantity under the name "Hæmostatica plaster" by Mr. G. Betts, Chemist, The Walk, Norwich.

### Treatment of Warts.

Dr. R. C. Worsley (Ramsgate) writes: In reply to "Rusticus" (British Medical Journal, March 27th), I would suggest his trying small doses of arsenic for the case of warts he mentions. I believe Pullin, of Sidmouth, drew attention to this treatment many years ago, and I have cured many cases—the last a man covered as to face and hands with hundreds of large warts—with 2 or 3 drops of liq. Fowleri three times a day for a week or two.

## NOTES, LETTERS, Etc.

### Medical Periodicals.

Dr. L. M. Griffiths (Hon. Librarian) writes: The Bristol Medical Library has a large number of duplicate periodicals, which it will have much pleasure in giving to any library that needs them for completing sets.

### The Mescal Button.

Messrs. Potter and Clarke (Artillery Lane, E.) write: With reference to the article on Mescal Button (Anhelonium Lewinii) which appeared in the British Medical Journal of December 5th, 1896, we beg to say that we have imported a small quantity of this drug in response to numerous inquiries and orders, and that it can be procured either from ourselves or through the ordinary channels.

### A Nauseous Intoxicant.

The mysteries of taste, says the *Manchester Guardian*, are proverbially inexplicable. The British Medical Journal calls attention to "a nauseous intoxicant" which has found favour with the lower deep of inebriate Edinburgh. It is a combination of methylated spirit and paraffin oil. Some proportion of newly distilled whisky kept in bond fails to mature and undergoes decomposition. It has then no attraction for the ordinary spirit drinker, and is therefore sold for use in furniture polishing and other devices of art. It was found, however, that the methylated spirit was consumed by some hardy inebriates of the poorer class, and to make it unpalatable the authorities added naphtha or paraffin oil. Even this precaution is not wholly successful, and the result is that groups of men and women are to be seen in certain parts of the modern Athens more or less hopelessly intoxicated with "dynamite," as the disgusting brew has, not inappropriately, been nicknamed. The evil effects that "dynamite" must have on the nervous system need no demonstration. The famous Irish description of "a torchlight procession down the human throat" would fairly apply to this latest method of inebriety. The British Medical Journal suggests that it might be suppressed in the same way as ether drinking in Tyrone, and for the same reason—that it is a fraud on the revenue. It is perhaps not the highest motive, but in this case it may serve.

### Hernia of the Vermiform Appendix.

Mr. G. P. Newbolt, F.R.C.S. (Liverpool) writes to say that in preparing his remarks upon the case published in the British Medical Journal of March 27th, page 781, he overlooked a case of the kind recorded by Mr. Keetley in the *Medical Press and Circular* for 1890.

### The Society of Apothecaries and the Record Reign.

We have received several letters expressing approval of the suggestion made by a correspondent in the British Medical Journal of March 27th, page 823, to the effect that the Society of Apothecaries should this year apply for a Royal Charter.

Mr. W. R. Meyer, L.S.A. (Hurstpierpoint, Sussex) observes that the proposal that the Society should henceforth be known as the Royal College of Apothecaries would not only help to commemorate the record reign of the Queen, but improve the status of the Licentiates who now possess the triple qualification. At present the same letters designate the Licentiates under two very different conditions.

Mr. W. Egmont Kirby, M.D.Brux., L.S.A.Lond. (Chiswick) agrees that the Licentiates under the new regulations ought to be distinguished from the old Licentiates. He suggests, however, that a Royal Charter should be applied for to by the Society to be reconstituted under the title of the Royal Society of Apothecaries and Surgeons, a name, he adds, which would be sufficiently distinct from that of the Royal College of Surgeons.

Mr. Spencer T. Smyth, M.D., F.R.C.S., L.R.C.P., L.S.A.Lond. (1843), on the other hand, writes (from Tunbridge Wells) to the effect that he does not believe that the application for a charter would be entertained, owing to the fact that the Society keeps an open shop for the retail of medicines, so that it could not be regarded in the light of a Royal College. He acknowledges that the profession at large is deeply indebted to the Society in various ways; when held in addition to the diploma of the Conjoint Board, the Licence gives to the holder increased power for the maintenance of his just rights when engaged in actual practice.

L.S.A. writes: I know of an authentic case where two men applied for a post under a Board of Guardians, the one an L.R.C.S.I. and the other L.S.A. After both men had been before the Board the chairman said that, "though the L.S.A. was in most respects the more suitable man, they could not give him the post over the head of a man who was a Licentiate of one of the Royal Colleges, as no doubt that his colleagues knew that a man who was only L.S.A. was not properly qualified." I sincerely hope that the suggestion made by Mr. Miller will be carried into effect, so that those of us who have qualified since 1887 may be able to roll out the "Royal College" of Apothecaries with as much unction as the members of the other Royal Colleges.

Mr. F. C. Wood, L.S.A.Lond. (Ripley) writes: I sincerely trust the Society of Apothecaries will adopt Mr. Miller's or some such similar mode of commemorating the Queen's Diamond Jubilee. The grievances which the new Licentiates suffer from are very real. Not so long ago I was applying for the post of union medical officer, when the clerk to the guardians, himself a solicitor, informed me I was ineligible as possessing only a medical qualification, and I had some difficulty in persuading him that the new Licentiates were duly qualified in medicine, surgery, and midwifery, and enjoyed the same status and privileges as M.R.C.S. and L.R.C.P.s, and the examinations passed were of the same standard. The Society is the only body in the United Kingdom granting a single title to a triple qualification, and it was said very soon after the Medical Act of 1886 came into force that the public would soon be able to differentiate between the old and new Licentiates; but time has proved otherwise. I would further suggest that we ourselves form a Society similar to that of the Members of the Royal College of Surgeons.

### The Repeal of the Contagious Diseases Acts, 1866.

Dr. J. Swain Scriven, Assistant Paymaster R.N. (retired list), (Abberley, Stourport), writes: With reference to Dr. Ryley's letter in your issue of March 27th, p. 831, I can fully bear out what he says as to the moral effects of these Acts. In the later part of the sixties I was stationed at Plymouth, and the streets were so crowded with prostitutes that respectable women could not venture out in the evening without risk of insult, and of course many young men were induced to go with women through repeated solicitations of one after another. I am not speaking of slums, but of main thoroughfares, such as Fore Street. As soon as the Acts had time to work the streets were comparatively clear, and more especially of the very young girls, many about 12 or 14 years of age. The sentimental opponents of these Acts would do well in the cause of morality if they supported them.

### The Reconstruction of the University of London.

M.B.Lond. writes: In answer to "M.B.Royal University," page 832, British Medical Journal, March 27th, I was aware of the regulations of the Royal University, Ireland, and therefore I wrote "Great Britain" and not "Great Britain and Ireland."

### The Need for a West African Sanatorium.

Mr. Alaricus Delmard (Las Palmas, Grand Canary) writes: The article in the British Medical Journal of March 6th exactly expresses my own opinions respecting the need of a West African sanatorium in one of the Canary Islands. My ideas on the subject have been formed after a prolonged residence in the Grand Canary, and strengthened by the opinions of my numerous friends among the West Coast officials and others. The upshot of this is that I have nearly completed the construction of a large building especially intended to answer all the requirements of a sanatorium for the West African Coast and other parts of the world. This building, I hope, will be finished by April next, and will be found to possess all the sanitary improvements of modern

science, as well as the comforts and care so necessary for invalids. The situation of the sanatorium is unrivalled even in the Grand Canary, placed as it is at an elevation of 1,600 feet above the sea, the temperature so equal that at no time is it injurious to the most delicate invalid, while the short journey from Las Palmas is taken in an hour over the best road in the island. Among numerous letters of thanks and others on my undertaking, the following extracts from one whose name is well known as a writer of the guide book to the Canary Islands, South Africa, and health resorts, Mr. Samler Brown, will be of interest. It is dated Teneriffe, January 20th, 1897:

"Coming out here in October last I landed at Las Palmas, from a Castle Liner, and came over here in a Forward Brothers' steamer. This gave me a day in Las Palmas. I used my time partly to drive up to your new building. I found matters much advanced since I visited the site in the spring, and was agreeably surprised to see how much more commanding the position is than I even thought it to be before. The terraces they are making below the point of the building throw it up very boldly, and there is no doubt that you have one of the very finest positions in the Grand Canary. Had the aspect been sacrificed for the view, even the magnificent prospect from the windows would have some drawback, but as it is you fall due, or nearly due, south, and I can imagine nothing better for an invalid than sitting at one of the sunny windows, or in some protected balcony, and enjoying the light, warmth, and view. My experience shows me that the sea level is not the best for all invalids, and that at every altitude wind is detrimental. Your position is protected partially from the wind by the hill behind the house, and the front of the house should be absolutely calm even in the stiffest trade breeze of a midsummer day, etc."

My object in undertaking this scheme has been that I may devote all my attention and energy to the benefit of the West Coast officials.

### COCAINE POISONING.

DR. HORACE T. N. MERRICK (Surbiton, Surrey) writes: In answer to Dr. Standring, in the BRITISH MEDICAL JOURNAL of January 16th, p. 141, I had a similar alcoholic case last February. A butcher, in helping to shove a truss of straw on to a cart with his shoulder, a sharp piece entered his ear, tearing up the meatus externus. On attempting to introduce a speculum he pulled away with the pain. I dropped 4 to 6 drops of a 10 per cent. solution of cocaine hydrochlorate into the ear. He complained of the pain getting worse. After a few minutes he had no relief, and was frightened on my attempting to look into his ear again. He got pale, and said he felt bad. The pulse was feeble. I told him to lie down on the sofa. After some twenty minutes, fearing the room was too hot, I got him to sit in the garden, where he vomited, and shortly after got up, walking about reeling as if intoxicated, and kept repeating, "I never felt so bad in all my life." I got him some brandy, which he almost immediately vomited. I then helped him home close by, when he became nearly pulseless. I quickly administered (hypodermically) ether, and $\frac{1}{75}$ grain atropine sulphate. He felt better after this, and was supported to the watercloset, where he vomited again and passed a copious stool. He now felt better, and went to bed. I prescribed cardiac stimulants, and in two days he was at work again. It is advisable in all alcoholic cases to be cautious of depressing drugs. In the case of Miss S., aged 20, I have injected (hypodermically) cocaine north, south, east, and west of a large carbuncle on the neck, and opened it painlessly to the great relief of the patient, and without any ill-effect.

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**LETTERS, COMMUNICATIONS, ETC., have been received from:**

(**A**) A.M.D.; A.M.S.; Messrs. Arnold and Sons, London; Dr. A. Angles, Maybole, N.B. (**B**) Dr. C. F. Bailey, London; Mr. M. M. Birkett, London; Dr. R. Bencraft, Southampton; Mr. W. Berry, Wigan; Dr. W. C. Brinkerhoff, Chicago; Dr. J. W. Ballantyne, Edinburgh; Mr. C. W. Buck, Settle; Mr. L. B. Brunton, Twickenham; Mr. J. Barker, Rochester; Dr. D. H. Barley, Leeds; G. Birt, M.B, Stourbridge; Dr. E. G. Barnes, Eye; Dr. Bond, Gloucester; Dr. B. Bramwell, Edinburgh. (**C**) Mr. E. Cotterell, London; Mr. E. C. Cripps, Cirencester; Dr. A. Churchward, London; Lady Cook, Richmond; Mr. T. Caiger, Liverpool; Country Member. (**D**) Mr. A. D'Avisson, London. (**E**) W. McA. Eccles, M.B., London; Dr. J. Eyre, London; Dr. S. Elliot, Wick. (**F**) Mr. E. V. R. Fooks, London; Dr. H. S. Fosbery, Bournemouth; Dr. P. J. Freyer, London. (**G**) Dr. L. G. Guthrie, London; Mr. T. M. Griffiths, Bristol; T. B. Grimsdale, M.B., Liverpool; Mr. T. S. Gimson, London; J. E. Gemmell, M.B., Liverpool. (**H**) Dr. J. S. Haldane, Oxford; Mr. A. O. Honnywill, Sutton; Dr. H. P. Hawkins, London; J. B. Hay, M.B., Crieff; Mr. G. Himsdale, Philadelphia; Mr. C. Holloway, London; Mr. S. J. Hutchinson, London; Mr. A. W. Hughes, London; Dr. J. Hinshelwood, Glasgow; Dr. R. G. Hebb, London; Mr. G. C. Hall, Droitwich; C. J. Harnett, M.B, London; H. V. Hickman, M.B., Wanstead; Mr. S. Hamilton, Newport; Mr. W. Hurst, Cardiff; H. W. W.; Mr. G. Hope, London. (**J**) Dr. J. Johnston, Bolton; J. F.; Dr. H. H. Jennings, London; Mr. W. H. Jamison, Glasgow; J. N. (**K**) Dr. A. Kershaw, Farnworth; Dr. W. M. Kelly, Taunton. (**L**) Mr. H. Lund, Manchester; Dr. C. Latter, Folkestone; Dr. J. A. Lycett, Wolverhampton; Mr. A. E. Lyster, Chelmsford; Mr. J. R. Lownds, Brixworth; Mr. R. R. Leeper, Rathdrum; L.S.A.; Mr. E. M. Little, London. (**M**) Mr. W. Martindale, London; Mr. T. W. Morgan, London; Mr. J. Mackie, Nottingham; Mr. J. H. Mummery, London; M. W.; Mr. D. McCrorie, Glasgow; M.R.C.S.; Messrs. Merck and Co., New York; M. M.; Dr. W. Munro, Ilford; M.B., C.M.; Mr. G. H. Makins, London; Dr. T. H. Moorhead, Cootehill; M.B; Mr. C. Morris, London. (**N**) North Briton; Mr. A. Norton-Taylor, Orlando, Florida, U.S.A.; Mr. F. A. Nynlary, Melbourne; Mr. G. H. Newry, Nottingham; G. Newbolt, M.B., Liverpool. (**O**) J. J. O'Hagan, M.B., Garston, Lancs. (**P**) Mr. W. P. Pain, London; J. Priestley, M.B., London. (**R**) Mr. T. F. Raven, Broadstairs; R. N. B.; Mr. H. R. Ruckley, London; Mr. F. J. Reilly, London. (**S**) Specialist; Mr. D. Stead, Alderney; Mr. W. R. H. Stewart, London; Dr. H. Snow, London; Surgeon-Major; Dr. J. S. Scriven, Stourport; S. T. S.; Mr. A. A. C. Swinton, London; Dr. W. Sykes, Gosport; Mr. E. A. Smith, London; Mr. A. B. Steward, Manchester; Mr. J. G. Smith, Clifton. (**T**) Dr. H. Tilley, London; Mr. S. H. Toller, London; Mr. A. H. Tubby, London; Dr. F. S. Toogood, London. (**W**) Mr. G. S. Wild, Bootle; Mr. T. C. White, London; Mr. F. C. Wood, Ripley; Mr. J. Wren, Windsor; Mr. E. W. Wallis, London; Dr. S. Woodcock, Manchester; Dr. O. Wunderlich, Thames Ditton; Mr. R. C. Worsley, Ramsgate; Mr. F. H. Westmacott, Manchester; Mr. G. E. Walker, Liverpool. (**Y**) Dr. M. Young, Brighouse; etc.

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## BOOKS, ETC., RECEIVED.

Notes on Medical Nursing. By the late J. Anderson, M.D., F.R.C.P. Edited by Ethel F. Lamport. Third Edition. London: H. K. Lewis. 1897. 2s. 6d.

Pseudo-Philosophy at the End of the Nineteenth Century. By H. M. Cecil. London: University Press. 1897. 10s.

The Pathology and Surgical Treatment of Tumours. By N. Senn, M.D., Ph.D., LL.D. Philadelphia: W. B. Saunders. 1895. 6 dollars.

Mitteilungen aus den Hamburgischen Staatskrankenanstalten. Band I, Heft I. Hamburg: Leopold Voss. 1897. M. 4.

Hypnotism. By A. Moll. Fourth Edition. London: Walter Scott. 1897.

Twentieth Century Practice; an International Encyclopædia of Modern Medical Science by leading Authorities of Europe and America. Edited by T. L. Stedman, M.D. Vol. VIII. London: Sampson Low, Marston, and Co. 1897. 21s.

Transactions of the American Orthpedic Association: Tenth Session. Vol. IX. Philadelphia: Published by the Association. 1896.

On the Plans of Modern Asylums for the Insane Poor. By J. Sibbald, M.D. Edinburgh: J. Turner and Co. 1987.

Transactions of the Royal Academy of Medicine in Ireland. Edited by Wm. Thomson, M.A., F.R.C.S. Dublin: Fannin and Co. 1896.

A Pictorial Atlas of Skin Diseases and Syphilitic Affections. Edited and Annotated by J. J. Pringle, M.B., F.R.C.P. Part VIII. London: Rebman Publishing Co. 1897. 10s. 6d.

A Treatise on Obstetrics. By E. P. Davis, A.M., M.D. Edinburgh and London: Young J. Pentland. 1897.

A Treatise on Surgery by American Authors. Edited by R. Park, A.M., M.D. Vols. I and II. Edinburgh and London: Young J. Pentland. 1897.

Chirurgie des Voies Urinaires; Etudes Cliniques. Par Dr. E. Loumeau. 2me Volume. Bordeaux: Feret et Fils. 1897. Fr. 6.

Schulgesundheitslehre; Das Schulhaus und das Unterrichtswesen, vom hygienischen Standpunkte. Von Dr. H. Eulenberg und Dr. T. Bach. Zweite umgearbeitete und erweiterte Auflage. Vierte Lieferung. Berlin: J. J. Heines. 1897.

A Manual of Chemistry. By W. A. Tilden, D.Sc., F.R.S. London: J. and A. Churchill. 1897. 10s.

Practical Hints on District Nursing. By Amy Hughes. London: The Scientific Press. 1897. 1s.

Who's Who? 1897. Edited by Douglas Sladen. Forty-ninth Year. London: A. and C. Black. 1897. 3s. 6d.

Atlas of Clinical Medicine. By Byrom Bramwell, M.D. Vol. iii. Part III. London: T. and A. Constable. 1897.

The Swedish System of Physical Education: its Medical and General Aspects. By Theodora Johnson. Bristol: John Wright and Co. 1897. 3s. 6d.

A Guide to the Clinical Examination of the Blood for Diagnostic Purposes. By R. C. Cabot, M.D. London: Longmans Green and Co. 1897. 16s.

*** In forwarding books the publishers are requested to state the selling prices.

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# THE LUMLEIAN LECTURES

ON

# SOME PROBLEMS IN CONNECTION WITH APHASIA AND OTHER SPEECH DEFECTS.

*Delivered before the Royal College of Physicians, April 6th, 1897,*

By H. CHARLTON BASTIAN, M.A., M.D.Lond., F.R.S.,

Censor of the College; Physician to University College Hospital and to the National Hospital for the Paralysed and Epileptic

[Abstract.]

## Lecture II.

Mr. President and Gentlemen,—After the full discussion of physiological first principles in the last lecture, I now propose to limit myself to a consideration of certain parts only of the very extensive subject of speech defects, and I have selected those parts which are of most general interest, and that have hitherto given rise to most discussion. I shall not deal at all with defects dependent upon lesions beneath the cortex—that is, neither with anarthria nor with aphemia; nor shall I consider, except incidentally, the effects of lesions of the commissures between the different word centres. I shall confine my attention to the effects of lesions of the four word centres themselves, both separately and in combination.

### Structural Defects in the Glosso-kinæsthetic and Cheiro-kinæsthetic Centres.

These kinæsthetic centres are, as I have already observed, concerned more with the expression of thought than with the thinking process. Although with lesions limited to these regions the power of thinking may not be very greatly interfered with, still it is nearly always interfered with to some extent, so that patients having such lesions do not usually exhibit anything like the same amount of mental clearness as that shown by patients suffering from aphemia. The fact that speech and writing are so frequently involved together in typical cases of aphasia is due partly to the proximity of the glosso-kinæsthetic and the cheiro-kinæsthetic centres, and, as we shall subsequently see, perhaps not less to the proximity of the two sets of commissural fibres connecting these centres with the auditory and the visual word centres respectively.

These modes of accounting for the coexistence of agraphia with aphasia undoubtedly hold good for certain cases, and especially for those in which, while there is no paralysis of the right hand and arm, the agraphia is complete—copying (except laboriously and slowly) being no more possible than writing spontaneously or from dictation. The destruction either of the cheiro-kinæsthetic centre or of the commissure connecting it with the visual word centre ought to produce such decided results as this. On the other hand, if no other disturbing cause were in operation, there is no reason why such a patient should not be able to write well with separate wooden letters (*écriture typographique*) either spontaneously or from dictation. And in cases where such a patient is paralysed in the right hand there would be no reason why he should not, with practice, become able to write in all modes with his left hand.

Whether the combination of aphasia and agraphia is mostly due, as I think, to this simultaneous implication or functional derangement of the cheiro-kinæsthetic centre and the commissure uniting it with the visual word centre or to some other cause must, for the present, be regarded as a moot point. Formerly a different view was taken. Thus, some of the earlier observers of aphasic cases, such as Trousseau,[1] Hughlings Jackson,[2] and Gairdner, seemed to consider that the inability to write was as much a result of a lesion in Broca's centre as inability to speak, and contended indeed that there was almost always a parity between these defects.

One of the first to dwell upon the marked inequality that may be met with between these two disabilities was W. Ogle,[3] to whom we owe the introduction of the term "agraphia." More than ten years previously, however, Marcé[4] had insisted upon the independence of these two defects.

The dependence of ability to write upon the integrity of a cortical centre altogether distinct from that by which articulate speech is effected is, I think, practically certain; but this is but another aspect of the question previously put, and will have to be considered more fully a little later on. For the present it is assumed that there are two such separate but contiguous centres; and, if this be true, that they are frequently affected simultaneously—either structurally or functionally—in cases of aphasia may be fully recognised. Still, in some cases either the glosso-kinæsthetic or the cheiro-kinæsthetic centre seems to be in the main involved, so that in one case speech may be principally interfered with, while in another it is more especially writing that is made difficult or impossible. This latter kind of defect is much less frequent, and usually less noticeable, than the former, because the patient is also often more or less paralysed in the right hand and arm. In such cases attempts at writing would only be possible, if at all, where the left hand and the right side of the brain have been more or less educated, and frequently no serious attempts have been made in this direction.

Though aphasic patients are unable to give voluntary and preconsidered expression to their thoughts, words, or even short phrases and oaths, may occasionally be uttered under the influence of strong emotion. We often find these patients able to make use of short familiar words like "Yes" or "No" in response to questions addressed to them, though they may be often inappropriately employed. The articulation of such words, or "recurring utterances" as they are now commonly termed, is generally supposed to be brought about through the intervention of the comparatively uneducated right third frontal convolution, and this subject will be referred to more fully later. As Hughlings Jackson originally pointed out, such a patient is quite unable to repeat one of these words which he is continually bringing out, or, indeed, any other simple vowel sound, when he is asked to do so. Another interesting peculiarity is often seen when resident foreigners become aphasic. During recovery it is found that they are at first only able to express themselves in that language in which they are most thoroughly versed—namely, in their own native tongue. I have seen this in several patients.

There are many instances on record in which, though the aphasic condition itself has been complete and associated with more or less agraphia, the mental powers of the patients have been fairly well preserved. Many of such individuals have been able to read intelligently to themselves, and play games, like draughts or cribbage, perhaps better than their neighbours.

The powers of articulation and of speech remaining to aphasic patients are very various, but may generally be ranged under one or other of the following heads: (*a*) Cannot utter a sound, or only mutters inarticulately; (*b*) Constantly repeats some meaningless sound or sounds such as "tan-tan" or "cousisi"; (*c*) uses some one or two single words, such as "yes" and "no;" and also mere sounds, such as "ba-ba" or "poi-boi-ba;" (*d*) uses some short phrase habitually, such as "list complete," or "I want protection;" and (*e*) uses three or four words or expressions, though in themselves meaningless or irrelevant, in a constant and definite manner, as in Broca's case (Lelong), in which the words "oui," "non," "trois," and "toujours" were so employed.

The evidence of recorded cases tends to show that agraphia is rather an effect of damage to the second frontal convolution than a result, associated with aphasia, of a lesion in Broca's region. Of the first two cases of aphasia that were recorded by Broca,[5] in one the lesion was old and widespread, though the left third frontal convolution was one of the parts that were destroyed; in the other the lesion was limited to the posterior parts of the left third and second frontal convolutions, and there was as a consequence loss of speech and writing, without any paralysis of limbs. This was, therefore, altogether the most memorable case, since by means of it more especially the first attempt was made to limit the situation of the region in the left frontal lobe, damage to which gave rise to aphasia. The following is an abstract of this classical case:

L., aged 84, was admitted into the surgical ward of the Bicêtre, October 27th, 1861, under the care of Broca, eighteen months after a slight apoplectic attack, which left no paralysis, but deprived him of speech except for four or five words. Broca says: "They were French words, namely, *oui*, *non*, *tois* (for *trois*), and *toujours*. He had a fifth word, which he pronounced when one asked his name. He then replied 'Lelo' for Lelong, his real name. ...The first three words of his vocabulary corresponded each to a definite idea. In affirming or approving he said 'oui.' In expressing the opposite idea he said 'non.' The word 'tois' expressed all numbers, all numerical ideas. And lastly, whenever these three words were not applicable Lelong helped himself with the word 'toujours,' which in consequence had no definite meaning. I asked him if he knew

how to write. 'Oui.' If he could do it. 'Non.' 'Try.' He tried, but he could not succeed in directing the pen." This patient died twelve days after his admission, and at the necropsy the remains of an old hæmorrhage were found in the form of a small cavity filled with serum, and having its walls infiltrated with altered blood pigment, occupying the posterior third of the second and third frontal convolutions.

Similar cases have been recorded by Tamburini and Marchi,[6] and Simon.[7] In the latter, which was of traumatic origin, aphasia was associated with the presence of a spicule of bone in the left third frontal convolution.

A case has been recorded by Rosenstein,[8] in which it is said that a hæmorrhagic softening involving the third frontal convolution, only gave rise to both aphasia and agraphia.

A woman, aged 22 years, was admitted into hospital suffering from a fever of intermittent type, and from nephritis. She was ill for several months, and whilst recovering from this affection she was suddenly seized with severe cerebral symptoms. The countenance was pale, the expression staring, the pupils dilated. She understood what was said to her, and put out the tongue when asked. She took a drinking glass when it was offered to her. She tried to answer, but in reply to questions could only say "Ja, Ja." She nodded approvingly when one guessed what her wishes were. She had formerly been able to write well, but now when requested to do so she only made all sorts of scrawls, but no letters. She lived sixteen days longer without the aphasia disappearing, and then died from a thoracic complication. At the necropsy a clot the size of a hazel nut was found in the third frontal convolution, surrounded by a limited area of secondary softening. The precise site of the clot in the third frontal convolution is not stated.

In regard to this case it may be fairly said that the initial lesion, the sudden irruption of a clot of blood the size of a hazel nut into the third frontal convolution, may well have inhibited for a time the functions of the immediately adjacent portion of the second frontal convolution, and it is also by no means clear that the secondary softening may not have slightly extended into this part.[9] It will be of interest here, also, to refer to a case of combined aphasia and agraphia in association with right hemiplegia, and therefore presumably the result of a much larger lesion. It is one of the cases recorded by Trousseau,[10] but in which there was no necropsy. The patient was, as is very often the case in true agraphia, able with the left hand to write his own name, though nothing else.

Although this case may have influenced the opinion of Trousseau, the modern development of knowledge enables us to say that it furnishes no evidence in elucidation of the question whether or not agraphia as well as aphasia is a necessary result of a lesion limited to the left third frontal convolution. I say this with all the more confidence because W. Ogle has recorded a case in which there was right hemiplegia and aphasia, though the patient could write with the left hand, and at whose death the second left frontal convolution was found to be intact.[11]

Here, then, where we have the third left frontal affected whilst the second frontal convolution was proved to be healthy, there was aphasia, but no agraphia; and we may, perhaps, assume that a similar exemption from disease of the second frontal convolution existed in a case of my own in which there was a similar combination of symptoms.

An active and intelligent man, a builder by trade, had an apoplectic attack associated with convulsions, which left him paralysed on the right side and quite speechless at first. His mind was also much confused for a time, but after two or three weeks he became able to understand what was said to him. The only articulate sounds he was able to utter for the first nine or ten months were "Bi-bi-bi," "Poi-boi-ba," and "No." After fifteen months he became able to say both "Yes" and "No" appropriately; though whilst he continued under my care I never heard him utter any other articulate sounds than those above cited, and according to the statements of his wife this was the extent of his vocabulary. He had regained almost the complete use of his right leg, though the hand and arm still continued very powerless. He had practised writing with his left hand, and wrote fairly well with it. He was asked to write a letter to me, and the next time I saw him he gave me a note of which the following is a literal copy:

"Jany. 5, 1869.

"Sir,—I am extremely obliged to you for the trouble you have taken about my affairs. You did not say thether (*sic*) you hav recovered from the severe cold and cough that you told me you were suffering from. I sincerely hope that you have quite recovered your health and strength.

"I am,

"ROBERT H. . . ."

Yet since his attack this same patient had only been able to utter the two or three words and sounds above mentioned. He seemed to understand everything that was said to him, and appeared also to understand the newspaper equally well when he read it, which he did habitually.

In each of these cases, even when there has been no agraphia, there has been a more or less distinct lowering of mental power, as compared with that which occurs in the class of cases due to subcortical lesions which I include under the term "complete aphemia." For this there are two causes. First, there is the fact that in these cases of aphasia the brain may have been more considerably and widely damaged by the various structural lesions that have occurred than has been the case in the aphemic group of cases. Secondly, there is the fact that in the cases of aphasia one kind of word memory is blotted out, whilst in aphemia none of the forms of word memory are interfered with.

The degree to which this interference with thought occurs may, however, in an uncomplicated case of disease limited to Broca's region be extremely slight—almost inappreciable, in fact—and moreover associated with no impairment in the power of writing. A very remarkable case of this type has been recorded by Guido Banti,[12] which will well repay the most careful attention, because it speaks most authoritatively against the views of Trousseau and the other writers already referred to who have taught that agraphia, as much as aphasia, is a result to be expected from an isolated destruction of Broca's region.

A right-handed man, aged 36 years, who was able to read and write correctly, had a sudden apopleptic attack in 1877. Recovering consciousness in a few minutes, he was found to be suffering from right hemiplegia and loss of speech. The paralysis of the limbs disappeared almost completely during the following night, though the inability to speak persisted. His subsequent condition was as follows. There was no paralysis. He could write perfectly, either spontaneously or from dictation, and could answer written questions in writing. He understood perfectly both speech and writing, and made no mistakes either in syntax or orthography. He was, however, unable to pronouce a single syllable, or to repeat it when heard. This patient died in February, 1882, from an aneurysm of the aorta; and a patch of yellow softening was found situated in the posterior third of the third left frontal convolution, and extending for some millimetres only into the white substance.

Here, then, we have a patient with a lesion destroying, but limited to, Broca's region, in whom there was loss of speech but no trace of agraphia, the patient being able to write well with his right hand. It is also of importance to note that there was here no more mental impairment than is found to exist where speechlessness is due to a subcortical or a bulbar lesion—that is, in a case of aphemia or of anarthria. But for the result of the necropsy I should have regarded this case as one of complete aphemia. For another very interesting case of aphasia in some respects similar to the last I am indebted to the kindness of Dr. Dickinson.

A sailor, aged 49 years, was admitted to St. George's Hospital under Dr. Dickinson's care, having had a fit in a neighbouring public-house. One hour and a-half after admission he had recovered consciousness and intelligence, but not his speech. He could not say anything intelligibly except the word "no," but the remarkable fact about his case was that he could express himself perfectly in writing, which he did with his left hand. He was hemiplegic on the right side, the right arm being completely powerless, the right leg partially so; there was also slight loss of sensibility over the whole of the right side of the body. For three weeks his speech was limited to the use of the word "no," a sound like "yong" which stood for "wrong," and the frequent repetition of the syllables "yah yah," which stood for everything. Told to repeat a sentence or phrase, "Great Britain and Ireland" or any other, he uttered the same "yah yah yah" for either. But he could express himself in writing as fluently and correctly as if his faculty of spoken language were uninjured. He understood perfectly all that was said to him. He retained the sense of music, and could whistle "God save the Queen." He eventually recovered his speech and the use of the leg, but not that of the arm. Dr. Dickinson adds: "The perfect ease and fluency with which the man wrote with his left hand showed that he had been in the habit of doing so. He was in common phrase left-handed, though he said he was not to be called so, since he used both hands equally."

The case is also interesting since it constitutes an exception to the very general rule that left-handedness suffices to transfer the leading speech activity to the right side of the brain, and because of the further exceptional circumstance that being left-handed the patient had not been taught to write with his right hand. Another case that was recorded many years ago by Wadham[13] is in some respects even more remarkable, and all the more convincing because it was followed by a necropsy. In it also before death the patient had regained his power of speaking. The patient was left-handed, and the lesion was found to be a large area of softening in the right hemisphere, involving part of the white substance beneath the Rolandic area, and completely destroying the island of Reil.

These cases show that the view held by authorities who maintain that destruction of the third frontal convolution alone in the leading hemisphere for speech gives rise to agraphia as well as aphasia is erroneous.[14]

The case reported by Wadham is further of special importance because it has been contended by Déjerine and also by Mirallié,[15] upon the basis of four cases (without necropsies) of aphasia with left hemiplegia occurring in left-handed persons, in whom the power of writing was lost simultaneously,

that this loss is the rule and only what might be expected. The cases I have cited show, however, that it is not the rule, and leave us free to suppose that those of Bernheim, Parisot, Magnan, and Déjerine (where the power of writing was lost) were not cases of simple aphasia due to lesions in Broca's region only. The lesions in them may also have involved the visual word centre in one or other hemisphere, or the commissure between them, and in either of these eventualities we might find an explanation of the coexisting agraphia.

In all the cases of left-handed persons in which the right hemisphere takes the lead in speech, whilst the left hemisphere executes the writing movements, it must be supposed that the right auditory word centre is the initial centre for the revival of words either for silent thought or for speech, and therefore also for spontaneous writing. Thus in such a person we must assume that the left visual word centre becomes educated concurrently during the process of learning to write (through the commissural fibres in the corpus callosum), and that the writing process is executed by this left side of the brain in the ordinary way by the passage of stimuli from the visual word centre on to the corresponding cheiro-kinæsthetic centre.[16]

Returning from this partial digression concerning the mode in which writing is performed in some aphasic persons, it will be seen that the case of Guido Banti, as well as that of Dickinson and of Wadham, is absolutely opposed to the views of Stricker and Hughlings Jackson. They show that for mere thought, apart from its oral expression, the memorial recall of kinæsthetic impressions may be even less necessary than might have been supposed by those who do not share their views. These cases are equally opposed to the views of Déjerine, Wyllie, Mirallié, and others, who, without looking upon this form of word memory as the most important of all, nevertheless think that glosso-kinæsthetic revivals are necessary for silent thought, and that without such a process as an initiative there is an inability to recollect words (amnesia verbalis), together with an inability to read and write.[17]

A careful examination of the cases capable of throwing light upon these two interpretations, to some of the best of which I have above referred, tells distinctly against this view, which has been adopted by Déjerine and others, that agraphia is to be regarded as one of the consequences of an isolated destruction of Broca's centre. The fact, however, of Déjerine adopting this view has led, I venture to think, to his attaching an altogether undue importance to destruction of Broca's region, since he not only believes that it interferes with silent thought by hindering the revival of auditory word images, but that it leads to some amount of alexia, and is likewise a cause of agraphia.

1. *Does Destruction of Broca's Region alone entail Amnesia Verbalis?*—To this question I am disposed to give a negative answer: Déjerine, Wyllie, and Lichtheim[18] take the opposite view. I rely upon the reasons previously adduced to show that words are primarily revived in the auditory word centre rather than in the glosso-kinæsthetic centre. I can also refer to the case of Guido Banti as well as to those of Dickinson, Wadham, and others, seeing that the ability of these individuals to write clearly showed that they could recall words, and were not suffering from amnesia verbalis.

2. *Does Destruction of Broca's Region entail Alexia?*—I believe that, as a rule, in reading a proper comprehension of the meaning of the text requires a conjoint revival of the words in the visual and the auditory word centres, but that for this mere comprehension it is not necessary for the stimulus to pass on also to the glosso-kinæsthetic centre, as it must do in reading aloud. It may, however, be freely admitted that if the way is open, and this latter centre is in a healthy condition, it does commonly receive in reading to oneself a slight stimulus from the auditory word centre, a fact which is often enough shown by the occurrence of involuntary half-whispered mutterings when reading. It may also be admitted that the rousing of all three centres does give assistance in the comprehension of anything difficult, as is shown by the common practice of reading aloud any passage the meaning of which may be at all obscure. By this proceeding aid is obtained, however, not alone by the full rousing of the glosso-kinæsthetic centre, as there is also the full activity of the auditory word centre following upon the spoken words. This kind of aid is indeed commonly needed, as Wernicke pointed out, by an uneducated person for the full comprehension of almost all that he reads. Therefore it may easily happen when such a person becomes aphasic from destruction of Broca's region that alexia may go with the aphasia.[19] Similar aid may be necessary in cases in which there is functional weakness of the visual word-centre. Thus there is now under my care in the National Hospital a woman, apparently suffering from a tumour in the left hemisphere, who is hemiplegic on the right side and understands readily all that is said to her, but who does not seem to gather the meaning of the simplest written or printed request unless she reads it aloud, which she is able to do without hesitation. She is quite unable to write spontaneously or to copy with the left hand, but then she has made very few attempts in this direction since her right hand became paralysed.[20] It would seem, however, that in some persons the comprehension of writing or printing does not even require the associated activity of the auditory word centre, so long as the visual word centre is in a healthy condition and its other associational fibres are intact. This is proved by the fact that in a case recorded by Wernicke and Friedländer,[21] in which there was aphasia associated with word deafness (due to a lesion in Broca's region and also in the upper temporal convolution), the patient was able to read well and even to write; there is also a valuable case of word deafness (with lesions in both upper temporal convolutions) recorded by Mills, and to be quoted further on, in which the patient was able to understand what she read; and a still more remarkable case recorded by Pick, with very similar lesions, in which, although the patient was word-deaf, he could write and comprehend perfectly what he read.

Long before I was aware of the crucial evidence afforded by these cases and that of Guido Banti, I did not believe that the comprehension of writing or of print was appreciably interfered with by an isolated destruction of Broca's region—that such a lesion, in fact, did not lead to alexia. For independently of the general views discountenancing such a notion, there was the case of R. H., and two recorded cases by Broadbent,[22] as well as others, pointing in the opposite direction.

Many of the cases in which there has been alexia coexisting with aphasia are, I think, clearly cases in which there have been rather wide lesions extending far beyond the third frontal convolution and involving also the visual word centre. This is the interpretation that I attach to a celebrated case recorded by Trousseau,[23] which evidently influenced his opinion very much. Lichtheim[24] believes that many of these cases have at first word deafness, which subsequently disappears.

It is, of course, possible that this explanation may hold good for certain cases, but that it is not necessary to have recourse to it in order to explain these cases of apparently simple aphasia with which alexia coexists I have become convinced by two cases that have recently come under my observation. What we have to ask ourselves when in the presence of such cases is, whether there is any evidence to show that the case is not one of simple aphasia, and whether a lesion exists also in the region of the posterior extremity of the Sylvian fissure? We may inquire, therefore, for the previous existence of word deafness as Lichtheim suggests, and also examine the patient carefully for the present existence of some amount of hemianæsthesia. The finding of this latter would show two things: first, that the lesion was not limited to the third frontal convolution; and, secondly, that either it or a second lesion also existed not far away from the visual word centre—which, consequently, may have been also involved. Since I resolved to apply this test, two cases of aphasia combined with alexia have come under my care, and in both of them there was the coexistence of a more or less complete hemianæsthesia.

The probability is, therefore, that in the cases of associated aphasia and alexia recorded by Trousseau and others, the latter defect is not to be regarded as a consequence of the lesion in Broca's region, but rather as a result of some coexisting damage to the visual word centre.

3. *Does Destruction of Broca's Region entail Agraphia?*—The writers whom I have previously named say Yes, that agraphia a well as aphasia is entailed by an uncomplicated lesion in

the posterior part of the third frontal convolution. But with this doctrine, as already stated, I cannot agree. In writing spontaneously or from dictation there is, I believe, needed for most people a primary revival in the auditory word centre and secondarily in the visual word centre, whence combined stimuli pass to the cheiro-kinæsthetic centre, and thence well over in co-ordinated form to the motor centres in the cord by which the actual writing movements are effected.

4. *Is it Right to Deny the Existence of a Special Centre for the Registration and Regulation of Writing Movements?*—We are now brought to the consideration of Déjerine's objection to the very existence of a special centre for writing movements —a cheiro-kinæsthetic centre as I name it.

Both Wernicke and Déjerine say that the intervention of a special centre for writing movements is not necessary on the ground that writing consists in a simple copying of the visual images stored up in the visual word centres. This, however, is extremely vague. It must be asked, how is the copying achieved? That is, by what cerebral mechanism is it brought about? I maintain that the visual word centre cannot act directly upon the motor centres in the cord, and that the conjoint activity (for co-ordinating purposes) of a kinæsthetic centre is quite as essential in the case of writing movements as is the activity of Broca's region for the production of speech movements. By parity of reasoning Wernicke and Déjerine might just as well say that Broca's centre is not needed on the ground that speech consists in a simple copying of the auditory images stored up in the auditory word centre and hold that the auditory word centre can act directly upon the motor centres in the bulb for the production of speech. But I contend that in each case another regulating centre must intervene, and that such a centre is just as essential for the translation of visual images into writing movements as it is for the translation of auditory images into speech movements.

Again, how can it possibly be alleged as a valid argument against the existence of a cheiro-kinæsthetic centre in a man accustomed to write with his hand that the same man is able to write on sand rudely with his foot, or that he can after a fashion write with his elbow, or with a pencil placed between his teeth? Clearly, in these other crude modes of writing he would simply be dependent upon the activity of other parts of the general kinæsthetic centre. Such objections—for they are scarcely worthy of the name of arguments—are therefore altogether futile. The question that has to be considered is, whether a man who has learned to write with his right hand, and who habitually writes in this fashion, calls into play a cortical centre the activity of which in the production of those movements is comparable with the activity of Broca's centre in the production of speech movements. To this question there can be but one answer. And the fact that in those cases of word blindness in which the patient is able to write spontaneously he can subsequently succeed in reading what he has written, by tracing the outlines of the letters with his finger, must also be taken as direct evidence of the existence of a cheiro-kinæsthetic centre, as I pointed out many years ago.[25] The impressions produced by the writing movements thus occasioned pass from their centre of registration back to the visual and auditory word centres, and thus enable the writing to be read. Of course, a patient would not be able to read in this way if his visual and auditory word centres were destroyed; therefore the objection of Déjerine and Mirallié[26] to this evidence falls to the ground.

Another argument adduced by Déjerine[27] against the existence of a special centre for writing has been based upon an interesting case which he cites very briefly of a patient, left-handed for all acts save those of writing, who became hemiplegic on the left side and aphasic, and at the same time lost the power of writing with his right hand. The patient continued in this condition for four years, and judging from the symptoms (there being no necropsy) Déjerine regarded it as a simple case of "motor aphasia." He thinks that the foot of the right frontal was destroyed, and that this patient was as incapable of writing as of speaking because he had no longer a "notion of the word," owing to his supposed inability to revive verbal images. The case under the care of Déjerine however admits of an explanation quite different from what he has given to it, and which is also much more in accordance with existing knowledge—namely, that a lesion existed in the hinder part of the hemisphere which damaged the visual word centre. Clearly, it cannot be deemed to support his notion that the kinæsthetic impressions of writing movements are not registered in a definite part of the cerebral cortex, and that this cortical region is not called into activity during the act of writing. That such impressions must be definitely registered in the cerebral cortex seems to me a self-evident truth.

On the other hand, it must, I think, be said that no actual proof has yet been given that the centre for writing movements is topographically distinct—in other words, that Exner's or any other separate localisation of such a centre has yet to be definitely proved. The evidence that I have previous cited, though it has been sufficient to discountenance the idea that destruction of Broca's centre of itself gives rise to agraphia, has no pretence to be adequate for the localisation of a separate centre, and the cases that have hitherto been cited in susport of Exner's localisation are all of them open to very legitimate objections. There is, for instance, a case recorded by Bar[28] in which an isolated lesion existed in the foot of the second frontal convolution, but, instead of giving rise to agraphia only, there were aphasia and agraphia, and the agraphia was not total as it should have been if a topographically separate centre for writing had been destroyed, since the patient's penmanship was good; and, though he could not express his ideas either in writing or in speech, he wrote over and over again a certain phrase or word. This case, therefore, though cited by Exner in favour of his localisation, seems to be decidedly opposed to it. Another case regarded by Henschen[29] has been cited as favouring Exner's localisation, which has, however, no real value. Here the patient suffered from word blindness and agraphia, and after death there was found not only a destruction of the foot of the second frontal, but also a softening which destroyed the angular gyrus.

A third case has been recorded by J. B. Charcot and A. Dutil,[30] and is thought by Pitres to favour Exner's localisation.[31] Then, again, one of the causes which led Déjerine to deny the very existence of a centre for writing movements seems to have been based upon the characteristics of two cases that were brought forward by Pitres, and which, upon the basis of his authority, have been commonly cited by others as affording evidence of the correctness of Exner's localisation. They were cases in which the patients were unable to write spontaneously or from dictation, and yet were able to copy writing. If the centre is destroyed, says Déjerine, the possibility of executing any kind of writing should be abolished. That at first sight seems perfectly true; and it may be a valid criticism against Pitres for quoting any such cases as instances of "motor agraphia."[32] But Déjerine and his followers have overlooked the possibility that Pitres may not have been quite correct in his interpretation of these cases, in which there was no necropsy. It can be shown that such a combination of symptoms may be easily explained by a cutting across of the audito-visual commissure that transmits impressions from the auditory to the visual word centre (Fig. 3, *b*). This I believe, after careful study of his memoir,

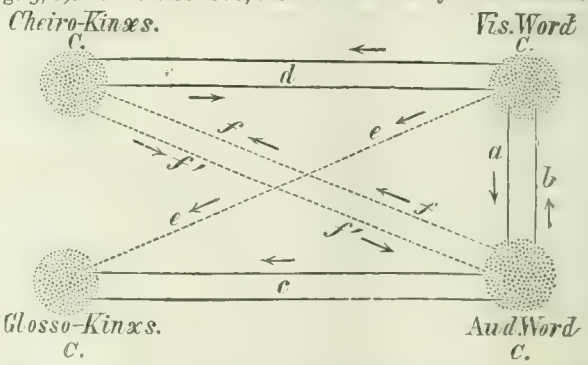



Fig. 3.

to be the explanation of the partial agraphic defects in the two well-known cases cited by Pitres as examples of the effects produced by damage to the cortical centre for writing movements.[33]

At present, then, it would seem that there are no uncomplicated cases of agraphia upon record produced by a small lesion in the cheiro-kinæsthetic centre, nor of agraphia as an isolated symptom, certainly resulting from damage to some part of the visuo-kinæsthetic commissure.

The reason for this extreme rarity of agraphia as an isolated symptom doubtless is that often in what might otherwise have been a simple case of inability to write this very special disability becomes hidden and unrecognisable, owing to the lesion being large enough to cause paralysis of many other movements in the hand and arm. Thus the mere inability to write is hidden by the production of a partial brachial monoplegia. No similar causes intervene to obscure the recognition of simple, uncomplicated aphasia, and yet it must be borne in mind that even this is decidedly rare.

If, then, there are no simple, uncomplicated cases of agraphia that can be quoted, either from disease of the cheiro-kinæsthetic centre or from damage to the commissure between it and the visual word centre, all that can be done is to cite some of the best instances available in which agraphia has been associated with aphasia, but where the former defect has been more marked than the latter. This was, in fact, the class of cases originally described by William Ogle in his paper on Aphasia and Agraphia. One of his examples (in which there was no necropsy), where right hemiplegia with aphasia was succeeded by a condition in which amnesia and agraphia were marked, still remains one of the most typical of this kind that can be cited. But two simpler and more typical cases have been recorded by Broadbent,[34] one of which is notable also on account of the remarkable amount of intelligence and energy displayed by the patient, notwithstanding her very defective speech and inability to write.

In addition to the evidences of intelligence and energy displayed by this patient there is also the fact that there was no alexia associated with the aphasia and agraphia. The latter defect was much more marked than the former; and the fact that the patient could use more words and sentences than are customary may perhaps be explained by the small extent of the lesion in the left third frontal gyrus. Although the paralysis of the right upper extremity had been quite recovered from, the agraphia was absolute. The posterior extremity of the second frontal gyrus was uninjured, but the posterior of two old focal lesions which were discovered lay in the supramarginal lobule over the posterior end of the Sylvian fissure, and would probably have destroyed the commissural fibres between the visual word centre and the cheiro-kinæsthetic not far from the former of these centres.

Nothing can be said as to the situation of the lesion in the next case, which is the best of those which William Ogle was able to bring forward in his paper. We must be guided only by the clinical facts recorded.

J. S., aged 54, after a heavy blow on the left side of the head seven years ago, was obliged to give up his work. He spoke without difficulty or hesitation, but miscalled things strangely. He then had a fit one morning whilst dressing, which left him speechless and hemiplegic on the right side. For a fortnight he could not speak at all, though he was quite sensible. He could not say so much as "Yes" and "No." From this he gradually recovered, but always, as before, miscalled things.....A month ago he had a second fit, which left him with less power than before in his right side, but made little or no change in his speech. There is now partial paralysis of the right side, which does not prevent his walking. The facial muscles on that side are slightly affected as well as the limbs. His speech is very hesitating and imperfect. He often stops suddenly at a loss for a word, and then frequently uses a wrong one, as, for example, he substituted "barber" for "doctor," "two-shilling piece" for "spectacles," "winkles" for "watercress." He can, however, pronounce any word perfectly when prompted. He says that he generally knows when he has used a wrong word, but not always. Before his illness he wrote a good hand, and was above his lot as regards education. Now he cannot form a single letter. Even with a copy before him he makes only uncertain up-and-down strokes. I gave him some printed letters and asked him to pick out his name. After a long time he arranged JICMNOS. Clearly he had some slight notion of the letters which composed his name. According to his wife, before his illness he spelt well, and was very particular about the spelling of his own name, which is one admitting of many variations. When a copy was before him he quickly picked out and arranged his name correctly. He can read, but he says that reading makes him very giddy and causes great pain in the head. His general understanding seems good and up to the average of men in his class.

The conditions here recorded represent the remainders of an attack of aphasia, as it would seem that the amnesia was perhaps not much more than had previously existed. We may conclude that in this case also the most severe or durable lesion was in the track of the commissural fibres between the left visual word centre and the glosso-kinæsthetic centre (Fig. 2, *d*), but that in all probability there was also some damage to the former word centre itself. This latter defect is indicated from the difficulty he had in spelling his name with separate printed letters placed before him; for inability to spell—that is, inability spontaneously to recall the letters composing a word—probably depends in the main upon some defect in the visual word centre, and, although he could read, what is said seems to imply that his powers were perhaps not great in this direction. It is, therefore, by no means a clear case, but one in which the defects were somewhat mixed.

Although we are unable as yet to cite any simple uncomplicated case of agraphia due to disease in the posterior part of the second left frontal convolution, yet, according to Binet and Féré,[35] it is easy to produce agraphia by suggestion in hypnotised persons.[36]

It seems best now, at the close of our discussion concerning aphasia and agraphia as combined and separate symptoms, to enumerate in tabular form the different modes in which complete or partial agraphia may be produced:

| Agraphia. | | |
|---|---|---|
| *Complete* | Uncomplicated. | 1. Destruction of cheiro-kinæsthetic centre.<br>2. Destruction of the visuo-kinæsthetic commissure. |
| | Complicated with word blindness. | 3. Destruction of the visual word centre. |
| *Partia* | No spontaneous writing or from dictation, but can copy; no word deafness. | 4. Destruction of the audito-visual commissure. |
| | No spontaneous writing, or from dictation, but can copy; word deafness present. | 5. Destruction of the auditory word centre. |
| | Can write spontaneously or from dictation, but cannot copy; word blindness present. | 6. Destruction of the visual word centre (in some educated auditives).<br>7. Isolation of the visual word centre from all afferent fibres. |

Of these various forms, Nos. 1, 2, and 7 should occur in all individuals alike, in association with the lesions named; but Nos. 3 and 6 are two degrees of agraphia that may be met with in association with word blindness, according as the individuals in whom the lesions specified occur are "visuals" or strong "auditives" much accustomed to write. On the other hand, Nos. 4 and 5 are two cases in which the same degree of agraphia may be met with, but differing by the absence of word deafness in the one case and its presence in the other.

### Defects in the Auditory and in the Visual Word Centres.

Since the publication in the year 1874 of an important memoir by Wernicke, entitled Der aphasische Symptomencomplex, it has been the fashion to speak of the defects of speech due to lesions in the auditory and the visual word centres as "sensory aphasia," in contradistinction to that produced by damage to Broca's region, which, in accordance with then prevalent notions, was and has since been very commonly spoken of as "motor aphasia." This mode of distinguishing these defects, though it has a certain convenience and has been widely adopted, is not in accordance with my views, as I hold the latter to be as much a sensory region of the brain as the former. It would, I believe, be much better if the term "aphasia" were restricted to the defects of speech produced by lesions in Broca's region and the term "aphemia" to those dependent upon subcortical lesions in the course of the pyramidal fibres, leaving the speech defects produced by lesions of the convolutions around the posterior extremity of the Sylvian fissure to be grouped as so many varieties of "amnesia." It is true that such a nomenclature involves a slight inconsistency, seeing that aphasia and agraphia are also, in accordance with my views, forms of amnesia due to the non-revival of glosso-kinæsthetic and cheiro-kinæsthetic images respectively. But these kinæsthetic images, as I maintain, play only a small part in thinking processes, and neither of them is subject to independent conscious recall like the auditory and visual images of words which constitute our habitual thought counters. The advantage would be great of confining the term "aphasia" to its original signification, and not including under it various types of speech defects which are radi-

cally different in nature and produced by lesions in totally different cerebral regions; this is especially desirable when the objectionable generic term "sensory aphasia" can be replaced by another having a very similar general connotation.

It has been commonly supposed, and repeated over and over again by workers in Germany and France, as well as by those writing in our own language both here and in America, that Wernicke was the first to call attention to and explain that form of speech defect that is now known as "word deafness," this particular name having been given to the condition shortly afterwards by Kussmaul. It is admitted that the companion defect of the visual centre, now known as "word blindness," had been previously recognised by several writers, thought it had not been clearly explained; but "word deafness" was supposed to have escaped observation by writers on speech defects, the individuals suffering from it having been previously thought to be insane or at least demented.[37]

The merit, however, of having determined the region of the brain at fault in cases of word deafness (namely, the hinder half of the upper terminal convolution, with perhaps a portion of the hinder extremity of the middle temporal convolution) clearly belongs to Wernicke, though, as I shall subsequently endeavour to show, he was far from correct in saying that the complex of symptoms resulting from such a lesion was word deafness, paraphasia, alexia, and agraphia.

That it is not correct, however, to say that word deafness and word blindness were not well understood till Wernicke defined their nature can be seen by referring to my paper On the Various Forms of Loss of Speech in Cerebral Diseases, published in 1869.[38]

At the date when this paper was written I knew nothing about what I now term "kinæsthetic centres," and had not fully realised the importance of kinæsthetic functions. At this period, moreover, the notion that definite "motor centres" exist in the cerebral cortex had not been mooted. This explains the reason of the absence of any reference to the needed activity of kinæsthetic centres in the paper.

Turning now to the question of the symptomatology of the condition named "sensory aphasia" by Wernicke, and referred by him to a lesion of the posterior extremities of the upper and middle temporal convolutions, it should be observed that Kussmaul shortly afterwards broke up into two sets of symptoms what was originally described as a single group by Wernicke. According to Kussmaul, what he first termed "word deafness" is the primary and essential result of destruction of the hinder extremities of the upper temporal convolutions; while what he termed "word blindness" holds a similar essential relationship to destruction of the angular and parts of the supramarginal gyri. This is the view now commonly held, and both varieties are spoken of as forms of "senory aphasia," though Wernicke's original doctrine as to the very complex results of a lesion in the auditory word centre is held at the present day by Déjerine as well as by Mirallié.

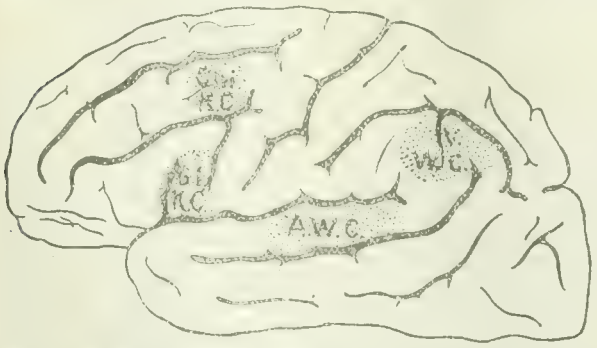



Fig. 4.—Diagram showing the approximate sites of the four word centres in the left cerebral hemisphere.

It must be admitted that the functional relations of the auditory and the visual word centres are so intimate, and their sites so close to one another, that a lesion occupying the one is apt more or less to interfere with the functions of the other for a longer or shorter period, which may vary with the nature and abruptness of the lesion, as well as with the different endowments of individuals. Disturbance to a very marked extent of the functions of the visual word centre as a result of a lesion in the upper temporal convolutions is, however, by no means so universal as Wernicke's and Déjerine's statements as to the symptomatology of this lesion would imply. Thus, out of 16 recorded cases of "sensory aphasia" in which the lesion was pretty closely limited to the hinder part of the first and more or less of the second temporal convolutions, in only 5 of them is there any mention of the existence of some amount of word blindness. Doubtless had the patients been studied more minutely (after the manner practised by Thomas and Roux[39]) some minor amounts of word blindness might have been found in others; but that is not what Wernicke meant, and is not other than what might be expected if we look to the close functional and topographical relations of the two word centres.[40]

It will subsequently be shown, moreover, that paraphasia is met with in only a little more than one-third of these cases, so that Wernicke's "Symptomencomplex" does not prove to be at all in accordance with the data at present available, although his views are still adhered to by Déjerine and Mirallié.

We will now consider the most common combinations of symptoms, taking the various parts of the subject in systematic order.

### 1.—Defects resulting from Abnormal Conditions in the Left Auditory Word Centre.

Of all the word centres the integrity of the auditory is of the most importance, and the defects due to different degrees of functional disability therein are the most varied, because this is the centre in which, in the great majority of individuals, words are first revived during thought, whether this be silent or whether it constitutes the first stage in the processes of speaking or of writing.

*(a) Effects produced by Functional Degradation or Partial Damage of the Left Auditory Word Centre.*—In the slighter degrees of damage and functional degradation we have to do with the most typical forms of verbal amnesia, in which various words fail to be recalled as they are needed in ordinary speech. The term "amnesia verbalis" applies especially to this defect, and the objections that have been raised to it on the ground that loss of auditory images constitutes only one kind of verbal amnesia are of no practical value because the two kinds of kinæsthetic images are, as I maintain, not spontaneously revivable as primary thought counters, and because it is only in rare cases that visual images of words are primarily revived. The term "amnesia verbalis" is therefore especially applicable to this particular functional disability of the auditory word centre.

This failure to recall words is always most marked with the names of persons, places, and things, these being the most specialised units of speech. The most familiar type of this defect is that which occurs as a result of defective nutrition, either with advancing years or during convalescence from prostrating diseases. Occasionally, however, a similar or more marked defect of the same order occurs as a result of some more or less distinct lesion of the brain. A good example of amnesia of this type, where the "volitional" recall of names was impossible though their "sensory" recall was preserved, is thus referred to by Trousseau in his "Lectures."[41]

As Lichtheim points out,[42] evidences of amnesia are "more easy to demonstrate when the patient is made to name objects than when he is engaged in ordinary talk; names which occur without effort in fluent speaking arrest him when he has to find them for objects or persons shown to him." There is general agreement as to the fact that in amnesia words are lost in a tolerably definite order. First there are failures in the recall of proper names, then of other nouns; and only much more rarely of verbs, adjectives, and pronouns. Of this fact different explanations have been given. Kussmaul says[43] that the ease with which a word is forgotten varies with the concreteness of the idea it expresses.

Ross's theory[44] is not incompatible with this. He points

out that as in the evolution of language nouns were the last words to appear, so in its dissolution they are the first to go.

In the slighter forms of amnesia the efforts at recollection of a person who is "at a loss for a word" tend also to call the visual word centres into an incipient activity. Graves [15] placed on record an excellent illustration of this fact in a man who had entirely lost his memory for noun substantives and proper names, though he could remember the initial letter of every one of them.

It seems reasonably certain that in the great majority of cases in reading aloud there is first the excitation of the visual word centre, then the passage through commissural fibres of stimuli to related portions of the auditory word centre before the stimulus passes on to the glosso-kinæsthetic centre.[16] Hence many cases have been recorded in which the patient's speech has been so disordered that they could scarcely say more than three or four consecutive words, and could perhaps utter no nouns, in which when a book is placed before them they are capable of reading aloud correctly and with ordinary facility. I have seen three such cases, and a good instance of this degree of lowered excitability of the auditory word-centre was also reported by Ross.[17]

Lichtheim has likewise recorded an extremely interesting case of this type. It occurred in the person of a busy medical practitioner who met with a carriage accident and was carried home unconscious. There was paresis of the right arm and leg, and he was confined to his bed for about a week. He was able to read aloud almost perfectly at a time when he could hardly speak at all.

The meaning of this ability to read aloud in such a case is that though the auditory word centre is so much damaged as to be unable to act spontaneously (that is, under volitional stimuli), it is still capable of responding to the associational stimuli coming to it as a result of strong excitation of the visual centre.[18] Persons so affected are also quite capable of responding to sensory stimuli passing direct to the auditory centre itself—that is, they can at once repeat words uttered before them.

Another very interesting but more complicated case illustrating the same degree of amnesia has been recorded by Dr. P. J. Cremen,[19] which was also remarkable for the gibberish character of the patient's writing, combined with an ability to spell correctly—two characters that do not often go together. In this relation it may be mentioned that it sometimes happens that the speech of patients is entirely limited to a mere imitative repetition of words spoken in their hearing, while they are without the power of volunteering any statement—that is, their auditory word centres respond only to direct sensory incitations, and not at all to those of an associational or volitional order. In these cases (usually included under the term "echolalia") a marked general mental impairment almost invariably coexists.

A defect of this kind (occurring in a woman who was hemiplegic from cerebral hæmorrhage) has been recorded by Professor Béhier.[20] She was born in Italy, and had resided both in Spain and France; of the three languages she had thus acquired she had completely forgotten the Italian and Spanish, and had only retained a most limited use of French. In this latter language she only repeated like an echo the words pronounced in her presence, without, however, attaching any meaning to them. But in the case of a woman seen at the Salpêtrière by Bateman the mimetic tendency was much stronger. She even reproduced foreign words with which she had never been familiar. It is clear that in such a case as this there must have been a mental degradation of a much wider kind than that which occurs when the auditory word centre alone is reduced to its lowest grade of functional activity.

References.

[1] *Lectures*, translation by Bazire, 1866. [2] *Brain*, vol. i, 1878, pp. 320 and 329. [3] *St. George's Hospital Reports*, vol. ii, 1867. [4] *Mémoires de la Société de Biologie*, 1856. [5] *Bulletins de la Société Anatomique*, 1861. [6] *Rivista Sperimentale di Freniatria e di Medicina Legale*, 1883, p. 282. [7] Quoted by Kussmaul. *Ziemssen's Cyclopædia*, vol. xiv, p. 735. [8] *Berl. klin. Woch.*, 1868, p. 182. A case of aphasia in a boy 5 years old, resulting from a traumatic lesion limited to the third frontal convolution, has been recorded by Duval, and is cited by Bateman (*On Aphasia*, 2nd edition, 1890, p. 196). [10] *Loc. cit.*, p. 237. [11] *Loc. cit.*, p. 105. [12] Afasia e sue forme. *Lo Sperimentale*, 1886, lvii, Obs. II., p. 272, and quoted by Prévost in the Revue Médicale de la Suisse Romande, June 30th, 1895. [13] *St. George's Hospital Reports*, vol. xx, 1868, p. 245. [14] Dally, *Ann. Med. Psychol.*, 1882, p. 252, mentions the case of another left-handed man who had an apoplectic attack resulting in left hemiplegia and aphasia, who was not agraphic, though he wrote in a paragraphic fashion. Two years afterwards he had almost recovered from his hemiplegia, and he could write, speak, and read, though he was unable to spell properly. M. Mesnet mentioned also that he had formerly presented to the society a patient suffering from left hemiplegia and aphasia with preservation of ability to write. [15] *Loc. cit.*, p. 85. [16] The process of learning to write here would, in fact, be the converse of what occurs when an ordinary right-handed person suffering from right hemiplegia and aphasia learns to write with the left hand. The only other possibility would seem to be that the incitation for writing should pass direct from the visual word centre in the leading speech hemisphere (though in a diagonal direction) to the centre for writing in the opposite hemisphere, which seems to me much less probable. [17] Thus Wyllie, who follows Déjerine, goes so far as to say (*loc. cit.*, p. 314), "There is reason to believe that in every case of severe motor aphasia that is due to destruction of the motor images amnesia verbalis is extremely well marked—even more so, perhaps, than it is in severe cases of auditory aphasia." [18] *Loc. cit.*, p. 471. [19] Kussmaul, *loc. cit.*, p. 775. [20] This patient died within a fortnight, when a tumour about two inches in diameter was found in the midst of the left centrum ovale, not extending into the cortex, but which may have caused some slight but undue pressure upon the left visual word centre. [21] *Fortschritte der Medicin*, No. 6, 1883. [22] One of these is referred to further on under the head of "Agraphia." [23] *Lectures*, translation by Bazire, pp. 229-232. [24] *Loc cit.*, p. 467. [25] *The Brain as an Organ of Mind*, 1880, p. 646, note. [26] *Loc. cit.*, p. 75. [27] *Mémoires de la Société de Biologie*, 1891, p. 97. [28] *La France Médicale*, 1878, p. 600. [29] *Klinische und anatomische Beiträge zur Pathologie des Gehirns*, Upsala, 1890, p. 273. [30] *Mémoires de la Société de Biologie*, 1893, p. 129. [31] Two other cases which have been cited as favouring this localisation—namely, one by Balzer (*Gazette de Médecine de Paris*, 1884, p. 97), and another by Shaw (British Medical Journal, February, 1892)—have in my opinion no value in this connexion. [32] Pitres attempts to get over the difficulty standing in the way of his interpretation arising from the fact that the patients were able to copy writing in the following manner. He says (*Congrès Français de Médecine Interne*, 1894, Rapport sur la Question des Aphasies, p. 10): "Copier, en effet, est toute autre chose qu'écrire couramment. C'est un acte de motilité générale qui n'a pas de centre d'exécution spécialisé, pas plus d'ailleurs que l'acte de tracer sur le sol avec le bout de sa canne, ou avec le pied, des traits ayant la forme de lettres. Ces actes là impliquent une attention soutenue, une surveillance constante de l'esprit, qui manque absolument dans l'écriture courante. C'est pourquoi l'agraphique dont les membres supérieurs ne sont pas paralysés, peut encore copier, bien qu'il ne soit plus capable d'écrire spontanément." [33] *Revue de Médecine*, 1884, p. 864. These cases are also quoted more briefly by Wyllie (*loc. cit.*, p. 357), though in the first of the two cases he omits the very important detail that the patient was able to copy writing easily. [34] *Med. Chir. Trans.*, 1872, pp. 146 and 160. [35] Les Paralysies par Suggestion, *Revue Scientifique*, July 12th, 1884. [36] Ballet, *Le Langage Intérieur*, p. 134. [37] This statement has been repeated by Wyllie in his recently published work on the *Disorders of Speech* (p. 295), although de Watteville had previously pointed out in *Brain* (1885, p. 267) that I had five years before the appearance of Wernicke's memoir fully appreciated the nature of the defect as well as that of "word blindness." [38] *British and Foreign Medico-Chirurgical Review*, 1860, pp. 40 and 42. [39] Bulletin de la Société de Biologie, February 22nd, 1896. [40] See the lists given by Mirallié (*De l'Aphasie Sensorielle*, 1896, p. 135), and Amidon, New York *Medical Journal*, 1885, pp. 113 and 181. [41] Translation by Bazire, 1866, part i, p. 267. [42] *Brain*, January, 1885, p. 473. [43] *Ziemssen's Cyclopædia*, vol. xiv, p. 759. [44] *Loc. cit.*, p. 112. [45] *Dublin Quarterly Journal*, 1851. [46] Several of the writers on aphasia, however, in their diagrams assume that the stimulus passes direct from the visual word centre to Broca's region (see Ballet, *loc. cit.*, p. 164). [47] *On Aphasia*, 1887, p. 40, Case 8. I am a little puzzled, however, in view of the simple explanation that can be given of this patient's defect to find that in different parts of his work Ross describes cases essentially similar under different names—see the case of a boy referred to on p. 68, as an example of what he terms the "second degree of aphemia," and also his reference to another example (on p. 72), which he terms, after Kussmaul, "aphasia of recollection." [48] Lichtheim's interpretation of this case (*Brain*, 1885, p. 447) is wholly different from mine. He accounts for it by supposing a damage of commissural fibres to exist, which pass between his postulated "centre for concepts" and Broca's convolution, which for him also is a motor region rather than one of sensory type. These are the cases which Lichtheim includes in his Type IV. A defect closely allied to this which I have just been considering has been described by Broadbent in a paper On a Particular Form of Amnesia, Loss of Nouns, *Med. Chir. Trans.*, vol. lxvii, 1884, p. 249. His explanation is also more in accordance with that of Lichtheim than with mine. [49] British Medical Journal, January 2nd, 1886, p. 14. [50] *Gazette des Hôpitaux*, May 16th, 1867.

Presentation.—Dr. St. John Wright, who has just resigned the position of Medical Superintendent of St. Mary's Infirmary and Workhouse, Islington, was last week presented with a handsome silver candelabrum and illuminated address on vellum by the guardians, justices of the peace, and the indoor and outdoor staff. The nurses also presented Dr. Wright with a silver salver and an address. The presentation was made by Mr. Elliott, L.C.C., the Chairman of the Board, who paid a high tribute to the ability Dr. Wright has shown during the fifteen years he had been Medical Superintendent.

Antirabic Inoculation at Cracow.—In the institute for antirabic inoculations in the Lazarus Hospital, Cracow, which is under the direction of Professor O. Bujwid, the number of persons treated during 1896 was 146. Of these, 44 were bitten by animals experimentally proved to be rabid, 50 by animals shown to be so by *post-mortem* evidence, 52 by animals in which the disease was suspected. No death occurred.

# THE GOULSTONIAN LECTURES
ON THE
# CHEMISTRY AND PATHOLOGY OF GOUT.

*Delivered before the Royal College of Physicians, March, 1897.*

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## Abstract of Lecture III.

### Causes Affecting the Deposition of Sodium Biurate.

*Deposition Encouraged by Concentration of Medium and Proportions of Sodium Salt Present.*—Sir William Roberts found that sodium biurate is very sparingly soluble in blood serum. At blood heat the amount dissolved is about 1 part in 10,000 (about one-tenth of its solubility in water).

This lessened solubility is entirely due to the saline constituents of the plasma, and in particular the sodium salts; thus if a medium be rich in urates but poor in sodium salts, there will be but little tendency to precipitation, and *vice versâ*. Now structures belonging to the connective tissue class are rich in sodium salts, while muscle, brain, liver, and spleen are poor in them, whence the greater liability to uratic deposition in the former. Sir William Roberts further considers that uratic precipitation takes place from the synovial fluid, and does not originate in the cartilage.

He considers (as opposed to Ebstein's view) that the process of deposition on the cartilage is a purely passive and physical one, and that the synovial fluid, charged with its dissolved urates, penetrates by liquid diffusion into the superficial layers of the cartilage, and that, when the critical moment arrives, precipitation takes place simultaneously in the synovia and in the cartilage.

As regards the varying liability of different joints to gouty attacks, Sir William Roberts considers that it is, at all events in part, dependent upon a greater concentration of the synovia on some joints, and on a varying proportion of sodium salts and possibly of sodium biurate.

*Deposition Encouraged by Sluggish Movement of Medium.*—It is highly probable that the very sluggish movement of fluids on the cartilaginous and fibrous tissues favours the deposition of urates from the medium in which they are dissolved. An interesting case has been recorded by Charcot,[1] who observed, in a hemiplegic woman of 40, that most of the articular cartilages on the right paralysed side were infiltrated with urates, whereas those of the non-paralysed side showed no such deposits.

Sir William Roberts attributes the greater frequency with which uratic deposits are found in cartilages than in fibrous tissues to the greater sluggishness in the lymph flow in the former. That gouty precipitation occurs in synovia rather than in blood or lymph he attributes to the sluggish movements of the joint fluid.

*Deposition Encouraged by Nervous Influences.*—It is possible, given the condition in which there is a fair amount of sodium quadriurate or biurate circulating in the blood, the amount not being quite up to saturation point, that nervous influences may accelerate deposition of the sodium biurate. It appears to me that a possible explanation of this result is that nervous influence affects the kidneys and depresses their excretory power for uric acid, which is consequently absorbed into the general circulation, and rapidly raises the quantity of urate in the blood to the point of over-saturation.

*Deposition Encouraged by Abnormal Constituents of the Blood.*—As previously stated, in cases of chronic lead poisoning there is a deficient excretion of uric acid in the urine and an accumulation of it in the blood. As to the natural way in which the lead favours or hastens the deposition of sodium biurate, and so produces gout, there are different opinions. Sir William Roberts[2] considers that gout and plumbism have one tendency or vice in common—namely, the tendency to uratosis. He considers it is more accurate, instead of speaking of ordinary gout and saturnine gout, to speak of gouty uratosis and saturnine uratosis. It appears to me that gout and plumbism have more in common than this tendency to uratosis, in that they both have the same tendency to cause the presence of an excess of urates in the blood.

I am of opinion that the influence of lead in producing gout depends solely on the extent to which the kidney parenchyma is damaged. With much damage done to the kidney cells, whose function it is to excrete uric acid, absorption of quadriurates into the blood occurs; the subsequent development of an attack of gout entirely depends on the amount of absorbed quadriurate.

*Deposition Encouraged by Injury to Joints or by Interference with their Nutrition.*—A slight injury to a joint, which in a healthy person would speedily pass off, in a gouty person renders the part susceptible to the deposition of sodium biurate by the sodium quadriurate circulating in the blood. This susceptibility is probably in some way connected with an impairment of the nutrition of the affected tissues.

As regards the relation between gout and rheumatism, points which have been the seat of acute rheumatism are especially predisposed in gouty subjects to become the seat of uratic deposits.

Dr. Latham[3] considers that the uric acid circulating in the blood may exert a toxic influence on those parts of the spinal cord regulating the nutrition of the joints, and so lead to uratic deposition in them. Ebstein's views and the objections to them have already been referred to.

Klemperer[4] believes that some unknown substances in gout lead to inflammatory and necrotic processes in various tissues; these necrotic areas then attract the uric acid from the blood, the chemical affinity of the necrotic parts for uric acid being so great that the blood cannot redissolve it. Von Noorden thinks the unknown substance which starts the inflammatory and necrotic processes is a ferment.

*Deposition encouraged by Diminished Alkalinity of the Blood.*—The view held amongst others by Mordhorst and Haig that diminished alkalinity of the blood causes uratic deposition, and that increased alkalinity of the blood causing re-solution of the uratic deposits is in my opinion erroneous and untenable for the two following reasons: (1) The view is apparently based on the deposit being uric acid, whereas it is sodium biurate, the solution of which, as Sir William Roberts has shown, is not increased by increased alkalinity of the blood; (2) from a series of experiments that I have conducted and which will be subsequently described, it appears that a diminution of the alkalinity of a medium does not affect the deposition of sodium biurate from that medium.

*Reasons for the Special Selection of the Great Toe and Ear as Seats of Gouty Deposits.*—These are mainly in the former case (1) the great liability to injury; in 14 out of 17 cases of non-gouty patients over 30 years of age and in all those over 50 examined by Garrod there was evidence of ulceration of the cartilages of one or both metatarso-phalangeal joints; (2) the remoteness of the joints from the centre of the circulation; and (3) their poor vascularity. In the helix of the ear, coldness and a sluggish circulation are quite sufficient to explain the selection.

*Cause of the Inflammation which accompanies the Gouty Paroxysm.*—I consider that the inflammatory part of the gouty attack is secondary to the deposition of sodium biurate crystals, but it must be granted that such deposition should occur fairly copiously and suddenly in order to start the inflammatory process. Undoubtedly urates may deposit slowly and quietly in joints without the development of any acute attack, or for some time antecedent to the development of an acute attack. The observations of Moxon and Fagge support the conclusion that the discovery after death of uratic deposits in a joint is not always to be regarded as a certain proof that the joint has passed through an inflammatory gouty attack.

### Certain Conditions and Factors Affecting the Solubility and the Precipitation of Sodium Quadriurate and Sodium Biurate.

*Diminution of the Alkalinity of the Blood.*—A view to which I have previously referred, which is commonly held as to the influence of diet and certain beverages in accelerating an attack of gout, is that such substances reduce the alkalinity of the blood and so hasten the precipitation of sodium biurate. As I believe this view to be erroneous, I will ask your attention to a consideration of my reasons for holding this opinion. In the first place Klemperer's[5] careful experiments show that in gout the alkalinity of the blood is but

little, if at all, diminished, while its diminution is a common pathological condition in diseases that are in no way associated with uratic precipitation, such as acute rheumatism, leukæmia, diabetes, carcinoma, and pyrexia. In the second place I have been unable to meet with any experimental proof that a diminution in the alkalinity of blood, containing uric acid in solution, either facilitates the deposition of sodium biurate from it, or diminishes its solvent power for sodium biurate as for uric acid. I therefore considered it advisable to experimentally investigate these different points, and for that purpose the following series of experiments were undertaken.

I. *Experiments showing to what extent the rate of Formation and Precipitation of Sodium Biurate is affected by Diminishing, by the addition of Acids, the Alkalinity of Blood Serum charged with Uric Acid.*—Seven bottles, each containing 40 c.cm. of blood serum, were raised to 1,000 F., and then charged with uric acid to the extent of 1 in 1,000°. As soon as the uric acid was dissolved, varying quantities of hydrochloric acid were added to the contents of three of the bottles, and of tartaric acid to another three, so as to partially reduce the alkalinity of the serum; the contents of the seventh bottle were left unaltered. The bottles were kept in a warm chamber at 100° F., and the commencement of the precipitation of sodium biurate crystals was then looked for by examining some of the contents of the bottles under the microscope every few minutes.

*Table showing the Results of Experiments made with Blood Serum charged with Uric Acid and the Effect which the Diminution of the Alkalinity of the Serum, by the addition of Hydrochloric Acid, has on the Precipitation of Sodium Biurate.*

| Solution. | Commencement of Precipitation. |
|---|---|
| Blood serum containing 1 in 1,000 uric acid | Crystals of sodium biurate first appeared in 6·7 hours. |
| The same one-fourth neutralised by hydrochloric acid | ,, |
| The same one-half neutralised by hydrochloric acid | ,, |
| The same three-fourths neutralised by hydrochloric acid | Some crystals of uric acid appeared in 5 minutes. Crystals of sodium biurate first appeared in 12 hours. |

It will be seen from the results of these experiments that the effect of diminishing the alkalinity of blood serum as far as one-half has no influence whatever in hastening the conversion of the sodium quadriurate into biurate, or, in other words, does not influence the deposition of sodium biurate from the serum. When the alkalinity is reduced by three-fourths, by the addition of hydrochloric acid, some crystals of uric acid were almost immediately precipitated, but when this precipitation of uric acid had ceased, then the deposition of sodium biurate did not begin till twelve hours had elapsed. This delayed deposition was due to the precipitate of the uric acid leaving the quadriurate solution weaker than before.

In the corresponding series of experiments with tartaric acid no difference in the time of appearance of biurate crystals was produced even by the reduction of the alkalinity of the blood serum by three-fourths. By estimating the acidity of some 1847 port I found that to reduce the alkalinity of a man's blood to that extent would require the instantaneous introduction of the acid contained in two bottles. The view, therefore, that a diminution of the alkalinity of the blood promotes an attack of gout by favouring the deposition of sodium urate, is, in my opinion, untenable.

II. *Experiments to show the Solvency of Uric Acid in Blood Serum, the Alkalinity of which has been Reduced by the Addition of an Acid.*—The experiments were carried out in the following manner. Seven bottles, containing 25 c.c. each of blood serum, were taken; three of them were treated respectively with different quantities of hydrochloric acid, so as to reduce the alkalinity of the serum in one case by one-fourth, in the second case by one-half, and in the third case by three-fourths; three others were similarly treated with tartaric acid; the contents of the remaining bottle were left untouched. The bottles were placed in the warm chamber till their contents were at 100° F., and then an excess (60 to 70 mg.) of uric acid was added to each. They were kept in the warm chamber for two hours, during which time they were frequently agitated; the contents of the bottles were then filtered from undissolved uric acid, and the dissolved uric acid in each filtrate was estimated. The preceding table shows the results.

*Table showing the Solubility of Uric Acid at 100° F. in unaltered Blood Serum, and in Blood Serum the Alkalinity of which is proportionately reduced by the addition of Hydrochloric Acid.*

| Solvent. | Uric Acid Dissolved | |
|---|---|---|
| | With Hydrochloric Acid. | With Tartaric Acid. |
| Unaltered serum ... ... ... | 2.03 per 1,000 | 2.03 per 1,000 |
| Serum one-fourth neutralised ... | 1.48 ,, | 2.01 ,, |
| ,, one-half ,, ... | 1.00 ,, | 2.01 ,, |
| ,, three-fourths ,, ... | 0.45 ,, | 2·02 ,, |

The diminished solvency of the HCl-treated serum for uric acid is due to the conversion of some of its $NaHCO_3$ into NaCl, whereby less sodium remained available for the formation of the quadriurate. It appears, however, that in the case of the tartaric acid the uric acid is able to displace it from its combination with sodium, and use the latter as readily as if it had been in the form of the bicarbonate.

Since the acidity of wines is due to organic acids (mainly tartaric, malic, and succinic acids), it would seem very doubtful, judging from the results of these experiments, whether, even if any alteration in the alkalinity of the blood were produced by the drinking of acid wines, the solubility of uric acid in such blood could be affected in the slightest degree.

III. *Experiments to show the Solubility of Sodium Biurate in Blood Serum, the Alkalinity of which has been Reduced by the Addition of an Acid.*—The experiments were carried out in a similar manner to those just described, except that an excess of sodium biurate was substituted for the uric acid,

*Table showing the Solubility of Sodium Biurate at 100° F. in Unaltered Blood Serum, the Alkalinity of which is Proportionately Reduced by the Addition of Hydrochloric and Tartaric Acids.*

| Solvent. | Sodium Biurate Dissolved | |
|---|---|---|
| | With Hydrochloric Acid. | With Tartaric Acid. |
| Unaltered serum ... ... .. | 0.05 per 1,000 | 0.05 per 1,000 |
| Serum one-fourth neutralised ... | 0.05 ,, | 0.08 ,, |
| ,, one-half ,, | 0.07 ,, | 0.08 ,, |
| ,, three-fourths ,, | 0.10 ,, | 0.12 ,, |

These experiments show that the diminution of the alkalinity of blood serum by the addition of mineral or organic acids slightly increases its solvent power for sodium biurate.

I think that the view that uric acid is deposited in the liver, spleen, joints, and fibrous tissues owing to diminished alkalinity of the blood should be abandoned. It is based on an error, namely, that the deposit is uric acid, whereas it is sodium biurate. The results of the experiments that I have just described indicate that diminution of the alkalinity of the medium does not promote the deposition of sodium biurate. The other view that increased alkalinity of the blood dissolves and sweeps out the accumulations of uric acid from the various organs and tissues should also, in my opinion, be abandoned, as it is based on the same error. Nor is there any rational chemical evidence in support of Dr. Haig's view that small doses of calomel clear uric acid out of the blood and retain it in the body.

*Influence of Certain Articles of Diet on the Precipitation of Sodium Biurate.*—It is well known that the excessive consumption of rich nitrogenous food, combined with excesses in wine and malt liquors, both induce and excite gout. The subjects of gout are generally people who live well and consume a large amount of animal food. Dr. Budd, speaking from a long and extensive professional connection with a large rural district, states that he never knew an instance of gout occurring among agricultural labourers. The generally accepted view that a highly nitrogenous animal diet necessarily produces an excessive amount of uric acid is disproved by the experiments of Bleibtreu and of Hirschfield previously referred to. I believe that as regards the production of uric acid from proteid matter it is of little importance whether the proteid is of animal or vegetable origin. As no researches have, so far as I can ascertain, been made with a view of determining the influence of the saline constituents of animal and vegetable food respectively upon the solubility of sodium

biurate, I have undertaken the following series of experiments.

*Experiments showing the Influence of the Mineral Constituents of Meat, Milk, and Vegetables respectively on the Solubility of Sodium Biurate at 100° F.*—A series of experiments were undertaken operating upon the ash respectively of lean beef, milk, and mixed vegetables (potatoes, spinach, and French beans).

The experiments were carried out in the manner devised by Sir William Roberts in determining the influence of various therapeutical salts on the solubility of potassium biurate. Bottles, each containing 100 c.cm. of distilled water were raised in the warm chamber to a temperature of 100° F., an excess of sodium biurate added, together with the salts under consideration; the whole was digested for five hours at this temperature, after which the amount of sodium biurate in the solution was estimated. The results are shown in the following table:

| Solvent. | Sodium Biurate Dissolved. | | |
|---|---|---|---|
| | Meat. | Milk. | Vegetable. |
| | Per 1,000. | Per 1,000. | Per 1,000. |
| Pure water ... ... ... ... ... | 1.10 | 1.10 | 1.10 |
| Water containing 1.0 per cent of ash ... | 0.93 | 0.62 | 2.15 |
| ,, ,, 0.50 ,, ,, ... | 0.76 | 0.58 | 1.70 |
| ,, ,, 0.20 ,, ,, ... | 0.56 | 0.49 | 1.35 |
| ,, ,, 0.10 ,, ,, ... | 0.32 | 0.44 | 1.15 |
| ,, ,, 0.05 ,, ,, ... | 0.15 | 0.72 | 1.10 |
| ,, ,, 0.02 ,, ,, ... | 0.11 | 0.90 | 1.10 |
| ,, 0.01 ,, ,, ... | 0.85 | 0.94 | 1.10 |

It is thus seen that the mineral constituents of meat in all proportions between 1.0 and 0.01 per cent. diminish the solvency of sodium biurate, and that the effects are most marked between 0.1 and 0.02 per cent., proportions which may certainly be present in the blood after eating a few ounces of meat. The ash of milk also diminishes the amount of sodium biurate dissolved, the diminution being most marked in the presence of 0.1 per cent. It is unlikely that the consumption of milk plays any part in the production or maturation of an attack of gout, since to introduce 0.1 per cent. of the mineral constituents of milk into the blood of a man of average weight would require the immediate consumption of 22 ounces of milk, an amount which is unlikely except in the case of a patient on exclusively milk diet. The mineral constituents of vegetables, on the other hand, in quantities of 0.1 per cent. and upwards, very appreciably increase the solvency of sodium biurate; it may hence be inferred that vegetable food, if taken in sufficient quantity, would delay the advent of an attack of gout.

I next endeavoured to ascertain whether the mineral constituents of milk, meat, and vegetables possessed any inhibitory powers over the decomposition of sodium quadriurate, and, if so, what were their comparative powers.

In connection with this investigation, some very remarkable results were obtained. The method I employed was that originally used by Sir William Roberts. Some pure sodium quadriurate was prepared by the method described by him. A very small quantity was placed on a glass slide and stirred up with a drop of water. A cover slip was applied, and the result watched under the microscope. The time was noted at which crystals of uric acid began to make their appearance. Fresh quantities of quadriurate were then treated in a similar manner, with 0.1 per cent. solutions of the mineral constituents of milk, meat, and vegetable ash respectively, and the different times at which crystals of uric acid commenced to form were noted. These were compared with the time required by distilled water to start the decomposition, which was taken as the standard of comparison. It was found that when the quadriurate was treated with distilled water, crystals of uric acid commenced to form at the end of half a minute, when treated with a 0.1 per cent. solution of milk ash in distilled water at the end of half a minute, with a 0.1 per cent. solution of meat (lean beef) ash at the end of one minute, and with a 0.1 solution of mixed vegetables (potato, spinach, and beans) ash at the end of two hours. In other words, the inhibitory power of a 0.1 per cent. solution of milk ash on the decomposition of sodium quadriurate is the same as that of distilled water; that of a 0.1 per cent. solution of meat ash is twice as great; while that of a 0.1 per cent. solution of vegetable ash is no less than 240 times as great. The inhibitory power of blood serum is much greater than that of water, decomposition only occurring in that medium after several hours: it seems, therefore, probable that the addition of a small quantity of the mineral constituents of vegetables would delay the decomposition of the sodium quadriurate in the blood for a very considerable time.

I propose to follow up this line further, and to endeavour to ascertain which of the mineral constituents of vegetables especially possess this inhibitory power.

The net results of these experiments and of those previously described indicate that the mineral constituents of meat only delay for a brief period the decomposition of the quadriurate, and, when it is once decomposed, they hasten the precipitation of the biurate. On the other hand, the results indicate that the mineral constituents of vegetables delay for a remarkably long period the decomposition of the quadriurate, and then subsequently retard the precipitation of the biuret by increasing its solvency.

I do not wish to attribute the different effects of animal and vegetable diets on gouty subjects to the saline constituents alone; but it is, I think, to the different mineral constituents of animal and vegetable foods, and to the different effects they have on the quadriurates and biurates, that we must look for at least a partial explanation—perhaps a main one—of the known facts that an excessive diet of the one tends to produce gout and of the other tends to retard it.

*Influence of Alcoholic Drinks on the Gouty Process.*—It is well known that alcoholic drinks which have been subjected to fermentation but not to distillation, injuriously affect the gouty process. Those which have been distilled differ from these in containing little or no acid, and the harmful results of indulgence in wines have been attributed to their acidity. But if we arrange the various wines and beers in the order of their acidity as given by Bence-Jones and of their gout-inducing qualities as ascertained by Garrod, we find that the two do not coincide. Garrod hence concludes that the acidity can have but little to do with the causation of gout by fermented liquors, and this accords with the experiments I have already detailed, showing that a diminution of the alkalinity of the blood neither hastens the conversion of sodium quadriurate into biurate, nor promotes the deposition of the biurate, and so cannot be a determining cause of an attack of gout. My own experiments show also that the alcohol itself, in far larger quantities than could ever be present in the blood, has no effect either on the conversion of the quadriurate or the deposition of the biurate, and I have also confirmed Dr. George Harley's opinion as to the innocuousness of sugar in this respect. I have further extracted the volatile constituents of various parts and found them entirely without action upon the chemical changes referred to. I can therefore at present offer no final explanation of the *modus operandi* of such wines as hasten an attack of gout, but I incline to the opinion that the influence of wines on the development of gout is due, in great part, to the effect they have on the metabolism of the liver and the consequent increased amount of glycocine that passes on to the kidneys. At the same time it must be remembered that those accustomed to drink wine are also liable to indulge in other luxuries of the table, which greatly favour the development of gout.

## CONCLUSIONS.

The main points and conclusions arrived at in these Lectures are as follows:

1. Uric acid is not normally present in the blood of man and other mammals, nor in the blood of birds.
2. Uric acid is normally produced only in the kidneys.
3. Uric acid is normally formed from urea, probably by conjugation of that substance with glycocine in the kidneys.
4. Uric acid is present in the blood in gout as the soluble sodium quadriurate. In its soluble form it is not a toxic agent. It deposits from the blood as sodium biurate, which acts passively and physically as a foreign body in the tissues or organs in which it is deposited.
5. The presence of uric acid in the blood in gout is due to its deficient excretion by the kidneys, and to the subsequent absorption of the non-excreted portion into the blood from those organs.

6. Gout is probably always preceded by some affection of the kidneys, functional or organic, which interferes with the proper excretion of uric acid. The probable seat of the kidney affection giving rise to gout is in the epithelium of the convoluted tubes.

7. In certain blood diseases and disorders accompanied by leucocytosis uric acid is formed within the system from nuclein. Under such circumstances it passes at once into the blood and is rapidly eliminated by the kidneys.

8. The solubility of uric acid in the blood is not affected by a diminished alkalinity of the blood produced by the addition of organic acids.

9. The deposition of sodium biurate is not accelerated by a diminution of the alkalinity of the blood.

10. An increased alkalinity of the blood does not increase the solubility of deposits of sodium biurate.

11. The saline constituents of vegetables exercise a remarkable inhibitory power over the decomposition of sodium quadriurate.

12. The solubility of sodium biurate in the blood is increased by the presence of the saline constituents of vegetables.

13. The solubility of sodium biurate in the blood is diminished by the presence of the saline constituents of meat.

14. The gout-inducing properties of certain wines are not due to their acidity. Probably they owe their gout-inducing action to the effect they exercise on the metabolism of the liver.

References.

[1] *Maladies des Vieillards et les Maladies Chroniques*, 1874. [2] *Med. Soc. Trans.*, vol. xiv, p. 88. [3] Croonian Lectures, British Medical Journal, i, 1886. [4] *Deut. med. Woch.*, 1895, xxi, p. 655. [5] *Loc. cit.*

## A CASE OF ANGINA PECTORIS TREATED BY ERYTHROL TETRANITRATE, WITH MARKED BENEFIT.

By J. B. BRADBURY, M.D., F.R.C.P.,

Downing Professor of Medicine in the University of Cambridge; Physician to Addenbrooke's Hospital.

E. G., aged 75, a medical man, twelve months ago began to suffer from angina pectoris. As no organic lesion was discovered the affection was declared to be neurotic, and treatment with digitalis, strophanthus, quinine, strychnine (hypodermically and by the mouth), cactina, arsenic, etc., successively, was tried without avail. The patient grew feebler, and the seizures became more frequent. The symptoms were pain in the sternum, elbows, and fingers; quick, painful, jerky respiration followed, unless the attack was cut short by nitroglycerine or inhalation of nitrite of amyl, by absolute agony, and an indistinguishable pulse. A fiftieth of a grain of nitroglycerine had always to be taken to enable him to dress, undress, creep out into the sunshine, etc., and seven or eight such doses were required in the twenty-four hours. The attacks were induced not only by slight physical exertion but also by mental effort (such as the writing of a letter), and they would even occur during perfect rest or during sleep. In the intervals of the attacks the pulse was 70, soft, and easily compressible. After taking a tabloid of nitroglycerine ($\frac{1}{50}$ gr.) the usual effects—throbbing at the temples, a fuller radial pulse, etc.—were felt, followed in two to three minutes by entire cessation of the pain, and return of normal breathing.

Erythrol tetranitrate (1-grain doses) was now suggested. Without my knowledge Dr. G. undertook some observations on himself, and very kindly afterwards sent me the following account: "Before taking the tetranitrate of erythrol at stated intervals I thought it would be instructive to ascertain by experiment the length of time the agent would afford immunity from the seizures of angina. It was taken, therefore, only when attacks were imminent, as known by pain supervening in the sternum, elbows, and fingers, before the breathing had become distressed or the point of agony approached. In this latter emergency nothing short of the inhalation of nitrite of amyl or the rapid mastication of nitroglycerine tabloids will lower arterial tension and afford relief. It would seem in my case that, notwithstanding the previously long-continued use of trinitrine, this tension was more quickly lowered and longer relieved than is shown in your diagram (Fig. 10) in the Bradshaw Lecture.[1] Certainly in ten minutes I felt that the progress of the attack was arrested, and, as the figures below show, the interval of ease was more prolonged. The following table introduces the last three or four days' use of nitroglycerine by way of contrast. The system appeared to have become so insensitive to its action that $\frac{1}{100}$ gr. three times a day was now practically inert.

Nitroglycerine.

(In doses of $\frac{1}{100}$ gr. unless otherwise indicated; only taken on the approach of, or during, a seizure.)

February 28th, at 6, 8, 12, 3 ($\frac{1}{75}$ gr.), 7 ($\frac{1}{50}$ gr.), 10 ($\frac{1}{50}$ gr.)
March 1st, at 6, 8, 11 ($\frac{1}{75}$ gr.), 12, 4, 7, 9, 11.
" 2nd, at 3, 6, 8, 11, 1, 3, 5, 7, 9, 11.
" 3rd, at 1 ($\frac{1}{75}$ gr.), 8 (here erythrol tetranitrate arrived).

Erythrol Tetranitrate.

(One grain was taken at each dose except where otherwise noted.)

| | Taken at | | Repeated at | | Interval. |
|---|---|---|---|---|---|
| March 3rd (cont.) | 10 A.M. | ... | 7 P.M. | ... | 9 hours. |
| " 4th | 6 A.M. | ... | 1 P.M. and 9 P.M. | | |
| " 5th | 7 A.M. ($\frac{1}{2}$ gr.) | ... | 12 P.M. ($\frac{1}{2}$ gr.), 4 P.M. ($\frac{1}{2}$ gr.), 8 P.M. | | — |
| " 6th | 7 A.M. | ... | 6 P.M. | ... | 11 hours. |
| " 7th | 6 A.M. | ... | 6 P.M. | ... | 12 hours. |
| " 8th | 6 A.M. | ... | 1 P.M. | ... | 7 hours. |

"Life being now rendered infinitely more tolerable and the potency of the remedy abundantly demonstrated, I determined upon taking it steadily, at about eight hours' interval, as a prophylactic. For three days there was immunity from attacks, although some weariness and oppression at the chest were wont to steal on after the lapse of six or seven hours from taking the tablets. I am now taking them four times in the twenty-four hours, and am sanguine enough to hope to keep the foe at bay altogether."

This case needs little comment. Dr. G. is right in stating that the pulse tension is more quickly lowered than is shown in the diagram to which he refers. The initial fall depends on the mode of administration. If the drug is given in spirit and water (1 grain in 1 drachm of alcohol and 7 drachms of water) the tension begins to fall in from two to three minutes; if given in a pill and swallowed the time is from twenty to forty minutes; if taken in tablet form and masticated the time lies somewhere between the two. The best form of administration is undoubtedly the tablet form. The alcoholic solution which I originally recommended sometimes irritates the stomach on account of the amount of alcohol it contains, and unless a rapid action is required it is better to give the drug in the solid form. Erythrol tetranitrate, however, was not introduced to replace amyl nitrite and nitroglycerine in cutting short attacks which have developed, but only to replace them in preventing the onset of the attacks. That it is capable of doing this much better than nitroglycerine, the best drug we had hitherto had for this purpose, I think the preceding case conclusively proves.

Reference.

[1] British Medical Journal, November 16th, 1895, p. 1217.

## THE DIRECTION OF ROTATION IN CEREBELLAR AFFECTIONS.

By J. S. RISIEN RUSSELL, M.D., M.R.C.P.,

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In a paper on the Value of Experimental Evidence in the Diagnosis of Diseases of the Cerebellum, published in the British Medical Journal of May 18th, 1895, when discussing rotation as a symptom of cerebellar disease I stated that animals deprived of one lateral lobe of the cerebellum rotated away from the side of the lesion. I then went on to explain how a human subject with disease of one lateral lobe of the cerebellum would be expected to rotate in order to be in agreement with the experimental results which I had obtained.

The Journal of the following week contained a letter from Dr. Bruce Ferguson, in which he expressed the opinion that I had fallen into an error of expression; and he gave his reasons for considering that the direction of the rotation which I had described was towards and not away from the side of the lesion. As it was impossible to reply to his criticisms in the space at my disposal for a letter, I promised to write a paper dealing more fully with the question than I

had done in my original communication. This must be my excuse for submitting for consideration on the present occasion the following problems with regard to rotation, which I hope will serve to explain my former statements on the subject, and assist us in arriving at a uniform terminology in our descriptions of the direction of rotation in cerebellar lesions.

### The Observer and the Observed.

In describing the direction of rotation of an object as from right to left, or left to right, it is first of all necessary to decide whether we are to describe the direction in terms relating to the observer or the observed. We are as a rule in the habit of speaking of the sides of an inanimate object as left or right, not in terms relating to the object, but to the observer, so that in speaking of right or left of such an object we as a rule mean the side of the object which corresponds to the right or left side of the observer. It only rarely happens that such objects are described as having a right and left side independently of the sides of the observer. It is otherwise with regard to animate objects, however, for as they have a recognised right and left side of their own, irrespective of any relation these may have to the observer, when speaking of right or left in connection with them, unless otherwise qualified, there is room for considerable confusion, in that the right and left of the object do not always correspond to the right and left of the observer. Thus an animal placed in front of the observer with its head pointing towards the same direction as that towards which the observer is looking would be in perfect agreement with the observer as regards its sides, the right of the object corresponding to the right of the observer, and the left of the object to the left of the observer (Fig. 1). But an animal placed in front of the

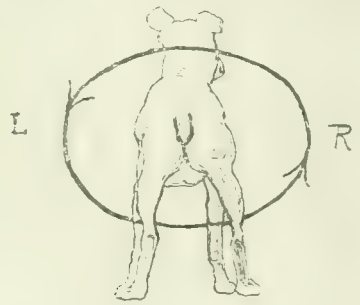



Fig. 1

observer, with its head turned to the observer and its tail pointing in the same direction as that towards which the observer is looking, would not be in agreement with the observer as regards its sides, for the animal's right side would now correspond to the observer's left and the animal's left to the observer's right (Fig. 2). So that if rotating in

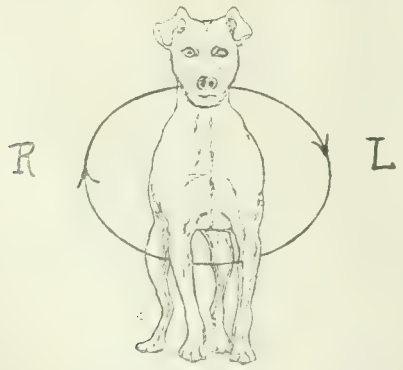



Fig. 2.

the manner indicated by the arrows in the figures it would be necessary to state whether right or left used in the description referred to the animal or to the observer.

The matter is therefore simplified if we suppose the object placed in front of the observer, with its head facing towards the same direction as that towards which the face of the observer is turned, for in this way the right and left of the object correspond to the right and left of the observer, so that only one meaning could be attached to a description of the direction of rotation, which is said to be from right to left, or one which is said to be from left to right.

In my descriptions of rotation in animals after unilateral lesions of the cerebellum, I have always adopted this plan, and I feel convinced that if we are to adhere to the description of rotation as taking place from right to left, or left to right, there will always be confusion unless this plan is adopted, by which means the right and left sides of the observer and observed correspond.

### The Direction of Rotation.

No object rotating about one of its own axes can have all the points on its surface moving in the same direction at any given instant, for the direction of motion of any point moving round a circle is the same as the direction of the tangent at each successive instant. We can, however, see how the general tendency of all points on one half of the circumference of a circle, unable to fly off at a tangent, will be to move in exactly the opposite direction to that in which all points on the other half of the circumference of the circle are moving. A consideration of Fig. 3 will make my meaning clearer. If

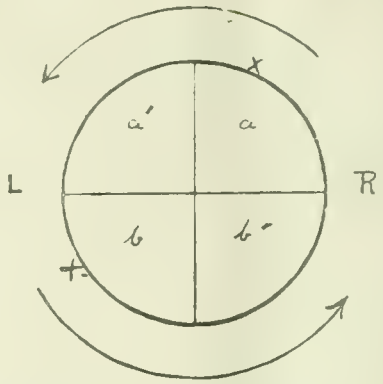



Fig. 3.

R and L represent the right and left sides of a circle, and *a*, *a'*, *b b'* represent the quadrants of the circle, it must be evident that the rotation may be such that the tendency of any point X on that part of the circumference of the circle related to one of its upper quadrants, and unable to fly off at a tangent, is to move from right to left as indicated by the upper arrow, in which case any point X′ on that part of the circumference of the circle related to one of its lower quadrants, under similar circumstances and at the same time, is moving from left to right as indicated by the lower arrow. The same thing is made evident by the directions of the upper and lower arrows in Figs. 1 and 2, which indicate the direction of rotation of a dog about its longitudinal axis. This being so, if we describe rotation as from right to left, or left to right, it is necessary that we should decide whether we are to describe the direction in relation to the upper or the lower quadrants of a circle. It is usual to picture or describe the direction of rotation of a wheel revolving round a horizontal axis according to the direction in which that part of its circumference in relation to its upper quadrants is moving. Similarly, the hands of a clock are said to move from left to right;[1] but, obviously, they only do so during the time that they are passing through the upper quadrants of the circle they describe, for when they are passing through the lower quadrants they are moving from right to left.

Usages of this kind compel us to adopt the method of describing rotation about a horizontal axis in relation to the direction of motion of that part of the circumference of a circle corresponding to its upper quadrants, in order to avoid confusion.

If we decide to describe the direction of rotation of an object in terms relating to the object, and suppose the

observer and observed both facing in the same direction, with the former placed in front of the latter, and if we further always describe the direction of rotation according to the direction in which that part of the circumference of the object corresponding to its upper quadrants is moving, little room for confusion would be left. Indeed, having made up our minds to adopt the second of the three rules, the first becomes superfluous, and the observance of two rules alone would prevent any chance of confusion. These are:

1. That the object should be placed in front of the observer, and that both should be looking in the same direction.

2. That the direction of rotation about a horizontal axis should always be expressed in terms relating to the direction in which that part of the circumference of the object corresponding to its upper quadrants is moving.

### Rotation in Quadrupeds.

For simplicity we shall limit ourselves to a consideration of rotation in an animal—for example, a dog, as it takes place about its longitudinal axis, which axis we shall suppose to be fixed, as in this case rotation can occur round no other axis of the animal, and there can be no translation of the animal as a whole from one point to another in space. If such an animal be placed on all fours in front of the observer, and, in accordance with what has already been said, be made to face towards the same direction as that towards which the observer's face is turned, and if, in rotating, that part of its circumference related to its upper quadrants is moved from left to right, then, in accordance with our earlier considerations, the animal may be said to be rotating from left to right; similarly, if the part of its circumference in relation to its upper quadrants is moved from right to left, the animal may be said to be rotating from right to left. (See Fig. 1.)

### Rotation after Ablation of One Lateral Lobe of the Cerebellum.

Let us go a step further, and suppose that the dog has had the right lateral lobe of its cerebellum removed. When rotation results as an effect of such a lesion the animal rotates on its longitudinal axis in such a manner that the part of its circumference related to its upper quadrants is moved from right to left (see Figs. 1 and 2); therefore, in accordance with what has already been said, rotation may be described as from right to left in such an animal. But the right side of the animal is that from which the lateral lobe of the cerebellum has been removed; therefore the animal may be said to be rotating from the side of the lesion towards the opposite side.

Such are the considerations which led me to describe the rotation which takes place in animals after removal of one lateral lobe of the cerebellum, as rotation from the side of the lesion towards the opposite side.

### The Direction of Translation.

The above method of considering rotation in animals has the further advantage that rotation and translation are then both taking place in the same direction. A wheel rotating about a horizontal axis and having one degree of freedom of translation also shifts its position from one point to another in space, according to the direction in which the part of its circumference in relation to its upper quadrants is moving. Thus, if the rotation is from right to left the translation is also from right to left, the wheel rolling from some point to the right of it to some other point to the left of it. So, too, an animal with the right lateral lobe of the cerebellum removed, if rotating, and if placed in the all-fours position, rolls from some fixed point to the right of it to some other fixed point to the left of it. Rotation and translation are thus both in the same direction, and may be said to be from the side of the lesion towards the opposite side.

There is still another advantage in considering rotation in this way in animals, for the lesser degree of translation which results from reeling, unaccompanied by rotation, also takes place in the same direction, the animal tending to fall from the side of the lesion towards the opposite side. Thus, the rotation, the translation by rolling, the translation by reeling, and the fall can all be said to take place in the same direction, by adopting the method of describing the direction of rotation which I originally employed in describing the results of experimental lesions of the cerebellum in animals.

### Rotation in Man.

Although this method of describing rotation seemed to be of such advantage in the case of animals, considered in their natural all-fours position, it was early apparent to me that there would be some difficulty in applying the results to man, in that man is not only considered in the erect posture by clinicians, but also as in front of and face to face with the observer (see Fig. 4).

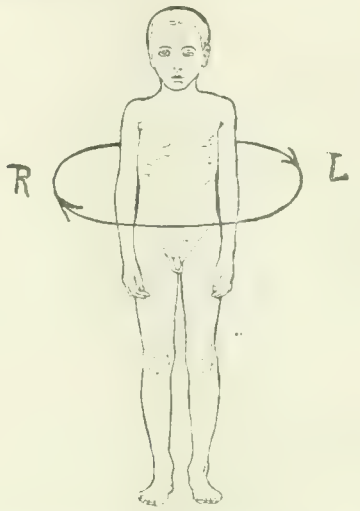



Fig. 4.

Now, to apply to man the results obtained in animals, as already described, the conditions necessary to avoid confusion are very different to those just stated to be in vogue with clinicians. In fact, we must return to the two rules stated earlier in this paper, which require that the object should be placed in front of the observer, with its back turned to the observer (see Fig. 5), and that

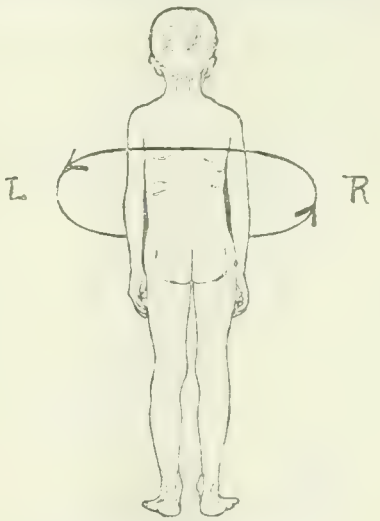



Fig. 5.

rotation should be described according to the direction in which the part of the object's circumference related to its upper quadrants is moving.

The first requirement needs no further explanation; but this is by no means the case with regard to the second, for it may not at first sight be clear which part of the circumference, in the erect posture, corresponds to that in relation to the upper quadrants in the all-fours position. To make

this clear it is best to imagine the same dog that we have already considered in the all-fours position as now standing on its hind limbs, in the erect posture. A moment's consideration will make it obvious that the part of its circumference which was superior before (that in relation to its back) now becomes posterior, so that, as the dog is still supposed to be rotating in the same direction as before, we must describe the direction of rotation as it occurs in connection with the posterior part of the circumference of the animal, for if we were not to do this, but were to describe it in relation to the anterior part of its circumference, what we called rotation from right to left before would now be rotation from left to right, which would be absurd, in that the actual direction of rotation of the animal has remained unchanged, and is the same now as it was when it was in the all-fours position.

To be logical, therefore, we ought to consider man in precisely the same way that we have just considered the dog, and to describe the direction of rotation according to the direction of rotation of the posterior quadrants of an imaginary circle drawn round his vertical axis (see Figs. 4 and 5). Looking at the question in this way, a man with a destructive lesion of the right lobe of his cerebellum, if conforming to the behaviour of a dog with a similar lesion, would rotate in such a manner that the part of his circumference related to his posterior quadrants would move from right to left (see Fig. 5), or, in other words, from the side of his lesion towards the opposite side. But naturally at the same time that the part of his circumference which is posterior is moving in this direction, that which is anterior is moving in directly the opposite direction as represented by the arrows in Figs. 4 and 5.

It was because I saw that this was the logical way for me to apply to man the results obtained in animals and described upon the lines already detailed, but that it was so much at variance with the usual method of describing rotation in man as commonly employed by clinicians that I adopted the "screw method" of describing rotation as the least likely to cause confusion. I am quite in agreement with Dr. Bruce Ferguson that, according to my results, the man with a right-sided cerebellar lesion performs the right about turn in rotating, and therefore turns to the side of his lesion. Reference to my former paper, however, will show that I said nothing of man's rotating to the right or left, or to the side of his lesion or away from it. These statements were made in connection with the animal considered in the all-fours position, as already explained in this paper; I then explained how a dog, described by me as rotating away from the side of the lesion, could be compared to a screw going into the cork of a bottle, while one with a left-sided lesion behaved like a screw coming out of a bottle, and finally explained how a man, placed in front of and facing the observer, would be expected to turn under similar circumstances. All this was done with the set object in view of allowing any who were in the habit of describing rotation as clinicians commonly do in man, to see how to adapt my descriptions in the dog to theirs in man. If we make man our primary object, and describe rotation in him according to the direction in which movement is taking place in connection with that part of his circumference related to the anterior quadrants of the circle he describes in rotating, then we must do likewise in animals, and either imagine them to be in the erect posture, or, if in the all-fours, describe rotation in relation to the inferior and not the superior quadrants of the circle they describe in rotating. But that there are objections to this plan must be fairly evident from what has been said in that part of this paper which deals with the general question of the direction of rotation.

Before leaving this part of my subject, it may be well to refer to Dr. Ferguson's second contention that a patient with a lesion of the right lobe of the cerebellum, if placed flat on his back, rotates in such a manner as to turn on to his right side first, and that this is, therefore, rotation to the side of the lesion. There would be as much justification in my saying that because the same patient, if placed flat on his abdomen, rotates in such a manner as to turn on to his left side first, that therefore the direction of rotation is away from the side of the lesion; but there is no real justification for either statement. Had I been considering the dog as lying on its back, then it would have been reasonable to place the patient on his back; but in that the dog was considered in the all-fours position, to be accurate we ought to consider man in this position also, or as lying on his abdomen. But we are not in the habit of considering man in this position when describing rotation in him, nor are we in the habit of imagining an animal as lying on its back when describing rotation in it, hence the convenience of the "screw," or some similar method of describing rotation.

### THE ADVANCING SHOULDER.

The method of describing the direction of rotation according to the direction in which the advancing shoulder of the individual is moving is one which has been advocated in connection with man. Thus, if the rotation is such as to bring the right shoulder of the individual forward the rotation is said to be from right to left, whereas if the rotation causes the left shoulder to move forward, then the direction of rotation is said to be from left to right.

There is no objection to this as far as man is concerned, and it could be applied to animals considered in the erect posture, but it is not capable of more general application to all rotating objects in that the direction of motion of the advancing shoulder corresponds to the direction in which the anterior quadrants of the circle described are moving. This would be justifiable if in describing the direction of rotation of circular objects in general rotating about a horizontal axis, we did so according to the direction of motion of the inferior quadrants which, as has been already shown, correspond to the anterior quadrants in man and animals in the erect posture. But as it is in relation to the upper and not the lower quadrants that we are in the habit of describing the direction of rotation of objects rotating about a horizontal axis, and the direction of motion of the receding shoulder is that which in the erect posture gives the direction of rotation in relation to the posterior quadrants, which in their turn correspond to the upper quadrants of objects rotating about a horizontal axis, there seems more justification for describing the direction of rotation in relation to the receding than the advancing shoulder.

### THE SCREW.

In my former paper I showed how, as suggested by Dr. Beevor, the direction of rotation might be compared to a corkscrew entering the cork of a bottle, or coming out of one; but this method of description has since been objected to on the ground that there are right and left-handed screws, so that all screws do not rotate in the same direction in entering a cork or other object. There can be no difficulty about the matter, however, if we state whether the direction of rotation simulates a right or left-handed screw entering or coming out of of an object. Matters would be further simplified if we used the term "screw" without other qualification, except as to right or left-handed, and male or female. The last distinction is scarcely necessary, but to avoid all chance of confusion may be employed; so that in comparing the direction of rotation to that of a screw, all that is necessary is to say that rotation occurred as in the case of a right-handed male screw entering or coming out of an object.

### THE CLOCK.

It has been suggested that "clockwise" and "anticlockwise" is the simplest way to describe the direction of rotation. That it ought to be the simplest way I have no doubt, but as to whether it is likely to be generally understood in the descriptions of rotation, either in animals or in man, without further explanation, is, I think, open to question. In the first place, the face of the clock may be supposed to be placed vertically, in which case a dog, for instance, placed in front of it, with its tail to the face of the clock, and rotating about its longitudinal axis in the same direction as the hands of the clock, would rotate in the opposite direction to that in which the hands of the clock are moving if its head instead of its tail were placed to the face of the clock.

Another way in which the clock may be considered is as forming a horizontal platform with its face directed upwards, and a man or an animal in the direct posture placed to stand on it. In this case rotation of the object about its vertical axis could be described as "clockwise" or "anticlockwise" without fear of confusion. A third way of con-

sidering the matter is to suppose the man or animal as forming the axis about which the hands of the clock are rotating, the head of either being in relation to the face of the clock. In this case man can be considered in the position natural to him—the erect—and animals in that natural to them—the all-fours—without any ambiguity as to the direction meant if "clockwise" or "anticlockwise" be the terms used to indicate it.

Concluding Remarks.

Of all the methods of describing rotation which have been considered in this paper, the simplest appears to me to be that of describing rotation in relation to a screw; for all that is necessary to avoid confusion in this instance is to state that a right-handed male screw is under consideration. This being clear, the direction of rotation either resembles a screw entering or coming out of an object.

The next in order of simplicity seems to be the method by which the direction is denoted by the terms "clockwise" and "anticlockwise." Simple as the method is, however, it becomes useless unless the relation of the object to the face of the clock is clearly defined. This precaution possibly ought not to be necessary, as the correct relation should be understood; but I feel sure that the relation is not generally understood, therefore it would be well to always make this point clear in describing rotation according to this method.

There seems little to choose among the other methods of describing rotation, for in order to understand what is meant, they all require that the exact relation of the object to the observer should be clearly defined, and that it should be distinctly stated whether the direction of rotation is being described as it occurs in relation to the upper or lower quadrants of the circle described in the "all-fours" position, or in relation to the posterior or anterior quadrants of the circle described when the object happens to be in the erect posture.

Note.

[1] In the case of the clock right and left refer to the observer's right and left when he is looking at the face of the timepiece.

## A NOTE ON THE OCCURRENCE OF MALTA FEVER IN INDIA.

By

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Professor of Pathology, Army Medical School, Netley.

We have elsewhere[1] in a paper on The Application of the Method of Serum Diagnosis to the Differential Diagnosis of Typhoid and Malta Fever directed attention to the fact that Malta fever probably prevails not only in the Mediterranean basin, but also in India. We have since the date of the publication referred to further investigated this question, and we have found confirmation of our conclusions.

In view of the importance of the question, and in view further of the fact that public attention has recently been called (in Parliament and elsewhere) to the extreme prevalence of typhoid fever in an Indian station (Sabathu), where, as our serum examinations teach us, Malta fever must be very prevalent, we desire to be allowed briefly to refer to the matter.

Our observations have been made on soldiers who have recently been invalided home from India to the Royal Victoria Hospital, Netley. A minute quantity of blood was drawn off from the finger of each of these invalids. This blood was diluted and was then examined in capillary sedimentation tubes in the manner which was recently described by one of us in the Journal.[2]

The results of our examinations are subjoined in tabular form (see below).

In confirmation of the results which we have obtained by the application of the serum test to the after-diagnosis of these cases of continued fever, we may mention that many of these patients have since their arrival in Netley suffered from the ordinary sequelæ of Malta fever (such as swollen testicle, sciatica, and rheumatoid joint pains), and that others have suffered from definite relapses of fever. Further, we may direct attention to the fact that careful Indian observers have described cases of "atypical typhoid" which presented a set of symptoms and a temperature curve which we now know to be almost characteristic of Malta fever. In this connection we would particularly direct attention to an able report on typhoid fever in India which was published by Brigade-Surgeon Marston in the Appendices to the Army Medical Report for 1879.

References.

[1] *Lancet*, March 6th, 1897. [2] British Medical Journal, January 16th, 1897.

*Table of Cases examined by Professor Wright and Surgeon-Captain F. Smith.*

| No. of Case. | Station from which Invalided. | Regiment. | Whether Served previously in the Mediterranean. | Whether had Suffered from Fever while on Service in Mediterranean. | Highest Dilution in which Serosedimentation Effect was Obtained upon the Micrococcus Melitensis of Bruce. | Remarks. |
|---|---|---|---|---|---|---|
| 1 | Sabathu | Black Watch | No | — | 1 in 150 | Higher dilutions not tried in this case. |
| 2 | ,, | ,, | No | — | 1 in 15 | |
| 3 | Nowshera | Argyll and Sutherland Highlanders | No | — | 1 in 200 | |
| 4 | Meean-Meer | Somerset Light Infantry | Yes, in 1893 | Yes | 1 in 1,000 | All these served in Sabathu before going to Meean-Meer. |
| 5 | ,, | ,, | ,, | No | 1 in 200 | |
| 6 | ,, | ,, | No | — | 1 in 1,000 | |
| 7 | ,, | ,, | Yes, in 1893 | No | 1 in 200 | |
| 8 | ,, | ,, | ,, | No | 1 in 300 | |
| 9 | ,, | ,, | ,, | No | 1 in 150 | |
| 10* | ,, | ,, | Yes, in 1892 | No | 1 in 150 | |

This patient had enteric fever in Madras before he went to Sabathu.

## THREE CASES OF LOBAR PNEUMONIA APPARENTLY DUE TO INFECTION.

By A. DOUGLAS HEATH, M.D.Lond., L.R.C.P., M.R.C.S.Eng.

Having regard to the increasing interest that cases of infective pneumonia have excited of late years, I have thought that three cases which came under my notice a few months ago might be worth recording, as infection from one patient to the other seemed clearly established. All three cases occurred in the same house, and there had been no previous illness such as influenza on which the pneumonia might have been superimposed. The patients were stricken down within a short time of each other. As far as one could tell, the onset of the pneumonia in the second case was four days after the onset in the first; and the rigor, which was the first symptom in the third case, occurred two days later. In any case, therefore, if they derived the disease from the first case, the incubation periods in the two patients subsequently attacked could not have been longer than six days. Until they were prostrated by the disease, two of the patients had nursed the one first taken ill. The midden system is in vogue in the district, and these are situated outside the houses in a small garden. Although I made inquiries, I was unable to hear of any cases of pneumonia at that time in the vicinity of the

house in which the cases occurred. Two little girls and the husband of the second patient escaped the disease.

The first patient attacked was an old lady, aged 72, who had been feeble for some years, but had otherwise enjoyed good health up to the time of this illness. She had been confined to her room for some months previously owing to her inability to get about with comfort, and spent the greater part of her time in bed. Her illness was at first obscure; the breathing became a little quicker than normal, and occasionally she had a little cough, but she was not otherwise affected, and her illness was throughout distinguished by an absence of pyrexia and of abnormal physical signs. The pulse beats were regular in force and rhythm, but small and weak, though not unduly so for a person of such advanced years. The frequency varied between 70 and 80. The first sign noticed of any diagnostic value was the brown colour of the sputum, it was also scanty and rather viscid. The patient had at first a little muttering delirium, but for the last three or four days of her life she was completely comatose. Her illness lasted in all ten days, and the end was foreshadowed by gradually-increasing coldness of the extremities and mucous *râles* in the chest.

The second patient was her daughter, aged 41. In consequence of privation from pecuniary loss and domestic troubles she was exceedingly emaciated and weak, and was seemingly as bad a subject for any illness as one could possibly imagine. She had been nursing her mother for four days, when she was suddenly taken ill herself, and evidently had a slight rigor. When I examined her a couple of days later she had marked signs of consolidation at the base of the left lower lobe of the lung. The respirations numbered 40 per minute, and the pulse beats varied between 115 and 120 per minute. The temperature taken in the mouth was 103.8° F. There was a little feeble cough at times, and the expectoration was quite typical of pneumonia. No pain was complained of, and I could not detect any signs of pleurisy. The tongue was furred and dry, and the teeth and gums were becoming coated with sordes. There had been up to this time no delirium. The patient remained in this condition, the temperature varying between 103° F. and 104° F., until on what appeared to be the seventh day of her illness a further rise of temperature to 105° F. (mouth temperature) took place. The respirations and pulse beats became even more rapid, and delirium also supervened. An increase in consolidation upwards could also be detected in the left lung behind.

During the next twenty-four hours the temperature taken in the mouth varied between 105° F. and 105.5° F., and cold sponging only reduced it very temporarily. At the end of this time, on what would therefore seem to be the end of the eighth day of the illness, the axillary temperature suddenly rose to 108.6° F., the patient became deeply comatose, and was apparently moribund, with the heart beating so rapidly that the pulse beats were almost uncountable, and the respirations coming in deep gasps at long intervals. Coarse *râles* could be heard over the whole of the front of the chest. The very high axillary temperatures above noted were taken by two different thermometers, two or three times, and I took care to have them tested afterwards, so that I have no doubt that the readings they gave were correct.

I had the patient at once rubbed with lumps of ice over the body and limbs, whilst ice was packed round the back and a large lump placed over the præcordial area. Strychnine and brandy were also injected hypodermically, and brandy injected into the rectum. The temperature fell rapidly to 103.5° F., but soon rose again to 105° F.; the same measures were again adopted, and it fell to 101.6°. With this further fall the breathing and pulse improved rapidly, and the patient began to move her eyes about, and shortly afterwards to recognise those about her. As soon as she was able to swallow milk and brandy were given her, she was rubbed thoroughly dry, and hot bottles put round her. She made an uninterrupted recovery.

The third patient was a female servant in the same house, aged 20, a well-nourished and strong-looking girl. She had been helping to nurse the first and second patients, and was taken ill two days after the latter. In her case she presented the typical appearance of a young and robust subject with pneumonia, having flushed cheeks, a hot dry skin, furred tongue, and rapid breathing. Marked signs of consolidation could be detected in the lower lobe of the right lung. The temperature rose suddenly, with a rigor, to 103.2° F., and remained between 103° F. and 104° F. for six days, when it fell by crisis. The sputum was of a rusty-brown colour, and, as in the other cases, scanty and viscid. This patient also made a very good recovery. I made examinations of the sputum in each of these three cases, and found large numbers of diplococci in each specimen, as well as micrococci and large putrefactive bacilli.

### REMARKS.

These three cases of pneumonia all occurring in one house where there had been no previous illness can, I think, be best accounted for by the theory of infection from one to the other, although of course it is possible that they were all due to a common source of infection carried by means of the air. Against this latter theory are the facts that pneumonia was not prevalent in the district at the time, the persons in the house attacked by the disease were those in closest contact with the one first taken ill, and curiously enough the old lady who was first affected had not been out of doors for some weeks. The pneumonia in two of the cases certainly ran a course similar to that of lobar pneumonia, and the difference in the severity of the disease in all three cases can be most probably best explained by the ages of the patients and their different powers of resistance.

I could not detect any pleurisy in either of the cases, either early or late. The finding of diplococci in the sputum of each patient seemed to point to their being the specific cause. The brown colour of the sputum and its thick jelly-like consistency were the first signs of any diagnostic value in the first patient attacked; and the case is another example of how difficult it is to detect pneumonia in the aged when physical signs give no clue and the temperature is not raised.

The second case is interesting as furnishing yet another successful instance of the use of ice in rapidly reducing temperature in hyperpyrexia, whilst also perhaps tending to reduce the area of consolidation in pneumonia when applied over the affected lung. The case also shows how guarded the prognosis in pneumonia should be, and that even under the most adverse conditions patients apparently moribund may suddenly take a turn for the better. In connection with the use of ice in rapidly reducing temperature in hyperpyrexia when heart failure is imminent, I may say that I prefer constant friction with pieces of ice, and this not only applied to the body but also to the limbs, which can easily be done if there are several assistants. I think by this method the shock caused by the application of cold is lessened, and the contraction of the peripheral vessels which results is not so prolonged, periods of contraction of the arterioles alternating with periods of relaxation, and in this way the tendency of the blood to collect in the deep venous sinuses and on the right side of the heart is to some extent prevented, and the systemic circulation thereby rendered more efficient.

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

### ACUTE TONSILLO-GLOSSITIS FOLLOWED BY TUBERCULOUS MENINGITIS SIMULATING HYSTERIA.

E. C., aged 40, a child's nurse, seen on January 17th, 1897, gave a history of tubercle in the family, but had herself been healthy. She had been taken ill suddenly with great difficulty in swallowing and breathing. The tonsils were acutely inflamed, and studded with spots of follicular secretion, but there was no membrane. The tongue was thickly coated, but not swollen; the glands below and behind the jaw were enlarged and tender. The mental condition was normal. On attempting to swallow liquid great difficulty and pain was experienced. There was pain in the back and limbs, but no pain in the head or chest. There was no cough, no vomiting, and the sight was normal. The pulse was 120, and the temperature 100°.

On January 18th the tongue suddenly became acutely inflamed and œdematous, the breathing being entirely nasal.

On January 19th the swelling of the tongue was subsiding, at first slowly, afterwards more rapidly, under an application of glycerine of tannic acid. She had taken beef tea, eggs, and milk that day, as swallowing was more easily performed, the tonsillar inflammation having subsided somewhat. The pulse was 100, and the temperature 99°.

On January 21st she refused all food, and expressed a wish to die. She was profoundly apathetic but not comatose, lying low down in the bed, and staring vacantly with the eyes fixed in one position. The pulse was 150, and the temperature 105°; breathing 40, but not laboured. Perspiration was profuse, and there were sudamina over chest and abdomen, and a crop of herpes round the lips and nostrils. The bowels were regular and the urine passed normally; she was in a very exhausted condition and had lost flesh rapidly. She seemed to have lapsed into a serious hysterical state; the limbs were weak, but power was not entirely lost.

On January 22nd and 23rd, her condition, both mental and bodily, remained unchanged. The pulse was 120, and the temperature 100°.

On January 25th, she was much weaker; the pulse was 130, the temperature 101°. The breathing was very rapid and shallow; there was no vomiting or head pain; no moaning and no delirium. The breath sounds at the apices were very harsh, almost tubular, but there were no adventitious sounds and no dulness on percussion. The pupils were dilated, equal, and reacted to light. She was conscious, but still refused nourishment, and would not speak a word.

It was now decided to administer nourishment through a nasal tube, and to remove her to the Coventry and North Warwickshire Hospital. She did not object to removal, and when alone in the room with her she spoke, telling me where to find her keys, so that a change of linen might be taken with her. There had been incontinence of urine during the last twenty-four hours.

I am indebted to Dr. E. Phillips and Dr. Bankes-Price, the house-surgeon, for the following notes of the patient's condition when admitted, and of the necropsy.

She was in an extremely emaciated and weak state, had a curious apathetic expression, and did not speak when questioned. Had to be fed by nasal tube entirely. No coma, no convulsions. Temperature during life in hospital varied between 98° and 103°. She got gradually weaker day by day, during the last two days moaning continually, and, sinking into a profound asthenic condition, died on January 29th.

Necropsy.

*Lungs.*—Right: At apex tough adhesion of old date and large cretaceous nodule with some scar tissue. Left: Deeply congested, particularly lower lobe, which was coated on its diaphragmatic surface with soft recent lymph. On section, surface of this lung showed numerous miliary tubercles scattered throughout its substance.

*Brain.*—Numerous white patches and nodules on the membranes, most abundant on either side of longitudinal fissure, where dura mater was also adherent.

The case was regarded by all who saw her as functional, following on the acute inflammatory trouble, there being no definite symptoms of meningitis. The tubercle bacilli had possibly gained entrance through the inflamed surface of tonsils.[1] Fagge mentions a similar case as having occurred at Guy's.[2] There is also a case, categorically related to the above, of tuberculous meningitis following head injury, reported in the *Lancet* of March 6th last.

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## ERGOT IN ANTICIPATION OF *POST-PARTUM* AND OTHER HÆMORRHAGES.

The article by Dr. Lombe Atthill in the British Medical Journal of March 6th on the action of ergot in pregnant women given in anticipation of *post-partum* hæmorrhage is the more interesting to me, inasmuch as I have used it for a long time, not, indeed, as he has done, for weeks previous to the confinement, but on the earliest symptoms of commencing labour in cases that I have feared might give trouble from this cause.

For years also in cases of threatened abortion and in menorrhagia I have employed it nearly always in combination with strychnine, and am satisfied that the result has been that many a threatened abortion has been averted. Sometimes I combine with these drugs iron, sometimes quinine, and sometimes both, but it is upon the ergot and strychnine that I rely to produce a tonic effect upon the uterus. I am alluding to cases of menorrhagia in which there is no apparent disease of the uterus or appendages to cause the excess, though in many such, in large doses, ergot is of great value.

Iron alone, in my experience, is next to useless in these cases of excessive menstrual flow. It is useful in its place, but not as a uterine tonic. My experience of this drug is not quite in accord with that of Dr. Lombe Atthill when he says that "I had not been long in practice before I became convinced that the theory then universally believed that women should not take any drug, especially tonics, such as quinine, iron, and the mineral acids during the menstrual period was erroneous," for I have found that in some cases, and especially in some forms, it considerably increases the flow. The others mentioned by him do not.

In cases of threatened abortion I have usually begun with 5 minims of the liquid extract of ergot and 3 minims of liq. strychninæ, and increased them to 10 and 5 respectively. In the other class of cases (menorrhagia) I begin with the same dose, increasing the ergot to 15 minims and the strychnine to 5.

In an extensive general practice carried on for many years in a busy provincial town from which I have recently removed, and where I made obstetric work and gynæcology a speciality, I had ample opportunities of putting this treatment into practice and of testing the results, and they have been most satisfactory.

There is a notion prevalent among medical men that it is unsafe to give either of these drugs to pregnant women, and lately I was subpœnaed to give evidence to controvert the opinion of two medical witnesses that 5 minims of the liq. strychn. given three times a day for two days was an improper and dangerous dose to administer to a pregnant woman. The cases referred to by Dr. Lombe Atthill effectually controvert this, and I can corroborate it from my own experience.

Quinine, too, which is credited with producing uterine contractions in pregnant women, I am in the habit of giving for maladies in which I consider it suitable, without ever having seen it produce any effect on that condition.

Lowndes Street, S.W. D. Thomson.

## OZÆNA: NECROSIS OF NASAL SEPTUM: ETHMOIDITIS, ETC.: BRAIN COMPLICATION: DEATH.

On September 8th, 1896, I saw with Dr. Hunton in the Stockton Union Hospital a youth (H. G.), aged 18, with the following history: On August 31st, 1896, he was grinding a tea mill when he suddenly became unconscious, and was convulsed for about an hour. On September 2nd he felt quite well again. On September 3rd he had another fit. He experienced a cloud over both eyes, and went totally blind within forty-eight hours.

He was removed to the union hospital. The temperature was 99.2°. There was no albumen and no sugar in the urine. The temperature never rose above 100°. He was conscious, comfortable, and had no pain whatever. The pupils widely dilated, reacted very slightly to light, and there was no perception of light. The left disc was pale, ill defined, and the veins overdistended. The right was slightly pale. Up to this illness he had enjoyed very good health, and there was no history of syphilis or tubercle. The opinion now formed was that of some disease about the body of the sphenoid, namely, sarcoma or perhaps gumma. A bad odour from the patient led me to examine his nose, which was found full of greyish-green ozæna crusts.

He now stated that he had seen pieces like bone and skin come away from his nose. As douches were useless the nose was cleared with probe and forceps on September 25th, and the following observed: The nose is very roomy; turbinates much atrophied, nearly the whole of bony septum is away, horribly fœtid pus is coming from the open ethmoidal cells, and the perpendicular plate of ethmoid is necrosed and loose. We now diagnosed sphenoidal sinus disease with secondary brain mischief in the region of the optic commissure. After free douching cocaine was applied, the cells scraped out, and part of the necrosed plate removed.

On October 2nd, as the patient was no better, the sphen-

[1] See Dr. De Havilland Hall's recent Lettsomian Lectures.
[2] *Principles and Practice of Medicine*, vol. i, p. 646, 3rd edition.

oidal sinuses were explored, after the plan of Grünwald and Schäffer, by passing a fairly large trocar along the lower border of the middle turbinate until the point came against the basi-sphenoid, then the point was tilted upwards and backwards, so that the trocar lay across the mid-turbinate and was pushed firmly and very steadily on, and the trocar entered the sinus (a solid perforator with a shoulder a quarter of an inch from the point answers best). After the operation the discharge was increased in amount, and the patient felt better.

On October 7th he had another fit, became unconscious, developed facial paralysis and divergent strabismus. He sank and died three days after. I greatly regret to say a *post-mortem* examination could not be made.

Pyogenic disease of the brain in connection with accessory cavity disease is not extremely rare. Professor Macewen in his book records a case that was under the care of Mr. Miller in the Edinburgh Royal Infirmary; and I have notes of a case of antral, ethmoidal, and frontal sinus disease which died of pyogenic disease of the brain a considerable period after I had opened the left frontal sinus. I have to thank Dr. Hunton for permitting me to observe this case.

Stockton-on-Tees. G. Victor Miller, M.B.

# REPORTS
ON
## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

### ST. THOMAS'S HOSPITAL.

TWO CASES OF OPERATION FOR PERFORATION OF GASTRIC ULCER FOLLOWED BY RECOVERY.

(Under the care of Herbert P. Hawkins, M.D., F.R.C.P., and C. S. Wallace, B.S., F.R.C.S.)

I. *Perforation of a Gastric Ulcer: Operation: Parotid Swellings, Pelvic Abscess, Thrombosis of Veins of Leg: Recovery.*—J. K., a barmaid, aged 21, was admitted into hospital on August 3rd, 1896. For many months previously she had suffered from some degree of pain after meals, with occasional vomiting. She had never vomited blood. About a fortnight before admission the pain in the upper part of the abdomen became aggravated; it became more constant, and had less relation to the taking of food. But she continued her work, which was laborious and entailed long hours of standing. Two days before admission (August 1st) the pain suddenly became much more severe, and it spread for the first time downwards over the greater part of the abdomen, especially on the left side. She was repeatedly sick throughout the day, but endeavoured to continue her work, supporting herself with spirits, but taking no food. During the next day she remained in bed, still apparently taking nothing but spirits, and she was admitted into hospital on August 3rd, sixty hours after onset of the acute symptoms.

On admission she was pale, with pinched features and eyes rather sunken, breathing in a rapid shallow manner at the rate of 44 per minute. Temperature was 103°, pulse 132, feeble. The abdomen was generally distended and completely motionless. There seemed to be a little more prominence in the epigastric region than elsewhere, and the tenderness was greater in this position. There was tympanitic resonance over the whole abdomen except over a band about 3 inches wide, which ran from the ensiform cartilage into the left flank parallel with the left costal margin. Over this area resonance was much impaired. The lower inch of hepatic dulness was replaced by resonance.

It seemed to be clear, from a consideration of the history and from the physical signs, that a general peritonitis had been set up during the last two days by the perforation of a gastric ulcer; and it appeared probable that the leakage had in the first instance been gradual, due perhaps to the disturbance of adhesions, so that the inflammation had been at first localised around the cardiac end of the stomach.

Mr. Wallace operated within a few hours of admission. The abdomen was opened in the middle line by a 4-inch incision, of which the upper end was 1½ inch below the ensiform cartilage. Some slight adhesions were found on opening the peritoneal cavity. The pyloric end of the stomach crossed the middle of the incision, and above it the lesser omentum was seen. The adhesions were gently broken down, and the stomach pulled towards the right. Masses of lymph and some small collections of turbid fluid, stretching away towards the left, indicated the fundus as being the probable site of the lesion, and a circular clean-cut hole two-fifths of an inch in diameter was found in the anterior wall of the stomach near the entrance of the œsophagus. Around it for a considerable distance the stomach wall appeared to be thickened and indurated. Owing to the situation of the ulcer it was found impossible to draw it to the middle line, much less out of the wound. For this reason, and on account of the induration of the stomach wall, it was thought to be inadvisable to attempt excision of the ulcer; its edges were therefore inverted by Lembert sutures of silk, and even this procedure was a matter of extreme difficulty from the fact that the ulcer lay under the costal margin. The viscus was then replaced, its neighbourhood thoroughly flushed and cleansed, and the wound closed after the introduction of an india-rubber tube. Another incision was made below the umbilicus, and several ounces of turbid fluid were removed from the pelvis. This cavity was washed out with sterilised water, a glass tube introduced, and the wound closed.

The patient ultimately recovered, but she passed through an illness of great severity. For the first two days the temperature, which rose to 105° F. immediately after the operation, varied between 99° and 101°, the pulse was very rapid and weak, and the tongue was dry and brown; much purulent fluid was removed by pipette from the glass tube in the pelvis. On the third day after the operation a double parotid bubo appeared, with a rise of temperature to 102°. She was fed entirely by the rectum; there was no sickness, and the abdomen was slowly losing its tenderness and distension. On the fourth day the upper tube was removed, but two days later this wound broke down and discharged some sour-smelling pus. It finally healed by granulation. The parotid swellings slowly subsided without suppuration in the course of the next seven days.

On the twelfth day after the operation the condition seemed to be satisfactory. Mouth-feeding was begun. The glass drain in the pelvis had been replaced by an india-rubber tube, and this was now withdrawn. The temperature varied between 98° and 100°; the pulse was slow and strong, the tongue moist and nearly clean, and the abdomen was natural. Convalescence seemed to have begun. But on the sixteenth day after the operation the temperature began to rise, and two days later she passed 2 ounces of pus by the rectum. Presumably a pelvic abscess had opened into the rectum, and the probable site of the opening could be felt with the finger on the anterior rectal wall. The discharge ceased gradually in four or five days without operative treatment. On the twentieth day after the operation the temperature rose to 104.4°, and thrombosis of the deep veins of the left leg set in. This slowly subsided in the course of the next fortnight, during which time the temperature varied between 99° and 102°. A normal temperature was reached for the first time on the thirty-sixth day after the operation. She left the hospital on October 3rd, and has remained in good health since, with no symptoms of any gastric disease.

(Under the care of G. H. Makins, F.R.C.S., and S. G. Toller, M.D., M.R.C.P.)

II. *Perforation of Gastric Ulcer: Operation: Recovery.*—F. C., a domestic servant, aged 17, was admitted into hospital on October 14th, 1896. For two years she had suffered considerably from gastric pain after food, but she had seldom been sick and had never had any hæmatemesis. Twenty-four hours before admission she was suddenly seized with severe pain in the upper part of the abdomen. She walked to the house of a medical man, who gave her some medicine, and then returned home. She remained in bed during the next day suffering much pain, but she took no food and she was not sick.

On admission she was pale and collapsed, with anxious expression and sunken eyes. There was occasional hiccough

ut no vomiting. The pulse was 120, rather feeble; respirations 28, almost entirely thoracic; temperature normal. The abdomen was little, if at all distended: it was nearly motionless and very rigid. There was extreme tenderness in the epigastric and left hypochondriac regions, with some impairment of resonance in the left flank. The hepatic dulness was complete. Mr. Makins operated at once, about twenty-four hours after the onset of symptoms.

She was anæsthetised, and an incision was made in the middline between the umbilicus and ensiform cartilage. On opening the peritoneal cavity a considerable amount of lymph was found on the under surface of the diaphragm, the upper surface of the left lobe of the liver, and the cardiac end of the stomach, these parts being lightly adherent together. There was, however, no free fluid in the peritoneal cavity and no trace of solid food. The left lobe of the liver was now lifted, and the surface of the stomach was found thickly coated with lymph, while the wall of the viscus was thickened to the extent of nearly half an inch over a circular area at least two inches and a half in diameter. The perforation was not at once visible on the rough surface, but on palpation a soft non-resistant area, into which the tip of the finger could be inserted, was found, and in its centre an opening about the size of a crow quill, an inch and a-half from the œsophageal opening, and below the lesser curvature. From the opening green fluid contents escaped, when the almost empty stomach was manipulated. Gauze plugs were now inserted around the field of operation, and the margins of the opening freshened by scraping with a Volkmann's spoon. During this procedure the contents of the stomach escaped with some freedom, and needed to be sponged away. A longitudinal series of six Lembert stitches was then passed across the area surrounding the opening, and these were tied so as to close it by folding over the stomach wall, the suture so made being covered by the left lobe of the liver when allowed to resume its normal position. The rigidity of the infiltrated stomach wall made the tying of the sutures a matter of some difficulty, and two stitches of a thicker-sized silk were inserted towards the centre of the series for fear of the thinner ones cutting through the brittle tissue. The gauze plugs were removed, and the peritoneal cavity partially flushed with warm sterilised water. The abdominal wound was closed with silkworm gut sutures and dressed with bicyanide gauze.

Her condition was satisfactory during the operation, and it remained so during the next day. There was no rise of temperature. On the third day after the operation, as the rectal feeding was imperfectly retained, small quantities of Valentine's meat juice were given by the mouth. During the next few days she continued to improve steadily, and rectal feeding was finally discontinued on the sixth day after the operation. On the next day the temperature rose to 100°, and in the course of the afternoon she was seized with considerable dyspnœa, suggestive of pulmonary embolism. The attack passed off in an hour, but in the course of the next few days consolidation of the lower lobe of the left lung appeared, with slight fever. This slowly subsided, and she left the hospital in the first week of November apparently in good health, and went to a convalescent home.

The wound was dressed at the end of seven days, but it was thought desirable to leave the sutures, and when these were removed at the dressing on the eleventh day two of the suture openings were suppurating. This necessitated a daily dressing for another week, when the wound was thoroughly healed. A secondary abscess, however, developed in the abdominal wall during her stay in the convalescent home.

One or two points in this case seem worthy of remark. It may at once be conceded that in spite of perforation having taken place twenty-six hours prior to the operation, that the circumstances were peculiarly favourable, since the stomach contained little at the time of the operation, the opening was very small, and no solid stomach contents had escaped.

On the other hand the rigidity of the stomach wall gave rise to considerable difficulty in closure of the opening and some fear was felt that the stitches might cut their way through and the perforation again open up. The large size of the rigid area forbade any idea of removing the whole ulcer, and the result in this case favours the view that it is only necessary to remove at most the actually necrotic tissue bounding the perforation.

The value of palpation as a means of at once localising the probable position of the perforation was very striking, and it may be assumed that this would ordinarily be the case since the perforation is always the deepest point of the conical ulcer starting from within. In this instance as the result of the amount of shreddy lymph on the stomach wall, the opening was not readily seen in the depths of the wound, and time was certainly gained by localising it by this method.

The question of the occurrence of a pulmonary embolism is also of interest, but can scarcely be answered with certainty. The girl was very anæmic, and the force of the circulation low, and it was considered probable that a small clot had formed in the heart while she was lying in the supine position, and had become displaced. The further treatment of the case offers little for remark beyond the early date at which food was administered by the mouth. The girl suffered enormously from hunger and thirst, so much so as to almost lose her reason, and this determined the early feeding, which was rendered the more necessary from the fact that the rectal enemata and suppositories were badly retained. Lastly the unfortunate suppuration of the stitch openings in the abdominal wall was of some importance, since it probably led to the formation of the secondary abscess in the abdominal wall.

The girl is now perfectly well though still anæmic; the abdominal wound is firm and the cicatrix narrow.

## PERTH ROYAL INFIRMARY.

### NOTES OF A CASE OF ENTERIC FEVER ENDING FATALLY ON THE FIFTY-THIRD DAY WITH SYMPTOMS OF ACUTE MENINGITIS (?)

[Under the care or Dr. D. S. Kennedy.]

(Reported by John Lyell, M.B., House-Physician.)

A young man, aged 28, was admitted on January 26th, 1897, as a case of enteric fever. He stated that he had been already three weeks ill.

For four weeks after admission the case appeared to run a fairly normal course. There was never any development of severe "typhoid" symptoms nor the slightest tendency to delirium. The only nervous symptoms were occasional attacks of headache of short duration. The abdomen was slightly enlarged and tympanitic. The temperature showed a gradual general decrease, but about ten days before the end there seemed to be a recrudescence of the fever, though the thermometer did not rise above 103°.

On the evening of February 26th, a month after admission, he looked pretty much as usual. For two days previous there had been attacks of vomiting of an irregular character, and without any special relation to the taking of food, but otherwise seemed to be improving. During the night, however, a sudden change was noticed to take place in his appearance; he became very restless, and seemed to be suffering great pain in the head, and gradually sank into a semi-conscious state; spasms of the limbs and twitchings of the mouth and tendons of the wrist were noticed. About 8 o'clock next morning he presented a very alarming appearance. He lay on his back restless and moaning, and making no response to any questions addressed to him; his eyes were half closed, the eyeballs glazed and bloodshot: the pupils were contracted and the gaze fixed; he constantly flung about his arms, and raised them to his face and head. The abdomen was found markedly retracted, but otherwise there was no indication of abdominal complication: there was no paralysis of any description; the knee-jerks remained active; the pulse was 132, regular and strong, the respiration 34, the temperature 100° (axilla). A small dose of morphine was given hypodermically, the head shaved, and iced cloths applied. The patient rapidly grew worse, the pulse increasing in frequency to about 140, with acceleration of respiration but no rise of temperature. Death occurred about 7 P.M., the patient never having recovered consciousness. The whole duration of these symptoms was about nineteen hours. There was no necropsy.

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The Baroness de Hirsch has sent a donation of £1,000 towards the building of a French Convalescent Home at Brighton in connection with the French Hospital in London.

# REPORTS OF SOCIETIES.

## PATHOLOGICAL SOCIETY OF LONDON.

F. S. Eve, F.R.C.S., Vice-President, in the Chair.

*Tuesday, April 6th, 1897.*

### Actinomycosis of the Pleura and Chest Wall.

Dr. Samuel West recounted the above case, which was that of a child aged 6, admitted into St. Bartholomew's suffering from empyema of the left side. Eight or nine weeks before admission there had been a complaint of pain, and before this a history of bronchitis and pain in the left side, but from this recovery had apparently taken place. On incision, 6 ounces of curdy pus were evacuated from the pleural cavity, an examination of the pus revealing the presence of actinomyces. The temperature remained high, and sixteen days after the operation another suppurating swelling was opened, which did not communicate with the pleura, and some weeks later a third, similarly unconnected with the thoracic cavity. As sinuses persisted at these different sites the patient was put in a bath of weak iodine. Under the subsequent administration of iodide of potassium (the dose of which at length reached 30 grains) marked improvement took place, when death, unfortunately, occurred under chloroform administered for the extraction of a tooth. After death the left lung was found quite collapsed, but otherwise normal, and encased in a brawny material containing abscesses, though prolonged search was needed to discover actinomyces in the tissue. The case recorded by the author was the youngest yet observed. The lung was commonly affected first, the pleura secondarily; in the present instance, however, the lung was free of disease. Several examples of successful treatment by means of iodide of potassium had now been recorded. Amyloid disease had been found at times, and this not always in connection with suppuration. Metastasis varied in its degree. In extreme instances it might be as widespread as a generalised tuberculosis, a result due to perforation of an artery or vein.

Mr. C. D. Green mentioned the case of a boy, aged 14, who presented a firm swelling in the lower part of the abdomen, and another at the outer edge of the right rectus muscle. A suppurating tuberculous lesion was diagnosed. Incision led to the evacuation of thick pus containing actinomyces. Iodide of potassium had little effect.

Dr. A. F. Voelcker had made a *post-mortem* examination on a case of actinomycosis of the skin, in which the lower lobe of the right lung was adherent to the pleura, and sinuses opened externally; the lung was, moreover, adherent to the liver, and in the latter was the remains of an actinomycotic abscess—the primary focus probably of disease. There was in addition a psoas abscess, which also contained the micro-organism. Iodide of potassium had produced much improvement.

Dr. Cecil F. Beadles added a case (under the care of Dr. Herbert Snow) of pulmonary actinomycosis in a woman who had presented also an abscess in the breast, which after death was found to communicate with the chest by a small sinus. Here, too, the liver was affected.

The Chairman remarked that iodide of potassium could not be exactly regarded as a specific; he had known cases in which no benefit followed its administration. The micro-organism was not always to be found in the discharge from actinomycotic lesions.

### Concretion from the Rectum.

Mr. W. Harrison Cripps exhibited the above, which was removed from a lady, aged 60. For fifteen months she had suffered from symptoms of diarrhœa, passing fluid and mucus. The condition was diagnosed as due to malignant disease. Examination disclosed, however, a hard mass in the rectum, very tightly impacted, and necessitating division of the posterior wall of the bowel for its extraction. It was half a pound in weight, and on section was found to consist only of fæcal material.

### Intestinal Concretions of Carbonate of Lime.

Dr. W. M. Ord showed a collection of small friable calculi passed by a lady suffering from severe intestinal pain and vomiting; the intestinal condition, indeed, almost amounted to obstruction. With the calculi a large quantity of fine white sand was also voided. The concretions consisted almost entirely of calcium carbonate, not in the form of microscopic spheres, but ill-formed crystals; they were devoid of nucleus and without stratification. Neither diet nor medicines could in any way be held accountable for their formation. The frequent recurrence of attacks of partial obstruction led to exploration of the abdomen. No tumour was found, but the sigmoid flexure was greatly dilated. The calculi and sand probably accumulated in that part of the bowel, and were passed when some more active contraction than usual occurred. Dr. Ord also exhibited two concretions from the intestine of a guanaco (from Patagonia), in which animal they are very common. On section there was found a nucleus of vegetable fibre around which earthy material (carbonate and phosphate of lime) had been deposited in concentric layers. The calculi resembled those not uncommon in the horse; they were not oriental or occidental bezoars—that is, intestinal concretions of ellagic or lithofellic acid.

Mr. W. G. Spencer had removed a calculous mass (carbonate and phosphate of lime) from a rectum, where it was embedded in a malignant growth. There were fragments of leaves in its centre, which had probably been introduced into the intestine by the patient for relief.

Dr. A. F. Voelcker suggested that the calculi of carbonate of lime in Dr. Ord's first case had reached the intestine from the pancreas.

The Chairman adverted to an intestinal concretion of oat husks which he had known removed from the intestine.

### Cysts of Omentum.

Mr. W. Harrison Cripps, in describing the above, stated that they were obtained from a patient presenting the symptoms of recurrent appendicitis. On operation the appendix was removed, after which a cystic mass presented itself, which was found to be the omentum; this was excised, being taken at the time for hydatid disease. The omentum was converted into a cystic mass like a bunch of white grapes; the cysts contained a clear fluid, and were lined with flattened endothelium.

Mr. James Berry exhibited a specimen of similar kind, obtained after death from a woman affected with carcinoma of the rectum. The great omentum was much atrophied, and devoid of fat. The cysts contained a pale yellow fluid, in which was a small uncoloured coagulum. Some were in the form of long cylinders five inches in length, others pyriform, and only a few spheroidal. The author thought, by reason of their length, that they arose in lymphatic vessels, and in this view

The Chairman concurred, observing that cysts containing chyle were at times encountered in the mesentery.

### Infective Venereal Tumours in Dogs.

Mr. G. B. Smith and Dr. J. W. Washbourn described a series of infective tumours occurring on the genitals of dogs. A dog affected with a tumour on the penis served twelve bitches, of whom eleven became infected. Three of these bitches were then served by a second dog, which subsequently developed a growth on the penis. After becoming infected this second dog served two healthy bitches. One of these bitches developed a growth in the vagina while the other remained unaffected. A dog which was artificially inoculated on the penis developed a growth similar to those of the above series. The tumours commenced as a minute translucent papules, which grew slowly, and at the end of about twelve months were converted into lobulated masses. At a late stage the vagina might be filled with lobulated masses which protruded from the vulva and distended the perineum. In the majority of cases there was no deep induration, and the tumours were readily removed from the subjacent structures with the mucous membrane to which they were attached. In two cases in which a *post-mortem* examination was made there was infiltration of the muscular wall of the vagina; and in one of these cases the lymphatic glands in the groin were affected. The microscopical structure of all the tumours examined was identical. It consisted mainly of cells of a rounded or polyhedral shape—in the latter case giving at first sight the impres-

sion of an epithelial new formation. A careful examination, however, proved that the cells were not derived from epithelium. The stroma varied considerably in different growths, being sometimes scanty and sometimes abundant. In the latter case the cells were enclosed in irregular alveolar spaces. There was nothing in the microscopical appearance of the tumours to distinguish them from the sarcomata met with in the human subject. The tumours were not due to irritation produced by discharge; in fact, in the majority of cases there was no discharge whatever, either in an early or a late stage of the disease. There was no tendency to spontaneous cure, but when the tumours were removed at an early stage they did not recur. Attempts to infect rabbits and guinea-pigs failed. In two cases the tumours were successfully transplanted to the subcutaneous tissue of dogs. In conclusion, the author gave reasons for believing that the tumours were of a similar nature to those described by Geissler, Wehr, Duplay, and Cazin in their work upon the infective nature of cancer.

### Tuberculous Peritonitis associated with an Inguinal Pouch of Peritoneum.

Dr. Cecil F. Beadles recorded this case, which was that of an adult female presenting the signs of general peritonitis. There was general tuberculosis of the lung and peritoneum; in the sac was prolapsed some structure the nature of which he could not determine.

### Hydrocephalus following Traumatism.

Dr. J. Fawcett gave details of an example of this occurring in a boy who was struck with a heavy ladder on the back of the head, and rendered insensible, but who was well enough to go to school the next day. Shortly afterwards his memory began to fail, and he suffered from headache and difficulty in keeping his equilibrium. These symptoms led to exploration of both lobes of the cerebellum; the dressings were afterwards said to have been soaked with cerebro-spinal fluid. At the necropsy there was found irregular thinning of the cranial vault; the fontanelles and sutures were firmly closed. There was marked dilatation of the lateral and third ventricles and of the iter as far as its posterior limit, stenosis of which canal the author suggested as the cause of the hydrocephalus. He drew attention to the observations of Dr. Miles in *Brain*, 1892, who held that the cerebro-spinal fluid was an important factor in the production of concussion. The blow had possibly led to the sudden expulsion of the ventricular fluid into the iter, and as a result the latter had been lacerated, the laceration being followed by cicatricial contraction. He thought such a theory more satisfactory than the sequence of a meningo-ependymitis after the injury. In two cases observed at Guy's Hospital between 1860 and 1894 the dilatation was in the same way stated to have extended into the iter, the fourth ventricle being normal.

### Healthy Œsophagus Ruptured by Vomiting.

Drs. S. West and F. W. Andrewes gave an account of this case. The patient, a man aged 55, was admitted with pain, vomiting, and collapse. The onset of the pain had been acute and sudden, and had occurred after vomiting. Rupture of the diaphragm, of an aortic aneurysm, of the aorta itself, and pneumothorax were considered, but no definite diagnosis was possible. Dr. Andrewes found at the necropsy a collection of turbid fluid at the left base, and half a pint of fluid in the pleural cavity. A dark muddy-looking material infiltrated the posterior mediastinum, tracking along the aorta through the diaphragm. In the lower end of the œsophagus on the left side, an inch from the cardia, there was a longitudinal rent an inch in extent. There was no gelatinisation of the œsophageal wall pointing to *post-mortem* digestion, which was responsible for many cases recorded as instances of rupture of the œsophagus.

### Card Specimens.

Dr. Cecil F. Beadles: (1) Tumour of Submaxillary Gland. (2) Early Tuberculosis of Tongue, (3) Syphiloma of Spinal Cord, (4) Malignant Disease of Breast, Vulva, Peritoneum; (5) Malignant Disease of Breast and Uterus.—Dr. Parkes Weber: (1) Specimen from a case of general Paresis without the ordinary symptoms; (2) Small Salivary Calculus causing definite characteristic symptoms.

## LARYNGOLOGICAL SOCIETY OF LONDON.

Henry T. Butlin, D.C.L., F.R.C.S., President, in the Chair.

*Wednesday, March 10th, 1897.*

### Specimen.

Mr. Knyvett Gordon showed the Pharynx from a case of scarlet fever, fatal on the ninth day of disease, that had been treated with antistreptococcic serum. The specimen showed sloughing of both tonsils and ulceration of the uvula. There was a chain of small ulcers extending from the tip of the epiglottis to the pyriform fossa on each side; the nasopharynx had been full of sloughing adenoid tissue. He stated that the serum was not of much value in cases of scarlet fever where the septic symptoms appeared late, but he had obtained a strikingly good result when the serum was given early.

### Cases.

Mr. H. Lambert Lack showed: (1) A man, aged 65, nearly two years after operation for Sarcoma of Nose. In April, 1895, the right nostril was blocked by a soft, easily bleeding, superficially necrotic mass, springing apparently from the middle turbinate. Under chloroform the posterior nares were securely plugged. The right ala nasi was detached to permit freer access. The mass was seized with polypus forceps and torn out. The greater part of the lateral mass of the ethmoid was scraped away with Meyer's ring knife, the inner walls of the maxillary antrum and of the orbit being almost entirely removed. The roof of the cavity was also very freely scraped away. The large cavity was packed with iodoform gauze, and the postnasal plug withdrawn. The patient left the hospital in fourteen days. There was no sign of recurrence of the disease. (2) A man, aged 45, with a Cyst about the size of a horsebean springing from the right side of the glosso-epiglottic ligament. There was also the typical "black tongue."—Dr. Dundas Grant showed: (1) A case of Anterior Turbinotomy in an elderly man. He had almost complete nasal obstruction, and topical remedies failed to produce any effect upon the throat. The loss of blood was insignificant, and the nasal obstruction was relieved. (2) A case of Anterior Turbinotomy in a female, who suffered from nasal obstruction. The anterior extremity of the inferior turbinate was removed as in the preceding case, with similar results. (3) A case of Functional Aphonia with Ventricular Band Phonation, in a woman aged 36, who had suffered from hoarseness since December, 1890. The vocal trouble depended upon an incomplete approximation of the vocal cords, while the ventricular bands came into apposition in the anterior three-fourths of their length. Under daily stimulation, the acquisition of the normal tone became more easy, and its disappearance less quick. (4) Case of Double Abductor and Tensor Paresis in an elderly man with marked tabes, who had suffered from hoarseness for two years, followed after five months by the occurrence of slight inspiratory stridor. There appeared to be paralysis of the abductors and of the tensors of the vocal cords, both internal and external.—Dr. Semon related the details of a similar case where double abductor paralysis, without any warning, suddenly placed the patient in a condition of almost complete asphyxiation, and only a rapid tracheotomy with three hours' artificial respiration rescued the patient from death.—Dr. Ball showed a case of Chronic Laryngitis in a man, aged 26, who had suffered from hoarseness and weakness of voice for about five years. The vocal cords were congested, and on phonation were not completely approximated. He had derived no benefit from treatment, and the question is what is the cause of the condition of chronic laryngitis and defective tension. Dr. Hall said there was inefficient nasal respiration, which if corrected might tend to relieve the laryngeal condition. This was supported by Dr. Spicer. Dr. Ball, in reply, said that the galvanocautery had been applied to relieve the obstruction, and possibly more would be done—for example, anterior turbinotomy. Massage and voice training might be of advantage by exercising the muscles.—Dr. StClair Thomson showed a man, aged 57, with Double Abductor Paralysis, with new growth at the base of the tongue. The patient had attended, under Morell Mackenzie, for noisy breathing consequent on being stabbed about the neck. The case was published in the British Medical Journal of December 24th, 1870,

and a reference to the JOURNAL shows that at that date the affection was limited to one side, and was recovered from. The patient since 1870 had never been free from stridor on the slightest exertion; this was now found to be dependent on very complete double abductor paralysis. Was this paralysis in any way connected with his condition as recorded in 1870, or was it not rather a separate process caused by syphilis, which he contracted about two years previously to the stabbing accident? The patient said his breathing had been better in the last ten years than it had been formerly, and he did not now apply for this, but because of pain in the throat and a lump at the angle of the jaw. There was a small, hard, ulcerated infiltration at the right base of the tongue and on the neighbouring surface of the anterior faucial pillar. The PRESIDENT said that the tumour at the base of the tongue was possibly a tertiary lesion. Dr. SEMON also made remarks.—Dr. DONELAN showed a woman, aged 33, with Subglottic Tumour with a history of Aphonia of twenty-two years. A subglottic growth, probably a soft fibroma, was found to be the chief cause of the aphonia. It was not pedunculated, but floated up between the cords on any attempt at phonation.—Dr. BOND showed a woman with Mucocele of the Left Frontal Sinus after operation. The operation consisted of a vertical cut over the swelling. A crown of bone was removed with the trephine, the sinus was full of thick mucus, and the nasal passage was blocked. This was made patent, the crown of bone replaced, and the skin sewn up, the wound healing by first intention.—Dr. WILLIAM HILL showed a case of Rhinitis Caseosa and Rhinolith in a woman aged 42.

HARVEIAN SOCIETY.—At a meeting on April 1st, the President, Dr. MILSOM in the chair, Mr. BUCKSTON BROWNE read a paper entitled, Is it Ever Impossible to Pass a Catheter through the Urethra into the Bladder? He maintained that is was never impossible, even in the worst cases of stricture, when the urethra had not in any part of its course actually ceased to exist, to pass an instrument. If an instrument was once passed the case could be brought to a successful issue without any perineal incision, and that being so, the patient was saved all the risks of hæmorrhage and of perineal fistula. In the most severe cases of prostatic enlargement, the urethra was simply tortuous. The difficulties were fully described, and instruments shown by which they could all be overcome. In no prostatic case was it allowed that the urethra was impassable by instruments, and therefore there was rarely any need for any form of prostatectomy or castration. Other forms of urethral obstruction were discussed, and the question formulated in the title of the paper was answered emphatically in the negative.—Mr. FREYER was surprised to find that Mr. Buckston Browne had discarded soft for hard metal bougies in the treatment of stricture. He agreed that the knife was too frequently had recourse to in the treatment of stricture. He thought internal urethrotomy a safe and sound operation, but he believed external urethrotomy to be the only resource in other cases. He had never met with dangerous hæmorrhage in extremest urethrotomy, but sometimes a troublesome fistula remained. He also agreed that hypertrophy of the prostate was best treated by careful, cleanly, and patient catheterism. Various operative measures were now on their trial.—Dr. COCK mentioned a case of severe stricture in which he had drained the bladder above the pubes; the patient led a comfortable existence wearing a tube and spigot.—Mr. BUCKSTON BROWNE, in reply, said it was only in strictures miscalled "impassable" that he advocated the hard metal in preference to the soft bougie.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—At a meeting on March 19th, Dr. G. P. BATE, President, in the chair, Dr. JOHN CAMPBELL read a paper on the recent epidemic of smallpox in Gloucester of which city he was medical officer of health. The population was over 40,000, and very few of the children born within the last ten years had been vaccinated. The sewerage had been reconstructed by Mr. Mansergh between the years 1875 and 1885, but while the rough brick drains in the districts then brought within the city boundaries were, pending the substitution of pipe drains, temporarily connected with the main sewers, they gave rise to effluvia from the manholes, but this was no longer the case, and there were besides 600 high ventilating shafts and periodical flushing. The water supply was good and in course of extension, though 87 private shallow wells still existed. There was but little diarrhœa or typhoid, and the general death-rate for the years 1893 5 had been 20.17. 15.34, and 18,46; the zymotic being 2.17, 1.29, and and 1.65. Not only were the sanitary conditions on the whole satisfactory, whatever the antivaccinators alleged to the contrary, but the epidemic originated in, and was almost confined to, that part of the city where they were best, and where there were but 31.41 inhabitants to the acre, though the largest proportion of children, and these for the most part unvaccinated. It did not spread, to any great extent, to the ill-drained and crowded poorer quarters with 64.3 persons to the acre, because so soon as the epidemic assumed alarming proportions the people flocked in thousands to be vaccinated. The first cases occurred in June and July, 1895, but were concealed and unattended by medical men, or were represented as measles: from these others were derived, and by the end of the year 26 cases had been notified and promptly removed to hospital, the houses being disinfected. But accommodation was inadequate; there were no means of disinfecting bedding, etc.; and the guardians, urged on by the antivaccinationists, refused to move or to enforce the Acts, until in the middle of January, 1896, the epidemic, hitherto smouldering, burst out. At length the authorities awoke to a sense of the danger, and Dr. Campbell, being supported by Dr. Sweeting, sent down by the Local Government Board, increased the hospital accommodation, set up a Lyons disiniector, appointed a staff of vaccinators and nurses under the direction of Dr. Bond, and endeavoured, though too late for prevention, to grapple with the disease. The notifications rose month by month, from 41 in January to 150 in February, 518 in March, and 783 in April, when they began to decline, to 367 in May, 112 in June, and 23 in July, after which no more new cases were reported. The total cases were 1,981, including 2 discovered afterwards; only 742 were admitted to the hospitals, the rest being treated at home. The vaccinated numbered 1,172, none being under 7 years of age, 23 under 10, 260 between 10 and 20, and 889 above 20. The unvaccinated numbered 772, of whom 687 were under 10, 49 from 10 to 20, and only 36 older, besides which there were 35 "doubtful," but having no marks. Of the 711 under 10, 23 had been vaccinated, none dying, and 688 unvaccinated, with 278 deaths; between 10 and 20 years 310, or 260 vaccinated with 9 deaths, and 50 unvaccinated with 13 deaths. At ages above 20, 958 cases, 889 vaccinated with 99 deaths, and 36 unvaccinated with 15 deaths. Of the 35 "doubtful," included among the unvaccinated, 15 died. Not one of the nurses was attacked, all having been revaccinated; but all of those engaged by Pickering, an antivaccinationist, contracted the disease, except one who had been a hospital nurse, and vaccinated successfully. Of the 200 deaths occurring in the hospital 127 were unvaccinated children, and the mortality under 10 years in hospital and at home was 64 per cent., or double what it had been in the former epidemic, when a larger proportion of children were vaccinated. The rapidity with which this epidemic spread when once it got a footing in the place was evidently due to the enormous number of unvaccinated children, and its equally speedy decline after April, and the comparative exemption of the poorer and least sanitary districts, to the eagerness with which the people, in fact the great majority of the population, when panic stricken, availed themselves of vaccination and revaccination.—A short discussion followed, in which Drs. SEATON and GWYNN and the PRESIDENT took part.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY.—At a meeting held on March 11th, Mr. J. MACREADY (President) in the chair, Dr. JAMES MACMUNN demonstrated the following instruments, devised by himself: (1) a Urethral Syringe; (2) a Urethrotome; (3) a Urethrometer; (4) a modification of Brunton's Ear Speculum, for use as a urethroscope; (5) a Urethral Sound, modified from Lister, combined with a Uterine Cervical Dilator; (6) a Pair of Calipers to indicate abdominal resistance; (7) a simple and inexpensive Cautery;

(8) a modification of the Trephine.—Dr. Remfry read notes of two cases recently under his care. (1) Double Vagina with Unicorn Uterus on the left side. The tube and ovary were normal. On the right side was a hard body about the size of a walnut, closely connected by fibrous tissue with the supra-vaginal cervix. No tube or ovary could be detected on this side. The right vagina was smaller than the left. Dr. Remfry remarked that pregnancy, if it should occur after removal of the vaginal septum, would most probably terminate satisfactorily. (2) The Temperature Chart of a patient admitted to the hospital with high fever. She was passing acid urine containing pus. Vaginal examination detected a large mass in the situation of the right broad ligament. The abdomen was opened, and, in the middle of the parametric mass was found a pyosalpinx. Three days later an abscess pointed above Poupart's ligament. This was opened; it was situated in the parametric mass between the pyosalpinx and the bladder, and had evidently opened into the latter. The chart now showed a normal temperature; the urine was free from pus, and the wounds were healed. (3) A specimen of Fibroid Tumour associated with Pregnancy. Dr. Glover and Dr. E. S. Tait discussed these cases.—Dr. Galloway showed a man suffering from Horse-pox. There were two lesions, now in process of resolution, situated upon his chin. The etiology and differential diagnosis of the disease were discussed. Dr. Agar Matson and Dr. E. C. Beale made remarks.—Mr. Macready exhibited a case of Inguinal Hernia complicated by a Lipoma in the Inguinal Region. The fatty tumour simulated an interstitial hernia. Several drawings were shown of the latter class of case.—Dr. Hodgkins related the history and demonstrated the physical signs of a case of Chronic Pleurisy with "Thickened Pleura."—Dr. Freyberger showed (1) a Strangulated Inguinal Hernia; (2) a series of Hearts showing tendinous bands across the left ventricle; (3) a Parietal Aneurysm of the first part of the Aortic Arch, with a rupture into the Superior Vena Cava, and with Thrombosis of the Left Internal Jugular Vein.

West London Medico-Chirurgical Society.—At the meeting held on April 2nd, Dr. Thudichum in the chair, Dr. Gossage gave a Demonstration on the Serum Diagnosis of Typhoid Fever.—Dr. Harry Campbell read a paper on the Pathology and Treatment of Emphysema. He attributed the enlargement of the chest to diminution of pulmonary elasticity, and consequently to diminished suction on the interior of the chest walls, also to chronic overaction of the inspiratory muscles in consequence of dyspnœa. This caused contracture of the inspirators and fixation of the chest in the expanded position. Treatment should be directed to the preservation of pulmonary elasticity and to the strengthening of the expiratory muscles by means of special exercises so as to counteract the tendency to overaction of the inspirators. Dr. Campbell Pope alluded to the occurrence of emphysema in muscular men with large chest capacity. Such men were frequently shallow breathers, the expansive muscles of respiration not being fully exercised. This predisposed to fixation of the rib-joints and ossification of the cartilages. There was thus a large chest with little mobility, so that after an attack of bronchitis the less supported portions of the lungs, namely the apices and margins, became emphysematous. The Chairman dwelt on the importance of coughing as a cause of emphysema.

Nottingham Medico-Chirurgical Society.—At a meeting held on March 17th, Dr. W. B. Ransom (President) in the chair, Dr. Carroll read a paper on Water and Water Supply. He dealt with the composition and properties of water, its powers of dissolving minerals, and thus breaking down rocks and forming soils; its great power of dissolving gases, for example, $CO_2$, and thereby acting on limestone and other rocks. The causes of lead poisoning in various places, for example, Chesterfield rural district, were then indicated, and the importance of other metals in solution shown. The law relating to water supply was briefly dealt with, the powers and duties of sanitary authorities under the various Act, and the Dairies, etc., Order, 1885, being stated, and also the powers under the Rivers Pollution Prevention Act, 1876, to prevent the pollution of streams and other sources of water supply. The quantity allowed per head in various towns was next dealt with, and then the various sources from which supplies might be drawn. The character of the water from each source and their relative quality were next shown. The substitutes for lead pipes were then reviewed. The softening of water by chemical means, stress being laid on the fact that the harder the water the better it paid to soften it, and that the cost increased with the increase in the sulphates. By softening and subsequent filtration the water was practically sterilised. The danger of relying implicitly on a chemical analysis of water to prove its wholesomeness was pointed out. The connection between the use of polluted water and widespread outbreaks of enteric fever and cholera was next shown. In conclusion, the means of prevention of these diseases by destruction of the stools and other excreta by fire was advocated, the use of a special pail being necessary. The present system of using disinfectants in the vessel to receive the excreta, and then rushing the contents of the vessel away and burying them without allowing sufficient time for the disinfectants to act was simply a farce.—The President and Drs. Bolton, Littlewood, Hunter, and Mackenzie discussed the paper, and Dr. Carroll replied.

# REVIEWS.

The International Encyclopædia of Surgery. Edited by John Ashhurst, jun., M.D., LL.D., Barton Professor of Surgery and Professor of Clinical Surgery in the University of Pennsylvania, Surgeon to the Pennsylvania Hospital, etc. Vol. VII. London and New York: Macmillan and Co. 1895. (Roy. 8vo, pp. 1,134, with a chromolithograph and 275 illustrations. 31s. 6d.)

With this handsome volume—supplemental in character—a monumental work on surgery is brought to its fitting conclusion. The part under notice is entirely the work of American authors, of whom no fewer than fifty contribute to its pages. Many of the supplemental articles are, from various causes, by other hands than the original ones, which is in some cases an advantage, but in others markedly the reverse. As an example of the latter we may quote Professor Van der Veers's continuation of Mr. Henry Morris's masterly treatise on abdominal surgery. The additions, comprising a decade of advance, are only seventeen pages long, and the account of appendicitis is, to say the least, inadequate. Diseases of the gall bladder also are relegated to one-third of a page, while a little further on we find a whole page devoted to the subject of luxation of the penis. On the other hand, Professor Keen's article on the surgical diseases of the head is, perhaps, for its length, the finest account of its subject which has appeared in any language. The editor's brief sketch of intestinal obstruction is also excellent, except that we find in it no reference to the operation devised by Mr. Greig Smith. The question of the surgery of the lungs is not carried beyond Mr. Godlee's paper published in 1887, and the surgery of the spinal cord is absolutely untreated. Dr. Wharton's account of intubation of the larynx is extremely well written, but Dr. Deaver's views on tetanus are by no means up to date. Dr. Kiliani's description of erysipelas is thoroughly scientific, but Dr. Packard's article on snake bites is obsolete and in striking contrast to Professor Gaston's clear and temperate account of hydrophobia. It is somewhat surprising that an American work on surgery should contain no description of the operation of anterior colpotomy, and also that Professor Cantrell's account of ringworm should be without reference to Sabouraud's researches. On the other hand there is some inevitable overlapping, so that gunshot wounds are twice described, while the treatment of trigeminal neuralgia is given at length no fewer than three times. Still the very greatness of such a work as this must excuse faults which would condemn a less ambitious book. Professor Ashhurst must be congratulated on having produced the finest *Encyclopædia of Surgery* in the English language, and cannot be blamed if a work which is of necessity the product of so many authors is at times unequal. The figures are on the whole

very good, though the references to the amount of magnification of microscopic objects are lamentably few, and the illustration of Murphy's button is curiously unreal. The completed work is one with which no well-equipped medical library can afford to dispense.

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De Dovstumme i Norge, bidrag til Kjendskabet til Dovstumhedens udbredelse, aarsager og Sygdomsbillede, etc. Af V. Uchermann, Professor ved Kristiania Universitet. 1ste Del (Tekst); 2den Del (Bilag); Karter. [The Deaf-Mutes of Norway: Contribution to the Study of the Distribution, Causes, and Pathological Characters of Deaf-Mutism. etc. By V. Uchermann, Professor in the University of Christiania.] Appendix (statistical) and Maps. Christiania: A. Cammermeyers. 1897. (Roy. 8vo, pp. 590).

This great work, of which the first part has just appeared (the statistical tables and maps having been published in 1892 and 1893 respectively) can scarcely fail to be a perfect mine of information for those who have to deal with either the medical or the economic and pedagogic aspects of deaf-mutism. Norway has nearly one deaf-mute per 1,000 inhabitants, and thus occupies an intermediate position between countries like Holland and Belgium with 0.43 per 1,000, and Austria with 1.31, and Switzerland with 2.45 per 1,000. England and Scotland have 0.51 and 0.53 respectively. The Norwegian Government was, therefore, well advised in carrying out the inquiry as a national undertaking, and is to be congratulated on the way in which Professor Uchermann has arranged, tabulated, and made interesting the immense mass of statistics gained from doctors and clergy all over the country.

Several important facts have been made plain by this investigation. Deaf-mutism in Norway shows a distinct preference for the male sex over the female, the proportion being as 100 to 77.6, while the population generally shows a predominance of women over men (104 to 100). This sexual preference of the morbid state is very largely due to the acquired cases in contradistinction to the congenital. Cases of deaf-mutism are more common in the country than in the towns, a fact which is to be explained by the great prevalence of congenital cases in the former. Perhaps the most valuable conclusions that Professor Uchermann has been able to draw have reference to these same congenital cases. Of the 1,826 cases of deaf-mutism in Norway, 932 (51 per cent.) were congenital and 886 (48.5 per cent.) were acquired. With regard to the former, the chief causes were heredity and consanguinity, and the investigation may be said to have proved this in a way never done before. It was ascertained that 23 per cent. of the congenital cases were the offspring of consanguineous unions, and as in Norway such unions represent only about 7 per cent. of the total, their influence as a pathogenic factor must be accepted. The effect of heredity was also clearly shown. Idiocy, epilepsy, and other mental diseases were very frequent in the families of related parents with deaf-mute children; pigmentary retinitis and malformations were also common.

Among the less evident causes of congenital deaf-mutism were alcoholism in the parents, and bad hygienic and social conditions; but syphilis, leprosy, frequent or twin pregnancies, illegitimacy, and prolonged confinements do not seem to have had much effect, and there is no apparent relation between the geological characters of the soil and the birth of deaf-mutes. The chief causes of the acquired type are the infectious fevers (for example, scarlet) and cerebro-spinal meningitis; it is little, if at all, influenced by consanguineous marriages in Norway. An interesting chapter deals with the frequency of such marriages in Norway, and finds an explanation in the want of intercommunication between the isolated valleys of the country. Other things being equal, the relative number of consanguineous unions is in inverse proportion to the number of ways of communication. Very important details are given also of the symptomatology and pathological anatomy of the various cases examined. The consequences of deaf-mutism are shown to be increased mortality and defective development of the intellectual faculties, and exalted action of the other senses which are not in themselves more acute. The few cases available for inquiry showed that the marriages of deaf-mutes were not prolific, and were indeed often sterile, facts which applied specially to the congenital form. In addition to pedagogic and other means of treatment, the author recommends a certain degree of supervision of the unions of individuals suffering from idiocy, imbecility, insanity, and syphilis of recent date. We cannot interdict by law the marriage of deaf-mutes.

In conclusion, it may be said that the coloured maps greatly increase the value of the work by their graphic representation of the leading statistical facts.

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Commercial Organic Analysis: A Treatise on the Properties, Proximate Analytical Examination, and Modes of Assaying the various Organic Chemicals and Products employed in the Arts, Manufactures, Medicine, etc., with Concise Methods for the Detection and Determination of their Impurities, Adulterations, and Products of Decomposition. By Alfred H. Allen, F.I.C., F.C.S. Second Edition, revised and enlarged. Vol. iii. Part III. 1896. London: J. and A. Churchill.

This volume of over 500 pages is a further instalment of the very useful work which has become an almost indispensable adjunct to every laboratory. Since the middle of the present century the application of chemical analysis to a great variety of technical purposes has been considerably extended, and chemists have constant occasion to refer to the details of processes for the separation or determination of particular substances. To facilitate such reference a compilation, such as that provided by Mr. Allen from a great variety of sources, is especially convenient, and the present volume fully sustains the high reputation that the work has hitherto enjoyed. It treats of some of the less important alkaloids; of the vegetable bitter principles, including glucosides; of animal bases and acids, as well as cyanogen compounds, many of the substances in each class being, strictly speaking, of greater interest from a medical point of view than they are commercially, as in the case of ptomaines, the acids and other constituents of urine and bile, urinary deposits, and calculi. On the subject of ptomaines a large amount of information has been collected as to their characters, methods of detection, etc., and with a general sketch of the chemistry of putrefaction, occupies about thirty pages. The methods of detecting and determining urea and uric acid are also very fully described, and the volume will be found very useful for reference in the prosecution of physiological work.

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Die Pathologie und Therapie der Neurasthenie [The Pathology and Treatment of Neurasthenia]. Von Otto Binswanger. Jena: Gustav Fischer. 1896. (Roy 8vo, pp. 452. M. 9.)

Yet another large book on neurasthenia. Müller was quickly followed by Löwenfeld, and now after Löwenfeld comes the Professor of Psychiatry at Jena. That neurasthenia is "come to stay" may be willingly or ruefully admitted according to the bent of the reader; and we are of the former disposition. Ever since we read Beard's first important work on this malady, we felt that his description well characterised a class of patients too often seen in our consulting rooms, patients to whom a discriminating analysis had not hitherto been applied. The question, then, whether there "is such a thing as neurasthenia" is solved as we go. To say that it is not a "real disease" seems an idle criticism. Strictly speaking, there is no such thing as a "real disease" apart from the convenience of clinical observation; and that the convenience of clinicians is promoted by the recognition of this group of symptoms may now be taken for granted. Whether the group in its origin as well as in its recognition be a new thing, and one peculiar to our generation, is another matter—one on which we cannot dwell at present. At any rate, the sufferers never had such a chance as at present, for the malady in its lighter degrees does not so absolutely disqualify for life in our time as it did, or would have done, in ruder times. Even in the days of our grandfathers "functional nervous diseases" meant pooh-poohed diseases. The only organ whose functional derange-

ments were attended to was the liver; for a liver disorder was some evidence of boon companionship, whereas a neurasthenic who could not drink his bottle and a half was too pitiable a creature for medical shriving.

Professor Binswanger's treatise consists of lectures delivered from his chair at Jena. The first lecture is devoted to the pathology of the malady, and the second and third to its causation. Then follow lectures on its symptomatology, on the clinical types, on the diagnosis and prognosis, and finally on the therapeutics. To review this work in any full way would be impossible in this place; we have turned rather to certain pages which deal with matters of special interest at the present time. Of these questions, perhaps the most interesting is the degree in which, if at all, neurasthenia is to be attributed to absorption of toxic matters from the primæ viæ, that is, auto-intoxication.

Under digestion we find a very full and discriminating summary of symptoms; but no admission that the stomach may be the source of poisons noxious to the nervous system. Under the bowels we find more on this subject, and even a full consideration of constipation as a cause of those nervous symptoms (*ihrer Ausgangpunkt*). Products of decomposition of intestinal contents, may, as they are absorbed, produce headache, confusion, dizziness, and the like. The author is disposed, perhaps, in the light of recent observations, to doubt the absorption of soluble matters from the stomach; but scepticism may be carried too far in this respect; cases certainly occur in which the symptoms of neurasthenia arise with gastric insufficiency and dilatation, and disappear with restoration of normal function in this organ. On the other hand, we do not believe that neurasthenia is always a secondary series. The most careful treatment of visceral abdominal complications is not always, or perhaps often, followed by the disappearance of the nervous disorder. Perhaps the true and self-dependent neurotic symptoms are on a completer clinical analysis to be distinguished from those of auto-intoxication.

As regards the clinical forms, Binswanger first divides neurasthenia into two main divisions, the psychical and the motor: the psychical he divides into the hereditary, the acquired, and the hyperalgetic forms. It will be seen that this division is formed on two different principles, the symptomatic and the etiological: this inconsistency may be convenient but is not scientific, or at any rate is not logical. The motor forms he divides into the irritative, the paretic, the dyspeptic, the angioneurotic, and the sexual kinds; and these divisions seem on the face of them to be founded on a more uniform principle: they commend themselves also to our judgment as clinically useful. On the difficult subject of diagnosis Professor Binswanger is careful and judicious; admitting how hard it is in many instances to discriminate these cases, he urges that, if a convincing diagnosis is to be given, the cardinal symptoms must be distinguished from the secondary. To the nice discrimination between neurasthenia and hysteria due care is devoted; and in this connection, as throughout the book, accurately recorded cases are adduced and commented upon. We are glad to see that a paragraph is given to those difficult cases, the larval forms of Graves's disease, which are often very difficult to diagnose or detect. The obscurer symptoms of commencing arterio-sclerotic changes are not forgotten.

Finally, the instructions on treatment are full and thoughtful, and include the use of general hygienic rules as well as that of education, ethics, spas, massage, gymnastics, hydropathy, electricity, the revision of the functions of the several systems of the body, and pharmaceutics. For a summary of this interesting and thorough chapter the reader must be referred to the book itself. We cordially recommend Professor Binswanger's excellent and exhaustive treatise to students of nervous diseases in the belief that they will find in it the work of a shrewd, experienced, and learned physician; a work moreover produced with the double advantage of some twelve years' incubation, and yet of appearing late enough to derive much matter from the recent publications of eminent co-operators in the same field.

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An extraordinary credit of 275,000 francs to defray the expenses of taking precautions against the plague has been voted unanimously in the French Chamber.



Deformities: A Treatise on Orthopædic Surgery. By A. H. Tubby, M.S.Lond., F.R.C.S.Eng., Assistant Surgeon to Westminster Hospital. London: Macmillan and Co. 1896. (Demy 8vo, pp. 598. 302 Illustrations. 17s.)

This work is not only a complete work on a subject which is daily increasing in importance and on which a few English treatises exist, but it is also to a large extent the record of the work and special methods of a very competent surgeon. Thus most of the cases quoted are from the casebooks of the author, and the majority of the illustrations have been drawn from his own patients. On this account the book, although losing perhaps to some slight extent in capacity of presenting to the reader the general attitude of opinion, yet has the special value that it gives the practical operator and surgeon the experience and results of a successful practitioner. It must not be imagined, however that the volume is only a record of special methods of treatment: it is a complete treatise on orthopædic surgery, and by its numerous references to the work and writings of others may fairly be said to represent the present position of the English school.

The work is divided into five sections, of which the first deals with spinal deformities. The subject here, as throughout the volume, is considered not only from the practical but also from the scientific standpoint. Thus a fairly complete account is given of the pathology of spinal caries and the etiological factors which bear on the condition. In sections two and four the deformities of the upper and lower extremities are considered, while section three is devoted to rachitic conditions. Under the treatment of club foot is a very able piece of pathological work reviewing the present position of knowledge on the repair of tendons, and repeating the original experimental work of Adams. The author concludes that perfect regeneration is not possible, and that the largest share in the production of the new formed tissue is taken by the plasma cells found in the connective-tissue spaces of the normal tendon which migrate from the dilated vessels of the inflamed sheath into the clotted blood effusion.

The importance of injuring the tendon sheath as little as possible is emphasised in Experiment 6 of the series, in which it is shown that if freely divided or removed much adhesion of the uniting material to the surrounding tissues takes place, while as to the impossibility of obtaining primary union Bussa's experiments are quoted, in which it is shown that some stretching of the band of union always occurs, even if dovetailing of the divided ends is carefully carried out.

Section five, which concludes the volume, deals with congenital deformities and displacements. Here will be found a summary of our knowledge on the now vexed question of congenital dislocation of the hip.

The volume is well illustrated, well printed, and should serve as a standard work on the subject in the English language.

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La Craniotomia nell' Epilessia Traumatica. [Trephining in Traumatic Epilepsy.] By Guido Sembianti. Milano: Ulrico Hoepli. 1897. (Pp. viii, 153, Figs. 7.)

Without containing much that is novel, this book forms a useful digest of the work of the last fifteen or sixteen years in the field of operative cerebral surgery, a department in which there has been great and real progress. Dr. Sembianti deals only with the subject of trephining for epilepsy which can be reasonably assigned to a previous injury. After chapters treating of the modern methods of cranio-cerebral topography, of the cortical epileptogenous zones, of the mechanism of the traumatism in the production of epilepsy, and of the remote results of head injuries, the author considers at some length the operative technique, and describes the craniotome of Zuccaro and its modification by E. Secchi. Two unpublished cases of traumatic epilepsy operated upon by Landi and Paci in Chiara's Hospital in Pisa, and seen by the author, are then fully narrated. In one of these there was hemiplegia in addition to the epilepsy: and in this instance, whilst the epilepsy was greatly benefited, little effect was produced on the paralysis. The book closes with a carefully compiled (selected) list of 100 cases of trephining for traumatic epilepsy and a useful bibliography: many of the cases are taken from the works of Caselli, D'Antona, and Tansini,

but there are also examples from the practice of Allen Starr, Horsley, Macewen, and Sachs and Gerster. A distinction of some importance is made between cases in which the epilepsy is truly traumatic in origin and in which trephining may be expected to cure, and those in which it may be suspected that the disease was latent and unjustly attributed to the injury, and in which operation will produce no improvement or be followed by death in the *status epilepticus*.

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THE STRUGGLE BETWEEN THE STATE AND THE DRUNKARD. By E. D. DALY, Chief Clerk of the Dublin Police Courts. Dublin: Eason and Son. (Demy 8vo, pp. 31. 6d.)

THIS pamphlet is invested with special importance from the judicial experience and legal acumen of the author. The defects of the present legislation are lucidly pointed out, and various amendments are proposed. The most valuable suggestion, from a medical point of view, is that where a court of summary jurisdiction is given (or has) any reason to suspect that any person who, not being amenable to any jurisprudence in lunacy, is notwithstanding by reason of habitual intemperate drinking of intoxicating liquor at times dangerous to himself or others, or at times incapable of managing himself, or his affairs, the court may remand the accused and require the opinion of the prison surgeon. If the medical report show the prisoner to be a diseased inebriate he shall be dealt with specially by law providing for special procedure with such persons. The author justly observes that when anyone becomes a dangerous diseased inebriate relatives ought to have the power to interrupt his insane career.

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KLINISCHE UND EXPERIMENTELLE BEITRÄGE ZUR PATHOGENESE DER MERCURIELLEN STOMATITIS UND SALIVATION. [Clinical and Experimental Contributions to the Pathology of Mercurial Stomatitis and Salivation.] Von Dr. ALFRED LANZ. Berlin: Oscar Coblentz. 1897. (Demy 8vo, pp. 176. M. 7.50.)

THIS book is divided into three parts—a critical and historical review of the literature of the subject, a series of clinical observations, and an account of a number of experiments made on animals.

As the result of his investigations the author draws the following amongst other conclusions: (1) That, in accounting for the origin of mercurial stomatitis, three factors must be considered, namely, the mercury, the local cause, and the bacteria. (2) That the ulcers develop chiefly on those parts of the mucous membrane which are exposed to pressure from the teeth, such as the edges and under surface of the tongue, the mucous membrane of the cheeks, and the edge of the gums. But he does not agree with the generally-accepted view of Ricord and Fournier that these ulcers develop on the side of the mouth on which the patient lies in bed. (3) That the ulcers most frequently form in the neighbourhood of the incisor and canine teeth of the lower jaw. (4) That the saliva has no influence whatever upon the origin of the stomatitis, the salivation being due simply to a reflex action starting from the mouth. The salivation never precedes the stomatitis, and is often entirely absent. (5) That the mercurial ulcers of the mouth are the result of a necrosis of the mucous membrane, which is brought about by the disturbance of the nutrition of the tissues, consequent upon the action of the mercury and by the pressure of the teeth on certain portions of the mucous membrane—pressure gangrene.

Notwithstanding that it is somewhat heavy reading, this is an excellent monograph, and a valuable contribution to the literature of mercurial stomatitis.

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LES POISONS DE L'ORGANISME: POISONS DES TISSUS. Par A. CHARRIN, Professeur Agrégé. Paris: Masson et Cie, Gauthier Villars et Fils. (Cr. 8vo, pp. 220. Fr. 3.)

TWENTY years ago physiology taught that the glands of the body were for the sole purpose of secreting the fluids which issue from their ducts—the salivary for saliva, the pancreas for its juice, the kidneys for the urine, and the testicles for the sperm; the liver was even at that remote epoch allowed to be exceptional. But the discovery that the ductless gland, such as the thyroid, had an important action on the body, led to the conclusion that it must give something to the blood, since this was the only channel by which it could communicate with the rest of the system, and the suprarenal capsule was inferred to act in a similar way. The researches of Minkowsky and Lépine upon the pancreas in diabetes gave grounds for thinking that even in glands with ducts the secretion that issued through these was not all that the gland gave to the body, and thus the hypothesis came to be maintained that glands of all sorts had an internal as well as an external secretion.

The brilliant results obtained by grafting thyroid in animals from whom the gland had been removed, and by giving it through the mouth to human patients, led to similar experiments with other glands, in the hope that in cases of disease their defective action might be supplied from without, and this gradually brought about a general study of the effect of extracts from various organs when injected into the blood.

This form of research, which has been carried out chiefly in France, is the subject of Professor CHARRIN's book. Many diseases are, in his opinion, due to "auto-intoxication" from defect or perversion of the internal secretion of such organs, and he mentions briefly the results that have followed injection of blood serum, lymph, extracts of muscle or of nerve tissue, of lung, kidney, suprarenal, testicle—in fact, of almost all the organs of the body, to show that all these contain products which are more or less poisonous, and which might, therefore, produce symptoms of disease. The "auto-intoxications" are characterised, he says, chiefly by nervous phenomena, and injections of these extracts are also followed by affections of that part of the system. It must be confessed that the analogy between the two—the natural and the artificial—does not reach much further than this. The symptoms produced in animals are very few, are difficult to observe exactly, and are reproduced in the same way by substances of very different origin. Lymph and urine, for instance, produce an almost identical sequence of symptoms. There has been too great a readiness to argue from the artificial to the natural, and too great a disposition to lay stress upon superficial resemblance. This does not lessen the probability of "auto-intoxication" as a cause of human disease. The curious melancholy of constipation is at once the commonest and the most striking instance in which physicians have been led to infer the process. Sir Andrew Clark used to believe chlorosis to be due to perverted absorption from the intestines. Uræmia is an instance somewhat, though not wholly, analogous. But what fruit this body of experimental research will bear is another matter which is as yet quite uncertain. Thyroid extract is hitherto the only substance of its kind which has been found practically useful. The pancreatic extract has not helped us with diabetes, nor the suprarenal with Addison's disease; testiculin has almost dropped out of use. But the subject is still in its infancy, and it is, as all young subjects are, full of possibilities.

For those who wish to form a rapid idea of what has already been done, Professor Charrin's book will be of some service; but if a man desires to study any given portion of the subject seriously, he will not derive much help from it, for the book is not a book of reference, though it swarms with names, and it gives a general sketch rather than exact or detailed information.

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## NOTES ON BOOKS.

*Schulgesundheitslehre* [School Hygiene]. Von Dr. H. EULENBERG und Dr. THEOD. BACH. 2te. Aufl., 4te. Lief. (Berlin: J. J. Heine. 1897. Roy. 8vo, pp. 321-480.)—The authors—a physician and a headmaster respectively—having in previous numbers treated of the general arrangement and construction of school buildings, etc., proceed in the present one to the questions of waterclosets, water supply, baths, and provision for physical exercise. We note their very proper preference of the pail system in its recent developments and condemnation of cesspits in rural schools, while for those in towns they recommend the latest form of divided troughs for the pupils, and of washdown closets for the teachers. The suggestion to place a block of peat in urinals where the water supply is limited is good. The chapter on water is a

complete monograph on the sources, pollution, and examination, the chemistry, zoology, and bacteriology of water, and that on gymnastics for boys and girls is, as might be expected, thorough. School baths are becoming an institution in German towns, and this section is well worth reading; their remarks on the practice of swimming in the open air and of systematic instruction in outdoor "free" exercises are so too. The authors advocate cursorily the extension of the great English games, which of late have begun to make their way in Germany.

*Physiology: Student's Note Book for the Laboratory. Part I. Physiological Chemistry.* By Arthur J. Hall, B.A., M.B., M.R.C.P., Lecturer on Physiology, Sheffield School of Medicine. (London: Baillière, Tindall, and Cox. 1897. Post 4to, pp. 48, interleaved 2s. 6d.)—This book possesses at least the merit of accuracy, and will no doubt be used by a student as a reminder of work done in the laboratory before going up for an examination. But, like so many of these little books that are springing up nowadays, it appears to be one of those that are unnecessary. If every student compiled such a note book for himself, then there would be nothing to urge against it. Every second-year's student of average ability ought to be able, with a good textbook and thorough laboratory teaching, to be able to write such a note book. When he has one ready made like this before him, he will in many cases not take the trouble to make another, and so will entirely miss what would otherwise have been useful to himself.

*Influence, Intellectual and Moral, Illustrated by the Example of Germany.* By Richard G. Anderson, M.A., M.D., Professor of Natural History, Queen's College, Galway. (Galway: Matthew Clayton, Eyre Square. 1896. Pp. 56. 6d.)—Professor Anderson has expanded a lecture into this interesting pamphlet. He points out that the intellectual predominance which was held by Spain in the sixteenth century, by England in the seventeenth, and by France in the eighteenth, has at the present day become the property of Germany. He attributes this largely to the university system of that country, but still more to the moral influence exerted by the great men who have worked for the good of the nation, both physical and mental. Among these he particularises Frederick William, his son Frederick the Great, Goethe, and William the Great. As a result of this influence, the visionary and the idler have almost been abolished, and the national life of the country is imbued with continuous, systematic, and real work of the perfect kind, that which employs and strengthens both body and mind. Some of the author's arguments are better suited to the platform than the study, but the pamphlet affords ample evidence of wide reading and deep thought. It must, however, be admitted that the typography, particularly as regards proper names, leaves much to be desired.

*The Narrative of My Experience as a Volunteer Nurse in the Franco-German War of 1870-1.* By Anne Thacker. With a Sketch of her Life by James M. Menzies, M.A. (London: Abbot Jones and Co. 1897. Demy 8vo, pp. 92. Illustrated. 3s. 6d.)—The subject of this brief volume is one doubtless that recommends itself to the immediate friends of Miss Thacker, but it is of little interest to the general public, and offers no points for comment as appealing especially to the medical or nursing professions. The self-devotion which prompts women of refinement and culture to spend their lives in the service of the sick or wounded is by no means rare; but the incidents of hardship and fatigue, the inevitable accompaniments of the life, scarcely seem to call for chronicle outside the family circle.

*The Use of Hypnotism in Chronic Alcoholism.* By C. Lloyd Tuckey, M.D. (Cr. 8vo, pp. 7.)—The author trenchantly declares that the pretence put forth by the purveyors of quack remedies to cure 90 or 95 per cent. of cases shows gross dishonesty on their part, and extreme ignorance and credulity on the part of the public. As regards hypnotism in this class of diseases, we are glad to observe a more modest estimate of the alleged success of hypnotic suggestion as a therapeutic agent than the writer says he formed when he began this treatment.

*Handbuch der Laryngologie und Rhinologie.* Edited by Dr. Paul Heymann. Parts V to XIII. (Vienna: Alfred Holder. 1896.)—The rapid issue of the parts of this interesting work continues. Of those above mentioned, Parts v, vi, ix, and xi belong to Volume III (Diseases of the Nose), Parts vii and viii to Volume II (Diseases of the Pharynx), and the remaining three to Volume I (Diseases of the Larynx and Trachea). The nasal subjects dealt with include articles on the histology of the nose and its accessory cavities (Schiefferdecker); physiology of the same (Gaule); the examination of the same (Gustav Spiess); *post-mortem* examination of the same (Hansemann); general symptomatology of nasal diseases (Bloch); suppuration and ulceration in the nose (Hajek); general therapeutics of nasal diseases (Bloch); acute rhinitis (Gerber); chronic rhinitis, simple and hypertrophic (Klemperer); atrophic rhinitis, fœtid and non-fœtid (Krieg); diseases of the nasal septum (Lange). In Volume II Bloch writes on the general symptomatology and on the general treatment of pharyngeal diseases, Kronenberg on acute inflammations of the pharynx and naso-pharynx, Hoppe-Seyler on diphtheritic pharyngitis, and Chiari gives the first instalment of a long article on chronic inflammation of the pharynx and naso-pharynx. The contributions to Volume I comprise the conclusion of Richard Ewald's article on the physiology of the larynx and trachea; a highly-practical article by B. Fraenkel on the methods of examination of the larynx and and trachea; *post-mortem* examination of the same by Hansemann; the general etiology and general symptomatology of diseases of the larynx and trachea, both by P. Schech; the general therapeutics of these regions by Carl Stoerk; inflammation of the mucous membrane of the larynx and trachea, by Krieg; ulcerations of the same by Otto Seifert, and acute submucous laryngitis and laryngeal perichondritis by M. Hajek. The last fasciculus (Part xiii) contains four plates of chromolithographs illustrating the text. The instalments before us fully maintain the high standard of this exhaustive system of laryngology and rhinology.

# REPORTS AND ANALYSES
AND
# DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

## ESSENCE OF COFFEE.

This is a concentrated essence of coffee prepared by a patented process, and is guaranteed to be the pure product of the finest selected coffee berries. Examination of the sample sent to us showed it to be a concentrated extract of pure coffee. When used in the proportion directed, of one teaspoonful to a cup, it made a very palatable cup of coffee. The extract is also prepared with definite proportions of chicory to suit the taste of those persons accustomed to a combination of chicory and coffee. It is described as Dr. Dabbs's *P.B.* Essence of Coffee, and can be obtained from Messrs. Peek Bros., French and Co., 20, Eastcheap, and from Messrs. Deeks, Shanklin, I. of W.

## ASBESTOS PISTONS.

Messrs. Arnold and Sons (West Smithfield) write: In reply to "W. D. D.'s" question in the British Medical Journal of March 27th, in which he asks if the use of asbestos for pistons of exploring and hypodermic syringes is an advance on the ordinary leather ones, etc., we introduced asbestos plungers, in accordance with the suggestion of Dr. Bokenham; and we likewise patented an arrangement which is very simple for either compressing and thus expanding laterally the plunger by two flanges, which are tightened or released by simply turning the nut or handle. The asbestos plungers are most durable, and, when worn out, can at once be replaced by others; this refers to a hypodermic syringe. We likewise made, at the suggestion of Mr. Thomas Smith, of St. Bartholomew's Hospital, an exploring syringe fitted with asbestos plunger, and acting the same way as the hypodermic. Both of these syringes have been a very great success, and the hypodermic syringe is now the only pattern which is made by us for Her Majesty's navy.

Presentation.—The members of the St. John Ambulance Class at Howell's School for Girls, Llandaff, have presented Dr. Fred Evans of Cardiff with Dr. Nansen's new work, *Farthest North.*

## HOSPITAL REFORM ASSOCIATION.

### THE WORKING OF THE SPECIAL HOSPITALS.

AT a meeting of the Council of the Hospital Reform Association, the report of a Committee appointed to inquire into the working of the special hospitals in London was submitted. The report, which was signed by Dr. W. Knowsley Sibley and Dr. Ernest A. Snape, stated that forty-one institutions as follows had been visited:

1. Hospital for Skin Diseases, Blackfriars.
2. London Skin Hospital, Fitzroy Square.
3. St. John's Hospital for Diseases of the Skin.
4. Western Skin Hospital, Great Portland Street.
5. British Hospital for Diseases of the Skin, Euston Road.
6. Central London Ophthalmic Hospital, Gray's Inn Road.
7. Royal Eye Hospital, St. George's Circus.
8. Royal London Ophthalmic Hospital, Moorfields.
9. Royal Westminster Ophthalmic Hospital.
10. Western Ophthalmic Hospital, Marylebone Road.
11. Hospital for Consumption and Diseases of the Chest, Brompton.
12. Infirmary for Consumption and Diseases of the Chest and Throat, Margaret Street.
13. National Hospital for Diseases of the Heart and Paralysis, Soho Sq.
14. North London Hospital for Consumption, Fitzroy Square.
15. Royal Hospital for Diseases of the Chest, City Road.
16. Chelsea Hospital for Women.
17. The Hospital for Women, Soho Square.
18. Grosvenor Hospital for Women and Children, Vincent Square.
19. Royal Hospital for Women and Children, Waterloo Road.
20. Samaritan Free Hospital for Women and Children.
21. Central London Throat, Nose, and Ear Hospital, Gray's Inn Road.
22. Hospital for Diseases of the Throat, Golden Square.
23. London Throat Hospital, Great Portland Street.
24. Metropolitan Ear, Throat, and Nose Hospital, Fitzroy Square
25. Royal Ear Hospital, Frith Street, Soho.
26. Municipal Throat and Ear Infirmary, City Road.
27. Hospital for Epilepsy and Paralysis, Regent's Park.
28. National Hospital for the Paralysed and Epileptic, Queen Square.
29. West End Hospital for Diseases of the Nervous System and Paralysis, Welbeck Street.
30. British Hospital for Mental Diseases and Brain Disorders, Euston Road.
31. City Orthopædic Hospital, Hatton Garden.
32. National Orthopædic Hospital, Great Portland Street.
33. Royal Orthopædic Hospital, Oxford Street.
34. St. Peter's Hospital for Stone and Urino genital Organs, Covent Garden.
35. Gordon Hospital for Fistula, Piles, and Diseases of the Rectum.
36. St. Mark's Hospital for Fistula, City Road.
37. Lock Hospital and Rescue Home.
38. Dental Hospital of London, Leicester Square.
39. National Dental Hospital, Great Portland Street.
40. Friedenheim or Home for the Dying.
41. Cancer Hospital, Fulham.

A tabular statement is appended to the report giving the details ascertained. In all cases inquiries were made as to subscribers' letters, payments by patients, as to whether inquiries were made as to the patients' means, as to the limitation of cases for special treatment, and whether there be any limit to the number of new out-patients. In a separate column the amount of the patients' payments in 1895, and that of the annual subscribers in the same year, are set out. Finally some remarks are appended in explanation of the previous items. The Committee report that with few exceptions[1] they were well received, and the information asked for readily given. In nearly all cases the secretaries were interviewed, and in some instances also members of the visiting staff, or officials in charge of the out-patient departments. In many cases the secretaries recognised the possibilities of abuse, and in very few instances was its existence absolutely denied. The report then proceeds to deal with the subject under the following heads:

"1. *Subscribers' Letters.*—Out of the forty-one hospitals, ten do not issue letters; and of the remaining thirty-one, only six rigidly enforce their use. Some of the smaller institutions appear to use letters to enable them to obtain a grant from the Hospital Saturday Fund.

"2. *Payment by Patients.*—Thirty-two hospitals receive payment from their patients, collecting a large sum annually (£24,085 in 1895). We would point out that this amount is earned entirely by the work of the medical staff, who receive no portion in return. More than half (eighteen) of these institutions obtain more money from their patients than from their annual subscribers; in some cases as many as from ten to twenty-five times as much (No. 5). On comparing the patients' payments and annual subscriptions for these thirty-two hospitals we find that these received £7,000 more in patients' payments than in annual subscriptions in 1895. We cannot refrain from drawing attention to the fact that at No. 3 the acknowledged average sum received for treatment from each paying out-patient is 11s. 9d. The payments are often made to subordinate officials, and no register or check is kept.

"3. *Inquiry as to the Means of Patients.*—At fifteen of these institutions there is practically no inquiry at all, patients being admitted unquestioned, so that anybody may apply for, and will, as a matter of course, receive treatment. Where an inquiry exists it is for the most part inefficient and wrongly directed. It partakes, as a rule, of one of two characters: either (*a*) How much can the patient pay the hospital? or (*b*) Can the patient pay a specialist's fee of one or two guineas? In neither instance is the patient asked if he or she could afford to pay the fees of a general practitioner. The inquiry is usually of a most cursory nature; the word of the patient is accepted, and no steps are taken to verify the statements. In other cases we found that although the letters contained spaces for the insertion of wages, means of livelihood, rent, etc., these particulars were neither filled in nor the questions asked. At some hospitals it appeared to be the custom to put upon the medical staff the duty of deciding the eligibility of the patients. We consider this to be unfair and inadvisable. This work is obviously outside the duty of the visiting staff, who, as a rule, have much more to get through than they can conscientiously do in the time at their disposal. Besides, it involves a personal element. If a medical man tells a patient he can afford to pay a practitioner, it is equivalent to saying to the patient, "You can consult me at my own house." Even at those hospitals which profess some form of inquiry it is unusual to ask any questions of patients bringing a subscriber's letter, for fear of offending the subscriber, and still rarer of those patients bringing letters from the Hospital Saturday Fund. We had repeated statements from the hospital secretaries as to the unsuitability of many of these latter patients for hospital treatment.

"4. *Limitation to the Speciality for which the Hospital Nominally Exists.*—This limitation is fairly well enforced. However, at some chest hospitals large numbers of cases of anæmia and dyspepsia are treated; the Cancer Hospital treats abscesses, syphilis, and piles; and at women's hospitals generally the cases are by no means all obstetric in character.

"5. *Limit to the Number of New Cases in the Out-patient Department.*—Only two have a fixed limit. In the majority the attendance is small, but there are undoubtedly cases of overcrowding. The new patients on one day at the following hospitals are: No. 11, often 50; No. 22, an average of from 30 to 40; No. 3, from 30 to 50; No. 10, from 25 to 30; and No. 6, from 20 to 30. Many of the cases treated at these special hospitals are of a common nature, could be suitably treated by a general practitioner, and do not require the skill of a specialist. For example, at ophthalmic hospitals a large proportion of the cases are ophthalmias and common diseases of the eyelids; at skin hospitals, pediculi, scabies, and ringworm; at chest hospitals, anæmia and dyspepsia; and so on. We are of opinion that considerable abuse exists among these special hospitals in the following ways: (1) By the treatment, either free or for a small sum, of patients who could afford to pay a reasonable fee outside; (2) by the admission of patients who do not actually require treatment by a specialist; and (3) by the treatment in some instances of more patients in a given time than can be considered either advisable or defensible.

"*Recommendations.*—In attempting to recommend what course should be adopted by the Association as a remedy for the present state of things we are confronted at the outset by a very serious difficulty. The majority of these hospitals would cease to exist were it not for the payments they receive from their patients. A rigid inquiry and the consequent rejection of many patients would so seriously diminish the receipts that some at least of these institutions would be unable to keep open. It is, therefore, *primâ facie* improbable that we shall receive much support in this direction from the hospitals themselves. We recommend that each of these hospitals be asked to appoint an inquiry officer. We recognise the importance of this post being held by a reliable and suitably-paid individual. In view of the necessary cost we recommend that hospitals in one locality—or, better still, the hospitals with the same speciality should combine to support a joint

[1] Nos. 5, 11, 24 47.

inquiry officer, who shall devote his or her whole time to the work. We recommend that a wage limit be fixed for out-patients—say, 30s. a week for a single person and 50s. for married people. Some deviation from this rule might be allowed, at the discretion of the inquiry officer, in cases of a lingering character, such as phthisis, or in cases requiring a long course of special treatment. In no instance should an able-bodied person living on his or her private means be treated as an out-patient at any hospital. We recommend that an appeal be made to the management of the Hospital Saturday Fund, asking them to exercise more care in the bestowal of their letters, and to exclude as far as possible persons in a position to pay fees. We consider that much might be done if the medical staffs could be induced to take an active interest in the subject of abuse. It is probable no hospital committee would continue to act in opposition to the unanimous views of the staff, provided such views were strongly and persistently laid before them. We therefore recommend that a letter be sent to every member on the staffs of these hospitals, asking them to take an interest in this question, and pointing out (*a*) the pauperisation of the patients through the present abuse, (*b*) the serious injury they are thus doing to their fellow practitioners, and (*c*) the large amount of money they are earning of which they receive nothing.

"*Subscribers' Letters.*—We have pointed out that out of the forty-one hospitals ten do not have letters. These do not appear in consequence to suffer any loss in public support, for the average amount of their annual subscriptions is £743 as contrasted with £758, the average annual income from subscriptions returned by the others. At most institutions patients bringing subscribers' letters are admitted unquestioned, and it is certain that large numbers of undeserving cases gain admission in this way. As only six out of the remaining thirty-six hospitals rigidly enforce the use of their letters, it is probable that no very serious objection would be raised to the total abolition of the letter system. At any rate, we trace the worst instances of abuse to this system, and we would therefore strongly recommend its total abolition. Many hospital secretaries have expressed the opinion to us that the amount of the specialist's fee for private consultation often conduces to instances of abuse of the special hospitals. Thus, numbers of patients who pay the hospitals as much as 5s. to 10s. are unable to pay 1 or 2 guineas to the medical man at his own house. With reference to this we fail to see any very strong objection to institutions acknowledged to be on a business and not on a charitable basis. In such institutions patients bringing an introduction from their general practitioner (this we regard as essential) might obtain a specialist's advice on the payment of a small sum, say from 5s. to 10s., a portion of which would go to the specialist himself."

The report was discussed, amended, and adopted, and a hearty vote of thanks was passed to Dr. Sibley and Dr. Snape for their inquiries, which had involved some eighty separate visits, besides considerable correspondence.

A committee, consisting of Dr. J. Ward Cousins, Dr. Isambard Owen, Dr. Knowsley Sibley, Dr. David Walsh, Dr. Ernest Snape, and the Honorary Secretary, was appointed to draw up a memorial to H.R.H. the Prince of Wales on the subject of hospital reform.

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Presentations.—At a public meeting held in Ferndale on March 24th, Mr. S. Hamilton, B.A., M.B., was, on the occasion of his departure for Newport, presented with an illuminated address, a marble mantlepiece clock, and pair of bronze figures. The chair was occupied by Dr. T. W. Parry, J.P. —Dr. C. W. Chubb, of Torpoint, has been recently presented by his friends with a silver salver, a pair of silver candlesticks, and an illuminated address, as a token of their esteem on the occasion of his retirement from practice.

French Otological Society.—The French Society of Otology and Laryngology will hold its annual meeting in Paris on May 3rd. The questions proposed for discussion are: (1) Treatment of Ozæna; (2) Recurrent Paralyses; (3) The Ear, Nose, and Larynx from the Medico-legal point of view.

## ARCHÆOLOGICA MEDICA.

### XXVIII.—THOMAS PHAYER, LAWYER, PHYSICIAN, AND POET.

It is not often that the same man is distinguished alike for his medical, legal, and literary abilities, or that the professional works of a medical student outlive him for so long a period as 350 years. Phayer, however, has gained such triple renown, and his works may still be read by those who are interested in the by-ways of medical literature. Born at Norwich about the year 1510, the son of Thomas Phaer, who was descended from an old Flemish family, he was educated first at Oxford and then at Lincoln's Inn. In 1535 he edited for the first Robert Redman a new edition of the *Natura Brevium*, or a treatise on writs, which must have been popular, for it was printed in 1525, and had already run through several editions. This was followed in 1543 by another law book which Anthony Wood calls "Examples of common Places for the writing of several sorts of Instruments.....the same which we now call a book of Precedents." This was issued from the press of Ed. Whitchurch, the celebrated publisher of whom we had occasion to speak in a former essay,[1] who afterwards printed Phayer's medical works. Our author was rewarded for his legal labours by receiving the appointment of "solicitor" in the Court of the Welsh Marches, and he settled in a house at Kilgerran Forest in Pembrokeshire.

Before he left London, however, he put forth a dainty little volume on medical subjects, printed in black letter, duly illustrated with woodcuts, bound in calf, and fastened with a clasp. Some of the woodcuts are interesting to the initiated, as they show that either Phayer or his publisher belonged to the illuminati of the period, probably as an alchymist. The volume contains several tracts, and opens with "The preface to the book of chyldren," dated June, 1546. In this preface he defends himself for writing of medical matters in the vulgar tongue, though—had he but known it—his predecessor who wrote the work on Anatomy usually attributed to Vicary,[2] had anticipated him in this point. The first tract is *The Regiment of Life*, which he says he translated from the French, and "in manye places amplyfyed with such common thinges as maye be easelye gotten to satisfye the myndes of them that were offended by reason of the straunge ingrediens whereof it often treateth: or els consydering that there is no moneye so precyous as helthe, I wolde thinke no spice too dere for maintenaunce thereof." The *Regiment* is a compendium of medical knowledge in a semi-popular form of the kind which was so often issued in the fifteenth and sixteenth centuries. It took its origin indirectly from the *Regimen Sanitatis Salerni*, that great mediæval storehouse of medicine and dietetics which was as yet hardly discredited. The work contains many interesting details. The writer had clear ideas of the value of dieting in gout, and in his chapter on the spleen it is clear that he had seen a case of splenic leucocythæmia. The methods of treatment, as is usual at the time, are often useless, sometimes filthy, occasionally curious. Here is one of the latter:

> Take a fatte goose and plucke her, and trymme her as yf she shuld be eaten, then stuffe the belly within with two or thre yonge cattes wel chopped in small gobbettes, with an handful of baye salte, then sowe her up agayne and let her roste at a small fyre and kepe the dryppyng for a precious ointment agaynst all kyndes of goutes and other diseases of the jointes.

The second tract is *A goodly bryefe tretise of the Pestilence, with the causes, signes, and cures of the same composed and newly recognised by Thomas Phayer.* This, as might be supposed, had a large sale. It was repeatedly reprinted during the time when the plague was rife, and Mr. Sidney Lee says that it was issued so lately as 1772, "with a preface by a physician (W. T.)." It contains nothing that is of much value, though a common sense view is taken both of the cause and prevention of the disease. To this tract is appended another entitled *A declaration of the veines in mannes bodye and to what diseases and infirmities the openyng of euery one of them do serue.* It is interesting, as it shows the system to which phlebotomy had been reduced, for no fewer than three sets of veins in the little toe were to be opened for different morbid conditions.

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[1] British Medical Journal, vol. i, 1894, p. 1142.
[2] British Medical Journal, January 25th, 1896.

The last tract in the volume is *The boke of Children*, and it is not the least satisfactory, for though it seems to be an abridgment of Rhazes's treatise on the subject, it contains many shrewd personal observations. Although this book was published in 1546, or, as some think, in 1544, it was not until February 6th, 1558-9, that Phayer supplicated at Oxford for the degree of M.B., saying that he had practised medicine for twenty years, and had made experiments about poisons and their antidotes. Phayer's supplication was granted, and he was given leave by the University to practise. He was admitted M.D. on March 21st following, when Richard Slythurst, M.A. and Batch. of Physic, was not admitted or licensed to practise.

Phayer's literary work is better on the whole than his medical tracts. In 1544 he contributed a commendatory poem to Philip Betham's *Military Precepts*, and the first edition of *The Mirror for Magistrates*, published in 1599, contains his metrical version of "Howe Owen Glendower, being seduced by false prophecies, toke upon him to be Prince of Wales." The work by which he is best known, and for which he deserves the greatest credit, is his spirited translation of the first nine *Æneids* of Virgil, with a part of the tenth; these he began May 9th, 1555, and brought to an abrupt end in the spring of 1560. He died in August, 1560, and the translation was shortly afterwards taken up and completed by Thomas Twyne, another Oxford physician. Phayer is buried in Kilgerran parish church. Mr. Sidney Lee, his latest biographer, thinks that he remained true until death to the old faith.

## NOTES ON HEALTH RESORTS.

### IRISH WINTER AND EARLY SPRING RESORTS.

Dr. D. E. Flinn[1] again draws attention to the great equability and comparative warmth of the climate of Glengarriff and the south-west coast of Kerry during the colder seasons of the year. According to Dr. R. H. Scott, the average daily variability of the temperature at Valentia, off Kerry, is only 1.9°, whereas it is 2.7° in London and the South of England. The same causes, however, which give rise to the great equability of the climate (especially proximity to the coast, westerly and south-westerly winds warmed by the Gulf Stream), necessarily give rise also to the humidity of the climate; but, according to Dr. Scott, the rainfall at Queenstown, in Cork Harbour, is less than at Ventnor and Torquay in England.

*Glengarriff* has a climate suitable for some chronic pulmonary cases during winter and spring. It lies on the south-west coast, in Bantry Bay, and is sheltered from the colder—especially the easterly—winds by a range of high hills. The hotel accommodation is good, and the journey from Dublin can now be accomplished in one day. The mean annual temperature of Glengarriff is nearly 52°, and the mean winter temperature is 45°. The most convincing proof of its mild climate in the early spring is afforded by the tender fruit trees and delicate flowering shrubs which thrive there without any artificial protection.

*Parknasilla* lies on the northern shore of the beautiful Kenmare Bay, in a position well sheltered by mountains from the north and east winds. The combined scenery of mountain, wood, and water has a special attraction, and, as at Glengarriff, the forward character of the vegetation bears testimony to the mildness of the climate. The area comprised in what is termed the Waterville Promontory, including Valentia, Waterville, and Parknasilla, has the highest mean temperature in Ireland, namely, 52° F.

*Queenstown*, in Cork Harbour, perhaps the best known winter station in Ireland, has a splendid position looking due south, and sheltered on the north and east. The rainfall is moderate, and, owing to the hilly position, runs off quickly. It is suitable during winter and spring for some pulmonary cases, and there is a fair amount of sunshine during these seasons, so that outdoor exercise can be taken. The mean annual temperature is 51.5°, the mean winter temperature 44.2°, and the mean temperatures of the four seasons are similar to those of Torquay.

*Rostrevor*, in county Down, lies on the northern shore of the Carlingford Lough, on the eastern coast of Ireland. The densely-wooded Mourne Mountains shelter it on the north and east, and the place is in request during the early months of the year. The mean annual temperature is 50° F. The hotel accommodation is good, and the steamers from Holyhead to Greenore bring it into direct communication with all parts of England.

*Blarney*, half an hour's journey from Cork, has a good position on a dry, sandy soil, and a great variety of sheltered walks in its neighbourhood. The mean annual temperature is 51.0°, and the mean winter temperature 44.5°. The hydropathic establishment of St. Ann's Hill affords good accommodation for invalids.

*Killarney*, in Kerry, is famous for the beautiful scenery of its lakes and the neighbouring mountains. The hotel is one of the best in Ireland, and Dr. Flinn from personal experience of the climate recommends this locality to many invalids and convalescents during the late winter and early spring months.

Dr. Flinn draws special attention to the necessity of providing amusement and varied mental relaxation at Irish health resorts if they are to compete fairly with their Continental rivals.

[1] Reprint from the *Journal of Balneology and Climatology*, January, 1897.

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The Duke of Connaught took the chair at the biennial festival dinner on April 2nd of the National Hospital for the Paralysed and Epileptic (Albany Memorial), and in proposing the toast of "Prosperity to the Hospital," referred to the interest which his late brother the Duke of Albany had taken in the institution. He spoke of the importance of the educational work done at the hospital, which he said had its influence upon medical practice throughout the British Empire. He paid a warm tribute to the Medical Services, and dwelt on the gallant manner in which the medical officers both of the Army and of the Indian Medical Services were at the present time combating the terrible scourges of famine, plague, and fever by which India has been visited. By the skill and kindly feeling towards the inhabitants of India which they were displaying, and by the time and energy which they were devoting to combating these frightful diseases in that trying climate, they were earning the deep gratitude of their fellow-countrymen. Vice-Admiral Lord Charles Scott, in responding to the toast of "The Navy, Army, and Reserve Forces," spoke of the advantages which naval officers derived from having the officers of the medical service as their messmates, and dwelt on the services recently rendered during the Benin expedition by the medical officers, paying a special tribute to Surgeon Fyfe, who was killed while rendering assistance to a wounded officer. Sir William Broadbent proposed the toast of "The Medical and Surgical Staff of the Hospital," which was duly acknowledged in felicitous terms by Dr. Buzzard. It was announced during the evening that the new Convalescent Hospital at Finchley had just been opened, and that the Board of Management were desirous of enlarging the out-patients' building, and of providing a recreation ground, and better accommodation for nurses. Subscriptions to the amount of £3,020 were announced by the Secretary-Director, Mr. B. Burford Rawlings.

Presentations.—Dr. Kendall, of Coniston, was recently presented by the workmen of the Tilberthwaite Slate Quarries with a silver salver bearing an appropriate inscription, and a combination cigar and card case as a mark of their appreciation of his professional services during the past twenty years, and as a token of respect. The presentation was made by Mr. J. J. Thomas, of Kendal, manager of one of the companies, and suitably acknowledged by Dr. Kendall.—Dr. Charles R. Walker, who is leaving Leytonstone, was on March 26th entertained at dinner by his friends, and presented with an ornamental clock bearing the following inscription: "Presented to C. R. Walker, Esq., M.D., by his fellow-practitioners and old friends, on his leaving Leytonstone. March, 1897."

The spring meeting of the South Western Division of the Medico-Psychological Association will be held at Barnwood House, Gloucester, on Tuesday, April 27th. Dr. Soutar invites the members to luncheon at 1.30 P.M., and at the meeting, which will commence at 2.45 P.M., Dr. Soutar will open a discussion on Recoveries in Asylums. Dr. Goodall will read a paper on The Systematic Collection of Anthropometrical Data in Asylums. Dinner will be held at the New Inn Hotel, at 5.45.

## BRITISH MEDICAL ASSOCIATION.
## SUBSCRIPTIONS FOR 1897.

Subscriptions to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, APRIL 10TH, 1897.

## THE PRINCE OF WALES'S HOSPITAL FUND.

A paper by Mr. Loch on the above subject in *Macmillan's Magazine* for April will repay study; and no one, we think, can rise from its perusal, whatever his previous opinions may have been, without seeing that the question of a Central Hospital Board has been settled by the irresistible logic of events. The Prince's invitation has met with a warm national response. No definite account of the receipts down to the present date has yet been published, but the lists given in the daily papers would, if they were totalled up, amount to a gigantic sum, and those lists are very probably not quite complete. This gigantic sum must be distributed by some central authority, and that authority must have all the power which is inseparable from the control of the purse. So the only question remaining for the managers of the hospitals is whether they are satisfied to leave this power in the hands of the Hospital Sunday Fund, on whom the Prince says "we shall rely for the first year," or whether they will try to have some more representative body appointed.

This question really involves, however, another, which is more elementary and even more important, that is, Do the hospitals regard each other as friends and as members of the same body, co-operating in the same cause, or as rivals struggling with each other each for their own share of the sum raised from public charity? If the latter be the case, some outside agency is perhaps a more appropriate distributor of the common booty than a body composed of such hostile elements. But we believe better things of our hospitals, and cannot but indulge the hope that they will abandon that attitude of isolation which has worked so much mischief in the past, and seize the unique opportunity of co-operation with each other in the present and future which is presented to them now by the Prince's Fund. That the Prince himself will be willing to promote such co-operation we can entertain no doubt. He is evidently not only animated by the most kindly feelings towards the charities themselves, but also anxious to take counsel with those who have the practical knowledge which his position denies to him.

But once more we must urge that there is no time to lose. The Charity Organisation Society, for whom of course Mr. Loch to a certain extent is here speaking, have sketched out a scheme for consideration, and as we are told are engaged in bringing it under the notice of the various hospitals, hoping to obtain the assent of the great institutions at any rate to the essential principle, namely, that a Board shall be constituted for the following three main objects, as stated by Mr. Loch: "First, to promote co-operation among the medical charities; next, to advise medical institutions and the public in regard to questions of medical charity; and, thirdly, to assist hospitals to carry out large improvements." It is intended that this Board shall be formed of persons representative of the medical and lay public and of the institutions concerned; and in the scheme of the Charity Organisation Society the Board would be a numerous body—possibly too numerous—but the latter is only a detail, though an important one, to be settled after the general principles have been accepted.

Mr. Loch's paper is one for grave reflection. He makes it abundantly clear that, without some such supervision, the Prince's scheme may easily become a source even of harm instead of good. Its original intention was only to secure the contributions of those who do not now subscribe to hospitals, and who are not reached by the ordinary hospital collector. But a mere glance at the names published will show that many of the subscribers are those who are already supporters of various hospitals, and it is almost certain that one of the results of the fund will be to diminish the subscription lists of the individual charities. This, of course, would be of no consequence if the fund were large enough to make up the loss, and were administered by persons of sufficient experience and wisdom to distribute it properly. But such administration must be secured, and not only for the purposes of distribution. A very grave question is as to the qualifications entitling any existing institution to rank as a "hospital" in the sense of being entitled to share in the fund now; and another, which grows out of this, is as to the qualifications of those which may be founded hereafter. When we think of the so-called hospitals which have been founded in the past, we cannot but tremble for what this new jubilee may produce in the future, when aided by the chance of scrambling for a share in £100,000 or £150,000 a year. The decision of these and all the other important questions relative to the management of this immense fund obviously cannot be left to the Hospital Sunday Fund's Committee, yet there is no sign that our great hospitals, which it so nearly concerns, are taking any combined action in the matter. We trust, however, that the attention of the Prince of Wales and his advisers will soon be aroused to its importance, and that at length a beginning will be made of that union of the medical charities which can alone avert the calamity of fostering the growth of useless institutions at the expense of those for whose benefit the Prince's Fund was originally founded.

## THE OFFICIAL DIAGNOSIS OF DISEASE.

Among the various proposals which have been put forward for the more effectual control of epidemic disease that for the establishment of municipal laboratories in which all the appliances of modern science may be made available for the diagnosis of cases which otherwise might seem doubtful deserves at the present time most serious consideration, partly from the fact that it seems *primâ facie* to offer evidence of utility, and partly because it is a method which has now for some time been in actual operation in many cities, and even in certain districts of the metropolis. It is hardly to be

expected that London will go on much longer without a complete set of laboratories for the investigation of the scientific problems which are constantly cropping up and demanding immediate solution, and whenever those laboratories are obtained it will become an urgent question how far they are to be used for the diagnosis of disease.

At first sight nothing could seem more tempting. It is recognised on all hands that the spread of epidemic disease is quite as much due to the doubtful and undiagnosed cases as to those which present the classical symptoms, and are therefore dealt with by isolation; and the suggestion that a fragment of a discharge or a specimen of blood, if forwarded to a laboratory, can be made to divulge the nature of the malady suffered by the patient, seems so easy a way out of a great difficulty that it is not to be wondered at that municipal diagnosis has become a great feature in the management of epidemics in the towns where it has been adopted. Nevertheless there is another side to the matter, and one which becomes all the more important in consequence of recent developments in bacteriology and epidemiology. The variations in the virulence of certain pathogenic organisms, without any very apparent variation in their morphological or cultural characters, tend to diminish the utility of the bacteriological diagnosis of disease. Moreover, the now well-recognised fact that persons may become immune to certain of these organisms, and may, even in apparent health, carry active germs within them, while no doubt explaining many of the cases in which disease of an admittedly infectious character has arisen under circumstances which seemed to negative the possibility of infection, on the other hand makes it increasingly difficult to believe that the presence of such diseases can be affirmed by bacteriological examination.

It would then become a serious matter for any central authority, as the result of a mere bacteriological examination of any secretion, to declare the person from whom the specimen was obtained to be either infectious or free from infection; for in addition to the chances of error, the removal of responsibility from the medical attendant would have to be considered. It is a matter of serious moment that in towns where the system of official diagnosis is in vogue, the physician is no longer responsible for the correctness of his diagnosis; and that if he attempts to maintain an independent opinion he is liable to a rebuff from the central department.

A case is reported in the New York *Medical Record* which is worthy of consideration in this regard. A child presented the clinical appearances of diphtheria. A tube was inoculated and sent to the Board. The report received left the matter in doubt, and another tube was asked for and sent. The child's condition becoming serious, antitoxin was administered. The patient recovered, and the physician ceased to attend. Some time afterwards the parent, on going to the Board to obtain disinfection and permits for his child to return to school, was informed that there had been no diphtheria at his house, and that the doctor had made a mistake! If bacteriological diagnosis is to be accepted as the final appeal, such occurrences are very likely to happen. If we turn to the last statistical report of the Metropolitan Asylums Board, we find that in 5.8 per cent. of the diphtheria cases included in the 1893 tables, the clinical diagnosis received no bacteriological support, although the cases were severe, as was shown by the fact that the mortality among them was higher than the general diphtheria mortality for the year. On turning, on the other hand, to the report of Dr. Biggs on the bacteriological examination of 140 cases of scarlet fever we find that in 36.4 per cent. of the whole number diphtheria bacilli were found, and that "in a large number of cases they gave rise to no illness whatever." Dr. Birdwood's experience in regard to these same cases is of even greater interest, for he found that those patients who had the bacilli in their throats, and so were bacteriologically cases of diphtheria, were not immune to clinical diphtheria, and were attacked by it when removed into wards where clinical diphtheria existed.

With the official diagnosis of typhoid fever and of tuberculosis, as well as that of diphtheria, pressing forward for acceptance as part of our municipal routine, it seems well that we should pause before we endorse a system which must, if adopted in its present crude form, seriously interfere both with the freedom of action of the physician and also with his responsibility. If State and municipal laboratories are put at the disposal of the medical profession so that we may obtain authoritative information as to the presence or absence of certain micro-organisms or reactions in certain specimens, well and good. We can then use that information in the formation of our diagnosis. But to raise these laboratory processes to such a position as to be looked upon as in themselves diagnostic, and as in themselves alone sufficient to give cause of action to the sanitary authorities, must lead to constant conflict of opinion.

## PROFESSOR KOCH'S NEW TUBERCULIN PREPARATIONS.[1]

IT is now a little more than five years since Professor Koch, of Berlin, announced the discovery of a new treatment of tuberculosis, and the medical world was inspired with a hope that at length one of the most widespread and dreaded of diseases might be successfully combated. This hope was, unfortunately, destined soon to be destroyed, and tuberculin was very generally abandoned as an agent, if not positively harmful, at least incapable of effecting the good claimed for it. The reaction against it was probably excessive; and, indeed, from time to time, even down to the present day, series of cases have been put on record in which the remedy, judiciously used, has been shown to produce considerable amelioration. Dr. Koch, indeed, in a recent paper, to which our Berlin correspondent referred briefly last week, still expresses the opinion that, apart from his newer preparations, tuberculin is still the best remedy available against tuberculosis. Undoubtedly it has obtained for itself a permanent position in veterinary practice as a means of recognising concealed tuberculosis. Dr. Koch lays much stress on the fact that all bacteriological treatment must rest upon immunity, and in the particular question of tuberculosis the difficulty of inducing immunity constitutes the crux of the problem of successful bacteriological treatment. Treatment by tuberculin differs from serumtherapy, where immunity is conferred on man by the injection of serum of a highly artificially immunised animal, the patient escaping the risks attendant upon the actual development of immunisation in his own body.

Dr. Koch and his assistants have incessantly laboured to

[1] *Deut. med. Woch.*, April 1st, 1897, p. 209.

improve tuberculin. The new preparations consist of tuberculins A, O, and R, the last-named being the one actually recommended for clinical use. Tuberculin A, obtained by extraction from tubercle bacilli by means of one-tenth normal soda solution, acts much in the same way as ordinary tuberculin, but the reaction is more intense and the patient takes more time to become accustomed to or immunised against its action. Tuberculin O and R are prepared by vigorously pounding in a mortar dried cultures of the tubercle bacillus, and then adding distilled water. The whole is centrifugalised in a powerful machine. The clear but opalescent liquid collecting at the top contains no tubercle bacilli, and constitutes in the first centrifugalisation tuberculin O. The remainder, containing the *débris* of the tubercle bacilli, forms tuberculin R. This remainder is dried and pounded, distilled water added, and the whole again centrifugalised. This process is repeated until hardly any residue remains. Twenty per cent. glycerine is then added to both preparations to ensure their preservation. The dose is 1-500 mgr. gradually increased up to 20 mgr.

The most important part of Dr. Koch's communication undoubtedly lies in the results obtained, and these include both the effects noted upon tuberculous lesions in animals and clinical observations in man. No illeffects of any kind were produced. No reaction is required, and hence one of the most serious objections to tuberculin is removed. The clinical results are decidedly encouraging. With the caution displayed in earlier communications by Dr. Koch, but not always by his followers, "improvement" is spoken of, for the patients have not been under observation long enough to warrant the term "cure." We may here emphasise the fact, alluded to on many occasions by Dr. Koch, that tuberculin treatment is useless in advanced phthisis.

There are two conditions, it seems to us, upon which successful bacteriological treatment must depend, and they are (1) early treatment, based on correct diagnosis; and (2) in serumtherapy the administration, when required, of large doses of the serum. It not infrequently happens that a neglect of these two points has brought discredit on the serum treatment apart from the question of constant strength. In a footnote Professor Koch seems to give grounds for hoping that as a result of his experiments tuberculin R may eventually form the basis of a strictly serum treatment. Whatever form may ultimately be adopted, it will certainly be the singleminded hope of the profession that the indefatigable Berlin worker and great master of his art has at length brought within a measurable distance of attainment a really successful treatment of tuberculosis. Thus fresh lustre will be thrown on an already illustrious name as well as upon a branch of science of much value to medicine.

## THE WORKING OF SPECIAL HOSPITALS.

The Hospital Reform Association is pursuing its object vigorously and well. In another column will be found the report of a Committee of the Association appointed to investigate the working of the special hospitals in the metropolis, and we commend this report to the earnest attention of all our readers, and who also doubt that such reform can only be carried out by the united action of the hospital authorities and the public, lay as well as medical.

The institutions examined are 41 in number, and they are nearly all (that is, 32 out of 41) partly pay hospitals, and many of these are only kept open by the money which they take from their patients, and which amounts to considerably more than what they receive in subscriptions. At about half of them no inquiry whatever is made as to the patient's means, and when any inquiry is made, it is said to be only "How much can the patient pay the hospital?" or "Can he pay a specialist's fee of one or two guineas?" In no case does there seem to be any attempt to verify the answers. The money is sometimes paid to subordinate officials, and no register or check is kept. No share in the fees is given to the medical officers by whom they are earned. A great proportion of the cases, though nominally of a "special" nature, are such as every general practitioner should be fully qualified to deal with, and in some (though not, it seems, many) even the limitation to the speciality for which the hospital nominally exists is not observed, so that at some chest hospitals cases of dyspepsia and anæmia are treated; the Cancer Hospital treats, even as in-patients, cases of piles, fistulæ, tuberculosis, syphilis, abscess, etc., and at women's hospitals the cases are by no means confined to diseases of the generative organs. It also appears that at most of these out-patient departments as well as all others more patients are treated in a given time than is either advisable or defensible.

Such is a brief summary of the main facts brought out by the report. The Committee's recommendations do not at any rate err on the side of stringency, and it is obvious that the whole inquiry has been conducted with an anxious desire to make all possible allowance for the assumed charitable intentions of the authorities of the hospitals concerned, and to avoid all offence in the course recommended. This consists mainly in the employment of inquiry officers; in enlisting the medical staff as auxiliaries in stopping, or at least checking, abuse; abolishing subscribers' letters; and introducing a system by which institutions should be founded on a business and not a charitable basis, where persons proved not to be able to pay one or two guineas might obtain the opinions of specialists for a lower fee, of which a portion should go to the specialist himself.

All this may be well, as far as it goes, but it does not go far enough. Nor do we believe that the gross abuses which are so clearly shown in this report will ever be materially checked till there shall have been created some central authority capable of advising the public as to the need for any proposed special or other hospital. It is decorous, and possibly just, to credit the majority at any rate of such hospitals with being founded for charitable purposes; but no one doubts that some have been founded as private speculations, and there is no one who does not expect that others will be founded, or attempted to be founded, from similar motives. The public are not, and can never be, judges of such matters. A Central Hospital Board would be so.

The lecture arrangements at the Royal Institution after Easter include the four Tyndall Lectures by Dr. Tempest Anderson on Volcanoes; three lectures by Dr. Ernest H. Starling on The Heart and its Work; and three lectures by Professor Dewar on Liquid Air as an Agent of Research.

MR. JOHN FAGAN, F.R.C.S.I., has been appointed Inspector of Reformatory and Industrial Schools in Ireland. Mr. Fagan has been for some years Surgeon to the Royal Hospital, Belfast, and has been a prominent practitioner in that city.

## THE BACTERIUM OF MUMPS.

OUR Berlin Correspondent writes: Professor von Leyden has discovered a new diplococcus in the parotid gland secretions of persons suffering from mumps, which he takes to be the "mumps bacterium." It is distinct in appearance, and can be cultivated on the usual media. Attempts to inoculate animals proved unsuccessful. The diplococcus has been found, not only in the parotid gland secretion, but also in the pus of the inflamed gland.

## INFLUENZA IN LONDON.

THERE was an encouraging decline last week in the mortality from influenza in London. The deaths directly referred to this disease, which had steadily increased in the five preceding weeks from 13 to 33, declined to 28 during the week ending Saturday last, April 3rd, and was 4 below the average number in the corresponding weeks of the past seven years, during which influenza had been more or less fatally prevalent in the metropolis. Of the 28 deaths referred to influenza in London last week, only 5 were of persons under 40 years of age, and 7 were of persons between 40 and 60 years; while 16, or more than half the total deaths, were of persons aged upwards of 60 years. The disease appears to be especially prevalent in Kensington, Islington, Wandsworth, and Plumstead. Notwithstanding the prevalence of influenza, the mortality from diseases of the respiratory organs in London continues to decline, and is considerably below the average; the deaths referred to these diseases, which had been 344, 317, and 312 in the three preceding weeks, further fell to 282 last week, and were nearly 34 per cent. below the average.

## ROYAL INFIRMARY, NEWCASTLE-ON-TYNE.

A SPECIAL meeting of the Governors of the Infirmary was held on Thursday, April 1st, at which Dr. Arnison, who recently retired from the office of surgeon, was elected consulting surgeon to the hospital, and was thanked by the governors for his great services during his term of office, extending over thirty years. Mr. Rutherford Morison, F.R.C.S., who has been assistant surgeon since 1888, was afterwards elected without opposition to the office of surgeon to the infirmary, in succession to Dr. Arnison. His promotion leaves a vacancy for an assistant surgeon, and already the names of some half-dozen candidates are mentioned. The vacancy will be declared in a few days, and the election will take place on Thursday, May 6th, On the same day, the position of surgical registrar became vacant by the resignation of Mr. Vickery. The sum of £85,000 has now been subscribed towards the erection of the new infirmary, and it is hoped that it will not be long before an architect is appointed and the foundation stone laid.

## POLITICAL AND SOCIAL ASPECTS OF THE INDIAN PLAGUE.

THERE is nothing more remarkable in the history of British India than the tolerance which is being displayed by the conservative, sensitive, emotional, excitable native races as regards interferences with religious prejudices, domestic privacy, caste exclusiveness, sexual customs, and personal liberty involved in the measures considered necessary for suppressing the plague. Even the political privileges which were not long ago conferred in the shape of local self-government have been curtailed by the Epidemic Diseases Act, under whose sanction a reversion has taken place to the old methods of paternal rule. Panic may in some measure account for this strange submissiveness; but after all the plague has not caused, and is not likely to cause, anything like the sickness or mortality which is so frequently almost habitually occasioned by fever, cholera, and small-pox. This panic, even though perhaps, as such generally are, unreasoning, is being turned to excellent sanitary account in India; dirty places are being made clean, overcrowded tenements evacuated, the dangerous sick segregated, and the suspicious submitted to inspection. The people are being taught a lesson in sanitation which they are not likely to forget, and they are accepting the somewhat severe discipline in excellent temper, and, stranger than all, the native press is silent or sympathetic.

## EDINBURGH AND THE "DIAMOND JUBILEE."

A PUBLIC meeting of the citizens of Edinburgh called by the Lord Provost was held on Friday, April 2nd, to consider how best to commemorate Her Majesty's long reign. Three suggestions were made: (1) The building of a consumption hospital; (2) an extension of the Queen's Jubilee Nurses' Institute; and (3) the building of a pavilion to the Royal Infirmary for the treatment of diseases of women. The feeling of the meeting was quite distinctly in favour of the first-named scheme. There seems to be little doubt that this scheme is by far the most needed, and would be the most popular. In the last report of the Public Health Committee of Edinburgh it was noted that 509 persons died from phthisis pulmonalis during the year, and 320 from all the other infectious diseases put together. The managers of the Edinburgh Royal Infirmary were naturally averse from taking in patients suffering from an infectious disease. Where then were consumptives to go for fit treatment? The only possibility in Edinburgh was the Craigleith Hospital with its 15 beds. But what are they among so many?

## THE RED BOOK.

IT will be seen with satisfaction from a letter which we publish in another column that the proprietors of Webster's *Royal Red Book* have withdrawn their scheme for a classified list of specialists, to which we have on two occasions called attention. From letters which reach us from the provinces, it appears that the strong condemnation of the scheme which has been expressed by the majority of physicians and surgeons in London may not be without its use in showing the manner in which announcements of such a character in local directories are regarded in the metropolis.

## THE CHEMISTRY AND PATHOLOGY OF GOUT.

DR. LUFF'S Goulstonian lectures, of which we complete the publication this week, are of special value owing to their historical completeness and the amount of original chemical research which they embody. During the last few years the literature of gout has been enormously augmented, and though Dr. Luff has very strong and definite opinions of his own, this does not prevent him from doing justice with unfailing courtesy to those from whose judgment he differs, and his lectures contain perhaps the best and most judicial summary of the various theories as to the genesis of gout which has hitherto appeared. He has devised a new method of estimating uric acid in blood which, though not as yet perfect, will probably, with the discovery of a better solvent for the acid, supersede all others. Dr. Luff holds the view put forward by Garrod and supported by Latham, that in health uric acid is formed in as well as excreted by the kidneys; he supplements this by the suggestion that in diseases such as leucocythæmia, in which the presence of uric acid in the blood does not induce gout, it is also derived from the nuclein of the tissues. He finds no uric acid in the blood of healthy mammals or birds, and holds that its appearance in the blood is usually conditioned by an affection of the epithelium of the renal tubules. He thus presents us with a coherent theory of the pathogenesis of gout, but one which rests at present upon circumstantial evidence. Dr. Luff's own researches have brought to light many new facts, and have at the same time exploded some venerable fallacies. He has shown conclusively that diminished alkalinity of the

blood affects neither the solubility of uric acid nor the deposition of sodium biurate, and that increased alkalinity fails to increase the solubility of deposits of the latter. He has broken new ground in his investigations upon the saline constituents of meat, milk, and vegetables in relation to the chemistry of uric acid. He finds that the ash of vegetables exercises a remarkable inhibitory power over the decomposition of sodium quadriurate, and the consequent formation of the comparatively insoluble biurate; and, further, that the presence of this ash greatly increases the solubility of the biurate itself, while the saline constituents of meat diminish its solubility. He has thus justified the new and important deduction that the opposed qualities of meat and vegetable diets in respect of the induction of gout are due not to their proteid constituents, as formerly believed, but to their inorganic salts.

## LOWERING OF POOR-LAW MEDICAL OFFICERS' SALARIES.

The Carmarthen Board of Guardians seem desirous of making themselves notorious, and it would appear as if they had succeeded in doing so; at any rate, they have aroused the indignation of the local press by finding unnecessary fault with one of their late medical officers, and on his resignation deciding to advertise for a successor at a lower stipend. No reason appears to have been assigned for the proposed alteration of salary, but too great a desire for economy and too little regard for the medical requirements of the poor appear to have influenced the decision. We have always contended that it should be the aim of all in office as Poor-law guardians to endeavour to lessen the amount of pauperism: it is too much to expect that it can be altogether extinguished, but experience has proved that a judicious, and sometimes even a liberal, expenditure, is, for this purpose, a step in the right direction. The question may naturally be asked, Is it at all likely that the paupers of this country will receive better attention, and be treated with greater skill if the salaries of the Poor-law medical officers are lowered? Common sense must negative this view of the matter. Guardians are by law the caretakers of the health of the poor of their respective unions, and as such they have very serious responsibilities, and not the least of these is the duty of providing the necessary funds for their medical care and treatment when ill or disabled. It is much to be regretted that more public-spirited men cannot be induced to accept the position of guardians. We should like to see those only elected who would enter upon their duties with a determination to do justice to all parties—officers, ratepayers, and paupers. This may be somewhat difficult of accomplishment, but the difficulty is only evaded, and sometimes is even materially increased, by allowing the question of expense to come too much to the front.

## ABERDEEN UNIVERSITY.

The University graduation ceremony took place on April 2nd in the Mitchell Hall, Marischal College. The ceremony was notable in that both honorary and ordinary degrees were for the first time in the history of the University conferred on the same occasion—a fact which added much to the impressiveness and dignity of the proceedings. Among others, Professor E. A. Schäfer, F.R.S., Professor Alexander Skene, M.D., and Professor Sir Thomas Grainger Stewart received the honorary degree of Doctor of Laws (LL.D.). The Principal, Sir William Geddes, at the close of an eloquent valedictory address, called attention to the urgent need for further funds—at least £40,000—to complete the University buildings on the same scale and in the same style as they have been till now carried out; and he called to the public of Aberdeen and the North to come to the aid of the University. An evening reception was given in the Mitchell Hall by the Principal and professors to which some 600 invitations were issued. The reception was primarily in honour of the graduates of the day, but was also of special interest inasmuch as the guests were not only those more immediately connected with the University, but also the principal officers of the city, including the Lord Provost, magistrates, and the Town Council, as well as members representing the more important bodies in the city, such as the Incorporated Trades and the Infirmary Board. The success of the reception would justify the hope that it should form a precedent.

## DISEASE NOTIFICATION AT HEALTH RESORTS.

The Town Council of Aldeburgh, a health resort on the coast of Suffolk, have been quite recently much exercised with reference to the question of the adoption of the Infectious Disease (Notification) Act. Those of the council who were opposed to the adoption of the measure had various reasons to assign for their attitude, among these being the untenable opinion that news of disease notified under the Act would of necessity become common property, and would thus tend to injure the town by keeping visitors away. Fortunately for Aldeburgh there were those present at the Council meeting who were able to contradict the absurd assertion, and we are glad to be able to record that the motion to adopt the Act was carried. As a matter of fact, the measure will enable the Council to achieve their desired purpose of keeping disease from the ears of the public, because it will give their officers the means of curtailing disease at the outset in many instances, and thus save the place from the danger of widespread prevalences of infectious sickness. True that Aldeburgh is small, and news quickly travels through country towns; the Act will not, however, enable it to travel more quickly, but will, we hope, stay the opportunity for such news being promulgated. But, after all, it is dangerous concealment of the presence of disease at health resorts which is at the bottom of much harm derived during periods of holiday making. We wish we could see such wilful concealment from the public press made heavily penal on local health bodies.

## THE MONTREAL MEETING AND THE AMERICAN PROFESSION.

In the issue of the New York *Medical Record* for March 27th there is published a letter from Drs. J. G. Adami, J. A. Springle, and E. P. Benoit, the Honorary Local Secretaries of the annual meeting of the British Medical Association in Montreal, explaining the circumstances which have rendered it necessary to limit the number of invitations to attend the meeting which can be extended to members of the medical profession practising in the United States. One of the rules which govern the annual meetings of the Association is that those who may enjoy the privileges of the meeting must be either members of the Association or invited guests. It is obvious that some such rule is necessary, and it is the intention of the Local Executive Committee in Montreal to issue invitations to leading members of the medical profession in the United States, and to delegates of the principal special and State medical societies. The desire is to invite as large a number as possible without endangering the character of the meeting. In view of the fact that Canada with her sparse population can at most be represented by some hundreds of members, that under the most favourable circumstances the steamship accommodation will prevent more than a few hundred members from the United Kingdom, where the majority of the members of the Association reside, from visiting Canada, and in view of the further fact that the members who will come from the Branches in the British colonies and dependencies must also be limited in number, a general invitation to the profession in the United States might, if it were largely accepted, result in swamping the members of the Association by non-members. This, as the local honorary secretaries point out, would alter the whole character of the meeting. "It would no longer," they write, "be a meeting of the British Medical Association, but would assume the nature of an American medical congress with British office-holders." They observe further that to throw the meeting

open would practically amount to holding an international medical congress in opposition to that which will be held in Moscow this year. The regulations designed to preserve the British character of the congress ought not, therefore, to be interpreted by our American cousins as in any sense displaying a want of courtesy to them, and we trust that the invitations which are about to be issued from Montreal will be largely accepted.

## THE MONTREAL GENERAL HOSPITAL.

THE seventy-fourth annual report of the Montreal General Hospital (1895-96) shows that the total number of cases treated to a conclusion during the year ending April 30th, 1896, was 2,392, being an increase of 50 as compared with the preceding twelve months. The number of patients remaining in the hospital at the end of the year was 162. The average number of patients in the wards throughout the year was 154; the average number of days spent in hospital by each patient was 23.3. The death-rate was 7.5, or, excluding 72 cases in which death occurred within three days of admission, 4.8. The number of major operations was 479, and over 1,000 minor operations were performed in the outdoor department. In the department for diseases of women there were 120 operations, in the eye department 129. In the general outdoor department there were 31,373 consultations, an average of about 102 daily. The hospital has a school for nurses attached to it, the period of training being three years. During the year there were thirteen "graduates" from the school. A specially interesting feature of the report is the account given by Dr. Wyatt Johnston of his stewardship of the pathological department. A new laboratory has been at work for about a year under his direction. Formerly the specimens were sent to the McGill College Pathological Laboratory for examination, and for many years past the number of specimens thus examined averaged between 100 and 200 each year, never exceeding the latter figure. In the autumn of 1894 a system was introduced by which all specimens are examined and reported on at the hospital. This had the effect of greatly increasing the amount of this work, so that the number of reports sent during the twelve months ending April 30th, 1896, was 1,002. It may be stated that, in addition to the summary of the work of the Pathological Laboratory given in the General Report, a special Pathological Report is issued from the Pathological Laboratory. This report comprises a complete summary of all the lesions found in the necropsies made during the period from January, 1893, to December, 1895, inclusive. Besides its general scientific value the information contained in this report has a special interest as illustrating the relative frequency of pathological conditions found in Canada. Altogether the Montreal General Hospital will stand comparison with any similar institution of its size in the world in respect both of its humanitarian work and its scientific activity.

## NOTIFICATION OF MEASLES.

DR. PRIESTLEY, in a report to the Lambeth Vestry, deprecates, at least in the meantime, the addition of measles to the list of diseases notifiable to the authority. He points out that the metropolis does not at present possess hospital accommodation for measles, and, even if it did, the early age at which measles usually attacks would make the removal of such patients from their mothers hardly desirable, and certainly difficult. The high infectivity of the disease in its pre-eruptive stage he regards as militating against the advantages of removal. He thinks that while notification might do good by securing the sanitary inspection of the dwelling, and preventing other members of infected families from attending school, the expense necessarily incurred would be greater than the sanitary gain. He emphasises his belief in the early closure of schools in case of an outbreak. The objections he offers to the notification of measles are by no means novel. They were successfully urged against the inclusion of measles in most of the private Acts containing notification clauses passed fifteen to twenty years ago. They have not yet been very completely answered. Much of the advantage to be gained by the inspection of houses in which measles has broken out may be attained by the the thorough overhauling of those in which a death has occurred. Measles in a healthy child, living in a sanitary house, is not a very fatal disease. It has been shown by a comparison of death houses with recovery houses that overcrowding, bad ventilation, and dirt are largely answerable for the fatal result, and that the death houses are those most in need of the inspector's visit. Does not Dr. Priestley, however, forget that the one great remedy he relies upon—the closing the school—could be more usefully and efficiently enforced if he had early information as to where his outbreak was likely to occur? Certainly if he waits till the benches are half empty he will encounter less opposition from school managers. But if he wishes, as he says, to closure at the commencement of the epidemic, surely logically he must want early information of the invasion. It is not probably when the disease has become epidemic that notification will be of most service. It is the early notice of the first case in an unprotected district that would afford his opportunity to the sanitarian.

## IODOFORM POISONING.

THE expression "iodoform poisoning" is more familiar than definite. The New York Obstetrical Society has recently interested itself in the investigation of the toxic effects of iodoform dressings. Most assuredly iodoform is very easily absorbed and very slowly eliminated—a most important fact in therapeutics. The raw interior of the uterus after delivery or abortion is particularly capable of absorbing the compound, but other wounded cavities, such as pouches left in connective tissue after the shelling out of tumours, also allow of active absorption if the dressing or powder be too firmly packed. Twelve years ago large cavities in bones, after resection, were stuffed with the pure powder, hundreds of pounds of which were used in the wards of German hospitals. Dr. Brettauer, of New York, who is responsible for this statement, admits that it was not till many cases had died an obscure death that the possibility of iodoform being guilty of these bad results was even suspected. The special features in these fatal cases were cerebral symptoms, very rapid pulse without rise of temperature, and a peculiar odour of the breath, also noticeable in the wound. The New York obstetrical authorities observed these symptoms after packing cavities with iodoform gauze—a practice known as Mikulicz's drainage. The mildest symptom is cutaneous irritation, with an erythematous or eczematous rash, which seems always to smart and itch as in true urticaria. This condition is often seen in this country without any other symptoms. On the other hand, in extremely grave cases the patient is overcome by great lethargy, though there is at the same time insomnia, the pulse is very rapid, and death from syncope often follows. In an average case there is the cutaneous irritation, with marked headache and slight delirium, hallucinations, and above all an extremely rapid pulse. Whilst Brettauer declares that in the early cases of ten years since the temperature did not rise, the New York doctors find that fever accompanies the high pulse. British observers, we believe, are in accord in this matter with their Transatlantic brethren. All authorities are agreed that there is a remarkable rise in pulse. It may range from 120 to 150. After an abdominal section a high pulse is very alarming. Operators not only dread sepsis, but they fear that if they attribute high pulse and temperature to iodoform poisoning, others may accuse them of trying to explain away a truly septic condition. Above all, it is the occurrence of the symptoms of iodoform poisoning after abortion and delivery that deserves rigorously close investigation. Is there a certain degree of sepsis in some cases in which there is really poisoning from

iodoform? It is maintained that iodoform is a feeble and inefficient germicide, whilst nobody denies that it is to a certain extent poisonous. Is rise of temperature an essential symptom of iodoform poisoning? Mr. Stanley Boyd's case, reported by Mr. Watson Cheyne in the British Medical Journal, vol. ii, 1872, p. 1422, has been quoted more than once, but "the temperature rose from normal to 104.6°," apparently not until the patient, aged 4, was moribund; again it is not absolutely clear that the symptoms were solely due to poisoning, and, lastly, the treatment was for a large spinal abscess. In such a case it is not so easy to differentiate causes of bad symptoms as in a woman who has just aborted or been delivered. In parturition, moreover, a greater direct responsibility lies with the medical attendant, so that if he has packed the uterus with iodoform gauze, it is very important that he and all others whom the case may afterwards concern should feel sure as to the signification of untoward symptoms.

## HEALTH OF THE TROOPS IN INDIA.

Opinion in India, founded upon a telegraphic summary of Lord George Hamilton's despatch, appears to tend to the view that the measures proposed for checking venereal disease among British troops will prove inadequate. The *Times* correspondent at Simla telegraphs extracts from an article in the *Pioneer*, which lay special stress upon the limiting effect of the clause in the despatch which directs that "no measure must be adopted capable of being represented as encouraging vice." Our contemporary argues that no measures of repression of any kind could be devised which might not be misrepresented to be of a nature to encourage vice by the extreme opponents of all legislation or regulation. It is urged that the present concessions cannot prove the final settlement of the question, and that the evils of the situation cannot be dealt with effectively until the Government of India are reinvested with full discretionary powers and allowed to adopt such measures, in concert with their medical and sanitary advisers, as commend themselves to practical men.

## SIR WILLIAM FLOWER.

The reports of Sir William Flower's illness have, we are glad to say, been greatly exaggerated. The Lords Commissioners of the Treasury have authorised an extension of Sir William Flower's term of office as Director of the Natural History Departments of the British Museum for three years from the expiration of his retirement date under the age regulation of the Civil Service.

## PROGRESS TOWARDS REFORM OF THE ARMY MEDICAL DEPARTMENT.

We observe with satisfaction that the general press is expressing a real interest in the condition of the Army Medical Department and sympathy with the grievances of its officers. It has for special reasons been judged advisable to invite at the present juncture expressions of opinion from the public press, and with that object the Chairman of the Parliamentary Bills Committee has had the report of the Subcommittee on the Condition of the Army Medical Department brought under the personal notice of the editors of several of the leading newspapers, with the result that most of the great papers have promptly and forcibly expressed their sympathy with the cause which it is sought to promote. The *Times*, the *Daily News*, the *Daily Mail*, the *Newcastle Daily Chronicle*, the *Aberdeen Journal*, and other papers have, we notice, given very complete summaries of the report, which cannot fail to have a most useful effect in enlightening public opinion on the subject. The *Daily Mail* refers to the state of things set forth in the report as "a grave and urgent matter." The *Newcastle Daily Chronicle* says that "such a state of things could only exist in an army so poorly administered as ours has been by a narrow-minded War Office, full of red tape." The *Aberdeen Journal* says that "the Committee appear to have at least made out a *primâ facie* case for favourable consideration of the proposal for a consolidated army medical corps with army rank and medical titles." The same paper says that "the army and the navy medical services should, on general principles, be made attractive enough to induce efficient medical men to join, and the medical service in both should also be made numerically sufficient." The *Pall Mall Gazette* says: "It certainly is a most unfortunate position to see the army medical service, not only so unpopular in the schools that candidates will not come forward, but that trained and valuable medical officers are leaving it as fast as they can earn a pension." The *Morning Post*, which devotes a long article to the subject, concludes as follows: "The nation has a right to expect that so important an adjunct to the army as the medical service shall be both sufficient and efficient. At present it cannot be said to be either. It will not do for the War Office to rely too much in time of need or war on the civil medical profession only. The army must have at its back its own surgeons, and no one knows this better than the Secretary of State for War. All unreasoning and unreasonable prejudices against army medical reform must be set aside, for we are now in the midst of threatening surroundings. It only remains now to repeat and emphasise the point that the subject treated is not alone one of the contentment of a department, but bears indisputably on the interests of every officer and soldier, and on the interests of the officers' wives and children, as well as on the soldier's family." In face of a growing body of public opinion such as we have here given a few specimens of, it is hardly possible that the Secretary of State for War will any longer allow his own statesmanlike perception of what is best for the good of the service and the country to be overruled by the obstinate unreason of his military advisers. The latter appear to think they can play off one part of the medical profession against the other by employing civilian practitioners, and this expectation doubtless gave Mr. Brodrick the assurance to make his astounding statement that the Army Medical Department is at present numerically sufficient for the mobilisation of army corps. As our outspoken contemporary, *Truth*, says, the answer of the Under-Secretary for War "belongs to the class of official tarradiddles which are foisted upon Parliament and the public through the mouths of innocent and credulous ministers." It is notorious that quite seventy officers are required to complete the establishment, and that a further increase will soon be required on account of the additions which it is proposed to make to the army, the strain of active service in Egypt and Crete, and the demands for medical officers for special plague duty in India. In the event of war the plan of supplying the want of medical officers by utilising the services of civilian practitioners must inevitably break down, and the responsibility of this will, now that public opinion is being enlightened on the true facts of the case, be laid at the door of those who, in spite of every warning on the subject, have persisted in sacrificing the interests of the soldier, and of the nation whose servants they are, to a feeling which we can only characterise as petty and stupid prejudice.

## THE PUBLIC HEALTH (SCOTLAND) BILL.

The Scottish Public Health Bill has at last been passed through the second reading stage and into Committee. In the discussion which accompanied this stage of the Bill hardly anything was heard of matters of principle; the whole debate revolved around the question as to what Committee the Bill should be remitted. Scottish members were very anxious that it should be remitted to a Scottish Grand Committee, with the addition of some English members from the Government Benches. But the Government easily carried its original proposal of a remit to the Grand Committee on Law. To the Grand Committee there have been added for the purposes of this Bill the following Scottish members: The Earl

of Dalkeith, Mr. Renshaw, Mr. Hozier, Mr. M'Killop, Mr. Nicol, Sir Lewis McIver, Sir Mark Stewart, Sir William Priestley, Sir Charles Cameron, Mr. Bryce, Mr. Holburn, Mr. Caldwell, Sir John Leng, Mr. Buchanan, and Mr. T. Shaw. While welcoming the appearance of the names of Sir Charles Cameron and Sir William Priestley on the list, we feel bound to record our regret at the omission of the name of Dr. Farquharson, than whom no one in the House has a better grasp of public health questions, or a larger experience in public health legislation. Already the notice paper is becoming covered with amendments, the most pertinent and practically important of which stand in the name of Sir William Priestley, who has undertaken the task of reconstructing the notification of infectious disease sections of the Bill, which were in a rather chaotic condition. Remitted to a committee so restricted in character, there is little doubt that the Bill will become law during the currency of the present session.

## "MASSAGE A LA MODE."

The subject of illegitimate massage which falsely pretends to be a sort of pseudo-medical treatment is once again attracting a good deal of attention, and there is a general consensus of opinion that before long some decisive action will have to be taken to limit the operations of the so-called massage establishments which infest the vicinity of St. James's Street, the Haymarket, and Piccadilly Circus. The columns of advertisements which appear in certain financial and society papers are of so glaring a character that it is impossible for the most casual reader to mistake their purport. A daily contemporary quotes the freely expressed opinion of many that the massage house is too often simply another name for a lupanar or bagnio, and that the "sisters" and "nurses," who carry on their ministrations under the guise of medical treatment, are capable of giving lessons to the heroine of Lesbos. Discipline treatment is now "run" as a speciality, and there is no doubt that it is too often simply another name for flagellation. The much advertising nursing nymphs who, clad in the flimsiest of costumes, minister to the desires of elderly gentlemen are alleged to be recruited from the nursing staff of one of the principal London hospitals, but it is difficult to credit this statement. One thing is perfectly clear, and that is that those who are invited to patronise such places should be subject to no kind of delusion as to their true nature, and above all that the profession of medicine should be relieved from the stigma of even the faintest connection with the disgusting practices which are at the root of the whole matter.

## "MASTERS OF MEDICINE."

Mr. Fisher Unwin is about to commence the publication of a series of handy biographies of the great men who have in the past contributed to the progress of medical science, under the title *Masters of Medicine*. Mr. Ernest Hart will be the editor of the series, and will himself contribute a "Life of Edward Jenner." Among the other volumes in preparation are "John Hunter," by Mr. Stephen Paget, with an Introduction by Sir James Paget; "Helmholtz," by Professor McKendrick; "Claude Bernard," by Professor Michael Foster; "Sir Benjamin Brodie," by Mr. Timothy Holmes; and "William Stokes," by Sir William Stokes. Other volumes will follow. It is intended that the biographies shall give a picture of the man as well as an account of his work.

## MAY THE PHYSICIAN EVER END LIFE?

Mr. Clark Bell, LL.D., has dealt with this momentous subject in an address delivered recently before the Medico-Legal Society of New York. He deals with the subject from the point of a lawyer, and we propose to follow his argument —not because we think that the subject is one admitting of much discussion, but because it is dealt with at a time and by an author which give the matter some present importance. This importance depends on the recent renewal of the controversy, if such we may call it, by Mr. Albert Bach, of the New York bar, and one of the officers of the Medico-Legal Congress, during the discussion of certain papers read at the Congress. Mr. Bach thinks that circumstances may and do arise under which self-inflicted death would be beneficial not only to the sufferer, but also to the community at large. The instances given are cases of incurable, fatal, and agonising disease. Mr. Bach adds these extraordinary words: "And I may add that I know that physicians do so end life, although they term it 'producing euthanasia.'" Dr. Quimby, of New Jersey, protested—as well he might—against such assertions; he disagreed absolutely with Mr. Bach, and gave as his reason that human life is "too sacred" for such intervention to be tolerable under any circumstances whatever. The New York *Sun* also vigorously denounced the opinions of Mr. Bach, and medical men hastened to disavow his assertions. The central issue is whether hopeless agony is to be extended by the physician for as long a time as the resources of his art and the pitilessness of Nature may prescribe; or whether such a life may be actively or passively abbreviated. That in the last hours we sometimes cease to trouble the sufferer is no doubt true, and in so far as we do this we may now and then conspire to let drop a few hours of a life. But even this is less frequent than is supposed; for our more experienced readers are aware that even in such cases remedies which would prolong life do so after a method which tends likewise to soothe its pains. For instance, the dexterous insertion of a cordial enema may not only prolong life by a few hours, but will also relieve the agony of death; as a rule, relief and extension of the last agony are coincident. In any case, the law is not curious to consider the final scene too nearly. Practically we have to consider rather the deliberate cutting of the thread of a life which, if skilfully and assiduously guarded, would last some substantial time. Now surely the first person to be consulted is the patient himself. Whereas on many occasions we have watched over patients who have steadily asserted the right of hopeless sufferers to end their lives or to consent to its termination by the hand of others, yet we have no recollection of any case in which the patient himself, unless he were in the very grasp of death, said plainly that the moment for the sundering of the bond of life had actually arrived. The protests are conditional. To-morrow if things be no better; but let to-morrow dawn; I may have a better night. Nor to the physician himself is the precise moment apparent when he is to say, Now is the appointed time. Loving friends likewise, though they may say that if the end came it were well, yet would wait yet a little while; they would not have this to be the last glance, this the last caress. The discussion, like the justifiable lie to the pursuing avenger, is after all an academical one. And if some persons seem to beg the question or not to answer it in their repetition of the phrase that human life is "too sacred" to be shortened under whatever circumstances, we feel that they are instinctively right; that there lies under this phrase a perception that the issues of life are too broad and too deep for discussions which in the light of experience are but hairsplitting. On the other, anything which might slacken us in the service of the one clear duty of ministering not to death but to life might dim our endurance and the keenness of our vision in ministering to the many who would patiently abide until God's will be fully revealed to them. We are glad to observe that Dr. Bell supports the same doctrine from the legal point of view, though he asserts the right of "society" to enact a law authorising the termination of human life under certain circumstances. The assertion of this abstract opinion may save his legal conscience, but in our judgment it would never be accepted by the medical profession.

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Dr. T. Myles has resigned the Professorship of Pathology in the Royal College of Surgeons of Ireland. Mr. Arthur H. White is a candidate for the office.

# BRITISH MEDICAL JOURNAL REPORTS.

## REPORTS ON THE HYGIENIC CONDITION AND ADMINISTRATION OF METROPOLITAN DISTRICT AND SEPARATE SCHOOLS.

BASED ON THE EVIDENCE LAID BEFORE THE DEPARTMENTAL COMMITTEE.[1]

*(By Our Own Commissioner.)*

### VIII.—Hackney.

The tables which are formed by the replies of the medical officers of the district and separate schools throw much light on the inner administration of the institutions, and although they cannot be taken by themselves as a reliable index of the facts, they, in conjunction with the evidence, afford a fair basis for opinion.

It is, perhaps, specially our business to deal with the medical aspects of the case, though where children are concerned it is impossible to ignore all or any of the facts which bear on their spirits, interests, discipline, or play, because the relation of a child to its environment is the most influential of the agents which affect health or disease.

#### Numbers Ill at Hackney.

We learn from Appendix 2, p. 2, that during the year 1894 539 was the average number of children at the Brentwood School, and from Appendix 17, col. 1, that 470 cases had during the same year been admitted into the infirmary (Appendix 17, col. 1). During the three years 1892-93-94 the deaths had been 9, or 5.4 per 1,000, the causes being—3 phthisis; 2 whooping-cough with bronchitis; 1 auricular abscess with meningitis; 1 influenza; 1 morbus cordis; 1 marasmus. It is not, however, because of the mortality that this system of rearing children is to be complained of, but because of the amount of disabling disease which saps their vitality, hinders their growth, and limits—if not wholly prevents—their education. On this point the following table will be instructive:

| | 1892. | 1893. | 1894. |
|---|---|---|---|
| Ophthalmia ... ... | 92 | 96 | 271 |
| Itch ... ... ... ... | 2 | 3 | 1 |
| Eczema ... ... ... | 2 | 1 | 0 |
| Other skin diseases ... | 5 | 1 | 4 |
| Ringworm ... ... ... | 44 | 115 | 49 |
| Eczema capitis ... ... | 47 | 25 | 75 |
| Glandular swelling ... | 3 | 2 | 4 |

Besides these diseases there were also scarlatina, influenza, whooping-cough, and chicken-pox in the school, with the result that in 1894 something like 73 per cent. of the total number of children had been in the infirmary (Appendix 17, col. 2), the figures on a given day—November 24th—of the same year being 53 boys, 42 girls, and 28 infants—equivalent to more than a quarter of the entire school being lodged in the infirmary (Appendix 17, col. 11).

#### Ophthalmia the Scourge of the Schools.

It will be seen at once that although ringworm and eczema capitis play no small part in these totals of sickness, yet the largest figures are shown in the ophthalmia column, and that this is no new feature in the hygienic history of Brentwood can be learned from the evidence tendered by the medical officer, Mr. Albert William Wallis, who has had charge of the health of the children incarcerated within its walls for the last twenty-two years (3884). We use the term "incarcerated" advisedly, for from the evidence given at the Local Government Board inquiry at the time of the discovery of Nurse Gillespie's cruelties, it was stated that the children had not been outside the gates for a period of two, and some of them for even three, years, and for the seventeen months previous to the period when the Committee sat, the children had been debarred from outside relations owing to another epidemic of ophthalmia (3658—3662). In short, the Hackney guardians have rarely been able to say that their schools were free from ophthalmia. A severe outbreak occurred in 1860, others less serious, but bad enough considering that these epidemics always leave some of the children permanently maimed, took place in 1874 and 1881, besides "a great many chronic cases" (3975). A few months ago public attention was drawn to a guardian's statement that 44 per cent. of the Brentwood children were suffering from this disease, and no sane person will wonder when he learns some of the methods by which the guardians manage, or rather mismanage, this State-supported institution (8319).

#### Examples of Mismanagement.

1. Dr. Bridges and Dr. Wallis and "others" (3894), probably Mr. Nettleship himself, who visited the school during a terrible epidemic in 1874 (3885), recommended "many times for many years" (3893) that the jet system of washing should be adopted, but on November 30th, 1894, it "was not got into working order yet" (3892), and had only recently been ordered by the guardians, in spite of the fact that the school had been scourged by ophthalmia, and the adoption of this simple method of saving suffering to the children and loss to the ratepayers had been recognised, anyhow as a palliative, for years.

#### Frequent Overcrowding.

2. Various medical witnesses have stated that the allowance of cubic feet allotted to each child is insufficient, being but 360 feet; but even this has been reduced by the Hackney guardians, who have overcrowded their schools. "Often," says the witness, "the children are considerably in excess of certified numbers" (3670), the number having risen in the winter of 1893 to 60 over the prescribed limit.

#### A Walk once in Two Years.

3. It is difficult to realise, until ocular demonstration has aided the imagination, the amount of trouble which is given in order to take 300 children out for a walk. The village child scampers to school in rough boots, a shabby hat, and, may be, an extra garment more or less appropriate to the season, but at least he runs or walks as inclination dictates, and the exercise becomes beneficial. Not so the pauper child. Walking-out days are usually but once a week. If the weather is fine beyond question, but not if it is at all likely to be wet, the children are marshalled to change boots, wash faces, and don a hat, a scarf, and an outer coat, a proceeding which for 300 or 400 takes considerable time. Then they are marched out two and two along a road, the smaller ones placed first so as to set the pace, the elder liable to chill, and certain to lose interest, as they monotonously follow. The following incident has reached us from a lady engaged with South London girls: "It rains, I can't go," said a girl in her first place. "Why not?" asked her employer. "I have never been out in the rain," was the reply; and when it is remembered that there are no umbrellas, and that a serious disorganisation of labour would follow the drying of 1,200 wet garments, the officers are not to be unduly blamed if walking exercise is undertaken only on cloudless days. But even in our climate there is much fine weather in two or three years, and yet the Brentwood children had for that period not been beyond the school gates.

#### The Board would ignore Ophthalmia.

4. The exact method by which ophthalmia is communicated is still a matter of doubt. Dr. Littlejohn, whose experience is certainly larger than that of any other school medical officer, extending as it does for twenty-seven years at a school which had become a scandal for its ophthalmic epidemics, holds that "contagious matter may be driven off by the breath from the secretions of the eye which come down the nose; there may be driven off particles which are capable of infecting eyes" (475). Whether this opinion will bear the test of time and more advanced knowledge has yet to be seen; but in any case it is universally acknowledged that to avoid contagion the isolation of the patient should be complete. But what do we find the Hackney guardians doing, and doing, we must add, with the sanction of the medical officer? (8180). They isolate the children, it is true, but in so partial and incomplete a manner as to permit them to take their meals in the dining hall, not at the same time, but using the same utensils and table appointments as the other children. Whether ophthalmia is so contagious as to be communicable by such indirect contact as this we are not prepared to say; but the fact

[1] The previous articles appeared in the British Medical Journal of January 2nd, p. 39, 9th, p. 90, 16th, p. 163; 23rd, p. 214; February 6th, p. 340; March 13th, p. 667; and March 27th, p. 812.

remains that for years Brentwood schools have been a scandal so far as health is concerned, and we are bound to add reflect no credit either on the staff or the management.

It is, however, only fair to the medical officer to quote another remark: "Every pressure," said one of the managers, "has been put by a large number of the Board upon the medical officer to ignore the ophthalmia and let other children come down and mix with them. It is only a few of us who have backed the medical officer up and made him as stern as he is on the question; it is a sort of concession to let the children go into the dining hall." (8227.)

### Shameful Neglect of Health Laws.

This neglect by the Guardians of the commonest and most rudimentary laws of hygienic science is preposterous, and makes, if further example is necessary, yet another argument for the removal of the children from the guardianship of a class of persons so indifferent to their interests and so ignorant of their simple duty to the care of a Central London Board. Such a Board composed, as it doubtless would be, because greater honour and publicity would necessarily follow its proceedings, of a class of persons of higher education, social standing, and moral responsibility, would at least see that the elementary laws of health were not disobeyed, and that the children committed to their care were not sacrificed to ignorance and self-satisfaction.

## THE BATTLE OF THE CLUBS.

### Dundee.

Sir,—My attention has been called to a paragraph in the British Medical Journal of March 20th and 27th, regarding my acceptance of a friendly society appointment, and I would feel obliged by your granting space for an explanation. It is quite true that I accepted the appointment of medical officer to the Heather Bell Lodge of Shepherds. About the beginning of March a deputation from that body waited upon me at my house and offered me their appointment. I knew nothing of the matter in any way previous to that meeting, and gave them distinctly to understand that if they were negotiating with their present surgeon about terms I would on no account interfere. They told me, however, that he had resigned, and they had unanimously accepted his resignation, and could not ask him to reconsider it, as the conditions placed before them were such that they would not discuss or consider. I did not wish to act precipitately in the matter, and we both agreed to take a day or two to think the matter over; and after some five days I saw that a reconciliation with their present surgeon was hopeless, and accepted the appointment in the meantime at the old terms, the question of increase to be considered between us by-and-bye. I considered I was perfectly free to accept an appointment which was vacant, and offered to me in the ordinary way of business without solicitation or application. On the following day Dr. Buist called for me, and almost insisted on my withdrawing from the engagement, and I had to tell him plainly that I had formed my own judgment, and would accept my own responsibilities.

In regard to the declaration which I signed in May last year, that refers to May last, and not to the present time. So far as I understand, the points asked for were not conceded, but there were no resignations, and consequently no further obligation. I am perfectly willing at any time and all times to stand aside while negotiations are pending, or to assist in arranging matters, but a month or two is long enough for that, and ten months obviously far too long.

In this district, so far as I am aware, there has not hitherto been much difficulty in arranging the question of remuneration between friendly societies and their medical officers in the usual way—namely, by negotiating the matter between themselves; and if this line of action had been continued, I am certain friction never would have arisen, and in time, with a little tact and patience, the increases asked for would be obtained; whereas the actions of those purporting to represent the medical association are regarded as fussy and irritating, and are being resented.

In this town of 160,000 inhabitants, it is useless to adopt trades union tactics, and for the medical profession somewhat undignified.—I am, etc.,

Dundee, April 1st. William Sang, M.B.

### The Just Claims of the Provident Dispensary System.

This subject is very ably treated by Mr. Charles H. Warren, Secretary of the Metropolitan Provident Medical Association. The evils of the present out-patient hospital system are well depicted, and most of the views of the writer may be cordially endorsed; but we venture to dissent from his criticism on the medical association promoted by the Bexhill-on-Sea doctors. "These gentlemen," he says, "have overlooked the interests of their patients in taking too great a care of their own." Their fault, it would appear, is that they have established a dispensary in which the wage limit is 30s. per week, and the fees charged 2d. per week for each adult, and 1d. a week for each child under 14 up to six in number: "That is to say, when eight persons have to be maintained for 30s. per week, 10d. per week, or £2 4s. 2d. per annum must be paid for medical attendance."

This does not seem too high a rate. If the average sickness be taken in a family of eight among the working classes, 10d. per week paid to the doctor will not be by any means an exorbitant remuneration. If lower fees than these are required to compete with medical aid associations, it is possible the remedy might become worse than the disease.

### Worcester Amalgamated Friendly Societies' Medical Association.

The Worcester *Chronicle*, in an account of the annual dinner of this association, reports that Mr. Fream, ex-president, in responding to a presentation made to him, said "that as long as they had a committee of a representative character like their own, they need not fear anything happening like the incident that occurred in another town, where the doctors boycotted a member of the profession because he was connected with the association. Indeed, the doctors of Worcester were far more sensible, and they had to send votes of thanks to them for assistance they had given to the association." The Secretary also remarked "that with regard to the doctors, the medical gentlemen of this city had rendered the association all the assistance they possibly could, and they were grateful to them for it."

It is satisfactory to find that Worcester rejoices in an Amalgamated Friendly Societies' Medical Association which is popular with the local profession. Such associations throughout the country generally are not regarded with too friendly eyes by medical practitioners, and it must therefore be presumed that the working of this association is carried on in a better spirit than is usually the case. It must not be forgotten, however, that the above report is not endorsed by any medical authority.

### Metropolitan Provident Medical Association.

The report of the Executive Committee to the Council of the above Association, dated March 27th, 1897, states that the progress of this institution has been fair during the last year. There seems to have been considerable difference of opinion as to the admission of women to the benefits of the association, and several special meetings have been held to discuss the question. At the latest meeting the following resolution was proposed:

"That it is undesirable at the present time to fix a rate for the payments of women's provident medical clubs which shall be applicable to all districts; and that, in consequence, the rates of such payments in branch dispensaries be left to the decision of the local committees acting in co-operation with the medical staff to the approval of the Executive Committee."

### Cheap Medical Attendance.

A.D. bewails the degradation of the profession in the district in which he resides—a West London suburb—through clubs and similar institutions. He says that they are held by old-established practitioners at a penny a week, and even at a halfpenny in some cases, and that he knows of one where only twopence a week is charged for attendance on a whole family.

*** Such a state of things unfortunately exists in many places, and our correspondent is much to be sympathised with. Better things are in store for the future if, as it is to be hoped, the profession remains united.

The Cremation Society of England.—The annual report of the Cremation Society, which has just been issued, shows that the Society continues its useful work with unabated activity. It is true that the number of cremations which it conducted during 1896 was rather less than in 1895, but this is readily accounted for by the lowered death-rate, and also by the fact that there are now, besides that belonging to the Society, three provincial crematoria in active work. The financial condition of the organisation is satisfactory, although till the number of cremations has greatly increased its operations must be carried on at a loss. With the report is included Sir Henry Thompson's powerful address to the Metropolitan Counties Branch last summer, and reference is also made to the great blow which the Society has suffered by the death of one of its few remaining founders, Sir T. Spencer Wells.

# THE PLAGUE.

## CHRONICLE OF THE EPIDEMIC.

### Statistics.

The Governor of Bombay telegraphs that for the week ending April 2nd, 481 deaths have occurred from plague in the city of Bombay. The number recorded is in excess of that given last week, and but little less than that given for the previous week. The influx of residents, who had fled some few weeks before, no doubt partly accounts for the increase, but mostly it is to be attributed to the more careful and stringent measures for inspection which have been initiated and are being thoroughly carried out.

For the week ending April 1st, 1897, 83 houses have been condemned, 88 altered, 440 untiled, 284 dug, 688 lime washed, 82 vacated.

The latest figures obtainable from Bombay are as follows:

| | Mar. 12. | Mar. 13. | Mar. 14. | Mar. 15. | Mar. 16. | Mar. 17. | Mar. 18. | Total. |
|---|---|---|---|---|---|---|---|---|
| Cases ... | 80 | 56 | 80 | 63 | 83 | 69 | 75 | 536 |
| Deaths ... | 65 | 74 | 73 | 79 | 75 | 59 | 73 | 508 |

From this table it would seem that the disease is more virulent, as only 28 persons of the 536 are alive; this, however, is not the interpretation: the figures really indicate that the new cases are fewer, and that the nearer approximation of the number of deaths to the new cases indicates that the epidemic is on the wane.

### Europeans and the Epidemic.

With regard to the death-rate among Europeans the *Times of India* has the following observations:

There is reason to hope that the plague, so far as the European population of Bombay is concerned, may now be regarded as at an end. There have been no admissions into the plague wards of the European General Hospital since March 11th, and of the 9 patients remaining nearly all are convalescent. There have been 68 cases treated, and 29 deaths, the cures been approximately 58 per cent. The results are the more noteworthy since in nearly every case bacteriological examination confirmed the diagnosis of plague. One fact of great interest should be noted—that with the exception of two men from South-Eastern Europe of a low racial type, and whose calling placed them in an insanitary environment, there has been only one death in the hospital of a European born in Europe. Dr. Arnott was from the first determined that the hospital should be well ahead of the requirements, and the timely provision of temporary accommodation for plague patients in isolation from the rest of the hospital, with the appointment of Surgeon-Captain Leumann to their exclusive charge, has enabled them to be treated under especially favourable conditions. This no doubt has contributed very largely to the favourable result that has been shown.

We regret to hear that Surgeon-Major Donnet has been attacked by plague at Poona. We are glad to know, however, that he is recovering.

Dr. Lowson is visiting the plague-stricken centres outside Bombay. We last heard of him at Ahmedabad, where he is reported to have disapproved of fumigation and advised boiling passengers' clothing in water. At Bandora the official returns are as under:

| | Mar. 10. | Mar. 11. | Mar. 12. | Mar. 13. | Mar. 14. | Mar. 15. | Mar. 16. | Total. |
|---|---|---|---|---|---|---|---|---|
| New cases | 14 | 10 | 13 | 7 | 10 | 10 | 14 | 78 |
| Deaths ... | 12 | 15 | 10 | 10 | 11 | 9 | 10 | 77 |

We regret to hear that one of the German medical officers sent to Bombay has been seized by plague. The returns from Karachi are still high:

| | Mar. 8. | Mar. 9. | Mar. 10. | Mar. 11. | Mar. 12. | Mar. 13. | Mar. 14. | Total. |
|---|---|---|---|---|---|---|---|---|
| New cases | 37 | 47 | 52 | 43 | 37 | 29 | 44 | 289 |
| Deaths ... | 35 | 29 | 31 | 29 | 27 | 20 | 34 | 205 |

### The Serum Treatment.

Dr. Yersin's treatment has been practised in many cases, so much so that the stock he took with him to Bombay is exhausted; a further supply, however, is being forwarded from the Pasteur Institute in Paris. We cannot give a positive opinion from the reports to hand of the curative power of this serum. The difficulty is to find cases in the early stage; the search after suitable cases results in the discovery generally of patients ill at least three days, and consequently far gone in the disease.

An unofficial account reads as follows:

On the invitation of General Gatacre, Dr. Yersin began operations on patients in Parel Government House Hospital, and treated 13 cases yesterday, all of whom progressed favourably. The results shown were immediate. The serum injections made in each case varied from 3 to 4, according to the intensity of the disease. Each of the 700 tubes Dr. Yersin has with him contains one dose, and the strength of the serum is not quite what it ought to have been. However, Dr. Yersin telegraphed for another consignment, and he expects to receive about a thousand tubes of greater strength, which will lessen the number of doses required in each case. The injection is harmless to the patient, as it does not create any intense reaction. Although Dr. Yersin works very hard towards the recovery of the patients under his treatment, it is considered too early to pronounce on the ultimate results destined to be achieved by the application of his serum. The symptoms toward recovery, however, are most speedy and marvellously beneficent. Within twelve hours of the injection the fever subsides. The fluid injected is non-irritating. Out of 23 patients treated by Yersin's serum at the Parel Government House Hospital, 12 have recovered and others are doing well (March 20th).

Haffkine's prophylactic serum is spoken of in India as an unqualified success.

## EXTENSIONS FROM BOMBAY.

The furthest town whence plague has been reported is that of Dharwar, some 300 miles south of Bombay, on the main line of railway. One case is reported to have been imported thither, but as yet no indigenous case has occurred. Two cases have been met with also at Belgaum, a little further north than Dharwar, but here again no indigenous cases have occurred. Kolapore is the furthest south point whence indigenous cases have been reported. A very different tale is told, however, to the north of Bombay. There the whole country, at least a hundred miles from the coast is severely stricken, and at Karachi and Sukkur very severe outbreaks are raging. Eastwards no extension is as yet indicated.

### Tanna.

Tanna, where plague is reported to be prevalent in a severe form, is the headquarter town of the Collectorate, and is situated on a creek about twenty miles to the east of Bombay. It is a very ancient town, and at the beginning of the fourteenth century, Brother Odoricus in Hakluyt's voyages narrates that four Italian monks who came to Tanna then found fifteen Christian families there. They were all Nestorians and schismatics, but hospitably entertained the monks. Not so, however, the Mussulman magistrate, who, after making them stand in the sun from 9 in the morning till 3 in the afternoon, put them all to death by decapitation.

The population of Tanna in 1891 was 17,455; its vital and mortal statistics have been so imperfect for many years that they are valueless. The town is supplied with water from springs which flow from the hills to the westward, but the quantity is short in the hot weather, and there is no system of drainage. The sanitation as regards the condition of the markets, slaughtering shed, night-soil depôt, latrines, lanes, and covered gutters has been neglected for many years, and ought to have led to the suspension of the municipality. It is not too much to say that at certain seasons of the year the town seems to float on sewage, pools of which stagnate at every corner; yet this offensive material would easily gravitate to the sea in properly constructed open gutters. The markets are generally so filthy that, with the exception of the fish stalls, meat and vegetables are sold on the ground outside the buildings. In fact, for a long period of time the cleansing of Tanna has been left to the monsoon and the pigs, although there is a considerable conservancy establishment. Intelligent and energetic supervision is wanting.

### Bandora.

Bandora is the most important of the suburbs of Bombay, where many Europeans live all the year round; the population is 18,317, and the death-rate about 26 per 1,000. The attention and energies of the municipality are chiefly directed to road cleaning, which is merely, however, "the outside of the cup."

The large expenditure on the sweeping of the roads should be devoted to the removal of night soil from the lanes and

foreshore, the draining of sullage into the sea, and in providing dustbins on wheels, in order to relieve the town as quickly as possible of at least a portion of its filth, upwards of 700 pigs are allowed to wander about the streets as witnesses of municipal apathy and neglect.

Intramural burial of the dead, even in the churches, is a practice that has long ago been condemned at this favourite seaside residence, without however, unfortunately, its being hitherto prohibited. As the Bombay slaughter yard is situated here, Bandora and Coorla should be included within the city municipal limits, and looked after by the Bombay Health Department.

### KALYAN.

Kalyan is about 10 miles above Tanna, and was once a famous port, where a Christian Bishop resided as early as the beginning of the sixth century. When Fryer visited this place in 1673, on his way to Junneer, he was astonished at the ruins and traces of departed magnificence. The present population is 12,608, and the mortality about 36 per 1,000. The water supply is unsatisfactory, most of the wells are polluted by soakage from houses and gutters, and the Shenowli tank, which is supposed to be reserved for drinking water, is fouled by bathing, washing clothes, and the watering of cattle. The course of the aqueduct, supplying three dipping wells or cisterns in the town, is not known, and it may run under houses. The direction of the channel should be clearly defined and marked out, and an oval-shaped gutter constructed round each well to carry off waste water, which stagnates near the "howds." The traffic of the town and port is considerable, but the municipal funds are not sufficient to meet the cost of a new water supply, unless a loan is sanctioned.

The conservancy arrangements are defective, and the surface-fouling shows that the public latrine accommodation is insufficient. This is an important junction station on the G. I. P. Railway to Central India on the one side, and Madras on the other, where passengers from Bombay and Poona are inspected.

## HYDERABAD.

Hyderabad, at one time the principal town in Sind, was the residence of the Ameers before the annexation of the province in 1842 after the battle of Meeanee. Its population in 1891 was 54,512, birth-rate 40 per mille, and mortality about 30 per mille. The town is built on a limestone plateau a mile and a half long and about half a mile broad, three miles east of the left bank of the Indus, opposite Kotree, in Central Sind, which is only a little over 100 miles by railway from Karachi.

The bazaar is extensive, forming one street the entire length of the town, which is celebrated for its lacquered and ivory work, as well as silk embroidery.

The water supply is pumped from the Indus into settling tanks near the river bank, and after the greater part of the mud has subsided is distributed without filtration by means of cisterns and standpipes. There is no proper system of drainage; waste water stagnates in cesspools, percolates into the ground, or in some places is drained off in gutters to the lower quarters of the town.

The houses are generally built of sun-dried brick and mud, with flat roofs, on which the inhabitants sleep during the greater part of the year, and which are used for natural purposes, as is the custom in Sind.

The extreme dryness of the climate causes the greater portion of the fluid excreta to be evaporated, but much soaks into the roof and walls, which absorb moisture like a sponge. The solid excreta are partly removed by sweepers, and the remainder is scoured off by an occasional shower of rain, or more commonly, after drying in the sun, is blown about by the hot winds which prevail in Sind. The soil and air are thus extensively and freely polluted with human and animal excreta, and, as the water is not filtered, it must be classed as suspicious, although the source is good.

As the plateau on which Hyderabad is built is about 80 feet high, the town could be easily drained and the sewage utilised safely and profitably below and to the south-west, on alluvial soil, on which almost any crops might be grown.

There is a large new central gaol here, and cultivation and canal clearance are the best kind of labour on which prisoners can be employed in Sind.

Overcrowding has existed in the native town for many years, and building should be encouraged towards the northern part of the eminence, which contains the beautiful towns of the Amirs of the Kulloma and Talpoor dynasties.

The celebrated battlefield of Meeanee, where Sir Charles Napier gained such a great victory, is only six miles to the north of Hyderabad, on the banks of the Fullalee, a branch of the Indus. A monument has been erected here over the remains of the British who fell in the battle which won for us the rich province of Sind, which unhappily at present is afflicted with pestilence, but fortunately is not likely to suffer from famine so long as the Indus drains off to the sea the melting snows of the Himalayas.

## KARACHI.

### SLIGHT DECLINE OF THE EPIDEMIC.

Our correspondent writes: During the week ending March 4th the death-rate from all causes decreased a little, being 137.16 for the whole town of Karachi. The death-rate from all causes in the most affected portions of the town are as follows:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Lyari | Quarter | ... | 333.22 | Muchi Meani | Quarter | ... | 117.31 |
| Runchove | ,, | ... | 213.28 | Gaol | ,, | ... | 103.62 |
| Garden | ,, | ... | 175.22 | Keamari | ,, | ... | 126.21 |

The mean death-rate for the corresponding weeks of the previous five years is 37.07 for the whole town; 259 cases and 197 deaths from plague were officially reported, bringing the totals from the date of outbreak up to cases 2,151, deaths 1,912. The 197 deaths recorded during the week from plague represent a ratio of 104.32 per 1,000 per annum of population. By sex the cases were males 153, females 106; by sex the deaths were males 117, females 80; by caste the cases were Hindu 90, Mussulman 168, Parsee 1; by caste the deaths were Hindu 61, Mussulman 135, Parsee 1. The highest incidence is reported from Lyari and Runchove quarters, the former showing 135 cases and 109 deaths, and the latter 59 cases and 32 deaths during the week under report.

### HOSPITAL ARRANGEMENTS AND TREATMENT.

Full advantage is being taken of the powers, somewhat tardily, given under the Epidemic Diseases Act (Article III) of 1897. The Civil Hospital, a spacious two-storey building, situated east of the native town, is arranged as a plague hospital, the Civil Hospital being accommodated for elsewhere; and Surgeon-Colonel N. W. Henderson, Civil Surgeon of Karachi, has made most admirable arrangements for the accommodation and comfort of the sick. Four Sisters of Mercy have volunteered as nurses, and every attention is paid to the sufferers. Too much stress cannot be laid upon the importance of this; the confidence of the people in the European treatment of the disease is gradually manifesting itself, and less is heard of the horrible rumour at first prevalent among the natives that the English doctors had received instructions from Government to poison all persons attacked with a view to prevent the spread of the disease. As in Hong Kong, strychnine and the free use of diffusible and alcoholic stimulants, together with careful feeding and nursing, have given the best results.

### DISINFECTION OF PLAGUE-STRICKEN HOUSES.

Under the new Act the following radical measures are being adopted. When it is ascertained that the disease is present in a house steps are at once taken to remove the patient to hospital, one or two of his relations being allowed to accompany him. The infected house is immediately placed under police supervision. The patient being removed, the plague superintendent of the district enters the house with his coolies and masons, and the sick room is lightly sprayed with a 1 in 1,000 perchloride of mercury solution. The contents of the sick room are then inspected; all clothing, bedding, food utensils, etc., which have been in contact with the patient are burnt at once, all food stuffs are burnt, and clothing belonging to the other occupants of the house is steeped in a 1 in 20 carbolic lotion. If it is a large house, with much kit in it, a sulphur fumigating room is arranged, and wholesale fumigation of all material likely to have taken up infection is effected. The heavy furniture in the sick room is placed in the centre of the room, and the walls, ceilings, doors, etc., are

thoroughly drenched with 1 in 1,000 perchloride of mercury from handpumps. Any rooms, passages, latrines, etc., in immediate communication with the sick room are similarly dealt with. The whole building is then limewashed inside and out, all rooms, verandahs, etc., being done. The floor of the sick room, if of loose earth, is dug up and saturated with the perchloride solution. The houses on either side of the one infected are similarly limewashed.

### The Health Camps.

The inmates of the infected house, and of the houses adjoining it on either side, are then marched off to a health camp, where they are kept under observation for ten days. Any persons thrown out of work, and being unable to support their families for this period, are granted assistance from the Plague Relief Fund. During the ten days' absence of the occupants the houses are opened to the action of the air and sunlight. If at the end of ten days no sickness has occurred among those segregated, they are allowed to return to their homes. If a fresh case occur in the health camp among the segregated, then the patient is removed from the hut to the hospital, the hut is burnt down, and a fresh period of ten days' segregation commenced. This is my own system of arrangement and I have never known it to fail; had we had powers to carry out similar arrangements from the very onset of the epidemic, I have no hesitation in saying that it could not have become nearly so widespread as at present. After three months' supplication we are at last going to have a system of compulsory notification introduced. This was advocated by the sanitary commissioner from the very commencement, as without proper notification of cases it is impossible to deal efficiently with any epidemic.

### Medical Inspection to Replace Quarantine.

Everywhere in Europe the quarantine regulations have been modified, and now medical inspection is taking the place of quarantine. What is styled the old-fashioned *régime* is dying out; and although it is chiefly amongst medical sanitarians that the belief in the practical benefits of inspection actually exist, their influence is gathering strength and followers amongst civilised Governments. The Russians are said to be making political capital out of the reported presence of plague in Afghanistan, and Russian doctors, under Cossack patrols, are stationed along the Persio-Afghan frontier. The papers in India are directing attention to the situation, and the Ameer of Afghanistan is considerably alarmed over the position, the more so as it is alleged that no cases of plague have occurred in his country. Ceylon has passed severe quarantine restrictions upon ships coming from anywhere to the South or West of India, and is being pointed at as being unenlightened in the matter of modern sanitary laws. There is no doubt the Venice Conference has done a great good, and served to elicit opinions from advanced sanitarians more in harmony with the opinions which have prevailed in Great Britain for well-nigh a quarter of a century.

### Statistics.

The figures for the week ending March 11th for Karachi are as follows: The total number of deaths recorded was 310; the total ratio for the week of deaths from all causes, 164.16; the mean of the death ratio for all causes for the corresponding weeks of the previous five years, 42.89. The highest death ratios from all causes during the week under report were recorded in the quarters in which the plague is at present most severe:

| | |
|---|---|
| Runchove Quarter (Plague Hospital figures included) | 460.23 |
| Lyari Quarter | 340.11 |
| Garden Quarter | 200.26 |
| Keamari Quarter | 189.32 |
| Gaol Quarter | 133.22 |

Though the disease has been prevalent in the Gaol Quarter for some weeks, no cases have as yet appeared in the gaol itself. This is no doubt due to the precautions observed by the gaol authorities. All prisoners and their clothes are on admission to the gaol thoroughly disinfected; the new prisoners are then kept separate for a period of fourteen days, when they are again disinfected and allowed to join the usual gaol gangs.

The total number of cases of plague reported during the week ending March 11th was 295; the deaths reported were 207. The totals from the date of the outbreak (December 10th, 1896) up to March 11th, 1897, were: cases, 2,441; deaths, 2,119. The cases were, by sex: males, 180: females, 115; by caste: Mussulmans, 196; Hindus, 95; Native Christians, 4. The deaths were, by sex: males, 123; females, 84; by caste: Mussulmans, 142; Hindus, 63; Native Christians, 2. The heaviest incidence was reported from the Lyari Quarter (156 cases and 108 deaths) and the Runchove Quarter (76 cases and 41 deaths).

### The Plague Hospital.

The Plague Hospital has been placed in the charge of Surgeon-Lieutenant Niblock, I.M.S., who is working under the Civil Surgeon of Karachi. In addition to the accommodation afforded by the hospital building and the huts erected in its compound, it has been found advisable to utilise the new women's hospital building—just completed but not yet opened as a female hospital—for convalescent and observation cases.

### The Value of Disinfection.

The system—already reported and introduced by the Dy. Sanitary Commissioner—of segregating the healthy persons found in an infected house, and in the houses adjoining an infected house, for a period of ten days, has been found to answer admirably. In no case, up to the present, where persons have been allowed to return to their disinfected, lime-washed, and ventilated dwellings, after the ten days' segregation period, has the disease reappeared among them.

### Private Caste Hospitals and Camps.

The inhabitants of the town, seeing that the Government intend to enforce the powers granted them under Act III of 1897 for the removal of the sick and the segregation of the healthy are showing great activity in arranging for private hospitals and segregation camps. The Parsees, Khojas, Boris, Memons, and the various wealthy Hindu castes have subscribed sums for the equipment of plague hospitals and segregation camps for the use of members of their caste. The people have been encouraged in this by the local Government and a committee (composed of the Principal Medical Officer, the Collector, and the Dy. Sanitary Commissioner) has been appointed to inspect and approve of the various sites selected, and to draw up rules for the proper control of these private caste hospitals and segregation camps. The supervision of these private hospitals and camps has been entrusted to a commissioned medical officer. In most of the private hospitals the caste headmen have arranged to have their sick attended by private medical practitioners. This, under the supervision of Government officers, has been permitted.

### Prospects.

The disease is well in hand here now, owing to the unremitting efforts of all the officials, and the radical measures which can be loyally put into force under the new Epidemics Diseases Act. The disease, however, will probably linger on in an attenuated form until the hot dry weather of the months of June and July.

The following Government resolution, added to that which I informed you of recently regarding the Haj, will give an idea of the care that the Government is taking to prevent the spread of the disease abroad. Special measures, recommended by a local committee, are being adopted to disinfect wool and hides exported from the port.

In exercise of the powers conferred by Section 11, subsection 1 of the Epidemic Diseases Act, the Governor-General is pleased to direct that no person, who has, since January 1st, 1897, resided or been in or passed through territories administered by the Governor of Bombay or the State of Baroda, or the territories of any native prince or State under the suzerainty of Her Majesty, exercised through the Governor of Bombay, shall, until further orders, be permitted to embark on any ship at any port in British India with the object of proceeding as an emigrant or labourer to any port out of British India.

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The sixty-ninth annual meeting of the Association of German Scientists and Medical Men will be held this year at Brunswick, from September 20th to 25th. The work will be distributed among thirty-three sections, being an increase of three as compared with previous years. One of the new sections is apportioned to anthropology and ethnology, another to scientific photography, and the third to geodesy and cartography.

## SOCIETY OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the Committee of this Society was held on April 6th, at which the following resolutions were carried unanimously:

That the Association of Fellows and the 201 Fellows who voted in favour of extending the franchise to the Members be cordially thanked for their liberal-minded action, and this Committee is confident that their example will be followed by the majority of Fellows on the next occasion.

That a letter be written to the Association of Fellows stating that, in the opinion of this Committee, it would be greatly to the interest of the College if steps were at once taken to invite Lord Lister to allow himself to be nominated as a candidate at the next Council election, with a view to his becoming President of the College in July next.

That the Committee of this Society observes with pleasure that the Council proposes to celebrate the Diamond Jubilee of Her Majesty in some fitting manner, and that this Committee trusts that this may take a form in which the Members generally may be able to participate.

That the best thanks of this Society be offered to Mr. Walter Rivington for his consistent advocacy for many years of the Members' claim to representation, and for the manner in which he has sacrificed his collegiate interests to promote the true welfare of the institution and of all connected with it.

## DEATHS UNDER ANÆSTHETICS.

### CHLOROFORM.

AN inquest was held at Southampton, on March 9th, on the body of John Lyons Horne, aged 10 years, who died whilst under the influence of chloroform, which had been administered for the purpose of extracting some teeth. In his evidence Dr. Russell Bencraft stated that the chloroform used was Duncan and Flockhart's, and about 2 drachms were used for the whole operation. After examining the heart and pulse of the deceased he proceeded to administer the chloroform by sprinkling a few drops at a time on a handkerchief. After about five minutes there was a little vomiting, and a few more whiffs were administered. Four stumps were then removed, and during the extraction of the fourth the child cried out a little, when a little more chloroform was administered in order that the operation might be proceeded with, when the child suddenly became pulseless. Artificial respiration was immediately resorted to and kept up for quite half an hour, but without avail. Death was attributed to syncope from sudden failure of the heart's action.

## LITERARY NOTES.

Two new medical journals have just appeared in France. One of these, as its name, *La Radiographie*, imports, is devoted to the new photography, and is edited by Dr. Paulin-Méry. The other is entitled *Les Archives Médicales d'Angers*, and its editor is Dr. Legludic, Director of the Medical School of Angers.

By decree of the Minister of Public Instruction, a special Commission has been entrusted with the task of preparing a new edition of the French *Codex Pharmaceutique*. M. Liard, Director of Superior Education, has been appointed President of the Commission.

Dr. J. A. Coutts has in the press, and will publish shortly through Messrs. Rivington, Percival, and Co., a small work on Infantile Syphilis founded on the course of lectures which he delivered last year at the Royal College of Surgeons.

Professor Nicholas Senn has purchased the library of the late Professor Du Bois-Reymond, of Berlin, and presented it to the Newberry Library of Chicago. The collection consists of 14,000 bound books, mostly on physiology, and a proportionate number of pamphlets.

The second volume of the *System of Medicine* by many writers, in course of publication by Messrs. Macmillan and Co., under the editorship of Professor Clifford Allbutt, has been issued this week. As has already been stated in this column, the delay in the issue of the volume has been due to the late appearance of the report of the Vaccination Commission. The subjects dealt with are Infective Diseases of Chronic Course; Diseases of Uncertain Bacteriology not Endemic and Endemic; Infective Diseases Communicable from Animals to Man; Diseases due to Protozoa; Intoxications; and Internal Parasites. There are also "Addenda" on the "Sero-Diagnosis" of Typhoid Fever, and to the articles on Plague and Yellow Fever.

A correspondent of the *Publishers' Circular* of March 27th gives some extracts from an old quarto volume, entitled *Modern London*, published in 1804 by Mr. (afterwards Sir) Richard Phillips. Among them is a table of books on various branches of learning and "polite letters," published in 1800. It is interesting to note that in professional literature medicine heads the list with 60 works as compared with 43 on theology and 24 on law: in fact, the doctors were, in point of literary output, surpassed only by the poets, who produced 68, and the politicians, who are credited with 119 works. The total number of books published in Great Britain in 1800 was rather less than 700; in 1896 it was 7,000.

The *Glasgow Medical Journal* for March contains the text of Professor A. R. Simpson's presidential address to the Glasgow Obstetrical and Gynæcological Society on the Jubilee of Anæsthetic Midwifery. Sir James Simpson was the first to use an anæsthetic in labour; on January 19th, 1847, he placed a parturient woman under the influence of sulphuric ether, and delivered her while she was unconscious. His example was followed in France by Fournier Deschamps on January 27th, and then by Baron Dubois on February 23rd. In London ether was first given in labour by Dr. Murphy on February 13th, and by Dr. Prothero Smith in the following March. In Germany the first case of anæsthetic midwifery occurred on February 24th under the care of Professor Martin, of Jena. "In America," says Simpson in his report on the early history and progress of anæsthetic midwifery, "the country to which we are indebted for the first knowledge of the anæsthetic effects of sulphuric ether in surgical operations, the same agent was not employed in midwifery till the reports of its use in obstetric practice in Europe had recrossed the Atlantic." It was not till April 7th, 1847, that ether was first used in a case of labour in the United States by Dr. Keep, of Boston. In the same address Professor Simpson quotes the reply of a son of Thomas De Quincey, the "English opium eater," who was a pupil of Sir James Simpson, to the theological objection to anæsthetic midwifery urged by certain unmarried ladies, who stood up for what they held to be the divine law, and insisted on their childbearing sisters suffering according to the letter of that law. Young De Quincey, in his graduation thesis, turned the tables against these theological spinsters as follows:

> The unhappy and wicked woman who remains unmarried appears to break the command herself in four several ways according to the following tabular statement:
>
> 1. She has no conception.
> 2. She brings forth no children.
> 3. Her desire is not to her husband.
> 4. The husband does not rule over her.

The Edinburgh *Student* is certainly one of the best of university magazines. It is edited—and very well edited—by students, most of them belonging to the medical faculty. Our academic contemporary has the essential quality in journalistic viability—it is readable; hence we are not surprised to see that it is in its eleventh volume. May its life be prolonged through centuries of them. We have already referred to an excellent article on the present condition of the Army Medical Department which appeared in a recent issue of the *Student*. The number of March 11th contains a portrait of Lord Lister, with an appreciative note written, we are informed, by his old pupil, Dr. G. A. Gibson, Assistant to the Royal Infirmary and editor of the *Edinburgh Medical Journal*. An interesting personal touch is given in the following sentence:

> Was there ever any other teacher of his time who could begin his day by reading one of the masterpieces of Æschylus or Sophocles, follow this up by a couple of hours' work in experimental research, and spend the forenoon in private consultations, carrying the sunlight of his presence into many a home threatened by sorrow before undertaking the hospital duties of the day?

The number of March 18th contains a portrait of Sir Henry Littlejohn, the new Professor of Medical Jurisprudence and Public Health in Edinburgh University, and, in spite of the titular distinction bestowed upon him by his Sovereign in recognition of his public services, still known of all sorts and conditions of men in the Scotch capital as "The Doctor."

# ASSOCIATION INTELLIGENCE.

## COUNCIL.

### NOTICE OF MEETING.

A meeting of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday the 14th day of April next, at 2 o'clock in the afternoon.

The following Committees will also meet:

*Tuesday, April 13th, 1897.*—2.0 P.M. Premises and Library Committee.—3 P.M. General Practitioners and Ethical Committee.—4 P.M. Medical Charities Committee.—4.30 P.M. Food and Drugs Subcommittee of Parliamentary Bills Committee.—5.0 P.M. Parliamentary Bills Committee. *Wednesday, April 14th, 1897.*—10 A.M. Journal and Finance Committee.

Francis Fowke, *General Secretary.*

April, 1897.

### NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1897.

Meetings of the Council will be held on April 14th, July 7th, and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 17th and September 30th.

Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

### LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M., Saturdays, 10 A.M. to 2 P.M. Members can have their letters addressed to them at the office.

## BRANCH MEETINGS TO BE HELD.

Border Counties Branch.—A meeting of this Branch will be held in the School of Science and Art, Kendal, on Friday, April 30th, at 3.30 P.M. Programme: Mr. J. E. Bowser (Penrith): The Etiology of Certain Cases of Fever during the Puerperium. Dr. T. Telford Smith (Lancaster): Lantern Demonstration—Types of Idiocy. Dr. W. R. Parker (Kendal): Lantern Demonstration—Thyroidless Cretinism, Goitrous Cretinism, and Juvenile Myxœdema. 5 P.M. Afternoon tea during exhibition of subjects, photographs, etc., namely, Mr. G. H. Seagrave (Milnthorpe): Case of Abdominal Tumour. Mr. A. J. McCallum (Kendal): Elephantiasis, etc. Mr. A. Johnston (Ambleside): An Heretical View of Vaccination. Mr. B. R. A. Taylor (Kendal): A Remarkable Case of Hydatids. Mr. W. B. Cockill (Kendal): Perforation of After-coming Head. A special conveyance will leave Oxenholme at 2.56, reaching the School of Science at 3.15.—Robert Dundas Helm, M.D., Honorary Secretary, Carlisle.

Aberdeen, Banff, and Kincardine Branch.—An ordinary general meeting of the Branch will be held in the Palace Hotel, Aberdeen, on April 21st, at 8 P.M. Dr. Levack will read a paper on Eye Accidents by Steel and Stone.—C. Thiselton Urquhart, J. Scott Riddell, Aberdeen, Joint Honorary Secretaries.

Southern Branch: South-East Hants District.—The next evening meeting will be held on Tuesday, April 13th, at the Medical Library, 5, Pembroke Road, Portsmouth, at 9 P.M. Gentlemen wishing to make communications are requested to inform the Honorary Secretary, C. C. Claremont, M.D., Elm Grove, Southsea.

South Wales and Monmouthshire Branch.—The spring meeting will be held at Rhymney on Thursday, April 29th, at 2.45 P.M. Members intending to read papers, etc., are requested to send titles to Dr. Sheen, Cardiff, before April 15th.—A. Sheen, M.D., Cardiff, D. A. Davies, M.B., Swansea, Honorary Secretaries.

North of Ireland Branch.—The spring meeting will be held in the Museum, College Square North, Belfast, on Thursday, April 22nd, at 12 noon. Members who wish to read papers, show patients, or bring any other business before the meeting should kindly communicate on or before Wednesday, April 14th, with John Campbell, Honorary Secretary, 21, Great Victoria Street, Belfast.

Dundee and District Branch.—The annual meeting of this Branch will be held in University College, Dundee, on Friday, May 7th. A dinner will afterwards take place in the Queen's Hotel. Those intending to show patients at the clinical congress are requested to intimate as soon as possible the nature of the cases to the Honorary Secretary, R. C. Buist, Annfield House, Dundee.

### HALIFAX, NOVA SCOTIA BRANCH.

The regular fortnightly meeting of this Branch was held on March 5th, Surgeon-Major Drew Moir, the Vice-President, in the chair.

*Committee on New Remedies.*—This committee reported through Drs. Silver, Goodwin, Hadie, and Ross.—The discussion which followed was taken part in by Drs. Trenaman, Chisholm, Smith, Walsh, Murray, and others.

A very largely attended meeting of this Branch was held on March 19th, at Halifax, the Vice-President, Surgeon-Major Drew Moir, in the chair.

*Communications.*—Dr. Halliday read a paper on Experimental Researches on the Action of Antipyrin.—A prolonged discussion followed, in which the following took part: Drs. John Stewart, Farrell, Goodwin, Black, and others.

### THAMES VALLEY BRANCH.

*The Association and Medical Defence.*—At a meeting of this Branch, held on February 17th, the question of medical defence was discussed, and a post-card *plébiscite* of the Branch directed. This has been carried out, with the result that of 44 members replying there was a majority of 4 in favour of question one, and a majority of 3 against the scheme as finally drafted by the Committee of Council.

### SOUTH EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.

A conjoint meeting of the East and West Sussex Districts was held at Brighton on March 25th. Dr. Hoar, of Maidstone, President of the South Eastern Branch, took the chair, which he vacated in favour of Mr. A. H. Dodd, of Brighton.

*Public Vaccinators and Poor-law Officers' Superannuation Act.*—On the motion of Dr. Elliott, seconded by Dr. Hoar, the following resolution was unanimously adopted:

That this meeting of the East and West Sussex Districts of the South Eastern Branch of the British Medical Association regrets that public vaccinators are debarred from the Poor-law Officers' Superannuation Act, 1896, and is of opinion that the Parliamentary Bills Committee should take steps to have the omission rectified, if possible, by the insertion of a clause or clauses in the Local Authorities' Officers' Superannuation Bill, 1897.

*Specimens, etc.*—Mr. Dodd showed full-sized photographs of (1) Vesicular Eruption of the Forearms following the distribution of the external cutaneous branches of the musculospiral nerve. (2) Subcutaneous Nodules, of Rheumatic Origin, of the Hand and Forearm.—Dr. Gostling showed a specimen of an Anencephalous Monster. Dr. Habgood mentioned that in a similar case attended by him there was the following family history: On father's side, grandmother, three uncles and an aunt were insane; on the mother's side, the grandmother and greatgrandmother.

*Salicylate of Soda.*—Mr. Gerald Hodgson read notes on salicylate of soda. He attributed many untoward symptoms resulting from use of this drug to impurity or proneness to decomposition of the synthetically prepared drug. He exhibited various solutions of the drug to illustrate the various conditions giving rise to the discoloration of the mixture so often observed. He urged the use of the natural salicylic acid, which he prescribed as a powder to be added, at time of taking, to a mixture containing sodium bicarbonate.—Dr. Adeney quoted a case in which the natural acid gave much better results than the usual commercial drug.

*Appendicitis.*—Mr. T. Jenner Verrall read notes of two cases of appendicitis, and laid stress upon the difficulty of

prognosis in this disease, urging an early operation for removal of the appendix in the majority of cases.

## SHROPSHIRE AND MID-WALES BRANCH.

CLINICAL AND PATHOLOGICAL SECTION.

THE first meeting of the Section was held on March 16th, at the Salop Infirmary; Mr. T. LAW WEBB, Chairman of the Section, presiding; and twenty-seven members and five visitors were present.

*Rules of Section.*—The CHAIRMAN read the rules which had been drawn up. These were adopted by the Section.

*Opening Address.*—The CHAIRMAN then gave a short opening address, detailing the lines and objects of the Section. He announced that it was intended to establish a pathological museum in connection with the Section.

*Cases.*—Dr. CURETON showed a case of Relapsing Typhoid in a Purpuric Subject; also a case of Aneurysm of the Aortic Arch and Innominate Artery in a man at present engaged in hard manual labour.—Dr. CHARNLEY showed two cases of Epithelioma of the Eyelid.—Dr. GARDNER showed a case of Postneuritic Optic Atrophy and Slight Hemiplegia following an attack of acute meningitis; also a case of Recurring Spasm of the Thumb.

*Papers.*—The CHAIRMAN read a short paper on Certain Improved Methods of Preserving Pathological Specimens for the Museum and for Microscopical Examination.—Dr. CHARNLEY gave a demonstration on the Extraction of Foreign Bodies from the Eye.—Dr. GARDNER read a short paper on Catching Cold.

*Specimens.*—The CHAIRMAN showed a specimen of Epithelioma of the Auricle, sections of growth being exhibited under the microscope. Also some microscopical section of Carcinoma of the Breast, and also a Kidney preserved by Torr's Method.—Dr. WILLIAMS showed Biliary Calculi.—Mr. ROPE showed some Hairs from Alopecia Areata.—Mr. MACLEOD showed a portion of a Cheap Catheter removed from a Male Urethra.

*Refreshments.*—Tea and coffee were handed round after the opening address, and smoking was permitted after the exhibition of the cases.

## ABERDEEN, BANFF, AND KINCARDINE BRANCH.

AN ordinary general meeting of the Branch was held at Aberdeen on March 17th, Professor FINLAY, President-elect, in the chair.

*Notices of Motion.*—Drs. GARDEN and URQUHART gave notice of motions to be moved by them at next meeting.

*Communications.*—Dr. W. H. WILLIAMSON read notes of a case of Abscess of Antrum, in which he had found the electric light of great use in showing the presence of pus in the antrum.—Dr. FERDINANDS read an exhaustive paper on a case of Sympathetic Ophthalmitis occurring eighteen years after enucleation (delayed) of the injured eye.

## LANCASHIRE AND CHESHIRE BRANCH.

A SPECIAL general meeting of this Branch was held at the Medical Institution, Liverpool, on Tuesday, March 30th, 1897. The meeting lasted from 2.30 to 6 P.M., and there were ninety-five members present.

### MIDWIVES' REGISTRATION BILL.

The SECRETARY fully explained the steps which the Council of this Branch had taken to oppose Mr. Tatton Egerton's Bill for the Registration of Midwives. A deputation was appointed, the members of which waited upon the members of Parliament for Lancashire and Cheshire, and they had drawn up a circular letter embodying the objections to and reasons for opposing Mr. Tatton Egerton's Bill. A copy of this letter was sent to every member of both Houses of Parliament. The deputation had presented their report, which gave an account of their favourable reception at the House of Commons. The Secretary now moved the adoption of this report, and that a copy of the circular containing the objections to the Bill be sent for publication to the BRITISH MEDICAL JOURNAL. This was seconded by Dr. WOODCOCK and carried unanimously. The following is the text of these documents:

REGISTRATION OF MIDWIVES.

Objections to, and Reasons for Opposing, Mr. Tatton Egerton's Bill.

February 23rd, 1897.

My Lord,—I am instructed by the Council of the Lancashire and Cheshire Branch of British Medical Association to forward you the following resolution, adopted at a special meeting held February 17th, 1897, and also the accompanying summary of their objections to the measure:

Resolved: "That the Council of the Lancashire and Cheshire Branch of the British Medical Association disapproves of Mr. Tatton Egerton's Bill for the Registration of Midwives, and will endeavour to prevent its passing into law."

I have the honour to be, my Lord,

Your Lordship's obedient servant,

T. ARTHUR HELME.

3, St. Peter's Square, Manchester.

Proposals have from time to time been made by the Midwives' Registration Association to legalise the practice of midwives without efficient medical control or supervision. The various Bills which have been drawn up hitherto provide for the protection of those women holding unauthorised diplomas and others practising as midwives without diplomas, but there has never been adequate provision either for the protection of the lives of the parturient poor and their offspring or for legal remedy in case of malpraxis on the part of the midwife.

Fortunately the attempts to pass these Bills have been successfully resisted.

These dangerous proposals are again before the House, and we urgently request that you will give the Bill introduced by Mr. Tatton Egerton on February 9th, 1897, your uncompromising opposition.

This Bill is promoted by a self-elected and wholly unauthorised "Committee," representing none but themselves.

The argument used by the promoters is that the poor are unable to pay for both doctor and nurse, and the proposed registered midwife is supposed to perform the functions of both in straightforward cases of confinement.

Putting aside the facts that, on the one hand, the Poor Law already provides for the attendance of a doctor, and that, on the other hand, a woman partially trained in midwifery only, and without any knowledge of medicine and surgery, can be at best but an untrustworthy and unsafe judge of the straightforward character of a labour or the healthy condition of the patient, we note at once that this Bill offers no solution of the above-mentioned argument, since the nursing of the patient and child by the midwife is not compulsory, and may be deputed to any person, who may be absolutely ignorant and untrained. This practice obtains largely at the present moment, especially among those midwives who, by the possession of diplomas, have attained a certain false status, that is, the midwife simply acts the part of the doctor, and deputes the nursing duties to another, supplied by herself or by the patient.

This objection is intensified by the fact that (following the grave defects of the Medical Acts of 1886) the practice of midwifery by unregistered persons is not made penal, their employment, as deputy or otherwise, by the registered midwife being thus directly courted.

It is necessary to remove a common misapprehension in the mind of the public with regard to the meaning of the term "registration" as employed by the promoters of this Bill. To the public this term implies simply a list of names of women holding a certificate of having received a training fitting them for certain duties, to which reference may be made in order to get information of their experience. To this meaning of the term the Midwives' Registration Association has superadded two most important features, namely:

1. The legal right to practise independently, and
1. The possession of a registrable title, which is identical with one of the three necessary for qualification to practise under the Medical Acts.

This amounts to a complete subversion of the Medical Acts, which at present refuse registration with the right to practise any one branch of medicine without qualification in all three branches, namely, medicine, surgery, and midwifery.

We may shortly summarise some of the most important objections to this Bill as follows:

1. Definition of midwife: No restriction by statute to attendance on normal labour, nor is nursing made compulsory.

2. No definition of "normal" labour being possible except in a negative sense, it is necessary to provide statutory regulations giving directions as to when a midwife must call in the help of a medical practitioner.

3. This Bill allows the midwife to attend as a doctor and hand over the nursing duties to an assistant.

4. Practice by unregistered persons is not made penal, a penalty only being attached to the assumption of titles; this, as in the case of the Medical Acts, will fail to prevent practice by undesirable persons.

5. The L.M.Dub., which is a registrable medical qualification if held along with other qualifications in medicine and surgery, is made a qualification registrable and entitling to practise midwifery without further qualification. The L.O.S.Lond., which is a certificate issued by an unauthorised body, is legalised and treated in the same manner as the L.M.Dub. This is a subversion of the Medical Acts.

6. The proposed Central Midwifery Board is unsatisfactory, unrepresentative, and calculated to make the working of the Bill so expensive as to render it inoperative.

7. The number of representatives from the Midwives' Registration Association and the Privy Council give the possibility of a lay majority. Representation of the general profession is requisite.

8. Absence of statutory penalties for dangerous practices, and of legal remedy for the public.

9. Finance: The County Council to bear the expense without any local representation.

10. Medical Officer of Health could not adequately supervise except as to puerperal fever, which is only one of many evils.

11. No provision is made for the supervision of "lying-in homes."

12. Criminal Abortion: It is well known that criminal abortion is carried on to an alarming extent by women, and with impunity, because midwives' certificates of stillbirths are accepted by registrars; indeed, often stillbirths are not registered at all—a system which has long been condemned, and to remove which legislative proposals are being considered. No provision whatever is made in this Bill to prevent this evil. On the contrary, a woman cannot be found out doing wrong except

by reporting herself. Dr. Tatham, late Medical Officer of Health for Manchester, and now Superintendent of the Statistics at the General Register Office, Somerset House, speaking of stillbirths before a committee of the House of Commons said:—"With regard to 45 per cent. of them, the only voucher presented was that of a midwife, or some other unskilled person. It is a significant, and to my mind dangerous, fact that at the present moment in Manchester 40 per cent. of stillborn children, and 5 per cent. liveborn infants dying within their first year are interred without competent testimony as to the cause of their death." The Bill of the Lancashire and Cheshire Branch of the British Medical Association makes such criminal work almost impossible.

The whole question of the registration of midwives has received the earnest and prolonged consideration of the Lancashire and Cheshire Branch of the British Medical Association. While recognising that legislation in this direction is fraught with danger, and is at best an unsatisfactory solution of the question, yet certain proposals which were calculated to safeguard so far as possible the interests of the public were adopted and embodied in the Bill already alluded to, and the necessity for the definite restrictions laid down in that measure is apparent when we consider the large percentage of abnormal labours.

In the opinion of this Branch of the Association nothing less stringent than those proposals would be of any value.

The promoters of the Bill now before Parliament have had copies of the Bill drafted by this Branch supplied to them, but the former differs in so many essential points from the latter that we are compelled to ask you to offer it a most uncompromising resistance as a whole.

Signed on behalf of the Council,

Henry Hannotte Vernon, M.D.,
President of Lancashire and Cheshire Branch.
James Barr, M.D.,
Hon. Sec. of Lancashire and Cheshire Branch.
Jas. Brassey Brierley, M.D. } Members of Council of L. & C. Branch.
W. Macfie Campbell, M.D.
James Gledhill, M.B.
Sam. Woodcock, M.D.
T. Arthur Helme, M.D.,
Hon. Sec. of the Deputation.

Dr. Brierley moved and Dr. O'Sullivan seconded a motion condemning the mode of action of certain supporters of the registration of midwives. A short discussion followed, in which the President, Dr. Ritchie, Dr. Helme, and Dr. Woodcock took part. The previous question was then carried on the motion of Dr. Rentoul, seconded by Dr. R. Harris.

### Medical Defence.

The Secretary explained at length the report of the Committee to the Branches on Medical Defence. He concluded by moving the adoption of the Committee's scheme with the following alterations which had been suggested by a Committee of this Branch Council:—

1. That a clause be inserted to the same effect as Clause 4 in Scheme C: but your Committee do not suggest any definite amount, while they agree that the amount should be limited.
2. For Clause 8 substitute Clause 9 in Scheme C.
3. „ 9 „ 10 „
4. „ 10 „ 11 „
5. „ 12 „ 13 „

This was seconded by Dr. A. Brown Ritchie.

The Secretary stated that the scheme proposed by Dr. Gledhill might now be taken as an amendment. Dr. Gledhill gave his reasons for considering the scheme of the Committee impracticable, but as he found that the members of this Branch were strongly in favour of the Association undertaking the duties of individual and collective medical defence, he would not propose any amendment. Thereupon Dr. R. Harris moved the rejection of the scheme. He said that the reports from the Branches published in the British Medical Journal showed that there was no unanimity on the subject, and he thought the time was not ripe for the Association to undertake such duties. Dr. Macfie Campbell seconded the amendment, which was opposed by Dr. Woodcock, Dr. Rentoul, and Dr. Thornley. The amendment was negatived, as only five voted for it. The opinion of the meeting was then taken on the question of the Association undertaking the duties of medical defence. Seventy voted for and 5 against.

Dr. Rentoul had given notice of thirty-five amendments to the Committee's scheme, and he now wished them to be considered *seriatim*, but the meeting did not seem disposed to devote the time necessary for their consideration. Dr. Woodcock stated that the amendments were merely verbal alterations, which in no way affected the principle of the scheme. The Secretary stated that he had gone carefully over the whole of them, and he would oppose the majority of them. Mr. Colin Campbell said that it would take at least two hours for their consideration, which time would not be well spent.

The Secretary's original motion was then put, it having been previously explained that if carried it would dispose of the whole of Dr. Rentoul's amendments; 66 voted for and 6 against. Therefore the Committee's scheme with the suggested alterations has been adopted by this Branch.

*Annual Meeting of the British Medical Association.*—The Secretary referred to the meeting in Montreal, and hoped a large number of members of the Branch would be able to attend.

*Midwifery Lectures.*—The following motion was proposed by Mr. Colin Campbell, and seconded by Dr. Fort:

Seeing that under the Medical Act, 1886, midwifery is one of the three branches in which a regular practitioner must pass an examination in order to obtain a registrable qualification (Minutes of General Medical Council, p. 7, February 25th, 1895) this meeting of the Lancashire and Cheshire Branch of the British Medical Association strongly condemns courses of lectures being advertised and given in "midwifery" to persons other than registered students of medicine.

The motion was opposed by Dr. John Scott, Dr. Helme, Dr. Ritchie, Dr. Woodcock, and Dr. Brierley. On the motion of Dr. Hayward, seconded by Dr. Macfie Campbell, the previous question was carried almost unanimously.

*Skiagraphs.*—Dr. Holland exhibited 200 skiagraphs in the rooms of the Medical Institution.

*Dinner.*—Twenty members dined in the evening at University Club, the Secretary being in the chair.

### Bath and Bristol Branch.

The fifth ordinary meeting of the session was held in University College, Bristol, on March 31st; Dr. E. Markham Skerritt, President, in the chair. About eighty members and five visitors were present.

*New Members.*—The following were elected: A. L. Mackenzie, L.R.C.P.I., L.R.C.S.I., L.M., Bath; H. C. Heathcote, M.B. Victoria, Bath.

*Demonstrations.*—Professor A. P. Chattock, of University College, Bristol, gave a lucid account of the Kathodal and Roentgen Rays, illustrated by many beautiful experiments; afterwards, by means of the screen, two bullets were demonstrated in a boy's hand, and the rest of the evening was devoted to the exhibition of a large number of lantern slides of skiagraphs illustrating the value of the Roentgen rays in determining the presence of foreign bodies in the tissues, the nature of obscure fractures and dislocations, and the character of deformities, tumours, and diseases of the bones and joints. —The following members showed Lantern Slides, and gave briefly the leading clinical features in each case: Dr. W. Cotton (who also exhibited a large number of beautiful photographs), Messrs. A. Prichard, C. F. Pickering, W. H. Harsant, C. A. Morton, J. Paul Bush, F. Lace, W. M. Barclay, G. Monro Smith, J. Ewens, and Drs. D. Campbell, Shingleton Smith, James Swain, J. O. Symes, W. N. Neville, and R. G. P. Lansdown.

## SPECIAL CORRESPONDENCE.

### PARIS.

*The Medical Scandal.—Medical Ethics.—The Anthropometric System.—Systematic Drug Stealing.—Death of Dr. Biart.—General News.*

The sentence on Drs. Boisleux and La Jarrige is considered by a section of the medical profession to be too severe. In expressing this opinion care is taken to disclaim any favourable feeling towards the condemned. The severity is attributed to the ignorance of the jurors on medical questions.

The Association of the Gironde Medical Men has met and passed the following resolutions: (1) "That in every French medical faculty instruction in professional ethics be given." (2) "That students who have failed several times at their examinations, or who have been convicted of disgraceful conduct, shall not be allowed to continue their medical studies." (3) "That the title of 'doctor' shall not confer the right of practising. This right shall only be accorded to French doctors who have not been condemned by any professional jury composed of a certain number of medical men not chosen among the teaching professors, and having as president a faculty professor." The said jury is to examine

questions in connection with medical practice, medical legislation, and ethics.

The Paris Municipal Council has, by a unanimous vote, called upon the director of the Assistance Publique to have the Broussais Hospital entirely rebuilt, and to furnish the plan for the new hospital immediately. Other matters are being seriously discussed. M. Foruest has laid before the Council the following propositions: In consideration of the fact that the doctors of the Bureau de Bienfaisance are not obliged, according to the existing regulations, to attend indigent patients after 5 o'clock P.M., and that the indigent sick night service only begins at 10 P.M., it is highly necessary that a gratuitous medical service between these hours be organised. M. Faillet demands that a photographic laboratory be organised at the St. Louis Hospital.

M. Barthou, Minister of the Interior, has forwarded to the prefect, subprefects, and directors of the Penitentiary Circumscriptions a circular relating to anthropometric measurement. In it they are directed to call upon subordinates to practise the system carefully and prudently. M. Lépine, Prefect of the Police, has, in accordance with the Minister's directions, sent a circular to the Police Commissioners, stating that persons taken into custody whose identity is well known by their reputation, position, etc., are to be exempted from measurement.

For some time past a number of thefts have taken place at the establishments of different dispensing chemists in Paris. The School of Pharmacy and the Syndicate have been aware that several remedies have been sold by some chemists and druggists at a very low price. The products thus sold were of the identical kinds which had disappeared. The assistants employed in the establishments where the thefts took place were watched, and the thieves were thus discovered, also the receiver of the stolen goods. It has come to light that a number of people have thus realised sufficient to live; one woman of the band owns to having lived ten years on the profits of the sale of stolen drugs. The papers of the association show that the assistants received 20 per cent. on the sale of the stolen goods, the middlemen 30 per cent., and the receiver—a dispensing chemist much respected in the neighbourhood—pocketed the remainder. It has now been ascertained that he practises the profession illegally, and is also guilty of fabricating counterfeit preparations.

The death of Dr. Lucien Biart is announced. He was well known as a *savant*, an able doctor, and an accomplished *littérateur*. Dr. Biart graduated and practised at Orizaba, in Mexico. During his holidays he explored the country of his temporary adoption. The Paris Museum of Natural History is enriched by his tropical, botanical, and ornithological collections. He contributed *Une Histoire des Azteques* to the *Bibliothèque d'Ethnologie* of Quatrefages and Hainy.

Dr. Péan, President of the Société d'Hygiène, was in the chair at a meeting held at the Sorbonne for the purpose of hearing the Count Michel Karnice Karnicki, Chamberlain to the Russian Emperor, explain his instrument entitled the "Karnice," which is designed to reveal the slightest respiratory movement of a body buried during cataleptic sleep.

The Anti-alcohol League held its annual meeting a few days ago. Dr. Motet was in the chair. Three silver medals, 21 *diplômes d'honneur*, 46 diplomas of honorary associates, 521 bronze medals, 651 testimonials of approval were distributed. M. Marillier lectured on anti-alcoholic teaching in France.

## MONTREAL.

*The Annual Meeting of the British Medical Association.—Graduates in Medicine at the McGill University.—Interprovincial Registration.*

IN connection with the preparations for the forthcoming meeting, there is little to be noted, the work recently accomplished being of a routine character. The leading railway companies are aiding the Committee in very many directions, and only recently, in addition to the extensive concessions already referred to in these pages, the Canadian Pacific has offered a series of free excursions to those making extensive journeys through the continent. Thus, for example, those travelling as far as Winnipeg will be permitted to journey free over all the branch lines of the Company in Manitoba, and those travelling as far as Revelstoke in British Columbia will be given free conveyance thence to Kootenay and the gold-mining districts.

This year for the last time the final examinations at McGill University have been held in March; in future they will be held in June, at the completion of four full years of nine months. The lists just issued show that seventy-six have graduated. Not a few of these seventy-six have been "referred" either last year or at some previous period, and a study of the calendar shows that of the 105 students who entered the Faculty four years ago, only 61—less than 60 per cent.—have duly completed their course. Of the 85 presenting themselves for the final examinations this year, only 11 came before the assessors appointed by the College of Physicians and Surgeons of Quebec. Of these only 6 passed, or in other words, 92 per cent of those graduating this year from McGill intend to practise elsewhere, either in the other provinces of the Dominion or in the United States.

Whereas in Ontario and other provinces the Medical Board or College of the province exacts that no one can obtain the licence to practise save by appearing and passing before the provincial examiners, in Quebec the graduates of the three Universities of McGill, Laval, and Bishop's are permitted to practise provided that they possess the University degree, are duly registered, and have satisfied the provincial assessors present throughout the course of their examinations. This difference of procedure may truly be said to be the most formidable obstacle to interprovincial registration at the present movement. The other provinces desire Quebec to come into line with them; the universities of the province are unwilling to lose the right to practise in the province assured to their graduates by the Act of Confederation. The Protestant minority in the province hesitates to surrender any privilege, fearing always encroachments on the part of the Catholic majority. But when, on the one hand, by the present arrangement it is rendered almost impossible for flourishing French-speaking communities in Ontario and elsewhere to avail themselves of the services of French-speaking graduates of the National French-Canadian University (Laval); and when, on the other hand, the leading English University of Quebec province produces so small a proportion of graduates intending to practise here, it is obviously to the advantage of all parties to put an end to the existing difficulties, and this view is daily gaining stronger expression. Hence at the present moment it appears that within a very few months some scheme of interprovincial registration will become an accomplished fact. It must in this connection be clearly understood that the Dominion Government can as yet do nothing. By the Act of Confederation all educational matters were strictly left in the hands of the separate provinces; thus the Central Government cannot interfere, and the common Dominion registration of medical students and graduates cannot be considered until all the provinces are united, and agree to surrender medical legislation or any part thereof into the hands of the Central Government. In other words, interprovincial must precede Dominion registration.

## ST. PETERSBURG.

*Panic in Baku on Account of the Plague.—The Imperial Commission and the Plague.—The Opening of Meetings of Medical Societies to the Public.—The St. Petersburg Town Council and the International Medical Congress.—A Russian Physician to the Negus of Abyssinia.*

A CURIOUS example of the unreasonableness of people under the influence of panic was recently presented by the inhabitants of Baku, the great petroleum port on the western shores of the Caspian Sea. The story of the plague in India, with the gradually increasing tale of deaths, had excited their fears, and led to the universal conviction that Baku could not possibly escape the infection. The sanitary, or rather insanitary, condition of the town is, according to all reports, such that if the plague should get a footing in it, the outbreak would probably be every whit as severe as those in Hong Kong or Bombay. One of those incomprehensible rumours, which can never be traced to their origin, but which find ready credence among people already inclined to panic got abroad, to the

effect that on February 25th (March 9th) the whole town was to be quarantined and cut off from all communication with the rest of the world; the import of provisions would be stopped and no one would be allowed to leave the town. The rumour was, of course, quite groundless; but no explanations or exhortations were of any avail, and an exodus of the labouring classes—and even, on a smaller scale, of the *intelligentzia*, or educated classes—began. Baku is a large manufacturing centre, in addition to being the great centre of the petroleum trade. Thousands of workmen, of all nationalities, but mainly Persian and Russian, have fled the town, crowding the decks of the steamers, so that, in the Russian phrase, there was "not room for an apple to drop." It is feared that many factories will have to stop work, and the interference to trade will be considerable.

The central authorities in St. Petersburg are keenly alive to the danger of plague spreading to within the Russian frontiers. The whole organisation of measures to prevent this is in the hands of an Imperial Commission, the reports of whose activity are published almost daily in the Government gazette. They have sent a small scientific expedition to Bombay to observe the course of the epidemic throughout India. This expedition consists of Professor Vuisokovitch, of the University of Kief, and Drs. Labolotnui and Redrof; they left Kief on February 11th (23rd) amid the cheers of a large number of the professors and students of the University who accompanied them to the station. The Commission has also sent a representative, in the person of Dr. Lukianof, the Director of the Imperial Institute of Experimental Medicine in St. Petersburg, to the International Conference at Venice. The other Russian member of the conference is M. Jonin, the Russian Minister in Switzerland. Some little alarm was recently created in Batoum, on the Black Sea, by the arrival of an English steamer, the *Clan*, from Bombay, without, it is said, any sanitary precautions having been taken. The ship arrived in water ballast to load petroleum. There had been no suspicious cases on board, and the fears she gave rise to appear to have been quite groundless. She completed her cargo in Batoum, and left after a few days without any untoward results.

The Kief Medical Society recently passed a resolution that in future their sittings should not be open to the general public. The decision might well be followed by other Russian medical societies, but it has created some surprise, since, at the last annual meeting of the Kief Society, which was attended by a large general audience, the President referred with pride to this very fact, and dwelt on the advantage of making scientific discussions accessible to all.

The President of the International Congress in Moscow has approached the St. Petersburg Town Council with a request that the Council should assign a certain sum of money towards the entertainment of members of the Congress. It is probable that the sum assigned will be 5,000 roubles (over £500), of which 2,000 roubles will go towards the publication of two guides to St. Petersburg, and the remainder towards the hospitable entertainment of foreign guests.

Dr. Rodzévitch, who went with the recent Red Cross expedition to Abyssinia, has been appointed body physician to the Negus of Abyssinia.

# CORRESPONDENCE.

## THE RED BOOK.

Sir,—Our attention has been drawn to a paragraph in your paper concerning the suggested introduction into our Royal Red Book of a list of the various physicians and surgeons practising specially.

We should be greatly obliged if you would kindly publish this notice that the scheme has been withdrawn entirely.

On receipt of a great deal of correspondence commenting on it from all points of view, we laid the matter before the Royal College of Physicians, who have condemned it, and it is therefore withdrawn without demur; and we have returned the subscriptions already received.

At the same time we should like to point out that we raised the point, "Would it not be unprofessional?" and the professional gentleman who kindly proposed it to us was of opinion that it would not.

Moreover, as we have received a good many orders from well-known medical men, we think we may be fairly excused for falling into the error, our desire being always to take advantage of suggestions to increase the usefulness of the work. We looked on it as an ordinary subscription to a book.

We trust that you will publish this letter, in order that as many of the profession as possible may be acquainted with the facts, so that any sense of irritation they may still feel may be speedily allayed.—We are, etc.,

The Proprietors of Webster's Royal Red Book.

Piccadilly, W., April 2nd.

## GOÎTRE AND CRETINISM.

Sir,—The two chief objections to the theory that the essential cause of goître is the presence of iron pyrites are (1) goître occurs in localities where these salts are not present, instances of which are given in France by MM. Garrigou and Baillarger[1]; (2) the difficulty of explaining how infinitesimal doses of sulphate of iron, which is placed first on Saint Lager's list as having the most goîtrous-producing effect, can produce such a marked lesion when comparatively large doses of this salt are given in daily practice without such effects being noticed.

In addition, how do the supporters of the pyrites theory explain the circumstance that goîtrous water loses, to some extent at least, its deleterious effect on being boiled? This is a fact which is too little insisted upon in the prophylaxis of goître, and one which I have found a useful adjunct in the treatment of goîtres when the patient, as is usually the case, cannot remove to a non-goîtrous locality.

The present state of our knowledge so far as the etiology of goître is concerned is, as stated by Baillarger and Krishahn, that whatever the noxious element may be, water is the vehicle by which it is introduced into the organism.[2]

Whatever the cause of goître may be, it must, if a single cause, as is probable, be capable of being demonstrated as existing wherever goître is known to exist. This cannot be said to be the case in any "geological" theory, so far as I am aware, and I believe that we must look to a micro-organismal origin for the solution of this question.—I am, etc.,

Bakewell, March 15th. Thomas Fentem, M.D.

## LIBERATED LUNATICS.

Sir,—The outrage by a relapsed lunatic at Godalming, recently commented upon in your pages, affords another illustration of the extreme care which must be exercised in the discharge from asylum care of those lunatics who have shown tendencies dangerous to others or to themselves. It is extremely difficult in some cases to decide at what point of time such persons may fairly be discharged from legalised care and control, having in view both the rights of the community to protection against persons liable to disease which renders them dangerous, and the rights of the persons thus afflicted to humane and justly-balanced dealing with them as subjects of disease.—I am, etc.,

March 29th. Alienist.

## AFTER-HISTORY OF A CASE OF PYLOROPLASTY.

Sir,—Mr. Frederick Page's reference in the British Medical Journal of April 3rd to the present favourable condition of his first case of pyloroplasty induces me to report the present state of the third patient on whom the above operation was performed in this country. I operated on this patient, a lady approaching 50 years of age, in August, 1893. In 1895 she went on a visit to America for six months, and was very little troubled with sea sickness, though she had previously been a very bad sailor. At the present time, this lady indulges in riding a bicycle, and rides in first-rate style. She must have gained over 3 stone in weight, and never requires medical attendance.—I am, etc.,

Windsor, April 4th. R. Shalders Miller, F.R.C.S.

## THE PRINCE OF WALES'S HOSPITAL FUND.

Sir,—Touching this London Hospital Fund. Could it not be made more comprehensive? One cannot but feel that

[1] Nivet, *Traité du Goître*, Paris, 1850, pp. 75-76.

[2] Article "Crétinisme," *Diction. Encyc. des Sciences Médicales*, Series I, Tome 23, p. 167.

money is being drawn from many towns whose hospitals are suffering even more from lack of funds than the London hospitals. Another fund, to be called the Provincial Hospital Fund, would, I am sure, commend itself to all (except, perhaps, the London Hospital authorities), and be the means of placing many of our provincial hospitals on more satisfactory bases.—I am, etc.,

April 4th. M.B., C.M.Edin.

## SUBJECTIVE COLOUR PHENOMENA.

SIR,—In the BRITISH MEDICAL JOURNAL of February 20th there was an article on Mr. Shalford Bidwell's recent communication to the Royal Society on Subjective Colour Phenomena. As a less unsatisfactory explanation of the phenomena has not yet appeared, may I offer a very simple one? The secret, to my mind, lies in the intimate association of the mechanisms of accommodation to intensity of light and accommodation to distance. *Foster's Physiology* (3rd edition, page 469) says: "The central nervous mechanism employed in carrying out the one act is so connected by nervous ties of some kind or other with that employed in carrying out the other that when we set one mechanism in action we unintentionally set the other in action also."

Let the eye observe steadily a white object on black background the image appears white; bearing in mind that the eye is not achromatic, it will be clear that there is a re-fuse of less refrangible rays focussed behind the retina, and also of more refrangible rays focussed in front of the retina. Now leaving the object stationary, suddenly increase the quantity of light entering the eye by rapidly changing the background from black to white. What happens? The associated mechanisms are thrown into action, the pupil gets a message to contract, the ciliary muscle likewise a message to relax. We may ignore the former; the latter acts by increasing the curvature of the lens, brings the white image forwards in front of the retina, and brings the image formed by less refrangible rays on to the retina, the spot momentarily assumes an orange colour. Conversely if the total illumination be suddenly diminished, a bluish image replaces the white one.

The impression or the sensation of an image persists so long that momentary changes of colour are not perceptible if it be stationary, being in fact fused with those immediately preceding and succeeding; but if the object be moved to make its image travel sufficiently rapidly across the retina, any change of colour can be perceived, just as the recording surface of kymograph or sphygmograph must be made to travel in order to render apparent the variations in the ordinate causing the curve.

The persistence of impression or of sensation also explains a point which at first appeared to be a crucial objection—namely, the observation of different colours simultaneously on the same disc or other design.—I am, etc.,

Cardiff, March 29th. WALTER HURST, B.Sc., L.S.A.

## THE MIDWIVES BILL.

SIR,—In the *Manchester Evening News* of March 22nd, and in the "London Correspondence" column, the following appeared: "But I am able to state that at least three members of the Cabinet, one of whom is Mr. Balfour, strongly sympathise with the object of the Bill, and are anxious that it should become law without delay."

I beg to state that the above statement is untrue. I wish those medical practitioners who help to write the "London Correspondence" for provincial "dailies" would be more accurate. If any practitioner should meet with such statements as the above, will he at once send it to me, so that I I may have its accuracy or inaccuracy verified? *Mayna est veritas!*

May I add that the supporters of the Bill are very busy each day trying to secure the help of members of Parliament. It is therefore urgently necessary that each practitioner shall still influence his M.P., so as to have the Bill strongly opposed. The second reading of the Bill has been postponed until April 8th.—I am, etc.,

Liverpool, April 4th. ROBERT R. RENTOUL.

## CONCURRENT SCARLATINA AND ENTERIC FEVER.

SIR,—The case reported by Mr. J. Bernard Gabe in the BRITISH MEDICAL JOURNAL of April 3rd under the above heading has recalled to my mind a somewhat similar case which occurred in my practice in September, 1895. My patient, a girl, aged 10, was undoubtedly suffering from enteric fever. During the second week of the attack, as the bowels were constipated, I gave a simple enema. On visiting the patient next day I found a bright scarlet rash covering the chest, abdomen, arms, and legs. There was also some congestion of the throat. The rash had disappeared entirely in three days, and I noticed no sign of desquamation at that time.

I should certainly have been tempted to diagnose the case as scarlatina complicating enteric fever had I not remembered the enema and a note about scarlet rashes after enemata by Professor Suckling in the BRITISH MEDICAL JOURNAL of June 2nd, 1894. In Mr. Gabe's case the first enema was given on February 14th, and the rash was observed on the following day.—I am, etc.,

St. Helens, April 3rd. F. P. BASSETT.

# OBITUARY.

## THOMAS CARLYLE BEATTY, M.R.C.S.

WE regret to announce the death of Mr. Thomas Carlyle Beatty, M.R.C.S., which occurred on March 26th, from an attack of influenza, at his residence, Seaham Harbour, at the advanced age of 83. Mr. Beatty was the son of the late Dr. Snow Beatty, M.A., of Hull. He had a most distinguished career at Glasgow University, where he was a prizeman in every class.

He began practice at Easington in 1850, removed to Seaham Harbour, where he obtained the appointment of Surgeon to the Marquis of Londonderry's collieries of Seaham and Seaton.

He filled all the public appointments, and was Admiralty Surgeon to the Seaham District for more than 40 years. He was Surgeon to the Seaham Harbour Infirmary, and Surgeon-Lieutenant-Colonel to the 2nd Durham Artillery Volunteers, having held a commission in this celebrated corps from the beginning of the Volunteer movement: he was one of the first Volunteer officers to receive the decoration.

At the special request, and by the influence of Colonel the Marquis of Londonderry, he was enabled to retain his commission long after the usual time for retirement, but a few years ago he felt obliged, owing to failing health, to send in his resignation, much to the regret of the officers of the corps.

Mr. Beatty became deaf early in his life; this stood in the way of his obtaining that higher eminence in his profession which his distinguished career as a student and his great ability would have brought within his reach; but he was deservedly held in the highest respect as an able and reliable general practitioner; and the writer, who knew him intimately for nearly a quarter of a century, can testify to his very great ability, his devotion to his profession, and a more honourable or straightforward man could not be found. It was always a pleasure to meet Beatty of Seaham. He was an excellent classical scholar, and having retired from practice a few years ago in favour of his friend and partner, Dr. Luke Gerald Dillon, he spent his time chiefly in studying the works of classical writers, and thus enjoyed himself in a most congenial fashion in his old age. He was a generous friend to the poor, and a large portion of his practice was done gratuitously; as a matter of fact, he would never charge a widow or orphan for his professional services.

Mr. Beatty lost his wife five years ago, and leaves two sons—Dr. Beatty of Clacton-on-Sea and Dr. W. J. Beatty, J.P., of Stockton-on-Tees—and four daughters, three of whom are married.

His funeral was attended by all the gentry of the neighbourhood, and the whole town of Seaham was in mourning for him.

WE regret to have to record the death of Mr. EDWARD B. CROWFOOT, of Beccles, Suffolk. He was born on October 21st, 1845, and was educated at Faucenberge School, Beccles, and

afterwards at Uppingham. He was the youngest son of Mr. W. E. Crowfoot, F.R.C.S., of Beccles, and received his medical education at St. Bartholomew's Hospital, of which he was House-Surgeon in 1869. Mr. Crowfoot took the diplomas of M.R.C.S. and L.S.A. in 1867, and the degree of M.B. at the London University in 1868. He joined his father and brother in practice at Beccles in 1870, and was at once appointed Medical Officer to the Beccles District of the Wangford Union, a post he held until his death on February 13th. He was also Medical Officer of Health to the Borough of Beccles, and Surgeon to the Beccles Hospital. The funeral was attended by a large number of friends.

The death of Mr. John Biddulph Martin, which occurred at Las Palmas from pneumonia, came as a painful surprise to his friends at Charing Cross Hospital, of which institution he had been a member of Council since 1881, and Treasurer since 1884, when he was appointed to succeed the late Mr. Robert Few. Mr. Martin had the rare faculty of quickly grasping the essential facts of the business in hand, and he devoted no inconsiderable portion of his time to the interests of the hospital. Possessing much tact, and always courteous, he was deservedly popular with his colleagues at the Council table, and will be much missed.

We regret to record the death of Dr. L. A. de Saint-Germain, the well-known Surgeon of the Hôpital des Enfants Malades, Paris, which took place on March 25th. M. de Saint-Germain, who was 61 years of age, took his Doctor's degree at the Paris Faculty in 1861, the subject of his thesis being urethral fever. He was appointed Surgeon to the Paris hospitals in 1867, and 1873 became attached to the Enfants Malades. During the remainder of his career he devoted himself exclusively to the surgical diseases of children. He contributed largely to professional literature, and was held in high esteem as a teacher. His clinical lectures have been published in two volumes, one bearing the title *Chirurgie Orthopédique* (1883), the other *Chirurgie des Enfants* (1884). He also collaborated with his pupil, Dr. Valude, in a work on disease of the eyes in children (1887), and was the founder, in conjunction with Dr. Cadet de Gassicourt, of the *Revue Mensuelle des Maladies de l'Enfance*. Dr. de Saint-Germain was very popular among his professional brethren, and his good nature and cheerfulness were proverbial. He never recovered his spirits, however, since the death of his second son, Dr. Pierre de Saint-Germain, of the French Navy, in the Madagascar expedition last year. This blow is believed to have been the cause of the breakdown in health which has now removed from the medical stage of Paris one of its most familiar figures.

On March 21st Dr. Alfred Taylor, of Bolton, died after a short illness, which, beginning with influenza, culminated in diaphragmatic pleurisy and pulmonary congestion. He obtained the diploma of L.R.C.P.I. in 1881, and that of F.R.C.S.Edin. in 1891. He was Medical Officer for the Little Lever Local Board, and his death at the early age of 36 is regretted by a large circle of patients and friends. He was twice married, and leaves a widow but no family.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have lately died are Dr. Morvan, formerly Deputy for the Finistère and scientific sponsor of the disease which bears his name, aged 78; Dr. E. Afanasjeff, formerly Professor of Special Pathology and Therapeutics in the University of Kief, aged 57; Dr. P. H. Millard, Dean of the Faculty of the College of Medicine and Surgery of the University of Minnesota, and inspirer of the Minnesota Medical Practice Act which has served as the type of legislation on the subject for more than half the States of the Union; Dr. de Marbaix, founder and some time Director of the Bacteriological Institute of Boma; Dr. G. A. Kenngott, Emeritus Professor of Neurology in the University of Zurich, aged 79; Dr. Adolf Mezei, Physician to the Rochusspital, Buda-Pesth; Dr. Semen Vasiljevic, a distinguished Russian ophthalmologist, aged 46; Professor L. Holländer, Head of the Dental Policlinic of the University of Halle, aged 63; Dr. Robert Todd Reynolds of Chicago, the oldest living graduate of the McGill University, Montreal, aged 85; and Dr. J. Stukowenkoff, Professor of Dermatology in the University of Kief; Dr. Peter Direk Keyser, formerly Professor of Ophthalmology and Dean of the Faculty of the Medico-Chirurgical College of Philadelphia, aged 62; Dr. S. Gratz Moses, Professor of Gynæcology in Missouri Medical College and twice President of the St. Louis Obstetrical and Gynæcological Society, aged 83; Dr. Charles Loiseau, a distinguished French alienist and some time President of the Société Médico-Psychologique and for many years a member of the Paris Municipal Council and of the Conseil Général de la Seine, aged 72; and Dr. Siuku Sakaki, Professor of Psychology in the University of Tokio.

# NAVAL AND MILITARY MEDICAL SERVICES.

## THE NAVY.

The following appointments have been made at the Admiralty: Richard S. P. Griffiths, Fleet Surgeon, to Haulbowline Hospital, March 31st; Benjamin G. Heather, Surgeon, to the *Vivid*, April 3rd; Theodore J. Preston, Fleet-Surgeon, to the Royal Victoria Yard, Deptford, April 3rd.

## ARMY MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonels T. O'Reilly, E. J. Fairland, and T. J. P. Holmes, M.B., retire on retired pay, April 7th. Brigade-Surgeon-Lieutenant-Colonel O'Reilly was appointed Assistant-Surgeon, April 1st, 1867; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1879; granted the rank of Lieutenant-Colonel, April 1st, 1887; and made Brigade-Surgeon-Lieutenant-Colonel, February 6th, 1893. The commission of Brigade-Surgeon-Lieutenant-Colonels Fairland and Holmes are contemporaneous with those of Brigade-Surgeon-Lieutenant-Colonel O'Reilly, except that of Brigade-Surgeon-Lieutenant-Colonel, which in the case of the former is February 16th, 1893; in that of the latter, May 3rd, 1893. As to their war services, Brigade-Surgeon-Lieutenant-Colonel O'Reilly was with the Hazara Expedition in 1888, receiving the Frontier medal with clasp; and Brigade-Surgeon-Lieutenant-Colonel Fairland was in the Abyssinian war from November, 1867, till July, 1868 (medal). The last-named officer has been Assistant-Professor of Clinical and Military Medicine at Netley since the latter part of 1892.

Surgeon-Lieutenant-Colonel R. H. Robinson, F.R.C.S.I., is promoted to be Brigade-Surgeon-Lieutenant-Colonel, *vice* W. H. Steele, retired, March 3rd. Brigade-Surgeon-Lieutenant-Colonel Robinson entered the service as Assistant-Surgeon, April 1st, 1871; became Surgeon, March 1st, 1873; Surgeon-Major, July 2nd, 1883; and Surgeon-Lieutenant-Colonel, July 2nd, 1891.

## ARMY MEDICAL RESERVE.

Surgeon-Captains J. Duncan, M.B., and J. J. A. V. C. Raye are promoted to be Surgeon-Majors, April 7th.

Surgeon-Lieutenant Hugh Dickie, M.B., 1st Volunteer Battalion the Northumberland Fusiliers, is appointed Surgeon-Captain, April 7th.

Surgeon-Lieutenant W. P. Peake, 1st Volunteer Battalion the Leicestershire Regiment, to be Surgeon-Lieutenant, April 7th.

## INDIAN MEDICAL SERVICE.

Surgeon-Lieutenant-Colonel A. H. Williams, M.B., in medical charge of the 9th Bengal Infantry, is permitted to retire from the service, from July 4th. He was appointed Assistant-Surgeon, March 30th, 1872, and Surgeon-Lieutenant-Colonel, March 30th, 1892. He was in the Afghan war in 1880, and has the medal for that campaign.

## THE VOLUNTEERS.

The undermentioned gentlemen are appointed Surgeon-Lieutenants in the corps specified, dated April 3rd: Robert Crerar, M.B., the Highland Artillery; John Rowan, M.B., the Clyde Division, Royal Engineers Submarine Miners; Thomas H. Fisher, 3rd Volunteer Battalion the King's Liverpool Regiment; Edward J. Sidebotham, M.B., 3rd Volunteer Battalion the Cheshire Regiment; Herman Stedman, M.D., 1st Volunteer Battalion the Northamptonshire Regiment; Charles E. Goddard, 9th Middlesex Rifles; Alfred B. Whitton, M.B., 6th Volunteer Battalion the Gordon Highlanders.

Surgeon-Lieutenant J. M. Whiteford, 1st Lancashire Artillery, and Surgeon-Captain W. J. Williams, M.D., the Tees Division, Royal Engineers, Submarine Miners, have resigned their commissions, April 3rd.

Surgeon-Lieutenant S. Lodge, M.D., 2nd Volunteer Battalion the Prince of Wales's Own West Yorkshire Regiment, is promoted to be Surgeon-Major, April 3rd.

Lieutenant Charles A. K. Renshaw, 3rd Volunteer Battalion the Cheshire Regiment, has resigned his commission, and is appointed Surgeon-Lieutenant in the same corps, April 3rd.

Surgeon-Captain J. Duncan, M.B., 3rd Volunteer Battalion the Manchester Regiment, is promoted to be Surgeon-Major, April 3rd.

Surgeon-Lieutenant J. B. Simpson, 1st Sutherland (the Sutherland Highland) Rifles, is promoted to be Surgeon-Captain, April 3rd.

The Queen having approved the disbandment of the 5th Volunteer Battalion the Cameronians (Scottish Rifles), Surgeon-Captain D. Macphail, M.D., and Surgeon-Lieutenant J. Kirkland have, with other officers, been permitted to resign their commissions, April 1st.

## SPECIAL PLAGUE DUTY.

The services of the undermentioned officers are placed temporarily at the disposal of the Government of Bombay for employment on plague duty: Surgeon-Captain C. T. Hudson, Bombay; Surgeon-Captain C. H.

Bedford, M.D., Bengal; Surgeon-Captain C. Milne, Bengal; Surgeon-Captain E. A. R. Newman, M.B., Bengal; Surgeon-Lieutenant B. H. F. Leumann, M.B., Bombay; Surgeon-Lieutenant H. J. K. Bamfield, Bengal; Surgeon-Lieutenant V. B. Bennett, M.B., Bombay; Surgeon-Lieutenant S. Evans, M.B., Bombay; Surgeon-Lieutenant A. Hooton, Bombay; Surgeon-Lieutenant A. W. R. Cochrane, M.B., Bengal; Surgeon Lieutenant N. R. J. Rainier, Bengal; Surgeon-Lieutenant W. J. Niblock, M.B., Madras; Surgeon-Lieutenant H. J. Walton, Bengal; Surgeon-Lieutenant A. E. H. Pinch, Bengal; Surgeon-Lieutenant J. W. Cornwall, Madras; Surgeon-Lieutenant W. G. Richards, Madras.

The services of the undermentioned officers are placed temporarily at the disposal of Government of North-West Provinces and Oudh for employment on plague and famine duty:—Surgeon-Captain A. W. Dawson, Bengal; Surgeon-Captain B. R. Chatterton, M.D., Bengal; Surgeon-Captain J. Mulvany, Bengal; Surgeon-Lieutenant C. H. Bensley, Bengal; Surgeon-Lieutenant J. C. Robertson, M.B., Bengal; Surgeon-Lieutenant C. D. Dawes, Bengal; Surgeon-Lieutenant C. B. Harrison, M.B., Madras; Surgeon-Lieutenant J. S. Stevenson, Bengal; Surgeon-Lieutenant A. Miller, Madras; Surgeon-Lieutenant H. R. Brown, Madras.

The services of Surgeon-Captain J. J. Bourke, Bengal, are placed temporarily at disposal of Chief Commissioner of Central Provinces, for employment on plague duty.

The services of Surgeon-Lieutenant J. Stephenson, M.B., Bengal, are placed temporarily at disposal of Foreign Department, for employment on plague duty.

## THE INDIAN PRESS ON THE ARMY MEDICAL STAFF.

IT is devoutly to be hoped that the clique at the War Office which is resisting the just demands of army medical officers as to status may have the opportunity of reading a long leading article in the *Times of India* of March 15th. Many passages in the article deal with and support the contentions urged in the BRITISH MEDICAL JOURNAL. The article says:

"Yet nobody acquainted with the spirit of the agitation for true rank and its practical universality throughout the service long before the Camperdown Commission, and protracted ever since, will need to be told that the sentimental grievance—this cry for equality with other departments of the army in the matter of rank and titles—dominates altogether the material side, and cannot be expected to subside whatever be the douceurs added to pay, until medical officers are granted the same titles as commissariat, engineer, ordnance, and accounts officers. It is impossible to resist the force of their contention that sharing (indeed, more than sharing, as the invaliding and casualty lists show) in all the hardships and perils of war, obliged to be in the very thick of the battle, it is inequitable that they should be the only department in the army forced to put up with composite titles, one at least of them being such a clumsy and unmeaning mouthful, as to suggest that its introduction was intended as a scoff."

Then, again, it says pointedly:

"There must be equality, and the symbol of equality is rank and titles. It is puerile in the last degree to tell the doctors that their grievance is a sentimental one, and it is worse still to calumniate them as wanting to pose as soldiers. In this country we are all thrown a good deal into the society of medical officers, and for ourselves we have not yet discovered the phenomenal individual who considered his profession second to a soldier's, or as something to get rid of in a masquerade."

Much more in the same style is contained in the article from which we have briefly quoted.

## POSITION OF THE MEDICAL STAFF.

A.M.D. writes: Anything said or done which tends to reduce the confidence of the soldier in his medical attendant is not merely unfriendly and cruel towards him, but is deliberately unpatriotic. All who really desire to have "good doctors" in the army cannot but welcome the concessions recently announced. "Study leave" is a step towards the better cultivation of the science and practice of medicine in the department; the increase of pay in India is a simple justice; the institution of medical messes a step in the social elevation of the medical officers.

A Correspondent writes: The following opinion of the Duke is from Lord Roberts's *Rise of Wellington* (p. 46): "I consider nothing in this country so valuable as the life and health of the British soldier, and nothing so expensive as soldiers in hospital."

A Retired Medical Officer writes: It is the British taxpayer who pays for the bad treatment so often accorded by combatant to army medical officers; he in the end suffers for the neglect or unwillingness of the military authorities to afford due status, and thereby due protection, to the medical officers; higher pay will not prevent the snubbing and badgering of which they complain. The military authorities are the parties to blame, but the taxpayer in the end is the sufferer for the complaints of the medical service.

The *Madras Mail* heads a powerful article on the Medical Service, "The Weakest Link in the Army." It draws attention to the proposed increase in the army of 7,385 men, and argues that the departmental force must be proportionately increased. The weakest link of all, the medical department, must be strengthened. . . . The medical department is perilously undermanned, and not only that, but the material of which it is composed is not as good as it should be, or as it might be. . . . The only logical argument in support of the attitude of the military authorities is that they have come to the conclusion that a well-found medical and sanitary department is not an essential in a modern army. . . . The Army Medical Department is the weakest link in our national defence, and the chain will inevitably snap at that point, with consequences the far-reaching nature of which it is impossible to foresee. . . . The medical profession demand certain terms from the Government, and will not come into the army unless these terms are granted. They want more pay, definite army rank, a fair share of leave and home service, advancement for professional merit, leave for study, and, in general, more liberal and catholic treatment. It is plain that if such are the only terms that will be accepted the authorities are only kicking against the pricks if they hope to gain efficiency in any other way than by gracefully conceding the terms demanded.

## THE REVISED INDIAN PAY FOR ARMY MEDICAL OFFICERS.

IN connection with the present difficulty of getting suitable candidates for commissions in the Army Medical Staff, much capital has been made by the War Office of the fact that increased rates of pay in India were about to be granted by the Indian Government to certain ranks of the Army Medical Staff. We published on page 886 of the BRITISH MEDICAL JOURNAL of April 3rd, a detailed statement of the revised scales of pay which has been sanctioned, after so much talk. An examination of the following comparative statement will show that the concessions made have really little or no value. The rates quoted are monthly, in rupees:

| Rank. | Old Rate. | New Rate. | Increase. |
|---|---|---|---|
| | Rs. a. p. | Rs. a. p. | Rs. a. p. |
| Brigade-Surgeon-Lieutenant-Colonel... | 1,056 9 7 | 1,150 0 0 | 93 6 5 |
| Surgeon-Lieutenant-Colonel ... ... | 1,056 9 7 | 1,056 9 7 | Nil. |
| Surgeon-Lieutenant-Colonel (after 25 years' service) ... ... ... ... | 1,093 2 0 | 1,093 2 0 | Nil. |
| Surgeon-Major on appointment... ... | 789 3 0 | 789 3 0 | Nil. |
| Surgeon-Major (after 15 years' service). | 825 11 5 | 825 11 5 | Nil. |
| Surgeon-Captain, on appointment ... | 317 8 0 | 350 0 0 | 32 8 0 |
| Surgeon-Captain (after 5 years' service) | 335 12 2 | 450 0 0 | 114 3 10 |
| Surgeon-Captain (after 6 years' service) | 433 10 2 | 450 0 0 | 16 5 10 |
| Surgeon-Captain (after 10 years' service) | 451 14 5 | 500 0 0 | 48 1 7 |
| Surgeon-Lieutenant... ... ... ... | 317 8 0 | 350 0 0 | 32 8 0 |

It we omit the rate now offered to the Brigade-Surgeons, which, after all is but a fair advance upon the notoriously illogical former rate of pay, we find that for the other ranks the increases of pay, announced with so great a flourish of trumpets, are more apparent than real. For officers with less than five years' service these new rates mean only an improvement in pay of Rs.32½ a month, or, say, £22 a year. After five years' service the new rate is a distinct improvement upon the older one, but it really is so only in respect of one year, because under the old rates an officer obtained a substantial increase after six years' service. At this latter stage of seniority the new rate only offers an advance of Rs.16, or about £11 a year. The increase after ten years' service, though material, is delusive, because two years later the officer automatically becomes promoted to the higher rank of Surgeon-Major, with its increased emoluments. With much regret we feel bound to say that these revised scales of Indian pay for army medical officers are distinctly disappointing. They appear to have been drawn up with a view to throw dust in the eyes of prospective candidates for the medical service of the army. A great opportunity has been lost for repairing a great wrong. When we remember that a junior veterinary surgeon of less than three years' service draws Rs.400 a month, it appears to us scandalous that a young officer of the medical service should only be offered some Rs.50 a month less. Had the scale of pay for medical officers of less than five years' service been fixed at Rs.400 a month, for those over five years' seniority at Rs.500, and for those of eight years' service at Rs.600 a month, with no further increase until promoted to the rank of Surgeon-Major, we think only justice would have been done. We hope it is not yet too late for this to be amended. At any rate we have deemed it our duty to point out the delusive nature of the concessions made; it rests with individuals to consider how far such rates of pay are worth serving for in a tropical climate under circumstances by no means free from risks.

A CORRESPONDENT writes: It is a good joke the Indian Government adjusting the financial disabilities of the medical staff officers. Brigade-Surgeon-Lieutenant-Colonels of from twenty-five to thirty years' service, whose contemporaries are Colonels on the Staff, and drawing 1,800 rupees monthly, have added the munificent sum of 57 rupees. The Surgeon-Captains between ten and twelve years' service appear to better advantage; but then, as there are only ten of that rank serving in India at the same time, the dole amounts to about 500 rupees among the lot. The young Surgeon-Captain benefits to the extent of 30 rupees, but is still 50 behind the veterinary officer of a junior rank. Argument and justice are wasted on the War Office; the only thing understood there is political pressure.

A.M.S. writes from India: The financial adjustment in India will no doubt be announced with a flourish of trumpets at home; but the thing is a fraud to throw dust in the eyes of intending candidates; a glance at the old and new rates of pay will show that; especially is it true in respect to the present cost of living in India, and the exchange value of the rupee. The men who have all the responsibility of charge of station hospitals, do not get a single extra anna; nothing will do until this is remedied.

## VACCINATION AS A MEANS OF IDENTIFICATION.

COLONEL DOONER, commanding the 87th Regimental District, who takes some interest in recruiting and in the detection of fraudulent enlistment, has an article in the current number of the *United Service Magazine*, in which he puts forward a new plea, and one which has much to commend it. It is known perfectly well that a vaccination mark lasts often for many years, and he suggests that soldiers and militiamen should on enlistment be vaccinated in a manner different to civilians. Every man is asked in his attestation paper if he has any objection to being vaccinated, and invariably answers in the negative. The inoculation is almost invariably made in the usual place in the upper portion of the left arm, which is supposed to cause the least inconvenience to the patient. Certainly if the army medical officers came to a decision to vaccinate all recruits for the army and militia in some particular place, their detection would, of course, be very much facilitated. It would not, however, altogether secure detection, because there would be nothing to prevent civilians being similarly vaccinated, and it would be a little premature to assume that every person, male or female, who presented the mark of vaccination in a certain part of the arm or leg had at one time or another

been a soldier or militiaman; and, again, there would be nothing to show whether a man had served in the army and not the militia, and *vice versâ*, or whether he had served in both.

### THE ALEXANDER MEMORIAL PRIZE.

THE prize of £50 and the gold medal of the Alexander Memorial Fund for 1896 has been awarded to Surgeon-Major Cecil Birt, A.M.S. The subject for the next competition is Injuries to Joints and Long Bones caused by Modern Small-Arm Projectiles: their Nature, Diagnosis, and Treatment: with Special Reference to the Appliances Required and Available on Field Service. Essays must reach the President of the Committee on or before December 31st, 1899, must bear a brief motto, and be accompanied by a sealed envelope similarly superscribed, containing the name and address of the author. No essays should exceed about 20,000 words, exclusive of tables which may be added in the form of appendices. The competition is limited to executive officers of the Army Medical Staff on full pay, and professors and assistant professors at Netley are not eligible while so employed.

# MEDICO-PARLIAMENTARY.

## *HOUSE OF LORDS.*

### UNIVERSITY COLLEGE, SHEFFIELD.

SIR HENRY STEPHENSON and others have presented to both Houses a petition pursuant to the College Charter Act of 1871, praying Her Majesty in Council to grant a charter of incorporation to a new college, to be called "The University College of Sheffield," together with a draft of the charter. The petition was ordered to be printed.

### FACTORIES AND WORKSHOPS.

Copies have been presented to both Houses of the order made by the Secretary of State for the Home Department permitting, in certain classes of factories, separate departments to be treated as separate factories or workshops so far as regards the period of employment of children, young persons, and women; and the order permitting, in certain classes of factories, separate departments to be treated as separate factories or workshops so far as regards the employment of women during overtime.

## *HOUSE OF COMMONS.*

### VENEREAL DISEASE IN THE ARMY.

ON the Motion of Major RASCH, a return has been ordered of the amount of all classes of venereal disease (including simple venereal returns) for all stations where the Act was in force from 1864 to 1883; and a similar return from the same stations from 1886 to 1895.

Colonel WYNDHAM MURRAY asked the Under-Secretary of State for War whether he would consider the advisability of carrying out the recommendation of the Committee of the Royal College of Physicians contained in their report forwarded to the Secretary of State for India on March 29th, that medical officers of the army should give elementary reading-room lectures on the preservation of health to young soldiers; and whether these lectures could especially be given before or during their voyage to India.—Mr. BRODRICK: The recommendation for medical officers of the army to give lectures to young soldiers on the preservation of their health is one to which great importance is attached. The question of the time and manner in which such lectures should be given is under consideration.

### FATAL ACCIDENTS IN SCOTLAND.

Sir JOHN LENG asked the Lord Advocate if juries under the Fatal Accidents Inquiry (Scotland) Act, 1895, were expressly precluded from making presentments, such as were frequently made by juries in coroners' inquests in England, relative to circumstances, or the conduct of persons, brought to light during the inquiries; if not, by whom the making of such presentments had been prohibited. And whether, in view of the general dissatisfaction with the expense of empannelling juries merely to record the time, place, and cause or causes of death, he would consider how the usage in Scotland could be conformed to that in England.—The LORD ADVOCATE: In reply to the first part of the question, I have to say that there is nothing to preclude a jury summoned under the Act referred to from making any statement which could properly be made in returning a verdict under the Act. In reply to the second part of the question, I would say that I am not aware of any general dissatisfaction, and I am not at present inclined to consider that the practice in Scotland requires alteration.

### THE MULLINGAR UNION MEDICINE CONTRACTS.

In reply to Mr. TULLY, who asked a question with regard to the contract for medicines in Mullingar Union, Mr. G. BALFOUR said that the advertisements in local papers set forth the conditions fully, whereas the advertisements in the Dublin papers, in order to save expense, only mentioned the fact that tenders would be considered on a particular day, and that forms could be had on application. These forms contained the conditions. This appeared to have been the method adopted for many years previously. The clerk of the union states that the advertisements for this year's contracts are the same both in the Dublin and the local papers. No further action against the clerk of the union is called for,

### THE LONDON WATER SUPPLY.

Mr. SYDNEY BUXTON asked the President of the Local Government Board, with regard to that portion of the instructions to the Royal Commission on the London Water Companies which instructed them to inquire and report whether the financial considerations of the question rendered it desirable that the undertakings of the water companies should be acquired by a public authority or authorities, he would state on what basis of purchase the Commissioners would be able to form an estimate of a fair price, whether it would be on the basis of proceedings under the Lands Clauses Act, under the so-called "Plunket" Clause, or under some other form of arbitration.—Mr. CHAPLIN: It appears to me that it will be for the Commissioners to form such estimates as they may consider necessary, and for that purpose to adopt such method or methods as they may deem desirable. They can, if they think fit, form alternative estimates on different bases, but this is a question for them to decide.

### WATER GAS.

Mr. T. M. HEALY: I beg to ask the Secretary of State for the Home Department is he aware that the large English gas companies are now making large quantities of water gas and turning it into the mains with coal gas, so that some cases of gas poisoning have already occurred; and will any means be taken to protect the public against the admixture of this most poisonous substance with coal gas?—Mr. RITCHIE: No, Sir, I am not aware that cases of gas poisoning have occurred from the cause suggested by the hon. and learned member, but if he will be good enough to favour me with any instance I will cause inquiry to be made.

### VACCINATION.

Mr. LOGAN asked the President of the Local Government Board if he was aware that the guardians of the Uppingham Union had, within a period of four and a-half years, caused sixteen summonses to be served upon one parent for non-compliance with the vaccination law; and if he would direct the attention of the guardians of that and other unions in which parents were being similarly prosecuted to the letter of the Local Government Board, issued in 1875, in which guardians were warned that when in a particular case repeated prosecutions had failed in their object it became necessary to carefully consider the question whether the continuance of a fruitless contest with the parent might not have a tendency to produce mischievous results by exciting sympathy with the person prosecuted, and thus creating a more extended opposition to the law.—Mr. CHAPLIN: I have no information as to the number of summonses served in the case referred to in the question. A copy of the letter issued in 1875 was sent to the guardians of the Uppingham Union as recently as January 15th last upon this subject, and at their request.

### ANTI-PLAGUE INOCULATION.

Sir CHARLES CAMERON: I wish to ask the Secretary of State for India whether his attention has been called to the systems of anti-plague inoculation which are being tried in India by Dr. Haffkine and Dr. Yersin, and the statement contained in a recent official despatch from Bombay that 3,296 persons have already been inoculated by Dr. Haffkine; and whether, with a view of securing a prompt test of the protective and curative value of the procedures referred to, he would take steps to secure an independent official registration of all anti-plague inoculations, so as to enable the practical efficacy of the systems to be tested by subsequent comparison between the disease and death rates among inoculated and non-inoculated persons.—Lord GEORGE HAMILTON: I have been in frequent telegraphic correspondence with the Bombay Government regarding inoculations against plague. I have requested the Bombay Government to report periodically the number and the results of inoculations under Dr. Haffkine's and Dr. Yersin's systems separately. As yet I have received no report regarding Dr. Yersin's work beyond the telegram on page 15 of the plague papers distributed to hon. members. The results of inoculation are ascertained and reported as far as possible, as will be seen from the telegrams on pages 15 and 109 of the Blue Book and from the Bombay Government plague telegram of March 29th published in the newspapers.

### IRISH LUNATIC ASYLUMS AND THE BOARD OF CONTROL.

In reply to Mr. SHEE, Mr. G. BALFOUR said that the whole question of lunacy administration in Ireland was one requiring attention, though he could not promise that he would be able to deal with the matter in the immediate future. The fullest opportunity was uniformly afforded the local authorities to submit their views on any plans proposed for improved or increased accommodation, and these views receive the most careful consideration of the Board of Control, with the utmost desire to adopt them, so far as might be found practicable.

### PROPOSED NEW MILITARY HOSPITAL.

Mr. GODDARD asked the Under-Secretary for War whether the Army Sanitary Committee had made an inspection of the site for the proposed military hospital at Felixstowe, and whether he could give any information as to the site chosen.—Mr. BRODRICK: The site approved by the Army Sanitary Committee for the proposed military hospital at Felixstowe is about 1,000 yards north-east of Landguard Fort, and 165 yards from high water mark.

### RECRUITS INVALIDED.

Colonel WYNDHAM MURRAY asked the Under Secretary for War whether his attention had been drawn to the fact, as shown in the Annual Report of Recruiting, that although the number of men under two years' service in the army was less last year than in any of the previous four years, yet the number of men under that length of service who were discharged as invalids was greater than in any of those years; and whether he could explain the reason for this increase of invalid recruits. And, with reference to the same report, whether he could state the reason why the numbers of militiamen who joined the regular forces had constantly diminished during the last five years; and whether the question of the reduction of the bounty given on completion of preliminary drill had been considered in connection with this decrease?—Mr. BRODRICK: There is a small increase in the invaliding of men under two years' service. It is probably attributable to the increased attention paid to physical training, by which men who are unable to bear the strain are more rapidly and surely found out. The diminution in the numbers of militiamen who have joined the regular forces may to some little extent be due to the reduction in the rate of bounty payable on completing their drill on enlistment. If it should continue to increase, the question will be considered.

### THE IRISH POOR-LAW SYSTEM.

Mr. M'CARTAN asked the Chief Secretary to the Lord Lieutenant of Ireland, with reference to the proposed Poor-law Amalgamation Bill, whether it was his intention to appoint a committee to make inquiry into the working of the existing Poor-law system in Ireland. And, whether he was aware of the prevailing opinion as to the necessity for classification and other reforms in connection with the present state of the Poor Laws

there?—Mr. G. BALFOUR: It is not intended to appoint a committee to make inquiry into the working of the Poor-law system in connection with the Poor Relief Bill shortly to be introduced. It is hoped that the effect of the Bill will be to remove some of the difficulties standing in the way of classification and of other reforms.

LIFE ASSURANCE COMPANIES.

A paper has been presented relating to life assurance companies, and ordered to be printed.

POOR-LAW OFFICERS SUPERANNUATION ACT (1896) AMENDMENT BILL.

The second reading of this Bill has been deferred until Wednesday, April 28th.

THE POST OFFICE AND THE PRINCE OF WALES'S HOSPITAL FUND.

Mr. HANBURY, in response to Mr. HENNIKER HEATON, said the Postmaster-General had with great regret declined to undertake the sale of stamps for the benefit of the Hospital Fund, on the ground that if the Department once embarked on such an undertaking, it could hardly refuse to extend it hereafter to other subscriptions of imperial or national importance, and the Post Office would consequently commit itself to a new kind of business of almost indefinite amount. It would impose a heavy strain on a heavily-burdened staff.

NOTICES.

Mr. JEFFREYS proposes to ask the Under-Secretary of State for War whether he is aware that married soldiers who are not on the married establishment of their respective regiments have great difficulty in providing medical attendance for their wives and children, and thereby suffer in health; and whether he will arrange that in future these married soldiers shall have free medical attendance for their families?

Sir WILLIAM PRIESTLEY will ask the President of the Local Government Board whether, in view of the report published last year concerning oyster culture in relation to disease, and the diminished consumption of oysters which has resulted therefrom, he proposes to have oyster beds regularly inspected, or to adopt such other measures as will give the public a reasonable assurance that oysters in the market are derived from healthy sources, and not likely to be the cause of disease.

Captain NORTON proposes to ask the Under-Secretary of State for War whether the Army Medical Service is at the present time sufficient not only for mobilisation, but for medical military needs at home and abroad; and, if not, whether any steps are being taken to increase the staff.

General LAURIE has intimated that he will ask the President of the Local Government Board whether there is any reason for the delay in publishing the Appendices to the Final Report of the Royal Commission on Vaccination, the Report having been issued in August last. And, if a probable date can be given for the publication of the Appendices and of the concluding volume or volumes of Minutes of Evidence.

Captain PIRIE intends to inquire of the Secretary of State for India what steps, if any, have been taken to carry out the urgent recommendation of the Sanitary Commissioner with the Government in India, in his Report for 1894, which is also quoted with approval in the Report on Sanitary Measures in India in 1894-95, that much might be done to diminish the extent and severity of contagious diseases among the British troops in India by providing increased facilities for bathing with comfort and convenience in private and public baths, and by inculcating habits of personal cleanliness among the troops.

# UNIVERSITIES AND COLLEGES.

## UNIVERSITY OF EDINBURGH.

THE Scottish Universities Commissioners have issued a draft ordinance regarding the foundation of the Bruce and John Usher Chair of Public Health in the University of Edinburgh. The occupant of the chair is to be a professor in the Faculties of Medicine and Science, is to receive the annual free income of the endowment together with such sum from the General University Fund as may be necessary to bring up his salary to £600. It is to be in the power of the University Court (the patrons of the new chair) to increase the salary out of the University Fund.

FIRST PROFESSIONAL EXAMINATION.—The following candidates have passed in the subjoined subjects:

*Chemistry.*—R. A. Belilios, H. M. Bell, M. G. I. Cadell, M. S. Dickson, J. D. Anderson, J. M. L. Brown, R. V. Clark, W. P. Cormack, H. Dodgson, A. R. Douglas, J. W. Duffus, W. I. Dunn, V. G. Fergusson, D. Fitzwilliams, A. T. Gavin, G. G. Hey, W. Landsborough, A. Leach, W. Macdougall, D. M. MacLeod, E. Macrory, R. C. Monnington, C. E. Pepper, P. O. Rayner, A. P. Coskey, C. P. Strong, J. H. Wrightson, M. F. Anderson, G. S. Blandy, V. C. de Boinville, E. S. Brett, A. Brown, J. Brownlee, D. I. Brownlie, R. V. C. Ash, R. T. Baillie, G. C. Burgess, G. S. Carey, D. G. Carmichael, A. W. S. Christie, P. T. Copeland, W. H. Dickinson, T. G. B. Dodds, C. Douglas, W. A. Duncan, J. M. Dupont, J. R. Edward, G. Forrest, E. C. Gimson, J. M. Glasse, R. A. Glegg, A. L. Gurney, J. Haegert, J. Halliday, W. Hamilton, N. C. R. Hansen, A. W. Hauman, J. P. P. Inglis, F. F. C Jagger, E. A. King, W. Lee, I. Logie, R. J. M'Lelland, E. G. H. Mackenzie, H. C. Martin, A. F. G. Masson, W. H. Meyer, G. R. Mill, C. T. Moller, P. Murray, W. Murray, D. A. Ogilvie, J. F. Orr, D. E. S. Park, S. Palmer, T. B. Paterson, W. S. Patton, S. G. Peill, G. Pereira, H. G. Pessel, A. C. Peterson, A. H. Reid, R. A. C. Rigby, P. C. Ritchie, J. S. E. Robertson, M. W. Robertson, H. W. Rusack, T. B. Shaw, M. W. Smart, M. M. Smith, T. A. Smyth, C. W. Somerville, G. B. A. Speirs, W. C. Speirs, I. S. Stewart, P. S. Tillard, J. P. du Toit, E. J. Tyrell, E. A. Walker, A. R. Wallis, C. E. Watts, A. G. Waugh, T. S. B. Williams, F. E. Wilson, J. Woods, J. F. Allan, C. H. Allen, A. W. Atkinson, A. C. Begg, H. J. Bradley, J. Brocket, E. E. Brown, T. E. Byrne, E. P. Calder, T. F. Cavanagh, W. J. Crow, B. M. Cunningham, J. Dalgliesh, J. L. Duncan, W. Eggeling, O. J. Evans, V. Fergusson, E. G. Fraenkl, S. Garvin, M. J. Gordon, A. R. Hallam, A. M. Hamilton, R. Harper, E. R. Henderson, D. C. Henry, L. A. Holcroft, A. E. Hunter, G. A. Jolly, A. C. Keay, C. H. Lindsay, J. H. Lindsay, S. Lyle, J. G. M'Bride, J. G. M'Caughey, S. W. M'Clean, A. W. M'Ewan, P. F. M'Farlan, A. M'Gregor, N. F. MacHardy, J. M'Kenzie, M. E. M'Kenzie, V. C. M'Laren, L. A. MacMunn, K. D. C. McRae, R. H. Martin, W. Miller, G. S. Murray, E. P. B. Phillips, L. W. Pole, E. T. Potts, H. S. Randell, F. L. Rigby, R. Rorie, C. W. Saleeby, G. W. R. Skeen, I. Y. Smail, D. W. Standley, M. M. Stevenson, D. Sutherland, G. C. Trotter, A. L. Venters, J. Wallace, C. C. Wilson, D. Young, J. Ferrier, M. M. Meikle, M. Anderson, G. M. Brown, W. L. L. Alston, H. W. Gush, F. D. Hull, F. D. S. MacKenzie, M. S. Scott, P. Shaw, H. L. Spark, H. J. George, E. C. C. Maunsell, B. A. Spence, E. M. Glanville, and W. H. Elder.

## UNIVERSITY OF ABERDEEN.

AT the graduation ceremony on April 2nd the honorary degree of LL.D. was conferred upon Professor Sir Thomas Grainger Stewart, Professor E. A. Schäfer, F.R.S., and Professor Alexander Skene, M.D., Long Island College Hospital, U.S.A.

The following received the degree of M.D.: E. N. Carlees, M.B., C.M.; F. A. Gill, M.B., C.M.; J. H. Goodliffe, M.B., C.M.; A. M'Gillivray, M.B., C.M.; W. Mackie, M.A., M.B., C.M.; L. J. Milne, M.A., M.B., C.M.; B. Saunders, M.B., C.M.

The thesis of J. H. Goodliffe was considered worthy of "commendation."

The following received the degree of M.B., C.M. (Old Regulations): M. Robertson, M.A. (with honourable distinction); F. H. Cantlie, W. Lumsden, J. W. S. Attygalle, F. J. Alexander, W. A. Salmond, R. C. Macfie, M.A., James Mansie, M.A., G. F. Thomson, J. G. Stuart, R. Valentine.

The following received the degree of M.B., Ch.B. (New Regulations): Robert Bruce, M.A.; J. S. Milne, M.A.; A. Ledingham, M.A.; T. S. Snowball, M.A.; T. W. Lumsden (with honourable distinction); J. Pozzi, M.A.

## UNIVERSITY COLLEGE, DUNDEE.

A DRAFT ordinance has just been issued by the Universities Commissioners proposing the establishment of a lectureship in Forensic Medicine in Dundee College. Other draft ordinances go in the direction of making the Dundee institution more and more of a science college, and St. Andrews University more and more literary, linguistic, philosophical, and theological.

## CONJOINT BOARD IN ENGLAND.

THE following gentlemen passed the Second Examination of the Board in the subjects indicated:

Thursday, April 1st:

*Anatomy and Physiology.*—R. Dunstan, A. L. Matthews, and M. F. Reaney, students of London Hospital; A. R. Hobbs, E. W. Holyoak, C. H. Brodribb and G. Barnes, of St. Mary's Hospital; H. R. Bateman, J. Coates, and T. H. Edwards, of St. Thomas's Hospital; H. A. B. Bransbury and W. F. Fedden, of St. George's Hospital; W. H. Loosely, C. E. Hicks, of Guy's Hospital; M. G. Hannay, of Charing Cross Hospital; R. L. Thornley, A. R. Tweedie, of St. Bartholomew's Hospital; F. A. Boissiere and W. H. Lowman, of King's College, London; and C. Visger, of University College, London.

Sixteen gentlemen were referred in both subjects.

Friday, April 2nd:

*Anatomy and Physiology.*—R. H. R. Whitaker, M. G. Winder, F. M. Howell, E. G. Smith, A. T. Pridham, and C. A. S. Ridout, of St. Bartholomew's Hospital; P. H. Ross, of Otago University, New Zealand and St. Bartholomew's Hospital; E. Cohen, R. W. B. Hall, and D. Forsyth, of Guy's Hospital; J. F. Northcott, of Cambridge University and Guy's Hospital; H. L. Driver, J. A. Churchill, and T. C. English, of St. George's Hospital; F. C. Carlé and A. C. Williams, of King's College, London; G. B. Dixon, of Charing Cross Hospital; S. Pern, A. D. Jameson and S. Hunt, of St. Thomas's Hospital; H. V. Wells, of St. Mary's Hospital; N. Navarra, of Middlesex Hospital; A. R. Spencer and D. L. Davies, of University College, London; and H. Balean, of London Hospital.

Twelve gentlemen were referred in both subjects.

Saturday, April 3rd:

*Anatomy and Physiology.*—R. H. Paramore, of St. Bartholomew's Hospital; E. H. Bonney and S. G. Harrison, of Charing Cross Hospital; E. N. T. Rogers and C. R. Rickard, of Middlesex Hospital; P. H. Ward, of Guy's Hospital; J. Tattersall, of St. Mary's Hospital; F. M. Bingham, of St. Thomas's Hospital; W. B. B. Taylor, of London Hospital; L. Jones, of St. George's Hospital; and W. MacLellan, of Edinburgh University.

Four gentlemen were referred in both subjects.

# PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

## HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,475 births and 3,866 deaths were registered during the week ending Saturday last, April 3rd. The annual rate of mortality in these towns, which had been 18.7 per 1,000 in each of the two preceding weeks, declined again to 18.3 last week. The rates in the several towns ranged from 12.6 in West Ham, 12.9 in Croydon, 13.1 in Derby, and 13.4 in Gateshead to 24.0 in Nottingham, 26.4 in Salford, 27.0 in Burnley, and 34.8 in Bolton. In the thirty-two provincial towns the mean death-rate was 18.9 per 1,000, and exceeded by 1.3 the rate recorded in London, which was 17.6 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.6 per 1,000; in London the rate was equal to 1.6 per 1,000, while it averaged 1.7 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.8 in Leicester, 3.3 in Manchester,

6.4 in Salford, and 6.0 in Bolton. Measles caused a death-rate of 1.5 in Burnley, 1.6 in Plymouth, 4.6 in Salford, and 6.0 in Bolton: whooping-cough of 1.0 in Leicester, 1.1 in Bristol, and 1.2 in Manchester; and "fever" of 1.0 in Derby. The mortality from scarlet fever showed no marked excess in any of the large towns. The 66 deaths from diphtheria in the thirty-three towns included 41 in London and 3 in Salford. No fatal case of small-pox was registered during the week either in London or in any of the thirty-two large provincial towns. There were 17 cases of small-pox under treatment in the Metropolitan Asylums Hospitals on Saturday last, April 3rd, against 30, 29, and 21 at the end of the three preceding weeks; no new cases were admitted during the week. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 2,685, 2,622, and 2,585 at the end of the three preceding weeks, had further declined to 2,512 on Saturday last; 219 new cases were admitted during the week, against 218, 206, and 224 in the three preceding weeks.

### HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, April 3rd, 964 births and 650 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 23.3 and 22.6 per 1,000 in the two preceding weeks, further declined to 22.1 last week, but exceeded by 3.8 per 1,000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 15.4 in Paisley to 24.1 in Glasgow. The zymotic death-rate in these towns averaged 3.5 per 1,000, the highest rates being recorded in Glasgow and Edinburgh. The 331 deaths registered last week in Glasgow included 15 from measles, 6 from diphtheria, 28 from whooping-cough, 5 from "fever," and 4 from diarrhœa. Three fatal cases of diphtheria, 12 of measles, and 9 of whooping-cough were recorded in Edinburgh.

### EVESHAM UNION WORKHOUSE.

We are glad to learn that, in consequence of a report made a few weeks ago by Mr. A. H. Martin, the medical officer, drawing attention to the overcrowding of the Evesham Union Workhouse, which have been increasing for some considerable time past, the guardians had resolved to erect a new workhouse and infirmary. The present workhouse, which was, we believe, built about sixty years ago, has become inadequate to the requirements of the district. The guardians have had the advantage of the advice of Mr. E. B. Wethered, Local Government Board Inspector, who inspected the existing buildings in conjunction with the medical officer and the Repairs and Building Committee. The report of the inspection was to the effect that a new workhouse and infirmary were needed: and at a full meeting of the guardians, Mr. G. H. Hunt, architect, of London and Evesham, was by a unanimous vote instructed to prepare plans for a new workhouse and infirmary for not less than 200 inmates.

## INDIA AND THE COLONIES.

### INDIA.

Sanitation in the North-Western Provinces and Oudh.—Surgeon-Major S. J. Thomson's report for 1895, and the sympathetic and suggestive review of it by the Local Government indicate that the sanitary administration of these provinces is sound and progressive. The year was a healthy one. Its meteorological features were "a cool spring, a short hot weather, a light monsoon setting in early and terminating in September, and exceptional heat and dryness in the last quarter of the year." The registered birth-rate was 34.9 and death-rate 29.1. The birth-rate was low, in consequence, it is surmised, of a very unhealthy preceding year, and the death-rate has only twice been lower since the year 1881. Great variations are manifest, as usual, in the rates of different places. As regards the value of registration, it is stated that "the collection of statistics for this vast area—100,000 square miles, containing 47 millions of inhabitants—is carried on by the village watchmen, the only method possible with regard to reasonable economy, and upon the whole is wonderfully well performed." Probably it is one of the most efficient reporting agencies at the price in the world. The deaths from small-pox only amounted to 0.04 per mille—the lowest figure on record. The disease appears to be yielding to vaccination. The death-rate from cholera was 1.1, from fevers 23.3, and from bowel complaints 0.91 per 1,000—all considered moderate figures. It is interesting to note that, while the mortality from small-pox and fevers is nearly the same in urban and rural circles, the death-rate from cholera is higher, and from bowel complaints much higher, than in the former. There was an increase in suicides which are also more frequent in rural circles. "About three females committed suicide to one male." This fact casts a lurid light on the social condition of women in these provinces. Sanitary works great and small are being diligently executed, and with increasing experience to better purpose. One hundred and three municipalities expended 21 lakhs of rupees out of an income of 55 on "water supply, drainage, conservancy, markets, and slaughterhouses." An attempt has been made to estimate statistically the saving of life caused by the completion of works for water supply and drainage, but for various reasons the attempt is a failure. The Local Government, however, is satisfied that drainage works in irrigated districts have been productive of marked benefit. The Sanitary Board in these provinces has been recast and entrusted with greater executive power in order to "discharge competently the duty of a central supervising and regulating authority in all sanitary matters." As regards sanitary effort in rural villages, the Lieutenant-Governor considers that it should proceed on these lines: (1) accurate vital statistics as a basis of sanitary surveys: (2) the appointment of qualified sanitary inspectors; (3) the allotment of funds for sanitary purposes from local rates; and (4) sustained impulse in the right direction through the control of the Sanitary Board. These are sound principles of progress, and sanitation in these provinces may be considered to have attained the position of an organised institution.

## MEDICAL NEWS.

A clinical meeting of the Neurological Society of London will be held on Thursday, April 22nd, at 8.30 P.M., in the Rooms of the Medical Society.

The Treasurer of Guy's Hospital has received a sum of £1,000 from Miss L. A. Williams, to endow a bed in perpetuity in memory of the late Henry Pratt, M.D., formerly a student at Guy's Hospital.

Dr. James Ellison, of High Street, Windsor, for forty-five years surgeon to Her Majesty's household at Windsor Castle, who died in January last, has left personal estate valued at £13,486 10s. 11d.

Edinburgh Royal Infirmary.—John Macmillan, M.D., Joseph H. Reynolds, M.B., C.M., and D. G. M. Munro, M.B., C.M., have been appointed special non-resident clinical clerks for the ensuing six months.

Dr. Robert A. Forsyth, of New Hall, Birstall, near Leeds, has, on the recommendation of the Lord Lieutenant, been placed by the Lord Chancellor on the Commission of the Peace for the West Riding of the County of York.

Mr. William Royden, M.A., M.R.C.S., L.R.C.P., has been presented with a silver revolving breakfast dish by the members of the ambulance classes which he conducted during the winter at Burgh St. Margaret's, near Great Yarmouth.

The Paris Municipal Council has, in consequence of a report presented by M. Dubois, voted a sum of 5,000 francs (£200) towards the cost of installation and maintenance of a skiagraphic laboratory at the Trousseau Hospital.

Madame Charcot, widow of the great neurologist, has relinquished the pension of £80 to which she is entitled in favour of the widows and children of professors and *agrégés* of the Paris Faculty deceased without leaving an adequate provision for their families.

The Berlin Academy of Sciences has made an appropriation of M.2,400 (£120) to Professor Harnack, for the expenses of the preparation of a history of the Academy, to be published on the occasion of the two hundreth anniversary of its foundation.

At Llanfairfechan, North Wales, recently, the Heath Memorial Convalescent Home, erected at a cost of £20,000 by Messrs. R. J. and A. Heath, as a memorial to the late Mr. Robert Heath, their father, the well-known ironmaster, was opened in the presence of a large company.

French Obstetrical Society.—The Obstetrical Society of France will hold its annual meeting in Paris on April 22nd and two following days. The questions on the programme are: (1) Habitual Abortion; (2) Fibroids during Pregnancy and Labour.

The personal estate of Sir Thomas Spencer Wells, Surgeon to Her Majesty's Household, who died on January 31st, has been valued at £52,779 19s. He bequeathed to the Royal College of Surgeons his portrait by Lehman in his robes as President of the College. The rest of his property is left to members of his family.

Congress of the German Gynæcological Society.—The seventh Congress of the German Gynæcological Society will be held this year at Leipzig on June 9th and two following days, under the presidency of Professor Zweifel. Among the subjects proposed for discussion are Retroflexion of the Uterus and Placenta Prævia.

At the annual meeting of the Sanitary Institute held on March 24th, H.R.H. the Duke of Cambridge, K.G., was re-elected President, and Professor W. H. Corfield, M.A., M.D., F.R.C.P., and Mr. Thomas Salt were elected Vice-Presidents to fill the vacancies caused by the deaths of Sir George M. Humphry of Cambridge and Sir J. Russell Reynolds. The report of the Council on the year's work was read.

Farnham Water.—A sample of water from the new Farnham reservoir has been examined by Dr. Thomas Stevenson, of Guy's Hospital, who reports that the water was free from

odour, and, when viewed in bulk, colourless and clear. He gives it as his opinion that it is "an excellent water for drinking and all domestic purposes. It is soft, contains little saline matter, is of a high degree of purity, and yields no evidence of any sewage or other impurity."

A HOSPITAL AND CHAPEL CAR.—It is reported that a novelty in railway carriages will shortly be placed on the Belgian lines. This is a *wagon-hôpital*, fitted up, as its name implies, for invalids, and containing twenty-four beds upon wire springs, and various surgical and medical appliances. The new carriage will be utilised for the first time by the pilgrims to Lourdes next month. An unusual feature is a little chapel attached to the carriage, where special permission has been obtained from the Pope to celebrate mass.

THE "X" RAY SOCIETY.—At a meeting of medical men interested in the *x* rays, held last week at 20, King William Street, Strand, rules were drawn up, subject to final approval at a large general meeting, on the lines common to most scientific societies. It was resolved that membership should not be restricted to medical men, but should include all who are interested in the scientific study of the Roentgen rays. The difficulty of discussing medical matters before a mixed audience will probably be got over by forming a medical subsection. Any inquiries may be made of the Honorary Secretary, Dr. Walsh, 5, Pump Court, Temple, E.C.

BEQUESTS TO SEAMEN'S HOSPITALS.—Litigation arising out of the will of the late Mr. William Waller, of Gravesend, having been settled, the Lord Mayor, having due regard to the testator's wishes, has made the following among other awards: Greenwich Hospital, £2,000; Seamen's Hospital Society (late *Dreadnought*), £3,000; Guy's Hospital (to endow two beds for seamen), £2,000; Poplar Hospital for Accidents, £1,000; Ramsgate Seamen's Infirmary, £105; and the Passmore Edwards District Cottage Hospital, Tilbury, £105. The main reason assigned for the solicitude of the testator in the welfare of seamen was the fact that when very young he was wrecked in the West Indies, and was saved by the sailors of H.M.S. *Pincher*, and he always afterwards expressed his intention, if blessed with wealth, to leave some mark of his gratitude. In addition to the sum bequeathed to the Lord Mayor for distribution, the testator also left £3,000 to the hospital at Gravesend where he resided.

ROYAL COMMISSION ON TUBERCULOSIS.—Sittings were held at 7, Whitehall Place on April 1st and 2nd, Sir Herbert Maxwell, Bart., M.P., being in the chair. The other Commissioners present were Dr. R. Thorne Thorne, C.B., F.R.S., Professor G. T. Brown, C.B., Mr. Shirley F. Murphy, Mr. T. Cooke-Trench, and Mr. J. Speirs. The evidence was heard of three of the gentlemen nominated by the Cattle Diseases Committee of the Central and Associated Chambers of Agriculture, namely, Mr. B. St. John Ackers (Chairman), of Gloucestershire, Mr. T. Carrington Smith, of Staffordshire, and Mr. J. Kay, of Lancashire. The evidence of the witnesses had reference, amongst other points, to the nature of the disease, its extent in various herds of cattle, and to the loss inflicted upon dairy farmers and agriculturists generally by its prevalence. The view was expressed that a stamping-out process, such as has been practised in the case of cattle plague, foot-and-mouth disease, and pleuro-pneumonia, was not applicable to tuberculosis, but that compensation should be given to owners of animals, which when living were apparently healthy, but which after slaughter were condemned and confiscated in the interests of the public health by reason of the presence of the disease.

## MEDICAL VACANCIES.

The following vacancies are announced:

ADMINISTRATIVE COUNTY OF THE PARTS OF HOLLAND, Lincolnshire.—Public Analyst and District Analyst. Remuneration as Public Analyst, annual fee £10 10s., together with fee of 10s. 6d. for each analysis; as District Analyst £1 for each analysis. Applications to H. Chaderton Johnson, Deputy Clerk of the County Council, Sessions House, Boston, by April 12th.

BRENTFORD UNION.—Dispenser for the Infirmary, Workhouse, and Schools at Isleworth. Salary, £100 per annum, with dinner and tea daily. Applications to William Stevens, Clerk, Union Offices, Isleworth, before April 14th.

BURY DISPENSARY HOSPITAL.—Senior House-Surgeon; doubly qualified. Salary, £100 per annum, with board, residence, and attendance. Applications to the Honorary Secretary, Dispensary, Bury, Lancashire.

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—House-Surgeon; doubly qualified, registered, and unmarried. Salary, £90 per annum, with board, lodging, and washing. Applications to the Honorary Secretary, Clayton Hospital, Wakefield, by April 22nd.

DUNDEE ROYAL ASYLUM.—Resident Clinical Assistant. No salary. Board, etc., provided. Applications to Dr. Rorie, Dundee.

DUNDEE ROYAL INFIRMARY.—Second Honorary Assistant Physician. Applications to D. Gordon Stewart, Secretary, 10, Meadowside, Dundee, by April 14th.

ENNISCORTHY DISTRICT ASYLUM.—Assistant Medical Officer, qualified in medicine, surgery, and midwifery, not more than 30 years of age, and unmarried. Salary, £100 per annum, with allowance of furnished apartments, rations, etc., valued at £100 per annum. Applications to the Medical Superintendent. Personal attendance before the Board of Governors required on April 14th.

GENERAL HOSPITAL, Birmingham.—Assistant House-Surgeon; must possess surgical qualification. Appointment for six months. No salary. Residence, board, and washing provided. Applications to H. J. Collins, House-Governor, by May 8th.

GENERAL INFIRMARY, Leeds.—Resident Surgical Officer. Salary, £100 per annum, with board, residence, and washing. Applications to the Secretary of the Faculty by April 17th.

GERMAN HOSPITAL, Dalston, N.E.—Honorary Ophthalmic Surgeon Must be a native of Germany or fully conversant with the German language. Doubly qualified. Applications to H. Gülich, Superintendent, by April 21st

GOVERNMENT OF NEW SOUTH WALES.—Bacteriologist and Assistant to the President of the Board of Health of the Colony; not more than 40 years of age and doubly qualified. Salary, £600 per annum. Applications to Saul Samuel, Agent-General for New South Wales, 9, Victoria Street, S.W., by April 20th.

HANTS COUNTY ASYLUM.—Third Assistant Medical Officer; doubly qualified, not more than 30 years of age, and unmarried. Salary, £100 per annum (increasing to £125 after twelve months' service), with furnished apartments, board, washing, and attendance. Applications endorsed "Applications for Appointment of Medical Officer" to the Committee of Visitors, Knowle, Fareham, by April 20th.

HOSPITAL FOR WOMEN AND CHILDREN, Leeds.—Non-Resident House-Surgeon. Appointment for twelve months. Salary, £90 per annum. Applications to the Secretary of the Faculty by April 14th.

LIVERPOOL DISPENSARIES.—Assistant Surgeon; unmarried. Salary, £80 per annum, to be increased to £90 after first year's service, with apartments, board, and attendance. Applications to R. R. Greene, Secretary, 34, Moorfields, Liverpool, by April 26th.

LIVERPOOL HOSPITAL FOR CANCER AND SKIN DISEASES.—Honorary Assistant Surgeon. Applications to Mr. A. N. Talbot, 3, Rumford Street, Liverpool, by April 20th.

LIVERPOOL NORTHERN HOSPITAL.—Honorary Physician. Applications to Chairman of the Committee by April 10th.

MIDDLESEX HOSPITAL.—Assistant Surgeon and Aural Surgeon; must be F.R.C.S.Eng. Applications to F. Clare Melhado, Secretary-Superintendent, by April 26th.

MONTROSE ROYAL ASYLUM.—Medical Superintendent. Salary, £700 per annum, with free house, fire and light. Appointment an annual one. Applications, endorsed "Physician Superintendent," to Alexander Lyell, Solicitor, Clerk to the Board of Managers, 81, High Street, Montrose, by May 1st.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road.—Resident Medical Officer and Assistant Resident Medical Officer. Appointment for six months. Salary at the rate of £50 attaches to the senior post. The junior is eligible for election to the senior post. Applications to A. Craske, Secretary, by May 1st.

NOTTINGHAM GENERAL DISPENSARY.—Junior Assistant Resident Surgeon. Appointment for six months from May 1st. Salary at the rate of £120 per annum, with rooms and attendance. Applications to the Secretary.

PARISH OF RONSAY AND EGILSHAY, Orkney.—Resident Medical Officer. Salary, £51 per annum. Applications to "The Clerk of Parish Council" by April 28th.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. Appointment for six months. Board, lodging, and washing provided. Applications to the House-Surgeon by April 14th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Four Examiners in Anatomy and four Examiners in Physiology for the Fellowship. Candidates for the former must be F.R.C.S Eng. Applications to the Secretary by May 3rd.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Pathological Curator of the Museum; must be Fellows or Members of the College. Applications to the Secretary by April 15th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—House-Physician, doubly qualified. Appointment for six months. No salary, but board, etc., provided. Assistant Physician to have care of outpatients, must be F. or M.R.C.P.Lond. Applications to the Secretary by April 17th.

ST. SAVIOUR'S UNION, Surrey.—Medical Superintendent at the Infirmary, East Dulwich Grove. Salary, £400 per annum, with unfurnished house, coals, gas, and water. Applications, marked outside "Application for Medical Superintendent," to Howard C. Jones, Clerk, Union Offices, John Street West, Blackfriars Road, S.E., by April 12th.

SEAMEN'S HOSPITAL SOCIETY, "Dreadnought," Greenwich, S.E.—House-Physician; doubly qualified. Salary, £75 per annum, with board and residence. Applications to P. Michelli, Secretary, by April 19th.

SHEFFIELD GENERAL INFIRMARY.—Junior Assistant House-Surgeon; doubly qualified. Salary, £50 per annum, with board, lodging, and washing. Appointment for three years, but eligible for re-election. Applications to the "Medical Staff of the Sheffield General Infirmary" to the care of the Secretary by April 21st.

SWANSEA GENERAL HOSPITAL.—House-Physician. Appointment for one year; at end of first six months to act as House-Surgeon. Salary, £50 per annum, with board, apartments, laundress, and attendance. Applications to J. V. Morris, Secretary, 9, Castle Street, Swansea, by April 17th.

TAUNTON AND SOMERSET HOSPITAL.—Assistant House-Surgeon. Appointment for six months. No salary. Board, washing, and lodging provided in the institution. Applications, endorsed "Assistant House-Surgeon," to J. H. Biddulph Pinchard, Secretary, 13, Hammet Street, Taunton, by April 24th.

VICTORIA HOSPITAL, Folkestone.—House-Surgeon; will be also required to dispense. Salary, £80 per annum, rising to £100, with board, residence, and washing. Applications to the Secretary by April 13th.

WESTMINSTER GENERAL DISPENSARY, 9, Gerrard Street, Soho, W.—Resident Medical Officer. Appointment an annual one. Applications to Joseph H. Madge, Secretary, by April 21st.

WOLVERHAMPTON EYE INFIRMARY.—House-Surgeon. Appointment for six months. Terms £70 per annum, with rooms, board, and washing. Applications to W. Blake Burke, Secretary, by April 24th.

WONFORD HOUSE HOSPITAL FOR THE INSANE, near Exeter.—Assistant Medical Officer, doubly qualified, and not more than 28 years of age. Salary, £150 per annum, with furnished apartments, board, and washing. Applications to Dr. Deas, Medical Superintendent, by April 21st.

## MEDICAL APPOINTMENTS.

Arnison, W. C., D.C.L., M.D.Durh., M.R.C.S.Eng., appointed Honorary Consulting Surgeon to the Newcastle Royal Infirmary.

Bartlett, B. P., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Bourton District of the Shaftesbury Union.

Burnie, W. Gilchrist, M.R.C.S.Eng., L.S.A.Lond., appointed Honorary Consulting Medical Officer to the Bradford Children's Hospital.

Butler, George H., L.R.C.P.I., L.R.C.S.Edin., reappointed Medical Officer of Health to the Wealdstone Urban District Council.

Caley, H. A., M.D.Lond., M.R.C.P., appointed Lecturer in Materia Medica and Therapeutics in St. Mary's Hospital Medical School, *vice* Sidney Phillips, M.D., resigned.

Coleman, Maurice W., M.B.Lond., M.R.C.S., appointed House-Physician to the City of London Hospital for Diseases of the Chest, Victoria Park.

Cox, Dr., appointed Medical Officer for the Knighton District of the Knighton Union, *vice* F. H. Hardman, M.B., C.M.Edin., resigned.

Crerar, Charles, M.B.Edin., appointed Medical Officer for the Holme Abbey District of the Wigton Union, *vice* J. Leitch, M.B., C.M.Edin., deceased.

Crooks, James, M.D., C.M.Toronto, L.R.C.S.Edin., L.S.A., appointed Medical Officer for the No. 8 District of the Lexden and Winstree Union, *vice* H. D. Palmer, M.R.C.S.Eng., L.S.A., resigned.

Daniel, Mr. R. A. D., appointed Medical Officer of Health to the Chatteris Urban District, *vice* C. Farrar, M.D.Heidel., L.F.P.S.Glasg., deceased.

Darroll, W. B., M.R.C.S.Eng., L.R.C.P.Lond., reappointed Medical Officer for the Brampton Bryan District of the Knighton Union.

Ducat, Arthur D., M.B.Lond., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Chiswick District of the Brentford Union.

Edwards, H., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Markyate District of the Luton Union, *vice* F. W. D. McGachen, L.F.P.S.Glasg., D.P.H.Eng.

Evers, Chas. John, M.D.Durh., M.R.C.S.Eng., reappointed Medical Officer of Health to the Faversham Town Council.

Fentem, Philip Sheldon, M.D.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health to the Baslow and Burnell Urban District Council.

Gibson, Chas. Gordon, M.B., C.M.Edin., reappointed Medical Officer for the No. 8 (Northhill) District of the Launceston Union.

Graves, T. W., M.R.C.S.Eng., L.S.A., reappointed Medical Officer for the Beguildy District of the Knighton Union.

Hammond, William, L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer for the No. 6 District of the Liskeard Union.

Hoffmeister, H. Edgar, B.A.Cantab, M.B., B.C., M.R.C.S.Eng., appointed Medical Officer of Health to the East Cowes District Council.

Limrick, W. S., L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of Health to the Waterloo District Council.

Morgan, Owen, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Central District of the Newport Union.

Morison, J. Rutherford, M.B., F.R.C.S.Edin., F.R.C.S.Eng., appointed Honorary Surgeon to the Newcastle Royal Infirmary, *vice* W. C. Arnison, M.D.Durh., retired.

Paget, Peter, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer for the High Halden District of the Tenterden Union.

Parker, J. E., M.R.C.S.Eng., L.R.C.P.I., appointed Medical Officer for the Ince-in-Makerfield District of the Wigan Union.

Pearce, Arthur, M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health to the Kingsbridge and Salcombe Port Sanitary Authority.

Pearse, F. E., L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer for the Horsley District of the Guildford Union.

Simpson, W. Petrie, M.P., C.M.Edin., appointed Medical Officer and Public Vaccinator for the Tattershall District of the Horncastle Union.

Smith, Kenneth R., M.D.Lond., B.S., M.R.C.S., appointed Medical Officer of Health for the Borough of Totnes, *vice* D. A. Fraser, M.D.Brux., M.R.C.S.Eng., deceased.

Smyth, T. E., M.D.Dub., M.B., B.Ch., appointed Medical Officer for the Milton Abbott District of the Tavistock Union, *vice* J. B. O. Richards, L.R.C.P., L.R.C.S.Edin., resigned.

Taylor, E. Claude, M.D., B.S.Lond., F.R.C.S.Eng., appointed Deputy Assistant Surgeon to the London Temperance Hospital.

Temple, G. H., M.B., C.M.Edin., appointed Medical Officer for the Weston-super-Mare District of the Axbridge Union, *vice* C. V. Hitchins, M.R.C.S.Eng., L.S.A., resigned.

Thompson, W. H., L.R.C.P.Lond., M.R.C.S.Eng., appointed Honorary Medical Officer to the Bradford Children's Hospital.

Thompson, W. F., M.B., C.M.Edin., reappointed Medical Officer for the No. 2 (South Petherwin and St. Thomas Apostle) District of the Launceston Union.

Vernon, Claude Martin, M.R.C.S., L.R.C.P.Lond., reappointed Medical Officer for the Kennington District of the East Ashford Union.

Vernon, Dr., appointed Medical Officer for the Bilton District of the Warmley Union.

Ward, Howard P., M.B.Lond., M.R.C.S.Eng., L.S.A., appointed Assistant Physician to the Royal South Hants Infirmary, Southampton.

Williamson, Oliver K., M.B., appointed Junior Resident Medical Officer and Registrar to the Evelina Hospital for Sick Children, Southwark Bridge Road.

## DIARY FOR NEXT WEEK.

### MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Clinical evening. Mr. Reginald Harrison (President): Case of Extrophy of the Bladder with Epispadias, treated by Left Nephrectomy and Right Ureteral Transplantation. Mr. Turner (for Dr. Rolleston): (1) Case of Spastic Hemiplegia after Whooping-cough; (2) Case of Acromegaly. Mr. Battle: (1) Result of Operation for Excessive Deformity of Lower Extremities; (2) Amputation of Thumb for Large Sarcomatous Growth in a man the subject of Multiple Bony Growths; (3) Dislocation of Head of Radius from Ulna, due to Rupture of Orbicular Ligament; (4) Early Condition of Baker's Cyst of Knee. Dr. L. Guthrie: Case of Multiple Spontaneous Fractures in an Infant. Mr. Turner: Case of Lymphangioma.

### TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 P.M.—Mr. R. Lawford Knaggs: Compound Depressed Fracture of the Skull; Cerebral Abscess; Hernia Cerebri; Recovery; with a consideration of the subject of Hernia Cerebri, based upon 109 collected cases. Dr. J. Walter Carr: Non-tuberculous Posterior Basic Meningitis in Infants.

### WEDNESDAY.

Laryngological Society of London, 20, Hanover Square, W., 5 P.M.—Cases and Specimens will be shown by Dr. Pegler, Dr. H. L. Lack, Mr. De Santi, Dr. Adolph Bronner, Dr. De Havilland Hall, Dr. Furniss Potter, Dr. Scanes Spicer, and Dr. William Hill.

The Clinical Museum, 211, Great Portland Street, 4 P.M.—Demonstration by Mr. Jonathan Hutchinson.

Hunterian Society, London Institution, Finsbury Circus, 8.30 P.M.—Clinical evening. Cases will be shown by Messrs. Hope-Grant, J. H. Sequeira, T. H. Openshaw, H. V. Hickman, and Drs. Woods and F. J. Smith.

South-West London Medical Society, 235, Lavender Hill, 8.30 P.M.—Dr. Caldwell Smith: On the Etiology of Diphtheria, with special reference to two localised outbreaks in Wandsworth. Dr. Sims Woodhead will subsequently give a Limelight and Microscopic Demonstration of the Diphtheria Bacilli.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

Benjamin.—On March 27th, at The Old Hall, Dorrington, Shrewsbury, the wife of J. K. Kinsman Benjamin, M.R.C.S., L.R.C.P., of a son.

Welsh.—On March 31st, at Peth Foot, Felton, Northumberland, the wife of Robert A. Welsh, M.B., B.S., of a son.

### MARRIAGE.

Eyre—Lewis.—On the 31st ult., at the Parish Church, Folkestone, by the Rev. J. W. Lewis, Vicar of Stanstead Abbotts, Herts, uncle of the bride, assisted by the Rev. Canon Woodward, Vicar of Folkestone, Surgeon-Lt.-Colonel Montague Stokes Eyre, I.M.S., second son of the late Surgeon-General Eyre, to Emily Frances, elder daughter of Henry Lewis, M.D., Folkestone.

### DEATH.

Leney.—On the 6th inst., at 17, Clifton Gardens, W., Rose Florence, the dearly loved daughter of Edward and Lydia Ann Leney. At peace.

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances*—Daily, 2. *Operations.*—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR.—*Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—Daily.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30 Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations.*—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations.*—M. F. S., 2.

LONDON. *Attendances.*—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operations.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations.*—M. Th., 4.30.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations.*—F., 9.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations.*—W., 1.30; S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30 *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, W., 2: Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 3; Dental, Th., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 1. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th. 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eve, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations.*—M. Tu. Th. F. S., 1.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males S., 3; females; W., 9.45. *Operations.*—M., 2; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Tu., 3; Orthopædic, W., 10; Throat, Tu. F., 3.0; Skin, M. Th., 9.30; Electro-therapeutics, M. Th., 2.30; Dental, W. S., 9.30; Children's Medical, Tu. F., 9.15; Children's Surgical, S., 9.15. *Operations.*—M., 2.30.; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M. 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children) 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Th., 2.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Tu., 9; Dental, W., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations.*—Tu. F., 2.30.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, Tu. F., 9.30; Ear, M. Th., 9.30; Skin, W., 1; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

# LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

### QUERIES.

M. W. desires to learn the results obtained from massage in habitua constipation.

PALATE requires the address of a firm in London who make a speciality of vulcanite or other plates for cleft palate.

COUNTRY MEMBER asks for information regarding the comparative value of treatment at Aix-le-Bains and Aix-la-Chapelle in the treatment of rheumatic arthritis.

MEMBER wishes to know what institution would receive a paralytic, aged 16 years, where he would receive medical attention, etc., preferably in the country. The patient can contribute 10s. weekly.

J. G. B. would be obliged for information as to a home where an epileptic girl of 14 (not an idiot) could be taught a trade, frequent fits having prevented her attendance at school.

DR. G. ARTHUR CARDEW (Fauconberg Villas, Bayshill, Cheltenham) desires to hear of an institution or lady who would take charge of a young lady of 22 who is suffering from weakness of the legs and general mal-development. She can manage to stand by the help of a table or chair, but cannot walk. She is an excellent needlewoman. A very small sum could be paid weekly for her support.

R. C W. asks for information about practice in New Zealand. Is the climate healthy and suited for rheumatism, are the fees good, and where could one obtain information as to sale of partnerships and practices? In which towns do English and Scotch residents preponderate? Is living expensive or cheap?

M.D. wishes to know the most suitable climate for a rheumatic patient. Australian climates appear to be unsuitable, owing either to dampness, high rainfall, or prevalence of cold winds. Are the Canary Islands or South Africa specially suitable? The patient, a man aged 25, has had three attacks of the subacute tedious type, and is usually worse in the early summer.

VERAX asks for suggestions in the treatment of a lady, aged 76, who has suffered, on and off, for some years from severe abdominal pain—apparently from flatulent distension. There is a tendency to diarrhœa, but all the organs are free from any organic trouble. She eats little, and dieting has made no improvement in her condition. Sedatives, as morphine, chlorodyne, belladonna, etc., and tonics (as nux vomica, Fellows' syrup, etc.), bismuth salicylate, enemata, massage, and galvanism have all been tried with but little good.

#### HOME FOR EPILEPTIC IDIOT.

M.D. would like to hear of an institute or home where a girl, aged 8, could be received. She is now in a Poor-law infirmary, but the Board of Guardians would pay from 7s. to 10s. a week for her maintenance. She suffers from a mild form of idiocy, and has a slight epileptic fit about once a month. Occasionally she has a more severe fit. Frequently has incontinence of urine at night. General health good.

#### OBSTINATE MASTURBATION.

J. F. B. asks for advice in the case of a boy, 6½ years of age, who commenced masturbation about ten months ago; it was nocturnal then, but now it is at any time when left alone. Every means have been tried, such as moral persuasion, threats, tying of hands, etc., even cauterisation round the penis with nitrate of silver, three times, which caused severe pain for a few days; all these were of no avail—in fact, he is worse in his habit. Though at one time pretty robust, he is looking very ill now, not so bright, and seems to me half demented. I have only seen the child for six weeks; he is taking syrup of the lactophosphates of lime and iron. Unless stopped now he is sure to be an addition to our asylums.

#### UNCERTIFIED DEATHS OF INFANTS.

M. G. S. writes: A subregistrar is in the habit of registering the deaths of infants without medical certificate. Has he a right to do so in the absence of medical certificate?

*** In the present state of the registration law a registrar of births and deaths cannot refuse to register the death of an infant during whose last illness no registered medical practitioner was in attendance, because no medical certificate of the cause of the death is produced to him. Registrars are, however, instructed to report to the coroner of the district all cases of death occurring under suspicious circumstances or concerning which there appears to have been any neglect on the part of the parents or other persons having charge of the infant. Few coroners, however, now consider that the non-production of a medical certificate concerning the death of an infant affords of itself sufficient ground for holding an inquest.

#### CHEMICAL APPOINTMENTS.

HYGIENE writes: I am at present studying for a D.P.H. examination, but would like at the same time to obtain if possible the post of demonstrator or assistant in chemistry in any of the London chemical laboratories. I have obtained the B.Sc.Lond. There are no vacancies at my own hospital, and I do not know if lists of such vacancies are published or where I can obtain any information about them.

*** Vacancies of the kind referred to by our correspondent are not frequently advertised. When advertised the advertisements are generally inserted in *Nature* or in the *Chemical News*. Such appointments are not infrequently made by private arrangement. In professional, technical, and official laboratories vacancies are filled up in much the

same way as in purely teaching laboratories. The chemical knowledge required to undertake the duties of demonstrator or assistant in a chemical laboratory with any real pretensions to the name is far beyond that necessary to obtain a diploma in public health. We do not know whether our correspondent desires to hold a demonstratorship for the purpose of qualifying himself to pass a D.P.H. examination or for the purpose of obtaining such knowledge and experience as might, in his view, fit him to act as an expert in certain chemical matters. Whether it would be worth our correspondent's while to undertake such purely chemical work as a demonstratorship in chemistry would involve would, in our view, therefore entirely depend upon the branch of hygiene to which he intends to devote himself.

## ANSWERS.

Linnæus.—Our correspondent might apply to the Rebman Publishing Company, 11, Adam Street, Strand, W.C., or to Mr. Fisher Unwin, 11, Paternoster Buildings, E.C.

F.—The usual fee for a certificate of death for a policy of assurance is one guinea. Where the policy, as in the case mentioned by F., is only for £100, half a guinea might be taken. The fee is paid by the holder of the policy, as assurance companies stipulate that all documents to prove the claim must be furnished free of cost to the office.

### Gleet.

J.F. writes to mention a case in which a young man was cured of an intractable gleet by going to Switzerland and bathing twice a day in the Lake of Zurich.

### The Treatment of Warts.

F.R.C.S. writes to suggest that "Rusticus" (British Medical Journal, March 27th) should give Fowler's solution, commencing with small doses, but pushing it boldly, until the warts cease to be produced. The glacial acid can be used to those warts that are present.

### Painful Toes.

In reply to "M.D.," who makes inquiry as to a case and treatment of pains in the terminal phalanges of the small toes, Dr. E. Muirhead Little (London, W.) writes to recommend the use of boots wide and long enough to allow full extension, and also lateral play between the toes. If the toes are contracted, or the feet otherwise deformed, the deformity should be treated.

J.F. recommends a visit to the seaside and going barefooted on the sands.

### Home for Feeble-minded Girl.

Dr. Shuttleworth (Ancaster House, Richmond Hill) writes in answer to "M.M.," in the British Medical Journal of April 3rd, p. 894: If the girl be of feeble intellect only—not imbecile or insane—she would, if belonging to London, be admissible to the Alexander Home, 170, Coningham Road, Shepherd's Bush, W., where she would be trained to useful industry. Terms, 7s. per week. If in country, information as to suitable home could be obtained from Secretary to "National Association for Promoting Welfare of the Feeble-minded," Miss Paul, 27, Percy Street, W.

## NOTES, LETTERS, Etc.

### The Society of Apothecaries and the Record Reign.

Only L.S.A. writes: The title of L.S.A. as conferred upon the new Licentiates is misleading and unfair. I constantly hear the expression "only L.S.A." applied to men who are trebly qualified. It will hardly be credited, but nevertheless it is a fact, that when I was recently giving evidence in the law courts, an attempt was made by the defendant's solicitor to get the taxing master to allow no fees for my attendance in court, as it was stated that I was "not properly qualified." The *Medical Register*, however, settled the question. Surely it is not too much to ask the Society of Apothecaries to protect their Licentiates by giving them a title which will be understood and appreciated.

L.S.A.Lond., 1892, writes: I am in accord with your correspondents who think a change in the title of the Society of Apothecaries is desirable. It seems to me that the best suggestion is that of Dr. Kirby, that the title should be altered to "Society of Surgeons and Apothecaries," or "Apothecaries and Surgeons." When I was in the United States I had the greatest difficulty in convincing the medical men there that I was a medical man, and not merely a druggist, as most of the druggists there take the title of "Apothecary." If the word "Surgeon" had been included anywhere in my title, as "Surgeon-Apothecary," it would have obviated this, and yet been quite distinct from the R.C.S. I understand that when the Medical Act of 1886 became law, the Society tried to get the General Medical Council to agree to a change in the mode of registering the new Licentiates. Their chief opponent was then the Royal College of Physicians, who asserted that inasmuch as their Licentiates, though qualified in surgery, had only borne the medical title, there was no need to change that of the Society of Apothecaries. There is no analogy between the two cases, however. The title of physician has always been an honoured one for a medical man; the title of apothecary by itself is not one for a medical man at all. By all means let us band together as Dr. F. C. Wood suggests, though we shall not have to bring pressure on our own Society, but upon its opponents, for our measure of reform.

### Smokeless Coal Fires.

G. C. D. (Brussels) writes: Some experiments relative to the above subject are being made at the General Post Office here which I think will have some interest for your readers, or, at any rate, for those of them who, like myself, are practically driven abroad during the winter months by the oft-recurring fogs in London. The method that is on its trial here is known as the Wegner automatic system. The coal, reduced to an exceedingly fine powder (it is passed through a sieve, the diameter of the holes of which is $\frac{1}{16}$ inch) is by a simple mechanical contrivance allowed to fall into a tube which is continuous with the furnace, and through which the ordinary chimney draught causes a current of air to enter; the fine coal dust is thus drawn into the furnace, and, being surrounded by air, complete combustion takes place.

Last autumn I had the opportunity of seeing this system tried at the works of Messrs. Bryan Donkin, and Co., of London, and subsequently at the large sugar refineries of Messrs. Lebaudy in Paris, where, as I was told, they found that three boilers were doing the work formerly done by five, but, as the chimney was the same for several boilers then at work on the old lines, I could not judge for myself as to the smokelessness of the Wegner process. Whilst in Paris I was introduced to Dr. Forster, the Astronomer Royal of Berlin, who told me that prior to the adoption of the Wegner apparatus in the large manufactories in Berlin the removal of the observatory to some point outside the city was engaging the serious attention of the authorities, owing to the usefulness of the observatory being greatly interfered with by fogs, but that since that time the city had become so comparatively free from fogs that the necessity for the removal of the observatory had altogether been done away with.

I am told that during the trials now going on one boiler has been doing the work of two, which will of course mean a great saving in labour as well as in fuel. The exact amount of economy under the latter head will shortly be determined by official engineers, but it appears to me that this is a question affecting the welfare, not of the commercial community only, but of the general public by improving the sanitary conditions of the inhabitants of large towns in a very important respect.

### Central African Malaria.

Mr. Stanley Kellett Smith, F.R.C.S. (Liverpool) late Surgeon Rhodesia Exploratory Expedition to Central Africa, writes: May I ask for a correction? I am reported in the British Medical Journal of April 3rd as having drawn attention, in a note upon Central African Malaria read before the Liverpool Medical Institution, to the "prophylactic value of small daily doses of quinine sufficient to cause slight aural disturbance." This, of course, is wrong. In discussing the prophylactic measures adopted by me in Central Africa, I gave a certain amount of credit to the exhibition of small daily doses of quinine, commenced at sea before entering the country, and continued whenever the line of march lay along the course of low-banked rivers, or cut across marshes or alluvial plains at a watershed foot. The doses were quite small, about 4 grains per diem, and never pushed to the causation of symptoms. The physiological index is of great value in the treatment of actual febrile manifestations. The personal equivalent being such an uncertain factor, it is impossible to lay down an unalterable dosage of quinine which will be applicable to all cases, and which will yield universally good results. In two patients under the same external conditions suffering from malarial fever of the same type, a dose which will be quite effective in one may show little or no good in the other. In Central Africa it was found after experience that the best clinical results were obtained by apportioning to each individual such an amount of the drug as sufficed to produce in him an aural disturbance indicative of the commencement of quininism.

### Mortality from Puerperal Fever.

Veritas writes: "M.D." appears to gauge a man's professional ability by his skill and celerity in applying "the forceps." My experience of general practice is that if the average general practitioner had less knowledge of the application of these instruments, numberless mothers who have died from puerperal fever would now be alive. During my six months' residence in the Rotunda Hospital it was found necessary to apply the forceps three times. I consider that the usually septic forceps removed from the great coat pocket, and introduced by the too often septic hand of the practitioner—nine cases out of ten simply because he is in a hurry—have greatly increased the mortality from this cause.

### Obstetrical Society's Certificates.

A correspondent writes: It has often been asserted that the certificated midwives of the Obstetrical Society do not arrogate to themselves by virtue of their "diplomas," any of the rights and privileges of duly qualified medical practitioners. That this is not always the case, however, is shown by an advertisement taken from the *Kentish Mercury*, of March 25th, which is as follows:

> Midwifery and Diseases of Women and Children.
> MRS. HOBBS, L.O.S.,
> Trained at and afterwards *on the staff of Queen Charlotte's Hospital*, may be consulted at 81, Lee High Road, Lewisham, either personally or by letter. *A full stock of Drugs*, Chemicals and Herbs kept constantly at hand.
>
> Diplomas, Certificates, and Testimonials may be seen on application.

With the exception of the italics, which are ours, the above is copied exactly as it appears. The attention of the Obstetrical Society should be drawn to the conduct of its alleged *diplomée*, and the Apothecaries' Society would, if notified, probably consider that inquiries should be made into the prescribing and compounding shadowed in the advertisement. In view of the suggested registration of midwives this case presents some suggestive features as to precautions which would be necessary to prevent misconduct.

### The Question of Hospital Abuse.

M.R.C.S. writes: At the beginning of the year Y. Z., the only son living at home of a well-to-do farmer, met with an accident. The left knee was torn across, the patella bared to some extent, and the flaps of the wound so bruised as to make their living extremely unlikely. In the course of the next three days they sloughed away, and the skin of the outer two-thirds of the leg from the knee to the foot turned livid and followed suit. The injury was a very severe one, but the leg did very well; some dozen grafts had taken very kindly, when one morning, about six weeks after the accident, the surgeon in attendance received

a letter from the patient's mother, explaining that friends wished her to try some quack lotion to the leg. About ten days later the surgeon was summoned again, and found the leg had gone back very much. The grafts had nearly all disappeared, the discharge was very copious, and much of the new epidermis had disappeared from the edges of the wound. I was told that Miss ———, a neighbour, and a nurse at a London hospital, being at home, had called and advised his removal to a hospital. On his suggesting that he was scarcely a hospital subject, "Oh yes,' she said, "I could get you in without the least trouble. Come next week. I am just returning there, and I'll write and tell you what to do." The letter arrived the next day but one. An invalid carriage was sent down to convey him to town, about 140 miles, and there my knowledge of the case ends. This young man's father occupies a farm of 200 or 300 acres, has been there more than 30 years, and the patient himself draws £6 a week from an insurance company. ℄ What I wish to know is whether he is a fit subject for hospital relief?

MOTOR CARS.

DR. WALTER LATTEY (Southam, Warwickshire) writes: In the *Autocar* for January 2nd, page 6, it is stated that "an autocar was descending the Champs Elysées on a very damp day when the driver put on the brake, the pneumatic-tyred wheels skidded on the greasy wood road for about twenty yards, and the vehicle was brought to a standstill by colliding with the kerbstone." Again, in the same periodical for March 13th there is a letter from Mr. T. R. B. Elliot, of Clifton Park, Kelso, entitled "Are Autocars Safe in Winter?" He asks: "Can any of your readers inform me if they have ever safely descended a hill of one in ten when its surface was very slippery, and, if so, what prevented their autocars from tobogganning? Last year there was practically no winter, and.... on one occasion, when there was a little snow and ice on the roads, it refused to ascend a very moderate hill, and I had to run into the side of the road in order to get a grip of the surface."

Another point is that every week something new or some improvement is made in the cars or driving apparatus. There is the choice between steam, heavy oil, light oil, acetylene, and perhaps other motors. I believe autocars are likely to prove of very great service to medical men, especially to country practitioners; but at present there has not been sufficient opportunity to decide as to what kind would be best, and it would be well to wait until the prices are more moderate and the authorities relax the restrictions on the use of cogs or projections on wheels; if these were allowed when there was ice or snow on the roads, travelling might be safe in winter.

LABOUR OBSTRUCTED BY CICATRIX.

DR. F. H. COOKE (Birch, Colchester) writes: I was recently sent for to attend a Mrs. E. in her second confinement. I was informed that in her previous labour she had been very bad, that instruments were used, and that the perineum was badly ruptured, requiring to be sutured. The child, which was said to have weighed 12 lbs., was born dead. I found the head presenting, and well down, the os fully dilated, and the pains coming on rapidly and strongly. As the head continued to advance, putting the perineum more on the stretch, I noticed that there were two thick and extremely rigid bands of cicatricial tissue stretching across the vagina posteriorly caused by the laceration in her previous confinement. They prevented dilatation of the perineum or any progress of the head. The pains continued strong and regular. I waited some time, hoping they would prove sufficient to overcome the obstruction, but finding that labour did not make any progress, the bands remaining tense and ungiving, I decided that they would have to be divided for delivery to be accomplished. On making two central incisions, one through each fibrous band; the child's head was born with two or three subsequent pains, and everything else proceded satisfactorily. No further laceration occurred, and the patient made in every way an excellent recovery. Having attended a considerable number of cases of midwifery, I have since wondered that such cases of obstructed labour are not of more frequent occurrence in practice, though they cannot be very uncommon.

TURPENTINE IN PURPURA HÆMORRHAGICA.

DISAPPOINTED writes: Dr. Chapman's statement in the BRITISH MEDICAL JOURNAL of March 13th, 1897, that turpentine "may fairly be called a specific" in this disease has not been my experience. Within the last three years I have had two cases with onset and symptoms similar to Dr. Chapman's, and gave this drug from the beginning in 30-minim doses every three hours, but both ended fatally without the slightest alleviation of the hæmorrhage from the nose, bladder, or lungs. Both were young men with good family and personal histories, but had complained of a feeling of unusual weakness for some weeks before the purple spots in the one case, and the addition of epistaxis in the other, made them seek medical aid.

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## BOOKS, ETC., RECEIVED.

Transactions of the Eighteenth Annual Meeting of the American Laryngological Association, held in the City of Pittsburgh, Pa., May 14th, 15th, and 16th, 1896. New York: D. Appleton and Co. 1897.

St. Thomas's Hospital Reports. Edited by Drs. T. D. Acland and B. Pitts. Vol. xxiv. London: J. and A. Churchill. 1897. 8s. 6d.

Genito-Urinary Surgery and Venereal Diseases. By J. W. White, M.D., and E. Martin, M.D London and Philadelphia: J. B. Lippincott and Co. 1897. 21s.

Life in West London: A Study and a Contrast. By A. Sherwell. Second Edition. London: Methuen and Co. 1897. 2s. 6d.

A System of Medicine. By Many Writers. Edited by T. Clifford Allbutt, M.A., M.D., LL.D., F.R.C.P., F.R.S., F.L.S., F.S.A. Vol. II. London: Macmillan and Co. 1897. 25s.

Collected Contributions on Digestion and Diet: with an Appendix on the Opium Habit in India. By Sir W. Roberts, M.D., F.R.S. Second Edition. London: Smith, Elder, and Co. 1897. 5s.

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Small-pox and Vaccination. By S. M. Das, M.B. Calcutta: Law Publishing Press. 1897. R. 1.

Formulaire des Médicaments Nouveaux pour 1897. Par H. Bocquillon-Limousin. Paris: J. B. Baillière et Fils. 1897. Fr. 3.

A Manual of Medical Exercises. By Dr. Percy Lewis. London John Bale and Sons. 1897. 2s.

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# THE CAUSATION OF CHLOROFORM SYNCOPE.

By LEONARD HILL, M.B.,
Lecturer on Physiology, London Hospital; Grocers' Research Scholar.

[An address delivered before the Society of Anæsthetists, London, February 18th, 1897, on the results of an experimental inquiry carried out by Leonard Hill, with the assistance of Harold Barnard, M.S., F.R.C.S., and C. Wall, B.A., of the London Hospital.]

## Introduction.

The whole endeavour of this paper is directed towards the establishment of the true pathological cause of chloroform syncope, and the controversion of one of the most pernicious and dangerous doctrines ever put before the medical profession. This doctrine, so long received by many with credence, is that chloroform kills by paralysing the respiratory centre. Supported by the wealth of the Hyderabad Government, furthered by the prejudiced enthusiasm of Surgeon-Lieutenant-Colonel Lawrie, this statement, upheld by a series of experiments, many so careless in execution that they could not for one moment be accepted by a trained physiologist—this doctrine that the paralysis of the respiratory centre causes chloroform syncope, has been industriously spread abroad, and instilled into the minds of the whole medical world.

Chloroform syncope is a subject on which every medical man must have more or less clinical experience. It is one, therefore, that naturally each feels qualified to discuss or to write about in the medical journals. What is wanted at their hands is a careful record of the symptoms observed in chloroform syncope, rather than an addition to the mass of literature dealing with the theory of the subject.

Chloroform is a drug used by the young anæsthetist with the utmost hardiness, and until he has the misfortune in his practice to meet with a death caused by it, he derides the danger of the drug, and asserts that its safety merely depends on the care and skill of the administrator. After losing his patient he falls to descanting upon the unavoidable dangers of the drug, dangers which he is now the first to maintain cannot be met by any degree of skill in administration. In a certain institution in Great Britain, in the course of a recent year, there were out of some three or four thousand administrations no fewer than twelve fatalities. This is no exceptional case. The deaths from chloroform are not recorded in the medical journals, for these reflect upon the reputation of the administrator and the institution in which they occur. In America, on the other hand, so convinced are the medical men of the danger of the drug, that I understand from a distinguished American surgeon, Dr. Keen, that the use of chloroform as an anæsthetic is practically abolished there. In my discussion of the subject I shall confine myself purely to the experimental side of the question. It must, in the first case, be admitted that results of experiments upon animals are directly applicable to man. The point to consider is whether these experiments are done by competent and trained inquirers.

## Application of Experimental Observations to Man.

My scientific experience in every direction leads me to give an absolute denial to the too common teaching of theorists and declamations of clinicians that the results of experimental inquiry on animals are inapplicable to man. It is simply a confession of ignorance on the part of the clinician, who, knowing so little of experimental physiology to enable him to elucidate the clinical problem before him, upholds this cry. An example of how such error may arise is to be found on examining the effect of respiration on sphygmographic curves. On forced expiration occurring, the sphygmographic curve of the radial artery of man rises; on the other hand, in an animal the arterial pressure falls. For years this has been pointed to as exhibiting a distinct contradiction in the results obtained from men and animals; but agreement will be brought about on every point the moment the fact is grasped that the radial artery is accompanied by venæ comites, and that the venæ comites swell owing to the obstruction of the venous flow. This obstruction itself is due to the rise of intrathoracic pressure.

It is by the swelling of the venæ comites that the pad of the sphygmograph is elevated, and not by the rise of tension in the radial artery. This fact has lately been proved by a research carried out by Dr. Sequeira, Mr. Barnard, and myself, a research which demonstrates that the venous pressure can never be neglected in the reading of sphygmographic curves or in diagnosis of the condition of the pulse by means of the finger.[1] Out of the enormous mass of literature that deals with the question of chloroform, very few papers can be found based on true experimental inquiry. I shall briefly summarise the results contained in these papers which have definitely added to our knowledge of this subject.

## Fall of Arterial Pressure produced by Chloroform.

Before the rise of the graphic method Snow recorded a series of valuable observations made by direct inspection of animals who were submitted to the influence of chloroform vapour.[2] He found that, when the animal inhaled air containing 3 to 6 per cent. vapour of chloroform, the respiration ceased while the heart sounds remained distinctly audible. When the quantity of vapour inhaled reached 8 to 10 per cent. the heart became extremely feeble, and the heart sounds might even disappear before the respiration ceased. So soon as the graphic method of recording the blood pressure was introduced, it became established by the Glasgow Committee and others that the arterial pressure falls during the administration of chloroform.

This fact is determined beyond all criticism. No one has ever introduced any evidence to the contrary. According to the Hyderabad Commission, as the fall of arterial pressure continues the animal first becomes insensible, then the respiration gradually ceases, and, lastly, the heart stops beating. What is the reason of this fall of arterial pressure which always occurs when a large dose of chloroform is given? The Commission ventured to give no opinion, but concluded:

> From all their experiments that the effects of chloroform are first exerted upon the nervous tissues. The vasomotor centre is very soon involved, the respiratory centre becomes paralysed, and then the muscular tissue becomes affected, and last of all the heart.

This is the statement that requires to be strenuously denied. One of the most valuable contributions which testify against this creed has been contributed by MacWilliam.[3] This author opened the thorax, established artificial respiration, and either directly observed or recorded the extent of dilatation of the cavities of the heart. He found that when chloroform vapour was administered in an amount under 4 per cent. the heart exhibited pronounced dilatation by the time that the conjunctival reflex was abolished. Evidence of dilatation was obtained when chloroform was given in the ordinary amounts that are required to produce anæsthesia, and at a time when the arterial pressure had not fallen to any marked extent. When the dilatation became extreme the heart failed in its function as a central organ of the circulation. Though it continued to rhythmically contract its action was feeble and entirely ineffective, and its cavities remained engorged with blood.

The dilatation occurred to the same extent after division of both vagi. Since the dilatation is not sudden in origin, and the organ, in spite of its functional inefficiency, beats rhythmically, it is clear that the method employed by the Hyderabad Commission of observing the movements of the heart by passing needles through the thorax into the cardiac muscle may lead to the most deceptive conclusions. The heart continues to contract and to agitate the needles, while its power of maintaining the circulation has completely vanished.

According to MacWilliam the fall of arterial pressure is in its earlier stages due mainly to the depressing effect of the anæsthetic on the vasomotor centre. The stage of depression is often preceded by a period of slight stimulation. The later stages are associated with failure of the heart as well as of the vasomotor centre. MacWilliam's experimental evidence for the failure of the vasomotor centre is as follows: During the earlier stages of the fall of arterial pressure he produced a considerable rise of arterial pressure by firmly compressing the abdomen. If the heart was still but little affected by the

poison the tension rose—as in the classical experiments of Stephen Hales—because by this compression the input into the right heart from the abdominal veins was increased, and the output from the abdominal aorta diminished. In a later stage, when the heart was poisoned, abdominal compression failed to produce any rise of arterial tension.

### PARALYTIC DILATATION OF THE HEART.

In several animals MacWilliam observed sudden failure of the heart during the primary anæsthetisation, while the respiration continued unaffected. On rapidly opening the thorax of these animals he found the heart to be in a state of paralytic dilatation. He managed to revive the circulation by rhythmically compressing the heart. In some cases this did not prove successful, as the heart remained paralysed. The Commission confess that:

> It is impossible to say whether, after chloroform has been pushed and then discontinued, the respiration will be restored spontaneously or not, and it is never in any case certain that artificial respiration will restore the natural respiration, and blood pressure, no matter how soon it commenced after the respiration, stops. A great deal depends upon the after-fall (of arterial pressure); in some cases even after the respiration has been restored the pressure continues to fall and respiration again ceases, and artificial respiration then fails.

This exactly describes the results obtained by MacWilliam. In these cases, according to this writer, where artificial respiration failed the heart had passed too far into a state of paralytic dilatation. The direct action of chloroform on the frog heart has been illustrated by a beautiful series of researches carried out by Sydney Ringer. The results of his experiments have become a subject of ordinary demonstration to my physiological students. In Ringer's tracings [4] is shown the comparative effect of ether and chloroform on the frog heart. In the first tracing Ringer showed the paralysis of the heart due to the addition of $1\frac{1}{2}$ c.cm. of chloroform to the nutritive fluid which circulated through that organ. The heart passed into a condition of paralytic dilatation. The second tracing demonstrates that 50 c.cm. of pure ether are required to arrest the heart. In no case did ether produce dilatation of the organ. This is supported by the fact that MacWilliam also obtained no evidence of dilatation during the inhalation of ether.

The whole frog heart can be immersed in pure chloroform and yet not immediately die. This is naturally so, because the concentrated drug, by killing and coagulating the protoplasm on the outside of the heart, forms a layer which protects the heart from the further action of the drug. Thus the crude experiment of pouring chloroform into the pericardium of the mammal led to a negative result in the hands of the Commission. To have a rapid effect the chloroform must be diluted and circulated through the coronary arteries, for thus it reaches every single muscle cell in the organ.

### RESPIRATORY AND CARDIAC FAILURE.

The experiments of Gaskell and Shore[5] are of the greatest interest and importance. On injection of chloroform into the cerebral arteries, the drug carried directly towards the brain first excited and then paralysed the bulbar centres. Respiration became spasmodic and then stopped, the arterial pressure rose and finally fell, the heart was slowed and finally accelerated. In the hands of Cash and Dunstan amyl nitrite produced the same sequence of effects; amyl nitrite is the most powerful of dilators when introduced into the general circulation. These results are exactly similar to those produced by acute anæmia of the spinal bulb. After ligature of both carotids and both subclavian arteries, the sequence of symptoms follows the same course. But a fact unnoticed by Gaskell and Shore, but observed by me in many of my experiments on cerebral anæmia, is this. In certain animals, especially in those in a condition of shock, paralysis and not excitation of the vasomotor centre occurs immediately on the establishment of the anæmia as on the injection of chloroform. In these cases the fall of arterial pressure is the primary and the failure of respiration the secondary symptom.[6] In contrast to the effects obtained from injection of chloroform into the cerebral arteries, it was found by Gaskell and Shore that similar injections of the drug into the jugular vein in very small quantities produces a fall of arterial pressure, and diminution of the excursion of the pulse and of the respiratory undulations. The respiration frequently ceased after the heart beats had become no longer visible. This observation I confirm in every particular. I have constantly used this method to kill animals with the greatest rapidity at the end of experiments. The Hyderabad Commission failed to obtain this effect, although they injected 20 c.cm. of pure chloroform into the jugular vein in successive doses. The cause of this failure is to be found in the ignorance of precise physiological methods which was unfortunately betrayed throughout much of the work of the Commission. In Gaskell and Shore's experiments chloroform freely diluted was injected into the intact jugular vein, through which the blood was freely circulating. By the Commission, on the other hand, it was pure chloroform that was injected into the jugular vein after ligature of that vein above the seat of injection. In the one case the drug was carried directly to the heart, in the latter it remained in the vein. By Hare and Thornton[7] this experiment has been made more than a hundred times, and the heart has in all cases rapidly failed. These authors found that

> Injection into the jugular veins of more than 2 to 4 c.cm. of chloroform caused arrest of inspiration, rapidly followed by cardiac arrest, which was not secondary to the respiratory failure but to a primary action of chloroform upon the heart muscle.

In regard to these experiments it must be remembered that the use of a needle by the Commission as an indicator of cardiac action is entirely fallacious. After injection into the jugular vein Hare and Thornton record that the heart is so widely dilated as to fill the pericardium almost to the point of bursting, and the cavities (particularly the ventricles) are engorged with blood. Although they may still be feebly contracting the contraction is abortive, and fails to cause arterial flow. "Chloroform," they write, "is capable of causing death of the cardiac muscle whenever it comes in contact with it, and that there is no possibility of this arrest being due to vagal irritation is proved by experiments in which vagal section preceded the use of chloroform."

The most brilliant part of Gaskell and Shore's work is the contrivance of their cross-circulation experiments. They take two dogs, "the fed and the feeder." In the fed dog the carotid and subclavian arteries are ligatured. One or more of these vessels are then connected by rubber tubes to one or more of the same arteries of the feeder. The jugular veins of the two animals are also put in connection. The blood of the feeder is rendered incoagulable by the injection of peptone or leech extract. By this means the circulation through the brain of the fed dog is maintained by the blood propelled from the heart of the feeder. The circulation through the rest of the body of the fed dog remains in its normal condition. If chloroform be now inhaled by the fed dog the drug circulates through the heart and the blood vessels of the lungs, abdomen, and the limbs of the dog. Its brain is supplied by the uncontaminated blood of the feeder. Under these conditions the heart of the fed dog passes into paralytic dilatation, while its respiratory movements are maintained unimpaired by the respiratory centre in the spinal bulb. If, on the other hand, the feeder be made to inhale chloroform, while the fed is given none whatever, the arterial pressure in the feeder will then fall, and the bulbar centres in the fed dog are first excited and then paralysed by the drug derived from the feeder which circulates through them. In this case the arterial pressure of the fed dog rises while its respiration is paralysed. By these ingenious experiments, which were several times repeated, these authors conclude that the heart is rapidly paralysed by chloroform, that the respiratory centre is paralysed, while the vasomotor is not only not paralysed but rather excited to increased action. "There is no evidence," they write, "that direct vascular dilatation, owing to the presence of chloroform in the blood, plays any great part in the fall of blood pressure." This last statement is refuted by my experiments. An interesting fact which they notice, and one which has been frequently confirmed by myself in my researches on cerebral anæmia, is that the respiratory centre is much more easily affected by chloroform when its blood supply is to a large extent diminished.

In reference to the cross section experiments, the objection has been raised that the blood supply to the spinal bulb is not entirely cut off by a ligation of the carotid and subclavian arteries. This objection carries no weight. It is perfectly true that by way of the anterior spinal artery a certain amount of blood does reach the spinal bulb. This

does not to the slighest degree invalidate the main results of the research. On giving chloroform to the fed animal, the circulation is rapidly paralysed, while the respiratory centre is maintained in full activity by the blood of the feeder. This is the one fact of importance, proved without any possibility of controversion, that while the respiration remains in full force the circulatory mechanism poisoned by chloroform fails in a very short space of time to maintain its efficiency. If some of the blood of the fed animal did reach the spinal bulb, so much the worse for the respiratory centre, but we see that in spite of such contamination the respiration continued to act in an efficient manner. If the Hyderabad Commission failed to obtain these results on repetition of this experiment, which is one contrived by Shore, and Gaskell who, to quote Lawrie himself, is "one of the two greatest physiologists in the world," the failure is only a further proof of the incompetence of the experimenters employed by the Commission.

### Summary of Previous Inquiries.

From this review of past researches we can build up the following statement:

1. Paralysis and dilatation of the heart resultant on the administration of chloroform is affirmed by MacWilliam, Ringer, Hare and Thornton, Gaskell and Shore.

2. Paralysis of the vasomotor centre as a further result is affirmed by MacWilliam, Hare and Thornton, and denied by Gaskell and Shore.

3. Paralysis of the respiratory centre as another result is admitted by every experimenter.

4. The Hyderabad Commission maintain that death is due to the failure of respiration, that cardiac failure is secondary and is a matter of no importance, as it never occurs during ordinary anæsthetisation with chloroform. This is denied by MacWilliam and by Gaskell and Shore, who maintain that cardiac failure is the primary cause of death. To these may be added the opinion of Lauder Brunton—a compromise—that the weakening of the respiration causes an insufficient aëration of the blood, which in its turn give rise to heart failure through the combined action of asphyxia and chloroform.

### New Experimental Observations.

I shall now turn to my own experimental work in relation to chloroform. This research forms one of a series of researches which for the last few years I have been carrying out on the influence of gravity on the circulation.

If a dog be affixed to a board which can be swung round a horizontal axis, and cannulæ be inserted down the jugular vein and carotid artery and connected with manometers, and if the intravascular openings of these cannulæ be placed in the axis of rotation, then the following points can be recorded.[2] (The animal during the period of observation is, it must be noted, narcotised with morphine.)

1. On dropping the animal into the vertical feet-down posture the arterial pressure falls to a slight extent, and then rises again almost to the normal level. A typical experiment may be demonstrated by the following figures:

The arterial pressure in the horizontal position equalled 140 mm. Hg.; in the vertical feet-down position it fell to 120 mm. Hg., and then rose to 130 mm. Hg. The pressure in the superior vena cava fell about 8 mm. Hg., and remained at that level so long as the animal was in the vertical position. Both pressures were immediately restored directly the animal was returned to the horizontal position.

That the hydrostatic effect of gravity exerts no greater result depends on the integrity of both the vasomotor centre and the respiratory pump. This is shown by the results obtained in the following typical experiment.

The splanchnic nerves are divided through lumbar incisions. After this lesion is performed the arterial pressure in the horizontal position equalled 94 mm. Hg., while in the feet-down position it fell to 44 mm. On compression of the abdomen the pressure rose to 106 mm. On withdrawing the compression it fell again to 40 mm. On dividing the abdominal wall by a crucial incision the pressure fell to 16 mm. Finally, on rapidly opening the pleural cavity the pressure fell to zero, and the circulation ceased, to be restored once more to 44 mm. by the resumption of the horizontal position.

By this experiment it was proved that the hydrostatic effect of gravity becomes of vital importance when the vasomotor tone of the splanchnic area is destroyed. When, in addition, the respiratory pump is thrown out of gear, the circulation in the feet-down position becomes impossible. In this wise is the circulation aided by the respiratory pump. We have seen that abdominal compression with the hand restores the arterial pressure to normal. The input from the veins into the right heart is increased, the outflow from the arteries into the abdominal capillaries is diminished. By powerful expiratory movements of the abdominal muscle the animal accomplishes the same manœuvre. At the same time by inspiratory movements of the thorax the blood is sucked as well as compressed into the right heart. This typical form of respiration is always manifest when the splanchnic vasomotor tone is abolished, and the animal placed in the vertical feet-down position. The compensatory mechanisms can be abolished by one stroke of the knife, dividing the spinal cord at the level of the first dorsal vertebra. On dropping the animal then into the vertical feet-down position the arterial pressure falls to the zero line. By violent contractions of the diaphragm, excited by the anæmia of the bulbar centres, the heart may be sufficiently filled to produce for a brief period of time a series of effectual beats, and then once and for all the circulation fails. In one experiment the arterial pressure after division of the cord done whilst the animal was in the horizontal posture equalled 80 mm. Hg. The pressure fell to zero at once when the animal was dropped into the feet-down posture. By violent diaphragmatic respirations the arterial pressure was raised to 6 mm. The respiratory centre soon became paralysed, and the circulation ceased. The empty heart, however, continued to beat vainly, and on returning the animal two minutes later to the horizontal position the heart was filled, the circulation renewed, and the arterial tension raised to its former level. This manœuvre is one which can be repeated several times. The animal can, as it were, be slain and brought to life again at will. If the thorax be opened the heart can be seen to fill or empty as the animal is turned into the horizontal or feet-down position. Now I know of no agent which can so rapidly abolish the compensatory mechanism for gravity as chloroform.

To take an example: During ordinary anæsthetisation with this drug the arterial pressure in the horizontal position equalled 92 mm. Hg., and in the feet-down position 17 mm. Hg. Compressing of the abdomen with a bandage caused the pressure to be maintained at 80 mm. Hg. On removal of the compression the pressure immediately fell again to 17 mm. Hg. Therefore during morphine narcosis the hydrostatic effect of gravity may produce a fall of pressure equal to only 10 mm. Hg., while during chloroform anæsthetisation the fall may be as great as 75 mm. Hg.

That the blood stagnates in the abdomen when the compensation for gravity is abolished is shown by the effect of abdominal compression. It is also shown by the fact that if, while the animal is in the feet-down position the vena cava inferior be clipped no rise of pressure will take place on raising the animal into the horizontal position until the clip is removed. In the horizontal position compression of the abdomen will produce a rise of only about 16 mm. Hg.; in the vertical feet-up position the rise will be of about 3 mm. Hg.; while in the feet-down position there will be a rise of about 65 mm. Hg.

The effect of pushing chloroform is shown in the following type of experiment:

In the horizontal position during morphine narcosis the pressure equalled 186 mm. Hg.; in the feet-down position it represented 174 mm. Hg. On then pushing chloroform the pressure rapidly fell to 30 mm. Hg. At this point the respiration ceased. On returning the animal to the horizontal position the pressure rose to 56 mm. Hg., and the respiration immediately started again.

This experiment, typical of many which I have performed, shows that the paralysis of the respiratory centre depends not only on the chloroform which is circulating through and poisoning the centre, but also on the height of the blood pressure. By lowering the tension the circulation through the centre becomes inefficient and the respiration fails. By raising the tension the circulation through the centre is once more rendered efficient and the respiration is renewed. The depth of anæsthesia likewise depends on the depth of the fall of blood pressure.

Now, on examining the tracings of the Hyderabad Commission, I find an absolute agreement between their results and my own. In their curves the arterial pressure is seen, when the chloroform is pushed, to fall rapidly and greatly; the respiration stops when the pressure has reached a level not far removed from the zero line. When the chloroform inhaler is then withdrawn and the arterial pressure slowly rises from the excitation of the asphyxial blood, respiration starts once more. In their tracings and in my tracings respiration can be seen to cease at a certain pressure, and

to start again when the tension once more rises to nearly that same pressure.

Although the tracings are so much alike, the interpretations are widely different. The Hyderabad Commission, engaged on a wild goose chase to prove that respiration ceases before the heart fails, find in their tracings the proof that the failure of respiration is the primary cause of death. I, on the other hand, maintain that not only my own tracings but theirs too, conclusively prove that the failure of circulation is the primary cause of the failure of the respiratory centre.

I do not wish to deny for one minute that chloroform damages the respiratory centre and weakens the respirations, but the point that I insist upon is that the respirations would not cease at the moment when they do cease were not the centre damaged by the concomitant fall of arterial tension. The contrast between the effects of ether and chloroform on the compensatory mechanism for the hydrostatic effect of gravity is most marked. If the subject be in the horizontal position, and the chloroform pushed, rapid fall of arterial tension will follow, and if in the feet-down position the fall becomes precipitous. In the feet-down position the fall becomes indeed so precipitous that the curve rapidly approaches the zero line, and the respiration then ceases. On the other hand, on pushing ether, the fall of tension is far more gradual, and on dropping the animal into the feet-down position the tension does not fall to anything like the extent that it would do after administering chloroform, and the respirations do not cease. Thus in two contrast experiments, on using ether in the first case the pressure fell from 125 mm. to 100 mm. during a period in which on using chloroform in the second case the pressure fell from 162 mm. Hg. to 30 mm. Hg. On pushing the chloroform, respiration stopped when the tension equalled 30 mm. Hg., while it was perfectly efficient at that tension on pushing ether. With both drugs the fall of pressure and the damage of compensatory mechanism are the same in character, but in the case of ether the onset is far less intense than it is in the case of chloroform. On turning the animal into a horizontal position, or on compressing the abdomen, the contrast between the result of the two drugs is very striking. In the case of ether the heart is undamaged, and the arterial tension is restored by either means to normal. In the case of chloroform the heart is damaged, and the pressure is not only not restored to normal, but in some cases, on the application of compression, it falls to zero owing to paralytic dilatation of the heart. A normal heart cannot possibly, by means of compressing the abdomen, be thrown into paralytic dilatation, while in the case of a heart poisoned by chloroform, this accident is one which not infrequently may occur.

The Hyderabad Commission carried out a few experiments on the effect of the alteration of the position during chloroform narcosis. The workers paid no attention to the fact of the absolute necessity of placing the arterial cannula in the axis round which the animal is turned. Their experiments were thus vitiated by the hydrostatic effect of gravity on the column of fluid in the tube which connected the cannula with the manometer. By the neglect of such a simple precaution the experiments on this point were rendered entirely worthless. During the course of a prolonged experiment I have always found that the compensatory effect for gravity becomes less and less, until finally in the feet-down position it is too inefficient to maintain the circulation. This increasing vasomotor paralysis I take to be the sign of the approach of what is commonly known as a condition of shock. During this condition of shock inhalation of chloroform is the last straw to abolish the compensatory mechanism. The Commission attempted to instantaneously produce shock by such operations as drawing teeth, crushing testicles, or evulsing nails. In animals such operations, owing to excitation of the sensory nerves, merely induce a rise of blood pressure. A condition of shock is never by such means brought about in animals rapidly, but only in the course of an hour or so. In applying the conclusions drawn from these experiments and extended to man the Commission neglected the state of emotional fear which in human beings frequently precedes anæsthetisation, which may by temporarily establishing vasomotor paralysis produce syncope. During emotional fear, if the patient be in the erect posture, the face will blanch, the heart empty, beat rapidly and feeble, and the blood pass into the abdomen. If, then, the horizontal position be taken up, and the abdomen compressed, the circulation is renewed and the syncope abolished. If chloroform be administered to a man sitting in a dentist's chair in a state of acute fear, it is easy to see how the drug may produce a fatal condition of syncope. The vasomotor mechanism is, owing to the state of fear, partly inhibited; the blood under the influence of gravity is stagnating in the abdomen, the heart is ill-filled, and the bulbar centres are anæmic. On inhalation of chloroform partial paralysis of the vasomotor mechanism may pass into total paralysis, and while the anæmic heart may pass into paralytic dilatation the anæmic respiratory centre will cease to act.

### CARDIAC INHIBITION.

It is stated by the Hyderabad Commission that inhalation of chloroform has no effect on the length of the period in which the heart can be maintained in arrest by electrical excitation of the vagus. To this statement I must give a direct denial. On arrest of the heart in the morphinised dog these conditions arise: The arterial tension falls to zero, the pressure in the superior vena cava rises, and the respiratory centre is excited, as is the case in asphyxia, to the discharge of forcible expiratory spasms. By means of these spasms the venous pressure is greatly raised, and while the right heart is filled from the veins and compressed, the left heart is filled with blood from the compressed lungs. By such means the heart is rapidly excited to escape; if the respiratory spasms are prevented by making a section of the spinal cord at the level of the first dorsal vertebra, the period of inhibition is then enormously prolonged. In the same way, inhalation of chloroform prolongs the period of inhibition, the blood pressure is lowered, the respiratory centre is weakened, the spasms on arrest of the heart do not occur, and escape does not readily take place. I have by means of chloroform very greatly prolonged the period of inhibition. In all such comparative experiments on the effect of excitation, it is absolutely necessary to stimulate the vagus with clip electrodes, so arranged that the nerve cannot shift from off the wires, and so constructed that the current is insulated and protected from short circuiting through the surrounding tissues. The Hyderabad Commission stimulated the vagus in the crudest fashion with electrodes held in the hands of an experimenter. During the first stage of pushing chloroform in a strong animal free from shock the bulbar centres are frequently excited by sensory stimulation of the nerve endings of the vagus in the respiratory tract. It follows that the respiration becomes spasmodic, the animal struggles, the heart is slowed by vagus inhibition, the arterial pressure first rises and then falls. It is suggested by the Commission that vagal inhibition is a safeguard, for it prevents by decreasing the velocity of flow, the chloroform being swept away in dangerous doses from the lungs by the circulation. The Commission denies that vagal inhibition can ever bring about death. I agree that the amount of cardiac inhibition excited by pushing chloroform is of no importance, and never entails syncope. At the same time, I have been able to kill animals by repeated and prolonged vagal arrest of the heart. The respiratory centre in these cases fails to act, since it becomes paralysed by the anæmia of the bulbar centres. The heart is not killed by vagal inhibition but by asphyxia. In one experiment the spinal cord was divided at the level of the first dorsal vertebra, the heart was arrested by vagal excitation for five minutes, and the respiration entirely ceased. Finally the heart escaped, but the respiratory centre failed to recover. If in such a case artificial respiration be supplied the circulation recovers, the tension rises, and respiration starts once more. Such complete vagal arrest of the heart is never induced by chloroform, and therefore these experiments are of no clinical interest.

### FATAL SYNCOPE IN AN EARLY STAGE.

In one year, out of 41 recorded deaths from chloroform syncope, 39 occurred during the primary stage of anæsthetisation and before the surgeon had touched the patient. In those cases where syncope occurs during the course of a prolonged anæsthetisation the patient can in nearly every instance be recovered by artificial respiration. It is where

syncope arises during primary anæsthetisation that the danger of death is far greater.

In dogs this holds equally true. In my experience fatal syncope is usually met with during the primary anæsthetisation. The method of administering chloroform to animals is at the start a crude performance compared to the method applied in the case of man; and thus chloroform syncope is a phenomenon which can be very frequently studied by an experimentalist. My own experience of this primary syncope has been very great, in fact I have made a point of endeavouring to obtain the results which may give me the opportunity of studying the syncope and the methods of recovery. What is the difference between syncope in primary anæsthetisation and that which occurs during prolonged anæsthetisation? Clinically this is the one question of vital importance. On this question the Hyderabad Commission throws no light whatever. The Commission writes:

> In all cases of accidental death the usual chloroformist was absent, and no one was attending to the chloroform. The notes would have been more complete if some one could have watched the condition of the animal and noted the gradual but unheeded cessation of respiration without calling attention to it. As it is one has to be content with the remark that the breathing was noticed to have stopped at some particular time, but there is nothing to throw any light upon the condition during the important period that immediately preceded this discovery. A similar hiatus appears in the account of accidental deaths in the human subject, and is unavoidable. These cases are probably identical with the instances referred to by Snow, in which animals died in a sudden, and what was thought unaccountable, manner whilst chloroform was given to prevent the pain and struggles which would be occasioned by physiological experiments. There is no evidence whatever that death in a single one of them was due to paralysis or certain stoppage of the heart, as Snow assumes to have been the case.

In this statement it seems to me the Commission gives away their whole case. They never observed these accidental deaths; they left the primary anæsthetisation to the hands of somebody who was not the usual chloroformist, and may have been the laboratory servant. In all cases of chloroform syncope occurring during primary anæsthetisation I have carefully observed the symptoms. Either the pulse ceases before the respiration or the two cease together. By artificial respiration, and especially by rhythmic compression, first of the abdomen and then of the heart, I have sometimes maintained normal respiratory movements for three, five, or even ten minutes, while the circulatory mechanism has remained in a state of hopeless paralysis. On rapidly opening the thoracic cavity I have always found the heart to be as MacWilliam describes—in a state of paralytic dilatation. The cardiac musculature of the heart may rhythmically twitch but entirely fails to empty its cavities. In these cases of primary syncope, and similarly in man, the course of events is almost always found to be as follows:—Concentrated vapour of chloroform is applied to the respiratory orifice, the nerve endings of the sensory fibres of the vagus in the respiratory tract are powerfully excited. The animal struggles, the glottis is closed, and by the violent contraction of the muscles the intrathoracic pressure is raised. The animal performs the typical Valsalva experiment, and holds in its breath as long as it can. The effect of raising intrathoracic pressure is to diminish the output from the right heart, congest the venous system, and lower the arterial tension; the lungs are also compressed, and, to a large extent, are emptied of blood. Blood supply to the coronary arteries is diminished; this is due to the fall of arterial tension. The oxygen in the blood is decreased owing to the prolonged holding of the breath. By these means the nutrition of the heart is impaired.

Finally, on account of the excitation of the respiratory centre caused by the asphyxial blood, the animal is forced to take two or three deep inspirations. The lungs are immediately surcharged with chloroform vapour, and the blood reaches the coronary arteries carrying a dose of chloroform sufficient to throw the heart into paralytic dilatation.

### Syncope during Prolonged Anæsthetisation.

The arterial tension is low and the respiration shallow. As a resultant of these conditions chloroform, however far pushed, never reaches the coronary arteries in an overwhelming dose. On the other hand, the arterial pressure falls to a further extent, the respiratory centre ceases to act, and the animal gradually and not suddenly enters into a state of syncope. In the one form of syncope artificial respiration frequently fails on account of the paralytic dilatation of the heart; in the other form, if the symptoms are noticed in time, artificial respiration is uniformly successful. It must, of course, be admitted that the form of syncope first described is not universally met with during primary anæsthetisation. The syncope here again may be gradual in onset and due to vasomotor and respiratory paralysis rather than to cardiac failure.

It has been suggested that chloroform produces dilatation of the right heart by causing pulmonary constriction, and so obstructing the blood flow through the lungs. There is no evidence of this. The lungs after death are found to be pale and empty of blood, not because of the vasomotor constriction of the pulmonary vessels, but in consequence of the animal dying with the thorax in the expiratory position. If the trachea be clamped at the height of a forcible expiration there may be only one-sixtieth of the weight of the whole blood of the body within the lungs. If, on the other hand, during a deep inspiration the trachea be clamped there may be as much as one-tenth of the whole blood within the lungs. It has taken the whole experimental acumen of such excellent workers as Bradford and Dean and François-Franck to demonstrate the existence of a pulmonary vasomotor mechanism at all, and while it has been proved to exist it has been found to be extremely feeble.

That the failure of the circulation is not secondary to the failure of the respiration or brought about by asphyxia is shown by the ensuing considerations. On pushing chloroform in an already anæsthetised animal the blood pressure can be lowered to zero, and the circulation will cease in a very short time after the respiration has ceased. In such a case we have no asphyxial rise of blood pressure and no asphyxial convulsion on the part of the animal. Now in a curarised animal, in which no struggling occurs, on cessation of artificial respiration the heart continues to beat for a very long period. On re-establishing artificial respiration I have seen the heart recover even when more than fifteen to twenty minutes have elapsed after the cessation of the respiration, but in no case is it possible to recover an animal from chloroform poisoning after cessation of respiration, unless artificial respiration be established at the end of an interval of at most two to three minutes. If the heart be thrown into paralytic dilatation the artificial respiration must be applied far earlier than this. This is a proof conclusive that chloroform paralyses the circulating mechanism far more rapidly than does asphyxia in a non-struggling animal. In a struggling animal during simple asphyxia the heart is of course far more rapidly paralysed owing to the rapid diminution of oxygen in the blood and the impediment to the circulation, which is caused by the rise of intrathoracic pressure during the violent expiratory spasms.

### Treatment of Syncope.

From the previous experimental discussions in this paper, I believe it is conclusively proved that chloroform may paralyse the heart, the vasomotor mechanism, and the respiratory centre. I will now say a few words as to the possible means of recovery from cardiac syncope. If it happened that we simply had to deal with failure of the respiration this would be no matter of grave danger to the patient. Artificial respiration will remove the danger. If simple vasomotor paralysis occur concomitantly with failure of respiration, as is always the case, artificial respiration combined with slight elevation of the abdomen to a level above that of the heart would immediately restore the patient to safety. It is when the clinician has to deal with the paralytic dilatation of the heart that the gravest danger has to be faced. As it is impossible to diagnose whether this condition may exist or not, every case of chloroform syncope should be treated as if it did exist. Recovery can be brought about, and, so far as my own experience goes practically in almost all cases, by following this simple procedure. At the moment syncope occurs the patient must be placed in the horizontal position, and artificial respiration applied. The chest must be rhythmically compressed by placing the hands on each side of the thorax, so that the heart may share in the compression, and the circulation through that organ may by artificial means be maintained to a certain extent. If this is not quickly successful in restoring the pulse and natural breath-

ing, the patient should be turned into the vertical feet-down position. By this simple means the dilated right heart will be emptied into the abdominal veins. Whilst this is taking place, artificial respiration must be maintained. I have frequently seen the paralysed heart start beating again on thus emptying it of the blood. After a few seconds the patient should be returned to the horizontal position, and the right heart will thus be refilled with a fresh supply of venous blood. By means of the artificial respiration this blood is driven on through the lungs to the left heart, and thence into the coronary arteries. If this manœuvre does not prove successful at the first attempt, it must be repeated. Since I have adopted this method I have scarcely failed to recover a single case of choloroform syncope. The success enormously depends, of course, on the swiftness with which the condition of syncope is recognised. Nelaton's inversion, or the feet-up position, is only a safe measure in cases of syncope arising from vasomotor paralysis. Either inversion or compression of the abdomen are fatal mistakes in cases of cardiac failure. I have shown by a series of experiments that a poisoned heart is with the greatest ease thrown into paralytic dilatation by compressing the abdomen.

By rhythmically and artificially compressing the thorax or the heart, I found it possible to maintain an arterial tension of 20 to 30 mm. Hg. This causes the coronary arteries to be flushed with fresh blood, and the heart to be excited to spontaneous contraction. After the circulation has thus been renewed, the respiration frequently remains in abeyance because the arterial tension is too low to excite the centre to activity. In this condition the best plan is to cease artificial respiration, and carefully observe the pulse. The arterial tension, on account of the asphyxia, will rise, and when it has reached a certain level, spontaneous respiration will start once more. If by any chance the pulse should show signs of again flagging artificial respiration must be immediately resumed for another period.

As to the danger of administering chloroform I entirely agree with the Hyderabad Commission that the inhaler should only be applied when the respiration is quiet, should be removed entirely if the patient show any sign of struggling. If this precaution be always taken deaths from chloroform would become far more rare; nevertheless, it must always be looked upon by the inexperienced as a most dangerous drug, and one the use of which should be avoided whenever ether can be appropriately substituted. Pure chloroform, I have found, kills in exactly the same way as impure chloroform. The A.C.E. mixture, on the other hand, is safer than pure chloroform simply because the latter drug is diluted, and therefore is not given in a concentrated form. Chloroform is the predominant partner in the mixture, and when A.C.E. is pushed the animal dies with all the symtoms of chloroform syncope.

### Conclusions.

1. Chloroform produces a primary failure of the circulating mechanism and a secondary failure of the respiratory centre. The respiratory centre fails to act not only because it is damaged by the drug, but because of the anæmia of the spinal bulb produced by the fall of arterial tension. This is proved by the fact that the action of the respiratory centre can be renewed by raising the arterial tension. The depth of anæsthesia depends, as does the paralysis of the respiratory centre, on the primary fall of the arterial tension.

2. Chloroform, more than any other known agent, rapidly abolishes the vascular mechanisms which compensate for the hydrostatic effect of gravity.

3. Chloroform abolishes these mechanisms by paralysing the splanchnic vasomotor tone, and by weakening the action of the respiratory pump. When these mechanisms are totally abolished the circulation is impossible if the subject be in the feet-down position.

4. Chloroform also produces paralytic dilatation of the heart. It acts directly like amyl nitrite on the musculature of the whole vascular system.

5. There are two forms of chloroform syncope: (*a*) During primary anæsthetisation. The patient struggles, holds his breath, raises the intrathoracic pressure, congests his venous system, lowers his arterial tension, and finally takes deep inspirations and surcharges his lungs with chloroform. In the first stage the left heart becomes impoverished; in the second stage it is suddenly filled with blood. This is drawn from the lungs, and is full of chloroform. The chloroform passes into the coronary arteries, and the heart is thrown into paralytic dilalation. Respiration and the pulse either cease simultaneously, or the pulse before respiration. (*b*) During prolonged anæsthetisation this arises from gradually giving chloroform to too great an extent. The arterial pressure falls lower and lower, and, secondarily, the respiration ceases because of the anæmia of the spinal bulb. The heart is not in this case paralysed by chloroform, because the drug is taken in gradually by the shallow respirations, and distributed slowly by the feeble circulation.

6. Artificial respiration and the assumption of the horizontal position, if applied in time, will always resuscitate a patient from the second form of syncope.

7. Artificial respiration, established with the patient in the horizontal posture, is also the treatment indicated in the first form of syncope; the heart should be rhythmically compressed by squeezing the thorax. If this does not quickly renew the pulse, the patient should be put into the vertical feet-down posture. The dilated right heart is thereby completely and easily emptied of blood. Artificial respiration is maintained during this manœuvre, and the patient is brought once more into the horizontal posture. By rhythmic compression of the chest an efficient circulation is maintained through the coronary arteries; by first emptying and then filling the heart a fresh supply of blood is brought into that organ. If this does not prove successful on the first trial it can be repeated.

8. Inversion, that is, placing the subject in the feet-up position or compression of the abdomen will increase the paralytic dilatation of the heart. In this kind of syncope both these forms of treatment are worse than useless.

9. In the condition of shock or emotional fear the compensatory mechanism for the effect of gravity is almost abolished, and chloroform may easily be the last straw to completely paralyse the circulation.

10. Vagus inhibition of the heart is of no importance as an agent in the production of chloroform syncope.

11. Ether is in every respect a far safer anæsthetic than chloroform. According to Ringer's experiments on the heart, ether is fifty times less dangerous than chloroform.

12. With the practical conclusion of the Hyderabad Commission that the chloroform inhaler should be removed during the struggling of the patient or when the respiration is of irregular depth, I am in absolute agreement, but I consider their interpretation of their own experiments and tracings concerning the origin of chloroform syncope to be mistaken.

Not only the work of all physiologists, but also the tracings of the Commission, when rightly interpreted, prove that paralysis of the circulatory mechanism, and not of the respiratory centre, is to be dreaded by the anæsthetist.


### References.

[1] See tracings and figures, *Journal of Physiology*, 1897. [2] *On Anæsthetics*, 1888. [3] British Medical Journal, 1890. [4] *Practitioner*, vol. xxvi, p. 436. [5] British Medical Journal, 1892. [6] For tracings see *The Physiology and Pathology of the Cerebral Circulation*, 1896, p. 128, *et seq.* [7] *Report to the Hyderabad Commission*, Davis, Detroit, 1893. [8] For further details and tracings see the *Journal of Physiology*, 1895-97.


The life of Sir Andrew Clark, upon which Canon Malcolm MacColl and Dr. Allchin are engaged, will, it is stated, be ready for publication before the end of the year. Sir Andrew was an omnivorous reader, and, like Coleridge, was in the habit of annotating the books with marginal criticisms. These have supplied a good deal of material for the biography. The number of books over which these annotations are scattered necessarily adds considerably to the labours of those who have the work in hand. It appears that Sir Andrew kept no journal, a circumstance which, in view of his large social vogue and the number of distinguished persons who where his patients, is much to be regretted.

Edinburgh Royal Infirmary.—Horace C. Colman, M.B., C.M., has been appointed Resident Physician in Dr. Byrom Bramwell's wards; and Frank M. Willcox, M.B., C.M., David Farquharson, M.D., and Hugh Jamieson, M.D., have been appointed Non-resident Clinical Clerks.

# A CLINICAL LECTURE
ON
# RECURRING APPENDICITIS
AND
## ITS TREATMENT BY REMOVAL OF THE VERMIFORM APPENDIX.

By F. A. SOUTHAM, M.B.Oxon., F.R.C.S.,
Surgeon to the Manchester Royal Infirmary, and Lecturer on Operative Surgery, Owens College.

As there are now in my wards three patients who have recently undergone operations for the relief of recurring appendicitis, I propose to direct your attention to this condition, as a great advance has been made in its treatment since the year 1887, when the advisability of removing the vermiform appendix was first proposed by Mr. Treves.

### Symptoms.

I may remind you at the outset that the characteristic symptoms of this form of appendicitis are as follows:

Recurring attacks of pain varying in intensity, usually felt in the right iliac fossa, but sometimes referred to the umbilicus, epigastrium, or other parts of the abdomen. The presence of a swelling, accompanied by more or less tenderness on pressure, in the right iliac region. In some cases the appendix can be recognised as an elongated tumour, about the size and shape of an adult forefinger, lying above and parallel with Poupart's ligament; in other cases there is a slight fulness or a more diffused swelling, due to inflammatory exudation poured out round the appendix, between it and adjacent parts. Increased resistance on palpation, due to muscular rigidity, over the right iliac fossa. Slight dulness on gentle percussion over the same region. Evidences of intestinal disturbance, the bowels being generally constipated; occasionally diarrhœa and vomiting are present at the outset of an attack, and continue during its progress. More or less elevation of temperature, there often being a rise of several degrees. The attacks last for a variable period, sometimes for several days, sometimes for two or three weeks, the symptoms then subsiding, only to recur after a longer or shorter interval. As regards their condition during the interval the patients may be quite well and free from any symptoms. Often, however, there is a more or less constant sense of weakness or discomfort in the right iliac fossa, or an aching pain, increased on exertion, with persistence of the local physical signs just mentioned, though in a much less degree.

Until quite recently cases of this nature were treated by simple medicinal measures, which, though successful in relieving the symptoms during an attack, were powerless to prevent their recurrence, when dependent upon one or other of the conditions, which our extended knowledge of the pathology of recurrent appendicitis now shows to be usually present.

### Pathology.

A condition very frequently found is constriction or occlusion of the lumen of the appendix, either at its origin or at a short distance from the cæcum, the result in some cases of thickening of its walls, in other cases of twisting or bending of the process on itself. Thickening of the walls of the appendix may be due to chronic inflammatory changes, or to cicatrisation after ulceration of its mucous lining; occasionally it is found so thickened and contracted, that its lumen is almost, or even quite, obliterated. Twisting or bending of the appendix upon itself is generally due to the contraction of adhesions dragging upon it. These adhesions, which are the result of local peritonitis accompanying previous attacks of appendicitis, may be very extensive, surrounding the appendix, and fixing it to the parietal peritoneum, omentum, cæcum, small intestine, rectum, ureter, bladder, or iliac vessels. Contained within the thickened or distorted appendix, and often distending it, there is frequently found clear mucus, a muco-purulent fluid, or pure pus; and occasionally a hard fæcal concretion is also present. The following cases illustrate these different conditions.

Case I. *Appendix surrounded by Adhesions and almost Obliterated: Removal: Recovery.*—A male, aged 18 years, admitted into hospital June 10th 1895, under Dr. Dreschfeld. During the preceding six months he had suffered from three attacks of appendicitis, each of which had confined him to bed for several weeks. On admission he was recovering from the last attack. A distinct induration could be felt above Poupart's ligament on the right side. It was tender on pressure, and more resistance was present over it than upon the opposite side. Operation, June 22nd: The appendix was surrounded by numerous adhesions, which bound it down to the posterior surface of the cæcum. It was twisted backwards upon itself, and its lumen was almost obliterated. It was separated and removed with some difficulty; the wound was then closed, and the patient made an uninterrupted recovery. Nine months have elapsed since the operation. The patient enjoys good health, and there has been no recurrence of the attacks.

Case II. *Appendix Bent on Itself and Adherent to the Iliac Vessels: Removal: Recovery.*—A male, aged 18 years, seen November, 1895, in consultation with Dr. Hosegood, of Swinton, during his third attack, the two previous ones having occurred in the preceding April and January. The signs of appendicitis were then masked by extreme general distension of the abdomen; there had been persistent sickness and no action of the bowels for some days, the case rather resembling one of intestinal obstruction due to some form of internal strangulation. He recovered from the attack, but during the next two months there were three further attacks, each attended as before by vomiting and constipation. February 10th, 1896, he was admitted into the infirmary to undergo operation, the acute symptoms having then subsided. The appendix could be easily felt above Poupart's ligament. Operation, February 20th: Extensive adhesions surrounded the cæcum and appendix, rendering the recognition of the latter very difficult, as it was firmly bound down to the cæcum in front and to the iliac vessels behind. Its neck was constricted, and below its middle it was sharply bent upon itself; it contained a small quantity of a muco-purulent fluid. It was removed with some difficulty and the wound was closed. The patient made a good recovery (Fig. 1).

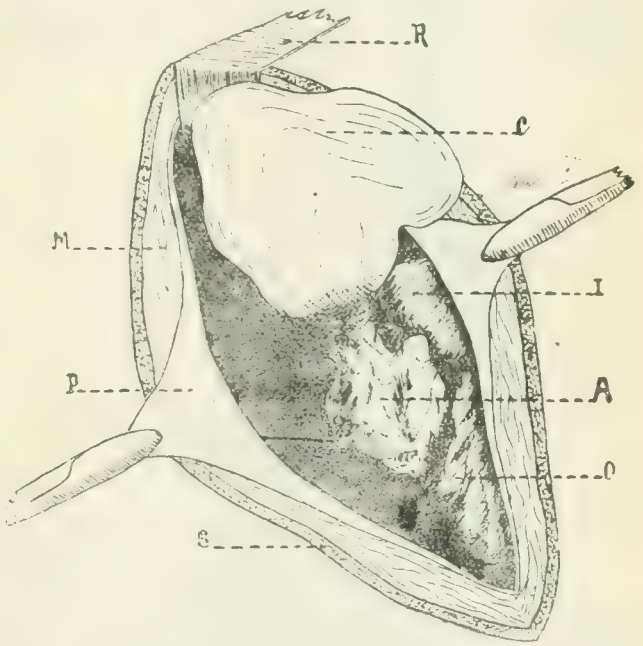



Fig. 1.—Vermiform appendix bent on itself (Case II). A, appendix; C, cæcum, turned up; I, ileum; O, omentum, adherent to appendix; M, muscles of abdominal wall; P, peritoneum, held back by forceps; S, margin of skin; R, retractor.

Case III. *Appendix Occluded at its Origin and Distended with Clear Fluid: Removal: Recovery.*—A female, aged 29 years, admitted January 11th, 1896, under Dr. Harris. She was suffering from a second attack, the first having taken place about four months previously. Operation, February 9th. All the acute symptoms had then subsided. The appendix could be felt as an elongated swelling above the outer part of Poupart's ligament. On exposing it, it was found to be adherent to the omentum and the posterior surface of the cæcum. It was occluded at its origin from the cæcum, where its walls were much thickened, and distended with fluid. Near its origin it was extremely thinned at one point, which gave way before any attempt was made to remove it, and nearly half an ounce of a clear mucoid fluid escaped. (On subsequent examination this spot was found to correspond with a small ulcer involving the mucous and muscular coats.) The adhesions having been separated, the appendix was removed, and the wound then closed. Recovery was uninterrupted. (Fig. 2).

Case IV. *Appendix contained a Fæcal Concretion: Removal: Recovery.*—A male, aged 26 years, under the care of Dr. Leslie Jones and Dr. Macmillan. He had suffered from three severe attacks during 1895, being on each occasion confined to bed for several weeks. Operation performed at home, January 4th, 1896, during a quiescent period, all local tenderness and swelling having quite subsided. On exposing the appendix, which was thickened, it was found to contain a hard, fæcal concretion. It was surrounded by adhesions, which bound it down to the back of the cæcum.

There were also firm adhesions between the cæcum and anterior abdominal wall, as well as between the omentum and appendix. The appendix, which was constricted at its origin from the cæcum, was removed,

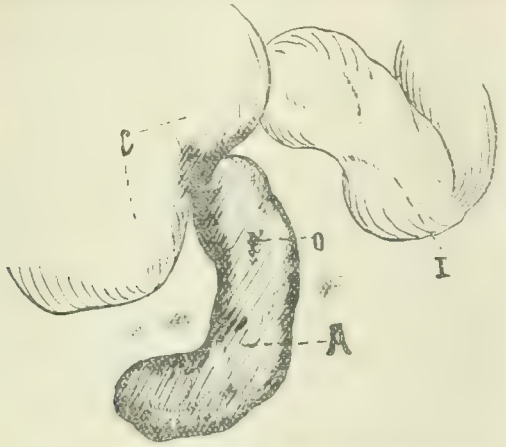



Fig. 2.—A, appendix, distended with fluid, showing the spot (O) where perforation had almost taken place (Case III). C, cæcum; I, ileum.

together with the concretion, and the wound was closed. The patient made a rapid recovery from the operation, and has enjoyed excellent health since its performance (Fig. 3).

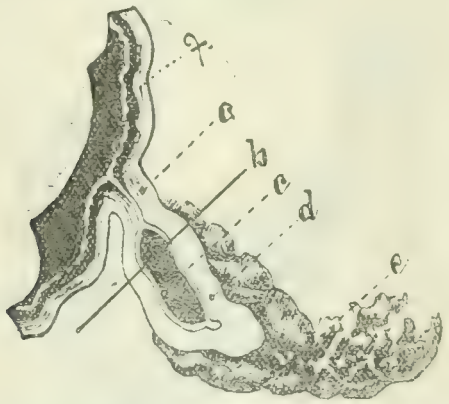



Fig. 3.—Vermiform appendix (shown in section) containing a fæcal concretion (natural size). Case IV. A, strictured portion of canal; c, fæcal concretion filling canal: d, thickened wall of appendix; e, adhesions surrounding and binding down appendix; f, wall of cæcum. The line b shows the point where appendix was removed.

CASE V. *Appendix Constricted at its Origin, containing Muco-purulent Fluid: Removal: Recovery.*—A female, aged 25 years, sent by Dr. Arthur Helme, and admitted into the infirmary, March 16th, 1896. During the preceding three years she had suffered from five attacks of a severe nature, on one occasion being confined to bed for six weeks. Operation, March 20th: The appendix, which could be distinctly felt previous to operation, measured only 1¼ inch in length, and was quite free from adhesions. Its walls were much thickened, and it was constricted at its origin, being somewhat dilated beyond, and containing a muco-purulent fluid. It was easily removed, and the wound was closed; recovery was uninterrupted.

Sometimes small collections of pus are found outside but in close proximity to the appendix, surrounded and shut off from the general peritoneal cavity by adhesions. This condition is probably secondary to one or other of those already described, perforation of the appendix with escape of some of its contents having taken place, and being followed by the formation of an encysted abscess, the suppurative process being limited by the surrounding adhesions. Under these circumstances the appendix probably becomes obliterated, for if the abscess is evacuated no further recurrence of the attacks takes place. This condition is illustrated by the following cases:

CASE VI. *Abscess in close Proximity to Appendix, which was not Removed: Drainage: Recovery.*—A male, aged 29 years, suffered from a first attack in September, 1895. He was seen in consultation with Dr. Saul during a second attack in January, 1896, and was admitted into the infirmary. Operation, February 15th: He was then in the quiescent stage, a localised swelling being evident above the outer part of Poupart's ligament. Upon exposing it by the usual incision a small collection of pus shut off from the general peritoneal cavity was opened. The surrounding parts were so thickened and matted together that no attempt was made to remove the appendix (which was not seen), for fear of opening and infecting the general peritoneal cavity. The abscess cavity was drained, and the patient made a good recovery.

CASE VII. *Abscess in Close Proximity to the Appendix which was not Removed: Drainage: Recovery.*—A boy, aged 10 years, was an in-patient under Dr. Harris for a month in August, 1893, suffering from a first attack. There was no recurrence until May, 1894, when he was re-admitted under Dr. Harris, suffering from a second attack. The symptoms having subsided in a fortnight, he was transferred to the surgical wards. Operation, June 7th, 1894: On opening the peritoneal cavity, the cæcum was exposed after drawing aside a mass of omentum which lay in front of it. In separating some dense adhesions which lay behind and to the right of the cæcum, a small cavity containing about a teaspoonful of pus was opened. As the appendix was buried in the adhesions it was not further sought for. The pus was carefully sponged away and a tube left in the abscess cavity. The wound quickly healed, and since the operation—nearly two years ago—there has been no recurrence of the attacks.

### THE OPERATION FOR REMOVAL OF THE APPENDIX.

This should only be performed in the quiescent period following an attack, never during the active stage, when inflammatory symptoms are present. The best incision is one commencing about an inch above and internal to the anterior superior spine of the ilium, carried downwards and inwards parallel to Poupart's ligament for 2 or 3 inches. The peritoneal cavity having been opened and the appendix found, any surrounding adhesions should be carefully separated. The appendix should be clamped lightly close to its origin, in order to fix it, by means of a pair of forceps, the blades of which are protected with india-rubber tubing, and then removed about half an inch from the cæcum. The divided stump should be closed with a double row of silk sutures, the first row including the mucous membrane, the second row including the muscular and serous coats, which are drawn together over the mucous coat. All bleeding having been arrested, the external wound is then closed, no drainage tube being required. In most cases healing takes place by first intention, for, if careful antiseptic precautions have been observed during the operation, it is quite exceptional for any suppuration to occur.

The operation in many cases is not an easy one, the chief difficulty being due to the presence of adhesions, which may be extremely dense and extensive, rendering it sometimes impossible to recognise the appendix, so completely is it hidden and buried in them. This condition is illustrated by the following case, and it is interesting to note that though the appendix was not removed, yet considerable relief followed the operation, probably from breaking down adhesions.

CASE VIII. *Extensive Adhesions round Cæcum: Appendix not Recognisable: Relief from Breaking down Adhesions.*—A male, aged 25 years, admitted February, 1895, under Dr. Harris. Eight months previously he had suffered from a severe attack of appendicitis, which had confined him to bed for two months. Ever since, at intervals of a week or ten days, he had been troubled with slight attacks, which quite incapacitated him from following his occupation as a labourer. On admission, he complained of pain and tenderness on pressure in the right iliac region; no tumour could be felt, but slight fulness was present, and more resistance than on the opposite side. Operation, March 16th, 1895. The cæcum was adherent in front to the abdominal wall, and surrounded on all sides by adhesions, so dense and extensive that the appendix was quite unrecognisable. The adhesions were separated as completely as possible, but without finding the appendix, and the wound was then closed. The patient made a good recovery, and since the operation his general health is much improved, and he has been able to resume his occupation. He is, however, still liable to slight attacks of pain in the right iliac region, but they are of a much milder character and recur less frequently.

In other cases the appendix is so adherent to adjacent structures that its separation without injuring them is often a very difficult matter (as in Case II), and when, as not infrequently happens, the cæcum is adherent to the anterior abdominal wall, it is not easy to know when the peritoneal cavity is reached, and in opening it, the bowel is liable to be wounded by an incautious use of the knife.

### INDICATIONS FOR OPERATION.

As the operation for removal of the appendix is often a somewhat complicated one, it should not be performed unless it is really required, and an important question which suggests itself is this, When are operative measures indicated in a patient suffering from recurrent appendicitis, and after how many attacks is it right to interfere?

From a consideration of the cases which have come under my notice, it is my opinion that operation is indicated after

two well-marked attacks of appendicitis, especially if the physical signs—more particularly a swelling in the situation of the appendix—persist in the quiescent period after the subsidence of the attacks.

In two of the three patients operated upon after a second attack (Cases VI, VII) small collections of pus were found in the immediate neighbourhood of the appendix, while in the third patient (Case III) the appendix was distended with fluid and upon the point of rupture. In another patient, operated upon after a third attack (Case IV), a hard fæcal concretion was found in the appendix, probably the cause of the preceding attacks. When an appendix is constricted or occluded, and especially when it is distended with fluid or contains a fæcal concretion, there is always a risk of ulceration and perforation taking place, followed by escape of its contents and suppuration around it. Owing, however, to the fact that the appendix is under these conditions generally surrounded by adhesions, which act as a protective barrier, shutting off the general peritoneal cavity, this complication, as already mentioned, is usually followed by a local or encysted abscess, which may, however, sometimes form with acute symptoms, as in the following case.

Case IX. *Recurrent Attacks for Several Years: Sudden Formation of an Acute Abscess: Incision and Drainage: Recovery.*—A male, aged 26 years, seen in consultation with Dr. John Watson on March 14th, 1896 and operated upon the same day. For more than three years he had suffered at irregular intervals from frequent attacks of a mild type. Three weeks previously more acute symptoms suddenly developed, followed by the formation of an abscess, which became most prominent on the outer aspect of the cæcum. It was opened and about a pint of pus with a very offensive fæcal odour was evacuated. The abscess cavity was drained, no attempt being made to remove the appendix, and the patient made a satisfactory recovery.

In some instances, however, of recurring appendicitis—fortunately of more rare occurrence, and owing no doubt to the absence of these protective adhesions, which are not always present—perforation of the appendix may be followed by diffuse suppurative peritonitis, almost always a fatal complication, as is illustrated by the following case.

Case X. *Recurrent Attacks for Many Years: Sudden Perforation of Appendix: General Suppurative Peritonitis: Death.*—A female, aged 16 years, who for many years had suffered from typical attacks of a slight nature, usually accompanied by what she described as "a lump" in the right iliac fossa. On the evening of March 2nd, 1896, having been at work all day, she was suddenly seized with severe pain in the right side, accompanied by vomiting. Symptoms of acute peritonitis developed, and she was admitted under Dr. Dreschfeld, and afterwards transferred to the surgical wards. March 6th. On opening the abdomen, a ragged perforation was found in the appendix, which was quite free from any adhesions. There was general suppurative peritonitis, pus welling up in all directions from between the coils of intestine. The peritoneal cavity was flushed out as completely as possible, and drained, but the patient sank the following morning.

These two cases illustrate the advisability of removal of the appendix at an early stage in the course of recurring appendicitis, for the fatal result in the one last mentioned would certainly have been prevented by the adoption of this treatment.

An appendix which is the seat of recurrent attacks of inflammation may be compared to a volcano, at times quiescent, at times showing signs of an impending eruption, which may be indefinitely postponed, or at any moment take place with disastrous results.

(I am indebted to my late house-surgeon, Mr. J. P. Hall, for the accompanying drawings.)

## A CONTRIBUTION TO THE SURGICAL TREATMENT OF DISEASES OF THE APPENDIX VERMIFORMIS.

By WILLIAM HENRY BATTLE, F.R.C.S.,

Assistant Surgeon to St. Thomas's Hospital and to the Royal Free Hospital; formerly Hunterian Professor of Surgery and Pathology, Royal College of Surgeons; Assistant Surgeon to the East London Hospital for Children; etc.

Enforced absence from the annual meeting of the British Medical Association at Carlisle last year prevented my adding a contribution to the literature of the treatment of diseases of the appendix vermiformis as I had intended (the subject which was so ably introduced to the Section by Dr. MacDougall). It is, however, an important subject, and I should like to place before the Association a few remarks relative to the treatment of two of the varieties under which disease of the appendix presents itself to the surgeon.

In the first place, as regards relapsing appendicitis, I would submit a method of operating which in my opinion presents many advantages over the usual methods. Towards the end of the year 1894 I was asked to see a case of recurring attacks of inflammation in the region of the appendix. These attacks had been severe and the patient very ill during them. Altogether there had been five or six attacks during nearly as many months, and he had been invalided home. His medical attendant could feel what appeared to be a thickened appendix, which remained when all the symptoms had subsided, and operation was consequently advised. To this the patient—who was in danger of being retired from the service, had suffered greatly from the attacks, and went in constant fear of another—readily consented. The question submitted to me was, If the operation was performed, could I guarantee that no weakness of the abdominal wall would remain, as it was essential that there should be no hernial protrusion nor anything to prevent the patient from taking a command, which involved the ability to ride well? The usual incision through the abdominal wall for removal of the diseased appendix in cases of relapsing appendicitis had not, according to my experience of the operation as performed by other surgeons, given that uniformly good result to enable me to express confidence in it, and a consideration of the anatomical arrangements of the region led me to suggest and carry out a plan which has invariably produced the desired effect in my hands. Indeed, it is not easy to imagine how it can possibly fail in its object if performed with ordinary care.

An oblique incision is made in the right iliac region with its centre corresponding to the point which, in the opinion of the surgeon, is probably that of the attachment of the appendix, and its length varies with the size of the patient and the fatness of the abdominal wall. The direction of the incision is that of the linea semilunaris, and is usually about midway between the anterior superior spine of the ilium and the umbilicus. After division of the skin and subcutaneous tissue, the incision is continued through the aponeurosis of the external oblique and the outer part of the sheath of the right rectus muscle, this part of the incision is placed about an inch from the external margin of the sheath. The rectus muscle is then drawn towards the middle line, having been separated from the inner surface of the sheath with the forefinger. When the edges of the wound are retracted, the deep epigastric artery will be seen lying on the posterior layer of the sheath running from below upwards. The artery is easily avoided, and the posterior layer of the sheath (or the transversalis fascia) the subperitoneal tissue, and the peritoneum divided to the full extent of the wound. The use of retractors will bring the area of operation well within reach. The small intestines can now be pushed towards the middle of the abdomen, the region affected isolated, the appendix amputated by the coatsleeve method, and the peritoneum closed over it with Lembert's sutures.

On the completion of the operation, the wound is closed by interrupted silk sutures in three layers from behind forward. The posterior part of the sheath and the structures behind the muscle are brought together with one line of sutures, and the rectus itself allowed to return to its normal position. The anterior part of the sheath and the external oblique aponeurosis are then sutured, and afterwards the skin and subcutaneous tissues. By this method of operating, the uninjured rectus muscle is interposed between carefully-united layers, which do not accurately correspond with one another, and the risk of hernial protrusion is done away with.

There is one point to be remembered when applying the sutures, and that is an anatomical one; it is that the tendinous expansion of the external oblique is apt to become displaced during the manipulations of the wound, and escape notice in the suturing; this would not in all probability produce any weakness of the part of moment, but it should be sutured in order to render the part as strong as possible. It has been urged against this method (1) that it takes a longer time to perform the operation, especially when the sutures are being inserted than when the operation is performed in other ways; (2) that it is difficult to get at the appendix through the wound.

As regards the first of these, I grant that it does take a

longer time to do the operation, but consider that the gain to the patient amply compensates for a slight prolongation of the operation. As regards the second objection, I have experienced no difficulty in removing the appendix through a wound which has been made in the way indicated, and have used it on several occasions both in hospital and private practice. One patient was shown to the Clinical Society only last year. A wound in the position described comes much nearer the usual position of the appendix than would be thought from a superficial consideration of the parts.

Some of my colleagues have tried this method on my recommendation, and report favourably of it. My results have been uniformly good; the only drawback in one case was a localised suppuration about some of the stitches, but as two other abdominal operations performed by me the same afternoon under similar circumstances also suppurated, this must be ascribed to the imperfect sterilisation of the silk sutures, and not to the operation.

For the removal of the appendix vermiformis this operation has fulfilled all my expectations; it has also proved valuable in my hands for purposes of exploration, the freedom from danger of subsequent hernia being such a manifest gain.

Writing as to the advisability of removal of the appendix after a first attack of perityphlitis, on the ground of preventing the slight loss of life and the immense waste of time associated with a recurrence of attacks, Dr. Hawkins[1] continues: "The only point remaining which can make me hesitate to accept this conclusion is one of which I am not qualified to speak. It is the question of the subsequent yielding of the scar and the formation of a hernial protrusion. If this is likely to be a common and troublesome event, it must candidly be taken into consideration." It is evident, therefore, that such an operation as this fulfils a manifest want. The question as to the time at which the appendix should be removed, and the removing of it, in these cases of relapsing disease are very ably dealt with by Dr. Hawkins,[2] and it is unnecessary to discuss them now.

The second point to which I would ask attention is the necessity for early treatment of suppurative peritonitis, usually having its origin in disease of the appendix. I have more than once been asked to see a patient with a view to operation in a late stage of peritonitis, when the clinical signs were present, and the sunken face, failing pulse, distended abdomen, and constant vomiting made it evident that in all probability the case was in the last stage of exhaustion, and it was doubtful if the simple administration of an anæsthetic would not prove too much for the patient. I fear this is an experience too common to many of us. In several of these there had been an interval of some two or three days, or even more, between the onset of the pain and the first act of vomiting, and the amount of pus in the peritoneal cavity must have given evidence of its presence long before the consultation with the surgeon. But no examination had been made to ascertain whether dulness was present, much less an attempt made to determine its earliest appearance or amount. It is true that success has been obtained in some apparently hopeless cases of the kind, but to obtain anything like a uniformity of success, operation must be done early.

Light percussion can be borne even in the most tender abdomen, and it should never be omitted in cases of severe abdominal pain of obscure origin, but unless one has frequently practised abdominal percussion it may be difficult to appreciate the varying conditions of the abdominal contents even in health.

I had a most striking example of this recently when the dulness due to purulent fluid was ascribed to a full colon, until it was pointed out that the dulness extended across the lower part of the abdomen as well as along the flanks.

That it should be possible to operate in some cases before vomiting comes on, and that purulent peritonitis is not necessarily accompanied by vomiting in its earlier stages is conclusively shown by the following case. The performance of abdominal section in the absence of this most important symptom has been called rash, but was fully justified by the condition which was disclosed on opening the peritoneum. That the patient was much relieved is very evident, and that success was so nearly attained redounds greatly to the credit of Mr. Wallace and Mr. Thurston, who saw the man on admission and recognised the urgency of his symptoms:

The patient, a waiter, aged 25, was admitted to the Albert Ward, St. Thomas's Hospital, on November 17th, 1895, in the evening, complaining of severe abdominal pain. About November 7th he began to feel shooting pains in the head, and also a dull pain in the stomach. These continued on and off till Tuesday, November 14th. On that day he had been opening a door which resisted his efforts for a time, and then yielded rather suddenly, so that he was struck on the right hip and fell heavily to the ground. On the following day he had a dull aching pain in the abdomen, which at times became very short, and used to double him up. He went on with his work, however, until Friday, the 16th, at 2 o'clock, when the pain in the stomach became so bad that he had to return home and go to bed. It was worse on the following day, and a medical man who saw him recognised the serious nature of the illness, and sent him to the hospital at once.

On admission he appeared a well-nourished man, with a somewhat anxious expression and sunken face. His mind was quite clear, and he talked intelligently, being frequently interrupted in his replies to questions by paroxysms of pain in the abdomen, which caused him to throw back his head, hold his breath for a few moments, and grind his teeth. He was lying on his back with his legs and thighs flexed, and complained only of the constant pain in the abdomen, which at times became much worse. Examination of the abdomen showed no movement of the abdominal wall, respiration being entirely thoracic. The skin was reddened as the result of the former application of hot fomentations. There was no fulness in any particular part of the abdomen, which was slightly distended. The muscles were held very rigidly, so that the abdominal wall was very hard; it was so excessively tender that he complained of the slightest touch; this tenderness was not localised, but extended all over the abdomen. On percussion there was resonance, with the exception of a small area above the pubes; this was about an inch and a-half in extent from below upwards in the middle line, did not extend far to the left, and gradually diminished towards the right, until it ceased about the middle of Poupart's ligament. There was no fluid thrill. The hepatic and splenic regions were normal. The urine was clear and contained no blood. His tongue was dry and furred. Pulse 125. Temperature 102.2°. There had been no vomiting. The bowels had acted normally.

Mr. Thurston, the house-surgeon, and Mr. C. S. Wallace, who was on duty for the resident assistant surgeon, recognised the condition as one of acute purulent peritonitis, and sent for me to see the patient. We thought the cause was disease of the appendix vermiformis.

As soon as possible operation was undertaken. The abdomen was opened in the middle line above the pubes after the surface had been thoroughly cleansed. On incision of the peritoneum a quantity of offensive pus escaped, and when the finger was introduced the pelvis was felt to be full of thick pus. The intestines were slightly matted together, but easily separated on touch. A small quantity of lymph came away, and a small area of one coil of intestine had some lymph adherent to it, but generally the peritoneal coat of the bowel was very little changed. No gut protruded through the wound. The abdomen was well washed out with sterilised water passed through the Berkfeldt filter, and search made for the appendix, which could not be identified. It was not considered advisable to make any prolonged search. A glass drainage tube was inserted through the lower angle of the wound into the pelvis, the upper part of the wound closed with sutures, and a dressing of cyanide gauze applied with a many tailed bandage. Later in the day he was fairly comfortable and complained less of pain, which was no longer paroxysmal. The abdomen was not so full; it was, however, still tender on pressure, but much less so. He had vomited once after the anæsthetic. His pulse was 100, and temperature 99.2°.

On November 19th there was not much discharge from the tube, and it was less offensive. The pulse was 84, and temperature normal. The bowels had acted twice, the motions were loose, but otherwise normal.

On November 20th the glass tube was replaced by a smaller sized rubber tube, as there was but little discharge. The abdomen was only slightly tender on pressure. The drainage tube was removed altogether on November 23rd, as the amount of discharge was trifling and not offensive. Strapping was applied across the lower part of the abdomen on November 27th to prevent gaping of the wound, which was dressed with boracic ointment. His temperature was normal, he was taking solid food, and was now apparently convalescent.

On December 6th he complained of pain in the left side of the chest, and the temperature was 101°; it had risen the previous evening to 99 6°. The pain was increased by deep inspiration but was not very severe. As no improvement followed the treatment prescribed, on December 11th Dr. Toller was requested to examine the patient with me. There was considerable tenderness over the splenic region, and the ninth intercostal space appeared fuller than normal. Splenic dulness was increased upwards, forwards, and backwards. There was absence of vocal fremitus, whilst the breath sounds over the upper part of this area were harsh and tubular. The pain was referred to the side and not to the abdomen, which presented no abnormal signs. His temperature was 102°, pulse and respiration were increased in rapidity, and the man again had a look of anxiety. We agreed that the symptoms pointed to a collection of pus in the abdominal cavity below the diaphragm and to the inner side of the spleen. The complete absence of abnormal signs below the costal margin made it improbable that abdominal incision would enable one to get at the pus in a satisfactory manner, and the more direct route through the chest wall was chosen. A piece of the tenth rib over the splenic area was excised, the pleura opened, and, after incision of the part of the pleura covering the diaphragm, the costal and the diaphragmatic layers were stitched together. A director was then passed through the remaining thickness of the diaphragm, the opening thus made enlarged, and further search made. The director soon entered the spleen, which was intimately adherent to the diaphragm, and was partially separated with difficulty by the finger. A bent bullet probe was passed as far as possible along the under surface of the diaphragm without meeting with pus. A drainage tube was inserted and a gauze dressing applied, the external wound being partly closed with sutures.

No improvement followed this operation, no pus escaped from the wound; he became restless, and emaciated visibly. The temperature fell for a few hours to 98°, then rose to 100°, and remained at that height. His complaint was still of pain in the splenic region. There was no ap-

parent change in resonance of other parts of the abdomen; the lower part was perhaps rather more bulging than normal, but the granulating surface of the wound made at the first operation looked healthy. He had now (December 13th) developed another symptom—vomiting—which was regarded as very important. As the attempt made to reach the collection of pus which was supposed to be present in the splenic region had not been successful, and it was evident that he could not live long unless he did obtain relief, I made an incision in the left linea semilunaris and carefully explored the abdomen from the wound. The spleen was adherent to the diaphragm, but no abnormal swelling of any kind could be felt in the upper part of the abdomen, either by myself or Mr. Abbott, who ably assisted me: but in the lower abdomen a distended coil of small bowel could be felt, which gave the impression that it was possibly obstructed in consequence of partial fixation to the median wound. Mr. Abbott passed his finger from the wound in the linea semilunaris to the upper part of the old median wound, and cut down on it. When the peritoneum was reached there was a gush of gas and offensive purulent material mixed with some blood. This came from the pelvis, and the abscess cavity extended across towards the right iliac fossa, in the situation of the first purulent collection. This was washed out and drainage provided for. The wound in the linea semilunaris was closed and that in the side redressed, the drainage tube not being replaced.

The day following this, December 14th, he was better, for the vomiting had ceased and the temperature fallen, but he still looked very ill, and had a rapid, weak pulse. There was much discharge from the wound. At 4.30 A.M. of the 15th he pulled out the glass drainage tube, being only partially conscious of his action, and restless. He afterwards gradually sank and died at 7.30, four weeks after admission.

Dr. Mackenzie, who made the *post-mortem* examination, reported as follows: The intestines were distended and were adherent to one another and to the abdominal wall in front. The adhesions, however, could be easily broken down. In making the central incision the intestine was slightly injured in two places, but there was no evidence that any perforation had existed during life. In the splenic region a collection of pus was found, amounting to about 10 ounces. This was contained in a pocket of the peritoneum, bounded by the diaphragm above, the spleen to the left, the stomach below and to the right. This pocket was completely separated by adhesions from the general peritoneal cavity. The spleen was flattened, and was closely adherent to the diaphragm posteriorly. It was of a slaty-black colour. The peritoneal cavity had not been opened by the incision which had been made in the splenic region. On placing the finger in the wound, one came on the spleen in one direction, while above there was only the peritoneum separating the finger from the abscess cavity. The liver was very firmly adherent all over. Careful examination failed to discover a cause for the peritonitis. The vermiform appendix looked suspicious externally, but when opened up there was no sign of perforation or of ulceration. The intestinal tract was examined from end to end without discovering anything abnormal. The liver and kidneys were normal. The pericardium contained about 6 ounces of serum. The heart was normal. The right lung was adherent nearly all over, and there were a few slight adhesions at the left apex. There was no effusion or inflammation in either pleura. The lungs were normal.

In the previous history there were complaints of vague abdominal pains and occasional *malaise* with headache, not sufficient to make the patient give up work as a waiter, but it is noteworthy that he mentioned a date on which this change in his health commenced. It is not uncommon to get a history like this in cases of appendicular disease.

When admitted, the patient was seriously ill, and suffering acutely from paroxysmal pain in the abdomen. The diagnosis of peritonitis was made without much difficulty, the face, the attitude of the man, the thoracic respiration, and the hard, tender, fixed abdomen pointed to this, especially when the high temperature, rapid pulse, and dry mouth were taken into consideration. Although the severity of the pain, muscular rigidity, and temperature would have argued the presence of a commencing purulent peritonitis, the extension of the dulness to the left of the middle line and its outline showed, in our opinion, the presence of a considerable collection of pus, whilst its extension more to the right suggested its possible origin in the region of the appendix. We came, therefore, to the conclusion that the case was one of acute septic peritonitis, and that an immediate operation would give the patient the best chance of recovery.

The absence of vomiting was regarded as favourable to the success of operation, for he was less exhausted than he would have been, whilst he could take food and stimulants as might be required.

Most classifications of the causes of septic peritonitis give cold as one, or perhaps speak of "idiopathic peritonitis," in other words, the origin of the disease as in this case was not explained by the *post-mortem* examination, although it was carried out by a careful expert.

Septic peritonitis is caused, as we know, by the escape into the peritoneal cavity of the bacterium coli commune, which is present in all parts of the intestinal tract, and in cases similar to this, but which have proved fatal at an earlier stage, this bacillus has been found passing through the wall of the appendix, without the aid of any ulcerative process. Dr. Hawkins has illustrated this very clearly. It is very probable that the disease started in this manner, but improbable that microscopical examination, so long after the invasion of the peritoneum, would have proved it. To the naked eye, the appearance of the appendix was normal when opened up.

It is generally recognised that an injury of the intestinal canal in any part of its course may, by lowering its vitality, or by some disturbance of the local circulation, so alter the normal resistance that the bacterium coli commune can get out by passing through the wall of the bowel. This bacterium is found throughout the intestinal tract and always in the appendix. It is probable that the jar of the fall which the patient experienced the day before the onset of symptoms was primarily responsible for their unusual activity, having acted on the appendix in the way indicated.

REFERENCES.
1 *Diseases of the Vermiform Appendix*, p. 133. 2 *Loc. cit.*

## THE TECHNIQUE OF "SERUM DIAGNOSIS," WITH SPECIAL REFERENCE TO TYPHOID FEVER.*

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IT is unnecessary here to enter upon general considerations on the phenomena upon which this method is based, this I have done elsewhere.[1] Neither is it desirable to consider the various diseases in which serum diagnosis is applicable.[2] I venture to say, however, that there is probably not a single disease in which this method is likely to yield more useful results in this country than typhoid fever.

Having followed closely the development of various doctrines concerning immunity, and more specially the instructive controversy which has been kept up for the last few years between Metchnikoff and Pfeiffer, a controversy in which Max Gruber joined at a later period, I was quite prepared for the announcement made by Widal about the middle of last year, and having myself made many experiments with the typhoid bacillus, I was able to repeat Widal's experiments, even before a complete account of his work appeared in the French papers on July 29th.[3]

Having tried the various methods which seemed likely to yield good results, I selected the one that had been used in my laboratory ever since (and which I was able to demonstrate to my class of bacteriology in the first half of July). The results obtained with this method by Dr. Sidebotham and myself have been carefully tested in over fifty cases by independent observation of patients kept under close supervision by Dr. Marsden at the Monsall Fever Hospital, and have proved to be remarkably accurate. For these reasons I consider myself justified in discussing critically the various ways in which serum diagnosis may be applied.

The serum of an immunised animal or that of a patient affected with a specific fever may be used for the purpose of diagnosing whether a bacillus is the bacillus causing that fever, or on the contrary the specific bacillus may be used for the purpose of finding out whether the fever has been produced by the microbe in question.

In both cases the technique may be the same; it is important, however, to keep in mind that for practical purposes the diagnosis of a fever by the action of the serum on a known bacillus is far more useful and, as a matter of fact, a far more reliable method than the diagnosis of the bacillus by means of the serum of an immunised animal. It is the happy idea of reversing all the experiments which had been made up to then which led Widal to the valuable application which he introduced at the beginning of last summer. He must also be credited with the very important notion that the action on which the test is based is not one possessed only by the blood of animals or persons who have become more or less completely immunised, but also by the serum of individuals who have been too recently infected to give any evidence of what is generally known as immunity. These individuals are undoubtedly undergoing

* This is part of an address delivered before the Manchester Pathological Society on The Bacteriological Diagnosis of Typhoid Fever.

processes which will end in more or less complete immunity, but they are as yet on the wrong side of the fever, which may or may not kill them. The reaction under those circumstances becomes less one of immunity than one of infection.

At the beginning of 1896 four kinds of methods had been used to demonstrate the action which the blood or blood serum of immunised animals has on the corresponding microbes.

1. The microbe is cultivated in the serum of an animal immunised against it. By this method Charrin and Roger found in 1889[4] that the bacillus pyocyaneus forms clumps or flakes, which fall to the bottom of the test tube in the shape of a sediment, the supernatant fluid becoming clear. In the serum of a non-immunised animal the bacilli remain disseminated, giving rise to a uniform turbidity.

2. The serum of an animal immunised against a specific microbe is mixed with the microbe to be tested, and is injected into the peritoneal cavity of a guinea-pig.

By this method R. Pfeiffer[5] found that motile micro-organisms (bacillus of cholera or typhoid fever) are rapidly immobilised, and that if the serum be potent and the quantity of micro-organisms not too large, the microbes undergo a granular degeneration, and may ultimately disappear by a process of solution, which its discoverer has compared to that of a piece of sugar placed in water. Other microbes than the specific ones do not undergo the same degeneration.

A loopful = 2 milligrammes of a 20-hours' culture on agar of the bacillus to be tested, made into an emulsion with bouillon, is mixed with 0.1 to 0.2 c.cm. of the serum of an animal strongly immunised against the specific bacillus, say of typhoid fever. The total amount of fluid thus obtained is made up to 1 c.cm. This is injected into the peritoneal cavity of a guinea-pig, weighing 300 grammes; 15 minutes, 30 minutes, one hour after the injection a few drops of the peritoneal exudation are removed and examined under the microscope. If the bacillus be a genuine typhoid bacillus it will be found at the end of an hour to have undergone the degeneration described above. This is what is known as Pfeiffer's phenomenon. In his first experiments, instead of mixing the bacilli with immunised serum, and injecting the mixture into a non-immunised animal, Pfeiffer injected the bacillus into the peritoneal cavity of a highly immunised animal. The bacilli, which are not of the same species as the one which has been used to immunise the animal, do not undergo the degeneration above described to any marked extent.

3. The microbe to be tested is mixed with the blood serum of an animal strongly immunised against the specific micro-organism which is looked for. A hanging drop preparation is made with the mixture and examined under the microscope.

This method was used by Metchnikoff[6] with various modifications to elucidate certain points raised in the controversy between him and Pfeiffer; it has been improved by Bordet[7]. By this method Bordet has observed *in vitro* the phenomena described as occurring only *in vivo* by Pfeiffer, and the agglomeration reaction previously described by Charrin and Roger, Metchnikoff, and others.

A young culture (twenty-four hours old) of the doubtful microbe is mixed with 5 or 7 c.cm. of bouillon, or of 0.60 per cent. NaCl solution. To 2 drops of this emulsion, 1 drop (or less) of the serum (recently obtained) of an animal immunised against the specific microbe under investigation. A hanging-drop preparation is made with the mixture. (When a complete production of Pfeiffer's phenomenon is wanted, a small quantity of the fresh serum of an ordinary animal is added to the mixture.) If the microbe tested be the specific one, say the vibrio of cholera, it is rapidly immobilised, then it runs into clumps, and, when fresh serum has been added, the vibrios are seen to undergo granular degeneration. Other vibrios than the one against which the serum has been immunised do not in the same degree undergo these changes. Bordet considers this reaction quite as specific as Pfeiffer's reaction.

4. The microbe to be tested is mixed with the more or less diluted serum of an animal immunised against the special microbe under investigation. The mixture is placed in a test tube, and allowed to stand for some time. A positive reaction is indicated by the formation of a precipitate composed of clumped bacilli, and by the supernatant fluid becoming clear. A negative reaction is shown by the turbidity of the fluid remaining general and no precipitation being formed.

This is the method specially introduced by Max Gruber, and Durham.[8] These observers also used a microscopical method much resembling Bordet's and they insist specially on the importance of a certain degree of dilution, as Pfeiffer had done also in connection with his own method.

The bacillus to be tested is grown for twelve to twenty-four hours on agar. A loopful of the culture (= about 3 mg.) is made into an emulsion by thorough mixture with 0.5 c.cm. of bouillon: 5 or 10 mg. of the serum of an animal strongly immunised against the special microbe under investigation are mixed with enough bouillon to get an amount of fluid equal to 0.5 c.cm. The emulsion of the microbe to be tested and the diluted specific serum are mixed. The mixture is kept in a narrow specimen tube measuring three-eighths of an inch in diameter. Thirty minutes or sixty minutes after, if the bacillus is of the same kind as the one which has been used to produce the specific serum, and if the serum be potent enough, the microbes will form a sediment at the bottom of the tube, and the supernatant fluid will be clear, or nearly so. The sediment is composed of clumped bacilli. If, on the contrary, the microbe belongs to a totally different species from the one against which the serum has been immunised, the contents of the tube will remain uniformly clear.

In his work Widal adopted several of the methods just described, with slight modifications. Pfeiffer's method, very important from a theoretical point of view, was evidently not applicable, but the three others were suitable. He used specially two methods, which may be described as the quick and the slow.

*1. Quick Method.*—To 10 drops of a 24 or 48 hours old, neutral bouillon culture of the typhoid bacillus, 1 drop of the blood serum to be tested is added. The serum and the culture (which should be uniformly cloudy) are mixed together in the sterilised trough of the hematimetre. A drop of this mixture is taken and placed on a slide, covered, and examined at once under the microscope. A positive reaction, showing that the serum comes from a case of typhoid fever, is indicated by the bacilli becoming motionless and running together to form clumps, which are of various sizes. Sometimes the bacilli are not immobilised at once, and the agglomeration takes place slowly. In such cases the reaction may not be distinct for a quarter, half, or even several hours.

*2. The Slow Method.*—This is the one used by Widal in his first experiments. It resembles much that followed in Charrin and Roger's experiments, from which it differs by the serum being diluted instead of being used undiluted. One part of the serum to be tested is added to 10 or 15 parts of bouillon. This mixture is inoculated with a typical bacillus typhosus. The tube is incubated at a temperature of 37° C. Twenty-four hours after the culture is examined. If the reaction is positive, a more or less abundant sediment, composed of clumps, will be found at the bottom of the test tube and the supernatant fluid will be more or less clear. In a negative case the fluid would be uniformly turbid.

After mentioning Widal's method it may be well to describe the one used by Grünbaum.[9] The chief modifications introduced by this observer are (1) the use of a U-shaped tube to separate blood serum by centrifugalisation; (2) the dilution of the blood serum by means of a graduated pipette, the blood being diluted sixteen times; (3) the preparation of a hanging drop for examination under a high power of the microscope (oil immersion); (4) a time limit of 30 minutes for the observation of the phenomenon. Although the reaction can be very well seen by using the method described by Grünbaum, which resemble closely that originated by Bordet, I am quite convinced from personal experiments carried out in my laboratory more than two months before the publication of Grünbaum's first paper that many of the precautions he suggests are superfluous, and by introducing complications may interfere with the efficacy of the test. I speak here, not of investigations in which one wants to experiment on the properties of the various elements of the blood, but of those which have for their object a clear and unambiguous diagnosis of typhoid cases and a rapid estimation of the potency of the serum of such cases.

I must now refer to my own experiments. My first care was to obtain a typical culture of the typhoid bacillus. Among those I had isolated from typhoid spleens during the last four years I selected one separated two years ago, highly pathogenic at the time, and which ever since had invariably given all the reactions which are now associated with the Eberth's bacillus.

1. On slightly acid potato gelatine, growth slow, scanty, colonies transparent and small.
2. On slightly acid potato, growth quite transparent, colourless glaze-like.
3. In glucose peptone gelatine, no production of gas.
4. On litmus (or phenolphthalein), slightly alkaline lactose-peptone-agar, or gelatine, no production of acid reaction.
5. In milk, no coagulation.
6. In peptone bouillon or water, no production of indol.
7. In presence of minute traces—$\frac{1}{100}$, $\frac{1}{150}$, $\frac{1}{200}$, $\frac{1}{300}$—of serum of an animal immunised against typhoid fever, immobilisation and agglomeration well marked by any of the methods mentioned above.
8. The bacillus was very motile in *neutral* bouillon cultures.
9. At least ten cilia could be demonstrated in well-stained specimens.
10. The bacillus did not stain by Gram's method.

The next step was to test the action of the blood of various

individuals on that bacillus. The following types of cases were selected:

1. Normal individuals of various ages, having never had typhoid fever or having recovered from it for a great number of years (over twenty in one case).

2. Patients affected with various febrile diseases, certainly not enteric fever, and who never had had typhoid fever.

3. Patients affected with enteric fever, in whose cases the clinical features left absolutely no doubt as to the diagnosis. The patients were of various ages, in different stages of the fever, more or less severely affected, and suffering from various complications.

With material thus obtained the test was applied in various ways suggested by the known methods already described, and it was found that by any of these methods it was possible to obtain the reaction in cases of typhoid fever.

The blood was used, quite fresh and entire, dried and entire, coagulated, separated by centrifugalisation, and in every case the reaction could be obtained more or less clearly in cases of the fever.

The blood was used in various dilutions from $\frac{1}{5}$ to $\frac{1}{2000}$, and it was found that the dilution $\frac{1}{10}$ was the most suitable. In quite exceptional cases it seemed that the proportion $\frac{1}{5}$ gave better results than the $\frac{1}{10}$. In several instances in which the reaction appeared slowly, a proportion of serum equal to $\frac{1}{200}$ or $\frac{1}{500}$ seemed insufficient to bring about a clear reaction within two hours. The bacillus was grown on various media, such as ordinary nutrient agar, gelatine and bouillon, or carefully neutralised peptone bouillon. Young and old cultures were used. The cultures in neutral bouillon were invariably found to be the best when not more than twenty-four hours old.

It was soon apparent, however, that all the methods were not equally good; thus:

1. The test-tube method recommended by Durham and Gruber failed to give clear results much more often than the microscopical method introduced by Bordet. When the serum was weak the precipitation was incomplete. When very small quantities of half-dried blood, such as are often obtained from weak anæmic patients, and specially from young children, arrived at the laboratory, it was difficult to obtain enough clear serum to make up the mixture to a sufficient bulk. Then occasionally the blood of people not affected with typhoid fever produced a partial precipitation. For those reasons I soon discarded the method.

2. The hanging-drop method introduced by Bordet and used by most observers gave very good results, but in measuring the fluid with pipettes and mixing the emulsion of bacilli and the serum in small capsules, or even on slides, I soon noticed that extraordinary care had to be taken to avoid errors. Graduated pipettes were unsuitable when eight or ten observations had to be conducted within a short time, unless one had as many pipettes to dispose of, for it was not only necessary to wash the pipettes thoroughly, but also to boil them in water to destroy all traces of the substances causing agglomeration. The same thing had to be done with the troughs, slides, and cover glasses used. At first I replaced graduated pipettes by ordinary capillary pipettes, which were destroyed after each observation, the dilutions being made by counting the number of drops, the same pipette being used for counting drops of diluted serum and of the emulsion of the bacillus; but this implied much waste of time and also of material; and, when one has only a small quantity of serum, it is not always easy to get a small drop out of it, as the serum has a tendency to adhere to the point of the pipette. Exact measurement of the dilution becomes difficult under those conditions.

3. I finally adopted a method the objects of which are:

(1) To permit the measurement of extremely small quantities of blood.

(2) To simplify the apparatus required so as to diminish chances of contamination.

(3) To make it easy to destroy rapidly by heat all traces of serum which may remain atttached to the measuring instrument.

(4) To obtain conditions under which spurious clumping is not likely to occur.

All the apparatus required consists of:

(*a*) A sterilised lancet-shaped needle.

(*b*) The small pipette in which the blood has been collected, and of such diameter that after it has been broken across the platinum loop, which is used for measuring the serum, can easily be introduced into it if necessary.

(*c*) A platinum loop measuring about 1 mm. in diameter, and holding about 2 mg. of fluid.

Each loop has a definite capacity which can be easily estimated by direct weighing. A glass slip is placed on one of the pans of a delicate chemical balance. This is exactly counterpoised. A drop of fluid is then taken with the loop and deposited on the slip, this is immediately weighed by means of the rider before evaporation has had time to cause a sensible diminution of weight. Then four more drops are rapidly added in such a way that they do not touch each other, and the rider being moved so as to counterbalance a weight five times greater than that of the first drop, the beam should remain horizontal, and so on.

(*d*) Slide and cover glass, absolutely clean; if they have been used before for the test they should be boiled in water.

(*e*) A tube of culture of the typhoid bacillus in neutral bouillon (twenty-four hours old at most). This tube should be free from clumps, and the bacillus should be actively motile.

When the typhoid bacillus is reinoculated in neutral bouillon daily for weeks or months, there comes a time when, all of a sudden, all the cultures will clump spontaneously, or on the addition of any serum; this is not due to a failure in the growing power, cultures in alkaline bouillon show the same property. In fact the importance of the reaction of the mixture of serum and culture is of great importance. Dr. Sidebotham will shortly give the results of a number of experiments bearing on this point. The same thing may be observed in cultures grown repeatedly on agar. If, however, cultures on agar, gelatine, or solidified blood serum are made at longer intervals, and the bouillon tubes are inoculated daily from these cultures on solid media, the difficulty caused by this spontaneous clumping can be got rid of, at least for a time. It is well to keep up the virulence of the typhoid bacillus by the usual method of reinoculation.

The procedure is as follows: With the sterilised loop 9 drops of the evenly turbid bouillon culture are taken and deposited separately on the clean slide or cover glass.

The platinum loop is again sterilised, and, when cool, one drop of the blood is taken, and deposited also separately on the cover glass or slide.

The 10 drops are then mixed thoroughly and rapidly together.

If the mixture has been made on the cover glass the cover is placed on the slide moist face downwards, and gently pressed so as to obtain an even film. If the mixture has been made on the slide, it is simply covered with a clean cover. In either case the preparation consists of a thin film of culture mixed with the serum investigated and a certain number of red blood corpuscles, separating the slide from the cover-glass so that a capillary space of pretty uniform thickness is obtained.

It will be noticed that instead of separating entirely the blood corpuscles from the serum, I try on the contrary to retain a part of them in the preparation. They do not interfere in the least with the reaction, and they have the advantage of acting as supports for the cover glass, and of causing the film in all preparations to be nearly of uniform thickness. Under these conditions the bacilli are free to move about; and when the preparations are kept in a moist chamber they can be observed from day to day for more than a week.

A. *When the blood tested is that of a non-typhoid patient*, the bacilli remain diffused all through the preparation; they move freely about, and even when kept for days they hardly ever show any tendency to form good clumps. This absence of characteristic clumping is observed even when the proportion of blood is one-fifth or even one-half. An imperfect clumping without loss of motility has been observed in a few cases after twenty-four hours, but the appearance of the preparation in such cases is quite different from what is observed in cases of typhoid fever.

The motion of the bacilli is quite characteristic; they move at different rates, some, especially the very short ones, darting across the field, and disappearing in a few moments; others pursue a zigzag course. Some of the long ones are less active, and progress by an undulating motion; some are almost motionless. The actively motile bacilli, by striking against blood corpuscles, keep them in constant motion. The power of some of the bacilli is such that they often drag or push the corpuscles through a portion of the microscopical field. The bacilli have generally seemed to me to be most active after they have been in contact with the blood for a short time. After a few hours they generally become less motile, but not altogether motionless, and the progressive motion is seldom lost before several days have elapsed.

When clumps are formed they are generally very small,

ery few, and composed of bacilli which are quite motile still nd are very often seen to separate themselves again. Owing to the activity of the bacilli these small imperfect clumps are seen to alter in shape. As this phenomenon is seldom observed, and as, when it occurs, it does not take place till after several hours have elapsed, it is not (under the conditions explained above) a serious source of difficulty.

When bacilli are kept for days under observation, they multiply, and many of them become very long.

In making these observations it is not necessary to use very high microscopical powers, unless one wishes to study the minuter changes taking place in the bacillus, in which case the best immersion lenses are necessary. The bacilli can very clearly be seen with a magnification of 200 to 300 diameters, and the formation of clumps can be easily recognised with a magnification of 50 or less. In fact, it is quite possible to see with the naked eye a marked change in a drop of a mixture in which the agglomeration phenomenon is taking place.

B. *When the blood tested is that of a typhoid patient* in a suitable stage of the fever (that is, after the third or fourth day from the beginning, and better still after the seventh or eighth day), the phenomena observed differ according to whether the serum is potent or not.

*When the serum is potent* changes take place so quickly, that, however rapidly the mixture is covered and placed under the microscope, many of the bacilli will already have become nearly motionless, and several clumps will have formed before the preparation can be seen. The greater part of the bacilli, however, will still be actively motile, in fact, they seem very often to be in a state of extraordinary activity, as if they were under the influence of stimulation. Soon however, that is in from two to five minutes, they gradually lose their power of translation, they seem paralysed, and exhibit nothing more than an oscillatory motion, which after a time becomes feebler, and cannot be distinguished from Brownian movement. At the same time clumps are forming rapidly. In from five to thirty minutes hardly any free bacilli remain between the clumps, which may be of various sizes. The presence of the corpuscles does not affect this phenomenon of agglomeration. The corpuscles behave like perfectly indifferent bodies. The bacilli are not attracted by them; they do not seem either to be clearly repelled, but it is worth noticing that clumps very seldom enclose a corpuscle or form against them.

All bacilli do not behave exactly in the same way; some of the very small bacilli, almost coccus-like, very often retain their motion for a longer time than the others. In some parts of the preparation the bacilli remain swarming, whilst in other parts they are already completely agglomerated. I thought at first that this was the result of imperfect mixture, but the perfectly even distribution of the red blood corpuscles (when these are retained) showed that this was not the case. Within a few minutes, however, all these differences may disappear, and the preparation present a uniform appearance.

*When the serum has a feeble agglomerating power* the changes described above take place much more slowly and less completely. The motility of the bacilli is generally considerably reduced (after being first increased), but it may never be entirely abolished in a $\frac{1}{10}$ dilution.

The clumps form gradually; they are in most cases sufficiently numerous at the end of half an hour to make the diagnosis possible, but in some cases one may have to wait one and even two hours before the preparation takes a very characteristic appearance. These cases are few.

Both in the case of the complete and of the incomplete reactions just described, the agglomeration remains clearly distinct for days after the preparation has been made. In some cases the bacilli remain motionless, but in most cases many bacilli regain their activity.

There is also marked evidence of growth. The bacilli forming the clumps may reach a great length, but the filaments thus formed remained clumped together. In very few cases the bacilli become granular and indistinct; this has usually been observed when the reaction has been intense.

Before concluding, I must add that when the question of applying this test to diagnosis, and the method of collecting the blood had to be considered, I thought it necessary, in order to remove chances of contamination, to recommend (1) that the skin from which the blood was obtained be sterilised; (2) that a needle which had not possibly come in contact with any other blood, and been thoroughly sterilised, be used; (3) that nothing but blood collected in sterilised hermetically sealed pipettes be sent to the laboratory. Further experience has convinced me that all these precautions are useful.

I will not refer here to the results obtained by Dr. Sidebotham and myself with this method, since it has been applied to the diagnosis of cases occurring in ordinary practice. I may say, however, that they confirm entirely the results obtained in a series of over fifty hospital cases. In applications of this kind the technique must be such that scientific investigations will not suffer from accidental circumstances which would vitiate the results. I have already explained the way in which I have attempted to remove these difficulties.

The administrative part of the work presents difficulties of another nature, but which have to be overcome before the scientific methods can be applied at all in public health work. Dr. Niven has very successfully removed these administrative difficulties in the case of diphtheria, so that now, practically, all possible notified cases of diphtheria are examined bacteriologically. By following the same methods in the case of typhoid fever since the beginning of this year, a similar measure of success has already been nearly obtained in connection with typhoid fever. With the object of assisting others who might wish to carry out elsewhere the same kind of work, I have arranged with Dr. Niven to give shortly a report on the administrative working of the method in Manchester.

REFERENCES.

[1] For fuller accounts of other points, not referred to here, see S. Delépine, *Medical Chronicle*, October, 1896; *Lancet*, December 5th, 1896; Delépine and Sidebotham, *Lancet*, December 12th, 1896. [2] With regard to diseases prevalent in this country, the one which has, so far, given me results as good as typhoid fever is glanders: Professor MacFadyean some time since announced a similar result in the *Journal of Comparative Pathology*. [3] F. Widal, first communication to the Société Médicale des Hôpitaux de Paris, Séance du 26 Juin, 1896, *Semaine Médicale*, July 1st, 8th, 29th, etc.; *Presse Médicale*, July 29th, 1896; *Lancet*, November 14th, 1896. [4] *Comptes Rendus et Mémoires de la Société de Biologie*, November 23rd, 1889, p. 667. [5] R. Pfeiffer, *Zeitschrift für Hygiene*, 1894, xviii, p. 1, *ibid.*, 1895, xix, p. 87; R. Pfeiffer and Kolle, 1896, xxxi, p. 203. [6] E. Metchnikoff, *Annales de l'Institut Pasteur*, 1894, pp. 714-16; 1895, p. 433, etc. [7] J. Bordet, *ibid.*, 1895, p. 462, 1896, p. 191, etc. [8] Durham, *Journal of Pathology and Bacteriology*, July, 1896, p. 13; Gruber and Durham, *Münch. med. Woch.*, March 31st, 1896. [9] A. S. Grünbaum, *Lancet*, September 19th, 1896. Although this paper was published over two months after Widal's results were generally known, Dr. Grünbaum was already working with Gruber during the month of March.

## A CASE OF TYPHOID FEVER TREATED WITH ANTITYPHOID SERUM: RECOVERY.

By ERNEST A. T. STEELE, L.R.C.P.LOND., M.R.C.S.ENG.,
Honorary Medical Officer Plaistow Maternity Charity, etc.

A NURSE, aged 29, of somewhat delicate constitution, who had lately been engaged in nursing a case of typhoid fever, complained of feeling ill and unable to do her work on February 10th, 1897. She said that she had been feeling poorly and tired with some headache for a week or ten days. Her tongue was slightly furred. The temperature in the morning was 101° F., but rose at night to 104° F.; she had a slight sore throat. She was sent to bed, and, as the bowels had not acted for two days, an aperient was given.

*Temperature Table.*

| Date. | Morning. | Evening. | Date. | Morning. | Evening. |
|---|---|---|---|---|---|
| Feb. 10 | 101.2 | — | Feb. 22* | 98.2 | 100.8 |
| ,, 11 | 99.6 | 100.2 | ,, 23 | 98.2 | 99.6 |
| ,, 12 | 100.0 | 101.4 | ,, 24 | 97.2 | 98.2 |
| ,, 13 | 101.8 | 102.2 | ,, 25 | 97.4 | 98.6 |
| ,, 14 | 102.0 | 102.0 | ,, 26 | 97.6 | 99.6 |
| ,, 15* | 98.4 | 100.2 | ,, 27 | 99.8 | 99.2 |
| ,, 16 | 100.6 | 101.8 | ,, 28 | 98.2 | 97.0 |
| ,, 17* | 100.0 | 102.4 | Mar. 1 | 97.2 | 99.6 |
| ,, 18* | 99.0 | 101.2 | ,, 2 | 98.0 | 98.6 |
| ,, 19 | 89.4 | 98.0 | ,, 3 | 97.0 | 97.2 |
| ,, 20* | 98.4 | 101.0 | ,, 4 | 97.0 | 97.2 |
| ,, 21 | 98.2 | 100.8 | | | |

* 10 c.cm serum.

On February 11th she felt a little better, but still had headache, and the tongue was dry.

On February 13th she complained much of her head. The tongue was dry and slightly brown in the centre; the abdomen was tender, and there had been one relaxed and offensive motion.

On February 15th she looked dull and listless, and complained of headache and feeling very tired; wandered a little in the night. The tongue was dry and brown, the abdomen tumid and tender. The urine gave a very well-marked Erlich reaction. A sterilised pipette was filled, with all proper precautions, with blood from the finger, and sent to the British Institute of Preventive Medicine to be examined for Widal's serum diagnosis. That evening 10 c.cm. of antityphoid serum, which was obtained from Messrs. Burroughs and Wellcome, were injected into the subcutaneous tissues of the abdomen.

On February 16th her general appearance was markedly better, and she said that she felt better—her headache and tired feelings were nearly gone, the tongue was not so dry, and the abdomen less tumid. A few rose spots had appeared.

On February 17th her general condition was the same, but she had had one relaxed motion. The report from the British Institute of Preventive Medicine stated that the result of their examination was typical of typhoid fever; 10 c.cm. antityphoid serum was injected as before.

On February 18th the general improvement was maintained, and she had one yellow motion slightly formed; 10 c.cm. of serum were again injected. On February 19th she had one relaxed motion, the tongue was moist, and the patient stated that she felt well. On the evening of February 20th she was not so well; she complained again of feeling tired, and of a bad headache. The tongue was dry and the pulse 108; 10 c.cm. serum were injected; and on February 21st there was a great improvement. The headache was gone and the tongue moist; the abdomen also was much less tender. The evening temperature was 100.8°. She had had one relaxed motion during the day.

On February 22nd she looked and felt well, but had slight headache; 10 c.cm. serum were injected.

On February 23rd she felt much better, the tongue was clean, and the abdomen not tender or tumid. She had passed two relaxed motions, but was beginning to get dissatisfied with her diet and wished for something more substantial.

On February 25th the temperature was normal morning and evening; the motions were still yellow and relaxed. She was allowed a little Allen and Hanburys' food and oxtail soup.

On February 27th, as the bowels had not been open, a simple enema was ordered, and acted once.

On March 1st the patient looked and felt well, and was growing more hungry every day.

On March 2nd the urine was examined for Ehrlich's reaction, with a negative result.

The further progress of the case has been towards uninterrupted recovery, and she is now well.

Remarks.

Although it is impossible to say what would have been the result of this case if the antityphoid serum had not been used, I feel sure that its action controlled the severity of the disease and shortened its duration.

One feature was especially noted, not only by myself, but by all who saw her—that is, the change in her general appearance on the morning after her first injection. On the evening of February 15th the patient had all the appearance of one going in for a severe attack of typhoid, but by the following morning she had quite altered for the better. After each injection there was immediate relief to the distressing headache and aching of the limbs, and the patient stated that she experienced a feeling of comfort.

It is of interest to notice that on February 20th, and to a lesser degree on February 22nd—that is, when she had been forty-eight hours without an injection—the temperature began to rise, and the headache, etc., to return, and on both occasions the serum brought about an improvement by the following morning.

Five injections of 10 c.cm. each were given; beyond a slight urticarial eruption on the abdomen there were no ill-effects from the serum, or from the punctures, which were all made in the skin of the anterior abdominal wall.

I have to thank Miss Geddes, the Resident Medical Officer of the Plaistow Maternity Charity and District Nurses' Home, of which institution the patient was a nurse, for the care and attention she bestowed upon the case, and for keeping the notes.

## A METHOD OF STAINING FLAGELLA.

By DAVID McCRORIE, L.R.C.P. and S.Edin., F.E.I.S.,
Bacteriologist, Glasgow Royal Infirmary.

Of the different methods of staining flagella which have at different times been described, Van Ermengen's, in my experience, gives excellent results, but takes too long to accomplish; while Loeffler's, as well as Nicolle and Morax's modification of the same, is very uncertain. Pitfield's method gives good results, and is quickly accomplished, but the flagella are, as a rule, very faintly stained. The method which is now commonly adopted in this laboratory is somewhat similar to Pitfield's, but we use a different stain, and invariably we get both bacilli and flagella more distinctly stained than by Pitfield's method. The dye we use is an aniline blue which is known commercially as "Night Blue," from the fact that it shows as well in artificial as it does in sunlight. The formula which we find to give the best results is:

10 c.cm. of a concentrated alcoholic solution of "night blue."
+10 c.cm. of a 10 per cent. solution of alum.
+ 10 c.cm. of a 10 per cent. solution of tannic acid.

The addition of 0.1 to 0.2 g. of gallic acid would seem to add to the value of the mordant stain, but excellent results can be obtained without this addition.

The method we adopt is this: A drop of sterilised water is placed on an absolutely clean coverglass, held in a Cornet's clip, and carefully inoculated with the smallest particle of a twenty-four hours' agar culture. The coverglass is moved in such a way that the drop of water is distributed over nearly its whole surface, or a suspension may be made in a watch-glass and a thin film spread upon a coverglass. It is then placed in the incubator until thoroughly dried (two minutes). A small quantity of the mordant stain is then poured on, and the coverglass again placed in the incubator for two minutes, or held for that time 2 feet above the flame of a Bunsen burner. The excess of stain is now washed off by running water, the coverglass dried in the incubator, and then mounted in Canada balsam. The mordant stain can be used either filtered or unfiltered; it does not necessarily require to be made fresh each time, as we find that the stain is quite as efficient after a fortnight or so as on the first day of use. The whole process can be accomplished in a few minutes.

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

### IDIOPATHIC BLEEDING FROM UMBILICUS IN AN INFANT: RECOVERY.

A well developed boy was born on January 10th, 1897, to a primipara after an unusually easy labour. On January 16th the cord separated naturally, but on January 19th a spot of fresh blood was seen on the navel. On January 20th, at 8 A.M., I found the child lying in clothes saturated with blood, the mother's bed being much soiled by the hæmorrhage. Over the navel was a very soft clot; oozing had ceased, and a graduated compress of lint was applied tightly. At 8 P.M. I found the clothing once more soaked with blood, and the child apparently dying. A few ounces of hot water were put into the bowel and a compress reapplied over the navel, hamamelis being used as styptic.

On January 21st, at 3 P.M., bleeding recurred, and I transfixed the umbilicus with two harelip pins at right angles. Round these a figure of 8 ligature was applied, and a ligature encircling the navel *en masse*. At 9 P.M., bleeding having recurred, I cut the ligatures and relied upon one of thick silk, encircling the umbilicus, which I tied as tightly as possible. There was no recurrence.

On January 26th the tissues ligatured sloughed; the slough was removed along with the needles, leaving a pit the size of a sixpence. This was packed daily with gauze, and rapidly healed.

REMARKS.—This case appears worth recording for the following reasons: The mortality in such cases is excessively high, especially among males. The hæmorrhagic diathesis would appear not to obtain in this case. I could find no history of it in the families, and the needle punctures, which in some recorded cases have started fatal bleeding, here gave no trouble. The frequently-concomitant symptoms of icterus and purpura in such cases were also absent in this case. Almost invariably they carry off the patient, even if bleeding be arrested. Such children are mostly healthy at birth, but become icteric in two or three days.

*Treatment.*—(1) Compression with styptics has almost invariably been tried, and has occasionally been successful. In one such case "compression with strips of sole leather" is recorded as the means of cure. (2) A thimble bandaged over the navel is also mentioned as successful. It filled with blood, which clotted, and the arrest of bleeding was permanent. (3) Plaster-of-paris, poured into the umbilicus, and allowed to harden there, was successful in one case. (4) The cautery, often tried, has always failed. (5) Ligature with needles at right angles generally stopped the bleeding, but in one case the bleeding from the punctures could not be arrested; in another "enteritis" was set up; in a third hæmorrhage recurred when the slough came away, and proved fatal, while in some others death followed from purpura.

This case would appear to show that the very intractable bleeding may in such cases be the whole of the danger we have to deal with, and that it is not necessarily associated with the very fatal conditions of hæmophilia, or jaundice and purpura.[1]

Penge. H. H. PHILLIPS, M.R.C.S., L.R.C.P.

## A CASE OF INTESTINAL OBSTRUCTION RELIEVED BY MASSAGE OF THE ABDOMEN.

A GIRL, aged 10, had been in good health, the bowels acting regularly. Whilst straining at stool, she was suddenly seized with an acute pain in the right side of the abdomen, followed by vomiting, which persisted with short intervals for some hours, the vomit finally being described as brown and offensive. When I saw her about eighteen hours afterwards, the vomiting had ceased; there was pain and great tenderness over the ascending colon, principally in the right lumbar region, with marked dulness and rigidity of the abdominal wall; the left side was normal and tympanic. An attempt to ascertain the condition of the bowel by palpation caused so much pain that it was not persisted in. The breath was offensive; temperature 100°; pulse 106. She was placed under opium and belladonna, with small quantities of liquid nourishment and hot stupes and poultices applied to the abdomen.

The following day, the pain and tenderness were less; the bowel could be felt on the right side apparently blocked for about 4 inches of its length; there had been some straining whilst passing water, but no fæces had passed; there was no sickness; the pulse and temperature were about the same, the breath offensive, the tongue becoming brown. The next day her condition was about the same; the right side of the abdomen was still very tender, but there had been no vomiting; a copious enema was administered without effect.

On the fourth day she was not so well: there had been a tendency to vomit, and the tongue was becoming foul. Very gentle massage was attempted over the right side with the flat of the hand; after about 10 minutes there was suddenly a considerable gurgle in the bowel, and as the patient appeared faint the massage was stopped. During the afternoon pain was complained of, which was relieved by the application of hot flannels. Ten hours afterwards a copious, offensive motion was passed, not containing any hard masses.

On examining the patient the following morning, I found the dulness and tenderness over the right side had disappeared, the mass of bowel felt on the previous day was absent, the tongue was cleaner, and the patient in every way better. She made a rapid recovery without a bad symptom, the bowels acting once or twice a day, and in a few days she was in her ordinary health. The opium was discontinued on the second day; no blood was passed by the bowel.

Croydon. ST. GEORGE REID, M.R.C.S.Eng.

[1] Observations on the subject are to be found in Ashhurst's *International Encyclopædia of Surgery*; *Edinburgh Medical Journal*, September, 1863, p. 272; *London Medical Gazette*, 1849; *New York Journal of Medicine* (New Series), vol xv, p. 73.

## THE TREATMENT OF SCALP RINGWORM BY FORMIC ALDEHYDE.

IN the BRITISH MEDICAL JOURNAL of September 12th, 1896, some clinical and experimental observations bearing on the action of formic aldehyde on scalp ringworm were published by Dr. Alfred Salter. Dr. Salter asserts that the beneficial action of formalin is due to its extraordinary powers of penetration. Unfortunately, however, Dr. Salter has not taken the necessary steps to prove his assertion, and the experiments recorded by him, interesting as they may be in themselves, are quite irrelevant to the hypothesis in question. If formic aldehyde kills the ringworm fungi by actual penetration into the follicle, then the intrafollicular portions of the affected hairs, after sufficiently prolonged treatment with formalin, should remain sterile when sown on nutrient media. By the result of this mode of experimentation Dr. Salter's hypothesis stands or falls. I have tried the 40 per cent. solution of formalin in a moderate number of cases of ringworm of the scalp. In one case the solution was well rubbed in every morning for five consecutive days, and after an interval of a few days reapplied in the same way till the necrotic cuticular epidermis began to separate *en masse*. To test whether the formalin had really penetrated to the bottom of the follicle I removed an intrafollicular stump from beneath the epidermal scab and planted it in standard soil of Sabouraud's formula. In the usual time the thin superficial vegetation characteristic of microsporon made its appearance, thus proving that, in this case at least, the formalin, after repeated application, had not penetrated into the depths of the follicle.

There can be no question as to the lethal action of formic aldehyde on the trichophyta as on other forms of mould growth, but I see no reason to change the opinion which I expressed at the annual meeting of the British Medical Association at London (Dermatological Section), 1895, namely, that the so-called germicides exert their beneficial action on ringworm of the scalp not in virtue of their germicidal properties, but by their stimulating effects upon the hair papillæ. This statement, of course, does not apply to the surface of the scalp, or to the upper parts of the follicles which are directly accessible to the drug.

The action of formic aldehyde closely resembles, it seems to me, that of phenol, but it is less reliable than phenol on account of the very possible accident of suppuration which occassionally accompanies what we may call the normal phenoloid action of the aldehyde. I have seen a 40 per cent. solution of formalin set up suppuration which has persisted for weeks. On the other hand, I have never seen, in the course of ten years' experience, the 95 per cent. liquid carbolic acid produce the slightest trace of suppuration when applied to the scalp.

There can be no question of the powerful stimulating effect of formic aldehyde on the growth of hair; and this, combined with its germicidal action on the surface fungus, renders it a useful, but by no means specific, remedy in cases of scalp ringworm. LESLIE ROBERTS, M.D.Edin.,
Dermatologist to the Royal Infirmary, Liverpool.

## IDIOSYNCRASY TO SALICYLATE OF SODA.

ON March 24th I saw Mrs. P., a lady aged 75, suffering from slight rheumatic joint and lumbar pains. I prescribed a mixture containing 10 grains of salicylate of soda and the same quantity of bromide of ammonium, together with a few drops of aromatic spirits of ammonia and spirits of chloroform in each dose.

I saw her the next morning, and found both her lips thickly swollen and œdematous, while the roof of the mouth was red and slightly swollen; she also had an erythematous blush on the skin round the mouth for the distance of half an inch. Her gums also were swollen, and she complained of a tingling, burning sensation in the mouth and lips.

At the same time she told me she was sure there was salicylate of soda in her medicine, as twice before the same symptoms had occurred after taking that drug. She said she had only taken one dose of the mixture (that is, 10 grains of the salicylate) because an hour or two after she had taken it she perceived a burning, pricking sensation in her mouth which she was familiar with as the effects of the drug in question. She blamed herself for not having warned me of her intolerance of that remedy, and gave the following history of her experience of its effects.

Six years ago she had an attack of lumbago, for which her medical friend prescribed a mixture containing salicylate of soda. An hour or two after taking the first dose her lips became painful and swollen. As, however, a dentist was at the time attending to her mouth, she attributed the symptoms to some local application he had used to her gums, and in due course took two other doses of her mixture, after each of which the œdematous swelling of the lips increased, while the roof of the mouth became acutely painful and swollen, and small blisters developed on it. On this occasion she was confined to bed for a week, and obliged to take liquid food through a feeder during the whole of that time, while, as the swelling extended to the fauces, some fear was expressed of œdema of the glottis supervening.

Three years ago a precisely similar mixture was given her for the same complaint, and, after taking one dose, like symptoms, though of a milder character, necessitated her immediate discontinuance of the remedy.

In the present instance the symptoms were much relieved by the next day, and had entirely disappeared by the day following, the treatment pursued being the use of a chlorate of potash and boric acid mouth wash and the exhibition of the former drug internally.

Mrs. P. is healthy though not robust, is rather anæmic and a sufferer from rheumatico-gouty pains—that is, pains attributed to rheumatism produced by a probably gouty inheritance. The only facts in her medical history which threw any light on her peculiar idiosyncrasy were: (1) she always suffered from violent hæmorrhage after her confinements, and (2) when stung by a wasp or a bee the effects are very acute and widespread, a sting on the shoulder puffing up and inflaming the whole arm down to the finger tips and making her feel acutely ill, while a gnat bite produces violent inflammation and local swelling.

The accompanying idiosyncrasies fit in well with Dr. Malcolm Morris's theory of the causation of drug eruptions—namely, that they are of angio-neurotic character.[1] He says of salicylate of soda: "The internal use both of this drug and of salicylic acid sometimes gives rise to erythematous, urticarial, vesicular, pemphigoid, and petechial lesions on the skin:" but he does not mention any case of inflammation of the mucous membrane of an œdematous character caused by the drug, although, in speaking of the scarlatiniform rash it sometimes induces, he notes that it is "occasionally accompanied by sore throat and systemic disturbance."[2]

Gosport, Hants. WILLIAM SYKES, M.D.

# REPORTS

ON

## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

### POPLAR AND STEPNEY SICK ASYLUM.

A CASE OF PNEUMONIA TREATED WITH ANTIPNEUMOCOCCIC SERUM.

(By C. SPURRELL, F.R.C.S., Medical Superintendent.)

W. H., a hawker, aged 29, was admitted on January 12th, 1897. He was said to have lived a very temperate life. He had never before had a severe illness. He was perfectly well on January 9th. On January 10th he was suddenly taken with severe chills and a feeling of *malaise*. Since then he had developed a cough.

On admission, the temperature was 104.6° F., the respirations 36, and the pulse 82. There was dulness at the left axilla, but no tubular breathing. Small *râles* and rhonchi were heard all over the chest. The heart sounds were normal.

On January 13th the dulness extended to the apex, and was accompanied by tubular breathing and crackling *râles*.

On January 14th he was delirious. Pulse 148 and dicrotic. The urine contained a trace of albumen. Antitoxin (660 units) was injected. The condition of the chest was unaltered. At 7 P.M. he was wildly maniacal. Antitoxin, 660 units, was injected, and inj. morph. hyp. ♏ iv. He had for the first time thrown out sputum, which is rusty. He was very restless during the night, and slept only about an hour.

On January 15th the physical signs were not so marked. Antitoxin, 660 units, was injected at 11.30 P.M., and inj. morph. hyp. ♏ iv. He was delirious, but not maniacal. He had had incontinence of urine for 36 hours. He took food pretty well. The apex was not so dull as the axilla, otherwise the signs were unaltered. Antitoxin, 660 units, was ininjected.

On January 16th, the pulse was 120, small, regular. He appeared weaker, and was fairly quiet. Antitoxin, 660 units, was injected. At 10.30 P.M. the pulse was 136, slightly irregular. Antitoxin, 660 units, was injected.

On January 17th he appeared slightly better, and said he was hungry. The tongue was thickly coated, the pulse 120 regular, slightly fuller. He had slept fairly well. Antitoxin, 660 units, was injected, and the same quantity at 11 P.M.

On January 18th the left chest was dull from the apex anteriorly to the cardiac dulness, and posteriorly to the angle of the scapula. The dulness was least marked at extreme apex. Tubular breathing and consonating *râles* were heard over same area. The tubular breathing most marked in axilla. At 10 P.M. antitoxin, 660 units, was injected.

On January 19th the apex was more resonant, but the patient still quietly delirious. At 6 P.M. antitoxin, 660 units, was injected.

On January 20th the patient was weaker. At 11.50 P.M. antitoxin, 660 units, was injected.

On January 21st the front of the left chest and axilla were resonant with some *râles* and bronchophony, but no tubular breathing. The right chest was almost clear. He sank and died at 7 P.M.

Leave for a *post-mortem* examination could not be obtained.

REMARKS.—The patient was extremely ill on admission, and continued so up to his death. Although the temperature during the last twenty-four hours was only a little raised, and the signs of consolidation were rapidly clearing up, there was nothing observed in the nature of a crisis. The injection of the serum gave rise to no marked effect except that in the majority of instances a slight fall of temperature followed its administration; on other occasions a slight rise of temperature occurred. The slight variations in his general condition did not appear to coincide in time with the injections. The injections were made into the flank; they did not cause much pain at the time; the serum was rapidly absorbed, and gave rise to no local trouble. The serum was kindly supplied to me by Dr. J. W. Washbourn.

### STATION HOSPITAL, MANDALAY.

DYSENTERY COMPLICATED WITH INTUSSUSCEPTION.

(By Surgeon-Captain W. G. PRIDMORE.)

M., a Hindu dhooly bearer, aged 40, was admitted on August 20th, 1896, complaining of weakness and fever. The temperature was 103°, but with the exception of headache and extreme general weakness no other symptoms were presented and the case was treated as one of malarial fever with antipyretics and quinine.

On August 22nd the temperature was normal, and abdominal pains with diarrhœa were complained of. The stools were watery and bloodstained. Milk diet was adopted, and astringents were administered.

On August 23rd a swelling about the size of a kidney, movable and tender, just below the liver on the right side, was discovered. The stools were dysenteric in character.

[1] *Diseases of the Skin*, Cassell and Co., 1894, cap. ix, pp. 183-84.
[2] *Loc. cit.*, p. 199.

On August 24th the swelling had increased in size, and had shifted to a position to the right and a little below the umbilicus, considerably lower than its former position. The stools had become more copious, and consisted of a dark, blood-stained substance. The treatment was changed to ipecacuanha and opium given in form of powder three times daily.

On August 25th severe and general abdominal pains set in. The swelling had assumed a distinct sausage shape, and occupied the lower part of the umbilical region on the right side. No alteration in size or shape, due to peristaltic movements, could be detected. The tumour was dull on percussion and very tender. The stools on August 26th consisted of a dark fluid, with blood and fragments of mucous membrane. On the same day the patient's temperature began to rise again, and symptoms of general peritonitis supervened. Hot fomentations were applied over the abdomen, and opium, in the form of tincture, was given every four hours. The same evening the temperature rose to 102° F.

On August 27th the tumour was less prominent, and several dark-coloured offensive stools, containing pus and blood, were passed. The general condition of the patient, who had been growing rapidly weaker, was now one of extreme extreme exhaustion, and he died on August 28th at 5 A.M.

*Necropsy Eight Hours after Death.*—Body emaciated. Recent lymph deposits were found on the parietal and visceral peritoneum, and were abundant in the right iliac fossa and in the lumbar region. The peritoneum contained ¾ pint of purulent fluid, and the small intestines were distended and congested. An intussusception, caused by the invagination of the ileocæcal valve into the ascending colon, was discovered. The invaginated portion formed a mass in the colon about 6 inches long, and its mucous membrane was black and in parts gangrenous. The vermiform appendix was long and distended. Extensive dysenteric ulceration was present throughout the length of the large intestine. The ulcers were for the most part chronic, but in several places there were signs of recent inflammation and breaking down.

Remarks.—The difficulties presented by this case were twofold. At the onset the diagnosis of intussusception was obscured owing to the presence of dysentery, and it was not until the abdominal tumour appeared, or was noticed, that any definite opinion could be arrived at. The exhausted condition of the patient when he first came under observation, the rapid onset of peritonitis, and the presence of such extensive ulceration of the large bowel, rendered treatment in any form hopeless. The association of dysentery with intussusception in this case may have been a coincidence; but it is not unreasonable to suppose that the intestines, enfeebled by dysentery, presumably of some duration, may have been predisposed to intussusception. Added to this, the continual straining and peristaltic movements may have acted as a direct cause. Intususception in this country is extremely rare, and the patient's age makes the case more remarkable.

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### STATION HOSPITAL, AGRA, N.W.P.

CASE OF TREPHINING AFTER INJURY OF LONG STANDING: RECOVERY.

(Under the care of Frank W. Begbie, Surgeon-Captain, I.M.S.)

G. F. T., a gunner, aged 23, with sixteen months' Indian service, was admitted during 1896, on account of inability to walk. His family history and previous history were good, and no hereditary tendency towards epilepsy or syphilis, either in his own case or in that of his family, could be discovered. He informed me, however, that when 10 years of age he met with a severe accident, being thrown from a butcher's cart on to his head, and rendered unconscious. The scar from the above injury was still to be seen, situated over the region of the fissure of Rolando. He added that during the hot months of the year he had ever since suffered from severe headache, always starting from this spot.

In 1891 he enlisted in the Royal Artillery, and in the usual course of events reached India towards the end of 1894. All went well with him until the hot weather of 1895 set in, when the headaches before mentioned returned with renewed violence; they lasted on and off during the whole hot weather, but with the coming of the cold season ceased. In January, 1896, the battery went out under canvas, and about the middle of the month he had a severe attack of ague, accompanied by a feeling of inability to control the movements of his legs. As he did not improve in camp under treatment he was sent back to the station hospital, Agra, under escort.

On first seeing him it was noticed that he was quite unable to walk, could not stand with his eyes shut, and seemed to have lost control over his movements. His face was deadly pale, pupils dilated, tongue protruded towards the right, speech thick and mumbling. The knee-jerks were much exaggerated, and ankle clonus was also present. His arms were also affected; he was unable to place a spoon in his mouth with his eyes shut. There were no Argyll-Robertson phenomena, no loss of sensation, and no girdle pains; therefore at this time the case was looked upon as a case of ataxic paraplegia, and was treated accordingly.

Later on, as the patient did not improve, a further examination was made, and revealed the scar on the scalp, with its accompanying history. The scar was 1½ inch long, and when pressed he "called out" from the intensity of the pain produced. Despite large doses of iodide of potassium, quinine, strychnine, and bromide, he became rapidly worse, and I therefore asked for permission from the senior medical officer to trephine over the seat of the scar. This was granted, and all the usual and antiseptic precautions having been taken, a semicircular flap of scalp was made, and a crown of bone, equal to the middle-sized trephine, was removed. On examining the crown, the outside of the bone was found rough and uneven, but the inside smooth, although thicker at the upper than the lower border.

The day after the operation the temperature was 99.2°, his headache had gone, he had no pain, and had slept well. Iron, strychnine, and quinine were ordered.

On the second day after the operation, the tongue came out straight. On the sixth day the sutures were removed. Clearness of speech had returned. On the ninth day he was able to feed himself with his eyes shut. On the seventeenth day he was allowed up; all movements, except those of the legs, were normal. On the twenty-first day he was able to walk unaided the length of the ward. On the twenty-seventh day the knee-jerks and ankle clonus were normal, and he was able to run and jump without difficulty.

One month after the operation the patient, who was perfectly well, was ordered to the hills for change of air.

Five months after the operation he wrote to me that he had had no return of the nervous symptoms, but was suffering again from fever.

One year after the operation he went to England cured completely of his nervous symptoms, in order that English air might completely cure him of his ague. In January, 1897, he was quite well, and rejoined his corps for duty.

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# REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

W. H. Dickinson, M.D., President, in the Chair.

*Tuesday, April 13th, 1897.*

Fracture of the Skull and Hernia Cerebri.

Mr. R. Lawford Knaggs read a paper entitled Compound Depressed Fracture of the Skull; Cerebral Abscess; Hernia Cerebri; Recovery; with a consideration of the subject of Hernia Cerebri based upon 109 collected cases. J. G., was operated upon for compound depressed fracture of the left parietal bone on September 11th, 1894. Though the membranes and the brain were injured, and the wound subsequently suppurated, healing took place in due time, and he became an out-patient on November 28th. He was readmitted in February with some cerebral symptoms, and a protrusion of soft parts over the bony aperture. On February 24th, he was unexpectedly found at the point of death, and the swelling was explored, and then opened with a penknife by Mr. Thompson, the resident surgical officer. An ounce of pus was evacuated from a cerebral abscess, and the patient brought round by artificial respiration. Hernia cerebri and paresis of the right arm and leg at once developed. The

former grew as large as a hen's egg in a fortnight, remained stationary for three weeks, then shrank, and by July 7th had disappeared. He left the hospital on August 3rd, well, except for some remaining weakness of the forearm muscles, and a hesitation in his speech; and a year later his condition remained unaltered, except that he had a fit every eight weeks. He was working as a labourer. In discussing the subject of hernia cerebri, the causes antecedent to that condition were first enumerated. Then the intracranial conditions which produced it were described—namely: 1. Increased tension. 2. A softened or diffluent state of a portion of the cerebral substance. This was essential, and the *post-mortem* evidence was conclusive. 3. Inflammation of the brain substance, which lead to an increase in bulk, to its softening, and when prolonged to its replacement by granulation tissue, and finally by cicatrix. It also impaired, suspended, or might sometimes destroy, the functions of the centres implicated. The duration and size of the hernia was influenced by the extent of the inflammation. The causes were traumatism and sepsis, either separate or in combination. The course of hernia cerebri: If sepsis were avoided, the inflammatory effusion was gradually absorbed, and the protrusion would certainly dwindle and disappear after it had reached its maximum. The time required varied from a few days to several months, and depended upon the amount of brain involved, and the absence or presence of continned irritation. The results of septic infection were abscess, meningitis, and diffuse inflammation, and abscess was the only one that was not always fatal. Complications: The association of hæmorrhage and abscess with hernia cerebri were gone into, and attention drawn to the importance of gravity in certain cases, and to the sudden but transient enlargement of the tumour which might result from trivial causes, either local or general, such as probing or tonsillitis. The prognosis is stated to be good if sepsis were avoided, but septic infection might be a consequence not only of the original injury or consequent operation, but of interference with the hernia. The cases were analysed under the following heads: 1. Those left to Nature. 2. Those treated by pressure. 3. Those treated by caustics. 4. Those treated by various operative procedures. 5. Those treated by the removal of the tumour. Summary of analysis: All the recoveries under 1, 2, 3, 4 were due to natural processes, and 13 of those under 5 would have got well if left alone. Three more might have recovered, nowadays, without mutilation of the brain, but for the remaining 3 excision must have credit given to it. Sepsis was the almost universal cause of death, and the increased percentage of deaths in the operative cases (namely 28.5 per cent.) was not without significance. Treatment should be—1. *Preventive.*—(*a*) Asepsis; (*b*) Thorough treatment of compound depressed fractures of the skull. The modern methods of treatment in those two matters was probably the reason that so few cases of hernia cerebri were recorded in recent literature. 2. *Non-interference.*—This should be the rule. Rigid cleanliness should be observed, and the tumour allowed to run its own course. 3. *Operative.*—Necessary when abscess was present, and should aim at evacuation, not mutilation. Apart from abscess the necessity for it was excessively rare, but as embedded fragments could now be diagnosed by skiagraphy, it was difficult to imagine a condition in which excision could be justified.

Mr. Ballance congratulated the author on the successful termination of a difficult surgical case, and described the paper as a classical one, which would also be a standard source of reference. The rarity of hernia cerebri at the present time in association with compound fracture of the skull was due to the improvement which had taken place in the treatment. The occurrence of hernia cerebri was due to sepsis; even when there was very extensive compound fracture, if the wound was rendered thoroughly aseptic, hernia cerebri would not follow. It was true that there were some exceptional cases where it was quite impossible to keep the brain aseptic. He could not believe that the healthy dura mater would ever give way from increased intracranial pressure, but if softened by inflammation it might easily be perforated. The surgical treatment of fracture of the vault of the skull was at the present time in a very satisfactory state; the future progress of operative treatment would, he thought, be in the direction of surgical interference in compound fracture of the base of the skull; in these cases infection might, perhaps, be prevented by appropriate treatment.

Mr. Lawford Knaggs, in reply, said that it was certainly difficult to prove that in any given case of hernia cerebri septic infection was absent, but he thought that an injured and inflamed brain would become puffy and swollen just as other parts of the body might do when undergoing aseptic inflammation. In his paper he had referred to a case in which extensive aseptic inflammation of the brain had occurred; had there been any fracture of the skull in the case he thought hernia cerebri would have taken place. He agreed that the healthy dura mater would not give way from increased intracranial pressure.

### Non-Tuberculous Posterior Basic Meningitis in Infants.

Dr. J. Walter Carr read this paper. The object of it was to show that there was a distinct form of meningitis, occurring almost exclusively in infants, which had not at present received adequate recognition (though described by Drs. Gee and Barlow in the *St. Bartholomew's Hospital Reports* for 1878, under the title of The Cervical Opisthotonos of Infants); that it mainly affected the posterior part of the base of the brain, was entirely independent of tuberculous disease, ran a subacute or chronic course with fairly characteristic symptoms, by which it could be diagnosed during life, and presented very constant and definite *post-mortem* appearances, although its actual causation remained at present unknown. The description of this disease was based upon eleven cases observed by the author at the Victoria Hospital for Children, Chelsea, narrated in detail, and compared with those recorded by Drs. Gee and Barlow in the above-mentioned paper. All the cases occurred in previously healthy infants under 1 year old: the onset was gradual in some, sudden in others; but in all, the most constant and characteristic symptoms were severe vomiting, extreme head retraction, and stupor passing into coma of remarkably long—generally several weeks'—duration, the excessive head retraction persisting to the last. The cases all terminated fatally, none in less than five weeks, whilst some lived for three months, or even longer. At the necropsies (ten in number) inflammation of the pia arachnoid was found over a very definite area at the base of the brain, hydrocephalus in all the cases, and in some closure of the openings between the fourth ventricle and the subarachnoid space. In no instance was any sign of tuberculous disease discovered either in the cranial cavity or elsewhere. The possible causation of the ventricular effusion was fully discussed. Under etiology the possible connections of the disease with injury, ear disease, and congenital syphilis were successively discussed, and reasons were given for concluding that none of these could be really causes of the meningitis. It was suggested that possibly there might be some relation between the disease and epidemic cerebro-spinal meningitis, but that bacteriological investigation only could determine this, and at present this had not been carried out. Under diagnosis the chief points of distinction between this disease and other forms of meningitis, especially the tuberculous variety, were fully described. In regard to prognosis, it was stated that, whilst unusually fatal, recovery was probably not impossible, and cases were quoted in support of this, and to show that the disease might occasionally give rise to ordinary chronic hydrocephalus. Medical treatment was probably of little avail, and the question of operative interference, either by tapping the lateral ventricles or by trephining, was therefore discussed. In two of the cases described, the former measure was tried without evil effects, and in one with distinct improvement, all acute symptoms subsiding, and the child living for several months; trephining in two other cases proved rapidly fatal, the great danger consisting in too rapid an escape of fluid.

On the motion of Dr. T. Barlow, seconded by Dr. D. B. Lees, the discussion on the paper was adjourned to April 27th.

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The medical profession is represented in the Austrian House of Deputies by nine members.

## CLINICAL SOCIETY OF LONDON.

THOMAS BUZZARD, M.D., F.R.C.P., President, in the Chair.

*Friday, April 9th, 1897.*

### SARCOMA OF THE PROSTATE.

MR. HOWARD MARSH described the case of a patient, aged 57, who was admitted into St. Bartholomew's Hospital in May, 1896. Two and a half years before laparotomy had been performed for a tumour, which on exposure seemed to be a sarcoma growing from the left ilium. As the tumour could not be removed the abdomen was closed. In May a tumour involved the prostate, and was so large that it filled the pelvis, displaced the bladder, and so pressed upon the rectum that the bowels could not act, and the abdomen was becoming distended. Colotomy was performed, but the patient died. On *post-mortem* examination it was found that, apparently from the dragging action of several pounds of dry fæces in the colon and sigmoid flexure, the bowel at one point had fallen away from the wound, and acute peritonitis had followed. The tumour, which measured 7½ by 4½ inches, was enclosed in a firm fibrous capsule. On section, it was of a whitish colour and firm consistence. On microscopic examination it was a spindle-celled sarcoma. The author remarked that both sarcoma and carcinoma occurred in the prostate, though both were rare. Not a few cases of sarcoma had been met with in quite young children. The affections had occurred in all decades of life up to the age of 75. The chief symptoms were: (1) Difficulty of micturition. In some cases the urethra was completely destroyed by the growth; in other instances, however, micturition had been scarcely at all interfered with. (2) Difficulty of defæcation from pressure on the rectum. (3) The presence of a tumour in the situation of the prostate. (4) Hæmorrhage from the urethra; but this was frequently entirely absent. (5) Pain, sometimes only slight, but in some cases extremely severe. (6) The bladder was displaced, so that it lay, not in the pelvic cavity, but in the hypogastric region of the abdomen. As to treatment, removal of the tumour was usually impossible; in some instances it was necessary to drain the bladder by suprapubic puncture, while in many colotomy for the relief of intestinal obstruction had been necessary. In cases in which the growth was a firm spindle-celled sarcoma patients had lived for four or five years; but where, as often in children, the tumour was a myxosarcoma undergoing softening and tending to infiltrate the surrounding structures, death occurred in the course of a very few months.

MR. BLAND SUTTON described the case of a boy, aged 7, who had retention of urine, and a tumour pointing in the perineum, thought to be an abscess. It was incised, when free hæmorrhage occurred, which was controlled with difficulty. The growth was a sarcoma. *Post mortem* it was found to involve the prostate, which was enormously enlarged. Secondary growths were found in the lungs. The speaker had since then received from various sources smaller tumours of the prostate in children. Senn, of Chicago, had recorded eight cases of malignant disease of the prostate in children, mostly sarcomata.

DR. J. GRIFFITHS (Cambridge) exhibited a specimen of sarcoma of the prostate of a child, which clearly illustrated the fact that the enlargement was entirely behind the urethra, and displaced it forwards. He drew attention to a physical sign of importance in the diagnosis of tumours of the prostate, namely, that the point of a metal bougie in the prostatic urethra could be easily felt by the finger in the rectum, and if much tissue intervened the fact was evidence of thickening of the gland. In ordinary hypertrophy of the prostate the enlargement involved the upper central part, the catheter not being obstructed until it reached the neck of the bladder, whereas in general enlargement, as from sarcoma, the urethra was displaced opposite the verumontanum.

MR. TARGETT showed a similar specimen from Guy's Hospital museum. He thought these prostatic growths might possibly arise from the recto-vesical connective tissue outside the gland. This would possibly explain the large size of these growths as contrasted with the smallness of the normal prostate in the young. The pelvic sarcomata were all characterised by a tendency to mucoid degeneration, and presented microscopically the appearance of myxo-sarcomata.

MR. S. G. SHATTOCK said that atrophy of the prostate following double castration chiefly affected the glandular cells of that organ. That fact suggested the possibility of treating tumours of the prostate by double castration, which could do no harm, and might have the effect produced on mammary carcinoma by double oöphorectomy.

MR. BUCKSTON BROWNE said that the enlargement did not, as asserted by Dr. Griffiths, invariably take place behind the urethra, as in two specimens he had found the growth entirely in front. In one case this fact was embarrassing, as when he wished to drain suprapubically, if he had not had the staff to cut down upon, he would have incised the tumour, which felt like a distended bladder. Urethral hæmorrhage was not common in sarcoma of the prostate, but was more frequent in carcinoma, though even then it was usually determined by catheterisation. Sometimes severe neuralgia was associated with these growths; in one case intense bilateral sciatica was present early in the course of the disease.

### AXIAL ROTATION OF THE PEDICLE OF AN OVARIAN CYST IN A CHILD, AGED 5: OVARIOTOMY.

MR. RAYMOND JOHNSON reported this case. The child had suffered for six months from numerous attacks of abdominal pain attended with diarrhœa and vomiting. These attacks increased in frequency and severity, and three weeks before the child was brought to the Victoria Hospital for Children the abdomen was noticed to be swollen. On admission the temperature was 101°. The abdomen was considerably distended, and the right half was occupied by a tender elastic swelling which was most prominent below and to the right of the umbilicus. The diagnosis of localised tuberculous abscess of the peritoneum was made, and operation was at once undertaken. An incision was made over the prominent part of the swelling in the right linea semilunaris, and a cyst of the right ovary was exposed. The wall of the cyst was hæmorrhagic, and the pedicle had undergone two complete rotations. Ovariotomy was performed, the child making an uneventful recovery. The general features of the case were so suggestive of tuberculous peritonitis that the question of the diagnosis between a localised abscess and a cyst was not really taken into consideration. No other record of axial rotation of an ovarian pedicle in a young child had been discovered.

MR. BLAND SUTTON said his statistics showed that of 100 cases of ovarian tumour, 15 were found in children under 15 years of age, and they included the sarcomata which formed a large proportion of ovarian tumours in children. Ovariotomy between the ages of 10 and 15 was attended with better results than at any other time of life. Before the age of 10 the results were much less favourable. A large proportion of these ovarian tumours in children underwent rotation of the pedicle, though less frequently than in adults, because early pregnancy was the chief cause predisposing to axial rotation, and that, of course, was absent in the very young.

### HYDATID CYSTS REMOVED FROM THE LEFT PLEURA, FROM BEHIND THE MESENTERY, AND FROM THE RIGHT LOBE OF THE LIVER.

MR. W. G. SPENCER described the case of a young lady, aged 20, whom he had seen with Mr. Thomas Bond. She was supposed to have suffered from an attack of pleurisy, and they thought an empyema had formed and was tending to point below the left costal margin. On incision a hydatid cyst was found occupying the lower half of the left pleural cavity. The parasitic cyst was removed without tearing it by passing a stream of water from an irrigator between it and the adventitious cyst. Upon the patient coughing the lung expanded, bursting through the adhesions representing the adventitious cyst, and filled the whole cavity. The patient recovered the complete use of the left side of the chest. Meanwhile, dulness and resistance increased on the right side in the region of the liver, from the nipple down to the level of the umbilicus. Two months after the first operation an abdominal incision was made, the liver hooked up, large and small intestines pushed aside, the mesentery cut through, and the cyst situated behind the mesentery, and distinct from the liver, reached. The parasitic cyst was removed as before, and the adventitious cyst washed out and sewn up.

As the cyst in the right lobe of the liver could not be reached the abdominal wound was sewn up. An incision was then made into the pleura through the tenth interspace in the right mid-axillary line, the diaphragm stitched to the upper edge of the wound, and then incised. The cyst was reached an inch and a half within the liver, and was drained. Fluid, shreds, and hooklets came away through the wound, and the patient had gradually recovered complete health. Mr. Spencer pointed out how dangerous might have been the operation by tapping, either from sudden flooding of the lungs or from hæmorrhage, and how much safer and better was incision and removal of the cyst.

Mr. Howard Marsh hoped that treatment of hydatids by aspiration had been definitively abandoned by English surgeons. The method of operation adopted by Mr. Spencer was vastly better. But although the parasitic cyst could be easily removed by a stream of water, the cavity of the adventitious cyst often occupied a long time in closing. He had recently had 2 cases in which that process had occupied nine and twelve months respectively.

Mr. Wallis also opposed tapping, having seen 2 cases in which death had occurred directly after that operation. If the cyst was dead adhesions might form, so that it might require some traction for its removal. In regard to the third operation on Mr. Spencer's patient, he thought it would perhaps have been better to wait for the development of symptoms.

Mr. Makins said that if there were more than one cyst the surgeon might hesitate to attack either of them, not knowing how many there might be. Mr. Spencer's case was encouraging in this respect. The persistence of a fistula after operation was a serious thing. He had removed some twelve or fourteen years ago a cyst from the spleen, and the sinus never healed, the patient dying five years afterwards from amyloid disease. These cases of slow healing were usually those with very thick adventitious cyst wall. Large cysts packed with hundreds or thousands of daughter cysts were apt to cause embarrassment if tapped, as the trocar might enter one of them, and a very little fluid then came away. Again, a cyst might become infected with tubercle if its sinus remained open a long time; possibly this happened in his case in which the cyst had been removed from the spleen.

Mr. Spencer, in reply, said that when inflammation of a cyst had occurred the cyst wall became very thick, and there was difficulty in closing it. Operation should be undertaken early before inflammation occurred, and the immediate closure of the cyst attempted. When there were multiple cysts, it seemed to him that the sooner the surgeon set about removing them the better it was for the patient.

## MEDICAL SOCIETY OF LONDON.

Reginald Harrison, F.R.C.S., President, in the Chair.

*Monday, April 12th, 1897.*

Clinical Evening.

### Extroversion of the Bladder treated by Left Nephrectomy and Transplantation of the Right Ureter through the Loin.

The President showed a boy, aged 15, who was the subject of a congenital extrophy of the bladder and an epispadias penis with the pelvic cleft. His condition on admission was a miserable one, and shortly after he developed scarlet fever, which left his urine slightly albuminous. When the urine had become normal again, he removed the left kidney by lumbar incision, and eleven months later he had transplanted the right ureter. To do this he made a small incision, as for lumbar colotomy, and having secured the ureter, a carbolised silk ligature was placed upon it just where it crossed the common iliac artery. The tube was then cut across on the kidney side of the ligature, and brought out into the loin wound and fixed there. This took only a few minutes, and urine immediately began to trickle from the transplanted ureter. It was noticed that while the ureter was being transplanted, retching and vomiting became continuous. The patient also vomited at frequent intervals for twenty-four hours after the operation, but this ceased when he removed the little suture which attached the divided ureter to the loin wound. For ten days the patient did well, but there followed a series of high temperatures which continued from December 16th to January 29th. On December 23rd, the temperature was 105.3°, and on December 24th it fell as low as 97.4°. There was also sweating and occasional vomiting, but notwithstanding this the patient did not seem to be very ill. On January 7th, he was allowed to get up on a couch, and since then his condition had steadily improved. The cause of this pyrexial disturbance had not been elucidated. He called attention to the difference in the urine trickling from the ureters in these deformities mixed as it was with the abundant glairy excretion of mucus from the surface of the exposed membrane of the fissured bladder as compared with that which escaped from the artificial fistula in the loin, the irritating and offensive properties and the tendency to phosphatic deposit which usually obtained being absent in the latter. So far he had made no attempt to close in the bladder, as this appeared to be gradually undergoing a process of cicatrisation.

Mr. Morgan asked on what ground the author had removed one kidney instead of repeating the operation on the other side. The difference between the urine excreted in this case and that usually observed was, he admitted, very remarkable. His own attempts to relieve these distressing cases had not been as satisfactory as he could have wished, but he had never tried the radical procedure described by the author. He said he had seen many cases in which the bladder surface was more contracted than in this lad, and observed that it remained to be seen whether the exposed surface would gradually be covered with more epithelium.

Mr. Stanley Boyd pointed out that the subsequent history of this case would be interesting to follow, there being always a possibility of stricture of the ureter, and in other cases where the ureter had been transplanted, usually into the bowel, patients had died of surgical kidney later on.

The President, in reply, said that in deciding to remove one kidney he had been guided by the fact that there was great difficulty in providing for a discharge of urine from two parts of the body at the same time. He intended to cover in the bladder, but preferred to defer that part of the procedure until later. It was four months since the operation, and there was not the slightest indication of any tendency to contract on the part of the ureter. He intended this as a preliminary communication on the subject, which was not as yet fully worked out.

### Multiple Spontaneous Fractures in an Infant.

Dr. L. Guthrie showed a child, aged 2, who four months ago had developed bluish swellings in various parts of the body, first in the left thigh, then in the right thigh, then in the clavicles, and finally in the left humerus. A skiagraph showed that these swellings corresponded to fractures, but whether they preceded or were merely associated with the fractures he was unable to say. The condition was probably due to scurvy, the child being very rickety and flabby, though the gums had never been red or spongy.

Mr. Morgan recalled the case of a child, aged 7, whom he had seen last week who exhibited no fewer than eighteen of these fractures. He dissented from the author's diagnosis of scurvy, seeing that in this disease the detachment took place between the epiphysis and the diaphysis, whereas in his patient the fractures were in the diaphysis of the bones.

### Case of Acromegaly Treated by Pituitary and Thyroid Extracts.

Dr. Rolleston showed a woman, aged 26, who had suffered from acromegaly for upwards of two years. Since November, 1896, she had been treated by mixed pituitary and thyroid extracts, under which she had greatly improved. This improvement had been maintained since she had left the hospital, so that it could not be attributed to rest in bed. The superficial resemblance of acromegaly with myxœdema seemed to justify the administration of thyroid extract, especially as in several cases of acromegaly treatment by pituitary extract alone had failed to effect any improvement.

### Spastic Hemiplegia after Whooping-cough.

Dr. Rolleston showed a girl, aged 13, with right spastic hemiplegia associated with a varying amount of athetoid movements. The condition dated from an attack of whooping-cough at 10 months of age. He said he was disposed to attribute it to hæmorrhage in the cortex from one of the

cerebral veins during a paroxysm of coughing. The muscles of the affected limbs were much hypertrophied.

Dr. Maguire insisted on the resemblance of these to functional cases, but he admitted that having begun at such an early age some organic lesion was probable. Hæmorrhage into the cortex was the only lesion that would explain the symptoms, and this was rare in the young, for he had only seen one such case. He pointed out that in functional disease there was interference with cerebral inhibition, and the same condition obtained in these cases, but the interference was consequent on an organic cause instead of a merely functional disturbance.

Dr. Guthrie thought it was surprising that these cerebral hæmorrhages did not occur oftener than they did in association with whooping-cough, hæmorrhages elsewhere being frequent. This case reminded him of one he had seen in 1895 in a child aged 7, in whom hemiplegia with loss of speech supervened in the course of an attack of whooping-cough. This cleared up gradually, but returned in May, 1896, quite suddenly, affording an instance of the destroyed functions being taken up by the other side of the brain, and of a subsequent destructive lesion on the other side.

Osteotomy for Pronounced Deformity of Lower Limbs.

Mr. Battle showed a woman, aged 21, who had exhibited remarkable deformity of both lower limbs, both limbs being greatly deviated to the same side, so that she could neither stand nor walk without assistance. By suitably executed osteotomies he had succeeded in restoring the centre of equilibrium, and the girl could now walk and stand with perfect ease. Mr. Battle also showed a woman, aged 24, who came to him with a swelling in the right calf, which proved to be a cyst communicating with the bursa under the semimembranous muscle and with the knee-joint—in fact, a form of Morrant Baker's cyst. Mr. Battle also showed a man who had sustained a severe injury to the knee-joint, resulting in a finely comminuted compound fracture of the patella. He had removed some fragments, and had wired the larger fragments together, and the patient had recovered a very useful joint. Mr. Battle also showed a specimen of sarcomatous degeneration of a large enchondroma of the thumb.

Case of Lymphadenoma.

Mr. Wallis showed a man who for many years had suffered from lymphadenoma. He had removed a large number of glands from the neck, and for several months the patient had had no further trouble, but since seven months he had developed over 100 nodules all over the body.

## SOCIETY OF ANÆSTHETISTS.

G. H. Bailey, M.R.C.S., President, in the Chair.

*Thursday, March 18th, 1897.*

A New Anæsthetic Inhaler.

Professor Hobday (Royal Veterinary College), in exhibiting a new anæsthetic inhaler, said that in veterinary practice, with the open methods of administration, and even with Junker's inhaler, there was liability to mishaps in the case of the smaller and more delicate of animals, and it was on account of this fact that he had devised the methods he wished to bring before the Society. The first apparatus (made for him by Arnold and Sons of West Smithfield), consisted of a small bottle with a wide neck, to which was fitted a cork bored for the passage of two tubes. One tube, at the lower extremity of which was fitted a valve to prevent egress, allowed admission of air, which passed over the chloroform in the bottle, and took up vapour in its course; the other was for the exit of a mixture of air and vapour. To the latter tube was attached one extremity of a pair of rubber bellows, the action of which was to suck vapour from the bottle and force it on towards a mask which fitted the patient's face. The amount of anæsthetic vapour admitted into the mask was regulated by a tap placed in the lower portion. In a room at a temperature of 60°, with 6 drachms in the bottle, when the bellows were worked as much as possible, there passed out of this at each pressure about two-fifths of a minim of chloroform vapour well mixed with $3\frac{1}{5}$ ounces of air, thus giving a proportion of 1 part of chloroform vapour to 4,200 parts of air. This proportion could be still further diminished to 1 in 8,000, or even much less, by having a mask with an open end, or by putting a less amount of chloroform in the bottle at the commencement. The amount of vapour passed on into the mask was regulated by the pressure put upon the ball, and also by the tap on the mask itself. The second apparatus was so devised that it forced a certain amount of air over the surface of the chloroform in the bottle, the proportion in this case being approximately—when 6 drachms were in the bottle and the room at a temperature of about 60°—1 part of chloroform vapour to 3,000 parts of air, the apparatus sending out about half a minum of vapour at each pressure of the ball. This latter apparatus thus occupied a middle place between the first and Junker's (which forced air through chloroform). The advantages were that the chances of death from overdose were minimised; there was no fear of irritant or rubefacient effects on the face of the patient; the chloroform was less likely to become oxidised or otherwise changed; and the amount taken up from the surface was more constant than when air was forced through an ever-diminishing quantity of the fluid. In the case of the dog alone, he had records of over 300 consecutive cases, in which either one or other of the apparatuses had been used without a single death which could be attributed to the chloroform, and in only 3 cases had it been necessary to resort to the antidotal measures of hydrocyanic acid and artificial respiration. The animals had been of all ages, from a few months to 16 years, of all breeds and sizes, in all kinds of condition—fat and lean, and several when destroyed afterwards revealed vegetations in the valves of the heart—and were not in any way prepared. The operations included amputations, ovariotomy, Cæsarean section, reduction of herniæ, etc., and anæsthesia was maintained in periods varying from a few minutes to over three hours. The anæsthetists had usually been inexperienced students, ordinary methylated chloroform being used, whatever was left being intentionally used over and over again. Recovery was always tolerably rapid, and unaccompanied by nausea and depression. All the anæsthetists to whom he had submitted it spoke favourably upon its merits for children, parturition cases, and prolonged operations, but for adult men the vapour was apparently too much diluted. He hoped, however, that the second form of apparatus would get over the difficulty, and at the same time retain all the advantages. Professor Hobday further described a method of attaching a cylinder of compressed air (which could be fixed in a proper stand at the side of the anæsthetist) to the bottle containing the chloroform, in such a way that the air passed over the surface of the chloroform without any exertion on the part of the anæsthetist; or it could be attached to a Junker bottle, and passed through the chloroform if a stronger vapour be required. The strength of the vapour could be accurately adjusted by the amount of chloroform in the bottle, and the amount passing in could be most delicately regulated by means of the tap on the inhaler mask. The advantages claimed for the method were that it saved labour, and left the anæsthetist with both hands free to manipulate the mask. The cylinders could be obtained in any size, from one containing only a few cubic feet to one containing 100 feet, and when worked by the aid of a regulating valve lasted a very long time.

The Occurrence of Pneumonic Conditions after the Administration of Anæsthetics.

Dr. Silk introduced a discussion on this subject. He dealt with the subject under three heads. (1) The relative frequency of these pneumonic troubles: Transitory bronchial irritation was not referred to, but marked pneumonia with definite signs. In preanæsthetic and preantiseptic days pneumonia was a frequent cause of death in surgical cases, but, according to records of 5,000 cases published in hospital reports for 1894 and 1895 only 13 cases of pneumonia were referred to, and of these all but one were more or less of a septic nature. Prescott, of Boston, in 40,000 cases of etherisation found only 3 cases of typical pneumonia. (2) Possible explanations of their occurrence: The bacillus of bronchitis had not yet been discovered, and one of the three micro-organisms credited with causing pneumonia was often found in the normal buccal *débris*. (3) To what extent could they be referred—either to the anæsthetic used or the apparatus employed? Experiments carried out on anthrax spores, cholera, tubercle, and typhoid bacilli with different anæs-

thetic agents showed in many cases rapid and permanently fatal results. Nitrous oxide—the mildest of all anæsthetics, both from an anæsthetist's and bacteriologist's point of view—which was used probably more frequently than all the others put together, and under conditions which would be most likely to convey infection, except when a foreign body had slipped into the trachea, had never, to his knowledge, been followed by anything approaching pneumonia. Dr. Silk mentioned several improvements in apparatus introduced of late years to facilitate cleaning.

Mr. Rickard Lloyd remarked that in 1887 he suggested the use of a new or a thoroughly cleansed bag for each patient. It had often occurred to him that more might be done to protect patients from possible chill at the time of operation and in the wards afterwards, as, should it occur, the risk of simple inflammation of the respiratory passages was greatly increased, if not solely induced, by it; and specific bacilli would find it a great auxiliary in the production of the disease. He read extracts from the notes of Mr. C. H. Wilmer, house-physician at the West London Hospital, of a case in which bronchitis followed by left lobar pneumonia and left pleurisy with effusion supervened soon and successively after removal of a broad ligament cyst from a pale, delicate-looking woman, aged 24. She ultimately recovered. No other cases of the kind occurred about this time in the hospital; and, indeed, bronchial irritation calling for treatment was, in his experience, rare, while he was unacquainted with any case of pneumonia that had been attributed to an anæsthetic, and the case cited was not apparently of specific origin.

## OBSTETRICAL SOCIETY OF LONDON.

C. J. Cullingworth, M.D., President, in the Chair.

*Wednesday, April 7th, 1897.*

The late Sir Spencer Wells.

A vote of condolence with the family of Sir Spencer Wells was passed.

Specimens.

The following were shown:—Mr. Targett: Large Encysted Peritoneal Abscess, simulating ovarian cyst. Dr. Drummond Robinson: Cystic Ovaries removed by anterior colpotomy. Dr. Lewers: (1) A Monster, apparently consisting of a somewhat spherical mass of flesh with one limb attached: (2) a Skiagraph of the Monster: (3) a Uterus with fibroids removed by abdominal hysterectomy. Dr. Eden: Incomplete Decidual Cast of the Uterus from a case in which there was no evidence of extrauterine gestation. Mr. Bottomley showed: (1) A Fœtal Monstrosity; (2) a case of Fœtus Compressus. Dr. Duncan: Further specimens of Fibroid Tumours of the Uterus removed by intra-abdominal method. Dr. Herman: Specimen of Ectopic Pregnancy, going nearly to term in the peritoneal cavity, the placenta being attached to the top of the uterus.

Treatment of Placenta Prævia by Champetier de Ribes's Bag.

Dr. Blacker read a paper on this subject. He said that in the more severe cases of hæmorrhage from placent prævia, Champetier de Ribes's bag might be employed in place of version by introducing it into the amniotic cavity after rupture of the membranes. Used in this way the bag acted both as a tampon in arresting the hæmorrhage by pressing the separate portion of the placenta firmly against the uterine wall, and also as a dilator of the cervical canal and a very powerful stimulus to uterine contractions. The use of the bag was therefore advocated in grave cases of hæmorrhage from placenta prævia, as an easy method of arresting the hæmorrhage, and at the same time as likely to reduce the heavy fœtal mortality which usually occurred in these cases after the performance of version. The author had treated 5 cases of placenta prævia in this way, and had collected 17 other cases similarly treated. Full details of these cases were given in tables. An analysis of the chief features of interest in the cases was given, showing that in only one case did severe hæmorrhage occur after the introduction of the bag; that such hæmorrhage might, as a rule, be readily controlled by traction upon the bag; that in none of the cases was any difficulty experienced in introducing the bag, nor was preliminary dilatation of the cervix necessary; and that the average length of time required for the complete dilatation of the cervix after the introduction of the bag was five hours and ten minutes. Of the mothers, one died of septicæmia—probably present on her admission to the hospital—before the introduction of the bag. Of the others, 5 had a slight elevation of temperature during the puerperium, the highest point reached being 100.6°; while in the remainder recovery was perfect, and the puerperium afebrile. Of the 22 children, 14 were born alive, and 8, or 36.3 per cent., dead. Of the 14, 4 subsequently died, giving a total mortality of 54.5 per cent. The advantages claimed for the bag were: (1) Ease and facility of introduction. (2) The certain arrest of the hæmorrhage. (3) Any further hæmorrhage controlled by traction upon the bag. (4) The bag, and not the child's body, dilated the cervical canal. (5) The ease of delivery after expulsion of the bag. (6) The fact that the bag is a very powerful stimulus to uterine action. (7) The lessened fœtal mortality as compared with the results obtained after version. The objections brought against the bag were considered, namely, the risk of septic infection, the danger of rupture of the uterus, and the displacement of the presenting part caused by its introduction. The further objections that the bag was difficult to introduce, and that the preliminary dilatation was required, were shown to be groundless. Even in cases of central placenta prævia the use of the bag was practicable, and likely to give just as good, if not better, results than the performance of version.

Dr. Herman agreed with Dr. Blacker's practical and useful paper. He thought the bag was a better plug than the half breech, because it pressed on the whole circumference of the lower uterine segment, which the half breech did not. The hæmorrhage in placenta prævia was produced by dilatation of the cervix, hence the bag could always be introduced when considerable hæmorrhage had occurred. His own experience of the use of the bag in placenta prævia was altogether favourable.

Dr. Horrocks had for some years used the bag, not only in cases of placenta prævia, but also in all cases where formerly Barnes's hydrostatic dilators had been used. In cases of placenta prævia the bag had been placed in the amniotic cavity only when the membranes had been ruptured. In cases where they had been intact care had been taken not to rupture them. The presenting portion of the placenta had been detached by sweeping the finger round the lower zone, and then the bag had been passed into the uterus so as to lie below the membranes. Good results had been obtained by this method, which had much to be said in its favour. He considered the chief danger was sepsis from the bag itself, which was difficult to get aseptic owing to its composition of india-rubber and the stuff used by the instrument makers to make it waterproof.

Dr. Spencer had had a considerable experience of placenta prævia, and of the employment of Champetier de Ribes's bag, though he had not employed it in the treatment of placenta prævia, but usually for the induction of premature labour; that experience led him to agree with most of the conclusions of the author, but in cases of complete placenta prævia he doubted whether it was advisable to use the bag unless an edge of the placenta could be separated, for the child in these cases almost always died, and it would generally be impossible so to control the bag during its introduction as to be sure that it did not push up the placenta instead of passing into the amnion, and that the hæmorrhage which it was intended to check was not increased by the treatment. Dr. Spencer called attention to the paper of Dr. Camille Juge, which had appeared since the author's paper was written, in which an account was given of 9 cases treated by the introduction of the bag into the amniotic cavity; of these 9 cases 3 mothers died and 6 children were born dead. These cases, added to those in the author's table, gave a maternal mortality of 13 per cent. and a fœtal mortality of at least 58 per cent. The bag often caused a great deal of pain, and in 3 of Juge's cases it produced syncope, a very grave condition in cases of this nature. It also often took a long time to induce labour, as long as twenty hours in two of the cases in the table, whereas he, Dr. Spencer, found that after version the labour was over in 16 out of 17 cases in three hours, and in the seventeenth case within five hours.

Dr. BLACKER, in reply, said that he was indebted to Dr. Herman not only for the remarks he had made about his paper, but also for the fact that it was mainly on his recommendation that he had first employed this mode of treatment in placenta prævia. He thought introduction of the bag after rupture of the membranes was certainly superior to its introduction before, as the latter method was almost certain to be accompanied by an unnecessary and avoidable amount of hæmorrhage.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF PATHOLOGY.

Sir C. NIXON, M.D., in the Chair.

*Friday, March 26th, 1897.*

INFECTIVE ENDOCARDITIS.

DR. M. A. BOYD read a paper, founded on the case of a man, aged 25, who died at the Mater Hospital after an illness of of three days' duration, with extreme pyrexia, delirium, and petechial eruption. At the necropsy there were miliary abscesses in the kidney and myocardium, and the mitral valve presented an area near the margin of one cusp devoid of endocardium, and coated with recent fibrin. The blood was fluid. Sections made from the mitral valve showed extensive necrosis and the margin fringed with compact clusters of cocci. The capillaries of the myocardium were plugged with cocci, and the kidney showed similar conditions. Cultures made during the necropsy by Dr. M'Weeney produced pyococcus aureus in pure cultivation. The patient had an alcoholic history, and the illness dated from severe exposure to wet and cold. The mode of entrance of the organisms was otherwise unexplained.

Dr. E. J. M'WEENEY demonstrated the sections and cultures. He looked upon the case as of considerable interest as indicating a morbid condition extremely liable to be overlooked at an examination not of a very careful character. The miliary abscesses in the kidney were very small, and the condition of the mitral valve was also invisible to the naked eye, but the grave condition was revealed under the microscope. One of the microscopical sections showed the whole of the central portion of one of the little abscesses in the kidney taken up by a zoogloea mass of micrococci. Another section showed the myocardium close to the point of attachment of the mitral valve, and it could be seen that the spaces, normally occupied by capillaries, were plugged with masses of micrococci. From a cultivation the staphylococcus aureus had been obtained, and a plate cultivation showed the liquefying power of the organism upon gelatine. The organism produced a pale washy yellow colour. The organisms had been evidently circulating in the blood of the patient.

The CHAIRMAN said that probably everyone was familiar with cases of rheumatic fever undergoing a very bad course where there had been a preceding heart affection. After death the heart, in such cases, presented the ordinary appearance of malignant endocarditis, and the condition seemed to be secondary to a pre-existing organic disease. On the other hand, malignant endocarditis was sometimes found as a primary condition. An analogy might be drawn between cases of malignant endocarditis and cases of acute tuberculosis, in both of which disease acute primary forms were sometimes found, or acute forms were sometimes grafted on to chronic ones.

Dr. PARSONS said that most cases of malignant endocarditis which had come under his notice had had their origin in disease of the middle ear, the septic material having made its way into the carotid artery or the jugular vein.

Dr. BOYD, in reply, said that there was no real indication as to the nature of the case. The symptoms had been those of typhus fever to a great extent, and not till *post-mortem* examination did the nature of the case dawn upon him. There had been no disease of the middle ear, and no indication at all in any organ of a primary seat of disease.

DEMONSTRATION OF SKIAGRAPHS.

Dr. LANE JOYNT gave a lantern exhibition of a series of thirty-five skiagraphs illustrative of various pathological conditions, and showing the extent and utility of this aid to medicine and surgery. Four cases of Colles's fracture were shown, of which three had fracture of the styloid process of the ulna. The pelvis of a boy, aged 6 years, suffering from congenital dislocation of the hip; the condition of luxation could be plainly seen. An oxalate of lime calculus placed in the kidney of a subject as a control experiment for cases of suspected renal calculus, under the care of Dr. Myles, showed clearly. The elbow of a boy, aged 12 years, which exhibited a good example of a supracondylar process on humerus, the presence of which had caused a doubtful diagnosis of fracture to be added to that of dislocation of elbow. The case proved to be a dislocation backwards and outwards of old standing. Dr. Joynt said the right side of the chest permitted the rays to pass through better than the left, but no useful results were obtained in cases of suspected aneurysm.

Mr. MYLES gave his experience of the new photography in dislocations and fractures.

After some remarks from Dr. HAUGHTON, Dr. M'WEENEY, in referring to one of the skiagraphs, said that in the removal of parts of bones he had observed that the bones far away from the seat of tuberculous lesion showed a sort of sponginess, so that they could be cut like cheese, and that condition was due to a dilatation of the cancellous tissue, and a sort of thinning of the osseous trabeculæ. That might be assigned to a sort of hypoplasia of the whole osseous system. Some writers thought that in tuberculosis such a state of cachexia might be produced that absorption of the osseous material could occur.

Dr. LANE JOYNT replied.

LOCOMOTOR ATAXY.

Drs. COLEMAN and O'SULLIVAN brought forward a case. Dr. Coleman detailed the clinical history, according to which it appeared that the patient, a bookkeeper, aged 41, had never had syphilis, but he suffered much from exposure to wet and cold. His symptoms began two years and a-half before his death. On admission to hospital his symptoms were as follows: Slightly ataxic gait; inco-ordination of movements of arms; Romberg's sign well marked; tactile sensation deficient over distribution of left ulnar nerve, less so in right hand; thermo-anæsthesia in left arm and both legs, with slight analgesia and retarded transmission of painful sensations; Argyll-Robertson pupil; loss of knee-jerks and of plantar, cremasteric, and of abdominal reflexes. Nutrition of toenails and of skin of soles of feet much impaired. He had old-standing tuberculo-fibroid disease of both lungs, and he died five weeks after admission to hospital of disseminated pulmonary tuberculosis.

Professor O'SULLIVAN said that the *post-mortem* examination showed thickening and sclerosis of the aortic valves, cavities, fibroid changes, and bronchiectasis in the left lung and disseminated tubercles in the right. On microscopic examination the nerves of the cauda equina showed increase of endoneurium and marked thickening of the inner coats of the arteries. The cord showed degeneration of the posterior columns, which could be traced from the lower coccygeal region, where the cord was two millimetres in diameter, to the medulla oblongata. The ventral field of the posterior columns was free from degeneration throughout. A narrow zone running along the median septum was free in the lower part of the cord. In the dorsal region the medullated fibres of Clark's column had entirely disappeared. The posterior roots outside the cord were markedly degenerated up to about the fifth dorsal segment; from this on to the second dorsal segment they were almost free, and the path of these undegenerated fibres in the cord formed a narrow strip, which could be traced along the outer margin of Goll's column to the medulla, where they ended in the nucleus cuneatus. Above the second dorsal segment the degeneration of the posterior roots recurred, and was most marked in the cervical enlargement. Their path in the cord was marked by a strip of degeneration lying outside the last mentioned, and also passing to the nucleus cuneatus. Above the cervical enlargement the degeneration of the incoming roots suddenly ceased. The degeneration was most marked all through on the left side. Two of the spinal ganglia which were examined showed slight proliferation of the layer of cells lining the spaces occupied by the ganglion cells.

In reply to Dr. M. A. BOYD, Dr. M'WEENEY and the CHAIRMAN, Professor O'SULLIVAN said, in answer to Dr. Boyd, that the peripheral sensory nerves had been examined.

With reference to Dr. M'Weeney's questions, he said that in fresh degenerations, when the myeline was altered but not absorbed, Marchi's method was useful. In the case of old chronic processes with sclerosis that method was less and less useful, but he had the very strongest opinion of the usefulness of Marchi's method in almost all forms of degeneration. It was true that degenerations which were absolutely invisible by Weigert's method showed strongly by Marchi's. He did not think that the cells which he had seen could have been what Dr. M'Weeney said were described by Leyden. As regards the study of ganglion cells in general, he used Nissl's method. With reference to the Chairman's remarks, he (Professor O'Sullivan) said he had not had sufficient experience to say what lesion was primary or secondary, but he was of opinion that both the lesions of the blood vessels and nerves had the same cause and were independent.

Addison's Disease, with Bilateral Suprarenal Atrophy.

The Chairman showed the viscera from a well-marked case of Addison's disease. The adrenals were reduced to their shells of fibroid and fatty tissue, owing to some process of the nature, apparently of simple atrophy. Tubercle was conspicuously absent. Dr. M'Weeney had prepared sections from the atrophic tissue, and had demonstrated narrow strands of epithelial cells scattered here and there through the mass of fibrous material, and representing all that remained of the adrenal cortex (sections shown).

Dr. M'Weeney gave further particulars as to the pathological changes.

## LIVERPOOL MEDICAL INSTITUTION.

Robert Jones, F.R.C.S.Edin., Vice-President, in the Chair.

*Thursday. April 8th, 1897.*

Cases.

Dr. G. Stopford Taylor exhibited a patient suffering from Keratodermia Erythematosa Symmetrica.—Dr. Warrington showed a patient and read notes of a case of Congenital Ocular Paralysis. Mr. Shears and Dr. Bradshaw made remarks.

Intermittent Hemiplegia.

Dr. Alexander Davidson read notes of the case of a man, aged 73, who had intermittent attacks of hemiplegia. He was taken into hospital on January 18th, at 6.30 p.m., suffering from left hemiplegia; two hours later he recovered power in the face and limbs. On the morning of January 19th there was no paralysis in the arm or leg. At 12.30 mid-day paralysis returned; at 1.45 p.m. power was gradually recovered. On January 20 paralysis returned, and was permanent.

Dr. Kennan referred to a case of a man with complete left hemiplegia, which disappeared in a quarter of an hour, only to return half an hour later and become permanent.

Dr. Warrington, Dr Carter, Dr. Barr, and Mr. Damer Harrisson commented upon the case.

Tetanus Treated by Antitoxin.

Dr. Carter related two cases of tetanus, in which he had used the tetanus antitoxin. The first was that of a boy aged 14. The symptoms of tetanus were well marked; he had a slight wound on the back of the hand. Antitoxin from the Institute of Preventive Medicine was injected on three occasions, the amount used being 10 c.cm., 6 c.cm., and 4 c.cm. in eighteen hours. During this time no other medicine was used; the patient was becoming worse, having almost constant spasms, no sleep, and opisthotonos. Chloral and gelsemium were given, with marked relief to symptoms. The patient ultimately recovered. The second case was that of a man, aged 26, who was kicked by a horse on the finger. Marked symptoms of tetanus developed; 30 c.cm. of antitoxin obtained from Paris was injected, and a mixture of chloral and gelsemium also given. The symptoms becoming worse, 24 c cm. of antitoxin were injected. The spasm became continuous, and the man died. Dr. Carter did not think that the antitoxin had produced any material effect in these cases.

Enucleation of Uterine Fibroids.

Dr. Alexander described a method of transperitoneal enucleation of uterine fibroids, which he advocated as a substitute in many cases for removal of the appendages, and for partial or pan-hysterectomy. Its advantages were greater safety, without any mutilation of the patient, hence it could be recommended to younger patients whose fibroids were troublesome, and where the mutilation involved in the ordinary operations was a matter of great moment. The operation consisted of a median laparotomy, a longitudinal incision in the uterus in the median line down to the fibroids, their enucleation through one opening, closure of the incision in the uterine wall by catgut sutures, packing of the cavity occupied by the fibroid for forty-eight hours with iodoform gauze, an end of the gauze being left out of the lower end of the abdominal wound, and temporary ventrifixation of the uterus whilst the cavity was drained. He related six cases, all successful, the number of fibroids removed varying from one to twenty-six.

Professor Wallace remarked that there was nothing new either in the principle or the practice of enucleation of fibromyomata of the uterus. At the annual meeting at Carlisle he had read a paper on the subject. The operation was not of wide application or fitted for single tumours; to apply it to multiple tumours was unsurgical.

Dr. Garry was very well satisfied with the results obtained by electrolysis.

Mr. Hawkins-Ambler said that Schroeder had practised enucleation, but had left the mortality at 33 per cent. The modification suggested by Dr. Alexander was very much safer.

Dr. E. T. Davies thought the method suggested was only applicable to the minority of cases. He considered that not more than about 10 per cent. of all cases of fibromyomata demanded surgical treatment, and that general fibroid enlargement of the whole uterus and myxomatous fibroids could not be dealt with by enucleation.

Dr. Alexander replied.

The Operative Treatment, Past and Present, of Injured and Painful Blind Eyes.

Mr. Bickerton read a paper on this subject, giving a historical sketch of the old practice of extirpation of the globe. He alluded to the alternative methods of treatment, for example, optic neurotomy and neurectomy as procedures to be discarded, and strongly advocated the performance of Mules's operation in all suitable cases. He drew attention to its many advantages, and met the objections as to pain, excessive reaction, and prolonged convalescence, which have been urged against it.

Mr. G. E. Walker observed that it was a question whether it was worth incurring the great suffering caused by the introduction of a foreign body into the eye in order to bring about a little improvement in the appearance and mobility of an artificial eye. Seeing that when enucleation was well performed there was scarcely any pain, and with a properly fitting eye there was very good mobility. Further, that in a series of published cases the artificial vitreous had been expelled in 31 per cent. of the cases. For these reasons he at present preferred enucleation.

Mr. Shears was of opinion that many surgeons still feared that Mules's operation would not prevent the occurrence of sympathetic ophthalmia to the same extent as ordinary enucleation. He would await with interest the report of the Ophthalmological Society on this subject. It appeared that at present about one glass globe in every four failed to be retained.

Mr. Bickerton replied.

Association of Registered Medical Women.—At a meeting on April 6th, Mrs. Garrett Anderson, M.D., President, in the chair, the President read a paper on cases Resembling Uræmia, but in which there was no evidence of renal disease. In one case, that of a lady of about 70 years of age, there had been a sudden attack of severe vomiting and vertigo, with drowsiness and paresis of one hand, with some indistinctness of articulation. The pulse was of high tension and the left ventricle was dilated. Mrs. Anderson considered that in this case the enfeebled heart had to work against an undue amount of arterial resistance, and that, owing to the combined influence of the two factors, the circulation of part at least of the brain had been carried on very imperfectly. She alluded to Dr. Savill's recent paper on the hypertrophy of the muscular coat of the smaller and middle-sized arteries, and to the proved absence of renal

degeneration in many of these cases. In Mrs. Anderson's case the symptoms seemed to have been started by a long and cold drive, the cold having probably increased the tension of the peripheral arterioles. Similar cases were described by Dr. Clifford Allbutt in his Hunterian Lecture in 1895. In another case, that of a lady aged 75, Mrs. Anderson had seen profound coma lasting many hours at a time. After about thirty-six hours of complete unconsciousness, the attack gradually passed off without paralysis and without any evidence of renal disease. Four attacks of this kind were passed through, and the patient finally died from an accident. The treatment in cases of the kind should be first eliminant and then tonic.—The SECRETARY read a paper sent by Miss GRAY, L.R.C.P.S.Edin., of Nottingham, giving an account of a case of Intracapsular Fracture of the Femur in a woman of 84, complicated by an ischio-rectal abscess and tetanus.

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SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on March 25th, Mr. RECKLESS, President, in the chair, Mr. PYE-SMITH showed a case of Supposed Fracture-dislocation of Cervical Spine (between third and fourth vertebræ) without paralysis. The patient, a man aged 26, fell 6 feet, alighting on the top of the right side of head, nine months ago. Head in flexed position cannot be fully extended. Pain in distribution of supraclavicular nerves.—Mr. HERBERT HALLAM showed a boy with Mediastinal Growth.—Dr. CONNELL showed a specimen of a Tumour growing through the orbit and extending widely into the cranial cavity.—Dr. SORLEY sent notes of a case of Abscess of Liver.—Dr. SINCLAIR WHITE read a paper on the Surgical Treatment of Gall Stones, and presented a tabular statement of the cases, nine in number, that he had operated on. Operations on the gall bladder were best classified under the headings, (1) those of necessity, (2) those of expediency. Among the former the most frequent causes were acute suppuration of the gall bladder, complete obstruction of the common bile duct from an impacted calculus, with permanent jaundice and suppurative cholangitis. Among the latter were chronic distension of the gall bladder and repeated severe attacks of biliary colic. Cases of chronic distension were common, and should not be dealt with surgically unless the condition gave rise to discomfort, or interfered with the health of the patient. When repeated and severe attacks of biliary colic were present, an important point, and one that was commonly lost sight of, was whether gall stones appeared in the fæces. Should these be found after each attack it was right to wait, in the reasonable hope that eventually a natural cure would result. On the other hand, their absence was an indication for cholecystotomy. The success attending the employment of Paul's tubes in intestinal surgery had induced the writer to extend their application to the gall bladder. A glass tube, 3 inches in length, and one-third of an inch in diameter, with a constriction near each end, was employed. One end was tied in the gall bladder, and the other connected by means of a rubber tube with a bottle for collecting bile. The parietal peritoneum was stitched around and to the peritoneal covering of the gall bladder on the proximal side of the ligature. By this means the possibility of fouling the peritoneum was avoided. The first dressing was not disturbed for ten days, by which time the ligature had cut its way through the gall bladder and the tube could be removed. The device not only did away with the necessity for frequent change of the dressings, but very materially shortened the time required for the operation. In one case, that of a woman weighing 16 stone, the abdominal fat was 4 inches thick, and it was impossible to bring the gall bladder to the surface. The case was successfully dealt with by introducing a teacup into the abdomen, and allowing the contents of the gall bladder to fall into it. In another case, where there had been innumerable attacks of severe colic, followed by jaundice, the gall bladder was filled with biliary sand. It was out of the question to suppose that this could have produced blocking of the common duct, and the case goes to prove—observations to the contrary notwithstanding—that transient jaundice may be produced by catarrhal inflammation spreading from the gall bladder to the common duct. The PRESIDENT, Mr. LOCKWOOD, Mr. PYE-SMITH, Mr. CUFF, Mr. SNELL, Mr. CHEESEWRIGHT, Dr. RHODES, and Dr. ADDISON made remarks.

# REVIEWS.

A SYSTEM OF MEDICINE BY MANY WRITERS. Edited by THOMAS CLIFFORD ALLBUTT, M.A., M.D., F.R.S., etc., Regius Professor of Physic in the University of Cambridge. Vol. II. London: Macmillan and Co. 1897. (Demy 8vo, pp. 1,176, 77 illustrations, 6 charts, 1 map, 1 coloured plate. 25s.)

WE welcome the second volume of Professor CLIFFORD ALLBUTT'S *System of Medicine*; the first came out a year ago, and in the interval the *System of Gynæcology*, edited by Dr. Playfair and Professor Clifford Allbutt, made its appearance. Although but little time has really been lost, this volume would have appeared several months sooner but for the fact that the article on vaccination could not be written until the report of the Royal Commission was published. When this inevitable cause of delay is taken into account it must be admitted that the rate of production is most satisfactory, especially as the succeeding volumes are in a forward state of preparation.

The first volume, dealing as it largely did with general topics, is necessarily a difficult one to follow with success. The interest excited by encyclopædic articles is likely to flag over monographs on special diseases; at least, this was the feeling with which we approached the formidable task of reviewing this second instalment. This prejudice, however, is not sustained, for there are two articles—that on tuberculosis and on the whole question of vaccination—which embody the results of exhaustive work done by Royal Commissions, while many of the more special articles are of quite exceptional value, among which may be mentioned those on malaria and amœbic dysentery.

The volume is divided into a number of sections. The first treats of the infective diseases of chronic course. The first article on tuberculosis by Dr. Sidney Martin has already been referred to; it gives an admirable general account, and is especially valuable as containing a summary of his recent experimental observations.

The article on leprosy was in the first place undertaken by late Dr. Beaven Rake; but, owing to his untimely death, it was entrusted to Dr. Abraham, the editor of the *Journal of the Leprosy Investigation Committee*, who has contributed an exhaustive monograph on the subject. Dr. T. D. Acland's account of actinomycosis and madura foot is in every way complete, and, having a copious bibliography, provides a most useful standard article on the subject.

The editor is to be congratulated on his judicious choice of contributors; this is especially evident in the second section, which deals with those diseases of uncertain bacteriology which are not endemic. Here, out of the fulness of experience, partly gained as Secretary to the Committee of the Clinical Society appointed to investigate the incubation and contagiousness of certain diseases, Dr. Dawson Williams provides two authoritative articles on measles and on German measles. Dr. Caiger's account of scarlet fever is full of practical observations and valuable statistics, obtained from the Metropolitan Asylums Board. The same author supplies a well-considered and welcome account of the coexistence of infectious diseases in the same patient which will be a valuable source of reference. The articles on small-pox and chicken-pox, by Dr. MacCombie, are of the same high standard; further, mumps and whooping-cough are from the hand of Dr. Eustace Smith, and contain most valuable hints for treatment, besides giving minute and thoroughly interesting accounts of the diseases; while constitutional syphilis is from the hand Mr. Jonathan Hutchinson, the highest English-speaking authority on the subject.

The section on those diseases of uncertain bacteriology that are endemic begins with a general article on the climate and fevers of India by Sir Joseph Fayrer. Dengue, beri-beri, and the sleeping sickness are fully treated by Dr. Patrick Manson, while dysentery and yellow fever are described by Dr. Andrew Davidson. Dr. J. W. Moore, of Dublin, supplies an account of typhus fever, admirable alike for the clinical picture and for the results of his extensive researches into the literature of the disease. Surgeon-Major Firth writes on Oriental sore, verruga, and frambœsia. Professor Lane Notter contributes an excellent account of Malta fever; the micro-

coccus melitensis is accepted as fulfilling Koch's postulates at all points, so that this article could perhaps have been better inserted among the infective diseases of more or less established bacteriology in Vol. i. Dr. Kenneth Macleod points out the distinctive characters of epidemic dropsy, and separates it from beri-beri, which it closely resembles.

The next section of the volume deals with the infective diseases communicable from animals to man; they are considered under two heads: (*a*) those of certain bacteriology—glanders and anthrax; and (*b*) those of uncertain bacteriology—vaccinia, foot and mouth disease, rabies, and glandular fever. Dr. Sims Woodhead supplies excellent accounts of glanders and rabies, the pathological details of glanders and the serum treatment of rabies being especially valuable. Dr. J. H. Bell, of Bradford, first describes anthrax in animals, and then proceeds to a full and exhaustive account of the disease in man.

The subject of vaccinia and vaccination forms a treatise in itself, and is the most valuable and, indeed, monumental part of this volume. On Dr. Acland has fallen the greater part of the work, and by him we are presented with a clear and critical summary of seven years' hard investigation on behalf of the Royal Commission on Vaccination. All the possible arguments against vaccination are stated in the fairest possible manner, and patiently gone into, weighed, and the balance drawn. With so open a mind are the opinions of anti-vaccinators approached and treated that the article is entirely free from any spirit of partisanship, and must form a storehouse of reference for future questions of legislation. Dr. Acland first deals with normal and abnormal vaccinia, next with vaccinal eruptions and complications, and then proceeds to consider vaccinal injuries alleged and real. Vaccination and syphilis is the subject of an elaborate and critical essay, and the possibility of the transmission of tubercle, leprosy, and other diseases by vaccination is thoroughly gone into. In his article on the pathology of vaccinia Dr. Copeman deals with the relation of variola and vaccinia, describes the bacteriology of those diseases, and gives directions as to the collection and storage of vaccine lymph. Vaccination as a branch of preventive medicine is handled by Mr. Ernest Hart in an authoritative article, which is supported by numerous statistics and extracts from the report of the Royal Commission and other sources, and thus forms a most convincing answer to the objections of anti-vaccinators.

The comparatively recently described glandular fever receives formal recognition in the shape of a compact article by Dr. Dawson Williams. The place of the disease in nosology would appear to be near bubonic plague, to the milder forms of which, *pestis minor*, it shows some resemblance.

Under diseases due to protozoa are included malaria, hæmoglobinuric fever, and amœbic dysentery. One of the most valuable articles in the volume is that on malaria, by Professor Osler, of Baltimore: in it there is a masterly blending of the clinical and scientific aspects of the disease, so that the latter appears in the true light of the handmaid and not as the distant connection of clinical observation and treatment. Dr. Osler writes with authority, and one is glad to receive what is the outcome of the Johns Hopkins Hospital and its unrivalled methods of clinical research. It must be admitted, too, that it is a distinct relief to read such an exposition, for here it is mainly the writer's opinion that is given, and not that of a multitude of other and less familiar writers.

The allied subject of hæmoglobinuric fever is satisfactorily dealt with by Dr. Copeman.

In amœbic dysentery again the editor has been extremely fortunate in securing the services of Dr. Lafleur, of Montreal, whose name is so intimately associated with the description of this form of dysentery. In this article, and in that on malaria, in which the authors come from the other side of the Atlantic, the Editor is thoroughly rewarded for going so far afield. The only thing wanting in this admirable paper is illustrations of the amœba, like those of the malaria parasite in the previous article.

The section "Intoxications" contains some very important and interesting articles by the Editor, who treats of grain poisoning under three heads—ergotism, pellagra, and lathyrism. His account of acute and chronic opium poisoning is full of practical wisdom expressed in graceful and attractive language. Under the heading of some other intoxicants the toxic effects of hasheesh, cocaine, ether, chloroform, chloral, sulphonal, together with more familiar effects of over-indulgence in tea, coffee, and tobacco, the last being especially interesting and original, are described by the same hand and in the same masterly style.

Snake poisoning and snakebite is well treated by Professor C. J. Martin, of Melbourne. Professor Calmette has appended an account of treatment by antivenomous serum, and the whole article is thus brought up to the fullest extent of our present knowledge.

Alcoholism is entrusted to Dr. Rolleston, who has treated this important subject in a scientific and impartial spirit. He has set to other contributors a good example by prefixing to his article a brief synopsis indicating the general scope and arrangement. He deals first with the physiological action of alcohol, then describes the characters of the various common alcoholic drinks. He next discusses the phenomena of drunkenness, and the symptoms and treatment of acute alcoholic poisoning. The causes of chronic alcoholism are then discussed in a judicial spirit; a very complete account of the pathological anatomy is given. In his remarks on treatment Dr. Rolleston speaks strongly of the advantages of placing the drunkard under restraint, and in an appendix sets out the mode in which the admission to a retreat under the Inebriates Acts can be obtained. The article concludes with a description of the symptoms, prognosis, and treatment of delirium tremens.

Dr. T. Oliver, of Newcastle, describes fully the important forms and features of metallic poisoning, and the various kinds of poisoning likely to occur in dangerous trades.

The concluding section of this volume is devoted to internal parasites; the first article on psorospermosis is somewhat brief. The worms, always a difficult subject to make interesting, receive ample attention at the hands of Dr. P. Manson, and the text is well illustrated with forty-six figures. The author's own researches, especially on filaria, add to the interest and value of his able contribution.

Dr. Guillemard has written a concise and beautifully-illustrated account of bilharzia. Professor E. C. Stirling and Dr. Verco describe the life-history of tænia ecchinococcus, and then give an exhaustive description of hydatid disease drawn from their ample experience in the Adelaide Hospital, South Australia.

Finally, under the heading "Addenda," there are three short appendices: the first is on the serum diagnosis of typhoid fever by Professor Delépine, and brings Dr. Dreschfeld's monograph on typhoid fever in Vol. I up to date. Dr. Payne records the additional points that have been established since his article on bubonic plague was written; and lastly, there is a note on the bacillus of yellow fever recently discovered by Dr. Giuseppe Sanarelli appended by Dr. Davidson, the writer of the article on that disease.

In conclusion, the high standard of the first volume is well maintained, and the title, a *System of Medicine*, is so fully justified, that the Editor must be heartily congratulated on the success of his constant labours and anxieties.

The printing, binding, and general execution of the work are alike admirable, and form an appropriate setting for the contents.

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Traité des Maladies de l'Enfance. [A Treatise on the Diseases of Childhood.] Publié sous la Direction de MM. J. Grancher, J. Comby, et A. B. Marfan. Paris: Masson et Cie. 1897. Tome I. (Cr. 8vo, pp. 826. Fr. 18.)

This is the first volume of a treatise which, judging from this instalment, may best be described as an Encyclopædia of the Diseases of Childhood by various writers. It is intended that the work shall be completed in five volumes, and, judging from this volume, the whole will form not merely one of the largest but also one of the best treatises on the department of medicine with which it deals. Owing to the threatened decrease in the population of France, the diseases of children have during recent years attracted even more of the attention of French physicians than in the past, although it is true that we owe to them no small part of the progress in our knowledge of the

nature and treatment of disease in childhood which has taken place in the last thirty or forty years.

M. Grancher, in his preface, claims that the present is a moment opportune for the production of a treatise dealing fully with all the subjects embraced within the title of this. He thinks that clinical observation has now been so perfected that no great extension can take place in the near future, and that something of the same kind may be said of bacteriology. It is dangerous to prophesy as to the advance of science, which within the last two decades has proved capable of falsifying the vaticinations of the most experienced; but, whatever hesitation we may feel in accepting M. Grancher's forecast, there can be none in recognising that he and his co-editors have succeeded in enlisting a staff of writers than whom none could be found better qualified to present, with the authority which wide experience confers, the state of knowledge at the present day.

The physiology and hygiene of infancy is the title of the first chapter of the volume. It is written by Dr. J. Comby, who contributes also the articles on measles, variola, varicella, mumps, whooping-cough, simple fever, ganglionic fever, and yellow fever. His articles are characterised by the sound judgment and wide reading which those who are familiar with his manual are accustomed to look for from him.

M. Marfan contributes articles on typhoid fever and on rheumatic affections, the latter especially being remarkable for the breadth of view with which it is conceived, and by the lucidity with which the author expresses his opinions. To the same writer is due also some general observations on therapeutics, and a very useful and comprehensive posological table.

The chapter on septic infection in the fœtus and infant is from the pen of Dr. Rudolf Fischl, of Prague, who has dealt with his subject in an original and masterly way. We may note by the way that Dr. Fischl is not the only foreign name in the list of contributors announced, for in this list we find those of Drs. Audeoud of Geneva, Thomas Barlow of London, J. W. Ballantyne of Edinburgh, Bokaï of Buda-Pesth, Combe of Lausanne, Concetti of Rome, Epstein of Prague, Escherich of Graz, and Filatow of Moscow.

The largest, as it is also perhaps the most important, article in this volume—that on diphtheria—is the joint work of M. Sevestre, the accomplished physician of the Hôpital des Enfants Malades in Paris, and of M. Louis Martin, of the Pasteur Institute. M. Martin deals with the bacteriology, the bacteriological diagnosis, the etiology, the anatomy, and the prophylaxis of the disease, and with the preparation of the antitoxic serum. It is almost superfluous to say that both sections of the article are thoroughly well done, and that the reader will find within its compass a very complete summary of the history of the recognition of diphtheria in which are traced in the most instructive way the steps by which our present knowledge of the nature, prevention, and treatment of the disease has been attained, while setting out at length the prophylactic, diagnostic, and curative methods now at our disposal.

This volume is in all respects so well written and so full that it will certainly become a standard work of reference, and for this reason we cannot but regret that the publishers have failed to supply not merely an index—a fault which may possibly be remedied when the fifth volume is issued—but even a full table of contents. The arrangement of the sections, logical as that is, hardly diminishes this fault, which is, however, the only fault which we have to find with this volume.

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A Manual and Dictionary of the Flowering Plants and Ferns. By J. C. Willis, M.A. Two vols. London and Cambridge: University Press. 1897. (Demy 8vo, pp. 238 and 444. 10s. 6d.)

This is one of the Cambridge Natural Science Manuals of the biological series, which, in spite of the extraordinary evolution of the author's plans, will, we venture to predict, prove a very useful and popular work. Dampier published the second volume of his voyages first, and Mr. Willis wrote the volume which he calls the first "to supplement the second." On the title page the two little books are designated volumes, but in his preface the author speaks of them as parts. It would have been better had he treated them as parts of one volume, for even then the total weight would not have exceeded a pound and a quarter.

The first volume is the *Manual*, which covers a wide range, and is somewhat unequally executed, the best chapter being that on general morphology. Perhaps the weakest part is that dealing with geographical distribution, which is admittedly taken from Drude. For instance, it is stated that the Hæmodoraceæ, Candolleaceæ (Stylidiaceæ) Goodeniaceæ, Epacridaceæ, etc., are endemic in the "Australian region," which is limited to Australia, except the northern part, and Tasmania. Considering that three out of the four orders named are represented in New Zealand, to say nothing of their wider distribution, and considering that the fourth is widely spread, these orders cannot be endemic in Australia. Respecting the "New Zealand region," it is stated that "though so near to Australia, New Zealand shows more relationship in its flora to the Andine region." This is such a startling statement that it is difficult to understand how it could have been made or adopted. The New Zealand flora differs from the Australian more by the absence of certain types than by the presence of types not represented in Australia. Thus, the Epacridaceæ, mentioned above as endemic in Australia, are represented in the small New Zealand flora by six characteristic Australian genera and at least twenty-five species.

Passing to the second volume, or *Dictionary*, so far as we have tested it we have found it accurate, including the distribution of the orders and genera mentioned above. It is most carefully compiled, and may be designated an epitome of the *Treasury of Botany* brought up to date; we have no hesitation in recommending it.

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Die microscopische Diagnose der bösartigen Geschwülste. [The Microscopical Diagnosis of Malignant Tumours.] Von Dr. David Hansemann. Berlin: August Hirschwald. 1897. (Roy. 8vo, pp. 216, 83 figures. M.7.)

This is a work treating mainly of the histological characters of malignant tumours, though not exclusively so, for the author commences with a chapter on the general classification of such formations, and concludes with others devoted to their etiology and clinical diagnosis.

It cannot be said that the work gives a better exposition of the subject than is to be found elsewhere, its chief merit lying rather in the concise and comprehensive treatment of it. There is nothing in the histological descriptions that needs comment. The number of illustrations is large, and it is doubtless for this reason that they are not of the highest order.

The subjects of metastasis and auto-inoculation are concisely dealt with, as well as that of asymmetrical mitosis, the last-named being one in connection with which Dr. Hansemann's name is more particularly known.

The chapter on etiology is, perhaps, the least satisfactory. The parasitic hypothesis which has of late received so much attention is inadequately discussed, the author evidently disinclining to this view. After rightly deprecating the want of criticism with which the subject has been approached, he remarks that as parasitic organisms there have been described cell degenerations, karyokinetic figures, secretion products within the cells, white and red blood corpuscles, and the products of their degeneration, the carcinoma cells themselves, bacilli, yeast cells, and most lately an amœba in the ascitic fluid from two patients suffering with carcinoma (Leyden and Schaudinn).

It must be confessed that the positive evidence in favour of the parasitic doctrine has singularly failed to progress. The nature of the particular body described by Soudakewitch, Ruffer, and others as a protozoön is still doubtful. The attempts of Shattock and Ballance to cultivate this hypothetical parasite in sterilised wet sand terminated in a completely negative result, and, until this second postulate of Koch is carried out, the hypothesis must remain unproved. The author treats by preference of the theories of Thiersch, Cohnheim, and Ribbert.

The first and third, however, explain so little that they have usually been ignored in this country. Ribbert's view is that the cause of carcinoma is simply an inflammatory

hyperplasia of epithelium. The parasitic doctrine holds the same, but it goes a step further in suggesting a *contagium vivum* as the adequate exciting agent.

Thiersch's view that the connective tissue from advancing age or disease is weakened, and that in consequence the epithelium grows into the deeper structures, is hardly more than another method of stating the fact to be observed.

The histological differentiation of certain of the infective granulomata, etc., concludes the work, though the condition of mycosis fungoides does not appear—one which claims, with syphilomata, a certain number of the cases erroneously diagnosed as sarcomata, and furnishes some of the misleading data in regard to the successful treatment of malignant disease by other than operative measures.

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The Crichton Royal Institution, Dumfries. By James Clarmont. Leicester: Raithby, Lawrence and Co. 1896. (Demy 8vo, pp. 108.)

The history of this important institution has been written by Mr. James Carmont, of Dumfries, its Treasurer and Secretary, and published in a volume which cannot fail to be of interest to those who have made a study of the care and treatment of the insane in the British Isles. To the general reader, also, it shows how by the munificence of Dr. James Crichton, and his wife Mrs. Elizabeth Grierson who survived him, a hospital for mental diseases was founded which was destined to attain the highest position among the best of our philanthropic institutions. Opened in 1839, with Dr. W. A. F. Browne (father of Sir James Crichton Browne) as its medical superintendent, it contained accommodation for 120 patients, and there had been expended on the purchase of the site, and in the erection and fitting up of buildings, etc., along with the endowment fund handed over to its managers, the large sum of £94,479 7s. 2d.

Under Dr. Browne's able management, and the fostering care of the Board of Directors and Mrs. Crichton, the reputation of the institution was soon established, and it rapidly rose in professional esteem and gained the public confidence. Dr. Browne, whose connection with the Crichton Institution extended over a period of close upon fifty years, was succeeded by Dr. Gilchrist, who carried on the work with great zeal and ability for twenty-three years. Dr. Adam followed for a short period, and in 1884 the Board of Directors were fortunate in securing the services of Dr. James Rutherford, the present chief, whose labours at the Crichton are now known and recognised throughout the length and breadth of the land. Under his management the number of patients has increased to upwards of 900, and innumerable additions and alterations have vastly improved the accommodation.

This is not the place to enter into all the details of the history of the Royal Crichton Institution, which are so well recorded by Mr. Carmont in the handsome volume before us. To him it has evidently been a labour of love, and the care bestowed by him upon the printing, illustrating, and editing of this interesting work are worthy of all praise. Among the numerous illustrations we would especially mention the excellent photogravures of the original building, and the portraits of Dr. James Crichton, Mrs. Crichton, and Drs. W. A. F. Browne, Gilchrist, and Rutherford, all remarkably fine examples of the work of Messrs. Annan and Sons, of Glasgow.

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Practical Hints on District Nursing. By Amy Hughes, Superintendent of Nurses, Bolton Union Infirmary, and late Superintendent of the Central Training Home, Queen Victoria Jubilee Institute for Nurses for the Sick Poor. London: Scientific Press. 1897. (Cr. 8vo, pp. 106. 1s.)

In this handy volume Miss Hughes follows the district nurses in their daily work, and endeavours to forestall their difficulties. The book is divided into chapters, and in these the subjects are treated under various headings for easy reference; here, however, we suggest that an index would enable the nurse to find at once the matter upon which she seeks advice.

The introductory chapter, and the last chapter but one, contain advice to the nurse—first, as to the nature of the work, and the unnumbered opportunities which it offers for helping the poor to help themselves; and, finally, as to the manner in which the nurse should carry out the duties of her profession. Miss Hughes says truly "there is no sentimentality in district nursing." The whole book bristles with good advice and common sense. It should be in the hands of every district nurse, and be read by all who are interested in the subject.

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Handbuch der Gynäkologie. [Manual of Gynæcology.] In drei Banden. Herausgegeben von J. Veit, Leiden. Mit zahlreichen Abbildungen. Vol. II. Wiesbaden: J. F. Bergmann. 1897. (Royal 8vo, pp. 820. M. 18.60.)

The second part of this gigantic "manual," in three volumes, is chiefly interesting for several monographs on fibroid disease of the uterus. Schaeffer writes on electricity, especially as employed by Apostoli. He admits that it has been misused. Carelessness, as when the electrical treatment has been undertaken and the existence of pyosalpinx and parametritis overlooked, has brought the practice into discredit. Schaeffer claims the best results in small and medium-sized fibroids that are still essentially interstitial. He states definitely that the most favourable cases occur in patients in whom such tumours have not developed till close upon the menopause. This, however, is not a very strong argument in favour of electricity, as it is precisely the same class of cases that often do well without treatment. We find that Dr. Schaeffer makes use of Sir William Priestley's just criticisms on "*furor operativus*, as supporting his own advocacy of electricity. It is remarkable that the now famous address, read by Sir William at the London meeting of the Association, was very roughly handled by critics in German papers. Certainly its German translation, *Ueber die Operationswuth in der Gynäkologie*, by Berthold, has been widely read in Germany, but we feel that it deserves a better fate than to be made use of as an argument for or against operation by the advocates of opposite measures. Dr. Schaeffer, it must be allowed, is very judicious in pointing out the perils of the electrical treatment. Dr. Veit, the Editor, himself contributes a yet more important article on palliative treatment of fibroids, though it also includes a subject diametrically opposed to palliatives, namely, vaginal operations, all essentially radical procedures.

Professor Olshausen contributes a very important monograph on abdominal operations for fibroids. He is inclined to reject the extraperitoneal treatment of the stump, except in cases in which a myoma has suppurated, or is sloughy. His statistics, though most instructive, are far from convincing. There is but one opinion about an average case of ovarian cyst, but the best and most prudent operators differ greatly as to when an average case of uterine fibroid demands operative interference.

There are also a few contributions on other subjects besides fibroids. Fritsch and Viertel write on diseases of the female bladder and appliances for inspecting it, and Döderlein has prepared a valuable monograph on inflammations of the uterus, which takes up nearly 140 pages.

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Septic Conditions of the Infantile Alimentary Canal. By F. W. Forbes Ross, M.D. London: Rebman Publishing Company. 1897. (Pp. vi and 138. 7s. 6d.)

The object of this book, as defined by the author, is to systematise the treatment of derangements due to septic or other like causes of the alimentary canal in infants. If the book be regarded from the point of its practical value, it is open to the criticism that too much space has been given to the discussion of difficult physiological and pathological problems, which are somewhat out of place in a clinical essay. At the same time it may be readily admitted that there is considerable originality in the way in which the author deals with the disturbances of the alimentary canal in children.

So far as we have observed there is no reference to lactation throughout the book, which seems to deal with hand-reared infants alone. The comparative immunity of breast-fed children from septic diarrhœa leads to the conclusion that a great amount of the alimentary disorders in hand-

reared infants is due to the substitution of an artificial for a natural diet, a point which cannot be too strongly insisted on, and one which might appropriately have found mention in this volume.

Dr. Forbes Ross gives the amount of casein in human milk as 3 per cent., which is a much higher figure than that usually accepted. We should question therefore the results of some experiments he quotes which are based on this figure.

These few points to which we have drawn attention refer to the earlier and less important part of the book. The section relating to the sanitary conditions of infantile feeding is eminently practical, and this and the following chapters will be of no little value to practitioners.

The author deals first with the sanitary conditions of the dairy. His suggestion that milk should be sold under a special licence, and that cows kept under such licences should be subject to periodical official examination, is one which will commend itself to those who are acquainted with existing conditions. There are many valuable suggestions as to the care of the milk after it leaves the dairy, and the special precautions to be taken with regard to the cans, jugs, etc., in which it is placed before it reaches the child. The instructions as to cleaning the feeding bottles are also excellent.

The author has evidently made a careful study of the numerous drugs employed in the treatment of the alimentary disorders of infancy, and he gives a short but excellent account of the actions and uses of the more important of these. In an appendix are contained prescriptions and a brief summary of the dietary and drug treatment required in different affections of the alimentary tract in infants.

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Compressed Air Illness, or So-called "Caisson Disease." By E. Hugh Snell, M.D., B.Sc.Lond. London: H. K. Lewis. 1896. (Demy 8vo, pp. 283. 10s. 6d.)

This is an interesting account of this form of disease, as exemplified among the excavators of the Blackwall Tunnel by the medical officer appointed by the London County Council to take charge of the health of the workmen.

The total length of this tunnel—which is to be opened in state on May 22nd by H.R.H. the Prince of Wales—is from entrance to entrance 6,200 feet, of which 1,212 feet are under the river, the rest of the distance being the approaches on either side. The depth of the floor of the river portion below high-water mark is 80 feet, and apparently the excavation went very near to the river bed, as water came through, and several thousand tons of clay had to be thrown into the river to stop the leak.

Compressed air was used to keep the water out, the maximum pressure being 36 lbs. to the square inch, and the diaphragm separating the proximal from the distal portion of the tunnel being built of brick and concrete 12 feet thick, in which were situated the air locks, three in number, and each provided with an outer and inner air-tight door, both opening towards the portion in course of excavation and fitted with appropriate air cocks. The tunnel is lined with iron, and the part in front of the brick diaphragm can be filled with compressed air forced in by air-pumps, the only point of escape for the air being the "face" towards the soil to be excavated. Here we have the shield with cutting edge, and compartments enabling the workmen to deal with one portion of the soil at a time, and thus preventing the inrush of water from the whole surface which has to be excavated.

The number of workmen employed at a time in the compressed-air compartments varied from 30 to 80. There were three shifts of eight hours each in the twenty-four; an interval of three-quarters of an hour was allowed in the middle of each shift for the men to come out and have a meal, so that each man was in the compressed air for seven hours and a-quarter a day. The men were allowed the use of a lift to avoid the exertions of climbing up 80 feet of stairs, and hot coffee was provided for them on quitting the air locks. Also a room at the temperature of 70° F. was arranged for the change of clothes and for them to rest in, but as many workmen lived at a distance from the tunnel, and were anxious to get home, the plan of resting was not often resorted to.

Dr. Snell finds, like Andrew H. Smith and others, that compressed-air illness usually follows the exit from the caisson, and not the entry into or even the prolonged stay in it. Many workmen remained as long as twenty-four hours, and provided they spent the proper time in the air locks before emerging into the outside air, did not suffer.

The symptoms arose either during compression or immediately after it, or even after an interval of fourteen hours, as occurred in one case cited. Of the men employed no fewer than 200 were at one time or another affected with symptoms of the so-called caisson disease, of which 50 cases are furnished. Happily no deaths resulted, and most of the patients completely recovered.

The principal symptoms were: (1) Those connected with the ear, due to changes in pressure, affecting the middle ear and sometimes causing rupture of the membrane and deafness. (2) Severe pains in the extremities, called by the workmen the "bends." These pains, which have been often described by other writers, vary greatly in degree, being sometimes slight and sometimes excruciating, and generally affecting the legs, and less commonly the arms, elbows, and shoulders. They do not follow any exact anatomical distribution, as sometimes it is the joints or the bones, or often the muscles or the nerve trunks, that are attacked, and they are accompanied by swellings. (3) Paraplegia or else bladder paralysis, but generally slight and recovering completely. (4) A curious form of auditory vertigo of which Dr. Snell gives 10 cases, usually ending in recovery, and which does not appear to have been described before.

Dr. Snell does not view these symptoms as altogether arising from rapid decompression, and quotes some experiments on dogs and men by M. Hersent, where pressures of from 47 lbs. to 71 lbs. were used, and followed by decompression, sometimes slow and sometimes rapid, but the results did not correspond with the rate of decompression. He confirms the conclusions of the French and American observers that age exercises a great influence, and that while below 25 men are remarkably free from illness, above 45 the liability greatly increases. Alcoholism also largely predisposes to attacks. Dr. Snell attributes a considerable proportion of the symptoms of compressed-air illness to defective ventilation, and relates a number of experiments which demonstrate that the number of cases of caisson disease varied inversely with the abundance of fresh air supplied; so that while 41 cases occurred in 13 days when the supply was 4,000 cubic feet per man per hour, it was reduced to 4 cases in twelve days, when the supply was 12,000 feet, and accordingly our author advocates a constant supply of fresh air, and we presume the removal of used-up air, as the best means of preventing this illness. He advocates a supply of 9,000 cubic feet per hour for each worker.

The curative treatment of these cases was by recompression, and for this purpose a medical air-lock was constructed out of a boiler and placed near the hot room before mentioned, so that the patient need not be carried below. Pressure was increased until the symptoms were relieved, but it was not found necessary to raise it to as high a pitch as that to which the sufferer had been before subjected, and relief was usually obtained with moderate pressures. The cure depended to some extent on the interval which had elapsed since the patient had left the caisson; symptoms coming on some time after, were more difficult to deal with than recent ones.

The book is a scientific account of an interesting complaint, and makes a distinct onward step in its treatment; but while the author has given a clear account of his own investigations and conclusions, he has not always done full justice to the labours of predecessors.

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The Cell in Development and Inheritance. By Edmund B. Wilson, Ph.D., Professor of Invertebrate Zoology, Columbia University. New York: The MacMillan Company. London: MacMillan and Co., Limited. 1896. (Royal 8vo, pp. 456, 142 figures. 14s.)

The volume before us is a very important contribution to what is becoming a highly-specialised branch of biology—namely, the structure and functions of the cell. It is, moreover, a book to be thoroughly recommended, because not only does it give the latest and most complete account of the wonderful

living unit, but also because it is written in a perfectly clear and lucid manner. The illustrations are numerous and well executed. The cell is first treated in a general sense, several chapters are then devoted to cell division, and naturally the bulk of the work is concerned with the germ cells, their origin, and fertilisation, and with the various theories of inheritance and development. A very useful chapter on cellular chemistry is included.

Professor Wilson is a disciple of Oscar Hertwig, and the influence of this master is to be traced throughout the work. The book is dedicated to another fruitful worker in the same field, Theodor Boveri. If Schwann, Schleiden, Remak, and the other early investigators of the cell could see to what a pitch of detail cellular physiology has advanced, or look on the figures representing the modern idea of the cell in its various phases, they would hardly recognise their discoveries. The nucleus they knew, they had a glimmering of karyokinesis, but the centrosome and the attraction sphere would be new acquaintances. The modern student with such a book as this before him has no such excuse for ignorance. In reference to theories, they are numerous, and generally short lived; no doubt in a second edition many of them will require amendment or excision. Biology is in an active state of growth, but we heartily congratulate Professor Wilson on his presentment of the modern condition of our knowledge on this most attractive subject.

## NOTES ON BOOKS.

*Forensic Medicine and Toxicology. A Manual for Students.* By C. O. Hawthorne, M.B. Second Edition. (Glasgow: A. Stenhouse. 1897. Cr. 8vo, pp. 174, 4s. 6d.)—The popularity which this little work has met with is due, no doubt, in some measure, to the clearness of the language, though the small bulk and moderate price have also probably some share in the result. In condensing a tolerably comprehensive subject into a very minute space there must inevitably be a risk that the compression will tell more heavily on some branches of the subject than others. In this case the medico-legal relationships of insanity seemed to have suffered most—notably in the matter of the testamentary capacity of the insane. The other chief omission is the absence of any reference to the use of permanganate of potassium in the treatment of opium poisoning. The book is well printed, and of a handy size.

*Zeit und Streitfragen der Biologie.* By Professor Dr. Oscar Hertwig. Heft 2. *Mechanik und Biologie.* [Biological Questions of the Day. Part 2. Mechanics and Biology.] (Jena: G. Fisher. 1897. Roy. 8vo. Pp. 216; 3 illustrations. Price M. 4.)—As our biological knowledge of the cell has increased, simultaneously also has the knowledge of our ignorance in relation to many questions deepened. These gaps are for the most part bridged by theories. Among such theories the mechanical or "mosaic" theory of Roux has found a place, though, to an outsider, the living cells of all things would seem the least capable of mechanical and mathematical treatment. In the present volume we have the views of an insider presented to us, and piece by piece Oscar Hertwig takes the theory, examines it, and demolishes it. Among biologists Hertwig is the one most capable of pronouncing an opinion on such a subject. His book, unlike the first number of the series, will not appeal to a large circle of readers, as it touches only on a highly technical side issue of a highly specialised subject, but for those interested in biological polemics we can recommend the book as one that states one side of the question in a lucid and fair manner.

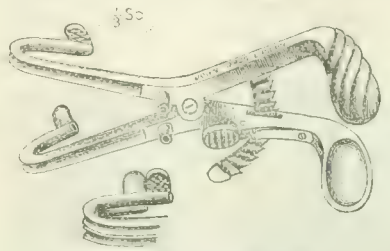
The American Surgical Association and the Alumni Association of the Jefferson Medical College of Philadelphia have issued cards for the unveiling of the statue on May 5th of the late Professor Samuel D. Gross, M.D. The statue has been erected near the Army Medical Museum, Washington, D.C.

The Treasurer of Charing Cross Hospital has received a donation of £2,000 from Miss Leicester to be applied to the erection of a chapel, and also a donation of £500 from the Baroness de Hirsch to the Special Appeal Fund.

# REPORTS AND ANALYSES
AND
# DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

### AN IMPROVED GAG.

Dr. F. W. Cock, Porchester Square, London, W., has recently designed a form of mouth opener and gag which has proved satisfactory in his hands in practice. By the illustration it will be seen that it has a rack catch action which fixes automatically when opening the gag, while upon touching the trigger the stop rack action is thrown out of gear, and the gag closed with the greatest facility, irrespective of the amount of pressure which is being exercised upon the tooth plates. In lieu of the metal vapour tubes as suggested by Dr. F. Hewitt, he has had a gutter cut in each of the arms of the gag, over which pieces of rubber drainage tube may be slipped to convert them into tubes; the advantages of this are that the vapour ways do not increase the bulk, and are readily cleaned or cleared; and further, being made of solid steel, they are not liable to be damaged from an accidental fall, a somewhat frequent occurrence with the metal tubes originally designed for the purpose. He has also adopted in a modified form the suggestion of Mr. W. R. Ackland to set the toothplates one behind the other to act as a wedge if required. The gag can be made with broad toothplates for edentulous jaws, or if the teeth or gums are tender, thus doing away with bruising, and at the same time giving a wide basis of support. The instrument being entirely of metal is easily sterilised. Messrs. Down Bros. of St. Thomas's Street, S.E., are the makers.



### AUTOMATIC FLUSH DISINFECTOR.

This is a convenient arrangement for automatically passing a regulated quantity of disinfectant into the flushing water of a drain or closet. Where such a proceeding is indicated this apparatus can from actual trial be said to be efficient and simple, but disinfection should never take the place of sanitation. The advantages claimed by Messrs. Granville and Co., the makers for this particular form of apparatus, are that it can be easily fixed by an unskilled person, that the quantity of disinfectant can be accurately adjusted, and that it is perfectly automatic. We can testify to the truth of these claims from experiment. By means of the tool provided the apparatus is easily and quickly fixed, is out of sight, and does not obstruct the flow of water in the flush pipe.

### A PORTABLE WEIGHING MACHINE.

A new and cheap form of portable weighing machine, sold by Messrs. Arnold and Sons, of West Smithfield, supplies a desideratum for a machine that can be readily put out of the way when not wanted, as it can be placed under a chair or in a cupboard. The machine weighs up to 24 stone, and, being very light and portable, can be used upon the floor or placed on a chair; it is very simple in construction, and not likely to get out of order. The size of the platform is 10½ in. by 13½ in., with brass steelyard slide and weights. Its price is 21s.

### PRESERVED PEAS, BEANS, AND SPINACH.

The Westland Preserving Company, of Loosduinen, Holland, have sent us some samples of their "Preserved Peas," "Preserved French Beans," and "Preserved Spinach," through Messrs. Dusselsma and Co., of Gresham Buildings, E.C. The principal claim made for these preparations is that they are free from copper; it being stated that the goods which are put on the market by this Company are

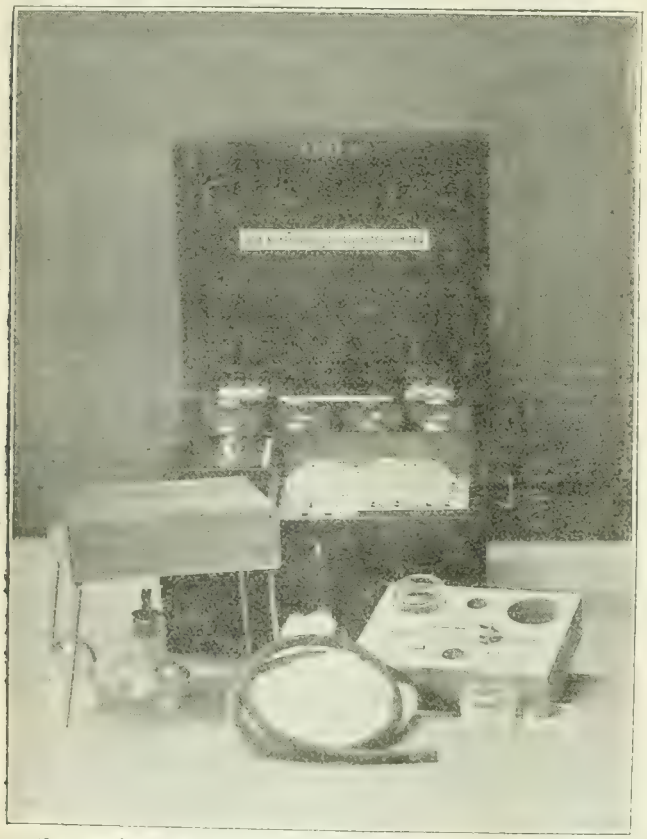
absolutely pure, and are preserved in their natural state without the addition of copper sulphate.

The results of our analyses of the samples submitted to us show that they were entirely free from compounds of copper; and, having regard to certain assertions which have been published about this matter, it is important to note that in these samples copper could not be detected even in minute traces.

In this country vendors of preserved vegetables containing copper have been prosecuted at different times, and the matter has recently again come into public notice in consequence of convictions for the sale of coppered peas which have been obtained in London. These convictions were obtained and were upheld on appeal, in spite of the fact that "experts" gave evidence in palliation of the practice of adding compounds of copper to preserved vegetables—a practice which we cannot approve.

## THE TREATMENT OF SYPHILIS BY INTRAVENOUS INJECTION OF MERCURY.

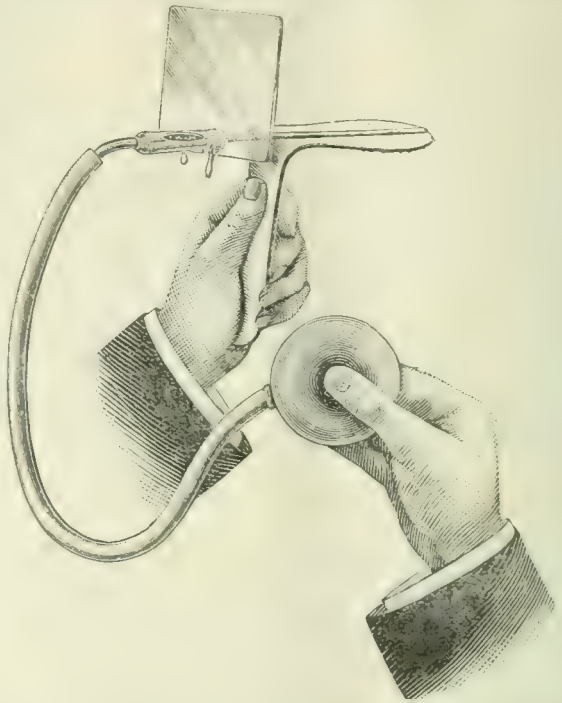
Messrs. John Richardson and Co., of Leicester, after the design of Mr. James B. Byles, M.B., have made a small cabinet containing everything requisite for the treatment of syphilis by intravenous injection. In addition to the bottles



for the various solutions employed, the case contains a sterilising tray, spirit lamp, tourniquet, space for absorbent wool, two small glass pots, a 40-minim hypodermic syringe with glass piston, and three platino-iridium needles.

## TONGUE DEPRESSOR AND INSUFFLATOR.

Mr. W. Edmund Thomas, of Bridgend, Glamorgan, has designed a combined throat insufflator and tongue depressor. The claims made for the instrument are that the mechanism is so simple that it is next to impossible for the instrument to get out of order. Assuming the case to be one of diphtheria in a child, and that it is proposed to adopt the sulphur treatment, it is of importance to be able to inspect the throat and carry out the insufflation at one sitting. The instrument can be charged at the surgeon's house, which does away with carrying any bottles to the patient's home. The apparatus being in one piece, there are no hinges or crevices likely to harbour septic material. The handle being at right angles to the tongue depressor (the latter being heavy having



complete control of the tongue), the operator's hand does not in any way obstruct the lumen of the mouth during inspection. The instrument is provided with a plate-glass protector. It can be made absolutely aseptic by immersion in boiling water. Mr. Thomas claims for his invention advantages over those insufflators in general use. Messrs. Woolley and Co., of Manchester, are the makers.

Society for the Study of Inebriety.—At a meeting held at 11, Chandos Street, Cavendish Square, on Thursday, April 8th, Dr. Norman Kerr, President, being in the chair, the President and Council gave a reception to Sir Joseph Ewart, M.D., F.R.C.P., J.P., ex-Mayor of Brighton. The resolution of welcome was proposed by the President, who alluded to Sir J. Ewart's long and honourable career in India, especially at Calcutta, to his well-known literary labours, and to his efforts in the cause of temperance and public sanitation since his residence in Brighton, of which town he had thrice been Mayor. The resolution was seconded by Canon Acheson, and was carried with applause. Sir J. Ewart, in responding, said that the present plan of treating drunken offenders by conviction and imprisonment was not only a failure, but made them worse, actually aggravating the disease. That a more rational and scientific treatment would be more successful was shown by the experience gained at the Dalrymple Home for Inebriates. Dr. C. R. Drysdale, in a paper on Alcohol in Therapeutics, said that he had found it unnecessary to resort to alcohol in the treatment of medical cases. Dr. D. Walsh believed in greater value being attributable to alcohol as a remedial agent, and said there were fallacies involved in a wholesale condemnation of alcohol as a drug. The President protested against the accusation that medical men were responsible for "the greatest source of drunkenness," adding that, in his observation, they could not be credited with more than half of 1 per cent. of such cases. Surgeon-Major Poole had found alcohol as useless in India as in England. A paper was read by the Rev. A. K. Cherrill, who contended that acquired characters were sometimes transmissible. This was discussed by Dr. Morton, Dr. Lees, Mr. Riley, and the President.

## BRITISH MEDICAL ASSOCIATION.
## SUBSCRIPTIONS FOR 1897.

Subscriptions to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.


# British Medical Journal.

SATURDAY, APRIL 17th, 1897.


## THE APOTHECARIES' HALL OF IRELAND AND THE GENERAL MEDICAL COUNCIL.

In the British Medical Journal of November 21st, 1896, commenting on a remarkable letter addressed to the General Medical Council by their legal advisers, we ventured to give a friendly warning, before a decision was arrived at which might cause a difference between the General Medical Council and the Privy Council.

Further, we stated that we were unable to assume that the Privy Council would necessarily confirm the decision of the General Medical Council, if the latter body should refuse to grant the Hall's application.

In the Journal of December 5th, 1896, when we announced the refusal of the General Medical Council to appoint assistant examiners to the Hall, we observed that it must not be lost sight of that the Apothecaries' Hall of Ireland did not approach the General Medical Council on the last occasion on their own motion, but by the distinct direction of the Privy Council.

On the above occasions we wrote with all due reserve respecting the matter, which, as we pointed out, had not at that time been fully argued. We, however, said enough to show that we could not understand the confidence apparently felt by some that the Privy Council would necessarily ratify an adverse decision of the General Medical Council.

The result has now fully justified all that we then said; the Privy Council having, after hearing very elaborate arguments on both sides, intimated that it must overrule the decision of the General Medical Council.

We cannot but express our regret at the General Medical Council having incurred the very danger which their legal advisers were so anxious it should avoid, a danger which, unless judiciously handled, may seriously interfere with the prestige of the Council.

Under the circumstances, it would have been well if more members of the Council had shared the feelings of the President of the Council, who, on the result of the vote being declared, expressed his own opinion as follows: "I did not vote out of respect to the Council; I could not from my position, as there was a general expression of opinion by members of the Council; but I distinctly say that my sympathies are entirely with the Apothecaries' Hall."

The Commemoration Fund on behalf of the Queen's Jubilee Institute for Nurses now amounts to £48,971. The Appeal Committee are making efforts to raise £100,000 before June 22nd.

## THE LAST STRAW.

That chronic invalids usually die of intercurrent disease is the common statement of most writers, but Professor Osler's epigrammatic saying that persons rarely die of the disease from which they suffer is something of a paradox, though not without a basis of truth. Which of us does not know patients who have lived for twenty years and more with incurable disease; and which of us has not seen upon the *post-mortem* table viscera so reduced in size and so altered in structure that it is incomprehensible how life was maintained? There is, it must seem, an immense surplus within us. The seeds of some plants, the eggs of many insects, are formed in such numbers, that we wonder why the whole world is not poppies and caterpillars. That they do not overrun it shows how many dangers beset them, against which, save by this multiplication of chances, they would fail to hold their own. That men can live with renal tissues of 3 ozs. weight shows us that for the condition of their life 10 ozs. was but an insurance against loss. We are fortified for attack, and a man who dies with healthy organs has wasted his opportunities.

Yet though a man may live, and may live long, whose organs are so greatly altered, he cannot live the life he would. He is in reduced circumstances and must forego all extravagance. Food, drink, labour—all must be so ruled and so diminished that he leads but a prison life. There can be no holidays, no irregularities to relieve his tedium; he can afford no mistakes. So long as he turn monk so long will his maimed body suffice; but should he peep into the world and riot but one day with the rest, it is all over with him; his mills will not grind, his sewers will not discharge, his blood is choked with half-formed products for absorption and waste which cannot be turned out, and he dies because he forgot that a pauper cannot live like a prince.

Nor can he stand the chance of life like his neighbour. Late years have shown us a new view of man. We have waked to find ourselves in Lilliput, each beset with innumerable tiny foes, armed some with spores, some with clubbed extremities, some with long filaments, some forming chains for our capture, others coming against us two by two. These we overcome by "health." Bacteriologists differ as yet whether the power to resist them lies in the blood, or in the tissues, in the cells or in the serum. But, whichever be the source of it, experience shows that they have it not who are the subjects of chronic disease. Chill gives a healthy man a cold, but brings pneumonia and death to his neighbour with Bright's disease. Slight accidents, slight wounds kill such men by erysipelas, by peritonitis, by other similar ways. They are bad subjects for insurance, for they have lost the shield of health.

An interesting study of these "terminal infections" has been made by Dr. Flexner[1] at the Johns Hopkins Pathological Laboratory. Making cultures, as a matter of routine, from the various cavities and viscera of unselected cases, he was able to obtain from his own and others' observations 255 cases in which occurred chronic heart or kidney disease, or both combined, of which 213 gave positive results to bacteriological examination. The infections were either local or less commonly generalised. These latter themselves often start from a previous local infection. Thus 16 cases with

[1] *Journal of Experimental Medicine*, vol. i, p. 559.

renal disease showed a general streptococcus infection, which was believed to have started as follows: From cellulitis, erysipelas, leg ulcer, bedsore in 7 cases, from phthisical cavity in 1, from laparotomy or paracentesis in 3, from pleurisy, peritonitis, or pericarditis in 3, and from sloughing tissues in 2.

Of the local infections which were much the commoner, the most frequent seats were the peritoneum, the pericardium, and the endocardium. Each site was in different cases affected with very different organisms, and Dr. Flexner attempts to determine the point at which these germs gained entrance to the body. He regards the intestine as the chief source of peritonitis, and believes pneumonia to give rise to most of the cases of pericarditis and endocarditis. The micro-organisms concerned were of several kinds; thirteen are named and others were undetermined. Streptococcus, staphylococcus aureus, and micrococcus lanceolatus, were the most frequent. Those which caused general infection were not different from those which gave rise to local lesions alone.

The whole paper is a laborious and an interesting statement in bacteriological terms, of what has long been known clinically. These infections have never yet been set down with such precision nor ascribed with such exactness to their immediate causes. The majority of these patients seem to have died of infection from these micro-organisms, and not from the actual insufficiency of their excretory or circulatory powers. They had been able to carry on a 'minished life with maimed tissues, but they had no power to resist, and fell victims to what would have passed by their healthy fellows. We have long been accustomed to say this in general terms, but it is now first that we see these last straws clearly set before us, their frequency and their site of infection tabulated, and their mode of entry with probability inferred.

## ASYLUM ATTENDANTS.

THE question of the pay and hours of duty of attendants on the insane in asylums is one deserving the serious attention of committees and administrators. For some time discontent has simmered, and of late it has broken out into complaints in the lay press. But it is really a medical question, and now that in all well-arranged institutions the medical man is the responsible head, it becomes a medical necessity to see that justice is done to this very responsible class of servants. Granting that the question is fraught with difficulties both of a social and commercial nature, we may state at once that the emoluments and the leave of absence are, in the majority of cases, not what they should be.

It appears to be impossible to arrange for a working-day arrangement of less than fourteen hours, with about two hours subtracted for meals. Such a stretch of continuous duty sounds unreasonable, but it must be remembered that attendants have many advantages: for instance, they are always comfortably housed, and not subjected to exposure from the weather; they are fairly well fed, they are attended to in sickness, they live under good hygienic conditions, they have little laborious work, and they are entitled to the consideration of a pension after ten years' service. On the other hand, they have great responsibility, they have to display fortitude and equanimity under very trying circumstances, and if any "accident" occurs there is a strong disposition to push the blame on to their shoulders. For all this they get what is practically little more than £1 a week, and this is liable to deductions in the shape of fines for breaches of that discipline that must be strictly maintained. On the whole, the work is wonderfully well done, and among this class are to be found many people of a degree of kindness and trustworthiness probably unequalled in any other calling.

Establishments vary—in some there is a sufficient and separate night staff. This is as it should be; it is not right that the night staff should be composed of people who have been on duty part of the day, and are then taken off for a few hours to resume work at night. It is a bad system, bad for the attendants and bad for the patients. Every attendant ought to have at least one day's holiday in the week, and at least a whole fortnight besides in the year. It is nothing less than a disgrace that some asylum authorities keep their servants at work as they do, with only one day off duty in a month, or a few hours every fortnight. After due consideration, we believe that an eight-hours day is practically impossible, and we are by no means sure that a double change of attendants during the day, as would then be necessary, would be of advantage to the patients.

The reforms that are needed are that the wages should be increased, so that no man has less than 24s. a week to begin with, the one day holiday a week should be universal, as also should the annual leave. In a very great measure we are dealing with skilled labour. It is now the almost universal rule that the attendants are trained in their duties and subjected to examination as to competence; and whilst this must increase their self-respect and their confidence, it also tends to increase their value. Much of the agitation in favour of the eight-hours day has probably a political origin, and is advocated by people who have no true knowledge of the circumstances, and asylum attendants should not be led away by the urgings of this class of mentors. They should understand and feel that the medical advisers of asylums have their interests at heart, and that if out of consideration for the patients (which, of course, should be the first consideration) they find it impossible to shorten the hours of duty, whilst they at the same time endeavour to obtain for them good pay and a reasonable leave of absence, then there should be contentment and the determination to do their best under the conditions.

The Lunacy Commissioners may have good reasons for not interfering in this subject, but it is noteworthy that in their reports upon the management of asylums they rarely, if ever, refer to the position, as to pay, etc., of the attendants. We believe that the case of the attendants in private asylums is stronger than in the public ones. Here, surely, the Commissioners might interfere. The proprietor of the private asylum is so absolutely in the hands of the authorities at Whitehall that their word on any subject is law.

The charge to the rates for asylums is very small, and we feel every confidence in saying that the increase in expenditure necessitated by a higher wage, and a slightly increased staff, would be willingly accepted by the ratepayer. To a large extent we sympathise with attendants in their demands, but we counsel them to bear in mind that they already have great advantages, and we warn them against a tendency which they show in their statements of complaints to exaggerate their difficulties and to minimise their advantages. To the medical directors we beg to point out strongly that the scale

of pay should be placed on a sound basis, and that asylum competition in the matter of expenditure is to be strongly deprecated, especially if it be done by making the nursing staff as cheap and as small as unfortunately it now appears to be in what must be deemed the authentic reports that reach us.

## FEMALE INEBRIETY.

In these days of sceptical criticism and unbiassed investigation, not a few of our most cherished traditional beliefs have been unable to stand the tests of truth and fact. To those exploded traditions must, we fear, now be added the faith in the superiority of Continental over British people as regards sobriety, at least if we are to accept statements made by high medical authorities at a meeting of the Society of Public Medicine in Paris. The increase of inebriety has of recent years been the despair of the thinking members of the profession as well as of the judicial, philanthropic, and governing classes in the principal European countries. At this moment drastic special legislation for the involuntary therapeutic detention and care of habitual drunkards is occupying the attention of the Austrian and other governments on the Continent of Europe. The discussion to which we refer arose on the report of a scientific Commission, with Dr. Duclaux as president, which had set forth that, beyond a certain dose, alcohol, of whatever origin, and whether in wine, beer, cider, or spirits, is a poison of which the effects are deadly on the physical and moral health of the population. Subsidiarily, drinking caused the growing expenses of hospitals and asylums for the insane. The Commission pointed out that the injurious effects produced by alcohol were heightened by the imperfect rectification of alcohol and by the addition of toxic essences; while they strongly recommended the reduction of the number of places for the sale of liquor, and the enlightenment of the people on the perils involved in the abuse of alcohol, and in the special toxicity of some beverages consumed, by courses of instruction to all from the period of school onwards.

One of the most remarkable features of the discussion were Dr. F. de Grandmaison's statements as to the extent of female inebriety, of which few except those who have given special attention to the subject could have any suspicion. He characterised as an illusion the tradition that ethylism was confined to the stronger sex, which he at one time believed, till painful experience had disillusioned him. Of the first 500 women who had presented themselves to him for treatment at the *externe* department of the Laënnec Hospital, 156 showed undoubted signs of chronic alcoholism (31 per cent.), while of the men 70 per cent. were similarly affected. These patients did not all confess to alcoholism, but the symptoms were unmistakable—tremors of the hands or of the tongue, muscular cramps, morning phlegm, business dreams and nightmare, with dyspeptic troubles. Of the objective symptoms the hand trembling was the oftener observed. Of the subjective, the general identity of the professional dreams was most striking. The dreams of non-alcoholised nervous women were differentiated from those of the alcoholised, by the former subjects seeing themselves pursued by animals—generally small animals, like cats or rats - and by the latter dreaming of falling down precipices, drowning in water, or throwing themselves from heights. The muscular cramps and the paresis of the limbs, which were less frequently seen, were indicative of a peripheral neuritis, a late as well as very gradual manifestation of alcoholic poisoning. Fifty-one per cent. of these women were between 20 and 40 years of age, the active period of existence, though there were 5 cases below 20, (3 at 18 and 2 at 19), or 3 per cent. Above 60, 7 per cent. were met with. Of the 118 female cooks attended, 60 were inebriates (in round numbers 50 per cent.), thus not belying their reputation. Of the 27 laundresses, 9 were alcoholics, or one-third. Of the 70 charwomen, 34 were drunkards (48 per cent.). Of 9 itinerant dealers (costermongers), all were chronic alcoholists; and among 72 seamstresses (6, or 8 per cent.) were excessive drinkers. Of the 156 treated, only 4 had phthisis; 22 were either hysterical or neuropathics, confirming the opinion that female hysteria is often of alcoholic origin. In 6 suffering from arterio-sclerosis, 2 (both cooks), the symptoms seemed to have arisen from alcohol; 3 had gastric ulcer, apparently due to spirits. In 9 of the 156 alcohol had appeared to predispose to influenza.

Dr. Bourneville stated that of 1,000 children at Bicêtre (1880-1895), in 471 only the father had been a drunkard, in 84 only the mother; but in 65 both parents were intemperate. Alcoholism was not known to have been present in the parents of 209 children, while there was no family history in 171 cases. In 57 instances conception had taken place during the intoxication of the father, and in 24 other cases there was a strong probability, but no certainty, of this having occurred.

M. Yvon, who maintains that even the most highly rectified and unsophisticated alcohol is always hurtful, the more hurtful the greater the quantity taken, has calculated the daily quantity of absolute alcohol consumed in the form of beverages by a drinker whose consumption "was not exaggerated." The daily allowance comprised one bottle of wine (half a bottle at each of the two meals) containing 10 per cent. of alcohol; one bottle of beer between meals (ditto); and one *petit verre* of cognac (at 50 per cent.). The wine contained 66 c.cm. of alcohol, the beer 40 c.cm., and the cognac 12 c.cm., making a total of 118 c.cm. This quantity of alcohol represented 237 c.cm. of brandy, which, with an alcoholic strength of 50 (one-half), would be equivalent to about a quarter of a litre.

The information thus elicited points to a grave state of matters in France, but these efforts of the medical profession to arrive at truth and enlighten public opinion, are a hopeful augury of success in what Dr. Laborde calls "the struggle against the true enemy." Already it is understood that the Supreme Council on Education for France will approve the proposal that the dangers of alcoholism should form part of the teaching in schools of all grades. The teaching is to be given by means of dictation, composition exercises, and arithmetical problems on the material losses caused by intemperance.

Lord Lister will take the chair at the anniversary dinner of the Royal Literary Fund on Wednesday, May 5th. The dinner will be held at the Whitehall Rooms, and gentlemen wishing to act as stewards should communicate with the Secretary of the Fund, 7, Adelphi Terrace, W.C.

The *Gazette* of April 9th announces that the Home Secretary has appointed Mr. Herbert Smalley, M.D., M.R.C.S.,

L.R.C.P., medical officer of Parkhurst Convict Prison, to be as from April 1st, 1897, inclusive, Medical Inspector of Local and Convict Prisons.

SURGEON-MAJOR-GENERAL JAMESON, Director-General of the Army Medical Department, received the honorary degree of LL.D. from the Glasgow University at the graduation ceremonial on April 13th.

AT the fortnightly meeting of the Metropolitan Asylums Board, held on April 10th, it was stated that the Local Government Board had forwarded a communication to the effect that the scheme for a children's asylum district would be proceeded with.

DR. EDWARD SEATON, Medical Officer of Health for the administrative county of Surrey, was, at a meeting on April 9th, elected President of the Society of Medical Officers of Health for the session 1897-98. At the same meeting the Society resolved to present an address of congratulation to the Queen on the completion of the sixtieth year of her reign.

## THE SOLDIER'S TUB IN INDIA.

CAPTAIN PIRIE'S question to Lord George Hamilton in the House of Commons on April 8th in regard to the provision of means for personal cleanliness for the British soldier was very pertinent in view of the well-known fact that at home stations such means are not at the disposal of the men, and as to privacy the less said the better. The cleanliness of men in our barracks at home is superficial to unwholesomeness. Fortunately a better state of things exists in India, as there fair provision is made for personal ablution in the shape of plunge baths and private bath rooms fitted with tubs which are found attached to many of the barracks, especially in the larger cantonments. The great need at home is laying on of hot water in barracks.

## THE ARMY MEDICAL STAFF AGAIN IN PARLIAMENT.

IT is difficult to remark in measured language on Mr. Brodrick's reply to Captain Norton's renewed question in the House of Commons on April 8th. To enable our readers to form their own opinion, it becomes necessary to explain in some detail the circumstances which called for Captain Norton's second question, following so shortly on that upon which we commented on April 3rd. When the reply to the first query was given on March 29th, although it was well understood that the answer was evasive, if not absolutely inaccurate, it was considered necessary to reformulate and resubmit the query in such words as would pin the Under-Secretary of State to acknowledge with a "Yes" or "No" whether the Army Medical Staff is at present sufficient not only for mobilisation, but also to meet all demands for military medical aid at home and abroad. The Under-Secretary of State, who, of course, is merely the mouthpiece of the War Office, instead of giving a plain "Yes" or "No" in reply, fenced, being either afraid or unwilling to declare that the Medical Service is not sufficient for the needs it is supposed to meet. Captain Norton very rightly protested against Mr. Brodrick's want of precision in replying to a specific question. This protest does not appear in all the newspaper reports. In regard to the answers generally given in Parliament on the affairs of the Army Medical Service, it is uncertain how far these replies are framed by the medical division of the War Office, and whether, if framed there, and then passed through the Commander-in-Chief's Office, they undergo reconstruction in the latter bureau before being finally passed into the Under-Secretary of State for War's hands to be expressed in the House. It is inconceivable that the Director-General can be made responsible for the evasive and unsatisfactory replies recently made, to which we have from time to time alluded. That, however, the responsibility for these rests in some branch of the War Office cannot possibly be doubted, as the procedure generally adopted is for the Under-Secretary of State for War to forward proposed questions on service subjects to the War Office for a reply to be formulated, such reply being subsequently expressed by the Under-Secretary in the House.

## OYSTERS AND TYPHOID FEVER.

WE understand, in reference to a recent communication from the Parliamentary Bills Committee of the British Medical Association, that the President of the Local Government Board has in contemplation the issue at an early date of a circular letter calling the attention of the proprietors of oyster layings, and persons engaged in the sale and importation of oysters, to the risks of the dissemination of disease which are run if the water in which the oysters are laid is liable to sewage contamination. Mr. Chaplin's reply to Sir William Priestley's question in the House of Commons as to the inspection of oyster beds is so far satisfactory that it shows that the matter is under the serious consideration of the Local Government Board. The difficulty of making regulations is that to attain the end in view—that the public should have a reasonable assurance that oysters in the market are derived from healthy sources—some supervision of oysters imported from abroad would be equally necessary. This could not be done without fresh legislation.

## GLYCERINISED CALF LYMPH.

WE understand that the President of the Local Government Board has in contemplation the introduction into this country of the method of preserving calf vaccine by the addition of glycerine. This method has the advantage not only of conserving the special qualities of vaccine lymph, but of eliminating from the lymph all extraneous germs capable of producing septic inflammation. The decision to introduce this method of preserving the lymph has been arrived at after a consideration of the information collected by Dr. Thorne Thorne, C.B., the Principal Medical Officer of the Local Government Board, and Dr. Monckton Copeman, during their recent visits of inspection to the Vaccine Institutes in France and Germany. It is, we understand, intended that the glycerinised calf lymph shall be placed at the disposal of public vaccinators as soon as the necessary arrangements for its preparation can be perfected.

## VENEREAL DISEASE IN BRITISH TROOPS IN INDIA.

THE question of the increased prevalence of venereal disease among British troops in India was considered by the Council of the Royal College of Surgeons of Ireland at its last meeting, and we are informed by the Secretary that the President, Vice-President, and Council passed the following resolution:

We, the President and Council of the Royal College of Surgeons, being deeply impressed by recently ascertained facts concerning the development and alarmingly increased prevalence of venereal disease among British troops in India, and also the apparently exceptional virulence of the malady there, are strongly of opinion that the time has arrived when some active steps should be taken by the Government to check the disease, not alone in the interests of those primarily affected, but of their immediate descendants, and of the community at large, in India and the United Kingdom. The facts recently elicited by the Departmental Committee presided over by Lord Onslow, the President and Council of this College consider as nothing short of appalling, and such as to imperatively require that an effort should be made at once to check and mitigate the evil, as otherwise the public health in these countries—not merely in the present but in the future—will be seriously imperiled.

The despatch of the Secretary of State for India regarding the recognition of venereal disease in military cantonments as a contagious malady necessitating the segregation and treatment or expulsion of its subjects has been received in India with considerable doubt as to the efficacy of any preventive measures which may be undertaken by Government under its sanction. These can only lay hold of an evil already existent and strive to limit its incidence. Any steps designed to anticipate and eradicate the evil by systematic legislation and inspection would come under the condemna]

tion of being "a means of rendering vice safe," and would be represented as encouraging vice, a motive which the despatch expressly seeks to avoid. On the other hand, while the Indian press consider that the despatch does not go far enough, the opponents of "State regulation of vice" assert that it goes too far, and contend that the only really effective preventive of these diseases is continence. Theoretically this may be conceded, but practically, as human nature is constituted, the position is Utopian, and dealing with the subjects of communicable disease already acquired as dangerous members of the community and not as objects of pity and charity can hardly be defined as "providing security beforehand against the consequences of immorality."

## THE MONTREAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

From inquiries made during the past week it would appear that the best berths in the boats sailing from Liverpool for Canada at the end of July and beginning of August are rapidly being taken up, and that in fact certain boats already have nearly their full complement. It will be remembered that in order to have the advantage of the special reductions offered by the Allan and the Dominion Lines it will be necessary to cross the Atlantic westward on or before August 5th, as after that date the boats are expected to fill with Canadian travellers returning after spending the summer in Europe. We are requested to state that a representative of the Canadian Pacific Railway, who is thoroughly conversant with all the routes to Canada and the various excursions on the Canadian Pacific and Grand Trunk Railways will attend in future every day at the offices of the Association, to give advice to members and to secure berths on any of the lines of steamers.

## THE TUBERCULIN TEST AND DAIRYMEN.

At the last meeting of the Brighton and Sussex Medico-Chirurgical Society the following resolution was passed:

> That preference, in the opinion of this Society, should be given in obtaining milk supplies to such farmers and dairymen as guarantee that their cows have been properly subjected to, and have failed to react to, the tuberculin test for tuberculosis.

It was subsequently decided to send a copy of this resolution to the local press and to the local governing bodies. The resolution appears to us one that might well be passed by every medical society throughout the country. Apart from any immediate practical effect it will have a wide educational influence, which is certain in the future to bear fruit. The more attention is drawn to the immense value of tuberculin as a means of detecting bovine tuberculosis the better for the public, and indirectly for both butchers and farmers. Butchers can, by insisting on a warranty, protect themselves against the possible confiscation following the slaughter of diseased animals; and farmers, when brought face to face with the practical problem, will find that it is to their advantage to apply the test to their cattle, to carefully isolate the reacting animals, and to disinfect and limewash the stalls which they have left. By these means there is every reason to hope for a great diminution of bovine tuberculosis in this country; and it is not unreasonable to expect along with this a reduction in tabes mesenterica, etc., among children and invalids. We understand that in Brighton one enterprising dairy already advertises the fact that all cows from which its milk is supplied are guaranteed free from tuberculosis as proved by the tuberculin test. This is a matter of great importance to doctors who have to order milk for delicate persons and for children; and it may be hoped that other dairymen will speedily follow suit.

## THE CONTROL OF EXTRA-URBAN DAIRIES.

Dr. Yunge Bateman, the health officer of Folkestone, has to place on record two small outbreaks of typhoid fever in the borough last year, both caused by infected milk, the source of danger in each instance lying outside the town. In the first case the necessary machinery to bring into operation the powers conferred by Section IV of the Infectious Disease (Prevention) Act was set in motion; but Dr. Bateman complains, and not without reason, of this cumbrous and slow method. As a consequence, he draws attention to an undoubted need—namely, power of direct control by health authorities over all sources of milk coming into their area. We have long contended that not until the power of local bodies are made wider and more elastic, including the ability to adopt drastic measures, under competent medical advice, in relation to milk which is causing disease in its consumers, will milk cease to find a place on the list of causes operating against the public health.

## SIR HENRY HALFORD.

Probably no physician has ever before or since quite attained the commanding position held for so many years by Sir Henry Halford. A favourite at Court, the confidant as well as the physician of succeeding sovereigns and of numberless princes, he not only enjoyed an immense practice, but for the unprecedentedly long period of twenty-four years, from 1820 to 1844, occupied the office of President of the Royal College of Physicians. It is to his energy and influence that the College owes it that its house now occupies the site at the corner of Trafalgar Square, so well known to all Londoners. It is the more curious therefore that the College, which is not usually slow to recognise the good deeds of its pious founders and benefactors, should only recently have taken steps adequately to commemorate its indebtedness to its former President. A little over a year ago a resolution of the College, passed over half a century ago, was carried out by the erection of a tablet in the library commemorating his services. Very recently the College has come into possession, under the will of the late Sir Henry Halford, of the portrait of his grandfather, the physician, painted from life by Sir Thomas Lawrence. The portrait represents Sir Henry Halford, suave, dignified, and elegant, seated in morning dress facing the spectator. It is a half-length and an extremely pleasing example of Sir Thomas Lawrence at his best. The bust from this picture was engraved in oval as the frontispiece to Dr. Munk's *Life of Sir Henry Halford*, published in 1895. The family is now extinct owing to the recent death of the last heir to the baronetcy, and the estate of Wistow, which Sir Henry Halford inherited from Sir Charles Halford, and where he spent many of his later years, has passed to the Freemantle family.

## LORD LISTER'S HOUSE-SURGEONS AND DRESSERS.

We learn that it has been arranged that those who were most intimately associated with Lord Lister as his house-surgeons, dressers, or clerks in Glasgow, Edinburgh, and London, in carrying out the details of the great principles of antiseptic surgery which he was elaborating during his tenure of office as Professor of Surgery first in Glasgow, then in Edinburgh, and lastly at King's College, London, should entertain their former chief at a banquet which will take place in London at the Café Royal on Wednesday, May 28th. The chair will be taken by Professor Joseph Coats, of Glasgow, and the dinner will be limited to those who have served under Lord Lister as house-surgeons, clerks, or dressers. The dinner will therefore be of an intimate character, but will we feel sure be to Lord Lister not the least agreeable of the many expressions of esteem and regard which have been offered to him in connection with his election to the Presidency of the Royal Society and his elevation to the peerage. We are asked to state that, as Lord Lister entered on his duties at Glasgow in 1861, and at Edinburgh in 1869, considerable difficulty has been experienced in obtaining the names and addresses of those who were his dressers during the long period of thirty-two years for which

he was a teacher of clinical surgery; and it is hoped that anyone who has filled one of the offices mentioned, but who may not have received a direct communication, should write to the Honorary Secretary of the General Committee, Dr. St-Clair Thomson, 28, Queen Anne Street, London, W. It is particularly requested that the year in which the office was held should be mentioned, and it is desired that this information should be given whether the writer proposes to attend the banquet or not, as it is proposed in any case to draw up a correct list of former house-surgeons, clerks, and dressers in chronological order. Subcommittees have been instituted in Glasgow and Edinburgh to communicate with those who served under Lord Lister in one or other of these capacities in either of the Universities.

## THE ISOLATION OF DIPHTHERIA IN LONDON.

At a meeting of the Metropolitan Asylums Board on April 10th it was announced that the managers were at last able to admit all the cases of diphtheria for whose admission application was being made. This is due to the fortunate circumstance that the prevalence of that disease has somewhat diminished of late, the cases notified during the past fortnight being 395, against 459 the preceding fortnight, and 519 the one before. We are glad to note, however, that attention has been paid to our remonstrances in regard to the comparatively small number of beds allocated to diphtheria, and that the last report of the General Purposes Committee recommended that "the Ambulance Committee be instructed to report to the General Purposes Committee from time to time whenever, in the opinion of the Ambulance Committee, the incidence of infectious disease in the metropolis may necessitate the reallocation and reappropriation of beds in the several fever hospitals of the Board, and that the General Purposes Committee be empowered until further orders to take such action thereon as they may deem necessary under the circumstances."

## THE COST OF THE CARLISLE MEETING OF THE BRITISH MEDICAL ASSOCIATION.

Dr. Maclaren, the Local Treasurer of the annual meeting of the British Medical Association in Carlisle, was able to present an extremely satisfactory balance sheet to a meeting of the General Committee on April 9th. After paying all outgoings there remains a balance in hand of £304 18s. 2d., which will allow of a return of 10s. in the £1 to the guarantors, and still leave in hand a sum which will defray certain gratuities and acknowledgments of personal services which the Local Committee desire to make. If these be excluded, the cost of the meeting to the members of the Border Counties Branch would be considerably under £200, the exact sum being £188. That the Carlisle meeting was in every respect one of the most agreeable and successful which the Association has ever held is fully realised by all those who took part in it. Its success has been recognised also by colonial members who were present; the *Montreal Medical Journal*, for instance, wrote: "Carlisle, though a comparatively small city, has outvied many larger cities, not only in the extent of its welcome, but in the perfection with which all the detailed arrangements for the meeting were carried out." This is no more than true, and the fact that so successful a meeting was carried through at a cost less, we believe, than that of any annual meeting for many years past, not only reflects the greatest credit on the organising powers of the Local Executive Committee over which Dr. Barnes, the President of the Association, presided, on Dr. Maclaren, the Treasurer, and on Dr. Helm, the Local Secretary, but ought also to have the effect of encouraging other of the less numerous Branches in the United Kingdom to extend invitations to the Association. It proves at any rate that the spectre of a large expenditure need not be raised. Carlisle, indeed, was fortunate in the readiness with which the municipal, educational, and other public bodies came forward to help the Local Executive Committee; and the gratitude of the members of the Association found expression not only in the formal resolutions passed at the conclusion of the annual meeting, but in many hearty personal expressions of good will and appreciation. The Carlisle meeting will always remain a pleasant memory to those who were able to avail themselves of the hearty welcome extended by the Border capital.

## THE DEATH OF MAISONNEUVE.

Dr. Maisonneuve, who died this week at Nantes, his native town, in his 88th year, was one of the most eminent surgeons of Paris in the days of the Second Empire. He was on the staff of the great hospitals of La Pitié, the Hôtel-Dieu, and Cochin, and he wrote several standard works on surgical subjects. Dr. Maisonneuve will be especially remembered as one of the band of eminent French surgeons of this period who, in despair at the enormous prevalence of septic poisoning after surgical operations, declared union by first intention an impossibility in the coming era. Maisonneuve proceeded so far as to remove cancers of the breast not with the knife, but by hardened wedges of caustic paste. His colleague, Chassaignac, abandoned the knife wherever possible for the chain saw, with which he amputated limbs and performed such operations as perineal sections. It is impossible for anyone acquainted with that dark era of French surgery, or cognisant with the horrors of the surgical wards of the French hospitals of that time, to look back upon it without a shudder. Happily French surgery, which did not accept Liston's cleanliness and water dressings, was converted to the theory and practice of Lister's more scientific asepticism, and is now once more standing in the front rank of European surgery thanks to the brilliant band of younger French surgeons, and admirable results are being obtained in all the departments of operative surgery and gynæcology.

## THE HONORARY MEDAL OF THE ROYAL COLLEGE OF SURGEONS.

The Honorary Medal of the Royal College of Surgeons was presented to Lord Lister and Sir James Paget at the last meeting of the Council of the College. Few members of the profession appear to know of its existence; but this fact is by no means derogatory to those that wear it, for, since 1800 till the present day, only ten persons, including the two celebrities just mentioned, have been honoured with it. The first to receive it under the present conditions bore the same name as the last who bore it before the recent presentation; for Professor James Wilson was awarded the medal in 1800, the year of its foundation, and Sir Erasmus Wilson was similarly honoured in 1884. The latter died a fortnight later. The other honorary medallists were Mr. James Parkinson (1822), Mr. Joseph Swan (1825), Dr. George Bennett (1834), Professor Lodewyk Crowther, a great authority on the cetacea of Australasia (1869), Dr. Peacock (1876), and Sir Richard Owen (1883). The present occasion is the first on which two persons have received the medal simultaneously. This medal is to be awarded by the Council under such rules and regulations as they shall be pleased from time to time to determine. Members of the Council are ineligible. The medal bears on the obverse the armorial bearings, crest, supporters, and motto of the College, and on the reverse Galen contemplating a human skeleton. The leading considerations for the award are liberal acts or distinguished labours, researches, and discoveries eminently conducive to the improvement of natural knowledge and of the healing art. The majority of the recipients, it will be seen, have done much, directly or indirectly, for the College Museum. Professor Crowther's valuable present, the skeleton of a sperm whale, hangs up in the Museum as a conspicuous monument to that scientist. The due manner of award is thus expressed in the by-laws: "The award of the Honorary Medal shall be by nomination and ballot; and the nomination shall be in writing signed by six members of the Council, with a state-

ment of the grounds upon which the award is recommended to be made; and such nomination and statement having been handed to the President, or presiding member, at a quarterly meeting of the Council, shall be read by the Secretary. The Council shall then determine when the ballot shall take place, and of which meeting seven days' notice by summons, stating such purpose, shall be given to the members of the Council." A letter from the President, approved by the Vice-Presidents, enclosing a formal record of the award, is finally sent to the person selected. Through the courtesy of the present Secretary and Assistant Secretary of the College, we have ascertained that this medal existed before the organisation of that Corporation in its present form. Indeed, even in the minutes of Council for 1800 it is stated that Professor Wilson was awarded the "usual" medal. In 1768 the Corporation of Surgeons presented a medal to Mr. Else. For many years later the medal seems to have been given rather lavishly; indeed, Mr. Bayford apparently received it three times, and on one occasion it was resolved that no medal be given to the Lecturer on Anatomy according to the usual custom, for the very valid reason that he had delivered no lectures during the past year. The honour was in fact meant as a compliment to lecturers. In the last decade of the eighteenth century Cline and Blizzard received the medal, and since 1800 the charter of the present College has included by-laws to ensure that the honorary medal be properly awarded.

## THE MORTALITY FROM MEASLES.

The question of the means which may be taken to check the very large mortality from measles, which has for some years past seriously exercised medical officers of health in this country, was the main topic of an interesting paper read by Dr. Kenwood, M.O.H. for Stoke Newington and Finchley, at a recent meeting of the Sanitary Institute. As he pointed out, measles in the fifteen years ending 1895 caused more deaths under the age of 5 years in England and Wales than small-pox, scarlet fever, diphtheria, and typhoid fever combined, the greatest mortality occurring in the second year of life. He contended that notification to the sanitary authority could not be counted upon to check this mortality, on the ground that measles is so extremely infectious during the prodromal stage and before a positive diagnosis can be made, and that, as it only occurs in epidemics at intervals of two, three, or four years, the great majority of the cases which would have to be dealt with if notification were to be followed by hospital treatment, would, in urban communities, fall mainly on some one or two months every two or three years. Anything short of hospital treatment for all cases would stultify the whole system, and therefore it would be necessary to keep large hospitals and expensive staffs constantly in readiness, whereas a large number of cases would only come for treatment at long intervals. The experience of notification of measles had, he contended, been most discouraging. During the past six years about 1 per cent. of the sanitary authorities in England and Wales had included measles in the list of notifiable diseases, but he had ascertained by a special inquiry that in the majority of cases the medical officers of health either candidly acknowledged that they reaped no advantage from the measure or expressed doubts as to its utility. In large communities, when notification was not adopted in neighbouring districts and in the absence of sufficient isolation provision, he concluded that the measure was not to be recommended. A large permanent staff, and the adoption of other means than notification of bringing the existence of cases to the knowledge of the sanitary authority would be necessary. In rural districts, and in small isolated communities, if special efforts were made to detect unnotified cases and the means of hospital isolation were provided, notification might be useful. As a matter of fact, the large mortality due to measles was in reality produced by its complications, particulary its pulmonary complications, and he contended that the best remedy lay in the education of the masses and in adopting precautions against school infection. It would be necessary to begin at the beginning, and educate the children by giving them instructions in school with regard to the laws of health and disease prevention. If a distinct advantage was to be reaped from attempting to control the spread of measles by recognition of the earliest cases in schools, it would be necessary to provide that the scholars in each school should be examined by a medical man at frequent intervals during inter-epidemic periods, and almost daily during epidemic periods. All suspects should be sent home and requested to see a doctor, and all absentees visited and the true cause of their absence ascertained. As Dr. Kenwood pointed out, the main mortality from measles occurs among the poorer classes, and is due to complications. It is customary to attribute these pulmonary complications, especially broncho-pneumonia, to "catching cold," but the striking experience of the Paris hospitals appears to prove pretty conclusively that indiscriminate communication between affected children, want of cleanliness of person and surroundings, and inadequate ventilation, are the true operative causes. It is hardly too much to say that if the prevalence of typhoid fever is a measure of the care with which the water supply of a community is guarded from pollution, so the decline in the mortality from measles, not the prevalence, which depends on quite different causes, is a measure of the degree in which the housing of the working classes and their general standard of health, comfort, and cleanliness, has been improved.

## "FOR WAYS THAT ARE DARK"

If we may credit a writer who signs himself "Medical Man" in a recent letter to the *Bath Herald*, the ways of the Sanitary Committee of that ancient city in matters relating to the notification and isolation of infectious disease are, to say the least, "peculiar." It would seem that when the Act of 1889 was adopted the authority, by a note on the book of certified forms, requested medical men to state if the case were "at all doubtful," and added, "a case marked 'doubtful' will be isolated, if removed to the hospital, in a separate ward." So far the action of the authority would seem to have been, on the whole, judicious. It is eminently desirable that the health officer should know where suspicious cases are located, and that, so far as practicable, such cases should be isolated either at home or in hospital, and if in the latter, with a minimum of risk to themselves. The efficient and safe isolation of doubtful cases is especially important in a popular health resort. It seems, however, to have dawned upon the mind municipal that the isolation of all doubful cases in separate wards was rather a large undertaking. The correspondent, who claims to speak from personal knowledge, further states—as if it were no unusual occurrence—that a nurse who attended upon an undoubted case of scarlet fever, had also to attend a case in the next room, which was doubtful, and which was ultimately decided not to be a case of infectious disease at all; also that the scarlet fever patient and this doubtful case took their daily baths in the same bath. The gravamen of this charge lies rather in the implication that the nurse passed from the one case to the other without change of dress or disinfection of person, and that the bathroom and bath used by the two patients was not thoroughly disinfected after use by the scarlet fever case. This is rather implied than stated in the letter, but that it is intended to be implied seems probable from the other serious charges made against the efficiency of the isolation hospital. If these be justified it is the less to be wondered at that quite recently the authority have requested the medical men of Bath to delete from the book of medical certificates the paragraph which states that "a case marked 'doubtful' will be isolated, if removed to hospital, in a separate ward," adding that the Committee have decided that under no circumstances will a doubtful case of any disease be removed. It is of course possible, and if so the

City Council deserve sympathy, that the permission to notify doubtful cases may have been abused, and that timid persons may have sought municipal protection for an unnecessarily ambiguous diagnosis. If every case notified had to have a separate ward and a separate nurse the corporation would be in some danger of bankruptcy; but if, as may be reasonably concluded, the profession in Bath have the courage of their opinions, and only genuinely doubtful cases are so recorded, then it certainly does appear as if the Council were adopting the wrong remedy in refusing relief to lodging-house keepers who wish to get rid of patients reasonably suspected of being the subject of some notifiable infectious disease, and we hope the citizens of Bath will compel their governors to provide them with such hospital accommodation as shall ensure the safety of visitors to this celebrated watering place.

## SCARLET FEVER AND EARTH TEMPERATURES.

Dr. Crocker, the Medical Officer of Health of the Borough of Eccles, draws attention in his report for 1896 to the apparent causal relationship existing not only between subsoil temperature and such diseases as diarrhœa and enteric fever, but also between such temperature and scarlet fever. He does this, as regards the latter disease, not only on account of the records of last year, but because of the facts tabulated for 1895 also. In these two years the percentage of cases of scarlet fever removed to hospital was 34 in the earlier year and 43 last year, as opposed to 20 per cent. in 1894 and 13 per cent. in 1893. Not only so, but more detailed investigation in the last two years has been made into the previous history of notified cases, and yet many cases have occurred which could not be traced back to any of the known causes of the disease. Dr. Crocker has for some time been suspicious as to the part in the spread of scarlet fever played by polluted soil in hot dry weather. Dr. Niven, he tells us, has made the suggestion that probably urine is the chief source of soil pollution where such pollution has been caused by the disposal of slops and the like from scarlet fever patients. Dr. Crocker finds that in each of the last two years, the disease in Eccles has been most prevalent during the period in which the 4-feet earth thermometer registered 56° F. and upwards.

## THE SCOPE OF THE MIND.

At a fully-attended meeting at the Victoria Institute this week, Dr. A. T. Schofield read a paper on the scope of the mind, in which he sought to enlarge the current definition of mind so as to include those psychical processes which underlie the level of consciousness. Dr. Schofield considered the establishment of the fact of an unconscious mind as a point of great practical importance. Speaking as a physician in constant contact with nerve and mental phenomena, and recognising continually the power of that which seemed to recognise as mind both in the production of disease and power of relief and curing it, Dr. Schofield summed up his paper as follows: "It appears to the writer that the conscious mind is a very small part of the whole psychic force within. A coral island in the South Pacific is a mere ring of rock in the water, of insignificant size to the sailor; but to the biologist or geologist it is the highest peak of a stupendous structure that rises from the bottom of the ocean as a mountain miles high. Commencing as it does in the very smallest beginnings, it remains unrecognised until it rises above the surface of the sea. We only see the top of this structure and call it an island; indeed, it is all we are conscious of except by soundings or occasional glimpses of what is beneath on calm days or at low tides. In the same way it appears to me that of the sum of the psychic forces which we may call mental, and which constitute mind, only a very small portion are fitfully illuminated by what we call consciousness. Some may think the point raised has merely an academic interest. It is not so. Had it not the far-reaching practical issues in life this paper would never have been written. The establishment of the fact of an unconscious mind has a great bearing on the training of children; as children can be moulded unconsciously with far greater ease than through their consciousness. It gives also a great key to the cause and cure of many, if not of most, diseases. It lays bare at last the foundations of character, of conscience, of the entire *ego* so long obscured by a psychology bounded by the conscious." In conclusion the author referred to his point of the training of the unconscious mind of children as novel, but he thought full of promise; but mind was so vast a subject as to make him contemplate a volume devoted to the subject. This is all very interesting, but some people would perhaps like to know how this key to the case and cure to many, if not of most, diseases is to be used and to have one or two diseases named in which the unconscious mind plays part of the causation or cure, and some suggestions as to the use of the knowledge in respect to cure.

## RABBITS AND FOWL CHOLERA.

In the report presented to both Houses of Parliament, Queensland, Mr. C. J. Pound, F.R.M.S., Government bacteriologist, announces that in 1885 he was able to isolate a bacillus corresponding to Pasteur's fowl cholera organism in an outbreak in Brisbane of a disease amongst poultry, a disease the symptoms of which were similar to those met with in fowl cholera. After identifying this organism Mr. Pound carried on a series of experiments on rabbits, as a result of which he is prepared to recommend the Government of the Colony to grant permission to pastoralists and others who suffer directly from the depredations of rabbits to utilise this organism to kill off the rabbits that are ravaging Queensland, and he suggests that during the dry season, when the natural food of rabbits is scarce, food soaked with cultures of this organism should be distributed in the overrun areas. There can be no doubt that any method of getting rid of these animals, which does not at the same time create a danger of killing off birds and fowls, will be warmly welcomed by the Australians, as the rabbit pest has really become a most serious matter. Mr. Pound's experimental work appears to have been fairly successful, but how his method will work when carried out on a large scale remains to be seen.

## THE SURGICAL PECULIARITIES OF THE AMERICAN NEGRO.[1]

The Charity Hospital of New Orleans, the largest and probably the oldest public charity in the South-West of the United States, affords probably unrivalled opportunities for the study of the comparative pathology of the white and coloured races, and Dr. Rudolph Matas has taken advantage of his experience there to collect statistics which he has communicated to the American Surgical Association. He draws many conclusions interesting to the anthropologist and student of sociology, not less, perhaps even more, than to the surgeon. Indeed, he tells us that, when viewed from the purely surgical standpoint, the white man and the negro are practically alike, especially when individuals of both races, taken from the same social environment, are compared. There are no apparent differences between the races on the operation table. Although the negro, according to the author, is degenerating, and shows a growing inability to resist the causes that are inimical to his existence, he appears, in the matter of resistance to traumatic shock, to better advantage than the white man. In the general and local reactions of the tissues to surgical infection there are, we read, some differences between the races. The tables, however, are not of sufficient extent, nor are their data so decided, as to justify the conclusion that the coloured man reveals in this particular a marked tendency to physiological degeneration.

[1] *The Surgical Peculiarities of the American Negro.* By Rudolph Matas, M.D., Professor of Surgery, Medical Department, Tulane University of Louisiana. Reprinted from the *Transactions* of the American Surgical Association, vol. xiv, 1896.

## THE MONTREAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, AUGUST 31 TO SEPTEMBER 4, 1897.

Dr. Barr, a member of the Arrangements Committee, has furnished us with the following short account of the different steamers which will convey members across the Atlantic in time for the meeting. The fares quoted only refer to the steamship charges. Those members who travel by New York and Boston will have to pay the additional railway fares to Montreal. Those who wish to attend the British Association in Toronto should leave not later than August 7th, and they will obtain a reduction of about £2 in the passage rate; but for those who only purpose attending the meeting of the British Medical Association it will be quite useless arriving before the end of August, and therefore they should sail about August 18th to 21st. During the month of August all the steamers will be very full, so early application is necessary to secure good berths.

*The Allan Line*, from Liverpool to Montreal (Messrs. Allan Brothers and Co., 19, James Street, Liverpool): The *Numidian* and *Carthaginian*, sailing respectively from Liverpool on August 12th and 19th, are Royal Mail steamers. The passage will occupy about nine days. The outward fare will range from 10 to 20 guineas, according to the position of sleeping cabins and numbers of berths in same. Good cabins, with two berths, for husband and wife, can be obtained on the outward voyage at the rate of 18 guineas each berth for outside rooms, and 15 guineas for inside rooms; homeward, 80 dollars each outside room, and 70 dollars each inside room. Return tickets are issued at a reduction of 5 per cent. from the combined outward and homeward fares, except the 10 guinea fare, from which no reduction is made. The accommodation in the *Carthaginian* is limited, so early application will be necessary.

*The Beaver Line* (Messrs. D. and C. MacIver, Tower Buildings, Water Street, Liverpool): *Lake Ontario* (5,300 tons), and *Lake Huron* 5,000 tons) will sail respectively from Liverpool on August 14th and 21st. Passage nine to ten days. These steamers have been built specially for the Atlantic passenger trade. The state rooms are very large, and are well ventilated. The Beaver Line are offering the same terms to the members of the British Medical Association as those which they have granted so the British Association—namely, single fares to Montreal, £10 10s., return fare, £17 10s. Two-berth cabins can be obtained at these rates. Early application will be necessary to secure the best berths.

*The Dominion Line* (Messrs. Richards, Mills, and Co., 24, James Street, Liverpool): The *Labrador* will sail from Liverpool on August 19th. Passage about 9 days. This is a Royal Mail steamer, and sails direct to Montreal. Fares, 10 to 20 guineas, according to the position of sleeping cabin and number of berths in the same, all having equal privileges in the saloon. Cabins for husband and wife about 15 to 20 guineas each berth. Return fares, 5 per cent. off combined outward and homeward fares except at £10 10s. rate, in which no reduction is made. Passengers by this line might arrange to come back by the *Canada* from Boston.

*The Canada:* This splendid new steamer will leave Liverpool for Boston on August 25th, so that passengers by her could not arrive at Montreal before the second day of the meeting. It will return from Boston on September 11th and October 14th. Single fares, £14 to £30.

*The Cunard Steamship Company* (8, Water Street, Liverpool): The *Lucania* will sail from Liverpool for New York on August 21st. This is one of the finest Transatlantic steamers, and her ocean passage occupies about 5½ days. Single fares, £20 to £35. The *Servia*, an older and slower boat, will sail from Liverpool on August 24th. Members travelling by her will arrive in Montreal about the second day of the meeting. Single fares, £15 to £30. The Cunard Line make no reduction in return fares.

*The White Star Line* (Messrs. Ismay, Imrie, and Co., 10, Water Street, Liverpool): The splendid Royal Mail steamer, the *Majestic*, will sail from Liverpool for New York on August 18th. Single fares, £20 to £35. The *Germanic* will sail on August 25th, but passengers by her will not arrive in Montreal before the second day of meeting. Single fares, £15 to £25. The White Star Line make no reduction in return fares.

*The Anchor Line* (Messrs. Henderson Brothers, 47, Union Street, Glasgow): The *Circassian* will sail from Glasgow for New York on August 12th. Single fares, 10 to 13 guineas. The splendid steamer, *City of Rome*, will sail from Glasgow for New York on August 21st. Single fares, £13 10s. to £31 10s. No reduction on return tickets.

*The American Line* (Messrs. Richardson, Spence, and Co., Canute Road, Southampton): *St. Paul* and *St. Louis* will sail respectively on August 14th and 21st from Southampton for New York. Single fares, £20 to £50 and upwards.

*Tabular Statement of Routes and Saloon Fares for Sea Passage.*

| Line. | Destination. | Names of Vessels. | Dates of Sailing. | Dates of Return Sailing. | Single Fare. | Return Fare. | Remarks. |
|---|---|---|---|---|---|---|---|
| Allan, 10, James Street, Liverpool | Montreal | Numidian<br>Carthaginian | Aug. 12<br>„ 19 | Sept. 11, 18, 25<br>Oct. 2, 9, 16, 23, 30 | 10 to 20 gs. | 5 per cent. off combined outward and homeward fares, except at £10 10s. rate | Fares according to the position of sleeping cabins and number of berths in the same, all having equal privileges in saloon. |
| Beaver, Water Street, Liverpool | „ | Lake Ontario<br>Lake Huron | „ 14<br>„ 21 | Sept. 8, 22, 29<br>Oct. 6, 13, 27 | £10 10s. | £17 10s. | Those of your members booking with us taking their wives with them will be entitled to a cabin to themselves for two fares at the aforementioned rates. |
| Dominion, 24, James Street, Liverpool | „ | Scotsmen<br>Labrador | „ 12<br>„ 19 | Sep. 11, 18<br>Oct. 2, 9, 16, 23 | £10 10s. to £21 | 5 per cent. off combined outward and homeward fares, except at £10 10s. rate, on which no reduction is made | Fares according to the position of sleeping cabins and number of berths in the same, all having equal privileges in saloon. |
| „ „ | Boston | Canada | „ 25 | — | £15 to £30 | No reduction | „ „ |
| Cunard, 8, Water Street, Liverpool | New York | Lucania<br>Servia | „ 21<br>„ 24 | Sept. 7, 11, 18, 25<br>Oct. 2, 5, 9, 16, 23, 30 | £20 to £35<br>£15 to £30 | „<br>„ | „ „<br>„ „ |
| White Star, 10, Water Street, Liverpool | „ | Majestic<br>Germanic | „ 18<br>„ 25 | Sept. 8, 15, 22, 29<br>Oct. 2, 9, 16, 23, 30 | £20 to £35<br>£15 to £25 | „<br>„ | „ „<br>„ „ |
| Anchor, 47, Union Street, Glasgow | „ | Circassian | „ 12 | Sept. 11, 18, 25 | £10 10s to £13 13s. | „ | „ „ |
| | | City of Rome | „ 21 | Oct. 2, 9, 16, 23, 30 | £13 10s. to £31 10s. | „ | „ „ |
| American, Canute Road, Southampton | „ | St. Paul<br>St. Louis | „ 14<br>„ 21 | Sept. 8, 15, 22, 29<br>Oct. 6, 13, 20, 27 | £20 to £50 and upwards | „<br>„ | „ „<br>„ „ |

## ROYAL COLLEGE OF PHYSICIANS.

ON Monday, April 12th, in accordance with the Statutes, an extraordinary Comitia of the College was held for the election of President. Dr. SAMUEL WILKS, President, was in the chair.

The PRESIDENT delivered the annual address, in the course of which he took occasion to refer to the matter of professional secrecy. He expressed an opinion adverse to the enactment of any special by-laws or regulations dealing with the subject, mentioning among other reasons the impossibility of drafting any law which would cover every case. The sister professions of the Church and of the Law had no such written regulations. He enumerated then the Fellows who had died during the year, and paid a special tribute to Sir Russell Reynolds, his immediate predecessor in the presidency of the College. He spoke next in appreciative terms of the honesty of purpose and the enthusiasm displayed by Sir George Johnson during the course of his long and distinguished career. Dr. Wilks then gave brief biographical notes of the lives of Dr. Langdon-Down, Dr. George Harley, Dr. Cholmeley, and Sir B. W. Richardson. Of Dr. Edward Ballard's industry, ability, and scientific ardour he spoke in terms of warm praise, and he mentioned briefly Dr. Ralfe, Dr. Child of Oxford, Dr. Wilson of Florence, Dr. J. F. Parry McConnell of Calcutta, Sir Thomas Logan, K.C.B. (formerly Director-General A.M.D.), Dr. Charles Blake, R.N., and Dr. Fearnside of Bournemouth, under whose will the Royal Medical Benevolent College would benefit so largely.

On the motion of Dr. DICKINSON, Dr. Wilks was requested to print his address.

Dr. WILKS then vacated the chair, and the election of President by ballot was held. The Senior Censor, Dr. W. S. CHURCH, having counted the votes, declared that as 79 out of 87 Fellows present had voted for Dr. Wilks, being more than two-thirds of those present, Dr. Wilks was duly re-elected.

Dr. WILKS having resumed the chair and expressed his acknowledgments, moved:

That a loyal address of congratulation be presented to the Queen on the completion of the sixtieth year of Her Majesty's reign in June next.

This was carried by acclamation, and the officers of the College were requested to prepare such an address.

The PRESIDENT stated that Dr. Hale White desired to have permission to deliver his Croonian Lectures on the means by which the temperature of the body is maintained in health and disease in the Examination Hall on the Embankment.

This was agreed to.

Sir Dyce Duckworth and Dr. Lauder Brunton were appointed delegates to the International Medical Congress at Moscow.

The PRESIDENT announced that the College had received from the executors of the late Sir Henry Halford a portrait of his grandfather Sir Henry Halford, G.C.H., President of the College 1820-44, bequeathed to the College. The portrait, which is a half length, is a fine example of the art of Sir Thomas Lawrence. It will be hung in the lower library.

## THE ROYAL COLLEGE OF SURGEONS.

A MEETING of the Council was held on April 8th, at the College, Sir WILLIAM MAC CORMAC in the chair.

The minutes of the ordinary Council on March 11th were read and confirmed.

Messrs. Bennett and Walsham were introduced and admitted members of the Court of Examiners.

The Jacksonian Prize was awarded to Mr. Robert Cozens Bailey for his essay on The Pathology, Diagnosis, and Treatment of Diseases of the Prostate Gland. The selection of a subject for the Jacksonian Prize Essay for 1898 was postponed.

On the recommendation of the special Committee the prize founded by the dental profession in honour of the late Sir John Tomes, F.R.S., was awarded to Mr. Charles Lissmore Tomes, F.R.S., Member and Licentiate in Dental Surgery, for his original and other scientific work in relation to dental surgery, dental anatomy, and histology.

A report was received from the Committee of Management, and the following recommendations were adopted:

The Committee have made inquiries of the teachers of the medical schools, both metropolitan and provincial, and have obtained from them their views on the recommendation of the General Medical Council, in regard to practical midwifery. It appears that though, in a certain number of schools, the teachers are of opinion that the suggested alteration in the certificate is desirable, and can be carried out satisfactorily, in others the teachers consider that the proposed attendance can only be fulfilled in a perfunctory manner; and in a majority of the schools the teachers are of opinion that it would be impracticable to carry out the proposed arrangements. The Committee, therefore, now report to the two Royal Colleges that in their opinion it is not desirable to adopt the alteration in the regulations suggested by the General Medical Council, and they recommend that a reply to this effect be sent to the Registrar of the General Medical Council.

The Committee further recommended that, with regard to certain alterations in the certificates of practical midwifery required for the Final Conjoint Examination, which had been suggested by the General Medical Council, no change in the present regulations of the Conjoint Board be made, and that a reply to this effect be sent to the Registrar of the General Medical Council. The Committee had made inquiries of the teachers of the metropolitan and provincial medical schools, and in a majority of the schools the teachers were of opinion that it would be impracticable to carry out the proposed arrangements.

The following report was received from the Laboratories Committee on the preparation of antitoxic serum, and on the researches in connection with the grant from the Goldsmiths' Company.

1. *The Work on Diphtheria for the Metropolitan Asylums Board.*

Since December 4th the Director has supplied 3 001 doses of antitoxic serum containing 4,000 units each, 125 doses containing 3,000 units each, 350 doses containing 2,000 units each, 300 doses containing 1,500 units each, and 409 doses containing 1,000 units, for the treatment of diphtheria in the hospitals of the Metropolitan Asylums Board, and all the demands have been fully met. During this period 14,028,000 units have been supplied, against 10,074,000 units last quarter, being an increase of 354,000 units.

2. *Researches in connection with the Grant from the Goldsmiths' Company.*

The Director has made the following report on the recent work done under the Goldsmiths' Research Grant, namely:

"Since my last report on the work done in connection with the Honourable Goldsmiths' Company Grant, Dr. Wood has continued his investigations on the production of potent diphtheria antitoxins, and has succeeded by his new method (already reported) in obtaining large quantities of strong antitoxic serums.

"The highest of these serums (800 units c.cm) is much more potent than any that has yet been placed on the market, even in Germany, where the only one that approaches it in strength is that manufactured by Professor Behring, which contains 600 normal units per c.cm.

"The strongest of these serums prepared by Dr. Wood has been supplied to Dr. Sidney Martin at University College Hospital, who reported to the *Lancet*, October 17th, 1896, that he had obtained most remarkable results by its use. In 1894 the percentage death-rate from diphtheria in that hospital was 30. In 1895, the first year in which antitoxin was used, the death-rate had fallen to 28, and in 1896 (September 22nd), when the strong serum was used, to 20.5.

"In Dr. Martin's figures we have additional evidence of the importance of the treatment of diphtheria by antitoxin serum at as early a stage of the disease as possible.

"Dr. Martin also notes that the number of cases of post-diphtheritic paralysis was very small—only three in the whole of the cases that recovered—that not a single case of abscess occurred, and that rashes on the skin and pains in the joints were of very rare occurrence.

"He further notes that no cases proved fatal unless they were severe on admission, and states that the more potent the serum the better will be the results obtained by its use, both as regards immediate effect and as preventing injurious after-effects.

"Dr. T. G. Brodie continues his investigations on the separation of antitoxin from the serum in which it is contained, but as yet has nothing further to report.

"Whilst these investigations have been in progress I have consulted with the various workers, and have inspected and controlled many of the experiments, especially those connected with the determination of the strength of the antitoxin produced. Along with Dr. Wood I have made a large series of experiments on the standardising of test toxin and antitoxin, which, however, are not as yet completed. In addition I have, with the help of the laboratory staff and the gentlemen above mentioned, been able to make numerous improvements in the methods of injecting the horses, of collecting blood, and separating the active serum; of keeping it aseptic; of clearing it by sedimentation; of storing it in bulk and of decanting and distributing it in convenient form for use. Concerning these and other improvements in methods and detail I hope to give a fuller report at a future date. I cannot speak too highly of the fashion in which the investigators under the grant have carried out the work assigned to them."

In fulfilment of one of the conditions of the grant, antitoxin has been supplied to various hospitals in London, as well as to certain medical practitioners.

A grant of £100 was made to the Director of the Laboratories for his valuable services in connection with these researches.

The PRESIDENT stated on behalf of himself and the Vice-Presidents that they recommended the presentation of an address of congratulation to Her Majesty on the celebration of the 60th year of her reign.

The President of the College for the time being was elected as a representative of the College on the Council of the British Institute of Preventive Medicine. The vacancy was caused by the death of Sir Spencer Wells, Bart.

The President and Mr. Jessop were appointed delegates of the College on the International Medical Congress, to be held at Moscoow, in August, 1897.

The honorary medal of the College was presented to Sir James Paget, Bart., and Lord Lister.

Mr. W. A. Meredith was elected to the Fellowship of the College, as a Member of twenty years' standing.

# THE PLAGUE.

## CHRONICLE OF THE EPIDEMIC.

### Bombay Returns.

There is more satisfactory news to report from Bombay, for, according to the telegram of the Secretary of State, the death-rate from plague has fallen considerably. For the week ending April 2nd the deaths as reported in the British Medical Journal of April 10th, numbered 480, whereas the latest authoritative news gives only 368 on April 9th for the preceding week, or an average of 52.5 per day. The detail of cases in Bombay to week ending March 22nd is as follows:

| | Mar. 16. | Mar. 17. | Mar. 18. | Mar. 19. | Mar. 20. | Mar. 21. | Mar. 22. | Total. |
|---|---|---|---|---|---|---|---|---|
| Cases ... | 82 | 69 | 75 | 74 | 43 | 61 | 73 | 478 |
| Deaths ... | 75 | 59 | 73 | 55 | 63 | 60 | 59 | 444 |

### The Scare subsiding in Bombay.

In Bombay the scare is over and people are returning in numbers. Even with this influx, however, not only are the plague returns satisfactory, but the general death-rate from all causes is lower than it has been any time this year. The current belief in Bombay is that the epidemic is over, and confidence is returning. The streets are said to be assuming their usual appearance, although the infected houses are still showing the blue mark which stamps them infected. The fact is that an unfamiliar disease like plague causes a scare out of all proportion to the number of victims it claims. On March 2nd, only 9,969 deaths are recorded in Bombay as arising from plague since the commencement of the epidemic in September, 1896. Had cholera or small-pox swept off a like number little would have been heard of the fact, as it only represents a daily death-rate from the epidemic of 0.15. It is the fact that the plague is an unfamiliar disease, something people are not accustomed to deal with. We have heard of small-pox carrying off 100 a day in many Eastern cities, and not even a procession to the gods being deemed necessary, but small-pox is a daily occurrence and its epidemic recurrence a thing to be expected.

### Precautions in Bombay.

The nature of the work being carried on in Bombay and other places may be gathered from the following narrative published in the *Englishman*:

> The system of house-to-house inspection lately inaugurated by the Special Committee is being attended with excellent results. Many concealed cases are being discovered, and filthily dirty dwellings are being opened, cleansed, and fumigated. This morning the Committee, accompanied by several lady doctors, visited many thickly populated streets mainly occupied by Mohammedans in the proximity of the Null Bazaar. Bearing in mind, doubtless, the disorderly scene witnessed in the neighbourhood of Grant Road on Sunday, the Committee, in conjunction with the Commissioner of Police, made arrangements on an extensive scale to deal with any disturbance of the peace should necessity arise. One hundred men of the Royal Dublin Fusiliers were conveyed from Colaba to the Null Bazaar by special tramcars, while a large body of police were also on the spot. Happily their services were not required, for although close upon 8,000 natives assembled to witness the movements of the Committee, no attempt was made to create a disturbance. The Committee spent the best part of three hours inspecting houses, and discovered in one house an old woman and a boy suffering from the plague, and ordered their removal to hospital. The former died before she could be removed, and the latter was safely conveyed to hospital. Several houses were found to be locked. They were opened and seemed to be in a horribly filthy state, and were promptly cleansed and disinfected. Some occupants of houses confessed to have been misled by budmashes as to the object of the Committee in visiting dwellings. Now they understood it to be for their good, and would, if sick, go to the hospitals to which the Sircar might be pleased to send them.

### Poona.

At Poona the epidemic has in all probability attained its maximum. The British soldiers employed in the house-to-house visitation by their careful search send up the new cases by leaps and bounds, as will be noticed in the subjoined list, where as many as 64 new cases were found in one day, and only 10 deaths recorded.

| | Mar. 15. | Mar. 16. | Mar. 17. | Mar. 18. | Mar. 19. | Mar. 20. | Mar. 21. | Total. |
|---|---|---|---|---|---|---|---|---|
| New cases | 40 | 38 | 28 | 64 | 59 | 24 | 54 | 307 |
| Deaths ... | 29 | 21 | 13 | 10 | 33 | 37 | 30 | 173 |

We are glad to be able to state that Surgeon-Major Donnett left the hospital on March 21st quite convalescent. The soldiers in Poona, it is stated, are carrying out their work without opposition; complete quiet reigns in the city. The search made is rigid, and the whitewashing and cleansing are rigorously carried out. Emigration has now set in from Poona to Bombay, affording a certain gauge of the state of the outbreak in these two cities at the present moment: 101 cases were in hospital on March 22nd. From Karachi (Sind) telegraphic reports declare a subsidence, but the latest newspapers to hand are anything but pleasant reading. "Driving through the Sirdar one cannot but be struck by its deserted appearance. Block after block of bazaars and houses are almost entirely closed. The bazaar is scrupulously clean, yet cases occur occasionally. Numbers of beef butchers have left Karachi. The trade in cottons continues, and such import trade as was arranged for before the outbreak of plague. Merchants murmur at the veto laid on hides, the hides coolies having enjoyed almost an immunity from plague."

### Haffkine's Treatment.

Haffkine's treatment is reported to be very popular throughout the entire Presidency. In Bombay city up to April 2nd 4,769 persons were inoculated; in Poona, 487; Bubar, 273; Karachi, 187; Surat, 70; Thana district, 171; Kolaba district, 180.

### Sukkur.

Sukkur, where plague is reported to be prevalent at present, is the most important town in Upper Sind, although its population is less than Shikarpoor. According to the census of 1891 the population of Sukkur was 28,935; the birth-rate was about 40, and the death-rate 26, per 1,000.

The town is situate on the right bank of the Indus, opposite Rohri, with the island of Bukkur lying between them. Th low range of limestone on which it is built slopes down to th river bank, which on both sides is clothed with luxurian groves of date-palm trees, and forms an exceptionally picturesque landscape if viewed from the top of the minaret.

One of the triumphs of modern engineering skill is to be seen here in the huge iron railway bridge that spans the Indus through the island fort of Bukkur, a limestone rock interspersed with flint, of an oval shape, 800 yards long and about 300 yards wide, ceded to us by the Khyrpoor Ameers in 1839. It formed the principal arsenal in Sind during the first Afghan campaign.

Barracks for a European regiment were constructed in 1843, but abandoned in 1845 when the 78th Highlanders were decimated by sickness there.

Sukkur is now, however, on the whole, one of the healthiest towns in Sind. The intense dazzling glare and great heat reflected from the limestone rocks are very trying, but the nights in the hot season are pleasantly cool when the breeze, which blows up the river, begins about 9 P.M. and continues till morning, which enables Europeans to enjoy refreshing sleep in the open air.

To have any idea of tropical heat one should spend a hot weather season in Upper Sind, and record his experiences afterwards. Punkas and thermantidotes day and night are indispensable, and some people have been known to wet their sheets and pillows, and plunge themselves in a tub of cold water more than once during the night to procure sleep.

The water supply is pumped from a well sunk on the bank of the river to a tower on the highest point of the

plateau, in which it is allowed to settle before distribution. Indus water contains much suspended matter, which rapidly subsides on standing, or is easily cleared by a solution of alum, but as a rule natives prefer drinking it muddy as it flows in the river or canals. The drainage, however, is the great difficulty, as is the case in all Indian towns. A system of open gutters worked well in a part of this town a few years ago, but a deep covered-in main drain was a source of trouble and danger, especially during the inundation season. The house tops are used as latrines, according to the time-honoured habits of the people, which take time to change. Overcrowding also exists to a dangerous extent in some quarters both of new and old Sukkur. Cholera used to prevail in the low-lying locality where the railway labourers are housed; and as regards conservancy there is division of responsibility, as the railway authorities have been permitted to maintain an establishment of their own not under the control of the municipality, which was pointed out to them as a mistake, but ignored in the usual way like all sanitary suggestions.

KARACHI.

The statistics for the week ending March 18th, 1897, are as follows: The ratio of deaths from all causes was 145.10, as compared with a ratio of deaths from all causes for corresponding weeks of preceding five years (mean) of 33.89.

The death-rate by quarters, from all causes, was highest in the following quarters:

| | | |
|---|---|---|
| Lyari Quarter | ... ... ... ... ... | 314.83 |
| Runchove ,, | (includes Plague Hospital deaths) | 432.16 |
| Keamari ,, | ... ... ... ... ... | 273.46 |
| Garden ,, | ... ... ... ... ... | 158 54 |

In all the other affected quarters the death-rate from all causes was below 100. In Muchi Meani and Napier Quarters, when the plague incidence was originally most severe, the general death-rate has gone down to 33.52 and 15.42 respectively.

The death-rate from plague for the week ending March 18th, for the whole town was 99.03; 243 cases and 187 deaths were reported, bringing the totals (from the day of onset, December 10th, 1896) up to 2,684 cases and 2,306 deaths.

The cases by caste were: Mussulmans, 162; Hindoos, 81.

The cases by sex were: Males, 152; females, 91.

The deaths by caste were: Mussulmans, 122; Hindoos, 65.

The deaths by sex were: Males, 118; females, 69.

The above figures show a diminution both of cases and deaths, in all parts of the town.

The Governor of Bombay (Lord Sandhurst) visited Karachi on March 20th, and made a rapid inspection of the town and its surroundings, and the preventive and other measures in force. He gave orders for the formation of a central Plague Committee which, under the Commissioner in Sind, was to have absolute powers in dealing radically with the epidemic under Act III of 1897 (Epidemic Diseases Act). The Committee selected by the Governor for this duty is composed as under: Brigadier-General J. A. Cooke (Chairman); R. Giles, M.A., Collector of Karachi; Surgeon-Captain H. C. Arnim, D.P.H., Deputy Sanitary Commissioner. The Committee may add a fourth member, if deemed necessary. The Committee is to take over the executive duty of all measures necessary for dealing with the epidemic, and replaces the executive of the municipality.

## LITERARY NOTES.

THE Master of Downing, Dr. Alex Hill, has, it is stated, written a book entitled *Round the British Empire*, which will be published shortly.

We have received the first part of the German-English portion of the *Encyclopædic Dictionary of the English and German Languages*, edited by Professor Ed. Muret and Professor Daniel Sanders (Messrs. Grevel and Co., King Street, Covent Garden). It is claimed by the publishers that this is the fullest and most complete dictionary of its kind, and a comparative table of figures relating to the number of words given in various well-known dictionaries, English and German, appears to bear out this claim. We can testify from actual experience that the work is clearly arranged, and reference is facilitated by typographical devices at once simple and distinctive. The pronunciation is clearly indicated. In the definitions of chemical terms the formulæ are given. The type in which the dictionary is printed is somewhat small, but for its size it is remarkably distinct. To students with average visual acuity we can recommend the work.

The March number of the *St. Thomas's Hospital Gazette*—which, be it said in passing, is an excellent specimen of its class, and which being now in its seventh volume, has successfully passed through the most dangerous period of journalistic infancy—contains the following remarkable example of epistolary composition. Readers will have no difficulty in identifying the "medical gentleman" designated "Mr Mack comic," and the general purport of the letter will easily be gathered through the mist of the cryptographic spelling:

To A Medical
gentleman at
Saint Tomies
Horspitel
West Minester
Bridge Road
London

Dir Sir

Just a few lines letting you now my bisness i was in this Horse pitle About 16 years ago and Recive greate atention i Sufered with Stone in the blader i had to go under a operation Mr Mack comic was my Medicle gentleman a very tall built gentleman i am glad to say i am Still all Rite but my Hargument is i am more a Hurbless And under stand a little bit about the umon body i have got a Remedy Which as never been Expose to the public Only to Working man i New which had the same complaint as i had and that was a stone in the Blader i gave him some powders to last him About 3 Weeks he use one Every Morning in his tea and the same at tea time and the same with the Other man and i can safley say that thease powders did Resolve or Melt the stone in the Blader and i am happy to say that they are all Rite and as happy as a sand boy wonce they were dull and low spirited Now Sir i am asking you kindley a little bit advice about this i am Only a por man i am willing to do every working man or gentleman every good but Not harm this Remedy i do not think it ought to be covered Over and the World not to know every think About it it is worth some think it is Only hurbes but not Murkley i should like to have a Ancer i can Not menchin Aney medical gentleman because i do not now one onle Mr. Mack comic so i Now close

&c.

Some interesting details as to the manufacture of theses for the doctor's degree in German universities in the last century and at the beginning of the present one are given by Dr. G. Fischer, in his historical study, entitled *Surgery One Hundred Years Ago*, a translation of which is now appearing in *The Journal of the American Medical Association*. At many universities the professors found the writing of theses for candidates a profitable monopoly. The *Reichsanzeiger* in 1802 gave a description of the state of things then prevailing, from which it appears that the student himself chose those who were to oppose his thesis, and carefully rehearsed the performance with them beforehand, special attention being given to the quantities of the Latin words. As for the thesis, it could be bought, as sermons still are in this country; all the candidate had to do was to follow Iago's precept, and put money in his purse. In each university there was a regular factory in which "eminent hands," medical and scholarly, combined to supply theses on all imaginable subjects. In the production of these wares, due regard was paid to the traditions of the university or the prejudices of the professors, and the candidate's own particular taste in the matter of systems — Brunonian, Hufelandian, or what not—was catered for. There were theses of different qualities, according to price. A common article in bad Latin, giving a brief incomplete description of a disease without any display of erudition, could be had for four pistoles. Every university had a stock of these. For eight pistoles a somewhat better article could be had, but the Latin was still indifferent. For sixteen pistoles a thesis dealing with some subject of the day in good Latin could be bought. The highest quality cost from twenty-four to thirty-six pistoles. This was written in "Ciceronian" Latin, and was warranted to contain the newest things in medical terminology, and even new ideas, with an imposing show of learning; even drawings might be thrown in. This superior article was mostly procured from Halle; it was not, however, in great demand, being probably too costly for most candidates. Anyone wishing to purchase a thesis had simply to indicate the quality required and the university where the thesis was to be presented, at the same time remitting the price and the amount of the postage. Orders were attended to with punctuality and despatch, and strict secrecy was guaranteed. As large stocks of theses were kept on hand, the customer had no difficulty in selecting one suited to his purpose.

## ARCHÆOLOGICA MEDICA.

### XXIX. ARNALD OF VILLANOVA, THE MYSTIC PHYSICIAN.

Dr. Lalande[1] has recently done good service by drawing attention to the history of Arnald of Villanova, one of the few great medical names which emerge from the mass of ignorance and credulity marking the thirteenth century in Europe. Born in Provence, probably at Villeneuve-Loubet, in the arrondissement of Grasse, at some time between 1235 and 1240, Arnald was the son of a poor family called Bachuone or Bachinone. He was educated by the Dominicans, and perhaps practised medicine for a time in his native town. He went to Aix when he was about 20, and thence to Paris, where Roger Bacon, Albertus Magnus, [St.] Thomas à Becket, and Peter d'Apono were then teaching philosophy. Here he studied for ten years, taking the degree of Master of Arts in the university—a degree which required that its recipient should be at least 35 years of age and should have studied for eight years. Arnald left Paris, and went to Montpellier, then the centre of Arabic medicine; from Montpellier he travelled into Spain, where he lived from 1280 to about 1286, acting for a short time as principal physician at the Court of Aragon. From Spain he migrated to Italy, where he became better acquainted with the Aristotelian tenets of the North Italian universities and with the Pythagorean doctrines of Padua and Naples. In Italy he knew and perhaps taught Raymond Lully, and he laid the foundation of his reputation as an alchemist and mystic.

He returned to Montpellier in 1289, and it was partly owing to his teaching that the school obtained the very high reputation it held amongst the mediæval universities. Here, however, his tenets soon involved him in difficulties with the religious orders. Fifteen charges were brought against him. He had dared to say that the papal bulls were of purely human origin, that only those would be damned who set a bad example, that works of mercy were as pleasing to God as the sacrifice on the high altar, and that the founding of churches and of perpetual masses would not prevent the founder from incurring everlasting damnation if he had not charity. The conflict ended in the imprisonment of Arnald at Paris, and in the burning of his books. The intervention of powerful friends, amongst whom was Gilles Aycelin, Archbishop of Paris, soon procured him his liberty, and in 1301 he left France for Italy. Three years later he was at the papal court of Benedict XI, after whose death he lived for some years in Sicily, acting partly as physician and partly as adviser to King Ferdinand, the brother of James, King of Aragon. In 1308 he was again in the papal court, now held at Avignon, for Clement V issued a Bull, dated September 8th, in favour of the faculty of medicine at Montpellier, which shows that Arnald was high in his favour. He was also entrusted with a political mission from Frederick, King of Sicily, to Robert, King of Naples and Count of Provence. The mission failed, but it brought Arnald to Naples, where under the Royal protection he and Lully continued their alchemical work in peace. From Naples he returned to Paris in 1311, passing through Avignon on his way, but declining the offer of Clement V that he should become his chief physician. Religious difficulties in Paris, and the fear of the Inquisition, soon caused him to travel back to Palermo, and during the voyage he was wrecked on the coast of Africa. Eventually he arrived in Sicily, where he occupied himself in writing his commentary upon the *Schola Salernitana*, but in 1313 Clement V again sent for him to cure a fit of the gravel. The great physician started for Avignon, but died off Genoa, and was buried in the town where Van der Linden (1609-1664) says that his tomb was still to be seen.

Arnald was a remarkable man, in many ways so far in advance of his time that it is not surprising his enemies told the wildest stories about him. It was said that he boasted of being able to make a man by chemical means, and that when he saw the embryo shaping itself in his alembic, with all its limbs and organs, he stopped the experiment lest God should be obliged to give a reasoning soul to his creature. As a matter of fact, and judged by his writings, Arnald was a careful physician, paying more attention to physical signs in his diagnosis than was usual with his contemporaries, deeply versed in chemistry, and somewhat inclined to employ the science in medicine. That he was a profound astrologer and a seeker after the philosopher's stone cannot be doubted. Lully indeed says that he was one of the very few who learnt the great secret, but Arnald would probably have disclaimed such success, or would have interpreted it in a mystical sense. His philosophical labours led him to add a fifth to the four principles of the Pythagorean doctrine which Dryden has summed up for us in the lines:

> Then Hot and Cold and Moist and Dry, in order to their stations leap,
> And Music's power obey.

Arnald introduced the idea of the spirit of Vital Principle—the quintessence—which became so notable a factor in the speculation of the later Mystics. Totally ignorant of anatomy, he appears to have worked in the physical as well as in the chemical laboratory, and he did good service by defending observation against authority, and experimental proofs against the *a priori* reasoning which had hitherto prevailed. His chemical labours entitle him to be looked upon as one of the fathers of chemical medicine, and we owe to him the introduction, but not the discovery, of alcohol and of medicated wines and tinctures into the *Pharmacopœia*. In pathology he tried to found a science, and he has left an interesting treatise on the hygiene of camps which may still be read with profit.

[1] *Thèse de Paris*, 1896, No. 135

## DEATHS UNDER ANÆSTHETICS.

### Chloroform.

On April 3rd in the City Coroner's Court, Liverpool, an inquest was held on the body of Margaret Clements, laundress, aged 32, who had for some months been an inmate of the workhouse. She was suffering from endometritis, and Dr. Alexander proposed curetting the uterus. Dr. W. T. Allen, the resident medical officer to the parish infirmary, administered the anæsthetic and examined the heart before beginning, but could detect nothing abnormal. Chloroform was given by means of an ordinary inhaler. The patient's respiration and pulse were quite regular, but when about thirty drops of the anæsthetic had been given she commenced to struggle, and immediately afterwards was found to be in a state of syncope. Artificial respiration was resorted to, but the patient never recovered. Dr. Alexander, who made the necropsy, found fatty degeneration of the walls of both ventricles and of the pulmonary valve, and also some old adhesions in the brain.

The Deputy Coroner for Manchester held an inquest on March 22nd, regarding the death of Annie Carty, aged 23, who died on March 18th at St. Mary's Hospital. The evidence showed that the deceased, who was a domestic servant, had been admitted an in-patient for the purpose of undergoing an operation, when chloroform was administered in the usual manner. In two minutes, before sufficient time had elapsed for the patient to be "under," the heart ceased to beat, and all efforts to restore animation were unsuccessful, although there were several small respiratory gasps after that time.

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Royal Commission on Tuberculosis.—Sittings of the Royal Commission on Tuberculosis were held at 7, Whitehall Place on April 8th and 9th, Sir Herbert Maxwell, M.P., being in the chair. The other Commissioners present were Dr. R. Thorne Thorne, C.B., F.R.S., Professor G. T. Brown, C.B., Mr. Shirley F. Murphy, Mr. T. Cook-Trench, and Mr. J. Speir. Evidence was heard from the following gentlemen: Dr. Smyth, Medical Officer of Naas Dispensary District, as to the subject of tuberculosis in the small towns and rural districts of Ireland; Mr. Thomas Nuttall, representing the Central and Associated Chambers of Agriculture, as to his experience of the prevalence of the disease in the district of Leicestershire; Mr. J. Lang and Mr. Scarlett, of the Paisley United Fleshers' Society, as to the action of the local authority in condemning carcasses affected with tuberculosis, and the system of insurance adopted by the butchers to protect themselves from the losses sustained in consequence of such action; and Mr. J. Bell, President of the Carlisle and District Butchers' and Insurance Association as to similar action in Carlisle.

Successful Vaccination.—Mr. Oded Lowsley has received the Government grant for efficient vaccination in the Reading district.

# BRITISH MEDICAL ASSOCIATION.

## SIXTY-FIFTH ANNUAL MEETING.

Notice is hereby given that the Sixty-Fifth Annual General Meeting of members of the British Medical Association, for the transaction of business, the consideration of Reports of Council and Committees, will be held in the Exeter Hall, London, on Tuesday, the 27th day of July next, at 11.0 o'clock in the forenoon. The meeting will be adjourned to August 31st, to be held at Montreal, for the scientific business of the meeting, Reading of Addresses, Meetings of Sections, etc.

Francis Fowke, *General Secretary.*

April, 1897.

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The adjourned annual meeting of the British Medical Association will be held at Montreal on Tuesday, Wednesday, Thursday, and Friday, August 31st, September 1st, 2nd, and 3rd, 1897.

*President.*—Henry Barnes, M.D., Physician to the Cumberland Infirmary, Carlisle.

*President-Elect.*—T. G. Roddick, M.D., Professor of Surgery in McGill University, Montreal.

*President of the Council;* Robert Saundby, M.D., F.R.C.P., Physician to the General Hospital, Birmingham, 83a, Edmund Street, Birmingham.

*Treasurer:* Charles Parsons, M.D., Dover.

An Address in Medicine will be delivered by W. Osler, M.D., F.R.C.P., Professor of Medicine in the Johns Hopkins University, Baltimore, U.S.A.

An Address in Surgery will be delivered by William Mitchell Banks, F.R.C.S., Surgeon to the Liverpool Royal Infirmary.

An Address in Public Medicine will be delivered by Herman M. Biggs, M.D., Director of the Bacteriological Laboratory of the Health Department, New York City.

The Scientific Business of the Meeting will be conducted in Eleven Sections, as follows, namely:

### A. Medicine.

*President:* Stephen Mackenzie, M.D., London. *Vice-Presidents:* J. E. Graham, M.D., Toronto; W. Bayard, M.D., St. John, N.B.; J. P. Rottot, M.D., Montreal: F. W. Campbell, M.D., Montreal; James Stewart, M.D., Montreal; H. P. Wright, M.D., Ottawa. *Hon. Secretaries:* H. A. Lafleur, M.D., Montreal; W. F. Hamilton, M.D., Montreal; William Pasteur, M.D., 4, Chandos Street, Cavendish Square, London, W.

### B. Surgery.

*President:* Christopher Heath, F.R.C.S., London. *Vice-Presidents:* Sir William Hingston, M.D., Montreal; Hon. M. Sullivan, M.D., Kingston, Ontario; Hon E. Farrell, M.D., Halifax, Nova Scotia; I. H. Cameron, M.D., Toronto; F. le M. Grasett, M.D., Toronto; James Bell, M.D., Montreal; George E. Armstrong, M.D., Montreal. *Hon. Secretaries:* Robert C. Kirkpatrick, M.D., Montreal; Thomas Walker, M.D., St. John, N.B.; Jordan Lloyd, F.R.C.S., Broad Street, Birmingham.

### C. Public Medicine.

*President:* E. P. LaChapelle, M.D., Montreal. *Vice-Presidents:* F. Montizambert, M.D., Quebec; Robert Craik, M.D., Montreal; P. H. Bryce, M.D., Toronto; Sir James Grant, Ottawa; R. H. Powell, M.D., Ottawa. *Honorary Secretaries:* Wyatt Johnston, M.D., Montreal; E. Pelletier, M.D., Montreal; Harvey Littlejohn, M.B., C.M., Surgeons Hall, Edinburgh.

### D. Obstetrics and Gynæcology.

*President:* William Japp Sinclair, M.D., Manchester. *Vice-Presidents:* William Gardner, M.D., Montreal; James Perrigo, M.D., Montreal; J. A. Temple, M.D., Toronto; J. C. Cameron, M.D., Montreal; T. Johnston Alloway, M.D., Montreal; James Ross, M.D., Toronto. *Honorary Secretaries:* D. J. Evans, M.D., Montreal; W. Burnett, M.D., Montreal; Arthur E. Giles, M.D., 58, Harley Street, Cavendish Square, London, W.

### E. Pharmacology and Therapeutics.

*President:* D. J. Leech, M.D., Manchester. *Vice-Presidents:* A. D. Blackader, M.D., Montreal; James Thorburn, M.D., Toronto; C. R. Church, M.D., Ottawa; J. B. McConnell, M.D., Montreal; F. J. Austin, M.D., Sherbrooke; Walter George Smith, M.D., Dublin. *Honorary Secretaries:* F. X. L. de Martigny, M.D., Montreal; J. R. Spier, M.D., Montreal; Charles Robertshaw Marshall, M.B., Pharmacological Laboratory, Downing College, Cambridge.

### F. Pathology and Bacteriology.

*President:* Watson Cheyne, F.R.C.S., F.R.S., London. *Vice-Presidents:* J. G. Adami, M.D., Montreal; J. Caven, M.D., Toronto; J. Stewart, M.D., Halifax; J. C. Davie, M.D., Victoria, B.C.; L. C. Prevost, M.D., Ottawa; M. T. Brennan, M.D., Montreal. *Honorary Secretaries:* W. T. Connell, M.D., Kingston, Ontario; C. F. Martin, M.D., Montreal; Rubert W. Boyce, M.B., University College, Liverpool.

### G. Psychology.

*President:* R. M. Bucke, M.D., London, Ontario. *Vice-Presidents:* D. Clarke, M.D., Toronto; T. J. Burgess, M.D., Verdun, Quebec; A. Vallee, M.D., Quebec; G. Wilkins, M.D., Montreal. *Honorary Secretaries:* J. V. Anglin, M.D., Montreal; George Villeneuve, M.D., Montreal; J. G. Blandford, M.R.C.S., D.P.H., London County Asylum, Banstead, Sutton, Surrey.

### H. Ophthalmology.

*President:* Edward Nettleship, F.R.C.S., London. *Vice-Presidents:* F. Buller, M.D., Montreal; R. A. Reeve, M.D., Toronto; Ed. Desjardins, M.D., Montreal; A. A. Foucher, M.D., Montreal. *Honorary Secretaries:* W. H. Smith, M.D., Winnipeg; Jehin Prume, M.D., Montreal; Thomas Herbert Bickerton, M.R.C.S., 88, Rodney Street, Liverpool.

### I. Laryngology and Otology.

*President:* Greville Macdonald, M.D., London. *Vice-Presidents:* W. Tobin, M.D., Halifax; G. A. S. Ryerson, M.D., Toronto; H. S. Birkett, M.D., Montreal; G. R. McDonagh, M.D., Toronto. *Honorary Secretaries:* A. Chretien, M.D., Montreal; H. D. Hamilton, M.D., Montreal; W. Permewan, M.D., 7, Rodney Street, Liverpool.

### J. Anatomy and Physiology.

*President:* Augustus D. Waller, M.D., F.R.S., London. *Vice-Presidents:* F. Shepherd, M.D., Montreal; A. B. Macallum, M.D., Toronto; T. Wesley Mills, M.D., Montreal; A. Primrose, M.D., Toronto; J. B. A. Lamarche, M.D., Montreal; D. B. Fraser, M.D., Stratford, Ontario. *Hon. Secretaries:* J. M. Elder, M.D., Montreal; W. S. Morrow, M.D., Montreal; Robert Hutchison, M.D., Physiological Laboratory, London Hospital Medical College, Turner Street, Mile End, E.

### K. Dermatology.

*President:* Malcolm Morris, F.R.C.S.Ed., London. *Vice-Presidents:* J. E. Graham, M.D., Toronto; F. J. Shepherd, M.D., Montreal; J. A. S. Brunelle, Montreal; G. L. Milne, M.D., Victoria, B.C. *Hon. Secretaries:* Gordon Campbell, M.D., Montreal; J. M. Jack, M.D., Montreal; James Galloway, M.D., 54, Harley Street, Cavendish Square, W.

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### Programme of Proceedings.

Tuesday, August 31st, 1897.

10 A.M.—Cathedral Service.
11.30 A.M.—Windsor Hall: Opening Ceremonies. Address by the President-elect, Dr. T. G. Roddick.
2.30 P.M.—Windsor Hall: Address in Medicine by Dr. W. Osler.
4 P.M.—Garden Parties, etc.
9 P.M.—*Soirée* at Laval University.

Wednesday, September 1st, 1897.

10 A.M.—McGill University: Opening of Sections.
3 P.M.—Windsor Hall: Address in Surgery by Mr. T. Mitchell Banks.
4.15 P.M.—Excursion down the St. Lawrence; Garden Parties, etc.; Golf Match, etc.
9 P.M.—Reception at City Hall or at Sollmer Park.

Thursday, September 2nd, 1897.

9.30 A.M.—McGill University: Sectional Meetings.
3 P.M.—Windsor Hall: Address in Public Medicine by Dr. Herman M. Briggs.
4.30 P.M.—Excursion across the Island, etc.
7.45 P.M.—Annual Dinner of the Association, Windsor Hotel.

Friday, September 3rd 1897.

9.30 A.M.—McGill University: Sectional Meetings.
1.30 P.M.—Lunch on the Mountain.
3.30 P.M.—Windsor Hall: Concluding General Meeting.
4 P.M.—Excursion down the Lachine Rapids; Garden Parties, etc.
9 P.M.—*Soirée* at McGill University.

Saturday, September 4th, 1897.

Excursions to Ottawa, Ste Agathe, and Montagne Tremblante, etc.

## ANNUAL MUSEUM.

### Regulations Regarding Exhibits.

1. Communications on general matters connected with the Museum and applications from intending exhibitors should be addressed to the Honorary Secretaries, Drs. J. W. Stirling or J. M. Jack, 2204, St. Catherine Street (British Medical Association Rooms).

2. Applications for space must be in the hands of the Secretaries before July 25th, accompanied with a brief descriptive account of each exhibit for insertion in the Museum Catalogue. Information of the allotment of space will be furnished as promptly as possible, and on receipt of cheque for the cost of such space, a card for the admission of the exhibit will be forwarded.

3. All cheques to be made payable to J. W. Stirling, M.B.

4. All exhibits should be directed to the British Medical Museum, Victoria Skating Rink, Drummond Street, Montreal, Canada, with the name of the Section for which they are intended. Packages must also be addressed to a firm's representative at the Museum.

5. Exhibits must be delivered between August 27th and 28th; they must each bear a card indicating the name and address of the exhibitor: they must be arranged in their allotted space before 2 P.M. on August 28th, and it is desirable that they be not removed till September 6th.

6. Signs or placards must be so arranged as not to interfere with adjacent exhibits: on the central tables no sign or placard must reach higher than 2 feet 6 inches from the table.

7. The Committee will not be responsible for any risks or expenses incurred; they reserve discretionary power to exclude any exhibit they may consider unsuitable; they will only receive exhibits conditionally upon strict compliance with the foregoing regulations, and in all matters of doubt and difficulty their decision shall be final.

8. The Museum Committee or its representatives must be recognised as being in full control of the exhibition building and its management.

Tables occupying the centre of the Hall, and other prominent positions, are to be let by private tender; other tables varying in charges from 4s. to 2s. per square foot. Certain floor space will be let at 1s. per square foot.

# ASSOCIATION INTELLIGENCE.

## NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1897.

Meetings of the Council will be held on July 7th and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 17th and September 30th.

### Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M., Saturdays, 10 A.M. to 2 P.M. Members can have their letters addressed to them at the office.

## BRANCH MEETINGS TO BE HELD.

Dundee and District Branch.—The annual meeting of the Branch will be held in University College, Dundee, on Friday, May 7th, at 3 P.M., for the election of office-bearers for 1898, and other business. There will be a clinical congress at 4 P.M., in which it is hoped that the Edinburgh and Perthshire Branches may co-operate as on former occasions. Full information as to cases and specimens to be exhibited should be sent to the Honorary Secretary on or before April 26th. Only such cases as have some features that can be demonstrated should be selected. A museum for preparations, casts, photographs, etc., will be arranged.—R. C. Buist, M.D., Annfield House, Dundee, Honorary Secretary.

South-Eastern Branch: East Sussex District.—The next meeting of this District will take place at Hastings on May 13th, Mr. E. Kaye Smith in the chair. Notice of communications should be sent to the Secretary before the end of April.—J. W. Batterham, Bank House, Grand Parade, St. Leonard's, Honorary Secretary.

Gloucestershire Branch.—The next meeting of this Branch will be held at the General Hospital, Stroud, on Tuesday, April 20th, at 7 P.M., under the presidency of Mr. W. R. Buckell. Agenda: Mr. A. S. Cooke: Notes on some Cases of Hernia. Mr. F. W. Storry: A Case of Abdominal Section for Ruptured Tubal Pregnancy. Cases of interest in the hospital will be shown. There will be supper afterwards at the Imperial Hotel, Stroud, at 9 o'clock.—S. T. Pruen, Sherborne Lodge, Cheltenham, Honorary Secretary.

Oxford and District Branch.—The next meeting of this Branch will be held at the Radcliffe Infirmary on Friday, April 30th, at 3.15 P.M. Gentlemen intending to read papers or show cases are requested to give notice to the Secretary, W. Lewis Morgan, 37, Broad Street, before April 21st.

North of England Branch.—The spring meeting will be held at the Sunderland Infirmary, on Thursday, April 29th, at 4.30 P.M. Business: Medical Defence. Mr. Williamson will again move the resolution which was unanimously carried at the spring meeting last year: "That in the opinion of this Branch it is not desirable that the British Medical Association should undertake the medical defence of its members." The Physicians and Surgeons to the Sunderland Infirmary will show patients and exhibit specimens. Dr. Murphy: (1) Patient after two Colotomies, Lithotomy, and some minor operations; (2) Patient six years after Hysterectomy for Malignant Disease: (3) Patient nine years after removal of Breast for Carcinoma: (4) Patients from the wards and specimens from the museum. Dr. Robinson: (1) Cases from the wards; (2) Cases illustrating some of the Diseases of the Eye: (3) Heart from a case of Chronic Indurative Mediastino-Pericarditis: (4) Tuberculous Pericarditis, from a case of recent general tuberculosis; (5) Aneurysm of transverse portion of Arch of Aorta: (6) Notes of a case of Gangrenous Pancreatitis, with Hæmorrhages and Fat Necrosis. The dinner after the meeting will take place at the Grand Hotel, Sunderland, at 6 P.M.; 6s. 6d. each, wine not included.—G. E. Williamson, F.R.C.S., 8, Eldon Square, Newcastle-on-Tyne, Honorary Secretary.

## SOUTHERN BRANCH: SOUTH WILTS DISTRICT.

A meeting was held at Warminster on April 7th; Mr. Luckham, President, in the chair.

*Clinical Demonstrations.*—The President proposed that clinical demonstrations should be instituted supplementary to the ordinary meetings. This was carried unanimously.

*Communications.*—Mr. Harcourt Coates read a paper on Certain Cases of Injury of the Head, which it is hoped to publish at an early date.—Mr. F. Fawson Lee showed a new form of Chloroform Inhaler (Krohne and Sesemann). A good discussion on the relative merits of the different ways of administering chloroform followed the demonstration.—Mr. Kelland read Short Notes on Scarlatina, from the point of view of a medical officer of health. The paper dealt principally with the question of closing schools and prohibiting the sale of milk from dairies, the author maintaining that the authorities often went beyond their legal powers.—Dr. Morrice read notes of two cases: (*a*) Scleroderma, (*b*) Pachymeningitis.—Mr. Straton opened a discussion on Neuralgia.

*Dinner.*—After the meeting, eighteen members of the district dined together at the Bath Arms Hotel.

## SOUTH INDIAN BRANCH.

A MEETING of this Branch was held at Madras on May 1st, 1896, Surgeon-Major DONALD F. DYMOTT, M.B., in the chair.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Mycetoma of Neck.*—Surgeon-Major SMYTH exhibited a Hindu merchant from Trichinopoly, 35 years old, suffering from mycetoma of the neck. The neck was some 22 inches in circumference and of a brawny hardness. It was studded over with livid blebs which on puncture were found to contain pus and many roe-like bodies, and to lead by tortuous sinuses towards the spinal column. The author opened all the blebs and scraped out the sinuses communicating with them, evacuating many hundreds of roe-like bodies. He then injected the sinuses under pressure with an emulsion of iodoform in glycerine. Improvement set in at once, so that in about three weeks the tenderness had disappeared, the hide-bound skin had grown soft and movable, and the patient was able to rotate the head a little. He then left the hospital promising to return, but failed to do so. The microscopic appearances of the roe-like bodies were exactly like those depicted in Carter's work on Mycetoma. This was the first recorded case of a primary mycetoma of the neck.

*The Cold Method of Treatment in certain Diseases, with Three illustrative Cases.*—Surgeon-Captain GRANT read a paper on this subject. These were sunstroke, acute lobar pneumonia in an advanced stage, and acute lobar pneumonia in a comparatively early stage. Recovery took place in all three.—Surgeon-Lieutenant-Colonel G. L. WALKER's experience had led him to attach much importance to the treatment by cold immersion of those cases of obstinate and dangerous pyrexia due to disordered innervation, such as occurred in insolation, and in infants during teething; recently he had in practice a case of obstinate and high fever in an infant seven months old, due to nervous irritation from cutting several teeth; the temperature reached 105°; diaphoretics and antipyretics, including phenacetin and antipyrin, were exhibited without result; he then tried immersion to the neck in the cold bath with successful result. In sunstroke also, where the nerve centres were much impressed, he had seen excellent results from cold immersion frequently repeated. He had no experience of this method in pneumonia.—Surgeon-Captain A. E. GRANT, in reply, said he was glad to find that all the speakers agreed with him as to the value of the "cold" treatment.

*The First Skiagraph taken in the East.*—Surgeon-Major SMYTH exhibited a skiagraph sent by Surgeon-Major VANGEYZEL. It was believed to be the first skiagraph made in the East. It showed the metacarpal bone of the thumb, which had been amputated, also the metacarpal bone and part of the proximal phalanx of the first finger of the right hand. The operator had left a portion of the base of the proximal phalanx of the thumb. One of the sesamoid bones was also clearly distinguishable.

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A MEETING was held on May 29th, Surgeon-Lieutenant Colonel W. R. BROWNE, M.D., in the chair.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Evisceration of the Eyeball.*—Surgeon-Captain ELLIOT read a paper entitled Forty-two Cases of Evisceration of the Eyeball. Of the 42 operations 29 were cases of suppurating eyeball, and in 7 of these sloughing of the sclerotic followed; 5 were cases of obstinate glaucoma with loss of sight, sloughing occurred in 2; 6 were cases of wound of eyeball, all did well; 8 were cases of anterior staphyloma, all did well; 1 case of shrunken ball did well. The advantages he claimed for evisceration were: (1) The great ease with which it can be performed in all cases, (2) the æsthetic advantages of the stump obtained. The disadvantages of the operation were: (1) The greater pain involved, (2) the somewhat slower convalescence, (3) the danger of sloughing of the sclerotic. These were considered *seriatim*. Much had been made by some writers of the danger of sympathetic ophthalmia in the other eye. In these 42 cases of the author's, and in 9 others which had come under his notice, and in which the operation was performed by other surgeons, he had never seen a sign of this dangerous complication.—After remarks by Surgeon-Captain SIMPSON, Surgeon-Major SMYTH, and Surgeon-Lieutenant-Colonel G. L. WALKER, Surgeon-Captain ELLIOT replied.

*A Plea for Venesection.*—The HONORARY SECRETARY read a paper on this subject sent by Surgeon-Major NAILER, M.B. Surgeon-Major Nailer said much good might often be done by venesection, and in illustration of this quoted two cases which had occurred in his practice, which he thought afforded evidence of the value of a loss of blood in suitable cases. One of his cases was what he considered to be opium poisoning, and the patient recovered after two ounces of blood had been let from one of the median veins; the other was a case of acute dysentery in which copious hæmorrhage from the bowel took place, by which he thought the patient was distinctly relieved.—Members present were not satisfied that either of the cases afforded evidence in support of venesection; that in the case of opium poisoning, where only two ounces of blood had been let, such a small loss of blood could not be regarded as a venesection from a therapeutic point of view; while in the dysentery case members were induced to regard this great loss of blood that took place as disastrous rather than curative.

*Exhibits.*—Surgeon-Major SMYTH exhibited a microscopic preparation of the roe-like bodies taken from the case of Primary Mycetoma of the Neck which he exhibited at the meeting held on May 1st.—Surgeon-Major VANGEYZEL exhibited two Skiagraphs: (1) Of a case of injury to the bones of the forearm. (2) Of an elbow-joint, at which dislocation backwards of both forearm bones had occurred.

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A MEETING was held on July 1st, Brigade-Surgeon-Lieutenant-Colonel BRANFOOT, M.B., Vice-President, in the chair.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Case.*—Surgeon-Lieutenant-Colonel STURMER showed a young Hindu woman, the subject of Congenital Dislocation outwards of both patellæ.

*Diseases in Cannanore Gaol.*—Surgeon-Major SMYTH read a paper sent by Surgeon-Captain FEARNSIDE, entitled A Bacteriological Study of the Diseases met with in Cannanore Gaol. The author drew attention in the first place to the important *rôle* which he believed was played by round worms in connection with much of the fever found in the gaol, particularly amongst new arrivals, narrating an interesting case where these parasites were present coiled into a bundle so large as almost to cause obstruction in the bowel, and giving rise to a tumour which could be felt during life, but whose nature could not be decided. He then detailed his methods in his bacteriological work, pointing out how easy it was, with a little trouble, to get incubators, sterilisers, etc., made at small cost in this country. In his investigations he came across two kinds of cocci of unusual characters. He had considerable success in making pure cultures of diplococcus pneumoniæ, as well as of numerous non-pathogenic organisms, the whole bearing testimony to an enormous amount of labour.—Members considered that Surgeon-Captain Fearnside deserved credit for this attempt, in the face of many difficulties, to work out the bacteriology of the diseases which came to his notice in the prison of which he is superintendent.

*Surgeon-Lieutenant-Colonel Lawrie and the Parasite of Malaria.*—A paper bearing this title was presented by Surgeon-Major RONALD ROSS.

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## JAMAICA BRANCH.

*Office-Bearers.—President:* Dr. H. E. Maunsel. *Vice-President:* Dr. G. F. Da Costa. *Honorary Secretary and Treasurer:* Dr. G. V. Lockett.

*Membership.*—The Branch has now a roll of sixty-three members. Dr. C. Gayleard (who was the first Secretary to the Branch in 1877, and afterwards President in 1891), and Dr. F. Phillippo, died during the year. The new members are: Drs. E. E. Murray, J. W. N. Hudson, C. A. H. Thomson, A. Harry, P. M. Ragg, W. O. Lofthouse. Two names have been removed from the roll for non-payment of arrears. One member resigned.

*General Meetings.*—There have been six general meetings during the year, held bi-monthly, at which cases have been reported, and matters of interest to the Branch discussed.

At the general meeting on February 26th, 1896, the following resolution was unanimously adopted:

That this Branch of the British Medical Association deeply sympathises with Dr. R. B. Anderson's case, and with the objects of the Civil Rights Defence Committee, and pledges itself to assist in a practical way the work of this Committee.

A sum of £10 3s. was subscribed and forwarded to the Civil Rights Defence Committee. At this meeting it was decided to publish the work of each meeting, and for this purpose an Editorial Committee was appointed.

At the general meeting on April 29th, 1896, the subject of medical defence was brought forward, and after some discussion it was decided that the Branch should at present take no action but await further developments.—Dr. H. Strachan reported on (1) a case of Submaxillary Tumour removed by Operation: (2) a case of Defective Development of Internal Generative Organs in a Female.—Dr. J. W. Plaxton exhibited specimens of Blood in a case of Absent Spleen in an Adult (as afterwards verified *post mortem*).—Dr. G. V. Lockett exhibited specimens of the Malarial Parasite.

At the general meeting on July 1st, 1896, a vote of condolence with the family of the late Dr. C. Gayleard was adopted.—Dr. E. E. Bronstorph read a paper on the Treatment of Cases of Stricture with Multiple Urinary Fistulæ.

At the general meeting on September 16th, 1896, the Secretary informed the meeting of the donation by Dr. Gayleard to the Branch of twenty-four volumes of the *Lancet*, twenty-two volumes of the British Medical Journal, and seventeen volumes of the *Medical Times and Gazette*.—Dr. J. A. Allwood read a paper on a case of Pernicious Malarial Fever.—Dr. G. V. Lockett read notes on a case of Intracranial Abscess in which there were no localising symptoms, and the treatment adopted.—Dr. G. V. Lockett read notes on a case of Intestinal Obstruction from Volvulus of the Sigmoid, in which recovery followed laparotomy.

At the general meeting on October 28th, 1896, Dr. G. F. Da Costa read notes on a case of Imperforate Hymen and Retained Menses.—Dr. H. Strachan read notes on a case of Glaucoma and External Ophthalmoplegia followed by recovery; the patient was exhibited. Dr. H. Strachan also showed a patient on whom a Successful Operation for old Non-united fracture had been performed.

*Finance.*—The balance in hand at the beginning of the year was £11 8s. 9d., and during the year this sum has been augmented.

*Office-bearers for 1897.—President:* Dr. G. F. Da Costa. *Vice-President:* Dr. E. E. Bronstorph. *Honorary Secretary and Treasurer:* Dr. G. V. Lockett.

# SPECIAL CORRESPONDENCE.

## BERLIN.

*Professor Koch's Researches on the Rinderpest.—The Death of Dr. von Stephan.—The New Tuberculin.—Physicians and their Prescriptions.—Rational Dress for Women.—The Rebuilding of the Charité.—General News.*

Professor Robert Koch's experimental studies in connection with the rinderpest are being published in the *Deutsche medicinische Wochenschrift*. The papers originally came out in English in the *Agricultural Journal* of Cape Town, and have been translated into German by Drs. Kolle and Kossel.[1] Koch describes his laboratory in Victoria Compound, about two miles from Kimberley, and the methods by which he obtained the material for his research. By degrees he had gathered quite a menagerie around him.

The fatal illness which has just carried off one of the most popular figures in the German Empire, the Postmaster-General, Dr. von Stephan, can be traced back to diabetes and a corn operation. A few years ago, in cutting a corn, Stephan made a slight wound, which was probably not much noticed at first, but which after a time gave more and more trouble. For the last year he had only been able to get about in a wide soft shoe, and leaning on a stick. Thus he appeared in the Reichstag during the last few months. At last, about two and a-half months ago, the pain became so severe that he was unable to leave his couch, and Professor von Bergmann was obliged to amputate the toe. After the operation the patient seemed to rally, and indeed his indomitable energy enabled him to transact official business—chiefly in writing—for several weeks after. But the gangrene made further progress: a last effort was made to save the patient by amputation of the leg, but this proved unavailing, and a few days later Dr. von Stephan expired.

Professor Hans Buchner, of Munich, has published a remarkably interesting paper on Koch's new tuberculin preparation. He begins by saying that undoubtedly the therapeutic prospects of the new remedy are far more hopeful than were those of Koch's first tuberculin remedy. Not only because Koch has been considerably more cautious this time, having collected abundant practical experience previous to publication, but chiefly because the new remedy is not an improved edition of the old one, but something entirely different, which therefore must have a totally different action. Buchner proceeds:

The old tuberculin was obtained by heating cultures of tubercle bacilli, consequently it contained substances which excited inflammation and fever, but scarcely any of those that bring about immunity against tuberculosis in the living organism. Therein lay Koch's error. He considered his first tuberculin an immunising remedy, but the researches of others very soon proved that this was not the case. As early as 1890—before Koch's first publication—I had drawn the attention of bacteriologists to the contents of bacteria cells and their effects; it was clear that an effective tuberculin could be produced only by obtaining the constituent contents of the tubercle bacilli as directly and in as unchanged a condition as possible. The great question was only, How was this to be carried out in the case of such tiny microscopic cells? In his present publication Koch informs us that, after fruitless experiments with extraction by means of a soda solution, the idea occurred to him to break up mechanically the tubercle bacilli themselves in order to render available their contents unmodified in any way. This idea was successfully carried out. He ground to a fine powder the dried living cultures of tubercle bacilli and then treated with water in order to redissolve the substances contained in it, and centrifugalised. In this way his new tuberculin was prepared, which thus contains the constituent contents of the tubercle bacillus tolerably unchanged, and may therefore, in all probability, be expected to induce immunity against tuberculosis, and thus act as a curative.....I could conclude with this [adds Professor Buchner], if Koch had not closed his communication with the words that it seemed to him certain that the preparation—that is, tuberculin—could not be further improved. Against this allegation I must demur until a method has been sufficiently tried which has been worked out in the Munich Hygienic Institute, with a view to obtaining the constituent contents of the cells of the lower fungi and of bacteria cells ..... As early as 1893 my brother, Professor Eduard Buchner (Tübingen) and I had succeeded in breaking up bacteria cells mechanically by pulverisation in order to obtain the substances contained in them unchanged, that is, our method was then essentially the same as that which Koch uses at present for the production of his new tuberculin. However, our method of 1893 did not seem to us the ideal to be reached. We tried to improve it, and eventually succeeded in doing so by preliminary pulverisation of microscopic cells, and then squeezing out the contents under a pressure of 400 to 500 atmospheres. This new method, which was published in January of this year, immediately proved its superiority over the previous ones by the discovery (my brother's) of zymose, the substance contained in the yeast cell as the active principle of fermentation. At the same time the new method was employed in the Munich Hygienic Institute in order to obtain the cell fluid of bacteria, and Messrs. Halm and Bulling are engaged in therapeutic experiments with extract of tubercle bacilli thus obtained, which, however, naturally require a long period of time for completion. As in Koch's method, the living tubercle bacilli have first to be dried, then finely ground down, and then treated by water, his proceeding is more round-about, more disturbing chemically, and, besides, much more dangerous for the person employing it than ours, in which the living tubercle bacilli are pulverised in their damp condition by aid of fossil meal and fine sand, and then squeezed out directly in their damp, that is, non pulverised, condition.

An interesting case bearing on medical etiquette was tried before the Superior Civil Court in Berlin a few days ago. Dr. Lasker, whose speciality is skin diseases and particularly lupus, had put up a placard in his waiting room with the words: "Please note that my special prescriptions are properly prepared only at the White Swan Dispensary." For this he was fined 300 marks (£15) by the Superintendent of Police, who based his fine on edicts dating from last century. A medical edict of September 27th, 1725, for instance, forbids doctors "to propose or to recommend one surgeon in preference to another, or one chemist in preference to another, as such selection ought to be left to the free will of the patient." Dr. Lasker appealed to the Court, and gained his case in so far as the verdict ran that the police authorities had no jurisdiction over the medical profession, and that the fine was therefore to be annulled. The Court found, however, that the old edict is still in force, and that therefore the placard must be removed.

[1] Dr. Koch's reports were published in the British Medical Journal on February 20th, p. 486; March 6th, p. 598; and March 13th, p. 683.

Hygienic or rational dress for women is the order of the day in Berlin, where, as in other large towns, cycling has given an impetus to the reform movement. Various meetings have been held in which the subject has been fully discussed, both before women only and before a mixed audience; the German Society for Public Hygiene has devoted a sitting to the discussion of the question, and an exhibition of "rational clothing" is just about to be opened in a large hall in the city.

The Government Bill for the rebuilding of the Charité Hospital, which has already passed the Parliamentary Committee, meets with much opposition in medical circles. The diminution of 600 beds and the abolition of the third medical clinic are thought most unwise measures—fatal mistakes, in fact. At present there are three medical clinics in the Charité: the first under Professor von Leyden, the second under Professor Gerhardt, and the third under Professor Senator. Senator's clinic, the importance of which for teaching purposes can hardly be overrated, is to be done away with. Evidently the Government is attempting to put pressure upon the municipality of Berlin to induce it to throw open the municipal hospitals for clinical instruction.

A monument to the memory of the great biologist, Johannes Müller, is to be erected in his native town, Coblentz. If possible, it will be unveiled on the 100th anniversary of his birth, July 14th, 1901. For twenty-five years Johannes Müller held the chair of physiology and anatomy in the Berlin University. Helmholtz, Virchow, Du Bois-Reymond, and Brücke were his disciples.

The Princess Frederick Leopold, sister to the German Empress, is going through a practical course of sick nursing under the tuition of a military surgeon, Dr. Paunwitz, of the Imperial Board of Health.

The curator of the Berlin accident stations, Director Schlesinger, has received the Stanislaus decoration from the Emperor of Russia in recognition of services rendered in connection with the establishment of similar institutions, on the Berlin model, in St. Petersburg.

## CHICAGO.

*A Chicago-Milwaukee Diploma Mill.—Law against Public Spitting.—Medical Department of Newberry Library.—Provision for Commissioners in Lunacy.*

A good deal of uneasiness and professional chagrin have been occasioned of late by the operations of one Rutland in the "diploma mill" business. It seems that this individual sends out thousands of announcements to druggists and ungraduated practitioners, offering to sell a diploma. The institution is said to be located at Milwaukee, Wis., with "correspondence department" at Chicago. The authorities, upon investigation, can find nothing, and do not seem to be able to get hold of Rutland. There is seemingly a large opportunity for fraudulent work of this character in this country, and the possibilities have been strengthened considerably by the operation of stringent medical laws, requiring the possession of a diploma on the part of anyone essaying the practice of medicine. To be sure only diplomas from accredited colleges following the prescribed curriculum are recognised by most of the State Boards of Control; yet the possession of even a questionable or absolutely fraudulent diploma is half the battle in some States, the other half expecting to be won by the use of a little "palm oil," political influence, or resting upon official negligence or incapacity. In this way the incompetents in medical practice having no diploma, and requiring one, look for somebody who can sell them something having the semblance of the honest student's authority, and the demand creates the supply. Then, again, among the thousands of druggists all over the country there are many who quietly do counter-prescribing, and who have either been threatened therefor or have really become involved more or less seriously therein. These have thought to protect themselves behind a purchased medical diploma, and so the sale goes on in the face of either an inadequate law or a group of infantile officials. The reproach is felt by every consistent physician.

The Health Commissioner of the city of Chicago has had notices posted in all public places and conveyances calling attention to the new law prohibiting expectoration upon public floors, walks, steps, etc. A penalty is attached to the breaking of this ordinance, and already two arrests and convictions have occurred. That this is an exceedingly wholesome law every cleanly person will admit; that it is an hygienic requirement of importance, and a step in the direction of municipal preventive medicine, no intelligent man can well gainsay.

Chicago is rapidly becoming a city of great libraries, and in the branch belonging to the medical sciences it cannot be said to fall behind others. There may be said to be three great libraries—allowing a broad signification to the term—and the trustees of these collections have agreed to divide the field between them so that special branches may be followed out with reasonable completeness, especially in the matter of reference collections. For instance, the Newberry Library, situated in the north division of the city, will continue to contain all the works on medicine and allied sciences. This library also embraces music, the social sciences, history, and bibliography. Originally the medical library of Chicago was a part of the Public Library, but not long after the establishment of the Newberry Library arrangements were made for the transfer from the keeping of the Public Library; and at the same time, under the wise direction of the late librarian Dr. Poole, its development was looked to. Now, in a handsome, commodious, and fireproof structure, erected at a cost of 750,000 dollars, the skilful collection, shelving and cataloguing of books pertaining to the science of medicine can be thoroughly and adequately carried out. The present accumulation is the result of many years' work, though lately there have been some valuable accessions by the gift of large private collections.

What appears upon the surface to promise improvement upon the existing order of things with relation to the State government of institutions for the confinement and relief of the insane, is embodied in a Bill recently presented to the Legislature which provides for the appointment of a State Board of Commissioners in Lunacy. The Commission will regulate and control all institutions where the persons regularly adjudged insane are confined. There are to be three members, the President of the Commission to be a reputable physician of actual experience in the care and treatment of the insane, and in the management of institutions for the insane. One of the Commissioners must be a reputable attorney of not less than ten years' experience in State courts. The third Commissioner shall be a reputable citizen who has resided in the State not less than five years. Each Commissioner will receive 5,000 dollars a year. The Commission will be obliged to examine all institutions which are authorised to receive and care for the insane, and each Commissioner shall visit each institution at least twice each year.

## HONG KONG.

*Prevalence of Small-pox on the China Coast and in Japan.*

Small-pox is epidemic at the present time to a greater or less extent in nearly all the ports on the China coast, but the vigorous action of the Sanitary Board has thus far prevented its spreading in Hong Kong. From the new year to date (February 9th) 46 fresh cases have been reported, 11 being Europeans, 2 Japanese, and 33 Chinese. Of the Europeans, 7 belong to a travelling circus troupe just arrived from the south, and infection seems to have been contracted in the French colony of Sagon, or at Hoihow in the island of Hainan. Three of the others brought the infection from Kobe, Shanghai, and Canton respectively, so that only 1 seems to have arisen in Hong Kong. The 2 Japanese also had just arrived from Japan, and probably many of the Chinese, who cannot be traced so easily, came from the mainland. During the same period 32 deaths from small-pox occurred, 2 of them being Europeans. In Japan the epidemic has assumed alarming proportions, and seems spreading all over the empire. During the three weeks January 1st to 22nd, 5,711 cases were reported, and 1,600 of them proved fatal. In Tokyo and its neighbourhood alone 204 cases occurred within the forty-eight hours ending at midnight of January 25th, on which date the authorities of that city issued an order for the compulsory vaccination of all inhabit-

ants under 50 years of age who were unable to prove vaccination within the previous two years. In Kobe similar measures are being adopted to stamp out the epidemic.

# CORRESPONDENCE.

## HOSPITAL REFORM ASSOCIATION AND SPECIAL HOSPITALS.

Sir,—I have read the report of the Committee on Special Hospitals with the greatest interest, but have failed to find that any notice has been taken of the main object for which these institutions exist—namely, professional and personal interests. The members of the staffs owe their existence as specialists to these so-called charities. Are these gentlemen, therefore, likely to adopt the recommendations of the Committee of the Hospital Reform Association? The question of finance is mentioned in the first recommendation. Specialists do not give their services at these hospitals with a view to immediate remuneration, and are even prepared to finance them out of their own pockets if necessary, because the clinical material required and the indispensable advertisement must be obtained at any cost. If enterprising physicians and surgeons did not see their way to avail themselves of the opportunities for experience and professional advancement at the expense of public charity, they would certainly pay for the necessary provision themselves.

As pointed out in the report, there does not seem to be any very strong objection to "institutions acknowledged to be on a business and not on a charitable basis." I fail to see why the Committee do not go further than that, and recommend that such institutions should be on a purely business basis, and not be mixed up with spurious charity at all. The report says that "numbers of patients who pay the hospitals as much as 5 to 10 shillings are unable to pay 1 or 2 guineas to the medical man at his own house," and it is proposed that a portion of the 5 to 10 shillings should go to the specialist. But I beg to suggest that if such respectable fees as 5 to 10 shillings can be obtained at a public institution, the specialists connected with it should "run" it on their own responsibility, apart from public charitable assistance. The fact that such large sums are collected annually from patients at special London hospitals, as stated in the report, shows that these people are as a rule able to pay, and that they go to the charities because they cannot afford the large fees specialists charge at their own consulting rooms. In fact, the special hospitals are an important means of enabling specialists to maintain their fees at the guinea minimum. For another reason, it is futile to propose the limitation of the number of patients, namely, the necessity of obtaining a sufficient supply of clinical material for teaching purposes. With this in view it is impracticable to fix any wage limit or adopt any measure that would diminish the attendance. Moreover, the managers of charities are averse to refusing admission to any patient, whether supplied with a subscriber's letter or not, lest by so doing the funds subscribed by charity should be unfavourably affected. The members of the staffs can afford to lose the fees of a proportion of middle-class patients, for they know they will have a return for their services at the hospital by the advertisement those people are likely to give, and that their friends or themselves will eventually become private patients. Many of the special hospitals are simply avenues to the private consulting rooms of the members of of the staffs. They therefore, like Brer Rabbit, "lie low and say nuffin." The report refers to "the injury the staffs of special hospitals are doing to their fellow practitioners," but it is hopeless to expect any diminution of this evil from any action specialists and hospital staffs are likely to take.

I am not very well acquainted with the history of the London hospitals, but I know that eleven out of our thirteen hospitals in Glasgow, including both general and special institutions, were started by medical men and continued for the purpose of personal advancement in specialities or for obtaining clinical material for teaching, and all this has been done regardless of the interests of fellow practitioners. Indeed, all hospitals and their staffs are maintained very much to the general injury and disadvantage of the rank and file of the medical profession.

With such difficulties before them, which cannot be ignored, the members of the Hospital Reform Association, have undertaken a well-nigh impossible task in endeavouring to remove the evils of our hospital system. Perhaps I am too pessimistic in holding that the basis of charity on which it is supported is responsible for the unsatisfactory public hospital provision in this country, and I despair of the probability of any combination of medical charities, except perhaps for a little while, in prospect of the impending apotheosis of charity when the Prince of Wales's Hospital Fund is about to be distributed. It will take wise organisation to prevent what is likely to be a very unseemly scramble. As Dr. Knowsley Sibley, one of the members of the Hospital Reform Committee, has written in the course of a paper on this subject: "It would seem that our voluntary system is doomed, and cannot go on much longer."—I am, etc.,

Glasgow, April 10th. James Erskine.

## HOSPITAL ABUSE AND ITS SUCCESSFUL PREVENTION.

Sir,—During the last six years a scheme for the prevention of abuse in the out-patient department has been in force at the Great Northern Central Hospital at Holloway, and the success that has attended it, will be of interest to the hospital managers and others who have paid attention to this vexed question.

The Great Northern Central Hospital scheme consists essentially of systematic inquiry, both as to the social and as to the medical fitness of its applicants for relief. The social qualifications are investigated by a Subcommittee composed of representatives of the Committee of Management and the medical staff. Their inquiry officer, who must be well acquainted with the district and with the conditions of labour therein, is required by them to investigate every case, and if any doubt arises in his mind as to the social fitness of any patient for gratuitous relief he is empowered to put a series of questions laid down by the Subcommittee, and to record the answers on special forms. These questions relate to wages and income from all sources, number of children, duration of illness, whether in or out of work, etc. The answers are then compared with a wage scale carefully drawn up to meet all ordinary cases, and approved by the local managers of the Hospital Saturday Fund. If the case does not come within the limits of the scale the patient is refused further aid, unless he provides himself at his next visit with a certificate of fitness from his own doctor or his employer, a blank form being given him for the purpose.

First aid is, however, given in nearly all cases.

The medical fitness of applicants is decided by a special medical officer, also a resident in the district, who only admits patients to the out-patient department as are suffering from definite illness. He is empowered to treat the trivial cases once, but such patients are not permitted to attend a second time.

In October, 1891, after the system had been in force for twelve months, the Subcommittee were able to report "that cases of flagrant abuse of the charity have been promptly detected and summarily excluded, and that more than half the number of those required to bring certificates failed to bring them."

A second inquiry into the working of the system from 1892 to 1896 has recently been made, and it has been shown that flagrant abuse is now rarely attempted. For instance, in the year 1895 the total number of new patients was 18,050, of which only 423 were excluded. In the year 1896 the number of new patients had risen to 20,935, and the cases excluded by the system of inquiry fell to 200.

Taking the figures for both years, it is shown that the number of actual rejections has been as few as 1.6 per cent. The figures show that the number of applications has increased, and it is thus evident that the system has only driven away the unsuitable applicants for relief, while it remains popular with the really necessitous poor. It is worthy of note that in one year 68 per cent. of the certificates returned were signed by the patients' own medical men. It may be assumed that many of the patients who have been refused as unsuitable at the Great Northern Central Hospital have applied successfully at some other hospital where no questions are asked, and it is obvious that the abuse of the charities by such people can only be checked by the adoption

of a uniform system of inquiry. We consider, however, that the experience of our hospital has clearly shown that it is possible to protect the great medical charities from abuse without any injustice towards rightful applicants for relief.—We are, etc.,

C. T. MURDOCH, Chairman,
W. BURDETT COUTTS, Treasurer, } Great Northern Central Hospital.

March 31st.

## THE ASSOCIATION AND MEDICAL DEFENCE.

SIR,—It must be very interesting to members of the various Branches, as each week draws to a close, to watch the various answers which are being given by the Branches to this important question of medical defence, as to whether or not it is to be an integral part of the work of the Association. I cannot help being struck with the change of front which is noticeable each week.

Last year especially, and at intervals for some years previously, we in some of the Branches advocated defence at the hands of the Association; but, as the time was not then ripe, the Council of the Association, through its JOURNAL, took no definite steps in the matter. But last year quite a wave in favour of defence swept over the Branches, ending in a definite expression of opinion in favour of defence at our last annual meeting, which was referred to the Council, who in its collective wisdom set the members of the Branches a series of questions to answer definitely on this important question, in order to help the Council to arrive at a decision as to what we really want and what is best for us. The BRITISH MEDICAL JOURNAL in the interim has been most fair and impartial, and deserves our warmest thanks for the neutral attitude which it has assumed pending the receipt of the answers from the various Branches, whilst at the same time it has afforded all the information we need to arrive at a definite opinion.

We in our little Branch of Shropshire and Mid-Wales gave our answer as heretofore in favour of defence, I believe on the broad ground of trying "to do the greatest good to the greatest number," feeling that the rank and file who will not help themselves or provide, most of them, against a rainy day by joining some defence association or other, owing mainly, as I believe, to that fiend incarnate, professional apathy. So that whatever the ultimate issue may be, there are still a very large number of the members of the Association who believe in defence as a necessary part of the work of the Association, and also that to make it a success it will be found necessary to make it compulsory, in order, amongst other things, to reach that "unsociable unit," the unattached member, who probably joins the Association to entitle him to the cheapest and one of the most important medical papers, the BRITISH MEDICAL JOURNAL, as he finds it the best value for his money, but takes so little interest in his professional brothers that he does not trouble to join the neighbouring Branch; he does not mind so long as he is safe; but if he become involved in a costly lawsuit he is quite unlike the prodigal of old, for to beg he is not ashamed, as witness to our sorrow the weekly appeal for help—aye, and help often readily given—which we find at the tail end of our JOURNAL each week. I do not wish it to be understood that lawsuits are the only cause of medical poverty, but it is mostly true that the majority of us have not taken any provision to make us secure against "sickness and accident," which in the interests of ourselves and families it is our bounden duty to do.

With a view to asking wavering members "to stick to their guns" in spite of the shower of cold water which we are receiving from those who can afford to do without defence at the hands of the Association, I have written this letter, in the hopes that the policy of the Association of last year may remain still its policy of action for the future.—I am, etc.,

EDWARD CURETON,
Vice-President of the Shropshire and Mid-Wales Branch.

Shrewsbury, April 10th.

## THE NEXT ANNUAL GENERAL MEETING.

SIR,—The official notice which is published in the BRITISH MEDICAL JOURNAL of April 3rd leads me to ask whether it is seriously intended to rush through the whole of the business of our Association, including the reports of Council and Committees, the subject of medical defence, and the many important matters dealt with by the Parliamentary Bills Committee, in the course of one day—July 27th next—on which day alone, according to the notice, we are expected to meet at Exeter Hall?

Looking at the many details in the scheme of medical defence which require further consideration than has been given them by the Branches (in our own metropolitan Branch discussion of the scheme itself having been absolutely prevented by official blunders), and at the differences of opinion which have been manifested, it seems to me that one day would be little enough to devote to this subject, that another might be given to the Parliamentary Bills Committee report, and a third to the report of Council and general business of the Association.

I have heard it gravely maintained that the Council do not consider themselves bound by the resolutions passed at our annual meetings, but rather look upon what passes there in the light of academic discussions, and that in the matter of medical defence in particular, they are both ready and anxious to find an excuse for disregarding the resolutions in favour of the Association taking up the subject, which were passed practically unanimously at the annual meetings held in London and Carlisle, and that they will avoid, if possible, taking steps to carry out the resolution authorising the necessary changes in the Memorandum of Association which was passed by the special general meeting of members at Birmingham last year. The Council has now been playing with this subject for nearly a dozen years, and after having in the first instance given all the opposition it could to the adoption of the principle, it has recently brought forward two schemes, in each of which that principle is distinctly recognised. It is to be hoped that at the coming annual meeting the Council will make it quite clear whether they regard themselves as a representative assembly, bound like the House of Commons to carry out the wishes of their constituents, or, as some suppose, regard themselves rather as a House of Lords, bent on delaying and impeding what they in their superior wisdom look upon as mischievous legislation. In the latter case the discussion could not, I think, be confined to one day.—I am, etc.,

Dulwich, April 3rd. H. NELSON HARDY.

SIR,—Will you allow me to point out the great inconvenience that will be cause to the provincial members by fixing the hour of the annual meeting at 11 o'clock in the morning?—I am, etc.,

Cardiff, April 5th. T. GARRETT HORDER.

*** We are informed that the considerations which have led to the meeting in London being arranged in the manner indicated in the official announcement made in the BRITISH MEDICAL JOURNAL of April 3rd are as follows:—

1. That it will be most convenient to all members, but especially to those residing out of London, if the work of the annual meeting can be got through in one day.
2. In order to do this, it is proposed to sit all day, with short adjournments for luncheon and dinner.
3. That it is hoped in this way to be able to devote quite as many hours as are usually spread over three days to the consideration of the business of the meeting.
4. That if it is not possible to conclude the business, the meeting will be adjourned until the following day.
5. That 11 A.M. is not unduly early to begin business when there is so much to be got through.

## THE LANCASHIRE BRANCH AND THE UNAUTHORISED "LECTURES ON MIDWIFERY."

SIR,—The report of this question contained in the BRITISH MEDICAL JOURNAL of April 10th conveys the impression that the meeting of the Lancashire and Cheshire Branch at Liverpool was, in effect, in favour of "courses of lectures being advertised" (in halfpenny papers) "and given in midwifery to persons other than registered students of medicine."

I submit this is an entirely wrong impression. True, my motion was opposed by the able exponents of expediency, on the usual grounds, but they only numbered two or three. The real opposition arose from the fact that the motion was "not strong enough."

I only proposed that the Branch should "strongly condemn" those who advertised and lectured; but I was reminded that they had already been "condemned" by the Branch, without being, apparently, any worse for the process than the "Jackdaw of Rheims;" and that some more effectual steps were required. This I could not deny, and at the request of the Honorary Secretary, and with the consent of Dr. Fort, I withdrew the motion.

After my withdrawal an irregular discussion arose, during which "the previous question" was moved; but as I did not understand this to mean anything I did not vote against it; nor did the majority, I assert, who found fault with my motion, though more than agreeing with it.

I propose to bring the subject more clearly before the Branch, should the advertisements be resumed. Meanwhile I send advertisement, and ask you to note its neighbours; also a little "instrument" advertised by a "Midwife by Diploma," which I exhibited to the Branch Council, from which it is apparent that the "midwife" undertakes to control both ends of gestation. I am, etc.,

Saddleworth, April 12th. COLIN CAMPBELL.

## SUBJECTIVE COLOUR PHENOMENA.

SIR,—The explanation offered this week by Mr. Walter Hurst of the subjective colour phenomena which I have recently investigated appears at first sight to be a very plausible one. He suggests that the colours may result from the involuntary changes of focus which accompany contraction and dilatation of the pupil. This method of accounting for the phenomena occurred to myself at an early stage of the work, but it did not stand the test of trial. Its inadequacy may be demonstrated by several quite independent experiments, of which it will be sufficient to mention one of the simplest. Employing the arrangement described in the BRITISH MEDICAL JOURNAL for February 20th, page 478, second paragraph, let a portion only of the white card with black lines upon it be placed behind the rotating disc, the other portion projecting beyond the edge. Those parts of the lines which are behind the disc will be seen (under the proper conditions) as bright red, while at the same time the parts which are continuously exposed to view remain perfectly black. This shows conclusively that the lenses of the eye play no part in the production of the colour effect. It is quite impossible that they should be in perfect focus for one point of a line while they are so seriously out of focus for an adjacent point as to give rise to a band of colour one-fifth of a degree in breadth. The effect must certainly be a retinal one.

I venture with deference to submit that, if two not very extravagant assumptions are allowed, my own suggested explanation may be not altogether so "unsatisfactory" as Mr. Hurst seems to consider it. The assumptions are (1) the general truth of the Young-Helmholtz theory of vision, (2) the possibility of sympathetic action in the retina. The Young-Helmholtz theory is of course not free from difficulties, but it has, as I believe, the support of the vast majority of those who are competent to judge of its value. As to sympathetic action, though there may be strong antecedent objections to its probability, it seems to be now almost universally agreed that ordinary irradiation phenomena cannot be satisfactorily explained except by assuming it.[1] When the possibility of any such action is once conceded, there is little difficulty in supposing that the various classes of nerve fibres are subject to its influence in different degrees; more than one example of analogous differences of behaviour will occur to the student of physiological optics.

Unfortunately the statement of my views in the Royal Society paper is not expressed so clearly as it might have been. In labouring to be brief I perhaps became obscure, and made an undue demand upon the reader's attention. Even the writer of the appreciative article in the JOURNAL for February 20th, though evidently an expert in the subject, has partially failed to understand the hypothesis suggested, and his kindly criticism is therefore to some extent unfounded.

I cannot ask for space to discuss the matter here, but may perhaps be allowed to refer to a popular article in *Nature*, February 18th, page 367, in which very simple methods of performing the experiments are described, and the proposed explanation is stated rather more lucidly.—I am, etc.,

Wandsworth, April 11th. SHELFORD BIDWELL, F.R.S.

[1] See *Foster's Physiology*, p. 1264.

## DISEASE NOTIFICATION IN HEALTH RESORTS.

SIR,—Your editorial on Disease Notification at Health Resorts touches on a most important matter, and your concluding sentence, "We wish we could see such wilful concealments" (that is, of prevalent infectious disease) "from the public press made heavily penal on local health bodies," emboldens me to ask space in your columns for a suggestion which I have long wished to make.

Seaside watering places are so constantly resorted to by convalescents from infectious, as well as other, diseases that they are extremely liable to outbreaks of zymotic disease introduced in that way from without. These isolated outbreaks are of little importance, but unless they are duly notified and followed by proper disinfection they may lead to disastrous results further on. Members of the public, however, when choosing a place where they hope by rest and good air, etc., to recuperate their strength, have a right to know even of such limited outbreaks.

The local opinion in watering places is that these matters must be hushed up for fear of "doing harm to the place" or "spoiling the season;" consequently exaggerated reports get about, no one knows the real state of affairs, and very frequently a scare is set up without sufficient reason. It appears to me that the sanitary authority of all "health resorts" should be under obligation to report weekly to the Local Government Board the number of infectious cases notified and deaths therefrom, which with the estimated population of the town, should be published by the daily press.

If, Mr. Editor, this should meet your approval, and, pending the general adoption of this proposal, you would open your columns to such a weekly register, I think it would speedily become apparent to those districts whose sanitation was well cared for that honest disclosure of occasional cases was the best policy, and the public would be in possession of a much-needed piece of information.—I am, etc.,

Bexhill, Sussex, April 11th. J. P. WILLS.

## DEBT-COLLECTING SOCIETIES.

SIR,—Several complaints having reached my Society concerning the method adopted by certain so-called associations professing to have been formed for the purpose of collecting medical debts, my Society will be glad to hear from any of your readers who have had dealings with any of such associations, and who are dissatisfied with their procedure. An association of the kind referred to, which has especially been brought under the notice of my Society, has changed its name and address so frequently that it is difficult to suppose that inconvenience has not been caused to members of the medical profession.—I am, etc.,

HUGH WOODS,
Hon. General Secretary, the London and Counties Medical Protection Society, Limited.

11 Archway Road, Highgate, N., April 12th.

## THE FEEDING OF TYPHOID PATIENTS.

SIR,—Every practising physician must be deeply interested in the papers by Dr. Barrs and Samuel West published in the BRITISH MEDICAL JOURNAL of January 16th and 30th. There is no occasion to restate what these physicians have discussed. I hold very strong views about the feeding of patients suffering from typhoid fever, and I find my experience leads me to a position midway between that progressive one of Dr. Barrs's and the too conservative one of Dr. West's.

I could narrate some cases in which the employment of thrice minced meat or raw meat pulp lightly cooked for a few minutes in the *bain marie* has, I am convinced, relieved severe complications such as hypostated congestion, delayed healing of ulceration, and removed "after fever"—a very different thing to a relapse of the fever. If Dr. Barrs only advocated the employment of soft meat as the solid diet, I should be in entire accord with him; but I have been afraid to prescribe bread, vegetables, and fruits, however carefully freed from skin and stone, string, seed, and fibre. There is something about the kind of meat mentioned which does great

good, and there is something about the tissues of vegetables and fruits which appears to be risky.—I am, etc.,

ANGEL MONEY, M.D., F.R.C.P.Lond.

Sydney, N.S.W., March 5th.

### PHYSIOLOGICAL FACTS AT EXAMINATIONS.

SIR,—Mr. Holmes has opportunely called attention in unequivocal language in a recent number of the BRITISH MEDICAL JOURNAL to the above question, and all who have any experience of the matter must cordially agree with him. Many of the questions put at our Examining Boards are no test whatever of the knowledge of the candidate in the general principles of the science of medicine. Especially is this the case in the departments of physiology and pathology. At one of the Scotch Boards the other day one of my own students was asked "the difference between the connective tissue of the cortical portion of the kidney and that of the medullary." How many medical men in Great Britain, including teachers, could say whether there is any difference? What test would their ignorance on this point be of their general culture; and what earthly bearing has such a question on the scientific practice of medicine or surgery?—I am, etc.,

Glasgow, April 9th. D. CAMPBELL BLACK.

## OBITUARY.

BY the death of Professor STUKOWENKOFF, who passed away recently while attending a meeting of the Physico-Medical Society of Kief, the Russian medical profession has suffered a heavy loss. He had just completed his 57th year of age. After a careful preliminary education, he entered, in 1861, the Military Medical Academy of St. Petersburg, and received the licence to practise from that college in 1866. After a further period of study he became Assistant to Dr. Polotebnow, then Professor of Skin Diseases in the Academy. In the Russo-Turkish war of 1872 he rendered valuable services, and on his return to St. Petersburg he was appointed Professor of Dermatology and Venereal Diseases in the St. Petersburg Medical School for Women. He held this office till 1883, when he was appointed to the corresponding chair in the University of Kief. This post he continued to hold till his death. Professor Stukowenkoff was one of the first in Russia who took up the study of skin diseases as a speciality. His contributions to medical literature, almost all in the Russian language, are very numerous and of permanent value. He will be much missed by a large circle of friends, and especially by the Committee of the Section of Dermatology of the forthcoming Medical Congress, of which he was a very active member.

DEATHS IN THE PROFESSION ABROAD.—The members of the medical profession in foreign countries who have recently passed away are Dr. Johannes von Säxinger, Professor of Midwifery and Director of the Obstetrical Clinic in the University of Tübingen, aged 63; Dr. Bossu, formerly editor of the *Abeille Médicale*, aged 89; Dr. Victor Lemoine, formerly Professor in the Rheims School of Medicine, and a distinguished biologist; Dr. Mariano Pantaleo, formerly Professor of Obstetrics in the University of Naples, aged 85; and Dr. Leopold Hopfgartner, a prominent practitioner of Vienna, and for many years President of the Widows and Orphans Society of the Vienna Doctoren-Collegium, aged 72.

## NAVAL AND MILITARY MEDICAL SERVICES.

### THE NAVY.

THE following appointments have been made at the Admiralty:—ANTHONY GORHAM, M.D., Fleet-Surgeon to the *President*, March 27th; MICHAEL FITZGERALD, Fleet-Surgeon to the *Majestic*, March 27th; ALEXANDER G. P. GIPPS, Staff-Surgeon for duty at the Medical Department of the Admiralty, undated; HENRY E. SOUTH, Staff-Surgeon to the *Intrepid*, April 12th; JOHN LOWNEY, Surgeon to the *Melampus*, April 12th; HERBERT P. SHUTTLEWORTH, Surgeon to Chatham Hospital, April 19th.

### ARMY MEDICAL STAFF.

SURGEON-CAPTAINS C. S. SPONG and H. E. H. SMITH have received the Queen's permission to accept the Imperial Order of the Medjidieh of the 4th Class, conferred upon them by the Khedive of Egypt in recognition of active and distinguished service before the enemy during the recent Dongola expedition.

### CHANGES OF STATION.

THE following changes of Station amongst the officers of the Army Medical Staff have been officially notified to have taken place during the past month:

| | | From. | To. |
|---|---|---|---|
| Surgeon-Col. | W. Graves | Bengal | Belfast. |
| ,, | N. B. Major | Straits S'm'nts | Madras. |
| ,, | E. Townsend, M.D. | Cork | India. |
| Brig.-Sg.-Lt.-Col. | A. H. Anthonisz, M.D. | Bengal | Gosport. |
| ,, ,, | W. E. Webb, M.D. | Gibraltar | Netley. |
| ,, ,, | R. W. Mapleton, M.B. | Bengal | York. |
| Surg.-Major | C. Seymour, M.B. | — | Chatham. |
| ,, | W. D. A. Cowen | Cork | Gosport. |
| ,, | E. North | Punjab | Woolwich. |
| ,, | J. M. Jones | Bengal | Devonport. |
| ,, | R. L. Love, M.D. | ,, | Dublin. |
| ,, | J. Battersby, M.B. | Belfast | Mullingar. |
| ,, | T. A. Nixon | York | Strensall. |
| ,, | S. J. Rennie | Bengal | Chester. |
| ,, | J. Carmichael | ,, | Cork. |
| ,, | H. O. Trevor | Madras | Dover. |
| ,, | S. Westcott | — | Dublin. |
| ,, | W. G. Macpherson, M.B. | Gibraltar | Head Quarters. |
| ,, | R. P. Bond | Chester | Lichfield. |
| ,, | V. E. Hunter | Malta | Madras. |
| ,, | J. R. Forrest | Waterford | Bengal. |
| Surg.-Capt. | S. Powell, M.B. | Grenadier Gds. | Aldershot. |
| ,, | H. E. Cree | — | Shoeburyness. |
| ,, | W. H. Starr | — | Gravesend. |
| ,, | H. Cocks, M.B. | Colchester | Weedon. |
| ,, | H. W. Austin | — | Fort Tregantle. |
| ,, | C. H. Hale | C. of Good Hope | Aldershot. |
| ,, | W. B. Leishman, M.B. | Punjab | Netley. |
| ,, | E. C. Freeman | Bengal | Portsmouth. |
| ,, | T. Birt | Punjab | Chester. |
| ,, | C. A. Stone, M.D. | ,, | Aldershot. |
| ,, | F. W. Hardy | — | Fort Popton. |
| Surg.-Lieut. | W. S. Harrison, M.B. | Madras | Bury. |
| ,, | A. J. MacDougall, M.B. | Glasgow | Maryhill. |
| Quartermaster | J. Hirst | Gibraltar | Chatham. |

### DIVIDE ET IMPERA.

A NON-COMBATANT writes: Can it be, as affirmed by a correspondent of yours, that the real ground for the ignominious treatment of medical officers lies in the calculations of the War Office that they can at the worst employ civil practitioners in army work on "scandalously low terms?"

A MEMBER B.M.A. writes: The question has long haunted me, Are Volunteer medical officers true to themselves, or loyal to their profession, in doing an immense amount of military work practically for nothing? They devote a large amount of valuable time in lecturing, drilling, and forming bearer companies, and now in examining volunteer recruits, and what is their reward? They have the tempting bait of the Army Medical Reserve! The medical man is the only Volunteer who gives his special professional service for nothing. Of course he is only a non-combatant, but then all Volunteers are as yet happily in that position.

### ARMY MEDICAL REFORM.

PERSEVERE writes: It seems remarkable that the War Office continues to refuse to listen to a plain exposition of the unsatisfactory state of the medical branch of the army. It will not be seen that the title "Doctor" has nothing to do with army rank, and indeed is inapplicable to anyone not a graduate. There will be no candidates under present conditions. A writer in the *Times of India* says: "It is simply ridiculous for the authorities to put the matter on one side, or for the War Office to think that they will win with such odds against them. Doctors must be forthcoming, and, what is more, first-rate medical men must be procured."

### REVISED SCALE OF PAY IN INDIA.

A CORRESPONDENT writes: The test to be applied to the revised scale of medical pay in India is comparison with that of other ranks, combatant and departmental. For example, a Brigade-Surgeon with an increase of Rs.53 draws Rs.1,150 a month—considerably less than that of a Lieutenant-Colonel commanding a regiment. The concession has been wrung from the Indian Government, and comes too late; as an Indian paper puts it: "These tardy surrenders have lost all their grace by losing all their spontaneity."

ANOTHER CORRESPONDENT writes that while grateful for the reduction of Indian tours, he considers the concessions as to pay to be entirely inadequate.

GERMAN PUBLIC HEALTH ASSOCIATION.—The twenty-second annual meeting of the German Public Health Association will be held this year at Carlsruhe on September 14th and three following days. Among the subjects on the programme are a discussion on the abuse of alcoholic drinks, to be opened by Professor F. Tuczek, of Marburg; on the adulteration of foodstuffs by Herr Rumelin, burgomaster of Stuttgart, and Professor H. Beckarts, of Brunswick; on the disinfection of dwellings, by Professor E. von Esmarch, of Königsberg; and on the hygiene of baths and health resorts, by Dr. F. Battlehner, of Carlsruhe.

# MEDICO-PARLIAMENTARY.

## HOUSE OF COMMONS.

### Medical Officers' Leave.

Dr. Farquharson: I beg to ask the Under-Secretary for War, whether, seeing how shorthanded the Army Medical Department is at home, and the difficulty of getting leave, he will arrange some system of relief so as to enable medical officers to obtain leave according to regulations.—Mr. Powell Williams: Arrangements are in progress which, it is hoped, will afford greater facilities to military medical officers for obtaining leave.

### The Army Medical Service.

Captain Norton asked the Under-Secretary for War whether the Army Medical Service was at the present time sufficient not only for mobilisation but for medical military needs at home and abroad, and, if not, whether any steps were being taken to increase the staff.—Mr. Brodrick: The establishment of officers of the medical staff is about forty under strength. Measures to make good this deficiency are now under consideration.—Mr. Bartley asked whether it was not the fact that the officers on the retired list were as numerous as those on the active list, and whether steps would be taken to remedy this.—Mr. Brodrick: The officers on the retired list are employed on the home service, and there are complaints in consequence that the officers on the active list are debarred from employment on the home stations

### Medical Attendance for Soldiers' Families.

Mr. Jeffreys asked the Under Secretary for War whether he was aware that married soldiers who were not on the married establishment of their respective regiments had great difficulty in providing medical attendance for their wives and children, who thereby suffered in health; and whether he would arrange that in future these married soldiers should have free medical attendance for their families?—Mr. Brodrick: In cases of illness among the families of men not on the married roll, military medical officers are allowed to give their services if they are sought for; and there is no instance on record of their having been refused. In such cases, medicine may be issued from public stores at the discretion of the principal medical officer.

### The Health of the Army.

Captain Pirie asked the First Lord of the Treasury whether, having regard to its being impossible to have the debate on the system of enlistment in the British army, for which the first place had been obtained in the ballot for Tuesday, April 13th, and in view of the close connection which this question bore to the health of the troops in India, on which subject a report of the Departmental Committee and a memorandum of the Secretary of State for India had recently been issued, the Government would be prepared to give a day for the discussion of a matter of such urgent public importance after the Easter recess.—Mr. Balfour: I doubt whether a discussion on the two topics mentioned by the hon. member will be relevant on the debate which will take place on the first of these topics; nor have any circumstances been brought to my knowledge which would induce me to believe it necessary or desirable to interrupt the course of business for the purpose of promoting either the one or the other.

### Contagious Diseases in the Indian Army.

Captain Pirie asked the Secretary for India what steps, if any, had been taken to carry out the urgent recommendation of the Sanitary Commissioner with the Government in India in his report for 1894, which was also quoted with approval in the Report on Sanitary Measures in India in 1894-5, that much might be done to diminish the extent and severity of contagious diseases among the British troops in India by providing increased facilities for bathing with comfort and convenience in private and public baths, and by inculcating habits of personal cleanliness among the troops.—Lord George Hamilton: I have received no special report as to the action taken on representations made by the Sanitary Commission in 1894, but I understand that, in the opinion of the military authorities, ample provision is made for supplying British soldiers in India with the means of personal cleanliness. The importance of the matter is so well understood in India that it would hardly be necessary to call for any special reports.

### Army Recruits.

Mr. Hazell asked the Under Secretary for War whether, having regard to the fact that a large number of boys enlisted falsely stating their ages as over 18, he would explain why the War Office considered that it was impracticable to insist upon recruits producing certificates of birth, while certifying surgeons under the Factory Act, 1878, Section XXVII, had power to require such certificates, and did regularly obtain them, when young persons applied for employment in a factory.—Mr. Brodrick: Many men who desire to join the army would find great difficulty in obtaining certificates of birth. To insist upon their production would mean the loss of many men to the army. The number of young men who give false ages on enlistment is not large, and is annually decreasing.

### A "Medical Missionary" Required.

Mr. Hedderwick: I beg to ask the Secretary for the Colonies whether he can see his way to provide the inhabitants of the island of Tristan Da Cunha with a resident medical missionary in compliance with their prayer, repeated from year to year, and in conformity with the advice of the officer commanding H.M.S. *Widgeon* in 1895.—Mr. Chamberlain: I fear that Her Majesty's Government cannot do more for the islanders of Tristan Da Cunha than send one of Her Majesty's ships to pay a yearly visit, and that anything further must be left to voluntary effort.

### The Proposed Felixstowe Military Hospital.

Mr. Goddard asked the Under-Secretary for War whether it would be necessary to purchase land in order to use the approved site for the proposed military hospital at Felixstowe; whether the approved site was within 150 feet of the nearest residence and about 100 yards from Manor Terrace; and whether, as the residents in Manor Terrace and adjacent houses had petitioned against the erection of this hospital in close proximity to their dwellings, as being prejudicial to their welfare and to the value of their property, he would consider if another site could not be selected to the north of Landguard Fort on land belonging to the War Department and away from the residences of those who visited Felixstowe as a health resort.—Mr. Brodrick: To meet local objections some slight alteration in the site of the hospital is in contemplation which will involve the purchase of a small plot of ground. The amended site will be about 220 yards from Manor Terrace; and it is hoped that arrangements will be made with the owner of one residence which is nearer. No site on War Department ground other than that selected is suitable.

### Oysters and Disease.

Sir William Priestley asked the President of the Local Government Board whether, in view of the report published last year concerning oyster culture in relation to disease, and the diminished consumption of oysters which had resulted therefrom, he proposed to have oyster beds regularly inspected, or to adopt such other measures as would give the public a reasonable assurance that oysters in the market were derived from healthy sources, and not likely to be the cause of disease.—Mr. Chaplin: The subject referred to in the question is one which I admit to be of importance; it presents, however, many difficulties. The inspection of the oyster beds in this country would not in itself secure the result suggested, and the question has to be considered in connection with oysters imported from abroad as well as those obtained from English beds. Any scheme to be effective would require legislation, but the subject is receiving my careful consideration.—Sir W. Priestley: Can the right hon. gentleman say whether in localities where oyster beds and pits had been certified to be contaminated by sewage any steps will be taken to improve their condition?—Mr. Chaplin: I am unable to say without notice what steps are or are not to be taken by local authorities.

### Science and Art Examinations and the Jubilee.

Mr. Hobhouse asked the Vice-President of the Committee of Council if he would consent to defer the Science and Art examinations in chemistry and other subjects, at present fixed for June 21st and 22nd, to a more convenient date.—Mr. Hanbury, on behalf of Sir J. Gorst, said, It has been arranged to postpone the Science and Art examinations, fixed for June 19th, 21st, and 22nd, to June 28th, 29th, and 30th. A circular is being sent to the schools to this effect.

### Alleged Water-Gas Poisoning.

Mr. Chaplin, in reply to Mr. George Whiteley, said: The sanction of the Local Government Board to the Corporation of Stockport borrowing for water gas purposes has not been withheld on the ground of the occurrence of a case of water-gas poisoning there. No such case in the borough of Stockport has been brought under my attention. So far as I am concerned, water gas has not yet been supplied by the Corporation.

### The Care of Pauper Children.

Mr. Flower asked the President of the Local Government Board whether he would direct the Metropolitan Asylums Board to make use of existing institutions, and therefore would the Local Government Board direct the guardians to board out all eligible children. Whether those children who had contracted the diseases enumeratsd in the Order required institutional life; if so, was it the intention of the Local Government Board to instruct the Metropolitan Asylums Board to erect new institutions, or to provide them with certain of the existing schools; and, if so, which of them. And, would he inform the House whether he intended to carry out those recommendations of the Departmental Committee which dealt with the improvement of the education, the industrial training, the system of apprenticeship, and the greater control of the "ins and outs;" the development of small certified homes, the emigration of suitable children, and the alleviation of the condition of the 3,000 children now in the London workhouses (see page 67, paragraph 274); if so, to which of the various London bodies did he intend to entrust these duties.—Mr. Chaplin: With regard to the first two paragraphs, it will be the duty of the managers of the Metropolitan Asylum District in the first instance to consider what provision is necessary under the recent Order of the Local Government Board, and to submit them for the consideration of the Board. As the order constituting the managers of the new authority has only been in force a few days it is obvious that they cannot have come to any decision on the arrangements which they will propose, and that I cannot make any statement as to what the arrangements will be. I am not clear as to what is meant by "institutional life," and, with regard to boarding out, while the Board have always been desirous of encouraging the system, I am not aware that we have any power to compel the guardians to adopt it against their will, nor should I be willing to pledge myself to exercise that power as the hon. member desires even if I had. With regard to the long series of questions contained in the third paragraph, I have stated the general views of the Board in the House already, and it would be quite impossible for me to make a detailed statement upon them in reply to a question. But I may say that all the powers and duties of guardians with reference to children who are not transferred to the Metropolitan Asylums Board will still devolve on the guardians in accordance with the existing law. I should add that the hon. member is in error in supposing that there are 3,000 children in the workhouses. I am advised that there are less than 1,000, and many of these, on one ground or another, are unfitted for ordinary school life. But it is always my desire to separate children as far as possible from any connection with workhouse life.

### Vivisection.

On the motion of Mr. Jesse Collings, an address has been agreed to for a "Return showing the number of experiments performed on living animals during the year 1896, under licences granted under the Act 39 and 40 Vict., c. 77, distinguishing painless from painful experiments (in continuation of Parliamentary Paper No. 0.112 of Session 1896)."

### Verminous Persons Bill.

This Bill has been read a second time.

### Poor-law Officers' Superannuation (Ireland) Bill.

The second reading of this Bill has been deferred till Thursday, April 29th.

IDIOTS INSTITUTIONS (EXEMPTION FROM RATES) BILL.

Mr. TOMLINSON has brought in a Bill to exempt from poor and other local rates all registered institutions for the care, training, and education of idiots and imbeciles. The measure (which was read a first time) is "backed" by Mr. Round, Sir Frederick Mappin, Mr. Maclure, Mr. Allison, Sir William Houldsworth, and Sir Blundell Maple.

PETITIONS.

A petition has been presented from Clifton, praying for the prohibition of vivisection.

From Croydon a petition has been presented for further protection of the British troops against contagious disease.

MIDWIVES REGISTRATION BILL.

The second reading of this Bill has been deferred till Monday, May 3rd.

REPORT ON ALKALI, ETC., WORKS.

A copy has been presented of the thirty-third Annual Report for 1896, on Alkali, etc., Works, by the Chief Inspector.

NOTICES.

Mr. BARTLEY proposes to ask the Under Secretary of State for War whether it is a fact that the effective branch of the Army Medical Department is and has been for some time much below its authorised strength: whether the cost of the non-effective Branch of the Army Medical Department is now nearly equal to, if it does not exceed, the cost of the effective branch: Whether he is aware that many of the medical officers who now retire on a pension at the early age of about 45 are willing to remain on the active list: And whether he will take steps to retain on the active list medical officers who now retire in the prime of life, but who are willing to remain on the active list.

Mr. WEIR will ask the Secretary of State for the Home Department if he will state the number of persons in England, Scotland, Ireland, and Wales respectively licensed to practise vivisection, and how many of them hold certificates to dispense with anæsthetics.

Mr. WEIR wishes to ask the Secretary of State for the Home Department whether, having regard to the inability of the Board of Trade to prevent overcrowding in the carriages of the Metropolitan and Metropolitan District Railways, he will consider the advisability of seeking powers in regard to railway carriages similar to those which he now possesses in the case of public conveyances in streets carrying more passengers than they are authorised to hold.

Mr. BROADHURST has intimated his intention to ask the President of the Local Government Board whether he will consider the desirability of taking such action as may be necessary to prevent any one local authority monopolising the sources of water supply from the great watershed of the country in order to ensure equal opportunity for all communities to avail themselves of a share in this great and natural necessity of the people.

Mr. COHEN will ask the President of the Local Government Board whether he can state to the House the names of the members who will form the Royal Commission on the Water Supply of London.

Mr. A. DRUCKER has given notice of his intention to ask the President of the Board of Agriculture whether he is aware of the fact that the majority of local bodies have not adopted the system of muzzling dogs recommended by the Departmental Committee, and also that many recognised authorities are against such compulsory muzzling; whether the said Committee took steps to ascertain the views of well-known breeders before making their report; and if, considering the fact that muzzling entails serious inconvenience upon the owners of dogs and grave injury to the health of the animals, he will facilitate further inquiry.

# MEDICO-LEGAL.

MEDICAL TITLES.

GENERAL PRACTITIONER writes as follows: Holding the diploma of the Society of Apothecaries, London, 1892, can I by virtue of this diploma inscribe myself on my plate as "Physician and Surgeon"?

*** A Licentiate of the Society of Apothecaries whose diploma is dated after June 30th, 1887, is qualified to practise medicine, surgery, and midwifery.

SEIZURE OF GOODS FOR DEBT.

DIDYMUS asks the following question: When a medical man's goods are seized for debt, can the following be taken (under bill of sale)?—diplomas, books, instruments, drugs, etc.; wearing apparel, horse and trap used in practice of profession. The first and last items are mentioned in the bill of sale.

*** It may be doubtful if an article like a diploma can be taken in execution for debt, on account of its unsaleable character. The other articles could, we think, be taken, provided that there be excepted the wearing apparel and bedding of the debtor and his family, and the tools and implements of his trade (in which, we think, would be included medical instruments) to the value of £5. Such of the articles, however, as are in a bill of sale, if seized under execution, should be claimed by by the holder of the bill of sale in the usual way.

THE guardians of the Strood Union, Kent, recently negatived a motion to rescind their resolution ordering the bodies of unclaimed paupers to be sent to the Cambridge School of Anatomy for dissecting purposes.

## NOTES ON HEALTH RESORTS.

*The Baths of Lucca* have been known from very early times. In 1245 they were visited by the Emperor Frederick II. Fallopius, the famous Professor of Pisa, and the physician Biancello, spoke in their favour, and Montaigne in 1581 sought their aid. In more recent times Heine, Shelley, and Byron have visited them, and have contributed by their writings to their fame. We have received notes about them from Dr. Herbert Danvers, one of the resident physicians, who believes they deserve to be more widely known amongst English-speaking people. Three villages help to make up the spa. They lie at the foot of the Apennines, in the beautiful valley of the Lima, fifteen miles from the old town of Lucca. Ponte Seraglio lies 400 feet above sea level, and has two good hotels and a casino. Villa (500 feet), the most beautifully situated of the three villages, is, with "Bagni Caldi," the most frequented by English visitors; it possesses an English church, a lawn tennis ground, and a little casino and theatre. The prices for accommodation at the hotels or furnished apartments are still, unlike those of the Riviera, moderate. Bagni Caldi is more elevated (1,000 feet) than the other villages, and possesses the principal bath establishment and the hottest spring. There is here a grotto used as a natural vapour bath, and "Aix douches," and other douches, as well as mud baths and massage, can be obtained. The springs of Lucca vary in temperature from 98° to 129° F., and contain about 2 to 3 per mille solids in solution, chiefly sulphate of calcium and sulphate of sodium. The baths may be used for the class of cases for which simple thermal and thermal earthy waters are generally used, including many chronic gouty and rheumatic cases, the uric acid diathesis, cases of sciatica, neuralgic affections, and some forms of dysmenorrhœa. The bathing season is from May 1st to September 15th, but according to Dr. Danvers the place might serve as a climatic intermediate station for patients coming from the Riviera in spring, as well as for those coming from active mineral water treatment at German spas in autumn. The pure air and freedom from dust are useful in many cases of chronic bronchitis and emphysema. At present it takes a diligence journey of an hour and a half to reach the baths from the nearest railway station (Ponte-Moriano), but a railway will probably soon be completed to the spa itself.

*Faulenseebad, Canton Bern.*—This climatic station lies above the southern bank of the Lake of Thun, 780 feet above the level of the lake, 2,630 feet above that of the sea. It is only 20 minutes distant from the landing stage of the village of Faulensee, so that it can be easily reached, and excursions by steamboat can be easily made. The views across the lake are magnificent, and numbers of pleasant walks can be taken in the neighbourhood. The climate is mild, and there is not much fog. In summer it is often very hot, but the neighbouring wood affords shelter from the sun. The cold, earthy waters contain about 1.5 per mille sulphate of calcium, a small amount of ferrous carbonate, some carbonic acid gas, and a trace of sulphuretted hydrogen. The baths are artificially warmed, and the water is now employed internally only in comparatively small amounts (quite different to the former custom) and previously warmed. Hydrotherapeutic treatment, electric treatment, and massage can likewise be employed. Milk is sometimes made use of in the cure. The climate, with or without the mineral water, is useful in weak, gouty, or rheumatic patients, in chronic catarrh of the respiratory organs, and in some cases of dyspepsia. Convalescent, debilitated, neurotic, and overworked patients are in many cases likely to be benefited by a stay. The station remains open from May to October.

*Sanatoria for Consumption in France.*—The first private sanatorium in France was that founded in 1890 on the Canigou, near Vernet-les-Bains. Dr. Sabourin, the director, obtained good results there, but was not able to keep the sanatorium open throughout the year. Dr. Samuel Bernheim,[1] who had previously insisted on the importance of separating consumptives from other patients in general hospitals, and of removing

[1] *Les Sanatoria pour Tuberculeux en France.* Communicated by Dr. S. Bernheim at the International Congress for Climatology, held at Clermont-Ferrand, 1896.

all tuberculous subjects from barracks and schools, resolved to establish in France sanatoria analogous to the twenty-four or so establishments which already existed in other countries. One of them is on Mont Bonmorin at Ardes (Department of Puy-de-Dôme), not far from Clermont-Ferrand, whilst another is on Mont Pacanaglia, about four and a-half miles from Nice. Each establishment is to contain about 200 patients. All the patients' rooms are to have a large window looking towards the south, and to contain about 2,470 cubic feet of air. No carpets, curtains, or friezes in relief will be allowed. The walls will be pleasantly painted, but easily washable, like the ceilings and floor, and all the corners will be rounded off. Dr. Bernheim is one of those who believe that some climates are more suitable than others for the treatment of consumption. In the plains the drainage is more difficult, the air is less pure, the dampness is greater, whilst in the mountains the blood is better oxygenated. A mountain site should be well protected from the winds, the temperature should be fairly equable, the soil should be porous, and there should be neighbouring forests of pines. Both sanatoria are excellently situated. That of Mont Bonmorin is about 2,630 feet above sea level, and looks over the rich broad plain of the Limagne. That of Mont Pacanaglia lies about 1,640 feet above sea level, and has a magnificent view over the Bay of Villefranche and the sea. Both sanatoria are excellently sheltered from disagreeable winds.

# PUBLIC HEALTH
AND
# POOR-LAW MEDICAL SERVICES.

## ENGLISH URBAN MORTALITY IN THE FIRST QUARTER OF 1897.

The vital statistics of the thirty-three large English towns dealt with by the Registrar-General in his weekly returns are summarised in the accompanying table. During the three months ending March last 86,898 births were registered in these thirty-three towns, equal to an annual rate of 31.2 per 1,000 of their aggregate population, estimated at 10,992,524 persons in the middle of this year. In the corresponding periods of the three preceding years the birth rates in these towns were 32.0, 33.5, and 30.4 per 1,000 respectively. In London the birth-rate last quarter was 31.1 per 1,000, while it averaged 32.1 in thirty-two provincial towns, among which it ranged from 20.8 in Huddersfield, 21.0 in Halifax, 24.7 in Brighton, 26.1 in Croydon, and 26.2 in Derby to 35.5 in Sheffield, 36.6 in Liverpool, 36.7 in Gateshead, 37.1 in Wolverhampton, and 37.8 in Salford.

During the quarter under notice 52,667 deaths were registered in the thirty-three towns, corresponding to an annual rate of 19.2 per 1,000, against 21.0, 25.2, and 19.5 in the first quarters of the three preceding years, 1894-5-6. In London the rate of mortality was equal to 18.4 per 1,000, while it averaged 19.8 in the thirty-two provincial towns, among which it ranged from 13.6 in Croydon, 14.9 in West Ham 15.3 in Brighton, 16.0 in Derby, and 16.3 in Cardiff to 21.6 in Preston, 22.5 in Bolton, 23.1 in Salford, 23.5 in Manchester, and 23.9 in Liverpool. The 52,667 deaths registered in the thirty-three towns last quarter included 4,646 which were referred to the principal zymotic diseases, equal to an annual rate of 1.69 per 1,000; in London the zymotic death-rate was equal to 1.65 per 1,000, while it averaged 1.73 in the thirty-two provincial towns, among which it ranged from 0.48 in Norwich, 0.57 in Halifax, 0.76 in Brighton, 0.80 in Croydon, and 0.88 in Huddersfield to 2.26 in Blackburn, 2.50 in Plymouth, 2.72 in Nottingham, 3.50 in Bolton, and 3.92 in Salford. The 4,646 deaths referred to the principal zymotic diseases in the thirty-three towns included 1,380 from whooping-cough, 956 from diphtheria, 893 from measles, 530 from diarrhœa, 469 from scarlet fever, 406 from "fever" (principally enteric), and 12 from small-pox. The 1,380 fatal cases of whooping-cough registered during the three months under notice were equal to an annual rate of 0.50 per 1,000, against 0.84, 0.42, and 0.28 in the three preceding quarters; in London the death-rate from this disease was 0.49 per 1,000, while it averaged 0.51 in the thirty-two provincial towns, among which whooping-cough showed the highest proportional fatality in Bristol, Swansea, Nottingham, Burnley, and Blackburn. The 956 deaths referred to diphtheria during last quarter were equal to 0.35 per 1,000, against 0.34, 0.35, and 0.41 in the three preceding quarters; in London the diphtheria death-rate was as high as 0.58 per 1,000, while it averaged 0.19 in the thirty-two provincial towns, among which this disease was proportionally most fatal in West Ham, Cardiff, Wolverhampton, Birmingham, and Huddersfield. The 893 fatal cases of measles registered during the three months ended March last were equal to 0.33 per 1,000, against 1.09, 0.50, and 0.33 in the three preceding quarters; in London the death-rate from this disease did not exceed 0.15 per 1,000, while it averaged 0.45 in the thirty-two provincial towns, among which measles showed the highest proportional fatality in Plymouth, Nottingham, Bolton, Manchester, Salford, and Bradford. The 530 deaths from diarrhœa

*Analysis of the Vital and Mortal Statistics of Thirty-three of the Largest English Towns during the First Quarter of 1897.*

| Towns. | Estimated Population middle of 1897. | Births. | Deaths. | Annual Rate per 1,000 Living. Births. | Deaths. | Principal Zymotic Diseases. | Deaths from Principal Zymotic Diseases. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-Cough. | Fever. | Diarrhœa. | Deaths of Children under one year of age to 1,000 Births. | Rate per cent. of Uncertified Deaths. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 33 Towns | 10,992,524 | 86,898 | 52,667 | 31.2 | 19.2 | 1.69 | 4,646 | 12 | 893 | 469 | 956 | 1,380 | 406 | 530 | 139 | 1.5 |
| 32 Provincial Towns | 6,529,355 | 52,255 | 32,163 | 32.1 | 19.8 | 1.73 | 2,816 | — | 731 | 303 | 315 | 837 | 279 | 351 | 147 | 2.0 |
| London | 4,463,169 | 34,643 | 20,504 | 31.1 | 18.4 | 1.65 | 1,830 | 12 | 162 | 166 | 641 | 543 | 127 | 179 | 129 | 0.6 |
| West Ham | 273,682 | 2,281 | 1,014 | 33.4 | 14.9 | 1.70 | 116 | — | 30 | 8 | 30 | 35 | 5 | 8 | 125 | 2.5 |
| Croydon | 121,171 | 787 | 411 | 26.1 | 13.6 | 0.80 | 24 | — | 2 | 6 | 1 | 12 | 2 | 1 | 107 | — |
| Brighton | 121,401 | 747 | 462 | 24.7 | 15.3 | 0.76 | 23 | — | 2 | 3 | 8 | 3 | 4 | 3 | 122 | 1.5 |
| Portsmouth | 182,585 | 1,263 | 767 | 27.7 | 16.8 | 1.33 | 60 | — | 18 | 3 | 4 | 24 | 4 | 7 | 134 | 0.1 |
| Plymouth | 97,658 | 708 | 523 | 29.1 | 21.5 | 2.50 | 61 | — | 45 | 2 | 1 | 9 | 2 | 2 | 181 | 0.2 |
| Bristol | 232,242 | 1,661 | 1,172 | 28.7 | 20.2 | 1.93 | 112 | — | 1 | 6 | 12 | 77 | 3 | 13 | 150 | 0.4 |
| Cardiff | 170,063 | 1,320 | 691 | 31.1 | 16.3 | 1.77 | 75 | — | 27 | 4 | 18 | 16 | 3 | 7 | 151 | 1.0 |
| Swansea | 100,309 | 764 | 452 | 30.5 | 18.1 | 1.44 | 36 | — | — | 2 | 4 | 27 | 1 | 2 | 145 | 1.1 |
| Wolverhampton | 87,287 | 808 | 466 | 37.1 | 21.4 | 1.66 | 36 | — | 3 | 3 | 10 | 13 | 5 | 2 | 151 | 1.1 |
| Birmingham | 505,772 | 4,398 | 2,640 | 34.9 | 20.9 | 2.07 | 262 | — | 25 | 24 | 57 | 90 | 23 | 43 | 160 | 4.7 |
| Norwich | 110,154 | 886 | 512 | 32.3 | 18.6 | 0.48 | 13 | — | 1 | 5 | 1 | 2 | 3 | 1 | 144 | 2.0 |
| Leicester | 203,599 | 1,668 | 877 | 32.9 | 17.3 | 1.59 | 80 | — | 5 | 16 | 14 | 27 | 13 | 5 | 159 | 2.5 |
| Nottingham | 232,934 | 1,730 | 1,200 | 29.8 | 20.7 | 2.72 | 158 | — | 39 | 13 | 6 | 76 | 16 | 8 | 175 | 1.3 |
| Derby | 103,291 | 675 | 411 | 26.2 | 16.0 | 0.98 | 25 | — | 3 | 1 | 3 | 4 | 6 | 8 | 121 | — |
| Birkenhead | 111,249 | 908 | 500 | 32.7 | 18.0 | 1.11 | 31 | — | 1 | 5 | 8 | 9 | 4 | 4 | 109 | 1.2 |
| Liverpool | 633,078 | 5,779 | 3,772 | 36.6 | 23.9 | 1.95 | 309 | — | 67 | 56 | 33 | 72 | 26 | 55 | 145 | 4.1 |
| Bolton | 121,433 | 995 | 682 | 32.9 | 22.5 | 3.50 | 106 | — | 84 | 4 | 2 | 5 | 4 | 7 | 153 | 0.1 |
| Manchester | 534,299 | 4,580 | 3,128 | 34.4 | 23.5 | 2.19 | 292 | — | 87 | 21 | 11 | 90 | 35 | 48 | 155 | 1.2 |
| Salford | 213,190 | 2,012 | 1,226 | 37.8 | 23.1 | 3.92 | 208 | — | 105 | 19 | 14 | 36 | 15 | 19 | 157 | 1.1 |
| Oldham | 145,845 | 972 | 722 | 26.7 | 19.9 | 1.17 | 42 | — | 5 | 9 | 7 | 10 | 3 | 8 | 145 | 0.3 |
| Burnley | 106,122 | 811 | 531 | 30.6 | 20.1 | 2.20 | 58 | — | 9 | — | 6 | 35 | 2 | 6 | 210 | 0.9 |
| Blackburn | 131,330 | 955 | 666 | 29.2 | 20.3 | 2.26 | 74 | — | — | 1 | 1 | 44 | 12 | 16 | 179 | 3.2 |
| Preston | 115,103 | 906 | 619 | 31.6 | 21.6 | 1.52 | 44 | — | 3 | 2 | 1 | 14 | 7 | 17 | 167 | 3.2 |
| Huddersfield | 101,454 | 525 | 445 | 20.8 | 17.6 | 0.88 | 22 | — | — | 4 | 8 | 5 | 4 | 1 | 122 | 3.8 |
| Halifax | 95,747 | 502 | 411 | 21.0 | 17.2 | 0.57 | 14 | — | 2 | 1 | 2 | 1 | 6 | 2 | 129 | 1.9 |
| Bradford | 231,260 | 1,462 | 1,050 | 25.4 | 18.2 | 1.64 | 95 | — | 59 | 4 | 7 | 8 | 7 | 10 | 134 | 1.3 |
| Leeds | 409,472 | 3,355 | 2,043 | 32.9 | 20.0 | 1.15 | 117 | — | 33 | 31 | 17 | 18 | 11 | 7 | 141 | 0.8 |
| Sheffield | 351,848 | 3,113 | 1,627 | 35.5 | 18.5 | 1.13 | 99 | — | 18 | 28 | 11 | 10 | 16 | 16 | 135 | 3.2 |
| Hull | 225,045 | 1,836 | 971 | 32.7 | 17.3 | 1.16 | 65 | — | 5 | 13 | 9 | 22 | 10 | 6 | 124 | 2.8 |
| Sunderland | 142,107 | 1,197 | 707 | 33.8 | 20.0 | 1.41 | 50 | — | 7 | — | — | 23 | 11 | 9 | 142 | 0.6 |
| Gateshead | 101,070 | 926 | 447 | 36.7 | 17.7 | 1.35 | 34 | — | 16 | 4 | 2 | 4 | 6 | 2 | 146 | 0.7 |
| Newcastle-on-Tyne | 217,555 | 1,725 | 1,018 | 31.8 | 18.8 | 1.38 | 75 | — | 29 | 5 | 7 | 16 | 10 | 8 | 144 | 1.2 |

recorded during the quarter under notice were equal to an annual rate of 0.19 per 1,000; this disease was proportionally most fatal in Manchester, Salford, Blackburn, and Preston. The 469 fatal cases of scarlet fever registered during the three months ending March last were equal to an annual rate of 0.17 per 1,000 against 0.19, 0.21, and 0.25 in the three preceding quarters; in London the scarlet fever death-rate was equal to 0.15 per 1,000, while it averaged 0.19 in the thirty-two provincial towns, among which this disease was proportionally most fatal in Leicester, Liverpool, Salford, Leeds, and Sheffield. The 406 deaths referred to different forms of "fever" (including typhus, enteric, and simple and ill-defined forms of fever) were equal to an annual rate of 0.15 per 1,000, against 0.14, 0.21, and 0.23 in the three preceding quarters; in London the "fever" death-rate was equal to 0.11 per 1,000, while it averaged 0.17 in the thirty-two provincial towns, and was highest in Nottingham, Salford, Blackburn, and Preston. Twelve deaths from small-pox were registered in London during the three months under notice, but no fatal case of this disease was recorded in any of the thirty-two large provincial towns.

Infant mortality in the thirty-three towns, measured by the proportion of deaths under 1 year of age to registered births, was equal to 139 per 1,000 last quarter, against 154, 161, and 150 in the corresponding periods of the three preceding years. In London the rate of infant mortality was equal to 129 per 1,000, while it averaged 147 in the thirty-two provincial towns, among which it ranged from 107 in Croydon, 109 in Birkenhead, 121 in Derby, 122 in Brighton, and 124 in Hull to 167 in Preston, 175 in Nottingham, 179 in Blackburn, 181 in Plymouth, and 210 in Burnley.

The causes of 769, or 1.5 per cent., of the deaths in the thirty-three towns during the three months ending March last were not certified, either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths in London did not exceed 0.6 per cent., while it averaged 2.0 per cent. in the thirty-two provincial towns. The causes of all the deaths in Croydon and in Derby during the quarter were duly certified, and only one death was uncertified in Portsmouth, in Plymouth, and in Bolton; in the other provincial towns the highest proportions of uncertified deaths were registered in Sheffield, Huddersfield, Liverpool, and Birmingham.

## HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,550 births and 3,917 deaths were registered during the week ending Saturday last, April 10th. The annual rate of mortality in these towns, which had been 18.7 and 18.3 per 1,000 in the two preceding weeks, rose again to 18.6 last week. The rates in the several towns ranged from 11.2 in Brighton, 12.6 in West Ham, 13.5 in Swansea, and 14.2 in Halifax to 23.1 in Liverpool, 26.2 in Bolton and in Huddersfield, 26.7 in Manchester, and 27.1 in Salford. In the thirty-two provincial towns the mean death-rate was 19.3 per 1,000, and exceeded by 1.8 the rate recorded in London which was 17.5 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was equal to 1.5 per 1,000, while it averaged 1.7 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.9 in Oldham, 3.1 in Gateshead, 5.6 in Bolton, and 6.8 in Salford. Measles caused a death-rate of 1.4 in Manchester, 1.5 in Burnley, 4.6 in Salford, and 4.7 in Bolton; and whooping-cough of 1.0 in Salford and in Huddersfield, 1.3 in Bristol, and 1.5 in Gateshead. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 43 deaths from diphtheria in the thirty-three towns included 23 in London, 5 in Cardiff, 3 in West Ham, 2 in Liverpool, and 2 in Oldham. No fatal case of small-pox was registered during the week either in London or in any of the thirty-two large provincial towns. There were 16 cases of small-pox under treatment in the Metropolitan Asylums Hospitals on Saturday last, April 10th, against 29, 21, and 17 at the end of the three preceding weeks; 1 new case was admitted during the week, against 2, 2, and 0 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 2,622, 2,585, and 2,512 at the end of the three preceding weeks, had further declined to 2,449 on Saturday last; 224 new cases were admitted during the week, against 206, 224, and 219 in the three preceding weeks.

## HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, April 10th, 957 births and 733 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 23.3 to 22.1 per 1,000 in the three preceding weeks, rose again to 24.6 last week, and exceeded by 6.0 per 1,000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 19.5 in Greenock to 26.7 in Edinburgh. The zymotic death-rate in these towns averaged 3.2 per 1,000, the highest rates being recorded in Leith and Edinburgh. The 347 deaths registered in Glasgow included 10 from measles, 1 from scarlet fever, 2 from diphtheria, 26 from whooping-cough, and 8 from diarrhœa. Twenty-one fatal cases of measles, 6 of whooping-cough, and 2 of diphtheria, were recorded in Edinburgh.

## NOTES ON WORKHOUSES.

### OUTDOOR RELIEF.

YEOVIL seems to enjoy the unenviable distinction of having an unusually high percentage of its population on the rates. Mr. Preston Thomas, the inspector, on his first visit, pointed out the false economy of encouraging the working population to rely on rate aid instead of on their own industry, and he showed that this easy and apparently cheap method of relieving the poor was a direct encouragement of pauperism, whilst it discouraged all habits of thrift or independence. These words of wisdom need to be addressed to a wider audience than a small country Board. One of the effects of the lowered qualification for a guardian has been to place on our Boards men only themselves one remove from the paupers for whom they legislate, whose training therefore in the administration of relief has not been such as to give them an extended view of the economic side of the question. Many of these guardians, moreover, have been elected on the pledge to give lavish outdoor relief.

# UNIVERSITIES AND COLLEGES.

## UNIVERSITY OF EDINBURGH.

### HONORARY DEGREES.

IN presenting Emeritus Professor Sir Douglas Maclagan for the honorary degree of LL.D. the Dean of the Faculty of Law said: The occasion which permits the Senatus Academicus to confer the degree of Doctor of Laws upon Sir Douglas Maclagan is tinged with the solemnity of a farewell. For, according to academic law and custom, we must have lost him as a colleague before we can gain him as an honorary graduate. In the present case, moreover, farewell is peculiarly impressive. Few of our number can boast a longer or more honourable connection with the University of Edinburgh than the Emeritus Professor of Medical Jurisprudence. It is upwards of sixty years ago that he first entered our walls, and he obtained the degree of Doctor of Medicine in 1833. After an interval of active practice he returned in 1852 to fill the Regius Chair of Medical Jurisprudence and Police, when it fell vacant owing to the death of Dr. T. S. Traill. For the long period of thirty-five years Sir Douglas Maclagan has discharged the duties of his office with the utmost efficiency and zeal, winning by his ability the esteem and by his kindness and genial humour the affection alike of his colleagues and of successive generations of students. But the University is not the horizon of his labours. It would be difficult to name a recent criminal investigation involving questions of forensic medicine in which his scientific knowledge has not been requisitioned. His contributions to the literature of his subject are numerous. He has filled many high offices in Edinburgh, and he received as the reward of his public activity the honour of knighthood in 1886. Sir Douglas Maclagan carries with him into his honourable retirement the warmest wishes of his colleagues, who now desire to signalise their appreciation of his merits by making him an honorary graduate of the University which he has so well and so faithfully served.

In presenting John Wyllie, M.D., F.R.C.P.E., the Dean said: "The University is ever ready to bestow recognition upon those who have risen to eminence in that noble profession into which the bulk of our students are destined to pass, and particularly does she rejoice when the recipient of honour is so closely connected with our medical school as is Dr. Wyllie. After a brilliant career as a student in this University, he graduated with honours as Doctor of Medicine in 1865, and subsequently acted for a time as Examiner in Clinical Medicine. He has for a number of years filled with great acceptance the offices first of Lecturer on Pathology, and later of Lecturer on the Practice of Medicine to the Edinburgh School of Medicine. For fifteen years he acted as Physician to the Royal Infirmary, demitting office this year, and the value of his work in that capacity has been recognised by his appointment this week as Consulting Physician to the Infirmary. But Dr. Wyllie's title to the honour which is to be conferred upon him to-day rests mainly upon the remarkable scientific work which he has achieved. From an early age his attention has been directed to the physiology and pathology of the vocal mechanism, his graduation thesis dealing with the physiology of the larynx, and he has recently published a book, *The Disorders of Speech*, which has made a profound impression on the medical world, and is deservedly accepted as authoritative in regard to the abstruse subject with which it deals. On these various grounds the Senatus have deemed Dr. Wyllie pre-eminently worthy of the title of Doctor of Laws, which I now ask you to bestow."

SECOND PROFESSIONAL EXAMINATION (NEW REGULATIONS).—The following candidates have passed in the subjects named:

*Anatomy, Physiology, and Materia Medica.*—J. Anderson (with distinction), R. A. J. Ashbury, H. Baird, W. J. Barclay (with distinction), L. D. H. Baugh, J. G. Bell, H. W. Boreham, A. C. Brown, E. A. Brown, A. E. Burroughs, T. C. Caldwell, H. G. Carlisle (with distinction), L. M. Chesney, R. M'L. Dalziel, W. D. Darling, M.A., Y. A. Djedjizian, H. M. Mackenzie (with distinction), R. M'Gregor, A. M'Kaig, J. F. G. Martin, T. R. Matthews, W. W. Maxwell, J. Miller, E. C. Peatee, A. C. Renwick, T. A. Price, J. Shalaby, G. F. B. Simpson, R. B. Turnbull, W. R. E. Williams, C. H. Durant, T. Livingstone, J. L. Louis, J. M. Macdonald, M.A., W. M. Mackay, M. Mackelvie, T. C. Mackenzie, G. Mackay, R. C. M'Lachlan, L. M. Wedderburn, G. C. M'Leavy, M. M'Niven, D. A. Macvean, J. Masson, M.A., G. H. Menzies, M.A., J. Millar, B.Sc., J. G. Mitchell, J. R. Munro, J. Orr, A. S. M. Peebles, E. J. Peill, A. Preston (with distinction), A. G. P. Raeburn, P. E. Richards, R. Ritchie (with distinction), W. Rogers, T. Rogerson, R. M. Rowe, M.A. (with distinction), A. K. Smith-Shand, V. E. Sorapure, H. B. Sproat, W. J. Stuart, M.A., R. G. Thomson, N. D. Walker, C. H. J. Watson (with distinction), and A. S. Whytock.

*Anatomy, Physiology, Materia Medica, and Pathology, for the degrees of M.B., C.M. Old Regulations.*—J. H. Bain, A. J. W. Buchanan, G. L. K. Finlay, W. F. Godfrey, F. J. H. Bateman, W. Bennet, A. L. J. Branday, S. Champion, J. L. Davis, W. H. Dawson (with distinction), F. B. Feast, J. V. Fox, A. D. Grange, E. J. Hudson, N. T. Kerr, J. Mackenzie, C. C. Macmillan, D. J. C. Oliver, W. J. Pierce, G. H. W. Robertson, M.A., F. S. Rose, J. B. Venters, E. B. Anderton.

*Anatomy and Physiology.*—P. J. Bodington, M. Booth, D. A. Callender, J. C. Carr, C. S. Clark, J. D. Comrie, S. L. Dawkins, D. Ewart, W. Ewart, J. J. Galbraith, B. K. Goldsmith, G. Haddon, P. W. Hampton, G. G. Hay, A. M. Holmes, F. N. Menzies, W. A. Murray, B.A., D. D. Farquharson, R. Fasson, D. Ferrier, E. G. Ffrench, A. S. Frank, J. Fullarton, A. E. Goldie, J. H. Gordon, T. B. Gornall, A. H. Griffith, A. N. de Gruchy, W. D. S. Harrison, F. J. Hathaway, J. T. P. Heatley, J. Husband, W. E. Hutchison, J. G. Jack (with distinction), J. Jeffrey, S. H. Johnson, G. D. Laing, B. G. Macdonald, P. H. Macdonald, H. Macfarlane, J. S. Lessing, J. Luckhoff, P. N. M. Macdonald, J. G. Munro, A. W. Nankerois, T. S. A. Orr, W. Park, M.A., C. E. Smith, S. Southall, W. G. Thomson, J. Thornhill, C. H. Watson.

*Degrees of M.B. and C.M.*—D. D. Farquharson, R. Fasson, D. Ferrier, E. G. Ffrench, A. S. Frank, J. Fullarton, A. E. Goldie, J. H. Gordon,

T. B. Gornall, A. H. Griffiths, A. N. de Gruchy, W. D. S. Harrison, F. J. Hathaway, J. T. P. Heatley, J. Husband, W. E. Hutchinson, J. G. Jack (with distinction), J. Jeffrey, S. H. Johnson, G. D. Laing, B. G. Macdonald, P. H. Macdonald, and H. Macfarlane.

At the graduation ceremony on Saturday, April 10th, A. M. Rattray and J. T. Williams were formally admitted to the Degrees of M.B., C.M.

THIRD PROFESSIONAL EXAMINATION.

*Degrees of M.B., C.M.*—D. V. M. Adams, J. Alcindor, J. Allison, J. R. Anderson, W. N. Barker (with distinction), W. Bell, Harriet A. S. Bird, J. M. Bowie, E. R. Branch, S. Branch, C. S. Brebner, R. N. Brebner, H. H. Broonie, R. Bruce, E. H. Brunt, J. Burnet, M.A., J. Cameron, R. Cameron, Jane A. Craig, W. Craig, Faith P. Crowther, R. Cumming, J. N. Cuthbert, E. F. Cyriax, L. J. N. Deas, G. Dick, R. J. Dick, W. H. Dickinson, C. H. Elmes, J. F. Falconer, E. G. Ffrench, D. Forbes, A. D. Fordyce, C. Forsyth, A. F. Fraser, A. T. Gailleton, A. B. George, H. E. Gibbs, R. Gibson, J. D. Gilfillan, A. Gilmour, A. Goodall, A. M. Green, A. A. Gunn, A. G. Hamilton, J. Haworth, T. E. Hincks, C. A. B. Horsford, J. Hunter, W. E. Hutchison, J. W. Ingles, W. J. Jones, G. E. J. King, G. de Labat, F. O. Lasbrey, E. W. Lewis, A. J. M'Clymont, J. C. M'Conaghey, E. M'Culloch, W. C. Macdonald, J. M'Gibbon, A. C. M'Gilchrist, M.A.; A. M. M'Intosh, D. V. M'Intyre, M.A.; A. M'Kaig, W. M'Kay, R. M. Mackenna, M.A.; J. W. Mackenzie, D. W. Maclagan, T. D. M'Laren, E. C. G. Maddock, T. R. Matthews, C. A. Mayne, W. P. Meldrum, B.Sc.; P. E. Millard, J. Monroe, J. A. Murray, B.Sc.; F. M. Parry, L. D. Parsons, W. M. Paul, M.A.; E. C. Peake, C. M. Pearson, G. B. Pemberton, A. de St. L. F. Perigal, J. A. Raeburn, W. Raine, H. H. Roberts, F. E. Robinson, G. A. Rorie, A. C. Sandstein, R. F. M. Scott, A. Shearer, A. B. Shed, W. Smith, E. Somerville, W. E. Tellet, A. H. Thomas, A. H. Thompson, P. G. L. du Toit, H. Wade, W. E. J. Wallis, D. Wardrop, D. B. Waters, A. Whittome, J. R. Williamson, W. C. Wilson, M.A.; A. E. B. Wood, and G. J. C. Young.

The following have passed in Pathology of the third professional examination:

R. Crawford and R. King.

P. H. Gillies, M.B., C.M.; R. Haygarth, M.B., C.M.; and H. Schmitz have graduated in the degree of B.Sc. in Public Health in the University, and were formally admitted to their degree on Saturday, April 10th.

## UNIVERSITY OF DURHAM.

FIRST EXAMINATION FOR THE DEGREE OF BACHELOR IN MEDICINE (OLD REGULATIONS).—The following candidates have satisfied the Examiners:

*Chemistry, with Chemical Physics.*—R. T. Brown, M.R.C.S., L.R.C.P., Guy's Hospital; G. B. Brown, L.S.A., Guy's Hospital; G. Smith, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; J. H. Tripe, London Hospital; T. J. A. Tulk-Hart, M.R.C.S., L.R.C.P., Guy's Hospital; P. E. Turner, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital.

FIRST EXAMINATION FOR THE DEGREE OF BACHELOR IN MEDICINE (NEW REGULATIONS).—The following candidates have satisfied the Examiners:

*Elementary Anatomy and Biology, Chemistry and Physics.*—Honours, Second Class: J. W. Heslop, College of Medicine, Newcastle-upon-Tyne. Pass List: R. S. Brown, College of Medicine, Newcastle-upon-Tyne; G. B. Brown, College of Medicine, Newcastle-upon-Tyne; H. P. Fox, Cooke's School of Anatomy; C. W. Turner, College of Medicine, Newcastle-upon-Tyne; F. P. Wigfield, College of Medicine, Newcastle-upon-Tyne.

*Chemistry and Physics.*—Annie Tombleson Brunyate, London School of Medicine for Women; B. E. G. Bailey, St. Bartholomew's Hospital; F. Clarkson, College of Medicine, Newcastle-upon-Tyne; S. T. Cochrane, College of Medicine, Newcastle-upon-Tyne; W. C. Douglass, St. Bartholomew's Hospital; A. E. Hodge, College of Medicine, Newcastle-upon-Tyne; E. L. Jenkins, Cooke's School of Anatomy; W. Pattullo, Edinburgh School of Medicine; S. Raw, College of Medicine, Newcastle-upon-Tyne; L. S. Smith, Mason College, Birmingham; W. W. Stainthorpe, College of Medicine, Newcastle-upon-Tyne; R. T. Vaux, College of Medicine, Newcastle-upon-Tyne; F. G. Wilson, College of Medicine, Newcastle-upon-Tyne.

*Anatomy and Biology.*—Alice Maud Dodd, London School of Medicine for Women; J. Farrage, College of Medicine, Newcastle-upon-Tyne; Ida Emilee Fox, London School of Medicine for Women; Chella Mary Hankin, London School of Medicine for Women; F. P. Joscelyne, Yorkshire College, Leeds; G. H. Kirby, Mason College, Birmingham; Florence Dyer Durell Ledgard, London School of Medicine for Women; M. J. Quirke, Mason College, Birmingham; H. Widdas, College of Medicine, Newcastle-upon-Tyne.

*Elementary Anatomy, Chemistry, and Physics.*—Mary Jane D'Vaz, London School of Medicine for Women; D. H. J. Kirton, Mason College, Birmingham.

*Elementary Anatomy.*—O. C. H. L. Moll, Guy's Hospital; T. W. Morcom, London Hospital.

## SOCIETY OF APOTHECARIES OF LONDON.

PRIMARY EXAMINATION: PART II. The following candidates passed in:

*Anatomy.*—H. J. Aldous, King's College Hospital; T. P. Allen, St. Bartholomew's Hospital; W. Asten, Birmingham; E. O. Balleine, King's College Hospital; A. St. J. Bateman, King's College Hospital; A. F. Carlyon, Middlesex Hospital; E. L. D. Dewdney, King's College Hospital; M. E. Fendick, Royal Free Hospital; C. Fisher, St. Bartholomew's Hospital; J. S. Goodall, Middlesex Hospital; J. E. Griffith, St. Bartholomew's Hospital; H. M. Hardy, Guy's Hospital; R. J. Harris, St. Thomas's Hospital; W. G. Hopkins, St. Mary's Hospital; F. A. Hort, Cambridge; D. Jeaffreson, St. Bartholomew's Hospital; H. Jessop, Birmingham; J. McClintock, King's College Hospital; C. J. Marsh, University College Hospital; E. R. Millar, University College Hospital; H. E. Morris, Guy's Hospital; F. Robinson, Royal Free Hospital; H. Smith, Birmingham; A. C. S. Waters, Cambridge; J. Welsh, Dublin; B. B. Westlake, Guy's Hospital; H. E. Weston, St. George's Hospital; A. H. Wilson, Birmingham; J. P. Woodhouse, Liverpool and Durham; T. Young, St. Bartholomew's Hospital.

*Physiology.*—M. A. Alabone, Guy's Hospital; H. J. Aldous, King's College Hospital; T. P. Allen, St. Bartholomew's Hospital; A. St. J. Bateman, King's College; S. F. Cheesman, Charing Cross Hospital; C. E. C. Child, Charing Cross Hospital; H. H. Cotman, Aberdeen; M. B. Dawson, Middlesex Hospital; M. E. Fendick, Royal Free Hospital; C. Fisher, St. Bartholomew's Hospital; J. S. Goodall, Middlesex Hospital; W. H. Goodchild, St. Bartholomew's Hospital; J. E. Griffith, St. Bartholomew's Hospital; H. M. Hardy, Guy's Hospital; R. J. Harris, St. Thomas's Hospital; W. G. Hopkins, St. Mary's Hospital; D. Jeaffreson, St. Bartholomew's Hospital; H. Jessop, Birmingham; J. McClintock, King's College Hospital; E. R. Millar, University College Hospital; H. E. Morris, Guy's Hospital; R. C. Morris, Birmingham; D. V. Muller, Charing Cross Hospital; W. A. Pitt, Edinburgh; C. V. Smith, University College Hospital; H. Smith, Birmingham; A. C. S. Waters, Cambridge; J. Welsh, Dublin; B. B. Westlake, Guy's Hospital; H. E. Weston, St. George's Hospital; A. H. Wilson, Birmingham; W. R. Wilson, Dublin and Belfast; T. Young, St. Bartholomew's Hospital.

PRIMARY EXAMINATION: PART I. The following candidates passed in:

*Biology.*—C. F. Bluett, St. Bartholomew's Hospital; S. F. Hickman, Royal Free Hospital; C. Hind, Royal Free Hospital; F. H. Maberly, Birmingham; M. Malcolm, Royal Free Hospital; E. Osborne, Birmingham; H. Richardson, Leeds; C. M. Scott, Royal Free Hospital; M. E. Unwin, Royal Free Hospital.

*Materia Medica and Pharmacy.*—R. R. P. S. Bowker, Middlesex Hospital; M. E. Fendick, Royal Free Hospital; W. H. Gale, St. Thomas's Hospital; A. H. Gibbon, St. Thomas's, Hospital; B. Hogan, London; G. R. Lucas, Edinburgh and St. Bartholomew's Hospital; C. C. Morgan, St. Bartholomew's Hospital; H. Munro, Guy's Hospital; F. Robinson, Royal Free Hospital; J. Welsh, Dublin; H. F. Willington, Manchester; L. Wright, St. Thomas's Hospital.

# INDIA AND THE COLONIES.

## INDIA.

VACCINATION IN THE NORTH-WESTERN PROVINCES AND OUDH.—The report for the years 1893-4 to 1895-6 gives evidence of progress. The number of successful operations increases yearly, and has now attained the ratio of 27.7 per 1,000 of population. The successful operations of 1895-6 bore a ratio of 79.7 per cent. of the total births of the year, which is thought to be a good result. At the same time, the percentage of persons under 1 year of age successfully vaccinated constituted only 34.81 of total births. "The ultimate aim of the department," it is stated, "is to secure the vaccination of every child in the provinces within 12 months of its birth." This aim is very far from having been accomplished as yet. The arrangements for the supply of lymph were satisfactory, but efforts are to be made to prepare bovine lymph in a central depot in the hills in a form suitable for transport to the plains. This it is thought would be a more convenient and efficient system than the present system of collecting human lymph during the rains in the higher hills of Kumaon by a special staff of vaccinators, and despatching it to the plains in September and October.

THE MEDICAL COLLEGE, CALCUTTA.—By a recent ruling of the Government of India, passed students of the Medical College, Calcutta, are in future to be appointed to the posts of house-physician and house surgeon of the Medical College Hospital, and demonstrator of anatomy, Medical College, Calcutta.

NURSING INSTITUTE.—The Madras Government has approved, provisionally, the revised rules framed by the Surgeon-General for the working of the Lady Wenlock Nursing Institute attached to the General Hospital, which was originally organised by Mrs. Nisbet, the Lady Superintendent.

CHOLERA BELTS.—The Commander-in-Chief in India has issued an important order dealing with this subject. It would appear that, owing to one or both belts with which the soldier in India is provided being discarded during the Chitral campaign, much serious illness was in all probability caused. Commanding officers of corps are now directed to provide against any future irregularities.

HOSPITAL ACCOMMODATION IN BOMBAY.—In view of the attention called to the sanitary conditions of Bombay by the outbreak of the plague, the following information, gathered from the latest official report on the civil medical institutions of the city, is of interest. The three principal hospitals are the St George's (for the treatment of Europeans), Jamshedji Jijibhai, and Gokaldass Tejpal, the latter two general hospitals. There are smaller institutions for women and children. The daily average number of indoor patients in the year 1895 was follows: St. George's, 105; Jamshedji Jijibhai, 321; Gokaldass Tejpal, 100; institutions for women and children, 120; total, 646. The total average daily attendance of outdoor patients for the same year was 540. There is also an ophthalmic hospital, named after the founder, Cawasji Jehangier. The number of patients relieved and the accommodation appears very inadequate to meet the wants of a city with a population of 800,000.

PROFESSOR HAFFKINE.—Reviewing Professor Haffkine's career, the *Bombay Gazette* writes: "Evidently foreign Governments hold that 'science hath its victories no less renowned than war,' and deserving of equal recognition. The Government of India might, perhaps, also contribute something more helpful than discouragement to the work of its scientists who give years of invaluable service to combating disease in its worst forms in India. The writer on Indian affairs in the *Times* of February 12th cites the splendid labours of Professor Haffkine during four years in this country, in introducing and applying the system of anticholera inoculation, as a striking proof of the anxiety of the Government of this country to secure for its people all that Western science can accomplish for their protection against the dire disease. Can the Government of India honestly accept that compliment, paid in all sincerity and

good faith by the writer?" Further than this the *Gazette* does not go, but it is widely known that though Professor Haffkine is devoting his entire time and untiring labours to his public work, he receives no remuneration from the Government or the municipality beyond a trifling allowance for expenses.

### NEW SOUTH WALES.

New Medical Bill.—On November 3rd, 1896, the New South Wales Government introduced to Parliament a short Bill containing five clauses, the object of which is to distinguish qualified from unqualified practitioners. The Bill provides that unregistered persons must state their names in full in all their advertisements or notifications and on their premises, and in each case the words "Not registered" must be affixed to the surname. The Bill is an admirable one in the public interest. The measure has been postponed owing to the prorogation of Parliament.

Public Health Act.—The new Public Health Act came into force in this Colony on January 1st. It includes important provisions for the prevention of disease, and in particular it makes notification of infectious diseases compulsory.

Bacteriology.—Among the many munificent gifts of the late Sir William Macleay for the advancement of biological science in New South Wales was a sum of £12,000, left by him for the purpose of establishing a lectureship in bacteriology in Sydney. The money in the first instance was left to the University under certain conditions. The bequest was accepted by the University, but the Senate eventually decided that they could not fulfil the conditions, when the money was in accordance with the terms of the will handed over to the Linnean Society of New South Wales to found a lectureship in bacteriology in connection with that body. The Council of the Linnean Society not being in a position to equip a bacteriological laboratory at the time, decided to allow the capital to accumulate for two years. Now the Council is in possession of a sufficient sum to provide a suitable equipment, together with a sinking fund, in addition to supplying the lecturer's salary. They will accordingly soon appoint a bacteriologist whose duty will primarily be to carry out original research in the Society's laboratory. At the discretion of the Council, he may also give instruction in bacteriology to a limited number of pupils. The subject of investigation will in all cases be assigned by the Council or selected by the bacteriologist and approved of by the Council. The salary will be £350 a-year, with two-thirds of the fees received from pupils.

Leprosy.—The annual report on leprosy in New South Wales for 1895 recently published states that on January 1st of that year 40 persons were under detention in the lazaret. During the year 10 persons were reported to the Board under the Act as being suspected of leprosy; of these 3 were eventually admitted to the lazaret. Five patients died during the year, and 1 was discharged apparently cured. On December 31st, 1895, there remained 37 patients, of whom 16 were white and 21 coloured. The total number of patients admitted to the lazaret since 1883 is 58. Distributed under nationalities the account stands as follows: Natives of New South Wales, 15, of whom 4 have died, and 1 has been released; of Queensland, 1; of Germany, 1; of England, 2; of Ireland, 2, of whom 1 has died; of New Zealand, 1, deceased; of Fiji, 1. All these patients were white, of European descent. There were 29 natives of China, of whom 11 have died; 2 of India, of whom 1 has died; 1 of the West Indies, discharged; 1 of Java; 1 of the New Hebrides (Tanna); 1 of New Caledonia, deceased. All these were coloured persons.

# MEDICAL NEWS.

Medical Magistrate.—Dr. Reginald Alexander, M.A., F.L.S., of Halifax, has, upon the recommendation of the Lord Lieutenant, been placed on the Commission of the Peace for the West Riding of the county of Yorkshire.

Royal Edinburgh Hospital for Sick Children.—George R. Livingston, M.B., C.M., and William T. Ritchie, M.B., C.M., have been appointed Resident Medical Officers for six months from May 1st next.

Hospital Reform Association.—A meeting to promote the objects of the Hospital Reform Association will be held in the Grand Hotel, Birmingham, on Wednesday, April 21st, at 4 P.M. Dr. Isambard Owen and Dr. J. Ward Cousins have promised to attend and speak.

Health of the Army in India.—Mr. J. H. Lynn writes to the *St. James's Gazette*, giving figures by which he discredits the utility of the Contagious Diseases Acts both in India and in England. He writes: In India, "Lock hospitals" began to be opened in 1865. This proceeded until 1872. I have referred to the five years following 1860 as the years prior to the Acts, and they include the great increase of 1861. The diminution to 1865 ceased in 1867. Dividing the whole period of the table into quinquennia, it shows, in the first (1860-65), a good diminution; in the second, its discontinuance; in the third, increase; in the fourth, greater increase; in the fifth, still greater increase; in the sixth, the greatest increase; and in the last (1890-95), the rate of increase reduced to the same percentage as in the third (1870-75). The only statistics I have used are in the report of Lord Onslow's Committee. The home army figures show that the fall prior to the Contagious Diseases Acts was not maintained under them, that in the later years of their operation there was a rise, and that since repeal there has been a decrease of 35 per cent.

A dance in aid of the fund for furnishing the wards of the new wing of the West London Hospital will be held under the immediate patronage of H.R.H. Princess Mary Adelaide Duchess of Teck, at the Queen's Hall, Langham Place, W., on May 31st next. The Honorary Secretaries are Mr. Percy Dunn, 54, Wimpole Street, W., and Dr. Aldren Turner, 13, Queen Anne Street, W.

Medico-Psychological Association.—The first meeting of the South-Eastern Division will be held at the London County Asylum, Cane Hill, on Wednesday, April 21st. Dr. Ernest White, honorary secretary (*pro tem.*) will give a short address on The South-Eastern Division: its Origin, Aim, and Object. The following papers will be read: (*a*) Dr. F. W. Mott, F.R.S., Some cases of Syphilitic Brain Disease resembling General Paralysis; (*b*) Dr. Fletcher Beach, Insanity in Children; (*c*) Dr. T. Outterson Wood, The Asylum-trained Nurse. In the evening the members will dine together at the Café Monico.

American Public Health Association.—The twenty-fifth annual meeting of the American Public Health Association will be held at Philadelphia on October 26th and three following days, under the presidency of Dr. Henry B. Horlbeck. The Executive Committee have selected the following subjects for consideration: 1. The Pollution of Water Supplies. 2. The Disposal of Garbage and Refuse. 3. Animal Diseases and Animal Food. 4. Car Sanitation. 5. Steamship and Steamboat Sanitation. 6. The Prevention of the Spread of Yellow Fever. 7. The Transportation and Disposal of the Dead. 8. The Relation of Forestry to Public Health. 9. Nomenclature of Diseases and Forms of Statistics. 10. Cause and Prevention of Infectious Diseases. 11. Public Health Legislation. 12. Cause and Prevention of Infant Mortality. 13. Transportation of Diseased Tissues by Mail. 14. River Conservancy Boards of Supervision. 15. The Period during which each Contagious Disease is Transmissible, and the Length of Time for which each Patient is Dangerous to the Community. 16. Sanitation, with special reference to Drainage, Plumbing, and Ventilation of Public and Private Buildings. 17. Some Method of International Arrangement for Protection against the Transmission of Infectious Diseases. 18. Disinfectants. 19. Existing Sanitary Municipal Organisations of the Countries belonging to the Association, with a view to a Report upon those Most Successful in Practical Results. On all these subjects special committees have been appointed.

## MEDICAL VACANCIES.

The following vacancies are announced:

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—House-Surgeon for the Northern Branch. Unmarried, and doubly qualified. Salary, £140 per annum, with furnished apartments, coal, gas, and attendance. Applications to C. Somers Clarke, Honorary Secretary, Board Room, Queen's Road, Brighton, before April 25th.

BRIGHTON AND HOVE LYING-IN INSTITUTION AND HOSPITAL FOR WOMEN.—House-Surgeon, unmarried, and under 30 years of age. Salary, £80 per annum, with furnished apartments, board, gas, coals, and attendance. Applications to A. F. Graves, Clerk, 76, West Street, by May 7th.

CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY, 41, Sloane Square, S.W.—Surgeon. Applications to Austin E. Cooper, M.D., Secretary, by May 1st.

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—House-Surgeon; doubly qualified, registered, and unmarried. Salary, £90 per annum, with board, lodging, and washing. Applications to the Honorary Secretary, Clayton Hospital, Wakefield, by April 22nd.

COMBINED DISTRICT OF BATTLE, CUCKFIELD, EASTBOURNE, EAST GRINSTEAD, HAILSHAM, NEWHAVEN, TICEHURST, AND UCKFIELD RURAL DISTRICT COUNCILS, AND CUCKFIELD, HAYWARD'S HEATH, AND UCKFIELD URBAN DISTRICT COUNCILS.—Medical Officer of Health. Appointment for three years. Salary, £600 per annum. Between 30 and 50 years of age. Must not engage in private practice. Applications endorsed "Medical Officer of Health" to Edward Waugh, Clerk, Hayward's Heath, by May 1st.

GENERAL HOSPITAL, Birmingham.—Assistant House-Surgeon; must possess surgical qualification. Appointment for six months. No salary. Residence, board, and washing provided. Applications to H. J. Collins, House-Governor, by May 8th.

GERMAN HOSPITAL, Dalston, N.E.—Honorary Ophthalmic Surgeon Must be a native of Germany or fully conversant with the German language. Doubly qualified. Applications to H. Gülich, Superintendent, by April 21st

GOVERNMENT OF NEW SOUTH WALES.—Bacteriologist and Assistant to the President of the Board of Health of the Colony; not more than

40 years of age and doubly qualified. Salary, £600 per annum. Applications to Saul Samuel, Agent-General for New South Wales, 9, Victoria Street, S.W., by April 20th.

GUEST HOSPITAL, Dudley.—Resident Assistant House-Surgeon. Appointment for six months. Board, lodging, and washing in hospital. No salary. Applications to the Secretary by May 6th.

HANTS COUNTY ASYLUM.—Third Assistant Medical Officer; doubly qualified, not more than 30 years of age, and unmarried. Salary, £100 per annum (increasing to £125 after twelve months' service), with furnished apartments, board, washing, and attendance. Applications endorsed "Applications for Appointment of Medical Officer" to the Committee of Visitors, Knowle, Fareham, by April 20th.

HUDDERSFIELD INFIRMARY.—Junior House-Surgeon. Salary, £40 per annum, with board, lodging, and washing. Applications to Dr. Samuel Knaggs, Huddersfield.

ISLANDS OF SANDAY AND NORTH RONALDSHAY.—Resident Medical Practitioner. Salary, £60 per annum, with a house, offices, and garden, rent free. Sealed applications marked "Medical" to William Muir, Temple Hall, Sanday, Orkney, by April 28th.

LIVERPOOL DISPENSARIES.—Assistant Surgeon: unmarried. Salary, £80 per annum, to be increased to £90 after first year's service, with apartments, board, and attendance. Applications to R. R. Greene, Secretary, 34, Moorfields, Liverpool, by April 26th.

LIVERPOOL HOSPITAL FOR CANCER AND SKIN DISEASES.—Honorary Assistant Surgeon. Applications to Mr. A. N. Talbot, 3, Rumford Street, Liverpool, by April 20th.

LIVERPOOL NORTHERN HOSPITAL.—Honorary Physician. Applications to Chairman of the Committee by April 19th.

MIDDLESEX HOSPITAL.—Assistant Surgeon and Aural Surgeon; must be F.R.C.S.Eng. Applications to F. Clare Melhado, Secretary-Superintendent, by April 26th.

MONTROSE ROYAL ASYLUM.—Medical Superintendent. Salary, £700 per annum, with free house, fire and light. Appointment an annual one. Applications, endorsed "Physician Superintendent," to Alexander Lyell, Solicitor, Clerk to the Board of Managers, 81, High Street, Montrose, by May 1st.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road.—Resident Medical Officer and Assistant Resident Medical Officer. Appointment for six months. Salary at the rate of £50 attaches to the senior post. The junior is eligible for election to the senior post. Applications to A. Craske, Secretary, by May 1st.

PARISH OF RONSAY AND EGILSHAY, Orkney.—Resident Medical Officer. Salary, £51 per annum. Applications to "The Clerk of Parish Council" by April 28th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Four Examiners in Anatomy and four Examiners in Physiology for the Fellowship. Candidates for the former must be F.R.C.S.Eng. Applications to the Secretary by May 3rd.

SEAMEN'S HOSPITAL SOCIETY, "Dreadnought," Greenwich, S.E.—House-Physician: doubly qualified. Salary, £75 per annum, with board and residence. Applications to P. Michelli, Secretary, by April 10th.

SHEFFIELD GENERAL INFIRMARY.—Junior Assistant House-Surgeon; doubly qualified. Salary, £50 per annum, with board, lodging, and washing. Appointment for three years, but eligible for re-election. Applications to the "Medical Staff of the Sheffield General Infirmary" to the care of the Secretary by April 21st.

STOCKTON AND THORNABY HOSPITAL, STOCKTON-ON-TEES.—Non-Resident House-Surgeon. Doubly qualified, under 30 years of age. Salary, £200 per annum. Applications to H. G. Sanderson, Secretary, by April 29th.

TAUNTON AND SOMERSET HOSPITAL.—Assistant House-Surgeon. Appointment for six months. No salary. Board, washing, and lodging provided in the institution. Applications, endorsed "Assistant House-Surgeon," to J. H. Biddulph Pinchard, Secretary, 13, Hammet Street, Taunton, by April 24th.

UNIVERSITY COLLEGE, BRISTOL.—Medical Tutor. Stipend, £125 per annum. Applications to E. Markham Skerritt, M.D., Dean, by April 17th.

WESTMINSTER GENERAL DISPENSARY, 9, Gerrard Street, Soho, W.—Resident Medical Officer. Appointment an annual one. Applications to Joseph H. Madge, Secretary, by April 21st.

WOLVERHAMPTON EYE INFIRMARY.—House-Surgeon. Appointment for six months. Terms £70 per annum, with rooms, board, and washing. Applications to W. Blake Burke, Secretary, by April 24th.

WONFORD HOUSE HOSPITAL FOR THE INSANE, near Exeter.—Assistant Medical Officer, doubly qualified, and not more than 28 years of age. Salary, £150 per annum, with furnished apartments, board, and washing. Applications to Dr. Deas, Medical Superintendent by April 21st.

## MEDICAL APPOINTMENTS.

ABBOTT, F. W., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the Tooting Workhouse of the Wandsworth and Clapham Union.

BERRY, H. Poole, M.B.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health to the Grantham Town Council.

BOX, Charles Richard, B.Sc., M.D., B.S.Lond., M.R.C.P.Lond., F.R.C.S.Eng., appointed Resident Assistant Physician to St. Thomas's Hospital, *vice* Dr. Seymour G. Toller, whose term of office is about to terminate.

BURGESS, E. A., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Thorncombe District of the Beaminster Union.

COX, Dr., appointd Medical Officer for the Knighton District of the Knighton Union, *vice* F. H. Hardman, M.B., C.M.Edin., resigned.

CRADDOCK, Samuel, M.R.C.S.Eng., L.S.A., appointed Medical Officer of the Cottage Home Schools of the Bath Union.

DARROLL, W. B., M.R.C.S.Eng., L.R.C.P.Lond., reappointed Medical Officer for the Brampton Bryan District of the Knighton Union.

FRERE, Hanbury, M.B., C.M.Edin., appointed Medical Officer for the Stradbroke District of the Hoxne Union, *vice* A. B. How, B.A.Oxon., M.R.C.S., L.R.C.P.

GOSTLING, W. Ayton, M.D., M.R.C.S., appointed Medical Officer to the Worthing Infirmary, *vice* Golding Bird Collett, L.R.C.P.Lond., L.R.C.S., resigned.

GRAVES, T. W., M.R.C.S.Eng., L.S.A., reappointed Medical Officer for the Beguildy District of the Knighton Union.

HOME, George, M.D., appointed Clinical Assistant to Out-patients at the Chelsea Hospital for Women, Fulham Road.

LOCKWOOD, Joseph, M.R.C.S.Eng., appointe Medical Officer of Health to the Whitley Urban District Council.

LOW, Charles W., M.B., D.P.H., appointed Medical Officer of Health to the Stowmarket Urban District Council.

MCCUTCHAN, William Arthur, L.R.C.P. and L.R.C.S.Edin., appointed Assistant Medical Officer to the County and City Asylum, Hereford, *vice* T. Kirkwood, M.B., resigned.

PARTRIDGE, Thomas, M.R.C.P.I., M.R.C.S., etc., reappointed Medical Officer of Health to the Stroud Rural District Council.

PHILLIPS, S. C., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the North Peckham District of the Camberwell Parish.

REYNOLDS, J. H., M.B., C.M.Edin., appointed Special Non-resident Clinical Clerk to the Lock Wards, Royal Infirmary, Edinburgh.

RUNCIMAN, N. H., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Intern Physician to the South Infirmary, Cork.

SMALLEY, Herbert, M.D.Durh., L.R.C.P.Lond., M.R.C.S., Medical Officer of Parkhurst Convict Prison, appointed Medical Officer of Local and Convict Prisons.

TAYLOR, C. H., M.B.Lond., M.R.C.S., etc., appointed Honorary Surgeon to the Derbyshire Royal Infirmary, *vice* Mr. J. A. Sharp, resigned.

TOTHILL, F. C., M.B., C.M.Edin., appointed Medical Officer for the Ashford District of the Staines Union.

TOWNSEND, Norman, L.R.C.P., L.R.C.S.I., appointed Extern Physician to the South Infirmary, Cork.

WRANGHAM, William, M.B.Lond., M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon at Leicester Infirmary.

## DIARY FOR NEXT WEEK.

### WEDNESDAY.

ROYAL METEOROLOGICAL SOCIETY, 25, Great George Street, Westminster, 7.30 P.M.

ROYAL MICROSCOPICAL SOCIETY, 20, Hanover Square, W., 8 P.M.

THE CLINICAL MUSEUM, 211, Great Portland Street, 4 P.M.—Demonstration by Mr. Jonathan Hutchinson.

### THURSDAY.

NEUROLOGICAL SOCIETY OF LONDON, 11, Chandos Street, W., 8.30 P.M.—Cases will be shown by Drs. Ferrier, Donkin, Gossage, Lunn, Beevor, and Mr. Ballance, Drs. James Taylor and Harris.

### FRIDAY.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 P.M.—Clinical Evening—Patients in attendance at 8 P.M. The following cases will be shown: Mr. C. J. Symonds: (1) A case of Relapsing Myositis and Osteitis; (2) Subclavian *Bruit* in a Man aged 25 years; (3) A Boy from whose Jaw a Myeloid Sarcoma was removed Fifteen Months ago without sacrifice of Bone. Mr. Frederic Eve: (1) Congenital Dislocation of the Shoulder: (2) Arrest of Growth in Humeri. Mr. Howard Marsh: A case of Hydronephrosis with Unusual Characters. Dr. Hugh R. Smith: A case of Amyotrophy of the Peroneal Type illustrating Family Predisposition to the Affection. Dr. J. K. Fowler: A case of Myositis.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### MARRIAGES.

HOME—RICHARDSON.—On the 8th inst., at Holy Trinity, Upper Chelsea, by the Rev. A. L. Lilley, William Edward Home, Surgeon Royal Navy, to Ida Mary Geraldine, second daughter of the late J. Smith Richardson, Burncrana, co. Donegal, and of Mrs. Richardson, 41, Holbein House, Chelsea.

PHILLIPS—JOHNSON.—On April 10th, at 6, St. Thomas Road, Edinburgh, by the Rev. Dr. Charles R. Teape, of St. Andrew's Episcopal Church, Cyril Hamilton Phillips, M.B., C.M.Edin., youngest son of the late J. R. Phillips, Barbadoes, W.I., to Annie Millicent, elder daughter of the late W. L. Johnson, Barbadoes, W.I.

### DEATHS.

TOWNSEND.—On Sunday morning, April 19th, 1896, at 68, Queen's Gate, London, Mary Alice, only daughter of the late Thomas Ainsworth, of The Flosh, Cumberland, and for nineteen years the beloved wife of Thomas Sutton Townsend, of Clifton Manor, Warwickshire.

WOODCOCK.—On the 9th inst., at Old Trafford, aged 24 years, Jessie, eldest beloved daughter of Sam Woodcock, M.D.

ZIMMERMANN.—On March 23rd, at Belgaum, India, Rosa, the beloved wife of Surgeon-Major B. F. Zimmermann, Army Medical Staff, aged 32.

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances*—Daily, 2. *Operations*.—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances*.—Daily, 1. *Operations*.—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR.—*Attendances*.—M. W. Th. S., 2; Tu. F., 5. *Operations*.—Daily.

CHARING CROSS. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations*.—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances*.—Daily, 1.30. *Operations*.—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances*.—M. Tu. Th. F., 2. *Operations*.—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations*.—F., 2.

GREAT NORTHERN CENTRAL. *Attendances*.—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30 Skin, W., 2.30; Dental, W., 2. *Operations*.—M. W. Th. F.

GUY'S. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations*.—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Attendances*.—Daily, 10. *Operations*.—M. Th., 2.

KING'S COLLEGE. *Attendances*.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations*.—M. F. S., 2.

LONDON. *Attendances*.—Medical daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric. M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Tu., 9; Dental, Tu., 9. *Operations*.—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE. *Attendances*.—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations*.—M. Th., 4.30.

METROPOLITAN. *Attendances*.—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations*.—F., 9.

MIDDLESEX. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations*.—W., 1.30; S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Attendances*.—M. Tu. Th. F., 2. *Operations*.—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances*.—Daily, 2; Ophthalmic, W. S., 9.30 *Operations*.—Tu. F., 9.

NORTH-WEST LONDON. *Attendances*.—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations*.—Tu., 2.30.

ROYAL EYE, Southwark. *Attendances*.—Daily, 2. *Operations*.—Daily.

ROYAL FREE. *Attendances*.—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 3; Dental, Th., 9. *Operations*.—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances*.—Daily, 9. *Operations*.—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances*.—Daily, 1. *Operations*.—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances*.—Daily, 1. *Operations*.—Daily.

ST. BARTHOLOMEW'S. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations*.—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th. 2.

ST. GEORGE'S. *Attendances*.—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations*.—M. Tu. Th. F. S., 1.

ST. MARK'S. *Attendances*.—Fistula and Diseases of the Rectum, males S., 3; females; W., 9.45. *Operations*.—M., 2; Tu., 2.30.

ST. MARY'S. *Attendances*.—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.45; Eye, Tu. F. S., 9; Ear, M. Fu., 3; Orthopædic, W., 10; Throat, Tu. F., 3.0; Skin, M. Tu., 9.30; Electro-therapeutics, M. Th., 2.30; Dental, W. S., 9.30; Children's Medical, Tu. F., 9.15; Children's Surgical, S., 9.15. *Operations*.—M., 2.30.; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances*.—M. 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children). 2; S., 4. *Operations*.—W. F., 2.

ST. THOMAS'S. *Attendances*.—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations*.—M. W. Th. S., 2; Tu. Th., 8.30; (Ophthalmic), Tu., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances*.—Daily, 1.30. *Operations*.—W., 2.30.

THROAT, Golden Square. *Attendances*.—Daily, 1.30; Tu. F., 6.30. *Operations*.—Th., 2.

UNIVERSITY COLLEGE. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30. *Operations*.—Tu. W. Th., 2.

WEST LONDON. *Attendances*.—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations*.—Tu. F., 2.30.

WESTMINSTER. *Attendances*.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, Tu. F., 9.30; Ear, M. Th., 9.30; Skin, W., 1; Dental, W. S., 9.15. *Operations*.—M. Tu. W., 2.

# LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

### QUERIES.

F. C. W. asks: Will any member kindly inform me if there is a perfectly satisfactory fountain pen on the market? I have spent one or two half guineas on pens which have one or more defects, the principal being (1) difficulty of making the pen start, and (2) irregularity of the flow of ink to the nib.

M.B. asks for information as to the suitability or otherwise of the climate of Cuba and North Borneo for incipient phthisis. His patient is a strong young man, aged 23, in the early stage of the disease. If Cuba or North Borneo would be suitable for his case, he could in either case follow his present business.

NON-MENSTRUATION AND MARRIAGE.

NEMO writes: A lady, aged 25, has received an excellent offer of marriage but she has never once seen a trace of catamenia. Her mother tells me that her health is perfect, and but for this singular absence of what is usual with women she knows of nothing wrong, but she asks my advice as to her daughter getting married or declining the offer. What shall I tell her?

INFECTION DURING INCUBATION.

M.B. BRUX. inquires: (1) If it is generally accepted that in cases of measles, whooping-cough, and mumps the infection can be carried to others by anyone who is incubating for one of the above diseases, and before any premonitory symptoms have appeared? 2. If the infection in the above diseases can be conveyed by a healthy non-incubating person to others?

LOCUM TENENS AND CLUBS.

A.T., writing from Ballarat, Victoria, desires to know what is the custom of the profession in this country under the following circumstances: While he was away from home on account of ill-health he left his practice in charge of a *locum tenens*, who was alleged to have neglected some of his club patients, who, in consequence, called in private doctors. When the latter sent in their bills the clubs required our correspondent to pay, and he wishes to know whether his *locum tenens* is not liable to make good this loss out of his salary.

*** In this country, in the absence of special agreement, no club can compel its medical officer to pay bills contracted by a member with a private practitioner. If club patients in Australia resemble those in this country, it is not surprising that they seize the opportunity of calling in other practitioners in the absence of their own medical officer. They generally have some acquaintance with a neighbouring practitioner, while the *locum tenens* is unknown to them, so that if our Australian brethren submit to such regulations they ought to blame themselves for the result, and to be very chary in believing that the conduct of the club patients is in consequence of neglect on the part of the *locum tenens*. Nothing short of the most wilful neglect on the part of the latter would warrant a deduction from his salary.

### ANSWERS.

DR. SHUTTLEWORTH (Ancaster House, Richmond Hill) writes in reply to two queries in the BRITISH MEDICAL JOURNAL of April 10th, page 954, as follows: 1. Epileptic girl (not idiot) might be received, when accommodation is complete, at Colony for Epileptics, Chalfont St. Peters; information from Secretary (Mr. Penn Gaskell), 12, Buckingham Street, Strand, W.C. 2. Epileptic idiot if in metropolitan district would be admissible to Darenth Asylum, but at present there exists no special institution for pauper idiots in the provinces. Northampton County Asylum has a special department for idiots paid for by guardians.

HERNIA OF THE VERMIFORM APPENDIX.

DR. RICHARD NEALE (South Hampstead, N.W.) writes: A reference to Section 885: 5 of the *Medical Digest*, 1890 edit., and the Appendix, 1895, will tell Mr. Newbolt of many cases similar to the one he reported last March, nine of which are collected by Mr. Davies-Colley.

PAINFUL FLATULENCE.

FAR AWAY writes to recommend carbolic acid in the case described by "Verax." The following I have found, he says, very useful for flatulent distension: I obtained it, I think, from Dr. Whitla's *Materia Medica*: R Acid. carbolici gr. j; quin. disulph. gr. j; ext. nuc. vom. gr. ss; ext. gentian. q.s. Fiat pil. One to be taken twice or three times a day.

OBSTINATE MASTURBATION.

DR. CHARLES W. HOWATSON (Dunblane, N.B.) recommends hypnotic suggestion, if possible. I have myself, he writes, cured two cases by this means after all other treatment had failed signally.

J. D. W. writes that the early age of "J. F. B.'s" patient renders it highly probable that reflex irritation of the genital organs is the exciting cause. He therefore suggests that the following points should be carefully examined: (1) The urine, especially for hyperacidity; (2) the bladder, for stone; next, turn his attention to the rectum, and examine for worms, polypus, prolapsus, etc.

M.D. writes: The child should wear at night a pair of wire gloves, by Hawksley, Oxford Street, costing £2 2s., if practicable. During the day he must be closely watched, without a moment's cessation, and never allowed to pass water or go alone to the watercloset. He should be made to understand that the habit is a disgusting one, and that it will ruin his mind and body. This may be impressed upon his childish nature by withholding sweets, puddings, jams, and all nice things whenever he misbehaves in this way. The countenance, if closely

watched, will, to a careful observer, discover when he has transgressed. He should have tinct. sulphate in pills; cool baths if practicable. The iron should be omitted. The parents must effectively co-operate with the doctor to effect a cure.

F.R.C.S. writes: J. F. B. has, of course, performed circumcision. Cauterisation longitudinally instead of round the penis is the better. I should not give phosphates, as they are direct aphrodisiacs. There is possibly some neighbouring irritation, perhaps worms or some bladder trouble to account for it.

Mr Lennox Browne (London) suggests, in reply to J. F. B., that search should be made for adenoids, as he has had experience in two or three instances of cure of this vice—if vice it can be called in one so young—as well as of many cases of nocturnal enuresis, by removal of this possible cause of reflex irritation.

R. H. suggests that J. F. B. tries painting the penis and scrotum with a 20 per cent. solution of cocaine several times a day till complete anæsthesia is got, as he has had success with this method in cases of too frequent nocturnal emissions, where the cause seemed to lie in hyperæsthesia of the glans penis.

## NOTES, LETTERS, Etc.

### International Congress of Medicine, Moscow, 1897.

Dr. Arthur G. Blomfield (Exeter) writes: It is probable that many London and provincial medical men will attend the congress at Moscow, August 19th to 26th. There is always a certain amount of trouble and inconvenience in arranging isolated parties of twos and threes, so it occurs to me that it might be a pleasant arrangement if those of us who are going from this country form a party and go together. I have been in communication with Messrs. Thomas Cook and Son, who have been most obliging, and they have prepared a programme at an inclusive fare of 45 guineas each person, providing for first class travel tickets from London *viâ* Berlin and Warsaw to Moscow, returning *viâ* St. Petersburg, Helsingfors, Stockholm, Copenhagen, Hamburg, Flushing, to London, with hotel accommodation, consisting of breakfast, luncheon, dinner, and bedroom, lights, and service; restaurant and sleeping car accommodation, free conveyance of 56 lbs. of luggage, fees to hotel and railway servants, and the services of a competent conductor, who will superintend the travelling arrangements throughout. Messrs. Cook's terms are so reasonable that I hope many will be prepared to join the party. Messrs. Cook will send to anyone applying a detailed programme, and will be pleased to answer all questions.

### The Ringworm Fungi.

Mr. George Pernet (Upper Gloucester Place, N.W.) writes: In your review of Drs. Colcott Fox and Blaxall's inquiry into the plurality of the ringworm fungi it is stated that "until Sabouraud showed that these different sizes (that is, of spores) corresponded with different varieties of fungi, the true explanation does not seem to have occurred to anyone." I am sure your reviewer will pardon me for pointing out that this is not quite accurate. In 1842-44 Gruby had already differentiated three fungi. The information is supplied by M. Sabouraud himself in his beautiful monograph on *Les Trichophyties Humaines* (Paris, 1894, p. 12 *et seq.*) Gruby's previous work, however, does not in the least affect M. Sabouraud's position as a pioneer, for the latter's elaborate researches were quite original.

### The Society of Apothecaries and the Record Reign.

Henry W. Williams, M.D. (Portland Place, W.) writes: The medical man's rank in society and in military and naval circles is barely acknowledged as that of a gentleman when compared with the sister professions of divinity and law. There may be many ways of accounting for such a lamentable condition of things, but I cannot help thinking that there are two chief factors which play the most important part in determining the so considered inferior status of the general practitioner of medicine, namely (1) Providing patients with medicine, etc.; (2) the title apothecary. As long as medical men supply medicines so long will the public look upon us as a trading body, to extinction in many cases of the professional side of our calling. Everyone must admit how much good service the Society of Apothecaries have done for medical men in times gone by, and it would be unfair to get rid of the Hall as a licensing body *in toto*. Let us get rid of the name only, and in its place let us have the Faculty of Medicine and Surgery of London, licentiates to be surgeons doubly-qualified, as at present. Surely L.F.M. and S. reads better than L.S.A.

### Treatment of Bronchitis and Broncho-pneumonia in Children.

Dr. C. Hamilton Whiteford (Plymouth) writes: Mr. Senior's condemnation of poultices for lung inflammations of children is certainly called for, as with the laity, and not infrequently medical men, the acme of treatment lies in the application of a poultice, which for a short time warms the patient, but for most of the time is kept warm by him. Like him, I have for several years past treated pneumonia in children (and in adults) by a cotton-wool jacket combined with counter-irritation. The jacket is so comfortable that many patients will only consent to leave it off gradually by pulling out bits of the wool each day. Another abomination is the bronchitis kettle, the steam from which, especially in a tent, condenses on and saturates everything. When the air is exceptionally dry, as in an east wind, I allow an ordinary kettle to simmer on the hob with the spout turned away from the fire, enough steam getting into the room to moisten the air, but most of the steam passing up the chimney. Oxygen as a preventive of heart failure is most useful. It is often given too late and not often enough. It frequently requires to be given nearly constantly. I have seen a child unable to sleep from pneumonia fall into a sound sleep after a few minutes' inhalation of oxygen.

### The Mortality from Puerperal Fever.

M.D.Edin. writes: In the British Medical Journal of April 3rd "M.D." makes the statement that the cause of our present unsuccessful midwifery practice is "the totally inefficient initial preparation of our newly-acquired medical practitioners." He then proceeds to give two instances of lamentable ignorance as to the application of forceps without even insinuating that fever followed in either case. The unsuccessful attempt to apply forceps, if carried out with antiseptic precautions, would not give rise to it. The young practitioner has at least a knowledge of the value of antiseptics and ordinary cleanliness in obstetric practice. If puerperal fever followed in the second case I should say the cause was in all probability the midwife. In all cases I have had where septic symptoms have developed, the patient had been examined previous to my arrival by a midwife who was totally ignorant of the value of ordinary cleanliness. In 600 confinements I have only had one fatal case of puerperal fever, and there the confinement was over when I arrived. Other fatal cases of puerperal fever I have seen have been cases attended by midwives, and a doctor has only been called in when it was too late to be of any use. The private practitioner may take what antiseptic precautions he likes, but so long as ignorant women of the Sarah Gamp type make vaginal examinations before he arrives, and have the care of the patients afterwards, these will be of little avail, and puerperal fever will occur. Sarah Gamp has been eliminated from maternity hospitals, but still exists in private practice, along with the old women who believe that to open the window or bathe the patient before the third day will give her the fever, and to keep the placenta below the bed for a week will keep it away.

### Extraction of First Permanent Molar.

Dr. A. Norton-Taylor, M.R.C.S. (Orlando, Florida, U.S.A.) writes: With reference to the memorandum by Mr. Whitehouse on the Judicious Extraction of the First Permanent Molar, British Medical Journal, February 27th, 1897, p. 521, I well remember when dental surgeons dresser to the late Mr. Salter, of Guy's Hospital, a conversation on the first permanent molar, when Mr. Salter strongly urged the removal of those teeth as a routine practice. I have mentioned this to dentists in this country, but the suggestion has not met with approval on the grounds that the tendency in the course of years would be to the still further contraction of the modern jaw.

### The Opium-Cocaine Treatment of Malignant Disease.

Dr. Herbert Snow (Gloucester Place, W.) writes: I submit the following memoranda in continuation of my paper on this subject published in the British Medical Journal of September 19th, 1896. As then remarked, the treatment is based upon considerations of the fundamentally neurotic origin and character of average cancerous disease—points indicating that any future improvement in cancer therapeutics should be sought among drugs of the "neurotic" class. In disease of the alimentary tract the local analgesic effects of cocaine, added to its remote as a nerve stimulant, give it especial value; but for imperative reasons of hospital finance I have been reluctantly compelled to abandon this costly medicine for the majority of my hospital patients. With one or two of these who had previously been taking a grain thrice daily a curious phenomenon produced by the cessation was intense somnolence for two to three days. Ordinarily ½ grain in pill three times a day is sufficient to ensure the maximum of benefit without ill effect; it is best to commence with a single daily dose. For tongue or mouth epithelioma the drug is given in solution with the morphine. For ulcerated carcinoma a lotion of 2 to 3 grains to ʒj is a most soothing application, obviates malodour, favours cicatrisation. Beside the few typical cases here cited I may mention that a large number of women whose breasts have been removed for scirrhus two to eight years, and who are known to have extensive marrow deposits, take moderate doses of opium alone, and are unconscious of any ill, the cocaine not being added until there is palpable "recurrence."

(1) Ellen W., 52. In May, 1895, two huge masses separated by central cleft, distended abdomen to size of full term pregnancy, and were diagnosed as sarcomata of the broad ligaments; continuous severe pain, emaciation and exhaustion to the last degree. Now the woman is almost florid in appearance, looks well and happy, is entirely free from any pain, and the tumours are smaller.

(2) James G., 64, in June, 1896, underwent exploratory laparotomy for a hard nodular mass, 3 to 4 inches in diameter, extensive infiltrating abdominal muscles in middle line, and undoubtedly sarcomatous. It proved impossible to remove this. Now tumour much smaller, man robust, with no trouble in any shape, working regularly as a sawyer.

(3) Peter M., 62, seen June 1st, 1896, with extensive epitheliomatous ulceration along alveolus, and a fixed mass of cervical glands as large as the fist. The sore completely healed by November. The glands are exactly *in statu quo*. The old man lately told me that "he felt like a schoolboy, and was never better in his life."

(4) Joseph A., 59, seen January, 1896, with epithelioma (advanced) of floor of mouth and gums, and a large prominent mass of cervical glands. An alcoholic coachman, and unfavourable subject for treatment. All pain promptly ceased, the ulceration entirely cicatrised, the glands underwent superficial erosion, but did not, as usual, break down *en masse*, and the patient remained practically well until February 5th last, since when he has not attended. Three cases similar to the preceding have been only a few weeks under treatment as out-patients, but all show marked local and general improvement. One of these, with a deep excavation under the tongue, and a large mass of fixed glands on both sides, lately told me he had been able to work seventeen hours the day before, as a fishmonger and poulterer.

(5) Jane B., 50, under treatment from January, 1896, for abdominal (probably intestinal) carcinoma, a hard "walnut" tumour below the umbilicus, alternate diarrhœa and constipation, extreme emaciation, frequent vomiting—now goes about almost as usual, with entire freedom from pain, sickness, or other bad symptom.

(6) Susan W., 46, attending since April, 1895, with an old-standing, deep, scirrhous ulcer, 3 to 4 inches in diameter, of right breast. The sore cicatrised over, strength is well maintained, there is no suffering, and no appreciable advance of disease.

(7) Emily M., 43, was admitted in February, 1893, in the last stage of exhaustion from advanced uterine (cervical) carcinoma, the pelvic tissues being deeply infiltrated. By April she had sufficiently revived to

go home, and take sole charge of her eight young children. This she continued to do till September, 1894, when she practically died in harness.

GREENSTICK FRACTURE OF THE THIGH IN AN ADULT BY MUSCULAR VIOLENCE.

DR. A. ST. LAWRANCE BURKE (Dudley Port, Tipton) writes: A. F., who had been suffering from quinsey for about two days, was coming downstairs when he happened to put his foot on a poultice; he slipped, and in trying to recover his balance and prevent himself from falling, he felt a severe pain in the outer side of the upper third of thigh. He then lay down for some hours, and felt better. He never mentioned the accident to me.

A fortnight after the mishap on the stairs he walked to his work, some 300 yards from his house. After the first heat, which is one hour's hard work (he being an iron worker), he was compelled to come home. This was on a Tuesday. On the following Saturday he was walking to see some friends when he accidentally caught his foot against an obstruction, and immediately felt a severe pain at the inner side of his thigh in the upper third. He described this pain as if something was being ripped or torn in his thigh. He had to be conveyed home in a wheelbarrow.

On hearing the history of the case I came to the conclusion that he had either ruptured some of the muscles inserted into this portion of the femur, or had fractured his thigh. There was no shortening or lengthening of the limb, and he had all the movements of the normal limb, and the pain which he felt at the seat of the injury was all that he complained of. There was no crepitus. I had him put comfortably in the recumbent position, and treated the case by rest, and gave some liniment to be applied three times a day. I saw him next day and he said he felt better.

In the course of a week he got up and went for a walk, about one hundred yards, and did this every day for a week, at the end of which time he again sent for me as he was on his way to the surgery but had to go home again. I determined to manipulate the parts thoroughly and as there was much wasting of the muscles both of the buttocks and thigh, I came to the conclusion that the nerve supply had been interfered with. The pain about the upper third of the thigh was unbearable when I manipulated it, but he bore it well; having examined again for crepitus I felt something crack like some ligamentous adhesions, and on still manipulating the part, I suddenly felt the bone break right through, and the patient exclaimed his thigh was broken. When this occurred, I immediately came to the conclusion he had had a greenstick fracture, and I completed it. I put him up in a Liston long splint and extension.

There seems to be a constitutional tendency to fractures in this patient, as about three years ago he fractured the neck of his humerus while bowling at cricket. Altogether this case has been a very exceptional, and to me a very unusual one, as I believe greenstick fracture of the thigh in the adult is very rare indeed. I have put the patient on lime salts, etc., in order to reduce the tendency, if possible, to similar mishaps and to hasten the union of the bone.

ENGINEER MIDWIFERY.

A CORRESPONDENT of the *Petit Var* gives an example of what handy men in the French navy can do, and, in truth, points to the refinement of naval training. A peasant woman was suddenly taken ill on the shore at Cannes, just opposite where a torpedo boat was moored. Her cries brought two sailors to her assistance, and before the men could get further help a child was born, and the engine-room artificer and the first-class stoker acted as doctor and nurse with complete success. Mother and child were removed to the naval infirmary, and the husband was sent for at once. As it was the 1st of April the good man thought i was a "poisson d'Avril," but the correspondent says that he was duly rateful to the amateur doctors when he discovered that his wife had really had a child.

PSEUDO-TEMPERANCE DRINKS.

SOME interesting facts about temperance drinks were stated in evidence before the Liquor Licensing Laws Commission, and are culled from their Blue Book report. Mr. Bannister, Deputy-Principal of the Inland Revenue branch of the Government Laboratory, mentioned a particular kind of herb in which there was 11 per cent. of alcohol. The magistrates would not convict the woman who sold it either. They came to the conclusion that she was not selling beer, and so she got off. A "Blue Ribbon drink," examined at Somerset House in 1895, contained close upon 3 per cent. of proof spirit; parsnip beer contained nearly 14 per cent., which is more than is contained in ordinary public-house beer. The proof spirit in larger proportions than in the Blue Ribbon drink was found in "horehound beer," "bicycling tonic," "temperance beer," and so on. In the appendix there are some more details about the "non-intoxicating" liquors sold without licence, and supposed to contain less than 2 per cent. of proof spirit. Of ginger beer there were three specimens, one with nearly 8½ per cent. of proof spirit, another with 6½ per cent., and a third with 5½ per cent. "Medical porter" was medicated at the time of examination with about 7 per cent. of proof spirit. "Orangeade" yielded 8 per cent. of proof spirit. Dandelion stout was equally potent, and there was a "botanic porter," in which the proof spirit was 6½ per cent.

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**LETTERS, COMMUNICATIONS, ETC., have been received from:**

(**A**) Mr. W. Armstrong, Buxton; A. F. K.; W. J. J. Arnold, M.B., Aberdare; W. T. Allen, M.B., Liverpool; Mr. W. C. Alexander, Bowdon; Mr. E. Andreoli, London. (**B**) J. W. Batterham, M.B., St. Leonards-on-Sea; Dr. R. C. Buist, Dundee; Dr. E. Blomfield, Exeter; Mr. S. Bidwell, London; Mr. L. Browne, London; Dr. J. W. Ballantyne, Edinburgh; Mr. E. Buxton, Liverpool. (**C**) Mr. T. Cosham, Nottingham; Dr. C. C. Claremont, Southsea; Miss J. Crosfield, London; Dr. E. Cureton, Shrewsbury; J. J. Clarke, M.B., London; Clinical Society of London, Secretary of the, London; Messrs. G. Foster Clark and Co., Maidstone; Mr. A. Clark, London; J. B. Crozier, M.B., London; Mr. C. Campbell, Oldham; Mr. H. Coates, Salisbury. (**D**) District Medical Officer; Messrs. S. Dusselsma and Co., London; Didymus. (**E**) Electrician; Mr. R. D. Evans, Blaenau Festiniog; Dr. J. Erskine, Glasgow. (**F**) F. C. W.; F.R.C.S.; Far Away; Mr. A. O. Fitzgerald, Lincoln; Fortis per Fide. (**G**) Mr. A. R. Galloway, Aberdeen; Dr. L. Guthrie, London; Mr. W. G. Grant, Derby; T. B. Grimsdale, M.B., Liverpool. (**H**) Mr. F. Hobday, London; Dr. A. Haig, London; Mr. J. Harrold, London; Dr. T. A. Helme, Manchester; Mr. E. H. Howlett, Hull; Mr. C. Heath, London; Dr. Hall, Tunbridge Wells; C. W. Howatson, M.B., Dunblane. (**J**) Mr. W. W. Jones, London; Mr. H. H. Jennings, London; Mr. J. L. Jardine, Dorking; J. D. (**K**) Dr. R. Kirkwood, Largs; Mr. E. P. King, Chepstow. (**L**) Dr. A. Lustig, Florence; Mr. O. Lowsley, Reading; C. W. Low, M.B., Stowmarket; L. E. W.; L.R.C.P. (**M**) Mr. G. W. Macdonald, Dorchester; Dr. J. W. Martin, Burnfoot; Mr. E. S. Morrison, Hereford; Mr. C. T. Merdoch, London; M.B.; M.D.; Dr. A. Money, Sydney, N.S.W.; Dr. T. Maguire, Stony Stratford; Mr. C. D. Marshall, London. (**N**) Dr. R. Neale, London; Nile; Nemo. (**P**) R. Parker, M.B., Liverpool; Dr. E. Palmer, London; Mr. T. Partridge, Stroud; Dr S. T. Pruen, Cheltenham; Mr. C. E. Payne, Leicester. (**R**) J. H. Reynolds, M.B., Edinburgh; Mr. H. T. Roxby, London; H. M. Robinson, M.B., Brechin; R. H.; W. M. Robertshaw, M.B., Sheffield. (**S**) Dr. J. F. W. Silk, London; Mr. G. M. Smith, Clifton; Dr. R. W. Sinclair, South Petherton; Mr. B. Schumacher, London; Society of Apothecaries of London, Secretary of the, London; Messrs. Street and Co., London; S. T. H.; Sheffield Medico-Chirurgical Society, Secretary of the, Sheffield; Dr. W. Smyth, Acklington. (**T**) Mr. J. Teschner, New York; Mr. C. W. Thies, London; J. H. Targett, M.B, London. (**V**) Dr. F. Vicars, London; Variola. (**W**) Messrs. Woolley and Sons, London; Mr. E. B. Wallis, Leiston; R. H. Woods, M.B., Dublin; W. K. Walls, M.B, Manchester; E. W. White, M.B., Dartford; Mr. T. R. Wiglesworth, Santa Francisca; Mr. W. Wrangham, Leicester; Dr. H. Woods, London; W. W. Wagstaffe, M.B., Sevenoaks; Dr. J. P. Wills, Bexhill; Mr. H. W. Williams, Northampton; etc.

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## BOOKS, ETC., RECEIVED.

Descriptive Catalogue of the Pathological Museum of St. Mary's Hospital (Additions, 1891-1897). By J. Jackson Clarke, M.B., F.R.C.S. London: Morton and Burt. 1897.

The Matron's Course. An Introduction to Hospital and Private Nursing. By Miss S. E. Orme. London: The Scientific Press. 1897. 1s.

Klinische Beobachtungen über Beri-Beri. Von Dr. F. Grimm. London: Williams and Norgate. 1897. M.4.

Morphinomanie et Morphinisme. Par Dr. P. Rodet. Paris: Felix Alcan. 1897. Fr.4.

Encyklopaedie der Therapie. Herausgegeben von Dr. O. Liebreich. Zweiter Band, 1 Abteilung. Berlin: August Hirschwald. 1897. M. 8.

Sanitation and Health. By Brigadier-General R. C. Hart, V.C., C.B., R.E. Third Edition. Revised by Brigade-Surgeon-Lieutenant-Colonel T. H. Hendley, C.I.E., M.R.C.S. London: Wm. Clowes and Sons. 1897. 1s. 6d.

Practical Diagnosis. The Use of Symptoms in the Diagnosis of Disease. By H. A. Hare, M.D., B.Sc. London: H. Kimpton. 1897. 21s.

Lectures on Pharmacology for Practitioners and Students. By Dr. C. Binz. Translated from the second German edition by P. W. Latham, M.A., M.D. Vol. II. London: The New Sydenham Society. 1897.

Physiological Laboratory, Guy's Hospital Medical School, London. Collected Papers. Edited by J. W. Washbourn and E. H. Starling. Vol. II. London: 1895-1896.

Diagnostik der Krankheiten des Nervensystems. Von Dr. A. Goldscheider. Berlin: H. Kornfeld. 1897. M. 7.

Outspoken Essays on Social Subjects. London: Wm. Reeves. 1897.

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# REMARKS
ON
# INTESTINAL ANASTOMOSIS BY MEANS OF A NEW PATTERN OF DECALCIFIED BONE RING.*

By CHARLES B. BALL, Ch.M., F.R.C.S.I.,
Regius Professor of Surgery, Dublin University.

Although many methods of joining intestines end to end after resection have been introduced, it can scarcely be said to be as yet settled which procedure possesses the greatest number of advantages; therefore before making a definite choice of any method it is convenient in the first instance to consider the prominent indications which must be fulfilled in order to obtain the most perfect possible result. These may be briefly summarised as follows:

1. Sufficient surface of each end of divided intestine should be opposed in order to obtain a firm bond of adhesion.
2. No leakage should be possible along the line of union.
3. No great pressure should be made by the appliance used on the gut outside the junction, which might endanger the vitality of the intestinal wall.
4. No undue narrowing of the lumen of the bowel should result from the operation.
5. The method selected should be capable of rapid application; this obviously becomes a question of extreme importance in cases of multiple resection.
6. In cases where the intestine above the obstruction is much dilated, while that below it is contracted, the procedure should allow of as even and uniform adjustment as is possible with tubes of unequal calibre.

I do not propose to discuss in detail the many methods that have been introduced, none of which to my mind fully fulfil all the foregoing indications. The use of extremely fine needles and interrupted sutures after the method of Lembert which at first were almost universal, were extremely tedious to apply, and it was almost impossible by these means alone to effect a watertight joint; the same objections apply in a more or less degree to all the methods of suture alone, including the more recent and ingenious method of Maunsell.

The introduction of Murphy's button must be held to mark an epoch in intestinal surgery, and from the ease and rapidity of its application and perfect avoidance of leakage it is a most attractive method, and has largely popularised the performance of these operations. In my own hands it has been attended with most excellent results, but so many cases have occurred of retention of the button, or of extravasation when it is separating, either from insufficient adhesion together of the ends, or from sloughing due to tension of the gut over the instrument, that I have given up its use.

Following the introduction of Senn's plates for lateral intestinal anastomosis, there soon appeared buttons made of decalcified bone or other absorbable material for the purpose of end-to-end junction, which have been employed with more or less success by many surgeons, but more particularly by Mayo Robson, and his original pattern of decalcified bone button has been frequently modified, one of the best being that by Mr. Hayes of Dublin.

I have made a decalcified ivory or bone ring which differs in such essential points from those already in use, and which to my mind so well fulfils all the indications above enumerated as to justify a special description.

They are made in three sizes, which are sufficient for all ordinary cases; the centre of each is perforated to allow of the passage of intestinal contents, the upper and lower ends are smoothly rounded off, while round the circumference a deep groove is turned, wide enough to allow involution of the cut edges of the intestine while keeping the peritoneal surfaces in tolerably close contact; a considerable undercutting of this groove provides accommodation for any surplus of involuted intestine.[1]

The chief feature in the application of this ring, however, is the fact that a continuous lacing suture connecting both portions of intestine is passed loosely through the entire circumference of the divided ends of bowel before the ring is placed in position.

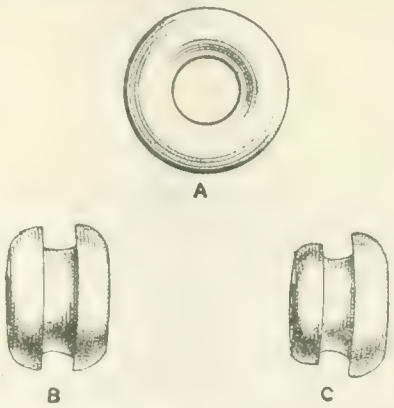



Fig. 1.—A. Vertical view of ring. B. Lateral view showing groove. C. Ring for connecting intestines of unequal calibre.

This suture must be passed with care, and some practice is necessary to make it run smoothly and evenly; it is passed through all the coats of the bowel about one-eighth of an inch from the cut edge. Commencing with the piece of gut to the surgeon's left hand, the needle is passed through from peritoneum to mucous coat, leaving the free end of the suture hanging from the outside of the bowel. The needle is then entered at the mucous surface of the piece of intestine to the surgeon's right hand; in this way we continue round the entire circumference, always entering the needle at the outside of the left hand piece, and the inside of the right hand piece. (Figs. 2 and 3.) When the circuit is complete the

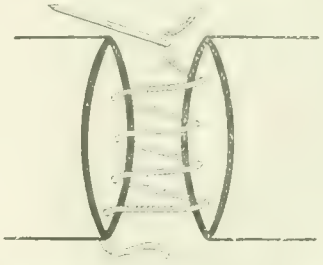


Fig 2.—The way to commence the first lacing suture.

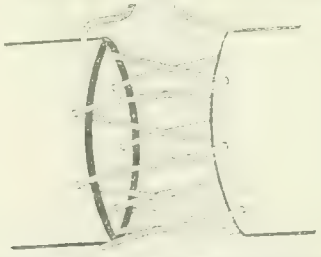


Fig. 3.—The lacing suture completed before introduction of the ring.

second free end should protrude from the peritoneal aspect on the right hand side opposite the first free end on the left hand side. If now a couple of the loops are gently separated the ring can be easily slipped into position, and then by gently pulling the suture loop by loop, as you would the lace of a boot, it is gradually tightened into the groove of the ring, at the same time drawing in and involuting the cut edges of the intestine, and bringing their peritoneal surfaces into contact. (Fig. 4.) When all is nicely adjusted the two ends of the suture are firmly tied. It is desirable now to pass a second fine continuous suture round the outside through peritoneum alone, where the two surfaces of this membrane are in apposition. The needle should be passed alternately on each side parallel to the line of union, and

* Read at the Surgical Section of the Royal Academy of Medicine in Ireland.

when the entire circumference is surrounded, the two ends are tied firmly and union is complete. (Fig. 5.) If the

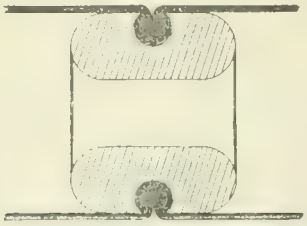


Fig. 4.—Diagram of section showing the ring in position, with involution of the edge of the intestine after tightening the lacing suture.

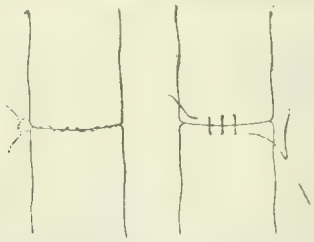


Fig. 5.—The method of passing the external suture through peritoneal and muscular coats alone.

surgeon clearly understands the way the first suture is to be passed, it is possible to effect a union more rapidly by this method than by any other that I know of, not even excepting Murphy's button, while in accuracy of adjustment and avoidance of leakage it leaves nothing to be desired.

I have had some of these rings made with upper and lower halves of unequal diameter; these permit of the more perfect junction being made between the dilated portion of intestine above the stricture and the contracted portion below, in this way resembling the reducing coupling by which a plumber connects two pipes of unequal diameter. In the majority of cases of obstruction I believe this is the best pattern to employ. While an obvious use of these rings will be to connect the ileum with the ascending colon in cases of excision of the cæcum.

The following four cases in which I have used these rings illustrate their applicability to different portions of the intestinal tract; they all occurred last year.

CASE I.—W. McG., aged 57, admitted to hospital April 2nd, 1896. He had a history of intestinal obstruction for a month, which one week before admission had become complete. He had an extreme amount of meteorism, his abdomen being very tense and hard, while stercoraceous vomiting was constant. His condition obviously precluded immediate laparotomy, so an intestinal drain was made by Greig Smith's method, using only local anæsthesia, and without removing the patient from bed; this gave exit to a large quantity of fluid fæces and flatus, and his condition rapidly improved, his urgent symptoms quickly subsiding. On April 15th (eleven days after the drain had been made) his abdomen was opened and a ring-like stricture of the sigmoid flexure, completely occluding the lumen of the bowel, was found; this was excised, and the ends brought together with a Murphy's button. On the eleventh day subsequently, the button was passed, and except for a fistula at the point of drainage the patient was well. Although the bowels continued to act quite normally, the fistula, contrary to my previous experience of such cases, refused to heal, and a prolapse of mucous membrane through it occurred. Consequently, two months subsequently (June 17th) an attempt was made to close the fistula, but finding the bowel much contracted at the opening, a second resection was performed, the ends on this occasion being brought together by means of the ring that I have described. The remains of the ring passed on the eighth day, and the patient rapidly recovered completely, and remains well and free from any recurrence.

CASE II.—A. W., aged 24, admitted to hospital, May 6th, 1896, suffering from a malignant stricture of the rectum of six months' duration. The stricture was situated high up, being only just within reach of the finger, while its upper limit could not be determined. As, however, it was freely movable, it was excised by removal of the coccyx and last bone of the sacrum, the upper and lower ends of the rectum being brought together by means of one of the rings. The remnants of the ring were found loose, and removed through the anus on the eighth day. A small fistula formed at the posterior portion of the line of junction. This, however, closed spontaneously, and the patient recovered completely with good restoration of the function of the bowel, and was discharged from hospital, July 21st, 1896.

The rectum is the most difficult portion of the intestinal tract in which to obtain end-to-end junction. In the first place, it is not completely surrounded by peritoneum, and so the surfaces are not as adhesive as in other parts. Secondly, the more solid fæces in the lower bowel put a greater strain on the newly-united tissues, while the very considerable effort necessary to dilate the anus almost certainly forces some of the fæces through the delicate adhesion. This is all the more likely to take place if the usual method of keeping the bowels confined for several days after operation is adopted.

CASE III.—Female, aged 60, had suffered from abdominal symptoms with increasing constipation for about one year. She had lost flesh, and a freely-movable tumour, about the size of a hen's egg, was to be felt in the right hypochondrium. Laparotomy was performed September 26th, 1896, and the tumour was found to be in the transverse colon. A considerable piece of the colon had to be excised, and with it of course the attached great omentum. The divided ends came nicely together, and were attached by means of a ring. The case progressed for a week most favourably with no untoward symptoms whatever. The bowels acted quite naturally on the fifth day, but on the seventh, after the wound had quite healed, she suddenly became collapsed, and died in three hours, her symptoms being cardiac and not abdominal. As no *post-mortem* examination was obtained, we cannot definitely say what the immediate cause of death was, but I am, however, confident it was not the result of giving way of the united intestine.

CASE IV.—M. B., aged 45, was admitted to hospital on December 21st, 1896. She had a considerable right femoral hernia, which had been strangulated forty-eight hours. As was suspected from her symptoms, we found on opening the sac that the intestine was in a state of gangrene, dark green in colour, with fœtid fluid in the sac. Instead of relieving the stricture in the usual way, I incised the tendon of the external oblique muscle of the abdomen directly above the neck of the sac, and then, by cutting through Poupart's ligament, relieved the stricture; the gangrenous intestine was then excised. The intestine above the strangulation was quite twice the diameter of that below, and consequently a ring which fitted nicely the upper part could not be introduced into the lower. I therefore pared away with a knife the lower portion of the decalcified ring until it fitted without strain and completed the junction; after thorough cleansing of the peritoneum, the gangrenous sac was dissected away and the neck stitched to the upper angle of the wound, the divided Poupart's ligature being closed by a suture. As some of these fæces had escaped into the abdominal cavity, I thought it safer to introduce a drainage tube. Recovery was as rapid as in the most ordinary case of strangulated hernia, and the patient is now back in her former situation as a cook as well as ever. She has, however, a slight tendency to hernia along the track of the drainage tube, but Poupart's ligament and the femoral ring are perfectly sound. In this case the difficulty of adjusting the dilated intestine above to the contracted bowel below, suggested the idea of having the rings made with the upper and lower halves of unequal diameter, and I am convinced that this alteration of the pattern is a very great improvement. The method adopted of relieving the stricture by cutting directly through Poupart's ligament instead of incising Gimbernat's ligament is, I believe, the rational way of treating strangulated femoral hernia; I know it is opposed to one of the surgical dogmas we were all taught, but the advantages of dividing a strangulation from without instead of from within are obvious. The division of Poupart's ligament does not weaken the abdominal wall any more than an incision in any other part of the abdomen while the suturing together of the ends of this ligament beneath the neck of the hernia effectually closes the femoral ring in a way that is otherwise impossible. In this particular case, if the old operation has been performed it would have been necessary to have opened the abdomen above as well, to complete the resection, as it would have been impossible to have returned the sutured intestine through the femoral ring without injury.

NOTE.

[1] The rings can be obtained from Messrs. Krohne and Sesemann, London, and Messrs. Fannin and Co., Dublin.

## A CASE OF INTESTINAL OBSTRUCTION THROUGH A HOLE IN THE MESENTERY, ASSOCIATED WITH VOLVULUS AND HÆMORRHAGE INTO THE ABDOMINAL CAVITY: OPERATION: RECOVERY.

BY J. GREIG SMITH, M.A., F.R.S.E.,
Surgeon to the Bristol Royal Infirmary; Professor of Surgery, University College, Bristol.

THE following case seems to be worthy of record on account of the unusual nature of the cause of obstruction, and of the rare accompaniment of the presence of blood extravasated into the peritoneal cavity.

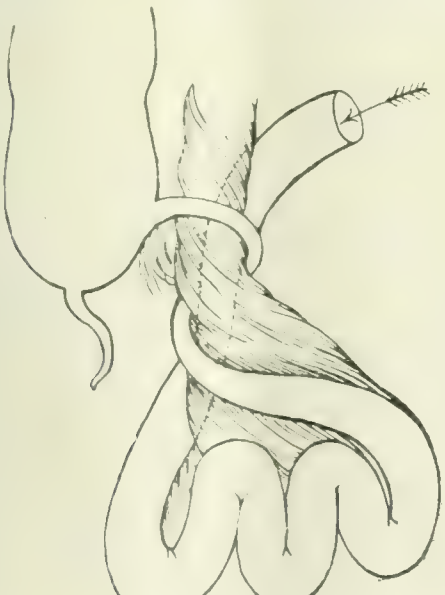
The patient, a delicate boy of 12, was admitted to the Bristol Royal Infirmary on March 3rd, 1897, with symptoms of acute intestinal obstruction. Three weeks previously he had been suddenly seized with acute pain in the right abdomen; vomiting at once set in, and continued a fortnight. The patient was treated by rectal feeding and purgative injections. His temperature rose to 103° F. At the end of a fortnight his condition improved a little, and he was able to keep down some liquid food. On March 1st, however, after eating some solid food, there was a recurrence of the acute

symptoms with vomiting of green fluid in considerable quantities. On March 3rd he was sent to the Bristol Infirmary, and was operated on next morning.

The abdomen was greatly distended, the intestinal coils being clearly visible through the thin parietes. The incision was made along the outer margin of the right rectus abdominis, its fibres being separated. A large volvulus was at once found, its base being near the ileo-cæcal junction, and the loops of bowels hanging down into the pelvis. The whole was delivered, and twisting of the mesentery, easily visible to those in the operating theatre, was undone after four complete rotations. But the distended coils did not empty themselves, so the fingers were reinserted to explore, and found what seemed to be a thick fibrous band encircling the base of the twisted coils deep down in the posterior wall of the cavity. Thinking that the constricting band might be the appendix vermiformis, I exposed it by retracting the intestines, and decided from its size and appearance that it probably was the appendix. However, the appendix, when looked for, was found perfectly healthy, and it was then clear that strangulation was kept up by the end of the ileum itself, and that the loop of volvulus had passed through a hole in the mesentery. The ileum encircling the base of the loop was no thicker than many appendices, and looked pale and stretched, while the loops of strangulated gut were very dark, and in places hæmorrhagic. The hernia, for such it was, was easily reduced by dragging on the entering bowel, and squeezing the distended loops so as to empty them.

While the operation was going on liquid blood, or rather blood mingled with serum, was freely welling up out of the abdomen, and was mopped up as it came to the surface. The peritoneum everywhere was blood-stained, and the bleeding doubtless arose from the strangulated bowels or mesentery. The boy made an easy recovery.

The condition found I have endeavoured to depict in the accompanying diagram. For the sake of clearness the amount



of twisting and the number of loops involved are shown as being less than they actually were.

Slight degrees of volvulus round the mesenteric axis are described as being fairly common in cases of strangulation by bands and through apertures. In an experience of well over a hundred operations for obstruction I cannot say that I have found it so. I think I have met with it only four or five times. In one case of partial strangulation by the appendix vermiformis operated on for Dr. Fred. Evans, of Cardiff, a single loop of bowel was twisted once. In another, of strangulation through an opening in the left broad ligament operated on in the Bristol Infirmary, the bowel, lower ileum, was twisted on itself several times. In a third case, where the Fallopian tube was the direct cause, but in a manner which I have never understood, there was volvulus of the sigmoid, but not to a marked degree. None of these cases were of the most severely acute type, and all got well. Simple uncomplicated volvulus has been, in my experience, a more grave condition than volvulus accompanied by internal hernia.

This case suggests an explanation. The first element in the obstruction was doubtless the passing of a loop of gut through the hole in the mesentery. This loop was close to the cæcum, where one end of it was fixed. Now the intestine being fixed at one extremity, new bowel could be passed through the opening only from the free side, and as the bowel passed through it it tends to cause volvulus, as the coils are piled up at the end of the holding mesentery. Perhaps the diagram will explain the process more readily than a written description.

Now this twisting, by keeping the gut on the stretch and preventing ballooning, may actually obviate complete obstruction, and may conceivably prevent excessive venous engorgement. The amount of blood found in the abdomen suggests that it may have escaped from the thin mesenteric veins by the twisting, just as water is wrung out of a wet cloth. I have never seen so much blood associated with internal strangulation of the bowels, although it is usual to find any serum present stained with blood.

# PRESIDENTIAL ADDRESS
ON
# SOME EXPERIENCES OF A COLONIAL SURGEON

*Delivered at the First Quarterly Meeting for 1897 of the British Guiana Branch of the British Medical Association.*

By the Hon. D. PALMER ROSS, M.D., C.M.S.

Gentlemen,—I have in the first place to thank you for the honour you have done me in electing me to the Presidential chair of this important Branch, this being the second occasion in which I have had the honour of occupying the chair of a Colonial Branch of the British Medical Association, having been elected President in Jamaica in 1880. Composed as this Branch is of so many members of the profession, some of whom belong to the service of the Colony, and others who pursue the more peaceful path of private practice, I trust that this year we will have the pleasure of hearing many useful and instructive papers.

In the second place, I have to confess to you the difficulty I have experienced in selecting a suitable subject to form the theme of this address, for holding as I now do a purely administrative office, I am to some extent out of touch with the active practice of the profession; and I therefore propose to draw your attention to reminiscences of thirty-two years' hospital and private practice by citing some interesting medical and surgical cases which have fallen to my lot during that time, and which I have never published.

1. *Right Irreducible Inguinal Hernia.*—The first case I will mention is that of a blacksmith who had an irreducible inguinal hernia of enormous size and weight, and to my own knowledge of many years' standing. The tumour reached as low down as the man's ankles, and measured about 18 inches across the centre, the lower half being in an elephantiac condition. He applied at the hospital on account of acute pain and urgent vomiting of a stercoraceous character. On examination it was found that the abdomen was distended and tympanitic, and acutely painful and tender to the touch, the pain and tenderness descending into the upper part of the scrotum. On operating at the situation of the external ring it was found that the pyloric end of the stomach had been dragged down and become tightly strangulated at the external ring, together with a portion of the large intestine. Free division of the ring immediately relieved the strangulation, and it was then found that extensive purulent peritonitis was present, and that the scrotum contained the cæcum, the ascending colon, the pyloric end of the stomach, the omentum, and all the small intestines, the two latter being adherent and incarcerated with scrotum. The patient died, and the *post-mortem*

examination verified what was observed at the time of the operation, the mark of the constriction being clearly visible across the external surface of the end of the stomach.

Sir John Erichsen, in his valuable book, *The Science and Art of Surgery*, on this subject says: "The contents of the sac vary greatly; every viscus except the pancreas having been found in hernial tumours." And again: "An irreducible hernia is usually a source of great inconvenience; it has a tendency to increase if left to itself, until at last it may contain, as in some extreme cases it has been found to do, the greater portion of the abdominal viscera, forming an enormous tumour, inconvenient by its size and weight, in which the penis and scrotum are buried."

An amusing feature in this case was the way in which the patient moved about when well. He placed the enormous mass on a sort of wheelbarrow suspended from his waist by means of a strap, all carefully covered up with a leathern apron. It is also an extraordinary fact that in spite of all the difficulties he pursued his calling to the very last.

2. *Gunshot Wound of Liver.*—This happened to a young lad of about 14 years of age. In passing through a wire fence he pulled through a gun loaded with small shot; the hammer caught in the fence, the gun went off, and the charge tore away the abdominal wall to the extent of the size of the palm of a man's hand, and exposed and lacerated the left lobe of the liver. He made an excellent recovery, and lived to become a member of our profession, but unfortunately died at the age of 25 from small-pox.

3. *Gunshot Wound of Stomach.*—A young man while out on a moonlight night stealing ground provisions, was shot at from a distance, and was struck in the region of the stomach. The gun was charged with broken fragments of rock; some of these were embedded in the abdominal wall, and were easily picked out, while others, including one the size of a small marble, penetrated the cavity of the stomach; the last-named fragments were passed by the rectum. The case progressed very favourably, the largest penetrating wound became a fistulous opening through which food undergoing the process of digestion used to escape; but about six weeks after the receipt of the injury, severe and copious secondary hæmorrhage set in and the patient died. A necropsy disclosed that ulceration had taken place at the site of one of the penetrating wounds, and involved one of the blood vessels in the wall of the stomach. Thus another "Alexis St. Martin" case was lost to medical science.

4. *Gunshot Wound of the Abdomen by Small Shot.*—A black young man, of about 25 years of age, and of good constitution, received the contents of a "fowling piece" loaded with small shot, commonly known as "sparrow dust," in the abdomen. The discharge took place at a short distance from him, the shot striking the abdomen within a space about the circumference of a soup plate. On admission into hospital he was collapsed, and was vomiting and passing blood *per rectum*. He was kept fully under the influence of opium, sustained entirely by nutritious and stimulating enemata, and only allowed to suck small bits of ice. When the pangs of hunger and thirst were great, and his cravings were loud and distressing, he was sent to sleep for hours by hypodermic injections of Battley's sedative. This line of treatment was regularly pursued for a period of six weeks, during which time he was carefully and specially watched night and day. He passed several of the shot, and those lodged in the abdominal wall were removed. The man made a good recovery. At one time when his life was in the balance, it became necessary to inform him that his life was in danger, and that he might possibly die; he then deliberately charged a fellow man with having intentionally fired at him to cause his death. But on recovery he honestly and courageously confessed that his previous statement was not true, and that he had made the accusation against the other (a white man) out of revenge because he was suffering pain. This case shows the disingenuousness of some men, and also points out the value of our noble profession; for had not this man's life been saved by skilled attention, his false dying deposition would undoubtedly have brought his fellow man to the gallows. In other words, two lives were in this instance saved.

5. *Incised Wound of Kidney.*—A black boy, about 14 or 15 years old, in jumping off a wharf into the sea, fell on his back on to a broken bottle, and sustained a horseshoe-shaped wound in the right loin, going right through the tissues of the back. The kidney was found to have received a punctured wound three-quarters of an inch in size, evidently caused by a projecting point of the broken bottle. He made a good recovery.

6. *Penetrating Wound of Abdomen: Protrusion of 18 Inches of Intestine: Severing of Epigastric Artery in Rectal Sheath: Profuse Hæmorrhage, and Penetrating Wound of the Thorax over the Region of the Heart.*—Two sailors, of unusual size and height, belonging to a Spanish man-of-war in the harbour of Kingston, Jamaica, quarrelled on board, and decided to settle their differences by a stand-up fight on shore. They accordingly obtained leave, came on shore with their seconds, refreshed themselves at a public house, and then entered into deadly combat in a secluded spot on the seashore. During the fight the smaller man, getting the worst of the encounter, drew a sailor's knife, and stabbed his taller comrade as above stated. On admission into the public hospital the man was in an utter state of collapse, having fainted from excessive loss of blood. He was found to have received a wound on the right side of the abdomen in the region of the rectus muscle, about 2 inches below the level of the umbilicus, which had severed the epigastric artery, and through which about 18 inches of uninjured small intestine, thickly coated with sand and gravel, protruded. There was no bleeding from the wounded artery at the time of admission, as the cut orifice was temporarily occluded by a clot. The man had also received an upward stab over the region of the heart, penetrating the thorax, through which air rushed when the skin tissues were displaced. The wounded artery was secured, the protruding gut was cleaned and disinfected and returned, and the wounds stitched and bandaged. This man within a month made a good recovery without a rise of temperature or any untoward symptom, and I am disposed to think that, from the loss of blood which took place on the receipt of the injuries, the wounds had time to heal up before any inflammatory reaction could set in. The case was an anxious one inasmuch as the patient belonged to a foreign nation, and repeated applications were made through the consul for his discharge from hospital. As I said before, he was able within a month to attend the Supreme Court and give evidence against his adversary, who was sentenced to twenty years' penal servitude, but shortly after was removed from the colony through the intervention of the Spanish ambassador in London.

7. *Wound of Gluteal Artery and Rectum.*—The subject of these injuries was a finely-developed African negress, about 25 years of age, with well-shaped limbs and prominent buttocks. During a quarrel with her paramour she stabbed her with a butcher's knife in the left buttock, the length of the blade passing through the thick layer of muscles, through the great sciatic notch, dividing the gluteal artery, into the cavity of the rectum. The hæmorrhage was profuse, and before the patient reached the Colonial Hospital in Sierra Leone the wound and rectum were filled with clot and she was in a collapsed condition. In order to secure both ends of the divided vessel the wound of the soft parts had to be freely enlarged, and on this being accomplished the edges of the surface wound were brought together by interrupted suture and the deeper wound allowed to drain into the rectum by keeping the patient lying always either in the prone position or on either side, but never allowing her to lie on her back. Care was also taken to see that she passed her alvine evacuations in the prone position. By this simple means and by the use of disinfectant enemata the parts were kept clean and wholesome, and the wound soon healed in its entire length and depth.

8. *Large Fæcal Impaction in Sigmoid Flexure.*—An Arab of good stature, a frequenter of middens and rubbish heaps, and a wanderer on the face of the globe, came to the hospital in Jamaica complaining of great pain in the belly, which was enormously enlarged, and stated that his bowels had not been opened for upwards of three months, and that he had been eating whatever he could get or find about the town. On careful examination and palpation a large soft doughy mass, about the size of a large cannon ball, was found occupying the whole of the left side of the abdomen, extending as high as the ribs, and reaching well over to the other side. On digital examination *per rectum* the mass was about 2 inches

within the anus, and well within the reach of the finger, its nature and composition being easily discernible. Attempts to break down this huge mass with copious enemata of hot water and oil utterly failed, and it had ultimately to be mechanically removed by the introduction of the hand into the rectum. During the process of removal the hand had to be repeatedly passed up well beyond the elbow in order to empty the bowel thoroughly. As you may imagine, this was not a pleasant performance; it certainly was and has been the most disgusting case I have had in all my experience to deal with. The mass, when all was removed, weighed about 25 lbs., and was found to consist of mango seeds, mango skins, and the fibrous interior of mangoes and other matter of an indigestible nature. The man remained in hospital for a short time after, was discharged in good health, the bowel having resumed its natural size and action.

9. *Compound Comminuted Fracture of Frontal Bone with Laceration of Brain and Membranes.*—This serious injury accidentally happened to an engineer of one of the Royal Mail steamers on her way up the harbour, Kingston, Jamaica. The steamer had been placed in quarantine, and on being released this engineer went to start the machinery, and in doing so his foot slipped just as the steam was turned on, and he was struck on the forehead by the crank handle. He was admitted into the Public Hospital about an hour after the accident in a semi-dazed condition; the left side of the frontal bone was smashed in from the inner corner of the orbit straight up into the hair, and gaped about 2 inches; the brain and membranes were lacerated, a small portion of the former was seen lying on the cheek. The bone was found to be broken up into small bits and driven into the anterior lobe of the brain. The edges of the wound were jagged and sharp; there was hardly any bleeding. The detached fragments and spiculæ of bone were removed, the torn portions of the brain and membranes were carefully replaced, and the wound lightly covered over with lint soaked in and kept constantly moist with carbolic lotion (1 to 40). The patient when in bed was not allowed to assume the supine position, but sat propped up by means of pillows, with the head well raised, and only permitted to turn the head to either side. This was done with the double object of procuring the free discharge forwards of any pus which might have formed, and of preventing it finding its way backwards by gravitation as would have been the case had the patient been allowed to lie on his back with his head unsupported. The wound thus healed kindly, leaving a deep depressed cicatrix through which the pulsations of the brain were distinctly seen. During the progress of the case the patient never had a rise of temperature or any other bad symptom, and, on his discharge from the hospital, he left for England in good health, in good spirits, and in full possession of his senses. About three years afterwards he called upon me at the hospital in good health. He was still following the avocation of an engineer in the Royal Mail Steamship Company, and told me that, with the exception of a slight headache occasionally, he enjoyed good health, and was quite able to carry on the calling of an engineer. On my advice on arrival in England he had made a flesh-coloured silver plate, which he constantly wore over the seat of injury, not only as a protection, but also to hide the disfigurement which existed. At the time of his visit I had the opportunity of inspecting the injury, which I found much in the same condition as when he left the hospital, except, perhaps, that the cicatrix presented a deeper tint of pink, and the pulsations of the brain were more discernible.

10. *Punctured Fracture of Skull: Trephining: Evacuation of Pus.*—A lad of about 20 years of age was admitted into hospital, suffering from unconsciousness after several epileptic fits, and the persons who brought him stated that since he had a fall off a horse some four weeks before he had been getting very stupid, and that suddenly when walking in the streets in the sun he fell down in a fit, which continued for some hours and made him insensible. It was elicited that this lad was thrown from a horse and struck his head against a post on which there was a projecting sharp-headed nail; that he got up at once, rubbed his head, and thought very little more about the matter, as there was very little bleeding at the time. He gradually got stupid and dull, and then suddenly developed fits of an epileptiform character. On examination of the head a small swelling was detected a little above the prominence of the left parietal bone, and on shaving the hair at this situation, a small recent cicatrix was observed in the scalp. On making a free crucial incision down to the bone at this situation and reflecting the triangular flaps, a small puncture was distinctly seen, and on removing a piece of the skull by means of a full-sized trephine, the dura mater was seen bulging into the opening pushed forward by pus which was distinctly seen through it. A crucial incision into the dura mater let free about ½ oz. of pus. The inner table was found broken up, and several of the comminuted fragments were removed. After the operation, the patient soon gained consciousness; there was no return of the convulsions, and he made an uninterrupted recovery. The golden rule to trephine in all cases of punctured fracture of the skull was in this instance of valuable service. The late Professor Spence of Edinburgh, my respected and revered early master and teacher, states in his Lectures on Surgery on this subject:

> It is most essential to bear in mind the condition of the bone in punctured fracture in relation to the brain and its membranes, so as to understand the reasons which induce us to interfere at once in such fractures, although no bad symptoms may be present. In these cases it is indeed rare to have any untoward symptom until six, eight, or ten days after the injury, when the usual symptoms, meningitis and intercranial suppuration, begin to manifest themselves. And again, you must not be beguiled into false security by the trivial appearance of the injury or the absence of bad symptoms at the time. Keep in mind the state of the injured bone and its relation to the brain and dura mater. If we wait until urgent symptoms supervene, our interference is too late; the mischief already done generally proves fatal. Although it is still our duty to give the patient a chance for life, as some few cases have recovered from removal of the fragments of bone and escape of purulent matter even when the operation has been performed late: yet these are rare exceptions, and should not weigh with us as a reason for delay.

11. *Revolver Bullet Wound of Head.*—A coloured jockey, who had been gambling aad drinking heavily, attempted to commit suicide by discharging three chambers of a small loaded revolver into his right ear. When first seen the man was semi-conscious; the side of the head, face, and back of ear were swollen and blackened, and sero-sanguineous fluid was escaping from the vicinity of the external meatus. The bullets with which the revolver had been loaded were small—about the size of a pea. The wound was examined, and found to be situated just within the margin of the posterior wall of the meatus, having a backward direction. The three bullets were evidently lodged in close proximity to each other, favoured by the patient being made to lie with the wound in a dependent position, and by the free escape of discharge, they successively presented themselves at the orifice of ingress and were thus easily extracted. In this instance curiosity was not gratified by probing the wound to ascertain its depth or the position of the bullets. The man recovered and went his way.

12. *Three Cases of Fracture at Base of Skull.*—A. In the first case a groom who was intoxicated and riding furiously a spirited horse on a bridle path in the hills, was violently thrown down a deep precipice. When picked up he was found to be profoundly insensible, having sustained a fracture at the base of the skull. On arrival at the hospital he was still deeply concussed, and presented the usual characteristic symptoms of the injury; there was hæmorrhage from both ears, and swelling behind the angles of the jaw. This man recovered sufficiently to leave the hospital, but he was never the same afterwards; the fulness behind the jaw and back of neck remained; he developed a convergent squint in one eye, and became morose and quarrelsome.

B. In the second case the patient was sitting smoking and leaning against a packet of galvanised iron roof sheeting, when the whole fell and struck him on the top of his head. This patient was also admitted in a state of insensibility, with hæmorrhage from both ears, and a slight fulness behind the angles of the lower jaw. This case also recovered. A remarkable feature during its progress was that this patient suffered incessantly from intense headache which destroyed his sleep and comfort, but which was eventually relieved by 10-grain doses of antipyrin given every four hours.

C. The third case is interesting, and happened to an officer of the Royal Navy belonging to one of H.M. ships which was stationed at the time at Port Royal, Jamaica. He got his head jammed between an iron wharf and a large ship's cutter. The accident happened in this way. A number of ladies and

gentlemen were going on a picnic excursion in the harbour, and while they were embarking a lady dropped her fan between the wharf and the cutter, and in the officer's endeavours to recover the fan while leaning over the gunwale, the cutter lurched, with the result that his head was caught between the edge of the iron landing-stage and the cutter. Remarkable to say, he did not lose consciousness, and immediately exclaimed that his head was cracked. He was at once brought to my hospital, bleeding profusely from the mouth and nose, but not from the ears, and when I asked him what had happened to him, he stated that he had got his head jammed as above, and that he distinctly heard his "head crack like a walnut in a pair of nut-crackers." The hæmorrhage was copious, and was not arrested until the posterior nares and pharynx were completely plugged. No further hæmorrhage occurred until almost a month after the accident, when a very alarming recurrence took place, which only ceased on the patient getting an epileptiform convulsion, and fainting immediately afterwards. Six weeks after this he was considered safe enough to proceed to England, and was received into the Royal Naval Hospital, Devonport, when three months after his arrival he had another severe hæmorrhage, which put an end to his life. A short time before he left for England, he lost the sight of one eye, probably due to pressure on the optic tract, ophthalmoscopic examination disclosing nothing more than extreme anæmia of the disc. A *post-mortem* report of the case furnished to me from the Naval Hospital at Devonport established the diagnosis, namely, that there had been a fracture through the body of the sphenoid bone, laceration of the "cavernous sinus" and blood vessels at that situation, and a large clot of blood causing pressure at the base of the brain.

13. *Five Cases of Ovariotomy.*—During my long experience of hospital and private practice I have performed only five such operations, with the satisfaction, however, that all the patients recovered. In one case the woman had been tapped some eight or nine times, the tumour at the time of operation filling up and enormously distending the abdomen. In another case there was a small adhesion to the under surface of the liver, which was separated with slight laceration of the capsule, and several adhesions of the omentum; the latter were cut through, and the omentum at the points of adhesion ligatured with silk which had been previously soaked in carbolic oil. In two of these cases the clamp was applied to the pedicle, and engaged in the line of incision, and in the others the pedicles were tied with silk ligatures, and returned into the abdominal cavity. The patients were women of middle age, and these cases occurred in my hospital practice.

14. *Laparotomy for Uterine Fibroid.*—This case was mistaken for an ovarian tumour, and it was not until an attempt was made to introduce Spencer Wells's trocar during the operation that its true nature and consistence were made out. The error in diagnosis came about in this way: (*a*) The tumour was fairly movable in the abdomen, and did not to any great extent affect the uterus when moved about. (*b*) The uterus was not fixed, and was found to move freely about on the introduction of a sound which passed up to the normal extent. (*c*) There had been no unusual hæmorrhage. The true character of the tumour having been ascertained, it was found to spring from the right cornu of the uterus, having a pedicle about 2 inches in length and a little over 1 inch in diameter. To remove the mass it was necessary to enlarge the abdominal incision from the pubes right up to the ensiform cartilage. When this was done the tumour just passed through the incision. The pedicle was ligatured by transfixion as well as around its whole circumference by strong mullet-seine twine, thoroughly disinfected in a strong solution of carbolic oil, and the fibroid tumour cut away. About a quarter of a yard of this twine was used in securing the pedicle, which was left in the uterus and replaced in the abdomen. This woman was about 35 years old, and made a good recovery. I heard afterwards that she married and had a child. The tumour weighed 6 lbs. 14 ozs.

15. *Laparotomy for Intestinal Obstruction.*—A strong, healthy man came to hospital complaining of great pain in the belly, stating that his bowels had been confined for some days, that the pain, he thought, was due to his having swallowed a mango seed, and beseeching that his belly should be cut open and the mango seed removed. On admission, as his condition was critical—his features pinched, pulse weak and thready, tongue dry and brown, vomiting of a stercoraceous character present and persistent, abdomen highly tympanitic and exquisitely painful and tender to the touch—it was decided to give him the benefit of the operation he so imploringly asked for, as it was evident that his symptoms were due either to intussusception, band, or obstruction. The operation was therefore performed in the usual situation, with the patient's full consent, the serious nature of it and his condition being first explained to him. On introducing the hand into the abdomen and carefully manipulating the small intestines, a knuckle was found twisted on itself, containing a foreign body which felt like the seed of a mango. On releasing the twisted portion of the gut, peristaltic action was at once restored, and, assisted by the pressure of pent-up gas above the obstruction, the mango seed was immediately and rapidly expelled through the anus. I regret to say that this patient succumbed, the *post-mortem* examination disclosing extensive peritoneo-enteritis.

16. *Ligature of External Iliac Artery.*—A young girl was treated in the Lock Hospital, Jamaica, for chancres and suppurating inguinal glands; those on the left side were much enlarged, and there was extensive ulceration of that groin. The girl's general health was not good, her vitality was low, and her powers of repair *nil*. The ulceration in the groin gradually extended, and caused erosion of the femoral artery, giving me an opportunity of tying the external iliac artery. Considerable difficulty was experienced in doing this, inasmuch as the vessel was embedded among a large number of enlarged syphilitic glands in the pelvis, which had to be removed before it could be fully exposed. I regret to say the poor girl died a few days after the operation from exhaustion.

17. *Ligature of Temporal Artery.*—A boy was forcibly struck on the side of the face by the base of a broken beer bottle, the projecting points penetrating the parotid gland, and dividing the temporal artery as it passes up between the condyle of the lower jaw and the external meatus. The hæmorrhage was uncontrollable in spite of pressure and plugging of the wound. When called to the case some twenty-four hours after the receipt of the injury, the boy was exhausted and restless, and as it was necessary to arrest the bleeding at once, I decided to make the attempt to secure the wounded artery at the seat of injury rather than resort to the more serious operation of ligating either the external or common carotid. The boy was accordingly placed under chloroform, the wound enlarged superficially so as to give more room and a better view. I was able, after careful dissection and patience, to secure the bleeding points. After this the wound healed without the formation of a salivary fistula.

18. *Compound Fracture of Leg and Simple Fracture of Both Thighs.*—These injuries happened to an old woman over 70 years of age, who was knocked down and run over by a tramway car. In spite of her age and infirm condition, she made a fairly good recovery, and walked out of hospital with the assistance of crutches.

19. *Compound and Comminuted Fracture of Both Legs and Feet.*—These extensive injuries, the result of a railway accident, happened to a young man of about 25 years of age, on the Jamaica railway. The lower part of both his legs, including the feet, were terribly crushed and broken up, requiring immediate amputation at the seat of election below the knee. Both legs were accordingly amputated, and he did well until about the seventeenth day after the operation, when alarming secondary hæmorrhage occurred in one of the stumps, complicated with convulsions and syncope, necessitating ligature of the femoral artery. After this he progressed without any interruption towards recovery. He was for many years afterwards employed as a gateman at a railway crossing, moving about fairly well on both his knees, which were protected with a sort of leather boot.

20. *Cane Mill Crush of Hand.*—A middle-aged woman got one of her hands crushed between the stone rollers of a primitive native cane mill worked by a donkey. The ball of the thumb, centre of palm, sides of palm, and every finger throughout its whole length were burst open exposing the tendons, but fortunately no bone was broken. By careful

treatment and attention these contused and lacerated wounds healed very nicely, and the woman recovered with a very useful hand. About six months afterwards she returned to show it to me, and it was satisfactory to see that she could close and open her hand without the slightest difficulty.

21. *a. Two Incised Wounds of the Back.*—In one case the wound was inflicted by means of a sharp razor tied on to a stick during a row between some West India soldiers and citizens of Kingston, Jamaica. The incision commenced at the point of the left shoulder, across the shoulder to the other side of the spinal column, and then perpendicularly downwards to and through the right buttock into the flexure at the back of the thigh. It measured exactly 36 inches in length, and 3½ inches at its widest part about the centre of the back. The deep muscles of the back and buttock were laid open. By the aid of sutures and strapping this wound healed up strongly.

*b.* In the other case the man was wounded in a raid on the West Coast of Africa by a sharp cutlass or sword. The wound in this instance commenced at the nape of the neck, ran downwards, along and down on to the transverse processes of the vertebræ well into and through the buttock. Besides this large and extensive wound the man's left shoulder was nearly severed from his body, the head of the humerus being completely cut through, and the arm was only attached to the body by the blood vessels, nerves, and skin of the axilla. Considerable difficulty was experienced in the daily dressing of these wounds, especially in keeping the divided shoulder in thorough apposition, on account of their extent and situation; but by means of strapping made of emplastrum resinæ spread on strong linen sheeting, and the careful adjustment of bandages and position in bed, the wounds of the back and shoulders healed firmly, and the man left the hospital with a fairly useful upper extremity.

22. *Syphilitic Disease of Skull: Erysipelas.*—This was a remarkable case. A middle-aged man suffering from constitutional syphilis had lost his hard palate and the bones of the nose, and he had several large cloacæ in the skull through which offensive discharge escaped, and through which the pulsations of the brain were distinctly visible. He got a severe attack of erysipelas while a patient in hospital, by going contrary to orders near a patient who was admitted with the disease, and, though his life was at one time in the balance, he recovered from the attack, but died some months afterwards from the further effects of constitutional syphilis.

23. *Abscess of Liver.*—It has been my experience to see four such cases. In one the hepatic abscess ruptured through the lungs, and in two others through the bowels. These cases ended favourably. In one case abscess of the liver came on subsequent to an attack of yellow fever. The liver gradually enlarged and became very prominent, and fluctuation became very distinct. It was not thought advisable to interfere on account of its enormous size, and, while waiting for it to point and open externally, the patient suddenly got weaker and died. The necropsy revealed that the whole of the right lobe was a mere bag containing pus intimately mixed up with blood and broken-down liver tissue.

## ON THE VACCINATION OF ANIMALS AGAINST THE PLAGUE BACILLUS, AND ON THE SERUM OBTAINED THEREFROM.

BY

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After the discovery of the specific plague bacillus by Kitasato and Yersin, Yersin, Calmette, and Borel began their immunisation experiments to obtain an active serum; that from the horse has shown a curative action also on man,[1] but its efficacy in prevention is not yet well determined. To vaccinate small laboratory animals Yersin used virulent cultures of the plague bacillus attenuated by warming during an hour at 58° C. To vaccinate horses he used small doses of the virulent culture injected into the veins: in all cases the vaccinations were made repeatedly and at intervals to give the animals time to recover from the illness caused by each vaccination.

Kolle[2] states that he had inoculated under the skin in four guinea-pigs and five mice small quantities of virulent cultures killed by prolonged warming at 68° C., and that after sixteen days these animals could bear without any reaction the subcutaneous injection of virulent cultures.

As for us, after having studied in rats, in mice (mus decumanus), in guinea-pigs; and in rabbits the general course of the disorder produced by inoculations of the plague bacillus either under the skin or in the peritoneum, in the veins or in the digestive apparatus, we repeated the immunisation experiments of Yersin with the same results. Yersin's vaccination method, however, with attenuated or virulent cultures is slow, and sometimes dangerous for the animals. After many trials we were able to procure from plague bacilli cultivated in agar of which the virulence was known, a substance free from bacteria which, inoculated in animals in sufficient quantity, is extremely poisonous, and in small quantities makes them quite refractory to the most dangerous forms of infection. From the animals, vaccinated two or three times with this substance in small doses and at intervals of two days, we can obtain a serum with decidedly curative and preservative action.

Our "vaccine" has all the chemical characters of the nucleo-proteids.[4] It is obtained in the following manner: We cultivate the plague bacillus of fixed ascertained virulence for a given animal species in large glass boxes (27 cm. diameter), the bottom of which is covered by a flat stratum of agar 5 to 6 mm. thick. After three days of development at 37° C., or even earlier, we scrape the cultural mass, and we dissolve the scrapings in 1 per cent. caustic potash solution. On the degree of concentration of the solution will depend the active power of the vaccine. This liquid containing the bacilli now dead, as was ascertained by bacterioscopic examination, and which has become mucilaginous and opalescent, is filtered through a thick layer of paper: with the help of the air pump some distilled water is added. From this liquid we obtained our vaccine by two methods: (1) by precipitation with acetic or hydrochloric acid; or (2) by saturation with sulphate of ammonium after neutralisation. The precipitate, which is more easily obtained with hydrochloric acid, is collected and washed repeatedly on the filter and dissolved in a very weak solution of sodium carbonate.

We have described its reactions elsewhere.[5] It is soluble in alkalies, precipitated easily by acids, and has the same reactions as the albumens. By digestion it gives an insoluble product and a peptone, and by disassociation by means of sulphuric acid it gives some nucleinic bases. Under the microscope the precipitate obtained through the acids and coloured with methyl-blue is seen to consist of amorphous masses, and only contains a few non-coloured bacilli.

We have already alluded to the toxic qualities of this substance. When it is prepared precisely as described above, the smallest dose of the hydrochloric acid precipitate which kills an animal (rats, mice, rabbits) is 8.35 mg. for 100 g. of its weight; and using the precipitate obtained with acetic acid the dose is 5.28 mg. for 100 g. of its weight; if we inoculate this dose in the animals they die in a few hours.

This substance, dissolved in a weak solution of carbonate of soda and filtered through the Chamberland filter, preserves all its properties unchanged. For greater convenience we had dried it *in vacuo* in the presence of sulphuric acid; then for use as a vaccine we dissolved it in an alkaline solution; a portion of it was also passed through the Chamberland filter, and thus any microbe present removed. This last manipulation, however, requires a great deal of time, and causes the loss of a good deal of the active substance as it passes with great difficulty through the Chamberland candle. Both the substance dried and redissolved, and the liquid passed through the filter, have shown excellent vaccinating qualities.[6]

### Effects of the Vaccination in Animals.

Mice (mus decumanus), rats, rabbits, and guinea-pigs vaccinated under the skin or in the peritoneum with doses always smaller than the lethal mentioned above, did not show any general or local morbid phenomena. Not even the

morphological elements of the blood were altered except by a slight leucocytosis. If the inoculated substance, however, be very concentrated in the solution, some inflammatory œdema is produced at the point of inoculation, and lasts some days.

The animals vaccinated with small doses on one occasion only, or with the minimum killing dose divided into two or three times, and injected subcutaneously at intervals of two days, show the utmost indifference to the subcutaneous and intraperitoneal injections of a great quantity of virulent culture, while healthy animals of the same weight but not vaccinated treated with the same quantity of culture die in twenty-four hours after the injection in the peritoneum, and some days after the subcutaneous injection. In these experiments we have preferred the injection into the peritoneum both for vaccinated and non-vaccinated animals.

The virulent plague bacillus causes different morbid processes according to the place where the injection is made. If into the peritoneum there is an extremely rapid septicæmia (less than twenty-four hours) in the subcutaneous injection, there is a polyadenitis very much like the natural infection in man, and the animal dies in a week.

If the injection is made in the peritoneum with the attenuative culture, or if the animal is one less liable to plague, then, owing perhaps to a bactericidal action of the peritoneum, we find at first only a slight peritonitis, but a few days later the remaining living bacteria cause the characteristic polyadenitis, and the animal dies. The period between the slight peritonitis and the polyadenitis is five or ten days.

Peritoneal are preferable to subcutaneous injections because they cause an infection which is surely mortal, and so they render it possible to ascertain in less than twenty-four hours the virulence of a culture. We can be sure of the immunity conferred by the vaccination if the animal vaccinated and infected go beyond the tenth day. Ours did not show any morbid phenomenon after five weeks from the infection, and the microscopic and bacterioscopic examination of those killed after two weeks did not show any plague bacillus in the blood, the spleen, or in the lymphatic glands.

The vaccinated animals are immune from the infection of plague for at least five weeks from the last vaccination. From the animals vaccinated with the minimum lethal doses, divided and inoculated on three occasions at intervals of two days, we obtained after fourteen days a serum with decidedly preventive and curative properties. We have made experiments on rats and mice with the serum of mice or rabbits, and we ascertained that both have the same curative efficacy; 1.0 c.cm. of serum is enough to prevent peritoneal infection, and with the same quantity a rat weighing 180 to 200 g. injected in the peritoneum with a great quantity—4 to 5 platinum needlefuls—of virulent culture is cured. The curative injection of the serum was tested also after injection through the alimentary canal.

We put in a cage seven small mice (mus musculus), and gave them milk in which a virulent culture was dissolved. Three of them died after three days, and in their blood plague bacilli were found; the other four were severely ill with the characteristic symptoms. We injected in them 0.33 c.cm. serum from a vaccinated rabbit, and all survived. At the present moment we are vaccinating a horse to obtain a curative serum.

Our substance can be regarded as harmless for man, because, when inoculated under the skin in doses of 5 mg. dissolved in sterilised alkalised water it causes only a slight local œdema lasting twenty-four hours. The body temperature is, during the first hours, slightly under the normal; then there is slight fever; the urine is normal; a little prostration and uneasiness is felt. We have inoculated it under the skin of our arms and have besides vaccinated four other persons.

We have already made experiments on more than 120 mice and rats, 30 rabbits, and 15 guinea-pigs. We are certain of the preventive action of our vaccine, that it is free from bacteria, and that its action in animals is very rapid. The vaccine is quite harmless on man, and as the morbid phenomena of the plague in man and in animals are similar we think that its use would be followed by the same effects in man as in animals.

The advantages to be obtained owing to the possibility of working with a substance free from bacteria, dried and dosable, is clear. If we shall be able to prove that the horse by this method gives a serum with curative properties, it will then be easy everywhere and without any danger to prepare it more quickly than by means of virulent cultures.

The cultures of the plague bacilli we owe to Professor Lukianow in the first place, and later to Professor Gabritchewski.

REFERENCES.

[1] Yersin and Roux. [2] *Annales de l'Institut Pasteur*, 1895-97. [3] *Deut. med. Woch.*, No. 10, 1897. [4] Hammarsten, *Zeit. f. physiol. Chemie*, 1894, Bd. xix. [5] *Deut. med. Woch.*, April 8th, 1897. [6] On the toxic qualities of this substance we must repeat here what we have already published in the *Deut. med. Woch.*, April 8th, 1897, namely, that they may vary very much with the age and virulence of the culture from which the substance is taken, and mode of preparation. In two preparations we obtained a vaccine which was more poisonous than that we are now preparing, and the lethal doses given in our first publication (which referred only to two preparations) differ from those that we now give, and which we have ascertained with greater precision.

## THE MICROBIAL ORIGIN OF BALDNESS.

SABOURAUD'S RESEARCHES INTO THE RELATIONS BETWEEN SEBORRHŒA, ALOPECIA AREATA, AND BALDNESS.[1]

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I.

DR. SABOURAUD, a former pupil of the Pasteur Institute, the scientific value of whose work on ringworm[2] is already well known, has just completed some very interesting researches at the St. Louis Hospital on seborrhœa, alopecia areata, the falling out of hair, and baldness. Such diseases as seborrhœa, alopecia areata, ringworm, and baldness do not at first sight appear to have much in common, and the conjunction of their names in the title of a single work must appear very curious. The reader will, however, soon understand the relations between the facts regarding them.

After four years devoted to the mycological and therapeutical study of tinea tonsurans, and after trying in succession all the remedies devised for its cure, Sabouraud came to the conclusion that no antiseptic treatment is absolutely efficacious in the case of a tinea fungus which has invaded the hair as far as the root. This is due to the inaccessibility of the root to antiseptics owing to the narrowness and depth of the hair follicle, which prevent the diffusion of all the therapeutic agents which have been employed. He has furthermore become convinced that if, as appears in favus, one could make a complete series of epilations without breaking the hairs, tinea tonsurans would be rapidly cured. But the diseased hairs break off close to the surface, and so it is necessary to take care to enucleate them by working somehow from below, by the root or even the follicle, killing the latter "temporarily." Following out this line of argument and applying it to alopecia areata, Sabouraud came to the conclusion that if the loss of hair in this disease is due to microbial intoxication, the toxins of the micro-organisms would be capable of inducing alopecia. It would then be possible to use them to produce a temporarily bald area at any desired spot, and so to cause a spontaneous falling out of the tinea-infected hairs, which are too fragile to be removed by epilation. These ingenious but logical conclusions led their author into a new series of researches occupying three years. All that follows is simple to explain, and can be summed up in a few words, but it will be easy to read between the lines the amount of patient labour which Sabouraud has had to carry out.

II.

These ideas seemed at first very pretentious, requiring as they did for their verification nothing less than the discovery of the microbe of alopecia areata. The first research consisted in the most careful clinical study of the disease, having for its objects the determination of (1) the possibility of a microbic origin of alopecia areata, (2) the exact spot at which the micro-organism, if it existed, was to be looked for.

This preliminary study showed that alopecia areata started from a central point, and that the baldness spread from this point by creeping in every direction along its circumference, in the manner of a spot of oil in a fabric. It showed furthermore that the most pathologically active zone of the patch is situated at its confines, and that it is in this circumferential zone that the infected and broken hairs are found in the

form of clubs. Careful study of patches of lupus leads to the conclusion that their centres are smooth, healed, and appear to present no visible alteration of the mouths of the hair follicles, while the active peripheral zones show considerable dilatation of the pilosebaceous orifices. All this local evolution goes to support the arguments founded upon numerous examples of epidemics in favour of the microbial origin of alopecia areata. But more than this, the local development indicates that the micro-organism resides in the active peripheral zone, and more exactly in the dilated orifices of the hair follicles. These views are borne out by histological facts. Fortune favoured M. Sabouraud by providing him with invaluable histological material from the body of a hospital patient who was suffering at the same time from a skin affection and alopecia areata. M. Sabouraud was thus able to see clearly in his histological specimens that a constant small bacillus was to be found infesting the upper part of the hair sac. He was further able to discover that the orifices of the follicles were filled with a fatty substance which could be squeezed out on pressure, and which he called the "seborrhœic cocoon." Now in this seborrhœic cocoon can be found, surrounded by a crowd of other microbes, the same organism which has been demonstrated in the histological sections. It remained to isolate this bacillus, to cultivate it, and to demonstrate that it is the actual cause of alopecia areata.

The essential part of the research had, in fact, still to be undertaken, and in carrying it out the author's patience was put to a severe test. The bacillus had to be isolated from the crowd of microbes found in cultures of the seborrhœic cocoon taken *en masse*. There is present under such circumstances practically the whole dermatological flora studied by Unna. It was necessary to discover a medium which should have the power of destroying all micro-organisms except the one in question; which should, in other words, allow the alopecia bacillus to grow while proving unadapted to the life of all other microbes of the seborrhœic exudate. After a long series of attempts M. Sabouraud has achieved the desired result. It consists of a very acid culture medium, of which the ingredients are the following:

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| Peptone | ... ... | 20 grammes |
| Glycerine | ... ... | 20 ,, |
| Acetic acid | ... | 5 drops |
| Water | ... ... | 1,000 grammes |
| Gelose | ... ... | 13 ,, |

With this medium one obtains in many of the tubes, in the midst of the other colonies, one or two pure cultures from the beginning, which are visible on the third to the fourth day, the temperature being 35° C. They show as pointed mounds, the colour of which is dirty white on media containing glycerine, a very characteristic brick-red on glycerine media. There still, however, remains a microbe which continues more persistently than any of the others; it is a white coccus, quite characteristic in appearance, and suspected by Sabouraud of playing some part in the genesis of alopecia. This organism must be got rid of, and the author effects this by a novel and ingenious method—the use of immunised gelose. By using in the preparation of the gelose a liquid in which the white coccus has been cultivated a medium is obtained which gives from the first abundant and definitely isolated cultures of the bacillus already mentioned. The same result can be obtained in another way by a slow sterilisation; a temperature of 65° C. for ten minutes kills the white coccus but spares the bacillus. The latter has thus been isolated and cultivated, but it remains to be proved whether or no it is the cause of alopecia areata.

A series of experiments were now made with a view to reproducing alopecia areata in animals. Certain results were obtained, some rabbits being caused experimentally to lose their hair in bald patches, but some desiderata still prevent M. Sabouraud from pronouncing definitely and formally declaring the bacillus to be the microbe of the disease. The question is, however, not far from solution.

III.

In all this there has been so far no question of either seborrhœa or baldness: we shall now see, however, that these subjects are intimately allied to those we have already discussed. From the time when Sabouraud first discovered and investigated the bacillus of the "seborrhœic cocoon" in alopecia areata he was struck by its resemblance to the microbe studied by Unna and described by Hodara as the bacillus of acne. This involved the necessity of examining this acne bacillus anew, and Sabouraud soon saw (1) that Hodara's bacillus is not that of acne, since it is found not only in the comedones, but in every form of oily seborrhœa, in the course of which the comedones of acne seem to be no more than an epiphenomenon resulting from local symbiosis; and (2) that his bacillus of the seborrhœic cocoon and Hodara's so-called acne-bacillus are certainly identical. This latter conclusion naturally made Sabouraud hesitate in his idea that his microbe was that of alopecia areata, for up till then there had not appeared to be the slightest connection between this disease and seborrhœa. Nothing discouraged, he returned to the study of his microbe, and endeavoured to ascertain all the localities in which it was possible to detect it. A series of researches was thus undertaken which resulted eventually in the demonstration of the microbial nature of baldness. A preliminary study of seborrhœa in the hairy scalp revealed (1) that the bacillus of the brick-red cultures from alopecia areata is also present in the seborrhœic plugs of the mouths of the hair and sebaceous follicles in seborrhœa, that it is there present in considerable quantity, and that it certainly is the cause of seborrhœa, (2) that consequently seborrhœa and alopecia areata have a common origin from the same micro-organism. Finally, having studied the obvious relations existing between seborrhœa and the habitual falling out of hair, Sabouraud came to the conclusion that the disseminated loss of hair in seborrhœa was the prelude of baldness. The histology of bald scalps shows that the mechanism of the process leading to baldness is as follows: Whenever the specific bacillus of seborrhœa invades a follicle, it produces around it, and especially at its base, around the hair papilla, an afflux of wandering cells. The papilla gradually atrophies, producing as it does so a hair which is progressively more and more frail and devoid of pigment. Finally it dies, and the dead hair is expelled. In this seborrhœic infection of the hairy scalp the colonies of bacilli are enormously abundant; the sebum, which is effused on the surface of the skin in the form of an apparently homogeneous crust, is composed of an infinite number of seborrhœic plugs turned out of the follicles, and each of these plugs contains the bacillus in millions.

In hairy scalps which have been once invaded, the microbial infection remains endemic and settled so that a hair once shed is never renewed. Furthermore the permanent effusion of this germ-bearing sebum infects one by one the follicles which have remained sterile. In this way ordinary baldness is little by little established; the progressive sclerosis of all the elements of the hair follicle brings with it considerable changes of form. The whole part of the follicle invaded by the bacterial colony becomes hollow and broken up by narrow diaphragms which render the seat of infection inaccessible to external antisepsis. But the incredible abundance and absolute purity of the infection persist even when the baldness is finally and definitely established. Even at this terminal stage in its evolution, ordinary baldness remains the most abundantly and most purely microbic malady known in the skin.

Such are the conclusions to which clinical and histological results lead the author, but a further difficulty has to be cleared up. It is that at the moment of infection the bacterial colony does not invade the hair papilla, but remains in the upper third of the follicle. By what mechanism can the colony exert its influence upon the papilla? One can only admit an action at a distance, and this remains to be proved. Sabouraud, thinking then that this distant action was effected by the toxins of the micro-organism, devised and carried out the following experiment, which is conclusive, and practically seals this chapter on the microbial nature of baldness. He made a cultivation on a liquid medium, and having filtered it through porcelain, inoculated the filtrate deeply under the skin and into the muscular tissues of a rabbit. The rabbit at once commenced to shed its fur, and within forty days from the date of inoculation general alopecia was established. This experiment is of the greatest value as showing that the toxin of the bacillus of seborrhœic plugs is so specific and individual that when inoculated into the heart of the system it retains its elective and exclusive action on the papillæ of the cutaneous hairs.

This is the exact point at which Sabouraud leaves us for the moment; but he promises us before long another memoir containing the results of experiments not yet completed. If we retrace the ground covered by this analysis we find (1) that the microbial origin of baldness is certain; (2) that the micro-organism of baldness is the same as that of seborrhœa; (3) that it is identical with that of the seborrhœic plugs of the orifices of the hair follicles in alopecia areata.

To render the whole work complete, to prove that these results are definitely allied to each other, it would suffice if the following could be added to the third conclusion: The bacillus which is the cause of both seborrhœa and loss of hair acts according to its greater or less virulence under varying conditions in a manner either violent and fulminating, producing what has hitherto been known as alopecia areata, or moderately gentle, giving rise to that progressive loss of hair which in ten or twenty years ends in baldness. This last deduction Sabouraud does not give, in spite of certain favourable experiments. For prudence sake he does not wish to state it yet, because he has till now perhaps been unable to produce in an animal the true patch of alopecia areata, that is to say, the typical disease with the club-shaped hairs. There is probably, however, but a shade of difference to overcome, and we are convinced that after what has gone before Sabouraud's last scruples will soon prove to be baseless. Thus from this work, besides all the other discoveries which it comprises, we hope to see arise at the same time the key to the much-sought solution of the problem of alopecia areata in the definitely and finally established discovery of the microbe of the disease.

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# THE LUMLEIAN LECTURES

ON

# SOME PROBLEMS IN CONNECTION WITH APHASIA AND OTHER SPEECH DEFECTS.

*Delivered before the Royal College of Physicians, April 8th, 1897,*

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[ABSTRACT.]

## LECTURE III.

MR. PRESIDENT AND GENTLEMEN,—At the close of the last lecture I considered the different degrees of amnesia verbalis that may result from functional defects or partial lesions of the left auditory word centre. We must now consider the effects produced by more serious lesions of this centre.

*(b) Effects produced by Destruction of the Left Auditory Word Centre.*—Where, instead of partial or mere functional defects, we have to do with more or less complete destruction of the left auditory word centre by some organic disease a correspondingly complete word deafness is produced, so that the patient is no longer able to comprehend spoken language. Spoken words become to such a patient mere meaningless sounds. Wernicke, Déjerine, and Mirallié hold that paraphasia is the kind of speech defect resulting from destruction of the auditory word centre, and that it is invariably accompanied by alexia. In the former view Wyllie concurs.

The view that I entertained on this subject some years ago[1] were that loss of articulate speech should result from destruction of the auditory word centre, just as agraphia results from destruction of the visual word centre. Ballet[2] and Ross[3] following me expressed very similar views, though the majority have rather followed Wernicke, and regarded paraphasia as the natural accompaniment of word deafness.

Now that more cases have been observed we are in a better position for throwing light upon this point. An examination of the recorded observations in which the lesion has been limited to the hinder part of the first, and perhaps also of the second, left temporal convulsions (without perceptibly encroaching upon the visual word centre) shows surprisingly different results in regard to the nature and degree of the speech alteration met with. In some of the cases there has been aphasia; in others a more or less marked paraphasia; whilst in two or three of the cases the defect in voluntary speech has been less marked. Thus, looking to the same sixteen cases of destruction of the auditory word centre to which I previously referred[4] when speaking of the frequency with which word blindness and agraphia occur as additional symptoms, I find that what is described as "motor aphasia" existed in six of them; in six of the cases also some amount of paraphasia existed. In one case both aphasia and paraphasia are said to have existed; while in the three remaining cases voluntary speech seems to have been rather less affected.[5]

Thus it will be seen that we have all been more or less wrong; and I must confess that the revelation of these apparently contradictory results in the way of speech disturbance in association with word deafness surprised me not a little. The meaning of such remarkable variations demands a careful consideration.

The three cases last referred to in which voluntary speech has been least interfered with are, I believe, altogether exceptional. One of them is a case recorded by Claus,[6] concerning which, unfortunately, there are only a few meagre details.

The patient's hearing was good, but his intelligence weak; he understood nothing said to him, and always answered wrongly while he spoke correctly. A focus of softening was found involving the first temporal convolution except its anterior third.

It seems to be Case No. 20 in the "Table of Cases of Sensory Aphasia with Lesions and Symptoms," cited by Allen Starr,[7] and there also no further details are given. No weight, therefore, can be attached to this example, the details of which are so incomplete. The second case is one that was originally recorded by Wernicke.[8]

The patient's spontaneous speech was extremely limited, and she made frequent mistakes in words and in their pronunciation. The statement contained in Amidon's abstract that her "spontaneous speech was very good," certainly goes far beyond what there is any warrant for. The whole of the upper temporal convolution and part of the supramarginal lobule were in a state of yellow softening due to thrombosis of some of the terminal branches of the middle cerebral artery. It is worthy of note, therefore, that the auditory word centre may not have been entirely destroyed, since the second temporal convolution seems not to have been at all involved. In the previous case, reported by Claus, it should also be observed that the second temporal convolution was only very slightly involved. It is merely said that its upper border was affected ("had a brown colour").

The third case, curiously enough, has often been quoted as though it were a typical example of word deafness rather than one of an unusual character. It was recorded by Giraudeau,[9] and some of the principal details are these.

The patient, a woman, aged 40 years, had previously enjoyed good health, though she had never menstruated. She had suffered for three months from headache. She had the greatest difficulty in understanding questions, only replying after they had been three or four times repeated. Even then, whatever subsequent questions were put to her, she followed her first idea, and her subsequent replies had no relation whatever to the questions put to her. Tactile sensibility was preserved, as well as the senses of taste and smell, and her motor power was unaffected; there was no word blindness. The psychical affection rapidly increased, and on the ninth day after her admission the word deafness was complete, and whenever she was addressed she invariably said, "I do not understand," and then began to weep. The next day she fell into a state of coma and died. At the necropsy a sarcomatous tumour of the size of a walnut was found occupying the posterior part of the first and second temporo-sphenoidal convolutions of the left hemisphere, the rest of the brain being healthy.

Here the details are fortunately more ample. Although this patient's speech was limited, there was clearly neither aphasia nor paraphasia, and this may, I think, be explained either by supposing that the lesion on the early days did not destroy the whole of the auditory word centre—which is more than possible, seeing that the lesion was a tumour and also that the word deafness was not absolute; or else that the patient was a strong "visual"—a person, therefore, in whom the excitation of Broca's centre might have been brought about directly from the visual word centre, both in spontaneous speech and in reply to written questions. And to the latter she is expressly said to have replied "verbally

or in writing, after a little reflection." This possibility might, of course, be applicable also in explanation of the other two cases.

There is an interesting point worth noticing here in reference to cases of partial word deafness, illustrating the increased power of recollection or comprehension when two or more bonds of association are simultaneously called into activity. Thus, in a case of incomplete word deafness observed by Fraenkel, when the patient was asked, "What is a fork?" he replied, "I don't know what you say." But when a fork was shown to him at the same time that its name was pronounced, he not only recognised the fork, but comprehended its name and repeated it, the visual image of the object here helping to revive the auditory image of the word. A somewhat similar case is recorded by Abercrombie in his *Inquiry into the Intellectual Powers*, seventh edition, 1837, p. 158.

This slight digression may serve to illustrate one of the two suggestions I have made in explanation of the comparatively slight defects in speech presented by the three altogether exceptional cases of word deafness to which I have above referred. But, before pursuing our attempt to explain the differences presented by the other cases, it will be well first of all to see what the results have been in two other sets of cases involving destruction of the left auditory word centre as one component of the existing lesions—that is to say, in the two next sets of cases already cited for consideration—namely: (2) the cases in which there have been combined lesions of the auditory word centres in each hemisphere: and (3) the cases in which the auditory and the visual word centres have been destroyed and severely damaged in both hemispheres.

### Defects Resulting from Lesions of the Auditory Word Centre in Each Hemisphere.

Cases of double lesion in the upper temporal convolutions are extremely rare. Only four such cases are known to me, and concerning these clinical details in three are unfortunately extremely meagre, consisting of particulars obtained from friends or others, rather than from the examination by a skilled observer.

The first of these cases to which I will refer is one that has been recorded by Kähler and Pick,[10] though the details are very scanty and of the kind above mentioned.

There was softening of both temporal lobes affecting all the convolutions except the basilar. There was complete loss of speech and hearing, without any paralysis or other motor affection. Broca's convolution was not involved.

The second case is one that has been recorded by C. K. Mills,[11] and although the details of the necropsy are full and all that could be desired, the patient only came under his observation a few days before her death, when she was very weak and ill, suffering from the effects of an old valvular disease of the heart.

A woman, aged 46, was admitted to the Philadelphia Hospital in August, 1891. Fifteen years before her death she had an apoplectic attack, which left her word deaf but not paralysed. Prior to the first attack of apoplexy her hearing had been good, but after it she could not by hearing understand anything that was said to her, though she could hear such sounds as a bell ringing and a clock ticking. She could write, but "sometimes mixed up her words in writing." Nine years before her death she had another and more severe apoplexy, after which her deafness increased for sounds as well as words, until it was almost total. This seizure left her also with partial left hemiplegia, chiefly affecting the arm. At the necropsy the posterior two-thirds of the left first temporal convolution was found to be shrunken to a thin strip, and the posterior fourth of the second temporal convolution was also atrophied. The other left temporal convolutions were healthy. On the right side there was an old and very extensive hæmorrhagic cyst, which had completely destroyed the first and almost completely the second temporal convolution, as well as the island of Reil and other parts in the immediate neighbourhood.

This is undoubtedly a very important case, especially from the point of view of cerebral localisation, from which standpoint Mills principally deals with it. It is interesting to find that after the patient became word deaf, owing to the first lesion on the left side, there was no word blindness, as "she often read the newspapers, and could do so with intelligence," although some would have us believe that even the destruction of Broca's centre, which is so much further away from the visual centre, causes alexia. There was, however, paraphasia and paralexia. Unfortunately there is no definite statement as to what alteration took place in the patient's speech after the lesion occurred on the right side—that is, nine years before her death. I therefore wrote to Dr. Mills to ascertain whether he could supply any further information on this important point, and his reply is as follows: "She was admitted to the hospital some little time (probably two or three weeks) before I examined her, and my recollection is that it was reported to me that she had not spoken during that time, but more than this I cannot say .....and unfortunately I have no longer the means of verifying my recollection. She certainly was not able to speak, or at least did not speak, at the time of my examination." I will merely add that, from the fact of the word deafness in this patient not being associated with word blindness, it does not necessarily follow that the paraphasic speech should have been lost—that is to say, that there should have been speechlessness, immediately after the occurrence of the lesion in the right hemisphere. There is the possibility that she might have been one of those "visuals" capable of speaking, though in a disordered fashion, by the direct action of the visual word centre upon Broca's convolution. It seems pretty clear, however, from what Dr. Mills says, that at the time she went into the hospital she was incapable of speaking. Still, it is important to bear the above-mentioned possibility in mind, as it is one to which we shall have to recur.

The third case is one that was recorded by Wernicke and Friedländer,[12] and an abstract of it has been given by Ferrier.[13]

The fourth case has been described by Pick. It is one of great importance, but as it is also one of a very exceptional nature I reserve its consideration for the present.

### Defects Resulting from Destruction of the Auditory and Visual Word Centres in Each Hemisphere.

There is only one case known to me in which these combined lesions have existed in the two hemispheres, although there is another with which it will be not uninteresting to compare it where complete blindness and deafness had been produced in infancy by peripheral lesions.

The case definitely belonging to this category was reported many years ago by J. C. Shaw,[14] but unfortunately in this, as in other rare cases, many essential details are omitted.

The patient was deaf and blind, as the result of symmetrical patches of cortical atrophy involving the greater part of the upper temporal and angular gyri, the marginal and the upper parietal lobules on each side. Although unable to answer questions she was in the habit of talking and screaming unintelligibly for hours at a time.

It is interesting also to note that in the celebrated case of Laura Bridgman, who was totally deaf and blind from about the end of the second year, her power of uttering articulate sounds was not very different in kind, though less in degree, than that which was met with in the case above recorded.[15]

In both these cases the powerlessness of Broca's centre, when unaided, for the production of anything like intelligible speech, is clearly shown.

After the narration of these additional cases, in which there was a destruction of the auditory word centre in each hemisphere we may now with more advantage return to the question why, in a certain number of the cases of destruction of the left auditory word centre alone, there is (1) an aphasic loss of speech, in others (2) paraphasia, and in others still (3) a comparatively slight impairment in voluntary speech.

My original contention was that an aphasic loss of speech is what is naturally to be expected as a result of such a lesion, if we are to suppose, as seems highly probable, that the auditory word centre in the great majority of persons holds a relation to Broca's centre similar to that which the visual word centre holds to the writing centre. It would appear, therefore, that what stands in need of explanation is the occurrence of the second and third class of cases—namely, those in which more or less marked paraphasia, or even fair speech, has existed.

The evidence in favour of the posterior half of the upper, with perhaps the posterior part of the middle, temporal convolutions being the chief, if not the exclusive, seat of the auditory word centre must be regarded as very conclusive.[16] The difference in voluntary speech power presented by the cases above referred to cannot therefore be explained by the supposition that the auditory word centre has not yet been properly localised.

The various possibilities that suggest themselves to me in explanation of the differences in the degree of impairment of speech in different cases in which lesions have been found in the left auditory word centre are as follows:

(*a*) There is the possibility that in some of the cases in which the word deafness has been complete whilst voluntary speech has been fairly good, the auditory word centre has been rather isolated from its afferent fibres than destroyed. These would be cases in which the amount of damage to the auditory word centre itself was small—cases approaching those named by Lichtheim "isolated speech deafness," which will be subsequently considered.

(*b*) Then in some cases the auditory word centre may be damaged sufficiently to prevent perfect comprehension of speech, though it may still be sound enough with the aid of the visual word centre for the production of paraphasic speech. This might afford an explanation of certain cases in which there is only partial damage of the auditory word centre, together with incomplete word deafness, as in No. 7 in Amidon's list, and Nos. 2 and 48 of Mirallié's list, as well as in a case by West,[17] which is not included in either of them.

(*c*) In other cases, where the individuals affected are strong "visuals," the paraphasic speech may be produced by the action of the visual word centre taking the place of the auditory word centre—that is, by the passage of the stimulus directly from the visual word centre to Broca's region across the commissure *e*, *e*, as represented in Fig. 3 (p. 900). Such an explanation may be applicableto some of the cases where the destruction of the auditory word centre has not produced word blindness as well as word deafness. And this, as we have seen, has been what has occurred in about two-thirds of the recorded cases.[18]

There is one extraordinary case that has been recorded by Pick[19] which seems, moreover, quite incapable of being understood except by the supposition of the adequacy of the direct action of the visual word centre upon Broca's region even for the production of correct speech—as it is brought about, in fact, in all deaf-mutes who are taught to speak. This is the case of lesion in the upper temporal convolutions of each hemisphere, the consideration of which was deferred because of its altogether exceptional character. Although this patient was perfectly word deaf, he was able to speak correctly, to read correctly, and to comprehend writing perfectly, as may be gathered from the following details:

A day labourer, aged 24, was completely word deaf, and behaved like a deaf person, taking no notice of ordinary sounds near him. It was found that he only noticed loud calls, clapping or ringing of bells, and this not always readily. Yet if one shouted to him unexpectedly, he said, angrily, "don't shout at me so"; and he often said spontaneously, "I hear quite well, but I don't understand; I can hear a fly flying past me." His power of recognising airs previously known to him seemed to be also lost. His speech was perfectly correct. He spoke fluently, and only occasionally hesitated about the right word. He named objects shown to him correctly. He could not repeat words or phrases. Writing was executed slowly but quite correctly, though he could not write from dictation. With regard to his power of copying, nothing could be stated, as he could not be persuaded to make the attempt. He read aloud easily and quite correctly, and he understood both print and writing perfectly. Writing afforded the only means of communicating with him, apart from gestures. The upper parts of both temporal lobes were found to be shrunken, soft, and of a yellow colour. At the necropsy the posterior half on the upper left temporal convolution and the supramarginal gyrus were found to be softened. The island of Reil was intact. On the right side there was softening of the upper temporal convolution and a great part of the second temporal, as well as of the island of Reil together with some small foci in the lower part of the ascending frontal, and in the third frontal convolution.

It appears from the history of this patient that the first lesion occurred on the right side of the brain about ten years before his admission to the hospital. Six years later the lesion in the left hemisphere occurred, which resulted in the production of word deafness. His intelligence was distinctly weakened and his behaviour childish. It was difficult to fix his attention; he was very emotional, and spent much time in prayer. When so engaged no sort of noise seemed to disturb him, for, notwithstanding what he said as to his hearing, it appears that, like Lichtheim's patient,[20] he was also really very deaf to ordinary sounds. As above stated, there seems no way of explaining this case except by supposing that the left visual word centre was capable of acting directly upon Broca's centre, and without any aid from the left auditory word centre (the destruction of which had caused the word deafness four years previously) of acting so effectively that the patient was capable of reading aloud and of speaking, even without making mistakes in words. The word deafness was clearly caused by the lesion in the left auditory word centre itself, and it seems equally certain, therefore, that this centre could not have been instrumental in enabling the patient to speak. It is superfluous, consequently, to look for a subcortical lesion.[21]

(*d*) Another possibility in explanation of the preservation of slight or disordered speech after destruction of the left auditory word centre is that the auditory word centre of the right hemisphere acts, by means of commissural fibres passing obliquely through the corpus callosum, upon the left third frontal convolution. This is a possibility which has not, I believe, been previously suggested by any writer on speech defects, though it seems to me almost the only means of accounting for the existence of speech of a paraphasic type in those cases where, owing to its close functional and topographical relations to the visual word centre, the destruction of the left auditory word centre leads to word blindness as well as to word deafness—that is, in about one-third of the total number of such cases.

The argument in favour of the possible action of the right auditory word centre in the manner indicated is, however, even stronger than that just stated, because we shall find in a future section, when dealing with cases in which there has been more or less complete destruction of both the auditory and the visual word centres of the left hemisphere, that out of 15 of such cases, in 2 speech is reported to have been fairly good, in 7 there was jargon speech or paraphasia, whilst in 6 it was more or less markedly aphasic. But when the auditory and the visual word centres of the left hemisphere are destroyed speech, if it is to be produced by that hemisphere alone, would have to be effected solely by Broca's centre. We have, however, already seen that with double destruction of the auditory word centre, as well as with double destruction of the auditory and the visual word centres, speech has always been rendered unintelligible, except in one single case—that of Pick, above recorded. It thus seems to stand out very clearly that Broca's centre alone is not capable of acting as an instigator and adequate guide for the production of intelligible speech.

We are therefore absolutely driven to look for aid or guidance from the right hemisphere if we are to account for the production of even paraphasic speech in cases of damage to the left hemisphere of such a nature that word deafness is associated with word blindness, whether the latter be of structural or of functional origin. This same hypothesis enables us to understand the unintelligible character of the speech in three out of the four cases cited of double destruction of the auditory word centre, as well as in the case in which the auditory and the visual word centres were destroyed in each hemisphere. The old notion that intelligible speech can be initiated and produced by the influence of Broca's centre alone must be absolutely renounced.

It is well known that each olfactory bulb and that each retina is connected with both cerebral hemispheres. With regard to hearing, Lichtheim[22] assumes the opposite to be the case, and Foster[23] inclines to the same view, though he adds, "the matter needs further investigation."

The probabilities are, however, that each auditory nerve is indirectly connected with each hemisphere through the intermediation of commissural fibres between the two upper temporal and other convolutions in each temporal lobe, constituting the cortical seat of this endowment—such commissural fibres forming part of the corpus callosum.[24] In this way, therefore, a provision exists for the conjoint activity of the two hemispheres in connection with the sense of hearing. Had it not been for the existence of such a commissural word connection, word deafness would result from absolute deafness in the right ear (whether due to labyrinthine or to middle-ear disease), owing to the left auditory word centre being cut off from all afferent impressions, as I pointed out some years since.[25] We know, however, that this does not occur; therefore impressions must reach this centre through the left ear, the right auditory word centre, and thence across the commissure in the corpus callosum. And the fact that in such cases the comprehension of speech seems not to be diminished would point, I think, to the probability that the right auditory word centre is about as well developed as the left on its receptive side.[26] And if that be so, is it to be supposed that it would remain functionally inert, save in the case of the accidental supervention of right-sided deafness?

Clinico-pathological investigations have long since taught us in an unmistakable manner that the right auditory word centre usually exercises (in right-handed persons) little influence upon the glosso-kinæsthetic centre of its own side; and now I would urge that new clinico-pathological observations should strongly incline us to believe that it must to some extent co-operate with the left auditory word centre in the excitation of Broca's region for the production of articulate speech. We have seen that instances of paraphasic speech in case of word deafness associated with word blindness are only capable of being explained in accordance with some such hypothesis, and there is the additional fact that speech has been found to be so much worse (with one exception) as to be quite unintelligible when both the auditory word centres have been destroyed.

A difficulty that presents itself in connection with such views as I have just been expressing is to account for the non-production of any amount of word deafness from disease of the right auditory word centre alone. Extremely little evidence is available upon this subject, and it is one to which most careful attention should be given in the future.[27]

We know, of course, that in left-handed persons the predominant activity of the auditory and the visual word centres is in the right hemisphere, and that consequently in them we may get as a result of lesions in this hemisphere either word deafness or word blindness or both, just as we may get aphasia either alone or in association with left hemiplegia. Such cases of so-called "sensory aphasia" due to lesions in the right hemisphere have been recorded by Kussmaul[28] and also by Bernheim,[29] and there are doubtless many others. There was also a typical case of amnesia verbalis due to right-sided lesion recorded by Trousseau.[30]

In what I have said hitherto I have only been contending for the existence of another special illustration of a general principle which has previously been strongly advocated by others—namely, that of the double representation of movements in each hemisphere of the brain. Indeed, for many years Hughlings Jackson has gone further still, and has advanced the speculation[31] "that all parts of both sides of the body are represented in each half of the brain." Definite evidence on this subject was brought forward by Goltz, who, at the Physiological Congress in Basel in September, 1889, showed a dog from which almost the whole of the left hemisphere had been removed, and from whose behaviour, as demonstrated to the Congress, he felt able to announce the following important conclusions[32]: "Each cerebral hemisphere is in connection with the voluntary muscles of both halves of the body. It appears, however, that the connection between one cerebral hemisphere and the muscles of the opposite half of the body is more convenient than on the same side. Hence a dog whose left hemisphere is destroyed prefers to use the left paw, because the will impulses from the right hemisphere flow by more convenient paths to the left limbs." He showed that sensibility was also present, and only somewhat impaired, in the right limbs of this dog. On the death of the animal the brain was removed, and the absence of the left cortex was confirmed by Langley and Grünbaum.[33] So far as the production of movements is concerned, these results are harmonious with the well-known results obtained by Franck and Pitres.[34]

There is likewise actual evidence tending to show that in man also all movements are to some extent represented in each hemisphere of the brain.[35] In support of this double cerebral representation there is the well-known fact that in hemiplegia some amount of paresis exists also on the opposite side of the body (that is, on the side of the brain lesion). There is also the well-known fact that in cases of large lesions in one hemisphere occurring in early life defects of sensibility are often even more thoroughly recovered from than the motor defects.[36]

What has already been said tends to show that bilateral arrangements of different kinds exist in the brain more or less analogous to that which I now postulate, namely, that Broca's centre is connected with both auditory word centres—very intimately with the centre of the same side and less intimately with that of the opposite side. The same is probably true of the half-vision centres of either side. It would seem, therefore, as if in each case we have double auditory or double visual centres exercising their influence upon a kinæsthetic centre in the left hemisphere, in which speech movements have been registered in the one case and writing movements in the other.

The existence of the kind of nervous arrangements that I have been endeavouring to indicate in the two hemispheres would clearly necessitate the presence of numerous fibres in the corpus callosum having an oblique direction, in addition to those that are more directly transverse. Sherrington has found[37] in contradistinction to Meynert's views that not only similar but dissimilar parts of the two hemispheres are connected through this commissure. In regard to some inquiries of mine concerning this subject Sherrington writes: "My evidence was in part, as you suggest, the obliquity of the fibres, and also in part the spreading of them.....I found the degenerations from even circumscribed lesions of the fronto-parietal cortex spread considerably, especially after crossing the corpus callosum. I saw nothing at all incompatible with what you urge, but anatomically everything in favour of it."

The fact pointed out by Marshall[38] that the bulk of the corpus callosum in proportion to the size of the brain is twice as great in man as in manlike apes such as the chimpanzee, may well be due to the acquirement of language by the former.

### Defects Resulting from Isolation of the Left Auditory Word Centre.

A clinical condition is produced by the isolation of the left auditory word centre—that is, by the cutting it off from all its afferent fibres, which was first described by Lichtheim in 1884[39] upon the basis of a single case of word deafness that seemed to differ from all others that had been previously recorded. To this condition Lichtheim gave the name of "isolated speech deafness." It has been spoken of also by Wernicke as "subcortical word deafness," whilst lately a similar condition has been described by Déjerine (who seems to have been oblivious or unaware of Lichtheim's case) under the name of "pure word deafness." The state itself is simple enough, though an extremely interesting one. It is the condition of a partially deaf man, the deafness being not general, but limited to word deafness. The patient can hear ordinary sounds, though more or less badly, he can talk correctly, can write correctly, can read aloud, and understand what he reads. His three disabilities are that he is unable to comprehend spoken words, and that he is consequently unable either to repeat words or to write from dictation.

I cannot agree with the pathology of the affection as given by Lichtheim,[40] or with that advanced by Déjerine. The former attributes it to a lesion in the white matter of the temporal lobe cutting off the afferent fibres of both auditory nerves on their way to the left auditory word centre; while the latter speaks only of a severance of one set of afferent fibres proceeding to this centre.[41]

In regard to these explanations it may be said that the view of Déjerine is certainly insufficient, since, as I have already observed, it is well known that the cutting off of the afferent impressions going to the brain from the right ear alone does not give rise to word deafness. Lichtheim's explanation, on the other hand, is unsupported by any anatomical facts showing the distribution that he assumes to exist, which would really be that of a semi-decussation of the auditory nerves, since, after speaking of his imaginary arrangement on the left side of the brain, he adds in a footnote, "A similar distribution must obtain in the right hemisphere."

There was no necropsy in Lichtheim's case of "isolated speech deafness," and from the particulars given it seems clear that the patient was generally rather deaf, altogether apart from his word deafness. It seems to me probable that there was pretty complete deafness on the right side, cutting off the left auditory word centre from its proper incitations, whilst the slight sudden brain attack that is recorded to have occurred in June, 1882, may in some way have destroyed the commissural fibres connecting the left with the right auditory word centre. This view has since been rather confirmed by the record of another case by Sérieux,[42] in which it is definitely stated that the patient was absolutely deaf on the right side, as a sequence of an old otitis.

Strangely enough it has been found that a very similar

clinical combination may be produced in quite a different way, as may be seen by reference to a very remarkable case, previously cited from Pick, of destruction of the auditory word centre in each hemisphere.

These are the only 3 cases of "isolated word deafness" known to me.[43] It will be seen from what I have said that this rare group of symptoms is capable of being induced in two very different modes—just as we shall find subsequently that what Déjerine has called "pure word blindness" may also be produced in two different modes, and that the modes are analogous in the two cases. Pick was fully aware of the very unusual nature of his case. He recognised that it could not be a case of subcortical word deafness of Lichtheim's and Déjerine's type, though he was not prepared to advance any other interpretation. Mirallié, however, has been so very uncritical as to cite it[44] as an example of Déjerine's type, notwithstanding the fact of the existence of the double cortical lesions occupying the sites of the auditory word centres.

References.

[1] *The Brain as an Organ of Mind*, 1880, p. 685. [2] *Le Langage Intérieur*, 1886, pp. 91 and 166. [3] *On Aphasia*, 1887, p. 119. [4] Excepting that I omit Mirallié's Case 10, and include instead his Case 2, where the only lesion beyond the destruction of the first temporal convolution was a very minute "plaque jaune," no more than a millimetre square, situated in the upper border of the foot of the third frontal convolution. [5] Numbers of the cases of "sensory aphasia" hitherto recorded are comparatively valueless for the purpose of any critical study of their symptoms, either on account of the nature, extent, and complication of the lesions, or from the paucity of the clinical details, or perhaps from two or three of these causes in combination. Among such more or less vague cases I include thirteen in Mirallié's list, and three in Amidon's list. In four other cases there was a lesion in Broca's centre as well as in the auditory word centre. [6] *Der Irrenfreund*, No. 6, 1883. [7] *Brain*, 1890, p. 100. [8] *Der aphasische Symptomen-Complex*, 1874, p. 43. [9] *Revue Médicale*, 1882, p. 448. [10] *Vierteljahresschrift für praktische Heilkunde*, No. 1, 1879, p. 6. [11] *Philadelphia University Medical Magazine*, November, 1891; and *Brain*, 1891, p. 468. [12] *Fortschritte der Medicin*, Band i. No. 6, 1883. [13] *Lectures on Cerebral Localisation*, 1890, p. 89. [14] *Archives of Medicine*, New York. 1882, p. 80. [15] *Loc. cit.* p. 634. [16] On this subject see Ferrier on *Cerebral Localisation*, 1890, and C. K. Mills in *Brain*, 1891. [17] British Medical Journal, i, 1885, p. 1242. [18] The next explanation is, however, equally applicable to this class of cases as well as to those in which word blindness coexists with the word deafness. [19] *Archiv fur Psychologie*, 1892, p. 909. [20] *Loc. cit.*, p. 460. [21] Yet Mirallié actually quotes it as an example of a sub-cortical lesion. [22] *Loc. cit.*, p. 483. [23] *Physiology*, fifth edition, 1890, p. 1089. [24] The anterior commissure seems mainly to connect the convolutions of the tip and under surface of the temporal lobe, so that it is more probable that its upper and posterior regions should be brought into structural and functional relation through fibres of the corpus callosum. [25] *Paralyses: Cerebral, Bulbar, and Spinal*, 1886, p. 267. [26] On this subject see what has already been said towards the end of the last section but one of the first lecture. [27] What has just been said concerning the right auditory word centre applies almost equally strongly to the right visual word centre. We want to know also to what extent and for how long the comprehension of written and printed words is impaired by destruction of the right angular gyrus and supramarginal lobule. [28] *Ziemssen's Pathologie und Therapie*, Band xii, 1876, p. 168. [29] *Revue de Médecine*, 1885, p. 625. [30] *Lectures*, translation by Bazire, pp. 253, 267. [31] British Medical Journal, 1884, i, p. 593. [32] *Journal of Physiology*, 1890, p. 608. [33] *Loc. cit.*, p. 634. [34] *Archives de Physiologie*, August 5th, 1883. [35] It has been shown by Sherrington and others, in their studies of "secondary degenerations," that some of these double motor effects may be accounted for by the distribution in the cord of the fibres of the pyramidal tracts. It is known also that Broadbent explains some of the bilateral movements by reference to commissures existing between functionally related bilateral centres in the cord. But the voluntary movements of the right fore-paw in Goltz's dog must have implied the development in the only existing right hemisphere of the animal of all the nervous arrangements needful for the "conception" of separate movements in this right limb—that is, the passage to it and registration of kinæsthetic impressions from this limb, as well as the bringing of this centre into relation with the visual centre, in the manner that would be needful for the production of its voluntary movements. [36] *Paralyses: Cerebral, Bulbar, and Spinal*, 1886, p. 262. [37] *Journal of Physiology*, 1889, p. 429. [38] *Natural History Review*, vol. i, p. 296. [39] *Brain*, January, 1885, p. 460. [40] *Ibid.*, January, 1885, p. 482. [41] *Mémoires de la Société de Biologie*, 1891, p. 112. [42] *Revue de Médecine*, 1893, p. 733. It is quoted also by Mirallié (*loc. cit.*, p. 190). [43] Though Wernicke says a few words concerning a case that had come under his observation (see *Fortschritte der Medicin*, 1886, p. 474). [44] *Loc. cit.*, p. 171.

(*To be concluded.*)

On April 2nd the University of Vienna, for the first time in its history, conferred the degree of Universæ Medicinæ Doctor on a lady, the Baroness Gabriele Possaner von Ehrenthal. The Baroness, who is 37 years of age, and who already possessed a medical degree obtained from Zurich, passed all the examinations required by the Vienna University. The Rector, Professor Reinish, in conferring the degree, specially congratulated the new Doctor.

## OSTEOTOMY OF THE FEMUR AS A TREATMENT FOR TUBERCULOUS DISEASE OF THE HIP IN ITS EARLY STAGES.*

By R. F. TOBIN, F.R.C.S.I.,
Surgeon to St. Vincent's Hospital, Dublin.

Having in a few cases made, with successful results, a departure—new at least to me—in the treatment of tuberculous disease of the hip, I beg leave to submit it for your consideration. I shall take it as granted that in the early stages of morbus coxæ the direct removal of the affected parts yields unsatisfactory results, and that the problem of cure is narrowed into one of giving rest to the joint, combined, of course, with constitutional treatment. The difficulty of this problem lies, it seems to me, in the fact that the position of greatest ease for the joint is one of great awkwardness for the limb, which is flexed, abducted, and everted.

Experiments on the dead body show most clearly that any attempt to straighten the limb when the capsule is distended increases the tension of the joint. Mr. Swan distended the capsule with glycerine through a hole drilled into it through the ileo-pectineal eminence, whereupon the limb assumed what is called under such conditions the natural position of rest; he fixed the limb in that position and the capsule retained the injected fluid; he next straightened the limb, whereupon the fluid was forcibly squirted out.

The chief means of treatment at present in use seem to ignore this injunction: extension by a weight and pulley does so, in so far as it is used to straighten the limb; for this appliance does not act in the way it is represented as doing in the plates in handbooks of surgery. In these you see a patient with a weight attached to the leg, lying supine, his back and knee flat and both touching the mattress. What happens in reality is this. If the weight is heavy enough to keep the leg straight, the spine is dragged into a position of lordosis; if it is less heavy, there is less straightness of leg and less lordosis; in each case the lordosis is an indication of force exerted on the joint, to its discomfort. As to Thomas's splint, it is of course, as a support for the limb, an excellent contrivance, and when properly fitted and carefully worn it does all that a splint can do to make a distorted position easy for a patient; but it does not get over all the drawbacks of that position both by night and day.

I do not mean to say that many excellent cures are not effected by the treatment at present in use. Its general adoption by the profession proves it to be efficient in some degree. But I do say that it leaves much to be desired, that it not seldom fails, and that always the process of cure is a very protracted one, requiring throughout most careful and judicious supervision. This last-named condition alone puts it beyond the reach of very many patients. The number is large for whom hospital accommodation cannot be provided from start to finish, and who cannot carry out in their own homes any treatment that is not simplicity itself. Going back only on my own experience I am ashamed to say how many patients I can recall whom I have treated for two or three months in my wards with a weight and pulley, and fitted with a Thomas's splint, who were then unavoidably discharged and lost sight of for a time, and who at a later period turned up with a suppurating joint, due in part, no doubt, to the Thomas's splint having been thrown aside as soon as it had got in any way awry.

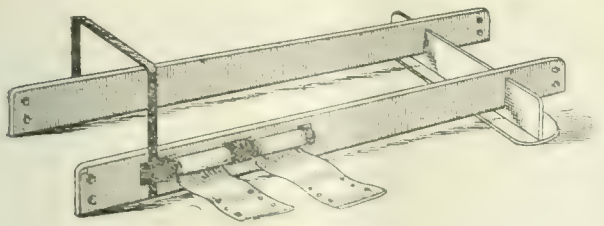
Being then convinced that the awkward position the thigh assumes in cases of morbus coxæ is a great obstacle to obtaining satisfactory results from treatment by rest, I have in some recent cases met the difficulty in the following way. I have, in the early stages of the disease, done an osteotomy of the femur on a level with the lesser trochanter (Gant's operation), and put the limb in a straight position as regards the body generally, leaving the upper fragment to retain its position of ease. The following case is illustrative:

P. R., aged 11, was admitted into St. Vincent's Hospital on February 11th, 1896, with tuberculous disease of the hip. The disease, which was of some months' standing, had come on insidiously, and he was sent for treatment only when lameness was very pronounced. There was no history of accident. All the usual signs of morbus coxæ in its first stage were present. On February 18th I did an osteotomy of the femur on a

* Read before the Dublin Biological Club.

level with the lesser trochanter. To prevent jarring of the joint a large moist sandbag was made to support and steady the bone on its inner aspect as high up as possible, the patient lying on the sound side, and the affected limb drawn well in front of its fellow. In this position, with a sandbag of suitable size and shape, an assistant can, by depressing the knee, divert all concussion from the joint. The osteotome was made to fully divide the bone. The patient was then turned on his back, and while an assistant kept the spine in contact with the table by flexing the sound thigh on the abdomen, the affected one was brought down till the posterior surface of the knee was also in contact with the table. To guard against abduction or adduction both limbs were "dressed" (using the word in its military sense) by a straight rod resting transversely on the anterior superior spines of the ilii.

The wound in the soft parts was partially closed, and a gauze aseptic dressing applied. The splint used is shown in the accompanying sketch, or rather the lateral portion of it, for I hold that in fractures of the lower extremities, pelvis, or spine, the bed is a posterior splint. From this point of view a woven wire mattress is for such a case as the present one most unsuitable, and should be replaced by a plank covered with a hair mattress.

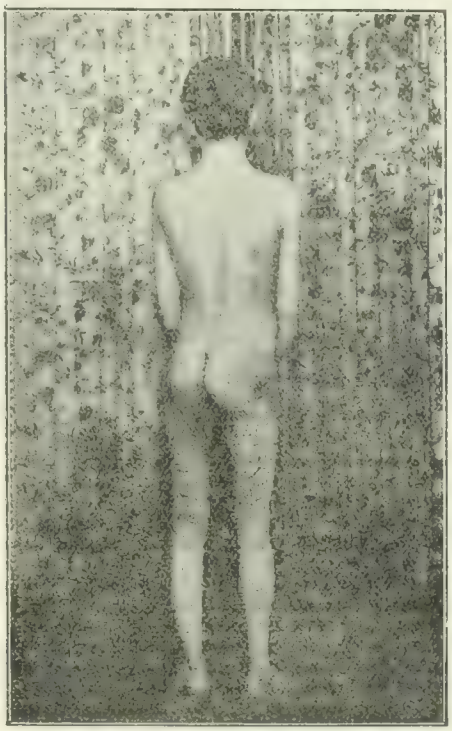


The bands on the rollers, when drawn out and fixed on to buttons on the opposite board, convert the splint into a stretcher on which the patient can be raised.

The wound ran a perfectly aseptic course under a single dressing, and the patient complained of very little pain. At the end of the fifth week the splint was removed, and the fracture was found united. He remained in bed for three weeks longer without the splint, and was then allowed up, to feel his way about on crutches, and to use the limb at his own discretion. The crutches I consider to be an essential part of the after-treatment, for, the affected leg being straight and slightly shorter than its fellow, they cause it to swing in good position till ankylosis is complete. Shortly afterwards he went to the Convalescent Home at Linden, where he remained a month. On his return he could walk without pain. The limb was quite straight, ankylosed at the hip, and three-quarters of an inch short. Yesterday, exactly one year after the operation, I received the following report from Dr. Burke, Oranmore: "Present condition of P. R. is thoroughly good; he has had no pain whatever since he returned. The l g is straight no movement at hip, the amount of shortening very little noticeable He has walked here to-day, a distance of four miles, and, not feeling anything tired, is going to do the same back, so that he can walk very wel



P. R. February 15th 1896, showing that the position of ease for the joint is one of awkwardness for the limb.



P. R., March 1st 1897

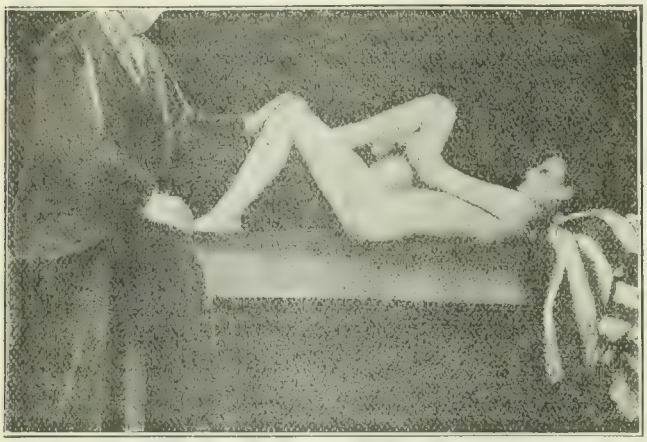
The foregoing report answers also for the other two patients—P. McD., aged 14, operated on October 15th, 1896, and Mary McD. aged 4, operated on November 3rd, 1896. Their condition prior to the operation was very much that of the case just described, except that the disease was in each case not of such long standing, and was apparently advancing more rapidly. In all three cases most satisfactory results were obtained. In all the period of rest required for the union of the fracture was sufficient for the establishment in the joint of a condition which allowed the patients to move about at ease on crutches, and to find their way more or less rapidly to what I may call a cure, using the word with such reserve as a knowledge of the habits of tuberculous disease inculcates. Two of these cases I showed here recently, and those who were present will remember that they walked well without pain, and that ankylosis and some infiltration of the joint were practically the only symptoms that indicated the disease from which they had suffered; the other I shall in a few minutes submit for your inspection.

Of course, I do not mean to generalise from these few cases—the only ones admitted under my care during the last year. I submit them rather with a view of illustrating the plan of treatment employed than of proving its utility, and with no suggestion that anyone should use it who is getting good results by other means. It commends itself to me not because I think that rest is all-sufficient for a cure of morbus coxæ, but because I know that unrest is fatal to such an issue.

The patients to whom I consider this treatment applicable are cases in which there is no real shortening, in which there is no indication of suppuration, and in which the thigh on the affected side (the patient lying on his back and lordosis guarded against) makes an angle of 30 or more with the bed.

In very early cases the operation is not required, for the disturbing element of flexion may be present in only a slight degree. It is wonderful, however, how many limbs that appear fairly straight as the patients limp about are found markedly flexed when properly measured.

In very late cases where suppuration is present, the operation is barred by the danger of sepsis.



The patient by drawing up the sound limb demonstrates the degree of flexion.

Conclusions.

The following is a summary of my views:

1. That no treatment better than rest, combined with constitutional remedies, is known for tuberculous disease of hip.
2. That a large proportion of cases of this disease, especially those in which flexion has occurred, go on to suppuration, and that one of the chief causes of their doing so is the difficulty of giving the joint rest.
3. That much of this difficulty lies in the fact that the position of greatest ease for the tuberculous hip-joint is one in which it is very awkward for the patient to carry the limb, very difficult for the surgeon to fix it, and therefore one in which the joint is constantly exposed to disturbance.
4. That it is possible, and in many cases advisable, to remove this difficulty by such an osteotomy of the femur as will allow the limb to be put straight, while the upper of the fragments retains "the natural position of rest."
5. That the operation also does good in some cases by relieving tension in the bone.
6. That an osteotomy of the femur when done in this respect is not as formidable an undertaking as it is under ordinary circumstances, for it is not the division of the bone that is formidable in this operation, but the constrained position in splints and the long period of rest required for union Now since these latter incidents are a great gain for the tuberculous joint, they must be put to the credit of the operation, thus leaving very little to be entered on the debit side.

## SPONTANEOUS FRACTURE OF RIGHT TIBIA AND FIBULA IN A CASE OF LOCOMOTOR ATAXIA.*

By JOSEPH GRIFFITHS, M.A.Cantab., M.D.Edin., F.R.C.S.Eng.,

Late Assistant to the Professor of Surgery, Additional Examiner in Surgery in the University of Cambridge, and Surgeon to Addenbrooke's Hospital.

Since Weir Mitchell[1] in 1873 and Charcot[2] in 1874 pointed out that spontaneous fracture is liable to occur in the course of locomotor ataxia, many cases have been observed and recorded, especially in France. But in our own country it would appear that such a complication in this disease is either very rare or it escapes notice when it occurs, for there are but few references to such a condition, and I have failed to discover reports in our periodicals, though accounts of many instances of the joint-lesion, arthropathy, are to be found here and there. Mr. Lunn,[3] it is true, mentions incidentally in an account of a case of fragilitas ossium, which he showed before the Clinical Society of London, that he had met with three cases of spontaneous fracture in locomotor ataxia; and Dr. Byrom Bramwell[4] mentions a case of spontaneous fracture of the femur, which he saw at Newcastle. In the latter there was absence of pain on movement to detect crepitus, but there was so much swelling of the thigh that the case was at first regarded os one of sarcoma of the bone complicated with fracture.

Although spontaneous fracture of bones may be rare in tabes dorsalis in this country, yet we do not infrequently meet with it under other conditions; for example, in subacute osteomyelitis, in quiet necrosis of the shaft of a long bone, in primary central sarcoma, in secondary carcinoma, and occasionally in the condition—which is still in nature quite obscure—called fragilitas ossium, in osteomalacia, and in some of the diseases of the insane, especially general paralysis.

My excuse for bringing this case before your notice is, therefore, the absence of any reports in our own journals and the desire to elicit information as to whether tabetic patients in this country are as liable to this complication as are those in France, where locomotor ataxia has been especially studied.

The notes of the case are as follows: R. R., aged 46, tailor, admitted into Addenbrooke's Hospital under my care February 19th, 1896. Sallow, tall, thin, and narrow chested. Pulse 108, strong; breathing natural; tongue slightly furred; appetite good, but suffers from recurring attacks of dyspepsia; urine is natural, micturition usually normal, but at times the urine dribbles away. Both bones of right leg were broken near the middle a few hours before admission into the hospital, the fractured ends of the tibia being easily felt, and but little, if any, pain complained of when the parts were manipulated. The leg was much swollen, especially at the seat of fracture, owing to extravasation of blood. The fracture occurred while turning round to enter his house after feeding fowls in the garden, the right leg suddenly giving way under him. He at once caught a support, and thus saved himself from falling to the ground. Three weeks previously he had felt a "crick" in the calf of the same leg when running upstairs, after which his leg felt weak and "as if he ought to be careful how he trod on it."

On further examination it was found that his patellar and plantar reflexes were absent, the cremasteric and abdominal reflexes very slight, if present; pupils contracted; each reacted to light, though only to a slight degree, the movements for accommodation being normal; colour vision was normal; field of vision was not contracted, and he says he can thread a needle as well as ever. Over both legs, especially in front, sensation was imperfect and distinctly delayed; this change was pronounced in patches only. Over the remainder of the body sensation appeared normal. Grip of hands was good. There was distinct inco-ordination of movements of the left lower limb.

He says that for the last six or seven years he has suffered from a staggering gait, but that he can feel perfectly well with his feet, and can recognise what he is treading upon. For the last twenty years he has suffered more or less from lightning pains, which at times increase in severity and culminate in an attack of gastric crisis. These attacks come on after periods varying from two to three months. He has suffered from "dribbling of urine" at times. Father, 76 years of age, is alive and well. Mother, 78 years of age, is also alive and well. Two brothers and three sisters all well.

The day following his admission into the hospital there was great effusion of blood into the tissues around the seat of the fracture; and, owing to the size and persistence of this swelling for several days, it was deemed advisable to investigate the fracture in order to be quite sure that there was no malignant disease at the bottom of the mischief. Accordingly, on February 15th, 1896, six days after admission, a longitudinal incision was made over the fracture, and the broken ends examined. There was no trace of malignant disease, and all we could discover was the tibia harder and more brittle than natural. The wound was closed and the limb fixed in plaster-of-paris. Afterwards the patient was comfortable, and union in due time became complete.

In the absence of malignant disease the case was pronounced, without doubt, to be one of spontaneous fracture

* Read before a combined meeting of the East Anglian and Cambridgeshire and Huntingdonshire Branches of the British Medical Association.

occurring in the course of locomotor ataxia, from the symptoms of which he was suffering.

The frequency with which spontaneous fracture of bones occur in cases of locomotor ataxia has not, it seems, been calculated, but the relative frequency of such fractures in different bones of the body is given by Durand[1] as follows. Of 42 instances:

| | | | |
|---|---|---|---|
| 17 | occurred in | the | femur. |
| 10 | ,, | ,, | tibia and fibula. |
| 6 | ,, | ,, | radius and ulna. |
| 3 | ,, | ,, | clavicle. |
| 2 | ,, | ,, | humerus. |

Accordingly the femur is, of all the bones, the most liable to have trophic changes taking place in it, and to become spontaneously fractured in locomotor ataxia. I may here observe that the bones of the lower extremities are affected very nearly three times as often as those of the upper; and, although the fracture takes place in consequence of some diseased change in the bones, yet union, and that often with much callus, seems to occur readily, as indeed it does in osteomalacia, in fragilitas ossium, and even in secondary cancer of bone. The prognosis in such cases, so far as the fractured bone is concerned, is favourable.

With regard to the causes of spontaneous fractures in locomotor ataxia, all are agreed that they arise from localised changes in the bones—"trophic changes"—and that such changes are dependent upon disease of the nervous system. The changes in the bone which precede spontaneous fracture are in the main (1) rarefying osteitis, (2) fatty transformation of the connective tissue cells, and, lastly, great diminution in the earthy salts, especially of the phosphates of the part. These changes are found to occur in patches, and are distributed irregularly, just as are the patches of partial or complete anæsthesia in the skin—a condition, it will be remembered, that formed a special feature of the case under consideration. All I can say with regard to the bone changes in this case is that the tibia seemed harder and more brittle than natural; the minute changes in it I had not an opportunity of examining. Although all writers are pretty well agreed as to the changes that occasionally occur in the bones in locomotor ataxia, and that these are dependent upon disease of the nervous system yet there is a difference of opinion with regard to the seat of the lesion in the nervous system. It will be remembered that in locomotor ataxia the chief nerve lesion is in the spinal cord—a sclerosis of the postero-external columns. Charcot and Joffroy,[6] in their investigations into the structure of the spinal cord, in a case in which the joints were affected, found that the grey matter in the anterior horn was, in addition to the postero-external columns, affected by sclerosis. In consequence they arrived at the conclusion that the trophic lesions in the bones, as well as in the joints, are due to structural changes in the grey matter of spinal cord. Buzzard,[7] however, regards it as not improbable that trophic changes, because they occur often in the preataxic stage of the disease, and because they are often associated with visceral lesions, are due to some structural changes in the medulla oblongata. During recent years, however, Pitres and Vaillard[8] have discovered that changes in the peripheral nerves—peripheral neuritis—are of not uncommon occurrence in some forms of tabes, and they have found that neuritis occurs here and there in the small nerves. Consequently they suggest that the patchy anæsthesia in this disease is due to peripheral neuritis, and maintain that the trophic changes in the bones and in the joints are due to a similar cause. Accordingly, we may say that the most recent researches into the causes of trophic changes in the bones and in the joints in tabes dorsalis point to the conclusion that the peripheral nerves play a very, if not an all-important part in their production. Until further information is obtained regarding the dominating seat of trophic influence no definite explanation of the nervous mechanism of trophic functions can be given.


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## FILARIASIS: LYMPH SCROTUM AND VARICOSE GROIN GLANDS:

POST-MORTEM EXAMINATION.


By C. W. YOUNG, M.R.C.S., L.R.C.P.,

House-Surgeon and late House-Physician, Charing Cross Hospital.


I am indebted to Dr. Manson, to Dr. Abercrombie, and to Mr. Johnson Smith for their permission to publish these notes. A report of the case during the patient's stay in the Seamen's Hospital, Greenwich, will be found in the *Transactions of the Pathological Society* for 1896.

A. W., aged 21 years, was admitted into Charing Cross Hospital on September 8th, 1896, suffering from lymph scrotum with a superadded attack of lymphangitis of the right groin.

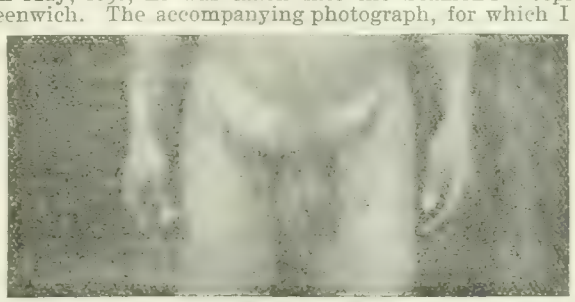
*Past Personal History.*—The patient was born in Kingstown, Jamaica, in 1876, both father and mother being English. The first eleven years of his life were spent in different parts of the West Indies. He then became a sailor, and journeyed between the West Indies, United States of America, and China. He stated that he was perfectly well until the beginning of 1890. In that year he first noticed a rounded swelling in the epigastric and hypochondriac regions, extending from the xiphi-sternum to the umbilicus, and laterally for about 3 inches on either side of the mid-line; this appears not to have been tender and to have had no inflammatory signs. This swelling appeared during the night, and diminished very rapidly when he assumed the erect posture; accompanying it was considerable pain of an aching character in the right side of the abdomen, and extending round into the back. The pain, however, did not prevent him from following his occupation. This condition lasted for some three weeks.

Eight months later, after a hard day's work, acute pain suddenly developed in the right groin, with much swelling in that region and in the right side of the scrotum: it compelled him to remain in bed for a fortnight. The acute symptoms of the lymphangitis then subsided, but the local swelling continued to increase, and from thence onwards recurrent attacks of inflammation in those parts were of frequent occurrence. About a year later the left groin was affected in an exactly similar manner.

During one more than usually severe attack, a dilated lymphatic in the right inguinal region burst, and left a fistulous opening, which discharged for some time a thin, creamy, yellowish-white matter.

A remarkable fact with regard to the occurrence of lymphangitis was the periodicity with which the attacks came on. The patient affirmed that they appeared, with more or less regularity, every three months from the first onset of symptoms until his admission, six years later.

In May, 1896, he was taken into the Seamen's Hospital, Greenwich. The accompanying photograph, for which I am



indebted to Mr. Johnson Smith, well shows his condition at that time. The large pendulous scrotum, and the painful tension in the distended groin glands, caused so much discomfort that they quite unfitted him for work. An operation was therefore deemed advisable. In May Mr. Johnson Smith removed the whole of the scrotal tissues and the lymphatic glands in the right groin, and in the following month he performed a like operation on the left side.

After the first operation I was told by the patient that he passed on one occasion a large quantity of milky urine, and, as an attack of chyluria is, I believe, not uncommon after

the removal of the scrotum in these patients, this may very possibly have been the case. He was discharged from the Seamen's Hospital, the operation having relieved him to a great extent.

On September 8th, 1896, he was admitted into Charing Cross Hospital, under the charge of Dr. Abercrombie, and from that time onward was under my constant observation. He was again suffering from one of his seizures of lymphangitis.

*Condition on Admission.*—He was a slightly made but muscularly built man, and well nourished. The scrotum was swollen to the size of two clenched fists, the skin tightly stretched, and the rugæ obliterated; the scars of the old incisions were plainly visible. It gave a peculiarly elastic resistance to the touch, and both testicles appeared to be enlarged. The size of the scrotum was always greater when he had been on his feet for some time, and less after a prolonged stay in the recumbent position. The spermatic cords were both thickened, and the vasa deferentia hard to discover. The thickening of the cords was general, the mass gave a distinct impulse on coughing, and might easily have been mistaken for a hernial protrusion. It had none of the feeling as of a bag of worms, so characteristic of varicocele. In both inguinal regions an elongated tumour could be seen, and one or two glands were felt to be enlarged and doughy to the touch. At one point in the left groin a chylous fluid escaped from a sinus. The inner aspect of the right thigh in the upper part was swollen, tender, and brawny, with little nodular excrescences resembling the rind of a lemon.

On the radial side of the right forearm at the bend of the elbow was felt a cord-like body, about an inch in length, and of the thickness of a lead pencil, lying in the long axis o the limb. It was non-inflammatory, freely movable under the skin and evidently in the subcutaneous tissues. Dr. Manson suggested that this was, in all probability, a parent worm blocking a lymphatic. A month later this swelling disappeared, not to return. Examination of the blood showed the presence of the filaria sanguinis hominis in great numbers. Specimens taken systematically during all hours demonstrated their absence in the day time and their constant presence at night; 5.30 P.M. was the earliest time on any occasion in which one of these filariæ could be seen in blood taken from the finger. From that hour they gradually appeared in increasing number until 11 P.M., and then they as surely diminished until 8 A.M. next morning, when their nightly invasion apparently terminated.

*Operation.*—On September 18th Mr. Waterhouse operated on the scrotum with the old view of relieving the man of the encumbrance. An incision was made completely encircling the scrotum as high up in front as the peno-scrotal junction, and to the margin of the perineum behind, half an inch only of scrotal tissue being left on each side. All the diseased tissues were dissected off the testicles down to the tunica vaginalis, and the healthy flaps stitched together. Nineteen days later the parts had completely united, a scar resembling an inverted Y remaining. The testicles were now drawn tightly up in the perineum.

Soon afterwards he was allowed to get about and do light work in a chemist's shop. The freedom from the old trouble was, however, but short. The scrotum soon began to increase in size, and both it and the inguinal regions rapidly assumed their old appearance, accompanied by the same heavy, aching pain. Six weeks after the operation the scrotum was as large as it had ever been.

The results, therefore, of this and of the former operations tend to show the inadvisability of such surgical interference. The relief is only temporary, and relief which is only experienced for a few weeks cannot be looked upon as a sufficient set-off to the considerable risk entailed from possible septic trouble in so extensive a lymphatic varix.

On December 8th he again came into the hospital. He was now complaining of general *malaise*, shivering, intense frontal headache, severe aching pain in the back, and a temperature of 103° F. He was quite unable to work. The lower half of the right forearm was much swollen, tense, hot, red, and painful, with red lines running upwards along the inner side of the limb. With a few days' absolute rest in bed these symptoms subsided, and the arm assumed a more normal aspect. At one point, however, on the posterior surface, one-third of the distance from the wrist to the elbow, a hard nodular mass remained, slightly bluish in colour, not tender, freely movable on the deep tissues, but attached to the skin. Dr. Manson thought it probable that it might be one or more adult filariæ Bancrofti, setting up the lymphangitis which had afterwards imprisoned the parasites in this situation. I therefore excised this lump—1¼ inch in length and ½ inch in breadth—and dissected it carefully in normal saline solution. The mass was made up almost wholly of lymphatic vessels, with walls much thickened, and cavities enormously distended with lymph. At one point in one of these vessels was a local bulging about the size of a large pea filled with a thicker and more opaque fluid. After some hours' search I noticed lying across my forefinger a long white thread about the thickness of a horse-hair. This I placed in a watch-glass containing saline solution, and immediately the strand began to exhibit very vigorous movements, coiling and uncoiling itself in sinuous folds. In this medium the worm lived for two hours—eight hours after being excised from the arm. It measured 3¾ inches in length.

Examined under the microscope it proved to be a female parent filaria; the two horns of the bifid uterus filled with ova and outstretched embryos. Careful examination of the blood was now made with a view to discovering whether the removal of this parent worm would have any effect in diminishing the number of embryos in the circulation. Since the embryo can be kept alive on an ordinary cover glass (if the blood be prevented from drying) for upwards of twenty-one days, the investigation had necessarily to extend well beyond that period. No diminution, however, could be noticed, and therefore we were confirmed in the opinion that there must be many more parent worms in the deeper lymphatics.

Soon after the excision of this tumour peculiar fugitive swellings made their appearance on the flexor surface of the left forearm, at the bend of the elbow, and along the inner side of the biceps in the upper arm. These were much softer than that on the right limb, and were easily dispersed by pressure and rubbing. They were noticed more particularly in the morning before the patient rose from bed, and became much smaller during the day. In the hope that these might prove of similar origin to the first, two pieces were cut out on separate occasions. They were made up largely of the same dilated lymph vessels, but no parent filariæ were found. The tumours were most likely the result of a block higher up in the vessels.

The patient was kept under constant observation. Latterly the filariæ in the blood had increased considerably in numbers. For some time he had suffered from fits of depression, in which he had expressed his determination to kill himself. On February 19th, at 8.30 A.M., he committed suicide by swallowing a large quantity of prussic acid.

### THE POST-MORTEM EXAMINATION.

This was made at 2 P.M. of the same day, five hours after death. The chief organs were apparently free from any gross lesion; the stomach was empty.

The inguinal regions were carefully dissected up. On both sides the cords were surrounded and infiltrated by a large mass of distended, tortuous, irregularly-bulging lymphatics. Where the cord passed into the abdomen, these had dilated the internal abdominal ring sufficiently to admit three fingers easily. The femoral glands and the superficial inguinal glands—both oblique and vertical—were enlarged, some of them to the size of a small chestnut, and several were varicose.

Lying on the front and sides of the lumbar vertebræ was a huge mass of the same lymphatic tissue, quite a foot in length, 9 inches across and 3 inches in thickness. The varicose lymphatics were of a peculiar purplish colour, and resembled somewhat the appearance of rabbits' intestines. Some of the individual vessels were as large as the abdominal aorta, their thin transparent walls showing the slightly brownish turbid lymph or chyle inside. The kidneys were quite covered and concealed by the lymphatic varix lying in front of them. From the pelvis ascended another group, running from the sides and back of the bladder and front of the rectum, to augment those from the scrotum and form the main retroperitoneal mass. The receptaculum chyli was not distinguished.

It was noticed as a peculiar feature that the lacteals did not present any sign of over-distension. Possibly this may be explained by the comparative emptiness of the stomach and intestines.

In the thorax the dilated thoracic duct could be seen lying on the vertebræ to the left of the mid-line, meandering in a very tortuous course upwards to the junction of the left internal jugular and the left subclavian veins. Here and there in its course it was as large as a man's forefinger, at other places little bigger than the normal. The left subclavian vein was opened and an attempt made to introduce a probe into the duct. The valves at the orifice were, however, in good apposition, and prevented this.

The thoracic duct was then opened about an inch and a-half from its upper end, and a No. 3 urethral catheter was passed upwards without much difficulty. Its point could be seen protruding between the valves, but appeared to be covered with a thin, transparent membrane. The valves in the duct allowed the same catheter to pass downwards for a distance of an inch only. It is decidedly unfortunate that the terminal end of the thoracic duct was not split up; this not having been done, it is quite impossible to state the exact reason of the varicosity below.

During the course of the *post-mortem* examination one or two snicks were unavoidably made in the varix, and from these apertures the opaque chylous lymph rapidly drained away into the abdominal cavity. From a cut thus made in a lymphatic of the right groin a small bundle was seen to emerge, looking like a tiny coil of very thin catgut. This was unravelled in normal saline solution, and proved to consist of the heads and part of the bodies of three female filariæ Bancrofti, similar to the one excised from the arm during life.

As much of the varix as possible was next removed *en masse* with the kidneys attached. A careful dissection was made of the lymphatics in both spermatic cords. Each individual vessel was opened up, the inner wall presenting a very rugose appearance when thus flaccid. On the right side six more female parent worms were found, all, however, damaged in the dissection. They were either coiled up in a local bulging, or situated below one of the valves. On the left side seven worms were taken out, and one of these, much smaller (an inch and a half in length) and thinner than the others, was shown on microscopical examination to be a male. By this time, however, the worms had become so brittle, that in manipulating this one it unfortunately broke into four pieces, and the tail was lost. It was found impossible from the state of the parts to examine the main retro-peritoneal mass so thoroughly, and no adult filariæ were found there. Thus seventeen parent worms in all have been found, and there can be no doubt that a still greater number have been left undiscovered in various parts of the body. The occurrence of the one in the right arm suggests the probability of their general distribution throughout the lymphatic system.

In concluding this report, I may mention that this case has thrown a very important light on the intermittent distribution of the embryo filariæ in the cutaneous blood. Death occurring as it did between 8 and 9 A.M., a time at which no filariæ nocturnæ were found in blood taken from this man's finger, happened very opportunely for the investigation of their place of retreat during the day. The result of this further examination will be given at a later date by Dr. Manson.

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

### SEVERE CLIMACTERIC FLUSHINGS SUCCESSFULLY TREATED BY OVARIAN EXTRACT.

As medication by various glands is still on its trial, except perhaps that of the thyroid in myxœdema, individual experiences, if recorded, will help in estimating rightly its value, and in indicating the class of cases in which treatment may be used with benefit. It is with this object I record the following case.

Miss C., aged 52, for more than three years suffered from severe menorrhagia, and during part of that time from metrorrhagia also. The latter was relieved by the removal of a pedunculated polypus growing from the cervix. The menorrhagia, however, continued, the periods occurring about every three weeks, and lasting a fortnight or even three weeks. The bleeding was very severe, and not influenced much by drugs, though ergot (both by mouth and hypodermically), hydrastis, liquor ferri perchloridi, potassium bromide, hazeline, arsenic, and thyroid gland were tried. During the last two periods, however, calcium chloride, in ℈j doses, three times a day, seemed to have a good effect, but this might have been due to the natural close of menstruation. Frequent plugging of the vagina, sometimes twice a day, was the only means of controlling the hæmorrhage, with iced injections on removal of the plugs. Hot douches were not so effectual as the cold.

When at last the periods ceased, the patient was much troubled with frequent and violent flushings, which at night in winter would wake her up, the face being in a burning heat, while the hands and body were icy cold.

For these flushings I ordered 5-grain palatinoids of ovarian gland three times a day. For the first day or two there appeared to be no effect, then the flushings rapidly became less frequent and intense, and were nearly cured by the time three dozen palatinoids were taken. The patient now tells me she is free of them, but gets a "threatening" if she omits the capsules for some days. One palatinoid occasionally keeps her free.

Bournemouth. W. Hubert S. Fosbery, M.A., M.D.Camb.

### CASE OF CYANIDE OF POTASSIUM POISONING: RECOVERY.

B. F., aged 25, a native miner, at 4.30 P.M. on February 21st, 1897, was seen by a child to drink something from a bottle, throw the bottle away, and then fall down. The child ran to fetch his mother, who was about 20 yards away; she came immediately, and found the man lying on the ground in convulsions, and foaming at the mouth.

A short time previously he had threatened to commit suicide, but as he was very drunk his friends paid no attention to him.

I saw him not less than 15 minutes after drinking the fluid. He was lying insensible on his back on the floor (where he had been placed). His face was greyish-blue in colour, the mouth covered with foam, and the jaws tightly clenched, so much so that I broke one of his teeth in forcing open his mouth to insert the stomach tube. The eyes were intensely injected and fixed, and the pupils largely dilated, but the conjunctival reflexes were not entirely absent. The breathing was pectoral, the inspirations were jerky and sounded similar to a faint hiccough. The pulse was small and rapid. The arms were slightly flexed at the elbow, the fingers tightly contracted, and the thumbs pressed firmly into the palms; the abdominal muscles were rigid. There was no escape of urine or fæces.

I examined the bottle, which contained a very small quantity of fluid, smelling strongly of potassium cyanide.

As soon as I was able to separate his teeth sufficiently, I introduced the stomach tube, and washed out his stomach with clean water, and then injected a mixture of sulphate of iron, carbonate of potash, and pure ether, which was retained for about five minutes, when he vomited, the vomit being distinctly stained blue. I then poured a stream of cold water over the back of the neck and spine, and over the region of the heart. His pulse and breathing rapidly improved, but the muscular contractions remained until 6.30 P.M., nor did he regain full consciousness until 8.15 P.M., when he spoke and answered questions quite rationally, although he denied all recollection of taking the poison, and as to where he obtained it. (I have every reason, however, to believe that he was not speaking the truth.) I then left him, giving him a mixture of sulphate of iron and carbonate of ammonium to take every hour.

At 5.30 A.M. on February 22nd he went out to look for work, when he was arrested by the police, who kept him in prison all day. I visited him during the day, when he appeared perfectly well and only complained of his teeth feeling tender.

Unfortunately he left the camp in the evening, so that I was unable to see him again.

I gave the bottle to the analytical chemist to the mines, and he reports that "he cannot say definitely how much poison the man took, but, presuming he drank two teaspoonfuls, he would have taken not less than 20 grains."

THOMAS R. WIGLESWORTH, M.R.C.S.Eng., L.R.P.Lond.,
Medical Officer, Santa Francisca Gold Mines, Nicaragua, C.A.

## WANDERING ŒDEMA.

UNDER the above heading, Mr. Masterman, of Damascus, reports two interesting cases in the BRITISH MEDICAL JOURNAL of April 3rd, p. 846. I have had under my observation during the last month two cases which exhibited similar symptoms.

CASE I.—Mrs. B. brought her baby, 2 months old, to the surgery, to consult about "the erysipelas" which had suddenly developed in the child's arm. I examined the baby, and found it slightly feverish; refusing the breast, but not giving one the impression of being very ill. The left arm from the wrist to the elbow was "ham-coloured," hot, brawny, and pitted on pressure; the margins of the swelling were well defined; there was no visible abrasion of the skin. Without knowing the exact pathological condition, or ascertaining any definite cause, except that the mother had what looked like a patch of impetigo contagiosa on the face, I prescribed a mixture of soda, calomel, and aq. anethi, and forbade the breast. Two days later the child was brought to me again. The general condition was the same; the swelling had gradually extended up the arm, along the left side of the neck, but stopped at the ramus of the jaw; it had also spread down the left side of the chest and into the hand. Two days subsequently I saw the child again; the swelling, now not so red or angry, had spread all over the body, legs, and arms, but not the face. The general condition the same. Three days later the swelling had almost entirely left the body, but the hands and feet looked like bladders of water. The skin over the whole body desquamated, the œdema gradually disappeared, and the baby is now quite well.

CASE II.—Mrs. P. sent for me to see her child, aged 3 years, supposed to be suffering from "erysipelas of the leg," and on first sight I was inclined to agree with the mother. There was a small pustule on the calf of the leg, and round this, for 4 or 5 square inches, the skin was tender, red, and œdematous. An elder and younger sister were suffering from impetigo contagiosa, and the mother informed me that the pustule was the remains of what a nurse had diagnosed as chicken pox. I ordered boracic fomentations and a calomel purge, followed by tincture of perchloride of iron. Next day the swelling had spread to the knee, and in two days reached Poupart's ligament in front and the sacrum behind; here it ceased, and the child was well two days subsequently.

What the pathological condition was in these two cases I do not know (the urine was non-albuminous in both).

St. Leonard's-on-Sea. E. DAVIES WILLIAMS, M.B.

## ANTISTREPTOCOCCIC SERUM IN PUERPERAL SEPTICÆMIA.

ON March 7th I delivered a woman of a living child by turning, having previously dilated the os by Barnes's bags, on account of placenta prævia, which had caused very severe flooding and which had been treated by plugging. The placenta came away immediately after the child, leaving some of the membranes behind. Intrauterine douches of corrosive sublimate solution (1 in 2,000) were used freely.

There was a slight rigor the same evening, and a rise of temperature, which during the next two or three days did not improve, but ranged usually between 101° F. and 102° F., and seldom fell to 100° F. The lochia became very offensive. Iodine was substituted for corrosive sublimate, as the latter caused salivation.

On March 11th there was a severe rigor, with a temperature of 103.2° F., which fell in a few hours to 99.6° after a dose of antipyrin.

On March 12th there was another rigor and a temperature of 102.2°. Twenty c.cm. of antistreptococcic serum were now injected, and the temperature fell in a few hours to 99.4°.

On March 13th temperature went up to 100.4° (the last time it reached 100°), and the lochia were much better.

On March 14th another dose of the serum was given, temperature being 99.8°, with the result that it fell to 98.2°.

From this time the patient made a good recovery, without further injections, the temperature merely rising from normal in the morning to 99.5° or less in the afternoons for about ten days. The injections caused no local inconvenience. The serum came from Messrs. Burroughs and Wellcome.

Goudhurst. G. H. MAPLETON, M.B.

# REPORTS
ON
## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

## THE GREAT NORTHERN CENTRAL HOSPITAL.

### CASES OF DISEASE OF THE THYROID GLAND.

(Under the care of Mr. W. R. H. STEWART.)

*Suppurating Cyst.*—W. G., a man aged 44, was sent to Mr. Stewart by Dr. Edward Law. He had noticed a lump in the middle line of the neck for two months, which lately was increasing. He complained of interference with swallowing, and a tight feeling in the throat. There was no pain or tenderness, and no dyspnœa.

Mr. Stewart cut down on the swelling, which was of the size of a small orange, by a median incision, and dissected out the cyst, which lay deeply and firmly adherent to the thyroid cartilage and trachea. It occupied the isthmus of the gland, and extended into the right lobe. On dissecting the tumour off the thyroid cartilage the cyst was punctured and pus escaped. The wound was well washed out and carefully closed with horsehair sutures. It healed by first intention. Suppuration in these cysts is comparatively rare.

*Cystic Sarcoma.*—E. P., a woman aged 41, had noticed a small lump on the right side of the neck five years earlier. It had gradually increased in size. There was no pain; the voice was husky; and there was a good deal of dyspnœa, especially on lying down. Situated on the right side of the neck was a hard irregular swelling of considerable size, and firmly fixed. The larynx was pushed over to the left side. Mr. Stewart made an incision downwards and inwards across the tumour, which was covered by the sterno-mastoid and sterno-hyoid muscles. On dissecting it out it was found to be firmly adherent at the lower part to the thyroid cartilage and the carotid sheath. This portion was quite solid. Extending from this upwards to the angle of the jaw was a large cyst, also firmly adherent to the surrounding structures. Owing to these adhesions it was found impossible to get the whole of the tumour away. The adherent parts were well scraped with a sharp spoon, and swabbed with a 40 gr. solution of zinc chloride, and the upper portion of the cyst was stuffed with gauze, and the wound closed. Two days after the plug was removed, and the wound healed readily. Examination of the solid portion of the tumour was made by the pathologist, who reported it to be a sarcoma.

## ROYAL NAVAL HOSPITAL, PLYMOUTH.

### COIN IN THE INTESTINE FOR 64 DAYS.

[Communicated by the DIRECTOR-GENERAL, Medical Department R.N.]

(Under the care of W. EAMES, Staff-Surgeon R.N.)

C. B., aged 15, was admitted on January 18th, 1897, with the history that he had swallowed a penny three days previously whilst in play, trying to conceal the coin in his mouth. He sought no medical advice, and for four hours after could feel the œsophagus obstructed by the coin, but after swallowing a large quantity of toast the sense of obstruction disappeared. He complained of a smarting pain at the epigastrium; there was no tenderness on pressure; the tongue clean; the bowels confined. He was placed in bed and given a dietary of eggs, milk, bread, potatoes, and oatmeal.

On January 30th the patient complained of a metallic taste

in the mouth, and of some tenderness over the region of the stomach. The bowels had been moved three times since admission, but no trace of the coin could be seen in the stools. The bowels were again moved on February 2nd, 8th, and 14th. Careful examination of the stools failed to discover the coin. On the last-named date the epigastric and left hypogastric regions were radiographed by the *x* rays, with a view of ascertaining if a view of the stomach could be obtained, and with it the existence or otherwise of the coin in that viscus, but the result was unsuccessful, no view or photograph being obtainable.

The subsequent progress of the case was productive of no material symptomatic change until March 20th, when, the bowels having been confined for seven days previously, a simple enema was administered, and was followed in half an hour by the passage of a large and solid stool, on examination of which the coin, much blackened and showing some signs of corrosion, was found well enveloped in fæces, it having been in the intestinal tract for the space of sixty-four days.

The interest in this case lies, I think, in the fact that this foreign body lay in the stomach and intestines for the lengthy period above stated without producing local or constitutional disturbance of any note.

A second case of coin swallowing was admitted into this hospital on February 22nd, in the person of J. B., aged 16, who swallowed accidentally a halfpenny on February 21st. Under rest and treatment, as noted in the case above, the coin was passed *per anum* on February 28th.

## MISSION HOSPITAL, KASHMIR.

### A CASE OF UTERINE PROLAPSE CURED BY VENTRIFIXATION.

(Under the care of Dr. Ernest F. Neve.)

M., aged 40, suffered for several years from procidentia uteri, so severe as to interfere with her daily work. A perineal operation appeared to afford little hope of marked improvement.

On May, 16th, 1896, through a 2-inch ventral incision I secured the fundus uteri by four stitches of strong white silk to the parietal peritoneum and the posterior aspect of the sheaths of the recti muscles. Progress was uninterrupted until the evening of the third day, when the temperature rose to 100° F. During the next few days there was a slight cough, and the evening temperature usually reached 100° F. About the seventh day menstruation came on.

On May 28th the wound soundly healed, and on June 16th the patient was dismissed. I saw her six weeks later. She stated that she was quite free of her former trouble, and experienced no dragging or other uncomfortable sensations at the site of the wound.

# REPORTS OF SOCIETIES.

## MANCHESTER MEDICAL SOCIETY.

Graham Steell, M.D., F.R.C.P., President, in the Chair.

*Wednesday, April 7th, 1897.*

Peripheral Neuritis in Pregnancy and the Puerperium. Dr. Ernest S. Reynolds presented a short communication on the forms of peripheral neuritis occurring in pregnancy and the puerperium. He separated those cases obviously due to injury or inflammation of the nerve roots in the pelvis from those of multiple neuritis affecting arms or legs, or both, in which some poison was probably the cause. He pointed out how often in the latter cases there had been persistent vomiting of pregnancy, and related a case in which this had occurred.

### Disease of the Spleen.

Mr. C. E. Richmond showed a spleen exhibiting some remarkable conditions from a female, aged 28. There was a history of two years' pain and gradual enlargement. When first seen the spleen occupied entirely the left half of the abdomen. At the necropsy it was seen to be enclosed above, behind, and at the sides, by a layer of very tough fibrous tissue (2 inches thick in parts). This was apparently "organised inflammatory deposit," and contained blood vessels of considerable size. It was outside the spleen capsule. The spleen pulp itself showed almost everywhere "cirrhotic" changes, very marked around the blood vessels. The constitutional condition was one of anæmia. There was no history or indication of syphilis or ague. The condition of the blood and clinical phenomena were not at all those of leucocythæmia. The other viscera were generally healthy. The causation was most obscure.

### The Notification of Phthisis.

Dr. James Niven, who read this paper, pointed out that a completeness of knowledge had been attained about the modes of transmission of tuberculosis, and the means by which such transmission could be intercepted, which was not possessed in regard to any other infectious disease. Clinically, also, if trouble were taken to ascertain the infection to which cases of tuberculosis had been exposed, a clear history of intimate and prolonged exposure to infection could be made out proportionately much oftener than was the case in any other familiar diseases. Notification of phthisis, to be of much value, must be compulsory. Difficulties would arise in connection with the expense of notification, but the expense was not prohibitive. The class of cases which required notification comprised tuberculous phthisis, tuberculous diarrhœa, tuberculous glands, and ulcers—whatever might be the cause of the ulceration; in fact, all cases with well-marked discharge. In order to enable some control to be exercised over external milk supplies, notification of cases of tabes mesenterica was also required. There were many influences which operated, some of them most powerfully, in assisting the action of the infective matter of tubercle. Amongst these were especially mentioned overcrowding and insanitary conditions of the dwelling and workroom, such as dampness, want of light, defective arrangements for ventilation, and want of cleanliness. These exercised a decidedly greater effect in regard to tuberculosis than in the case of an ordinary infectious disease. The objects of notification, then, were: (1) To make a careful record, ledgered for names, addresses, and places of occupation, of the cases recorded. Such a record will be of immense importance in tracing the pathways of infection. (2) To ascertain and remove the conditions which have proved active in producing the disease in the cases notified. (3) To see that a strict personal hygiene is carried out for each case reported, both in his own interest and in that of others. This the medical attendant would be expected to see to. But information would be obtained by the delegates of the Health Office as to the steps actually taken. (4) To carry out disinfection and other arrangements for cleansing, and for the maintenance of cleanliness in the *entourage* of the tuberculous person; to disinfect rooms vacated by consumptives in hotels, lodging houses, etc. (5) To enable the medical staff of the Health Department to collect information and make investigations on the conditions of propagation of tuberculosis, with a view to prevention. (6) To enable education in preventive measures to be applied at the most useful time and in the most useful way. (7) To assist the Health Office in tracing tuberculous food infections.

### Hepatic Abscess.

Dr. Dreschfeld made some remarks upon the pathology of hepatic abscess.

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Hunterian Society.—At a clinical meeting on April 14th, Dr. G. E. Herman, President, in the chair, Dr. Butler Harris gave a demonstration of the Treatment of Chronic Ulcers by Ozone. Dr. F. J. Smith remarked on the probable usefulness of ozone in chest disease. Dr. Harris thought it would be too irritating.—Dr. J. H. Sequeira showed a case of Infantile Hemiplegia in a girl, aged 3½ years, which followed a fit; the paralysis involved the left side. He referred to two other cases; in all three recovery had taken place except in the arm affected. A distinction was drawn between congenital cases and those following a febrile attack.—Dr. F. J. Smith showed a case of Spastic Paraplegia in a child, aged 5 years, who had always been healthy except for condition of the legs, in which there was increase of knee-jerks and ankle clonus. Remarks were made by Mr. A. H. Tubby and Mr. St. Clair Shadwell. — Dr. F. J. Woods showed two cases of Trigeminal Neuralgia successfully treated after three or four sittings by hypnotism

and suggestion. Both these cases had been operated on previously by Mr. Charters Symonds, who had removed Meckel's ganglion in one case, and had divided the infradental nerve in the second, and had attempted on another occasion to reach the third division in the foramen ovale without success. Both cases only temporarily improved, and eventually relapsed into their former condition. Remarks were made by Dr. HERMAN and Dr. GLOVER LYON.—Mr. HOPE GRANT showed a man who had suffered from Numbness in the Thumb, Forefinger, and Middle Finger of the Left Hand, with inability to flex them; sensation was diminished. He had had rheumatic pains for two years, somewhat like "lightning pains;" there was no loss of knee-jerks, no ankle clonus; the pupils were insensitive to light, and there was no reaction to accommodation. The patient reeled when standing with eyes shut. He had a chancre in youth, and had been a hard drinker. Remarks were made by Dr. GLOVER LYON, Mr. A. H. TUBBY, and Dr. F. J. SMITH.—Dr. GLOVER LYON showed a case of Fibrosis of the Left Lung, with paralysis of the left vocal cord, and with the left pupil smaller than the right.

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BRADFORD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on April 6th, Dr. GODFREY CARTER, President, in the chair, Dr. EURICH gave a demonstration of microscopical specimens illustrating Locomotor Ataxia affecting the cervical region of the cord, Ataxic Paraplegia, and Psammoma.—Dr. HOWARD GLADSTONE related two cases of old Injury to the Brachial and Cervical Plexuses, and described the appearances of the structures of the forearm as seen on dissection of the limb after amputation.—Mr. CHAPMAN read a case of Tetanus treated by Antitoxin and resulting in recovery. The patient was a man 27 years of age, who sustained a lacerated wound of the forearm. Tetanic symptoms commenced eighteen days later; the wound had not suppurated freely, but there was slight redness and gaping of its edges. The temperature was 100°. The spasms were of moderate severity, but the patient was hardly ever free from some spasm. The tetanic symptoms lasted for eleven days, and during this time 360 gr. of antitoxin were administered subcutaneously. One week after admission the patient became delirious, and remained so for a fortnight. A macular rash appeared on the fourth day, affecting the sides of the chest wall. About the time that the administration of antitoxin was stopped pain, tenderness, and swelling of several joints were noticed, and these symptoms persisted for some three weeks, although during the greater part of this time there was no febrile disturbance. Mr. Chapman said that the part played by the antitoxin in the successful issue of this case was somewhat doubtful, as it was likely that from the first the prognosis was favourable owing to the considerable lapse of time—eighteen days—before the onset of tetanic symptoms. Drs. CAMPBELL, HORROCKS, and SHIACH discussed the case.—Mr. HORROCKS showed a specimen of Lupus of the Vagina, and made some comments on ulceration affecting the orifice of that canal. He said that there was a group of symptoms—namely, local smarting and aching pain, much increased by micturition, defæcation, and coitus, associated with a condition of injection, with superficial ulceration of the mucous membrane of the vulva, together with a whitish discharge. These symptoms were not relieved by vaginal injections and emollient applications, or even by scraping the ulcers and applying caustic, as in the treatment of lupus; the only successful treatment was by free and deep excision of the ulcers, which had been followed by cure in a number of cases. Mr. Horrocks called attention to another condition of the parts, associated with symptoms suggesting caruncle of the urethra. On examination there was found, instead of the vascular papilloma (caruncle), a mass of exuberant granulations blocking the urethral orifice, and having the colour of lupus. These might spread on to the vestibule, or along the floor of the urethra into the opening of the bladder, and might cause incontinence of urine. The ulceration spread very slowly, but was very resistant to all treatment. This condition might be associated with the shallow ulceration of the vulva previously described. Mr. Horrocks pointed out that the confusion of true caruncle with this lupoid condition of the urethral orifice had led to the idea that caruncles might recur after removal.—Mr. HEBBLETHWAITE related a case of Twin Labour in which unusual difficulties occurred.—Dr. RABAGLIATI related three cases of Vaginal Hysterectomy for Cancer by Martin's method, with immediately successful results, but followed in two cases by recurrence after two and eight months respectively.—Dr. ARNOLD EVANS showed specimens of Measly Pork taken from one of the town abattoirs, and demonstrated the cysticercus of the tænia solium under the microscope.

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NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—At a meeting on April 7th, Dr. W. B. RANSOM, President, in the chair, Mr. W. G. LAWS read a paper in which he described the common symptoms of the neurasthenic eye, the difficulty in the use of the eyes, the intolerance of light, photopsiæ, coloured vision, persistence of retinal impressions, etc. He next considered the alterations in the fields of vision, which were mainly a contraction of the limits of the field and a change in the normal relations of the fields for red and blue. He discussed the pathology of the condition from the point of view of whether it was a peripheral—that is, local vasomotor—lesion or due to a central cause, and held that the balance of evidence was strongly in favour of the latter view. He looked on the condition as essentially one of depression of function with irritability of the retina dependent on a similar condition of the cerebral centres. The manner in which the ocular symptoms of neurasthenia might simulate or might be associated with those of organic disease of the central nervous system was indicated. The paper was illustrated by diagrams showing the adaptations of the retina and charts of the visual fields in optic atrophy, myopia, neurasthenia, and the "born delinquent." Remarks were made by the PRESIDENT and Mr. KINGDON.

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GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—At a meeting on March 24th, Dr. MALCOLM BLACK, President, in the chair, Dr. T. W. JENKINS showed the following specimens: (1) Hydrosalpinx of the right side, obtained in the course of an operation for removal of an intraligamentary ovarian cyst on the opposite side; (2) Chronic Salpingitis of both sides, with Hydrosalpinx of right side, and adhesions to Pelvis and Sigmoid Flexure. He had been greatly assisted in his operation by previously distending the rectum with an ordinary rectal bag, the pelvic organs being thus elevated.—The PRESIDENT showed a Ruptured Uterus, and described the case. The rent was in the posterior wall of the uterus, transverse, and about 2 inches long, just opposite the promontory of the sacrum. The patient was a primipara, aged 28, and was the subject of ankylosis of the left hip-joint, due to old hip-joint disease, and the limb was in the position of flexion. The true conjugate was estimated to be at least 3 inches. Labour was induced by bougie and Barnes's bags. After dilatation of the os, which was tardy, the house-surgeon applied Simpson's axis-traction forceps, but steady traction had no effect on the head. He (Dr. Black) was therefore sent for, and as the fœtal pulse was good, he decided to try Professor Murdoch Cameron's antero-posterior compression forceps. The child was delivered without great difficulty, but was found to be dead. The uterus contracted well on the placenta, which, however, had to be expressed about an hour later. After this the patient showed signs of collapse. A hot douche (carbolic solution 1 in 20) was given, but it was found that the nozzle had passed into the abdominal cavity. The nozzle was therefore at once disconnected, and the fluid allowed to drain away. The patient died very soon after, the usual restoratives being of no avail. Various explanations were suggested by several speakers as to the cause of this unusual form of rupture, but the PRESIDENT himself found it difficult to explain, and he did not think that pressure was sufficient. He showed a cast of a cranium of a child with a furrow on it to show what the pressure of the promontory might do without injuring the uterus.—Dr. JARDINE showed: (1) A Photograph of a Child eight days old with a considerable depression of the left temple caused by the pressure of the promontory. The diagonal conjugate of the mother had been 3⅜ inches. (2) A Ruptured Uterus; the patient had been in labour two days and a half before admission into the Maternity Hospital, and delivery with forceps and then turning had been attempted. On examination he found a foot in the vagina and another at the brim, and the placenta was lying loose,

On removing it he found a large rent in the uterus extending obliquely through the cervix and upper part of the vagina. The body of the child was in the abdomen and the uterus was firmly contracted. He delivered the child, perforating the after-coming head. With Professor Murdoch Cameron in consultation it was decided to extirpate the uterus; the patient died of shock ten hours later. (3) A Six Months Pregnant Uterus, with the fœtus *in situ*, from a patient who had had eclampsia. (4) A Puerperal Uterus from a case of persistent vomiting. Dr. Jardine afterwards read two communications (*a*) Notes of a case of Spontaneous Version; (*b*) a note on the Retraction Ring as an Obstruction in Breech Cases.—Dr. Munro Kerr read the history of a fatal case of Septicæmia in an infant 6 days old. At the necropsy a small probe could be passed easily into the hypogastric arteries, and pus could be expressed from them. Cover-glass preparations showed pure cultures of staphylococcus; cultures made from the deeper parts of thrombi showed the bacterium coli communis but not the staphylococcus. Scrapings from small areas in the lungs also showed only the bacterium coli.

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Bristol Medico-Chirurgical Society.—At a meeting on April 14th, Dr. Aust Lawrence in the chair, Dr. Shaw showed a case of Melancholia with Catalepsy.—Mr. Morton showed a patient (and specimen) from whom the Scapula had been excised for Sarcoma.—Dr. B. Baron showed: (1) a patient with Lupus of Nostrils and Throat. (2) A patient with Extensive Web Formation partially shutting off Naso-pharynx from Mouth. Dr. P. W. Williams made remarks.—Dr. P. W. Williams showed: (1) A patient with Cancer of the Larynx. (2) A patient with Coarse Tremor of Vocal Cords in a case of Disseminated Sclerosis. (3) A specimen of Aortic Aneurysm.—Mr. Munro Smith read notes on a case of Abdominal Section on a Python. Dr. Harrison made remarks.—Dr. W. H. Newnham read a paper on a case of Puerperal Eclampsia successfully treated by rapid delivery. Dr. W. C. Swayne, Dr. Aust Lawrence, Mr. S. H. Swayne, and Dr. J. G. Swayne commented on the paper.—Mr. J. Lacy Firth read a paper on two cases of Respiratory Paralysis from Intracranial Pressure, ending in Death; Dr. Williams, Dr. Waldo, Dr. Fisher, Dr. Aust Lawrence, Dr. Randall, Dr. W. C. Swayne, and Mr. S. H. Swayne made remarks.—Dr. Michell Clarke read a paper on a case of Acute Miliary Tuberculosis treated with antistreptococcic serum on account of the presence in the blood during life of S. pyogenes albus; Dr. Fisher, Dr. Shingleton Smith, Dr. P. W. Williams, Mr. Morton, and Dr. Rogers made remarks.

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Birkenhead Medical Society.—At a meeting on April 9th, Dr. R. Sydney Marsden, President, in the chair, Dr. Vacher read a paper on an Outbreak of Typhoid Fever in a large public institution having in all about 700 inmates. From March 10th to 15th, 1896, seventeen persons manifested signs of the disease, and the inference was they were all infected from the same source at or about the same time. On inquiry it was found that a nurse attendant who had leave of absence twice a week had complained of feeling feverish and unwell on February 18th, and had gone home on the 26th. Following up this case, it was found that it was without doubt one of typhoid fever. Attention was directed to the disposal of this patient's excreta, and evidence was forthcoming that some at least during the early days of her illness had been emptied into a contiguous ashpit. Now the pressure on the water mains at the institution was off during the night, and one of the hydrant boxes was in front of the room in which this patient was located. The position of this hydrant box was at the side of the road on which ashes from the ashpit had been spread to mend it; this box was below the level of the road, and on taking it up there was proof that water from the road had been running into it. As the ball would fall during the night, it was obvious that water from the road which had leaked into the box would get into the main. It would appear, therefore, that certain portions of the water used for drinking became infected by means of some of the excreta from the initial case, which had been first deposited in an ashpit and then on a road near a hydrant box.

# REVIEWS.

Collected Contributions on Digestion and Diet, with an Appendix on the Opium Habit in India. By Sir William Roberts, M.D., F.R.S. London: Smith, Elder, and Co. 1897. (Demy 8vo, pp. 321. 5s.)

We welcome a new edition of Sir William Roberts's philosophic and suggestive work, which will be received with renewed interest on account of the paper it contains on the opium habit of India. This article, the result of extensive inquiry and earnest consideration, was added to the Blue Book of the Royal Commission on Opium, and is here reprinted as an appendix. It will be remembered that Sir William Roberts was the only medical member of the Royal Commission on Opium, and that he went with his colleagues to India and Burmah to collect evidence. He approached the investigation of the subject with an unbiassed mind, and in a scientific spirit, so that his conclusions on the much disputed question of the opium habit must be received with respect. He divides the uses of opium into medicinal and "euphoric," a word coined to express the condition of euphoria or the sense of feeling perfectly well, and able to bear pain and anxiety easily.

It is both for its medicinal and euphoric properties that opium is so largely used by the natives of India. India is a malarial country, and the common complaints of the people are malarious and intestinal disorders. Owing to the immense area of the districts served by one medical officer and the distance of the people from dispensaries, it is estimated by Surgeon-Major-General Rice "that not 10 per cent. of the population all over India ever consult a medical man of any nationality practising the European system of medicine." To these millions of people opium is the one remedy in their own hands or in the hands of their *hakims*, which will banish the tortures of bowel-misery, and will ward off the dreaded attacks of malaria and fever. As Surgeon-Lieutenant-Colonel Crombie, of Calcutta, puts it: "Opium is the only medicine of any value that is available to them, and if you deprive them of it, I should not like to be one of those who do it."

It is thus apparent that the medicinal use of opium in India, apart from its prescription by registered practitioners, must be very large indeed; that it is peculiarly serviceable in the climatic and special diseases of India, and that to deprive the people of the means of obtaining the drug for medicinal purposes would inflict an amount of misery impossible to estimate.

It is interesting to learn that the opium generally used in India is far less narcotic and much more tonic in its properties than the kind used medicinally in England. The active principles of opium are two alkaloids, morphine and anarcotine; the former is anodyne and hypnotic, the latter tonic and antiperiodic. The opium used in India is of two kinds, the Patna and the Malwa opium; that used in England is known as Smyrna opium. In the former there is respectively 3.98 and 4.61 per cent. of morphine to 6.36 and 5.14 per cent. of anarcotine, while in Smyrna opium the proportions are 8.27 of morphine and only 1.94 of anarcotine. The antiperiodic powers of anarcotine have been proved from time to time when quinine has been scarce, and fifty years ago malarial fever was treated with it with great success. The assertion, therefore, of the poor Indian who lives in malarious districts that his daily dose of opium protects him from malaria, is probably another example of the fact that ignorant empiricism is often but latent science.

As to the euphoric use of opium, Sir William Roberts has much that is interesting to say. He was impressed, like other members of the Commission, by the healthy and robust appearance of most of the habitual opium eaters who came before them, and by the hale old age of many *habitués*. Sir William was unable to pick out the opium eaters from among twenty soldiers paraded before him, ten of whom were opium eaters and ten abstainers. The habit is, however, not nearly so general as is supposed. In many large districts the average number of opium eaters is from 3 to 5 per cent. of the adult population. In Assam, and in malarious districts where opium becomes a necessity, this percentage is much higher; but, in summing up, Sir William says: "Taking

India all through, it is evident that only a minority of the inhabitants, generally a small minority, even of the adult males, are opium eaters."

The average quantity taken is from 2 to 8 grains a day, "but many take far larger doses than these, and consume 20 to 40 grains a day, and not a few 50 to 80 grains a day, without any appreciable detriment to their health." Doses are also occasionally taken by those whose individual tolerance of the drug is very marked. The dose is generally taken in the form of pill morning and evening, and the habit is usually commenced in the age-period from 30 to 40.

As to the physiological, or averred pathological, results, Sir William says: "The opium habit does not appear responsible for any disease peculiar to it, and *post-mortem* examinations of opium eaters who had died of natural disease had not revealed any tissue changes or disease of any organs which could be traced to the use or abuse of opium." It is, in fact, stated that "the general health of opium eaters, provided they keep within their tolerance, appeared to be just as good as that of other people."

Some interesting details are given about the ceremonial uses of opium in native States.

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ARTIFICIAL ANÆSTHESIA: A MANUAL OF ANÆSTHETIC AGENTS AND THEIR EMPLOYMENT IN THE TREATMENT OF DISEASE. By LAURENCE TURNBULL, M.D., Ph.G. Philadelphia: P. Blakiston, Son, and Co. 1896. (Fourth edition, pp. 538.)

DR. TURNBULL has very nearly succeeded in producing a very good book. Although called a fourth edition the work is practically new. Times have rapidly advanced in anæsthesia since the third edition appeared, and Dr. Turnbull has striven to keep pace with them. If the irrelevant pages dealing with the employment of anæsthetics in disease were omitted, while the various wordy contributions culled from a host of pamphleteers were compressed into a space proportional to their importance, the book would be rendered more handy and less tedious. The absence of method in arrangement so conspicuous in previous editions is still irritatingly present. This has led the author to repeat and in some cases to contradict himself. We gather that Dr. Turnbull regards chloroform as a cardiac poison, and that ether is deleterious from its influence on the kidneys. However, the most recent views upon the last point do not appear in his pages. Many subjects germane to the matter but omitted in most books on anæsthetics are accurately treated by Dr. Turnbull. For example, the use of oxygen with chloroform; the posture during anæsthesia as regards closure of the glottis and falling back of the tongue; local anæsthesia, including Schleich's method. The book contains an immense mass of material, and is so good that we wish it had been allowed to be better. But, even as it is, it marks a distinct advance upon former editions, and contains more information than any other work dealing with its subject with which we are acquainted.

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DIE NEURALGIE DES TRIGEMINUS NEBST DER ANATOMIE UND PHYSIOLOGIE DES NERVEN [Neuralgia of the Trigeminus, together with the Anatomy and Physiology of the Nerve]. By Professor Dr. FEODOR KRAUSE. Leipzig: F. C. W. Vogel. 1896. (Roy. 8vo, pp. 272. Fifty-two Illustrations. M. 10.)

THIS work will prove a rich mine of information to those who are interested in the subject of facial neuralgia. The author, whose name is well known in association with one of the operations recently devised for the radical cure of this painful affection, has been led to study it in all its aspects, and has sought by the results of extirpation of the Gasserian ganglion on the human subject to add to our knowledge of the physiology of the fifth nerve. He has also added some important information on the topographical anatomy of the nerve and its main branches, based on recent investigations on the dead subject.

In the section on the operative treatment of facial neuralgia, the author discusses at full length both the extracranial procedures, and the more complex and formidable operations in which the cranial cavity is opened, and the Gasserian ganglion itself is attacked. With regard to the indications of the former methods of surgical treatment, KRAUSE has of late come to the conclusion that in cases of severe facial neuralgia improved technique and consequent reduction of mortality would lead to their rejection, and to prompt and direct removal of the ganglion. If, as there is good reason to anticipate, such an operation could be rendered safe and certain in its results, then it would hardly be justifiable to submit the patient to any of the extracranial and peripheral operations from which under the most favourable conditions only temporary relief can be expected. English readers will be pleased to find that the method of Mr. W. Rose is here fully and favourably discussed, and that the work of this pioneer in a very difficult branch of surgery is cordially recognised.

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DER EINFLUSS DES RADFAHRENS AUF DEN MENSCHLICHEN ORGANISMUS. [The Influence of Cycling on the Human Frame.] Von Dr. MARTIN MENDELSOHN, Privat-docent der inneren Medicin an der Universität Berlin. Berlin: August Hirschwald. 1896. (Demy 8vo, pp. 64, with 11 figures.)

DR. MENDELSOHN'S little book is undoubtedly the most scientific investigation into the question of cycling which has hitherto appeared. He first takes up the question from the point of view of the increase of muscular work, the physiological consequences of which are on the one hand fatigue, and on the other muscular hypertrophy. He shows that during cycling the percentage of urea excreted increases, while that of uric acid diminishes. The appetite is, as a rule, improved, as also is the action of the bowels by moderate indulgence in the sport. Respiration is chiefly affected in riders who are out of training, when it becomes irregular; those who are in condition show a deep and steady respiratory curve, which must be taken as beneficial. The chief brunt of the exercise falls upon the heart, and here again everything depends upon the physical state of the individual. The author contrasts cycling in a very interesting manner with pedestrianism and mountaineering, in which the strain tells most upon the nervous system, and with rowing, in which respiration is most severely taxed. He considers cycling, which undoubtedly increases diuresis, particularly indicated in the uric acid diathesis, and with great care in certain cases of heart disease; it should be forbidden in early youth and extreme old age, in albuminuria, and in diseases of the respiratory organs. It is sometimes of use in diseases of the female generative organs. Dr. Mendelsohn discusses clearly and lucidly the evils which may result from cycling and the means of their prevention. His main conclusion is that the exercise may on the whole be regarded as a remedial measure provided that suitable cases are selected and the "dose" is regulated to their individual requirements.

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PATHOLOGIE ET TRAITEMENT DE LA LUXATION CONGENITALE DE LA HANCHE [The Pathology and Treatment of Congenital Dislocation of the Hip]. By AD. LORENZ, Professor in the University of Vienna. Translated from the German by J. COTTET, with a Preface by Dr. BRUN. Paris: George Carré et C. Naud. 1897. (Demy 8vo, pp. 372, 54 figures, Fr.8.)

IN this exhaustive and admirably illustrated monograph the author discusses, first, the pathological anatomy of the malposition already well and generally known. It is extremely rare, he observes, for the head and neck of the femur to be congenitally absent, a condition precluding the possibility of radical cure. The distinction (first insisted upon by Mr. William Adams) into complete and incomplete luxation is noticed; in the latter the head is not yet free of the cotyloid border, and can readily be replaced by abduction of the limb; it represents, however, only a phase of short duration in complete displacement, and has merely a theoretical interest.

The author proceeds to point out that the great obstacle to the reduction of the femur is the shortening of the muscles passing from the pelvis to the lower limb, namely, the sartorius, tensor fasciæ latæ, rectus, gracilis, semitendinosus, semimembranosus, and biceps. It is upon this observation that he has founded his method of operation, which differs from that already practised by Hoffa in the particular muscles subjected to division.

The etiology (except that the theory of traumatism is inadmissible) is pronounced to be obscure. He inclines to the view of Grawitz, that the smallness of the acetabulum is a primary defect due to arrest of growth of the Y-shaped cartilage, whilst the head of the femur undergoes proper development. In noticing the various orthopædic appliances devised for the deformity (commencing with that of Dupuytren), the author regards that of Paci as the best; yet although he himself had by this method succeeded in bringing down the head to the acetabulum, he had never been able to retain it there.

The chief object of the monograph, however, is the operative treatment of the lesion. The earlier efforts of Guérin, Brodhurst, and Barwell were confined to reducing the malposition, without any attempt at the formation of an articular cavity. The still later plan of resecting the head of the femur was adopted for want of a better. Hoffa's operation is a great and incontestable advance, since it allows of the head of the femur being replaced into the position it should normally occupy; without this the formation of an articular cavity would be useless. Hoffa's method is essentially the subperiosteal detachment of all the muscles inserted into the great and lesser trochanters, followed by excavation of the contracted acetabulum by means of Volkmann's spoon, perforation of the pelvis being carefully avoided. So detailed a description does the author give of his modification of this operation, that all its steps can be followed with the greatest ease. Hoffa's view is that all the muscles attached to the pelvis and lower limb are shortened as a consequence of the luxation. In contrast, the author claims to have shown that the muscles inserted into the trochanters are lengthened, and that the real obstacle to reduction lies in the shortening of those attached on the one side to the pelvis and on the other to the limb; the division of the trochanteric muscles practised by Hoffa being for this reason unnecessary.

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Clinical Papers on Surgical Subjects. By Herbert W. Page, M.A., M.C.Cantab., F.R.C.S.Eng., Surgeon to St. Mary's Hospital, etc. London: Cassell and Co., Limited. 1897. (Cr. 8vo, pp. 208. 5s.)

This volume is made up of clinical addresses which have been published in various medical journals. The addresses vary much in interest and importance, some being merely clinical lectures to students, whilst some—as those on Traumatic Neuroses and Head Injury—will be found very suggestive, and indeed valuable, additions to current surgical literature. Mr. Page has treated the different subjects with which he deals in a thoroughly practical manner, and at the same time has based his teaching almost as much on the best work of others as on his own wide experience. The interest attached to each of the subjects of these addresses, and the lucid manner in which they are discussed, will render this little volume an agreeable as well as a useful one for occasional perusal.

## NOTES ON BOOKS.

*Notes on Medical Nursing, from the Lectures given to Probationers at the London Hospital.* By the late James Anderson, M.D., F.R.C.P., Assistant Physician to the Hospital, etc. Edited by Ethel F. Lamport, Associate of the Sanitary Institute, etc. With an Introductory Biographical Notice by Sir Andrew Clark, Bart., late President of the Royal College of Physicians, London. (London: H. K. Lewis. 1897. Third Edition. Cr. 8vo, pp. 184. 2s. 6d.)—These lectures are addressed exclusively to medical nurses, and, in the words of the lecturer, are intended to help the nurses "to be earnest, wise, and kind helpers to your patients, and loyal and intelligent co-workers with your physician." This is the keynote which runs all through the course; they are the words of a man in full sympathy with the nurse in all the many difficulties which confront her either in the hospital or in private nursing. The introductory lecture is full of good counsel and of kindly criticism of likely failings: he says "a self-conscious nurse is simply a nuisance," and, again, "if you have the misfortune to be in any way peculiar, whether in the way of good looks or the reverse, let your common sense enable you to put and keep this peculiarity in its proper place, and, if you cannot do so, then give up nursing." The plan of the lectures is to deal with the first principles of nursing, such as feeding, including digestion and absorption, then the respiratory system and nursing of those diseases, the circulatory system, the nervous system, and, finally, infectious nursing. Elementary physiology is taught throughout the course, "so that the nurses may have the advantage of having principles to rely on as well as experience" to qualify them to deal with the constantly-changing cases when thrown on their own resources.

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# REPORTS AND ANALYSES
## AND
# DESCRIPTIONS OF NEW INVENTIONS
### IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

### A METAL HOSPITAL INHALER.

Dr. Frederick Silk, of King's College Hospital, has sent us a description of a metal hospital inhaler which has been made for him by Messrs. Down Brothers. The instrument has been completed two or three years, but Dr. Silk hesitated to bring it before the profession until he had proved it in the hospitals with which he is connected. It is an instrument which may prove useful in large hospitals, and especially in those in which it is not customary to devote much personal attention to the care of the instruments used in the administration of anæsthetics. Figure 1 gives a general view of the inhaler, and hardly requires explanation. Figure 2 is a sectional view, and illustrates the principles adopted in constructing the apparatus. The general shape is that of the well-known Rendle's mask, but the dome-shaped top of the latter is inverted so as to form a perforated cup (D) through which the sponge (C) can, if necessary, be fed with the liquid; this top is hinged to the body of the inhaler, as is seen in Figure 1, to allow the sponge to be introduced in the first instance. One of the objections to the ordinary mask is that the superfluous liquid is apt to trickle on to the face. To overcome this difficulty the diaphragm or drip-catcher (A) is introduced, and still further, to prevent the sponge coming into contact with the face, the opening in the diaphragm is protected by the wire guard (B). Primarily this inhaler is intended for the A.C.E. mixture, but at later stages of the anæsthesia ether may be used; it is not intended for pure chloroform. Being made of metal, this inhaler is not only kept clean with the least possible trouble, but it does not become sodden like the leather inhalers, and does not cockle and get out of shape when carelessly used, as celluloid masks are apt to do; further, in operations about the neck and lower jaw, it is of advantage to be able to administer the anæsthetic through an apparatus that can be rendered and maintained strictly aseptic by constantly washing in antiseptic lotions. This

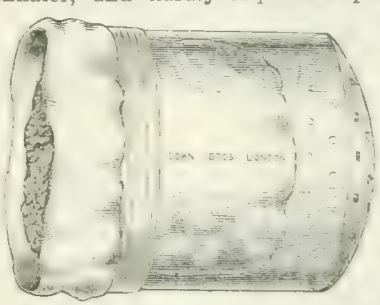


Fig. 1.—General view of inhaler, showing hinged, perforated, cup-shaped top.




Fig. 2.—Sectional view. A Diaphragm or drip-catcher; B wire sponge guard; C sponge; D perforated cup-shaped top.

inhaler is only intended for hospital work; for private practice, when the practitioner is able to devote some little time and attention to the care of his own instruments, it possesses no very great advantages over the celluloid masks which were introduced by Dr. Silk some years ago, and which have the advantage of being more sightly, lighter, and less cumbersome.

## FARINACEOUS FOOD.

THE Cornilla Africana Company of Durban, Natal, have sent us samples of a farinaceous food termed Cornilla Africana Food, which is stated to be a new malted food thoroughly cooked, and to have special qualities and virtues of its own such as are possessed by none of the imported articles of its kind. On examination we find it to be a cooked cereal flour having high nutritive value, and in which the amylaceous material has been rendered more digestible. It makes a very good porridge either with milk or with water, and is much to be preferred to the ordinary starchy foods for children and invalids. The London agent is Mr. J. R. Howarth, 243, Pentonville Road, King's Cross.

## IODINE PREPARATION.

"EODALE," a new preparation of iodine, has been sent to us by Mr. J. W. Nicholl, pharmaceutical chemist, 25, High Street, Belfast. It is stated to be a 10 per cent. solution of iodine, but possessing the advantages over other preparations of iodine of not staining, hardening, or cracking the skin, and of being applicable to the most delicate skin repeatedly without discomfort. It is a darkish-blue liquid, not miscible with water but soluble in alcohol. It contains no fixed salts of iodine, and it appears according to our examination to be an oleaginous preparation of iodine in which the iodine approximating to the amount stated is for the most part in combination with the oily basis. It is perfumed and thus more pleasant for use. The preparation would no doubt, on account of its being readily absorbed, be useful where iodine or iodides are indicated.

## NON-SACCHARINE PALE ALE.

WE have received from Messrs. Harvey and Co., of the Pellon Brewery, Halifax, samples of pale ale which is claimed to be absolutely free from sugar, and, moreover, to be simply a pure pale ale brewed from malt and hops. The samples sent to us were of excellent pale ale quality, well aërated, and distinctly flavoured with hops. Analysis gave 11.9 degrees of proof spirit, acidity 0.10 per cent. expressed as acetic acid, and only 0.74 per cent. of extraction. The extractive matter, on being submitted to the action of yeast, showed no signs of fermentable sugar; it is, therefore, a non-saccharine pale ale as stated, and would be an acceptable and important addition to the dietetic resources of those who from various causes are unable to drink malt liquors containing a large amount of saccharine extractives. The London agents are Messrs. Burgoyne, Burbidges, and Co., 12 and 16, Coleman Street, E.C.

## "EXCEL" COCOA.

THE Compagnie Française, of Bermondsey New Road, have submitted to us samples of "Excel" cocoa. On analysis we find them to be pure preparations of the cocoa bean, perfectly free from added starch and sugar. About one-fourth of the ol. theobrom. naturally present in the bean has been removed, thus rendering the preparation thus likely to disagree with the dyspeptic. The "Excel" cocoa makes an excellent beverage, and has the advantage of being readily miscible with water. In addition to the ordinary preparation of cocoa it is also prepared flavoured with vanilla.

EDINBURGH HARVEIAN FESTIVAL.—The 115th Harveian Festival will be held in the Hall of the Royal College of Physicians, on Friday, May 14th, when the President, Mr. Joseph Bell, will deliver the annual oration on Some Harveian Gleanings.

THE Treasurer of Guy's Hospital has received £1,000 from Baroness de Hirsch towards the cost of building a nursing home in connection with the hospital, in memory of the late Baron de Hirsch, who died on April 21st, 1896.

## GLASGOW UNIVERSITY.

THE Glasgow University winter session closed on April 13th with the usual graduation ceremonial in Arts and Science. Among those presented for the honorary degree of LL.D. was the Director-General of the Army Medical Department, Surgeon-Major-General Jameson. At the recent examinations for degrees in medicine there was a total of 336 candidates, of whom 50 were women. Of the 191 candidates for the First Examination, 127 passed in one or more subjects, 62 were rejected, and 2 withdrew. Of the 88 candidates for the Second, 72 passed in one or more subjects, 11 were rejected, and 5 withdrew; and of the 57 candidates for the Third Examination, 38 passed in both subjects, 15 in one, and only 4 were rejected.

The statistics of the University of last year—that is winter 1895-96, and summer 1896—show a steady decline in the number of matriculated students. The total was 1,835. The previous year the total was 1,944, and in 1891-92 it was 2,133. Of this total last year 686 were medical students, against 729 in 1894-95, and 797 in 1891-92. The total number of women students last year was 241, of whom 71 were students of medicine. In the winter session just closed the total number of matriculated students was 1,769 of whom 639 were students of medicine. Of the total, 240 were women students, of whom 75 were students of medicine.

At the statutory meeting of the University Council, held on April 7th, a report was submitted relating to the conditions under which honours are granted in connection with the degree of M.D. The report was the result of a remit following a discussion at a previous meeting of Council, in which it was stated that Edinburgh University granted more honours to her medical graduates than the University of Glasgow.

The Committee to whom the matter was remitted made an analysis of the degrees in medicine granted in the two Universities since 1865, to which year a record of honours could be obtained from the Calendars, but no further back. It is not necessary to give the details of the Committee's report, but the conclusions are as follows. Since 1865:

(1) Glasgow gave to her 2,148 M.B., C.M. graduates only 2.14 per cent. of honours, while Edinburgh gave to her 4,335 M.B., C.M. graduates 8.51 per cent., or, roughly, four times as many as Glasgow.

(2) Glasgow to her 580 M.D. graduates awarded only 70 distinctions, or 12.06 per cent.; while Edinburgh gave to her 1,192 M.D. graduates 583 distinctions, or 48.90 per cent., roughly again, four times as many as Glasgow.

(3) Glasgow gave a far larger proportion of "Commendations" than Edinburgh, and the latter gave a far larger proportion of the higher distinctions than Glasgow.

The Committee, therefore, suggested that in the University Calendar, under "Regulations for Graduation in Medicine" there should be a regulation showing how honours and the other distinctions may be obtained by a candidate, and that in view of the facts stated in the report the question of honours in connection with medical degrees calls for the serious consideration of the Court and the Senate. This recommendation was adopted by the Council.

In Glasgow University, while in medicine women are instructed apart from men students in Queen Margaret College, in many of the Arts subjects they are permitted to join the ordinary class and try their strength with the men students. It is, therefore, interesting to note how many successes they have gained. A woman student has gained the University Silver Medal for an essay on Realism in Art and Literature. In the class of Logic the first prize has fallen to a woman, in Moral Philosophy the fourth, in the Honours Class of Natural Philosophy the fourth prize, while in the Advanced Honours Class in Mathematics a prize has been awarded a woman student, in the Junior Mathematical Class the second prize, in the Senior Latin the second prize, and in the Honours Greek Class the second prize.

In medicine, of 50 candidates for the examinations for degrees, 33 passed in all the subjects, 7 partially passed, and 10 failed in all subjects.

THE Oxygen Home has moved to No. 2, Fitzroy Square, W. Demonstrations are given on Tuesdays, Thursdays, and Saturdays, at 4.30 P.M., till further notice.

## BRITISH MEDICAL ASSOCIATION.
## SUBSCRIPTIONS FOR 1897.

**Subscriptions to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.**


# British Medical Journal.

SATURDAY, APRIL 24TH, 1897.


## THE BACTERIOLOGY OF BALDNESS.

Sabouraud's discovery that there are varieties of ringworm caused by a plurality of fungi was only recently made, and before we have had time thoroughly to grasp the bearing of this important gain to our knowledge, another discovery by this indefatigable investigator is brought before the scientific world. That seborrhœa is invariably associated with a specific microbe is a fact which is not only new to us, but which was probably scarcely suspected. That this microbe should not only be found in seborrhœa but that it should also be found in alopecia areata adds to the surprise with which these announcements must be received.

The facts on which they are founded are explained in some detail in a paper by Dr. Wickham published in another column. M. Sabouraud tells us that if we scrape from the skin the oily exudation obtained by pressure from a part affected by seborrhœa, and spread it on a coverglass, after dissolving the fat by ether, and colouring for five minutes in gentian violet, and then decolorising by Gram's solution, alcohol, and aniline oil, we can detect myriads of a special microbe which is a very fine bacillus. This bacillus when young is punctiform and almost resembles a coccus, having, after coloration by Gram's method, a length of less than 1 $\mu$. The adult forms are 1 $\mu$ long by 0.5 $\mu$ in diameter. The sigmoid forms, which are in short chains, are rare in the exudation. They may reach the length of the tubercle bacillus. This microbe is the bacillus of seborrhœa, and it is found, as Dr. Wickham explains, in rounded masses in the upper third of the hair follicle. When to this bacillus of seborrhœa are added other organisms, which is often the case, we get secondary affections of the hair follicles—various forms of acne. The same bacillus affects the sebaceous glands of the scalp, where it produces depilation or baldness. The hair of the affected follicle dies, and is seen, when examined under the microscope, to be normal in its oldest part, and atrophied in its youngest. The scales and crusts that are formed on a seborrhœal head are due to the superposition of other microbes, but here they do not as a rule cause acne.

The mechanism by which the seborrhœa bacillus produces baldness is not understood. Anatomically it leads to progressive hypertrophy of the sebaceous glands and an exudation of leucocytes around the papilla of the hair. After this condition is established the hair falls, and each new hair that takes the place of one that is lost is weaker and smaller than its predecessor.

Inoculations in animals with this microbe present great difficulties. That is why Sabouraud states in his paper in the *Annales de l'Institut Pasteur*, "I have been able to state that the micro-bacillus of seborrhœa, unique in kind, and innumerable in amount in the lesions, is the constant microbic feature of this affection, without nevertheless being able to prove that it is its cause, since I have not been able to reproduce with it at will the type of the disease in which it is met."

From seborrhœa to alopecia areata there is, clinically, a wide gulf, which is, however, apparently bridged by Sabouraud's investigations. The essential difference between the hair affected with ringworm and the hair affected by the disease which causes alopecia areata is this. In ringworm the hair papillæ manufacture the hair in the ordinary fashion, but as soon as it is made the ringworm fungus destroys it, whilst in alopecia areata the fall of the hair is caused by a suspension of the formative power of the hair papilla. A similar state of things is the cause of the loss of hair in seborrhœal baldness. The atrophied hairs of alopecia areata differ very slightly to the naked eye from those which are killed by seborrhœa. The process is essentially identical, there being a difference only "in time and in place and in degree." In seborrhœa the depilation is chronic, incomplete, and diffuse, and its seat of predilection is the vertex. In alopecia areata the baldness is complete, localised, and may occur at any part. A patch of alopecia areata is an acute local affection of seborrhœa. This is proved by the fact that if a section is made through the skin affected by alopecia areata in an early stage, the hair follicles, without exception, are found to be infected by the micro-bacillus of seborrhœa, whilst around the affected surfaces the scalp is healthy, and the follicles are not affected. Sabouraud has found this condition present in all the cases he has examined, sections of no fewer than thirty-two portions of skin having been investigated, and a whole year given up to that special work. Up to the present time, he tells us in a footnote, he has obtained in the sheep, the guinea-pig, and the rabbit, characteristic patches of alopecia areata by using cultures of its microbe. For him, therefore, seborrhœa and alopecia areata are "essentially identical." The patch of alopecia areata is only an attack of acute circinated seborrhœa, and inversely the bald only become bald by a diffused process of chronic alopecia areata. "I understand well," he remarks, "how much this opinion will appear anarchic and monstrous to dermatologists, and I believe will be received by them with incredulity, but so did the statement that a boil and osteomyelitis are caused by the same organism meet with incredulity. The statement of every new fact is thus met."

It has not been our object, in giving this brief summary of Sabouraud's researches, to enter at all into the question of previous investigations regarding the nature of seborrhœa and alopecia areata, but it is interesting to observe that Unna had, as Sabouraud himself states, seen in seborrhœa of the scalp the micro-bacillus which he has described. He had also seen it in comedones and described it; therefore it appears as the bacillus of acne, an affection which is due, according to Sabouraud, to another micro-organism which is associated with it, the acne being in fact an epiphenomenon. Fourteen years ago Dr. Thin stated in our pages[1] that in the

[1] British Medical Journal, 1882, ii, pp. 783 and 828.

roots of hairs extracted from the margins of patches of alopecia areata, and between the root sheaths and the hair shafts he had found bodies coinciding in appearance with bacteria, and he believed that alopecia areata was caused by the development in the hairs of a minute organism or bacterium; carrying this belief into practice, he showed that sulphur ointment thoroughly rubbed into the margins of the patches in many cases arrested the disease. The same observer had described[2] what he believed to be an organism that caused alopecia areata. He describes this organism in the following words:

"The difficulty of distinguishing . . . . granules from micrococci or from the spore forms of rod bacteria is so great that it was only when the characteristic appearances of elongating spheroids, or small rod-shaped bodies containing spheroidal elements arranged linearly, or rod bacteria were observed, that the evidence of the presence of organisms was deemed conclusive. . . . . The result of the examination of a large number of hairs prepared by these methods has been to satisfy me that minute objects can be detected in them similar in size and form to those which I have recognised as organisms on the borders of freshly-extracted hairs, and preparations were obtained in which these objects were found in positions, and so arranged as to show that they were distinct from the rows and aggregations of minute granules which are found in healthy hairs. The objects referred to were seen either as round or as elongated rounded bodies."

The objects described by Dr. Thin as organisms do not seem to have been situated exactly in the same position as the micro-bacillus so carefully studied by Sabouraud. He considered that the bacterium described by him as "decalvans," penetrated downwards between the internal root sheath and the shaft towards the root of the hair. It then penetrated the hair substance, and as it multiplied it ascended upwards in the substance of the hair. Dr. Thin does not state that he had made any sections of the scalp, and did not succeed in staining the organisms, which renders an accurate comparison with such complete researches as Sabouraud's very difficult.

## CHLOROFORM AND THE HEART.

IN an address delivered before the Society of Anæsthetists on February 18th, which we published in the BRITISH MEDICAL JOURNAL of April 17th, Mr. Leonard Hill brought forward additional evidence of the incorrectness of the doctrine, promulgated by the Hyderabad Chloroform Commission, that chloroform has no direct action on the heart. This new evidence is the outcome of his researches into the influence of the force of gravity on the circulation of the blood, which were communicated to the Royal Society in November, 1894, and published in detail in the *Journal of Physiology* in the following year. When an animal is turned from the horizontal to the feet-down position, the cannula in the artery being ingeniously placed in the axis of rotation, there is a fall of blood pressure in the carotid, and a fall of intracranial pressure. The fall of blood pressure is not great, and in a normal animal under morphine it soon rises to but a little short of the pressure recorded in the horizontal position. The mechanism of this recovery or compensation has been carefully investigated by Mr. Leonard Hill, and he has shown that it depends upon the integrity of the vasomotor and respiratory systems, together with the efficiency of the heart. In the feet-down position the blood accumulates in the vessels of the abdominal viscera, and it is "lifted" on to the heart by an increase of tonic constriction of the splanchnic vessels, aided by an increase of abdominal pressure brought about by contraction of the muscles of the abdominal wall. Previous section of the splanchnic nerves, or division of the dorsal spinal cord, by removing the tone of the splanchnic vessels, leads to a much greater fall, and does away with the power of compensation, although the animal endeavours to drive on the blood by powerful contractions of the expiratory abdominal muscles. When these are also divided the blood pressure falls still lower. If the chest is opened the heart is seen to be bloodless and empty, but can be immediately filled by pressure on the abdomen. Increased activity of the vasomotor centre is the main factor in bringing about the recovery of pressure.

It is interesting to note that in an "upright" animal, such as the monkey, the compensating mechanism is very efficient and prompt, and, in fact, there is frequently overcompensation, so that the carotid blood pressure is higher in the upright than in the horizontal position. The same is the case in man, and this has been clearly shown by Dr. George Oliver with his ingenious instrument, the arteriometer. This instrument gives an indication of the pressure in an artery by measurement of its diameter, and shows that the diameter of the radial artery of a healthy man is greater in the sitting than in the recumbent position. In the upright position the heart beats faster, for it has more work to do in sending the same quantity of blood through the brain and through the abdominal viscera back to the heart again. The increased work of the heart is the third factor in bringing about compensation on change of position. As long as the heart is able to do this very small increased amount of work the pressure recovers; but if it is not able to do it, only an incomplete and poorly-sustained compensation is brought about.

Now, Mr. Leonard Hill finds that chloroform is a most powerful agent in doing away with the power of compensation. With moderate anæsthetisation the fall of blood pressure on turning the animal into the feet-down position is very considerable, and that the blood largely accumulates in the splanchnic vessels is shown by the considerable recovery of pressure, though short of normal compensation, brought about by compression of the abdomen. This compression drives blood on to the heart, and the heart forces some of it on into the arterial system. Very different is the result when the anæsthetic is pushed; a very great fall of pressure is produced, and compression of the abdomen, or even turning the animal feet up, leads to no adequate rise of pressure. The feet-up position does not restore the pressure to as high a level as that which was maintained in the feet-down position before the chloroform was pushed. It is no use squeezing blood on to the heart, for it is incapable of dealing with it. A heart under the influence of chloroform is not able to do the small additional work required to maintain anything like the same pressure when the animal is turned from the horizontal to the vertical position.

The experiments show the essential difference between a

[2] On Bacterium Decalvans: an Organism associated with the Destruction of the Hair in Alopecia Areata, by George Thin, M.D. *Proceedings of the Royal Society*, 1881, p. 217.

low pressure produced by vasomotor paralysis and one produced by chloroform, and leave no doubt whatever that the dangerous fall produced by the drug is due to direct action on the heart. So that from an entirely different standpoint the work of MacWilliam, Ringer, and others, and the results obtained by the elaborate cross-circulation method of Gaskell and Shore are completely confirmed. Mr. Leonard Hill points out that the tracings of the Hyderabad Commission also show that failure of the circulation is really the cause of death. For the respiration stops, not because the centre is paralysed but because the blood pressure has fallen to a certain amount, and it recommences when this is by any means raised to that amount again, although the centre is thereby supplied with as much chloroform as before. In fact the tracings of the Commission, as Dr. Gaskell and Dr. Shore have pointed out, are, so far as they go, as good as any others; they are infallible records made by the animals themselves, and when read by competent physiologists tell the same tale as all others do.

Mr. Leonard Hill has not omitted to point out the practical bearing of his experiments on the treatment of that commonest cause of death from chloroform—syncope in an early stage. In one year, out of 41 deaths from chloroform syncope, 39 occurred in the primary stage before the patient had been touched by the knife. The sudden application of concentrated chloroform vapour causes struggling and holding of the breath, the glottis is closed, and intrathoracic pressure is raised; the lungs are thereby compressed and largely emptied of blood; this leads to engorgement of the right heart and congestion of the venous system, until at last two or three very deep respirations are taken, and there is a sudden rush to the left heart of a mass of blood surcharged with chloroform. The heart, already dilated, is then paralysed. Holding strong chloroform vapour to the nostrils of a struggling patient is to court disaster.

When syncope has occurred the chief thing to do is to relieve the heart of blood and not to drive blood to it, as is so often done by inversion or flagellation. Artificial respiration is to be applied in the horizontal position by forcibly compressing the chest rhythmically, with the object of bringing pressure to bear on the heart. If this is not immediately successful the same manœuvre must be carried out in the vertical feet-down position, and under no circumstances must the abdomen be compressed or the patient inverted. If only a little blood can be forced through the heart and the pressure on the right side be sufficiently relieved spontaneous contraction will soon occur, and as the blood pressure rises respiration will begin again. Mr. Leonard Hill's experiments afford additional proof of the difference in action of ether and chloroform. With ether the fall of pressure is much more gradual, and when the animal is placed in the feet-down position the drop of pressure is comparatively small; but even when the ether is pushed and a low pressure produced it can be at once raised by compression of the abdomen or by the resumption of the horizontal position. The heart is comparatively little affected, and, as the blood is brought to it, it can pass it on, but the chloroformed heart cannot. As to the physiological action of chloroform and to the comparative safety of ether, recent experiments on animals are, we are glad to see, in complete accord with clinical experience.

## THE NEEDS OF CAMBRIDGE UNIVERSITY.

The liberal spirit displayed by the authorities of the University of Cambridge in making provision for the teaching of science will lead the medical profession to take special interest in the statement which is now being circulated under the signature of the Duke of Devonshire, the Chancellor of the University. This statement is made on behalf of a very large number of those who are conducting the practical educational work of the University; and, though it does not emanate officially from the Senate, its authority is unquestionable.

To those who have not previously paid attention to this subject it will perhaps be a matter of some surprise to be informed that the University of Cambridge is very far from being a wealthy body. The total endowments of the University itself do not yield £7,000 a year, and nearly the whole amount has been bequeathed for special purposes. More than half of the revenue of the University is derived from the capitation tax levied on undergraduates, and from fees from matriculation, examinations, degrees, etc. The other main sources of University revenue are the college contributions, practically a tax levied on their corporate income, internal trust funds, and tuition fees. When the amount of these college contributions was fixed by the Commissioners under the Universities Act of 1877, it was anticipated that they would amount by 1896 to £30,000 a year, this expectation being founded upon the hope that the college revenues would steadily improve. So far from this having been the case, however, the total divisible revenue has fallen off by one-third, owing to the long-continued agricultural depression. The pressure on many of the colleges has been so extreme that it has more than once been necessary, instead of exacting the annual increment, to reduce the contribution nearly to its minimum. Finally, at the instance of the University, the Queen in Council has sanctioned the postponement until 1902 of the time at which the maximum tax should be imposed. Unless, however, the conditions now prevailing undergo material improvement, the final increment of income to the University accruing in 1902 from this source can hardly be much greater than £2,000, while the sum received annually in fees, etc., from undergraduates, which last year was £39,366, must fluctuate with the number entering, and this again will be influenced by the adequacy of the provision which the University can make for instruction and research.

The importance and extent of the educational work supported by the University funds as distinct from that carried on by the Colleges has grown rapidly during recent years. Upon the University funds falls of course the maintenance of its staff of professors, readers, University lecturers, demonstrators, and other educational officers, numbering in all about 120, while for the purposes of education and research the University maintains the University library, certain special libraries, the divinity and the literary schools, the observatory, the botanic gardens, eight museums, and eight laboratories. In many instances the stipend of a professor is in part paid by a College, owing to an arrangement under which the stipend of a professor who holds a college Fellowship is diminished by £200 in consideration of the dividend he receives from his College, though this often falls below £200. The Colleges provide for their own students' instruction in many of the

subjects prescribed for the University examinations, they maintain their own libraries and lecture rooms, three of them possess small chemical laboratories, and by intercollegiate arrangement a number of the courses given by college lecturers are open to members of other Colleges.

By various devices and expedients, and by a system of give and take among the colleges, and between the colleges and the University, Cambridge has managed to rub along, and has in particular, spent large sums of money in providing facilities for practical instruction and for research in science, but it is too clear that the present unsatisfactory and somewhat indefinite arrangements cannot permanently meet the requirements of a university such as one of the premier universities of Great Britain should be. In all the university departments of learning and science, and especially perhaps in biological science, ampler accommodation and equipment and a larger body of teachers in special subjects are needed now than were deemed sufficient even in recent times. As the specialisation of science becomes greater, and as the importance of science as a part of education becomes more generally recognised, so the means required for its adequate teaching and the number of those who desire instruction also increases.

Most of the museums and laboratories at Cambridge have been established within the last thirty-five years, but the accommodation they provide is already insufficient. The buildings assigned to the departments of botany, zoology, and pathology are overcrowded and inconvenient, and call for early reconstruction or enlargement, as also does that of physiology. The present buildings of the department of medicine and surgery are reported to be dilapidated and beyond repair, while in view of the growing importance of the department not only must it speedily be rebuilt on an enlarged scale, but a pharmacological laboratory must be added to it.

The broad and liberal spirit in which Cambridge has recognised the importance of biology, and striven, under the inspiration of the late Sir George Paget and Sir G. M. Humphry, to create a real school of medicine, has been universally recognised by the medical profession in this country, and we make no doubt that the profession will readily support the appeal now made—not, indeed, to the liberality of the public by the ordinary methods, but for the formation of a body of public opinion which will eventually lead to such an increase of the endowment of the University as may again raise it to the level of its historic reputation and present requirements.

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The annual dinner of the Army Medical Staff will be held in the Whitehall Rooms, Hôtel Métropole, on Monday, June 14th, the Director-General in the chair. The A.M.S. band from Aldershot will play during the evening.

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Professor Bruns, of Tübingen, in his presidential address to the German Surgical Congress, which was opened in Berlin on Wednesday, referred in terms of warmest appreciation and sympathy to Sir Spencer Wells, whose life-work had contributed so largely to the advance of surgery.

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Sir Herbert Maxwell, M.P., Chairman, Mr. H. E. Clare and Mr. John Speir, members, and Dr. T. M. Legge, Secretary of the Royal Commission on Tuberculosis, accompanied by Professor M'Fadyean, have started on a tour of inspection to Brussels, Cologne, Berlin, and Leipzig, in order to study the methods adopted in these cities for dealing with tuberculosis in meat.

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## THE MUZZLING ORDER.

The decision to require all dogs in the Metropolitan area to wear the muzzle is, we are informed, only a part of the comprehensive scheme of the Government for the effectual scheme for stamping out rabies. It is stated that similar precautionary measures are to be taken in the Birmingham district and in South Lancashire and Cheshire. The areas for the operation of muzzling orders will, in the terms of the recommendation of Mr. Whitmore's Departmental Committee, be selected "irrespective of the boundaries of boroughs and counties."

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## THE LONDON POST-GRADUATE COURSE.

The summer term of the London Post-Graduate Course will commence on Monday, May 3rd. It will include a course of lectures and demonstrations on the Diseases of the Skin, the Throat and Ear, on Bacteriology, on Clinical Chemistry, on Hygiene, on General Medicine, and on Surgery. Full information will be forwarded on application to the Secretary, Dr. Fletcher Little, 32, Harley Street, London, W.

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## INFLUENZA IN LONDON.

There was a marked decline during last week in the number of fatal cases of influenza registered in London. The deaths directly referred to this disease, which had been 33, 28, and 34 in the three preceding weeks, declined to 22 during the week ending Saturday last, April 17th, but still exceeded the average number in the corresponding periods of the past seven years, during which influenza has been more or less fatally prevalent in London. Of the 22 deaths referred to influenza in the metropolis last week, 6 were of children under 5 years of age, 9 were of persons aged between 20 and 40 years, and 7 were of persons aged upwards of 60 years. The disease appears to be especially prevalent in Kensington, Shoreditch, Brixton, Greenwich, and Sydenham. Although the deaths from influenza in London last week showed a considerable decline, there was a slight increase in the mortality from diseases of the respiratory organs; the deaths referred to these diseases in the metropolis, which had steadily declined from 344 to 271 in the five preceding weeks, rose to 274 during last week, but were 121, or nearly 30 per cent., below the average.

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## TUBERCULOSIS OF CATTLE FROM THE BREEDERS' STANDPOINT.

We quoted recently a resolution passed by the Brighton and Sussex Medico-Chirurgical Society on the importance of the tuberculin test in relation to milk supply, and adduced evidence of the fact that dairymen are beginning to realise the necessity of being able publicly to guarantee their milk as supplied from tested and non-reacting animals. There is further evidence that the matter is being brought seriously home to the English cattle breeder, and that he will have to take prompt measures if the international reputation of certain English breeds is to be maintained. M. le Clercq, the President of the corresponding French Society, has addressed a letter to Lord Brougham and Vaux, the President of the English Shorthorn Society, in which he draws attention to the disastrous situation in which French breeders find themselves after purchasing shorthorn breeding stock in England. The French Government has recently decreed that all imported bovine stock shall be tested at the frontier, and if they react unfavourably to tuberculin that they must be immediately slaughtered or returned to the country whence they came. Under this enactment two important bulls, including Lord Polwarth's "Nonsuch," the champion last year of the Royal Show, reacted unfavourably and had to be slaughtered. The French Shorthorn Society has been encouraged in the introduction of such special animals as the above by a subsidy from the French Government; and we

cannot therefore be surprised when M. le Clercq writes: "You will understand our unfortunate position and the cruel loss to our Society, because if our colleagues will not give us the assurance that their stock is free from tuberculosis, our subsidies will be withdrawn, and consequently no more English purchases will be made." It is, of course, a serious expense to destroy prize animals that happen to be tuberculous, and we have little doubt that the veto now put on the deportation of such animals to France will lead to their English breeders using every effort to prevent the disease spreading. The in-breeding of one particular strain undoubtedly increases the risk of tuberculosis; but it cannot be too strongly emphasised that tuberculosis (except in the rare instances of congenital disease) is caused by external infection, and that this may, by the adoption of suitable measures, be entirely prevented, even in the case of the most strongly predisposed animals. Such measures include the feeding of the young animal on milk which is free from infective material, the housing in stalls which do not harbour infective dust from previous occupants, and allied precautions. It is a question whether prize animals showing signs of tuberculosis may not in certain instances continue to be used for breeding purposes, so as to minimise the loss to breeders. Congenital tuberculosis is rare, most calves of tuberculous parents being infected after birth. Hence it is sometimes practicable, if the calf is immediately removed from the mother, to obtain healthy progeny from a diseased cow—and still more from a diseased bull—and thus maintain the continuity of important breeds without propagating tuberculosis. The success of the experiment can always be tested, so far as the calf is concerned, by the application of the tuberculin test.

## BENIN CITY AND THE NIGER PROTECTORATE EXPEDITION: A MEDICAL REPORT.

We have been favoured by Dr. Felix Roth, deputy medical officer of the Niger Coast Protectorate, with an interesting communication dated from Benin City, March 14th, in which he encloses the following report respecting Benin City, which Dr. R. Allman, Principal Medical Officer for the Niger Coast Protectorate, has prepared and transmitted to the Consul-General:

I have the honour to submit a brief report on the sanitary condition of Benin City on the day of its capture, February 18th, 1897.

On the principal sacrifice tree facing the main gate of the King's compound, there were two crucifixions, and lying around the foot of the tree were 17 newly decapitated bodies, including 3 Europeans, and 43 decapitated bodies in various stages of decomposition.

On the sacrifice tree to the west of the main entrance a woman was crucified, and at the foot of the tree 4 decapitated and eviscerated bodies were found. On going westwards towards the plain leading to the Gwatto road a sickening sight was met with—176 human sacrificed and decomposing bodies were found, the stench from which was so intolerable that the sanitary gang under my orders had on more than one occasion to beat a hasty retreat.

In the portions of the city to the south of the plain, I came across 5 sacrifices (decapitation with horrible mutilations), and in the compound at the rear of the King's palace 6 more were found.

On the main road, looking eastward from the principal gate, 11 newly decapitated heads were found (including a European) the bodies in this instance being absent. A little further on, and close to the entrance of the path from Ologbo, 7 bodies were found killed by gunshot wounds. These evidently fell in the action of the 18th February.

All the above mentioned were decently buried, besides upwards of 300 skeletons.

In various parts of the city, but principally in the immediate vicinity of the King's compound, large pits were found (12 to 15 feet in diameter and 40 to 50 feet in depth) seven of which contained human sacrifices—the dead and dying intermingled in these fulsome holes—as many as fifteen to twenty being found in each.

Several unfortunate captives were rescued with great difficulty, and are now progressing favourably, with the exception of one poor creature, who will, I am afraid, remain an imbecile for the remainder of his life. After all the living had been rescued the "pits" were filled in with earth.

The day after our arrival here, nearly all of the European officers, native troops and carriers, suffered acutely from a form of epidemic diarrhœa caused by inhaling the putrid atmosphere, which, I am glad to say, has completely passed away, and the general health is at present good.

The sanitary condition of the city is all that could be desired under the circumstances.

Dr. Roth adds: On March 15th we left Benin City—leaving a resident with officers and troops there. I think they will be unmolested, as we made a long march of sixty miles into the interior, being away fully a week. During that time no shots were fired at us. It was rather hard work as we hurried on a good deal so as to try and catch the King, and although we were seven white men, only one had fever for two days. All of us took quinine daily, but the food was not very good. Water was scarce, and we hardly washed at all, and, besides this, we slept in the forest on the ground; but most of us were accustomed to this sort of work, and therefore probably did not suffer from fever. As soon as I get the report of our wounded I will send it, but it will be some time yet. I go back to Warri now.

## HOSPITAL REFORM.

At a recent meeting of the Plymouth Medical Society the following resolutions were carried: (1) "That this meeting, although not pledging itself to the particular recommendations of the Hospital Reform Association, approves of its principles." (2) "That a recommendation be sent to the committees of the various hospitals, dispensaries, etc., of the three towns, asking them to appoint an investigation committee, whose duty it shall be to inquire into the circumstances of the persons applying for relief, and if they find it necessary, to appoint an inquiry officer, and so limit the assistance given to the necessitous poor only."

## HORSEFLESH AS HUMAN FOOD.

It is stated that horseflesh still appears to hold its own as an article of food with the poorer classes in Belgium. Recent statistics show that in Antwerp alone nearly 4,000 horses were slaughtered last year for human consumption, and the number of shops dealing exclusively in horseflesh in the Belgian port exceeds thirty. Over 10,000 horses were imported during the year for conversion into meat, this number being largely in excess of the imports of cattle.

## "FOR DISTINGUISHED MERIT."

At the last meeting of the Council of the British Medical Association it was resolved that the Gold Medal of the Association "For Distinguished Merit" should be presented to Mr. C. G. Wheelhouse and Sir Walter Foster. The services rendered by both these gentlemen to the British Medical Association and to the medical profession at large have been so conspicuous and have extended over so many years that their recognition will be generally felt to be well deserved. Mr. Wheelhouse, who is able to look back on a long period of service to the Association, has, we believe, served upon the Council for a longer period than almost any other one of its members, and during that time he has taken a very active part in its labours as a member of many of its special Committees, and also as its President for the customary period of three years. Finally, when the Association met in Leeds in 1889, he was unanimously chosen for the office of President of the Association, and discharged its duty with his accustomed energy, dignity, and urbanity. Sir Walter Foster has also been for many years an active member of the Council and of its Committees, and was President of the Council during a critical period, discharging the onerous duties which devolved upon him with remarkable ability and discretion. As an influential member of Parliament and a member of the last Liberal Ministry, he has been able to render many other services to his profession which are highly valued. When by the Medical Act of 1886 direct representatives of the medical profession were created, the profession turned naturally to these two gentlemen, and Mr. Wheelhouse and Sir Walter Foster were returned along with Dr. Glover. In 1891 their re-election was a foregone conclusion. Widespread regret was felt when it became known last year that neither Mr. Wheelhouse nor Sir Walter Foster would stand again, and a wish was expressed in many quarters that some testimonial should be presented to them. The Council of the Association has, we are sure, interpreted the general desire of the profession by presenting to them the Association medal. On two previous occasions this medal has been presented for similar public services to the profession: To

Dr. William Farr in 1880 for his contributions to statistical science, and in 1886 to Dr. Edward Waters for his efforts in the cause of medical reform. Twice it has been given for gallant conduct on the field of battle—to Surgeon-Major Reynolds, V.C., of Rorke's Drift, and to Surgeon-Captain Whitchurch, V.C., of Chitral. Twice it has been given to civil practitioners for courage exhibited in rendering assistance to coal miners after an explosion; to Dr. H. N. Davies in 1877, and to Dr. F. Ormerod in 1888. The only other recipient of the medal was Surgeon-Major Parke in recognition of his devoted services during Mr. Stanley's expedition in Africa.

## SIR HENRY THOMPSON'S GIFT TO THE GREENWICH OBSERVATORY.

BY the enlightened munificence of Sir Henry Thompson the Royal Observatory at Greenwich has just been enriched with a new compound equatorial telescope, which is probably the most powerful instrument existing for the prosecution of astronomical research by means of photography, which seems destined to play an important and pre-eminent part in the further progress of astronomical knowledge. The observatory already possesses an excellent photoheliograph presented by Sir Henry Thompson some seven or eight years ago, when he gave up his own observatory at West Molesey, which he had in work for some years, until it became too onerous and exciting a task for him to carry on the necessary nocturnal observations. It was this practical acquaintance with astronomy which led him to the conviction that the future of astronomical science lies largely in photographic work, and that this important instrument above all other things was wanted at Greenwich to maintain our ancient prominence in astronomical discovery. The instrument has been in process of manufacture by Sir Howard Grubb, of Dublin, since 1894, and it is noted as a happy chance that the completion of this magnificent addition to the equipment of our national observatory, and the resources of English astronomy in general, should have happened in the year of the Queen's Diamond Jubilee. The nation and Sir Henry Thompson alike may be congratulated on this important addition to our national resources in astronomical science.

## DEATH OF MR. J. B. BAILEY.

To many of our readers the news of the untimely death of Mr. James Blake Bailey, the justly popular Librarian of the Royal College of Surgeons of England, will come with a shock as of a personal loss. And indeed the loss of an officer with such power to help, and such readiness to use it on behalf of anyone who asked for it, is one of a distinctly personal nature to those who had occasion to visit the great library in Lincoln's Inn Fields. His knowledge of medical literature, and particularly of its bypaths and hidden nooks, was extensive and accurate, and it was a real pleasure to him to place his stores of information at the disposal of all members of the profession. His good nature in this respect made him a target for all sorts of questions from correspondents all over the country; not a few of these were of a sufficiently idle character, but to all of them Mr. Bailey did his best to furnish an answer, often at the cost of an altogether disproportionate amount of trouble. He took a pride in the noble collection of books entrusted to his keeping—and not unnaturally, for it is hardly too much to say that he had transformed it from a wilderness to a model of order and convenience. The usefulness of a public library depends largely on the courtesy and amiability of its guardians, and in this respect, as in his technical skill and literary knowledge, the College of Surgeons will find it no easy matter to replace the highly competent officer whom it has just lost. Mr. Bailey, who was only 48 years of age, was a graduate in Arts of the University of Oxford, and was trained in the Bodleian Library. From this he passed to the Library of the Royal Medical and Chirurgical Society, and thence some ten years ago to the post from which he has now been removed by death. He contributed frequently to the general press, and regularly to our own columns, where his assistance was much valued; he was also the author of various books, among which may be mentioned *Modern Methusalehs* and the *Diary of a Resurrectionist*, which was published only last autumn. He also edited some medical tracts by Marat, who played so sanguinary a part in the French Revolution. Mr. Bailey leaves a widow, to whom, we are sure, the sympathy of all who knew her accomplished husband will be extended in her bereavement.

## PROPOSED PHYSICAL LABORATORY FOR INDIA.

THE following memorial, on behalf of the signatories, has been handed to the Secretary for India by Mr. Schwann, M.P.:

My Lord,—We, the undersigned, interested in the progress of physics, desire respectfully to draw your lordship's attention to the great importance which we attach to the establishment in the Indian Empire of a central laboratory for advanced teaching and research in connection with the Presidency College, Calcutta, the most important educational institution under the Government of India. We believe that it would not only be beneficial in respect of higher education, but also that it would largely promote the material interests of the country, and we venture to urge on you the desirability, therefore, of establishing in India a physical laboratory worthy of the great empire.

The memorial is signed by Lord Kelvin, Lord Lister, W. Le W. Abney, R. S. Ball, W. G. Bond, E. T. Carter, R. B. Clifton, G. Carey Foster, G. F. Fitzgerald, W. Garnett, J. H. Gladstone, J. Hopkinson, W. Huggins, J. H. Poynting, W. Ramsay, H. E. Roscoe, A. W. Rücker, A. Schuster, G. G. Stokes, W. Stroud, and S. P. Thompson.

## HOSPITAL ABUSE AND ITS PREVENTION.

A LETTER, signed by the Chairman and the Treasurer of the Great Northern Central Hospital, detailing the precautions taken at that institution for preventing abuse in the out-patient department, was published in the BRITISH MEDICAL JOURNAL of April 17th. As will have been observed, the scheme consists, first, in an inquiry by a Subcommittee composed of representatives of the Committee of Management and of the medical staff into the social circumstances of the applicants; and, secondly, an inquiry into the medical features of the case by a special medical officer, a resident in the district. It is the latter part of the plan which is peculiar to this hospital. The inquiry into the applicant's social circumstances, though said to be carried out by the Subcommittee, must in practice, we should imagine, be really conducted by their "inquiry officer." A somewhat similar plan is now, we are glad to say, adopted at many hospitals, and must do some good, both in the way of rejecting applicants found unsuitable, and still more in deterring others from applying. But, after all, we do not believe that the proportion of applicants who are able to pay ordinary fees is large—at least, at the general hospitals. The question of the medical suitability of the cases is, we think, a much more serious one, and we should have been glad to be more fully informed as to the tests adopted to determine such suitability. The only one here mentioned is that the patient should be "suffering from definite illness." And it is also added that trivial cases are attended the first time. If so, are any persons excluded on the ground of medical unsuitability? and how many? We should have concluded that if all cases of definite illness are received, and all the others treated once, everyone would get all he asked for. But surely there are many cases of definite illness which should not be treated at a public hospital—cases, for example, of venereal disease in both sexes, cases of chronic illness for which rest and shelter are necessary, cases of diathetic maladies, the result of, or maintained by, evil habits, and many others which are incapable of cure by a hasty interview and prescription. Until this fact is recognised (and there is no sign of its recognition in this letter), medical

supervision of out-patients' applications will, we fear, not be efficient. Still, the mere inception of such a plan does great credit to the governors of this hospital; and if we criticise it, we do so in the most friendly spirit, and only with the hope of seeing it extended and perfected. But why, we may ask, should not the medical fitness of the case be decided before the application is even entertained? "Sixty-eight per cent. of the certificates returned," we are told, "were signed by the patients' own medical men." Does not this show the practicability of the plan, often proposed, not to entertain any application except through a medical man or a medical institution?

## IRISH POOR-LAW REFORM.

The Chief Secretary for Ireland has introduced a Bill for the purpose of carrying out certain reforms in connection with the administration of the Poor Law in that country. The main proposals have regard to the amalgamation of unions, outdoor relief, the housing of lunatics, and the teaching of children. These are excellent in their way, and any action that indicates life in the Local Government Board is to be regarded with satisfaction. But we hope that the work of the proposed Commission will be considerably enlarged so as to examine into the working of the Poor-law system in Ireland as a whole. We have declared it to be in many senses a fraud, and we repeat that statement. If there is to be inquiry let it be quite full instead of being mainly concerned with the question of stone walls. We hope that Irish medical men and the Reform Committee will look into this matter, and urge upon Mr. Gerald Balfour the necessity of shaking himself free from official influences, and giving some ear to the voice of unofficial experts and public opinion.

## THE "X" RAYS.

At the Camera Club, on April 14th, Mr. Wilson Noble in the chair, Mr. Campbell Swinton discoursed upon Roentgen or X Rays, and reviewed a number of experiments and trials made by scientists to gain more accurate knowledge of the nature and action of those rays than existed when the subject was first introduced to the Society by himself a year or more ago. These researches were further intended to find means of improving and controlling their application in photography, in medical diagnosis, and their practical combination with fluorescent screens. The first group of investigations noticed was a large series of failures, the details of which served as a warning what to avoid. The many successes on the continuous line of researches were, however, very encouraging, and some marked points of advance were shown to have been attained. The modification of the Crookes's tube by Mr. Jackson, of Charing Cross Hospital, had been a primary step forward, and the extensive use now made of fluorescent screens avoids the delays of photographing and the difficulties of suitable times of exposures of the photographic sensitive plate. The rays are in this way transmitted without any sort of intricate or uncertain manipulation, and this for medical observations is a very important consideration, and calculated immensely to extend the constant use of the rays in general practice. Difficulties have been gravely felt through the heating of the platinum reflector in the lamp by the passage of the rays upon it: and a plan is now introduced of mounting the platinum upon a basis of aluminium, by which a cooler condition is realised. There was always formerly very great difficulty ie the generating tube maintaining an equable condition of vacuum. The residual gas in it became various, changed in its condition, and the extent of the vacuum was constantly being altered or frequently heightened, until the passage of the rays was barred. Some interesting experiments were made with a generating lamp formed with sliding tubes, so that the cathode of the electric current and the anti-cathode of the lamp could be approached or separated, and in this way be adjusted to any required degree of vacuum. Similar attempts at control were shown with lamps furnished with four cathodes, and others with control attempted at an electro-magnet as well as by a particular association of the induction coil. The greater effects produced by the higher power of the electric currents employed and the superior advantages of the mercury contact over the former vibrating spring were also illustrated. The experiments were successfully performed, and were fully appreciated by a large audience.

## THE EDUCATION DEPARTMENT AND BACKWARD CHILDREN.

A circular has been addressed by the Education Department to Her Majesty's inspectors with reference to the treatment of backward children in elementary schools, calling for a special classification of such children in a "junior mixed" class, intermediate between the infant school and the ordinary standards. The circular draws a distinction between these children and those of defective intellect who are the subject of inquiry by a Departmental Committee now sitting, and ascribes to such causes as parental neglect, abnormally slow development of intellectual power, and delicacy of health in early childhood, the mental inferiority which they exhibit. Whilst cordially approving, in the interests of the rising generation, the increased attention which the Department is now giving to children of abnormal mental condition, we may, perhaps, venture to suggest that, inasmuch as mental and physical conditions are to a considerable extent interdependent, the aid of an official medical adviser in questions of this kind would be of public utility. In view of the penal measures threatened against managers of schools not complying with the requirements of the circular, in the way of grants reduced or withheld, it seems of importance that, not only the Education Department, but School Boards also should have the benefit of medical assistance in discriminating children incapacitated by physical causes from taking their place in the ordinary standards. At the present time comparatively few School Boards have appointed a medical officer; and we trust that in the interests of true education such appointments may before long become universal.

## INOCULATION AGAINST RINDERPEST.

As is usually the case with all new methods, there are three sets of people who manage to interfere with the proper application of the protective inoculation against rinderpest. First come those who, having a partial understanding of the action of the method, are prepared to apply it under all circumstances and conditions, and who, without a proper appreciation of what may be the results, and what are the exact conditions necessary, go on inoculating indiscriminately. In the second class are those who, whilst pretending to apply the treatment and support the originator, are at heart too anxious that the method should not be a success. Whatever may be the objects in view the result is the same—a damning of a method by those who, in certain instances, in any case may have an interest in its failure. In the third group come those who are honestly or ignorantly opposed to its use, after all the least dangerous class, as their ignorance may be enlightened, whilst an honest man may always be convinced. The second class can be rendered powerless only when the success of a method has been put beyond doubt. It is therefore with the first class that those who are engaged in getting rid of rinderpest in South Africa will have to deal. Dr. Hutcheon, in a letter to the *Diamond Fields Advertiser*, March 20th, enters a strong protest against the indiscriminate use of "gall" in regions in which the rinderpest has been almost stamped out for the following reasons. In order to obtain the protection gall animals must be inoculated with rinderpest blood, and the disease must be produced. This he maintains, and very rightly, should only be done in carefully isolated stations. He also points out that for the present the inoculation should be left entirely in the hands of the Veterinary Department, as both judgment and skill are re-

quired in determining what material shall be used, and in making the inoculations when the material has been selected. He also points out that as the immunity is not conferred until eight days after the animal has been inoculated, the general conditions in certain instances may require slaughter of certain animals, although others may be inoculated with a fair chance of success. He very properly insists that all this can be done only by a central authority, having skilled inspectors and vaccinators under its control, and having a series of isolated stations from which the gall may be obtained. The promise of success is already so great that it would be a thousand pities if by indiscriminate inoculation fresh and uncontrolled centres of rinderpest were created, and if any handle were given to those who are interested from any cause whatever in rendering abortive the protective treatment of rinderpest. The disease is one of such enormous importance to South African farmers and traders that we can well believe that unless the subject be very carefully handled an exceedingly bitter feeling may be engendered between the inoculators and the anti-inoculators. Inoculation for other diseases has, however, obtained such a hold at the Cape that there is less probability of ultimate failure here than in almost any other country, and it is for this reason that we confidently anticipate the ultimate success of the present or some modified form of protective inoculation against rinderpest.

## THE LUNACY BOARD OF IRELAND.

AN order of the Lord-Lieutenant and Privy Council was published in the *Dublin Gazette* of April 16th, reconstituting the Board of Commissioners for the general control of asylums for the lunatic poor in Ireland, and appointing the following to serve as Commissioners: Mr. Justice Holmes, Mr. Thomas Robertson (Chairman of the Commissioners of Public Works), Dr. O'Farrell (Inspector of Lunatic Asylums), Sir Francis Cruise, M.D., Mr. Charles Kennedy, J.P., and Mr. J. Malcolm Ingles, J.P.

## THE JENNER SOCIETY.

THE best way in which we can honour the memory of our great men is by carrying on their work, and by throwing down the gauntlet whenever and wherever we hear its utility called in question. Our memory of, and our gratitude towards, Jenner all centres in vaccination; yet so busy is the age in which we live, and so many are the topics of interest which are continually claiming attention, that except in the presence of epidemics and disasters, both vaccination and the name of its inventor are apt to pass out of the public view. The work, then, which the Jenner Society proposes for itself is highly praiseworthy. It is not to found a mere cult in praise of the man, but to found an organisation which shall ever be ready to take the field in defence of the truths which he discovered, and of the means of prophylaxis against disease which he placed at the disposal of a world which ought at least to have been grateful. The importance of such a programme is due to the fact that organisations have arisen whose whole object is to do away with all the benefits which have arisen from Jenner's great discovery. Great as have been the benefits of vaccination to the world at large during the past century, it is only quite within recent years that we have begun to understand how important is the principle which underlies the operation, and what an enormous life-saving power its application in other fields is likely to give to scientific medicine, and when we hear of the onslaughts made upon vaccination by bodies organised for the purpose, and when we see how persistently the public ear is being assailed by the most garbled statements with the object of bringing vaccination into discredit, we ought to recognise that it is not vaccination alone which is being attacked, but all those scientific methods for the mitigation of suffering which so markedly differentiate the end of the century from the beginning. The machinations of the anti-vaccinists are not now directed against the compulsory clauses alone. The London Anti-compulsory Vaccination Society has metamorphosed itself into the National Anti-vaccination League, an organisation which has many branches, possesses funds by which to maintain an active propaganda, contests cases in the law courts, and aims at sweeping away the whole machinery by which vaccination is maintained. Under such circumstances the memory of Edward Jenner could not be kept green in any more fitting way than by the adoption of the present programme of the Jenner Society, which is to maintain for the public the full benefit of Jenner's great discovery, and to oppose the organised propagation of error by an organised dissemination of truth.

## IMMUNISATION AGAINST DIPHTHERIA.

THERE are circumstances under which the prophylactic use of diphtheria antitoxin may be even more valuable than its therapeutic employment, as in schools, etc. Löhr,[1] on an outbreak of diphtheria in a children's hospital, immunised 460, arresting the epidemic, none being attacked within three weeks of the injections, though a very few were at a later period, showing the temporary character of the immunity in a disease that does not naturally confer permanent insusceptibility to reinfection. Of 99 cases of measles immunised on account of the special danger in the event of the supervention of diphtheria—post-morbillary diphtheria being, it is alleged, more fatal than post-scarlatinal—all escaped.

## THE PREVENTION OF LEPROSY.

DR. ALBERT S. ASHMEAD, at New York, had advised, in conjunction with Dr. Goldschmidt, a plan for the formation of a World's Committee, composed of delegates from all Governments, for the suppression of leprosy, and a Provisional Committee was formed, consisting of Drs. Goldschmidt, Hansen, and Ashmead. This Committee seems, for the time being, to have been superseded by a Committee promoted by Dr. Ehlers, which has been joined by Dr. Hansen, and which proposes there shall be a Conference in Berlin to discuss the whole question. Dr. Ashmead has written a letter on this subject to the *Journal of the American Medical Association*, expressing his opinion that the time is past for discussion. "There has been discussion," he remarks, "for two thousand years, without doing good. We [that is, the Committee suggested by himself] wanted to do something; they [that is, Dr. Ehlers's Committee] come together to talk." Dr. Ehlers says "he has no use for Governments." Dr. Ashmead thinks that "nothing can be done except by stirring up the Governments." Without entering into the question raised by Dr. Ashmead, we may express our opinion that anything that will succeed in rousing public attention towards the extirpation of leprosy by isolation must be for good. Governments can, in these modern times, after all only act when supported, if not urged forward by public opinion.

[1] *Jahrb. f. Kinderheilk*, xliii, H. 1, Sept., 1896.

THE magnificent collection of miniatures, formed during many years by Mr. Lumsden Propert, the first authority on the subject in England, has been purchased by the Fine Art Society, and will be exhibited by them at their Bond Street galleries very shortly. The collection has been formed with the dual object of comprising not only a complete historical survey of the School of Miniaturists from Holbein downwards, but of the celebrities they painted.

THE BRITISH CENERAL AFRICAN CLIMATE.—Black-water fever and dysentery have been rampant in the British Central African Protectorate during the last nine months, and the death-rate has been abnormally high. Three Vice-Consuls and several Government officials have succumbed, and it is anticipated that the Foreign Office will be asked to put this country on the same footing for leave as the West Coast of Africa, namely, six months' leave of absence after every year in the country. There are few who can stand the climate of the British Central Africa Protectorate without being dangerously ll after being in the country more than a year at a stretch.

## PARLIAMENTARY BILLS COMMITTEE.

A meeting of the Parliamentary Bills Committee was held at the office of the Association, 429, Strand, W.C., on Tuesday, April 13th, 1897.

*Present:*

Mr. Ernest Hart in the Chair.
Dr. Henry Barnes, President.
Dr. C. Parsons, Treasurer.

Dr. S. H. Agar (Henley-in-Arden).
Dr. T. Bridgwater (Harrow-on-the-Hill).
Mr. G. Brown (London).
Dr. W. A. Carline (Lincoln).
Dr. W. F. Cleveland (London).
Dr. J. Ward Cousins (Southsea).
Dr. G. W. Crowe (Worcester).
Dr. T. M. Dolan (Halifax).
Dr. R. Esler (London).
Mr. E. H. Galton (London).
Mr. A. Godson (Cheadle).
Dr. Bruce Goff (Bothwell).
Dr. C. E. Goodall (London).
Mr. J. H. Hemming (Kimbolton).
Mr. Evan Jones (Aberdare).
Dr. J. W. Miller (Dundee).
Dr. I. Owen (London).
Mr. C. H. W. Parkinson (Wimborne Minster).
Dr. J. Rolston (Devonport).
Dr. G. E. Shuttleworth (Richmond).
Dr. R. Somerville (Galashiels).
Dr. J. C. Thresh (Chelmsford).
Dr. A. R. Urquhart (Perth).
Mr. T. J. Verrall (Brighton).
Dr. W. L. Winterbotham (Bridgwater).

The minutes of the last meeting having been printed and circulated, were taken as read and signed as correct.

Read letters of apology for non-attendance from Dr. Woodcock, Dr. A. B. Ritchie, Mr. Langdon, Dr. Murphy, Dr. Batten, Dr. A. J. Harrison, Dr. Gordon, Dr. J. W. Moore, and Brigade-Surgeon-Lieutenant-Colonel E. F. Drake-Brockman.

### Sick Pauper Children.

The Chairman said that in response to a deputation Mr. Shaw Lefevre, as President of the Local Government Board, appointed a very strong Committee, consisting of Mr. Mundella, Sir John Gorst, the Hon. Lyulph Stanley, the Rev. Brooke Lambert, Sir Russell Reynolds (subsequently replaced by Mr. Nettleship), Mr. Vallance, Mrs. Barnett, and Sir Joshua Fitch. That Committee reported very strongly in precisely the sense of the resolution of the Parliamentary Bills Committee's investigation—that is, that barrack schools ought, as far as possible, to be abolished and replaced by boarding out, and that there should be special arrangements for the children suffering from illness. Mr. Chaplin, as the Committee were aware, had only adopted that part of the report which related to sick children, and he proposed, in the first instance, to appoint a special Board to deal with the sick children, which did not go to the root of the evil. There was a very strong feeling in the House of Commons that this did not go far enough. Mr. Chaplin had so far altered his scheme that he would not appoint a special Board, but would hand over the sick children to the Asylums Board. A special Association had been formed, under the presidency of Lord Peel, to carry out the whole of the objects as asked for. He had drafted a statement which recapitulated their demands and stated reasons. If the Committee approved he proposed to forward it to the President of the Local Government Board. No doubt it would be difficult to get everything asked for, but they hoped to in the end by persevering.

The Chairman was authorised to take any necessary steps in the matter.

### Contagious Diseases Acts.

The Chairman said in accordance with the resolution passed at the last meeting he had communicated with the Army Health Protection Association, India, offering the assistance of the Committee in any steps to be taken, and he had received a reply from Colonel Keyser, the Secretary of the Association, stating that as soon as they took active steps they would communicate with the Parliamentary Bills Committee.

### Infant Life Protection Act.

The Chairman stated that Lord Denbigh had introduced into the House of Lords his Bill on Infant Life Protection, and suggested that the Committee should support the Bill.

Mr. G. Brown suggested that persons who habitually took children to nurse singly should, in the case of death occurring in their charge, and their being censured by a coroner's jury, be compelled to be licensed.

The Chairman asked Mr. Brown to draw up the suggested amendments, which could be submitted to Lord Denbigh.

### Shellfish and Disease Dissemination.

The Chairman reported that he had forwarded the Memorandum on Shellfish and Disease Dissemination presented to the last meeting to the President of the Local Government Board, asking if his Board were prepared to take any steps in the matter. A communication had been received merely acknowledging the receipt of the document.

### Army Medical Reform.

The General Secretary reported that copies of the report on Army Medical Reform had been forwarded to the medical schools and to the press.

The Chairman said he believed that Lord Lansdowne was favourably inclined to granting the requests for the Army Medical Service made by the Committee, but that his military advisers were very much against it. There was some reason to believe that full expression of opinion might assist Lord Lansdowne at the conclusion they wished. He (the Chairman) had given personal introduction to two army medical officers acting for the Commitee to the editors of a number of the leading papers, with the object of raising public interest in the matter, and the Committee might have seen that the *Times*, *Morning Post*, *Pall Mall Gazette*, *Daily News*, and a great many other leading papers in London and the provinces had had leading articles in the course of the last fortnight strongly supporting the Committee's views. It would, he thought, be of interest to the Committee to put on record a comparison of the claims which they submitted by deputation to the War Office in 1893, and he had therefore prepared the following memorandum on the matter:

*Comparison of Claims submitted to the War Office in 1893, and since Granted in Whole or in Part.*

On Monday, May 15th, 1893, a deputation from the Parliamentary Bills Committee of the British Medical Association, introduced by Mr. Ernest Hart (Chairman), waited on Mr. Campbell Bannerman, then Secretary of State for War, and Mr. Hart then urged various amendments in the conditions of service of the Army Medical Department at home and abroad, which were further supported by members of the deputation. The following were the amendments submitted, with results up to the present time:

1. *Formation of a Corps.*—This was recommended on lines similar to those of the Royal Engineers, Army Service Corps, etc., by the consolidation of the Medical Staff and the Medical Staff Corps, a fusion already existing in the Volunteer Medical Staff Corps and the Militia Medical Staff Corps; the present scale of pay and allowances to remain. Note: Not carried out.

2. *Foreign Service.*—To restore old periods, five in India and healthy colonies, three in unhealthy colonies. Note: Granted as regards India, but the four years apparently retained in the former three-years station.

3. *Titles.*—Existing titles declared to be cumbrous and awkward, especially that of brigade-surgeon-lieutenant-colonel. Recommended that the latter title be abolished, and all placed under that of surgeon-lieutenant-colonel, but the first fifty on the list to be headed in brackets "brigade-surgeons," as recommended also by the Camperdown Commission. Further, that the word "and" be inserted between the word surgeon and the military affix, as surgeon and lieutenant, etc. Note: Not granted. Mr. Brodrick lately stated in the House of Commons that Lord Lansdowne did not consider revision of titles "desirable."

4. *Retirement Regulations.*—Three years in a rank before retirement considered too long: one or two suggested in the spirit of the Camperdown Commission, which spoke only of "a certain time." Note: Not granted.

5. *Extension of Service of Surgeon-Major-Generals.*—Recommended that such should be very exceptional, and the officer granted it seconded. The frequent moves of principal medical officers declared very harassing and prejudicial to the service. Note: There have been fewer extensions of late, but no seconding. Officers of the rank have lately been guaranteed a certain fixity in a station, three years usually.

6. *Detailing Medical Officers for Service in particular Presidencies.*—System of merely ordering medical officers to "India" declared to be a grievous hardship, borne by no others, and intensely unpopular. Note: It has been altered under the new Army Corps organisation in India; medical officers now know broadly where they are going.

7. *Officers of Medical Staff compelled to take Charge of Native Troops without extra Pay.*—This was a proposal of Surgeon-Major-General Rice with the Government of India. Note: Has been dropped.

8. *Extension of Warrant of 1879 to India in its Financial Aspects.*—Note: Lately done, but on a very inadequate scale; increases given only to medical officers under the rank of surgeon-majors and to brigade-surgeons. Junior medical still receive less pay in India than junior veterinary officers. No charge pay given.

9. *Study Time.*—Note: This is promised, but seems impossible with an attenuated establishment.

10. *Exchanging.*—Declared to be needlessly hampered with restrictions. Note: Understood to be simplified and restrictions relaxed.

After an interval of three months, Mr. Campbell Bannerman replied in

a letter to the Chairman of the Parliamentary Bills Committee, dated August 26th, 1893, practically declining to entertain any of the proposals submitted to him; but postponing decision on points 6 and 7, an answer at the time characterised as not merely displaying a *non possumus*, but a *non volumus* as well.

Since then, points 2, 5, 6, 7, 8, 9, and 10 have been either fully or partially conceded; while points 1, 3, and 4 remain unfulfilled; the two first embracing the essential parts of army medical reform, as being those relating to the army status of medical officers.

### OBSTETRIC NURSES BILL.

The GENERAL SECRETARY reported that the Bill had been sent out to the Committee as finally approved by the Subcommittee, the Chairman of which wished it to be placed before the meeting to be passed and accepted.

Mr. GALTON said that the Subcommittee had gone very carefully into all the suggestions sent up by the Branches, and especially those elaborate ones sent by the Lancashire and Cheshire Branch, and they had as far as possible incorporated the suggestions made, and were perfectly in agreement with regard to the Bill submitted. He would move:

That this Committee adopt the Bill which has been drawn up by the Subcommittee and now laid before them.

The resolution was seconded by Dr. SHUTTLEWORTH.

Mr. BROWN said he would ask to be allowed to explain, as a member of the Subcommittee, that although Mr. Galton had said every member was perfectly in agreement with regard to the Bill, that must have been at a meeting at which he was not present. He was totally opposed to the Bill as unnecessary and likely to be a danger to the public, and it must certainly be injurious to the profession, because it would legalise the practice of one of the branches of medicine by persons who were unfit to be placed on the *Medical Register*. If the Bill was passed legalising the practice of midwifery by women partially educated he did not believe for a moment it would be possible to keep out the man-midwife. He would move as an amendment:

That for the present no steps be taken to press forward the Obstetric Nurses Bill.

The amendment was seconded by Dr. WARD COUSINS.

On the amendment being put to the meeting 5 voted for it and 12 against, 11 not voting on the matter.

Dr. GODSON said his Branch had distinctly expressed itself as unfavourable to any legislation, but in order to avoid a greater evil they consented to draw up a Bill to lessen the probability of danger by legislation much more unfriendly to the profession than they would be to themselves.

Dr. DOLAN said he believed the feeling of the majority of persons was opposed to it. He felt most certainly that if they passed the Bill they would put themselves out of touch with the general practitioners in the country. He did not see the necessity for the Bill at the present time.

Dr. MILLER said he would like to support Mr. Galton's motion. It was acknowledged by all people that it was time that something was done in the matter.

Dr. URQUHART said he quite felt what Dr. Miller had said. The question had been before the whole British public, and it was not a question that concerned the medical profession entirely; the whole public was affected. It had been acknowledged that the present state of the matter was abominable; were they, then, to do nothing? He represented a Branch which was of opinion that the registration of midwives was a proper thing. If he voted that the Bill was to be allowed to lie upon the table he should be voting against the recorded opinion of his Branch. If the Bill was a good Bill, as in all probability it was, what reason was there for hanging it up?

Dr. BRIDGWATER said did not the Bill specially say that it was a Bill for the registration of obstetric nurses? The Committee found that they were driven into a corner, and he quite felt that the Bill before them was the only way out of the difficulty. There was a very strong faction ready to support the Bill which was already before the House of Commons. They would find suddenly that a Bill had been run through Parliament, and they would then hold up their hands in despair.

Mr. VERRALL said if he was satisfied that the profession were now prepared to accept some Bill he should be very much disposed to vote for the Bill submitted, but he was not satisfied that the profession at large had ever expressed themselves in favour of the principle; they had certainly expressed themselves against it. He would move a further amendment:

That the report of the Subcommittee be accepted and submitted to the Council, but that no further steps be taken in the matter until it has been brought before the annual meeting.

The amendment was seconded by Dr. SOMERVILLE, and carried by 11 to 4, and after being put as a substantive motion, was declared to be carried.

### PUBLIC HEALTH (SCOTLAND) BILL.

The CHAIRMAN reported, in regard to the Public Health (Scotland) Bill, that he was in communication with Dr. Farquharson and Dr. Campbell Munro, and that he was carrying out what was necessary in the way of amendments by private negotiations.

### FOOD AND DRUGS BILL.

Mr. E. H. GALTON reported upon the question of the Bill for the Sale of Food and Drugs, and stated that the Subcommittee had gone through the Bill and made certain alterations, and would like the matter postponed in order that the Committee might complete its work.

### SUPERANNUATION OF PUBLIC VACCINATORS.

Mr. E. H. GALTON reported upon the question of the superannuation of public vaccinators, and stated that the Subcommittee intended to insert a clause in the Local Authorities Officers Superannuation Bill now before Parliament to the effect that the Bill should include public vaccinators.

## THE REFORM OF THE ARMY MEDICAL DEPARTMENT.

PUBLIC opinion as to the urgent necessity of placing the Army Medical Department on a thoroughly satisfactory footing is gathering strength and volume. The efficiency of this branch of the Service is a matter which vitally concerns the nation, and the case of the medical officers is so strong that it only required to be fairly placed before the public for the justice of their demands to be generally admitted. The circulation of the report of the Parliamentary Bills Committee has had the effect of arousing a widespread feeling of indignation at the ineptitude and perversity of the military authorities which has found voice in the editorial columns of many of the most influential of the London and provincial newspapers. Some specimens of these utterances were given in a recent number of the BRITISH MEDICAL JOURNAL; since then several others equally emphatic in their denunciation of the existing state of things have appeared. The *Liverpool Post* says the report is "a very convincing document as to the justice of the complaint." After giving the substance of the report our contemporary sums up as follows: "What must be evident even to the ordinary civilian mind is that, with the enormously increased power of lethal weapons, both the highest individual skill and the most perfect *rapport* are imperative, and that neglect of these essentials is criminal. It will hardly be denied that good reason has been shown why these essentials cannot be evolved from a system which makes the Army surgeon a kind of 'camp follower' in status, although investing him with tremendous responsibilities." The *Newcastle Daily Journal*, which devotes a long article to the subject, says that the state of affairs described in the report "calls urgently for a remedy;" it adds that "for remedying these grievances of medical officers the first essential is, as the Committee state, the formation of a Consolidated Army Medical Corps with army rank and appropriate military title." The *Court Journal* describes the report as being "far from reassuring reading;" and concludes that "it will be impossible for matters to continue as they are for any length of time." The *Newcastle Daily Leader*, commenting on the report, says "it is obvious that practices prevail which have a prejudicial effect on the efficiency of the military medical service." It goes on to say that "the information gathered by the doctors who have inquired into the subject is a severe indictment of the methods of the War Office, and it explains why the service in the army is so unpopular among their professional brethren." The *Dublin Express*, after pointing out that there is no reason to

doubt the accuracy of the statements made in the report, describes them as "very grave, and of a character to demand from the authorities their most earnest and their earliest attention"; further, it finds "nothing that can be objected to" in the demands made by the Parliamentary Bills Committee. The *Irish Times* says: "There has been no more unaccountable or unreasonable controversy for many years amongst us than that as to the status of the medical officer in the British army. The unreason has been entirely on the part of the War Office authorities, and the conflict between the medical profession and heads of the army has continued far too long to be creditable to the country." Our contemporary cites with approval the recommendations of the Committee and dismisses the objections as "futile." The *Liverpool Daily Courier* says the grievances complained of should be "inquired into and redressed to the fullest possible extent, with no undue delay"; it adds, "we are manifestly confronted with a situation from which relief must be found in some way, and that before long. The War Office, so far as we can see at present, must and ought to capitulate on the honours question." The *Birmingham Daily Post* says the statements made in the report call loudly for explanation. After quoting the declaration of the Committee that if a great war were to overtake us it is difficult to see how we could avoid the utter collapse of the medical arrangements, our contemporary concludes as follows: "All we can say with this report before us is that the country will demand to have such a statement disproved, or a remedy promptly and adequately provided."

These extracts are sufficient to show that the public mind is at last beginning to be awakened to a sense of the importance of the question dealt with in the report of the Parliamentary Bills Committee. We hail this as a sign that the reform of the Army Medical Department, for which we have striven so long and so strenuously, is now within measurable distance of its accomplishment. The War Office is strong, but the nation is stronger; and on this matter the press is expressing the nation's will with no uncertain sound. The military authorities will be well advised to avert an otherwise inevitable defeat by a timely retirement from an untenable position.

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The *Morning Post* of April 13th contains the following significant article: "It is perfectly well known that at the present time there is a dearth of candidates for the Army Medical Staff, and consequently a large number of vacancies. It is not by any means a creditable state of things, especially when it is known that the Admiralty and the India Office have no difficulty in filling up all their vacancies with well-qualified medical officers. At the same time the facts are as stated, and it is most difficult to understand what possible advantage can be derived from an attempt to gloss over the existing state of things; indeed, the more light that is shed thereon the more likelihood there is of an adequate remedy being applied. Captain Norton, on Thursday last, in reply to a question in the House of Commons, received the official answer that the establishment of army medical officers was about or near its strength. A further question, however, elicited the statement that there were at least 40 vacancies; and yet another question brought to light the fact that 80 retired officers are at present employed at home stations, and 'already there are complaints from officers on the active list that they are debarred from the advantages of the home stations by reason of this.' Now, if there are only 40 vacancies existing, how comes it that twice that number of retired officers are employed in such a manner as to interfere with the tour of home service to which officers on the active list serving abroad consider themselves entitled? Again, a week or two ago it was officially stated in Parliament that in case of mobilisation there would be no difficulty in providing the necessary number of medical officers from the active list, and yet it is authoritatively announced that the Sirdar of the Egyptian army has been refused the one medical officer for whom he recently applied on the ground of the existing paucity of numbers. The official mind seems utterly unable to admit that anything can possibly be wrong with any department with which it may be connected even if the matter is utterly beyond the officials' control, and a vast amount of harm is done to the public service by the resulting attempts at concealment. The sooner the question is fairly faced and an adequate remedy applied, the better it will be for all concerned, including the officials in Victoria Street who are making such strenuous efforts to hush up notorious facts." The facts are undeniable, but this plain speaking on the part of a military correspondent of so important a paper is significant and encouraging.

## THE BACTERIOLOGICAL INSTITUTE OF CAPE COLONY.

The work of this Institute, which is situate at Grahamstown, was during 1896 directed chiefly to investigations connected with various animal diseases, especally rinderpest. The Director, Dr. A. Edington, personally devoted much of his time to this subject, his investigations being carried out in the main at a special experimental camp at Taungs. The work of investigation was much hampered by the distance of this camp from supplies and the paucity of scientific appliances, as also by the small staff of assistants, of whom one, Mr. Roberts, M.R.C.V.S., was only appointed during the year 1896, while the medical assistant was transferred to another department, his successor, Dr. Purvis, not arriving until March, 1897.

### The Blood in Rinderpest.

Great difficulties were encountered in the bacteriological study of rinderpest, owing to the fact that the infective agent, which is believed to be a bacillus, does not grow upon ordinary media; further, though it is present in the blood in the most virulent form, it is very quickly destroyed after coagulation sets in. Dr. Edington, in the first place, directed his attention to the discovery of a method which would prevent this early coagulation, and found that the addition of potassium citrate as suggested by Professor Wright, of Netley, was successful.

### Attenuation of the Virus of Rinderpest.

It was next ascertained that the virulence of the infection in blood thus prevented from coagulating declined gradually. For the first nine days such blood when inoculated still produced virulent rinderpest, whereas after nine days it was absolutely harmless. Between these two periods of four and nine days a gradual declension in the virulence of the blood was observed, so that if blood was made use of between the fifth and seventh days, the disease produced was mild in type, the animal usually recovered and was found to possess immunity in a high degree. It was not absolutely immune, for if at a later date it were again inoculated either with fresh nasal mucus or blood, a rise of temperature followed on the fourth or fifth day, which lasted for one or two days, and was intense in proportion to the mildness of the former attack. This observation agrees with the statements of experienced Russian investigators, that the immunity conferred on an animal by a former attack of rinderpest was always in proportion to the severity of the symptoms which had been manifested. In order to take advantage of the immunising powers which blood taken at a certain stage possesses, it would be necessary that the affected animals whose blood would be used should be within a short distance of the animals to be inoculated. Inoculation under such circumstances would be more effective and less serious if several grades of blood could be made use of, beginning with an eighth day, then after two days using a sixth day, and after four days using a fourth day. If any method could be devised whereby a partial immunity could first be conferred, then inoculation with a more virulent blood might be made; any such method would, however, be attended by the grave disadvantage and danger of having to maintain centres of infection at numerous points within the area of inoculation. Could any method be devised whereby the declension of virulence in the blood might be arrested without the contagium being destroyed, then it is evident that the necessity of having many centres would be done away with, and the virus made at and despatched from one central station. Dr. Edington intends to pursue this line of investigation, and we believe is sanguine that the end in view may eventually be attained.

### The Nature and Localisation of the Infective Agent.

From numerous experimental inoculations and *post-mortem*

examinations, he has arrived at the conclusion that the contagion of rinderpest does not exist in a vegetative condition in the blood of infected animals during the early stages of the fever; that the condition of marked swelling of the lymphatic glands is one, if not indeed the most, evident pathognomonic feature of this disease; and that the contagium exists as a primary infection in these glands. Secondary infections are, he finds, mostly limited to the tonsils, but in some cases invade the sublingual glands and those in the neighbourhood of the epiglottis. As is well known, the nasal mucus contains the infection in a most virulent form, and Dr. Edington attempted to obtain cultivations of the microbes present in the blood and in the large lymphatic glands upon solution of nasal mucus solidified by the addition of 1 per cent. of agar. On this medium he obtained a culture of a peculiar organism, which in its life-history and form closely approximated to that of the organisms seen in the blood and the glands. While it grew slowly on this medium, it did not grow at all on any other. Inoculations made with this into cattle were followed by a slight but distinct rise of temperature after a period of six days, and when inoculated at a later date with virulent virus the effect produced was seen in an extension of the period of incubation, which, instead of conforming to the usual four or five days, was extended to seven or eight. It is, of course, possible that the immunity is not of high order, for if the virulent virus when taken from the body changes so much in a few days' time, it must be obvious that a microbe grown under artificial conditions must show necessarily considerable difference in its disease-producing and immunity-conferring powers. The observation is, however, most interesting. The period of incubation of the disease under ordinary circumstances varies from four to six days, but in some cases it may be slightly delayed, especially when inoculation is made by intravenous injection.

PRODUCTION OF IMMUNITY AGAINST "THE HORSE SICKNESS."

During the year 1896 the efficacy of the method of inoculation against "horse sickness" was tested. Six horses which had been "salted" by the intensive method devised by Dr. Edington were sent to Bechuanaland and were exposed in the most deadly districts of that country. They withstood the test, as did two other horses kept at the Bacteriological Institute and inoculated experimentally with a very large amount of virulent horse-sickness blood. Circumstances connected with the water supply prevented the continuance of these experiments.

"RED WATER FEVER."

Opportunity occurred to make some bacteriological and pathological observations on the South African "red water fever" of cattle, and Dr. Edington has arrived at the conclusion that it is identical with the Texas fever of America.

VACCINES AND ANTITOXINS.

In addition to these original investigations, the Bacteriological Institute issued 127,410 tubes of vaccine lymph, 940 tubes of "lung sick" virus, and 50 needles for the performance of inoculation. Owing to the success which has attended these inoculations it is now a matter of the greatest difficulty to obtain cases. The Institute has also issued diphtheria antitoxin, and has in addition afforded facilities for the investigation for diagnostic purposes of many cases of diphtheria, consumption, and other diseases. Mallein for the detection of glanders by injection, and tuberculin for the recognition of tuberculosis have also been prepared and issued, and arrangements have been made for maintaining a supply of vaccine against anthrax and symptomatic anthrax (quarter evil).

Further, during the year a very large amount of locust-destroying fungus was sent out, no fewer than 1,039 tubes of the fungus growing on a gelatine material contained in small glass tubes having been despatched, of which four were sent to the United States Government. Most pleasing reports have in many cases been received as to the results which have attended its use, and in those cases in which dead locusts have been forwarded from the areas in which it has been used it has been possible to determine the presence and to obtain cultures of the fungus from their bodies. The Civil Commissioner at Buluwayo reports that its action among the voetgangers was most decisive, and similar reports have been received from the Transkeian territories. Reports from many farmers on the coast of Lower Albany and in the district of Port Elizabeth abundantly testify to its efficacy. In order that the best result may be obtained it is necessary that inoculations of the veldt should be made twice yearly, as the cold of winter seems to be destructive to it.

Altogether from these brief notes it will be seen that the work of this Bacteriological Institute is being carried out with great energy and with much success. Already it is to a large extent self-supporting, and it is to be hoped that the Cape Government will see its way to reinforce the too scanty staff through whose industry the present results have been obtained.

# THE PLAGUE.

STATISTICS OF KARACHI.

THE statistics for the week ending March 25th are as follows:—

Death-rate from all causes, 153.04; death-rate (mean of) from all causes for corresponding week of previous five years, 29.66; death-rate from all causes in the town quarters in which the plague was most severe during the week:

| | |
|---|---|
| Kiamari Quarter ... ... ... ... | 361·07 |
| Ruuchove Quarter ... ... ... ... | 342·36 |
| Garden Quarter ... ... ... ... | 317·07 |
| Lyari Quarter ... ... ... ... | 259·68 |

The ratio of plague mortality for the whole town was 99.56. During the week 271 cases and 188 deaths were reported, bringing the total cases from date of outbreak (December 10th, 1896) up to 2,955, and deaths to 2,494. Of the 271 cases, 173 were males, 97 females 1 unknown. The caste incidence of the cases was: Hindus 104, Mussulmans, 159, Native Christian 1, Parsee 1, Jews (native) 4, Sweeper 1, unknown 1.

The sex mortality was: Males 120, females 67, unknown 1. The caste mortality: Mussulmans 111, Hindus 71, Native Christian 1, Parsee 1, Jews 2, Sweeper 1, unknown 1.

To the Plague Committee has been added a fourth member, Mr. G. Strachan, M.I.C.E., Engineer to the Municipality.

Speaking generally, the policy of the Committee appears to be to allow the existing organisation to remain in force. The weak points of the old *régime* are being materially strengthened.

HOUSE-TO-HOUSE VISITATIONS IN KARACHI.

The inclusion of the military among the plague workers has provided European and military supervision over the details of the subordinate work. The house-to-house search parties are strengthened by the addition of European commissioned and non-commissioned officers and soldiers, the sepoys forming cordons around the quarters raided. The segregation camps and hospitals are now guarded by British sepoys, in place of the easily-corrupted local police. Many commissioned officers have joined the ranks of the plague superintendence.

DISINFECTION.

Disinfection, both of houses and clothing, is performed under the supervision of European non-commissioned officers and men, who have been carefully instructed in the details of the work. The Committee has ordered the disinfection of the clothing and effects of all persons arriving, by land or sea, from infected areas outside Karachi. The passengers are detained until such disinfection has been efficiently carried out.

PORT SANITATION.

Sea passengers are landed at Manwa, and housed in huts there pending disinfection process. Passengers by road and rail are detained at Malvi, where a large disinfecting camp has been formed. The examination of all passengers by the up and down trains will take place at Malvi in future instead of at Karachi.

SPREAD NORTHWARD.

The news from up country is not favourable. The disease is prevalent, as already reported, in most of the larger up-country towns. The disease appears to be especially virulent

at Hyderabad and and Sukkur. From both places the inhabitants have fled in large numbers, more from fear of the repressive measures than of the disease itself. It is reported that 20,000 of the 28,000 persons living in Sukkur have left the town, and that supplies and provisions are difficult to obtain there.

There is a great deal of interesting matter to hand concerning plague in India this week, but to Dr. Yersin's official report attaches the greatest import. His statement is very definite and exact. Fifty cases have been (April 3rd) submitted to inoculation with the curative serum, of these 33 were cured and 17 died. The details are as follows: First day's treatment—cases 17, cured 15, died 2, mortality per 100 12. Second—cases 17, cured 11, died 6, mortality 35. Third—cases 12, cured 6, died 6, mortality 50. Fourth—cases 3, cured 1, died 2, mortality 66. Fifth—case 1, cured *nil*, died 1, mortality *nil*. Total treated—cases 50, cured 33, died 17. Europeans—cured 2, died *nil*, mortality per 100 *nil*. Eurasians—cured 5, died 4, mortality 44. Hindus—cured 13, died 10, mortality 43. Mussulmans—cured 5, died 2, mortality 28. Parsees—cured 9, died 1, mortality 10.

Statistics of Bombay and Poona.

The report to hand from Bombay up to April 1st reads as follows:

| | Mar. 26. | Mar. 27. | Mar. 28. | Mar. 29. | Mar. 30. | Mar. 31. | April 1. | Total. |
|---|---|---|---|---|---|---|---|---|
| Cases ... | 76 | 74 | 75 | 73 | 96 | 61 | 67 | 524 |
| Deaths ... | 67 | 59 | 82 | 76 | 77 | 72 | 52 | 485 |

This is an increase upon the numbers recorded last week, and the cause is not far to seek; the reflux of the population to Bombay from the neighbouring parts, whither they had fled for safety, has caused a reappearance of the disease in several districts of Bombay, and markedly that of Mandvie. This reappearance is giving the special committee a great amount of trouble, and seems likely to cause a condition requiring special legislation.

The news which reaches us by telegram gives a very favourable report from Bombay.

From Poona the returns of plague are slightly more favourable:

| | Mar. 26. | Mar. 27. | Mar. 28. | Mar. 29. | Mar. 30. | Mar. 31. | April 1. | April 2. |
|---|---|---|---|---|---|---|---|---|
| Cases ... | 42 | 30 | 28 | 29 | 32 | 35 | 41 | 32 |
| Deaths ... | 36 | 32 | 21 | 19 | 32 | 19 | 24 | 30 |

This gives a total of 269 cases and 213 deaths.

South of Poona the plague has well nigh disappeared.

## THE REPORT OF THE INTERNATIONAL SANITARY CONFERENCE OF VENICE.

The *Supplemento al Policlinico* of April 11th contains an account of the report of the International Sanitary Conference of Venice, which is taken from the original text.

On February 16th the first general meeting was held. Signor Bonin (Italian Under-Secretary of State for Foreign Affairs), was unanimously elected President.

At the second general meeting, on February 17th, important speeches were made by M. Barère (French delegate), Professors Foà and Santoliquido (scientific delegates for Italy), and Dr. Thorne Thorne (scientific delegate for Great Britain). Two Commissions were then nominated—one technical, composed of all the specialists of the Conference; the other constituted by the diplomatic representatives, for the purpose of deciding the mode and means of applying the recommendations proposed by the specialists. The Technical Commission was constituted on February 18th, Professor Brouardel (France) being President, and Professor van Ermengen (Belgium), Secretary.

Four questions were discussed: 1. The origin and nature of the plague. 2. Its transmissibility, and by what means. 3. The duration of the incubation. 4. The processes of disinfection. The discussion occupied four sittings, and the following is a summary of the conclusions:

The plague is of microbic origin, and is due to the bacillus isolated at Hong Kong in 1894 by Kitasato and Yersin. But the discovery of the specific germ, although it has thrown much light on the etiology of plague, has raised numerous problems which still await solution; one must therefore now only rely upon well demonstrated facts, and avoid compromising science with premature applications. The specific microbe exists in the diverse morbific secretions, especially in the pus of buboes, in the intestinal discharges, the sputa, and blood. Dead bodies must be considered as the receptacle of innumerable germs.

Human beings affected with plague do not constitute the sole origin of contagion; certain species of animals are liable to contract plague, and therefore must contribute to its diffusion. It is generally recognised that mice, rats, etc., are receptive, and one understands how they maintain and spread the disease in the midst of agglomerations, and also carry it on board ships, and then to distant regions. Domestic animals also, such as dogs, pigs, oxen, sheep, goats, etc., may, according to some observers, contract plague; the doubt, however, remains as to the identity of origin of plague and certain epizoötics which at times are simultaneously present.

The presence of the contagion in the soil is a most important fact; the microbe, however, seems attached to the contaminated soil of habitations deprived of paved floors, whilst it loses its virulence when it lives as a saphrophyte. It has not yet been demonstrated that badly protected waters have ever acted as the disseminators of the germ; nevertheless, certain experiments prove that the bacillus of plague can live for a long time in water; therefore, when an epidemic threatens, it is necessary to examine potable water rigorously.

The notion that the principal generator of plague rapidly loses its morbific activity in the air now predominates; but one must be cautious in regard to these first results of the laboratory, however comforting may be the epidemiological fact that the contagion seems to act only in a limited area.

The Commission next considered the important question of the objects and goods which may become the vehicle of the plague microbe, and placed in the first position the objects which are in immediate contact with the sick—that is, personal effects (linen, clothes). It gives a list of the goods whose importation should be prohibited from the places stricken with plague, including domestic and personal effects, rags, animal residues, fresh and dry skins, sacks, carpets, and used laces. Those goods which should not be prohibited, in the absence of any justification, have also been mentioned, such as green plants, fresh and dried fruits, grain, jute, cotton, woven silk, etc.

The incubation period of plague has been determined on the basis of ancient and modern epidemiological study, and has been fixed at ten days, not with the intention of indicating in an absolute scientific way the greatest number of days during which the disease may exist in a latent state, but the period during which measures of isolation should be prescribed.

Finally, the Commission completed its programme, studying the modifications concerning the methods of disinfection adopted up to now; it has been concluded that with some slight alterations that which was established for cholera in the first Venice Conference of 1892 may also be adopted for plague.

An appendix deals with serumtherapy as a curative and a prophylactic method, but whilst recognising good prospects for this method, the Commission maintains that, in the present state of our knowledge it is not desirable to recommend in a formal manner recourse to preventive injections of the antiplague serum.

The labours of the General Technical Committee having been completed, two Sub-Committees of twenty members each were nominated by it; the first, charged with studying the means of preventing the entrance of plague into Europe, had Professor Proust (France) as President, and Professor Santoliquido (Italy) as Secretary; the second, entrusted with the

study of the means of preventing its propagation in case it had entered, had Professor Sousa Martins (Portugal), as President, and Dr. Baco (Belgium) as Secretary. These two Sub-Committees proposed definite measures of international prophylaxis, of which an account will be given later.

## THE BATTLE OF THE CLUBS.

GREAT YARMOUTH.

The *Yarmouth Advertiser* of April 10th objects to the title "Battle of the Clubs," insisting that the "Battle of the Doctors" would be more appropriate. This is a point which is not worth arguing. When, however, it goes on to say "that for many years an arrangement, honourable as it certainly was agreeable to both parties, subsisted between the medical profession and the friendly societies," it is stating what we cannot admit to be correct. That a certain kind of arrangement did subsist between them must be admitted, but that it was an honourable one and agreeable—at any rate to the doctors—the course the profession is now taking throughout the country, is amply sufficient to refute.

That "fierce struggles" have not infrequently taken place among practitioners in different localities for these appointments cannot be denied; but it is quite another thing to say that this proves that the appointments were honourable and agreeable to the successful candidates. There is an old adage that a man "needs must when the devil drives," and it is at least as reasonable to regard the "fierce" competition for these posts as evidence of that degradation in the profession which our contemporary is unable to see. It can hardly be denied that "sweating" of a degrading character has been shown to exist of late years in several industries; yet, if there were any logic in this contention, the fact that there was often "fierce" competition among the workmen to obtain employment even under such conditions, would be proof that the "sweating" was a myth, and that the labour was honourable and agreeable to the workmen.

With regard to the condition of things at Great Yarmouth our contemporary may be very well informed, but may yet be premature in stating that the friendly societies "will receive the moral support of the entire lay public." There must be many working men in Yarmouth who are not altogether ignorant of the labour questions of the day. As they themselves would object to inadequate remuneration for their own labour, and would, if necessary, be prepared to combine against "sweating," so the profession, in taking a leaf out of their book, may rather expect sympathy than disapprobation.

Our contemporary would do well also to consider this fact: The friendly societies of the town have found it necessary to employ but one medical man to do the work thrown up by all the local practitioners. This certainly suggests either that friendly society medical work was insignificant in amount, or that a large number of the old members of these societies continue to employ their old doctors on more equitable terms.

# ASSOCIATION INTELLIGENCE.

## GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that they are prepared to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting must be made on or before June 15th in writing addressed to the General Secretary, at the office of the Association, 429, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

FRANCIS FOWKE, *General Secretary.*

429, Strand, London, April 21st, 1897.

## NOTICE OF QUARTERLY MEETINGS OF COUNCIL

MEETINGS of the Council will be held on July 14th and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 24th and September 30th.

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M., Saturdays, 10 A.M. to 2 P.M. Members can have their letters addressed to them at the office.

## BRANCH MEETINGS TO BE HELD.

EAST ANGLIAN BRANCH.—The annual general meeting of this Branch will take place at Ipswich on Thursday, May 27th, under the presidency of Mrs. Garrett Anderson, M.D. It is requested that members willing to read papers or contribute cases to the meeting will communicate at once with Dr. Barnes, Eye.—EDGAR G. BARNES, M.D., Eye, MICHAEL BEVERLEY, M.D., Norwich, THOMAS CARR, M.D., Braintree, Honorary Secretaries.

BORDER COUNTIES BRANCH.—A meeting of this Branch will be held in the School of Science and Art, Kendal, on Friday, April 30th, at 3.30 P.M. Programme: Mr. J. E. Bowser (Penrith): The Etiology of Certain Cases of Fever during the Puerperium. Dr. T. Telford-Smith (Lancaster): Lantern Demonstration—Types of Idiocy. Dr. W. R. Parker (Kendal): Lantern Demonstration—Thyroidless Cretinism, Goitrous Cretinism, and Juvenile Myxœdema. 5 P.M. Afternoon tea during exhibition of subjects, photographs, etc.—namely, Mr. G. H. Seagrave (Milnthorpe): Case of Abdominal Tumour. Mr. A. J. McCallum (Kendal): Elephantiasis, etc. Mr. A. Johnston (Ambleside): An Heretical View of Vaccination. Mr. B. R. A. Taylor (Kendal): A Remarkable Case of Hydatids. Mr. W. B. Cockill (Kendal): Perforation of After-coming Head. A special conveyance will leave Oxenholme at 2.56, reaching the School of Science at 3.15.—ROBERT DUNDAS HELM, M.D., Honorary Secretary, Carlisle.

BATH AND BRISTOL BRANCH.—The sixth ordinary meeting of the session will be held at Bath on Wednesday, April 28th, 1897, at 7.30 P.M., E. Markham Skerritt, M.D., President, in the chair. Mr. C. E. S. Flemming will move a resolution as follows: That it is the opinion of this meeting that the post of medical officer to any medical aid society which is a commercial undertaking, and not simply a mutual benefit society, is not a proper one to be held by a medical practitioner. The following communications are expected:—Mr. C. A. Morton: A case of Ankylosis of all the Joints, with complete closure of the Jaws, in which the power of mastication was restored by division of the muscles of the lower jaw. Mr. R. J. H. Scott: Notes on two cases of Ovariotomy—(1) Solid Tumour; (2) Dermoid Tumour. Mr. A. Waugh: Obscure case of Perforating Gastric Ulcer. Dr. C. S. W. Cobbold: Remarks on Golf in the Treatment of Mental Disorders. The Secretaries will be glad to hear from members who are going to the Montreal meeting of the Association, in order that mutual arrangements may be made.—W. M. BEAUMONT, J. MICHELL CLARKE, Honorary Secretaries.

DUNDEE AND DISTRICT BRANCH.—The annual meeting of the Branch will be held in University College, Dundee, on Friday, May 7th, at 3 P.M., for the election of office-bearers for 1898, and other business. There will be a clinical congress at 4 P.M., in which it is hoped that the Edinburgh and Perthshire Branches may co-operate as on former occasions. Full information as to cases and specimens to be exhibited should be sent to the Honorary Secretary on or before April 26th. Only such cases as have some features that can be demonstrated should be selected. A museum for preparations, casts, photographs, etc., will be arranged.—R. C. BUIST, M.D., Annfield House, Dundee, Honorary Secretary.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of this District will take place at Hastings on May 13th, Mr. E. Kaye Smith in the chair. Notice of communications should be sent to the Secretary before the end of April.—J. W. BATTERHAM, Bank House, Grand Parade, St. Leonard's, Honorary Secretary.

OXFORD AND DISTRICT BRANCH.—The next meeting of this Branch will be held at the Radcliffe Infirmary on Friday, April 30th, at 3.15 P.M. —W. LEWIS MORGAN, 37, Broad Street, Oxford, Honorary Secretary.

NORTH OF ENGLAND BRANCH.—The spring meeting will be held at the Sunderland Infirmary, on Thursday, April 29th, at 4.30 P.M. Business: Medical Defence. Mr. Williamson will again move the resolution which was unanimously carried at the spring meeting last year: "That in the opinion of this Branch it is not desirable that the British Medical Association should undertake the medical defence of its members." The Physicians and Surgeons to the Sunderland Infirmary will show patients and exhibit specimens. Dr. Murphy: (1) Patient after two Colotomies, Lithotomy, and some minor operations; (2) Patient six years after Hysterectomy for Malignant Disease; (3) Patient nine years after removal of Breast for Carcinoma; (4) Patients from the wards and specimens from the museum. Dr. Robinson: (1) Cases from the wards; (2) Cases illustrating some of the Diseases of the Eye; (3) Heart from a case of Chronic Indurative Mediastino-Pericarditis; (4) Tuberculous Pericarditis, from a case of recent general tuberculosis; (5) Aneurysm of transverse portion of Arch of Aorta; (6) Notes of a case of Gangrenous Pancreatitis, with Hæmorrhages and Fat Necrosis. The dinner after the meeting will take place at the Grand Hotel, Sunderland, at 6 P.M.; 6s. 6d. each, wine not included.—G. E. WILLIAMSON, F.R.C.S., 8, Eldon Square, Newcastle-on-Tyne, Honorary Secretary.

## ABSTRACT OF PROCEEDINGS OF COUNCIL.

AT a numerously attended meeting of the Council, held in the Council Room at the offices of the Association, 429, Strand, W.C., on Wednesday, April 14th, 1897, Dr. ROBERT SAUNDBY, President of the Council, in the Chair, it was

Resolved: That the financial statement for the year ending December 31st, 1896, as certified by the auditors, be approved and published in the BRITISH MEDICAL JOURNAL in accordance with By-law 26.

[*The remainder of the Proceedings of the Council will appear in a future number of the* BRITISH MEDICAL JOURNAL.]

# BRITISH MEDICAL ASSOCIATION.

## FINANCIAL STATEMENT FOR THE YEAR ENDING DECEMBER 31st, 1896.

### Balance Sheet.

#### Liabilities.

| Dr. | £ | s. | d. | £ | s. | d. |
|---|---|---|---|---|---|---|
| To Subscriptions paid in advance | | | | 598 | 8 | 11 |
| ,, Advertisements ditto | | | | 444 | 5 | 6 |
| ,, Publishing ditto | | | | 7 | 10 | 5 |
| ,, Library | | | | 42 | 14 | 0 |
| ,, Contributions | | | | 690 | 9 | 6 |
| ,, Reporting | | | | 24 | 13 | 6 |
| ,, Engraving | | | | 138 | 13 | 7 |
| ,, Printing Journal | | | | 369 | 0 | 8 |
| ,, Paper for Journal | | | | 685 | 4 | 2 |
| ,, Miscellaneous Printing | | | | 62 | 4 | 11 |
| ,, Stationery | | | | 40 | 15 | 9 |
| ,, Coal and Coke | | | | 4 | 12 | 0 |
| ,, Repairs | | | | 89 | 7 | 2 |
| ,, Legal Charges | | | | 58 | 18 | 6 |
| ,, Rates and Taxes, Insurance, and Electricity Supply | | | | 255 | 16 | 0 |
| ,, Plant and Type | | | | 52 | 10 | 3 |
| ,, Sundries | | | | 21 | 15 | 7 |
| ,, Reference Committee | | | | 52 | 10 | 0 |
| ,, Parliamentary Bills Committee | | | | 3 | 8 | 0 |
| ,, Wood Fund | | | | 25 | 0 | 0 |
| ,, Journal and Editor Sundries | | | | 65 | 7 | 0 |
| Total Liabilities | | | | 3,733 | 5 | 5 |
| ,, Depreciation—as at 31st Dec., 1895: Leases, £4,117 16s. 3d.; Alterations, £2,061 15s. 3d.; Furniture, £1,442 9s. 11d.; Redemption Fund of Premiums on Redeemable Stocks £70 8s. 6d. | 7,692 | 9 | 11 | | | |
| ,, Ditto added for 1896 | 1,251 | 7 | 10 | | | |
| | | | | 8,943 | 17 | 9 |
| ,, Surplus Account, namely:— | | | | | | |
| Balance on January 1st, 1896 | 63,875 | 17 | 4 | | | |
| Profit for 1896 brought from Revenue Account | 1,860 | 10 | 7 | | | |
| ,, Balance, being total of excess of assets over liabilities | | | | 65,736 | 7 | 11 |
| | | | | £78,413 | 11 | 1 |

#### Assets.

| Cr. | £ | s. | d. | £ | s. | d. |
|---|---|---|---|---|---|---|
| By Subscriptions—Amount due | | | | 1,467 | 1 | 8 |
| ,, Advertisements—Amount due | | | | 3,302 | 9 | 6 |
| ,, Sundry Sales—Amount due | | | | 175 | 15 | 11 |
| ,, Lease, 429, Strand | | | | 9,178 | 2 | 6 |
| ,, ,, 2 and 3, Agar Street | | | | 3,200 | 0 | 0 |
| ,, ,, 4 and 5, Agar Street | | | | 750 | 0 | 0 |
| ,, Alterations of Premises at cost | | | | 4,278 | 17 | 2 |
| ,, Furniture, and Fixtures at cost | | | | 2,418 | 5 | 5 |
| ,, Library | | | | 1,899 | 11 | 11 |
| ,, Plant and Type | | | | 1,724 | 5 | 1 |
| ,, Interest accrued on Investments and Rents due | | | | 537 | 3 | 2 |
| ,, Investments (English Railway Debenture, Corporation, Bank Stock, and Freehold Property) at cost | | | | 45,434 | 12 | 0 |
| ,, Cash, namely:— | | | | | | |
| London and Westminster Bank on current account | 3,959 | 4 | 9 | | | |
| At Office | 47 | 8 | 9 | | | |
| ,, In hands of Committee, Balance of Unused Grant | 40 | 13 | 3 | | | |
| | | | | 4,047 | 6 | 9 |
| | | | | £78,413 | 11 | 1 |

### *Revenue or Profit and Loss Account for Year ending December 31st, 1896.*

| | £ | s. | d. | | £ | s. | d. |
|---|---|---|---|---|---|---|---|
| Editorial Expenses (Salaries, Contributions, Engraving, Reporting, Workhouse, Filter and Massage Reports) | 6,214 | 14 | 11 | Subscriptions | 17,789 | 9 | 5 |
| Expenses of Journal (Printing, Postage, and Paper) | 18,412 | 8 | 9 | do. former years | 167 | 17 | 8 |
| Office Expenses (Rent, Taxes, Office Postage, etc.) | 2,096 | 14 | 10 | Advertisements (less discounts and allowances) | 15,663 | 0 | 8 |
| Office Salaries and Wages | 2,076 | 6 | 0 | Sundry Sales of Journal ,, ,, | 1,717 | 10 | 5 |
| Association Expenses (Scientific Grants, Scholarships, Expenses of Committees, etc.) | 4,530 | 4 | 7 | Collective Investigation Record Sales | 1 | 4 | 8 |
| Plant written off towards Depreciation | 350 | 0 | 0 | Sundries—Reading and Binding Covers, etc. | 110 | 17 | 7 |
| Provision towards redemption of expenditure on Leases, Alteration of Premises, and Furniture and Fittings, and Premium on Redeemable Stocks | 1,251 | 7 | 10 | Reprints | 112 | 5 | 9 |
| | | | | Interest on Investments and Rents | 1,486 | 18 | 11 |
| | | | | Unexpended Grants to Committees | 91 | 3 | 3 |
| | | | | Scientific Grants unused and returned | 107 | 19 | 10 |
| | | | | Sale of Waste, etc. | 19 | 8 | 1 |
| | | | | Discount on Printing, Paper, etc. | 741 | 6 | 6 |
| | 35,641 | 16 | 11 | | | | |
| Subscription Losses from death, resignations, etc. | 506 | 15 | 3 | | | | |
| | 36,148 | 12 | 2 | | | | |
| Profit for Year carried to Balance Sheet | 1,860 | 10 | 7 | | | | |
| | £38,009 | 2 | 9 | | £38,009 | 2 | 9 |

### Middlemore Fund.

*£666 13s. 4d. invested in 3 per cent. North British Railway Debenture Stock, in the name of the British Medical Association. Converted from 4 per cent. into 3 per cent. Stock 1893.*

| 1896. | £ | s. | d. | 1896. | £ | s. | d. |
|---|---|---|---|---|---|---|---|
| Jan. 1. To Balance brought down | 56 | 8 | 10 | Dec. 31. By Balance carried down | 75 | 15 | 6 |
| Dec. 31. ,, Interest one year on £666 13s. 4d. | 19 | 6 | 8 | | | | |
| | £75 | 15 | 6 | | £75 | 15 | 6 |

### Stewart Fund.

*£579 invested in 4 per cent. Caledonian Railway Debenture Stock, in the name of the British Medical Association.*

| 1896. | £ | s. | d. | 1896. | £ | s. | d. |
|---|---|---|---|---|---|---|---|
| Jan. 1. To Balance brought down | 42 | 14 | 2 | Dec. 31. By Balance carried down | 65 | 2 | 0 |
| Dec. 31. ,, Interest one year on £579 | 22 | 7 | 10 | | | | |
| | 65 | 2 | 0 | | £65 | 2 | 0 |

*We have examined the foregoing Accounts, with the Books and Vouchers of the Association, and find the same to be correct.*

PRICE, WATERHOUSE, & CO.,
44, Gresham Street, E.C.

*April 6th, 1897.*

## SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

THE spring meeting of this District was held at Upper Norwood on March 11th, Mr. W. GANDY in the chair.

*Confirmation of Minutes.*—The minutes of the Reigate meeting were read and confirmed.

*Future Meetings.*—On the proposition of Dr. P. DUNCAN, seconded by Dr. J. H. GALTON, it was resolved that the next meeting should be held at Reigate on the second Thursday in October, the meeting that is usually held at Croydon in May being dropped owing to the fact that the annual meeting of the whole Branch was to be held there during June. On the proposition of Dr. G. K. POOLE, seconded by Mr. A. MAUDE, it was resolved that a special meeting should be held at Croydon on Thursday, April 1st, 5 P.M., for a discussion on medical defence.

*Election of Officers.*—Mr. GANDY proposed from the chair the re-election of Mr. Prangley as Honorary Secretary, and this was unanimously carried. The following members were nominated for representatives on the Council of the Association: Dr. J. H. Galton for Surrey, Dr. Parsons for Kent, and Mr. T. J. Verrall for Sussex.

*The late Mr. Hallowes.*—Dr. JOHN GALTON moved a vote of condolence with the friends of the late Mr. F. B. Hallowes in the following words:

It will be pleasant to many an old member of the South-Eastern Branch of our Association to recall while fresh in our recollection the rarely failing presence of Mr. F. B. Hallowes. Tall and of noble presence, with a face full of intellect and decision, tempered by one of the brightest smiles that ever seconded the hearty grasp of a friend's hand, he was every inch a gentleman in look and thought and word. No better type shall we ever see amongst us of the highest class of general practitioner. We who knew him feel no wonder that he should have swayed the hearts of his patients; sustaining and lifting them up by his gentle and kindly ministrations and the utter confidence which these inspired. Associated in practice with the well-known Reigate firm upon which no call by the local Branch for help was ever made in vain, it was but to be expected that he should have made a model President of the South-Eastern Branch, and that his death "unsolders all the goodliest fellowship" which it has joyed us to see and partake. With all the goodness of heart that characterised our late friend was associated a knowledge of the world and its affairs, firm and prompt decision in action, and a wholly vertebrate character, so that everyone felt entire confidence in him as an adviser. We in East Surrey feel that we have lost from our midst a self-less man, a stainless gentleman.

The vote was unanimously passed.

*Public Vaccinators and the Superannuation Bill.*—Mr. MAUDE proposed, and Dr. T. R. ADAMS seconded, a resolution:

That public vaccinators should be included amongst those privileged to benefit by the provisions of the recently passed Superannuation Bill.

This was carried unanimously.

*Communication.*—Dr. HERMAN read a paper on The Treatment of Puerperal Eclampsia.—Mr. CHARTERS SYMONDS read a paper on The Modern Treatment of Compound Fractures and of Fracture of the Patella.—Dr. SEYMOUR TAYLOR read a paper on Hospital Abuse.—The CHAIRMAN, Drs. J. H. GALTON, RAND, HENRY HETLEY, G. B. BATTEN, SWAYNE, PARRY, MAPOTHER, MAUDE, SYMONDS, and HERMAN joined in the discussion that followed these papers.

*Dinner.*—After the meeting sixteen members and visitors dined together.

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A SPECIAL meeting of this District was held at Croydon on April 1st, P. J. DUNCAN, M.D., of Croydon, in the chair. Sixteen members and one visitor attended.

*The Association and Medical Defence.*—Dr. G. K. POOLE opened a discussion on medical defence, and spoke strongly in its favour, but declined to move a resolution.—Mr. MAUDE, who followed, also spoke favourably towards it, but also declined to move any definite resolution.—After Dr. MILLER had made some remarks antagonistic to the whole idea, Mr. E. H. GALTON moved, and Mr. REDFERN seconded, the following resolution:

That this meeting of the East Surrey District of the South-Eastern Branch of the British Medical Association is of opinion that it is inexpedient that the Association should undertake the duties of individual and collective medical defence.

Dr. NICHOLLS moved, and Mr. E. P. FURBER seconded, the following amendment:

This meeting is of opinion that (1) collective medical defence should be undertaken by the British Medical Association, and the expenses thereof borne by its funds; (2) and individual defence be left to the care of the societies already established for that purpose.

After Mr. H. NELSON HARDY (as a visitor) had spoken in favour of medical defence, and Mr. PARRY had replied against the scheme, the amendment of Dr. Nicholls was put to the meeting, and declared lost, the voting being 11 to 5, while the original resolution of Mr. E. H. GALTON was carried by 11 to 5.

*Vote of Thanks.*—A vote of thanks to Dr. Duncan for his conduct in the chair concluded the meeting.

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# SPECIAL CORRESPONDENCE.

## PARIS.

*The Plague Serum.—Salol Calculi.—A Large Renal Tumour.—Visceral Skiagraphy.—A Letter-counting Boy.*

THE plague scare has moved the Government to ask from Parliament the sum of £8,280 to be used as follows: £4,560 to be spent on Marseilles for improved outbuildings, depôts, esplanades, labourers' dwellings, etc.; part of this sum for two disinfecting ovens, also for a bacteriological laboratory; £400 from this fund will be given to Dunkirk, where there is neither lazaretto nor sanitary station. Havre, which is just as badly off, will be given £1,000. A laboratory for bacteriological investigation will be organised at the ports of Pauillac, Saint Nazaide, Havre, and Dunkirk. Four thousand pounds is asked for the Pasteur institute at Rhia-Trang to encourage Dr. Yersin's researches. The Budget Commission has decided that the said sums be voted, and the Chamber of Deputies is called to adopt the decision.

M. Robin read before the Academy of Medicine a paper by Dr. Brossard on intestinal obstruction resulting from salol calculi. These were evacuated, and the troubles disappeared. A curious feature in this case is that the salol swallowed as a powder was evacuated in a crystallised form. The total weight was 4 grammes, the biggest weighed 2 grammes.

Dr. Chipault has removed from a child a tumour of the kidneys in weight half that of the child. The rumour ran that the tumour contained a fœtus. This Dr. Chipault has quickly denied.

M. Marey read before the Academy of Medicine a paper on M. Rémy's and M. Contremoulin's discovery how to determine exactly by skiagraphy the position of a metallic projectile in any organ or viscus. In order to determine the position of a bullet in the cranium two skiagraphic proofs are taken with two of Crookes's tubes. With these two proofs a diagram can be made which demonstrates the position of the foreign body. A special instrument resembling the compasses used by sculptors mathematically demonstrates its position in space.

M. Ginostos has made an interesting communication to the Bordeaux Society of Anatomy and Physiology on letter counting. A boy from the age of 10 feels himself impelled to count the letters contained in a word or phrase that he hears, sees, speaks, or thinks. This habit is practised from the time he wakes to the time he goes to sleep. At night he sleeps without dreaming. When he does not talk he invents phrases and counts the letters in them. Thirty-two is a number which gives him satisfaction; thirteen displeases him, but nevertheless he does not recoil from arranging phrases with thirteen letters. This unceasing automatic operation does not in any way interfere with his daily work, or reading, or carrying on a conversation. Unless previously informed it would be impossible and extremely difficult for anyone to detect the silent mental labour the young man—he is now 27—is always engaged in.

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## BERLIN.

*Arrival of Professor Koch in Bombay.—German Society of Internal Medicine.—Overcrowding of Children's Hospitals in Berlin.—Government Regulations as to Hospital Buildings: The "Privat-klinik" Threatened.*

PROFESSOR ROBERT KOCH arrived in Bombay on April 14th to join the German Committee for the research into the nature and origin of the plague. The other members of the Committee came out to Bombay early in March, and were able to begin work almost immediately, so that Koch—who is the

President and Director of the Committee—will probably have found the research well advanced on his arrival.

The German Society of Internal Medicine, which has just held its annual general meeting, has re-elected Professor von Leyden President, and Professor Gerhardt, Professor A. Fraenkel, and Dr. Orthmann, Vice-Presidents. At the meeting Dr. Levy-Dorn demonstrated a new development of photography with *x* rays, namely, stereoscopic skiagraphy.

Not only are the hospitals for adults crowded in Berlin, but the children's hospitals too sadly require extension. At a meeting of the Town Council Professor Virchow said that the present accommodation was decidedly inadequate, and cited the case of one of the municipal children's hospitals, where for some time every bed had been filled, and to which, nevertheless, sick children were constantly being sent by the other hospitals. The annual report of the Kaiser and Kaiserin Friedrich Children's Hospital, too, speaks of a similar state of things, and Professor Baginsky, the directing physician, strongly advocates the building of a special ward for babies. His plans have already been submitted to the municipal authorities, but a final decision has not yet been taken, as some members of the municipality seem more in favour of the establishment of a separate municipal hospital for babies only. In one way or another this important question must—and no doubt will—be decided without undue delay.

Some time ago the Prussian Ministry issued and sent to all the provincial governors a new code of regulations concerning the building plan and internal arrangements of public and private hospitals, with the express injunction that permission to open new establishments or to rebuild or enlarge existing ones was to be granted only where these regulations were carried out. In so far as they concern small private hospitals these regulations decidedly overstep the mark, and in all the large towns of Prussia the doctors are up in arms against them. For the small paying hospital the "Privat-klinik" is quite an institution in modern Germany, and in Berlin particularly almost every specialist of note has his "Privat-klinik," generally established in a flat (sometimes even two or more flats) of one of the better built Berlin dwelling houses. Most operations, even in private practice, are performed in these private establishments, the patient generally remaining until recovery is complete. "Rest cures" and other long courses of treatment, for which perfect quiet and absence of family worries are desirable, are also carried out there, and though it cannot be denied that the arrangements are sometimes far from ideal, there has been much progress of late—progress due to active competition as well as to the general spread of sanitary knowledge. Now the conditions enforced by the new regulations are such that they cannot be completely carried out except in houses built especially for the purposes; this means, considering the enormous price of land in Berlin, that they are prohibitive to the establishment of small paying hospitals anywhere but in distant suburbs. For instance, a clause forbids courtyards closed in on all sides, and thus renders unavailable all but a small percentage (about 1 in 30) of the present Berlin houses. Another paragraph fixes the minimum width of corridors at 1 metre 80 cent.: the second or back corridor of even the best class of Berlin houses is very rarely built so wide. The staircase is to have a certain width, its steps a certain height; these measurements differ considerably from those generally in use. Some of the regulations are too sweeping, as, for instance, that rooms facing the north only are not permissible. For patients who have undergone an eye operation north rooms are the best, and so they are for surgical cases during the summer months. Pressure is being brought to bear on the authorities to repeal these and some other clauses, and it is to be hoped that a compromise will be effected which will place these private establishments on a sound hygienic basis, without rendering their existence impossible.

The Cost of Expert Evidence.—There is a Bill before the New York State Legislature which provides for the establishment of a laboratory for the preparation of evidence for use in future trials for murder conducted by the State. In a recent case £1,450 was paid to medical witnesses for giving expert evidence. The object of the new Bill is to save this expense.

# CORRESPONDENCE.

## THE ASSOCIATION AND MEDICAL DEFENCE.

Sir,—It must be apparent to everyone who has interested himself in the progress made by the defence scheme of the British Medical Association that a great mistake has been made, and that the decisions of the Branches, now nearly completed, are of no practical value. One main cause of this failure is the ruling of the Association that only attached members should be invited to decide whether it should undertake medical defence.

The total membership of the Branches entitled to vote is 13,959. Of this number there are only 8,345 who are able to exercise this franchise of which I am writing, and thus we have over 40 per cent. (who, it must be remembered, are equally interested) debarred from expressing an opinion on the question, while they, on the other hand, are expected to pay their share of the expense should the scheme be carried. Although the returns of the Branches are not yet complete, the results which have already come to hand are instructive.

I found some difficulty in obtaining the exact figures, as the Secretaries of many Branches, in reporting their decision as being "unanimous," failed to mention the number present. In most instances I was compelled to write to the Branch Secretaries more than once before I could obtain the necessary data.

Twenty-five decisions have been published in the British Medical Journal up to and including Saturday, April 10th. Eleven have decided in favour of medical defence being adopted by the Association, and 13 against. In one of them the voting was equal. Thus, on the surface, we have a majority of 2 against the adoption of medical defence.

When we come, however, to the actual number of votes, things wear a different aspect. The total number, I find, who have voted in favour of medical defence is 456, and against 447, which gives a majority of 9 for the adoption of defence.

In arriving at these figures I have considered only the answers to the first question, namely: "Is your Branch in favour, or not, of the Association undertaking the duties of individual and collective medical defence?"

The total number who voted was 903, or 10.8 per cent. of the number entitled to do so. At first one is astonished at what appears to be indifference and apathy, but it is to be remembered that the majority of the voters are hard-worked general practitioners, who, during the months of February and March, when these meetings are held, can ill spare an evening, or even a few hours, to attend a meeting and record their votes. If we are to have the individual opinion of each member, both attached and unattached, on this important subject, it can only be obtained by a *plébiscite* of all members of the Association who are to benefit by the scheme.

The more or less leisured class, and those to whom the defence of an action at law is not a question of vital importance, can as a rule more easily attend the Branch meetings than the hardworked general practitioners to whom medical defence would in my opinion be a real boon, and although the former can easily arrange to record their votes at a Branch meeting, the inference that the latter are not sufficiently interested to record their votes is negatived by the fact that in the five instances where Branches decided by *plébiscite* three decided in favour, in one the voting was equal, and the third voted against, and that of the 903 votes recorded by the 25 Branches 303 were contributed by these 5 Branches who gave their members an opportunity of recording their votes without the trouble and expense of leaving their work.

To my mind it is idle to contend that the decision of, for instance, the Metropolitan Counties Branch, which shows a majority of 22 in a total of 62, represents fully the opinion of its 1,225 attached members. Still less, of course, does it represent the view of the whole Branch, attached and unattached, numbering, as it does, 2,612 members.

The results obtained by the votes therefore are misleading, and the same is true of the opinions expressed by the Branches and their secretaries. To illustrate this three instances will suffice. The Secretary of a Branch with a membership of over 140 attached members reports that the

Branch "pronounced strongly against the Association undertaking medical defence." When the figures are examined the full value of this pronouncement is definitely ascertained. It appears that but 25 members voted, and that they were not even unanimous. A secretary reports that "it was decided by a large majority of those present that the Branch is not in favour of the Association undertaking medical defence." Now the actual numbers were 5 in favour and 11 against, and therefore only 16 of a possible 202 voted.

In the report of a small Branch there appeared a somewhat ponderous declaration couched in unmistakable language, and disapproving of the Association's undertaking medical defence. The Association was reminded of its duties, a hint was thrown out as to how it might disburse profitably part of its revenue, and this finding was pronounced to be "unanimous." As no numbers were given I was curious to discover the precise numerical value of the unanimity, and I wrote to the Secretary. He courteously replied that six members attended the meeting.

I have long been of opinion that many of us deserve the imputation so frequently made against us that we are unbusinesslike in our habits, but surely a great Association, with high aims and infinite possibilities of benefiting our profession, will see to it, that the question of either adopting or rejecting medical defence shall be decided in an equitable manner and in a liberal spirit.—I am, etc.,

Catford, April 10th. ROBERT J. COLLIE.

## METHYLENE BLUE IN RHEUMATOID ARTHRITIS.

SIR,—I have read with much interest Dr. J. R. Philpot's note in the BRITISH MEDICAL JOURNAL of March 27th, as I have for some time past been giving a trial to methylene blue in rheumatoid arthritis. I prescribed it mainly in those cases in which I saw reason to suspect that toxins formed in the intestinal canal were setting up—and keeping up—irritation in the joint centres of the spinal cord. My reason for doing so was that I believed it to be a powerful oxygen carrier and a destroyer of bacilli. Cases of this class treated by methylene blue, in conjunction with the Buxton thermal and galvanic baths, improved more rapidly and were less liable to relapse than those treated by the baths alone; but cases which seemed to depend upon utero-ovarian irritation, and those following influenza and other disturbances of the nervous system, did not seem to derive any increased benefit from the addition of this drug to the method of treatment employed. This seems to me to be one more proof that success in the treatment of rheumatoid arthritis depends almost entirely upon a careful search for the initial cause of the disturbance, and modification of the treatment accordingly.—I am, etc.,

Buxton, April 5th. WILLIAM ARMSTRONG.

## CONCURRENT SCARLATINA AND ENTERIC FEVER.

SIR,—Kindly permit me a word in reply to Dr. Bassett's letter *re* the above in the BRITISH MEDICAL JOURNAL of April 10th. I am sorry I have not the JOURNAL of June 2nd, 1894, by me to refer to Professor Suckling's note; but granting that an enema may be followed by a scarlet rash, I presume that desquamation does not follow, at least to any extent. Dr. Cosgrave in his able paper remarks on adventitious scarlatiniform rashes sometimes seen in typhoid, but makes no mention of desquamation following such rashes. Now in the case reported by me well marked desquamation following a typical scarlet rash left me little room to doubt the presence of scarlatina.—I am, etc.,

Morriston, April 17th. J. BERNARD GABE.

## ROTATION IN CEREBELLAR AFFECTIONS.

SIR,—In reference to the difficulty expressed by Dr. Russell in his interesting paper in finding a word to mean the opposite of a rotation of the clock hands. He would find an excellent word in "Childe Rowland," a well-known fairy story in *English Fairy Tales*, collected by Joseph Jacobs. In this tale the fair Bard Ellen was carried off by the fairies because she went round the church "widershins"—the opposite way to the sun. "Widershins" is not in *Skeat's Dictionary*, ed. 1888.

At any rate, this good old word should hold its own against "anticlockwise." The way of the sun or against the sun should be as familiar as clockwise or anticlockwise, though there is much to be said for the clock. The way of the decanter round the table (if there be any wine for poor doctors nowadays) is conveniently remembered by passing it "through the buttonhole." but in drinking with a lady doctor it will be essential that male evening dress be worn by the lady, for all the buttonholes on her ordinary coat are "widershins." How confusing these things are! Of course, the lady would not dine in her coat, academic dress is much more probable; and tassels and strings are more becoming to the cap and gown and to the lady.

Cambridge, April 12th. GEORGE WHERRY.

## THE IRISH POOR-LAW MEDICAL SERVICE.

SIR,—The suggestion made by Dr. Leeper in the BRITISH MEDICAL JOURNAL of April 3rd, of making Irish Poor-law appointments a matter of competitive examination instead of election, is a good one but has one drawback. It would be open to English and Scotch medical men to compete for these appointments without any similar opportunity for Irishmen to compete for English or Scotch appointments. If Dr. Leeper had made his suggestion so as to include all appointments in the three kingdoms, just as the army appointments are open to any British subject, I could not see any objection to the method of making the appointments.

There can be no doubt that very little consideration is given to a man's standing in his profession or his professional abilities in making these appointments, but I do not think I can be contradicted when I say that English and Scotch appointments are usually made upon the same grounds as they are in Ireland. There, as well as in Ireland, it is a question of local friends, religion, or politics.—I am, etc.,

April 4th. IRISH DISPENSARY M.O.

# OBITUARY.

THE death is reported of Dr. JOHN MAGRATH, of Forest Row, East Grinstead, on April 10th. The deceased was an Irishman, and held the degree of M.D.R.U.I. He was educated at University College, London, and Queen's College, Belfast.

THE death is reported of Dr. P. S. H. COLMER, of Yeovil. The deceased had been in ill health for some time, and had been suffering from epileptic attacks. Dr. Colmer qualified as F.R.C.P.Edin., L.F.P.S.Glasg., and L.M. in 1862, and took the degree of M.D.Durh. in 1882. He was one of the medical officers of the Yeovil District Hospital, and held the appointment of medical officer to several of the medical societies in the town.

THE death is reported of Mr. J. W. HARPER, M.R.C.S.Eng., of Stowmarket. The deceased was born at Hitcham in 1827, and in 1852 entered into partnership with the late Dr. Bree, eventually succeeding to the practice. He was appointed Medical Officer of Health to the Stowmarket Local Board on its formation, and up to the last month or two held that appointment under the Urban District Council, when ill-health compelled him to send in his resignation. Mr. Harper leaves a widow, three sons, and three daughters.

WE regret to have to record the death of Mr. CHARLES TORBITT, of Weaste. Mr. Torbitt was born in 1849, and at an early age was left to his own resources. Contending successfully against many difficulties he entered Queen's College, Birmingham, where he was prizeman in anatomy for two consecutive years. In 1880 he obtained the qualifications of L.R.C.P., L.M., and L.R.C.S.Edin., and shortly after started practice in Oldbury. In 1890 he succeeded to a practice in Salford, which subsequently extended to Weaste, where he resided. Mr. Torbitt had an apoplectic seizure on March 25th, and died on April 1st. The funeral was attended by a large number of professional brethren.

# NAVAL AND MILITARY MEDICAL SERVICES.

## ARMY MEDICAL STAFF EXCHANGE.

*The charge for inserting notices respecting Exchanges in the Army Medical Department is 5s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.*

A Surgeon-Lieutenant-Colonel A.M.S., arrived in India December, 1895, wants exchange to England with officer tour expired next trooping season.—Apply at once S. M. O., Station Hospital, Musseerabad, Rajpootana, Bombay.

### THE NAVY.

The following appointments have been made at the Admiralty: John C. B. Maclean, M.A., M.B., Fleet-Surgeon, to the Royal Marine Depôt, Walmer, April 14th; John D. Henwood, Staff-Surgeon, to the *Revenge*, April 14th; Thomas E. H. Williams, Staff-Surgeon, to the *Empress of India*, undated: Myles O'C. McSwiny, Staff-Surgeon, lent to the *Hibernia* for three months, April 15th; Sidney T. Reid, Surgeon, lent to the *Barfleur* for three months, April 15th.

### ARMY MEDICAL STAFF.

Surgeon-Lieutenant-Colonel C. W. M. Keys, M.D., is promoted to be Brigade-Surgeon-Lieutenant-Colonel, *vice* T. O'Reilly, retired, April 7th. Brigade-Surgeon-Lieutenant-Colonel Keys was appointed Assistant Surgeon, March 30th, 1872; Surgeon, March 1st, 1873; Surgeon-Major, March 30th, 1874; and Surgeon-Lieutenant-Colonel, March 30th, 1892. He has no war record in the *Army Lists*.

Brigade-Surgeon-Lieutenant-Colonel H. H. Stokes has been appointed Principal Medical Officer in the Straits Settlements.

Surgeon-Major W. G. Macpherson, M.B., has been appointed a member of the Army Sanitary Committee at the War Office, *vice* Surgeon-Colonel W. S. Pratt, who has proceeded on foreign service on promotion.

### ARMY MEDICAL RESERVE.

Surgeon-Captain W. L. Edwards, Severn Division Submarine Miners, Royal Engineers (Volunteers), is appointed Surgeon-Captain, April 14th.

Surgeon-Lieutenants Harry L. de Legh, 1st Volunteer Battalion the Princess of Wales's Own Yorkshire Regiment, and William A. Griffiths, 1st Volunteer Battalion the Hampshire Regiment, are appointed Surgeon-Lieutenants, April 14th.

### INDIAN MEDICAL SERVICE.

The undermentioned Surgeon-Majors, having completed twenty years' full pay service, are promoted to be Surgeon-Lieutenant-Colonels, March 31st: *Bengal*: W. Owen, M.D.; W. Conry, M.B.; G. J. Kellie; D. Basu; A. W. Mackenzie, M.B.; J. Mullane, M.D.; D. ffrench-Mullen, M.D.; J. A. Nelis, M.B.; A. M. Crofts; J. Crofts, M.D.; W. Coates, M.D. *Madras*: H. A. F. Nailer, M.B.; N. Chatterjie. *Bombay*: W. K. Hatch, M.B.; H. D. Masani; K. R. Kirtikar.

Surgeon-Captains F. J. Drury, M.D., H. J. Dyson, F. A. Rogers, D.S.O., and E. R. W. C. Carroll, Bengal Establishment, having completed twelve years' full pay service, are promoted to be Surgeon-Majors from April 1st.

Surgeon-Lieutenants A. Gwyther, M.B., W. W. Clemesha, and H. A. D. Dickson, of the Bengal Establishment, and R. F. Standage and H. A. F. Knapton, of the Bombay Establishment, are placed at the disposal of the Government of Bombay for employment on famine and plague duty.

Surgeon-Captain C. Milne, Bengal Establishment, is placed on plague duty in Sind, under the orders of the Principal Medical Officer, Sind, from March 15th.

Brigade-Surgeon-Lieutenant-Colonel H. Johnstone, M.D., Bengal Establishment, Civil Surgeon and Port Health Officer, Rangoon, is permitted to retire from the service from April 9th. He was appointed Assistant Surgeon, September 30th, 1867.

Surgeon-Lieutenant Alfred Moore, M.D., Madras Establishment, whose commission dates from July 29th, 1895, is permitted to resign from April 15th.

### THE VOLUNTEERS.

Mr. Hugh Sinclair is appointed Surgeon-Lieutenant in the 1st Argyll and Bute Artillery, April 14th.

Surgeon-Lieutenant W. B. Mason, 1st Hampshire Engineers, resigns his commission, and is appointed Second Lieutenant in the same corps, April 14th.

Surgeon-Lieutenant S. McNair, 3rd Volunteer Battalion the Lancashire Fusiliers, has resigned his commission, April 14th.

Surgeon-Captain C. Knott, 3rd (Duke of Connaught's Own) Volunteer Battalion the Hampshire Regiment, is promoted to be Surgeon-Major, April 14th.

### NEW HOSPITAL LAUNCHES.

Designs of new hospital launches have been prepared, and are under the consideration of the Admiralty. At present the sick are sent ashore from Spithead either in unsuitable 42-feet launches, or are taken into the harbour in gunboats, and then transferred in launches to Haslar Hospital. It is now, however, proposed to build launches propelled by their own machinery, and provided with cots, so that the invalids may be spared the discomfort now experienced.

### TRIAL OF AMBULANCE BICYCLES.

In the British Medical Journal of November 9th, 1895, Dr. Hoenig's cyclo-ambulance was described. In an article on "The Cycle in War" in the *Army and Navy Gazette* of April 17th it is stated that at Bruck, in Moravia, ambulance bicycles were lately tried, and have proved such a success, that it is proposed to try them again this year at the Grand Manœuvres. Our military contemporary says that an immense amount of time is lost in war in seeking for the wounded, and on the large battle fields of the future the employment of a cycle for this purpose will economise time enormously, and the moving of the wounded will be much more easy, simple, and rapid. The ambulance bicycle needs only one man to wheel it along, whilst the simplest shaft litter or stretcher needs at least two men to carry it.

### THE WANTS OF THE ARMY MEDICAL SERVICE.

The *United Service Gazette*, in an article on the Unsatisfactory Condition of the Army Medical Service, says: In 1873 competition for vacancies in the army medical department began to fall off, and the dearth of candidates was so serious in 1878 that another Committee (Sir Ralph Thompson's) was appointed to inquire into the causes. Here, again, we are introduced to the question of the status of medical officers, and Sir Ralph Thompson's Committee says: "We think it is a matter for consideration whether they (medical officers) might not be styled 'Royal Army Surgeons,' 'Royal Medical Corps,' or by some other appropriate designation." We then come to the five years 1878 to 1883, and, in the last-named year, to the appointment of Lord Morley's Committee to inquire into alleged defects, both administrative and executive, during the Egyptian campaign. This report clearly showed such defects as were proved, or alleged to have been attributable, partly to a disjointed organisation and partly to want of status of the medical officers. After considering various points bearing on these and other matters, and discussing certain proposed measures for effecting an improvement, the Committee fixed on the adoption of the amalgamation of the Army Medical Staff with the Medical Staff Corps, and recommended the constitution of a "Royal Corps." Later on, that is in 1889, we have Lord Camperdown's Committee, appointed to inquire into the dissatisfaction of the Army Medical Staff at being deprived of the only rank (relative) they possessed, and relegating the officers to the status of "camp followers." Here, again, we have Lord Camperdown's Committee recommending compound titles and a "Royal Medical Staff."

### THE PROTECTION OF THE ARMY.

The *Times of India* of March 24th has a long article on the above subject, which may be accepted as a valuable contribution to the controversy now proceeding on "The Health of the Army" in the military and daily press. The attention of the military members of Parliament who have been interesting themselves in this matter should be drawn to the article, too long for extraction, but which abounds in wholesome truths. In reference to the contention that the old system of inspection was ineffective, the article says: "When the system (that is, the success of the measures taken previously to 1888) broke down, the reason was usually to be found in the absence of co-operation between the cantonments authority and the medical officers."

### THE RECENT CONCESSIONS TO THE ARMY MEDICAL STAFF.

The article in the *Times of India* of March 15th, from which we gave an extract on April 10th, has drawn forth a correspondence supporting the views expressed in it. Especial attention is drawn in the correspondence to the fact that the "increase" of pay lately conceded (after forcible extraction), and loudly trumpeted, will not bear an analysis, as the young army medical officer in India, even with the addition of 50 rupees to his pay, is not on an equality with a veterinary surgeon. This merely bears out the statement of a correspondent which appeared in this Journal on April 17th in the military medical columns. In regard to leave, it appears now that the War Office has consented to the employment of civil medical practitioners up to the strength of districts, to allow Army Medical Staff officers to go on leave. This concession, although tardy, is acceptable.

# MEDICO-LEGAL.

### THE PHARMACEUTICAL SOCIETY *v.* HOOKER.

This was a case in which the Council of the Pharmaceutical Society sued Frederick William Hooker of 1, Beck Street, Nottingham, for £5, the amount of a penalty under the Pharmacy Act, 1868. It was stated, according to the report in the *Nottingham Daily Press*, that the action was brought to recover a penalty for the sale of poisons and to restrict the sale of poisons by persons who do not know their quality, and had not passed certain examinations. It was mentioned that on November 20th last a purchase was made from the defendant of a poison under the meaning of the Act, and the poison was analysed and found to contain opium. Arthur Foulds, an inquiry agent carrying on business at Manchester, said he was instructed by the Pharmaceutical Society to go and make a purchase at No. 1, Beck Street. The name of Dr. Whitgreave was over the door of the shop, the defendant being in at the time alone, and he asked for one pennyworth of mint, aniseed, paregoric and laudanum, which defendant put into one bottle. The label on the bottle was put on by defendant.

Mr. W. B. Smith, who appeared on behalf of the defendant, asked if it were possible under the circumstances that the penalty might be mitigated, or that the defendant be allowed to pay the money by small instalments, as they admitted the mixture was a poison within the meaning of the Act. The mixture sold was a common mixture, taken generally for a bad cough. It certainly included one pennyworth of laudanum, which would do no harm to anyone in a mixture of that kind. The man seemed to have visited the shop for the purpose of trapping the defendant, and though it was in November when the purchase was made, the summons was not issued until February 12th of this year. He had been instructed to say that no particular attention had been drawn to the mixture as containing poison at the time of the purchase. The defendant was only an assistant in the shop, earning a small salary. Under the Adulteration Act it was expressly provided that when a purchase was made for the purpose of analysis, a statement was made to that effect, and the liquid bought was divided.

The judge said that there was o such provision u der the Pharmacy

Act. He considered that the Pharmaceutical Society had done what was right, for the doctor must know that he ran the risk of coming under the Act if he left an assistant in the shop with power to sell poisons. He saw no reason to mitigate the penalty of £5, even if he had power to do so, and therefore there would be judgment for the plaintiffs for £5 with costs.

### UNQUALIFIED PRACTICE.

AJAX.—The case referred to is one in which, on proper evidence being forthcoming, the Society of Apothecaries could take legal proceedings for unqualified practice, and the Pharmaceutical Society could take legal proceedings for breach of the Pharmacy Acts. A letter to the Clerk to the former Society should be addressed to the Apothecaries' Hall, Blackfriars, but evidence from two or three persons would be required of having been attended by the unqualified person in cases requiring medical treatment. We do not think that the authorities of the College could interfere.

### RECOVERY OF CHARGES.

A CORRESPONDENT submits to us the following case. Early last year his partner received a telegram requesting him to come out at once for probable amputation of arm. Our correspondent went for his partner, and at 6 miles out met a lad in a carriage with a local practitioner. He gave a tourniquet, as digital compression was being used, to prevent hæmorrhage, and as the lad was very white he asked the coachman to gallop his horse instead of walking it, and stated he would get all right at the local hospital, where they were going. Our correspondent went there, and by personal request and representing the urgency of the case got the case admitted. The elbow he found had been shot away some hours previously, so he amputated at once. The cook gave up her room, and a special nurse was got later. The case was a long one, and seventy visits were paid. The father saw our correspondent the next day, and knew that he was looking after his son. The partner of the father's own medical man wished him to keep on with the case until the patient was convalescent, as matters looked very grave indeed. Our correspondent left his patient after going once to a village 9 miles off to see him in consultation with his own medical attendant. Our correspondent further adds that his partner is physician to the hospital, but he has nothing to do with it. The hospital has been paid its expenses after much difficulty. The father refuses to pay anything to our correspondent. The question submitted is whether our correspondent is justified in suing the patient's father under the circumstances, and whether his account of £50 would be deemed excessive.

*** We should not think such a claim under the circumstances would be deemed excessive, but we feel some doubt as to whether an action against the patient's father would be successful. If, however, it could be shown that the patient's father sent the telegram alluded to above, and that it was not addressed to the partner of our correspondent in his capacity of physician to the hospital, then we think that legal proceedings might very properly be taken, and if proceedings are taken at all there seems no reason why they should not be taken for the full amount of the claim. It may be alleged that, at any rate, after the patient had been admitted to the hospital and the operation performed there was no necessity for our correspondent to continue the visits, and on the facts as to this will doubtless depend in a large measure how much of the claim would be recovered, and there might also be some question as to the authority of the partner of the father's medical man to request our correspondent to keep on with the case until the patient was convalescent. On the whole, we think that our correspondent would have a reasonable hope of recovering the whole or some substantial sum by way of compensation for his services, subject as above mentioned; but, of course, he would not embark in legal proceedings except on the advice of his solicitor, before whom he could lay all the facts of the case.

# UNIVERSITIES AND COLLEGES.

## UNIVERSITY OF EDINBURGH.

GENERAL COUNCIL OF THE UNIVERSITY.—The statutory half-yearly meeting of the General Council of the University of Edinburgh was held on Tuesday, April 20th. The draft minute of the meeting of October 30th, 1896, was read and approved.

The Business Committee desired to record their sense of the great loss the Council and its Executive Committees have sustained by the unexpected death of Dr. W. Scott Dalgleish. For many years he had taken a very active interest in the affairs of the Council, and had an extensive and appreciative acquaintance with the whole subject of Scottish University education. He acted throughout as a member, and latterly as convener, of the Ordinances Committee, and gave valuable service in a liberal spirit, and suggesting improvements upon the numerous ordinances issued by the present Commissioners. The Business Committee suggest that for the present, and until the Universities Commission is dissolved, which is likely to happen in the course of the summer, the Ordinances Committee should be reappointed.

The Committee on Ordinances reported on Edinburgh, No. 28 [Foundation of Chair of Public Health], in terms of approval. The details of this ordinance have already appeared in the BRITISH MEDICAL JOURNAL.

The Finance Committee have still to regret the slow progress of the General University Fund, which remains at a trifle over £70,000. This is the only fund at the free discretion of the University Court, and is utterly inadequate for the general purposes of the University. The other (appropriated) funds show an increase, the chief addition being the recent bequest, by the late Earl of Moray, of £20,000 for the endowment of research, referred to in the Finance Committee's Report of April, 1896.

The general revenue of the University shows an increase of £28 10s. 2d. upon a total of over £44,000, but the several items of revenue show a considerable fluctuation. While matriculation and preliminary examination fees have increased fully £100, the graduation fees have increased about £500. Similarly, in regard to general expenditure there is an increase of £250 upon a total of over £43,500, but the several items show considerable fluctuations: for example, there is a decrease of £810 on the upkeep of buildings, and a nominal increase of £470 upon laboratory expenses. This last is, however, apparently brought about by class expenses of two chairs for three years being charged in one account. The surplus for the year on the General University Fund of less than £300 shows the very narrow basis upon which the University Court have to finance the general administration, and how little freedom or encouragement the members of the Court have to initiate any addition to the teaching staff of any development of the University. This position is all the more to be regretted when other universities at home and abroad are receiving large financial support, enabling them to improve the teaching and provide greater facilities for the acquisition of knowledge.

The total capital funds of the University amounted in 1894-95 to £619,045, and in 1895-96 to £652,206. The revenue for 1894-95 was £83,310, while for 1895-96 it was £83,460. The expenditure in 1894-95 was £77,642, and in 1895-96 in was £78,534.

The total number of matriculated students of Medicine and Science for the last five sessions were as follows:

| | Medicine. | Science. |
|---|---|---|
| 1891-92 ..... | 1,951 ..... | — |
| 1892-93 ..... | 1,736 ..... | — |
| 1893-94 ..... | 1,560 ..... | 171 |
| 1894-96 ..... | 1,512 ..... | 151 |
| 1895-96 ..... | 1,455 ..... | 145 |

UNIVERSITY COURT.—The University Court met on Monday, April 12th. Mr. J. Purves Stewart, M.A., M.B., C.M., was appointed University Assistant in Medicine for the remainder of the current academical year as from April 1st. Intimation was made of a donation of £1,000 by Messrs. William Younger and Co., Limited, brewers in Edinburgh, towards the endowment of the proposed separate Chair of Public Health. It was reported that Sir Henry Littlejohn had been duly inducted as Professor of Forensic Medicine. Dr. W. G. Aitchison Robertson (Edinburgh) was recognised for one year as a teacher of Medical Jurisprudence and Public Health, whose courses of instruction shall qualify for graduation in Medicine and Science. Various recommendations by the Draft Ordinances Committee were adopted. Various other reports were submitted and approved.

MEDICAL PRELIMINARY EXAMINATION.—The following candidates have passed:

R. G. Archibald, J. Arthur, A. K. Baxter, Nina H. Beath, A. W. Beveridge, W. Blackwood, R. Bladworth, R. Blair, Bertha J. Blake, J. G. Briggs, H. H. Bullmore, H. Coghlan, D. M. Crooks, T. S. Cubbon, T. M. Cuthbert, J. S. C. Eagan, N. C. Forsyth, C. E. P. Gaitskell, J. George, J. R. C. Greenless, F. M. Harper, A. E. Heskett, Isabel Hill, R. B. Hole, A. Hutley, J. Kirkwood, A. B. Leaky, E. W. Lewis, R. C. Low, J. H. M'Dowall, T. H. Mackinnon, J. J. M'Millan, J. M. Macrae, A. G. Martin, J. B. Mason, J. K. Matheson, E. L. Meynell, C. R. P. Mitchell, A. E. Nalborough, J. Politachi, Agnes M. Pringle, Julia L. Pringle, W. R. Reid, R. I. Ritchie, W. H. Robertson, A. Rose, G. A. Scott, J. R. Simson, T. R. Smith, A. B. Spence, N. Sturrock, P. Vickers, W. R. S. Watkins, J. Watson, Mary E. Watson, W. H. Welsh, Ada Wilkinson, and R. Wilson.

## UNIVERSITY OF DURHAM.

SECOND EXAMINATION FOR THE DEGREE OF BACHELOR IN MEDICINE.—The following candidates have satisfied the Examiners:—

*Anatomy, Physiology, Materia Medica.*—Honours—Second Class: H. G. Harris, St. Bartholomew's Hospital; Claudia Anita Prout Rowse, London School of Medicine for Women; S. Cross, College of Medicine, Newcastle-upon-Tyne; M. Jacobs, College of Medicine, Newcastle-upon-Tyne; Selina Fitzherbert Fox, London School of Medicine for Women; R. Walker, St. Bartholomew's Hospital; Hedda Alström, London School of Medicine for Women; F. W. Crossman, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; H. R. D. Spitta, St. George's Hospital. Pass List: L. J. Blandford, College of Medicine, Newcastle-upon-Tyne; E. H. Cooke, St. Thomas's Hospital; G. O. M. Dickenson, College of Medicine, Newcastle upon-Tyne; H. Eggleston, College of Medicine, Newcastle-upon-Tyne; C. T. Holmes, College of Medicine, Newcastle-upon-Tyne; E. Inman, College of Medicine, Newcastle-upon-Tyne; Margaret Joyce, London School of Medicine for Women; E. G. Klumpp, St. Bartholomew's Hospital; G. Smith, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; E. Swainston, College of Medicine, Newcastle-upon-Tyne; F. Stuart, College of Medicine, Newcastle-upon-Tyne; E. N. Threlfall, College of Medicine, Newcastle-upon-Tyne; D. H. Weir, College of Medicine, Newcastle-upon-Tyne; F. D. Welch, Guy's Hospital; E. S. Wilkinson, St. Bartholomew's Hospital.

## CONJOINT BOARD IN ENGLAND.

FIRST EXAMINATION (FOUR YEARS' REGULATIONS).—The following gentlemen have passed this Examination in the subjects indicated:

*Part I. Chemistry, including Chemical Physics.*—J. J. Anning, private study; T. B. Jones, St. Bartholomew's Hospital; W. Pettigrew, Firth College, Sheffield; R. J. S. Verity, Charing Cross Hospital.

*Part II. Materia Medica.*—J. J. Anning, private study; E. F. Crabtree, St. Bartholomew's Hospital; B. N. Molineux, St. Thomas's Hospital; E. H. Musgrove, University College of South Wales, Cardiff; J. A. L. Peirce, Mason College, Birmingham; F. A. Pitts-Tucker, St. Thomas's Hospital; W. M. B. Sparkes, King's College Hospital; L. Wright, St. Thomas's Hospital.

*Part III. Elementary Physiology.*—R. A. Robinson, University College Hospital; G. Sowden, London Hospital.

FIRST EXAMINATION (FIVE YEARS' REGULATIONS).—The following gentlemen have passed this Examination in the subjects indicated:

*Part I. Chemistry and Physics.*—S. A. Agar, London Hospital; H. D. Apperley, Middlesex Hospital; J. A. Bachs, King's College Hospital; C. H. F. Bailey, Westminster Hospital; J. E. L. Bates, Guy's Hospital; A. Blanc, King's College Hospital; F. M. Boclet, Charing Cross Hospital; J. C. Bridge, Middlesex Hospital; A. Butler, St. Bartholomew's Hospital; B. Capon, University College, Liverpool; E. R. Carling, Westminster Hospital; H. G. Clitheroe, London Hospital; H. S. C. Darbyshire, Firth College, Sheffield; F. A. W. Drinkwater, University College, Liverpool; V. J. Duigan, St. Bartholomew's Hospital; H. Emerson, St. Mary's Hospital; D. H. Evans, University College of South Wales, Cardiff; G. E. Froggatt, Middlesex Hospital; H. J. Gater, Guy's Hospital; O. B. Gauntlett, St. Thomas's Hospital; P. N. Gleig, Charing Cross Hospital; H. A. S. Gover, St. Mary's Hospital; R. K. G. Graves, St. George's Hospital; P. L. Hicks, University College, Bristol; A. S. Hosford, University College Hospital; L. W. Huelin, St. Mary's Hospital; E. C. Hulseberg, Westminster Hospital; W. J. D. Inness, St. Mary's Hospital; F. D. S. Jackson, Guy's Hospital; W. J. G. Johnson, St. Bartholomew's Hospital; C. E. Lawrence, University College, Liverpool; R. R. Lewis, Middlesex Hospital; A. Mason, Middlesex Hospital; A. G. Michel, Charing Cross Hospital; D. L. H. Moores, University College, Liverpool; H. MacG. Newport, Charing Cross Hospital; W. S. Page, St. Mary's Hospital; G. A. Paulin, Royal College of Surgeons, Edinburgh; F. B. Penfold, Middlesex Hospital; L. Pern, Guy's Hospital; A. A. Phelphs, Guy's Hospital; B. I. Rahim, King's College Hospital; P. D. Ramsay, St. Mary's Hospital; J. H. Roberts, Charing Cross Hospital and Birkbeck Institute; S. Rogers, St. Mary's Hospital; F. H. Rudge, Bristol and Clifton Laboratory; R. H. N. Rutherford, University College, Bristol; W. T. Shields, University College, Liverpool; H. Smale, St. Mary's Hospital; H. J. Smith, Yorkshire College, Leeds; A. W. Soper, Guy's Hospital; W. A. G. Stevens, Guy's Hospital; W. H. E. Stewart, Cambridge University; F. W. Thomson, Firth College, Sheffield; H. S. Tumber, Firth College Sheffield; C. H. Turner, St. Bartholomew's Hospital; J. Ward, Firth College, Sheffield; G. T. Willan, Guy's Hospital; R. Willan, University College, Nottingham; F. J. Wood, St. Bartholomew's Hospital.

*Part II. Practical Pharmacy.*—H. C. Adams, Middlesex Hospital; R. B. Ainsworth, St. George's Hospital; R. H. Allport, St Thomas's Hospital; J. Beard, Firth College, Sheffield; H. Bernard-Onrait, Guy's Hospital; G. G. Campbell, St. Bartholomew's Hospital; A. E. Cawston, Guy's Hospital; S. W. R. Colyer, Charing Cross Hospital; J. Davies, London Hospital; C. F. Day, private study; Q. B. De Freitas, King's College Hospital; A. R. H. Denny, Guy's Hospital; H. P. S. Devitt, St. George's Hospital; L. S. Dudgeon, St. Thomas's Hospital; C. H. Furnivall, St. Mary's Hospital; H. S. Gettings, Mason College, Birmingham; W. E. Gribbell, St. Mary's Hospital; J. Howells, Guy's Hospital; W. T. Jackson, Owens College, Manchester; J. L. Lewis, London Hospital; F. P. Mackie, University College, Bristol; R. Michell, Guy's Hospital; C. C. Morgan, St. Bartholomew's Hospital; L. W. Morgan, University College of South Wales, Cardiff; P. J. Nash, Guy's Hospital; E. H. Ross, St. Thomas's Hospital; L. D. Saunders, King's College Hospital; A. H. M. Saward, Guy's Hospital; W. T. Shields, University College, Liverpool; R. J. S. Sladen, London Hospital; H. C. Sturdy, Guy's Hospital; I. Stusser, London Hospital; A. J. Tayler, King's College Hospital; C. C. B. Thompson, St. Bartholomew's Hospital; M. H. Thornley, Guy's Hospital; H. Thwaites, London Hospital; J. Ward, Firth College, Sheffield.

*Part III. Elementary Biology.*—R. R. E. Alvarada, St. George's Hospital; A. J. Ambrose, Westminster Hospital; H. D. Apperly, Middlesex Hospital; J. H. Ashton, Owens College, Manchester; H. R. P. Baker, St. George's Hospital; J. J. Bekenn, Mason College, Birmingham; F. G. Bennett, University College Hospital; S. C. H. Bent, Guy's Hospital; G. Bevir, London Hospital; A. Blanc, King's College Hospital; C. J. Blasson, University College Hospital; T. E. Blunt, London Hospital; J. C. Bridge, Middlesex Hospital; C. I. Brierly, Yorkshire College, Leeds; J. Bromley, Guy's Hospital; G. B. Browne, Guy's Hospital; W. W. Browne, University College Hospital; R. Burges, London Hospital; H. L. Burgess, London Hospital; H. H. Butcher, St. Bartholomew's Hospital; R. Butterworth, St. Mary's Hospital; B. Capon, University College, Liverpool; H. C. Causton, University College Hospital; F. W. Cheese, St. Bartholomew's Hospital; W. H. Cole, Guy's Hospital; C. H. Cox, Mason College, Birmingham; E. A. Cox, King's College Hospital; H. P. Croly, London Hospital; G. W. Curtis, University College Hospital; E. W. Dall, St. Bartholomew's Hospital; W. B. Davy, Middlesex Hospital; E. J. Dermott, University College, Bristol; S. E. Douglas, Guy's Hospital; E. J. S. Dudley, Guy's Hospital; T. R. Eames, Owens College, Manchester; D. H. Evans, University College, South Wales, Cardiff; G. S. Ewen, St. Bartholomew's Hospital; L. C. Fergueson, St. Bartholomew's Hospital; G. E. Froggatt, Middlesex Hospital; H. W. Furnival, University College Hospital; H. Gardner, Firth College, Sheffield; W. H. Gray, London Hospital; H. R. Grellet, Guy's Hospital; G. H. Hackney, University College Hospital; J. E. Harris, Mason College, Birmingham; P. Harris, St. Bartholomew's Hospital; G. S. E. Hayes, Guy's Hospital; P. L. Hicks, University College, Bristol; G. W. C. Hollist, Guy's Hospital; B. Hood, Charing Cross Hospital; W. E. Houlbrook, St. George's Hospital; T. Howell, University College, South Wales, Cardiff; C. H. Howkins, Mason College, Birmingham; A. R. F. Hubbard, Charing Cross Hospital; L. W. Huelin, St, Mary's Hospital; C. H. M. Hughes, Westminster Hospital; E. O. Hughes, St. Bartholomew's Hospital; G. F. Humphreys, St. Paul's School, West Kensington; R. Jiménez, Guy's Hospital; S. H. Jones, Guy's Hospital; H. N. Keeling, Yorkshire College, Leeds; T. J. Latham, London Hospital; C. E. Lawrence, University College, Liverpool; C. J. Lemon, St. George's Hospital; G. J. Lewis, Guy's Hospital; G. C. Lowe, Guy's Hospital; J. K. Lund, Mason College, Birmingham; W. MacD. MacDowall, London Hospital; E. H. McMahon, Charing Cross Hospital; H. M. Major, St. Mary's Hospital; R. P. Marshall, Guy's Hospital; A. Mason, Middlesex Hospital; C. M. N. May, St. George's Hospital; G. C. B. Miéville, University College Hospital; H. Mills, St. Bartholomew's Hospital; A. F. Miskin, St. Thomas's Hospital; G. Moir, Guy's Hospital; O. C. H. L. Moll, Guy's Hospital; De L. H. Moores, University College, Liverpool; L. M. Morris, St. Bartholomew's Hospital; A. C. Nash, Guy's Hospital; P. J. Nash, Guy's Hospital; A. C. Osburn, Guy's Hospital; C. L. C. Owen, St. Bartholomew's Hospital; P. G. Pavitt, Middlesex Hospital; H. G. Peel, Yorkshire College, Leeds; N. R. Phillips, University College of South Wales, Cardiff; C. A. G. Phipps, Owens College, Manchester; A. F. C. Pollard, St. Bartholomew's Hospital; J. F. Powell, St. George's Hospital; R. C. Poyser, Guy's Hospital; S. L. Prall, Guy's Hospital; E. W. Price, St. Bartholomew's Hospital; H. M. Raven, St. Mary's Hospital; K. H. Reed, St. George's Hospital; S. Riley, Owens College, Manchester; E. Roberts, Guy's Hospital; W. O. Roberts, Guy's Hospital; S. A. Robertson, University College Hospital; R. S. Roper, Guy's Hospital; H. Round, Mason College, Birmingham; M. J. Rowlands, University College, South Wales, Cardiff; G. F. Rugg, University College Hospital; R. H. N. Rutherford, University College, Bristol; C. Ryley, St. Mary's Hospital; C. A. Ryman, St. George's Hospital; H. E. Scoones, St. Bartholomew's Hospital; M. B. Scott, St. Bartholomew's Hospital; H. G. Sewell, London Hospital; L. W. Shadwell, St. George's Hospital; S. S. H. Shannon, Guy's Hospital; R. J. L. Sladen, London Hospital; W. T. Shields, University College, Liverpool; T. W. Smith, Guy's Hospital; G. B. S. Soper, Guy's Hospital; A. D. Spalding, London Hospital; C. R. Stewart, St. George's Hospital; I. Stusser, London Hospital; F. Thompson, London Hospital; C. L. Traylen, London Hospital; F. I. Trimmer, London Hospital; H. S. Tumber, Frith College, Sheffield; F. J. Turner, Guy's Hospital; H. Upcott, St. Thomas's Hospital; W. F. H. Vaughan, St. Mary's Hospital; J. Walker, St. Thomas's Hospital; J. Wells, Mason College, Birmingham; H. Whitwell, St. Bartholomew's Hospital; R. Willan, University College, Nottingham; G. P. Wilson, London Hospital; C. M. Woods, Charing Cross Hospital; C. S. Woodwark, St. Bartholomew's Hospital; J. H. Wroughton, St. Bartholomew's Hospital; A. C. Young, St. Bartholomew's Hospital.

## CONJOINT BOARD IN SCOTLAND.

THE quarterly examinations for the Triple Qualification in Edinburgh took place in April, with the following results:

*First Examination (Four Years' Course).*—Lilian Marie Blong, Nelly Evans, J. Dick, and J. P. McLoughlan.

There were 7 candidates.

*First Examination (Five Years' Course).*—W. C. Bentall, A. W. Gibson, A. W. Frew, E. Williams, A. Brownlee, A. E. Elliott, N. L. Stevenson, J. B. Mason, D. L. Williams, C. A. C. Bentley, A. Macqueen, Edith Maria Lydia Scull, and J. C. Paige.

Of 42 candidates 13 passed the whole examination, 10 passed in the division of Physics, and 9 in Chemistry.

*Second Examination (Four Years' Course).*—Ellen Maud Wood, M. S. H. C. Boudou, Nelly Evans, D. R. Macfie, F. Carter, J. T. Buckley, Lydia Prio Datt, and C. D. Law.

Of 18 candidates 8 passed the whole examination, and 2 passed in the division of Anatomy.

*Second Examination (Five Years' Course).*—Mary Birrell Davies, Hilda Maud McFarlane (with distinction), Isabella Anne Watson (with distinction), E. A. Boxer (with distinction), R. McLaren, W. Welsh (with distinction), F. P. Maitland, J. L. V. Shortland, C. R. White, G. S. Coghlan; Winifred Muirhead (with distinction), J. E. Ratcliffe, and J. A. Scotland.

There were 23 candidates.

*Third Examination (Five Years' Course).*—H. J. Clarke, J. Tobin, J. S. Hamilton, C. J. Greig, T. Neville, J. H. Gibbs (with distinction), Katharine Constance Sampson, J. E. Kerr, P. J. van Coller, J. McMurray, Edith Neild, W. R. Graham, and J. McGrath.

There were 15 candidates.

*Final Examination.*—W. Robertson, R. R. Richardson, T. A. W. Ogg, W. B. Crowe, R. W. Meikle, R. Rudland, G. S. MacCarthy, Mary Ann Handson, S. J. B. Fox, G. H. Gill, W. H. Cox, J. R. Morris, F. E. Shawe, J. S. Macdonald, E. R. Kellett, W. J. Spearing, E. J. Ryan, W. H. Stott, N. Cullinan, Amelia Norah De Souza, J. S. Crabbe, Clara Ann Shipley Fitter, Harriet Matilda Maitland, W. R. Murison, Maud Elizabeth Seymour Abbott, J. L. Baskin, J. S. Nolan, T. Heaps, W. E. Heal, H. R. R. Fowler, W. B. Howell, R. F. Flood, S. H. Whately, J. Dodds, T. H. O'Reilly, and A. J. Rencontre.

Of 86 candidates, 26 passed the whole examination, and were admitted L.R.C.P.E., L.R.C.S.E., and L.F.P. and S.G.; 6 passed in the division of Medicine, 1 in the division of Surgery, 8 in the division of Midwifery, and 7 in the division of Medical Jurisprudence.

# PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

## HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 5,754 births and 3,764 deaths were registered during the week ending Saturday last, April 17th. The annual rate of mortality in these towns, which had been 18.3 and 18.6 per 1,000 in the two preceding weeks, declined

again to 17.9 last week. The rates in the several towns ranged from 9.5 in Croydon, 10.9 in Swansea, 11.9 in Nottingham, and 13.1 in Wolverhampton to 23.4 in Halifax, 24.9 in Bolton, 25.8 in Blackburn, and 28.1 in Salford. In the thirty-two provincial towns the mean death-rate was 18.7 per 1,000, and exceeded by 2.1 the rate recorded in London, which was 16.6 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.6 per 1,000; in London the rate was equal to 1.4 per 1,000, while it averaged 1.7 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.5 in Oldham, 2.8 in Liverpool and in Blackburn, 4.4 in Salford, and 9.0 in Bolton. Measles caused a death-rate of 1.1 in Oldham, 3.2 in Salford, and 8.6 in Bolton; scarlet fever of 1.0 in Leicester; and whooping-cough of 1.0 in Manchester, Salford, Leicester, Burnley, and Gateshead, 1.4 in Preston, and 1.6 in Blackburn. The mortality from "fever" showed no marked excess in any of the large towns. The 51 deaths from diphtheria in the thirty-three towns included 30 in London, 3 in West Ham, and 2 each in Birmingham, Liverpool, Manchester, Leeds, and Sheffield. No fatal case of small-pox was registered during the week either in London or in any of the thirty-two large provincial towns. There were 11 cases of small-pox under treatment in the Metropolitan Asylums Hospitals on Saturday last, April 17th, against 21, 17, and 16 at the end of the three preceding weeks; 1 new case was admitted during the week. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 2,585, 2,512, and 2,449 at the end of the three preceding weeks, had further declined to 2,406 on Saturday last; 216 new cases were admitted during the week, against 224, 219, and 204 in the three preceding weeks.

### HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, April 17th, 875 births and 665 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 22.1 and 24.6 per 1,000 in the two preceding weeks, declined again to 22.3 last week, but exceeded by 4.4 per 1,000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 18.0 in Leith to 26.0 in Edinburgh. The zymotic death-rate in these towns averaged 3.6 per 1,000, the highest rates being recorded in Edinburgh and Perth. The 307 deaths registered in Glasgow included 19 from measles, 1 from scarlet fever, 1 from diphtheria, 22 from whooping-cough, 4 from "fever," and 6 from diarrhœa. Nineteen fatal cases of measles, 2 of scarlet fever, 4 of diphtheria, and 5 of whooping-cough were recorded in Edinburgh.

### THE ROYAL COMMISSION ON LONDON WATER.

The delay in appointing the Royal Commission on the water supply of London has been due to the difficulty experienced by the Government in securing the services of a sufficiently capable and experienced chairman. Several distinguished personages to whom the post was offered found it impossible to give the requisite amount of time to the work. It is now, however, understood that Lord Llandaff has consented to serve. The reference to the Commission is in the following terms: "(1) To inquire and report whether, having regard to financial considerations and to present and prospective requirements as regards water supply in the districts within the limits of supply of the metropolitan water companies, it is desirable, in the interests of the ratepayers and water consumers in those districts, that the undertakings of the water companies should be acquired and managed either (*a*) by one authority, or (*b*) by several authorities, and, if so, what should be such authority or authorities. To what extent physical severance of the works and other property and sources of supply of the several companies, and the division thereof between different local authorities within the limits of supply, are practicable and desirable, and what are the legal powers necessary to give effect to any such arrangements. (2) If the undertakings are not so acquired, whether additional powers of control should be exercised by local or other authorities, and, if so, what those powers should be. (3) Whether it is practicable to connect any two or more of the different systems of supply now administered by the eight metropolitan companies, and, if so, by whom and in what proportions should the cost of connecting them be borne, and what are the legal powers necessary to give effect to any such arrangement."

### SUPERANNUATION ACT AND DEDUCTIONS FROM SALARY.

J. L. S., who is a Poor-law medical officer, writes to say that he has been paid his last half-year's salary, but with a percentage deducted under the Superannuation Act. This he objects to, as, he says, it was never his intention to come under the Act, and that he has signed nothing authorising any such deduction. He asks whether this is right, and how he can prevent a deduction from his salary in the future.

*** If our correspondent did not intend to avail himself of the provisions of the Act (he had three months to decide whether he would do so or not) he could by giving notice in writing previous to December 30th, 1896, to the clerk of the union, have contracted himself out of it, and he would then have been free of all its provisions; having neglected to do this, he must now submit to the usual deductions from his salary, and this for as long a time as he remains in the Poor-law service.

### NON-PAYMENT OF NOTIFICATION FEES.

Fortis per Fide, having made several unsuccessful claims for fees in respect of certificates of cases of notifiable disease to a local authority, will probably do well in the next place to state the facts to the Local Government Board, Whitehall.

### APPOINTMENTS OF MEDICAL OFFICERS.

Bedfordshire.—Article 156 of the General Consolidated Order of July 24th, 1847, enables Boards of Guardians to dispense with advertisements in respect of vacant district medical officerships by having notice given of a proposal to fill any vacancy at one of the two ordinary meetings next preceding the meeting at which the vacancy is to be filled.

# MEDICAL NEWS.

A Dentist's Fee.—A Madras dentist has, it is announced, received a sum of Rs.14,000 for supplying His Highness the Nizam of Hyderabad with a row of false teeth.

A meeting of the British Balneological and Climatological Society will be held at Limmer's Hotel, Conduit Street, W., on April 28th, at 8.45 p.m., when Sir Douglas Powell, Bart., M.D., will deliver an address. At 9.30 the President will hold a reception, and there will be a *conversazione*.

At the meeting of the Hunterian Society on Wednesday evening next a discussion on Headaches will be opened by Dr. Hingston Fox, who will direct attention to some of the common types of headache, and their relation to changes in the circulation or in blood pressure, and discuss their treatment. Drs. A. Haig and Harry Campbell will take part in the discussion.

The Registration of Midwives.—Dr. J. Bamford Kerr, Honorary Secretary and Treasurer of the Bury and District Medical Society, forwards us the following resolution, which was passed unanimously at a meeting of the Society held on April 15th: "Seeing that the Midwives Registration Bill would, if it became law, create an independent order of midwifery practitioners, this meeting, while anxious that the training of monthly nurses should be improved, records its emphatic protest against such proposed legislation, and determines to form a Committee to watch the progress of, and oppose any legislation such as that hitherto proposed for the registration of midwives."

At a quarterly court of the directors of the Society for the Relief of Widows and Orphans of Medical Men, held at 11, Chandos Street, W., on April 14th, Mr. Christopher Heath in the chair, three new members were elected and the deaths of five members reported. A sum of £1,210 was directed to be divided at the next court among 51 widows, 11 orphans, and 5 recipients under the Copeland Fund. An extra grant of 24 guineas was made to an orphan to enable him to learn bookkeeping. The expenses of the quarter amounted to £60 7s. Drs. Wilks, Pollock, and Felce were nominated for election as Vice-Presidents, and Drs. Blandford, Ogle, Brodie, De Havilland Hall, Slight, James Miller, Lovett, and Day as directors. The annual general meeting will be held on May 19th at 5 p.m.

The Forthcoming International Medical Congress.—It is officially announced that the Czar has consented to become patron of the International Medical Congress to be held next August in Moscow. A programme of a "select conducted tour" to Moscow, including visits to Berlin, Warsaw, St. Petersburg, Stockholm, and Copenhagen, has been prepared by Messrs. Thomas Cook and Son. Dr. Henry S. Lunn, Editor of *Travel*, writes to inform us that he has arranged to send the steamship, *Norse King*, a splendid vessel of 3,254 tons, fitted with electric light and other modern improvements, to St. Petersburg, for the International Medical Congress. She will also visit on the same cruise the northern capitals, Copenhagen, Stockholm, and Christiania. The cost for a twenty-eight days' cruise will be from 25 guineas. Arrangements are also being made at economical rates for the journey from St. Petersburg to Moscow and the stay in Moscow. Various routes have also been mapped out at the request of the English Committee.

## MEDICAL VACANCIES.

The following vacancies are announced:

Birmingham and Midland Free Hospital for Sick Children.—Resident Medical Officer and Resident Surgical Officer. Salaries, £70 and £50 respectively, with board, washing, and attendance. Applications to the Secretary, Children's Hospital, Steelhouse Lane, Birmingham, by May 5th.

Brighton and Hove Lying-in Institution and Hospital for Women.—House-Surgeon, unmarried, and under 30 years of age. Salary, £80 per annum, with furnished apartments, board, gas, coals, and attendance. Applications to A. F. Graves, Clerk, 76, West Street, by May 7th.

BRIGHTON THROAT AND EAR HOSPITAL.—Non-Resident House Surgeon. Appointment for six months. Salary at the rate of £52 per annum. Applications to the Secretary by May 1st.

BURY DISPENSARY HOSPITAL.—Senior House-Surgeon: doubly qualified. Salary, £100 per annum, with board, residence, and attendance. Applications to the Honorary Secretary, Dispensary, Bury.

CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY, 41, Sloane Square, S.W.—Surgeon. Applications to Austin E. Cooper, M.D., Secretary by May 1st.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY.—Resident House-Surgeon. Appointment for two years. Salary, £100 per year, with board, apartments, and laundress. Applications to the Secretary at the Hospital, Chesterfield, by May 4th.

CITY OF SHEFFIELD.—Medical Officer of Health. Must devote his whole time to the duties. Salary, £500 per annum. Applications to Herbert Bramley, Town Clerk, Town Hall, Sheffield, by April 28th.

COMBINED DISTRICT OF BATTLE, CUCKFIELD, EASTBOURNE, EAST GRINSTEAD, HAILSHAM, NEWHAVEN, TICEHURST, AND UCKFIELD RURAL DISTRICT COUNCILS, AND CUCKFIELD, HAYWARD'S HEATH, AND UCKFIELD URBAN DISTRICT COUNCILS.—Medical Officer of Health. Appointment for three years. Salary, £200 per annum. Between 35 and 50 years of age. Must not engage in private practice. Applications endorsed "Medical Officer of Health" to Edward Waugh, Clerk, Hayward's Heath, by May 1st.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Dental Surgeon and Assistant Dental Surgeon. Must be Licentiates in Dental Surgery. Applications to the Secretary by May 12th.

DEVON COUNTY ASYLUM.—Assistant Medical Officer. Salary, £120 per annum, with board, lodging, and washing; unmarried. Applications to A. E. Ward, c. Bedford Circus, Exeter, by May 3rd.

GENERAL HOSPITAL, Birmingham.—Assistant House-Surgeon: must possess surgical qualification. Appointment for six months. No salary. Residence, board, and washing provided. Applications to H. J. Collins, House-Governor, by May 5th.

GUEST HOSPITAL, Dudley.—Resident Assistant House-Surgeon. Appointment for six months. Board, lodging, and washing in hospital. No salary. Applications to the Secretary by May 6th.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square.—Junior Resident Medical Officer. Salary, £50 per annum, with board, lodging, and washing. Applications to the Secretary by May 5th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, Bloomsbury.—House-Physician, House-Surgeon. Appointments for six months. Salary for each appointment £25, with board and residence in the hospital. Assistant-surgeon must be F.R.C.S.Eng. Applications on forms provided to be sent to the Secretary by April 28th.

ISLANDS OF SANDAY AND NORTH RONALDSHAY.—Resident Medical Practitioner. Salary, £60 per annum, with a house, offices, and garden, rent free. Sealed applications marked "Medical" to William Muir, Temple Hall, Sanday, Orkney, by April 28th.

LIVERPOOL DISPENSARIES.—Assistant Surgeon; unmarried. Salary, £80 per annum, to be increased to £100 after first year's service, with apartments, board, and attendance. Applications to R. R. Greene, Secretary, 34, Moorfields, Liverpool, by April 26th.

MIDDLESEX HOSPITAL.—Assistant Surgeon and Aural Surgeon; must be F.R.C.S.Eng. Applications to F. Clare Melhado, Secretary-Superintendent, by April 26th.

MONTROSE ROYAL ASYLUM.—Medical Superintendent. Salary, £700 per annum, with free house, fire and light. Appointment an annual one. Applications, endorsed "Physician Superintendent," to Alexander Lyell, Solicitor, Clerk to the Board of Managers, 81, High Street, Montrose, by May 1st.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—Full-qualified medical woman, as Assistant Anæsthetist. Appointment for one year. Applications to Margaret M. Banister, Secretary, by April 30th.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road.—Resident Medical Officer and Assistant Resident Medical Officer. Appointment for six months. Salary at the rate of £50 attaches to the senior post. The junior is eligible for election to the senior post. Applications to A. Craske, Secretary, by May 1st.

PARISH OF RONSAY AND EDAYSHAY, Orkney.—Resident Medical Officer. Salary, £51 per annum. Applications to "The Clerk of Parish Council" by April 28th.

ROTHERHAM HOSPITAL AND DISPENSARY. — Assistant House-Surgeon. Appointment for six months. No salary, but board, lodging, and washing provided. Applications to the House-Surgeon by April 27th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Four Examiners in Anatomy and four Examiners in Physiology for the Fellowship. Candidates for the former must be F.R.C.S.Eng. Applications to the Secretary by May 3rd.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Resident Medical Officer. Appointment for six months. Salary at the rate of £100 per annum, with furnished apartments, board, and washing. Applications to the Secretary by May 4th.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. Salary, £50 per annum, with board and lodging; stimulants and washing not provided. Appointment for six months. Applications to the Secretary at the Hospital, Scarborough, by April 26th.

STOCKTON AND THORNABY HOSPITAL, STOCKTON-ON-TEES.—Non-Resident House-Surgeon. Doubly qualified, under 30 years of age. Salary, £200 per annum. Applications to H. G. Sanderson, Secretary, by April 29th.

WINDSOR ROYAL INFIRMARY.—House-Surgeon, unmarried. Salary commencing at £100 per annum, with residence, board, and attendance. Applications to George P. Cartland, Secretary, 13, High Street, Windsor, by April 28th.

## MEDICAL APPOINTMENTS.

ANDREW, J. Grant, M.B., C.M.Glasg., appointed Assistant Surgeon to the Victoria Infirmary, Glasgow.

BENNETT, Norman G., B.A., B.C.Cantab., L.D.S.Eng., appointed Assistant Dental Surgeon to the Dental Hospital of London.

BOND, F. T., M.D.Lond., reappointed Medical Officer of Health to the Tetbury Urban District Council and the Chipping Sodbury Rural District Council.

BUTLER, Alban, L.R.C.P., L.R.C.S.I, appointed Medical Officer of Health for the Thedwastre Rural District, *vice* H. C. Harper, M.R.C.S., L.R.C.P., resigned.

CHETWOOD-AIKEN, K. C., M.B., M.S.Aberd., appointed Senior House-Surgeon to the Royal London Ophthalmic Hospital, Moorfields.

COLLIER, James S., M.D.Lond., B.Sc., M.R.C.P., appointed Junior House Physician to the National Hospital for the Paralysed and Epileptic, Queen Square, *vice* Purves Stewart, M.A., M.B.Edin., promoted.

CREE, J. Douglas, M.R.C.S., M.R.C.P., appointed Clinical Assistant to Out-patients at the Chelsea Hospital for Women, Fulham Road.

DE'ATH, G. H., L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health to the Buckingham Town Council.

DE CLIVE-LOWE, George, L.R.C.P. and S.E., L.F.P.S.G., appointed Medical Officer of Health for Hokiangu, New Zealand.

DUFFY, Joseph Francis, L.R.C.P., L.R.C.S.I., appointed Medical Officer to the Ballinasloe Workhouse, *vice* J. J. Delahunt, L.R.C.P., L.R.C.S.Edin., deceased.

FLOYD, Stephen G., M.D.Lond., M.R.C.S.Eng., L.R.C.P., appointed Medical Officer of Health to the Llandrindod Wells Urban District Council.

FORSYTH, Robert, M.D.Glasg., M.B., C.M., reappointed Medical Officer of Health to the Drighlington District Council.

FOX, G. M., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer to the Workhouse of the Walsall Union.

GOWER, Dr., appointed Medical Officer for the Stockbridge District of the Wortley Union.

HAMERTON, George A., M.D., F.R.C.S.Eng., appointed Medical Officer to the Inland Revenue Department, Somerset House, *vice* the late Dr. George Vine.

HARPER, H. Cecil, M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer of Health to the Stowmarket Urban District, *vice* J. W. Harper, M.R.C.S.Eng., resigned.

HAYWARD, T. E., M.B.Lond., F.R.C.S.Eng., reappointed Medical Officer for the Haydock Urban District Council.

HOLDEN, John S., M.D., L.R.C.S., appointed Medical Officer of Health to the Glemsford Urban District Council.

JENKINS, T. W., M.A., M.D.Glasg., appointed Assistant Surgeon to the Victoria Infirmary, Glasgow.

KEWLEY, A. G., B.A.Oxon., L.R.C.S., L.R.C.P.Edin., L.F.P.S.Glasg., appointed House-Surgeon to the Royal Southern Hospital, Liverpool.

KINGDON, T. R., B.A.Camb., M.R.C.S., L.R.C.P., appointed House-Surgeon to Weston-super-Mare Hospital and Dispensary, *vice* C. Gurney, resigned.

LIVINGSTON, G. R., M.B., C.M., appointed Resident Medical Officer to the Royal Edinburgh Hospital for Sick Children.

LOCKWOOD, J., M.R.C.S.Eng., L.S.A., appointed Medical Officer of Health for the Kirkburton Urban District.

LUCAS, C. R., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer to the Fairfield House Workhouse of the Chelsea Parish.

MCCOMBE, W. T., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer to the Workhouse and the Beccles District of the Wangford Union.

MCLAREN, Dr., appointed Medical Officer for the No. 3 District of the Wortley Union.

MAGORIS, N., M.B., B.S., appointed Clinical Assistant to Out-patients at the Chelsea Hospital for Women, Fulham Road.

NICHOLL, M. P., M.R.C.S., L.R.C.P.Lond., appointed Second Assistant Medical Officer to the St. Marylebone Infirmary, North Kensington, *vice* G. W. Mason, resigned.

PARKER, J. E., M.R.C.S.Eng., L.R.C.P.I., appointed Medical Officer for the Ince-in-Makerfield District of the Wigan Union, *vice* W. Hall, L.R.C.P., L.R.C.S.Edin., resigned.

PARKHURST, Dr., appointed Medical Officer for the Gedney and Sutton District of the Holbeach Union.

PINEO, E. G. D., M.R.C.S., L.R.C.P., appointed Provident Medical Officer to Weston-super-Mare Hospital and Dispensary, *vice* A. L. Webb, resigned.

REDMAYNE, Thomas, M.B., M.A.Cantab., F.R.C.S., appointed Honorary Assistant Surgeon to the Hastings, St. Leonard's, and East Sussex Hospital.

RITCHIE, William T., M.B., C.M., appointed Resident Medical Officer to the Royal Edinburgh Hospital for Sick Children.

ROBERTS, Sidney John, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator to the No. 3 District of the Aston Union, *vice* W. G. Cresswell, M.D., resigned.

SPRAKELING, R. J., M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health to the Bootle Town Council.

STEWART, Purves, M.A., M.B.Edin., M.R.C.S.E., appointed Senior House Physician to the National Hospital for the Paralysed and Epileptic, Queen Square, *vice* Dr. W. J. Harris, resigned.

WATTS, James A. W., M.B., B.S.Durh., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer to the Post Office at Hyde, *vice* Mr. G. W. Sidebotham, resigned.

WOODFORD, E. R., M.D.Aberd., M.R.C.S., L.S.A., reappointed Medical Officer of Health to the Ventnor District Council.

YOUNG, Meredith, M.B., C.M.Edin., D.P.H.Vict., appointed Medical Officer of Health to the Borough of Crewe.

## DIARY FOR NEXT WEEK.

### MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Mr. Howard Marsh: On Senile Tuberculosis and Subcutaneous (Tuberculous) Ulceration. Mr. W. Armstrong (Buxton): On the Value of an exclusively Red Meat Diet in Certain Cases of Chronic Gout.

### TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 P.M.—Adjourned discussion on Dr. J. W. Carr's paper on Non-Tuberculous Posterior Basic Meningitis in Infants. Dr. Francis Warner: On the Relations between Bodily Development, Nutrition, and Brain Conditions in their Pathological Aspects.

### WEDNESDAY.

NORTH-WEST LONDON CLINICAL SOCIETY, North-West London Hospital, 8.30 P.M.—Clinical Cases.

THE CLINICAL MUSEUM, 211, Great Portland Street, 4 P.M.—Demonstration by Mr. Jonathan Hutchinson.

### THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 P.M.—Mr. Rowell: On The Anæsthetisation of Children.

### FRIDAY.

EPIDEMIOLOGICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8 P.M.—Dr. Louis Parkes: On Some Observations on the Infection of Diphtheria, and its Relation to School Closure.

BRITISH LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL ASSOCIATION, 11, Chandos Street, Cavendish Square, W., 3 P.M.—Cases will be shown by Dr. Macnaughton Jones, Dr. F. Tresilian, Mr. G. C. Wilkin, and Dr. Milligan. A discussion on The Indications for and the Methods of Removal of Naso-pharyngeal Adenoid Vegetations will be opened by Drs. Greville Macdonald and Dundas Grant.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

BRAITHWAITE.—On the 13th inst., at The Sycamores, Golcar, near Huddersfield, the wife of Charles Bernard Braithwaite, M.B.Lond., of a daughter.

CRESSEY.—On April 10th, at Timaru, Torquay, the wife of G. H. Cressey, M.R.C.S., L.R.C.P.Lond., of a daughter.

HIRSCH.—At Charlinch, Rectory Place, Woolwich, the wife of Charles T. W. Hirsch, M.R.C.S.Eng., L.R.C.P.Lond., F.C.S., District Medical Officer, Colonial Medical Service, Fiji, of a daughter.

LUSK.—On April 11th, at Victoria Road, New Brighton, the wife of T. Gibson Lusk, M.B., C.M.Edin., of a son.

TIBBETTS.—On April 14th, the wife of J. Tibbetts, L.F.P.S.G., etc., of Fountain Square, Fenton, of a son.

WILSON.—At Elm Lodge, Anstruther, on the 15th inst., the wife of John J. Wilson, M.D., of a son.

### MARRIAGES.

ADAMSON—OMMANNEY.—On the 20th inst., at St. Mary Abbott's, Kensington, by the Rev. J. P. Garrick, Rector of Blofield, Norwich, and Rural Dean, assisted by the Rev. J. S. Clementson, Robert Oswald Adamson, of Ashton Terrace, Glasgow, M.A., M.B., to Evelyn Mary, daughter of the late Commander Henry Mortlock Ommanney, R.N., and great-niece of the late General Francis M. M. Ommanney, R.A., of Great Yarmouth.

FLEMING—HOLLAND.—On April 20th, at St. Helen's Church, Cornhill-on-Tweed, by the Rev. H. T. Bowlby, M.A., assisted by the Venble. the Archdeacon of Lindisfarne and the Rev. A. B. Coulson, M.A., Vicar of Branxton, Robert Alexander Fleming, M.D., F.R.C.P.E., Edinburgh, to Eleanor Mary, only daughter of the Rev. W. L. Holland, M.A., Rector of Cornhill.

ROUND—D'ALMAINE.—On the 14th inst., at the Parish Church, Sutton Courtney, by the Vicar, the Rev. H. Rice, assisted by the Rev. E. Harrington, R. Wynne Round, M.R.C.S., L.R.C.P., L.D.S., of 7, Wimpole Street, W., youngest son of W. J. Round, J.P. of Ruthin, Denbighshire, to Beatrice Mary, youngest daughter of H. D'Almaine, of Sutton Courtney, Berks.

### DEATHS.

HARPER.—On April 13th, at Stowmarket, Suffolk, John William Harper, M.R.C.S.Eng., in his 71st year.

HENDERSON.—At 2, Meadow Bank Place, Partick, on Thursday morning, 15th inst., Dr. Alexander Henderson, Surgeon. Friends will kindly accept this intimation.

JAMIESON.—At Rome, on the 17th inst., Ethel Mary (*née* Hensman), wife of Dr. Adam Jamieson.

TENCH.—On April 9th, suddenly, at his residence, Roxburghe House, Reading, Charles Higatt Tench, M.D., second son of the late Samuel Tench, Esq., J.P., of Ballyhealy House, co. Wexford, Ireland, aged 40 years.

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances*—Daily, 2. *Operations.*—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR.—*Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—Daily.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30 Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations.*—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations.*—M. F. S., 2.

LONDON. *Attendances.*—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operations.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations.*—M. Th., 4.30.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations.*—F., 9.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations.*—W., 1.30; S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPEDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30 *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 3; Dental, Th., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPEDIC. *Attendances.*—Daily, 1. *Operations*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th. 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations.*—M. Tu. Th. F. S., 1.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males S., 3; females; W., 9.45. *Operations.*—M., 2; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 3.0; Skin, M. Th., 3.30; Electro-therapeutics, M. Th., 2.30; Dental, W. S., 3.30; Children's Medical, Tu. F., 9.15; Children's Surgical, S., 9.15. *Operations.*—M., 2.30.; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M. 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Th., 2.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S. 10. *Operations.*—F., 2.30.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, Tu. F., 9.30; Ear, M. Th., 9.30; Skin, W., 1; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

## LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

S. S. M. asks where vapour baths can be had in London, and whether any firm would supply a vapour bath for a private house.

A COUNTRY PRACTITIONER will be obliged for any information as to suitable books on the subject of how to acquire the power of hypnotising.

S. W. desires to hear of a house or an institution which would receive an infant (female) semi-paralysed and suffering from congenital syphilis; the terms must be extremely moderate.

J. N. asks for advice as to the best book on chemistry to read for the Entrance Examination for the Naval Medical Service. He desires to know whether there is published a syllabus of the work required in this subject.

Q.E.D. asks for advice in the treatment of a patient who is awake and restless for hours at night by a burning tingling feeling in the soles of the feet. The only way to get relief is to get out of bed and walk about or put the feet in cold water. It occurs nearly always in warm weather, but also at other times. There is no dermatitis or anything pathological.

### INSTRUCTION IN DENTISTRY.

DENS writes: I am anxious to obtain some practical knowledge of tooth extraction, which I find essential in a country practice. As I am spending the greater part of May in town, I thought I might accomplish this by attending the out-patients' department of some hospital (dental?).

*** Our correspondent might obtain the practice he desires in the dental department of a general hospital. Dental hospitals do not take medical practitioners for shorter periods than six months.

### INOCULATION FOR BLACK QUARTER (CHARBON SYMPTOMATIQUE).

J. D. writes: Did M. Pasteur prevent black quarter in cattle by inoculation? Has his method been looked on as successful, and is it much in use? Where can I see details?

*** We know of no publication referring to preventive inoculation against black quarter by Pasteur. MM. Arloing, Cornevin, et Thomas issued a voluminous account of their experimental work *Le Charbon Symptomatique du Bœuf* (Paris: Asselin et Houzeau. 1887). An account of the earlier work of these observers is to be found in the volume *Microparasites in Disease* (p. 616), published by the New Sydenham Society in 1886. The method indicated by these workers is largely employed in France and Switzerland, and statistics indicate great reduction in the mortalities. In the *Journal of the Royal Agricultural Society* for 1888 may be found a report on this subject by Professors Robertson and Penberthy. No means of protective inoculation against black quarter is much in use in Great Britain.

## ANSWERS.

L. E. W.—We find on inquiry that Mr. Edward East, F.R.C.S., 16, Upper Berkeley Street, London, W., continues to receive and send out to suitable recipients gifts of clothing of all sorts sent to him for the purposes of the British Medical Benevolent Fund.

### NON-MENSTRUATION AND MARRIAGE.

DR. W. H. AXFORD (Southsea) writes: Some years since I had a patient who never menstruated until after her first pregnancy, which occurred ten years after her marriage.

VIATOR writes in reply to "Nemo": I attended a patient in several confinements who had never menstruated: in fact, she was the plump mother of twelve children. Thus non-menstruation seems no bar to marriage and healthy offspring.

### FOUNTAIN PENS.

IN reply to F. C. W., Dr. Henry Dutch (London, W.), Dr. Frederick H. Spooner (Clapton, N.E.), and Dr. P. Miall (Bradford), write to recommend the Swan fountain pen sold by Messrs. Mabie, Todd and Bard, 93, Cheapside, and 95a, Regent Street, W. Dr. Spooner adds that the pen which he has used for some months cost 10s. 6d., but that he finds it desirable to employ Faber's blue black writing ink. Dr. F. W. Ward (Ealing, W.), writes to recommend Wirt's fountain pens, which he has had in use for four years. He adds that he has not found any ink suitable for use with them, and prefers a solution of aniline blue black, 5 grains to the ounce of water. Dr. James Patrick (Glasgow) writes to recommend, after five years' continuous use, including shorthand writing, the Pelican pen made by Messrs. De la Rue and Co., Bunhill Row, London, E.C. He finds the Swan pen also satisfactory.

### FEES FOR MEDICAL EXAMINATION FOR ASSURANCE COMPANIES.

A CORRESPONDENT has drawn our attention to a circular letter issued by the Pearl Assurance Company, and signed by their consulting physicians. Accompanying the circular is a revised scale of fees. Our correspondent complains that there is a tendency to cut down assurance fees, but the circular hardly justifies this statement. In the ordinary branch for proposals of £1,000 and upwards £2 2s. will be paid. This is a movement in the right direction, as most offices do not pay more than £1 1s. whatever be the amount of assurance. For proposals of £300 and under £1,000 there will be paid £1 1s. Under £300 the fee will be only 10s. 6d. This is too small a fee, as in the circular it is stated that an examination of the urine is required in all proposals of £100 or over; and we are of opinion that if such an examination is required the fee should be £1 1s. It is so clearly to the interest of assurance companies to enlist the sympathy and assistance of medical men that we have no doubt that they will ere long recognise that, unless the work entailed in the examination is fairly remunerated, it is liable to be scamped. If any company should treat its examiners with want of consideration they have the remedy in their own hands by declining to act for it, and by recommending some other company to their patients. The power of the medical profession in this direction would, we believe, be sufficient to compel life assurance companies to yield to its just demands.

## NOTES, LETTERS, Etc.

### LORD LISTER'S HOUSE SURGEONS AND DRESSERS.

OWING to a printer's error the date of the dinner to Lord Lister which is being organised by his former house-surgeons and dressers was incorrectly given in the BRITISH MEDICAL JOURNAL of April 17th. It will take place at the Café Royal, Regent Street, on Wednesday, May 26th.

### THE NEW TUBERCULIN.

THE FARBWERKE VORM. MEISTER, LUCIUS, AND BRUNING ask us to state that they are now in a position to supply the "New Tuberculin Koch," having received a consignment from the works.

### THE REPORT OF THE HOSPITAL REFORM ASSOCIATION ON SPECIAL HOSPITALS.

WE have received from Mr. Ernest Dereuth, Secretary of the City Orthopædic Hospital, a letter complaining that the position of his hospital had been misrepresented in the article on the subject in the BRITISH MEDICAL JOURNAL of April 10th. He desires to state that strict inquiries are made. The table appended to the report of the Hospital Reform Association states that the total amount received from paying patients in 1895 was only £19, and adds that the Secretary appeared to be willing to give all information.

### DR. RENTOUL'S ELECTION EXPENSES AND THOSE INCURRED IN OPPOSING THE FOUR MIDWIVES BILLS.

MR. ALFRED COX, M.B., Honorary Secretary and Treasurer (West View, Gateshead-on-Tyne) writes: It is intended to close this fund next week, when a statement will be made of the exact amount subscribed. I may say now that, after deducting expenses, we are about £9 short of the sum asked for at first. As several practitioners who have tacitly promised to subscribe have as yet not forwarded their donations, I beg they will send them without delay, and allow me to say next week that the sum desired has been subscribed.

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| R. Moorsom Wood, Ellesmere, Salop... ... ... | 0 | 2 | 6 |
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| J. F., Fulham... ... ... | 0 | 2 | 6 |

### THE SOCIETY OF APOTHECARIES AND THE RECORD REIGN.

MR. E. ST. G. QUEELY (London) writes: I see a correspondence has arisen in reference to Licentiates of Apothecaries' Society, and while agreeing with what is said about raising the tone of the L.S.A.'s and giving them a title which would be better understood, I certainly think that all on the *Register* should benefit by the change, not merely the men of the last few years. I "passed" in end of 1885, with several others, when the Society had elected their new examiners, and paid £10s. 10s., and certainly would feel greatly annoyed if I was debarred from participating in any change. I may add that I have travelled all over the world, have held both Government and hospital appointments, and never had any difficulty with my L.S.A.

### GLYCERINISED CALF LYMPH.

MR. W. FAULKNER, M.R.C.S. (Endell Street, W.C.) writes: It would appear from your remarks *re* glycerinised calf lymph that the method was quite new. I beg to say that about or before 1880 some medical man wrote to the *Lancet* or BRITISH MEDICAL JOURNAL, or to both, pointing out the good results obtained by mixing glycerine with calf or human lymph, both for preserving or making the lymph go a long way when scarce. I immediately adopted its use, and since then have sent out many thousand tubes to the profession. I think the credit of the idea should be given to the gentleman who first recommended it.

*** If our correspondent will refer to the BRITISH MEDICAL JOURNAL of January 23rd, 1897, p. 223, he will find that we then stated that the use of glycerine as a preservative for vaccine lymph had been suggested six or seven years ago by Dr. Monckton Copeman, who pointed out that the glycerine, after acting for a period of about a fortnight, had the power of destroying and rendering innocuous all extraneous organisms without diminishing the action of the vaccine virus itself. Glycerine, we believe, was used at an earlier date by Dr. Stephen Mackenzie, but to Dr. Monckton Copeman belongs the merit of being the first to point out its special advantages as a bactericide, a point which could hardly have been ascertained in 1870, the date of the epidemic during which Dr. Mackenzie used it. The importance of the observation does not

seem to have been recognised in this country, but both in France and in Germany glycerine has for some time been in use as a regular addition to calf vaccine lymph.

PEDUNCULATED GROWTH IN THE TRACHEA OF A CANARY.

DR. J. LEE JARDINE (Capel, Surrey) writes: In the newly-issued volume of the Pathological Society's *Transactions* there is a record on p. 6 of a polypoid growth in the trachea of a child. It may be of interest if I give a brief note of a similar occurrence in a bird.

A yellow canary, aged 2 years, healthy, active, and very tame, accustomed to fly on to the breakfast table daily, had a slight attack of dyspnœa in the middle of August. On September 4th, shortly after taking hempseed, dyspnœa again came on; the breathing was not quickened, but was very laborious; the bird died in two hours.

*Post mortem* the body was everywhere healthy; but in the straight portion of the trachea, an inch from its upper extremity, was a small globular tumour a little over 1 mm. in diameter, apparently filling up completely the lumen of the tube, and attached by a very minute pedicle to the mucous membrane. The tumour was covered externally by a membrane continuous with that of the trachea. On section the centre was of a yellow colour, somewhat abruptly contrasting with the periphery. Under the microscope it was found to be composed of large flattened cells, chiefly with one nucleus, packed closely in concentric layers. The central yellow was owing to masses of fat globules soluble in ether. There was no apparent stroma.

ANTIDIPHTHERIA SERUM IN CROUP.

DR. J. W. MARTIN (Burnfoot, Cluden, Dumfries, N.B.) writes: On April 7th I was called to J. W., aged 9, whom I had previously attended for whooping-cough and its sequelæ. I found him suffering from an acute attack of croup, which had come on in the night. The temperature was 103°, pulse 142, and the face was suffused owing to the difficulty of breathing and the expiratory efforts. There was nothing local to be seen, only marked congestion and yellow mucous secretion forced upwards. I prescribed for him; but returned later in the afternoon, when, there being little change of temperature, etc., I injected into the back 15 to 20 minims of liquid antidiphtheria serum, such as I had used with effect in a case a few weeks before.

On April 8th I found the patient practically well, all the distressing symptoms having disappeared, with the temperature and pulse normal. The mother states that he began to improve four hours after the injection, and everyone noticed the rapid recovery. He has had croup before, but was never so ill as he was on April 7th, nor fevered in any way. Would the serum be attacking the same toxic principle as it does in diphtheria?

ANTITOXIN AND TRACHEOTOMY.

DR. J. M. HOBSON (Croydon) writes: I presume that practitioners generally now admit the identity of membranous croup with diphtheria, but I think it is not fully realised that this identity carries with it a corresponding reaction to diphtheria antitoxin. A case has recently come under my notice in which this treatment obviated the necessity of tracheotomy. The antitoxin was pushed pretty freely, and although I thought at one time that tracheotomy would be imperative the urgent symptoms subsided, and up to the present the child has made a steady recovery. It is a great comfort to me to think that this operation of tracheotomy may now, in many cases at any rate, be obviated.

A NOTE ON BICYCLE SADDLES.

DR. T. PRICHARD ROBERTS (Harrogate) writes: During the last twenty years I have been trying various shaped saddles, including a pneumatic. I have now found one which is perfectly comfortable, easily adjusted to suit any sized rider, and causes no perineal pressure. It is known as Pattison's Hygienic Bifurcated Saddle. I have ridden one 500 miles during the last four months without causing any unpleasant pressure, and have recommended it to several of my friends, who are equally pleased. The price, I believe, is £1. It is easy to adjust, one nut altering the position in a few seconds.

A CAUTIOUS SOCIETY.

A "VELOCIPEDIC SOCIETY," with the title "La Tortuga," has been founded at Madrid, with Dr. Tomas Valera Jimenez, a well-known medical practitioner of the Spanish capital, as its Vice-President. The object of the Society is said to be definitely hygienic, and its name ("The Tortoise") would appear to suggest that "scorching" and record breaking will not be encouraged.

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LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) A. C. E.; A. K. J.; Mr. W. C. Alexander, Bowdon; W. H. Axford, M.B., Southsea. (**B**) Mr. H. C. Burdett, London; Bedfordshire; Mr. F. Bisset, Glasgow; Biuret; Mr. G. A. G. Browne, London; Mr. G. L. Barker, Walton-on-the-Naze; Dr. Bond, Gloucester; Mr. P. L. Benson, Winslow; Mr. W. M. Beaumont, Bath; E. Buxton, M.B., Liverpool; Mr. C. R. Bamford, Uttoxeter; Mr. J. C. Braine-Hartnell, London; Mr. J. P. Bush, Clifton. (**C**) Dr. J. S. Cameron, Leeds; Dr. E. J. W. Carruthers, Congleton; Dr. J. Charles, Stanley; Correspondent; Country Practitioner; C. H. M.; Mr. G. de Clive Lowe, Hokionga, N.Z.; A. Cox, M.B., Gateshead. (**D**) Mr. P. Dunn, London; D. J. G.; Dr. Dureau, Paris; Mr. E. Dereuth, London; A. C. Dutt, M.B., Hull; Dens; Dr. H. Dutch, London; Mr. R. G. C. Durdin, Great Bedwyn. (**E**) Elberfeld Farbenfabriken Company, Limited, London. (**F**) Mr. Fenwick, London; Dr. P. S. Fentem, Bakewell; Mr. W. Faulkner, London; Foreigner; Dr. A. R. Friel, Waterford. (**G**) Mr. M. Gloag, Perth; J. Gledhill, M.B., Weaste; Mr. J. B. Gabe, Morriston. (**H**) Mr. T. G. Horder, Cardiff; Mr. F. Horseman, Stafford; Dr. T. Hayes, London; Dr. J. S. Haldane, Oxford; Mr. G. Hope, London; Mr. B. Giles, Brobury; Mr. D. Hutcheon, Capetown; Dr. G. A. Hamerton, London; Dr. H. Habgood, Eastbourne. (**I**) Inquirer. (**J**) A. K. Jarratt, M.B., Bridlington Quay; Mr. J. Jones, Bournemouth; Dr. T. Jackson, Hull; Mr. W. M. Jones, Rotherham; Mr. H. H. Jennings, London; Dr. T. A. Jenkins, Glasgow. (**K**) Mr. E. Kent, London; Dr. R. Kirk, Glasgow; J. B. Kerr, M.B., Bury. (**L**) Dr. H. S. Lunn, London; Mr. A. D. H. Leadman, Pocklington; Mr. J. R. Lunn, London; R. T. Lewis, M.B., Willingham; Dr. W. Leask, Birkenhead; Dr. J. F. Little, London; (**M**) Dr. G. G. Morrice, Salisbury; Mr. W. L. Morgan, Oxford; Mr. J. P. Monks, Bolton; R. Murison, M.B., Dundee; Mr. P. E. Miall, Bradford; A. E. Maylard, M.B., Glasgow; M.D., Oxon; Dr. W. Milligan, Manchester; C. K. Millard, M.B., Birmingham; J. Marsh, M.B., Atherton; M.B., Dublin; B. May, M.B., Birmingham. (**N**) N. H. R.; Nottingham Medico-Chirurgical Society (Secretary), Nottingham; Mr. E. Neild, Manchester. (**O**) J. J. O'Hagan, M.B., Garston; Messrs. W. Oppenheimer, Son, and Co., London; Nr. E. A. Onyon, Eye; Omega. (**P**) Messrs. Parke, Davies and Co., London; Mr. H. J. Prangley, London; Dr. W. H. Packer, Cressage; Dr. C. H. Phillips, Hanley. (**Q**) Mr. J. E. St. G. Queely, London; Queen Charlotte's Lying-in Hospital (Secretary), London. (**R**) Dr. J. S. R. Russell, London; Royal Institute (Secretary), London; Dr. J. Ross, Clitheroe; Mr. A. Russell, Glasgow; Mr. T. Redmayne, St. Leonard's-on-Sea; Mr. P. Q. Roberts, Birmingham; Mr. H. Rainsford, London; Dr. J. C. Ros, Manchester; Dr. A. Robinson, Rotherham; Dr. R. M. H. Randell, Beckenham; Messrs. Richards and Ward, London. (**S**) Dr. J. O. Symes, Bristol; Mr. E. A. Swainson, London; Dr. G. E. Shuttleworth, Richmond; Dr. J. Stewart, Glasgow; Mr. G. Stoker, London; Dr. L. E. Shore, Cambridge; Dr. J. G. Sharp, Leeds; S. S. M.; S. W.; Dr. F. H. Spooner, Clifton; Dr. S. Sunderland, London; Mr. J. Stock, Plymstock. (**T**) Dr. J. C. Taylor, Las Palmas; Dr. N. Tirard, London; Mr. J. Thomson, Blaenavon; Mr. J. W. Thomson, Montevideo. (**U**) Unattached. (**V**) Vive ut Vivas; Viator. (**W**) G. Wherry, M.B., Cambridge; G. A. Wright, M.B., Manchester; Dr. T. J. Wood, Bradford; Mr. G. E. Williamson, Newcastle-on-Tyne; J. A. Watts, M.B., Hyde; Dr. W. W. Wagstaffe, Sevenoaks; Mr. F. H. Ward, London; Mr. W. T. Woollcombe, Plymouth; etc.

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## BOOKS, ETC., RECEIVED.

Transactions of the Pathological Society of London. Vol. XLVII. London: Smith, Elder, and Co. 1896.

Hygiène Sociale: La Prostitution Clandestine à Paris. Par Dr. O. Commenge. Paris: Schleicher Frères. 1897.

Thérapeutique du Paludisme. Par F. Burot et M. A. Legrand. Paris J. B. Baillière et Fils. 1897. Fr. 3.50.

Chirurgie des Centres Nerveux. Par Dr. L. Glantenay. Paris: J. B. Baillière et Fils. 1897. Fr. 5.

Traité de Chirurgie Clinique et Opératoire. Par A. Le Dentu et P. Delbet, Paris: J. B. Baillière et Fils. 1897. Fr. 12.

The Disorders of Digestion in Infancy and Childhood. By W. S. Fenwick. M.D., B.S. London: H. K. Lewis. 1897. 10s. 6d.

Plumbing. By W. P. Buchan, R.P. London: Crosby, Lockwood and Son. 1897. 3s. 6d.

Aphasia and the Cerebral Speech Mechanism. By W. Elder, M.D., F.R.C.P. London: H. K. Lewis. 1897. 10s. 6d.

Antiseptic Principles for Nurses. By C. E. Richmond, F.R.C.S. London: J. and A. Churchill. 1897. 1s.

Materia Medica, Pharmacy, Pharmacology, and Therapeutics. By W. Hale White, M.D., F.R.C.P. Second Edition. London: J. and A. Churchill. 1897. 7s. 6d.

Atlas der klinischen Untersuchungs-methoden nebst Grundriss der klinischen Diagnostik und der speziellen Pathologie und Therapie der inneren Krankheiten. Von Dr. C. Jakob. 1 Theil. Munich: J. F. Lehmann. 1897. M. 10.

*** In forwarding books the publishers are requested to state the selling prices.

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**SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.**

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N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

# A CLINICAL LECTURE
ON A
# CASE OF HYPERTROPHY OF THE GUMS.

*Delivered at University College Hospital*

BY CHRISTOPHER HEATH, F.R.C.S.,
Holme Professor of Clinical Surgery.

I HAVE had recently in my wards a remarkable and somewhat uncommon case of hypertrophy of the gums, on which I propose to make a few remarks. The patient was a young man of 26, whose appearance is shown in the photograph kindly taken by Mr. Clover. The hypertrophy of the upper lip and the fulness of the cheeks were the most prominent features when the mouth was closed, but upon opening it the remarkable condition of the gums shown in Fig. 1 was at once visible,



Fig. 1.

and the open mouth reminded one of the mouth of a hippopotamus or rhinoceros on a small scale.

The history was that the enlargement of the gums was first noticed four years ago, when the patient went to the Middlesex Hospital and was admitted under the late Mr. Hulke. I am enabled by the kindness of Mr. Storer Bennett to show you two casts which he took at that time, and which show comparatively slight hypertrophy of the gums and no displacement of the teeth. Mr. Hulke cut away the hypertrophied gums of both jaws, and the patient left the hospital relieved. Three months afterwards he noticed that the growth had recommenced, and though it has steadily made progress for the last three years, he has had no further advice for it.

On admission here the external deformity was well marked, and on opening the mouth the gums of both jaws were seen to be enormously hypertrophied, and most of the teeth to be loosened and displaced. The palate looked at first like a cleft palate, but this was due to the hypertrophied gum on each side covering the palate nearly to the median line, where a small interval was left. This condition I have met with before, and I show you a cast of the mouth of a young lady who consulted me ten years ago, in whom a similar condition existed.

As the parts are evidently very vascular, and as I knew by previous experience of similar cases that the bleeding would be free, I took the precaution of having the patient in the recumbent position, with his head dependent over the end of the operating table. I then rapidly extracted all the loose teeth of the upper jaw, leaving only the two canines, which were firm, and cut away with scissors the hypertrophied gum down to the alveolus, the edge of which I removed with bone forceps. The bleeding was free, and especially from the folds which enveloped the palate, but was stopped partly by the use of Paquelin's cautery, and partly by plugging the sockets of the teeth.

The patient made a good recovery, and a fortnight later I performed a similar operation on the lower jaw, removing all the loose teeth except the canines and bicuspids, and clearing away freely the hypertrophied gums. The patient's condition now, two months after the last operation, is very satisfactory, the gums being in a healthy condition, and there being nothing abnormal beyond a little looseness of the mucous membrane of the lips.

A microscopical examination of the parts removed, by Mr. Drew, showed that the mucous membrane covering the growth was healthy, the bulk of it being composed of delicate bundles of wavy fibrous tissue, which interlaced. Between the bundles were numerous cells, in some places forming large clusters. Numerous vessels were scattered through the growth.

Hypertrophy of the gums is a by no means common affection. The first case recorded was, I believe, by Salter, the case occurring at St. George's Hospital in 1859, under Mr. Pollock, in a girl aged 8. Salter speaks of it as a congenital affection, but this, I think, is a mistake, for the affection, though occurring in children, has never, so far as I know, been noticed at birth.

Just thirty years ago I saw a case in this hospital under Mr. Erichsen, in a child of $2\frac{1}{2}$ years, in whom the affection had shown itself at the age of 7 months, when the teeth began to appear. Mr. Erichsen removed the exuberant growth freely, and cauterised the cut surfaces, but a permanent cure was not brought about, for, when 7 years of age, the child was brought before the Royal Medical and Chirurgical Society by the late Dr. John Murray, to illustrate a paper on Three Peculiar Cases of Molluscum Fibrosum in Children of One Family. Mr. Erichsen's patient was the eldest of the three, and her portrait (which was shown) bears out the description given of the hypertrophied condition of the gums. The other children, aged 4 and 2, had similar conditions of the gums.



Fig. 2.

Ten years later I had a similar case in this hospital in a girl of $4\frac{1}{2}$ years, who was one of five otherwise healthy children. The swelling of the gums had been noticed for two years, and when she was admitted the gums were enormously hypertrophied, as is shown in the casts taken at the time. Under chloroform I removed each hypertrophied gum and alveolar border in one piece, which I have had preserved in the museum, and she made a good recovery. About the same time I had a case in private in the person of a young man aged 26, in whom the hypertrophy affected only one side of the lower jaw, extending from the right wisdom to the left canine tooth. The affection had been noticed from early childhood, and gave no pain. Here I removed the affected alveolus with bone forceps, and a complete recovery ensued, which I know to be permanent, as I happen to have heard from the patient quite recently.

It is remarkable that in most of the cases of children affected by hypertrophy of the gums some want of mental development was noticed, but certainly in the two young men upon whom I have operated no such deficiency was to be observed.

A remarkable instance of the disease, also occurring in an adult, was recorded by Mr. MacGilivray, Surgeon to the Bendigo Hospital in Australia, and the condition of the patient is shown in Fig. 2. The patient, a woman aged 29, seemed to have suffered from the affection in both jaws soon after birth. At the age of 10 portions of the gum were cut away, and several teeth extracted, and she had herself in later life cut away portions of the projecting gum with a razor.

All these operations gave rise to severe hæmorrhage. The enormous growth shown in the drawing seemed to have originated mainly from the palatal portion of the gums, the labial surface being comparatively sound. Mr. MacGilivray removed the hypertrophied gums and alveoli with perfect success.

A condition of outgrowth from the gum, due to the irritation of tartar or of artificial teeth, somewhat resembling hypertrophy of the gums but much less vascular, is known as polypus of the gums; and it happens that I had a remarkable instance of this last week. You will remember an old blind woman who was sent to me with a large fleshy mass projecting from the upper alveolus, which I removed at once by tearing it from its attachment with the finger, the resulting hæmorrhage being slight. We found that it had sprung from the upper alveolus, in which the teeth were broken and encrusted with tartar, and it is evident that this fleshy mass was nothing more than a local hypertrophy of the gum, the result of irritation. This must not be confounded with the true fibrous epulis which springs from the periosteum of the alveolus, nor again with the vascular myeloid growth which springs from the interior of the alveolus, and forms a maroon-coloured tumour—badly called a myeloid epulis—of which we have recently had an example in a young girl aged 17.

## GIDDINESS AND STAGGERING IN EAR DISEASE.

II.[1]

By THOMAS BARR, M.D.Glasg.,

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### Middle-Ear Giddiness.

This form of giddiness is produced by pressure primarily applied to the walls of the middle ear. The pressure of inflammatory products is most common, but the pressure of air, water, or medicated solutions may also give rise to giddiness. While it is probable that sudden *labyrinthine* pressure invariably excites giddiness, it is not so in the case of the middle ear, as many persons have augmented middle-ear pressure without giddiness. While primarily applied to the walls of the middle ear, the pressure is in many cases transmitted to the labyrinthine fluid, the tension of which it increases with irritating effects upon the vestibular and ampullary nerve endings. Such transmission of pressure frequently takes place through the fenestral openings into the labyrinth, especially if there be an abnormally shallow condition of the recesses of the fenestræ. While, if there be carious erosion on the inner tympanic wall, pressure may then act directly on the contents of the cochlea, vestibule, or external semicircular canal. Thus, Dr. Macewen informs me of a case in which granulation tissue was found protruding from a carious opening at that part of the external semicircular canal where it comes close to the inner wall of the tympanum, giving rise to great disturbance of the equilibrium, taking the form of backward and forward oscillations of the head and body. On the other hand, I removed from a boy's ear a sequestrum which included the whole labyrinth, and yet no disturbance of equilibrium had been observed. It is very probable, however, that many cases of giddiness from middle-ear pressure are due, not to this direct effect upon the fluid of the labyrinth, but to reflex action excited by irritation of the nerves distributed in the mucous membrane of the middle ear. There is not only a close relationship between certain branches of the auditory nerve and the centre of equilibrium in the cerebellum, but there seems also to be a reflex connection between the nerves of the middle ear and this centre, so that when the former are irritated the latter is apt to become disturbed. It may be that the reflex efforts are produced indirectly through the medium of connecting branches of the auditory nerve. No doubt, as we shall find afterwards, there are persons specially predisposed by certain natural peculiarities of the nervous system, or by some disturbance of the health, to these reflex influences, and thus, as we have seen, many persons may have augmented middle-ear pressure without giddiness, while others in the same circumstances may be violently affected.

### Middle-ear Giddiness contrasted with Labyrinthine.

The whole of the symptoms of a true Ménière's attack may be produced by middle-ear pressure, but in some the sickness and vomiting are absent. The vertigo may be extreme, or it may amount to no more than a staggering backwards when the head is suddenly turned round, especially to the affected side, with a tendency to fall forwards when the head is moved again to the front. Some patients complain of a staggering tendency in the dark, while others say they tend to fall if they turn quickly or stoop. An important distinction between this form of vertigo and the labyrinthine variety is that here the whole of the symptoms frequently disappear, the accessibility and nature of the region affected enabling us to remove, by operative or other treatment, the pathological cause. We found also in the class of cases due to primary labyrinthine mischief that while the vertigo, sickness, and vomiting usually passed off, the noises and deafness generally remained permanent.

In the present class of cases, on the contrary, not only are the vertigo, sickness, and vomiting amenable to treatment, but the noises in the ear are usually got rid of, while the hearing is in most cases much improved, if not entirely restored. In the present class of cases, also, the giddiness is frequently preceded by other symptoms of ear disease (unless in cases due to sudden air or water pressure), such as pain in the ear, defective hearing, subjective sounds, discharge from the ear, etc., in this way contrasting with the labyrinthine class of cases, in which we found that the giddiness is usually sudden, and the first symptom complained of, although quickly followed by the other symptoms. In middle-ear giddiness, also, the subjective sounds are rarely so distressing, nor is the defective hearing so extreme, as in the former class of cases; while bone conduction of sound, as indicated by the various tests, is in the great majority of cases in excess of air conduction. This is, as we have already indicated, contrary to what is usually found in labyrinthine giddiness.

### Giddiness from Excessive Air Pressure.

Many examples of giddiness due to excessive, and especially to sudden, air pressure upon the walls of the middle ear have come under my notice. The act of blowing the nose, by forcing a current of air into the middle ear, sometimes excites giddiness. A medical friend, subject to ear giddiness, informs me that he has to blow his nose with the greatest care, otherwise giddiness and loss of balance are excited. The effects are still more striking where violent blowing of the nose is indulged in during the existence of nasal catarrh with obstructed nasal passages, such as the following:

*Giddiness from Blowing the Nose.*—A gentleman, 25 years of age, had been suffering for two or three weeks from catarrhal obstruction in the nose, with a hammering sound in the left ear. Whilst walking in a Glasgow street he became so giddy, immediately after blowing his nose, that for five minutes he was only able to avoid falling to the ground by laying hold of a lamp-post, and was strongly impelled to wheel round to his right side. The giddiness was followed by temporary nausea, but not by vomiting. A few days after the attack I found on examination that the hearing distance was reduced to ½ in the left ear, in which ear the membrane was of a bluish colour, and partially injected. Ultimately all the symptoms disappeared under treatment.

The pressing of air into the tympanic cavity by forced expiration while the nose and lips are closed (Valsalva's experiment) is a more fruitful source of giddiness. A gentleman informed me that, while seated in Kelvin Grove Park, he fell to the ground from intense giddiness excited by this procedure, which he had been advised to practise for the relief of deafness. This as a method of treatment is, it may be remarked in passing, often injudicious, and much too frequently employed by persons with defective hearing, sometimes at the suggestion of medical men. The method is so very easy that it is practised by some persons as a preliminary to every interview which requires hearing, and in this way deaf people may resort to it twenty or more times daily. By so doing, a slight transient improvement of hearing may be gained, but at the expense of permanent aggravation, through serious impairment of the normal tension of the membrane. No doubt the giddiness may, in the case of Valsalva's experiment, be partially due to the stasis in the

[1] The previous communication by Dr. Barr was published in the BRITISH MEDICAL JOURNAL of December 28th, 1895, p. 1608.

brain vessels excited by the strong expiratory efforts with the nose closed, such stasis being fraught with grave possibilities if the person is aged or his brain vessels the seat of atheromatous degeneration. It is likewise well known to aural practitioners that, in some persons, temporary giddiness is excited by inflating the middle ear either by Politzer's method or with the catheter. In a paper entitled A Particular Form of Aural Giddiness, Loewenberg argues that in cases where increase of air pressure in the tympanic cavity excites giddiness, there has existed for some time previously a state of catarrh of the middle ear, with obstruction of the Eustachian tube and consequent rarefaction of the tympanic air: that as a result there has been brought about bulging towards the cavity of the tympanum of the membrane of the fenestra rotunda and the annular ligament of the stapes. He alleges that, by the suddenly-augmented air pressure in the tympanic cavity, these fenestral membranes are pushed inwards, increasing thereby the tension of the perilymph and endolymph of the labyrinth. In this way injurious pressure is exerted upon the nerve terminations in the labyrinth, by which the giddiness is excited. This may be, and probably is, the mode of the production of the giddiness in some cases, but I believe that, as has been already mentioned, through the nerves of the middle ear an irritation may be transmitted to the cerebellum by which giddiness may be induced.

### Giddiness due to Syringing the Ear.

The entrance of water into the middle ear through an existing perforation of the tympanic membrane often induces giddiness, sometimes of a violent character. Even where the tympanic membrane is intact, syringing the ear, especially if the water be too hot or too cold, or the force too great, excites giddiness in some persons. The danger, however, is much greater when the membrane is perforated by present or past purulent disease of the middle ear. In such cases even nausea and vomiting may be excited as well as giddiness. A lady, aged 46, suffering from purulent disease of the middle ear, for which she syringed the ear regularly at home, informed me by letter that, "while syringing this morning at 8 o'clock, marked giddiness, followed by nausea and retching, then perspiration, afterwards pale for a time, lasted for five or eight minutes." The use of the intratympanic syringe is still more apt to excite giddiness. In this mode of syringing the liquid is directly syringed into the middle ear, generally into the attic of the tympanum, by introducing a tube through a perforation. In a case which recently occurred in my practice, after injecting an antiseptic liquid in this way, giddiness was immediately produced so intense, that the patient had to lie down, becoming very sick, with vomiting, pallor, and cold sweats—the symptoms of a true Ménière's attack. In this patient the malleus had been previously removed so as to get better access to a purulent focus in the attic. The symptoms passed off in the course of ten minutes, and the same process was afterwards frequently carried out with no worse result than slight giddiness.

While in very many persons slight and passing giddiness is experienced during this mode of treatment, it is rarely so severe as in this case. As allied to such consequences, I may mention a case in which apparent loss of power, especially in the lower limbs, was induced by syringing liquid into the attic of the tympanum. For several hours after the injection the patient was quite unable to walk or even to stand; the symptoms, however, ultimately passed off, although they were repeated in similar circumstances on three or four separate occasions. In this case the malleus had also been removed by operation in order to gain access to the attic. Afterwards it was found necessary to open the antrum and attic from behind before bringing to an end a fœtid purulent disease of the attic of the tympanum which had existed for fourteen years. As has been already mentioned, it is possible that in those purulent cases where giddiness is excited by syringing the ear an aperture of communication, carious or otherwise, may exist between the middle ear and the labyrinth, through which the fluid may pass into the labyrinthine cavities or even into the interior of the cranium.

### Fatal Ear Giddiness while Bathing.

If the syringing of the ear is apt, in persons with perforated tympanic membranes, to induce giddiness, it is highly probable that the rush of water into the ear in such persons, while the head is immersed during bathing, may also excite giddiness. It is therefore surmised, and I think with great probability, that death from drowning during bathing is sometimes connected, in the case of expert swimmers, not with exhaustion or cramp, but with the sudden occurrence of giddiness, due to the rush of water into the canal of the ear and into the tympanic cavity through a perforation which may exist in the membrane. It is to be remembered that large numbers of persons in the community suffer from perforation of the membrane, resulting from a past or present purulent disease of the ear, and are therefore liable to such an accident. It is also to be remembered that the great pressure as well as the coldness of the water in such circumstances, present conditions much more likely to excite giddiness than in the case of syringing. There is therefore a strong likelihood that a number of persons with perforated membranes must, in diving or going under water, be seized with giddiness sufficiently severe to place their lives in peril. Even with closed external auditory canals giddiness may in some persons be excited during immersion of the head, owing to the rush of water through the nose and Eustachian tube, especially in certain morbid conditions of those channels, into the tympanic cavity. As a practical lesson from such considerations we should warn persons in whom there exists perforation of the tympanic membrane only to bathe in the presence of others, and with the affected ear closed by means of a water-tight plug.

### Giddiness from Pressure of Inflammatory Products.

The pressure upon the walls of the middle ear of fresh exudation, or secondary inflammatory products, is a more important cause of vertigo than increased air or water pressure. Of the exudative diseases of the middle ear, which may be attended by giddiness, the purulent forms are the most common. I do not here refer to those cases of giddiness associated with acute exudative inflammation of the middle ear, in which the giddiness is really due to a coexisting exudation in the labyrinth. I refer to cases in which the pressure is exerted primarily upon the walls of the middle ear. We have the advantage in this class of cases of being able to demonstrate, by objective examination, the existence of the exudation in the tympanic cavity, and by surgical treatment to remove the cause, and, at the same time, get rid of the giddiness. The following case illustrates the effects of purulent pressure in producing severe giddiness. In this instance, although purulent secretion escaped from a perforation in the membrane, the giddiness and other symptoms were not relieved until the mastoid cells were opened.

*Severe Giddiness and other Symptoms of a true Ménière's Attack: Purulent Collection in Middle Ear: Operative Treatment.*—The patient, a domestic servant, 21 years of age, had a pretty severe attack of measles at the beginning of the year 1892, for which she remained in hospital for seven weeks. On returning to the house of her mistress she reported that her left ear had been yielding matter for five weeks. A fortnight afterwards she was seized with sickness and vomiting, accompanied by such intense staggering and giddiness as to compel her to lie in bed. There was neither delirium nor disturbance of intellect, and the sickness and vomiting passed off in four days. When she was admitted to the Ear Hospital on March 13th her chief complaint was inability to stand or walk owing to severe giddiness. If she attempted to walk she staggered like a drunken person, and would have fallen if unsupported. When lying in bed everything seemed to go round from right to left. The pulse and temperature were but little disturbed, the latter never exceeding 100°; there was no marked headache. From the left ear there was a very considerable mucopurulent discharge, and there was a small perforation in the membrane. The hearing power was very defective, and there were distressing subjective sounds. The mastoid area was very tender to touch, although without any swelling of the soft tissues over the bone. After ten days of ordinary treatment, I opened the mastoid antrum, giving exit to a very considerable quantity of purulent secretion. The sense of giddiness then gradually subsided, and on April 30th she felt quite well, and entirely free from giddiness. The discharge from the ear had entirely ceased, the perforation was cicatrised, and the hearing of a watch tick was $\frac{1}{16}$, with bone conduction in excess of the aërial.

The pressure on the walls of the middle ear may be caused in the more chronic stages of a purulent affection of the middle ear by secondary inflammatory products such as cholesteatomous masses, granulation tissue, polypi, or a sequestrum. These may, as in the following case, excite violent giddiness.

*Vertigo, Sickness, and Vomiting in an Old-standing Case of Chronic Purulent Disease of Middle Ear with Cholesteatomatous Collections.*—A woman aged 36 had suffered from a purulent discharge from the right ear for thirty years. Aërial hearing was almost gone on that side; tone con-

duction was in excess. There was a saccular bulging in the postero-superior wall of the canal, and caseous and cholesteatomatous matter was present in the inner end of canal, projecting from the attic of the tympanum. She came to the Ear Hospital complaining of alarming attacks of giddiness, along with great pain and constant buzzing in the affected ear. For a fortnight the giddiness had been so severe that she could not go out of doors, and she was in constant fear of falling. Even in bed she felt as if "tossing in a boat." When walking she was inclined to stagger to the affected side, and sudden motion of the head brought on these staggerings. One day while lifting a kettle from the fire she was impelled to wheel round, so that she fell on to the fire. Eight weeks previous to her coming to the hospital the giddiness was attended by severe sickness and vomiting, the attack lasting for several days. The caseous and cholesteatomatous matter was removed, and the ear was subjected to careful and prolonged antiseptic treatment, with the result that the painful symptoms passed quickly off, the giddiness subsiding more gradually. In May last she reported herself as having been quite free from the giddiness for a long time. The hearing was still very defective, and there was still slight discharge necessitating the occasional use of the syringe.

The simple exudative catarrhs of the middle ear without perforation of the tympanic membrane do not so frequently excite giddiness as the more acute purulent forms. Occasionally, however, we find striking exceptions, such as in the following case:

*Giddiness and Sickness due to Simple Exudative Catarrh of Middle Ear.*—Recently I had under my care a waiter from Perth, a man 40 years of age, who after a nasal catarrh became very deaf in both ears, with the development of subjective sounds in the ear, compared to that of blowing off steam. When these symptoms had continued for two weeks or thereabouts he began to have severe attacks of giddiness. On the way to consult me at the Glasgow Ear Hospital he had an alarming seizure in the street. He then became suddenly so giddy as to stagger and fall, followed immediately by sickness and vomiting; he had to be assisted into a place of shelter. I found on examination symptoms of exudative catarrh in both middle ears, which were occupied by a considerable amount of secretion, but without perforation. The deafness was extreme in both ears, while distressing subjective sounds were constantly present. I incised both tympanic membranes, giving exit to a large quantity of muco-serous secretion, with the result of effecting an instantaneous and marked improvement in the hearing. The giddiness also almost immediately disappeared and did not return. The use of Politzer's method of inflation for a few weeks restored entirely the hearing power. This patient informed me that he was "subject to biliousness and had a bad liver."

### GIDDINESS FROM EXTENSION OF THE EAR DISEASE TO THE CRANIAL CONTENTS.

It is very important to remember that in the course of chronic purulent disease of the middle ear, and also, but much more rarely, in acute purulent disease of the middle ear, the giddiness may be due to the extension of the disease to the brain or other parts of the intracranial cavity. In such a case, however, the giddiness is associated with other grave symptoms, which point to involvement of structures more central than the organ of hearing. In this way meningitis, septic thrombosis of the sigmoid sinus, cerebral and especially cerebellar abscess may be associated with more or less disturbance of the equilibrium. It is also to be remembered, however, that grave disease of the cerebellum, such as a tumour, sometimes exists in a person who may be at the same time afflicted with an ear disease, although no connection may exist between the two. In this way there may be great disturbance of equilibrium, which at first sight is regarded as of aural origin, but subsequent events show that the disease causing the disturbance of equilibrium is entirely in the cerebellum, having possibly no connection with the ear. It is important, however, to remember that, as we have seen, marked giddiness, sickness, and vomiting may exist in connection with purulent disease of the ear, which has not extended beyond the cavities of the middle ear themselves. There is no doubt that practitioners sometimes take an unnecessarily gloomy view of the prospects of such cases, concluding, owing to these symptoms, that extension has taken place to the interior of the cranium.

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THE Bishop of Bloemfontein, says the *Daily Chronicle*, is one of four Anglican prelates who were medical men. Dr. Hicks probably beats the record. He is a graduate of the University of London, as well as of Cambridge. Besides taking honours in science at Cambridge he took them at the University of London in chemistry, animal physiology, vegetable physiology, structural botany, biology, geology, and palæontology. He took a first-class and obtained a gold medal in obstetric medicine, a third-class in forensic medicine, is a Fellow of the Royal College of Physicians, and was demonstrator of chemistry in the University of Cambridge.

# THE LUMLEIAN LECTURES
## ON
# SOME PROBLEMS IN CONNECTION WITH APHASIA AND OTHER SPEECH DEFECTS.

*Delivered before the Royal College of Physicians, April 8th, 1897,*

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[ABSTRACT.]

## LECTURE III.

(*Concluded from page 1034.*)

### DEFECTS RESULTING FROM ABNORMAL CONDITIONS OF THE LEFT VISUAL WORD CENTRE.

There is not the same variety in the defects of speech caused by disease of the visual word centre that is to be met with as a result of disabilities in the auditory word centre. This is apparently due to the fact that in the great majority of persons, voluntary revival of words occurs primarily in the auditory word centre, while the visual word centre is called into activity mainly by stronger stimuli—either by those coming to it through associational fibres, or by still stronger incitations that come directly from without. It is only in comparatively rare cases, as we have seen, that the visual word centre takes the place occupied in the great majority of individuals by the auditory word centre, as the seat in which words are primarily revived in silent or in spoken thought. Consequently the speech defect known as "amnesia verbalis" occurs almost only as a result of a lowered functional activity in the auditory word centre, and only in extremely rare cases (where the individual is a very strong "visual") as a result of mere lowered activity in the visual word centre.

For the reasons given we know next to nothing about the effects of mere functional degradation in the visual word centre, that is, of slight disabilities such as when occurring in the auditory word centre are productive of the various degrees of amnesia verbalis already described. All that can be said is that when such functional degradation of the visual word centre is present, it would (*a*) in the rare case of the patient being an extremely strong "visual" of itself tend to produce amnesia verbalis, as was seen in a patient under the care of Charcot, whose case is referred to by Ballet,[45] or (*b*) even in an "auditive" tend greatly to aggravate any disability that may have been caused by a coexisting defect in the auditory word centre, and also to hinder recovery therefrom; further (*c*) that where the functional defect involves both word centres, the amnesia ought to be more than usually bad, and probably associated with more or less of paraphasia.

*Effects Produced by the Destruction of the Left Visual Word Centre.*—One important difference between the effects of lesions of the visual word centre as compared with those following upon lesions of the auditory is that speech is very little, if at all, interfered with. There is no well-marked aphasia or paraphasia, only a very slight amount of paraphasia in some of the cases.[46] That there should at times be such slight disturbance of speech is not to be wondered at if we bear in mind the close functional relationships of the visual and the auditory word centres, and how easily therefore the functions of the latter may be disturbed by a lesion in the former.

It is often found that word blindness is associated with right-sided homonymous hemianopsia—that is, on the same side as paresis of the limbs—for there is often no complete hemiplegia in these cases. The hemianopsia is generally due to destruction of the optic radiations of Gratiolet; but where the lesion is quite limited to the cortex these fibres will not be involved, so that hemianopsia is not a necessary accompaniment of word blindness.

Agraphia also is a symptom sometimes present and sometimes absent in cases of word blindness. The presence or absence of this symptom is, however, of much more fundamental importance than the presence or absence of hemianopsia. It is best, in fact, to divide cases of word blindness

into two categories—namely, (*a*) cases in which the word blindness is associated with agraphia, and (*b*) cases in which there is no agraphia.

(*a*) In the cases where agraphia is present it is commonly found that such patients are capable of writing their names correctly, although they can write nothing else. The signature is an emblem which may, by reason of its familiarity, be executed by the cheiro-kinæsthetic centre with the smallest amount of prompting; and it would appear that this prompting may come from the common visual centre in cases where the left visual word centre is destroyed. Similarly, a word-blind patient may be able to recognise his own name when he sees it, though apart from this there may be complete alexia. As Déjerine says[47]: "He recognises it by its general form, by its physiognomy, and not by the assemblage of letters of which it is composed." Differences of degree are, however, met with in word blindness. In some cases, though the patients are unable to recognise single words (word blindness) they can recognise individual letters; whilst in others not even letters can be recognised (letter blindness).

A very typical case of this character has been reported by Déjerine.[48] In this a lesion strictly localised to the left angular produced complete alexia with agraphia.

Another very similar case, and almost equally valuable, has been recorded by Sérieux,[49] of which the following is an abstract:

The patient was a woman, aged 73, whose condition was as follows: Intelligence normal. No motor paralysis. No appreciable word deafness. Slight paraphasia. No object blindness. Word blindness is almost complete; she recognises a certain number of letters only. Hemianopsia absent. Agraphia is also complete for spontaneous writing, as well as for dictation and copying. At the necropsy there was found a focus of yellow softening rather larger than a five-franc piece, which involved the whole of the left angular gyrus and the greater part of the supramarginal lobule. The contiguous convolutions of the superior parietal lobule as well as the posterior extremities of the first and second temporal convolutions were slightly yellowish and atrophied. All the other convolutions of this and the other hemisphere were healthy.

Here, although the lesion was more extensive than in the last case, we find both the word blindness and the agraphia rather less complete. The slight paraphasia, which in this case was persistent, may have been kept up by the slight degeneration of the posterior extremities of the two upper temporal convolutions. It is expressly stated that the patient did not suffer from hemianopsia, so we must conclude that the lesion was superficial and did not extend deeply enough to involve the optic radiations. Another case in which word blindness and agraphia were produced by a patch of softening limited to the left angular gyrus has been published by Barkhan,[50] though under a very misleading title.

(*b*) In the second group of cases word blindness is not associated with agraphia, the individuals being able to write, and as well with the eyes closed as open.

The effects of destruction of the left visual word centre are liable to vary much in different individuals in accordance with their different sensorial aptitudes and different degrees of education, just as we have found the results of destruction of the left auditory word centre to present marked differences in different cases. The results already described under group (*a*) are those which most frequently follow when the left visual word centre is destroyed in ordinary individuals. But in an educated person who is a strong "auditive" but a weak "visual" the activity of the visual word centre may be reduced to a minimum in the act of writing. The preservation of ability to write in cases where there has been word blindness and where the visual word centre has subsequently been found to be destroyed may therefore be explained by supposing that the auditory word centre, instead of acting, as it usually does, by rousing the visual word centre to conjoint action, in these cases acts directly upon the cheiro-kinæsthetic centre (by way of the commissure *f f* in Fig. 5).[51] The writing thus produced may be fairly good and without mistakes, though that of other patients may show defects of a paragraphic type. The handwriting itself, too, is usually larger than that which was previously customary to the patient. There is also the peculiarity that these patients can write as well with the eyes closed as when they are open, and the still further peculiarity that they cannot subsequently read what they have written except by a manœuvre which causes a stimulus to pass in the reverse way, that is, from the cheiro-kinæsthetic centre back to the auditory word centre (in the direction *f' f'*, Fig. 5). This is brought about by passing the tip of the finger over the outlines of the letters and so reading off the result. The possibility of this mode of reading by the "tip of the finger" seems to have been first noticed in a word-blind patient by Westphal.[52]

There are only two cases with necropsies that I can bring forward in illustration of this group, and unfortunately they are not very well defined cases, being rather complicated, not only clinically, but also by reason of the lesions found at the necropsy. The first of them is also, I believe, the earliest recorded instance of any such defect. It is a remarkable case that was published long ago by Broadbent.[53] The real significance of the case was not, I believe, recognised by him at the time, nor was it by myself some years afterwards when I first endeavoured to interpret it.[54] Now I think its leading peculiarities may be explained by supposing the existence of a weak condition, with lowered excitability of the auditory word centre, together with a destruction of the visual word centre.

It seems pretty clear that the second of the two blood clots present in this case must have been situated in the angular gyrus, whilst the first of them was situated somewhere near the middle of the upper temporal convolution, and therefore that the patient's alexia was due to destruction of the visual word centre. Notwithstanding the damage to the upper temporal convolution and the existence of an ill-defined amount of softening in the white substance of the temporal lobe, there was obviously nothing approaching to word deafness in this patient. The only means, therefore, of explaining his ability to write with the right hand is by supposing that his cheiro-kinæsthetic centre must have received its stimulations from the left auditory word centre, even though the trifling verbal amnesia showed that this centre was slightly weakened.

Another case, which, as it seems to me, should find its place in this group has been recorded by Osler,[55] which seems to drive us to the conclusion that the word blindness must have been due to the softening of the angular and the supramarginal gyri.

What I take to be another example belonging to this group is to be found in a patient under the care of Charcot, whose case has been recorded in great detail by Bernard.[56] It is an extremely interesting case, and here, as in that of Sérieux, previously quoted, the destruction of the visual word centre does not seem to have been complete, as the patient could still recognise individual letters.

In the absence of a necropsy it cannot, however, be definitely said that this case belongs to the group now under consideration rather than to that which is next to be considered. Looking to the fact, however, that a hemiplegic condition existed at first, that there was no hemianæsthesia or hemiachromatopsia, and to the very limited nature of the clinical defects subsequently remaining, it seems to me distinctly less probable that the patient's condition was due to lesion in the occipital region than to one further forward which also involved the visual word centre itself. If that were the case, the reading by means of kinæsthetic impressions would mean that the excitations of that centre produced by the finger tracing successively the outlines of letters must have been conveyed backwards along the commissure *f' f'*, Fig. 5, to the

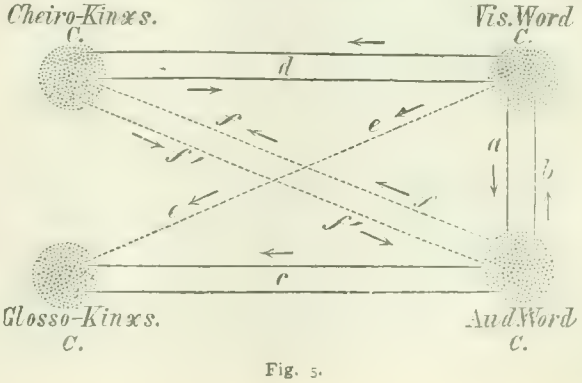



Fig. 5.

auditory word centre, there arousing the corresponding auditory word memories and subsequently passing over to Broca's centre preliminary to articulation of the words.

In each of these three cases in which word blindness has been present without agraphia the patients have been more or less educated persons well accustomed to write, and in the first two, at all events, the incitations could not have come during their illness from the damaged visual word centre. Therefore it seems only open to us to suppose that these patients were able to write spontaneously or from dictation, simply because they were able to call up the familiar activity of the cheiro-kinæsthetic centre directly at the instigation of the auditory word centre.

### Defects resulting from Isolation of the Left Visual Word Centre.

Isolation of the visual word centre is a term employed here in the same sense that isolation of the auditory word centre was previously spoken of: it is not a complete isolation, but merely a cutting of the centre off from all its own afferent fibres, as well as from all communication with the corresponding centre of the opposite hemisphere. The clinical condition itself was first referred to by Wernicke[57] as a companion to the state described by Lichtheim as subcortical sensory aphasia or isolated speech deafness. Wernicke named this condition "subcortical alexia," while it has since been rechristened by Déjerine (who is followed by Mirallié) as "pure word blindness." Seeing, however, that, as I have shown, each of these clinical groups of symptoms may be produced in a double way—that is, either by cortical or by subcortical lesions—it seems clear that the term "subcortical" as applied to these conditions by Lichtheim and by Wernicke would, if preserved, lead to great confusion. It seems best, therefore, to adhere to Déjerine nomenclature, and speak of "pure word deafness" and "pure word blindness" respectively, but with the understanding that these defects are not necessarily due to subcortical lesions.

The cases of pure word blindness with which we are now concerned, in which the visual word centre remains intact, are comparatively few in number. Three complete cases have been recorded with necropsies, whilst of two others the clinical details only have been published.

The first of the complete cases to be recorded which was followed by a necropsy is one of great value; it was most carefully observed, and has been published in very full detail by Déjerine.[58] The following is the abstract that he gives by way of preface to the fuller details, which will, however, well repay a careful study.

This patient was a man, aged 68 years, of more than ordinary intelligence and culture. Word blindness was complete, both verbal and literal. Musical blindness was also complete. There was preservation of ability to read figures and also to calculate. There was no trace of word deafness, no trace of disturbance in articulate speech, and internal language was preserved. There was no object blindness or optic aphasia; mimicry was perfect and very expressive; there was perfect preservation of spontaneous writing and of writing from dictation—the patient could thus write whole pages correctly. Writing from a copy was very difficult and defective. There was partial right lateral hemianopsia with complete hemiachromatopsia. There was integrity of motility, and of sensibility general and special, as well as of the muscular sense. The same symptoms persisted for four years. Sudden death occurred after the patient had presented for ten days total agraphia with paraphasia, without any trace of word deafness. There had been perfect preservation of mimicry and of intelligence. At the necropsy recent lesions were found in the left hemisphere in the form of red softening in the inferior parietal lobule and in the angular gyrus. There were old lesions (*plaques jaunes*) situated in the lingual and the fusiform lobules, in the cuneus, in the white substance of the occipital lobe, and in the posterior extremity of the corpus callosum. The optic radiations were markedly atrophied. The right hemisphere was intact.

The notable features of this case are the absence of any hemiplegia; the combination of complete right lateral hemiachromatopsia with partial right hemianopsia; the absence of word deafness or speech defect of any kind; the absolute word blindness coupled with ability to write freely both spontaneously and from dictation, whilst ability to copy writing was very defective; and the length of time that these symptoms lasted without change. The subsequent sudden supervention of complete agraphia associated with paraphasic speech, followed by the discovery of a recent lesion in the angular gyrus and adjacent parts, were also very significant features of the case. Comments upon the old lesions found had better be reserved till some account has been given of the other 2 cases.

The second case was recorded by Wyllie[59] two years later, some of the principal details being as follows:

There was word blindness, with at first letter blindness, which passed off; no hemianæsthesia, but hemianopsia, with marked contraction of the remaining halves of the visual field. There was no agraphia or paraphasia. The lesion was found to be atrophy of the white substance, from the tip of the occipital lobe to the cerebral peduncles in front. The angular gyrus and Broca's convolution were intact.

The third case was reported in the same year by Redlich,[60] and was very similar in nature.

In each of these 2 cases, as in that of Déjerine, there was no motor paralysis, and only a very slight amount of right-sided hemianæsthesia. There was right hemianopsia in each, but no mention is made of hemiachromatopsia in the cases of Wyllie and Redlich, or of the ability to read words by means of kinæsthetic impressions, though both were present in the case of Déjerine.[61] It seems highly probable, however, that one if not both of these characteristics might have been met with had they been specially looked for. They both existed in one of the two incomplete cases before referred to—namely, in one observed by Gaucher, and recorded by Mirallié;[62] while in the second of these cases, recorded by Batterham,[63] though there is no mention of hemiachromatopsia, the ability to read words by aid of kinæsthetic impressions was present, and word blindness was not complete.

The lesions found in each of the 3 cases where a necropsy was made have shown a striking similarity. In each there was softening and atrophy of the white substance of the occipital lobe, together with more or less damage to certain convolutions—that is, to the lingual and fusiform lobules as well as the hippocampal gyrus and the cuneus, or, speaking more generally, to some of the convolutions on the under and inner surface of the occipital lobe. It seems quite probable, however, that the lesions of the convolutions may be of little significance so long as there is the presence of extensive destruction of the white substance of the occipital lobe.

It is clear from the explanation that Déjerine advances of his case,[64] and also from what he says elsewhere, that he does not believe in the existence of auditory and visual word centres in the right hemisphere in ordinary right-handed persons. On this subject he takes much the same view as Lichtheim, and now explains "pure word blindness" in a fashion analogous to that by which the latter explained "pure word deafness"—namely, by supposing the severance from the left visual word centre of the associational fibres connecting it with the general visual centre in each hemisphere (see Fig. 6).

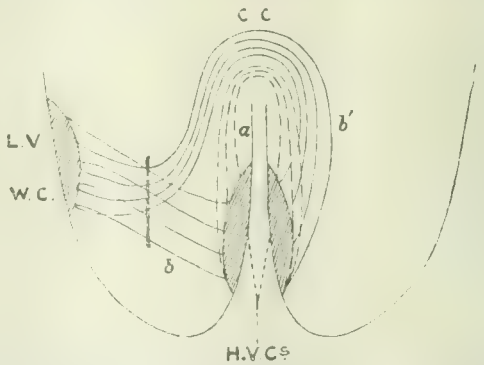



Fig. 6.—A simplified diagram representing Déjerine's view as to the mode of production of pure word blindness. H. V. C., Half-vision centres. L. V. W. C., Left visual word centre. C. C., Posterior extremity of corpus callosum, containing commissural fibres (*a*) connecting the half-vision centres and also fibres (*b'*) from the right half-vision centre to the left visual word centre. (The "optic radiations" have been omitted.) The dark line indicates the site of a lesion which would cut off the left visual word centre from the half-vision centre of each side.

I, however, believe in the existence of a visual word centre in each hemisphere (though unequally developed), and that the two are brought into functional relation with one another by means of commissural fibres in the posterior part of the corpus callosum. I believe also that each of these visual word centres would be in relation by other associational

fibres with the half-vision centres of its own side (which both of us suppose to be commissurally connected with its fellow); and that Déjerine's form of pure word blindness may be produced by severance of the associational fibres between the left visual word centre and its corresponding half-vision centre, together with a lesion of the commissure between the two visual word centres, in some part of its course. The isolation of the left visual word centre would thus be complete; and brought about, moreover, in the same sort of way that I have postulated for the isolation of the auditory word centre in the condition that Déjerine calls "pure word deafness."




Fig. 7.—A diagram representing my view as to the mode of production of pure word blindness. C. C., Posterior extremity of corpus callosum. *c*, *c*, Commissural fibres connecting the two visual word centres. *b*, *b*, Fibres connecting each half-vision centre with the visual word centre of the same side.

The commissure between the two word centres may be damaged, in accordance with my interpretation, by the lesion in the white substance of the occipital lobe extending far enough forwards to involve them, just as Déjerine supposes those from the right half-vision centre to have been destroyed; or else by a separate lesion in the posterior part of the corpus callosum, such as was actually found in Déjerine's case, or in the part of it known as the tapetum.[65]

What I have said towards the end of the last section but one of the first lecture, as well as what we know as to the modes in which recovery takes place in various forms of speech defect, may be considered to lend support to my view.

As I have already indicated, the two modes of producing pure word blindness are pretty strictly comparable, *cæteris paribus*, with two modes of production of pure word deafness. One of these forms, which for the sake of distinction may be termed the parietal type of pure word blindness, is brought about by destruction of the left visual word centre in persons by whom writing can be executed under the instigation and guidance of the left auditory word centre, while the other (Déjerine's form), which might be called the occipital type, is due to isolation of the left visual word centre from the half-vision centre of its own side as well as from the opposite visual word centre.

At present there seems no very definite means of diagnosing these two types of pure word blindness from one another during life. The following considerations may, however, afford some help:

| *Parietal Type of Pure Word Blindness.* | *Occipital Type of Pure Word Blindness.* |
|---|---|
| Possibly some right-sided paresis. | Probably no right-sided paresis, but possibly some slight right hemianæsthesia. |
| Speech often slightly paraphasic. | Speech not affected, or slightly amnesic only. |
| May be no hemianopsia or hemiachromatopsia. | Hemianopsia always, and when incomplete probably also hemiachromatopsia. |

### Defects Resulting from Combined Lesions in the Left Auditory and Visual Word Centres.

Patients thus affected are generally reduced to a most deplorable condition, seeing that they can usually neither speak nor write intelligibly, and that they are unable to understand the speech which they hear or the language they may see either in writing or in print. They can mostly communicate with others, and be communicated with, only by means of signs and gestures; and at the same time they must necessarily suffer a very distinct amount of mental impairment, owing to the blotting out of the principal linguistic symbols by means of which all but their most elementary thinking processes are carried on.

Taking the lists given by Amidon and Mirallié, and including one case by West[66] not contained therein and two of my own, I find 17 cases in all of this double lesion; of these, it seems desirable to exclude two—one by Chauffard, as the patient only lived three days, and one by Shaw, seeing that the patient was demented and that the clinical record is very incomplete.[67] Of the remaining 15 cases, in 3 the lesion was complete in the visual and partial in the auditory word centre; in 2 it was complete in the auditory and partial in the visual word centres; in 4 cases it was incomplete in both word centres; whilst in 6 cases the lesion was pretty complete and equal in both word centres.

Looked at from another point of view, that is, as to the kind of speech defect presented by these 15 cases, I find that speech was more or less good in two; that there was more or less marked paraphasia or actual jargon-speech in 7, and more or less complete speechlessness in 6. These very different results may at first seem very astonishing to others, as they did to me. But the more one thinks of cases presenting this double lesion, in which speech was only slightly paraphasic or fairly good, the more it seems necessary to suppose that the auditory word centre of the right hemisphere must have been able to act upon and with the left glosso-kinæsthetic centre. These cases cannot be explained by supposing that speech was produced by the right auditory word centre acting with the right glosso-kinæsthetic centre, because all present knowledge goes to show that this could only be brought about after a long interval, during which these centres were educated to act together. In the cases in question, on the other hand, there was evidently no such interval, seeing that the modified speech was initiated in each case just after the brain lesion occurred. It is worthy of note, also, that in the two cases in which speech was best preserved, the visual word centre was only partially damaged, so that some help may also have come from its co-operation.

A few cases may now be referred to in illustration of the different degrees of speech defect associated with this double lesion with which we are now concerned. The first is one that was published nearly twenty years ago by Broadbent, in which there was well-marked jargon speech.[68]

This is a fairly typical case, the destruction of both the word centres being complete, and speech reduced to an unintelligible jargon. In the next case the lesion was equally complete, though the derangement of speech was less marked—a very bad form of paraphasia being present rather than jargon aphasia. It has been described at length by Déjerine.[69]

In this case there was no speech at all for sixteen days from the onset of the seizure and for about eight days after the recovery of consciousness; and as the destruction of the left auditory and visual word centres was very complete, it is difficult to suppose that the speech which was subsequently possible could have been effected without the aid of the right auditory word centre. Much the same thing may be said in reference to the next case, although the speech trouble was more like that met with in incomplete "motor aphasia." It is recorded by d'Heilly and Chantemesse.[70]

At the necropsy in this instance it was found that the left auditory word centre was only partially destroyed, so that perhaps we need not suppose that help came from the right auditory word centre for the production of the few short sentences that this patient was capable of uttering.

In a patient recently under my own care suffering from a softening of the same region of the brain, during the three weeks that elapsed before death occurred there was absolutely no speech. The following are a few notes concerning this case:

A woman, aged 53, was admitted to University College Hospital on April 28th, 1896. Whilst suffering from inflamed varicose veins in the left leg she began to feel ill on April 22nd, suffering from headache and irritability. On the morning of April 26th these thrombosed veins were rubbed with an embrocation. She went to bed on the night of the 26th with no change in her symptoms, but the next morning she fell from the bed in an unconscious condition. She twitched her left arm and muttered indistinctly for a time, and remained in a stuporous state up to the time of admission (10 A.M. on the 28th). She was found to be semi-conscious and paralysed on the right side, showing some irritability on examination, throwing her left arm and leg about, and occasionally uttering some inarticulate sounds. There was no cardiac *bruit*; the respirations were natural: her temperature was 100.8° F. She remained in much the same condition, semi-conscious, yawning frequently, rather restless at times,

till May 5th, when she became more conscious, but made no attempt to speak or even utter any sound. She could not be induced to protrude her tongue. She did not attempt to respond or show that she understood any simple request, and appeared to be perfectly word deaf. She took no notice of written sentences held before her. The right arm was rather rigid. At the necropsy the third frontal and the lower part of the ascending frontal convolution were found to be healthy, both externally and on section; but the lower part of the ascending parietal, together with the whole of the supramarginal and angular gyri and the two upper temporal convolutions, were completely softened throughout. The softening extended to, and partly involved, the outer part of the thalamus and the corpus striatum; it also extended backwards slightly into the occipital lobe. The right hemisphere showed no focal lesion of any kind.

Here, then, there was complete loss of speech as a result of destruction of the auditory and the visual word centres in the left hemisphere, together with some adjacent tracts of brain tissue, which lasted continously for just over three weeks.

My second case belonging to this group is one of a very extraordinary nature in many respects, the patient having lived over eighteen years after his seizure, and his speech defects having remained constant throughout almost the whole of this period. His spontaneous speech was limited to a few words, and, though he was neither word deaf nor word blind, both the auditory and the visual word centres of the left hemisphere were completely destroyed. The record of this remarkable case, together with illustrations of the brain, will be published in the forthcoming volume of the *Transactions* of the Royal Medical and Chirurgical Society for 1897.

My object in these lectures—after laying down some general principles needful, as I consider, for the proper understanding of speech defects, and culminating in my non-recognition of any distinct and separate "centre for concepts," such as many postulate—has been to limit myself to a definite set of problems concerning the functional relations of the four cortical word centres. I have striven to show that the overweening importance attached by many to the functions of Broca's centre is not justified by facts—that too many disabilities have been supposed to result from its destruction by some, and that the power of independent activity ascribed to it by others does not exist. I have tried to show the way in which these views have influenced others to deny the existence of a cheiro-kinæsthetic centre and the fallacious nature of many of the arguments on which they rely. Again, while alluding to the unsatisfactory nature of the nomenclature at present in vogue, I have tried to show that the so-called "sensory aphasia" of Wernicke has no claim, as he supposed, to an independent existence, but really includes a large number of distinct conditions, each of which has to be studied separately and in detail. The great importance of the auditory word centre has been dwelt upon, as well as the variety of defects produced by functional and structural derangements of this region, and also by its isolation. A study of these results, taken in conjunction with that of the less varied defects resulting from disease and from isolation of the visual word centre, led to some novel conclusions. We have seen the enforcement of the view to which we had previously been driven as to the comparative powerlessness of Broca's centre alone; we have found evidence for the existence of an unexpected possible amount of functional substitution between the visual and the auditory word centres for the production of speech and writing respectively; and, still more surprising, we have found reason for believing that both auditory word centres are accustomed to act upon Broca's region for the production of speech—as well as much evidence tending to favour the view that even in comparatively simple perceptional and intellectual operations very extensive cortical areas in both hemispheres of the brain are called into simultaneous activity.

I can only say, in conclusion, that my best thanks are due and are given to the College for the opportunity that has been afforded me of submitting the results of my labours to its consideration, and to you all for the patient manner in which you have listened to minute details which, I fear, must have been often wearisome and somewhat difficult to follow.

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[45] *Loc. cit.*, p. 101. [46] For instance, in Nos. 44, 45, 47, 49, 50, and 52 in Mirallié's list of cases included under the heading "Cécité Verbale" (pp. 152-157). [47] *Comptes Rendus de la Société de Biologie*, 1891, p. 200. [48] *Loc. cit.*, p. 197. [49] *Mémoires de la Société de Biologie*, 1892, p. 13. [50] *Archiv für Psychologie und Nervenkrankheiten*, 1891, p. 558. [51] It is worthy of note that both Kussmaul and Spamer seem to think that this is the ordinary way in which writing is affected (see Kussmaul, *loc. cit.*, p. 777). [52] *Zeitschrift für Ethnologie*, 1874. [53] *Med. Chir. Trans.*, 1872, p. 162. [54] *Brain as an Organ of Mind*, 1880, p. 645. [55] *American Journal of Medical Science*, March, 1891, p. 219. [56] *De l'Aphasie*, 1885, pp 77-90. [57] *Fortschritte der Medicin*, 1886, p. 463. [58] *Mémoires de la Société de Biologie*, February 27th, 1892. [59] *The Disorders of Speech*, 1894, p. 340. [60] *Jahrbuch für Psychiatrie*, 1892, p. 242. [61] Déjerine is inclined to think that achromatopsia may be produced by lesions in the lingual and fusiform lobules. If the hemianopsia were complete, however, from destruction of the "optic radiations,' there could be no achromatopsia. [62] *Loc. cit.*, p. 191. [63] *Brain*, 1888, p. 488. [64] *Loc. cit.*, pp. 87-89. [65] The tapetum may perhaps include the commissural fibres between the two visual word centres, and it is specially stated in Redlich's case that the fibres were in part degenerated, as also were the forceps major, which probably includes the fibres connecting the two half-vision centres with one another. [66] BRITISH MEDICAL JOURNAL, 1896, i, p. 1242. [67] These are Nos. 5 and 31 of Mirallié's list. [68] *Med. Chir. Trans.*, 1878, p. 147. [69] *Comptes Rendus de la Société de Biologie*, 1891, p. 167. [70] *Bulletin de la Société Anatomique*, 1882, pp. 324-338.

## CÆSAREAN SECTION: RECOVERY.

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ON October 15th, 1896, I saw the patient, aged 22, in consultation with Dr. Charles Knott, of Southsea. She had reached the full term of pregnancy, and had been in labour some hours. Her height was 4 feet 5 inches, forehead somewhat prominent, and teeth badly developed. She appeared a well-nourished woman, but mentally weak. The joints were normal; the limbs muscular, well developed, and free from distortion, except a slight antero-posterior curvature of both femurs. The well-marked lumbar curvature of the spine, with the convexity forwards, is exhibited in the figure. The



pelvis measured in circumference, just above the trochanters, 31 inches; the pubic symphysis was prominent and the arch compressed. On internal examination the pelvis was found considerably contracted; the antero-posterior diameter measured 2½ inches, and the transverse about 3 inches. Her mother stated that she had never had any serious illness.

The patient was at once admitted into the hospital, and my colleagues kindly met me in consultation. After an unsuccessful attempt to extract the child by craniotomy, Cæsarean section was performed without delay. Unfortunately at the commencement of the operation an accident occurred with the electric lighting of the hospital, and all the stages, after the abdominal incision, had to be done by the aid of candles. The placenta was attached to the fundus of the uterus, and its position was made out by palpation before the organ was incised. The uterus was not lifted out of the abdominal cavity, but flat sponges were placed between it and the

abdominal wall, and it was opened by a clean vertical incision. After the delivery of the child, the hand was passed into the organ and the cervix carefully examined. Two rows of catgut sutures were applied to secure the uterine wound, and the hæmorrhage was arrested by careful sponge pressure before closing the external incision. The abdominal wall was united with three layers of continuous catgut sutures, and a superficial row of interrupted silk stitches. The vagina was cleansed from blood clot, and wiped out with antiseptic gauze, and a piece saturated with iodoform emulsion was inserted into the canal. The abdomen was dressed just as after an ordinary ovariotomy.

No sickness followed the operation, and the temperature never rose to 101°. The patient sat up at the end of the fourth week, and left the hospital soon afterwards in good health.

REMARKS.

The surgical treatment of labour, associated with severe pelvic deformity, has been in British practice mainly regulated by the possibility or otherwise of performing a mutilating operation. Craniotomy has been successfully accomplished in cases in which the conjugate diameter has measured less than 2 inches, and the transverse 3 inches, or a little over. Dr. Playfair states[1] that on the Continent Cæsarean section has been selected when the antero-posterior diameter measured 2½ inches; and that some foreign authors, in cases where the child has been known to be alive, have recommended its performance, even when the conjugate diameter amounted to 3 inches. From these statements it is evident that the practice of different countries has been hitherto marked by considerable variation, and that obstetricians have regarded the diameters of the pelvis as their chief guide. Whenever examination has clearly revealed that a patient was labouring under considerable deformity a careful estimation of the pelvic dimensions was accepted as the essential basis for settling the question between craniotomy and Cæsarean section; and if it could be demonstrated that sufficient room existed for the delivery of a collapsed cranium by forcible extraction, craniotomy has been generally recognised in this country as the correct procedure.

Up to the present time British practitioners have regarded craniotomy as the safer alternative for the mother in all cases of severe pelvic distortion. Variable results, however, have been recorded by different authorities, and statistics prove that it must be considered a very risky operation. Dieterman, of Berlin, has given an account of 239 craniotomies, with a mortality of 12 per cent. His own mortality from 1882 to 1887 he states to have been 9.4 per cent. Recent statistics from Leipzig present a mortality of 8 per cent. In the report of Guy's Lying-in Charity it is mentioned that the mortality after craniotomy from 1865 to 1875 amounted to 6 out of 18 cases, or 33.3 per cent. In the report of the same charity, from 1875 to 1885, 24 cases are reported with 4 deaths, or a mortality of 16 6 per cent.

I have been unable to obtain any reliable information respecting the comparative mortality of craniotomy and Cæsarean section in this country, and it is my opinion that any existing statistics would prove at the present time practically valueless, as abdominal section followed by extraction of the fœtus though an artificial opening in the parietes of the uterus has frequently been performed when the patient has been exhausted by delay, and after many unsuccessful efforts to deliver the child piecemeal *per vias naturales*. This is, doubtless, the explanation of the high mortality of the operation up to recent times. Fifty-five years ago Dr. Edward Rigby wrote[2]: "There is no doubt but that in England it has been peculiarly unsuccessful.....and there is every reason to suppose that the chief cause of its want of success in this country has been the delay in performing it. In France and some other nations upon the European Continent the Cæsarean operation has been and continues to be performed where British practitioners do not think it indicated; it is also had recourse to early, before the strength of the mother has been exhausted by the long continuance and frequent repetition of tormenting though unavailing pains, and before her life is endangered by the accession of inflammation of the abdominal cavity."

The separate results of these operations in the future will help to define clearly when craniotomy or any other form of mutilating operation is justifiable, and how far it is likely to be superseded by Cæsarean section. The recent records of abdominal section received from America are very favourable. Dr. W. Myers[3] gives a statement of twenty operations, resulting in the saving of eighteen mothers, a mortality of 10 per cent.; nineteen of the children were also saved, mortality 5 per cent.

Surely the indications for selecting craniotomy are very different now from what they were before the modern developments of abdominal surgery; and we can rightfully anticipate that recent advances will exercise an increasing influence upon this question. In the near future, I believe that Cæsarean section will prove as safe a surgical proceeding as craniotomy to the mother, and that it will be practised more generally in this country.

Unfortunately I must admit that there may be circumstances in which delivery by craniotomy is the only possible method of treatment. Cæsarean section requires all the preparation and all the surgical appliances which are essential for any other abdominal operation, and the surroundings of the patient may render it impracticable. Cases of great emergency may sometimes happen in distant parts of the country where little help is available, and where the requisites for a serious surgical procedure cannot be obtained. Under these conditions, a mutilating operation may be the only proceeding which can be resorted to with the hope of saving the life of the mother.

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## THE PATHOGENESIS OF EPILEPTIC IDIOCY AND EPILEPTIC IMBECILITY.

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THE subject of abnormalities of convolution in the brains of the insane and the cranial anomalies or irregularities correlated thereto are of profound importance to neurological and alienistic physicians, and may also not be devoid of interest to the general practitioner. In the present paper[1] I propose to deal with a special class of such abnormalities (*a*) of the cranium, and (*b*) of the cerebral hemispheres and convolutions, which is of frequent occurrence in some forms of insanity and mental deficiency; and to explain its origin and mode of evolution (pathogenesis). The forms dealt with are as follows: (1) Simple, non-epileptic idiocy; (2) epileptic idiocy; (3) simple, non-epileptic imbecility; (4) epileptic imbecility.

The idiocies and imbecilities viewed from the standpoint of etiology and pathology embrace a large number of varieties. I propose, however, to exclude from our research all cases of cerebral hæmorrhage, tumours, porencephaly, traumatism, etc., involving gross destructions of the brain tissue *ab extra*, for these would make our study of the subject unnecessarily complicated. A simple classification of the insanities is needed before we can form an idea of the position our cases occupy in the scheme of classification; and such a classification, which I now present, is as follows:

Dividing the insanities into two great classes or series, at one end of which hereditary (or congenital) vice of organisation so preponderates as to result in profound arrests and enfeeblements of cerebral (psychical) evolution, we find that at this end of the series come the idiocies and the imbecilities. The insanities at the other end of the scale include such clinical forms as the simple vesaniæ (mania, melancholia, stupor), the toxic insanities (alcoholic insanity), etc. These would occur in or affect brains of nearly full cerebro-psychical development, and hence they would not be comparable to those resulting from early developmental arrests like the idiocies and imbecilities. They would not, and as a rule do not, present any striking anomalies of cerebral conformation or convolution, and many of them might for convenience of designation be included under the term "acquired" insanities, or phrenopathies.

Between these two extremes of the series, however, a large intermediate group of insanities exists—a group which

I would, with Morel and Magnan, term a degenerative group. Members of this group are often called degenerates. These degenerates frequently exhibit, not only certain psychical characteristics (or stigmata), which stamp them as such, but also certain physical peculiarities of physiognomy and of cranial, bodily, and cerebral conformation (somatic stigmata). These are naturally more marked in some groups of the degenerative class than in others; the milder forms are not unfamiliar to us socially in the unbalanced, the cranky, and the eccentric, etc.—persons who all their life may hover on the borderland of insanity, while some would sooner or later exhibit a progressive psychical derangement, ending in delusions of persecution and allied forms of actual insanity. Reserving full details of these, however, for a separate communication, I now proceed to describe the actual cases and the specimens exhibited, which admirably illustrate the conditions of the cranium in epileptic idiocy and imbecility.

The most striking feature here is the noted cranial asymmetry. (This was shown in six skulls of such epileptics, which were demonstrated at the Leeds and West Riding Medico-Chirurgical Society in April, 1895, and the following cases will give in detail the corresponding cerebral anomalies:)

Case I.—F. C., male, epileptic imbecile. Had fits since the age of 4. The right arm is paralysed and somewhat arrested in growth, corresponding with sclerosis and atrophy of the left Rolandic area in the brain, but is liable to some convulsive (tonic and clonic) movements when a fit occurred. Besides the Rolandic area in particular, the left cerebral hemisphere as a whole exhibits a general condition of smallness of convolutions (microgyria), and also a sclerosis of the convolutions generally. Corresponding with the general smallness of the left hemisphere there is a parallel atrophy of the right lobe of the cerebellum, all of which is strikingly obvious to the naked eye. And, correspondingly, there is also marked inequality and asymmetry of the two sides of the skull.

Case II.—A. L. A., male, an epileptic idiot; fits since infancy, general. The left hemisphere was of fair size and development; the right hemisphere was microgyric, and sclerosed very uniformly and beautifully over the supramarginal, angular, occipital, precuneal, and part of the temporo-sphenoidal regions (external and mesial surfaces), over an area corresponding very accurately to the distribution of the posterior cerebral artery. The anterior and middle cerebro-arterial areas had escaped this intensive and specialised change. The fissures of Rolando and the adjacent parts, as well as the frontal lobes, being equal on the two sides, the inequality between the posterior cerebral areas of the two sides was very striking. The cranium was also markedly asymmetrical, the right occipital pole being shorter posteriorly, and narrower and more attenuated postero-laterally.

There is a profound significance in this case. The parents of the child were drunken and dissolute tramps, both alcoholic and syphilitic, and the child was left behind to be brought up at the workhouse.

In a further and more extended inquiry I have frequently been struck with the alarming prevalence of an alcoholic etiology, combined sometimes with syphilis, in the parentage of such children. In the following genealogical tables, taken out of a large number of such cases which had come under my observation, some of these results are shown:

*a.* Male, chronic alcoholic, of coarse and brutal disposition; female, rather weak-minded, but no special neurosis.

| | | | |
|---|---|---|---|
| Child stillborn. | Male, imbecile, very deficient in speech and awkward in gait. | Female, delicate health, has epileptic fits. Marked asymmetry of skull, squint-eyed. | Female, thin and delicate, infantile convulsions, died of phthisis. |

*b.* Male, drunkard, lazy and dissolute; female, occasional careless drinker.

| | | | |
|---|---|---|---|
| Male, epileptic, imbecile. | Idiot child, helpless, partially crippled. | Child stillborn. | Child stillborn. |

My collection of genealogical tables is full of such histories as the above; space forbids the publication of more.

Case III.—Epileptic imbecile. The brain condition is very similar to that of Case II. but the lesion is mainly on the opposite side—namely, atrophy and sclerosis of the area supplied by the posterior cerebral artery in the left hemisphere. The other features are analogous to those in Case 2, but in a less intense degree, being an imbecile, not an idiot.

Case IV.—A. L., male, epileptic idiot. Microcephalic. In this case the cortical lesions are scattered, and the condition is one of disseminated microgyria, with sclerosis, affecting small territories, especially the upper frontal and the parieto-angular, but unevenly scattered through both hemispheres.

## Pathogenesis

In these and many other cases of epileptic idiocy and imbecility the pathological changes, both as revealed to the naked eye and to microscopic technique, are of a striking kind. The grosser defects are obvious not only to the naked eye, but to the touch and feel they present varying degrees of hardness and induration in connection with the sclerosis of the nerve substance, which is such a prominent feature in these brains. The morbid process in the brain underlying epileptic idiocy and imbecility I have stated shortly as follows[2]: "There is a sclerotic overgrowth of the neuroglia fibre cells (diffuse or focal, and in the latter case often corresponding to a particular vascular territory), with a corresponding slow irritation, destruction, and final atrophy of the nerve cells and fibres in the same area."

The nerve cells specifically show various changes, some of which are (*a*) due to arrested or altered development, while other are (*b*) apparently of later origin. These will be now described. The former class (*a*) includes a defective type of evolution of the protoplasmic processes of the nerve cell (imbecile type of nerve cell), which I have very frequently found in these cases with the Golgi method. These defects exhibit all grades—from the gravest to a slight degree. Cells from the brains of epileptic imbeciles of adult age (20 and over) often show in considerable areas a development of the neurons or nerve cells not greater than that of a healthy child between the ages of 3 and 5. With the aniline blue-black stain these deficiencies of the protoplasmic processes can be also numerically shown. The cell body under such conditions retains its plump embryonic contour, the fewness and slenderness of its protoplasmic processes serving to accentuate this condition.

The intracellular changes are also of a striking sort, and consist of changes in both cell body and nucleus. These we have investigated with the toluidine (modified Nissl) and with the aniline methods. The changes as shown by the latter method have been described by Bevan Lewis in Epileptic Idiocy (*Brain*). My own observations confirm them.

With the toluidine (modified Nissl) method we obtain further details of cell and nuclear structure, and they are as follows:

1. *Changes in the Nerve Cells.*—(*a*) An increase of the normal golden pigment at the base of the cell body. Often this pigment has a tendency not merely to accumulate at the base, but to get, as it were, disintegrated, and diffused throughout the cell-body. (*b*) A destruction of Nissl's granules in the areas invaded by the pigment. (*c*) A displacement of the nucleus towards the apex of the cell. (*d*) A thickening of the strands and knots in the intranuclear reticulum, and the production of a fine dust-like material (? *débris*) in between the meshes of the reticulum. (*e*) A deeper staining of the nuclear structures. (*f*) A diminution in the deepness and distinctness of staining capacity of the Nissl's granules in the pyramidal and polymorphic cells of the affected parts.

2. *Changes in the Neuroglia Cells.*—The changes in the neuroglia fibre-cells can be best seen with the Golgi silver stain. In most of my specimens these changes are of a striking nature. They can be revealed, also, with the use of hæmatoxylin, and of aniline blue black combined with (or without) picro-carmine. The total number of brains of epileptic imbeciles and idiots I have examined till now comprise fourteen, the majority of these having been at the West Riding Asylum. It is by no means intended to state that these changes are restricted to the epileptics who are epileptic and feeble-minded. These sclerotic and nervous changes are also seen in epilepsy supervening later in life—that is, at the adolescent or adult period of life—and when the disease has been in existence for some years. The sclerotic change, however, is generally speaking not so advanced or so abundant in the hemispheres. Here and there diffuse strands and sheets of sclerosed tissue are seen, in some places concentrated into firm almost fibroid islets; in other places finely diffused throughout, and infiltrating the brain substance. Where these changes occur in the deeper cortical and neighbouring parts, the naked eye difference of colour between cortex and white substance is often lost, and the tissue so infiltrated feels firm, and even hard. Where several such spots or patches are aggregated the brain substance feels knotty when pressed.

Manifest atrophy of convolution, however, there need not be in these later cases. Microgyria is conspicuous by its

absence. Often indeed there is not only no attenuation or shrinking of the gyri, but, on the other hand, the gyri are not infrequently plump and of full size; nay, there is frequently a thickening or pseudo-hypertrophy of them, so that their sides seem to be more closely adpressed towards one another, while the tops of the convolutions are similarly pressed against the cranium (dura or falx cerebri), giving rise to a flattened or tableland-like appearance of the tops of the convolutions. And the fissures and sulci accordingly do not gape, but are reduced to the appearance of narrow and almost linear markings of the brain surface. These adult cases—at least some of them—without being actually imbecile, are somewhat weakminded. The predominant character, however, is not the mere deficiency of intelligence (negative state), but the special positive character presented by the epileptic neurosis (positive character). I refer to the explosive condition of the nerve cell and the manner of its discharge of nerve currents. In the cell thus affected the balance between storage of nerve energy and discharge of nerve currents is altered in such a way that a condition is set up of the accumulation of nerve energy at an abnormally high potential (qualitative variation) within the cell, and a liability to explosive and violent discharges from time to time (periodic discharge). This epileptic or explosive condition of the nerve cell is parallel or approximates pathologically to the nutritive impairment of the third degree which I have described elsewhere.[3] Etiologically and clinically, such nutritional anomalies are not unfamiliar to us; they may occur apart from epilepsy in some congenital forms of the criminal psychoses, while their later and acquired phases are shown in alcoholism (some types), especially absinthism, and also in some phases of adolescent insanity and of general paralysis of the insane.

I cannot close this part of the subject without referring to one case which I was fortunate to investigate under Professor Horsley in 1891, namely, a case of focal epilepsy in a child, in which the affected area of brain cortex was excised in the operation (after trephining), and the piece thus removed was placed in my hands for further investigation. The specimen had been in methylated spirit for some days before it reached me. This might have been thought to have been a disadvantage—and so it was for studying minutely certain of the nerve changes; but, on the other hand, the sclerotic changes could be well studied, especially after staining with hæmatoxylin and counterstaining with picro-carmine. (Specimens prepared with aniline blue-black were too diffuse in staining, and otherwise a failure to show detail.)

In all the specimens the whole depth of the cortex was pervaded by a fine diffuse sclerotic network, rather coarser and more abundant than the normal feltwork of neuroglia fibre cells; and in two places the cortex was beginning to pucker and shrink slightly as if contracted. Further progress of the disease might, I think, have led to the familiar sclerotic atrophy with microgyria of this part of the cortex, and probably to the development of a "cauliflower"-like patch. There were also two or three minute hæmorrhages beneath the pia, the areas being not more than half a millimetre in diameter. The diffuse sclerosis extended down to and involved the small portion of white substance which was excised with the cortex in the operation. The blood vessels were filled with red corpuscles, but I could find no dilatation, nor any notable changes in the vessel walls. The perivascular neuroglia network seemed rather more abundant than normal.

The nerve cells appeared of diminished abundance, and as yet did not show (with the methods employed) any special destruction or involvment of the protoplasmic processes close to the cell body: the distal parts of the processes could not be seen with the stains used, and therefore nothing can be said of them. The cell bodies, however, showed more free and more diffuse intracellular pigmentation than that of the normal child. (The nuclei seemed to show no special change with the methods used, nor could any vacuolation be demonstrated).

A bird's-eye view of all the cases examined showed that the type of lesion present in the before-mentioned cases was as follows:

(*a*) A diffuse sclerosis or overgrowth of the neuroglia fibre cells in the brain substance.

(*b*) A coextensive change in the nerve cells. This change was of two kinds—namely, negative and positive. The negative changes consisted in a defective development (fewness and slenderness) of protoplasmic processes—imbecile type of nerve cell; while the positive changes consisted of an increase in amount and diffusion of pigment throughout the cell body, especially its basal part, and a displacement of the nucleus towards the apex of the cell. Later changes were a gradual destruction and atrophy of the nerve-cell processes consequent upon or coextensive with the further overgrowth of the glia (sclerosis), until whole groups and islands of cells might be so destroyed.

There is thus a common pathogenic basis for epileptic idiocy and imbecility, and for focal epilepsy occurring in the child—namely, anomalies of growth and nutrition impressed upon the growing nerve cell as well as the neuroglia cell, and affecting predominantly this or that area of the brain frequently in territories corresponding to a particular vascular distribution.

In cases of epilepsy supervening in adult life, after the brain cells had attained complete development, the changes found were (as regards the nerve cells) only of the positive kind just mentioned. But, in addition, these very frequently exhibited intranuclear vacuolation of the cortical cells also, an observation of Bevan Lewis which I can fully confirm.

The significance of the changes especially associated with the epileptic neurosis (more particularly when occurring congenitally or in early life, and therefore entailing also a more or less obvious degree of mental impairment) is still more striking when we remember that "in the brains of simple—that is, non-epileptic—idiots and imbeciles, such lesions as the above were generally absent, and the convolutionary forms might be and often were plump and well formed, though inclined to simplicity of arrangement." These are to be looked upon as general arrests of development, not complicated of course with the epileptic neurosis. Such arrests might be very pronounced, so as to entail speechless idiocy in the patient. The following case is such a one:

CASE V.—G. W. K., male, congenital idiot, not epileptic. He is speechless, uneducable, dirty, and degraded in his habits. He finally died of phthisis at the adult age of 30. The brain shows a plumpness and rotundity of the convolutions. The convolutions are less complex and sinuous than in a normal person; there is great deficiency of the tertiary and secondary sulci, so that the convolutions are very wide and full-looking. There is no local atrophy or sclerosis, and nowhere any condition like microgyria. Microscopically there is great defect of development of both pyramidal and polymorphic cells (imbecile type of cell).

In the brains of non-epileptic imbeciles sclerosis and microgyria are both conspicuous by their absence. When the epileptic neurosis is present, however, this process is also present. The positive or negative changes in the nerve elements themselves are present in varying degrees. It is in the combination of these two classes of pathological lesions that we find the surest indication, the seal as it were of epileptic idiocy or epileptic imbecility in the brain.

The bearings of these and other observations on the causation, prevention, and on the treatment of the insanities will form the subject of a future communication.

REFERENCES.

[1] A short article appeared in the BRITISH MEDICAL JOURNAL, April, 1895. [2] *Lancet*, April 27th, 1895, p. 1059. [3] *Brain* (Winter) 1894, pp. 681-2.

## FIBROMA OF THE OVARY AND OVARIAN LIGAMENT:

### WITH PATHOLOGICAL AND CLINICAL REPORTS OF A SERIES OF EIGHT CASES OF FIBROMA OF THE OVARY AND ONE OF THE OVARIAN LIGAMENT, TREATED BY OPERATION.

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SOME ovarian fibromatous growths are insignificant; these are unimportant clinically, and have been discovered, as it were accidentally, *post mortem*. Dr. Joseph Wiglesworth, more than ten years ago, presented to me the ovary illustrated in section in Fig. 1. The three small central fibromata within

the ovary were associated with large fibroids of the uterus in a woman, aged 44, who died from another cause in Rainhill Asylum. Microscopical preparations from the spirit specimens showed the ovarian growths to be pure fibromata and the uterine fibro-myomata. The occasional concurrence of uterine fibroids and ovarian "fibroids" had been noted, and Safford Lee[1] had described their structure as identical. Virchow has warned us not to structurally confuse so-called "fibroids" of the ovary with fibroids of the uterus.

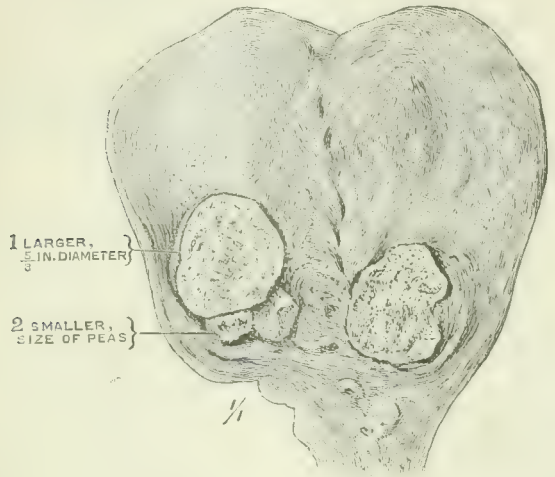



Fig. 1.—Ovary, in section, showing three small fibromata.

Dr. Wiglesworth's specimen is valuable in so far as its structure harmonises with Virchow's observation. But, in addition, such a specimen is only very rarely met with; Rokitansky described a variety of ovarian fibroma "as originating in the cicatrix of a corpus luteum, and being rarely larger in dimensions than a pea." Rokitansky cited two cases.

Examples of larger growths of pathological interest have been published by Klob and Jenks, by Goodhart,[2] Walsham,[3] Crisp,[4] and others.

Dr. Edward Crisp, when he exhibited the specimen just referred to, pointed out the ease with which the growth might have been removed during the life of the patient; this was over seven years after Dr. J. L. Martin,[5] of Melbourne, had removed by ovariotomy a hard fibrous tumour of the ovary which the late Sir Spencer Wells and Dr. Graily Hewitt were unwilling to accept, at the time, as ovarian. In the light of subsequent knowledge Dr. Martin's case was, one might almost say undoubtedly, an example of ovarian fibroma. Dr. Martin, at the time, was able to refer only to the "two cases of rather rare fibrous tumours of the ovary" mentioned in Clay's translation of Kiwish. The late Sir Spencer Wells operated twice, in the spring of 1872, for what were really fibrous tumours of the ovary.

No comment was made on the independence of the corresponding Fallopian tube in relation to solid ovarian tumours until Leopold's paper was published in 1874.[6]

Leopold administered the clinical stimulus in 1876, when he alleged that solid ovarian tumours as a class were more frequent than had been previously believed. The ground for this opinion was his laborious and valuable collection of fifty-nine cases, including fibromata, sarcomata, and carcinomata. Only hypercriticism could stamp Leopold's collection as incomplete.

Nineteen of the 59 had been described by their respective authors as fibromata. Leopold inferred that some of the 19 were probably sarcomata. It is true that there is no sharp line between the fibroma and the sarcoma. When spindle or mixed cells have been conspicuous features in structure, a sarcomatous, or suspiciously sarcomatous, tumour has been the almost invariable verdict. This is exemplified in many instances, amongst the mostly isolated records of cases found in the *Transactions* of societies, and in the medical journals, too often reported within days or weeks of the operation.

In the museum of University College, Liverpool, there are two solid ovarian tumours (from Case III in my Table). I removed the tumours at the one operation, 4¼ years ago, and soon afterwards, as the result of my own microscopical examination of the growths, the museum label was written "sarcomata of the ovaries."[7] The patient still lives, and the freedom from recurrence in her case and in the cases of all the others (see the Table), induced me a year ago to completely change my opinion; accordingly, in November, 1895, I advised the postponement for two months of the operation of ovariotomy in Case VI in my Table.

My own operative practice has supplied me with eight cases of fibroma of the ovary, and one of fibroma of the ovarian ligament. With the one exception already referred to (Case III) the ovarian growth was confined to one ovary. The uterus in every case was free from fibroid growth.

CASE I.—E.K., a widow, aged 55, in whom the menopause was established two years ago, was sent to Liverpool by Dr. Henry Lloyd, of St. Asaph, because of the discovery by him of a collection of ascitic fluid and a solid ovarian tumour. The uterus was underneath the tumour; it was small and unconnected with the tumour. She was in fair health; a multipara. The tumour she first detected "the size of an egg," in May, 1891. In the next five months, she stated, it grew rapidly. There was a little pain on exertion only. Ovariotomy, on October 21st, 1861, there were four or five pints of ascitic fluid. The only difficulty was with the broad and vascular pedicle, secured in four sections for the sake of safety. Right ovary normal. The tumour contained one superficial cyst distended with clear fluid, otherwise (that is, in nearly the whole of the extent) it was solid and hard, uneven on the surface. When cut into, the solid portions were almost uniformly tinted, pale-pink, yellowish-white. The minute structure as seen under the microscope, in the section before you, is either a pure fibroma with spindle cells or a fibromyoma. Its character is simple, and its structure doubtful, as to the presence or absence of involuntary muscle cells. There are some slightly wavy, very long spindle cells, which, to follow Virchow and others, it is very difficult to identify as either the cell elements of connective tissue or involuntary muscle. As to the presence of involuntary muscle in ovarian fibromata, in the affirmative are Virchow, Birch-Hirschfeld, Klob, and Klebs; in the negative, Leopold, Fritsch, and Spiegelberg. After-history of patient: excellent health in October, 1896.

CASE II.—Dr. Newington, of Rock Ferry, advised B. A., a single woman, a florid, healthy-looking housemaid, aged 22, to come to the Hospital for Women on June 20th, 1892. She had a large solid tumour and a little peritoneal fluid in the abdomen. The uterus was small, underneath the growth, and independently movable. The patient had first discovered her tumour three months previously, and according to her account it had grown rapidly. Menstruation every four weeks, duration seven days, natural until the period, ending May 7th, was scanty. Menses suppressed in June, 1892. On cross-examination she afterwards stated that the menses had diminished in quantity since an attack of flatulence and palpitation in November, 1890. There was no complaint except of dysuria suggesting "anything wrong within her." Ovariotomy June 24th, 1892, uncomplicated; a thick and wide pedicle. The tumour had a smooth and even surface, with numerous vascular areas; on section, within, several mucoid patches, surface of section pale pink and dull white colour. Microscopically examined, a cellular fibroma with mucoid patches. After-history: patient living and in good health.

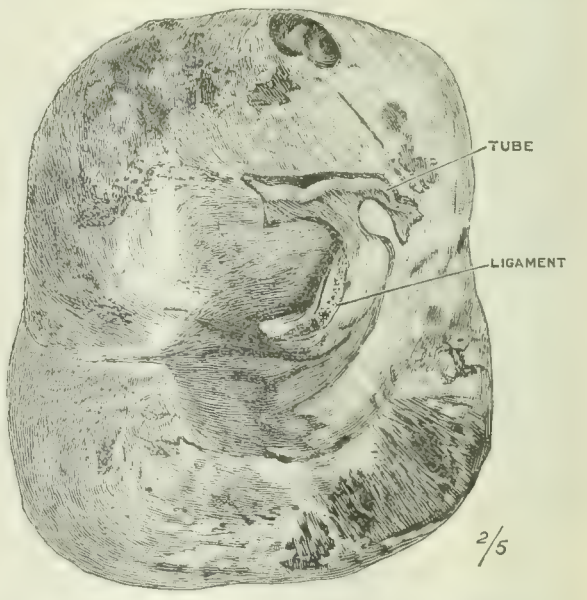



Fig. 2, Case II, a cellular fibroma with mucoid patches

CASE III.—M. E. W., aged 48, the mother of five children (youngest aged 16 years), first consulted Dr. Billing, of Blackpool, a fortnight before her

## I.—*Fibroma of Ovary (one double).*

| | Date. | Operator and Previous Medical Attendant. | Initials of Patient. | Age, Social State, W., M., S., Children, and Abortions. | Symptoms. | Physical Signs. | Operation. | Structure of Tumour. | After-History.* |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1891 Oct. 21 | Dr. Briggs Dr. Lloyd, St. Asaph | E. K. | 55 W. 3 children 3 abortion | No pain, except on exertion. Tumour "as large as an egg" when found in May, 1891. Menopause 2 years ago | Uterus small: large tumour independent of it. Ascites | Long incision. tumour (7⅛×6½ in.) solid, except one superficial cyst. Pedicle broad and thick, secured in 4 sections. Right ovary unaffected | ? Fibroma ? Myofibroma (See text) | In good health, 5 years afterwards. |
| 2 | 1892 June 24 | Dr. Briggs Dr. Newington, Rock Ferry | B. A. | 22 S. | No pain. Tumour discovered by patient 3 months ago. Bladder slightly irritable. Menstrual history normal, except scanty in May, omitted in June, 1892 | Uterus small: large tumour independent of it. Ascites | Tumour (7½×6½ in.) solid with several mucoid patches. Opposite ovary healthy | Cellular fibroma with mucoid patches | In good health, 4⅔ years afterwards. |
| | July 22 | Dr. Briggs Dr. Billing, Blackpool | M. E. W. | 48 M. 5 children (youngest 16 years old) | No symptoms, except enlargement of abdomen, noticed 14 days before admission into hospital. Menopause 6 years ago | Uterus 3 in. large and small tumours. Ascites | (Double ovariotomy) Large tumour (7×7 in.), small tumour (2×2 in.), 3 pints ascitic fluid | Myxofibroma | In good health, 4⅓ years afterwards |
| 4 | 1894 June 15 | Dr. Briggs Dr. Morrish | A. S | 30 M. 2 children 1 abortion | No pain (sometimes the tumour felt sore). 18 months ago she first found the tumour "the size of an egg" | Uterus 2¾ in.: heavy solid tumour independent of it | Tumour (7½×5½ in.). Right ovary normal. Ascites | Spindle-celled fibroma | Borne one child since operation. In good health, 2⅔ years afterwards. |
| 5 | Sept. 14 | Dr. Briggs Dr. Tisdall | A. G. | 68 S. | No pain. 3 months ago she accidentally discovered the tumour, which has grown rapidly since | Uterus 2½ in., cervix elevated | Tumour (11×7 in.) (weight 7½ lbs.), adherent to sigmoid flexure, cæcum and appendix also to pelvic peritoneum | Fibroma with spindle cells | In good health, 2½ years afterwards. |
| 6 | 1896 Jan. 10 | Dr. Briggs Dr. H. T. Shaw | Mrs. W. | 32 M. | Married July 11th, 1895 Pain at intervals for 4 months, always relieved by rest | Uterus small: solid tumour independent of it. Ascites | Tumour (4×3 in.). Left ovary normal | Spindle-celled fibroma | In good health, 10 months afterwards. |
| 7 | Aug. 20 | Dr. Briggs Dr. Robinson, Runcorn | A. H. | 39 M 11 children 9 abortions | Pain occasionally on exertion for 1 year. Bladder irritable | Uterus 3 in.: solid tumour independent of it. Ascites | Tumour (2×2 in.) Right ovary normal | Spindle-celled fibroma | In good health, recent. |
| 8 | Sept. 16 | Dr. Briggs Dr. Cowe | M. H. | 29 M. | Pain for 12 months. 4 months pregnant | Stony hard tumour independent of uterus | Tumour (3×3 in.). Right ovary normal | Almost structureless, a calcified fibroma | In good health recent. |

## II.—*Fibroma of Ovarian Ligament.*

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1892 March 7 | Dr. Briggs Dr. McDougall | A. J. | 35 S. | Pain 6 to 7 years, not totally relieved by rest | Hard tumour of irregular outline, independent of the uterus | Tumour the size of the closed fist of the female adult. Ovaries and tubes not disturbed | Dense fibroma | In good health, 4½ years afterwards. |

* The after-histories are brought down to March 31st, 1897.

admission into the Hospital for Women on July 19th, 1892. She had no pain. She had noticed "herself getting larger." Her general health was unimpaired. Menses natural till cessation at the age of 42 years. Dr. Billing observed the ascites and a solid tumour. On a more complete examination after her admission into hospital I was able to find the uterus, low down to the front, on the left side, a large and a small solid tumour, both free from the uterus. Ovariotomy, on July 22nd, 1892, was easy; both broad ligaments were readily tied. The tumours and over 3 pints of ascitic fluid were removed. The tumours were smooth and globular; pale pink tint on section. The same structure was found in each: numerous cells, myxo-fibroma. After-history, October, 1896: she now enjoys excellent health.

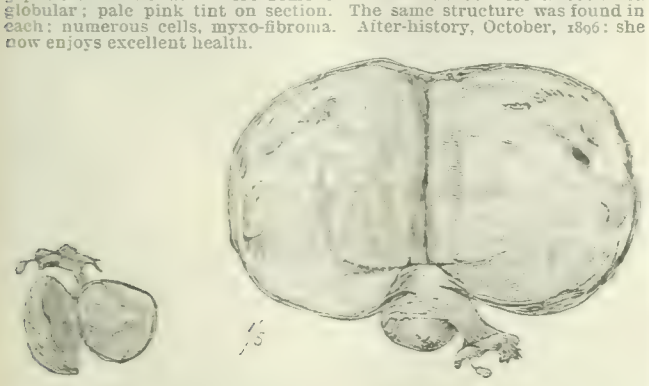


Fig. 3, Case III, right ovary, 2½ ozs.; left ovary, 1 lb. 15 ozs.; myxo-fibromata. Reduced to one-fifth natural size.

CASE IV.—Dr. Morrish, of The Dingle, advised A. S. to go to hospital. She was a married woman, in good health, aged 30, the mother of two children aged (1) 3 years and (2) 3 months. On the day of her admission June 11th, 1894, she told me that after an abortion at the third month, one and-a-half years ago, she detected "a lump the size of an egg." The lump, she said, was movable in the abdomen, and sometimes felt sore. A subsequent pregnancy and full term labour were not inconvenienced by the lump. It was some time after the full term labour (three months ago) that Dr. Morrish was consulted, and he acquainted her with the presence of the tumour and the necessity for having the tumour removed. Menstrual history unchanged. Ovariotomy June 15th, 1894. Large solid tumour, also ascitic fluid, removed: opposite ovary healthy. Tumour solid, fibrillated on section, a spindle-celled growth, a fibroma. After-history: she has since borne a child and is in excellent health.

CASE V.—The laundry matron of a charitable institution, A. G., a single woman, preserving an exceptionally vigorous constitution at the age of 68, was admitted under my care on the recommendation of Dr. Tisdall. Since she first noticed the tumour three months ago, she said the growth had been rapid. The tumour was large and felt solid: it was fixed in the pelvis and lower abdomen. The uterus, which measured 2¾ inches, was elevated, so that the portio vaginalis was barely tangible *per vaginam*. The uterus was movable on the front of the mass of growth fixed behind it. These relations of tumour and uterus were carefully confirmed, with the patient under deep anæsthesia, before operation was contemplated. Dr. Tisdall informed me that the tumour had rather rapidly encroached on the patient's health and capacity for work, and urged an operation for the removal of the growth. The consent of the patient was obtained, and the risk from the adhesions explained to her friends. Ovariotomy, on September 14th, 1894, was completed in little under 1½ hour. Adhesions to the whole of the sigmoid flexure, to the cæcum and vermiform appendix and to the pelvic peritoneum had to be dealt with, and numerous patches of bleeding vessels on the walls of the separated intestine were undermined with a needle and fine catgut, and tied. The left broad ligament was secured. Hæmorrhage, in the form of a free oozing, from the depths of the pelvic cavity, was controlled by an intraperitoneal packing of superimposed strips of cyanide gauze. The gauze and the glass drain tube were left *in situ* for two days. Our efforts were rewarded, for she made a steady recovery. Her tumour weighed 7½ lbs.: it was a pure fibroma; its spindle cells were not very numerous; they were connective-tissue cells, shorter than the cells of involuntary muscle. After-history: she remains in good health.

Case VI.—The patient was the newly-wedded wife of the captain of an ocean-going steamer. In November, 1895, I saw her with her doctor, who told me that she was suffering from pelvic pain, relieved by rest. The pain was first complained of very soon after marriage, four months ago. She was aged 32 years. Menstruation unaffected. There was a solid hard round tumour, the size of a large orange, in the pelvis, unconnected with the uterus. The diagnosis of ovarian fibroma was made, and on this opinion of the innocence of the tumour, I relied entirely on my own personal experience in the five cases I had previously treated by operation. I felt that conscientiously I could advise the postponement of the operation until the husband returned in two months' time. Immediately after the return of the husband in January, 1896, I again visited the patient. In the meantime the tumour had increased in size, and a little ascitic fluid had collected in the peritoneal cavity. Ovariotomy on January 10th, 1896, was an easy operation. The tumour had a pale, reddish-pink colour. It was a spindle-celled fibroma. It lay within the capsule of the ovary, and carried two-thirds of the normal ovary on its surface. After-history: she has gained 10 lbs. in weight; she is in excellent health, and the opposite ovary is not enlarged.

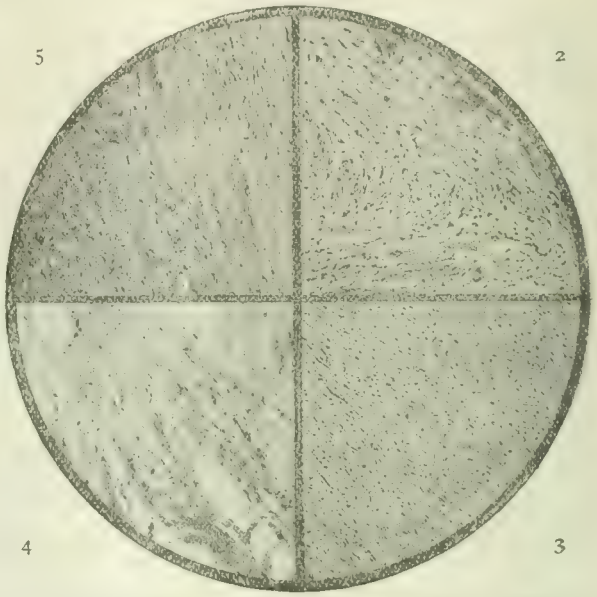



Fig. 4.—Case VI. Spindle-celled fibroma of ovary.

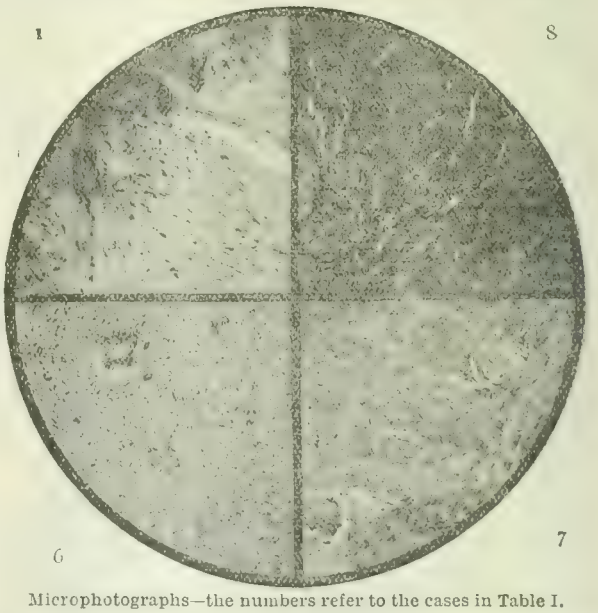
Case VII.—Dr. Robinson, of Runcorn, sent A. H., aged 39 years, to the Hospital for Women. The patient looked pale and sallow, but, as a rule, she enjoyed good health. She had been pregnant 20 times: 11 children and 9 abortions resulting. The bladder was slightly irritable. Menstruation regular up to 18 months ago; since then the menstrual interval has often been only 14 days, several times 3 days, and once 21 days. Four years previously she had a "bad confinement," the child was born by the breech. Pain had been experienced for 12 months; walking aggravates the pain. She was always most comfortable when she lay on the left side, and if she turned over to the right something dropped from left to right and caused pain. She had a solid ovarian tumour as large as a medium-sized orange. Ovariotomy, on August 20th, 1896: no difficulty. Tumour, pale pink colour: a spindle-celled fibroma.

Case VIII.—M. H., aged 29, was a delicate-looking woman. She had been married four years, and was last unwell on June 17th, 1896, when this, her first, pregnancy commenced. For quite twelve months there had been pain in the lower abdomen, and recently, since she became pregnant, she had been very sick, and suffered more acute pain. Hence she called in Dr. Cowe, with whom I saw her. She was a nervous woman, and unconsciously resisted examination. Under the influence of an anæsthetic was found what practically resembled a large loose stone, mostly of rounded outline, and quite free from the pregnant uterus. Ovariotomy, on September 21st, 1896, at the fourth month of pregnancy. There was no ascitic fluid. Tumour hard, enclosed in a capsule formed of the remains of the ovary, which could be stripped off the growth, which was so completely calcified that it had to be sawn. After decalcification the portion of the tumour examined showed an almost structureless fibroma.

A summary of the pathological structure of the tumours might be the following (see the Table): In (1) and (5) there was a large proportion of fully-formed fibrous tissue; in (1) the spindle cells were unusually long and wavy; in (5) the spindle cells were shorter. No one has suggested, after an examination of the microscopical sections, that the cells in (5) are anything else than connective tissue cells, but the long, wavy spindle cells in (1) are thought by Professor Boyce to belong to involuntary muscle; hence I have labelled the structure myofibroma (?) or fibroma (?). In the others, (2) a cellular fibroma with mucoid patches, (3) a "sarcomatous-looking" myxofibroma, (4) and (6) spindle-celled growths, (7) spindle-celled growth (recent). Degeneration was shown, partial mucoid in (2) and complete calcification in (8). Now, as to the question of fibroma *versus* sarcoma, the evidence from my cases is largely, if not altogether, in favour of fibroma in heavy, solid primary ovarian growths. This year, during the treatment after operation of Case VI, where a spindle-celled growth was removed, and where I had previously diagnosed ovarian fibroma and postponed operation for two months, I was anxious to obtain some confirmation of my opinion as to the non-malignant character of the spindle-celled growths.




Microphotographs - the numbers refer to the cases in Table I.




Microphotographs—the numbers refer to the cases in Table I.

Dr. Cullingworth's remarks on Dr. Dakin's specimen before the Obstetrical Society in 1894[8] were encouraging. Mr. Alban Doran has recently very kindly lent me the original copy of the paper he read before the Obstetrical Society in June, 1896.[9] Dr. Dreschfeld's original description of the ovarian growths from a former patient of Dr. Cullingworth's[10] has been since upheld.[11] Mr. Bland Sutton[12] is of opinion that "ovarian fibromata are very rare; many specimens described as such have turned out on careful re-examination to be typical spindle-celled sarcomata." Mr. Bland Sutton[13] adds: "It is very difficult to obtain reliable and complete records of a sufficient number of cases to enable a satisfactory description of the clinical aspects of ovarian fibromata to be

written"..... "The histories of the patients subsequent to operation are of the greatest importance"..... "The complete histories of a score of such patients would be very valuable."

The cases referred to by Mr. Doran [1] and those I now publish may go far towards establishing amongst the heavy solid primary ovarian growths a higher proportion of ovarian fibromata than has hitherto been acknowledged. I would urge that a hard, heavy, solid ovarian tumour is more likely to be a fibroma than a sarcoma.

Paget [11] alluded to remarkable examples of hard cancers with fibrous structures that he had seen in the ovaries of patients with common hard cancer of the breast or stomach. Last year a patient was under my care with two scirrhous ovaries over three years after the breast operation. I allude to that case and to one of primary sarcoma of the ovary, largely cystic, in a girl, aged 19, as examples of growths far less open to clinical confusion than a dermoid tumour may be, in the diagnosis of ovarian fibroma.

*A Case of Fibroma of the Right Ovarian Ligament.*—A. J., aged 35, single, a healthy-looking woman, stated that there was no definite onset to her suffering, which consisted of pain in the lower portion of the back and in the upper and outer side of the right thigh. For four years she had consulted doctor after doctor, and for one year she had been unfit for work. The pain was aggravated by exertion, but not totally absent during rest. Menstruation regular, dysmenorrhœa; bladder irritable. Dr. McDougall, of Liverpool, found the tumour during his only examination during the first interview with the patient, a fortnight before her admission to hospital on February 26th, 1892. The tumour was easily recognised bimanually, and found to be independent of the normal uterus. Operation, abdominal section, on March 7th, 1892. A narrow rounded pedicle was easily secured without disturbance of either the tube or the

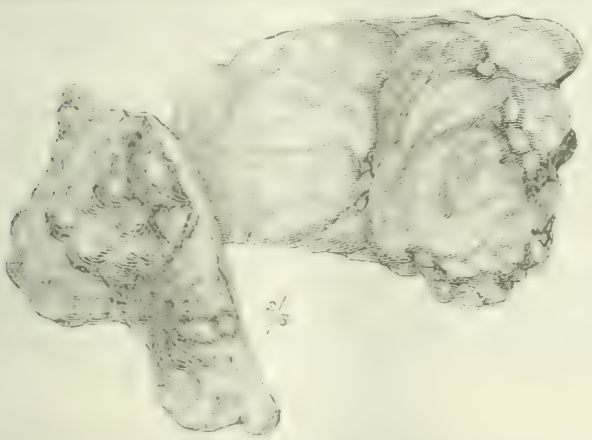


Fig. 5.—Fibroma of the ovarian ligament.

ovary. The tumour was the size of the closed fist of the adult female. It was composed of dense fibrous tissue. After-history: she is now in the enjoyment of good health.

*Note.*—The addition of this case to the three (one each from Doran, Doléris, and Penrose) tabulated by Mr. Doran so far increases the pathological and clinical knowledge of a rare form of tumour.

[The microphotographs were kindly taken by Mr. F. T. Paul from my own sections.]

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[1] Jacksonian prize essay, 1847. [2] *Pathol. Soc.'s Reports*, 1874. [3] *Ibid.*, 1876. [4] *Ibid.*, 1877. [5] *Obstet. Soc. Trans.*, 1870. [6] *Arch. f. Gyn.* [7] Professor Boyce, when examining the sections under the microscope a few days ago, remarked "What a suspiciously sarcomatous structure." [8] *Obstet. Soc. Trans.*, 1894, pp. 313-14. [9] *Ibid.*, 1896. [10] *Ibid.*, 1879. [11] Mr. Doran's paper, *supra*. [12] *Surgical Diseases of the Ovaries and Fallopian Tubes*, second edition, March, 1896. [13] *Loc. cit.* [14] *Loc. cit.* [15] *Surgical Pathology*, p. 613, edition by Turner.

## FOOD IN TYPHOID FEVER: THE VIA MEDIA.

By WILLIAM EWART, M.D.CANTAB., F.R.C.P.,
Physician to St. George's Hospital, and to the Belgrave Hospital for Children.

THE "general belief" that for a typhoid patient the best is a simple, and in particular a milk diet, and that the line of safety lies in a strict adherence to the approved routine, has probably saved many a life from the risks which often arise from too much zeal. Nevertheless, routine based upon a general belief, which itself is derived from exclusively watching the operation of the routine, is not a progressive method or a convincing argument. A definite assurance that relapses, whilst liable to occur with other diets, never did occur with a uniform and exclusive milk diet, would at once set at rest all controversy. In the absence of any assurance to that effect, it is well that the question of diet should be studied, and that we should bear in mind that clinical improvements, howsoever important, cannot at their inception command the support of large statistics.

With Dr. Barrs's aims and arguments I largely agree, and I admire Dr. West's practical caution; yet I differ from both in my practice, which might almost be described as a resultant of their diverging views. For a considerable time I have taught that, so long as we remain unable to deal with the bacillus, our primary indication is to keep up the vitality of the tissues by feeding the patient according to the very best method. How to do this effectually, with judgment and with safety, and with due regard to the indications in the individual cases, is our daily problem.

Milk, the food of foods, and by far the most convenient of all for administration, cannot be improved upon; but might it not be added to? Specially designed for the needs of the growing infant, it can hardly be regarded as also adjusted with perfect nicety either for the wear and tear of adult life or for the wasting effects of continued fevers. The excessive muscular wasting noticed in typhoid does not argue the necessity of a mainly nitrogenous diet; it rather points to deficiency in the daily allowance of fuel, a deficiency which must be made good from some source, even at the expense of so much muscle. In my opinion milk supplies much, but not all that is required; it should, and can safely be supplemented with small and inoffensive adjuncts which day by day will make up the difference. A little more carbohydrate than milk contains and a little hydrocarbon thrown in may save a large and unnecessary waste of muscle. But we can do much more than merely economise weight, if at the same time we are careful not entirely to withhold the fresh vegetable principles which are universally held to be essential to the making of the best blood.

My endeavour has been to supply these additions early, and with that view to restore as soon as possible the digestive function of the upper alimentary tract. Putting aside the few exceptionally severe cases which no treatment and no dieting have hitherto saved, this preliminary indication has been fully attained with the help of Mr. W. B. Wedgwood's [1] valuable method of treatment by mercury and iron, which cleans the tongue, revives the energy, the appetite, and the complexion, and enables the whole pyrexial period after the first week to become a progressive return towards a normal alimentation.

For solid food in the ordinary sense I am no advocate, either during the fever or during the first week of apyrexia. But I do not find in my experience of the last few years any support for the view that supplementing the milk diet with soluble and easily-absorbed food stuffs, which leave little or no fæcal residue, does anything but good, so long as the extras are carefully adjusted to the individual indications.

As soon as the "typhoid" condition has been overcome by medication—and this is most often the work of a very few days—maltine is well borne, so is yolk of egg, and a little later the white of egg also, or calf's foot or chicken jelly. Yet later blancmange, custard, honey, which is specially indicated in constipation, or even chocolate may be enjoyed; and, as digestion gains strength, the juice of oranges, the pulp of ripe grapes, and, as first suggested to me by Dr. J. W. Dickson, baked apples supply the grateful and healing fresh vegetable principles.

The patients' steady improvement and well-being generally speak for themselves. In a young female patient admitted after ten days' exclusive but insufficient milk supply in a "typhoid" and somewhat wasted condition, I obtained on this plan a result which I had never noticed before during the continuance of the pyrexia, namely, an ample return of subcutaneous fat.

Dr. West wisely dwells upon the danger of relapse attaching to any abrupt change in a previously uniform and exclusive dietary: nothing is more likely than this result in a patient trained down in his digestive energy and in his stamina by an exclusive milk diet which I regard as imperfectly adapted for the repair of a wasting fever and for the

making of rich blood. This is precisely the risk which the early adoption of a varied and progressive diet seeks to obviate.

At the same time some share in the prevention of relapses has probably been due to the steady continuance of the mercury and iron treatment not only throughout the attack, but for at least a week and a half after defervescence. These views, and further details of treatments, were published in my paper on the Therapeutic Indications in Typhoid Fever in the *Medical Press and Circular* of May 15th, 1895.

In conclusion it is claimed for this modified dietary that it is a distinct improvement on an exclusive milk diet in respect of the nutrition of the blood, of the heart, of the nervous system, and of the bowel; and that it has over the solid alimentation which Dr. Barrs advocates—and of which it supplies the essential constituents—an important advantage in the avoidance of any dangerous stress on the gastric and intestinal digestion, and of any accumulation within the bowel of insoluble and of putrescible residues. Its nutritive success is attested by the aspect and sustained strength of the patients, by their shortened convalescence and greater freedom from sequelæ, and by the absence of that craving which is not only a discomfort but a sign that they are relatively underfed.

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[1] BRITISH MEDICAL JOURNAL, 1894, i, p. 1126.

## REMARKS ON METHOD IN SERUM DIAGNOSIS.

BY ALBERT S. GRUNBAUM, M.A., M.B.CANTAB., M.R.C.P.LOND.

[From the Pathological Laboratory, University College, Liverpool.]

THERE have now been nearly as many ways devised of applying as there have been observers on serum diagnosis. Some are good, others bad; some macroscopic, others microscopic; some simple, but liable to introduce error; others a little more complicated, but far more accurate. For the present, at any rate, the test will generally have to be carried out in laboratories or in hospitals. It is not well adapted for personal application by the practitioner; hence the more accurate and scientific even if a little more complicated processes are to be preferred.

The macroscopic methods may be dismissed in a few words, since they either require a comparatively large quantity of blood if for use in a test tube (Widal[1]) or are not completely reliable if applied in a capillary tube (Wright[2]), and in any case an interval of nearly twenty-four hours must elapse before the diagnosis can be made.

In the microscopic methods two points are of importance: (1) sufficient dilution, which should be effected without bringing undiluted serum into contact with the bacilli, (2) a time limit. As regards the first point, one observer (McWeeney[3]) made his tests apparently without any dilution, and others (Widal,[4] one of the earliest workers in this field, Delépine and Sidebotham,[5] Wyatt Johnston and McTaggart[6]) dilute from equal proportions to about 1 in 10, with such accuracy as their various procedures permit. That this dilution is insufficient was pointed out in my first communication on the subject,[7] and Stern,[8] Du Mesnil de Rochemont,[9] Bates Block,[10] and others have confirmed my statement. Of course the number of normal serums which react well in a dilution of 1 to 10 is small; but it introduces a source of error, although, some may think, on the right side.

I have not yet come across a case in which the serum would not react at some time in the course of the disease in the dilution of 1 to 32—namely, diluting the serum to 1 to 16, and then mixing a drop of diluted serum with a drop of the culture; and even the most enthusiastic observer, Widal, in his earliest communications, remarks that if the reaction does not succeed on one day, it must be tried again during the following days, and that a negative result does not therefore exclude the diagnosis of enteric fever. On the other hand, I have not yet met with a serum other than that of a typhoid patient which would react in this dilution. A few observers have come across such cases, without, however, positively excluding a previous attack of enteric fever. It is of course obvious that a day longer may elapse before the serum will react 1 in 32 than for 1 in 10, but in the latter case it may be only a normal reaction. The question therefore put shortly is, Is it better to make a positive diagnosis of enteric fever, which in a small percentage of cases may be wrong, or to postpone the diagnosis for a few days, with the nearly absolute certainty of having it right? It appears to me that the latter alternative is preferable from the standpoint of both practical and scientific medicine.

The question of time limit has, curiously enough, not received much attention. It is, nevertheless, of some importance; for in the course of twenty-four hours a good number of serums will show the reaction, especially in a warm room.

It is desirable to use an attenuated culture of the typhoid bacilli, since it seems to be less often affected by normal sera. Also an emulsion from an agar culture presents some advantages over a bouillon culture, especially for comparative and quantitative experiments.

Capillary tubes of not too fine a bore rather than capillary pipettes are advisable for collecting the blood since they can be centrifugalised if desired (and this is always to be recommended), or, after a short time, the string of clot and serum can be blown out on to a glass side, and the serum, containing however some corpuscles be taken up in graduated capillary pipette and suitably diluted. Capillary tubes are perhaps rather more easily broken than capillary pipettes, but this disadvantage care in use can easily obviate.

The method here recommended is, I claim, at any rate not inferior to any other proposed: it is almost as simple, and considerably more accurate, and this opinion is endorsed by its having been adopted for purposes of serum diagnosis in the Johns Hopkins Hospital at Baltimore.[10]

Finally it may be as well again to emphasise the fact that, owing to the inherent agglutinative power of the serum of many normal individuals, it is more easy to obtain a positive than a negative result unless suitable precautions are taken, so that it cannot be assumed, as Professor Delépine[11] would have us do, that negative results or quantitative estimations imply inferiority of method.

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[1] Widal, *La Presse Médicale*, 1896, p. cclviii. [2] Wright, BRITISH MEDICAL JOURNAL, i, 1897, p. 139. [3] McWeeney, *ibid.*, p. 147. [4] Delépine and Sidebotham, *Lancet*, ii, 1896. [5] Johnston and McTaggart, BRITISH MEDICAL JOURNAL, ii, 1896, p. 1629. [6] Grünbaum, *Lancet*, ii, 1896, p. 806. [7] Stern, *Centralb. f. inn. Medicin*, 1896, No. 49. [8] Du Mesnil de Rochemont, *Münchener med. Wochenschr.*, 1897, No. 5. [9] B. Block, *Johns Hopkins Hospital Bulletin*, 1896, Nos. 68-69. [10] *Ibid.* [11] BRITISH MEDICAL JOURNAL, i, 1897, p. 529.

## A CASE OF RUPTURE OF SPLEEN; SPLENECTOMY; DEATH.

BY

HEATH STRANGE, M.D., and ERNEST WARE, M.D., B.S.LOND.,

Medical Officers to the Hampstead Hospital.

A. B., aged 51, a labourer, was brought to the Hampstead Hospital at 10.30 on the morning of March 8th. About half an hour before admission, whilst driving a cart, he was caught between the shaft of his own and the wheel of a passing wagon. He stood up and was taken to a neighbouring inn, where brandy was administered, and he was then driven to the hospital.

On admission, he complained of pain in the abdomen, especially on the left side, and looked extremely ill. His face was pale, his lips blue, respirations rapid, and pulse very collapsing. There was no evidence of fractured ribs. The abdomen was almost motionless, and the left side was exceedingly tender, there being distinct dulness in the flank, which did not alter with change of position. The right flank was resonant except towards the extreme back. He passed urine which did not contain blood, and the bowels acted twice naturally.

He seemed to be in great pain, and to alleviate this tincture of opium ℥x was given. A diagnosis of internal hæmorrhage with probable rupture of spleen was made.

At 11.30 the condition of the patient was decidedly worse.

Pallor had become intense, and the pulse was extremely rapid and almost imperceptible; the dulness in the left flank now extended almost to the middle line. He was quite conscious, and readily consented to operation, which, however, it was explained to him gave him but a slight chance of recovery.

After consultation with our colleagues, we decided to operate, and previously transfused into the median basilic vein 2½ pints normal saline solution at a temperature of 105° F. This had a marked effect; the pulse became full and regular, 80, and the patient began to again complain of severe abdominal pain.

Under ether, administered by Dr. L. Glover, an incision over the linea alba, reaching from about 1 inch below the tip of the ensiform cartilage to the umbilicus, was made by Dr. Ware. On opening the peritoneum there was a gush of blood, clearly indicating positive pressure. The liver was first explored, and found to be intact, and after clearing out and tearing through large quantities of blood clot, the spleen was felt extensively ruptured on its anterior border. On attempting to bring the organ forward it was found to be firmly fixed, and to be of abnormal size. Adhesions were discovered between the convex surface of the organ and the adjacent thoracic wall, and, with considerable difficulty these were torn through—a procedure which necessitated a transverse incision extending to the costal arch at right angles to the vertical incision. At one spot on the convex surface the splenic substance was torn. The spleen was now brought forward, traction on the pedicle increasing markedly the already much collapsed condition of the patient. The pedicle having been tied with silk in three parts, and the spleen removed as rapidly as possible, the peritoneal cavity was cleansed by sponges of the immense quantity of clot and blood, and at the same time transfusion was again resorted to, and strychnine administered hypodermically. The patient, however, did not rally, and succumbed before the abdominal wound was entirely closed.

We venture to publish this case inasmuch as, owing to the condition of the patient, operative interference seemed urgently demanded, unlike the cases reported by Messrs. Pitts and Ballance in the *Clinical Society's Transactions*, vol. xxix.

Moreover, the adhesions present, which were an unexpected complication, rendered the operation unduly long. They were probably due to malaria, which the patient had contracted in India whilst in the army.

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

### A NEW METHOD OF LOCALISING BRAIN LESIONS.

I was very much interested in seeing in the British Medical Journal of April 3rd a paper by Mr. Robert Cox on what is there called a cerebro-graphometer. But I am afraid the instrument has been forestalled, for I have possessed for the last ten years an instrument so exactly like his that the illustration might have been taken from it, even to the extent of a tape measure with it. This was made for me by Messrs. Maw and Son (December, 1886) for the same purpose as Mr. Cox had in view.

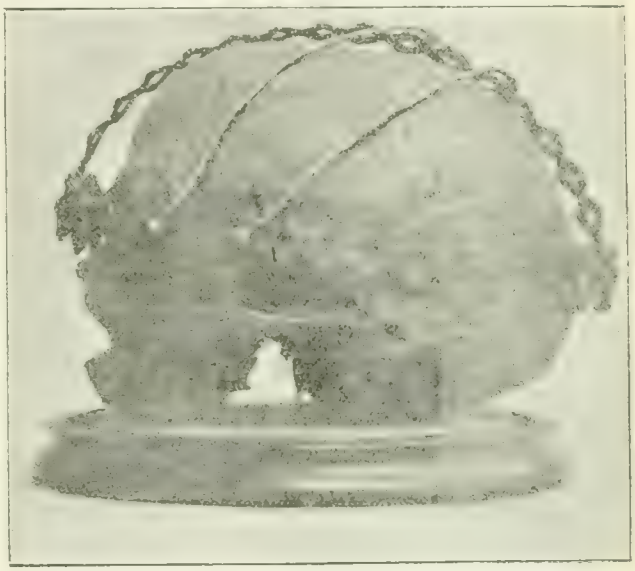
But I thought the piece which is carried over the head from side to side would be more conveniently arranged as a soft metal, bougie-like rod passed through a swivel eye so as to indicate the position of the "fissure of Rolando." From this rod measurements could easily be taken, as also from the upper and from the circumferential parts of the instrument.

I called the instrument a "brain mapper," and this name I certainly prefer to "cerebro-graphometer" or to encephalograph. The distances along the main lines I also preferred to divide into hundredths rather than measuring by the fractions Mr. Cox uses.

This instrument was at the time submitted to my friends Professor Anderson, Dr. Sharkey, and Professor Reid, who were all interested in brain topography; and I should no doubt have completed my observations had my health been spared.

My idea of using the instrument was to fit it over the patient's head, and measure the distance from the main lines to the various motor points, important vessels, etc., having at the same time by one's side a skull upon which had been marked out the important convolutions, fissures, vessels, etc. In this way it would be possible to localise any important points on the brain surface.

Mr. Cox seems to have drawn up a very useful scheme by which measurements can be made to particular points. But it will be very much easier to take these measurements from a soft metal rod representing the fissure of Rolando, than to measure from a lattice work crosspiece, as there is a tendency for the hairs to catch in that structure of the instrument. Whether a flat map plan of the surface of the brain would be a help is a question, but I think a marked skull would be preferable.



The accompanying illustration shows the instrument placed over a marked skull (though hardly arranged as it should be), and I think it will be obvious how very similar that of Mr. Cox is to it.

W. W. Wagstaffe, B.A., F.R.C.S.

Purleigh, Sevenoaks.

### IMPERFORATE ANUS AND HYDROCEPHALUS COMPLICATING BREECH PRESENTATION.

On January 14th I was called to Mrs. E., who was expecting her third confinement about the middle of February. Irregular pains had been recurring at intervals of about three-quarters of an hour, and there had been a slight coloured discharge. Abdominal examination was rendered difficult owing to the large quantity of liquor amnii. The os had not commenced to dilate, and was almost out of reach.

I directed Mrs. E. to remain in bed, and prescribed ol. ricini ℥ss and tabellæ tr. opii gr.x (B. and W.) every four hours, which led to an action of the bowels and cessation of pains. Next morning the pains recommenced at shorter intervals, and soon produced dilatation of the os and bulging of the membranes, the latter rupturing soon after examination and a great rush of liquor amnii taking place. The anus was imperforate, the buttocks being well rounded and the perineum rendered tense by the pressure of contained meconium, etc.; the sensation to the examining finger was very similar to that presented by the rounded occiput and fontanelle. After a long delay, however, the breech was born, and then, the forceps having been applied with considerable difficulty, a markedly hydrocephalic head was delivered.

The scrotum was much distended with fluid, and the cord

was three times round the child's neck. The child died before the head was born.

I venture to publish this case, as I do not remember coming across a case mentioned in any textbook where the diagnosis of a breech presentation was rendered difficult owing to the condition of imperforate anus and hydrocephalus, although, of course, neither condition is uncommon in itself.

The following *post-mortem* notes, kindly supplied by my friend Mr. J. J. Clarke, of St. Mary's Hospital may be of interest: "The head of the fœtus showed typical hydrocephalus. The ventricles were greatly dilated; the fluid had escaped through the corpus callosum, and most of it was lying between the brain and the dura. The rectum reached to the lower end of the coccyx. It is interesting to note that the ischial tuberosities and the lower pelvic aperture generally were normal. When the rectum is undeveloped for a considerable extent in its lower part the parts at the aperture of the pelvis are crowded together."

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Shirland Gardens, W.

## AN ANENCEPHALOUS MONSTER.

ON February 6th I was sent for to attend a lady in her second confinement. The case was not expected till the middle of April, but there had been a slight "show" for two days, and labour pains were present. On palpation I found the enlargement of the abdomen asymmetrical; a rounded mass occupying the right iliac fossa was slightly tender to the touch. No fœtal heart sounds could be detected. On vaginal examination the right arm was found to be prolapsed. The case being thus of transverse presentation I turned by external manipulation, with the result that the face presented. As the patient now complained of much pain, my partner, Dr. R. H. Darwent, kindly gave chloroform. On examining the presenting part I could distinguish the various features of the face, the finger impinged on a soft mass in the occipital region, which felt like the scrotum. We now felt sure of some abnormality in the fœtus, and applied forceps, but the blades slipped, as the head was evidently too small to be thus grasped. My partner, after some difficulty, got the whole fœtus within the blades of his forceps, and thus delivery was effected. The mother was given sublimate douches, and has made an excellent recovery.

The fœtus was about six months old, the limbs being perfect. The parietal, supra-occipital, and occipital bones were entirely wanting, and the upper cervical vertebræ were unclosed (cranio-rachischisis). The eyes projected, giving the fœtus a toad-like appearance. There was no brain, the base of the skull being covered by a vascular mass of connective tissue with cyst-like structures. The inferior maxilla on the right side was rudimentary (partial agnathia). The anterior abdominal wall was unclosed in great part. On dissection we found the heart occupying the right thorax.

Both the father and mother are healthy and well developed. No history could be obtained of monstrosity in any ancestor. The mother told me she had been attacked by a large retriever dog when three months pregnant, and that a month after she fell from a chair on her face, hurting and bruising the lower abdomen. According to Lebedeff anencephalous monsters are produced by an abnormally sharp cranial flexure in the embryo. The medullary canal is not formed, owing to the non-closure of the medullary plate, or the canal formed is obliterated. On this theory the injuries sustained by the mother will explain the monstrosity.

Hull. A. C. DUTT, M.B.Cantab.

## CONGENITAL TEETH.

HAVING read the article on this subject in the BRITISH MEDICAL JOURNAL of March 20th, I thought a case which recently occurred in my practice might interest some of your readers.

The child, a boy, was born at 8 P.M. on February 15th. The next morning the mother drew my attention to the fact that he had got a tooth, the left lower central incisor, projecting above the gum and only covered by thin mucous membrane. She had noticed that he bit when first put to the breast. In the evening the tooth was quite through, but I learnt afterwards that the nurse had assisted Nature by rubbing it with a sixpenny bit.

Bournemouth. W. HUBERT S. FOSBERY, M.A., M.D.Camb.

# REPORTS

ON

# MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

## LIVERPOOL ROYAL INFIRMARY.

### CASE OF RETAINED CATHETER EXTRACTED WITH LITHOTRITE AFTER CRUSHING AND REMOVING ADHERENT CALCULUS.

(Under the care of Mr. RUSHTON PARKER.)

H. P., aged 70, a farmer, was brought to Liverpool on August 17th, 1896, by Dr. D. R. Jones, of Corwen, suffering from great irritability of bladder and ammoniacal urine, which had always to be drawn off by catheter. Seven years previously he had had a stone crushed, after which the only drawback was the necessity for catheterism, which he applied in a somewhat rough and ready method, by lubricating the instrument in his mouth. Four months previously a piece of catheter broke off, and remained in his bladder, since which event the present symptoms had come on.

He was taken at once into hospital as a private patient for the purpose of extracting the foreign body—by lithotrite through the urethra if possible; but if not thus, by opening the bladder. Operation was undertaken the same day under chloroform, and on sounding with a lithotrite a calculus was felt. This was crushed, and many small fragments, with several rounded concretions, removed through an evacuating catheter by means of a washing bottle. These are whitish, phosphatic, and weigh 40 gr. dried. About three-quarters of an inch of red rubber catheter was brought out with the lithotrite during the crushing process, and afterwards a piece 2½ inches long was fished up and also pulled out. The bladder continued irritable, and was frequently washed with salt solution and boracic lotion, and with very dilute nitric acid. But he only remained a week, after which he persisted in returning home.

The accompanying illustration, half the natural size, was



photographed by Mr. W. T. Thomas, and shows the two pieces of catheter, with encrusted phosphates remaining after the bulk of the calculus had been crushed off.

## WOMEN'S HOSPITAL, MELBOURNE, AUSTRALIA.

### CASE OF PUERPERAL PLEURO-PNEUMONIA.

(By FRANK A. NYULASY, M.B., Ch.B., Honorary Obstetric Surgeon.)

WELL-MARKED cases of this description are, it seems to me, sufficiently interesting and uncommon to merit a special record. Their course also is dangerous and uncertain, and their pathology more or less veiled in obscurity.

Mrs. C., aged 39 years, 3-para, was delivered at the Women's Hospital of a living child, weighing 7¾ lbs., on July 28th, 1896. Labour was normal, but the placenta was noted in the casebook as "doubtful." The patient went on fairly well till the fifth day, when her temperature rose to 102° F. Then I removed a small piece of œdematous placenta by curetting. This was followed by a rigor and rise to 104° in the evening. Two days later she was again douched and curetted, and the temperature fell to 101° by the following day. In the evening of this day, however, the patient complained of sudden severe pain in the right axilla. With this

there was a rapid rise of pulse (120), respiration (50), and temperature (103°). The patient was crying with the severity of the pain, which required two hypodermic injections of morphine for its relief. Poulticing and 10 grs. of quinine were subsequently ordered. On physical examination there was diminished mobility on the right side of the chest. Vocal and tussive resonance were increased, but friction sounds were heard here and there about the right base and middle lobe posteriorly, in the axillæ, and towards the front, but the most striking feature was the marked woodeny dulness of the base and middle lobe. The dulness, however, ended abruptly at the inner border of the scapula, suggesting a lung compressed by fluid effusion. Against this view was the increased vocal resonance over the dull area. To set the question at rest, however, I inserted, a few days later, an exploring syringe in two places, with negative results. There was suspicion of but no distinct pulmonary *bruit*. Cough was not very troublesome, and was accompanied by slightly viscid mucous expectoration, which about a week later became distinctly "rusty." At this time also (that is, about the seventeenth day of the illness) a rigor occurred in the evening, the temperature rising to 105°, and this rigor and rise of temperature was repeated every night for a week.

From this time on to the fortieth day the evening temperature registered between 102° and 103°—being accompanied at various times with slight shiverings, not amounting to distinct rigors—and the morning temperature varied between 99° and 100°. Thence onward the temperature began to fall, but on the evening of the forty-fifth day it rose suddenly again to 102.5°, pain at the top of Scarpa's triangle was complained of, and a distinctly tender nodule was felt in the femoral vein in this region, and there was some œdema in the leg and foot. The temperature and local conditions subsided gradually, the lung trouble slowly cleared up, normal temperature was reached on the fifty-ninth day, and the patient left the hospital on the sixty-eighth day comparatively well. Quinine in large doses, brandy plentifully, and concentrated nourishment formed the main line of treatment throughout. I have since seen the patient (on February 15th) and she is in excellent health.

The history and physical signs of this case agree very closely with the description given in the last edition of Playfair, who writes that he has seen "three cases within the last three years." And "there are marked peculiarities in such cases which clearly differentiate them from the ordinary course of pneumonia. The onset is sudden and unconnected with exposure to cold or other cause of lung disease; there is no definite crisis, but a continuous pyrexia of moderate intensity, lasting a variable time, and the physical signs differ from those of ordinary pneumonia;" also his "cases were peculiar in this respect, that there was very slight crepitation, marked rusty sputum, and a wooden dulness, much more intense than in ordinary pneumonia, extending over a large lung space, with a very slight entrance of air into the lung tissue. It is also remarkable that a very large proportion of the cases were associated with phlegmasia dolens." McDonald, while admitting Playfair's suggestion that "a limited thrombosis of the pulmonary arteries will no doubt explain the facts of the cases," would rather seek the chief explanation of their causes in the alterations which the pregnant and puerperal conditions impress upon the blood and vascular systems. Playfair hopes "that further observations, and especially carefully-conducted necropsies, will throw some light on this obscure and little-studied subject."

## SCOTCH MISSION HOSPITAL, TIBERIAS, SYRIA.

### HYPERPYREXIA IN MALARIA: RECOVERY.

(By D. W. Torrance, M.B.)

M. C., aged 25, a European woman, well nourished but rather anæmic, had been about three months in the East, and had had a slight attack of malaria. On January 8th, at 7 P.M., she was suddenly seized with headache, and the temperature was 104°. She was given 10 gr. antipyrin and 20 gr. quinine. At 11.15 P.M. the temperature was 99°. The subsequent progress is shown in the following table:

January 9th, 12.30 A.M. Temperature 107°: headache very severe; given saline diaphoretic mixture.
12.40 A.M. Temperature 108°; headache continues; more diaphoretic mixture.
1 A.M. Temperature 109.2°; headache severe; no delirium: pulse good; respirations, 26.
1.15 A.M. Temperature 107°: perspiring freely.
1.25 A.M. Temperature 99°; " "
1.35 A.M. Temperature 100°: given 15 gr. quinine.
2 A.M. Temperature 98.6°: retching; mustard applied over stomach.
2.30 A.M. Temperature 102°; shivering and sickness.
3 A.M. Temperature 99°; sickness continues; mustard reapplied.
3.30 A.M. Temperature 99°; pain in side.
4 A.M. Temperature 100°; feeling of faintness; still perspiring.
7 A.M. Temperature 97°; 5 gr. calomel and 10 gr. quinine administered; bowels had not moved for twenty-four hours.
10 A.M. Temperature 99°; unable to take nourishment as sickness continues; has had two motions.
12.30 P.M. Temperature 99°; slept fitfully, talking in sleep, unpleasant dreams; 5 gr. quinine administered.
8 P.M. Temperature 98°; had a good afternoon; was not sick; 5 gr. quinine administered.

On January 10th temperature was normal, sickness gone, and the patient was able to take nourishment. She was ordered 5 gr. quinine thrice daily. At 5.50 she rose from bed and shivered, and immediately the temperature rose to 105°. Saline diaphoretic mixture was administered and immediately the temperature fell to normal; 15 gr. of quinine were administered in one dose; from this there has been no recurrence of fever; 15 gr. of quinine were administered in three doses for a few days daily, then gradually diminished.

For the notes and observations from 11.15 P.M. on January 8th till the next morning at 7 A.M., that is, during the period of hyperpyrexia, I am indebted to the matron, Miss List. I have no doubt as to the accuracy of the temperature taken. I have several times here met with a temperature of 106° and 107° in malarial patients, but never before one so high as this with recovery. The diaphoretic mixture prescribed was simply spt. ætheris nit. and liq. amm. acetatis.

# REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

W. Marcet, M.D., F.R.S., Senior Vice-President, in the Chair.

*Tuesday, April 27th, 1897.*

Non-tuberculous Posterior Basic Meningitis in Infants. The discussion on Dr. J. W. Carr's paper on this subject, which had been adjourned from the last meeting, was opened by Dr. T. Barlow, who complimented the author on his valuable paper. A few well-analysed cases such as his were more useful than statistical compilations. The clinical type was a true one, but he would not say that we were justified in thinking it a separate disease; it certainly was distinct from tuberculous meningitis, and it was probable that reputed recoveries from tuberculous meningitis were examples of this group. Among the typical symptoms cervical opisthotonos was the earliest and most constant. Associated with this was a proneness to tonic spasm which contrasted with the clonic spasm due to cortical irritation seen in tuberculous meningitis. Optic neuritis was very rare, but during recovery amaurosis often occurred. The anatomical lesion was meningitis in the posterior fossa around the medulla and cerebellum, which extended in varying degree to the anterior part of the base of the brain, and to the spinal canal. The lesion might be extremely slight. The inflammation attacked the spinal cord in a peculiar manner, giving rise to adhesions in different situations. He referred to Hilton's case recorded in his book, *Rest and Pain*, in which the foramen of Magendie was obstructed. Though some of these cases showed this, it was far from being universal; in some, indeed, the foramen was enlarged, and then adhesions elsewhere might lead to obstruction as at the foramen of Monro, or at the aqueduct of Sylvius. The roof of the fourth ventricle might be glued to its floor. In some cases which had been treated by opening the subarachnoid space and letting out the fluid, the obstruction seemed to be due to adhesions around the cord at about the level of the first cervical vertebra. In spite of Hilton's view, that the foramen of Magendie was obstructed, being inadequate, the condition of obstruction was probably due to inflammatory adhesions since the fluid was practically cerebro-spinal, and not due to inflammation or dropsical. He agreed with Dr. Carr that there was no evidence of the disease being due to

congenital syphilis. He thought traumatism was a co-operative cause, and he referred to a boy who, after being struck on the back of the head by a window-sash, developed typical symptoms, and in whom, after death, cicatricial adhesions at the base of the brain and hæmorrhagic pachymeningitis were found. On the other hand it was true that many cases began insidiously, and thus differed from the fulminating forms of purulent meningitis which followed acute specific diseases. He wished to insist on catarrh as a cause, and he thought that otitis media played some part in the production of the disease. Otitis media was very common in infants, and the course of events was, he thought, somewhat as follows: Virulent microbes in the mouth might spread up the short Eustachian tube of infants, and find a ready nidus in the inflammatory exudation there, and then be easily transmitted to the meninges. It was significant that the disease was commoner in the first two years of life, when otitis media was frequent, and though it was difficult to prove he suggested that infective catarrhs were a cause of the disease. With regard to treatment, early incision of the membrana tympani had been followed by recovery in 9 cases, and possibly prevented the progress of the case. Mercurial treatment had also been followed by satisfactory results. Some years ago Mr. Ballance had tapped the posterior arachnoid cistern, but generally only with temporary benefit. One case recovered, and in this one the fluid was first withdrawn posteriorly, but so little was obtained that the fontanelle was also tapped. The child subsequently died from diphtheria, and at the necropsy there were signs of old inflammation at the base of the brain, but there was only a drachm of fluid in the ventricles. He hoped that if the cases were operated upon earlier more successful results would follow.

Dr. D. B. LEES had published in the *Practitioner* eleven years ago a case of this disease following broncho-pneumonia in an infant 6 weeks old, in which tapping the tympanic membrane was followed by recovery. Together with Dr. Barlow he had collected 100 cases with 40 necropsies. The disease was common in children under 1 year, but did occur later. The hydrocephalus, which was common, was not due to pressure on the venæ Galeni or to fulness of the veins in the velum interpositum, as was shown by the chemical constitution of the fluid, which contained very little albumen. The fulness of the veins was either part of the inflammatory process or secondary to the hydrocephalus. The fluid was sometimes turbid, or even contained pus, but the bulk of it was cerebro-spinal. The main cause was obstruction of the passage by which the cerebro-spinal fluid passed from the ventricles into the subarachnoid space. He insisted on the importance of ascertaining the condition of the foramen of Magendie before removing the brain. This should be done by removing a wedge-shaped piece of the occipital bone, and the posterior arches of the first three cervical vertebræ. The foramen was larger in infants than in adults. It was very important to examine the membranes carefully, for the foramen of Magendie and the lateral foramina of the fourth ventricle might be open, while the subarachnoid space was full of lymph. Obstruction might occur at several sites in the same child, and so give rise to three or four cystic dilatations. Professor Halliburton regarded the cerebro-spinal fluid as a true secretion. Possibly the choroid plexuses, which were compared to the renal glomeruli, secreted it. Optic neuritis was very rare, and this fact had an important bearing on the theory of the causation of that condition. Nystagmus was more frequent than in tuberculous meningitis, and was probably cerebellar in origin. Amaurosis but not deafness occurred; if the child recovered sight was usually restored. Slowing of the pulse was rarer than in tuberculous meningitis; this was probably not due to any peculiarity in the disease, but to insufficiency of vagus inhibition in infants. Retraction of the abdomen was rarer than in tuberculous meningitis. Retraction of the head was one of the earliest symptoms instead of one of the latest, as in tuberculous meningitis. Extreme opisthotonos and rigid extension of the limbs might vary, the spasm increasing and then relaxing as in tetanus, and was probably cerebellar in origin. The respiration might present a peculiar character, which he and Dr. Barlow had called "cyclical breathing;" it consisted in a pause followed by three to five deep inspirations; it was distinct from Cheyne-Stokes respiration, though that condition might also occur. This peculiar form of breathing had been described by Professor Macewen.

Dr. NORMAN MOORE, from *post-mortem* experience, thought there might be several causes of this condition; possibly in some it might be a manifestation of rheumatism in very young children, and it would be interesting to know whether the author's experience threw any light on this point. He he had noticed that the opisthotonos might diminish before death, and that the pulse might be arranged in bars, as in tuberculous meningitis. The character of the pulse, therefore, would be of no assistance in diagnosis. He inquired whether the disease also occurred in children of the upper classes.

Dr. W. S. CHURCH had been acquainted with this disease from the time of Dr. Gee and Dr. Barlow's paper in *St. Bartholomew's Hospital Reports*, and had had several cases under his care. He took a rather more hopeful view of the prognosis than the author. He referred to two cases in which there was very severe opisthotonos, and in which recovery took place, and to two less severe cases which proved fatal. Both the cases which recovered were amaurotic, and in neither of them was there any bulging of the anterior fontanelle.

Mr. C. A. BALLANCE referred to a case mentioned by the author, which being under the care of Dr. Bastian, had been operated on by the speaker himself. He wished to add that at the necropsy there was intense congestion of the cord and membranes, and that there was turbid fluid around the pons. These features rendered it probable that this case belonged to a different category. With regard to the operation of draining the posterior subarachnoid cistern which had been described by Mr. Parkin in 1893, he had first performed it at Great Ormond Street in 1891. The occipital bone was trephined close to the foramen magnum; in some cases the retraction of the head was so extreme that a specially long handle to the trephine was necessary. In one case the patient died of hæmorrhage from the trephine opening an abnormal sinus, which was an accessory lateral sinus situated lower down than the normal one. In some cases openings had been made on each side of the middle line so as to prevent hernia of the cerebellum interfering with the drainage. He referred to a peculiar champing movement of the jaws, which was cerebellar in origin, and which he had seen in cases of cerebellar abscess and tumour. He believed in the catarrhal origin of the disease, and pointed out that in very young children the tympanic cavity might contain pus without there being any bulging or congestion of the membrane. Taking into account the ill-developed condition of the temporal bone, the open state of the sutures, and the free lymphatic and venous connections between the tympanum and the inside of the skull, it was easy to understand how infection might take place. Bacteriological examination of the lymph in the posterior fossa should lead to valuable results. A considerable number of cases recovered after an incision of the membrana tympani and under mercury. Trephining should be done early so as to relieve tension, and thus prevent the spread of septic processes. He referred to a case of Dr. Buzzard's, in which septic infection of the lateral ventricles was found by Dr. Louis Jenner to be due to Fraenkel's pneumococcus, and which was treated by antitoxin provided by Dr. Washbourn.

Mr. RAYMOND JOHNSON had operated on two of the author's cases at the Victoria Hospital for Children, and had come to the conclusion that operative interference ought to be early. He did not feel inclined to operate again in cases presenting marked hydrocephalus, for it was impossible to limit the escape of fluid. The skull in such cases rapidly collapsed, and convulsions set in.

Dr. ABERCROMBIE had been struck by the fact that the cases came in runs; he recalled two cases occurring on the same day in March, and referred to two cases occurring in the same family. In a child aged 6 weeks he had seen the disease run a more acute course than in older children, the duration of the disease being only three weeks.

Dr. J. W. CARR, in reply, said that he gave up the idea that the hydrocephalus was due to obstruction of the passages for the escape of cerebro-spinal fluid on finding the foramen of Magendie open, but he was glad to have heard Dr. Barlow's and Dr. Lees's views, which he was inclined to adopt. In

some of his cases he had noticed softening of the spinal cord, which he now recognised as being probably due to localised collections of fluid. His cases did not show any signs of endocarditis or pericarditis, and he did not think rheumatism was a causal factor. He thought the microbic origin probable, and agreed that traumatism and catarrh might be predisposing factors. One of his cases presented the chewing movements referred to by Mr. Ballance.

## CLINICAL SOCIETY OF LONDON.

Thomas Buzzard, M.D., F.R.C.P., President, in the Chair.

*Friday, April 23rd, 1897.*

Clinical Evening.

### Removal of Myeloid Sarcoma without Sacrifice of Bone.

Mr. Charters Symonds showed a boy, aged 15, from whose lower jaw he had removed a central myeloid sarcoma on January 20th, 1896. Only a bridge of bone was left on each side of the middle line. The tumour passed back under the tongue, and was removed by erasion without sacrifice of bone, leaving the lower border of the jaw as well as a bridge of bone along the alveolar process. There had been no recurrence, and the patient had now a firm bony jaw.

### Congenital Dislocation of Shoulder.

Mr. F. Eve showed an infant, aged 9 months, with congenital dislocation of the right shoulder backwards, the head lying on the scapula just below the spine. The case was similar to one shown by him before the Society some years since, on which he had operated, and had found the joint well developed, though the head of the bone was elongated obliquely backward. He shaved off the projecting cartilaginous end of the bone, put the bone into position, and closed the joint, with a good result. He thought the cases were usually due to injury during birth, from undue traction on the axilla, or to clumsy handling by the nurse after birth. Both the patients were delivered by instruments, and there was evidence of stretching of the brachial plexus.

### Hydronephrosis with Unusual Characters.

Mr. Howard Marsh showed a young man, aged 21, who was admitted to St. Bartholomew's Hospital on April 23rd, 1896, with severe pain in the left lumbar region. Indefinite pain had been felt in this region for several years, but the severe pain was of only three weeks' standing. A large and tense tumour could be felt in the left lumbar region, which appeared to contain fluid. An incision was made through the left loin, the cyst aspirated, and afterwards opened. The collection of fluid had taken place between the kidney and its capsule, the kidney lying collapsed at the bottom of the sac, and it was removed. He suggested that the hydronephrosis was of acute onset, and that the fluid had forced its way through the substance of the kidney, stripping off the capsule. The cyst was drained, but it contracted very slowly, and though at present practically healed, there was a slight escape of fluid every few weeks. There was nothing to indicate the cause of the hydronephrosis. The patient had recovered his health, and had been enabled to resume his occupation.

Mr. Makins had seen a similar case in which hydronephrosis had occurred between the kidney and its capsule after rupture of the organ.

### Muscular Dystrophy of the Landouzy-Déjerine Type.

Dr. W. Essex Wynter showed a lad, 10 years of age, admitted in January, 1897, on account of a feeling of gradually increasing fatigue and progressive difficulty of walking. The boy had cut his first teeth at 4, and the mother thought she had noticed the peculiar facial expression immediately afterwards. The facial muscles were almost completely paralysed, he was unable to close the eyes thoroughly, and the mouth was usually half open. He dragged the right leg in walking, and the movement of the limbs generally was sluggish. The right deltoid had almost completely disappeared, and the other arm muscles were wasted. No similar condition had been observed in any other member of the family.



### Subclavian "Bruit" in a Man.

Mr. Charters Symonds showed a man, aged 25, who had been under his observation for the last six years. He had a loud subclavian *bruit* with some pulsation below the left clavicle. The left pulse was slightly weaker than the right, and there was a loud *bruit* over the prominence. No change had taken place while under observation, so that aneurysm was excluded. He suggested that the condition was possibly due to the presence of a supernumerary rib pressing on the artery. He recalled two other cases of the kind, one in a healthy man, an athlete, in which the causation was obscure, and the second in which it was thought to be due to old standing phthisis of the left apex, which had exercised traction on the subclavian vessels.

Mr. Clement Lucas said that Mr. Hulke had published similar cases which he considered to be caused by exostosis of the first rib, but which were eventually proved to be due to a supernumerary cervical rib, pressing on the vessel. Probably that was the explanation of the case before the meeting.

Dr. Kingston Fowler remarked that the presence of a murmur or *bruit* should not, if alone, suggest organic disease. A *bruit* could often be produced by merely pressing the shoulders back.

Dr. C. W. Chapman mentioned the case of a lad, aged 18, who had double pulsation and thrill over the subclavian arteries, with pain down each arm, from which he recovered, though the thrill and pulsation remained.

### Case of Myositis.

Dr. Kingston Fowler showed a coachman, aged 54, admitted on March 10th last. He had previously enjoyed good health, and had never had syphilis or gout. In January, 1895, his left thigh became painful, and this was followed by extensive swelling. This was very hard, but there was no surrounding œdema. The swelling continued for eight months, and then gradually and completely disappeared. Subsequently, various muscles, the calf, the shoulder muscles, etc., were affected in an exactly similar manner, the swelling ultimately completely clearing up. There was general wasting of the unaffected muscles. Similar hard nodular swellings formed in the abdominal walls, which cleared up, leaving behind knotty indurations. At present the muscles of the left forearm were passing through an attack, the axillary glands were enlarged, and there was some brawny thickening in the skin of the neck. Skiagraphs of the arms showed that the bones were normal, and that there were no actual bony deposits in the muscles. There were some firm nodules in the biceps, but they were probably not osseous. He raised the question whether this case ought to be placed in a different category from myositis ossificans, and suggested that possibly ossification did not occur owing to the patient's age. Warm baths had given the patient more relief than any other mode of treatment.

Mr. Charters Symonds said the patient had some months ago been under his care, and he confirmed the description of the cycle of changes given by Dr. Fowler. He had tried antisyphilitic treatment without any good effect.

Dr. Parkes Weber said the case was similar to those which had been described as relapsing dermato-myositis, in which condition glands and nerves were often involved. It appeared to him there was some affection of the median nerve in this case, and would class the case as one of neuro-dermato-myositis.

### Arrested Growth of Humeri.

Mr. F. Eve showed a girl, aged 14, who exhibited marked dwarfing of both humeri. The condition was first noticed on the right side when 6 years of age, and the left humerus began to be affected shortly afterwards. The humerus was now 3 inches and the arm as a whole 4½ inches shorter than the standard for a girl of her height. The lower limbs were normal. There was some limitation of movement and creaking in the right shoulder-joint and to a less extent in the left. She was a fat, mentally backward child. She was the youngest of eleven children, all the others being healthy. There was no direct evidence of specific disease, but there was slight scarring at the angle of the mouth. He thought the diagnosis lay between a cretinoid condition, adding that the thyroid was not palpable, and syphilitic epiphysitis of the

upper ends of the humeri, which would account for the changes in the shoulder-joint.

Symmetrical Swellings in the Orbits and Temporal Regions.

Dr. W. Essex Wynter showed a boy, aged 5, who exhibited symmetrical swellings in the orbits and temporal regions. He had been under Mr. Treacher Collins's care in 1896 on account of proptosis of the left eye with failure of vision. Optic neuritis was present, and this was followed by atrophy. An exploratory incision in the left orbital region was made to discover the cause of the proptosis, but no tumour was found. The wound healed rapidly, and in three or four weeks the swelling on that side subsided. Some months later swelling occurred in both temporal regions and the right eye became prominent and the sight began to fail, the appearances being those of optic neuritis. He was admitted to Middlesex Hospital on April 3rd, with a history of illness extending over a year, but it had only been within the last month that the parents had observed slight impairment of intelligence and of the ability to walk. Some wasting and glandular enlargement in the axilla, groin, and neck were present. Two glands in the last named region were removed and were found to be tuberculous. Round the margin of the swelling in the right temple there were some hard nodules, apparently bony elevations of the cranium.

Case of Hyperkeratosis.

Dr. T. Colcott Fox showed a lad, aged 10, who exhibited extreme hyperkeratosis of the nail beds causing deformity of the fingers and toes, as well as symmetrical corny callosities on the ankles, soles, popliteal spaces, and buttocks. He pointed out that these could not be due to pressure. His father and grandfather were said to have had a similar condition of the nails, and to have had remarkably coarse hair, but there was nothing unusual in the patient in this respect. He showed illustrations of similar appearances in other recorded cases. He thought the callosities could be removed and cured without much difficulty, but he hesitated whether to destroy the nails altogether by removing the nail beds or to leave the patient to keep the nails constantly pared.

## MEDICAL SOCIETY OF LONDON.

Reginald Harrison, F.R.C.S., President, in the Chair.

*Monday, April 26th, 1897.*

Senile Tuberculosis and Subcutaneous Ulcerations.

Mr. Howard Marsh said that in spite of the fact that tuberculous disease in old people was scarcely even referred to in current manuals, he had been led to regard it as worthy of careful attention, it being common rather than rare. Its early recognition was often difficult, its prognosis was generally unfavourable, and the treatment involved questions of considerable gravity to the patient. He related some illustrative cases. Case I was a man, aged 70, with double iliac abscess, probably due to Pott's disease. The abscess on the left side contained nearly 2 pints of pus. The second abscess was not opened, and the patient was still under observation. Case II was a woman, aged 74, with a large right iliac abscess which was opened and drained. Case III, a woman, aged 69, was in St. Bartholomew's Hospital last year for Pott's disease, and well marked angular curvature on a level with the eighth dorsal vertebra. She had had pain for twelve months, and could walk only with difficulty. In Cases I and II the existence of Pott's disease as a cause of the abscesses could not be directly established, although its existence was probable. Case IV was a remarkable one. A lady, aged 72, developed tuberculous disease of the left ankle, which suppurated and was amputated. A year later she had tuberculous periosteitis of the lower third of the left ulna, going on to suppuration. She then remained well for three years, but in February last the other ankle became involved, and amputation again had to be resorted to. The wound healed well, and the patient was at present in fairly good health. Case V was a woman, aged 72, with caries of the tarsus. Case VI. Two years ago a man, aged 56, was under treatment for what appeared to be osteo-arthritis of the right knee. Amputation became necessary, and the appearances of the joint on dissection clearly indicated that the disease was of the nature stated. Among other examples of senile tuberculosis, he mentioned that of a patient of 65 with tuberculous epididymitis. A man of 68, with enlarged cervical glands, at first regarded as malignant, but when suppuration occurred the tubercle bacillus was found in the pus. A man, aged 75, with tuberculous disease of the wrist requiring amputation. A woman, aged 62, with tuberculous axillary glands; and a woman, aged 58, with tuberculous disease of the kidney. The symptoms of tuberculosis were identical with those observed in the young, the main difference being that the prognosis in the aged was distinctly unfavourable. He had never met with a case of tuberculous disease of a large joint in a person over 55 in which recovery had taken place. The treatment consisted in rest, improvement of the general health, the opening of abscesses with rigid asepsis, and amputation when disorganisation occurred. The author then described some cases of "subcutaneous ulceration" in which tuberculosis, starting in the subcutaneous tissue, spreads in a horizontal plane, and leads to formation of a wide area of tuberculous granulation tissue and extensive undermining of the skin. The skin and the deep fascia, being comparatively tough and firm, are not involved. The tuberculous process, in fact, spreads in the direction of least resistance. The treatment consists in exposing the undermined area by free incisions, and scraping away all the granulation tissue. Several cases were related.

Mr. W. Armstrong referred to several cases of tuberculous disease of joints which had been sent him as gouty and he admitted that it was easy to make a mistake.

A Fellow mentioned several cases of extensive destruction of vertebræ in persons over 60 years of age with marked thickening of the remaining shell of bone. He observed that another cause of spinal curvature was pachymeningitis, but he had also seen it in infantile scurvy.

Dr. Hill mentioned a case of Pott's disease in a patient who succumbed to an aneurysm, in whom there was extensive excavation of the vertebræ. In spite of this there had been no paralysis or curvature, doubtless owing to the great hypertrophy which the various vertebral processes had undergone.

Mr. G. R. Turner mentioned a case of syphilitic disease which had closely simulated a tuberculous lesion.

Dr. Thorowgood related the case of a man with ulceration of the vocal cords and apical tuberculosis, who had developed a painful inflammatory lesion on the back of one hand. This he proposed to have scraped, and the tissues examined for the tubercle bacillus.

The Value of an Exclusively Meat Diet in Certain Cases of Chronic Gout.

Mr. William Armstrong (Buxton) said that during the last few years he had given a trial in various cases of gouty arthritis and recurrent renal calculi to a method of treatment based on the prolonged administration of nothing but red meat and hot water, and very marked improvement had resulted, which had persisted in spite of gradual return to an ordinary dietary. The recent work of Luff and Haig seemed to show that the red meats or their salts were in themselves harmful to the gouty, but his own observations during the last two years on auto-intoxication in relation to the causation of gout and rheumatoid arthritis had led him to believe that it was the complex chemical changes brought about by the admixture of red meats with carbohydrates and sugar, which caused the excessive formation of uric acid. The more complete understanding of these chemical changes had been facilitated by the work of Lauder Brunton, Gautier, and Bouchard. His plan was to give the patient a daily allowance of from 1 lb. to 4 lbs. of lean beefsteak, minced and cooked in various ways, the patient drinking from 2 to 5 pints of hot water, and avoiding all starchy, saccharine, and fermentative articles of food. The effects which he had obtained were rapid diminution of abdominal girth, loss of fat and flabby tissue, increase in the quantity, and ultimate disappearance, of urates, alkaloids, and toxins from the urine. The joint swelling greatly diminished, the aching and pain were much diminished, and their mobility considerably increased. The capacity for work mental and bodily was enhanced, and the symptoms of maldigestion and disassimilation disappeared. This treatment was

indicated (1) in obstinate chronic gouty arthritis, (2) in recurrent uric acid calculi, (3) in frequent and intractable migraine, (4) in cases of persistent gouty dyspepsia. It was specially useful when there were symptoms of amylaceous and intestinal dyspepsia, of excessive formation of sulphuretted hydrogen, urates, indican, skatol, cresol, and other toxins. Although it had been held that these toxins were formed from decomposing proteids only, Brunton had shown that starch was a great offender, and Bouchard laid stress upon the fact that bread was especially apt to form many poisons in the alimentary canal. The carbohydrates, by their affinity for oxygen, interfered with the due oxidation of the tissues. Under this treatment digestion was more complete and the processes of fermentation and putrefaction were kept within narrower limits, oxidation being more perfect and less waste being consequently left in the system. Whatever poisonous matters remained in the system were readily eliminated by the taking of the hot water, which also flushed the stomach, liver, and kidneys. He admitted that the treatment was irksome and trying, and must of necessity be carried out with great strictness, therefore its use should be restricted to the more difficult cases. It should be prescribed but rarely, and then only under the most careful supervision in cases in which the heart or kidneys were diseased. Used with due care, he considered it a most efficient and even brilliant addition to the therapeutic measures.

Dr. Haig admitted that certain cases of gout were benefited by a meat diet, and ascribed the action of the diet to its stimulating qualities. When the meat diet failed to act as a stimulant it was likely to prove dangerous. He had seen several disastrous cases from this treatment.

Dr. Luff insisted on the action of the mineral constituents of certain foods on the production of quadriurates and biurates and in facilitating their elimination. He protested against its being said that uric acid was introduced in meat, seeing that its presence in meat had never been shown. He himself had examined many samples of blood from healthy human beings, animals, and birds without ever discovering any trace of uric acid.

Dr. Haig pointed out that he had discovered xanthin and similar bodies which he regarded as the equivalents of uric acid.

Dr. Luff replied that it was very misleading to say that uric acid was ingested with meat when as a matter of fact the bodies referred to were of a quite different nature, gave altogether different reactions, and little was definitely known respecting their conversion into uric acid.

Mr. Buckston Browne agreed that the solvent treatment might prove successful, but added that it could not be persisted in indefinitely. It was not so much the meat and hot water that did the good, but the abstention from injurious articles of diet—starch, sugar, and alcohol. He believed it to be perfectly possible to cure renal calculi by a suitable dietary.

Dr. Thorowgood would have liked further information respecting the previous habits of the patients who had derived so much benefit from the treatment. He pointed out that a strict dietary, excluding meat, often resulted in the production of flatulent dyspepsia, on correcting which the patients improved. He suggested that the excessive acidity of the stomach tended to favour the liberation of lithic acid.

The further discussion was adjourned until the next meeting.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Surgery.

William Thomson, P.R.C.S.I., President, in the Chair.

*Friday, April 2nd, 1897.*

### Treatment of Strangulated Femoral Hernia, with Gangrenous Intestine.

Mr. Heuston brought forward two cases of strangulated femoral hernia in women of over 60 years of age, in which, owing to the gangrenous condition of the intestine, it was necessary to excise the intestine and corresponding mesentery. In the first case the symptoms of strangulation had lasted for four days before the operation, and the patient was collapsed. Eleven inches of intestine were removed, and the intestine united by suture. The patient died three days after the operation from collapse, when the intestine was found united, but gangrene had supervened in it for about an inch above the line of suture. The second patient was seen two days after the symptoms of strangulation had come on; eight inches of the intestine were removed and the intestine united by suture. The patient recovered perfectly without complication, the method of radical cure employed in both cases being that advocated some years since by Mr. Heuston and described in Treves's *Operative Surgery*. In both the cases it was noted that no fluid was contained in the sac, which was intimately attached to the gangrenous contents. He pointed out that all the more recent works on surgery, with one exception, were in favour of primary resection, whenever possible, instead of the older method of artificial anus. He showed that, by statistics, this was the proper treatment, as the percentage of mortality after artificial anus was about 90, while that after resection was 47, and that the more recent cases gave a much better percentage than this, owing to the improvements in the methods of union of the divided intestine. Mr. Heuston objected to the use of any of the foreign bodies which had been introduced within the past few years, believing that they introduced an unnecessary element of danger. In his experience of a large number of enterectomies for different causes, he had uniform success by the use of sutures applied in a method which he then described, and claimed that the union could be completed by suture in as short a time as by any of the appliances.

### Intestinal Anastomosis.

Professor Ball read a paper on this subject, which was published in the British Medical Journal of April 24th.

Mr. Lentaigne advocated resection in gangrene. He differed from Mr. Heuston in recommending the suture in all cases. Suture of the intestine without a button was often too slow. He thought Mr. Ball's method was better than Murphy's. It was a fact that many Murphy's buttons had been passed successfully, but many accidents had also happened.

Mr. M'Ardle had seen Dr. Murphy operate, and he could assure them that half the time occupied by Mr. Ball had not been occupied by Dr. Murphy in placing his button. With regard to the subsequent occurrence of strictures, these had not yet had time to occur in Mr. Ball's cases, but how did they know that strictures would not occur? He considered Murphy's method invaluable.

Mr. Myles considered Mr. Heuston's statistics unreliable; and as gangrene of the intestine might occur in a young man or in an elderly person, or the gangrene might be got in an early or late stage, surely these cases could not be put together for statistical purposes; but, nevertheless, all these cases had to be brought together. Where the gut had been fixed to the abdominal wall, and an artificial anus made, the re-establishment of the bowel was very difficult. He was prepared to acknowledge that Mr. Heuston's cases, when compared with Mr. Ball's, did not support his own view. In both cases the groups were too small to draw any but mild deductions. Mr. Ball's bobbin he considered most ingenious, and an apparatus which every surgeon ought to have by his side. He congratulated Mr. Ball on dividing Poupart's ligament. At the same time, he did not quite understand how Mr. Ball prevented a weakness taking place at the abdominal ring after division of Poupart's ligament.

Professor Bennett asked if, in a case of Professor Ball's, a ventral hernia had not occurred after the division of Poupart's ligament.

Mr. Heuston, in reply, said that his operations by simple suture had been carried out in much less time than Mr. Lentaigne thought. He did not say that he was opposed to bobbins, but none of them so far were, in his opinion, proper appliances; the best of them, he considered, was Mr. Ball's.

Mr. Ball, in reply, said a hernia had occurred after division of Poupart's ligament, but the hernia had not occurred at the femoral ring, and it was not in consequence of the division of Poupart's ligament that the hernia took place. It was at the site of the drain tube. The closure of the femoral ring was easily brought about by the division of Poupart's ligament. He had not yet come across any appliance which did not occasionally produce fistula. He had seen a case in which a

large fistula had been made by Murphy's button. In other parts of the intestinal tract there were cases to show that Murphy's button was frequently a real danger, which might be avoided by other methods. He had not yet seen strictures caused by the use of a ring.

## LIVERPOOL MEDICAL INSTITUTION.

Charles Shears, M.R.C.S., Vice-President, in the Chair.

*Thursday, April 22nd, 1897.*

### Malignant Growth of Orbit.

Mr. C. G. Lee showed a man, aged 43, who in October, 1895, had a swelling at the inner angle of the right orbit, which was considered to be a sarcoma both by Mr. Lee and Mr. Edgar Browne. An operation was performed at once. The growth extended deeply into the orbit above and downwards into the antrum; only a portion of the growth was removed. The patient made a slow recovery, but by January, 1896, the growth had again made its appearance; it was now on a level with the superciliary ridge, and was slightly depressing the eyeball outwards. The tumour continued to grow until March, 1896, when the patient was lost sight of. However, in the following October he again presented himself, when there was scarcely any sign of tumour. The patient attributed his improvement to the use of Ceylon cinnamon. Sections of the excised portion of the tumour were pronounced to be of a malignant nature.

Mr. Larkin described a case he saw several times with his colleague Dr. Grossman, and which closely resembled Mr. Lee's case. The patient also recovered, but without using cinnamon.

The Chairman also made remarks.

### Tumour of Pons.

Dr. P. Davidson read notes of a case of tumour of the pons cerebri. The rapid occurrence of paralysis of the sixth and seventh cranial nerves of the right side, with weakness and ataxia of the lower limbs and increased knee-jerks, warranted the diagnosis of a tuberculous tumour invading the right side of the pons. The subsequent occurrence of paralysis of the left sixth and seventh cranial nerves confirmed the diagnosis of a rapidly growing tuberculous mass. The diagnosis was entirely confirmed by the necropsy. No optic neuritis was present during the first two months.

Mr. Richard Williams said all the cases of cerebral tumour he had seen had optic neuritis sooner or later, but naturally only the cases in which vision was affected were likely to come under his observation.

Mr. Bickerton said that in many cases of cerebral tumour optic neuritis did not occur.

Dr. Macleod Ross said that in tumours of the pons the anatomical arrangement with regard to the venous channels returning from the orbit was such as to render venous engorgement unlikely, and consequently optic neuritis was absent.

The Chairman and Mr. C. G. Lee also discussed the point as to the frequency of cerebral tumour without optic neuritis.

### Presystolic Murmur without Mitral Stenosis.

Dr. A. Davidson drew attention to the occasional occurrence of a presystolic murmur at the apex of the heart in cases of aortic regurgitation, where subsequent *post-mortem* examination showed the absence of mitral stenosis. He referred to two cases where this occurred in his own hospital practice. The same observation had been made by the late Dr. A. Flint, of New York; and the matter was referred to at length by Dr. Sansom in his book on the heart; otherwise it appeared to be much overlooked.

Dr. Macleod Ross suggested that in some cases of aortic regurgitation, where there was no mitral stenosis yet a presystolic murmur, it might be the result of digitalis or other cardiac tonic.

Dr. O'Hagan related a case which had been examined by men of the highest standing. This patient had a presystolic murmur, but at the necropsy there was no mitral stenosis.

Dr. A. C. E. Harris thought the characteristics of a presystolic murmur were mainly its roughness and limited diffusibility, and that in the cases in question these characteristics would be lost or the murmur might be of a musical kind. The importance of Dr. Davidson's observations on prognosis he fully realised.

Dr. Dickinson, Dr. Bradshaw, and Dr. Buchanan took part in the discussion.

### Addison's Disease.

Dr. Bradshaw pointed out that neither the glandular nor the nervous hypothesis of the pathology of the disease was quite satisfactory. He criticised Mühlmann's hypothesis that the adrenals were concerned with the elimination of pyrocatechin, which they effected under the influence of the sympathetic, and that when the adrenals or the sympathetic were diseased pyrocatechin accumulated in the blood, and by its toxic action gave rise to the symptoms of Addison's disease. Dr. Bradshaw showed that when pyrocatechin was in the blood it quickly appeared in the urine, but he had failed to find evidence of it in the urine of three patients with Addison's disease, who had been under his care during the last few weeks. This and other considerations led him to conclude that Mühlmann's idea could not be maintained. He then showed two patients with Addison's disease, and the caseous adrenals of a patient he had shown previously to the Society. The semilunar ganglia appeared normal.

Dr. Stookes and Dr. Newbolt made remarks.

### Peroneal Spasm and its Treatment.

Mr. Robert Jones drew attention to the causal relationship of spasm of the peronei to a certain type of flat foot. Many flat feet were accompanied by spasm, but in one variety, exhibiting characteristic symptoms, the spasm proved to be the sole cause of the deformity. Of 60 tabulated cases, males were affected in the proportion of 4 to 1. Mr. Jones dwelt on the differential diagnosis of this condition from osseous, rheumatic, and hysterical valgus. He had operated on 40 cases, and found that nothing short of an exsection of portions of the peronei sufficed. An incision was made at the side of the fibula just above the malleolus, and the peroneus longus was laid bare, and about three-quarters of an inch removed. The peroneus brevis was exposed, and the same amount of its tendinous portion excised. The foot was then placed in a varus position for a fortnight, and the patient allowed to walk with an altered boot in three weeks. Simple tenotomy was not sufficient.

Dr. Newbolt had seen a number of cases of spasmodic flat foot, and he agreed with the method of treatment adopted by Mr. Jones.

Mr. Puzey and Mr. Murray made remarks.

Mr. Jones replied.

## BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Pathological and Clinical Section.

Arthur Foxwell, M.D., in the Chair.

*Friday, March 26th, 1897.*

### Nomination of Officers for 1897-98.

The following nominations were received: As *Chairman*, R. M. Simon, M.D., F.R.C.P.; as *Honorary Secretaries*, J. T. J. Morrison, M.A., F.R.C.S., and J. W. Russell, M.A., M.D.

### Recovery after Severe Fracture of Skull.

Mr. Haslam showed a man, aged 56, who had completely recovered after a very extensive fracture of the skull caused by a blow from a heavy piece of iron. The upper margin of the orbit was shattered and the frontal sinus opened. A line of fracture passed upwards to the left of the middle line, and, after extending some inches, turned downwards and forwards, and terminated in the neighbourhood of the external angular process. This piece of bone could be opened out like the lid of a box, the hinge extending backwards from the external angular process, and for about half its extent was completely bare on both surfaces. The dura mater was uninjured. Several loose fragments were removed from over the frontal sinus and the large fragment

replaced. There was only a small piece of necrosis in spite of the condition of the bone.

Scirrhous Carcinoma of the Prostate.

Mr. Heaton showed the prostate, bladder, and rectum from a case of carcinoma of the prostate. The patient, a man aged 63, was admitted in hospital suffering from retention of urine, for which suprapubic cystotomy was performed. He lived several months afterwards in comparative comfort, and died of suppurative pyelo-nephritis. The main symptoms during life were progressive enlargement of the prostate—too rapid for ordinary hypertrophy—and rapid emaciation. There was never any hæmaturia, nor did the growth ulcerate. The specimen showed a large irregular enlargement of the lateral lobes of the prostate projecting chiefly into the rectum, where it formed a large smooth tumour. There were numerous small secondary deposits in the rectal lymphatic glands. Microscopically the growth showed the typical appearances of a hard glandular carcinoma. There was one prostatic calculus lying in a small cyst in the prostate.

Obstruction of the Thoracic Duct due to Thrombosis of the Cervical Venous Trunks.

Dr. Codd reported the case of a man aged 35, who was suffering from chronic mitral disease and bronchitis; his abdomen had been tapped twice: on the last occasion a week before death. There was great venous stagnation. Five days before death he had sudden pain in the left arm, which rapidly became œdematous and cold, and arterial pulsation could not be felt. The abdomen rapidly filled again. On *post-mortem* examination the abdomen was found to contain 4½ pints of chylous fluid. The thoracic duct was much dilated, especially the upper part, where it was about 7 mm. in diameter. The left subclavian vein was plugged with partially organised clot as far as the axilla, and the left internal jugular vein for an inch before the junction. The external jugular, vertebral, and innominate veins were also plugged, the last one for a short distance only. The heart was hypertrophied, and the mitral orifice 2½ inches in circumference; its cusps were adherent at the edges, and the margins much thickened. There were no vegetations.

Cases.

Dr. Foxwell showed a patient presenting symptoms of Dilatation of the Innominate Artery.—Dr. Short showed two patients suffering from Modified Raynaud's Disease.—Dr. Kauffmann showed a patient suffering from Facial Spasm.—Mr. Leedham-Green read a note on the Administration of Ether.

Card Specimen.

Mr. Barling showed a Dislocated Semilunar Bone removed from the Carpus, and a radiograph showing the bone *in situ* before operation.

## BRITISH GYNÆCOLOGICAL SOCIETY.

Granville Bantock, M.D., Vice-President, in the Chair.

*Thursday, April 8th, 1897.*

Specimens.

The following specimens were shown:—Mr. Skene Keith: A small Ovarian Cyst of 6 years' growth, complicating pregnancy.—Dr. Purcell: A specimen from a case of Ectopic Gestation, with tubal rupture.

Treatment of Inoperable Carcinoma.

The adjourned discussion on Dr. Beatson's method of treatment of inoperable carcinoma was opened by the Chairman, who said that all his experience was against the hope that there was anything very promising in the treatment. He had seen a case in which oöphorectomy had been done for fibroids; afterwards the patient developed cancer, and died. He had seen other similar cases. Still, they were confronted by Dr. Beatson's case, and should keep an open mind; and as, at present, no cure was known, he thought Dr. Beatson was right in pursuing his inquiries.

Mr. Bowreman Jessett observed that Dr. Beatson's remarks opened up the question whether cancer was a local or hereditary disease. In the inquiry instituted some years ago by the British Medical Association, the evidence went to show that it was hereditary, and this view was borne out by cases he had met with of cancer affecting several persons in one family. It seemed to him that Dr. Beatson had somewhat the same views when he thought of the idea of cancer being possibly under the control of the generative system; but he felt that it would be a dangerous doctrine to promulgate that removal of the ovaries was a cure for cancer unless it could be proved absolutely that this was the case, or that the removal of these organs had a direct influence upon the growth and extension of the disease. As regards Coley's fluid his experience was small, but it led him to determine that, except in extreme cases of sarcoma, he would not use it again. He had never seen any good result from erysipelas attacking a case of carcinoma or sarcoma.

Dr. Herbert Snow said that at one time they had a good deal of erysipelas at the Cancer Hospital, but no case of cancer or sarcoma ever showed the least improvement, and probably the cases recorded were not cancer but syphiloma, etc. In speaking of the diffusion of cancer Dr. Beatson had omitted to mention its extension by regurgitation from the lymph channels into the marrow of the bones, where it might remain for some time. If the breast were the only seat of cancer he thought something might be said for Dr. Beatson's proposal, but it occurred in other organs. He had recently seen an old man who had had two operations for cancer of the tongue, and had now recurrence in the glands. He took him into hospital, and the patient then asked whether castration would do him any good. This seemed to him a *reductio ad absurdum* of Dr. Beatson's proposal.

Mr. Stanley Boyd briefly related three cases in which he had removed the ovaries for cancer. (1) The patient, aged 44, had a tumour removed from the left breast in 1892, and the whole breast in 1893. In May, 1896, she had a mass in the pectoralis major, and enlarged axillary glands, with induration about the scar. He removed the recurrent nodules up to a certain point, and had to take away part of the costal cartilages to do so. The disease continued to make progress, and in December, 1896, after hearing of two cases—one of Mr. Gould's and one of Mr. Bowlby's—in which a cancer had retrogressed after a natural or artificial menopause, he performed oöphorectomy. In a week there was marked diminution of the infiltration; in two weeks she had less pain. On February 22nd, 1897, the infiltration over the heart had gone, and the heart could be plainly felt beating at that spot; five out of the six nodules had disappeared. (2) In March, 1896, he removed a breast with part of the pectoral muscle for cancer. The axilla was involved. In February, 1897, there were recurrent nodules in the skin and subcutaneous tissue, and involving the costal cartilages. The patient was thin and pale. On February 21st he removed the ovaries. In a week the vascularity of the nodules was less; in two weeks the nodules themselves were smaller. Since then she had gained flesh and improved in colour. Of course this might be due to rest in bed and feeding up. (3) The patient had suffered from malignant disease of the uterus for two years, and had a vesico-vaginal fistula. Oöphorectomy on January 15th, 1897. At the beginning of March she was ill and weak, and thought to be dying. Mrs. Boyd had recently seen her, and found her much better—up and about and doing her work. The general condition had greatly improved, although the local condition was worse. In all 6 cases had now been reported of cancer of the uterus treated by this method, and in not one was there local improvement. All his patients were still menstruating at the time of operation, so he could say nothing as to the value of the operation after the menopause, but he should deprecate limiting to the case of lactating women. On the whole, the best working hypothesis was, he thought, that the internal secretion of the ovary had some influence on the cancer process, and that this influence could be modified by removing the ovaries. It did not seem to him at all a necessary inference that removal of the testes should have the same effect.

Dr. Beatson, in reply, said that his remarks at the last meeting were mainly on two points: (1) The nature and origin of cancer; (2) the question of treatment. On the first, his remarks were necessarily speculative; on the second, they were based on actual cases. In the first case that he reported, the disease was proved beyond a doubt to be cancer. He had stated that he had not seen such good results in other cases, but in all of them local changes were seen which, if the

cases had been more favourable, might have led to improvement. He was not prepared to say whether the removal of the ovaries influenced the nutrition of the tissues or the cell proliferation, but he thought Mr. Boyd's explanation was correct, that the tissues were affected thereby in much the same way as was seen in cases of osteomalacia. He thought it would be found that there was a good deal of variation in the individual susceptibility to the beneficial effects of the treatment.

## PATHOLOGICAL SOCIETY OF MANCHESTER.

T. HARRIS, M.D., F.R.C.P., President, in the Chair.

*Wednesday, April 14th, 1897.*

### NERVE CELLS.

MR. FRICKE read a short paper on the structure of nerve cells and some recent methods of investigation, and exhibited specimens and lantern slides.

### MEMBRANOUS CYSTITIS.

Dr. WALLS related two cases of exfoliating cystitis. Both originated as a consequence of retroversion of the gravid uterus. The first patient came under treatment when four months pregnant; and, though the conditions were so bad that a fortnight elapsed before the uterus could be replaced, pregnancy went on to term. The second presented herself after abortion had taken place, but the symptoms were not quite so severe as in the other. The first specimen was a large thick mass involving much of the bladder muscle. It illustrated what had been called diphtheritis of the bladder. The second was in several small pieces, and, comprising little or no muscular tissue, was an example of the condition described as croupous cystitis.

### RECURRENT APPENDICITIS.

Mr. SOUTHAM made remarks on the pathology of recurrent appendicitis, and exhibited appendices removed from 20 cases treated by operation. These showed the changes usually met with in this condition—namely, thickening of the wall of the appendix, with constriction or occlusion of its lumen, which in many cases was dilated on the distal side of the obstruction and distended with fluid. In 3 cases fæcal concretions were found, and in one instance a foreign body (pin). Suppuration had occurred in 8 instances, a localised abscess having formed in 6 cases, while in 2 there was diffuse purulent peritonitis. Specimens were also shown to illustrate the fact that adhesions might be present after a single attack, or absent after many attacks of appendicitis.

### PERNICIOUS ANÆMIA.

Dr. MERCER showed preparations from a case of pernicious anæmia in a child, aged 7 years, running a rapidly fatal course. There was profound anæmia with pyrexia and gastro-intestinal disturbances. The red blood corpuscles were reduced to 1,000,000 per cm., and hæmoglobin to less than 20 per cent., with marked poikilocytosis. The chief points of interest were: (1) The age, the disease being distinctly rare in children; (2) the rapid course, the duration of the disease from onset to death being less than three months; (3) the probability of the disease being of septic origin; the child had long-standing middle-ear mischief. The rapid course and symptoms generally point to rapid destruction of the red corpuscles by the action of a toxin in the blood. The advanced fatty degenerative changes were found in the liver and heart, together with a small amount of deposit of iron granules in the liver cells. The spleen was somewhat enlarged, but no morbid changes were discovered under the microscope. The red marrow contained numerous red nucleated corpuscles, but no other abnormal cells.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—At a meeting on April 9th, the President, Dr. J. P. BATE, in the chair, Dr. F. J. ALLAN read a paper on Sewer Ventilation and Health, based on inquiries conducted by himself at the request of the Strand Local Board as to the experience of a number of sanitary authorities in London and elsewhere with regard to street sewer ventilators. With one or two exceptions the replies, fifty-eight in number, admitted the fact of complaints of offensive smells at least in some parts, but the answers to the question whether they had been able to trace any deleterious influence on health to emanations from the street level or other ventilators were less definite, save as regards shafts, to which, when not most improperly placed, no objections were raised; some authorities found their action, alone or in association with openings at the street level, perfect; the lower apertures, where they were retained, being converted into inlets only. Notwithstanding the negative evidence as to the occurrence of disease germs in sewer air or gases, Dr. Allan maintained that its inhalation could not but be hurtful by inducing a low state of health, diminished resistance to infection, and, as Alessi's experiments showed, a condition highly favourable to the growth of pathogenic micro-organisms, and especially of those of a septic character. The poison was, he thought, not so much in the well known hydrocarbons and sulphur compounds as in undetermined organic gases like those given off from the lungs, most abundant and most virulent in ill-constructed sewers with foul deposits and in those receiving hot water and factory wastes. He admitted the necessity for ventilation so far as to relieve the pressure on the traps, but held that it should not be more than was required to compensate for the movements of the sewage and changes of atmospheric pressure and temperature, while every effort should be made in the way of improved construction and flushing to avoid deposits and putrefaction. After referring to contrivances for the purification of the outgoing air, he discussed the replies received as to the practical working of the Keeling-Holman and Webb's or Deakin's patents for ventilating and burning the sewer gases. Those, as Keeling's, in which the combustion was effected in a gas furnace in the base of the column, were on the whole unsatisfactory on the score either of efficiency or of cost; but they were decidedly favourable as to Deakin's, in which the sewer gases were burnt in the lantern, with apparent increase of the illuminating power. Dr. Allan's conclusions were that well-constructed sewers required compensatory ventilation only, which might be at any level, whereas in those of a different character some form of constant ventilation was necessary, the outlets being preferable at considerable elevation, and that the best arrangements were those providing for the combustion of the gases at the same time.

SOUTH-WEST LONDON MEDICAL SOCIETY.—At a meeting on April 14th, Dr. BENJAMIN DUKE in the chair, Dr. CALDWELL SMITH read a paper on The Etiology of Diphtheria, with special reference to two localised outbreaks in Wandsworth, in which he drew attention to the influence of school attendance in causing the spread of the disease.—Dr. SIMS WOODHEAD gave a limelight demonstration of the Bacillus Diphtheriæ, and of the effects of the disease on the nerves, muscles, and other tissues of the body. He emphasised the fact that these injurious effects may occur as early as the third day, and that they cannot be repaired by any amount of antitoxin. He asserted, however, that this, if injected before the third day, will cure 95 per cent. of the cases. A discussion followed, in which Messrs. T. A. J. HOWELL, JOHN GAY, W. T. ORR, R. T. FRAZER, A. E. DODSON, and others took part.

# REVIEWS.

TWENTIETH CENTURY PRACTICE. Edited by T. L. STEDMAN, M.D. Vol. viii, Diseases of the Digestive Organs. London: Sampson Low and Co. 1897. (Royal 8vo, pp. 678. 21s.)

THIS is a very complete and thorough work. The classical diseases are well described, and their pathology and treatment fully given. The bibliography is also useful. In the section on gastric disease, by Einhorn, a considerable space is devoted to the methods of examination of the stomach, gastroscopy, gastro-diaphany, testing its contents chemically and microscopically, testing its motor power by inserting a ball connected with an electrical apparatus, are fully described. At similar length are discussed gastric lavage, the use of the gastric spray (a method of treatment introduced forty years ago and discarded), and internal and external electrisation.

The sections on gastritis, gastric ulcer, and gastric cancer

are thorough and good. The author claims to diagnose "erosion of the stomach" clinically, which will probably not meet with general acceptance. It is in the chapters on functional disease that we find least to praise. Hyperchlorhydria, gastro-succorrhœa, continua periodica and chronica, achylia gastrica, and the like are what may be termed artificial diseases named on the results of chemical examination of the gastric contents removed by the pump. But this method reveals such very wide differences not only in morbid but also in healthy subjects that it is not a sufficient basis for classification, and this multiplication of names does not really advance knowledge. The section on enteroptosis is interesting, but unconvincing. That on gastric neuroses is another instance of what we have already blamed. "Akoria" is apparently what most people call greediness, and we would suggest that the latter name is more easily understood. We are inclined ourselves to look upon "hyperonomasia" as a serious disease in medical writers.

There is an able article on the pancreas by Leo. It gives with admirable terseness and moderation the extent of our present knowledge. The remarks on the connection between pancreatic disease and diabetes are an excellent summing up of the evidence.

Diseases of the peritoneum, by Curtis, is also a valuable contribution. Under appendicitis the question of operation is not very clearly discussed. But this is really due to the nature of the case, which does not admit of very clear statement. The author leans to the American side, as might be expected, and seems to advise operation earlier than an Englishman would. We are glad to see that he admits the frequent recovery of tuberculous peritonitis. That physicians should recommend operation as a routine treatment for this disease has never seemed to us explicable, unless their use of the term and their clinical diagnosis were different from those in vogue here.

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(1) Enteroptose und intra-abdominalen Druck [Enteroptosis and Intra-abdominal Pressure.] Von Medicinalrath Dr. C. Schwerdt. Leipzig: George Thieme. 1895. (Cr. 8vo, pp. 39. M.1.)

(2) Beiträge zur Ætiologie, Symptomatologie und Therapie der Krankheit Enteroptose-Basedow, Myxœdem-Sclerodermie [Contribution to the Etiology, Symptoms, and Treatment of Combined Enteroptosis and Graves's Disease and Combined Myxœdema and Scleroderma.] Von Dr. C. Schwerdt. Jena: Gustav Fischer. 1897. (Roy. 8vo, pp. 29. M.1.)

In the first part of the first paper the author sets himself to prove that enteroptosis is a constitutional disease. In it there occurs a loss of tone in the entire nervous apparatus, and this finds expression in an affection of the muscular elements of the body. The chief causes lie in (1) heredity, (2) incorrect modes of living, (3) chronic disease, (4) the corset, and (5) insufficient care during pregnancy and lactation. In this section the author describes the results of the clinical examination in respect to the organs mostly concerned, and discusses the subjective symptoms, diagnosis, and treatment. In the second part, Dr. Schwerdt endeavours to show that diminished intra-abdominal pressure is the first and chief symptom of enteroptosis. He has undertaken various measurements of pressure in the stomach, bladder, and rectum.

In the second paper, the fact that enteroptosis is only a name given to a symptom is again emphasised. The author lays stress on the various auto-intoxications that may result from the impairment of functions in the abdominal organs. The part played by the skin in getting rid of the effete products is much insisted upon. Thus a paralysis of the functions of the skin is said to produce the severest results in enteroptosis. The value of hydrotherapy is brought into relation with this supposition. A couple of cases of enteroptosis are recorded in young girls, aged 12 and 10 years respectively. A further contribution is given here to the symptomatology and treatment of the disease. The author contends that enteroptosis is frequently associated with Graves's disease, which latter is then one of the results of the auto-intoxication produced by enteroptosis.

These pamphlets undoubtedly contain much interesting material. The ground which they cover is extensive, but much more proof must be forthcoming before some of the views advocated by the author can be accepted as established.

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Casuistische Beiträge zur forensischen Psychiatrie [Clinical Contributions to Forensic Psychiatry.] By E. Siemerling. Berlin: August Hirschwald. 1897. (Demy 8vo, pp. 172. M.4.)

This is a description of twelve criminal cases in which the mental condition was investigated. Each case is fully described, and is supplemented by the official report, giving a connected account of the case, with the conclusion arrived at on the question of responsibility. Four of the cases were found to show no technical evidence of insanity, while eight were pronounced insane. Of the former the most interesting is a case of simulation, in which a man in the course of two days acquired a definite group of symptoms, grouped round a delusion that he was Timothy, and had been ordered by St. Paul in a vision to go to Corinth. The report shows conclusive evidence of simulation, confirmed later by his confession. The eight insane cases had chronic delusions. They are all described in a graphic manner, and present many points of interest.

The most instructive feature of the book is the clear way in which it illustrates the great difference between this country and Germany in the legal method of treating criminal cases suspected of insanity. In several of these cases offences of minor importance had been committed, such as obtaining money on false pretences; only one was definitely a case of murder, although in two others there was self-accusation of this crime. Yet in all these cases the prisoners were in the course of the trial committed for considerable periods to hospitals in order that they might be watched by competent authorities, and their mental condition systematically investigated. The impression gained on reading these cases is that such a system of thorough investigation by an independent authority is decidedly superior to one in which a number of authorities have more or less brief interviews at different times and in different conditions of the patient, and as a result arrive at contradictory conclusions, which bring undeserved discredit on medical knowledge.

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The Co-education of the Sexes. By Mabel Hawtrey. London: Kegan Paul, Trench, Trübner, and Co. 1896. (Cr. 8vo, pp. 120. 2s. 6d.)

The title of this small book hardly does justice to its contents. The subjects treated go far beyond the somewhat narrow scope indicated in the title. The first chapter is indeed devoted to this subject, but the parts of the books which we have found most interesting are those dealing with the education of boys and of girls under the conditions prevalent in this country. It cannot be said that co-education of the sexes is one of these. This method may have its conveniences in young children, and even certain advantages in the case of young women and young men, but we entirely agree that its obvious disadvantages entirely outweigh any fancied advantages in the case of boys and girls at the period of puberty. Apart altogether from the special sex problems of a moral kind which present themselves under very different aspects in boys and girls at this period, there are physiological considerations which render it desirable that developing girls should be subjected to treatment differing essentially from that suitable to boys. Puberty is a more important epoch in a girl's than in a boy's life, and Miss Hawtrey, who is well qualified to speak from long experience on this subject, is right when she says that "even if regulations are modified so as to make them as far as possible suitable to the requirements of both sexes, it stands to reason that in some points the girls' interests would have to be sacrificed, while in others the boys would be the sufferers. This would retard the development of their natural qualities and would in all probability tend to produce effeminacy in men and masculinity in women." Miss Hawtrey appears disposed to complain that the medical profession has not

spoken with sufficient clearness on this matter. If the accusation be just—and we would question its justice—its explanation is to be found in the fact that the opinion appears so obvious to every medical man that it seems to require no argument.

The chapters on the public school education of boys contain many observations of great value. This country is proud of its public schools because it sees the boys which they turn out, but without going so far as to say with Miss Hawtrey that some public school masters appear to be unaware of the progress of modern science and its practical application to the problems which they are called upon to solve, it is yet legitimate to express a doubt whether in too many cases public schools are not living upon a reputation gained in the past, and whether the high-spirited and capable lads who issue from them are not produced rather in spite of than in consequence of the somewhat antiquated principles which govern these great institutions. The book is one which we would commend to every parent who has children growing up, for the authoress has much to say which is well worthy of the most careful consideration.

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LECTURES ON PHARMACOLOGY FOR PRACTITIONERS AND STUDENTS. By Dr. C. BINZ. Vol. I. Translated from the Second German Edition by ARTHUR C. LATHAM, M.A., M.B.Oxon., M.A.Cantab. Vol. II. Translated from the Second German Edition by PETER W. LATHAM, M.A., M.D. London: New Sydenham Society.[1] 1895 and 1897. (Demy 8vo, pp. 390 and 450.)

THE Sydenham Society deserves the thanks of the medical profession in Great Britain for selecting these lectures on pharmacology for translation; they are valuable alike to the student, the practitioner, and the professed pharmacologist.

The term "pharmacology" has been used with different meanings. Formerly it was applied to the study of drugs generally, including not only their origin, properties, and the methods of compounding them, but also their effects and uses. In recent years its signification has been limited. Schmiedeberg, the illustrious professor of the subject at Strassburg, defines it as the study of the changes in general which are caused in the living organism by chemically active substances, and this definition nearly corresponds to the meaning usually given to the term "pharmacology" in England. BINZ uses it in a wider sense, regarding it as the scientific investigation, with reference specially to the requirements of a physician, of the substances contained in the official Pharmacopœias of various countries, which are employed in the treatment of disease.

The main feature of the work is the admirable skill with which the author has, in accordance with this view, set forth the essential facts relating to the properties of drugs—physical, chemical, and physiological, without burdening it with details which, however interesting scientifically, are not of practical importance.

The history of many of the more important drugs is briefly sketched, the method in which they are obtained is in most cases shortly described, and the physical and chemical characteristics of the substances mentioned are given with all the fulness which is required to throw light on their use in therapeutics. Furthermore, the chief impurities found in important medicinal substances are mentioned, and the method in which they may be detected by practitioners is clearly described. But these details are so lightly and lucidly dealt with that the book is pleasant to read. The actions of drugs are of course described from the physiological and not the clinical side, and a clear account is given of many of the experiments by the aid of which these actions have been ascertained, and can be proved; references are given to the original papers in which they were described. The substances dealt with are grouped for the most part according to their effects, but an exact physiological classification has not been attempted. In the first volume, for example, whilst separate sections are devoted to anæsthetics, hypnotics, nitrites and alcohols, the bromides, conine, curare, colchicum and cocaine, are treated of in one chapter, and lobelia, aconite, veratria and colchicum, in another. The second volume opens with a chapter on tannic acid bitters and alkalies. Then follow sections on the heavy metals, but phosphorus is considered with iron, and guaiacum and sarsaparilla with mercury.

Though the book is not meant as a guide to practical therapeutics, so much information is given concerning the administration and uses of drugs that no practitioner can rise from a perusal of it without feeling that his knowledge relating to the treatment of disease has been distinctly widened.

Many of the author's views with regard to the action of remedies are the outcome of experiments in which he has himself taken part, and all his judgments are founded on a thorough knowledge of the possibilities of error in experimental work, as well as of its value. Hence the conclusions he arrives at are of great interest, especially on points concerning which differences of opinion have been expressed.

With regard to death from chloroform, Binz thinks that the cause is generally sudden paralysis of the respiratory centre. But sometimes the heart stops before the respiration, and again, in other cases, paralysis of both systems takes place simultaneously. Strophanthus is described as differing from digitalis in acting more quickly, in not disturbing the intestinal canal, and in not possessing a cumulative action, but the good effects are said to be not so lasting. A quieting effect on the brain and medulla is attributed to strophanthus. It is somewhat remarkable that no allusion is made to the difference in the influences of strophanthus and digitalis on the vessels.

The absorption of iron preparations by the alimentary canal is accepted, but Binz looks on them rather as stimulating the blood-forming organs than as contributing directly to the production of hæmoglobin. Phosphorus is stated to produce its effects by causing the development of active oxygen in cell protoplasm, the process being compared with what occurs when phosphorus is exposed to air with the production of ozone. The effects of arsenic too are described as being chiefly due to its influence on oxidation processes.

In some respects the views of the author differ from those usually accepted in England. The action of ergot, for example, as a remedy for stopping hæmorrhage other than uterine, is said to be doubtful. Squill is looked upon not as an expectorant but only as a substance acting like digitalis and promoting diuresis. The influence of aconite in lowering the temperature is denied. No mention is made of cascara sagrada as an aperient.

An interesting chapter on the methods by which pharmacological knowledge can be advanced and the limits within which it is justifiable to try new remedies in disease closes the second volume.

The task of the translators has been excellently performed. They have rendered the work of Dr. Binz into clear good English, and, moreover, have added notes which readers of the book in this country will find of great advantage.

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THE IDIOT; HIS PLACE IN CREATION, AND HIS CLAIMS ON SOCIETY. By Sir FREDERICK BATEMAN, M.D., LL.D. Second Edition. London: Jarrold and Sons. 1897. (Cr. 8vo, pp. 123. Two Illustrations. 3s. 6d.)

SOME years ago Sir FREDERICK BATEMAN, who is Consulting Physician to the Eastern Counties Asylum for Idiots, delivered an address, advocating the claims of the idiot upon the philanthropists of East Anglia, at a public meeting held in Norwich in support of the institution. This address was printed and circulated but is now out of print. The board of directors requested Sir Frederick Bateman to publish a second edition, and the result is the present book. The author has taken advantage of having to prepare another edition to introduce much additional matter. The form of a public oration is retained in order that less modification in the phraseology of an appeal for help may be necessary. The author mentions the well-known fact that heredity plays an important part in the production of idiocy, and points out that intemperance in the parents is an important predisposing cause, while consanguine marriages, which the public consider a common cause, are only a slight factor in the case. Reference is made to the pathology of idiocy, but the author thinks sufficient

[1] The Annual Subscription to the New Sydenham Society is £1 1s. Agent, Mr. H. K. Lewis, 136, Gower Street, W.C.

attention has not been given to the chemical constitution of the cerebral substance.

Considerable space is given to the question of mind and matter, and to the special attribute of the idiot. Sir Frederick Bateman is evidently not a materialist, and he strongly opposes the doctrine that the brain is the organ of mind. The efficacy of the thyroid treatment and the discouraging results of craniectomy are mentioned, and the author shows that more can be done by educative treatment than by an operation on the skull.

The book is well got up, and we hope that it will fulfil the expectations of Sir Frederick Bateman, and help to bring in funds for maintaining such an important institution as the Eastern Counties Asylum for Idiots.

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Considérations sur l'Antéflexion Pathologique de l'Utérus et son Traitement. Par le Docteur M. Lévy, Ancien Externe, etc. Paris: G. Carré et C. Naud. 1897. (Roy. 8vo, pp. 210. Fr. 5.)

This is a big pamphlet on the treatment of a condition which, in the opinion of many high authorities, has been proved to be a normal one. This fact makes it incumbent upon anyone who proposes treatment for this possibly normal condition, to show reason for thinking that it is abnormal and requires a remedy. Our author admits that there is such a thing as a "physiological anteflexion." What he understands by a "pathological anteflexion" is a uterus "in which the normal antecurvature is exaggerated, and characterised especially by the stability of the angle of flexion, perceptible to the exploring finger as a sharp curve, and not varying with the varying fulness of the bladder." If it be asked what reason is there for supposing that any anteflexion is pathological, our author's reply is, that "there is no doubt that anteflexion does give rise to morbid accidents," the proof being "the happy and prompt disappearance of these complications after straightening the cervico-uterine axis, and maintaining the normal canalisation of the womb" (p. 8). In this country symptoms are often found cured by "maintaining the normal canalisation of the womb" without straightening it. Starting with this view, the author naturally finds it worth while to describe all the pessaries and operations that have been devised to cure this (as many think) normal condition. Those who reject his pathology will consider all this treatment as unnecessary. We think the fundamental proposition that anteflexion is a morbid condition requires more thorough consideration than the author has given to it. It is not to be settled by quoting opinions; facts are wanted. In illustration, we may refer to page 18, on which the author says that "Graily Hewitt observed sometimes a sort of dilatation of the uterine cavity above the angle of flexion." Graily Hewitt inferred such dilatation from the symptoms: he imagined it, described it and depicted it, but he never observed it; neither he nor anyone else has ever found a specimen showing it.

One other remark we gladly add—that the author has shown immense diligence in bringing together the literature of the subject. References to 337 books and papers on it are placed at the end; and for this alone the work is valuable and praiseworthy.

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Zalma. By T. Mullett Ellis. London: Ash Partners, Limited. (Demy 8vo, pp. 440. 6s.)

This is a curiously incoherent and pretentious novel, which claims to represent modern views of anarchism, nihilism, and antivivisectionism. It will be sufficient for us to quote one passage which describes the object of the heroine: "She had no doubt or hesitation about her purpose. It was to scatter micro-organisms, the germs of the disease anthrax, over the metropolitan and great provincial centres of Europe and America by means of the balloons." There is a certain assumption of scientific knowledge about the book and a bald misrepresentation of biological objects and methods which may secure for it a certain vogue, but it certainly has no claims on the sympathy and interest of medical men.

# NOTES ON BOOKS.

*Abhandlungen zur Gesundheitslehre der Seele and Nerven. I. Arbeit und Wille. Personenkunde oder klinische Psychologie zur Grundlegung der Psycho-Hygiene* [Treatise on the Hygiene of the Mind and Nervous System. I. Work and Will. Individual or Clinical Psychology as the Foundation of Mental Hygiene]. Heft 3. By E. Hallervorden. (Würzburg: A. Stuber. 1897. 8vo, pp. viii + 60, M. 1.40.)—Dr. Hallervorden is among those who recognise the great importance of a closer study of the normal individual. To this end he proposes a line of investigation which he calls "clinical psychology," in which normal individuals are to be studied and records kept in the same way as is done in cases of disease. It is hoped that the knowledge so gained may be systematised, and may lead to such a classification of normal persons as will render possible a diagnosis and prognosis of a given individual which may be of practical utility. The present section of the treatise is chiefly polemical. A large part is devoted to a criticism of the methods employed by Professor Kraepelin in his study of individual psychology chiefly on the ground that they involve too many artificial factors. In another section the author insists that undue importance has been attached to the anatomical aspect of psychiatry. The book is written in a very extraordinary style, and much of it must be wholly unintelligible to anyone who is not well acquainted with current work in individual psychology. The author indulges in so many extravagances that he must not be surprised if some people refuse to take him seriously.

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Reports and Transactions.

The *St. Thomas's Hospital Reports* have now reached their twenty-fourth volume, which is issued under the editorship of Dr. T. D. Acland and Mr. Bernard Pitts. The volume contains, in addition to the usual reports on the various departments of the hospital, a series of clinical and pathological papers. The first in order is an elaborate essay on osteo-arthropathy and its relationships, by Dr. F. R. Walters, which contains abstracts of a large series of cases collected from literature, together with a bibliography which will be very useful for reference. The same writer contributes a case of hyperplastic osteo-arthritis, which is illustrated by excellent photographs and by skiagraphs. Dr. Cory contributes a third series of notes on the examination of the bodies of children born dead or shortly dying, a subject of much pathological interest. Among other papers we may mention that by Dr. F. F. Caiger, on the occurrence of relapse in the specific fevers; by Mr. H. Betham Robinson, on the rarer forms of tuberculous disease of the knee-joint; and by Mr. T. H. Kellock, on the displacements which occur after tuberculous disease of the knee-joint in children.

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We have received the first issue of the *Reports* of the Medical, Surgical, and Pathological Registrars of the Liverpool Royal Infirmary. It is in its way a literary curiosity, because it contains no title page and no indication within its cover, so far as we have observed, of the hospital to which the reports refer. The cover itself, however, carries the necessary notification. The volume consists of statistical tables with appended remarks, and has evidently been prepared with great care, Dr. E. A. Smith being responsible for the medical part, Mr. H. T. Nixon for the surgical part, and Professor Boyce for the pathological part.

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The ninth volume of the *Transactions of the American Orthopedic Association* contains a report of the proceedings of the tenth session held at Buffalo, N.Y., in May, 1896, under the presidency of Dr. Royal Whitman. The volume is well illustrated, and contains a number of very practical papers.

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We have received the first number of the first volume of the *Mitteilungen aus den Hamburgischen Staatskrankenanstalten*, which is an old friend in a new form, for the new series is to replace the yearbook previously issued. The first number of the new series opens with a sympathetic obituary notice of

Dr. Karl Eisenlohr, who died of tuberculosis last November, in his 50th year. The rest of the number is occupied by papers on clinical subjects, including the report by Professor Rumpf and Dr. Bieling on the use of Behring's diphtheria antitoxin in the New General Hospital in Hamburg, where it has been used with great success. A paper of somewhat curious interest is that by Dr. de la Camp on the occurrence of carcinoma during the first ten years of life.

THE one hundred and twenty-sixth *Annual Report of the Society of the New York Hospital* (1896) is illustrated by a number of photographs of a villa for female patients at the Hospital for the Insane at Bloomingdale, which has been erected as a memorial to Mr. James M. Brown by his widow. It is a pretty building, elegantly furnished. Drawings of a new recreation pavilion, containing a billiard room and a gymnasium and bowling alley are also given. The volume contains the report of the medical superintendent of the hospital, Dr. Samuel B. Lyon.

# REPORTS AND ANALYSES
AND
# DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

## PEPSINE AND MALT PREPARATIONS.

FROM Messrs. Giles, Schacht, and Co., of Clifton, Bristol, we have received samples of their liquid preparations containing pepsine and malt extract as digestive principles combined in some preparations with tonic medicinal constituents. The "bi-digestive" preparation, it is suggested, on account of its containing Schacht's "pepsina liquida" combined with fluid malt, exceptionally rich in diastase, would be a useful agent in dyspeptic conditions, and for the accumulation of amylaceous and proteid substances. On examination we find it to be capable of digesting nearly its own weight of gelatinised starch in about fifteen minutes at a temperature of 70° C., thus showing it to have digestive action on amylaceous material. It had also the property of digesting proteid substances when tested on coagulated albumen, but not to the extent we had expected from the description. The preparation of pepsine and malt extract is also combined with bromo-hypophosphites, cinchona, and nux vomica as well as with coca.

## SOLIDIFIED SOUPS.

THE "solidified soup squares" sent to us by Messrs. E. Lazenby and Son, 18, Trinity Street, S.E., contain in each packet of about 2 ounces sufficient soup, stock, and vegetables to make 1½ pint of soup. Each square is stated to contain the soluble portion of 1½ lb. of beef free from fat and bone. Our analysis shows that these soup squares consist of more than one-half of solidified meat stock mixed with carrots, lentils, or other vegetables, or with tapioca as specified. Boiled as directed, the "solidified soup squares" serve as a very ready means for the preparation of excellent and nutritious soups.

## CONCENTRATED FRUIT JUICE.

WE have received from Messrs. G. Foster Clark and Co., of Maidstone, samples of "Eiffel Tower concentrated lemonade," which is said to be partly prepared in Italy from the finest lemons. It is a lemon-coloured crystalline preparation having the odour and flavour of lemons, and it appears, according to our analysis, to consist of a fruit acid, more appertaining to the grape than to the lemon, mixed with sugar and lemon flavouring. Each bottle contains sufficient material to make a pint of a concentrated and pleasant beverage. The "concentrated fruit juices" are also supplied, having the flavours of orange, cherry, raspberry, etc.

ERRATUM.—In the notice of "Excel" cocoa in the BRITISH MEDICAL JOURNAL of April 24th, p. 1046, the seventh line should read "thus rendering the preparation *less* likely" instead of as printed.

# BRITISH MEDICAL JOURNAL REPORTS.

## REPORTS ON THE HYGIENIC CONDITION AND ADMINISTRATION OF METROPOLITAN DISTRICT AND SEPARATE SCHOOLS.

BASED ON THE EVIDENCE LAID BEFORE THE DEPARTMENTAL COMMITTEE.[1]

*(By Our Own Commissioner.)*

## IX.—THE HACKNEY SCHOOLS.

IF there is one thing that distinguishes the Brentwood managers and officials from those concerned with some of the other schools about which evidence was tendered, it is their readiness to acknowledge that both the system and the administration are at fault. On these points the evidence of the Rev. T. E. Howlett is very instructive. This gentleman had ceased to be a manager, not, however, years ago, but one month before he appeared before the Committee (8150). His first ground of grievance is the way in which the officers consider the children. "My experience of the children," he says, "generally is that they are quite up to the average of any ordinary children" (8164); but "the officers and teachers regard the so-called pauper children as altogether different from ordinary children" (8130).

### "YOU ARE A SET OF PAUPER CHILDREN."

He gives the following examples of this spirit in these words: "If you see anything wrong and call attention to it the teacher says: 'Oh, what can you expect? these are pauper children; you cannot expect anything from them,' and I frequently discover the teachers in their schools, if the children do anything they do not like, calling them 'You are a set of pauper children,' and they seem to imagine it is impossible to get hold of these children and influence them in the same way as they would ordinary children" (8130). This is a severe criticism borne out in part by the tables of replies furnished by the head mistress of the infants' school, who, in reply to the question, "Have you any observations or suggestions to make how the schools with which you are connected could be improved, and the scholars better fitted for life as useful citizens?" (col. 23, Appendix 15, replies: "I think the head of each department should have authority to punish as in schools under Government. I think that infant boys of this class require corporal punishment as much as older boys." This lady, moreover, seems to hold, as Mr. Howlett states, a very low opinion of the infant under 7, whose misfortunes have brought him to the workhouse, for she says in reply to another question, "As regards conduct, they seem to have greater tendencies to vice and wickedness, apparently inherited, as it seems a natural part of them" (col. 18, Appendix 15).

### INFANTS NATURALLY VICIOUS.

To us it seems almost a contradiction of terms that infants should be vicious, but we must not forget in extenuation of these infants' sins that they had been subject for years to cruel treatment, and that even the most docile of children will learn tricks and practices which may surprise their elders in order to avoid unjustly meted out pain or to obtain pleasures when they are scanty. These unhappy infants do not seem to have much encouragement to be good, for "No," "No," "No," "No" are the monotonous replies to whether there is a system of marks, or if the children ever go out to places of interest, or are visited by outside teachers, or are taught swimming (Appendix 15, cols. 5, 6, 21, 22). Evidently the life of an "infant" at Brentwood is not exactly calculated to lay that foundation of careless joy which most parents, however poor, seem to think is the due of extreme youth. "I think," said the witness, "that the teachers are harsh in their manner of dealing with the children....," and that there was "a great deal too much unauthorised corporal punishment used.....and I think this

[1] The previous articles appeared in the BRITISH MEDICAL JOURNAL of January 2nd, p. 39, 9th, p. 90, 16th, p. 163; 23rd, p. 214; February 6th, p. 340; March 13th, p. 667; March 27th, p. 812 and April 10th, p. 935.

arises from the fact that they believe that these children are somewhat different really from any other class of children," and can be dealt with only by severe discipline and corporal punishment (8136-7). The Brentwood school children are certainly to be pitied.

We have already commented on the standard of health which obtains at these schools, so that it will therefore surprise no one to learn that on a given day but 52 infants were present at their lessons out of a roll of 71. These figures must mean that 27 per cent. were absent through sickness.

### Good Food on the Floor.

This ill-health, however, must not all be attributed to aggregation, want of exercise, overwork, or lack of interest. In Brentwood either the cooking, serving, or system of feeding must be seriously at fault, for we have it in evidence that two members of the Committee saw, after the dinner hour, large bits of meat not only left on the plates, but thrown on the floor (15778). It is and has been a practice required by the Local Government Board that every child should receive on his plate the regulation quantity of weighed food in accordance with his registered age; thus his appetite, tastes, and condition of health are left out of account. On the other hand, it would never do to allow children to get in the habit of leaving their food, so the difficulty is got over by dropping it surreptitiously on the floor, and presenting anyhow occasionally a cleared plate to the overlooker's eye. In the opinion of certain witnesses the food allotted to each child is too much. Mr. McNeill, the secretary of the Local Government Board for Scotland held this view (13093), and Miss Whitworth, the lady head of a charitable home for pauper girls, affirmed that "until you thin them down it is hopeless to attempt to do anything with them" (6817). Mr. Holgate (15778), Dr. Downes (9026), and Mr. Knollys (17178) all concur in deploring the fact of the hideous waste which avowedly goes on (3077), but the chief secretary states that he would like to say that "personally he has done everything he could to prevent a change in that system (17040)." We regret we cannot agree with him. To give children adequate food is one thing, but to load their plates so that disgust and not appetite ensues, and to injure them morally by a daily lesson in wastefulness, is, we contend, neither economical, right, nor productive of the health which is so essential for these children if they are ultimately to be self-dependent.

### Children Half-timers at All Ages.

The report of the Departmental Committee states: "Among all the matters incidental to the life and training of pauper children into which it has been our duty to examine, none has caused us more surprise and pain than to learn the conditions under which the children often labour as half-timers, and in this way lose much educational advantage, in order that the work of their hands may be utilised. In most schools all the children are made to work for a portion of the day, and in some they are employed as half-timers at the tender age of 8."

This statement has, as will be readily imagined, been received by the public with amazement and indignation. More than one question has been asked in the House of Commons concerning it; indeed, so pressed was the Local Government Board on the matter, and so impossible did it find it to defend the position, that an order was passed a few weeks ago to remedy the scandal. For nineteen years the guardians had broken the law which forbids a child to work under the age of 10. For six years Mr. Holgate, the Educational Inspector of the Local Government Board, had been endeavouring to get his department (15371 to 15376) "to issue a new general order defining what should be the limit of hours under any circumstances during which a child should be put for labour." Weary with waiting, Mr. Holgate issued a private circular, but the results were other than he intended. "No sooner," he says, "did my circular go out saying that 11 years of age was the legal age, than they (the guardians) gave up the old plan, and took all the children that were 11 to work, notwithstanding their being dull children in the lower standards." In other words, "the minimum at once became the maximum."

With these facts in view the following table will be interesting:

| | | |
|---|---|---|
| Number on school attendance roll ... ... ... ... ... | | 146 |
| Number at school ... ... ... | | 56 |
| ,, at work ... ... ... | | 50 |
| ,, sick ... ... ... | | 40 |
| | | 146 |
| Standard IV and V ... ... | | 9 |
| ,, III... ... ... ... | | 11 |
| ,, II ... ... ... ... | | 13 |
| ,, I ... ... ... ... | | 15 |
| Primers ... ... ... ... | | [illegible] |

97 half timers; only 9 little ones in preparatory class attend school full time; they have only done so since September, 1894.* All girls in Standards I, II, III, and IV are half timers making 5 attendances one week and 6 the next. Standard V, 3 half days in school (Appendix 12, cols. 1 and 7).

* That is, since after the inquiry began.

### The Children's After-career Unsatisfactory.

If the school life of the children at Brentwood is unhappy, their after career cannot, according to the evidence before us, be considered successful. "I have known," testified a manager, "a large number of girls that have gone into domestic service, and I have had opportunities of talking with the mistresses about them. I think I may say that, with hardly a single exception, they have said that these girls are really utterly unfitted for service; they know nothing of domestic work, and it is terrible work on the part of the mistresses to try and teach them anything; they seem to have come without any training whatever" (8152). This is a bad opinion of the girls, but for the boys there is not much more to be said. "Mostly the boys are sent out to bakeries, and we have a great many complaints about them; but some have been sent out to the farmers for agricultural work, and complaints have been made of them. I may say there are general complaints; there is no general satisfaction given. I trace it all to the want of proper technical education there, the want of proper training" (8163).

### No suitable Technical Training given.

Why these children do not receive "proper training" is a question which every ratepayer, as well as every public-spirited person, has a right to ask, and it is one concerning which there is abundance of evidence.

## SPECIAL REPORT ON THE CONDITION OF THE ALDERSHOT CAMP SEWAGE FARM.

By E. Bailey-Denton, M.I.C.E.

In compliance with the request of the Editor that I should pay a second visit of inspection to the camp sewage farm at Aldershot—its condition being a matter of moment to the public, both on medical and general grounds—I again visited it on April 1st.

The military population tributary to the farm is practically the same as in 1895, when I made my first inspection, and the same local condition of things prevails with regard to the position of the barracks and the dwellings in its vicinity, except that a new hospital has been built on the adjacent high ground.

In my previous report I traced the history of the sewage farm, and showed how, owing to lengthy mismanagement, it had become such a nuisance as to call forth loud and unfavourable comments both in the House of Commons and in the press. I found the other day that since Lieutenant-Colonel Jones, V.C., A.M. Inst.C.E., whose knowledge of the utilisation of sewage by means of land is extensive, has taken over the management of the farm—which he did, at the wish of the War Office, in the summer of 1895—there has been a great and general improvement. Whereas the condition of the farm two years ago was repulsive, it to-day presents a tidy and businesslike appearance. The roads have been metalled, efficient fences made, gates erected, and the tanks at the mouth of the outfall sewers have been altered to the best advantage so far as their antiquated design will allow. There is no longer any accumulation of sludge on the surface of the land, whilst the whole is under cultivation instead of portions only, and the pools of stagnant and offensive sewage—then so common—are no longer there to offend the eye and nauseate the stomach. To a very limited extent the farm

buildings have been improved, for a cowhouse of a substantial character to accommodate 24 cows has been built, as well as a dairy with all modern sanitary appliances.

In a word, no one can deny that the appearance of the camp sewage farm in 1897 contrasts most favourably with that presented in 1895; and that the trivial sum of about £2,000 expended by Colonel Jones on behalf of the War Office on permanent improvements since that time has been utilised to the best advantage. In proof of this, it appears that the Urban District Council of Aldershot, who naturally look with a jealous eye upon the doings at the camp, owing to the rateable value involved, are of the same opinion; for their Inspector of Nuisances, in the *Aldershot Times* of June 6th, 1896, then reported that the whole of the farm was in a much better condition than in former times, whilst Mr. Rushford, their surveyor, stated in confirmation that its general appearance had much improved since his last visit.

At this point, however, all commendatory remarks must cease, because I am convinced that the effluent from the farm, which without much stretch of imagination might on the day of my inspection be termed "clarified sewage," must always at its point of discharge into the river Blackwater be chemically impure, even if it be sometimes clear to the eye; and that no effort on Colonel Jones's part can produce a good result unless the Government allow him an adequate sum of money in order properly to underdrain the land and thoroughly to prepare its surface. Small grants of money such as he now receives may do more harm than good. In proof of my statement that the effluent is chemically impure, I read the other day in the remarks appended to one of the periodical analyses, which I understand are made regularly by the military authorities, that in the opinion of the analyst the effluent was "a bad one." As the principal test of a successful sewage farm is the character of its effluent, it follows that a continuously bad one must cause the condemnation of the farm contributing it. In this instance such condemnation is quite preventable if only the War Office would take the necessary steps to ensure success by a reasonable expenditure of money.

It is obviously discreditable that the present state of things should continue; and steps should be taken forthwith to expend the money necessary to secure successful results on the present farm, or, if the authorities prefer, to select and prepare other land for the utilisation and the purification of the sewage, because not only does the result now obtained reflect on those in authority, but needless harm is done to sewage farming as a science.

It is not for me to hazard an opinion as to what are the reasons held by those in authority in favour of the removal of the farm elsewhere, but I am sure that no one could urge the unsuitability of the soil as one of them. Indeed I am of the same opinion now, as I was in 1895, that there is not a farm in England where the soil is more suitable for sewage purification provided only, as I have stated before, that it is properly laid out and underdrained; and that it would cleanse without the slightest difficulty the liquid refuse of at least 40,000 people instead of about 16,000.

Residential objections cannot certainly be brought forward, inasmuch as all the land, which is not liable to floods, is Government property, and therefore not likely to be built over, whilst it must not be forgotten that the farm has been in its present position for thirty years.

The consumption of its produce and the consequent effect on health is of course in this instance a matter of national importance, but your readers will probably agree that in no published instance has any harm to human beings been traced to the consumption of produce from a well-managed sewage farm, still less to animals. Moreover, it is obvious that the question of production in relation to consumption has not much bearing, for very few consumers know where purchased vegetables come from, especially when they are supplied by contract.

Colonel Jones at the beginning of last summer commenced the sale of milk in the Farnborough district, but was within a few weeks of starting peremptorily stopped by an order from headquarters. With regard to the milk question, Sir Evelyn Wood, Quartermaster-General, as President of the Army Sanitary Committee, stated in a report to the War Office, dated July 27th, 1896, that milk from a sewage farm could not be said to be free from all dangers of contamination, unless it was the produce of a farm where it was impossible to use anything but clean water for washing or rinsing the dairy utensils; and it was, therefore, the opinion of the Army Sanitary Committee that a dairy should not be placed upon a sewage farm at all, but at a selected site at a distance of one-fourth of a mile from it. The sale of milk, therefore, although the public water supply of Aldershot is used throughout the dairy under a competent staff (which fact the Committee appear to have ignored altogether), was peremptorily stopped; but, oddly enough, the sale of butter was not so, with the result that the latter, which is uncommonly good, is still sought after by officers, etc., and duly appreciated by them. The public will hardly understand why the consumption of milk from a sewage farm is considered to be dangerous when that of butter is not.

Another probable reason against the continuation of the sewage farm on the present site is the erection of the new hospital, the nearest point of which is 180 yards from its boundary. It is not the general opinion amongst men experienced in sanitary science that the proximity of a sewage farm is detrimental to the wellbeing of a hospital. At any rate the idea is not favoured at Leicester, where the Corporation Hospital is only 470 yards from the sewage farm, whilst the small-pox hospital is only 50 yards. At Wimbledon the infectious hospital is on the farm itself, whilst at Berlin four metropolitan convalescent homes have been purposely built within the area of the sewage farm.

It has, I am told, been brought forward that such an amount of atmospheric impurity must result as would prove detrimental to patients after operations. Surely the truth of such an idea should be ascertained by an actual analysis of the air surrounding the hospital before it is published abroad and believed in by many without proof.

I understand that the retention or removal of the sewage farm from its present site rests with the Army Sanitary Committee above mentioned, which is composed of several well-known men in addition to Sir Evelyn Wood, Quartermaster-General, amongst whom should be mentioned Sir Douglas Galton. If this is so the importance of the question demands that instead of issuing reports and dictating telegrams from London they should pay a visit to the camp, and see and understand things for themselves upon the ground, taking, if necessary, the evidence of expert witnesses. By this means the truth would probably be arrived at, the present unsettled state of things done away with, and the question settled whether the present farm should be retained after an outlay of about £8,000 upon it, or whether it should be removed further away from the camp, where of course a far heavier expenditure would be unavoidable. Under any circumstances the time for immediate action has arrived.

## THE HEALTH OF THE TROOPS IN MATABELELAND, 1896.

By R. T. Michell, M.B., C.M.Ed.,
Late Surgeon in B.S.A.Co.'s Forces, Johannesburg, South African Republic.

Properly to understand the diseases from which the troops in Matabeleland suffered, we must review briefly the conditions under which they were placed in 1896.

### Climate.

The rebellion broke out just at the end of the rainy season, and the Buluwayo volunteers suffered a good deal from exposure at the commencement; but by May the winter had set in, and scarcely a drop of rain fell till September. The winter day in this part of Africa is usually quite as hot as an August day in England, but the peculiar dry crispness of the air renders it possible to travel and to work without remitting through hours that would otherwise be unbearable. As soon, however, as darkness falls radiation takes place rapidly; sometimes there is a heavy dew, depending greatly on the locality; in any case by midnight the temperature has fallen to 40° F., or lower, and in June and July there is frequently hard frost till dissipated by the morning sun. This means a difference of 40° F., or even more, between 2 P.M. in the shade and 2 A.M. outside the blankets. In August, September, and

October the nights become much warmer, while the day temperature does not rise in proportion.

### DIET.

At the beginning of the year rinderpest rapidly exterminated the transport oxen, and as the distance from Mafeking to Buluwayo is 600 miles, the state of affairs looked serious. The authorities, by means of mules, managed to cope fairly successfully with the food question, but equipment was necessarily deficient, notably in special departments such as the medical. Beyond the meagre programme afforded by "canned beef" (affectionately called "bully"), flour, rice, and coffee, tea, sugar, salt, and a limited quantity of baking powder, the men had no variety except when they looted cattle from the Matabele, and these as often as not were sick and dying of rinderpest. Milk, of course, was seldom obtainable at any price, and the war having put a stop to all farming, no vegetables, fowls, or eggs could be procured for many months, even for the sick.

Water was frequently scarce, stagnant, muddy, and, especially on the march up, contaminated with rinderpest. Occasionally it was brackish. Efforts were made to compel the men not to drink water unless previously boiled or in the form of tea or coffee, but it was found impossible to carry this completely into effect.

These facts, as will be seen, all had a bearing on the health of the men and on the treatment of the maladies that had to be dealt with.

### ENTERIC FEVER.

The most fatal disease undoubtedly was enteric fever. This seems distinctly in some cases to have been contracted while on the march sixty or seventy miles from civilisation—that is to say, if we are to accept the usual limits of incubation. The death-rate was high,[1] owing, no doubt, to the fact that the patients sometimes had to be transported long distances, when almost into the second week of the disease, and also to the impossibility of supplying them with suitable diet. It was found exceedingly difficult to get some patients to take even the unsweetened variety of condensed milk.

The disease was often modified considerably by the presence of malaria, giving rise to so-called typho-malaria. The most marked of these cases were characterised by an onset with rigors or semi-rigors, severe headache, backache, and by an unduly high temperature for several days, occasionally showing distinct intermissions. After this the chart became more typical of typhoid, but the pyrexial period, if the patient survived, would be irregularly prolonged.

### DYSENTERY.

Next to enteric, dysentery must rank for severity. Its etiology in Matabeleland is a little obscure. It seems to occur in districts which can hardly be called malarial, and in times of peace when the conditions of food and exposure are favourable. Amongst the troops there was no lack of causes. Besides the usual campaign conditions of chill after fatigue and irregular action of the bowels (from the irritating nature of "bully" beef and heavy bread, cooked in ashes), the great alternations of temperature, bad and sometimes brackish water, were also predisposing causes; while the fact that the disease is endemic would account for the presence of infection, which is especially liable to attack newcomers.

If one may be allowed to draw a conclusion from general observation, it seems that the consumption of rinderpest meat, or, what is more probable, the presence of the germ in the water, gave rise to a catarrh of the lower bowel in numerous cases which was indistinguishable from the milder forms of dysentery.

For this "rinderpest catarrh" one or more good doses of castor oil, guarded by opium, and followed up, if required, by a simple vegetable astringent, was generally a successful treatment; but owing to the repetition of the cause relapses were frequent. Castor oil and opium was also successful in the cases that were more probably true mild dysentery, if applied early enough, but severe dysentery was very difficult to cure. The proper administration of ipecacuanha was impossible on the march, and not easy in the base camp. By the time the patients could be placed under more favourable conditions of diet and medicinal treatment the disease had become established and obstinate. In these cases bismuth, either alone or in large doses, or combined with a little opium or astringents, proved the best drug for relieving symptoms, especially when, as frequently happened, gastric catarrh was a troublesome feature.

It was not always easy to diagnose at first sight between some hæmorrhoids and early dysentery. Patients would come complaining of frequent stools with tenesmus and blood, who, on close examination, would be found to be suffering from simple diarrhœa supervening on unsuspected internal piles, aggravated, or possibly developed, by long hours in the saddle and previous constipation.

### MALARIA.

A great deal of sickness was attributed to "fever," implying malaria, by profession and laymen alike, and treated with quinine, which proved absolutely useless. There is no doubt that, in addition to typhoid, cases of pure malaria did occur, especially at the very early and very late stages of the campaign, and some of these cases were very severe. Investigation of the history almost invariably elicited a history of at least one previous attack and residence in coast districts or the river valleys of the Zambesi or Limpopo. Winter is not the time of year for the disease, and the closer the observation the more it became apparent that the lesser cases of so-called "fever" were either the effects of alcohol or due to biliary congestion accompanied by pyrexia. In the latter affection the temperature may be found to be 102° or 103° F., but the remittent or intermittent characteristics of malaria are absent. The bowels are usually constipated, and the motions, if any, light-coloured. Occasionally tenderness, and even slight enlargement of the liver, will be found, but very rarely actual jaundice. Headache is a prominent symptom, being often hemicranial, and as a rule the malady yields readily to calomel and salines. This form of hepatic fever, though not described in the usual textbooks, is recognised by many practitioners in tropical and subtropical climates, and is quite distinct from the "bilious" variety of remittent fever.

### "VELDT SORES."

Among minor ailments, the so-called "veldt sores" gave more trouble than any other. Wherever a man scratched himself with thorns or otherwise lacerated the skin there would appear one or more persistent eczematous ulcers. These were most common and most obstinate on the hands; the feet and legs also were frequently affected, and sometimes all parts of the body in succession. Not a few men were temporarily disabled by the sores becoming inflamed, especially on the shins and backs of the hands. In some instances abscesses formed.

This affection was at times practically universal amongst the officers and men of the volunteer troops, which puts out of court the theory held by some that it is syphilitic in nature.

On the other hand, it seems to be intimately connected with a scurvy-like condition of the blood. A glance at the ration list will show that vegetables—tinned, compressed, or fresh—were not included. Lime-juice was only served out in very small quantities during the first half of the campaign, and this period was fertile in "veldt sores." As soon as lime-juice was supplied more regularly and compressed vegetables became common in the various messes the disease began to disappear. In individuals the regular consumption of organic salts had a marvellous effect. Lastly, sponginess of the gums in all degrees, up to bleeding and loosening of the teeth, was noticed to accompany these sores in far too many cases for mere coincidence. Spontaneous epistaxis also was not uncommon, and in one patient suffering severely from sores tarry motions and hæmaturia occurred. With the experience of 1896 before us we should be justified, I think, in calling this affection "scorbutoderma."

The indications for treatment are—first, to prevent inflammation by avoiding excessive exercise of the limbs affected; secondly, to protect the sores from the dry air and irritating dust by bandaging; thirdly, if of a chronic nature to use some stimulating ointment; lastly, to administer organic salts in the form of vegetables or lime juice.

[1] In consequence of the loss of certain papers on the march down, I am unable to give even the rough figures I had collected.

### SURGICAL CASES.

It is not within the scope of this paper to deal with the surgical aspects of the campaign, but I cannot conclude without recording a protest against the *canard* which has been circulated by certain laymen in the colony, and I believe also in England, to the effect that no amputations performed during the fighting in Rhodesia recovered. The number of artificial limbs ordered by the Compensation Committee will alone testify to its falseness.

Owing to the paralysis of transport, equipment in special departments, notably the medical, was at the commencement very deficient, and was never at any time complete. The Medical Staff Corps, though willing, were very inexperienced in nursing. The pressure at the base in Buluwayo necessitated overcrowding, and the hospital staff was inadequate. The so-called Matabele "pot-leg," consisting of a quartz core surrounded with lead, and fired out of elephant guns, introduced a most disturbing element. These balls on striking bone behaved like explosive bullets, lacerating and destroying the tissues far beyond the seat of injury, and in one or two cases giving rise to necrosis of the stumps.

Such are a few only of the difficulties encountered, and it is not too much to say that, taking them into consideration, our primary operations were remarkably successful.

## LITERARY NOTES.

THE April number of the *Phonographic Record of Clinical Teaching and Medical Science* contains one of the interesting and instructive Problems in Practical Diagnosis, by the President of the Society of Medical Phonographers, Dr. Gowers. The problem in question was Hæmoptysis: A Mistake, and those who take an interest in life assurance work would do well to read it. Mr. Lamming Burton continues his graphic and practical account of a ship surgeon's life; it certainly will not be time lost for any man thinking of becoming a ship's surgeon to read this contribution. Mr. Peyton T. Beale gives a practical and useful article on Flat Foot. In Humours in Patients we are afforded some amusing incidents between doctor and patient. Under Phonographic News there is an account of what has been done and is being done for shorthand in the medical preliminary examination, with a notice that the Society of Medical Phonographers has been invited to co-operate with other phonographic societies in arranging some scheme for celebrating the sexagenary of phonography this year. A public dinner of medical phonographers at the time of the celebration of the Queen's accession in June has been proposed, and seems to find some favour.

The *Archiv für Schiffs-und Tropen-Hygiene* is a new periodical to be issued every two months, and devoted, as its name imports, to naval and military hygiene, with special reference to pathology and therapeutics. It is edited by Dr. C. Mense, of Cassel, and published by Th. G. Fisher and Co., of the same place. Its title page bears the names of a strong staff of collaborators, including Dr. Baelz of Tokio, Professor Cohn of Breslau, and Professor Rosenbach of Berlin. Among the original articles are one on the examination of the blood in tropical febrile processes and its practical importance, by Dr. Albert Plehn, and one on the etiology and clinical course of beri-beri, by Dr. M. Glogner. The *Archiv für Schiffs und Tropen-Hygiene* promises to be a valuable publication.

# UNIVERSITIES AND COLLEGES.

### UNIVERSITY OF CAMBRIDGE.

EXAMINATION IN SANITARY SCIENCE.—The following candidates have atisfied the examiners in both parts of the examination:

C. H. B. Adams, O. W. Andrews, F. J. Brakenridge, G. T. Cattell, G. B. Courtney, J. Donald, G. G. Genge, B. B. Ham, C. P. Handson, W. A. Justice, J. T. Leon, F. Pershouse, J. Pringle, F. A. Rogers, T. H. Smith, H. H. Woods.

### SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, April, 1897.—The following candidates passed in:

*Surgery.*—H. A. Belbin, Sheffield; W. F. Chrispin, Leeds; H. M. Church, McGill University; E. C. Flint, Royal Free Hospital; P. C. Maitland, Middlesex Hospital; A. F. Millar, St. Thomas's Hospital; J. C. Müller, Calcutta; J. Owen, Liverpool; M. Pantin (Section I), Royal Free Hospital; R. W. C. Pierce (Section I and II), St. Thomas's Hospital; G. Renshaw, Manchester; A. W. S. Sheldon, St. Bartholomew's Hospital; J. Spencer, Leeds; H. de P. B. Veale, Leeds.

*Medicine, Forensic Medicine, and Midwifery.*—E. C. Flint, Royal Free Hospital; J. C. Müller, Calcutta; J. Owen, Liverpool; M. Pantin (Section I), Royal Free Hospital; F. J. Parry, St. George's Hospital; R. W. C. Pierce (Section I and II), St. Thomas's Hospital; G. Renshaw, Manchester; A. W. S. Sheldon, St. Bartholomew's Hospital.

*Medicine and Forensic Medicine.*—P. M. Brittain, St. Bartholomew's Hospital; A. J. Hayes, Middlesex Hospital; A. E. Seller, London Hospital; J. M. Wood, Middlesex Hospital.

*Medicine.*—S. A. Stride, London Hospital.

*Forensic Medicine.*—A. Avent, St. George's Hospital.

*Midwifery.*—F. Atthill, Charing Cross Hospital; A. R. Eates, Edinburgh; G. F. May, McGill University; A. P. Square, Middlesex Hospital.

The diploma of the Society was granted to Messrs. Belbin, Brittain, Church, May, Owen, Pierce, Renshaw, Sheldon, and Veale; and to Miss Flint and Miss Müller.

### UNIVERSITY OF GLASGOW.

AT the winter graduation ceremony in connection with the University of Glasgow on April 13th, Principal Caird presiding, the following medical degrees were conferred:

*Doctors of Medicine (M.D.).*—With commendation: W. W. Don, M.B., C.M. (Thesis—"Thyroid Therapeutics"); W. K. Hunter, B.Sc., M.B., C.M. (Thesis—"A Contribution to the Etiology of Beri-Beri"). Ordinary Degree: J. F. Fergus, M.A., M.B., C.M. (Thesis—"Urea: Some Remarks on its Elimination in Health and Disease, with reference to Cases under Observation"); P. F. Macgregor, M.B., C.M. (Thesis—"Hysterotraumatic Paralysis: cases and comments"); R. Stevenson, M.B., C.M. (Thesis—"Scarlet Fever and Milk Supply, with notes of an epidemic"); J. P. Topping, M.B., C.M. (Thesis: "Notes and Remarks on Diphtheria").

*Bachelors of Medicine (M.B.) and Masters in Surgery (C.M.).*—J. H. Rankin and J. M. Robertson.

### CONJOINT BOARD IN IRELAND.

FIRST PROFESSIONAL EXAMINATION.—Candidates have passed this examination as undernoted:

*Completed the Examination.—Honours Division:* C. R. Boyce and P. F. Doorly (equal). *Pass Division:* R. Allison, J. F. Brogan, R. A. Campbell, W. F. Cormack, W. H. Dodd, J. Dundon, T. Farrell, R. T. Gordon, H. E. Hayes, R. W. Hillis, T. F. Hurley, R. A. Johnston, C. R. Millar, R. W. F. Myles, J. J. O'Halloran, A. E. O'Reilly, J. F. Peart, J. M. Reynolds, J. J. H. Rainey, J. P. Ryan, H. H. Swanzy, J. J. Tallon, S. M. Tucker, C. B. Vane, R. O. White.

*In Anatomy.*—J. J. S. Carbery, H. T. Cookman, W. Davis, A. H. R. Duncan, J. Dwyer, W. F. Eustace, T. J. Galligan, J. Hennessy, T. E. Johnston, M. J. Loughrey, T. J. Nicholl, E. O'Grady, J. P. Symott, G. B. Wilkinson.

*In Chemistry and Physics.*—J. Dwyer, T. J. Nicholl, G. B. Wilkinson.

*In Biology.*—C. H. Bryan, H. T. Cookman, W. Davis, W. N. Eustace, T. J. Galligan, J. Hennessy, T. E. Johnston, G. W. Knight, M. J. Loughrey, M. E. Lynch, P. M. McGorey.

*In Pharmacy.*—C. H. Bryan, J. J. S. Carbery, H. T. Cookman, W. Davis, A. H. R. Duncan, J. Dwyer, W. N. Eustace, T. J. Galligan, A. A. W. Ganderton, B. D. Gibson, M. J. Loughrey, M. E. Lynch, P. M. McGorey, T. J. Nicholl, E. O'Grady, G. B. Wilkinson.

SECOND PROFESSIONAL EXAMINATION.—Candidates have passed this examination as undernoted:

*Completed the Examination.—Honours:* J. S. P. Steward. *Pass:* J. F. Allen, W. G. Anglim, E. S. Barnard, E. Bennet, W. S. D. Bird, R. A. Campbell, A. Daly, R. B. Daly, R. J. Franklin, J. Gordon, D. Harrington, A. W. A. Irwin, A. H. Jacob, C. A. A. Lever, H. R. Loverock, W. H. May, J. F. C. Megler, J. McDonald, T. O'Kelly, M. J. Russell, H. W. Spaight, R. J. White.

*In Anatomy.*—W. A. Cooke, S. W. Cumming, M. Gavin, D. L. Harding, R. Hughes, G. L. N. Miles, P. J. McGinn, H. G. Westropp.

*In Physiology.*—J. W. Clarke-Bayliss, R. B. Elliott, D. L. Harding, J. F. Kennedy, J. Whelan.

*In Materia Medica.*—R. J. Lane, W. A. Cooke, S. W. Cumming, R. Hughes, J. J. Huston, J. L. Jones, G. L. N. Miles, J. L. M'Carthy, T. A. E. Rooke, A. B. Stephenson, A. L. Tyndall.

*In Histology.*—R. J. Lane, J. W. Clarke-Bayliss, S. W. Cumming, A. D. Dunwoody, M. Gavin, R. Hughes, G. L. N. Miles, A. B. Stephenson, H. G. Westropp, J. Whelan.

### UNIVERSITY COLLEGE, CARDIFF.

THE Council of University College, Cardiff, have appointed Mr. A. Francis Dixon to the Professorship of Anatomy, left vacant by the resignation of Professor A. W. Hughes. Mr. Dixon is a graduate of Arts and Medicine of Dublin University, and has held the post of Chief Demonstrator of Anatomy, under Professor Cunningham, for some years in the School of Physic, Dublin University. He is author of a paper on the Development of the Branches of the Fifth Cranial Nerve in Man, and also has done some good work at marine invertebrate zoology.

THE annual dinner of the Volunteer Medical Staff will take place at Limmer's Hotel, George Street, Hanover Square, on May 5th, at 7.30 P.M. Sir William Mac Cormac will preside, and among those who have accepted invitations are the Director-General, the Principal Medical Officer of the Home District, Sir Joseph Fayrer, and Colonel Alt. It is hoped that there will be a good attendance of Volunteer medical officers. Those wishing to be present should send in their names to Surgeon-Captain Fletcher, Croome, Streatham Park, who is acting as Honorary Secretary.

## BRITISH MEDICAL ASSOCIATION.
## SUBSCRIPTIONS FOR 1897.

Subscriptions to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MAY 1st, 1897.

## THE CONCLUSIONS OF THE VENICE SANITARY CONVENTION.

I.

The Sanitary Convention of Venice, which was signed on March 20th, has not yet been officially issued by the Italian Government, with whom its issue rests, but we are now enabled to give an account of the various clauses which it embodies. It deals solely with the prevention of plague, and it is divided into five chapters.

Chapter I deals with the measures of prevention which are to be taken Outside Europe, and this chapter is divided up into a number of sub-headings. The first requires that every contracting Government shall notify by telegraph to the other contracting Governments whenever plague shall appear within their territory, and this notification, which is to be made to the diplomatic and consular agents, shall include an account of the progress of the disease; a statement of the prophylactic measures adopted, especially as to inspection, isolation, and disinfection; and a detailed account of action taken as to the exportation of susceptible articles, and of any changes that may be made from time to time in such action. But, for the purposes of such notification, no place is to be regarded as any longer infected in which no fresh case has occurred for ten days; the infected place is only to include the actual province, district, town, or village where the disease prevails, and not the whole country; and measures of notification are not to be deemed to apply to any territorial conscription into which only imported cases have occurred, without any diffusion or spread of the disease. Measures taken by other countries against an infected territory are also distinctly limited; they are only to apply to persons and things actually arriving from infected places as defined; and they are not to apply to any of such persons and things if they left the infected place at least five days before the first recognised onset of the disease.

The articles that may be deemed susceptible of conveying infection, and the importation of which may be prohibited by other contracting countries, are: (1) Body linen, rags, clothes and bedding that have been used, and these articles may be subjected to special regulations if their removal from one place to another is owing to a change of residence; (2) rags, etc., including those hydraulically compressed, provided they arrive in the form of merchandise; (3) used sacks, as also carpets, and embroideries which have been in use; (4) raw skins, fresh skins, and untanned skins; (5) animal *débris*, such as hoofs, manes, hair, and raw silk and wool; (6) human hair. This action is permissive only; none need be prohibited; and further, they are not to be prohibited if they are so bound up and covered that they could not have been manipulated during transit; and if, during transit across an actually infected locality, they could not have come into contact with anything contaminated. Like persons arriving from an infected locality, no articles are to be prohibited if they left the infected place five days before the onset of the disease. And further, it is forbidden to retain any merchandise in quarantine at any frontier; the action permissible being limited to actual prohibition of importation, or to importation subject to disinfection.

As regards vessels leaving infected ports outside Europe, it is enacted that there shall be a daily medical visit of all on board whilst in port, in which visit the consular authority of the country to which the vessel belongs may take part; there must be efficient disinfection, under the control of the medical officer of the port, of every article on board which is either contaminated or suspected; and there is a definite prohibition as to allowing any person to embark who presents any symptoms resembling plague.

Then follow a number of very detailed regulations as to pilgrim ships. In the first place, none are to be allowed to embark unless they have been subject to such observation as will ensure their being free from plague; but to meet the case of British India, as also that of the Dutch East Indies, it is provided that this requirement is to be subject to its being possible under the existing local circumstances; and, subject to a similar condition, it is laid down that, when the local circumstances permit of the enactment being enforced, no pilgrim is to be allowed to embark unless he gives proof of being in possession of sufficient means to accomplish the pilgrimage and the return journey, and to support himself during his stay in the Holy Places. This requirement, it is understood, cannot under present circumstances be fully complied with in British India.

Then follows a voluminous code as to the pilgrimage both to the Hedjaz and up the Persian Gulf. A pilgrim ship is defined; it has to comply with certain rules and prescriptions; its intended departure must be announced three months in advance to the local authority of the port; it must be clean, in good order, and, perhaps, disinfected; it must be supplied with ample food, and with not less than five litres a head of wholesome water per diem; it must have one or more doctors on board, and a disinfecting stove; notices must be affixed on board as to the cost, etc., of articles of food; there must be a list of the names, sex, and number of the pilgrims; and the port authorities have power to prevent the embarkation of anyone whom they may deem to be suspected of having signs of plague.

During the voyage a number of other precautions come into play. The duties of the medical officers are defined; it is required that every pilgrim shall have 16 square feet of surface on the main deck, and that the upper deck shall be free for the use of pilgrims; measures of cleanliness, the amount of closet accommodation, the use of disinfectants, and the allotment of sufficient infirmary accommodation are all regulated; the control of the sick, the disinfection and treatment of infective excreta, etc., all come under definite rules: and orders are laid down as to recording cases of sickness and o death, and as to other matters which are to be

entered in the logbook. The captain is also required to pay, out of the price given for the ticket, the sanitary dues per head which are required on landing at such stations as Camaran. The penalties for breach of any of these rules are not inconsiderable: thus if a captain is convicted of having carried 100 pilgrims without having a duly qualified medical officer on board he is liable to a fine of £300.

Then follow a number of resolutions arrived at with regard to improvements which are held to be necessary at the various sanitary stations to which pilgrims have to go in the Red Sea. These are Camaran, Abou-Saad, Vasta, and Abou-Ali. Of these, Camaran is the most important for this country, for it is on that island that all pilgrims from British India are detained under supervision before they are allowed to embark again for Jeddah. The Conference demand that the island shall be freed of its present inhabitants; that the entrance bay and the means of landing pilgrims shall be improved; that there shall be provided buildings for the staff, for disinfection, for baths, for the sick of plague and of other diseases; that the encampments of pilgrims arriving by different vessels shall be distinct and well apart; that disinfecting stoves and other appliances for disinfection shall be provided; that there shall be apparatus for distilling and sterilising water, and for making ice; that proper and sufficient closet accommodation shall be fixed up; and that means for disposing of liquid refuse without polluting the soil shall be contrived. A list of prices of food supplies is to be publicly advertised so as to prevent extortion; water is required to be supplied gratuitously, and all provisions are subject to the control of the medical officer of the station, in so far as their quality is concerned. If the Turkish Government can be forced to comply with all these conditions, the state of Camaran will be vastly improved.

The regulations to which pilgrim vessels reaching Camaran are to be subjected are as follows: All pilgrims from healthy vessels must go ashore there for baths, disinfection of clothing, etc., for a period not to exceed sixty hours. Suspected vessels, namely, those on which there has been plague but no fresh case for twelve days, are also detained sixty hours, but they are subjected to more rigid inspection, disinfection, etc., and are only allowed to re-embark on a certificate from the medical officer. They also undergo a second medical inspection on board. A vessel is deemed infected if it has had plague on board within twelve days before reaching Camaran. The sick, if any, are placed in hospital, and the other pilgrims are divided up into small detached groups; dirty and infected things are disinfected, and in addition to all the other precautions to which pilgrims are subjected all from an infected vessel can be detained for a period of twelve days since the occurrence of the last case. After this lapse of time they may re-embark for Jeddah, but a fresh inspection must be made on board. If on the way from Camaran to Jeddah plague breaks out again the vessel must return to Camaran to be once more dealt with as infected.

The remaining provisions of the treaty as to pilgrims mainly affect those coming from and returning north, as from the Mediterranean, and with these Great Britain has little or no concern.

MEDICAL MAGISTRATE.—Mr. W. Makeig Jones, of Wath-upon-Dearne, has, upon the recommendation of the Lord Lieutenant, been placed on the Commission of the Peace for the West Riding of Yorkshire.

## THE PATHOLOGY OF APHASIA.

IN the Lumleian Lectures (the publication of which is concluded to-day) Dr. Bastian has discussed at length a subject which has occupied his attention for many years, and to which he has shown himself to be capable of doing equal justice as a clinician and a psychologist. The light thrown upon the localisation of cerebral lesions by the study of their associated speech defects is very great, whatever may be our opinion as to the correctness of the theoretical conclusions arrived at by investigators. To form an adequate appreciation of the arguments of the Lumleian Lectures, and particularly of the parts in which the ordinary designations of motor and sensory aphasia are attacked, it is necessary to bear in mind the nature of the controversies which have arisen among those who have given the subject their particular attention. Thus in one important theory Dr. Bastian differs widely from the majority of present day neurologists and physiologists. He has from the first persistently maintained that the so-called motor area in the cerebral cortex is really sensory in function, being employed for the purpose of inducing and inciting action in what he regards as the true motor centres, which he locates in the grey matter of the bulb and cord. These bulbar and spinal centres are, according to the common view, subsidiary in function, acting under the direction of the motor cortex. It would be impossible here to enter into a discussion of this difficult but essential question, but it may be observed that whereas Dr. Bastian was for something like twenty years practically alone in attributing sensory properties to the "motor cortex" the recent researches of Dr. Mott have conclusively affirmed his views, and the area is now generally admitted to be "sensori-motor." Whether his refusal to allow that this region possesses any motor functions will be substantiated by future observers may, however, considering the trend of recent researches, be regarded as doubtful.

Coming to the particular question of aphasia Dr. Bastian postulates the existence of four centres in the cerebral cortex which are concerned in the production of spoken and written language. Two of these, in the posterior parts of the cerebrum, correspond in position to the visual and (as far as is known) auditory centres, and are of the ordinary sensory type; the others, in the second and third frontal convolutions respectively he regards as the excitomotor (or as he prefers to call them, kinæsthetic) centres for writing and speech. For various reasons, many of which yet remain to be investigated, the left half of the cortex has, in right-handed people, become dominant for purposes of speech. The most interesting cases therefore cluster round lesions of the left hemisphere, but Dr. Bastian shows well how, under special circumstances, the centres on the right side come to the assistance of their damaged colleagues. Another important point to which he directs attention is the system of commissures between the various centres, the value of which is exemplified by such actions as reading aloud and writing from dictation. Here, again, it is shown that when any particular channel is blocked, other commissures may take on the work. This is true in particular of the callosal fibres connecting the two hemispheres, and here it is interesting to note how completely the experimental results of Professor Sherrington tally with the clinical deductions of Dr. Bastian. We are now constrained to admit

that there exist in the corpus callosum oblique fibres joining the third left frontal convolution with the upper part of the right temporo-sphenoidal lobe.

The theory, then, which Dr. Bastian upholds is that aphasia depends either upon damage to one or other of the four centres in the dominant hemisphere, or upon interruption of the commissures connecting them. It may, however, happen under favourable conditions that the centres of the subsidiary hemisphere may serve as substitutes for those whose functions are impaired, and that this replacement may be aided by the opening up of new paths of connection between centres hitherto unassociated. The substantiation of this view must necessarily be purely clinical, and to this end the cases collected by Dr. Bastian are of extreme value.

His work, however, has been not only constructive and speculative; it has also been destructive and critical. One of the most important sections of the lectures is that in which he shows that the term "sensory aphasia" is a cloak loosely thrown over a multitude of conditions, each one of which he proceeds to pick out and subject to separate analysis. Nor is he less conclusive in his demolition of the popular but hypothetical "centre for concepts" in his summary of the evidence in favour of the existence of a cheiro-kinæsthetic centre, or in his denunciation of the excessive importance attributed by some to Broca's, or, as he calls it, the glosso-kinæsthetic centre, which he believes, and indeed shows, to be almost incapable of independent action. Two comparatively novel points of great interest come out in the course of the lectures. One is the considerable power of reciprocal substitution possessed by the visual and auditory word centres for the production of speech and writing respectively; the other is the fact that in all probability both auditory word centres —and not, as formerly believed, the left alone—are accustomed to act on Broca's centre in the production of speech. This latter observation is one which paves the way to newer and wider views of the association of the hemispheres in general.

## THE NEW MUZZLING ORDER.

Correspondence in the daily press regarding alleged iniquities of the new muzzling order has been carried on with a vehemence which the Eastern question, South African affairs, or even the Turko-Grecian war have hardly excited. Were we not well acquainted with the attitude of mind of the self-styled animal's friend, we might regard it as remarkable that an order to muzzle dogs should call forth so much greater evidence of interest than the announcement of the increase of cases of rabies and hydrophobia.

Though we are not sufficiently interested in the psychological type to attempt to classify it scientifically, we readily recognise it by its mode of attack. We were no more surprised to hear that the opponents of the muzzling order intended to initiate a campaign against Mr. Long in West Derby, than we were to hear that his constituents had accorded to his explanation the heartiest acceptance. From the lucid manner in which the President of the Board of Agriculture placed the whole matter before the meeting at West Derby, and refuted the apparently most weighty statements of his anti-muzzling enemies by simple facts, there cannot be a doubt that his position with his constituents is materially strengthened.

It is not necessary to go to foreign countries or to ancient history for evidence of the beneficial effect of muzzling and its corollaries in suppressing rabies and its dependent hydrophobia. British experience within the present decade is surely sufficient to convince the veriest sceptic who is open to reason of their value. In 1889 there were reported 312 cases of rabies in this country. Mr. Chaplin then imposed a muzzling order, and, notwithstanding stricter notification, in 1890 the number was reduced to 129, falling in 1892 to 38. Great pressure was then brought to bear on the Board of Agriculture. The regulations were removed. From this period there was at first a slow, then a rapid, recrudescence, and in 1895 672 cases of rabies were reported. With a view of weakening this evidence the opponents of muzzling have cast doubts on the certification of cases of rabies. Mr. Long's reference to this point is worthy of reproduction. He says: "Whatever may be said for or against the certification of these cases, one thing was perfectly clear: that, as the number of cases of rabies increased, so with awful precision increased the number of cases of hydrophobia in human beings. They found in 1889, when there were 312 cases of rabies in the country, there were 30 deaths registered from hydrophobia. In the next year, when there were 129 cases, the deaths fell to 8. In the next year the cases were 79, the deaths 7; and so they went on until 1893, when the deaths fell to only 4, while in 1895 20 deaths were registered from hydrophobia."

To show the absurdity of the muzzle as a means of preventing rabies and its consequences, and the iniquity of enforcing its use at the present time, assertions have been made to the effect that no rabid dog was ever found muzzled or that no rabies exists. Mr. Long stated facts which absolutely negative these assertions.

No sane person will deny that rabies is usually propagated by the bite of a rabid animal. It is past comprehension that anyone should suggest that anything which prevents biting is not a means of preventing the spread of the disease, or that anything short of this is so capable of preventing it. To substitute a collar with a registered address for the prevention of rabies sounds very much like "building a hedge around a cuckoo" in order to catch it. Though the stray, ownerless cur is undoubtedly from this point of view extremely dangerous, he is not the only culprit. We have plenty of evidence to show that the best cared for animals are sometimes the means of propagating rabies and hydrophobia. Not much value can be attached to the opinion of anyone who would venture to say that, at the present, or at any given moment, whilst rabies is existent, no well-cared-for, well-looked-after dog is incubating rabies.

There is ample evidence of the existence of rabies at the present time, consequently there is the necessity for measures to prevent its spread. As the nature of the disease prevents the assurance that any dog, which has been ordinarily exposed, is absolutely free from danger, the most rational measure is that which will render biting by dogs most nearly impossible.

The great advantage of the new muzzling order lies in the fact that it is exercised by a central authority whose action will, it is hoped, be uniform, and not influenced by artificial boundary, as must occur when independently exercised by local authorities. Unfortunately the muzzling order, so far issued, does not go far enough. Mr. Long has told his con

stituents that he is preparing an order which would deal with the importation of dogs. This we regard as highly important. Notwithstanding the statement that there are parts of Great Britain in which rabies has never been known to exist, the present time appears opportune for making the attempt to "stamp out" the disease by general muzzling, and by taking all advantages of our insular position for keeping it out. Unfortunately no period less than twelve months would suffice for this, and there is the great sporting interest to be reckoned with. Its votaries have sometimes taken up the position that dogs under the control necessary for sport are not likely to contract or spread rabies, but outbreaks in kennels, etc., render this untenable. It is to be hoped that the Board will shortly see its way to extend the area to which the order is applicable until it embraces the whole of Great Britain.

We regret to have to record the death of Dr. James Andrew, Consulting Physician to St. Bartholomew's Hospital, at the age of 67.

Professor George Hare Philipson, M.A., M.D., D.C.L., has been reappointed the representative of the University of Durham on the General Medical Council.

The first meeting of the Building Committee of the Newcastle-upon-Tyne New Infirmary was held on April 27th. Mr. Riley Lord, ex-Mayor, was appointed chairman, and Professor Philipson, vice-chairman. The subscription is now £87,000.

Mr. Bennett May, M.B.Lond., F.R.C.S., Surgeon to the Queen's Hospital, and Professor of Surgery at Mason College, Birmingham, will deliver the Ingleby Lectures in the College at 4 p.m., on May 19th and 26th. The subject chosen is the Operative Treatment of Cancer of the Breast.

The discussion on the paper read by Mr. William Armstrong of Buxton, on The Value of an Exclusive Meat Diet in Certain Cases of Chronic Gout at the meeting of the Medical Society of London on April 26th, will be resumed at the next meeting of the Society on May 10th.

## THE QUEEN AT NICE.

It may be remembered that some apprehensions were expressed that Her Majesty's health might suffer when it became known that the Queen intended to occupy a newly-erected hotel at Cimiez, near Nice. We were enabled at the time to publish a full account of the special precautions taken, under the direction of Dr. Sturge, of Nice, who expressed the opinion that, owing to the care which had been taken to dry and air the building, no risk to the Queen's health would be run. These anticipations have, we are glad to learn, been completely fulfilled, and Her Majesty's health has never been better for many years than during her present visit to the Riviera. In recognition of the services rendered by Dr. Sturge in watching over the preparation of the Hôtel Regina, superintending the sanitary arrangements, and ensuring its general fitness for habitation, the Queen has conferred upon him the fourth class (M.V.O.) of the Royal Victorian Order. It is stated to be the Queen's intention to engage the same hotel for next spring.

## PROHIBITION OF LIQUOR SALE TO INEBRIATES.

We have again received a letter from some temperance societies urging the prohibition of the sale of intoxicants to noted drunkards—a proposition which is in accordance with common sense and equity. But while we have already expressed approval of the proposal, which emanated in England from the medical profession, we think it well to utter a word of caution against the extravagant hopes of success held out as the probable effect of such a measure. It is described as having been successful in the United States and Canada. The truth is that it has been successful in preventing public sale to indicted inebriates in villages and sparsely populated places, not in cities and towns, and the reason is not far to seek. In country districts, where the people all know each other, when anyone is indicted as an incorrigible drunkard, a legal process essential to the special application of prohibition to sell alcohol to any individual, the fact is at once learnt by the community, so there is a reasonable chance of the enforcement of the law. But in more populous localities, where few know their neighbours, the law would be practically inoperative. The taking hold of habitual drunkards by the strong arm of the law for therapeutic detention is much more urgently needed, and would beneficially affect confirmed drunkards alike in city, town, and country.

## A SHORT WAY WITH OBJECTORS.

The Urban Council of Builth seem to have a medical officer of health who objects to pigstyes, to the situation of a recently-erected slaughterhouse, to the water supply of the district, and who has had the courage to say so in his annual report. The clerk to the authority at a recent meeting read a draft letter prepared by him in accordance with the instructions of the Council, and which it was resolved to send to the Local Government Board along with the report of the medical officer of health. This letter, of course, completely whitewashes the District Council. Not content with this line of defence, it was resolved to cancel the reappointment of the medical officer of health for the coming year. We regret to add that the report we have seen of the proceedings of the meeting referred to, if accurate, leaves an uncomfortable feeling that the clerk of the authority was acting as a sort of *advocatus diaboli* against his colleague. No doubt it is his duty to carry out the instructions of his Council, and to the best of his ability; but there are more parliamentary ways of correcting a mistake than by accusing a colleague of "direct untruth." We do not propose, with the information at our disposal, to discuss the merits of the medical officer's report, but we are certainly reminded, by the Council's way of silencing criticism, of the method suggested for ensuring ecclesiastical uniformity by the humorous author of *Robinson Crusoe*.

## PETER AND PAUL.

A correspondent of some authority writes to us: The Queen's Diamond Jubilee appears to be likely to be used as an opportunity for an enormous expenditure of public charity in the production of new cottage hospitals, the extension of innumerable existing hospitals and convalescent hospitals, and the provision in other ways of an enormous extension of hospital charities. This outburst of liberality on the part of communities and individuals is no doubt beneficent in its intention, and from one point of view largely so in its operation; but ought not some provision to be made at the same time for the payment of those on whom the labour and duty of carrying out this intention will ultimately and permanently fall? We mean the doctors who will, so far as we know, in every case be asked gratuitously to furnish medical attendance in the wards, and to give their services, on which the working of the hospitals will depend, unpaid. All the secretaries and nurses, and the stewards and the rest of the staff employed will be duly paid; only the doctors will be left out in the cold, and it seems to be assumed that the nation is to continue to do its charity on a gigantically increased scale, employing for its purpose the skill, time, knowledge, and experience of the medical officers, acquired by them at so large an outlay and so great a sacrifice, without any sort of remuneration. So shortly it will come to this, that one half of the nation devotes its surplus funds to dis-

tributing the skill and unpaid medical advice to the other half, the doctors being left to pay the piper in meal and malt, suffering meantime the continuous assault on their alleged desire to experiment on hospital patients as the most prominent feature of recognition of their labour. While on the one hand there is much talk of the abuse of hospitals, there is on the other the greatest activity at the present moment in extending opportunities and facilities for that abuse which will shortly know no limits. Why should not the rule be established by way of precedent that in all these diamond jubilee institutions provision should be made for payment of the medical officers who furnish the *sine quâ non* for the efficiency of such institutions? There seems very little reality in the outcry for reform in hospitals when the present movement for extending on an enormous scale such institutions, without any attempt to provide for a reformed constitution, goes on without check or protest from the medical men who are to bear the burden of the practical working out of the schemes. All work and no pay is not a very promising outlook for the rising generation of doctors, but there seems reason to fear that they will not only quietly submit to this increase of the heavy burden they are already called upon to bear, but that they are expected to, and probably will, applaud it. This is a matter which seems to us to well deserve consideration by some, if not all, of our Branch councils and ethical committees.

## ANTIVACCINISTS AT GLOUCESTER.

FOR reasons which it is easy to understand, Gloucester has become the seat of war where the vaccination campaign appears to be destined to be fought out. With a unanimity which is almost complete, not only the medical profession but all non-medical authorities whose opinion carries any weight, have agreed that the Gloucester epidemic is an argument in favour of vaccination which it will take a great deal of casuistry to explain away. Under these circumstances, it is not unnatural that the leaders of the National Antivaccination League should be on the watch for opportunities of proving the assertion they are constantly making that, in spite of its terrible experience, Gloucester is impenitent, and as strongly opposed to vaccination as ever. With the view of making a demonstration, they organised a meeting at the Corn Exchange, to which some of their most expert debaters were to be despatched, including Lieutenant-General Phelps, the President of the League, and Dr. Creighton, who, after the concessions made by Professor Crookshank to vaccination interrogatories, is the only medical "stalwart" of any position on whom they can rely. The meeting came off on Thursday, April 22nd, and proved an utter *fiasco*. The executive of the Jenner Society had previously circulated literature of a nature likely to create in the citizens immunity to the antivaccinist virus. Additional piquancy was imparted to the occasion by a challenge which Mr. Hadwen, a local antivaccinating doctor, who has for some time past been one of the most effective speakers and writers on their side, had given to Dr. Bond, the Honorary Secretary of the Jenner Society, to meet him on the platform "if he were not afraid." But what seems to have been the strongest influence in securing a "full house" was the determination of the citizens generally to protest against the misrepresentations as to the sanitary condition of Gloucester which General Phelps, Mr. Hadwen, and other leading antivaccinists have so assiduously circulated all over the kingdom, with the view of explaining away the true lessons of the Gloucester epidemic. An account of the proceedings, which were lively, not to say uproarious, may be found in the *Gloucestershire Chronicle* of April 24th. Dr. Bond duly appeared on the platform, but Mr. Hadwen thought it desirable to postpone any discussion on the points on which he had invited it to a more convenient season. The temper of the meeting is indicated by the fact that Mr. Ford, the present chairman of the City Sanitary Committee, who was elected to that office through the votes of the antivaccinists, but who has since seen reason to reconsider his relations to that body, was promptly "chucked out" of the hall before he had got any further in a speech than the words "Mr. Chairman." On his again returning smiling to the meeting he was again hustled out, an operation which was repeated more than once, until the leaders of the meeting, in their despair of obtaining any audience for their speakers, gave him a hearing of "five minutes sharp," at the close of which he was again thrust off the platform in the middle of sentence. After this incident the majority of the protesting citizens left the hall. As the confusion of the meeting made it impossible to record any protest, we understand that it is proposed to take other steps to do so, and to make it clear to the public that the resolutions on the subject of vaccination legislation, which were hurried through the meeting at its close, merely expressed the opinion of the women and lads with whom the hall had been nearly filled before the meeting began by the well-known antivaccination device of a preliminary tea party, and of a small sprinkling of railway men, amongst whom the opposition to vaccination in Gloucester has chiefly centred. It is of the utmost importance that the interval which may elapse before Parliament may be called on to deal with the Vaccination Acts in the light of the report of the Royal Commission no pains should be spared to prevent the creation of a factitious public opinion favourable to the antivaccination cause by devices in which past experience has shown the leaders of the League to be experts. And if in any locality in which a demonstration of the kind may be announced any of our readers who may be residents will communicate beforehand with the Jenner Society we have no doubt that they will receive information and assistance which will enable them to defeat the manœuvres of the enemy as successfully as has been done at Gloucester.

## BRITISH HELP FOR THE GREEK WOUNDED.

THE statement made and not contradicted that the supplies and appliances for the care of the Greek sick and wounded in the present disastrous war are so inadequate that the wounded have to be treated without chloroform has created a deep impression in this country, and the appeal made by the *Daily Chronicle* on behalf of a fund for the Greek wounded last Saturday has already met with a liberal response. In the first three days nearly £3,000 was collected and the amount received down to April 29th was over £5,000. The creation of a special committee has rendered it possible to organise the numerous offers of personal assistance which have come from trained nurses. The honorary secretaries of the fund are Mr. Henry Norman and Mrs. Bedford Fenwick, and the offices of the Fund are at present established at Mrs. Fenwick's residence, 20, Upper Wimpole Street. Mrs. Fenwick, who has already sent out nurses to Greece at the request of the Duchess of Sparta, has received warm thanks from that Princess, who, it may be remembered, is a grandchild of the Queen, and a sister of the German Emperor. The offers made to the fund, which has accepted the pecuniary responsibility of defraying the expenses of the nurses already sent, are already so numerous that it is possible to make a careful selection of nurses, and only those who have had a special surgical experience will be accepted, and preference will be given to those who have a practical acquaintance with the French language. Sixteen British nurses are already at work in the Greek military hospitals or in Greece, and three others started on Wednesday. In making the arrangements for the British surgical expedition, the Committee has very wisely declined to undertake the selection of the staff, confining itself to assuming the responsibility of providing the funds and equipment. The assistance of Sir William Mac Cormac was sought and readily given, and he selected Mr. F. C. Abbott, M.S.Lond., Assistant Surgeon to the Evelina Hospital and formerly Resident Surgical Officer at St. Thomas's Hospital, as Principal Medical Officer of the fund. The assistant surgical officers will

be Mr. Henry J. Davis, M.B., B.C.Cantab., and Mr. R. Fox-Symons, M.R.C.S., both of them late house-surgeons to St. Thomas's Hospital. Mr. Abbott was to leave, with two assistants, both qualified men, on Friday night by the Indian mail, taking with him a large amount of stores, the selection of the drugs having been made under the supervision of Mr. White, the pharmacist to St. Thomas's Hospital. The stores also include large quantities of dressings, for example, 2,000 yards of roller bandage, together with 48 dozen each of shirts and other articles of clothing which are sadly needed by the poorer class of combatants, more especially the Reservists. Mr. Abbott will have a perfectly free hand in making the arrangements at Athens; in all probability he will commence by completely fitting up an ambulance hospital with 50 beds for the severer injuries, the slighter cases being looked after in the ordinary hospitals of the city. All that is required to perfect the arrangements is sufficient means; and as long as funds continue to be received at their present rate of £1,000 a day, there need be no apprehension on that score. Among the contributions announced is one from a Scottish medical man resident in London who has anonymously sent to Messrs. Duncan, Flockhart, and Co., the well-known manufacturers of chloroform in Edinburgh a cheque for £50 for the purchase of chloroform for use in the hospitals in the Greek army. The fund, we are glad to observe, is not to be permitted to assume a political character, and we feel certain that the appeal will meet with general support. At any rate, we may promise that the medical profession will readily furnish volunteers competent to render skilled assistance to the wounded soldiers of a country which has always commanded the warmest sympathies of the British nation.

## THE DAILY SICK ROLL IN BOARD SCHOOLS.

SYSTEMATIC daily medical inspection of schools is probably as urgently called for, and will be productive of as startling results in this country, as it has proved to be in America. This procedure was first attempted in Boston, and has recently been adopted in New York. The city of Boston is for the purpose of inspection divided into 50 districts, to each of which a medical man is appointed. It is his duty to visit every morning the schools under his care, and to examine such pupils as are selected by the teachers. He may not prescribe, but he must provide for the proper isolation of all infectious cases. The value of such a system may be judged by the report of the first day's work of the New York School inspectors. There were presented by the teachers 2,565 boys and 1,690 girls, and of these 140 were found to be unfit for association with their schoolmates. Fourteen children were suffering from diphtheria, 3 from measles, 1 from scarlet fever, 3 from mumps, and 1 from "croup." Thirty-five cases of contagious eye disease were separated, 8 of communicable skin diseases, and 67 of ringworm, 55 having the head affected and 12 the body. It is to be hoped that some such procedure may be adopted in this country, for the early detection and isolation of such cases is a matter of the greatest importance. The figures quoted go far to show that although there are undoubtedly other factors at work, yet the massing of children in schools must be one of the most potent means of spreading infection.

## PROPOSED CENTRAL HOSPITAL BOARD FOR LONDON.

THE Secretaries (Mr. C. S. Loch and Lieutenant-Colonel Montefiore) of the General Committee formed by the Charity Organisation Society to promote the establishment of a Central Hospital Board for London have drawn up a petition to the Prince of Wales, which it is suggested should be signed by members of the medical profession in London. The petition urges that in the interests of the poor, of the public, and of the hospitals it is desirable to form a Central Hospital Board for London to arrange for the distribution of the very large sum of money which has already been contributed to the Prince of Wales's Hospital Fund for London. It will not be disputed that the establishment and maintenance of this fund must have a considerable influence on the condition of the hospitals of London, that this influence will be felt for many years to come, and that, if properly directed, it will be capable of doing much good, not only by diminishing the financial difficulties of the hospitals, but also, if it affords opportunities for consultation and co-operation, by checking the abuse of hospitals, especially of their out-patient departments. The petition asks the Prince to receive a deputation of members of the medical profession and others interested in medical charities. As we pointed out when it was first announced that the Prince intended that for the first year the distribution should be carried out through the Hospital Sunday Fund, that body is not sufficiently representative of the medical profession to be entrusted permanently with so great a task. The fact must never be lost sight of that towards the maintenance of the hospital the medical profession makes a contribution in the shape of personal services without which the hospitals could not be carried on for a day. It is, moreover, the medical profession which suffers owing to the multiplication of unnecessary hospitals, and the abuse of the out-patient departments of those which exist, and in any scheme for the formation of a Central Hospital Board it is essential that the medical staffs of the hospitals concerned and the general body of the profession in London should be adequately represented.

## THE MUZZLE.

OUR Lobby correspondent writes: The question of the extension of the muzzling order is exciting great interest in Parliament at the present moment. Nothing certain appears to be known as to the action contemplated by the Board of Agriculture, but it is recognised that the Board has unlimited discretion in the matter, and though no new orders have as yet been issued, it is understood in usually well-informed circles that orders relating to the Midlands and to Lancashire may be looked for at any moment. The difficulty so far experienced has been to fix the precise localities to which the orders shall apply, the Board having, as already pointed out, determined not to be bound by the limits of boroughs and counties. Meanwhile, it is further understood that a statement will be made in the House of Commons on Monday in response to an invitation by Mr. Lough, who will inquire when the order for muzzling will be extended over the whole country. The hon. member also seeks information as to whether any particular pattern of wire muzzle is obligatory; whether the regulation as to the quarantine of dogs at the ports has yet been issued; and what time must elapse after all the necessary precautions have been enforced before the muzzling order can be altogether withdrawn.

## INFLUENZA AND DIPHTHERIA IN LONDON.

THERE was a marked increase during last week in the fatality of influenza in London. The deaths directly referred to this disease, which had been 28, 34, and 22 in the three preceding weeks, rose again to 37 during the week ending Saturday last, April 24th, and exceeded the number recorded in any week since April, 1895. Of these 37 fatal cases, 2 were of children and young persons under 20 years of age, and 10 were of persons aged between 20 and 60 years; while no fewer than 25, or nearly 70 per cent., of the total deaths were of persons aged upwards of 60 years. The disease appears to be most prevalent in St. George Hanover Square, Westminster, Hampstead, St. Giles, Newington, Lambeth, Camberwell, and Greenwich. Although there was such a considerable increase in the mortality from influenza last week in London, the deaths referred to diseases of the respiratory organs showed a comparatively small increase, and numbered 218, against 282, 271, and 273 in the three preceding weeks; these 289 deaths were 95, or nearly 25 per cent., below the average. The mortality from diphtheria in the metropolis showed a

marked further increase last week. The deaths attributed to this disease, which had been 23 and 30 in the two preceding weeks, further rose to 40 during the week ending Saturday last, and exceeded by 10 the average number in the corresponding periods of the ten preceding years. Of these 40 fatal cases, 6 were of persons belonging to Hackney, 4 to Chelsea, 4 to Battersea, 3 to Greenwich, and 3 to Poplar sanitary areas. The notifications of diphtheria cases in London last week numbered 191, against 193, 199, and 172 in the three preceding weeks. The increase in the notified cases was principally in the West and East groups of sanitary areas; the numbers of new cases in North and South London were slightly below those recorded in the preceding week. Among the various sanitary areas of the metropolis the largest proportional increase in the prevalence of diphtheria was recorded in Paddington, Chelsea, Shoreditch, Limehouse, Clerkenwell, and Poplar. The admissions of diphtheria patients into the Metropolitan Asylums Hospitals during last week were 95, against 92, 103, and 82 in the three preceding weeks; and 771 patients remained under treatment in these hospitals on Saturday last.

## THE MONTREAL MEETING.

THE Hon. Sir Donald Alexander Smith, G.C.M.G., the High Commissioner for Canada in London, intends to offer a reception to the members of the British Medical Association attending the annual meeting at his beautiful house in Montreal on Wednesday, September 1st. We publish in another column an interesting note by Dr. W. H. Drummond, of Montreal, on Sport in Canada in September. The description which he gives of the possibilities for the fisherman at least are calculated to raise the expectations even of those who have learnt by bitter experience to sympathise with Mr. Andrew Lang's scepticism as to the continued existence of trout in British waters. We would again call the attention of members who have the intention of journeying to Montreal to the fact that it is most desirable that they should lose no time in making arrangements at least for the outward passage. The boats timed to leave Liverpool for Montreal during August are filling up rapidly. Particulars of dates of sailing and fares will be furnished by the Agent of the Canadian Pacific Railway Company, 30, Cockspur Street, London, S.W.

## THE RECONSTRUCTION OF THE GLASGOW ROYAL INFIRMARY.

THE opposition to the scheme of the Lord Provost of Glasgow for the reconstruction of the Royal Infirmary culminated last week in a meeting of the medical profession convened to consider the proposal. Professor Gairdner presided, and there was a large and representative attendance. The chairman made it abundantly clear that it was not hostility to the Royal Infirmary that actuated the meeting, nor a desire to intercept public liberality towards a great public object, but an endeavour to secure that proper consideration should be given to its application. This also was emphatically stated by the meeting itself in the first resolution, proposed by Mr. Henry E. Clark of the Royal Infirmary staff, seconded by Dr. Perry, and spoken to by Dr. Lindsay Steven and Dr. Barlow, which was unanimously adopted. It stated:

> That this meeting of the medical profession of Glasgow and the West of Scotland is in full sympathy with the desire to associate the commemoration of the sixty years' reign of Her Majesty with a scheme for the benefit of the sick and injured poor of Glasgow and neighbourhood, which has led to the proposal for the reconstruction of the Royal Infirmary, and cordially recommends the proposal to the benevolence of the citizens of Glasgow.

The second resolution, proposed by Dr. Eben. Duncan and seconded by Dr. Johnstone Macfie, expressing disapproval of both of the suggested schemes of reconstruction on the ground that the site was already overcrowded, and that it was proposed in both schemes to increase the accommodation, led to considerable discussion. The debate, however, made it obvious that while the meeting desired that the Royal Infirmary should be reconstructed on its present site and brought up to the standard of modern requirements, the difference of opinion was mainly as to the form of words in which this should be expressed. Ultimately the following resolution was unanimously adopted:

> That this meeting of the medical profession of Glasgow and the West of Scotland is of opinion that the reconstruction of the Royal Infirmary is necessary, but that a hospital reconstructed on the present site ought not to contain a greater number of beds than is at present in the Royal Infirmary.

The final resolution:

> That this meeting appoint a committee to press these views upon the Executive Committee, and to urge upon them the advisability of obtaining the assistance of experts in hospital construction in the preparation of a detailed plan to be submitted to public consideration before adoption,

moved by Dr. MacGregor Robertson and seconded by Dr. Walker, Pollokshaws, was unanimously adopted. The committee appointed is as follows—Professor Gairdner, Drs. E. Duncan, McGregor Robertson, Johnstone Macfie, Glaister, Walker, and Turner.

## GUY'S HOSPITAL.

THE Prince of Wales, who is the President of Guy's Hospital, has definitely stated that it is his intention to open the large block of new buildings recently erected from funds guaranteed by the lecturers and staff of Guy's Hospital Medical School; but the exact date in May upon which the ceremony will take place has not yet been fixed. The building contains a large new lecture theatre and many classrooms and laboratories, which will be of great advantage to the students of the hospital. The cost of this expensive building is entirely borne by the teachers in the Medical School, and has no connection with the fund raised for the support of the patients in the wards, in response to the appeal made last year by His Royal Highness the President. That appeal was, however, so successful, that the Governors intend to open a ward which for some fifteen years has been closed for want of funds, relying on the public to maintain the cost of the beds. The opening of the new beds and the naming of certain wards will, it is believed, form part of the ceremony connected with the President's visit.

## AN OFFICIAL DRUG LIST.

DR. LAIRD, one of the medical officers of Sligo Union, has been complaining, not too soon, of the official drug list authorised by the Irish Local Government Board for the use of the Poor-law dispensaries and workhouses. It is a comical document, containing 420 items, and superseded about fourteen years ago a list containing some 800 items, most of them crude drugs, and many of them drugs which modern practitioners have never heard of, much less prescribed for their patients. The rule is that when a Poor-law medical officer requires any drug not in this list, he shall make application for it to the dispensary committee or the Board of Guardians stating the nature of the case it is needed for. This on the face of it is absurd, because by the time the medical officer obtained this consent and then sent to the contractor for the drug, the need for it would be over in nine cases out of ten. We can, of course, see the necessity for some such regulation, but it ought to be a workable one. We have before us a copy of this revised drug list, and it is obvious at a glance that the revision was carried out either by a layman who knew nothing about the matter, or else by someone who did not take the trouble to consider what the requirements of modern practice are. For instance—potass. cyanid., fœniculi fructus, carui fructus, and many other such are retained, together with tin bleeding cups, seton needles, and enema fistulæ and bladders. French wadding is given in two places and also leeches, once under the heading "hirudo," leading one to suspect that the reviser did not know the meaning of the word. Emplastrum bella-

donnæ is only to be had in mass, but emp. adhæsivum, emp. calefac., and emp. saponis can be had spread on calico. Bolus knives, whatever they may be, and spreading spatulæ are included. Except splint wood, calico, and lint, no surgical dressings are to be found in this list; and we heard of a case recently where the Local Government Board disallowed plaster-of-paris as not being either a surgical dressing or appliance. No. 365 is "pessaries," and in the absence of any specification the contractor, of course, tenders for and supplies the old box wood abominations. The drugs are all to be ordered in pints for fluids and pounds and ounces for solids, showing that the person who drew up the list was ignorant of trade customs. We have probably said enough to show that Dr. Laird's objections are well founded. We would suggest that it is time the Irish Local Government Board should again revise these drug order forms, and include those drugs which every doctor orders daily to his poorest private patients, and that before they again run the risk of exposing themselves to ridicule, they should ask the opinion of an expert as to what should be added and what may be omitted.

## THE WILLESDEN COTTAGE HOSPITAL.

The *Willesden Chronicle* of April 16th reports a meeting of the Council of the Cottage Hospital, from which it appears that many of the local medical men object to there being a permanent staff. A memorial has accordingly been presented to the governing body, requesting that each medical man in the district be allowed to attend his own patients at the institution when so desired. Considerable discussion took place on this proposition, which was finally rejected, some members remarking that, if a hundred doctors wanted the *entrée* into the institution, it could not but seriously interfere with the management. There can be no doubt that it is a very general custom throughout the country for local practitioners to be allowed to follow their patients into cottage hospitals, and such a practice seems to work on the whole very well. When, however, the hospitals are large and there are a good many local medical men some modification of this rule may be necessary. From an editorial article in the same issue it would appear that there is a suspicion among the public "that the medical management of the institution is in the hands of a private clique," and it strongly advocates that the revised rules should insist on the annual retirement of three out of the seven medical officers. This suggestion of our contemporary should recommend itself to the local profession, and seems to be a suitable compromise in cases where it is not advisable that all the practitioners of the district should be practically officers of the institution. It is, however, to be deplored that such a difference has arisen at Willesden at a time when every effort is being made to extend the Cottage Hospital; for the dissentient medical men will be sure to have a certain amount of influence in restraining subscriptions, and will probably exercise it if they disapprove of the way in which the institution is managed by the Council.

## AN INJUSTICE UNDER THE VACCINATION ACTS.

Under the above heading a public vaccinator has written to us setting forth his opinion that under the Vaccination Acts the minimum fee per successful primary vaccination performed under contract is in reality not 1s. 6d. but 2s. 6d., the former certainly being the amount fixed by statute as payable by Boards of Guardians, the difference of 1s. being paid under the authority of the Local Government Board by way of "award" to vaccinators "who have not done their work with negligence." He contends that as regards all primary vaccinations of children over 6 months of age in districts having weekly, and over 12 months of age in districts having less frequent, stational attendances, the fact that the "award" is withheld is evidence of fraud on the part of the central Board. We sympathise with our correspondent, and with all public vaccinators in common with him, on the loss of the grant in respect of children over the ages stated who have been vaccinated when they have been brought to the stations. As our correspondent justly says, it is not the fault of public vaccinators that parents delay bringing their offspring to the stations; and that these officials should be deprived of an award earned in these as in other infantile cases seems a harsh and arbitrary action. We do not know what may have been the motive which led to the line being thus drawn at the ages named. On the other hand, we cannot support our correspondent in the view which he takes of the statutory fee. The award, we take it, is an act of grace on the part of the Legislature, and serves as an encouragement to strict compliance with official regulations, and is quite distinct from fees paid under contract with Boards of Guardians. And the Local Government Board have made this further concession, that whilst Section v of the Vaccination Act of 1867 states that these further payments shall not exceed in any case the rate of 1s. "for each child," they have, we think we are correct in saying, never allowed less than that sum where an award has been made. Our only doubt is as to the reason for interpreting "child" as "infant" for the purposes of award.

## THE NEW ZEALAND BRANCH.

It is with great satisfaction that we are able to report in another column the formation of a new Branch of the British Medical Association, together with the formal closing of the New Zealand Medical Association, of which it takes the place. Until recently, intercommunication with the members of the medical profession with their brethren in the British Medical Association had been solely through the medium of the British Medical Journal. This, however, owing to the large number of recruits who had first become subscribers to the Journal and then members of the Association, the advantages of formal and complete organisation by the formation of a Branch has become sufficiently apparent here as in other colonies. In the course of his first inaugural address, the President of the Branch, Dr. Cleghorn, after expressing his thanks for the honour done him, went on to speak of their decision to throw in their lot with the British Medical Association. It was felt on all sides that the time had arrived when they should seek the extra solidity and strength which they could gain by joining so powerful and so highly organised an institution as the British Medical Association. No large combination could possibly be carried on without discipline and loyal adherence to authority, and they must remember that no institution had done a fractional part of what the British Medical Association had already accomplished in welding the medical men of Great Britain and her Colonies into one united, and therefore powerful, body.

## THE PUBLIC HEALTH (SCOTLAND) BILL.

The Grand Committee of Law will sit on Tuesday to consider the Public Health (Scotland) Bill. It is unfortunate that Dr. Farquharson will not sit on this Committee, for which he would otherwise be naturally designated, and would of course be a valuable member. The rule that no member of the Committee of Selection of the House of Commons can sit on any Committee which he nominates, as is the case in this instance, operates to prevent his taking his place on the Committee. Sir William Priestley will, however, act on the Committee, and it is understood that he has charge of a number of amendments in the interests of public health. He and Sir Charles Cameron are the only medical members on the Committee.

A proposal to establish a Pasteur Institute in Switzerland on the lines of the one in Paris is now before the Swiss Federal Council.

## THE MONTREAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, AUGUST 31st TO SEPTEMBER 4th, 1897.

### Sport in Canada in September.

Understanding that numerous inquiries have been made by intending visitors to Montreal in August and September as to the facilities for shooting and fishing, Professor W. H. Drummond—an authority upon the subject—has very kindly forwarded to us the following note upon the subject. Dr. Drummond, who is a member of the Medical Faculty of Bishop's College, Montreal, is well-known throughout North America as the author of some exquisite ballads in Canadian-French or French-Canadian patois.

Those members who bring with them rod, gun, or rifle will not be disappointed in obtaining plenty of sport, for a whole continent literally is theirs. In the wide Dominion of Canada, from the Atlantic to the Pacific, there are few, if any, streams which do not contain fish of some kind or other attractive to the angler, and many of the forests are yet, to a large extent, primæval, and harbour within their recesses large game, from the giant moose to the Virginian red deer.

The old province of Quebec itself, within easy access of Montreal, will furnish all the sport that reasonable man may desire, and both the "Laurentian" and "St. Maurice" Fish and Game Clubs have generously tendered their hospitalities to visiting members of the British Medical Association. In the territories controlled by these two associations the speckled trout fishing is marvellously good, specimens weighing up to 7 lbs. being not infrequently caught, and the caribou and moose still roam these vast solitudes, offering good sport to lovers of the chase. The Lake St. John region, situated north of Quebec, also affords grand facilities for those who are disposed to try the mettle of the famous ouananiche or fresh-water salmon, and a more "thoroughbred" or gamer fish never rose to a fly. The scenery, too, in the neighbourhood of Lake St. John is magnificent beyond description, and visiting the region at this time of the year (September) one cannot fail to be impressed by the superb beauty of the Canadian "Fall," when the exquisite haze of "Indian summer" bathes in a tender light peculiarly its own, every streamlet, lake, and mountain top, and to those who have never beheld the Canadian woods in autumn, with all their varied hues and shades, the experience will be one to remain as long as memory shall endure. All through the territory surrounding Quebec the various waters contain speckled trout in great abundance, while in the forests are also to be found the larger game already mentioned.

The neighbouring province of Ontario practically affords the same kind of sport as the province of Quebec, with the exception of ouananiche, which does not exist in Ontario.

The Georgian Bay, 130 miles north of Toronto, with its coast line of nearly 300 miles, is very prolific in many varieties of fish, such as maskinonge or great-northern pike, black bass, pickerel, speckled trout, etc., while among the numerous islands can be had, perhaps, the best duck shooting in the world, varied with an occasional flock of Canadian wild geese.

"Westward Ho!" and Manitoba and British Columbia extend welcoming hands to the sportsman tourist. True the buffalo has disappeared, but the vast domains of the North-West still afford an asylum for the wapiti and moose, the different watercourses literally teem with myriads of geese, duck, and other aquatic birds, while from almost every clump of grass on the plains springs, like a rocket, the merry little prairie chicken.

Even fiercer and more dangerous game than the African lion is to be met with in the grizzly bear of the Rocky Mountains, and proud he may well be who slays in fair and open combat this monarch of the hills. Less risky, but infinitely more difficult of approach, is the Rocky Mountain sheep, an animal inhabiting rather higher altitudes than the average sportsman cares to ascend, but the hunter will enjoy the excitement of the chase, and the head of a mountain sheep is a much valued trophy.

To describe the many fish and game districts of Canada would occupy too much time and space. It is sufficient to know that there is enough and to spare of every variety of game peculiar to the country, and small parties can easily be organised in Montreal to proceed whither their fancies direct.

We append briefly the "open" seasons during which shooting and fishing can be legitimately indulged in:

Province of Quebec.

Salmon—February 1st to August 15th.
Speckled trout—May 1st to October 1st.
Ouananiche—December 1st to September 15th.
Moose and caribou—September 1st to February 1st.
Deer—October 1st to January 1st.
Woodcock, snipe and grouse—September 1st to February 1st.
Duck—September 1st to May 1st.

Province of Ontario.

Speckled trout—January 1st to September 15th.
Maskinonge—June 15th to April 15th.
Woodcock, snipe, and plover—September 1st to February 1st.
Duck—September 1st to March 1st.
Caribou—September 1st to February 1st.
Moose and red deer—October 1st to January 1st.

The game laws of British Columbia and Manitoba are much the same as in Ontario.

For feathered game the visitor is advised to bring a No. 12-bore gun, and for general fishing purposes an 8-oz. or 10-oz. rod will be found very useful. Ordinary grilse flies of the "Jock Scott," "Durham Ranger," and "Silver Doctor" pattern, do very well for the trout—ouananiche—and bass found in Canadian waters.

## HOSPITAL REFORM ASSOCIATION.

A large meeting under the auspices of the above Association was held at the Grand Hotel, Birmingham, on April 21st. Mr. Jordan Lloyd presided, and there were present many of the local profession and others interested in the proper administration of hospitals, including Dr. Isambard Owen, of London, and Mr. Garrett Horder, of Cardiff. The Chairman in the course of his remarks said the meeting had been called to excite interest in questions which were thought by many to be ripe for discussion. The movement of hospital reform was not specially a professional one—in fact, he was not sure that its initiation came from the medical profession—and it certainly was not confined to it. It was a question which concerned the public as much as the profession, especially the philanthropic portion of the public. Abuse was dominant in many hospitals throughout the kingdom. Hospitals were not cheap doctor shops, were not intended merely for the distribution of cheap physic, and were not solely created for public convenience. Every doctor at every hospital knew there was a great deal of abuse; he could instance cases which occurred in his own hospital practice frequently—he was going to say every day. He was in favour of a Central Board to administer all the town hospitals, because he believed there would then be a cheaper and more efficient administration than at present; and that nothing prevented such an arrangement but absurd jealousies between the various public institutions. He objected to the suggestion that no more than twenty patients should be seen by the medical officer in one day, for he believed that such a regulation would result in that officer getting perhaps twenty cases, all of a trifling character. He concluded by moving:

That this meeting of the medical profession practising in Birmingham and the district is of opinion that the question of hospital reform should be dealt with without delay by the lay managers and acting staffs of our various hospitals and dispensaries, and thinks that the recommendations issued by the Hospital Reform Association for the better regulation of the out-patient and casualty departments are worthy of their close consideration.

Dr. Kirby moved as an amendment that selected representatives of the general practitioners should be added to the committee to consider the subject. He thought the question was largely one for general practitioners, and ought not to be considered only by hospital staffs and local managers.

Mr. Oakes seconded the amendment, and stated that the abuse of hospitals in Birmingham was very great, and that it was very necessary to make inquiries into the circumstances of applicants.

The Chairman declined to accept the amendment, because only the principle of a Central Board was before the meeting, and at present it had not been defined how that Board should be constituted.

Dr. ISAMBARD OWEN demurred to the Chairman's opinion that the principle of limiting the number of out-patients was impracticable. It had been carried out at St. George's Hospital with complete success for over thirty years. Doubtful cases among the out-patients at that institution had been referred to the Charity Organisation Society, and if that Society reported unfavourably the applicant was invariably refused. Birmingham with its more complete municipal organisation should have little difficulty in organising a Central Board which would be very effective. If any class were taught to expect that medical treatment was to be obtained gratuitously at the hands of the public it could have but one result, that was to lower the rate of wages.

Mr. GARRETT HORDER said that the Hospital Reform Association, though only six months old, had made some impression on the hospital world. There had been a distinct reform in one London hospital, whose out-patients and casualty cases numbered 180,000 to 190,000 annually. Birmingham wanted hospital reform badly indeed. Last year the number of people relieved in Birmingham, including in-patients, and the patients of the West Bromwich Hospital and the General Dispensary, came to something like 228,738.

The resolution proposed by the CHAIRMAN was seconded by Mr. HALLWRIGHT, and carried unanimously; and the meeting concluded with a vote of thanks to the Chairman.

After the reporters left the following gentlemen were appointed a Committee to deal with the question: Mr. Jordan Lloyd, F.R.C.S. (Chairman), Mr. E. D. Kirby, M.D.; Mr. Charles St. Johnstone, M.R.C.S.; Mr. J. T. J. Morrison, M.A., M.B.; Mr. Arthur Oakes, M.R.C.S.; Mr. G. R. Ayshford, M.B., C.M.; Mr. M. Hallwright, M.R.C.S.; Mr. L. Rose, M.B.; Mr. Edwin Chesshire, F.R.C.S.; and Mr. Gordon Nicholls, L.R.C.P. and S.Edin. (Honorary Secretary).

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In its issue of the April 22nd the *Birmingham Daily Post* comments on this meeting, and the questions raised thereat. Our contemporary recognises the existence of many of the evils complained of, and thinks it natural and proper that the medical profession should take "an active part in the discussion of the subject." It considers that their arguments are worthy of "respectful attention," and from "the character and ability of many of the speakers" are entitled to great weight. But it insists that it must not be forgotten that "there is another side to the question," and that it is through these institutions that the profession attains "its best practical education." It utters a note of warning as to the danger of "exaggerated statements," which "might have the effect of stopping, or at least reducing, the contributions of the charitable," and urges that "it would be better that some cases not strictly necessitous should be treated than that the usefulness of hospitals should be endangered."

Commenting on the proposals of the Hospital Reform Association it condemns the project of the formation of a Central Board, asserting this to be quite impracticable at Birmingham. It also denies there is any "injudicious competition" between the various local charities. Finally, it is of opinion that before "any practical force could be given to the recommendation of scientific experts," it will be necessary "to obtain from the donors and subscribers to the hospitals some more definite expression of the motives and intentions which induce them to contribute."

## THE MEDICAL SICKNESS AND ACCIDENT SOCIETY.

THE usual monthly meeting of the Executive Committee of the Medical Sickness and Accident Society was held at 429, Strand, London, W.C., on April 26th. There were present Dr. de Havilland Hall (Chairman), Dr. G. E. Herman (Treasurer), Dr. J. B. Ball, Mr. J. Brindley James, Dr. J. W. Hunt, Dr. M. Greenwood, Dr. F. J. Allan, Dr. W. Knowsley Sibley, and Dr. Walter Smith.

The accounts showed that the Society had been called upon to disburse more than the usual amount of sickness benefit to the members. Since the beginning of the year an unusually large number of claims have been received, the bulk arising from chest and throat affections caused by exposure to bad weather, but a considerable proportion due to accidents in riding, driving, or wheeling. This last item threatens to become important, as the bicycle seems to be very largely used by medical men, who find it a very useful aid in economising the short time they obtain for leisure and exercise.

The general meeting of the Society will be held in London during May, and the accounts for the half-year ending December 31st last will be forwarded to the members in a few weeks. The Society is doing much good work, and the members may confidently bring it under the notice of their professional brethren. No other society offers the same advantages to medical men, and as the whole of the reserves are the property of the members (there being no shareholders) the great economy which has always characterised the management has produced very satisfactory results.

Prospectuses and all particulars may be obtained on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

## THE REGISTRAR-GENERAL'S ANNUAL REPORT.

THE Registrar-General's fifty-eighth annual report, which has just been issued, deals with the vital statistics of England and Wales for 1895. The report, as usual, contains a large amount of detailed information relating to the causes of death and to the ages at death, necessary to the true appreciation of the death-rate. With regard to the marriage-rate, although it showed a decline from that recorded in 1894, it was slightly above the average rate recorded in the ten preceding years 1885-94. The births registered in England and Wales during 1895 numbered 922,291, and were equal to a rate of 30.4 per 1,000 of the population, estimated at 30,383,047 persons in the middle of the year. The highest birth-rates were, as usual, recorded in the mining and manufacturing counties of South Wales, Monmouthshire, Staffordshire, and Durham, their populations containing a large proportion of young married people.

The 568,997 deaths registered during 1895 in England and Wales were equal to a rate of 18.7 per 1,000 of the population; this rate, although it showed an increase of 2.1 per 1,000 upon the unprecedentedly low rate recorded in 1894, was slightly below the mean rate of the ten previous years. The lowest county death-rates were recorded in Rutlandshire, Westmorland, Middlesex, and Surrey, and the highest rates in North Wales, South Wales, Staffordshire, and Lancashire. With regard to the mortality at the different age-periods, the death-rates generally showed an increase upon the very low rates recorded in 1894, although the mortality at ages 5 to 10 for both sexes were below that in any preceding year. The proportion of deaths of infants under one year of age to registered births in 1895 was 161 per 1,000; this rate considerably exceeded the average, and was higher than in any year since 1847.

With regard to the assigned causes of deaths in England and Wales during the year under notice, the death-rate from zymotic or specific febrile diseases showed a marked increase, and, with one exception, exceeded that recorded in any of the ten preceding years. This excess appears to have been mainly due to excessive diarrhœa fatality and to a large increase in the mortality from influenza. Compared with the averages of the preceding ten years, there was an excess in the mortality from diphtheria and from diarrhœa, while the mortality from each of the other principal zymotic diseases was below the average. The fatal cases of small-pox, which had been 1,457 and 820 in the two preceding years, further declined to 223 in 1895. Of the 223 persons whose deaths were caused by small-pox, only 33, or 15 per cent., were certified to have been vaccinated, and 61, or 27 per cent., were described as unvaccinated; while with regard to the remaining 129, or 58 per cent., no sufficient statement as to vaccination appears in the certificates. It is to be regretted that medical practitioners still omit in so large a proportion of cases to give this very desirable information.

There was a considerable increase in the mortality from influenza during 1895, the deaths directly attributed to this disease being 12,880, against numbers declining from 16,686 to 6,625 in the four preceding years. Influenza was considerably more fatal in London and in the South of England than in the northern part of the country. Hydrophobia was the cause of 20 deaths during the year under review; this is the

largest number recorded in any year since 1889, and showed a further increase upon the numbers in the two proceeding years, which had been 4 and 13 respectively. Of these 20 deaths, only 1 occurred south of Cheshire.

The cause of death in 25,762 cases, or 4.5 per cent., of the total deaths were so unsatisfactorily stated as to be useless for purposes of scientific classification. The number of such cases would have been still larger but for the inquiries which were issued to medical practitioners respecting deaths certified as due to dropsy, tumour, hæmorrhage, and other still more indefinite conditions. No fewer than 5,255 replies were received in the year 1895 to these inquiries, of which more than 3,000 contained information which led to the more accurate classification of death causes. For example, 670 cases were removed from vague headings such as tumour, or disease of the brain, liver, ovaries, uterus, etc, and referred to cancer.

## HEALTH MATTERS IN INDIA.

### The Report of the Sanitary Commissioner with the Government of India for 1895.

Although this report records the events of a period which, in these busy days, may almost be called remote, it possesses the advantage of presenting in a condensed form information regarding all the communities, general population, troops, and prisoners, whose vital statistics are registered throughout the Indian Empire. The collection and compilation of so large and various a mass of statistical material needs time, and delay is fully compensated by completeness and accuracy. The report further gives a summary of sanitary progress, and special information on matters of prominent sanitary and scientific importance.

The present volume is not so bulky as some of its recent predecessors. This welcome reduction in size has been effected mainly by the recasting and condensing of the tables appended to it, an operation which has been accomplished judiciously and effectively. The number of these tables has been reduced by one half, without sacrifice of any important item contained in the previous series, while some interesting and useful data have been added. The statistics of communities, localities, and administrative groups are presented in detail sufficient for practical purposes, and more detailed special statements on points of special interest are given. Grouping according to more or less homogeneous and definitely-fixed geographical areas is very properly continued, in addition to administrative grouping. There is also a very sensible return to actuals and a reduction of ratios. This is a very salutary change; for what is really wanted in statistics are numerical facts as distinguished from arithmetical calculations. It is curious that in all the tables relating to troops and prisoners, with one exception, the important group of injuries is omitted. This certainly ought to be added to the selected headings in all tables showing disease and death causes.

The year 1895 was on the whole a healthy one in India. Meteorologically it was characterised by defective rainfall and humidity and excessive warmth. For the whole of India there was a defect of 3.38 inches of fall. The south-western monsoon was late in coming, and ceased too soon, and was very scanty, so that those portions of India which depend for their rain on this moisture-laden current experienced a drought which in its immediate effect was rather favourable to health than otherwise.

The registration of births and deaths is still very defective in India, but the results, such as they are, obtained year by year, admit of general comparison. The highest birth-rate of any province was 43.9 (Punjab), and the lowest 26.39 (Coorg). In seven provinces the birth-rate exceed the death-rate, and in five the opposite condition existed. The death-rates varied from 49.4 (Berar) to 29.31 (Coorg). They were lower than in the previous year in all provinces, except in Assam, Berar, and Coorg.

Cholera was in excess in Assam, Central India, and Mysore, and less than usual in other provinces and on the whole. Small-pox mortality was higher in Bengal, the Punjab, and Central Provinces, and lower elsewhere. There was a marked decrease in the prevalence of fevers, especially in the provinces of defective rainfall; also in fatal bowel complaints over the same area. Casualties by injury were in excess, and there were more suicides, both increases being conspicuous in the North-Western Provinces and Oudh. There was an abatement of deaths registered under "all other causes," except in Assam, Berar, Madras, Coorg, and Mysore. From these data it is obvious that in its immediate effect deficient rain is favourable to health. It is otherwise with the remote effects of drought, as no doubt the returns of 1896-97 will show.

Turning now to special communities, the health of the European army is shown to have been better in 1895 than in the preceding year. The admission rate per mille was 1,462, the constantly sick rate 94, the death-rate 15.26, and the invaliding rate 23. Venereal diseases caused 36 per cent. of the total sickness, and ague 23. The admission rates of influenza, enteric fever, remittent fever, and dysentery were higher, and of cholera and ague lower; 44 per cent. of the deaths were caused by enteric fever, 9 by hepatic abscess, and 7 by dysentery. There was a rise in the mortality from enteric and dysentery, and a fall in cholera and chest diseases. The improved sanitary state of the European army since the beginning of the century is shown by the following figures: death-rate of 1800-30, 84.60; of 1830-56, 56.70; of 1869-78, 19.30; of 1879-88, 16.02; and of 1889-94, 15.91.

Among causes of increased sickness are noted the short service system accounting for more venereal disease and enteric fever, the influenza raising the prevalence and fatality of chest diseases, and the addition to the empire of large malarious regions on the north-western and eastern frontiers causing a rise in malarious disease. The numerous frontier wars and expeditions of recent years have also helped to maintain high rates of morbidity and mortality. The progressive reduction of sickness and death-rates indicated by these figures is therefore all the more satisfactory.

In 1895 139 European and 4,328 native soldiers were on service in Waziristan, and 2,571 European and 6,020 natives in Chitral. Their admission and death-rates were high; but no description is given of the circumstances of these expeditions. There was less sickness in the native army in 1895 than in 1894, the rates being 794 and 30; but the death-rate, 11.60, was higher. This rise is attributed to the untoward influences of these two expeditions. There was less cholera, ague, influenza, and venereal disease, and more pneumonia, tubercle, dysentery, diarrhœa, and scurvy. Ague caused 36 per cent. of admissions, and pneumonia 36 per cent. of the deaths. The native soldiers suffered less from enteric fever, simple continued fever, ague, tubercle, diarrhœa, hepatitis, and venereal disease, and more from remittent fever, small-pox, pneumonia, and other chest diseases and dysentery than the European. This, except as regards ague, is the rule. Among prisoners there was much sickness; but the death-rate—27.61—was low as compared with the past. Ague, dysentery, abscess, and diarrhœa are the chief causes of sickness; and dysentery, pneumonia, phthisis, diarrhœa, and debility the chief causes of death. The native of India bears punitive confinement badly, and notwithstanding all that has been written and done in prison hygiene, the high sickness and death-rates of all provinces leave very much to be desired and accomplished.

## HORSE AMBULANCES.

England, and perhaps especially London, is generally believed to be somewhat behind other countries, and especially the United States, in the provision which is made for rendering aid in street accidents. In many of the cities of the United States there is a very complete organisation. It would appear that the originator of the system was Dr. E. B. Dalton, the Superintendent of the New York Hospital, who some thirty years ago elaborated a scheme which was taken up by one of the Government departments, and was worked in connection with the Bellevue Hospital. It has gradually been extended so as to apply to all the hospitals in New York, and with certain modifications exists in most of the large towns of the United States. Excepting for vehicles in the service of the Post Office and fire departments, the horse ambulances have by law the right of way, and the drivers are directed to drive at a rapid but not dangerous rate. Ambulances are kept always ready day and night at the different hospitals,

and the following is the usual method of procedure: There is a simultaneous telephonic call to the driver, the gatekeeper, and the surgeon on duty; the latter always accompanies the ambulance, in order to apply immediate treatment, and to decide whether the patient shall be taken to his own house or to the hospital. These surgeons are fully qualified men, and seem to correspond very much to assistant house-surgeons in our hospitals as far as their professional standing goes. Their services are gratuitous, the experience they gain being considered sufficient remuneration.

It is said that the average time which elapses between the call and the actual start is one minute. At New Orleans the start is made even more quickly, the average time being fifteen seconds, and it has been made in ten seconds. In Vienna and in Paris there are central stations (in Paris it is at the Hôpital St. Louis) where ambulances with the horses harnessed are kept ready to start the moment a call is received, and doctors residing in various parts give their services gratuitously. The chief bar to establishing a system in London and other large towns in England seems to be the expense. Centres would have to be established at or close to all the hospitals, and each would require a complete staff. To be of any use it must be general, and it would be difficult, if not impossible, to get a satisfactory combination for efficient management under the present independent conditions of hospital government, even if the money could be obtained by voluntary subscriptions. At the present time the Metropolitan Asylums Board have a very good system for the removal of persons suffering from infectious disease, but this is a much simpler matter.

At the present time there is no arrangement in London for sending a medical man along with an ambulance in case of accident or emergency. The first thought is to get the patient to the nearest hospital. The complete ambulance, in the American sense, does not exist. Nevertheless, it may be questioned whether an extension and development of the system which at present exists may not be more suitable for the conditions of life in London than would be the introduction of these new plans, useful as they may have been found abroad.

First of all, it must be mentioned that London is not entirely without horse ambulances. Five or six of the hospitals, such as the London, Charing Cross, University College, Westminster, and St. Mary's, have ambulances which are constantly used for the conveyance of patients to and from them, and these are available in case of accident and emergency. Some of these ambulances are horsed by arrangement with neighbouring jobmasters, and in other cases the custom is to call a cab, take the horse out, and harness it to the ambulance. These hospitals are connected with the telephone service, and a horse ambulance can be quickly put at the disposal of the police should it be required. There are ambulances also in connection with some of the workhouses and infirmaries.

London, however, mainly depends upon the police for the immediate management of the accidents of the streets, and a large number of them are trained by the St. John Ambulance Association to give "first aid" to the wounded. For conveyance to hospital the police are able, at their discretion, to make use of public conveyances, to send for a hand ambulance from the nearest police station, to make use of one of the hand ambulances provided by the Street Ambulance Branch of the Hospitals Association, or to apply by telephone through the police station to the nearest hospital horse ambulance. In the Kilburn district also there are eight stretcher stations, at two of which wheeled litters are placed belonging to the St. John Ambulance Association. One is also placed by the same Association under the steps of St. Paul's Cathedral and another at Hyde Park Corner.

In the fifty or so square miles included within the four-mile radius there are 49 police stations, all of which are provided with wheeled ambulances, the pattern of which has been much improved during recent years. Within the same area the Street Ambulance Branch of the Hospitals Association has 59 ambulance stations, from any of which a wheeled ambulance can be obtained at any moment by any person who chooses to fetch one; of these, 13 are placed at hospitals, 15 at fire brigade stations, and 31 are roadside stations. Many of the latter are placed near cabmen's shelters, the attendants at which have all received training in first aid at the expense of the Association.

All these stations are at the complete disposal of the police, who are officially instructed to make use of them, and do, in fact, exercise a general supervision over them, immediately reporting any deficiency which may be found in any of the appliances, this report being at once communicated to the officials of the Association.

In considering the desirability of establishing any general system of horse ambulances on the American model, the peculiar circumstances of London traffic and of London streets must not be overlooked. Within the four mile radius the hansom or the cab is practically ubiquitous, and for all such cases as can be properly removed in such a conveyance the question of sending for an ambulance does not arise, and, owing to the necessity, from a police point of view, of quickly removing all obstruction to traffic, would not arise even were a complete system of horse ambulances in operation. The patient is in the hospital before the ambulance would have arrived, and it must be borne in mind that the accidents which can be safely and properly removed in a cab bear a very large proportion to the total.

For the rest, the hundred or so wheeled ambulances scattered over the central area are available. It cannot, we think, be questioned that it would be a great advantage if these conveniences were more numerous than they are at present; but, in view of the practical omnipresence of the police, who are more or less trained in the preliminary duties of attending to cases of accident, the multitude of cabs at their disposal for the conveyance of slighter accidents, and of cases of injuries to the upper extremities, the short distance which intervenes between any point in Central London and a hospital, and, on the other hand, the immense expense of establishing horse ambulance stations in such number as to be available at all points, it would seem that for Central London an extension of the present system would be the best, especially if coupled with some arrangement by which the police might receive a little recompense for the laborious and disagreeable task of fetching an ambulance and wheeling a patient all the way to the hospital, instead of riding there comfortably in a cab.

For the outlying districts, however, there seems much want of some better means of conveying accidents to hospitals than exists at present; and we would strongly urge that in the suburbs there should be provided a circle of horse ambulance stations connected with either the police stations or the fire brigade stations. By this means patients could be safely brought comparatively long distances, and could be transported far more comfortably than at present to the hospitals which are so curiously crowded together in the central part of London.

## THE DUTY OF MIDWIVES.

An inquest was held lately by Dr. Lovell Drage, the newly-elected coroner for the St. Albans division of Hertfordshire, which raised several important questions as to the duties and responsibilities of midwives. The inquiry was upon the body of Adelaide Mary Whiteley, the wife of John Foley Whiteley, of New Bushey, Herts, who had died without medical attendance after an arduous labour, the child being born dead. The evidence of the midwife, who stated that she held the certificate of the Obstetrical Society of London, and had attended over 1,400 cases, was to the effect that on arriving at the bedside of her patient she found there had been severe hæmorrhage and an attack of fainting, that she considered that the case was one of placenta prævia (partial), and that she proceeded to plug the os uteri lightly with a silk handkerchief, and when dilatation had taken place separated the placenta as far as possible, ruptured the membranes and turned, bringing down one foot. Some time later she managed to bring down the other foot, and an hour afterwards the child was born dead. At the time when she plugged the os she gave the patient 15 grains of quinine and an ounce of cane sugar, and later 15 grains of hydrate of chloral. After delivery she administered an iodine douche and 9 grains of ergotin, and left the patient. Three hours after this she was sent for hurriedly, and found the woman in pain and faint. She gave brandy and sal volatile, and injected ether hypo-

dermically and brandy in the rectum but without avail, and the patient died before the medical assistance, which she had then sent for, could arrive.

A *post-mortem* examination disclosed the presence of a clot in the pulmonary artery, that the placental site was at the fundus, and that it was not prævia as diagnosed by the midwife.

The jury after a long and exhaustive and adjourned inquiry found the following verdict: "That the said Adelaide Mary Whiteley died on March 29th from pulmonary embolism subsequent to *ante-partum* hæmorrhage. That the midwife is much to blame (1) For not calling in a doctor when she found at 8 o'clock in the morning the very serious condition of the patient; (2) for not acquainting the husband of that condition; (3) for exceeding her duties as a midwife contrary to the rules of the Obstetrical Society and in the absence of a medical man."

It had been admitted by the midwife that she should have sent for a medical man before, and that she had been taught at the hospital where her training had taken place that she should do so under similar circumstances.

Several medical men were called on behalf of the midwife to give evidence that the conduct of the labour was proper in every respect, and that no medical assistance could have saved the woman's life.

The midwife, after receiving the just censure of the jury, told them that she would rather be acquitted of blame by the medical men and censured by the jury than the reverse, a statement no doubt accurately describing her very laudable desire.

Three points arise in this case:

1. There can be no doubt that a midwife who undertakes to conduct a case of even supposed placenta prævia without medical skilled assistance exceeds her duty and exposes her patient to greater risk.

2. Restrictions ought to be placed by the Obstetrical Society upon the prescribing of drugs like chloral and quinine in large doses by their certificated pupils as beyond their province, and likely to bring them into dangerous relations with the Apothecaries Acts.

3. The value of a coroner's court in bringing to light the treatment of women in labour by midwives holding certificates and the necessity of making it compulsory that they should send for medical assistance when the confinement is not proceeding normally and presents grave difficulties.

It may be mentioned that a protest was raised in this case by legal representatives of the midwife against the action of the coroner in clearing the court before summing up to the jury. We cannot, from the evidence before us, see that this protest was necessary. It is quite clear that the jury gave their verdict on the statements made on oath before them, and ample opportunity was given to the midwife to explain away her conduct.

To prevent the possibility of any criticism being raised in future on similar lines, however, it might be as well for coroners to make their summing up, where such a course be necessary, in the presence of all parties. It was most important in this case that the medical evidence should have been clearly explained to the jury and the scientific points made obvious to them, and this could only be done by a medical coroner closely examining the medical witnesses.

## THE RISING IN URUGUAY.

### A Medical Report.

With reference to the recent insurgent rising in Uruguay, we have been favoured by Dr. William Thomson, Resident Medical Officer to the British Hospital at Monte Video, with some interesting particulars of the wounded in the affray.

In the last revolutions, which were fought out on land, much use was made of the lance, and all prisoners were promptly despatched by having their throats cut. The futility of the old methods was shown by the defeat of Saraiva a few months ago when the regulars had Mauser rifles. In the search for rebels which ensued a captain of the line earned a rather shady reputation for throat cutting. The revolutionists at present are mostly armed with Remington rifles, and probably a few Winchesters.

No arrangements have been made by the Government for treating the wounded. The medical men attached to the battalions have remained in the city. A Red Cross Association has been formed, and, having received good donations in money, surgical materials, and medical comforts, sent several expeditions, comprising medical men and students, with a few nuns and priests. At Tres Arboles they arrived in a little over twenty-four hours, but at Melo, which is over 40 leagues distant from the nearest railway station, three days must have elapsed. At Tres Arboles the wounded were looked after (their wounds done up by the victors with strips of shirting), and put under the shelter of a shed, or, if practicable, of a farmhouse. Many of the wounded died at this stage. On the arrival next day of the Red Cross expedition each wounded man had the benefit of a cigar, some bread and wine, and an antiseptic dressing besides. Some were sent down to the capital without distinction of party; others, too ill for removal, remained and probably died there; some were sent to hospitals in towns along the railway. There is one military hospital in Monte Video, much too large, which has been in process of erection for years, and is not ready.

The number of wounded sent down to the Charity Hospital of the capital must be nearly 200. Among the cases Dr. Thomson saw there none showed wounds of the head or abdomen, these having all died since the battle six days before. The men of the two parties could only be distinguished by their wounds, the destructive and often ghastly effects of the Remington bullet distinguishing the regulars; but of these a few were wounded by the Mauser bullets of friends in rear.

Face wounds were fairly frequent—hideous if the result of a Remington, but in the case of a boy who received a Mauser bullet half an inch behind the margin of the left orbit at the level of its horizontal diameter, it traversed the orbit, destroying vision, but leaving the eye intact, and emerged just one inch below the right eye. The orifices were minute, filled with a greyish sloughy material, and had a very faint sign of inflammatory reaction. Another bullet struck the left thigh, breaking up the femur and lodging in the right. One man had six wounds from the same bullet, as the parts involved were the fronts of the thighs and scrotum. The thigh apertures were quiet and aseptic; the scrotum contained gangrenous tissue. Another received six wounds in similar region, but instead of the left thigh his penis was shot. It was rather œdematous, but the urethra remained intact. Several were wounded deeply in the buttock with Remington bullets that lodged; in one case the ball was passed *per rectum*.

As the fighting was a skirmish in a wood, where the parties were separated by a stream, most were lying down at a distance of about thirty paces from the enemy. A few Remington bullets were extracted, but Dr. Thomson did not hear of this happening in the case of the Mauser; in its case a wound of exit could nearly always be found, sometimes after a little search. There were no bayonet wounds. Dr. Thomson asked one or two men with flesh wounds questions as to their sensations; they told him they ceased firing on receiving their wound. On the other hand, an Englishman there was able to fire four rounds after his right scapula had been fractured by a Remington bullet. As regards endurance of pain, those with Indian blood showed stoicism and even indifference; the worst endowed in this respect was the man of negro extraction.

Neurological Congress in Belgium.—An International Congress on Neurology, Psychiatrics, Medical Electricity, and Hypnology will be held in Brussels this year from September 14th to the 19th, under the presidency of Professor Verriest, of Louvain. The Organising Secretary is Dr. Crocq, jun. Among the subjects proposed for discussion are the surgical treatment of epilepsy (to be introduced by Professor Winkler, of Amsterdam); the pathogeny and treatment of exophthalmic goitre (to be introduced by Professor Eulenburg, of Berlin); changes in the morbid picture of progressive paralysis of the insane during the last thirty years (to be introduced by Professor Mendel, of Berlin); the therapeutic value of hypnotism and suggestion (to be introduced by Dr. Milne Bramwell, of London); and the question of criminal suggestions (to be introduced by Professor Liégeois, of Nancy).

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KEEN (W. W.). Several papers on the Surgical Treatment of Tumours. 1896.
NEWSHOLME (Arthur). Papers on a National System of Notification and Registration of Sickness, 1896; the Prevention of Tuberculosis, 1896; the Spread of Enteric Fever by means of Sewage-Contaminated Shellfish, 1896.
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Zehender. Klinische Monatsblätter für Augenheilkunde. 1891, Jan.-July; 1892, Oct.

Applications for duplicates from medical societies forming libraries may be addressed to the Sub-librarian, 429, Strand.

## THE BATTLE OF THE CLUBS.

### Doctors and Patients.

A journal called the *Pen*, in its issue of April 10th, has a few paragraphs on the present endeavour of the profession to procure better remuneration for their services. It says:

"Certain circles of society in England are in a condition of perturbation owing to difference of opinion as to the terms of medical attendance," and further, "that the medical profession are at loggerheads with friendly societies generally, insisting that many members are physicked at a cheap rate who could afford to pay on the higher scale." It finally and reasonably comes to the conclusion that, "What is wanted is an adaptation which shall relieve that large class who are anxious and willing to pay what is equitably due to those who preserve their health in serious crises."

This is quite true, but the difficulty is to get the "adaptation," and to teach the public that although in trade generally it may be a good policy to buy in the cheapest market, it does not necessarily follow that the same principles are to be recommended in selecting their doctor. Unfortunately, owing to the fierce and not too scrupulous competition that has been going on during late years in the ranks of the profession, the public has been enabled to get the services of respectable medical practitioners at rates which must at first have appeared degrading to the laity themselves. Accustomed, however, by use to this state of things they become demoralised, and, as might be expected, acquire an altogether erroneous view of the value of these services; and under such circumstances it is by no means easy to make the large class to which our contemporary refers form a just estimate as to "what is equitably due to those who preserve their health."

There can be little doubt that to bring about such a happy result combination among the profession is absolutely necessary. If one practitioner is always ready to undersell another, it will be hopeless to attempt to make the public regard medical services of greater value than they who supply them do themselves; but when it is found that no doctor will work at the degradingly low rate that has been in vogue in so many places, the public will soon begin to place a greater store on commodities that they had come to regard as worth only what they would fetch in the common market.

### Women and Children as Club Patients.

A correspondent writes to say he has been asked to consent to a club being formed out of the families of a Foresters' Court to which he is a surgeon. Hitherto he has only attended the men for the club, and the wives and children have paid fees averaging about 2s. 6d. a visit and medicine.

*** Our correspondent, if he is wise, will do everything in his power to prevent such an arrangement. His position under the present conditions is far better than it would be likely to be under the proposed alteration. Under any circumstances, if women and children be accepted as members of clubs, their subscriptions ought to be calculated on a considerably higher scale than those of adult male members.

On April 27th Dr. Conolly Norman, superintendent of the Richmond Lunatic Asylum, Dublin, was the recipient of an address from the resident medical staff, and the nurses and attendants, on his return to duty. Dr. Norman has been seriously ill for several months, but is now happily convalescent. The address was accompanied by several pieces of silver. Dr. Norman made a suitable reply.

## THE UNIVERSITY OF LONDON.

A meeting of Convocation will be held on Tuesday, May 11th, at which various questions of considerable interest will be discussed. The report of the Annual Committee, which deals with many important subjects, will be presented. In reference to the syllabus for the Intermediate B.Sc. Examination, it gives the report of a Subcommittee appointed for the purpose, which was unanimous in its opinion that the number of subjects for this examination might be increased with advantage, and a certain choice of subjects allowed to candidates, but that the subjects of mathematics, physics, and general chemistry should still be compulsory. The new regulations for this examination, as generally approved by the Senate, carry out the above views by allowing a candidate to take three only of the four subjects.

Another Subcommittee was appointed to consider and report on the regulations for the Intermediate M.B. Examination; but as the subject is one of considerable difficulty and requires further consideration it will be proposed at the meeting of Convocation "that the whole question of the Intermediate M.B. Examination be referred to the Standing Committee for consideration and report."

The report states that in regard to the University Library several resolutions were passed by Convocation at its meeting in January last, with the object of increasing the facilities of access to those who are entitled to use the library. The Registrar has since explained that the wishes of Convocation on this subject could for the most part be carried out. The library need never be entirely closed, either on account of vacation or for examinational needs. As the estimates include now an additional £50 for the use of the library, a good supply of periodicals has been secured for the use of readers; and many additional works of reference are shortly to be placed in the Common Room. But the Senate cannot undertake to send books by post, rail, or carrier, which would require extra expenditure. The questions of a more serviceable catalogue, and of the opening of the library in the evening, are not at present settled. Nine Boards of Studies have been appointed by the Senate to revise the syllabuses in various subjects of the examinations of the University, and have given careful and prolonged consideration to their respective subjects, with the result that revised syllabuses in these subjects, in connection with the examinations in arts and science have received, or will shortly receive, the general approval of the Senate; that changes of considerable importance have been made as to the Matriculation examination; and that the syllabuses for Chemistry at the Intermediate Examination in Medicine (both for the Pass and Honours) have been entirely re-cast. The revised regulations containing these syllabuses will appear in the University Calendar for this year, the publication of which has been delayed till June or July in order that they may be included.

The Annual Committee of Convocation will after the approaching meeting cease to exist; in its place will be elected a standing committee, which will consist of all the members of Convocation who are also members of the Senate, together with 36 elected members, of whom 9 must belong to the Faculty of Arts, 9 to the Faculty of Laws, 9 to the Faculty of Medicine, and 9 to the Faculty of Science, including Music. These will be elected for three years, one-third in each Faculty will hereafter retire annually, but will be eligible for re-election. Each member of Convocation will this year have 36 votes, and be entitled to vote for 9 names in each Faculty. The voting papers will only be supplied to members attending the meeting of Convocation, one paper to each member at the entrance to the theatre.

The report states that the vacancies in the Senate caused by the deaths of Sir George Johnson, M.D., and the Rev. H. A. Holden, M.A., LL.D., have been filled by the Crown appointments of Lord Lister, M.B., and Professor R. C. Jebb, Litt.D.

Dr. Kolle, of the Berlin Institute for Infectious Diseases, has received a year's leave in order to proceed to Cape Colony, where he has been commissioned by the Cape Government to carry on the work of Professor Koch. He will continue the investigation into rinderpest and leprosy, and organise stations for the study of those diseases.

## THE ROYAL ACADEMY.

THE Royal Academy is this year rich in medical portraits, chief among which is the admirable presentation portrait of Lord Lister, P.R.S., by W. W. Ouless, R.A. This portrait is not only an excellent likeness, but is also an eminently characteristic representation of the great surgeon, so that Mr. Ouless has fulfilled Mrs. Browning's dictum, "paint a body well and by implication you paint the soul." The thoughtful face is supported, in pensive attitude, on the folded hand, and the expression is one of meditation on some great problem of scientific surgery. There are none of the paraphernalia of office added in the attempt to give effect, but the quiet black professional dress, the greenish russets of the background, the well-worn green leather of the library chair, and the rich sombre bindings of a few scientific books, make together a harmonious whole in which the chief interest centres, as it should, round the noble head. Fine, however, as is the painting from an artistic point of view, the picture will be valued in years to come as an admirable portrait of the great surgeon, whose adaptation of the principles of science to the practice of surgery has saved more lives than Napoleon destroyed. Lord Lister's portrait hangs in the large room on the line, and will doubtless be as much appreciated by the public as by the profession. The bust of Sir Richard Quain, the work of Thomas Brock, R.A., will also attract attention. Never were the well-known features of the distinguished and genial President of the General Medical Council represented in a more life-like manner. The portrait is particularly good when the face is seen three-quarter. Among other portraits the most interesting is that of Dr. Samuel Wilks, President of the Royal College of Physicians, by Percy Bigland. The fine head of Dr. Wilks lends itself to pictorial portraiture. The artist has represented him in his presidential robes of black and gold, sitting, and in the act of signing a paper, and he has succeeded in producing not only an interesting picture but an excellent portrait. We cannot give equal praise to the portrait of Sir William Mac Cormac by H. Harris Brown. Here also the artist has represented the President in his robes of office, which are in this case of a brilliant scarlet. The management of the mass of intense colour is not happy, and has resulted in giving a look of pallor and ill-health to the features of Sir William, who does not look quite at ease in his magnificent attire. The portrait of Mr. Henry Power, by Lucy Power, is interesting, and a faithful representation of the well-known ophthalmic surgeon.

In the sculpture room will also be found the design for the Huxley Memorial Medal, by S. Ruth Canton. On one side is a portrait of the great biologist, and on the other a group representing Truth and Art crowning Science. The Gold Medal, cast and chased for annual presentation at St. Bartholomew's Hospital in memory of the late Sir William Lawrence, Bart., by Alfred Gilbert, R.A., is a beautiful decorative piece of work, conceived in the old Florentine spirit. Two small medallion portraits in plaster of Professor Ayrton and Dr. Tilden, by Margaret M. Giles, are very dainty pieces of work.

Generally, it may be added, this year's exhibition is one of a very high standard of merit, and of great artistic value and interest.

## DEATHS UNDER ANÆSTHETICS.

### CHLOROFORM.

WE have been favoured by Dr. John Stewart, of Crosshill, Glasgow, with the following particulars of a case of death under chloroform during the extraction of teeth:

The patient was a woman aged 38, of fairly good physique, but of a decidedly nervous temperament. On at least three occasions during the past ten years she had slight hæmoptysis of two or three days' duration. There was no evidence of lung affection, and, although the hæmoptysis was regarded as being due to some disturbance of the circulatory system, there were no physical signs of cardiac disease. For a month prior to her decease she suffered severely from toothache and neuralgia, and consulted the dentist, who advised extraction.

She was somewhat anxious about the operation, but on the whole was wonderfully calm and self-possessed considering her nervous tendency. The chloroform was administered on lint stretched on a wire frame. At the commencement of the administration she exhibited a slight degree of nervousness, and later on struggled slightly. The pulse, which at first was rapid and weak, became slower and stronger as she passed into a state of unconsciousness; in nine minutes from the beginning of the administration the breathing being regular and easy, her colour perfectly good, the pupils well contracted, and the cornea insensitive. The gag was inserted on the left side of the mouth, and the dentist extracted the affected teeth of the right side, which, with the exception of a little difficulty with the root of the upper wisdom, came out quite easily.

The gag was now removed, and an anterior one substituted. Immediately after the gag was placed in position, and before the dentist had time to seize the next tooth properly, and without previous indication that anything was wrong, the breathing ceased, and at the same moment a ghastly pallor spread over her face. The head was immediately lowered, the tongue pulled forward, artificial respiration commenced, and hot fomentations applied to the præcordia. The circulation did not respond to the stimulus, and, in the hope that some reaction would ensue, a subcutaneous injection of ether was given, and nitrite of amyl held to the mouth while the artificial respiration was proceeded with, but there was no result. Thinking it probable that if the windpipe were open the artificial respiration would be more effectual, a knife was pushed into the trachea, and the wound held open with forceps, but all these efforts were unrewarded by any sign of vitality, although they were persevered in for thirty-five minutes. Dr. Stewart adds that in an experience of fully 800 chloroform administrations, among which were many alarming occurrences short of death, this case stands unique in the awful suddenness with which the calamity occurred. It is worthy of note that at one time the patient had had nitrous oxide gas administered, and had been so ill afterwards that she determined never to take it again. Unfortunately no details of this circumstance are obtainable.

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AN inquiry was held on April 17th by the Worcester coroner as to the death of John Beard, aged 54, a gardener of Evesham, who died in the Worcester Infirmary on April 15th. The deceased was admitted to the infirmary to undergo an operation for cancer of the mouth. Chloroform was administered by Mr. L. J. Wilding, M.R.C.S. The operation lasted nearly an hour, and just before its conclusion the deceased died. *Post-mortem* examination showed that there was commencing degeneration of the aorta, which could not be discovered during life. The operation was performed by Mr. T. Bates, who was of opinion that death was due not so much to the administration of the chloroform as the length of the operation. A verdict in accordance with the medical evidence was returned.

## GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that they are prepared to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting must be made on or before June 15th in writing addressed to the General Secretary, at the office of the Association, 429, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

FRANCIS FOWKE, *General Secretary.*

429, Strand, London, April 21st, 1897.

# BRITISH MEDICAL ASSOCIATION.

## SIXTY-FIFTH ANNUAL MEETING.

NOTICE IS HEREBY GIVEN that the Sixty-Fifth Annual General Meeting of members of the British Medical Association, for the transaction of business, the consideration of Reports of Council and Committees, will be held in the Exeter Hall, London, on Tuesday, the 27th day of July next, at 11.0 o'clock in the forenoon. The meeting will be adjourned to August 31st, to be held at Montreal, for the scientific business of the meeting, Reading of Addresses, Meetings of Sections, etc.

FRANCIS FOWKE, *General Secretary.*

April, 1897.

THE adjourned annual meeting of the British Medical Association will be held at Montreal on Tuesday, Wednesday, Thursday, and Friday, August 31st, September 1st, 2nd, and 3rd, 1897.

*President.*—HENRY BARNES, M.D., Physician to the Cumberland Infirmary, Carlisle.

*President-Elect.*—T. G. RODDICK, M.D., Professor of Surgery in McGill University, Montreal.

*President of the Council:* ROBERT SAUNDBY, M.D., F.R.C.P., Physician to the General Hospital, Birmingham, 83A, Edmund Street, Birmingham.

*Treasurer:* CHARLES PARSONS, M.D., Dover.

An Address in Medicine will be delivered by W. OSLER, M.D., F.R.C.P., Professor of Medicine in the Johns Hopkins University, Baltimore, U.S.A.

An Address in Surgery will be delivered by WILLIAM MITCHELL BANKS, F.R.C.S., Surgeon to the Liverpool Royal Infirmary.

An Address in Public Medicine will be delivered by HERMAN M. BIGGS, M.D., Director of the Bacteriological Laboratory of the Health Department, New York City.

The Scientific Business of the Meeting will be conducted in Eleven Sections, as follows, namely:

### A. MEDICINE.

*President:* STEPHEN MACKENZIE, M.D., London. *Vice-Presidents:* J. E. GRAHAM, M.D., Toronto; W. BAYARD, M.D., St. John, N.B.: J. P. ROTTOT, M.D., Montreal: F. W. CAMPBELL, M.D., Montreal; JAMES STEWART, M.D., Montreal; H. P. WRIGHT, M.D., Ottawa. *Hon. Secretaries:* H. A. LAFLEUR, M.D., Montreal; W. F. HAMILTON, M.D., Montreal: WILLIAM PASTEUR, M.D., 4, Chandos Street, Cavendish Square, London, W.

### B. SURGERY.

*President:* CHRISTOPHER HEATH, F.R.C.S., London. *Vice-Presidents:* Sir WILLIAM HINGSTON, M.D., Montreal; Hon. M. SULLIVAN, M.D., Kingston, Ontario: Hon E. FARRELL, M.D., Halifax, Nova Scotia; I. H. CAMERON, M.D., Toronto; F. LE M. GRASETT, M.D., Toronto; JAMES BELL, M.D., Montreal; GEORGE E. ARMSTRONG, M.D., Montreal. *Hon. Secretaries:* ROBERT C. KIRKPATRICK, M.D., Montreal; THOMAS WALKER, M.D., St. John, N.B.: JORDAN LLOYD, F.R.C.S., Broad Street, Birmingham.

### C. PUBLIC MEDICINE.

*President:* E. P. LACHAPELLE, M.D., Montreal. *Vice-Presidents:* F. MONTIZAMBERT, M.D., Quebec; ROBERT CRAIK, M.D., Montreal; P. H. BRYCE, M.D., Toronto; Sir JAMES GRANT, Ottawa; R. H. POWELL, M.D., Ottawa. *Honorary Secretaries:* WYATT JOHNSTON, M.D., Montreal; E. PELLETIER, M.D., Montreal; HARVEY LITTLEJOHN, M.B., C.M., Surgeons Hall, Edinburgh.

### D. OBSTETRICS AND GYNÆCOLOGY.

*President:* WILLIAM JAPP SINCLAIR, M.D., Manchester. *Vice-Presidents:* WILLIAM GARDNER, M.D., Montreal; JAMES PERRIGO, M.D., Montreal: J. A. TEMPLE, M.D., Toronto; J. C. CAMERON, M.D., Montreal; T. JOHNSTON ALLOWAY, M.D., Montreal; JAMES ROSS, M.D., Toronto. *Honorary Secretaries:* D. J. EVANS, M.D., Montreal; W. BURNETT, M.D., Montreal; ARTHUR E. GILES, M.D., 58, Harley Street, Cavendish Square, London, W.

### E. PHARMACOLOGY AND THERAPEUTICS.

*President:* D. J. LEECH, M.D., Manchester. *Vice-Presidents:* A. D. BLACKADER, M.D., Montreal; JAMES THORBURN, M.D., Toronto; C. R. CHURCH, M.D., Ottawa; J. B. MCCONNELL, M.D., Montreal; F. J. AUSTIN, M.D., Sherbrooke; WALTER GEORGE SMITH, M.D., Dublin. *Honorary Secretaries:* F. X. L. DE MARTIGNY, M.D., Montreal; J. R. SPIER, M.D., Montreal; CHARLES ROBERTSHAW MARSHALL, M.B., Pharmacological Laboratory, Downing College, Cambridge.

### F. PATHOLOGY AND BACTERIOLOGY.

*President:* WATSON CHEYNE, F.R.C.S., F.R.S., London. *Vice-Presidents:* J. G. ADAMI, M.D., Montreal; J. CAVEN, M.D., Toronto; J. STEWART, M.D., Halifax; J. C. DAVIE, M.D., Victoria, B.C.; L. C. PREVOST, M.D., Ottawa; M. T. BRENNAN, M.D., Montreal. *Honorary Secretaries:* W. T. CONNELL, M.D., Kingston, Ontario; C. F. MARTIN, M.D., Montreal; RUBERT W. BOYCE, M.B., University College, Liverpool.

### G. PSYCHOLOGY.

*President:* R. M. BUCKE, M.D., London, Ontario. *Vice-Presidents:* D. CLARKE, M.D., Toronto; T. J. BURGESS, M.D., Verdun, Quebec; A. VALLEE, M.D., Quebec; G. WILKINS, M.D., Montreal. *Honorary Secretaries:* J. V. ANGLIN, M.D., Montreal; GEORGE VILLENEUVE, M.D., Montreal; J. G. BLANDFORD, M.R.C.S., D.P.H., London County Asylum, Banstead, Sutton, Surrey.

### H. OPHTHALMOLOGY.

*President:* EDWARD NETTLESHIP, F.R.C.S., London. *Vice-Presidents:* F. BULLER, M.D., Montreal; R. A. REEVE, M.D., Toronto; ED. DESJARDINS, M.D., Montreal; A. A. FOUCHER, M.D., Montreal. *Honorary Secretaries:* W. H. SMITH, M.D., Winnipeg; JEHIN PRUME, M.D., Montreal; THOMAS HERBERT BICKERTON, M.R.C.S., 88, Rodney Street, Liverpool.

### I. LARYNGOLOGY AND OTOLOGY.

*President:* GREVILLE MACDONALD, M.D., London. *Vice-Presidents:* W. TOBIN, M.D., Halifax; G. A. S. RYERSON, M.D., Toronto; H. S. BIRKETT, M.D., Montreal; G. R. MCDONAGH, M.D., Toronto. *Honorary Secretaries:* A. CHRETIEN, M.D., Montreal; H. D. HAMILTON, M.D., Montreal; W. PERMEWAN, M.D., 7, Rodney Street, Liverpool.

### J. ANATOMY AND PHYSIOLOGY.

*President:* AUGUSTUS D. WALLER, M.D., F.R.S., London. *Vice-Presidents:* F. SHEPHERD, M.D., Montreal; A. B. MACALLUM, M.D., Toronto; T. WESLEY MILLS, M.D., Montreal; A. PRIMROSE, M.D., Toronto; J. B. A. LAMARCHE, M.D., Montreal; D. B. FRASER, M.D., Stratford, Ontario. *Hon. Secretaries:* J. M. ELDER, M.D., Montreal; W. S. MORROW, M.D., Montreal; ROBERT HUTCHISON, M.D., Physiological Laboratory, London Hospital Medical College, Turner Street, Mile End, E.

### K. DERMATOLOGY.

*President:* MALCOLM MORRIS, F.R.C.S.Ed., London. *Vice-Presidents:* J. E. GRAHAM, M.D., Toronto; F. J. SHEPHERD, M.D., Montreal; J. A. S. BRUNELLE, Montreal; G. L. MILNE, M.D., Victoria, B.C. *Hon. Secretaries:* GORDON CAMPBELL, M.D., Montreal; J. M. JACK, M.D., Montreal; JAMES GALLOWAY, M.D., 54, Harley Street, Cavendish Square, W.

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### PROGRAMME OF PROCEEDINGS.

TUESDAY, AUGUST 31ST, 1897.

10 A.M.—Cathedral Service.
11.30 A.M.—Windsor Hall: Opening Ceremonies. Address by the President-elect, Dr. T. G. Roddick.
2.30 P.M.—Windsor Hall: Address in Medicine by Dr. W. Osler.
4 P.M.—Garden Parties, etc.
9 P.M.—*Soirée* at Laval University.

WEDNESDAY, SEPTEMBER 1ST, 1897.

10 A.M.—McGill University: Opening of Sections.
3 P.M.—Windsor Hall: Address in Surgery by Mr. T. Mitchell Banks.
4.15 P.M.—Excursion down the St. Lawrence; Garden Parties, etc.: Golf Match, etc.
9 P.M.—Reception at City Hall or at Sollmer Park.

THURSDAY, SEPTEMBER 2ND, 1897.
9.30 A.M.—McGill University: Sectional Meetings.
3 P.M.—Windsor Hall: Address in Public Medicine by Dr. Herman M. Biggs.
4.30 P.M.—Excursion across the Island, etc.
7.45 P.M.—Annual Dinner of the Association, Windsor Hotel.

FRIDAY, SEPTEMBER 3RD 1897.
9.30 A.M.—McGill University: Sectional Meetings.
1.30 P.M.—Lunch on the Mountain.
3.30 P.M.—Windsor Hall: Concluding General Meeting.
4 P.M.—Excursion down the Lachine Rapids; Garden Parties, etc.
9 P.M.—*Soirée* at McGill University.

SATURDAY, SEPTEMBER 4TH, 1897.
Excursions to Ottawa, Ste Agathe, and Montagne Tremblante, etc.

## ANNUAL MUSEUM.

### REGULATIONS REGARDING EXHIBITS.

1. Communications on general matters connected with the Museum and applications from intending exhibitors should be addressed to the Honorary Secretaries, Drs. J. W. Stirling or J. M. Jack, 2204, St. Catherine Street (British Medical Association Rooms).

2. Applications for space must be in the hands of the Secretaries before July 25th, accompanied with a brief descriptive account of each exhibit for insertion in the Museum Catalogue. Information of the allotment of space will be furnished as promptly as possible, and on receipt of cheque for the cost of such space, a card for the admission of the exhibit will be forwarded.

3. All cheques to be made payable to J. W. Stirling, M.B.

4. All exhibits should be directed to the British Medical Museum, Victoria Skating Rink, Drummond Street, Montreal, Canada, with the name of the Section for which they are intended. Packages must also be addressed to a firm's representative at the Museum.

5. Exhibits must be delivered between August 27th and 28th; they must each bear a card indicating the name and address of the exhibitor; they must be arranged in their allotted space before 2 P.M. on August 28th, and it is desirable that they be not removed till September 6th.

6. Signs or placards must be so arranged as not to interfere with adjacent exhibits: on the central tables no sign or placard must reach higher than 2 feet 6 inches from the table.

7. The Committee will not be responsible for any risks or expenses incurred; they reserve discretionary power to exclude any exhibit they may consider unsuitable; they will only receive exhibits conditionally upon strict compliance with the foregoing regulations, and in all matters of doubt and difficulty their decision shall be final.

8. The Museum Committee or its representatives must be recognised as being in full control of the exhibition building and its management.

Tables occupying the centre of the Hall, and other prominent positions, are to be let by private tender; other tables varying in charges from 4s. to 2s. per square foot. Certain floor space will be let at 1s. per square foot.

# ASSOCIATION INTELLIGENCE.

## NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1897.

MEETINGS of the Council will be held on July 14th and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 24th and September 30th.

### ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

**MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M., Saturdays, 10 A.M. to 2 P.M. Members can have their letters addressed to them at the office.**

## BRANCH MEETINGS TO BE HELD.

EAST ANGLIAN BRANCH.—The annual general meeting of this Branch will take place at Ipswich on Thursday, May 27th, under the presidency of Mrs. Garrett Anderson, M.D. It is requested that members willing to read papers or contribute cases to the meeting will communicate at once with Dr. Barnes, Eye.—EDGAR G. BARNES, M.D., Eye, MICHAEL BEVERLEY, M.D., Norwich, THOMAS CARR, M.D., Braintree, Honorary Secretaries.

DUNDEE AND DISTRICT BRANCH.—The annual meeting of the Branch will be held in University College, Dundee, on Friday, May 7th, at 3 P.M., for the election of office-bearers for 1898, and other business. There will be a clinical congress at 4 P.M., in which it is hoped that the Edinburgh and Perthshire Branches may co-operate as on former occasions.—R. C. BUIST, M.D., Annfield House, Dundee, Honorary Secretary.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of this District will take place at Hastings on May 13th, Mr. E. Kaye Smith in the chair.—J. W. BATTERHAM, Bank House, Grand Parade, St. Leonard's, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.—A meeting of this district will be held on Thursday, May 13th, at 4.15 P.M., at Tottenham Hospital, The Green, Tottenham; Dr. Cleveland will preside. The officers and Committee for the coming year will be elected. Dr. Macevoy will read a short paper on Adenoid Vegetations, with Remarks on their Symptoms and Treatment. Dr. Lloyd Smith will show some cases of Excision of Long Bones and other Bone Cases, and comment thereon.—HUGH WOODS, M.D., 11, Archway Road, Highgate, N., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WEST LONDON DISTRICT.—The next meeting will be held on Thursday, May 6th, at 4.30 P.M., at the City Orthopædic Hospital, Hatton Garden, E.C.; Mr. H. W. Kiallmark, Vice-President, in the chair. Business: Mr. Jackson Clarke: Practical Observations on the Treatment of Common Deformities caused by Rickets. Mr. J. Brindley James: Public Vaccinators. Mr. Noble Smith: Some Clinical Cases.—THOMAS DUTTON, M.D., 7, Portland Place, W., Honorary Secretary.

MIDLAND BRANCH.—The annual meeting will be held at Leicester on Thursday, June 3rd. Members desirous of reading papers or exhibiting cases are requested to send word before May 16th to Dr. CARLINE, Lincoln, Honorary Secretary.

## SOUTH EASTERN BRANCH: NORTH KENT DISTRICT.

A MEETING of this District was held at Beckenham on April 15th, Dr. STURGES in the chair. Seventeen members and two guests were present.

*Confirmation of Minutes.*—The minutes of the conjoint meeting at Rochester were read and approved.

*The Next Meeting.*—It was decided that the next meeting be held at Bromley in October, and that Dr. Beeby be asked to take the chair.

*Election of Honorary Secretary.*—Dr. A. Tennyson Smith was reappointed Honorary Secretary for the ensuing year.

*Circulating Medical Book Club.*—Dr. DAVIS brought forward a scheme for the formation of a circulating library in connection with the District, and after some discussion it was decided to appoint a committee of five, for example, Dr. Davis, Dr. Ilott, Mr. H. Smith, Dr. Stillwell, and the Hon. Secretary to consider the scheme.

*Communications.*—Dr. J. W. BOND of London read a paper on Abnormal Discharges from the Nose. He confined his paper chiefly to the clinical aspect of the different diseases, and dealt fully with the diagnosis of each.—Dr. RANDELL read a paper on Addison's Disease. He entered into the pathology of the suprarenal capsules, showing the relation of these to tissue changes, and explained the action of suprarenal tabloids given in cases of Addison's disease. He then read the notes of a case of Addison's disease which had been successfully treated by him, and demonstrated the case afterwards.

*Cases.*—The following cases were shown:—Dr. RANDELL: Addison's Disease.—Dr. ILOTT: Excision of Hip-joint for Tuberculous Disease.—Mr. F. STURGES: Case of Prostatic Disease treated by Perineal Section and Subsequent Vasectomy.—Mr. A. PRIMROSE WELLS: Abdominal Tumour.

*Tea.*—The members of the Branch were afterwards entertained to tea by the members of the Beckenham and Penge Medical Society.

## HONG KONG AND CHINA BRANCH.

A MEETING of this Branch was held in Hong Kong on March 26th, Surgeon-Colonel EVATT, P.M.O., President, in the chair.

*New Members.*—Surgeon-Captain J. J. C. Watson, M.D., A.M.S., and Surgeon H. L. Penny, R.N., already members of the Association, were admitted members of the Branch.

*Communications.*—Fleet-Surgeon GODDING, R.N., read a paper to introduce a discussion on Some Benign Forms of Adenitis, directing attention to malarial bubo, glandular fever of childhood, and non-venereal bubo of adults. Dr. STEDMAN, Surgeon MAY, R.N., Surgeon-GILMOUR, R.N., Dr. ATKINSON, and Dr. HARTIGAN discussed the paper.—Surgeon PENNY, R.N., read a paper entitled Notes on Red Cross Work at Newchwang during the Chino-Japanese War.

## NEW ZEALAND BRANCH.

### FIRST ANNUAL MEETING.

THE formal closing of the New Zealand Medical Association and the formation of a New Zealand Branch of the British Medical Association, took place on March 9th, in the Museum at Nelson. Dr. CLEGHORN took the chair, and the following gentlemen were also present:—Nelson: Drs. Boor, Hudson, Mackie, Gibbs, Roberts, Talbot, Dunn, Porter. Wellington: Drs. Collins, Fyffe, Martin. Dunedin: Drs. Colquhoun, Ferguson. Christchurch: Drs. Graham-Campbell, Boyd. Auckland: Dr. Scott. Wanganni: Dr. Saunders. Greymouth: Dr. Morris. Otaki: Dr. Mason.

Dr. CLEGHORN having shortly stated that the first business was to declare the New Zealand Medical Association to be closed, some discussion took place upon the mode of doing so, and reference was made to the disposition of the funds of the various local sections.

It was eventually resolved, on the motion of Drs. FERGUSON and COLLINS:

That this be declared the last general meeting of the New Zealand Medical Association, and that Branches be requested to wind up their affairs as soon as possible.

Dr. CLEGHORN then duly declared the meeting to be closed as the last meeting of the New Zealand Medical Association.

Dr. BOOR then moved:

That this meeting resolve itself into the first annual meeting of the New Zealand Branch of the British Medical Association.

Dr. MACKIE seconded the motion, which was carried.

*Vote of Thanks to Retiring President.*—Dr. GIBBS, who was elected Secretary *pro tem.* for the New Zealand Branch, read a letter from the retiring President, Dr. Irving, of Christchurch. A vote of thanks was passed to the retiring President.

*Installation of New President.*—Dr. GRAHAM-CAMPBELL proposed, and Dr. BOOR seconded:

That Dr. Cleghorn be installed as President.

This was carried.

*Friendly Societies.*—A long discussion ensued upon proposals with regard to the friendly societies, it being resolved that consideration of the same be referred to the Council with power to take what action they think fit.

*New Zealand Medical Journal.*—Dr. Barnett's report upon the *New Zealand Medical Journal* was read and adopted, and the thanks of the Association expressed to Dr. Barnett for his services as editor.—A vote of thanks was passed to Dr. Colquhoun for his services as editor of the *Journal* for some years anterior to Dr. Barnett taking up the duties.

*Council's Report.*—The Council's report with recommendation to the Association was then read and adopted, and the whole of the matters therein contained referred to the Council.

*Election of Officers.*—On the motion of Dr. COLLINS, seconded by Dr. COLQUHOUN, Dr. Fell, of Wellington, was nominated for the office of President-elect. The following were then elected to form the Provisional Council: Drs. Scott (Auckland), Saunders (Hawkes Bay), Collins (Wellington), Graham-Campbell (Canterbury), Colquhoun (Dunedin), and Mackie (Nelson).

*President's Address.*—In the evening the PRESIDENT delivered his inaugural address. After expressing his thanks for the honour done him, Dr. Cleghorn went on to speak of their decision to throw in their lot with the British Medical Association. It was felt on all sides that the time had arrived when they should seek the extra solidity and strength which they could gain by joining so powerful and so highly-organised an institution as the British Medical Association. No large combination could possibly be carried on without discipline and loyal adherence to authority, and they must remember that no institution had done a fractional part of what the British Medical Association had already accomplished in welding the medical men of Great Britain and her Colonies into one united, and therefore powerful body. Whilst the question of the strength to be gained by united action was before them, a subject of grave importance to the profession naturally suggested itself. This was the growing tendency of all classes of the public to combine in order to make contracts for medical attendance. It was impossible to apply commercial principles to contracts of this nature. The great friendly societies had been of enormous benefit to the wage-earning classes, and while their membership was practically confined to these classes, the doctors employed by them felt amply repaid by the fees they received. Now, however, that men with large incomes were joining these societies in order to secure medical attendance at a low rate, the profession had a legitimate grievance. He proposed a sliding scale, to be arranged in its details between the societies and the doctors somewhat as follows: If a man earning £2 a week or less was in a position to pay £1 a year for medical attendance, a man earning £200 could afford to pay a higher sum proportionately—say, £2 10s. a year, and so on. No member in the receipt of an income of more than £2 a week should be able to make a claim on the sick fund of his lodge, but should his income fall to that limit he could then do so, and at the same time reduce his subscription for medical attendance. The profession had a similar grievance in connection with the admission of patients of all positions into hospitals. Dr. Cleghorn proceeded to refer to the honour conferred on Lord Lister; to the relation of the lay press to medicine and its practitioners, especially with regard to advertising and to the Bill of the Colonial Premier for the stamping out of infectious diseases. He gave the following statistics as to tuberculosis and cancer in New Zealand: The death-rate from phthisis and other forms of tuberculosis was in 1884 11.38, in 1895 11.09 per cent. in proportion to the total death-rate. In England in 1881 it was rather higher (12.69), but there the total death-rate was double that in New Zealand; so that the actual deaths in proportion to those living would be more than double from tuberculosis in England as compared with New Zealand. As to the death-rate from cancer in New Zealand in 1886 in proportion to deaths from all causes it was 3.49 per cent., in 1895 it rose to 5.53; in 1886 the number of people living in the Colony over 55 years was 30,869, in 1896 it rose to 60,387; the total population in 1816 was 578,482, in 1896 703,360, a rise of about 20 per cent. The number of people living over 55 years of age had doubled. In 1881 the death-rate from cancer in proportion to deaths from all causes was 2.69, in 1895 it was 5.53. In 1881 the number of persons living over 55 years of age in proportion to the total population was 4.31, in 1896 it was 8.59. The increase in cancer almost coincided with the increase of people living over 55. The percentage of the population living from 40 to 55 was stationary, but it was quite possible that the increase noticed to be going after 55, probably was marked at 50. He thought they might be satisfied that the increase of cancer was only due to the fact that more people survived to the age when they might expect to die of degenerative changes, among which cancer might be included. Dr. Cleghorn concluded with a graceful reference to the unprecedentedly long reign of the Queen, and to the prosperity of the Colony.

*Vote of Thanks to President.*—Dr. COLQUHOUN proposed and

Dr. Collins seconded a hearty vote of thanks to the President for his address. This was carried with applause.—The President made a fitting reply.

# SPECIAL CORRESPONDENCE.

## PARIS.

*Medical Men as Expert Witnesses.—Revision of the French Pharmacopœia.—Tuberculosis in the French Army.—The Roentgen Rays in Medico-Legal Cases.—The Recent Medical Scandal.—The Overcrowding of the Medical Profession.—A Valuable Foreign Body in a Pig's Stomach.*

Certainly medical law as it is understood in France is not logically framed. The two following cases furnish ample proof that this assertion is correct. Dr. Méloche was called in as an expert to examine a woman accused of infanticide. He concluded from his examination that she had recently given birth to a child. The woman was imprisoned to await her trial; a few days subsequently she gave birth to a child. Dr. Méloche has been sentenced to pay £40 to the mother as indemnity for his erroneous diagnosis, leading to her imprisonment. The hardship of cases of this kind to medical practitioners is that a doctor who may be designated by the tribunal as expert cannot excuse himself, whether he has special knowledge qualifying him for the duty or not. Another practitioner has just been fined 25 francs because he refused to obey the magistrate's order to testify to the cause of death of a man found drowned. The doctor based his refusal on the following grounds: Having for some time neglected medical jurisprudence, his conscience forbade him to act as expert. The day he was summoned to act urgent professional duties prevented him from doing so. The tribunal did not enter into the reasons of the doctor's refusal.

The Minister of Public Instruction has issued a decree instituting a special Commission to prepare a new edition of the pharmaceutical *Codex*. The members of the Commission are M. Liard, Director of Superior Instruction; M. Brouardel, Dean of the Paris Medical Faculty; M. Planchon, Director of the Paris Medical Faculty; M. Adam, Professor of the Alfort Veterinary School; M. Bourquelot, member of the Pharmaceutical Society of Paris; M. Gilbert, *Agrégé* of the Paris Medical Faculty; M. Landouzy, Professor of the Paris Medical Faculty; M. Martz, Pharmaceutical Inspector of the Army Health Service; M. Moissau, Professor at the Paris Pharmaceutical School; M. Pouchet, of the Paris Medical Faculty; M. Prunier, of the Paris Pharmaceutical School; M. Roux, Subdirector of the Pasteur Institute; M. Vigier and M. Yvon, members of the Paris Pharmaceutical Society; and M. Générès, Chef of the First Bureau of the direction of Superior Instruction.

MM. Clairin, Bompard, Prache, and Gervais have sent to the General Seine Council a document concerning tuberculosis in the army, and containing propositions to combat the disease. They state that the most elementary sanitary measures are neglected in the dormitories and in the barracks generally; these shortcomings result in an increasing rate of mortality from tuberculosis. From 1863 to 1872 it was 3.20 per 1,000; it is now 7.27 per 1,000. The General Council has decided that the medical examination be made with scrupulous care, and all men attacked with or threatened by phthisis be discharged from the service; that military sanatoria be organised; that more thorough ventilation be provided in old barracks; that spittoons breast high be placed in the dormitories; that the floors be painted with oil paint; that they be washed every morning and not swept; that a military sanitation society be organised under the personal jurisdiction of the Minister, and thoroughly independent of the *Chefs de Corps*.

A French law court has recently arrived at a verdict by the help of Roentgen rays. A carter was fined £1 for injuries inflicted by his horse and waggon, resulting in a broken clavicle. The fracture, though treated and cured, left the bone in an exceedingly fragile state. The sufferer asked for £200 damages. The union of the bone was faulty. The patient's counsel was not content with producing the medical certificate, but exhibited before the eyes of the judges a photograph of his client's thorax taken by Roentgen rays. Thus the pathological features of the case were made visible to them. Damages to the amount of £60 were awarded.

It is stated that Dr. La Jarrige has been tried and found guilty under an assumed name. Though hitherto known under no other, it is not the real one. This is a reason for the case being sent to the Cour de Cassation.

Professor Brouardel, in his Presidential address at the recent general meeting of the Association of the Medical Men of the Seine Department, stated some important and interesting facts concerning the position of the medical profession. The Association was founded in 1833 by Orfila. The financial condition of the Association is most prosperous. Generous donors increase its capital; but, on the other hand, medical men become more and more necessitous; the demands for help from this Association, which are both urgent and justified, were never so numerous as at the present time. Professor Brouardel, in seeking the cause of this increasing indigence in the medical profession, arrives at the following conclusions: The victories in medical and surgical science have acted as attractions to students to take up medicine in increasing numbers. At the present time their number is double that which it was twenty years ago. During the last five years some 8,000 medical students have been scattered about in the different medical faculties. The progress of science and medicine is brought before the eyes of all; scarcely a day passes by without an article appearing in a daily paper detailing the beneficial effects of medical science in some one or other of its branches. The fathers of families who read these articles conclude that in a career so prosperous in a scientific sense their sons will reap riches and honours: they are unable to realise that the more science progresses and prospers the poorer becomes the medical profession. Illness is less frequent and cures are more rapidly made. The medical profession rejoice at these victories, and work in order to multiply them, but their impoverishing effect on the profession is both positive and painful. The increasing number of medical men brings about violent competition; thus loyalty and honour have to fight hard against the whisperings of approaching beggary. The plethora of medical men is not the only factor in the impoverishment of the medical profession. The habits of the public have changed; formerly the family doctor was the family friend. In every little ailment he was called in, now a specialist is consulted, most frequently without the intervention of the family doctor. The concierge or a tradesman suggests someone practising as a specialist, or an address or a remedy published in a paper may be used. Professor Brouardel disavows any hostility to specialists; he recognises fully their good work and the important part they play in the medical progress, but he deplores the abuse of a thing good in itself by the general public. This abuse, rendered easy by the progress of medicine and the generosity of practitioners, Professor Brouardel declares is a characteristic feature of our period. Persons in easy circumstances profit by almost gratuitous medical care given to mutual help societies. Since the hospitals have been so much improved, others beside the poor classes profit by the skilful treatment found in them, and thus dishonestly take advantage of legacies bequeathed for the benefit of the poor.

Two banknotes of forty pounds enclosed in a metal sheath were recently found in the stomach of a pig which was slaughtered immediately after it had been bought at a fair. The banknotes were in a perfectly clean condition, and the metal sheath was but very slightly oxidised by the gastric juice of the animal's stomach.

## BERLIN.

*German Surgical Congress.—The War: Medical Aid for the Belligerents.*

The German Surgical Society's 26th annual Congress met in the large hall of the Langenbeckhaus on April 21st. In opening the proceedings, the President, Professor Paul Bruns, enumerated the losses the Society had suffered through deaths during the year, and spoke in warm terms of Sir

Spencer Wells, who last year was present at the Congress as guest of honour, and whose portrait adorns the hall of meeting. The first subject of discussion was one which concerns surgery and internal medicine alike, namely, gastric ulcer. Professor v. Leube (Würzburg) introduced the subject by an address on the internal treatment, and Professor Mikulicz (Breslau) by a paper on the surgical treatment. Von Leube thinks that an operation should be resorted to only if perforation has taken place, and never as a prophylactic measure. Mikulicz, on the other hand, thinks that the earlier an operation can be done the greater is its chance of success. Of the three operations that come in question, namely, gastrectomy, resection of the pylorus, and gastro-enterostomy, Mikulicz decidedly favours the second. Leube gave the statistics of 556 cases of gastric ulcer treated by him during the last few years. Of these, 196 were males, 360 females; 74 per cent. of the cases were cured, 22 per cent. improved, 1.6 per cent. remained uncured, and about 2 per cent. (12 cases) died. These figures contrast favourably with the general statistics of gastric ulcer, as the usual number of deaths is about 12 per cent. Koerte (Berlin), Braun (Göttingen), and others took part in the discussion that ensued, and later on various other questions of abdominal surgery were discussed, and interesting preparations shown round. The second day was entirely devoted to the Roentgen rays and their application to surgery. Various speakers reported on the valuable aid to diagnosis afforded by skiagraphy in cases of vesical calculus, of fracture, of dislocation, of curvature, and other diseases of the spine, of arterio-sclerosis, etc. Army-Surgeon Dr. Stechow spoke of the use of skiagraphy in the examination of recruits, Dr. Levy-Dorn showed his stereoscopic skiagraphs, and Dr. Max Levy reported on his experiments made with the view of shortening the time of exposure. He said that the newest improvements had reduced the time to about one twenty-fifth, and that further progress was probable. His improvements are threefold: (1) The tubes are evacuated to a greater degree, so that they support a higher state of incandescence of the platina, and the radiation is about three times as active as under ordinary conditions: (2) a new kind of fluorescent screen is used, giving a greatly strengthened effect; and (3) the dry plates are treated by a new process, which renders them much more sensitive to the Roentgen rays. Dr. Levy proved his improvements undeniable by making a skiagraph of the thorax of an adult in thirty seconds, and one of the pelvis of an adult in sixty seconds, about the time used for a hand skiagraph under the usual conditions. At the afternoon sitting Professor Rehn (Frankfort) read a paper on Wounds of the Heart, recommending suture for certain cases. He showed a patient who had been brought into hospital almost moribund. Rehn laid open the heart, had found the wound in the right ventricle, and had succeeded in sewing it together, in spite of the heart's tumultuous movement. The patient had completely recovered. Prostatic hypertrophy was the third day's theme, followed by different reports on successful plastic operations. Dr. Graf, assistant of von Bergmann, gave an extremely interesting account of radical operations on malignant growths in the larynx, and showed three patients who were operated on eleven, seven, and five years ago respectively, who have had no relapse hitherto, and whose speech is hoarse and rough, but distinctly audible. Professor Kroenlein (Zurich) spoke of similar operations for cancer of the pharynx. Towards the close of the Congress the President, Professor Gurlt gave his yearly statistical report on deaths under narcosis. For 1895 and 1896 he had received 95 reports on a total of 58,769 narcoses. There were 32 deaths—that is, 1 in 1,836. Chloroform was used in 34,401 cases, with 29 deaths; ether in 13,008, with 3 deaths; chloroform-ether in 4,127 cases (no deaths); Billroth's mixture in 969 cases (no deaths); and ethyl-bromide in 1,489 cases (no deaths).

The Crown Princess Sophie of Greece, who is a sister of the German Emperor, on the outbreak of hostilities wrote to the German Red Cross Central Committee that ambulance assistance would be gladly accepted in Greece. Accordingly two surgeons have been sent out by the German society, accompanied by two male nurses, five sisters of the Victoria House, and all surgical appliances and nursing material for about a hundred cases. The German Committee has offered similar assistance to Turkey.

## ROME.

*An Epidemic of Psittacosis in Genoa: Bacteriological and Clinical History of the Disease.*

AN outbreak of psittacosis has lately occurred in Genoa, through the importation of parrots from South America. This epidemic has been discussed by Professor Lucatello from the bacteriological and anatomico-pathological, and by Professor Maragliano from the clinical points of view. The former stated that the historical epoch of psittacosis dates from 1891, when, in France, about 50 cases of malignant pneumonia occurred contemporaneously with the deaths of diseased parrots lately introduced from America. Dujardin-Beaumetz was the first to suspect a possible relation between the disease in man and that of the parrots, and the Paris Officer of Hygiene was subsequently able to recognise it in successive cases. After a year, in diseased parrots, Nocard isolated from the medulla of the bones a bacillus which had the following characteristics: It was large, very motile, grew in all the ordinary culture media, did not liquefy gelantine nor coagulate milk, did not develop indol, nor grow where the typhoid bacillus had developed—characteristics which all approach those of the B. coli so much that Gilbert and Nocard thought that the bacillus of Escherich had found a suitable medium in the parrot to become more virulent. A difference between the B. coli and the B. of psittacosis was the high virulence of the latter, which rapidly killed mice, guinea-pigs, rabbits, and fowls: in man the bacillus was only observed once in the heart by Gilbert last year, whilst other observers, including Malenchini and Palamidessi in the Florence epidemic of 1895 had negative results. In favour of Nocard's discovery is the fact that the feathers bathed with the culture and placed in healthy parrots' cages were capable of infecting the parrots. The symptoms of the disease in the parrot were depression, coldness, intense diarrhœa, death in two days, the limit of forty-eight hours being almost mathematical; in man there is an incubation of from eight to twelve days, headache, tiredness, vague pains, high continuous fever, from 39° to 40° C., vomiting, constipation or diarrhœa, delirium. As to the pulmonary localisation, it almost always exists, and may take all gradations, from bronchitis to massive pneumonia, but the prevailing form is that of lobular pneumonia. Its duration is from eight to ten days. The mortality is 75 per cent. at the beginning of the epidemic; there is a long and grave convalescence; children are almost immune; the old instead are most predisposed. The *post-mortem* examination of two cases by Professor Lucatello showed a general infection prevailing in the lungs, in which one observed the most varied acute alterations of lobular pneumonia; this infection did not exempt a single organ; there was incipient dissolution of the blood, the spleen was so softened that it could not be extended; Banti, of Florence, observed a similar condition. The heart was flaccid and yellowish, the liver undergoing fatty degeneration, kidneys engorged and softened, with rapidly-developing putrefaction. As to the microorganisms in the lungs many diplococci and streptococci were found, but no bacillus like that of Nocard. Professor Lucatello considers the intestinal discharges as the most common medium of infection from the parrot to man, since the former suffers from violent enteritis, the fæces contaminate the feathers, and the latter the beak, thus producing the infection in those individuals who lavish caresses on the birds.

Professor Maragliano reports the case of a woman who was admitted into his clinic on February 21st suffering from the disease. She was taken on the 16th with headache; on the 17th she had severe rigors, cough, rusty expectoration, stabbing pains in the left side. When she entered the clinic she had foci of lobular pneumonia confluent at the base of the left lung, from which it was diffused upwards. And was also present in the bone of the right lung. The temperature, which at first was elevated, fell till the fourteenth day of the disease, and described a curve similar to that of typhoid. Nothing abnormal was observed in the blood nor in the urine. This case belonged to the less malignant forms of psittacosis, inasmuch as in the family where the parrot was, four persons, including the patient, were taken ill without

any death, and in the same stair of the palace another person died of the disease, whilst another parrot had caused four attacks with three deaths. These figures are sufficient to show that this disease is of great importance, and deserves to be studied in every case which presents itself. Professor Maragliano described the results of Nocard and Lucatello above described, and he thought that the true cause of the clinical form were the diplococci and streptococci, whilst the pathogenic agent transmitted by the parrot prepared the ground and rendered their toxins more potent, and the final effect caused by the poisons of both infections more deleterious on the organism. As to the treatment, Maragliano insists on the use of digitalis, because it is directed to the destruction of the toxins of the diplococcus, and in the use of quinine for combating the psittacosic infection, because it is the best tolerated and efficacious agent we possess with antiseptic properties for internal use.

## CHICAGO.

*Extension of the Cook County Hospital.—Affiliation of the College of Physicians and Surgeons with the University of Illinois.—The Moscow Congress.*

AN improvement, which has long been needed at the large Cook County Hospital, is about to be added, namely, an annexe to the institution, which will be a receiving ward and quarters for the resident staff. This erection of a distinct and practically separate building as a receiving ward is unique, it being understood that no other hospital in this county is so supplied. The structure will be completed during the warm season. The plans provide for an ambulance room, into which an ambulance or patrol wagon can drive and patients be removed therefrom without exposure to drafts or a chilling temperature. This, with the receiving clerk's office, examining rooms for male and female cases, and an emergency room for first and immediate assistance, are arranged upon the ground floor. The second and third floors are divided to accommodate the hospital staff on duty. The top floor is given up to four large operating rooms, with all glass overhead, an anæsthetising room, a nurse's waiting room, and small wards intended for the temporary accommodation of such patients as cannot immediately be rolled into the general wards of the hospital. On both the top and ground floors are sterilising rooms for water and surgical instruments and dressings, and all the operating rooms have hot and cold sterilised water, the taps being operated by foot pressure. The entire building is to be strictly fireproof, the doors being metal and the floors mosaic. Other arrangements are steam heating, open plumbing, an independent pumping system, an electric plant for 300 lights, and an elevator of large size, reaching all the floors.

Affiliation of the College of Physicians and Surgeons with the University of Illinois is now definitely announced. Negotiations have been pending for some time, and the carrying out of the plan was at one time regarded as doubtful owing to various political reasons. It is given out that the present faculty is to be retained for the nonce, although unquestionably a reorganisation will take place later. The advantage of this affiliation seems to be about equally divided between the two institutions. On the one hand the College of Physicians and Surgeons has long been the only one of the three large schools not having a university connection, which cut it off from a certain dignity, paternal care, and direct class supply. On the other hand, the University of Illinois has long been the only one of several universities not having a medical department to swell its total number of students, to give a Chicago footing, and to be of political significance.

Some time ago it did not look as if many members of the profession from Chicago and vicinity would attend the Moscow Congress. Now, however, a good-sized party has been organised to make a tour of leading European cities and points of interest, Moscow being the principal objective point. Among our leading practitioners who are taking this up are Professors D. R. Brower, Nicholas Senn, J. B. Murphy, D. A. K. Steele, and Drs. C. A. Wood, H. N. Moyer, and E. S. Talbot. It is expected that a party of about fifty will leave here, the date set being July 3rd. They are to be cared for and conducted by Cook's Agency, and the itinerary which has been adopted provides for a route covering, from embarkation to return, New York, Gibraltar, Naples, Rome, Florence, Venice, Milan, Como, Menaggio, Lugano, Lucerne, Zurich, Munich, Linz, the Danube, Vienna, Warsaw, Moscow, St. Petersburg, Helsingfors, Abo, Stockholm, Christiania, Gothenburg, Copenhagen, Hamburg, Bremen, and back to New York. The tour will extend over eighty-four days.

## HONG KONG.

*The Epidemic of Bubonic Plague at Hong Kong in 1896; the Pathology of the Disease.*

A COMPREHENSIVE report on the epidemic of bubonic plague at Hong Kong in 1896 has just been issued by Staff-Surgeon Wilm, of the Imperial German Navy, who, possessing special qualifications, was by request of the Government of Hong Kong, sent to Hong Kong by the Admiral of the German Asiatic Squadron to take part in the measures for the suppression of the epidemic, and to investigate the origin and the mode of dissemination of the disease. He was put in charge of the Kennedy Town Plague Hospital on March 14th, and of the bacteriological laboratory established there in May; and between these dates and the end of August treated 300 cases of plague, and examined the bodies of 867 persons who had died of plague.

This extensive experience he has embodied in an elaborate report, in which he describes the usual course of the disease, its pathological anatomy, the microscopical and bacteriological appearances in plague, with special reference to the plague bacillus, the incubation, diagnosis, prognosis, treatment, and prophylaxis of plague, and the origin and mode of dissemination of the plague at Hong Kong. The course of the disease is now well known, and need not be entered into in detail.

The following are the more notable facts established by Dr. Wilm's examination of the 867 bodies that came under his observation. The cerebral membranes were always congested and the sinuses filled with dark red blood, while the pia mater and brain substances were œdematous and showed frequent small hæmorrhages. The lungs were usually much congested and œdematous, especially the lower lobes. The serous membranes frequently were the seat of petechiæ or ecchymoses. The spleen was invariably enlarged to two or four times its normal size, and both liver and kidneys usually showed parenchymatous changes, with small hæmorrhages under their capsules and into the ducts leading from them. The stomach was often contracted, usually hyperæmic, and with petechiæ and erosions of the mucous membrane. The most constant and characteristic feature of the disease is the enlargement of the lymphatic glands throughout the body, the morbid change being usually more extensive in the external than in the internal glands. The buboes consisted of the inflamed glands and of surrounding connective tissue, œdematous or infiltrated with blood. Small purulent foci were frequently to be seen in the glands, and more extensive suppuration occasionally. Vascular and lymphatic trunks in the neighbourhood of affected glands were much dilated and inflamed. The mesenteric and retroperitoneal glands were more or less affected in nearly all cases, and the solitary follicles of the intestine were in nearly all cases more or less swollen, especially in the lower part of the small intestine. Peyer's patches were frequently denuded of epithelium, and were often the seat of ulcers with undermined walls but free from sloughs.

Dr. Wilm's researches into the microscopic and bacteriological appearances in bubonic plague confirm the belief that the bacillus discovered by Kitasato and Yersin during the 1894 epidemic is the cause of the disease. By microscopical examination he found it in great numbers in the spleen and the buboes; in small numbers in the lymph glands, in the lungs, heart, liver, and kidneys, in the walls of the stomach and intestine, and in the blood, frequently in the interior of the white blood corpuscles. He found it also in the pus from freshly-opened buboes, in the blood from punctured buboes, in the expectoration, in the saliva, in the fæces, and in the urine. It is a short, thick rod with rounded ends, about 1 $\mu$ in length and 0.3 $\mu$ in breadth. It is non-motile. It is

stained by all basic aniline dyes, but is not stained by Gram's method. In simple stained cover-glass preparations of the blood and the organs, the ends of the bacillus stain much more deeply than the middle, though often the ends remain unstained, giving the appearance of a diplococcus. Sometimes it is surrounded by a clear area. It thrives better on nutritive media containing glycerine than on those made without this substance. Spore formation was never observed. On gelatine plates it grows without liquefying the medium, and produces in forty-eight hours small, round, greyish-white colonies. On agar plates similar colonies of the size of a pin's head develop in twenty-four hours, and by reflected light show a bluish sheen with iridescent borders.

Experiments on the inoculability of bubonic plague were made on all kinds of animals, but with fragments of the organs and with pure cultures of the bacillus. The most susceptible to inoculation were rats and house mice, which died in great numbers during the epidemic; next in order of susceptibility came white mice, guinea-pigs, rabbits, pigs, monkeys, and fowls. Cats became feverish after inoculation, but did not die. Pigeons were non-inoculable. Dr. Wilm describes at considerable length the results of his culture experiments. Cultures of the third and fourth generations proved much less virulent than those of the first and second generations. Mice, guinea-pigs, and rabbits, when inoculated with cultures attenuated either by cultivation through several generations or by heat, were gradually rendered immune against inoculation with virulent cultures.

The diagnosis of plague is based upon the clinical characteristics and morbid appearances described, and upon the demonstration of the plague bacillus. In the absence of bacteriological methods of diagnosis, it is liable to confusion with pernicious malarial fevers, with malignant typhus of rapid course, with splenic fever, and with other varieties of adenitis. For purposes of diagnosis the bacillus may conveniently be looked for in a drop of blood taken from the finger, or, better, from a bubo, or in the freshly passed urine.

Treatment described was merely prophylactic and symptomatic. The mode of dissemination of plague, with special reference to Hong Kong, is next discussed at considerable length, and the author arrives at the conclusion that the bacillus gains entrance to the body either through wounds of the skin, or through the mucous membrane of the alimentary tract. It is eliminated from the body in the pus from buboes, in the fæces, the urine, and the expectoration; it thrives in damp, dirty places, and is disseminated by articles that have come into contact with patients suffering from the disease; and it is very sensitive to desiccation.

Finally, preventive measures against plague, as against cholera, consist in cleansing and purifying towns and rivers according to general hygienic principles; in ordinary precautions against infection, by bodily cleanliness, and by the observance of a strictly healthy manner of life, especially in regard to articles of food and drink.

## MELBOURNE.

*The Prevention of Cattle Tick.—The Adelaide Hospital: Migration of Students to Melbourne.—A Bacteriological Department in the Hobart Hospital.—The Treatment of Tuberculosis in Queensland.—Quarantine and Small-pox.*

Dr. McDonald, of Queensland, claims to have found an effective means of preventing cattle tick by inoculation. He takes the blood of an affected animal, and, having filtered it through a Pasteurised filter, he injects it into the animal. He prefers this procedure to the injection of serum which has not been filtered. The tick pest still causes immense havoc among cattle in Queensland, and great loss to dairymen and pasturalists, and the other Colonies take every precaution before allowing Queensland cattle or hides to cross the borders.

The unsettled condition of affairs at the Adelaide Hospital, which seem to be getting worse, has been the cause of an exodus of medical students from Adelaide to Melbourne. Nine fifth-year, six fourth-year students, and one third-year man have come over to attend the course at the Melbourne Hospital. A basis of transference was arranged by the Melbourne University, so that the students, among whom were three ladies, were at once able to proceed with their studies.

A bacteriological department is to be attached to the Hobart Hospital. The Government having yielded at last to the frequent petitions of the staff, have procured a really first-class outfit. Visitors to this charming health resort hope that this is the first step towards obtaining improved sanitary conditions.

In the discussion on the paper on Southern Queensland as a Climatic Resort for Consumptives, read by Dr. Hardie before the Medical Society of Queensland, Dr. Turner said that tuberculous disease in any form was rare among Brisbane children, but not so rare among young native adults. Dr. Love recommended Herberton in the north as a good locality, having high altitude and moderate range of temperature. Dr. Francis preferred Dalby. Toowoomba he believed to be unsuitable. The Society decided to petition the Government to establish a hospital for consumptives.

We possess a very rigid and strict system of quarantine, so complete and impregnable that it seemed a matter of impossibility for an infectious germ to get through. But we were disillusionised when it was reported that the steamship *Nineveh* had entered the port with small-pox on board. The Chairman of the Board of Health acted both promptly and decisively, and within less than twenty-four hours the ship and every individual who, directly or indirectly, had come into contact with the vessel, was persuaded to take up his or her residence at the picturesque quarantine station at the Heads. There has been no further case, and all will be shortly released. There has not been a single instance of small-pox in the colony for seven years. This outbreak has shown the necessity for placing a medical expert in the detection of contagious diseases at the Heads. The Board proposes that the salary shall be £600 a year. The responsibilities are great, and special knowledge of all forms of infectious disease will be deemed necessary.

## BIRMINGHAM.

*Hydrophobia following the Bite of a Cat.—The City Hospital.*

An inquest was held by the new city coroner last week on a case of hydrophobia following the bite of a cat. A journeyman painter was on January 30th last severely bitten in the hand by a cat. The wound was treated at one of the local hospitals and healed. No symptoms occurred until April 14th, when he complained of difficulty in swallowing and an aversion to all kinds of fluids. He was admitted into the Queen's Hospital with well marked symptoms of hydrophobia. He continued to have extremely violent spasms until his death from cardiac failure on April 16th. The animal, after biting this patient, attacked another man named Power, and severely injured his hand. It was afterwards destroyed. Power has been sent to the Pasteur Institute. Only a few weeks ago a rabid dog bit a man at Perry Barr, a suburb of Birmingham. The dog was promptly destroyed, and the patient sent to the Pasteur Institute. The muzzling order, which has not up to the present been in force in Birmingham, is shortly to be put in force.

Some extensive building operations, lasting over two years, have now been completed at the City Infectious Hospital. The new buildings comprise: 1. Two double-storeyed pavilions, each containing four large wards. 2. An isolation pavilion, containing eight small wards. 3. Administrative block, with quarters for the staff. 4. Steam laundry, boiler house, etc.

1. Each of the new pavilions consists of two storeys, identical in arrangement and detail; being self-contained as regards their offices, each storey can, if desired, be worked quite separately. Access to the upper storey is gained by a fireproof staircase, terminating below in the open air, and thus effectually preventing any aërial communication between the two storeys. The ground plan consists of two wards separated by the nurses' "duty room," and a capacious entrance hall. The bathrooms, waterclosets, and slop sinks are placed in turrets at the ends of the wards, whilst the

pantries, linen stores, coal closets, etc., together with an additional bathroom, are placed in an annexe opposite the middle of the pavilion. This also contains the entrance and staircase. Each ward measures 63 by 27 by 12 feet, and accommodates from 12 to 16 patients, according as it is used for acute or convalescent cases.

2. The isolation pavilion is also a double-storeyed building, and is composed of two halves facing in opposite directions after the Local Government Board model. Each half consists of two floors, connected by an outside iron staircase, and each floor comprises a suite of two small wards (to contain one or two beds each) separated by a nurses' duty room, with water closet and slop sink in a detached turret, and a movable bath on the verandah outside.

3. The administrative block is situated next the entrance gate, and faces upon the road. Besides the kitchens, steward's and matron's stores, and offices and dispensary, it contains quarters for the entire staff, there being 100 bedrooms, besides dining, sitting, and recreation rooms.

4. The laundry block comprises a commodious steam laundry, fitted with modern labour-saving appliances, the staff washing being carried on in separate rooms from the patients' washing, but with a common ironing and drying room. This block also contains the boiler house, engine room and engineer's shop, and a small "destructor" for cremating infectious or offensive rubbish.

There are no corridors between the various buildings, communication being by means of macadamised roads and footpaths. A footbridge is now being built over the canal separating the Lodge Road Hospital from the branch institution (formerly the small-pox hospital) in Western Road. When this is completed the two hospitals will be worked as one institution, and together they will provide accommodation for 400 cases.

# CORRESPONDENCE.

## CHLOROFORM AND THE HEART.

SIR,—In your leading article in the BRITISH MEDICAL JOURNAL of April 24th, you draw attention to the paper by Mr. Leonard Hill on the action of chloroform on the circulation. It appears to me that an ordinary reader on looking at your article on Mr. Hill's paper would be under the impression that some completely new view had been brought forward of which the members of the Hyderabad Commission were completely ignorant, and which had not been taken by them into full account before framing their conclusions. I think also that no reader either of your article or Mr. Hill's paper would gather that the Hyderabad Commission made a number of experiments on the effect of gravity upon the circulation during chloroform anæsthesia.

I am unfortunately too much pressed by work which I am obliged to do within a limited time to allow me to write at present any lengthened article on this subject, more especially as it would be necessarily of a controversial nature, and would involve a good deal of discussion. I have already, however, discussed at some length paralysis of the vessels as one of the causes of death during chloroform anæsthesia in the BRITISH MEDICAL JOURNAL of December 4th, 1875, and if anyone will take the trouble to look at the report of the Hyderabad Commission, they will find numerous tracings showing the effect of change of position from the horizontal to the upright or inverse posture.

In a question like this it is very important that people should not come to a hasty decision, and before discarding the conclusions of the Hyderabad Commission as valueless I trust they will take the trouble to study the report of that Commission for themselves, as well as to glance at the papers to which I have given references. Another important paper is that of Bowditch and Mainot on The Effect of Anæsthesia on the Vasomotor Centres, *Boston Medical and Surgical Journal*, May 21st, 1874.—I am, etc.,

Stratford Place, W., April 28th. T. LAUDER BRUNTON.

MR. PERCY DUNN will deliver a lecture on Ophthalmic Science during the Queen's Reign, at the West London Hospital, on May 12th, at 5 P.M.

## CINNAMON IN THE TREATMENT OF SCARLET FEVER.

SIR,—In the article on Scarlet Fever, in the second volume of Professor Clifford Allbutt's *System of Medicine*, recently reviewed in the BRITISH MEDICAL JOURNAL, at page 173, while dealing with the complications of that disease, the writer says:

> The treatment of the recognised complications of scarlet fever is important. During recent months, while testing upon a series of cases the value of decoction of cinnamon—for which drug an abortive action had been claimed by Dr. Carne Ross in cases which could be brought under treatment at a sufficiently early date—I was surprised to find a considerable reduction in the incidence of some of the more common complications of the disease. Indeed in a series of 200 consecutive cases which were put under this treatment within twenty-four hours of the appearance of the rash, the incidence of adenitis, rheumatism, nephritis, and albuminuria was found to be about 50 per cent. below the average. The general death-rate, however, showed no reduction.

Whether rightly or wrongly, the complications of scarlet fever are greatly dreaded by the public at large, and a reduction of 50 per cent. in the incidence of these complications, following on the administration of cinnamon, is so fairly satisfactory a result, as I hope to justify me in asking you to allow me space in your columns to describe my method of treatment; and also to state, as briefly as I can, the general theory on which that treatment is based. Vaccination, which attempts to sterilise a patient against some disease by itself giving the disease in some altered form, suggested to my mind some years ago that it might also perhaps be possible, if you got a patient very early in any disease of microbic origin—so early that the microbe had not had time to lay down a large cellar of ptomaines, if I may be allowed such an expression—that at this period of the disease it might be possible so to saturate the patient with some drug that had no selective action, and was absolutely non-poisonous, and could therefore be employed in enormous quantities, that he should practically become tanned or sterilised; and that if this could be effected, then possibly the microbe would cease to flourish, and if the microbe ceased to flourish, the disease might in consequence run a mild course. It seemed to me that, if successful, this method would have this advantage over inoculation, that it would be absolutely devoid of danger, and would possibly be equally applicable to any microbic disease.

It is unnecessary to explain here why I elected to employ cinnamon, or why I took twenty-four hours from the onset of a disease as a time limit, and determined not to experiment on any cases where illness had existed for a longer period.

Having experimented on a certain number of cases of influenza, measles, and scarlet fever, and my results seeming to fulfil my expectations, I three years ago laid my views and the results I seemed to have obtained before the late Dr. John Syer Bristowe, whom I had the happiness and privilege to number in the list of my personal friends. Dr. Bristowe, in reply, informed me that, as far as he was aware, the line of inquiry I was pursuing was entirely new, and that the results I appeared to have attained, he considered, demanded investigation, and that he had written to Dr. Caiger requesting him to carry out a series of experiments, to test the value of my work, at Stockwell Fever Hospital. This Dr. Caiger has done, and the result is stated above; and I desire to take this opportunity of expressing my deep sense of the obligation I am under to Dr. Caiger for his kindness in thus carrying out Dr. Bristowe's suggestion.

With regard to these experiments, however, I would point out that the conditions met with at a fever hospital make it impossible to carry out the treatment perfectly, for patients rarely come under observation at such institutions till they have been ill for a good many hours; and, though a reduction of 50 per cent. in the incidence of the complications of scarlet fever above named is a satisfactory result, still, judging from cases of scarlet treated within the hours from the onset of disease, and also judging, by analogy, from what I have seen in cases of influenza treated within five hours from the onset of the disease as compared with those treated where twenty-four hours from the onset had elapsed, I believe it will be found that in camps, or in schools where careful supervision obtains, and where patients consequently might be subjected to treatment almost immediately after the onset of the first rigor; that a much better result than a reduction

of 50 per cent. in the incidence of adenitis, rheumatism, nephritis, and albuminuria might be looked for, though that reduction for the present is good enough as it stands.

I elect to stand or fall by the results of my treatment in scarlet fever, and, therefore, I refrain from speaking of the satisfactory results I seemed to have obtained in the treatment, by cinnamon, of measles and influenza; but with regard to the latter disease, I would merely say that during the last four years, I have never had occasion to pay more than four visits to any patient suffering from influenza who was subjected to treatment within twenty hours from the onset of the disease, and in not a single case have any complications occurred. The treatment is perfectly simple. I give half an ounce of decoction of cinnamon every hour for twenty-four hours; at the expiration of this period the same dose is repeated every two hours till the temperature falls to normal: when the temperature has fallen to normal, the same dose is repeated four times daily for three days.

If there is any sore throat, gargle or swab the throat every two or three hours with decoction of cinnamon; in children the dose to be reduced according to age, but the same method of administration to be observed.

Messrs. Woolley and Sons, of Manchester, and Mr. Horsey, Chichester Street, Upper Westbourne Terrace, W., have for some years kept an excellent and identical preparation of decoction of cinnamon: but, as I would not like anyone to suppose that I have any property in its sale, I here describe the method of its preparation till some better method is suggested: A pound of Ceylon stick cinnamon in a sufficiency of water *in vacuo*, to be raised to 180° and kept there for a time, to be then slowly boiled till the fluid is reduced to a pint and a quarter; pour off without straining; 10 per cent. of glycerine being added, the preparation will keep for months.—I am, etc.,

J. Carne Ross, M.D.Edin.,
Physician to Ancoats Hospital.

Manchester, April 19th.

## ALOPECIA AREATA AND TINEA TONSURANS.

Sir,—The article in the British Medical Journal of April 24th, by Dr. Wickham, on the supposed Microbic Origin of Alopecia, and the possible cure of tinea tonsurans by producing an artificial alopecia from the injection of the toxin of the specific organism, is of importance.

If this be possible, it will be fully following out the views I have held for years, namely, that ringworm of the scalp is rarely cured by the direct action of a parasiticide on the fungus *in situ*, but by causing some alteration in the nutrition of the hairs, so that they come out, and thus a temporary bare place, or an "artificial alopecia," is produced.

In 1893 I gave the opinions I then held, and which I still hold, concerning the treatment for tinea tonsurans, at the Dermatological Section, at the annual meeting of the Association, in the following words:

"It is not new parasiticides which are required, but some reliable means of getting them into contact with the deeply-seated fungus. Therefore, my chief experiments the last few years have been with different vehicles; but, so far, I have not been able to find any ointment base, or liquid, that can be relied on to penetrate to the bottom of the hair follicles and hairs, and thus to kill the fungus *in situ*.

"For some time I have been convinced that ringworm is rarely eradicated by getting the so-called 'parasiticides' into contact with the fungus: but, while their use is essential to prevent the spread of the disease, yet, if cases are cured, it is almost always by producing some alteration in the nutritive condition of the skin, so that the diseased hairs come out, leaving an 'artificial alopecia': or by causing irritation and exudation around and in the hair follicles, so that the invaded hairs, together with the fungus, are thrown off, and a temporary bare place is left.

"My chief reason for this assertion is the fact that hairs once invaded by the trichophyton tonsurans do not recover under the use of parasiticides, and thus grow up again in a healthy condition, but the diseased hairs invariably come out if the case be cured, and new downy hairs replace them, which are not invaded by the ringworm fungus.

"But there is no doubt in my mind that if some more simple yet certain plan could be discovered for causing the diseased hairs to fall out, forming an artificial and temporary alopecia, it would be a great success for eradicating this most troublesome and obstinate disease."

The above quotation, published in the Journal,[1] shows that Dr. Wickham's statement that, "after trying in succession all the remedies devised for its cure, Sabouraud came to the conclusion that no antiseptic treatment is absolutely efficacious in the case of tinea fungus which has invaded the hair as far as the roots," is hardly correct, as that conclusion has been come to for many years. But Dr. Sabouraud's suggestion that a toxin may possibly be prepared, which, when injected under the skin, will cause a temporary patch of alopecia areta, and tinea tonsurans may thus be easily cured, is novel, and we must wait to see if his prediction will be verified. I am afraid it will not, as I do not believe in the new view that ordinary alopecia areata is a contagious disease, and solely due to any special micro-organisms. Of course, micro-organisms may easily be found on the skin, but if they are the same as those seen in seborrhœic plugs, and alopecia areata is due simply to their toxin, why is not alopecia areata commonly seen in those who suffer from seborrhœa? Then, surely, it would be a very common disease, and possibly few people would have any hair left. Again, no seborrhœa, as a rule, is seen in ordinary alopecia areata.

It would be most interesting to know if other observers who have been experimenting with micro-organisms and their toxins have seen the hair shed in rabbits after injections have been made.

I have many times called attention to the fact that a temporary alopecia and the cure of tinea tonsurans may at times be produced by constantly soaking the parts with boric acid, ether, and spirit lotion, as the hairs may fall out and leave temporary bare places, which are indistinguishable from patches of ordinary alopecia areata, even having the typical club-shaped stumps.[2]

I have also seen similar patches form under the action of gas water, and exhibited a case at the Dermatological Society in 1895.[3] Therefore, bald places similar to alopecia areata may be caused by lotions removing the fatty matter, etc., even under the direct action of parasiticides. Such cannot be due to the toxin of any micro-organisms, which would hardly thrive under such treatment. Again, if alopecia areata is due to the specific action of a micro-organism, why are the patches so often symmetrical?

I hope shortly to publish the full notes of some of these cases of artificial alopecia coming on during the treatment of ringworm in a new edition of my book. As regards the treatment of tinea tonsurans, for small places I still frequently employ croton oil, as I advised in 1880, and by producing exudation into the hair follicles and loosening of the diseased hairs a temporary alopecia is caused and the disease is cured.—I am, etc.,

H. Aldersmith.

Christ's Hospital, April 24th.

## IRISH DISPENSARY DOCTORS.

Sir,—I read with pleasure Mr. Leeper's letter on the above subject, and it is refreshing to find that in spite of many failures the question is not yet lost sight of.

Mr. Leeper suggests that our efforts should be directed towards attaining that examination should be the sole mode of entrance to the service, and that that gained the other abuses will disappear. I quite agree with him as to the necessity of a competitive examination, but I should like to know what steps should be taken to gain it, what are the chances of success, how are our other abuses to disappear, and if conceded will not the number of candidates be still the same as now, leaving untouched the argument made against us that the supply is in excess of the demand.

Sir, we have hitherto trusted to successive Chief Secretaries granting a Parliamentary Committee, but our repeated failures must have made evident that we must either abandon the cause as hopeless or adopt some other plan. Irishmen well know that Chief Secretaries are in the hands of the permanent officials, who are notoriously a class who gain this position by their agility in Castle backstairs climbing, or in their skill at political wirepulling. Their vision is limited by

[1] British Medical Journal, August 26th, 1893.
[2] See *Diagnosis and Treatment of Ringworm*, p. 67, 1885.
[3] *Brit. Jour. of Derm.*, April, 1895.

the horizon of their narrow official duties. And Mr. Balfour's rebuff to the medical profession in Ireland too plainly tells how puerile it is to expect his mentors to initiate anything that would limit their own power.

As we are all painfully aware, our profession is much overcrowded, and it is from that cause rather than from any supposed attractiveness of the position that vacancies are never in want of candidates. I fear we must trust to the remote chance of the General Medical Council waking up from their long sleep of indifference to the wants of the profession.

To its constitution of over-representation of their licensing bodies, whose sole or chief interest is to attract students, must the evils of our practice of dispensary doctors be attributed. The abuse of hospitals, the running of special ones, nursing, touting, etc., and the too open surgeries in country towns, all point to a dangerously high tension, and the worst of it is that dispensary doctors are refused redress on account of it.

The General Medical Council will have to raise the standard of the preliminary examination to that required for a graduation in Arts. This, with an additional year of medical study, will at least lessen the evil of our position.

It is true this is but a gloomy look-out for the present occupants of Poor-law medical appointments, but if they want a more immediate remedy they can have it. When I look back on that fierce unrelenting struggle, waged for years by the conflicting agrarian interests, and its deadly passion, its fatal resoluteness, its readiness to do and dare on the one side and the other, I often wonder, quite apart from any consideration of the right or wrong of a question which was purely material, whether dispensary doctors are of the same race as those men to whom obstacles were but as nerve tonics.

It is not much use saying it now, but I have often felt that the teachers at the medical schools might have assisted us by recognising that they had another duty besides teaching professional subjects, and that they should have advised once and often their students to leave dispensary appointments severely alone, that a false notion was prevalent of their value, and that all should procure Mr. Thomson's digest of the subject.

To-day I have seen an extract in which was stated that legislation was about to be introduced to improve the position of deputy county surveyors. Happily for them they are the servants of the grand juries; there is hope, it seems, for all, but none for us, for we are the slaves of Castle autocrats. Perhaps it is expecting too superfine virtue that, if rumour be true, if certain titles are to be offered to some leading Dublin practitioners, they should be declined by them as a just and praiseworthy protest against the insult to them and their brethren by Mr. Balfour's refusal to regard worthy of an inquiry that which a united profession demanded.

It is by their professional work and their efforts on behalf of their brethren that their claim for remembrance will rest, and not on the feeble glamour of penny-whistle titles.—I am, etc.,

Ballinhassig, Cork, April 26th. JAMES KEATING.

## SUBJECTIVE COLOUR PHENOMENA.

SIR,—I do not dispute the feasibility of Mr. Shelford Bidwell's theory of these phenomena, but I think that the simpler mechanical theory embodied in my letter appearing on April 10th will account for them.

Mr. Bidwell puts forward an experiment of his to disprove my explanation. I made a black and white top with a sector cut away according to directions on page 478, and spun it under a bright lamp on some of your heavy-type advertisements. When turning in one direction the black type appears red, and in the opposite direction white type appears blue; while the immediately surrounding type appears normal black and white. I wish to point out that this blackness and whiteness is not continuous, but is intermittently just as red and blue as the area covered by the top. I could not state the reasoning of this more clearly than in the last two paragraphs of my letter on page 946, but to demonstrate it experimentally I attached a black curved linear object to the disc outside its circumference opposite the cut out sector; on rotating the disc it shows up red. The object, if continually in view, must travel in order to render apparent rapid variations in its colour. The orange of the outer region is so diluted with black as to be imperceptible, and it is further discounted by contrast with the brilliant appearance of the eclipsed region.

There is another point which modifies the conscious appreciation of the idea formed of a phenomenon, namely, the mental attitude of expectancy; we see minute details that we expect, while much more obvious appearances are unnoticed. On turning one's attention to a page of print strongly illuminated one can see for an instant the margin of every detail of each letter fringed with bright orange or blue. Mr. Bidwell speaks of this in his article in *Nature*, February 28th.

I should like to examine other experiments which seem to strain the validity of this theory.—I am, etc.,

Cardiff, April 20th. WALTER HURST.

# OBITUARY.

## ROBERT HOPWOOD, M.R.C.S.

IT is with regret that we have to announce the death of Robert Hopwood, M.R.C.S., of Stalybridge, at the age of 82. Dr. Hopwood studied at University College and at Manchester, becoming M.R.C.S. in 1845. He was connected with all the schemes for the improvement of the town from the date of its incorporation in 1857 until failing health caused his retirement. He was the originator of the water supply scheme for Ashton, Stalybridge, and Dukinfield, and was the Mayor during the troublous times of the cotton famine. He was chairman for fifteen years of the School Board, one of the founders, and eventually President, of the Mechanics' Institute, one of the Committee, Medical Officer and then President of the District Infirmary, one of the first volunteers and Surgeon-Major of the 4th Volunteer Battalion Cheshire Regiment. He was also President of the local Field Naturalists' Society, and a geologist and histologist. In early life he was an artist of some promise. He was a member of the Cheshire County Council and a magistrate for the county.

DR. JAMES METCALFE APPLETON died at his residence in South Kensington on April 18th at the age of 82 years. Born in Yorkshire of an old yeoman family, he commenced the study of medicine under his father, Mr. Richard Appleton, surgeon, of Stokeley, attended medical classes at Leeds, and went from thence to Edinburgh. He proceeded to Paris and attended the clinics of the French professors of that day. He returned to England, and after obtaining the diploma of M.R.C.S., he proceeded to Italy, continued his studies at Florence, and graduated at Pisa in 1838.

THE death is announced of Mr. LOUIS PASCAL CASELLA, at the age of 86. Mr. Casella took an active interest in the introduction into practical use of the clinical thermometer. In the preparation of the earliest instruments he worked in collaboration with Dr., after Sir, William Aitken. Mr. Casella, who was of Italian parentage, was born and educated in Scotland.

DR. CHARLES HIGATT TENCH, of Reading, died suddenly on April 9th from an apoplectic fit. The deceased, who was 40 years of age, was the second son of the late Mr. Samuel Tench, J.P., of Ballyhealy House, co. Wexford. He was educated at Taunton, co. Wexford, and Trinity College, Dublin. Dr. Tench qualified L.R.C.S.I. and B.A.Dub. in 1877 and M.D.Dub. in 1882. He went to Reading about fifteen years ago. The funeral was attended by a large number of friends.

THE death took place on April 17th of Mr. R. W. IRVINE, M.B., F.R.C.S.Edin., of Pitlochry, after a few days' illness. He was a native of Blair Athol, where he was born in 1853. He was educated at St. Andrews, Madras College, and Edinburgh Academy and University, graduating in 1876. The deceased was a noted Rugby football player.

THE death is reported of Mr. CHARLES GORE RING, Medical Officer of Health to the Keswick Urban District Council. He was taken ill while attending Crosthwaite Church, and died shortly afterwards. Mr. Ring, who took much interest in ambulance work, qualified as M.R.C.S.Eng. in 1865 and L.R.C.P.Edin. in 1866.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Andreas Anagnostaki, Professor of Ophthalmology in the University of Athens, of which he was more than once Rector, aged 71; Dr. Heinrich Wankel, of Olmütz, a distinguished archæologist and a recognised authority on prehistoric fauna, aged 76; Dr. Bury, Surgeon to the Hôtel-Dieu of Saumur, and sometime Mayor of that town, which he formerly represented in the Chamber of Deputies, aged 88; Dr. Edson Sewell Bastin, Professor of Materia Medica and Botany in the Philadelphia College of Pharmacy, aged 54; Dr. Peter Grossman, of Odessa, specialist in diseases of the throat and nose, aged 39; Dr. Giovannangelo Limoncelli, of Naples, the leading alienist in the South of Italy, author of a *Dizionario farmaceutico e terapeutico* (1862), of a translation of Taylor's *Medical Jurisprudence* and other works, and editor of *Il Manicomio Moderno*, aged 75; and Dr. Magitot, a pioneer of scientific odontology in France and a strenuous advocate of sanitary regulations in factories.

# NAVAL AND MILITARY MEDICAL SERVICES.

## ARMY MEDICAL STAFF EXCHANGE.

*The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.*

A SURGEON-MAJOR, who arrived in India in March, 1896, wishes to exchange home during the trooping season of 1897-98. Address, Surgeon-Major W. G. BIRRELL, A.M.S., Station Hospital, Poonamallee, Madras.

### THE NAVY.

DEPUTY-INSPECTOR-GENERAL THOMAS H. KNOTT has been appointed to Chatham Hospital, April 27th.

Inspector-General DUNCAN HILSTON, M.D., has been placed on the retired list, April 10th. He was appointed Surgeon, May 19th, 1860; Staff-Surgeon, November 18th, 1865; Fleet-Surgeon, May 3rd, 1877; Deputy-Inspector-General, October 20th, 1885; and Inspector-General, May 7th, 1892. He served at the attack on the rebel redoubt near Rangiriri, New Zealand, in 1863, and was specially mentioned for his services to the wounded while under fire and favourably noted at the Admiralty (medal).

### ARMY MEDICAL STAFF.

SURGEON-COLONEL N. B. MAJOR, on arrival from England, is appointed Principal Medical Officer, Secunderabad and Belgaum Districts, Madras Command.

### INDIAN MEDICAL SERVICE.

SURGEON-LIEUTENANTS A. GWYTHER, M.B., and N. R. J. RAINIER, Bengal Establishment, are placed on plague duty in Sind, under the orders of the Commissioner in Sind, from February 14th and 15th respectively.

Surgeon-Lieutenant-Colonels A. N. ROGERS-HARRISON, Madras Establishment, is promoted to be Surgeon-Lieutenant-Colonel from April 7th; W. R. MURPHY, D.Sc., Bengal Establishment, from September 1st; and C. H. JOUBERT, Bengal Establishment, from October 1st. This cancels the promotions of the officers as notified in the *London Gazette* of August 14th, January 1st, and March 23rd respectively, and which were noticed at the time in the BRITISH MEDICAL JOURNAL.

Surgeon-Colonel ROBERT BOWMAN, Bombay Establishment, has retired from the service, which he entered as Assistant-Surgeon, March 31st, 1866, attaining the rank of Surgeon-Colonel, September 15th, 1892. He was in the Abyssinian war of 1867-68, in medical charge of the 3rd Sind Horse (medal).

Brigade Surgeon-Lieutenant-Colonel S. M. SALAMAN, M.D., Bombay Establishment, has also retired from the service, March 31st. He was appointed Assistant-Surgeon, October 1st, 1869, and Brigade-Surgeon-Lieutenant-Colonel, May 7th, 1894.

Surgeon-Lieutenant-Colonel E. G. RUSSELL, M.B., Bengal Establishment, has likewise retired, from December 21st, 1896. His first appointment bears date March 20th, 1872; that of Surgeon-Lieutenant-Colonel twenty years therefrom.

Surgeon-Captain J. MULVANY, Bengal Establishment, on duty in connection with famine relief at Mirzapore, is transferred to duty in connection with precautions against bubonic plague at Manikpore, Banda district.

Surgeon-Lieutenant C. D. DAWES, Bengal Establishment, on duty in connection with precautions against bubonic plague at Manikpore, in Banda district, is transferred to duty in connection with famine relief in Hamirpore and Jalaun district.

Deputy-Surgeon-General CHARLES THICK EVES, late of the Madras Establishment, died at Cheltenham on April 26th, in his 69th year. He was appointed Assistant-Surgeon, February 20th, 1856; became Brigade-Surgeon, July 23rd, 1883; and retired with the honorary rank of Deputy-Surgeon-General, August 6th, 1886. He served in the Deccan during the Indian Mutiny in 1858-59, and was in the action at Satpoorah Hills (medal).

### THE VOLUNTEERS.

SURGEON-MAJOR J. J. K. DUNCANSON, M.D., 1st Edinburgh (City) Artillery, is promoted to be Surgeon-Lieutenant-Colonel, April 24th.

The undermentioned gentlemen are appointed Surgeon-Lieutenants in the corps specified, dated April 24th: RICHARD EMMETT, 1st Hampshire Engineers; LLEWELLYN A. MORGAN, M.D., 1st Volunteer Battalion the King's Royal Liverpool Regiment; JOHN HOWARD-JONES, M.B., 4th Volunteer Battalion the South Wales Borderers.

Surgeon-Lieutenant T. HOLT, M.B., 2nd Volunteer Battalion East Lancashire Regiment, is promoted to be Surgeon-Captain, April 24th.

Surgeon-Lieutenant H. F. T. CHAMBERS, 1st Volunteer Battalion the Dorsetshire Regiment, has resigned his commission, April 24th.

Surgeon-Lieutenant G. R. J. FLETCHER, 22nd Middlesex Rifles (Central London Rangers), is promoted to be Surgeon-Captain, April 24th.

Mr. G. A. HAWKINS-AMBLER is appointed Surgeon-Lieutenant in the 1st Lancashire Engineers, April 28th.

Surgeon-Lieutenant E. HAYDON, M.B., 5th (the Hay Tor) Volunteer Battalion the Devonshire Regiment, is promoted to be Surgeon-Captain, April 28th.

Surgeon J. QUICK, of the same battalion, has resigned his commission, April 28th.

The *London Gazette* announces that the Queen has approved of the Haddington Volunteer Artillery being amalgamated with the 1st Midlothian Volunteer Artillery, and of the officers of the former being considered to have received commissions in the latter of the same rank and date as those at present held by them. The medical officer affected by this announcement is Surgeon-Lieutenant W. B. MACDONALD, M.B., whose commission dates from January 8th, 1890.

### VOLUNTEER MEDICAL STAFF CORPS.

SURGEON-CAPTAIN I. J. E. RENSHAW, the Manchester Companies, has resigned his commission, April 28th.

### RANK OF MEDICAL OFFICERS.

A CORRESPONDENT sends us two cuttings from the Bangalore Garrison Orders, assembling "mixed Boards." In both cases the medical officers are placed last in the list; in one a surgeon-lieutenant-colonel is placed junior to a major, and in the other a brigade-surgeon-lieutenant-colonel is placed junior to two majors. As he remarks, this shows the manner in which rank as expressed in compound titles is interpreted. In both of these cases there is a clear setting aside, with contempt, the plain text of a Royal Warrant; and yet the authorities pretend to wonder why the army cannot obtain medical officers!

### CONDITION OF THE ARMY MEDICAL DEPARTMENT.

A CORRESPONDENT avers that the downward course of the Department has been very marked since the unsympathetic reception given by Mr. Campbell-Cannerman to the proposals of the Parliamentary Bills Committee. The present head of the Department is in no way responsible for the present condition of affairs, but it would be well if he plainly told the military authorities the true position of affairs.

### ARMY MEDICAL EQUIPMENT (INDIA).

AN interesting inspection was recently made at Lahore Fort of various ambulance appliances and tents by Surgeon-Major-General A. A. Gore, Principal Medical Officer, H.M.'s Forces in India, who was accompanied by Surgeon-Colonel Thompson, P.M.O., Lahore District, Brigade-Surgeon-Lieutenant-Colonel Calthorp, Medical Storekeeper, Mian Mir, and late P.M.O. Suakim Contingent, and Surgeon-Major W. A. Morris, A.M.S. Mr. Brooke Greville, Secretary to the Military Equipment Company, showed the "Tortoise" tent in its original form, and as adapted to Indian requirements; the newest pattern of jointed stretcher, specially designed for mule transport: the portable field "Congo" stove, etc. The inspection occupied about four hours. A complete field hospital had been pitched on the adjacent rest camp. The equipment was worked out with a view to its carriage by either wheel or mule transport. Breakfast was cooked on the ground in the new stove by a detachment of the Army Hospital Corps. After the inspection, Surgeon-Major-General Gore left for Sialkote to complete his second tour of inspection.

### THE PLAGUE AND VOLUNTEERS. ARMY MEDICAL STAFF.

A COMMUNICATION has reached us which pertinently points out that while the Indian Government calls for volunteers for plague duty from the Army Medical Staff, and offers them an inducement of Rs.300 a month extra, the withdrawal of such volunteers from stations (with an already undermanned staff of medical officers) throws double duty on those not volunteering, who have not only extra work without extra pay, but are deprived of all chance of recreation leave. Our correspondent points out the difficulty of working station hospitals with an inadequate staff, and suggests that the Indian Medical Service might be increased, or civilians from home employed at a remuneration which would procure them fo

plague duty, in lieu of employing Army Medical Staff officers who can ill be spared from their legitimate work in station hospitals, more especially during the hot season and rains.

### VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

THE competition for the Hamilton Challenge Bowl resulted in the victory of a team of the Army Postal Corps, the second team being drawn from the bearer company of the Essex Volunteer Brigade. The best man of the school was also a member of the Army Postal Corps. The subjects of the examination included elementary anatomy and physiology, and first aid and stretcher drill. The prizes will be distributed at the inspection of the class on Tuesday, May 4th.

### THE *GLOBE* ON MEDICAL OFFICERS

A CORRESPONDENT writes. Many will share in the regret that a paper of such high reputation as the *Globe* has, in the person of its writer on "Military Matters," taken up such a grossly unfair position towards army medical officers as actually to misrepresent their claims.

The writer returns to the charge in the paper of April 24th on the ground that he had been taken to task for former comments on the same subject. He says that "prejudice" against army medical officers does not exist "at headquarters and among combatant officers," unless "disinclination" to accede to proposals "unreasonable and inappropriate can be manufactured into prejudice." But the spokesmen of the medical officers aver that the "disinclination" mentioned is founded upon nothing else than mere prejudice, as it is unsupported by any valid argument; and too often, as in the case of this writer, by positive misrepresentation. For what does he say? "The Committee of the Medical Association demands not merely military titles, but the actual right to command." Now he has either read or not read the document lately circulated by that body, and writes either in ignorance of or deliberately misrepresents it, for it makes no such demand for command beyond what medical officers already possess, which is of a strictly limited character. The command the writer means is of course "general" command, which medical officers and their spokesmen have over and over again declared is of course wholly outside their functions or capabilities. But the writer cannot but know and feel that the question of that sort of command is a mere red herring trailed across army medical reform, so as to throw the uninitiated public off the scent. If he implies that mere military titles mean "general" command, then why have paymasters, schoolmasters, etc., not got it; or why have medical officers in the American and other armies not got it?

But in the question. What should be done with those plaguy medical officers? he lets the War Office cat out of the bag in one sentence: "If the army cannot find in the Army Medical Department a sufficiency of qualified officers to carry out its duties in time of war, it will of course look to the large number of medical gentlemen who constitute the Army Medical Reserve of officers. . . . . This is all that is required."

Can this writer really voice, as some suspect, the secret hope and intention of the military authorities? It simply means: rather than give medical officers definite army status, a regular, trained, and disciplined army medical service may go hang; our military administrators will trust the lives and limbs of our soldiers in war to the chapter of accidents! A pretty profession of humanity. How do our soldiers or the public like it? Why, it is even worse than the threat of thirty years ago to bring over doctors for our army "made in Germany!" You yourself, as well as some of your far-seeing correspondents, have long suspected that the little game of the War Office in its struggle with the medical profession was based on "Divide et Impera." Now it is here openly avowed, in a responsible paper, by a probably inspired writer. A reserve, absolutely bogus for war purposes in our world-wide empire, is dangled in sight of the public, and used to flaunt the whole medical profession. How do members of the reserve like the position? I have far too much confidence in their spirit and honour to believe that they will consent to be made such unworthy tools of. Mr. Brodrick must explain whether he entirely relies on this civil medical reserve in the mobilisation of his army corps.

# MEDICO-LEGAL.

### POLICE COURT PROCEEDINGS.

M.B. states that he recently attended at the police court to give evidence as to certain injuries in an assault case. He was not served with a subpœna, but attended at the request of the police. He asked for his fee after the case was finished, having given his evidence, but was informed that the court had no moneys to pay him with, but that he should receive his fee when the prisoner had paid his fine, and failing this they would try to get his fee from the county authorities. Our correspondent applied for the fee recently, and was informed that the prisoner had not paid the whole fine yet, and that he would be paid when he did so. Our correspondent inquires if he has any redress.

*** The question of witnesses' fees in such cases is in the discretion of the magistrate, and it may be that some order was made for payment by the defendant of our correspondent's fees. We think inquiry should be made of the clerk to the magistrates in order to ascertain exactly how the matter stands, as upon the facts before us and in the absence of such an order we cannot advise that our correspondent has any legal remedy.

### FEES FOR EVIDENCE IN LUNACY INQUIRY.

MANXMAN writes: A certain woman was brought before a magistrate with a view to her being sent to an asylum. After taking the doctor's evidence the magistrate refused to sign the order for her removal until he had heard my evidence, as I had previously attended her. He therefore sent me a subpœna requesting my attendance at the magistrate's office seven miles off. I accordingly attended and gave evidence, and the woman was admitted as a pauper lunatic. I sent in an account for £2 2s. to the county council and to the magistrate's clerk, neither of whom admit liability. Whom should I proceed against for payment of my fee?

*** The reply to this inquiry is attended with some difficulty. But the fee in question seems to be, and ought to be, provided for as one of the "reasonable expenses in and about the examination and the inquiry." The justice acting in a case, or any justice having jurisdiction where the examination is made, is empowered to make an order for the payment of such expenses. This order by the justice "should apparently be made upon the guardians of the union in which the examination takes place." The order, when made, may be enforced "by an action at law, or by any other proceeding" in a court of competent jurisdiction.

### DUTIES OF MEDICAL OFFICER OF HEALTH.

GORDON.—We gather that the report was made by our correspondent in the *bonâ-fide* exercise of his duties as medical officer of health (and in writing as required by the Act), and that such report was fair and accurate. Under these circumstances, unless the existence of malice suggested in the letter referred to could be shown, the report in question would doubtless be held to be privileged, and we do not think our correspondent need be under any apprehension on the subject.

### WITNESSES' FEES IN CRIMINAL CASES.

A CORRESPONDENT sends us some newspaper cuttings as to a case recently before one of the metropolitan police magistrates, and in reference thereto he inquires: 1. Whether a magistrate has power to subpœna a medical witness without payment of any fee, as the magistrate stated it was his custom in certain cases to do. 2. Whether a medical witness can refuse to be sworn unless the fee is paid.

*** In reply to the first inquiry we think it is clear that the question of fees to witnesses in such cases is in the discretion of the magistrate. With reference to the second point it is not competent for a witness in criminal cases to refuse to give evidence until his fee is paid.

### PARTICULARS OF MEDICAL CHARGES.

W. S. wishes to know what legally constitutes a detailed account. He has submitted his account in this form:

The Trustees of the late .....

To .....

For professional visits and medicines from November 12th, 1896, till March 3rd, 1897:

..... night visits at .....
..... special visits at .....
..... mixtures at .....
..... powders at ..... etc.

The trustees have now written to our correspondent that this is not a detailed account, and that they reasonably expect him to give dates and times of day of each visit. It is stated that the patient was visited daily between the dates mentioned, the number of visits each day varying from three to seven. The following questions are asked: (1) Can the executors legally compel our correspondent to give any further particulars than those with which he has supplied them? (2) What is called a special visit? Our correspondent considers it to be a special visit when sent for, and obliged to attend directly, thereby upsetting other engagements.

*** In reply to the first question, our correspondent can only be compelled to supply any further particulars in an action which in default of payment by the executors of the deceased he may find it necessary to bring. Assuming, then, that the executors decline to pay the bill on the account as rendered, and that an action is brought, a summons will probably be taken out by the defendants for particulars of the claim. And with regard to these particulars, it has been laid down that the persons liable to pay the amount are entitled to be furnished with detailed particulars, showing how each lump sum is arrived at by reference to the several items of the bill. We think, therefore, that our correspondent might be ordered to furnish the dates of every visit made and the amount charged for each visit. With regard to the second question, as to what constitutes a special visit, this, we think, would depend upon the circumstances under which each such visit was made.

# PUBLIC HEALTH
## AND
## POOR-LAW MEDICAL SERVICES.

### VITAL STATISTICS OF LONDON SANITARY AREAS DURING THE FIRST QUARTER OF 1897.

[SPECIALLY PREPARED FOR THE BRITISH MEDICAL JOURNAL.]

IN the accompany table will be found summarised the vital statistics of the forty-three sanitary areas of the metropolis, based upon the Registrar-General's returns for the first or winter quarter of this year. The mortality figures in the table relate to the deaths of persons actually belonging to the various sanitary areas, and are the result of a complete system of distribution of deaths occurring in the institutions of London among the various sanitary areas in which the patients had previously resided.

The 34,643 births registered in London during the three months ending March last were equal to an annual rate of 31.1 per 1,000 of the populatio

estimated at 4,463,169 persons in the middle of this year; this rate was 0.6 per 1,000 below the mean rate in the corresponding quarters of the five preceding years 1892-96. The birth-rates during the period under notice in the various sanitary areas showed, as usual, wide variations, owing principally to the differences in the age and sex distribution of the population. In Kensington, St. George Hanover Square, St. James Westminster, Hampstead, St. Martin in the Fields, City of London, and Lee, the birth-rates were considerably below the average; while they showed the largest excess in St. Luke, Whitechapel, St. George in the East, Mile End Old Town, St. Olave Southwark, and Bermondsey.

The 20,000 deaths of persons belonging to London registered during the quarter under notice were equal to an annual rate of 18.0 per 1,000; this rate was lower than in the corresponding period of any year on record, and was as much as 4.7 per 1,000 below the mean rate in the first quarters of the ten preceding years, 1887-96. In the March quarters of the three preceding years the death-rate in London was 20.8, 25.6, and 19.3 per 1,000 respectively. The lowest death-rates in the various sanitary areas were 11.7 in Hampstead, 13.5 in Stoke Newington, 13.8 in Plumstead, 14.2 in Lewisham (excluding Penge), 14.4 in Wandsworth, and 14.6 in Paddington; the highest rates were 23.1 in St. Olave Southwark, 23.4 in London City, 23.9 in Holborn, 24.0 in Limehouse, 24.2 in Strand and in St. Luke, and 27.7 in St. George-in-the-East. During the quarter under notice 1,819 deaths resulted from the principal zymotic diseases in London: of these, 635 were referred to diphtheria, 542 to whooping-cough, 178 to diarrhœa, 166 to scarlet fever, 162 to measles, 121 to enteric fever, 12 to small-pox, and 3 to ill-defined forms of continued fever. These 1,819 deaths were equal to an annual rate of 1.64 per 1,000, a lower rate, with one exception, than in the corresponding quarters of any of the ten preceding years, during which the zymotic death-rate averaged 2.37 per 1,000. The lowest zymotic death-rates last quarter in the various sanitary areas were 0.80 in Marylebone, 0.84 in Kensington, 0.85 in St. George Hanover Square, 0.88 in Hampstead, 0.02 in Lee, and 1.00 in Whitechapel; while the rates ranged upwards to 2.42 in Bethnal Green, 2.54 in Limehouse, 2.67 in Bermondsey, 2.70 in Newington, 2.77 in Rotherhithe, and 3.26 in St. George-in-the-East.

Twelve deaths from small-pox were registered in London during the three months ending March last: of these, 5 were of persons belonging to Camberwell, 2 to Greenwich, 2 to Strand, 1 to St. Pancras, 1 to St. Martin-in-the-Fields, and 1 to St. George Southwark sanitary areas. Measles showed the highest proportional fatality in Clerkenwell, St. Luke, Bethnal Green, St. George-in-the-East, Limehouse, and Rotherhithe; scarlet fever in Westminster, City of London, and St. Saviour Southwark; diphtheria in Shoreditch, Bethnal Green, Mile End Old Town, Bermondsey, Rotherhithe, Wandsworth, Camberwell, Lewisham, and Woolwich; whooping-cough in St. Giles, Clerkenwell, St. George-in-the-East, Newington, St. Olave Southwark, Bermondsey, and Rotherhithe; and enteric fever in Chelsea and St. Giles sanitary areas.

During the quarter ending March last 2,029 deaths from phthisis were registered in London, equal to an annual rate of 1.82 per 1,000. Among the various sanitary areas the lowest phthisis death-rates were recorded in Paddington, St. George Hanover Square, Hampstead, Stoke Newington, and Lewisham; and the highest rates in St. Martin-in-the-Fields, Strand, Holborn, St. Luke, Whitechapel, St. George-in-the-East, St. Saviour Southwark, and St. George Southwark.

Infant mortality in London last quarter, measured by the proportion of deaths under one year of age to registered births, was equal to 127 per 1,000, and was 16 per 1,000 below the mean rate in the corresponding quarters of the ten preceding years. Among the various sanitary areas the rates of infant mortality were lowest in Westminster, Hampstead, Stoke Newington, Hackney, Lewisham, and Plumstead; while they showed the largest excess in St. James Westminster, St. Giles, St. Martin-in-the-Fields, Limehouse, St. Olave Southwark, and Rotherhithe.

## HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,226

*Analysis of the Vital and Mortal Statistics of the Sanitary Districts of the Metropolis, after Distribution of Deaths occurring in Public Institutions, during the First Quarter of 1897.*

| Sanitary Areas. | Estimated Population middle of 1897. | Births. | Deaths | Annual Rate per 1,000 Living. Births. | Deaths. | Principal Zymotic Diseases. | Deaths from Principal Zymotic Diseases. | Small-pox | Measles. | Scarlet Fever. | Diphtheria. | Whooping-Cough. | Typhus. | Enteric Fever. | Simple and Undefined Fever. | Diarrhœa. | Phthisis. | Deaths of Children under 1 year of age to 1,000 births. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LONDON | 4,463,169 | 34,643 | 20,009 | 31.1 | 18.0 | 1.64 | 1,819 | 12 | 162 | 166 | 635 | 542 | — | 121 | 3 | 178 | 2,029 | 127 |
| *West Districts.* | | | | | | | | | | | | | | | | | | |
| Paddington | 126,161 | 741 | 459 | 23.6 | 14.6 | 1.18 | 37 | — | — | 5 | 14 | 12 | — | 2 | — | 4 | 39 | 115 |
| Kensington | 171,427 | 975 | 685 | 22.8 | 16.0 | 0.84 | 36 | — | — | 4 | 14 | 7 | — | 5 | 1 | 5 | 71 | 139 |
| Hammersmith | 105,959 | 816 | 458 | 30.8 | 17.3 | 1.18 | 31 | — | — | 5 | 15 | 5 | — | 1 | — | 5 | 37 | 124 |
| Fulham | 120,040 | 1,032 | 476 | 34.5 | 15.9 | 1.16 | 35 | — | — | 4 | 10 | 15 | — | 2 | — | 4 | 45 | 138 |
| Chelsea | 96,692 | 630 | 446 | 26.1 | 18.5 | 1.87 | 45 | — | 2 | 2 | 11 | 14 | — | 6 | — | 5 | 41 | 144 |
| St. George Hanover Sq. | 80,330 | 331 | 298 | 16.5 | 14.9 | 0.85 | 17 | — | 3 | 2 | 4 | 4 | — | 2 | — | 2 | 25 | 127 |
| Westminster | 53,027 | 354 | 240 | 26.8 | 18.2 | 1.13 | 15 | — | 4 | 4 | 4 | 2 | — | — | — | 1 | 18 | 88 |
| St. James Westminster | 22,576 | 103 | 108 | 19.4 | 19.2 | 1.43 | 8 | — | — | 1 | 1 | 4 | — | 1 | — | 1 | 16 | 193 |
| *North Districts.* | | | | | | | | | | | | | | | | | | |
| Marylebone | 140,808 | 1,034 | 674 | 29.5 | 19.2 | 0.80 | 28 | — | — | — | 9 | 8 | — | 7 | — | 4 | 75 | 115 |
| Hampstead | 77,275 | 400 | 225 | 20.8 | 11.7 | 0.88 | 17 | — | 1 | — | 8 | 5 | — | 1 | — | 2 | 15 | 88 |
| St. Pancras | 242,255 | 1,877 | 1,111 | 31.1 | 18.4 | 1.57 | 95 | 1 | 5 | 8 | 30 | 35 | — | 8 | — | 8 | 130 | 113 |
| Islington | 341,134 | 2,570 | 1,423 | 30.2 | 16.7 | 1.52 | 130 | — | 16 | 18 | 42 | 38 | — | 8 | — | 8 | 136 | 114 |
| Stoke Newington | 34,136 | 221 | 115 | 26.0 | 13.5 | 1.52 | 13 | — | 3 | — | 5 | 3 | — | 2 | — | — | 10 | 100 |
| Hackney | 216,698 | 1,696 | 837 | 31.4 | 15.5 | 1.34 | 72 | — | 2 | 14 | 32 | 15 | — | 3 | — | 6 | 91 | 105 |
| *Central Districts.* | | | | | | | | | | | | | | | | | | |
| St. Giles | 37,840 | 235 | 191 | 24.9 | 20.2 | 1.81 | 17 | — | — | 1 | 2 | 11 | — | 3 | — | — | 19 | 196 |
| St. Martin-in-the-Fields | 12,711 | 39 | 60 | 12.3 | 18.9 | 1.27 | 4 | 1 | — | — | 1 | 2 | — | — | — | — | 14 | 154 |
| Strand | 23,552 | 152 | 142 | 25.9 | 24.2 | 2.21 | 13 | 2 | — | 1 | 3 | 4 | — | — | — | 3 | 17 | 118 |
| Holborn | 30,493 | 203 | 182 | 26.7 | 23.9 | 1.97 | 15 | — | 1 | 2 | 4 | 5 | — | — | — | 3 | 22 | 148 |
| Clerkenwell | 66,162 | 564 | 380 | 34.2 | 23.0 | 2.18 | 36 | — | 6 | 2 | 9 | 15 | — | 3 | — | 1 | 38 | 147 |
| St. Luke | 41,279 | 465 | 249 | 45.2 | 24.2 | 1.36 | 14 | — | 4 | 1 | 2 | 7 | — | — | — | — | 32 | 123 |
| London City | 30,228 | 125 | 176 | 16.6 | 23.4 | 1.73 | 13 | — | 2 | 3 | 1 | 5 | — | 2 | — | — | 16 | 128 |
| *East Districts.* | | | | | | | | | | | | | | | | | | |
| Shoreditch | 121,883 | 1,069 | 591 | 35.2 | 19.4 | 2.00 | 61 | — | 4 | 6 | 34 | 8 | — | 4 | — | 5 | 63 | 133 |
| Bethnal Green | 129,098 | 1,284 | 686 | 39.9 | 21.3 | 2.42 | 78 | — | 26 | 3 | 29 | 2 | — | 5 | 1 | 12 | 51 | 139 |
| Whitechapel | 79,724 | 831 | 399 | 41.8 | 20.1 | 1.00 | 20 | — | 1 | 3 | 9 | 1 | — | 2 | — | 4 | 61 | 112 |
| St. George-in-the-East | 47,917 | 531 | 331 | 44.4 | 27.7 | 3.26 | 39 | — | 12 | 3 | 8 | 10 | — | 2 | — | 4 | 35 | 147 |
| Limehouse | 58,508 | 508 | 350 | 34.8 | 24.0 | 2.54 | 37 | — | 18 | 1 | 6 | 10 | — | 1 | — | 1 | 41 | 159 |
| Mile End Old Town | 111,883 | 1,115 | 519 | 40.0 | 18.6 | 2.15 | 60 | — | 10 | 1 | 26 | 15 | — | 4 | — | 4 | 37 | 119 |
| Poplar | 169,811 | 1,589 | 834 | 37.5 | 19.7 | 1.84 | 78 | — | 15 | 6 | 31 | 18 | — | 6 | — | 2 | 93 | 125 |
| *South Districts.* | | | | | | | | | | | | | | | | | | |
| St. Saviour Southwark | 24,919 | 188 | 139 | 30.3 | 22.4 | 1.60 | 10 | — | — | 2 | 1 | 4 | — | 1 | — | 2 | 22 | 154 |
| St. George Southwark | 60,388 | 554 | 341 | 36.8 | 22.6 | 1.13 | 17 | 1 | 1 | 2 | 5 | 7 | — | 1 | — | — | 49 | 143 |
| Newington | 122,101 | 1,105 | 689 | 36.3 | 22.6 | 2.70 | 82 | — | 4 | 6 | 14 | 45 | — | 2 | — | 11 | 83 | 137 |
| St. Olave Southwark | 11,480 | 120 | 66 | 41.9 | 23.1 | 1.75 | 5 | — | — | — | — | 3 | — | — | — | 2 | 5 | 150 |
| Bermondsey | 85,629 | 895 | 458 | 41.9 | 21.5 | 2.67 | 57 | — | 1 | 4 | 25 | 18 | — | 2 | — | 7 | 47 | 139 |
| Rotherhithe | 40,643 | 344 | 208 | 34.0 | 20.5 | 2.77 | 28 | — | 7 | 1 | 9 | 9 | — | — | — | 2 | 15 | 183 |
| Lambeth | 300,048 | 2,343 | 1,380 | 31.3 | 18.4 | 1.97 | 147 | — | 8 | 11 | 40 | 58 | — | 11 | — | 19 | 134 | 144 |
| Battersea | 168,877 | 1,373 | 674 | 32.6 | 16.0 | 1.34 | 56 | — | 1 | 10 | 19 | 18 | — | 4 | — | 4 | 76 | 135 |
| Wandsworth | 195,612 | 1,278 | 702 | 26.2 | 14.4 | 1.56 | 76 | — | 2 | 10 | 41 | 13 | — | 3 | 1 | 6 | 64 | 115 |
| Camberwell | 257,575 | 1,926 | 1,063 | 30.0 | 16.6 | 1.95 | 125 | 5 | 2 | 6 | 53 | 39 | — | 6 | — | 14 | 87 | 123 |
| Greenwich | 178,367 | 1,404 | 777 | 31.6 | 17.5 | 1.54 | 69 | 2 | 1 | 5 | 23 | 23 | — | 9 | — | 6 | 65 | 130 |
| Lee | 39,215 | 216 | 154 | 22.1 | 15.8 | 0.92 | 9 | — | — | — | 7 | 1 | — | 1 | — | — | 13 | 134 |
| Lewisham | 86,152 | 534 | 305 | 24.9 | 14.2 | 1.45 | 31 | — | — | 3 | 17 | 7 | — | 1 | — | 3 | 17 | 109 |
| Woolwich | 41,409 | 362 | 198 | 35.1 | 19.2 | 2.41 | 25 | — | — | — | 15 | 5 | — | — | — | 5 | 24 | 135 |
| Plumstead | 61,057 | 505 | 210 | 33.2 | 13.8 | 1.19 | 18 | — | — | 1 | 2 | 12 | — | — | — | 3 | 20 | 99 |

births and 3,965 deaths were registered during the week ending Saturday last, April 24th. The annual rate of mortality in these towns, which had been 18.6 and 17.9 per 1,000 in the two preceding weeks, rose again to 18.8 last week. The rates in the several towns ranged from 10.1 in Derby, 11.2 in Croydon, 17.3 in Gateshead, and 12.5 in Brighton to 24.7 in Liverpool, 27.9 in Salford, 28.8 in Manchester, and 36.1 in Bolton. In the thirty-two provincial towns the mean death-rate was 19.7 per 1,000, and exceeded by 2.2 the rate recorded in London, which was 17.5 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was equal to 1.6, while it averaged 1.8 per 1,000 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.5 in Burnley, 3.3 in Manchester, 5.9 in Salford, and 8.2 in Bolton. Measles caused a death rate of 1.5 in Burnley, 2.0 in Manchester, 3.4 in Salford, and 7.3 in Bolton; and whooping-cough of 1.1 in Portsmouth, 1.2 in Salford and in Blackburn, and 2.1 in Plymouth. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 57 deaths from diphtheria in the thirty-three towns included 40 in London and 2 each in Birmingham, Liverpool, Salford, and Leeds. No fatal case of small-pox was registered during the week, either in London or in any of the thirty-two large provincial towns. There were 7 cases of small-pox under treatment in the Metropolitan Asylums Hospitals on Saturday last, April 24th, against 17, 16, and 11 at the end of the three preceding weeks; no new cases were admitted during the week. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 2,512, 2,449, and 2,406 at the end of the three preceding weeks, had risen again to 2,442 on Saturday last: 269 new cases were admitted during the week, against 219, 224, and 216 in the three preceding weeks.

### HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, April 24th, 1,010 births and 673 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 24.6 and 22.3 per 1,000 in the two preceding weeks, rose again to 22.6 last week, and was 3.8 per 1,000 above the mean rate during the same period in the thirty-three large English towns. The lowest rates in the eight Scotch towns were 14.4 in Greenock and 18.1 in Aberdeen, and the highest rates 29.0 in Perth and 29.2 in Edinburgh. The zymotic death-rate in these towns averaged 3.4 per 1,000, the highest rates being recorded in Glasgow and Edinburgh. The 302 deaths registered last week in Glasgow included 23 from whooping-cough, 14 from measles, and 2 from "fever." Twenty-three fatal cases of measles, 13 of whooping-cough, and 3 of scarlet fever were recorded in Edinburgh.

### NOTIFICATION OF MEASLES AND WHOOPING-COUGH.

P.M., M.B., being desirous of obtaining information on the vexed question of the notification of measles, will do well to consult the report by Dr. Theodore Thomson on the subject contained in the annual volume of the Medical Officer of the Local Government Board for 1894-95, C. 7906, price 6s. 11d., and to be purchased from Messrs. Eyre and Spottiswoode, of East Harding Street, London, or Messrs. John Menzies and Co., of Hanover Street, Edinburgh. Both measles and whooping-cough are, we believe, notifiable at Ilkley, in Yorkshire, and at Colchester, and the former, also, at Lancaster, Hull, and in other north country towns. Dr. Kenwood has recently stated the arguments against the usefulness of the notification in a paper read before the Sanitary Institute, and referred to in the British Medical Journal of April 17th.

### APPOINTMENTS OF DISTRICT MEDICAL OFFICERS AND FEES FOR NOTIFICATION OF INFECTIOUS CASES.

Omega writes asking the following questions:

1. What are the orders of the Local Government Board relating to appointments of district medical officers?

2. Have guardians power to appoint as district medical officer one (*a*) who is not resident within the district or union, (*b*) who resides more than seven miles from a parish within the district, (*c*) who is already a district medical officer in another union?

3. How long can guardians delay paying fees due for notification of infectious cases?

*** (1) These orders, which are too lengthy to be given here, will be found in full in Glen's *Poor-law Orders*, published by Knight and Co., or in Linley's *Medical Officers' Manual*—if not out of print—by the same publishers. (2) The guardians can, with the consent of the Local Government Board, make any of these three appointments. (3) Boards of Guardians, as such, have no power to pay notification fees; the claim for them is on the sanitary authority of the district. We believe they are usually paid quarterly.

# MEDICO-PARLIAMENTARY.

## *HOUSE OF COMMONS.*

### Returns.

During the Easter Recess there was issued from the House of Commons for circulation a copy of the general abstract of the marriages, births, and deaths registered in England for the year 1896, and the fifty-eighth annual report (1895) of births, deaths, and marriages in England. A copy has been presented of rules with respect to Visiting Committees of Prisons in England and Wales.

### Bottling Beer and the Factory Acts.

Mr. M'Kenna asked the Home Secretary whether the bottling of beer was such a process as to constitute any premises in which the same was carried on a factory or workshop within the meaning of the Factory and Workshop Acts, 1878 to 1895?—The Home Secretary: The point raised by the hon. member is not free from difficulty; but I am advised that the Acts do apply to the places mentioned, and they are actually enforce there.

### The Army Medical Department.

Mr. Bartley: I desire to ask the Under-Secretary of State for War whether it is a fact that the effective Branch of the Army Medical Department is and has been for some time much below its authorised strength? Whether the cost of the non-effective Branch of the Army Medical Department is now nearly equal to, if it does not exceed, the cost of the effective Branch? Whether he is aware that many of the medical officers who now retire on a pension at the early age of 45 are willing to remain on the active list? And whether he will take steps to retain on the active list medical officers who now retire in the prime of life, but who are willing to remain on the active list? Mr. Powell-Williams: The establishment of officers of the Army Medical Staff has been below strength, and there are now about forty vacancies. As to the second paragraph of the question, the non-effective charge is only about half of the effective charge. In regard to the third paragraph, medical officers who retire at the age of 45 do so voluntarily, and there is no power to retain them in the service against their will; but they are liable to be recalled to service up to the age of 55, if emergency arises.—Dr. Farquharson: Is it not the fact that the compulsory clause as to retirement does not take effect until the age of 55 is reached?—Mr. Powell-Williams: That is the fact. Those who retire at 45 retire voluntarily; but all who retire at 45 are liable to come up for service if emergency arises.

### The Medical Inspectorships of Prisons.

Mr. Pickersgill: I beg to ask the Home Secretary whether Dr. Gover has resigned the Medical Inspectorship of Prisons; and, if so, whether he will take the opportunity to appoint a medical man to be a member of the Prisons Board, in accordance with the recommendation of the late Committee on Prisons, and thus assimilate the constitution of the Prisons Board in England to that of the Prisons Board in Ireland? The Home Secretary: It is the case that Dr. Gover has resigned his appointment, but I have already decided, after giving full consideration to the recommendation of the Prisons Committee, that it is not possible to dispense with the services of a medical inspector, and have therefore appointed Dr. Smalley, the medical officer of Parkhurst, in succession to Dr Gover. This does not, of course, determine the question of the appointment of a medical member of the Board, but I do not at present contemplate making any such appointment.

# MEDICAL NEWS.

Royal College of Surgeons in Ireland.—Dr. Ambrose E. I. Birmingham, having passed the necessary examinations, has been admitted a Fellow of the College.

Dr. Pinkerton has been presented with a silver salver by the members of the nursing class in connection with the South Norwood Polytechnic.

A Society for the Repression of Infectious Diseases has been founded in St. Petersburg by Princess Eugenie Maximilianovna von Oldenburg.

Mr. William Cox, of Winchcombe, has been presented with a silver revolving breakfast dish by the members of the male and female Ambulance classes which he has instructed during the past winter at Brockhampton, near Cheltenham.

A meeting of the Special Appeal Committee of Charing Cross Hospital was held in the Board Room recently, when donations amounting to £23,450 were announced, including £1,000 to endow a bed from a patient of Dr. Travers.

Epidemic Skin Disease.—A limited outbreak of epidemic exfoliative dermatitis has occurred in the City of London Infirmary, Bow Road. Dr. W. D. Buncombe, the medical superintendent, informs us that there have been only eight cases, and that no fresh cases have occurred since April 1st. In all instances the attack has been a mild one; four patients have recovered, and four remain under treatment but are practically well.

Surgeon-Major Sir George Scott Robertson, K.C.S.I., late British Resident at Chitral, will read a paper on Kafristan, its Manners and Customs, before the Society of Arts on Thursday next, May 6th. The chair will be taken by Field-Marshal Lord Roberts at 4 P.M.

The East London Hospital for Children, Shadwell, has been recognised by the Conjoint Board for England as a place of instruction for students at which six months of the fifth year under the new regulations may be spent in clinical work. Clinical clerks and dressers will be appointed for three months to each physician and surgeon, and will be eligible for reappointment for a further period of three months. The in-patient practice will be open to students holding these appointments. The out-patient practice will be open to students daily except Saturdays. Further particulars as to fees, etc., can be obtained on application to the Secretary.

DURING the summer session Dr. Patrick Manson will give a course of lectures on Diseases of Tropical Climates at the Medical School of St. George's Hospital. The course is intended for medical men who propose to practise in the tropics or in Eastern Asia. The first lecture will be given on May 18th, at 5 P.M., and succeeding lectures will be given at 5 P.M. on Tuesday and Friday in each week until July 23rd. Further particulars can be obtained from the Dean of St. George's Hospital, London, W.

THERE is only one picture of medical interest in the New Gallery, and that is the portrait of Sir Joseph Fayrer, by Sidney Hall. The distinguished physician is represented as sitting in his library. The attitude is reposeful, the hands lie folded on the knees, and the expression is meditative. The dulness of the black coat is relieved by brilliant stars and orders, which have been won by Sir Joseph in a long and distinguished career. In the background are seen rows of sombre-lined and learned books. The face and head seem rather larger than life, but the work is a fine portrait and an interesting pictnre.

THE vacancy for a physician to the Liverpool Northern Hospital, caused by the resignation of Dr. Barr, on his being appointed physician to the Royal Infirmary, has been filled by the election of Dr. Thomas Bushby. Dr. Bushby, who is a Bachelor of Medicine of the University of Edinburgh, has been seventeen years in practice in Liverpool, and is held in high esteem by all who know him. He has been for some years assistant physician to the Hospital for Consumption and Diseases of the Chest, and physician to the School for the Blind. He has filled the office of honorary librarian to the Medical Institution, and is one of the surgeons to the Liverpool Police. There were four other candidates for the appointment, all with high qualifications. It augurs well for the success of the new hospital that so many eligible condidates have applied for this office, and the trustees are to be congratulated on the excellent opportunity they have had to make good the loss they have suffered by the resignation of Dr. Barr.

## MEDICAL VACANCIES.

The following vacancies are announced:

BATH GENERAL OR ROYAL MINERAL WATER HOSPITAL.—Resident Medical Officer, unmarried. Salary £100 per annum, with board and apartments in the Hospital. Applications to Fred. W. Dingle, Registrar and Secretary, before May 11th.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Resident Medical Officer and Resident Surgical Officer. Salaries, £70 and £50 respectively, with board, washing, and attendance. Applications to the Secretary, Children's Hospital, Steelhouse Lane, Birmingham, by May 5th.

BRIGHTON AND HOVE LYING-IN INSTITUTION AND HOSPITAL FOR WOMEN.—House-Surgeon, unmarried, and under 30 years of age. Salary, £80 per annum, with furnished apartments, board, gas, coals, and attendance. Applications to A. F. Graves, Clerk, 76, West Street, by May 7th.

CARDIFF INFIRMARY.—Assistant Resident Medical Officer, doubly qualified. Appointment for six months, without salary, but with board, washing, and apartments. Applications to Geo. T. Coleman, Secretary, by May 11th.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY.—Resident House-Surgeon. Appointment for two years. Salary, £100 per year, with board, apartments, and laundress. Applications to the Secretary at the Hospital, Chesterfield, by May 6th.

CORPORATION OF CROYDON.—Resident Medical Officer at the Borough Hospital for Infectious Diseases. Appointment for one year. Salary £120 per annum, with board and lodging. Applications endorsed "Resident Medical Officer," to the Medical Officer of Health, Town Hall, Croydon.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Dental Surgeon and Assistant Dental Surgeon. Must be Licentiates in Dental Surgery. Applications to the Secretary by May 10th.

DEVON COUNTY ASYLUM.—Assistant Medical Officer. Salary, £120 per annum, with board, lodging, and washing; unmarried. Applications to A. E. Ward, 9, Bedford Circus, Exeter, by May 3rd.

GENERAL HOSPITAL, Birmingham.—Assistant House-Surgeon; must possess surgical qualification. Appointment for six months. No salary. Residence, board, and washing provided. Applications to H. J. Collins, House-Governor, by May 8th.

GENERAL INFIRMARY AND DISPENSARY, Doncaster.—Indoor Dispenser and Assistant to House-Surgeon. No salary, but board, lodging, and washing provided. Applications to Joseph Clark, Honorary Secretary, by May 10th.

GLASGOW ROYAL INFIRMARY, GLASGOW OPHTHALMIC INSTITUTION, ST. MUNGO'S COLLEGE.—Surgeon to the Glasgow Ophthalmic Institution; Ophthalmic Surgeon to the Dispensary of the Glasgow Royal Infirmary; Consulting Ophthalmic Surgeon to the Wards of the Infirmary; and Professor of Ophthalmology in St. Mungo's College. By agreement the same person will be appointed to all these offices. Salary £100 per annum, with share of students' fees. Applications to Henry Lamond, Secretary, 93, West Regent Street, Glasgow, by May 25th.

GUEST HOSPITAL, Dudley.—Resident Assistant House-Surgeon. Appointment for six months. Board, lodging, and washing in hospital. No salary. Applications to the Secretary by May 6th.

HEIGHAM HALL ASYLUM, Norwich.—Assistant Medical Officer. Further particulars of the Medical Superintendent.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square.—Junior Resident Medical Officer. Salary, £50 per annum, with board, lodging, and washing. Applications to the Secretary by May 5th.

HOSPITAL FOR WOMEN, Soho Square, W.—House Physician, doubly qualified. Appointment for six months. Salary, £30 for that period. Applications to David Cannon, Secretary, by May 15th.

LIVERPOOL INFIRMARY FOR CHILDREN, Myrtle Street. House-Surgeon. Salary, £58 per annum, with board and lodging. Applications to the Honorary Secretary by May 10th.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS, Soho Square, W.—Resident Medical Officer, doubly qualified. Board, residence, laundry, and an honorarium of 10 guineas for the six months. Applications to the Secretary.

PARISH OF CLYNE, Sutherlandshire.—Medical Officer. Salary £100 per annum, with house and garden. Applications to Mr. M. F. Myrom, Inspector of the Poor for Clyne, Brora, by May 12th.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields.—Assistant House-Surgeon in the Out-patient Department. Non-resident. Salary £50 per annum. Applications to the Secretary, by May 6th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Four Examiners in Anatomy and four Examiners in Physiology for the Fellowship. Candidates for the former must be F.R.C.S.Eng. Applications to the Secretary by May 3rd.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Resident Medical Officer. Appointment for six months. Salary at the rate of £100 per annum, with furnished apartments, board, and washing. Applications to the Secretary by May 4th.

## MEDICAL APPOINTMENTS.

ANNINGSON, Bushell, B.A.Cantab., M.D., reappointed Medical Officer of Health to the Ely Urban District Council.

BLAKISTON, Arthur Alex., M.R.C.S.Eng., reappointed Medical Officer of Health for the Borough of Glastonbury.

BLOMFIELD, S. B., L.S.A., appointed Medical Officer for the Hurst Green District of the Ticehurst Union.

CROCKER, J. H., M.D., D.P.H., appointed Medical Officer of Health of the Manchester Port Sanitary Authority.

DAVIES, J. Edgar P., M.B., B.Sc.Lond., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer to the South Wales Steel and Tinplate Works, Llanelly, *vice* J. A. Jones, M.D., deceased.

DIXON, A. Francis, B.A., M.B.Dub., appointed Professor of Anatomy at the University College, Cardiff, *vice* A. W. Hughes, M.B., C.M.Edin., resigned.

EATON, James, M.R.C.S.Eng., L.M., reappointed Medical Officer of Health to the Grantham Rural District Council.

GODDARD, Charles Ernest, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health to the Wembley Urban District Council.

GRIFFIN, A. E., M.A.Cantab., M.R.C.S.Eng., L.R.C.P.Lond., appointed House Physician to the Dreadnought Seamen's Hospital, Greenwich, S.E.

HAYES, W. A., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer to the Cape Government Railways at Mafeking, British Bechuanaland.

HENDERSON, Albert, M.A., M.B.Aberd., appointed Medical Officer to the Aberdeen Dispensary.

KENNEDY, Mr., appointed Assistant Medical Officer to the Enniscorthy Lunatic Asylum.

KNUTHSEN, L. F. B., M.B. and C.M., appointed Surgeon-on-Duty at the Falmouth Hospital.

PORTER, Fred., M.B., C.M.Edin., appointed Assistant Medical Officer to Roxburgh District Asylum, Melrose.

PRITCHARD, Wm. Bridgett, M.R.C.S., L.R.C.P.Lond., reappointed Assistant Medical Officer to the Royal Infirmary, Manchester.

RODOCANACHI, A. J., M.D.Lond., appointed House-Surgeon to the District Infirmary, Ashton-under-Lyne.

WATSON, W. D., M.R.C.S., L.R.C.P., appointed Medical Officer for the Leigh District of the Rochford Union.

WRIGLEY, B.A.Oxon., M.R.C.S.Eng., reappointed Medical Officer for the Runham Vauxhall District.

YOUNG, T. B., M.D.Brux., M.R.C.S.Eng., L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of Health to the Halesowen District Council.

In the notice of the appointment of Medical Officer of Health to the Stowmarket Urban District, it should have read: "Low, Charles W., M.B., D.P.H., appointed Medical Officer of Health," and not Mr. H. Cecil Harper.

## DIARY FOR NEXT WEEK.

### TUESDAY.

PATHOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 P.M.—Dr. Parkes Weber: General Lymphadenomatosis of Bones.

Dr. Rolleston and Mr. E. L. Hunt; Dermatitis Maligna. Dr. A. Latham: Peculiar Specimen of the Vermiform Appendix. Dr. G. F. Still: Gumma of the Spleen in Children. Dr. R. Hingston Fox: Rupture of the Heart. Mr. S. G. Shattock: Mucosal cysts in the Stratum Granulosum. Card Specimens: Dr. Parkes Weber and Dr. Rolleston.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Lecture by Dr. Beevor.

**WEDNESDAY.**

THE CLINICAL MUSEUM, 211, Great Portland Street, 4 P.M.—Demonstration by Mr. Jonathan Hutchinson.

OBSTETRICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8 P.M.—Specimens will be shown by Mr. J. Bland Sutton and Mr. J. H. Targett (both with Lantern Demonstrations). Papers—Dr. Thomas Wilson: Chronic Axial Rotation of an Ovarian Cyst giving rise to Extreme Twisting of the Elongated Uterus. Mr. John W. Taylor: On a second case of so-called Abdominal or Ventral Pregnancy at full term; Operation at the twelfth month; Removal of Child and Placenta; Recovery.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W., 4 P.M.—Dr. Mitchell Bruce: On Enlargement of the Heart in relation to various Diseases.

**THURSDAY.**

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Clinical Evening. Mr. Priestley Smith: Ophthalmic Specimens mounted in Formol Solution. Mr. Eve and Dr. F. J. Smith: A case of Obstruction of the Cavernous Sinus. Mr. Hartridge: Unusual (Congenital) Defect of the Crystalline Lens. Mr. Ernest Clarke: Three specimens of Detachment of the Retina.

**FRIDAY.**

EAST LONDON HOSPITAL FOR CHILDREN 3 P.M.—Mr. R. W. Parker: Demonstration on Surgical Cases.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Lecture by Dr. Colman

WEST-LONDON MEDICO-CHIRURGICAL SOCIETY, West London Hospital, W., 8.30 P.M.—Mr. Bidwell: Laparotomy in doubtful Abdominal Cases. Dr. Snow: Anticipatory Gland Excision. Mr. Lake: Anterior Turbinectomy.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d, which sum should be forwarded in post-office order and stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.*

### BIRTHS.

MICKLE.—On April 12th, at 549, Commercial Road, E., the wife of Arthur W. T. F. Mickle, M.D., of a son.

MOYNIHAN.—On April 27th, at 5, Woodhouse Square, Leeds, the wife of B. G. A. Moynihan, M.S.Lond., F.R.C.S., of a daughter.

### MARRIAGES.

CALLENDER—STEPHENS.—On April 22nd, at St. Mary Abbott's, Kensington, by the Rev. Douglas Stephens, cousin of the bride, assisted by the Rev. Canon Pennefather, Vicar of Kensington, Eustace Maude Callender, M.D., fourth surviving son of the late Mr. S. P. Callender, of Whalley Range, Manchester, to Adelaide Frances, eldest daughter of the late Mr. John Beeching Stephens, of Ardenlee, Maidstone, and of Mrs. Beeching Stephens, of 15, De Vere Gardens, Kensington.

GROVE—STEVENSON.—On the 27th April, at St. John's, Brixton, by the Rev. R. Abbay, Rector of Earl Soham, assisted by the Rev. C. J. R. Cooke, the Rev. A. G. Bowman, and the Rev. C. H. B. Williamson, Vicar, William Reginald Grove, M.B., B.C.Cantab., of St. Ives, Hunts, to Clara Hilda, second daughter of Thomas Stevenson, M.D., F.R.C.P., of Sandhurst Lodge, Gresham Road, S.W.

PAPILLON—FORD.—On April 24th, 1897, at St. Peter's Church, Belsize Park, Hampstead, by the Rev. Duncan Papillon, M.A., Vicar of Hadley, Wellington, Salop, brother of the bridegroom, assisted by the Rev. Gerard J. Ford, M.A., Rector of Ideford, Chudleigh, South Devon, cousin of the bride, Thomas Alexander Papillon, of 3, Pevensey Road, St. Leonard's-on-Sea, son of Major A. F. W. Papillon, R.A., of Reading, to Emma Louisa Wharton, younger daughter of Wharton Ford, of 49, Fellows Road, South Hampstead, N.W.

PENFOLD—DIXON.—On the 24th inst., at St. Mildred's, Lee, Kent, by the Rev. Francis Helder, Ernest A. Penfold, M.B., Surgeon R.N. (Plymouth Division R.M.L.I.), to Ada, elder daughter of Richard Dixon, of Lee.

ROUW—D'ALMAINE.—On the 14th inst., at the Parish Church, Sutton Courtney, by the Vicar, the Rev. H. Rice, assisted by the Rev. E. Harrington, R. Wynne Rouw, M.R.C.S., L.R.C.P., L.D.S., of 7, Wimpole Street, W., youngest son of W. J. Rouw, J.P. of Ruthin, Denbighshire, to Beatrice Mary, youngest daughter of H. D'Almaine, of Sutton Courtney, Berks.

### DEATHS.

ANDREW.—At Moorland House, Tavistock, James Andrew, M.D.Oxon, Consulting Physician to St. Bartholomew's Hospital, aged 67 years.

COLMER.—On April 8th, at South Street House, Yeovil, Ptolemy Samuel Henry Colmer, M.D., J.P., aged 55 years.

O'BRIEN.—On March 21st, at Catchgate, Annfield Plain, co. Durham, Thomas Mitchell O'Brien, M.D., aged 42

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances*—Daily, 2. *Operations.*—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR.—*Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—Daily.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30 Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations.*—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations.*—M. F. S., 2.

LONDON. *Attendances.*—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operations.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations.*—M. Th., 4.30.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations.*—F., 9.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations.*—W., 1.30; S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30 *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 3; Dental, Th., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 1. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., W. S., 9; Eye, W. Tu. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th. 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations.*—M. Tu. Th. F. S., 1.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males S., 3; females; W., 9.45. *Operations.*—M., 2; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 1.30: Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Tu., 3; Orthopædic, W., 10; Throat, Tu. F., 3.0; Skin, M. Th., 3.30; Electro-therapeutics, M. Th., 2.30; Dental, W. S., 9.30; Children's Medical, Tu. F., 9.15; Children's Surgical, S., 9.15. *Operations.*—M., 2.30.; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M. 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Th., 2.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations.*—Tu. F., 2.30.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1; Obstetric, Tu., F., 1; Eye, Tu. F., 9.30; Ear, M. Th., 9.30; Skin, W., 1; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

# LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

*Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

BIURET wishes to know whether a medical man possessing the diploma of F.R.C.S.Eng., would be acting in accordance with medical etiquette if he were to put these letters after his name on a door-plate, or even the title more in full, as, for example, John Jackson, Fellow Roy. Coll. Surgeons.

*** We believe it is not usual for Fellows of the Royal College of Surgeons to have door-plates of this description.

J. T. O'H. asks the following questions: 1. A school attendance officer requires a physician's certificate stating the cause of a child's inability to attend school: (*a*) Ought the physician to charge a fee, and how much? (*b*) Who is legally bound to pay for the certificate? 2. What is the best "up to-date" book on the eye, which gives particulars of refraction, distance, and colour vision testing, for a practitioner who has a good knowledge of eye work?

1. (*a*) The fee is usually one shilling, and should be charged. (*b*) Under the circumstances named no one is legally bound to pay the fee. There is no power under the School Board Acts to include payment of such fees out of rates. 2. Our correspondent might find *Refraction of the Eye*, by A. Stanford Morton, M.B., F.R.C.S., sixth edition (London: H. K. Lewis. 1897. 3s. 6d.) useful.

### LEFTHANDEDNESS.

SINISTER asks for enlightenment on the significance of lefthandedness in children. My son (he writes), aged 3½, has been markedly lefthanded from his birth. Does it show any mental deficiency or want of co-ordination between the cerebral hemispheres, and are any steps recommended to obviate the condition? Also as to the cause and cure of fidgets, occurring after meals. Our correspondent asks to be referred to literature on the subject.

### POISONOUS PLANTS.

FOREIGNER asks for information or references on the subject of poisonous plants likely to be eaten by children in the country at different times of the year. He also wishes to know if jaundice is at all common after eating the poisons named. He has at present under his care a boy aged 6 and girl 4, in one family, who have been eating "lords and ladies" and ivy berries with the usual consequences of irritant poisoning *plus* marked jaundice. The samples provided by the mother for his guidance are arum maculatum and ordinary ivy berries (hedera helix). In his county (Gloucestershire) they call the yellow centre of the arum "ladies' fingers," the ordinary kidney vetch not being known by that name. The girl had a temperature of 102° F. for a few days, and the jaundice is not clearing nearly so rapidly in her case. Neither had any purging, and the girl slight colic and the boy none.

*** There is no recent book on British poisonous plants, and the old ones are rare. These are: C. Johnson, *British Poisonous Plants*, second edition, 1862; A. Pratt, *Poisonous, Noxious, and Suspected Plants*, second edition, 1866.

## ANSWERS.

A LEEDS STUDENT should consult one of the physicians of the hospital to which he is attached.

R.D.—The clerk to the County Council of Wiltshire is Mr. R. W. Merriman, Arlington House, Trowbridge.

F.R.C.S.—The proceeding complained of is a great evil, but it does not fall within the scope of a medical paper.

### BOOKS ON HYPNOTISM.

HYP AND AUSTRALEE.—*Hypnotism*, by Dr. A. Moll, 4th Edition (London: Walter Scott, 1897), would probably suit our correspondents' purpose.

### NON-MENSTRUATION AND MARRIAGE.

I. M. S. writes: I note that Dr. W. H. Axford and "Viator" in replying to "Nemo's" query as to whether a girl who had never menstruated ought to marry, quote instances of women who had never menstrnated having borne children after marriage. There are numerous such instances quoted in almost every work on the diseases of women, but such instances being the exception to the rule are no answer to "Nemo's" query. There is always reason to apprehend that a woman who has not menstruated before marriage would remain sterile afterwards; and, besides, it is possible that the non-appearance of the menses depends on some congenital malformation, such as absence or imperfect development of the vagina, which might also prove a bar to sexual intercourse, so I would advise "Nemo" to lay these facts before the parents of the young lady in question, and to suggest to them the advisability of making a careful examination, as the pain of such an investigation would be nothing as compared with the distress which would be entailed upon all parties if a woman with some important malformation of the sexual organs were to marry.

## NOTES, LETTERS, Etc.

### ERGOT IN ANTICIPATION OF POST-PARTUM HÆMORRHAGES.

SURGEON-MAJOR A. BAIRD, A.M.S. (Landour, N.W.P. India), writes: I was much interested in the article by Dr. Lombe Atthill in the BRITISH MEDICAL JOURNAL of March 6th, particularly by his remarks on the use of ergot in cases of threatened abortion. When I was assistant to the late Mr. Wm. Pearse, of St. Tudye, Cornwall, in 1881, he was in the habit of using ergot in these cases combined with tinct. of perchloride of iron and opium. I remember one case especially. A lady staying for a time in the neighbourhood was liable to abortion, and had been unable to produce an heir to a title and estates. During the absence of Mr. Pearse on his annual holiday I was hurriedly called to this lady, and found sharp hæmorrhage had set in, the forerunner of another miscarriage. I administered the ergot mixture of Mr. Pearse, with the result that the hæmorrhage ceased, the lady went to full time, and gave birth to the long-wished-for heir.

### TREATMENT OF SCURVY.

DR. CHARLES MOORE JESSOP (Redhill) writes: In the EPITOME (No. 295) of the BRITISH MEDICAL JOURNAL of April 17th, the pathology and therapeutics of this complaint are treated of. Perhaps you will be so good as to allow me to suggest the use of quadroxalate of potash as an efficient remedy, one which I used in slight cases of scurvy some years ago with benefit. In 1869 the late Dr. Sanders, of Edinburgh, had a severe case of scurvy in his wards at the infirmary which he was so good as to treat with this salt on my suggestion. The result was satisfactory. The amount was 3 or 4 grains three times a day.

### REFRIGERATORS IN THE ROYAL NAVY.

WE are glad to find from a statement in the *Globe* that H.M.S. *Eclipse* has just been fitted with extensive cooling and ice-making machinery which will doubtless prove a boon to her crew during the ship's three years' commission in the East. The new cruisers and large vessels now under completion are also to be supplied with cooling chambers and refrigerating machinery. Up to the present it has been the custom to supply such of our men-of-war as may have been serving on hot stations with wretched so-called ice-making machines worked by manual labour only, but it is stated they have only been successful in producing perspiration and profanity in the people who have been operating them. In cases of sunstroke or heat apoplexy ice is invaluable as a means of inducing recovery, so that the new departure will add not only to the comfort of the crews, but also, it is hoped, may on occasions be the means of saving valuable life.

### "STRENGTHENING MEDICINE."

DR. HENRY HARGOOD (Eastbourne) writes: The following is a correct copy of one of those amusing notes the country practitioner sometimes receives from his patients; it was sent to me by a total stranger, and the messenger refused to give any further information concerning the case.

"Dear sir,—will you send me a Bottle of strenghen medson for My Pore weak mother she as Got a weak stomak and she is 73 years of age and laying ill in Bead and her hart is weak and her strenght is nearly gone But she wants a Bottle of strenghten Medson and it is a Yallew Medson what she means and it is some one that Mrs. Filder is verry fond of do not send quinnine it is to hard for her and yet iron But it is a Yallow medson and strenghten do send it good and I will see you another day and tell you all about it I cannot aford to Pay you to come do Pleas do send it good.

"P.S. do not send it to pirg her."

### THE SOCIETY OF APOTHECARIES AND THE RECORD REIGN.

MR. F. C. WOOD, L.S.A. (Ripley) writes: Mr. St. G. Queely says that he has had no difficulty with his L.S.A., neither have I with my old diploma dated May, 1887. The old diploma dated before June 30th, 1887, was a single qualification in medicine, and was generally recognised as such even by the public. The new diploma, which I also possess, is a triple qualification, in medicine, surgery, and midwifery, and I find that even in the profession itself it is not generally recognised as such. It is for this reason that I would not have all diplomates benefited by the proposed changes.

### THE MONTREAL MEETING.

DR. THOMAS JACKSON (Hull) writes: In reading over the list of steamers for America in the BRITISH MEDICAL JOURNAL of April 17th I am surprised to find no mention of the Wilson Line, a very extensive and well-conducted company. Last autumn I went by the *Colorado*, a Wilson Liner, to New York. There were on board about twenty-five passengers, chiefly clergymen, journalists, and those connected with American Colleges. The *cuisine* was everything that could be desired, and Captain Whitton and his officers in every way studied the comfort and pleasure of the passengers. A tent was was erected on deck; this, together with the speed of the vessel, being a great prevention to seasickness. The speed averaged 310 miles in twenty-four hours; whereas the racers go 500 in the same time, this compelling the passengers to go below in rainy weather. Though we had two or three days of rain, it was quite practicable for any who wished to remain on deck. Taking into consideration the charge is much lower than the racers, and little or no sea-sickness, I should advise members of the profession who can spare a few more days to avail themselves of these steamers in visiting the approaching congress. I shall be glad to give any further information, or it may be obtained at the offices of the company at either London, Hull, or Liverpool.

### TUBERCULOSIS IN THE FRENCH ARMY.

THE Paris correspondent of the *Daily News* writes that at a sitting of the Conseil Général M. Clairin moved a resolution, which was unanimously carried, to call the attention of the War Department to the increase of tuberculosis in the army. M. Clairin said that the filth of barrack dormitories was indescribable, and he thought this fact in a great measure accounted for the increase of tuberculosis, which in 1872 was 3.05 per 1,000, but was now 7.04. Nor was the medical examination of recruits with disease of the lungs sufficiently searching. When they became consumptive they were still retained. M. Clairin recommended

that a better system of ventilation be established in barracks and military infirmaries, and that floors should be coated with coal-oil paint and washed every morning instead of being swept.

THE ROENTGEN RAYS AS DETECTORS OF FRAUD.

THE *Electrical Review* of New York states that *x* rays are helping out electrical railway companies in claims for alleged personal injuries. A man asked a Baltimore company for $3,500 as damages for the alleged breaking of his arm. He was offered $100 as a compromise and refused it, and was then subjected to the test of the *x* ray, which showed that his heavily bandaged arm was not broken and had never been. Then he offered to settle for $25, but the company was no longer in a compromising mood.

LONG RETENTION OF COIN IN THE INTESTINE.

DR. J. FARQUHAR (Marlborough, Wilts) writes: *Apropos* of the cases in the Plymouth Royal Naval Hospital reports detailed in the BRITISH MEDICAL JOURNAL of April 24th, p. 1040, relating to coins retained for a considerable time—sixty-four days in one case—in the bowels, I had a case the other week, when a child of 4 swallowed a 2-inch wire nail and passed it in three days and a half, the patient being kept on hard food and no aperient given at any time.

A HOSPITAL PATIENT.

A NEWSPAPER paragraph has been forwarded to us by a correspondent, giving an account of an inquest held at Lambeth on a lad who died in St. Thomas's Hospital, under chloroform administered for an operation for polypus, presumably polypus nasi. The lad was a gymnast, and is said to have been earning £44 a week. Our correspondent asks what right a person earning over £2,000 a year has to go to a hospital. Believing that the figure is a misprint for £4, we still ask what right a lad, with no children or household to maintain, and earning over £200 a year, has to gratuitous hospital treatment.

THE COCAINE HABIT IN CHICAGO.

IT is reported (says the New York *Medical News*) that the victims of the cocaine habit have become so numerous in Chicago that an ordinance has been introduced prohibiting the sale of remedies for catarrh and other diseases which contain cocaine. In the last two months over forty victims of the drug have appeared in police courts and elsewhere. Several of them have been well-known men and women, who say they were brought to their present condition by using "catarrh cures."

AN EPIGRAM BY ROKITANSKY.

ROKITANSKY, the famous pathologist of Vienna, had two sons, one a member of the medical professson, the other a singer, who won for himself a great reputation on the lyric stage. The Professor being asked what professions his sons had adopted is said to have replied in the following alliterative epigram: "*Der eine heilt und der andere heult*" (one heals and the other howls).

A PIONEER MEDICAL WOMAN.

DR. MARY E. WALKER, whose name used to be pretty prominently before the public some twenty-five or thirty years ago, is once more supplying the descriptive reporter in America with materials. She has lately, it would appear, been holding *levées* in the Capitol at Washington. "Time," says the *Washington Post*, "has dealt very gently with the Doctor, and her brown hair, carefully trimmed after the style of a college professor, has yet very few silver threads. Her dress is that of a man, and her shirts, collars, and cuffs are in the latest style. A little red carnation adorns the lapel of her coat, and her overcoat has a short cloak over the shoulders with a velvet collar. She owns property near Oswego, N.Y, which, for the last quarter of a century, she has been trying to donate either to some Government, to the State, or to some wealthy individual who will construct thereon a hospital for the treatment and cure of consumption and all throat and lung troubles."

GRANDMOTHERLY LEGISLATION IN THE UNITED STATES.

AN anticigarette Bill has passed the Lower House of the Tennessee Legislature by a unanimous vote, and it is expected that it will also pass the Senate. The Bill prohibits absolutely the sale of cigarettes and of cigarette papers in the State. The law is to come into effect on May 1st, 1897. If it be true that every people has the government which it deserves, the good folk of Tennessee would appear to be of those of whom it was said, "Blessed are the meek."

A USE FOR PATENT MEDICINE LITERATURE.

THE New Mexico Territorial Board of Health may be congratulated on having found a use for patent medicine literature. In a recently issued circular on the prevention of consumption, among other things the Board advises that "every person so affected should spit into some receptacle, and should see that the sputum is soon destroyed by fire. About the house there is no better way than to spit between the leaves of patent medicine almanacs—to be had freely at all drug stores—and after a half dozen or more spittings burn the book."

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LETTERS, COMMUNICATIONS, ETC., have been received from:
(**A**) A. K. P.; H. Aldersmith, M.B., London; Dr. B. Anningson, Cambridge; J. M. Atkinson, M.B., Hong Kong; Dr. H. Appleton, Hull. (**B**) Mr. J. B. Blackett, London; British Gynæcological Society (Secretary), London; Mr. W. D. Buncombe, London; Mr. W. G. Bond, London. (**C**) Messrs. T. Cook and Son, London; Mr. H. W. Cattell, Philadelphia; Mr. G. H. Cressey, Torquay; Dr. J. H. Crocker, Eccles; Dr. A. M. Cafferata, Spa, Belgium; Mr. A. Campbell, Durnley; Dr. W. A. Carline, Lincoln; Mr. R. J. Collier, London; (**D**) Duke of Devonshire, London; Dr. L. Drage, Hatfield; Messrs. Down Brothers, London; A. Don, M.B., Dundee; Dr. T. Dutton, London; Count De Vere, London. (**E**) Evelina Hospital for Sick Children (Secretary) London; (**F**) Dr. E. Long Fox, Clifton; Dr. J. Farquhar, Marlborough; F.R.C.S. (**G**) Mr. A. Griffin, London; T. B. Grimsdale, M.B., Liverpool; Dr. G. P. Goldsmith, Bedford; Mr. P. B. Giles, Brobury; Mr. M. F. H. Gamble, Middlesbrough; Gordon. (**H**) Dr. R. D. Helm, Carlisle; Professor R. Howden, Newcastle-on-Tyne; Mr. W. Hurst, Cardiff; Mr. T. G. Horder, Cardiff; Dr. J. F. Horne, Barnsley; Mr. W. A. Hayes, Bloemfontein; Mr. G. A. Hawkins-Ambler, Liverpool; Dr. W. J. Howarth, Bury; Dr. J. Hinshelwood, Glasgow; A. Halliday, M.B., Shubenacadie, Nova Scotia; Hyp.; Dr. S. H. Habershon, London; F. H. Halse-Francis, M.B., London. (**I**) Inquirer; I.M.S. (**J**) Mr. H. H. Jennings, London; Mr. W. Johnson, Bloemfontein. (**K**) Mr. J. Keating, Ballinhassig; Mr. W. von Knobleuch, London. (**L**) Messrs. Lea Brothers and Co., Philadelphia; Leeds Student; C. W. Low, M.B., Stowmarket; Mr. R. Lovitt, London. (**M**) Mr. W. S. Morrow, Montreal; M.R.C.S.; J. T. Morrison, M.B., Birmingham; Mr. W. Marriott, London; Member; Mr. J. H. Mummery, London; Dr. J. McGown, Millport; Mr. J. Marshall, Bombay. (**N**) Dr. W. Newman, Stamford. (**O**) Messrs. Oppenheimer, Son, and Co., London. (**P**) Public Vaccinator; J. Patrick, M.B., Glasgow; Mr. F. Porter, Melrose; Mr. J. A. Peters, Frankfort; Dr. G. H. Philipson, Newcastle-on-Tyne; Pathological Society of London (Secretary), London. (**Q**) Quæsitor. (**R**) R. B.; Dr. H. B. Robinson, London; Mr. H. J. Robson, Leeds; Mr. A. Reckless, Sheffield; Dr. R. Rentoul, Liverpool. (**S**) Schleicher Frères, Paris; Mr. A. A. C. Swinton, London; Messrs. A. G. Spalding Brothers, London; Dr. F. H. Spooner, London; W. H. Stephen, M.B., Smethwick; Mr. B. Small, Ottawa; Dr. C. E. Sajous, Paris; Mr. G. Stoker, London; Dr. J. O. Symes, Clifton; Sinister; Dr. W. Samways, Mentone. (**T**) Dr. F. E. Townsend, Normanby. (**U**) Unattached. (**V**) T. A. Vesey, M.B., Rostrevor; Vaccinator. (**W**) Witness to Exposed; Professor A. E. Wright, Netley; Mr. F. C. Wood, Ripley; Mr. R. H. Wolstenholme, Salford; West London Medico-Chirurgical Society (Secretary), London; Dr. J. Woodman, Exeter. (**X**) X. Y. Z.; etc.

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## BOOKS, ETC., RECEIVED.

Atlas und Grundriss der Lehre vom Geburtsakt un der operativen Geburtshilfe. Von Dr. O. Schaeffer. Munich: J. F. Lehmann. 1897. M.5.

Influenza, with Special Reference to Some Peculiar Symptoms. By W. Gray, M.D. London: H. K. Lewis. 1897. 3s. 6d.

Clinical Lessons on Nervous Diseases. By S. Weir Mitchell, M.D. Philadelphia and New York: Lea Brothers and Co. 1897.

Retinoscopy (or Shadow Test) in the Determination of Refraction at one Meter distance with the Plane Mirror. By J. Thorington, M.D. Philadelphia: P. Blakiston and Co. 1897. $1.00.

The American Year-Book of Medicine and Surgery. Under the general editorial charge of G. M. Gould, M.D. London: Rebman Publishing Company. 1897. 38s.

The Municipal Year-Book of the United Kingdom for 1897. By R. Donald. London: Office of *London*. 2s.

Metrical Tables for Engineers, Surveyors, Chemists, Merchants, etc. By F. E. Gay. London: St. Bride's Press. 2s.

La Condition Nécessaire de la Vie et de l'Évolution. Par Dr. C. Pawlinow. Moscow: Alex. Lang. 1897.

Vegetarian Essays. By A. F. Hills. London: Ideal Publishing Union. 1897.

Lectures on the Treatment of Fibroid Tumours of the Uterus, Medical, Electrical, and Surgical. By F. H. Martin, M.D. Chicago: The W. T. Keener Company. 1897. $1.00.

Diseases of the Liver, Gall Bladder, and Biliary System. By H. J. Waring, M.S., B.Sc., F.R.C.S. Edinburgh and London: Young J. Pentland. 1897.

*** In forwarding books the publishers are requested to state the selling prices.

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# CLINICAL LECTURE
ON
# TWO CASES OF MALARIAL NEURITIS WITH TREMORS.

By ALEX. JAMES, M.D.,
Physician to the Edinburgh Royal Infirmary.

The ordinary forms of malaria, the fever—quotidian, tertian, or quartan, we occasionally have examples of in our wards, and there still more frequently we see also the more remote effects of the malarial poison—the anæmia, and the organic changes in spleen, liver, and kidney. But, as you all know, there occur less frequently the so-called concealed malarial diseases. These mostly affect the nervous system, manifesting themselves specially as forms of neuralgia. Of these neuralgias, that affecting the first division of the trifacial—brow ague—is the most common, but other divisions and other nerves may be involved, and there may be also neuralgias of some of the visceral nerves, cardialgia, gastralgia, etc. In addition to painful affections of the sensory nerves, there may be localised paræsthesia, or anæsthesia, and disturbances of some of the special sensory nerves.

But the malarial poison may also affect the motor nerve mechanisms and cause paresis, paralysis, tremors, cramp-like muscular contractions, and even convulsive movements. These motor disturbances are usually localised, and, like the sensory disturbances, are most frequent on the face—mimic spasm—but they may be more general, and cases even of epilepsy due to malaria and, mended by quinine, have been reported.

Now, in connection with all these manifestations of nervous disease we have to remember two points. The first is that that they are all brought about by the malarial organism or its products irritating the nervous tissues. In some instances distinct neuritis—malarial neuritis—has been demonstrated on *post-mortem* examination, but in most cases it is probable that the irritative pathological changes are not sufficiently marked to be capable of microscopical demonstration, although their existence may be with certainty assumed. The second point is that in cases in which the malarial element is not very prominent it may be overlooked, and the nerve symptoms may appear to be the result of some cause more serious because less amenable to treatment. This was, indeed, the case with the two patients whom I propose to show you to-day. In both of them the malarial element was obscure, and in both the sensory, motor, and other symptoms closely simulated serious organic nervous disease. All this, however, will be understood more clearly after the cases have been discussed in detail.

Case I.—J. R., aged 39, a postman, who was admitted to Ward 30 on December 8th, 1896. His complaint was a "shaking of the arms and legs," and he stated that he had been ill for about six months. His family history is fairly good, and his home is comfortable. He has always been accustomed to good food, and has been temperate in the use of alcohol. Between the years 1876 and 1883 he served as a soldier in India; since his discharge he has acted as a postman. With the exception of an attack of ague and dysentery in India in 1880, he has had no illnesses. This attack lasted for six weeks, and since then he has enjoyed perfect health.

*Present Illness.*—This seems to have begun in August last, as the result of an exposure to cold. He suffered severe pain in the back and loins, and there was a slight return of his dysenteric symptoms. For this he was treated in Ward 30, and discharged after a residence of three weeks. After a residence at the convalescent home for three weeks more, he attempted to resume his work, but in a few days he noticed that he was unfit for this. With a feeling of great weakness in his limbs, he observed the supervention of tremblings. At first these were most marked in the legs, but soon they occurred equally in the arms. At first also they tended to occur only when he was fatigued; later on they occurred even when he lay quiet. Finding himself becoming weaker and less fit for work, he returned, and was admitted to Ward 30 on December 8th.

*State on Admission.*—Nervous system: He complains of pains in the back and loins, but there are no other sensory disturbances; sensibility to touch, pain, and temperature being unimpaired. The special senses are unaffected; there is no nystagmus. Voluntary motor power in arms and legs is markedly deficient. There is considerable atrophy of the muscles of the limbs, and tenderness on deep pressure. The plantar, cremasteric, abdominal, and epigastric reflexes are all well marked. The knee-jerks are exaggerated, ankle-jerks are present, and both knee and ankle clonus are readily elicited. The supinator, biceps, and triceps jerks in the arms are well marked. Co-ordination and equilibration are unimpaired. There are almost constant tremors in the legs and arms. These occur when the patient is lying still in bed, but they tend to increase when any voluntary act is attempted, or when the patient is watched or excited. In the face an occasional tremor is seen about the eyebrows. As regards cerebral or mental functions, all that need be said is that he seems depressed, and his intelligence and memory seem to have become rather defective. His other systems, with two points of exception, are fairly normal. These exceptions are, first, that with an impaired appetite there is a tendency to alternations of diarrhœa and constipation, and this we regard as the effects of his old dysenteric trouble. The second point is that whilst his urine is normal he has since his illness commenced had some difficulty in connection with micturition. He tells us that some time elapses before he can start the flow; on one occasion the delay was so great that the catheter had to be employed.

Case II.—E. W., aged 48, a sailor and fireman, who was admitted to Ward 30 on November 7th, 1896, complaining of weakness and shakings in the limbs, and stating that he had been ill for about nine months. His family history is very good, as also is his personal history. He has been at sea since the age of 14. Up till five years ago he was a seaman, since then he has been stoker on board a steamer. In this way he has been exposed to great changes as regards heat and cold, but he has had fairly good food, and has always been very moderate as regards alcohol. Previous illnesses: With the exception of what appears to have been typhoid fever and slight rheumatic fever as a boy, and gonorrhœa at the age of 15, he had enjoyed perfect health. His present illness seems to have begun about nine months ago. He felt a weakness in the legs and arms when at work, and he felt that he got more easily tired. At this time his equilibration seems also to have been below par. He tells us that he had to be careful when going about in the dark—that, for example, he would not attempt to walk across a narrow plank in the way that he would never have hesitated to do previously. He also seems to have had some trouble with his water; he had to pass it more frequently during the day, and at night it would sometimes come away involuntarily. Feeling unfit for work he obtained admission into the Bristol Infirmary. After treatment there for two months he was discharged feeling somewhat better. He remained at home for six weeks, and then went to sea again. He did fairly well for a time, but soon he again began to feel his weakness, and the trouble with the water returned. He then sought admission to the infirmary, and was admitted to Ward 30 as above.

*State on Admission.*—He is a fairly well-built man, but there has been some loss of flesh. His weight is 10 st. 7 lbs., about one stone less than when in good health. Nervous system: Sensory symptoms. He complains of a feeling of numbness in the hands and feet, and he has the "girdle" sensation in the waist. He has also pains in the back, and these occasionally shoot down from the back of the neck to the legs and feet. They feel like electric shocks, and he tells us that he sometimes has a feeling in both arms as if he had hold of an electric battery. Sensibility to touch, pain, and temperature is slightly impaired in hands and feet. The special senses are all fairly normal. Motor: Voluntary motor power is considerably below par. The muscles are somewhat wasted, and show fibrillar contractions readily on tapping. They are also somewhat tender on deep pressure. Reflexes: The superficial reflexes are hardly present. As regards the deep reflexes the knee-jerk is well marked, and knee clonus can readily be elicited. Slight ankle-jerk and ankle clonus are present. The elbow-jerks are present, and both biceps and triceps contract readily on tapping. Tremors of the muscles of the limbs generally are markedly present; they occur when the patient is lying quiet, and are increased when any voluntary motion is attempted. Equilibration is impaired. Standing with his feet close together and his eyes shut, he tends to fall, usually towards the right side. In walking he keeps his eyes fixed on the ground, and his walking is impaired by the tremors which tend to occur in the legs when he brings his feet to the ground. His others systems are fairly normal, with the exception of the bladder trouble previously referred to.

## Etiology.

In the first patient, R., you will all I think be disposed to admit that to ascribe his malady to malaria is justifiable enough. He had ague some seventeen years ago, and although he has had no attacks since and although there are now no malarial changes in his spleen and other organs and tissues, we have to remember that the malarial poison, having once gained an entrance into the body, may yet manifest its presence at any time subsequently. As long as the general health is kept good, its potency for harm is kept in abeyance. So soon, however, as something occurs to lower the health, it may assert itself, and in our patient this something was an exposure to cold in August last. It is interesting also to note that not only did this exposure seem to light up his old malarial mischief, but it lit up his old dysenteric trouble as well, as evidenced by the occurrence of abdominal pain, diarrhœa, straining, and blood in the stools.

In the second patient, W., the acceptance of the malaria as the origin of his symptoms might seem a little more difficult, for not only does he now present none of the ordinary pathological changes of malaria in spleen, liver, blood, etc., but he tells us positively that he has never had malaria at all. He has, however, as a sailor been much in malarial districts. Now we have to remember that it is no uncommon thing to meet with patients becoming affected with malaria after they have left the malarial district. Only last summer I saw a very good example of this here in Edinburgh. As the instance was interesting and rather puzzling at first, I shall detail it to you.

A young, healthy, and vigorous American student had come to Edinburgh on a visit, and had gone out on one of the coaches to see the Forth Bridge. The day, like many summer Edinburgh days, was cold, wet, and

windy, and he had got thoroughly chilled. Next day he was ill, and I was asked to see him. I found him feverish, with a temperature over 104°, and complaining of pains all over. Believing that it was one of the influenza cases then prevalent, I advised salicin, and expressed the opinion that he would be better in a few days. Next day he was so much better that when I saw him he was wishful to get up and go about. I prevailed on him to keep his bed, however, telling him he might get up on the following day. When the following day came, he was again fevered, this being ascribed to his having got up and exposed himself early in the morning. Salicin was again resorted to, and on the next day he again felt quite well. But next day again he was fevered, and my suspicions were aroused. I ascertained that the shivering onset of the fever had occurred at the same hour each morning, and that although in New York he never had had fever, yet that some of his college friends living in the same locality had had fever ascribed to some building excavations in the neighbourhood.

Although in this case the plasmodium was not found in the blood, the subsequent amendment with quinine proved the correctness of the diagnosis, so that this was a case in which the malarial virus had entered the body some months previously, and had there remained latent until its powers for harm had been set into action by cold and exposure. But with our patient, W., it is to be noticed that not only had the virus remained latent for at least eight or nine months (it being that time since he was in a malarious district), but when it did assert itself it was not by producing fever, but by producing symptoms of neuritis. This, however, cannot be regarded as any argument against the malarial origin of his disease, and in his case also, as we shall see further on, our diagnosis was verified by the beneficial effects of quinine. Of course it is to be remarked that in both of our patients we took into consideration the possibility of other causes—alcohol, syphilis, lead poisoning, rheumatism, etc.—but we were able, on careful inquiry, to exclude the first three of these altogether, and to subordinate the last as an etiological factor to the malaria.

Next as regards the symptomatology. In a typical case of neuritis, from any cause, the gross pathological changes are found, as you know, in the peripheral nerves. As the result of irritative changes, an interruption of continuity in the axis cylinders occurs, and so the main symptoms are pains, paræsthesia, anæsthesia, tenderness of the muscles and nerves on pressure, impaired or lost voluntary motor power, wasting of the muscles, and diminished or absent reflexes. We know also that all these symptoms are believed to be the result of the toxic substance inducing inflammatory or degenerative changes in these axis cylinders. But, as I have often pointed out to you, this toxic substance—malaria, alcohol, lead, or whatever it may be—must be carried by the blood, not only to the peripheral nerves, but to the nervous tissue of the centres as well. Moreover, we must also bear in mind that, although the pathologist tells us that in neuritis the gross lesions are found in the peripheral nerves, we are not to be debarred from supposing that these peripheral changes may really be due to causes acting on the centres. We know what trophic centres are, and we know of ascending and descending degenerative processes.

Hence, then, although in a so-called typical case of neuritis the symptoms may be those above mentioned, we must be prepared to meet with great variations at different stages of the disease and in different individual cases. Thus, in our first patient, R., it seemed as if the pyramidal tracts were specially involved, and we got symptoms somewhat like those of lateral sclerosis—namely, impaired voluntary motor power, increased reflexes, and clonus. In the second case the sensory parts of the cord seemed also markedly affected, and we got in addition to motor troubles, sensory and equilibration disturbances somewhat like those of ataxic paraplegia. Again, in our first patient we remarked that the toxic substance seemed also to have been acting specially injuriously on the grey matter of his cerebral convolutions; indeed, I have to confess to you that before I had really got a grasp of his case I was for a time harbouring the idea that there were some gross degenerative changes going on in his brain as well as his cord, and that it was possible that we should have to contemplate the necessity of asylum treatment for him. In cases of neuritis, therefore, we may meet with a great variety of symptoms, but if we only bear in mind the general structure and functions of the various parts of the cerebro-spinal axis, we shall have little difficulty in interpreting the phenomena in any individual case.

But now in our patients there are two symptoms which require special notice—namely, the tremor and the bladder disturbance. Let us consider the latter first. Observe that in most cases of neuritis the bladder, like the other visceral reflexes, seems to escape. In both of our cases, however, but especially in the patient W., it was from the first a source of trouble. That the bladder nerve mechanism should usually escape in neuritis cases is, we may suppose, the result of causes similar to those which, as a rule, impede the involvement of the still more important respiratory, cardiac, and deglutition centres. But just as these centres are occasionally involved, so we may suppose may it be with the bladder. If you ask for any reason why in the patient W. the bladder trouble is more marked than in the patient R., I should say that it is probably due to the weakening results of a very severe gonorrhœa which W. seems to have suffered from many years ago.

Next, as regards the tremors. Just as other kinds of poisons, notably alcohol and mercury, tend to set up tremors, so it is with malaria, and our patients demonstrate this in a very marked manner. When you looked at them in bed you could see the tremor of the bedclothes; when you touched the beds you could feel the tremors. When the patients sat in chairs, with their feet on the floor, ankle clonus was practically always present; when they stretched out their legs, or stood on their feet, the tremors showed like knee clonus. In the upper limbs you could notice tremors like clonus in the fingers, hands, and wrists—at one moment flexion and extension, at another moment pronation and supination, whilst in both cases the hand placed on the heads felt continuous tremor-like movements. These tremors were present when the muscles were passive, and were intensified by voluntary movement or excitement.

We devoted some time in the ward to the investigation of these tremors. By means of receiving and recording tambours, a chronograph, and a revolving cylinder, we timed them, and we found that as regards their time, they agreed in the main with what we previously had expected. Knowing that, as a rule, the farther the muscles concerned are from their centres in the cord, the slower is the clonus or tremor we expected to find that in the legs the ankle tremor would be slower than the knee, and that in the upper limb, the finger tremor would be slower than the elbow. We found, however, considerable difficulty in actually timing the various tremors, owing to the tendency of one tremor to run into the other, as it were. Thus, for example, on taking a finger tremor, wrist and elbow tremors were very apt to supervene, and so cause confusion.

With the head tremor the confusion in this respect was perhaps greatest. You know that with a little practice most healthy individuals can induce a tremor or clonus of the head, and if this be timed it is found to be about 12 or 13 per second. In one of our patients (R.) the head tremor was found to be much slower, namely, about 7 or 8 per second. We concluded from this that we were timing, for the most part, not a true head clonus, but a clonus communicated from arms or legs. The following, however, represents the rate per second of the tremors or clonuses which we were able to obtain with fair accuracy in the two patients:

| | Ankle. | Knee. | Finger. | Elbow. | Head. |
|---|---|---|---|---|---|
| R. | 7 | 7 | 8 | — | — |
| W. | 7 | 9 | — | 10 | 12 |

Let us now answer the question which some of you have asked—What is tremor? Supposing that a healthy, vigorous man braces the muscles of his arm, and keeping the limb semiflexed at the elbow-joint, places his hand on the button of a receiving tambour, the lever of the recording tambour will describe on the smoked surface of the revolving cylinder an almost perfectly straight line. But supposing that this man is fatigued, or excited, or under the influence of some toxic substance, it will be found that the lever describes a zig-zag tracing, that is, a tremor, often quite regular, and usually about 9 per second in its rate of vibration. Now, in the first instance, we have to suppose that the motor cortical centre for the arm muscles was functioning normally, so that the nerve impulses sent down produced equal and co-ordinate contraction in flexor and extensor muscles. In the second instance, however, we have to suppose that the vitality of the motor cortical centre was below par as regards strength and co-ordinating power, so that the nerve impulses passed down to flexors and extensors not continuously but alter-

nately. In this way the occurrence of clonus would seem to entail the action of opponent muscles, that is to say, the required tension of flexor muscles will be induced by the contraction of extensor muscles, and *vice versâ*. But we have to remember that clonus may be induced in muscles without their opponents contracting. Probably the best example of this is seen in the induction of knee clonus by pushing down the patella, as can be done readily in cases of lateral sclerosis or descending degeneration. Here the desired tension is obtained by pushing down the patella. In both of our patients knee clonus or clonus of the quadriceps can also readily be induced in this way. Hence then in tremors or clonus we have to recognise in the functioning of the motor centres disturbed conditions as regards strength and co-ordination, whereby opponent muscles are caused to contract alternately, or single muscles or sets of muscles intermittently. Further, we believe that the maximum rate of these alternate or intermittent contractions varies in different muscles according to differences in their distance from their nerve centres.

So much for the symptoms in our patients. Let us now consider the progress and treatment. Here I have to confess to you that for some weeks I failed to recognise the malarial element in their causation. Our treatment, therefore, consisted in efforts to improve the general health and to counteract what we thought to be a rheumatic element. In addition to rest, good diet, and hot-air baths, the patients were therefore getting mainly iodide of potassium, salicin, and arsenic. Practically no improvement followed, and then we gave quinine (5 gr.) thrice daily. The amendment was as distinct as it was immediate: both patients felt stronger, physically and mentally; the tremors diminished and the bladder troubles improved.

Recognising then that we were dealing with a form of malarial neuritis, I, after two weeks, prescribed in addition strychnine hypodermically—I had withheld it previously owing to the evidence of nerve and muscle irritability—and this appeared also to act beneficially. Within the past few days I have substituted anarcotin for quinine in R.'s case, with good effect, as he had been complaining of deafness. Both patients are still somewhat feeble, but they are now looking forward with confidence to being able shortly to resume their occupations.

## A PROBABLE DIAGNOSTIC SIGN OF TRICUSPID STENOSIS.

By JAMES MACKENZIE, M.D.,
Burnley.

In the study of the symptoms of heart failure far too little attention has been devoted to the consideration of the regurgitant waves of blood sent back from the heart and made manifest by movements in the veins and in the liver. If we consider for one moment the opportunity given for observing what is taking place inside the heart from a comparison of the venous pulse with the arterial pulse, we shall realise the value of more careful study of the venous pulse. When we feel the radial pulse, or when we take a tracing of the radial pulse, we obtain a glimpse of what is going on inside the heart only during a very short period of the cardiac revolution, namely, during the time of ventricular contraction, from the time of the opening to the time of the closure of the aortic valves. (Space E in the tracings 1, 7, 14). On the other hand, when we observe the venous pulse we get a knowledge of what is taking place inside the heart during the whole cardiac revolution, and not only of what is happening in one chamber, but partly directly and partly inferentially of what is happening in both auricle and ventricle. Thus in Fig. 1 we see the effects of the auricular systole producing the wave *b*, immediately followed by the auricular diastole, during which time the blood in the veins pours into the auricle and causes the great fall in the veins (*x*). At this time the right ventricle is pouring blood during its systole back through an incompetent tricuspid orifice into the auricle. Hence before the ventricular systole is at an end the auricle is filled, and the overflow rushes back into the veins producing the wave *a*. The time of closure of the pulmonary valves is shown by the notch on *a*. Then the ventricular systole being at an end the diastole of the ventricle begins, and permits the blood to flow from the auricle and the veins, giving rise to the fall in the vein shown on the tracing at *y*, which fall is interrupted by the recurrence of the auricular systolic wave *b*, and the whole series of events begins over again.

The pulse, when it appears in the veins, is very susceptible to change occurring in the heart, and from its study there may be gathered evidence of cardiac changes when little or no difference can be observed either from exploration of the chest or study of the arterial pulse. In cases, too, of pulse irregularity the venous pulse reveals what is occurring in the various chambers of the heart during irregular action in a manner instructive as well as surprising. In this paper I propose to demonstate how the modifying influence of tricuspid stenosis on the right auricle is shown by the venous and liver pulses.

In cases of slight cardiac debility, such as occurs in fat people, chlorosis, pregnancy, pernicious anæmia, and other forms of functional heart failure, this debility of the heart is often made manifest by a pulsation in the jugular veins. If a tracing of this pulsation be taken, there is found to be a series of waves similar to that in Fig. 1, but not so large. If these waves be carefully timed, as in Fig. 2, where the jugular pulse is taken simultaneously with the carotid, it will be found that the wave *c* is due to the carotid pulse; preceding this is the wave *b*, which like the same wave in Fig. 1 can only be due to the systole of the auricle. In such cases, if the venous pulse persists until the patient dies, its form does not alter, except that the waves may become more or less conspicuous; and when the patient is dying, and the radial pulse is no longer to be felt, we may rarely remark in the veins at the root of the neck the wave *b* due to the auricle continuing to act, thus demonstrating the auricle's right to the title of *ultimum moriens*. In such cases, however great the heart failure may be, there is never produced pulsation of the liver.

On account of the fact that the wave due to the auricle persists in such cases, I have called this type of the venous pulse the auricular form of the venous pulse. In cases where there is organic disease of the mitral valves the backward pressure of the blood becomes so great that usually the venous pulse becomes much altered. In the first instance the type of pulse may be auricular, but the powerful action of the hypertrophied right ventricle pumping the blood back through a large incompetent tricuspid orifice profoundly modifies the character of the venous pulse. I have already pointed out that the wave *a* in Fig. 1 is due to the ventricle. Usually it appears later than the arterial pulse, as in Figs. 2 and 14, because the auricle in diastole, interposed between the ventricle and the veins, absorbed the first portion of the ventricular backflow. When this regurgitation takes place the ventricular backflow becomes so large and forcible that it distends the auricle; the auricular wall becomes so thin that it gradually loses the power of producing any effect by its systole upon the regurgitant blood. Its systole being ineffective, its diastole is ineffective, with the result that the wave due to the ventricle gradually increases, while that due to the auricle decreases, until finally the ventricular wave occurs coincidently with the arterial pulse, and no trace of the auricular wave remains. Thus in Fig. 3 there is but one large

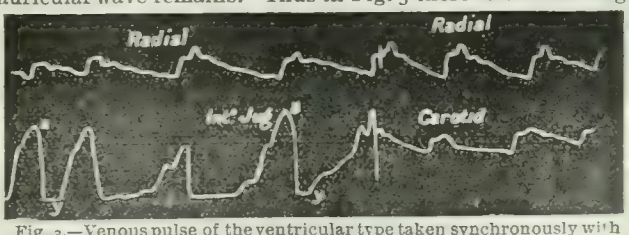



Fig. 3.—Venous pulse of the ventricular type taken synchronously with the radial pulse. As the jugular pulse is nearer the heart than the radial, the difference may be found by calculating the time between the carotid and the radial. In this and some of the other tracings a few beats of the carotid are taken along with the radial for this purpose. (From a case of mitral stenosis and tricuspid incompetence.)

wave synchronous with and due to the ventricular diastole. Whenever there is a venous pulse of this ventricular type there is almost certain to be a pulse in the liver of the same

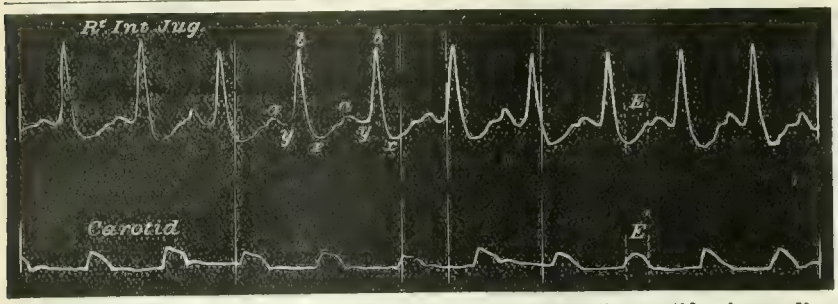



Fig. 1.—Tracings of the venous pulse, taken synchronously with the carotid pulse. *a*, Ventricular wave due to the systole of the right ventricle; *b*, auricular wave due to the systole of the right auricle; *x*, auricular depression due to the diastole of the right auricle; *y*, ventricular depression due to the diastole of the right ventricle. The notch on the ventricular wave, *a*, indicates the time of closure of the pulmonary valves; E and E' the period of ventricular outflow through the right and left arterial orifices. (From a case of tricuspid stenosis.) These letters have the same significance in the subsequent tracings. (The method by which the tracings in this paper were taken is fully described in the *Journal of Pathology and Bacteriology*, February, 1894.)

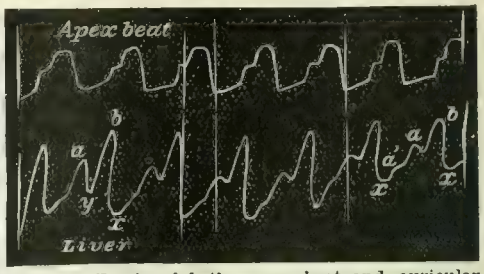



Fig. 8.—Tracing of the apex beat and auricular liver pulse, taken simultaneously, to show the slight notch on the ventricular wave *a*, corresponding to the notch on the venous pulse in Figs. 1, 7, and 14. (From a case of tricuspid stenosis).

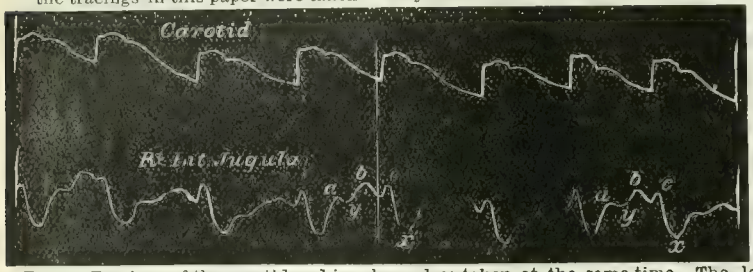



Fig. 2.—Tracings of the carotid and jugular pulses taken at the same time. The letters have the same significance as in Fig. 1. *c* in this and other tracings is a wave due to the carotid impulse. (From a case of pregnancy.)

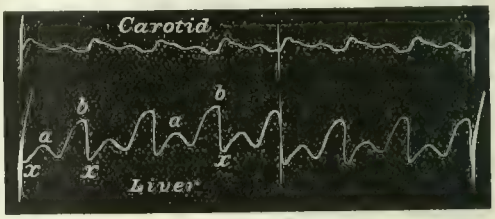



Fig. 12.—To illustrate the same thing as Fig. 11 (from the same patient as Fig. 9).

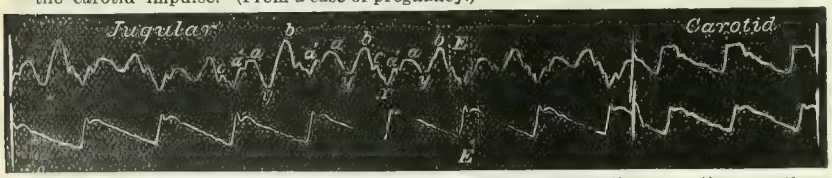



Fig. 7.—Tracing of a venous pulse of the auricular type, taken at the same time as the radial pulse. (From the same patient as Fig. 6.)

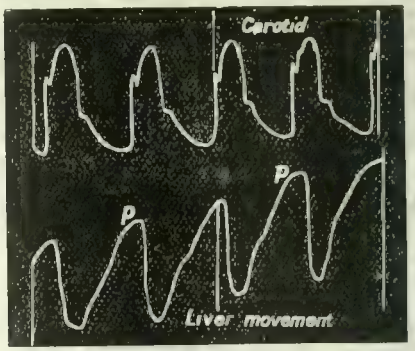



Fig. 10.—Simultaneous tracings of the carotid pulse and of the movement communicated to the liver by the filling and emptying of the ventricles (false liver pulse).

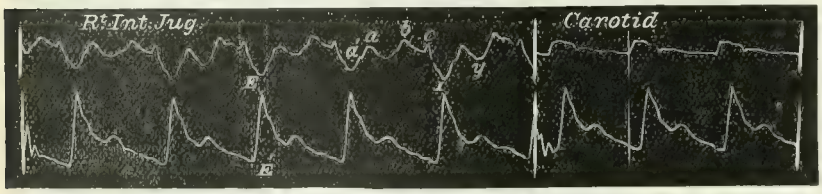



Fig. 14.—Venous pulse of the auricular type from a case of chlorosis showing the same features as occur in the venous pulse of tricuspid stenosis. Compare with Fig. 7.

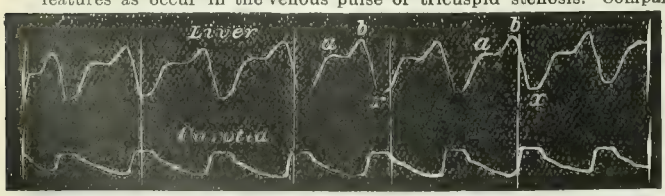



Fig. 11.—Tracing of an auricular liver pulse taken at the same time as the carotid pulse to show that the fall of the auricular wave, *b*, occurs earlier than the fall after the wave *p* in Fig. 10 (from the same patient as Fig. 6.)

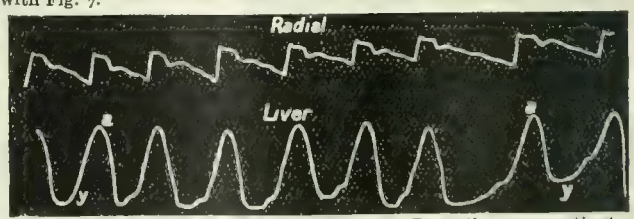



Fig. 4.—Liver pulse of the ventricular type. (From the same patient as Fig. 3.)

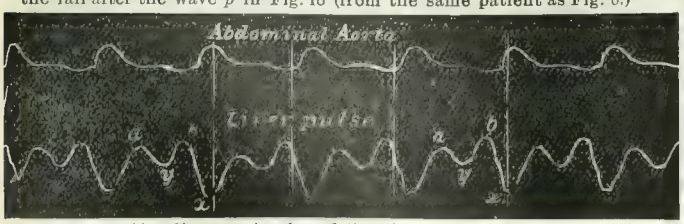



Fig. 13.—Simultaneous tracing of the abdominal aortic pulse and the liver pulse, to show the independence of the liver pulse. (From the same patient as Fig. 5.)

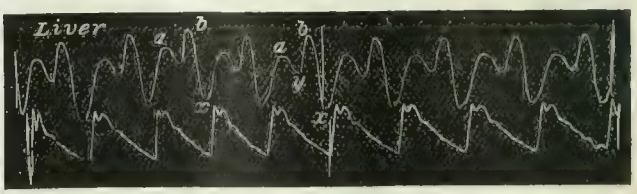



Fig. 6.—Simultaneous tracings of the liver and radial pulses. The liver pulse is of the auricular type. (From a case of tricuspid stenosis.)

type (Fig. 4). On account of the different manner in which the blood produces the wave in the vein and the liver, there is a slight difference in the character of the wave. In the vein the blood regurgitates into a thin-walled tube, collapsed and partly empty, while in the liver it distends a more or less sponge-like substance, and the limit of distension is not reached so quickly as in the vein.

The regurgitant waves of blood from the ventricle act directly upon the vein and the liver in the case from which Figs. 3 and 4 were taken, but if there be between the auricle and the ventricle a diaphragm-like interposition in the shape of stenosed tricuspid valves, there is obtained a pulse of a different character. The auricle does not become so enormously distended, and in consequence it never loses its power of independent contraction. Rather it would seem to gain greater force from compensatory hypertrophy, inasmuch as the wave due to it distends the vein enormously in some cases. Fig. 1 was taken from a case of tricuspid stenosis, where the bulbous enlargement formed by the junction of the subclavian and jugular veins had become of great size, and the wave due to the auricular systole could be detected at the distance of many yards. The valves at the root of the jugular vein immediately above the bulb were competent, so that no wave extended up into the neck. The closure of these valves produced a distinct sound, synchronous with the systole of the auricle, readily audible on auscultation, and of a loudness equalling the first sound of the heart. The liver in this case became at times enlarged, and could be felt pulsating, and, as will be seen from Fig. 5, the pulse in the liver was synchronous with that in the jugular bulb. Here there was both presystolic tricuspid and mitral murmurs during life, and after death there was found stenosis of both tricuspid and mitral valves. The wave *a*, due to the ventricular systole, is not so evident in the liver pulse as it is in the other cases. In Fig. 6, for instance, it is a very marked feature. When a venous pulse exists it is of the same type as that of the liver pulse. Fig. 6 is from the same patient as Fig. 7, and the identity of the waves *a* and *b* due to the ventricle and auricle respectively can readily be made out in both tracings. There are certain features absent from the liver pulse that are evident in the venous pulse. Thus the notch at *a'*, due, as I have suggested, to the closure of the pulmonary valves, is absent. This I take to be due to the gradual distension of the liver blurring out the more delicate features. Occasionally, however, it can be demonstrated as in Fig. 8. The wave *c* of the venous pulse (Fig. 7) is absent from the liver pulse (Fig. 6). From a variety of reasons this wave, which can be recognised in tracings by many observers, I have been able to demonstrate as due to the carotid impact, and its absence from the liver pulse is one of those reasons. (Fig. 9.)

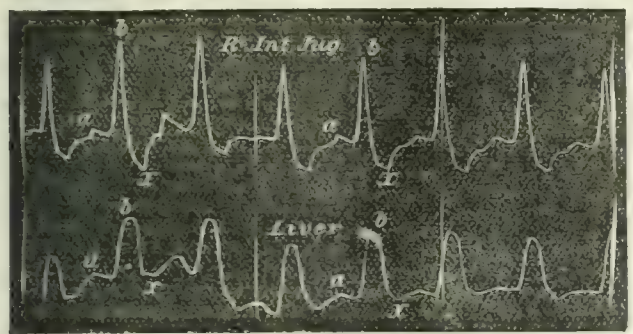



Fig. 5.—Simultaneous tracings of the venous and liver pulses. Both are of the auricular type. (From the same patient as Fig. 1.)

There are three difficulties which occur in differentiating the liver pulse. First, the movements of the liver produced by the action of the heart: secondly, the pulsation of the abdominal aorta; thirdly, the liver pulse of the ventricular type in its early stage. Concerning the first of these conditions, there are certain distinct movements of the liver caused by the filling and emptying of the ventricles. Such cases occur when there is enlargement of the heart, and it can be demonstrated even when there is not much cardiac increase, but when the lax abdominal walls permit the under surface of the liver to be explored. Thus Fig. 10 is taken

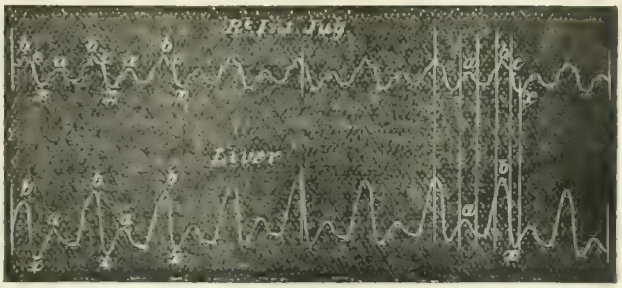



Fig. 9.—Simultaneous tracings of the venous and liver pulses showing the absence of the arterial wave *c*, from the liver pulse. From a case of tricuspid stenosis.)

from a case of aortic disease with no affection of the mitral or tricuspid valves. It will be seen that during the diastole of the ventricles, while the ventricle is filling and therefore enlarging, the liver is depressed, producing the wave in the tracing marked *p*. As soon as the ventricle begins to empty it shrinks and the liver recedes, producing a fall in the tracing exactly at the same time as the blood wave from the ventricle appears in the carotid. One distinguishing feature is that the fall occurs in this liver movement a little later than it occurs in the auricular liver pulse. That the time is very near will be evident when it is considered that the auricular contraction which produces the wave in the true liver pulse is immediately followed by the ventricular systole which causes the fall in the tracing of the false liver pulse. There is but a small interval of time between these events, and by an accurate comparison of the time in the false and true liver pulse one can make out the difference (compare Fig. 10 with Figs. 11 and 12). In addition, in this false liver pulse, caused by the emptying and filling of the ventricle, there is never the ventricular wave *a*, which is present in the tracings of the liver pulse.

That the auricular pulse is not due to the abdominal aorta is evident from this tracing (Fig. 13), which is a tracing of the pulse of the abdominal aorta taken simultaneously with the liver pulse. It will be at once seen that the wave *b* due to the auricle precedes the abdominal aortic pulse.

From what has already been said the time of the occurrence of the liver pulse of the ventricular type is different from that of the auricular type (see Fig. 4). My observations tend to confirm me in the opinion I expressed some years ago that the wave *a* in the tracings of the auricular venous pulse is really due to the ventricular systole, and, as the auricle in cases of tricuspid incompetence from mitral disease becomes more enfeebled, the wave due to it becomes smaller, while that due to the ventricle increases, till finally the auricular wave disappears and the ventricular is the only one left. It may be that the liver pulse in the early stages of tricuspid incompetence without stenosis will show this wave. On looking over my tracings I am not certain but what I have detected such a thing. But I have not been able to follow up such cases where the suspicion has arisen.

It is, then, the presence of the liver pulse of the auricular type that I suggest as being the diagnostic sign of tricuspid stenosis. The frequent absence of a presystolic murmur of tricuspid origin causes stenosis of the tricuspid valves only to be recognised on the *post-mortem* table in the majority of cases. That the stenosed tricuspid valves may, by protecting the auricle and preserving its functions, tend to modify the extreme backward pressure of blood upon the venous system, and thus prolong life, cannot be certainly averred; but in the study of these cases it has seemed as if life had been prolonged.

It will be noted that it is the liver pulse and not the venous pulse of the auricular type that I look upon as being the distinctive sign. The venous pulse is a frequent phenomenon in the mildest forms of functional dilatation of the heart (See Figs. 2 and 14) as in the most severe. By functional dilatation I mean that form when there is no organic disease of the valves. A liver pulse never occurs in such cases. The reason for this, I suspect, lies in the different causes producing enlargement of the heart. In cases of regurgitation from the heart due to valvular disease, there is a time when the

muscular substance is healthy, and with increased work it hypertrophies, and, acting with great vigour, sends the blood backwards as well as forwards with great force. While a feebly-contracting auricle may produce waves in a thin-walled vein, it requires a greater force to distend the sponge-like substance of the liver. In cases of functional dilatation the proximate cause of the dilatation is the weakness of the muscular walls of a heart, so that instead of a hypertrophic muscle producing an abnormally powerful contraction, there is a weakened muscle producing an abnormally feeble contraction. Whether the explanation be sufficient or not, I have sought carefully among a very large number of patients (amounting to many hundreds), with a venous pulse of the auricular type due to functional dilatation, but I have never found a true liver pulse.

The evidence for the statements here made is based on the examination of 7 cases of tricuspid stenosis; 5 of these cases have had the condition confirmed by *post-mortem* examination. While these cases are too few for one to be absolutely dogmatic, yet they are more numerous than usually falls to the experience of any single observer. A very large number of cases of liver pulsation of the ventricular type, due to great tricuspid incompetence and other cases of heart disease where there was no stenosis of the tricuspid orifice, have been carefully examined. In no instance, except those mentioned, has there been the slightest evidence of the liver pulse of the auricular type.

## A CASE OF ANEURYSM OF THE HEART.

By T. SYDNEY SHORT, M.D.,

Physician to the Infirmary and Assistant Physician to the General Hospital, Birmingham.

W. H., aged 33 years, a small and somewhat delicate-looking man, first came under my notice in March, 1893. He was suffering from syphilitic enlargement of the testicles; the primary sore having occurred when he was 17 years of age. I had occasion to examine the heart carefully, and I know that nothing abnormal was then detected from physical examination. Nearly three years elapsed, and in December, 1895, he came to see me, complaining of dyspnœa on exertion, dry cough, general weakness, and loss of appetite, all of which had existed for six weeks. His heart was enlarged, the apex was just outside the vertical nipple line, and a loud systolic murmur could be heard almost all over the cardiac area, and was loudest at the apex. The pulse was about 100 a minute, of fair quality and regular. The lungs were quite free from adventitious sounds, but it was noted that with inspiration cogwheel interruptions existed all down the front of the right side. These were not heard at all on the left side. He said that soon after I first saw him in 1893 he gave up his work as a stamper, because he felt unable to bear the strain of so arduous an occupation, and took a small beerhouse. He was, and always had been, an abstemious man himself, a statement his wife corroborated, and as he was now doing no hard work he could not account for his heart trouble in any way. He had never had rheumatism or scarlet fever. For six months he was under my treatment, and improved very much on digitalis, strophanthus, and iron, so that in June of 1896 he was able to get up and downstairs without any dyspnœa, and felt well in himself. The heart's apex was now in the nipple line, the action was regular in rhythm but occasionally varied a little in force; the pulse was 96; the loud systolic murmur persisted. For four months he went on very well without any treatment, and then one day he carried several buckets of water up and downstairs, and washed out a cellar floor. He felt very fatigued after this; the dyspnœa returned, and some swelling of the feet ensued. This was in October of 1896, and he came once more to see me. He looked very ill. His face was swollen and of a peculiar leaden hue, suggesting argyria, but differing from that condition in that the shadows alone were blue, and the lighter parts of the face, namely, the cheeks and the forehead, were of a waxy and deathly pallor. The heart at this time was much enlarged; the apex beat was in the fifth space, half an inch external to the nipple line, and diffused. There was marked epigastric pulsation. A loud harsh systolic murmur was heard all over the cardiac area and, as before, was most distinct over the apical region. The second sound at the base was reduplicated. The veins of the neck were distended but did not pulsate; the whole of the lower part of the neck looked bloated and swollen. The liver was enlarged and tender; the spleen was not enlarged; the urine contained no albumen. He said he was vomiting all his food, a result, I thought, of congestion of the stomach. He had dyspnœa unless at rest, and complained principally of a distressing bursting feeling over the heart, eased by lying flat on his back.

It was a most unusual sight to see a man livid, and apparently dyspnœic, comfortable in the recumbent posture only, and unable to sit up without distress. From the symptoms and the complete absence of any signs of aortic aneurysm I thought there must be some communication between the right and left sides of the heart: and knowing that he was well until his 33rd year, and seeing that his nails were only just beginning to club, I thought it unlikely that he suffered from any congenital defect of his heart. It seemed more probable that he suffered from some syphilitic disease of the septum and this was the diagnosis made. He was so much worse altogether, that I advised him to come into the hospital under the care of Dr. Simon, who has most kindly allowed me to make use of the hospital notes of the case. Dr. Simon agreed with me in thinking that there was some defect in the cardiac septum causing admixture of the arterial and venous blood. Careful dieting and half-minim doses of creasote in capsules relieved his sickness, but otherwise he was not improved, and, becoming restless and fidgety, he decided to go home after a fortnight's stay in the wards.

After he left the hospital I saw him several times with Dr. Vincent Jones, who took charge of the case and visited him daily. The œdema increased with alarming rapidity, spreading from the legs to the penis and scrotum, then involving the lumbar region, and finally the skin of the chest and back. His colour varied from day to day in the depth of the cyanosis, but was always of the peculiar livid leaden colour already mentioned. The heart sounds varied also; some days distinct presystolic and systolic murmurs were heard over the apical region with marked triple rhythm of the beat, and within a few hours the rhythm would become double again, with only a loud blowing systolic *bruit* heard over the precordia and also over the scapular region at the back of the chest. It may be especially mentioned, in face of the occasional presystolic murmur, that the usual signs of mitral stenosis had been quite absent throughout. More than once a distinct to-and-fro friction was heard, very like a pericardial rub, but there was never any evidence of distension of the pericardial sac with fluid. He insisted upon getting up for some hours every day, and seemed no worse than when he was in bed. His great trouble lay in attacks of intense dyspnœa, which occurred once or twice in the first week, and nearly killed him. He declared that they began with wind in the stomach, and were eased when he could belch it up. Keeping the stomach as empty as possible, and especially forbidding large quantities of fluid food, eased him considerably. With the exception of these attacks he never suffered from shortness of breath, so long as he abstained from moving about, throughout the whole of his illness. No drug seemed now to have any beneficial effect; digitalis, I thought, made him worse. He wandered at night, and latterly in the day time as well. He died quite suddenly and quietly on the night of the fourteenth day after he left the hospital. His wife was with him at the time. He spoke to her and said that he felt very tired and wanted to go to sleep; then he turned over on his side, and in about ten minutes his jaw dropped and he changed colour. There was no dyspnœic paroxysm at the end. Three days before his death his left axillary vein became plugged, causing œdema of the arm and hand and much pain.

### Necropsy.

Report by Dr. Stanley. Permission was granted to examine the heart only. The heart weighed 1 lb. The sac was somewhat distended, and contained semi-opaque fluid. The surface of the epicardium was irregularly granular, and also showed some chronic thickening, as from previous pericarditis, this being most marked over the surface of the right auricle and upper portion of the right ventricle. At one place there was a fibrous adhesion connecting the two pericardial surfaces. On opening the left ventricle an

aneurysm of the cardiac wall was found at the upper limit of the ventricle, bulging to the right, and forming a projection at the conus immediately under the pulmonary artery, as the latter is directed to the left. The sac was partially filled with laminated clot, and beyond the clot the surrounding tissues appeared fibrous. The coronary artery close by was much thickened. On examination of the myocardium there was found an irregular fibrosis. The valves showed no marked alteration. The lesion appeared to have begun as a syphilitic deposit with subsequent fibroid change allowing of the formation of a cardiac aneurysm.

Remarks.

The unusual symptoms in this case seem to have been due to the obstruction to the flow of blood through the pulmonary and coronary arteries. From the position of the sac it is manifest that when full it would form a distinct block by jutting into the cavity of the right ventricle just below the pulmonary orifice. The diminished quantity of blood passing through the pulmonary artery and the resulting deficiency in its aëration account for the extraordinary colour of the patient during life. No communication existed between the sac of the aneurysm and the right ventricle. The cogwheel interruptions during inspiration which were noted when he was under my treatment in 1893 were not subsequently heard.



The photograph of the heart, kindly taken for me by Mr. Whittles, shows the opening of the aneurysm from the left ventricle.

## THE TREATMENT OF TUBERCULOUS DISEASE OF THE HIP IN ITS EARLY STAGES.

By HOWARD MARSH, F.R.C.S.,
Surgeon to St. Bartholomew's Hospital.

In the British Medical Journal of April 24th is a paper by Mr. Tobin on Osteotomy of the Femur as a Treatment for Tuberculous Hip Disease in its Early Stages. In the following remarks it will be my endeavour to show that the difficulties which have presented themselves to Mr. Tobin, and to meet which he has resorted to a proceeding the advisability of which, I believe, many will be inclined to question, have received the attention of surgeons both in England and in America, and have been overcome by methods that can readily be applied. These, it may be added, have been several times described in surgical literature in the course of the last twenty years.

In the first place, Mr. Tobin holds that in early hip disease the limb is flexed, abducted, and everted—the position of greatest ease—because the joint is distended with fluid. But is this the case? Large effusion in early tuberculous disease of those joints which are superficial enough to allow an investigation of this point—the hip, the knee, and the ankle—is seldom present, and I am not aware of any evidence to prove that the hip differs from the other joints in this respect. The probability seems to be that the hip, like the other joints, is placed in the position of greatest ease, not because it is distended with fluid, but in order that the swollen and sensitive soft structures may as far as possible be placed in a state of relaxation—one of the principal elements in physiological rest. The position is easily understood when we remember that it is exactly the same as that which is assumed when we sit down in an easy attitude after exercise, with the thighs flexed, the knees separated, and the feet crossed. In this position all the ligaments as well as the different parts of the capsule of the joint are relaxed. The familiar experiment of Mr. Swann, which Mr. Tobin quotes, no doubt shows that the capsule can accommodate the greatest quantity of fluid when the limb is flexed, abducted, and everted. But that the limb assumes this position in early disease is no evidence that the joint is distended. All joints, including the hip, tend, when they are inflamed—whether they contain fluid or whether they do not—to assume their respective positions of greatest ease.

Speaking of the use of weight extension, Mr. Tobin says that this method "does not act in the way it is represented as doing in the plates in handbooks of surgery. In these," he continues, "you see a patient with a weight attached to the limb lying supine, his back and knee flat and both touching the mattress. What really happens is this; if the weight is heavy enough to keep the leg straight the spine is dragged into a position of lordosis; if it is less heavy there is less straightening of the limb and less lordosis, in which case the lordosis is an indication of force exerted on the joint to its discomfort." I do not know to what plates in any handbooks Mr. Tobin alludes, but the statement seems hardly to convey the whole truth, for certainly many of the best handbooks of the day avoid the error which he mentions, and state correctly how weight extension ought to be used for the hip. This is the case with Erichsen,[1] Holmes's *System*,[2] Walsham,[3] and D'Arcy Power;[4] while in Treves[5] the matter, though its importance would have fully justified its introduction, is passed over without notice, so that the mistake which Mr. Tobin has in view is not made. It is twenty-one years ago since in the Hunterian Lectures[6] delivered at the College of Surgeons I pointed out that when weight extension is applied while the limb is in the position which Mr. Tobin so justly criticises the force employed acts, not as extension, but as leverage, for the femur is used as a lever, the weight suspended from the foot acts as the power and the acetabulum as the fulcrum (see Fig. 1),[7] so that instead of relieving pressure between the head of the femur and the acetabulum it tends directly to increase it.




Fig. 1.—From Marsh's *Diseases of the Joints and Spine*, Cassell and Co., 1895.

This subject was again discussed in the first and in the second editions of *Diseases of the Joints*, which appeared in 1886 and 1895, and in a chapter on interosseous pressure the following appears: "Yet there lies at the bottom of the successful application of weight extension a principle (*vide infra*) which is frequently overlooked, with the result that instead of acting so as to relieve interosseous pressure by drawing the surfaces out of abnormally close contact, extension has exactly the opposite effect, for it brings the articular ends still more firmly together;" and "if the parts are examined when the weight has been applied" (in the wrong manner) "it will be found that the limb has come down into the horizontal position, while the pelvis has been rotated so as to produce curvature of the lumbar spine forwards. (Fig. 1.) This change in the position of the limb, however, does not alter the force that is being employed. The force is leverage still, and interosseous pressure is still in action.'

In order to obviate this objectionable condition of things, "when the hip is the affected joint the leg must be extended on the thigh, and the whole limb must be raised till the spine is free from lordosis, and then be supported in this position, the weight being made to act in the long axis of the limb. Then, as the weight gradually reduces the angle of flexion at the joint the apparatus must be rearranged by reducing the height to which the limb is raised, and by changing the position of the pulley so that traction is still maintained in the long axis of the limb. By following out this process, the limb will gradually be brought down into a position of full extension. It seems advisable to draw particular attention to this subject. Here is a great principle in the treatment of diseases of the joints to which everyone freely subscribes, the principle, namely, of removing interosseous pressure; yet there can be no doubt that though we possess adequate means for carrying this principle into effect, there is danger that the method may be used in such a manner as to produce exactly the opposite result. I have seen many cases in which weight extension applied as in Fig. 1 has had the effect of increasing pain, and has therefore been discarded as a failure. In these cases, however, when the limb has been arranged as in Fig. 2, and the weight

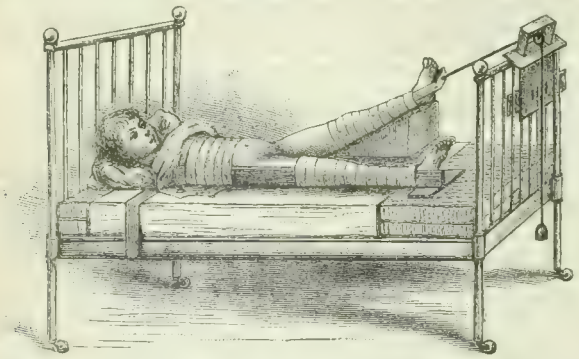


Fig. 2.—From Marsh's *Diseases of the Joints and Spine* Cassel and Co., 1895.

has been reapplied, pain has been at once relieved and the efficacy of the treatment has been fully vindicated." "It is often (p. 410) surprising to see how quickly this method of weight extension in the line of the thigh will remove deformity. In recent cases it will reduce the limb to its natural position in ten days or a fortnight, while often in cases of longer standing it will do so in the course of a few weeks." It is quite certain that by weight extension thus applied, the limb will be brought down into its correct position within the time occupied by the repair of the femur after Mr. Tobin's osteotomy. This speedy correction of deformity is due to the fact that weight extension removes muscular spasm. When spasm is no longer present the limb is free to return to its normal position.

The valuable and justly popular splint (to which Mr. Tobin alludes) invented by Mr. Thomas for the treatment of hip disease, may, like weight extension, be used either rightly or wrongly. According to the method in which it is applied it will (*a*) produce, or (*b*) tend to relieve interosseous pressure. Thus if we take a case of hip disease with flexion at an angle, say of 130 degrees, bend a Thomas's splint till it forms an angle of 140 degrees—that is, to a less extent than that to which the thigh is flexed upon the trunk—and bandage the limb firmly to the splint, we produce interosseous pressure, for the femur is being used as a lever to overcome the resistance to extension exercised by the ilio-psoas and the other muscles, which are in a state of reflex spasm. But if the Thomas's splint is bent to an angle of 125 degrees—that is, to a greater extent than that to which the thigh is flexed on the trunk—no interosseous pressure is produced. In this second condition of things the straightening of the limb upon the trunk is brought about very much as it is by the use of weight extension, in the manner I have described—that is, fixation of the limb in a easy position leads to the subsidence of muscular spasm, and as the spasm subsides the limb is left free to pass into a position of extension; and, as it does so, the Thomas's splint is, stage by stage, straightened out—so that it follows the descent of the limb—until full extension has been accomplished. I believe for the removal of flexion weight extension is more efficient and more easily managed than is a Thomas's splint. But both methods alike, when they are correctly used, yield very good results. Weight extension, as described above, has been employed for upwards of 25 years at the Hospital for Hip Disease, and in early disease—that is, before either fibrous ankylosis or bony absorption has occurred—cases are very seldom met with in which the position of the limb is not corrected in the course of six or, at the longest, eight weeks.

I have ventured above to express with due courtesy my dissent from Mr. Tobin's belief that the hip-joint is distended in early disease. The manner in which the joint tolerates weight extension—an agency which one would think would, if the capsule were distended, add still further to the tense condition of the parts, and so produce pain—seems to indicate that distension cannot, as a matter of fact, be present. Moreover, if distension is really present, how is it that, in numerous cases, within two or three weeks, the position of greatest ease—flexion, abduction, and eversion—can be exchanged for a position of full extension, the patient in the meantime remaining completely free from pain, notwithstanding that before extension was begun pain was considerable? It seems, in other words, difficult to maintain that the position of greatest ease has been assumed in these cases in order to accommodate fluid in the joint, for before there has been time for the removal of fluid the substitution of full extension for the position of greatest ease has been effected in a completely painless manner.

It appears reasonable to ask, seeing how readily extension can be substituted for the awkward position, as Mr. Tobin justly calls it, of greatest ease, and how well the change is tolerated, whether it is necessary to resort to such a proceeding as osteotomy. And, further, if the position of greatest ease is assumed merely to accommodate the fluid by which the joint is distended, might not the difficulty be surmounted by aseptic aspiration? For when the joint had thus been emptied what would interfere with the extension of the limb, and on what grounds would such a proceeding as osteotomy be called for?

I gather from his paper that Mr. Tobin allows patients to be up on crutches at the end of two months after he has performed osteotomy, and he does not mention the use of a high boot on the opposite foot; but can it be said that under such circumstances the joint is kept at rest? Can the child be trusted not to bear weight upon the affected limb, seeing that this is only slightly shorter than its fellow?

There is only one further point to which I would allude. Mr. Tobin states that the crutches "cause the limb to swing in a good position until ankylosis is complete." I am in doubt whether bony or fibrous ankylosis is here alluded to. As far as I have observed, bony ankylosis after hip disease is rare. It does not occur more often than at the most in 6 or 8 per cent. of all cases that recover. As to fibrous ankylosis—if by this term is meant complete fixation by the union of the articular surfaces by fibrous tissue—it is also a condition which is met with in only a limited number of instances. In the majority of cases, even after suppuration has occurred, movement of the joint, though it is limited, and often mischievous rather than useful, since it allows of the recurrence of deformity, still remains. In a very large number of cases in which early hip disease is adequately treated, complete or very wide movement is retained, and the power of complete extension (together with other movements) is restored; and when this is the case will not the patient be placed at a disadvantage by the fact that his femur has been divided, and made to unite in a position of angular deformity?

REFERENCES

[1] Erichsen, 9th edition, vol. ii, p. 473. [2] Holmes's *System of Surgery*, 3rd edition, vol. ii, p. 365. [3] Walsham, 4th edition, p. 264. [4] D'Arcy Power, *Surgical Diseases of Children*, 1895, p. 118. [5] *System of Surgery*, 1895. [6] BRITISH MEDICAL JOURNAL, 1876. [7] *Diseases of the Joints and Spine*, Cassell and Co., 1895.

ACCORDING to the *Borsenblatt für den deutschen Buchhandel* the number of new works on medical science published in Germany during last year was 1,545. The total literary output of the Fatherland in 1896 amounted to 23,339 works of various kinds.

# THE TREATMENT OF WOUNDS OF THE AIR PASSAGES.

By J. E. PLATT, M.S.Lond., F.R.C.S.,
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THIS subject does not appear to have received quite so much attention as it merits, and hence, having had opportunities of observing an unusually large number of cases, I venture to record my results, together with a brief account of certain improved details of treatment. Until a few years ago almost all authorities discountenanced the use of sutures in wounds opening the air passage. The risks to the patient were thereby greatly increased, and death often occurred from septic broncho-pneumonia or other inflammatory complication; at the best convalescence was tardy, and permanent aërial fistula or stenosis of the larynx or trachea frequently resulted. In 1892, however, Henry Morris[1] recorded a number of cases in which he had applied sutures with success, and Pollard[2] advocated the same treatment; but although other surgeons have from time to time reported isolated successful cases, it would appear that a large number of these wounds are still treated by the older method of non-suture.

During the two years whilst I was resident surgical officer at the Manchester Royal Infirmary 35 patients suffering from suicidal wounds of the throat were admitted to that institution. In 10 of the number the air passages were injured, and in 25 the wound was comparatively superficial. A brief outline of the cases in which the air passage was opened, is as follows:

CASE I.—Male, aged 55, admitted December 7th, 1894. Large wound above hyoid bone reaching on left side to posterior border of sterno-mastoid muscle. Genio-hyoid and genio-glossi muscles divided, and pharynx opened. No sutures applied; wound packed with lint soaked in warm lotion, and patient placed in a steam tent. He sank gradually, and died from heart failure eight days after admission.

CASE II.—Male, aged 34, alcoholic, admitted June 10th, 1895. Wound of thyro-hyoid membrane. Aperture in larynx closed by catgut sutures; also skin, except slightly at angles of incision; no tracheotomy tube used. Wound healed by first intention: never any rise of temperature; patient discharged ten days after accident quite well. Fifteen months later I heard that he had had no further trouble from his throat, and was in good health.

CASE III.—Male, aged 52, admitted June 18th, 1895. Skin wound 3 inches long; cut through thyroid cartilage into larynx ½ inch long; second cut through crico-thyroid membrane 1 inch long. Wound in thyroid cartilage closed by one suture; silver tracheotomy tube introduced through opening in crico-thyroid membrane and rest of wound closed around it. Tube removed on fourth day: the opening left by it was nearly a month in closing. There were never any bad symptoms. The patient was seen fifteen months afterwards, and he was then quite well, and had had no subsequent trouble from his throat.

CASE IV.—Male, aged 32, admitted October 5th, 1895. Wound 5 inches long: left sterno-mastoid three-fourths divided, right sterno-mastoid half divided. Thyro-hyoid membrane close to thyroid cartilage opened for 1 inch. High tracheotomy performed; wound in larynx closed. Some of the sutures gave way, and an aërial fistula formed in thyro-hyoid membrane, but it had almost closed when patient was discharged, twenty days after admission. A month after discharge, I saw the man, and he was then quite well. In November, 1896, I heard from his medical attendant that "beyond the scar, he seemed none the worse for his scapade."

CASE V.—Male, aged 31, admitted December 28th, 1895. Wound 2½ inches long; trachea, ½ inch below cricoid cartilage, divided, and muscular fibres of œsophagus exposed: divided ends of trachea separated for 1 inch. Ends of trachea approximated by six catgut sutures, a tracheotomy tube being put in anterior part of wound. Tube removed on fifth day; a few days later the sutures holding the trachea gave way: as the wound healed, dyspnœa came on and the tube had to be replaced. On February 4th, an examination was made under chloroform and the trachea above the tube was found to be almost obliterated by cicatricial tissue. The patient was discharged on February 17th, 1896. He was readmitted on March 30th, and on April 6th, low tracheotomy having been performed, an attempt was made to remove the cicatricial tissue and to bring together the ends of the trachea on each side of the stricture; this was only partially successful, and the man was discharged on April 20th, still wearing the tracheotomy tube. His subsequent progress could not be ascertained.

CASE VI.—Female, aged 27, admitted April 2nd, 1896. Wound in crico-thyroid membrane ¾ inch long; closed with silk sutures, no tracheotomy tube. Primary union; patient discharged eleven days after admission quite well. January 6th, 1897, patient seen, quite well; no dyspnœa or dysphagia.

CASE VII.—Male, aged 54, admitted June 12th, 1896. Skin wound 4 inches long; crico-thyroid membrane divided for ¾ inch. Larynx closed with silk sutures; also skin, except at one angle, where a tube was put in. External wound suppurated and was slow in closing, but healing was almost complete when patient was discharged (July 13th). Afterwards he went to South Africa. Some time after his arrival there I heard that he was in good health.

CASE VIII.—Male, aged 60, admitted June 14th, 1896. Skin wound 2½ inches long; wound in crico-thyroid membrane ¾ inch long, and situated ½ inch below level of vocal cords. Patient was a very feeble man; he was very collapsed when admitted, and no operative treatment could be undertaken for some hours. Wounds in larynx and skin closed with silk sutures; no drain and no tracheotomy tube. Acute pneumonia developed and proved fatal eight days later. There was a little emphysema of the neck for two days after admission, but beyond this the wound did well. *Post mortem:* acute croupous pneumonia of left lower lobe in stage of grey hepatisation; acute fibrinous pleurisy on left side; no septic broncho-pneumonia or pleural effusion; slight œdema of vocal cords; kidneys granular; liver fatty, and heart hypertrophied.

CASE IX.—Male, aged 36, admitted July 6th, 1896. Two wounds of air passage, one through crico-thyroid membrane, dividing one-third circumference of larynx, the other immediately below cricoid cartilage dividing trachea completely; patient melancholic. Tracheotomy tube introduced through fresh vertical slit in upper part of trachea, and wounds in trachea and larynx completely closed with silk sutures. Small drainage tube put in one angle of wound. Tracheotomy tube removed on third day; wound healed by first intentfon; no bad symptoms. Patient discharged fourteen days after admission, the throat being then quite well. He was admitted to Whittingham Asylum on July 30th; on December 18th I heard from the medical superintendent that his throat had given no further trouble.

CASE X.—Male, aged 60, admitted August 19th, 1896. Wound 1 inch long in thyro-hyoid membrane; skin wound 4 inches long. Larynx and skin sutured; small drainage tube in skin. Progress good with the exception of a little sloughing and suppuration at one angle of the wound. The man was discharged seventeen days after admission, the neck being then apparently almost healed. He was sent to the Union Hospital, Crumpsall. After his arrival there the suppuration increased, and some of the deep sutures had to be taken away. On November 30th, however, I heard that he was quite well; the wound was healed, and he had no difficulty in breathing and swallowing.

From an analysis of the above cases it will be seen that the position of the wound was as follows:

| | |
|---|---|
| Above hyoid bone ... ... ... ... ... | 1 |
| Thyro-hyoid membrane ... ... ... ... ... | 3 |
| Crico-thyroid membrane... ... ... ... ... | 3 |
| Through trachea... ... ... ... ... ... | 1 |
| Through thyroid cartilage and crico-thyroid membrane (2 wounds) ... ... ... ... ... | 1 |
| Through trachea and crico-thyroid membrane (2 wounds) ... ... ... ... ... ... | 1 |

In both cases where the trachea was injured, this tube was completely divided, the muscular fibres of the œsophagus being exposed.

Of the 10 cases, 2 died, 7 recovered, and 1 made an incomplete recovery. The first fatal case (Case I) was a man who had an extensive wound situated above the hyoid bone, and opening the pharynx. No sutures were applied; the patient sank gradually, and died from heart failure eight days after admission. With this exception all the wounds were sutured shortly after the accident. The other fatal case (Case VIII) was a very feeble man with a wound of the crico-thyroid membrane, who died on the eighth day from acute croupous pneumonia. The pneumonia was probably set up by the entrance of cold air into the lungs through the wound at the time of the accident, and was aggravated by the generally diseased condition of his organs. There was no sign of septic pneumonia, and hence the *post-mortem* appearances of this case rather justify than condemn the local treatment which was adopted. The case of incomplete recovery (Case V) was one in which the sutures holding together the ends of a divided trachea gave way, and thus permitted cicatrical contraction and subsequent stenosis. The remaining 7 cases made complete, and in most instances uninterrupted, recoveries; their average stay in hospital was eighteen days, and four of the number healed without the occurrence of suppuration.

The treatment adopted was not the same in all cases. Many improved operative details suggested themselves from time, and I therefore propose to give a short account of what I consider the best method of dealing with these wounds.

Whenever the condition of the patient permits he should be placed under the influence of an anæsthetic, the wound carefully cleaned, and the opening into the air passage closed by sutures. Not infrequently the patient is suffering greatly from shock when first seen, but if the primary hæmorrhage be arrested, he will usually rally sufficiently in the course of a few hours to bear the administration of an anæsthetic. If he have lost much blood, it may be advantageous to transfuse one or two pints of saline fluid into the veins.[3]

The best anæsthetic in these cases is undoubtedly chloroform. During the earlier stages of the operation its administration is often difficult, owing to the patient drawing in more or less air through the wound, but during the later stages, when the air passage has been closed, it can be given with much greater facility.

Having cleaned the wound with antiseptic lotion, and

arrested all hæmorrhage, the surgeon must decide whether he will completely close the air passage or will put in a tracheotomy tube. On this point it is impossible to lay down a definite rule; in many instances it is undoubtedly quite safe to close the wound in the air passage, and I adopted this procedure in 5 cases, 4 of which were successful. There is, however, some risk of subsequent œdema of the vocal cords, a certain amount of which was present in the fatal case already referred to, although in this patient death was due to an independent cause. If the wound be extensive, almost or quite dividing the larynx or trachea, it is better to employ a tube, and the same rule should be followed if the larynx be opened in the immediate vicinity of the vocal cords. Further, in wounds of the thyro-hyoid membrane, if the epiglottis be extensively injured, it is wise to perform laryngotomy or high tracheotomy before closing the laryngeal wound entirely by sutures.

Should it be deemed advisable to employ a tracheotomy tube, I am very strongly of opinion that it should not be introduced through the suicidal wound in the air passage, but that a fresh vertical cut should be made at a lower level for its insertion. After suturing there is considerable strain on the wound, owing to the movements of the larynx and trachea, which cannot be kept absolutely at rest, and the risk of yielding of the sutures is greatly increased if they be weakened by a portion of the wound being left open in front for the insertion of the tube, and if they be subsequently disturbed by the changing of the tube for purposes of cleaning. In two of the earlier cases the tracheotomy tube was introduced through the suicidal wound; in one (Case III) the tube was removed on the fourth day, but, although the sutures did not give way, an opening into the larynx was left which did not heal for nearly a month; in the other (Case V) the trachea was completely divided, the ends being retracted for nearly an inch; they were approximated by sutures, and a tracheotomy tube was put into the anterior part of the wound; the tube was removed on the fifth day, but a few days later all the sutures gave way, cicatricial contraction gradually took place, and the man recovered with permanent stenosis of the trachea. I regret very much the incomplete recovery of this patient, for I have little doubt that if a fresh opening had been made for the tube, he would have recovered completely, and would not have been condemned to wear a tracheotomy tube for the rest of his life. In two cases (Nos. IV and IX) a tube was considered advisable, and a fresh vertical cut made for its insertion; in both the tracheotomy wound healed rapidly after the removal of the tube, illustrating the fact that vertical cuts into the larynx or trachea as a rule unite much more readily than transverse cuts. It is usually unnecessary to maks a fresh incision through the skin, in order to open the trachea for the insertion of the tracheotomy tube. If the œsophagus or pharynx be injured, the opening must be closed completely by fine sutures introduced by means of a curved needle.

Attention should now be turned to the suturing of the wound in the air passage, a procedure requiring great care and patience. Full-curved needles held in a needle-holder will be most useful, and it will be found best to introduce all the sutures before tying any. The sutures should be prevented from penetrating the mucous membrane, but they should be made to include a considerable portion of the fibrous and cartilaginous parts of the tube. Having introduced as many sutures as are necessary to close the opening completely they must be tied, the posterior parts of the wound being first brought together. As to the number of sutures, in cases where the trachea is completely divided from eight to ten will be necessary; other cases will require a smaller number according to the size of the wound. The material I have chiefly used for sutures in these cases is silk, recently sterilised by boiling; it is strong and reliable, and is only open to the objection that if suppuration takes place. it may give rise to subsequent trouble (Case X). This disadvantage, however, is far outweighed by the disadvantages of catgut, which is unreliable when there is so much tension.

Having closed the air passage, the other parts of the wound must be treated in accordance with ordinary principles. The sterno-mastoid and the infra-hyoid muscles are usually more or less injured, and it is necessary to approximate the retracted end by sutures. Owing to the platysma muscle being divided transversely there is usually great inversion of the skin, which must be corrected before the edges of the wound can be brought into good apposition. Frequently there are several secondary cuts—I have seen as many as fifty—from the presence of which the edges of the main wound are often jagged and require trimming before they can be sutured satisfactorily. It will usually be necessary to insert a small drainage tube at one or both angles of the wound. Throughout the operation it is essential to adopt all antiseptic precautions, for it is only by care in this respect that the systematic suturing of wounds of the throat has been rendered safe. If all precautions be taken it will be found that a very large proportion of the wounds will heal by primary union.

### Subsequent Treatment.

If a tracheotomy tube have been used, it is well to place the patient in a steam tent for twenty-four or forty-eight hours. Provided that no bad symptoms arise, the tube may be removed with safety on the second, third, or at the latest the fourth day. In some cases I have retained the tube for a longer period, but I now regard this as unnecessary, and as calculated to prolong the period of recovery. The dressing on the wound will require frequent changing, especially if a tracheotomy tube have been used. The skin sutures, unless they are causing irritation, should be left *in situ* for ten or twelve days; if removed earlier there is risk of the scar giving way. Throughout the treatment it is essential to keep the parts at rest as much as possible, but I see no necessity for adopting the old method of bringing down the chin to the sternum; all that is necessary is to keep the patient recumbent with the head raised on an ordinary pillow, and to steady it by a band across the forehead and a sandbag on each side. One of the most important questions in the after-treatment is feeding. I am convinced that it is unnecessary in most cases to feed by a tube or by the rectum, and that the patient may with safety be allowed to swallow fluid food. In cases, however, where the epiglottis is injured, where the larynx or trachea is completely divided, or where the pharynx or œsophagus is opened, it is better to adopt rectal alimentation for two or three days.

The use of sutures is also advisable in all cases of suicidal wounds of the throat not involving the air passage, provided that the general condition of the patient is sufficiently good. Of the 25 cases of this description which came under my notice 21 were treated by primary suture, 19 of which healed by first intention; 1 was packed with iodoform gauze and allowed to granulate, and 3 died, all within a few hours of admission. The fatal cases were (1) a man, aged 43, who was in the last stage of phthisis, who was moribund when admitted, and died an hour and a half afterwards; (2) a man, aged 35, who had lost a great deal of blood, and who died four hours after admission; and (3) a man who had attempted suicide during the delirium of pneumonia, and who died fourteen hours after his arrival at hospital.

### Summary.

1. Suicidal wounds of the throat should be treated by primary suture in all cases where the general condition of the patient permits.
2. Antiseptic precautions are most important.
3. If necessary, chloroform should be administered, and is perfectly safe.
4. Divided muscles should be sutured, and in bringing together the edges of the skin the inversion caused by the platysma muscle should be corrected.
5. The wound in the air passage should be completely closed.
6. In many cases it is quite safe to dispense with the use of a tracheotomy tube. If a tube be deemed necessary it should not be introduced through the suicidal wound in the air passage, but through a fresh vertical cut at a lower level.
7. Silk is the best material for suturing the larynx or trachea.
8. During the after-treatment it is unnecessary, except in certain special cases, to feed by a tube or by the rectum.
9. If the above methods of treatment be adopted, not only will a very large proportion of even dangerous and extensive wounds of the air passages recover, but the period of recovery will be greatly shortened, the patient will not be exposed to

the same risks of secondary inflammatory complications, and he will be much less liable to the occurrence of permanent stenosis of the trachea or the formation of an aërial fistula.

I have to thank the honorary surgeons of the Manchester Royal Infirmary for their kind permission to publish these cases.

References.

[1] *Lancet*, 1892, vol. ii, p. 1427. [2] *Ibid.* p. 1532. [3] A case of wound of the common carotid artery and internal jugular veins in which recovery followed ligature of the injured vessels and transfusion of saline fluid has been recorded by W. T. Thomas, British Medical Journal, 1895, vol. ii, p. 1420.

## TWO CASES OF ACUTE INTESTINAL OBSTRUCTION DUE TO ADHESIONS, IN ONE OF WHICH ENTERECTOMY AND ANASTOMOSIS BY MAUNSELL'S METHOD WERE PERFORMED.

By LEONARD A. BIDWELL, F.R.C.S.,
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These two cases resemble each other only, in so far that the obstruction in each case was the result of previous peritoneal inflammation, due in the first case to an operation for ovarian disease, and in the second to perimetritis after parturition. In the first case the patient came to the hospital at once, and the operation was performed within a few hours of the onset of the symptoms, so the gut was naturally not damaged; while in the second case the symptoms had existed for nearly eleven days before admission, and so the constricted part of the gut was so damaged as to necessitate enterectomy. Although both cases made perfect recoveries, the greater severity of the operation required in the second case shows how much the risk to life is increased when abdominal exploration is not performed at an early period in cases of acute intestinal obstruction.

Case I.—E. S., aged 28, was admitted into the West London Hospital on June 27th, 1895. She was suffering from acute abdominal pain and vomiting, and stated that five months previously she had undergone double ovariotomy at another hospital. During convalescence there had been a fæcal discharge from the wound, which, however, had stopped for about six weeks, the wound being now soundly healed. She still, however, had some abdominal pain from time to time. Two hours before admission she was seized with acute pain referred to the umbilical region, and she vomited several times. On admission the patient was doubled up with pain, and the abdomen was slightly distended and extremely tender. The patient vomited two or three times after she was put to bed. The pulse was rapid and feeble, and the patient was restless and perspiring.

After consultation it was decided to perform a laparotomy immediately, and this was done within two hours of the patient's admission.

The abdomen was opened in the line of the old cicatrix, and a loop each of the ileum and of the sigmoid was found densely adherent to the abdominal wall. One of the appendices epiploicæ of the sigmoid loop was adherent to the abdominal wall a short distance away, and so formed a band under which a portion of the ileum, just above the adherent portion, had been caught and was strangulated. This band was divided between two ligatures, and the loops of ileum and sigmoid were freed from their dense adhesions to the abdominal wall, after which they both retracted some distance from the wound. The strangulated portion of the ileum was congested, and showed a deep sulcus where the constriction had existed, but was not damaged. The omentum was carefully arranged beneath the incision so as to obviate any chance of adhesions between the bowel and the new scar, and the wound closed.

The patient made an uninterrupted recovery, and left the hospital perfectly well at the expiration of three weeks after the operation.

Case II.—J. C., a healthy woman, aged 42, was admitted into the West London Hospital on April 7th, 1896. She had been confined of twins eight weeks previously, and on the third day after delivery she developed some form of perimetric inflammation which she described as "milk fever." Although she recovered from this trouble, she continued to have from time to time attacks of pain in the pelvis, and on March 28th she had an attack of severe abdominal pain accompanied by distension and followed by vomiting. From that date the vomiting, abdominal pain, and distension had increased every day, and had been treated by croton oil, sulphate of magnesia, and other purgatives without effect. During the forty-eight hours previous to admission the vomit had become fæcal.

On admission, the patient looked very anxious, and her face was pale, pinched, and drawn. The pulse was 140 per minute, very small, rapid, and running. The tongue was brown and rather dry, and the breath had a distinctly fæcal odour. The abdomen was greatly and uniformly distended, and was tympanitic all over, but there was not much pain; coils of intestine could be seen moving beneath the abdominal wall. As no hernial protrusion could be discovered, obstruction by a band was diagnosed. An operation was performed three hours after admission, chloroform was given, and the abdomen was opened by a median incision $3\frac{1}{2}$ inches long below the umbilicus. The cæcum was first examined and was found to be contracted, so the small intestine, which was much distended, was brought out of the wound, coil by coil, and examined. After 6 or 8 feet had been examined and replaced, a band was found which slightly constricted the bowel; this was divided between ligatures, but as the gut beyond the bowel was distended the search was continued, and a tight band was found on the left side of the pelvis which was adherent to and strongly nipped the gut. This band was also divided between ligatures, and it was then discovered that the intestine itself was also adherent to the brim of the pelvis. After separating these adhesions, the damaged bowel was examined, and as it was deeply congested, and its peritoneal coat was dull and abraded for about 3 inches, it was decided to resect the damaged part. Sponges were packed in the wound, and the loop of bowel brought outside the abdominal cavity; it was clamped above and below between safety pins and sponges, and nearly 4 inches with a piece of mesentery were removed. The two ends were then united by Maunsell's method, the longitudinal incision being closed with a continuous suture, and the mesentery being united with three interrupted sutures. On examining the anastomosis, the mucous membrane was found to be protruding at one or two points, so a row of Lembert's sutures was inserted all round the joint. The abdomen was sponged out, and the wound closed with silkworm gut sutures.

The patient rallied well after the operation, and only vomited very slightly. On the following day, brandy, milk, and barley water were given by the mouth, and as no flatus escaped on passing a rectal tube, an enema was ordered but without any result, as the rectum was blocked with stony fæces. About midday on the second day after the operation, the bowels acted four or five times copiously without any further enema, and all the abdominal distension disappeared. The patient, however, became considerably collapsed, but rallied after champagne and hypodermic injections of strychnine. At 9 P.M. she became much worse, and appeared almost moribund; her pulse was small and flickering, and the skin was cold; she also vomited slightly. My house-surgeon, Mr. Pardoe, immediately injected 4 pints of normal saline solution into the median basilic vein; almost directly after this the pulse became firm and full, and there was no more vomiting. The further progress of the case was quite uneventful. The patient took nourishment freely by the mouth and made a steady progress; her convalescence, however, was retarded by a bedsore, which had existed before her admission to the hospital. She got up on April 24th, but had to remain in hospital till May 22nd to allow of the complete cicatrisation of her bedsore. During the first fortnight she occasionally had slight attacks of abdominal pain and slight distension, which, however, were relieved by enemata; a hard lump, too, could be felt in the left iliac region at the site of the anastomosis, but this could not be felt when she left the hospital. When last seen, four months after the operation, she was in excellent health, and did not have any trouble with her bowels.

Remarks.

Although several cases of acute intestinal obstruction after ovariotomy have been recorded, such cases are always of

interest. The dense adhesions between the ileum, sigmoid, and the abdominal wall rather point to a delay in the re-establishment of peristaltic action after the first operation, due probably to the administration of opium. Unfortunately I have been unable to obtain any notes of the ovarian operation.

The second case is very interesting, since acute obstruction as a result of a complication of parturition is uncommon. The long-continued use of purges and of croton oil in cases of obstruction is now seldom met with, and in such a case, where fæcal vomiting had existed for forty-eight hours, the result of an operation is not usually satisfactory. It is interesting, too, to note the extreme collapse which followed the free action of the bowels; I have noticed a similar condition after the relief of other cases of obstruction, such as strangulated herniæ or colotomy. The treatment of such collapse by intravenous saline infusion is, I think, original, and the patient probably owes her life to Mr. Pardoe for his prompt and successful employment of this remedy.

Some doubts still exist with regard to the propriety of performing a primary enterectomy and anastomosis during acute obstruction, but if healthy gut be chosen a successful joint ought to be obtained. In this case I may not have chosen absolutely healthy gut for my anastomosis, since two of the sutures apparently loosened and I found it necessary to insert a supporting row of Lembert's sutures afterwards.

In another Maunsell's anastomosis of my own and in two of a colleague's, where no supporting row of sutures had been used, a temporary fæcal fistula appeared on about the tenth day after the operation: all the cases, however, ultimately got well. It, therefore, does not seem to me to be quite safe to perform this method of anastomosis without a row of supporting sutures, and, if this be necessary, perhaps Maunsell's method of suturing is not essential, and the anastomosis might be effected by the row of Lembert's sutures alone. In neither of my cases of anastomosis by Maunsell's method have there been any symptoms of stricture of the intestine.

## FIXATION OF LIVER AND BOTH KIDNEYS IN A CASE OF GLENARD'S DISEASE.

By F. WINSON RAMSAY, M.S., F.R.C.S.E.,
Surgeon to the Royal Victoria Hospital, Bournemouth.

E. I., aged 39, widow, was admitted to the Royal Victoria Hospital on June 11th, 1895, complaining of incontinence of urine, scalding pain in the abdomen, worse before passing urine, and a tumour in the left hypogastrium. She had typhoid fever when 18, and gastric ulcer when about 20 to 25. Has three children, youngest 4 years. Her present illness dates from April, 1895, when she had an attack of influenza; she did not "lay up," but since has never felt quite well. For several weeks past has had rather profuse leucorrhœa; has been quite unable to work for some weeks. The tumour was diagnosed as a floating left kidney. Examination revealed a completely anteverted uterus: this was replaced, and with complete rest and vaginal injections the symptoms complained of disappeared. The kidney was still tender and gave a deal of discomfort when sitting or standing up. Operation was recommended and accepted. On May 4th preceding Professor Vulliet, of Geneva, read a paper before the Swiss Medical Congress at Lausanne describing a new form of kidney fixation, and the result in the one case in which he had performed it; the description was so enticing and the result so satisfactory that I determined to repeat the operation. As this operation is not generally known, I will describe briefly its steps.

On July 2nd, the patient being on her right side, the usual loin incision was made, the kidney being readily found; it was freed from connective tissue, and found to have a long and perfect mesonephron; this was stripped off so as to expose the outer or posterior surface, the wound packed with gauze and temporarily closed. The patient being turned a little more forward a second incision was made, about 2 inches long, a little to the left of the spine, its lower end reaching to the first lumbar spinous process. The skin and superficial fascia being cut through, the strong deep fascia was exposed; this being divided revealed the flat tendinous structure of the longissimus dorsi muscle, its fibres running upwards and slightly outwards: a portion of it, about one-sixth of an inch wide, being selected was separated with a knife sufficiently to allow a finger being introduced underneath it; forcible traction then being made, it broke away from its insertion into the rib above, with its attachment to the first lumbar spinous process still intact. The tendon thus obtained was about 10 inches in length; there were some muscular fibres still attached to it, and these were trimmed off with scissors. The flank wound now being reopened, with one hand inserted into it and the other at the back wound, the structures of the back could be readily palpated and recognised. The tendon was threaded on a long pedicle needle and passed right through the muscles of the back, so that while one end was attached to the first lumbar process, the other was free on the abdominal side of the back at the upper part of the normal kidney bed.

Incisions about one-fourth of an inch were now made near the upper and lower borders of the kidney through the capsule, and the tendon, again by means of the pedicle needle, drawn through underneath the capsule from one incision to the other, thus underrunning about five-sixths of the length of the kidney; the tendon was then passed in the same way back through the muscles, so that its free end was again in sight at the back incision. The kidney then being firmly pressed into its normal position, the tendon was drawn taut and fixed safely with silk to its adjacent tendons. The muscles divided in the loin incision were sutured with buried silk sutures, and both wounds closed and dressed. The wounds healed by first intention, but on the second day the temperature rose to 103°, the patient got restless and semi-delirious, and left her bed and walked about the ward. In a few days she developed a regular attack of melancholia. Inquiry revealed the fact, until then not ascertained, that she had suffered from similar attacks before. Her bodily health improved, but her mind remained in the same state for a month, when she suddenly recovered and left the hospital on August 29th in fair health, shortly afterwards resuming her work as charwoman.

She was readmitted on February 20th, 1896, complaining of sickness, pain in the right side, and a tumour in the right hypochondrium. She had received so much benefit from the first operation that she was anxious to be relieved, if possible, by operation again. The right kidney was found to be freely movable in the abdominal cavity, but the left kidney could not be felt at all; the liver was noticed to be rather lower than usual, but she was examined only in the recumbent position.

On February 25th the right kidney was fixed in the same manner as the left. The wounds healed by first intention; there was no rise of temperature, and the patient rapidly convalesced without any of the untoward symptoms which had marked the first operation.

On the patient being allowed to sit up the nausea and vomiting returned, and, according to the patient, the tumour had also "come down again." On examination, the kidney could not be felt whilst the patient was in bed. She was now examined in the erect position, and it was found that the liver, which in the recumbent posture seemed in its normal position, pivoted round on its left lobe, so that its right lobe fell downwards until it occupied the middle of the abdomen below the umbilicus. It was freely movable on its axis, the right lobe being easily pressed into the left hypogastrium, or back into its normal position. It seemed smaller than usual, was slightly painful on pressure, and its movement immediately set up nausea and emesis. The patient was willing to undergo any operation that promised relief.

On April 24th, 1896, ten months after the first operation and two months after the second, the abdomen was opened by an incision 3 inches long through the middle of the right rectus muscle; the left kidney was first searched for, and found to be immovably fixed high in its normal position; the right kidney was in good position, lower than the left, and could be moved slightly laterally but otherwise well fixed; the liver was found to move freely as before described, the suspensory ligament being very much elongated. The upper surface of the liver was rubbed hard with some aseptic gauze to try to promote adhesion; in order to do this it was necessary to extend the wound another couple of inches; the round

ligament was now transfixed close to the liver, and a stout silk ligature passed through and round it and then tied; one end was then passed by means of a sharp Macewen's needle from above downwards round the costal cartilage of the seventh rib; the liver then being firmly pressed into its place the two ends were securely tied, thus fixing the liver by means of its round ligament to the thoracic wall. As, in spite of this, the extreme right lobe seemed too mobile, a double kangaroo tendon was passed through the liver about 2 inches from its right border, and then through the adjacent parietal structures sufficiently to get a good hold. There was free bleeding from the needle puncture, but it stopped immediately the ligature was tightened. The liver was now firmly fixed in good position.

The rest of the abdominal organs were examined. The spleen was in its normal position; there did not appear to be any lengthening of the mesentery or mesocolon; the right ovary was cystic, about the size of a small tangerine orange; it was removed through the same incision. The other ovary and uterus were healthy.

The wound was closed in the following manner: A series of silkworm-gut sutures were passed through all the structures and held temporarily in forceps, then the posterior sheath of the rectus and the peritoneum were drawn together with a continuous silk suture, and afterwards the anterior sheath of the rectus in the same manner; the interrupted silkworm sutures were then tied and cut off, and the wound dressed with double cyanide gauze.

Convalescence was uninterrupted. There was a slight rise of temperature on the third day, which soon fell to normal; the sutures were removed on the tenth day, and the wound found healed. The patient was kept in the recumbent position for a month, and left the hospital, with her symptoms relieved, on July 6th. She was shown by me at the October meeting of the Dorset and West Hants Branch of the British Medical Association, and was then gradually getting stronger.

I saw her last a month ago, meeting her accidentally in the street. She had had no returns of her symptoms, had put on flesh, and was quite strong and well, and able to return to her work and support herself and her children.

In this case there did not appear to be any ptosis of the stomach or bowels, and therefore the term "Glénard's disease" is not strictly correct; but I have applied the name as somewhat descriptive of the condition of the patient.

Hepatopexy is not a common operation. Richelot[1] reports a case in which a displaced liver was found in a case of supposed typhlitis. It was fixed in its normal position with favourable results. E. Areilza[2] also reports a case of supposed hydatid cyst, which on operation was found to be a floating normal liver, and in which fixation was followed by cure of symptoms.

In both these cases, however, the condition of the liver was only diagnosed on operation; but Mr. Treves[3] reports a most interesting and successful case, in which the operation was undertaken with other measures for the relief of general abdominal ptosis, and in which the result quite justified the treatment.

As regards Vulliet's method of kidney fixation, I consider it much superior to other forms of nephrorrhaphy. It is simple, easy of performance by any ordinary surgeon, is not dangerous, and, if properly carried out, certain in its results. I have fixed several other kidneys since, and each one has been a marked success, not only as an operation, but in its relief of symptoms. In one case there was slight tinging of the urine first voided after the operation, otherwise there has been neither hæmaturia nor albuminuria detected. In one case the wound suppurated, and I was afraid the tendon might slough; but this did not happen, and the result was as satisfactory as in the cases which had healed by first intention. In my last case, the tendon obtained was too short, so I took two, passing one through above and the other below to the kidney bed, and then, after passing the upper one under the capsule of the kidney, tying them together, and, for further security, stitching the free ends to the adjacent tissues. Experience has caused me to modify somewhat the operation. In passing the tendon through the first time it should pierce the structures of the back horizontally, or even a little upwards, but, on returning, it should leave the anterior surface at a distance below its entrance to correspond to the length of kidney underrun, and then run obliquely upwards and backwards to appear again at its point of entrance in the back wound. This is done so that when the tendon is pulled taut it draws the whole surface of the kidney against the back, and does not crinkle up the capsule of the kidney, and cut its way out. The operation has been successfully performed by my colleague, Mr. Bernard Scott, and Mr. Heygate Vernon, of Boscombe, and if the results of other surgeons are as good, I think the operation will soon be recognised, and supersede other methods of nephrorrhaphy.

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[1] *Medical Press and Circular*, July, 1893. [2] *Rev. de Med. y Cirurgia Practicas*, July 5th, 1896. [3] BRITISH MEDICAL JOURNAL, January 4th, 1896.

## REMARKS ON THREE CASES OF HEAD INJURY.

BY HARCOURT COATES, L.R.C.P., M.R.C.S.,
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### CASE OF FRACTURE OF THE LEFT PARIETAL BONE AND BASE OF THE SKULL, WITH INSENSIBILITY AND BLINDNESS LASTING THIRTEEN WEEKS: RECOVERY.

H. R., aged 41, was riding on horseback on March 12th, 1896, and was thrown. He was found, probably half an hour after the accident, lying insensible in the road, and removed home in a cab.

I saw him soon after. He was then in a semi-comatose condition: he could be roused to a slight extent when sharply called, but could explain nothing about the accident, and immediately relapsed into an unconscious condition, sleeping heavily, with stertorous breathing. During the night he passed urine and fæces into the bed. There was copious hæmorrhage from the nose. I found a large hæmatoma over the left parietal bone, but in the centre of this was a distinct depression, which is, to a certain extent, still present; some bruising of the face; a large amount of extravasated blood over the whole of the left side of the face and neck, and extending on to the chest wall, and a very considerable subconjunctival effusion on the left side. The pupils were equal in size, sluggish, but acted feebly to light. There was well-marked ptosis on the left side, and external strabismus of the right eye. The pulse was 60, and the temperature normal. The other reflexes were normal. The respiration was stertorous.

An ice bag was applied to the head, and at 10 P.M. he began to show slight signs of returning consciousness. At 3 A.M. he vomited, and again several times during the night. At 7 A.M. Cheyne-Stokes breathing commenced, he was completely unconscious, and there was loss of pupil reflex. The pupils were dilated. The ice bags were taken off and nourishment administered *per rectum*, and in a quarter of an hour after the removal of the ice bag the respiration was normal. At my request I met Mr. Christopher Heath in consultation at 3 P.M., when the condition of the patient was unchanged, and under these circumstances a bad prognosis was given. The temperature had run up to 101° F., and the pulse was 90.

On March 14th, at 4.30 A.M.—that is, about thirty-four hours after the accident, an epileptic attack occurred, lasting fifteen minutes, the spasms being most violent in character, and commencing in the right arm, extending rapidly up to the face, with conjugate deviation of the head and eyes to the right. The fits recurred at somewhat regular intervals up to 11 A.M., leaving the patient in a most prostrate condition. These epileptic attacks were apparently controlled by frequent injections *per rectum* of 2-drachm doses of bromide of potassium. The ophthalmoscopic examination did not give any evidence of optic neuritis.

After the subsidence of the epileptic attacks the patient seemed to gain ground, although unconscious. He could be roused sufficiently to take nourishment, but immediately relapsed into his previous condition. The blindness, as tested by passing a sudden light before his eyes, remained unaltered, but his hearing was most acute, the slightest sound causing him to start up in bed. He remained in this condition until March 25th, the thirteenth day after the accident, when delusions occurred with much noisiness, suspicions of people

coming to take him away, and occasional violence of behaviour. Iodide of potassium and bromide of potassium with ammonia were administered, and it was found that the application of an ice bag for a few minutes during the violent paroxysms at once controlled his violence, and generally resulted in a quiet sleep.

On April 25th, after apparently progressing more satisfactorily with regard to his strength, he had five well defined epileptic attacks, lasting for three or more minutes, with the same characteristics as the former attacks, with intervals of about twenty minutes between them; but it was noticed that immediately after these attacks he looked about him and tried to see things, although he could not describe anything that he might have seen, as he was still incoherent.

After this, with the exception of occasional attacks of violence, the patient went on gradually gaining strength, until on June 11th he recognised me when I came into the room, and very shortly afterwards the delusions were cleared away, and some power of coherent thought was gradually established. The return of sight was most curious to watch. Everything seen was out of proportion; for instance, a large screen appeared to him like a small picture, the ceiling seemed to be within reach of his hand, and colour blindness was present for some days after this period. He was able to sit up a little on June 23rd, and went on making a good recovery until July 31st, when attempting to do a little business quite against my advice, an epileptic attack occurred lasting for ten or twelve minutes, having the same characteristics as those previously described.

*State One Year after the Accident.*—He is cheerful, and has gained strength, and completely regained his memory with regard to things which occurred before the accident; but the accident itself and the subsequent events of three months and a half are buried in oblivion. The sight has returned perfectly, and he will soon be able to return to business. There is no confusion of ideas or headache, and, in fact, the brain functions are now perfect.

In this case there were evidently two entirely separate lesions, one involving the left motor area as indicated by the Jacksonian epilepsy, the attack commencing in the right hand and the conjugate deviation of the head and eyes to the right. These convulsions were evidently due in the first place to the cerebritis surrounding the effused blood, and possibly to a depressed and splintered inner table of the parietal bone on the left side. Had the state of the patient allowed, I should certainly have trephined at this point, but taking into consideration the probable state of the base of the skull and the general condition of the patient, I shrank from exposing him to the additional shock that this operation would cause him, whilst not disregarding the mechanical effects of the trephining upon the grave bone lesions at the base of the skull. The fracture of the base probably involved the cribriform plate of the ethmoid, as shown by the hæmorrhage from the nose, which could not be explained otherwise as there was no sign of direct violence in this region, and the oozing of a thin sanious fluid occurring during the first week after the accident. Thus the ultimate danger of infection by sepsis was prominent.

The left orbital plate was probably fractured by a fissure extending diagonally across the base through the sphenoidal fissure on the right side, involving the sixth nerve and ophthalmic vein. My reason for saying this is the presence of the internal strabismus, which, though less, is still present. The total blindness is most difficult to explain, taking into consideration the lapse of time before sight was re-established. It was probably due to the pressure of extravasated blood at the base, involving both optic nerves or the optic chiasma, or both optic tracts, more likely the nerves. The light reflex arc from the retina, *viâ* the optic nerve, tract, and geniculate bodies and third nerves was at first present and disappeared later; this renders the supposition of progressive hæmorrhagic pressure more likely. The hæmorrhage into the left orbit would account for the ptosis by pressure. I may add that it was the opinion of an eminent expert who, having heard of the case, wrote to me more than once that in all probability there was division of the optic nerves, and I feared that this was the case in consequence of the lapse of time which occurred before the recovery of sight. I cannot complete these notes without thanking my assistant, Mr. Gilbert Kempe, and also the nurses from the Salisbury Nurses' Home, for the invaluable assistance they afforded me, which so much contributed to the happy termination of a most anxious case.

TWO CASES OF DEPRESSED FRACTURE OF THE SKULL.

G. B., aged 15, was seen on the evening of March 18th, 1897. He had been kicked by a horse about two hours previously. He was sensible, answered questions rationally, but was much collapsed. Upon examination, I found a ragged lacerated wound the size of a florin at the junction of the coronal and sagittal sutures, and a small incised wound $\frac{3}{4}$ inch long between this and the right ear. The hæmorrhage was extremely free, and the collapse was increasing. Beneath the former wound the skull could be felt fractured and depressed over an area the size of a five-shilling piece. I enlarged the wound by a crucial incision, and removed depressed fragments of many sizes, the largest being $1\frac{1}{2}$ by 1 inch. The depressed fragments were denuded of periosteum and fissured in every direction: therefore I did not think it safe merely to raise them and leave them *in situ*.

There was a wound in the dura mater, and brain substance was observed in the wound. It was important to arrest the hæmorrhage, which apparently proceeded from the fracture extending into the longitudinal sinus, and was very profuse, and from the edges of the fractured bone and also from between the dura mater and skull. That from the edges of the bone was arrested by the application of aseptic wax as recommended by Professor Victor Horsley, and which succeeded admirably. Firm pressure of the dressing arrested the remaining hæmorrhage. In addition to the serious lesion described above, the outer table of the parietal bone on the right side was depressed, and also there was considerable subconjunctival effusion of the right eye with a very marked proptosis, this being strong evidence of a fracture of the base in addition to the other injuries. This patient is making a most satisfactory recovery, and the wound is granulating rapidly. The proptosis is gradually becoming less prominent, and the lad, although very dull, is able to answer questions, and, as far as one can foretell, will make a good recovery.

W. P., aged 17, admitted to the Salisbury Infirmary on March 1st, 1897, was leading a horse, which kicked him on the head. He lay unconscious for a short time, and then walked home a distance of a quarter of a mile. Two hours after, on admission, he was unconscious and his limbs were twitching. There was a wound of 4 inches long over the left frontal bone, extending from the middle of the vault of the skull to the inner angle of the left orbit, down to the bone, which was in fragments. There was evidence of brain substance in the wound, the result of a minute wound of the dura mater. My colleague, Mr. Luckham, in my absence, seeing that there was no time to lose, enlarged the wound and removed the loose fragments, and the lad has made a most satisfactory recovery. The temperature never rose above 100.8°, and the case caused no anxiety.

With regard to these two last cases, youth and unimpaired constitutions—the result of a hard-working, not overfed, out-of-door life—may have been factors conducive to the somewhat rapid recoveries from such serious injuries, added to the fact that the treatment was prompt and antisepsis rigidly carried out. The cyanide dressings were used. In the last case the hardihood of our agricultural labourer is evidenced by the walk of a quarter of a mile with such a serious head injury as the subsequent operation proved to be in existence.

## A CASE OF RECOVERY FROM ALBUMINURIC RETINITIS, WITH REMARKS AS TO PROGNOSIS.

BY JAMES HINSHELWOOD, M.A., M.D., F.F.P.S.GLAS.,
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THE following case possesses considerable clinical interest of a twofold character. To the physician it is of great importance in relation to the important question of the prognosis as to the duration of life in albuminuric retinitis, and to the

ophthalmologist it is instructive to note what degree of vision is possible after a tolerably severe attack of albuminuric retinitis.

Mrs. S., aged 65 years, about the beginning of October, 1893, began to suffer from swelling of the feet and legs. At the beginning of November she consulted her family medical attendant, who noticed pufliness of the face, and on examining her urine diagnosed Bright's disease. Next day there was general œdema all over the body, with severe headache and vomiting. A few days thereafter she had a severe convulsive seizure, and was comatose for several days. After that she gradually recovered. Within two months the œdema had completely disappeared, and she was able to go about. About the second week of January, 1895, she first observed gradually increasing failure of vision, and came under my notice on February 5th, 1894. Her visual acuity was then found to be very defective, being only able to distinguish large objects, such as the hand. On ophthalmoscopic examination both eyes were found to present the appearances of typical albuminuric neuro-retinitis. The discs were slightly swollen, greyish red in colour, and the edges were completely obscured. A group of brilliant white spots arranged in radiate fashion surrounded the macular region in each eye, being most abundant in the right. There was diffuse opacity of the retina, and a few hæmorrhages scattered over the fundus, but most abundant at the periphery. The urine was pale in colour, specific gravity 1008, and contained considerable albumen. There was no cardiac hypertrophy or notable elevation of arterial tension.

The patient was put upon strict milk dietary, with mild saline diuretics, which were afterwards replaced by iron and strychnine. There was a very rapid improvement in the patient's visual acuity, and within two months she could read No. 1 of Jaeger's test types. The eyes, however, were easily tired, and she was not allowed to use them for a considerable time for reading or any fine work. There was a gradual diminution of the amount of albumen in the urine, although a slight trace was to be found for about a year thereafter, but since then none has been found. With the gradual disappearance of the albumen there was a gradual disappearance of the neuritis, and of the brilliant white spots surrounding the macula. When the albumen finally disappeared from the urine the discs had resumed their normal appearance, and the only trace of the white spots was a faint mottling observable on close inspection in the perimacular region. The hæmorrhages left the only permanent traces of the previous condition, in the shape of a few little pigmented spots chiefly at the periphery.

The patient was shown at a meeting of the Glasgow Medico-Chirurgical Society on February 8th, 1897, almost exactly three years after she had been seen with her albuminuric retinitis. She was in excellent health, completely free from albuminuria during the last two years, and with normal visual acuity. The only traces of the past condition observable in the fundus were the slight perimacular mottling and the few pigmented spots already mentioned.

Great attraction has of late years been drawn to the very unfavourable prognosis as to life in cases of albuminuric retinitis.

In 1888 at the Ophthalmological Society in London a discussion took place on this subject. Dr. Miles Miley, who introduced the discussion, said that out of 45 cases of albuminuric retinitis which he had been able to trace the majority were dead within a year, and only one lived beyond eighteen months. He concluded from his study of these cases "that the prognosis is so bad that eighteen months is an exceptionally long term of life after the changes have been recognised." Dr. E. O. Belt, of Washington, at a meeting of the American Medical Society, Ophthalmological Section, in 1895 gave some interesting statistics. Basing his remarks on an analysis of 419 cases, he found that in hospital practice 85 per cent. died in the first year, and only 6 per cent. lived more than two years. He further remarked that several ophthalmic surgeons of large experience had seen none who survived more than two years. Professor Knies, in his recent work on *Relations of Diseases of the Eye to General Diseases*, says that "life is rarely prolonged longer than one year, at the most two years after the discovery of the retinal affection."

Although my own experience confirms the above statements, yet there are notable exceptions to this gloomy prognosis in albuminuric retinitis, of which the case just recorded forms a brilliant example, the patient being alive and in good health three years after the attack.

Albuminuric retinitis most frequently occurs in chronic interstitial nephritis, and these are the cases where the rapidly fatal termination nearly always justifies the hopeless prognosis. But albuminuric retinitis is met with in all forms of renal disease, even in the acute forms. The cases of recovery are met with in those acute and subacute cases of nephritis where the albuminuria disappears, the retinitis gradually subsiding with the disappearance of the albuminuria. This favourable termination is seen most frequently in the albuminuria of pregnancy, where the albuminuria is generally transitory, disappearing after the birth of the child. The case recorded was probably an acute parenchymatous nephritis. The suddenness and severity of the initial symptoms, the early appearance of general œdema, the severe uræmic symptoms, the convulsions and coma, the rapid improvement of the patient, the absence of cardiac hypertrophy, and the subsequent complete disappearance of the albuminuria are all in favour of this view.

This case conveys the important clinical lesson that in albuminuric retinitis the prognosis must largely depend upon the character of the renal affection. If it occurs in the course of a chronic interstitial nephritis, the prognosis is exceedingly grave, and the probability of the patient surviving beyond a couple of years is very slight; but if it occurs in the course of an acute or subacute parenchymatous nephritis, with careful treatment and under favourable hygienic conditions, there is considerable hope both that the patient may recover from the renal condition, and that the retinitis may disappear, leaving the patient with vision but little, and possibly not at all, impaired. Hence in every case of albuminuric retinitis, before expressing any opinion as to prognosis, the great importance of ascertaining by careful consideration of the history and examination of the urine, the character of the renal affection, cannot be too strongly urged.

## THE ORIGIN AND DESTINATION OF CERTAIN AFFERENT AND EFFERENT TRACTS IN THE MEDULLA OBLONGATA.*

By J. S. RISIEN RUSSELL, M.D., F.R.C.P.,

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[Abstract.]

In attempting to ascertain the origin and destination of some of the afferent and efferent tracts which exist in the medulla oblongata the lateral region of the medulla was divided or destroyed between the ascending root of the fifth nerve and the inferior olive, the restiform body, Edinger's direct sensory cerebellar tract (tractus nucleo-cerebellaris acustici), and the posterior columns and their nuclei were divided, and Deiters's nucleus was severed from its connections with the medulla. The first of these procedures resulted in degeneration of two efferent direct tracts, which could be traced throughout the whole length of the spinal cord, the one occupying the periphery of the antero-lateral region, and the other an area close to the crossed pyramidal tract, but distinct from it, both direct tracts sending fibres to the anterior horn on the side of the lesion at different levels in their course. Afferent degenerated fibres were found passing from the seat of lesion, some reaching the cerebellum by way of the restiform body on the same side, and some by way of the anterior cerebellar peduncle after passing through the medulla and pons, while others, intimately associated with the fillet, were traced to the region of the anterior corpora quadrigemina. Owing to interruption of internal arciform fibres by the lesion there was degeneration of the opposite interolivary layer and fillet. Similarly fibres passing from the restiform body to the inferior olive were interrupted, and degenerated in consequence.

Division of the restiform body resulted in degeneration of afferent fibres to the cerebellum, and of efferent fibres to the formatio-reticularis and inferior olives. No tract in the spinal cord was found degenerated after this lesion.

Section of the "nucleo-cerebellar tract," formerly known as "Edinger's direct sensory cerebellar tract," resulted in no degenerations other than those met with in injury to Deiters's nucleus which is imbedded in the tract. No afferent fibres degenerated from the nucleus of Deiters to the nucleus globosus in the cerebellum.

Severance of Deiters's nucleus from its connection with the medulla resulted in degeneration of an efferent direct antero-lateral tract throughout the spinal cord, fibres passing from it to the anterior horn of the same side, and a few to that of the opposite side. This tract is probably identical with that met with after the lesion to the lateral region of the medulla, and has been described as having its origin in the cerebellum

* The experiments were conducted in dogs and monkeys. Full details of the procedures and results, together with a review of experimental work by others bearing on the subject, will be published elsewhere.

by Marchi, Biedl, and others; but there seems little doubt that it is derived from Deiters's nucleus, as was supposed by Ferrier and Turner. Some degenerated fibres reach both anterior columns of the spinal cord by way of the posterior longitudinal bundles, and terminate in the lower cervical region. Other fibres which enter the posterior longitudinal bundles have an opposite course, and were traced to the region of the quadrigeminal bodies. where they appeared to terminate. Some degenerated fibres passed from the seat of lesion across the raphé on the ventral side of the sixth nucleus, to terminate in the formatio-reticularis; others passed to the region of the opposite superior olive, some appearing to enter this structure, while others became associated with the opposite fillet, passing with its fibres to the region of the anterior corpora quadrigemina.

Section of the posterior columns and their nuclei in the medulla was performed in order to control certain of the other experiments, but no degeneration was met with other than that of the opposite fillet so clearly established by Mott, as following a lesion of the posterior column nuclei, and of fibres passing to the cerebellum in the restiform body.

In view of these results, the tract formerly known as the direct sensory cerebellar tract is regarded as an efferent tract from the cerebellum to Deiters's nucleus, through which nucleus the cerebellum is brought into connection with the anterior horn of the spinal cord on the same side, and to a lesser degree on the opposite side, throughout its whole length. Thus, although there is an absence of any evidence of a direct efferent tract from the cerebellum to the spinal centres, there is evidence of an indirect efferent path through Deiters's nucleus.

It appears probable that through the connections of Deiters's nucleus with the cervical cord, by way of the posterior longitudinal bundles, and with the corpora quadrigemina and superior olives, the cerebellum is brought into relationship with these centres, and that the connection thus brought about may have important bearings in regard to the movements of the head and eyes.

## X RAYS: A SIMPLE METHOD OF INCREASING THE EFFICIENCY OF THE TUBES.

BY

T. W. IRELAND, M.B.Cantab. and E. H. HOWLETT, F.R.C.S., Surgeon, Hull Royal Infirmary.

IT is a matter of common experience with *x* ray workers that their results are vitiated by the faulty working of the tubes. The more a tube is worked the greater is the difficulty in making it fluoresce actively. Working in a warm room, or better still the application of heat to the tube itself, in some measure mitigates the trouble, but does not cure it. It has been suggested that this difficulty is due to increased electrical resistance in the tube, this resistance constantly increasing, till at last the current absolutely refuses to pass through and light up the tube, preferring to spark round outside the bulb. The possible explanation of this phenomenon is as follows: Whilst the current is passing the outside of the bulb becomes positively charged and attracts the negative particles inside, producing a polarised condition of the glass. A suggestion made by Porter seems to have been partially successful in overcoming this trouble. He surrounded the cathodal extremity of the tube with a ring of copper wire, closely approximating but not touching the glass, and attaching it to a wire either connected with the earth or to the cathodal wire. This method is fairly effective, but cumbersome. Dr. Arnold Berliner has devised an arrangement of a wooden cylinder pushed over the tube containing the cathode, moistening the inner surface with glycerine. But we have lately employed a very simple method of working, which entirely obviates these troubles. It consists in wrapping the cathodal extremity of the bulb in damp cotton wool or lint, one end of which touches and surrounds the bulb at the cathodal end, whilst the other is attached to the cathodal wire. The effect is instantaneous. A bulb that prior to the attachment of the wool had refused to light up at once became flooded with a most beautiful blue green effulgence, the most effective form both photographically and optically.

We claim that the power of the tube is absolutely increased; that the working of the tube is constant, a large portion of the flickering being done away with; that as long as the current is passing the tube will continue to act efficiently; that it does away with the trouble of heating; that it prolongs the life of the tube, it not being necessary to have such frequent recourse to the pump.

The wool or lint cover must be carefully applied so that no loose fibres are allowed to hang round the bulb; and the anodal connection must also be carefully adjusted, no loose fibres being left to act as a brush. Given these precautions the trouble with sparking will not appear, and the general annoyance caused by the constantly increasing electrical resistance would seem to be entirely counteracted.

A successful demonstration of this method of treating bulbs was given at the Hull Medical Society on April 8th, 1897.

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

### PELVIC CELLULITIS FOLLOWING GONORRHŒA.

[Communicated by the DIRECTOR-GENERAL R.N.]

R. W., aged 20, was admitted on August 11th with a large venereal sore inside the prepuce, phimosis, and urethritis; circumcision was performed, and the wound healed by granulation. A month later he had an attack of cystitis and right epididymitis, which was treated by rest, irrigation of the bladder with listerine, and fomentations. On October 11th the left epididymis was affected, the inflammation involving the left cord: there was slight pyrexia.

On October 24th he complained of pain in the left iliac region, which was dull on percussion and somewhat tender; the bowels were loose, and the stools contained mucus. On examination *per rectum*, the prostate was found to be enlarged and tender. On October 26th there was hectic pyrexia. The patient now complained of very acute pain in the left iliac region, which was dull to level of umbilicus, and the left lower abdomen was distinctly prominent. The bowels were very loose, and there was a constant discharge of clear mucus *per anum*. On examination, the bowel was found to be almost occluded 2½ inches from the anus by a rounded hard swelling on the left side, the size of a fœtal head at term. Fluctuation was detected in the left scrotum. Assisted by Surgeon May, who gave ether, I opened a small abscess on the outer side of the left testis, and as the cord was very tense and swollen I extended the incision to the left internal ring: several localised collections of pus were found in the substance of the cord. As I now thought I could detect fluctuation in the left iliac fossa, I extended the incision towards the left anterior superior iliac spine, and on reaching the transversalis fascia above the internal ring a tense swelling presented; this was opened, and half a pint of pus escaped. The finger could then be passed over the iliac fossa to the brim of the true pelvis. A double drainage tube was inserted, and iodoform dressings applied. The cavity was irrigated daily and quickly closed. Five days after the operation the bladder and rectal symptoms disappeared.

HOWARD TODD,
Staff-Surgeon R.N.

### FOUR CASES OF LOBAR PNEUMONIA APPARENTLY DUE TO INFECTION.

WITH reference to the article in the BRITISH MEDICAL JOURNAL of April 10th by Dr. A. Douglas Heath on "Three Cases of Lobar Pneumonia apparently due to Infection," the following brief history of four consecutive cases of that disease in one household within a period of eight weeks, which occurred recently in our practice, may be of interest. As in Dr. Heath's cases the facts would seem to point to the presence of an infectious or contagious agent in their causation.

C. H., aged 17, took ill on October 1st, 1896, with lobar

pneumonia, which ran an uncomplicated course, terminating by crisis on the ninth day.

On October 26th her sister, E. H., aged 15, developed pneumonia in the left base, and made a good recovery, the crisis occurring on the seventh day.

On November 19th a brother, T. H., aged 5, fell ill with the same disease, and was followed four days later by a younger brother, H. H., aged 3. In these last two cases the pneumonia was complicated with pleurisy and considerable effusion, and recovery was somewhat protracted.

The pneumonia in all the cases was of the typhoid type, without, however, any grave depression, and, with the exceptions mentioned, was uncomplicated. The pulmonary symptoms were not prominent, the cough being slight and the expectoration scanty although blood-stained. The physical signs were unequivocal. The patients were anæmic and weakly, but had never suffered from pneumonia before. There had been no previous illness in the house, and there was no epidemic prevalent at the time. The house was modern and presented no obvious sanitary defect, but the sleeping rooms were certainly overcrowded. Cases I, II, and III occupied the same bedroom (14 feet by 12) along with an older sister (a robust young woman), who did not take the disease. Case IV slept in an adjoining room, but was frequently in the bedroom with the other patients.

Although the origin of Case I could not be explained we suspected at the time that a causal relationship, direct or indirect, existed between this case and those that so rapidly followed it.

JOHN CHARLES, M.D.Glasg.
Stanley, co. Durham. DAVID A. DEWAR, M.B.Glasg.

## FATAL CASE OF HYPEREXIA FOLLOWING RHEUMATISM.

[Communicated by the DIRECTOR-GENERAL, R.N.]

D. E. E., aged 40, chief engine room artificer, was placed on the sick list at Amoy, China, on July 10th, with subacute rheumatism. The temperature was 100.8°, and there was pain, swelling, and tenderness of both hands and feet and the right knee-joint. He had been subject to rheumatism of an acute and subacute character since 1893, and had been under treatment from time to time for this complaint.

He was placed in bed, on low diet, the affected parts wrapped in cotton wool and bandaged, and a mixture containing sodium salicylate gr.xv given every four hours. His temperature became normal, and the pain and swelling of the joint subsided, and on the evening of July 14th he stated that he felt quite well, and hoped soon to be allowed to do his duty. His temperature went up again on this evening to 101° F. At 5.45 A.M. on the morning of July 15th he was delirious, with stertorous breathing and dilated pupils; the skin was very hot and dry; the pulse 138, full and bounding. The temperature was found to be 106° F.; taken in the axilla every five minutes, it rapidly rose to 109.9° F. He was immediately packed in ice, and the surface of the body bathed with iced water. Under this treatment his temperature came down to 107° F., but went up again: and as his pulse was becoming weak, I injected ether hypodermically three times, ℥jss being used in all. The temperature went up again, the breathing became more embarrassed, and the patient showed signs of venous engorgement, and he died at 8.15 A.M.

The only other cause of this high temperature that suggested itself was "heat apoplexy," and I think the following reasons are against it: 1. His previous history, and that he had already been under treatment for rheumatism for four days. 2. Amoy is outside the tropics, and the highest temperature registered in the day during the time was 86°, and there was a cool breeze blowing. 3. He had not been in the engine room for several days previously, and no other case occurred on board, neither had anyone complained of discomfort from the heat.

There were no premonitory symptoms, rigors, or nervous disorders of this fatal complication except the rapid subsidence of the pain and the swelling of the joint. There were no symptoms or physical signs of cardiac complications.

MONTAGUE L. B. RODD, M.R.C.S., L.R.C.P.Lond.,
H.M.S. *Redpole*, Hankow, China. Surgeon, R.N.

# REPORTS
ON
## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

### CUMBERLAND INFIRMARY, CARLISLE.

NOTES OF A CASE OF BELLADONNA POISONING: RECOVERY.

(Under the care of Dr. BARNES.)

[Reported by JOHN D. DUNCAN, M.B., C.M.Edin., House-Surgeon.]

M. W., a male, aged 45 years, was admitted on November 10th, 1896, at 9 A.M., in a comatose and collapsed state. It was stated that he had three hours and a half previously taken a little over an ounce of glycerinum belladonnæ, in mistake for "black beer."

The patient is a hawker, and had risen at 5.30 A.M. to go to market. On the previous night he had taken a little black beer for a "cold," and had set down the bottle beside some others. Next morning he intended having a little more of the black beer, and took, as he supposed, the correct bottle. He measured out a little over an ounce of the material which was labelled glycerinum belladonnæ. He added a little warm water and some sugar to it and drank it off. This was about 5.30 A.M. He thought at the time that the taste was not the taste of black beer, and remarked so to his wife.

According to the account received he wheeled his barrow to the Citadel Station, which is about 200 yards from his house. He returned home, not feeling very well, and his wife suspected that he had taken the wrong medicine. She at once gave him some salt and water in order to induce vomiting, but this was unsuccessful. She afterwards gave him some tea. He gradually got worse. She noticed that he could not take hold of things properly, and that he reversed the order of things. For instance, instead of putting the stall on the barrow he tried to put the barrow on the stall.

Dr. Macdonald was sent for, and arrived about 7 o'clock. He was shown the bottle containing the belladonna, and was told that the patient had not vomited. Apomorphine ⅛ grain was injected subcutaneously, and the patient vomited, in about three minutes, one or two mouthfuls of a brownish coloured fluid which had a faint odour of belladonna. The patient was delirious, the delirium being of a noisy and active character. The pulse was very feeble. One-twentieth grain of sulphate of strychnine was injected subcutaneously. He was then sent to the Cumberland Infirmary.

On admission he was found to be comatose. The jaws were firmly clenched, and there was a constant grinding of the teeth. There were jerking movements of the limbs, but chiefly of the tendons at the wrists. The body was warm, the temperature in the axilla being 98.6°; the pupils were widely dilated, and did not react to light; only a small rim of the iris was seen. The breathing was somewhat stertorous. There was marked dryness of the mouth and tongue, which was seen on forcibly opening the mouth; the skin was dry. The pulse was 112, and very weak. One-tenth of a grain of strychnine, along with a quarter of a grain of morphine, was at once injected subcutaneously.

The patient remained comatose until 11.30 A.M., when he began to be restless and tried to get out of bed. He spoke then for the first time, and when questioned he could tell part of his name but could not remember the other part of it. A busy and happy delirium had supervened, and he looked at times as if he were intoxicated with alcohol. He clutched at imaginary objects, and had evidently hallucinations of unseen agency; the movements of the arms were very incoordinate. He kept picking at the bed clothes, and made movements as if he was tying knots.

He was at this time seen by Dr. Barnes, and a second hypodermic of morphine was injected, two-fifths of a grain being administered. In about ten minutes the delirium ceased, he fell asleep and slept in one position, with hardly any movement except an occasional slight twitching of the arms, until 4.45 P.M.; the breathing meanwhile was more regular; the pulse at 4 o'clock, before he awoke was 84. Afterwards it was 126, and was very small in volume; the pupils were still

markedly dilated. On being asked his name he could tell it perfectly. He knew where he was, but could not remember when he came to hospital. He said he came here alone, that he had been in hospital since "Wednesday," which was six days before the date of actual admission, and that he had been in bed ever since. His speech was thick, and somewhat indistinct. On being asked to protrude the tongue he did so in a choreic way. It was white and moist. He asked for a drink several times. He was given milk, which he swallowed with apparently no difficulty. He expressed a desire to micturate, and passed for the first time after admission about 5 ounces of clear urine, of normal odour and colour, specific gravity 1012, acid, and containing no albumin. The muscular co-ordination was quite good. At 6 P.M. he was drowsy, and had to be roused to conversation. At 6.45 P.M. he began to sweat, and his skin secretion afterwards remained normal.

He slept again until 9 o'clock. His memory now was much better. He could not, however, remember anything of the morning's doings until he was asked whether he remembered drinking anything. It then immediately flashed to his mind, and he gave quite a correct account of everything he did except that he could not remember having taken the barrow to the station. He said the first bad symptoms he felt were a feeling of dizziness, and his legs "going from under him," and then "a mist coming over his eyes." He remembered nothing further until he awakened at 4.45 P.M. He slept at intervals during the night, but was greatly troubled with dreams. He awoke next morning apparently well.

The pupils were still dilated. The bowels moved twice whilst in hospital; the motions were normal. The temperature ranged from 98.6° to 99.4° until the morning of discharge on the third day after admission, when it was normal. He expressed himself as feeling as well as he did a fortnight previously. Neither flushing of the skin nor any appearance of a rash was observed during the whole time he was under observation. I have learned since that he resumed his usual occupation, and has kept quite well.

Remarks by Mr. Duncan.—The case appears interesting to record (1) on account of the rapid recovery after such a large quantity of the poison had been taken. A considerable quantity must have been absorbed as the stomach would have no solid food in it, and as the poison would be diluted with the salt water and tea, vomiting not having been provoked until an hour and a half had elapsed; even then only a mouthful or two of a fluid smelling faintly of belladonna was rejected. From inquiries which have been made at the druggists who made the glycerinum belladonnæ, it has been found that a little over an ounce of it contains about 3 grains of the active alkaloid atropine. As far as I have been able to make out from the literature at my disposal, this case approaches next to the one reported by Dr. Eliot, and quoted in a *System of Legal Medicine* by Hamilton and Godkin, in which 4 grains of the active alkaloid had been taken without a fatal result.

(2) According to Binz, in his *Lectures on Pharmacology*, "violent maniacal excitement" is put down by most authorities on belladonna poisoning as the first prominent symptom. This was noted chiefly by Pfuhl, Matthiolus, and his contemporary, Dr. Johannes Weyer. In this case the first prominent symptom was muscular inco-ordination. The patient's wife noticed that he could not lift things properly. She then noticed that he was getting weak in the legs, and that he then fell back exhausted. This was followed in a short time by excitement. The behaviour in this case coincided with Professor Fraser's views—namely, that the action on the spinal cord is first paralysing and then exciting; also that from paralysis of the vagi the pulse rate was increased during the time that the symptoms of belladonna poisoning were present.

(3) The experiments of the Edinburgh Committee went to show that morphine is not antagonistic to atropine although atropine is to morphine, but one or two cases are on record where morphine by subcutaneous injection relieved the symptoms of atropine poisoning. One case is specially mentioned by Binz where a boy had eaten the seeds of datura stramonium, the alkaloid of which is in many respects identical with atropine. In this case death seemed inevitable, and as a last resource morphine was administered, with the result that the grave symptoms were arrested, and the boy speedily recovered. In the case now recorded there seemed to be undoubtedly great benefit derived from morphine, as the delirium and hallucinations subsided almost immediately, and remained permanently in abeyance. The patient was also able to co-ordinate his movements in order to get out of bed to pass water.

## NOTTINGHAM CHILDREN'S HOSPITAL.

### CASE OF FOREIGN BODY IN LEFT BRONCHUS.

(Under the care of Dr. Lewis Marshall.)

[Communicated by W. L. Garner, M.B., B.C.Cantab., House-Surgeon.]

M. A., aged 4½ years, was admitted on March 13th, 1897. The following history was given: She had had a bad cough and cold for a week previously, but had gone to school as usual. While going home on the afternoon of March 10th she is said to have swallowed a short piece of slate pencil while laughing. The same evening her breathing suddenly became very bad for a short time; since then the child has been constantly sick, vomiting all food, and bringing up phlegm streaked with blood.

She was very cyanosed and in great distress after a violent fit of coughing. The respiration was 60, the pulse 156, and the temperature 99.8° F. Her condition was altogether out of proportion to the physical signs, which were as follows: Some sucking in of the interspaces on the left side, slight impairment of resonance at left base behind and some coarse crepitations over same area, the breathing bronchial in character. Dr. Marshall, on seeing the child soon after admission, at once suggested the presence of a foreign body before hearing of the accident which had happened to the patient.

On March 14th the child was much less distressed. There was relative dulness from angle of left scapula, and inspiration was less marked than on the opposite side, and very much less so than in the upper portion of same lung. The sucking in of interspaces was quite absent to-day. The inspiratory sound at the point of entrance of the left bronchus, as far as it could be gauged, was musical in character.

On March 18th it was noted that no further paroxysms of coughing had occurred. Dulness had almost cleared up at the angle of the scapula, but was more marked at the base, with very deficient entry of air. Coarse crepitations were heard in the left axilla, and the same sound as above.

On March 23rd cough had been rather more troublesome at night, but not paroxysmal. There was marked dulness at the left base behind, with almost absence of entry of air. The patient was violently sick in the course of the day. She was photographed by the *x* rays, exposure lasting ten minutes, but no sign of a foreign body was discovered. Although the patient had to be taken a distance of half a mile, and the cab jolted very considerably, no paroxysms were excited, and she seemed in no wise disturbed.

On April 1st it was noted that since admission the temperature had been of a septic type, oscillating between 102° to 103° at night, and falling to 98.4° in the morning.

On March 31st the temperature remained normal, and the child seemed better, although physical signs in chest persisted.

On the morning of April 6th she complained of feeling sick: she then had a violent attack of coughing, during which a piece of slate pencil ⅝ inch long, and blunt at each end, was ejected. It had been swallowed twenty-seven days previously. The temperature had been normal since April 1st.

On April 7th she was convalescent.

Remarks by Dr. Marshall.—This case was at once recognised by me as one of "foreign body," (1) from the localisation of symptoms, (2) the marked contrast between the area of lung involved, and the distress present. As previously observed by me in 3 cases the foreign body was in the left bronchus and not in the right, as anatomists and others (Gray and Erichsen) state to be usual. In 2 of these cases the substance was relatively heavy, but in the second one a small portion of the rough upper surface of a hazel nut was impacted; in this case death followed a severe fit of coughing by the casting of the nutshell from the left (where it had remained two months before seen by me) into the right

bronchus. From this case, the substance being light, it seems to me to be clear that the passage into the left bronchus is easier than has hitherto been supposed. It must be something more than a coincidence that all three of my cases have found this spot to land in, and the statement usually made seems, therefore, to need correction. This is quite in accord with a statement made by Mr. Pitts in Treves's *Surgery*. I had determined within a few days to invert the subject of these notes, so convinced was I of the presence of the pencil in spite of the negation by the *x* rays.

As tested by Mr. Simpson, of University College, Nottingham, slate is found to transmit the rays when held in the hand, but slate pencil (composition) was well defined. The composite material of pencils must vary therefore in character.

# REPORTS OF SOCIETIES.

## PATHOLOGICAL SOCIETY OF LONDON.

Henry Trentham Butlin, D.C.L., President, in the Chair.

*Tuesday, May 4th, 1897.*

### General Lymphadenomatosis of the Bones.

Dr. F. Parkes Weber showed these specimens. They were from a man, aged 61, with progressive kyphosis. He complained of pains in different parts of the body, and notably of bilateral abdominal pains, usually worse when he stood up. His spinal column was kept quite rigid, and he walked slowly and carefully with the aid of a stick. A little variable œdema over part of the spinal column and one lower extremity was noticed. His appetite was good and he had no fever, yet he became gradually weaker, and looked more like a man of 80 than of 61. His death resulted from an asthenic type of pneumonia in both lungs. At the necropsy all the bones which were examined, including all the vertebræ and ribs, the clavicles and the calvarium, were found more or less affected with the disease. A very vascular small round-cell growth occupied the centre of the bones, and partially replaced the osseous tissue. In some localities the growth was only covered by periosteum, all the osseous tissue beneath it having been absorbed. Portions of the ribs were bulged owing to distension by the rapidly-growing neoplasm in the interior. There were some enlarged lymph glands under the right clavicle; these were apparently the site of a similar but less vascular growth. The kidneys showed a moderate amount of interstitial change, and in two white specks below the capsule minute concentrically-marked calculi could be seen with the microscope: these Mr. Shattock ascertained to consist of phosphates. The lungs showed greyish consolidation at both bases. Part of the consolidated lung was examined microscopically, and presented a peculiar homogeneous hyaline appearance of the material between the cells. It was as if the tissue of the alveolar walls and the outer part of the walls of the blood vessels had "melted down" in the homogeneous material of the exudation. In fact, parts of the section looked as if they had been boiled before examination. Unfortunately in the present case no examination of the blood was made. More or less similar cases, with or without alteration in the blood, had probably been variously described as "multiple myeloma," "medullary pseudo-leukæmia," "myelogenic leukæmia," "pernicious anæmia with associated affection of bone marrow," and "primary sarcomatous osteitis." "Multiple myeloma" was used to include different kinds of growth, clinically more or less resembling osteomalacia. The term "lymphadenomatosis," as employed by Mr. W. G. Spencer, could be applied in the present case. The word "general" was used instead of "generalised," since there was no evidence of metastasis from any one centre, but the growth seemed to have commenced almost at the same time throughout a great portion of the osseous system.

### Dermatitis Maligna.

Dr. H. D. Rolleston and Mr. E. L. Hunt under this term brought forward two cases of Paget's disease, in both of which carcinoma subsequently developed. Each of them showed the swollen vacuolated condition of the epidermal cells, which had been described as psorosperms, and the plasmoma formation in the superficial layer of the dermis; but the interest lay in the source and form of carcinoma that developed. The first case was a man, aged 60, in whom the characteristic glazed, raw, vividly red condition of the skin above the pubes had existed for eight years. Two years ago three nodules of carcinoma developed; the glands were unaffected. After removal of the whole affected area recovery followed. A somewhat similar case, in which the scrotum and penis were affected, had been described by Dr. Radcliffe Crocker in the Society's *Transactions*. The carcinoma appeared to have arisen from the sebaceous glands, and not from the superficial epidermis. The sweat glands were dilated, but did not, as in Dr. Crocker's case, appear to be undergoing any carcinomatous change. The growth was a spheroidal-celled carcinoma. The second case was in a woman aged 45. The skin affection began eight years ago around the sinus of a mammary abscess, and has spread most extensively. A year ago a nodule of carcinoma developed. The whole affected area, together with glands from the axilla, was successfully removed. Microscopically the carcinoma was a modified squamous-celled growth, showing a transition to a spheroidal-celled type. There was no keratinisation. The modification was probably due to the inflammatory changes, which the authors thought also to be responsible for the vacuolation of the epithelial cells. The carcinoma had certainly not arisen in the mammary gland or its ducts, as was generally the case. It was suggested that Sir James Paget's name would best be honoured by associating it only with the actual morbid lesion, a long-standing dermatitis of the nipple, which he originally described, and not with analogous lesions.

Dr. G. Thin had seen the first case described by the authors, and it would have struck a clinical expert at once as a lesion of unusual type. He did not follow the view that the histological structure resembled that of rodent ulcer; in the latter there was remarkably little cell body to the epithelial cells, and this character was wanting. He regarded the growth as one of the more ordinary forms of epithelioma. The small cell infiltration of the papillary layer was well marked, and in this the condition differed from ordinary epithelioma; hence the term which he had proposed of "papillary malignant dermatitis." He doubted if the sebaceous glands were the sources of any carcinomata, including under this term rodent ulcer.

Mr. W. G. Spencer thought the expression "malignant dermatitis" ambiguous; for the dermatitis was only an antecedent condition to the malignancy; moreover the word "malignant" did not necessarily convey the idea of a new growth, but might refer to the inflammatory process itself. He thought the cases slow-growing carcinomata without any special anatomical characters.

### Vermiform Appendix with Peculiar Contents.

Dr. A. Latham had removed the appendix at the necropsy of a patient dying of lobar pneumonia, and without symptoms of appendicular trouble. The appendix was 9 cm. long, and dilated, its lumen being blocked by adhesions at the cæcal extremity. The dilated interior was filled with small spherical bodies which exhibited a laminated fibrinous structure, the mode of formation of which the author had been unable to determine.

### Non-Perforating Rupture of the Heart.

Dr. Hingston Fox exhibited an instance of this very rare condition. It was obtained from the body of a stout lady, aged 69 years, of good health and active habits, who was seized with precordial pain after a cold bath. Morphine hypodermically and a small venesection, gave partial relief. She lived forty-eight hours, troubled with vomiting. The temperature was 100.5°. Death was sudden, and took place on slight movement. The pericardium was found full of blood; the heart, weighing 14 ozs., was loaded with fat, and two small superficial rents were seen on the left ventricle, but not perforating the wall; there was a small ecchymosis beneath the visceral pericardium at another spot. It appeared that the distension of the fatty heart had ruptured the exocardium and some muscular fibres at these sites, causing slow leakage of blood, which ended fatally two days later.

### A Correction in the Histological Diagnosis of a Tumour.

Drs. A. A. Kanthack and P. Furnivall, referring to a specimen of intestinal growth shown at a previous meeting of the Society as a myxosarcoma, stated that they had since determined the new formation to be a colloid carcinoma.

Dr. Kanthack and Mr. E. H. Shaw exhibited a further series of pathological specimens preserved in formalin.

### Mucosal Cysts and the Significance of the Stratum Granulosum.

Mr. S. G. Shattock described three cysts removed in different cases from the neck, and in the situation of branchial clefts; two were near the sterno-clavicular articulation, the third lay about the level of the hyoid bone, and was lateral in position. It was to their epithelial lining that the author directed particular attention. In the closed cyst, from the upper part of the neck, this was of the stratified squamous-celled kind; in one of the remaining two it was columnar ciliated, in the other it was in places of this variety, in places of the stratified squamous. In the stratified epithelium there was a complete absence of stratum granulosum, or eleidin-holding cells. It was on account of the absence of this substance that the author proposed the term "mucosal" for cysts lined with stratified epithelium in which no granular cells were present, as well as for those with columnar-celled epithelium. Mr. Bland Sutton had made no distinction between such cysts, but had classed all cysts, whether lined with mucous membrane or skin, as dermoids, on the ground that no line of demarcation could be drawn between skin and mucous membrane. It was generally allowed as a philosophical truth that all divisions in biology were only artifices to aid the mind in its apprehension of facts; but this being granted, no advantage could accrue from ignoring the subdivisions arising out of histological structure. Cartilage passed by imperceptible gradations into common connective tissue, yet no one, for that reason, ceased to use either term. In normal histology the absence of stratum granulosum in mucosal epithelia was well known, but the significance of this stratum had been curiously overlooked in pathological formations. The term "mucous cyst" was always limited to mean a retention cyst arising in a mucous gland; "mucoid" meant like the substance mucus; to the term "mucosal" no ambiguity could attach. When a cyst was lined with columnar epithelium no difficulty presented itself; but when with stratified squamous the histological diagnosis rested on the absence of eleidin-holding cells. If a cyst was lined in part with mucosal epithelium and in part with epidermis, it was a dermo-mucosal one. The granules were intensely coloured with most dyes; the most reliable means of demonstration, however, consisted in the use of Gram's bacteriological stain. The granules retained a brilliant violet, and as the nuclear chromatin was quite decolorised, the chance of mistaking fragmented nuclei for the granules in question was obviated. In true dermoid cysts the author had never failed to find a stratum granulosum. This was equally true of such as were devoid of epidermal appendages. He had examined three such from the limbs, and one from the right lumbar region. In the last mentioned the cyst arose at the site of a bullet injury. The author held that no appendages were developed in implantation cysts; such hairs and glands as did occur were there by direct implantation only. In the epidermal covering of scars no such appendages were produced. And in the healing of open wounds in glandular or hair-bearing vegetable parenchyma, the author had never found any reproduction of such appendages. It seemed that after embryonic life the epidermis lost its capacity for development, and retained only that for hyperplasia. He did not deny that a metaplasia of mucosal epithelium to epidermis might occur. In ichthyosis of the tongue the most pronounced stratum granulosum might be met with. He pointed out also the presence of typical granular cells in molluscum contagiosum as disproving, if other evidence was thought insufficient, the source of this lesion in sebaceous glands, for in the latter no such cells were found; they lined the hair follicles, however, to their deepest limits; hence in "sebaceous" cysts, which really arose in the hair follicles, a stratum granulosum was to be found. It was only rarely in squamous-celled carcinomata that eleidin-holding cells were very obvious; if few, they were readily overlooked unless the staining method already mentioned were adopted.

### Congenital Gumma of Spleen.

Dr. G. F. Still recorded two examples of gummatous lesions in the young; the first concerned a boy of 11 years, in whom enlargement of the cervical glands suggested lymphadenoma. After death extensive lardaceous disease was discovered and gummata in the spleen; the retroperitoneal glands also exhibited enlargement. The second case was closely similar. Gummata of the spleen were rare in congenital syphilis.

In answer to Dr. Parkes Weber, the author stated that there were occasional rises in temperature.

### Card Specimens.

Dr. Parkes Weber: Liver showing the Effects of Tight Lacing in a Man.—Dr. H. D. Rolleston: (1) Cystic Chondrosarcoma of Mamma in a Bitch. (2) Secondary Carcinoma in Adrenal passing along the Capsular Vein into the Inferior Cave.—Dr. A. F. Voelcker: Aneurysm of the Aorta causing Sloughing of the Œsophagus.

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## ROYAL ACADEMY OF MEDICINE IN IRELAND.

### Section of Medicine.

G. F. Duffey, M.D., P.R.C.P.I., President, in the Chair.

*Friday, April 9th, 1897.*

### The Diarrhœas of Children.

Dr. Langford Symes read a paper entitled Some Introductory Remarks on the Diarrhœas of Children. Among the points touched on were—the difference in the digestive juices in the child as compared with adults, the digestion of milk by infants in the intestine, the inability of young children to digest starch, the large class of cases of diarrhœa that were "dyspeptic," and the second great division of infantile diarrhœas which might be termed "infective." Defective water supply appeared to affect the older children, over 5 years of age, but infants were swept away in hundreds by milk which was infected or contaminated. The greater number of fatal diarrhœas were doubtless due to artificial feeding. In Manchester, Dr. Niven's returns were of great value; 97 per cent. appeared to have been handfed. This exact percentage was also found to be the rule in America, and Bavaria returned 96 per cent. All organisms grew and flourished in milk. The varieties of infantile diarrhœa were shown to have been greatly confounded in past years. Only lately was more light being thrown on these points. Dr. Symes approved of primarily two main varieties—namely, "Dyspeptic" and "Infective." The first might be acute or chronic, the second mild or violent. Thus four subclasses existed altogether:—I. "Dyspeptic": (1) Simple diarrhœa; (2) Chronic diarrhœa. II. "Infective": (1) Summer diarrhœa; (2) Cholera infantum. Obscure anatomical or pathological names had no foundation—in fact, no reality—in the *post-mortem* room. Such names as enterocolitis, catarrhal enteritis, muco-enteritis, gastro-intestinal catarrh, were misleading, and could not be borne out by facts. There was, however, no sharp line of demarcation between these several forms, as they were extreme types, and numerous intermediate grades of severity were met with; but these were the main varieties to be recognised. Dr. Symes considered, in the absence of any antitoxin or specific remedy for the infective forms that almost all cases could be managed under the following indications, varied as the case demanded; but, unfortunately, in the severe infective diarrhœas these did not avail much, as cholera infantum still was the most fatal form or diarrhœa known: 1. General management. 2. Removal of irritating particles from the bowel. 3. Diet. 4. Antiseptics to arrest fermentation. 5. Irrigation of the bowel. 6. Sedatives to allay peristalsis. 7. Restoratives in case of collapse. The prevention of all these diarrhœas could be reduced to three lines of action: 1. Scientific regulation of artificial feeding. 2. Purification of the ground. 3. Purification of milk.

Dr. Craig said one cause of the disease was dyspepsia, and

another cause, in a great majority of cases, was infection from milk, and that, therefore, an elaborate classification was not needed.

Dr. G. W. Smith said the small intestine was the chief seat of digestive processes in adults as well as in children. The stomach was a comparatively small digestive chamber, and prepared the food for the small intestine. He agreed with Dr. Symes that chemical changes were produced by micro-organisms in the small intestine. From a practical point in therapeutics the treatment of diseases in the alimentary canal might be based on: First, sensory impressions, such as pain; secondly, the chemical nature of the contents of the intestine; and thirdly, the movements of the intestine. It was agreed that the chyme, as it passed out of the stomach in an acid condition, maintained its average acidity down to the ileo-cæcal valve. The contents of the small intestine were never alkaline, and generally acid. Carbonate of soda was prescribed to prevent hyperacidity in the small intestine. The main causes of bad effects in children were over-feeding and direct poisoning. It was necessary to regulate the amount of carbohydrate in the food of children, as an injurious overplus of acidity resulted from improper carbohydrate. Fresh milk, he stated, gave an amphoterous reaction, due to the fact that milk always contained a mixture of monophosphate and diphosphate of sodium.

Dr. Symes replied.

Angina Pectoris.

Dr. John Knott read a communication on angina pectoris.

Dr. Doyle made some remarks.

Dr. Knott replied.

## LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Clinical Evening.

*Friday, March 19th, 1897.*

Cases.

An exhibition of cases of clinical interest was held in the out-patient rooms of the General Infirmary. The following were shown:—Dr. Mouillot: A case of Raynaud's Disease, in which the hands and feet were markedly affected.—Dr. Churton: Case of Traumatic Paralysis of the Left Hand, with sensory vasomotor and trophic lesions.—Dr. Trevelyan: Three cases of Graves's Disease and an unusual case of Laryngeal Tuberculosis.—Dr. Barrs: (1) Thoracic Aneurysm, with laryngeal palsy; (2) Enlargement of the Spleen, with hæmatemesis.—Dr. Wells: An Unusual Form of Muscular Dislocation.—Dr. Bronner: (1) Three cases of Senile Cataract operated on without iridectomy; (2) cases of Radical Cure of Mastoid Disease.—Mr. H. Secker Walker: (1) Radical Cure of Mastoid Disease; (2) cases of Mules's Operation.—Mr. W. H. Brown: (1) Case of Gastro-enterostomy; (2) Malformation after Burns; (3) Primary Syphilis in a Child.—Mr. Ward: Resection for Ununited Fracture.—Dr. Wardrop Griffith: (1) A boy, aged 16, who presented the phenomena of well-marked Unilateral Convulsions, which always began in the left hand, sometimes spread to the face and leg, and sometimes culminated in loss of consciousness. There was no optic neuritis, and no definite signs of gross intracranial disease. (2) A child, aged 5, with symptoms indicative of a Lesion in the Right Side of the Pons, involving the nucleus of the sixth and partially that of the seventh nerve. There was complete paralysis of the right external rectus, with partial paralysis of the right side of the face of Bell's type. No optic neuritis.

Tuberculous Joint Disease treated by Iodoform Injections.

Mr. Littlewood showed four cases illustrating the treatment of joint tuberculosis by iodoform injections. (1) E. B., aged 30. History of four years' duration. Admitted to the infirmary on February 11th. On admission there was extensive tuberculous disease of the left elbow joint, with five sinuses leading down to soft carious bone. There was an enlarged gland, the size of a walnut, in the middle of the arm, and the axilla was full of enlarged glands. First injection February 12th, 1896, and after that twenty-three others. The last was given on August 6th, 1896. She was only in the infirmary for three days, and was then treated in the out-patient room. The sinuses had all healed; the enlarged glands could scarcely be felt: and she was now using her arm with great comfort, although there was some limitation of movement. (2) C. B., aged 8. Admitted September 1st, 1896. History: He fell 4½ years ago; since then has been lame. About last Easter he again fell, and has been much worse from that time. Present state: Well-marked signs of right hip-joint disease with abscess. September 4th. Aspirated and 2 oz. pus removed and injected. September 11th. Aspirated and 1½ oz. pus removed and injected. September 25th. Aspirated and 1½ oz. pus removed and injected. October 8th. Aspirated and 1½ oz. pus removed and injected. October 25th. Some clear fluid squeezed out through cannula and again injected. Again injected on November 16th and November 30th. At the present time he was running about without a splint. (3) M. D., aged 19. Disease in joint commenced twenty-one months ago. She was admitted to the infirmary on October 24th, 1896. On admission the right ankle was much swollen. The swelling extended upwards to beyond the malleoli and downwards to the tarsus. There were three sinuses, one on the outer and one on the inner side and the third behind. All attempts at movement caused considerable pain. The first injection was given on October 26th, and since then ten others. She came to the infirmary about once a fortnight, and then went home the day after the injection, with the leg in plaster. The local condition and her general health had greatly improved. (4) A. T., aged 32. First seen in August, 1896. Joint swollen fixed, and any attempts at movement extremely painful; there was a sinus in front just above the insertion of deltoid. The disease in the joint commenced two years ago, and seven weeks previous to this he had an attack of pleurisy. The joint commenced to discharge from sinus in August, 1895. He had been injected ten times with glycerine and iodoform. He had no pain since the first injection, and had gained 1 stone in weight. During this time he had been taking petroleum emulsion.

Diffuse Popliteal Aneurysm Treated by Excision.

Mr. Littlewood also showed a man, aged 37, who was admitted to the infirmary on February 8th, 1897, with a large diffuse popliteal aneurysm. He first noticed some stiffness in the right ham six weeks previously. After this swelling increased rapidly, and there was a great deal of pain. The operation was performed on February 17th. All clot was turned out, and aneurysmal portion of the vessel excised. No pain after operation. The wound healed rapidly, and he left the infirmary on March 16th, and now walked about quite comfortably.

Sarcoma of Upper Jaw Removed Three and a Half Years Ago.

Mr. Littlewood also showed a man, aged 56, who was admitted to the infirmary on October 2nd, 1893, with a sarcoma involving the superior maxilla and malar bones in the left side. He first noticed the swelling two months previously. The operation was performed on October 4th: Preliminary laryngotomy, removal of upper jaw with malar bone and part of zygoma. On October 7th he got up, and on October 21st he went home. There has been no recurrence since.

Small Calculus Removed by Nephrolithotomy.

Mr. Littlewood also showed a man, aged 27, who was admitted to the infirmary on December 9th, 1896. He had had attacks of renal colic on the left side for four years. Twelve months ago for one day he said he passed some blood. He had never passed any calculi. The operation was performed on December 14th. The kidney was incised at the lower end, and a small calculus weighing 2 grains was removed. The patient left the infirmary on January 5th, 1897. The wound was quite healed and stitches removed on December 29th, 1896.

Nephrectomy for Tuberculous Disease.

Mr. Littlewood also showed a patient whose right kidney was removed six years ago for tuberculous disease.

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Harveian Society.—At a meeting on April 29th, Dr. Milson in the chair, Mr. George Rowell read a paper on the Anæsthetisation of Children, the substance of which will be found at p. 1179.—Dr. Frederic Hewitt thought Mr. Rowell's

suggestion as to estimating the depth of ether anæsthesia very value. With regard to the vomiting which Mr. Rowell had met with in using nitrous oxide and oxygen, he (Dr. Hewitt) was of opinion that it was essential in using the method to see that the diet was carefully regulated; an interval of four or five hours after food was sufficient to avert vomiting under nitrous oxide and oxygen. The tranquil breathing and somewhat equivocal signs displayed by some children under chloroform constituted an objection to its use. Dr. Hewitt had found that it was a good plan, when in doubt, to press the lower jaw back, and so artificially produce stertor. The slight obstruction produced better breathing. He strongly supported Mr. Rowell in his preference for ether in the case of children, but if ether was badly borne in any case, it was a good plan to fall back on chloroform, which given after ether produced effects quite unlike those observed when chloroform was given from the first. Mr. Rowell had said little on the subject of laryngeal stridor in children. Dr. Hewitt had found it better to withhold the anæsthetic until stridor had disappeared. He agreed with Mr. Rowell on the advantages of A.C.E. followed by ether for children.—Dr. Silk, as a visitor, fully endorsed the view that chloroform was by no means so safe with children as was generally supposed. Personally he preferred the A.C.E. mixture for routine use with children. He had been aware of the principle of giving ether consecutive to A.C.E. by the semi-open method for some time, and had frequently employed it in practice, but only in an empirical manner. It was a most interesting observation of Mr. Rowell's that ether vapour could be used as a test for what had been termed "false anæsthesia." In conclusion, he drew attention to the very important question of the collapse which was occasionally observed in throat cases some time after the anæsthetic had been withdrawn. He thought that this was due to the trickling of blood into the relaxed larynx, and he believed that it could be prevented by keeping the patient upon one side for some time after the operation.—Dr. Cock had used the open method of ether administration after beginning with A.C.E. mixture occasionally, but since the author of the paper had drawn his attention to it, more extensively and with increasing confidence. It was, however, in a good many cases possible to put quite young children under the influence of ether alone from the beginning, and that without much trouble or the usual drawbacks of ether administration in the very young. Some infants would take this anæsthetic as comfortably as chloroform by using a fine-nozzled drop bottle (Esmarch's) and the German pattern of Skinner's inhaler covered with stockingette and not with flannel.—Dr. Solomon Smith asked what were the indications marking the moment when the masks and the sponges were to be so changed. So long as there was any of the A.C.E. mixture on the mask, the patient was practically under chloroform, and so far as there were risks from chloroform the patient was running those risks. In view, therefore, of the very varying rapidity with which chloroform acted in different cases, it was desirable not to trust to a time limit alone. In regard to the laryngeal reflex as a test for the amount of anæsthesia present, he thought stress should be laid upon the importance of frequently renewing the ether on the sponge; otherwise a false impression might be produced as to the depth of anæsthesia attained.—Mr. Rowell, in reply, said that laryngeal stridor under ether was of different significance from the same symptom under chloroform. In the former instance it tended to right itself. The time of making the various changes required by the method described was not to be considered. In every instance the patient's symptoms were the infallible guide.

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Hunterian Society.—At a meeting on April 28th, Dr. G. E. Herman, President, in the chair, Dr. Arthur Davies exhibited a case in which there had been apparent symptoms of cerebellar disease, from which the patient had entirely recovered.—A discussion on Headaches was introduced by Dr. Hingston Fox in a paper in which some of the commoner forms of headache were described, with especial relation to arterial tension. The determination of the tension present rested partly on the sustained character of the pulse and partly on the accentuation of the second sound of the heart, as heard over the aorta and in the neck. The headache due to school pressure in childhood was first noticed, a frontal pain relieved by rest and cod-liver oil. In adolescence and young adult life the rheumatic headache and that due to overaction of the heart and their appropriate treatment were first spoken of. The typical headache in anæmia was frontal and throbbing, and that due to constipation was similar. In albuminuria the head pain more often affected the top or back of the head, and was unrelieved by lying down. All the forms of headache treated of so far were attended with *plus* tension, and this was true of the majority of cases of migraine. The one-sided pain and other symptoms of the periodic nerve storm were alluded to, and its frequent occurrence in women of gouty family. Besides the all-important constitutional treatment cannabis indica was strongly recommended, and several instances given of pushing it to intoxication without harm. The fresh extract was, in the author's opinion, the most useful remedy for headache attended by high tension. After brief notes on epileptic and neuralgic forms, low tension headaches were taken up, especially that of tachycardia, which was contrasted with the overacting heart already spoken of, where the vessels were tense. Caffeine was the remedy *par excellence* for headaches of low tension, the headache directly due to alcohol and the congestive form with flushed head and often amenorrhœa, as well as that caused by cough, all belonging to the low tension group. In middle life heart disorders caused headaches; in the earlier stages the tension might be raised, in the latter diminished. Mitral stenosis seemed to have a characteristic form. Menorrhagia was apt to be similarly attended. The causes of increased vascular tension so common in middle life, both in the well-to-do (gouty) and the poor (from toil and want), were considered and the headaches consequent on it, as well as the common "bewildering" pain at the vertex about the climacteric epoch. In the old the steady increase of tension, the senile heart, and the asthenic dilated heart at a later stage brought their own head discomforts, which were relieved by treatment on general principles. Instances of the great value of aperient saline in the *plus* tension of old age were given. It was submitted, in conclusion, that the state of the blood pressure was an important factor in many forms of headache and a guide to treatment, amongst specific remedies cannabis for the high and caffeine for the low tension pains being accounted of most value. Dr. Haig agreed as to the relationship between *plus* tension and headache, and gave an account of the *rôle* of uric acid in producing headache. He pointed out how by eliminating uric acid and the xanthin group in diet not only was the headache cured, but the blood decimal markedly improved. Dr. Harry Campbell inquired as to the exact relationship between headache and *plus* tension, and whether both might not be due to the same cause. He dwelt on the difficulties of ascertaining the degree of tension, and considered the aortic second sound as often very misleading, and had sometimes found it increased with a low tension pulse. Cases of migraine with low tension pulse were common. He regarded headache as a symptom arising from peripheral irritation in eyes, nose, teeth, scalp, and ears, and intraocular tension. The anæmic headache and that common at the menopause, and the syphilitic headache were dwelt upon. Dr. Dundas Grant found nasal disease a cause of a certain number of headaches, especially when the middle turbinated bodies or sinuses were affected. Cocaine afforded relief in these cases. Localisation of headache was found to be of little value. In the vertical headache of women suffering from leucorrhœa chloride of ammonium was almost a specific. Dr. Glover Lyon pointed out the great value of quinine in gr. iii doses in the treatment of migraine. Dr. J. H. Sequeira considered headache not as the result of *plus* tension, but as being associated with it. Dr. F. J. Woods spoke of his successful treatment of headache by hypnotism and suggestion. Dr. Hingston Fox replied.

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Laryngological Society of London.—At a meeting on April 14th, Mr. Charters Symonds in the chair, Dr. Pegler showed: (1) A Case of Recurrent Dendriform Hyperplasia of the Left Inferior Turbinal, with microscopical sections. The patient was aged 13, and there had been almost complete nasal obstruction owing to the presence of lobulated inferior turbinal hypertrophies in both nasal fossæ, and adenoids in

the naso-pharynx. There was persistent recurrence of the growths, after removal with the snare, and cauterisations, especially on the left side. (2) A Case of Fibroma of the Right Vocal Cord in the Region of the Anterior Commissure. —The Microscopic Sarcoma of the Nose shown by Dr. Lambert Lack at the last meeting, was referred to the Morbid Growths Committee.—Mr. de Santi showed: (1) A man, aged 44, with Tuberculous Infiltration and Ulceration of the Soft and Hard Palate. No history of tubercle, and no lung mischief. Tubercle bacilli had been found in the pus from the ulcerations. (2) A woman, aged 36, with Tubercle or Lupus of the Soft Palate and Uvula. Paternal grandfather died of phthisis. No lung mischief in patient. Tubercle bacilli found in the secretion from the nodules. This case and the previous one were shown for an opinion as to further treatment. Dr. Semon suggested arsenic in increasing doses, and if this failed, injections of tuberculin.—Dr. Furniss Potter showed a case of Bilateral Abductor Paralysis in a man aged 36. The physical signs in the chest indicated intrathoracic pressure as a cause of the paresis. History of syphilis twelve years ago. In January, 1894, tracheotomy was performed for relief of urgent dyspnœa. Every few weeks the attacks of dyspnœa were worse, and he coughed up much yellow matter, after which the symptoms were relieved. He had taken large doses of iodide of potassium, but with no improvement. After remarks by Drs. Hall and Semon, Mr. Bowlby said he thought a spinal nerve lesion would explain the condition of things, and instanced a case which he had watched for some years, in which ultimately tabetic symptoms manifested themselves.—Dr. Scanes Spicer showed (1) a case in which Bilateral Middle Turbinectomy had been performed to facilitate Removal and Treatment of Obstinately Recurrent Nasal Polypi, and to relieve Obstruction to Nasal Respiration which had resisted other Measures; (2) a case in which Bilateral Inferior and Middle Turbinectomy had been performed for Aggravated and Persistent Distress depending on Morbid Intranasal Conditions.—Dr. William Hill showed a new form of Antrum Drainage Denture with a fixed tube and a trap-door outlet.—Dr. Bennett showed (1) a case of Malignant Growth of the Larynx in a man, aged 56; (2) a case of Leontiasis in a middle-aged man. There was considerable enlargement of the nasal bones. The floor of the nose and the lateral wall were much hypertrophied with bony thickenings. The condition had lasted for fifteen years, and now caused much nasal obstruction and blockage of the left lachrymal duct. —Dr. Watson Williams showed a case of Tuberculous Disease of the Nasal Septum. The growth was removed, and microscopically proved to be tuberculous though no bacilli were visible. The growth had begun to caseate and break down in the centre. Some months later the tuberculous deposit had spread through to the left side; since then the septum on either side and the inferior turbinal had been repeatedly curetted and lactic acid employed. There was a nodule in the posterior pharyngeal wall.—Dr. Dundas Grant showed a case in which Sensations of Suffocation in a highly Neurotic Woman were temporarily relieved after Galvanic Cauterisation of Varicose Lingual Veins. A rather animated discussion ensued, in which Drs. Semon, Tilley, StClair Thomson, Hill, and Spicer took part, and the unanimous opinion seemed to be that the veins in the case referred to were not enlarged, and had nothing to do with the patient's neurotic condition, and that even had they been enlarged it was impossible to see how *per se* they could produce the many symptoms laid to their charge.—Mr. Charsley showed a lad on whom he had operated for Subhyoid Fistula of Congenital Origin. He remained well for twelve months, when the mucoid discharge recommenced. Mr. Symonds and Mr. Stewart recommended another dissecting operation, and quoted cases in their practice where a second or third attempt at removing the fistulous tract had been successful.

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Ulster Medical Society.—At a meeting on April 1st, Dr. Dempsey (ex-President) in the chair, Dr. Darling showed specimens exhibiting Sarcomatous Disease of the Abdominal Organs, probably originating in the kidney. A large deposit was seen to have formed between the layers of the mesentery, the pancreas, and kidneys were also involved.—Dr. Mitchell exhibited the Gangrenous Cæcum of a woman, which had been excised. Portions of the small intestine were found *post mortem* to be deeply congested. The patient had suffered from intestinal obstruction for six days.—Dr. Charles O'Neill read a paper on the Administration of Anæsthetics, giving the results of his experience of some 200 administrations. He expressed his preference for bichloride of methylene in the majority of cases, using the more recent forms of Junker's inhaler.—Dr. Fullerton read a paper on the Toxic Effects of Cocaine, describing the results of his clinical experience and experiments with the drug.—Dr. Allen read a paper on the Use of Eucaine Hydrochloride in Ear, Throat, and Nose Surgery. He found that eucaine caused less toxic effects than cocaine, and was in some other respects preferable.

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Nottingham Medico-Chirurgical Society.—At a meeting on April 21st, Mr. Chicken in the chair, Dr. Hunter showed a stereoscopic photograph of a patient suffering from an aneurysm of the femoral artery.—Mr. Tresidder showed, for Dr. Marshall, a photograph of a Hand showing Onychomycosis. The patient was a boy who had suffered from ringworm of the scalp for years.—The Chairman showed (1) a Chart of the temperature of a patient suffering from Diphtheria. Various local applications were used at first with apparently no effect, but eucalyptus oil produced an immediate and marked lowering of the temperature. The pure oil was used, and freely painted on the throat. (2) The Negative of a Skiagraph showing a coin impacted in the œsophagus.—Dr. Porter read a paper on The Relation of Dentistry to General Practice. Many medical men considered that they were in no way responsible for the care of their patients' teeth, but there were many questions and problems lying on the borderland of dentistry and medicine. The medical attendant could often save patients from the effects of their own ignorance by urging the necessity of a periodical examination of the teeth. This was especially true in regard to the teeth of children. The pathology of dental caries was briefly discussed to show that it would not be in any sense of the word an inflammation. In considering the immunity of certain persons from dental caries Dr. Black's recent experiments were quoted as showing that it did not necessarily depend upon the density or percentage of lime salts contained in the teeth. The preventive treatment of caries was shown to consist chiefly in a strict attention to oral hygiene, and extracting in overcrowded mouths, constitutional remedies being of no direct practical value. Hypoplasia of the enamel, its occurrence, its constitutional origin, and its probable causes were touched upon. General anæsthesia in dental operations was the next question discussed. It was pointed out that for the great majority of such operations nitrous oxide fulfilled all requirements. Should prolonged anæsthesia be required the preference was given to nitrous oxide, followed by ether. The use of chloroform was strongly deprecated, statistics being given to show the high percentage of deaths from the use of chloroform in dental operations. The question of posture was also gone into from the standpoint of the dentist and the anæsthetist. In conclusion the severe constitutional symptoms attending alveolar abscess were mentioned, their true cause often being overlooked.

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Bolton Medical Society.—At a meeting of the Bolton Medical Society composed of twenty-eight members, duly convened and held at Bolton on April 22nd, Dr. Robinson in the chair, the following motion, proposed by Dr. Jefferies, seconded by Dr. Brazil, was agreed to: "That on and after June 1st, 1897, whenever any registered medical practitioner, or any practitioner entitled to be registered (other than practitioners empowered by the Medical Act, 1886), either directly or indirectly issues, or sanctions, or takes part in the issuing of, any instrument or document which professes to empower the holder of such instrument or document to practise, or to hold themselves out as being in any way entitled to practise, any part or branch of the practice of medicine, or of surgery, or of midwifery, such practitioner so doing shall, on due proof being given, be judged by the General Medical Council to have been guilty of infamous conduct in a professional respect, and his name shall be erased from the *Medical*

*Register*, and any registrable qualification taken from him by the body or bodies which granted such. That the Secretary forward a copy of this resolution to Sir R. Quain, Bart., President of the General Medical Council, 299, Oxford Street, London, to the medical journals, and to the five direct representatives."

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY.—The annual dinner of this Society took place on April 29th at the Café Monico; about sixty members and guests were present. The President, Mr. Macready, said the membership of the Society kept well up; it had a large recruiting field in the 600 medical practitioners of North London; its objects were also well maintained in the advancement of medical science and the cultivation of good fellowship among the members of the profession; nothing removed prejudices or misunderstandings like social contact. The monthly meetings of the Society had been well attended, and the professional subjects discussed of much interest. They had a valuable library, housed in their rallying centre, the Great Northern Hospital. A very enjoyable evening was enlivened by music, vocal and instrumental, by the members. The President-elect for the year is Dr. David Fairweather, of Wood Green.

ERRATUM.—In the report of the Hunterian Society which appeared in the BRITISH MEDICAL JOURNAL of April 24th, some words in Dr. Butler Harris's reply were inaccurately reported. What he said was that he thought ozone would not be of much use in pneumonia as a substitute for oxygen, because when taken stronger than 1 per cent. it produced a good deal of irritation.

# REVIEWS.

GOUT AND GOUTINESS, AND THEIR TREATMENT. By WILLIAM EWART, M.D.Cantab., F.R.C.P., Physician to St. George's Hospital, etc. London: Baillière, Tindall and Cox. 1896. (8vo, pp. 589. 12s. 6d.)

DR. EWART has produced a *magnum opus* on a malady which, although it has had many expositors, especially during the last two and a half centuries, is yet—as to its real cause—very imperfectly understood. In fact, as the author remarks, we know gout only through its manifestations, those which are local being bound up with structural changes. There is, however, an earlier period of "general gout" which pathological anatomy fails to recognise, but which is not a period of health; this is "goutiness," the tendency of which is to develop into declared articular gout. Here there is a wide field for study, surmise, and diversity of opinion, and the author gives us the thoughts of many minds thereon.

Dr. Ewart considers gout to be a perversion of nutrition with indications of a slowing of the metabolic changes, and with lessened tissue resistance. He maintains that attacks of gout are less violent now than in the early part of the present century, but that there is an increase in the prevalence of goutiness. Under the "general etiology" the several factors of heredity, age, sex, climate and season, racial proclivity, and other cognate subjects are reviewed.

The many theories of gout, especially those relating to uric acid, its accumulation, derivation, and seat of production, are discussed at length. Sir Alfred Garrod's views, and those of Drs. Haig, Ord, Ebstein, and Murchison, Sir Dyce Duckworth, Professor Latham and Sir Willoughby Wade, and the investigations of Sir W. Roberts and Horbaczewski are sufficiently detailed, but in so fair a spirit that it is somewhat difficult to determine in all cases from amongst these opposing beliefs the real opinions of the author.

The morbid anatomy of gout; the articular, cardiac, vascular, and visceral lesions of the disease; its morbid affinities with rheumatism, glycosuria, plumbism, and other diseases, are duly detailed.

The clinical study of the disease, its types, stages, and varieties, and gouty affections of the various organs and tissues, and the bearing of these subjects on the various theories of the origin of gout, are well put, and Chapter XXXV, named "concluding propositions" on the two states—gout and goutiness—in which are summed up their relations and differences, is an excellent example of the author's judicial attitude, though too lengthy for quotation here. Its facts are well marshalled, and appear to justify the conclusions reached. Most readers will probably be surprised to find that the symptoms of goutiness and declared gout are often widely divergent.

No fewer than 260 pages are devoted to treatment—medicinal, dietetic, and hygienic. General principles and special indications are first discussed; next, therapeutics, methods, and agents, including under this item evacuant methods, purgatives, etc.; and, lastly, many chapters are devoted to detailed exposition of the medicinal agents, colchicum (which is considered to be still in undivided possession of its reputation as *the* specific in gout), the alkaline salts, the salicylates, iodine, etc. The great results expected from piperazin, lysidin, and lycetol are stated not to have been realised. The chapters on the internal and local treatment of acute gout, of chronic articular gout, and of goutiness and its symptoms, will repay careful perusal. The treatment by mineral waters occupies some forty pages, and home and foreign spas suitable for the purpose are indicated. Under diet and hygiene, the vegetarian treatment and the "meat" treatment are passed in review, and their opposition reconciled in the following paradoxical verdict: "Both methods are remedies for dyspepsia, the one a radical, the other a palliative remedy. To simplify the diet to little besides meat would be to lessen the labour of the stomach, whilst ensuring proper support. To give up all meat, and learn to live and thrive on vegetable and milk food, would be to conquer at one stroke dyspepsia and the gout."

The use and abuse of alcoholic beverages by gouty people, climate, muscular exercise (which should be taken daily by all who would avoid gout), mental work, rest and sleep in the day and at night, these and many other points constitute the details in good treatment; and upon all these Dr. Ewart gives us much that is wise and well worthy of general perusal by all practitioners. He reiterates the dictum of Sir Andrew Clark, "Return to the ways of physiological righteousness, and you will be healed;" and emphasises the monition that "the proper treatment of gout is to treat the patient."

Lastly, readers will thank the author for the copious and clear index which he has provided. There are some expressions, such as "hyperproduction" and "uricacidæmia," to which exception might possibly be taken; but these are small points, and ought scarcely to be mentioned, seeing the general average excellence of Dr. Ewart's work.

AUTOSCOPY OF THE LARYNX AND TRACHEA: Direct Examination without Mirror. By ALFRED KIRSTEIN, M.D., Berlin. Authorised translation, altered, enlarged, and revised by the Author, by MAX THORNER, A.M., M.D., Cincinnati, O., Professor of Clinical Laryngology and Otology, Cincinatti College of Medicine and Surgery; Laryngologist and Aurist, Cincinnati Hospital, etc., with twelve illustrations. Philadelphia: The F. A. Davis Co. 1897. (Cr. 8vo, pp. 80, $0.75.)

MOST laryngoscopists are by this time more or less familiar with the method of examination introduced by Dr. KIRSTEIN, but in accordance with the hesitation to adopt a method of inspection of which the scope and practical value are as yet undetermined, so, characteristic of our countrymen, it has received a comparatively limited trial. It cannot, however, be passed over in silence, and Dr. Max Thorner's translation of the deviser's work will be welcomed by many readers. The writer's claims are sufficiently modest, and he admits that laryngoscopy can never be displaced by autoscopy. The latter admits of convenient examination of the whole larynx and the whole trachea in about one-fourth of all adults, excepting the anterior commissure, which can only be seen in about one-tenth. "About one-half of all people can be fairly well examined with the autoscope, so that the posterior region of the larynx, including sometimes a more or less extensive portion of the trachea, is exposed to view." It is recommended for the examination of children either with or without chloroform. Operations have been performed under autoscopy, and the translator appends the notes of a case of foreign body removed from the larynx by himself.

The instruments are of the "nasal" shape, and measure

20 cm. from the knee to the tip. The attitude, instruments, and manipulations of autoscopy are fully detailed, and the special dexterity acquired in its practice is found to enable the examiner to carry out a fairly efficient autoscopy in many cases with no other instruments than a forehead mirror and tongue depressor.

The book is clearly and concisely written, and attractively got up.

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MANUAL OF DISEASES OF THE EAR, INCLUDING THOSE OF THE THROAT AND NOSE IN RELATION TO THE EAR. For the Use of Students and Practitioners of Medicine. By THOMAS BARR, M.D., Lecturer on Diseases of the Ear, Glasgow University; Senior Surgeon to Glasgow Hospital for Diseases of the Ear, etc. Second Edition, entirely revised and extensively rewritten. Glasgow: J. Maclehose and Sons. 1896. (Roy. 8vo, pp. 440, 220 illustrations. 12s. 6d.)

DR. BARR has evidently taken considerable pains to render the second edition of his work complete in every respect. The examination of the ear is fully described and freely illustrated, the symptomatology in general, the etiology and the methods of treatment are detailed in special chapters, and in this way the space occupied with the accounts of the special diseases is considerably diminished. The writer emphasises the all-importance of the treatment of the diseases of the nose and naso-pharynx in the therapeutics of the curable affections of the ear, and devotes two long chapters to a highly satisfactory account of them.

The diseases of the special regions of the organs of hearing are then dealt with, as much anatomical and physiological description as is essential being prefixed to the consideration of each, with excellent illustrations from original and other authoritative sources freely introduced. The importance of a knowledge of the peculiarities of the anatomy of the meatus, tympanum, and mastoid cavities in the infant and child is recognised, and the chief points are well brought out. The most imperative duty of the aurist is to perfect his knowledge of the diagnosis and treatment of those diseases of the ear which involve serious danger to life; and, apparently impressed with this principle, Dr. Barr has devoted to a consideration of suppurative inflammation of the middle ear and its results 92 out of 126 pages allotted to diseases of the middle ear altogether. This is in accord with the eminently practical aim of the whole work. The list of 147 formulæ, original and selected, must add greatly to the popularity of the book. We might have wished a somewhat clearer account of the scope and limitations of tuning-fork tests and the employment of electricity. The account of the paralyses of the palate described as occurring in cases of disease of the facial nerve is somewhat out-of-date. Such slight defects as these—easily rectified in another edition—do not detract in any appreciable degree from the practical value of this instructive and attractive work.

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DIE MENINGITIS SEROSA ACUTA [Acute Serous Meningitis). Eine kritische Studie. Von Dr. GEORG BOENNINGHAUS. Wiesbaden: J. F. Bergmann. 1897. (Roy. 8vo, pp. 108. M. 2.80.)

THIS monograph is based on 27 recorded cases, critically examined together with a case under the personal observation and treatment of the author. The disadvantage of a study of this kind lies in the possibility that the critic's view may in some cases be at variance with the original observer's ideas. As an example of this, reference may be made to Case XXVII. This case has, within the reviewer's knowledge, been most variously interpreted in foreign journals, and opinions expressed concerning it which never occurred to those who observed the case from day to day.

The chief part of Dr. BOENNINGHAUS's work is arranged under the pathological anatomy, course and prognosis, etiology, symptoms, diagnosis, and treatment, together with full abstracts of cases and an extensive bibliography. The author divides this acute serous meningitis into (1) external and (2) internal (ventricular) meningitis. He acknowledges that the internal may be secondary to the external form. There is undoubted difficulty in showing that a meningitis may start in, and be limited to, the ventricles, and some very exact observations would be needed to establish it. The internal meningitis gives rise, in the author's view, to distension of the ventricles and death through pressure, whereas in external meningitis the fatal issue is rightly ascribed to an accompanying encephalitis. The ventricular meningitis is the less serious affection, and death usually occurs at a much later period than in the other form.

It may, however, be doubted whether a serous meningitis is as common as the author would believe. To some with large experience of *post-mortem* work such a disease is of the very greatest rarity. Where a patient dies of a meningitis, non-tuberculous in origin, a suppurative lesion is nearly always, if not invariably, found. It is an interesting point to know what the nature of the disease is when a patient recovers after a prolonged and severe illness with all the symptoms of meningitis. Spinal puncture may ultimately solve the problem, but the transition from serous to purulent meningitis is gradual. In the majority of the cases recorded here the cause of the meningitis was middle-ear disease. The five cases operated upon with recovery will be read with interest, but the evidence is not always conclusive that the disease was a serous meningitis. Three of the five cases were secondary to ear disease. The operation in one of the remaining cases was spinal puncture, and in the other trephining and puncture.

This monograph, the result of much labour, will be read with advantage by those interested in the subject.

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ON THE PLANS OF MODERN ASYLUMS FOR THE INSANE POOR. By JOHN SIBBALD, M.D., Commissioner in Lunacy for Scotland. Edinburgh: J. Turner and Co. 1897. (Demy 8vo, pp. 33.)

THE idea seems to have been gradually developing in the minds of those who have to do with the housing and accommodation of the insane poor that the nearer we can approach the semblance of freedom, of the liberty to go in and out of "home" at pleasure, the better prospect there is that the patient's surroundings will seem to him natural and homelike, and that he will less harbour the irritating feeling of being imprisoned or restrained. The first great upward movement was to do away with mechanical restraint; the next was to furnish, light, and decorate the buildings better; then followed the system of having "open doors"—that is, always unlocked—whenever possible; and the climax seems to be the family system—the division into villa residences, separated widely, tending towards the idea of living in a country town, with its separate church and theatre, and actually having shops and residences of sane people interspersed.

It is difficult to see that liberty can much further go. This villa system or "family system" is possible only for certain classes of patients; it could scarcely be applied with safety to the acute and troublesome cases; these are therefore arranged for in a separate part called the "medical division," in which are the sick wards and separate rooms for the urgent and troublesome cases. Dr. SIBBALD has minutely described the asylum at Alt-Scherbitz, near Leipzig, and has also referred to that at Kankakee, in Illinois. He discusses very thoroughly the question of connecting corridors, etc. Whilst allowing that the principle of Alt-Scherbitz is correct, we should have liked a more detailed account as to its adaptability for supervision, especially at night, and as to the proportion of cures, and of those so improved that they could be sent home to their friends. It is claimed that both in cost and administration the system at Alt-Scherbitz is more advantageous, and the same is said for the parallel asylum in America, though it has been stated that the late Dr. Hack Tuke's figures on the question of cost at Kankakee are not quite satisfactory. As to whether the curability is greater, nothing definite can be said, but this is a point of great difficulty to determine. It seems certain, however, that the lives of the people are rendered much happier, and if this is so it becomes imperative that the system should be tried in this country.

Modern medicine as applied to the treatment of insanity has directed itself not to the use of "remedies" so much as to early treatment and the placing the patient in conditions best suited for recovery. The notable rise of late years in the interest taken in the treatment of the insane is a proof of the general recognition of its true nature and of a generous disposition to relieve the painful circumstances surrounding it. All public authorities concerned with this question should study Dr. Sibbald's pamphlet. It is the work of a man who, from his official position, has had experiences of the most diverse kinds, and he has seized the right moment for urging that the benefits of this already fairly tried system should be extended to the poor insane as they have for some time already been applied to the richer classes. It is contemplated that the new London Asylum at Bexley shall to some degree shadow forth the villa system, but Dr. Sibbald shows clearly that in Scotland the trend of opinion is in the direction that he advocates, and the present time affords a very good opportunity for discussing the advisability of making the increased accommodation that has to be provided take the shape of an English Alt-Scherbitz.

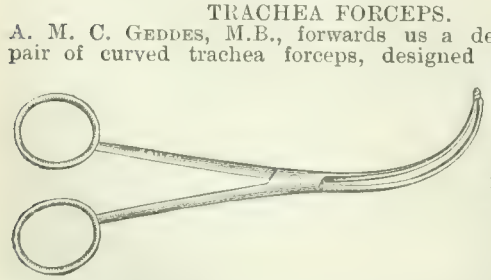
## NOTES ON BOOKS.

*Diagnostik der Krankheiten des Nervensystems* [Diagnosis of Diseases of the Nervous System.] Von Professor Dr. A. GOLDSCHEIDER. Second edition. (Berlin: H. Kornfeld. 1897. Roy. 8vo, pp. 262, 52 figures. M. 7.)—Four years have passed since the first edition of this book appeared. In the present edition expansion in size of type and page is more noticeable than increase or modification of subject-matter. The latter, however, in the first issue was so excellent in arrangement and substance, that little beyond the incorporation of recent developments in neurology and neuropathology was needed to bring it up to date. In this respect the author has not gone quite so far as might have been expected. He has not utilised such portions of Head's researches as relate to his subject. In considering the diagnosis of traumatic neurosis he makes no allusion to Wilbrand's method of dark-room perimetry for the detection of simulation. He further makes no mention of analgesia of the ulnar and peroneal nerve trunks as occurring not infrequently in tabes and general paralysis (Biernacki's symptom). A reference to the paræsthesia affecting the external cutaneous nerve of the thigh, described by Bernhardt, perhaps would have been useful. In spite of some obvious omissions, as just shown, the book is a most excellent and valuable compilation.

# REPORTS AND ANALYSES
AND
# DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

### TRACHEA FORCEPS.

A. M. C. GEDDES, M.B., forwards us a description of a pair of curved trachea forceps, designed by Mr. M. D. Harmer, which will be found of much use in removing such material as membrane from a trachea without getting into the operator's light. They will also be useful in removing foreign bodies from the ears, nose, and throat, and may be used as sinus forceps in those cases in which the ordinary straight forceps are found to fail. They are made by Messrs. W. H. Bailey and Son, of 38, Oxford Street, London.



### AN AURAL SNARE.

MR. CHARLES HEATH forwards us a description of an aural snare which he has recently designed, and which has been made for him by Messrs. Maw, Son, and Thompson. The ratchet on the upper surface of this snare ensures that the wire shall not slip and become relaxed, after tightening, when the trigger on the sliding body is let go to allow of the right hand being used for twisting the instrument. The barrel containing the wire is long enough to reach well through the speculum so as to be steadied by the left hand while torsion is performed. The two holes at the loop end of the barrel fix the wires and thus prevent their twisting in the barrel, as they are liable to do if the barrel is a plain cylinder throughout. By pressing on the long end of the ratchet lever with the thumb while the sliding body is pulled down by the forefinger on the trigger, the snare works easily and smoothly, and, once tightened and let go, cannot get relaxed. The wire can be used many times without changing owing to the shape of the end of the barrel where the loop comes through, which prevents a very acute bend in the wire. Should it, however, need changing through breaking, it can be pulled out with ease by finger and thumb and a new one inserted; the ends are fixed by a simple twist after passing through the small lump on the sliding body, which has two perforations for the purpose.




### ETHER FOR LOCAL ANÆSTHESIA.

MESSRS. THOMAS CHRISTY AND CO., 25, Lime Street, E.C., have sent a sample of Dr. König's ether for use in local anæsthesia. According to the reports published in German medical papers this anæsthetic has given very good results. It is a colourless liquid, having the odour of sulphuric ether; evaporated on the hand the smell of the sulphuric ether at once disappears, leaving a well-marked odour of petroleum spirit. The liquid is evidently a mixture, as the boiling point ranges from 21° to 65° C. We find that very little distils over at the lower temperatures. The specific gravity at 60° F. is 644.5. It does not appear that this ether possesses any advantages over the anæsthetic ether—the ether purus 720 *B. P.*—used in this country.

### THYROCOL PALATINOIDS.

MESSRS. OPPENHEIMER, SON AND CO., LIMITED, 14, Worship Street, E.C., prepare, in accordance with the directions given by Dr. Hutchison, the colloid matter from sheep's thyroid glands. Dr. Hutchison, in the BRITISH MEDICAL JOURNAL of January 23rd, 1897, has shown reason to believe that this colloid matter, termed thyrocol, contains all the active principles of the gland. Thyrocol being a definite substance is reliable; it possesses also the advantage of being free from fat and other matters which tend to make the ordinary preparations of the gland disagree when given in large doses. It is free from taste and colour, and is said to keep indefinitely. The thyrocol palatinoids made by Messrs. Oppenheimer, Son, and Co., form an agreeable and easy method of administering this medicament.

THE epidemic of small-pox which prevailed in Madrid during the latter half of last year has now subsided. The total number of deaths caused by the disease in 1896 was 1,607.

# A REPORT
ON
# THE INFLUENCE OF MILK
IN
# SPREADING ZYMOTIC DISEASE.

## Introduction.

It is now just upon sixteen years since I read my paper at the International Medical Congress of 1881 on the Influence of Milk in Spreading Zymotic Disease. I was at that time able to place on record 73 outbreaks of disease as having been traced to the agency of milk. Of these, there were 50 in which enteric fever was in question, 15 were of scarlatina, and 7 of diphtheria. I dealt in my paper in brief with the history of infectious disease as traceable to milk, and went on to show what were the lessons which were to be learned as a result of a consideration of the several outbreaks and their surrounding circumstances, with suggestions for further legislative action.

This paper, with its voluminous abstracts and tables, was printed in the *Transactions* of the Congress. Some important administrative improvements have followed, and the paper and tabulations have served as a mine of facts and references for subsequent writers at home and abroad. It has seemed to me, however, that the time has come when it would be advantageous to compare the intervening years' experience with our previous knowledge of milkborne disease, and to see how we stand to-day in the matter. Accordingly, I have issued extensively systematic series of queries to all medical officers and others concerned with any milk epidemics of which I have been able to find either casual or other notice, and have carefully tabulated them and endeavoured to supplement and to organise on a unform basis all the available information which I have been able to procure from various sources on this subject. The labour has been very considerable, and has extended over no small period of time, but I hope that the results will be considered commensurate. Thus I have have striven to render as complete as possible the history of milkspread infectious disease since 1881. At the same time I may as well state at the outset that I have had occasion to omit many so-called "milk outbreaks" on account of the scanty thread which ran through the argument for milk as the *vera causa* of the particular epidemic, and I have included only such as have seemed to me to bear the light of close investigation upon them in this connection. There are other and well founded milk outbreaks which find no place in my summary of facts by reason of my ignorance of the circumstances; of this I feel quite sure, as it seems impossible to cull all the data necessary for a complete and absolutely comprehensive record of milkborne occurrences of infectious maladies. But if these things be, they only serve to emphasise the magnitude of the statistics of preventable sickness which are in evidence in relation with milk as a cause. I am, therefore, the less troubled at the absence of record of local outbreaks of which others may know, though I should have been glad if my publicly expressed desire for information of facts had included the missing data. And here I would take the opportunity of tendering my sincere thanks to those health officers who have kindly responded to my wishes, and have placed at my disposal their own personal experience of milkspread disease. To the reports of the Medical Department of the Local Government Board, also, I am greatly and largely indebted, the admirable manner in which the facts arising in connection with the investigated occurrences have been handled having facilitated my deductions in no small degree.

As on the last occasion, I have stated the particulars of the recorded outbreaks in the abstract under the following headings:

1, Date of outbreak; 2, locality; 3, reporter; 4, total number of cases; 5, deaths; 6, number of cases amongst drinkers of infected milk; 7, percentage to total cases; 8, number of families supplied by milkman: 9, number of such families invaded; 10, percentage; 11, sanitary circumstances of farm or dairy from which milk was derived; 12, exciting cause of outbreak: 13, circumstances implicating milk; 14, facts showing special incidence of the disease; 15, references to sources of information.

The 73 outbreaks in my 1881 abstract have given place to an additional 95 on the present occasion—namely, typhoid fever 48, as against 50; scarlatina 32, as against 15; and diphtheria and allied throat ailments 15, as against 7. I am confident even so that these but touch the fringe of the matter, especially if I had sought abroad for evidences of epidemics traced to milk. As a matter of fact, I have been content to locate myself to the four quarters of the United Kingdom, except in one or two instances where special trouble has been taken to bring to my notice the recorded facts.

## Fresh Elements since 1881.

It will be unnecessary for me to in any wise refer to the question of causation of disease by the agency of milk as being contentious in any degree. As far back as the seventies the matter was practically placed within the pale of certainty, and assuredly by 1881 the public had come to recognise the relationship between milk and disease as clearly proven. At the same time the matter has undergone rapid development, to a large extent due to the very able and elaborate investigations conducted by Mr. W. H. Power, F.R.S., the assistant medical officer of the Local Government Board, whose lucid reports, aided by the bacteriological inquiries of Dr. Klein, have demonstrated beyond doubt that there is direct causal relationship between conditions of milch cows and disease in the human subject, in the cases of diphtheria and scarlatina. The Hendon outbreak of 1885, of which I shall have occasion to speak, has become classical in the region of epidemiology, the relationship of teat and udder eruptions in the milch cow to scarlatina in man having been brought prominently forward in masterly fashion in the papers published by the late Sir George Buchanan, and containing reports from the pens of Mr. Power, the late Dr. Cameron of Hendon, and Dr. Klein. It is the recognition of the cow as herself having to do with the infective quality of her milk that has chiefly marked the last ten or twelve years in the direction of added knowledge as to milkborne disease. It has been a hard fight to secure the verdict of veterinary authorities in favour of the view held at Whitehall, but just as the theory of aërially-spread small-pox had to be maintained in the face of great opposition, finally to be accepted by the leading public health experts of the day, so has the theory of cow-borne maladies had to be contended for, but the result in the long run has been the same.

I therefore am in the pleasant position to-day of being able to start at once on a short statement of the chief facts given in my abstract, without the necessity of having to prove that milk can cause infectious sickness. My task is rather to demonstrate wherein lie the principal needs for further care in the processes of dairying and the like: and the task is of a nature to afford sanitarians with material for uncomfortable reflection, seeing that its fulfilment must bring out facts which are to our national discredit.

First of all, then, I will deal with those phases of disease outbreaks which are exhibited by two or all three of the diseases which form the bulk of local occurrences finding place in my abstract.

## Obstructive Difficulties in Local Inquiries.

I may perhaps at the outset refer to a circumstance which militates against attempts to elucidate the origin and method of spread of milkborne disease, and that is the wilful withholding of information pertinent to the success of the investigation. Such withholding has in the past been practised on more than one occasion and by more than one class of individuals. Take, for example, the case of the outbreak of diphtheria at Ealing in January, 1887 (No. D. 8), and inquired into by Mr. Power for the Local Government Board, where the reporter states that mainly default of evidence was due to disregard by particular people in Ealing of appeals made to them directly and individually for information on the

subject of the outbreak. Thus of 19 medical practitioners personally urged by the Ealing Sanitary Authority to give information, and furnished with forms for facilitating its record and transmission, not more than 11 supplied facts of the sort asked for; other 8 either sending no reply at all or refusing the names and addresses of their patients. Some few, too, of private residents in the place believed to have suffered throat illness in their families disregarded the application made to them by Mr. Power by circular letter; among them being a gentleman, a customer of the suspected dairy, who had lost a child by diphtheria.

### SPECIAL INCIDENCES OF MILKBORNE DISEASE.

In some outbreaks traced to milk the incidences on special sections of the community have been excessively heavy or singular. These sections have sometimes been whole villages, at other times they have been merely the residents in some very restricted local area, or even a single dwelling. In the case of an outbreak of concurrent scarlatina, diphtheria, and throat illness at Upton, in February, 1889 (No. S. 18), as many as 77 per cent. of the households using the implicated milk were invaded, and 37 per cent. of the contained members were attacked. In the case of an outbreak of scarlatina at Glasgow in August, 1892 (No. S. 24), out of 193 families supplied with a particular milk service in one round, there were 57 families invaded and 91 individuals attacked; whilst of 166 families on another round there were 37 families invaded and 59 individuals attacked. Moreover, in one street 21 families, being more than half those supplied with the milk, were invaded, and yielded 29 cases.

### CONCURRENT DISEASES.

Another feature of milk outbreaks not altogether infrequently met with is the concurrence at the same place, and, indeed, in some instances in the same individual, of multiple diseases. In the case just before mentioned—that of Upton—which, together with the adjacent town of Macclesfield, was visited by a milkborne epidemic, the three diseases of scarlatina, diphtheria, and allied throat maladies, were concurrent in the invading localities. The outburst was of scarlatina, quite suddenly, after long absence of the disease; in addition, much throat mischief was prevalent, and there were two undoubted cases of diphtheria.

Other instances of special incidence are deserving of brief notice. As Bush Hill Park (No. S. 21) all the cases of scarlatina were in drinkers of the particular milk, and 33 cases arose in 22 households; and in the dairyman's own family the infant fed on "nursery" milk escaped, and another child taking the implicated milk was attacked. At Hastings, in 1893 (No. S. 27), of 20 boys in a school, the only patients were 2 who partook of the suspected milk separately each morning. In Canterbury, in 1886 (No. D. 6), of 196 houses supplied either wholly or in part by the milk, 115 were invaded by diphtheria in a period of eight days. In a family taking other milk at home, the only case was of a member who took the suspected milk in his tea at a friend's house. At Clapham, in 1882 (No. T. F. 3), in a family of 15 persons, only 1 was attacked, and he the only drinker of the milk in a raw state. At St. Albans, in 1884 (No. T. F. 15), 1 visitor to the farm in question as causing typhoid fever by its milk supply, and who drank one glass of milk, was attacked. In Edinburgh, in 1890 (No. T. F. 27) in a household of 9 members the only one attacked was a young adult who nightly partook of a large quantity of milk on coming home from a hard day's work. In the case of typhoid fever caused by the ingestion of ices in Greenwich and Rotherhithe in 1892 (No. T. F. 43), 2 boys living in different streets, but eating ice creams from the same street vendor were the only members attacked in their respective households; and a servant girl, who visited the invaded district on Sundays, and who partook of ices therein, was the only one of her mistress's household attacked.

### HELP FROM UNPROMISING FACTS.

The special significance of some apparently unpromising facts in the course of the elucidation of problems surrounding milk outbreaks has been noticed in some cases, and this particularly in the instance of the renowned scarlatina epidemic at Hendon and in North London, in 1885 (No. S. 10), where Mr. Power was bothered by the exceptional absence of scarlatina from one locality taking milk from the farm which seemed to be spreading the disease in the other quarters using the milk. But he was able to demonstrate that the locality in question did not at the time of its clean bill of health receive milk from certain cowsheds at the farm; when at a later date it also began to suffer from the malady in the person of the milk drinkers, it was found that the cows which in this case were the media of infection had been transferred from infected sheds to the sheds whence the locality was supplied. Hence the facts were after all found to have significance tending further to inculpate the implicated milk. And when the milk was prohibited in London, it was found to be causing scarlatina among persons at Hendon to whom it had, on its rejection by London, been clandestinely given.

### HOUSING OF MILCH COWS.

Some amount of attention is, as will be readily agreed, necessary to the conditions of housing of milch cows. In the case of Hastings, in 1893 (No. S. 27), the cowsheds outside the district were badly drained and ill-paved, and deficient in ventilation; and Dr. Scarlyn Wilson, the health officer, is of opinion that the febrile condition of the cows noticed was doubtless due to the insanitary character of their housing. The milk in question at St. Helens, in connection with an outbreak of typhoid fever in 1895 (No. T. F. 46) came from a shippon which was in a filthy state, and in which cows and pigs were both housed, the floor being rubble-paved, a gully being in the shippon, and inches of animal manure littering the place. These are conditions for which there can be adduced no reasonable excuse, cleanliness being one of the prime essentials of all dairying businesses.

### FARMERS AS SCAVENGERS.

Dr. Brown, of Bacup, has drawn attention to the case of a dairy farmer who combined the occupation of dairy farming with that of scavenger, having in the latter capacity to see to the removal of night soil. Dr. Brown very properly animadverts on this strange and dangerous multiplication of offices, pointing out how easy it is to surmise the entry of hurtful matter into any milk with which the farmer had to do (No. T.F. 41).

### CONCEALMENT OF INFECTIOUS DISEASE.

The concealment of infectious disease on dairy farm premises and the like has played its part in the causation of disease through the agency of milk. At Sunderland in 1882, in connection with an outbreak of scarlatina (No. S. 5), the illness at the dairy in question was only accidentally discovered, it not having been reported. At a milk shop in Hull (No. S. 7) a child was ill of scarlatina three weeks before knowledge of the case came to the health authorities, and no steps had in the interval been taken to guard the milk from chance of infection. And these are but instances taken from the list of epidemics summarised.

### UNNOTIFIED INFECTIOUS DISEASE.

Near akin to concealment of disease is the subject of non-notification. Typhoid fever of a fatal character in the person of a farmer, and of a non-fatal sort in the person of his son, was not reported at a farm implicated in the outbreak of that disease in Mid-Warwickshire in 1883, reported on by Dr. Wilson (No. T.F. 13). At Plymouth, when an outbreak of typhoid fever occurred there in 1892 (No. T.F. 29), the Infectious Disease (Notification) Act of 1889 was not in force. And it is this all-important matter of non-notification which has in the past had much to do with the uninterrupted progress of many milk caused epidemics, the health body having been kept in ignorance of the fact of disease being in their midst unchecked until their attention has been drawn to the circumstance by the data afforded by death registers and other tardily received information.

### UNDETECTED INFECTIOUS DISEASE.

Closely allied to the matters just treated of is the discovery of illness in the families of dairymen, farmers, and the like, when milk has been traced to be the medium of dissemination. Thus we see in the instance of an outbreak of scarlatina at Greenock in 1881 (No. S. 2), that there had been cases of that disease recently before in the farmer's family. At Glasgow in 1888 (No. S. 17) there was found to have been ill-

ness of indefinite sort of throat affection in the families of two dairymen, whose businesses were interlaced, such illnesses following on scarlatina in other members of the families. At Grangemont in 1882 (No. T. F. 6) a case of enteric fever was found in the house from which milk was supplied. At Canterbury in 1886 (No. D. 6) the milkman and his family were found to be suffering from sore throat. And at Limekilns in Fifeshire in 1892 (No. D. 14) a patient suffering from diphtheria was ascertained to have been walking about the dairy premises the day following notification of his illness, in direct contact with dairy management. These instances serve to illustrate how great is the danger attending on the occurrence of cases of infectious disease, either unsuspected or carelessly left in households connected with dairying and cognate businesses.

### Sick Nurses as Dairy Workers.

The case of Limekilns leads me to draw attention to two or three instances in which the attendant on the infectious sick was also busied in dairy work. At Wolverhampton (No. S. 1) in 1881 the milkseller was engaged in distributing milk during the illness of her children, whom she nursed through an attack of scarlatina, which disease was spread by the milk thus sold. At Dundee in 1883 (No. S. 9) the milk causing scarlatina in its consumers was stored in a kitchen wherein was laid a boy suffering from the same disease, and whose attendants carried on the dairying business. At Derby in 1884 (No. T. F. 16) the napkins of the initial fever patient at the farm were washed in the farm pump trough, whilst the mother-nurse of the patient was engaged in milking the cows and in washing the milk cans. Here, then, are instances of gross disregard for the common decencies of cleanliness and of the common right of man to secure that his food shall be served to him free from the conditions enticing disease and calculated to foster infection in the very means of life.

### Storage of Milk.

The storage of milk has ever been an important matter in the course of inquiry into milkborne epidemics, and instances of neglect in the direction of exposure of milk to deleterious influences in this way have been by no means infrequent. At Shirley Warren, in Hampshire, in 1894 (No. S. 22), it was ascertained, while inquiring into an outbreak of scarlatina traced to milk, that the milk in question was placed without a cover in a penthouse, under the same roof as an adjoining house wherein was a boy suffering from the same disease, he having also access to the penthouse while in a stage of desquamation. At Shelf, in 1882 (No. T. F. 4), the conditions surrounding the stored milk were extremely bad, the milk being open to the absorption of drain air, sewage effluvia, and the emanations from an adjoining manure heap. At Dundee, in 1883 (No. T. F. 11), a boy was found to have been sleeping in a room communicating with the milk shop, while certified to be suffering from "neuralgia," though several members of the dairymen's family were found to have suffered from enteric fever at the same time or thereabout. Very crude were the notions of a farmer selling milk found to be causing typhoid fever at Carlisle in 1886-87 (No. T. F. 20), the milk storeroom being a small pantry between and continuous with a kitchen and yard, the latter containing a slaughter house, cowsheds, and an ashpit privy containing the evacuations of a typhoid fever patient. At Edinburgh, in 1890 (No. T. F. 27), we find milk being passed into cans in a small building aërially and closely connected with a filthy cow byre. Deplorable were the surrounding circumstances affecting the storing of milk in a farm at Shildon, in 1893 (No. T. F. 38), the room used for storage having a window opening on to three uncovered midden privies, on to one of which at least were cast the untreated evacuations of a typhoid fever patient. The room was also open to emanations from a sewer close at hand. These instances suffice to demonstrate the serious state of things existing at our dairy farms and milk shops, a condition of affairs calling for remedy beyond the possibility of recurrence. Milk being a most ready absorbent, it becomes the more important that all deleterious influences that may be in any wise thought of as likely to operate to the danger of the consumers of the milk should be removed. At the same time, of course, I do not lose sight of the fact that occurrence of infectious disease in aërial relation with milk of a quality to cause disease in its consumers is by no means always the cause of the effect of such milk, but not infrequently only itself the result of ingestion of the milk on the farm or dairy premises. But however this may be, my main contention holds good.

### Quantity of Infected Milk used and Amount of Disease Resulting.

One matter which has come to be very clearly demonstrated as time has gone on is the relationship existing between amount of milk consumed and the amount and severity of the disease induced by the implicated milk. Indeed, this point has come to be one of the methods by which the certainty of milk as a cause of disease has often been ascertained beyond doubt in well-to-do localities, taking much milk per house; whilst the amount of disease per household has now come to be seen to depend on, first, the number of young children in the home, and secondly, on the quantity of unboiled milk consumed by those children. In Wimbledon and Merton, in 1886-87 (No. S. 11), the scarlatina attacked especially well-to-do people, and was seen to show preference for those persons who partook of most milk, the rateable value of houses and quantity of milk being important factors in determining the amount of disease to be expected. At Upton and Macclesfield, in 1889 (No. S. 18), in the outburst of scarlatina, there was a difference as between 45 and 89 per cent. of households attacked according as one-third or the whole of a pint of milk and upwards was taken, and a difference as between 12 and 50 per cent. of members of those households attacked. At Bush Hill Park, in 1891 (No. S. 21), the incidence of scarlatina was greatest on houses taking most milk, scarlatina attacking chiefly well-to-do households. The matter first came to be clearly defined when Mr. Power conducted his inquiry into milk diphtheria at York Town and Camberley in 1886 (No. D. 7), for there he found that the amount of milk consumed determined the amount of disease, 84 per cent. of better class customers, and only 22 per cent. of poorer customers, of the milk supply being attacked. In his summary of the chief facts of the outbreak, Mr. Power says: "Though uniformly infective on leaving the farm, the milk had a very different effect in causing diphtheria according as it was distributed to one and another class of consumers. This difference of effect of the milk had to do with difference of amount (and related difference of use and difference of conservation) of milk distributed in the two classes. The diphtheria among better class consumers was, as regards amount and fatality, so conspicuous that its relation to the milk service was readily seen; but among poor class consumers, it was so inconspicuous in amount and fatality that the fact of its relation to the milk service might readily have been overlooked. It is altogether doubtful, therefore, whether in the absence of the test of the milk which was furnished by the behaviour of the epidemic among customers of the better class, the ability of this milk service to cause diphtheria would have been detected."

### Milk Outbreaks of Untraced Origin.

It is not to be supposed that because a particular outbreak of disease attributed to the agency of infected milk has not been traced to the *vera causa* of the infective quality of the milk in question, therefore the theory is untenable. This supposition does not hold good in other phases of disease dissemination, as for example the waterborne diseases, concerning which it has been impossible at times to state with clearness borne out by irrefutable facts what was the precise method of contamination of the water which none the less caused the malady attributed to its agency. As an instance of a milk outbreak of this class I may mention that of Glasgow in 1882 (No. T.F. 7), where the typhoid fever arising in connection with a milk supply was wholly among persons consuming the milk, not one case being found to have been in an individual not using the milk. It was just as well that the disease should have been thus wholly limited to milk drinkers, since no trace was found of the means whereby the infective quality of the milk was induced.

### Infective Milk Operating at a Distance.

There have been not a few instances in which the milk implicated in the spread of infectious disease has caused mis-

chief. It is the custom of procuring milk from a distance which has in time past added to the trouble of tracing the source of the outbreak under investigation, and it is this same custom which is to-day causing no little disturbance in the minds of sanitarians, since it militates against prompt action of needed sort in many directions. The Bush Hill Park outbreak of scarlatina in 1891 (No. S. 21) was caused by milk from a farm in Essex. The typhoid fever outbreak at St. Pancras in 1883 (No. T.F. 10) was traced to milk as a cause, the milk coming from a farm at St. Albans, and causing also fever among consumers in that city. In the case of the 1893 scarlatina epidemic at Hastings, traced to milk (No. S. 27), the milk came from a farm in an adjoining district, and thereby caused trouble by reason of the non-adoption at the moment of the Infectious Disease (Prevention) Act of 1890.

### MILK OPERATING IN MULTIPLE DISTRICTS.

Instances are not wanting in which the milk causing disease has been productive of mischief in multiple districts; for example, in the case already named of Bush Hill Park in 1891 (No. S. 21), where the village whence the milk came in Essex was attacked in the two houses using it; and in the Charlton outbreak in 1892 (No. S. 22) no fewer than 7 distinct and even widely separated districts were invaded. Accordingly, given a dairy serving with disease-disseminating milk few customers in several localities within the jurisdiction of multiple sanitary authorities, and we see the immense premium which is set upon the elucidation of the cause, thus operating widely, and it may be in small proportions only, in the separate districts.

### REINVADED SUPPLIES AND TOWNS.

One instance worthy of record is that of one and the same farm giving rise to outbreaks of similar disease on two distinct occasions. The typhoid fever outbreaks at St. Pancras in 1893 (No. T.F. 10), and at St. Albans in 1884 (No. T.F. 15) were caused by milk from the same farm at St. Albans, and in each instance the farm well was declared at fault, this circumstance pointing to the danger attending delay in setting sanitary matters straight, since we must assume that adequate prominence was given to the state of the water supply on the earlier occasion. Not a few of the abstracts relate to the same town on more than one occasion, showing multiple milkborne outbreaks at different times.

### THE PROHIBITION OF INFECTED MILK.

One of the most useful and at the same time drastic measures which can be taken with the view of staying the progress of disease traced to the agency of milk is the stopping of the sale of the article by the farmer or retailer in the district affected. In the case of an outbreak of typhoid fever at Dundee in 1883, and traced to milk (No. T. F. 11), the sale of the milk was stopped under the provisions of a local Act, the particular section in question being as follows:

"Dundee Police and Improvement Consolidation Act (1882), Section CCXLIV.—The sheriff may, on a certificate from the medical officer that in his opinion an infectious disease is being spread, or is likely to be spread, throughout the burgh by the sale or delivery of milk from a farmhouse, steading, or other premises, whether within or without the burgh, and after allowing parties an opportunity of being heard, issue an order prohibiting the sale or delivery of such milk within the burgh for such period as may appear to be necessary for the public safety, and such order shall be immediately intimated by the sanitary inspector to the various parties interested in the sale or delivery of such milk, and such order shall be sufficient authority to any officer or constable of the Commissioners to prevent the sale or delivery of such milk within the burgh; and the sheriff may by subsequent order extend or limit the period of such prohibition, and every person in the knowledge of such order selling or delivering such milk within the burgh during the period specified in the original or any subsequent order shall be liable to a penalty not exceeding forty shillings."

ERNEST HART.

*(To be continued.)*

## ABSTRACT.

## I.—DIPHTHERIA AND SORE THROAT.

### 1.—RUGBY.

*Date of Outbreak:* March, 1881. *Reporter:* G. Wilson, M.D., M.O.H. *Total Number of Cases:* 100, and others not stated. *Number of Cases amongst Drinkers of Suspected Milk:* All. *Percentage to Total Cases:* 100. *Number of Families supplied by Milkman:* 40. *Number of such Families invaded:* 18. *Percentage:* 45.

*Exciting Cause of Outbreak.*—Mixture with milk of healthy cattle the produce of a cow suffering from "garget."

*Circumstances implicating Milk.*—At Rugby School three houses only attacked, with some 30 cases in each, these houses alone being served with the particular milk.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. ii, 1881, p. 415.

### 2.—HENDON.

*Date of Outbreak:* January, 1883. *Reporter:* Mr. W. H. Power, F.R.S., L.G.B. *Total Number of Cases:* 35. *Deaths:* 3. *Number of Cases amongst Drinkers of Suspected Milk:* 30. *Percentage to Total Cases:* 86. *Number of Families supplied by Milkman:* 86. *Number of such Families Invaded:* 13. *Percentage:* 15.

*Sanitary Circumstances of Farm or Dairy from which the Milk was derived.*—Sewer discharges at higher level into a ditch passing within 22 paces from pond used for washing and rinsing purposes in connection with dairying utensils, milk cans, etc.

*Exciting Cause of Outbreak.*—Local health officer regarded contamination of milk as having probably been caused by sewage gaining access to dairy pond by overflow of ditch which is apt to occur. Pond water found to be largely fouled by sewage matter. Mr. Power looks upon the ascertained "ropy" condition of the milk, at a time consistent with his theory, as having given rise to its infective quality, a quality strictly limited in point of time.

*Circumstances implicating Milk.*—On January 5th, 14 cases of diphtheria came under notice in 6 houses, all of better class, and all taking the one milk supply. In epidemic period, January 1st to 10th, nine-tenths of the invaded houses took the particular milk service. Among a few customers served by the same dairy in the adjoining Finchley district nearly a dozen persons in four families suffered from sore throat coincidently with the Hendon outbreak.

*Facts showing Special Incidence of Disease.*—Certain families habitually using the milk in a boiled state wholly escaped invasion. Disease specially in evidence where taken in large quantities and used in a raw state.

*Reference.*—Report to Local Government Board. BRITISH MEDICAL JOURNAL, vol. ii, 1883, p. 124.

### 3.—"ONE OF THE LONDON SUBURBS."

*Date of Outbreak:* April, 1883. *Reporter:* Morell Mackenzie, M.D. *Total Number of Cases:* 16. *Deaths:* 5. *Number of Cases amongst Drinkers of Suspected Milk:* All. *Percentage to Total Cases:* 100. *Number of Families invaded:* 9.

*Sanitary Circumstances of Farm or Dairy from which the Milk was derived.*—Water used for washing can drawn from the ordinary mains through a cistern situate in the cowhouse.

*Exciting Cause of Outbreak.*—Not traced; but questions arose as to cause arising from (1) direct contamination of milk by human agency; (2) poisoning by impure water; (3) affection of the cows capable of conveying diphtheria; and (4) atmospheric transmission of the poison of diphtheria from pre-existing cases.

*Circumstances implicating Milk.*—The disease, which had existed in a mild epidemic form for some months, suddenly broke out with great severity, all the cases occurring within 5 days in 9 families. Of these, 6 families derived all their milk from the suspected source, two principally, and one partially. The invaded houses were widely scattered through the district.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. i, 1883, p. 874.

### 4.—DEVONPORT.

*Date of Outbreak:* December, 1883. *Reporter:* Dr. Parsons, L.G.B. *Total Number of Cases:* 31. *Deaths:* 5. *Number of Cases amongst Drinkers of Suspected Milk:* 27. *Percentage to Total Cases:* 87. *Number of Families supplied by Milkman:* 256. *Number of such Families invaded:* 18. *Percentage:* 7.

*Sanitary Circumstances of Farm or Dairy from which the Milk was derived.*—Farm well 32 yards from dungpit, and 22 from manure heap. Water suspected by medical officer of health, and well closed. Water said to be used only for washing carts. Distributing milkshop had a case of diphtheria next door, the yards to the two houses closed in by high buildings, and air thus stagnated.

*Exciting Cause of Outbreak.*—Facts consistent with contamination of the milk by infective material of partial amount and of occasional occurrence. Cause of infection may have been some condition of farm or dairy premises, or by milk cans being wiped out with cloths which hung up in the dairy yard, and which might have contracted impurities from the atmosphere.

*Circumstances implicating Milk.*—Outbreak limited to persons in better class houses, and of good social position. All but two cases (other than the two initial attacks in mid-November) in consumers of the milk of one dairyman; and even of these two, one certainly, and the other probably, had on occasion had milk from the same dairy.

*Reference.*—Report to Local Government Board. BRITISH MEDICAL JOURNAL, vol. i, 1883, p. 876.

### 5.—CARDIFF.

*Date of Outbreak:* 1883. *Reporter:* Dr. Paine, M.O.H. *Deaths:* "Several." *Number of Cases amongst Drinkers of Suspected Milk:* All. *Percentage to Total Cases:* 100.

*Sanitary Circumstances of Farm or Dairy from which the Milk was derived.*—Well water contained an excessive amount of sewage contamination.

*Exciting Cause of Outbreak.*—Fatal cases of diphtheria at the farmhouse led to analysis of the well water, and closure of the well for drinking, but not for general purposes. Tin milk vessels rinsed night and morning with well water.

*Circumstances implicating Milk.*—Some time after partial closure of well fatal cases of diphtheria occurred in the town, all in persons obtaining milk from the infected farm. No fatal cases occurred after total and permanent closure of the well.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. i, 1883, p. 973.

### 6.—CANTERBURY.

*Date of Outbreak:* July 1886. *Reporter:* Dr. Wacher, M.O.H. *Total Number of Cases:* 231. *Number of Families supplied by Milkman:* 196. *Number of Such Families invaded:* 116. *Percentage:* 59.

*Sanitary Circumstances of Farm or Dairy from which the Milk was derived.*—Apparently satisfactory.

*Exciting Cause of Outbreak.*—Milkman and his family found to be suffering from sore throat; and four calves had been suffering from diarrhœa.

*Circumstances implicating Milk.*—Of 422 houses canvassed in one locality, 196 supplied either wholly (160) or in part (36) by the incriminated milk. Of these 196 houses 115 invaded by diphtheria in a period of 8 days; and only 5 of the remaining 226 houses so invaded.

*Facts showing Special Incidence of Disease.*—One patient had the milk only at a friend's house in tea. The family took other milk at home, and all the rest of the household escaped.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. ii, 1886, p. 397.

### 7.—YORK TOWN AND CAMBERLEY, SURREY.

*Date of Outbreak:* October, 1886. *Reporter:* W. H. Power, F.R.S., L.G.B. *Total Number of Cases:* 140. *Deaths:* 16. *Number of Cases amongst Drinkers of Suspected Milk:* 124 *Percentage to Total Cases:* 89. *Number of Families supplied by Milkman:* 94. *Number of such Families invaded:* 48. *Percentage:* 51.

*Sanitary Circumstances of Farm or Dairy from which the Milk was derived.*—Well in use at farm found in two of three analyses made to be dangerously polluted, the impurities being deemed of vegetable origin, no evidence of sewage pollution being forthcoming. Well water always used for dairying purposes in a boiled state.

*Exciting Cause of Outbreak.*—Not definitely made out. Some people blamed contamination of milk by human agency; this not probable. Others deemed the use of polluted water as the cause; this not borne out by the facts. Most likely cause, the use of the milk of two cows after calving, their milk being brought into the business at a time parallel with the epidemic outburst of diphtheria.

*Circumstances implicating Milk.*—Of the 57 houses invaded, 48 (84.2 per cent.) took the implicated milk, and all were invaded in the ten days October 8th to 17th. Of 140 individuals attacked, 124 (88.5 per cent.) were consumers of the milk, and 116 of these 93.5 per cent.) were attacked in the same ten days.

*Facts showing Special Incidence of Disease.*—Amount of milk consumed seen to determine also amount of disease; thus, of better class families taking the milk, 84, and of poorer class, only 22 per cent. invaded. Of children under 15 years in the one and the other class, 54 and 6 per cent. respectively attacked. One case in a lady followed upon the consumption of some of the particular milk at a friend's house one day, the hostess also falling ill.

*Reference.*—Report to Local Government Board.

### 8.—EALING.

*Date of Outbreak:* January, 1887. *Reporter:* W. H. Power, F.R.S., L.G.B. *Total Number of Cases:* 30. *Number of Cases amongst Drinkers of Suspected Milk:* 26. *Percentage to Total Cases:* 86. *Number of Families supplied by Milkman:* 50. *Number of such Families invaded*, 14. *Percentage*, 28.

*Sanitary Circumstances of Farm or Dairy from which the Milk was derived.*—No sanitary deficiency at either dairy or its associated farm premises.

*Exciting Cause of Outbreak.*—Not ascertained, owing to the withholding of much information of a valuable character by medical practitioners and residents. Milk vendor himself "afforded every assistance in his power to the inquiry."

*Circumstances implicating Milk.*—The data as to the total number of cases, the number of cases amongst drinkers of suspected milk, and percentage are based only on a special effort made in a particular section of the district to determine, if possible, the relations of the outbreak to the implicated milk. As a result, it was found that in January, of 126 households furnishing information, 50 took the milk and 28 per cent. were invaded, against less than 3 per cent. of the remaining 76 households; and that of the 422 inmates taking the milk, 6 per cent. were attacked, being tenfold greater than among the 633 persons getting other milk. Of children, over 7 in each 100 consumers of the milk were attacked, and not one of those consuming other milk. From an estimate formed as accurately as was possible, it was deemed that among the 3,000 persons taking the implicated milk, attacks of diphtheria and sore throat were, in the epidemic period, 20 times more than on households getting milk from other dairies.

*Reference.*—Report to the Local Government Board.

### 9.—ENFIELD.

*Date of Outbreak:* November and December, 1887. *Reporter:* Dr. R. Bruce Low, L.G.B. *Total Number of Cases:* 51. *Deaths:* 12. *Number of Cases amongst Drinkers of Suspected Milk:* 42. *Percentage to Total Cases:* 82. *Number of Families supplied by Milkman:* 210. *Number of such Families invaded:* 21. *Percentage:* 10.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived, and Exciting Cause of Outbreak.*—"The conditions of actual milk distribution, and the distance of time between the events and their investigation," presented difficulties as to elucidation of facts "insurmountable."

*Circumstances implicating Milk.*—These 51 cases were a recrudescence of a much larger epidemic prevalence in 1887 due to school influence and other factors. The recrudescent attacks were limited alike in locality and social status of sufferers, the latter being of the better class altogether, quite unlike the earlier manifestations of diphtheria. All the cases at the end of November and in the first three weeks of December, and all the deaths in this period, occurred in persons consuming milk from one source. Of the houses using the milk, 10 per cent. were invaded; of houses not using the milk, less than 1 per cent. Of persons consuming the milk, over 2, and of those not consuming it less than 0.5 per cent. were attacked.

*Reference.*—Report to the Local Government Board.

### 10.—CROYDON.

*Date of Outbreak:* October, 1890. *Reporter:* Dr. Philpot, M.O.H. *Total Number of Cases:* 191. *Deaths:* 38. *Number of Cases amongst Drinkers of Suspected Milk:* 123. *Percentage to Total Cases:* 65. *Number of Families supplied by Milkman:* 124. *Percentage of such Families Invaded:* 40.

*Exciting Cause of Outbreak.*—Teat eruptions in cows, stated by Dr. Klein to be similar to those met with in diphtheria outbreaks traced to milk of diseased cows.

*Circumstances implicating Milk.*—Milk from one source supplied by one dairy, the customers of which suffered to the extent of 40 per cent. of households supplied. Same milk formed one-seventh of the supply of another dairy, the customers of which suffered in 10 per cent. of households taking it. The milk from these two sources caused diphtheria in 12 per cent. of the households consuming it, against less than one-fifth per cent. of household invasions where the milk from other 31 sources was used. Proportion as 60 to 1. Cases ceased to arise when the implicated milk was stopped.

*Reference.*—*Daily Graphic*, February 3rd, 1891; and report of medical officer of health.

### 11.—CO. WORCESTER.

*Date of Outbreak:* November, 1891. *Reporter:* Dr. Thursfield, M.O.H. *Total Number of Cases:* 6. *Deaths:* 1. *Number of Cases amongst Drinkers of Suspected Milk:* 6. *Percentage to Total Cases:* 100. *Number of Families supplied by Milkman:* 1. *Number of such Families invaded:* 1. *Percentage:* 100.

*Exciting Cause of Outbreak.*—Two of three cows, the milk of which was used by the keeper's family and the rest made into butter, affected with particular disease of teats, pustules bursting in the act of milking, the cows being in a febrile state.

*Circumstances implicating Milk.*—All the children of the household had suffered from diphtheria some years back. Five of them and the mother were affected. One death, of a child. Mother and son who milked the cows, first attacked. No diphtheria elsewhere in locality.

*Reference.*—*Public Health*, 1891-92, p. 130.

### 12.—SURBITON.

*Date of Outbreak:* December, 1891. *Reporter:* Dr. Coleman, M.O.H. *Total Number of Cases:* 27. *Deaths:* 3. *Number of Cases amongst Drinkers of Suspected Milk:* 27. *Percentage to Total Cases:* 100.

*Exciting Cause of Outbreak.*—Inmates of country farm ill of diphtheria.

*Circumstances implicating Milk.*—All cases were of persons taking the milk from the invaded farm. The cases stopped a week after the source of supply was changed.

*Reference.*—*Public Health*, 1891-92, p. 158.

### 13.—GLASGOW.

*Date of Outbreak:* August, 1892. *Reporter:* Dr. Russell, M.O.H. *Total Number of Cases:* 224.

*Sanitary Circumstances of Farm or Dairy from which the Milk was derived.*—Business at both dairy and farm conducted with scrupulous attention to cleanliness. No insanitary conditions present.

*Exciting Cause of Outbreak.*—Nearly all of a herd of 53 cows suffered from teat eruptions, small in beginning, but leading to ulceration. Ulcers yielding faintly-coloured fluid; three or four on one teat: sometimes all teats affected. "Hendon" streptococcus isolated from lymph, as proved by growth and inoculation into mice. Two varieties of eruption in question shown by experiments on calves with scabs from ulcers, one being true vaccinia, the other a non-vesicular eruption of a specific character like that of "Camberwell" outbreak. No suggestion of desquamation or evidence of constitutional disturbance in cattle, as observed in Hendon and Camberwell cases. Farmer and three other milkers had eruptive sores on hands, one being compelled to stop work.

*Circumstances implicating Milk.*—Between August 6th and 8th, from 60 to 70 cases notified. Milk supply stopped on 8th; cases ceased on 12th. On latter date all cattle seemingly recovered separated from rest, and milk sold unmixed from 23rd till 30th, when supply again stopped. Cases cropped up on 25th and occurred daily till September 8th, all among consumers of this milk.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. ii, 1892, pp. 432, 666; vol. i, 1893, p. 35.

### 14.—LIMEKILNS (VILLAGE IN FIFESHIRE).

*Date of Outbreak:* August to December, 1892. *Reporter:* Dr. Nasmyth, M.O.H. *Total Number of Cases:* 28. *Deaths:* 4. *Number of Cases amongst Drinkers of Suspected Milk:* 16. *Percentage to Total Cases:* 57. *Number of Families invaded:* 14.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Farm large, well conducted.

*Exciting Cause of Outbreak.*—Occurrence of case of diphtheria in farmhouse. Patient found walking about the dairy premises day after notification. No attempt at isolation, but boy going into byres and all about the place. Direct communication between those attending boy and those managing the dairy.

*Circumstances implicating Milk.*—Occurrence of epidemic amongst a large proportion of the families using the milk from this particular dairy at commencement of epidemic.

*Reference.*—Annual Report for 1892.

### 15.—FINCHLEY.

*Date of Outbreak:* November, 1894. *Reporter:* Dr. Kenwood, M.O.H.

*Exciting Cause of Outbreak.*—Three cows supplying the milk had diseased teats, and one had a chronic abscess of her udder.

*Circumstances implicating Milk.*—From November 8th to 18th there were 94 per cent. of the houses supplied by the dairy invaded by the throat malady. The disease attacked all classes, and especially adults over 20 years of age. Twenty-four hours after issue of a notice to boil all milk, the epidemic ceased as suddenly as it started.

*Facts showing Special Incidence of Disease.*—Better class houses, and generally those using most milk, suffered in greatest degree. After cessation of the throat epidemic, true diphtheria, but of a mild type, grew up in the district, 25 of the first 38 cases being in persons who had just before suffered from the throat malady. Only one diphtheria death resulted in whole quarter.

*Reference.*—BRITISH MEDICAL JOURNAL, 1895, vol. i, pp. 1167-68.

*(To be continued.)*

# UNIVERSITIES AND COLLEGES.

## UNIVERSITY OF CAMBRIDGE.

WOMEN'S DEGREES.—The vote on the proposal to admit women to the titles of the degrees of B.A. and M.A. will be taken on Friday, May 21st, at 1 P.M. The Syndicate having reconsidered their report have agreed to adhere to their original recommendations. The most active efforts are being made to inform the constituency, which numbers about 7,000, of the significance of the issue before the University.

MEDICAL DEGREES.—At the Congregation on April 29th the following degrees were conferred:

*M.D.*—R. S. Thomas, M.A., M.B., B.C., of Jesus College; C. S. Storrs, B.A., M.B., B.C., of Emmanuel College.

*M.B. and B.C.*—G. M. MacDonald, B.A., of Christ's College.

THIRD EXAMINATION FOR MEDICAL AND SURGICAL DEGREES.—The following candidates have satisfied the examiners:

*Part I. (Surgery and Midwifery.)*—Allfrey, B.A., Trin.; R. H. Bell, B.A., Trin.; Coleman, B.A., Joh.; A. W. Daniel, B.A., Emm.; Deller, B.A., Trin.; Forbes, B.A., Christ's; Greg, B.A., Trin.; H. L. Gregory, B.A., Joh.; Harrisson, B.A., Magd.; Heilborn, B.A., Gonv. and Cai.; Irving, B.A., Gonv. and Cai.; Jephcott, B.A., Gonv. and Cai.; Lindsay, B.A., Sid. Suss.; W. F. Lloyd, B.A., Cla.; Lowe, B.A., Jes.; Mathias, M.A., Christ's; E. A. C. Matthews, B.A., Trin.; H. D. O'Sullivan, B.A., Emm.; Prest, B.A., Joh.; Roderick, B.A., Emm.; Rowland, B.A., Down; B. H. Slater, B.A., Trin.; C. White, B.A., Christ's; E. A. Wilson, B.A., Gonv. and Cai.; W. R. Wilson, B.A., Corp. Chri.; Yeld, B.A., Trin.

## UNIVERSITY OF EDINBURGH.

IN the April Examinations, 59 candidates passed the Medical Preliminary, and 36 failed. In the Arts and Science Preliminary, 55 passed and 15 failed.

## UNIVERSITY OF DURHAM.

AT the Convocation held on Saturday, April 24th, the following degrees were conferred:

*Doctor in Medicine.*—J. Arnott, M.B., B.S.Durh.; E. J. Brewis, M.B., B.S.Durh.; H. Fawcett, M.B., B.S.Durh.; C. G. B. Kempe, M.B., B.S.Durh.; M.R.C.S., L.R.C.P.; C. U. Laws, M.B.Durh., M.R.C.S.; W. Martin, M.A., M.B., M.S.Durh.; W. E. Peacock, M.B., B.S.Durh.; W. H. Peake, M.B., B.S.Durh., M.R.C.S., L.R.C.P.; J. A. H. White, M.B., B.S.Durh.; M.R.C.S., L.R.C.P., L.R.C.S.E., F.R.C.S.E.; F. J. Worth, M.B., B.S.Durh., M.R.C.S., L.R.C.P.

*Doctor in Medicine (Practitioners of Fifteen Years' Standing).*—J. H. Balfe, L.R.C.P. and S.E.; J. Cahill, F.R.C.S.; H. Clarke, M.R.C.S., L.R.C.P., L.S.A.; E. C. Davies, M.R.C.S., L.R.C.P.; R. H. Hodgson, M.R.C.S., L.R.C.P.; S. R. Lidiard, M.R.C.S., L.R.C.P.; F. W. Sutton, M.R.C.S., L.S.A.

*Bachelor in Medicine (M.B.)*—J. C. Anderson, London Hospital; M. A. Archdall, College of Medicine, Newcastle-upon-Tyne; J. J. Foster, M.R.C.S., L.R.C.P., Guy's Hospital; T. H. Gibbs, College of Medicine, Newcastle-upon-Tyne; A. P. Lloyd, College of Medicine, Newcastle-upon-Tyne; J. Lowry, College of Medicine, Newcastle-upon-Tyne; D. W. Patterson, College of Medicine, Newcastle-upon-Tyne; A. G. W. Pearson, College of Medicine, Newcastle-upon-Tyne; W. Simpson, College of Medicine, Newcastle-upon-Tyne; C. S. Smith, Mason College, Birmingham; R. A. Wilson, College of Medicine, Newcastle-upon-Tyne; J. H. Wood, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; T. Woodman, College of Medicine, Newcastle-upon-Tyne.

*Bachelor in Surgery (B.S.)*—M. A. Archdall, College of Medicine, Newcastle-upon-Tyne; R. H. Bellwood, M.B., College of Medicine, Newcastle-upon-Tyne; T. H. Gibbs, College of Medicine, Newcastle-upon-Tyne; W. R. Kingdon, M.B., College of Medicine, Newcastle-upon-Tyne; J. Lowry, College of Medicine, Newcastle-upon-Tyne; D. W. Patterson, College of Medicine, Newcastle-upon-Tyne; A. G. W. Pearson, College of Medicine, Newcastle-upon-Tyne; W. Simpson, College of Medicine, Newcastle-upon-Tyne; C. S. Smith, Mason College, Birmingham; R. A. Wilson, College of Medicine, Newcastle-upon-Tyne; J. H. Wood, St. Bartholomew's Hospital; T. Woodman, College of Medicine, Newcastle-upon-Tyne.

*Bachelor of Hygiene (B.Hy.).*—J. S. Hall, M.B., B.S.; J. H. Hunter, M.D., R.S., P. R. Ingram, M.B., C.M.

The Diploma in Public Health (D.P.H.) was conferred on Mr. F. Smith, L.K.Q.C.P.I., L.R.C.S.I.

## UNIVERSITY OF DUBLIN.

THE following degrees in Medicine were conferred on April 23rd: *Doctores in Medicina:* H. J. Brownrigg, W. M. O'Connor, J. D. Sinclie. *In Absentia:* A. J. H. Thornton.

## ROYAL UNIVERSITY OF IRELAND.

THIRD EXAMINATION IN MEDICINE.—The examiners have recommended that the following candidates be adjudged to have passed the above-mentioned examination:

*Upper Pass.*—R. A. L. Graham, B.A., Queen's College, Belfast; J. W. D. Megan, B.A., Queen's College, Belfast; K. H. White, B.A., Queen's College, Cork.

The above may present themselves for the further examination for Honours.

*Pass.*—W. R. Beatty, Queen's College, Belfast; P. J. Burke, Catholic University School of Medicine; P. J. England, Queen's College, Cork; T. J. P. Hartigan, Queen's College, Galway; E. Heskin, Queen's College, Cork; F. S. Irvine, Queen's College, Belfast; T. J. Little, Catholic University School of Medicine; E. McDonnell, Queen's College, Cork; K. McGahey, Queen's College, Belfast; P. J. Moran, Queen's College, Belfast; A. Murphy, Queen's College, Cork; W. O. Murphy, Queen's College, Cork, and Catholic University School of Medicine; R. A. Neilson, Queen's College, Galway; T. F. O'Keiffe, Queen's College, Cork, and Catholic University School of Medicine; O. M. Praeger, Queen's College, Belfast; J. Ritchie, Queen's College, Belfast; F. S. Scott, Queen's College, Galway; R. Steen, Queen's College, Belfast; Isabel A. Tate, Queen's College, Belfast.

## ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE following gentlemen having conformed to the by-laws and regulations, and passed the required examinations, have been admitted Licentiates of the College:

| | | |
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| Ahlswede, O. J. L. | Gardner, T. H. | †Parkinson, W. |
| Amenábar, J. D. | Gilbertson, W. | Pearse, W. H. |
| *Beadles, H. S. | Goode, H. N. | Peile, W. H. |
| Bean, L. C. | Granville, A. | Phipps, J. H. |
| Betts, E. H. | Gundlach, J. | †Ponsonby, J. |
| Blieden, M. | Hall, J. S. | Porter, A. E. |
| Brebner, A. | Hayward, W. C. | Prince, P. C. |
| *Brodribb, A. H. | Hindley, G. J. D. | Ralston, R. G. |
| Brushfield, A. N. | Hunt, G. H. | Read, E. H. |
| *Burn, A. | Hunt, S. | Rouillard, J. A. A. |
| Butler, S. G. | Hyde, R. H. | Rowland, S. D. |
| Callum, H. S. H. | Ireland, A. E. | Rygate, A. M. |
| Campbell, A. | Jonas, H. C. | Sanguinetti, H. H. |
| Carter, A. B. | Knowles, A. | †Scale, T. W. |
| Case, H. M. | Knox, R. G. | Seymour, L. W. |
| Chambers, J. M. | †Lange, M. H. J. | Smith, A. L. H. |
| Clowes, E. F. | Laurence, B. E. | *Smith, E. C. T. |
| Cock, H. E. | Lee, W. H. | Smith, J. H. |
| Coop, E. J. E. | Le Geyt, E. | Stamford, R. B. |
| Cooper, H. G. | Littlehales, A. G. | Thomas, W. J. |
| Cowie, R. M. | Lovitt, A. E. | Thorman, W. H. |
| Crisp, G. B. | Lower, N. Y. | Thornton, G. L. |
| Croker, E. U | McClean, J. F. | *Thursfield, J. H. |
| *Dickson, A. W. | McKie, G. McK. | Tressider, M. E. |
| Dove, W. B. | McSorley, A. S. | Turner, H. F. |
| Dykes, P. A. | *Manasseh, A. J. | Walker, J. N. |
| *Dyson, M. G. | Manning, H. C. | Walker, S. R. |
| Ellwood, T. A. | Martin, J. S. | †Wallis, M. E. A. |
| Evans, C. R. | Mellish, J. S. | *Weekes, C. P. |
| Evans, J. J. | Michael, C. E. | *Westcott, W. G. |
| Facey, S. H. | Mills-Roberts, R. A. | Williams, J. C. |
| Fegan, R. A. | Moore, J. | Wilson, A. G. |
| Fenn, J. H. | Muir, J. C. | Windsor, C. W. |
| Foote, V. P. | Mundy, H. | Wood, P. |
| French, L. A. W. | Myers, W. | Woolcombe, A. |
| Gairdner, J. F. R. | Nowell, W. S. | Woolliscroft, W. W. |

* Under New Regulations, dated January 1st, 1892.
† Under Old Regulations, before October 1st, 1884.

## CONJOINT BOARD IN SCOTLAND.

THE following candidates have passed the subjoined examinations, those marked with an asterisk (*) passing "with distinction":

*First Examination, Five Years' Course.*—*J. Allan, G. R. Jarvie, A. B. Laidlaw, J. Kean, F. C. Willmott, J. W. Dougall, J. A. Doyle, W. A. Cole, J. Stewart, W. Turner, R. A. Hamilton, J. S. Colquhoun, J. N. M'Morris, D. Fyfe.

*First Examination, Four Years' Course.*—W. M. M. Jackson, J. Robertson, D. Mittra, T. F. Blake, T. M. Metcalfe.

*Second Examination, Five Years' Course.*—D. M. Macgregor, T. B. Adam, D. Caffey, *J. Fulton, J. G. Grant, G. F. Stoney, T. R. W. Atkins, L. R. Popham, G. Evans, A. L. Johnston, D. S. Russell, G. B. M'Kendrick.

*Second Examination, Four Years' Course.*—Louise Fox, R. Brodie, R. J. Morgan, A. Dougall, Lilian Edith Sykes, D. R. Edwards, P. W. M'Hugh, A. B. S. Powell, C. Abbott, D. P. G. O'Sullivan, R. C. M. Hoare, F. H. B. Gaden.

*Third Examination.*—*R. Staward, E. H. Harrison, W. Carey, A. J. B. Albertyn, H. A. Marquis, R. Mackie, W. Hutton.

*Final Examination, and admitted Licentiates.*—C. F. Spinks, G. H. Pearce, W. B. K. Richards, E. P. Hewitt, A. E. Blades, R. P. H. Whitmarsh, B. Wade, A. Kennedy, Jane Boyes, A. E. Hawkins, A. da F. Dias, J. W. Mackay, J. H. Stuart.

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THE *London Gazette* of April 27th published an order from the Local Government Board providing that on June 22nd, or some other day in lieu thereof, Poor-law Guardians and Boards of Management of district schools and asylums may make such reasonable modifications in the regulations in force with regard to the discipline and diet of the poor persons in the workhouses and other establishments as to them may seem suitable for the occasion.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1897.

Subscriptions to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MAY 8TH, 1897.

## THE CONCLUSIONS OF THE VENICE SANITARY CONVENTION.

II.

Continuing our review of the conclusions of the recent Venice Conference which apply to areas Outside Europe, we find the remainder to be divided under three subheadings: one dealing with terrestrial frontiers, the second with the Red Sea, and the third with sea routes generally. As regards land routes, the Convention lays it down anew that the modern practices of disinfection, etc., are to replace land quarantines; that adequate apparatus for disinfection is to be provided at certain points of travel by road and by rail; but for those countries which do not see their way to carry out these conclusions at present, it is laid down that they are at liberty altogether to close their land frontiers to both passengers and merchandise. The provisions of the Convention as to the traffic of the Red Sea from the East into Europe are next dealt with. Vessels are divided into three groups. First come the healthy ships, that is to say, those which have been at sea for ten days since leaving a plague-infected port without the occurrence of disease on board. These are free to enter any port. But one of the great gains of this Convention is that all vessels arriving in a healthy state at Suez, even before the expiration of the ten days, are to be allowed to pass through the Suez Canal in quarantine after submitting to a medical visit, and carrying out such disinfection as may be ordered; and it is definitely stated that they may complete the ten days' incubation period in the Mediterranean. And further, such vessels as carry a doctor and a disinfecting stove are not to be required to carry out any disinfection before entering the canal. This almost entirely frees our homeward traffic from infected ports like Bombay from vexatious restrictions and detentions. Suspected vessels are those on which plague has occurred, but without any fresh case for twelve days. Such vessels, if they carry a doctor and a stove, pass through the canal in quarantine; those that do not are detained at Moses Wells for such disinfecting processes as are locally deemed necessary; and certain freedom from restrictions applies to certain classes of vessels which have a doctor on board, but which have not provided any means of disinfection. Next come the infected vessels, namely, those having plague on board, or having had it within ten days. If they carry no doctor or stove the sick are put into hospital at Moses Wells, and all others may be landed for a period which shall complete ten days since the last case of plague. Disinfection is also to be carried out. But if infected vessels carry a doctor and a stove then only the sick need be landed. Those who have actually been in contact with the sick must, however, remain under supervision as suspected persons either on board, if the vessel chooses to remain and keep them there, or, if not, on shore, until ten days have elapsed since the last case; and the infected parts of the vessel must be disinfected. But if the sick and the suspected persons are landed the vessel can at once traverse the canal in quarantine after disinfection of the infected compartments.

Following on these conclusions come several sets of regulations determining how the transit of the canal in quarantine is to be carried out, and what information is to be transmitted to the intended port of arrival; and also allowing the embarkation of passengers from Port Said and the coaling of vessels at that station before the vessel has completed her ten days' sail from the last infected port, provided this be done in quarantine, and with the aid of electric light at night time. This, again, greatly facilitates our communications with Egypt in the case of vessels sailing homewards from Bombay. Further conclusions arrange for the passage of the canal in quarantine from north to south in case European ports are infected with plague, and for the disembarkation of passengers from such vessels at Alexandria and at Port Said.

The conclusions relating to the traffic up the Persian Gulf are also important in view of the proximity of our infected ports on the west coast of India to the entrance to the gulf. Vessels are classed and defined much in the same way as they are for the purposes of the Red Sea traffic. One conclusion requires the establishment in or near the island of Ormuz at the entrance of the gulf of a sanitary station, equipped with means of disinfection, hospital, and a staff of guards to travel with vessels continuing the voyage in quarantine. Ormuz is to stand much in the same relation to the gulf and the ports up the Shat-el-arab at its head as Suez does to the canal and the entrance to the Mediterranean. And various classes of vessels are dealt with on the same principles as govern those passing up the Red Sea. Thus vessels which remain healthy, although they have only been a few days at sea since leaving a plague-infected port, may after medical inspection and such disinfection of dirty things as is deemed necessary, take guards on board and continue the voyage in quarantine up the gulf and up the river to Basrah; the requirement as to passage in quarantine to cease as soon as the ten days' interval is reached. A corresponding treatment is adopted for suspected and infected vessels. It is further required that a properly constituted sanitary station shall be established at Basrah, the principal port and town of the river before its bifurcation into the Euphrates and the Tigris, and that both the Ormuz and Basrah stations shall be provided and managed by the Superior Council of Constantinople, an International Board on which each important European State is represented, and which has ample funds for the purpose.

The conclusions affecting the measures to be adopted in Europe in case European countries and ports become invaded with plague remain to be discussed.

A discussion on the subject, Should Hospitals be under Popular Control, will be held at St. Martin's Town Hall, Charing Cross, on Wednesday, May 19th, at 8 P.M. The chair will be taken by Mr. A. F. Hills.

## THE PUBLIC HEALTH BILL FOR SCOTLAND.

THE Grand Committee on Law, with certain Scottish members added, entered upon its labours in connection with the Scottish Public Health Bill on Tuesday. The Committee has to deal with an amendment paper which already runs to 63 pages, and each day has additions made to its length. By an agreement to leave over the consideration of the definition clauses, which covered several pages, an apparently very satisfactory amount of progress was made during the sitting. When, however, the matter which resulted from the discussion is carefully considered, the suggestion arises that the progress in part bore a certain analogy to the method of progression of the crab.

The questions raised in the course of the day were not apparently of great importance, but the character of the decisions arrived at are of interest as indicating the general drift of the opinion of the Committee on public health matters, and the indications are not very encouraging.

In Scotland, at the present time, all medical officers of health, county, rural, or burghal, are required to possess a registrable qualification in public health. In the discussion upon the "officers" clause of the Bill, it was resolved that, with the consent of the Local Government Board for Scotland, this qualification should be dispensed with so far as burghs are concerned. Indeed, the amendment, literally construed, dispenses with any medical qualification whatever. As the Committee rose, the Lord Advocate observed that the next question to be dealt with was whether the like exemption should be extended to counties. It is doubtful, however, whether the reactionary forces in the Committee are powerful enough to effect this.

On the same clause it was proposed to insert the very necessary administrative provision which is contained in the "officers" clause of Public Health (England) Act of 1875, to the effect that the medical officer can exercise any of the powers of a sanitary inspector. In England this is a matter of course. In Scotland, however, the reactionary Board of Supervision, recently displaced by statute by the Local Government Board, formally declared, through its Chairman, that it could not sanction any by-laws in which the sanitary inspector was made subordinate to the medical officer. The force of circumstances, however, was too strong for the Board, and in various counties over Scotland the Board had to acquiesce in an arrangement by which the medical officer of health was formally constituted head of the health department. The question was quietly settling itself all over Scotland. Now, however, there is being evolved a new public health statute for Scotland upon the level, and generally upon the lines, of the English statutes. The necessary complement to this is the provision above referred to. But here, too, the reactionary forces upon the Committee, in spite of a gallant stand made by Sir William Priestley, proved too strong, and the amendment was negatived. All this will rejoice the heart of the owner of insanitary property. *Divide et impera*, which he interpreted as meaning—Pit the sanitary inspector against the medical officer—was his motto in the days which followed the pronouncement of the Board upon the relations of medical officers and sanitary inspectors. Now again, where there has been want of peace and co-operation between the officers it will be increased under the Bill; where there has been peace there will be discord.

One of the unfortunate tendencies manifested in Committee was to reduce the level of sanitary administration in counties to the low standard of the smaller burghs, a tendency which if given effect to generally through the Bill will set back the hands of the clock to the times of sanitary administration by parochial Boards.

A series of very valuable amendments have been given notice of, and there appears to be a possibility that before the Bill leaves Committee it will have entirely lost the meagre and threadbare aspect of its earlier days. It is proposed to give the local authority powers for the examination and testing of systems of house drainage; to delete an extraordinary provision in the Bill, the effect of which is to prevent a penalty being imposed in any case of nuisance unless a notice in respect of a similar nuisance on the same or other premises belonging to the same owner had been served; to give local authorities in Scotland powers—which, singular to say, they do not at present possess—of compelling watercloset or privy accommodation in connection with dwelling houses; to give power to deal effectively with "sanitary conveniences" used in common; to make it possible to deal with the jerry builder and plumber in a quasi-criminal manner. Provisions are being proposed empowering rural local authorities to establish public slaughterhouses, so that the old insanitary private slaughterhouse may be abolished, and a better supervision of the meat supply obtained. It is also proposed to deal more radically with the diseased meat traffic.

It is also proposed to effect important amendments in the clauses dealing with infectious disease. In the first place the system of legislation by reference in Clause 41 is objected to. This clause proposes to "apply" the provisions of the Infectious Disease (Notification) Act to the whole of Scotland. The intention is good, the method most objectionable. In the London Act of 1891, special notification clauses, meeting the requirements of London, were incorporated. Nothing less will meet the legitimate demands of Scotland. Again, Clause 42 sets forth that the preventive clauses of the Bill shall apply only to the diseases compulsorily notifiable. The Society of Medical Officers of Health for Scotland, in a memorandum which they have issued, strongly urge that the clause should be deleted, leaving the expression "infectious disease" as it is at present, undefined. The scope of the clause, dealing with the exposure of infected persons, is proposed to be widened by the addition of the words "or in any place used in common by persons other than members of the family or household to which such infected person belongs."

Important clauses are also proposed dealing with "wakes" in connection with infectious deaths, the washing of infected articles in common washing-houses, and the removal by rail of infectious bodies. It is suggested that provision should be made for the constitution of port sanitary authorities in Scotland and in England.

The amendment paper presents potentialities of great usefulness. It remains to be seen whether these will be realised.

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THE German Society for the Repression of the Abuse of Spirituous Liquors will hold its annual meeting this year at Bielefeld on September 28th and 29th. The principal subject to be discussed is the practical measures to be taken against the abuse of alcohol in workplaces.

## EMPLOYERS' LIABILITY.

Sir Matthew Ridley's Bill to provide compensation to workmen for accidental injuries suffered in the course of their employment is a tentative measure, but in the right direction. It does not dispense workmen from the necessity for the exercise of proper care for their own lives and limbs, but it abolishes the need for proving negligence against the employer and for counter proof by the employer of contributory negligence upon the part of the employee. The Act of 1880, with its doctrine of common employment, is indeed left upon the Statute Book, and the workman is still free, if he so wishes, to appeal to it. But unless he is a lover of litigation, it is probable that he will content himself with the reasonable and certain compensation which the Bill offers. When death results from injury, if the workman leaves dependents, the minimum compensation is £150 and the maximum £300. When he leaves no one "dependent" on him, compensation will have to be fought for under the Act of 1880.

In order to leave room for voluntary sick fund societies incapacity for work is held not to begin until the end of the second week, and is to be compensated by weekly payments not exceeding 50 per cent. of his weekly earnings at the time of accident, such weekly payment not to exceed £1. Arbitration committees, for settling disputes as to compensation, are recommended but not enforced; a State arbitrator is to be provided; and the final appeal is to the county court, with a medical assessor if necessary to assist the judge. No contracting-out between employer and employee will be valid unless it has been examined by the Registrar of Friendly Societies and found to be favourable to the employees.

Of course, compensation is not the same thing, nor so good a thing, as prevention, but it is a mistake to regard them as alternatives. Compensation must not be regarded as hush money. Whilst no one denies that more than half the accidents that occur are plainly inevitable, others are as plainly due to gross negligence. It may be necessary to advocate greater stringency of inspection, heavier fines, and more frequent proceedings under the criminal law. The Government Bill does not relieve the employer from any of the penalties now affixed to gross negligence. Those who believe that more accidents are preventable than is always admitted are still free to devise measures for their prevention. German and Austrian statistics leave it an open question whether money payment for accidents tends to diminish them. But in our hospitals there are numberless men, women, and children who are maimed temporarily or for life through trade accidents for which they blame no one. Moderate compensation is their due, and this Bill requires the employer, for whose gain they worked, to provide it. Unfortunately, however, this reasonable compensation is only for the select few. Practically no woman or child will get anything. This workman will be provided for; that one will have to go without. The Bill applies only to certain trades, "to employment in or about a railway, factory, mine, quarry, or engineering work." It applies only, in fact, to trades to which the Factory and Workshop Acts also extend. It applies only to trades in which contracting-out is commonly practised, and where insurance is an easy matter. Agricultural labourers, the building trade, and merchant sailors are left to the mercies of the Act of 1880. The man whose hand is torn by the threshing machine will get no compensation, and the dependents of anyone who falls from a topmast or a scaffolding must go to the workhouse.

Such arbitrary selection appears indefensible, and it is to be expected that efforts will be made to extend its provision. It is sincerely to be hoped that the hint dropped by Mr. Chamberlain on Monday night, that the Government were willing to consider in Committee any suggestions in this direction, will be acted on.

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The Queen's Commemoration Fund on behalf of the Queen's Jubilee Institute for Nursing the Poor now amounts to £50,465.

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The Prince of Wales has intimated his intention of opening the new medical school buildings at Guy's Hospital on Wednesday, May 26th, at 4 P.M.

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The Earl of Dunraven has fixed Tuesday, May 11th, for his notice "to call attention to the prevalence of contagious diseases in Her Majesty's Army, especially in India; and to move a resolution."

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We regret to have to announce the death in his 66th year of Deputy-Surgeon-General H. Vandyke Carter, M.D., of the Indian Medical Service (Bombay). Dr. Carter's name will always be identified with his researches on spirillum fever in India and its communicability by inoculation, for which he was awarded the Stewart Prize of the British Medical Association at the annual meeting at Worcester in 1882.

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## MERCER'S HOSPITAL, DUBLIN.

The lamentable disagreements which have so long existed in this hospital between the governors and some members of the staff culminated on Tuesday last, when the Board dismissed the whole of the physicians and surgeons attached to the institution. An intimation was at the same time given that the dismissed officers were eligible for re-election. From what we have seen of some of the correspondence we think the governors might have gone a step further and resigned. They do not appear to be quite the kind of gentlemen who can manage a hospital or bring about a settlement of an unpleasant dispute. The power of the governors to dismiss will be tested by an action in the superior courts.

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## BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.

At a meeting of this Society, held at Limmer's Hotel on April 28th, Dr. Andrew S. Myrtle, President in the chair, an address was delivered by Sir Richard Douglas Powell, Bart., who made a number of very practical remarks on the choice of health resorts, and the importance of making a proper diagnosis before sending patients away. He referred also to the great harm done to new therapeutic agents by the indiscriminate manner in which they were taken up by the profession at the outset. Thus the Schott method of treating heart disease had now for this reason fallen into a certain amount of discredit, whereas there could be no doubt as to its great value in an extremely small number of most carefully selected cases. The speaker believed that the movement and bath treatment of heart disease was best carried out at a spa, while the rest treatment, which had of late been unduly neglected, should be undertaken at home, though change of air was desirable during the convalescent period. With regard to health resorts he believed that many of our English ones were equal or superior to the corresponding places on the Continent; sufficient provision

was not, however, as a rule, made for shelters and other conveniences for the invalids. A vote of thanks was proposed by Dr. Bagshawe, seconded by Dr. W. V. Snow, and carried by acclamation. After a few words from the President Sir Richard Powell replied. The address was followed by a *conversazione*, the success of which reflects great credit on the executive of this young and energetic Society, and especially on its Secretary, Dr. Sunderland. Fifty-three Fellows were elected.

## THE DUCHESS OF TECK.

WE are glad to learn that the Duchess of Teck is making satisfactory progress since the serious operation which it was found necessary to perform on Friday last. Her Royal Highness was suffering from strangulated umbilical hernia. Dr. Wadd, recognising the serious condition of the Duchess, called in Mr. Herbert Allingham, and a consultation was arranged with Mr. Thomas Smith, who agreed that operation was necessary. This was accordingly performed by Mr. Allingham in Mr. Smith's presence, the anæsthetic being administered by Dr. Hewitt. The condition of strangulated hernia, as is well known, is one which calls for immediate operation to save life, but it is to be reckoned among the most successful in surgery under modern conditions of antisepsis. There is every reason to anticipate that the Duchess of Teck will shortly be restored to health.

## THE QUEEN'S SPRING HOLIDAY.

WE understand that the Queen has been so gratified by her visit to Cimiez this year that she has entered into an arrangement with the proprietors of the Hotel Regina to keep her own private rooms used this spring unoccupied until her purposed return next spring. This, it is felt, will be an advantage, as Her Majesty will thus have a set of rooms for her spring holidays which will have been inhabited only by herself from the beginning. Her Majesty's visit this year has in fact been a great success; her health has been benefited, and there has not been a single case of illness amongst the whole party, numbering between sixty and seventy people. The weather, though variable, has been dry, with fine days interspersed with overcast ones. Still the Queen never missed her afternoon drive in an open carriage, and on one or two occasions only was she prevented from taking a drive in the morning in her donkey carriage. These morning drives were always confined to the gardens placed at Her Majesty's disposal. They cover altogether some fifty or sixty acres, and are among the most beautiful on the Riviera. During the later part of Her Majesty's visit, she has been able to take breakfast in the open air, and has thus enjoyed the great advantage of spending nearly the whole of the day in the open air at a much earlier period of the year than would be possible in England, with a corresponding advantage to her health.

## VOX POPULI.

IT is seldom that one meets with a stranger story than that related by Dr. Willoughby, in his capacity of medical officer of health of the borough of Eastbourne, in his report for 1896 in connection with an outbreak of typhoid fever to the extent of 59 cases. These cases were related to the consumption of the specifically polluted water of the "Bourne Stream," a stream made use of by a section of the residents in the town in preference to the saline water from the company's mains; and 45 were traced directly to use of the water; other 7 were of persons attacked away from Eastbourne, but who had used the water within a week or two of falling ill; and the remaining 7 were cases of infection from previous patients. The circumstances, actual, surrounding, and relative, in which the outbreak occurred, left no doubt as to the cause and source of the infection; and the analyses of the water determined its specific potency for harm. But the strangeness of the whole occurrence lies in the attitude of the local populace towards the Sanitary Committee, and particularly towards their medical officer of health. As soon as it became evident that resort was being made to the stream for drinking purposes, Dr. Willoughby inspected the watercourse, perceived its polluted state, and (August 10th) suggested the issue of warning notices. Four days later the grating over the dipping place was bolted down, only to be torn up by the public. It was refastened next day, but access to another part of the stream was granted by a private landowner. Within a week (August 20th) a public indignation meeting was held, condemning the closure of the stream, at which meeting a letter from Dr. Willoughby was read, in which he pointed to the likelihood of disease causation by the water, his letter appearing also in the local press. On August 24th a deputation approached the Sanitary Committee to protest against the closure, but this was maintained after local inspection of the stream by the deputation and Committee. In September the grating was again torn up, though in the meantime the public had been allowed access to the stream, and, when analyses showed pollution of the water, the officials were charged with "manufacturing" the samples. Other action of a warning character was taken by the Committee, and finally, on September 25th, a magistrate's order was obtained to close the public means of access to the stream. But a week earlier cases of typhoid fever in consumers of the water began to be notified, and cases directly traceable to the drinking of the water continued to be so notified until October 27th. And then, still later, folks tried to show that the stream did not cause the fever, and again that the action of the Committee should have been drastic at the outset. As to the first point, proof of the actual fact is not wanting, and it is by no means certain that in mid-August magisterial intervention would have been obtainable. Looking to the fact that this is the second outbreak due to the stream, it is to be hoped that Eastbourne has seen the last of fever due to such a cause. But the action of the populace in the circumstances of last year reads like that of a benighted people rather than of the residents of a high-class health resort on our south coast.

## WOMEN AS VETERINARY SURGEONS.

AN action is likely to be called in the Scotch Courts, asking that decree be pronounced ordaining the Royal College of Veterinary Surgeons to proceed to the examination of a female candidate for the diploma of that College, and if she be found duly qualified, to grant her that diploma, and to confer on her all the rights and privileges thereto accruing. The facts are these: A female candidate has registered herself as a medical student, and has gone through the necessary course at the New Veterinary College. She presents herself for examination, and the Royal College of Veterinary Surgeons decline to examine her, on the ground that it is contrary to use and wont to examine a woman or to grant her a qualification in veterinary medicine and surgery. To this the authorities of the New College reply that forty-four years are too short a term to constitute a ground for a plea of usage, or use and wont, as is the Scotch phrase. And further, the laws speak of a "student," not "he" or "she." The Council of the Royal College thus far has declined to give way, though, as we understand, by a small majority.

## HOLIDAY COLONIES FOR POOR CHILDREN.

THE charitable formation of holiday colonies is an excellent method of giving enjoyment and favouring the health of poor school children. Such a scheme has been carried out for more than twenty years in Switzerland, and an immense number of children have derived benefit by its means. H. Marthaler tells us in the *Zeitschrift für schweizerische Statistik*, 1897, Heft 1, that this Swiss institution was founded by Pfarrer Walther Bion, of Zürich, in 1876, and that its great success can be explained only by the fact that it supplied a real want. With the foundation of every new

institution there are sure to be persons who declare that it is "all fashion," and that "one did very well formerly without any of that sort of thing;" but the final answer to these objections is the permanent success of the undertaking and the good that can be shown to have been done. The holiday colony system has been adopted in other countries—in Germany, in Paris, etc.—and its introduction is said to be contemplated even in Japan. There is the Children's Country Holidays Fund in London, and much good is done by boarding-out children, and to some extent by giving them every now and then "a day in the country." It must, however, we believe, be admitted that more might be done in this direction in England. The "day in the country" is not without its dangers to children—from chills, overeating, and overfatigue—and it is to be hoped that increased funds and more extended organisation will enable the holiday colony system to be further developed, and will to a great extent make it replace the "day in the country" system.

## AN UNACCOUNTABLE LIQUOR.

SUCH was the designation which Sir Michael Hicks-Beach applied to rum in his Budget speech in the House of Commons. When stating that to rum must be credited the increase of £95,000 in the revenue receipts for foreign spirits during last year, the Chancellor of the Exchequer exclaimed "rum is a most unaccountable liquor." It had been a favourite Customs theory that the revenue from rum went up as the thermometer went down, but, after the temperature of last winter, he was afraid that this theory could no longer be maintained. He never could make out who drank rum. He had been inclined to credit the navy with this rush to rum from its increased cheapness, but on a previous occasion admirals had warmly repudiated the insinuation. It may be remembered that a former Chancellor, Mr. Goschen, was of opinion that an epidemic of influenza was the main cause of a great increase in the consumption, probably with substantial accuracy. It is to be hoped that a detailed history of the increased receipts from rum, month by month, for some years back, may be forthcoming, as an explanation of these eccentricities would throw light on an interesting series of phenomena.

## OYSTERS AND TYPHOID FEVER.

AT a recent meeting of the Court of Common Council of the City of London, Mr. Williamson moved the following resolution:

> That it be an instruction to the Port of London Sanitary Committee to communicate with the Local Government Board with the view, in the interest of the public health, of the Corporation being appointed the authority for the inspection of the Kent and Essex oyster fisheries reporting thereon to this Court.

Mr. Williamson said he was induced to place the motion on the paper on account of some observations contained in the last half-yearly report of Dr. Collingridge, the Medical Officer of Health for the Port of London, and also because the Corporation was the market authority for London, and consequently possessed the right to protect the interests of the public health. Moreover, he believed the Committee was prepared to accept the motion, which was one for inquiry only. Mr. Williamson said he did not anticipate any serious opposition from the Thames Conservancy or the Kent and Essex Sea Fisheries Association, as they were not sanitary authorities; besides, he said the Corporation always carried on its work in a thoroughly independent manner, influenced only by those responsible to them for it. He believed a biennial inspection only was necessary, and that it could be carried out at a small cost. Mr. Brookman having seconded the motion, Mr. Ellis declared that Dr. Collingridge, in his last half-yearly report, had not suggested any interference by the Committee. His (Mr. Ellis's) experience was that if the Committee was given an inch, it would take yards and even miles. Mr. Williamson's motion was then adopted.

## NURSES' UNIFORM.

THERE is no doubt that too much attention is in some quarters given to the matter of nurses' uniform. There is, we are sorry to see, a tendency to accept the dressed dolls of a milliner's fashion book as the type of what a nurse's dress should be. The milliner has not to wear the dress nor to arrange the cap, hence she is no judge on this question. All that the milliner thinks of is to invent a stylish cap, cloak, or apron, and then set it off on the doll-like figure of the dummy; all this is quite beneath the dignity of a noble profession like nursing. But we are grieved to say the modish cap has been taken seriously by some who should know better, and a movement is on foot to alter the serviceable caps of a body of nurses in the public service, to assimilate them to the "Sister This" or the "Sister That" of the fashion book. Our contemporary the *Lady's Pictorial* has a few wise remarks on the question. A suitable cap is one that is inexpensive, quickly put on, serves as a covering to the head, and is easy to wash; all this can be attained in a becoming cap, but the use of the uniform, its adaptability to the work done in it, and its sanitary material and style are the first points to be considered.

## A ROYAL CORPS OF ARMY SURGEONS.

A MOST important point connected with the contention that the Army Medical Staff should be formed into a Royal Medical Corps is the fact that in 1879 the War Office actually agreed to the issue of a warrant granting a "Royal" Corps, but then, as now, the Horse Guards obstructed. The India Office took exception to the increased rates of pay. The War Office letter was dated July 28th, 1879, and proceeded to say that: (1) The medical officers of our army shall constitute a corps which shall be designated our "Corps of Royal Army Surgeons;" and (2) the ranks and rates of pay of the officers of our "Corps of Royal Army Surgeons" shall be as follows, etc. Finally, the establishment at Netley is alluded to as our "Royal Army Medical School," and provision is made in the warrant for surgeons on probation after passing a qualifying examination in the medical subjects at the "Royal Army Medical School," being commissioned as surgeons in Our "Corps of Royal Army Surgeons." Here, then, is an important document for Lord Lansdowne to hunt up in the archives of the War Office. Had the concessions proposed in the warrant now adverted to (the existence of which is, we believe, absolutely unknown in the Department) been carried out, the question of rank and dearth of candidates would never have arisen. It is to be hoped the present Secretary of State will prove himself powerful in this matter. The draft of the warrant was signed by Mr. (now Sir) Ralph Thompson, and published in a Parliamentary paper.

## A TYPICAL BARRACK SCHOOL CASE.

THE Rev. Lord Archibald Douglas, in an open letter addressed to the Camberwell Guardians, published in the *South London Press* of May 1st, gives particulars of a quite recent case of ophthalmia which may be taken as a type of many such occurring in Poor-law schools, as was given in evidence before Mr. Mundella's Committee, the accuracy of which evidence has lately been the subject of some correspondence in the *Times*. The story as told by Lord Archibald Douglas is sad enough. A poor lad, Michael Coghlan by name, suffered as a child in a Poor-law school from ophthalmia, and when the time came for his school life to close, it found him still afflicted with that scourge of barrack schools; he had to remain on the parish, and was in 1894, being then 14 years of age, placed in the Camberwell Infirmary, where he was treated for two years apparently without any improvement taking place. In October, 1896, he wrote to Lord Archibald, who thereupon visited him, and also interviewed the medical officer, Dr. Beaumont, by whom he was informed that the case was almost hopeless, and needed special treatment, and that he (Dr. Beaumont) had endeavoured without success to get the lad into St. Thomas's Hospital. Lord Archibald

Douglas then took the lad to the Royal Eye Hospital, Southwark, and got him admitted under Professor McHardy's care, but the guardians, though consenting to his going, declined to pay anything towards the boy's support while in hospital. By the end of the year so much improvement had taken place that it was felt he need no longer be a burden on the hospital funds, but could be treated as an out-patient, and he returned to the Camberwell Infirmary with instructions to attend at the hospital as an out-patient each Tuesday. Lord Archibald states that the lad was forbidden to continue to attend the hospital, and after a while was relegated to the Gordon Road Workhouse, where he would, of course, have the ordinary workhouse diet instead of that given in the infirmary. Lord Archibald Douglas was absent in Canada between the end of last November and April of this year, but on his return, having discovered what had taken place, he wrote to the guardians remonstrating with them, but getting no satisfaction, not even that of having his letter read at a Board meeting, but merely submitted by the clerk to the Gordon Road Visiting Committee, he promptly removed the boy from the care of his so-called guardians, and gave him another chance of saving his eyesight by being readmitted to the hospital where he had already derived much benefit. We fear, as we have said, that this case is but a type of many which occur, and which are likely to continue to occur so long as the aggregation of children in barrack schools continues; and we regard the conduct of the Poor-law officials concerned as evidence that red tape still rules in Poor-law matters to the exclusion of ordinary humane feelings. It is not deliberate cruelty, we think, that leads men of education and experience to watch a case like this going from bad to worse, with no prospect but that of hopeless blindness for the rest of his life; it is that they are so bound in the fetters of an iron system that they cannot take a step not authorised by the Poor-law regulations, and very likely fear they might get into trouble if they did. Lord Archibald Douglas has done good service to the cause of Poor-law reform by drawing attention to this case, and the Camberwell Guardians may be assured that their clerk's endeavour to hush it up will not be successful.

## THE INDIAN MEDICAL SERVICE DINNER.

WE mentioned some time ago that that the officers of the Indian Medical Service had resolved to hold an annual service dinner in London. The date fixed for the first dinner is May 20th, and the chair will be taken by Surgeon-General Sir Joseph Fayrer, Bart., K.C.S.I. A large gathering of officers of the service retired or on leave in this country is already assured, and among the guests will be the Secretary of State for India (Lord George Hamilton), the Director-General of the Medical Department, R.N., the Director-General of the Army Medical Staff, the President of the Royal College of Surgeons, and the Presidents of the Royal Medical and Chirurgical Society and of the Medical Society. Members of the service who may desire to be present, but who have not yet sent in their names, are requested to communicate without delay with Mr. P. J. Freyer, 46, Harley Street, W.

## THE ROYAL COMMISSION ON TUBERCULOSIS.

SIR HERBERT MAXWELL, M.P., and the other members of the Royal Commission on Tuberculosis, whose arrival in Berlin was recently announced, visited the Berlin Institute for Infectious Diseases, and, in the absence of Professor Koch, who is in India, had interviews with Professors Brieger and Proskauer. On the afternoon of May 1st they saw the President of the Police, and subsequently visited the abattoirs. The Commissioners, according to a *Times* telegram, were accompanied by Dr. T. M. Legge, Secretary to the Commission, and by Mr. Harris Gastrell, Commercial Attaché to the British Embassy. The Commissioners have already spent some days in Brussels, Cologne, Leipzig, and Dresden. In the Belgian capital they had an opportunity of studying the prophylactic measures adopted by the Government against tuberculosis in cattle. In the German cities visited they examined the methods of the meat inspection in the abattoirs, and also devoted their attention to the systems of insurance devised by the owners of animals destined for slaughter against the risk of condemnation of the carcass in consequence of the presence of tuberculosis. The Commissioners left on May 2nd for Copenhagen, where they will inspect the farms on which Professor Bang, with the sanction of the Danish Government, has been conducting experiments on a large scale in the inoculation of herds of cattle with tuberculin, and isolating from the healthy animals those which react to the test of inoculation. The Commissioners will return to London at the end of the present week.

## BRITISH HELP FOR THE GREEK WOUNDED.

THE *Daily Chronicle* Fund continues to make rapid progress, the receipts up to Wednesday evening amounting to £7,560. The pressing need for some such aid as this fund is intended to give is shown by the account given of the state of affairs in the Larissa Hospital on the authority of "a well-known Danish physician." The wounded numbered about 1,000, and were being looked after by two surgeons, aided by occasional visits from volunteer doctors; the nursing seems to have been entirely done by three English ladies. The conditions were of the most unfavourable nature for surgical purposes. Operations had to be performed without anæsthetics, and as proper instruments were not forthcoming amputation could not be performed, even when the limbs were damaged beyond hope of preservation. The hospital was totally unprovided with safety pins or splints. Fortunately it was found possible to remove the wounded after a while to Volo, where their wants could receive more adequate attention. Mr. Abbott, accompanied by Mr. H. A. Moffatt, F.R.C.S., late House-Surgeon to Guy's Hospital, and by Mrs. Bedford Fenwick, left Charing Cross on Friday evening, April 30th, for Athens. A large crowd, consisting mainly of medical students, assembled at the station to see them off. They took with them a large supply of chloroform and the first instalment of the surgical dressings provided. The remainder of the stores is to leave by steamer on May 10th. They comprise, among other things, 24,000 yards (nearly 14 miles) of antiseptic gauze, 10 cwt. absorbent lint, 5 cwt. boric lint, 10 cwt. absorbent cotton wool, the same quantity of sublimate wool, 7 cwt. gamgee tissue, 150 gross of roller bandages, 3,000 yards of flannelette, and 1,000 yards of muslin. Many of the leading firms of druggists and manufacturers have contributed to the fund by allowing very large discounts on the goods supplied by them. Messrs. Davis and Fox Symons are in readiness to go out to the front if necessary, but it at present appears improbable that their services will be required.

## THE ROYAL COLLEGE OF PHYSICIANS ON MEDICAL AID ASSOCIATIONS.

SOME time ago a memorial, signed by Sir Frederic Bateman and forty medical practitioners of Norwich, with reference to the growing evils of medical aid associations trading for profit, was presented to the Royal College of Physicians of London. The memorial referred especially to the question of professional intercourse and to the strongly-expressed protest of the great majority of the profession in Norwich against any medical man connecting himself with such associations, and asked the College to advise the memorialists whether they should refuse to meet in consultation the medical officers of the Norwich Medical Institute, whom they considered to have undertaken duties detrimental to the public, and derogatory to the profession. The memorial has received prolonged consideration from the College of Physicians, and in the result a report of the Council, brought up at the meeting of April 29th,

was unanimously adopted. The report embodied a resolution to the effect that the College viewed with disapprobation the action of any medical aid association which makes a pecuniary profit directly out of the services of its medical officers, and also the conduct of medical practitioners in accepting office under such conditions. It considers, however, that were it to forbid its Fellows, Members, and Licentiates to meet in consultation qualified practitioners who are acting in conformity with their legal rights, it would be departing from its customary procedure, and even exceeding its powers. The resolution, which was adopted by a unanimous vote, will undoubtedly be found to be of considerable value as a definite expression of opinion in condemnation of the system under which medical aid associations are habitually conducted. There was, we have reason to believe, a strong desire among a large number of the Fellows of the College, that the system should be unequivocably condemned; and this has been done, but at the same time it was found that the College had not the power to limit the discretion of its Licentiates as to the pecuniary terms upon which they should render their services. The difficulty was felt, also, when the subject was before the General Medical Council, and it has hitherto been found impossible to frame any definition which should not also include by implication medical men accepting offices under contract to the tenure of which no exception can equitably be taken.

## MALARIA AND THE MOSQUITO.

At the meeting of the South Indian Branch of the British Medical Association on October 30th, 1896, an interesting paper by Surgeon-Major Ronald Ross, I.M.S., on the experimental production of malarial fever by the mosquito, was read. Three sets of experiments were described: (1) Water containing the *débris* of mosquitos fed on the blood of a patient suffering from æstivo-autumnal malarial fever was administered to ten healthy individuals. In seven there was no result apparent, but in three febrile disturbance ensued. In one instance the fever was smart (103° F.); in the other two it was of no great severity; in the former it was accompanied by the presence of the ring form of the plasmodium in the blood. (2) Water containing large numbers of the peculiar psorosperms which haunt the Malpighian tubes of the mosquito was administered to twelve individuals. One of the mosquitos from which these psorosperms were derived had fed on a malaria patient. In one instance, on the fifth day, there was a febrile rise of temperature, and some bodies resembling the plasmodium were found in the blood. In another instance, the temperature rose on the seventeenth day to 102°, and on the eighteenth day to 102.2°, but no parasites were found in the blood at the single examination which could be made. In the other cases the results were negative. (3) Four experiments were made with a view to ascertain whether the bites of mosquitos fed on malarial blood could transfer the plasmodium and the disease it is associated with to the person bitten. In every case the results were negative. Without claiming that the sets of experiments (1) and (2) prove Manson's mosquito theory, Ross considers that they tend to support it.

## ANÆSTHETISATION OF CHILDREN.

A method of anæsthetising children devised by Mr. G. Rowell, Senior Anæsthetist to Guy's Hospital, was described by him to the Harveian Society at its last meeting. Seeing that chloroform often causes dangerous symptoms in children, though they respond well to treatment, and death if it occurs is almost invariably caused by an overdose, he was led to question whether there was a better anæsthetic for routine use in children. Passing by gas and air, and gas and oxygen, both obviously unsuitable for use by practitioners generally, Mr. Rowell was led to employ ether, of which Mr. Braine had already indicated the use for the anæsthetisation of children. But ether had either to be given very slowly, so that it takes eight or ten minutes to render the child ready for operation, or, if a larger quantity was used, straining, coughing, struggling, or some other unpleasant reflex was excited. Happily, Mr. Rowell has found it possible to obviate the production of these troublesome symptoms. But, first, the depth of anæsthesia attained at any moment in children, especially under chloroform, is occasionally difficult to decide; under ether, however, there is one test of good surgical anæsthesia in the young which is certain and invariable—that is, the absence of swallowing, coughing, straining, held respiration, or any alteration in the rhythm of respiration in response to a strong ether vapour suddenly applied. (Upon the recognition of this fact, Mr. Rowell's method of anæsthetisation is based.) Consequently, when a child is once so deeply narcotised as to have lost these reflexes, it is an easy matter to keep it at this uniform depth by taking away the vapour for a few breaths and then reapplying it until this stage is again reached. To attain this condition is, in Mr, Rowell's opinion, best done by giving A.C.E. gradually upon a towel or Skinner's inhaler for about a minute and a half, beginning with a drop at a time. When the child at the end of this period can freely breathe the vapour proceeding from a completely wetted single layer of flannel on the inhaler, a stronger vapour of A.C.E. is given from a sponge in a Rendle's mask, and when this is freely respired a drachm or two of pure ether is added. When the reflexes excited by the ether vapour are almost or quite gone the first sponge is removed, and a fresh sponge containing 2 or 3 drachms of ether only is rapidly substituted for it, and from this time the administration is continued with strong ether vapour, the mask being applied only when shown to be necessary by the presence of the reflexes referred to. The following advantages are claimed for this method: (1) the time required to produce good anæsthesia is rarely more than four minutes; (2) the guides to the anæsthetist are clear; (3) flaccidity and freedom from movement during the operation are complete; (4) the after-effects bear comparison with those after any other method; and (5) the method is safe. Even should an inexperienced administrator encounter stoppage of respiration from an overdose, the only accident to be reckoned with, all that is needed is a little compression of the chest, the circulation not being prejudicially affected as in the case of such an event under chloroform. The method is recommended especially for children under 5 or 6, and for any child with obstruction in the upper air channels. By children above 5 or 6 the combination of gas and ether is so well borne that nothing need replace it. But all practitioners do not give gas and ether, and those who do not are recommended to employ the above simple method of etherisation for children of all ages and conditions.

## ANTISEPTIC MIDWIFERY AND DECIDUOMA.

The protection of women in labour from septic influences has been made the subject of much study since Lord Lister established antiseptic treatment. The nature of diseases of childbed, more or less suspected of septic origin, has been investigated by able authorities abroad, whilst Drs. Herman, Boxall, and others have done excellent work in the same direction in England. There are sceptics about antiseptic midwifery as about antiseptics in general. That a great revolution has been effected in the management of lying-in in hospitals there can be no doubt, and at home and abroad the change has been for the better. Certain evils may have arisen, but only from mismanagement, such as result from too strong solutions of sublimate. One remarkable suggestion has been made in reference to the "new disease" deciduoma malignum, which has only been known for nine years—an epoch coincident with the perfection of antiseptic midwifery. It is precisely those men who have been so busy in carrying out the practice of the new method who have discovered this new malady. Very naturally Hartmann and Toupet believe in the dangers of non-septic fragments of

placenta left in the uterus. Their theory implies that Nature intends that such fragments should grow septic, lest they should retain their vitality, and become the origin of a dangerous neoplasm. Destructive changes in which germs take a part may be naturally intended for the expulsion of the last material traces of a pregnancy. What these necessary germs may be, however, we know not; they cannot be pyogenic cocci or any allied type, nor can we keep out the latter and allow the entrance of the former, whilst letting in the former would infallibly encourage the entrance of deadlier germs. Audebert of Bordeaux has recorded an important case which almost destroys the above plausible yet perilous theory. A placenta was retained nine months in the uterus of a woman who seems to have aborted at the third month of pregnancy. Antiseptic treatment had been entirely neglected, and the patient was extremely careless about her health. The placenta was a mass of the size of a tangerine orange, and its villi had undergone extreme hypertrophy, invading uterine tissue. Undoubtedly the pathological change lay in a dangerous direction, yet the case had been absolutely neglected for months, so that the salutary saprophytes which some believe are destroyed by antiseptics, had their chance. Lastly, after all, deciduoma, whatever it may be, remains extremely rare. So obstetricians will rightly go on improving antiseptic midwifery, so as to extinguish puerperal fevers without troubling about a trifling increase in reported cases of placental polypus and deciduoma. That increase is probably due not to their treatment, but to the careful investigations which ensure the detection of all puerperal complications.

## A STRANGE STORY OF THE SEA.

A mysterious evanishment from this world, where, according to the poet, "men sit and hear each other groan," has a fascination for some minds. If there should happen to be among our readers anyone who wishes to be absorbed into the infinite without leaving any trace by which his fate can be ascertained by his afflicted relatives, he may be glad to know that there is a shipping company which would apparently be ready to help members of the medical profession in the accomplishment of that object. The procedure is delightfully simple. A young doctor need only go to sea as surgeon on one of the company's ships, die on the voyage, and nothing more will be heard of him. This, at any rate, is what we gather from the strange story of Dr. W. H. Brendon, of Plymouth, as told by his friend, Mr. S. Mason, in a letter to our shipping contemporary, *Fair Play*. Dr. Brendon, we are told, went a trip to Delagoa Bay in the ss. *Umona* as ship's surgeon in the early part of the year. The *Umona* arrived in London on March 31st, but no tidings of Dr. Brendon reached his friends, who as the days passed naturally became anxious about him. On April 6th Mr. Mason called at the company's office to make inquiries, and was referred to the captain of the vessel, who happened to be there at the time. On being asked about Dr. Brendon he replied that he was dead. Further questions elicited the information that Dr. Brendon had died of dysentery on March 17th, and had been buried at sea on the following day. The reason why neither the captain nor the shipping company had communicated with his friends was that "they did not wish to alarm the family, and they felt sure some of them would be making inquiries sooner or later at the office." The Californian miner who, when deputed to "break gently" the fact of a man's death to his wife, did so by delicately addressing her as "Widow Jones," may not have discharged his unpleasant duty in the best possible manner; but his blundering frankness is better than a regard for people's feelings so tender that it prefers to leave them without any information whatever as to the fate of a relative. When the captain was asked if he could not have arranged to wire at some place on the route, that sympathetic mariner replied that he did not think it worth while. The managers of the line, Messrs. Bullard, King, and Co., tried to excuse their negligence by alleging that they did not know Dr. Brendon's address, in the face, it is stated, of the fact that they had sent him more than one letter at his place of residence in Plymouth before he started on his ill-fated voyage. Mr. Mason adds that he told the firm that "it might have been a bullock which had died and been thrown overboard as far as they were concerned." But we have no doubt that Messrs. Bullard, King and Co., like Dirk Hatteraick, "always account for cargo to the last stiver," and therefore the death of a bullock would be duly notified in the proper quarter. A doctor, however, is, it would appear, an unconsidered trifle of which no account need be rendered. The story might almost seem to belong to the category of things that are "too strange not to be true." We prefer, however, to believe that there is misstatement or misunderstanding somewhere, as it is hardly credible that any English shipping company could have been guilty of such callous inhumanity.

## THE CHILDHOOD SOCIETY.

Our contemporary the *Daily Chronicle* reports an interview with Mr. E. White Wallis, Secretary of the Sanitary Institute, relative to the objects and work of a Society for the Scientific Study of the Mental and Physical Conditions of children, which has its office at the Parkes Museum. The Society is the outcome of an investigation which has been carried on since 1888, when it was commenced by a Committee of the British Medical Association with substantial assistance from the Council. Last year the Committee published a full report on 100,000 children examined in schools, and from the facts thus accumulated evidence was given to the recent Departmental Committees on the children of the Local Government Board, the Home Office, and to the Committee of the Education Department on feeble children. This Society has been formed to continue and extend previous investigations, and to supply information and diffuse knowledge on points connected with the mental and physical status of children by means of publications and lectures. A course of lectures was given in the early part of the year, including such subjects as the observation of children, care of feeble-minded girls, the relation of the physician to the teachers, and on points in the special training of children mentally or physically feeble. Among other duties the Childhood Society are forming a library, and will preserve the records of the work of past years, including the notes of over 18,000 children in some respect below the normal that were reported on for the previous Committee by Dr. Francis Warner. The Childhood Society justifies its existence by occupying a large field of public usefulness likely to prove of much value to the Government by supplying information, as well as to societies dealing with children. We understand that over fifty members have joined the Society, which has our best wishes.

## GRAIN FROM PLAGUE-INFECTED PORTS.

Professor Hankin's report to the Bombay Chamber of Commerce concerning the infection of grain and the vitality of the bacillus of plague in infected grain is of much practical interest. His statements may be thus summarised: (1) The microbe has not been found in either stored grain or in parasitic insects inhabiting grain. (2) Grain can be infected by a pure culture of the bacillus of plague, so that an extract made therefrom will cause death from plague in animals (mice). (3) The potency of grain-infected extract rapidly diminishes, so that in a few days it does not kill. Thirteen days is the extreme limit of possible potency; but Professor Hankin is led to the belief, by his experiments, that plague baciili obtaining admission to grain stored as on board ship would certainly become non-infective in four to six days.

The balance sheet of the Russian Red Cross Society for the past year shows that the total value of its property amounts to 4,721,369 roubles.

# THE MONTREAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, AUGUST 31st TO SEPTEMBER 4th, 1897.

### The Journey to Montreal.

There will be found in the centre of the Journal this week a detachable form for the use of those members of the Association who intend to be present at the annual meeting of the Association in Montreal which begins on August 31st. It is particularly desired that all members who hope to attend will fill up and return the form without delay. Accompanying the form itself are particulars with regard to the ocean journey to Montreal. Members resident in the United Kingdom, or on the Continent of Europe, are requested to return the form, duly filled up, to the General Secretary of the British Medical Association, 429, Strand, London, W.C.; but those members who reside in Canada, India, or the Colonies, or elsewhere out of Europe, are requested to alter the address and return the form to the Honorary Secretary of the Local Reception Committee, 2,204, St. Catherine Street, Montreal. The form is such as is usually issued before each annual meeting, but is published somewhat earlier this year in order that as complete a list as possible of the names of members purposing to attend the meeting may be in the hands of the Reception Committee in Montreal at an early date.

It will be seen that the most economical method of reaching Montreal from the United Kingdom is by steamers proceeding direct from Liverpool up the Gulf of St. Lawrence to Quebec and Montreal. The Allan, Dominion, and Beaver Lines grant special rates to members of the Association, but it will be necessary to start on the westward journey before August 5th, as after that date the boats are expected to fill with Canadian travellers returning after spending the summer in Europe. From information which we receive from the official agents it appears probable that most of the best berths in steamers starting at the end of July, and up to the middle of August, will shortly all be engaged: it is therefore desirable to secure accommodation without delay. To do this it is only necessary to pay a deposit of £5, which is the extent of the liability incurred by this preliminary step.

An alternative and faster, but more costly route, is that *viâ* New York by the Cunard or White Star Line from Liverpool, or by the American, Hamburg American, or North German Lloyd from Southampton. There are also sailings by the Cunard Line from Liverpool to Boston on July 29th, August 5th, and August 12th. The Anchor Line between Glasgow and New York offers a reduction to members of the Association, and has boats sailing on July 29th, August 5th, and August 12th. The Allan and State Line also run boats between Glasgow and New York, and the fares are very moderate. The Canadian Pacific Steamship Line offers six months' return ticket from date of issue to date of embarkation at Vancouver to members of the British Medical Association resident in China, Japan, and the East, who join one of their ships at Hong Kong, and the Canadian-Australian Line in conjunction with the Canadian Pacific Railway offers a reduction of 25 per cent. for the journey between Sydney and Montreal. The American and Australian Line, Sydney to San Francisco, offers rates similar to those of the Canadian-Australian Line. The agencies of the Canadian Pacific Railway Company at 67 and 68, King William Street, London Bridge, E.C., and 30, Cockspur Street, Trafalgar Square, London, S.W. (not far from the office of the British Medical Association), at 7, James Street, Liverpool, and at 67, St. Vincent Street, Glasgow, who have been appointed official passenger agents, will supply further information and arrange for berths on any Atlantic steamer and issue through tickets from Europe *viâ* either Quebec, Montreal, Halifax, New York, or Boston.

## ANNUAL MUSEUM.

### Pathological and Anatomical Section.

We have received the following notice for publication:

The Museum Subcommittee are particularly anxious to secure as full a collection of pathological exhibits as possible for the Annual Museum, and invite contributions of specimens, models, and photographs of pathological conditions to this end. Special care will be taken of all such, and every attempt will be made to exhibit them to the best advantage and in accordance with any special directions which may be given beforehand.

It is suggested that as special features of the Museum there be exhibited examples of the more recent as of the older methods of staining and preparing museum specimens, and of various devices in connection with the arranging and demonstration of museum specimens. So also it is proposed to obtain an extensive collection of microphotographs of various diseased conditions. Frames will be erected for the proper exhibition of such photographs; the Committee further will supply jars and media for remounting specimens wherever necessary.

It is the opinion of the Committee that this being the first Colonial meeting of the Association, there should be gathered together a representative series of specimens of diseases peculiar to the different regions of the empire, and members of the Association are begged to aid to the best of their ability.

The Committee is prepared to consider all requests for help towards payment of the carriage of such exhibits to Montreal.

C. F. Martin, B.A., M.D.
Pathological Laboratory, McGill University, Montreal.

### Joint Travel: A Proposal.

Dr. James Rankin (18, Dundonald Road, Kilmarnock) writes: Seeing that our Transatlantic brethren are making such munificent arrangements for the annual meeting of the Association in August, I think it would be a great pity should the attendance be a failure, which I am afraid it will be unless very special terms are offered; and seeing the British Association meets in Toronto about the same time, could not a syndicate be taken of the two Associations, and if it was ascertained that, say, from 500 to 600 members of each Association wished to go, two steamers could be chartered, one going by New York and the other *viâ* Montreal, and the return voyages could be made *vice versâ*. I believe any first-class company would undertake to give return first class cabin, say, for £12 12s., which would yield £12,000 to £13,000, and which would pay the company splendidly and enable members to take their wives or daughters with them, and give them a treat which would be unique in the history of the Association. Nearly four months have yet to elapse, and I think the movement would ensure a large attendance at both Associations and repay our medical brethren for their trouble.

# THE PLAGUE.

### Karachi Statistics.

The following statistics have reference to the incidence of the plague in Karachi during the weeks ending April 1st and April 8th:

| | Week ending April 1st. | Week ending April 8th. |
|---|---|---|
| Death-rate from all causes ... ... | 144.04 | 112.27 |
| Mean death-rate for corresponding weeks of preceding 5 years ... ... ... | 33.36 | 29.13 |
| Plague death-rate ... ... ... | 101.68 | 91.08 |
| Cases—Males ... ... ... ... | 172 | 136 |
| ,, Females ... ... ... | 93 | 79 |
| Deaths—Males ... ... ... | 119 | 107 |
| ,, Females ... ... ... | 73 | 65 |

The death-rates from all causes in the various quarters were as follows:

| | Week ending April 1st. | Week ending April 8th. |
|---|---|---|
| Kiamari quarter ... ... ... | 504.85 | 126.21 |
| Runchove quarter ... ... ... | 426.55 | 308.69 |
| Garden quarter ... ... ... | 250.32 | 216.94 |
| Lyari quarter... ... ... ... | 220.61 | 216.02 |

All the other quarters of the town show reduced death-rates. In the old town, where the disease was at first so severe, the death-rate from all causes was 10.86 in the week ending April 1st, and 5.43 in the week ending April 8th.

### Radical Cure for an Insanitary Area.

Where the epidemic of plague has become fixed in an insanitary locality, very radical measures have been adopted by the Karachi Plague Committee. As an example may be taken the village of Keamari, an insanitary collection of fishermen's huts and a few permanent houses near the harbour. The plague had taken a firm hold on this spot, and it was resolved to deal radically with the village. A new hut village was built on a suitable site, with suitable sanitary arrangements.

At the confines of the health and segregation camps arrangements were made for disinfecting on a somewhat large scale. Both camps were guarded by soldiers. These preliminary arrangements being completed, the people in the old village were carefully examined and divided into three groups—sick, suspected, and healthy. The sick and suspected were removed to the hospital and segregation camp, all belongings being carefully disinfected. The healthy were then (after most minute disinfection of their kit, etc.) removed to the health camp. The old disease-infected huts were then burned to the ground. The military cordon prevents intercommunication between the residents of the segregation and health camps. Persons moving into the health camp from the segregation camp (after the completion of the ten days' observation period) are carefully disinfected, as are also their belongings.

The result of these energetic measures is shown in the fall of the death-rate from 504.85 in the week ending April 1st, to 126.21 in the week ending April 8th. In the new huts two cases of plague occurred within the first five days of the removal of persons from the infected village; since then the new huts have been free from disease. The other cases of plague reported from Keamari during the week occurred at some little distance from the village proper.

### Search Parties and Plague Camps.

The military search party enrolled by the new Committee make frequent house-to-house searches in the various quarters of the town, with the result that there has been a manifest improvement in the notification of cases and deaths. The European non-commissioned officers and men have been engaged also in superintending disinfections, inspecting drain go-downs, etc., and many commissioned officers have joined the ranks of the plague superintendents.

The Plague Committee meets three times a week, and emergency meetings are summoned frequently. The President and members are occupied in inspection work for four or five hours every morning. The segregation camps and camp hospitals have been taken in hand, special attention being paid to the improvement of sanitary and disinfection arrangements. The camps have been placed under the charge of qualified medical officers. Each segregation camp is guarded by sepoys day and night, and special precautions have been taken rigorously to enforce segregation in the strictest sense of the word. Shops for the sale of provisions have been opened in the camps; the disinfection of all clothing, etc., of persons entering and leaving the camps is enforced and carefully carried out under European supervision.

Orders have been issued, and arrangements made, for the detention of persons arriving from infected areas by sea and by land, at Manova and Malir respectively, in order that their clothing and baggage may be thoroughly inspected. All persons leaving Karachi both by land and sea are carefully inspected by medical officers. The Port Health Officer has been given powers to detain any suspicious cases or persons for a period not exceeding ten days. While waiting at Manova for disinfection, etc., people are housed in temporary huts, where their personal comforts receive every attention. No persons returning to reoccupy houses in infected areas are allowed to enter their homes until they produce a certificate from the plague authority of the division stating that the house has been disinfected, cleaned, limewashed, and is fit for human habitation. Persons returning from other parts of Sind by land are similarly detained in a large camp situated near Malir (a small village 8 miles from Karachi). Here a most complete encampment has been built. Large dharamsalas for the accommodation of single men, separate huts for families, and enclosed zenanas for the purdah-nishin. The camp can accommodate nearly 1,000 persons. Every arrangement has been made for the comfort of those detained. Bathing ghats and latrines for the different sexes and castes; shops for the purchase of provisions uncooked and cooked; a dispensary and hospital enclosure with observation wards, etc., has also been erected. Arrangements are in force here to detain and disinfect persons coming to Karachi from up country by road as well as by rail, the main road passing close by the camp. The camp is under the supervision of a Commissariat medical officer, who has a qualified medical man and a large staff of trained disinfectors, police, coolies, etc., under him. In the Malir camp, as at Manova, the medical officer may use his discretion to detain, where he thinks necessary, up to ten days; otherwise, after the disinfection of themselves, their clothing, and baggage, persons are allowed to proceed.

### The Health of Sind.

It is strange that, with the exception of these talukas in which plague or small-pox have been prevalent, all over the Province of Sind the death-rates are lower this year than last. But for the presence of these two diseases the year, both as regards sickness and deaths, is distinctly a good one. The civil surgeon is reported to have stated recently that he does not remember a year in which the health of the European residents of Karachi has been as good as it is in the present one.

### Need for Continued Watchfulness in Bombay.

The returns from Bombay for the two weeks April 2nd and 14th are as follows:

| | April 2. | April 3. | April 4. | April 5. | April 6. | April 7. | April 8. | Total. |
|---|---|---|---|---|---|---|---|---|
| New Cases. | 51 | 77 | 73 | 43 | 77 | 49 | 58 | 428 |
| Deaths ... | 63 | 55 | 57 | 59 | 40 | 52 | 59 | 385 |

| | April 9. | April 10 | April 11 | April 12 | April 13 | April 14 | April 15 | Total. |
|---|---|---|---|---|---|---|---|---|
| New Cases. | 68 | 61 | 61 | 40 | 41 | 49 | 66 | 386 |
| Deaths ... | 46 | 63 | 66 | 50 | 45 | 50 | 47 | 367 |

The latest telegraph report from Bombay is to the effec that plague is practically over, that the number of deaths in Bombay has fallen to 169 for the week ending April 30th, 1897, and that the city is rapidly filling. We would warn the sanitary authorities in Bombay against any relaxation in their attempts to render their city more hygienic. Unless wise and salutary steps are taken now, within the next twelve months the disease will reappear, and be a scourge little short of the epidemic now passing away.

### The Limits of Plague.

Southwards the boundary line is receding. From Kolapore, the furthest south point that plague has ever been known to reach, the report comes that there have been only 3 cases in all, that these were all importations, and that the disease never became indigenous at all in that neighbourhood. Eastwards we have a report from Hyderabad (Deccan) that cases had occurred within 20 miles of that city, and in a manner that shows how difficult it is to carry out medical inspection, and the consequences of disregarding it.

A sudden outbreak of plague occurred at a village twenty miles inland from Lingampilli on the Nizam's Railway, the next station to Hyderabad, where fourteen Bombay leather merchants had gone on business to a tannery. Twelve of them were attacked and eight succumbed to the disease. These men, like a great many more third-class passengers from Bombay, travelled up to Shahabad, alighted there, and walked a distance of about twelve miles to Chitapore on the Nizam's Railway, caught the train to get on to their destination, and thus escaped quarantine restrictions at Wadi Junction. This dodge has become common among native travellers, but the danger of such haste is illustrated by the case of one

man who fell dead on the way, whether from plague or some other cause is not known, and whose body was discovered on Saturday in a decomposed condition and half eaten.

Northwards from Hyderabad (Sind) up to April 12th there were no signs of abatement. As far north as Lahore the epidemic is rife, 33 cases and 39 deaths having occurred in that city between April 1st and 4th.

### The European Mortality.

Since the outbreak of plague in Bombay, 38 Europeans have been attacked, of whom 14 have up to April 14th died.

### Yersin's Treatment.

There is nothing new to report as to the efficacy of Dr. Yersin's treatment, opinions varying as to the cases in which the treatment was tried. Of one thing we may rest assured—Dr. Yersin's report, when it does appear, will be thoroughly reliable, and conceived in the strictest scientific spirit.

### The Etiology of Plague.

We are in receipt of the report of a meeting of the Bombay Medical and Physical Society, held on March 19th, 1897. The subjects of discussion were papers read Drs. Grayfoot and Weir. Dr. Grayfoot showed that plague was chiefly spread by human intercourse. Dr. Weir's paper was illustrated by a diagram indicating the relations of the barometric and dew point readings to the total mortality in Bombay during the last four months of 1896, and the first four months of 1897. The salient points of this diagram are that the highest death-rate in Bombay was on January 15th, 1897, at or about which date the barometer gave well-nigh its highest reading, and the dew point its lowest. These may be mere coincidences, but they are deserving of record in view of future observations.

### A Ghastly Story.

The devices the natives employ to avoid the detection of plague cases in their houses is well illustrated by the following weird story: A party of searchers came upon a group of natives in a house intent upon a game of cards. Something in the stolid appearance of one of the players attracted attention, and one of the search party placed his hand on the man's shoulder. The figure swayed, and fell over prone on the floor. On examination it was found the man had been dead some time, but to avoid the house being branded plague-stricken, the friends of the dead man had hastily propped him up and stuck some cards in his hand on the news that the search party was approaching.

### Suspicions of Plague at Singapore.

The report of the Singapore Medical Officer of Health for January says: During the month there occurred among the Hindus in Market Street and among one or two Chinese in its neighbourhood an outbreak of a severe type of fever, accompanied in some cases with swellings of the glands of the groin and armpit. A suspicion of plague at once arose, but in none of the cases which were kept under observation by qualified medical men were the clinical symptoms or the appearances presented on *post-mortem* examination, when one was made, such as to warrant a diagnosis of plague being returned. The bacteriological examinations of blood and glands were equally inconclusive. There was, however, sufficient dissimilarity from the usual symptoms of malarial fever to create very considerable suspicion, and measures were at once taken to deal with the disease. Powers were obtained for the entry of sanitary inspectors into houses; the medical registrars of deaths were instructed to report all suspicious cases to the municipal health officer without delay; house-to-house inspections were carried out in Market Street; the sick were removed to hospital, and the houses in which such cases were discovered were emptied, cleansed, disinfected, and limewashed. These measures were fortunately successful; the outbreak was checked; and the weekly death-rate, which had risen to 48.14 per 1,000 per annum for the week ending January 16th declined to 42.69, 38.68, and 36.10 per 1,000 in the three following weeks.

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Dr. Forman, L.C.C., has, on the recommendation of the Lord Lieutenant, been placed in the Commission of the Peace for the County of London.

## THE GLASGOW ROYAL INFIRMARY RECONSTRUCTION SCHEME.

[From a Correspondent.]

The Faculty of Physicians and Surgeons of Glasgow had before them at their last monthly meeting the proposed reconstruction of the Royal Infirmary. After a brief discussion a motion was adopted, all but unanimously, expressing the sympathy of the Faculty with the proposal to associate the commemoration of the Diamond Jubilee of Her Majesty's reign with a scheme for the benefit of the sick and injured poor of Glasgow, and commending the scheme to the benevolence of the citizens, but expressing the opinion that a hospital reconstructed on the present site ought not to contain a greater number of beds than the present Royal Infirmary. It was authoritatively stated by the President that the Executive Committee had adopted no plans, and would certainly have expert assistance when the question of plans definitely arose.

The contributions already promised now amount to about £50,000. This is, however, much below what might have been by this time expected from the wealthy citizens of Glasgow, and there seems reason to think that the controversy that has arisen over the schemes suggested in the original appeal for subscriptions has materially diminished the flow of subscriptions. The original appeal, with the suggested alternative schemes, has been reissued; it states that by the first sketch plan additional accommodation for 90 beds will be obtained, and by the larger scheme for 150. The explanatory letter which accompanies the reissue, states that "the sum considered necessary, on a moderate estimate, for modernising and more perfectly equipping the institution, and enabling it to carry on its beneficent work with increased efficiency is £100,000. Until the result of the appeal is seen, the question of method of reconstruction must remain in abeyance. The plans to be adopted will necessarily depend on the amount of money put at the Committee's disposal."

It is obvious that the discussion that has taken place has not been without its effect on the promoters of the scheme, but one of the chief points of controversy remains. The public meeting of the medical profession declared unanimously that in the reconstructed hospital a greater number of beds should not be provided than at present exists in the Royal Infirmary, and this opinion has been homologated by the Faculty of Physicians and Surgeons. But the reissued appeal for subscriptions still proposes additional accommodation. In short, subscriptions are still solicited under the plea that, if granted, they will enable more patients to be provided for, and the medical profession has declared emphatically that no attempt should be made to increase the accommodation on the present site. The public is still, therefore, asked to provide money for a purpose of which the medical profession has expressed its disapproval.

It is, moreover, obvious that even £100,000 is not a sufficient sum to reconstruct the hospital in accordance with modern ideas. Though the method of reconstruction must remain in abeyance till the result of the appeal is seen, it is equally true that the limitation of the amount asked to £100,000 necessarily limits the amount of reconstruction possible. The difficulty seems to have arisen from the way in which the scheme has been launched. It has been publicly stated that the advice of neither the managers of the infirmary nor the medical staff was asked before the proposal was laid before the public, and it is apparent that, when they launched the proposal, the promoters had no adequate idea of the amount of reconstruction necessary, or of the immense progress that has been made in hospital construction in recent years. It would have been better, and much of this controversy would have been avoided if, before laying the proposals before the public, the whole question had been carefully considered as to the extent of reconstruction necessary thoroughly to modernise the whole institution, in accordance with the accepted principles of modern hospital construction, the probable cost, and the best plan for its accomplishment. There seems little doubt that if the results of such a thorough consideration of

the whole question had been laid before the public, it would not have failed to receive generous consideration at their hands. Would it not be well to do this even now?

## THE FIGHTING IN CRETE.

We are indebted to the Director-General of the Medical Department of the Royal Navy for the following observations on the effects of shrapnel shell fire, communicated by Staff-Surgeon E. J. Biden, R.N., H.M.S. *Scout*, who writes as follows:

The Effects of Shrapnel Shell Fire.

During the disturbances in Crete of the last three months I have seen many cases of bullet wounds, chiefly Martini-Henry and Chassepot, in the persons of both Greeks and Turks, but have nothing new to remark in connection with these.

On March 9th the relief of Candamos was effected by the Powers, and the next day two Turkish outposts had to be relieved; but the position of the insurgents on the hills was so threatening that the ship's guns were used to disperse them. The same evening I saw the effect of our last shell on one poor man, about seven hours later. He had been brought into Selino in an unconscious condition, suffering from concussion, a scalp wound over the right supraorbital region—caused, I think, by falling on the rocks—a contusion of the back, a flesh wound of the right thigh, and compound fracture of both legs.

The wound of the thigh was a contused wound, round, and penetrating all the tissues down to the deep fascia; a probe passed freely in all directions for some 2 inches beneath the superficial tissues. In the right leg there was a small cut-like wound, with gaping edges over the crest of the tibia at the junction of the middle and lower thirds, from which there was free venous hæmorrhage, and fracture of the tibia at the same site. In the left leg there was a large irregular wound with contused edges at the same level as in the right leg, situated rather to the outer side of the crest of the tibia, and both bones were broken; from this there was also free venous hæmorrhage.

The shell causing these injuries was a 5-inch shrapnel, mark iii, fired at a range of 2,500 yards: the shell is charged with 236 round bullets made of 4 parts lead and 1 part antimony, and weighing 14 to the pound. A charge in the base of the shell blows off the head and discharges the bullets in a forward direction. From the shape of the bullets and the nature of their discharge it is of course not to be expected that their penetration would be so great as from a rifle.

We were told four men were killed and many injured by our shell fire, and I had arranged to go to Spaniaco and Candamos to see them, but the ship was suddenly ordered to join the admiral at Suda Bay or I should doubtless have had some further observations to make regarding the effects of our shell fire.

## NOTES ON HEALTH RESORTS.

*Weston-super-Mare.*—This place has risen comparatively recently from a small fishermen's village into a popular seaside health resort. The mean temperature is rather lower than that of Torquay, and the climate slightly more bracing. The subsoil is dry, and the sanitary arrangements good. At the meeting of the Western Branch of the Sanitary Inspectors' Association, held at Weston-super-Mare on April 24th, it was stated that in regard to sanitation the place could favourably compare with most health resorts. Pleasant walks and excursions may be made in the neighbouring woods, or to the old British fortress with its pit-dwellings on Worle Hill, above the town, or to the stalactite caverns of Cheddar Gorge, or many other spots. The muddy flat shore of the Bristol Channel, which forms a feature of the place, may not look beautiful at low tide, but has its advantages for safety in bathing. There has been talk of converting some of this flat surface into a marine lake. Dr. Hitchins, the medical officer of health, points out that the Atlantic breezes blowing across the muddy expanse, catch up ozone and iodine, and acquire thereby special health-giving qualities. The water supply is about three times as great as is at present necessary, though the quality of the water is somewhat hard. The average annual death-rate for the past three years is 13.8 per 1,000, calculated upon the present population, and the death-rate from zymotic diseases has averaged only 0.62. The driest months at Weston are March, April, and June, the rainiest is October, but after heavy rain in an hour or so the roads become again satisfactory for walking or cycling. Even on the hottest days a refreshing breeze can usually be felt, and at intervals, especially about March and mid-October, strong westerly and south-westerly gales occur. The place is sometimes used for a stay after a course of thermal treatment at Bath. In 1811 the population of Weston was 163; it is now estimated at 18,000 at least, increased by several thousands during the summer season.

*Alland.*—This new sanatorium, about ten miles from Baden, in Austria, is being erected for the treatment of consumptives from funds contributed chiefly by the people of Vienna. Its foundation has been largely due to the exertions of Professor Schrötter, of Vienna, and in the carrying out of the undertaking Dr. Conrad Clar and Christian Lippert have had a great share. The grounds of the sanatorium[1] are a mile distant from Alland, at an elevation of 1,310 feet above sea level, and the establishment is situated in a sheltered spot, open to the south, but protected by hills on the north, east, and west. It is some distance from the road, and is therefore the less exposed to dust, and smoke is absent because no big factories exist in the whole neighbourhood. Water has to be conducted from the northern declivity of the hills, but, owing to the generosity of the Archduke Albrecht and of Baron Schell-Vitinghoff, this difficulty, though with additional expenditure, can be successfully overcome. The space in front of the south side of the building is arranged for patients to lie in the open air. Moreover, a pavilion, it is hoped, will be erected on a neighbouring meadow at a somewhat higher elevation (1,640 feet). It is interesting to note the formation of fresh societies for the foundation of sanatoria for consumptives. The society for establishing the sanatorium of Alland may be compared to the Paris Société des Sanatoria de France, whose endeavours have resulted in the foundation of the three French sanatoria mentioned in the British Medical Journal of April 17th.

*Johannisbad in Bohemia.*—Its simple thermal waters have a temperature of about 85° F., and their effect is similar to those of Gastein and other members of the same weakly-mineralised group. The curative influence of the thermal spring attracted many patients in the sixteenth century, and since then it has continued to be employed therapeutically. There is likewise a weak chalybeate spring at Johannisbad, which, according to Schierholz's recent analysis[2] (1895) contains 0.01 parts of bicarbonate of iron in the thousand. The spa lies in an excellent position of the Riesengebirge, 1½ mile from Freiheit, the terminus of a branch railway from Trautenau. Shady woods adjoin it, and its altitude of about 2,300 feet makes the climate fresh and exhilarating, adding to the good effects of the thermal baths in cases of retarded convalescence, nervous exhaustion, and some functional nervous disorders. A stay at Johannisbad is sometimes recommended after treatment at the more active Bohemian spas of Karlsbad and Marienbad. Though the indications are very similar to those of Gastein, the accommodation is not quite so good. According to Dr. F. Knaur the pleasantest time of the season is at the end of August and September, when the vegetation is still at its best and the weather usually reliable, and when the clearness of the air gives the best opportunities of extensive views from the summits around. Milk, whey, and kefir can be obtained for dietetic courses.

## ROYAL COLLEGE OF PHYSICIANS.

An ordinary comitia of the College was held on Thursday, April 29th, at 5 p.m., Dr. Samuel Wilks, F.R.S., President, in the chair.

The following gentlemen were admitted Members: W. Bain, M.D.; T. H. Chittenden, M.D.; A. Eddowes, M.D.; E. S. Pasmore, M.D.

The licence of the College was granted to 108 gentlemen, of

[1] *Die Heilanstalt in Alland.* Aus einem klinischen Vortrag von Prof. Schrötter, Wien, 1897.

[2] *Johannisbad im Riesengebirge*, von Dr. Fritz Knaur (Vienna, 1897).

whom only 4 did not come under the regulations of the Conjoint Board, whilst 10 were under the new regulations of the five years' curriculum in 1892.

A communication was received from the Royal College of Surgeons on matters of joint interest to the two Colleges.

The following Members were elected to the Fellowship: J. A. Coutts, M.B.; J. Galloway, M.D.; W. E. Wynter, M.D.; W. S. Colman, M.D.; A. F. Voelcker, M.D.; J. Taylor, M.D.; G. I. Schorstein, M.B.; E. H. Starling, M.D.; J. S. R. Russell, M.D.; A. A. Kanthack, M.D.; J. R. Bradford, M.D.

The quarterly report of the Finance Committee and of the examiners for the College licence were received and adopted. Dr. Theodore Williams and Dr. Hood were added to the Finance Committee.

A list of books presented to the Library during the past quarter was received.

## ARCHÆOLOGICA MEDICA.

### XXX.—THE COLLEGE MEDAL AND EARLY ANATOMICAL TEACHING IN ENGLAND.

THE history of the Honorary Medal of the Royal College of Surgeons of England, awarded to Lord Lister and Sir James Paget,[1] takes us back almost to the dawn of anatomical teaching in England. The Company of Barber Surgeons in London was always eager in the promotion of the teaching of anatomy, and it endeavoured to attract the best lecturers to its service. It paid its lecturers liberally, for in Queen Elizabeth's reign £10 seems to have been the usual fee for a course of anatomical lectures lasting three days. This was probably equivalent to £100 at the present day, and in addition gifts were constantly bestowed upon the lecturer and his assistants as refreshers to make them even more diligent. Thus we read of Dr. Andrewes, who was William Harvey's assistant at St. Bartholomew's Hospital:

"April 9, 1632. Alsoe this Court, taking into their considerations the great care and pains of Mr. Doctor Andrewes in his agitations and yearly reading of the lectures in time of the dissections of the public anatomies for this four years past, do now order that there shall be given him £13 6s. 8d. as of the free gift of this house for his pains therefore." A few years later, in 1638, on November 8th: "It is ordered by the Masters or governors [of the] Surgeons [side of the Company and the examiners and assistant Surgeons here present this afternoon that there shall be presented as the gift of this Company to Mr. Doctor Meverell a piece of plate with the Company's scutcheon engraven thereon for his pains in reading at our last public Anatomy in the new Theatre before the Lords of His Majesty's Privy Council and others Spectators in the time of those three days readings." Dr. Meverell was succeeded by Dr. Prujean, whose place after an interval was filled by Dr. Chamberlain, and on 5 May, 1642: "It is ordered that Dr. Chamblent shall have a silver tankard of £6 price with the Arms of the Company engraven in it as the gift of this Court for his pains at the last public anatomy." This was Peter Chamberlain the man midwife and owner of Woodham Mortimer Hall in Essex, where the midwifery forceps were discovered in 1815.

The association of the Barbers with the surgeons was felt to be incongruous at the beginning of the last century, and the relations between the two sides of the Company became so strained about the time of the accession of George I that it became increasingly difficult to obtain suitable persons to fill the subordinate posts of masters and stewards of anatomy. Heavy penalties were inflicted upon the surgeons who refused to accept these offices, and when fines failed the Company appealed to another motive.

The first notice of a medal appears in the records on August 15th, 1734, when "It is ordered that from henceforward a Silver Medal not exceeding the value of a guinea with a proper device upon each side of it be made and presented at the end of the year to each of the Demonstrators now chosen and to the Demonstrators for the time being as an acknowledgment of their trouble in performing such demonstrations." The proposal probably originated with the surgical side of the Company, for in a series of "Orders for the New Regulation of the Demonstrations," dated September 17th, 1734, it is further elaborated "That for the encouragement of such Demonstrator and Demonstrators as shall duly and zealously discharge the trust reposed in them and distinguish themselves in the service of the Company a medal shall be given yearly with a fine stamp in relievo of the most excellent picture of this Company by Hans Holbein of King Henry the 8th giving the Charter to the Company on one side. On the reverse the fine Anatomical Theatre of the Company built by Inigo Jones with a body dissected on the Table and a proper inscription expressing the intention and motive of establishing the same." The medals do not appear to have been struck whilst the Company remained united, but in 1745 the Surgeons separated from the Barbers, and for a time all was chaos.

The idea remained, though it was not revived until many years after the Surgeons' Company had been called into existence. The new Company began its anatomical lectures upon the old lines, for in 1753 Percivall Pott and William Hunter were appointed Masters of Anatomy to read such lectures as were appointed by the Court of Assistants. Two Wardens of Anatomy were appointed at the same time, whose duty it was to point out each part mentioned by the lecturer, and to take care that everything was conducted with decency and in order. There were also two Stewards of Anatomy, or as we should call them now prosectors, to dissect and prepare the bodies for the lecturers. Under different names these officers had existed at all anatomical lectures throughout Europe from time immemorial, but the system was too complicated to be carried on. The responsibility for the lectures was too much subdivided to be of use, for they were under the management of no fewer than six persons, so that sometimes the lectures were bad, or they were badly demonstrated, or badly dissected.

In 1766 it was decided, apparently at the suggestion of Cheselden, to elect a Committee "to consider of an effectual plan for improving the lectures and rendering them more creditable to the Company and more easy to the Members." The subordinate officers were swept away, their place being taken "by a Member of the Company of known abilities, to be annually appointed under the character of Professor of Anatomy," who was to read fifteen lectures, and receive a gold medal as his reward. Mr. Watson was elected the first Professor of Anatomy, and he was soon succeeded by Mr. Joseph Else, who was awarded the medal in 1768.

[1] BRITISH MEDICAL JOURNAL vol. i, 1897, p 994.

## DEATHS UNDER ANÆSTHETICS.

### TREATMENT OF CHLOROFORM SYNCOPE.

DR. ROBERT KIRK (Partick, Glasgow) writes: I would preface a few remarks which I venture to offer on this subject with a report of the two following instances of recovery from dangerous conditions under chloroform:

1. A woman in the second stage of labour, chloroformed to apply forceps: 1 drachm administered on a towel every minute for the first four minutes, when the breathing became stertorous. After the application of the forceps and a good pull at the child's head, I rested for a moment and looked at the patient. Just as I did so her face and arms suddenly became cyanosed—grew absolutely black, in fact—and at the same instant her sister exclaimed: "Good God! she's dead!" I found no pulse at the wrist, and I saw some yellowish fluid trickling from the mouth. It was impossible in the circumstances to perform artificial respiration, and I have long believed that it is a wrong thing to do in many cases, so that I merely awaited the natural course of events. It was at least two minutes before it was clear that the cyanosis was vanishing, the pulse returning, and all danger over. The time from the stoppage of the chloroform till the occurrence of the cyanosis must have been from two to three minutes, and in this interval the respiration had been free, the stertor having passed off.

2. An elderly man, to whom I administered chloroform for an operation on the eye by Dr. Fergus, there being also present Mr. Pringle of the Royal Infirmary, and Dr. McMillan. Anæsthesia had been satisfactorily established, and the operation had gone on for some time, when Dr. Fergus called out that the patient was not breathing. Mr. Pringle tried the pulse, and said that there was none. I went round the table to feel the pulse, while Mr. Pringle commenced artificial respiration. He had only raised one arm, however, when Dr. McMillan, who had pulled out the tongue, announced that the patient was breathing, and the alarm was at an end. Just before the breathing stopped, I was administering chloroform, and it was the opinion of all present that I had given an overdose.

A considerable number of cases have already been recorded in which dangerous symptoms first appeared some time after the chloroform had been stopped, and this is a fact of the highest significance. It would seem that the fatal case reported in the BRITISH MEDICAL JOURNAL of May 1st was

another of the same kind. The speedy recovery of the second case was very noteworthy, and similar cases are to be found in medical literature.

I will only add a remark on Mr. Leonard Hill's recent research. It is simply this, that any further research based on the notion that everything is to be explained by the action of the absorbed chloroform is utterly futile. I have proved by auscultation in hundreds of cases, in cats, dogs, and the human subject, that the highest degree of tachycardia occurs about 10 or 15 seconds after stopping the inhalation, and that no equal acceleration ever takes place under other circumstances. Further, kymographic tracings show that the moment this tachycardia commences is that in which the blood pressure rises, and these are the twin phenomena which have so often led to syncope and death. We are asked to believe that those who have died from half a drachm of chloroform have absorbed enough to paralyse the heart; I maintain that this is sheer nonsense and absurdity, and is destined to thorough and final refutation.

## THE BATTLE OF THE CLUBS.

### THE ROYAL COLLEGE OF PHYSICIANS AND MEDICAL AID ASSOCIATIONS.

AT a meeting of the Royal College of Physicians on February 23rd, the following memorial was received:

MEMORIAL.

We the undersigned members of the medical profession resident in Norwich desire to take the opinion of the Council of the Royal College of Physicians, London, on the question of professional intercourse with the medical officers of the Norwich Medical Institute.

This Institute was established in 1872, and now numbers upwards of 10,000 members: two salaried medical officers are employed, and until recently a consulting physician and surgeon; these latter have now resigned.

This Institute during twenty-five years accumulated sufficient funds to purchase the house and buildings in which the business of the society is carried on and to furnish the same—to acquire some of the adjacent property: other assets are shown on the balance sheets of the annual report. In consequence of the universally expressed opinion by the profession generally on the growing evils of medical aid associations, the attention of the profession in Norfolk and Norwich has been directed to this Institute. The Norwich Medico-Chirurgical Society (composed of medical men of the counties of Norfolk and Suffolk) has expressed a decided opinion against holding any professional intercourse with its medical officers. The medical men resident in Norwich have held three meetings—attended by 80 per cent. of their number—and appointed a Committee to consider the relations of the Institute and medical aid associations. This Committee has reported that the Institute is a trading society, conducted by laymen, for affording medical attendance in return for a small annual subscription (3s.), only a portion of which is paid to their medical officers, the remainder going to defray the travelling expenses, and the balance is appropriated for investment in the acquirement of real property. The Committee considered that the four "conclusions" summarised in the Report of the General Medical Council on the Evils of Medical Aid Associations are in every case applicable to the Norwich Medical Institute, and were unanimously of opinion that "it is unbecoming and unprofessional for any member of the profession to lend his name or to associate himself in any way with such a society, and trusted that no member of the profession in Norwich will consent to occupy the vacant post of Consulting Physician and Surgeon to the Medical Institute."

This report was unanimously adopted, and it is upon its finding that your memorialists ask for advice and guidance from the Council of the College of Physicians in the question of meeting in consultation medical men who have undertaken duties on conditions which must be considered detrimental to the public and derogatory to the profession.

(Signed) FREDERIC BATEMAN, *Chairman.*

HAYNES ROBINSON.
GEORGE MASTER.
THOMAS H. MORSE.
JAMES FIELDING.
MICHAEL BEVERLEY.
DONALD D. DAY.
H. CHESTER NANCE.
ERIC PRITCHARD.
FRED. PRESTON.
C. H. ANDREWS.
ERNEST W. EVERETT.
C. DUFF.
W. WOODHOUSE.
A. H. MILLER.
HERBERT CROFT.
H. W. REEDHAM.
F. W. BURTON FANNING.
CECIL A. P. OSBURNE.
W. H. DAY.
CECIL J. MURIEL.
WALTER WARING.
CHARLES EVANS MURIEL.
ARTHUR CROOK.
CHAS. WILLIAMS.
JOHN H. STACY.
GEO. F. ODHAMS.
SAM BARTON.
ROBERT J. MILLS.
H. W. DARRELL.
S. JOHNSON TAYLOR.
HAMILTON A. BALLANCE.
SYDNEY H. LONG.
S. H. BURTON.
W. RIBTON SPOWART.
HENRY WATSON.
J. R. GAILARD.
T. W. RICHARDSON.
R. WENTWORTH WHITE.
H. COOPER PATTEN.
C. CLAREMONT.

The memorial having been considered by the Council of the College, a report from the Council was presented to the meeting of the College on April 29th, and the following resolution was unanimously adopted and directed to be forwarded to Sir Frederic Bateman, as Chairman of the Norwich Committee, and we have received the text for publication:

Though the College views with disapprobation the action of any medical aid association which makes a pecuniary profit directly out of the services of its medical officers, and also the conduct of medical practitioners in accepting office under such conditions, it considers that, in forbidding its Fellows, Members, and Licentiates to meet in consultation qualified practitioners who are acting in conformity with their legal rights, it would be departing from its customary procedure and even exceeding its powers.

## LITERARY NOTES.

WE are glad to learn that Dr. C. E. Sajous, late of Paris, is not discouraged by the complications which have conspired to terminate the existence of the valuable and useful *Annual of the Universal Medical Sciences*, which he has edited so ably for many years. Dr. Sajous, who has left France to fill the posts of Professor of Laryngology and Dean of one of the medical schools of Philadelphia, proposes to continue the *Annual*, in a slightly altered form, under, we believe, the title of *The Annual of Analytical Cyclopædia*.

The *Archives de Gynécologie et de Tocologie*, edited by Dr. Auvard, ceased to appear some time ago. It had existed for twenty-two years; the twenty-third volume has just been completed by the issue, by M. Steinheil, of the last four numbers for 1896 under one cover. That publisher has acquired the journal, and announces that he is ready to supply back numbers to all who desire to complete their sets. In agreement with Dr. Auvard, however, M. Steinheil has decided not to continue the *Archives*, being already the publisher of a precisely similar serial, the *Annales de Gynécologie et d'Obstétrique*. The latter journal, founded by the late Professor Pajot and others in 1873, has been for some time edited by Drs. Varnier and Hartmann.

In an article entitled The Progress of Medicine during the Queen's Reign, which appears in the current number of the *Nineteenth Century*, Mr. Malcolm Morris recalls the fact that scarcely twenty years ago Sir John Erichsen in a public address declared that operative surgery had then nearly reached its final limits, pointing out that there were certain regions, particularly the brain, the heart, and the lungs, which must ever remain inaccessible to the surgeon's knife. Yet the modern surgeon has now brought each of these organs within his sphere of conquest. With regard to the surgery of the heart Mr. Morris refers to a case in which a wound of that organ was stitched up by a Norwegian surgeon. We may add that during the last few weeks two somewhat similar cases have been reported, one from Germany, the other from the United States. Mr. Morris well brings out the large share which men of the Anglo-Saxon race have taken in furthering medical progress, and says that "the fact that so large and important a part in the advancement of surgery has been played by subjects of the Queen is not the least among the many glories of the Victorian age."

The all-conquering microbe has now found his way into the literature of the nursery. Miss Myra Bradwell Helmer, a maiden of six summers—and, need it be said, a product of the fertile intellectual soil of the Great Republic of the West—has written, or, strictly speaking, dictated to her mother, a series of "Short Stories," which have recently been published by the Chicago Legal News Company. The booklet is already in its third edition. One story is about Ruby, a beauty with "small blue eyes and yellow curls down to her waist," and her sister Tulip, who, though she had brown hair and black eyes, "still was pretty." These fair damsels fell ill, and the fairy doctor had to be called in.

When the fairy doctor came, he said one had got scarlet fever, the other diphtheria, and the other typhoid fever. He told the fairy godmother all about microbes and germs, and told her to boil the water. The fairy godmother said she did not understand: if the germ had the fever, why didn't the fever, which killed little boys and girls, kill the germ? And if the germ didn't have the fever, how could it give the fever; how could a thing give a thing it didn't have? The fairy doctor said, "Nobody knows but God."

*Ex ore infantum!* It is a hopeful sign of the times that the "gospel of the tea kettle" has reached the nursery. But is the fairy godmother likely to get a satisfactory answer to her riddle from pathology?

# BRITISH MEDICAL ASSOCIATION.

## SIXTY-FIFTH ANNUAL MEETING.

Notice is hereby given that the Sixty-Fifth Annual General Meeting of members of the British Medical Association, for the transaction of business, the consideration of Reports of Council and Committees, will be held in the Exeter Hall, London, on Tuesday, the 27th day of July next, at 11.0 o'clock in the forenoon. The meeting will be adjourned to August 31st, to be held at Montreal, for the scientific business of the meeting, Reading of Addresses, Meetings of Sections, etc.

Francis Fowke, *General Secretary.*

April, 1897.

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The adjourned annual meeting of the British Medical Association will be held at Montreal on Tuesday, Wednesday, Thursday, and Friday, August 31st, September 1st, 2nd, and 3rd, 1897.

*President.*—Henry Barnes, M.D., Physician to the Cumberland Infirmary, Carlisle.

*President-Elect.*—T. G. Roddick, M.D., Professor of Surgery in McGill University, Montreal.

*President of the Council:* Robert Saundby, M.D., F.R.C.P., Physician to the General Hospital, Birmingham.

*Treasurer:* Charles Parsons, M.D., Dover.

An Address in Medicine will be delivered by W. Osler, M.D., F.R.C.P., Professor of Medicine in the Johns Hopkins University, Baltimore, U.S.A.

An Address in Surgery will be delivered by William Mitchell Banks, F.R.C.S., Surgeon to the Liverpool Royal Infirmary.

An Address in Public Medicine will be delivered by Herman M. Biggs, M.D., Director of the Bacteriological Laboratory of the Health Department, New York City.

The Scientific Business of the Meeting will be conducted in Eleven Sections, as follows, namely:

### A. Medicine.

*President:* Stephen Mackenzie, M.D., London. *Vice-Presidents:* J. E. Graham, M.D., Toronto; W. Bayard, M.D., St. John, N.B.; J. P. Rottot, M.D., Montreal: F. W. Campbell, M.D., Montreal; James Stewart, M.D., Montreal; H. P. Wright, M.D., Ottawa. *Hon. Secretaries:* H. A. Lafleur, M.D., Montreal; W. F. Hamilton, M.D., Montreal; William Pasteur, M.D., 4, Chandos Street, Cavendish Square, London, W.

### B. Surgery.

*President:* Christopher Heath, F.R.C.S., London. *Vice-Presidents:* Sir William Hingston, M.D., Montreal; Hon. M. Sullivan, M.D., Kingston, Ontario; Hon E. Farrell, M.D., Halifax, Nova Scotia; I. H. Cameron, M.D., Toronto; F. le M. Grasett, M.D., Toronto; James Bell, M.D., Montreal; George E. Armstrong, M.D., Montreal. *Hon. Secretaries:* Robert C. Kirkpatrick, M.D., Montreal; Thomas Walker, M.D., St. John, N.B.; Jordan Lloyd, F.R.C.S., Broad Street, Birmingham.

### C. Public Medicine.

*President:* E. P. LaChapelle, M.D., Montreal. *Vice-Presidents:* F. Montizambert, M.D., Quebec; Robert Craik, M.D., Montreal; P. H. Bryce, M.D., Toronto; Sir James Grant, Ottawa; R. H. Powell, M.D., Ottawa. *Honorary Secretaries:* Wyatt Johnston, M.D., Montreal; E. Pelletier, M.D., Montreal; Harvey Littlejohn, M.B., C.M., Surgeons Hall, Edinburgh.

### D. Obstetrics and Gynæcology.

*President:* William Japp Sinclair, M.D., Manchester. *Vice-Presidents:* William Gardner, M.D., Montreal; James Perrigo, M.D., Montreal; J. A. Temple, M.D., Toronto; J. C. Cameron, M.D., Montreal; T. Johnston Alloway, M.D., Montreal; James Ross, M.D., Toronto. *Honorary Secretaries:* D. J. Evans, M.D., Montreal; W. Burnett, M.D., Montreal; Arthur E. Giles, M.D., 58, Harley Street, Cavendish Square, London, W.

### E. Pharmacology and Therapeutics.

*President:* D. J. Leech, M.D., Manchester. *Vice-Presidents:* A. D. Blackader, M.D., Montreal; James Thorburn, M.D., Toronto; C. R. Church, M.D., Ottawa; J. B. McConnell, M.D., Montreal; F. J. Austin, M.D., Sherbrooke; Walter George Smith, M.D., Dublin. *Honorary Secretaries:* F. X. L. de Martigny, M.D., Montreal; J. R. Spier, M.D., Montreal; Charles Robertshaw Marshall, M.B., Pharmacological Laboratory, Downing College, Cambridge.

### F. Pathology and Bacteriology.

*President:* Watson Cheyne, F.R.C.S., F.R.S., London. *Vice-Presidents:* J. G. Adami, M.D., Montreal; J. Caven, M.D., Toronto; J. Stewart, M.D., Halifax; J. C. Davie, M.D., Victoria, B.C.; L. C. Prevost, M.D., Ottawa; M. T. Brennan, M.D., Montreal. *Honorary Secretaries:* W. T. Connell, M.D., Kingston, Ontario; C. F. Martin, M.D., Montreal; Rubert W. Boyce, M.B., University College, Liverpool.

### G. Psychology.

*President:* R. M. Bucke, M.D., London, Ontario. *Vice-Presidents:* D. Clarke, M.D., Toronto; T. J. Burgess, M.D., Verdun, Quebec; A. Vallee, M.D., Quebec; G. Wilkins, M.D., Montreal. *Honorary Secretaries:* J. V. Anglin, M.D., Montreal; George Villeneuve, M.D., Montreal; J. G. Blandford, M.R.C.S., D.P.H., London County Asylum, Banstead, Sutton, Surrey.

### H. Ophthalmology.

*President:* Edward Nettleship, F.R.C.S., London. *Vice-Presidents:* F. Buller, M.D., Montreal; R. A. Reeve, M.D., Toronto; Ed. Desjardins, M.D., Montreal; A. A. Foucher, M.D., Montreal. *Honorary Secretaries:* W. H. Smith, M.D., Winnipeg; Jehin Prume, M.D., Montreal; Thomas Herbert Bickerton, M.R.C.S., 88, Rodney Street, Liverpool.

### I. Laryngology and Otology.

*President:* Greville Macdonald, M.D., London. *Vice-Presidents:* W. Tobin, M.D., Halifax; G. A. S. Ryerson, M.D., Toronto; H. S. Birkett, M.D., Montreal; G. R. McDonagh, M.D., Toronto. *Honorary Secretaries:* A. Chretien, M.D., Montreal; H. D. Hamilton, M.D., Montreal; W. Permewan, M.D., 7, Rodney Street, Liverpool.

### J. Anatomy and Physiology.

*President:* Augustus D. Waller, M.D., F.R.S., London. *Vice-Presidents:* F. Shepherd, M.D., Montreal; A. B. Macallum, M.D., Toronto; T. Wesley Mills, M.D., Montreal; A. Primrose, M.D., Toronto; J. B. A. Lamarche, M.D., Montreal; D. B. Fraser, M.D., Stratford, Ontario. *Hon. Secretaries:* J. M. Elder, M.D., Montreal; W. S. Morrow, M.D., Montreal; Robert Hutchison, M.D., Physiological Laboratory, London Hospital Medical College, Turner Street, Mile End, E.

### K. Dermatology.

*President:* Malcolm Morris, F.R.C.S.Ed., London. *Vice-Presidents:* J. E. Graham, M.D., Toronto; F. J. Shepherd, M.D., Montreal; J. A. S. Brunelle, Montreal; G. L. Milne, M.D., Victoria, B.C. *Hon. Secretaries:* Gordon Campbell, M.D., Montreal; J. M. Jack, M.D., Montreal; James Galloway, M.D., 54, Harley Street, Cavendish Square, W.

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### Programme of Proceedings.

Tuesday, August 31st, 1897.

10 A.M.—Cathedral Service.
11.30 A.M.—Windsor Hall: Opening Ceremonies. Address by the President-elect, Dr. T. G. Roddick.
2.30 P.M.—Windsor Hall: Address in Medicine by Dr. W. Osler.
4 P.M.—Garden Parties, etc.
9 P.M.—*Soirée* at Laval University.

Wednesday, September 1st, 1897.

10 A.M.—McGill University: Opening of Sections.
3 P.M.—Windsor Hall: Address in Surgery by Mr. T. Mitchell Banks.
4.15 P.M.—Excursion down the St. Lawrence; Garden Parties, etc. Golf Match, etc.
9 P.M.—Reception at City Hall or at Sollmer Park.

THURSDAY, SEPTEMBER 2ND, 1897.
9.30 A.M.—McGill University: Sectional Meetings.
3 P.M.—Windsor Hall: Address in Public Medicine by Dr. Herman M. Biggs.
4.30 P.M.—Excursion across the Island, etc.
7.45 P.M.—Annual Dinner of the Association, Windsor Hotel.

FRIDAY, SEPTEMBER 3RD 1897.
9.30 A.M.—McGill University: Sectional Meetings.
1.30 P.M.—Lunch on the Mountain.
2.30 P.M.—Windsor Hall: Concluding General Meeting.
4 P.M.—Excursion down the Lachine Rapids; Garden Parties, etc.
9 P.M.—*Soirée* at McGill University.

SATURDAY, SEPTEMBER 4TH, 1897.
Excursions to Ottawa, Ste Agathe, and Montagne Tremblante, etc.

## ANNUAL MUSEUM.

### Regulations Regarding Exhibits.

1. Communications on general matters connected with the Museum and applications from intending exhibitors should be addressed to the Honorary Secretaries, Drs. J. W. Stirling or J. M. Jack, 2204, St. Catherine Street (British Medical Association Rooms).

2. Applications for space must be in the hands of the Secretaries before July 25th, accompanied with a brief descriptive account of each exhibit for insertion in the Museum Catalogue. Information of the allotment of space will be furnished as promptly as possible, and on receipt of cheque for the cost of such space, a card for the admission of the exhibit will be forwarded.

3. All cheques to be made payable to J. W. Stirling, M.B.

4. All exhibits should be directed to the British Medical Museum, Victoria Skating Rink, Drummond Street, Montreal, Canada, with the name of the Section for which they are intended. Packages must also be addressed to a firm's representative at the Museum.

5. Exhibits must be delivered between August 27th and 28th; they must each bear a card indicating the name and address of the exhibitor; they must be arranged in their allotted space before 2 P.M. on August 28th, and it is desirable that they be not removed till September 6th.

6. Signs or placards must be so arranged as not to interfere with adjacent exhibits: on the central tables no sign or placard must reach higher than 2 feet 6 inches from the table.

7. The Committee will not be responsible for any risks or expenses incurred; they reserve discretionary power to exclude any exhibit they may consider unsuitable; they will only receive exhibits conditionally upon strict compliance with the foregoing regulations, and in all matters of doubt and difficulty their decision shall be final.

8. The Museum Committee or its representatives must be recognised as being in full control of the exhibition building and its management.

Tables occupying the centre of the Hall, and other prominent positions, are to be let by private tender; other tables varying in charges from 4s. to 2s. per square foot. Certain floor space will be let at 1s. per square foot.

# ASSOCIATION INTELLIGENCE.

## NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1897.

Meetings of the Council will be held on July 14th and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 24th and September 30th.

### Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

## GRANTS FOR SCIENTIFIC RESEARCH.

The Council of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that they are prepared to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting must be made on or before June 15th in writing addressed to the General Secretary, at the office of the Association, 429, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

Francis Fowke, *General Secretary.*

429, Strand, London, April 21st, 1897.

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M., Saturdays, 10 A.M. to 2 P.M. Members can have their letters addressed to them at the office.

## BRANCH MEETINGS TO BE HELD.

East Anglian Branch.—The annual general meeting of this Branch will take place at Ipswich on Thursday, May 27th, under the presidency of Mrs. Garrett Anderson, M.D. It is requested that members willing to read papers or contribute cases to the meeting will communicate at once with Dr. Barnes, Eye.—Edgar G. Barnes, M.D., Eye, Michael Beverley, M.D., Norwich, Thomas Carr, M.D., Braintree, Honorary Secretaries.

Metropolitan Counties Branch: North London District.—A meeting of this district will be held on Thursday, May 13th, at 4.15 P.M., at Tottenham Hospital, The Green, Tottenham; Dr. Cleveland will preside. The officers and Committee for the coming year will be elected. Dr. Macevoy will read a short paper on Adenoid Vegetations, with Remarks on their Symptoms and Treatment. Dr. Lloyd Smith will show some cases of Excision of Long Bones and other Bone Cases, and comment thereon.—Hugh Woods, M.D., 11, Archway Road, Highgate, N., Honorary Secretary.

Metropolitan Counties Branch: East London and South Essex District.—The next meeting of this District will be held, by kind invitation of Dr. Adams, at Brooke House, Upper Clapton, on Thursday, May 20th, at 8.30 A.M. The chair will be taken by Dr. Shadwell, Vice-President of the District. Dr. Stephen Mackenzie will give a demonstration of Diseases of the Skin.—Herbert E. Powell, Glenarm House, Upper Clapton, Honorary Secretary.

Midland Branch.—The annual meeting will be held at Leicester on Thursday, June 3rd. Members desirous of reading papers or exhibiting cases are requested to send word before May 16th to Dr. Carline, Lincoln, Honorary Secretary.

South-Eastern Branch: East Sussex District.—The next meeting of this District will be held at the Hospital, Hastings, on Thursday, May 13th, at 3.30 P.M., Mr. E. Kaye Smith in the chair. Dinner at Queen's Hotel at 5.30 P.M., charge 6s., exclusive of wine. The following communications have been promised:—Mr. G. L. Cheatle (of King's College, London): The Infective Complications of Aural Diseases and their Surgical Treatment: illustrated by lantern slides. Mr. W. H. Dodd: Notes on a Cases of "Flukes"; with specimen.—J. W. Batterham, Honorary Secretary, Bank House, Grand Parade, St. Leonard's.

Southern Branch: South-East Hants District.—The next meeting of this District will be held at the Medical Library, 5, Pembroke Road, Portsmouth, on Tuesday, May 25th, at 4 P.M. Members willing to read communications or to exhibit cases or specimens are requested to communicate at once with the Honorary Secretary, C. C. Claremont, M.D., 57, Elm Grove, Southsea.

Shropshire and Mid-Wales Branch.—By invitation of the President, Mr. J. T. Lloyd, the spring meeting will be held at Chirk, on Thursday, June 10th. Mr. Mitchell Banks will read a paper on Some Practical Hints on the Treatment of Rectal Disease. Special train arrangements will be made which will be duly announced.—H. Willoughby Gardner, Honorary Secretary, Swan Hill, Shrewsbury.

## PROCEEDINGS OF THE COUNCIL.

At a meeting of the Council held in the Council Room at the office of the Association, 429, Strand, London, W.C., on Wednesday, April 14th, 1897,

*Present:*

Dr. Robert Saundby, President of Council, in the chair.

Dr. Henry Barnes, President.

Dr. Charles Parsons, Treasurer.

Dr. James Barr, Liverpool.
Dr. Rayner W. Batten, Gloucester.
Dr. Thomas Bridgwater, Harrow-on-the-Hill.
Mr. H. Langley Browne, West Bromwich.
Dr. Alfred H. Carter, Birmingham.
Mr. Andrew Clark, London.
Dr. William F. Cleveland, London.
Dr. John Ward Cousins, Portsmouth.
Dr. H. Radcliffe Crocker, London.
Dr. George W. Crowe, Worcester.
Dr. E. H. Dickinson, Liverpool.
Dr. T. M. Dolan, Halifax.
Brig.-Surg.-Lieut.-Col. E. F. Drake-Brockman, London.
Dr. David Drummond, Newcastle-on-Tyne.
Mr. George Eastes, London.
Dr. William A. Elliston, Ipswich.
Dr. David W. Finlay, Aberdeen.
Mr. R. S. Fowler, Bath.
Dr. John H. Galton, Upper Norwood.
Dr. Charles E. Glascott, Manchester.
Dr. Bruce Goff, Bothwell.
Dr. C. E. Goodall, London.
Dr. Ogilvie Grant, Inverness.
Dr. H. Handford, Nottingham.
Mr. John D. Harries, Shrewsbury.
Mr. J. Hughes Hemming, Kimbolton.
Dr. C. Holman, London.
Mr. T. Vincent Jackson, Wolverhampton.
Mr. T. R. Jessop, Leeds.
Mr. Evan Jones, Aberdare.
Mr. Jordan Lloyd, Birmingham.
Mr. C. N. Macnamara, London.
Mr. H. J. Manning, Salisbury.
Dr. J. W. Miller, Dundee.
Mr. R. H. B. Nicholson, Hull.
Surgeon-Major-General T. F. O'Dwyer, Aldershot.
Dr. J. W. J. Oswald, London.
Dr. Isambard Owen, London.
Mr. C. H. Watts Parkinson, Wimborne Minster.
Dr. Robert W. Philip, Edinburgh.
Dr. Frank M. Pope, Leicester.
Dr. Edwin Rayner, Stockport.
Dr. John Rolston, Stoke, Devonport.
Dr. L. F. Sedgwick, London.
Dr. Alfred Sheen, Cardiff.
Dr. G. E. Shuttleworth, Richmond Hill.
Dr. E. Markham Skerritt, Clifton.
Dr. Robert Somerville, Galashiels.
Mr. Henry Stear, Saffron Walden.
Dr. J. Roberts Thomson, Bournemouth.
Dr. T. W. Trend, Southampton.
Dr. A. R. Urquhart, Perth.
Mr. T. Jenner Verrall, Brighton.
Mr. Joseph White, London.
Mr. G. E. Williamson, Newcastle-on-Tyne.
Dr. W. L. Winterbotham, Bridgwater.

The minutes of the last meeting having been printed and circulated, and no objection having been received, were taken as read and signed as correct.

Read letters of apology for non-attendance from Dr. Beverley, Dr. Cantlie, Dr. Dyson, Sir Walter Foster, Dr. G. H. Philipson, Dr. Gordon, Dr. J. Wm. Moore, Mr. Jones Morris, Dr. Wm. Russell, Sir Willoughby Wade, and Dr. Woodcock.

Resolved: That a loyal address of congratulation be presented from the Council, on behalf the Association, to the Queen on the completion of the sixtieth year of Her Majesty's reign in June next.

Read letter from Lord Lister in reply to Minute of Council 3708:

12, Park Crescent, Portland Place, February 2nd, 1897.

My dear Dr. Saundby,—I cannot adequately express the gratification which I have experienced in receiving the generous, but all too flattering, congratulations of the body which represents so largely my medical brethren in the British Dominions.

I am also very sensible of your personal kindness in the matter.

May I ask you to convey to the Council my warmest thanks, and believe me, very sincerely yours,

Joseph Lister.

Resolved: That the letter from Lord Lister thanking the Council for the address to him be received and entered on the minutes.

In reference to Minutes of Council 3716-3717,

Moved by Mr. Langley Browne, seconded by Dr. Crocker, and

Resolved: That Sir Walter Foster be requested to ask a question in Parliament as to the reason of the suspension of the order in the case of the West Bromwich Board of Guardians, and whether such suspension cannot now be removed.

Read Sir Walter Foster's question in the House of Commons and the reply of Mr. T. W. Russell, Local Government Board.

*West Bromwich Guardians and their Medical Officer.*

Sir Walter Foster asked the President of the Local Government Board whether his attention had been called to the action of the West Bromwich Guardians in appointing a medical officer at a fixed salary, which is to include payment for all those cases which the Consolidated Order of July 24th, 1847, expressly provided shall be paid for as extras; and whether Articles 177 to 183 of this Order have been suspended as regards the West Bromwich Union? If so, whether he will inquire if the reasons which justified the suspension still hold good, that the Local Government Board last year called special attention to the Articles of the Order, which require that district medical officers shall have extra remuneration for operations and certain other cases.

Mr. T. W. Russell: The operation of the Articles in the regulations relating to the payment of extra fees to medical officers in the West Bromwich Union was suspended in 1862, on the application of the guardians. The guardians stated that they proposed this arrangement in consequence of continual disputes in connection with claims by the medical officers as to fees. All the medical officers of the Union who had been appointed since that time had been appointed at salaries inclusive of the extra fees. The Local Government Board have not received any communication from the guardians or the officers that the arrangement is not working satisfactorily.

Sir Walter Foster: I would ask whether it is not going back somewhat far to the suspension of an Order some thirty years ago for authority especially when the action is contrary to a recent circular of the Local Government Board.

Mr. T. W. Russell: If any application is made to the Local Government Board by the guardians or officers, we shall consider it.

Letter from Dr. Saundby to Mr. T. W. Russell and reply:

429, Strand, London, W.C., April 2nd, 1897.

Sir,—I beg to enclose you a letter signed by the medical officers of the West Bromwich Union, requesting the annulment of the Suspension Order of September 29th, 1862, by which they are deprived of their extra medical fees. You may remember that I had the honour to forward you some time ago a memorial from the Council of this Association upon this subject.—I am, Sir, yours obediently,

Robert Saundby, M.D., President of Council.

T. W. Russell, Esq., M.P., Under Secretary,
Local Government Board, Whitehall, S.W.

Local Government Board reply:

Local Government Board, Whitehall, S.W., April 3rd, 1897.

Dear Sir,—I am desired by Mr. T. W. Russell to acknowledge the receipt of your letter enclosing a communication signed by the medical officers of the West Bromwich Union in reference to the question of extra medical fees. The matter will receive Mr. Russell's attention.

Yours faithfully, H. Pullen.

Robert Saundby, Esq., M.D.

Resolved: That Sir Walter Foster be thanked for his courtesy in putting the questions in the House of Commons, and that the action of the President of Council be approved in forwarding the memorial of the medical officers of the West Bromwich Union to the Local Government Board.

Read letter from the Burmah Branch in reply to resolution Council 3654, on the present constitution of the Civil Medical Service in India, which was referred to the Indian Branches in October, 1896:

From the Honorary Secretary, Burmah Branch, British Medical Association.

General Hospital, Rangoon.

Dear Sir,—I herewith forward you a resolution passed unanimously at the last regular meeting in reply to Dr. Bahadurji's proposition.—Yours faithfully,

C. Duer, Honorary Secretary,
Burmah Branch, British Medical Association.

The members of the Burmah Branch of the British Medical Association are of opinion that the appointments in question, by being reserved for the members of the Indian Medical Service, are, by reason of the competitive examination held in London, thrown open to the best talent available from the open profession of medicine, and that, under existing circumstances, when the upkeep of large armies is a necessity, they do not see how in time of peace the surplus members of the Indian Medical Service can be better employed than in these appointments, and how these appointments can be better filled.

C. Duer, Surgeon-Captain,
Honorary Secretary,
Burmah Branch, British Medical Association.

Resolved: That the reply of the Burmah Branch be received and entered on the minutes.

It was moved and seconded:

That the Gold Medal of the Association for Distinguished Merit be awarded to Mr. Claudius Galen Wheelhouse, F.R.C.S., in accordance with Regulation I governing the award of such medals.

A ballot in accordance with the regulations for the award of the medal having been taken, Mr. Nicholson and Dr. Handford were appointed scrutineers. The President of Council reported that the Gold Medal of Merit had been awarded to Mr. Wheelhouse by a large majority.

Resolved: That this Council desires to express its sympathy with the family of the late Dr. Barron, of Southport, in the loss it has sustained by his death. A valued colleague for many years whose attention to the interests of the Association and dignified courtesy endeared him to all, his loss will be much felt by all the Council.

It was moved and seconded that the Gold Medal of the Association for Distinguished Merit be awarded to Sir Walter Foster, M.P., in accordance with Regulation I governing the award of such medals.

A ballot having been taken, Dr. Carter and Mr. George Eastes were appointed scrutineers. The President of Council reported that the Gold Medal of Merit had been awarded to Sir Walter Foster by a large majority.

Resolved: That the minutes of the Journal and Finance Committee of to-day's date be received and approved, with the exception of one minute, which was referred back to the Committee for reconsideration.

The minutes of the Journal and Finance Committee contained a report of the Reference Committee as to the appointment of outdoor editor; the financial statement for the year ending December 31st, 1896, and the accounts for the quarter, amounting to £7,918 10s. 4d.; auditor's report, and a resolution recommending the alteration of the date of the next Council meeting from July 7th to July 14th.

The Treasurer presented the Financial Statement for the year ending December 31st, 1896.

Resolved: That the Financial Statement for the year ending December 31st, 1896, as certified by the auditors as correct, be received and approved and published in the JOURNAL in accordance with By-law 26. See page 1061 in the BRITISH MEDICAL JOURNAL, April 24th.

The Treasurer reported the purchase of £3,000 3 per cent. West Sussex County Corporation Stock.

Resolved: That the dividend order for the receipt of dividends by the bank be sealed with the seal of the Association.

The seal having been affixed to the dividend order, it was re-locked in the presence of the Council and the keys handed to the holders, namely, the President of Council, the Treasurer, and General Secretary.

Read communication from Dr. Beverley, of the East Anglian Branch:

(*a*) The members of the East Anglian Branch desire to obtain from the Council of the British Medical Association an expression of opinion on the question of consultations with the medical officers of medical aid associations and medical institutes.

(*b*) That the Council of the British Medical Association be requested to memorialise the General Medical Council on the urgent necessity to take steps to prevent the growing evils of medical aid associations and medical institutes.

Dr. Elliston, as representing Dr. Beverley in his absence, agreed that the matter should stand over till the next meeting.

The report of the Constitution Committee, which had been printed and circulated, was then considered.

It was moved and seconded:

That the minutes and report of the Constitution Committee be received and approved, and the recommendations contained therein carried into effect.

Whereupon an amendment was moved and seconded:

That in order to carry out the resolution moved by the President of Council the report first of all be referred to the Branches for their opinion.

The amendment having been put from the chair, the same was declared to be lost.

Resolved: That the report be received.

Resolved: That the following addition to By-lay III of the Perthshire Branch be approved and added to the by-laws of the Branch, namely: "No member of the medical profession allying himself with medical aid associations is eligible for election to the Branch."

Read letter and proposed additions to the by-laws of the Metropolitan Counties Branch, copies of which are as follows:

METROPOLITAN COUNTIES BRANCH.

January 25th, 1897.

DEAR MR. FOWKE,—We are desired by the Metropolitan Counties Branch to forward you the enclosed addition to Law 20 of the Branch, which was made by the Branch at its last annual meeting, and to which it desires the sanction of the Council of the Association.—Very sincerely yours,

ISAMBARD OWEN, } Hon. Secs.
H. B. ROBINSON, }

PROPOSED ADDITIONS TO LAW 20.

There shall be a permanent Ethical Committee of the Branch. It shall consist of nine members of the Branch, to be elected by the Branch at its annual meetings. Provided that no person shall be a member of the Committee unless he has been in actual practice ten years at least before his election, and that not less than five of the members at any one time shall be engaged in general practice.

The laws applying to the nomination and election of representatives of the Branch in the Council of the Association shall govern the nomination and election of members of the Ethical Committee.

Three of the members of the Committee shall retire each year by rotation, but shall be eligible for re-election.

In the event of the death or resignation of any member of the Committee the Committee shall appoint a member of the Branch to be (subject to the approval of the Branch at its next annual meeting) a member of the Committee for the unexpired residue of the term of officer of such member dying or resigning.

The Committee shall appoint two of its members to be respectively Chairman and Honorary Secretary of the Committee, and shall determine the period for which such Chairman and Honorary Secretary shall hold office.

The quorum of the Committee shall be five.

The Chairman shall be empowered to summon a meeting of the Committee at his discretion, and shall summon a meeting without delay on receiving a request in writing so to do signed any any three members of the Committee.

The duties of the Committee shall be—

(*a*) To advise on ethical questions arising between members of the Branch either at the request of such members or at the request of the Council.

(*b*) To advise the Council generally on ethical matters.

(*c*) To co-operate with the Ethical Committee of the Council of the Association when so requested by the said Committee.

The Committee shall report its proceedings to the Council of the Branch in April of each year.

Resolved: That the proposed additions to the by-laws of the Metropolitan Counties Branch, as forwarded by them, be approved and added to the by-laws of the Branch.

Read extract of letter from Dr. Gordon, Honorary Secretary of the South-Western Branch, dated April 3rd, 1897:

At a special meeting of the South-Western Branch held on March 31st at Plymouth, it was resolved:

1. That the Association be invited by the Branch to hold its annual meeting in Plymouth in 1899.

2. That Mr. Swain of Plymouth be nominated as President for that occasion.

Dr. Rolston attended as a representative of the South-Western Branch, and reported that the Branch would be glad to invite the Association for 1898 or 1899 to hold their annual meeting at Plymouth.

The President of the Council requested Dr. Rolston to put the invitation down for the next meeting of the Council.

Read proposed by-laws of the Southern Branch, of which the following are copies:

Laverstock, Salisbury, March 31st, 1897.

DEAR SIR,—The by-laws of this Branch have been revised and remodelled, and the revision has been finally accepted at a general meeting called for the purpose.—Very truly yours,

F. FOWKE, Esq. H. J. MANNING, Hon. Sec.

BY-LAWS.

1. The area of the Southern Branch of the British Medical Association shall be defined in accordance with the official division of the Branches, and shall be divided into five districts, namely, South East Hants, Southampton, South Wiltshire, Isle of Wight, and Winchester.

2. The districts shall each pay their own expenses, and shall govern themselves as their respective members shall think fit.

3. The objects of the Branch are those expressed in the Memorandum of Association of the British Medical Association; and the promotion of social union and harmonious professional relations among its members.

4. The annual subscription for membership of the Branch shall be 2s. 6d., payable in advance on the first of January in each year. This subscription shall, unless otherwise directed by a majority at a general meeting, be applied solely to defray the expenses of the Branch, and shall be in addition to the annual subscription to the British Medical Association.

5. Any member of the British Medical Association who shall express his desire in writing to the Honorary Secretary or to a District Secretary, and shall be recommended by three members of the Branch, shall be admitted a member of the Branch by the Branch Council, or by a District meeting, provided he shall have the votes of three-fourths of those present.

6. Medical officers of the army and navy, being members of this Branch, may continue members when absent from the neighbourhood on duty, and may resume their privileges as members on their return; such members not to be liable to any payment to the Branch during such interval of absence.

7. The officers of the Branch shall consist of a President, President-elect, two Vice-Presidents, an Honorary Secretary, who shall also act as Treasurer, the representatives of the Branch on the General Council of the Association and on the Parliamentary Bills Committee, and six ordinary members of Council. The six ordinary members of Council shall be chosen annually. They shall be eligible for re-election, but no one of them shall be capable of holding office for more than three consecutive years, unless as an ex-officio member. The President and Vice-Presidents shall not be eligible for re-election in the year immediately following their year of office.

8. Each of the representatives of the Branch on the General Council of the Association and the representative on the Parliamentary Bills Com

mittee may hold one of the other offices of the Branch, but otherwise not more than one office shall be held by the same person.

9. The officers of the Branch, with the exception of the President, who shall succeed to his office from that of President-elect, shall be elected annually in the following manner: The Council shall in every year prepare a list of names of persons suited to fill the various offices, to be submitted by the Honorary Secretary to each member of the Branch, on a specially prepared voting paper: such voting paper must be returned (post prepaid) to the Honorary Secretary, duly attested by the member desiring to vote. The voting papers shall be counted by and in the presence of two scrutineers appointed by the Council, and the result declared at the annual meeting. The latest date for receiving votes by the Honorary Secretary shall be clearly printed in bold type on the voting papers: such date shall not be fixed at less than seven clear days after sending out the forms to the members.

The Council shall from time to time make such regulations as may be necessary for carrying out the election on the above lines. The Council may fill up any vacancies in the list of officers which may occur between the annual elections, such appointments to terminate at the next annual meeting.

10. The management of the Branch shall be entrusted to a Council consisting of the above-named officers, and of the Secretaries of the Districts, and of all those members who have held the office of President of the Branch. Five shall form a quorum.

11. The Council shall meet at such times and places as may be desirable in the interests of the Branch. The meetings shall be called by the Secretary at the request of the President or of any five members of the Council.

12. An annual general meeting shall be held every year before the annual general meeting of the British Medical Association, at such time and place as the Council may appoint. A notice of the business to be transacted at the meeting, with the names of the officers nominated for the ensuing year and a list of the members of the Branch, shall be sent to every member of the Branch at least fourteen days before the time of meeting.

13. At each annual general meeting the members shall receive the report of the council. An address shall be delivered by the President. Communications on medical subjects may be received and discussed, and such general business transacted as the Council may determine.

14. Special general meetings may be called by the Secretary at the request of the Council or of any twelve members of the Branch. The Secretary shall send notice of such special meetings, and of the business to be transacted, to every member of the Branch at least fourteen days before the meeting, and no business other than that mentioned on the notice shall be discussed.

15. No member can be ejected but by the vote of a majority of three-fourths of those present at a general meeting of the Branch; such voting not to take place unless at least twenty members are present, and unless a written proposition for such proceeding shall have been laid before the Council, who (unless the person accused can satisfy them as to the matters complained of) shall call a special meeting of the Branch. Every member shall receive a fortnight's notice of the meeting at which the matter is to be discussed. Special notice shall be sent by the Secretary in a registered letter to the member whose conduct is to be considered, specifying the charges which will be made against him.

16. No by-law of the Southern Branch shall be altered or rescinded, and no new by-law shall be adopted, but at a special or general meeting of the Branch at which not less than twenty members must be present.

Resolved: That the by-laws be approved with the exception of by-law 5 relating to the election of members by a District meeting, which it was reported contravened the fundamental by-laws of the Association.

Read letter from Dr. Rentoul and the Solicitor's opinion thereon.

Resolved: That a copy of the opinion of the Solicitor be forwarded to Dr. Rentoul.

Read further letter from Dr. Rentoul asking that the Council should apply to the President of the Local Government Board for certain returns on the confinement of women in workhouses, etc.

Resolved: That this Council is unable to accede to the request of Dr. Rentoul.

Read letter from Miss Wood, of which the following is a copy:

27, Percy Street, W., March 2nd, 1897.

DEAR SIR,—Lord Monteagle, on behalf of the Irish Workhouse Association, asks me to convey his thanks for the Reports on the Irish Workhouses which your Council has so generously sent for the members. He further adds, "I think our Association is now fairly under way, and hope we shall have some results to show in the course of the year."—Yours faithfully, C. J. WOOD.

Francis Fowke, Esq.

Resolved: That the same be received and entered on the minutes.

Read letter from the Sanitary Institute asking the Council to appoint two delegates to the Congress to be held at Leeds in September next.

Resolved: That Mr. Nicholson and Mr. Jessop be appointed delegates to the meeting of the Sanitary Institute to be held at Leeds.

Read letter from Mr. Timothy Holmes, and correspondence between Dr. Ward Cousins, Mr. Butlin, the General Secretary, and Major-General Graham on the appointment of representatives on the Civil Rights Defence Committee.

Resolved: That the Council desire to thank Mr. Timothy Holmes for his letter, but declines to elect any representative on the Civil Rights Defence Committee.

Read request for the formation of a Branch of the Association at Quebec.

At the meeting of the doctors of the City of Quebec on the subject of a demand of incorporation with the British Medical Association, were present: Drs. C. E. Elliott, W. Beaugeré, C. R. Paquin, C. S. Parke, Collin Sewell, A. Sessard, A. Catellier, G. H. Parke, E. Mathieu, E. A. Lebel, P. V. Faucher, S. Catellier, A. Marois, A. Robitaille, G. H. Henchey, J. M. Mackay, M. D. Brochu, A. Simard, E. Turcot, C. Verge, A. Simard.

The following motions have been carried:

Motion No. 1.

Moved by Dr. C. Sewell, seconded by Dr. Brochu: That this meeting of members of the profession resident in Quebec cordially sympathises with the work of the British Medical Association in bringing the members of the profession throughout the whole extent of the British Empire into direct union and frequent intercommunication for the purpose of promoting mutual friendship, advancing scientific knowledge, and furthering the general interests of the medical brotherhood. And that it will use its best efforts to promote the extension of the membership of the British Medical Association throughout the province of Quebec.

Motion No. 2.

Moved by Dr. Paquin, seconded by Dr. Faucher: That it is desirable that a Quebec Branch of the British Medical Association be constituted subject to the sanction of the Council of the British Medical Association, its laws and by-laws.

Motion No. 3.

Moved by Dr. Beaugeré, seconded by Dr. Henchey: That the following gentlemen be and that they are hereby appointed officers of the Quebec Branch, pending the sanction of the Council of the Association: President, Dr. Catellier; Vice-President, Dr. C. Sewell; Hon. Treasurer, Dr. Coote; Hon. Secretary, Dr. A. Marois; other members of Council, Dr. E. S. Parke, Dr. Ahern, Dr. Brochu, Dr. Paquin, Dr. Mathieu, with power to add to their number. A. MAROIS, M.D.

Resolved: That the Council has much pleasure in recognising a Branch of the British Medical Association for Quebec, subject to the approval of their by-laws, and desires to congratulate the members upon the successful formation of so important an addition to the Branches of the Association in Canada.

Resolved: That the 159 candidates whose names appear on the circular convening the meeting be and they are hereby elected members of the British Medical Association.

Resolved: That the minutes of the Parliamentary Bills Committee of March 11th last and 13th inst. be received and approved, and the recommendations contained therein carried into effect.

The proceedings of the Parliamentary Bills Committee were published in the BRITISH MEDICAL JOURNAL of April 24th, 1897, p. 1055.

Resolved: That the minutes of the Premises and Library Committee of April 13th be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Premises and Library Committee contain a statement in regard to the Charing Cross and Hampstead Railway to the effect that a clause had been introduced into the Bill to the satisfaction of the solicitor, and with reference to the City and West-End Railway the House of Commons have thrown out the Bill. Report of Librarian: Resolutions giving the Librarian permission to lend the reports of medical officers of health, etc., and to file certain books.

Resolved: That the minutes of the General Practitioners and Ethical Committee of April 13th be received and approved, and the recommendations contained therein carried into effect.

The minutes of the General Practitioners and Ethical Committee contain a report by the Birmingham and Midland Counties Branch upon the Coventry Dispensary. Replies of universities and corporations which were memorialised as to their ethical regulations, and various resolutions upon ethical matters.

It was moved and seconded:

That the minutes of the Medical Charities Committee of April 13th be received and approved, and the recommendations contained therein carried into effect.

Whereupon an amendment was moved and seconded:

That the minutes of the Medical Charities Committee of April 13th be received and approved, with the exception of the last resolution, which should be referred back to the Committee for further consideration.

The amendment having been put from the Chair the same was declared to be carried.

The minutes of the Medical Charities Committee contain a resolution appointing a Subcommittee to draw up an abstract of the previous annual reports of the Committee for circulation to the press and the metropolitan hospitals.

Read minutes of the Medical Defence Committee.

The minutes of the Medical Defence Committee contain the replies of the Branches both in favour and against Medical Defence.

Resolved: That the minutes of the Medical Defence Com-

mittee of April 13th be received and approved, and the recommendations contained therein carried into effect.

Read letter from Dr. Dewar asking for the recognition of a Branch for the city of Ottawa.

403, Albert Street, Ottawa, Canada,
January 13th, 1897.

FRANCIS FOWKE, Esq.

DEAR SIR,—Enclosed you will please find the report of a meeting of the medical profession of the City of Ottawa, which was lately held for the purpose of establishing a Branch of the British Medical Association for this district.

You will also find enclosed the application or petition for recognition in the form of a motion, duly endorsed by two members of the British Medical Association, namely, Dr. H. P. Wright and Dr. H. B. Small, which I understand is necessary in order to attain this end.

The applications for membership from (25) twenty-five practitioners, together with the fee of a guinea per head, also accompany this letter. And it is the wish of the members of the Branch that the subscriptions to the JOURNAL should commence from January 1st of this year; I presume you will kindly see that the members receive the numbers from that date.

Dr. Roddick informed the meeting that he would endeavour to have all the numbers from December 1st, 1896, included in this year's subscription; if such could be obtained, I am sure the members would be pleased.

Will you also kindly post me in regard to some of the duties of my office? And I would be glad to receive the by-laws of the British Medical Association, in order that we may regulate ours in accordance with them.

Our Branch will meet quarterly, and already an unusual amount of interest is being taken in the work

I suppose the report of the meeting will be published in the BRITISH MEDICAL JOURNAL?

Wishing you the compliments of the season.—I am yours respectfully,

C. P. DEWAR, M.D.

RESOLUTION TO FORM AN OTTAWA BRANCH.—It was moved by Dr. Clarence R. Church and seconded by Dr. W. R. Bell:

That it is desirable that an Ottawa Branch of the British Medical Association be constituted, and it is hereby constituted, subject to the sanction of the Council of the British Medical Association, its laws and by-laws.

The resolution was supported by Dr. Henry P. Wright and Dr. H. Beaumont Small, and carried unanimously.

Resolved: That the Council of the British Medical Association desire to record the pleasure with which they welcome the addition of an important Branch in the city of Ottawa, subject to the approval of the by-laws, and the Council desire to offer their earnest congratulations to the members of that Branch, and trust the union will prove of mutual advantage.

Resolved: That a subcommittee consisting of the President of the Association, the President of Council, and the Treasurer be appointed to draw up the annual report.

## SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.

THE seventeenth annual meeting of this District was held at Ryde on April 27th, 1897, Dr. GREEN (Sandown) in the chair.

*Confirmation of Minutes.*—The minutes of the previous meeting were read and confirmed.

*New Member.*—Mr. A. Banks, of Ryde, was elected a member.

*Medical Aid Societies.*—A letter was read from the Secretaries of the East Anglian Branch, containing resolutions passed at their last meeting *re* medical aid societies and medical institutes. These were adopted by the meeting, and ordered to be sent to the Branch Secretary.

*President's Address.*—The PRESIDENT (Dr. H. Harland, of Ryde) was then inducted, and delivered an address, which was devoted to the consideration of the present condition of the general practitioner, his difficulties and their causes, and some suggested remedies. The vast amount of gratuitous and underpaid work (such as union, club, and dispensary) depreciated the value of the services of the profession. Overcrowding in the profession should be met by narrowing the portals of entrance, and by subdividing and lengthening the period of study. He concluded with the following suggestions: That the present preliminary examination should qualify for registration as a medical student; that he should then be articled for two years to a general practitioner, who should afford him an insight of the routine of general practice, and direct his studies in osteology, botany, materia medica, and such other subjects as could be acquired then as well as within a college or hospital; that after two years' pupilage he should pass in the subjects above mentioned, and then enter upon his hospital curriculum of three winter and three summer sessions; after which he should pass a professional examination qualifying for practice as an assistant only but not as a principal. After two more years as a salaried qualified assistant he should pass a final examination fully qualifying him for general practice. But, should the student elect to practise a speciality—such as lunacy, gynæcology, public health, eye, ear, throat, or other special practice—then, after passing as an assistant, he should spend the next two years with a specialist or in some recognised special hospital, and afterwards pass his qualifying examination, supplemented by another on the special subject selected. Diplomas should be granted in special subjects, as in the case of D.P.H. at present. These diplomas would at once indicate the trained specialist as distinguished from the general practitioner. Specialists were now localised in the capitals and largest towns only, whereas they would then become more generally diffused throughout the country. The qualified assistant would afterwards commence practice with confidence in himself, and would have no inducement to accept low fees for the purpose of gaining practical experience, whilst practitioners would secure reliable services to the entire exclusion of unqualified assistants. Consultants and general practitioners should occupy the relative positions of barrister and solicitor. The consultant should not be approachable for consultation except through a general practitioner, whose introductory letter, with details of the case, should carry a substantial fee. Thus certain existing anomalies would be removed, greatly to the benefit of both the profession and the public.

*Election of Officers.*—Dr. Hollis, of Freshwater, was elected Vice-President; Dr. Groves was elected President-elect; and Dr. Shirtliff was re-elected Honorary Secretary and Treasurer.

*Communications.*—Mr. BANKS showed cases of Spinal Meningocele: Operation; Extensive Epithelioma of Upper and Lower Lip: Operation; no recurrence after two years, and hardly any noticeable deformity.—Dr. GREEN related the history and treatment of two cases of Placenta Prævia, which drew forth general discussion.

*The Next Meeting.*—Sandown was chosen as the place of the next meeting, the third Friday in July, at 4 P.M.

*Dinner.*—After the meeting the members dined together, with the PRESIDENT in the chair.

## BATH AND BRISTOL BRANCH.

THE sixth ordinary meeting of the session was held at Bath on April 28th, Dr. E. MARKHAM SKERRITT, President, in the chair. There were thirty-one members present and one visitor.

*New Member.*—Brigade-Surgeon-Lieutenant-Colonel J. P. H. Boileau, M.D., of Trowbridge, was elected a member of the Branch.

*Medical Aid Societies.*—Mr. C. E. S. FLEMMING moved:

That it is the opinion of this meeting that the post of medical officer to any medical aid society which is a commercial undertaking and not simply a mutual benefit society, is not a proper one to be held by a medical practitioner.

In moving the resolution Mr. Flemming said that a proper benefit society should have no ulterior object than the benefit of the members whom the medical officer undertakes to attend; and the contracting parties should be doctor and patient only. There were companies whose business was insurance, and who used cheap doctoring as a bait for clients, but the system was by no means confined to, though most largely practised by, insurance companies; it found its most evidently objectionable form in the grocer's shop where medical aid free was given away with a pound of tea. As was almost essential with a commercial undertaking, these societies touted for custom indiscriminately and canvassed any medical man's patients without restraint. Then the fees they paid were quite insufficient. A still more serious matter was that in many instances the medical officers got only a proportion of the fees paid for medical attendance, so that the society was directly making a profit out of the work of the doctor; but where the doctor got the whole fee paid by the patient, he was still being worked for the advantage of the society to get for them business and profit, and his name was used directly as a means to this end. Those companies whose business was life insurance dealt largely with a class of people

who were in no need of cheap medical aid. Any man who held one of these offices might be presumed to acquiesce, tacitly at any rate, in the methods of his principals, and these methods were incompatible with the rules of medical ethics generally accepted.—The resolution was seconded by Mr. J. A. M. THOMSON, and carried unanimously.—A letter was read from the Hon. Secretaries of the East Anglian Branch, on the subject of Medical Aid Associations and Medical Institutes, and it was unanimousiy resolved to send in reply a copy of the above resolution.

*Communications.*—Mr. C. A. MORTON described a case of Ankylosis of all the Joints with Complete Closure of the Jaws, in which the power of mastication was restored by division of the necks of the lower jaw.—Mr. R. J. H. SCOTT read notes of two cases of Ovariotomy: (*a*) solid tumour, (*b*) dermoid tumour. In the discussion which ensued, Dr. AUST LAWRENCE, Mr. PAUL BUSH, and Mr. C. A. MORTON took part.—Mr. A. WAUGH read a paper entitled Obscure Case of Perforating Gastric Ulcer, which was discussed by Dr. E. MARKHAM SKERRITT, Dr. AUST LAWRENCE, Dr. WALDO, Mr. PAUL BUSH, Dr. GOODRIDGE, Dr. MICHELL CLARK, Dr. NEWNHAM, and Mr. MORTON.—Dr. C. S. W. COBBOLD read a paper entitled Remarks on Golf in the Treatment of Mental Disorders.

## OXFORD AND DISTRICT BRANCH.

A GENERAL meeting of this Branch was held on April 30th at the Radcliffe Infirmary, Dr. WARD in the chair.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*New Members.*—Dr. Proudfoot (Oxford), Mr. Jones (Deddington), Dr. Critchley (Banbury), Mr. MacIlwaine (Banbury), and Mr. Walter (Wallingford) were elected members of the Branch.

*Medical Aid Associations.*—A communication was read from the East Anglian Branch respecting medical aid associations.

*Professional Relations with Homœopaths.*—A communication was read from the Council on the question of homœopaths.

*Communication.*—Dr. WILSON read an interesting paper on Some Severe Cases of Typhoid.

## SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE spring meeting of this Branch was held at Rhymney on April 29th. The President (Dr. Redwood) hospitably entertained the members at luncheon at his house on arrival. There were about thirty present.

*New Members.*—The following were elected members of the Branch and Association: A. G. Tribe (Treorky), J. Morgan Rees (Pontypridd), W. M. Price (Cardiff). Association only: S. Hamilton, M.B. (Newport), H. L. Swete (Fishguard).

*Communications.*—The following communications were presented:—Dr. T. WALLACE (Cardiff): Notes of a case of Abscess in Brain from Middle-ear Disease. Specimen shown.—Dr. P. R. GRIFFITHS (Cardiff): (1) A new method dealing with the Ring in Radical Cure of Umbilical Hernia; (2) Fixation of Uterus to Abdominal Wall in certain cases of Prolapse of Uterus.—Dr. WILLIAM SHEEN (Cardiff): (1) Notes of two cases of Nephrolithotomy; (2) Specimen from case of Vaginal Hysterectomy; (3) Case of Foreign Body in Bladder. Specimens shown.—Dr. A. SHEEN (Cardiff): Coloured drawing of Epithelioma of Ear; Photograph of Cystic Tumour in Perineum; Mulberry Calculus, weighing 470 grains, removed from a boy, aged 15, by suprapubic cystotomy.—Dr. R. T. E. DAVIES (New Tredegar): Notes on (1) Successful Skin Grafting of an extensive surface; (2) Obstinate case of Lupus of Face. Both patients shown.—Dr. J. WILLIAMS (Cardiff): Notes on the advantages of Walcher's Position.

MUNIFICENT BEQUESTS TO MEDICAL CHARITIES IN DUNDEE.—By the will of Miss Christiana Thow, Dundee, a bequest of £10,000 is made to the Hospital for Incurables; £5,000, with an additional £400 for the Children's Ward, to the Dundee Royal Infirmary, and £3,000 to the Convalescent Home at Barnhill. The gift to the Hospital for Incurables is particularly opportune in view of the efforts at present being made to put this on a secure footing as a memorial of the Queen's Jubilee, and it will considerably lighten the work of the Committee, who had, it is understood, previously secured about half of the £50,000 at which they aimed.

# SPECIAL CORRESPONDENCE.

## PARIS.

*Dr. Yersin's Serum and the Plague.—Skiagraphy of the Foreig Body in the Throat.—Libel on a Medical Practitioner.—A "True Sleeper."—Cremation in France.—The late Dr. Magitot.—General News.*

NEWS comes from Bombay that, among the 50 cases of plague treated by Dr. Yersin, 33 were cured. The mortality had been 83 per cent. Cases treated with small doses of serum have a death-rate of 60 per cent.; with large doses 7 per cent. Dr. Yersin has also practised preventive injections. He is waiting for a fresh supply of plague serum in order to continue his experiments.

M. Berger, at a recent meeting of the Paris Academy of Medicine, showed a skiagraph obtained by M. Malapert, of Poitiers, which led to the removal of a foreign body from the throat. A child 2 years old had swallowed a pin; the head of which had, since the accident, been bent downwards. The skiagraph showed that the pin was present in the pharynx, just above the hyoid bone. It was easily extracted. The child was placed under the influence of chloroform before the examination by the *x* rays was carried out. M. Berger had previously observed that the action of chloroform is in no way modified by that of the *x* rays.

Legal points are constantly arising to harass the French medical practitioner. The following is one of many examples. A doctor practising at Arpagon had occasion to notify some cases of diphtheria; *l'Echo Arpagonnais* published an article in which he was violently attacked. The doctor, being perfectly sure of the diagnosis, which had been controlled in one of the bacteriological laboratories of the medical faculty, proceeded against the writer of the article and the director of the journal. The Tribunal Correctionnel of Corbeil fined the director of the journal £2 and the writer of the article £1. The Paris Court of Appeal confirmed the judgment. The author of the article, dissatisfied with the issue of the case, took it before the Cour de Cassation, pleading that medical men, in notifying compulsorily cases of contagious illnesses fill a public post, therefore the Cour de Cassation was incompetent to deliver judgment. The Cour de Cassation ruled otherwise, and the libelled doctor gained his cause, but not without great trouble and annoyance.

The President of the Republic during his visit to the West of France, met with a rarity not often found during presidential tours. At the Rochefort Hospital there is a patient styled by the medical press "a true sleeper." During the last three months the sleeper, whose name is Victorine Doirat, has been carefully watched, therefore shamming is out of the question. She was admitted into the hospital on January 31st, 1897. During a month she had been plunged more or less in sleep, remaining in a cataleptic condition for five consecutive days without eating or drinking, or satisfying any of the wants of Nature. The day on which she was taken to the hospital she had an attack of somnambulism, and frightened her neighbours by going to them moving like an automaton with shut eyes. The morning after her admission the *chef de service* going his rounds found her asleep. By means of stimulants and suggestions she was awakened and induced to take some soup and drink some milk. An hour afterwards she fell into cataleptic sleep. This condition continued, interrupted by intervals of waking, which are very variable. Sometimes they occur several times in a day; at others after two or three days' sleep. The waking intervals never exceed two minutes. She opens her eyes and asks for food; if she is not immediately satisfied she falls asleep. In order to oblige her to take nourishment, she is awakened by stimulating the median and ulnar nerves, but her eyes close again almost as soon as they open. When the President of the Republic visited her bedside, she was sleeping. At 20 years of age her excited condition obliged her family to put her in an asylum. At 28 she married a deaf and dumb man. Her appearance is healthy. The eyelids are constantly trembling, the body is rigid, and the limbs remain for several hours in the position in which they are placed.

At a recent meeting of the Society for the Promotion of Cremation M. Salomon, the secretary-general, rendered

homage to three foreign honorary members of the Society—Sir Spencer Wells, the Italian scientist Cernuschi, and Nobel, the inventor of dynamite; the remains of all three had been cremated. During their lifetime they had given donations to the Society. M. Bourneville stated that since the last general meeting 200 cremations had been performed in accordance with the wish of private individuals. From the hospitals 2,587 bodies and 1,637 fœtuses had been cremated, making a total of 4,224 cremations. From August 5th, 1889, to the end of the year 1896 28,358 cremations had taken place. From January 1st to March 31st, 1897, 59 cremations have been performed at the request of relatives. The cremation occupies half an hour for children and one hour for adults. It has been proposed to the Municipal Council that country hospitals dependent on the Paris Public Assistance should be freed from the municipal cremation tax. If the Council accepts this proposal the number of cremations will considerably increase. It has been suggested that directions how to obtain cremation be sent to the mayors of the communes of the Seine Department.

Dr. Magitot, who recently died at the age of 63, was recognised as practically the founder of dental pathology in France. He was one of the foundation members of the Anthropological Society, and was subsequently one of its Presidents; before this Society he read many interesting papers. In 1888 he was elected member of the Academy of Medicine in the Section of Associés Libres. The founder of the Société de Stomatologie, he was every year elected its President. His scientific labours obtained for him the honour of the rank of Chevalier de la Légion d'Honneur.

Information received from authentic sources warrants the assertion that Dr. La Jarrige has never been examined by a specialist, as has been stated in the foreign press. The prisoner has shown no symptoms indicating any form of insanity.

It is stated that Dr. Carrier, a provincial practitioner, was called in to a patient who was suffering acute pain. He injected morphine; the pain ceased, and sleep ensued. Two hours afterwards, the patient's relations, wishing to awake her, were unable. Dr. Carrier was sent for and reproached with killing the patient. The shock seems to have induced syncope. In his fall, he struck his head against a piece of furniture, and fractured the base of his skull. He died a few days later. The patient whose death he was accused of having caused awoke spontaneously soon after the accident, and declared herself to be free from pain and greatly refreshed.

## EDINBURGH.

*Sir Henry Littlejohn's Opening Lecture on Forensic Medicine: Defects in the Teaching of Forensic Medicine: The First Professor, Sir Robert Christison, as a Teacher and as a Witness: Sir Douglas Maclagan.—Death of the Founder of the Corstorphine Convalescent Hospital.*

Professor Sir Henry D. Littlejohn delivered his inaugural address as Professor of Forensic Medicine on May 4th in the Old Chemistry Class Room, one of the largest class rooms of the University, which was crowded. The Principal of the University and a large number of professors were present.

Sir Henry was received with great enthusiasm, and in thanking his audience for the reception accorded him he said he was no stranger to the Medical School of Edinburgh, in which he had laboured during a lifetime. He therefore came to them not unknown, and he was only too pleased to be invited to place the experience of a lifetime at the service of his Alma Mater. Without further preface, he addressed himself to the main topic of his address, namely, the manner in which he intended to conduct the lectures, and, at the same time, to account for the apparently languid interest taken in forensic medicine by the average student.

He alluded to the great changes that had taken place in late years in medical tuition in the substitution of practical for merely theoretical instruction, and he pointed out that, while all the great departments of medical study were already provided with a practical department, forensic medicine as yet was merely taught in a theoretical manner. In speaking of the interest attaching to forensic medicine Sir Henry alluded to its connection with crime, and pointed out the difference existing between any ordinary case of illness and one in which the commission of a great crime was connected. He had, he said, found in practice that the investigation of a criminal case in a practical manner lent an interest to the subject-matter of his lectures, which enabled the student to enter with zest into fuller discussions, and to render him a more satisfactory witness when called upon to give evidence in a court of law.

In alluding to his predecessors in the chair, Sir Henry specially referred to Dr. Duncan (the first professor of the subject in the United Kingdom) and to the great Sir Robert Christison, whom he heard described by Orfila as "the leading medical jurist of the day." Indeed, Sir Robert Christison was to him the model of a witness. With his commanding figure, excellent address, and cool, calculating manner he rarely failed to impress the Court as a man of candour and authority. At some length Sir Henry pointed out Sir Robert Christison's prominent claims to be regarded as one of the great discoverers in the special department of medical knowledge. Indeed, the experiments of Christison's on various points connected with forensic medical practice were always appealed to as standard ones.

Sir Henry said he had purposely left his immediate predecessor to the last. In Sir Douglas Maclagan the university had lost a great name, an excellent professor, and one of the most accomplished men of his day. With Sir Douglas, he regretted to say, had departed the last specimen of the courteous and highly-educated physician of bygone days, a sound medical jurist, the trusted adviser of the Queen. With rare poetical instincts, a first-rate musician, with the gift of song, and, in the best sense of the word, a man of the world, Sir Douglas reminded one of the days of Arbuthnot, Armstrong, Pitcairn, and Radcliffe, while in the society of the Scottish capital he had ever held a leading place, and constituted himself the leading ornament of the profession. Indeed, a man who in his varied life had conversed familiarly with the great poet of his age—Goethe—who saw Sir Walter Scott, and was the friend of Lord Macaulay, could not fail to be so. The Queen could make a belted knight, but she had not at her disposal such high honours as the chair of the Royal Society, the chair of the Royal College of Surgeons, and the chair of the Royal College of Physicians, all of which dignified positions Sir Douglas had adorned by his name and his popularity as a physician of repute. It was gratifying to know that he was still with them as Emeritus Professor, ready to give the University, to which he had devoted the best years of his long life, the benefit of his advice and encouragement. If anything could add to the pleasure he had in addressing the audience from that chair, Sir Henry said, it was that he found himself the successor of his teacher and of his lifelong friend. Sir Henry concluded his address by stating that it would be his duty to walk in the footsteps of Sir Douglas, and to place at the disposal of his Alma Mater whatever advantages his official position in this, his native, city might give him in the conduct of the chair. He bade his audience remember that the Professor, however competent he might be, must fail as a teacher unless he had a receptive audience. It would be his endeavour to communicate to them that enthusiasm with which for a long series of years he had prosecuted his favourite science.

The death is announced, in Norfolk Square, London, of Mr. William Seton Brown, the founder of the Convalescent Hospital at Corstorphine, Edinburgh, which was built entirely at his expense and transferred in free gift to the Royal Infirmary. Mr. Brown was born in the neighbourhood of Prestonpans, but came to Edinburgh very early in life, and was educated at the High School. He went to India about fifty years ago, and was for some time in business at Bombay. But on the opening of the trade to China about 1850 he removed to Shanghai, where he was very successful as a merchant. On his return to this country, he resided chiefly in London or its neighbourhood. Mr. Brown was a son of the late Dr. William Brown, long well known as the Secretary of the Scottish Missionary Society, and grandson of John Brown, of Haddington, the well-known commentator on the Bible.

## BRISTOL.

*The Jubilee Memorial.*

THE subscriptions towards the erection and endowment of the convalescent home in commemoration of Her Majesty's sixty years' reign have reached the sum of £41,000. It will be remembered that £50,000 was asked for in the first instance, but when the Charity Organisation Committee pointed out that this would permanently endow at the most only thirty beds it became evident that at least twice that sum would be required. The sum announced at the mayor's meeting on Saturday, May 1st, though it appears satisfactory at the first glance, is not so much so when examined, and an analysis of the gifts shows that so large a sum has been promised "on conditions" that the real amount available is only £14,600. The two largest gifts—one by Mr. H. O. Wills and another by Mr. E. P. Wills—both of £10,000, are on condition that the £50,000 is obtained, and the latter gentleman has promised if £70,000 is raised to give 10 per cent. on all sums between that amount and £100,000. Other gifts promised "on conditions" amount to £6,236. The general feeling of the speakers at the meeting was that the amount was satisfactory, but that energetic means should be adopted to place before the public the need of the home as an adjunct to the medical charities and as a fitting memorial of Her Majesty's long and prosperous reign.

# CORRESPONDENCE.

### THE ASSOCIATION AND MEDICAL DEFENCE.

SIR,—Self-preservation is no doubt the chief stimulus to social evolution and union. At the present time the medical profession has to face many foes—the War Office, hospital abuse, provident clubs, and numerous antireason societies. To resist these the British Medical Association will for some time have its strength severely tested. Comparatively speaking it is young. Its growth has been rapid: hence its constitution is delicate, like that of a quick-growing child. One would like to see the constitution of this child firmly built up. Is it not better that it should overcome its present foes before it make a defence or other scheme a necessary condition of membership? It would be well if in reply to the War Office and the volunteer surgeons the head committee, confident of the solid unity of the Association and the profession, could without further parley direct all volunteer surgeons to resign in a body, assured that no properly-qualified medical man would be found to take their place. To the invitation for candidates for commission in the army that it could answer, "We regret that we cannot accept." Perhaps these excellent persons might try a few quacks of different sorts, and one regiment would go to war safeguarded by Holloway's pills and ointment, another with Mother Siegel's soothing syrup. Such folk are more sensitive to effective snubbing than to reason or protest. Our motives are benign, and not chiefly the desire of preferment and wealth, which has organised so firmly other bodies of men. Strengthened with any complete success the Association would have greater adherence from its members, and might safely extend its functions. The five years' curriculum is beginning to tell in our favour.—I am, etc.,

Brampton Brian, Herefordshire, March 22nd. A. R. EDWARDS.

### THE DIAMOND JUBILEE AND HOSPITAL DOCTORS.

SIR,—Your correspondent of May 1st writing under the title "Peter and Paul" deserves the thanks of the profession for directing attention to the unfavourable effect the outburst of Diamond Jubilee public charity is likely to produce on the work and remuneration of hospital physicians and surgeons; but I am inclined to think that these gentlemen will be apt to regard your alarmist correspondent as a kind of Cassandra. However general practitioners with no hospital connection may suffer, the doctors of medical charitable institutions are comparatively safe. I shall be very much surprised if the latter take any action either in the matter of hospital remuneration or hospital work. If hospital Boards decided to charge a premium for appointments, there is every likelihood of it being readily paid by present holders of these offices.

As a profession, we are in the position of *non possumus* regarding our hospital system. How can we act in the direction of reform so long as our so-called leaders, that is, hospital men, cannot and dare not move? They can afford to do the hospital work gratuitously. It is worth their very existence as consultants, operative surgeons, and clinical teachers. They know very well that other men equally able and qualified are ready to take their places. How seldom do we hear of increase of work at a hospital necessitating a corresponding increase of the chief members of the staff in the wards? These men are so jealous of their professional status that they would never think of making such a suggestion. With what tenacity do they stick to their appointments under all circumstances. Your correspondent mentions that while the resident officials of hospitals are paid, the doctors will be left out in the cold. He is speaking accurately if he means the general profession with the exception of hospital doctors. It is hopeless to expect or ask for what your correspondent calls "provision for payment of the medical officers of these Diamond Jubilee institutions," so long as hospitals are originated and supported by public charity over which neither the medical profession nor the people themselves can exercise that control necessary for the benefit of all concerned. The "reformed constitution" referred to by your correspondent must, I fear, proceed on the lines of a national hospital service.—I am, etc.,

Glasgow, May 4th. JAMES ERSKINE.

### SUBJECTIVE COLOUR PHENOMENA.

SIR,—The effect described by Mr. Walter Hurst in his letter in the BRITISH MEDICAL JOURNAL of May 1st must be a spurious one, probably due to the wobbling of his top. Using a rotator to spin the disc, so that its axis cannot be displaced, I can see no redness at all in an externally attached arc of blackened wire, even when it is no more than $\frac{1}{32}$ inch beyond the circumference of the disc. If the wire is bent so that a portion comes very slightly within the circumference, that portion at once turns red.

By suitable experiments made with lenses, and too obvious to need more than this suggestion, Mr. Hurst may further convince himself of the insufficiency of the theory which he advances.—I am, etc.,

Wandsworth, May 3rd. SHELFORD BIDWELL.

### SMALL PELVES: THEIR CONSIDERATION AND TREATMENT.

SIR,—It would have been of interest if Dr. Cousins, in his record of a case of Cæsarean section in the BRITISH MEDICAL JOURNAL of May 1st, had given the more usual external measurements of the pelvis; I refer to the external conjugate, the distance between the crests and between the anterior superior spines.

In all cases of pelvis contracted to a minor extent, say, where the true conjugate is 3 inches or thereabouts, its accurate estimation is a matter of uncommon difficulty, while the external measurements can be ascertained with perfect ease and precision by everyone.

The profession is somewhat undecided as to the value of these external measurements, and it is only by their accurate observation and record in the medical journals that practitioners who are not attached to a lying-in hospital can appreciate their value.

It seems to me very desirable that we should be possessed of some means of helping our pregnant patients with small pelves—primiparæ, more particularly—not leaving them, as they are left in many cases, to do the best they can to expel a fœtus through a narrow pelvis; and if that happy event in course of time, with or without the aid of forceps, does not occur, to diminish the size of the fœtus by one or the other methods, or failing, to perform Cæsarean section, and to record a triumph of obstetric art and practice if the stamina of the patient permit her to survive.

We are taught to look for and observe the facies ovariana, a risus sardonicus, the aspect of a patient with enteric fever; indeed, I know one medical gentleman who by this means is able to "diagnose typhoid fever the moment he enters the room."

If the ordinary powers of observation were brought to bear

on the general shape and breadth of the pelvis, the presence or absence of rickets and the general configuration of the patient at the time we are engaged to attend in the approaching confinement, we should often feel a desire to know more of the capacity of the pelvis, and should have little difficulty in persuading the patient to submit to an external and internal measurement of the pelvis. This examination would naturally take place about the sixth or seventh month, when one would have an opportunity of recommending the induction of premature labour if considered necessary, a proceeding, with our present knowledge of the use and practice of antiseptics, undertaken by a practitioner who knows exactly what course of action he intends to pursue, and with as much care and thought as would be given to a cutting operation, is practically without risk to the mother. By means of incubators, the various excellent preparations of milk, and our greatly improved system of nursing, the infant has every chance of thriving.

Having put in a plea for obstetric observation the question is, Are external measurements of a pelvis when one is unable to reach the promontory of the sacrum of any value? I venture to think they are. Let the habit of taking them at the time the woman engages us, when from observation it would appear one had to deal with a small pelvis, be cultivated. Having gained information act on it, leave nothing to chance, and thus in many instances preserve the mother from some lifelong uterine trouble, so frequently the result of difficult labour, and in not a few cases save the lives of mother and child.—I am, etc.,

Holland Road, W., May 3rd. Herbert Alderson, M.B.

# OBITUARY.

## JAMES ANDREW, M.D.Oxon., F.R.C.P.,

Consulting Physician to St. Bartholomew's Hospital.

The subject of this memoir was the third son of the Rev. James Andrew, perpetual curate of Whitby, and was born on September 7th, 1829. He was educated first at Glaisedale, and subsequently at Sedbergh, whence he went up to Oxford, matriculating at Worcester, where his elder brother William was Fellow and Tutor. His other brother, John Chapman, was Fellow of Lincoln. Subsequently having obtained a scholarship at Wadham, he migrated there and took a second class *in literis humanioribus* in 1852, and became subsequently Fellow and Tutor of his College, thus establishing an almost unique record. He did not, however, long remain in this capacity, for a few years later he entered as a student at St. Bartholomew's Hospital, and took his M.B. degree in 1860. The prospects for a young physician at this hospital were at this time bad, and Andrew had, we believe, quite made up his mind to give up any idea of a staff appointment, and was going abroad, when the tragic death of Dr. Baly in 1861 caused his friends to advise him to change his plans, and three months later he was appointed to the post of Demonstrator of Morbid Anatomy, and a month afterwards he became the Warden of the College, an office he held for over four years. In 1861 he became a Member of the College of Physicians, and in 1864 he was elected Assistant Physician to his hospital. He took his M.D. degree in 1863, his thesis being On the Relation between Anasarca and Renal Disease in Acute Albuminuria. In 1866 he became a Fellow of the Royal College of Physicians, and in the following year he resigned the office of Demonstrator of Morbid Anatomy, having served in that capacity for nearly six years. In 1869 he became full physician to St. Bartholomew's, within five years of his election on the staff, and from 1868 to 1890 he was joint Lecturer on Medicine in the medical school. In 1893, shortly after his recovery from a severe attack of influenza with pneumonia, he decided to resign his appointments and retired to live at Bournemouth. He was elected Consulting Physician to the hospital. His portrait was painted by the Hon. John Collier and presented to him by his colleagues, friends, and past pupils; it now hangs in the great hall of the hospital. From 1862 to 1865 he was Physician to the Royal General Dispensary, and from 1863 to 1878 he was Physician to the Victoria Park Hospital for Diseases of the Chest. In 1879 he became Consulting Physician to Christ's Hospital, an office he held until he left London: and in 1890 he was elected President of the Association of Medical Officers of Schools in succession to Sir William Savory. In 1884 he delivered the Lumleian lectures at the College of Physicians, and was Censor of the College from 1886 to 1888, and in 1890 he was chosen to deliver the Harveian Oration. He published three papers in the *St. Bartholomew's Hospital Reports*, dealing with mitral disease—a favourite subject of his—two with reference to rheumatic fever, and one having reference to the treatment of aneurysm of the aorta. His health began to fail soon after he reached Bournemouth, and a change to his native Yorkshire air was tried, but without much benefit. He died on April 21st. In 1868 he married a daughter of Mr. Henry Simpson, of Whitby, who survives him.

We are indebted to Dr. Samuel West for the following appreciative account of his old teacher:

Dr. Andrew's death will bring grief to many, for no man had more friends than he. Kindly, gentle-hearted, he was loved as few men are; yet sturdy, straight, and strong in character, he hid beneath his gentleness a vigour and determination which sometimes surprised those who did not know him well. Slow to move, he was hard to stop in any action he had decided on. Ready to listen to those he trusted, his confidence once shaken was difficult to regain. Religious-minded, yet tolerant, he respected opinions which he could not share when he believed them honest, for he looked to the man and not his creed. Fond of good-natured satire, and with a dry and caustic humour, he loved a joke, and could tell a good story. He never said a hard, uncharitable word, and, if he had judged or spoken wrongly, he felt no peace till he had made amends. With a character such as this, it is no wonder that he was admired, respected, and loved.

In society he was timid, reserved, and shy. He did not like publicity in person or in print; yet whatever he spoke or wrote gained attentive hearing. In ordinary conversation and after-dinner oratory he did not shine; he had no taste for it. He hated to talk on nothing and for talking sake; yet when he felt moved to speak, he could speak well and to the point.

It was in his study or in his smoking room, with an old coat, an old pipe, and an old friend, that he was at his best. There his shyness left him; he was genial, hearty, full of anecdote and humour, easily amused, and how he enjoyed a witty story! A man of simple tastes, happy with his books and pipe—happiest of all when fishing. A good day's sport was an attraction he could hardly resist, and he would often smuggle himself away from the calls of practice in town, and fly off to his favourite fishing haunts.

He wrote little, but what he wrote was good, and made those who read wish for more—for he wrote after long thought, out of a ripe and rich experience, on what he knew, and only when he had something to say. Some of his short articles are models of clearness of thought and style.

Andrew, of course, stood high in the esteem of his colleagues, and upon the School and Staff Committees his opinions carried a weight all their own. His influence was always on the side of peace and charity. He never said or did a harsh unkindly thing, and when it was his duty to condemn he tempered judgment with mercy. He was to the last always an advocate of progress, and without his co-operation many of the recent developments in medical teaching of recent years could not have been carried out.

To Andrew the Oxford graduates turned as to their natural leader—no slight compliment to his sterling merit—and his influence was felt both in Oxford and in London more widely than many knew.

As a physician his opinion was highly valued and widely sought, for it was was known to be both sound and honest. His practice, though large, was never of the fashionable kind, for he hated all self-advertisement, and carried his dislike of it to an extreme which prevented his becoming as well known to the public as his merits deserved. It was from his old pupils and personal friends that his patients came, and when Andrew was to be had, neither the one nor the other thought of any other physician.

Into the wards of the hospital he carried the same gentleness, earnestness, and sympathy which marked his character elsewhere. To him the patients were never mere cases of disease, but suffering men and women who looked to him for

help, nor did his interest in them end with their illness, for his ear was open to their stories of distress, and through the Sisters of his ward he dispensed charity with a free hand. Yet he loved to do good in secret, and few of those who received his benefactions knew from whence they came.

As a teacher Andrew was strict, thorough, and systematic, and he took infinite pains to train his pupils how to observe and to learn for themselves. If he spent, as some thought, too much time on elementary details, he did so from a sense of duty, and because he felt that he was laying the only safe foundation on which the student could safely build hereafter. Yet he loved most to get a sympathetic class around him, and pour out before them the riches of his experience, but with such modesty and forgetfulness of self that he seemed hardly conscious that he was giving what no books and few other teachers could supply. "You are going up for your examination soon. Come up some evening next week, and let us have a chat together." This was a not uncommon invitation to a class of anxious candidates—an invitation, need it be said, sometimes asked for. Even after the lapse of many years the memory of those informal chats is still fresh in the minds of all who enjoyed that privilege.

As a lecturer, Andrew was sound rather than brilliant. He wrote his lectures carefully and read from the manuscript. This, no doubt, added to their intrinsic value, but detracted from their effect; yet his lectures were largely attended, for their value was properly appreciated. It was felt that the way to profit most by them was to take full and careful notes and study them afterwards at home. It was then evident how much matter they contained, and how much labour and research had been spent upon their preparation. He was spoken of in my student days and even after as one of the three great teachers of his time in London, and that deservedly. The other two were Murchison and Sutton. Three men as different in character as in their mode of teaching, but each alike in his own style a master of his art.

Still it is neither as a physician nor as a teacher, but as their personal friend, that his old pupils love best to think of Andrew, for Andrew made friends of all his pupils. How many of these at some critical period in their lives owe to Andrew's timely counsel, perhaps warning, or even material help, much if not all of their success in after life. To Andrew everyone who knew him felt that he could go in anxiety, doubt, or trouble, and be sure of sympathy, guidance, or comfort. Even in his busiest days Andrew never failed to make time to give the help wanted to an old pupil or friend. It is all this that makes Andrew's memory dear to Bartholomew's men, and which sharpens their sorrow at his death.

## J. W. TEALE, M.A.Oxon., F.R.C.S.Eng.

WE regret to have to record the sudden death of Mr. J. W. Teale, of Scarborough, which occurred on April 19th. John William Teale was born at Leeds on June 7th, 1838, and was the son of Mr. Thomas P. Teale, F.R.S., of that town. He received his early education at the Leeds Grammar School, and subsequently at Winchester, where he was Senior Commoner Prefect. From Winchester he proceeded to University College, Oxford, where he was coxswain of his college eight. After taking the degree of B.A. at Oxford he went up to King's College, where he received his medical education. He became a Member of the Royal College of Surgeons in 1862, and proceeded M.A.Oxon. in 1863. Subsequently he became House-Surgeon to the Bath United Hospital. In 1865 he became a Fellow of the Royal College of Surgeons of England by examination. He settled in Scarborough thirty-two years ago, and early acquired a leading position in that favourite watering place. He held for some years the position of Consulting Surgeon to the Royal Northern Sea-Bathing Infirmary and Convalescent Home at Scarborough.

Mr. Teale was an accomplished and successful practitioner, and the estimate in which he was held by his professional brethren is shown by the fact that at the time of his death he was President of the Leeds and West Riding Medico-Chirurgical Society. A very practical address which he gave on taking the chair was published in these columns in December last. His contributions to medical literature were not numerous, but one of them attracted much attention and caused much discussion at the time. It related to a case of excessive and long-maintained high temperature after spinal injuries, ending in recovery.

Mr. Teale took an active interest in the public affairs of the town in which his lot was cast, and had been for many years a Justice of the Peace for the borough. He was a prominent member of the Conservative party, and took an active part in many keen contests which resulted in the victory now of one and then of the other of the great political parties. He was a ready and effective speaker, and was always sure of a hearty welcome on the platform from his townsmen.

Mr. Teale, in the address to which we have already referred, which was entitled "A few Practical Hints to Medical Men on the Preservation of their own Health," referred to the subject of holidays, and observed: "Every medical man should have an outdoor sport of some kind; golf and cycling are good, but perhaps the best of all is fly fishing." This expression of preference discloses his own predilections, for he was himself a keen salmon fisher, and it was while on a visit to Killin on Loch Tay for salmon fishing that he was attacked by the illness which eventually terminated his life. He was seized suddenly with an attack of pain in the left shoulder, with bilious vomiting and pyrexia. A few days later, being convalescent but much weakened from the attack, he travelled to Newcastle, and two days later he died suddenly in bed from syncope. Mr. Teale's death was referred to in sympathetic terms by the Chairman of the Scarborough Bench of Magistrates at the first meeting after his death, and the funeral which took place at Scarborough cemetery was attended by a large concourse of relatives and friends, including his brother, Mr. T. Pridgin Teale of Leeds, and Dr. Braithwaite, Dr. Barrs, and Mr. H. Secker-Walker, as representatives of the Leeds and West Riding Medico-Chirurgical Society.

The following note has been sent to us by one who knew Mr. Teale intimately: By the death of Mr. Teale not Scarborough only, but many distant places, have lost a valued friend. Visitors from all parts of the country knew that in Mr. Teale, should illness unfortunately overtake them at the seaside, they had a reliable medical attendant and friend; and that, should it become necessary, their own personal home attendant would be the first person consulted, for it was one of the leading rules of his professional conduct on all occasions to act upon this principle. He was well aware how unable the majority of sufferers are to describe their condition with accuracy, and how apt they are to misinterpret the opinion given by their medical attendant, to say nothing of their readiness to interpolate into it ideas prevailing in their own minds concerning themselves; and his first line of defence was always to seek the opinion of the home attendant, or even to send for him when practicable, and thus, by personal consultation, both gather information for his own guidance, and impart perhaps fresh ideas concerning conditions which by long duration had come to be tedious, or had sunk into less than their true significance.

His active personality and his sprightly and incisive manner cannot fail to be missed by those to whom Scarborough is familiar as a summer resort, and his worth as a townsman cannot fail to prove his loss a serious one to Scarborough.

## GUY P. L'ESTRANGE NUGENT, M.D.,
Dublin.

VERY many will hear with the deepest regret of the death of Dr. Guy Nugent, of Dublin, which occurred at Bournemouth on Tuesday last, May 4th. The illness which terminated with his death was brought about by an accidental inoculation of tuberculosis a little over two years ago. A sudden attack of hæmoptysis one morning after his clinic was the first grave indication of serious mischief. It was then found that there was slight solidification at the apex of one lung, and he was ordered to winter abroad. He went to Madeira, and returned in apparently greatly improved health. Last spring he went to Algiers as a measure of precaution. He did not return with better health, and from this time, although he worked with much of his old zeal, it was plain that he was losing ground steadily. About six weeks ago he sought rest at Bournemouth, but he rapidly failed, and on Tuesday passed quietly away in his sleep.

Dr. Nugent was educated at Trinity College, Dublin, where he had a distinguished career, being a classical scholar, and carrying off many other prizes. In his medical course he was no less prominent, and he succeeded in winning the medical scholarship of his year. Having obtained his degree in 1878, he engaged in private teaching, and after a short time he was appointed Assistant Physician to the Richmond, Whitworth, and Hardwicke Hospitals. His excellent work in the extern department secured his appointment to the full Physiciancy on the death of the late Dr. Lyons, M.P. In the wards he developed the qualities which he had already displayed as a teacher. His bedside instruction was immensely attractive, and large classes gathered about him daily. He had the power to attach to him the affection of his pupils and his colleagues; and for all these "Jimmy," as he was tenderly called, was at once one of the best of teachers, the warmest of friends, and the truest of gentlemen.

When the office of Registrar of the College of Physicians was vacant he was selected by the Fellows to fill that onerous position, and he there showed great business capacity and tact.

Dr. Nugent was a young man at his death, having only entered his 42nd year—but his life was full of kindness of heart and good deeds. His pupils and his friends everywhere will sorrow because of the loss which they and the profession of medicine have suffered.

# NAVAL AND MILITARY MEDICAL SERVICES.

## ARMY MEDICAL STAFF EXCHANGE.

*The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.*

SURGEON-MAJOR, one year at home, wishes exchange, for whole or part tour, to India or Colonies.—"X.," care of Dr. Staines, Bloomsbury Square, W.C.

A SURGEON-MAJOR, who arrived in India in March, 1896, wishes to exchange home during the trooping season of 1897-98. Address, Surgeon-Major W. G. BIRRELL, A.M.S., Station Hospital, Poonamallee, Madras.

## THE NAVY.

DEPUTY-INSPECTOR-GENERAL HENRY MACDONNELL has been promoted to be Inspector-General, April 10th. His previous commissions are thus dated: Surgeon, August 1st, 1861; Staff-Surgeon, July 16th, 1874; Fleet-Surgeon, January 28th, 1882; and Deputy-Inspector-General, December 27th, 1890. He was Fleet-Surgeon of the *Invincible* at the bombardment of the Alexandra forts, and during the Egyptian war of 1882; he has received the medal, with clasp, and the Khedive's bronze star.

Fleet-Surgeon ROBERT GRANT, M.A., M.B., is promoted to be Deputy-Inspector-General, April 10th. He was appointed Surgeon, May 7th, 1868; Staff-Surgeon, June 7th, 1879; and Fleet-Surgeon, April 29th, 1888. He served on shore with the 88th Regiment during the Kaffir war in 1877; was specially promoted for services when in charge of small-pox patients of the *Boadicea*, 1879; landed during the Zulu war in 1879, and accompanied the Naval Brigade to Port Durnford (mentioned in despatches, medal); was Staff-Surgeon of the *Orion* during the Egyptian war in 1882 (medal, Khedive's bronze star); Staff-Surgeon of the *Orontes*, served during naval and military operations in the Eastern Soudan, 1884; was Medical Officer in Charge of Transports, and accompanied the Royal Marine Battalion in action at Tamanieb (mentioned in despatches for his admirable arrangements for the sick and wounded, Suakim clasp).

Fleet-Surgeon JOHN K. CONWAY, M.D., has been placed on the retired list, with the rank of Deputy-Inspector-General, April 25th. He entered the Royal Navy as Surgeon, March 7th, 1868; became Staff-Surgeon, December 25th, 1879; and Fleet-Surgeon, May 6th, 1888.

The following appointments have been made at the Admiralty: MICHAEL J. MCCARTHY, M.D., Staff-Surgeon, to the *Defiance*, undated; EDWARD COOPER, Surgeon, to the *Victor*, additional, May 6th; SAMUEL W. VASEY, Staff-Surgeon, to the *Barfleur*, May 4th; JAMES C. F. WHICHER, Staff-Surgeon, to the *Caledonia*, May 4th.

## ARMY MEDICAL STAFF.

SURGEON-MAJOR J. I. ROUTH, Surgeon-Major H. E. DEANE, Surgeon-Captain F. W. C. JONES, and Surgeon-Lieutenant C. M. FLEURY are placed at the disposal of the Government of Bombay for employment on plague duty.

## LIFE ASSURANCE.

X. writes: It is evident the military authorities contemplate calling out the Army Medical Reserve on the very first emergency. How will this affect the civil life assurance policies of such officers? Will increased premiums be demanded?

*** The answer depends upon what our correspondent means by "calling out." The so-called reserve can only be called out for duty at home without war risks. It is entirely useless for army corps mobilisation for foreign service, and therein lies its bogus character as an active arm reserve

# MEDICO-LEGAL.

## ACTION FOR ALLEGED NEGLIGENCE: KETTLE v. BRISBANE.

On May 3rd, before the Lord Chief Justice and a special jury, an action was brought by the plaintiff, Marie Louise Kettle, aged 17 years, suing by her father Mr. B. F. Kettle, against Dr. Brisbane, of 16, St. John's Wood Road, to recover damages for alleged unskilful and negligent treatment.

Mr. Crispe and Mr. Raymond appeared for the plaintiff; Mr. Dickens, Q.C., and Mr. R. W. Turner, instructed by Mr. Hempson, on behalf of the Medical Defence Union, for the defendant.

From counsel's opening statement, it appeared that the plaintiff, who was living with her parents at Finchley Road, in October, 1895, fell in the passage of the house, and her right hand went through a pane of glass, inflicting a wound across the wrist. The father secured the attendance of Dr. Brisbane, who, after examining the hand, stitched up the wound, and continued his attendance from week to week until healing took place. It was alleged, however, that the fingers did not regain sensation, and later the plaintiff, at her father's suggestion, went to the Middlesex Hospital. There the hand was examined, and it was found that both the median and ulnar nerves were severed, and operations necessary to suture these were performed. The negligence attributed to the defendant was that he should have discovered the lesion of the nerves at the time of the accident, and should have taken steps to suture these at once.

The plaintiff, her father and sister and a neighbour, supported the allegations.

Mr. Andrew Clark, F.R.C.S., Surgeon to the Middlesex Hospital, gave evidence that he operated upon the case, but the operations were not so successful as he could have wished because the nerves could not be ever brought together, and in regard to the median nerve one end could not be found. If the operation had been performed at the time of the accident certain difficulties would not have existed. He was rather doubtful whether plaintiff would ever recover the full use of her hand; she might, however, and there were cases in which even after a long time use was recovered. He would not like to say what ought to have been done at the time of the accident. It was possible that the surgeon considered then that no nerves were severed. The operation of suturing nerves was a very delicate one, and if a surgeon satisfied himself at the time that there was sensation in the palmar side of the hand, he would be right in considering that there was no nerve cut. A medical man would be perfectly right in not performing the operation if he considered there was only partial severance. In the course of healing of the wound the nerves might, if partially severed before, become completely so. He thought it was quite probable that the nerves were not completely severed by the glass cut.

The defendant, Dr. Brisbane, stated in his defence that he had most carefully examined the hand at the time he was first called in. He had tested the fingers and thumb by pinching them for sensation, and the plaintiff told him that she felt what he was doing. He washed the wound carefully, and secured a tendon which had been divided with catgut suture. He stitched the skin wound with silver wire. The wound healed in a short time, and would have done so in a few days but that the plaintiff, one night being restless, tore away two or three stitches.

Mr. Ballance, F.R.C.S., Surgeon to St. Thomas's Hospital, gave evidence that he had examined the girl's hand, and that the operations at the Middlesex Hospital had not been successful. There was union of one nerve but none of the other. He considered that the defendant had used every care at the first attendance, and had done what he should, considering that by testing he had satisfied himself that no nerves were severed. He (Mr. Ballance) considered that the nerves were not completely severed at the time of the accident, but had become so since by the contraction of the scar tissue.

The Lord Chief Justice summed up at some length, and the jury after an absence of about forty minutes returned to court, and on being questioned intimated that they could not agree. It being clear that there was no possibility of their agreeing, the learned judge discharged them without their having given a verdict.

## UNQUALIFIED ASSISTANTS.

STOCKBRIDGE asks advice under the following circumstances: A man was taken ill at an inn, and requested that Dr. R. should be sent for. He then got so rapidly worse that the landlord, being alarmed, despatched a messenger also to Dr. G., a nearer doctor. Dr. G. was out, but his assistant—an unqualified practitioner—attended at once. Dr. R. arrived shortly after, and found the latter in charge of the patient, who informed him that his principal would be there shortly, and that the case was theirs. Shortly after Dr. G. arrived, who upheld the claim made by his assistant, and Dr. R., to avoid a scene, retired. What ought Dr. R. to have done?

*** Dr. R. was not called upon to recognise Dr. G.'s unqualified deputy; indeed, he might have incurred serious responsibility by so doing, had he known at the time the deputy was unqualified. For supposing he had retired, leaving the patient in the deputy's hands, and the patient had died before Dr. G.'s arrival, both he as well as Dr. G. might have been required to answer for their conduct before a coroner's jury.

## MIDWIFERY ENGAGEMENTS.

ENQUIRER states that he was engaged to attend Mrs. E. in her confinement in May; the baby, however, arrived some fortnight or so before the expected time, and "Enquirer" was not sent for, but received the following note: "Dear Sir,—Mrs. E. was confined last night, and is doing very nicely. She will not require your services." "Enquirer" has replied to say that he will expect the full fee (only 21s.), and wishes to know whether he is legally entitled to it.

*** It is difficult in these cases to say with any degree of confidence what view a county court judge may take. In some instances we believe the full fee has been recovered; in others half the fee by way of compensation or in other words by way of damages for breach of con

tract, which is the strictly legal way of looking at the matter: and if this view is adopted by the Court it is possible that only nominal damages would be obtained. It is not right, perhaps, that breaches of contract of this kind should be entirely overlooked, but at the same time it is very desirable, we think, that a compromise should, if possible, be effected.

### FEE FOR CERTIFICATION OF PAUPER LUNATICS.

P. G.—In default of an agreement made beforehand as to the fee, it is not certain what the county court would under the circumstances decide to allow as the fee for examining and certifying a pauper lunatic. For whatever opinion may be held as to what would be a fair charge, or however one's sympathy may tend, the arbitrament of the court is the only decisive thing available as the matter stands.

# PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

### HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,587 births and 3,854 deaths were registered during the week ending Saturday last, May 1st. The annual rate of mortality in these towns, which had been 17.9 and 18.8 per 1,000 in the two preceding weeks, declined again to 18.3 last week. The rates in the several towns ranged from 9.9 in West Ham, 12.5 in Brighton, 12.8 in Plymouth, and 12.9 in Croydon to 25.2 in Manchester, 27.8 in Blackburn, 28.3 in Bolton, and 28.9 in Salford. In the thirty-two provincial towns the mean death-rate was 19.3 per 1,000, and exceeded by 2.5 the rate recorded in London, which was 16.8 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was equal to 1.5 per 1,000, while it averaged 1.8 in the thirty-two provincial towns, among which the highest zymotic rates were 3.7 in Manchester, 4.4 in Burnley, 5.4 in Salford, and 6.9 in Bolton. Measles caused a death rate of 1.4 in Birkenhead, 1.9 in Manchester, 2.5 in Burnley, 3.4 in Salford, and 6.4 in Bolton; and whooping-cough of 1.0 in Burnley, 1.3 in Manchester, and 2.0 in Blackburn. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 55 deaths from diphtheria in the thirty-three towns included 40 in London and 2 each in West Ham, Birmingham, Sheffield, and Hull. No fatal case of small-pox was registered during the week, either in London or in any of the thirty-two large provincial towns. There were 12 cases of small-pox under treatment in the Metropolitan Asylums Hospitals on Saturday last, May 1st against 16, 11, and 7 at the end of the three preceding weeks: 6 new cases were admitted during the week. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 2,449, 2,406, and 2,442 at the end of the three preceding weeks, had declined again to 2,380 on Saturday last; 223 new cases were admitted during the week, against 234, 216, and 269 in the three preceding weeks.

### HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, May 1st, 1,025 births and 655 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 22.3 and 22.6 per 1,000 in the two preceding weeks, declined again to 22.0 last week, but was 3.7 per 1,000 above the mean rate during the same period in the thirty-three large English towns. The lowest rates in the eight Scotch towns were 15.9 in Dundee and 18.8 in Aberdeen, and the highest rates 25.6 in Perth and 30.1 in Edinburgh. The zymotic death-rate in these towns averaged 4.3 per 1,000, the highest rates being recorded in Perth and Edinburgh. The 283 deaths registered last week in Glasgow included 12 from measles, 1 from scarlet fever, 3 from diphtheria, 24 from whooping-cough, 6 from "fever," and 6 from diarrhœa. Thirty-five fatal cases of measles and 17 of whooping-cough were recorded in Edinburgh.

### PAYMENTS FOR CALF LYMPH.

A.D.H.L.—We agree with the opinion expressed that Boards of Guardians are empowered to pay for calf lymph used by public vaccinators under contract, so as to enable them to "fulfil their contracts;" but we assume that the contracts by virtue of which such payment is made must specifically refer to calf lymph as being in question.

### FEES FOR SPECIAL SERVICES.

R. B. receives £20 as medical officer of health for small urban district. His Council wish him to see disinfector at work in distant town. He is busy, and asks if it is usual to charge a fee, or must he be content with expenses out of pocket. He is in practice, and absence may mean loss.

*** We do not think the terms of "R. B's" appointment require him to travel to a distant town. It is highly desirable for the sake of his own work in future that he should be acquainted with the practical working of any disinfector his authority may propose to introduce, even at some little inconvenience. The work is worthy of such a fee as he would charge one of his own patients who was taken ill in the distant town for going to see him, plus expenses, but less the ordinary fee he would expect from the patient at home. The retainer of £20 might be regarded as covering the latter. It would be well to talk it over with the chairman of the sanitary authority.

# MEDICO-PARLIAMENTARY.

## *HOUSE OF LORDS.*

### PARLIAMENTARY PAPERS.

REPORTS and returns have been issued as follows: Annual Report of the Inspector-General of Recruiting for 1896; Report of Army Medical Department for 1895 (Vol. 37); Report of Departmental Committee appointed by the Board of Agriculture to inquire into and report upon the working of the laws relating to dogs; Report upon the working of the Boiler Explosions Acts, 1882 and 1890; Report of Departmental Committee on Swine Fever; and Board of Trade Memorandum on the Comparative Statistics of Population, Industry, and Commerce in the United Kingdom and some leading Foreign Countries, with tables.

## *HOUSE OF COMMONS.*

### COLOUR TESTS.

A COPY has been presented of a report on the Sight Tests used in the Mercantile Marine for the year ended December 31st, 1896.

### THE MIDWIVES REGISTRATION BILL.

The second reading stage of this measure has been formally deferred until Tuesday, May 11th, but it is needless to say that there is little chance of the measure being advanced on that date.

### VERMINOUS PERSONS BILL.

The Committee stage of this Bill has been deferred until Friday, May 14th.

### BURIAL GROUNDS.

On the motion of Mr. J. W. SIDEBOTHAM, a Select Committee has been appointed to inquire into the subject of burial grounds provided by local authorities under the Public Health (Interments) Act, 1879, and other Acts; to inquire whether any alterations in the existing law are necessary, especially in regard to the consecration of the ground, the provision of chapels, the allocation of fees, and the appointment of chaplain, and to report thereon.

### PUBLIC HEALTH ACTS AMENDMENT.

Sir A. HICKMAN has brought in a Bill to amend the Public Health Act and Amendment Act, 1890. The measure is backed by Sir Albert Rollit, Mr. Staveley Hill, Sir Walter Foster, Mr. George Whiteley, Mr. Baldwin, Mr. Ernest Spencer, and Mr. Heath.

### CRIMINAL LUNATICS.

In Committee of Supply the sum of £21,954 has been voted to complete h sum for Broadmoor Criminal Lunatic Asylum.

### VIVISECTION.

Mr. WEIR asked the Home Secretary if he would state the number of persons in England, Scotland, Ireland, and Wales respectively licensed to practise vivisection, and how many of them held certificates to dispense with anæsthetics.—The HOME SECRETARY: The number of persons licensed at the present time in England is 145, in Scotland 52, in Wales 1. The number holding the certificate dispensing with anæsthetics is in England 86, in Scotland 30, in Wales none. The only figures in my possession as regards Ireland are those for 1895. In that year the number of licences was 6, of whom 1 held a certificate dispensing with anæsthetics. In giving the hon. member these figures, I may remind him that the certificate in question is never given for operations involving serious pain, but only for such operations as inoculations or hypodermic injections.

### DOG MUZZLING.

Mr. A. DRUCKER asked the President of the Board of Agriculture whether he was aware of the fact that the majority of local bodies had not adopted the system of muzzling dogs recommended by the Departmental Committee, and also that many recognised authorities were against such compulsory muzzling? Whether the said Committee had taken steps to ascertain the views of well-known breeders before making their report; and if, considering the fact that muzzling entailed serious inconvenience upon the owners of dogs and grave injury to the health of the animals, he would facilitate further inquiry?—Mr. LONG: I find it somewhat difficult to understand what my hon. friend means by his first question, inasmuch as the Departmental Committee recommended that muzzling orders should be made in future not by local, but by central authorities. I am aware, of course, that compulsory muzzling does not commend itself to everyone, but the question was fully discussed from all points of view before the Committee, who also took evidence from breeders. This being the case, I cannot assent to the suggestion that further inquiry is necessary.—Mr. LOUGH asked the President of the Board of Agriculture when the order for the muzzling of dogs would be extended over the whole country; whether any particular pattern of wire muzzle was obligatory; whether the regulation as to the quarantine of dogs at the ports had yet been issued; and what time must elapse after all the necessary precautions had been enforced before the muzzling orders could be altogether withdrawn.—Mr. LONG: It is not proposed to apply muzzling orders to the whole country, but only to areas in which rabies undoubtedly exists or to which there is reason to fear that it may have been conveyed. A series of orders for this purpose will be issued in the course of the next few days. No particular pattern of wire muzzle is compulsory, but, with a view to assisting dog owners in the selection of a muzzle, specimens of a muzzle which we believe to be both efficient and humane will be deposited at the principal police stations in districts to which muzzling orders are applied. An order regulating the importation of dogs will be issued almost immediately. It would be premature for me to forecast the time during which it will be necessary for muzzling orders to be kept in force. Rabies is unfortunately a disease which may lie dormant for a considerable period after an animal has been bitten, and much will depend upon the support we receive from local authorities and dog owners generally in our efforts to stamp out the disease in this country.—Mr. LOUGH: May I ask the right hon. gentleman a question which has been sent to me by a corre-

spondent, arising out of the answer of the right hon. gentleman? It is whether a dog must have a muzzle on in taking his morning bath in a pond on Peckham Rye.—Mr. Long: The correspondent of the hon. gentleman appears to be possessed of the power of divination. That being so, I should think that he could have answered his own question. The answer depends upon the place where the dog takes his morning bath.—Mr. Lough: The right hon. gentleman is in error. I particularly mentioned Peckham Rye as the place.—Mr. Long: I beg the hon. gentleman's pardon. I did not hear him mention Peckham Rye. But the hon. member did not say whether the pond was in public or private grounds. —Mr. Lough: It is in public grounds.—Mr. Long: Then the dog must wear his muzzle.

### Hydrophobia from a Cat's Bite.

Mr. Duncombe asked the President of the Board of Agriculture whether his attention had been called to the death of Mr. John Hetch, 60 years of age, who died in the Queen's Hospital, Birmingham, from the effects of a cat's bite.—Mr. Long: Yes, my attention has been directed to the lamentable case to which my hon. friend refers, which seems undoubtedly to have been one of hydrophobia due to the bite of a cat. I do not think that any direct action against rabies in cats is either practicable or necessary. The information in our possession goes to show that the disease is usually conveyed from dogs to cats, not *vice-versâ*, and, in fact, no cases under the latter head are known to us. If, therefore, we succeed in our efforts to stamp out rabies amongst dogs in this country, the disease is not at all likely to be kept alive by means of cats. I may perhaps add, for the assurance of owners of cats, that out of 1,075 persons treated for hydrophobia in the Pasteur Institute during the first nine months of 1895 1,039 had been bitten by dogs and only 36 by cats.

### The London Water Commission.

Mr. Cohen asked the President of the Local Government Board whether he could state to the House the names of the members who would form the Royal Commission on the Water Supply of London.—Mr. Whitmore asked a similar question; and when it was the intention to introduce the Bill for strengthening and improving the position of water consumers in the metropolis.—Mr. Chaplin: The names of the members of the Royal Commission on the Water Supply of London are as follows: The Right Hon. Lord Llandaff, chairman; the Right Hon. J. W. Mellor, M.P.; Sir John Dorington, M.P.; Sir G. B. Bruce, C.E.; Major-General A. de Courcy Scott, R.E.; Mr. A. de Bock Porter, C.B.; Mr. H. W. Cripps, Q.C.; Mr. Robert Lewis. I may add with reference to the question of my hon. friend the member for Chelsea that I hope to bring in a Bill dealing with the water question as soon as I see any prospect of making progress with the measure.

### The East End Water Supply.

Mr. Woods asked, in view of the promise of the Government to introduce a measure this session for the purpose of strengthening and improving the position of the water consumers of the metropolis, whether they were aware that the East London Waterworks Company had introduced a new condition in their latest demand notes, namely, that it will be unlawful to use water in the future for garden use except through meters; whether in his promised measure he would make provision protecting the consumers against this prohibition of the use of water in gardens; and if he was aware that the company in question had admitted that no reliable water meter had yet been invented.—Mr. Chaplin: I am informed by the company that, owing to the excessive use and waste of water by reason of garden hose and other apparatus being employed and frequently left running day and night, the directors have given notice for determining the arrangements entered into for garden supply. The fixed charge has been abolished, and the supply for garden purposes will be furnished through meters. I must defer any statement as to the provisions of the proposed measure until it is introduced by me. As regards the last question, the company state that they are not aware that they have ever "admitted that no reliable meter has yet been invented." They also state that it is physically impossible for more water to be registered than passes through the meter, although it may happen that the whole of the water passing through the meter is not registered.

### The Report of the Vaccination Commission.

General Laurie asked the President of the Local Government Board whether there was any reason for the delay in publishing the Appendices to the Final Report of the Royal Commission on Vaccination, the report having been issued in August last? And if a probable date could be given for the publication of the Appendices, and of the concluding volume or volumes of Minutes of Evidence.—Mr. T. W. Russell, who replied, said the Local Government Board was in no way responsible for the delay. He was informed that the volume referred to was now in the printer's hands, and would be issued as soon as the lithographs accompanying it were ready.

### The Use of Salt in the Navy.

Sir Charles Cameron asked the First Lord of the Admiralty whether it was the case that salt was not included among the condiments issued by the Admiralty for use on board ship? And whether, considering the importance of salt as a dietetic ingredient, and the fact that the use of salt meat as the principal form of food on board ship had long been superseded, he would consider the propriety of issuing salt as well as mustard and pepper for use on board Her Majesty's ships?—Mr. Macartney, who replied, said: Salt has hitherto been issued as a ration only in the case of boys in training ships and troops on passage, where the "savings" system does not exist. My attention was only drawn to this after the Estimates for the current year were framed, but arrangements are now being made which will meet the views expressed in the hon. member's question.

### Plague on Shipboard.

Sir Walter Foster asked the President of the Local Government Board whether the Indian transport *Dilwara*, which arrived at Southampton on April 6th, had had a fatal case of plague on board during her voyage; Whether the local authorities found their sanitary powers sufficient to protect the local health interests: and whether this was the second occasion within the last few months on which the infection of plague on board ship had been successfully dealt with in this country without any resort to quarantine detention of vessels and persons.—Mr. T. W. Russell (who replied): A fatal case of plague occurred on board the Indian transport *Dilwara* after the vessel had left Bombay. The body was buried at sea; and, under the recent Venice Convention, only the two actual attendants on the sick person were detained at Suez (Moses' Wells), the vessel at once passing through the canal in quarantine. On reaching Southampton on April 6th, the *Dilwara* was met by a medical inspector of the Board, who acted in concert with the military and local port authorities. No further case had occurred, and under the excellent arrangements organised by the port medical officer, all the 1,235 persons on board were allowed to land, and the existing powers were found to be fully sufficient to protect all health interests concerned. In reply to the third part of the question, the hon. member is quite correct in his assumption. This is the second occasion within the last few months on which the infection of plague on board ship has been successfully dealt with without resort to any quarantine detention of either vessels or persons.

### Juvenile Prisoners.

Mr. Paulton (Durham, Bishop Auckland) asked the Secretary for the Home Department whether the Prison Commissioners had lately had under consideration the treatment of juvenile prisoners awaiting trial or on remand, and whether he could state what modifications, if any, in the existing practice had been or were likely to be made in this regard.—The Home Secretary: Yes, Sir, the Prison Commissioners have been considering this matter, and an experiment is now being tried at Holloway by which the ordinary discipline for unconvicted prisoners is mitigated in the case of those that are under 16. The modifications are, briefly, that the cell doors are left open, under, of course, proper supervision: more time is allowed for exercise, and the exercise itself is more varied; special arrangements are also made for their instruction and generally for giving them occupation. I hope that it will be found possible very shortly to extend these modifications to other prisons also; at all events, the experience that will be gained will be valuable in passing rules for dealing generally with the matter.

### Overcrowding in Railway Carriages.

Mr. Weir asked the President of the Board of Trade whether, having regard to the inconvenience and danger to the travelling public resulting from the overcrowding of railway carriages, he would appoint a committee to inquire into the means which would be adopted to prevent such overcrowding.—Mr. Ritchie: I see no reason to appoint a committee.—Mr. Weir asked the right hon. gentleman whether his attention had been called to the inquiry held at the Mile End vestry respecting the death of a lady travelling in an overcrowded carriage on the Great Eastern Railway on Easter Monday; and whether, in view of the coroner's remarks in regard to the danger arising from the overcrowding of railway carriages, he would consider the advisability of taking such steps as would enable the Board of Trade to deal with the question of overcrowding of carriages on the Great Eastern Railway.—Mr. Ritchie: No, Sir; I do not propose to initiate legislation on the subject. I have, however, called the attention of the company to the terms of the hon. member's question.

### Pensions (Old Age) Bill.

This Bill, introduced by Sir Walter Foster, and backed by Mr. Labouchere, Mr. Broadhurst, Mr. Alfred Thomas, Mr. Logan, and Mr. Lambert proposes to provide pensions for persons above the age of 65, being British subjects, born in England. The minimum pension provided would be 5s. a week, or such a sum as would raise the income of the individual to 5s. For persons with a private income over 5s. and under 10s. a sliding scale is adopted. Persons with incomes over 10s. would not receive any pension. The Bill would not affect the medical profession in any way. It does not propose that the pensioners should have any claim on the services of Poor-law medical officers, as they would be outside the Poor Law altogether.

### PETITION.

A petition has been presented from Lancashire in favour of an alteration of the Inebriates Acts.

### NOTICES.

Mr. MacNeill proposes to ask the Secretary of State for the Home Department, whether the London Hospital Medical School was registered under 39 and 40 Vict. cap. 77, in the years 1895 and 1896 for the performance of experiments on living animals; whether the Government Inspector in his report, dated July 5th, 1896, stated "that the names of all those 'licensed places' to which licensees were accredited are given in the tables;" and whether, having regard to the fact that the London Hospital has been omitted from the tables of the Government Inspector's report for the year 1895, the Home Secretary will order an amended report of the experiments on living animals to be issued which shall be accurate.

Mr. Monk intends to ask the President of the Local Government Board whether the sixth volume of the report of the Royal Commission on Vaccination, containing the evidence taken so long ago as in 1891, is in the hands of the printers; and, if so, whether he is in a position to state when it will be delivered to members.

Mr. Crilly proposes to ask the President of the Local Government Board whether he is aware that at an inquest held at the Hackney Coroner's Court on the body of an old woman named Margaret Ross, the evidence showed that the deceased had been an inmate of a City union workhouse; that her age was 77 years, and that she had been found dead on Thursday last beside the washing pail which she had been using in her work; also that the workhouse authorities had been in the habit of compelling this old woman to clean out a large ward containing twelve beds; and, whether, if the evidence correctly states the facts, he will hold an inquiry as to the degree of responsibility which attaches to the officials of this workhouse for the death of Margaret Ross.

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All legally qualified medical practitioners in Russia have now the right of wearing a special badge on the right breast. Doctors of Medicine can wear a similar badge but of somewhat more ornamental character.

# MEDICAL NEWS.

The Convalescent Home at Finchley of the National Hospital for the Paralysed and Epileptic (Albany Memorial), Queen Square, will be formally opened by H.R.H. the Duchess of Albany on June 16th.

Mr. Wheelhouse received the special congratulations of the Filey District Council at its meeting on May 4th, on the award to him of the gold medal of the British Medical Association. The resolution was moved by the chairman, and it was further unanimously resolved to address a letter to the Council of the Association conveying the great satisfaction felt by the Filey District Council that the medal should have been conferred upon a resident in that watering place.

## MEDICAL VACANCIES.

The following vacancies are announced:

BATH GENERAL OR ROYAL MINERAL WATER HOSPITAL.—Resident Medical Officer, unmarried. Salary £100 per annum, with board and apartments in the Hospital. Applications to Fred. W. Dingle, Registrar and Secretary, before May 11th.

BURY INFIRMARY.—Junior House-Surgeon; doubly qualified. Salary, £60 per annum, with board, residence, and attendance. Applications to the Hon. Secretary, Infirmary, Bury, Lancashire.

CARDIFF INFIRMARY.—Assistant Resident Medical Officer, doubly qualified. Appointment for six months, without salary, but with board, washing, and apartments. Applications to Geo. T. Coleman, Secretary, by May 11th.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY, Chesterfield.—Junior House-Surgeon. Salary, £50 per year, with board, apartments, and laundress. Applications to the Secretary, at the Hospital, by May 20th.

CITY OF COVENTRY.—Medical Officer of Health. Must devote his whole time to the office, and be qualified in Medicine, Surgery, and Midwifery. Appointment for five years. Applications to Lewis Beard, Town Clerk, 10, Hay Lane, Coventry, by May 15th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Dental Surgeon and Assistant Dental Surgeon. Must be Licentiates in Dental Surgery. Applications to the Secretary by May 10th.

GENERAL INFIRMARY AND DISPENSARY, Doncaster.—Indoor Dispenser and Assistant to House-Surgeon. No salary, but board, lodging, and washing provided. Applications to Joseph Clark, Honorary Secretary, by May 10th.

GLASGOW ROYAL INFIRMARY, GLASGOW OPHTHALMIC INSTITUTION, ST. MUNGO'S COLLEGE.—Surgeon to the Glasgow Ophthalmic Institution; Ophthalmic Surgeon to the Dispensary of the Glasgow Royal Infirmary; Consulting Ophthalmic Surgeon to the Wards of the Infirmary; and Professor of Ophthalmology in St. Mungo's College. By agreement the same person will be appointed to all these offices. Salary £100 per annum, with share of students' fees. Applications to Henry Lamond, Secretary, 93, West Regent Street, Glasgow, by May 25th.

HARTISMERE UNION, Suffolk.—Medical Officers and Public Vaccinators for Bottesdale District, Mendlesham District, and Wortham Separate School. Salary, for the Botesdale District at the rate of £65 per annum, and for that of Mendlesham £70 per annum, exclusive of vaccination fees and such extra fees allowed by the Local Government Board. Salary, for the Separate School at Wortham, at the rate of £20 per annum, and fees similar to those paid in the district. Applications to Jno. Bond, Clerk, Guardians Office, Eye, Suffolk, by May 14th.

HOSPITAL FOR WOMEN, Soho Square, W.—House Physician, doubly qualified. Appointment for six months. Salary, £30 for that period. Applications to David Cannon, Secretary, by May 15th.

HOSPITAL FOR WOMEN, Soho Square.—Registrar. Appointment for twelve months. Honorarium, 25 guineas. Applications to David Cannon, Secretary, by May 22nd.

LIVERPOOL EYE AND EAR INFIRMARY.—House-Surgeon; doubly qualified. Salary, £80, with residence and maintenance. Applications to Reginald Haigh, Hon. Sec., 13, Berey's Buildings, George Street, Liverpool, by May 15th.

LIVERPOOL INFIRMARY FOR CHILDREN, Myrtle Street. House-Surgeon. Salary, £58 per annum, with board and lodging. Applications to the Honorary Secretary by May 10th.

METROPOLITAN ASYLUMS BOARD.—Assistant Medical Officer to the Eastern Fever Hospital, The Grove, Homerton, N.E. Salary, £160 during the first year, £180 the second year, and £200 during the third and subsequent years, with board, lodging, attendance, and washing. Unmarried, and not more than 35 years of age. Doubly qualified. Applications, on forms provided at the Chief Office of the Board, Norfolk House, Norfolk Street, Strand, W.C., to be received by May 14th.

NOTTINGHAM GENERAL DISPENSARY.—Clinical Assistant for six months. Salary at the rate of £120 per annum, with rooms and attendance. Applications to the Secretary.

PARISH OF CLYNE, Sutherlandshire.—Medical Officer. Salary £100 per annum, with house and garden. Applications to Mr. M. F. Myrom, Inspector of the Poor for Clyne, Brora, by May 14th.

ROYAL EYE HOSPITAL, Southwark, S.E.—House-Surgeon. Remuneration, £50 per annum, with free board and lodging in the hospital. Applications to the Secretary by May 16th.

SOUTHAMPTON INCORPORATION.—Medical Officer for the No. 1 District. Salary, £150 per annum, inclusive of fees, except lunacy cases. Must reside within the district. Applications, marked "District Medical Officer," to be sent to the Clerk by May 11th.

VICTORIA HOSPITAL FOR SICK CHILDREN, Park Street, Hull.—Lady House-Surgeon. Salary, £50 per annum, with board and laundry. Applications to J. Travis Cook, Wm. Burwell, C. H. Allison, the Hon. Secretaries, by May 10th.

WARNEFORD LUNATIC ASYLUM.—Medical Superintendent and Secretary. Salary, £500 a year, with furnished house, coals, gas, garden produce, milk, laundry, and keep for one horse. Applications to the Secretary by June 10th.

## MEDICAL APPOINTMENTS.

Bond, Francis T., M.D.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health to the Cirencester Rural District Council.

Burton, Robert G., M.D., L.R.C.S.Edin., reappointed Medical Officer of Health to the Greenford Urban District Council.

Coombs, M. L. B., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health to the Newport Urban District, Isle of Wight, *vice* W. F. Foster, M.R.C.S.Eng., resigned.

Councell, Richard W., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Sixth District of the St. Saviour's Union.

Crawfurd, R. H. P., M.A.Oxon., M.D., B.Ch., M.R.C.P.Lond., appointed Pathologist to the Royal Free Hospital, Gray's Inn Road.

Dodd, E. J. A., M.R.C.S., L.R.C.P., appointed one of the House-Surgeons to the Leeds General Infirmary.

Fagge, C. H., M.R.C.S., L.R.C.P., appointed Surgical Registrar and Tutor to Guy's Hospital.

Fawcett, John, M.D., B.S.Lond., F.R.C.S.Eng., appointed Assistant Physician to the Royal Free Hospital, Gray's Inn Road, W.C.

Ferguson, J. M., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Third Burnley District of the Burnley Union.

Franey, Arthur B., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer of Health to the Hadley Urban District Council, *vice* H. Newman, M.R.C.S.Eng., resigned.

Gange, F. A., M.D.St.And., M.R.C.S., reappointed Medical Officer of Health to the Faversham Rural District.

Harrison, James, M.R.C.S.Eng., L.R.C.P.Edin., appointed Medical Officer to the East Grinstead General Dispensary, *vice* John Magrath, M.D., deceased.

Hartley, J. V., M.R.C.S., L.R.C.P., appointed Resident Medical Officer at the Ida Hospital of the Leeds General Infirmary.

Hodges, A. E., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the First Burnley District of the Burnley Union.

Hope, John A., M.B., C.M.Glasg., appointed Assistant Medical Officer to the Barony Parish Hospital, *vice* Dr. E. Allan, resigned.

Lumb, E. J., M.R.C.S., L.R.C.P., appointed one of the House-Physicians to the Leeds General Infirmary.

McGregor, Jessie M., M.B., C.M., appointed Clerk to the Extra-Physicians and Registrar of the Royal Edinburgh Hospital for Sick Children.

Martin, A. A., M.B., B.S.Lond., M.R.C.S., L.R.C.P., appointed House-Physician to St. Mary's Hospital.

Martin, Frederick William, M.R.C.S.Eng., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health to the Brighouse Town Council.

Seaton, Douglas, M.B., Ch.B., appointed Resident Surgical Officer to the Leeds General Infirmary.

Silver, Hugh, L.S.A., appointed Clinical Assistant to the Out-Patients at the Chelsea Hospital for Women, Fulham Road.

Simpson, H., B.A.Cantab., M.B., B.C., M.R.C.S.Eng., appointed Medical Officer for the Market Weighton Second District of the Pocklington Union.

Squire, Maurice Frederick, M.B., B.S., M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant Medical Officer of the Workhouse of the Paddington Union, *vice* Dr. Fish, resigned.

Taylor, F. E., M.A., B.Ch., M.B., appointed one of the House-Surgeons to the Leeds General Infirmary.

Ward, Alban, M.B., C.M.Edin., appointed Medical Officer for the Codford St. Peter District of the Warminster Union.

Webster, J. Clarence, M.D.Edin., F.R.C.P.E., F.R.S.E., late Senior Assistant to the Professor of Midwifery and Diseases of Women in the University of Edinburgh, appointed Assistant Gynæcologist to the Royal Victoria Hospital, Montreal.

Williams, R. P., M.B., appointed House-Physician to the Royal Free Hospital, Gray's Inn Road.

## DIARY FOR NEXT WEEK.

### MONDAY.

London Post-Graduate Course, London Throat Hospital, 204, Great Portland Street, W., 8 P.M.—Dr. Edward Law: Examination of the Throat and Nose.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8 P.M.—General Meeting for election of officers and Council for session 1897-98. 8.30 P.M.—Ordinary meeting. Dr. A. E. Garrod will open the adjourned discussion on Mr. W. Armstrong's paper on the Value of an Exclusively Red-meat Diet in certain cases of Chronic Gout. Mr. Swinford Edwards: On the Removal of High-lying Cancer of the Rectum by Kraske's Method, with a series of Fourteen Cases.

**TUESDAY.**

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 4.30 P.M.—Dr. Abraham: Lupus and Scrofuloderma.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Dr. Beevor: Demonstration of Cases.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 P.M.—Dr. Francis Warner: On the Relations between Bodily Development, Nutrition, and Brain Condition in their Pathological Aspects. Mr. H. H. Clutton: (1) Case of Subclavian Aneurysm successfully treated by Ligature; (2) case of Pharyngeal Abscess, Hæmorrhage, Ligature of Carotid Arteries.

**WEDNESDAY.**

LARYNGOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 5 P.M.—Discussion on Turbinotomy as applied to the Inferior Turbinal, to be opened by Dr. Dundas Grant.

LONDON POST-GRADUATE COURSE, Parkes Museum, 74A, Margaret Street, W., 4.30 P.M.—Professor Wynter Blyth: Dwelling Houses, etc.

THE CLINICAL MUSEUM, 211, Great Portland Street, 4 P.M.—Demonstration by Mr. Jonathan Hutchinson.

EST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M.—Mr. Dunn; Ophthalmic Surgery during the Queen's Reign.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W., 4 P.M.—Dr. Arkle: On Pleural Effusion.

**THURSDAY.**

BRITISH GYNÆCOLOGICAL SOCIETY, 20, Hanover Square, W., 8.30 P.M.—Specimens by Mr. Jessett and Dr. Macnaughton-Jones. Papers—Dr. Snow: On the Value in Abdominal Malignant Disease of Exploratory Laparotomy *per se*. Dr. R. T. Smith: Notes of a Case of Puerperal Septicæmia Treated by the Antistreptococcus Serum.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 P.M.—Dr. Cagney: Some Resources in the Diagnosis of Nervous Diseases.

LONDON POST GRADUATE COURSE, British Institute of Preventive Medicine. 101, Great Russell Street, W.C., 3.30 P.M.—Dr. Allan Macfadyen and Mr. A. G. Foulerton: On the Clinical Significance of Proteid Substances in the Urine of Disease, etc. Cleveland Street Sick Asylum, 5.30 P.M.—Dr. Mitchell Bruce: Clinical Lecture.

**FRIDAY.**

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 P.M.—Dr. Frederick Taylor: A case of Chronic Hydrocephalus, fatal at the age of 16. Mr. C. B. Lockwood: A case of Wound of the Mesentery, with subsequent Gangrene of the Intestine. Mr. Howard Marsh: A case of Free Incision and Evacuation of the Intestine in the course of an Operation for Strangulated Hernia. Mr. Leonard A. Bidwell: Two cases of Irreducible Femoral Hernia in which the Vermiform Appendix alone occupied the Sac.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, 3 P.M.—Dr. Arnold Chaplin: Clinical Lecture on Chronic Pulmonary Induration.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory. King's College, W.C., 3 to 5 P.M.—Professor Crookshank: Examination of Air, Soil, and Water (Plate Cultivations).

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Dr. Colman: General Symptomatology.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office order and stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.*

BIRTHS.

CARR.—On March 14th, at Julfa, Isfahan, Persia, the wife of Donald W. Carr, M.B., B.C.Cantab. (Church Missionary Society) of a daughter.

FOSTER.—On April 21st, at San Remo, Italy, the wife of Michael George Foster, M.D., of a son.

WAGGETT.—On May 4th, at 45, Upper Brook Street, the wife of Ernest Waggett, M.B., C.M.Camb., of a daughter.

MARRIAGES.

DAGGETT—DUNHILL.—On April 29th, at Arksey Parish Church, by the Rev. T. Todd, Vicar, Henry Ingledew Daggett, M.A., M.B., of Boroughbridge, York, to Mary Dunhill, of Arksey, Doncaster.

KNIGHT—JENNISON.—On the 29th April, at St. James's Parish Church, Gorton, by the Rev. J. E. Mercer, Ernest Knight, M.B.Lond., of Brentwood, St. Annes-on-the-Sea, fourth son of Jonas Knight, J.P., of Ashton-under-Lyne, to Rachel, only daughter of the late William Jennison, of Belle Vue, Manchester.

OSBORN—PARSONS.—At St. Bartholomew's Church, Dover, on the 28th April, by the Rev. E. G. L. Mowbray, Vicar, and the Rev. G. James, Vicar of St. Michael's, Gloucester, Francis Arthur Osborn, M.R.C.S. and L.R.C.P., son of Ashby G. Osborn, M.R.C.S., Dover, to Hilda Venetia, eldest daughter of Chas. Parsons, M.D., Treasurer to B.M.A., and Venetia Digby Parsons, of 7, Waterloo Crescent, Dover.

DEATH.

CARTER.—On May 4th, at 2, Belgrave Crescent, Scarborough, Deputy Surgeon-General H. Vandyke Carter, Q.H.S., Bombay Army, Retired, in his 66th year.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

FITZNIBLICK asks how appointments to "coolie ships" can be obtained?

TENDON asks for advice as to the best apparatus, and at the same time not too expensive, for a case of wry-neck after tenotomy.

ENQUIRER would be glad to learn the personal experience of any members as to the suitability or otherwise of Bexhill-on-Sea as a permanent residence for a plethoric gentleman of 60 who suffers from chronic gouty pharyngitis.

DR. M. R. LEADER (Worthen, Shrewsbury) would be glad to know if there is any institution where an epileptic girl, aged 17, whose mind is slightly affected, could be received, as she is not sufficiently insane to require confinement in an asylum. Very little, if anything, could be paid towards her maintenance.

N. H. R. asks: Would any of your readers inform me on the following: 1. The name and address of any trustworthy medical agent in Naples or Rome? 2. Any good work on "food" as suitable for a medical man to read? 3. Can a graduate or licentiate in medicine or surgery keep a shop for compounding, selling, and filling physicians' prescriptions?

AMBULANCE, who is an ambulance surgeon, wishes to know whether there is any objection, according to professional ethics, to his allowing the division of the St. John Ambulance Corps to which he is surgeon to use an unoccupied stable at the side of his house as a station for an ambulance litter that has just been purchased by subscription in the neighbourhood.

*** There does not appear to be any reason why our correspondent should not permit his stable to be used for this purpose if he chooses.

TREATMENT OF BALDNESS.

DR. B. WALKER (Kirkby Stephen) wishes to ascertain from members of the Association who have had experience of this affection if they have hit upon any method of treatment which has fully satisfied them.

CHANGE OF ADDRESS.

X.Y.Z. wishes to know whether it is contrary to medical ethics when changing residence to put up a board on the new house bearing these words: "To be occupied in May by Dr. ——." Also what form a circular to one's own patients should take.

*** A medical practitioner, on changing his residence, might send visiting cards to his own patients intimating this change without violating any accepted custom. He may also, on removing from a house where he has been carrying on his practice, notify his proposed change of address to patients by means of a board placed outside a short time before his removal. But it is not in accordance with the best usages of the profession to put a notice outside an unoccupied house that a medical practitioner will shortly take up his residence there.

## ANSWERS.

F. D. M.—We know of no written law prohibiting unqualified persons from practising as and styling themselves veterinary surgeons in Assam. There are now diploma-granting bodies in India, and it is probable that the title will soon be protected by law. At present the quack occupies a very low position.

MEDICAL RETICENCE.

UNDER the circumstances of the case referred to by our correspondent "A. D.," we think that he adopted the proper course; and indeed, entertaining the views which he did, it would have been unwise to adopt any other.

PAINFUL FLATULENCE.

DR. PHILIP MIALL (Bradford) writes to suggest that the case of pain from flatulent distension described by "Verax" may find benefit from sulpho-carbolate of sodium in 15-gr. doses an hour before meals. If the motions are deficient in bile, sulphate or phosphate of soda in drachm doses can be recommended. In some cases of the kind he has found it advisable to forbid liquid at meals, allowing hot or cold water an hour or more before meals.

VACCINATION WITH GLYCERINED LYMPH.

DR. JOHN WOODMAN (M.O.H. Exeter) writes: In view of the present idea of the use of this form of lymph, I may, perhaps, be allowed to call attention to a letter of mine to a medical journal dated November 11th, 1876, in which I speak most highly of its value. I say: "The lymph keeps much better than the ordinary lymph." I also state I used successfully, to vaccinate a family of five, a dilution of 1 part of vaccine lymph (human) to 4 of glycerine. This may show how long ago this dilution was used.

LOCAL GOVERNMENT MEDICAL APPOINTMENTS.

QUAESITOR.—So far as we can tell there are 16 medical appointments in the office of the Local Government Board for England, 5 in that for Ireland, and 3 in that for Scotland. Of this total of 24, many seem to be filled by men specially qualified in public health and State medicine, and diplomas in these subjects would undoubtedly stand any applicant for appointment under these Boards in good stead. We know of no way of securing "the higher appointments" under the Boards, as we believe that, in the case of the English Board at least, the entry to the office is in the capacity of medical inspectors, with whose duties the public have

now been so long familiar by the results published from time to time—duties which call for the exercise of many qualities of a high order. We should imagine, therefore, that degrees, diplomas, and special honours, whilst certainly of great moment, are by no means the only determining factors in the selection of candidates to fill vacancies; but that regard is had to a man's antecedents in the direction of duties of a sort analogous to those which he will be called upon to perform in the varied services of the Board. One can think of a candidate qualified medically in the barest possible degree, and yet capable of the greatest achievements in public health matters; but recent appointments point to a high standard of medical and special attainments being set up.

### FOUNTAIN PENS.

WITH reference to "F.C.W.'s" inquiry as to a reliable fountain pen, Dr. Moris Gamble, Middlesbrough, has called our attention to a pen manufactured and sold by Mr. W. S. Hicks, 8 and 9, Snow Hill, London, which seems to possess the qualities required. It is called the "Quill," and is fitted with a gold nib, which can be had of any type preferred. We have found the pen clean and easily started. It carries a large amount of ink, and is of convenient size. Like all the fountain pens, as distinguished from stylographic pens with which we are acquainted, it must be carried upright.

## NOTES, LETTERS, Etc.

### DR. RENTOUL'S ELECTION EXPENSES AND THOSE INCURRED IN OPPOSING THE FOUR MIDWIVES BILLS.

MR. ALFRED COX, M.B., Honorary Secretary (Cotfield House, Gateshead-on-Tyne), writes: I enclose the final list of subscriptions to the above fund. It will be seen that the net result falls short of the sum asked for (£109 18s. 5½d.) by about £6. I beg to thank the subscribers to the fund, especially those who by their helpful letters proved to me that Dr. Rentoul has at his back a considerable number of practitioners who are willing to work and give for the cause of professional reform. I wish also to thank Mr. Colin Campbell, of Saddleworth, Yorkshire, and Dr. J. L. Speirs, of Gateshead, who have examined my accounts and certify them to be correct; also yourself who have enabled me to give publicity to this fund. Sums received since last list:

| | £ | s. | d. | | £ | s. | d. |
|---|---|---|---|---|---|---|---|
| J. Atkinson, Crewe ... | 0 | 10 | 0 | J. E. S. Passmore ... ... | 0 | 5 | 0 |
| L. A. B. ... ... ... | 0 | 10 | 6 | | | | |
| Morris Griffith Davies, Penygroes ... ... | 0 | 5 | 0 | Total sum received ... | £109 | 1 | 6 |
| Gainsborough and District Medico-Ethical Society, per J. E. S. Passmore ... ... ... | 1 | 1 | 0 | Expenses (printing circulars, postage, etc.) ... | 5 | 16 | 9 |
| | | | | Nett total ... ... | £103 | 4 | 9 |

### FIRST AID TO THE WOUNDED.

BRIGADE-SURGEON A. KNIGHT PRESCOTT (Gravesend) writes: In a few days' time there is to be a *fête* in honour of the St. John Ambulance Society. In a few days' time the term of my official life will have come to a close; and I should like it to be distinctly known that I claim to be the originator of lectures on "first aid to the wounded." Many years ago while *en route* for one of England's distant wars, I gave several lectures with practical instruction to the Battery of Royal Artillery, of which I was then the medical officer. During the fighting the instruction imparted proved of use, and several years afterwards a sergeant, R.A., thanked me, saying that the information he had received from me saved his life when his arm was badly shattered by a gun accident at a review. The late Surgeon-Major Shepherd consulted me when about to give "aid lectures" at Woolwich, as he was aware that I had given the subject some attention, and had also written the surgical chapters for two artillerist's manuals.

### FASHION IN THE CLIMATIC TREATMENT OF PHTHISIS.

DR. D. W. SAMWAYS (Mentone, France) writes: Dr. William Murrell concludes a recent communication on phthisis with these words: "The sleeping cars which convey large numbers of phthisical patients to the Riviera and other popular health resorts, at certain periods of the year, are not above suspicion, and much greater care should be taken in having them aired and disinfected than is at present the case."

Equally consoling was Dr. Heron's speech at the British Balneological and Climatological Society, on The Climatic Treatment of Phthisis. The BRITISH MEDICAL JOURNAL of February 27th reported from it as follows: "Patients, he thought, went to the Riviera, with its delightful climate, to slide down to the grave as quietly and comfortably as they could. He did not think that life there was calculated to cure tuberculosis."

After practising a whole season in Mentone, and treating many and various maladies, I find I have not had a case of phthisis. A leading medical man, who has practised here for many years, says the proportion of phthisis cases he sees is not greater than in an ordinary practice in England. Where are these large numbers of phthisical patients who Dr. Murrell considers are rendering sleeping cars suspicious? Where those whom Dr. Heron pictures tobogganing quietly and comfortably to the grave?

In spite of receiving these imaginary crowds of invalids to put up our mortality, there have been, since the season commenced in October, but four deaths among the English and Americans from all causes—one English and one American only having died from phthisis, and Mentone has been exceptionally full of people. Visitors are commonly told that Mentone is crowded with invalids, and that it is well to at least sleep out of it. They have often told me when here, however, that there are far more invalids to be seen at Hastings, Bournemouth, and other English health resorts.

At the commencement of the year four members of Guy's Hospital staff were here with their wives, and made an average stay of three weeks. Mentone is now probably safer in this respect than England, for in the event of any patient dying here of phthisis or other infectious disease, his room is rigorously disinfected, and left perfectly safe for any subsequent occupant. Shortly we hope to similarly have all rooms disinfected which have been occupied for any period by phthisical patients.

As regards the streets, Cornet, of Berlin (BRITISH MEDICAL JOURNAL, February 6th, 1897, p. 351) has shown that "the dust in streets obtained from places where consumptives were wont to spit might be neglected so far as any risk of tuberculous infection is concerned."

The majority of phthisical patients one meets here are French, and they generally avoid the hotels frequented by the English, or take private lodgings. One laments, as one sees the great improvement many of them make, that the fashion for Switzerland, now almost a mania, deprives many English patients, for whom the Riviera is specially suited, of their best chance of recovery. When the fashion again sets this way, it is to be hoped, for the patients' sake, it will not take the indiscriminate form for Mentone which it now does for Switzerland, or that the fear of contracting phthisis in Switzerland may not commence there when all the patients again come here.

### MEDICAL FEES IN CEYLON.

M.O. writes to call attention to the fees medical men in Ceylon are bound to accept from wealthy proprietors and managers of tea estates by order of the local Government, reckoning the rupee when the scale was fixed as equal to less than 1s. 2d. For many years, while coffee was cultivated, the planters of Ceylon had a private scheme of medical aid to proprietors and managers of estates and the labourers thereon, but as they failed to maintain it satisfactorily, in the interests of the immigrant labourers the local Government established a scheme of medical aid by their own medical officers, most of whom receive an annual salary of about £100 with a travelling allowance of about £25 per annum. Those in charge of hospitals receive an additional allowance of about £25 per annum. Immigrant and other labourers have to be attended by the medical officers without any extra remuneration. The Government undertake the management of the scheme for a duty levied at the customs in Colombo of about 1½d. on each pound of tea exported. Attendance on wealthy proprietors and managers of estates and their families and servants has to be rendered for the fees mentioned in the scale at any time of the day or night, in any kind of weather, and despite any amount of official work, including judicial duties and attendance at the nearest police court, which is often over twelve miles from the hospital or dispensary, and not accessible except by coach, or in a few instances by rail, not to mention attendance on persons not connected with tea estates, for example, Government servants, for attendance on whom, too, a scale is fixed, hardly more liberal than that fixed for the persons mentioned therein.

Some medical officers receive about £50 to £75 per annum and a travelling allowance of about £12, and are bound to accept the same fees. Above the salaries and allowances mentioned in the higher grade there is no increase till the next rank in the department is reached, which, owing to vacancies occurring very rarely, renders promotion very slow.

I trust the publication of this letter and scale in our valuable medium for exposing our grievances may result in those proprietors and managers of tea estates residing at home on large incomes, offering to pay on behalf of their employees more liberal fees to medical officers appointed by the Government to attend those engaged in the cultivation of tea in Ceylon.

*Scale of Fees to be Paid to Medical Officers in the Estate Branch of the Civil Medical Department, Ceylon.*

Wife of a proprietor or manager in her accouchement, Rs. 30.

For one visit on the estate to proprietors, managers, their wives and children, Rs. 3.50, with a payment of 37½ cents (equal to about 4½d.) per mile each way.

The maximum fee to be charged is Rs. 15.

For advice at the dispensary or by letter (this is construed as meaning extraction of teeth, washing out the ear, dressing—including suturing—a wound, etc.), to the persons above mentioned, Rs. 2.

For assistant managers, subordinates employed on the estate other than immigrant labourers, domestic servants, their wives and children:

For one visit on the estate, Rs. 2.50, with a payment of 57½ cents per mile each way.

For advice at the dispensary or by letter, Rs. 1.

The wife of any of the above in her accouchement, Rs. 15, with a payment of 37½ cents per mile each way.

*** We regret we are not sufficiently acquainted with medical matters in Ceylon to enable us to pass any judgment on the subject matter of this letter. The fees seem to be absurdly small, judged by an Indian standard. If the practitioners are of similar status to the Indian hospital assistant the fees would still be insufficient.

### BICYCLE SADDLES.

MR. HERBERT H. JENNINGS asks: Will you kindly inform me what is the best form of bicycle saddle for active riding (due regard being paid to weight), and where can it be obtained?

*** We believe that Mr. E. B. Turner considers the best saddle for active riding is the "Brookes's B. 28," size either 2 or 3, according to size of rider. It can be got at any cycle depôt.

CYCLING SURGEON writes: I feel very strongly that this subject has not received from the profession nearly the attention it deserves in view of the frequent and increased inquiries and complaints we are receiving of the bad effects of cycling on the new riders—I mean the effects of pressure upon the delicate organs between the ischial tuberosities upon which, in the ordinary peaked saddle, the whole weight of the rider is generally carried. I myself have seen several cases of retention of urine and of numbness and loss of sensation in the penis and perineum, and in every case have traced its origin to the use of the unyielding saddle peak.

It is difficult to understand why ladies, whose sense of modesty would not for one moment allow them to sit astride a horse saddle,

will suffer themselves to be persuaded by the ignorant teacher or seller of cycles to sit astride the far more dangerous and at least equally immodest cycle saddle, with its wedge-shaped and—except for racing purposes—useless peak. There are rationally-constructed saddles, and the example of such use is set by the "highest ladies in the land."

I feel constrained to write you more particularly because my experience of the Pattison saddle is so entirely opposed to that of Dr. Roberts. I look upon it as unsuited for ladies. It gives two narrow ridges to sit astride instead of one broad one, as in the ordinary saddle, and every cyclist of experience knows what that means. The only advantage is that, while one remains sitting exactly true, and so long as there is no leaning a b.t forward, the central line is free from pressure, while the weight is still carried upon the perineum. My own experience of this saddle was fairly satisfactory at first and for short rides; but when I once got my saddle wet, the leather stretched and let me down upon a piece of metal the makers have recently inserted across the centre with the idea of keeping the two ridges apart.

I believe I am correct in stating this in connection with the above. Mr. E. B. Turner was induced by the experience of a few short trials in which it would feel all right to speak well of it, but I heard afterwards from a friend who met him during a long ride from home. My belief at present is that there is only one cycle saddle on the market in which a knowledge of anatomy combined with long cycling experience is combined in the designing, and that is the "Henson Anatomical Saddle." The price is high, namely, 25s., and that is why the makers will not fit it unless compelled. I obtained mine from Messrs. T. Dunlop and Co., of 20, Beulah Hill, S.E., who supply them to members of the profession for 21s., carriage paid: and my experience is that both for ladies and gentlemen it is aptly described by the editorial notice I first saw of it in *Cycling*, namely, "Luxuriously comfortable."

*** We have referred this letter to Mr. E. B. Turner, who writes: It is absolutely impossible to lay down any rule as to bicycle saddles; each rider must have that which suits him. *Quot homines tot*—saddles. I know of about a dozen different patterns, each of which has its own devoted admirers, and each of which is considered absolutely unsuitable by many others. I have seen all the ills mentioned by your correspondent, and in each case I found that there was no attempt whatever at saddle adjustment, and that 10 minutes with a spanner put things right. Many riders, especially women and novices, ride with too long a reach, and with the peak of the saddle too "cocked," and then blame the saddle for what is really the fault of their wrong position. After months (I may say years) of trials and experiments, I have come to the conclusion that if the saddle be large enough and the position and reach right, it makes very little difference what the make of the saddle is. A good rider properly adjusted could use an eggshell for his peak and not break it, putting all his weight on the proper places, and yet having the security in steering which a proper peak gives. The Henson saddle is no exception to what I have stated above; some swear by it, others would rather not ride at all than use it.

### PROFESSOR DEWAR ON LIQUID AIR.

N beginning a course of lectures on Liquid Air as an Agent of Research at the Royal Institution on April 29th, Professor Dewar said that it was a mistake to suppose that the establishment of the various cryogenic laboratories that now existed in Europe was due to a desire merely to attain very low temperatures. Rather the desire was to investigate the conditions of gases at all temperatures, and thus carry on the work of Faraday, Regnault, and Dr. Andrews of Belfast. The laws of Boyle and Charles, connecting together the volume, pressure, and temperature of a gas, broke down as the liquid state was reached, and indeed before, and for them Van der Waals, working on the careful measurements made by Andrews, proposed a new formula which connected the gaseous and liquid states. From this it was possible to calculate the critical temperature of a gas, above which no amount of pressure could liquefy it, and the work of Cailletet and others consisted in the experimental verification of the results thus obtained. Van der Waals also predicted that there would be found one isothermal line which would express the pressure temperature, and volume relations of all gases, and Amagat's work had confirmed this prediction.

Referring to the difficulty of getting to very low temperatures, the lecturer said that if we had liquid hydrogen to-morrow we should still be a long way from the zero of absolute temperature, and should have no conceivable way of reaching it. No liquefied gas could be utilised to produce a fall of temperature more than one-third to one-half its absolute critical range. Hence the lowest temperature that could be obtained by means of liquid hydrogen would still leave us some 20° above the absolute zero. In the course of the experiments which occupied the rest of the lecture, Professor Dewar illustrated the application of extreme cold to the purposes of analysis by showing how with its aid certain constituents, such as ethylene and marsh gas, could be separated out in a liquid form from a mixture like coal gas. He also showed the extreme contraction produced by cold in gaseous and other bodies by cooling one end of a tube full of ethylene, the other end being immersed in mercury. When the ethylene became liquid the mercury had risen in the tube substantially as high as in the barometer, proving the vapour pressure to be practically as small as in the Torricellian vacuum.

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## BOOKS, ETC., RECEIVED.

A Course of Practical Histology. By E. A. Schäfer, LL.D., F.R.S. Second edition. London: Smith, Elder, and Co. 1897. 7s. 6d.

A Treatise on the Medical and Surgical Diseases of Infancy and Childhood. By J. L. Smith, M.D. Eighth edition. London: H. K. Lewis. 1897. 21s.

South African Medical Directory for 1897. Cape Town: *Cape Times* Office. 1897.

The North-Western Provinces of India, their History, Ethnology, and Administration. By W. Crooke. London: Methuen and Co. 1897. 10s. 6d.

Lehrbuch der vergleichenden Pathologie und Therapie des Menschen und der Hausthiere. Von Dr. G. Schneidemuhl. Dritte Lieferung. Leipzig: W. Engelmann. 1897.

A Clinical, Pathological, and Experimental Study of Fracture of the Lower End of the Radius. By J. B. Roberts, A.M., M.D. Philadelphia: P. Blakiston, Son, and Co. 1897. $1.00.

*** In forwarding books the publishers are requested to state the selling prices.

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# REMARKS
ON
# APHASIA AND WILL-MAKING.

By BYROM BRAMWELL, M.D., F.R.C.P.Edin., F.R.S.Edin.,
Physician to the Royal Infirmary, Edinburgh; Lecturer on the Principles and Practice of Medicine in the School of Medicine, Edinburgh; etc.

I.

In cases of aphasia important medico-legal questions, such as the ability of the patient to manage his affairs, to make a will, etc.,[1] every now and again arise.

In this lecture I propose to consider more particularly the question whether an aphasic patient is able to make a will or not. This question, which is one of the most difficult problems which the medical jurist is called upon to solve, usually includes the subordinate question whether the patient is able to manage his affairs; for, speaking from a medical point of view, it seems to me that if a patient is able to make a will he is, in most cases at all events, so far as his mental condition alone is concerned, qualified to manage his affairs, though in many cases, owing to his aphasic condition—the difficulty in communicating with the patient which the aphasic condition entails, and the paralytic condition with which the aphasia is so often associated—it will be convenient and advisable, more especially when his affairs are complicated, that they should be managed for him.

It is impossible to make any general statement regarding the will-making power of aphasic patients which will apply to all cases. Some aphasic patients are able to manage their affairs and to make a will; others are not: each case must be decided on its own merits.

In reference to this point Dr. Mills, in a valuable and suggestive paper, states:[2] "It will be seen from this hasty glance at the scanty literature of the subject, that the medico-legal questions which may arise in connection with the study of aphasics are somewhat numerous, although they are by no means all embraced in this review. They include many of those which the insane also present for solution, but with others especially belonging to the aphasias. At the outset it should be borne in mind that we are not dealing with some clearly defined entity called 'aphasia.' It is not possible to fix upon any general standard of capacity or responsibility for one suffering from an affection simply labelled 'aphasia.' Even correctly labelling an individual as insane does not decide as to his capacity to have certain privileges, or to do or not to do certain acts—for example, to have his personal liberty, or the control of his estate, to get married, or to make a will. In a practical as well as in a philosophical sense questions of sanity and insanity are relative, and so likewise are those presented by aphasics. They will depend not only on the form of the disorder, but also upon its degree and special characteristics in a particular case. 'The affections of speech met with are very different in degree and kind,' says Hughlings Jackson,[3] 'for the simple reason that the exact position of disease in the brain and its gravity differ in different cases; different amounts of nervous arrangements in different portions are destroyed with different rapidity in different persons. There is, then, no single well defined "entity"—loss of speech or aphasia, and thus, to state the matter for a particular practical purpose, such a question as "Can an aphasic make a will?" cannot be answered any more than the question, "Will a piece of string reach across this room?" can be answered. The question should be, "Can this or that aphasic person make a will?"'"

In connection with the will-making power of aphasic patients the following considerations must be kept in view:

1. That several different forms or varieties of speech defects are included under the common term aphasia—namely, word deafness, word blindness, motor-vocal aphasia, and agraphia; and that in these different forms or varieties the will-making capacity is by no means the same. Hence in each particular case it is necessary to determine the exact form of aphasia which is present.

2. That it is necessary to draw a distinction between the subcortical (pure or isolated) aphasias on the one hand, and the cortical (true) aphasias on the other; for in the former (subcortical) forms of aphasia internal thought and speech are usually unaffected by the aphasic defect; whereas in the latter (cortical) internal thought and speech are usually in some degree, and often profoundly, affected.

3. That in some cases of aphasia these different varieties of speech defect are met with in an isolated form; whereas, in other forms of aphasia, they are combined.

4. That different cases of aphasia differ not only as regards the nature of the speech defect but also in degree—that is, as regards the severity of the special speech disturbance by which they are characterised.

5. That in some cases of aphasia there is great difficulty in communicating with the patient, in making him understand the questions which we desire to put to him; and that in other cases the patient has great difficulty in communicating with us, in making us understand his wishes and ideas; and that in some cases both of these difficulties are combined.

6. That in some cases of aphasia the intellectual faculties are little if at all impaired, while in others they are profoundly altered.

7. That in many cases the emotional faculties are markedly disturbed; and that in other cases, as a result of the brain disturbance (the brain lesion on which the aphasia depends or with which it is associated) the judgment and affections of the patient are perverted, so that he takes unreasonable likes and dislikes to relatives, friends, persons who are in contact with him, etc.

It will be readily understood that, in consequence of these circumstances, there is in many cases of aphasia very great difficulty in forming a correct estimate of the mental condition of the patient and of his capability of making a will. And here it may perhaps be well to refer in more detail to the mental condition of aphasia patients.

### The Mental Condition of Patients Affected with Aphasia.

As I have just stated, this varies considerably in different cases. In some cases, the mental and intellectual faculties (memory, reasoning power, judgment, etc.) are comparatively little, if at all, disturbed; in others, they are profoundly altered. Between these two extremes there are all degrees of difference. In short, it is impossible to make any general statement regarding the mental condition and mental power of patients affected with aphasia further than this, that in most cases the mental and intellectual faculties are impaired in some, and in many cases in a profound, degree.

Speaking generally, the impairment of the mental and intellectual faculties is greater in cases of sensory aphasia (word deafness and word blindness) than in cases of motor aphasia: while in cases of total aphasia (combined sensory and motor aphasia) the mental impairment is always very profound.

Further, in cases of "pure," isolated, or subcortical aphasia (pure word deafness, pure word blindness, and pure motor aphasia), the mental condition and intellectual faculties are (other things being equal) much less profoundly affected than in cases of "true" or cortical aphasia (true word deafness, true word blindness, and true motor vocal aphasia), since in the former case (the "pure" aphasias) internal language (which is essential for the carrying on of thought) is not, while in the latter case (the "true" aphasias) it is usually more or less profoundly affected.

Again, other things being equal, the greater the degree of the aphasic defect the greater the mental impairment and the less the will-making capacity of the patient. This is, however, a very general statement; for the degree of the aphasic defect is of much less importance than the form or variety of the aphasic defect. To give an example, a moderate degree of word deafness is in most cases more likely to interfere with the will-making power than a much greater degree of word blindness or of motor aphasia.

Further, the age of the patient, the condition of the cerebral arteries, and the condition of the brain tissues prior to the onset of the cerebral lesion and of the aphasic symptoms, must all be taken into account. In young subjects, and in cases in which the aphasia is due to embolic infarction, the cerebral arteries and brain tissues are, prior to the onset of the brain lesion, sound, and the conditions for compensation

and restoration of the speech defects are consequently favourable; whereas, in old and debilitated subjects, in cases in which the brain lesion and the aphasic symptoms are the results of cerebral hæmorrhage or thrombosis, the cerebral arteries and brain tissues are usually more or less extensively diseased, and the conditions for compensation and the restoration of the speech defects are unsatisfactory. It is obvious that in the former class of cases the mental deterioration which results from the aphasic condition and from the brain lesion on which the aphasic condition depends, and with which it is associated, will usually be less marked than in the latter group of cases.

From this statement it will be gathered that the mental condition and intellectual faculties of aphasic patients may be deranged, deteriorated, or annulled either as the result of:

(1) The aphasic condition itself—that is, the interference with internal speech and thought which the aphasic condition produces; or

(2) The general disturbance of the mental and cerebral functions which the brain lesion, on which the aphasic symptoms depend or with which the aphasic symptoms are associated, produces.

The more extensive the brain lesion, other things being equal, the more profound the mental disturbance and deterioration due to this latter cause. For example, in cases of motor aphasia due to embolic plugging of the artery which supplies Broca's convolution, the general mental enfeeblement will necessarily be less marked than in cases of motor aphasia with complete right-sided hemiplegia, in which there is extensive softening of the whole of the motor area of the cortex. And again, in cases of total aphasia with right-sided hemiplegia, in which the softening involves not only Broca's convolution and the motor area, but also the auditory and the visual speech centres (angular gyrus and superior temporo-sphenoidal convolution), the general mental enfeeblement—apart from the mental impairment due to the aphasic condition, which, in cases of "total" aphasia of this kind, is sufficient *per se* to produce profound mental deterioration—will necessarily be much greater than in cases of motor aphasia, in which the lesion is limited to Broca's convolution.

The extent of the mental impairment which may be developed in different cases of aphasia depends, therefore, upon the form of the aphasia (whether (*a*) sensory, motor, or total, or (*b*) cortical or subcortical); the degree of the aphasic defect; the extent and severity of the brain lesion or lesions on which the aphasic and other associated brain symptoms depend (whether single and localised or multiple and diffused); the condition of the cerebral arteries and of the brain tissues (other than the arteries and brain tissues which are directly implicated by the lesion which is the cause of the aphasia); the age and general vitality of the patient (more especially the condition of the heart and arteries).

From this general statement it will be obvious that in trying to determine the mental condition of aphasic patients each case has to be judged of individually and on its own merits.

We have seen that in some cases of aphasia the patient is unable to understand spoken language, and that in others he is unable to understand written language, and that in others again these two forms of sensory aphasia (word deafness and word blindness) are combined. In cases of combined sensory aphasia the patient is cut off from the external world so far as the ordinary channels of communication by speech are concerned. The only means of communicating with him is by pantomime (by signs), and it is difficult to make him understand any except simple and elementary questions communicated in this way. Further, in many cases of sensory aphasia in which the lesion does not directly involve the motor speech centres the emissive speech functions—the patient's power of speaking and writing—are more or less, and in some cases profoundly deranged, usually in the form of paraphasia, of agraphia or paragraphia, the result being that the physician has difficulty in understanding what the patient wishes to say. On the other hand, in cases of motor aphasia in which the patient is unable to speak and to write, or only able to speak and to write very imperfectly, the only means by which he can spontaneously communicate his ideas to (that is, make himself understood by) another person is by means of pantomime (signs), a very elementary and unsatisfactory means of communication if the patient should wish to express any elaborate or complicated mental idea. Again, in some cases of motor aphasia due to destruction of Broca's convolution the action of the sensory speech centres is impaired, though usually only in a slight degree. It consequently follows that some patients affected with motor aphasia who are quite able to understand simple questions, spoken or written, are unable to understand complicated questions or complicated written passages.

In cases of sensory aphasia, then, the physician has great difficulty in making the patient understand the questions which he wishes to put to him, and in cases of motor aphasia the physician has great difficulty in understanding any elaborate ideas which the patient wishes to express, since he can only express them by means of signs (pantomime).

In consequence of these difficulties of communication, as they may be termed, it is necessarily very much more difficult in the case of aphasic patients than in ordinary cases of brain disease in which the speech functions are intact to form a correct opinion of the mental condition and state of the intellectual faculties.

Further, it must be remembered, as I have more than once pointed out, that in many cases of aphasia the cerebral lesion not only disturbs the speech functions or destroys the speech centres, but produces more or less marked and widespread deterioration of the mental and intellectual faculties.

In many cases of aphasia and hemiplegia, the emotional faculties are distinctly altered; there is often impairment of cerebral and emotional control; many aphasic patients laugh and cry too easily; they are irritable, they get angry or excited about trifles, they take likes and dislikes to those who are in contact with them without obvious or sufficient cause.

In other cases, as I have already pointed out, the memory, reasoning power, judgment, and in fact all the intellectual faculties are more or less, and in some cases profoundly, disturbed. In some cases a condition of mental dulness, which can only be characterised as dementia, is developed. In many cases the powers of attention and mental concentration are markedly impaired. In many cases the brain power is easily exhausted, and the patient who at the commencement of a conversation or examination is mentally clear and alert may, in the course of a short time, become so mentally confused or dull that he is unable to understand what is said to him or to express himself so that he can make himself intelligently understood. In other cases the will is enfeebled; some aphasic patients assent to propositions or proposed lines of action to which they would not have assented before the onset of the aphasia; or they fail to dissent, or only feebly dissent, from other propositions or proposed lines of action from which they would have vigorously dissented before the onset of the aphasia.[4] In some cases, the patient is facile and childish, and easily imposed upon. In other cases, the patient is unreasonably obstinate, insisting upon doing things contrary to the advice of his medical attendant, etc. In some cases there are hallucinations and delusions. In short, a condition which it may be impossible to distinguish from insanity may be developed. The condition which has been termed mind blindness is an excellent illustration in point. In a case of this kind which I have recorded, the patient's friends were firmly convinced that she was insane, and so no doubt she was for a time, so far at least as some of her mental operations were concerned.[5]

For these reasons, then (because of (*a*) the great difficulty that there is in communicating with some aphasic patients; (*b*) the great difficulty that some aphasic patients have in communicating with us; and (*c*) because of the mental impairment which is in many cases of aphasia associated with the speech defects), it is often most difficult to form a correct estimate of the mental condition of the patient, and to determine in those cases in which the mental power is impaired, as it necessarily is in many cases, whether the degree of the impairment is sufficient to interfere with his will-making capacity.

I may further add that great patience, repeated examina

tions (for, as has just been stated, the brain power of aphasic patients is speedily exhausted), and the most scrupulous fairness and exactness in eliciting the facts, and in drawing a conclusion as to the significance of the facts, are absolutely essential in order to form a true and correct estimate of the patient's mental condition, and of his will-making capacity.

There are too many sources of fallacy. For example, the recurring, emotional, or automatic utterances of patients affected with motor aphasia may easily be taken for intellectual expressions (propositions): whereas, as we have seen, they may have no intellectual value whatever. And, again, if the patient is able to understand simple questions, and to respond intelligently to simple questions by means of signs (pantomime), the physician may not unnaturally perhaps, but far too hastily, conclude that the reasoning power and intellectual faculties are altogether unaffected.

The literature of aphasia and will-making is very scanty and unsatisfactory. Although our knowledge of aphasia has enormously increased during the past few years, very little has been published on the medical jurisprudence of the subject; and this is not to be wondered at, for, on the one hand, very few medical jurists have an intimate acquaintance with aphasia—one of the most difficult and complicated questions in the whole range of medicine; and, on the other hand, the neurologists who have made a special study of aphasia have, with rare exceptions, almost entirely ignored the medico-legal side of the question.

The lectures of M. Legrand du Saulle are by far the most important treatise on the subject with which I am acquainted. But these lectures were published fifteen years ago, before much of our modern knowledge of aphasia was acquired. M. Legrand du Saulle sums up his views with regard to the ability of aphasic patients to make a will in the following general conclusions:

1. The aphasic may be supposed to have preserved his intelligence, or a great part of his intelligence, when he remains faithful to his old habits of life, and when, in spite of the difficulty of making known his thoughts and his wishes by word or by writing, he has had the care of his affairs, has been able to watch over his interests, to form sensible plans, to appreciate adequately persons, events, or things, only to give his confidence and his friendship willingly, and to continue more or less the usual occupations of his life, when, in a word, he differs little, if at all, from his former self.

2. There is a legitimate reason for suspecting the mental condition of the aphasic, who, without any interest in the business and friendships of yesterday, without any anxiety for the undertakings or the difficulties of to-morrow, has become indifferent, apathetic, negligent, forgetful of proprieties, suspicious and credulous, irritable and passive, who can no longer look after his interests and render an exact account of his business or his fortune, who shows himself emotional and tearful on the slightest pretext, who has manifested distinct alterations in his sentiments and affections and general conduct in consequence of the cerebral lesion, alterations which are notoriously at variance with the tendencies, the way of living, and all the antecedents of the individual.

3. The former of these aphasics is capable of making a valid will; the second, a will very debatable, or absolutely invalid.*

With these preliminary remarks let us pass to the consideration of the individual forms of aphasia. Let us consider the methods of procedure which it is desirable to pursue in order:

(1) To determine whether an aphasic patient is mentally capable of making a will, and of disposing of his affairs; and (2) To correctly ascertain his wishes and desires—how he wishes to dispose of his possessions.

In studying any complicated subject, it is convenient to begin with the simple and to proceed up to the complex. We will first then consider cases of motor aphasia in which the mental faculties are usually far less deranged than in cases of sensory aphasia, and in which there is usually much less difficulty than in cases of complete sensory aphasia in ascertaining and understanding the wishes and desires of the patient.

### The Capacity for Will-making in Cases of "True" or Cortical Motor Aphasia.

We have seen that in different cases of motor aphasia the degree of the speech defect is very variable. In some cases the speech defect is comparatively slight; the patient is able to make use of individual words, and perhaps short sentences, and to write individual words or disjointed sentences. In rare cases in which the motor vocal aphasia is complete, there is no agraphia. In cases of complete motor aphasia with agraphia, the patient may only be able to say a few words, such as his own name, "Yes," or "No," some recurrent utterances or emotional expressions.

In these cases of complete motor aphasia and agraphia, the physician has great difficulty in understanding any elaborate mental idea which the patient wishes to express, since he (the patient) can only express his ideas by means of signs (pantomime), a very unsatisfactory method of communicating elaborate thoughts and ideas.

Further, we have seen that in some (according to Déjerine, in all) cases of motor aphasia due to destruction of Broca's convolution there is some, though it may be only slight, derangement of the action of the sensory speech centres—some derangement of the visual speech centre, and some, though usually still more slight, derangement of the auditory speech centre. Hence it follows that in some cases of (cortical) motor aphasia in which the patient can understand simple questions spoken or written, he is unable to intelligently comprehend complicated spoken questions, and, still less, complicated written questions.

And here it must be noted, as I have already pointed out, that because a patient affected with motor aphasia puts out his tongue, touches a part of the body which he is told to touch, and does similar acts in answer to spoken or written requests, and because he understands simple questions or simple statements, and replies correctly to such questions by means of suitable signs, it does not by any means necessarily follow that his mental faculties are unimpaired—that he is able to understand complicated questions of business, to manage his affairs and to make a will.

It may, I think, be stated with some degree of confidence that in many, perhaps in most, cases of complete motor aphasia due to a lesion of the motor vocal speech centre (in other words, in most cases of "true" or cortical, as distinct from "pure," isolated, or sub-cortical motor vocal aphasia), the patients are, in consequence of the secondary disturbance in the action of the auditory and visual speech centres and of the general mental enfeeblement produced by the brain lesion, unable clearly and fully to understand a long complicated legal document such as a will, either when it is read to them or when they read it to themselves. They may, it is true, and in many cases they will, indicate assent after such a document has been read to them, but such assent does not necessarily imply that they have clearly and fully understood the purport of the document.

The average layman, even when all his faculties are alert and bright, has great difficulty in understanding and clearly appreciating the meaning of a complicated legal document such as a will; and it is impossible, in many cases at all events, to expect aphasic patients, whose brain power is necessarily in some degree weakened by disease, to understand such a document.

On the other hand, it must be remembered that in many cases of motor aphasia in which the patient is unable to follow and clearly understand a long document couched in legal verbiage and technicalities, he may be quite able to appreciate and understand the individual clauses of the document when succinctly and clearly explained in ordinary language.

Further, as has been already pointed out, in old and debilitated patients, and in those cases in which the cerebral arteries are degenerated and diseased, the mental deterioration is usually much more profound than in young and vigorous persons and in those cases in which the hemiplegia and aphasia are the result of embolic infarction; and in consequence of the mental deterioration and the defective will power which are often present in cases of this kind the patient may assent much more readily than he would have done prior to his illness to propositions and suggestions which are put before him. It is important to

remember that aphasic patients may, in consequence of these mental alterations, assent to a legal document such as a will and to each of its individual clauses—even after the individual clauses have been clearly explained to them—far too easily, far more readily than they would have assented prior to the onset of the brain lesion.[7] Further, as I have already explained, they may assent without having clearly followed and understood the meaning of the will and of its individual clauses.

In judging of the mental condition of patients affected with motor aphasia and the value of their expressions of assent or dissent, the physician must, as I have previously stated, carefully discriminate between intellectual and reflex, automatic or emotional, utterances. It is essential to determine whether the words—such as "Yes" or "No"—which the patient utters are used by him in an intellectual (propositional) sense on the one hand, or merely as reflex, recurrent utterances, or emotional expressions on the other.

To sum up, it is essential to remember in connection with the will-making power of patients affected with motor aphasia:

First, that in some cases it is difficult to determine the exact mental condition of the patient, whether his mental and intellectual powers are unaffected, whether he is mentally and intellectually competent to make a will.

Secondly, after the physician has satisfied himself that the patient is mentally capable of making a will, it is in some cases extremely difficult to ascertain from the patient—since, if the motor aphasia is complete, he is able to communicate his wishes and ideas only by means of signs (pantomime)—the exact way in which he wishes to dispose of his property.

And, thirdly, even if the wishes of the patient have been satisfactorily elicited and understood, even if the physician is satisfied that the will as a whole and its individual clauses have been clearly comprehended and understood by the patient—after, in short, a will in accordance with the wishes and desires of the patient has been correctly executed—the further question may arise—and it is often a most difficult question to determine—whetner, in consequence of the brain lesion, with which the aphasia is associated and on which the aphasic symptoms depend, the patient's mental balance, judgment, and affections have been so perverted that he has taken an unreasonable liking or disliking for certain persons whom he has included in, or excluded from, his will. In those cases in which the provisions of the will or some of the provisions of the will, whether positive or negative, are peculiar or altogether unexpected—in other words, are, so far as can be judged of, different from the provisions which the patient would have been likely to make when in a condition of brain health (that is, before the onset of the cerebral lesion and the aphasic condition), the question naturally arises whether such provisions are the result of a disordered mental condition due to disease, that is, are the result of the the brain lesion.

The capability of patients affected with motor—and, indeed, any form of—aphasia for making a will, will of course largely depend upon the nature of the will—whether simple or complicated. When the patient wishes to leave all his property to one person—say to his wife or son—it is comparatively easy to ascertain his exact wishes and desires. When the patient's affairs are complicated, when intricate legal provisions have to be made for the arrangement of his affairs, when he wishes to dispose of property in a variety of ways and to divide it amongst several different persons, the question is much more difficult.

It is especially difficult when the patient has not thought out the manner in which he wishes to dispose of his affairs, the details of his will, prior to the development of the cerebral lesion, when, in other words, he has, after the development of the cerebral lesion and the onset of the aphasic symptoms, to think out the details of the will and to communicate his wishes to his lawyer *de novo*.

It is obvious that if, prior to the onset of the aphasic symptoms, the patient has given instructions for a draft will, if he has thought out the details of his will and arranged how he should dispose of his property—what he has to leave, how he means to leave it, to whom it is to be left—the matter is comparatively simple. His wishes when in a state of health being known, all that is necessary is to be satisfied that the patient clearly and intelligently understands the will as a whole and the individual clauses of which it is composed, and that he continues to approve of them.

In cases of complete motor aphasia and agraphia there is usually no difficulty in coming to a satisfactory conclusion on these points provided that there is no word deafness and that there is no marked derangement of the mental faculties. If the patient has not previously thought out the matter, if no draft has been made prior to the onset of the aphasic condition, if the provisions of the will have not been the subject of discussion between the patient and his lawyer, the difficulties are enormously increased, and this is more particularly when the patient's affairs are complicated and when the provisions of the will are numerous.

Even a skilled physician, accustomed to examine cases of aphasia and to form an opinion as to the mental condition of aphasic patients, often has great difficulty in understanding the simple wishes and ideas of a patient suffering from complete motor aphasia and agraphia. It will readily be understood, therefore, how much more difficult it will necessarily be for an unskilled observer (a lawyer) who knows nothing of aphasia and the methods of eliciting information from aphasic patients to ascertain the wishes and intentions of the patients, that is, to obtain the instructions which are required for drafting the will.

It is hardly necessary to say that it is essential, in the interests of justice and of the patient's representatives and heirs, that the most scrupulous care should be taken not to suggest what he should do—how he should dispose of his property, to whom he should dispose of it.

### Method of Procedure which it is Advisable to Adopt in Taking the Instructions for a Draft Will in Cases of Motor Aphasia and Agraphia.

In actual practice it is necessary in the first place to ascertain if the patient knows what he has to dispose of. When the lawyer or relatives of the patient are acquainted with his affairs the matter is comparatively easy.

The lawyer should first ask the patient: "Mr. A., do you wish to make a will?" The patient will then express assent, "Yes." "Do you know what you have to leave?" "Yes." "Have you made up your mind how you wish to dispose of your property?" "Yes."

And here I may remark that the lawyer must not be content with a mere assent, but must vary the form of his questions, and put test questions with the object of seeing whether the patient clearly understands what he is doing. As a test he should ask the patient some question regarding the disposal of his property from which he thinks that it is likely the patient will dissent, with the express object of making him dissent (seeing whether he will dissent). It is only in this way that one can be absolutely certain that the patient clearly understands everything that is being put to him. As I have already stated, some aphasic patients will assent to almost every question which is placed before them. An aphasic patient who is about to make his will may have a perfectly clear mental idea that he is going to make his will; he of course knows that the lawyer has come with the object of getting instructions for a will or his signature to the will. When the will is read over to him, he may assent to the will as a whole, and when the individual clauses are explained to him *seriatim*, he may assent to each of them individually, without having clearly understood the purport of the will as a whole, or the express provisions of each of its individual clauses.

Exactly the same plan has to be followed here as in testing the sensibility of the skin, namely, to check the patient's answers by blank experiments.

In reading the will, for example, the lawyer should introduce some clause which is not in the will, and from which there is every reason to suppose, if the patient clearly understands what is being read to him, he will dissent. The same with regard to the individual clauses. Every now and again a clause should be introduced which is not in the will, leaving, for example, money to a stranger whom the patient does not know, or a large sum of money to someone who has no special claim upon the patient, but with whose name he is quite familiar—say, a domestic servant. If the patient does not

dissent from these test clauses, and object to them, it is reasonable to conclude that he may not have clearly understood the other provisions of the will, and the other clauses to which he has already assented. In short, that he may be assenting to clause after clause in a routine, reflex, or automatic manner. The clauses which the patient has already approved of must then be repeated individually, and a new clause or clauses from which the patient is likely to dissent must again be introduced.

In cases of complete motor aphasia and agraphia, in which the patient has not previously given instructions for a draft will, it is only by an exhaustive and prolonged investigation carried out in some such way as this, that it is possible to arrive at a correct idea of the patient's mental condition and of his disposing capacity.

In trying to ascertain whether the patient has a clear idea of the amount of property (money, lands, etc.) which he has to dispose of, detailed questions must of course be put. Suppose that we are dealing with the case of a wealthy man who has, say, £40,000 in personal estate. The patient should be asked various sums below and above the amount. "Have you £5,000?" "Yes." "Have you £20,000?" "Yes." "Have you £100,000?" "No." "Have you £50,000?" "No." "Have you £35,000?" "Yes." "Have you £45,000?" "No." "Have you £40,000?" "Yes."

If all these questions are correctly answered, and if it is known that the patient has about £40,000, there can of course be no question as to the correctness of the result. In other words, the patient has a clear and correct knowledge of the amount of personal property which he has to dispose of.

It is perhaps hardly necessary to state that many perfectly healthy people have not an absolutely exact knowledge of what their possessions amount to; they may only be able to give exact and detailed information after referring to written memoranda. If the aphasic patient is able to understand written characters—that is, to read, he should of course have such memoranda before him.

The same method of procedure should be employed with regard to real property. In most cases the nature of such property will of course be known either to the lawyer or to the relatives of the patient. A series of questions of the same nature as those which have already been indicated in connection with the personal estate should then be put to the patient. "Do you know, Mr. A., what property you are possessed of?" "Does it consist of houses and lands?" "Does such-and-such a place belong to you?" Here again care must be taken to introduce the name of some place or property which does not belong to the patient, with the object of testing his knowledge of his affairs, of seeing whether he clearly understands the questions which are put to him.

By this method of procedure, provided of course that the patient's memory and intellectual faculties remain sufficiently clear, there is usually no difficulty, with care and time and patience, in ascertaining whether the patient has (retains) a sufficiently exact knowledge of the amount of property (money, lands, etc.) which he has to dispose of.

In those cases of complete motor aphasia in which the lawyer, friends, and relatives of the patient have no knowledge of his affairs, the difficulties of obtaining this information are, it is unnecessary to say, greatly increased.

Having ascertained that the patient has a sufficiently exact knowledge of the amount of property (money, lands, etc.) which he has to leave, we must next endeavour to ascertain how he wishes to dispose of it. The lawyer should now state, "Mr. A., you have so much money and so much property, how do you wish to dispose of it?" In those cases in which the motor aphasia is incomplete and the patient is able to mention names, there is of course little or no difficulty, always of course provided that the memory and intellectual faculties are sufficiently clear.

In those cases in which the motor aphasia is complete, in which the patient is unable to speak and to write, it may be very difficult to ascertain exactly what the patient wishes. In cases of this description great discrimination and care must be exercised in conducting the examination, for, as I have already more than once pointed out, it is essential to avoid making suggestions which are likely to bias the patient, or to guide his actions, wishes, and desires. In those cases in which the patient can understand written characters, that is, can read, the dictionary method which has been so graphically described by A. Dumas in *Monte Cristo* may be employed.

In those cases in which the patient does not clearly understand written speech, that is, in which he is unable to read, the only method is to ask leading questions; this must be done in such a way as to test the patient's powers of discrimination. The lawyer should tell the patient that he is going to mention several names, and that when he, the patient, hears the name of a person to whom he wishes to leave anything, he must indicate assent by nodding his head, holding up his hand, etc., and that when he hears the name of a person to whom he does not wish to leave anything, he must indicate dissent by shaking his head, etc. Of course, if the patient can use the words "yes" and "no" in an intellectual (propositional) sense, with a clear understanding of their meaning and significance and not as mere reflex, automatic, or recurrent utterances, it is not necessary to have recourse to signs (pantomime).

The names of his nearest relatives—wife, children, brothers and sisters, nephews and nieces, dearest friends, etc., should then be mentioned individually. And here again care must be taken to introduce some name or names which are not likely to interest the patient, or the names of some person or persons to whom he is known to have an antipathy, and to whom he will, provided that he clearly understands what is going on, express dissent. If the patient does not dissent when such names are mentioned, grave doubts must necessarily arise as to his will-making power.

Having in this way, with great care and discrimination, ascertained the names of the relatives and friends to whom the patient wishes to bequeath his money, property, etc., the next point is to determine the amount which he wishes to bequeath to each of these persons individually. In the case of personal property, the patient must then be asked "Mr. A., you have so much money" (naming the amount), "and you wish to leave it to such-and-such persons" (naming the individuals). "Will you indicate the amount of money which you wish to leave to each of these persons as they are mentioned to you?" First take the wife, son, or nearest relative. We are supposing that the patient has £40,000 to leave: "Do you wish to leave your wife £100?" "Yes." "£1,000?" "Yes." "£10,000?" "Yes." "£50,000?" "No." If he assents to this last proposition, it is obvious (since he has only £40,000 in all to leave) that his answers cannot be trusted. If he answers correctly, that is, dissents, he should then be asked, "Do you wish to leave your wife £20,000?" and so on until the exact sum which he desires to leave is ascertained.

In this way, by mentioning different sums, the exact sum (say £25,000) which he wishes to leave to his wife will ultimately be arrived at. Having ascertained the exact sum which he wishes to leave to his wife, the lawyer must next endeavour to determine whether he wishes to leave it to her absolutely or merely for her life, so long as she remains unmarried, etc. "Do you wish to leave £25,000 (the sum which has already been specified) to your wife absolutely for her own use? Do you wish to leave the income only of £25,000 to your wife for her life?" If the patient assents to both propositions, it is obvious that he has not clearly understood one or other or both of them, and they must be again put before him in different ways, and his answers must be again checked. The next name on the list must then be taken, and so on, until the individual sums which he wishes to leave to all the relatives and friends (the names of whom he has previously picked out) are exhausted.

The procedure indicated above may usually be facilitated and shortened by ascertaining the exact amount of money, lands, etc., which the patient wishes to leave to each individual as soon as he approves of the name of that individual. After the whole process is completed the total amount which he has disposed of must, of course, be added up. If the total corresponds, or practically corresponds, to the amount which he has to leave, it is obvious that he knows not only what he has to leave but how he wishes to leave it. If the total does not practically correspond to the amount which he has to dispose of this must be explained to him, and the figures must be gone over again.

The same process must be carried out with regard to real

property. "Mr. A., you have such-and-such a property to leave. I will now mention the individual names which you have specified, and when I come to the person to whom you wish to leave this property, you will assent." Here, again, blank names must be substituted and imaginary properties specified, with the object of testing whether the patient clearly understands what he is doing or not. After the patient's wishes have in this way been ascertained, that is, after all of the information which is necessary for the preparation of the will has been obtained, the draft should be carefully read over to the patient, clause by clause, imaginary clauses, as I have already stated, being from time to time introduced with the object of testing the patient's understanding power.

If the patient can clearly understand written speech, that is, can read and understand what he reads, the draft may be left with him in order that he may further consider it before the will is drawn out in full and engrossed. In drawing up the will the lawyer should endeavour to make it as simple as possible, consistent, of course, with the legal technicalities which are essential for the proper carrying out of the patient's wishes.

The process which has been indicated above is necessarily slow, and must occupy much time; it must be carried out with much care, great exactness, and scrupulous impartiality. In many cases it is not possible, when the affairs of the patient are complicated, to complete the examination and get all the details of the draft will at a single sitting; for the brain power of many aphasic patients very soon becomes exhausted. The physician should see that as soon as any symptoms of exhaustion or mental failure arise the examination is for the time stopped. The lawyers are always anxious to draft the will at a sitting, or at all events as soon as possible. Under such circumstances one is necessarily on the horns of a dilemma. But the delay cannot be helped; it is necessary to run the risk of waiting for a day or two, and, if necessary, for several days, in order that the whole process may be satisfactorily completed. And by the term "satisfactorily completed" I mean that each individual clause of the will may be clearly and definitely understood and approved of by the patient; otherwise injustice may be done.

It is hardly necessary to say that no attempt should be made to obtain the patient's instructions for a draft will or to affix his signature to a will immediately after the occurrence of an aphasic attack or just after a relapse. In such conditions the brain action is necessarily disturbed. A will drafted or executed under such circumstances could not be expected to stand.

When the will has been written out in full and is about to be executed, it must, of course, be read over to the patient in full, as a whole, and each of its individual clauses clearly explained to him—disassociated from the legal verbiage—test clauses which are not in the will being, as I have already indicated, interpolated here and there.

This procedure is, of course, specially necessary in those cases in which the instructions for the will are obtained on one day and the will executed on another (subsequent) day; for the mental condition of aphasic patients is liable to undergo rapid alterations and relapses, and the brain lesion on which the aphasic condition depends is liable to extensions and aggravations. Hence, it does not follow that, because an aphasic patient is mentally capable of making a will on one day, he is mentally capable of making a will the next day. In other words, care must be taken to see that not only is the patient mentally capable of making a will on the day on which he gives instructions for the will, but that he is also capable of making a will on the day on which he executes it (signs it).

The medical attendant should always be present, with the object of assisting the lawyer by his skilled knowledge and advice in ascertaining the wishes and desires of the patient, and of satisfying himself, if he is asked to be a witness to the will, in the interests of justice—that is, in the interests of the patient and of his friends and relatives—that the patient is mentally capable of making a will, that the instructions for the will have been correctly elicited, and that the will has been correctly executed.

It is most important, if the will is to stand, that the lawyer should consult the medical attendant as to the procedure, the length of each examination, etc.

The medical attendant should only witness the will if he is satisfied that the patient is mentally able to make a will, that the information has been properly elicited, that the patient has clearly understood the will, and that it actually represents the patient's wishes. The medical attendant should not consent to witness the will unless he is satisfied, and prepared to appear in court to swear that he is satisfied, on these points.

References.

[1] Questions connected with criminal procedure so rarely occur in cases of aphasia that they need not be specially considered. [2] Aphasia and other Affections of Speech in some of their Medico-legal Relations, studied largely from the standpoint of Localisation, by Charles K. Mills, M.D., p. 14; reprinted from *The Review of Insanity and Nervous Disease*, September and December, 1891. [3] *Brain*, October, 1878, p. 314. [4] M. Legrand du Saulle, in one of his important lectures on the will-making capacity of aphasic patients (*Gazette des Hôpitaux*, 1882, p. 538), lays special stress on this point. He states that in all the aphasic patients whom he examined, whether their intellectual faculties were impaired or not, he detected a diminished firmness of will which led them to assent too readily and easily (more readily and easily than they would have done when in a condition of health) to suggestions made from the outside. He states: "A l'hospice de Bicêtre, pendant treize années consécutives, j'ai observé un certain nombre d'aphasiques. Quelques-uns étaient restés aussi intelligents que l'est aujourd'hui M.X.... Mais je finissais cependant par découvrir chez eux un point vulnérable. Ainsi, il m'a paru que ces aphasiques demeurés intelligents résistaient parfois mollement à des suggestions avides et qu'ils prenaient alors des dispositions testamentaires en dehors des liens de la famille, discutables à l'occasion, qui, sans l'aphasie préalable, n'auraient peut-être pas été consenties aussi facilement. Sauf cette fermeté diminuée sur un seul point, sauf cette aptitude un peu défaillante à tester, les opérations diverses et variées de l'entendement se manifestaient dans les conditions qui ne laissaient point de prise à la suspicion pathologique." [5] *Lancet*, March 27th, 1897, p. 868. [6] *Gazette des Hôpitaux*, 1882, p. 611. [7] Legrand du Saulle, *Gazette des Hôpitaux*, 1882, p. 538. [8] *The Count of Monte Cristo*, chapter lix.

*(To be continued.)*

## THE REMOVAL OF HIGH-LYING CANCER OF THE RECTUM BY KRASKE'S METHOD,

WITH A SERIES OF FOURTEEN CASES.

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Two or three considerations have induced me to bring this subject forward. In the first place, I cannot find that any like series of cases of sacro-coccygeal excision of the rectum has been recorded by an English surgeon. Further, the relative merits of extirpation *versus* colotomy for the treatment of high-lying rectal carcinoma seem to me to need further discussion, for, contrary to my own feelings in the matter, surgical opinion in this country, if judged by the remarks of Mr. Watson Cheyne on this subject in his recent Lettsomian Lectures, seems somewhat unduly to favour the latter, which at best is only a palliative procedure. I think that all will be agreed that in cases where we feel morally certain that the entire disease can be removed, even at some considerable risk to life, the patient should be submitted to the radical operation which holds out a prospect of getting permanently rid of the disease in some cases, whilst in others recurrence may be delayed for some years. Even if the disease manifests itself again after the lapse of only a few months and further excision is not thought advisable, one can always fall back on a colotomy.

I know of three or four cases in my own practice submitted to excision and now well and engaged in their various occupations without any sign of recurrence after periods varying from one and a-half to six years, who had been advised by hospital surgeons of repute that the disease did not admit of removal, and that colotomy was the only thing left for them. I mention this merely to show that surgical opinion has not yet grasped the fact that these cases of high-lying cancer are as capable of removal as those situated lower down.

Let me here ask: What were the conditions presented by these cases which possibly influenced these various surgeons in advising a colotomy? I think it must have been the height to which the growth reached above the anus, for in all it extended to at least 4 inches above the sphincter; in none were there any enlarged glands to be felt, nor had the disease

*Mr. Swinford Edwards's Cases of Kraske's Excision of the Rectum.*

| No. | Date. | Name and Sex. | Age. | Where or with whom Seen. | Duration of Symptoms in Months. | Extent of Disease. | Operation. Bone removed. | Operation. Peritoneum opened. | Operation. Rectorrhaphy. | Result. | Subsequent Condition. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Feb., 1891 | J. H., male | 61 | St. Mark's Hospital | 12 | Extended up for 4 ins round entire circumference | Coccyx | No | No | Good | Seen 5 years afterwards in good health, no recurrence. |
| 2 | Dec., 1892 | E. M., female | 50 | West London Hospital | — | Extensive annular growth. Glands involved | ,, | ,, | ,, | ,, | Recurrence after one year. |
| 3 | Feb., 1893 | F. T., male | 53 | St. Mark's Hospital | — | Four inches of rectum involved | ,, | Yes | ,, | Death | From peritonitis. |
| 4 | Aug., 1894 | Mrs. B. | 50 | West London Hospital | | Annular growth upper limit mid-sacral region | Sacrum and Coccyx | ,, | Yes | Good | Rectorrhaphy failed, no recurrence to date. |
| 5 | Sept., 1894 | Mrs. P. | 50 | Dr. Greenway | 5 | Growth equal in size to a 5s. piece limited to dorsum | Coccyx | No | No | ,, | No recurrence. |
| 6 | July, 1895 | Mr. S. | 52 | Dr. Bontor | 1½ | Size of a 4s. piece on right side from 2 ins. above anus to sacrum | ,, | ,, | ,, | Recurrence | Further excision, subsequent colotomy. |
| 7 | Aug., 1895 | Mr. O. | 50 | Dr. Strover | 6 | Anterior two-thirds of rectum affected, extends from 2½ to 4½ ins. above anus | ,, | Yes | ,, | Good | Neuralgia, prolapse, no recurrence. |
| 8 | Sept., 1895 | H. H., male | 62 | West London Hospital | 10 | Five inches of rectum removed | Sacrum and Coccyx | ,, | No | ,, | The growth was scirrhus, not seen him since. |
| 9 | April, 1896 | E. W., female | 48 | St. Mark's Hospital | 9 | Limited to dorsum. Extends from 1¾ to 2½ ins. up | Coccyx | No | ,, | ,, | Gets about comfortably with a truss. |
| 10 | April, 1896 | E. H., female | 42 | West London Hospital | Recurrence after perineal excision two years previously | Growth reached to sacro-coccygeal level | Sacrum and Coccyx | Yes | ,, | ,, | Seen recently—is comfortable, no stricture nor prolapse. |
| 11 | May, 1896 | J. G., male | 63 | ,, | 12 | Extensive growth, anus involved | Coccyx | No | ,, | ,, | Seen quite recently; slight tendency to contraction. |
| 12 | Sept., 1896 | W. R., male | 55 | ,, | 4 | Growth extended to 3 ins. above anus | Sacrum and Coccyx | Yes | Yes | ,, | Is quite well with normal anus. |
| 13 | Oct., 1896 | A. T., female | 64 | St. Mark's Hospital | 24 | Growth encircles gut and extends as high as the mid-sacrum. Enlarged sacral gland | ,, | ,, | No | Death | Was the subject of chronic bronchitis and a dilated heart; died on the fourth day, of exhaustion. |
| 14 | Feb., 1897 | M. S., female | 60 | West London Hospital | 9 | Complete ring 2 ins. in depth, commencing 2 ins. above anus | ,, | ,, | Partial | Good | Still in hospital but doing well. Skin wound gaped and there has been some slight sacral necrosis. |

extended beyond the rectal walls. Moreover, it has been until recently an accepted doctrine that when the upper limit of a cancer extends beyond the reach of the finger in the rectum the case is one unfit for excision. Personally I am of opinion that the position of the growth forms, *per se*, no bar to its removal. According to the height to which the growth extends so must we plan our operation. For anal carcinoma the old perineal operation suffices. Where the disease extends to the level of the sacro-coccygeal articulation behind, probably a coccygeal excision will suffice, or if more room is required the sacro-sciatic ligaments may be divided. For cases extending up still further, even as far as the pelvic brim, the removal of the lower portion of the sacrum or Kraske's operation must be undertaken.

Sacro-coccygeal excision not only lets plenty of daylight into the bottom of the wound, greatly facilitating accurate suture of the peritoneum, but enables us, in fit cases, to restore the continuity of the gut after the removal of the diseased portion.

That which really militates against the success of any rectal excision is the fact of lymphatic infection, or of the extension of the disease beyond the rectal walls, when the growth, instead of being movable with the rectum on its bed of adipose and areolar tissue, is bound down and fixed to the neighbouring parts. Where these factors are present attempts at extirpation can only end in disaster. Another bar to operative interference is, according to Mr. Cheyne, a rapidly-growing carcinoma, and in this I agree; but can we always tell from symptoms whether such is the case or not? For symptoms such as bleeding, tenesmus, pain and straining at stool, with a feeling of incomplete evacuation, often only come on when the disease must have existed for some time. If the surgeon now examines for the first time and finds that the cancer admits of removal, he is not likely to wait and test the rapidity of growth, nor do I think he would be justified in so doing, as delay in these cases may be of vital importance to the life of the patient. As an instance of a rapidly-growing carcinoma, let me relate briefly the following case.

M. S. (No. VI in the table) was sent to me by Dr. Bontor, of Great Berkhamsted, in the beginning of July, 1895. As I was away from town my friend and colleague, Mr. Alfred Cooper, was good enough to see him for me, when he found a small carcinomatous patch of about the size of a florin situated about 3 inches above the anus. This patient I saw about a fortnight subsequently, when the growth had doubled itself in size, and it was with difficulty that I was able to reach above it. The increase in growth was confirmed by Dr. Bontor. I performed coccygeal excision, which was unusually difficult as the patient was a very stout and big man, the rectum being at a great depth from the surface. Recurrence took place in four months, and a further excision was done, but I was not satisfied that the removal had been sufficiently free. As the disease, after a further period of six months, again became manifest, colotomy was performed just ten months after the first excision.

Now, some might say, here was evidently a case of rapid growth, and therefore one not fitted for extirpation. Would it not have been better to have colotomised the patient in the first instance? The answer is: No doubt it would have been better for the reputation of the operation, but I am not at all sure that by following the course I did ten months have not been added to a valuable life.

### PRELIMINARY COLOTOMY.

As to the advisability of a preliminary colotomy, for the purpose of diverting the bowel contents from the field of operation, and thus preventing faecal extravasation into the peritoneal cavity, this was a course which I, and possibly others, recommended before I had tried or even heard of Kraske's operation, and I still think it has much to recommend it as a preliminary to perineal excision. When, how-

ever, we adopt the sacral route I look upon it as quite unnecessary, and that on the following grounds:

1. Any wound of the serous membrane can be seen and accurately closed, thus avoiding fouling of the peritoneum.

2. The loss of two or three weeks a previous colotomy entails may make all the difference between success and failure after excision.

3. It is not so likely to be followed by stricture as after the perineal operation, and therefore no subsequent colotomy is necessary; were it otherwise I should be inclined to regard it as an argument in favour of a previous one.

4. A colctomy may seriously interfere with or altogether prevent a rectorrhaphy by making it difficult or impossible to bring down the upper rectum by reason of the adhesions between the sigmoid colon and abdominal wall.

5. If not absolutely necessary, it is hard lines to saddle a patient with an abdominal artificial anus and to subject him to the risk—small as it is—of this extra operation. It might be said: "What does it matter where the artificial anus is placed? If a colotomy is performed the patient will be saved an anus in the sacral region!"

This, however, does not necessarily follow, as the end and aim of Kraske's operation is to restore the continuity of the bowel with use of the normal anus. Even where this cannot be carried out, patients seem to me to prefer the artificial anus to be placed somewhere between the folds of the buttocks, in the neighbourhood of the original outlet. It must also be borne in mind that a previous colotomy is not an unfailing safeguard against peritonitis following injury to the serous membrane during the course of an excision, as I know to my cost; for Case III succumbed to peritonitis on the ninth day after an excision, although he had previously been subjected to colotomy.

### The Operation.

Since the distinguished author of this operation introduced it to the profession many modifications have both been suggested and practised by such men as Bardenheuer, Heinecke, Bardeleben, Volkmann, Rose, and Roux, many of these with a view to restoring the osseous structures by a temporary resection. One very successful case of this is recorded by Mr. H. Littlewood[1] amongst 8 cases of rectal excision, 3 of them being sacro-coccygeal. As yet I have made no attempt to replace the bone—indeed, I should say that it is quite unnecessary in the majority of cases; but in those in which a complete rectorrhaphy is intended it should certainly be attempted.

It is important, in preparing a patient for the operation, to get the general health into as good a state as possible, and to clear out the bowels for some days before with aperients and enemata. As a first step in the operation I have made it a practice to wash out the rectum thoroughly with some antiseptic—sublimate solution, 1 in 2,000, for choice.

With regard to posture, I have generally used the latero-abdominal with the thighs well flexed; and in two or three of my earlier cases I substituted the lithotomy position to facilitate the dissection of the rectum from the prostate and base of the bladder. Littlewood's modification of Godlee's position has much to recommend it. He places the patient in the position used for dissecting the buttocks, raising the pelvis on a block, and having both knees flexed and resting or kneeling on a chair. I adopted this in my last two cases, and was much pleased with the good view it gave. Its drawback is that it is more difficult to keep blankets on the thighs and to protect them from getting soiled, as macintosh sheeting is very apt to slip down. It is not my intention to enumerate all the steps of the operation, but merely to touch upon those points as to which a difference of opinion exists, or further comment seems to me advisable.

After a central longitudinal incision about 6 inches in length through the soft parts down to the bone, it may be found that plenty of room is obtained by simply removing the coccyx. In Case VI, although the upper limit of the growth was on a level with the middle of the sacrum, removal of the coccyx gave ample room. If more is necessary, division of the sacro-sciatic ligaments on the left side may suffice. I have cut through the sacrum both transversely and obliquely, that is, by either Bardenheuer or Kraske's incisions as high as the third posterior sacral foramen. Whether more of the bone can safely be removed is a question, though Volkmann and Rose appear to have divided the sacrum transversely as high as the second foramen. For the purpose of effecting the division, some use a saw; I find, however, that a chisel is much easier to work with, and more expeditious. To avoid wounding the soft parts under the bone, it is well to separate them with a periosteal elevator from the anterior surface of both sacrum and coccyx.

If any considerable bleeding takes place during the operation, it is here that we may expect it owing to wound of the middle sacral vessels. After their division they may retract and be difficult to seize, being concealed by the sacrum or what remains of it. Here it is that a good assistant is very necessary. In most of my cases I have been fortunate in having had the services of my friend and colleague Mr. Bidwell, and probably it is largely owing to his aid that I am able to report so well of the operation.

The bowel has now to be separated, in doing which it is as well after division of the levatores ani to keep to that plane of recto-vesical fascia which surrounds the gut, and not to attempt to dissect the bowel out of its bed of perirectal fat; by thus doing much bleeding is avoided and time saved. Separation of the posterior and lateral walls having been effected chiefly with the aid of the finger, it remains to deal with the anterior. I prefer now to clamp the gut well above the growth and to cut it through, in doing which the peritoneum is generally opened, when a sponge or gauze plug may be inserted temporarily and the dissection proceeded with from above downwards.

On reference to the table of cases it will be seen that I have several times in coccygeal excision avoided wounding the peritoneum; but I am not at all sure that one does not lose more than one gains by so doing—that is, if a junction of bowel is contemplated, for unless the serous cavity is freely opened it is often impossible to bring down the proximal end. As an instance of this, in Case XIV only a small wound of the peritoneum was inflicted, and although I had been able to leave at least 2 inches of the anus and distal end, I found it impossible to approximate the ends in their entire circumference.

The question of deliberately and freely incising the peritoneum and subperitoneal tissue with a view to rectorrhaphy seems to me well worthy of consideration. Personally I am inclined to think that (speaking only of cases suitable for rectal anastomosis) where one can avoid opening the peritoneum one should do so, even if it entails abandoning the rectorrhaphy; but where the peritoneum is wounded and the gut cannot be brought down without a freer division, such a course is justifiable in view of the end to be obtained.

The affected portion of the rectum having been removed and any wound of the peritoneum carefully closed with a continuous suture, one is now able to determine the feasibility of intestinal anastomosis. If there is a sufficient length of the lower end saved and too much tension is not caused by approximating the parts it should certainly be attempted, for even if not successful in the entire circumference a great deal is gained by union of the anterior part. As to the best means of effecting this I do not know that there is much to choose between a bone bobbin or direct suture. Murphy's button I have tried, but do not think it suitable to this part of the intestinal canal, and that on account of the absence of a peritoneal coat to the lower portion, so that there can be no union of serous surfaces. Maunsell's method is of course out of the question. In cases where we can be tolerably certain of performing a satisfactory circular rectorrhaphy it would be well to leave the coccyx and segment of sacrum attached by one or other border; in other words, to form a bone flap, as in the method of Roux, so that after the intestinal suture the parts may be replaced before finally suturing the skin. If the position of the growth necessitates the removal of the anus it is of course useless to attempt to close the wound excepting in its upper part over the exposed sacrum. A few sutures should fix the end of the gut to the skin margin below the sacrum, or if thought better a ligature may be passed round the bowel to occlude it, fastened to the wound and allowed to slough off, by which means the wound is kept free from fæces for some days. If rectorrhaphy has been done the wound should be well flushed with sublimate, and a little iodoform dusted in, especially

about the intestinal junction before closing it. The insertion of one or two drainage tubes is of advantage. When the wound is left open a firm packing of either bicyanide or iodoform gauze forms the best dressing. This operation is naturally often followed by considerable shock, for which stimulants, a warm bed, assiduous nursing, and possibly strychnine will be required. As yet I have not had to transfuse, but it might be necessary.

### After-Treatment.

With regard to after-treatment, there is nothing special to be said, that is, speaking of simple excision cases, I do not trouble about the bowels, if they remain quiet for a week so much the better, but as a rule a motion is passed before this, in spite, perhaps, of opium which has been given to relieve pain. Most patients begin to get up and about after a month, and at the end of two are practically well. Some form of truss may have to be worn where there is either prolapse or incontinence, the latter being not infrequent where rectorrhaphy has not been successfully carried out.

I will now refer briefly to the cases, premising only that in every case the growth removed was submitted to microscopical examination which invariably confirmed the diagnosis of carcinoma.

Case I.—In this case an iliac colotomy was done a fortnight before the excision. A full report of it is given in my joint work with Mr. Cooper on *Diseases of the Rectum*. I last saw the patient in May, 1896, that is, five years after the operation, when there was no recurrence, and the bowels were acting well through the artificial anus.

Case II.—In this case, which was referred to me by my colleague, Mr. Heycock, after removal of the growth, it was found that several sacral glands were enlarged. These were also excised. There was recurrence after one year, of which she died without further operation.

Case III.—A case sent by my friend Dr. Simpson, of Rugby. Here again I performed a preliminary colotomy, which gave him so much relief that I hesitated to undertake the removal of the growth, which from its extent I knew would be a formidable matter. But the patient was most anxious to be rid of his cancer, and in spite of my putting the risks of the operation clearly before him, urged me to operate. He died of peritonitis on the ninth day, and at the necropsy it was found that the peritoneum had been wounded, although but slightly, a fact which I much regret was not discovered at the time of the operation. This, the only death in my first 12 cases, was distinctly due to want of care in looking for any possible rent in the serous membrane. In those days perhaps one did not so fully recognise the importance of accurate closure of the peritoneum, for I had seen more than one case of perineal excision where the small intestine had actually protruded, do perfectly well after packing the wound with sponges freely sprinkled with iodoform.

Case IV.—I showed this patient at a meeting of the Medical Society in February, 1895, and her case will be found at length in the 18th volume of the Society's *Transactions*. I have seen her from time to time since then; she is in every respect flourishing, of a cheerful countenance and increasing in weight. In this case I attempted a rectorrhaphy by means of a Murphy's button. The anterior wall only united, and as the anal portion merely formed a sort of *cul-de-sac* for the collection of fæces, I prolonged the original dorsal wound through the anus, laying it freely open. This was the first case in which the position of the neoplasm necessitated the removal of part of the sacrum.

Case V.—I saw this patient with Dr. Greenway, of Belvedere. Rectal symptoms had been present for about five months, but they were so slight that she could not believe that there was any serious mischief. The growth, of the size of a five-shilling piece, was situated in the lower sacral region, and it was difficult without an anæsthetic to reach above it. It was limited to the dorsal half of the gut, and was therefore most suitable for excision. As this lady had consulted several other men, one of whom advised a colotomy, another that nothing should be done, at my suggestion she saw Mr. Cripps, who fully agreed with me as to the practicability of excision after he had examined her under ether. I was able to leave the anterior wall untouched, and therefore did not expose the peritoneum. She made a capital recovery, and I have seen her three or four times since. There is no recurrence, but she is obliged to wear a pad of cotton wool and a T-bandage, and to carefully regulate the action of the bowels.

Case VI has already been referred to. I have quite recently heard from Dr. Bontor that the colotomy is in every way satisfactory. The growth, however, is increasing and protrudes through the anus.

Case VII.—I saw this case with his medical man, Dr. Strover of Hoxton. The growth which had troubled him for six months involved the anterior two-thirds of the rectum; it commenced 2½ inches above the anus, and extended as high as 4½ inches. He had consulted a surgeon, who advised colotomy. Coccygeal excision was performed. The peritoneum was opened and carefully closed. Intestinal anastomosis was not attempted. The patient made a rapid recovery, and has put on weight. He is now troubled with prolapse, for which he wears a truss which answers well; but what affects him more is a severe form of neuralgia in the cicatrix of what was a very large wound. This comes and goes at varying intervals, though of late the attacks have been getting more frequent. It is now over a year and a-half since the operation, and there is no recurrence.

The next case is of peculiar interest, from the fact of the growth having been pronounced by Dr. Abraham, who cut sections of it, to be scirrhus. Mr. Harrison Cripps has shown that the usual form of rectal cancer is adenoma or columnar-celled epithelioma, and this is my experience; for although I have met with more than one case of sarcoma, I have never before seen a case of scirrhus of the rectum. I can only find one case recorded—namely, by W. E. Bessey in the *Journal of Orificial Surgery*, Chicago, vol. iv, p. 445.

Case VIII.—This patient, ten months previously, had first noticed bleeding at stool, soon followed by alternating constipation and diarrhœa; has generally to strain a good deal to pass anything; has been treated for urethral stricture, but never had syphilis. On examination, the rectum was strictured about 2 inches up, the mucous membrane was smooth and not ulcerated; the stricture was about 2 inches in width, and easily dilatable to the finger, which felt a cushiony induration surrounding the rectum. It seemed as though the submucous and muscular coats only were involved. The diagnosis appearing to rest between sarcoma and gumma, he was given a mixture of mercury and iodide of potash, while the stricture was dilated daily with bougies Nos. 7 and 8, lubricated with mercurial ointment. As after a fortnight matters were *in statu quo*, I did a posterior proctotomy, removing a section for examination. It cut very much as does a scirrhus of the breast, and presented a yellowish-white surface. On the day following the receipt of the microscopical report a sarco-coccygeal excision was performed, my colleague, Mr. Cheatle, assisting me. A piece of the rectum 5 inches in length was removed and the peritoneum was freely opened. In consequence of the previous proctotomy no rectorrhaphy was attempted. Collapse was marked after the operation, but with free stimulation and frequent feeding the patient rallied and was doing well in forty-eight hours. The large wound granulated well, and he was discharged two months after the excision. His temperature only once reached 101°, and was practically normal for the last month of his stay in hospital. I regret that I have lost sight of him, as he has changed his address. On leaving he had no difficulty in defæcation. There was neither prolapse nor sign of stricture.

Case IX.—This case calls for no particular comment excepting that the patient was an emaciated and very delicate-looking woman, and I feared she might not have strength to pull up after the operation, but in this I was happily mistaken. I have seen her recently; she is much improved in appearance, and, with care in the matter of regulating the bowels, she is able to get about with comfort and attend to her household duties; there is no sign of recurrence.

Case X.—I had performed a perineal excision two years previously for malignant adenoma and recurrence had taken place. There was a nodule of the size of a walnut in the recto vaginal septum which involved Douglas's pouch. A sacro-coccygeal excision was performed with some increase of difficulty owing to a matting of the parts following the first excision. The case did uninterruptedly well, and shows no sign of recurrence up to date.

Case XI.—Coccygeal excision for a cauliflower-like growth which involved and protruded through the anus. The peritoneum escaped injury, but there was free bleeding from the veins about the prostate, where the growth was somewhat adherent. The patient made a very rapid recovery, and left the hospital within the month. He has now a good anus, which comfortably admits the index finger. There is no recurrence.

Case XII.—This has, so far, been my most successful case, for, after a sacro-coccygeal excision, I was able to do a complete circular rectorrhaphy, and when last I saw the patient, six weeks ago, the wound had healed with the exception of a small dorsal fistula which was weekly getting smaller, and did not in the least inconvenience the patient. The act of defæcation took place through the normal anus, and was unaccompanied with discomfort. Examination *per rectum* shows a slight linear constriction at site of suture, that is, at about 2 inches above anus. As I was unsuccessful in Case IV with Murphy's button I tried direct suturing without any mechanical contrivance, and the result has undoubtedly been good.

Case XIII.—This case was sent to me by Dr. Wright of Rochester. The patient had been troubled with bleeding for two years, though it was only during the past year that pain was complained of. The growth was extensive, and there was one enlarged sacral gland, for so a nodule felt at the examination proved to be. Assisted by my colleague, Mr. Wallis, I did a sacro-coccygeal excision, adopting Littlewood's genu-pectoral position, which much facilitated the operation, nor did this posture in any way interfere with the administration of ether, so Mr. Lloyd, our chloroformist, informed me. I removed several enlarged glands, but was unfortunately obliged to leave an indurated chain of lymphatics running up above the pelvic brim. There was considerable collapse after the operation, from which the patient partially rallied. However death occurred on the fourth day of exhaustion and cardiac dilatation. It is evident that this was a case unfitted for operation, taking into consideration the possible involvement of glands, and the history of chronic heart and lung mischief. The fact is, on the one hand I was deceived by her appearance of health, and on the other I hoped that the nodule referred to would prove to be part of the growth and not lymphatic.

Case XIV is the case of a wiry female, aged 60, who had presented symptoms for nine months. On examination I found a complete ring of carcinoma 2 inches in depth, its lower margin being 2 inches above the anus. I adopted the same position as in the last case, and was again well satisfied with it. In order to get well above the growth I had to remove rather more of the sacrum than usual by means of a second resection, but I am unable to say the exact height to which I went. About 3 inches of the mid-rectum were removed. As the peritoneum was not freely opened I was not able without undue tension to effect a complete rectorrhaphy, but contented myself with suture of the anterior half, which has united well. The upper part of the skin incision which had been sutured broke down, leaving the sacrum exposed covered with granulations. As this condition still persisted six weeks after the operation, under ether I freed and pared the skin flaps, scraped the granulations, found and removed two small sequestra which had evidently prevented healing, and resutured the wound. This patient is now about to leave the hospital. Her bowels act well, and there is neither prolapse nor stricture.

A summary of the above shows that out of 14 cases there were 2 deaths—that is, a mortality of a little over 14 per cent.; 2 recurrences—1 in two years and 1 in four months; 10 living and well, of these 1 is in good health after five years,

2 in good health after nearly three years, 1 after one year and nine months, 3 after one year, 1 after six months, and 1 after three months; 1 case has not been seen since leaving the hospital.

E. H. Taylor, of Dublin, in an excellent article in the *Annals of Surgery* for April of this year, states that the mortality of this operation is from 20 to 25 per cent., whilst Cheyne, in his lectures already referred to, estimates it at from 18 to 20 per cent. He says: "The mortality varies considerably between the perineal and sacral operations, being naturally higher for the latter." In this I must agree with him, for out of many cases of perineal excision I have not had a death. He further says that König's total mortality is 38 per cent., Billroth's 34, Kocher's 28, Albert's 18; Iversen's estimate of Kraske's operation 25 per cent., and Czerny's 19.4 per cent. I have not been able to find any statistics regarding the work of British surgeons. Ball, in the second edition of his work, states that he has had four cases, which were all cured, and Littlewood's three cases I have already mentioned. Allingham, in his last edition, says he has performed the operation several times, but with what result is not stated, whilst I can find nothing on this subject from the pen of Harrison Cripps, a pioneer in the perineal operation.

In conclusion, I would remark that, owing to the enterprise of our Continental brethren, the field of operable cases of rectal cancer has been very considerably widened. Many patients, on whom even the most heroic would have refused to operate by the perineal route, can by Kraske's operation at least be relieved of their disease, and in a few of these the normal functions of the part may even be restored. The mortality, high as it is on the Continent, is decreasing, whilst in Great Britain, as far as I can learn, it is not more than twice that of the perineal operation; so that with extended experience, a more careful selection of cases, and strict attention to antiseptics, we may confidently expect it to become yet lower.

REFERENCE.
1 *Lancet*, September 12th, 1896.

## ON THE EMPLOYMENT OF DEAD BACTERIA IN THE SERUM DIAGNOSIS OF TYPHOID AND MALTA FEVER,

### AND ON AN EASY METHOD OF EXTEMPORISING A BLOWPIPE FLAME FOR MAKING CAPILLARY SERO-SEDIMENTATION TUBES.

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THE utility of the method of serum diagnosis of typhoid and Malta fever has now been so firmly established, and the technique of this method is now so simple that this method of diagnosis will probably be everywhere employed by clinicians who have at their disposal pure cultures of the bacillus typhosus and of the micrococcus melitensis of Bruce, and who have further at their disposal a supply of culture media and an incubator and a microscope, or in default of a microscope a supply of capillary sero-sedimentation tubes.[1] Simple as this equipment may seem, there are very few practitioners at home, and there are practically none abroad, who have all these requisites at their disposal. We therefore consider that it may not be without interest to draw attention to the fact that the whole apparatus of culture media and incubators can be dispensed with by employing instead of living cultures of the bacteria of typhoid and Malta fever dead cultures of these same bacteria. These dead cultures can be very conveniently carried about or sent by post in sealed glass capsules.

The fundamental observation in connection with this question, and the suggestion that this observation might be turned to practical account, is to be found in a paper by Widal published in the *Presse Médicale* of September 30th, 1896. Widal showed that the agglomeration which is obtained when the diluted serum of a typhoid patient is brought in contact with a living culture of bacteria is obtained in an equally characteristic manner when the serum of the patient is brought in contact with a culture of bacteria which has been killed by exposure to a temperature of 60° C.

We have repeated this observation of Widal's, and have found that it is perfectly accurate. We have further found that it holds true also of the micrococcus melitensis of Bruce. We employed in our test experiments "emulsions" of fresh agar cultures of the respective bacteria. In each case these emulsions were drawn up into small glass capsules similar to those which are employed for bacterial vaccines; these capsules were then exposed in a water bath to a temperature of 60° C. for a period which varied from five to ten minutes. The capsules of dead bacteria[2] were then put aside in a cupboard for three to nine weeks. After the expiration of this time their contents were thoroughly shaken up, and they were then employed for purposes of serum diagnosis. The serum, which was employed in the test experiments reported below, in the case of the micrococcus melitensis, was derived from a case of Malta fever which is at present under treatment in the Royal Victoria Hospital, Netley. The serum, which was employed in the case of the typhoid bacillus, was furnished by one of us, who vaccinated himself against typhoid some six months ago, and whose blood in consequence of that vaccination exhibits a typical sedimentation reaction in dilutions of 1 in 10 to 1 in 100.

In the case both of the bacillus typhosus and of the micrococcus melitensis the mixtures of diluted serum and dead bacteria were examined both under the microscope to elicit the agglutinative effect, and also in capillary sero-sedimentation tubes to elicit the sedimentation effect. In each case control experiments were made in which dilute specific sera were mixed with perfectly fresh living cultures of the respective bacteria. In each case also further controls were made with mixtures of dead bacterial cultures with non-specific sera.

Microscopical examinations showed that the cultures which had been killed by heating to 60° C. did not differ in any marked way from the living cultures. There was no trace of clumping in the dead cultures, and the movements of the isolated bacteria did not in any case differ strikingly from those which were seen in the living cultures. Close attention, however, revealed that in the case of the typhoid bacteria no progressive movements occurred in the heated cultures. In the case of the micrococcus melitensis it was impossible to be sure that there was a qualitative difference between the movements in the living and in the dead cultures.[3]

Comparative microscopic study of the effects produced by adding dilute specific sera respectively to dead and living cultures of the bacillus typhosus and the micrococcus melitensis, did not reveal any differences in the method in which agglomeration occurred in the respective specimens.

The experiments which were conducted in capillary sero-sedimentation tubes gave even more interesting results. These results are given on the next page in tabular form:

The following points in these experiments appear to deserve attention:

1. It is interesting to note that the sedimentation which occurs when a dead bacterial culture is mixed with a specific serum can be readily distinguished from the deposition of bacteria which sooner or later occurs in every dead bacterial culture. The specific sedimentation can be distinguished not only by the fact that it occurs infinitely more rapidly than the deposition of bacteria which occurs in the unmixed bacterial culture, but further by the fact that the sedimentation which is produced by an admixture of a specific serum is floccular and unevenly disposed as contrasted with the impalpably fine and perfectly evenly disposed deposit which takes place in the unmixed dead culture. These differences in appearance are, of course, correlated with the fact that the deposit in the case of the specific sedimentation is a deposit of agglomerated masses of bacteria, whereas in the case of the unmixed culture the deposit is a deposit of individual bacteria.

2. It is further interesting to note that, contrary to what might have been expected, the specific sera did not exert any greater effect upon the dead bacteria than upon the living bacteria.

It is almost unnecessary to dilate upon the great practical importance of the method of diagnosis by means of dead

TABLE I.—*Micrococcus Melitensis.*

| No. of Tube. | Contents of Capillary Sedimentation Tube. | Sedimentation Effect after 24 Hours. |
|---|---|---|
| 1 | Unmixed *dead* bacterial culture | Practically nil. |
| 2 | " *living* " " | " |
| 3 | *Dead* bacterial culture mixed with an equal quantity of a 10-fold diluted non-specific serum | " |
| 4 | *Living* bacterial culture treated in exactly the same manner | " |
| 5a | *Dead* bacterial culture mixed with an equal quantity of a 10-fold diluted specific serum | Complete |
| 5b | *Living* bacterial culture treated in exactly the same manner | " |
| 6a | *Dead* bacterial culture mixed with an equal quantity of a 50-fold diluted specific serum | " |
| 6b | *Living* bacterial culture treated in exactly the same manner | " |
| 7a | *Dead* bacterial culture mixed with an equal quantity of a 100-fold diluted specific serum | " |
| 7b | *Living* bacterial culture treated in exactly the same manner | " |
| 8a | *Dead* bacterial culture mixed with an equal quantity of a 500-fold diluted specific serum | |
| 8b | *Living* bacterial culture treated in exactly the same manner | " |
| 9a | *Dead* bacterial culture mixed with an equal quantity of a 1,000-fold diluted specific serum | |
| 9b | *Living* bacterial culture treated in exactly the same manner | |
| 10a | *Dead* bacterial culture mixed with an equal quantity of a 2,000-fold diluted specific serum | |
| 10b | *Living* bacterial culture treated in exactly the same manner | " |
| 11a | *Dead* bacterial culture mixed with an equal quantity of a 3,000-fold diluted specific serum | |
| 11b | *Living* bacterial culture treated in exactly the same manner | " |
| 12a | *Dead* bacterial culture mixed with an equal quantity of a 5,000-fold diluted specific serum | Marked but not complete. |
| 12b | *Living* bacterial culture treated in exactly the same manner | " |

TABLE II.—*Bacillus Typhosus.*

| No. of Tube. | Contents of Capillary Sedimentation Tube. | Sedimentation Effect after 24 Hours. |
|---|---|---|
| 1 | Unmixed *dead* bacterial culture | Practically nil. |
| 2 | " *living* " " | " |
| 3 | *Dead* bacterial culture mixed with an equal quantity of a 10-fold diluted non-specific serum | " |
| 4 | *Living* bacterial culture treated in exactly the same manner | " |
| 5a | *Dead* bacterial culture mixed with an equal quantity of a 10-fold diluted specific serum | Complete. |
| 5b | *Living* bacterial culture treated in exactly the same manner | " |
| 6a | *Dead* bacterial culture mixed with an equal quantity of a 20-fold diluted specific serum | |
| 6b | *Living* bacterial culture treated in exactly the same manner | |
| 7a | *Dead* bacterial culture mixed with an equal quantity of a 40-fold diluted specific serum | " |
| 7b | *Living* bacterial culture treated in exactly the same manner | " |
| 8a | *Dead* bacterial culture mixed with an equal quantity of a 50-fold diluted specific serum | |
| 8b | *Living* bacterial culture treated in exactly the same manner | " |
| 9a | *Dead* bacterial culture mixed with an equal quantity of a 100-fold diluted specific serum | Marked but incomplete. |
| 9b | *Living* bacterial culture treated in exactly the same manner | " |

bacterial cultures to the ordinary practitioner, and especially to the practitioner abroad and to the medical officer who is at sea or on military service. It will obviously be possible for every medical man to obtain a supply of capsules of dead typhoid and Malta fever bacteria for serum diagnosis from a central bacteriological laboratory. He will be able to carry about these cultures without risk, and he will not need to take precautions against infection when he is employing them in the serum diagnosis of doubtful cases of fever. His whole equipment in connection with serum diagnosis may, in fact, be narrowed down to a supply of these capsules of dead bacteria, a small supply of glass tubing of say $\frac{1}{16}$ to $\frac{1}{8}$-inch diameter, and the blowpipe apparatus which is described below. Any man who is provided with these requisites can easily teach himself to make such blood capsules and sero-sedimentation tubes as are figured in the BRITISH MEDICAL JOURNAL of January 16th, 1897, in connection with the paper which has already been referred to. He has only to keep in view that a capillary tube is made by heating a piece of glass tubing and then drawing it out *after it has been removed from the flame.*

*Method of Extemporising a Blowpipe Flame for making Sero-sedimentation Tubes.*—After casting about in various directions for a simple method of producing a blowpipe flame which should be practicable at a distance from a laboratory, we have found a method which we believe satisfies all requirements. This method consists in the employment of an ordinary spray producer, such, for instance, as an ether-freezing apparatus. The reservoir of the apparatus is filled with methylated spirit, and a steady current of air is driven through it by means of the hand bellows which is supplied with the apparatus. The alcohol spray is then simply ignited. We find that the flame which is produced in this manner is quite hot enough for all ordinary glass-working operations. It is, for instance, quite hot enough to enable us to draw out glass tubing into capillary sero-sedimentation tubes. The following appear to be the only points that have to be attended to in connection with the working of the flame: *first*, the alcohol must be tolerably finely divided (if a very coarse spray is employed the flame will not be sufficiently hot); *secondly*, the alcohol must be fed into the spray tube in sufficient quantity[4] and in a regular manner (if this last point is not attended to the flame will be very unsteady, or it will go out and will require to be relit).

In conclusion, we desire to revert to the question of serum diagnosis by means of dead bacteria, and to draw attention to the relation between this method of serum testing and the method of typhoid vaccination which was recently proposed by us in this JOURNAL.[5] It will be obvious that inasmuch as the vaccine material which is employed in the vaccinations in question consists of cultures of typhoid bacteria which have been killed by exposure to a temperature of 60° C., we have in the contents of the vaccine capsule not only a material with which we can vaccinate against typhoid, but also a material by the help of which we can determine whether a necessity for vaccination exists, and a material by the help of which we can measure the effect which is produced upon the patient by the vaccination process.

NOTES AND REFERENCES.

[1] For a description of these see a paper by one of us in the BRITISH MEDICAL JOURNAL of January 16th, 1897. [2] The death of the bacteria was in all cases verified by the inoculation of the contents of the capsules upon agar tubes. [3] This lends support to Surgeon-Major Bruce's view that the movements which occur in Malta fever cultures are purely Brownian in character. [4] This can very easily be provided for by depressing the nozzle of the spray producer below the level of the fluid in the reservoir. [5] BRITISH MEDICAL JOURNAL, January 30th, 1897.

## REMARKS ON THE OCCURRENCE OF PLAGUE PNEUMONIA.

BY SURGEON-CAPTAIN L. F. CHILDE, I.M.S.

As plague developed in Bombay, I began to examine the bodies of all hospital patients dead after acute disease, such as fever, pneumonia, etc., to see if any of them had really died of plague without buboes; and at the end of December I met with a case which had been diagnosed as broncho-pneumonia, but which turned out to be one of plague affecting the lungs, without causing any marked enlargement of the lymphatic glands—a case, in fact, of plague pneumonia; and as this *post-mortem* is exactly like many others that I have since made, and is typical of the disease, a brief account of it is subjoined.

B. L., Hindu, male, aged 25, was admitted on December 26th, 1896, for fever and cough, said to be of seven days' duration. He was very ill; no lymphatic glands were enlarged or painful, and the diagnosis made was broncho-pneumonia.

He died on December 28th, and the *necropsy* was made seven hours after death. The lungs showed much general engorgement and œdema, with sero-sanguineous frothy fluid in the bronchi, but no pus; the usual appearances of acute bronchitis were absent. There was one small pneumonic patch, the size of a walnut, in the early second stage, situated below the apex on the front of the right lung, and two similar but smaller patches at

the same part of the left lung; these patches stood out a little from the surface, and were airless, friable, and sank in water, each was surrounded by a dark ring of engorgement, which merged into the healthy lung, and there was recent pleurisy over the pneumonic areas. All the other organs were examined, and showed considerable engorgement, but no special lesion was observed. The cervical, the axillary, and the lumbar lymphatic glands were slightly enlarged; the left iliac slightly enlarged, red, and soft; all the other glands, including the bronchial, looked absolutely normal.

*Bacteriological Examination.*—Cultures on agar-agar were made from the pneumonic lung and spleen, and ultimately a pure growth of the plague bacillus was obtained from each. Under the microscope the pneumonic patches in both stages showed an immense number of plague bacilli, and the rest of the lung showed a large number; the fluid in the trachea also showed very many; the spleen and blood showed a few; the left supra-trochlea and the left inguinal glands showed a fair number, and all the other glands extremely few.

This, then, was a case of plague, in which during life the symptoms pointed to disease of the lungs, and in which there were no evidences of glandular enlargement, whilst after death there was clear proof of enormous growth of plague bacilli in the lungs and of only very slight growth in the lymphatic glands. Up to the present I have made twelve *post-mortem* examinations on such cases, all presenting appearances similar to the above, and it is noteworthy that all the patients were brought to hospital supposed to be suffering from cough and fever, and their friends were quite unaware of the nature of the disease.

With regard to the clinical symptoms of these cases, the late Dr. M. died of this form of plague, and a few notes of his illness are subjoined:

On January 2nd, being in his usual health, he was seized with a rigor; fever came on, with nausea, vomiting, bad headache, and a tired, aching feeling in his limbs; his temperature soon rose to 103.4°, but his tongue remained clean and moist and his skin was not at all dry.

On January 3rd he had passed a bad night and felt worse, and the symptoms persisted through the day, temperature averaging 104°, pulse 110, respirations 23; in the afternoon he felt some pain at the lower part of the left axilla, just under the anterior fold, but there was no glandular enlargement or pain in the glands anywhere.

On January 4th had slept badly and felt worse, temperature 104.6°, pulse 114, respirations 25; tongue still moist, with a little fur behind, but no sordes about the lips or teeth. During the night he began to cough, and brought up some watery sero-mucous fluid slightly blood-tinged; the pain in the left axilla persisted, and at this spot the fine crepitations of early pneumonia could be heard; they could also be heard just below the left clavicle, but the rest of the lungs and other organs appeared to be normal, as did the lymphatic glands. The symptoms, however, were not like ordinary pneumonia, for the onset was different, the condition of the tongue and mouth different, there was no dyspnœa or pneumonic disproportion of pulse and respiration, and the sputum was not at all like rusty sputum, for it was loose and free, coming up with the slightest cough; it was watery, looking more like serum than mucus, and it was slightly pink, not rusty-yellow at all; also there was the striking fact that the patient's general condition was far worse than could be explained by the small amount of lung disease present; so I examined the sputum under the microscope, and found it full of bacilli, looking like those of plague, and cultures were made from it from which a pure growth of the plague bacillus was obtained.

During January 4th and 5th the patient became worse and worse; his expectoration continued profuse: temperature about 104°; his respirations increased to 35 and 45, and the pulse to 120 and 135; the tongue became rather dry and furred, and he died on January 6th.

There is also the case of the nurse who attended on him, for she, unfortunately, died of the same form of plague; in brief, she became ill on the evening of January 7th, and showed symptoms of pneumonia on January 8th; she became rapidly worse, and died on the 10th: but her sputum was not nearly so profuse as in the former case, and exhaustion came on much earlier. She also had no glandular enlargement or pain whatever, and bacteriologically her sputum was exactly as described above.

This form of plague is highly infectious, and probably takes a large share in the spread of the disease; for in these cases the patients' sputum is practically a virulent pure culture of the plague bacillus, and as there is reason to believe that many of the cases are not recognised as plague at all, precautions are not taken by the patients' friends and the dangerous nature of the disease is not appreciated. I have no means of knowing how frequent this variety of plague has been in the present epidemic, but there is some evidence to show that a considerable number of cases have occurred.

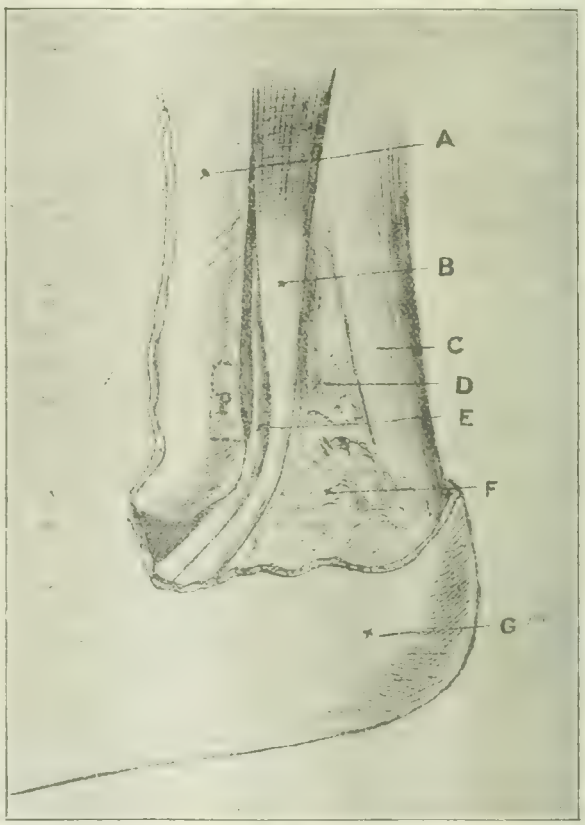
Moreover, it seems likely that a ship's passenger suffering from this form of plague might escape detection by sanitary officers, and might be permitted to land at his destination as though he were the subject of simple pneumonia; and so a centre of infection for the spread of plague would be established.

With regard to the literature on this subject, I have not been able to find a published description of this variety of plague; but an allusion to it is made in the accounts of the Pali epidemic of 1836, and it is stated that the Astrakhan outbreak of 1877 was first regarded as croupous pneumonia or as typhus complicated by pneumonia; from the reports on the Hong Kong epidemic it appears that plague pneumonia did not occur there. There is just this to add: the usual definition of plague in works on medicine is—"A specific fever, attended by bubo of the inguinal or other glands;" but it seems that such a form of words does not include all varieties of the disease.

## A CASE OF DISLOCATION OF PERONEI TENDONS TREATED BY OPERATION.

By G. MUNRO SMITH, M.R.C.S.Eng.,
Assistant Surgeon, Bristol Royal Infirmary.

It is stated that the peroneus brevis is more frequently dislocated than the peroneus longus, but in the following case both tendons were out of place. Although there was a rent




Dissection of peroneal at external malleolus; at F is shown the area of periosteum which was dissected back and fastened to the fascia behind the tendons, the sheath is not shown. A, fibula; B, peroneus longus; C, tendo Achillis; D, fascia; E, peroneus brevis; F, fat; G, skin of heel.

in the sheath, it was the stretching of the latter which was the chief lesion. The groove behind the tibula was very

shallow, and covered with smooth fascia, to which the sheath was adherent.

1. B., aged 50, a labourer, attended as an out-patient at the Bristol Royal Infirmary, complaining of a dull aching pain in the right ankle with occasional sharp twinges whilst at work. On examination it was found that he had well-marked dislocation of the peronei tendons over the external malleolus. The tendons could easily be reduced, but the groove for their reception was shallow, and they soon sprang from their bed again. Rest and fixation did little good, so an operation was determined on.

In February, 1896, I made a long incision behind the fibula, and found both the longus and brevis tendons had slipped from their common sheath, which was torn and stretched. I sewed up the rent and stitched the sheath to the fibrous tissue behind its groove. After the wound was healed the patient was kept at rest for some weeks, and then allowed to get about in plaster-of-paris, and afterwards with a leather support. He returned to work, and was decidedly improved for a time, but the old pain returned, and last November he again came to me anxious to have something further done.

On November 30th I carried out the following operation. I exposed the sheath for about 6 inches, stitched up a rent about 2 inches long, and constricted the redundant tissue by catgut ligatures. I then peeled off from the malleolus an oblong piece of periosteum (marked in the Fig. at P), leaving it attached by one margin to the bone, and sewed it securely to the fascia behind the sheath, so that the piece of periosteum arched over the peronei tendons. I then put in three sutures into the sheath, and fastened it to some firm fascia behind the groove. The wound was sutured and dressed in the usual manner. When the incision was healed the leg was put up in plaster-of-paris for some weeks, and he then wore the same leather pad as before. He has now been at work for six weeks, and has felt no pain. The tendons appear to be firmly fixed in their groove.

The late Dr. J. R. Wood recommended tenotomy with fixation by plaster-of-paris in these dislocations, and M. Mollière has reported cases in which he has divided the tendon of the peroneus longus as it passes under the cuboid, and then thrust the tenotome into the sheath "to excite inflammation;" but although the usefulness of the foot does not seem to have been impaired by cutting the peroneus longus, yet this could not succeed in the above case, as both tendons were out of place. The result has so far been quite successful, but more time must elapse before a final verdict can be given.

## SUCCESSFUL REMOVAL OF A CYSTIC ABDOMINAL TUMOUR FROM A CHILD AGED 7 MONTHS.

By JOHN CAMPBELL, M.A., M.D., F.R.C.S.Eng.,
Surgeon to the Samaritan Hospital for Women, Belfast, and Assistant Surgeon to the Belfast Maternity Hospital.

A FEMALE child, aged 7 months, was sent to me by Dr. Creery, of Coleraine, and Dr. Martin, of Portrush, on July 8th, 1896. I am indebted to Dr. Creery for the history of the case, and for the photograph after operation.

*History.*—The labour was difficult, forceps being applied high up. The child throve well, and was apparently healthy at the age of 3 months, but about a month later the mother noticed swelling of the abdomen, which gradually increased. Periodical attacks of violent colicky pain also occurred.

*Condition on July 8th.*—The general nutrition was good. The respirations were shallow and embarrassed. The abdomen was greatly distended by a lobulated tumour, which was more prominent on the left side, and felt hard in its upper half, but soft and fluctuating below. There was dulness on percussion all over the abdomen except in the right hypochondriac region, which was resonant.

*Operation.*—On July 10th chloroform was given by Dr. McKinney and the accompanying photograph taken by Dr. Cecil Shaw. A median incision was then made from midway between the ensiform process and navel to midway between the navel and symphysis pubis. This exposed a large tumour lying behind the posterior parietal peritoneum and pushing the intestines into the right hypochondrium. The cystic portion having been tapped, the whole mass was enucleated from the subperitoneal tissue. No bleeding of consequence occurred and no ligatures were needed. The tumour had no pedicle, but was more firmly attached deep in the left side of the pelvis than elsewhere. It lay in front of the left kidney, which was situated at the level of the iliac crest and was freely movable. The peritoneal covering of the tumour was attached to the edges of the lower end of the abdominal wound and the cavity was packed with gauze. The upper end of the wound was closed by two layers of suture, silk being used for the peritoneum and silkworm gut for the skin and aponeurosis. The operation was well borne, except for a few seconds during the extraction of the tumour, when the pulse became bad, apparently owing to pressure on the cardiac area of the diaphragm.



Fig. 1.—Before operation.

*Subsequent History.*—Two hours after operation the child took milk and barley water, and was thenceforward fed regularly every two hours. Fifteen-minim doses of whisky were given every half hour for the first three hours. The child slept well. She vomited slightly on one occasion only. On the sixth day the gauze packing was removed, and the bowels acted spontaneously. On the eleventh day the silkworm gut stitches were removed. The wound was then healed except where the drain had been. At the end of a fortnight the child went home. Three months later the silk stitches began to come away. On December 16th, five months after operation, I saw the child in excellent health, though all the silk had not separated. One photograph was taken on July 10th, just before the operation, and the other about four months afterwards, in November, 1896.



Fig. 2. After operation.

*Structure of Tumour.*—The tumour was composed of a cyst containing about 10 ounces of clear yellow fluid, and of a solid portion, in which a mass of cartilage and a piece of bone lay embedded. It weighed 3 lbs. when fresh. There was nothing to indicate the organ from which it originated. Dr. Lorrain Smith was so kind as to examine it for me.

### REMARKS.

This appears to be the youngest child from which a cystic abdominal tumour has ever been successfully removed. The only case which approaches it in point of youth is that operated on by Roehmer, of Berlin, in 1883, at the age of 20 months. The present case is, therefore, 13 months younger than the Berlin one.

ON THE

# BREAKING UP OF FAT IN THE ALIMENTARY CANAL UNDER NORMAL CIRCUMSTANCES AND IN THE ABSENCE OF THE PANCREAS.*

By VAUGHAN HARLEY, M.D., M.R.C.P.,
Professor of Pathological Chemistry, University College, London.
(From the Department of Pathological Chemistry, University College, London.)

In a previous paper[1] I discussed the simple absorption of milk fat from the alimentary canal of dogs, and compared the results with a series of dogs in which the pancreas had been previously removed. Fasting dogs fed on milk absorbed no less than 21 to 46 per cent. of the total fat given in seven hours, while in those where the pancreas had been entirely removed some two days previously, there was, during that space of time, no evidence of any absorption whatever from the alimentary canal.

The fact that no marked absorption of fat occurred in dogs after the extirpation of the pancreas seems to confirm the old view that the pancreatic secretion was necessary for absorption.

This alleged action of pancreatic juice in preparing fat for its absorption from the alimentary canal is usually supposed to be due to the secretion containing, first, a fat-splitting ferment, which, by breaking up part of the neutral fat into free fat acids and glycerine, leads to the first stage of emulsification; and, secondly, alkaline sodium carbonate, which combines with some of the freed fat acids to form a soap, and thus rendering the emulsification of the fat—a simple matter, as can easily be demonstrated in a test tube—and at once facilitates its absorption through the intestinal walls.

The manner in which altered or emulsified fat may traverse the intestinal or mucous membrane is not discussed in the present paper, but only the manner and degree of breaking up of ingested milk fat, and the part played in such a process by the pancreas. My former paper showed that there was a great decrease in the absorption of fat when the pancreas was removed, and it is my present purpose to show how much of this is due to the absence of either the fat-splitting ferment or of the alkaline sodium carbonate of the pancreatic secretion.

For the purpose of comparison, the average results of the experiments may be tabulated in the following way, so that the normal results may be compared with those in which the pancreas had been previously removed.

*Comparison of the Percentage Composition of the Fats in the different parts of the Alimentary Canal on a Milk Diet, of Normal Dogs* (A) *with those in which the Pancreas* (B) *had been previously Removed.*

| | Neutral Fat. | | Free Fat Acids. | | Fat Acids as Soap. | |
|---|---|---|---|---|---|---|
| | Normal. A. | Pancreas B. | Normal. A. | Pancreas B. | Normal. A. | Pancreas B. |
| Stomach ... | 77.54 | 68.1 | 18.50 | 31.29 | 0.63 | 0.55 |
| Small intestine | 24.67 | 22.59 | 72.22 | 61.62 | 3.14 | 5.79 |
| Large intestine | 34.17 | 33.27 | 58.65 | 53.32 | 7.19 | 13.41 |

It is not necessary here to again draw attention to the extracts from the literature of this complicated subject, which I quoted in the previous paper, and which showed that there was reason to believe that neutral fat not only could be split up into fat acids and glycerine in the absence of pancreatic secretion, but even form soaps. The present research has for its object the precise determination of this point.

The results obtained may therefore be divided into normal and pathological, that is, according to whether the pancreatic secretion is present or absent. Thus:

1. The normal splitting up of fat in the various parts of the alimentary canal in dogs on a milk diet.
2. The effect of removal of the pancreas on the splitting up of fat in dogs on a milk diet.

When we compare the results found in normal dogs during the absorption of milk fat with that in the dogs in which the pancreas has been removed, there is not such a great difference as one would be led to expect from the old teaching of the fat-splitting action of the pancreas.

The average number of cases in the above table is three in each column, except in that of the large intestine of the normal dogs, in which the results of only two experiments were used, and the period of digestion was seven hours, except in one case of removal of the pancreas, in which it was only six hours.

As far as the stomach is concerned, the table shows that there is a slight increase in the quantity of fat acids in dogs in which the pancreas has been removed, as the percentage noted was 31.29 per cent. of the total fat, while in normal dogs which were employed as control only 18.50 per cent. of the total fat was present in the form of free fat acids. This would be in favour of a greater fat splitting up activity of the stomach in dogs in which the pancreas had previously been removed. That a greater splitting up action was really the cause of this increase is difficult to believe. It would seem much more likely that the increased percentage of fat acid in the dogs without the pancreas was due to the greater retention of fat in the stomach, for in all cases in which the pancreas had been removed, the expulsion of fat from the stomach was very much delayed.

The percentage quantity of fat acids present as soap in both the normal and the pathological dogs is practically equal, for in both cases no less than 0.63 and 0.55 per cent. of the free fat acids were present as soap in the stomach.

The table therefore proves that both in normal dogs as well as in those in which the pancreas has been removed, the stomach is capable of not only splitting up neutral fat into free fat acids and glycerine; but, further, that the free fat acids are capable of finding alkalis in the stomach itself wherewith to form soaps. The power of the free fat acids to form soap is, however, extremely limited in the stomach.

The principal fat-splitting action really begins, not in the stomach, but after it has left the pylorus. That this should be the case in normal dogs has long been held by all physiologists, and was considered due to the action of the pancreas, and the degree to which this occurs is shown in the table, according to which in the normal dog at least 72.22 per cent. of the fat present in the small intestine was in the form of free fat acids, only 24.67 per cent. being present as neutral fat. But also in the case where the pancreas had been entirely extirpated, so that no pancreatic juice could possibly reach the intestine, and the fasting had been sufficiently long to remove any pancreatic ferments which might have been previously present in the intestines, we still find a large increase in the quantity of the fat acids present, the fat acids being no less than 61.62 per cent. of the total fat. There can be no doubt, therefore, that even when no pancreatic secretion has reached the intestines, a very considerable quantity of the neutral fat is split up into free fat acids in the small intestine, although the quantity there formed is not so great as when the pancreatic secretion has been able to add its share of work.

The free fat acids combined with soaps in the normal dog was only 3.14 per cent. of the total fat present, while those dogs in which the pancreas had previously been removed had no less than 5.79 per cent.

This is a most interesting fact, for in spite of the absence of the alkaline pancreatic secretion, it is found that not only nearly the normal quantity of free fat acids are present, but a considerable increase of fat acids have formed soaps, so that the intestines have been able to secrete a sufficiency of alkali substances to form soaps.

The contents of the large intestine of the second group of cases resemble each other far more closely. In fact, in the case of the free fat acids, the quantity present in both the normal control dogs and those in which the pancreas had previously been removed is, for all practical purposes, equal, the control dogs having 58.65 per cent. of fat, in the form of free fat acid, while those dogs in which no pancreatic secre

*Extracts from a paper read at the Royal Society.*

tion had reached the intestines, 53.32 per cent. The effect of the want of pancreatic secretion, although exhibited to a small extent in the small intestine, and causing a diminution in the quantity of fat acids present, was no longer apparent in the large intestine.

The quantity of fat acids present as soaps in the large intestine vary, although not to a greater extent than was the case in the small intestine. Those dogs in which the pancreas had been previously removed contained 13.41 per cent. of the total fat in the form of fat acids combined as soaps, while 7.19 per cent. only was in this form in those dogs which were used as control experiments.

REFERENCE.
1 *Journal of Physiology*, vol. xviii. p. 1, 1895.

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

### DYSTOCIA DUE TO HYDROCEPHALUS IN A PRIMIPARA.

ON January 3rd I was asked to attend the wife of a farm servant residing about 6 miles from here. The message was urgent, as the patient was said to be bleeding badly. I found the woman blanched and exhausted, and the pulse rapid and feeble. She was lying in bed in a pool of blood and "waters." She was in the beginning of the ninth month of pregnancy. She had risen at 7 A.M., and while dressing had been seized with severe hæmorrhage. She was assisted back to bed again, and in a few minutes the bleeding all but ceased. About 9 A.M. she began to complain of pains, and this was followed by a recurrence of alarming hæmorrhage. From that time till my arrival about 11 A.M. she was having periodic pains, during which the bleeding lessened. I found that the membranes had ruptured, the os was dilated to about the size of a crown piece, and through it protruded the left hand and forearm. The woman being a primipara, and very nervous and excited, I judged it best to give her a little chloroform, and then introducing the whole of my right hand *per vaginam*, I gently attempted to replace the arm, and get rid of the transverse position. Owing to the absence of liquor amnii, and the half-dilated condition of the os uteri, the task was difficult, but by gradually dilating the os with the fingers I was at last able to reach a foot, and bring it down into the vagina. Thereafter for a time all went well, though the feeble condition of the woman was a source of anxiety. Slowly the hips and part of body were born, but both arms were "up," and gave considerable trouble to bring down, and the head remained fixed and defied all efforts at removal.

The position was now occipito-anterior. Though the child had never shown any signs of life, I did not want to perforate the base of the skull. Passing three fingers of the left hand beyond the chin of the child, placing the middle finger in the mouth, and the other two on both sides of the nose, the right hand and arm swinging the body of the child well up between the woman's thighs, I made as great traction as I dared, and slowly the head commenced to slip, and at last delivery was complete, and my difficulty was explained when an enormous hydrocephalic child lay on the bed.

The woman made an excellent recovery, and is now quite well and strong.

Brechin. HECTOR M. ROBERTSON, M.B., C.M.

### CURIOUS COURSE OF A BULLET.

[Communicated by the DIRECTOR-GENERAL R.N.]

A MUSSULMAN, aged 60, came under my care at Sitia, Crete, for a bullet wound of the chest. The bullet, which was from a Gras rifle, caused first a comminuted fracture of the left thumb, which was in contact with the chest wall at the time; it then entered the chest wall 2 inches above and 2 inches to the inner side of the left nipple, passed upwards and outwards along the rib, was deflected downwards by the anterior surface of the left scapula, and continued on this course until it reached the crest of the left ilium; it then passed nearly vertically upwards to the wound of exit which was situated about 1½ inch below and in a line with the inferior angle of the left scapula. The pleura was wounded *en route*. After leaving the body of this patient it tore a large piece from the pectoral muscles of a child aged 5, who was probably clinging to the old man from behind. There were no signs of any injury to the lung itself, and the case did well.

The vitality of the Mussulman Cretans is remarkable; a man at Spinalonga had been transfixed by a bayonet at the level of the seventh rib, right side, and also received a bullet clean through the neck from one sterno-mastoid to the other; in three weeks he was well, having had no surgical treatment beyond a first dressing.

H. F. D. STEPHENS, M.B.,
H.M.S. *Nymphe*. Staff-Surgeon R.N.

### POISONING BY LINIMENTUM BELLADONNÆ.

A LADY, aged 53, on the night of March 10th measured into a medicine glass 1 tablespoonful of the linimentum belladonnæ in mistake for a bromide mixture, which she had occasionally taken. She discovered her error after swallowing it, but not knowing the dangerous character of the preparation, retired to bed.

At 1.30 A.M. of the 11th she awoke a visitor who slept in the opposite room, complaining of dryness of the lips, mouth, and throat with great thirst and giddiness. The visitor realising that the patient was suffering from poisoning sent off a mounted messenger for me, and immediately gave her a dose of table salt and water, which had the desired effect of producing vomiting.

I saw the patient at 3 A.M.; she was in bed; she evidently recognised me, and made an attempt to greet me. I found the pupils largely dilated, the utterance impaired, with gay delirium; incessantly talking; chiefly occupied with the meet of the foxhounds in the neighbourhood the next day; pulse somewhat accelerated, and the skin warm.

I immediately injected half a grain of pilocarpin, and with a lavage apparatus washed out the stomach with hot coffee and brandy added. I stayed with her until 6 A.M., when she appeared much improved, but the chattering still continued. When I saw her again at 10.30 A.M. she much better, and in the evening determined to get up for an hour. She still complained of the inside of her chest feeling hot and burning and inability to walk straight, and suggested that the poison had got into her nerves. She imagined that her fingers and hands looked yellow.

I saw her the following day. She was able to walk slowly in the garden, but evidently was still very shaky. There was no rash, nor either involuntary discharge nor suppression of urine.

REMARKS.—I think it desirable to place the case on record inasmuch as the portion of the drug taken was a known quantity, and to point out that, owing to the careless dispensing of half a pint of this powerful liniment by a firm of chemists in a neighbouring town in an ordinary half-pint medicine bottle, a valuable life was for a time placed in jeopardy.

Barnsley. J. FLETCHER HORNE, M.D., F.R.S.Ed.

# REPORTS

ON

## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

### FULHAM UNION INFIRMARY.

A CASE OF ACUTE INTESTINAL OBSTRUCTION.

(By W. DENISON WIGGINS, M.R.C.S., L.R.C.P.)

THE following case is remarkable for the cause of the above condition:

M. P., a woman aged 38, married 22 years, no children, was admitted on February 23rd, 1897. She had been ill since February 9th, complaining of pain, severe at times, and of a bearing-down character, in the hypogastric region. During the succeeding days she became constipated, and on February 19th took some aperient medicine, which resulted in an

evacuation on the following day (February 20th). On February 21st the pain became more severe, and she began to vomit, which she described as "bilious, watery, and yellow." Menstruation began on this day. The symptoms continued till the morning of February 22nd, when she saw a doctor, who gave her some medicine, which relieved the pain and the vomiting, but both returned on February 23rd, the day of her admission to the infirmary. She had passed no motion or flatus since February 20th, and no urine for twenty-four hours.

She was a well-nourished woman, but looked very ill and haggard. Her limbs were cold and her pulse very small. The temperature was 97.8°. She complained of very severe pain and tenderness in the left hypochondriac and lumbar regions posteriorly; it did not shoot down the thighs. The pain which she had originally described as situated in the hypogastric region was no longer present. The abdomen was distended and tumid. On percussion it was tympanitic all over, even in the hypogastric region; tenderness was not marked. Examination of the usual sites for herniæ and *per rectum* gave a negative result. The urine was drawn off by a catheter; specific gravity 1022; acid, was high coloured, and contained a trace of albumen, but no blood. A simple enema, followed by one of glycerine, produced no result. An hour after admission she vomited; it was then found that the vomit was fæcal.

Mr. Steer, Medical Superintendent, then saw the case with me, and he agreed that laparotomy was the only course open. He therefore opened the peritoneal cavity by a median incision below the umbilicus. A fæcal odour was at once noticeable. Small intestine presented in the wound, which was distended; this did not obtain in the large intestine. There was a small amount of fluid in the peritoneal cavity, having a distinct fæcal odour. The hernial sites were examined without result. The small intestine was traced into the right posterior quarter of the pelvis, where it offered resistance to being pulled out. Digital examination made out the gut to be bound down to the back of the pelvis by a "band." It was not easy of access from the median incision, therefore another was made in the right inguinal region. A loop of bowel 5 inches in length was released from the band, and was found covered by lymph, ecchymosed but not perforated. It was returned, and the abdominal cavity well washed. A glass drainage tube was left in the lower incision. Eight hours subsequent to the operation she became suddenly collapsed, after having appeared much better. She did not respond to stimulants, and died a few minutes after I was called. She had been having nutrient enemata containing ʒj of brandy every three hours.

At the *post-mortem* examination no less than three parts of the small intestine were found in the same condition—namely, covered with lymph, intensely injected, black, but not perforated. Each place stood the pressure of the water-tap, each part was from 4 to 7 inches long, and each had at least a foot of healthy bowel between. Examination of the pelvis showed the broad ligaments to be tightly stretched across the pelvis inclining slightly backwards, and adherent to the pelvic wall on either side. The appendix was adherent to the right broad ligament, but, beyond the adhesive peritonitis, was normal. The uterus was from two to three times its normal size, and the "band" previously mentioned was undoubtedly the upper border of the right broad ligament, which with the brim of the pelvis behind formed the opening of a pocket from which the loops of strangulated bowel were withdrawn. In the pocket so formed there was a considerable amount of fæcal-smelling fluid. The pelvic organs were removed *en masse*. There was a slight laceration in the peritoneum at the junction of the uterus and Fallopian tube, possibly made in releasing the bowel. The cervix uteri was exposed by slitting up the vagina. It was found infiltrated with new growth, very soft, and breaking down under the gloved finger. The uterus contained a few blood clots and shreds of membrane; the wall was much hypertrophied, and contained a small interstitial fibroid. The new growth infiltration seemed limited to the cervix.

Remarks.—The explanation of the condition seems to be that the new growth set up a local peritonitis in the broad ligaments, which in consequence became adherent to the pelvic wall. The bowel became incarcerated in the pocket so formed, and the acute condition was brought about by the increase in size of the uterus at the menstrual period.

Mr. Steer has kindly given me permission to publish these notes.

# REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

W. H. Dickinson, M.D., President, in the Chair.

*Tuesday, May 11th, 1897.*

### Relations between Bodily Development, Nutrition, and Brain Conditions in their Pathological Aspects.

Dr. F. Warner read this paper, the purpose of which was to show, as the result of extended observation among children, that: (1) Points of abnormal development in the body were very common and had important signification. (2) Abnormal nerve signs or points in balance and movement had been defined; they were much associated with defective development, as well as with the causes of mental dulness, and were of clinical importance. (3) There was a close empirical relation between (*a*) defective development of the body; (*b*) abnormal nerve signs; (*c*) low nutrition of the body and its tissues; (*d*) mental dulness and backwardness. (4) Some explanations of the relations among the classes of defect might be offered. After referring to his paper on Postures of the Hand as Indications of the Condition of the Brain, read before the Society in 1882, the author said that investigation was continued, and in connection with the work of a committee he was enabled to examine, between 1888-94, 100,000 children individually, in conjunction with other medical men, the results of which had been published in a report;[1] notes of 18,127 cases in some respect below normal were taken, and formed a basis of facts presented in the tables appended. After briefly describing the method of statistical examination of facts, the author passed on to describe four main classes of defect observed. (*a*) Defect in development in size, form, proportion of parts of the body, principally in cranium, palate, ears, and features, as well as more gross deformities; such signs were disproportions in ratios of growth. (*b*) Abnormal nerve signs in balance and action or reaction in movement and co-ordination as seen in the face and eyes, the upper extremities, the hands, digits, and balance of the body. (*c*) Low nutrition; cases pale, thin, or delicate. (*d*) Cases dull or backward mentally, as reported by the teachers. The developmental signs were disproportions in growth; the nerve signs were abnormal in the time of action, or in the ratios of action among the nerve centres. Movements were classified as: (1) Uniformly repeated series of movements; the same parts moving in similar combinations and series of acts on successive occasions. Athetosis, and athetoid movement of the frontal and corrugator muscles, with grinning, were types of this class. (2) Augmenting series of movements; the area of movement spreading from part to part. The expression of mental excitement and emotion, awaking from deep sleep to activity, the extra movements of fidgetiness, the march of the spasm in epilepsy and convulsions may afford illustrations. (3) Diminishing series of movements, as seen when excitement subsides; as sleepiness comes on; as the convulsion subsides or chorea passes away. (4) Co-ordinated movements, such as were adapted in their relations in time and in quantity of action by the environment, and therefore in harmony with it. It was shown that in each class the character of the movement depended upon the attributes time and quantity of action in nerve centres. The inference from the observed co-relation of development defect with abnormal nerve signs was that when proportional growth in body was abnormal, as a sequence of inheritance or otherwise, the nerve centres were commonly so built up that in subsequent action they did not work in the normal relations of time and quantity under the influence of the environment. It was shown that disproportion in growth and development of the body was

[1] Report on the Scientific Study of the Mental and Physical Conditions of Childhood, with particular reference to Children of Defective Constitution, and with recommendations as to Education and Training; based on the Examination of 100,000 Children, 1888-94. Published by the Committee, Parkes Museum, London, W.

commonly accompanied by a status of the tissues prone to atrophy under adverse circumstances. This was specially the case with girls, who might therefore fall into permanent ill-health with neuroses. Inco-ordinated nerve action, such as fidgetiness, awkward habits, or chorea, commonly occurred with a lowered status of nutrition, and suggested the hypothesis of a reversion of spontaneity in action, which was characteristic of the normal infant brain (microkinesis). The author proceeded to adduce evidence upon the following propositions: (1) Disproportioned bodily development was very common; it was correlated with low nutrition of body and inco-ordinated brain action. Facts in evidence were given in tables. The correlation with low nutrition was highest with girls of all ages, and was specially marked among the children of 7 years and under; it was much lower at 11 years and over. The correlation with nerve signs increased with age for girls, less so with boys. Finally, the proportion of the developmental cases that had not acquired either low nutrition or nerve signs was highest for boys in the oldest group, while for girls it remained about the same in each age group. It seemed that the environment was apt to produce more harm and less good in girls than in boys of imperfect development. (2) Inco-ordinated brain action was much associated with maldevelopment, and the presence of nerve signs was more correlated with the causes of mental dulness than were the signs of defective development. The tables showed the correlation of nerve signs with maldevelopment as highest for children aged 7 and under, and lowest in the oldest group; while the proportion of nerve cases that had nerve signs only without low nutrition was highest with the oldest group. The environment appeared to favour the occurrence of simple cases of nerve inco-ordination and weakness, which in many instances might be removed by training; such signs were much associated with mental dulness. (3) Delicate children were in a large proportion of cases ill developed in some part of the body. Among children without developmental defect there did not seem to be a larger number of delicate girls than boys; it was the girl who had some defect that was delicate, not all girls. Developmental cases tended to remain thin and delicate in all social classes, least so in resident institutions.

Dr. Norman Moore, while admitting that the ordinary physician was not familiar with the special methods of technical investigation employed by the author, thought it of value to approach the subject from an outside point of view. He thought there were some flaws in argument in the paper. Anyone familiar with Cuvier's law of the correlation of growth must have found it hopeless to establish this relation from the point of view of morbid anatomy. Thus in congenital morbus cordis there were no other constant variations in the body. With regard to the correlation of abnormal nerve signs with physical defects, he doubted whether abnormal gestures were necessarily proof of mental defect, and quoted Dr. Samuel Johnson as a case in point. He did not attach much value to the opinion of dull teachers as to the mental ability of their pupils; in Sir D. Brewster's *Life of Newton* it was stated that some of his teachers were half inclined to regard him as an idiot. He doubted whether the mere fact of the ears standing out pointed to any mental deficiency. He inquired what evidence the author's statement that bodily variation was more frequent in the male than in the female was based on; his experience in the *post-mortem* room did not support this, and he referred to variations in the arrangement of chordæ tendineæ and musculi papillares of the mitral and tricuspid valves. With reference to the stress laid on uniformly repeated series of movements, he thought that habit was not a sign of mental defect, and that sufficient attention had not been paid to the occurrence of habit. Variations in function had been described at length, while there was not, he thought, sufficient anatomical evidence brought forward. The after-history of the children investigated might with advantage have been followed out, since some of them might have been merely suffering from malnutrition.

Dr. Fletcher Beach, who had been associated with the author in these investigations, said that to prove a child abnormal, a number of points or stigmata were noted, and not one only. Thus no one would say that a boy whose only peculiarity was prominent ears was an abnormal being, but this point was taken in conjunction with other signs in forming an opinion. He laid stress on the fact that many of the nerve signs were hereditary in character and evidence of a neurotic inheritance; possibly this was true of Dr. Johnson. Overstrain was frequently the exciting cause of chorea. The number of children was so large that it was impossible to investigate their after-history. It was desirable to extend the investigation to large towns in the provinces and also to rural districts, since the London children were probably more nervous than those in the country.

Dr. Shuttleworth's experience was chiefly in connection with idiots and imbeciles, and it had impressed him with the frequency both of structural defects in the viscera and retarded general development in these lower grade children. In an examination of 1,200 such children, in conjunction with Mr. Charles Roberts he had found their weight and stature below the standard of normal children of the same age. The same cause arrested the development of the body and of the nervous structures. In an examination undertaken by Dr. Fletcher Beach and himself into the causes of idiocy in 2,000 cases, phthisis was present as a hereditary factor in 28 per cent. He considered that there was a definite correlation between physical and mental states. He admitted that some of the nerve signs were only the temporary results of unfavourable surroundings and not due to permanent changes. The occurrence of such nerve signs in persons of great mental power such as Dr. Johnson proved the truth of Dryden's line that "Great wits are sure to madness close allied."

Dr. Warner, in reply, said that he had carefully excluded from the paper the relation between mental states and physical signs. He had not touched on the association of one anatomical defect with another, but such a relation undoubtedly existed, and elsewhere he had described it. Individual cases did not disprove his general conclusions. He pointed out that Sir Isaac Newton was probably marasmic when a baby. It was only by the association of a number of signs that an individual could be shown to be abnormal. The uniform repetition of one set of movements was important since it was often clinical evidence of mental defect, and was not the same thing as habit.

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## MEDICAL SOCIETY OF LONDON.

Reginald Harrison, F.R.C.S., President, in the Chair.

*Monday, May 10th, 1897.*

The business of the annual meeting having been disposed of, the discussion was resumed on Mr. Armstrong's paper on

### A Red Meat Diet in Chronic Gout.

Dr. Garrod said he had had some experience of the treatment, though not in the same class of cases as Mr. Armstrong. In some it had produced no effect, while other patients said it had done wonders. The treatment was a carrying to extreme of the very commendable principle of feeding arthritic patients, and he pointed out that much harm accrued from subjecting patients with osteo-arthritis to the diet reputed to be applicable to gout. He remarked that no one explanation would account for the results obtained, and added that the principal methods of treating gout could not for the most part be explained on scientific lines. Gout, in fact, was not such a simple matter as many seemed to think. He pointed out that a case of chronic gout was very different from one of gouty arthritis. In patients with renal disease examination of the toe *post mortem* often revealed arthritic changes, although there might have been no symptoms during life. In chronic articular gout, on the other hand, there was not only the deposit of urates, but concomitant disorganisation of the joint structures. The formation of uric acid calculi again was quite another problem, involving the separation of uric acid, which took place under a variety of conditions. He thought the treatment, in any event, could only have a very limited field of application, and required close supervision.

Dr. Luff insisted on the fact that there was no difference between animal and vegetable proteid in respect of tissue metabolism, and he reiterated his arguments against the view that uric acid was introduced ready made in meat. He contrasted various statements made by Dr. Haig, and pointed out that

the reaction which he had used admittedly did not prove the existence of uric acid in meat, and could not show the presence of xanthin. He urged, therefore, that Dr. Haig had not only not proved the presence of uric acid, but that he could not possibly have detected the presence of xanthin by that means. He agreed that the author's treatment would be dangerous in patients with renal disease.

Mr. Freyer repeated his demand for an explanation of the reason why the inhabitants of the Punjab, who lived on an exclusively vegetable diet, frequently suffered from stone, gout, and rheumatism, and concluded by advocating the disregard of all dietetic restrictions.

Dr. Maguire thought it was merely a question of vitality. When a man's vitality became impaired he reverted to the condition of the lower animals, who excreted uric acid. He insisted on the fact that the treatment was not one that could be persisted in, a return to the ordinary diet being imperative.

Mr. Armstrong, in reply, challenged Dr. Haig's view that the red meat acted merely as a stimulant, clearing the blood of uric acid which was deposited in the joints. In his own cases the joint troubles had improved under the diet, and some of the patients had been under observation for as long as seven years. He referred to the case of a patient who had adopted Dr. Haig's dietary for six months; yet any worry or ill health was immediately followed by the copious excretion of uric acid, and he asked where it came from. He pointed out, in conclusion, that a period of from four to ten weeks was long enough, the patients then returning to ordinary diet. He added that not more than 3 per cent. of the cases were suitable for the treatment.

### Fourteen Cases of Kraske's Operation for High Lying Cancer of the Rectum.

Mr. Swinford Edwards read a paper which is published on page 1210.

Dr. H. Snow raised the question whether it was not possible to remove these growths without interfering with bony structures, a proceeding which added materially to the danger of the operation. He related a case of cancer of the rectum high up, in which he had succeeded in effecting complete removal by making a longitudinal incision through the growth; then, passing his left forefinger inside, he had cut away the growth from above.

Mr. Bidwell thought the high mortality of foreign statistics was due to the practice of performing rectorrhaphy. He suggested that in view of the possibility of obtaining a complete cure, patients would be willing to submit to the operation, even if the mortality were higher than it was.

Mr. Swinford Edwards, in reply, criticised Dr. Snow's plan of cutting through the growth itself.

### Election of Officers and Council.

The Officers and Council for the session commencing October, 1897, were elected as follows:—*President:* A. Ernest Sansom, M.D. *Vice-Presidents:* Constantine Holman, M.D., A. Pearce Gould, J. Kingston Fowler, M.D., John H. Morgan. *Treasurer:* David H. Goodsall. *Librarian:* William Henry Allchin, M.D. *Honorary Secretaries:* Robert Maguire, M.D., William H. Battle. *Honorary Secretary for Foreign Correspondence:* Alban H. G. Doran. *Council:* Theodore D. Acland, M.D., John Anderson, M.D., C.I.E., E. Clifford Beale, M.B., Frederick L. Benham, M.D., Robert L. Bowles, M.D., William Ewart, M.D., Reginald Harrison, Henry E. Juler, Norman Keri, M.D., Charles B. Lockwood, Jonathan F. C. H. Macready, James W. J. Oswald, M.D., C. J. Rayley Owen, Amand Routh, M.D., Morton Smale, John C. Thorowgood, M.D., George R. Turner, W. Dakin Waterhouse, LL.D., Joseph White, Arthur K. Willis.

## OBSTETRICAL SOCIETY OF LONDON.

C. J. Cullingworth, M.D., President, in the Chair.

*Wednesday, May 5th, 1897.*

### Specimens.

Mr. Bland Sutton: A lantern demonstration on Myoma of the Cervix Uteri.—Mr. Targett: A lantern demonstration on Accessory Adrenal Bodies in the Broad Ligaments.

### Chronic Axial Rotation of Ovarian Cyst.

Dr. Thomas Wilson read a paper entitled Chronic Axial Rotation of an Ovarian Cyst giving rise to Extreme Twisting of the Elongated Uterus. The patient was a multipara, aged 55, whose abdomen had been increasing in size for four years; for two years there had been frequent attacks of pain and vomiting, many of which were caused by lifting a heavy invalid husband. A tumour was removed after tapping, by tying and dividing a pedicle as thick as the thumb and 2 inches long. The tumour was a strangulated, multilocular glandular cyst of the left ovary, weighing about 5 lbs. To the lower part of the cyst was attached the fundus uteri and the right ovary, tube, and broad ligament, all strangulated. The cyst had a very broad and thick attachment to the left side of the uterus, and the latter organ had been twisted almost through in a direction from right to left. Both tubes were occluded and adherent, the right forming a distinct hydrosalpinx; the left was 9 inches long. The patient made an excellent recovery, and has continued well.

Dr. Peter Horrocks pointed out that in most cases of axial rotation there had been effort or exertion whilst in a bent position. He quoted a case where it occurred suddenly when a lady was pulling on a boot which was rather tight. He thought that great force must be exerted upon a tumour in the direction of axial rotation when effort was made in a bent position of the body.

Mr. Doran was surprised to hear that in Dr. Wilson's three cases where the uterus was involved in the rotation the cyst was of a multilocular, glandular type. In twisting of the pedicle alone the tumour was dermoid in a considerable proportion of cases. Much remained to be learnt about axial rotation. Mr. Doran had operated on patients in whom all the clinical symptoms pointed to twisted pedicle, yet nothing was found except soft parietal and perhaps omental adhesions. He had found the pedicle short and slightly twisted in cases where the patient had nothing to complain of except the presence of an abdominal tumour. On the other hand, he had found a long pedicle moderately twisted in cases where there were typical symptoms, including severe pain.

Dr. Wilson replied.

### Operative Treatment of Abdominal Pregnancy.

Mr. John W. Taylor read a paper entitled a Second Case illustrating the Treatment of (so-called) Abdominal or Ventral Pregnancy at full Term by the Operative Removal of Child and Placenta; Operation at the Twelfth Month; Recovery. He gave a detailed account of the previous history of the case, and of the condition of the abdomen and pelvis at the time of examination. The patient believed she became pregnant twelve months before operation. She felt exactly as in former pregnancies, but the movements of the child were unusually distinct and painful. Except for an attack of hæmatemesis, she was up and about during the whole time. At no period was there any acute pain, sudden illness, or fainting. A description was given of the operation of abdominal section for the removal of the child and placenta. The placenta was of ordinary size, and covered the pelvic inlet "like the lid of a saucepan incompletely closed." The edge of the placenta being exposed and free on the left side of the pelvis, but closely applied to the abdominal wall on the right side, where the cord was situated; its attachments were first a thick band or rope of omentum firmly attached to the upper or serous edge of a placenta on the left side; secondly, several thin attachments or adhesions of small intestine and cæcum to the same surface; thirdly, the deep pelvic attachments of the under surface of the placenta. The author described his bloodless method of removing the placenta. The paper concluded with a short commentary on the origin, growth, and history of the case.

After remarks by Dr. Lea, Dr. Heywood Smith asked whether the medical man who first saw the case when labour pains came on had made any examination, as the condition might have been recognised and the child's life saved by an earlier operation.

Mr. Alban Doran thought this case seemed an argument in favour of postponing operation when ectopic gestation was advanced till some time after term. The removal or the leaving behind of a nine months' placenta was a more serious

matter than the removal of the degenerate structure which represented it several months later. Operation seemed more urgent at term, however, in a class of cases first distinguished by Freund, where continuous intestinal catarrh denoted the intimate attachment of placenta to intestine. This histological union involved immediate danger from sepsis as well as from hæmorrhage.

Remarks were also made by Mr. Bland Sutton, Dr. Amand Routh, Dr. Wilson, and the President.

Mr. Taylor said in reply that the attachments of the placenta were very vascular, and that the vessels could be felt pulsating before the forceps were applied. The main point, however, was that as each vascular connection was controlled before separation, the same operation might have been performed at any previous period of the pregnancy; and if the patient had come to the hospital at the time of the supposed labour it might have been quite possible to save the life of the child as well as that of the mother. The collection of caseous masses found below the placenta was at the extreme lower pole of the pregnancy sac. This reached to the bottom of the pelvis on the right side, and the reflection of the sac could be traced upwards from the floor of the pelvis along the broad ligament to the under surface of the placenta, and it was in this lower pocket of the sac that the caseous masses had accumulated. The author said, in reply to Mr. Doran, that he would always prefer to operate at term, and under no circumstances would he purposely wait for the death of the child before opening the abdomen.

## OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

E. Nettleship, F.R.C.S., President, in the Chair.

Clinical Evening.

*Thursday, May 6th, 1897.*

Specimens and Cases.

Mr. Priestley Smith showed specimens illustrating a new method of Mounting in Formol.—Mr. Ernest Clarke showed three specimens of Detachment of Retina in different stages: in the first there was no inflammatory thickening; in the two others there had been inflammation, and in one there had been formation of cysts in the detached retina.—Mr. Hartridge showed Unequal Refraction produced by a Corneal Opacity; refraction through the centre of the cornea H. 6 D.; through periphery emmetropia.—Mr. C. Devereux Marshall showed a case of Sarcoma of Iris. There was a solid unpigmented growth occupying the position of the lens growing from the posterior surface of the iris; it was a small round and spindle-celled sarcoma.—Dr. Batten showed examples of Symmetrical Changes at the Yellow Spot in two brothers. The appearances were symmetrical in the two eyes of each brother, and showed disturbance of pigment at the yellow spot; the failure of sight had been gradual. There was evidence of hereditary syphilis.—Mr. Jessop had had a somewhat similar case, in which the failure came on at the age of 21; it began with œdema at the macula, followed by pigmentary change.—Mr. Lawford had a similar case, under care at the present time, in which the sight had suddenly failed from $\frac{6}{5}$ to $\frac{6}{60}$.—Mr. F. Eve and Dr. F. J. Smith showed a case of Obstruction of the Cavernous Sinus. After rheumatic fever, three years before, proptosis and double papillitis had come on with headache and vomiting. There was also tenderness of the scalp, and turgidity of the conjunctival veins; the oculo-motor nerve was paralysed, and the visual fields contracted. The case was either sarcoma or carcinoma of the pituitary gland or tubercle in the same region, or thrombosis in the cavernous sinus. There was no evidence of syphilis.—Mr. Doyne showed: (1) Result of Galvano-cautery for Conical Cornea. The cautery had been used deeply three times, but the resulting nebula was very faint. (2) Congenital Absence of Puncta Lachrymalia.—Mr. Lang showed a case of Enophthalmos with Proptosis on Stooping or Compressing the Jugular Vein. There was now post-neuritic atrophy. The proptosis was easily produced without pain by the patient herself on compressing the jugular vein; sometimes the proptosis came on by itself, the eye was then very painful. Mr. Priestley Smith had seen the same condition dating from childhood in an elderly man. Mr. Treacher Collins had shown a similar case at the Society in a young man in whom the eye came forward, the lid dropped, and the sight went on stooping. Dr. Habershon did not think that the periodic swelling negatived the possibility of the condition being due to a cavernous angeioma, obstruction to a vessel might cause turgescence and proptosis.—Mr. C. H. Walker showed a case of New growth in Yellow Spot Region in a middle-aged man in whom the sight had been found defective two months ago; there had been no change since. Vision was fingers at 30 inches; there was a central scotoma, but no peripheral contraction of the field. The swelling was distinctly raised from the level of the rest of the fundus; it might be a new growth, or inflammatory or cystic. Mr. Adams Frost thought the case was a form of central senile choroiditis. Mr. Holmes Spicer suggested that the doubt as to the cystic nature of the swelling might be set aside by a puncture of the growth under ophthalmoscopic observation. The President thought it was a form of central senile choroiditis. It would be interesting to know the further development of the case if this were so, as the ultimate result in such cases was not known.—Mr. John Griffith showed a case of Retinitis Punctata Albescens. A man, aged 48, had had night blindness all his life; his parents were first cousins; one sister had a similar condition, V = $\frac{6}{5}$, colour vision was normal; the O.D. was pale and waxy; the central region was crowded with very small white discrete dots; the pigmentary changes were very slight. Mr. Treacher Collins had had a similar case in a young lady whose parents were first cousins, and two of whose grandparents were first cousins. She had night blindness; there were also white spots in the fundus, as in this case. The President said that the point about these cases was that they did not get worse, as the pigmentary ones did.

## LEEDS AND WEST-RIDING MEDICO-CHIRURGICAL SOCIETY.

James Braithwaite, M.D., President, in the Chair.

*Friday, April 9th,*

Adherent Pericardium Diagnosed during Life.

Dr. Churton showed a specimen from a case of adherent pericardium diagnosed during life by the presence of Sir W. Broadbent's sign. The heart weighed 14 ozs., from a child aged 10 years. Old adhesions existed between the lower part of the left ventricle and the diaphragm; death had followed recent pericarditis over the right ventricle, etc. The eleventh rib on the left side had been very clearly felt to be drawn in at each systole a few days before death. How long this sign had existed could not be ascertained.

Multiple Aneurysm of Pulmonary Artery.

Dr. Churton showed the lungs from a boy aged 12 years, in whom a loud roaring pulmonary systolic bruit and very highly accentuated second sound were present during life, with hæmoptysis, epistaxis, and dropsy. Four of the secondary branches in one lung, and three in the other, led into aneurysms as large as walnuts, filled with blood clot. The boy had been ill for a year. He had never been strong; had bronchitis at the age of 4 years, and again at 6; pleuritic effusion in July, 1895, and was subsequently said to have Bright's disease. In April or May, 1896, he had three attacks of hæmoptysis; ascites appeared; face became swollen after this. He died in July. There were several wart-like growths, firm and smooth, on the tricuspid valve and the endocardium near it.

Myxoma of Vermiform Appendix simulating Recurrent Appendicitis.

Dr. Churton showed an appendix from a girl, aged 23, admitted with a history of two attacks of (supposed) appendicitis, and complaining of inability to work on account of constant discomfort in the cæcal region. A fortnight in bed caused no improvement. She was transferred to Mr. Mayo Robson for operation. After removal the appendix was found to be thickened at the end, and upon being opened showed a pellucid shining tumour, sessile, of the size of a small bean, obstructing the lumen $\frac{3}{4}$ inch from the distal end, which was

slightly distended by clear mucus and thickened. In water the growth swelled up to nearly three times its original size. There were no peritoneal adhesions or other signs of peri-appendicitis. No record of a similar specimen had been found.

PERFORATION OF NASAL SEPTUM.

Mr. R. H. HALL showed an unmarried woman, aged 50, with a perforation of the nasal septum the size of a two-shilling piece. The perforation was first noticed four years ago when the size of a shot, and had steadily increased since to its present size. The mucous membrane lining the alæ of the nose had also become involved, having a rough-pitted appearance; there was no history of syphilis. Epistaxis invariably occurred once or twice a week, and seriously impaired her health. The perforation was a clean punched-out circular hole without discharge or fœtor. No sloughs were formed, and the tissue appeared to slowly melt away. Her general health was poor, but no disease beyond the nasal one had been discovered. She had been treated generally—with iodide of potassium, mercury, iron, strychnine, and tonics, and locally with the electric cautery, nitric acid, carbolic acid, yellow oxide of mercury, hazeline, boracic acid without any benefit. Mr. Hall had previously formed the opinion that the case belonged to the class of cases of "simple perforating ulcer" (non-syphilitic) reported and commented on by Hutchinson, Hajek, Jessop, and others, but as there was no improvement with local treatment as there had invariably been in the reported cases, he was losing faith in his diagnosis. He did not think the ulcer was syphilitic or tuberculous, but thought it might possibly be a rodent ulcer.

OPERATION FOR VARICOCELE WITH UNUSUAL COMPLICATIONS.

Mr. W. H. BROWN read this paper. A man, aged 42, consulted him twelve weeks before, complaining of pain in the left testicle. He had a large varicocele and a shrunken testicle, and was much distressed mentally about his condition. A suspensory bandage was ordered, but in a short time, as the patient worried himself very much about his varicocele, Mr. Brown excised and ligatured the enlarged veins. The patient passed a restless night, was slightly delirious, and got out of bed and walked about. Next morning there was a large scrotal hæmorrhage, temperature 103°, and he was quite insane. In a few days pneumonia attacked the right lung, and a rubeolous rash covered the body. The scrotum and a large part of the testicle sloughed. Later the mental condition cleared up, and eventually the patient became quite rational, but some plastic operation would be required to cover the exposed testicle. Mr. Brown suggested for discussion the connection between the dread of the varicocele and insanity, the absence of pain during destruction of the testis, the indifference with which the patient viewed the destruction of the testicle contrasted with his former anxiety, and our insufficient appreciation of the mental effect of abnormalities of the external organs of generation.

Mr. JESSOP observed that insanity did occasionally follow operations for varicocele, and mentioned two illustrative cases; he believed that it would not be necessary to do any plastic operation.

Mr. LITTLEWOOD considered that varicocele would be a likely condition to produce a maniacal condition after operation, and related a case in which the whole scrotum had been torn off by an indignant wife, and recovery followed without operation.

Mr. PRIDGIN TEALE thought that the insanity was produced by the operation aggravating instead of soothing an already abnormal and irritable condition of the nerve centres.

Dr. DRURY suggested that the insanity might be partially due to the anæsthesia necessary for the operation; and

Dr. MORTON considered that the pneumonia might be responsible for it.

ACCIDENTAL ADMINISTRATION OF A LARGE DOSE OF SILVER NITRATE; RECOVERY.

Dr. ARTHUR DRURY (Halifax) read the following account of a personal experience. The incident occurred on March 21st, 1896. During the whole of the week previous he had been in bed with a temperature remaining at 101° or 102°, and resisting various medicinal attempts at reduction. There were also symptoms of tonsillitis. On the date mentioned it was decided to apply nitrate of silver locally. A new pencil was used, the weight of which would be about 25 grains. This was put into a crayon holder such as was supplied for the purpose in many surgical cases, and which did not happen to be in good order. Almost immediately the whole pencil slipped down the œsophagus. His feelings were absolutely indescribable. There was localised pain in the gastric region, and a strong conviction that death must soon follow. Immediately a frothy foam welled up in large quantities, forcing its way through the mouth and nostrils, staining handkerchiefs and the bed linen. This foam would be due to the chemical decomposition of the salt by the action of hydrochloric acid present in the stomach, hydrogen gas being freely given off. There was an irresistible feeling that the pencil was lying impacted in the gullet. This seemed such a terrible source of danger that he insisted—against the wishes of those present—on having a probang passed. Mustard was given in large quantities and free vomiting induced. Some time after common salt was given. A very careful search was made for any of the pencil which might have remained undissolved, all the vomited matter being examined without any of the solid caustic being found. Collapse and great exhaustion followed. For some days after a milk diet was carefully followed. Everything, especially if sweetened, had a very salty taste. There was no further vomiting, but very pronounced constipation. The temperature at once became subnormal, and all the symptoms of the previous week's illness disappeared. During the next fortnight there was well marked desquamation of the whole of the skin, though to the best of his knowledge there had been no exposure to scarlet fever, and certainly no rash, and further a child not 3 years of age was in and about the same room during the whole of the time without developing any symptoms. During the twelve months since the accident there had been many indications of dyspepsia; some of these symptoms were present in a much less aggravated form prior to this. The pencil was composed of 4 per cent. nitrate of potash and the rest nitrate of silver. There was very little food or fluid present in the stomach at the time of administration. The salt being extremely unstable, the chemical changes involved were accompanied by most active and destructive irritation. It was therefore a matter of surprise and interest that in this instance the recovery was so good. As, however, the cases in which so large a dose had been accidentally administered included so many instances in which the death of the patient had resulted, a strong word of caution against the use of such a powerful corrosive poison in the solid form in throat affections was not out of place.

SPECIMENS.

Dr. HELLIER exhibited a Placenta from a case when he had induced labour at the sixth month for repeated hæmorrhage during pregnancy in a patient who had flooded severely in two previous confinements. The placenta showed at its periphery a complete broad belt of fibroid and fatty tissue which appeared to be due to previous hæmorrhages. The following were also shown:—Dr. A. BRONNER: Case of Cerebral Abscess opened and drained through the tegmen tympani.—Dr. TREVELYAN: (1) An Injected and Dried Brain, showing the distribution of the middle cerebral artery; (2) Cultivation Preparations from a case of Secondary Cerebro-spinal Meningitis. Mr. LITTLEWOOD: (1) Case of Multiple Osteomata; (2) Sublingual Dermoid; (3) Intussusception; (4) Parts from a case of Intestinal Obstruction due to a gall stone.—The PRESIDENT: (1) Cancer of Ovary; (2) Two Ovaries removed for disease.—Mr. H. SECKER WALKER: (1) Carious Ossicles removed from the middle ear on account of chronic suppurative otitis; (2) Case of Detached Retina.—Mr. WARD: Specimens of Miliary Tuberculosis of Hip and Knee-joints.

Dr. JOHNSTONE reported a case of Ectopic Gestation.

## EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

WILLIAM CRAIG, M.D., Vice-President, in the Chair.

*Wednesday, May 5th, 1897.*

CASES.

MR. ALEXIS THOMSON showed (1) a patient after Resection Small Intestine for Stricture caused by Strangulation of a Hernia; (2) a patient with Lumbar Hernia.

SPECIMENS.

Mr. C. W. CATHCART described and illustrated a method of Rolling Catgut and Silk in Balls to obviate the Use of Spools.—Dr. MATHESON CULLEN showed a specimen of Duodenal Ulcer.—Dr. W. G. SYM showed a Melanotic Sarcoma of the Eye which had penetrated the globe and was growing in the orbit.—Dr. SHERMAN showed the Bacillus of Plague and a Culture.

RENAL TUMOUR.

Mr. F. M. CAIRD read a brief note on this subject. He reported the case of a patient, aged 56, who suffered from a large malignant tumour of the left kidney. The symptoms were mainly those of progressive hæmorrhage for over two years. The patient was markedly anæmic. Access was obtained by a lumbar incision prolonged forwards. Enucleation of the mass presented much difficulty, and it was found necessary to incise and eviscerate the growth with one hand, while with the other an attempt was made to control the entrant vessels. In this manner the tumour, which weighed over 2½ lbs., was successfully removed.

The paper was discussed by Dr. LOVELL GULLAND and by Messrs. SHAW MCLAREN, and C. W. CATHCART; and Mr. CAIRD replied.

CONGENITAL GASTRIC SPASM.

Dr. JOHN THOMSON read a paper on this subject. By the term "congenital gastric spasm" he proposed to designate the disease leading to congenital hypertrophy and stenosis of the pylorus. After giving details of another case he passed in review the clinical features and morbid anatomy as recorded in 15 published cases. The main clinical facts were as follows: The children affected were born at full time, and in a state of apparently perfect health and development; and they remained so until seemingly causeless vomiting set in. This might begin within a few days of birth, or only after several weeks. The vomiting rapidly increased in urgency, although there were usually no other signs of dyspepsia. It was brought on by the amount rather than by the nature of the food given, and the ordinary means of allaying it were without any effect. When the fluids swallowed were not vomited they remained for an abnormally long time in the stomach. The hypertrophied pylorus could sometimes be felt during life as a movable tumour in the epigastrium. The children lived from three weeks to six months, and died of exhaustion following the vomiting. At the necropsy the stomach was found hypertrophied and dilated, and the pylorus enormously thickened, its enlargement being mainly due to hypertrophy of the muscular tissue. There was no fibrous structure, and the mucous and serous coats were normal. The other organs of the body were practically quite healthy. With regard to the pathology of the condition, it was suggested that while all the other changes which were found *post mortem* were secondary to the muscular hypertrophy, the muscular hypertrophy itself was obviously not a primary condition, but merely the result of increased action. The malady consequently was not to be regarded as a muscular, but as a nervous, one—a functional disorder of the nerves of the stomach and pylorus leading to ill-co-ordinated and therefore antagonistic action of the muscular arrangements of these parts *in utero*. It would, therefore, be better to speak of this condition as congenital idiopathic vomiting or congenital gastric spasm, rather than to give it a name merely denoting the anatomical results of the original malady. While the cause of the muscular spasm could not be ascertained for certain, it was probably to be attributed to an interference with the process of development.

The paper was discussed by Dr. A. JAMES, Dr. W. RUSSELL, Mr. SHAW MCLAREN, Mr. C. W. CATHCART; and Dr. JOHN THOMSON replied.

REMOVAL OF A PIECE OF STEEL FROM THE VITREOUS.

Dr. W. G. SYM read remarks on a case in which a fragment of steel was removed from the vitreous humour. A marine engineer presented himself thirteen months after having been injured by a spark of steel broken off a drill entering the left eye. The whole tissues of the eye were stained of a rusty brown, and ripe cataract was present with slight restriction of the field of vision, but no signs of any sympathetic trouble. The patient had been strongly advised in another town that his only proper course was to submit to immediate removal of the globe. He was admitted to Leith Hospital, and after careful discussion of several possible methods of treatment Dr. Sym decided to extract the lens, and at the same sitting to attempt to remove the foreign body by means of the electro-magnet. This was accomplished successfully without the loss of the smallest quantity of vitreous humour, and the patient thus relieved of cataract and of all fear of loss of sight by sympathetic ophthalmia. The piece of steel, weighing 1 grain exactly, was shown at the meeting of the Society on May 5th, 1897.

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EPIDEMIOLOGICAL SOCIETY.—At a meeting on April 30th, Professor J. LANE NOTTER, M.D., President, in the chair, Dr. LOUIS PARKES read a paper on the Infectivity of Diphtheria and the Relation of Diphtheria Prevalence to School Attendance. In Chelsea, with a nearly stationary population of 75,000, there had been from 150 to 200 cases annually from January, 1890, to September 30th, 1895, but in the next fifteen months two epidemics occurred, of three and six months' duration respectively, in which 421 cases were notified. He would distinguish these, not as primary and secondary, but as single and multiple, the latter including all occurring in a house soon after the first. In the non-epidemic period of five and three-quarter years, of the 1,153 cases, 209 (18.1 per cent.) were multiple; but in the epidemic periods of nine months, of 421 cases, 168 (39.9 per cent.) were so. The deaths in the former period were 222 (19.3 per cent.) of the cases, and in the latter 96 (22.8 per cent.); or, distinguishing single and multiple cases, the case mortalities were 18.6 and 22.0 per cent. in the non-epidemic, and 21.3 and 25.0 per cent. in the epidemic periods. In the two periods the cases under 10 years were 56.7 and 74.3 per cent. respectively, but the mortality of those under 3 years was 9 per cent. lower in the epidemic period, though at other ages it was higher. In both periods the mortality of multiple cases was higher under 5 years and lower above that age than among single cases. The percentage of cases at school age, that is, 3 to 13 years, rose from 50 in 1893 to 66, 61, and 63 in 1894, 1895, and 1896. Diphtheria, unlike scarlatina, was most fatal when most prevalent, and its epidemics were more local, persisting for three or four years in a district, and extending in the course of two years from their commencement to those adjoining. The closure of schools for the summer vacation was followed by a notable fall in the notifications, especially among children of school age, and a like though lesser diminution was observed after the Christmas holidays. The effects of school closure were less evident in August, 1895, when the disease was rapidly increasing in intensity. The conditions under which children "romped" in the playground were more conducive to infection than those under which they associated in the class rooms or even in the streets, and urged as means for detecting suspicious cases and preventing the spread of the disease, medical inspection of children in schools, communication between the head masters of schools and the medical officer of health, and a system of inter-notification between the medical officers of different districts.—Mr. MURPHY criticised Dr. Parkes's division of cases into single and multiple as likely to obscure important issues, and believed school closure to be most effective when an epidemic was increasing in intensity.—Dr. HAMER maintained that many of Dr. Parkes's multiple cases were really primary, and derived from a common source with the first cases. In an outbreak at Lewisham he had no difficulty in distinguishing between primary and secondary cases, there having been an interval of over forty-eight hours between the first and following cases in 66 out of 68 houses, and to have substituted Dr. Parkes's division would have deprived his inquiry of most of its value.—Dr. NEWSHOLME believed firmly in school closure, and said Dr. Parkes laid too great weight on personal intercourse, ignoring the part played by fomites, etc., thus underestimating the number of primary cases.—Dr. SYKES insisted on the importance of social conditions and of the dependence of the number of multiple or secondary cases on that of susceptible individuals in a house, and thought that the dust raised by the movements of children in a class room was a very probable source of infection wanting in the playground or street. He also demanded a change in the allocation of beds in the hospitals, since cases of one disease were often refused admission when

there were many vacancies among the beds set apart for another.—Dr. DUDFIELD said internotification was necessary, since children from one district often attended schools in another. The medical officer of the School Board was unfortunately averse to closing schools. The allocation of beds was already under the consideration of the Asylums Board.—The PRESIDENT considered that the aggregation of many persons in a house or room was more potent than any association in the open air. Last year 840 cases of diphtheria were verified bacteriologically at Aldershot, though of a mild type.—Dr. PARKES, replying, adhered to his methods and conclusions, adding that the number of occupants in the affected houses was generally 7 to 12, though sometimes only 4 or 5 in small cottages for single families.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—At a meeting held on May 7th, Mr. W. BRUCE CLARKE, President, in the chair, Mr. L. A. BIDWELL read a paper on the Value and Safety of Abdominal Exploration in Obscure Cases. He brought forward a series of thirty laparotomies for diseases of intestine, liver, stomach, and kidney. One patient (gastro-enterostomy) died on the tenth day from broncho-pneumonia, all the others recovered. He had excluded cases of acute obstruction and diseases of the pelvic organs. The list included six operations for chronic intestinal obstruction, nine cases of exploration of the stomach, in three of which gastro-enterostomy was performed, eight cases of exploration of the liver, and seven cases of exploration of the kidney, in five of which nephrectomy was performed. He drew attention to the benefit which followed simple abdominal exploration in advanced malignant disease of the peritoneum where no curative operation was possible. Mr. DORAN had found Langenbuch's incision very useful for exploring doubtful swellings in the region of the liver. It allowed the operator to explore both kidneys, which was always advisable, as he knew of a case where both were found diseased, so that the operator refrained from removing a tumour apparently omental. He pointed out the good results obtained by exploration in cases of tuberculous peritonitis. He inquired as to the method of suturing the abdominal incision adopted by Mr. Bidwell. Mr. MCADAM ECCLES dwelt on the occurrence of ventral hernia and intestinal adhesions following abdominal operations. Dr. SNOW pointed out the occasional improvement which resulted after abdominal section in cases of malignant disease, even although the disease was not eradicated. He contrasted this with the recovery resulting from abdominal section in tuberculous peritonitis. Mr. KEETLEY insisted on the importance of early diagnosis in abdominal cases, as so many were seen when the disease was too advanced for radical surgical treatment. Wholesale exploratory operations could not be advised. Many would be quite fruitless, as it was precisely in the cases where nothing was to be found that the viscera would be most disturbed in trying to find something. Although septic peritonitis ought never to follow abdominal sections, extreme illness without peritonitis might be observed in hypochondriacal patients after abdominal exploration. There were other obvious objections to thinking as lightly of a laparotomy as of a laryngoscopic examination. There were many methods of suturing the abdominal incision. He now generally united the peritoneum with a continuous silk suture, the remaining layers and skin being brought together by a single row of silkworm gut sutures. He had observed improvement in two cases of malignant disease after laparotomy where radical treatment was impossible.—Dr. HERBERT SNOW read a paper on The Principle of Anticipatory Gland Excision in Cancer Surgery.

BRITISH ORTHOPÆDIC SOCIETY.—At a meeting on March 12th, Mr. C. B. KEETLEY in the chair, Mr. JACKSON CLARKE showed a case of Spontaneous Inward Displacement of the Scaphoid Bone, unaccompanied by flat foot, but associated with a good deal of pain. There was also a distinct depression externally to the scaphoid bone. The CHAIRMAN remarked that there was a valgoid condition in each ankle, which might have tended to squeeze the scaphoid a little inward. Mr. TUBBY described a similar case in which he had, after failure of other means, chiselled off the prominence of the scaphoid. Mr. MUIRHEAD LITTLE thought that the condition was similar to that described by Schaffer under the title of non-deforming flat foot. Messrs. NOBLE SMITH, LUKE FREER and ROBERT JONES also discussed the case, and after a suggestion from the CHAIRMAN that the Roentgen rays might be of value in clearing up the difficulties of the case, Mr. JACKSON CLARKE replied.—Mr. NOBLE SMITH drew attention to the accounts of Immediate Reduction of the Deformity arising from Pott's Disease, as practised by Dr. Calot. Mr. N. Smith was under the impression that this plan of treatment had been adopted many years ago by empirics, and he questioned if it were possible that such a procedure had been followed by the results described. As showing the possibility of a very large gap in the spinal column becoming filled by bone, he alluded to a specimen of his own which had been filled up with soft new bone. The CHAIRMAN remarked that he was not quite satisfied that in the specimen described by Mr. Noble Smith it was actually new bone that had been formed, and Mr. ROBERT JONES mentioned certain cases in which ignorant attempts at forcible straightening had been followed by disastrous results.—Mr. LUKE FREER described a simple instrument for cases of Hallux Valgus.—The CHAIRMAN showed a girl, aged 13, on whom he operated for Congenital Dislocation of the Hip three months previously. After extension and division of the contracted muscles he had opened the capsule of the joint and gouged out a new acetabulum. There was now shortening of 1¼ inch, with a good deal of flexion movement, but no upward displacement of the femur could be obtained. Mr. TUBBY congratulated Mr. Keetley on the successful result he had obtained, and suggested a collective investigation by the Society of these cases. Messrs. ROBERT JONES, NOBLE SMITH, and MUIRHEAD LITTLE took part in the discussion.

BIRKENHEAD MEDICAL SOCIETY.—At a meeting on May 7th, Dr. R. SYDNEY MARSDEN, President, in the chair, the following clinical cases were shown:—Dr. BLOOD: Cases of Squint; Cataract Extractions; also Cases of Congenital Absence of Iris in mother and child.—Mr. SHEARS: 1. Two Cases of Interstitial Keratitis. 2. Case of Hereditary Optic Atrophy. 3. Case of Choroido-retinitis (specific). 4. Case of Extreme Hyperæmia of both Optic Discs due to hypermetropic astigmatism and closely simulating optic neuritis of disease.—Dr. STANSFIELD: 1. Ligature of Internal Saphenous Vein for Intractable Varicose Ulcer. 2. Skiagraph of Cranium. 3. Case of Umbilical Hernia.—Dr. CARDEN PEARSON: 1. Varicose Veins of Thorax. 2. Successful Case of Ligature of Innominate Artery for Subclavian Aneurysm.—Dr. STEWART: 1. Rodent Ulcer of Eyelid. 2. Ulceration of Tonsil. 3. Chronic Hydrocephalus in a boy aged 11 years.—Dr. LAIRD PEARSON: Plastic Operation for repair of Hare-lip in a grown-up child.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—At a meeting held at Owens College, Manchester, on April 23rd, H. BRIGGS, F.R.C.S., President, in the chair, it was decided, on account of the Royal visit to Sheffield, to postpone the Leeds meeting until May 28th.—Dr. FAVELL, of Sheffield, showed a specimen of Pyosalpinx removed that morning.—Dr. T. B. GRIMSDALE (Liverpool) narrated a case of Atresia Vaginæ resulting in Double Hæmatometra and Double Hæmatocolpos. The patient, aged 16, complained of pain in the lower abdomen and sacral region. She had never menstruated. She had passed "yellow jelly" from the bowel. The girl was well nourished and well developed. The external genitals well formed. An opening, which had the appearance of the vaginal orifice, admitted one finger into the bladder. This was really a *cul-de-sac* about ½ inch deep, into which the urethra opened. The condition was relieved by a central perineal incision. The condition found at the operation was atresia of the lower portion of vagina; about two-thirds above this the vagina was double, and each vagina led into a separate uterus; all these cavities were distended with blood. At a subsequent date the condition was verified to be uterus didelphys and vagina duplex.—Dr. GEMMELL (Liverpool) related a case of Puerperal Septicæmia from an unusual cause. The patient had been seen in consultation on the fourteenth day after confinement, with a history that she was a primipara who had had a prolonged labour,

the result of narrowness of the brim of the pelvis, and a dead child was born which was undergoing maceration. The uterus was well douched with perchloride of mercury, and all went well until the ninth day, when the temperature went up to 104°, and she had been in a state of high fever since. When seen she was in the stage of collapse, and on examination *per vaginam* the cervix was patent, and the finger passed into the uterine cavity, which was quite clean and smooth; but in the posterior wall of the cervix, just at its junction with the uterus, was felt a hole leading into a cavity which was in the pouch of Douglas, and from which sloughs came away. As to the origin of this abscess cavity, it is open to question whether a rupture had taken place at the junction of body and cervix uteri, or prolonged pressure on the posterior lip of the cervix had given rise to a sloughing, and then formation of an abscess cavity. There was no pelvic cellulitis.

# REVIEWS.

A Manual of Midwifery. By Alfred Lewis Galabin, M.A., M.D.Cantab., F.R.C.P., Obstetric Physician to Guy's Hospital, etc. Fourth edition. London: J. and A. Churchill. 1897. (Crown 8vo, pp. 867. 15s.)

Dr. Galabin's book has established its place as an authoritative work—an account of the science and art of midwifery given by one of the most competent persons to expound it that could be found in England or in the world.

In the present edition the general character of the work is not altered. The changes made are only those necessary to bring it up to date. Thus in the chapter on the development of the placenta the author has availed himself of the researches of Webster and of Eden. The section on extra-uterine gestation has been for the most part rewritten. Dr. Galabin, contrary to many modern observers, accepts as possibilities, actual though rare, both ovarian and primary peritoneal pregnancy. In this edition there appears for the first time a section on deciduoma malignum, in which the literature of the subject is referred to, and the various opinions as to its pathology are summarised; but the reader may possibly wish for a more definite statement of Dr. Galabin's own opinion.

On one point we would respectfully find a little fault. At page 515 the author says that, in measuring the diagonal conjugate with two fingers in the vagina, the forefinger of the other hand being employed to mark the place where the fingers come into contact with the pubic arch, "it is rather difficult to mark the exact spot with the nail while the finger is closely pressed against the pubic arch," and he therefore recommends to educate the perceptive faculty of the finger so that it may retain the impression of the exact spot where the pubic bone touched it; in other words, guess rather than measure. The difficulty in measurement which the author speaks of is explained when his illustration on page 514 is looked at. This represents the measurement being taken with two fingers of the right hand in the vagina, the palmar surface being upwards; the left forefinger, awkwardly held nearly at right angles to the symphysis, and almost parallel with the fingers in the brim, marking the point of contact. The left forefinger cannot easily do it in any other position, but when so held the measurement will vary according to how far the tip of the finger penetrates underneath the pubic arch. But if two fingers of the left hand, dorsal surface upwards, are put in the vagina, the right forefinger can take the measurement held parallel with the symphysis, at right angles to the fingers in the brim; and the source of inaccuracy above pointed out does not exist.

The Law of and Practice in Lunacy. By A. Wood Renton, M.A., LL.B. Edinburgh: Wm. Green and Sons. London: Stevens and Haynes. 1896. (Pp. 1,214.)

This work professes to be the first attempt to deal with the English law of lunacy as a whole, by combining a systematic treatment of it under various headings, with a practical annotation of the numerous statutes in which a great part of that law is embodied. The scheme is a large one, and necessarily makes the book bulky, but it cannot be said that the author has been unnecessarily diffuse, or that any considerable amount of the matter presented to his readers could have been omitted without the risk of leaving the treatment of the subject incomplete.

Insanity is first dealt with, apart from statute, in five chapters, occupying altogether sixty pages, which deal with it as bearing on contracts, marriage, wills, torts, and life insurances. Then follows the Lunacy Act, 1890, as amended by the Act of 1891, with copious explanatory notes; the rules of 1895 made under those Acts; the Criminal Lunatics Acts, 1800-1881; and some statutes of minor importance, occupying in all over 800 pages. The work concludes with an interesting chapter explanatory of the rules in MacNaughton's case, which are so frequently referred to as defining the criteria of responsibility for criminal acts, but are almost as often misquoted, misunderstood, or misapplied. All who are interested in the subject should read this chapter, at any rate, carefully. The historical development of the doctrine of criminal irresponsibility is carefully traced, and rulings of judges prior to the year 1843, when MacNaughton was tried for the murder of Mr. Drummond, are set out, with a history of the cases in which they were given. The opinions given to the House of Lords, after MacNaughton's acquittal on the ground of insanity, are usually quoted in medical and legal textbooks as defining the questions proper to be considered in criminal cases where the defence of insanity is raised. Medical experts are prone to cavil at these questions as fixing an undue responsibility on a man whose mental capacity is imperfect, while lawyers resent the supposed inclination of the experts to usurp the functions of the jury, and themselves decide the question of the legal responsibility of the accused by reference to considerations other than those which are laid down as the legal tests.

It is strange that both parties to the controversy are apt to disregard the fact that, in strictness, the opinions delivered by the judges in MacNaughton's case are not legally binding on any one. They were given in no legal proceeding, without the questions having been argued, and without direct reference to the facts of any particular case. But though not legally binding they have no doubt been adopted and followed, more or less loyally, by many judges since 1843, and must be considered as laying down the principles to be acted on now and until the law is altered by Parliament, if such an alteration should ever be made. Mr. Renton shows that, especially of late years, the summings up of individual judges have not always been in strict accordance with MacNaughton's case. He does not say whether these later rulings are of much or any authority. Perhaps, as the judges referred to are still alive and on the bench, it is wiser to say nothing about them. The language they used has been recorded, and may have to be considered by those concerned in deciding how far other alleged lunatics are to be held criminally responsible for their actions.

All who have to consider such cases, and indeed all concerned in lunacy practice considered from its legal side, will find this book useful. The type used is good, and the index and table of cases cited seem to be full and accurate.

Traité Pratique des Maladies Vénériennes [A Practical Treatise on Venereal Diseases]. Par Le Dr. Henri Berdal. Avec Nombreuses Figures et 7 Planches en Coleurs. Paris: A. Maloine. 1897. (Demy 8vo. Pp. 698.)

This book is not so comprehensive as its title would imply, for it does not include syphilis, which, however, we learn from a preface contributed by M. Tenneson, one of the physicians to the St. Louis Hospital, is to follow later in another volume. Gonorrhœa and its complications in men, women, and children are first dealt with at considerable length, occupying indeed more than half the book. Then comes the soft or local chancre, and this in turn is succeeded by a long account of a parasitic form of balano-posthitis which we gather from the preface was first described by MM. Berdal and Bataille in 1889 under the name of *balano-posthite érosive circinée*, and which here occupies over forty pages. The remaining subjects are grouped under the barbarous title *Affections Para-vénériennes*, and include herpes, warts, phimosis, and some other affections of the genital organs not neces-

sarily of venereal origin. A long list of formulæ brings to an end a book which may be fairly described as a useful and practical treatise suitable both for students and practitioners of medicine. The coloured plates taken from models in the collections of the Midi and the St. Louis Hospitals are excellent, but there is no index.

## NOTES ON BOOKS.

### Reports and Transactions.

The fifty-second volume of the *Guy's Hospital Reports*, edited by Dr. E. C. Perry and Mr. Jacobson (London: J. and A. Churchill) is small; its articles are few, but good. Mr. Jacobson has written an appreciative notice of the late Arthur Edward Durham, which skilfully sketches the distinguishing traits of his many-sided character, and dwells especially on his "habitual cheeriness and the unvarying sunniness of his temper," and his consideration, thoughtfulness, and unselfishness towards others which made him beloved of all with whom he came in contact. Of the medical articles three are by Dr. Frederick Taylor. These are: A case of Shingles followed by Paralysis of the Abdominal Muscles. The author shows that the muscles involved in such paralysis may stand to the sensory nerves affected by zoster in three different relationships. The second paper is on cases of Cirrhosis of the Liver in Children, with some remarks on cirrhosis; the third is on a case of Splenic Anæmia, or Primary Splenomegaly. Dr. W. J. Tyson (Folkestone) has an interesting paper on 12 cases of Appendicitis under his care at various times, 9 of which occurred between April, 1895, and May, 1896. Dr. J. Fawcett has written on the urinary excretion in gout and the effect of treatment with colchicum and salicylate of sodium. The former drug neither increases the excretion of uric acid nor of urea, whereas the latter remedy augments the excretion of uric acid considerably, that of urea slightly. Dr. C. R. A. Sutton has a paper on Albuminuric Retinitis, with special reference to its prognosis and pathology, and concludes that the main factor in its causation is the diminution of the red corpuscles and increase of the white cells in the blood in that disease. The first surgical paper is by Mr. Davies Colley on Hallux Flexus, Claw-toe, and Pes Cavus. The treatment is described in every detail, and several cases show the great benefit that may be attained. In Mr. F. Newland-Pedley's paper on Some acquired Maxillary Defects and their Treatment, perforations of the hard palate and cases of surgical removal of the symphysis menti for disease are chiefly considered. Dr. T. G. Stevens, in an excellent paper on Laceration of the Female Perineum: its Varieties, Mechanism of Causation, and Treatment, advocates immediate suture, describing the method suitable for each variety of tear, but, best of all, he devotes several pages to prophylaxis, and shows by what means the accident is to be avoided. Mr. L. A. Dunn describes a successful case of pylorectomy for carcinoma, in which Murphy's button was employed to unite the duodenum and stomach. Finally, a list of specimens added to the pathological museum during 1895 is contributed by Drs. L. E. Shaw and E. C. Perry; and lists of pupils who passed examinations or held appointments in the hospital in 1895 are appended. In closing the volume we cannot avoid the regret that so few members of the staff have contributed to its contents.

## REPORTS AND ANALYSES
AND
## DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

### ROTARY CERVICAL CURETTE: IMPROVED VAGINAL INSUFFLATOR.

Dr. Alexander Duke (Cheltenham) writes that the curette (Fig. 1) designed by him for the removal of the tenacious mucus which fills up the cervical canal in cases of endometritis, etc., has been largely used both by gynæcologists in this country, America, and abroad. By making the cage rotate by pressure of fingers and thumb the mucus is removed quickly and the cervical follicles effectually destroyed. Messrs. Arnold, who have made the modification at his suggestion, supply three sizes of cage to fit any cervical canal. The cage is removable to facilitate cleansing. He has found the rotary movement a decided practical improvement. Dr. Duke also designed several years ago an instrument (Fig. 2) for the insufflation of boric acid, etc., in carrying out the "dry treatment" of vaginal discharges and it having met with approval, he has endeavoured to improve an original pattern by adding a flexible tube with side valve to the bellows. This he found necessary, as there was a liability of the powder placed in the receptacle finding its way backwards by the recoil of the rubber ball. The air valve, being placed at the side of the rubber tube effectually, he says, prevents any of the powder being drawn backwards into the bellows, and the powder can be blown out of the receptable to the last grain. The improved form of vaginal insufflator, which is depicted in Fig. 2, is also made by Messrs. Arnold and Sons, London.



Fig. 1.



Fig. 2

### RED GUM TABLOIDS.

Red or eucalyptus gum is the ruby-coloured exudation from eucalyptus rostrata, and some other species imported from Australia. It is intensely astringent to the mucous membrane, and is used with success in the treatment of relaxed throat, diarrhœa, etc. The gum when chewed adheres to the teeth, and is not pleasant to the taste. Messrs. Burroughs, Wellcome, and Co., Snow Hill Buildings, E.C., prepare a very agreeable compressed form of red gum, suitable for use as a local or general astringent. The flavouring of the tabloid is so adjusted that the taste of the gum is completely covered, and they can be slowly dissolved in the mouth without offending the palate.

The number of medical students in the University of Vienna in the winter session 1896-97 was 2,752, being 39 per cent. of the whole number of students in the University.

# A REPORT
ON
# THE INFLUENCE OF MILK
IN
# SPREADING ZYMOTIC DISEASE.

The Prohibition of Infected Milk—*continued.*

At Edinburgh in 1890 (No. T.F. 27) the stoppage of the sale of milk was effected also under the provisions of a local Act, the clause being as follows: Clause 211 of the "Edinburgh Municipal and Police Act, 1879."—"When it shall be certified by the medical officer of health to the chief constable that milk is being brought within the burgh from any farmhouse, dairy, or other place beyond the burgh in which any person is ill of any infectious or contagious disease before mentioned, and that the said milk is being sold or offered for sale in any shop or premises within the burgh, or distributed therein from carts or otherwise, the prosecutor shall apply to the judge of police for an order to prohibit the sale of milk so brought from and after the intimation of such an order until the person affected has been removed or shall have recovered from such illness, the premises been disinfected, and the bedding and clothing have been destroyed or thoroughly disinfected, and it is certified by the medical officer of health that the said premises are free from infection, and that the sale of milk from such place may be safely resumed."

Dr. Littlejohn tells us in his report on the 1890 outbreak that the clause works very slowly, as it is a matter of delay to get the necessary legal power to act, the earlier action in this instance having taken the line of warning and expostulation, so that the milk was practically kept back from sale in the city two days prior to the obtaining of the needed order. Moreover, it will be noticed that even so action depends on the occurrence of infectious disease in the human subject on the dairy premises, so that no illness of the milch cows, even though it were such as to be causing infective quality of the milk, would suffice to secure the order for stoppage of the milk. And, again, it will be seen that the stoppage of sale has effect only in the city, as in the Dundee case, thus allowing the farmer to proceed as he chooses with the implicated milk in other quarters. In the circumstances of an outbreak of typhoid fever at Kelso, in Scotland, during 1893 (No. T.F. 35), where the power needed to stop the sale of the implicated milk did not exist, the sanitary authority took drastic measures. To quote from the report of Dr. Oliver, the county medical officer of health, "The whole of the milk and cream found upon the premises was destroyed, and arrangements were made for destroying the milk twice daily immediately upon the cows being milked. This arrangement was duly carried out under the supervision of the police up to the time when the cows were disposed of. Full compensation was made to the dairyman—one-half payable by the district committee and one half by the burgh authority."

These are but samples of the action taken to stop milk supplies. At times it has not been necessary to resort to legal action, the farmer or dairyman taking upon himself to destroy the milk, recognising it as that which has caused disease and even death, and only too desirous of proceeding in the cause of public health: but such magnanimity has been infrequent. One point which has struck me in connection with all present legislation as to stoppage of milk services on account of infectious disease dissemination is the ridiculously small amount of the fine to be inflicted when the order is not obeyed. I am further of opinion that power is needed to stop absolutely and for all places the sale of milk found to be causing disease anywhere. It seems absurd that milk deemed to be capable of spreading disease in one locality should be permitted to be sold in another. The people of B. are assuredly no less prone to disease than those of A.

"Ropy" Milk.

It has been interesting, while collating the facts given in the abstracts of milk outbreaks since 1881, to notice how new features and factors have been brought out and added to our knowledge of milkborne diseases. One of the points to which my notice has thus been called is the condition of milk known as "ropy." In his very able report on an outbreak of diphtheria at Hendon in January, 1883 (No. D. 2), Mr. Power referred especially to this ropiness of the implicated milk, which condition had been early noticed by Dr. Cameron, the medical officer of health, and also by the farmer, whose attempts to discover which of his cows was giving the ropy milk failed even a few hours after the last distribution from his dairy of milk in a state of ropiness. The evidence went far to convince Mr. Power that ropiness of milk may tend to disappear rapidly, or that it may not ensue until the milk has stood for some time, whilst also the ropy quality may be one of growth from small beginning, ropiness of large degree being the multiplied result of a small quantity of ropy milk added to some larger quantity of normal character. Mr. Power significantly chronicled a growing misgiving to the effect that ailments of animals so trivial as to be disregarded or even unnoticed by people about them might have larger concern with occurrence of specific disease in the human subject than had theretofore been thought likely. Looking to-day at the position we have reached in this direction, we can see how well defined were the "misgivings" which Mr. Power so guardedly promulgated on a public hardly sufficiently educated to accept the notions with which he was even thus early imbued. We see evidence of ropy milk playing its part in the scarlatina outbreak at Charlton in 1892 (No. S. 22); and at Warminster, where a milkborne outbreak of typhoid fever occurred in 1895 (No. T. F. 47), persons using the implicated milk testified to its "ropy" and putrid state on two or three occasions. Whatever may be thought of the matter, it is certain that a stringy or ropy condition of milk has had its share in the potency of milk to produce disease.

Milk of Newly Calved Cows.

I come now to a very important discovery of modern times, a discovery that is of not more than fifteen years' standing, and having a direct bearing on what has just gone before. I refer to the factor which the calving of cows has been found to be in the causation of disease by use of their milk shortly after the physiological process of calving. An extensive outburst of a mild sort of scarlatina in the north of London, investigated by Mr. Power for the Local Government Board in 1882 (No. S. 3), seemed by the inquirer to arise from some condition of the milk of a cow recently calved. This animal had lost portions of her coat, whilst her buttocks and posterior udder, when seen by Mr. Power in the month following the outburst, were fouled and stained by excremental matter, and perhaps, he thinks, by vaginal discharge as well. The milk was distributed to several sanitary areas in London, and the story of special incidence on consumers of the milk of the scarlatina was the same from all. The malady attacked persons who partook of the milk whether at the terminus or from shops. Dr. Parsons, in connection with the outbreak of milk-scarlatina which he investigated at Upton and Macclesfield in 1889 (No. S. 18), dwells on the circumstance of a recently calved cow having been added to the animals from which milk was being drawn at the farm implicated, and he says (and his remarks are extremely interesting) in drawing his deductions as to the cause of the disease:

"Of the two cows bought by Mr. V. on or about January 14th, one had calved about four days before. Its calf was not with it. Its milk was at once added to the general stock. The other cow calved on January 20th. I am informed by Mr. V., junior, that the calving and cleansing were perfectly natural. The milk of a newly-calved cow, called by dairymen "beastings," is not at once mixed with the general stock, as it is albuminous and sometimes tinged with blood; it coagulates with heat, and is sometimes used for making puddings and custards. After six milkings it is added to the other milk; but before doing so Mr. V. takes the precaution to boil some to make sure that it is no longer coagulable by heat. In the case of the cow which calved on January 20th the "beastings" were not bloody, and presented no peculiar appearance. Only one customer had any, the calf being allowed to suck. The milk of the newly-calved cow was first distributed with

the general supply on the evening of January 23rd—a date which accords sufficiently well with the first outbreak of fever. There is therefore strong ground for suspicion that there was something in the state of this cow that gave the milk its infective quality. On examining the cow on February 11th I found no scabs or sores on the udder or teats. The cow had a few bare patches, 1½ to 2 inches in diameter, on the rump on either side, around which the skin was scurfy, and the hair could be pulled out. No vesicular eruption on the skin was found. The temperature (February 11th) was 101° F., the normal temperature of the cow being stated to range between 100° and 102° F. On one occasion a yellowish slimy vaginal discharge was noticed. The calf was healthy and thriving; it had not, after the first three days, been fed specially on its mother's milk. The other cow, bought on or about January 14th, had many bare patches on the neck, and a few on the back and rump, on one of which was a thin scab (attributed to scratching). Its temperature on February 11th was 101.4° F. Several of the other cows, especially of those in the same shed with the above, had similar bare patches on the neck, rump, and root of tail; none had any sores or scabs on the udder or teats."

He says, further, of the second cow that was in question: "On the occurrence of fresh cases of illness among his customers coming to his knowledge, Mr. V., on March 13th, left off adding the milk of the cow which calved on January 20th to the general stock, and it has since then been given to the calf. In the early part of March some pimples or vesicles developed on one of the teats of this cow; and at the time that her milk was rejected scabs had formed on these. On my visit on March 25th, there was a thin adherent scab, about the size of a sixpence, dark in the centre and light at the edge, near the lower part of one teat. The teat felt sticky when grasped, and the milk came less readily from it than from the others, having had to be drawn off that morning with a quill. The cow had lost flesh. The calf was healthy."

These instances have been both of them culled from reports of experts attached to the Local Government Board, but I state one now from the pen of Dr. Bostock Hill, of Sutton Coldfield, where was a milk-scarlatina outbreak in 1891 (No. S. 20), and as to which he tells us that the outbreak was of the nature of explosions coinciding with periods of ulceration and eruptive conditions of a newly-calved cow. This cow was much emaciated, with some indication of recent ulceration of teats, whilst later she had an ulcer on one teat and an eruption on the udder. A second cow presented similar indications. Reverting again to Mr. Power's investigations in the matter of milk outbreaks, I may call attention to his inquiry at York Town and Camberley, in 1886 (No. D. 7), where he regarded diphtheria as caused by milk from two newly-calved cows, the milk from which had been added to the business at a time coinciding with the manifestation of the malady. Dr. Anderson, of Dundee, regards the eruption of teats in a newly-calved cow as the *vera causa* of infective quality of milk causing typhoid fever in the town in 1889 (No. T. F. 24). Thus we are face to face with a fact, and it is the more important when we remember that the condition attaching to newly-calved cows is not one which has been deemed of any significance by veterinary inspectors. Indeed, one may be pardoned for saying that the subject of milkborne disease is furnishing history of long struggles by medical as opposed to veterinary opinion. But this struggle has been harder in the matter of eruptive diseases of cows than on any other point, and the victory has been certainly with the medical experts.

### Eruptive Diseases of Milch Cows.

Eruptive conditions of teats and udders of milch cows have received some amount of attention in regard of their supposed ability to cause infective quality of the milk secreted by the animals affected. The now well-known "Hendon" disease of the teats and udders is the first case that I will recall (No. S. 10), Mr. Power being the investigator, whose theory startled the medical and veterinary world, he stating that he looked to the condition of certain milch cows, which manifested outwardly an eruption of teats and udders, as the *vera causa* of scarlatina in consumers of their milk. This condition was one communicable from cow to cow. The special incidences of the disease were seen to be governed by the movements of certain cows in the sheds whence the milk came, Mr. Power proceeding to show by a process of very careful exclusion that the ordinarily conceived methods of spread of the disease by milk were not to be thought of in this instance. But before going on to show what it is that was principally demonstrated it will be well for us to see what was the state of the farm which was in question, and for this purpose to quote from the report:

"The farm was found to have had especial pains taken to render it, as the phrase is, sanitarily perfect. At the instance of one of the London retailers with whom the farmer had dealings, the place had for several years been the subject of special supervision by the medical officer of health of the district, my coadjutor in this inquiry, Dr. Cameron. He had seen that the West Middlesex Company's water was laid on to the farmhouse, to the dairy, and each of the several cowsheds; he had seen specially to the wholesomeness, as regards drainage, cleanliness, ventilation, and the like, of the house, the farmyard, the cowsheds, and the dairy; securing for the last all needful appliances for effectual cleansing of dairy utensils by hot water or steam; and, month by month, he had inspected the farm premises with reference to these and similar details, for the express purpose of safeguarding the milk against contamination of any detectable kind. Further, under the same arrangement, Dr. Cameron had specially attended to the health conditions of those employed about the farm and their children, with a view to early detection of any malady among them that might by chance injuriously affect the milk with which they had to do. He had even undertaken to observe and to report to the London retailer, by whom his services were retained, on any occurrences of infectious illness in the neighbourhood of the farm, even though it did not directly affect the families of people employed there. The farmer too who had consented to the exercise of this supervision over his doings, had attended to every suggestion made to him, and had taken every precaution to secure his farm and his milk against any known sanitary fault or misadventure. He had a separate shed for any sick animal, and a separate shed for the observation of newly arrived animals."

It were indeed well could every dairy farm have the same sanitary attention as that paid to this particular farm, and which, even with all its advantages, was not to escape the stigma of having caused by its stock malignant disease in consumers of its produce. Proceeding very carefully and in great detail to solve the complex problem set by the manner of distribution of scarlatina in London, Mr. Power was enabled to see that the specialities of the disease distribution had causal connection with new conditions at the farm, these conditions being the addition of cows to the milking sheds. Moreover, the specialities of distribution of the milk of these newly arrived cows were parallel with such distribution of scarlatina. Further, the peculiarities of time distribution of the scarlatina were parallel to peculiarities of time distribution of the milk of these cows. "In short," he adds at one stage of his report, "what had been seen to be a succession of probabilities if the scarlatina in London districts were indeed the outcome of the milk distributed from the Hendon farm was now established as a succession of facts. We had thus reached the point of excluding external scarlatina, of associating the importation of particular cows into the Hendon farm with presence of scarlatina in London districts, and of connecting by a series of parallel events the milk furnished by those cows and by related cows, with the peculiarities of scarlatina prevalence among consumers of the Hendon farmer's milk. Under these circumstances it was not judged necessary to go beyond the Hendon farm, and to inquire at the two other farms that also sent milk into the London districts of South Marylebone, Hampstead, and St. Pancras, in search of the cause of scarlatina in those districts. Henceforward, until anything to the contrary should appear, an influence, competent to produce scarlatina among the consumers of the milk, was held to have operated from those cows which were received into the Hendon farm on November 15th, and the further concern of the inquiry was with the nature of such influence."

I do not propose here to describe the later portions of Mr. Power's able report, further than to quote one more section of an accompanying paper, which shows in brief the grounds which he had for his conclusions, the quotation this time

being from the pen of the late Sir George Buchanan in his introductory report on the matter, in which he has summed up in masterly style all the pertinent facts of the case, and in which, in speaking of Dr. Klein's laboratory studies with material from the teats and udders of the implicated cows, he states: "Dr. Klein records his early investigations into the intimate nature of the ailment present among the cows. In its own province Dr. Klein's report is as important and as interesting as Mr. Power's, and its more immediate significance lies in the complete harmony between the conclusions obtained from Mr. Power's etiological researches and the inferences as to communicability and other characters of the Hendon cow disease that follow from pathological inquiry. By the inoculation into calves, either directly of the discharges from cow ulcers or indirectly of subcultures of those discharges artificially prepared, Dr. Klein has succeeded in producing, now local, now general, disease in the calf; disease having unmistakable affinities, under some conditions with the Hendon cow disease, under other conditions with scarlatina in the human subject; on the one hand, ulcers on the skin of the calf anatomically identical with the ulcers on the teats of milch cows; on the other hand, general disease in the calf, at first of inconspicuous nature, but passing on to serious changes in the internal organs, more particularly in the kidneys of the calf; the more characteristic of these changes being anatomically identical with those resulting in the human subject from the operation of the scarlatina poison."

Under date of August, 1887, Sir George Buchanan was able to write as follows, and the summary of facts is significant and instructive:

"By Dr. Klein's researches, together with the evidence as to scarlatina collected by Mr. Power and reported by me last year, we are now in a position to state as follows concerning the disease producible by this micrococcus in bovine animals and in man:

"(1) The disease in man and in the cow alike is characterised by closely similar anatomical features.

"(2) From the diseased tissues and organs of man and cow alike the same micrococcus can be separated, and artificial subcultures be made from it.

"(3) These subcultures, no matter whether established from man or cow, have the property, when inoculated into calves, of producing in them every manifestation of the Hendon disease, except sores on the teats and udders, no doubt for the reason that the milk apparatus is not yet developed in calves.

"(4) But—and this I learn from Dr. Klein's later observations while this report is in preparation—the subcultures made from human scarlatina and inoculated into recently calved cows can produce in those cows, along with other manifestations of the Hendon disease, the characteristic ulcers on the teats—ulcers identical in character with those observed at the Hendon farm.

"(5) The subcultures, established either from the human or the cow disease, have an identical property of producing in various rodents a disease similar in its pathological manifestations to the Hendon disease of cows and to scarlatina in the human subject.

"(6) Calves fed on subcultures established from human scarlatina obtain the Hendon disease.

"(7) Children fed on milk from cows suffering under the Hendon disease obtain scarlatina.

"The above combine, I think, to form a mass of evidence to show that the Hendon disease is a form, occurring in the cow, of the very disease that we call scarlatina when it occurs in the human subject."

Exactly twelve months later Sir George Buchanan supplemented the above by saying of Dr. Klein's further researches into the etiology of scarlatina, and more particularly as to the above-mentioned production of ulcers on the teats of newly-calved cows:

"He takes such animals and inoculates them subcutaneously at the root of the ear with the material of scarlatina. Sometimes he has derived his material direct from the human subject, sometimes after it has passed through the system of a calf. From whichever source the material may be derived, its inoculation results in ulcers on the teats of the cows. He finds these ulcers to be among the very earliest evidences of disease in the animal. They occur indifferently, whether the cow is being milked by hand or is suckling her calf. The teat sores show themselves after an incubation period of from four to nine days from the inoculation, and subsequently a more general affection of the skin is found, accompanied by more or less of febrile disturbance, and sometimes by pulmonary symptoms. In the disease thus induced a number of changes are found after death distributed among various organs in the fashion of the changes of an acute specific disease, and exhibiting so much of constancy in their own manifestation as to make the whole of them characteristic of cow scarlatina; and the *post-mortem* appearances found in animals affected by this disease bear much resemblance in essentials to those found in human subjects dying of scarlatina. As regards the particular phenomena on the skin of animals thus affected, it is interesting to note that the sores on the teats appear to be with difficulty, if at all, transmissible by direct inoculation from the infected animal to man. This circumstance was hardly perhaps to be anticipated, seeing how readily other sore-teat diseases are so communicable, and how readily cow scarlatina at Hendon reproduced itself as human scarlatina in the consumers of milk from infected cows."

The controversy which raged round the circumstances attending this Hendon outbreak must still be fresh in the minds of those who followed the subject, the veterinary world being especially convinced that the theory held by the Medical Department of the Local Government Board was untenable. But events have proved, as in so many other instances, that the views put forward by the Public Health Department of the State were right, and that the only thing to do was to accept with what grace could be found the convincing arguments and solid data which went to uphold the theory as matter of fact. At Wimbledon and Merton in 1887 (No. S. 11), the same investigator, Mr. Power, made inquiry as to scarlatina spread by milk, and here also he found cow conditions almost exactly similar to those in the Hendon case, he having in this, as in that outbreak, the assistance of Dr. Klein in the laboratory work. In inquiring into an outbreak of scarlatina in Norfolk (No. S. 13), Dr. Mallins found a rash on the teats of a cow, and a "humour" all over its body, the rash having the appearance of small red pimples, while the cow at a later stage of the illness desquamated freely. Her milk on standing presented a distinctly greyish colour. At Bush Hill Park, in 1891 (No. S. 21), Dr. Copeman found reason for connecting abraded teats of cows in Essex which furnished the milk, with the spread of the disease, one cow having a vesicular scab, whilst others had boils on their teats. Certainly the outbreak was due to milk, and no fault could be found with the dairy or farm premises, nor could the origin be traced to human agency. But Dr. Klein was unable to demonstrate the streptococcus corresponding with that in the Hendon cow malady. At Glasgow in 1892 (No. S. 24), Drs. Russell and Chalmers made elaborate inquiry into a milkborne outbreak of scarlatina, and found the premises concerned to be in a sanitary point, and indeed in all others, all that could be desired. I could have wished to quote from the report of these inquirers, and from that of Dr. Klein, whose services were requisitioned, but it must suffice that an eruptive disease of an ulcerative character on the teats of the cattle was found, it being styled "vesicular," "quasi-pustular" in form, and "covered with a blackened centre.' The malady was communicable from cow to cow and shed to shed, and milking apparently formed sores on the hands of milkers, who accidentally discovered the diseased condition of the teats owing to the restive state of the cows under the operation of milking.

Dr. Klein found the disease of the cows to be in some points identical with the "Hendon" and "Camberwell" disease. As to the latter, Sir George Buchanan in 1889 wrote that in the preceding year Dr. Klein had under observation a cow from a dairy in Camberwell where scarlatina had appeared among customers of the dairy, and this cow was found to exhibit the same disease as those formerly recorded as prevailing at Hendon, the disease, namely, which we now confidently recognise as scarlatina in the cow. Turning now to diphtheria outbreaks in which cow conditions have had concern with the spread, I revert first to the Croydon case of 1890 (No. D. 10), where Dr. Philpot states that the cause of

the disease was an eruptive state of the teats of the cows, found by Dr. Klein to be of a sort similar to other diphtheria outbreaks traced to cow conditions. Dr. Thursfield in 1891 found in connection with an outbreak of the disease in Worcestershire (No. D. 11), that the cause was a pustular disease of the teats of cows, which pustules burst in the act of milking. The cows were in a febrile state. And to bring my account of these types to a close, I may fittingly refer to the outbreak of diphtheria at Glasgow in 1892 (No. D. 13), investigated by Dr. Russell, who tells us that nearly all of a herd of over fifty cows suffered from teat eruptions, leading to ulcers which yielded faintly coloured fluid. At times all teats were affected, but two varieties of eruption were in question as shown by experiment, one being true vaccinia, the other a non-vesicular eruption of a specific character, like that known as the "Camberwell" cow malady. Milkers suffered from sore hands. The business at both dairy and farm was carried out with scrupulous care and attention, no insanitary conditions being found. As regards the "vaccinia" eruption, I may mention that in 1888 a cow from Alderley, in Gloucestershire, was, on the testimony of Dr. Klein, shown, by inoculations of calves and ultimately of children, to have the characters of that "variolæ vaccinæ" which Jenner discovered in the same county last century, and which he put to the purpose of protecting against small-pox. These then are some of the facts recorded in my abstract as to the relation of teat and udder diseases of milch cows to disease in the human subject following upon ingestion of milk yielded by cows affected in the manner related. The point is deserving of lengthy discussion, but it must suffice for the general purposes of this report that I have laid bare what has here been stated on this topic.

### Washing of Milk Cans.

I now come to a brief discussion of some phases of milk-borne disease as depicted by some of the outbreaks of milk-typhoid fever that I have abstracts of in my appended summary. And, first, I would refer to cases of can washing that seem to have had in them the element of danger to the milk which the cans were destined to contain. The opening abstract is one which demonstrates my point, since the milk cans of a farm implicated in a fever outbreak at Leicester Infirmary in 1882 (No. T. F. 1) were washed with the water of a well situate near the end of a house drain, and polluted by the overflowings of a leaky cesspool, analysis showing the presence of sewage in the contained water. In connection with the serious epidemic of typhoid fever in St. Pancras in 1883 (No. T. F. 10), and traced to milk from a farm in the country, the cans were washed in the water of a well located near a cesspool. A foul watercourse flowing down a ditch was in the case of the outbreak at Aberdeen in 1883 (No. T. F. 12), used for "dairying purposes," whatever that may mean. Probably the meaning is identical with much that passes under the term "washing of dairying utensils." And in the very next instance which I mention, that of an outbreak of milkborne fever in Mid-Warwickshire in 1883 (No. T. F. 13), the cans were washed, even if the milk was not also diluted, with water from a well contiguous to a leaky cesspool, evidence being forthcoming to demonstrate specific contamination of the well water prior to such dairying procedures. In relation with an outbreak at Dundee in 1892 (No. T. F. 32), the cans were washed in the water of a draw well, although the public water supply was laid on to a tap in the cowshed. And, lastly, in connection with an outbreak at Plumstead in 1895 (No. T. F. 44), the use of tank water wherein were found bacteria resembling those in the milk was denied. But, however this may have been, I have referred to a series sufficiently large to have proved, I think, that distinct danger lurks in the custom so widely followed of washing dairy utensils in unwholesome and sometimes grossly-polluted water, even to the point of being specifically contaminated. Not once in the cases referred is the boiling of the water or the scalding of the cans directly mentioned. But as to this phase of the question of milk and disease, as of many others, I shall have occasion to speak at a later stage of this report.

### Milk Cooling Processes.

Closely allied to this matter of can washing is that of milk cooling. I mention two cases as sufficing. First, that of Louisville, Kentucky, investigated by Drs. Bailey and Tuley (No. T. F. 34), in 1893, who stated that the cans after being washed were cooled by water which was left in them in small quantity, and which water was found to contain the Eberth bacillus of typhoid fever. In the relation of the facts connected with an outbreak of fever in Lambeth in 1894 (No. T. F. 40), Dr. Verdon tells of a curious accident whereby water found its way into the milk supply of an implicated farm. His story on this point is well worth quoting:

"The introduction of water into milk, coming from the proprietary farm, is accounted for by the condition of the refrigerator in use at that place. Pinholes, or perforations, have been discovered since the adulteration took place in the gridiron or coil, a section of the apparatus through which a stream of cold water constantly runs when the process of cooling is going on. Coils in general favour with dairymen are made of metal rolled into exceedingly thin plates in order that the pipe wall should interpose between the warm milk and cold water, a medium that interferes in the least possible degree with thermic interchange. The delicate metal, however, is liable to perforation at any time in the ordinary exigencies of usage; and when puncture takes place, milk passing over the coil becomes diluted by water corresponding in amount with the volume of leakage from the enclosed current. Such an accident appears to have happened in connection with the refrigerator in use at the proprietary farm; at least, the artificer who was summoned to examine it declared to the existence of three extraneous apertures. How long watering had been going on, and to what extent dilution had reached through this subtle agency it is impossible to say, but added water in small quantity had been found in milk distributed by Dairy B. a few weeks before, and it is not unlikely that the same leakage was in operation then. The expediency of exercising a close supervision over the produce of dairies where refrigerators are at work is the moral of this discovery."

Dr. Verdon's warning is not without its significance, and points to the need for closeness of supervision of all matters pertaining to dairying.

### Milk in Ice-Creams.

We have heard much of late with regard to the dangers of eating ice-cream from the barrows of street vendors of this commodity, and I refer to a case in which the ingestion of ice-cream of this description was followed by typhoid fever in several districts of London, the facts having been very patiently worked out by Dr. George Turner (No. T. F. 33) in 1892. The ice-cream was made amid gross insanitary conditions. The precise mode of entry of the specific poison of the fever could not be definitely traced.

### Creameries.

The relation of creameries to milkborne typhoid fever I now proceed to show by two or three references. At Bandon, in Ireland, in 1893 (No. T. F. 39), the separated milk from a creamery caused typhoid in drinkers, the prime cause of infection of the milk being a case of typhoid fever at one of the farms supplying the creamery. The nurse of the fever patient was also the milker, and in this way the milk doubtless became infected. The facts connecting the separated milk and the distribution of the disease are most detailed and convincing. Very curious are the facts connected with an outbreak of fever in the Irish dispensary district of Rahan in 1895 (No. T. F. 45), where milk from a creamery caused fever, the milk coming from many farms and for a distance of many miles round. The separated milk sent out from the creamery is much used in the making of bread by the peasantry. The inside of the bread is not, it is held, sufficiently subjected to heat to render it safe eating if the milk used be infected by the poison of typhoid fever. On the subject of cream and skim milk, I cannot do better than quote from Mr. Power's report on the diphtheria outbreak at York Town and Camberley of 1886 (No. D. 7):

"*Cream.*—Much attention was given to the use of cream, an element of milk essentially subject to storage. It did not appear, however, that cream as such had been very infective. Households habitually taking or 'setting' cream, some 17 in number, were, it is true, heavily smitten by diphtheria;

but they were almost without exception households consuming much milk, and they suffered mainly in the persons of their children, very few indeed of whom had, it was found, partaken of cream. As a matter of fact, in these households adults by whom the cream was consumed did not suffer more diphtheria than adults in other 10 households consuming quite as much milk but using no cream at all. But if cream is not to be convicted of any special influence in determining attack, skim milk is by no means free from suspicion, notwithstanding a general belief on the part of mistresses of households that it had been used mainly for cooking purposes. In 11 households in which skim milk had been consumed the incidence of diphtheria on both adults and children was heavier than in any other group of households of similar size. The figures here dealt with are perhaps (especially as regards children) too few to warrant any decided inference; but it deserves notice that in these 11 households there was no special incidence of diphtheria on adult cream consumers, and that the few persons known to have consumed uncooked skim milk suffered very heavily in proportion to their number."

An instance worthy of particular record in which cream had to do with disease in consumers of the product of infected milk is that of Lancing College in July, 1886 (No. T. F. 19), an instance in which the cream was used by boys from the College and others on the cricket field.

### Polluted Water Supplies.

The last point on which I touch in the way of emphasising the lessons to be learned from the appended summaries is that of water supplies in relationship with infective milk. In former years, that is, before the seventies, it was generally taken for granted that if milk was causing disease in its consumers, the origin of the infective quality of the milk must be sought for in man, and if not in man, then if typhoid fever were present the water supply must of necessity be thought of as polluted by the specific poison of the fever. The subject of water supply is to-day just as important as ever. With all our boasted advance in matters sanitary, we still drink milk which has been subjected to pollution which is of the filthiest. I have already referred to the outbreak of typhoid fever in the Leicester Infirmary in 1882, in connection with the washing of milk cans in polluted water. The supply of the farm in question (No. T. F. 1), was from a well located near the end of a house drain, and near also an overflowing and leaky cesspool. The farm supplying milk in the Exeter typhoid fever outbreak in 1883 (No. T. F. 9) had its water supply from a well into which a large cesspool overflowed. In connection with an outbreak of typhoid fever at Clapham in 1882 (No. T. F. 3), there were two farms implicated, and at each the water supply was subject to contamination. At one the well was so located that it was in danger of pollution by a brook into which the population of an adjoining village poured their sewage. Cattle drank of the brook. Analysis showed the well contents to be polluted. At the other farm the well was underneath the farm premises, liable to surface or sewage drainage. The outbreak at Lancing College in 1886 (No. T. F. 19), led to discovery of the farm well being dry steined, and near and lower than a drain, while the main sewer of Shoreham ran near the well, which showed traces of sewage pollution. At Edinburgh in 1890 (No. T. F. 27), the farm sending the infective milk to the city was furnished with a well so situate that it must needs receive the surface water from farm, cow byres, piggeries, and a dung heap; while the field surrounding it was manured with excrement. At Torquay, in 1892 (No. T. F. 30), the well implicated was in a confined back yard, and analysis of its contents revealed pollution. And so I might go on naming instances in which the water supply has been condemned as bad, polluted, and even found to be notoriously of bad quality. And so I am forced to the conclusion that the matter of water supplies to our farms and dairies is of pressing urgency still.

### Summary.

Thus far, and in very brief fashion, I have set out some of the chief points which are seen to arise on looking over my abstract of milkborne epidemics and outbreaks. The story as related is sufficiently sad and deplorable. It is one that reflects little credit on our boasted sanitary advancement. I am bound and ready to admit that much of the disease traced to the agency of milk has been caused by reason of cow conditions that have in the past been too little understood, and that to a corresponding amount the credit of our country has been saved from the charge of carelessness about disease-disseminating conditions. But when this has been said there remains still very much in the past that throws a strong light on the dark side of English sanitation in relation to milk supplies. We must not forget that in milk we have a staple article of food for many thousands, and that to children and to invalids it is a matter of great moment that our milk services shall be free from any quality likely to prove injurious to consumers of this farm produce. We already know to our cost that we are frequently, for example, called upon to purchase as milk that which is in fair proportion only the contents of our public water mains, or indeed the contents of some polluted farmhouse well or adjacent ditch. Where milk as an article of diet is prescribed in a medicinal sense it is, to say the very least, hard that it should prove to be the source of disease and even of death. To be killed by professing remedies is a bitter irony of fate. But the fact remains that, treat it how we may, there is death in the milk pail and also in the milk, the one source being too often the fault of man, and the other the result of disease in the milch cow. The whole subject of milk supply is one of vast import in whatever light we look at it, and is none the less so by reason of the proven capability of milch cows to give to the milk which they secrete a quality of infectiveness which carries disease and death in its train.

These things being so beyond the region of dispute, the question arises, What is to be done with the view of safeguarding ourselves against recurrence of the evils attending our milk trade?

Ernest Hart.

*(To be continued.)*

## ABSTRACT.

## II.—SCARLATINA.

### 1.—WOLVERHAMPTON.

*Date of Outbreak:* April, 1881. *Reporter:* Dr. Love, M.O.H.

*Exciting Cause of Outbreak.*—Milk seller engaged in distributing milk during the illness of her children whom she nursed through an attack of scarlatina.

*Circumstances implicating Milk.*—Cases occurred outside the milk seller's house easily traceable to the milk which she supplied. She was ordered to cease delivering milk, a penalty being imposed for disobedience to order issued.

*Reference.*—British Medical Journal, vol. i, 1881, p. 819.

### 2.—GREENOCK.

*Date of Outbreak:* October, 1881. *Total Number of Cases:* 100.

*Exciting Cause of Outbreak.*—Cases of scarlatina recently in farmer's family.

*Circumstances implicating Milk.*—Nearly all the families attacked had milk from a particular farmer. Disease at first largely confined to working classes, but attacked better class later.

*Reference.*—British Medical Journal, vol. ii, 1881 p. 717.

### 3.—NORTH LONDON.

*Date of Outbreak:* January, 1882. *Reporter:* W. H. Power, F.R.S., L.G.B.
*Total Number of Cases:* "Extensive outburst." *Type:* "Mild."
*Number of Cases amongst Drinkers of Suspected Milk:* Almost wholly.
*Percentage to Total Cases:* Practically 100.

*Sanitary Circumstances of Farm or Dairy from which the Milk was derived.*—Satisfactory.

*Exciting Cause of Outbreak.*—Some condition of one cow recently calved may be looked upon as the exciting cause of infective quality of the milk. She had lost portions of her coat, and her buttocks and posterior udder, when seen by Mr. Power in February, were fouled and stained by excremental matter, and perhaps by vaginal discharge as well.

*Circumstances implicating Milk.*—The implicated milk distributed to several sanitary areas in London, and the preponderance of attacks in consumers of the milk very marked in all of them. In period January 14th to 30th well nigh all the cases of scarlatina and throat illness in St. Giles were in drinkers of the milk; drinkers of milk from other sources almost entirely escaped. Of 20 concurrent cases in Camberwell, 82 per cent. drank the same milk. Certain families supplied with the milk *en route* from one of the London termini to the retailer's premises also contracted scarlatina at the same time.

*Facts showing Special Incidence of Disease.*—Of 6 families belonging to railway servants purchasing some two to three imperial gallons daily of the milk on its reaching Charing Cross Station, 13 members fell ill of scarlatina during the same epidemic period.

*Reference.*—Report to the Local Government Board

#### 4.—GREENOCK.

*Date of Outbreak:* January and February, 1882. *Reporter:* Dr. Wallace, M.O.H. *Total Number of Cases:* 20. *Number of Cases amongst Drinkers of Suspected Milk:* All. *Percentage to Total Cases:* 100. *Number of Families taking the Milk invaded:* 11.

*Exciting Cause of Outbreak.*—Scarlatina in dairyman's family; 4 cases, initial case dating from January 19th.

*Circumstances implicating Milk.*—Up to February 1st 20 cases were notified in 11 families using milk from the dairy in question. No cases reported after the milk supply was stopped.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. i, 1882, p. 437.

#### 5.—SUNDERLAND.

*Date of Outbreak:* July, 1882. *Reporter:* Dr. Harris, M.O.H. *Deaths:* 4.

*Exciting Cause of Outbreak.*—Existence of scarlatina in a dairy.

*Circumstances Implicating Milk.*—Four deaths in the neighbourhood found to have occurred among consumers of milk from the infected dairy. Number of non-fatal attacks not known. Illness at dairy not reported, and only accidentally discovered.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. ii, 1882, p. 100.

#### 6.—GREENOCK.

*Date of Outbreak:* October and November, 1882. *Reporter:* Dr. Wallace, M.O.H. *Total Number of Cases:* 47. *Number of Cases amongst Drinkers of Suspected Milk:* 12. *Percentage to Total Cases:* 26.

*Exciting Cause of Outbreak.*—Unrecognised cases of scarlatina in the person of a milk dealer and of his child. Cases not medically attended.

*Circumstances implicating Milk.*—Occurrence of cases of scarlatina among consumers of the particular milk service led to discovery of disease in milk dealer's house. Dr. Wallace regards 8 out of 26 cases in October as "clearly connected with this contaminated milk," and 4 out of 21 cases in November as "unquestionably" due to the same cause.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. ii, 1882, p. 1325.

#### 7.—HULL.

*Date of Outbreak:* 1882. *Reporter:* J. Mason, M.O.H.

*Exciting Cause of Outbreak.*—Case of scarlatina in a child at a milk shop three weeks before the local sanitary authority had knowledge of its existence. No precautions had been taken to safeguard the milk from infection.

*Circumstances implicating Milk.*—Milk supply stopped when disease at dairy heard of, but Mr. Mason later discovered scarlatina at five centres in the town, each having its origin in the infected dairy.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. i, 1883, p. 334.

#### 8.—WOLBOROUGH.

*Date of Outbreak:* April, 1883. *Reporter:* Medical Officer of Health. *Number of Families invaded:* 9.

*Exciting Cause of Outbreak.*—Good reason existed for believing that unreported cases of scarlatina existed recently in a dairyman's family, the milk being taken as usual into the infected house prior to distribution to customers.

*Circumstances implicating Milk.*—Of 16 families invaded by the disease, 9 had their milk from the infected house.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. i, 1883, p. 780.

#### 9.—DUNDEE.

*Date of Outbreak:* October, 1883. *Total Number of Cases:* 17. *Deaths:* 4. *Number of Cases amongst Drinkers of Suspected Milk:* 17. *Percentage to Total Cases:* 100. *Number of Families taking the Milk invaded:* 12.

*Sanitary Circumstances of Farm or Dairy from which Milk was Derived.*—Part of dwelling house used as a dairy, the means of ventilation, cleansing, drainage, and water supply not being such as to ensure protection of milk against contamination.

*Exciting Cause of Outbreak.*—Milk stored in kitchen where a boy was lying ill of scarlatina, and milk business carried on by dairyman's wife and servant after recent contact with the patient.

*Circumstances implicating Milk.*—All the cases notified occurred within four days in consumers of the infected milk, the per-case mortality being 24 per cent.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. ii, 1883, p. 839.

#### 10.—NORTH LONDON AND HENDON.

*Date of Outbreak:* November and December, 1885. *Reporter:* Mr. W. H. Power, F.R.S., L.G.B. *Percentage to Total Cases of Attacks in Persons drinking the Suspected Milk:* "A strikingly large proportion."

*Sanitary Circumstances of Farm or Dairy from which the Milk was derived.*—"Sanitarily perfect."

*Exciting Cause of Outbreak.*—A condition of certain milch cows, which had for its outward manifestations an eruption of teats and udders, and which was communicable from cow to cow. Subcultures of the ulcerous discharge of the affected animals as well as the original discharged matter itself, produced in calves into which the material was inoculated a disease having unmistakable affinities under some conditions with the disease in the milch cows, and under other conditions with scarlatina in the human subject.

*Circumstances implicating Milk.*—The disease appeared simultaneously in all but one of the five localities to which the implicated milk was distributed after absence of scarlatina for some time previously. The escape of the one locality seen later to have deep significance, since the special condition of certain milch cows was found to govern the specific nature of the milk distributed, and these cows, on being added to the general from the "quarantine" sheds, did not enter that one of the three sheds from which milk was sent to the exempted area. Only during the period of inquiry when cow movements led to communication of the cow malady to this third shed—just prior to stoppage of the milk service—did the area in question begin to contribute cases of scarlatina among consumers of the milk. In 2 sanitary districts intermission of scarlatina cases among drinkers of the milk was noticed during a well-defined period of ten days during which freedom from the cow disease of the animals in the shed furnishing milk to those two districts was ascertained by close inquiry. The cow first to suffer was a newly-imported animal brought into the general service of the farm a week prior to commencement of the outbreak. Other 3 cows—1 introduced the same day and the remaining 2 some fortnight later—were found to be suffering in like manner; and all at dates and in sheds coinciding with observed prevalence of scarlatina in localities served by milk from them and other milch cows afterwards affected.

*Facts showing Special Incidence of Disease.*—When the sale of the milk was prohibited in London some of it got clandestinely distributed among poor people at Hendon; and among the few thus served half-a-dozen families were invaded by scarlatina at a time when the disease had ceased to exert its influence in the London districts.

*Reference.*—Report to the Local Government Board.

#### 11.—WIMBLEDON AND MERTON.

*Date of Outbreak:* December, 1886, and January, 1887. *Reporter:* Mr. W. H. Power, F.R.S., L.G.B. *Total Number of Cases:* 545. *Number of Cases amongst Drinkers of Suspected Milk:* 493. *Percentage to Total Cases:* 90.5. *Number of Families supplied by Milkman:* 274. *Number of such Families invaded:* 172. *Percentage:* 63.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Satisfactory.

*Exciting Cause of Outbreak.*—Not definitely ascertained. But of the cows seen, "some few appeared to be recovering from affection of the skin and udder, very similar to the malady reported on by Dr. Klein as having occurred among certain cows at Hendon" (see No. 10).

*Circumstances implicating Milk.*—No fewer than 431 attacks occurred in a single week, at the end of December. The sale of the milk was prohibited on December 31st. The malady ceased to operate some 16 days later. In this epidemic week consumers of the implicated milk suffered 700 times as much as consumers of milk from other sources, and throughout the entire period in the proportion of 100 to 1. Where the milk was distributed generally and abundantly, the disease appeared in corresponding intensity, following particular roads or streets and passing others, according as the milk did or did not go there.

*Facts showing Special Incidence of Disease.*—Disease fell especially on well-to-do people, and was seen to attack most largely those who consumed most milk, the rateable value of houses and quantity of milk used being important factors in determining the amount of disease to be expected.

*Reference.*—Report to the Local Government Board.

#### 12.—STAPLETON.

*Date of Outbreak:* April, 1887. *Reporter:* Dr. W. Brown, M.O.H. *Total Number of Cases:* 11. *Deaths:* 4. *Number of Cases amongst Drinkers of Suspected Milk:* 11. *Percentage to Total Cases:* 100. *Number of Families Supplied by Milkman:* Some 50 or 60. *Number of such Families Invaded:* 6. *Percentage:* 10.

*Sanitary Circumstances of Farm or Dairy from which Milk was Derived.*—Cows drank the contents of a large stagnant pool, which received the drainage from several cottages, from neighbouring fields, and from heaps of horse and cow manure near at hand

*Exciting Cause of Outbreak.*—Pool from which the cows drank, and in the contents of which some of the dairying vessels were washed, polluted by sewage.

*Circumstances implicating Milk.*—All the cases were in drinkers of the one milk supply, and all the households save one got the milk through a local retailer, the remaining household getting it direct from the farm.

*Reference.*—Monthly Report of M.O.H.

#### 13.—? NORFOLK.

*Date of Outbreak:* December, 1887. *Reporter:* Dr. H. Mallins. *Total Number of Cases:* 5. *Number of Cases amongst Drinkers of Suspected Milk:* 5. *Percentage to Total Cases:* 100.

*Exciting Cause of Outbreak.*—Rash on teats of cow, and milk, when allowed to stand, of distinctly greyish colour. Cow also had a "humour" all over its body, the rash having the appearance of small red pimples. Later on cow desquamated freely.

*Circumstances implicating Milk.*—The 5 cases were all of children in 1 family. All had first an affection of the mouth, and later they manifested a vesicular eruption.

*Reference.*—*Lancet*, 1888, vol. i, p. 119.

#### 14.—JESMOND-ON-TYNE.

*Date of Outbreak:* January and February, 1888. *Reporter:* Dr. H. Armstrong, M.O.H. *Total Number of Cases:* 19. *Number of Cases amongst Drinkers of Suspected Milk:* 17. *Percentage to Total Cases:* 89.

*Exciting Cause of Outbreak.*—Illness, suggestive of scarlatina, in the families of two milkmen supplying the implicated milk, upwards of three months prior to outbreak.

*Circumstances implicating Milk.*—All the cases arose in eleven days, and of the 19 cases in 16 households, 17 were of persons havin only the milk supply in common.

*Reference.*—*Public Health*, 1888-89, p. 24.

#### 15.—POLLOKSHIELDS NEAR GLASGOW.

*Date of Outbreak:* June, 1888. *Reporter*, Dr. Carmichael. *Total Number of Cases:* 70. *Deaths:* "Several." *Number of Cases amongst Drinkers of Suspected Milk:* 70. *Percentage to Total Cases:* 100.

*Exciting Cause of Outbreak.*—Cases of scarlet fever in the persons of the servant and children of the farm supplying the milk.

*Circumstances implicating Milk.*—All the persons affected partook of the implicated milk.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. ii, 1888, p. 32.

### 16.—NEWCASTLE-ON-TYNE.

*Date of Outbreak:* July, 1888. *Reporter:* Dr. H. Armstrong, M.O.H. *Total Number of Cases:* 74. *Number of Cases amongst Drinkers of Suspected Milk:* 61. *Percentage to Total Cases:* 82.

*Exciting Cause of Outbreak.*—Three children in family of one man attending cows ill of scarlatina like disease.

*Circumstances implicating Milk.*—All the 61 cases occurred in the space of 13 days, the outbreak being localised, after absence of the disease from the city, and only 13 additional cases occurring in the rest of the town.

*Reference.*—*Public Health*, 1888-89, p. 156.

### 17.—GLASGOW.

*Date of Outbreak:* October, 1888. *Reporter:* Dr. Russell, M.O.H. *Total Number of Cases:* 56. *Number of Cases amongst Drinkers of Suspected Milk:* 43. *Percentage to Total Cases:* 77. *Number of Families supplied by Milkman:* 363. *Number of such Families invaded:* 29. *Percentage:* 8.

*Exciting Cause of Outbreak.*—Members of families of two dairymen ill from ill defined throat affections following on scarlet fever in other members at one of the shops. Family relations of two businesses interlaced.

*Circumstances implicating Milk.*—Of 56 cases which occurred within a period of 5 weeks, 40 cropped up in 4 days. Outbreak limited to well-to-do part of city, among persons consuming large quantities of milk, and limited in its epidemic outburst to consumers of the implicated milk.

*Facts showing Special Incidence of Disease.*—Amount of milk related to quantity of and severity of disease.

*Reference.*—*Lancet*, 1888, vol. ii, p. 1079.

### 18.—UPTON AND MACCLESFIELD.

*Date of Outbreak:* February, 1889. *Reporter:* Dr. Parsons, L.G.B. *Total Number of Cases:* 129. *Number of Cases amongst Drinkers of Suspected Milk:* 123. *Percentage to Total Cases:* 93. *Number of Families supplied by Milkman:* 100. *Number of such Families Invaded:* 58. *Percentage:* 58.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Well 7 yards from privy and pigstyes, and its contained water found on analysis to be polluted by sewage.

*Exciting Cause of Outbreak.*—Milk cans rinsed out with cold water from this well, but this not deemed the means by which the milk got contaminated. Most likely cause, the use of the milk of a cow recently calved. Later on this cow was found to have developed vesicular sores on her teats, and her milk was then rejected. She had lost flesh.

*Circumstances implicating Milk.*—The outburst was sudden after long absence of scarlatina, much throat illness being prevalent in this outburst, and 2 cases of undoubted diphtheria. All but 6 cases in Upton (2 of scarlatina in school children, 1 of sore throat, and 3 of "mumps") occurred among consumers of the milk. Of households using the milk in that village 77 per cent. invaded, and 37 per cent. of members attacked, as compared with 17 and 5 respectively outside the milk run.

*Facts showing Special Incidence of Disease.*—In whole outburst there was a difference as between 45 and 89 per cent. of households attacked according as ½ pint or a whole pint and upwards was taken daily, and a difference as between 12 and 50 per cent. of members of these households attacked.

*Reference.*—Report to Local Government Board.

### 19.—BRISTOL.

*Date of Outbreak:* December, 1890, to February, 1891. *Reporter:* Dr. D. S. Davies, M.O.H. *Total Number of Cases:* 284. *Deaths:* 15.

*Exciting Cause of Outbreak.*—Not ascertained.

*Circumstances implicating Milk.*—Epidemic sudden, and cessation well marked. Well-to-do families largely attacked. Of the 205 households invaded, 74, or 34 per cent., were supplied by milk from one farm. In the districts most heavily attacked 1 in each 40 of the total houses was invaded, against 1 in each 7 taking the implicated milk.

*Reference.*—*Public Health*, 1891-92, p. 363.

### 20.—SUTTON COLDFIELD.

*Date of Outbreak:* February-April, 1891. *Reporter:* Dr. Bostock Hill, M.O.H. *Total Number of Cases:* 40. *Deaths:* 5. *Cases amongst Drinkers of Suspected Milk:* Almost without exception.

*Exciting Cause of Outbreak.*—One cow recently calved, much emaciated, with some indication of recent ulceration on teats. Later she had extensive patches of desquamation, an ulcer on one teat, and an eruption on the udder. Appearances those of Hendon outbreak of 1885. A second cow presenting slight indications of same condition.

*Circumstances implicating Milk.*—All the 17 houses first invaded took the implicated milk. Outbreak of two "explosions," coinciding in time with ulceration and eruptive conditions of the newly-calved cow. Cases almost without exception in consumers of the milk from the farm where the cow in question was furnishing milk. Only 1 or 2 sporadic cases of scarlet fever occurred after the sale of the milk had been stopped.

*Facts showing Special Incidence of Disease.*—Only 8 cases in children under 5 years of age, whilst 6 were in persons aged over 20 years.

*Reference.*—British Medical Journal, vol. ii, 1891, p. 136.

### 21.—BUSH HILL PARK, ENFIELD.

*Date of Outbreak:* November, 1891. *Reporter:* Dr. Copeman, L.G.B. *Total Number of Cases:* 33. *Number of Cases amongst Drinkers of Suspected Milk:* 33. *Percentage to Total Cases:* 100. *Number of Families supplied by Milkman:* Information withheld. *Number of such Families Invaded:* 23. *Percentage:* Information withheld.

*Sanitary Circumstances of Farm or Dairy from which Milk was Derived.*—No fault could be found with local dairy premises, nor with the distant farm supplying the milk.

*Exciting Cause of Outbreak.*—Not definitely ascertained, but some of the cows had abraded teats: some had boils on their udder; one cow had a vesicular scab, but Dr. Klein failed to discover any streptococcus corresponding with that in the case of the Hendon cow malady.

*Circumstances implicating Milk.*—The outbreak was limited to the eight days, November 17th to 24th, and occurred in two sanitary districts, every one of the cases being among customers of the one dairyman, 23 households being invaded, and 33 members attacked. The disease was more largely incident on better class houses taking most milk. Confirmatory evidence implicating milk came from the Essex village where the dairy farm was situate, the only two houses invaded coincidently being two to which the milk in question was delivered—except that one other girl fell ill who had had opportunities of helping herself to the milk.

*Facts showing Special Incidence of Disease.*—In dairyman's own family, the infant fed on "nursery" milk from his own cow escaped; his little daughter drinking the Essex milk, sickened with scarlatina.

*Reference.*—Report to the Local Government Board.

### 22.—CHARLTON.

*Date of Outbreak:* March-April, 1892. *Reporter:* Dr. Hamer, L.C.C. *Total Number of Cases:* 57+?. *Number of Cases amongst Drinkers of Suspected Milk:* 56+?.

*Exciting Cause of Outbreak.*—Illness of one cow, milk ropy, severe cold, udder and teats presented scabs and excoriations.

*Circumstances implicating Milk.*—Percentages of cases of scarlatina, arising in seven separate (and some of them widely separated) localities, taking milk from the service during the epidemic periods, varied from 10 to 91. Epidemic began within a day or two of commencement of cow's illness, in six different localities; fresh cases ceased to occur, except in two localities to which alone the cow's milk was distributed, in the second week of her illness; cases entirely ceased after the cow was totally excluded from the business.

*Reference.*—*Public Health*, 1891-92, p. 366.

### 23.—ASTON MANOR AND HANDSWORTH.

*Date of Outbreak:* April to July, 1892. *Reporter:* H May, M.O.H. *Total Number of Cases:* 326. *Deaths:* 1. *Number of Cases amongst Drinkers of Suspected Milk:* 167. *Percentage to Total Cases:* 51.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Well water in a polluted state.

*Exciting Cause of Outbreak.*—Not traced. [The cows at the two implicated farms were examined after some time had elapsed since the exceptional prevalence of scarlatina had attracted attention and were at that period found, in the opinion of the veterinary inspector, to be "sound and in perfect health."]

*Circumstances implicating Milk.*—Greatly increased prevalence of scarlatina in both districts from April to July. In Handsworth, in the 14 weeks ended July 9th, the percentage of persons attacked who drank the suspected milk was no less than 60. In Aston Manor, from May 2nd to June 20th the percentage was as high as 62, as many as 21 cases occurring in one "round." After these dates the disease suddenly ceased. The majority of the families attacked had their milk from 2 connected dairy farms by way of numerous milk sellers and milk shops. [The disease did not spread through the schools; rarely more than 1 case in a house; an unusual number of persons over school age attacked; and 4 or 5 milk sellers' families invaded.]

*Reference.*—Annual report of Medical Officer of Health for 1892.

### 24.—GLASGOW.

*Date of Outbreak:* August, 1892. *Reporters:* Drs. Russell and Chalmers. *Total Number of Cases:* 236. *Deaths:* 11. *Number of Cases amongst Drinkers of Suspected Milk:* 236. *Percentage to Total Cases:* 100. *Number of Families Supplied by Milkman:* 359+? *Number of such Families Invaded:* 152.

*Sanitary Circumstances of Farm or Dairy from which the Milk was Derived.*—All that could be desired.

*Exciting Cause of Outbreak.*—Ulcerative eruption on the udders and teats of the cattle—vesicular, quasi-pustular in form, crusted with blackened centre. Such are some of the terms applied to the affection, which was communicable by some means from cow to cow and from shed to shed. Sores also formed on the hands of some of the milkers. Condition of teats only discovered on cows becoming restive under action of being milked. Dr. Klein found the disease in these milch cows to be allied in some points to that in the Hendon and Camberwell milkborne epidemics.

*Circumstances implicating Milk.*—Disease incidence confined to the milk service of one dairy getting milk from two farms. Milk from the implicated farm mostly used on first morning round, 57 families and 91 individuals being attacked out of 193 families supplied on this round. The mixed milk always used on second round, and 59 individuals in 37 (out of 166) families attacked thereon. The counter trade mostly with the implicated milk, 86 persons in 58 families being attacked. Some of the unsuspected milk was transferred each day to another dairy during part of the epidemic period. No cases of scarlet fever occurred in the customers of the dairy so served. The suspected milk was stopped on August 7th. No cases traceable directly to the agency of the milk occurred later than August 20th.

*Facts Showing Special Incidence of Disease.*—In one street 21 families (more than half those supplied with the milk) yielded 29 cases; some streets taking the milk suffered no attacks. The active principle of contagion thus apparently not uniformly distributed.

*Reference.*—Special Report of Medical Officer of Health.

### 25.—LANGHAM, ESSEX.

*Date of Outbreak:* October, 1892. *Reporter:* J. Cook, M.D., M.O.H. *Total Number of Cases:* 5. *Number of Cases amongst Drinkers of Suspected Milk:* All. *Percentage to Total Cases:* 100. *Number of Families supplied by Milkman:* 2. *Number of such Families invaded:* 2. *Percentage:* 100.

*Exciting Cause of Outbreak.*—Suspicious udder eruptions on 2 cows at farm.

*Circumstances implicating Milk.*—Milk used only at farm and another dwelling. Both invaded, 4 cases occurring in 1 day.

*Facts showing Special Incidence of Disease.*—A visitor at one of the dwellings stayed one night, partook of the milk, and afterwards developed scarlatina.

*Reference.*—Report of Medical Officer of Health.

### 26.—LEYTON.

*Date of Outbreak:* 1892. *Reporter:* M.O.H. *Total Number of Cases:* 51.

*Exciting Cause of Outbreak.*—Farmer and several members of family at a farm supplying milk suffering from scarlet fever.

*Circumstances implicating Milk.*—One dealer had 39 cases amongst his customers. Milk derived from farm in question.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. ii, 1892, p. 704.

### 27.—HASTINGS.

*Date of Outbreak:* November, 1893. *Reporter:* Dr. Scarlyn Wilson, M.O.H. *Total Number of Cases:* 40. *Death:* 1. *Number of Cases amongst Drinkers of Suspected Milk:* 30. *Percentage of Total Cases:* 75. *Number of Families supplied by Milkman:* 64. *Number of such Families invaded:* 20. *Percentage:* 31.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Cowsheds badly drained and ill-paved and deficient in ventilation.

*Exciting Cause of Outbreak.*—Cows in a febrile condition, due doubtless to insanitary character of their housing accommodation. A sample of mixed milk of the several cows showed bacteria (character not determined) on analysis.

*Circumstances implicating Milk.*—Scarlatina, which had hitherto chiefly affected the poorer quarters, suddenly blazed out in better class houses exclusively, and three-quarters of the homes invaded dealt with one dairyman.

*Facts showing Special Incidence of Disease.*—Many of the patients were large milk consumers. In one school of 20 boys, the only 2 attacked were the only partakers of the milk separately each morning. In another instance, the only patient in an invaded household alone drank the milk unboiled. In yet another case, the patient, a large milk drinker, had been isolated for influenza for 12 days, and caught the disease in this interval of time.

*Reference.*—Annual Report for 1893.

### 28.—GLASGOW.

*Date of Outbreak:* December, 1893. *Reporter:* Dr. Chalmers, Assistant M.O.H. *Total Number of Cases:* 30. *Number of Cases amongst Drinkers of Suspected Milk:* 28. *Percentage to Total Cases:* 93. *Number of Families supplied by Milkman:* 80. *Number of such Families invaded:* 11. *Percentage:* 13.7.

*Exciting Cause of Outbreak.*—Illness of a scarlatinal character among the servants at the two dairy farms supplying the invaded houses with the implicated milk.

*Circumstances implicating Milk.*—Illness of customers from the one farm almost wholly confined to those taking milk from the cart attended by the initially attacked farmhand. On December 21st the sale of the milk was stopped on the seizure and removal of one of the milkers. On the other farm, hands fell ill about the middle of the month, there being intimate relations between the two farms.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. i, 1894, p. 426.

### 29.—RICHMOND, SURREY.

*Date of Outbreak:* February, 1894. *Reporter:* Dr. Rowland, M.O.H. *Total Number of Cases:* 55. *Number of Cases amongst Drinkers of Suspected Milk:* 52. *Percentage to Total Cases:* 95. *Number of Families supplied by Milkman:* 416. *Number of such Families invaded:* 26. *Percentage:* 6.

*Exciting Cause of Outbreak.*—Prevalence of scarlet fever in the vicinity of the farms supplying milk to the dairy.

*Circumstances implicating Milk.*—The outbreak had a short course of 9 days, and suddenly terminated. All the cases, save 3, were in consumers of the implicated milk.

*Reference.*—Annual Report for 1894.

### 30.—BLACKHEATH.

*Date of Outbreak:* March, 1894. *Reporter:* Mr. Shirley Murphy. *Total Number of Cases:* 89. *Number of Cases amongst Drinkers of Suspected Milk:* 79. *Percentage to Total Cases:* 89.

*Exciting Cause of Outbreak.*—Cows newly calved on dairy premises; also cattle having udder affections. But no causal connection with the outbreak made out in the case of these milch cows.

*Circumstances implicating Milk.*—Cases increased very rapidly, all but 10 being in persons using milk from A., either directly or by way of the retailer B. Persons procuring milk from B., but derived elsewhere than at A's dairy, not attacked. Of the 79 attacks in consumers of the implicated milk 55 took milk from A (he selling 27 gallons daily), and 24 from A. *vid* B (who sold 17 gallons daily). Outbreak ceased after milk supply was stopped.

*Facts showing Special Incidence of Disease.*—No one using the "nursery" milk from certain cows was attacked.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. ii, 1894, p. 324.

### 31.—WOLVERHAMPTON.

*Date of Outbreak:* August, 1894. *Reporter:* Dr. Malet, M.O.H. *Total Number of Cases:* 55. *Deaths:* 1. *Number of Cases amongst Drinkers of Suspected Milk:* 15. *Percentage to Total Cases:* 27. *Number of Families Supplied by Milkman:* 50. *Number of such Families Invaded:* 11. *Percentage:* 22.

*Sanitary Circumstances of Farm or Dairy from which Milk was Derived.*—Nothing wrong found in regard of sanitary conditions.

*Exciting Cause of Outbreak.*—Not definitely ascertained; but a child desquamating after scarlatina was going about freely in the cottage of the shepherd who regularly assisted the cowman in milking the cows.

*Circumstances implicating Milk.*—There was a very special incidence on customers of the particular milk service, all from the one farm, the whole of the milk produced there being taken by the dairyman. The incidence was limited to the period, August 13th to September 2nd.

*Facts showing Special Incidence of Disease.*—All the invaded households were those of well-to-do families.

*Reference.*—Report of Medical Officer of Health.

### 32.—SHIRLEY WARREN, SOUTHAMPTON.

*Date of Outbreak:* August and September, 1894. *Reporter:* Dr. Shirley, M.O.H. *Total Number of Cases:* 11. *Number of Cases amongst Drinkers of Suspected Milk:* 9. *Percentage to Total Cases:* 82. *Number of Families supplied by Milkman:* 18. *Number of such Families Invaded:* 4. *Percentage:* 22.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—No special room for lodging milk, which was placed in a vessel without a cover in a penthouse attached to the back of the house, to which, also, the adjoining house had access, both dwellings being under the same roof.

*Exciting Cause of Outbreak.*—A boy in the house next the dairy premises had unrecognised scarlatina, imported from outside while staying on a visit. He was discovered to be peeling on September 7th, and having access to the penthouse, probably infected the milk.

*Facts showing Special Incidence of Disease.*—All four houses supplied by the milk from this farm attacked, and adjoining houses, supplied by milk from other sources, escaped invasion by scarlatina.

*Reference.*—Report of medical officer of health, BRITISH MEDICAL JOURNAL, vol. ii, 1894, pp. 956, 1408.

ERNEST HART.

*(To be concluded.)*

## MEDICAL SICKNESS AND ACCIDENT SOCIETY.

THE monthly meeting of the Executive Committee of the Medical Sickness and Accident Society was held on April 30th, at 429, Strand, London, W.C.

There were present Dr. de Havilland Hall (Chairman), Dr. J. B. Ball, Dr. M. Greenwood, Mr. J. Brindley James, Mr. W. Thomas, Mr. Frederick Wallace, Dr. F. J. Allan, Dr. A. S. Gubb, Dr. W. Knowsley Sibley, and Dr. Walter Smith.

The usual examination of the current claims and new proposals having been made, the Committee proceeded to the preparation of the report to be submitted to the members at the next general meeting.

It has been resolved that for the future the annual general meeting of the Society shall be held in London, and this year it will take place at the Medical Society of London, 11, Chandos Street, Cavendish Square, London, W., on May 19th, at 5 P.M.

In accordance with the resolution recently made, the Society's accounts are now made up to December 31st in each year, and therefore, on this occasion, a statement for six months only will be submitted. This statement, together with a short report, will be posted to all the members, and a perusal of it will show that the Society's business is still growing.

Certain alterations in the rules are to be suggested to the members. Hitherto all new entrants to the Society have been required to pay an entry fee of 10s. 6d., and it is proposed that this payment shall for the future be abolished. Again, under the existing rule no member can claim sickness pay during the first six months of membership, and it is now proposed that this restriction shall be removed, and every member be in full benefit as soon as the first premium is paid. The removal of the latter restriction will obviate some cases of hardship when members have been injured in accidents.

Prospectuses and full particulars may be obtained on application to Mr. F. Addiscott, Secretary Medical Sickness and Accident Society, 33, Chancery Lane, London.

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THE report presented by the honorary secretaries (Dr. G.W. Beesley, of Salford, and Mr. T. L. Fennell, representative of present students), to the fifth annual meeting of the Manchester Medical Cricket Club, showed that the number of members was 100, and that seven matches had been played during the last season. Arrangements were made for six matches during the coming season. Dr. T. Harris was elected President; Drs. G. H. Broadbent and W. Scowcroft, Vice-Presidents; Drs. J. Bradley, H. H. Hitchon, and T. Rothwell, and Messrs. Ashcroft, Iliffe, and Lomas, members of the committee, the three last being representatives of the students. The honorary treasurer, Dr. H. W. Boddy, of Cheetham Hill, presented a satisfactory report, in spite of the fact that he had to lament many subscriptions in arrear.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1897.

Subscriptions to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MAY 15TH, 1897.

## THE CONCLUSIONS OF THE VENICE SANITARY CONVENTION.

III.

The last set of regulations laid down in the Convention is concerned with the control of plague in case it should have made its way into Europe, whether by land or by sea. As already intimated in our first article, the conclusions as to the notification of the disease by one country to another, and as to merchandise, are the same within the confines of Europe as outside Europe. These we need not repeat, neither need we discuss certain conclusions limiting the disinfection which can be imposed by any country as regards certain specified articles, or as to those deemed to be contaminated, and forbidding the application of any such process to printed matter or to any postal packets and letters other than the parcels post. These conclusions are followed by others as to land frontiers which will hardly interest this country, unless, indeed, plague should enter Europe, and English people should be travelling on Continental railways, or up foreign rivers and lakes.

The chapter dealing with traffic by sea, and regulations for European ports is, however, different: it concerns English people individually, and also English shipping and commercial interests. Again, vessels are divided into three classes, namely, infected, suspected, and healthy, and the conclusions relate first to action to be taken at ports of arrival.

Infected vessels are those on which there is, or has been within twelve days, an actual occurrence of plague. The sick must be disembarked and isolated. As regards other persons on board, it is said that they are to be disembarked "if possible," and to be subjected, for a period which shall complete ten days since the last attack, either to a process of observation, which means quarantine detention, or to supervision, which means our English practice of watching people for a time in their own homes, to which they have at once been allowed to go on giving their addresses. This concedes our English system as permissible, even in the case of an actually infected ship. All articles deemed to be infected are to be disinfected, bilge water is to be pumped out, potable water is to be changed, and the compartments of the vessel that have been occupied by the sick are to bedisinfected.

Suspected vessels are those in which there has been plague during the voyage, but no fresh attack for twelve days before reaching port. All on board must submit to a medical inspection; there is to be disinfection of dirty linen and bedding, and of such articles as the authorities shall deem to be infective; bilge and potable water are to be dealt with as in the case of infected vessels, and specified parts of the vessel are to be disinfected. Then comes a requirement that all on board shall remain under supervision in their own homes until ten days have elapsed since the occurrence of the last case. This is the adoption by the International Conference of our English practice in the strict letter of our English enactment, for no observation or quarantine is even permissible in the case of any of the Governments signing the Convention.

Healthy vessels are those which have sailed from an infected port, but on board which no case of plague has arisen. Such vessels are at once to receive free *pratique*, but the authorities of the port of arrival may, at their option, apply any one or more of the conditions applicable in the case of suspected vessels in the following methods: Medical inspection, disinfection of infected articles, pumping out of bilge water, and provision of fresh potable water; but disinfection of the vessel cannot be required. Then follow certain additional conclusions to the effect that one and another of the several requirements as to the various classes of vessels may be waived when the authority desires to do so on the ground that the vessel has carried a doctor or a disinfecting stove, or both, on board. It is also laid down that any vessel, the master of which declines to adopt the regulations required, cannot be detained, but shall be free to put to sea again; and even then the port authority may, subject to certain restrictions, allow merchandise and passengers to land before the departure of the vessel. And, lastly, it is enacted that every Government accepting the Convention must, on each of its coasts, fit up and provide one port at least which shall be open for each of the three classes of vessels referred to.

Two secondary chapters deal, one with special measures applicable to traffic up the Danube, and the other with details as to the application of different methods of disinfection to different objects such as rags, clothing, papers, ships, etc. These we do not propose to discuss in detail. A further chapter deals with action which should be taken on board ships at infected ports of departure, during the voyage, and before arrival in port; this action being, for obvious reasons, set out in the form of recommendations. At ports of departure captains of vessels are urged to do all they can to prevent infected persons or infected articles coming or being placed on board; no articles of clothing, bedding, etc., which have belonged to persons who have had plague are to be received on board; the state of the vessel in port is to be one of strict cleanliness: and the water taken on board is to be from a source which is above suspicion, or it is to be boiled or distilled water.

During the voyage a space is to be reserved for any who may fall sick of the plague; the sick and their attendants are to be strictly isolated; details are to be given as the boiling, disinfection, burning, etc., of infected bedding, clothing, etc.; the excreta, sputa, etc., of the sick are to be received in disinfecting solutions; disinfection of closets is to be regularly carried out; dead bodies are to be wrapped in sheets saturated with disinfectants before being committed to the sea; and disinfection of all places occupied by the sick, etc., is to be carried out. On arrival in port, all plague patients and persons suffering from suspicious symptoms are

to be pointed out, and to be specially set apart under isolation; and final processes of disinfection are to be carried out after removal of all persons and things liable to retain infection.

The remaining clauses of the Convention have but little medical concern; they relate to the administration of the Convention, and to the sources whence the finances for such administration are to be derived. In the Red Sea and the Suez Canal the Egyptian Maritime Board is responsible; in the Persian Gulf and in the Turkish Empire generally the Superior Council of Health of Constantinople is the administrative body. Both these Councils are constituted of representatives of different European nations, and they both have, or can raise, funds for the performance of their respective duties. In the case of the Red Sea traffic it has been customary to levy fees on shipping for this purpose, and British shipping has suffered financially in consequence. The Constantinople Council, on the other hand, is reputed to have reserves in its coffers, which are under international control, and which should suffice for all its wants. But no action can really do away with that which constitutes the greatest danger to Europe as regards plague—namely, the risks involved by the Mecca pilgrimage—until such pressure has been brought to bear on Turkey as is necessary to ensure that the Holy Places shall be put in such a condition as shall ensure the provision of at least the elementary requirements demanded in the interests of health and of the prevention of disease.

## PERNICIOUS ANÆMIA.

It has been known since the days of Addison that a certain form of anæmia for which no cause was found, and which was therefore called "idiopathic," was fatal in a much higher degree than the common chlorosis of girlhood. It was known also that, unlike chlorosis, it by preference attacked middle-aged persons, that men were more liable to it than women, and that hæmorrhages very commonly occurred in the mucous and serous membranes and in the retina. But it was not until the last ten or fifteen years that much more than this was discovered.

Improved methods of examining the blood, counting the cells by the hæmatocytometer, quantitative estimation of the hæmoglobin, and microscopic examination of stained films[1] have enabled us to recognise further differences between the two diseases. It is known now that in chlorosis the percentage of hæmoglobin is always diminished, but the number of blood cells need not be below the normal; since each cell must therefore contain less than its due share of hæmoglobin, its "worth" is said to be low. On the other hand, in the fatal form of anæmia, now usually called "pernicious," the red cells sink very far below the normal, and the hæmoglobin, though greatly less in amount, does not fall in the same proportion as the cells. While these last may be only 500,000 in the cubic millimetre, 10 per cent. of the proper number, the hæmoglobin may be 25 per cent. of the normal. The worth of the red cell in this disease is therefore not diminished, and may be increased. In both the red cells are found much altered in shape and size; but in the pernicious anæmia many of them are much larger than the natural, and many are nucleated, the nuclei staining even more brightly with methyl blue than those of the white cells. Both chlorosis and pernicious anæmia have this in common, that there is no increase of the white cells, and are thereby easily distinguished from leukæmia.

There is also a form of anæmia with enlarged spleen, the "splénomégalie" of the French, the "splenic anæmia" of English authors, in which the blood is like that of chlorosis. Hodgkin's disease is distinguished both by the glandular or splenic tumours, and by the fact that the red cells are not diminished out of proportion to the hæmoglobin.

It has been stated[2] that the alkalinity of the blood is diminished, and the specific gravity increased in both chlorosis and pernicious anæmia. But Ruttan and Adami,[3] working with a large quantity of blood from a pernicious case, found the specific gravity of the serum diminished. They found also that the proteids were diminished (5.2 per cent. instead of 8 or 10 per cent.), and that the serum globulin was to the serum albumen as 2.3 to 2.9, or 1 to 1.26 instead of 1 to 1.51, which is given by Hammarsten as the normal proportion. But estimations of the normal have not been made often enough to enable us to state it with precision.

The cause of this deterioration of the blood is not yet known. Hunter found that in the liver and other abdominal viscera considerable quantities of free iron were deposited. Believing this to be derived from decomposed hæmoglobin, he is of opinion that the disease is one which destroys blood cells already formed, not one which prevents their formation, a process of hæmolysis not a failure of hæmogenesis. Such a malady might be due to a microbe, but there is as yet no evidence of this, and it has therefore been suggested, first, that the agent is a toxin; and, secondly, since the decomposition takes place chiefly in the portal area, that this toxin is absorbed from the intestines. The red marrow of bones has been found to be altered from its normal condition in the adult to one resembling that of a child, but since this tissue is a former of red blood cells, the change is thought to be rather an effort at restoration than an agency for ill.

This theory, however, is as yet unproved, and hitherto no treatment of the supposed intestinal derangement has been of any avail. Arsenic has been used in this as in other disorders of the blood; sometimes, especially when given in increasing doses, it has been followed by considerable improvement, but it has often failed. Bone marrow was given by Dixon Mann, and has been strongly recommended by him and others, but like arsenic it undoubtedly fails in many cases. The inhalation of oxygen has been occasionally successful. The late Dr. Brackenridge published some cases which he cured by repeated transfusion of blood in small quantities, four or five ounces at a time. The daily injection of 5 mg. of corrosive sublimate is also said to have been followed by a cure. But it is evident that none of these methods is always, or indeed often, successful, and the disease, even when stopped for a time, is very prone to relapse. Whatever direct treatment is employed, the diet should be as generous as the patient's digestion, which is often disturbed, will allow, and port or burgundy should be given him to drink.

Finally, it should be remembered that it is by no means

[1] British Medical Journal, March 13th, 1897, p. 652.

[2] Von Moracewska, *Virch. Arch.*, cxliv, Heft 1.

[3] British Medical Journal, 1896, ii, p. 1700.

certain that pernicious anæmia is always one and the same disease. It is quite possible that its symptoms may be due to more than one cause.

## MARRIAGES OF MINORS.

In the report of the medical officer of health for the administrative County of London for 1895, Mr. Shirley Murphy supplies some information with regard to the marriages of minors in London and in the country at large. In London the proportion which the marriages of minors bear to the total number of marriages, though it has declined during recent years, is considerably in excess of the proportion which ruled from 1851 to 1870, while in England as a whole the proportion, which has been larger throughout than that obtained in London, has not varied very greatly since 1851. Both in London and in England the proportion of women who marry under age is very much larger than the proportion of men who take upon themselves responsibility of this kind before attaining their majority. In London in 1894 the percentage of males who contracted marriage while minors was 4.68, while that of females was 16.79; the figures for England were 5.46 and 18.06 respectively. The report also contains a table showing the number of minors married in each of the registration districts of London in the year 1895, and an article in a recent issue of the *Times* has called special attention to this aspect of the matter, though without attempting any full discussion of the questions which arise.

In the spring a young man's fancy is reputed lightly to turn in a particular direction, and it may therefore be that the design of the writer of the article referred to is to utter a word of warning in due season. After noting that out of 37,593 marriages 1,647 bridegrooms and 5,975 brides were under age, the writer adds: "Of the bridegrooms under age, 90 were furnished by Mile End, 121 by Bethnal Green, and 265 (making together a fourth of the whole number) by St. Saviour Southwark; while the City of London supplied only 9, Westminster 7, Hampstead 9, and Lewisham 8, the highest number for any other district being 89 in Wandsworth." The facts are left to speak for themselves, but the implication appears to be sufficiently obvious. Intending bridegrooms who have not yet reached the age of legal independence in Mile End, Bethnal Green, and St. Saviour Southwark should profit by the warning, though it is to be feared that they will not.

For purposes of comparison, it would, however, be desirable to deal with rates rather than with the actual figures, and it may be noted that on this view of the matter the contrast between the three districts first referred to and the four districts (the City, Westminster, Hampstead, and Lewisham) becomes much less striking. Still it will be found that while the three districts supply one-fourth of the whole number of bridegrooms under 21 years of age, they do not include a proportionate total population, and indeed the fact that early marriages are closely associated with poverty and overcrowding is undeniable. The Registrar-General has pointed out "that the English are a people much given to matrimony," and he has stated that "the prudential considerations which have lowered the general marriage-rate, and especially have diminished the number of remarriages, appear to have had less influence upon those who have not yet reached the age of legal independence."

The figures referred to in the *Times* article indicate that these prudential considerations have less effect in certain districts of London than they have in others. At the same time it may be noted that these figures show from year to year a fairly definite tendency in the direction of improvement, and that this tendency is by no means confined to the more wealthy areas; indeed the amount of change is particularly striking in some of the registration districts which are usually regarded as most poverty-stricken. It may be added that further light is likely to be shed on the question of early marriages, as Mr. Charles Booth announces in the concluding paragraph of his ninth volume on the *Life and Labour of the People*, that in future volumes he will have to deal with this, among other "difficult and contentious subjects."

We are glad to learn that H.R.H. the Duchess of Teck has made satisfactory progress since the operation, and is now rapidly approaching convalescence.

## THE GENERAL MEDICAL COUNCIL.

The next session of the General Medical Council will commence on Tuesday, May 25th, at 2 P.M. The Executive Committee will meet on the previous day. On the present occasion three new members of the Council will be entitled to take their seats—Dr. Rentoul and Mr. George Brown elected as direct representatives for England, and Dr. R. W. Reid appointed representative of the University of Aberdeen; and the re election of Dr. J. G. Glover will be reported.

## THE PUBLIC SERVICES.

The London correspondent of the *Yorkshire Daily Post*, commenting on the unpopularity of the Army Medical Service, as shown in the lack of candidates, whereas the Naval Medical Service has no such difficulty, adds: "It might therefore be advisable for Lord Lansdowne's subordinates to step down from their stools in the War Office and go to the Admiralty and consult with Mr. Goschen's staff as to the reason for this. There is always a little jealousy in the services, but it is quite evident our naval advisers can show one thing that the personages at the War Office cannot, and that is a contented medical staff."

## MEDICAL PRACTICE BY FOREIGNERS IN ITALY.

In the Chamber of Deputies on May 6th, Signor Santini asked a question as to the excessive number of foreign doctors practising in Italy, while Italian doctors did not enjoy reciprocal treatment. The Under-Secretary of State for the Interior replied that the Government intended to introduce a Bill altering the present law on the subject. The measure had already been submitted to the Supreme Sanitary Council. The Medical-Physical Academy of Florence is inviting the co-operation of other associations in Italy for the protection of the interests of the medical profession. With this object it has been decided that a petition shall be presented to the Minister of the Interior, asking for legislation forbidding the practice of medicine in Italy to foreign doctors who have not obtained an Italian qualification.

## UNQUALIFIED PRACTICE AT SHEFFIELD.

It is difficult to realise why any sympathy should ever be expressed by any educated person with an unqualified practioner of medicine. The danger to the public health which is ever present in the case of the unskilled practice of medicine or surgery calls for severe censure. Mr. Waddy, Q.C., the learned judge of the county court at Sheffield, however, thinks differently. As will be seen from the letter of our Sheffield correspondent, a chemist, named Ellinor, was summoned before him last week under the Apothecaries Act, and

was convicted for practising as an apothecary without being qualified, and was fined the statutory penalty of £20. In sentencing the chemist Judge Waddy is reported as saying: "He must make it clear that he was convinced that the defendant had done nothing underhand. He had been trying to act properly, but he had nevertheless been acting illegally. It might seem hard under the circumstances, remembering how grateful many persons had been for what defendant had done for them, that he should have to find a verdict against the defendant, but the law laid it down that unqualified men must not do these things." We wonder what Judge Waddy would have said had it been a case of unqualified legal practice which he was trying; we expect his sympathy would not have been with the defendant. If judges would only be content to administer the law without commenting on the merits or demerits of the case it would be better for all concerned. Remarks like those made by the judge in this case do a great deal of harm.

## BRITISH HELP FOR THE GREEK WOUNDED.

The medical assistance provided by the *Daily Chronicle* Fund for the Greek army is now in full working order. Mr. Abbott has established a hospital in Chalcis, a seaport town occupying an intermediate position between Volo and Athens. The wounded will thus be spared the long sea journey to the base hospital in the capital till they are in better condition to submit to it. By the time these lines are in print Mr. Abbott will have opened a hundred beds. He started with three English nurses, and was expecting others at the time of his telegram. Meanwhile, Mr. Moffatt is at Lamia superintending the convoy of wounded from Domoko to Chalcis. Four more nurses have left London for Athens, bringing up the total number furnished by the Fund to 23. The Fund continues to increase daily, and on Wednesday evening amounted to £8,579. A large further shipment of stores has left for the front, and our contemporary is still receiving medical and other requisites from many sources. In view of the apparently impending termination of the war, it is possible that not much further strain will be thrown on the medical organisation, but in the event of another battle, the arrangements which have been made will be of inestimable value and service. We hope next week to be able to give some details as to the surgical experiences of the war.

## "A STRANGE STORY OF THE SEA."

With reference to the paragraph which appeared under this heading in the British Medical Journal of May 8th, we have received a communication from Messrs. Bullard, King, and Co., the owners of the *Umona*, in which Dr. W. H. Brendon died on the voyage home from the Cape. They call our attention to a letter from them which is published in *Fair Play* (May 6th), the paper in which the allegations to which we referred first appeared. Messrs. Bullard, King, and Co., characterise the attack made upon them by the writer of the letter on which we commented as "unmerited." They affirm that during Dr. Brendon's illness "every care and attention as regards nursing was shown to him, including sitting up at night by the captain, the officers, and the stewardess, the latter being a good capable nurse. Everything that he wished for was given to him including champagne, brandy, etc. The last two days and nights the captain, officers, and stewardess in turn stood over him, fanning him to afford some alleviation of the tropical heat, for which the doctor expressed to them his sincere gratitude." From their knowledge of the captain Messrs. Bullard, King, and Co. "fearlessly assert that a kinder or more considerate man does not exist." We do not doubt it, and we are willing to believe that the poor young fellow was as carefully tended as he could be with only strangers around his deathbed. This, however, makes it all the more surprising that the failure to notify his death to his relatives on the arrival of the ship in London should have occurred. For this failure it would appear from Messrs. Bullard, King, and Co.'s explanation is that one of their clerks is responsible. By some departmental confusion Dr. Brendon's home address could not be found when it was wanted. On behalf of the clerk whose business it clearly was to have a record of the address, Messrs. Bullard, King and Co. plead that he "took much trouble and spent some time personally in trying to obtain from the agency firms through whom the doctor came to us the needed address, but the gentleman who had been in possession of it was away from England." We would suggest to the clerk in question that should a similar difficulty ever arise again he will generally be able to find the address of a medical man without taking "much trouble" or spending any more time "personally" than is necessary to consult the *Medical Directory*, a work of reference easily accessible and fairly trustworthy. Messrs. Bullard, King, and Co. profess to have the satisfaction of believing that all concerned on their part have done their duty sympathetically and fairly. We congratulate them on the possession of this comfortable belief, which we have no wish to disturb; we venture, however, to hint that persons in the state of anxiety in which Dr. Brendon's relatives were left would probably be content to dispense with some of the company's sympathy in exchange for a little more intelligence on the part of those who conduct its business.

## LORD LISTER AND HIS OLD PUPILS.

The arrangements for the complimentary banquet which is to be offered to Lord Lister by his former house-surgeons, clerks, and dressers are nearly completed, and the occasion promises to be a most interesting one. As we have already announced, it will be held at the Café Royal, Regent Street, on May 26th. The Committee have experienced some difficulty in obtaining correct lists of those who have held office under Lord Lister, and in tracing their present whereabouts. The Committee hope, therefore, that all who have served in any of the above capacities in Glasgow, Edinburgh, or King's College, will not wait for a special invitation, but will at once communicate with the Honorary Secretary, Dr. StClair Thomson, 28, Queen Anne Street, W. Even if unable to take part in this interesting event, they are requested to intimate the date of their dressership, as a complete list is being prepared of those who have been closely associated with Lord Lister in his teaching career, which extends over a period of thirty-two years—from 1861 to 1893.

## SPECIAL REPORT ON THE WORK OF AMBULANCES AT THE GREAT FIRE IN PARIS.

Dr. Nachtel, the head of the Ambulances Urbaines, Paris, writes to us on this subject: As regards the Ambulances Urbaines, it is certain that if these carriages had not existed in Paris the horror of the catastrophe, great as it was, would have been intensified. The dead and injured would necessarily have had to be carried through the streets on stretchers. This, besides entailing the services of a great many more men, would have occupied a much longer time, and it would have been impossible for the relatives to identify the bodies the same night, as they were in a great many cases able to do. Furthermore, the impression produced on the public by such a scene would have been even more painful than it was. Thanks to the telephonic message I sent, the ambulance carriages were soon on the spot; the work went on rapidly, and a great number of people were spared long hours of suspense and anxiety. The spectacle was a horrible one. The bodies were very much mutilated, and in many cases arms and legs had completely disappeared. Some bodies were entirely beheaded. Many bodies were greatly swollen, as after drowning. Owing to the gases in the bodies many of them burst and part of the intestines protruded. It was the same with the heads: the skulls burst open and the cerebral substance oozed out. The bodies were

very much distorted, apparently having suffered terribly before death. When I arrived on the scene the heat was still very intense, although the fire had been extinguished. I examined the ground and discovered arm and leg bones and portions of cerebral substance. In many instances the abdomen was split open and portions of the visceral organs were partially burned. We packed several bodies in each ambulance, and placed alongside each whatever articles we found near them. This facilitated the identification by the relatives, which was a difficult task, as nearly all the bodies were carbonised. I had even friends of mine who perished in this sad disaster, but I did not recognise them when putting the bodies into the ambulance carriages. I was present at the identification of the body of the Duchesse d'Alençon. After the dentist had categorically declared one of the bodies to be that of the Duchess I put several questions to him. He then wavered and had doubts about it. Half an hour later he identified another body as that of the Duchess. The number of victims is 117. Five bodies have been placed in the Morgue, not having been identified yet. From fifty to sixty persons were injured, of whom six or seven have since died.

## MEDICAL VICTIMS OF THE PARIS DISASTER.

THE deplorable accident at the Bazaar in the Rue Jean-Goujon has left several families connected with the medical profession in mourning. Among the victims was Dr. Henri Feulard, the distinguished dermatologist, who, after saving his wife, went back into the burning structure to rescue his little daughter. In seeking to save some other persons who asked for his help the heroic doctor perished in the flames. He was only 40 years of age, and had already made a considerable reputation in his special department; he had been very active in organising the meetings of the French Dermatological Congress, and his name was well known to his brother specialists all over the world from his contributions to literature, the share he had taken in the publication of the *Atlas du Musée de St. Louis*, and his position on the editorial staff of the *Annales de Dermatologie et de Syphilographie*. A cloud of misfortune had hung over Dr. Feulard's family for some time, for not long before the catastrophe in which he lost his life one of his children had died of diphtheria, and another of meningitis.—M. Picqué, surgeon to the Paris hospitals, lost a beloved sister with whom he lived. M. le Sourd, Director of the *Gazette des Hôpitaux*, lost his daughter, and M. Nitot his wife and daughter; the body of the latter he was able to identify only by the fact that she had a bifid uvula. Dr. Léon Simon, son of the late Jules Simon, the distinguished writer, also lost a daughter. Dr. Nélaton lost his sister and his niece, and Dr. Vimont his wife.

## FILE CUTTING AND LEAD POISONING.

A CORONER'S inquiry has recently been held in Sheffield into the circumstances attending the death of a file cutter, aged 44 years. It is known that plumbism prevails extensively amongst those engaged in this trade. The work, which is far from being hard, is frequently carried on in small workshops often situated amongst unhealthy surroundings. The lines noticeable upon an iron file, and which make it such a useful instrument, are made by the forcible stroke of a chisel whilst the file rests upon a metallic slab or cushion, one of the principal ingredients of which is lead, thus brought into requisition on account of its softness and its property of yielding when struck. Many of the workmen thus employed are in the habit of licking the fingers that hold the chisel so that they may have a better grip of it, and, as lead dust is given off, and their hands, which have become greasy and grimy, are not always washed before eating, it is easy to understand how these men become the victims of plumbism. Usually the illness assumes the form of a paralysis, limited to the left hand or to a few of its muscles; but not infrequently there is colic, or the kidneys and nervous system become affected and the patient dies in a convulsion. File cutting is one of the occupations which have been referred to the Dangerous Trades Committee of the Home Office to inquire into and report upon, and, as we believe this Committee has already visited several places where this industry is carried on and taken evidence, it is to be hoped it will make some useful recommendations which, if put into practice, will tend to diminish the risks of plumbism.

## ST. ANDREWS MEDICAL HALL.

THE site has been marked out, and the digging of foundations begun, as a preliminary to the erection of the Medical Hall which the Marquis of Bute has undertaken to provide for the University of St. Andrews. The new hall is to stand within the precincts and south of St. Mary's College, close to the ground laid out as a botanical garden, and is to be in the Elizabethan style. There are to be two storeys, and rooms are to be provided for the lecturers on botany, anatomy, physiology, and materia medica. There will be space for museums, work rooms, retiring rooms, and two lecture rooms.

## NAVAL SURGERY.

THE *Fuiji*, which has been built on the Thames for the Japanese Government, and is at present lying at Tilbury Dock, is a fine specimen of the *Majestic* type, drawing 12,500 tons, and with no less than 73 feet breadth of beam in her widest part. The sanitary arrangements are precisely the same as in English ironclads, but the sickroom accommodation seems rather scanty considering that the full complement of the crew numbers more than 600. It comprises only six beds for sailors and two for officers; a neat little dispensary is attached, which has been well stocked with English drugs. The bottles, however, are not quite as large as those in use in Japan, and will be replaced by others in that country: should the *Fuiji* encounter stormy weather on her way out, we fear that some havoc will ensue among the medicaments, as the bottles do not fit tightly in their cases. There are at present two surgeons on board, but in war time the number will be increased to three. Each sailor will then carry a packet of sublimate gauze and a triangular bandage for use until medical attention is at hand. It has been arranged that two wide spaces, fore and aft, at the level of the water-line, can be cleared for surgical purposes. In the last war only one such space was reserved; but this was found inadequate, and serious difficulty sometimes arose when it was rendered untenable by the enemy's fire. The surgical armamentarium is supplemented by an excellent and capacious steriliser for instruments, dressings, etc., which is arranged so that it can be used in connection with a steampipe running through the sickroom.

## WORKING MEN ON HOSPITAL REFORM.

IN the *Birmingham Daily Post* for May 3rd is the report of a meeting of the Birmingham Trades Council, which is not without interest as showing what working men think of the pay system at hospitals. If we understand this account aright, the system at the Queen's Hospital, Birmingham, is to charge each out-patient 1s. on his second visit. This charge was vehemently protested against by most of the speakers in the case of men who subscribe to the Hospital Saturday Fund. Such men, it is argued, are entitled to hospital treatment, whatever may have been the amount of their subscription, whatever their earnings may be, and whatever the nature of their affection. The report of the discussion is not everywhere quite intelligible, and the discussion itself was only fragmentary, for the question was adjourned: but the report seems to us worth notice as showing the difficulty of working this so-called "pay" system and the many discontents which it inevitably

engenders. The speakers evidently assume that the 1s. fee is really an equivalent for the services rendered. All they complain of is the largeness of the sum. They know that no part of the money goes to the doctor, and they complain bitterly that he is allowed to teach himself his profession, "for his own benefit," from their sufferings, and so they repudiate the notion that hospitals are charities at all. Working men, no doubt, are hardly in a position to form an accurate judgment of medical matters, but there are many people, "who stand in better place," who know hardly more than they do about medical charities, who think it a terrible thing that one of the great uses of hospitals should be to improve the art of medicine, and who think that such improvement is a "doctors' question" only. Nay, there are some who use the fact that all growing knowledge is to some extent tentative as an argument for denouncing hospitals as places where the poor are "experimented on"; and we are ashamed to have to admit that this foolish cry has even been echoed by members of our own profession. We are not surprised, therefore, to find a good deal of ignorance and prejudice amongst the classes who furnish the bulk of hospital patients. But the fact shows the importance of introducing somewhat more of method into our hospital system. This would, in our opinion, be best accomplished by the deliberations of some authoritative central body on the lines indicated by the Charity Organisation Society, though there is no reason why that particular society should have any leading part in the matter, nor why the details of their scheme should be followed. It is, however, evidently a matter of urgency that the leading principles of the out-patient system, of the privileges of subscribers, of the qualifications for admission, of the share of the medical staff in the management, and other such essentials of hospital administration should be, if possible, agreed upon. Till some common understanding is arrived at on such questions as these, neither patients, nor governors, nor the public will be satisfied.

## WOMEN'S DEGREES AT CAMBRIDGE.

A NOTICE of *non-placet*, signed by some 280 resident members of the Senate, has just been issued. It includes the names of 18 professors, and some 110 past or present tutors and lecturers. The medical teachers appear to be nearly unanimous in opposing the proposal to grant titular degrees to women. Over 2,000 of the resident undergraduates and bachelors have presented a memorial of protest against the proposal, as injurious to the position and efficiency of the University. A counter memorial in favour of degrees for women has received only 278 signatures of the junior members. The opposition of the undergraduates is significant in relation to the allegation that further concessions to women would result in a diversion of the male students to Oxford and elsewhere.

## THE NATIONAL SOCIETY FOR THE EMPLOYMENT OF EPILEPTICS.

MR. BAYARD, the late American Ambassador, immediately before his return to the United States played the principal part in a pleasant and important ceremony in connection with the Epileptic Colony at Chalfont St. Peter. This was the laying of the memorial stone of a new building for men which has been given by the generosity of Mr. Passmore Edwards on account of the Queen's commemoration; it is to be named the Victoria House. In the course of an eloquent address Mr. Bayard referred to the fact that the monument which Her Majesty desired to be raised in celebration of her glorious reign was one not of personal aggrandisement or gain, but of charity and the alleviation of human suffering. He considered that one of the most striking characteristics of the English people was the interest taken by all classes in the affairs of others, and that the British system of voluntary benevolence was infinitely superior to State aid for all the ills that flesh and soul were heir to. Sir James Crichton-Browne proposed a vote of thanks to Mr. and Mrs. Bayard and to Mr. Passmore Edwards, whom he happily described as the true master builder. In seconding this, Lieutenant-Colonel E. Montefiore announced that a friend of the Society, who at present desired to remain anonymous, had promised £5,000 for the erection of a house for a resident medical officer. Subsequently Mrs. Bayard opened a new home for epileptic women, called Eleanor House, also the gift of Mr. Edwards. The Society is doing excellent work, and, as will be judged, is rapidly extending its operations; much progress has been made, in spite of many obstacles, since the first eighteen men were housed in an iron building on the farm, and the contemplated appointment of a resident medical officer is much needed. The greatest of the difficulties still remaining appears to be the provision of suitable employment for the colonists. At present their main energies are devoted to market gardening and such-like outdoor occupations; the result is that a spell of wet weather reduces them to a condition of comparative idleness, under which they become irritable, peevish, and troublesome. Although the frequency of their fits is not obviously increased by this, there can be no doubt that such intervals of retrogression exercise a very unfavourable influence, and an influence which will be checked by the extension of the scope of indoor avocations for the colonists.

## MIXED MILITARY BOARDS.

AN important revision of the Queen's Regulations appears in Army Orders in the monthly *Army List* for May. It affirms that all departmental officers, whether serving in combatant, departmental, or honorary rank shall retain due precedence in mixed Boards. It also states that the convening officer of such Boards may nominate the president thereof, but if a president is not nominated then the senior member of the Board shall preside; but in no case will any departmental officer, who may be senior in rank, be detailed to sit under the presidency of a junior combatant or other. Such precedence of departmental officers shall not apply to presidency of courts martial, or entitle to command of any kind other than the limited command affirmed in other portions of the order.

## DENTAL REGISTRATION.

THE case, reported in another column, in which Isidore Spero sought to compel the General Medical Council to register him as a student requires some explanation to make it clear to those not conversant with the details. By Section XXXVII of the Dentists Act a person whose articles of apprenticeship expired prior to January 1st, 1880, had a right to be registered as though he were in practice before the passing of the Act; but it gave him no greater right, and therefore, in order to be registered as of right, he had to comply with those conditions of registration applicable to men in practice before the passing of the Act. In other words, if he did not register before August 1st, 1889, he would only be registered on such terms and conditions as the Council might think fit. In 1891 the Council practically decided that anyone seeking registration should be compelled to go through the regular curriculum of study. Spero's articles expired in October, 1878, and he failed to register before August, 1879. Those who consider that the penal clause of the Dentists Act is not as effective as it should be will probably alter their decision when they find men organising themselves and forming an association to secure if possible by the process of the Courts a registration to which their education does not entitle them. They at all events have a keen appreciation of the value of registration and of the difficulties that attend the unregistered dental practitioner. It is a matter for sincere regret that the penal clause of the Medical Act, 1858, does not render the position of the unregistered quack in physic or surgery equally unpleasant. A great step in advance would be made if the medical penal clause was as wide as that in the Dentists Act, which is, in its turn, no

wider than that in the Veterinary Surgeons Act. A man's dog is better protected than himself against the wiles of the quack practitioner. The effect of this decision may perhaps be to awaken those dentists who are entitled to be registered to the necessity of registration. They get their diplomas and fail to register. They are liable to penalties under this Act for practising without registration.

## GAS GEYSERS.

It has often been proposed to legislate specially so as to compel the provision of proper flues and appliances in connection with geysers so as to render accidents impossible. The deathroll from geysers is a long one. The last victim is a young healthy woman found dead in a bathroom. It would appear that a geyser was fitted up only the previous day; the deceased was found dead, lying on her back, and a strong smell of coal gas pervaded the room. There appears to have been no special ventilation, and the windows were closed. So far as the metropolis is concerned, the wording of the Public Health (London) Act, which expressly includes under the word "nuisances" matters "dangerous" to health, appears to be sufficiently wide to include any gas geyser so fitted as not to carry off effectually all unconsumed gas and all products of combustion out of the bathroom. If this view is correct it is the duty of the sanitary officers to treat such matters which come under their observation as nuisances to be abated in the ordinary way. There can be little doubt that by far the majority of cases of death from the inhalation of coal gas are produced by carbon monoxide poisoning: coal gas usually containing about 8 per cent. of CO. It may also be presumed that the undoubted cases of anæmia, of headache, and of *malaise* which results from the inhalation of small quantities of coal gas are due to the same cause.

## CALF LYMPH VACCINATION.

The Local Government Board have, we understand, recently issued a communication for the information of guardians on the important subject of vaccination by public vaccinators with calf lymph. The Board lay down that Boards of Guardians cannot themselves supply calf lymph or provide a calf lymph establishment; but that they may make it a condition of a contract with any public vaccinator that he shall be paid on a higher scale of fees for any vaccinations performed with calf lymph. The Board go on to say that the public vaccinator is responsible for the lymph used. The guardians seem exercised at this latter statement, since some of their body hold that this will defeat the object which they have at heart in pressing for calf lymph vaccination, namely, the granting of choice of lymph to parents. We do not see where the difficulty finds place, as there must needs be very few children whom a public vaccinator would hesitate to vaccinate with calf lymph, seeing that his contract was so drawn as to leave with him the option of human and calf vaccine: and since the latter would carry with its use a compensating fee to cover cost of purchase, there need be, and would be, no hesitation on the operator's part, provided that no particular condition of the vaccinee placed calf lymph out of the question. Doubtless such condition is yet to be met with if vaccination at all be permissible in the individual child. Here then we have a succinct statement by the Local Government Board that calf lymph will be permitted by them in the hands of public vaccinators under contract, and that too at an increased rate of payment; and the obviously wise decree that public vaccinators have absolute responsibility for the lymph used.

## HOSPITAL ABUSE.

In the *Manchester Guardian* for April 22nd, attention is called "to a form of hospital abuse which has hitherto escaped notice," namely, that large firms, employing a great number of men and women, subscribe sums to hospitals in their neighbourhood which look very handsome, but which are really not nearly an equivalent for the medical services exacted in return. The *Guardian* gives the following story on the authority of a medical correspondent: "There is a large firm here which subscribes annually 200 guineas to the general hospital adjacent to its works. But the demands upon the resources of the institution have become so frequent and so great, that last year the Secretary of the hospital, out of mere curiosity, made a close examination of the books with a view to ascertaining the value of the aid actually rendered to this firm, and the result worked out at £1,500; that is to say, the hospital expended the latter sum in treating the firm's employees, and then was paid in return a subscription of 200 guineas." Many have asserted that noblemen and gentlemen living in the neighbourhood of large hospitals subscribe to the latter in order to save themselves expense by sending their servants there when sick, and there is no improbability in the assertion that large firms in Manchester adopt a similar course; but the fact ought not to be admitted on insufficient evidence; and we confess that £1,500 seems a large sum to be "actually expended" in treating the workpeople of one firm at a single hospital. More details are certainly required.

## SANITARY CONDITION OF MALTA.

In the *Daily Malta Chronicle* of April 23rd instructive communications are published from the medical to the military authorities on the shocking insanitary condition of this our great naval base in the Mediterranean. The sanitary condition of the civil population of Malta appears to be so bad and so dangerous to the public health, not only of our own soldiers and sailors, but to Europe at large, as to call for the intervention of Parliament. The letters are addressed to the Chief Staff Officer, Malta, but in the present obdurate attitude of the War Office to things medical, nothing is likely to be done until public pressure is brought to bear. The Principal Medical Officer, Surgeon-Major-General T. Maunsell, writing on January 23rd, 1897, says he writes to bring to the notice of His Excellency the Commander-in-Chief the serious sanitary conditions caused by overcrowding in populous centres of the island, which is emphasised by the present fear of pestilence and vexatious quarantine regulations hampering the movement of troops. In Valetta the population reaches the enormous figure in density of 75,000 to the square mile; an epidemic pestilence once set up in such a mass could not be coped with: this is yearly aggravated by unrestricted building operations and the want of compulsory segregation; the rate of infantile mortality (a crucial test of sanitary conditions) "is so enormous as to be almost criminal;" it reached in 1895, 267 per 1,000, or nearly three times what it might be under more favourable conditions. It is not contended that the remedy for this grave and menacing state of things is easily to be found, but nevertheless it must be sought for. The remedies recommended are tersely stated: (*a*) General conservancy to be dealt with in a liberal, rigorous, and comprehensive spirit; (*b*) Strict supervision of markets, abattoirs, dairies, lodging-houses, grogshops, etc.; (*c*) General sewage works now on hand to be pushed on, and all house connections therewith examined, and rectified if necessary; (*d*) Vigilance over the water supply; (*e*) Provision made for segregation of the infected should epidemic disease break out. Finally, it is pointed out, until these sanitary measures are taken in hand and enforced, the community has nothing between it and pestilence but an obsolete system of quarantine. Particularly, it is urged, these present insanitary conditions are full of danger in the risk of plague infection. On January 30th the Civil Sanitary Inspector (Dr. G. Carnana Scicluna) also sent a strong letter to the Chief Government Medical Officer. He called attention to the insanitary condition of the Maltese villages; summed up in being "highly overcrowded," "badly ventilated," "irregularly or not at all drained." He also urges the danger of the introduction of Bombay plague; calls attention to the cesspit abominations, horrible dung houses, human and animal; a filthy trade in

ordure, and the premium placed on dirt by the system of house letting. He winds up by a number of recommendations, including draining, flushing, public dustbins, and, in short, general sanitation and conservancy. These reports and recommendations are now three months old; and are sufficiently alarming, not only in our own immediate interests, but as likely to cause international complications should pestilence break out, that it is time to ask what is being, or has been done to remove such dangers. Whatever may be the theoretical government of the island of Malta, half military, half civil, the real power, and therefore the real responsibility for its sanitary and economic condition rests with the former; and to the military authorities should questions be addressed.

## THE PRINCE OF WALES'S HOSPITAL FUND.

THE total receipts from all quarters for this fund now amount, it is announced, to £18,401 14s. 3d. in annual subscriptions; £76,805 13s. 9d. in donations, which, if invested, might produce £2,000 a year; £19,133 12s. 0d. in commuted subscriptions, to be invested. The total sum aimed at is one which would give an annual income of £150,000, to cover the existing deficit in the income of the metropolitan hospitals.

## THE MONTREAL MEETING.

WE are requested to call the attention of members to the notice form inserted in the centre of the BRITISH MEDICAL JOURNAL last week, May 8th. It is regarded as very essential that the Executive Committee in Montreal should at an early date receive as complete a list as possible of those who intend to be present at the annual meeting which commences on August 31st. The preparations in Montreal are in a very forward state, but it will greatly assist local arrangements if some idea can be obtained of the number of the members of the Association who are likely to be able to attend. The Faculty of Medicine of Paris has nominated Professor Charles Richet as its delegate to the meeting, and we understand that a large number of invitations have been issued to leading members of the medical profession in the United States, and that a gratifying number of acceptances have been received. We are requested to state that members who are thinking of making the trip across through the Dominion by the Canadian Pacific Railway would probably find that they could obtain the maximum of enjoyment at a minimum of cost if they left this country before the middle of July. They would then be able to cross to Banff Hot Springs, Vancouver, Rossland, etc., before the meeting, while at the same time the special reduction of fare offered by the steamship companies would be in force. In the notice published last week the date of sailing of the *Carthaginian* of the Allan Line from Liverpool should have been given as Thursday, August 19th, and the sailings of the Beaver Line (Liverpool) as *Lake Winnipeg* July 3rd, *Lake Ontario* July 10th, *Lake Huron* July 17th, *Lake Superior* July 24th, *Lake Winnipeg* August 7th, *Lake Huron* August 14th, *Lake Ontario* August 21st.

## THE IMPORTATION OF DOGS.

THE Board of Agriculture have issued an order, dated May 7th, 1897, which prohibits the importation of dogs into Great Britain from any other country (except Ireland and the Isle of Man) otherwise than in accordance with certain provisions set forth. The order takes effect on September 15th, 1897. After that date no dog may be landed in Great Britain from any other country without a licence from the Board of Agriculture, application for which is to be made to the Secretary of the Board. The order gives power for inserting on any licence such conditions as the Board may think necessary or desirable for prescribing and regulating the detention and isolation of the dog by and at the expense of its owner for any period not exceeding six months at a place to be provided for that purpose by such owner, and to be described in the licence; or for regulating the movement of the dog to such place of detention, and its movement during the period of detention prescribed by the licence. An applicant for a licence to be granted under this order for the landing of a dog will be required to satisfy the Board that proper and suitable arrangements can be made for such detention and isolation of the dog as appear to the Board to be necessary or desirable. Proceedings for unlawful landing will be taken under the Customs Acts, and dogs so landed will be forfeited and "dealt with as other goods" the importation of which is prohibited by the Customs Acts, and certain sections of the Diseases of Animals Act (1894) are extended so that dogs shall be animals and rabies a disease, and subject to its provisions relating to offences and procedure. The provision of the new order are to be executed and enforced by the local authority. This action of the President of the Board of Agriculture must be regarded as a step in the right direction. Any scheme for the extermination of rabies and its dependent hydrophobia which does not deal with importation of dogs must be incomplete. It is, however, to be hoped that cognisance will be taken of the alleged danger of importing rabies from Ireland. It has frequently been stated that much of the rabies now existing in Great Britain has been imported from Ireland. If simultaneous action as to the enforcement of muzzling and importation regulations be not taken in Ireland, it is to be feared that the present attempt to exterminate rabies from Great Britain may fail. It seems rather a matter for regret that a general muzzling order and the present importation order made applicable to Great Britain and Ireland should not now be adopted, for, without further assurance of freedom from rabies than can now be given, it cannot be regarded as absolutely safe to introduce without restriction dogs from one part of the United Kingdom to another—indeed, there are few wide areas of the country into which, during some time of the year, dogs from London do not accompany their owners.

## THE DEATH OF SURGEON-MAJOR CORNISH AT MAJUBA.

LIEUTENANT-COLONEL ROBERTSON, late 92nd Highlanders, writes a long letter to the *Irish Times*, showing that the Boers deliberately shot down Surgeon-Major Cornish, when they knew who he was, and that he was engaged in attending on the wounded. Of course he was only a "non-combatant," but it goes to show the risks such men run on the field of battle, even with a so-called civilised enemy such as the Boers.

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LADY GEORGE HAMILTON will present the diplomas, medals, and certificates of the National Health Society to successful candidates at Grosvenor House on Saturday, May 22nd, at 3 P.M,

A MEETING of the medical profession and others interested in medical charities will be held in Manchester on Tuesday, May 24th, at 4 P.M. It will be attended by Dr. Ward Cousins and Colonel Montefiore as representatives of the Hospital Reform Association.

THE Edinburgh University Club of London dined, under the Presidency of Lord Lister, at the Holborn Restaurant on May 12th. There was a large gathering of nearly 200 members and guests, representing all branches of art, science, and literature, and the utmost enthusiasm was displayed towards the distinguished chairman, who has long been a leading member of the club.

PRESENTATION.—Dr. Young, of Brighouse, has, on leaving that town to take up his appointment as medical officer of health for the borough of Crewe, been presented with a solid silver afternoon tea service, inscribed as follows: "Presented to Dr. Meredith Young by the members and officials of the Halifax Rural District Council, on his resigning the position of Medical Officer of Health. April, 1897." A silver muffineer was also presented to Mrs. Young.

# SPECIAL REPORT

TO

THE "BRITISH MEDICAL JOURNAL"

BY

## PROFESSOR R. KOCH

ON HIS

# RESEARCHES INTO THE CAUSE OF CATTLE PLAGUE.

PROFESSOR KOCH has addressed two letters to the Editor, of which the following are translations:

Mozambique, April 9th, 1897.

When during my passage through London I promised that I would send to the BRITISH MEDICAL JOURNAL reports in the form of letters on the progress of my expedition to Cape Colony to investigate rinderpest, my intention was, in accordance with your wish, to relate my experiences in chronological order. The researches, however, proved from the first very complicated, so that it would hardly have been possible by means of detached letters to have described the course of the work, and at the same time to have kept the general intention well in view. It will be much more instructive for the readers of the BRITISH MEDICAL JOURNAL to read of the individual parts of the work now that it is completed, and to learn what ideas directed me in my researches together with the manner in which the results were obtained, and the relation which they bear to one another.

At the time when I am writing this I have already left the Cape and am on my way to India, there to occupy myself with the study of the bubonic plague. I must explain that to break off the termination of my rinderpest researches at this moment has not been easy. Although I believe that I have solved the main problem in its essential points, there yet remain a number of secondary questions to answer, and above everything the results obtained at the experimental station have to be tested in actual practice. To have carried this out I should have had to work for some months more. I should not till then have been able to leave the rest to others without troubling as to the fate of my researches. But other duties called me, and I could no longer decline the honourable and important task allotted to me of taking part in the work of the expedition sent out by the German Government to investigate the bubonic plague in Bombay.

At the very beginning of my journey to Bombay I was able to observe the paralysing influence which the plague has exerted upon trade and commerce. The steamboat lines which ordinarily serve as means of communication between the harbours on the south-east coast of Africa and Bombay had, owing to want of freight and passengers, either stopped their traffic or reduced it to a minimum. I can hence only get to Bombay by travelling round by way of Mozambique, Zanzibar, and Aden, but will put this long journey to account by mentally living through my studies in rinderpest once more, and by rewriting all that can be of interest to a physician.

I do not believe that there are very many doctors who, if asked what sort of a disease rinderpest was, could return a satisfactory answer. This ignorance can hardly put one to shame, however, when it is remembered that more than thirty years have now passed since the last great epidemic occurred in Europe. Since then there have been only isolated little outbreaks which were always so rapidly terminated by the destruction of infected and suspected animals, that no time was allowed for scientific observation. Russian doctors and veterinarians alone have from time to time published researches on rinderpest occurring in South Russia; but these works are mainly in the Russian tongue, and, furthermore, as far as I can tell from those which have been accessible to me, contribute very little to our knowledge of the disease.

To characterise rinderpest briefly one can make use of the definition which is given in most textbooks, and which states that rinderpest is an inflammatory affection of nearly all the mucous membranes. Opinions as to the nature of the affection are widely divergent, and it would lead too far afield were I to discuss their differences. I will therefore confine myself to a repetition of the personal impression which the disease has made upon me.

I was enabled to establish as the result of numerous necropsies made at various stages of the affection, that, as a matter of fact, almost all the mucous membranes are severely inflamed, that is to say reddened and swollen. The redness is due not only to congestion of the small vessels and capillaries but also to capillary hæmorrhages into the mucous membrane. Next to the nasal and pharyngeal mucous membranes which are almost always much reddened, and have often a dark purple colour, that of the alimentary tract is most often found to be affected. Here it always struck me that the redness was not uniform, but had in most cases a flaky exanthematous appearance, often so marked that one was involuntarily reminded of small-pox of the mucous membranes.

Microscopical examination shows that the affected mucous membranes very early lose their protective epithelial layer, and that in consequence there follow profuse serous transudations, with the deposition of croupous clots; later there are deeper changes in the mucosa leading to pseudo-diphtheric infiltrations, partial necroses, and more or less deep ulcerations. Pathological changes in the other organs, such as the heart, lungs, liver, kidneys, and spleen, are quite exceptional, and where present can be easily recognised as ordinary secondary processes.

The clinical picture corresponds to this anatomical condition. The disease begins after an incubation period of definite length, with a sudden and violent rise of temperature. Obvious symptoms do not appear at the same time as the rise of temperature, but follow after a lapse of two days. There is then redness of and hypersecretion of mucus by the visible mucous membranes; the animals stop feeding, appear weak, and hang their heads. Soon after diarrhœa sets in, which rapidly increases, and in a few days so weakens the animal that it dies with all the symptoms of collapse.

After investigation I was enabled to class rinderpest, far removed as it may at first appear, as an exanthematous disease, and to place it among the acute exanthemata, such as small-pox, typhus, scarlatina, measles, etc.; with the sole difference that, whereas in the latter diseases the brunt of the affection falls upon the skin, in the latter it is borne by the mucous membranes. This classification receives an important confirmation from the fact that a well-marked eruption is occasionally observed on the hairless places of the skin, particularly on the udder. It is true that I have not myself seen such a case, which may have been due to the fact that among my animals were very few milch cows; but in the report of the English Rinderpest Commission of 1865 and 1866 numerous examples of this are depicted. This cutaneous exanthem must have been so commonly met with by some of the older observers that they regarded rinderpest as practically identical with human small-pox.

Rinderpest resembles acute exanthemata also in its general course. Its infectiousness is just as great as theirs. It shows not the slightest relation to either soil or water, nor is it in all ways dependent upon meteorological or climatic conditions. It especially resembles the acute exanthemata in that survival of an attack leaves an exceptionally marked immunity. Authentically observed cases of a second attack of rinderpest I have found neither in the literature nor in my own experience. If such exist, they must be very rare exceptions.

The last great European epidemics occurred at a time when microscopy had not reached the stage when it could be of use in the investigation of the causes of disease, so that what was then described with regard to rinderpest micro-organisms is now merely of historical interest. Of late years, however, the special methods of bacteriology have been applied, mainly by Russian observers, to the investigation of rinderpest, but have so far led only to contradictory results. No fewer than six distinct micro-organisms have been described, each of which has been held to be the specific cause of

rinderpest. To these have recently been added two further kinds of bacteria, the one discovered by Simpson in India, the other by Edington in South Africa. On the other hand, a research has just been published by Tartatowsky which gives the impression of having been conducted with perfect mastery of bacteriological technique, and at the same time with all the necessary self-criticism. Tartatowsky concludes as the result of many years of most thorough research, that with the cultural and optical methods at present available, specific organisms in rinderpest cannot be demonstrated.

Our knowledge up till now of the specific nature of the rinderpest rests, therefore, on a very insecure basis.

Aden, April 25th, 1897.

The state of affairs was much as I have related in my last letter when I came to investigate rinderpest at the request of the Government of Cape Colony. It was obvious that the primary object of my task was not so much to carry out a purely scientific investigation as to obtain results of practical value. Now the disease, which in the course of a few years had slowly but irresistibly pushed on from the north, had already crossed the Zambesi and firmly established itself in the Transvaal, the Orange Free State, and Bechuanaland, and had caused fearful devastation in these countries, the welfare of which depends mainly on cattle breeding. Only by the most rigorous ordinances had it been possible to keep the disease from crossing the Orange river and so invading the colony. Under these circumstances it was very doubtful, in the light of previous experiences, whether science would be in a position to lend a helping hand here, and my expectations as regards tangible results were consequently very slender. Only the fact that an attack of rinderpest conferred so marked an immunity held out any hope, and I turned all my energies in this direction, that of artificial immunisation.

To this end, obviously, the first thing to be done is to search for specific micro-organisms. Should they be found the next step is, assuming that they can be cultivated, to proceed in the same manner as with tetanus, diphtheria, etc., in order either to obtain active immunity with the aid of the cultures, or to endeavour to procure passive immunity by means of the serum. But even if no cultivable organisms should be found, various ways still remain open by which we might establish artificial immunity against rinderpest. In this respect we have many instructive analogies. Thus we know the microbe neither of small-pox nor of rabies, and yet we have succeeded in devising prophylactic inoculations against both diseases dependent upon the fact that the infective material can be weakened and converted into a so-called vaccine in the one case by passage through the animal body, in the other by drying.

Other specific germs, such as anthrax bacilli, can be weakened by treatment with chemicals; with yet others immunisation is accomplished by the injection of minimal doses of toxic material. The use of serum obtained from animals which have acquired immunity by having the disease must also be tried. It will thus be seen from how many various aspects the subject was to be attacked. In order to lose no time it was necessary as far as possible to carry on these many-sided researches at the same time, and that I have succeeded in conducting them side by side and in bringing them to a definite conclusion within a comparatively short time, is due to various circumstances which I cannot here allow to pass unacknowledged.

Above all from the beginning the Cape Government, in the most liberal manner, placed at my disposal everything that I required for my work. All conveniences, apparatus, and animals for research were immediately provided, and as regards the last named, which were extremely expensive, there was absolutely no limit. I was naturally as sparing as possible with animals, but the knowledge that no restrictions in that direction were imposed gave me the necessary free hand in my experiments. On this occasion I fully appreciated the great advantage which this offers to the experimenter, and I can only wish in similar cases to experience the like liberality, which has never to my knowledge been practised to such an extent before.

The choice of a place for the experimental station was also most fortunate, for which the chief of the Cape veterinary service, Dr. Hutcheon, is to be thanked. With excellent judgment he brought the town of Kimberley before my notice. The town and district of Kimberley themselves were, it is true, free from rinderpest, but a few miles away to the East is the Free State, and in the immediate neighbourhood of the border were numerous farms affected with the disease, so that at any time I could reach one of these rinderpest farms, always obtain fresh virus, study the disease in its natural relations, and eventually carry out practical researches.

The experimental station lay some miles from the town of Kimberley, and was situated in buildings belonging to the De Beers Company, and originally used for mining purposes. This place was peculiarly suitable owing to its perfectly isolated position, and because, with very slight structural alterations, separate divisions could be allotted to healthy and diseased animals, as well as to those requiring investigation, while ample room existed in the main building for the establishment of a laboratory. As soon, therefore, as it was brought before my notice, I was enabled forthwith to accept the place.

It was of further valuable use to me in my labours that I was fortunate enough to have the assistance of Staff-Surgeon Kohlstock and Mr. Henning. The former had accompanied me from Berlin, and has been most helpful to me in all my work. The latter, who has been for many years veterinary surgeon to the Government of Cape Colony, has rendered exceptional service by his experience in the domain of South African veterinary surgery, by his skill in the manipulation of large animals, and by his untiring zeal in the research. I must regard it as a further fortunate circumstance that right at the outset I discovered an absolutely reliable method of inoculation. Without such a one it is impossible to satisfactorily determine a single question in relation to rinderpest.

The earlier investigators as a rule infected their experimental animals in the following manner: they moistened threads with lachrymal secretion or with mucus flowing from the skin or nose, and drew them through the skin with a needle like a seton. Others were content with bringing these same fluids with a sponge into the nose of the animal to be infected. But if one examines more closely the results obtained by these methods it very soon appears that they are not uniform and that the method of infection is an unreliable one. It cannot indeed be otherwise, for the fluids employed are swarming with bacteria, decompose very rapidly, and are also not alike in their origin, for their secretion often comes on very late in the course of the disease, possibly after the virulence has already passed away again. Furthermore, the possibility of the simultaneous inoculation of septic processes owing to the mixed bacteria is not excluded. On this account I have from the beginning used, instead of the hitherto customary procedure, infection with blood in the idea that I should have to deal with a constant inoculation material, and one which, if the blood were drawn during the first days of the disease, would be free from septic matter. In this expectation I have not been deceived, for if I took blood from the jugular of an animal suffering from rinderpest on the second or third day after the rise of temperature, and at the time of the commencement of the first visible symptoms, defibrinated it and injected 10 c.cm. into a healthy animal, I obtained, without a single exception, a perfectly constant and typical attack of the disease. This invariably began on the third or fourth day after the injection, ran a short and sharp course, and with a few exceptions ended fatally on the sixth or seventh day after the rise of temperature.

For this method of inoculation, which I have of late exclusively employed, the blood must be defibrinated, for clotting comes on very rapidly, and hence the defibrinated blood coagulates even in the syringe. For the seat of injection I selected the thin skin over the upper end of the sternum, which is readily lifted up into a fold and pierced.

As I have said, it has not happened to me to meet with a single ox which failed to react to this method of inoculation with a severe and quite unmistakable attack of rinderpest. I hence claim to be entitled to conclude that an ox which does not fall ill after such an injection of rinderpest blood must be immune against the affection. This conclusion affords the basis for all further researches.

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WE understand that the plaintiff in the case Beatty *v.* Cullingworth has presented an appeal to the House of Lords.

## LORD HERSCHELL ON THE EFFICACY OF VACCINATION.

THE following is the full text of the speech delivered by Lord HERSCHELL at the meeting of the Jenner Memorial Committee on March 31st in moving the first resolution, which was as follows:

That the present is an appropriate time to inaugurate a work of national utility in honour of Edward Jenner.

### SMALL-POX A TERROR IN THE LAST CENTURY.

I am asked to move this resolution because for several years I presided over the Commission of Inquiry into Vaccination, which has recently made its report. One hundred years ago small-pox was committing ravages in this and other countries to an extent which we can hardly realise, and of which happily we have no experience, and the approach of the disease created a terror not to be found at the present day. It was under those circumstances that Jenner introduced to the world the discovery that the inoculation of cow-pox would prevent attacks of the disease.

### THE CHANGE FOLLOWING VACCINATION.

The practice of vaccination became in the early days of this century more or less widespread in this and other countries, and the first portion of the century saw a marked change as compared with the conditions that had existed during the last century, not only in this country, but in many countries of Europe; and the belief entertained by medical men, both here and abroad, was that this happy result was to be attributed to the use of Jenner's discovery. This, of itself, seems a momentous fact. From the outset, however, and indeed down to the present day, there have been those who have denied the efficacy of vaccination, and who have insisted that Jenner's discovery was no discovery at all; and towards the close of the first century since Jenner introduced vaccination an inquiry has been held lasting for many years into that subject.

### THE ROYAL COMMISSION.

A vast amount of material was considered by the Royal Commission, and it fell to my lot to have to digest that material and analyse it, and submit a report for the consideration of my colleagues. In that task I determined to follow boldly the facts which experience disclosed whithersoever these might lead. I laid down in the first instance the tests that seemed most fitting to enable an answer to be furnished to the question, "Is vaccination, or is it not, a preventive of the disease of small-pox and a cause of the modification of the disease where it occurs?" I applied those tests, I can honestly say, entirely ignorant of the conclusions to which they would lead.

### THE FORCE OF THE EVIDENCE.

I was myself surprised at the force of the evidence which was afforded in favour of vaccination. The report which I prepared was submitted to the criticism of my colleagues. Amongst them were some by no means favourable to vaccination, to put the matter not too strongly, and we availed ourselves of the benefit of all their criticism. Wherever they pointed out that undue weight had been given to this fact, that this or that consideration had not been sufficiently weighed, we made modifications to meet those criticisms. I will call attention to a few facts which were arrived at in the way I have described after making allowance for everything that could even plausibly be urged. In this country vaccination was for the first time made compulsory in 1853. The compulsory law was far from effective, and it was modified subsequently in 1867, and again in 1871.

### THE EFFECTS OF COMPULSORY VACCINATION.

I am going to invite your attention to the figures with reference to the effects of the introduction of compulsory vaccination into this country. It is undoubtedly recognised now that the protection of vaccination is not permanent. It operates most effectually during the earlier years rather than the later after the operation has been performed, and it is probably during the first nine or ten years after vaccination that its operation is most efficient. Bearing that in mind let me invite your attention to this, that in the years from 1848 to 1854—that is, before the introduction of compulsory vaccination—the deaths of children under 5 years of age were 1,514 to every million persons living, and that from 1885 to 1894 they were 50 to every million persons living. Now take the other end of the scale—45 years and upwards. Of course, those of that age would be no more affected by compulsory vaccination between 1885 and 1894—the law having been passed in 1853—than children would be in the year prior to its introduction. In that class the deaths only fell from 24 per million to 19. Then we had careful investigation made into epidemics in five different towns.

### SMALL-POX IN VACCINATED AND UNVACCINATED TOWNS.

A very exhaustive investigation had been previously made into the disease in Sheffield, and our investigations were carried out with the advantage gained by a study of the methods employed in the previous one. These investigations were conducted by medical men selected by the Commission, and with the full approval of those members of the Commission who were not friendly to vaccination. Of course, if vaccination be specially a protection under 10 years of age, you would expect to find its influence apparent when you are dealing with towns where vaccination prevails largely as compared with towns where it was neglected. We have the figures for six towns. In Sheffield and Warrington the proportion of deaths from small-pox of persons between 1 and 10 years of age to those of all ages was about a quarter. In Leicester and Gloucester the proportion of those dying from the epidemic at those ages to the total deaths was between 60 and 70 per cent. In London the proportion was about 35 per cent., and in Dewsbury about 50 per cent., or one half. That was a striking fact, and when you examine the vaccination statistics of those towns you find that Warrington and Sheffield were, on the whole, well vaccinated, that their condition as to vaccination was practically the same, and that the proportion of deaths under 10 years of age to the total deaths was practically the same—namely, about 25 per cent. At Gloucester and Leicester, where vaccination had been greatly neglected, and where again the unvaccinated condition was approximately the same, the proportion of those dying under 10 to the total deaths was approximately the same—between 60 and 70 per cent. Then coming to London, which was nearer in its proportion to Warrington and Sheffield, we find vaccination a good deal neglected, and there the percentage was 35 per cent.; and in Dewsbury, where it was considerably more neglected, the proportion under 10 was one-half. Surely that of itself is an extremely significant circumstance, even if it stood alone, pointing in the direction of the effectiveness of vaccination in preventing death from the disease.

### MODIFICATION OF SMALL-POX BY VACCINATION.

Then inquiries were made into the numbers of vaccinated and unvaccinated persons who took the disease to see how far it modified the disease and rendered it less dangerous. What was the result? In those six towns taken together, amongst unvaccinated persons the deaths were 35 per cent.; in the class of vaccinated persons the fatality was 5 per cent. only. That is taking the vaccinated of all the towns and comparing them with the unvaccinated class. But if vaccination be most effective nearer to the time of the operation, the contrast should be still more striking in those under 10 years of age. Take, then, the children from 1 to 10 in all those towns put together, and we have the following results:—Vaccinated, 570 attacks, 16 deaths, or 2.8 per cent.; unvaccinated, 1,235 attacks, 375 deaths, or 30.3 per cent. And that is putting the doubtful cases with the vaccinated. If you eliminated the doubtful cases occurring in children in London alone, you would reduce the 2.8 to 1.8 per cent. What of the type of the disease? The severe type of the disease leaves behind it consequences which a man may have bitterly to regret during the whole of his life. We find in those very same classes, divided on the hypothesis of those who deny the efficacy of vaccination according to mere chance, that of those in the vaccinated class about 82 per cent. take the disease mildly, and 17 per cent. severely; while in the un-

vaccinated class it is precisely the reverse, and the severe cases are 82 per cent. and the mild cases 17 per cent. We tried to ascertain the relative conditions of the fatality of the disease according as there was evidence of more or less efficient vaccination. There again we found that the more efficient the vaccination the less the fatality, and the less severe the type of disease; the less the evidence of efficient vaccination, the greater the fatality and the more severe the type of the disease. Is it not difficult for any human reason to get over a collection of facts such as those, and all the more when we find this is not only the result ascertained by combining the cases in all those different towns, but that the same phenomenon is observed if you deal with the case of each town separately, and if you deal with the separate districts of a town? Such facts as these should be pointedly called to public attention. Yet they are only a small part of the case. It would be impossible to resist the case in favour of the efficacy of vaccination if there were no other facts, but I could mention many other facts drawn not only from our own country, but other countries also.

### Jenner's Work.

Jenner has been attacked; his character assailed, his veracity impugned. It has been pointed out that he asserted or expected that vaccination would be permanent in its effect. Well, everybody admits that absolute permanency does not exist. Then it has been said he was unscientific in his method, and did not subject his process to adequate scientific tests. There was only one way to tell whether vaccination would be permanent in its effects or not, and that was experience, and those who avail themselves of the experience of a century of vaccination to assail Jenner, who without that experience, did not possess the knowledge which they possess, are the same persons very often who exhibit an entire refusal to yield to the teachings of experience, when we inquire now what have been the effects of vaccination. When, too, Jenner's methods are criticised it is with the light derived from the improved methods of investigation which are in use a hundred years after his time. He was the first to illustrate a great principle which seems destined to play so important a part in the history of preventive medicine. Surely this is a high tribute to Jenner and the value of his discovery. The name of Jenner is held in reverence by the highest men of science in the most civilised countries in the world. Some of those countries have commemorated his centenary. He was an Englishman: are we to be behindhand in testifying our admiration of the man and our sense of the benefits he has conferred on humanity? I trust the result of this meeting will prove that Englishmen are not so ungrateful to their noblest sons as that.

## THE PLAGUE.

The Governor of Bombay telegraphs that for the week ending May 7th, 1897, 130 deaths are reported from plague. In the Cutch district, to the north of Bombay, plague continues with marked severity.

In all other parts the reports are highly favourable.

### Karachi.

In the week ending April 15th, the total death-rate for the municipal area fell to 35.26. The plague death-rate for the same period was 61.43. The mean death-rate for the corresponding weeks of the previous five years was 28.07. In four quarters only was the death-rate above 100:

| | | | | | |
|---|---|---|---|---|---|
| Runchove | Quarter | ... | ... | = | 297.46 |
| Garden | ,, | ... | ... | = | 225.29 |
| Lyari | ,, | ... | ... | = | 128.69 |
| Keamari | ,, | ... | ... | = | 105.18 |

The Muchi Meani and Old Town Quarters showed a death-rate of 16.76 and 5.43 respectively. During the week 165 cases of plague and 116 deaths were reported, against 215 cases and 172 deaths in the previous week. The total plague cases and deaths up to April 15th were: Cases, 3,600; deaths, 2,974. Of the 165 cases, 95 were males and 69 females, 1 unknown. Of the 116 deaths, 63 were males, 52 females, 1 unknown. By caste the cases and deaths were: Mussulmans, 83, 60; Hindus, 73, 52; Parsees, 2, 0; Native Christians, 4, 3 other castes, 3, 1.

### Report of the German Commission.

A further report of the German Plague Commission, dated Bombay, April 9th, has been published.[1] After relating the progress of the epidemic and the mortality produced by it, statistics of which have already been published in these columns, the Commission proceeds to consider the symptoms and pathology of the disease.

They point out that three forms may be distinguished, of which that characterised by great enlargement of the lymphatic glands is the most frequent. In the second form, which they propose to term septicæmic plague (Pest-septikämie), an extremely acute form with high fever, delirium, or early collapse, producing death in a few hours or days without obvious primary lesion. In almost all of these cases rapid enlargement of the spleen, tenderness of the lymphatic glands, and hæmorrhages into the stomach and intestines were observed. The third form is the pneumonic type, to which Surgeon-Captain Childe refers in a short paper published on page 1215 of this issue. The plague bacillus was found in the lungs in large numbers in all three cases of this form examined for this purpose. In two the plague bacillus was not accompanied by any other bacterium; in one there was a comparatively small number of the diplococcus lanceolatus. In the cases characterised by intestinal hæmorrhage the intestinal epithelium was intact, but in the blood vessels and in the extravasated blood the plague bacillus was seen in large numbers. In the septicæmic cases the lymphatic glands and the tissue around contained an enormous number of plague bacillus without intermixture with other bacteria.

Numerous experiments were made with the view of ascertaining how long the plague bacillus survived outside of the body. In no case did its infectious power survive more than seven days. The Commission also confirmed the statement that direct sunlight quickly leads to the death of the bacillus. In tap water the bacillus lost its infective power in a day, in sterilised water in three days. No evidence of the formation of spores was observed.

One of the members of the Commission, Dr. Sticker, contracted the infection while performing a necropsy on a patient dead of plague on March 27th. On the afternoon of March 29th a small pustule formed on the right hand, and on the following morning red bands due to lymphangitis were seen running up the forearm and the gland in the right axilla was tender and slightly swollen. Microscopical examination of the fluid from the pustule showed the presence of the plague bacillus. The pustule was treated with unguentum cinereum and perchloride solution with the best results. On the following day the local lesion began to improve. For the ensuing week Dr. Sticker suffered from debility and depression, but was able to return to work on April 8th.

### Plague in Tonquin.

A Reuter's telegram states that plague is prevalent on the borders of the territory lying between the Chinese frontier and the French provinces of Tonquin.

We are quite prepared to hear that plague does exist there, as it is on the line of communication between the Chinese province of Sze-elmen, where plague is endemic, and the recent seat of its epidemicity in South-East China. We do not anticipate an extension to the province of Tonquin, as it is beyond the usual limit of plague distribution.

[1] *Deut. med. Woch.*, May 6th.

Cremation of the Duchess of Bedford.—The crematorium at Woking in which the remains of the late Duchess of Bedford were incinerated was erected by her husband, the father of the present Duke. He was one of the earliest supporters of cremation, and gave a large donation towards the building fund of the crematorium at Woking, which was the largest started in England. He was a friend of Sir Henry Thompson, to whose energy the movement owed its initiation, and two of its warmest supporters were their Graces of Bedford and Westminster. The Duke afterwards built a small one for his own and his family's use, and was cremated there.

## THE BATTLE OF THE CLUBS.

### THE PLYMOUTH MEDICAL SOCIETY AND THE LOCAL MEDICAL AID ASSOCIATION.

THE *Western Mercury* gives a report of an important meeting of the medical profession of Plymouth and district, convened by the Plymouth Medical Society, which was held at the Athenæum, Plymouth. Mr. J. H. S. May presided, and there was a large attendance of the local profession. The question at issue was the medical management of the Three Towns Friendly Societies' Medical Institution, and Mr. T. H. Leah moved the first resolution :

That this meeting of medical practitioners of the Three Towns (Plymouth, Devonport, and Stonehouse) and District strongly condemns the medical management of the Three Towns Friendly Societies' Medical Institution, and considers that medical men who take office in the institution are, by so doing, lowering the dignity of the profession and placing themselves in a false position.

Therefore be it resolved that the practitioners present at this meeting refuse to knowingly meet in consultation any medical officer of the above institution, or any medical officer of it who shall after this date sever himself from the institution and start practice independently. That they shall do their utmost to prevent those who do meet the medical officers of the institution from being called in to consult; and, lastly, that the present medical officers of the Three Towns Friendly Societies' Medical Institution be warned of the consequences which would ensue on their starting independent practice.

In the course of his remarks he said that the profession had always taken objection to the way in which this institution had conducted its business, and that in May, 1883, there had been a meeting of the profession, in which it had been moved and carried :

That the principle of the Three Towns Friendly Societies' Medical Aid Alliance being contrary to the just interests of the profession, be it resolved that the medical profession of the Three Towns and neighbourhood decline to act in concert with the medical officers of the Friendly Societies aforesaid.

He added that the profession was fairly unanimous, but owing to the defection and callousness of some members the resolution herein agreed to gradually fell through. Still, a great number of the local profession had held to it, so that at the present time they did not meet the actual medical officers of the institution. But many regarded those who had left this institution as having purged themselves of their contempt of the professional rule, and did meet them. There was not enough unanimity, and it would be better for all to act as far as possible on the same lines. In many parts of the country the local profession refused to recognise institutions of this kind, or to meet professionally medical practitioners who held office in them. He might instance the following places where this was done—Accrington, St. Helens, Hereford, Oldham, Eastbourne, Huddersfield, and Kidderminster.

Mr. G. Jackson seconded the resolution.

Dr. W. H. Pearce spoke in opposition, and said that to carry out this resolution it would be necessary for the Medical Society always to keep a list, and to keep a sort of espionage on all members of the Society ; that no power on earth could withstand the democratic tide, the democratic waves of co-operation.

Mr. Hughes said he disagreed with Dr. Pearce's reasoning. He quite approved of co-operation ; but why should not doctors also co-operate ? Were they not also a portion of this democracy, and entitled to co-operate for the good of those they served, and for themselves ?

Mr. Cook contended that the Medical Aid Institution was nothing more nor less than a large club, except that women and children were admitted. The resolution was calculated to bring about disunion, and until they were more united he failed to see what good would result from it.

Mr. Woolcombe said he could not agree that there was no difference between medical aid societies and clubs. In the case of the latter, the doctor received remuneration *pro ratâ;* the former gave a certain salary to the doctor, and sweated him.

The first half of the resolution was then put by itself, and carried, Dr. W. H. Pearce alone voting against it.

The second half was then duly proposed and seconded.

Dr. Simpson spoke in opposition, urging that the resolution invited them to boycott gentlemen for doing what they had a legal right to do. He had communicated with seven licensing bodies in the United Kingdom on the question, and although six had answered, only one, the Royal College of Physicians of Dublin, decided to express disapproval of their licentiates accepting office in medical aid societies.

Several amendments were tendered, but on being put to the vote were rejected, and finally all the clauses of Mr. Leah's original resolution were carried in their entirety.

The profession of Plymouth are to be congratulated on their strenuous endeavour to procure union, and will have the sympathy of their brethren throughout the country in their opposition to medical aid societies. It may be a question whether the resolution of Mr. Leah was not a little too sweeping, and it is by no means certain that it is a wise policy to close the door altogether on backsliding members who have seen the error of their ways.

On the general merits of the controversy there can be little doubt, and, as one of the speakers remarked, the profession have as much right to make use of co-operation as any other portion of the public, and such co-operation will, in the long run, be equally beneficial to the public and to themselves.

Another of the speakers might be reminded that the fact that a person has a legal right to do a thing is not altogether a safe criterion in estimating the character of the act. Persons have over and over again been ostracised for doing what they had a perfect legal right to do.

A letter in our contemporary, signed "Tradesman," remarks that the writer does not see why the public should not be allowed to avail themselves of medical aid societies in the same way as the medical profession make use of co-operative stores. There is no reason why the public should not obtain cheap "doctoring" in this way if they so desire. The public are not to blame. As "Tradesman" points out, they do no more than we ourselves do in providing ourselves with many of the useful articles we require from those places where they can be bought most cheaply. The blame rests on those who have brought this degradation on the profession, that co-operative medicine can be calmly treated on the same lines as co-operative stores.

Another letter appears in our contemporary signed by "One of the Medical Officers," it is to be presumed, of the Medical Aid. This is no more than a somewhat unseemly attack on Mr. Leah and the members of the Plymouth Medical Society. Many medical practitioners find it difficult enough, no doubt, to find suitable employment in these days, and every allowance may reasonably be made for the feelings of those in the position of medical officers to institutions that have come under the ban of the profession ; but it is surely wanting in taste for any member of a class openly to flaunt his contempt for the opinion of the great majority of his brethren.

## LITERARY NOTES.

ONE of the most interesting volumes of the year which appears this week is a biography of the late Thomas Wakley (Longmans), by Dr. Squire Sprigge. To many the contents of it are already familiar, as it has been running in serial form in the pages of the *Lancet*, and is prepared by the filial care of his descendants, the present editors of that journal. In the consecutive form in which it now appears it gains in interest. No man better deserves a biographical monument than Thomas Wakley, who may be regarded as the real founder of medical journalism in this country, while his courage, original genius, and passion for reform greatly advanced many important professional and social problems, of some of which, indeed, he at once furnished the solution. Wakley is the leading figure in the medical history of this century, and this biographical record is a volume of great historical importance, while it furnishes a vivid and living picture of one of the greatest, if not the greatest, of our medical reformers. The volume is carefully prepared from authentic records and is written in a sympathetic spirit and shows great literary capacity.

Messrs. Baillière, Tindall, and Cox are about to publish an *Atlas of Histology*, by Professor Arnold Brass, of Göttingen, assisted by Professors Waldeyer, of Berlin, Merkel, of

Göttingen, and other leading German histologists. The work is described as unique. Almost every illustration is taken from fresh microscopic specimens (newborn infants, suicides, executed criminals, etc.), of a kind not easily procurable in this country, the whole produced in the best style of artistic colour printing. The work is in large 4to form, and contains 66 coloured plates, with text.

Messrs. J. S. Virtue and Co. will shortly publish, under the title of *The London Argus*, a penny weekly illustrated paper, exclusively devoted to the local concerns of the metropolis. The new journal will deal comprehensively with the doings of the various public bodies engaged in municipal work, giving particular attention to the vestries and Boards of Guardians.

According to an estimate recently published the medical profession of the United States supports directly or indirectly 275 periodicals, of which 10 are issued weekly, 11 semi-monthly, 225 monthly, 6 bi-monthly, and 23 quarterly, with a combined yearly circulation of 16,017,200 copies. Commenting on these figures the New York *Medical Record* estimates that there are in round numbers 120,000 medical men of all schools north of the Gulf of Mexico, of whom probably not more than 80,000 subscribe to a medical journal of any kind. It will occur to everyone, says our contemporary, that a good proportion of this immense circulation is made up of a very large number of periodicals which are published openly or covertly for advertising purposes by manufacturers of pharmaceutical preparations, and is practically gratuitous.

# ASSOCIATION INTELLIGENCE.

## GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that they are prepared to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting must be made on or before June 15th in writing addressed to the General Secretary, at the office of the Association, 429, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

FRANCIS FOWKE, *General Secretary.*

429, Strand, London, April 21st, 1897.

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M., Saturdays, 10 A.M. to 2 P.M. Members can have their letters addressed to them at the office.

## BRANCH MEETINGS TO BE HELD.

GLOUCESTERSHIRE BRANCH.—The annual meeting of this Branch will be held at the Queen's Hotel, Cheltenham, on Tuesday, May 18th, at 5 P.M., under the presidency of Mr. W. R. Buckell. There will be a dinner afterwards at 7 P.M. Agenda: Election of officers for the ensuing year. Address by W. Arbuthnot Lane, M.S., F.R.C.S., Guy's Hospital, on Adenoids and Cleft Palate with the Physiology of the Naso-Pharynx.—S. T. PRUEN, M.D., Cheltenham, Honorary Secretary.

STAFFORDSHIRE BRANCH.—The third general meeting of the session will be held at the Victoria Hotel, Wolverhampton, on Thursday, May 27th. The President, Dr. T. Ridley Bailey, will take the chair at 5.30 P.M. Agenda: Exhibition of Pathological Specimens, Living Cases, etc. Dr. A. H. Carter: Some recent Observations on the Feeding of Infants. Dr. F. Edge: (1) A Tubal Gestation removed *in situ*. (2) A Myomatous Uterus removed by Panhysterectomy; (3) A Uterus with Cancer of the Fundus removed by Vaginal Hysterectomy. Mr. T. Vincent Jackson: Recital of Cases of Vasectomy. Dinner at 7.30 P.M., charge 5s.—F. MILNES BLUMER Stafford, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WEST LONDON DISTRICT.—The last meeting of the session will be held on Wednesday, May 26th, at 4.30 P.M., at 5, Pembridge Gardens, W., by kind permission of the Vice-President, Mr. H. W. Kiallmark. Business: Election of a Vice-President, representative on the Council of the Branch, and Honorary Secretary. Election of a Committee for the ensuing year. To receive the report of the Secretary of the year's work of the District for the Council of the Branch.—THOMAS DUTTON, Honorary Secretary, 7, Portland Place, W.

EAST ANGLIAN BRANCH.—The annual meeting of this Branch will take place at Ipswich on Thursday, May 27th. President, A. R. Manby, M.D.; President-elect, Mrs. Garrett Anderson, M.D. Programme of Proceedings: 11 A.M. Meeting of the Council of the Branch in the Library. 11.30 A.M. Meeting of the Branch for business in the Library. Agenda: To receive report of Council of Branch. To receive Treasurer's report. To receive report of result of election of officers. To nominate one or more delegates to represent the East Anglian Branch at the meeting of the Association at Montreal. Introduction of new President by retiring President. President's Address. 1.30 P.M. Luncheon in the Council Chamber of the Town Hall; tickets, 2s. 6d. (Members intending to be present at the luncheon are requested to signify the same before May 24th. Ladies accompanying members will be welcomed at luncheon.) 3.0 P.M. Resumed general meeting. R. K. Casley, M.D. (Ipswich) will show a case of Fracture of the Patella treated by the immediate application of a subcutaneous wire suture, with skiagraphs of the present condition of the joint. W. W. Sinclair, M.B. (Ipswich) will show (*a*) a Case in which a piece of Iron was removed from the Interior of the Eyeball by means of the Electro-magnet; (*b*) a case of Congenital Ectopia Pupillæ. J. Ryder Richardson, M.B. (Saxmundham) will show a case of Diffuse Nævus of Neck and Buccal Cavity. Stanley Boyd, M.B., F.R.C.S. (London): Recent Suggestions in the Treatment of Cancer. Howard Marsh, F.R.C.S., London) is expected to take part in this discussion. Mrs. Scharlieb, M.D., M.S. (London): Surgery at the New Hospital for Women in 1896. S. H Burton, M.B., F.R.C.S. (Norwich): Notes of a case of Fibroid of Uterus causing Inversion. There will be an exhibition of Instruments, etc., by Messrs. Down Brothers, London; and of Pharmaceutical Products by Messrs. Burroughs, Wellcome and Co., London, in the Magistrate's Room. 5.15 P.M. Dr. and Mrs. Casley kindly invite members and ladies accompanying them to afternoon tea at "The Old House," Carr Street. The Ipswich Borough Asylum, the East Suffolk and Ipswich Hospital, and the Ipswich Museum will be open for the inspection of visitors.—EDGAR G. BARNES, M.D., Eye; MICHAEL BEVERLEY, M.D., Norwich; THOMAS CARR, M.D., Braintree, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of this District will be held, by kind invitation of Dr. Adams, at Brooke House, Upper Clapton, on Thursday, May 20th, at 8.30 P.M. The chair will be taken by Dr. Shadwell, Vice-President of the District. Dr. Stephen Mackenzie will give a demonstration of Diseases of the Skin.—HERBERT E. POWELL, Glenarm House, Upper Clapton, Honorary Secretary.

MIDLAND BRANCH.—The annual meeting will be held at Leicester on Thursday, June 3rd. Members desirous of reading papers or exhibiting cases are requested to send word before May 16th to Dr. CARLINE, Lincoln, Honorary Secretary.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.—The next meeting of this District will be held at the Medical Library, 5, Pembroke Road, Portsmouth, on Tuesday, May 25th, at 4 P.M. Members willing to read communications or to exhibit cases or specimens are requested to communicate at once with the Honorary Secretary, C. C. CLAREMONT, M.D., 57, Elm Grove, Southsea.

SHROPSHIRE AND MID-WALES BRANCH.—By invitation of the President, Mr. J. T. Lloyd, the spring meeting will be held at Chirk, on Thursday, June 10th. Mr. Mitchell Banks will read a paper on Some Practical Hints on the Treatment of Rectal Disease. Special train arrangements will be made which will be duly announced.—H. WILLOUGHBY GARDNER, Honorary Secretary, Swan Hill, Shrewsbury.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will be held in Manchester on Wednesday, June 30th. Members who wish to read papers or make any communication should write at once to the Honorary Secretary, Dr. JAMES BARR 72, Rodney Street, Liverpool.

## METROPOLITAN COUNTIES BRANCH: WEST LONDON DISTRICT.

THE third meeting of the session was held at the Orthopædic Hospital, Hatton Garden, E.C., on May 6th, Mr. KIALLMARK, Vice-President, in the chair.

*Confirmation of Minutes.*—Dr. DUTTON, Honorary Secretary, read the minutes of the last meeting, which were confirmed.

*Communications.*—A paper on the Pathology and Treatment of Rickets was read by Mr. JACKSON CLARKE. The VICE-PRESIDENT said that in his opinion rickets was due to the first dentition, and until that period was over nothing much could be done in the way of treatment. Dr. CRAWFORD THOMSON thought instruments in early treatment had a tendency to relax the ligaments and produce wasting of the muscles. He trusted more to good sanitary surroundings, fresh air, and good food. Mr. NOBLE SMITH strongly advocated early treat-

ment, and said if instruments were scientifically applied by the surgeon the ligaments and muscles had full play. The other treatment could be prescribed at the same time. Mr. POLAND endorsed the remarks of Mr. Noble Smith. Mr. CLARKE replied, and pointed out that adenoids played an important part in the causation of rickets. He demonstrated the use of splints used at the hospital on several patients, showing they could walk easily with the splints applied.—Mr. BRINDLEY JAMES read a paper on Public Vaccinators, in which he was rather severe on the laxity with which public vaccinators issued certificates to students, and the way they performed the operation in crowded rooms. He urged that every practitioner should be a public vaccinator. The VICE-PRESIDENT said that since the introduction of calf lymph public vaccinators were not so much required. Mr. JOLLY denied that public vaccinators were careless about the way they performed their duties, and said any parent could request that calf lymph should be used. Mr. JAMES replied.

*Cases.*—Mr. POLAND showed some interesting clinical cases.

*Votes of Thanks.*—Hearty votes of thanks were passed to the hospital authorities, to Mr. Jackson Clarke, and Mr. Noble Smith for their kindness.

## BORDER COUNTIES BRANCH.

THE spring meeting of this Branch was held in the School of Science and Art, Kendal, on April 30th, Dr. ALTHAM, President, in the chair. There were present Dr. Barnes, President of the British Medical Association, Drs. Campbell, Noble, Parker, Telford-Smith, Johnstone, Seagrave, Thomson, Taylor, Wilson, Reid, and the Secretary.

*Confirmation of Minutes.*—The minutes of the last meeting were read and approved. The minutes of the special meeting of General Committee for the annual meeting were read and confirmed.

*New Member.*—Dr. T. Henry Jones, Carlisle, was duly elected a member of the Branch.

*The Montreal Meeting.*—Dr. Campbell and Dr. Helm were deputed to represent the Branch at the Montreal meeting.

*Communications.*—Dr. REID (Garlands) showed a specimen of a Heart weighing 41 ounces. Dr. CAMPBELL made some remarks on the case.—Dr. SEAGRAVE (Milnthorpe) showed a case of curious Abdominal Tumour, probably a hydatid of the liver. A case of Elephantiasis Arabum was also shown.—A lantern demonstration by Dr. TELFORD-SMITH (Lancaster) on Types of Idiocy was greatly appreciated by the meeting. Dr. CAMPBELL proposed, and Dr. BARNES seconded, a hearty vote of thanks to Dr. TELFORD-SMITH, who replied.—A lantern demonstration by Dr. PARKER (Kendal), Thyroidless Cretinism, Goitrous Cretinism, and Juvenile Myxœdema, was also a feature of the meeting. Dr. Parker was cordially thanked for his demonstration.—Dr. JOHNSTON (Ambleside) read a paper, entitled An Heretical View of Vaccination. Time did not permit of a discussion on this subject, or of reading of papers by Dr. TAYLOR (Kendal), a remarkable case of Hydatids, and Dr. COCKILL (Kendal), Perforation of After-coming Head.

## NORTH OF IRELAND BRANCH.

THE spring meeting was held at Belfast on April 22nd. Through the kindness of Professor WHITLA, the President, coffee was provided before the meeting. Sixty members were present.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*New Member.*—The PRESIDENT announced that Dr. Vesey (Rostrevor) had been elected by the Council a member of the Branch, and welcomed Dr. Vesey to the meeting.

*Communications.*—The PRESIDENT showed a case of Aneurysm of the Abdominal Aorta, and described a new method of treatment.—Dr. JAMES HUSTON (Carrickfergus) showed a case of Rupture of the Quadriceps Extensor Cruris by Muscular Force.—Surgeon-Major MULVANY showed a man in perfect health with his Heart on the Right Side and his Liver on the Left.—Dr. MCKEOWN read a paper on the Relations of Medical Men to Courts of Law, in which he advocated a higher scale of remuneration for medical witnesses, and pointed out the advantages of having *post-mortem* examinations made by pathological experts rather than by ordinary practitioners especially in criminal cases. The PRESIDENT, Drs. CUMING, ST. GEORGE, and LORRAIN SMITH made some remarks, after which Dr. MCKEOWN proposed and Dr. VESEY seconded that a Subcommittee, consisting of the Council together with Drs. McKeown and Lorrain Smith, be appointed to endeavour to promote reforms in the existing condition of medico-legal affairs.—Dr. VESEY read a paper on a Successful Case of Serum Treatment of Diphtheria. The PRESIDENT thanked Dr. Vesey for his contribution.—Dr. THOMPSON (Omagh) read a paper on the Medical Aspects of the Trillick Murder Case. Drs. LORRAIN SMITH, CUMING, BINGHAM, SMILEY, MCKEOWN, and the PRESIDENT commented on the case. They expressed approval of the manner in which Dr. Thompson had gone into the case, but considered that the medical evidence was not sufficient to enable a decision to be come to as to how the man met his death.—Dr. JOHN CAMPBELL showed the Vermiform Appendix of a girl aged 12, which had burst and caused acute general peritonitis. The PRESIDENT referred to the history of the case, and mentioned the fact that the symptoms had for a time been those of acute intestinal obstruction.

*Delegates to the Montreal Meeting.*—The President (Dr. Whitla) and the Honorary Secretary (Dr. John Campbell) were appointed to represent the North of Ireland Branch at the annual meeting.

## NORTH OF ENGLAND BRANCH.

THE spring meeting of this Branch was held at the Infirmary, Sunderland, on April 29th.

*New Members.*—Messrs. R. Stobo and F. Elkins were elected members of the Branch.

*Medical Defence.*—Mr. WILLIAMSON again moved the resolution which was unanimously carried at the spring meeting last year, namely:

> That in the opinion of this Branch it is not desirable that the British Medical Association should undertake the medical defence of its members.

After some discussion the resolution was carried by 10 votes to 8. Several members did not vote.

*Communications.*—Mr. HOPGOOD showed (1) a Patient after Amputation of the Breasts for Hypertrophy, with the specimens; (2) a Patient after Trephining for Compound Fracture of the Skull.—Dr. MURPHY showed (1) a patient six years after Hysterectomy for Malignant Disease, which, however, had at last recurred; (2) a patient nine years after Removal of the Breast for Carcinoma.—Dr. ROBINSON brought forward (1) a doubtful case of Cerebral Tumour for diagnosis: (2) a case of Addison's Disease; (3) a case of Pemphigus: (4) a series of cases to illustrate changes in the Fundus Oculi. He also read notes on a case of Acute Pancreatitis, and exhibited specimens.

*Vote of Thanks.*—A vote of thanks to the authorities of the Sunderland Infirmary was unanimously carried.

*Dinner.*—The dinner after the meeting took place at the Grand Hotel, twenty-one being present.

## SOUTH INDIAN BRANCH.

A MEETING of this Branch was held on August 27th, 1896, Surgeon-Lieutenant-Colonel JOHN MAITLAND, M.D., in the chair.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Communications.*—Surgeon-Major NAILER read a case of successful Gastro-enterostomy for Pyloric Cancer (which will be published), and showed the patient. Remarks were made by Surgeon-Major SMYTH, and the CHAIRMAN and Surgeon-Major NAILER replied.—Miss ANNA CHURCH read Notes on two cases of Foreign Body in the Larynx.—Surgeon-Captain ELLIOT read a paper on Tumours of the Orbit.

A MEETING was held on October 30th, 1896, Surgeon-Major-General SIBTHORPE, President, in the chair.

*Confirmation of Minutes.*—The minutes of the previou meeting were read and confirmed.

*Communications.*—Surgeon-Captain DONOVAN read a paper entitled Seventeen Pints of Sanguineous Fluid Tapped from a case of Ascites.—Surgeon-Major RONALD ROSS reported some experiments in the production of Malaria Fever by means of the mosquito.

A meeting was held on December 18th, 1896, Surgeon-Major-General C. Sibthorpe, President, in the chair.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Communications.*—Surgeon-Captain Crawford showed a man on whom he had operated two years ago for Transverse Fracture of the Patella. He had drawn the fragments together with a stout silk ligature inserted subcutaneously. It was difficult to say how far the fragments were held in position by fibrous union and how far by the silk ligature still *in situ*. A skiagraph by Surgeon-Major VanGeyzel showed the total absence of bony union.—Surgeon-Major Browning read remarks on The Cure of Hepatic Abscess by Absorption, with an illustrative case.

# SPECIAL CORRESPONDENCE.

## PARIS.

*Visit of President Faure to the Salpêtrière.—The Abuse of Tobacco.—Overcrowding of Lunatic Asylums.—Help for the Blind.—A Subterranean Laboratory.—General News.*

The President of the Republic, during his visit to the Salpêtrière Hospital, plied M. Le Bas, the director, with questions. The following interesting answers were given: The population of the Salpêtrière amounts to 4,727; of these, 2,700 are indigent and epileptic, 800 are insane, and 250 are patients treated in the infirmary; those employed as nurses, etc., complete the number. The Salpêtrière is composed of forty-four blocks of buildings and covers sixty-four acres of ground; 4,000 windows do their best to let in daylight among this afflicted crowd. The President before leaving visited and shook hands with the oldest inhabitant of the Salpêtrière, Mme. Lafond, who is 103 years of age. He left £40 to be distributed among the poorest of the inmates of the hospital.

The Society against the Abuse of Tobacco has awarded its medals of reward to those who co-operate with it. M. Steeg, Inspector-General of Public Instruction representing the Minister of Instruction, was in the chair. The funds of the Society amount to nearly £4,000. M. Decroix, the President of the Society, has given the Society £80. Cycling was recommended as a preventive of the abuse of tobacco. The possibility of curing inveterate smokers is despaired of by the Society, which therefore directs its efforts to the safeguarding of children. Schoolmasters are called upon to point out to them and dwell upon the evils resulting from the use of tobacco. A £4 prize was offered for the best essay on the means to be adopted to shield the young from the ill-effects of the use of tobacco. M. Géry, schoolmaster at Jeufosse, in the Seine and Oise department, gained the prize.

In order to prevent the asylums of the insane from being overcrowded by harmless patients of weak intellect, the Seine prefect has called upon the administration of the Assistance Publique to take measures in order that only actual lunatics are admitted in the asylums for the insane. The circular to this effect, issued by M. Lépine, has been communicated to all the directors of the Paris hospitals.

The Valentin Haüy Association for the aid of the blind held its annual general meeting a few days ago at the Continental Hotel. M. François Coppée, the well-known author, was in the chair. In his address he paid a touching tribute to the memory of the sisters and lady patronesses who had a stall for the benefit of the blind at the Charity Bazaar, and were among the victims in that terrible disaster. M. Coppée concluded by making an eloquent appeal for help for this humane Association, which is much needed according to the report of Viscount de Broc, a member of the administration council. The society spends over £2,000 every year in placing out its pupils. The Association asks to have old paper sent to it, which is utilised by the blind for making paper bags, sold to the vendors in the French markets. About forty blind families thus earn their living. In 1896, 60,000 kilos of paper were delivered to the Association for the blind.

A professor of the Paris Natural History Museum accidentally discovered an entrance into subterranean passages running underneath the Jardin des Plantes and a part of the Boulevard Saint-Marcel. The archives of the museum furnish proof that these galleries were constructed by the Romans; in the fifteenth and eighteenth centuries they were repaired and consolidated, and are now in perfect order. Nothing is known as to the purpose they served. M. Armand Viré, one of the corresponding members of the museum, is anxious to remove this doubt in the future, and has asked for permission to use the passages as a laboratory for researches on animal life inhabiting caverns, and studying the successive phases in the transformation of these degenerate forms of life. M. Armand Viré has had his wish gratified, and the laboratory was inaugurated a few days ago. The professor, followed by fifty invited guests, bareheaded and stooping, each carrying a candle, traversed the labyrinth of galleries until they reached a round hall the roof of which is supported by a stone column. This is the principal laboratory. It contains stone tables with perfectly flat surface. The water supply is assured by a good system of pipes. Seine water was in the first instance used, but the animals died. They were replaced by others which were given spring water, and are in a flourishing condition.

The *Aviculteur* has cited two cases of prolonged fasting in turkeys. In one case the fast lasted twenty-one days, and the normal condition was recovered. In the second all hopes were lost of finding the bird. It was discovered after twenty-eight days' absence among some machinery. When extricated from its perilous position the bird was only skin and bones. The first day it took only water, the subsequent day it gradually absorbed its usual food, and so recovered its usual health.

The Œuvre des Enfants Tuberculeux has devoted £4,000 of the £40,000 lottery which has been voted by the Chamber of Deputies to the fund being raised to reward the needy who courageously rescued people from Charity Bazaar Fire. The *Figaro* collection amounts to £18,000.

The appeal of Drs. Boisleux and La Jarrige, responsible for the death of Miss Thomson, came before the French Cour de Cassation on Saturday, May 8th, but the sentence of five years each was confirmed.

## HONG KONG.

*Small-pox.—The Volunteer Corps.—Alteration of Arrangements for Corporal Punishment of Prisoners.*

Small-pox still prevails in the colony to a considerable extent, 175 cases having been reported from January 1st to date (March 20th), of whom 48 were Europeans and other non-Chinese; 138, including 6 Europeans, died during the same period. The following table shows the progress of the epidemic:

| | Cases. | | Deaths. | |
|---|---|---|---|---|
| | Europeans, etc. | Chinese. | Europeans, etc. | Chinese. |
| During January ... ... | 5 | 23 | 3 | 26 |
| Week ending February 6th | 6 | 7 | — | 3 |
| " " " 13th | 15 | 10 | 1 | 12 |
| " " " 20th | — | 9 | — | 19 |
| " " " 27th | 8 | 30 | — | 19 |
| " " March 6th | 7 | 24 | 1 | 20 |
| " " " 13th | 5 | 6 | 1 | 16 |
| " " " 20th | 2 | 18 | — | 17 |
| | 48 | 127 | 6 | 132 |

The large number of Europeans in the second week of February was chiefly made up of members a travelling circus troupe, who contracted the disease to the south, and developed it soon after landing in Hong Kong. Those in the last week of February and the first week of March included 14 cases on board Her Majesty's ships *Grafton* (8), *Æolus* (4), *Centurion* (1), and *Midge* (1), in the harbour. Infection in the case of 5 of these was traced to Shanghai and Japan, and 7 occurring among the stokers of H.M.S. *Grafton* were believed to owe their origin to a gang of Chinamen who had been working in the stokehole.

It is notified in the *Hong Kong Gazette* that the Governor, with the consent of the general officer commanding, has been pleased to approve of Supernumerary Surgeon-Lieutenant Frederick Osmund Stedman, M.D., being borne on the establishment of the Hong Kong Volunteer Corps from December 2nd, 1896, *vice* Surgeon-Captain James Cantlie, M.B., gazetted to 7th Middlesex Rifle Volunteers from that date.

A new set of regulations for the management of Victoria Gaol, Hong Kong, contains important modifications of the arrangements for the infliction of corporal punishment within the gaol, the result probably of recommendations made by a Commission appointed to inquire into the system of punishments after the death of two prisoners some time ago from abscess and septicæmia following flogging. The birch is to be used exclusively instead of the more powerful rattan formerly employed. For certain well-defined breaches of prison discipline the gaol superintendent may order a whipping of a maximum of twenty strokes for an adult instead of thirty-six, the former limit, while the maximum of twelve for juvenile offenders remains the same. For other offences of a less serious character maxima of twelve and six strokes for adults and juveniles respectively are fixed. Formerly all prisoners sentenced to imprisonment with hard labour for one year or more were secured by fetters weighing 3 lbs., which were fastened to an iron ring on each ankle, and a chain was suspended by a hook from the waist belt. Prisoners serving shorter terms wore iron rings on one ankle without other fetters. Under the new regulations this condition of things is entirely changed. No prisoners are to be put in fetters unless the superintendent considers the step necessary to prevent escape, or has reason to apprehend serious danger of an outbreak or assault.

## SHEFFIELD.

*Dr. Harvey Littlejohn.—The Salary of the Medical Officer of Health.—Conviction under the Apothecaries' Act.*

The retirement of Dr. Harvey Littlejohn from the office of Medical Officer of Health is a source of great regret to his many medical friends in the city. This week he is to be entertained at dinner, and a parting present is at the same time to be given to him. It will be recollected that at about this time last year, when the City Council had declined to advance the small stipend attached to the post of health officer, Dr. Littlejohn was then at a dinner presented with a memorial deprecating the shortsighted policy of the authorities, and testifying to the appreciation his professional brethren had of his services to the city, and of the regard in which they held him personally. This memorial was signed by more than 100 practitioners resident in the city. Not long after this the stipend paid to Dr. Littlejohn was increased. It is too much to expect that a successor will all at once fill such a place in the esteem of the profession as Dr. Littlejohn has done, but it is to be hoped that the authorities will select one who is likely to work harmoniously with his medical brethren.

In this connection it is to be regretted that the Health Committee have not seen their way to act upon the suggestion tendered by a deputation of leading practitioners appointed to wait upon them at a public meeting of the profession. The deputation, in accordance with the resolutions passed at this meeting, pointed out to the Health Committee that with the inadequate salary of £500 a year attached to the office, especially considering the size and importance of Sheffield, frequent changes must necessarily take place. Past experience had proved the accuracy of this statement, and it was shown that such frequent changes in the head of the health department was contrary to the best sanitary interests of the city. It must be regarded as most unfortunate that these representations were without effect. The old salary has been adhered to, and with no dearth of candidates the City Council is to elect a new medical officer of health next week.

An important prosecution by the Apothecaries Society has taken place in this city during the past week. Ellinor, a chemist, has been proceeded against and a penalty of £20 and costs inflicted. The defendant admitted that he had practised medicine for twenty years. He admitted having prescribed, dispensed, and supplied medicines, and also that he had a private consulting room at his place where he saw patients. Patients also testified that the defendant had prescribed for them and in various ways acted as an apothecary. Under these circumstances it is greatly to be regretted that Judge Waddy, before whom the case was heard in the county court, should have gone out of his way, whilst saying the defendant had broken the law, to express a certain amount of sympathy with him. Mr. Waddy is reported in the *Sheffield Telegraph* as saying: "He must make it clear that he was convinced that the defendant had done nothing underhand. He had been trying to act properly, but he had nevertheless been acting illegally. Justice Cresswell laid it down that an apothecary was a man who 'professes to judge internal disease by its symptoms and applies himself to cure that disease by medicine.' Mr. Ellinor had done this, and legally he had no right to do so. It might seem hard under all the circumstances, remembering how grateful many people had been for what defendant had done for them, that he should have to find a verdict against Mr. Ellinor, but the law laid it down that unqualified people must not do these things. He must, therefore, give judgment against the defendant for £20 and costs."

## NEWCASTLE-UPON-TYNE.

*Royal Infirmary:—Election of an Assistant Surgeon: Surgical Registrar: Quarterly Meeting: Dr. Arnison: Women Students.*

The Selection Committee met on Thursday, May 6th, to elect an assistant surgeon, in place of Mr. Morison, who is now surgeon to the infirmary. There were five candidates, and Dr. Rutherford gained the majority of votes, and was duly elected.

It has been decided that there shall be two surgical registrars instead of one, as heretofore. The election, for which there are several candidates, will take place in a week or two.

A quarterly meeting of the governors was held on May 6th. The chairman stated that he believed that the application of the Mayor, asking that a member of the Royal Family should lay the foundation stone of the new infirmary, would be successful. The largest number of patients occupying beds in the institution was 292, but including made-up beds (tables, etc.) the number rose to 306. A Special Committee was appointed to consider the whole question of the finances of the infirmary. The sum of money subscribed towards the new hospital is now £87,706. The *Newcastle Daily Chronicle* has also started a shilling subscription towards the same fund.

Dr. Arnison's numerous friends will be pleased to hear that he has completely recovered from his recent illness. A complimentary dinner was given to him on Friday, May 7th, by his colleagues on the staff of the infirmary, all of whom were present, to mark his retirement from active duty, and his appointment on the consulting staff.

The entry of students for the summer session is now proceeding, and amongst them are several women, who join the ordinary classes with the other students, and, like them, can proceed under the same regulations to the medical degrees of the University of Durham.

# CORRESPONDENCE.

## EPSOM COLLEGE.

Sir,—The governing body of Epsom College have lately been confronted by a new difficulty. Boys who from their lack of means have been educated as foundationers, free of all cost, have by ability and industry worked their way to the head of the school, and have won honours at Oxford and Cambridge. In more than one instance the difficulty of the friends finding money to enable the student to take up his exhibition or scholarship has been very great, and quite lately a mathematical exhibition had to be resigned because funds could not be found for the maintenance of the winner to begin his university career. I need not point out what a bitter disappointment it is to a young man of ability, who has proved his mental worth at school and in the keener contest for

university distinction, to find himself barred at the outset of his life by poverty. Our experience would lead us to believe that a very moderate amount for the first few terms would clear away all difficulties, for our boys are taught the necessity of self-help as a part of their school training, and we find they practise it. Our struggle is hard to enable us to continue to teach and to support fifty foundation scholars. That these lads are well taught and cared for is proved by their earnest work and their intellectual successes.

May we not ask the aid of those who sympathise with such lads to enable us to raise a small fund to which we might go in case of need, to help on a deserving student, and to give him the opportunity of taking up well-won honours, and to enable him to start on his university career, with all its untold possibilities in the future? Any money subscribed shall be most carefully expended, and shall be given only to such of our foundation scholars who have proved their worth and really need aid to secure them the advantages of university training.

Within the past twelve months our students have just scored their sixth university honour.

Gill, who so lately won a mathematical exhibition at Magdalene College, Cambridge, has now gained a mathematical scholarship at Jesus College, Oxford, and Wood has gained a history exhibition of £30 at St. Catharine's, Cambridge.

We appeal with confidence for aid, and any contributions sent to me for this purpose I shall most gratefully acknowledge.—I am, etc.,

C. HOLMAN, M.D., Treasurer.

26, Gloucester Place, W., May 10th.

## THE UNDERMANNING OF THE ARMY MEDICAL DEPARTMENT.

SIR,—May I through the medium of the BRITISH MEDICAL JOURNAL mention a few facts about the Army Medical Staff which I think may perhaps do good?

As to the present undermanning of the department, about seventy vacancies have not been filled up, and the result is that officers who have not yet been able to claim a pension are terribly overworked. I hear from all parts of the world of the strain thrown upon the Army Medical Staff officers on account of the paucity of numbers.

Undermanning means overwork, sickness, inability to get leave, and a rapid decline in health, with the consequent invaliding from the service with a ruined constitution.

It is impossible, and has been for years, for any but a favoured officer of the Army Medical Staff to get the leave which probably to a great extent induced him to enter the service.

In India and elsewhere regimental and other officers get away for three or ten days once a month, and in the summer for three months, to the hills; but the illpaid and seven-days-worked medical officer scarcely ever can get away to recruit his health. I say seven-days-worked, because he has to go to hospital at least twice a day, whereas regimental officers have two days in the week with absolutely nothing to do, unless they happen to be orderly boy.

I must mention slights: there are two kinds, social and official. Ladies connected with the army and also civilians have often told me the doctors in the army are not considered officers at all; and as for the officials, medical officers are pushed as far in the background as possible. The general officer commanding a district in the south of England asked nearly every subaltern in the garrison to dine with him before he invited his principal medical officer (a principal medical officer is an officer on a general's staff); in other words he insulted him by not asking him to an "At Home" until twelve months after his arrival on the station. Again, Lord Wolseley when inspecting the troops that returned in the hospital ship from the Ashanti expedition, spoke to everyone, and shook hands with most, but intentionally omitted to notice, shake hands with, or commend Surgeon-General Taylor and the officers of the Army Medical Staff. This was more marked, as the senior regimental officer present was only a captain, and if there was any expedition where medical officers did good work worthy of all praise, it was the Ashanti one. I could mention many other slights, but space will not permit.

Before I close let me warn young surgeons that the life of an army medical officer is one succession of worry, petty annoyances, refusals of leave, sickness, expensive journeys, and social and official snubs.—I am, etc.,

Blackheath, May 10th. THOMAS SMITH.

## AFFERENT AND EFFERENT TRACTS OF THE MEDULLA.

SIR,—I have read with interest in your issue of May 8th the abstract of a paper by Dr. Risien Russell upon "The Origin and Destination of Certain Afferent and Efferent Tracts in the Medulla Oblongata." In this research he has confirmed many of the observations upon the tracts of this region which have been already made and described by Dr. Ferrier and myself in the *Philosophical Transactions*, B. 107, 1894, such, for example, as the presence of a tract in the lateral column of the spinal cord, distinct from the pyramidal system; the existence of a tract at the anterior periphery of the cord, the fibres of which arise from cells in Deiter's nucleus; the absence of any direct tract of degeneration in the spinal cord after section of the restiform body; the degeneration of the opposite interolivary layer and mesial fillet after unilateral destruction of the posterior column nuclei; and the fact that the so-called "direct sensory cerebellar tract" of Edinger is an efferent cerebellar tract connecting the middle lobe of the cerebellum with Deiter's nucleus.

Dr. Russell's communication is in the form of an abstract, and he has not considered it necessary to refer to previous workers in this field. I have therefore thought it advisable to state these particulars in immediate relation with his paper in the BRITISH MEDICAL JOURNAL, as many of your readers may not have an opportunity of seeing his further publications on the subject.—I am, etc.,

Queen Anne Street, W., May 12th. W. ALDREN TURNER.

## COACHING FOR THE BRUSSELS UNIVERSITY.

SIR,—The delay in replying to the letter of Count Goblet d'Aviella was caused by his absence from this country. I have now both written and seen him. He assures me that he has never called my good faith in question. The facts are these: On October 31st last at the University, Count Goblet sitting as rector and M. Grau as administrateur, I submitted to them a circular and a notice, the latter for the advertisement columns of the BRITISH MEDICAL JOURNAL. The circular was an amplified form of the notice, or rather the notice was an abbreviated form of the circular. In the circular, following the words, "Authorised by the Conseil-Général," came the words, "Des Hospices de Bruxelles." It was because these last words did not appear in the notice that Count Goblet's letter came to be written, lest your readers might confuse the Conseil-Général des Hospices with the Conseil d'Administration de l'Université. I was naturally surprised that the first I should hear of the matter should be my attention being called to the JOURNAL of April 3rd. I have now added the words "des Hospices," thus satisfying the Rector's present objection, and by that it may be continued.—I am, etc.,

Brussels, April 27th. M.D.

## PRELIMINARY SCIENTIFIC EXAMINATION OF THE LONDON UNIVERSITY.

SIR,—I see in the BRITISH MEDICAL JOURNAL of May 1st, page 1121, that various changes are contemplated by the Senate with regard to the examinations, etc., in Arts, Science, and Medicine of the University. The Preliminary Scientific Examination is generally acknowledged to be a severe test, and the subjects require to be taught at special institutions, much time being devoted necessarily to their mastery both theoretically and practically. It has also to be passed by students before they are allowed to count medical terms in the University.

In the Faculty of Medicine only is there a special and extra examination of this kind required to be passed before one is able to proceed to the Intermediate. In all the other Faculties candidates after matriculation proceed at once to the Intermediate and Final, and without residence at any recognised institution.

As the Senate are now about to make changes affecting the subjects and character of some of the examinations, and as the conditions of residence and intervals between the examinations under which medical students are compelled to proceed to their degrees are very onerous, would it not be possible now that the subjects of the Preliminary Scientific Examination can be divided and taken up separately, to add the Organic Chemistry of the Intermediate M.B. to the former examination, and give those candidates who pass it the designation of Licentiates in Science?

The Preliminary Scientific Examination is equivalent to a modified Arts degree, is an extra and special examination in the Medical Faculty, is fenced about with such difficulties that students must have special teachers at particular collegiate establishments for twelve or eighteen months, and is certainly under such circumstances worthy of some appropriate title.—I am, etc.,

Bath, May 4th. E. A. FLINTOFF.

# OBITUARY.

## WALTER RIVINGTON, M.S.LOND., F.R.C.S.ENG.,

Consulting Surgeon to the London Hospital.

WE regret to have to record the death of Mr. Walter Rivington, member of the Council of the College of Surgeons, and of the Senate of the University of London, on May 8th after a short illness.

The announcement of Mr. Rivington's death will come as a surprise to many of his friends, for he had seemed in his usual health and activity to within the last few weeks. He had an attack of influenza a month ago, followed by an affection of the right lung. The immediate cause of his death was hæmorrhage from the bowels. He passed away in a perfectly peaceful condition, retaining his consciousness to within three-quarters of an hour of his death, which took place at his residence at Epping on Saturday evening last, May 8th.

Mr. Walter Rivington was born in 1835, so that he was in his 62nd year at the time of his death. His father was the late Mr. George Rivington, and his mother was before her marriage, Miss Anne Finlay. Mr. Rivington received his early education at a school at Highgate. He was related to the well-known and old firm of publishers bearing the same name, and was connected with the late Sir William Blizzard and the late Mr. Thomas Blizzard Curling.

Mr. Rivington received his medical education at the London Hospital, where at once his high abilities, extraordinary powers of memory, and sustained power of work were recognised. His career at the London University was highly distinguished. In taking his B.A. degree in 1858, he obtained prizes in Physiology and Chemistry. At the M.B. examination in 1863, he obtained honours and the gold medal for Materia Medica, and at the M.S. degree in 1864 he received honours and the gold medal. He took the Membership of the Royal College of Surgeons in 1859, and the Fellowship in 1863. He was an Examiner in Anatomy and Physiology (1879-1883), and was elected a Member of the Council of the College in 1891, an office which he still held at the time of his death.

Connected as he was with the late Sir William Blizzard and Mr. Curling, both surgeons to the London Hospital and Presidents of the Royal College of Surgeons, Mr. Rivington would have been able to bring great influence to secure his election to the staff of the hospital. Such interest was, however, wholly unnecessary, as his high abilities and distinguished University career obtained his election as Assistant-Surgeon in 1863. He at once threw himself into the work of the school, and was appointed Demonstrator of Anatomy. He did his work so zealously and efficiently in this post that he was presented with a testimonial in recognition of his help by the students.

In 1865 Mr. Rivington became associated with the late Mr. John Adams in the Lectureship of Anatomy, and a year or two later, on the latter's retirement, he became sole lecturer on the subject, and retained the chair for about 20 years. He gave it up in 1884, when he succeeded to the Lecturership of Surgery, vacated by Mr. James Adams's resignation, though he might have obtained this post earlier had he not preferred to retain his Chair of Anatomy. He was Lecturer on Surgery till 1890, when he retired from the active staff.

Mr. Rivington became full Surgeon to the hospital in 1870, and on completing his 20 years' service in that capacity was elected Consulting Surgeon. Mr. Rivington at one time took up the study of diseases of the ear, and when special departments were established at the general hospitals he was the first to hold the office of Surgeon to the Aural Department of the London Hospital. After a time he gradually ceased to prosecute the study of ear diseases, and resigned this appointment. For several years Mr. Rivington lectured on Comparative Anatomy at the school. Mr. Rivington belonged to most of the medical Societies, and made many valuable contributions to their *Transactions*, especially to those of the Royal Medical and Chirurgical Society. He was in 1883 President of the Hunterian Society, of which his illustrious relative, Sir William Blizzard, was first President in 1819.

Mr. Rivington devoted himself to all that concerned the London Hospital and its Medical School. He was for some years Dean of the Medical College, and did much for its improvement and increased prosperity by starting a successful movement to found entrance scholarships.

When Mr. John Adams retired from the office of Secretary to the London Hospital Club his mantle fell on Mr. Walter Rivington, who devoted himself to its welfare, and remained its directing agent for over thirty years; indeed, up to the time of his death. His long devotion to this object, his invaluable services and his popularity amongst the former students of the hospital met with a graceful recognition a few years ago, when a handsome service of plate was presented to him at a dinner given in his honour.

Mr. Rivington was a good general surgeon, but did not distinguish himself by effecting any great advances in practical surgery. He was a cool and, occasionally, a brilliant operator. He was very popular with the students, and, when interested in a subject, a good teacher at the bedside. He was a first-rate lecturer, his extraordinary memory and his humour combining to interest and impress his class. As evidence of his powers of memory it may be mentioned that some of his addresses were delivered word perfect, from memory. Old students of the hospital will remember with delight his witty and eloquent introductory address at the Medical College, and others his oration at the Hunterian Society.

Mr. Rivington was for many years a member of the College Board which manages the Medical School of the London Hospital. Here and at the Medical Council of the hospital he was characterised by his grasp of affairs, his memory of past occurrences, and by an almost irritating though very valuable adherence to constitutional modes of procedure. His long connection with the hospital and school, his devotion to all that concerned it, his intimate knowledge of its history and development, his single-mindedness and honesty made him one of the most useful members of the staff and Council.

Mr. Rivington's contributions to medical science were characterised by extraordinary thoroughness and exactitude. His papers in the *Medico-Chirurgical Transactions* on Pulsating Tumours of the Orbit and on Rupture of the Urinary Bladder are typical instances of his work. They show a patient industry, an extreme accuracy, and a completeness which exhausted the subjects at the time they were written. No trouble was too great to verify every reference and search every library to obtain information. He loved to take up a subject and work it out completely. The merits of his work of this kind were possibly literary rather than practical. Indeed, in the opinion of some who knew him, his natural bent was literary rather than scientific or practical, but of his thoroughness there could be no doubt. His monumental labour was his work *The Medical Profession*, for which he twice (in 1879 and 1887) received the Carmichael Prize of the Royal College of Surgeons of Ireland. It is a complete work which deals with everything which concerns the medical profession from the earliest time to that of its publication. The industry, the interminable research, the vast range of literature covered, are alike remarkable. Its literary merits and its extreme accuracy display the author's characteristics, and must render the

work invaluable to anyone interested in the history of the medical profession in all its aspects. Whether the writer was wise in devoting such an expenditure of energy in this direction is another matter, but it serves to show, as before stated, that Mr. Rivington's bent was literary rather than practical.

Mr. Walter Rivington was essentially original, and a certain abstraction or absent-mindedness conveyed the impression that he was less observant than was actually the case. This undoubtedly militated against his success in practice.

He was a man of sterling integrity, working for work's sake, and never self-seeking. He had the courage of his convictions. He had the love of his profession at heart, and this made him a life-long reformer. He threw himself into nearly every scheme that appeared to him to offer a hope of improving on existing organisations, and thus he worked for the representation of Members on the Council of the Royal College of Surgeons, the reorganisation of the London University, and many other schemes, and often took a leading part in public discussions on such subjects. This he did with varying success, and irrespective of self-interest. Though somewhat polemical, he never descended to invective in discussions, and his last writings in the journals were a characteristic vindication of his attitude of consistency and independence. At the last election of Direct Representatives on the General Medical Council he stood as an independent candidate, and, though unsuccessful, he obtained a sufficient number of votes to show that his opinions commanded a considerable measure of support.

Mr. Rivington suffered a great loss by the death of his wife a few years ago. He leaves a family of eight children.

We are indebted to Mr. T. Holmes for the following estimate of Mr. Rivington's services in connection with the Royal College of Surgeons: The Association of Fellows and the reforming party in the College of Surgeons have experienced a terrible loss in the sudden death of Mr. Walter Rivington, more especially as it follows so closely on the decease of Mr. Pollock, the Chairman of the Association. Mr. Rivington was the mainstay of our Association now that the Chairman was gone, and he did not yield even to Mr. Pollock in his devotion to its interests and his determination to carry out its objects in spite of all difficulty and opposition. It was to promote those objects that Mr. Rivington sought a seat on the Council of the College, which he obtained in 1891; and loyally did he fulfil the promises which he then made. The large measure of success which has been obtained by the Association in carrying out the programme with which it originally started was due to his perseverance more than to any other individual, and it will be indeed difficult to continue our labours now that he is taken from us. This, however, will be a matter for the consideration of the officers of the Association, and I have no right whatever to anticipate their decision. Writing as I do very hastily, immediately after the sad news of his death has reached me, all I can do is to acknowledge the utter sincerity and manliness with which he fought the uphill battle which was his lot at the College. I believe that the transparent purity of his motives and the lofty honour of his conduct conciliated the esteem and respect even of those who differed from him most widely. I am sure they earned the gratitude and affection of those with whom he worked.

## HENRY VANDYKE CARTER, M.D.Lond.,

Deputy-Surgeon-General, I.M.S., Bombay (Retired).

Henry Vandyke Carter was born on May 22nd, 1831, and died of phthisis on May 4th, 1897, aged 66. He was the son of the artist, H. B. Carter, whose gift he inherited, cultivated, and utilised to good purpose. After a distinguished career as a medical student at University College, London, culminating in the degree of M.D. of the University of London, he became Demonstrator of Anatomy in St. George's Hospital Medical School. It was here that he executed those excellent illustrations for *Gray's Anatomy* which have, during the last forty years, contributed so materially to smooth the thorny path of the student of human anatomy. He joined the Bombay Medical Service as Assistant-Surgeon in January, 1858, arriving in Bombay in March of that year. He attained the rank of Surgeon in 1870, and Surgeon-Major in the same year, of Surgeon-Lieutenant-Colonel in 1878, and Brigade-Surgeon in 1872. He was attached to the Artillery on arrival in India, and proceeded to Mhow to join the Central India Field Force. He was soon recalled to an appointment for which his previous training eminently qualified him, being in May, 1858, gazetted to act as Professor of Anatomy and Physiology in the Grant Medical College. He held this office till 1863, and during this time served as Curator of the Grant Medical College Museum, and Assistant-Surgeon in the Jamsetjee Jheejeebhoy Hospital in addition.

His next employment was as Civil Surgeon and Superintendent of the Gaol, Satara. He proceeded on furlough to Europe in 1872, and occupied his time by journeying to Norway for the purpose of studying leprosy and the arrangements made in that country for the segregation and treatment of lepers. He also visited Italy, Greece, Algeria, Crete, Syria, and Asia Minor for the purpose of investigating leprosy and the destructive skin disease known as "bouton de Briska," caneatica, Aleppo boil, Sind sore, Delhi boil, etc. He drew up exhaustive and valuable reports on these subjects.

On his return to India in 1875 he was deputed to Kathiawar to investigate leprosy, and submitted a full report on the results of his research. In 1876 he was appointed to the charge of the important Goculdas Tejpal Hospital in Bombay. During the great famine of 1877-78 fever broke out among the starving people who flocked from the impoverished districts into the Presidency town. Carter was appointed a member of a Committee to investigate this fever, from which he himself twice suffered. His researches on this subject are well known. He identified the fever as relapsing fever, and discovered, for the first time in India, the spirillum in the blood of its victims.

His labours seriously affected his health, and he was obliged to take sick furlough in 1882. During his absence from India he was by no means idle, but diligently pursued his literary and scientific work, as the numerous papers and publications which he prepared amply attest. In 1877 he was appointed Principal of the Grant Medical College, and first Physician of the affiliated Jamsetjee Jheejeebhoy Hospital; and on his return from furlough in 1884 he was continued in this appointment, which he held till the date of his retirement, July 13th, 1888, after a very distinguished service of thirty years. Carter also held the offices of Secretary and then of President of the Bombay Medical and Physical Society and of Dean of the Medical Faculty of the University of Bombay.

This bald statement of Carter's official career indicates an exceptionally meritorious and useful public life; but in addition to labours falling under the description of public duty—and these were of a very important and onerous nature, always performed with great diligence, talent, and success—he found time to engage in numerous researches regarding the pathology of Indian diseases. A mere catalogue of these indicates a vast amount of difficult work. Among them may be mentioned mycetoma, lymph scrotum, intestinal lesions in the remittent fever of Bombay, the microscopic structure of calculi, "surra," the parasite of malaria, and chyluria. On each subject he shed much light and greatly advanced knowledge. Much of his more important work is contained in official reports to the Indian Government, but he also made large use of medical periodicals and societies for communicating the results of his investigations. The *Transactions* of the Medical and Chirurgical Society, the Pathological Society, the Royal Society, the Epidemiological Society, and International Medical Congress of London, of the Medical and Physical Society of Bombay, and the medical reports of St. George's Hospital bear ample testimony to his industry and genius.

Carter devoted his life, his talents, his pen, and his pencil unsparingly and unflaggingly to the service of science and of India, and it is not impertinent to ask what recognition or reward he obtained. He no doubt enjoyed the satisfaction flowing from the recognition which in these days is promptly accorded by men of science and members of the medical profession to great industry and sound work, but the record of public recognition of his eminently valuable and useful services is scanty. He was frequently thanked by Government for his work, was appointed Honorary Physician to the Queen in November, 1890, and at the same time promoted to the

rank of Deputy Surgeon-General in token of approval of his eminent services. Titular reward was not given him. Perhaps his nature was too noble and modest to seek for such by solicitation, mediate or immediate. If he did not get, he did not forget to give, for one of his latest acts before leaving India was to present a sum of 10,000 rupees for the purpose of founding a lectureship in physiology, to be named after Lord Reay, then Governor of Bombay—a man who valued and encouraged science and scientific labourers.

Few men have done so much for tropical pathology as Vandyke Carter. A keen observer, a skilled histologist, a good draughtsman, persevering and industrious in a high degree, and well abreast of the pathological knowledge of the day, he made full use of his opportunities during his long service in India, and shed much light on many interesting and obscure problems in medicine. He was endowed with the true scientific spirit, industrious in collecting facts, accurate in observing and recording them, sagacious in interpretation, not jumping to conclusions. Thus it is that much of his work is of permanent value. His treatise on Leprosy was among the first of the truly scientific studies of that disease, and in many respects is still a standard work, excelling as it does in the descriptions and delineations of the macroscopic anatomy of the lesions.

The same may be said of his work on Mycetoma, for, although Carter failed to make out the exact characters of the fungus causing the disease, the failure depended rather on the imperfection of the apparatus and methods available at the time than on the worker: he recognised the mycotic nature of this curious affection, and described correctly for the first time its clinical and anatomical features. Although he overlooked the part played by the filaria in the production of the elephantoid diseases, Vandyke Carter was the first to recognise the connection, or rather pathological identity, of chyluria with lymph scrotum, as he was the first to propound the view—which is the one now generally accepted—that chyluria depends on rupture of a lymphatic varix in the urinary tract.

How so keen and careful an observer missed discovering the filaria, and thereby anticipating Lewis by many years, is one of those strange mysteries of observation of which the history of science affords so many examples. Carter worked much and long, and made many valuable observations on those peculiar forms of tropical ulceration which Tilbury Fox named Oriental sore; but perhaps the work by which he is best known is that in connection with spirillum or relapsing fever. He showed that the famine fever of India was identical with the relapsing fever of Europe; that it was similarly associated with Obermeier's spirillum; that it could be communicated by inoculation of blood, not only to man but also to monkeys: and that the inoculated disease was equally associated with the presence of the spirillum in the blood. In the course of his studies on this subject he brought more than one important general principle into notice: for example, the *rôle* of the spleen in clearing the blood of micro-organisms.

In recognition of his work on this subject Surgeon-Major Carter, as he then was, received, on the first occasion of its award, the Stewart Prize of the British Medical Association. This was awarded to him at the annual meeting at Worcester in 1882. The award, which was made on the recommendation of the adjudicators, Professor Burdon Sanderson, Professor de Chaumont, and Dr. Thorne Thorne, was in recognition of his Researches on Spirillum Fever in India and its Communicability by Inoculation.

Inspired by Osler's paper in the British Medical Journal he set to work with characteristic energy to ascertain if Laveran's malaria parasite was to be found in the malarial fevers of India as it had been found to be in those of America, Algiers, and Italy. The result of his work in this line was published in the *Scientific Memoirs by the Medical Officers of the Army in India*, Part III, 1888. A perusal of this paper shows that ten years ago Carter made out all the leading forms of the malaria parasite and thoroughly established its existence in the fevers of India. Why the profession in India did not immediately take up his work it is hard to understand.

The foregoing are only some of the studies which occupied one of the most indefatigable and ablest of our Indian pathologists. When we reflect on the disadvantages of having to work in a trying climate, often with imperfect apparatus, without skilled assistance or appreciative companionship, and without the stimulus of competition or necessity, and far removed from libraries and many of the resources of civilisation, we cannot fail to be impressed by the high quality and the prodigious amount of valuable and disinterested scientific work which Vandyke Carter did for his profession.

## ADOLPHUS JOSEPH RICHARDSON, M.D., M.R.C.P.,

Senior Assistant Physician to the Sussex County Hospital.

Dr. Adolphus Joseph Richardson, of Hove, Brighton, died under sad circumstances at the village of Uckfield, Sussex, on Sunday, May 2nd. On Friday, April 23rd, he rode on his bicycle to Buxted to visit an aged and gratuitous patient. Evidence at the inquest showed that he had descended Buxted Hill with his feet on the foot-rests, and had reached level ground, when, on attempting to regain his pedals, the bicycle swayed, and he was thrown on the road, cutting his nose and lips, and sustaining some concussion of the brain. A gentleman passing drove him to Uckfield, where he was attended by Dr. Birt, in whose house he stayed that night, being removed on the following day to another house in the village. An old hospital friend, Dr. Black, Assistant Surgeon to the Sussex County Hospital, to which hospital Dr. Richardson was the Senior Assistant Physician, came out from Brighton to attend his colleague, in conjuction with Mr. Thomas, who was acting for Dr. Birt during his holiday.

On Sunday, April 25th, Dr. Richardson stated that he felt certain that he should be attacked by tetanus, and that he should die on the following Sunday or Monday, and, though his medical friends scouted the idea, at his reiterated request Dr. Black procured a supply of the antitoxin serum for the treatment of tetanus. On Thursday, April 29th, Dr. Richardson complained of stiffness at the angle of the jaw, and insisted on the serum being injected, although his medical attendants could not recognise any symptoms of tetanus. These symptoms, however, were decidedly present the next day, and he died of thoracic spasm on the following Sunday. From the commencement of the serum treatment Dr. Black remained by him, and spared no pains in his endeavours to save the life of his friend. Dr. Richardson was 41 years of age, and leaves a widow and one little girl.

Dr. Richardson was distinguished as a student. He gained the Mortimer Medal at the City of London School, and subsequently an entrance exhibition and a Natural Science Scholarship at King's College, Cambridge, in 1875, and graduated B.A. in 1878 in both the Mathematical and the Natural Science Tripos. On leaving college he successfully competed for the entrance Natural Science Scholarship at the London Hospital, where he took the Letheby Chemical and the Obstetric Scholarships. He qualified L.S.A.Lond. and took his M.A.Cantab. in 1881, M.R.C.S. in 1882, M.R.C.P.Lond. and M.B.Cantab. in 1883, D.P.H.Eng. in 1888, and M.D.Cantab. in 1889.

At the London Hospital he acted as House-Physician under the late Sir Andrew Clark, House-Surgeon under Mr. Couper, and Resident Accoucheur. He then studied medicine for some time at the University of Vienna. He left the London Hospital to practise in Hove, and was appointed Assistant Physician to the Sussex County Hospital. To this hospital he devoted much time, and he took an active part in furthering its extension scheme. He was appointed a member of the Examining Board in Medicine at the Society of Apothecaries of London, being at the time the only member of that Board unconnected with one of the large London hospitals.

His early training in mathematics and natural science made him an accurate and observant student. He had the rarer power of applying his studies in his practice, and he spared no pains to keep pace with modern science. On the publication of Dr. Koch's experiments on tuberculin he at once went to investigate them. When the nature of the Roentgen rays was made known he hastened to acquaint himself with their properties, and adopted their use in his profession. He was preeminently a scientific practitioner.

He was always an advocate for athletic exercise. At Cambridge he was stroke of his College boat, and captain of its Boat Club. He formed one of the crew of the London Hos-

pital "Four" in the first inter-hospital boat-race. With the Southdown Foxhounds he was at one time well-known. Latterly he had spent much of his leisure in photography, at which he gained some local reputation, and it formed the pretext for a good deal of bicycling.

His uprightness and integrity, no less than his ability, won him wide respect, and his unfailing kindness and sympathy endeared him to those with whom and among whom he worked; his personal influence was peculiarly strong and beneficent. The estimation in which he was held was evident by the mourners who assembled at Hove Parish Church for the first part of the funeral service—by far the greater number of the medical men of the district, the Chairman, Vice-Chairman, Committee, matron, and nursing staff of the Sussex County Hospital and many patients and friends.

The body was interred at Portsmouth, where Dr. Hollis and Dr. Black attended at the cemetery on behalf of the Sussex County Hospital, and here the funeral was joined by many of Dr. Richardson's friends who had travelled from London and other places to pay their farewell tribute of respect.

He met his death while on an errand of mercy.

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WILLIAM FREDERIC FOSTER, M.R.C.S., L.S.A., J.P.

WE regret to record the death of this well known and highly respected practitioner at his residence at Newport, Isle of Wight, on April 27th. He had borne a long and painful illness with much fortitude. Colotomy performed in June last had afforded him considerable, though temporary, relief. He was born at Hambledon, Hampshire, received his medical education at St. Bartholomew's Hospital, and became qualified in 1857. In 1858 he settled at Newport, where he soon obtained a large private practice and held many public appointments, notably that of medical officer of the Arreton district, which he retained for thirty-eight years. He was also M.O.H. of Newport for many years, a member of the corporation, and justice of the peace for the borough. He was highly esteemed by all classes of the community, and his death regretted as a public and private loss. This was well shown at the funeral, which took place on May 1st, and (in addition to relatives) was attended by all the local medical men and some from other parts of the island, and by the Mayor and Corporation, local friendly societies to which he had been surgeon, and very many sympathising patients and friends. Mr. Foster leaves a widow and large family of grown-up sons and daughters. He is succeeded in his practice by his late partner, Dr. M. Coombs, and his eldest son, Mr. Stanley Foster.

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THE death is recorded of Dr. GEORGE WILSON, of Huntly, Aberdeenshire. He was born at Brangan in the parish of Boyndie on July 12th, 1811. He graduated at King's College, Aberdeen, in 1828, and in 1833 he took the degree of M.D. Edin., and the diploma of L.R.C.S.Edin. The deceased went to Huntly in 1829 as apprentice to the late Dr. M'Coll, where he continued to practise till 1892, when on his retirement he was presented with a portrait of himself in oils and an illuminated address, while his wife received a damascened silver tea service. Dr. Wilson was twice married, and is survived by a family of three sons and two daughters.

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THE death of Mr. WILLIAM ABEL GRIFFITH JAMES of Kirkby Lonsdale took place on April 24th. The deceased, who became M.R.C.S.Eng. in 1852, was formerly House-Surgeon to the Middlesex Hospital and to the Liverpool Royal Infirmary and Lunatic Asylum. He went to Kirkby Lonsdale some forty years ago when his brother was in practice in the town. Mr. James retired from practice about fourteen years ago. He took a great interest in dog breeding.

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DR. JOHN BARRIE died suddenly on Saturday, April 25th, in his 63rd year. He took the degree of M.D.Glasg. in 1860, and the diploma of L.F.P.S.Glasg. in 1861. He was Parochial Medical Officer of one of the districts of Govan, and was one of the most widely known and respected practitioners on the south side of Glasgow.

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DR. JOHN ROBERTSON died suddenly on April 6th, at his residence, 30, Lauriston Place, Edinburgh. He was District Medical Officer to the City Parish at the time of his death, and had been for a time Lecturer on Diseases of the Eye at Minton House School of Medicine. He studied at the Universities of St. Andrews and Edinburgh, and he graduated at the latter M.B., C.M., and B.Sc., in 1876.

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DEATHS IN THE PROFESSION ABROAD.—Amongst the members of the medical profession in foreign countries who have recently passed away are Dr. E. Drinker Cope, Professor of Zoology and Comparative Anatomy in the University of Pennsylvania, and one of the foremost palæontologists of the world, aged 56; Dr. Jaime Pi y Suñer, Professor of General Pathology in the Medical Faculty of Barcelona; Dr. H. Sunder y Rodriguez, a prominent surgeon of Madrid, author of contributions to professional literature on urinary disorders; Dr. Henry Menger, of Berlin, a prominent sanitarian, aged 52; Dr. Gabriel Alarcon y Casanova, President of the Spanish Gynæcological Society; Dr. Gustav Braun, formerly Professor of Ophthalmology in the University of Moscow, aged 69; Dr. Le Roy McLean, of Troy, New York, who was the first surgeon in the United States who performed œsophagotomy for the removal of a foreign body, and the first successful hip-joint amputation in the great Civil War, aged 66; and Dr. Frank Abbott, Dean of the New York College of Dentistry, author of numerous writings on dental and medical subjects, and the possessor of what is said to be the finest collection of rare prints relating to American history in the United States, aged 61.

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# NAVAL AND MILITARY MEDICAL SERVICES.

## THE NAVY.

STAFF-SURGEON GEORGE F. SMITH is promotod to be Fleet-Surgeon, April 27th. He was appointed Surgeon, March 31st, 1876, and Staff-Surgeon twelve years thereafter. He was Surgeon of the *Pioneer* (lent from the *Dance*) in the expedition up the Niger, 1877, when several piratical villages were destroyed and severe punishment inflicted of the river pirates. Was Surgeon of the *Penelope* at the bombardment of Alexandria, July 11th, 1882, and during Egyptian war (medal with clasp, Khedive's bronze star). As Staff-Surgeon of the *Kingfisher*, he served with the Naval Brigade, landed under the command of Vice-Admiral the Hon. E. R. Fremantle, Commander-in-Chief of the East Indies Station, for the punitive expedition against the Sultan of Vitu, East Africa, in October, 1890 (medal with clasp).

Staff-Surgeon LEONARD H. KELLETT, M.A., M.D., is also promoted to be Fleet-Surgeon, April 27th. His commission as Surgeon dates from September 30th, 1876; that of Staff-Surgeon, September 30th, 1888. He served with the Royal Marines at Suakin in 1884-85, and was Principal Medical Officer with the battalion in the Soudan campaign in 1885, being present at the action at Hasheen, at the attack on the Tofrek zereba, and at the destruction of Temai (medal with two clasps, and Khedive's bronze star).

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## ARMY MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL J. A. GORMLEY, M.D., is promoted to be Surgeon-Lieutenant-Colonel from May 8th, and Surgeon-Captain C. H. HALE is appointed a Companion of the Distinguished Order, in recognition of their services during the operations in South Africa in 1896. These services have already been so fully described in the BRITISH MEDICAL JOURNAL, that it does not seem necessary to recapitulate them here.

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## INDIAN MEDICAL SERVICE.

SURGEON-LIEUTENANT-COLONEL S. B. HALIDAY, Bombay Establishment, is permitted to retire from the service from June 23rd. He was appointed Assistant-Surgeon April 1st, 1867, and Surgeon-Lieutenant-Colonel from April 1st, 1887. He was in the Abyssinian war in 1867-8 as Assistant-Surgeon of a hospital ship (medal); and in the Afghan war in 1879-80 in medical charge of the 13th Bombay Infantry (medal).

Surgeon-Lieutenants E. M. ILLINGTON and F. D. BROWNE, M.B., of the Madras Establishment, are placed at the disposal of the Government of Madras for employment on plague duty.

Surgeon-Lieutenant-Colonel H. HAMILTON, M.D., Bengal Establishment, and Surgeon-Lieutenant A. F. W. KING, Bombay Establishment, are placed at the disposal of the Government of Bombay for employment on plague duty.

Surgeon-Lieutenant-Colonel E. W. YOUNG, M.D., Bombay Establishment, Staff-Surgeon and Medical Officer to the Roman Catholic Orphanage School at Poona, is permitted to retire from the service from May 1st. His commission as Assistant-Surgeon dates from September 30th, 1876; that of Surgeon-Lieutenant-Colonel twenty years therefrom. He served with the Zhob Valley Expedition in 1884, and was present in the engagement at Dowlatzai.

Brigade-Surgeon-Lieutenant-Colonel C. J. W. MEADOWS, Civil Surgeon, Cuttack, having announced his intention of retiring during April, has, in view of the extraordinary demand for medical officers, been desired by the local Government to postpone his retirement for the present.

Surgeon-General JAMES T. C. ROSS, C.I.E., late of the Bengal army, died on May 3rd. He received his medical education at St. George's Hospital, was admitted a Member of the Royal College of Surgeons in 1845, and elected a Fellow in 1857. In 1845 he entered the Medical Establishment of the Bengal army, and retired as Surgeon-General in 1878. He served with the field hospital, army of the Sutlej, in 1846; with the field

force throughout the Punjab campaign in 1848-49 (medal); with the first Meeranzi expedition under Captain John Coke, 1851; and with the force under Sir Colin Campbell against the tribes in the Ranazai Valley, 1852. He was engaged in the affairs on the Kohat Kohtul in 1853 (medal with clasp). The Chief Commissioner of the Punjab—afterwards Lord Lawrence—reported to the Government of India, November, 1853: "Assistant-Surgeon Ross at Kohat is fully entitled to the praise Major Edwards (Sir Herbert Edwards) ascribes; his benevolent exertions have had a wide range in and beyond his district; the presence of such a man tends to strengthen our rule." He served in the Mutiny. He was in medical charge of the cavalry brigade under Sir Hope Grant during the action at Khodagunge, on the Kala Nudee (where he led one of the squadrons by the special order of Sir H. Grant), and the reoccupation of Futtehgur (medal with clasp). He also served as Principal Medical Officer with the Duffla expedition, 1874-75, and was appointed Sanitary Officer to the camp of the Imperial Assemblage, Delhi, in 1876 (silver medal). He was appointed Companion of the Indian Empire in 1878. He was employed as Chief Commissioner under the Stafford House Committee in South Africa during the Zulu war in 1879 (medal). He was appointed Commissioner of the Princess of Wales's Branch of the National Aid Society for Home Service in 1885, and was thanked by her Royal Highness "for the zeal and energy you have displayed in seeking to relieve and mitigate the hardships and sufferings of the sick and wounded during the Egyptian campaign of 1885." Surgeon-General Ross married in 1857 Sarah, daughter of the late Mr. Thomas Wadham, of Frenchay House, Gloucestershire.

## ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN WILLIAM G. CRESWELL, M.D., resigns his commission, May 12th.

## THE VOLUNTEERS.

THE undermentioned gentlemen are appointed Second Lieutenants in the corps specified, dated May 5th: FRANCIS A. BROOKS, M.D., 1st Essex Artillery (Eastern Division Royal Artillery); ALEXANDER P. SWANSON, 2nd Volunteer Battalion the Royal Welsh Fusiliers; CHARLES B. SCOTT, M.D., 1st Volunteer Battalion the Royal Sussex Regiment; GEORGE BLACK, M.B., 2nd Volunteer Battalion the Royal Sussex Regiment.

Surgeon-Captain J. W. Davies, 3rd Volunteer Battalion the South Wales Borderers, has resigned his commission, May 5th.

Surgeon-Lieutenant G. L. L. HAWKEN, 2nd Volunteer Battalion the Royal Sussex Regiment, has resigned his commission, May 5th.

Surgeon-Lieutenant-Colonel G. HASTINGS, 3rd London Rifles, has resigned his commission, retaining his rank and uniform, May 5th.

Surgeon-Lieutenant-Colonel C. T. VACHELL, M.D., 2nd Glamorganshire Artillery, has resigned his commission, retaining his rank and uniform, May 12th.

Surgeon-Lieutenant D. T. RICHARDS, M.D., 1st Monmouthshire Artillery, is promoted to be Surgeon-Captain, May 12th.

The following are appointed Surgeon-Lieutenants in the corps specified, dated May 12th:—DAVID LIVINGSTON HAMILTON, 4th Volunteer Battalion the Manchester Regiment; GEORGE ROY FORTUNE, 1st Volunteer Battalion the Highland Light Infantry; PHAD ELIAS HOWIE, M.B., 4th (Donside Highland) Volunteer Battalion the Gordon Highlanders.

C. W. SCOTT, M.B., is reappointed Acting Surgeon to the 1st Cadet Battalion the Buffs (East Kent Regiment), May 12th.

## THE BENIN EXPEDITION.

THE *London Gazette* of May 7th contains the despatches of Rear-Admiral Harry H. Rawson, C.B., to the Admiralty, reporting the recent operations against the King of Benin, and the capture of Benin city, dated from the cruiser *St. George* at Forcados, on February 27th last. A number of enclosures sent by Rear-Admiral Rawson from Commander Bacon, Chief of Intelligence Department; Captain O'Callaghan, Captain MacGill, Lieutenant-Colonel Hamilton, Consul-General Moor, and Lieutenant Michell are given; and finally the *London Gazette* prints a letter from Sir Evan Macgregor conveying to Rear-Admiral Rawson the high appreciation of the Lords of the Admiralty of the gallantry and devotion to duty displayed by the officers and men engaged in the operations. After describing the difficult nature of the operations undertaken by the expedition, and the successful way in which they were overcome, the Admiral singles out the names of the officers deserving of special mention, the following being among them: "Fleet-Surgeon M. Fitzgerald organised the medical department and rendered me every assistance; Staff-Surgeon E. R. Dimsey, of H.M.S. *Phœbe*, and J. McC. Martin, of H.M.S. *Forte*, were with the flying column, and upon them fell the whole work of attending the wounded and bringing them down. Surgeon R. T. A. Levinge, of H.M.S. *Alecto*, is specially mentioned in Captain MacGill's despatch. Surgeon C. S. Facey, of H.M.S. *Widgeon*, is mentioned in Captain O'Callaghan's despatch. Surgeon F. H. A. Clayton, of H.M.S. *St. George*, although ill himself, worked most assiduously with the sick."

Surgeon Facey, of H.M.S. *Widgeon*, who was with the force under Captain O'Callaghan, "showed great coolness in attending to and dressing the wounded, being practically under fire the whole time."

Captain MacGill, reporting the operations at Sapoba and Stockade, says: "I would here draw special attention to the services of Surgeon R. T. A. Levinge and R. J. Tiddy, P.O. 1st Class, both of the *Alecto*. On Lieutenant-Commander Pritchard being shot Dr. Levinge took command, and behaved admirably."

Consul-General Moor, Her Majesty's Commissioner for the Niger Coast Protectorate, writes in his despatch to Lord Salisbury: "Dr. Allman has been Principal Medical Officer of the Protectorate since 1891, and has organised the medical and sanitary staff most efficiently, and carried out his duties with care and judgment. His services are, I consider, deserving of recognition." And Lieutenant-Colonel Hamilton, in his report to the Consul-General, says of the same officer: "Dr. Allman, the Principal Medical Officer to the Niger Coast Protectorate Force, is also deserving of commendation. His organising power with the carriers under him, and energy, have been invaluable, and since our arrival here (Benin City) I have made him Provost Marshal."

## THE PERSONAL HYGIENE OF THE SOLDIER.

BRIGADE-SURGEON-LIEUTENANT-COLONEL W. H. CLIMO contributes to the *United Service Magazine* for the current month a paper on this subject. In this, as in other articles heretofore contributed to the same journal by this writer, he does not fail to bring into prominence his advocacy of the "regimental" system. He seems to look on the reinstitution of this system as a panacea for almost all army evils in India, as may be gathered from his most recent pronouncement that enteric and syphilis "will never be effectually dealt with until each regiment has once again its own medical officer," and further, that "until that time comes, even were every medical officer a Parkes or an Abernethy, the army is deprived of one of the most important functions of the medical department." It is extremely doubtful whether Brigade-Surgeon-Lieutenant-Colonel Climo's views on this point have the support of a large number of his military brethren. Officers of high rank and experience contend that the cry for the "regimental" system only means the renewed demand for placing the officers of the Army Medical Service under the domination of commanding officers of corps, from which they have been freed by the establishment of the "unification" system, which, incontrovertibly, is the best for purposes of war; and the system best fitted for war is that which should exist in peace.

## NEED FOR SURGICAL AID ON TRIAL TRIPS.

THE recent accident during the trial of the new torpedo destroyer *Star*, by which five men were scalded, ought to lead the Admiralty to issue orders that no trial should in future be commenced without a medical officer being on board. In this case, fortunately, the injuries were not serious, but considerable delay occurred in obtaining the services of a surgeon from the *Sharpshooter*. As has been pointed out, the presence of a surgeon is considered necessary when vessels are firing their quarterly allowance of ammunition, how much more essential must his presence be considered when new machinery is on trial. Under ordinary circumstances there need not be much difficulty in deputing a medical officer from any available ship to discharge this duty should it only be of an isolated or casual nature. If, however, such a requirement is repeatedly occurring, a regular staff should be inaugurated to take up the duty *seriatim* or by turns. It is very ordinary experience to distrust but little until an accident or unforeseen occurrence awakens a necessity, which we are then bound to anticipate and provide for in the future under similar conditions.

## BACTERIOLOGICAL EXAMINATION OF WATER IN INDIA.

IN continuation of our remarks in the BRITISH MEDICAL JOURNAL of March 27th, we are now informed that Surgeon-Major Davis has, under instructions from the principal medical officer of the British forces in India, made a bacteriological examination of a proposed new water supply from wells some twenty-four miles from Sialkote, and Surgeon-Captain Melville has undertaken a similar duty at Quetta. The reports of these officers will be of great interest, and we hope later on to allude to them.

## COMPLIMENTARY SERVICE DINNER TO SURGEON-COLONEL W. GRAVES, A.M.S.

A FAREWELL dinner was given to Surgeon-Colonel W. Graves, A.M.S., P.M.O. Meerut and Bundlekhund Districts, N.W.P., India, at the Wheler Club, Meerut, on February 8th, by Surgeon-Colonel Price and the officers of the A.M.S. The company present included Major-General Sanford, C.B., C.I.E., commanding the Meerut District, and his staff, also the heads of departments and the officers commanding the various regiments in the station. After the usual loyal and patriotic toasts, Surgeon-Colonel Price, in a complimentary speech, proposed the health of the guest of the evening, which was received with acclamation and drunk with musical honours. Surgeon Colonel Graves, in replying, suitably acknowledged the compliment, and expressed his regret at leaving India, where twenty-two years out of his thirty-nine years' total service had been spent, and where he had met so many friends. In bidding good-bye to the medical officers of the station of both services he thanked them one and all for the willing co-operation they had always displayed in cheerfully assisting him in carrying out the medical duties, and he expressed the pleasure it had been to him to have been associated with them, and also with such a distinguished general and genial and popular staff as Major-General Sandford and his staff during his tour of service in Meerut. The remainder of the evening was spent in social enjoyment.

## ARMY MEDICAL REFORM.

SURGEON-CAPTAIN writes: The pay in India is in defiance of "army rank" as expressed in the military portion of our titles. The medical officer, by reason of the exacting nature of his duties, requires more—but gets less—leave than any other officer. Overwork, underpay, rank contemptuously ignored, no leave or amenity, contemned by the higher military authorities, this is the fate of the "good (army) doctor" of the present day. The authorities must recognise that medical men do not enter the army for the practice of their profession alone, but for the advantages and social prestige which a military commission very properly should bring. Rob a commission of this prestige, and it would be worthless to any or all officers as it now is to the medical.

## INVALIDING OF RECRUITS.

A CORRESPONDENT maintains that a large number of recruits are broken down in training, through faults in the system of military drill, which is calculated to give them irritable hearts and the train of symptoms which follow on functional cardiac disorders.

*** We have no wish to traverse our correspondent's contention, which no doubt possesses a considerable element of fact. But, under the most careful system of recruiting, the breakdown under training of a certain proportion, especially of neurotic urban recruits, is a matter of certainty, and probably not altogether a matter of regret. A recruit who cannot stand the ordinary drill cannot be made a soldier

of, and it is just as well that this should be found out within three months of enlistment. That men so discharged are permanently injured by the drill we very much question. Many men discharged as "not likely to become efficient" are to be found subsequently doing fairly hard civilian labour.

### VENEREAL DISEASE AND CIRCUMCISION.

NILE urges the compulsory circumcision of recruits on enlistment as a great preventive of venereal infection. Celibacy is enforced, vaccination arbitrary, why not circumcision compulsory? It would be a true reform to follow the ancient practice of many Eastern nations.

*** We willingly concede that circumcision as performed by the Jews and other Eastern peoples, apart altogether from tribal and caste considerations, may be a useful sanitary measure; but to enforce it on British recruits is entirely another matter. Has our correspondent forgotten that enlistment in this country is voluntary? Will the prospect of a painful operation not be deterrent on volunteering? We once heard of a worthy colonel who proposed to censure an examining medical officer who had failed to discover that a recruit suffered from urethral stricture. Imagine suggesting to a recruit the passing of a catheter!

### THE TITLES QUESTION.

J.G. writes: It would be most fitting that the vexed question of titles should be settled in the Diamond Jubilee year, by granting medical officers military titles in a "Royal" Medical Corps. This would give fresh impulse to the whole body of medical men, and produce that great desideratum, a thoroughly efficient army medical service.

*** Once again we would point out that the formation of an army medical corps is at the discretion of the Secretary of State for War; but the title "Royal" can only be conferred at the gracious pleasure of the Sovereign, and is one which may be suggested, but in no way urged or demanded.

# MEDICO-LEGAL.

### *IN RE* LYCETT—RILEY v. KING'S COLLEGE HOSPITAL.

IN the High Court of Justice—Chancery Division, before Mr. Justice Kekewich, the late Sir Francis Lycett, a well-known citizen of London, who died in October, 1880, by his will bequeathed, after the death of Lady Lycett, which happened recently, a large number of charitable legacies, including a legacy of £500 to "King's Cross Hospital." There is no hospital in London now bearing that exact title, and accordingly the legacy was claimed by the Great Northern Central Hospital, King's College Hospital, the Small-Pox Hospital, Charing Cross Hospital, and King's Cross Hospital, Dundee. This action was by the trustees of the will against the several claimants, and the Attorney-General as representing the public, to have the question decided as to which of the several claimants was entitled to the legacy. Mr. J. Southall appeared for the plaintiffs, the trustees of the will.

Mr. Howard Wright, for the King's Cross Hospital, Dundee, according to the *Times* report, said that, though he had sent in his claim in answer to the trustees' usual advertisements, he had only recently had notice of the present action, and asked whether he might have time to consider whether he should persevere in his claim or not.

Mr. Waggett for the Great Northern Central Hospital, read evidence showing that from 1857 to 1862 there was a hospital in York Road, King's Cross, called the "Great Northern Hospital," King's Cross, and that in 1862 it was taken by the Metropolitan Railway Company, and other premises were taken for the hospital in the Caledonian Road until 1888, when it was amalgamated with the "Great Northern Central Hospital," which was generally known among patients and in the neighbourhood as the "King's Cross Hospital."

Mr. Warrington, Q.C., and Mr. E. A. Jennings, for the Small-pox Hospital, read evidence showing that the hospital originally stood on the site of the present King's Cross Station of the Great Northern Railway Company that in 1845 this site, consisting of 4 acres, was taken by that company for their station, whereupon the hospital was removed to Highgate, and afterwards, as building in North London advanced, was removed again.

Mr. A'B. Terrell, for the Charing Cross Hospital, admitted that his claim could not compete with that of the Great Northern Central Hospital.

Mr. Ingle Joyce appeared for the Attorney-General; King's College Hospital was not represented by counsel.

Mr. Justice Kekewich said there was no reason to give Mr. Wright's clients an opportunity of fighting the case. It was extremely unlikely that the testator meant a hospital in Dundee to be the object of his bounty; and there was cogent evidence to show that this was merely a verbal mistake, and that he intended as the object of his bounty the Great Northern Hospital. It was impossible to suppose that if he had meant the King's Cross Hospital, Dundee, he would not have added the word "Dundee." His lordship was therefore of opinion that the Great Northern Central Hospital had made out their claim quite satisfactorily. As to the costs of the application, it was quite clear that the trustees must have their costs (as between solicitor and client) out of the legacy, and not out of the residuary estate, for the dispute arose about nothing else but this legacy, and it would be unfair and a bad precedent to dip into the residue for the payment of costs of litigation arising simply out of the words of this particular bequest. The Attorney-General must also have his costs, but none of the adverse claimants would have theirs.

### DOUGLAS AND ANOTHER v. PHILLIPS.

IN this case, which was tried in the Queen's Bench Division, before Mr. Justice Cave and a Special Jury, according to the *Times* report, the plaintiffs, who were medical practitioners at Hounslow, claimed £105 5s. for medical attendance on the defendant. The defendant, Miss Florence Phillips, denied that the charges were fair and reasonable. Mr. Bucknill, Q.C., Mr. Morton Smith, and Mr. E. E. Humphrys appeared for the plaintiffs; and Mr. E. W. Hansell for the defendant.

Dr. Christian, who was the member of the plaintiffs' firm who attended Miss Phillips, gave evidence of the charges he had made. The bill sued on was made up as follows: Consultation at surgery, 5s.; five journeys to Richmond at £1 1s., £5 5s.; fourteen journeys to London at £3 3s., £44 2s.; twenty-four journeys to Hampton Court at £2 2s., £50 8s.; journey to London at midnight, £5 5s. There was no question as to the first and last items, nor as to the number of visits; the only question was as to the amount charged. Dr. Christian said the defendant went to London to be under Dr. Herschell, and she wished him to come up and attend her. The visits to London from Hounslow and back took him five hours, those to Hampton Court, where Miss Phillips went after she returned from London, took him three hours, and those to Richmond about two hours.

Cross-examined: He based his charges on time and distance, and they were in accordance with those laid down by the British Medical Association. He charged 10s. 6d. per hour over the first half hour, and 10s. 6d. for the first half hour. He had written the defendant a letter in answer to one from her giving mileage, detention, and so much for each visit. In that letter he made out the charges at £96 6s.

Re-examined: These charges mentioned in the letter were made on the terms she desired. They were roughly drawn up, and the mileage was wrong in some cases. The charge he sued upon had been made after advice from other medical men in the neighbourhood.

Several doctors gave evidence that, in their opinion, these charges were reasonable. After one of these, Dr. Gordon, had given evidence, Mr. Justice Cave said: I see you did not kiss the outside of the book; are you of Scotch extraction? Dr. Gordon said he was. Mr. Justice Cave said: Why do you not be sworn according to the Scotch system? I like to see it much better than kissing the book, as even the inside of the book becomes dirty, and generally opens at one place. Some witnesses think judges object to their not kissing the book; I have not the slightest objection, and like to see witnesses sworn in the Scotch fashion.

For the defence, evidence was given by Miss Phillips of the duration of Dr. Christian's visits. In 1895 Dr. Christian paid her four visits at Richmond, and charged only £2 2s.—that is, 10s. 6d. a visit. A doctor from Liverpool also gave evidence that, in his opinion, the charges were rather high.

The jury found a verdict for the plaintiff for £50 16s. 6d. Mr. Hansell asked for judgment for the defendant, as £70 altogether been paid into court. Judgment was given for the defendant, the plaintiff to have the costs up to December 4th, 1896, up to which date only £35 8s. 6d. had been paid into court. An order was made that the plaintiff should take £50 16s. 6d., and the defendant should take the remainder of the £70 out of court.

### THE QUEEN v. THE GENERAL MEDICAL COUNCIL.

IN this case, which came before Mr. Justice Hawkins and Mr. Justice Wright in the High Court of Justice, Queen's Bench Division, on May 7th, a rule *nisi* for a *mandamus* had been obtained by the applicant, Mr. Isidore Spero, against the General Medical Council, commanding them to show cause why they should not place the name of the applicant upon the *Dentists' Register*.

Mr. Muir Mackenzie, according to the report in the *Times*, showed cause against the rule: Mr. Willes Chitty appeared in support of the rule; and Mr. R. W. Turner held a watching brief for the General Medical Council. The Dentists' Act, 1878, Sect. VI. provides that "any person who (*a*) is a licentiate in dental surgery or dentistry of any of the medical authorities; or (*b*) is entitled as hereinafter mentioned to be registered as a foreign or colonial dentist; or (*c*) is at the passing of this Act *bonâ fide* engaged in the practice of dentistry or dental surgery, either separately or in conjunction with the practice of medicine, surgery, or pharmacy, shall be entitled to be registered under the Act." Section 7 provides that a person shall not be registered under the Act under Subsection C of Section VI, unless he produces or transmits to the Registrar before August 1st, 1879, information of his name and address, and a declaration signed by him in the form provided in the schedule of the Act, or to the like effect. Section XXXVII provided that "any person who has been articled as a pupil, and has paid a premium to a dental practitioner entitled to be registered under the Act, in consideration of receiving from such practitioner a complete dental education, shall, if his articles expire before January 1st, 1880, be entitled to be registered under the Act as though they had been in *bonâ fide* practice before the passing of the Act." The applicant was a person whose articles were current in July, 1878, when the Act was passed. His term commenced in April, 1875, and was for three and a half years, thus expiring in October, 1878. He paid £30 premium to a dentist entitled to be registered under the Act, for which he was to receive a complete dental education. He did not apply to be registered before August 1st, 1879, and it was not till 1883 that his application was received. It was refused upon the ground that the applicant failed to make the declaration required by Section VII within the time mentioned, that is to say, before August 1st, 1879. It was contended in support of the rule that Section VII could not have been intended to apply to persons applying to be registered under Section XXXVII, because that would have involved that in some cases pupils would have been entitled to be registered before they were out of their pupilage. It was further pointed out that the form provided in the schedule was not worded in such a way as to be applicable in the case of persons applying under Section XXXVII. Mr. Justice Hawkins, in discharging the rule, said that the person entitled to be registered under Section XXXVII was entitled to be registered "as though he had been in *bonâ fide* practice before the passing of the Act." There was no reason, therefore, why such a person should not be under the same obligation to make a declaration under Section VII. The objection relating to the wording of the form set out in the schedule

was not a good one because the declaration was to be made in the form provided, "or to the like effect." The form could easily be varied so as to make it suitable for the case of a pupil.

Mr. Justice Wright said that he was of the same opinion, but he reserved the point as to obligation of pupils whose articles did not expire till after August 1st, 1879.

### DR. EVANS AND THE KILKEEL BOARD OF GUARDIANS.

At the last Newry quarter sessions, before Judge Orr, Q.C., Dr. Henry Eccles Evans sued the Kilkeel Board of Guardians for £3 3s. for assisting the medical officer of the Kilkeel Workhouse in operating upon two men who had been injured in a quarry accident. It appeared from the evidence that the medical officer of the workhouse, acting in accordance with the Local Government Board circular of May 4th, 1896, called upon the master of the workhouse to procure the assistance of another medical practitioner. The master wrote to Dr. Evans requesting his attendance. Dr. Evans replied that his fee would be £3 3s., and asked who would pay him, to which the master answered that he did not know.

The case being urgent, Dr. Evans came to the workhouse, and was engaged for upwards of an hour in dealing with the two cases; and, when he subsequently furnished his account, the Board of Guardians refused to give him more than a guinea.

On the application of Dr. Evans, the Irish Medical Association took up the case, with the result that Judge Orr gave a decree for the full amount claimed, with costs, including counsel's fee.

We think it would prevent much unnecessary litigation if the Irish Medical Association, as representing the bulk of the Poor-law medical officers, would draw up a scale of fees applicable to such cases. They would not, of course, be binding upon medical men, but, if reasonable, they would probably be accepted by Boards of Guardians and Dispensary Committees.

Irish Poor-law officers are often afraid to demand or contend for reasonable fees lest they should offend their masters, and we think it would be of much assistance to many of them if they knew what would be a reasonable remuneration under ordinary circumstances, either for assisting at operations, midwifery cases, or doing temporary dispensary duty.

### IS SOAP A DRUG? JUDGMENT.

THE case—Houghton, appellant, *v.* Taplin, respondent—came before Mr. Justice Hawkins and Mr. Justice Wright in the High Court of Justice, Queen's Bench Division, on May 7th, by way of an appeal from a decision of Surrey magistrates, under the Sale of Food and Drugs Act, in reference to the sale of what was called "arsenical soap." Dr. Alexander Glen was for the appellant and Mr. Lawless for the respondent.

Mr. Glen, according to the report in the *Daily Chronicle*, said that he appeared for the appellant, who was an inspector appointed by the Surrey magistrates, and he sent his assistant to purchase arsenical soap from the respondent, and that person received soap which contained no arsenic. The seller was summoned for having sold an article which was other than that demanded by the purchaser, and the question was raised whether any offence had been committed under the Sale of Food and Drugs Act—or, in other words, whether the article sold was or was not a drug. The magistrates came to the conclusion that arsenical soap was a drug within the meaning of the statute; but, as the soap sold contained no arsenic, it was not a drug, and therefore they refused to convict the respondent. It was this decision which was appealed against, and the question now raised was whether the justices had arrived at a correct conclusion.

Mr. Lawless appeared to support the decision of the justices.

Mr. Justice Hawkins: The whole question seems to be whether soap was a drug.

Mr. Lawless: And that was a question upon which justices all over the country were differing, and therefore it was desirable that there should be a decision of a superior court upon the matter.

Mr. Glen submitted that soap itself was not a drug, though when mixed with arsenic it had been held to be a drug.

Mr. Justice Hawkins thought that the magistrates had come to a right decision.

The appeal was dismissed with costs.

### MEDICAL FEES.

EDWARD HOLLIER, farmer, of Sketchley, was sued for £11 10s. 6d. for professional services rendered by Dr. Pritchard, of Hinckley, to defendant's son. Mr. Simpson appeared for plaintiff, and Mr. Laing, Hinckley, for defendant. The evidence of plaintiff, as published in the *Leicester Daily Post*, was that in 1892 he was sent for to attend defendant's son, who was very seriously ill at his father's house with pleurisy; he was then 18 years old. He was attended assiduously for four months, and when the father was pressed for payment he repudiated the claim. It was shown in the course of evidence that two collections had been made for the son at the place where he worked, and also at the chapel he attended. This money was given to the father, and 1s. 6d. a week club money. Defendant said his son was only a lodger, and he never ordered Dr. Pritchard to attend. His Honour, in giving judgment for plaintiff, said no class of people in the country, having regard to the expense of their education, the devotion of their services, the attention they had to give, and the fact that they had to be ready to go out at all hours, were so ill rewarded as doctors. He was sorry indeed to see a case like that defended. The father was legally liable, and the son was morally so. Dr. Pritchard had, no doubt, saved the son's life by his constant care, and he regarded it as a piece of great ingratitude to fight the action.

### RECOVERY OF FEES.

GELSEM.—The reply to our correspondent's first question depends in a measure upon whether it could be established that the attendance upon the assistant had been made at the request of the employer, and whether the visits paid by our correspondent himself can be proved. As to whether or not a new trial will be granted this will be for the judge to decide.

In reply to the second question, it may be taken as a general rule that fees in respect of visits made and medicines supplied by an unqualified assistant could not be recovered, but this rule would probably be relaxed if it could be shown that the visits were made and the advice was given under the immediate direction of the qualified man.

In reply to the third question, it seems unreasonable for the claim to have been reduced by so large an amount simply on the ground that two out of the thirty-seven visits were made by an unqualified assistant, and we are inclined to think that there must be some misunderstanding in our correspondent's mind as to the judge's ruling on this point.

If the authority of the defendant for our correspondent's medical attendance on his assistant can be proved, and if it can be established that our correspondent actually paid thirty-five visits himself, we think he might reasonably apply for a new trial.

### HOSPITAL OFFICERS AND FEES FOR INQUESTS.

A. W. R. complains of receiving no fee at the coroner's court after giving evidence respecting the death of a patient who had died in the hospital to which he was one of the medical officers, and had attended the deceased as such.

*** We would refer our correspondent for information on this subject to the BRITISH MEDICAL JOURNAL of April 3rd, p. 884, where, under the heading "Hospital Officers and Fees for Inquests," the law on the question is explained, and the point as regards our correspondent's position is specially referred to.

### UNQUALIFIED ASSISTANTS.

IN reference to the reply to "Stockbridge" in the BRITISH MEDICAL JOURNAL of May 8th, 1897, p. 1198, we are informed by "G." that the facts are these: "G." was summoned, was at home, and reached the house within three minutes of "R.'s" arrival. The man was a patient of "G.'s"; was, indeed, on his visiting list at the time. As he was in a severe epileptic fit it was highly improbable that he consciously asked for "R.'s" services instead of those of his regular medical attendant.

### VERDICT OF THE JURY.

C. R. B. draws our attention to a verdict recently arrived at in the case of an infant who, according to our correspondent's opinion, died from asphyxia from overlying, there being altogether five persons in the bed. The coroner (who was a solicitor), however, advised the jury that the death was from natural causes, and this verdict was recorded. C. R. B. further states that on going to the residence of the coroner afterwards to complain of the way in which his evidence was treated he was grossly insulted, and he asks our advice on the matter.

*** Possibly there was a little warmth on both sides, but if our correspondent still has cause of grievance he can lay his complaint before the Lord Chancellor, who alone holds jurisdiction over coroners. Possibly it may be wiser to let the matter drop. "C. R. B." did his duty, and if the verdict was ridiculous the coroner and jury are alone responsible.

### MEDICAL WITNESSES AT INQUESTS.

M. B. asks our opinion with regard to the powers of the coroner as to the selection of medical witnesses at inquests; and he details a case of a sudden illness and death in which the cause was known to our correspondent, who had been previously attending the deceased person, and diagnosed heart disease, but, when last sent for, had found him dead on his arrival. An inquest was held, and the coroner called upon a medical man residing four miles away to make a *post-mortem* examination and give evidence. Had our correspondent been called, he says, he could have satisfied the jury as to the cause of death without a *post-mortem* examination from his previous knowledge and attendance upon the deceased.

*** As a rule the coroner usually summons the medical man who is called in at the time of death, or may have previously attended the deceased, to give evidence either with or without a *post-mortem* examination. We should hardly think the cause suggested by our correspondent could be the correct one for the coroner's departure from the usual custom. The coroner, however, has the power to issue his *post-mortem* order to such medical man as he may select. On a future occasion it might be advisable for our correspondent to communicate to the coroner previous to the inquest some details of the case, as it is possible the latter may not have heard of the previous attendance till he was holding the inquest.

### THE MEDICAL ACTS AND THE UNQUALIFIED ASSUMPTION OF MEDICAL TITLES.

LEX.—We doubt whether any proceedings could be successfully taken in the case referred to by our correspondent; but, if deemed desirable, the facts might be brought to the attention of the Medical Defence Union.

## MEDICO-PARLIAMENTARY.

### *HOUSE OF COMMONS.*

#### NURSING IN SCOTCH PRISONS.

Mr. HEDDERWICK asked the Lord Advocate whether, under the present Scotch prison system, prisoners on the sick list were dependent for nursing solely upon the offices of any two fellow criminals (without test of knowledge or capacity) who might happen to be placed in the same cell; and if so whether, having regard to the fact that this system had been condemned and abolished both in England and Ireland, he would take

steps to secure its abolition in Scotland also, and the substitution in lieu thereof of adequate provision for the proper nursing of sick prisoners by trained infirmary warders or otherwise.—The LORD ADVOCATE: The hon. member has been misinformed. Special "nurse" warders are appointed where necessary. In other cases nursing duties are performed either by the ordinary warder staff or by specially-selected prisoners. When prisoners are very ill there is power to send them to a hospital with the assent of the sheriff. The existing system works satisfactorily, and I see no reason for altering it.

### PLUMBERS' REGISTRATION BILL.

Mr. LEES KNOWLES moved the second reading of this Bill.—Mr. WHITTAKER took exception to the measure as creating a monopoly. It would mislead the public, as there was nothing in it to prevent employers employing unfit workmen. Apart from these considerations, he considered that the health of the public so far as plumbing was concerned was well looked after by surveyors and sanitary inspectors.—Mr. KNOWLES stated that the Bill was introduced in 1891, and was read a second time in two Parliaments. A Select Committee had unanimously reported in favour of its principle. It had been referred to the Grand Committee on Trade, and certain parts of it had been adopted in consequence of recommendations of the Grand Committee. It had been supported by upwards of fifty public bodies in the country, and it was only by bad luck that it had not been passed through the House long ago. The object of the Bill, which was explained in a memorandum attached to it, was to afford additional safeguards to public health by enabling persons to select workmen who had given evidence of their qualification for plumber work. The Bill did not in any way contemplate a monopoly, and it did not interfere with the rights of non-registered plumbers; it only prevented them from representing themselves to be registered. The attempt was being made to divide competent from incompetent workmen, and the Bill simply gave a guarantee of efficiency.—Dr. FARQUHARSON said it was not fair to say this was an antiquated class of legislation. All they wished to secure was that plumbers should pass through a course of study and examination, so as to place a *cachet* of superiority on their craft, and give the public the general power of escaping from bad plumbing work. He supported the Bill in the interest of public health.—The measure was read a second time and referred to the Standing Committee on Trade.

This Bill has been under the consideration of the Standing Committee of the House of Commons on Trade, Mr. John Ellis presiding. The object of the Bill, as set out in a memorandum attached, is to place the system of registration of plumbers which has been established in the chief centres of Great Britain and Ireland upon a broader and more permanent basis. It proposes that the arrangements for examination for registration shall be placed under a general council, representing the master and operative plumbers, the Plumbers' Company, and the chief educational and sanitary bodies of the United Kingdom, with branch councils in Scotland, Ireland, and Wales. It is proposed also to give the council power to promote technical education among plumbers, and to exercise discipline among those whose names are placed on the register. The Bill does not interfere in any way with the rights of non-registered plumbers, but prohibits such plumbers representing themselves as registered. Clauses 1 to 10 were considered, and the Committee adjourned.

### WATER SUPPLIES.

Mr. BROADHURST asked the President of the Local Government Board whether he would consider the desirability of taking such action as might be necessary to prevent any one local authority monopolising the sources of water supply from the great watershed of the country, in order to ensure equal opportunity for all communities to avail themselves of a share in this great and natural necessity of the people.—Mr. CHAPLIN: I am not aware that any local authority is seeking to monopolise the sources of water supply from the great watershed of the country, nor am I quite clear as to what watershed it is that the hon. member refers to, but such a scheme as that suggested would require express Parliamentary powers, and I have no doubt that Parliament would give any such scheme very careful consideration before assenting to it, and would have due regard to the interests of communities other than those of the authority by whom it was proposed that the water supply should be appropriated.

### THE REPORT OF THE VACCINATION COMMISSION.

Mr. MONK asked the President of the Local Government Board whether the sixth volume of the Report of the Royal Commission on Vaccination, containing the evidence taken so long ago as in 1891, was in the hands of the printers; and, if so, whether he was in a position to state when it would be delivered to members.—Mr. T. W. RUSSELL: As I stated in reply to a previous question, I am informed that the volumes are now in the printers' hands, and will be issued as soon as the lithographs accompanying them are ready. I can give no more definite information on the subject.

### VIVISECTION.

Mr. MACNEILL asked the Home Secretary whether the London Hospital Medical School was registered under 39 and 40 Vic., cap. 77, in the years 1895 and 1896, for the performance of experiments on living animals; whether the Government Inspector, in his report dated July 5th, 1896, stated "that the names of all those 'licensed places' to which licensees were accredited are given in the tables;" and whether, having regard to the fact that the London Hospital had been omitted from the tables of the Government Inspector's Report for the year 1895, the Home Secretary would order an amended Report of the Experiments on Living Animals to be issued which should be accurate.—The HOME SECRETARY: The answer to the first two paragraphs is in the affirmative. There has been no inaccuracy, however, in the return; the hon. member will find the London Hospital mentioned in the footnotes to Table I, on pages 11 and 15. I must certainly decline to issue an amended table; but, to meet what I imagine are the hon. member's wishes, I have directed that in future returns all registered premises shall appear in the body of the table, whether any experiments were performed in them or not.

### THE PARIS DISASTER.

Mr. AIRD asked the Home Secretary if, having regard to the terrible calamity in Paris, he would be willing to appoint a Committee or a Commission to consider the desirability of some further measures being taken for the safety of the public in this country, not only for theatres, but for public meetings and bazaars.—Mr. FARDELL: Before my right hon. friend answers the question I desire to supplement it with another, of which I have given him private notice, namely, whether he will consider during the Parliamentary recess the advisability of introducing in the course of the next session of Parliament a Bill to give effect to the report of the Select Committee of the House in 1892 on Theatres and Places of Entertainment, and so extending the provisions of the Bill as to bring within its scope all places, whether licensed or not, which are used or intended to be used for any purpose where the public are invited to assemble.—The HOME SECRETARY: I believe this important question has already been considered by more than one Committee, including the Select Committee of 1892, and I cannot say that at present it seems to me to be necessary to have a fresh inquiry. I will carefully consider, however, the question of introducing in another session legislation with the view of securing the public so far as may be possible against the occurrence of any such terrible disaster as that which happened last week in Paris.—Mr. AIRD: May I ask the right hon. gentleman whether he is aware that at the present time there is no control whatever as regards inspection of bazaars against fires?—Sir M. W. RIDLEY: I am quite aware that there is no control except over places which happen to be licensed for other purposes, when it is possible to attach to the licence a condition which insures some security for life against fire. But it is a very difficult question upon which to legislate, and I cannot see at present that, as far as regards the information which we have, and which has been supplied by the various committees of inquiry, there is any necessity for further investigation. That there ought to be some legislation I think is very possible, and to that I am prepared to give my most earnest attention.

### PULMONARY DISEASES IN THE NAVY.

Captain PHILLPOTTS asked the First Lord of the Admiralty whether, out of a batch of 80 men surveyed at Haslar Hospital, and found unfit for further service in Her Majesty's navy, the majority were young stokers with less than six months' service, who were incapacitated by pulmonary complains; and if the Government had any plan to check the development of such diseases among this class.—Mr. GOSCHEN: I have seen a statement to this effect, but it is entirely incorrect, and I regret its publication as tending to create apprehensions for which there is no foundation. The statement suggests that out of 80 men surveyed, the majority were young stokers with less than six months' service, incapacitated by pulmonary complaints. As a matter of fact, out of 76 men and boys who were invalided at Haslar last month on the occasion in question, only 18 were stokers, and of these, both young and old, only 8 were found unfit on account of pulmonary disease. Of these 8, 5 were 22 years of age and upwards.

### COLONIAL SURGEON IN THE FALKLAND ISLANDS.

Mr. MACNEILL: I beg to ask the Secretary for the Colonies whether the Governor of the Falkland Islands has forwarded a despatch to the Colonial Office urging the Government to abolish the office of Colonial Surgeon in the Falkland Islands, and to establish in substitution thereof two official medical posts. Whether the Hon. Samuel Hamilton, a member of the Legislative Council, who has filled for the last eighteen years the post of Colonial Surgeon in the Falkland Islands, has forwarded a memorial to the Colonial Secretary, in which he has stated his views, which are directly opposed to the recommendation of the Government. Whether he has yet arrived at a decision on the matter; and, whether, having regard to the length of Dr Hamilton's service and the efficient discharge of his duties as Colonial Surgeon, care will be taken in the event of any alteration in the medical establishment of the Falkland Islands to safeguard his interests, and to secure him full compensation for any loss such alteration may entail.—Mr. CHAMBERLAIN: No such despatch has reached me, nor has the matter been under my consideration.

### RIVER POLLUTION IN SCOTLAND.

Mr. WEIR asked the Lord Advocate, whether, having regard to the fact that the water of the River Nethy, in the Badenoch district of Inverness-shire, had been rendered unfit for drinking purposes by the discharge of sewage from several lodges and large farms above the village of Causer within the last 20 years, he would state why the Local Government Board for Scotland had failed to require the local authority to take action against those who were responsible for the pollution of the water of the river; whether he was aware that the local authority had taken action to compel the villagers, who for years had been dependent on the River Nethy for drinking water, to supply the village with water from another source a mile distant; and whether the Local Government Board for Scotland would require the local authority to take steps to free the water of the River Nethy from pollution.—The LORD ADVOCATE: The Local Government Board has frequently had under consideration the question of the water supply of the village of Causer. They have urged the local authority to take steps to provide a proper supply, and the local authority has taken proceedings against the inhabitants with this object. The Local Government Board has not required the local authority to take steps to have the river freed from pollution, as the Board has no power to do so. Moreover, it is not certain that the river can be made a suitable source of supply.

### THE ALDERSHOT CAMP SEWAGE FARM.

Sir WALTER FOSTER asked the Under Secretary for War whether he was aware that the Aldershot Camp sewage farm, although much improved in its general condition, was still unsatisfactory as regarded the character of the effluent; and whether it was the intention of the authorities to expend the extra money necessary to render the present farm successful, or whether it was intended to remove the operations to another site at a greater distance from the camp.—Mr. BRODRICK: This subject, which is a very difficult one, and has been discussed with reference to the treatment of the sewage of the town as well as of the camp, is still under consideration, and there are some points which are not yet cleared up; but the Secretary of State hopes to arrive at a decision very shortly.

### THE DUBLIN EYE AND EAR HOSPITAL BILL.

The Victoria Eye and Ear Hospital, Dublin, Bill, has been read a first time, and referred to the Examiners of Petitions for Private Bills.

### PETITIONS.

The National Association of British and Irish Millers have petitioned against the Boiler Inspection and Registration Bill, the Sanitary Institute against the Plumbers' Registration Bill (which is now before the Grand Committee on Trade), and the Sanitary Institute against the Rivers Pollution Prevention Bill.

### NOTICES.

Sir JOHN BRUNNER will ask the President of the Local Government Board how many local authorities have adopted the Notification of Infectious Diseases Act, and what proportion that number is of the whole number empowered to adopt it.

Dr. FARQUHARSON proposes to ask the First Lord of the Treasury whether it is his intention to introduce during the present session the Bill for the establishment of reformatories for inebriates, mentioned in the Queen's Speech; and, if he does so, whether he will include in it arrangements for the reception of habitual offenders in labour settlements, as recommended in the Departmental Committee (1895) on Habitual Offenders, Vagrants, Beggars, Inebriates, and Juvenile Delinquents (Scotland), and the Report from the Departmental Committee on Prisons (1895).

Mr. HAZELL intends to ask the First Lord of the Treasury whether his attention has been called to the Midwives' Registration Bill now waiting its second reading in this House. Whether he is aware that the Bill carries out the unanimous recommendations of the Select Committee of the House of Commons on the subject, and that Bills with this object have been introduced time after time into Parliament, but that they have been dropped through failure to secure parliamentary time. And whether, in view of the large amount of mortality and widespread suffering both of mothers and of infants which the Committee report, the Government will give time during the present session for the discussion of the Bill now before the House; and, if this be not possible, whether they can hold out hope of its being made a Government measure next session.

Sir WILLIAM WEDDERBURN has notified his intention to ask the Secretary of State for India whether he is aware that there is a very general feeling in India that the high duty on salt should be reduced for this year at least, in view of the sufferings of the poorer classes from famine, the loss of revenue caused thereby being included in the cost of famine relief: Whether he is aware that such reduction can be effected by an executive order of the Government of India? And whether he will direct the Government of India to issue such an order?

Mr. STUART-WORTLEY will ask the Secretary of State for India whether he has received any representative memorials or petitions from the general public on the subject of the proposals contained in his despatch of March 25th, 1886, for improving the health of the British troops in India; and if so, whether he has any objection to make them public?

### BILLS DEFERRED.

The second reading of the Public Health Acts Amendment Bill has been deferred until Wednesday, June 2nd; the second reading of the Cemeteries Rating Bill till Wednesday, May 19th; the second reading of the Bakehouses Bill till Thursday, May 27th.

# UNIVERSITIES AND COLLEGES.

## UNIVERSITY OF CAMBRIDGE.

THIRD EXAMINATION FOR MEDICAL AND SURGICAL DEGREES.—The following candidates have satisfied the examiners:

*Part II. (Medicine).*—A. M. Barraclough, B.A., Chr.; H. J. Bumsted, B.A., John.; F. P. Cayley, B.A., Trin.; H. G. Cooper, B.A., Emm.; Delbruck, B.A., King's; W. B. Dove, B.A., Christ's; W. B. Heywood, B.A., Emm.; Houseman, B.A., Cla.; Hughes, B.A., Gonv. and Cai.; L. T. R. Hutchinson, B.A., Trin.; W. McDougall, B.A., Joh.; Mackenzie, B.A., Gonv. and Cai.; J. C. Muir, B.A., Emm.; W. Myers, B.A., Gonv. and Cai.; Pendlebury, B.A., Pemb.; Porter, B.A., Emm.; Robinson, B.A., Gonv. and Cai.; Stead, B.A., Gonv. and Cai.; B. R. Turner, B.A., Emm.; Twigg, B.A., Christ's; F. F. Ward, B.A., H. Selw.; Watson, B.A., Pet.

MATRICULATION.—On May 7th twenty-five additional freshmen, including one "advanced student," were matriculated. This brings the entry for the academical year up to about 950.

APPOINTMENT.—Dr. A. A. Kanthack, Deputy Professor of Pathology, has been appointed Pathologist to Addenbrooke's Hospital in the place of Dr. E. Lloyd Jones, resigned.

SCHOLARSHIPS AND EXHIBITIONS.—On November 2nd, 1897, examinations for entrance scholarships and exhibitions in Natural science will be held at St. John's, Trinity, Pembroke, Caius, King's, Jesus, Christ's, and Emmanuel Colleges: on November 30th at Peterhouse and Sidney Sussex: and on December 7th at Clare and Trinity Hall. Information as to the conditions may be obtained on application to the respective College Tutors.

## UNIVERSITY OF LONDON.

MEETING OF CONVOCATION.

A GENERAL meeting of Convocation was held at the University Building on May 11th. Mr. E. H. Busk, Chairman, presided.

Mr. H. E. Allen was reappointed Clerk of Convocation.

Dr. J. R. Bradford presented the report of the Annual Committee, and moved its reception. Dr. T. Stevenson seconded the resolution, which was adopted.

Dr. J. R. Bradford moved "That the whole question of the Intermediate M.B. Examination be referred to the Standing Committee for consideration and report."

Mr. J. S. N. Boyd seconded the propositions.

Dr. T. Stevenson moved the addition of the words "with power to communicate with the Senate thereon."

Professor Silvanus P. Thomson seconded the amendment, which was carried.

The resolution, with the addition in question, was adopted.

A resolution requesting the Senate to instruct the Registrar to lay on the table of the House the minutes of such meetings of the Senate as have taken place since the previous meeting of Convocation found no seconder, and was lost.

A resolution "That Astronomy be introduced as one of the optional scientific subjects at the Matriculation Examination" was defeated by a resolution "That the House pass to the next business."

The Standing Committee was appointed. The nine elected candidates in the Faculty of Medicine were: J. S. N. Boyd, M.B., B.S.; J. R. Bradford, M.D., D.Sc.; H. G. Howse, M.S., M.B.; H. M. Murray, M.D.; Sydney Ringer, M.D.; M. A. D. Scharlieb, M.D., M.S.; T. W. Shore, M.D., B.Sc.; N. L. C. Tirard, M.D.; and H. J. Waring, M.S., B.Sc.

The House then adjourned.

### PRESENTATION DAY.

On May 2nd the prize winners and graduates of the past year were presented to the Chancellor (Lord Herschell), from whom each of them received his or her medal or certificate. In the B.Sc. pass and honours list, of 82 successful candidates 18 were women. For the M.B. and B.S., of 23, 2 were ladies. For the M.B. pass and honours, of the 30, 5 were ladies: and for the B.S., there were 7 men and 2 ladies. Seven men and only 1 lady took the M.S. degree; for the M.D. degree there were 35 candidates, all men.

After the distribution the Chancellor congratulated those who had gained prizes and degrees. Speaking of the proposed reconstitution of the University, he hoped that some step might soon be taken. The discussions which had taken place might, he thought, lead to approximation between those who appeared to stand asunder on this subject. Probably the questions at issue might better be solved by an independent body than by mutual concessions, since either side might concede something which ought not to be conceded—a danger which an independent body might avoid. As to the fear that the quality of the degrees might be thereby lowered, he could say that those members of the Senate who were favourable to change were the last men who would wish to lower the degree standard. But there was a real danger; for nothing could be more fatal to the prestige and influence of the University than that there should arise by its side another university in London which should teach as well as examine, and if the choice lay between such a second university and the modification of the existing University of London, surely the latter alternative was preferable. The feeling in favour of a teaching university was so strong that in one form or another it must succeed in its aim; surely it was wiser to look facts in the face than blindly to oppose the inevitable march events. He referred also to two other subjects. There had been a marked diminution in the number of matriculations during the last year—about 300. This was partly explained by the increase of late years in the number of universities, each of which attracted students from its own district. Lastly, the Senate had been carefully revising the studies which formed the curriculum of the University with the object of bringing the examinations to the level of present knowledge and present needs.

Sir John Lubbock, M.P., spoke hopefully of the prospects of the important question of secondary education.

The proceedings then closed.

The following Examiners for the year 1897-98 were elected at the meeting of the Senate held April 28th:

*Chemistry.*—W. R. Dunstan, F.R.S., and W. Ramsay, F.R.S.
*Botany and Vegetable Physiology.*—J. R. Green, F.R.S., and J. W. H. Trail, M.D., F.R.S.
*Comparative Anatomy and Zoology.*—F. E. Beddard, F.R.S., and W. B. Benham, D.Sc.
*Practice of Medicine.*—W. H. Allchin, M.D., and F. Taylor, M.D.
*Surgery.*—W. Anderson, F.R.C.S. and H. Morris, M.A., M.B.
*Anatomy.*—D. J. Cunningham, M.D., F.R.S., and Professor G. D. Thane.
*Physiology.*—E. A. Schäfer, F.R.S., and W. Stirling, M.D.
*Obstetric Medicine.*—G. E. Herman, M.B., and P. Horrocks, M.D.
*Materia Medica and Pharmaceutical Chemistry.*—S. Phillips, M.D., and W. H. White, M.D.
*Forensic Medicine.*—J. D. Mann, M.D., and T. Stevenson, M.D.
*State Medicine.*—E. Seaton, M.D., and A. Newsholme, M.D.
*Mental Physiology.*—S. Alexander, M.A., and T. C. Shaw, M.D.

## UNIVERSITY OF EDINBURGH.

FINAL EXAMINATION.—The Clinical Medicine Examinations of the Final for M.B. and C.M. began on Tuesday, May 4th. The Written Examinations begin on Monday, June 21st, the Final Examinations begin on Wednesday, June 23rd, and the Clinical Surgery Examinations on the same day.

## UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE.

AT the meeting of the Council of the University College of South Wales and Monmouthshire held recently at Cardiff a letter was read from Professor Alfred Hughes, of King's College formerly Professor of Anatomy at Cardiff, enclosing a cheque for £10 towards providing books for the department of anatomy in the College. A cordial vote of thanks was adopted. The report of the Dean of the Medical Faculty showed that the number of students in the Faculty of Medicine had increased during the year 1896-97 from 40 to 47, the increase in the number of women students being from 2 to 5. Students were preparing for the M.B. degree of the University of London, for the diplomas of the Conjoint Board, and for the medical degree of the University of Edinburgh.

## ROYAL UNIVERSITY OF IRELAND.

SECOND EXAMINATION IN MEDICINE.—The examiners have recommended that the following candidates be adjudged to have passed this examination:

*Upper Pass.*—M. Curran, Catholic University School of Medicine: F. A. Dreaper, B.A., School of Medicine, Edinburgh; W. D. Hamill, B.A., Queen's College, Belfast; R. M'Carrison, Queen's College, Belfast; W. M'Carthy, Queen's College, Cork; P. G. Moran, Catholic

University School of Medicine; W. Starkey, Catholic University School of Medicine; J. Torpey, Queen's College, Cork.

The above candidates may all present themselves for the Further Examination for Honours, commencing Saturday, May 8th, at 9.30 A.M.

*Pass Division.*—W. J. Bannister, Queen's College, Cork; J. H. Barbour, Queen's College, Belfast; W. Buckley, Queen's College, Belfast; Emily M. Cross, Queen's College, Belfast; J. J. Crowley, B.A., Queen's College, Cork; J. P. Dee, Queen's College, Cork; B. R. Dinnis, Queen's College, Cork; M. J. Forde, Queen's College, Galway; W. C. Gavin, Catholic University School of Medicine; W. B. Heagerty, Queen's College, Cork; J. J. Lynch, Queen's College, Cork; S. Park, Queen's College, Belfast; J. J. Robb, Queen's College, Belfast; H. F. Shepherd, Queen's College, Belfast; M. G. Taaffe, Catholic University School of Medicine; J. Tierney, Queen's College, Belfast; J. Twohig, Queen's College, Cork.

## CONJOINT BOARD IN IRELAND.

THIRD PROFESSIONAL EXAMINATION.—Candidates have passed this examination as undernoted:

*Completed the Examination.—Honours Division:* F. J. Palmer. *Pass Division:* B. B. Burke, C. W. Caldwell, J. Campbell, A. A. Cooper, B. A. Craig, Miss L. M. C. Cummins, R. T. Fox, G. H. Kearney, N. J. Keller, W. F. Kennedy, C. A. Kenny, D. Massey, E. M. J. O'Farrell, D. J. O'Meara, D. J. O'Regan, F. J. W. T. O'Rorke, B. Scribner, A. J. White, T. F. White.

*In Anatomy.*—W. S. Burke, H. H. A. Carter, F. C. Fowler, H. E. Howley, R. A. O'Donovan, V. P. Tighe, F. W. Woods.

*In Physiology.*—H. E. Howley.

*In Medicine.*—J. C. Baskin, W. S. Burke, E. E. Roberts, V. P. Tighe.

*In Surgery.*—F. A. Benson, H. E. Howley, E. E. Roberts, C. J. Vahey.

*In Therapeutics.*—C. J. Vahey.

*In Pathology.*—G. Kennedy J. Sinclair, C. J. Vahey.

*In Forensic Medicine.*—F. A. Benson, R. M. Fisher, G. R. McDonald, E. E. Roberts, J. Sinclair.

FOURTH PROFESSIONAL EXAMINATION.—Candidates have passed this examination as undernoted:

*Completed the Examination.*—H. E. V. Blake, J. J. F. Bourke, J. G. Cookman, H. E. Eardley, J. R. Hewetson, J. O'M. Irwin, W. J. Keane, G. G. H. Moorhead, J. D. Murdoch, Thos. J. Potter, C. J. Powell, A. W. Sampey, V. B. Taylor.

*In Medicine.*—W. M. Jones, J. M. Longford, B. R. Philipson.

*In Surgery.*—J. M. Longford.

*In Midwifery.*—W. C. W. Glenny.

*In Ophthalmology.*—D. F. Clarke, W. M. Jones, C. J. Odevaine, B. R. Philipson.

*In Hygiene, etc.*—L. E. Fannin.

T. Carr, M.D.Durh., M.R.C.S.Eng., etc., has passed the Examination for the Diploma in State Medicine.

## ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE following Examiners have been elected for one year:

*Anatomy.*—J. Barton, F.R.C.S.; A. Fraser, F.R.C.S.

*Surgery.*—A. Chance, F.R.C.S.; R. G. Patteson, F.R.C.S.

*Physiology and Histology.*—J. A. Scott, F.R.C.S.; C. Coppinger, F.R.C.S.

*Biology.*—J. A. Scott, F.R.C.S.; G. B. White, F.R.C.S.

*Pathology.*—E. H. Taylor, F.R.C.S.; J. J. Burgess, F.R.C.S.

*Midwifery and Gynæcology.*—R. T. Hearn, F.R.C.S.

*Ophthalmology.*—P. W. Maxwell, F.R.C.S.; J. B. Story, F.R.C.S.

*Dental Surgery and Pathology.*—A. W. W. Baker, F.R.C.S.; R. T. Stack, F.R.C.S.

*Mechanical Dentistry.*—S. J. Bishop, L.D.S.R.C.S.I.; G. W. Yeates, L.D.S.R.C.S.I.

*Chemistry and Physics.*—J. D. Pratt, F.R.C.S.; E. Lapper, F.R.C.P.

*Sanitary Law and Vital Statistics.*—D. E. Flinn, F.R.C.S.

*Bacteriology.*—J. A. Scott, F.R.C.S.

# PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

## HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,562 births and 3,585 deaths were registered during the week ending Saturday last, May 8th. The annual rate of mortality in these towns, which had been 18.8 and 18.3 per 1,000 in the two preceding weeks, further declined to 17.0 last week. The rates in the several towns ranged from 11.8 in Norwich, 12.0 in Cardiff, 12.5 in Croydon, and 12.6 in Derby to 25.6 in Manchester, 25.8 in Bolton, 25.9 in Salford, and 30.4 in Preston. In the thirty-two provincial towns the mean death-rate was 18.1 per 1,000, and exceeded by 2.6 the rate recorded in London, which was only 15.5 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.5 per 1,000; in London the rate was equal to 1.3 per 1,000, while it averaged 1.7 in the thirty-two provincial towns, among which the highest zymotic rates were 2.9 in Burnley, 3.2 in Manchester, 7.3 in Bolton, and 7.6 in Salford. Measles caused a death rate of 1.2 in Cardiff, 1.5 in Manchester, and 5.1 in Salford; scarlet fever of 1.2 in Salford, and whooping-cough of 1.1 in Plymouth, in Bristol, and in Oldham, and 1.2 in Manchester. The mortality from "fever" showed no marked excess in any of the large towns. The 43 deaths from diphtheria in the thirty-three towns included 26 in London, 4 in Birmingham, and 2 in Burnley. No fatal case of small-pox was registered during the week, either in London or in any of the thirty-two large provincial towns. There were 11 cases of small-pox under treatment in the Metropolitan Asylums Hospitals on Saturday last, May 8th, against 11, 7, and 12 at the end of the three preceding weeks; 3 new cases were admitted during the week, against 6 in the preceding week. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 2,406, 2,442 and 2,380 at the end of the three preceding weeks, was 2,385 on Saturday last; 231 new cases were admitted during the week, against 216, 269, and 223 in the three preceding weeks.

## HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, May 8th, 979 births and 616 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 22.6 and 22.0 per 1,000 in the two preceding weeks, further declined to 20.7 last week, but was 3.7 per 1,000 above the mean rate during the same period in the thirty-three large English towns. The lowest rates in the eight Scotch towns were 13.1 in Leith and 15.0 in Dundee, and the highest rates 22.0 in Edinburgh and 23.3 in Glasgow. The zymotic death-rate in these towns averaged 3.1 per 1,000, the highest rates being recorded in Glasgow and Edinburgh. The 220 deaths registered last week in Glasgow included 15 from measles, 5 from diphtheria, 21 from whooping-cough, 3 from "fever," and 6 from diarrhœa. Twelve fatal cases of measles and 9 of whooping-cough were recorded in Edinburgh.

## POWER OF SANITARY AUTHORITY TO CLOSE SCHOOLS.

WE learn from the *Scarborough Gazette* that the Medical Officer of Health for the Rural District Council ordered a school at Cloughton to be closed on account of an outbreak of infectious disease. Some of the members of the School Board thought that they ought to have been consulted before the closure of the school, and they questioned the power of the medical officer of health to do so without the consent of the managers. The writer of the paragraph in our contemporary having consulted the Clerk to the Scarborough School Board, states that the medical officer can close a school "without consulting anyone on the matter," and that if schools are so closed by order of the medical officer of health the Education Department allow the full grant, while, on the contrary, if not so closed they may stop the grant. He points out that managers will be gainers in the long run by closing their schools quickly where such necessity arises.

Our contemporary's position is in the main correct; there is, however, one slight inaccuracy. Nothing in the Public Health Act specifically authorises the sanitary authority or their medical officer of health to close any school, but Article 88 of the Day School Code of the Education Department, 1896, runs as follows, and it is, perhaps, worth while to quote it in full for the sake of any health officers who may be in doubt as to their exact powers:

"The managers must at once comply with any notice of the sanitary authority of the district in which the school is situated, or any two members thereof acting on the advice of the medical officer of health, requiring them for a specified time, with a view to preventing the spread of disease, or any danger to health likely to arise from the condition of the school, either to close the school or to exclude any scholars from attendance, but after complying they may appeal to the Department if they consider the notice to be unreasonable."

While, therefore, the medical officer of health alone has no power of closing a school, any two members of his authority, acting on his advice, may do so without waiting for the ordinary meeting of the Sanitary Authority. The object of the Education Department is evidently to facilitate the health officer's prompt action in case of an outbreak of infectious disease. We presume that in most cases the medical officer of health would communicate with the school authorities before putting these powers in action, but there is no need for him to delay action until he has convinced the school managers of its necessity.

## AN ELASTIC LAW.

PUBLIC VACCINATOR asks whether he has any redress under the circumstance of parents in default in respect of the non-vaccination of their children, and living in his district, having secured the vaccination of their children (under threat of prosecution) at the hands of a medical practitioner in another district, such practitioner only making one insertion on a child's arm. "Public Vaccinator" contends that these defaulting parents should properly have brought their children to him, and that the one-mark vaccination secured is an evasion of the law. We sympathise with our correspondent, but even more deeply with the children, who have been thus imperfectly protected against small-pox. The instance is not a solitary one, evidence not being wanting to show that there is much one-mark vaccination performed, which brings discredit upon the law owing to its not affording efficient protection in the face of small-pox infection. Unfortunately, the law is sufficiently elastic to allow of inefficiency being chronicled as "successful."

## PUBLIC VACCINATOR'S APPOINTMENT.

VACCINATOR writes to say he was appointed public vaccinator in October last on the death of his late partner, and that he has just been incidentally informed by the clerk to the guardians that his district has been assigned to another public vaccinator. He asks whether he is now (by law) the public vaccinator of the district in question, and, if not, whether he ought not to have received formal notice of the "conclusion of his appointment," and further whether he is not entitled to compensation.

*** Although our correspondent says he was appointed public vaccinator, he does not say that he signed any contract to act as such. If he has done so, this can only be terminated by a month's notice sent to him in writing by direction of the guardians. If he has not signed any contract he has never been properly engaged as public vaccinator and cannot claim any notice in reference to the appointment or compensation in any form.

A COMMITTEE has been formed at Stuttgart for the collection of funds for a testimonial to M. Henri Dunant, the founder of the Red Cross Association, and promoter of the Geneva Convention.

# MEDICAL NEWS.

H.R.H. Princess Christian will present the certificates of appointment to the members of the Army Nursing Staff at the Royal United Service Institution on Wednesday, May 19th, at 5 P.M.; the Marquis of Lansdowne, Secretary of State for War, will preside.

Muzzling and Rabies.—At the recent monthly meeting of the Council of the Royal Agricultural Society of England it was reported: "The gradual extension of the repressive measures against rabies appears to have produced good results. Only 13 cases were reported from eight counties during the four weeks, 4 in Lancaster, 2 in London, 2 in Hereford, and 1 in each of five other counties."

The annual meeting and May dinner of the Aberdeen University Club, London, will be held at the Holborn Restaurant, on Wednesday, May 19th, at 7 P.M. Mr. John William Crombie, M.P., for Kincardineshire, will be in the chair, and those desirous of being present should communicate with one of the honorary secretaries, Mr. J. G. Laing, B.A., 2, Brick Court, Temple, E.C., or Dr. James Galloway, 54, Harley Street.

Aberdeen Ophthalmic Institution.—A special meeting of the managers of the Aberdeen Ophthalmic Institution was held recently to receive deputations from the Royal Infirmary and the Dispensary, with a view to the amalgamation of the Ophthalmic Institution with the Infirmary and Dispensary. After the deputations were heard, the meeting decided to continue the Ophthalmic Hospital as a separate institution. For the vacancy created by the removal of Dr. M'Kenzie Davidson to London there were four candidates, and on a vote Dr. Galloway was appointed to the post.

The next general meeting of the Medico-Psychological Society of Great Britain and Ireland will take place at 11, Chandos Street on May 18th at 4 P.M., under the presidency of Dr. Julius Mickle. Dr. Mott will read a paper, with lantern demonstration, on Some Points concerning the Degeneration of the Neuron. Dr. Goodall will describe an Exact Method for Recording Deformities of the Hard Palate, and Dr. Seymour Tuke will read a medico-legal note on stay of action by application to a judge of the High Court, under Section cccxxx of the Lunacy Act, 1890. The members will dine together at 6.30 P.M. at the Café Royal, Regent Street.

Lord Herschell, speaking in support of the appeal of the East London Hospital for Children, Shadwell, at its festival dinner on May 11th, observed that the real point to which hospital managers should turn their attention was how to induce these well-to-do persons who did not now support hospitals to become subscribers. He had calculated that the annual incomes of persons paying income tax must amount to at least £500,000,000, and it was obvious that a very small gift from each such person would place all the charities of the country in a position of security.

The Jubilee stamps for the benefit of the Prince of Wales's Hospital Fund will be on sale to the public on Tuesday next, May 18th, and will be obtainable of all stationers and booksellers. They are intended to give small subscribers a convenient receipt for their subscriptions, and one which they can retain as a memento of the Diamond Jubilee. The stamps, which are of the value of one shilling and half a crown, are of beautiful design, the central figure being taken from Sir Joshua Reynolds's well-known picture of "Charity." This figure appears on a white ground surrounded by an ornamental border bearing the value of the stamp, and on the top the words "1837—the Queen's Commemoration—1897," and below "The Prince of Wales's Hospital Fund," with a facsimile of the Prince's signature.

Pathological Society of London.—The Council of the Society will propose at the annual general meeting on May 18th for election as President of the Society, Dr. Joseph Frank Payne. The other officers to be proposed are as follows:—*Vice-Presidents:* *Radcliffe Crocker, M.D., William Richard Gowers, M.D., F.R.S., *Frederick Taylor, M.D., Samuel West, M.D., Arthur E. J. Barker, *Stanley Boyd, B.S., Robert William Parker, Samuel G. Shattock. *Treasurer:* Sidney Coupland, M.D. *Honorary Secretaries:* Richard G. Hebb, M.D., *D'Arcy Power, M.B. *Council:* *John Abercrombie, M.D., *J. Rose Bradford, M.D., F.R.S., Julius Dreschfeld, M.D., *William Hunter, M.D., Hector Mackenzie, M.D., Hubert Montague Murray, M.D., G. Newton Pitt, M.D., F. Charlewood Turner, M.D., A. F. Voelcker, M.D., *J. W. Washbourn, M.D., James Berry, M.B., Anthony Bowlby, Raymond Johnson, M.B., *H. A. Lediard, M.D., *John R. Lunn, Bilton Pollard, M.B., H. Betham Robinson, M.S., W. G. Spencer, M.S., *J. H. Targett, M.S., *Edgar W. Willett, M.B. An asterisk is appended to the name of those who were not on the Council or did not hold the same office during the preceding year.

The annual dinner of the Volunteer Medical Staff took place on Wednesday, May 5th, at Limmer's Hotel, under the presidency of Sir William Mac Cormac. The Director-General and the Principal Medical Officer of the Home District were present, and most of the brigades were represented either by the Brigade-Surgeon or one or more of the regimental medical officers. After the toasts of "The Queen" and "The Prince of Wales" had been proposed from the chair, Sir Joseph Fayrer proposed that of "The Army, Navy, and Auxiliary Forces," and in the absence of Sir Francis Grenfell Colonel Alt, of the 22nd Middlesex R.V., responded. The toast of "The Volunteer Medical Association" was proposed by the Director-General, who in the course of his remarks alluded to the improved organisation of the volunteer medical service and to the fact that many suggestions had emanated from the Association and had been acted upon, whilst others were under consideration now. The toast of "The Visitors" was proposed by Brigade-Surgeon-Lieutenant-Colonel Danford Thomas, and responded to by Surgeon-Colonel O'Farrell; that of "The Chairman" was given by Brigade-Surgeon-Lieutenant-Colonel Giles. A programme of music arranged by Surgeon-Captain C. G. Grant, of the 24th Middlesex R.V., added much to the enjoyment of those present.

## MEDICAL VACANCIES.

The following vacancies are announced:

BATH GENERAL OR ROYAL MINERAL WATER HOSPITAL.—Resident Medical Officer. Applications to the Secretary by May 24th.

BRADFORD INFIRMARY.—Junior House Surgeon, unmarried, doubly qualified. Applications, endorsed "Junior House-Surgeon," by May 24th.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY, Chesterfield.—Junior House-Surgeon. Salary, £50 per year, with board, apartments, and laundress. Applications to the Secretary, at the Hospital, by May 20th.

COUNTY ASYLUM, Whittingham, Preston. *Locum Tenens* for about six months. Two guineas a week. Applications to the Medical Superintendent.

GLASGOW ROYAL INFIRMARY, GLASGOW OPHTHALMIC INSTITUTION, ST. MUNGO'S COLLEGE.—Surgeon to the Glasgow Ophthalmic Institution; Ophthalmic Surgeon to the Dispensary of the Glasgow Royal Infirmary; Consulting Ophthalmic Surgeon to the Wards of the Infirmary; and Professor of Ophthalmology in St. Mungo's College. By agreement the same person will be appointed to all these offices. Salary £100 per annum, with share of students' fees. Applications to Henry Lamond, Secretary, 93, West Regent Street, Glasgow, by May 25th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, Bloomsbury.—Resident Medical Superintendent. Appointment for one year, subject to annual re-election for a period of three years. Salary, £105 per annum, with board and residence in the hospital. House-Surgeon to Out-Patients (non-resident). Appointment for six months, but eligible for a second term of office. Salary, 25 guineas. Applications to the Secretary for the former appointment by June 30th, and for the latter by June 1st.

HOSPITAL FOR WOMEN, Soho Square.—Registrar. Appointment for twelve months. Honorarium, 25 guineas. Applications to David Cannon, Secretary, by May 22nd.

HUDDERSFIELD INFIRMARY.—Junior House-Surgeon. Salary, £40 per annum, with board, lodging, and washing. Applications to Mr. Joseph Bate, Secretary.

LEIGH-ON-SEA URBAN DISTRICT COUNCIL.—Medical Officer for the District. Salary, £25 per annum. Applications to reach the offices of the Council, 2, Eaton Villas, Leigh-on-Sea, by May 17th.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon, doubly qualified. Salary, £70 per annum, with residence and maintenance in the house. Applications to the Chairman by May 26th.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—Two fully qualified Medical Women as House-Surgeons, and one as Clinical Assistant; also a Second Assistant Anæsthetist. Applications to Margaret M. Bagster, Secretary, by May 26th.

NORFOLK COUNTY HOSPITAL, Thorpe, near Norwich.—Junior Assistant Medical Officer on or about June 1st. Salary £110 per annum, with £10 annual increase to £160, with board (no liquors), lodging, and washing. Unmarried, and age not to exceed 30. Applications to Dr. Thomson, Medical Superintendent.

NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Mount Vernon, Hampstead, N.W., and Fitzroy Square, W.—Surgeon Laryngologist. Applications to W. G. Farrance Bosworth, Secretary, at the office, 41, Fitzroy Square, W., by June 5th.

ROYAL BERKSHIRE HOSPITAL.—House-Surgeon. Salary, £60 per annum, with board, lodging, and washing; also Assistant Medical Officer, with board, lodging, and washing, and an honorarium of 13 guineas if duties are performed to the satisfaction of the medical staff. Appointments for six months. Applications to the Secretary by May 28th.

ROYAL EYE HOSPITAL, Southwark, S.E.—House-Surgeon. Remuneration, £50 per annum, with free board and lodging in the hospital. Applications to the Secretary by May 16th.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, West Strand.—House-Surgeon, must possess some knowledge of ophthalmic surgery; and Clinical Assistants for six months. Applications to T. Beattie-Campbell, Secretary, by May 29th.

SUNDERLAND INFIRMARY.—House-Physician and House-Surgeon, doubly qualified. Salary in each case, £80 per annum, rising £10 annually to £100, with board and residence. Applications to the Chairman of the Medical Board by June 1st.

VICTORIA HOSPITAL FOR SICK CHILDREN, Park Street, Hull.—Lady House-Surgeon. Salary, £50 per annum, with board and laundry. Applications to J. Travis Cook, Wm. Burwell, C. H. Allison, the Hon. Secretaries, by May 19th.

WARNEFORD LUNATIC ASYLUM.—Medical Superintendent and Secretary. Salary, £500 a year, with furnished house, coals, gas, garden produce, milk, laundry, and keep for one horse. Applications to the Secretary by June 10th.

WESTERN OPHTHALMIC HOSPITAL, 155, Marylebone Road, W.—Assistant Surgeon. Applications to the Secretary by May 22nd.

## MEDICAL APPOINTMENTS.

ALLPORT, Wilfred, M.B., B.S.Lond., M.R.C.S.Eng., L.R.C.P.Lond., appointed House-Surgeon to the Queen's Hospital, Birmingham.

BENNET, W. B., M.R.C.S., L.R.C.P., appointed House-Surgeon to the Liverpool Royal Infirmary.

COWIE, R. M., M.R.C.S., L.R.C.P., appointed House-Surgeon to King's College Hospital, Lincoln's Inn Fields.

ERHARDT, C. C. J., M.R.C.S., L.R.C.P., appointed House-Accoucheur to King's College Hospital, Lincoln's Inn Fields.

FLUX, George, M.D.Brux., M.R.C.S., L.R.C.P., L.S.A., appointed Anæsthetist to the British Lying-in Hospital.

GALLOWAY, A. Rudolf, M.A., M.B., C.M.Aberd., appointed Surgeon to the Aberdeen Ophthalmic Institution, *vice* Dr. Jas. McKenzie Davidson, resigned.

GLADSTONE, Howard B., M.B., M.S.Edin., appointed House-Physician to the Bradford Infirmary, *vice* Mr. C. Carew Webb, resigned.

GREEN, T. Caroline, M.D.Brux., L.R.C.P. and S.Edin., appointed Junior Assistant Medical Officer at the County Asylum, Bracebridge, Lincoln.

GREENWOOD, Frank R., M.R.C.S.Eng., L.R.C.P.Lond., appointed House-Physician to the Queen's Hospital, Birmingham.

HASSLACHER, F. J., M.R.C.S., L.R.C.P., appointed House-Surgeon to King's College Hospital, Lincoln's Inn Fields.

HAY, John, M.B., Ch.B.Vict., M.R.C.S., L.R.C.P., appointed a House-Physician to the Liverpool Royal Infirmary.

JACOB, F. H., M.R.C.S., L.R.C.P., appointed House-Surgeon to King's College Hospital, Lincoln's Inn Fields.

JAMES, Matthew B., M.B., B.Ch., appointed Medical Officer to the Highgate Workhouse and Infirmary, *vice* S. C. Smith, M.R.C.S., L.R.C.P., resigned.

JEFFERY, H. F., M.B., Ch.B.Vict., appointed Senior House-Surgeon to the Bury Infirmary.

KELLOCK, T. H., M.A., F.R.C.S., appointed Assistant Surgeon to the Hospital for Sick Children in Great Ormond Street, Bloomsbury, W.C.

LAWSON, Garnet G., M.B., Ch.B.Vict., appointed House-Physician to the Liverpool Royal Infirmary.

LYNCH, F. S., M.R.C.S., L.R.C.P., appointed Assistant House-Physician to King's College Hospital, Lincoln's Inn Fields.

MACDONALD, J. S., L.R.C.S., L.R.C.P.Edin., etc., appointed House-Physician to Liverpool Royal Infirmary.

MACMAHON, J. Ross, M.B., C.M., M.R.C.S., M.R.C.P., appointed Clinical Assistant at St. John's Hospital for Diseases of the Skin, London.

MARSHALL, F. E., M.B., Ch.B.Vict., L.S.A., appointed a House-Surgeon to the Liverpool Royal Infirmary.

MEGGS, T. H. E., M.R.C.S., L.R.C.P., appointed Medical Officer to the Eton Union Workhouse and the Upton-cum-Chalvey District, *vice* W. U. Buée, M.R.C.S.Eng., retired.

MONIER-WILLIAMS, M., M.R.C.S., M.R.C.P., appointed Clinical Assistant at St. John's Hospital for Diseases of the Skin, London.

PRICE, Arthur, M.R.C.S.Eng., L.S.A., appointed Medical Officer to Walton Gaol, Liverpool, *vice* — Beamish.

RUTHERFORD, Dr., appointed Assistant Surgeon to the Royal Infirmary, Newcastle-on-Tyne, *vice* J. R. Morison, F.R.C.S.Edin., M.B., appointed Surgeon.

SMITH, E. Semple, M.R.C.S.Eng., L.R.C.P.Lond., appointed Obstetric and Ophthalmic House-Surgeon to the Queen's Hospital, Birmingham.

SMITH, G. V., M.B.Lond., appointed House-Physician to King's College Hospital, Lincoln's Inn Fields.

SMITH, J. Eckersley, M.B., Ch.B.Vict., appointed House-Surgeon to the Lock Hospital, and Assistant in Eye and Throat and Ear Department of the Liverpool Royal Infirmary.

SQUIRE, Maurice Frederick, M.B., B.S., M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant Medical Officer to the Workhouse of the Paddington Union, *vice* C. E. Fish, B.A.Camb., M.B., B.C., M.R.C.S., resigned.

STAMPER, Geoffrey C., M.R.C.S Eng., appointed Medical Officer for the No. 4 District of the Pembroke Union, *vice* H. D. Reynolds.

STOTT, H., L.R.C.P.Lond., M.R.C.S.Eng., D.P.H., reappointed Medical Officer of Health to the Friern Barnet Urban District Council.

THOMAS, John T., L.R.C.P., D.P.H., M.O.H., appointed Medical Officer to the Lowestoft School Board.

TURNER, B. R., L.S.A., appointed Assistant House-Accoucheur to King's College Hospital, Lincoln's Inn Fields.

WALKER, S. R., M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon to the Westminster Hospital.

WILLIAMS, Stanley, M.R.C.S., L.R.C.P., appointed a House-Surgeon to the Liverpool Royal Infirmary.

## DIARY FOR NEXT WEEK.

### MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8 P.M.—Annual *conversazione*. 8.30 P.M.—Reception by the President. 8.45 P.M.—Oration by Mr. Edmund Owen: The Medical Society of London in the Eighteenth Century.

LONDON POST-GRADUATE COURSE, London Throat Hospital, 204, Great Portland Street, W., 8 P.M.—Mr. Griffith C. Wilkin: Nasal Polypi.

### TUESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 4.30 P.M.—Dr. Payne: Seborrhœa.

PATHOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 P.M.—Annual General Meeting for election of officers. Mr. Douglas Drew: Teratoma of Scalp. Mr. Targett: Trophic Foot. Card specimens by Dr. Allchin, Mr. A. H. Tubby, and Dr. Hebb.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Lecture by Dr. Buzzard.

### WEDNESDAY.

LONDON POST-GRADUATE COURSE, Parkes Museum, 74A, Margaret Street, W., 4.30 P.M.—Professor Wynter Blyth: House Drainage, etc.

THE CLINICAL MUSEUM, 211, Great Portland Street, 4 P.M.—Demonstration by Mr. Jonathan Hutchinson.

NORTH-WEST LONDON CLINICAL SOCIETY, North-West London Hospital, 8.30 P.M.—Demonstration of Clinical Cases.

ROYAL METEOROLOGICAL SOCIETY, Rooms of the Royal Astronomical Society, in the Quadrangle of Burlington House, Piccadilly, W., 4.30 P.M.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M. Dr. Seymour Taylor: Surface Anatomy of the Thorax and Abdomen.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W., 4 P.M.—Dr. Wethered: Cases of Dilated Heart and their Treatment.

ROYAL MICROSCOPICAL SOCIETY, 20, Hanover Square, W., 8 P.M.

### THURSDAY.

LONDON POST-GRADUATE COURSE, Cleveland Street Sick Asylum, 5.30 P.M.—Mr. Jonathan Hutchinson: Clinical Lecture.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M.—Dr. Seymour Taylor: Surface Anatomy of the Upper Extremities.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C., 4 P.M.—Lecture by Dr. Barlow.

### FRIDAY.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Dr. Taylor: Electrical Testing and Treatment.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, W.C., 3 to 5 P.M.—Professor Crookshank: Anthrax and Malignant Œdema.

EPIDEMIOLOGICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8 P.M.—Dr. Andrew Davidson: On the Seasonal Distribution of Epidemic Diseases.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, 3 P.M.—Dr. J. A. Coutts: Treatment of Croupous Pneumonia in Young Children.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office order and stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.*

### BIRTHS.

FISHER.—On May 6th, at the White House, Gnosall, Staffs, the wife of W. R. Fisher, L.R.C.P.Edin., L.R.C.S.Edin., L.F.P.S.Glasg., of a son.

WAGGETT.—On May 4th, at 45, Upper Brook Street, the wife of Ernest Waggett, M.B., B.C.Camb., of a daughter.

### DEATH.

RICHARDSON.—On May 2nd, at Rock Hall, Uckfield, of tetanus, following a bicycle accident, Adolphus Joseph Richardson, M.D.Cantab., M.R.C.P.Lond., etc., of 45, St. John's Terrace, West Brighton.

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances*—Daily, 2. *Operations.*—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR.—*Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—Daily.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30 Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations.*—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations.*—M. F. S., 2.

LONDON. *Attendances.*—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operations.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations.*—M. Th., 4.30.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations.*—F., 9.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations.*—W., 1.30; S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30 *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 3; Dental, Th., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 1. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th. 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations.*—M. Tu. Th. F. S., 1.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males S., 3; females; W., 9.45. *Operations.*—M., 2; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 3.30; Skin, M. Th., 9.30; Electro-therapeutics, M. Th., 2.30; Dental, W. S., 9.30; Children's Medical, Tu. F., 9.15; Children's Surgical, S., 9.15. *Operations.*—M., 2.30.; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M. 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children). 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Th., 2.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations.*—Tu. F., 2.30.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1; Obstetric, Tu., F., 1; Eye, Th. F., 9.30; Ear, M. Th., 9.30; Skin, W., 1; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

# LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

### QUERIES.

"G. P." will be grateful for information as to the best books to read for the M D.St.Andrews for practitioners above the age of 40 years.

MEMBER would be glad to obtain information respecting the mortality from diabetes mellitus in India, or in the large towns of India.

CAMERA, who is going as surgeon on a liner to Australia in June, would be glad of hints as to the best photographic accessories to take for use on voyage—lamp, plates, concentrated developers, etc.

#### DESQUAMATION.

P. asks what diseases besides scarlatina are usually followed by thorough peeling. Does it ever occur to the same extent after measles, German measles, or typhoid fever?

#### DURATION OF INFECTION AFTER WHOOPING-COUGH.

M.O.H. writes: May I ask some of the medical officers of schools how long they consider the infection of whooping-cough lasts? I see by an extract from their code they say that a boy who has had it may return to school "six weeks from beginning of the whoop, provided the spasmodic cough and whoop have ceased." Does that imply that unless these symptoms have ceased there is still danger of infection? Several textbooks say that infection ceases six or eight weeks from beginning of whoop, without alluding to the continuance or otherwise of whoop and cough.

#### A SPECIAL CASE.

A CORRESPONDENT writes to say that a short time ago, when making his customary visit to a patient under his care, he was told by her husband's mother that his services would be no longer required, as another doctor had been called in. He thereupon ceased attendance, but recently the patient has called upon him and expressed regret at the way he was dismissed, assuring him that the dismissal was not authorised either by her husband or by herself, and has asked if he will attend her again if she sends for him. He wishes to know whether he should or should not attend her again.

*** There is no apparent reason why our correspondent should not attend this patient again if he thinks fit.

#### CURRENT STRENGTH.

ELECTRICIAN writes: In describing the strength of an electric current, say 10 milliampères, does that mean that the galvanometer registers 10 milliampères when the part being treated is in the circuit or not?

*** A current of 10 milliampères means a current of that quantity through a certain resistance, and of a certain pressure (voltage). In medical work the resistance would be that of the body, together with that of the circuit and galvanometer; the latter, however, is so small in comparison with that of the body that it may be neglected. Practically, then, a current of 10 milliampères means a current that, having overcome the resistance of the body, will cause the galvanometer to register that amount. It will be found that a varying number of cells will be required to drive a 10 milliampère current through the body, according as the skin resistance is great or small, that is, dry or wet.

### ANSWERS.

E. W.—We fear that the proposal would not be likely to bear fruit.

M.B. asks to be recommended a good ordinary and useful battery of moderate price for a general practitioner.

PHYSICIAN.—A district nurse can attend on cases of typhoid fever without risk to her other cases if she is scrupulous in carrying out the rules given her for disinfection.

DR. FYFE would probably find the information he wants in the chapter on the Softening of Water in a book recently published on *Water and its Purification*, by S. Rideal, D.Sc. (Crosby, Lockwood, and Son).

#### HARROGATE.

S. P. H.—The patient should be placed under the care of a local practitioner, on whom must likewise depend the duration of the treatment (three weeks or more). The accommodation must be chosen to suit the patient's means, for expense per diem may vary from 10s. to 30s.

#### LEPROSY IN THE SOUTH SEA ISLANDS.

CANTAB.—Information with reference to leprosy in the South Sea Islands is at present very scanty. It is known to be largely prevalent and still spreading in some of the islands, and very rare in others. We are not aware that medical men have been specially sent out to the lepers of the Pacific, or that any society has taken any such matter in hand.

#### FOUNTAIN PEN.

DR. JAS. RANKIN (Kilmarnock) writes, in reply to "F. W.C.," to recommend the Independent pen (A. F. Faber, London, Paris, etc). He has used it for years, and it works admirably; can be had for 3s. 6d., with syringe, etc., complete. The best ink to fill it with is A. W. Faber's black or blue stylographic ink, which can be got in bottles 6d. each.

#### BEXHILL-ON-SEA.

DR. N. E. YORKE-DAVIES (London, W.) writes: Will you allow me to inform "Enquirer" that he will find in the *Gentleman's Magazine* of March last, an article written by me which will give him all the information he desires about Bexhill-on-Sea. It is a healthy, bracing, and rising place, the sanitary arrangements and the water being perfect. Most

of the property belongs to Earl De La Warr, who is known to take a great interest in seeing that all buildings are constructed so as to ensure their being in an absolutely sanitary condition. It is undoubtedly a very suitable place for gouty, rheumatic, and other invalids who require a bracing temperature.

THE PREPARATION OF GLYCERINATED LYMPH.

A MEMBER.—If the amount of calf lymph to be prepared be very small, one part of lymph to two of water and two of glycerine has been suggested; but this proportion has been laid aside for another, in which the relative amounts of admixture are one of lymph, seven of water, and seven of glycerine. In either case the proportions should be determined by weight, the water should be distilled, and the compound of water and glycerine should be sterilised before admixture with the triturated pulp.

SALE OF PREPARATION CONTAINING POISON.

W. C. F.—We are advised that the preparation contained morphine, chloroform, and a trace of prussic acid, and is essentially the tinctura chloroformi et morphinæ of the *British Pharmacopœia*. In answer to Question (1) A registered chemist has a legal right to sell this preparation, provided that he carries out the requirements specified in the Pharmacy Act of 1868. (2) The sale should have been entered in the poison book, as the preparation contains prussic acid, an article included in Part I of the Poison Schedule. (3) The liquid sold is itself a scheduled poison, since it is a preparation of morphine and prussic acid. (4) The preparation being described on the label as applicable for the relief of "coughs, colds, diarrhœa, etc.," would most probably be held liable to the charge of duty under the Medicine Stamp Act.

PRACTICE IN SWITZERLAND.

INQUIRER.—Both Vevey and Montreux are, we are informed, well supplied with medical men of various nationalities, and the chances of a newcomer would therefore be small. No one is allowed to practise in the Canton de Vaud who has not passed the federal examination at one of the five Swiss universities. For detailed information apply to Monsieur le Recteur de l'Université, Lausanne, Suisse.

## NOTES, LETTERS, Etc.

MEAT DIETARY IN GOUT.

MR. WM. ARMSTRONG (Buxton) writes: May I correct two inaccuracies in the report of my paper read before the Medical Society of London on the above subject? I am reported to have said that among the effects noted were "increase in the quantity and ultimate disappearance of urates, alkaloids, and toxins from the urine." I intended to say that the urine increased in quantity, and that the urates, alkaloids, and toxins greatly decreased, and ultimately disappeared. And also that "Carbohydrates by their affinity for oxygen interfered with the due oxidation of the tissues." In this case for "tissues" please read "proteids."

SULPHOCARBOLATE OF SODA IN THE TREATMENT OF SCARLET FEVER.

A. HUMPHREY DAVY, M.D. (Bournemouth West) writes: In the BRITISH MEDICAL JOURNAL of May 1st, attention is drawn by Dr. Carne Ross to the good results he obtained in scarlet fever by the use of decoction of cinnamon. I have had no experience of the remedy, but having for many years used sulphocarbolate of soda with excellent results, I thought it well to bring the matter before your readers.

Cases treated from the first recognition of the disease by the sulphocarbolate usually pursue a uniformly mild course. Those deep, foul ulcers in the throat, so slow to heal, and which through septic absorption give rise to the secondary fever so very fatal in anæmic children in unhealthy districts, are very seldom seen when so treated.

A practitioner who acted on my recommendation told me that in a town where there was a severe type of scarlet fever all his cases recovered while the death-rate was heavy in the practice of another. When we remember the serious sequelæ of scarlet fever, such as chronic ear disease as well as kidney complications in cases which recover from the immediate effects of the disease, it is of great importance to guide a patient through without complications. Such a result is often brought about by the sulphocarbolate in 5 to 10-grain doses every four hours, according to age, etc.

SWALLOWING A COCKROACH.

A CHINESE servant wished to intimate that the nurse reported that the baby had swallowed a cockroach, but was getting better, owing to a simple and almost inevitable natural process. The fact was stated thus: "Amah talkee that Smalo have chow chow one piecie cockaloach. Just now he number one, he tummy have come topside."

LETTERS, COMMUNICATIONS, ETC., have been received from:
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## BOOKS, ETC., RECEIVED.

The Life and Times of Thomas Wakley. By S. S. Sprigge, M.B.Cantab. London: Longmans, Green and Co. 1897. 18s.

Die Färbetechnik des Nervensystems. Von Dr. B. Pollack. London Williams and Norgate. 1897. M.2.

A System of Dental Surgery. By the late Sir John Tomes, F.R.S. Fourth edition. Revised and enlarged by C. S. Tomes, M.A., F.R.S. London: J. and A. Churchill. 1897. 16s.

Annuaire des Eaux Minérales Stations Climatiques et Sanatoria de la France et de l'Étranger. Paris: Bureau de la *Gazette des Eaux* 1897.

A Short Practice of Midwifery. By H. Jellett, M.D. London: J. and A. Churchill. 1897. 6s.

The Vertebrate Skeleton. By S. H. Reynolds, M.A. Cambridge: University. 1897. 12s. 6d.

Murray's Cyclist's Roadbook. London: John Murray. 1897. 2s.

*** In forwarding books the publishers are requested to state th selling prices.


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# THE INGLEBY LECTURES
ON THE
# OPERATIVE TREATMENT OF CANCER OF THE BREAST.

*Delivered at Mason College, Birmingham,*

BY BENNETT MAY, F.R.C.S.,
Professor of Surgery in the College, and Surgeon to the Queen's Hospital.

## LECTURE I.
## HISTORICAL.

THE subject of the first Ingleby Lectures, given by Mr. Oliver Pemberton in 1884, was the Treatment of Mammary Cancer. Since that period, however, much has happened in the surgical world; in particular the great revolution in wound treatment, which set in about twenty years ago, has opened up quite a new and wider field for operative treatment. I believe I may say that practically it is only within the last twenty years that any important advances have been made in our practice.

Mr. Pemberton endorsed the opinion then prevailing among the profession, that no cases were less favourable for operation than these. The disease was regarded as practically incurable, and the most that was hoped for was a prolongation of the life and some amelioration of the sufferings of the patient. Most of us, indeed, remember the almost uniformly bad results, but for those whose memories do not go back so far, reference to the surgical handbooks of the date is instructive, and will serve as a basis of comparison with present-day results. Statistical tables published *circa* 1878-80 authorise me in stating that in 50 per cent. of the cases operated on, local or regional recurrence, that is, external visible reappearances of the disease took place within three months, and in 85 per cent. within twelve months, of operation; 90 per cent. of all cases were dead within two years, and the addition to the life was variously estimated at from eight months to two years, but about thirteen months seem to have been considered the average.

These results greatly influenced the theory of the disease, and almost authorised the current and accepted views of the pathology of cancer and its incurability. But we now know that these views were to a considerable extent at least deduced from operations quite inadequate for the complete removal of the disease. The operation was a most inefficient one, only a small ellipse of the skin with the tumour and part of the breast being removed, and the axilla rarely emptied of its infected contents. This theory of cancer has been considerably modified by our more recent operations. I believe pathologists consider that whatever may be the inherited or predisposing condition, cancer of the breast is primarily local and limited in its origin, and not part of a general cancerous infiltration. Moreover, the channels of infection have been more carefully investigated, and we may follow the disease from its origin into other parts. The chronological order of the advance in the various tissues is understood, and it is believed that a certain though varying interval intervenes before this local and general infection takes place.

As a result of the revolution in wound treatment to which I have referred, the operative field has been greatly extended. We now ensure immediate union of the most extensive incisions, and operative mortality has been almost abolished. Consequently the operation has been continuously developed in thoroughness and completeness. The question is whether commensurate results have attended these wider operations, or are we pursuing a will-o'-the-wisp which must continually elude our grasp? Further, what are the limits to which the operation may usefully be extended? The subject, it is to be hoped, will not now rest until some ultimate decision has been reached, and a standard or minimum uniform operation has been settled upon. It probably can hardly be decided yet by appeals to statistics and percentages, as it will take several years to adjudicate upon the merits of different procedures. There is sufficient body of evidence, however, to leave little doubt upon the main point, namely, that there has been substantial improvement in our results.

I think it was in 1867 that Mr. Moore, of the Middlesex Hospital, first enunciated the doctrine that the entire mamma, all adjacent structure, skin, fat, lymphatic glands, and more or less of the pectoral muscle, must be extirpated. This view, however, was never acted upon, and seems to have been entirely lost sight of until Volkmann, in 1875, drew attention to the necessity of exploring the axilla in all cases, and soon after this Kuster advocated its systematic clearing out, whether the glands can be felt or not. Then Volkmann demonstrated how the pectoral fascia, whilst itself early becoming infected, acts as a barrier to the spreading growth of the carcinoma, and seems for a time to bring it to a halt. His investigations were confirmed by Heidenhain, who observed that carcinomata invariably send their outposts to the surface of the muscle, no matter what the thickness of the fat may be. The muscle itself may remain healthy for some time. This is due to the fact that the direction of the lymphatic current is from muscle to fascia. But when the disease has extended into the muscle itself, which may be known by the tumour being adherent to subjacent parts, and not moving in the direction of the fibres of the muscle when they are made tense, then the cells are swept along the lymphatic current by the action of the muscle, and the whole muscle must then be considered as involved.

### THE LYMPHATICS OF THE BREAST.

That the lymphatics play the essential part in the dissemination and spread of the disease is established beyond controversy. Stiles, in a valuable contribution to the anatomy and pathology of the breast,[1] states that in cancerous breasts the lymphatics may frequently be seen injected with cancer cells. Recurrence or reappearance of the disease after removal is due to the non-removal of microscopic foci or larger masses more or less remote from the main tumour. Hence the importance of removing all the tissues which the lymphatics traverse as well as the glands themselves.

The lymphatic vessels of the breast are described as being arranged in two layers. The superficial is close under the areola and round the nipple, and from this two or three trunks finally issue to pierce the deep fascia and join the deeper trunks. The deeper layer issues from the under surface of the gland, and follows the fascia of the pectoralis major, receiving branches from that muscle. Hence the retromammary tissue and fascia are regarded as infected soil. The larger trunks accompany the blood vessels of the gland, those from the inner sternal periphery accompany perforating branches of the intercostals, and join sternal glands within the chest. The greater number accompany the long thoracic, external mammary, and acromio-thoracic, to open into the axillary glands. Some from the upper periphery pass direct to the supraclavicular and infraclavicular glands above or beneath that bone.

Stiles, however, states that the anastomosis and intersection of the lymphatics is so free that it is impossible to say which set of glands the lymph from any given part of the breast may be conveyed to. This statement I believe accords with clinical facts. We see the axillary glands infected with almost equal uniformity in whatever quadrant of the breast the growth is situated. Gross states that the seat of the primary disease exerts no influence on the date or frequency of the appearance of the lymphatic tumours in the axilla. Snow, however, finds that in cancer appearing close to the sternum the axilla is much more slowly infected than from other regions, and therefore considers this may be an exception to the routine practice of clearing the axilla. It is apparent that the supraclavicular glands are more early infected in cancers of the upper periphery, and we may suppose that the sternal or mediastinal glands are early infected in those of the inner periphery. Hence the prognosis is, *cæteris paribus*, less favourable in these situations. The axillary glands, however, are commonly involved as well.

The arrangement of the axillary glands is too well known to need description further than to add that they are probably much more numerous than the twelve or fourteen commonly given. The importance of the axilla as a resting place for the disease has always been recognised. It is the almost invariable seat of reappearance unless the glands are removed. It is believed that for a period the onward march is there arrested and the metastatic deposits delayed. It is

doubtful whether general infection ever occurs without antecedent glandular infection. Gross says that it does in 3 per cent. of all cases running their course to a fatal end. This occurs only in the case of soft medullary tumours, the general infection taking place through the blood. It seems not unlikely that these may be cases of sarcoma.

The region of gland infection may perhaps show wider latitude. Gross states that the axillary glands are infected in 90 per cent. of all cases running their course to a fatal end (without operation), and that in 7 per cent. glands other than the axillary—such as the mediastinal and supra-scapular—become diseased without the axillary. But I do not think the axillary glands escape in 10 per cent., whatever others may be involved. I have never seen an advanced case without the axilla showing it.

The chronological stage at which the glands become infected is variously estimated, and no doubt varies widely. Gross gives fifteen months after the inception of the disease as the average; but this is obviously fallacious, and six months is the more usual estimate of the time at which the glands can be felt by external palpation. As a matter of fact, it is very rare not to find them obviously diseased on opening the axilla at any stage at which patients come under operation.

From the axilla the infection passes to the supraclavicular glands in the posterior triangle of the neck. It is quite possible for these glands to become infected through more direct channels, namely, the lymphatics which pass above and beneath the clavicle. A long time may elapse before these glands show signs of enlargement on account of the loose fatty and areolar tissues among which they lie and the large space they occupy. The battle ground of controversy has now shifted from the axilla to this region, and there are numerous operators who attack the disease here as a routine procedure.

The area of the breast has recently been shown to occupy a much larger extent than has commonly been supposed. Stiles, in particular by his nitric acid process, has demonstrated that the peripheral outlying processes extend far beyond the corpus. According to him the vertical diameter extends from the second rib to the lower border of the seventh costal cartilage or beyond, the horizontal from the edge of the sternum to the mid-axillary line. It sends peripheral processes into the retromammary tissue and fat, on to the pectoral fascia, so that no separation can there be made with the knife. To remove the whole breast it is necessary to keep outside the limits given. This must be done either by very wide skin incisions or dissecting the skin off the breast, to which it is closely attached by fibrous septa. Usually Stiles finds that the whole organ has not been removed by the surgeon's incisions, a fact which every surgeon must acknowledge. The significance and importance of this depend upon the part which may be played by the parenchyma of the breast when not entirely removed in the production of recurrence after operation. This is a question on which there is a good deal of diversity of opinion but nothing conclusive is known. Some have considered the whole gland as necessarily the subject of general cancerous infiltration, but I think this view is now generally abandoned. The German view, headed by Heidenhain, is that the whole parenchyma is liable to become cancerous from proliferative changes, that there is a precancerous condition, the direct forerunner of cancer, into which it will sooner or later pass. The evidence in favour of this view, however, is rather hypothetical, and the gulf which separates them has not yet been bridged. The opinion of Dr. Creighton, supported by Jacobson, is that cancer in the breast is a disease of the organ becoming obsolete, whereby the atrophying acini become so disordered as to allow the epithelium to escape and infect the surrounding connective tissue; hence the connective tissue should be removed very widely beyond the breast.

Others with Stiles contend that the special danger lies in the fact that the parenchyma of the breast and the surrounding tissues include the lymphatic spaces and highways along which the disease is liable to spread, and that it is impossible to say to what extent this has taken place in any case. Mr. Watson Cheyne also upholds the view that the special source of danger is the arrangement of the lymphatics and not the supposed precancerous state of the breast. Mr. Butlin again does not consider that the new growth often arises in the outlying lobules, and therefore does not regard it as essential to remove the whole of the breast in every case when the tumour is small. What is certain is that occasionally on dissecting a breast after removal we find separate and independent nodules of which there was not the slightest indication beforehand. I have met with this twice, and its occasional, even if rare, occurrence is of itself sufficient to justify the removal of the whole breast in every case.

There is no positive evidence to support the view of the infectiveness of cancerous tissue itself if cut into. Indeed, if this were so we should expect to hear of the accidental inoculation of operators and others, a thing I believe absolutely unknown. This view, however, is strongly advocated by Halsted and Meyer in America and supported by Stiles, Watson Cheyne, and others here. It is believed that infection takes place either from direct inoculation by the knife or the liberation of cancer cells from their alveoli or the lymphatic vessels. The successful inoculation of cancerous tissue in animals has been accomplished, and experimental grafting in man has also succeeded. Hence the importance of working outside the infected area and not cutting into infected tissues without adequate precaution. We should at least give the patient the benefit of the doubt by avoiding this.

Heidenhain and Volkmann about 1875 appear to have been the first to systematise a radical operation based on the preceding researches. The method of operating which they adopted has become classical, and is the basis of our present procedures. It included the removal of the entire breast as believed, a liberal piece of skin, a clean dissection of the pectoral muscles, and in some cases removal of the axillary glands. This method of operating soon became universal in Germany, but it was much more slow to gain acceptance here. In 1880 Gross, of Philadelphia, and in 1883 Mitchell Banks here did much to popularise by their writings thorough and extensive operations. Their operative mortality was high from septic diseases which were then still rife, but their results were good. With aseptic wound treatment this high mortality has ceased, and individual operators have been able to go on developing their operations in extent and thoroughness.

The one which I adopt has the standard of minimum necessary to meet the conditions for cure I shall now proceed to describe. It includes the removal of the entire breast gland, the integuments over the area of the tumour and for some distance around, all the paramammary fatty and areolar tissue extending upwards nearly to the clavicle, a clean dissection of the pectoralis major, or, what is better, the removal of the costo-sternal portion of the muscle; and, lastly, a clean dissection of the axilla, thus including all the tissues likely to contain the lymphatic channels. The suspected tissues are always to be removed entire in one piece never cut into. This operation is frequently spoken of as the complete or classical operation; but as completeness in this matter appears to have no finality, it is perhaps better spoken of as a wide or standard operation.

### The Operation.

The usual preparations for carrying out an aseptic operation are supposed, but no antiseptics or chemicals of any kind are to be introduced into the wound. I attach considerable importance to the proper planning of the incisions, which should be carefully outlined and marked on the surface. The incision usually conforms to the oval type or ellipse, a widely open oval from 4 to 8 inches wide at its widest part, according to the size and place of the tumour and the size of the breast, and ordinarily the long axis of the ellipse is in the direction of the pectoral fibres. The difficulty occurs in the case of outlying peripheral tumours, especially those lying near the sternum. In these some modification is necessary. The axis of the ellipse may be changed, but I now commonly adopt the suggestion, I think, of Bell—namely, to make a smaller second oval including a triangular piece, the base of which joins the main ellipse at right angles, the result being a T-shaped incision. As a minimum distance 2 inches from the apparent margin of the tumour is advised, but I should take as much more as possible. The ellipse is to be carried out well over the axillary vessels. The incision extends down to the subcutaneous fat; and the integuments,

with a sufficient layer of subcutaneous tissue but no more, are retracted so as to allow of a free dissection of the paramammary tissue extending upwards nearly to the clavicle, inwards to the sternum and outwards to the latissimus dorsi. The mass thus included is to be lifted up and thrown outwards, and in doing this one of two courses may be followed: either the pectoral muscle must be scrupulously cleaned of every trace of its fascia and fat, or the costo-sternal portion of the muscle should be removed with the breast, etc. I think the latter is far the best way and should usually be done. The inner or sternal attachment is severed, and the separation may be made by the finger or handle of the scalpel working in the internal between the two parts of the muscle, and finally the outer attachment is divided near the humerus. This is really easier and quicker than an elaborate dissection of the fascia, which is nearly sure to be imperfect. It has the further advantage of a more thorough exposure of the axilla, especially the dangerous region between the two pectorals, and it also allows more easy approximation of the flaps of skin in case they are deficient, and thus permits of wider removal of the integuments. Of course, if the tumour is adherent to the muscle, this much is necessary as a minimum. As the dissection proceeds, the breast, with surrounding tissues, etc., is cleared from the chest wall and thrown outwards towards the axilla. The vessels which have been taken up with catch forceps may now be tied off, and the dissection of the axilla proceeded with. In doing this, it is well to expose the axillary vein where it is superficial at the outer angle early in the procedure. The fascia over it is to be divided, and the vein can then be safeguarded by the finger used as a director, while the fascia is further laid open. For the most part, the dissection is to be made clean with the knife, but the vein may be quite sufficiently and more safely cleared with flat, blunt-pointed scissors and the finger, unless it is positively adherent to the growth. All large vessels, such as the subscapular vein, should be clamped before division and tied at once.

It is usually a fairly easy matter to follow and detach the axillary contents quite up to the apex, and reach the clavicle, the pectoral muscles being relaxed and strongly retracted for the purpose. If any difficulty is encountered in doing this, the great pectoral muscle should be cut across and the ends thrown apart. The muscle can be afterwards fully restored by buried catgut stitches. This is especially indicated where there is fulness and large veins in the pectoral and infrascapular region as if the muscles were lifted up by glands beneath them. Many contend that it is not possible to clean the axilla without division of both muscles or even their complete removal. If an absolute cleaning of the space and subclavicular region is implied this is correct. It cannot be done without dividing the muscles, but under ordinary favourable conditions, when the glands are small and non-adherent, simple clearing in the way indicated is quite sufficient. We never find the disease reappear here in these circumstances. As a matter of fact, it is remarkable how efficient the clearing of the axilla is in preventing recurrence in this situation. If the glands are large and adherent the dissection is more difficult, and must be more thorough. Muscles may be freely sacrificed, and if the tumour is adherent to the vein it must be very carefully dissected off its coats. In a few cases the vessel will be inseparable from, or will be flattened out or entangled in the growth, so that no separation can be made with a knife. In these circumstances any necessary length of the vein may be removed between two ligatures, as I have done on two occasions. There is not, however, any hope of a permanent cure if it has advanced as far as this, still less if it involves the large trunks of the brachial plexus.

Having cleared the vessels, we may next proceed to detach the axillary contents from the lateral wall of the chest by quickly stripping up the thin fascia which attaches them to the serratus magnus and the ribs, avoiding injury to that muscle's nerve in doing so.

The posterior wall is then to be cleaned, and this is frequently the most troublesome part of the procedure on account of the hæmorrhage from the subscapular vessels. These should be exposed and caught before they are divided. The nerves, however, may nearly always be spared uninjured. The cutaneous nerves which cross the axilla may be sacrificed without much inconvenience. The whole mass, including the breast, contents of axilla, and intervening tissue, is to be removed entire by working outside of it so that it is not cut into.

The external wound may be most quickly and easily closed by a continuous stitch of fine wire. If there is great tension, I think the ordinary interrupted stitches serve best, starting from the angles towards the centre. They should be inserted near the edges and close together—about three or four to the inch—so as to distribute the tension equally. It is surprising how large a gap may safely be approximated in this way if the flaps have been well separated by the dissection. I have given up all kind of button or deep stitches. I have not been able to give up the drainage tube entirely. I drain the axilla by a tube perforating the posterior flap to carry away the blood and lymph, which are sometimes rather abundant, and which may otherwise distend the flaps.

The proper putting up of a breast is important and not easy. Firm, smooth compression is required over a voluminous dressing. I use nothing but dry absorbent wool, with a protection of gauze over the incision. As a rule two dressings suffice, one in forty-eight hours to remove the tube and the other on the ninth or tenth day to remove the stitches. The axillary portion invariably heals by the first intention, and the remainder also if care be taken in the putting up.

### Results.

Objections to this operation have been taken in the stiffness, œdema, numbness, and neuralgic pains which are said to follow it. In my experience inconvenience from these is not considerable, and need not weigh in the slightest degree against the operation. Any œdema will be due to over-pressure in the axilla, and soon passes away. Passive movements of the shoulder and elbow should be begun early, and the movements of the arm become nearly perfect again with time and use.

The mortality from this operation is remarkably low. I do not think it should ever exceed 2 per cent. from causes proper to the operation. I have not had a death in 76 consecutive cases, but one of my patients died of intestinal obstruction three weeks after operation. The old high death-rate was almost wholly due to septic diseases. I think shock is the principal danger to be feared, but by preventing loss of blood and unnecessary exposure to cold this is rarely formidable. The operation should be done as quickly as is consistent with thoroughness, and facility in doing it is to be acquired by practice. Occasionally some intercurrent disorder such as bronchitis may carry off a patient, but in every case the patient's fitness to bear the procedure must be considered on general surgical principles.

There are a few other points to be noted. In planning the incisions regard must be had primarily for the efficient removal of the growth, without reference to the subsequent approximation of the skin. But if the case is suitable for operation this can generally be accomplished. A small gap may be relied on to fill up quickly without suppuration if the wound be kept dry and aseptic.

I have had some success in primary skin grafting, but it is uncertain. I have on occasions used a piece of the redundant skin which is cut away near the axilla. It is to be stripped of all fat and tissue, and kept in warm boracic lotion till wanted. It may then be shaped to the gap which it should nearly fill, and should be pressed down firmly so as to maintain close apposition of the raw surfaces. It is more certain of success, however, if the large piece is cut into small portions about a quarter of an inch square, and planted near the edges. Operative grafting after eight or ten days is the most successful, a strip being taken from the inner side of the arm or thigh, but on many grounds it is objectionable. It is useless to operate in cases of wide skin infiltration or with scattered tubercles as the most extensive sacrifice of skin cannot cure these. Regionary recurrence in the skin and internal metastasis are to be expected.

If we find during an operation that the highest axillary gland is involved so that it is not possible to pass beyond the limits of the disease, what are we to do? I have no doubt under these circumstances the posterior triangle of the neck should be opened and cleared of its glands, as an addition to

the ordinary operation. There is then a reasonable chance of getting beyond the limits of the disease. The incision may be prolonged upwards over the clavicle, but it is not necessary to divide or resect that bone, as has been done by some operators. I have on two occasions cleared the supraclavicular fossa of its glands in this way, though as they were rather advanced cases the results were not very satisfactory.

REFERENCE.
[1] *Edin. Med. Chir. Trans.*, 1892.

# REMARKS ON APHASIA AND WILL-MAKING.

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## II.

### THE WILL-MAKING POWER OF PATIENTS AFFECTED WITH "PURE" (ISOLATED OR SUBCORTICAL) MOTOR APHASIA.

In these cases the only defect is in the emission of vocal speech. There is usually, but not necessarily, agraphia; in some cases of pure or isolated aphasia the patient is able to express himself in writing fairly well or quite well. Pure or isolated motor vocal asphasia does not produce any disturbance of internal speech and thought. The mental condition and intellectual faculties may of course be impaired in consequence of the brain lesion, just as they may be impaired in any other case of localised organic brain disease; but the aphasic condition *per se* does not produce any impairment of the mental power, and does not interfere with the will-making capacity of the patient, except in so far as it makes it difficult for him to express his wishes and desires. The patient can understand spoken and written language.

In those (exceptional) cases in which the patient can write (that is, in which there is no agraphia) there is of course no difficulty in understanding the wishes and desires of the patient. In such cases, always of course provided that the mental condition remains sufficiently clear, the patient is able to make a will.

In those cases in which agraphia is present in addition to the (pure) motor vocal aphasia, the will-making power is less interfered with than in the cases of true motor aphasia due to a lesion of Broca's convolution, for in cases of pure, isolated, or subcortical motor vocal aphasia and agraphia there is no derangement of the sensory speech centres and no disturbance of internal speech and thought; whereas in cases of true or cortical motor vocal aphasia with agraphia there is not infrequently some, though it may be only slight, derangement of the sensory speech centres, consequently internal language and thought may be more or less interfered with.

Further, it must be remembered that in cases of pure motor vocal aphasia the aphasic defect is usually less complete, and is usually more quickly recovered from than in cases of true motor vocal aphasia due to destruction of the motor speech centre itself. There is therefore, so far as the aphasic defect *per se* is concerned, more probability, even if the patient is not able to make his will to-day, that he may be able to do so in the course of time.

On the other hand, it must also be remembered that cases of "pure" (subcortical) motor vocal aphasia are usually the result of cerebral hæmorrhage; and that in cases of cerebral hæmorrhage owing to the degenerated condition of the cerebral vessels and cerebral tissues the mental disturbance, other than that due to the aphasic defect *per se*, is usually more profound than in cases of aphasia due to embolic infarction in young subjects, and that in such cases the conditions for compensation and restoration of the speech function which is destroyed are usually less satisfactory.

### AGRAPHIA.

*The Capacity of Will-Making in Cases of Agraphia.*—We have seen that agraphia is almost invariably associated either with motor aphasia or with sensory aphasia—usually word blindness; and that it is doubtful if pure motor agraphia ever occurs in an isolated form.

*Isolated Agraphia.*—If isolated agraphia does actually occur, internal language and thought are not affected by the agraphia; in such cases the patient is able to understand spoken and written speech, and to speak quite well. Isolated agraphia *per se* does not therefore impair the will-making capacity. The only question which is likely to arise in such cases is whether the brain lesion with which the agraphia is associated and on which it depends has so disturbed the mental and intellectual faculties as to render the patient incompetent to make a will. Exactly the same question may occur in any case of brain disease in which there is a local lesion, and in which there is no aphasic defect—for example, in a case of monoplegia due to embolism or hæmorrhage. The question, whether a patient who is suffering from isolated agraphia is capable of making a will, need not, therefore, be specially considered. Properly speaking, it should not be included in the will-making power of aphasic patients.

*Agraphia and Motor Aphasia.*—The will-making capacity of patients affected with motor aphasia and agraphia has already been considered.

*Agraphia and Sensory Aphasia.*—The will-making capacity of patients affected with sensory aphasia and agraphia will be considered in connection with word-blindness.

### THE WILL-MAKING POWER OF PATIENTS AFFECTED WITH SENSORY APHASIA.

We have seen that sensory aphasia includes two chief varieties, namely, word deafness and word blindness; that in some cases of aphasia these two forms are combined (total sensory aphasia); that in sensory aphasia the intellectual faculties are, speaking generally, more profoundly affected than in cases of motor aphasia; that in complete sensory aphasia the patient is entirely cut off from the external world so far as speech communication is concerned; we can only make him understand questions by means of signs (pantomime)—an unsatisfactory method of communication; and that in sensory aphasia there is almost invariably some, and often very profound, disturbance of the motor speech centres, the action of which is regulated by, and stimulated from, the associated sensory speech centre; in other words, in cases of sensory aphasia, agraphia, paragraphia, and paraphasia are apt to occur.

It is necessary to consider each form of sensory aphasia separately and individually, for there are very great differences as regards the will-making power.

### THE WILL-MAKING POWER OF PATIENTS AFFECTED WITH WORD BLINDNESS.

We have seen that there are two varieties of word blindness—"pure," isolated, or subcortical word blindness and "true" (cortical) word blindness; and that there is reason to suppose that these two forms of word blindness differ materially in the effect which they have on internal speech and thought. In many cases of word blindness, whether pure or true, the word blindness is complete. It will be advisable, therefore, in considering the subject to suppose that the patient is absolutely unable to read either written or printed characters which are placed before him. In pure word blindness there is no agraphia; the patient can write but he is unable to read what he writes. In pure word blindness the action of the other speech centres (auditory speech centre and motor vocal speech centre) is not deranged. In cases of pure or isolated word blindness, the only speech alteration is that the patient is unable to read written and printed speech characters, and that he is unable to read aloud. It is obvious, therefore, that pure word blindness *per se* does not interfere with the capacity of the patient to make a will, for it does not *per se* (though the brain lesion on which it depends may do so) produce any disturbance of the intellectual faculties, any defect of internal speech and thought, and it does not (provided that the patient is not stone deaf) prevent our communicating with him. Patients affected with pure word blindness are able to hear and understand what is said to them; they can speak spontaneously and repeat what is said to them; they can write spontaneously although they are unable to read what they write; in other words, there is no difficulty in communicating with the patient by means of

spoken speech, and the patient has no difficulty in communicating with us by means of spoken or written speech, though it is perhaps doubtful whether he can communicate complicated ideas by means of written speech. It must, however, be remembered that in some cases of pure or isolated word blindness the patient's mental and intellectual faculties are considerably impaired or profoundly disturbed. In some cases there is object blindness, in others mind blindness; in others, again, the patient is subject to hallucinations, more particularly hallucinations of sight. In a case of pure word blindness which I have recorded, the mind blindness was so marked that the patient was thought to be insane.

It is obvious that in cases of pure or isolated word blindness in which the mental and intellectual faculties are deranged or disturbed by the brain lesion on which the word blindness depends or with which it is associated, the patient is mentally unfit to make a will, not, however, because of the aphasic condition, the word blindness, *per se*, but because of the associated alterations in the intellectual and mental faculties. I repeat that, provided the word blindness is the only defect, the will-making power is not necessarily interfered with. Hence it follows that in cases of pure or isolated word blindness the capability of a patient to make a will depends upon the condition of the mental and intellectual faculties rather than upon the aphasic (word-blind) condition. In these cases the capacity for will making has to be judged of in the same way as in any other case of organic brain disease in which there is no aphasia. These cases need not, therefore, detain us further.

It must, however, be remembered that a patient affected with pure word blindness, though able to dictate a will and, after it is drawn up, to understand it when it is read to him and explained to him, is unable to read it. Consequently, in cases of pure word blindness it is necessary to guard against deceit and fraud—to guard against the introduction into the written document (the will) of clauses, etc., which are not in accordance with the wishes and instructions of the patient, and which would, of course, be omitted by the person perpetrating the fraud when the will was being read to the patient. It is needless to say that a fraud of this kind is very unlikely to occur. Nevertheless, it is necessary to know that the word-blind condition of the patient—his inability to understand written or printed speech—renders him open to have such a fraud practised upon him. The only method of guarding against such a fraud would be take care that the witnesses to the will read the will. In other words, in cases of word blindness the witnesses must read the will for the patient, they must satisfy themselves that it only includes those provisions which have been dictated by and approved of by the patient.

### The Will-Making Capacity of the Cases of "True" or Cortical Word Blindness.

In these cases the visual speech centre is itself the seat of the lesion. The patient is not only unable to read written and printed characters (word blind), but he is unable to write. As in the case of true word blindness, the defect is often complete; the patient may be unable to read either letters or words.

In cases of true word blindness the function of the other speech centres (the auditory speech centre and the motor vocal speech centre) is usually (always, according to Déjerine and Mirallié)[10], disturbed or deranged in some, though not necessarily in a marked or obvious, degree.

In cases of true or cortical word blindness, the aphasic condition *per se* (granting that the mental and intellectual faculties remain sufficiently clear to enable the patient to make a will) does not usually interfere with the patient's ability to give instructions for the drafting of a will or with his ability to execute a will when it has been drafted.

The derangement of the auditory speech centre is usually only slight; the patient can usually understand what is said to him sufficiently well to enable him to enter into a discussion as to the drafting of his will; and the defect in the motor centre is usually insufficient to prevent him expressing himself spontaneously and in answer to the questions which are put to him. In cases of true word blindness there is consequently much less difficulty in obtaining instructions from a patient who has not previously thought out his will (that is, in ascertaining what he wishes and desires in respect to his will) than in cases of motor aphasia and agraphia in which the patient is unable to speak and to write. In those cases of word blindness, therefore, in which there is no direct affection of the auditory speech centre or of the motor vocal speech centre—in other words, in those cases of word blindness in which the patient can appreciate spoken language sufficiently to enable him to enter into the discussion of his will, and in which he can himself speak sufficiently to give instructions—the will-making capacity depends (as in cases of pure word blindness) upon the condition of the mental and intellectual faculties. But it must be remembered that in cases of true word blindness the patient may not be able to understand long complicated spoken passages, such as a will read out as a whole, though he may be quite able to understand the individual clauses when clearly explained devoid of legal verbiage and technicalities.

### The Will-making Power of Patients Affected with Word Deafness.

We have seen that this is the rarest form of aphasia. In cases of complete word deafness the patient is unable to understand spoken language, and the action of the other speech centres (the visual speech centre and the motor vocal speech centre), and in some cases of the writing centre, is markedly deranged.

In cases of word deafness, as in cases of word blindness, it is necessary to draw a distinction between the "pure," isolated, or subcortical form and the "true" or cortical form. Pure or isolated word blindness is exceedingly rare; very few cases have been recorded, though it is not improbable that, if carefully looked for, the condition may be more common than is usually supposed.

In pure, isolated, or subcortical word deafness the patient is unable to understand spoken language, but there is no defect in the action of the other speech centres (visual speech centre, motor vocal speech centre, and writing centre) and no disturbance of internal language, except of course the disturbance in the mental condition and intellectual faculties which may be (but is not necessarily) produced by the organic brain lesion on which the word deafness depends and with which it is associated.

If the patient has learned to read, this channel remains open for communicating with him, and since he can speak spontaneously there is no difficulty in getting his instructions for a will. In cases of pure or isolated word deafness the patient is in the same condition as a patient who is deaf as the result of ear disease, *plus* a central organic brain lesion, which may or may not so derange or disturb his mental and intellectual faculties as to interfere with his will-making power.

In forming an opinion as to the capability of patients affected with pure or isolated word deafness for making a will, the question has to be decided in the same way as in ordinary cases of organic brain disease in which the speech faculties are not affected, for if one perfect channel of communication with the patient (written speech) remains, this is all that is required.

The case is of course very different when the patient has never learned to read. In these cases the condition is not, however, quite the same as in cases of true word deafness with word blindness, for in cases of pure, isolated, or subcortical word deafness in a person who has never learned to read, there is no affection of the motor speech centre, and no disturbance of internal speech or thought: whereas, in cases of true word deafness with word blindness the action of the motor speech centre is always more or less and in many cases profoundly deranged, and internal speech and thought are always more or less interfered with.

The great difficulty is in communicating with the patient; because of the word deafness he cannot understand spoken language, and because he has never learned to read he cannot understand written language. We have, therefore, in communicating with him to rely on pantomime. In such cases it is practically impossible to enter into any complicated discussion with the patient as to the drafting of a will. But cases such as this very rarely if ever occur in actual practice; for few persons who have much to leave, and whose wills are likely to be disputed in a court of law, are likely nowadays to be met with who have not learned to read and write.

Probably if pure, isolated, or subcortical word deafness did occur in a person who had not learned to read and write, and if the patient were mentally sound and capable of making a will—in other words, if the brain lesion which caused the word deafness had not so disturbed the mental and intellectual faculties so as to make him incapable of making a will—it would be possible for a skilled observer, with time, care, and patience, to make the patient understand what was required. And since in such cases there is no defect of the motor vocal speech centre, since the patient could express his wishes and ideas by means of spoken language, he would be able to give instructions for the drafting of a will, always, of course, provided that there was no mental incapacity, the result of the brain lesion, other than the aphasic condition (the word deafness).

But after such a will had been drafted and drawn out, it would be extremely difficult, or, if it were complicated, perhaps impossible, to get it executed; for since the patient is unable to understand spoken and written language, the only channel of communication with him is by means of pantomime. In such a case the only method of getting the will executed (but whether it would stand in law or not I do not know) would be to get him to give his instructions for the will—that is, to express his wishes and desires—*de novo*, and then, after the witnesses to this will had satisfied themselves that the will contained these, and only these, provisions, to get the patient to sign it by touching the pen, making his mark.

### THE WILL-MAKING POWER OF PATIENTS AFFECTED WITH "TRUE" OR CORTICAL WORD DEAFNESS.

In these cases in which the auditory speech centre itself is the seat of the lesion, the action of the other speech centres (motor vocal speech and visual speech centres) is often profoundly deranged, and internal speech and thought are usually (always, according to Déjerine) disturbed in some degree.

In consequence of the disturbance of the visual speech centre the patient is unable to understand complicated written passages, though he can often understand short written questions.

In consequence of the disturbance of the motor speech centre there is very often paraphasia or jargon aphasia. Paragraphia is often also present.

Further, the mental condition and intellectual faculties are usually (? always) more or less disturbed.

From these considerations it will be obvious that the capacity of patients affected with true word deafness for making a will is much less, other things being equal, than in cases of pure or isolated word deafness, for in the first place, in consequence of the disturbance of the visual speech centre and the motor vocal speech centre, the difficulty of communicating with the patient is much greater; and in the second place the mental and intellectual faculties, in consequence of the derangement of internal language, internal speech and thought are more profoundly affected.

The capacity for making a will in cases of true word deafness will therefore depend upon: (1) The amount or degree of the word deafness; (2) the degree of disturbance produced in the other speech centres (visual speech centre, motor vocal speech centre and the writing centre); (3) the degree of mental impairment produced by the aphasic condition (the lesion in the auditory speech centre); and (4) the degree of the mental impairment and intellectual defect produced by the brain lesion on which the aphasic condition depends, and with which it is associated, irrespective of the mental defects which are produced by the aphasic condition.

If a patient affected with true word deafness had never learned to read, he would, of course, be completely cut off from the external world so far as speech communication is concerned. Such a case would differ from a case of pure word deafness in which the patient has never learned to read, as motor speech would probably also be affected, since paraphasia, or jargon aphasia, would probably also be present. But it must be remembered, as M. Legrand du Saulle points out, that incoherence in style and paraphasia do not necessarily denote a corresponding incoherence in thought—in the ideas of the aphasic patient.[11]

In this, as in all forms of aphasia, each case must be decided on its own merits. Speaking generally, it may be said that in those cases of true word deafness in which the word deafness is complete and the action of the associated speech centres is seriously disturbed, the patient is unable to make a will.

In the less severe cases in which the mental condition is not so seriously affected as to destroy the will-making capacity, and in which the action of the motor speech centre is not so seriously deranged as to interfere with the patient's ability to make himself understood by means of spoken language (that is, in which he is able to give instructions for his will) the will might perhaps stand.

When the visual speech centre is unaffected, when the patient can read sufficiently to understand written speech, when there is no associated motor defect sufficient to incapacitate him for making a will, when the paraphasia is only slight, he may be able to make a will.

In those cases in which there is a marked degree of word blindness with word deafness, and in which there is a considerable degree of paraphasia, or, still more, in which there is jargon aphasia, the patient would in all probability be incapable of making a will, even granting that the mental condition remained sufficiently clear; but in most cases of this kind it is practically impossible to ascertain whether the mental condition does remain sufficiently clear.

Here again the question as to the nature of the will, whether it is complicated or not, must be taken into account. Each case requires to be carefully tested as to how far the patient can understand spoken speech and written speech, and as to the extent of the paraphasia. In such cases time, care, and patience are required; but in most cases when the brain lesion is large and the aphasic condition marked, there is great difficulty and, *a priori*, in many cases impossibility, of making a will.

It must be remembered that deaf-mutism is not the same as word deafness with paraphasia or jargon aphasia. In both, it is true, the patient is unable to understand spoken language; in both he is unable to make himself understood by spoken language, but here the likeness ends. In many cases of deaf-mutism the patient is highly educated, and his brain power remains active and perfect; for in such cases there is no central brain lesion. Deaf-mutism is usually due to a peripheral lesion of the organ of hearing. In most cases of deaf-mutism there is no brain defect, no brain lesion. Many of the patients are extremely intelligent, extremely quick in picking up signs and and in expressing themselves by signs; they can understand words expressed to them by finger language or lip language; they may be even able to read and write. In such cases there is no incapacity for making a will.

Bateman records the following case in point:

> John Geale, of Yateley, yeoman, deaf, dumb, and unable to read or write, died leaving a will which he had executed by putting his mark to it. Probate of this will was at first refused, on the ground that there was not sufficient evidence of the testator's understanding and assenting to its provisions. At a later date, however, a fresh application was made to the Court, when the widow and attesting witnesses explained the signs and gestures by which the deceased informed them that the will was the instrument which was to deal with his property upon his death, and that his wife was to have all his property in case she survived him: The said John Geale first pointed to the said will itself, then he pointed to himself; he then laid the side of his head upon the palm of his right hand with his eyes closed, and lowered his right hand towards the ground, the palm of the same hand being upwards. These latter signs, it was stated, were the usual signs by which he was in the habit of referring to his own death, or the decease of someone else. He then touched his trousers pocket (which was the usual sign by which he referred to his money), then he looked all round and simultaneously raised his arms with a sweeping motion all round (which was the usual sign by which he referred to all his property). He then pointed to his wife, and afterwards touched the ring finger of his left hand, and then placed his right hand across his left arm at the elbow, which latter signs were the usual signs by which he referred to his wife.

### COMBINED SENSORY APHASIA DUE TO A LESION OF THE CENTRES.

When the word deafness and word blindness are complete, the patient is rarely (if ever) capable of making a will; indeed, the presumption is strongly against his ability to make a will in all cases of combined sensory aphasia.

In cases of combined sensory aphasia in which the word deafness and word blindness are complete (1) we can only communicate with the patient by means of signs—pantomime; (2) the motor speech faculties are usually seriously

disturbed, there is usually a marked degree of paraphasia or jargon aphasia and, it may be, complete motor aphasia, and agraphia; (3) internal speech and thought are always seriously impaired; and (4) in consequence of the extensive brain lesion the mental and intellectual faculties are in many cases more or less impaired, irrespective of the aphasic condition.

In those cases in which the word deafness and word blindness are incomplete, in which the motor speech defect (paraphasia) is only very slight, and in which the mental condition of the patient is only slightly affected, the patient might possibly be able to make a simple will, to give instructions for a simple will and to execute a simple will (as in cases of pure word deafness in which the patient has never learned to read); but such cases would require to be very carefully tested and scrutinised before the ability of the patient to make a will was admitted.

### The Will-Making Power of Patients Affected with "Total" Aphasia.

In cases of total aphasia (word deafness, word blindness, motor vocal aphasia, and agraphia), the lesion is still more extensive, and the mental disturbance still more profound. In these cases we cannot communicate with the patient and he cannot communicate with us except by means of signs (pantomime). Everyone who has had experience in examining such cases knows how extremely difficult it is to make the patient understand even the simplest questions or requests. It is obvious, therefore, that in cases of total aphasia the patient is incompetent to make a will.

It must be remembered that in many cases of aphasia improvement occurs in the course of time as the result of compensation. This is more particularly the case in young subjects, and in those cases in which the aphasia is due to embolic infarction; in which, in other words, the cerebral arteries and the brain tissues (other than the artery which is blocked by the infarction and the portion of brain tissue which has undergone softening in consequence of the infarction) are healthy.

Hence, it does not follow that because a patient affected with complete sensory or even total aphasia is unable to make a will to-day he may not be able to make a will after several months have elapsed, that is, after sufficient time has elapsed for compensation to take place.

#### References.

[9] It is probable, I think, that isolated agraphia may in some instances occur as the result of a lesion which interrupts the connecting fibres passing from the visual speech centre (left angular gyrus) to the motor writing centre. [10] According to Déjerine and Mirallié, there is always (1) some derangement of the action of the auditory speech centre, which in many cases is shown by the fact that the patient, who is quite able to understand simple questions, seems unable to grasp the meaning of long complicated spoken passages; and (2) some defect in the action of the motor speech centre. The usual defect is a slight degree of paraphasia. In some cases spontaneous speech is more markedly affected. [11] *Gazette des Hôpitaux*, 1882, p. 587.

## A CASE OF ABSCESS OF THE RIGHT TEMPORO-SPHENOIDAL LOBE,

### Associated with Left Hemiplegia and Hemianæsthesia due to Pressure on the Internal Capsule and Paralysis of the Right Third Nerve.

By HAMILTON A. BALLANCE, M.S., F.R.C.S.,
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Records of successful operations for the relief of temporo-sphenoidal abscesses are not uncommon, but the point of special interest about the following case was the ease with which the differential diagnosis was reached. On admission, combined with the general symptoms of intracranial abscess secondary to right-sided suppurative otitis media, were those that were localising, and indeed pathognomonic of the site of the lesion.

J. B., aged 25, was admitted into the Norfolk and Norwich Hospital at 3.30 P.M., September 27th, 1896, under Mr. Donald Day. He had had right-sided otorrhœa off and on since he was 10 years of age; for the last twelve months the discharge had been worse and very offensive. About six weeks before admission he had some rather severe pain in the right ear. This ceased and then the discharge suddenly reappeared. The discharge lasted for about a week, and no discharge has been noticed from the ear during the present illness.

*Present Illness.*—The present illness commenced on September 18th with pain in the right ear and sickness. The pain was of a bursting character, and spread from the ear all over the right side of the head, including the occipital region. It has been extremely severe in character, and has only been kept in check by morphine. The pain gradually increased in severity till drowsiness supervened, which has been present for two or three days. Patient has been sick at frequent intervals every day of his illness, but this symptom has moderated during the last two or three days. He was last sick on the day before admission. There has been no rigor. The drowsiness of the last two or three days has gradually deepened, so that from 5 A.M. this morning the friends state that he has been very difficult to rouse, and that from midday they have not been able to awake him at all. No weakness of the limbs or affection of sensation was complained of by the patient or noticed by the friends previous to admission. There has never been a discharge from the left ear.

September 27th. *Condition on Admission.*—The patient is a man aged 25, aspect pale, and he lies in bed on his back almost comatose. A strong, painful impression or loud shouting has to be used to rouse him, but he will not reply to questions, though he will grasp the hand if told to. The body is flaccid, and cerebration very slow. Pulse 60, fair size and tension; respirations 14, sometimes stertorous; temperature 98.8 in the rectum. The eyes are kept closed, but it is noticed that the left eyelids do not quite meet. When told to show the teeth he does so, and the angles of the mouth are raised about equally. When, however, he moves the face voluntarily, as, for example, when one of the limbs is sharply pinched, the right side is alone drawn up. When told to shut the eyes tightly the right eyelids are screwed up more than the left, although the left lids can be completely approximated. The right pupil is widely dilated, the left of medium size, but neither react to light. There is some external strabismus of the right eye, but the patient seems quite unable to turn the eyes from side to side. Right fundus: the veins are very large, arteries small, disc redder than natural, and edges blurred. Left: the veins are large, but not so distended as on the opposite side; the outline of the disc is clear. Tongue furred, breath foul, bowels constipated. Tongue protruded straight. There is hemiparesis on the left side, easily made out in the face, arm, and leg. In addition to the facial weakness above described, the left arm and leg are also affected. The right arm is solely used by the patient when he takes hold of anything; the left not at all. Grip on the right side is strong, on the left extremely weak, the fingers merely closing on one's own when the grip is tested. The left arm as well as the leg remain quite flaccid in bed. When told to bend the left knee he appears quite unable to do so, although repeatedly urged, but on the right side the power of flexion is strong. The knee-jerks are exaggerated on each side, the left more so than the right. No rectus clonus. There is an attempt at clonus in the right ankle (3 or 4 contractions), but well marked ankle clonus on the left side. Plantar reflexes absent. There is nearly complete left hemianæsthesia. The patient feels a pin anywhere on the right side after a second or two, but it needs a much longer time, and the pin must be stuck right into the skin for him to appreciate it on the left side, either on the trunk or limbs. As a good instance of the impaired sensibility on the left side of the body it may be noted that the conjunctival reflex on that side is very slight and ill marked as compared with that on the right. There are no fits, nor have there been any during the illness. There is a little foul pus which can be mopped out of the right tympanum, but there is no swelling or redness over the mastoid.

September 27th. 5 P.M. *Operation by Mr. Day.*—Under chloroform a curved incision was made behind the right ear, and the antrum was opened with the gouge and hammer. The mastoid was sclerosed. There was no pus to be found in the antrum, but to the introduced probe the walls seemed to be covered with soft granulations. The incision was then extended upwards and forwards for 2 inches and the squamous bared. A 1-inch trephine was then applied with the pin at a point 1½ inch above Reid's base line, and ½ inch behind the centre of the external auditory meatus. The dura immediately bulged into the wound after removal of the disc of bone, and did not pulsate. It seemed to the finger to be under very great tension. The dura was incised and the cortex at once bulged through the opening; a pair of sinus forceps thrust into the brain let out about an ounce of stinking pus, the first part dark brown and watery, the last creamy and yellow. The quantity, 1 ounce, is an estimate of those who saw it escape; it was not measured. An agar tube was inoculated at this time. The track went forwards and downwards, and the cavity was a large one, as when ½ inch of the little finger was introduced, the opposite wall could not be felt. The abscess was only just under the cortex. It was flushed out with sublimate solution, 1 in 5,000, and a drainage tube 2 inches long inserted. After the abscess had been opened the brain pulsated normally. The upper part of the wound was sewn up with silk, the lower part left open, and a gauze drain put into the mastoid.

September 28th. Pulse and respiration both rose to normal last evening after the operation. This morning the patient is much better; he is rational and answers questions, but is still rather dazed. Sensation and motion on the left side of the body have improved; the knee-jerks are both present and equal. There is an attempt at ankle clonus on the left side, but not the right, three or four contractions only occurring. The power of flexion of the left knee is fair, but not nearly so strong as on the right. The pupils both react to-day, but the right is still larger than the left, though not so large as yesterday. There is still some weakness of the right third nerve, as the eye cannot be turned into the inner canthus, but easily travels into the outer.

September 30th. Dressing is changed once a day, discharge very foul. Patient is in rather a sleepy condition, but is not sick and takes food well. Had some headache last night, which was relieved by morphine. The grip of the left hand and the power in the left knee is almost as good as on the right side. The left knee-jerk is more brisk than the right, and there is still a little clonus in the left ankle; weakness of the right internal rectus continues, but the pupils are equal and of normal size.

October 6th. Patient has had pain in the right side of the head every evening of late, which has to be relieved by morphine. The tube has been gradually shortened the last few days, but it was changed for one of the original length to-day, as the sinus forceps introduced into the track let out about a couple of drachms of foul pus, there having evidently been some re-collection. Still some weakness of right internal rectus.

October 16th. Much better, no pain, knee-jerks equal, no ankle clonus.

October 18th. Has been troubled with diplopia the last few days, apparently aggravated by some atropine which was dropped into the eyes. The false image is below the true, and the double vision is more in the lower than the upper half of the field of vision so far as can be made out, notwithstanding the condition of slow cerebration of the patient.

October 15th. Patient complains to-day of dimness of sight in the right eye. He cannot read ordinary newspaper print with the right eye alone, although easily with the left. Still has to have morphine at night for the headache. Tube is now 1 inch long.

October 17th. Tube left out.

October 19th. Got up to-day for the first time; diplopia less.

October 26th. Can easily read newspaper to-day with right eye alone.

November 3rd. The upper part of the wound behind the ear, originally leading into the abscess cavity, is now quite healed; the track into the antrum at the lower part, however, still discharges a little pus. The temperature has remained normal or subnormal since admission, only once exceeding 99° since his first day in hospital.

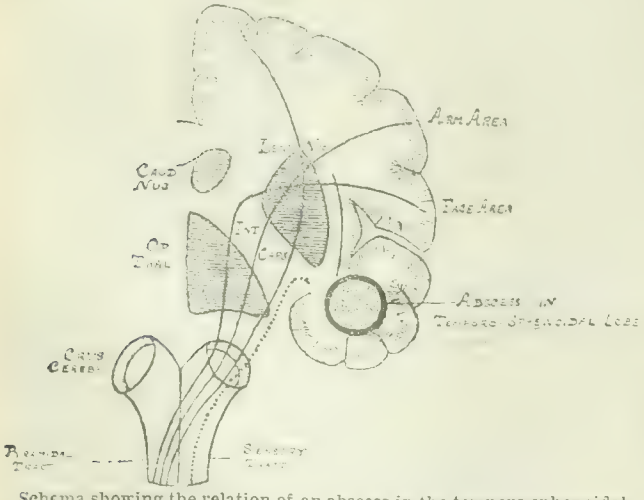
November 14th. Patient went to-day to the convalescent home quite recovered, except that there is still a little discharge behind the ear in the track leading from the antrum. The diplopia has almost gone; he only occasionally sees double on looking downwards. The left disc is normal, the right is just a little blurred at its upper and inner part, the rest of the outline is clear.

The primary diagnosis of brain abscess being made from the low temperature, slow pulse and respiration, etc., the next step was to determine its locality. The fact that the paralysis was on the opposite side to the otorrhœa at once put out of court the right lobe of the cerebellum; for in disease of the cerebellum, as is well known, paralysis occurs on the side of lesion, the explanation of which is to be found by reference to the experimental work of Luciani, Marchi, Russell, and others.

It was, then, desirable to find confirmatory evidence pointing to disease of the right temporo-sphenoidal lobe, and this was easy. Associated with the paresis was hemianæsthesia. Now, loss of sensation is quite unknown in patients with cerebellar abscess,[1] though Russell does mention some blunting of sensibility in the paretic limbs in his ablation experiments on the cerebellum.

Again, the right pupil was in a state of stabile mydriasis. This has often been recorded in large temporo-sphenoidal abscesses, and is apparently a pressure phenomenon of the third nerve. It does not occur in cerebellar lesions, and lateral deviation of the eyes, which is common in these, was not present.

The next point to consider was the mode in which the abscess was causing the paralysis. If reference is made to the accompanying schema, which is modified from one in Macewen's *Pyogenic Infective Diseases of the Brain and Spinal Cord*, it will be seen that an abscess in this situation will cause paralysis in one of two ways.



Schema showing the relation of an abscess in the temporo-sphenoidal lobe to the internal capsule.

If it exerts its paralytic influence on the cortex, as for example by a spreading meningitis, the order of the march of the paralysis will be, face first involved, then arm, and lastly leg. With cortical involvement, too, convulsions may be expected, commencing in the regions represented in the inflamed motor cortex, and if anæsthesia be present it would be of "cortical" type. On the other hand, if the paralytic influence of the abscess is due to pressure on the adjacent internal capsule, we should expect marked loss of sensibility, the anæsthesia not being of "cortical" type, this should come on before the motor paralysis, and the latter, in consequence of the change in the relative positions of the descending fibres in the corona radiata, would proceed in the order, first leg, then arm, and lastly face. In this last form of paralysis there would be no fits.

Now Macewen in the above-mentioned work states that no case has yet been recorded that certainly showed the paralysis was due to involvement of the internal capsule, but I think it must be admitted that this case most distinctly comes into this category, and hence is quite unique in this particular.

Although this patient was only seen late in the disease, and we were therefore not able to tell at what period in relation to motor paralysis the anæsthesia appeared, yet the following facts seem to me to quite establish this view of the case:

1. There were no fits.
2. The loss of cutaneous sensibility was very marked.
3. The paralysis of the leg was more than that of the arm, and that of the face was least of all, which is precisely what one would expect from involvement of the internal capsule.
4. The hemiparesis rapidly disappeared after evacuation of the abscess.

The diagnosis then further narrowed itself down to abscess of the temporo-sphenoidal lobe causing secondary hemiplegia and hemianæsthesia by pressure on the internal capsule, and the prognosis correspondingly improved, as it is a far graver symptom to get paralysis from cortical involvement than capsular.

The ankle clonus on the paralysed side is interesting, being apparently caused by the cutting off of the normal inhibitory action of the cortical on the spinal centres. As regards the technique of the operation, the excellent rule of first opening the mastoid antrum and then proceeding, with the information gained by the mastoid operation, was followed. From the fact that pus was not obtained from the antrum, and that no perforation was detected in its roof, it is probable that the infective process spread to the cortex through the roof of the attic, as is so often the case.

The lengthening of the mastoid incision forwards and upwards above the auricle displayed the requisite portion of the squamous extremely well. It is obviously the best practice to get at the pus by as short a route as possible, and the old directions of a few years back put the trephine opening far too posteriorly. The abscess is usually near the tegmen tympani, and as the antral-attic junction is roughly opposite the posterior wall of the bony meatus, the pin of the trephine may be placed with advantage on a vertical line extended upwards from this landmark. As the abscess track in this case led distinctly forwards as well as inwards, it would have been well if the trephine opening had been made a little farther forwards.

Macewen recommends that the pin of the trephine should be in a line with the posterior wall of the bony meatus, and three-quarters of an inch above the posterior zygomatic root.

### BACTERIOLOGY.

The agar tubes inoculated at the time of the operation showed a milky growth rapidly spreading over the surface, and this had the exact appearance of that produced by the bacillus coli communis. Cover-glass preparations displaying the morphology, motility, and staining reactions of the organism confirmed this view. A subculture was forwarded to Dr. Kanthack, who very kindly undertook an exhaustive investigation into the nature of the growth. The following organisms were separated:

1. Bacillus coli communis.
2. An ordinary saprophyte which liquefies gelatine, is motile, forms no gas, does not stain by Gram's method, name unknown.

My best thanks are due to Dr. Kanthack for the time spent and trouble taken in undertaking this work, as it adds much to the completeness of the case. Macewen has found in his cases the staphylococcus and streptococcus pyogenes most frequently, and it does not appear that the presence of the

bacillus coli communis has been noted in the pus of a brain abscess operated on by him, or, as far as I know, by any other surgeon.

Since the above was written I much regret to state that the case has terminated fatally.

The patient was readmitted to the hospital on November 23rd, having only been nine days at the convalescent home. He was quite well up to the evening of the 22nd, except for feeling rather faint during the previous two or three days, but there was no pain. On the 22nd violent pain began in the frontal and occipital regions associated with frequent vomiting. There was no rigor. These symptoms have continued up to the time of readmission.

November 23rd. *Present Condition.*—The patient lies in bed groaning and complaining of severe pain over the eyes and at the back of the neck. He is quite rational, and there are no paralytic symptoms. He is frequently sick. Temperature 104.2°, pulse 140. The left knee-jerk is present, the right cannot be obtained. The skin over the old trephine opening bulges a little, but pulsates. There is some purulent discharge from the lower end of the original incision.

November 24th, 11 A.M. The patient has passed a restless night, with much pain and sickness; temperature 103°, pulse 120. The skin over the trephine opening bulges still more, has ceased to pulsate, and presents on the surface a small greyish, fœtid, ulcerated patch. 4 P.M. Under chloroform Mr. Day opened up the lower part of the original wound, and with the gouge enlarged the track leading into the antrum and removed the upper part of the posterior bony meatus and the outer wall of the attic. The roof of the latter cavity was found to be perforated. The original passage through the trephine opening was then reopened and about 1 drachm of stinking brown pus evacuated from the temporo-sphenoidal lobe. The cavity was syringed out as before and a tube left in, although there was considerable difficulty in retaining it in position. Another tube was placed in the mastoid and the whole wound left widely open and stuffed with gauze.

November 25th. The operation has produced no amelioration in the patient's condition. During the night he was very restless, and morphine was necessary to quiet him. After the operation the temperature rose to 105° and the pulse to 150, and he died very suddenly at 8 A.M. this morning, ceasing to breathe without any warning. It was noticed at 3 A.M. that when the face was contracted in a spasm of pain only the right side moved, also that he used the right arm much more than the left, although the power of movement was not lost in the latter.

*Necropsy* (twelve hours after death).—The abdominal and thoracic contents were healthy, except that the right side of the heart was over-distended with clot. On removing the dura mater the convolutions were seen to be much flattened, and the veins in the pia mater, except posteriorly, empty, and this was especially noticeable over the cortex of the right parietal lobe, which was quite white. There was no meningitis on the vertex. On removing the brain yellow lymph was seen to thickly coat its base and to pass up anteriorly along the commencement of the Sylvian fissure. It also covered the interpeduncular space, together with the pons, bulb, and adjacent parts of the under surface of the cerebellum. The cortex was adherent to the dura round the trephine opening and to the tegmen tympani, where the membrane was thickened and converted into a granulation tissue overgrowth. As the temporo-sphenoidal lobe was being detached a little watery pus escaped from its interior. In the roof of the attic and antral-attic junction were three small perforations in the bone, the largest an eighth of an inch in diameter, and it was evidently through these that the infective process had spread to the temporo-sphenoidal lobe. Around them the bone was in a condition of rarefying osteitis. The attic, antrum, and tympanum contained foul granulation tissue, and the surfaces of the bone were much inflamed. The stapes was present, but the remainder of the ossicles were only represented by the head of the malleus and adjacent portion of the incus. The lateral sinus was quite healthy, but the lateral sulcus in the immediate neighbourhood of the antrum presented a boss of porous bone half an inch across and an eighth of an inch in thickness, evidently a protective new deposit, and explaining the fact that the lateral sinus never got infected notwithstanding fifteen years of middle ear suppuration.

After hardening the brain in spirit the abscess cavity was found to occupy the posterior part of the temporo-sphenoidal lobe, and to measure 2 inches in length from above downwards and outwards, and 1 inch from side to side. The walls were collapsed, and their surfaces sloughy. In vertical sections of the brain the immediate proximity of the inner wall of the abscess to the internal capsule was very clearly seen.

REFERENCE.

[1] See cases recorded by Acland and C. Ballance, *St. Thomas's Hospital Reports*, xxiii.

## THE SERUMTHERAPY OF BLOOD POISONING: A PLEA FOR EXACTITUDE IN THE USE OF ANTISTREPTOCOCCUS SERUM.

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Late Research Scholar, British Medical Association.

IT has often been thought by members of our profession that the ways of the worker in laboratories and of the family physician are but little likely to have much in common. This was certainly the general feeling at the time of my first initiation into hospital work, about fourteen years ago. The intervening years have, however, been crowded with events; our knowledge of the causation of infective disorders has exploded some of the pet theories of the old pathologists, and at the present time the skilled bacteriologist is applied to, not only to aid the clinician in determining the nature of an obscure or doubtful ailment, but also in many cases to furnish a remedy for the same. Specialism is looked at askance by many, but few will now be found to deny that the specialist in bacteriology has justified his existence. The small group of cases which I now report will serve well to illustrate how close should really be the relations between the treater of disease and the scientific investigator thereof, and how dependent the one is on the other:

CASE I. *Severe Erysipelas of the Head, successfully Treated with Anti-streptococcus Serum.* By ALFRED R. FRIEL, M.D., F.R.C.S.I. (Waterford).—The patient was a gentleman of good constitution and active habits, aged 61. On February 15th he presented erysipelatous inflammation of the nose and cheek. Was very restless, and suffering great pain. Temperature was 101°, pulse 116. The inflammation rapidly extended, and there was copious formation of bullæ. On the 17th the disease was well marked. There were headache, continued high temperature, and thirst. At 11.30 A.M., 10 c.cm. of antistreptococcus serum were injected under the skin of the abdomen. A similar amount was given at 5.30. These injections were repeated during the next two days. The patient's condition rapidly improved, the subsidence of the constitutional symptoms being especially marked. Pain disappeared, temperature and pulse returned to normal, and by the 21st he was practically convalescent. Mild aperients and small doses of morphine constituted the only additional treatment applied.

*Note.*—Some serum from one of the bullæ was collected by Dr. Friel, and sent to me in a sealed glass tube for examination. I made a plate culture therefrom, and within a very few hours was able to report that the specimen had yielded an absolutely pure culture of streptococci. The clinical diagnosis was therefore fully confirmed by laboratory observation. Both Dr. Friel, and Dr. Atkins who saw the case with him, were convinced that the rapid recovery was attributable to the prompt use of the serum.

The following two cases I am enabled to report by the kindness of Mr. Stephen Paget, in whose experience they occurred:

CASE II. *Lymphangitis from Inoculation from a Case of Septic Peritonitis: Rapid Recovery on the Fourth Day.*—S. P. wounded his finger while operating on a case of septic peritonitis following childbirth (the initial operation was performed as a last chance, and failed to save the patient's life). On that same evening the wounded finger began to throb, and next day, about twenty-four hours after the infection, there occurred a sharp rigor, and a temperature of 103° F. Within an hour of the rigor 20 c.cm. of antistreptococcus serum were injected; this was on a Sunday evening. Subsequent injections of 10 c.cm. each were given on the Tuesday, Wednesday, Thursday, and Friday following, so that the total amount injected was 60 c.cm. A year and a half before a somewhat similar infection of the same hand had occurred, leading to a slow and tedious suppuration of the axillary glands; the whole mass of these glands had then been removed by Mr. Ballance. It seemed that a man suffering from a poisoned wound of the hand, and deprived of axillary glands, ran a very special risk of general infection, so that the case was one of exceptional interest. The subsequent history of the case was, however, as follows:—For three days the temperature ran high, rising on the third day to 104° F.; on the fourth day it fell to 99°. There was no swelling of the hand or arm nor any red streaks up the arm. About the second day diffuse patches of lymphangitis appeared over the deltoid and along the anterior fold of the axilla, with some swelling below the clavicle. On the fourth day the whole attack came suddenly to an end. The lymphangitis faded, desquamated, and slowly disappeared, the temperature fell to normal, and within a week from the commencement convalescence was well advanced. This is the fourth time that this patient has had a poisoned hand from a scratch during operation or during a *post-mortem* examination. In each previous attack suppuration occurred and healing was slow. This time, however, although the source of infection was a most virulent one, though the onset of symptoms was very rapid, and though there were no axillary glands to arrest the poison and prevent its entrance into the general circulation, yet at the end of four days the whole trouble was ended. It is difficult to escape from the conclusion that this good result was due to the prompt use of the serum, which also seems to have prevented the occurrence of the headache and feeling of intense depression which form so prominent a feature in most cases of septic infection.

CASE III.—*Lymphangitis from Mixed Infection: Death.*—A man, aged 32, was admitted to hospital under Mr. Paget on January 4th, 1897. Five days before admission a small pimple was noticed on the skin of his upper lip, which he poulticed. On January 2nd the lip began to swell, and next day a little blood and pus came from the sore spot. On the day before admission he had rigors, sweating, and headache. On admission the upper lip was greatly swollen, hard, and dusky, and showed one or two minute points of suppuration. It was at once incised, but no defined abscess was found. On the 5th his general condition was worse, and he complained of pain in the right side and back. Two injections of serum were given (10 c.cm. each time), and at midnight three more incisions were made, but no pus was found. On January 6th three more injections were given (10 c.cm. each), and on this day he seemed on the whole better. But on January 7th he was in every way worse—delirium, restlessness, hard infiltrating swelling over the whole side of the face, œdema of the neck. In the afternoon 10 c.cm. more serum were injected, and in the evening the lip and cheek were very freely incised, a little pus escaping from one of the incisions. Next day, January 8th, he was much worse; two injections of serum were given, one of 22 c.cm. and the other of 20 c.cm, but in the evening he began to sink. At midnight he was unconscious, bathed in sweat, pulse imperceptible, respirations 50, temperature 105.4°; and half an hour later he died.

A bacteriological examination of the blood of this patient

during life indicated the case as one of mixed infection, for the streptococcus was not the only microbe present.

The prognosis in cases of this class is always much worse than in cases of simple infection, so that the failure of the serum to effect a marked improvement cannot fairly be used as an argument against its efficacy in other instances where the infective agent is a streptococcus unassociated with other microbes.

CASE IV. *Infection by Staphylococci.*—This may be described in a few words as one of long-standing purulent otitis associated with granulomatous growths in the ears and with recent obscure mediastinal symptoms. The patient was a boy of 9 years, and injections of serum had been made, but without very definite result, with the idea that the infective agent was a streptococcus. Fortunately I was able to obtain a sample of the exudation, and to satisfy myself that staphylococci, not streptococci, were present therein. I therefore advised that treatment with antistreptococcus serum was but little likely to prove satisfactory.

### REMARKS.

The above small group of cases must be of considerable interest at the present time, when the serumtherapy of septic infection is on its trial. It is objected by some that our knowledge of the efficacy of antistreptococcus serum and its mode of action is not yet sufficiently definite. Its possible, or even probable, value is not denied, but it is suggested that a far more extended series of observations thereon in the laboratory ought to be made, and its protective powers in artificial infection more amply proved, before the use of antistreptococcus serum is carried into the domain of practical therapeutics. I hold, however, that at the present time, when the resources of bacteriology are at the disposal of all, and when it is perfectly simple for a practitioner in any part of the country to have the co-operation of a skilled bacteriologist in determining the nature of a doubtful case, the argument against using antistreptococcus serum falls through, especially as the classical treatment of septicæmia is so eminently unsatisfactory. Laboratory experiments have already shown the serum to be harmless; they have also afforded much presumptive evidence in favour of the treatment. Serumtherapy in no way prevents the application of any other treatment desired, nor does it cause inconvenience to the patient. I am therefore unable to appreciate the scruples of a practitioner who hesitates to apply it to a patient suffering from septic infection, on the ground that laboratory observations are neither uniformly favourable nor sufficiently numerous to enable one to say definitely that serumtherapy is beyond all question the treatment for such a condition.

In each case of an infective disorder a doctor has to face a problem more complex than, but in its main points identical with, that which presents itself to his *confrère* engaged in investigating the same infective disease in the laboratory. In the case of septic infection accurate diagnosis is within the reach of all, thanks to modern developments of bacteriology. Having once ascertained that a given train of symptoms is associated with the presence of a streptococcus, and probably due thereto, no injustice can possibly be done to the patient by applying, among other things, a remedy which is certainly harmless and possibly efficacious. Experiments on animals are inconclusive; indiscriminate experiments on patients are unjustifiable. To exhibit to a patient, the nature of whose ailment has been proved by the combined observations of clinician and bacteriologist, a substance admittedly innocuous and possibly beneficial, is, in my opinion, a perfectly justifiable action; it may be called a justifiable experiment on the human subject, provided always that the clinical and bacteriological diagnosis have both been made. It is only the indiscriminate application of serumtherapy to any and every doubtful case that must be condemned.

In a previous note I have briefly indicated the method adopted by myself in preparing the antistreptococcus serum issued under my signature, and supplied to the profession by Messrs. Burroughs, Wellcome, and Co. I have also described its general characters, and the method of ascertaining its efficacy. Since that time I have found it advantageous to adopt slight modifications of the original methods employed, and to use the horse in preference to the ass as a yielder of serum. A full description of the technique of immunisation will form the subject of a future communication. I will only now repeat that this serum is obtained from animals which have been rendered resistant—either by repeated injections of living streptococci, of the germ-free filtered broth in which streptococci have grown, or by combinations of these means—to enormous quantities of streptococci of great virulence. Evidence as to activity of the serum is sought by observing its power to protect an animal previously inoculated with a known fatal dose of streptococci. Unless further investigation should place at our disposal a specific streptococcus toxin comparable with that produced by the diphtheria bacillus, I fear it will be difficult to apply a test of greater accuracy.

I have advocated the employment of scientific methods for confirming clinical diagnoses in cases of apparent septic infection. One of the cases already quoted illustrates the injustice which may be done to serumtherapy if this precaution be neglected. The plan I would recommend for the collection and transmission to a bacteriologist of material for examination is as follows; it may be carried out by anyone possessing a supply of capillary glass tubes such as are used for collecting vaccine lymph:

Thoroughly cleanse the skin over the suspected area, and wash with an antiseptic lotion; sterilise a capillary tube by passing it through the flame of a spirit lamp or gas burner, taking care not to fuse up the open ends; if there be bullæ or free discharge the sterilised tube may now be filled either with the discharge or with the liquid of the bullæ. Otherwise a sufficient quantity of liquid may be obtained by pricking the skin with a needle or sterilised lancet so as to allow a drop or two of blood or lymph to escape. Finally, the ends of the tube should be sealed in the flame. The tube should then be packed in wool, placed in a protecting envelope, and sent to the laboratory for examination. In most cases I find it possible to wire the result of examination within twenty-four hours of receiving a specimen, so that the delay is very slight, and the practitioner is enabled to decide whether to continue serum treatment (if he has commenced it) or to apply it, if he has not already done so.

Finally, I would repeat that serotherapy in streptococcus infection is still on its trial; that absolute evidence for or against its value can only be afforded by cases the nature of which has been accurately demonstrated; that this proof presents no great difficulties, and is readily obtainable even by those unversed in modern methods of research.

## TWO CASES OF ACUTE LOBAR PNEUMONIA TREATED WITH ANTIPNEUMOCOCCAL SERUM.

BY ARTHUR COOKE, M.B.OXON.,
Late House-Physician, London Hospital.

By the kindness of Dr. Washbourn we were enabled to make a trial of his antipneumococcal serum, an account of which he has already published in the BRITISH MEDICAL JOURNAL of February 27th, 1897. At his desire these cases are reported independently.

CASE I.—A. B., aged 36, a trained nurse, was admitted to the London Hospital under the care of Dr. Percy Kidd on November 16th, 1896. Her family history was good. She usually enjoyed good health, but had enteric fever seven years previously, and an ovarian tumour was removed eighteen months before admission. The present illness began on November 12th, 1896, when she first shivered and felt ill. She did not, however, take to her bed until November 15th, when her temperature was 103°. Up till November 5th she had nursed a patient, who died of pneumonia on that day.

On November 16th, when admitted to the hospital, there was flushed face, hot dry pungent skin, temperature 106°, respirations 32 per minute, not laboured; pulse 100, with full regular forcible beat. No cough was noticed, although she complained of a dry cough before admission. There was no herpes. On examining the chest no dulness on percussion was noted; a few very fine crepitant *râles* were heard during inspiration at the base of the right lung. Five hours later there was slight dulness on percussion at the right base: the crepitant *râles* had increased in distribution, and were well marked from the base of the right lung up to the fourth rib posteriorly on the right side. The expiratory breath sound was prolonged at the angle of the scapula. The heart was normal. The abdomen was of medium size, supple, and free from tenderness. The spleen was felt below the costal margin. No abnormality of other organs.

On November 17th the physical signs in the right lung were rather more marked, the breath sounds being faintly tubular at the angle of the right scapula. The general condition of the patient was much the same as on the preceding day. The diagnosis of acute lobar pneumonia was made. At 5 P.M. 561 units (17 c.cm.) of Dr. Washbourn's antipneumococcal serum were injected under the skin of the flank.

On November 18th the general condition of the patient was not much

changed, but she felt more comfortable. The temperature was 104° to 105°, the respirations 30. Pulse 100, medium size, rather softer beat. Cough more frequent, no expectoration. The physical signs in the lungs were still those of consolidation of the right lower lobe—that is, partial dulness (more marked than on November 16th), weak breath sounds, with prolonged expiration, medium-sized *râles*, and increased vocal resonance. 594 units (18 c.cm.) of serum were injected at 11 A.M., and 644 units (19.5 c.cm.) at 11.30 P.M.

On November 19th there was slight general improvement. At noon the temperature fell to 102°, and it remained down for twelve hours.

On November 20th there was much delirium. The temperature ranged from 103.5° to 105°, the physical signs were unaltered. 660 units (20 c.cm.) of serum were injected at 8 P.M.

On November 21st it was noted that the patient had been quieter during the previous twenty-four hours, taking liquid food well. The temperature ranged from 103° to 104 6°. The pulse was 104, regular, rather smaller, and of low tension. The respirations were 44, easy. The tongue was dry and thickly furred for the first time. There was some diarrhœa and no delirium.

On November 22nd the patient had considerable diarrhœa: seven pale loose stools in twenty-four hours of the typical pea-soupy character seen in enteric fever. The temperature was 103° to 104°; 594 units (18 c.cm.) of serum were injected at 11.30 P.M.

On November 23rd 660 units (20 c.cm.) of serum were injected at 10 30 P.M., and on November 24th 495 units (15 c.cm.) of serum at 4 P.M.

On November 25th the patient had gradually fallen into a "typhoid state." There was low muttering delirium with marked tremulousness of the hands. The tongue was dry and brown in the centre, with a streak of fur at each side of the middle line, the tip and edges being red. Temperature 102°, respirations 36; pulse 100, medium size, rather low tension, not dicrotic. Over the right lower lobe the percussion note was still impaired, with weak breath sounds, prolonged expiration, and coarse *râles*. Abdomen moderately distended, not tender; spleen still felt. The stools were very loose and large, pale yellow of the consistence of pea soup, one or two per diem. The patient had then been ill thirteen days from the first onset: the general symptoms were quite out of proportion to the local lesion in the right lung. The diagnosis of enteric fever following pneumonia was made.

November 28th. The patient was still in a "typhoid state," with muttering delirium and considerable tremulousness and diarrhœa. The temperature was 100° to 102°, the pulse 100 to 120, the respirations 36 to 48. The signs in the right lung were clearing up, namely, dulness on percussion was slight below the sixth rib; the breath sounds were only abnormal near the angle of the scapula. A fine red papular rash with some minute vesicles (sudamina) had appeared over the abdomen and chest on the previous day. There were no rose spots. Ehrlich's test was not obtained.

December 5th. Patient's general condition was much the same; delirium and tremor of the hands were somewhat diminished. The temperature was 102° to 103°: pulse 128, low tension; abdomen still full and soft, no rose spots; spleen felt on palpation: stools were pale and formed with flecks of red mucus on them. The signs of disease in the lungs were limited to a small area at the angle of the right scapula, where partial dulness, faint tubular breath sounds, coarse *râles*, and increased vocal resonance were heard. A specimen of blood was submitted to Mr. H. E. Durham, of Guy's Hospital for examination by the typhoid test; no clumping of bacilli was observed. Ehrlich's test was not obtained.

On December 21st the temperature had ranged from 99° to 102° during the previous two weeks, with gradual improvement in general condition; pulse 100 to 112; respirations 28. The tongue was but slightly furred; delirium and tremor were much diminished. The physical signs in the lungs had entirely cleared up. The spleen was no longer felt.

On December 26th a specimen of blood was submitted for examination: no "clumping." Mr. Durham subsequently examined the blood on two separate occasions, but no clumping was obtained.

On January 1st the temperature became normal, and remained so during the succeeding convalescence, which was uninterrupted.

CASE II. X. Y., aged 16, was admitted to the London Hospital under the care of Dr. Percy Kidd on November 16th, 1896. The patient was a potboy, who had enjoyed good health until this illness; his father, mother, and four brothers and sisters were all alive and well. There was no consumption in the family.

The present illness had begun suddenly on November 13th, at 9 P.M., with headache, vomiting, shivering, and general *malaise*. He had pain in both sides of his chest and difficulty in drawing breath. Since then he had had cough and shortness of breath.

On November 16th, when admitted, the face was flushed, the alæ nasi working, respiration 48 per minute, laboured; the temperature was 102°, the skin was hot, dry, and pungent, the pulse 108, regular, large, forcible, and of fair tension; the tongue was furred, bowels constipated; occasional cough, no sputum. The heart's apex beat was normal in position, and no *bruit* were heard. Posteriorly on the right side, from the third rib downwards to the base, and in the axilla there was marked dulness on percussion, tubular breath sounds, inspiratory crepitant *râles*, and increased vocal resonance. No abnormal sounds were heard over the rest of the lungs. The other organs were normal. There was some swelling, pain, and redness round the first metatarso-phalangeal joint of the right foot.

November 17th. The general condition was about the same. In the right lung the physical signs were the same. On the left side at the angle of the scapula there were slight dulness on percussion, weak breath sounds, with some inspiratory crepitant *râles*. At 5 P.M., 660 units (20 c.cm.) of antipneumococcal serum were injected under the skin of the right flank.

November 18th. The general condition and physical signs were much the same. The temperature was 101° to 102.2°, the pulse 108, the respirations 64 and laboured. At noon 660 units (20 c.cm.) of serum were injected. At midnight the same dose was repeated.

November 19th. The temperature ranged between 100.2° and 102.6°. The pulse was 120, and the respirations 60. There was some cyanosis, percussion-dulness, crepitations, and tubular breath sounds had advanced to the apex of the right lung behind; and in front similar physical signs extended from the axilla horizontally to within 2 inches of the sternum. In the left lung the signs at the angle of the scapula were stationary. At 4 P.M. 660 units of serum were injected.

November 20th. The general condition and physical signs were unchanged. Temperature 100° to 102.4°, pulse 112, respirations 52. At 8 P.M. 660 units of serum injected.

On November 21st there was marked improvement in all symptoms, with a gradual fall of temperature to normal during the day. Pulse 96, respiration 32 easy, skin sweating.

On November 23rd there was a rise of temperature to 101°, otherwise a marked improvement in all symptoms had taken place. The tubular breath sounds in the lungs were replaced by weak breath sounds with coarse *râles*.

November 26th. A profuse urticarial eruption appeared over the trunk and limbs. Temperature had remained normal for three days. The physical signs in the lungs had cleared up considerably, slight dulness and weak breath sounds being present at both bases.

After November 26th convalescence was somewhat retarded by the slow formation of an abscess in the right foot, on the outer side of the first metatarsal bone, where redness and swelling were present on admission. Surgical treatment was adopted, and the patient made a rapid recovery.

REMARKS BY DR. PERCY KIDD.

In Case I the illness began acutely, and at first presented the usual features of croupous pneumonia. Whether due to the pneumococcus or not, the disease was an acute pneumonia of lobar dimensions. Enlargement of the spleen was a point that attracted attention from the first. The serum injections were generally followed by some degree of subjective improvement, though no marked effect on the temperature or physical condition of the lung was observed. About the end of the second week the case assumed the appearance of typhoid fever, and the subsequent course of the illness left little doubt in our minds that that was the nature of the malady. The absence of rose spots, and the negative results of the serum test, most kindly carried out by Mr. H. E. Durham, may perhaps be thought to throw some doubt on the diagnosis. Nevertheless from the clinical side the picture of typhoid fever was fairly complete. On the whole, it seems probable that the patient was the subject of a mixed infection by the pneumococcus and the typhoid bacillus. The great rarity of typhoid fever commencing with signs of lobar pneumonia is worthy of note.

As regards Case II little evidence of any specific influence of the serum can be recognised. The disease was of a severe type, but the patient was a young man, and recovery ensued with a well marked crisis on the eighth day.

Further experience can alone decide as to the value of the antipneumococcal serum. Possibly the exhibition of larger doses may give more definite results.

## A SEVERE CASE OF PNEUMONIA IN AN ALCOHOLIC SUBJECT TREATED WITH ANTIPNEUMOCOCCIC SERUM: RECOVERY.

BY C. J. HARNETT, M.B.,
House-Physician, Guy's Hospital.

T. W. B., aged 39, was admitted on February 9th under the care of Dr. Washbourn, to whom I am indebted for permission to publish these notes. He had been in the army for seven years, and is now a waiter. He has been a very heavy drinker. He was taken ill five days ago, but continued his work until the day before admission.

February 9th. On admission, he was fat and had a yellowish complexion, with dusky red patches on the cheeks. His temperature was 103.6°, respirations 28 and painful; expectoration was small in amount, yellowish in colour, and very viscid. Cough was frequent and very painful. Pulse was feeble, 124. The heart sounds were faint, and there was a very faint localised apical systolic *bruit*.

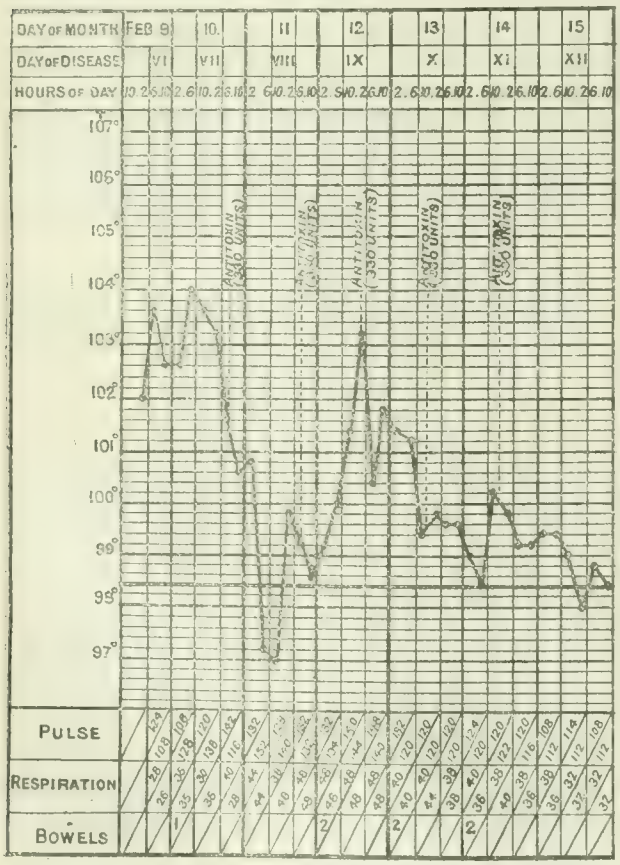
There was marked impairment of movement and deficient entry of air all over the left side of the chest. A loud pleuritic rub was audible below the level of the nipple in front and in the axilla, and below the angle of the scapula behind. No tubular breathing was heard. The right side was normal. There was no increase of cardiac dulness. Urine contained no albumen. He was ordered a sedative linctus.

February 10th. He slept but little during the night, and was distinctly worse. The temperature was 104°, the pulse 128, the respirations 35. He was expectorating typical

pneumonic sputum, viscid and tinged brick red. There was impaired resonance to percussion in front, below the level of the nipple and in the axilla, with pleuritic rub and *râles*. There was dulness below the angle of the scapula behind, with tubular breathing and *râles*. A few rhonchi could be heard over the right side of the chest. In the afternoon he was worse, his pulse having risen to 140. He was ordered 4 ounces of brandy. At 5.45 P.M. antipneumococcic serum 330 units (20 c.cm.) was injected hypodermically. 11.30 P.M., an injection of ½ gr. morphine was given.

On February 11th he gradually got worse during the night, and at 4.45 A.M. was apparently dying; the pulse almost imperceptible. There was loud tracheal rattling, and he was unconscious. Respiration 44, temperature 99: pulse could not be counted. The face was livid, and the hands clammy and cold. He was given hypodermic injections of brandy, ether, and strychnine at frequent intervals, and oxygen inhalations. He rallied considerably, and at 7 A.M. was able to swallow medicine. He was ordered sp. amm. arom. ℥ss every hour. At 10 A.M., although still in a very critical condition, he was much better; the pulse 128, respirations 38, temperature 97. He was ordered a mixture containing ether, ammonia, and strychnine. At 4 P.M. antitoxin 330 units (20 c.cm.) was injected, and at 10 P.M. the general condition was slightly better, and tracheal rattling was not so marked.

On February 12th at 10 A.M. the temperature was 100°; the breathing was distinctly better, being less noisy, and the complexion less dusky. The temperature rose, and at 2 P.M. it was 103.2°, the pulse 144, and the respirations 48. Duskiness of features was getting marked again, and the breathing noisy; 330 units (20 c.cm.) antitoxin injected.




On February 13th the patient was distinctly better the pulse 120 and of good volume, the respirations 40, quite quiet The front of the chest was examined. The percussion note was impaired at the apex down to the nipple, below which it was dull. Over the dull area there was impaired entry of air, feeble voice sounds, and crepitating *râles*; above this faint tubular breathing, marked by loud inspiratory *râles* and expiratory rhonchi. At midday another injection of 330 units (20 c.cm.) was given.

On February 14th the improvement was maintained. The average pulse-rate was 120, the respirations were quite quiet, and the average rapidity was between 35 and 40. There was no lividity. He felt much better, slept well the night before, and was asking for food. The physical signs were beginning to clear in front and at the base, but there was still dulness and tubular breathing behind, above the angle of the scapula.

February 20th. Since February 14th the general condition of the patient had considerably improved. He had had all along a slight elevation of temperature, and on the 25th it rose to 100.8. As there was still dulness at the base, with deficient entry of air, an exploring needle was inserted in the eighth space, near the angle of the scapula, with a negative result.

March 1st. As the physical signs persisted and the temperature continued to rise in the evenings: thus, February 26th 101°, February 27th 101.8°, February 28th 102°, February 29th 102°, a needle was again inserted, this time in the ninth space, but only a few drops of pus were drawn out; the pus was shown to contain diplococci by staining.

March 20th. Since March 2nd the patient gradually improved. The temperature for a fortnight showed a tendency to rise in the evenings, and even now sometimes above 99°. The apical *bruit* heard on admission was not audible. He has been getting up for a week, eating and sleeping well, and was at this date practically well.

He was discharged on April 1st.

[He went to a convalescent home and returned quite well.]

*Remarks.*—The age of the patient, his intemperate habits, and his obesity combined to make him a very bad subject for pneumonia. That the attack was a severe one was shown by his general condition—at one time the pulse was scarcely perceptible—and by the fact that practically the whole of the left lung was involved. Before the first injection of antitoxin the pulse was 140, and some hours later he was so ill that he appeared to be dying. The case was looked upon at one time as hopeless, and it would appear that the treatment was influential in bringing about his recovery. The injections, as seen by a reference to the chart, were followed in each instance by a fall of temperature.

## A CASE OF SUBPHRENIC ABSCESS FOLLOWED BY EMPYEMA SUCCESSFULLY TREATED.

By JAMES McNAUGHT, M.D., M.R.C.S.,
Waterfoot.

THE following case is an example of a condition which is somewhat rare, though now better recognised than formerly. I find in Maydl's work only one case accompanied by empyema which recovered, and I have not been able to discover any similar case in the English literature accessible in the library of the Manchester Medical Society.

A very well nourished man, aged 33, who gave a history of previous gastric troubles, but who had never vomited blood, was seized with severe epigastric pain and vomiting on September 18th, 1896. Though the symptoms were severe, there was no subsequent general peritonitis or anything further to indicate rupture of the stomach. He was speedily relieved by morphine, and after the first day, his diet being restricted both in quantity and quality, no further vomiting occurred.

He was still weak, but apparently improving up to ten days after the first attack, when he complained of severe catching pain below the angle of the right shoulder blade, and his temperature was found to be 101° pulse 114. Coarse friction sounds were audible at the spot named, and there was a short cough but little expectoration. As the man had been confined almost entirely to bed or his room, there was present none of the usual exciting causes of pleurisy, and I therefore, from a consideration of his previous symptoms, suspected that some leakage from the stomach or duodenum had set up inflammation about the diaphragm. Two days afterwards a distinct bulging was noticed in the epigastrium, which proved to be the upper surface of the left lobe of the liver displaced downwards; and further examination showed that the whole liver was displaced, the lower edge being easily traced along a line a little above the umbilicus. The usual anterior liver dulness was found to be replaced by tympanites, which extended from the lower costal margin, as far upwards as the nipple and as far back as the anterior axillary line. At the right base there was marked dulness, extendin

from the inferior angle of the scapula downwards, and this dulness was bounded anteriorly by a curved line running steeply down from the posterior axillary line to the costal margin. Breath sounds were entirely absent over this area. Above the tympanitic area in front, and extending in a band 2 inches wide transversely along the nipple line from the sternum along the ribs to the back, there was also marked dulness. Above this the lung was resonant, and auscultation discovered moist *rdles*. Dyspnœa was considerable, but there was very little expectoration or cough.

During the next forty-eight hours the anterior tympanitic area somewhat increased, and it was noticed that when the patient was turned on to his left side it extended further outwards. Splashing sound could also be readily elicited either by shaking the patient, or rapidly changing his position, or by pressure. There was no fluctuation in the epigastrium. The stomach could be distinctly percussed out and separated from the tympanitic area previously described.

A hypodermic needle, introduced between the ninth and tenth ribs in the posterior axillary line, drew off fœtid pus, and an incision was then made at the same spot, a large quantity of fœtid gas and pus escaping. A hypodermic needle, introduced between the fifth and sixth ribs, showed that there was a clear serous effusion in the pleura. Daily washing out of the subphrenic cavity with izal solution got rid of the fœtor in a few days, and the discharge also rapidly lessened.

The patient improved for about a fortnight, but his dyspnœa then increased, and the pulse, temperature, and general state led me to suspect that the pleuritic effusion had become purulent. On aspiration between the fifth and sixth ribs 10 ounces of sweet pus were removed. Wishing to avoid possible contamination of the pleura from the subphrenic cavity, I contented myself with washing it out with izal solution through the aspirator without removing the needle. For a few days general improvement took place. The discharge from the subphrenic abscess diminished, and the upper surface of the liver returned to its normal position so quickly that it became difficult to put in the tube, which was therefore left out. This was followed, however, by a return of the fœtor, though the discharge remained small in amount. The cavity was therefore washed out with izal solution, and the tube reinserted. A rigor occurred within a few minutes of the washing out, and the temperature subsequently rose to 104°. During the next few days the subphrenic discharge again became sweet and the quantity very small, but the patient's temperature kept up to 103°, and he was obviously losing ground.

On November 3rd, I aspirated between the sixth and seventh ribs, and drew off a portion of pus, which, however, was perfectly sweet, and then resected an inch of the seventh rib. A large quantity of pus and many clots of fibrin escaped. A tube was inserted and kept in for a week, after which the cavity was daily packed with iodoform gauze. The discharge from the subphrenic cavity practically ceased after the opening was made into the pleura, and it speedily healed. The discharge from the empyema gradually lessened, and the patient gained strength rapidly. He was able to get out on Christmas Day, a little over three months from the time when he was first attacked.

The previous history of dyspepsia frequently attended with vomiting, the absence of jaundice at any time after these attacks, the situation of the pain, and the absence of constipation or hydatids, make it pretty certain that this case owed its origin to a rupture of the stomach or duodenum. The rupture was probably small, permitting only a little leakage, hence the slow progress of the inflammation which led up to the formation of the abscess. The quantity of gas present below the diaphragm and the existence of a pleuritic effusion above it of course made the diagnosis much easier than it is in some cases; and as the man was under observation almost from the moment of his attack, and the whole of his symptoms were abdominal, it was easy to exclude pyopneumothorax.

As to the treatment, in another similar case I should be inclined to make the incision into the subphrenic cavity between the eighth and ninth ribs, instead of between the ninth and tenth, to avoid the trouble caused in introducing the tube, by the return of the liver to its natural position, after the discharge has escaped. The treatment of the empyema put me in some difficulty owing to the nearness of the septic discharge from below the diaphragm. In another case I should be inclined, as soon as the existence of pus in the pleura was established, to adopt the system of siphon drainage, since in that way the treatment could be begun early, without reference to the fœtid subphrenic discharge. There would probably be less trouble with clots of fibrin, and the lung expansion would take place more rapidly, while the patient would be saved from the exhausting fever kept up by the presence of pus in the chest. The spot selected for opening a subphrenic abscess will necessarily vary much according to its size, the presence or absence of fluid in the pleura, and its nature. In my case the avoidance of the pleura was a necessity, and the situation of the opening so favoured drainage in the natural position in which the patient lay that the healing of the subphrenic cavity was all that could be desired.

The patient probably owed his recovery as much to his well-nourished condition as to the early recognition and treatment of the complaint.

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

### ACUTE TUBERCULOUS MENINGITIS IN THE ADULT.

THE following case has been under my observation for some years, and presents a clinical picture of no small interest:

Miss E. A. S., aged 25 years, no occupation, consulted me on February 23rd. She complained of loss of appetite, slight constipation, pains in the back, and general weakness. She attributed the cause to "chill" caught whilst practising a cantata in a cold chapel. She was subject to similar attacks from time to time, and usually recovered under rest and ordinary treatment.

Physical examination showed the heart, lungs, and kidneys healthy; there was nothing abnormal in the urine; the menstrual function was regular, the flow somewhat scanty. There was distinct thickening and prominence of the left hip-joint, with slight pain on excessive movement. There was some stiffness in the movements of the spinal column, and pains were referred to the lumbar and cervical regions. The temperature was normal.

The patient was put to bed, ordered a milk diet, given a mild aperient, and the spinal region painted with iodine daily.

On March 4th, the condition remaining much the same, I decided upon acupuncture of the muscles of the scapular and lumbar regions. This was followed by some relief locally, but the general symptoms remained much as before, with the addition of slight nausea; the temperature was slightly raised.

On March 5th she vomited ℥ss of vivid green mucoid matter; there was troublesome constipation and bilious headache. From this time the symptoms became more definite.

On March 7th the headache was much increased, becoming intense upon the following day, with disturbance of vision; the pulse and temperature were variable, the former sometimes frequent, then slow, the latter varying between 99° and 101°.

On March 8th and 9th there was restlessness, followed by active delirium. On March 9th the temperature was 100°, pulse 88, respirations irregular, averaging about 17 per minute.

Ophthalmoscopic examination showed distinct optic neuritis. On the following day the eyes were fixed in an oblique direction, light reflex absent, Cheyne-Stokes respiration, dysphagia from paralysis of the œsophagus, temperature 101.5°, pulse 120. On the following day the delirium became low and muttering, the breathing irregular, the pulse more feeble though more frequent; there was complete loss of power over the sphincters of the bladder and rectum, the temperature rose to 102°; coma and convulsions now supervened, and death took place on March 12th, or within four or five days of definite symptoms of the disease.

REMARKS.—An exact family history could not be obtained. The patient regarded herself as quite healthy until she fell upon the ice during the winter of 1894-95, when she bruised her left hip. During 1895 the patient consulted me, complaining of pain, immobility, and enlargement of the left hip joint, which condition had developed gradually. Absolute rest of the joint was followed by some improvement, but chronic thickening of the joint remained, and I came to regard her condition as one of early tuberculous disease of the hip. During the year 1896 the patient complained of sacral and lumbar pains, and finally of stiffness of the back and pains in the cervical region. Judging from my own observations, I have little doubt that the focus of the tuberculous disease was at the hip-joint, and that extension took place to the cord and brain. I am led to record the above case, first, because of its rarity in general practice, and, secondly, to emphasise the main features to be noted, namely, the extreme difficulty, if not impossibility, of making early diagnosis, the futility of treatment, the rapidity and certain fatality of the disease.

H. MAINWARING HOLT, M.R.C.S., L.S.A., D.P.H.
Malton.

# REPORTS

ON

## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

### NORTHAMPTON GENERAL INFIRMARY.

CASE OF RUPTURE OF THE BLADDER: OPERATION: DEATH.

(Under the care of Mr. Percival.)

T. F., a stout muscular man, aged about 35, was admitted on February 21st, 1897, at 10.30 A.M. He stated that he had been kicked in the lower part of the abdomen on the previous night at about 11 P.M., when in a public-house yard. He was drunk, and believed that his bladder was full at the time of the injury. During the night he had passed only a small quantity of blood. He complained of great pain in the abdomen, and of inability but strong desire to micturate. His abdomen was tender, the thighs were flexed, and there was no bladder dulness above the pubes. A soft red-rubber catheter was passed, and 9 ounces of very blood-stained fluid drawn off. Rupture of the bladder was diagnosed, but, to make certain, 6 ounces of warm boric acid lotion were injected into the bladder after it had been again emptied, and 7 ounces of blood-stained fluid returned. As this made the diagnosis uncertain operation was postponed for a time, but at 6 P.M., as the symptoms continued, 25 ounces of warm boric acid lotion were injected, with the same precautions; and, after twenty minutes, only 12 ounces of it had returned, and that was very blood-stained.

It was now determined to operate, and at 7 P.M. the abdomen was opened, and a rent about 4 inches in length was discovered in the middle line on the posterior surface of the bladder, a large amount of blood clot and urinous fluid escaping through the abdominal incision. The mucous membrane of the bladder prolapsed a good deal through the rent, and a row of about ten Lembert silk stitches was first inserted close to the rent. Another row of thirty or more silk sutures was next inserted external to the others, and this seemed to thoroughly close the wound. It was now tested by injecting warm boric lotion into the bladder, and as there was a slight leak in two places four more sutures were inserted, when it was found to be quite water tight. The abdominal cavity was thoroughly washed out with warm boric lotion, a large number of clots and much urinous fluid being removed. The abdominal wound was closed completely, no drainage tube was used, and a soft catheter was tied in the bladder, and connected by indiarubber tubing with a vessel containing carbolic acid lotion. The operation lasted about two hours, and the man bore it remarkably well.

On February 22nd, the patient had had little pain and was fairly comfortable. The abdomen was less tense; 16 ounces of urine had drained away. The temperature was 99.4°. He was allowed only ice to suck.

On February 23rd, a pint and a half of urine had drained away during the night, and urine was constantly passing by the side of the catheter. As the bowels were relaxed, a simple enema was given, when a large amount of fæces were evacuated. He took ice, milk, and soda water, and a little tea. The temperature was 99°.

On February 24th, urine was passing freely, chiefly by the side of the catheter, which was removed, and as it was found quite clear it was left out, and during the rest of the day he passed his water naturally and without any difficulty. The temperature was 97.6°, and the pulse improving.

On February 25th, at about 3 A.M., he became very cold and sick, his face anxious and pinched, his pulse much weaker. Nutrient enemata with brandy were given; he rallied a little at first, then gradually sank, and died at 8.30 A.M.

*Post-mortem Examination.*—The external wound was quite healthy; internally were evidences of peritonitis, with about ½ ounce of opaque bloodstained fluid in Douglas's pouch. The rent in the bladder was quite healed and completely closed. On injecting water, the bladder was found quite watertight.

Remarks.—The quantity of lotion (6 ounces) first injected was too small, and led to slight error, but this was perceived, and the mistake rectified by injecting more on the second occasion. It is difficult, however, to understand how a bladder with such a large rent could have held any lotion. It would have been better perhaps to have injected air. I attribute the fatal result to the omission of using a drainage tube in Douglas's pouch. It was felt at the time it would be safer, as a large amount of clot and urinary fluid had collected amongst the coils of intestine; and though much time was employed in trying to completely remove it, such could not have been done. My objection to using a drainage tube was that the bladder wound was so exactly in the middle line that any tube must necessarily press on it and retard its union.

# REPORTS OF SOCIETIES.

## PATHOLOGICAL SOCIETY OF LONDON.

Henry Trentham Butlin, D.C.L., President, in the Chair.

*Tuesday, May 18th, 1897.*

### Intestinal Obstruction due to Gall Stone.

Dr. Norman Moore recounted the case of a man in whom complete intestinal obstruction resulted from the impaction of a biliary calculus in the lower part of the jejunum. The patient was seized with sudden pain and vomiting, at first bilious afterwards fæcal. Death took place during laparotomy. After death the bile duct was found dilated and ulcerated. Two cases had been recorded in the Clinical Society's *Transactions*, both being accompanied with similar symptoms to those above detailed; in one of these sudden relief followed the passage of a large gall stone by the rectum.

### Teratoma of the Scalp.

Mr. Douglas Drew exhibited this specimen, which was removed from the right side at the posterior and upper part of the parietal region. The growth was an inch and a quarter in diameter, and had been noticed seven years; it lay close beneath the skin, and was readily enucleated. It comprised histologically the structures of hyaline cartilage in process of ossification, fibrous tissue, fat, glandular tissue, and spaces lined, some with horny epithelium, others with columnar.

Mr. J. H. Targett had seen one similar tumour from the ovary of a girl; this contained in addition unstriped muscle fibre and what appeared to be cerebral grey matter. Similar growths, as was known, were met with in the testicle.

Dr. Norman Dalton remarked upon the similarity of the growth and that known as coccygeal or sacral tumour.

### Charcot's Disease.

Mr. J. H. Targett illustrated, by means of lantern slides and specimens, certain points in connection with the above subject. In some cases there was no production of new bone (atrophic form), in others there was, and this might be extensive (hypertrophic). Exactly similar lesions of the joints were to be observed in syringomyelia. At times intra-articular fractures of the bone in process of destruction took place, the fracture being, perhaps, repaired. In illustration, such a fracture of the inner condyle of the humerus was exhibited. There might be extensive bone formation in the tendons, etc., about such joints. In the foot a remarkable shortening of the toes now and then took place from extreme atrophy of the metatarsal bones, which were converted, it might be, into cords of fibrous tissue. Moreover, at times dorsal dislocation occurred of the metatarsus on to the tarsus in consequence of destruction of the articulating parts of the bones. The great œdema (which was of the solid kind) that sometimes accompanied such disease of the foot was probably associated in all cases with septic conditions of the soft tissues consequent upon perforating ulcers. Ankylosis might ensue, and this when there had been no suppuration.

### A Case of Acromegaly.

Dr. Norman Dalton briefly recorded a recent case of the above. The patient was an adult, who died with diabetic coma. He had had typhoid in 1893, and the acromegaly dated from that time. Besides the usual enlargement of the hands, feet,

and face there was a general enlargement of almost all the viscera. The skin was pigmented in the axilla, and in patches on the abdomen, but no disease of the adrenals was seen. There was tonsillitis, and the whole of the alimentary tract was congested, and showed enlargement of the solitary glands. The organs obviously enlarged were the liver, spleen, pancreas, thyroid, thymus, and pituitary body. The enlargement of the last named was not sufficient to cause atrophy of the optic commissure, as sometimes happened. A similar instance of visceral enlargement in acromegaly, associated also with diabetes, had been described in Belgium by Dr. Dallemagne.

Dr. H. D. ROLLESTON suggested that the pigmentation noticed in the case might have been due to the condition of the thyroid, the association of acromegaly with exophthalmic goître being a recognised one; the disease had obscure relations with myxœdema, and had been successfully treated by means of thyroid extract, although the work of Schäfer and Oliver had shown that extracts of thyroid and of pituitary body were antagonistic in action.

### CARD SPECIMENS.

Mr. CECIL F. BEADLES: (1) Intussusception at Ileo-cæcal Valve; (2) Œsophagus with two distinct Growths.—Dr. H. D. ROLLESTON: Aneurysms of the Lunulæ of the Aortic Valve Segments.—Mr. A. H. TUBBY: Fracture Dislocation of Spine. —Dr. ALLCHIN: Two cases of Ulcerative Colitis.—Dr. R. HEBB: (1) Hydronephrosis; (2) Tuberculosis of Tongue; (3) Two specimens of Monocellular Cirrhosis; (4) Microscopic sections of three cases of Rodent Ulcer indicating the continuity of the columnar layer of the rete with the new growth.

This being the annual meeting of the Society, the election of officers for the ensuing year followed the ordinary business of the meeting.

## CLINICAL SOCIETY OF LONDON.

THOMAS BUZZARD, M.D., F.R.C.P., President, in the Chair.

*Friday, May 14th, 1897.*

### CHRONIC HYDROCEPHALUS, FATAL AT THE AGE OF 16.

DR. FREDERICK TAYLOR described the case of a boy, aged 16½ years, who was admitted into Guy's Hospital, under Dr. Taylor's care, with cerebral symptoms. He had had a large head from early infancy, and at 8 months of age he had bronchitis and fits. But he subsequently grew up strong and well, went to school, learned at 12 years of age to play the violin, became a compositor when 13½ years of age, and continued in that employment until the time of his last illness. On September 2nd, 1895, he complained of headache, and vomited. On the 6th, returning from work, he felt giddy, and vomited. He stayed at home, had constant severe headache, and vomited four or five times daily. On September 11th he came to the hospital with constant headache, chiefly frontal, but also occipital, vomiting and unsteady gait. The head measured 23 inches in circumference. A few days later his head was retracted, and vomiting and headache continued. On September 19th there was loss of power in the legs, and pain was felt in the back of the neck. On September 20th the arms were weak, paralysis extended to the diaphragm, and slightly involved the face. With increasing embarrassment of respiration he died the same day, but was conscious within three hours of his death. The necropsy showed much thinning of the bones of the skull. The cerebral ventricles contained 30 ounces of liquid. The pia arachnoid was thickened at the base of the cerebellium, especially near the foramen of Majendie. The spinal cord and nerves were not examined. Dr. Taylor called attention to the unusual occurrence of chronic hydrocephalus practically without symptoms up to the age of 16½, and leaving, so far as could be ascertained, the intellectual faculties unimpaired, but terminating in a short illness of three weeks' duration, which could only be explained by a spontaneous increase in the quantity of liquid.

The PRESIDENT asked if the atrophy of the thenar muscles was part of a general wasting, or if it was referred to the spinal cord

Dr. TAYLOR, in reply, said there was nothing like general wasting. But it appeared to him that no disease of the cord would have explained the clinical symptoms.

### WOUND OF THE MESENTERY WITH SUBSEQUENT GANGRENE OF THE INTESTINE.

Mr. C. B. LOCKOOOD read notes of the case of a man, aged 64, who had endeavoured to commit suicide by stabbing himself in the left side of the abdomen with a carving knife. He was found unconscious, lying in a pool of blood, with intestines protruding from the wound. When he had partially recovered from the shock the abdomen was opened to stop hæmorrhage. Bleeding was found to come from several rents in the mesentery. Several large vessels were secured, and the rents were closed. One rent, three-quarters of an inch long, was half an inch from the bowel. This was also sewn like the others. It was hoped that there was room for anastomosis in the mesentery betwixt the wound and the bowel. When the man died two days afterwards the bowel opposite the wound was either dead or on the point of gangrene. The vascular supply of the mesentery and bowel had been examined in the dissecting room, and no anastomotic loops were found less than an inch from bowel. Therefore it was erroneous to suppose anastomosis could occur, and without doubt the intestine ought to have been resected.

Mr. W. G. SPENCER would have laid greater stress on the wound and ligature of an artery, described as large as the ulnar artery, as the cause of the gangrene.

Mr. HOWARD MARSH described the case of a gentleman who fell, was at first collapsed, but, feeling well, went to the city and lunched. He then suddenly became alarmingly ill, and died in thirty hours from the time of the accident. The abdomen was opened, and a large portion of the small intestine found gangrenous, and the wound was closed. He lived only an hour or two. At the necropsy a rent of the mesentery was found, which had severed a branch of the superior mesenteric artery.

Mr. MACADAM ECCLES inquired what was the direction of the other rents in the mesentery. Further, was it the portion of bowel which was protruding when the man was first seen which afterwards became gangrenous?

Dr. F. TAYLOR described the case of a child who became very ill with abdominal symptoms. At the *post-mortem* examination blood was found in the peritoneum. One of the branches of the mesenteric artery was narrowed by a deposit of calcareous matter in its wall. There was thrombosis at the same point, and the bowel fed by the diseased artery was gangrenous. The free anastomosis of the vessels had not prevented the gangrene from occurring.

Mr. LOCKWOOD, in reply, said that the portion of gangrenous intestine was exactly opposite the rent he had described, and was not opposite the large branch of artery which he had tied. He said there were many other rents in the mesentery, but many of them were at right angles to the bowel, and they had not all divided vessels.

### STRANGULATED INGUINAL HERNIA: OPERATION: FREE INCISION AND EVACUATION OF INTESTINE: RECOVERY.

Mr. HOWARD MARSH described a case of inguinal hernia, in which the coils of small intestine were so tensely distended with fluid that it was necessary, before they could be returned, to incise them freely. The incisions made were closed by Lembert's suture, and the man recovered. The patient, a man, aged 38, who had had a reducible inguinal hernia for some years, found, on getting up without putting on his truss, that the hernia had come down. He could not return it, and twelve hours later was admitted into St. Bartholomew's Hospital. The symptoms were severe and he was becoming collapsed. On opening the sac, it was found that there was no fluid in its cavity, but that the contained coils of small intestine were so distended with fluid that there seemed danger that they would burst. They were at once freely incised in three places. The fluid consisted of blood-stained serum, such as is often found in the sac itself. The incisions were closed by Lembert's sutures and the coils were returned; the patient recovered without drawback. The author of the paper thought that the practical explanation was that the peritoneal coat of the gut had, by paralytic distension of the coils, been so firmly pressed against the interior of the sac

that the exudation produced by obstructed venous return had been prevented, and that exudation had thus occurred from the mucous membrane, so as to collect in the canal of the intestine.

Mr. LANGTON did not consider effusion so uncommon as usually described. He said that strangulation might begin from without inwards, inflammation following the same course in the knuckle of intestine, and the mucous membrane being the last to be affected; in which case the effusion would take place into the sac of the hernia. Or the inflammation might begin at the mucous membrane first, and proceed outwards, in which case the effusion would first take place into the cavity of the bowel. Many of these cases began with enteritis, He would in such cases as Mr. Marsh's always puncture the intestine and let out the fluid. In two cases he did so, and both recovered.

Mr. LOCKWOOD had come across a largely distended jejunum in a case of acute strangulation. He dropped it back through the large opening into the peritoneal cavity without opening the bowel; in a few hours afterwards a large quantity of blood was passed *per rectum*. Puncture and wounds of intestine made when it was in sight, if carefully sutured, always did well; but punctures out of sight, as those done for distension with the trocar, were very dangerous. The trocar when introduced might be aseptic, but when withdrawn it was septic. In a recent case he had seen septic peritonitis thus produced.

Mr. W. G. SPENCER said that, as a result of experiment, if a ligatured portion of intestine had its nervous supply cut, fluid collected in it, in consequence of the paralysis of its nervous supply; probably in Mr. Marsh's case the nervous supply of the bowel was interfered with.

Mr. MARSH, in reply, adopted this explanation.

IRREDUCIBLE FEMORAL HERNIA IN WHICH THE VERMIFORM APPENDIX ALONE OCCUPIED THE SAC.

Mr. BIDWELL read a paper on two cases. Both were females, and the hernia, though irreducible, had given rise to no symptoms of strangulation. In both his cases he had reduced the vermiform after notching Gimbernat's ligament, and he recommended this treatment instead of excision in all cases where the appendix was not diseased. In most of the other recorded cases of this condition the appendix had been removed.

Mr. LANGTON said that in these cases the symptoms of strangulation were not so acute as in those cases in which the sac contained bowel. The cases were usually in women; they were inguinal and on the right side. When healthy the appendix might be returned to the abdomen without risk of other trouble; when there were adhesions or ulceration he advised its removal. He was opposed to incision of Gimbernat's ligament; if incision were necessary, it should be made upwards and inwards through Hey's ligament.

Mr. MACADAM ECCLES had come across one case of femoral hernia in a man which contained appendix alone. The patient died from another cause, and the hernia was only found *post mortem*. There had during life been no symptoms referable to that lesion. The appendix in that case was 7 inches long; possibly this extra length was due to stretching. If the appendix were adherent it should be removed, and the stump left *in situ*. Cases of appendix in a hernia occasionally gave rise to hydrocele of the sac.

Mr. BIDWELL, in reply, said the appendix was not adherent in either case; both were of short duration when first seen, and were attended by a large collection of fluid in the sac.

## EDINBURGH OBSTETRICAL SOCIETY.

*Wednesday, May 12th, 1897.*

JAMES RITCHIE, M.D., Vice-President, in the Chair.

SPECIMENS.

DR. J. C. KYNOCH (Dundee) showed what appeared to be a specimen of interstitial pregnancy. On the suggestion of Dr. HAIG FERGUSON, the specimen was referred to a small committee for examination and report.—Dr. BREWIS showed a small Tumour which he had that day removed, and which was supposed to be ovarian, but might be parovarian.

INTERSTITIAL PREGNANCY.

Dr. J. C. KYNOCH (Dundee) read a paper on this subject, with notes of a supposed case. The subject of ectopic gestation was one which had received considerable attention from several of the Fellows of the Society during the past few years. Those contributions had for the most part referred to the tubal form, but a case of interstitial or tubo-uterine pregnancy had not been reported. By interstitial pregnancy was generally understood that form where the fertilised ovum lodged in that part of the Fallopian tube which traversed the uterine wall, and there underwent further development. Dezeimeris described four varieties of gestation in the uterine end of the tube: (1) Tubo-uterine interstitial pregnancy where the ovum developed in the uterine end of the tube, and, by its further growth, pushed through the muscular wall of the uterus from below upwards, but always remained covered by the thinned-out wall of the tube. (2) Utero-interstitial pregnancy where the ovum by its increased growth pushed itself through the wall of the tube into the muscular substance of the uterus, and finally became covered by the expanded uterine fibres only. (3) Tubo-uterine pregnancy where the ovum developed in the Fallopian tube, and by its further growth pushed itself into the cavity of the uterus. Such a form would be considered as an unusual form of uterine pregnancy. (4) Utero-tubal abdominal pregnancy where the placenta was situated in the uterus, the umbilical cord in the tube, and the fœtus free in the abdominal cavity. The case now reported would probably come under that variety where the fertilised ovum had become attached to the innermost part of the left Fallopian tube, and by its subsequent growth had pushed itself into the muscular substance of the uterus, and finally become covered by the distended muscular fibres of the uterine wall. Mrs. D., 25, was admitted into the Dundee Royal Infirmary on January 27th, 1897, complaining of pain in the back, persistent vomiting, and frequent micturition, of three months' duration. She had been under treatment in the infirmary two years ago, when she complained of pain in the right iliac region, especially during menstruation, and which she dated from the birth of a child three months previously. At that time the uterus was found retroflexed and movable; there was some tenderness in the right fornix, with enlargement of the corresponding ovary. She was treated with douches and ichthyol plugs and later the uterus was replaced, and a pessary introduced. The present was her fourth pregnancy. Her last menstruation ceased on October 17th, 1896. She was anæmic, and poorly nourished. Breasts fairly developed, contained milk, and there was well-marked areolar pigmentation. Palpation of abdomen caused pain in the epigastric and right iliac regions, and a swelling was felt slightly to the right of the middle line, reaching to a point midway between umbilicus and symphysis. *Per vaginam:* Cervix soft, os patulous, admitting the point of the finger; slight leucorrhœal discharge, no swelling in either fornix. Bimanually there was found a swelling, apparently continuous, and moving with the uterus, reaching upwards to a point 3 inches below the umbilicus. On passing a speculum there was noted a well-marked purple discoloration of the vaginal mucous membrane. The sickness and abdominal pain complained of on admission continued during her stay in the hospital. The case being regarded as probably one of extrauterine pregnancy, operation was proposed; but this the patient declined, and by her own desire left the infirmary ten days after admission. A week later she again presented herself, still complaining of sickness, frequent micturition, and constant pain across the lower abdomen. She persisted in remaining at home. Examination under chloroform at her own home, a miserable one-roomed house, showed that the swelling previously noticed reached upwards to a point 2½ inches below the umbilicus continuous with the uterus, and resembled at its upper part a tense ovarian cyst, the lower part, from its consistence, being obviously the body of the uterus. Both fornices were free. There could be no doubt that the patient was pregnant. The uterus measured a little over 3 inches. Tubal pregnancy was excluded first, on account of the absence of any symptom pointing to rupture of the sac at the period when this accident usually happens in such cases, namely, the twelfth to the fourteenth week; secondly, the complete absence of any swelling in either fornix, and the central position of the abdominal swelling. The patient refused to return to the hospital for operation.

She became worn out from want of sleep, and on account of the persistent abdominal pain and sickness. The consent of the friends having been obtained, an operation was performed. On opening the abdomen there presented in the middle line a tense thin-walled cyst about the size of a melon, continuous with the uterus below. Both ovaries and tube appeared normal. The cyst was punctured, and liquor amnii escaping, the opening was enlarged and a living fœtus extracted. On dividing the cord some traction on the placental attachment was exerted, as this was immediately followed by a gush of blood. The placenta was pulled off, and what represented the sac came away with it. There was an opening on the fundus of the uterus, admitting the point of two fingers. From this opening the hæmorrhage continued very profuse. The broad ligament on either side was ligatured close to the uterus, a strong temporary ligature put round it, it was amputated above this point, and the mucous and peritoneal layers of the stump brought together with continuous catgut suture. The patient stood the operation well, and her condition continued satisfactory until early of the morning of the third day, when symptoms pointing to hæmorrhage came on. The abdomen was reopened, and a considerable quantity of blood was found in the pelvis with oozing from the stump. The abdomen was sponged out, and as the uterus had not been amputated close to the vagina, the stump drawn up, and fixed to the lower part of the abdominal wound as in the ordinary extraperitoneal treatment of the stump. Attempts to inject saline infusion into the rectum were useless as the fluid was not retained for any time. She died from exhaustion twenty-four hours later. The parts removed consisted of the upper parts of the uterus, divided into two compartments, the lower one the cavity of the uterus proper, the walls of which were enormously thickened and lined with a well-marked decidua, and above this, and separated from it by a thin septum, the sac where the ovum had developed, and out of which it had pushed itself through the muscular substance of the uterus. A probe passed through the left Fallopian tube appeared to communicate with this cavity the right did not. The fœtus corresponded to about the fourth month; the placenta had battledore insertion of the cord; the wall of the sac evidently consisted of amnion and peritoneum only. The termination of cases of interstitial pregnancy as compared with the tubal form was invariably fatal on account of the date of rupture of the sac being later, and, as a consequence, more copious free hæmorrhage into the abdominal cavity. The only favourable cases for operation were those that came under observation previous to rupture of the sac, a very rare occurrence, and exemplified by the present case. With reference to the treatment adopted, Dr. Kynoch regretted attempting to treat the pedicle intraperitoneally in place of the ordinary extraperitoneal method. Whatever might be the drawbacks of the latter, it had certainly the outstanding advantage of giving complete control over the occurrence of secondary hæmorrhage, an event which was the cause of the unfortunate termination of this case.

The paper was discussed by Drs. FREELAND BARBOUR, HAULTAIN, and HAIG FERGUSON; and Dr. KYNOCH replied.

### VAGINAL HYSTERECTOMY.

Dr. FREELAND BARBOUR read a paper on vaginal hysterectomy by Doyen's method, with six illustrative cases. The first extirpation of the prolapsed uterus for cancer was done by Andreas a Cruce in 1560. The non-prolapsed uterus was removed *per vaginam* for the first time in 1822 by Sauter, of Constance. In 1829 Blundell also extirpated the cancerous uterus successfully *per vaginam*. A year later, Récamier placed the operation on a scientific basis by ligaturing the base of the broad ligament. For the next fifty years, attention was chiefly directed to hysterectomy for fibroids, but in the large majority of cases a portion of the uterus was left as a pedicle. The modern history of extirpation of the uterus for malignant disease date from 1878, when Freund described his operation for removal by the combined method. The mortality of this operation was shown two years later by Ahlfeld to be 71 per cent. for the 93 cases collected, a mortality which condemned the operation. About the same time extirpation began to be carried out from the vagina alone by an operation elaborated by Czerny, Schroeder, and Martin. The mortality was only 25 per cent. in 32 cases collected by Hegar and Kaltenbach. By this method the parts looked no worse than in a patient who had undergone repair of the perineum. The difficulty was to get at the broad ligaments so as to efficiently control the blood supply. To do this by ligature implied a more or less tedious operation, and it was the use of the clamp instead of the ligature, with the advantages of this method, which formed Dr. Barbour's reason for bringing his communication before the Society. At first sight it might seem that the credit of this operation was due to M. B. Freund. It would seem, however, that the real credit was due to Spencer Wells as Pozzi said. In 1882 this was suggested, and Jennings put it into practice in 1883. Péan and Richelot made the method a practical success. Doyen of Rheims also used the clamp method with great success, and introduced new methods, if not also new principles. Péan used the clamp as a preventive measure; Doyen used it in a definite and final way, and checked any bleeding during his operation by traction on the uterus. Péan and Richelot applied the clamp from above and below upwards, Doyen where possible from above downwards. Doyen also emphasised the advantage of splitting the uterus anteriorly, which allowed it to collapse, and allowed the operator to take a fresh hold along the free margin of the incision. Dr. Barbour then described the technique of the operation, and in reviewing the procedure as a whole, said the following were the advantages of the method: (1) It allowed of more rapid operation. (2) The vigorous traction controlled all bleeding, and no hæmorrhage had to be attended to until the final stage, when the clamp was applied. (3) The splitting of the uterus allowed it to collapse, and gave a fresh hold for the forceps. (4) The rotation of the uterus and the application of the clamp over the upper margin of the ligature first enabled one more easily and more certainly to get the whole ligament within the bite. (5) The weight of the clamp kept the broad ligament pedicles down in the vagina. (6) The layers of the peritoneum thus became apposed, and were adherent above the clamps, which further favoured drainage *per vaginam*. The disadvantage was a longer convalescence. But the shorter operation had to be set against that. Dr. Barbour next gave notes of six successful cases. The first was beginning carcinoma of the cervix, the second was malignant infiltration above the os externum, the third sarcoma uteri, the fourth had a suspicious nodule in the cervix, which broke down, leaving an irregular cavity with friable margins, the fifth had prolapsus uteri, and the sixth had glandular cancer. All the patients recovered without any bad symptoms. The statistics of various operators, English and German, were next quoted, the frequency of cases where operation was possible referred to, and the result as to non-recurrence. The mode of dissemination of cancer by the lymphatics was described, and the researches of Poirier, Seelig, Winter, Russell, Stiles, and others. Local recurrence might be due to three causes: (1) Incomplete removal of affected lymphatics; (2) nuclear operation, cancer cells inoculated on raw surfaces; (3) reappearance of the disease from the same cause which originally produced it.

The paper was discussed by Drs. JAMES RITCHIE, N. T. BREWIS, KEPPIE PATERSON, and FORDYCE; and Dr. BARBOUR replied.

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## ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF STATE MEDICINE.

J. M. REDMOND, M.D., President, in the Chair.

*Friday, April 30th, 1897.*

### THE DISSEMINATION OF MICRO-ORGANISMS.

PROFESSOR CHARLES TICHBORNE read a paper on the dissemination of micro-organisms and on the best method of destroying germ emanations from sewer gas. He pointed out that the solid germs were in most cases carried about, as Professor Tyndall had pointed out, in a manner which he entitled the "raft" theory—the dry atmospheric dust acting as rafts disseminating the dry atmospheric microbes. In enteric fever and allied diseases the sewer gas was stated, with considerable force of evidence, to be a fertile source of spreading the disease, and, in spite of some recent re-

searches, the author was still of opinion that the weight of evidence almost proved this to be the fact. But there was something wanted to explain the theory. Even the smallest germs that microscopes had yet revealed had a certain weight. This fact was shown by the absence of germs at high altitudes or in the very still atmospheres. The author had demonstrated this as far back as 1870 in an afternoon lecture delivered at the Royal Dublin Society. In the microbes of enteric fever we had an organism which, when carried in water or brought mechanically to a receptive surface, was capable of producing disease, and yet it was also found that it was capable of rising in such a vapour as sewer gas. The author used the term "vapour" not in the vulgar sense of a non-permanent gas, capable of condensation, but in the sense that meant anything flying or escaping off. In this sense atmospheric dust was a vapour. Although a germ was so small that the finest balance would not weigh it, and though it might be only $\frac{5}{10000}$th of a millimetre in length, it might as reasonably be conceived that the coarser microscopic life, such as rotatoria, entomastraca, etc., which could almost be seen with the eye, would be volatilised as a vapour as to conceive that pathogenic microbes would be so transmitted. Professor Frankland had shown that liquid sewage matter was not likely to be scattered into the air except by gas generated in it. The author was of opinion that here lay the clue to the dissemination of microbes, but not exactly in the direction which Frankland indicated. We must suppose, in a system of town sewage, certain spots in the mains where microbes were scattered into the air during fermentation, or by violent concussions breaking the sewage into the spray. Then came the question, How are they disseminated through the whole area of the air space of the whole system of drains? The author conceived that they could be carried by a condensed vapour exactly represented by ordinary dew. At certain hours of the night, just as the rising vapour was seen settling as dew in a valley, the temperature of the water-laden vapour of the sewer was lowered by being met with the layer of cold night air through the open traps, which determined a dew point in the sewers themselves. He had found from actual experiment that the temperature of the sewer water as it flowed from the large sewers was generally 2 or 3 degrees above the temperature of the night air. Each particle of dew became a raft which would carry microbes upon its surface, perhaps for miles, as long as the condition lasted, and as the sun's warmth dissipated the morning dew, the water raft disappeared, leaving the microbe suspended in mid air. Or could it not be supposed that if the sewer dew were carried into a warm shaft connected with a dwelling house, it was again apparent that we had the water rafts converted into permanent gas, whilst the now dry germs floated about seeking whom they might devour? The author proposed to disinfect sewers with insoluble disinfectants, which would have a gravity of 850 to 950, so that they would float on the surface of the sewer water. Carbolic acid and disinfectants which were heavier than water were perfectly useless, because the unaffected stream of sewage passed over their surface.

In reply to Sir C. Cameron, Dr. Doyle, and Dr. S. M. Thompson, Professor Tichborne said, with regard to the question of the transmission of the typhoid germ by sewer gas, or, in other words, the capability of the organisms to rise from water and become permanent contaminations of the atmosphere, that he did not presume to state that such was the fact, but nevertheless he believed that such a thing really did occur.

### Report of Vaccination Commission, 1896.

The Secretary read Dr. Alfred E. Boyd's paper on the report of the Vaccination Commission for 1896. The paper dealt with the history of small-pox and the history of inoculation and vaccination; then with the Commission, its scope and its recommendations. With regard to revaccination, he says, in these days of compulsory education, means could surely be found for revaccinating children at the time when they enter school, although there would still be a number unaccounted for: on the whole, the number of revaccinations would be larger than at present. With regard to the honest objector, could an objection founded on ignorance properly be called honest? Was the honest objector to be freed from his obligations in the case of laws dealing with matters other than vaccination?

Dr. A. N. Montgomery, Dr. Ninian Falkiner, Sir C. Cameron, and Dr. Martley spoke.

On the motion of Sir Charles Cameron, seconded by Dr. Martley, it was resolved:

That the Council of the Academy be asked to give their opinion as to whether there should be a special meeting of the Academy to discuss the important points raised by Dr. Alfred E. Boyd's paper.

## PATHOLOGICAL SOCIETY OF MANCHESTER.

T. Harris, M.D., F.R.C.P., President, in the Chair.

*Wednesday, May 12th, 1897.*

### Solid Tumours of Ovary.

Dr. Donald showed some solid tumours of the ovary removed by abdominal section. The specimens included: (1) a solid tumour, about the size of a fœtal head, removed in 1893 from a child aged 6 years and 1 month. On microscopical evidence the growth was pronounced to be a spindle-celled sarcoma, but there had been no recurrence after operation. (2) Three cases of Fibromata of the Ovary removed from patients aged 26, 39, and 52 respectively. In the third case the tumour weighed 19 lbs. (3) A Fibromyxoma of the Ovary. (4) A Fibroadenoma of the Ovary. Microscopic sections of the various tumours were also exhibited.

### Cystic Sarcoma of Muscle.

Mr. E. Stanmore Bishop showed a cystic sarcoma of the semitendinosus muscle. The whole muscle was converted into a fluid sac, and was removed entirely. The patient recovered and could walk well. Sections of the wall of the growth (for which he was indebted to Dr. Kelynack) were shown. They exhibited a small spindle-celled structure with some myeloid cells.

### Leukæmia.

Dr. Fox Edwards showed specimens of blood from cases of leukæmia, which illustrated the marked differences between the myelo-splenic and lymphatic forms. Dr. Edwards showed that between the ordinary finely granular oxyphile cell and the myelocyte with oxyphile granulation there were many cells intermediate in character, which fact made it possible that certain of the myelocytes might be abnormally developed finely granular oxyphile cells, the change occurring in the blood and not in the bone marrow. He also pointed out that while minute basophile granules occurred quite frequently in the lymphocytes, oxyphile granules also occurred, but only very occasionally.

### Intrahepatic Thrombosis.

Dr. Kelynack showed specimens from a case of stenosis of the hepatic vein, with extensive thrombosis of its branches in the liver. The patient was a woman, aged 32. The chief symptoms were enlargement of the liver, ascites, and jaundice. The illness lasted six weeks, death resulting apparently from cholæmia.

### Intraocular Hydatid Cyst.

Dr. Hill Griffith mentioned this case, and remarked on its extreme rarity.

### Card Specimens.

The following were shown:—Dr. Brindley: Biliary Cirrhosis.—Dr. Moore: Microscopic Preparations from "Alcoholic Heart."—Dr. Woodcock: Foreign Body from Pharynx.—Dr. Wolstenholme: (1) Lung from case of Glanders in a Horse; (2) Cultures of Bacillus Mallei.—Dr. Yonge: Singer's "Node" of the Vocal Chord.—Dr. Kelynack: Malignant Growth of Heart.—Dr. McNeilage: Anencephalic Fœtus.

## LEEDS AND WEST-RIDING MEDICO-CHIRURGICAL SOCIETY.

James Braithwaite, M.D., President, in the Chair.

*Friday, April 30th, 1897.*

### Triplets Placentæ.

Mr. C. J. Wright showed the placentæ from a case of triplets attended by Mr. J. V. Hartley in the maternity of the infirmary—one large placenta with two cords, and a second smaller one with one œdematous funis; the amniotic bags were separate. The patient, aged 25, a 2-para, was one of a

family of thirteen, amongst whom were twins on three occasions; her mother was a twin, as also her grandmother; thus there were multiple births through four generations. The presentations in the above case were (1) vertex, (2) transverse delivered by podalic version, (3) face; number one was living on the the fifteenth day; the others died on eleventh and twelfth days respectively.

### Transposition of Heart.

Dr. Wardrop Griffith showed a girl, aged 7, with transposition of the heart; there was no transposition of the liver. Cyanosis and dyspnœa had been present from the age of 3. There was cardiac hypertrophy with a loud *bruit*, with its maximum intensity in the pulmonary area—in this case the third right cartilage. Pulmonary stenosis was diagnosed, with possibly a deficiency of the cardiac septum.

### The Bacteriological Diagnosis of Enteric Fever.

Dr. Trevelyan read a paper on this subject, including the examination of (1) the excreta (fæces and urine), and (2) the blood. The technical difficulties, and especially the time required, were serious disadvantages in the examination of the stools. The presence of the typhoid bacillus in the urine from 2 cases of typhoid fever was demonstrated, and the tests distinguishing this micro-organism from the colon bacillus shown. The importance of dealing efficiently with the urine from the point of view of preventing the spread of the disease was emphasised. Under the examination of the blood Dr. Trevelyan described Widal's serum test, and showed specimens illustrating it. As regards technique, the methods recommended by Delépine and by A. Fraenkel were both easy to carry out.

### Mesenteric Cysts.

Mr. Moynihan read a paper on mesenteric cysts, detailing the history of the following two cases upon which he had operated, and quoted cases observed by Mr. Jessop, Mr. Mayo Robson, and Mr. Edwin Lee of Dewsbury. (1) Chylous Cyst.—M. R., aged 18, female. When first seen was suffering from acute intestinal obstruction. There was an ill-defined swelling to the right of the linea alba. On opening the abdomen a mesenteric cyst was exposed, causing kinking of the gut. The cyst was opened, stitched to the parietal peritoneum, and drained. Recovery was uneventful. (2) E. W., male, aged 7. Seen with Dr. Churton, with symptoms of acute intestinal obstruction. On opening the abdomen a very large mesenteric cyst, containing 42 ounces of pure chyle was exposed. The pedicle of the cyst was cut through, the peritoneal edges inverted and stitched, the cyst being removed. The boy died about two hours after the operation. One point worth noticing in this case was the excessive amount of indican present in the urine. The following classification of mesenteric cysts was proposed: (1) Serous cysts, (2) chyle cysts, (3) hydatid cysts, (4) blood cysts, (5) dermoid cysts, (6) cystic malignant disease. This classification excluded all cases where the cyst, arising elsewhere, became mesenteric only by a later extension. Cases of all the varieties of cyst were alluded to. The diagnostic signs were pointed out to be: The presence of a cyst in the abdomen, at first laterally placed, but becoming with increasing size more and more central; resonance above, below, and across the tumour—the three "diagnostic signs" of Tillaux—the latter being due to the portion of gut attached to the mesentery involved; extreme mobility in all directions and the freedom with which the tumour could be revolved round its central point. A tumour presenting all those signs could not but be a mesenteric cyst. Clinically mesenteric cysts might be classed under three headings: (1) Those in which no symptoms are present, the cyst being discovered either during the performance of abdominal section for some other disease or during a *post-mortem* examination; (2) those in which the symptoms are chronic and are chiefly referable to the presence of an abdominal tumour; and (3) those in which acute intestinal obstruction is the first and only clinical indication. The following methods of treatment are mentioned: (1) Opening and drainage of the cyst; (2) removal of the cyst by cutting through the layers of peritoneum in the pedicle; (3) enucleation.



### Specimens.

The following were shown:—Mr. Littlewood: (1) Case of Elephantiasis of Legs; (2) (with Dr. Chadwick) Gangrene of Forearm in a Diabetic: Amputation (patient and specimen). Mr. Jessop: Deposit of Bilirubin found in a Hydatid Cyst of the Liver.

## ULSTER MEDICAL SOCIETY.

Professor Sinclair, M.D., Ex-President, in the chair.

*Thursday, May 6th, 1897.*

### Oxygen Tension of Arterial Blood.

Dr. Lorrain Smith explained shortly the method which Dr. Haldane and he had employed in the research which they had now for two years been carrying out in regard to this subject. The conclusion to which the research led them in regard to man was that the oxygen tension of the blood as it left the lungs was on an average 26.2 per cent of an atmosphere. During the past winter further experiments had been carried out on animals, resulting in a general conclusion that, during the normal respiration of all the animals examined, the oxygen tension of the arterial blood as it left the lungs was higher than could be explained by the principle of the diffusion of this gas from the alveolar air into the plasma. Inquiry was also made into the effects of some of the more obvious conditions known to modify respiration, and as to the nature of death from lack of air. In regard to the first of these questions, tables of results were given showing the effect of diminution and increase in the oxygen of the air breathed, the effects due to the presence of carbonic acid gas, the effects of cold sufficient to lower the body temperature, and the effects of the lack of oxygen which arises in cases where the hæmoglobin of the blood was 60 per cent. saturated with carbonic oxide. The results of these experiments went to support the conclusion already arrived at, and to prove the physiological importance of variation in oxygen tension. In conclusion two series of experiments were recounted, which tended to show that death from lack of oxygen in the air breathed was due essentially to a fall in oxygen tension of arterial blood in the lungs.

Dr. Cecil Shaw had charge of the lantern.

Professor Thompson and Professor Redfern made remarks.

### Vesical Calculi.

Surgeon-Major Cunningham, I.M.S., exhibited a large collection of vesical calculi (92) and a still larger collection of crushed fragments in bottles (258), which were removed from the bladder by him in India. Some of the calculi removed by lithotomy were rare and interesting specimens, and many were of large size. The crushed specimens comprised all the various kinds of stone met with in the human bladder perhaps, and ranged from 6 grains to over 8 ounces in weight; a large proportion of them were of considerable size, and much larger than calculi generally met with in this country. These specimens were presented to the Surgical Museum of Queen's College, Belfast.

### Stone in the Bladder and the Operations for its Removal.

Surgeon-Major Cunningham read a paper on the subject of stone in the bladder and the operations for its removal, which will be published.

In reply to Dr. J. W. Browne, Professors Redfern and Sinclair, and Drs. Darling and Mitchell

Surgeon-Major Cunningham said that as far as his own experience went food did not appear to exercise any great influence on the causation of stone in India. He believed the paramount cause of stone in India to be either or both of the influences mentioned in his paper—namely excessive lime salts in the drinking water, and hyperconcentration of the urinary secretion accompanied by derangement or disease of the urinary tract. The consumption of oatmeal might be eliminated as a cause, as this was never used as food by the natives of India. With regard to sounding, elaborate methods were never found necessary. By means of a Thompson's hollow sound a stone of 6 or 8 grains could generally be detected without difficulty. The smaller the stone, if too large to pass into the urethra, the more likely was it during urination to block the passage of water, and this when it occurred

was an infallible sign of stone. On one occasion in which recurrence took place in a patient who had already had a stone crushed in his bladder, and who presented himself early after symptoms set in, sounding by an assistant and himself utterly failed to detect the concretion; but the patient insisting that a stone undoubtedly existed in his bladder, he was anæsthetised and a lithotrite introduced, when at once a small stone was caught and crushed. This patient had a large prostate. He would not advocate as a general practice the crushing of calculi by means of cocaine anæsthesia, but if general anæsthesia was considered unsafe, a small stone might safely and easily be thus crushed and removed. In his experience recurrence was as frequent after the cutting as after the crushing operation. In experienced hands fragments were very seldom left behind in the bladder, and if any were left they would be so small as to pass subsequently with the urine. Any person in whom the diathesis existed, and who remains exposed to the influences which caused a stone in the first instance was very liable to recurrence, and when this occurred it was not necessary to attribute it to a faulty operation. The operation which removed the stone left the diathesis unaffected. In the class of patients from which his cases were drawn it would be impossible to exercise supervision in diet, etc., with the object of preventing recurrence. One year and a-half was the youngest patient on whom he performed litholapaxy. No limit of age existed for this operation. The only cause which would prevent the operation would be so small a urethra that the necessary instruments could not be passed. The urethra of the youngest child would generally admit a No. 5 lithotrite, but occasionally cases were met with where children of 4 or 5 years would not admit the smallest lithotrite. His reasons for condemning the suprapubic operation were the high mortality that followed it; 42 per cent. of deaths in 147 cases during five years in India was an enormous mortality. In a fat subject it was a difficult operation. During after-treatment the urine trickling over the abdomen, saturating the dressings and the bed and irritating the skin, was a painful nuisance, and finally cutting into the fundus of the bladder would be followed by a subsequent rigid cicatrix, which must interfere more or less with the efficient working of this contractile organ, and if, as he suspected frequently occurred, a fixed point was produced by the union of the bladder and abdominal parietes in one common cicatrix a very inefficient organ remained to the patient, which was likely to be a source of trouble for the remainder of his life.

SPECIMENS.

Dr. MCKISACK showed some microscopic specimens on behalf of Dr. DARLING.

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HARVEIAN SOCIETY.—At a meeting on May 13th, Dr. Dr. R. H. MILSON, President, in the chair, Dr. CAGNEY read a paper on Some Resources in the Diagnosis of Nervous Diseases, and exhibited a series of illustrative cases, the symptoms of which he investigated before the Society, demonstrating the use of electric currents to determine the condition of the peripheral nervous system. He pointed out how indispensable was this method in a large number of instances, and how often for the want of knowledge on this subject a diagnosis which should be a matter of certainty was allowed to remain little better than a guess. He cited instances to show that, especially in hysterical subjects, an organic and curable malady—as, for instance, an alcoholic neuritis—might easily be overlooked unless established by the tests in question, and he exhibited as a case in point a middle-aged woman, the subject of hysteria, with, amongst other things, complete and universal analgesia, the sense of touch being perfect, together with a typical neuritis affecting the anterior tibial group. With regard to these cases he pointed out that the assumption commonly made that a diagnosis should rest between hysteria and organic disease, that if a patient had functional therefore he had not organic disorder, was unwarranted, and more often wrong than right. This assumption, made in the face of all probability, was every day the cause of regrettable errors, and in many instances the errors would be entirely avoided by an intelligent investigation with the galvanic current. The knowledge requisite for this investigation was, he feared, rare, yet it was easy of attainment, and he contended that every physician should be prepared to avail himself of it on occasion.—Mr. GRIFFITH desired to know if electricity could be utilised in the diagnosis of ocular paralysis, and so assist the prognosis of such cases. He had met with a number of cases in which the cause had been obscure, and though many had yielded to iodide of potassium others had behaved most obstinate to treatment. —Dr. CAGNEY, in reply, said that the ocular muscles were not within reach of the ordinary method of examination.

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BRITISH LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL ASSOCIATION.—At a meeting on April 30th, Dr. MILLIGAN, President, in the chair, Dr. F. TRESILIAN showed: (1) A case of Stenosis of the External Auditory Meatus, where there was no history of discharge or acute aural trouble, the meatus being narrowed by a diffuse bony growth. (2) Web Formation in the External Auditory Meatus situated between the orifice and the membrana tympani. (3) Hereditary Syphilis of the Nose, with extensive destruction of the bony tissue. (4) Lupus of the Vestibule and Inferior Turbinate Bone. The cases were discussed by Dr. MILLIGAN, Dr. DUNDAS GRANT, and Dr. MACNAUGHTON JONES.—Mr. G. C. WILKIN showed a case of Syphilitic Laryngitis, the left cord being fixed in abduction, the patient breathing comfortably and speaking well.—Dr. MILLIGAN showed a case of Empyema of the Frontal Sinus, cured by operation. Dr. BARCLAY BARON believed that the success of these operations depended on proper drainage being secured through the infundibular tract into the nose.—Dr. DUNDAS GRANT showed: (1) Two cases where projection forward of the cervical vertebræ caused Nasal Obstruction. (2) Extrusion of an Attic Cholesteatoma through the external auditory meatus. (3) Audible Metallic Clicking on swallowing, probably due to the sticking together of the sides of the Eustachian tube.—Dr. MACNAUGTON JONES read notes of a case of Esthiomenic Menstrual Ulcer of Nose. On various occasions the sloughs were removed and the surfaces painted with fuming nitric acid or solid nitrate of mercury, for which zinc paste was afterwards substituted, light applications of salactol being used to soften any crusts, and a wash and cotton plug saturated with a solution of chinosol 1 in 600. The case ultimately recovered with very slight contraction; two photographs were exhibited, showing little signs of scarring. Microscopical and bacteriological examination of portions of the tissue failed to elucidate the nature of the disease. Dr. MILLIGAN asked if Dr. Macnaughton Jones had tried any inoculation experiments in his investigation. Mr. LAKE was disposed to consider the ulceration due to conscious or unconscious irritation by the patient.—Dr. WHISTLER showed a case of Supraglottic Growth in a young man, attached to the right side of the base of the epiglottis.—Mr. LAKE showed a case of Lupus of Larynx and Left Septum and Inferior Turbinate, with active mischief in the lung.—Dr. MILLIGAN exhibited the following microscopical specimens: (1) Sarcoma of Nasal Septum. (2) Tuberculous Growth (septum nasi). (3) Rodent Ulcer (external ear).—Dr. GREVILLE MACDONALD opened a discussion on the indications for, and the methods of removal of, Nasopharyngeal Adenoid Vegetations. He formulated the rule that the necessity for operation depended not on the extent of the growths but on the mischief they were causing. Dr. DUNDAS GRANT referred to the various ways of performing the operation and the instruments used, preferring the upright position himself, and the administration of nitrous oxide. The discussion was continued by Mr. LENNOX BROWNE, Mr. ST. GEORGE REID, Mr. WYATT WINGRAVE, Dr. BARCLAY BARON, Dr. MILLIGAN, Mr. BARK, and Dr. NOURSE.

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GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—At a meeting on April 28th, Dr. MALCOLM BLACK (President) in the chair. Dr. E. ARTHUR GIBSON and J. MUNRO CAMPBELL read notes of cases treated by the antistreptococcic serum. In Drs. Gibson's case—a primipara, aged 25—the presentation was occipito-posterior, and the labour tedious and necessitating the forceps. The perineum was torn and sutured, and the puerperium was apyretic and apparently normal till the fifteenth day, when there was a slight rigor, and the temperature rose to 102°. The vagina was afterwards douched with Condy's solution, and quinine was given. Rigor, however, occurred on each of the following days. On the nineteenth

day Dr. Gibson saw her, and recommended the injection of antistreptococcic serum. The temperature was 104° at the time, abdomen soft and not tender, lochia almost dried up and not at all fœtid, small granulating wound at edge of the perineum apparently healthy, cervix split on both sides, nothing on the chest, and the urine free from albumen. Marmorek's serum was used, 10 c.cm. being given at each injection. Two injections were given on the nineteenth day, and marked improvement in aspect and symptoms was soon observed. On the twentieth day one injection was given, and on the twenty-first day another, and on the twenty-second day the fifth and last injection, as the temperature never afterwards rose to 100°, and the patient gradually recovered. Dr. Campbell's case was also a primipara. The labour was tedious but natural. The perineum was lacerated, but not stitched. The patient was exhausted, and there was considerable nervous excitement in the last stage. Dr. Campbell saw her for the first time several days later, when she was still nervous but otherwise well. On the twelfth day she suddenly became worse, and on the thirteenth day the temperature was 103° and pulse 145; the lochia were scanty and offensive, and the milk secretion was suppressed. She rapidly became delirious, and refused nourishment. Antistreptococcic serum (10 c.cm.) was injected. On the fourteenth day the temperature was 102° and pulse 130, but there was still delirium and profuse perspiration. Twenty c.cm. were now injected, and later the temperature fell to 101° and the pulse was 130, the patient being noticeably more rational. On the fifteenth day, the morning temperature being 101.4° and pulse 130, and the evening temperature being 102.6° and pulse 140, 10 c.cm. were given, and the same quantity was injected on the sixteenth and seventeenth days. On these latter days there was severe diarrhœa, with very offensive stools passed unconsciously. On the eighteenth day the pulse fell to 112 and the temperature to 99°, and the patient now took nourishment freely and was more rational. The recovery was afterwards progressive and uninterrupted. Dr. Campbell directed attention to several points: (1) The serum was given early and freely, 60 c.cm. in five days, and there was no local irritation. (2) Immediate improvement resulted, the patient never relapsing into the desperate condition existing prior to this treatment. Doses in the evening were followed by greater improvement than those given in the morning. (3) Other means were employed, that is, uterine douching with perchloride of mercury (1 in 4,000) twice daily, and vaginal douching with carbolic solution (1 in 80) every four hours; iron and quinine internally. (4) The perineal laceration was foul, and covered with pus on the twelfth day, and there was some tenderness over the uterus, but there was otherwise nothing to account for the high temperature and great constitutional disturbance that took place.—Dr. Edgar read a paper on a series of cases of Extrauterine Pregnancy, with remarks on Diagnosis and Treatment. The following were the cases: I. Hæmorrhage into right Fallopian tube, without escape into peritoneal cavity; hæmatoma of right ovary; salpingo-oöphorectomy: recovery. II. Incomplete tubal abortion, with expulsion of uterine decidua; appendicitis; salpingo-oöphorectomy, and emoval of vermiform appendix; recovery. III. Incomplete ubal abortion; salpingo-oöphorectomy; recovery. IV. Double tubal pregnancy, each ending in rupture of tube; double salpingo-oöphorectomy; recovery. V. Tubal abortion; subsequent abortion or rupture ending in formation of retrouterine hæmatocele; medical treatment; improvement. VI. Retrouterine hæmatocele; vaginal incision, followed by emptying of sac and drainage: recovery. VII. Abdominal pregnancy, septic symptoms; vaginal incision, followed by removal of placenta, and four and a-half months' fœtus; drainage; recovery. Dr. Edgar remarked with regard to diagnosis: (1) That preceding sterility was not to be relied on. All his patients had had children. In one the ectopic pregnancy had occurred only fourteen months, in two only seven and a-half months after delivery of a full-term child. (2) That early signs and symptoms of pregnancy, though of immense importance when present, might be absent, for example, in Case II. (3) That it was difficult to differentiate between tubal rupture, tubal abortion, and hæmorrhage into tube without escape into the perineum. The question was usually settled by the degree of severity of the symptoms, the first being the most, the last least severe. (4) The value of curetting in diagnosis. This was done in Cases I, IV, and and VII with positive and in VI with negative result. Doubtless the decidua in VI had been completely expelled. (5) Differential diagnosis between tubal abortion or rupture and uterine abortion. The points on which he laid stress in differentiating were: (*a*) The condition of the patient was more serious; (*b*) the uterus was not of the same size, shape, or consistence; (*c*) there were no chorionic villi nor placental tissue; (*d*) if the swelling was made out at the side, it was tubal, as evidenced by feeling the isthmic portion of the tube, it was boggy; pulsation was often more marked in the corresponding fornix. With regard to treatment, it was advisable always to operate. The usual course was to perform abdominal or vaginal salpingo-oöphorectomy. He referred to cases of Prochownick and Martin, in which the contents of the tube were removed and the tube afterwards sutured, and said that this treatment ought to be adopted in suitable cases. As to hæmatocele, vaginal incision, and drainage after emptying the sac was better than expectant treatment, and preferable to abdominal section. In advanced cases also the vaginal was preferable to the abdominal operation, for drainage was thus secured at the lowest point, there was no risk of ventral hernia, less shock, and quicker recovery, and the peritoneal cavity was not opened. The objections to the vaginal operation were that extraction might be difficult if the child were far advanced, and there might be dangerous hæmorrhage. In hæmatocele, too, the gravid tube was left. Search should be made for the tube in emptying the sac. The danger of cutting into placenta is the same in both methods, and the placenta if not found at or near the site of incision is left alone as in the abdominal operation.

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Bristol Medico-Chirurgical Society.—The eighth meeting of the session was held on May 12th in the Medical Library of University College, Dr. Harrison in the chair. Mr. Ewens showed a case of Congenital Deficiency of both Fibulæ, with extreme Calcaneo-Valgus, remedied by tenotomy and instrumental appliances. Professor Fawcett and Dr. Rigg made remarks.—Mr. Morton showed a patient from whom the Head of the Tibia had been excised for myeloid sarcoma, and the shaft screwed to the lower end of the femur. Mr. Ewens and Dr. Swain remarked on the patient.—Dr. Fyffe read notes on some of the Infectious Diseases of Public Schools. Dr. Harrison, Dr. Shingleton Smith, Dr. Symes, Mr. Taylor, Dr. Skerritt, Dr. Parker, Dr. Edgeworth, and Mr. Morton made remarks on the paper.—Dr. Shaw made some remarks on a case of Hæmophilia with Joint Lesions.—Dr. Swain, Mr. Ewens, Mr. Fendick, and Dr. Parker made remarks on the case.—Dr. Parker spoke on a case of Lead Poisoning presenting Hæmatoporphyrin.

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Bradford Medico-Chirurgical Society.—At a meeting on May 4th, Dr. Godfrey Carter, President, in the chair, Dr. Johnstone Campbell showed (1) a case of Mediastinal Tumour; (2) a case of Peripheral Neuritis exhibiting extreme wasting of the muscles of arm and shoulder.—Dr. Jason Wood showed a patient with Transposition of Viscera.—Dr. Carter gave a demonstration of Microscopical Objects.—Dr. Webb related a case of Acute Nephritis complicating Pregnancy. The patient was a single woman, aged 18, five months pregnant. Venesection was performed, 12 ounces of blood being withdrawn, and 1½ pint normal saline solution was then transfused; after this the patient seemed much better. Artificial labour was induced, and the patient was delivered of a living child, which survived twenty-four hours. After more than one relapse, she finally made a good recovery.—Dr. Bell related a group of cases of invaccinated erysipelas. He pointed out that if the disease is inoculated at the time of vaccination, the erysipelas would show itself about the fourth day. Nine children were vaccinated from an apparently healthy child. Cases 1, 2, and 3 ran a normal course. Cases 4, 5, and 7 developed erysipelas of the arm in the first week, but the vaccination pocks ran a normal course. Case 6 had an axillary abscess, and the development of the pocks was more rapid than natural. In Cases 8 and 9 the pocks developed more rapidly than natural, but

there was no other inflammation. The vaccinifer in these cases was apparently normal at the end of the second week, at the end of the third week there was enlargement of the axillary glands, which subsided without suppuration.—Mr. Miall related a case of Myxœdema in which treatment by thyroid gland and extract was followed by a complete cure of all the symptoms.—Mr. Horrocks related a case of Recurrent Appendicitis successfully treated by abdominal section and removal of the vermiform appendix, the peritoneum being stitched over the end of the stump. Mr. Horrocks regarded as indications for operation in these cases, (1) increasing severity of attacks, (2) shortened interval between attacks, (3) a feeling of discomfort during the intervals of attack, providing the patient is otherwise sound.

# REVIEWS.

An American Textbook of Physiology. By Henry P. Bowditch, M.D.; John G. Curtis, M.D.; Henry H. Donaldson, Ph.D.; W. H. Howell, M.D.; Frederick S. Lee, Ph.D.; Warren P. Lombard, M.D.; Graham Lusk, Ph.D.; W. T. Porter, M.D.; Edward T. Reichert, M.D.; and Henry Sewall, M.D. Edited by William H. Howell, Ph.D., M.D. Philadelphia: W. B. Saunders. London: The Rebman Publishing Company. 1896. (Roy. 8vo, pp. 1052. 25s. 6d.)

This is a very complete and comprehensive textbook: it includes the whole range of physiology as usually taught, but does not embrace anatomy or histology, except in certain cases where reference to or fuller description of such facts is necessary to develop the matter under discussion.

It is the work of several authors, a plan of bookmaking which has of late come much into favour, but one which we do not remember to have seen employed in a student's textbook. The preface contains a very interesting discussion of the value of such a method in preparing books for the use of students. It is pointed out that on this method each author is enabled to base his elementary account upon a more comprehensive knowledge than the individual author who attempts to deal with the whole bulk of one science. This point will be accepted by all those who are acquainted with the difficulty of making a satisfactory homogeneous elementary presentation of the complex and unsettled questions of which the modern science of physiology is composed. Dogmatic statements and generalisations, such as are frequently necessary in textbooks, if they are to leave any impression at all upon the student, are usually trustworthy in proportion to the fulness of information possessed by the writer.

Again, by the use of the method of collaboration the reader gains the advantage of each subject being treated from the point of view of a specialist; more especially will this be felt in those portions of the subject which overlap and are treated of by several writers. Each writer will give in addition his own methods of investigation, and thus the advantage is gained to the reader of seeing the same problem attacked by several experimental methods—physical, chemical, microscopical, etc.

The general plan of the work is to take the several physiological (rather than anatomical) entities of which the science consists and to entrust each to an individual author.

Professor Howell, in addition to his editorial work, contributes an able introduction in which the scope and aims of the science are set forth and the various methods of attacking the subject experimentally briefly indicated. The sections on secretion, chemistry of nutrition, the blood, and movements of the alimentary canal are also from his pen. These subjects are all treated in a very clear and lucid style. Thoroughly up to date and accurate as the whole volume is, we find here not only an account of the subjects written from a recent standpoint, but in addition the expression of opinion and estimation of varying importance of the different subjects treated of by one of the first American physiologists.

The rest of the volume is written in a manner equally authoritative and clear, and from the list of authors given above it may be gathered that we have in this textbook an addition to physiological literature of great importance. We congratulate the editor and his collaborators on the conspicuous success which has attended their efforts.

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Life in West London: A Study and a Contrast. By Arthur Sherwell. Second edition. London: Methuen and Co. 1897. (Cr. 8vo, pp. 214. 2s. 6d.)

Any treatise on social disease is likely to give an exaggerated idea of the evil, and to lead readers into the belief that the unsound parts exceed the sound parts. Many treatises seem deliberately to aim at such a result, and by fostering a morbid appetite for what is abnormal have done injury to the reforming spirit. Mr. Sherwell has not done so. It may be that his book will leave an impression not altogether justified by facts, but the fault is with those whose minds too easily take such an impression, and not with the author. He, as a pupil of Mr. Charles Booth, has gone to work in a scientific way. He has observed, inquired, compared, and gathered statistics, and in the end he presents a picture of a district in a centre of London which demands attention. First of all he shows how abrupt is the division between Soho and the adjoining Mayfair. In Soho the percentage of poverty is 42.4, in Mayfair it is 2.7. In Soho there are 13 persons to a house, against an average all over London of 7 persons, with 232.21 persons to an acre, against 41.158 in Mayfair, and, of these persons, 10 per cent. share one room with 3 others. The result of such overcrowding is easily to be imagined. In Soho the deaths from phthisis per 1,000 is 3.2, against 1.7 for all London, while the rate of infant mortality is 36 per 1,000 higher than the average of all London, and 64 per 1,000 higher than that of the neighbouring district of St. George. Mr. Sherwell having given, as it were, an outline by such figures, proceeds to fill it in by an account of the trades, the social habits, and the recreations of the people. He is particularly struck by the invertebrate character of the district, and by the demoralisation caused by the neighbourhood of a pleasure-seeking class. "In the East and South the colour of life, if deadly dull, is more even, but in Soho the poor are made to feel they are aliens for life on the very borders of their own homesteads."

When Mr. Sherwell proceeds to consider remedies, he does so in the same level-headed way. He does not ask for more philanthropic agencies. He finds, in fact, that so far as "ordinary Christian and other philanthropic agencies are concerned the West End is probably at least as effectively served as any other district in the metropolis," and he shows that there is one official Christian worker to every 462 persons in North London, against 1 to every 878 persons in East London. Mr. Sherwell sees hope (1) in the more efficient working of existing legislation, and (2) in a further development of healthy public opinion. He shows, for instance, what might be done under the Labouring Classes Lodging Houses Act, or under the Public Health Act of 1891, and how little has been done. It is curious how social enthusiasm turns aside from the plodding work which uses the law to improve dwelling and cleanse dirt. People who are roused to indignation at the disease and wretchedness are impatient of the only road to reform. They want a new law or a new gospel. Mr. Sherwell shows what might be done if inspectors prevented overcrowding and collection of dirt, and how this will only be done when enthusiasm is put in the shafts of local government.

The promotion of a more healthy public opinion which will counteract the effect of the example of luxury and of seasonal trade is a matter of greater difficulty. All that can be said is that the altruistic sense is growing, and that there is a measureless power in the undeveloped capacities of human nature.

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Some Aspects of Infantile Syphilis. By J. A. Coutts, M.B.Cantab., F.R.C.P. London: Rivington, Percival, and Co. 1897. (Cr. 8vo, pp. 136. 3s. 6d.)

The subject treated in this small work is one of great, perhaps growing, importance. Dr. Coutts has therefore done well to reprint his course of Hunterian lectures delivered before the Royal College of Surgeons last year. The author modestly says that he has dealt with only a limited portion of the subject, but at the same time the topics which he

selected are among the most interesting which arise in connection with the discussion of the etiology and symptomatology of infantile syphilis. Special value attaches to the observations on the characters of syphilitic marasmus. There is good reason to think that a considerable number of infants die of marasmus really due to inherited syphilis before any distinct manifestations can be observed, and that if this fact were generally realised the lives of a certain number of infants might be saved by the early prescription of appropriate treatment. In the third lecture Dr. Coutts insists upon the rarity of infection from inherited syphilis—a point not only of no little theoretical interest in its bearing on the doctrine of maternal immunity which bears the name of Colles's law, but also of considerable practical and social importance. Abstracts of Dr. Coutts's valuable lectures were published in the British Medical Journal at the time of their delivery, but the full text will be found well worthy of perusal.

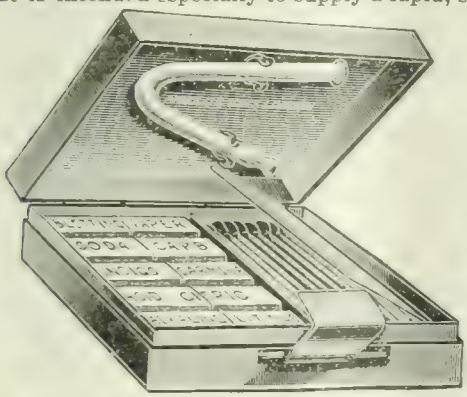
Atlas und Grundriss der pathologischen Anatomie. Von Dr. O. Bollinger, Band XII. Harnapparat, Geschlechtsorgane, Nervensystem, Knochen. [Genito-urinary Organs, Nervous System, Bones.] Munich: Verlag von J. F. Lehmann. 1897. (Cr.8vo, pp. 148. 12 Marks.)

We have already on several occasions, in mentioning and praising the previous volumes of this atlas, mentioned its general character. The illustrations in the present volume are in nearly every instance extremely successful and well selected. We may instance the sections of rickety bone, a drawing of traumatic extradural hæmatoma, and the illustrations of various kidney lesions. The volume is of handy size, and the price at which it is published is, considering the excellence of the illustrations, extremely reasonable.

# REPORTS AND ANALYSES
AND
# DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

## MINIATURE POCKET URINARY TEST CASE.

Dr. F. R. Humphreys has designed a miniature pocket urinary test case intended for qualitative urinary analysis. It is intended especially to supply a rapid, simple, and satisfactory method of testing for albumen by boiling. The leading feature of the case is the V-shaped test tube, which from its shape allows of one portion of the urine being boiled, and then of being closely compared with the unboiled portion. About half a drachm of urine only is required, and the time necessary is only a few seconds. To use the test tube, one limb is immersed in the urine, and the V is then held upright, the liquid falling to the same level in the two limbs. After drying the tube on the blotting paper provided for the purpose, the heat of a wax or wooden match is applied near the surface of the fluid in the limb with the contraction, the tube being held by its other limb. The contraction tends to prevent boiling over, and the test can be done several times to successive portions of the fluid with the same match. The boiled and the unboiled portions of the urine may, of course, be readily compared by holding the tube against the coat sleeve or other black surface. Citric acid and carbonate of soda papers accompany the tube for the purpose of neutralising the urine, or for acidulating it after boiling. Indigo-carmine papers are also included for testing for glucose, the characteristic play of colours running from violet to yellow according to the amount of sugar indicating its presence. Dr. Oliver directs that the test tube be filled with ordinary water boiled with a part of the indigo-carmine test paper immersed in it, cleared of any turbidity by means of the carbonate of soda paper. A minute portion of the suspected urine is then added to the water, and the whole is again boiled for a few seconds. It has to be held against a white background. Blue and red litmus papers also accompany the tube. An additional supply of the different test papers accompany the box. The tube has been in constant use for two years, and has given, in Dr. Humphreys's opinion, quite as good results as the ordinary test tube and spirit lamp. It is, he says, of course more portable and more quickly applied. Messrs. Arnold and Sons, of West Smithfield, London, are the makers.




## A NEW TONSIL FORCEPS.

This forceps, which has been designed by Dr. Herbert A. Smith, is for use with the sickle or bistoury in removing the tonsils. It consists of a male barbless spear-shaped blade, concave below and with cutting edges, fitting into a female divided incurved blade whose barbs are placed within the fenestra. Its length is 5¼ in. and its end measurement is ⅝ in. Two sizes are made. Dr. Smith claims for it (1) a gripping power greater than that of the forked or toothed volsella, and that it does not tear through; (2) efficiency in grasping and keeping taut the pedicle of any enlarged growth in a roomy cavity; (3) there is no bar of arrest to its progress, and by keeping the blade of the bistoury close to the convexity of the closed end, there is no danger of wounding other structures or notching the knife. The growth can be rapidly excised; (4) it can be used on either side, and is of service when the guillotine (of which three sizes should always be kept) is objected to; (5) with a Wingrave's gag and some cocaine, both assistant and anæsthetics are, he says, unnecessary, and the operation of tonsillotomy is rendered painless and efficient by the use of this instrument and the bistoury. The instrument is made by Messrs. Arnold and Sons, West Smithfield, London.



## CEREAL FOOD: INFANT'S FOOD.

The "Manhu" cereal preparations received from Messrs. Irving, Son, and Jones, of Liverpool, consist of flaked oats, wheat, barley, etc., containing the entire grain of the cereal minus woody fibre. They are all of excellent quality as regards flavour and nutritive value. In the gluten flour there is a large proportion of albumenoids, and the starch granules have undergone a process of alteration in order to render the starch more digestible.

The "Manhu" Infant's Food, which is stated to be "as safe and perfect a substitute for mother's milk as can be produced," is a very palatable and finely divided flour, and, according to the analysis of the sample submitted to us, it appears to be composed of a cereal flour, partly cooked, and condensed milk. Such a preparation is well adapted as a food for children that are able to digest starchy material, but on account of its amylaceous ingredient it cannot be regarded as a perfect substitute for the natural food of the mother, or as suitable for the feeding of infants of tender age.

# A REPORT
ON
# THE INFLUENCE OF MILK
IN
# SPREADING ZYMOTIC DISEASE.

*(Concluded from page 1233.)*

## SUGGESTED REMEDIAL MEASURES.

The further question presents itself, namely, Is there any means whereby the matter can be placed generally on a basis of practical safety to the public?

### Boiling of Milk.

There is such a means, and one that is practicable of being carried into effect by all, and that is the simple plan of boiling all milk received into our houses. The practice of boiling all milk is daily becoming more general. Not that it is even to-day by any means "general" in the ordinary significance of that term. Not at all, but it is growing by degrees to the dimensions of a custom in particular circles. Thus it is done by many medical men, and is advocated by medical practitioners. Many persons would not dream of having on their tables either water or milk that had not been submitted to a boiling temperature. The one thing that militates against the more wide adoption of this simple remedy for the evils attending much of our milk is only the trouble involved. There is little else that can be inveighed against it. True, that some people say that they do not care for the taste of milk that has been boiled, but we venture to think that most people tasting milk that has been boiled in ignorance of the process having been gone through would find little fault with the food thus treated.

Accordingly, I would first and very strongly urge upon all persons the prime necessity of boiling all milk immediately on receiving it into their houses, and seeing that this measure is carried out with a regularity and thoroughness that will permit of no doubt of its fulfilment. It is a matter which should be insisted upon with great earnestness, and enjoined on all cooks and domestics, and insisted on in all cookery schools with untiring persistency. The omission of the precaution on one day or single occasion may, as it has done in the past, be to court disaster and death in the home.

### Boiling of Milk does not Confer Absolution on the Vendor.

But the great desirability of boiling milk thus does not put aside the necessity for having all our dairy farms and cowsheds and milk shops in the best of sanitary conditions. By no means. A householder expects, and has a right to expect, that the milk delivered to his door is pure and from premises fitted to secure its continued purity so far as sanitary excellence can secure it. He has a right to expect that all reasonable care has been taken to ensure purity of water used in dairying operations, and that no water, however free from chance of pollution, has been added to the milk or allowed to remain in cans and pails after washing. He has a right to expect that the housing of the cattle, and the food and fresh air allowed them, as well as the cubic capacity of their stalls and breathing space, are such as to lead to no low or bad quality of the milk supplied. He has a right to expect that the condition of the cows is such that no harm can accrue by reason of any state of health of the cattle such as has been in the past proved to determine deleterious quality and even dangerous quality of their milk. He has a right to expect that such supervision is exercised over dairy farms and milk shops as will ensure the practical impossibility of disease or insanitary conditions existing on premises whence the milk comes. In short a householder procuring milk has an undoubted right to expect that his health in all its bearings has been safeguarded in every possible way that prudence can suggest and experience has shown to be essential.

So, much as I urge the boiling of milk, let it be distinctly understood that I do so as an additional safeguard, and not as in any way absolving anyone connected with the milk business from the adoption of each and every precautionary measure found to be necessary to the production of pure and wholesome milk.

### Water Supply.

Now among the many matters which my abstract brings to light as standing in need of improvement, that of water supply is of as much importance as any. The state of water sources and supplies in the case of too many of our farms is deplorable in the extreme. I need not enlarge on this point, since former pages demonstrate the fact sufficiently. What I would here insist upon is that all supplies should be of unquestionable purity. The law as it at present stands is sufficiently powerful to enable all sanitary authorities who so desire to secure the closure of all wells that are known to be polluted, and if this were not so the authority should, in my opinion, be in a position of having no option but to refuse to register a farm or other premises for the production and sale of milk until a water supply had been provided of a nature to satisfy the authority of its purity and safety against contamination and pollution of all sorts.

Speaking generally, this matter of water supply to our dairy farms and retail premises connected with the milk trade is discouraging, inasmuch as, notwithstanding that much has been written and said as to the danger attending the use of water in relation with milk which has in any way been subject to contamination, conditions have been found to prevail in so many instances of milkborne infection with a persistency that is almost past comprehension. The essentials of cleanliness and reasonable care have been lacking, and it is against wilful neglect and ignorant procedure as regards water supply that we to-day have to wage war. It is not as though the matter of proper water supplies to our farms is one that, while it operated for harm years ago, is to-day no longer in evidence, but it is a fact that our condition in this respect is now as bad, or nearly so, as when I reported on the whole subject of milk in relation to disease 15 years back. My recommendations at that time as to this matter ran as follows, and for convenience I reproduce them in italic characters:

*The water supply of the farm should be derived from an unpolluted source, and care should be taken to preserve its purity at all stages of its use.*

*The water supply should be easy of access, and should be sufficient in quantity for the purposes of the dairy as well as wholesome in quality. There should be conveniences also for supplying a sufficient quantity of hot water for scalding and washing the utensils.*

I note that in a model code of regulations under the Dairies, Cowsheds, and Milkshops Order of 1885 the following clauses are inserted, with a view of securing a water supply for farms and the like which shall be free from all possibility of danger to those using the milk of the farms and dairies of our country:

"Every person following the trade of a cowkeeper or dairyman shall provide for every dairy and cowshed in his occupation an adequate water supply of good quality, and proper for the health and good condition of the cattle therein.

"He shall cause every receptacle in which such water may be placed for the use of any cattle to be emptied and cleansed as often as may be necessary.

"In every case where the water may be stored in a cistern or cisterns, he shall cause such cistern or cisterns to be conveniently placed so as to allow of ready access, and to be properly constructed and covered so as to prevent the fouling of the water."

Surely we have in this regulation sufficient room for safeguarding the public health in so far as water supply is concerned, and it needs only that councils adopt and enforce this salutary regulation to free us from the disgraceful conditions which obtain to-day in so many of our country districts and even towns in connection with the milk industry.

### Drainage and Filth Removal.

Intimately related to the water supply of dairies is the question of drainage, and the removal of filth and refuse generally. It is essential to the milk business that it should be carried on with scrupulous regard to cleanliness, and hence stringent regulations have been drawn up for the

adoption of councils. Milk being such a ready absorbent, it is the more to be guarded against all hurtful influences, such as drain effluvia, the noxious air given off by stored filth, and the gases evolved by living rooms under the same roof as milk store-rooms, as well as from the atmosphere of any cowshed or other house used for the keeping of animals.

### Housing of Milch Cows.

The housing of milch cattle is one of the most important matters connected with the health and milk-producing properties of the cows. And here again regulations have been drawn up for adoption, containing valuable provisions which, if enforced, will do much to safeguard the cattle and their milk from hurtful conditions. The question of cubic space per cow is one of the main subjects which local authorities have to face in this connection, since it is to the supposed interest of cowkeepers to house as many cattle as possible in a cowshed, in ignorance, either wilful or blind, of the ill consequences which are likely to follow upon undue restriction of air space. And so I would enjoin a minimum of 800 cubic feet, as now suggested by the Local Government Board, and would indeed like to see a higher minimum wherever it can be obtained. The condition of some of the cowsheds and the like seen to be connected with the outbreaks referred to in my abstract shows that much more attention should be given to this matter than has hitherto been the case.

### Milking and Grazing of Milch Cows.

There is a point which I should like to refer to in connection with that of cubic space in cowsheds, and that is the milking of cattle in confined situations. There seems to be but little doubt that we in England house our milch cows under conditions which cannot but be for their physical detriment, and it would seem to follow that we make them too much of milk-producing machines under artificial surroundings. The cattle of some of our colonies, for example, are healthier than our own, and do not therefore suffer to the same extent from maladies which in so many instances end only in the destruction of the cattle; and with the greater amount of freedom and fresh air which our colonial cattle enjoy there comes the greater gain to the cattle dealer and milk vendor. Now it seems to me that what we should aim for is the milking of cattle under more favourable hygienic conditions than such as generally prevail, whereby cattle are milked in stuffy cowhouses and amid all sorts of contaminating surroundings which serve to render the milk liable to pollution at the moment of its withdrawal from the secreting glands of the cow. Why should not all cattle be milked in the open air and away from all possible agencies which can be thought of as likely to affect their milk injuriously? Cleanliness in all its phases is an essential of a well-managed dairy farm, and in this particular, as in all others, it should be aimed at.

In close relation with this latter point, and naturally following on what I have just said, cattle should be confined as little as possible to the ofttimes fœtid air of a cowshed, but should be so housed and grazed as to give them all needed fresh air for their bodily development, and with a view to guarding them as much as possible from those classes of malady which spring from close segregation.

### Present Enforceable Regulations.

Before I go further, let me say that among the matters in respect of which district councils can make regulations in relation to the milk trade are the following, namely:

For the inspection of cattle in dairies.

For prescribing and regulating the lighting, ventilation, cleansing, drainage, and water supply of dairies and cowsheds in the occupation of persons following the trade of cowkeepers or dairymen.

For securing the cleanliness of milk stores, milk shops, and of milk vessels used for containing milk for sale by such persons.

For prescribing precautions to be taken by purveyors of milk and persons selling milk by retail against infection or contamination.

On some of these, then, I have already touched, and here I would merely urge upon all sanitary bodies the great desirability of securing for their districts the undoubted advantages which will accrue from the enforcement of regulations having for their object the safeguarding of the public health in a matter so important as the one we are discussing.

### Inspection of Milch Cattle.

But there is one point which I desire next to touch upon in a special manner, and that is the inspection of cattle in dairies in cases where milk is considered by the medical officer of health to be the cause of disease in the persons of its consumers. I have not yet come across any statute or provision which enacts that a medical officer of health may, as matter of course, on his own initiative, proceed in such circumstances to the inspection of dairy premises. It would seem that he must always be armed with an order of a justice before he can enter on the premises of the farmer whose cattle are yielding the milk which is doing the mischief. And even though armed thus with an order, he cannot proceed further to inspect the cattle in the care of the farmer without and unless a veterinary inspector be present. To my mind there could not well be a more ridiculous enactment than this. We have seen all along that those very conditions of teats and udders of cattle which have been time and again found to be secreting milk that on its withdrawal from their udders has been shown to be in an infective state—that those very conditions have not been recognised by the veterinary world as being of serious import. And even to-day, and notwithstanding all the mass of accumulated evidence against cattle so suffering, no step has been taken to schedule as an "infectious disease" any of the eruptive disorders which are in question, and which have been in the past, as they are now, accountable for much mischief in the direction of disease and mortality; yet it is in company with an inspector of a body which has thus ignored the necessity of recognising these ailments of milch cattle that a medical officer of health can alone inspect the cattle of an implicated dairy. I contend that every medical officer of health should be armed with full power of entry on dairy premises, and of inspection of cattle where milk is regarded by him as causing disease in his district. And in these days of almost universal compulsory notification, he soon learns if any malady is being disseminated by the agency of milk.

### Prohibition of Infective Milk.

Not only so, but to my way of thinking the prohibition of the sale of the implicated milk should be a matter of much greater simplicity than is at present the case. The formalities which have nowadays to be gone through before the prohibition can be effectually brought about militate against any such control of the disease that may be in question as is to be desired for public health reasons. I cannot see why, when a particular milk supply is spreading disease and death in its customers, the private interests of an individual should be so jealously guarded while the community are made to suffer. If a dairyman or farmer has at the end of a day's grace, as will inevitably prove to be the case in 99 cases out of every 100, to stay the sale of the milk produced by his cows, why should not the health body have the power of stopping the sale of the milk forthwith, at the instance of their medical adviser, with the consequence of compensation at the end of the period which is now granted to the dairy proprietor in which to state his case for exemption from the operation of the order for stoppage of sale of the milk if his case be proved? The resulting loss to the rates in respect of squandered milk would be very slight, especially in comparison with the suffering thus prevented, whilst of course the upholding of the order of prohibition would saddle the dairyman with the loss. Into the vexed problem of compensation generally I do not here enter; but on the necessity of inspections such as I have hinted at, and on the need of some simple and immediate method of stopping the supply of suspected milk, I must insist.

### Milk Prohibition should be Absolute.

Another matter to which I wish to draw attention is the absurdity of our present action of stopping the sale of milk by a milk vendor in district A whilst he is permitted to distribute his produce in district B without restraint, until there also the occurrence of disease in association with his milk supply enables the council to take like measures with A

to stop the sale, which even then the vendor may carry on in yet another locality. Now, surely common sense dictates the opinion that, milk being considered unsafe food in one district, it should be so considered in all places, and hence any medical officer of health, having placed under the ban a particular supply of milk in his district, should have the power of prohibiting its sale in all localities. At any rate the authorities of districts in which the milk vendor trades should have the option of stopping the sale of the commodity within the area of their jurisdiction.

### Milk of Newly-calved Cows.

Among the conditions of milch cows which lend themselves to the secretion of milk which has danger for its consumers, we have found calving to be prominent when the mother has been brought into the milking sheds for trade purposes immediately after the process of delivery of her progeny. Hence, some very stringent rule should be laid down as to the time within which the milk of newly-calved cows shall not be distributed for human consumption, and even then not without first testing it as to its coagulable qualities. Inability of boiling to free it from coagulation should condemn the milk as food for man.

### Eruptive Diseases of Milch Cows.

As for the eruptive diseases of teats and udders which have been found in conjunction with milk of infective quality, it cannot be too distinctly laid down that all cattle so affected should be at once removed from the operations of the milking shed and placed in quarantine, until they have been declared on medical authority to be in a state in which they can be again safely brought into the dairy business, or, on the other hand, have been destroyed. In this connection, it will be obvious that sustained and frequent inspection of cowsheds is called for in order that the cattle may be kept well under supervision; and the inspection cannot be entrusted to anybody and everybody, but must be made by those whose qualifications fit them for the duty—as, for example, medical men with special training in cow conditions and maladies in relation with disease in the human subject. The matter is one of serious moment and calls for serious attention.

But I feel that I must go still further and insist on the scheduling of these teat and udder eruptions among diseases of animals within the meaning of the Infectious Diseases (Animals) Acts. It may be held that such eruptions cannot find place in the list of diseases for the purposes of those Acts, since the statutes are intended to relate only to diseases of animals in relation with disease in brute creation, though this is not borne out by the maladies now included. But, again, I would refer to the Dairies Supervision Act of 1886 passed by the Parliament of New South Wales, which colony has shown itself ahead of the Mother Country in the matter of such legislation. Under the Act the Governor of the Colony has power to name, add to, or alter the list of diseases to which the statute shall relate, and under the authority thus conferred upon him the Governor, in November of the same year, included among diseases in animals for the purposes of the Act, "Udder inflammations, eruptions, or warts of." And Section x expressly lays down that "it shall not be lawful in any district for any person...to sell or supply any milk which shall have been produced from any diseased animal," such prohibition being one which, if it were in force in our own country, would be for the undoubted benefit of the public health. And yet we are content to go on disregarding warnings of our State health experts, and allow veterinary authorities to pass as having a clean bill of health cows which are suffering under a malady which has been proved over and over again to be disseminating disease and death to human beings, many of them helpless infants or children whose sustenance to a great extent depends on the quality of the milk which enters so largely into their every-day diet.

### Lists of Milk Consumers.

A very useful and necessary power has been given to authorities by the above-named Colonial Act with reference to lists of customers of dairymen whose cattle are furnishing milk which has been medically certified to be causing disease in its consumers. In such circumstances the local authority may call upon a dairyman or milk vendor to "furnish forthwith upon demand a full and complete list of all his customers, and to give such assistance to discover the residence of all, or any of them, as the authority making the inquiry may deem necessary." No doubt there are provisions of a similar nature in some local Acts in force in our own country, but I would see such a necessary power conferred on all local health bodies as a matter of course. The usefulness of such a provision to a medical officer of health making inquiry into some intricate and complex prevalence wherewith he is certain that milk has in some way entered will be seen at once. The absence of such power of demanding assistance of this nature from the vendor of the implicated milk has in time past militated much against the elucidation of milk outbreaks, and has no doubt been the means of relegating to the long list of untraced sources of infectious disease occurrences which would with the power to hand have proved easy of settlement.

### Notification of Disease.

In reference to the question of infectious disease on dairy and farm and milk vendors' premises, I would see a very stringent enforcement of compulsory notification, and heavy penalties inflicted where it can be proved that disease has been concealed, or where infectious illness has been knowingly present in the person of anybody concerned in the business of milking or milk distributing and the like.

### Present Penalties too Small.

And dairying operations carried on under conditions which render the milk liable to contamination should be visited with equally heavy penalty. Indeed the matter of penalties needs much reconsideration, since it must needs be that dairymen will often prefer to run the risk of being detected in some underhand business with the chance of a fine rather than hesitate to perform some unscrupulous act, because they find as matter of actual experience that it pays better to run the risk, with the knowledge of only a small fine being inflicted in any case, than lose the added gain that comes from their nefarious practices.

### Ice Cream Regulation.

I do not here enter into the question of the regulation of the ice cream trade further than to say that I think such regulation as can be applied with any chance of success should be brought about, and that speedily. We dally with these matters far too long, and the evil resulting is allowed to go on uninterruptedly because of the heavy machinery for bringing into operation any needed reforms and the apparent apathy of those charged with the function of moving it.

### Tuberculosis.

I am not unmindful of the great gravity of tuberculosis as a disease communicated to man by the milk of cows; but I foresee much difficulty in the way of laying down any suggested measures of prevention as regards the milk of tuberculous cattle in view of the sitting of a Royal Commission on Tuberculosis at the present moment; whilst at the same time I have such confidence in the Commission as now constituted as leads me to expect that much of the legislative and other power needed to efficiently safeguard the public in the matter of its milk supply will follow as a result of the deliberations of that Committee.

### Conclusion.

I have now finished my task, but very imperfectly I am well aware. Space has not been at my disposal to treat of the whole subject as I could have desired, but I have at least touched on the fringe of the most important of the multiple phases of the milk trade in relation to disease in man, and that must suffice and will suffice if it sets sanitarians thinking more of the matters thus summarily dealt with. The period covered by my report has been one of deep significance, and many discoveries in so far as cow maladies have been concerned in their causal relationship with infectious disease in man. Generally, the most important discovery has been that related to the ability of the cow herself to render infective the milk which she secretes. Human agency in the process of rendering the milk infective is no longer regarded as a *sine quâ non* to the acceptance of the milk theory of spread of

disease. Then again, the transfer to local health bodies of the powers formerly cast upon local authorities without the scope of the Public Health Acts, and the Local Government Board in replacement of the Privy Council as the central administrative power have been achieved. Legislation has moved slowly in the right direction of added stringency of regulations in regard to the milk trade, and many local health authorities have obtained powers far in advance of those conferred generally. But it has often happened that advanced town councils have paved the way by means of local legislation for general measures of much moment, and I cannot but hope that very shortly we shall see the best of these local powers brought within the scope of a general measure, which shall also give opportunity for embodying those further necessary additions to our dairy and milk-shop legislation, which by their absence from our statute book hamper so terribly local bodies that are anxious to safeguard the public health on the strength of present admittedly insufficient powers.

ERNEST HART.

## ABSTRACT.

### III.—TYPHOID.

#### 1.—LEICESTER INFIRMARY.

*Date of Outbreak:* April, 1882. *Reporter:* Dr. Buck, M.O.H. *Total Number of Cases:* 14. *Deaths:* 2. *Number of Cases amongst Drinkers of Suspected Milk:* All. *Percentage to Total Cases:* 100.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Well situate near the end of the house drain, and also near an overflowing and leaky cesspool, analysis showing the water to be polluted with sewage.

*Exciting Cause of Outbreak.*—The washing of the milk cans with the water of the polluted well.

*Circumstances implicating Milk.*—All the patients drank milk from the farm in its raw state. The farmer and the vendor of the milk were among the sufferers. The cases in the infirmary were all those of dressers, nurses, and servants.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. i, 1882, p. 549.

#### 2.—GLASGOW.

*Date of Outbreak:* May and June, 1882. *Reporter:* Dr. Russell, M.O.H. *Total Number of Cases:* 59. *Deaths:* 6. *Number of Cases amongst Drinkers of Suspected Milk:* 50. *Percentage to Total Cases:* 85.

*Circumstances implicating Milk.*—All the deaths from enteric fever in the western district, and 85 per cent. of the cases were in consumers of milk from one dairy; and house-to-house visitation in the seven contiguous streets where these infected persons resided failed to discover a single case of fever in consumers of milk from other sources.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. ii, 1882, p. 61.

#### 3.—CLAPHAM.

*Date of Outbreak:* June and July, 1882. *Reporter:* Dr. Parsons, L.G.B. *Total Number of Cases:* 22. *Deaths:* 3. *Number of Cases amongst Drinkers of suspected Milk:* 21. *Percentage to Total Cases:* 95. *Number of Families supplied by Milkman:* 118. *Number of such Families invaded:* 16. *Percentage:* 14.

*Sanitary Circumstances of Farm or Dairy from which the Milk was derived.*—Two farms in question: at 1, well so situate as to be exposed to excremental pollution from a brook into which sewage of adjacent village flowed. Cattle drank of the brook in winter. Analysis showed well to be polluted. At the other farm, well underneath the dairy, its contents "in all probability largely polluted by sewage or surface drainage." At this farm two cases of "low fever" in October, 1881.

*Exciting Cause of Outbreak.*—The unquestionable pollution of well at first farm: existence at a recent date of 6 cases of typhoid fever in 3 houses in adjacent village draining to brook, and the evident possibility of contamination of well water by the percolation of the brook contents "indicate a channel by which infection may have gained access to the milk" by can rinsings and the like.

*Circumstances implicating Milk.*—All the cases, save 1, in houses served by the implicated milk. In almost all instances the patients were large milk drinkers, mostly children, but a few servants and young adults. All were consumers of the "ordinary milk" as opposed to "nursery milk." In very many households which escaped invasion the amount of milk used was extremely small. Four invaded houses alone took $3\frac{1}{2}$ of the 32 gallons of ordinary milk daily distributed.

*Facts showing Special Incidence of Disease.*—In 1 household of 15 persons, the only one attacked was a drinker of the milk in its raw state.

*Reference.*—Report to the Local Government Board. BRITISH MEDICAL JOURNAL, vol. ii, 1882, pp. 142, 216, 816.

#### 4.—SHELF.

*Date of Outbreak:* August and September, 1882. *Reporter:* Dr. Britton, M.D., M.O.H. *Total Number of Cases:* 11. *Death:* 1. *Number of Cases amongst Drinkers of Suspected Milk:* All. *Percentage to Total Number of Cases:* 100.

*Sanitary Circumstances of Farm or Dairy from which the Milk was derived.*—In back kitchen, used as a dairy, a sink full of dirty water. In adjoining place an untrapped drain communicating with manure heap and pigstyes; the drain coming to within 2 feet of table on which bowls of milk were stored, and actually in place of storage of milk cans an open door dividing the rooms. Offensive accumulation of sewage from overflowing cesspool in front of house. Waters found on analysis to be unsatisfactory alike from well in kitchen and in adjacent field.

*Exciting Cause of Outbreak.*—Relative of farmer visited house on July 11th, fell ill on 21st, and was confined to house 3 weeks without medical attendance. Dr. Britton regards the case as one of mild typhoid. Relative's wife came to nurse him on August 14th, fell ill herself on 21st, with vomiting and purging, and died on September 6th; death registered as from apoplexy.

*Circumstances implicating Milk.*—All the cases occurred on 5 days, between August 24th and September 3rd. House-to-house visitation failed to trace any cases in persons other than consumers of the particular milk.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. ii, 1882, p. 749.

#### 5.—GLASGOW.

*Date of Outbreak:* September, 1882. *Reporter:* Dr. Russell, M.O.H.

*Sanitary Circumstances of Farm or Dairy from which Milk was Derived.*—Bad.

*Exciting Cause of Outbreak.*—Recent illness of a febrile character in farm house.

*Circumstances implicating Milk.*—Two suburbs of Glasgow visited by enteric fever, the cause of which was traced to milk from the infected farm.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. ii, 1882, p. 590.

#### 6.—GRANGEMONT.

*Date of Outbreak:* October, 1882. *Number of Cases amongst Drinker of Suspected Milk:* All. *Percentage to Total Cases:* 100.

*Exciting Cause of Outbreak.*—Case of enteric fever in house from which milk was supplied.

*Circumstances implicating Milk.*—All the cases occurred in families deriving milk from the infected house.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. ii, 1882, p. 911.

#### 7.—GLASGOW.

*Date of Outbreak:* 1882. *Number of Cases amongst Drinkers of Suspected Milk:* All. *Percentage to Total Cases:* 100.

*Circumstances implicating Milk.*—Sharp outbreak among the working class portion of a western district of Glasgow, all being consumers of one milk supply. Inquiry failed to discover the point of infection, but not one case discovered in a person not using the particular milk service.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. i, 1882, p. 954.

#### 8.—GATESHEAD.

*Date of Outbreak:* February, 1883. *Reporter:* Dr. C. Green, M.O.H. *Total Number of Cases:* 44. *Deaths:* 6. *Number of Cases amongst Drinkers of Suspected Milk:* 44. *Percentage to Total Cases:* 100. *Number of Families taking the Milk Invaded:* 30.

*Sanitary Circumstances of Farm or Dairy from which Milk was Derived.*—Dairy utensils kept in dirty scullery.

*Exciting Cause of Outbreak.*—Enteric fever cases among the children on the farm.

*Circumstances implicating Milk.*—All the cases in households taking the one milk supply.

*Reference.*—*Lancet*, vol. ii, 1883, p. 986.

#### 9.—EXETER.

*Date of Outbreak:* April, 1883. *Reporter:* Dr. L. Woodman, M.O.H. *Total Number of Cases:* 20. *Deaths:* 3. *Number of Cases amongst Drinkers of Suspected Milk:* 20. *Percentage to Total Cases:* 100. *Number of Families taking the Milk invaded:* 8.

*Sanitary Circumstances of Farm or Dairy from which Milk was Derived,*—Dairy was supplied with water from a well into which a large cesspool overflowed. This dairy was situated outside city boundary.

*Circumstances implicating Milk.*—The only typhoid in Exeter was in the houses of persons taking this milk. No case occurred after the well was closed by order of the St. Thomas's Sanitary Authority on examination of water.

*Reference.*—Reports to Sanitary Committee. BRITISH MEDICAL JOURNAL, vol. i, 1883, p. 875.

#### 10.—ST. PANCRAS.

*Date of Outbreak:* July to September, 1883. *Reporter:* Mr. S. F. Murphy, M.O.H. *Total Number of Cases:* 431. *Deaths:* 30. *Number of Cases amongst Drinkers of Suspected Milk:* 350. *Percentage to Total Cases:* 81. *Number of Families taking the Milk invaded:* 276.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Proximity at one farm of cesspool to well, the water of which was used for rinsing milk utensils.

*Circumstances implicating Milk.*—The large proportion of cases in persons who were customers of one local milk dealer led to detailed inquiry, which resulted almost invariably in finding that houses supplied by other milk dealers escaped the disease. House-to-house visitation in the locality mostly affected failed to discover a case outside the customers of the suspected milk. Suspicion was found to rest particularly on one of 3 farms supplying the local dairyman, namely, that at St. Albans, in which town 12 persons were attacked during the first nine months of 1883, all but 1 being consumers of the farm milk; this exception, strange to say, received the same milk while at Kentish Town, where he evidently contracted the disease.

*Facts showing Special Incidence of Disease.*—Numerous instances occurred in which persons drank the suspected milk under special circumstances, and developed typhoid fever as the result.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. ii, 1883, pp. 505, 535, 588, 653 747

### 11.—DUNDEE.

*Date of Outbreak:* October, 1883. *Total Number of Cases:* 118. *Number of Cases amongst Drinkers of Suspected Milk:* 82. *Percentage to Total Cases:* 70.

*Exciting Cause of Outbreak.*—Several members of dairyman's family suffering during October from enteric fever, One boy early in the month found to be sleeping in a room at the dairyman's premises communicating with the milk shop, and certified to be ill of "neuralgia."

*Circumstances implicating Milk.*—The cases all occurred within a period of 3 weeks. Steps taken at the end of that time to stop the milk supply on account of certified enteric fever in the dairyman's family, this action being taken under a local Act.

*Reference.*—British Medical Journal, vol. ii, 1883, p. 839.

### 12.—ABERDEEN.

*Date of Outbreak:* December, 1883. *Reporter:* Dr. Simpson, M.O.H. *Total Number of Cases:* 25. *Number of Cases amongst Drinkers of Suspected Milk:* 25. *Percentage to Total Cases:* 100.

*Sanitary circumstances of Farm or Dairy from which Milk was Derived.*—Extremely bad.

*Exciting Cause of Outbreak.*—Foul watercourse flowing down a ditch, used for dairying purposes. Watercourse polluted by excreta from typhoid case. Dairyman's daughter ill from bowel complaint.

*Circumstances implicating Milk.*—All the cases seem to have consumed the one milk supply. Of 52 persons residing in the 13 invaded houses, 25 were attacked.

*Facts showing Special Incidence of Disease.*—In some instances the fever attacked only the single member of a household using the milk.

*Reference.—Lancet*, 1884, vol. i. p. 487.

### 13.—MID-WARWICKSHIRE SANITARY DISTRICT.

*Date of Outbreak:* 1883. *Reporter:* G. Wilson, M.D., M.O.H. *Total Number of Cases:* 12. *Deaths:* 1. *Number of Cases amongst Drinkers of Suspected Milk:* All. *Percentage to Total Cases:* 100.

*Sanitary Circumstances of Farm or Dairy from which Milk was Derived.*—Well, the water of which received pollution from a contiguous and leaky cesspool.

*Exciting Cause of Outbreak.*—Dairyman contracted typhoid fever through use of well water and died, the illness not being reported. Son also suffering from the disease when house visited by Dr. Wilson. The well water, having become specifically contaminated, was used to wash the milk cans, if not also to dilute the milk.

*Circumstances implicating Milk.*—All the cases occurred in persons getting milk from the infected dairy. The outbreak at once ceased when the milk supply was stopped.

*Reference.*—British Medical Journal, vol. i, 1883, p. 1136.

### 14.—BANNOCKBURN.

*Date of Outbreak.*—1883.

*Exciting Cause of Outbreak.*—Two cases of fever in the family of a dairyman.

*Circumstances implicating Milk.*—Most of the persons affected were consumers of milk from the infected dairy. Several cases were fatal.

*Reference.*—British Medical Journal, vol. i, 1883, p. 375.

### 15.—ST. ALBANS.

*Date of Outbreak:* May and June, 1884. *Reporter:* Mr. S. F. Murphy, L.G.B. *Total Number of Cases:* 131. *Number of Cases amongst Drinkers of Suspected Milk:* 86. *Number of Families supplied by Milkman:* 396. *Number of such Families invaded:* 86. *Percentage:* 21.7.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Well at farm 100 feet deep, containing some 12 feet of water. Cesspit of bricks set in cement 20 feet distant.

*Exciting Cause of Outbreak.*—One of the milch cows calved at the farm on April 20th. Milk cans rinsed with water from the well, into the sides of which well the roots of a tree, covering both well and cesspit, were found to have penetrated, thus favouring percolation of cesspit contents to well.

*Circumstances implicating Milk.*—The milk from this farm gave rise to a considerable outbreak of enteric fever in North London in 1883 (No. 10). In the present outbreak, the farmer and seven retailers distributed the milk locally, and 21.7 per cent. of the households were invaded in the epidemic period. In the city itself the percentage was 21.1, against 0.14 on houses taking other milk, the one being 150 greater than the other. Of households in a particular section of St. Pancras, London, obtaining their milk from the same farm, 15.0 per cent. invaded.

*Facts showing Special Incidence of Disease.*—One visitor to the farm who drank a glass of the milk was attacked.

*Reference.*—Report to Local Government Board.

### 16.—DERBY.

*Date of Outbreak:* September and November, 1884. *Reporter:* Dr. Iliffe, M.O.H. *Total Number of Cases:* 289. *Deaths:* 31. *Number of Cases amongst Drinkers of Suspected Milk:* 258. *Percentage to Total Cases:* 89. *Number of Families Supplied by Milkman:* 188. *Number of such Families Invaded:* 122. *Percentage:* 65.

*Sanitary Circumstances of Farm or Dairy from which Milk was Derived.*—Pump well on brink of ditch, the latter receiving, just above this pump, the drainage of a pigstye, and higher still, opening out as a cesspool, and being fouled by the slop water and privy refuse of two cottages. Ditch is "an open sewer." Pump so constructed that all waste water, however fouled, runs back into the well.

*Exciting Cause of Outbreak.*—Initial fever case at the farm, and napkins of this first typhoid patient washed in the pump trough; mother-nurse of patient engaging in washing the milk cans and milking the cows.

*Circumstances implicating Milk.*—First 15 outside invaded houses all using the implicated milk; and all but one of the first 37 houses attacked doing likewise. Of 289 cases, only 31 in persons not known definitely to have partaken of the milk; but of these 31 doubtless some did so partake at odd times, since people frequently, in running short of milk, became chance customers of handiest milkman on his round. Milkman specially in question had two sources of supply, one from farm named above; second from a farm to which no exception could be taken; 19 cases among consumers of milk from latter, the milks not being mixed. But same can measure at times used for both milks, and infection from one to the other hence doubtless brought about, the houses earliest served by the thus contaminated measure suffering the bulk of these cases, as well as some houses at times served with the pure milk in the practically empty cans of the other and contaminated milk.

*Facts showing Special Incidence of Disease.*—In addition to facts just related, one man taking a glass of the implicated milk to his dinner, but living outside the area of supply, was attacked, and several other patients had just removed from this special area when attacked, all being consumers of the milk.

*Reference.*—Special Report of Medical Officer of Health.

### 17.—ABERDEEN.

*Date of Outbreak:* December, 1884. *Reporter:* Dr. Simpson, M.O.H. *Total Number of Cases:* 65. *Deaths:* 7. *Number of Cases amongst Drinkers of Suspected Milk:* 43.

*Sanitary Circumstances of Farm or Dairy from which Milk was Derived and Exciting Cause of Outbreak.*—The surroundings of some of the farms supplying the milk to the patients such as to be likely sources of contamination.

*Reference.*—British Medical Journal, vol. i, 1885, p. 193.

### 18.—HELSARMEL SUBDIVISION, MUNICIPALITY OF LEICHHARDT, SYDNEY.

*Date of Outbreak:* February, 1886. *Reporter:* Dr. J. Ashburton Thompson. *Total Number of Cases:* 40. *Deaths:* 5. *Number of Cases amongst Drinkers of Suspected Milk:* 38. *Percentage to Total Cases:* 95. *Number of Families supplied by Milkman:* 123. *Number of such Families invaded:* 28. *Percentage:* 22.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Eleven cows were kept, never stalled. The establishment was a house and small yard on an ordinary house lot; the former stood on one bank of a natural surface channel which bisected the yard. In the alluvial bed of this channel a well was dug about 10 feet deep; this was the only source of water to the premises, which were unsewered and served by a pail closet, which, however, the tenants emptied for themselves, burying the contents in the yard within a few feet of the well. The channel drained a small area well defined by high ridges, on which were 286 inhabited houses. All these were unsewered; about two-thirds or more were connected with a public water supply; additionally on this area were two cemeteries which held 10,000 dead bodies between them. The area could drain by the channel alone, and the well was consequently kept full in dry weather by slopwaters mainly.

*Exciting Cause of Outbreak.*—Mixture of the milk with well water. Two cases of typhoid had occurred in a house which had a pail closet, of which the contents were buried in its yard by the tenants, and which was so placed that infectious excreta could have been washed into the channel near the well by a storm which occurred during a dry season at a date which corresponded with that of commencement of the epidemic—namely, about a fortnight earlier.

*Circumstances implicating Milk.*—The case-rate among customers was equal to 61 per 1,000. The whole district contained 10,550 persons, and the time was during the annual fever season, yet in all the houses not supplied from the suspected dairy all the medical men entering the district for professional purposes could point only to 4 in which cases of fever had occurred.

*Facts showing Special Incidence of Disease.*—Between ages 15 to 30 years; 9 females were attacked to 3 males.

*Reference.*—Votes and Proceedings, Legislative Assembly, New South Wales.

### 19.—LANCING COLLEGE.

*Date of Outbreak:* July, 1886. *Reporter:* Dr. Kelly, M.O.H. *Total Number of Cases:* 15. *Deaths:* 3. *Number of Cases amongst Drinkers of Suspected Milk:* 15. *Percentage to Total Cases:* 100.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Dry steined well at farm, a foot away from, and the water level lower than, a drain trap. Main sewer from Shoreham also near well, which latter bore evident traces of pollution by sewage.

*Exciting Cause of Outbreak.*—Typhoid fever prevalent in Shoreham, but specific pollution of well not proved.

*Circumstances implicating Milk.*—Beside 14 cases in boys at the College and 1 case in a visitor, there were 80 to 100 cases of typhoid fever in Shoreham traced to milk from the suspected farm. All the patients at the College and the visitor had partaken of cream from the dairy (with strawberries) on the cricket field. Cream was used from two sources, but nothing could be found amiss as regards the other source.

*References.*—British Medical Journal, vol. ii, 1886, p. 380; *Practitioner*, 1886, ii, p. 223.

### 20.—CARLISLE.

*Date of Outbreak:* October, 1886; June, 1887. *Reporter:* Dr. Brown, M.O.H. *Total Number of Cases:* 36. *Deaths:* 5 + ?. *Number of Cases amongst Drinkers of Suspected Milk:* 33 certainly. *Percentage to Total Cases:* 92.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Milk storeroom a small pantry between (and continuous with) a kitchen and yard. In yard were a slaughterhouse, cowsheds, an ashpit, privy, containing evacuations of enteric fever patients, and two open middens used for disposal of cow manure. Within 15 feet of privy was water stand tap.

*Exciting Cause of Outbreak.*—Not well defined; numerous causes may have been at work. Fever patients on farm nursed by cow milkers, who wore for both operations the same clothes; air of milk store commingled

with that of the room in which a fever patient lay; milch cows of dairy farm suffering for a series of years from a communicable febrile disorder; and the milk would be subject to the emanations from the specifically polluted privy and the cow manure middens, such manure being thought of as having infective quality, owing to the ill-health of the cattle.

*Circumstances implicating Milk.*—There were 5 cases of a febrile character, 2 certainly of enteric fever, and 3 deaths therefrom at the farm, from October to March, all in consumers of the milk. Of the remaining 31 cases occurring in different parts of the city, all save 3 certainly partook of the milk, and most probably those 3 also. No compulsory notification in force. Other 12 doubtful cases were all in consumers of the particular milk.

*Facts showing Special Incidence of Disease.*—The disease specially attacked females and young persons of both sexes, as is usual in milkborne outbreaks.

*Reference.*—*Practitioner*, 1888.

### 21.—BANDON, CO. CORK.

*Date of Outbreak:* July, 1887. *Reporter:* Dr. J. J. Welply. *Total Number of Cases:* 17. *Deaths:* 2. *Percentage of Cases in Consumers of the Milk to Total Cases:* 88. *Number of Families Supplied by Milkman:* 30. *Number of such Families Invaded:* 11. *Percentage:* 37.

*Sanitary Circumstances of Farm or Dairy from which the Milk was derived.*—Disgracefully bad.

*Exciting Cause of Outbreak.*—One of the dairy hands developed enteric fever. Cause of infection in her case not known. There were 17 cases, and the epidemic was clearly traced to 1 farm, on which fever had broken out. Milk was sent direct to the customers, and of the 17 patients, 15 got their supply from this dairy; the sixteenth was brother to a girl who milked the cows, and though he denied having taken the milk, there is strong suspicion that the infection was conveyed to him from the same house; the seventeenth case had no connection with it, and must have contracted the disease elsewhere. It is interesting to note that the means of dissemination were similar in two epidemics (see also No. 39), and the extent of the outbreaks varied directly according to the area over which the contaminated milk was supplied. In 1887 it was only distributed to houses in the town, and the country escaped from the fever, while in 1893 both town and country received the infected milk, and the fever was not limited to either.

*Reference.*—Report to Local Government Board, Ireland.

### 22.—SPILSBY R.S.D.

*Date of Outbreak:* September, 1888. *Reporter:* Dr. F. J. Walker, M.O.H. *Total Number of Cases:* 12. *Deaths:* 1. *Number of Cases amongst Drinkers of Suspected Milk:* 12. *Percentage to Total Cases:* 100. *Number of Families supplied by Milkman:* 20. *Number of such Families invaded:* 9. *Percentage:* 45.

*Sanitary Circumstances of Farm or Dairy from which Milk was Derived.*—Privy vault (cemented) only 5 yards from well. Dairy and premises kept very clean. Water supply from well about 20 feet deep. Water declared on analysis to be suspicious, and thereupon well closed.

*Circumstances implicating Milk.*—All the cases were in houses taking milk from the one source. No case among the customers of 9 other milk vendors. Milk the only community of condition of the invaded households. No further cases occurred after the well was closed.

*Reference.*—Annual Report for 1888.

### 23.—STIRLING.

*Date of Outbreak:* February to May, 1889. *Reporter:* Dr. McFadyen, M.O.H. *Total Number of Cases:* 40 or 50. *Deaths:* 4. *Number of Cases amongst Drinkers of Suspected Milk:* All. *Percentage to Total Cases:* 100.

*Sanitary Circumstances of Farm or Dairy from which the Milk was derived.*—Water supply to "old" farmhouse extremely polluted, and foul alike to taste and smell. Well contains dye stuff, found also in adjacent highly contaminated stream. "New" farmhouse watercloset inside house, its soil pipe running down also inside the house, and defectively-jointed, passing close to the milk storehouse.

*Exciting Cause of Outbreak.*—Cases of typhoid at the old and new farmhouses, the dejections from the first case probably polluting the watercloset drain, and thus leading to contamination of the air of the store house, and in this way of all milk subsequently stored there.

*Circumstances implicating Milk.*—All the cases could be traced to the consumption of the implicated milk.

*Facts showing Special Incidence of Disease.*—In one instance the only person in a family of 7 attacked was the single consumer of the milk. In another household of 7 persons, 3 taking the milk alone attacked.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. i, 1889, p. 1250.

### 24.—DUNDEE.

*Date of Outbreak:* February to May, 1889. *Reporter:* Dr. Anderson, M.O.H. *Total Number of Cases:* 45. *Number of Cases amongst Drinkers of Suspected Milk:* 23. *Percentage to Total Cases:* 51.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Drain from cowshed found to be defective and untrapped.

*Exciting Cause of Outbreak.*—Eruptive disease on the teats of a newly-calved cow.

*Circumstances implicating Milk.*—Of 21 cases up to April 15th, all but 1 occurred in consumers of the milk in different parts of the city. On this date the diseased cow was removed from the business, and the remaining 8 cases may be looked upon as due to infection prior to that date.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. ii 1889, p. 465.

### 25.—MUNICIPALITY OF RANDWICK, SYDNEY.

*Date of Outbreak:* February, 1890. *Reporter:* Dr. J. Ashburton Thompson. *Total Number of Cases:* 133. *Deaths:* 9. *Number of Cases amongst Drinkers of Suspected Milk:* 112. *Percentage to Total Cases:* 84. *Number of Families Supplied by Milkman:* 218. *Number of such Families invaded:* 67. *Percentage:* 31.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Public water paid for by meter; and a well, or rather tank, had been preserved in the yard, as was said "for washing carts, etc." The local authority under the Dairies Supervision Act had repeatedly, since a date at least three years prior to this epidemic, been exhorted to close this tank, but had neglected to do so. Further, during November, 1888, January, 1889, and December, 1889, 3 employees had been removed to hospital suffering from typhoid.

*Exciting Cause of Outbreak.*—Admixture of milk with water from the tank mentioned, which was not only subject to soakage, but also unprotected from inflow of surface water. During March, 1890, while this inquiry was under consideration, the milkman was fined for selling milk adulterated with water.

*Circumstances implicating Milk.*—Influence of public water supply and of sewers could be easily and certainly excluded. The milk was principally distributed within 2 municipal districts which contained 2,248 inhabited dwellings; to a less extent in 3 others. A house-to-house visitation of the 2,248 showed that 102 had been invaded between October 1st and May 31st, 1890; of those supplied with milk from the suspected source, 38 were invaded, or about 30 per cent. of all so supplied: the remainder were supplied by 58 separate traders, and of them 64 were invaded, or on an average in no case widely departed from on either side, about 2 per cent. On examining, only customers of the suspected milk in the other 3 municipalities in which they lived, it was found that in each district they also had been invaded in the proportion of 30 per cent. (the percentage of customers attacked within the 5 districts respectively varied between 26 and 31). Multiple cases in households: Of 38 households supplied with suspected milk, 15 yielded multiple cases; of 64 supplied from 58 other sources, 8 only furnished multiple cases. From February 10th to April 16th, there was a steady succession (almost day by day) of freshly-invaded households among the customers, and after April 16th no fresh invasion occurred. On March 31st to April 1st the well had been filled up.

*Facts showing Special Incidence of Disease.*—In 1 household the patient alone took the suspected milk, the rest some other milk. In another large household supplied from the suspected source, a majority of members disliked milk, and seldom touched it; the others were fond of it and drank large quantities. All the latter suffered, and none of the former.

*Reference.*—Votes and Proceedings: Legislative Assembly, New South Wales.

### 26.—NOTTINGHAM.

*Date of Outbreak:* June, 1890. *Reporter:* Dr. Boobbyer, M.O.H. *Total Number of Cases:* 7. *Number of Cases amongst Drinkers of Suspected Milk:* 7. *Percentage to Total Cases:* 100. *Number of Families supplied by Milkman:* 26. *Percentage of such Families invaded:* 27.

*Exciting Cause of Outbreak.*—Assistant in milk business suffering from low form of fever, accompanied by vomiting, etc., and away from work for a few odd days only of the 3 weeks' duration of illness.

*Circumstances implicating Milk.*—All the cases in question arose in a period of 3 weeks, and were traced as having received milk from the original sufferer.

*Reference.*—*Public Health*, 1890-91, p. 110.

### 27.—EDINBURGH.

*Date of Outbreak:* October, 1890. *Reporter:* Dr. Harvey Littlejohn. *Total Number of Cases:* 63. *Deaths:* 3. *Number of Cases amongst Drinkers of Suspected Milk:* 56. *Percentage to Total Cases:* 89. *Number of Families supplied by Milkman:* 400 (estimated).

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Well, used for all purposes, so situate that the surface water from farmyard, byres, piggeries, and a dungheap must needs get into it. Surrounding field manured with sewage from farm dungheap. Water of well found on analysis to be of a dangerous character. Specific contamination not found. Water could be seen percolating through the roughly-constructed sides of the well. Farmstead very dirty.

*Exciting Cause of Outbreak.*—Not definitely demonstrated. May have been many causes at work—for example, pollution by the specific poison of enteric fever, of the well water, and thus of the milk by way of cans, pails, etc. Milk was passed into cans in a small round building aërially and closely connected with the filthy byre. On October 1st a case of enteric fever was under treatment at the farm, but only after other cases had occurred among consumers of the farm milk in the city.

*Circumstances implicating Milk.*—Cases of enteric fever increased with abnormal rapidity in first eight days of October, 33 coming to light, of which 25 were in consumers of this same milk. After a week cases again cropped up, until 63 cases, of which 56 were in consumers of the milk, brought this special outbreak to an end. In the last week of September 8 cases occurred in drinkers of the milk, and suspicion against it was so strong that its use was prohibited on October 4th, and the outbreak ceased after a period, which gave evidence of the wisdom of the step. Ramifications of milk service very complicated, putting difficulties in the way of elucidation of the proportion of consumers attacked. Milk served to 7 dairymen, all of whom contributed cases amid their customers, though in very varying amount and ratio. Milk ofttimes sold mixed with that from other sources. As a rule large milk drinkers were mostly attacked, and women and young adults preponderated.

*Facts showing Special Incidence of Disease.*—In a household of 9 members, only 1 attacked was a young adult who nightly partook of a large quantity of milk on coming home from a hard day's work.

*Reference.*—*Transactions* of the Medico-Chirurgical Society of Edinburgh, 1891.

### 28.—SHAWLAND, GLASGOW, Etc.

*Date of Outbreak:* August, 1891. *Reporter:* Dr. Campbell Munro, County M.O.H. *Total Number of Cases:* 42. *Deaths:* ?6. *Number of Cases amongst Drinkers of Suspected Milk:* 37. *Percentage of Total Cases:* 88.

*Sanitary Circumstances of Farm or Dairy from which Milk was Derived.*—Bad sanitary conditions existed at farm. Byre defective in structure;

dung pit in ground beside it, with drainage arrangements liable at times to pollute business water service.

*Exciting Cause of Outbreak.*—Daughter of farmer ill at home for some time, suffering from enteric fever. Excreta thrown into dung pit during hot weather.

*Circumstances implicating Milk.*—All the first 37 cases, scattered over a wide area, were of drinkers of the milk from this farm. The remaining 5 cases were of secondary infection.

*Reference.*—*Public Health*, 1891-92, p. 275.

### 29.—PLYMOUTH.

*Date of Outbreak:* Spring, 1892. *Reporter:* Dr. F. M. Williams, M.O.H. *Total Number of Cases:* 12. *Deaths:* 1. *Number of Cases amongst Drinkers of Suspected Milk:* 12. *Percentage to Total Cases:* 100.

*Sanitary Circumstances of Farm or Dairy from which the Milk was derived.*—Well, with cover, said to be leaky, within some 40 ft. of cesspit, the latter polluted by typhoid excreta.

*Exciting Cause of Outbreak.*—Fever in farmer's family, the farmer and his wife engaged in dairy work, including the milking of the cows, nursing the sick, etc.

*Circumstances implicating Milk.*—All the 12 cases had the same milk supply. Only 2 cases cropped up after the cows had been removed to another farm.

*Facts showing Special Incidence of Disease.*—The fatal case was of a young man who had been ordered a milk diet.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. i, 1892, p. 1157.

### 30.—TORQUAY AND ST. MARY CHURCH.

*Date of Outbreak:* August, 1892. *Reporter:* Dr. Karkeek, M.O.H. *Total Number of Cases:* 102. *Deaths:* 8. *Number of Cases amongst Drinkers of Suspected Milk:* 102. *Percentage to Total Cases:* 100. *Number of Families taking the Milk Invaded:* 54.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Well in confined back yard showing on analysis evidence of pollution.

*Exciting Cause of Outbreak.*—Pollution of the dairy well, though how the water became specifically contaminated has not been ascertained.

*Circumstances implicating Milk.*—Infection traced to agency of particular milk service in 102 persons attacked. Cases ceased to occur within twenty-one days after destruction of polluted well.

*Reference.*—Report of Medical Officer of Health.

### 31.—TORQUAY.

*Date of Outbreak:* August, 1892. *Reporter:* Dr. Karkeek, M.O.H. *Total Number of Cases:* 20. *Number of Cases amongst Drinkers of Suspected Milk:* 15. *Percentage to Total Cases:* 75. *Number of Families taking the Milk invaded:* 8.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Two farms in question. At one a well in a small back yard proved to be so polluted as to be quite unfit for drinking purposes.

*Exciting Cause of Outbreak.*—At the other farm, farmer's wife, whilst nursing her son during an attack of typhoid fever, milked the cows and attended to the business of the dairy.

*Circumstances implicating Milk.*—After a freedom of some time from typhoid fever, cases cropped up suddenly, 6 of the first 7, and 15 in all, being in consumers of the particular milk services, excluding 5 cases not medically attended, and probably attributable to the same cause.

*Facts showing Special Incidence of Disease.*—One person attacked only had suspected milk in her tea. In another house only person attacked in one of the families was the servant, who alone used some of the milk in question, her employer taking milk from another source.

*Reference.*—Report of Medical Officer of Health.

### 32.—DUNDEE.

*Date of Outbreak:* August and September, 1892. *Reporter:* Dr. Anderson, M.O.H. *Total Number of Cases:* 73. *Deaths:* 11. *Number of Cases amongst Drinkers of Suspected Milk:* 43. *Percentage to Total Cases:* 59. *Number of Families taking the Milk invaded:* 32.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Buildings old and dilapidated, and not well kept. Draw well used for washing of milk cans, although public water supply laid on to house, and tap inside cowshed.

*Exciting Cause of Outbreak.*—The presence of typhoid fever on a dairyman's premises.

*Circumstances implicating Milk.*—Only 8 cases heard of after effect of infected milk supply prior to its being stopped could be thought of as ceasing. Of 37 cases in August, 19 among consumers of milk in question, and 24 out of 45 in September. Of customers at a particular shop getting milk from infected dairy, 16 infected between August 24th and September 21st.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. ii, 1892, pp. 598, 902, 915, and Special Report of Medical Officer of Health.

### 33.—GREENWICH AND ROTHERHITHE.

*Date of Outbreak:* September-November, 1892. *Reporter:* Dr. George Turner. *Total Number of Cases:* 511. *Percentage of Persons taking the Milk invaded:* 91.4.

*Sanitary Circumstances of Farm or Dairy from which Milk was Derived.*—Ice cream being manufactured amid gross insanitary domestic conditions.

*Exciting Cause of Outbreak.*—Specific contamination of ice cream sold at street barrows by itinerant Italian vendors: and brought about probably by sewer emanations, polluted water, or by the milk used.

*Circumstances implicating Milk.*—In a particular area selected for house-to-house inquiry all the 61 cases of typhoid fever among the 1,551 persons were among 395 who had partaken of ice cream from one street vendor (F.), no one of the 232 persons who had eaten ices from shops being attacked.

*Facts showing Special Incidence of Disease.*—Two boys living in different streets and eating ices from vendor F. were the only members to be attacked in their respective households. A servant girl who visited the infected district each Sunday, and who partook of ices also, was the only one of her mistress's family attacked.

*Reference.*—*Practitioner*, 1832, vol. ii, p. 141.

### 34.—LOUISVILLE, KENTUCKY, U.S.A.

*Date of Outbreak:* March to May, 1893. *Reporters:* Drs. Bailey and Tuley. *Total Number of Cases:* 54. *Deaths:* 3. *Number of Cases amongst Drinkers of suspected Milk:* 44. *Percentage to Total Cases:* 82. *Number of Families taking the Milk invaded:* About 30.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Fairly good, save that droppings, etc., from cows were swept out into a pond at the back of stable, about 12 feet below.

*Exciting Cause of Outbreak.*—Water used in cooling cans after they were washed, some water being left in the cans when milk poured in. Eberth bacillus found in this water.

*Circumstances implicating Milk.*—The epidemic ceased after stopping sale of milk.

*Facts showing Special Incidence of Disease.*—One case was the only one in the family who would not drink boiled milk.

*Reference.*—Report to State Board of Health.

### 35.—KELSO (SCOTLAND).

*Date of Outbreak:* May to August, 1893. *Reporter:* Dr. Oliver, County M.O.H. *Total Number of Cases:* 73. *Deaths:* 8. *Number of Cases amongst Drinkers of Suspected Milk:* 63. *Percentage to Total Cases:* 86. *Number of Families Supplied by Milkman:* 48. *Number of such Families Invaded:* 45. *Percentage:* 94.

*Sanitary Circumstances of Farm or Dairy from which Milk was Derived.*—Leakage from drains to well, the water of the latter being contaminated with sewage. Drains faultily laid, and one completely choked, the sewage backing up, escaping by way of holes made in a drain for rain-water pipe connections, the sewage thus set free reaching the farm well. Stoppage only discovered after the ground had been laid bare in searching for possible defects of drainage and suspected direct pollution of well.

*Exciting Cause of Outbreak.*—Means by which the milk received its specific infective property held to be unquestionably by way of the contaminated water supply. Two cases of illness on farm premises diagnosed as being enteric fever only after the occurrence of a third case in mid-June.

*Circumstances implicating Milk.*—Of the 18 cases first occurring only 1 was of a non-consumer of the milk. In the first three weeks the cases numbered 15, 15, and 22 respectively; of 48 households taking the milk only 3 escaped invasion by enteric fever. Fourteen days after stoppage of the milk supply the attacks became less numerous, and from the end of the fourth to the close of the twelfth week only 7 cases occurred.

*Facts showing Special Incidence of Disease.*—Three persons, not being regular customers of the dairy farm attacked by the fever, had each only one draught—namely, one a drink from the polluted well in passing, the other two a single drink of the milk.

*Reference.*—Annual Report for 1893 of Medical Officer of Health.

### 36.—PAISLEY.

*Date of Outbreak:* July, 1893. *Reporter:* Dr. Munro, Co. M.O.H. *Total Number of Cases:* 86. *Number of Cases amongst Drinkers of Suspected Milk:* 86. *Percentage to Total Cases:* 100.

*Exciting Cause of Outbreak.*—Enteric fever in home of ice-cream vendor. Patient in contact with business.

*Circumstances implicating Milk.*—All cases among persons eating the ice cream.

*Reference.*—BRITISH MEDICAL JOURNAL, 1894, vol. ii, p. 829.

### 37.—STOCKPORT.

*Date of Outbreak:* July, 1893. *Reporter:* Dr. Porter, M.O.H. *Total Number of Cases:* 9. *Death:* 1. *Number of Cases amongst Drinkers of Suspected Milk:* 9. *Percentage to Total Cases:* 100. *Number of such Families invaded:* 9.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Milk cans rinsed at two farms—in the one with water from a dirty-looking pool in a field where the cattle grazed, in the other with water from a shallow well in proximity to a privy midden, and close to a slop water channel of imperfect construction.

*Exciting Cause of Outbreak.*—Probably infection of milk on vendor's premises by dust from a specifically-infected privy pit.

*Circumstances implicating Milk.*—Among an extensive round of consumers of the milk taken direct from the farms to their houses no cases of fever occurred, the attacks all being in the homes of customers buying milk over the counter of the vendor's shop.

*Reference.*—Special Report of the Medical Officer of Health. *Public Health*, December, 1893, January, 1894.

### 38.—SHILDON AND EAST THICKLEY, CO. DURHAM.

*Date of Outbreak:* July to September, 1893. *Reporter:* Dr. R. Bruce Low, L.G.B. *Total Number of Cases:* 45. *Number of Cases amongst Drinkers of Suspected Milk:* 45. *Percentage to Total Cases:* 100. *Number of Families supplied by Milkman:* 147. *Number of such Families invaded:* 26. *Percentage:* 17.6.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Room used for storing milk had one large window opening on to three uncovered privy middens, furthest 33 feet away, nearest 23 feet; also 13 feet away an imperfectly trapped gulley in yard communicating with sewer. Inside store room a sink pipe passed direct to sewer.

*Exciting Cause of Outbreak.*—Three undoubted cases of typhoid fever occurred on dairy premises in July and August. Milk stored all night in room exposed to emanations from sewer, which ventilated directly into room: room also open to infection from privy midden, on which were

cast the untreated bowel discharges of the dairy fever patients throughout their illness.

*Circumstances implicating Milk.*—The 45 cases were part of a much larger prevalence regarded as due to sewer emanations and the like. All the 45 cases were in consumers of the milk. In one locality where the milk went to 127 customers, 14.2 per cent. were attacked, as compared with less than 3 per cent. of 93 customers of another dairyman.

*Facts showing special Incidence of Disease.*—Attacks in adult males relatively more frequent than in females: this perhaps accounted for by the fact that the dairyman was also a publican, and frequently served the milk over the bar to add to spirits consumed there by young colliers and others.

*Reference.*—Report to Local Government Board.

### 39.—BANDON, CO. CORK.

*Date of Outbreak:* August, 1893. *Reporter:* Dr. J. Welply. *Total Number of Cases:* 69. *Deaths:* 6. *Number of Cases amongst Drinkers of Suspected Milk:* 60. *Percentage to Total Cases:* 87. *Number of Families supplied by Milkman and Number of such Families Invaded:* Of 24 farms which dealt with the creamery, 12 became infected.

*Sanitary Circumstances of Farm or Dairy from which Milk was Derived:* Not good; original case of fever imported from a distance.

*Exciting Cause of Outbreak.*—An imported case of enteric fever, which was nursed by a milker. The milk thus contaminated was sent to a creamery. The separated milk from the latter was used in the houses in which the fever appeared.

*Circumstances implicating Milk.*—Almost perfect correspondence existed between the area of milk distribution from the creamery and the extent of the fever. Of the farms which did not deal with the creamery (about 180 in number), on only 2 did typhoid fever appear, and the persons who suffered on these had taken food in one of the invaded houses, so that they were indirectly affected from the common source. On the other hand, of the much smaller number (about 24) that had dealings with the creamery, 12 suffered, and from 1 of these a labourer's house had the infection conveyed to it. This house was surrounded by farms not sending milk to creamery, and from these fever was absent. Outside of the limited area dealing with the butter factory there was not, as far as known, a case of typhoid fever. Twelve farms escaped the epidemic, though they got separated milk from the creamery, but on some of these the milk was not used without boiling, and on others it was given only to young cattle and pigs.

*Reference.*—*Lancet*, vol. i, 1894.

### 40.—LAMBETH.

*Date of Outbreak:* March and April, 1894. *Reporter:* Dr. Verdon, M.O.H. *Total Number of Cases:* 59. *Deaths:* 10. *Number of Cases amongst Drinkers of Suspected Milk:* 55. *Percentage to Total Cases:* 93. *Number of Families supplied by Milkman:* Several thousands of customers.

*Sanitary Circumstances of Farm or Dairy from which Milk was Derived.*—Tank in milk storehouse yard much polluted by the dipping into it of pails from stables and cowhouses, as well as of brushes used for washing the van wheels, etc. Next to this tank stood the cauldron in which was boiled the water for can-washing.

*Exciting Cause of Outbreak.*—Thought of as being the access in some way of polluted water from the storehouse yard tank to the milk churns.

*Circumstances implicating Milk.*—All but four of the attacks were in consumers of the one milk supply, the patients residing in different parts of different sanitary areas. The milk from one small section of the business only in question, as close investigation proved. Stoppage of the supply immediately followed (allowing for incubation period) by complete collapse of the outbreak.

*Facts showing Special Incidence of Disease.*—Milk specially taken at one house for use of a particular inmate. He alone was attacked. In another street the only customer was attacked.

*Reference.*—Special Report of Medical Officer of Health. BRITISH MEDICAL JOURNAL, vol. i, 1894, p. 1148.

### 41.—BACUP.

*Date of Outbreak:* April, 1894. *Reporter:* Dr. J. Brown, M.O.H. *Total Number of Cases:* 23. *Deaths:* 5. *Number of Cases amongst Drinkers of Suspected Milk:* 30. *Percentage to Total Cases:* 91. *Number of Families supplied by Milkman:* 30. *Number of such Families invaded:* 13. *Percentage:* 43.

*Sanitary Circumstances of Farm or Dairy from which the Milk was derived.*—Dairy farmer, who milked the cows, also the night-soil scavenger; and probably conveyed the germs of the disease into his own household.

*Circumstances implicating Milk.*—Of the households invaded, 11 obtained milk from the same source. The supply being stopped, the outbreak came to an end.

*Reference.*—Annual Report for 1894.

### 42.—TORQUAY.

*Date of Outbreak:* July, 1894. *Reporter:* Dr. Karkeek, M.O.H. *Total Number of Cases:* 36. *Deaths:* 8. *Number of Cases amongst Drinkers of Suspected Milk:* 29. *Percentage to Total Cases:* 81. *Number of such Families invaded:* 24.

*Sanitary Circumstances of Farm or Dairy from which Milk was Derived.*—Members of the farmer's family (who had recently come) had typhoid fever, and by some mismanagement the milk probably got specifically contaminated. Farm water supply poor in quality.

*Exciting Cause of Outbreak.*—Development of typhoid fever within a week of the coming of the family from Exeter, first in the farmer, and later on in his children.

*Circumstances implicating Milk.*—The history of the epidemic showed most unquestionably the relation of the disease to the particular milk service; and 80 per cent. of the cases were in consumers of the implicated milk.

*Reference.*—Report of Medical Officer of Health.

### 43.—GREAT HARWOOD, LANCS.

*Date of Outbreak:* January, 1895. *Reporter:* Dr. Sargeant, Co. M.O.H. *Total Number of Cases:* 80. *Deaths:* 5. *Number of Cases amongst Drinkers of Suspected Milk:* 80. *Percentage to Total Cases:* 100. *Number of Families supplied by Milkman:* 147. *Number of such Families invaded:* 49. *Percentage:* 33·3

*Exciting Cause of Outbreak.*—Illness of dairymaid (ambulatory form of enteric fever), who milked the cows and washed the dairying utensils.

*Circumstances implicating Milk.*—In the invaded houses, 30 per cent. of the members were attacked. No case occurred outside the particular milk supply. The outbreak ceased, on the removal of the dairymaid, on diagnosis of her illness.

*Facts showing Special Incidence of Disease.*—Drinkers of raw milk attacked most virulently. One case attributed to a single glass of raw milk.

*Reference.*—BRITISH MEDICAL JOURNAL, vol. i, 1895, pp. 1110-11.

### 44.—PLUMSTEAD.

*Date of Outbreak:* May-June, 1895. *Reporter:* Dr. S. Davies, M.O.H. *Total Number of Cases:* 177. *Deaths:* 23. *Number of Cases amongst Drinkers of Suspected Milk:* 159. *Percentage of Total Cases:* 90. *Number of Families supplied by Milkman:* Some 250.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Open tank in yard, exposed to pollution, and kept in uncleanly condition. Water declared on analysis to be contaminated and unfit for drinking purposes. Use in dairying operations denied.

*Exciting Cause of Outbreak.*—Not definitely fixable; but bacteria found in tank water closely resembling those found in milk, pointing to entry of the former to the latter.

*Circumstances implicating Milk.*—Outbreak sudden in its onset. Ninety per cent. of the cases in consumers of the implicated milk. In 44 houses of the 141 supplied by cart in Plumstead, 65 cases occurred. In one road 49 houses took the milk, and 29 suffered invasion. Of 150 other houses near, and not taking the particular milk, only 2 had fever cases. Epidemic declined rapidly two weeks after closure of the dairy.

*Facts showing Special Incidence of Disease.*—One patient infected by drinking the milk (not her household service) when calling upon her mother.

*Reference.*—*Public Health*, January, 1896.

### 45.—RAHAN DISPENSARY DISTRICT, CO. CORK.

*Date of Outbreak:* 1895 (1st half). *Reporter:* Dr. O'Connor. *Total Number of Cases:* 6. *Deaths:* 2. *Number of Cases amongst Drinkers of Suspected Milk:* 6. *Percentage to Total Cases:* 100. *Number of Families Supplied by Milkman:* Many, with "separated milk." *Number of such Families invaded:* 6.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Milk obtained from a large country district for the creamery at Mallow, probably from a radius of 10 miles round, and from many farmers.

*Exciting Cause of Outbreak.*—The "separated milk" which the farmers get in return is used for making bread at home, which is eaten by the family. The outside of the bread may be safe, but not the inner portions, the heat not being sufficient to destroy microbes.

*Circumstances implicating Milk.*—In each case the fact of the person attacked having used creamery milk was clearly proved.

*Reference.*—*Cork Constitution*, August 20th, 1895.

### 46.—ST. HELENS, LANCS.

*Date of Outbreak:* November, 1895. *Reporter:* Dr. Robertson, M.O.H. *Total Number of Cases:* 12. *Deaths:* 2. *Number of Cases amongst Drinkers of Suspected Milk:* 12. *Percentage to Total Cases:* 100. *Number of Families supplied by Milkman:* ?37. *Number of such Families invaded:* 8. *Percentage:* 22.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Shippon in a filthy state; contained pigs and cows; floor rubble paved; gulley in shippon, which was inches deep in animal manure. Water supply bad.

*Exciting Cause of Outbreak.*—Milk exposed to specifically polluted air, and taken direct from the shippon to the cart. Relative of the milk dealer ill with typhoid fever three weeks after notification of first case. Connection with dairying operations denied.

*Circumstances implicating Milk.*—All the cases occurred shortly after the insanitary premises began to be used as a cowshed, and they ceased when the milk service was stopped.

*Reference.*—Special Report of Medical Officer of Health.

### 47.—WARMINSTER, WILTS.

*Date of Outbreak:* 1895. *Reporter:* Dr. Flower, M.O.H. *Total Number of Cases:* 47. *Deaths:* 3. *Number of Cases amongst Drinkers of Suspected Milk:* 34. *Percentage to Total Cases:* 72. *Number of Families taking the Milk invaded:* 29.

*Sanitary Circumstances of Farm or Dairy from which Milk was derived.*—Brook highly contaminated with sewage running through the grazing meadow.

*Exciting Cause of Outbreak.*—Cows drank of the sewage-polluted stream. Cows milked in the meadow in circumstances which may have led to pollution of the milk by the water of the brook. Persons using the milk spoke of its putrid and "ropy" condition on two or three occasions.

*Circumstances implicating Milk.*—The disease was entirely confined to the locality served by the implicated milk, with the exception of 2 cases that were imported into the town, 11 cases being of persons constantly in association with infected-milk drinkers.

*Reference.*—Special Report of Medical Officer of Health.

### 48.—KIRKCALDY.

*Date of Outbreak:* May, 1896. *Reporter:* Dr. Mackay, M.O.H. *Total Number of Cases:* 191. *Deaths:* 20.

*Sanitary Circumstances of Farm or Dairy from which the Milk was derived.*—Apparently good.

*Exciting Cause of Outbreak.*—Not discovered.

*Circumstances implicating Milk.*—Scarcely a household into which the milk was introduced escaped invasion by fever. Intensity diminished as a rule inversely as the distance from the dairy. The epidemic ceased after closure of the dairy.

*Reference.*—*Cowkeeper and Dairyman's Journal*, October, 1896.

## A GERMAN TRIBUTE TO THE LATE SIR SPENCER WELLS.

Professor von Bruns, in the course of his presidential address at the recent Congress of the German Surgical Society, referred in sympathetic terms to the death of Sir Spencer Wells. We are indebted to Professor von Bruns for the full text of his remarks, of which the following is a translation:

"In the first place we have to deplore the loss of one of the greatest surgeons of any age, one whom to our honour we were able to call an honorary member, Sir Thomas Spencer Wells. It is just forty years since he began his first efforts to establish ovariotomy as a recognised surgical procedure, standing alone, strenuous and resolute, against the universal verdict of his contemporaries, who condemned the operation as unjustifiable on account of its danger to life. Undaunted and undiscouraged by initial mishaps he worked on towards the perfection of the operation, not only establishing its technique, but also making great advances in the pathology and diagnosis of ovarian tumours. Through Sir Spencer Wells's labours ovariotomy has become a typical operation in the hands of every surgeon, and one to which thousands of women owe health and life.

"The way in which Spencer Wells was to become a benefactor to mankind appeared to be very far from him in the early stages of his career. Born on February 3rd, 1818, in a little village of Hertfordshire in the English Midlands, Spencer Wells was apprenticed as a boy to a general practitioner, and completed his medical education in the schools of Leeds, Dublin, and St. Thomas's Hospital. From 1841 to 1853 he was in the Naval Medical Service, after which he began practising in London, and, although he was especially drawn towards ophthalmology, it happened that he obtained a post at the then little Samaritan Hospital for Women. When the Crimean War broke out soon after, he went, at the instance of the English War Office, as Surgeon in the service of the field hospitals in the East, where he found the opportunity of making observations of the greatest importance for his life's work. Thus, among the many wounded, he saw many severe abdominal injuries, and learnt from these that, contrary to the accepted views, the peritoneum itself could under favourable circumstances withstand severe damage. Even when the abdominal walls were torn by bullets and the intestines prolapsed, he saw that here and there healing followed careful cleansing of the abdominal cavity and exact suture of the wounds. Spencer Wells often declared that it was just this knowledge which to a great extent gave him the courage to attempt the operative opening of the abdomen.

"In 1857, on his return from the seat of war to London, he performed his first ovariotomy, which turned out unfavourably, it not being possible to remove the tumour intact. In 1858 followed his first successful ovariotomy, which marked an epoch as the precursor of so much further progress. Patients soon poured in upon him from all sides to be operated on, and at the same time came surgeons from other countries to see him operate. Thus in 1880 he had performed his thousandth ovariotomy, and every year his results improved; while of his first 100 cases, 34 ended fatally, his mortality at the beginning of the second thousand was only 4 per cent. And as time went on, his mastery over operations on all kinds of abdominal tumours extended, so that his classical work of 1865, *On the Diseases of the Ovaries*, bore in the 1885 edition the title of *The Diagnosis and Treatment of Abdominal Tumours*. In the hands of Sir Spencer Wells ovariotomy had become the starting point for the modern development of abdominal surgery.

"Spencer Wells obtained the results of his great operative skill—results hardly surpassed in our own day—by perfecting the diagnosis, by exact definition of the methods and technique of operation, above all by the principle he carried out in the treatment of wounds, which entitles him to rank as the most prominent forerunner of the Listerian method. Long before Lister's first appearance upon the scene, Spencer Wells looked at sepsis in the light of Pasteur's researches into the germ theory, and recognised the great mortality after surgical operations as due to the entrance of noxious germs with the air. At the same time he regarded prophylaxis as the most important aim in the treatment of wounds, and attempted by the most scrupulous attention to cleanliness to protect wounds against all kinds of infection. Spencer Wells, in fact, going ahead of his time and with other means than are now used, laid down the principles of modern asepsis, and, in fact, operated aseptically, of which the striking results of his operations afford incontrovertible proof.

"And so, personally, the man who brought all this to pass was not alone a specialist in the best sense of the word, but a great physician impelled by a wide scientific spirit. And last, but not least, he was a downright good fellow; of inflexible will, indomitable energy, and indefatigable patience, he had at the same time a simple and hearty manner, a friendly geniality, and a lovable consideration for the welfare of his patients. It is thus that he faces us in the successful portrait with which the generosity of his daughter has adorned our walls; the fine lines afford a speaking likeness, the clever, friendly eyes look as if they were alive.

"It was obvious last year, when the venerable master did us the honour of taking part in our Jubilee, that his strength was already failing. For some years he had been the victim of gradually progressive paralytic symptoms, particularly affecting his speech; and on January 31st last, during his winter holiday in Cannes, on the Riviera, an apoplectic seizure came on, which carried him off in a few hours, just before the completion of his 79th year.

"In the history of surgery Spencer Wells will be for ever famous as the founder of modern operative gynæcology. The benefit that he has conferred upon the whole of humanity is incalculable."

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The Council of the British Institute of Preventive Medicine have made arrangements for holding a meeting in the Guildhall of the City of London on June 16th at 3 P.M., when an address will be moved to Her Majesty in connection with the great progress made in public health matters during the past sixty years. The Right Hon. the Lord Mayor of London (who will preside) and Sheriffs will attend in state. A Committee has been formed to make the necessary arrangements under the chairmanship of the Right Hon. Lord Playfair. At this meeting Professor Max von Pettenkofer, of the University of Munich, will be presented with the Harben Medal. In the evening the annual dinner of the institute will be held in the Carpenters' Hall. Among those who have already accepted invitations are Professor von Pettenkofer, Lord Kelvin, Lord Playfair, Cardinal Vaughan, and the Directors-General of the Medical Departments of the Navy and Army. Tickets for the dinner, inclusive of wine, are 25s., and, in view of the limited accommodation, those who desire to be present are requested to make early application to the Secretary, Dr. C. A. James. The Harben Lectures of the Institute will be delivered in King's College, London, by Dr. G. Sims Woodhead, Harben Lecturer for 1897. The subject chosen will be the Bearing of Recent Bacteriological Investigations on Public Health Work, especially in connection with (*a*) the Diagnosis and Treatment of Diphtheria; (*b*) the "Stamping Out" of Tuberculosis; and (*c*) Biological "Filtration;" at 4 P.M. on Wednesday, June 23rd, 30th, July 7th, and July 14th.

The new Convalescent Home of the North-Eastern Counties Friendly Societies at Grange-over-Sands, Lancashire, was opened by Sir James Laing on May 9th. It is the realisation of a scheme propounded in 1888 by Dr. William Robinson, of Sunderland, by which the members of the various friendly societies have combined to procure a home on the west coast for themselves by each giving a small yearly sum (6d. or 1s.) for its maintenance. The situation chosen was selected because of its beauty, and because it was sheltered on the north and east by hills, and because there the home can be open all the year round. The home accommodates 38 male patients, but can hold 50, and having 2 acres of land is capable of unlimited extension. The cost of erection has been £3,600, of which sum £1,300 is still to be raised. Another feature of the home is that when not filled by subscribing members, outsiders are admitted on paying 16s. a week.

## BRITISH MEDICAL ASSOCIATION.

### SUBSCRIPTIONS FOR 1897.

SUBSCRIPTIONS to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MAY 22ND, 1897.

## THE PROSPECTS OF FURTHER PUBLIC HEALTH LEGISLATION.

So long ago as 1847 a series of Acts, more or less of a sanitary nature, received parliamentary sanction, and thereupon became available as additions, in whole or part, to the local Acts of such towns as chose to adopt them. The Public Health Act of 1848 was a general one and of a general nature. When this Act and the subsequent Health Acts were consolidated in 1875, the Act of that year was also made general in regard to the provinces.

But meantime certain municipalities had been acquiring parliamentary sanction for additional powers, and in 1889 an Act for the notification of infectious disease, modified only slightly from the clauses already incorporated in various municipal Acts, was made compulsory in London and adoptable elsewhere. In the following year several other clauses relating to the prevention of infectious disease were put into the form of an adoptable Act. These were made adoptable not only as a whole but as to each individual section.

The same year another Act, amending the Public Health Act of 1875, was passed. The first part of this was general; the second part contained provisions dealing with telegraph wires, etc.; the third sections relating to sanitary matters; the fourth to music and dancing; and the fifth to finance. Either the second, third, fourth, or fifth parts, or any one of them, was adoptable by urban sanitary authorities, and the third or sanitary part, by rural authorities. The individual sections were not separately adoptable, as in the Infectious Diseases Prevention Act.

But the progress of sanitary legislation did not stop in 1890, and in 1895 the Committee, reappointed from session to session, and charged with the consideration of all police and sanitary clauses introduced into private Bills, concluded their special report to the House of Commons by suggesting that the time had now arrived for the inclusion in a public Bill of certain of those clauses which were now most frequently (with their approval) introduced into private Bills.

Accordingly a Public Health Acts Amendment Bill, backed by Sir Alfred Hickman, Sir Albert Rollit, Mr. Staveley Hill, Sir Walter Foster, Mr. G. Whiteley, Mr. Alfred Baldwin, Mr. Ernest Spencer, and Mr. James Heath, has been introduced. This Bill is divided into six parts. The first is general, the others individually adoptable in the same manner as the Amendment Act of 1890, but by either urban or rural district councils. Our concern is chiefly with the second and fourth parts, which give to local authorities respectively new sanitary powers and greater control over streets and buildings.

It may be noted at the outset that the new powers thus placed within easy reach of sanitary authorities are of the kind known as "enabling powers." That is to say, if the whole of Part II were adopted the Council doing so would not be compelled, though adopting the whole part, to enforce any particular section of that part which from special local conditions might occasion some inconvenience, but they would have the power of doing so when such conditions had passed away. Many of the powers would come into play only under certain circumstances. For instance—on the basis of recommendations and special provisions urged by Mr. Ernest Hart and others, with the authority of the facts collected in his Reports on the Spread of Zymotic Diseases by Milk Infection — the third section gives the local authority power to demand a list of his customers from a dairyman, but only on receipt of a certificate from the medical officer of health, that in the opinion of the latter an outbreak or the spread of an infectious disease is attributable to the milk. The dairyman is thus doubly protected against unnecessary interference by the need (1) of a formal certificate, not to be lightly given by the health officer, and (2) by the necessity of convincing the local authority that the official opinion is well founded. A small payment has also to be made for the list furnished.

The following section give the authority similar powers, under similar restrictions, of requiring a list of the customers of a public laundry. Section v is a valuable one, as will be seen by reference to Mr. Ernest Hart's report in 1881, and to that which is now being published in our columns. It enables the medical officer of health, where he has sufficient ground for his action, to require a milkseller (supplying to a house milk presumably the cause of an infectious illness in that house) to give a list of the farms or places from which gets his milk. In all three instances the required information can usually without much difficulty be even now obtained, but in the very case in which it was most needed it might, of course, be refused. Sections VI and VII require—the one, a dairyman supplying milk within the district to notify to the authority the existence of any infectious disease in his family or amongst his workpeople; the other, that a patient with an infectious ailment shall not milk any animal, pick fruit for sale, etc. Section VI might be more clearly expressed. The words "amongst persons engaged in or in connection with their dairies" are somewhat vague. If a cottager, who milks the cows or distributes the milk for the farmer, has a child laid up in his only bedroom with scarlet fever, such case surely ought to be notified. The notification to the clerk to the authority instead of to the medical officer might occasion delay in dealing with the matter. Section CXXIV of the 1875 Act authorises the removal to a proper hospital of the subject of an infectious disease "without proper lodging or accommodation, etc.," and the present Bill extends this power so as to cover persons not "effectually isolated so as to prevent the spread of the disease." We believe the question whether a patient with, say, small-pox, and who cannot be effectually isolated, can possibly be said to possess proper accommodation, has not been fought out before the higher courts. If such an absurd

contention could be sustained, the amendment of the 1875 Act ought to be general, and not dependent on an adoptive Act. The inclusion of such an amending clause in this Act would certainly be urged against the wider interpretation of Section cxxiv of the principal Act. Section ix gives an authority power to provide nurses for persons suffering from infectious disease; it does not, as already pointed out, compel them to do so. Section x forbids the blowing of a carcass; it makes no exception for inflation of the lungs in an animal killed in the Jewish method, and gives no definition of the word "carcass." By Section xi a stream, obstructed so as to overflow, becomes a "nuisance" to be summarily dealt with. Section xii saves powers of Diseases of Animals Act, 1894, and orders made by Board of Agriculture. Section xiii prescribes certain advertisements of provisions adopted. Section xiv makes it penal to sell, or deposit for sale, any human food known to be unfit for use of man—a very valuable extension of the existing Acts. The following section enables the original vendor of food "liable to be seized" to be got at. Section xvi gives the medical officer or surveyor power to insist on the application of the smoke or other test to suspected drains, and gives the authority power to get any defect so discovered remedied, or to enter and do the work themselves. This is an extension and improvement on Section xli of the 1875 Act. It is much less cumbersome and more generally applicable. The next section extends the prohibition of the use of certain cellar dwellings to their use even by persons who pay no rent for them. Powers for filling up cesspools and for the provision of sinks are contained in Sections xviii and xix, and Section xx gives power of entry for the cleansing of unwholesome premises. Part III relates to parks, Part IV to streets and buildings. By the latter the sanction to deposited plans not followed up becomes void in three years. By-laws may be made as to retaining plans. Power is given to vary directions of new streets, and to define future line of frontage in existing ones. Intersecting streets are to be made every 200 yards. Streets may be defined, and crossings of footway regulated. New streets must be marked out by posts before any buildings are erected, and the definition of "new buildings" is extended. Most important: no new building is to be erected (without sanction) in any future street of a height more than two-thirds the width of such street. No building is in future to be occupied as a dwelling until its drainage is completed and it has a proper water supply and the surveyor has certified its compliance with the building by-laws. Sections xlii and xliii exempt from these provisions Crown property and buildings (not dwelling houses) belonging to railway companies. Most of the clauses supply omissions of great moment in the general law; the Bill would give all sanitary authorities the power of remedying these defects without going to the serious expense of a local Act of Parliament.

## THE TWO SIDES.

Disputes are rightly called misunderstandings, and they usually end when the parties understand each other's position. This will probably be the case with the present quarrel between the medical aid societies and the clubs on the one hand and ourselves on the other; but just at present it is quite clear that an understanding is not very near, and therefore it is most necessary that medical men should, in order to treat with effect, maintain that power which combination alone can give.

On one point we can admit no compromise. We hold it to be degrading to any medical man to allow his professional knowledge to be used by a commercial company as its stock-in-trade, from which a profit is to be derived. Although men who accept office in such associations as the Norwich Medical Institute are acting within their legal rights, and although on this ground the Royal College of Physicians rightly refuses to forbid communication with them, yet that by holding such an office they are acting against the interests both of their own profession and of the public the College evidently believes as strongly as we ourselves. Under such circumstances we would, in the strongest way, urge our brethren by voluntary association to take those steps which may in each particular case be best adapted to check the evil, of which one is to withdraw from all communication with the offenders.

We have sometimes heard it said that the medical officer to an insurance company holds the same position, since that also is a commercial undertaking whose profits he does not share. But the cases are widely different. No one joins an insurance society in order to obtain the opinion of the medical officer. That is a necessary preliminary, but it is not the object of his investment. The skill of the medical man is in no sense part of the stock-in-trade of the company. The company employs him, and pays him, but it does not let him out.

Quite another question is that of fair remuneration for medical attendance. This is not a question of principle like the first, but one in which the balance must be struck between the two parties to the contract. But in this, too, the lay public do not fully understand the matter. It sounds reasonable to aim at obtaining medical treatment at the lowest possible cost, but it is quite obvious that if for a fixed yearly sum an amount of work is expected which is beyond any one man's power to perform satisfactorily, the public cannot be well served, and is worse off than if it spent more money and employed more medical men. It is also a fact which no one who knows the world will dispute, that work which is paid below the usual level is, and always will be, scamped. We are afraid that doctors are not exempt from the failings that obtain throughout the rest of mankind. The principle of co-operative insurance again is in itself excellent, and has for many years been recognised as a perfectly legitimate means for the poor to obtain their medical treatment cheaply. But a medical man could not afford to treat the poor alone. In order to make a living he must be able to reckon upon a certain proportion of higher fees. He is only able to treat the poor according to their poverty if the richer patients subscribe according to their riches. It is possible that the principle of co-operation might with advantage both to the patient and the physician be extended higher up the scale of income; but, if so, it must be at a higher rate, at a rate proportional to the fees which these patients would have paid. At the present moment the doctor's income—which without fear of contradiction from any who know him we can confidently assert is not large—is being diminished in two ways: first, the clubs are seeking to lessen the payment he obtains from the poor; and, secondly, they and the medical aid societies are admitting, at rates originally calculated for

the poor, persons far above them in social status, on whose fees the doctor reckoned to complete his small income. Against this sort of grinding he naturally and rightly protests, and will naturally and rightly combine to protect his own interests.

But the important thing is that the lay public should realise that it is not to its interest to starve its medical men. There is no question that medical education may be more cheaply obtained in some places than in others. There is no question also that places of education differ very considerably in the quality of the education they give. If men know that they must expect less income, they will tend to invest less money in the education that is to procure it, and will seek the cheapest rather than the best schools. That will not be to the advantage of the public.

Secondly, it is as important to laymen that we should be men of honour as that we should be men of learning. Most of the secrets of this world pass under our eyes, and the standard of conduct among us with respect to them must for the sake of the public be maintained at a high level. Now it is a fact which no one can dispute, though all may deplore, that the standard of private honour varies broadly with social status. If the social status of our profession were greatly reduced, no one would suffer more quickly, no one more certainly or more severely, than the lay public.

We have, as we have said, little doubt that in the end laymen will understand the matter in dispute. Meanwhile we would also urge upon our own profession that there are many points in which they irritate and alienate the laity. Nothing but good can come of discussion, and as we hope that the rest of the world will gradually understand our necessities, so we expect also that we ourselves will receive with sympathy the very reasonable complaints which many of them make of us.

## PRECEDENCE OF DEPARTMENTAL OFFICERS.

WE published last week a summary, without comment, of a recent revision of the Queen's Regulations on this subject. We can now, after some scrutiny—for army regulations are generally so involved as to require it—offer observations upon what seems, on the face of it, an important concession to departmental officers. The revised rules equally apply to the Ordnance and Pay as to the Medical branch. Two paragraphs in the old are now consolidated in the revised regulation, and are certainly expressed in simpler and less ambiguous terms. Indeed, the revision clearly proves, what we have often asserted, that the rank hitherto of departmental officers, whether expressed in so-called substantive or in titular terms, has been systematically set aside in mixed military functions. If it has not, why this revision? It is now unmistakably asserted that a departmental officer "will, in virtue of his rank . . . be entitled to precedence. . . . and other advantages attached to the corresponding rank of combatant officers;" but with the proviso that "such rank or position will not, however, entitle the holder of it to the presidency of courts martial, or to military command of any kind, except over such officers and men as may be specially placed under his command."

Afterwards the limited command, as formerly laid down in Paragraph 4, Section II, is reaffirmed to officers of the Medical, Ordnance, and Pay branches in their respective departments. A revised provision is also made as to the presidency of courts of inquiry, committees, or boards; which, although it does not mention departmental officers, must be held, we presume, to refer to and include them. The convening officer is to nominate a president; but, if he fails to do so, then the senior member will preside, but in no case will he detail a senior officer to sit as member under a junior president.

Now to ordinary men these new rules must seem fair, clear, reasonable; yet to those who know the perverse methods of military administration they may not be altogether satisfactory. The proverbial coach-and-four has hitherto so often been driven through the straightest of military regulations as to excite misgiving. We know full well how often, deliberately, and we may even say disloyally, both the spirit and the letter of Royal Warrants and Regulations have been set aside or twisted to the detriment of departmental, especially medical, officers. We require assurance that this new regulation shall be more honourably obeyed than some of its predecessors. We shall watch for, and not be surprised to find, some by-law, so to speak, issued presently to evade or set it practically aside. That would be only a repetition of what has so often happened in the past.

For instance, what could be plainer than the language of the last Royal Warrant—that the rank and precedence of medical officers is that expressed in the military part of their titles? Yet, in the face of that, we lately published two instances from Madras where medical officers, ranking as or with lieutenant-colonels, were detailed to sit as members of boards under a major as president. We have never heard that the convener of these boards was censured, as he deserved to have been, for his disobedience and disloyalty to the Queen's commands. Perhaps such glaring indiscipline and defiance of the regulations may in future be prevented by these revised rules. In future departmental officers will surely not be detailed to sit on mixed boards except in their proper place. But it must not be supposed that medical officers especially will ever under these revised rules be detailed to sit on mixed boards as members, much less as presidents, if it can possibly be prevented. For there is still an uncancelled by-law, which provides that they are to be called as witnesses before such boards, and while such a rule is in existence we will not be so credulous as to believe that convening officers will make members or presidents of those they can call and snub as witnesses.

But, while we accept the revise as a token of the perfect good faith of the Secretary of State for War, we may also warn him to see that it is obeyed, by the very highest military officials downwards. We predict, if there is a loophole of escape, it will not be obeyed. As the precedence affirmed plainly covers all mixed functions, whether official or social, we shall watch with curiosity the attitude towards it of general and other commanding officers, aides-de-camp, etc. Is there not a danger it may only lead to further ostracism of departmental officers?

Mr. Brodrick's reply to Dr. Farquharson on May 18th indicates that the proposal to form an Army Medical Corps, which was proposed and practically agreed to in 1879, is still shelved, the Secretary of State for War being "unwilling to reopen the question." The central and great reform is, therefore, again refused—we would rather say postponed, for it will force itself to the front, through the inexorable logic of events, and in spite of the die-hard opposition of "our military advisers."

## APHASIA AND WILL-MAKING.

The testamentary capacity of aphasics has hitherto received much less attention than its importance and intrinsic interest demand, the literature of the subject being singularly meagre and incomplete. Dr. Bramwell's articles dealing with this subject in a more systematic manner than has been hitherto attempted will be found of value, we believe, both to the lawyer and the medico-psychologist.

The legal attitude to testamentary capacity at the present time is very much the same as that held to criminal responsibility some forty years ago. Judicial bias now is as strongly inclined to the side of upholding a will, as at that date it was to the infliction of capital punishment in criminal cases. With both judge and jury positive evidence that the will-maker possessed some intelligence, although scarcely transcending the habitual speech reflexes, will often outweigh negative testimony of definite mental defect.

A will, therefore, if once made, however incompetent the legal drawer of the document to decide the question of fitness, and even if made by a lunatic under certificates and in the custody of interested persons, will almost certainly be upheld. There can be little doubt that grave injustice is thus inflicted on the one side, and on the other hand it is possible that to unskilled persons an aphasic, really capable of making a will, may appear totally unfit to do so.

The legal attitude to testamentary capacity, and even to criminal responsibility, approaches more and more, as time goes on, to demanding, not whether the individual has mental defect, but whether the mental defect affected the special act in question. Insanity, therefore, is not in all cases a bar to testamentary capacity, each case being judged on its own merits; and, similarly, in aphasia with associated mental defects, the judgment must be arrived at by a consideration of all the facts in each individual case.

Aphasia is a complication rendering still more difficult the task of arriving at evidence of the testamentary capacity by the obstacles it interposes to communication between the will-maker and his lawyer; but the associated mental defects of aphasia are the real basis of the incapacity; for even in total aphasia (word deafness, word blindness, motor vocal aphasia, and agraphia) it is conceivable that the sufferer might still communicate his wishes by signs. That this should ever be practically possible is very doubtful, but it is to be borne in mind that such a condition has been asserted to have occurred.

The probability of mental defect, as Dr. Bramwell points out, is greatest with the necessary extensive lesions of total aphasia, and greater in the cortical than in the subcortical aphasias; it is intensified by evidence of other associated lesions and by evidence of arterial degeneration.

The permanency of a condition of incapacity, as he points out, is much greater in conditions arising from rupture of vessels in aged persons than from obstruction occurring earlier in life. Thus it may exist for a short period after the occurrence of a lesion, passing off in a few days or weeks. In conducting an examination of an aphasic, therefore, the medical man should keep in mind the necessity not only of ascertaining the existence of delusions, want of understanding, loss of memory, impaired will power, disordered emotion, and change of character, but of arriving at a conclusion whether the dispositions of the will have been affected by these causes.

The methods of examination which Dr. Bramwell suggests for the exact ascertainment of the aphasic's testamentary desires are very valuable, and he very properly insists that they should be applied by, or with the aid of, a physician qualified by special experience to undertake such an investigation. The facility with which an unskilled person may accept as evidence of intelligence mere speech reflexes or the parrot-like repetitions of weak-minded conditions render this very desirable.

Dr. Bramwell's consideration of this subject may serve not only for the instruction of medical men in their mode of examination in such cases, but as a guide to lawyers in drawing such wills and to the kind of testimony that should be required in support of them. It is a distinct advance in this most interesting and important medico-legal subject.

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We are glad to learn that the Duchess of Teck is making good progress, and is now quite out of danger. It is hoped that she may be able to leave her bed in the course of next week.

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The Secretary of State has appointed Mr. E. Gould, Her Majesty's Superintendent-Inspector of Factories, and Dr. Thomas Oliver, of Newcastle-upon-Tyne, to represent the Factory Department of the Home Office at the International Congress on Workmens' Accidents and Assurances, to be held in Brussels in the last week of July.

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The medical officers of the Cardross Parish Council, N.B., have intimated that they intend raising their fees for examining and certifying lunatics from half a guinea to a guinea. To this fee they are perfectly entitled. The work is of a very responsible nature, and in other places where the matter has been agitated and fairly brought before the parish council, there has been little difficulty in obtaining the concession.

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On May 5th a statue of the late Professor Samuel D. Gross, of Philadelphia, whose name is a household word among surgeons throughout the world, was unveiled in the grounds of the Smithsonian Institution, Washington. There was a large attendance of members of Congress, and the statue, which is of heroic size, was formally accepted on behalf of the United States Government by Dr. George M. Sternberg, Surgeon-General of the United States Army. An address was delivered by Dr. W. W. Keen, of Philadelphia.

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### A BACTERIOLOGICAL LABORATORY FOR DUNDEE.

Our Dundee correspondent writes, with reference to the question of a bacteriological laboratory for Dundee, as to which a petition was presented to the town council by the Dundee and District Branch of the British Medical Association (see page 1316), that he has received an intimation from the town clerk that the town council has given instructions for the equipment of the bacteriological laboratory.

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### MALARIA AND THE BENIN EXPEDITION.

We are glad to hear that the severe outbreak of malaria which followed the Benin expedition is rapidly diminishing. According to the latest reports received by the Medical Department of the Admiralty at the end of March, among the British squadron at the Cape the following cases are under treatment: The cruiser *St. George*, flagship of Rear Admiral Rawson, has two officers and three men in hospital and twenty-seven remaining on board: while the *Phœbe* has one officer and forty-two men in hospital. These numbers are

an improvement on the previous reports, and the fact that the cases are reported as rapidly diminishing is most satisfactory. The sanatorium at the rifle range at Simonstown is still required, and is under the care of Surgeon Edward Sutton, but the overflow hospital has, owing to the diminution in the number of cases, been closed. It is a remarkable fact that the crew of the gunboat *Magpie* remains perfectly healthy, although this vessel proceeded much further up the river than the *Phœbe*.

## LOUIS PHILLIPE AS SURGEON.

VICTOR HUGO speaks in one of his works of "the first king who ever shed blood to cure." The late Duc d'Aumale recently explained the meaning of this expression. In 1833, when a child, the Duke was riding in his father's coach near Bourget, when a man was run over by the royal carriage. King Louis Phillipe at once said that the man must be bled. As no doctor was at hand, the King took out a lancet and drew blood himself, with perfect professional skill. In consequence or in spite of this royal though minor operation, the man recovered. Louis Phillipe had carried a lancet about with him all through his exile, and occasionally bled himself with it. It was kept in the handle of his pocket knife, specially fitted for the purpose. How the King came to know its use was for long forgotten. The truth is, he was really once a medical student, but never became a qualified practitioner, the legends about an American degree being fabulous. In 1790, when he was Duc de Chartres, he regularly attended the Hôtel Dieu at Paris as a dresser. He was trained to draw blood and to dress wounds. Madame de Genlis, who had such a strange power of making the Orleans family do whatever she suggested, had inspired young Louis Phillipe with the desire of doing a little doctoring. When he was King, Dr. Marc was requested by him almost daily to relate interesting cases. His Majesty was also an amateur in other arts and sciences.

## PROPOSED PSYCHOLOGICAL LABORATORY AT UNIVERSITY COLLEGE, LONDON.

A MOVEMENT has recently been initiated which, if successfully carried through, will fill a gap in the scientific equipment of London. No provision at present exists in the metropolis for the study of experimental psychology, and the efforts of those who desire to bring about the foundation of such an institution are greatly to be commended. It is a curious exemplification of the national ineptitude for matters scientific with which we are constantly twitted, that provision should have been made for the study of the pathology of mental processes, while their physiology has been utterly neglected. The London County Council has established a psycho-pathological laboratory at Claybury, which, under the able direction of Dr. Mott, leaves little or nothing to be desired, and has, furthermore, recently founded a research scholarship tenable in that institution. It is now proposed to found, entirely by private effort, a laboratory for the investigation of normal mental processes in connection with the psychological and physiological teaching at University College, London. A strong committee has been formed, consisting of Mr. Francis Galton, Mr. W. H. R. Rivers, and Professors Schäfer, Karl Pearson, Carey Foster, and Sully. It is hoped to get the laboratory into working order by the commencement of the October term, Professor Foster having kindly promised the loan of temporary accommodation in the Physical Department, together with such of the instruments already provided therein as may be of service. It is proposed to obtain the services of a competent instructor, and to commence by employing him for one term only in the year. This will be, as already stated, that starting in October, an arrangement which will harmonise with Professor Sully's lectures on Psychology, and also fit in with the requirements of candidates for the London M.D. in December. The advantage of the course of instruction to such candidates can hardly be overestimated, and we may mention that the scheme has the cordial and practical support of, among others, Dr. Savage and Dr. Hughlings Jackson. The committee are also most fortunate in having secured the co-operation of Professor Münsterberg in drawing up the proposed course of lectures and demonstrations. That the laboratory should be established at University College, which has been a pioneer as regards both physiology and psychology, is eminently fitting. The Council of the College have expressed their willingness to co-operate in every way, but at the same time they regret that they are unable to do so in the most important particular, that of endowment. The committee thus find it necessary to appeal for funds to initiate the movement, the success of which will, it is hoped, render it self-supporting. For the first year, £200 is required, as instruments must be bought, in addition to the provision of a teacher. We are glad to be able to state that a sum of £70 has been given by a lady, formerly a student of the College, towards the purchase of apparatus, and we hope that her generosity may be an example conducive to much emulation. Further particulars can be obtained from the Honorary Secretary of the Committee, Professor Sully, University College, Gower Street, W.C. The movement deserves the support, not only of those interested in University College, but of all medical men, and of alienists in particular. What is particularly needed is the promise of subscriptions for periods of three years, so that the promoters may go forward in their good work without fear for the immediate future. Later we may be confident that the work will speak for itself by the benefits conferred on Physiology, on Psychology, and on Practical Medicine.

## CHOLERA DIFFUSION BY FLIES.

AN outbreak of cholera in the gaol at Burwan is described in the *Indian Medical Gazette* by Surgeon-Captain W. J. Buchanan, M.B., who attributes it to infection carried by flies. Although no bacteriological investigation was made, and thus no actual proof was obtained that the food had been become infected in the way suggested, the circumstances of the case as detailed by him make it extremely probable that the cholera microbes were carried by flies from some infected huts outside the gaol walls to the place where the prisoners who suffered were fed. The prisoners were divided into two gangs, each of which was fed separately and had its food separately cooked. The prisoners of the batch in which the disease occurred were fed in a part of the gaol enclosure near the infected huts outside, while those in the other batch were fed at the opposite extremity of the enclosure, and it is to be noted that the wind was blowing strongly from the infected huts towards the feeding place of the gang which was attacked. It is, therefore, considered probable that swarms of flies were blown from these huts, and on reaching the trees and the high gaol wall obtained shelter from the storm and settled on the food exposed in plates before the gang of prisoners feeding at this corner. It is clear that we are as yet only at the fringe of this question of conveyance of infection by winged insects. The demonstration which was given last year at the Royal Society of the power possessed by flies not only of carrying bacteria about with them for considerable distances, but of retaining the infection for considerable periods of time, makes it extremely probable that these animals are the active agents in the production of many as yet inexplicable outbreaks of disease, and strongly suggests the possibility of their being the mechanism by which the aërial convection of small-pox is brought about.

## THE DAVOS INVALIDS' HOME.

THIS home was originally founded in 1884 by three English ladies (Mrs. Lord and the Misses Crothers), through whose labours and generosity it was successfully carried on for eleven years. In 1895, owing to Mrs. Lord's ill health, they were compelled to relinquish the work, and the land, house, and furniture were purchased by funds raised by subscrip-

tion, and an influential committee was formed to carry on the home as a public institution. The advantages of the climate of the High Alps in cases of consumption and chest diseases are well known, and Davos is much frequented by English patients. The object of the home is to extend these advantages to ladies and gentlemen of limited means, who, suffering from the early stages of illness, might by a timely visit to Davos be restored to health, but who cannot afford the heavy expenses usually incurred at hotels. The payments made by the patients (at present 4 francs or 4.50 per diem) include board and residence, medical attendance and nursing, the only extras being medicine and personal washing. The institution is conducted under the personal superintendence of an English lady, on the lines, as nearly as circumstances will allow, of English home life, and without any denominational restrictions. The original purpose of the founders has thus been taken up, but the home is now dependent for support upon the generosity of the public, and without a liberal response the much needed extension of the present limited accommodation cannot be obtained, nor the mortgage debt of £650 be paid off. Applicants for admission can obtain the necessary forms from either of the Honorary Secretaries, Dr. W. Ewart, 33, Curzon Street, W., or Mr. Arthur Herbert, 6, Finch Lane, E.C., and are required to be examined by one of the physicians on the committee to ascertain if the case be a suitable one. The Davos Home, which has for years proved of essential benefit to many consumptive invalids of both sexes, is always full in winter, but in the spring and summer months the winter sojourners flit, and room can be provided at a small weekly payment. The benefit that is found to be derived in the summer is often as great as that gained in the winter months. We would call attention to the attractions of Davos throughout the year, and also to the fact that every facility is afforded at the home for the treatment of those suffering from threatened lung disease or early phthisis, but advanced cases are not admitted.

## THE PASTEUR INSTITUTE, PARIS.

The number of persons treated at the Pasteur Institute, Paris, during 1896 was 1,308. Of these, 4 died of hydrophobia, being a mortality of 0.3 per cent. Since the establishment of the institute in 1886, the antirabic inoculations have been carried out on 18,695 persons, with 140 deaths, a mortality of 0.74 per cent. Of the patients, France has supplied 15,546, and various foreign countries 3,096. Among the latter, Great Britain heads the list with 870; next in order come Belgium with 429, Spain with 353, Portugal with 333, Russia with 164, Greece with 175, Italy with 159. British India sent 95, Austria 94, Holland 87, Switzerland 89, Roumania, 53, Egypt 45, Germany 44, the United States, 33, Turkey 31, Brazil 13, Morocco 2, and Monaco 2. Servia and Bulgaria sent 1 each.

## PUBLIC VAOCINATORS AND THE SUPERANNUATION ACT OF 1896.

We publish in another column a legal opinion which has just been given on this question. It will probably be remembered that after this Act was passed the question was soon raised as to whether public vaccinators were in any way affected by it. These gentlemen had previously been regarded as "officers" engaged in the Poor-law service, and we believe that nearly all of them considered themselves to be such; this is now found to be an error, as they appear to be contractors only and not officers. It seems to be not generally understood that a Poor-law district medical officer does not, by virtue of his appointment, become a public vaccinator, and, if he does, it is only by some further arrangement with the guardians that he becomes empowered to perform public vaccination. It follows, therefore, that all district medical officers are not necessarily public vaccinators, and further that Boards of Guardians can contract for the performance of all public vaccination (except that of the inmates of a workhouse) with those who are not district medical officers, and this is not infrequently done. The same regulation does not apply to workhouse medical officers, who, by virtue of their office, are public vaccinators for their respective workhouses. It is not at first sight very evident why public vaccinators are not really officers in the Poor-law service, but a careful examination of the regulations under which these services are brought into operation explains this. There are no regulations which require Boards of Guardians or others to "appoint" public vaccinators, but the regulations which are in operation require them to enter into a contract with some legally qualified medical practitioner (who must possess the same qualifications as a Poor-law medical officer), and this for no specified period of time, to perform public vaccination within an assigned district, on the terms specified in the contract, which contract may be determined at any time by either one of the parties giving to the other twenty-eight days' notice in writing of any such intention. The recent opinion of the Local Government Board that public vaccinators were not officers led to so much surprise and disappointment as to induce the Council of the Poor-law Medical Officers Association to take the necessary steps to procure an independent legal opinion on the question. Sir Robert Reid, Q.C., was applied to, and his opinion with that of his junior has now confirmed the opinion previously given by the Local Government Board. It cannot therefore be necessary to incur further expense by bringing the question before any of the higher courts, as it may really be considered settled, the opinion just given by Sir R. Reid being to the following effect, namely, that public vaccinators are not officers of the Poor-Law Service, and consequently are not entitled to any pension under the Superannuation Act, and, further, that Poor-law district medical officers who are also public vaccinators cannot regard any payments they may receive for public vaccination as emoluments of their office to be reckoned in estimating the amount of pension they may claim. It is therefore evident that if public vaccinators are to acquire any right to a pension, this can only be obtained by some fresh legislation. We are glad to inform our readers that the Parliamentary Bills Committee have already drafted a clause to meet this requirement, namely: "The term 'officer' in Section xx of the Poor-law Officers' Superannuation Act, 1896, shall be deemed to include public vaccinators," etc. If this is passed during the present session, and we have strong hopes that it will be, the defect in the Act of 1896 will be at once removed, and public vaccinators, whether Poor-law medical officers or not, will be entitled to claim superannuation allowance on the usual scale. It is to be hoped that all specially interested will make some endeavour to procure the necessary parliamentary support.

## HYPNOTISM IN THE COUNTY COURT.

An amusing case came before Judge Emden on May 12th. It appears that a "Professor" Fricker, stated to be a former pupil at the West-End Hospital for Nervous Diseases, being in want of a suitable medium, engaged in September last a certain Frederick Charles Howard to act in that capacity. The Professor had for some time managed the "trance room" at the Royal Aquarium. The medium seems speedily to have discovered himself to possess some most valuable qualities, such as insensibility of the conjunctiva, for his new profession. He allowed the Professor to hypnotise him, and to demonstrate his condition to a doctor, who was perfectly satisfied, though the subject, as has previously happened in similar cases, now declares that he was never entranced at all, but simply using his exceptional powers of endurance "with intent to deceive." Anyhow, the Professor was so pleased with the result that he at once proceeded to go on tour with his subject. A certain amount of dramatic interest was added to this tour by the fact that the presumably hypnotised subject travelled in a coffin. Having arrived at Luton a funeral procession was made to the town hall, accompanied by the dulcet strains of a brass band. Here Mr.

Howard lay in state till such time as the Professor should tap him thrice upon the head, and he should awake to the appropriate music of "See the Conquering Hero Comes." Business does not seem to have been very good at Luton: in fact, we may borrow a theatrical phrase, and say that "the ghost did not walk." Furthermore, Mr. Howard, owing to the draughty construction of his coffin, suffered considerably from toothache. The memory of this no doubt gave an added pang to his feelings when he found himself unable to recover the sum of £8 7s. unpaid wages. It was this sordid consideration which brought the student of psychical research and his quondam subject face to face in the Lambeth County Court. Recriminations ensued, and if either of the parties is to be believed, the other is as arrant an impostor as has ever masqueraded even under the cloak of hypnotism. The Professor declared that he had been deceived and had fully believed the medium to have been under his influence. To this the medium retorted with a reminder that when the watcher had left he had given proof of being vigorously awake by getting up and having a smoke and something to eat. We have reason to believe that the Professor has since changed his ground, and maintains that Mr. Howard was actually hypnotised by him though he now chooses to deny it. On this point the judge did not feel himself called upon to decide: the claim for wages was sustained, and the hypnotist left the court vowing vengeance. The case is of some importance as a further illustration of the fact that most of these so-called hypnotic exhibitions are mere humbug and imposture.

## ROYAL COLLEGE OF SURGEONS, IRELAND.

THE annual election of President, Vice-President, and Council of the Royal College of Surgeons in Ireland will take place on the first Monday in June, and the meeting to receive the annual reports on the preceding Saturday. Mr. William Thomson and Mr. R. L. Swan will be re-elected President and Vice-President respectively. For the Council three new candidates have come forward—namely, Mr. T. Myles, Surgeon to the Richmond Hospital, and Mr. Murray and Mr. Sherlock, both of whom wish to represent dental interests.

## MERCER'S HOSPITAL, DUBLIN.

AT the meeting of the Governors on Tuesday last it was determined to advertise for candidates to fill the vacancies caused by the dismissal of the entire staff of Mercer's Hospital, as already reported. The election will take place in July. It is announced that the discarded officers may be reappointed. One, however, will not apply, as he will contend at law that the governors have no power to dismiss without an efficient inquiry. Dr. T. P. Mason, one of the physicians, sent in his resignation, but after the decision to dismiss had been come to. A strong minority of the governors has protested against the action of the majority. The public feeling tends to the view that the governors ought to have been got rid of. They appear to be a very inefficient set of gentlemen, who ought not to be entrusted with such a charge as a public hospital. At any rate, the hospital has in their hands fallen from its high estate, and has become a byword.

## NURSING IN WORKHOUSE INFIRMARIES.

A RETURN has been recently made to the House of Commons of the number of nurses engaged in nursing the sick. The return also indicates the number of these nurses who have been trained previous to their appointment, and the number who, as probationers or otherwise, have received or are receiving training. Comparing this return with that of 1891 made to the House at the instance of Mr. Rathbone, there is an increase under the first head of 1,165, and under the second head of 578, so that whilst there has been an increase in the number of officers engaged in nursing the sick, there has been a slight decrease in the relative proportion between the trained and untrained. The column indicating the number who are now receiving training is a new feature in the return, but from our knowledge of the conditions of the several country workhouses, we cannot accept this return as an accurate statement, failing as it does to notify the style and method of training given to the probationers. In one infirmary the training may be all that can be desired, and in another not worthy the name, but so long as there is no means of distinguishing between the two, no return can be accurate. The Local Government Board maintains its masterly inactivity on all questions that relate to the nursing of the sick, with the result that chaos reigns instead of order.

## THE MEDICAL VICTIMS OF THE PARIS DISASTER.

THE official report of the recent disaster in Paris states that the total number of persons known to have lost their lives in it is 116. Of these, only 6 belong to the male sex. This number includes 2 little boys, 3 old men, and 1 man (Dr. Feulard) in the prime of life. The French papers are full of denunciations of the cowardly behaviour of many of the men present on the occasion, and in evidence of this the writers point to the very small number of male victims as compared with the hecatomb of women. It is deplorable that men of any nation should be taxed with want of chivalry; but we cannot help feeling a melancholy satisfaction in the fact that the only able-bodied man who perished in the flames was a doctor, and that, of the four men who lost their lives in the disaster, two were members of the medical profession. A solemn requiem service was, by desire of the Academy of Medicine, held at the Madeleine on Saturday, May 15th, for the doctors and wives and daughters of medical men—seven in number—who perished in the Bazar de la Charité. The medical profession of France may be assured of the heartfelt sympathy of their British brethren in their sorrow.

## THE ECONOMY OF VACCINATION.

THERE are many standpoints from which vaccination can be looked upon in the light of an economic measure, economic alike as regards finance, suffering, and death; and we have not in time past been backward in demonstrating these assertions. A new side light is cast upon the monetary aspect of the matter by the data afforded by Dr. Berry in dealing with the occurrence of cases of small-pox in Wigan during the past year. Of 35 cases of the disease isolated in the borough hospital 4 died, 2 of the patients being vaccinated. But of the remaining 31 cases which recovered, 25 were of adults vaccinated in youth, and 6 of unvaccinated persons. The average length of treatment of the 25 vaccinated patients was 18½ days, that of the 6 unvaccinated patients was 38 days, a difference on an average of 20 days, or all but three weeks, according as the patient had or had not been vaccinated. This is but a single record of an oft repeated story; and no one will fail to see the significance to the ratepayer of having in his local hospital small-pox patients partially protected by vaccination in early life against a fatal issue, as opposed to wholly unprotected persons ill of the disease. We do not here enter into the deeper question of total absence from the Wigan hospital of revaccinated individuals, or the relative values, *quâ* attack by small-pox, of one and another kind of vaccination.

## SUICIDE AMONGST MEDICAL MEN IN RUSSIA.

PROFESSOR J. A. SSIKOROKI, of Kieff, has recently stated that suicidal mania is increasing among doctors in Russia. Suicide is considerably more frequent among them than among the members of any other profession or trade. The proportion of suicides to the total number of deaths among the general population in the dominions of the Czar is 1 in 1,200; among medical practitioners it is 1 in 28. Of course in appreciating the exact significance of these figures it must be borne in mind that the majority of doctors are men among whom suicide is more common than among women. Moreover, the general population includes children, among

whom suicide is very rare. Making allowance for these circumstances, however, the fact remains that, while the rate of suicide in the general population is 30 per million, among members of the medical profession it is 631—more than twenty times as great. The method of shuffling off this mortal coil most in use among the doctors is by poison: this is the means employed in 45 per cent. of the cases. Next in frequency comes shooting.

## THE GENERAL MEDICAL COUNCIL.

THE President, Sir Richard Quain, will preside at the summer session of the General Medical Council, which commences on Tuesday next, May 25th. One of the earliest matters to which the Council will have to give attention will be the formal communication of the decision of the Privy Council, requiring the General Medical Council to appoint assistant examiners in surgery for the purpose of qualifying examinations to be held by the Apothecaries' Hall of Ireland. It is to be presumed that the Council will bow to this decision, and notify its readiness to appoint examiners in surgery as the Hall has requested. The Council will also have under consideration certain proposals for modifications of its method of procedure in penal cases, and in particular a proposal that the Penal Cases Committee consisting of three members from England, one from Scotland and one from Ireland, should meet at least four times a year, with power to the President to summon special meetings of the Committee. There are also motions, we understand, upon the agenda, raising the question whether the Council's resolutions on the employment of unqualified assistants, which are published from time to time in our advertisement columns, might not with advantage be made more stringent, and be transmitted to every registered practitioner direct. The Council will also have to consider several penal cases. Questions connected with the Midwives Registration Bill may be expected to arise in connection with a report from the Executive Committee, as to the action it took at its meeting of February 22nd, in reply to the communication from the Privy Council. The Executive Committee, on that occasion, forwarded to the Privy Council copies of the resolutions adopted by the Council on November 29th, 1889, and June 5th, 1895. Whether any further action should be taken will be a matter for the consideration of the Council.

## POISONING BY WATER GAS.

IN connection with the dangers arising from the introduction of carburetted water gas, which we recently discussed, the experience acquired in American towns appears to be very significant. Dr. Cattell[1] mentions the fact that in Philadelphia, where water gas is largely used, the coroner held inquests on 33 cases in which death was shown to have been due to poisoning by illuminating gas. Of these cases a considerable proportion appear to have been suicidal. In Boston, where water gas is also used, according to an official report quoted by Surgeon-Lieutenant-Colonel Cayzer,[2] there were 43 cases during 1896. Such statistics speak for themselves. As difficulty often arises in recognising cases of poisoning by illuminating gas, it may be well to mention the fact that recent investigations have shown that the simplest, and at the same time the most delicate, method of testing for the presence of carbonic oxide in the blood is as follows: A drop of normal blood is diluted in a test tube with water until the tint of the solution appears yellow. A drop of the suspected blood is then diluted to a corresponding extent. The degree of dilution necessary can easily be determined by the depth of colour. If carbonic oxide be present the solution of the suspected blood will have a pink tint quite different from the yellow tint of the normal blood. The better known spectroscopic test is considerably less delicate, but has the advantage of not requiring daylight, which is necessary for the colour test. A correspondent has asked us to give references to the experimental evidence for our statement that the compound of carbonic oxide with hæmoglobin is capable of being dissociated. This fact was first shown by Donders.[3] That carbonic oxide is not oxidised within the body, as formerly supposed, was proved by Gaglio.[4] The conditions under which carbonic oxide is taken up and given off through the lungs in man, including the periods of time required for absorption and for recovery of the blood by dissociation, have recently been very fully investigated. The results of these investigations are continued in the following papers: Haldane, *Journal of Physiology*, vol. xviii, pp. 201 and 430; and *Report to the Home Secretary on the Causes of Death in Colliery Explosions*, 1896; also Haldane and Lorrain Smith, *Journal of Physiology*, vol. xx, p. 497.

[1] *International Medical Magazine.*
[2] *Liverpool Post*, April 28th.
[3] *Pflüger's Archiv*, vol. v, p. 24.
[4] *Archiv für exper. Pathologie*, vol. xxii, p. 236.

## OUR STATE HOSPITALS: NEW SEPARATE INFIRMARY HALIFAX UNION.

THE high position in the hospital system of the country which is likely in the near future to be taken by the separate infirmaries which are being erected under the provisions of the Poor Law in various parts of the country is well illustrated by the very elaborate building now in course of construction at Halifax for the accommodation of the sick of that union. The total cost of this hospital when complete is estimated at £125,000, but at present only a part is being built, the rest being reserved for extensions. The sum to be expended now is not expected to exceed £93,000. The site consists of 12½ acres, situated on the outskirts of the town. The central part of the building is devoted to the administration, the block nearest the entrance gates being the nurses' home, behind which comes a series of buildings, terminating in the extreme rear with the laundry. Connected with the central block by corridors, branching to the right and to the left, are two practically symmetrical groups of pavilions, each of which, as shown on the plan, consists of four two-storeyed pavilions of the usual oblong quadrilateral plan, and a three-storeyed pavilion of circular wards. The large wards are arranged to accommodate twenty-seven patients, but in each pavilion there are smaller wards for special cases. The ordinary rectangular pavilions are raised a considerable height above the ground, the space below being open to the air; but this does not seem to be the case with the circular wards. Day rooms are provided in connection with the various sick wards. The flooring of the wards is to be constructed of the best teak, while for the corridors terrazo will be employed. An operating room will be provided which will be lighted from the top. Attached to it will be rooms for instruments and for the administration of anæsthetics. The maternity department is a separate building, and is so arranged that the lying-in wards need not be kept continuously in use. One ward can be used for a time, and then, while it is being cleaned and ventilated, the other can be brought into occupation. The whole of the premises will be lighted by electricity which will also be largely used for other purposes, as for example in the working of the lifts. Altogether the arrangements seem to have been made for providing a very complete hospital on modern lines for the treatment of the sick of the Halifax Union. We understand that it is probable that when the hospital is brought into use, it will have on its staff both resident and visiting medical officers. Provision is made in the buildings for two resident surgeons. The architect, Mr. W. Clement Williams, has evidently very carefully studied the requirements of the guardians, and has succeeded in producing a plan for a useful hospital which, both in regard to details and general arrangements, is far in advance of what is commonly found in Poor-law establishments.

## REACTIONARY SANITARY LEGISLATION: THE SCOTTISH PUBLIC HEALTH BILL.

THE anticipations which we formed at an early stage in the progress of the Scottish Public Health Bill[1] have been most unfortunately verified. What was the Grand Committee on Law has degenerated into a hybrid Committee, consisting mostly of Scotch members, whose time is principally taken up in listening to the speeches of a gentleman who is known as "the honourable member for Mid Lanark," whose amendments have been accepted by the Lord Advocate in charge of the Bill to an extent which will most certainly cause the Bill to be known, should it ever become law, as Caldwell's Act. Provisions which Lord Balfour adhered to in the Lords last year in spite of every adverse influence have been gaily tossed to the winds by the Lord Advocate at the nod of the talkative member for Mid Lanark.

The distinguishing characteristic of the Committee, from the first, has been its strong anti-medical, anti-scientific spirit. "Are we," asked Sir Robert Reid, at an early part of the discussion, "are we to be dominated by this medical hierarchy?" Sir Robert does not pretend to know much of hygiene, and he is doubtless unaware that everywhere over the civilised world, medical men, making no hierarchical pretensions, have been pressed by circumstances into the van of every movement which has had for its object the social and hygienic improvement of the condition of the people. Sir Robert waxed eloquent in denunciation of the requirement of the existing statute that medical officers of burghs, hereafter appointed, must possess a diploma in public health. But the burgh of Dumfries, which Sir Robert represents, does not want a highly-qualified health officer. Therefore let the law be relaxed. The representative of a northern constituency believes men could be got to act as county health officers for nothing; therefore let there be no mention in the Bill of "a proper salary."

These were merely preliminary trifles—like the blades of grass, which, tossed in the air before the match, show how the wind is blowing. The real play began with Clause 22. Clause 16 formed what will be termed the Nuisance Clause. It deals with all manner of things which are "injurious or dangerous to health." In the past the procedure in that connection has been simple, and has been admirably smooth. The local authority, when satisfied on the certificate of the medical officer, that a nuisance injurious to health existed upon any premises, instructed proceedings to be taken if they deemed it wise. Part of the printed plea was a form in which the medical officer's certificate was embodied. The anti-medical element have been successful in practically superseding the medical officer under this clause, by inserting as a person who can equally certify, "the sanitary inspector." In the past, before proceedings could be instituted against one of the lieges in respect of property alleged to be insanitary, there must first be a complaint by the sanitary inspector; then that complaint must be backed up by a medical certificate—that is, where it was a case of alleged injuriousness to health, there must be a medical certificate. All that is gone now, so far as this edition of the Bill is concerned. A layman, without a shadow of a qualification—the sanitary inspector of a local authority is not required to possess any qualification, even as to the laying of drains—is declared by Act of Parliament to be a suitable person to certify: for instance, with respect to a water supply, or as to whether a dwelling-house is or is not in a condition injurious or dangerous to health, or to give a certificate which might lead to the closing of a block of property as unfit for habitation. How can the General Medical Council justify the large demand it makes upon candidates for the statutory diploma in public health? The certificate of the man who stood yesterday laying drains in a trench is to be as valid in the eyes of the law as that of the highly equipped holder of a diploma or a doctorate.

In keeping with this, in Clause 33, dealing with offensive trades, the "sanitary inspector" has been stuck in beside the "medical officer" as an official upon whose certificate legal proceedings in the High Court may be instituted.

Clause 45 (1) provides for the medical officer or any other legally qualified medical practitioner certifying as to the necessity for the cleansing and disinfecting of a house or articles or their destruction. An amendment has been put down proposing to substitute the sanitary inspector for the medical practitioner. In the frame of mind which possesses this Committee, this may very well be accepted, or even another which empowers a sanitary inspector, under a warrant, to enter any premises and examine any person. This is a very strong power to give the medical officer, but the sanitary inspector!

What further attempts may be made to lower the status of the public-health specialty and to "dish the doctors" it is impossible to conjecture. But it is full time that the matter was taken up by the licensing corporations. A strong representation has been made to the representatives of these Corporations; it remains to be seen whether the feeling of the General Medical Council will be actively to deal with a matter not less grave than the question of unqualified practice, or whether they will approach the Legislature with a proposal for the repeal of the portion of the Medical Act, 1886, which refers to public-health diplomas.[2]

[1] BRITISH MEDICAL JOURNAL, May 8th, p. 1174.

[2] The matter is already receiving the attention of the Parliamentary Bills Committee.

SOCIETY OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.—A meeting of the Committee of this Society was held on May 18th. The following resolution was moved by Mr. Joseph Smith, seconded by Dr. Alderson, and carried unanimously: "That the Committee of this Society has heard with the deepest regret of the death of Mr. Walter Rivington, F.R.C.S., and begs to tender to the family its sincere sympathy and condolence. The Committee feel that by Mr. Rivington's death the Members of the Royal College of Surgeons have lost one of their staunchest friends, and one who for years was willing to assist them in every way, even to the sacrifice of his own personal interests." In moving the above resolution Mr. Smith said that Mr. Rivington's singular modesty of character and entire self abnegation endeared him to all with whom he came in contact. Knowing how near to the heart of Mr. Rivington the reform of the College was, the Members ought to work with renewed vigour in the cause he loved so well, and not to cease from their labours until their object is attained. They should all remember Mr. Rivington's motto: "Every man is a debtor to his profession."

GRESHAM PROFESSORS OF MEDICINE.—Dr. Symes Thompson, in his recent Gresham Lectures, dealt with the Medical History of Gresham College during Three Centuries. He gave interesting sketches of several of his predecessors in the office of Gresham Professor of Medicine, which he has now held with credit to himself and usefulness to the public for thirty years. The first Gresham Professor was Matthew Gwinne, who was appointed in Queen Elizabeth's reign, and who delivered his first "disputation" before Her Majesty at Oxford, and not only held office in the next reign, but was appointed by King James "Garbler of Tobacco." A later Professor was Jonathan Goddard, the Physician to Cromwell, and afterwards Warden of Merton, Dean of Christ Church, and M.P. for the University of Oxford. Among his successors were Dr. Mapletoft, who subsequently entered the Church and became rector of St. Lawrence, Jewry; Edward Stillingfleet, who also became a distinguished ecclesiastic; Woodward, the great geologist; and Henry Pemberton, the editor of the first scientific Pharmacopœia.

GREAT NORTHERN CENTRAL HOSPITAL.—A most successful banquet in aid of the funds of this charity was held at the Hotel Cecil on May 11th. Mr. B. L. Cohen, M.P., who presided, said that three-fourths of the patients came from the Islington district, and only one-tenth of the subscriptions. Though the hospital contained 155 beds only, the state of its finances restricted the number available to 100. The Secretary having announced subscriptions to the amount of over £3,000, Mr. Sawbridge proposed the "Health of the Medical and Surgical Staff," to which Dr. R. W. Burnet and Mr. Macready replied, the former referring to the great loss which the hospital had sustained during the past year by the death of one of its founders, Dr. W. Cholmeley.

# HOSPITAL REFORM.

THE Secretary of the Hospital Reform Association requests us to publish the following memorial to the Royal College of Physicians of London, which has been signed by 220 practitioners:

*To the President and Fellows of the Royal College of Physicians, London.*

THE humble memorial of the members of the Hospital Reform Association and others showeth:

That the present system of administering medical relief in the out-patient and casualty departments at most of the hospitals and infirmaries of the country is one that is fraught with danger to the community at large, and is unjust both to the hospitals and to the general body of medical practitioners.

To the community at large because indiscriminate medical relief is demoralising to those who receive it, and is likely to increase the pauperism of the country. Persons who are able without difficulty to obtain free medical treatment will inevitably lose their sense of independence, and will not be induced to adopt any provident system for obtaining that treatment.

It is unjust to the hospitals, because their funds are wasted on unworthy objects. Moreover, the continuous increase in the number of out-patients necessitates the expenditure of large sums of money in enlarging the accommodation necessary for their reception. That such an expenditure often entails the reduction of the accommodation for the in-patients may also be stated as a fact.

It is unjust to all sections of the profession. The consulting staff are overworked, and are consequently not able to deal in an efficient manner with those cases which require their unwearied attention.

That the overcrowding of the out-patient department is not conducive to sound clinical teaching must be self-evident.

It is unjust to the general body of practitioners who are not officially connected with hospitals, because they are deprived of patients whose means would warrant their employment of private practitioners. In connection with this point, it may be mentioned that the establishment of cheap dispensaries can reasonably be put down to the competition of hospitals. That the existence of such dispensaries is to be deplored every right-minded medical man will agree.

Your memorialists think it their duty to state that steps have been taken at various periods during the last thirty years by the profession to deal with the question of hospital reform, and that several honoured and distinguished Members of your Royal College have from time to time been associated with those steps.

As far as your memorialists are aware, the first inquiry into the distribution and management of the Metropolitan Medical Charities was instituted by the late Dr. Farr, F.R.S., who undertook this work at the request of a body called "The Congress of Philanthropists," and which met in Brussels in the year 1856.

In the first report issued it was stated that there were in London:

| | In-patients. | Out-patients |
|---|---|---|
| 14 General Hospitals ... ... | 33,450 | 369,129 |
| 32 Special Hospitals ... ... | 12,355 | 50,068 |
| 42 General Dispensaries ... | — | 211,016 |
| 18 Special Dispensaries ... | — | 21,862 |
| | | 652,075 |

The population was then estimated at 2,500,000.

There were treated in 72 hospitals in London in—

1884, 998,267 out-patients and casualty cases.
1887, 1,030,972 " "
1890, 1,135,239 " "
1894, 1,319,132 " "

Showing an increase in the ten years of 321,065 patients.—(Colonel Montefiore in *Medical Magazine* for November, 1896.)

In the year 1895 there were treated in the following 14 general hospitals:

| Hospital. | Out-patients. | Casualties. |
|---|---|---|
| Charing Cross ... ... ... | 11,552 | 11,280 |
| Guy's ... ... ... ... ... | 53,471 | 37,648 |
| Royal Free ... ... ... ... | 20,834 | 13,078 |
| University College ... ... | 13,157 | 31,044 |
| St. George's... ... ... ... | 12,049 | 12,824 |
| London ... ... ... ... | 50,648 | 94,969 |
| West London ... ... ... | 32,410 | * |
| Metropolitan ... ... ... | 24,322 | 21,789 |
| Middlesex ... ... ... ... | 42,922 | * |
| St. Mary's ... ... ... ... | 20,478 | 16,805 |
| St. Thomas's ... ... ... | 20,000 | 50,000 |
| St. Bartholomew's ... ... | 14,770 | 143,271 |
| King's College ... ... ... | 12,179 | 13,996 |
| Westminster ... ... ... | 11,132 | 7,006 |
| Total | | Total |

* Not stated, included in out-patients.

An inquiry was again instituted in 1870-71 by a Committee consisting largely of hospital physicians and surgeons under the presidency of the late Sir William Fergusson, and th following resolutions were passed at a very large and representative meeting of the medical profession in London:

1. That this meeting is of opinion that there exists a great and increasing abuse of outdoor relief at the various hospitals and dispensaries of the metropolis which urgently requires a remedy.
2. That, in the opinion of this meeting, the evils inseparable from the system of gratuitous medical relief at the outdoor departments of hospitals and in free dispensaries can be in a great measure met by the establishment on a large scale of provident dispensaries, not only in the metropolis but throughout the United Kingdom, and by improved administration of Poor Law Medical Relief.
3. That in order to encourage a feeling of self-respect among the working classes, and that they may secure for themselves during health the necessary attention in sickness, it is desirable that the system of provident dispensaries should be largely extended, both by the conversion of the present free dispensaries, and by the foundation of others.
4. That for the reasons given in the preceding resolution, and in order to improve the clinical teaching of the out-patient department of the general and special hospitals, it is very desirable that the present unrestricted system of gratuitous relief at these institutions be curtailed, partly by the selection of cases possessing special clinical interest, and partly by the exclusion of those who on social grounds are not entitled to gratuitous medical advice.

In the discussion of the foregoing resolutions the following members of the profession took part: Dr. Ford Anderson, Sir Spencer Wells, Dr. Morell Mackenzie, Dr. Stallard, Mr. Timothy Holmes, Dr. Anstie, Mr. Curgenven, Mr. Ernest Hart, Dr. Pollock, and Dr. Buzzard.

Similar resolutions were passed at the conference called by the Charity Organisation Society and held in London in December, 1871. The late Mr. W. H. Smith, M.P., the late Sir Chas. Trevelyan, the Hon. Mr. Stansfield, the Rev. Mr. Kitto were present at this conference, and spoke in favour of the foregoing resolutions.

A Subcommittee of Sir William Fergusson's General Committee made the following report on the administration of the out-patient department of hospitals:

"The Subcommittee have arrived at the conclusion that a very large proportion of the out-patients of general hospitals (variously estimated at from three-fifths to nine-tenths of the whole) consists of trivial cases which do not require any special skill, and might properly be left in the hands of ordinary medical men. An inordinate number of trivial cases wastes the time of the consultee, wearies the attention of the student, and fosters a habit of hasty diagnosis and careless observation which lead to erroneous and inefficient treatment. In fact, out-patient work as generally conducted neither conduces to the sound advancement of professional knowledge nor to the advantage either of the students or the public."

In 1872-74 a Hospital Outpatient Reform Association, with Dr. Anstie and Meadows among its leaders, proposed the following remedies for acknowledged abuses, namely:

1. Inquiry into the circumstances of patients by a properly qualified officer.
2. Stopping the indiscriminate supply of medicines.
3. Discontinuance of prescribing by unqualified students.

In 1875 the following memorial was presented to the President and Committee of Council of the British Medical Association.

THE ABUSE OF HOSPITALS

*To the President and Committee of Council of the British Medical Association*

We, the undersigned, members of the British Medical Association and others, beg most respectfully to request the Committee of Council to take into its consideration the relation of the medical profession to the hospitals and free dispensaries throughout the kingdom.

Your memorialists are convinced that the manner in which these institutions (with some few exceptions) are at present conducted, inflicts a serious injury upon many most deserving members of our profession, while the indiscriminate (or almost indiscriminate) bestowal of gratuitous medical relief upon all applicants lowers the whole scale of our professional remuneration is far from being a real boon to the working classes themselves, and cannot fail in the long run to have a prejudicial influence upon the nation at large.

The question to which we venture to draw the attention of the Committee of Council has been much discussed of late years, both in the medical press and in the lay periodicals. It is not necessary, therefore, that we should enter into any details respecting it. We may, however, mention that there are three facts which have a very important bearing upon it, and which makes the present time particularly opportune for entertaining it. These are: (1) the improvement which is now rapidly taking place in the social and political condition of the industrial classes; (2) the amendments which have lately been made in the administration of parochial relief; and (3) the increase within the last few years in the length and expense of medical education. These facts are admitted by all, and their occurrence has led, we believe, to a very general opinion amongst those who are conversant with the working of the free dispensaries and hospitals that some changes are necessary in order to bring these institutions into harmony with the altered conditions of the present day.

As it is desirable that any changes which may be necessary should be duly made by a body which fairly represents the medical profession and should be recommended by high authority, so far as to carry along with them the assent of the lay government of the "medical charities," your memorialists pray you to take this important subject into your consideration.

This memorial was signed by—

Sir William Jenner, Sir William Gull, Sir William Fergusson, Sir Rutherford Alcock, Mr. Prescott Hewett, Mr. Erichsen, Dr. George Johnson, Dr. Hawksley, Dr. J. W. Ogle, Dr. A. P. Stewart, Dr. John Harley, Dr. A. Meadows, Dr. Cayley, Dr. Wiltshire, Dr. Robert J. Lee, Dr. Joseph Rogers, Mr. Nelson Hardy, Mr. Fairlie Clarke, Mr. Spencer Watson, and a large number of others.

To come to more recent times, your Memorialists would like to call your attention to the papers read at the last annual meeting of the British Medical Association by Mr. C. S. Loch (the Secretary of the Charity Organisation Society), and Mr. Nelson Hardy, F.R.C.S. Edin.; also to a paper read by our Honorary Secretary, Mr. Garrett Horder, at a meeting of the Manchester Medico-Ethical Association; to a paper written by Lieutenant-Colonel E. Montefiore, R.A., and which appeared in the November number of the *Medical Magazine*, to reports published under the auspices of the Bath and Bristol and South Wales and Monmouthshire Branch of the British Medical Association; and also to a very exhaustive Report on the Birmingham Medical Charities issued in 1891.

Your memorialists would also like to mention the able articles that have been appearing in the *Lancet* for some time past, and to the speech of Sir William Broadbent at the United Service Institution on January 23rd, and reported in the BRITISH MEDICAL JOURNAL of January 30th, 1897, and to the Report on the Special Hospitals of the Metropolis prepared by a Committe of the Hospital Reform Association.

The evidence that has now been accumulating for some years goes to prove that hospital abuse is not confined to the metropolis, but is existent in nearly all the towns in the provinces.

Your memorialists cannot help feeling that your College must be fully aware of the existence of the evil; but they are not confident that your College are aware of the remedies that have been proposed for the cure of that evil. They therefore have thought it fit to append to this memorial the series of "Recommendations" which the Hospital Reform Association has drawn up for the prevention of the abuse in the out-patient and casualty departments of hospitals. Your memorialists desire to say that these "Recommendations" have been drafted with the assistance of gentlemen whose experience and knowledge of this subject are well known.

Your memorialists therefore pray that you will take this question into your serious consideration, and if you think fit make a searching investigation into the present system of dispensing out-of-door medical relief at the hospitals, infirmaries, and dispensaries, not only in the metropolis, but in all the large provincial towns.

And your memorialists will ever pray.

Among those who signed the memorial were, we are informed, the following hospital physicians and surgeons:

*Norwich.*—Sir Frederick Bateman, M.D; Sir Peter Eade, M.D.; Samuel Barton, M.D.; S. H. Burton, F.R.C.S.; H. S. Robinson, M.R.C.S.; Charles Williams, F.R.C.S.E.; Nance H. Chester, F.R.C.S

*Bristol.*—J. Greig Smith, C.M., M.B; Walter C. Swayne, M.D.; R. Shingleton Smith, M.D., F.R.C.P.; James Swain, M.D.; P. Watson Williams, M.D.; F. H. Edgeworth, M.B.; F. Richardson Cross, F.R.C.S.; Arthur B. Prowse, M.D.; William R. Ackland, M.R.C.S.; A. W. Prichard, M.R.C.S.

*Cardiff.*—William Taylor, M.D.; H. R. Vachell, M.D.; J. T. Thompson, M.B.

*Nottingham.*—W. B. Ransom, M.D., F.R.C.P.; Rupert C. Chicken, F.R.C.S.; W. E. Tresidder, M.B.Lond.; E. C. Kingdon, M.B.; W. G. Laws, M.B.

*Plymouth.*—E. L. Cox, M.D.; W. L. Pethybridge, M.D.; George Jackson, F.R.C.S.; C. E. Russell Rendle, B.A.; W. L. W. Woolcombe, F.R.C.S.Edin.; J. Elliott Square, F.R.C.S.

*Bolton.*—John Johnstone, M.D.; R. S. Mothersole, M.D.

*London.*—F. de Havilland Hall, M.D.; G. Rowell, F.R.C.S.; W. Knowsley Sibley, M.D.; Walter Smith, M.D.; Timothy Holmes, F.R.C.S.; T. Stretch Dowse, M.D.; Charles T. Tomes, F.R.S.; W. Alfred Hughes, F.R.C.S.

*Birmingham.*—Jordan Lloyd, F.R.C.S.; J. Hazlewood Clayton, M.B.Lond.

## ROYAL COLLEGE OF PHYSICIANS.

AN extraordinary comitia of the College was held on Thursday, May 13th, Dr. WILKS, President, in the chair.

The newly-elected Fellows, whose names we published a fortnight ago, were admitted with the usual formalities.

The President was authorised to affix the College seal to the address to Her Majesty the Queen on the occasion of the completion of the sixtieth year of her reign.

A memorial from the Hospital Reform Association, printed at p. 1310, was then read.

The PRESIDENT stated that he had given much consideration to the question of what the College ought to do in this matter but had been utterly unable to come to any conclusion in his own mind. It was evident to him that all through the petition there was an animus. The petitioners showed a strong animosity towards those connected with the hospitals, whilst on the other side also there was no doubt bias. A man was much attached to his hospital; he had perhaps been a student there, and spent many years of his life working for it, and he had a real love for it, and liked to see it successful, to see the wards full, plenty of students, and the out-patient department well attended and popular. The question had now become a public one, and if it should be thought that the petitioners had made out a *primâ facie* case, then he was of opinion that the College ought to look into the matter.

Dr. STEPHEN MACKENZIE was strongly of opinion that the College ought not to enter upon the consideration of this memorial. The question was one in which many Fellows might and did take a strong interest and active part, but it was not one for the College to deal with, and, therefore, he moved that a courteous reply to this effect be sent to the memorialists.

Dr. NORMAN MOORE seconded the motion. He said that many of the facts stated in the petition could not be allowed to pass without question, for example, the assertions in reference to teaching in the out-patient departments. The discussion was one-sided because the petition ignored one important factor, namely, that the physician in the out-patient room was the great benefactor of the public. After a considerable experience of out-patient room work, he doubted whether there was anything like abuse in the out-patient departments of the hospitals. He thought it would be a great misfortune, both to the public and to the study of medicine, if the College gave its support to this meddling scheme.

Dr. HERRINGHAM thought that as the petitioners were held to have made out a *primâ facie* grievance, it was desirable that the petition should be referred to the Council and moved an amendment to that effect.

Dr. OWEN seconded the amendment. He thought that the real point as to the alleged evils to medical practitioners was in danger of being overlooked; it was not that an individual doctor lost patients, but that the value of medical advice and treatment was persistently lowered by the out-patient system. As the College had a large body of licentiates engaged in general practice this was a matter in which it was directly concerned.

Dr. DICKINSON thought it would be a great mistake for the College to take up this matter; the alleged abuse of the out-patient system was enormously exaggerated, and these suggested restrictions savoured of trades unionism, and were conceived in a commercial spirit. If the College took the matter up and made representations on the subject to the hospitals it would be exposing itself to the risk of a rebuff, and he was strongly of opinion that the matter should be left alone.

Dr. CHURCH said it seemed to be assumed that the Council would adopt the views of the memorialists. He believed there were many exaggerations in the petition, and that investigation would be the means of revealing the truth, and therefore he was in favour of the amendment. At his own hospital, St. Bartholomew's, which had been alleged to be more abused than any other, he could state as a fact that the number of casualty patients were fewer by 40,000 a year than they were twenty years ago. He believed that many of the statements in the petition could be controverted and would be disproved if investigation was made by those conversant with the subject. Perhaps it would be advisable to act in this matter in conjunction with the College of Surgeons.

Dr. POORE was in favour of the amendment. At his own hospital he believed that the abuse was practically *nil*, but in these days of proposals to establish a Central Hospital Board he thought it would be unwise to refuse to consider the subject. He agreed with Dr. Moore that the best protection for the patient in the out-patient department was the student.

Dr. MACKENZIE asked leave to withdraw his motion, and the proposal to refer the petition to the Council was then carried *nem. con.*

## ROYAL COLLEGE OF SURGEONS.

AN ordinary Council was held at the College on May 13th, Sir WILLIAM MAC CORMAC in the chair. The minutes of the last meeting were read and confirmed.

The deaths of Mr. Walter Rivington, Member of the Council, and of Mr. James Blake Bailey, Librarian of the College, were formally reported, and the following motions were carried:

The Council hereby express their deep regret at the death of their colleague, Mr. Walter Rivington, and their very sincere sympathy with the members of his family.

The Council do also record their great esteem for the energy and devotion displayed by Mr. Rivington in all matters affecting the interests of the College and the medical profession.

The Council hereby express their deep regret at the death of Mr. James Blake Bailey, and their very sincere sympathy with Mrs. Bailey in her bereavement.

The Council do also record their great appreciation of the very able manner in which Mr. Bailey during the past ten years fulfilled the duties ertaining to the office of librarian, and are assured that his unfailing

courtesy and willingness to render assistance to all seeking information from the books and records under his care will cause his loss to be widely felt throughout the profession.

The President stated that the vacancy on the Council occasioned by the death of Mr. Walter Rivington would be filled by the Fellows at the annual meeting for the election of Members of the Council in July next.

It was referred to the Library Committee to consider and report to the Council upon the steps to be taken with the object of filling up the vacant office of librarian, and upon the salary and conditions attaching to the office.

Mr. W. A. Meredith was introduced, and after signing the by-laws and making the required declaration, was admitted a Fellow of the College.

Mr. Robert Cozens Bailey, F.R.C.S., was introduced, and received the Jacksonian prize for the past year, together with the document declaratory of the award thereof.

The following address of congratulation to the Queen on the completion by Her Majesty of the sixtieth year of her reign was adopted, and it was resolved that the College seal be affixed to the address, and that it be forwarded in due course to the Home Secretary for submission to Her Majesty.

*The Humble Address of the President, Vice-Presidents, and Council of the Royal College of Surgeons of England*
*To Her Most Excellent Majesty*
*VICTORIA,*
*Queen of Great Britain and Ireland.*

May it please Your Majesty,

We the President, Vice-Presidents, and Council of the Royal College of Surgeons of England, humbly desire to express to Your Majesty, in this the sixtieth year of Your Majesty's reign, our grateful sense of the blessings enjoyed under Your Majesty's wise and beneficent rule.

We also desire to record our grateful recognition of the many and great advantages that have been secured by Science, by the Arts, and by Legislation during the past sixty years, and we venture to think that not least among these may be reckoned the progress which has been made in the Science and Art of Surgery, for the promotion of which this College was founded.

But we are conscious that, however much the happiness of Your Majesty's subjects may be due to the general advancement of knowledge, very much also is due to the great personal influence for good which Your Majesty never fails to exercise on all occasions affecting the welfare of this country and people, and we pray that Your Majesty may long be spared to reign over us, and that we may continue to be blessed by Your Majesty's life and example.

In witness whereof we, Your Majesty's loyal and dutiful subjects, have caused the Common Seal of the College to be hereunto affixed this 13th day of May, 1897.

Mr. Samuel George Shattock was appointed Pathological Curator of the Museum from Midsummer Day.

The subject of Hydrophobia was selected for the Jacksonian Prize for the year 1898.

The annual meeting of Fellows of the College for the election of members of the Council will be held at the College on July 1st at 1.30 P.M. The half-yearly meeting of Fellows will be held at the College on the same day at 5 P.M.

The Council declined to contribute from the College funds to the debt incurred by the Civil Rights Defence Committee.

A memorial was read, signed by 32 Fellows and Members practising in and about Plymouth, Devonport, and Stonehouse, in favour of Mr. R. B. Anderson's application for protection under Section XV of the by-laws, and of a contribution from the funds of the College towards the objects of his defence, and asking the Council, if they should not favour the view entertained in the memorial, to hear them by deputation in support of Mr. Anderson's application.

The Council resolved that they were unable to accede to this request.

A memorial was read, signed by 27 Fellows and Members of the College practising in about Plymouth, Devonport, and Stonehouse, asking whether the Council, on the submission of proper evidence, would be prepared to restrain Fellows and Members of the College by means of the disciplinary powers provided by the by-laws from practising as medical officers of medical aid associations under certain conditions specified in the memorial, and asking the advice of the Council in reference to a resolution adopted by the memorialists on the subject of their relations with the medical officers of the "Three Towns Friendly Societies Medical Institution."

This subject is now under the consideration of the Council.

Mr. Thomas Moreton, M.R.C.S., of Hartford, Cheshire, has been made a justice of the peace for the county of Chester.

## THE ROYAL SOCIETY.

The exhibits at the *conversazione* on Wednesday evening were of more than usual interest. Almost all branches of science were represented by demonstrations and experiments, all of which, if not absolutely novel, were full of interest. In the officers' room Sir H. Trueman Wood exhibited illustrations of the Damac-Chassagne process of producing photographs in colour. The details of this method, although protected by patent, are not known. All that can be gained from a study of the specification is that silver prints are treated with a solution containing albumen and certain metallic chlorides, also afterwards with certain colouring materials. Although the specimen shown presented a striking similarity to the familiar coloured photographs, the process is stated to be entirely automatic, and to preclude the possibility of artificial coloration.

In connection with his cordite investigations, Sir A. Nobel showed a very ingenious apparatus for ascertaining the duration of explosions, the pressure developed, and the rate of cooling of the products of combustion. These factors are recorded on a rotating drum, a smaller check instrument being provided which records the pressures developed and the times.

Very curious and beautiful were Mr. J. W. Swan's stress effects produced on a resinous surface by convective electric discharges. In the office Mr. J. Wimshurst had in action an enormous specimen of the induction machine with which his name is so closely connected.

Professor Silvanus P. Thompson exhibited a mechanical model of a Hertz wave resonator and the transmission of Hertz waves. By its means a very graphic picture is presented of the synchronisms of the transmitter and resonator.

In the Council Room the Astronomer Royal showed some photographs of the moon taken with the new 26-inch photographic telescope at the Royal Observatory, Greenwich, which Sir Henry Thompson has so generously given. The enlargements on paper of a negative taken with the enlarging lens at the secondary focus demonstrated the power and accuracy of this beautiful instrument.

Mr. A. A. C. Swinton was well equipped with the *x*-ray accessories. His experiments with focus tubes constructed with movable anodes illustrated the points he has recently been engaged in investigating. He finds that the penetrative value of the *x* rays produced by a focus tube can be varied, without altering the vacuum, (*a*) by altering the distance between the cathode and anticathode, (*b*) by varying the size of the cathode, (*c*) by altering the position of the cathode relatively to the glass walls of the tube, and (*d*) by means of a variable magnetic field. The penetrative value of the *x* rays is independent of the material of which the anticathode surface is made; not so, however, the quantity of the *x* rays, which is greatest with anticathode surfaces of high atomic weight.

In the Library Mr. J. E. Stead's photograph illustrating the microstructure of alloys illustrated the fact that when fluid mixtures of metals and non-metals cool down from the liquid to the solid state, crystals of definite chemical composition fall out of solution, and may be clearly seen under the microscope after the polished surfaces have been etched by dilute acids, or tinted with suitable reagents, a condition of things which has been demonstrated by Professor Roberts-Austen by an entirely different method of research.

Mr. E. Edser and Mr. H. Stansfield exhibited an apparatus showing the phase change of light reflected at a glass-silver surface. The apparatus is a modification of Michelson's differential refractometer, the interfering rays being reflected at the back surfaces of the end mirrors.

Mr. C. T. Heycock, F.R.S., and Mr. F. H. Neville showed some interesting experiments on the superficial colour changes of a silver-zinc alloy. This alloy, of the composition AgZn, is normally white, but when heated to 300° C., or above, and suddenly chilled below 150°, it becomes superficially a bright red. The colour disappears when the alloy is heated to 150°, and does not then return if the alloy is cooled, but it can be recovered by repeating the above process. Some *x*-ray photographs of sodium-gold alloys showed the crystals of gold and of sodium existing in alloys that to the eye appear to be homogeneous.

Mr. Shelford Bidwell, F.R.S., exhibited some beautiful experiments showing subjective colour phenomena with a rotating disc after the manner of the well known Pears' spectrum top. About one-half of the surface of a disc is made black, and the other half white, an opening being cut at the junction of the black and white portions. A design in black lines upon a white ground seen under suitable illumination through the opening in the rotating disc appears to be red. This phenomenon depends upon the fact that a bright object, when suddenly exposed to view, appears for a moment to be surrounded by a red border. The same apparatus demonstrates a novel method of exhibiting negative after-images. A coloured object under strong illumination is caused to assume a tint complementary to its natural hue. Thus red is seen as green, and green as pale red, while a black patch upon a white ground appears whiter than the ground itself. The sensibility of the nerve fibres of the retina is, in fact, appreciably diminished by exposure to coloured light for a period so brief that the eye cannot recognise the true colour of the light.

The exhibition of the Marine Biological Association illustrated commensalism amongst marine animals, or the constant association of two or more animals together, often for mutual advantage. Commensalism differs from parasitism in the fact that neither of the associated animals feeds on the tissues of the other, nor lives directly at the expense of the other. A number of living examples found at Plymouth of marine animals, which thus live together as "messmates," were exhibited.

Dr. A. A. Kanthack, Mr. W. F. H. Blandford, F.E.S., and Mr. H. E. Durham, M.B., showed some beautiful preparations of the tsetse fly, and the parasite of tsetse fly disease or ngana. The tsetse fly disease, familiar during the past fifty years as a scourge to domestic animals in Central and South Africa, has recently been shown by Surgeon-Major Bruce to be due to the presence in the blood and serous fluids of the affected animals of a parasitic protozoon (trypanosoma). Surgeon-Major Bruce has proved experimentally that the parasite may be present in the blood of wild animals shot in the "Fly Country," which, however, are not known to suffer from its presence. The part played by the fly appears merely to be that of communicating the micro-organism from infected to healthy animals. The disease of animals known as "surra," in Asia, is closely allied to ngana, and a similar parasite occurs in this country in the rat, but without producing the same fatal effects.

In the meeting room, Professor W. E. Ayrton, F.R.S., gave an experimental demonstration of some electric and mechanical analogues; and Professor J. B. Farmer showed lantern slides from microphotographs illustrating nuclear division in animal and vegetable cells. Slides were shown illustrating the process of fertilisation and segmentation of the egg in ascaris megalocephala, and in fucus vesiculosus.

## THE SUPERANNUATION OF PUBLIC VACCINATORS.

THE Poor-law Medical Officers' Association recently caused to be submitted to Sir Robert Reid, Q.C., M.P., the following questions with regard to the Poor-law Officers' Superannuation Act, 1896, and public vaccinators. The questions submitted were as follows:

1. Are public vaccinators officers under this Act, and as such entitled to superannuation under the Act of 1896?
2. Has the Local Government Board sole power to decide whether public vaccinators are officers or not?
3. If public vaccinators are officers, are they entitled to superannuation under the Act?
4. Whether medical officers who are entitled under the Act to superannuation as such are also entitled to a further allowance in respect of the office of public vaccinator where they hold such an appointment?

The following was the opinion given by Sir R. Reid, dated May 7th:

1. Reading the different portions of the Poor-law Officers' Superannuation Act together, the only persons (except those specially mentioned in the definition clause) entitled to superannuation are persons between whom and the guardians there is a relation of service or employment. The Act does not confer superannuation upon persons whose relation to the guardians is that they merely contract with them to do specified work. In the case of district medical officers they are according to term of the statutes "appointed" to an "office," and paid a salary. So they are "officers" employed by the guardians. Now, the position of public vaccinators is regulated by 30 and 31 Vic., c. 84, under which the guardians do not "appoint," nor is the position called therein an "office," nor is a salary paid. The guardians are required to enter into a contract with some duly registered medical practitioner, called the public vaccinator, which is to contain stipulations and conditions to secure the due vaccination of persons, etc. We do not consider that this statute creates a relation of service or employment, nor is such relation created by the terms of the contract itself set out in *Glen's Poor-Law Orders*, p. 525, though it might be. And we assume that the contract is always in those terms. We think, therefore, there is no title to superannuation on such a contract. It is true that superintendent registrars, and registrars of births and deaths, are by Section XIX of the Act of 1896 deemed to be in the service of the guardians. The reason is that by Acts creating their offices they are not in the service of the guardians, though they are "officers," and so styled in the Acts. This, therefore, does not affect the question here raised, and a similar reason exists for the mention of "school attendance officer" in Section XIX.

2. The Local Government Board have no power to determine this question. They can only determine differences between the guardians and persons who in fact are officers.

3. This has been already answered.

4. Medical officers of the guardians who are entitled to superannuation under this Act are not entitled to a further allowance in respect of the office of public vaccinator, if they hold such, as Section XIX of the Act lays down that only those emoluments are to be included that accrue to the officer in virtue of the office for which he claims superannuation.

## THE BATTLE OF THE CLUBS.

THE MEDICAL AID QUESTION AT PLYMOUTH.

OUR contemporary the *Western Mercury* in its issue of May 8th publishes a letter from "One Interested" on the recent resolutions of the Plymouth Medical Society. He states that he should like to inform that society of a "few facts," and proceeds to say that the National Medical Aid Society has a wage limit beyond which it does not accept members: and, secondly, that except under special circumstances it does not canvass for members. It suggests that boycotting, although efficacious in the case of land leaguers, will not show to the favour of medical men, and that it is absurd to talk of it being *infra dig.* for a medical man to serve a lay employer, considering that he invariably does so whenever he accepts service in the army, navy, or under a sanitary authority, and that it will be a "tall order" to make 4,000 practitioners give up their appointments. If "One Interested's" statements are correct medical agitation has already been productive of good results, for absence of wage limit and unlimited "touting" were up to a short time ago leading features of this institution. The profession has no intention of boycotting after the fashion of land leaguers, nor does it expect that all the holders of medical aid appointments will resign. But what it does expect is that the holding of such appointments will each year be considered by the profession more and more undesirable, so that a time may come when no respectable member of the profession will consent to give his services under such conditions. The comparison of medical aid service with service in the army, navy, etc, is so absurd that it scarcely deserves to be noticed. Of course, every doctor who attends a patient serves a lay employer, and whether the patient, his relations, principals, or friends pay his bill is immaterial. But we have yet to learn that the public services make a commercial profit in the shape of bonuses and dividends out of the work of their medical officers. "One Interested" does not see the distinction that exists between professional employment by medical aid societies *et genus omne* and every form of legitimate medical employment.

HANDBILLS ISSUED BY FRIENDLY SOCIETIES.

A CORRESPONDENT from Walsall sends some handbills issued by a local lodge of Oddfellows. The name of a medical practitioner appears on one of them: he can scarcely be proud to figure there. There is a certain *naïveté* about some of the announcements. We read that "the objects of this female branch will be to raise funds by honorary members' subscriptions, contributions, fines, and levies to provide a medical practitioner for the whole family, and medicines included, and also *to bury the dead*" (the italics are our own).

THE EXTENSION OF MEDICAL AID SOCIETIES.

DR. MAURICE MCELLIGOTT (Belper) writes: This morning I was called upon by two men—both absolute strangers to me—who desired to enlist my sympathies on behalf of a medical aid association which they proposed to start in the district. They told me that they had already had a promise of co-operation from one of the medical men in the town. Without further ado I closed the interview, declining once and for all

to have anything whatever to do with them, and in this manner do I believe that all representatives of such societies should be treated. Club practice in our district is by no means a lucrative method of earning a living. We have amongst us two anomalous clubs, one of which pays its medical officers 4s. and the other 3s. per annum per (female) member, for which stipend advice, visits, and medicine, as well as attendance in time of labour, are compelled to be given. We are also blessed with a branch of the Liverpool Victoria Legal Friendly Society, the members (juvenile) of which can claim professional attendance and medicine at the rate of one halfpenny a week. Before saddling ourselves, then, with another and a greater "old man of the sea," does it not behove us medical men of the Belper district to cast an eye around us and see what the result of our action is likely to be? A look at Lincoln, at Eastbourne, at Portsmouth, at Norwich ought to be sufficient to prevent the most weak-kneed of our brethren from committing himself to a step so fatal to his self respect.

## ENTHETIC DISEASE IN THE ARMY.

THE *Times*, commenting on the recent debate in the House of Lords on this subject, says:

Anyone who reads the report of the Commission which examined into the question in 1871, or the lucid summary of the statements of the witnesses published at the time by Sir J. S. Trelawney, will see that the mischief which has since been wrought, as a consequence of the removal of every form of supervision, was predicted more than a quarter of a century ago by high scientific authorities and men of large practical experience, and was confronted only by theories and sentimentalities. A wave of fanaticism swept over the country a few years later, condemning every kind of restriction on this hateful and inheritable type of disease as an attempt to interfere with the penalty of sin and an encouragement of immorality. The experiment has been tried with results so shocking that a great revulsion of feeling has taken place even among those who, twelve or fifteen years ago, would not have listened to any proposals in the nature of those put forward in the recent despatch of the Secretary of State to the Government of India. Lady Henry Somerset's recent letter to Lord George Hamilton, in which she recognises the necessity of delivering innocent women and children at home from an imported taint, though she would insist at the same time on some impracticable conditions, is a significant example of the present tendency of the public mind. The new cantonment regulations, which Lady Henry Somerset welcomes, have not met with any serious resistance or criticism in this country. Lord Onslow mentioned the fact that a memorial has been presented to the Secretary of State, signed by a very large number of representative women, approving of the measures taken to check the spread of contagious disease, and expressing the belief that, in addition to their sanitary value, they would afford the fallen an opportunity to escape from a life of habitual vice.

Lord George Hamilton's despatch to the Government of India on the health of British soldiers out there has not, it is stated, been well received. The general impression is that the Indian Government should have been given a free hand, and that the Indian Secretary could easily have rallied round him a sufficiently large majority in Parliament to have enabled him to resist any attacks made upon his policy. So far the whole outcome of the terrible revelations we have had is embodied in Lord George Hamilton's recommendation that the cantonment rules of 1895, applicable to cholera, diphtheria, and the like diseases, shall be enforced in reference also to the class of infection that has proved so much more dangerous than all the rest put together. It is felt in India that though these rules may accomplish something, in some cases they cannot fail to be ineffective, because the offending individual would not be expelled from the cantonment until it was too late to avert the mischief.

## LITERARY NOTES.

THE first volume of a periodical summary of progress in medicine will shortly be published in Madrid under the editorship of Dr. A. Muñoz, Physician to the Hospital de la Princesa of that city. The title of the publication will be *Enciclopedia Universal de Progresos Medicos*, and it will appear twice a year. Dr. Muñoz has secured the co-operation of Professor Ramon y Cajal, and all the other foremost men in the different branches of medicine in Spain.

In a story which appears in the current number of *Chapman's Magazine*, Mr. Harold Child refers to the "death chair" which is in use in Gloucestershire. Many of those whose dwelling is on the banks of the Severn die of bronchitis. When the end is near and the sufferer from bronchitis cannot breathe lying down, he sits over the fire propped up in the "death chair." The high back shelters him from draughts, and the projecting wings are meant to support his head when it falls over quietly in death. A "death chair" stands in the best bedroom of every farmhouse, and the parson and squire each keep one to lend to cottagers in time of need.

It was announced in this column some weeks ago that Dr. Toulouse, whose medico-physiological study of M. Zola has been referred to, had had some difficulty in finding further material for observation of the right sort for his purpose. It was stated that Madame Jane Hading, the well-known actress, had at first consented to offer herself as a subject and then declined. In a recent letter to the editor of the *Progrès Médical*, however, Dr. Toulouse denies that he ever approached Madame Hading on the subject. He adds that he is pursuing his researches, and that his second "case" will be "an example of scientific criticism of the fine arts," which we take to mean that his next subject will be an artist.

Mr. W. W. Wagstaffe has had reprinted from Vol. xxiv of the *St. Thomas's Hospital Reports* a paper by the late Mr. George Rainey, formerly Lecturer on Microscopical Anatomy and Demonstrator of Anatomy at St. Thomas's Hospital, on the Artificial Production of Certain Organic Forms, and the Manner in which they are Produced. Mr. Wagstaffe thinks the paper "of very great value to all practical workers in experimental physiology." He assisted Mr. Rainey in correcting the original MS. and proofs, and witnessed "the wonderful results obtained by him in these simple experiments."

In some personal recollections of Maisonneuve, contributed to the *Echo Médical du Nord*, Dr. H. Folet, a former *interne* of the great surgeon relates the following story which was told him by M. Guyon. Maisonneuve and Chassaignac both belonged to Nantes. When in due course M. Guyon went to Paris from the same place to continue his studies, he naturally called on his distinguished fellow townsmen. Maisonneuve said to him, "So you wish to go in for surgery. That is right. Come to my clinic; car il n'y a que Chassaignac et moi—et encore Chassaignac est un imbécile!" This recalls the old lady who thought that only herself and the minister had a chance of being saved—and "whiles had doots aboot the minister."

An American paper states that a new medical journal is always sure of at least one subscriber, and one, moreover, who pays in advance—to wit the keeper of the Surgeon-General's Library at Washington. The habit of paying subscriptions in advance is laudable in itself, and particularly commendable in the eyes of managers of journals, but is it not sometimes a trifle rash? In France every respecting member of the Faculty has a journal of his own; in the United States nearly every enterprising druggist has his organ; even in our own slow-going country the ambition to edit a medical journal is a secret dream of many otherwise harmless persons. The average doctor appears to think that the editing of a journal comes by Nature, as Dogberry said of reading and writing. Hence medical journals come up like flowers—and like flowers they quickly die.

Fair daffodils, we weep to see
Ye haste away so soon!

But most people will do more than drop a tear of sensibility if they have paid a year's subscription in advance for a journal which lives only

Ce que vivent les roses,
L'espace d'un matin!

A journal dealing with the Russian watering places will shortly be published in St. Petersburg under the title of *Ssesonny Listock Russkich mineralnich Wod*. The new journal, which is to be published in both Russian and Polish language, will be edited by Dr. Issajew of Bulsk.

One of the most remarkable literary results of the present commemoration of the long reign of our Queen is that the public appear to have developed an intelligent interest in the history of the hospitals which they have helped to support for very many years. One series of articles on the subject is appearing in the pages of the *Pall Mall Gazette*, another in *Lloyd's Weekly Newspaper*. Both are excellently well written, and though one is professedly from the pen of "A Mere Layman," it shows an intimate acquaintance with the history and an endeavour to obtain accuracy of detail, which are duly appreciated by those who are familiar with the subjects of which he treats.

The *Revue de Gynécologie et die Chirurgie Abdominale* contains an appreciative notice of the life and work of Sir Spencer Wells by Dr. C. J. Cullingworth. It is illustrated by the portrait which was published in the BRITISH MEDICAL JOURNAL at the time of Sir Spencer Wells's death.

# ASSOCIATION INTELLIGENCE.

## NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1897.

MEETINGS of the Council will be held on July 14th, and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 24th and September 30th.

### ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

## GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that they are prepared to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting must be made on or before June 15th in writing addressed to the General Secretary, at the office of the Association, 429, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

FRANCIS FOWKE, *General Secretary.*

429, Strand, London, April 21st, 1897.

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M., Saturdays, 10 A.M. to 2 P.M. Members can have their letters addressed to them at the office.

## BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH.—The annual meeting of the above Branch will be held at Croydon on Wednesday, June 16th, Dr. Duncan (President elect) in the chair.—T. JENNER VERRALL, Brighton, Honorary Secretary.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The annual meeting of this District will be held at the Kent and Canterbury Hospital on May 27th, at 3 P.M., Dr. Hackney, of Hythe, in the chair. Agenda:—The usual business of the annual meeting. Dr. Courtney: Serum Therapeutics, with especial reference to Enteric Fever. Dr. Pittock: A case of Lymphadenoma, with Addison's Disease and other complications. Mr. Raven: Some Medical Etymology. The annual dinner will take place at the County Hotel at 6 o'clock. Charge, exclusive of wine, 6s. 6d. It is hoped that the dinner will be well attended, and members intending to dine are particularly requested to communicate with me by May 25th, so that adequate arrangements may be made. All members of the South-Eastern Branch are entitled to attend these meetings, and to introduce professional friends.—THOS. F. RAVEN, Honorary District Secretary, Barfield House, Broadstairs.

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT.—The next meeting of the above District will be held at the Bush Hotel, Farnham, on Friday, May 28th, at 4.30 P.M. Mr. G. S. Sloman will preside. Dinner at the Bush Hotel at 6.30 P.M., charge 6s., exclusive of wine. The following communications have been promised:—Mr. G. P. Field: Typical Cases of Diseases of the Ear. Dr. Tanner: (1) A Supposed Case of Variola in a Fœtus; (2) Cases of Pyæmia and Septicæmia in the treatment of which the Anti-streptococcus Serum was used. Mr. G. S. Sloman: (1) Case of interesting Malformation in a Newborn Syphilitic Infant; (2) Two cases of Goître treated with Thyroid Tabloids.—ALEX. HOPE WALKER, Honorary Secretary, Cranleigh.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—The annual meeting will be held in the Stotfield Hotel, Lossiemouth, on Wednesday, June 9th, at 1 P.M.; Dr. Mackenzie, Inverness, President; Dr. Galletly, Elgin, President-elect. It is requested that members wishing to bring any communication before the meeting should at once inform the Secretary.—J. W. NORRIS MACKAY, M.D., Honorary Secretary, Elgin.

MIDLAND BRANCH.—The annual meeting will be held at the Infirmary, Leicester on Thursday, June 3rd, at 2 P.M. After the transaction of the usual business, the following papers will be read and discussed:—Mr. C. J. Bond: The Physiology and Pathology of the Fallopian Tubes, with lantern demonstration. Dr. W. B. Ransom: Remarks on Pernicious Anæmia, with lantern illustration. Dr. F. M. Pope: Three cases of Adult Hereditary, or Huntingdon's Chorea. Mr. W. Armstrong: Gastro-intestinal Toxins, their clinical significance and therapeutic indications. Dr. E. M. Sympson: (1) Notes, with coloured drawing, of a case of Chronic Superficial Glossitis; (2) Notes of a case of Epithelioma of the Tongue and Floor of the Mouth, with removal of 4 inches of the lower jaw. Dr. R. Pratt: (1) Short Notes of a case of Cyclic Albuminuria; (2) Two Urinary Calculi with Unusual Nuclei. Dr. J. H. Neale: Poisoning by the Primula Obconica. Dr. Ridley: Clinical Cases. Luncheon will be provided by the President-elect at the Infirmary, at 12.45 P.M., and the dinner will take place at the Royal Hotel at 5 P.M., tickets 7s. 6d., exclusive of wine.—W. A. CARLINE, Honorary Secretary and Treasurer, Lincoln.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The annual meeting of the above District will take place in the Governors' Hall, St. Thomas's Hospital (by kind permission of the Treasurer), on the afternoon of Thursday, May 27th, at 3.30 P.M. The chair will be taken by Mr. Henry T. Butlin, President of the Branch. Cases of clinical interest from the wards of the hospital will be shown and demonstrated on by members of the medical and surgical staff. Election of officers for the ensuing year will take place. All practitioners, whether members of the Association or not, will be heartily welcomed.—SEYMOUR G. TOLLER, District Secretary, St. Thomas's Hospital, S.E.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will be held in Manchester on Wednesday, June 30th. Members who wish to read papers or make any communication should write at once to the Honorary Secretary, Dr. JAMES BARR, 72, Rodney Street, Liverpool.

DORSET AND WEST HANTS BRANCH.—The next meeting of this Branch will be held at Bournemouth on Wednesday, May 26th, 1897. The business meeting will be held at the Royal Bath Hotel at 3.15 P.M. Agenda:—Secretaries' accounts for 1896. Report of election of Branch Council. Election of a representative of the Branch on the Council of the Association. Election of a representative of the Branch on the Parliamentary Bills Committee. Election of new members of the Branch. Place of the summer meeting. Communications (two) from the Council of the Association. Communications from the East Anglian Branch. Mr. G. Williamson Daniell to move: "That a luncheon previous to the meetings be substituted for the dinner hitherto held after the meetings of the Branch." Address by the President. Communications:—Mr. Graham: Two cases of Cancer showing the expediency of early removal. Dr. Ransome, F.R.S.: Notification of Phthisis. Dr. Andrew Davidson: A specimen of Cerebellar Hæmorrhage. Mr. Bernard Scott and Mr. MacGillycuddy: A case of Perforating Appendicitis with general septic peritonitis, followed by recovery after operation. Mr. Wyke Smith: (1) A case of Appendicitis; (2) Two cases of Injury to Arteries; (3) A new pattern Cycle Saddle on Hygienic and Anatomical Principles. Dr. Lawrie: (1) The Surgical Treatment of Floating Kidney, with cases; (2) Two cases of Purulent Appendicitis; (3) Two cases of Right and Left Iliac Colotomy. Dr. Ramsay: Four Uteri from cases of Total Hysterectomy. Dinner at the Royal Bath Hotel at 5.30 P.M.; charge 6s. each, without wine. Members intending to be present are requested to inform Dr. Davison by Monday, May 24th.—WILLIAM VAWDREY LUSH, M.D., Weymouth, C. H. WATTS PARKINSON, Wimborne, Honorary Secretaries.

EAST ANGLIAN BRANCH.—The annual meeting of this Branch will take place at Ipswich on Thursday, May 27th. President, A. R. Manby, M.D.; President-elect, Mrs. Garrett Anderson, M.D. Programme of Proceedings: 11 A.M. Meeting of the Council of the Branch in the Library. 11.30 A.M. Meeting of the Branch for business in the Library. Agenda: To receive report of Council of Branch. To receive Treasurer's report. To receive report of result of election of officers. To nominate one or more delegates to represent the East Anglian Branch at the meeting of the Association at Montreal. Introduction of new President by retiring President. President's Address. 1.30 P.M. Luncheon in the Council Chamber of the Town Hall; tickets, 2s. 6d. (Members intending to be present at the luncheon are requested to signify the same before May 24th. Ladies accompanying members will be welcomed at luncheon.) 3.0 P.M. Resumed general meeting. R. K. Casley, M.D. (Ipswich) will show a case of Fracture of the Patella treated by the immediate application of a subcutaneous wire suture, with skiagraphs of the present condition of the joint. W. W. Sinclair, M.B. (Ipswich) will show (*a*) a Case in which a piece of Iron was removed from the Interior of the Eyeball by means of the Electro-magnet; (*b*) a case of Congenital Ectopia Pupillæ. J. Ryder Richardson, M.B. (Saxmundham) will show a case of Diffuse Nævus of Neck and Buccal Cavity. Stanley Boyd, M.B., F.R.C.S. (London): Recent Suggestions in the Treatment of Cancer. Howard Marsh, F.R.C.S. (London) is expected to take part in this discussion. Mrs. Scharlieb, M.D., M.S. (London): Surgery at the New Hospital for Women in 1896. S. H. Burton, M.B., F.R.C.S. (Norwich): Notes of a case of Fibroid of Uterus

causing Inversion. There will be an exhibition of Instruments, etc., by Messrs. Down Brothers, London; and of Pharmaceutical Products by Messrs. Burroughs, Wellcome and Co., London, in the Magistrate's Room, 5.15 P.M. Dr. and Mrs. Casley kindly invite members and ladies accompanying them to afternoon tea at "The Old House," Carr Street. The Ipswich Borough Asylum, the East Suffolk and Ipswich Hospital, and the Ipswich Museum will be open for the inspection of visitors.—EDGAR G. BARNES, M.D., Eye; MICHAEL BEVERLEY, M.D., Norwich; THOMAS CARE, M.D., Braintree, Honorary Secretaries.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.—The next meeting of this District will be held at the Medical Library, 5, Pembroke Road, Portsmouth, on Tuesday, May 25th, at 4 P.M. Members willing to read communications or to exhibit cases or specimens are requested to communicate at once with the Honorary Secretary, C. C. CLAREMONT, M.D., 57, Elm Grove, Southsea.

SHROPSHIRE AND MID-WALES BRANCH.—By invitation of the President, Mr. J. T. Lloyd, the spring meeting will be held at Chirk, on Thursday, June 10th. Mr. Mitchell Banks will read a paper on Some Practical Hints on the Treatment of Rectal Disease. Special train arrangements will be made which will be duly announced.—H. WILLOUGHBY GARDNER, Honorary Secretary, Swan Hill, Shrewsbury.

METROPOLITAN COUNTIES BRANCH: WEST LONDON DISTRICT.—The last meeting of the session will be held on Wednesday, May 26th, at 4.30 P.M., at 5, Pembridge Gardens, W., by kind permission of the Vice President, Mr. H. W. Kiallmark. Business: Election of a Vice-President, representative on the Council of the Branch, and Honorary Secretary. Election of a Committee for the ensuing year. To receive the report of the Secretary of the year's work of the District for the Council of the Branch.—THOMAS DUTTON, Honorary Secretary, 7, Portland Place, W.

STAFFORDSHIRE BRANCH.—The third general meeting of the session will be held at the Victoria Hotel, Wolverhampton, on Thursday, May 27th. The President, Dr. T. Ridley Bailey, will take the chair at 5.30 P.M. Agenda: Exhibition of Pathological Specimens, Living Cases, etc. Dr. A. H. Carter: Some recent Observations on the Feeding of Infants. Dr. F. Edge: (1) A Tubal Gestation removed *in situ*. (2) A Myomatous Uterus removed by Panhysterectomy; (3) A Uterus with Cancer of the Fundus removed by Vaginal Hysterectomy. Mr. T. Vincent Jackson: Recital of Cases of Vasectomy. Dinner at 7.30 P.M., charge 5s.—F. MILNES BLUMER, Stafford, Honorary Secretary.

## DUNDEE AND DISTRICT BRANCH.

THE annual meeting of this Branch was held in University College, Dundee, on May 7th, Dr. A. J. DUNCAN, President, in the chair.

*Election of Office-Bearers.*—Office-bearers were elected as follows: *President:* J. Rorie, M.D., Liff. *President-Elect:* A. M. Stalker, M.D., Dundee. *Vice-Presidents:* D. Laing, M.D., Arbroath; J. W. Wemyss, M.D., Broughty Ferry. *Council:* J. F. Sturrock, M.B., Broughty Ferry; C. S. Young, M.R.C.S., Dundee; J. Cable, L.R.C.P.E., Forfar; J. Mackie Whyte, M.B., Dundee; Alex. Campbell, M.D., Dundee; J. Liddell, M.B., Errol. *Representative on the Council of the Association and Representative on the Parliamentary Bills Committee:* J. W. Miller, M.D. *Honorary Treasurer:* Dr. M. Greig, F.R.C.S.E. *Honorary Secretary:* R. C. Buist, M.D.

*Medical Politics.*—The PRESIDENT, after thanking the members for the honour they did him, said since their meeting last year medical politics had on the whole been quiet. The propriety of the parent Association taking up the matter of medical defence had, perhaps, been the most agitated question. In its discussion much difference of opinion had been elicited, both as reflected in the deliverances of the various Branches, and in the numerous letters on the subject which appeared in the columns of their JOURNAL. The Dundee Branch, after passing (possibly on rather hurried consideration) at its meeting in March, 1896, a resolution favouring the adoption of some scheme of medical defence, at its meeting in February last, rescinded the resolution by a majority of 17 to 7. In this they had followed the multitude, for of the Branches which had voted on the question, a considerable majority had declared for the *status quo*. Thus, in the meantime, this question seemed shelved, and certainly in the case of such a decidedly new departure it was only a very strong majority indeed in its favour that could justify its adoption. In connection with the approaching meeting at Montreal, he was in receipt of a circular letter from Professor Roddick of that city, the President-elect, in which he extended a hearty invitation to the members. In Dundee, as in many other places during the past year, the so-called battle of the clubs had been waged with varying success. In Dundee, where the smallest rate (2s. 6d.) had mostly obtained, an agreement was entered into and signed by almost every medical man, declining to retain the post of medical officer to a club not granting the small rise asked, or to accept any such situation falling vacant by the resignation of the occupant on being refused the advance. He and several others who never had taken club appointments, considering it was underpaid work, signed the agreement to strengthen the hands more particularly of the younger brethren, by whom such posts should for the most part be held.

*The Health of the City.*—Thanks to the efficient action of the Convener of the Sanitary Committee (Mr. Elliot), aided and guided by the co-operation of the able medical officer of health (Dr. Templeman) and sanitary inspector (Mr. Kinnear), had in the past year again shown a good record. What a help it would be to them in general practice were their medical officer of health furnished with a thoroughly equipped bacteriological laboratory, where secretions from suspicious-looking throats could be sent to him for examination, or where the blood of a doubtful typhoid case could be submitted to the serum test, or other analogous investigations carried out. This work their zealous medical officer of health was willing—nay, anxious—to undertake, but the sanitary authorities did not as yet see their way to sanction the small outlay (some £35) that the equipment of such a laboratory would involve.

*A City Bacteriological Laboratory.*—The PRESIDENT read the following petition, which, it was proposed, should be sent to the Town Council:

The Dundee and District Branch of the British Medical Association have learned with satisfaction that you have at present under consideration a proposal to establish a laboratory in connection with the public health department, and being keenly conscious of the great public importance of this proposal, respectfully beg to submit for your consideration this statement of their hope that you will grant your approval to the proposal and of the reasons which influence them to entertain this wish. During recent years great advance has been made in many directions in medicine, but in none has the progress been more marked, or fraught with more important consequences for the community, than in the work which the public authority has jointly with the medical profession carried out for the control of the infectious diseases. By it typhus fever has been virtually banished from our midst, and the prevalence of the other infectious diseases has been largely reduced. The success of this movement has been due to the energy of the authority in enforcing sanitation, and the isolation of infected persons, and of those improvements in medicine which have made possible the earlier recognition of the infectious diseases of the medical practitioner, and it is in these two directions mainly that further advance may be looked for. During the last few years bacteriology has made most important progress in the diagnoses of diphtheria and typhoid fever, and inasmuch as these are now by far the most serious and fatal of the notifiable diseases, it is of the utmost importance that the benefit of this advance should be secured for the community. For this laboratory work is essential, and while this has, by the establishment of the Chemical Research Association Laboratory in London, been provided for the wealthy, the cost has till now put it out of the reach of the public as a whole. It is with the hope that the establishment of the proposed laboratory would make this advance accessible to all that the Branch venture to lay these considerations before you, and to urge you to adopt this measure, which will, they are convinced, still further increase the success which you have already had in your dealings with the infectious diseases.

The memorial was unanimously approved of, and ordered to be sent to the Town Clerk for submission to the Town Council.

*Conjoint Meeting.*—A clinical congress was afterwards held, at which representatives were present from the Edinburgh and Perth Districts as well as from Dundee.

*Demonstration.*—A demonstration of Ophthalmological Preparations was given by Dr. M'GILLIVRAY in the Museum.

*Cases.*—The following cases were demonstrated in the Chemical Theatre: Dr. MACEWAN: Paget's Disease of the Nipple.—Dr. FOGGIE: Infantile Respiratory Stridor.—Dr. STALKER: (1) Addison's Disease; (2) Purpura with Spinal Symptoms.—Dr. MACKIE WHYTE: (1) Lichen Verrucosus; (2) Progressive Muscular Dystrophy.—Dr. RAW: (1) Psoriasis Rupioides; (2) Hodgkin's Disease, improved under Arsenic; (3) Dilatation and Dislocation of the Stomach; (4) Dermatitis Herpetiformis.—Dr. M'GILLIVRAY: (1) Congenital Absence of the Iris in Five Members of a Family (two generations); (2) Congenital Symmetrical Dislocation of the Lens; (3) Buphthalmos.—Dr. YOUNG: Suture of the Median Nerve Thirteen Months after Injury.—Mr. GREIG: (1) Rachitic Dwarf with Bilateral Dislocaton of Patella; (2) Operative Treatment of Pendulous Belly.—Dr. DON: Peculiar Atrophic Condition of th Skin.—Dr. BUIST: (1) Climacteric Obesity under Thyroid Treatment; (2) Operative Enlargement of Narrow Pelvis (Frank's Method).

*Dinner.*—A dinner was held in the Queen's Hotel in the evening, at which about fifty gentlemen were present.

# SPECIAL CORRESPONDENCE.

## PARIS.

*Immediate Medical Aid.—The Herbalists' Association.—Epidemic of Typhoid at Marseilles.—General News.*

M. HENRI DE ROTHSCHILD, *interne* of one of the Paris hospitals, has addressed to the editor of the *Figaro* a letter proposing that part of the large sums which have been and will be collected after the recent fire at the charity bazaar should be devoted to the establishment of an immediate medical aid station. He declares that during the disaster he personally observed the shortcomings of the ambulance organisation. At five o'clock, on hearing of the disaster, he went to the Rue Jean Goujon, helped to remove the wounded to the neighbouring houses, and witnessed the heaping up of the dead on the pavement. Notwithstanding the message sent by telephone to the St. Louis Hospital the first ambulance carriage reached the scene of the disaster one hour and a half after the fire had broken out. M. de Rothschild further states that three years ago the Societé des Ambulances Urbaines handed over to the city of Paris its entire service; nevertheless, this new post of immediate medical aid does not exist. M. de Rothschild asserts that in consequence the victims in the recent fire suffered cruelly. He forwards £120 towards the proposed fund, and offers his services as doctor to help in organising the system of immediate medical aid.

The Association Générale of the Herbalists of France held its annual banquet recently. The Minister of Commerce was in the chair. The modifications in the law relating to the practice of pharmacy, which will be discussed in the Chamber of Deputies, were naturally alluded to in the speeches. If adopted, they will result in the suppression of the herbalists. M. Le Senne, Deputy, promised to defend the interests of the herbalists in the Chamber.

An epidemic of typhoid fever has broken out among the troops at Marseilles. There are also several cases among the general public. The epidemic is the result of the bad water supply. Three new wards have been organised in the Conception Hospital, where there are 150 typhoid patients. The municipality has ordered that boiled water is to be given to school children, and similar advice to the general public is posted on the walls and public buildings.

The Association des Dames Françaises has sent £40 for the benefit of the wounded in the war between the Greeks and the Turks. The Committee intends sending a further sum, but is unable to have an ambulance on any foreign battlefield. L'Union des Femmes de France regrets that its statutes prevent it from following the example of the Association des Dames Francaises.

A centenarian, one of the last survivors of those who took part in the wars of Napoleon, died a few days ago at Chaponost, at the age of 103. The municipality and the inhabitants intend giving the old warrior a public and imposing funeral.

A little knot of the late Baron H. Larrey's friends and colleagues have decided to erect a monument to his memory at the School of Military Sanitation of the Val de Grâce, where Baron Larrey was for a long time member of the professorial staff.

## BERLIN.

*The Government and the Recognition of Homœopaths: The Question of Legislation against Quackery.—Leprosy in the German Empire.*

THERE was a discussion on medical legislation in the Prussian Diet a few days ago. In the course of the debate on the Budget, Herr von Werdeck, a Conservative member, expressed his regret that homœopathy had no place in the public hospitals, and that no homœopath had a seat on the Ministerial Medical Board. Dr. Eckels, a National Liberal member, asked for more stringent legislative measures against quacks. The Under-Secretary of State, Herr von Bartsch, in reply, said that a homœopathic clinic and a homœopathic drug store existed in Berlin, and that a homœopath sat on the Ministerial Examining Board; the Government could go no further than this. As to the quack question, which was a very delicate and complicated one, negotiations were being carried on with the medical department of the German Imperial Government, which he hoped would result in a parallel action of the two Governments. Professor Virchow said that he did not believe in legislation against quackery. The young generation of doctors were loud in demanding "protection by law," but this demand was a sign of inexperience. As to homœopathy, his point of view was very similar. Homœopathy was not a scientific method at all, but simply a negation. He would not ask for legislation against it, but he would not cease to raise his voice in warning as often as there was any question of establishing homœopathic hospitals or of teaching homœopathy as a science. If the Government were to put itself at the head of a homœopathic movement, Prussia would soon cease to march in the vanguard of civilisation.

At another stage of the debate on the Budget the leprosy question was discussed, *apropos* of the new leper hospital in Memel. Professor Virchow said that the assumption that leprosy was hereditary had been proved to be erroneous, and that it was no means a highly contagious disease. A bacillus had been discovered, but, curiously enough, the culture experiments had been unsuccessful. Herr von Bartsch, speaking for the Government, said that there were hardly two dozen cases of leprosy in the whole of the German Empire.

## LIVERPOOL.

*Proposed Jubilee Extension of the District Nursing Organisation.—Technical Training for Sanitary Inspectors.—Facilities for Pathological Investigation.—The Thompson-Yates Laboratories.—Entries at the Medical Schools.—Death from Asphyxia.*

LIVERPOOL is about to celebrate the Diamond Jubilee of the Queen by making a large extension of the district nursing organisation at present existing in the city. The decision that the commemoration should take this form was arrived at after careful consideration had been given to other proposals which were made. It was in Liverpool that the idea of providing skilled nurses for the poor in their own homes originated. The plan was first put into operation in 1862, two years after the Liverpool Royal Infirmary had consented to train nurses for the sick poor, and a few years later every district in the then town of Liverpool was under the care of a trained nurse, who was superintended and to a large extent supported by a lady or a committee of ladies. This system has continued without interruption till the present time. The district nursing movement, once started, spread rapidly to the metropolis, to Manchester, and to other large towns, and became a Royal and national undertaking in 1887, when the Queen devoted to the foundation of the Queen's Institute the sum of £70,000 out of the Jubilee Gift of the Women of England. Since the system first originated, the population of Liverpool has increased 50 per cent., and the boundaries of the city have been widened in the last few years so as to include more than twice the former area. The present staff of nurses, although efficient and capable in the highest degree, is inadequate in point of numbers for the large population to which it has to minister, the proportion being 1 nurse to 21,400 of population, while in Manchester it is 1 to 10,500. In order, therefore, to make the district nursing of the city adequate to its needs, it will be necessary to increase the number of nurses in the existing districts considerably, and to form new districts in the areas of the city which have been recently incorporated, an extension which will necessarily involve the provision of at least three new homes to accommodate from 14 to 18 nurses with their superintendents. The central home, with the offices of the organisation, will form a visible memorial of the jubilee. For the completion of the whole scheme the sum of at least £30,000 will be required, and of this nearly one-half has already been subscribed. It is proposed that the funds shall be placed under the control of a body, of which the constitution shall be settled by the subscribers. The jubilee will be celebrated at the Royal Infirmary, as far as the nurses are concerned, by allowing them all an extension of a week on their usual yearly holidays, a privilege which they appreciate highly.

The authorities of University College are always anxious to use the means at their disposal as much as possible

for the advantage of the community, and the course of lectures and demonstrations in sanitary science which begins next October may be expected to lead to a considerable advance in popular knowledge of the laws of health, and to a corresponding improvement in the condition of the people. The course is especially arranged for persons desirous of qualifying as sanitary inspectors, but is open to all who wish to join. It has been organised under the supervision of Professor Boyce and Dr. Hope, Lecturer on Hygiene in the College, and Medical Officer of Health for the City, and the City Council have given a grant of £90 towards the purchase of apparatus, and an annual grant for evening lectures. The excellent laboratories of the College will be made use of, and a Museum of Hygiene, on the lines of the Parkes Museum, is being formed in connection with them. The Sanitary Department of Liverpool, in consequence of the density of its population and the extent of its intercourse with foreign ports, is exceptionally active, and employs a large staff of inspectors, all of whom are required to hold some recognised certificate of knowledge in sanitary science. Candidates for the certificate of Victoria University are required to devote at least two years to their course of training. At the end of the first year they will be required to show a competent knowledge of elementary physics and hygiene, and will also receive credit for a knowledge of elementary organic chemistry, of mensuration, and of freehand drawing. For the second year's course the examination will comprise sanitary law, sanitary engineering and appliances, objects and methods of inspection of nuisances, food inspection, and methods of disinfection. The fees for instruction are extremely moderate, and the fee for the examinations and the certificate amount to £2 2s.

Professor Boyce is making arrangements by which, on the payment of a nominal annual subscription, all members of the profession can have the privilege of sending pathological products to his laboratory at the College, and receiving a skilled report upon their nature. The arrangement will be somewhat on the lines of the Clinical Research Association of London, and has already received the report of a large number of practitioners in the neighbourhood.

At the meeting of the Governors of University College, Liverpool, held on May 14th, it was announced that the new Thompson-Yates Laboratories of Physiology and Pathology would be opened for use next winter session. The formal opening will, however, be deferred till next spring, when Lord Lister has kindly consented to perform the ceremony. The buildings, which form a handsome block in the College quadrangle, may be regarded as model buildings of their kind, no expense having been spared by their generous donor to fit them in every respect for the purposes for which they are designed. Their cost includes £15,000 for the original buildings, a further donation of £6,000 for internal fittings, and a third still more recent gift to provide technical equipment and apparatus. The total cost will not fall far short of £25,000. On the façade facing the quadrangle is a handsome terra-cotta relief, consisting of two classical female figures emblematical of physiology and pathology, designed by Mr. Allen, the lecturer on sculpture in the College. The Council intend to proceed as soon as possible with the further extension of the College buildings.

The number of entries in the Medical School during the past year was the highest on record, being considerably greater than on any previous year.

An inquest was lately held at St. Helens by Mr. Brighouse on the body of a young woman who died under remarkable circumstances in the town. The deceased was a healthy young woman, who was in charge of a café, and appears to have been in excellent health up to the time of her decease. She was found dead in one of the cafés connected with the one in which she was regularly employed. There were no marks of violence on the body. The medical evidence was to the effect that death was due to asphyxia, but there was nothing to show how the suffocation was induced. The majority of the medical witnesses were inclined to attribute it to an epileptic seizure.

PRESENTATION.—On Monday, May 17th, Dr. W. H. Stephen, of Smethwick, was presented with a polished oak and silver tantalus by the ladies of his ambulance class.

# CORRESPONDENCE.

## PRIMARY FELLOWSHIP EXAMINATION OF THE ROYAL COLLEGE OF SURGEONS.

SIR,—May I call your attention to two questions set in the Anatomy paper for the First Fellowship?—namely:

Q. 2. "Describe the relations of the structures which lie between the skin and the deep fascia in the lower extremity."

Q. 3. "Give the topographical anatomy of the liver, with an account of its development."

Two other questions are asked, and three hours allowed for answering. Now I venture to assert that neither of the examiners could answer fully and accurately within the time the two questions above quoted. A man who thoroughly knew his subject could write a treatise on each. Consequently it cannot be a matter of surprise that eighteen out of twenty failed to pass on Monday last.

The men who go up for the F.R.C.S. are the pick of the schools, and when so large a percentage fail it is an indication that a moderator is required to preside over the examiners.—I am, etc.,

May 13th. PATER.

## SMALL PELVES: "A PLEA FOR OBSTETRIC OBSERVATION."

SIR,—I am quite sure Dr. Herbert Alderson will agree with me that there are circumstances which sometimes render what he judiciously terms "obstetric observation" very difficult to secure. He rightly accentuates in his letter, published in the BRITISH MEDICAL JOURNAL of May 8th, the importance of taking early external and internal measurements in pregnant women labouring under deformity of the pelvis.

As a surgeon, however, I will not offer any opinion on the value of external measurements alone. The general conformation is sometimes very suggestive of deficient pelvic capacity, and the "ordinary powers of observation" may be sufficient to induce the careful practitioner to advise the patient to submit to an internal examination.

But I rather think Dr. Herbert Alderson intended his letter to be a critique on the case of Cæsarean section published in the JOURNAL of May 1st, and that he has arrived at the conclusion that if "the ordinary powers of observation" had been brought to bear earlier on my patient's pelvis, it would have been a very happy event. Now in this opinion I entirely coincide; at the same time this unfortunate neglect of "obstetric observation" can be very readily explained, as the patient was not seen by Dr. Charles Knott until the very onset of labour.

It is, I believe, the experience of many eminent practitioners, and possibly Dr. Herbert Alderson may have met with similar instances in his practice, where a pregnant lady has delayed until the very last moment to engage the services of an obstetrician.—I am, etc.,

Portsmouth, May 15th. JOHN WARD COUSINS.

## EPSOM COLLEGE.

SIR,—Yearly in May the Royal Medical Benevolent College, better known as "Epsom," sends out one of the saddest of the many sorrowful appeals of the year. The present voting list contains 85 names, representing, it seems, as many practitioners either in person or in members of their families, no two occurring twice; 85 men, therefore, have failed to provide for their families or themselves; 27 apply for one pension; 42 for six scholarships; 16 for one annuity. All ranks and all ages of the profession have contributed to this mournful roll. Of the 27 who hope for a pension, 8 practised for over forty years, and most for over thirty years. A poor old gentleman aged 80 heads the list, which further on contains the names of the widow of an F.R.S., F.R.C.P., and of the widow of a F.R.C.S. Of the 42 boys, all but 5 are orphans. Amongst their parents are a blind surgeon-major and a paralysed barrister (F.R.C.S.). Amongst 16 poor old ladies who are trying for the annuity are 6 whose fathers were in practice for over forty years, one, indeed, for over sixty years.

That "union is strength" the working classes have found out, and raised their charges accordingly. How long are we going to neglect their experience? Poverty may come, it is

clear, into the Royal Society and the Royal Colleges, not on us, merely—that a brave man could and should bear—but on those dependent on us, on those least able to bear it, most often on those quite unable to help themselves, and that, too, when we can no longer move hand or foot to help them. Let us unite before it is too late.—I am, etc.,

May 16th. M.A., M.B.

## KRASKE'S OPERATION FOR RECTAL CANCER.

SIR,—Mr. Swinford Edwards, in a paper on this subject, published in the BRITISH MEDICAL JOURNAL of May 15th, states he cannot find any similar series of cases published by an English surgeon, and further on that he has not been able to find any statistics regarding the work of British surgeons. As an English surgeon I should like to point out to him that you published a paper on this subject for me in the BRITISH MEDICAL JOURNAL of March 9th, 1895, which was accompanied by a table giving all the details he required. An abstract of a further paper was published in the BRITISH MEDICAL JOURNAL this year, giving the mortality, but not all other details. These will appear in full later. It may interest Mr. Edwards to know that Dr. Alexander, of Liverpool, independently suggested the sacral route for excision of the rectum, and was, I believe, the first English surgeon to operate and publish a case of this kind.—I am, etc.,

Liverpool, May 17th. F. T. PAUL.

SIR,—Mr. Swinford Edwards's paper in the BRITISH MEDICAL JOURNAL of May 15th is of very great interest, since it indicates progress in the treatment of a common and deadly malady. I have performed Kraske's operation once. The upper half of the rectum was removed on January 18th, 1896, one year and four months ago. The patient, a man aged 51, since he left the hospital has been doing hard work as a carpenter, and I hear from Dr. Whittaker that he is now in excellent health, and that his wife has recently been confined. An extensive experience of *post-mortem* examinations has forced upon me the importance of early diagnosis and radical operation in cancer of the intestine. I believe that the mortality of Kraske's operation will be still further reduced if care is taken to restrict it to suitable cases. When necessary a preliminary exploration of the abdominal cavity should be made. I agree with Mr. Edwards that in most cases a preliminary colotomy is unnecessary.—I am, etc.,

Old Cavendish Street, W., May 17th. J. JACKSON CLARKE.

## ON THE OCCURRENCE OF MALTA FEVER IN INDIA.

SIR,—In the issue of the BRITISH MEDICAL JOURNAL of April 10th, which has just arrived here, there is a communication from Professor Wright and Surgeon-Captain Smith, of the Royal Victoria Hospital, Netley, which will, I venture to think, surprise some of my brother officers who, like myself, are serving in the vicinity of Sabathu. Anything of this kind emanating from Netley Hospital deserves respect. But it is a long cry from Netley to Sabathu, and to venture to diagnose Malta fever in Sabathu on the results got from serum precipitation many months after appears to me, to say the very least of it, a risky proceeding.

Now, my station is about ten miles from Sabathu, and, although the latter has an unenviable notoriety for enteric fever, I very much doubt if it deserves it more than this station. Anyway, this is my fourth hot weather to serve here within the past eleven years, and I know to my cost how full of enteric fever our station hospital has always been. Just at the present moment I have 18 such cases—more or less convalescent now, as they are over the third week of the disease. The temperature charts are "atypical"—some third of them, at least; but I submit that a temperature chart in this fever, though a fairly good aid to diagnosis, is not by any means an infallible one.

Two cases died within the past week (we had 20 in all), and I found at the necropsy what I have always found in such cases, namely, ulceration and tumefaction of Peyer's patches, swelling of mesenteric glands and spleen. If this is not considered sufficient to establish the diagnosis, I may mention that I found in a smear cover-glass preparation of the spleen in each case the Ehrlich-Gaffky bacillus, and, further, that a streak culture in gelatine grew pure. Certainly I have not as yet applied any extended test to this Dagshai bacillus, not doubting its genuineness; but I compared it with a cover-glass preparation that I brought from the Pasteur Institute, and, further, with a most beautiful specimen prepared by me last year at the Institute of State Medicine under the supervision of my distinguished friends, Dr. McFadyen, the Director, and Dr. Hewlett; and, making allowances for the different modes of preparation, I cannot think there is any difference between the three specimens.

That the fatal continuous fever of Sabathu is exactly the same as what we have there cannot be the shadow of a doubt, as I am sure the *post-mortem* records would show, and it will take a good deal more proof, I think, than mere serum sedimentation to convince us that this fever is Malta fever and not enteric pure and simple.

As regards the "sequelæ" which the writers of the article mention (swelling of the testicle and joint pains), I may add that I have never noticed any such, and think they must be uncommon except in men who suffered from syphilis, a disease which is far more prevalent amongst soldiers than any fever.—I am, etc.,

Dagshai, India, April 28th. S. F. FREYER, M.D., Surgeon-Major, A.M.S.

## AFFERENT AND EFFERENT TRACTS OF THE MEDULLA.

SIR,—With reference to a letter on this subject by Dr. W. Aldren Turner, in the BRITISH MEDICAL JOURNAL of May 15th, I wish to call attention to the following statement which I made in connection with the abstract of my paper, and which will be found on p. 1155 of the JOURNAL of May 8th: "Full details of the procedures and results, together with a review of experimental work by others bearing on the subject, will be published elsewhere."—I am, etc.,

Queen Anne Street, W., May 18th. J. S. RISIEN RUSSELL.

## CARBOLIC ACID IN SCARLET FEVER.

SIR,—Dr. Ross's communication concerning the treatment of scarlet fever by a decoction of cinnamon would, I think, have been much more valuable had he adduced evidence that cinnamon possessed any germicidal power beyond that which is ascribed to all aromatics.

Like Dr. Ross, for many years I devoted my attention to discover some remedy which would reduce the virulence of scarlet fever, and in carbolic acid I found an attenuating antiseptic, which not only answered the first purpose, but so attenuated those micro-organisms that give rise to scarlet fever, that any person taking scarlet fever from one who had been under this treatment invariably exhibited the disease in a milder form; and if, in turn, another was attacked from the second source, the result was a still more modified form. Experimental research has demonstrated that microbic increase is greatly retarded by constant contact of the microbe with germicidal agents, even when these are much diluted, and therefore feebler in power. Flügge states that even "attenuation can be produced by sufficiently long-continued action of milder means;" and Pasteur says, "Each cultivation of the attenuated bacterium (by chemical means) is a 'vaccine' for the more virulent—that is to say, capable of producing a more benign malady."

In carbolic acid we have a bactericide of known power and undisputed ability, and in administering it every two hours it is reasonable to assume that a condition of the blood is produced that is inimical to the continued production of the scarlet fever bacterium (allowing such to exist though not proved) in its original strength, for by their constant multiplication in carbolised blood they must in time come into a condition nearly allied to "attenuation," and so lose much of their virulent power. That a somewhat antiseptic condition of the blood is actually produced by repeated exhibition of carbolic acid may, I think, be allowed, from a consideration of the fact that, when a patient has been duly "carbolised," the urine that is passed will remain days and weeks, and even in some cases altogether, free from putrefactive changes.

For the result of over fifteen years' experience warrants me in stating that it is a specific. I can record only four deaths for which the treatment should not be accredited. One of suppressed scarlet fever, death in twenty-hours; one from sudden accession of cerebral symptoms

pointing to latent tuberculosis; two in which the treatment was neglected. Three cases of albuminuria, due to cold from neglected precautions. No cases of severe scarlatinal rheumatism; a few in which the joints were trivially affected. No cases of secondary fever, with profuse nasal discharge and other complications, which so often prove fatal; and in all a rapid convalescence without the hitherto deterioration of strength. There is also a remarkable absence of suppurative adenitis. One case only, and that in a strumous child, always subject to glandular enlargement upon exposure to cold.

This I think is due to the fact that carbolic acid rapidly enters into combination with any substance with which it comes into contact and saturates the tissues of the body, for if, as has been suggested, these enlargements are possibly due to a secondary infection, by rendering the glands aseptic suppuration is prevented. Necessarily all depends upon the administration of the drug so soon as the earliest symptoms of scarlet fever appear and its exhibition every two hours. For a child a year old about a grain for a dose, gradually increasing in strength with age, when it may be administered in 5-grain doses with impunity, but 7 grains produces a tendency to vomiting and diarrhœa. Freely mixed with syrup and "tinct. aurantii" it is by no means unpleasant to take. The frequency—every two hours—should be persevered in until the rash has subsided, and then continued every four hours till convalescence is attained. No ill effects have ever followed its administration; the difficulty is to get parents and nurses to see that the dose is taken every two hours, this being imperative in very severe cases. The throat rarely requires attention, but if there is membranous exudation rubbing the tonsils and palate with 20 gr. sol. arg. nit. never fails to afford immediate relief.

So satisfactory has this treatment been in my hands that I have no apprehension as to ultimate successful results not being achieved, and have the comforting knowledge that if another person takes scarlet fever from the one that is "carbolised" it will be in a much milder form. I feel assured that anyone carrying out this treatment in its integrity will have the same successful results, and will never revert to any other.—I am, etc.,

ARTHUR WIGLESWORTH, L.R.C.P., M.R.C.S.

Liverpool, May 11th.

## "A PROBABLE DIAGNOSTIC SIGN OF TRICUSPID STENOSIS."

SIR,—Dr. James Mackenzie, in an article under the above heading in the BRITISH MEDICAL JOURNAL of May 8th, pointed out the value of a tracing of the liver pulse for the diagnosis of tricuspid stenosis. It is quite possible this will in the future become recognised as a useful diagnostic sign.

The explanation of the cause of the chief wave (*b*), which Dr. Mackenzie regards as regurgitant, and describes as "an auricular wave due to the systole of the right auricle," appears to me less hopeful. May not that wave rather arise from the fact that during the systole of the auricle blood is prevented from entering it from the veins? The venous circulation, while open peripherally, is therefore arrested centrally, and the oncoming blood, instead of escaping into the auricle, accumulates in and distends the large veins and liver, thus causing the wave referred to. The wave is most marked in cases of tricuspid stenosis, because, for one thing, the contraction of the auricle is more prolonged, that chamber having increased difficulty in emptying itself through the stenosed orifice.

I have not yet seen any evidence for supposing that regurgitation takes place as a rule from an auricle contending with the circulatory difficulties consequent on stenosis. The veins are defended from the intra-auricular pressure by their sphincter-like contraction near the auricle, which precedes and accompanies the auricular systole. That defence is amply sufficient theoretically, though it is conceivable it may fail on occasions, but the presence of the liver pulse wave is no evidence of such failure.

With a feeble and dilated auricle Dr. Mackenzie has observed no auricular liver wave. This, I imagine, is because it makes comparatively little difference to the oncoming blood if the auricle and adjacent veins be contracting or not, for the flow, which is initially feeble, is not suddenly arrested, if at all. With a powerful auricle, however, contracting for a prolonged period, as in tricuspid stenosis cases generally, there is every reason why the wave should appear, since the oncoming blood must stop and accumulate somewhere.

My mind resents the dual supposition that the auricle must send nearly all its blood forwards for a patient with stenosis to live so long and well, and nearly all its blood backwards to swell up the liver and produce the "auricular wave" (*b*).—I am, etc.,

Mentone, May 12t D. W. SAMWAYS.

## DECALCIFIED BONE RINGS.

SIR,—I regret not having seen the fifth edition of Mr. Greig Smith's book before publishing my paper on Intestinal Anastomosis in the BRITISH MEDICAL JOURNAL of April 24th, as he there figures and describes a ring which in one essential feature resembles mine—namely, the narrow undercut groove. The method of use, however, differs essentially. Mr. Smith's last edition was published July, 1896, and the dates of my cases in the paper show that I was using it some months before his description appeared.—I am, etc.,

Dublin, May 18th. C. B. BALL.

# OBITUARY.

## GEORGE WILSON, M.D., L.R.C.S.EDIN.

ON April 27th there passed away, after a long and busy life, Dr. George Wilson, of Huntly. He was born at Brangan, Banffshire, on July 12th, 1811. After graduating A.M. at King's College, Aberdeen, in 1828, he was apprenticed to Dr. Duncan McColl, of Huntly. During his apprenticeship he attended the medical classes during the session at Edinburgh. He obtained the M.D.Edin. and L.R.C.S.Edin. in 1833, and, returning to Huntly, succeeded Dr. McColl. Here for sixty years he actively carried on a very large practice. It was no unusual thing to see him on horseback when close on 80 years of age. He was a very successful lithotomist, as well as a good general surgeon. He successfully operated on a very stout woman for strangulated umbilical hernia when he was nearly 80 years of age. He seldom allowed himself a holiday. He was very fond of sport. Dr. Wilson had a large store of reminiscences connected with the medical profession. He used to relate with great gusto how Robert Liston used to come to the theatre of the Edinburgh Royal Infirmary, clad in scarlet coat and top boots, to perform some of his brilliant operations, on his way to a meet of foxhounds; also of Professor John Lizars armed with an amputating knife, more like a sword than an ordinary surgical instrument. On his retirement from practice in 1892 he was presented by numerous friends and patients with his portrait in oils, along with a handsome silver tea service, as a mark of respect and gratitude for his long and devoted professional services. Dr. Wilson was twice married. His first wife and only child by that marriage both died within two years of the marriage. He is survived by his second wife, three sons, and two daughters. His eldest son, Dr. G. O. Wilson, succeeded his father in 1892. His second son, Dr. G. A. Wilson, after practising in Assam for some eight years, died near Suez on his way home in 1892.

MR. THOMAS PERKINS, of Snaith, died on May 2nd after a long and painful illness at the age of 63. He was a member of an old Yorkshire family for many generations identified with the medical profession. Mr. Perkins sailed in the *Orinoco* for the Crimea in 1856, and had medical charge of 1,000 men during the voyage. He then proceeded to the cavalry camp near Kaedkoi, and did duty at Inkerman. While there he was laid up with dysentery for two months. Deceased was also present at the siege of Sebastopol. At the end of this campaign he was ordered to Ireland, and joined the 16th Lancers at Kilkenny. In 1859, on the death of his father, he succeeded to his practice.

DR. THOMAS FRANCIS FERNANDEZ, of Brookfield, Ross, who has just died after an illness of some weeks' duration, was born in 1815, and thus at the time of his death had reached

the age of 82. He took his M.D. degree at Glasgow in 1837, and became a Fellow of the Royal College of Surgeons of England by examination in 1853. He served in the Medical Department of the Indian army for about twenty-five years, retiring with a pension in 1863. In 1869 he settled in Ross, acting as Medical Officer for the Ross Union, and also for years of the urban district.

The death is reported of Dr. W. W. Gibson, of Kidderminster, which took place at the residence of his brother in Boston, Mass., for which place he started in the early part of the present year in the hope of re-establishing his health. Dr. Gibson was born at Dromore, co. Tyrone, Ireland, and educated first at Queen's College, afterwards proceeding to the Royal University of Ireland, Dublin, where he was Scholar in Medicine and Prizeman in the years 1878, 1879, and 1880, and also Gold Medallist in Clinical Medicine and Surgery in 1881. His death has come as a great blow to all his friends and patients in Kidderminster.

Our Melbourne correspondent writes: Dr. William Gardner, who for many years was recognised as the leading surgeon in Adelaide, and who occupied a very distinguished position as a surgeon in Melbourne, died suddenly of paralysis at Naples on April 8th. Dr. Gardner graduated in Glasgow in 1874, and took his M.D. degree in 1876. At the recent Intercolonial Medical Congress held in Sydney Dr. Gardner was the President of the Surgical Section; he also in conjunction with Dr. D. Grant founded the *Intercolonial Medical Journal*, and he has left a permanent name in the history of Australian surgery by his advocacy of certain operations in connection with the treatment of hydatids. Dr. Gardner had been paying a visit to Europe for the benefit of his health, and was on his way back when he succumbed. He was kind and genial, and his untimely end at an early age will be deeply regretted by all who knew him.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Traill Green, the first President of the American Academy of Medicine, Professor of Chemistry in Lafayette College, and afterwards of Natural Sciences in Marshall College, Mercersburg, aged 83; Dr. Edmund Russoff, Emeritus Professor of Botany in the University of Dorpat, aged 56; Dr. Anastasio Garcia Lopez, the leading authority on medical hydrology in Spain, and author of numerous writings on professional subjects; and Dr. Augustin Garcia Andradas, a prominent surgeon of Madrid, author of papers on the treatment of hydatid cysts of the liver and other subjects of surgical interest, aged 42.

# NAVAL AND MILITARY MEDICAL SERVICES.

## THE NAVY.

The following appointments have been made at the Admiralty: John W. Slaughter, Surgeon to the *Victory*, additional, for short course at a civil hospital, May 5th; Arthur R. H. Skey, M.B., Surgeon, to the *Alexandria*, lent for 21 days, May 17th; John P. J. Coulican, Staff-Surgeon, to the *Wildfire*, additional, for the *Sans Pareil*, March 29th; Arthur W. Russell, Fleet-Surgeon, to the *Mars*, June 8th; Evelyn R. H. Pollard, Fleet-Surgeon, to the *Renown*, June 8th; Thomas E. H. Williams, Staff-Surgeon, to the *Jupiter*, June 8th; Arthur W. May, Staff-Surgeon, to the *Empress of India*, June 8th; James C. Dow, M.B., Staff-Surgeon, to the *Powerful*, June 8th; John Ottley, Staff-Surgeon, to the *Royal Sovereign*, June 8th; Richard E. Biddulph, M.B., Staff-Surgeon, to the *Royal Sovereign*, undated; Charles W. Buchanan-Hamilton, Staff-Surgeon, to the *Monarch*, additional, for Ascension Hospital, undated; George H. Foott, M.D., Surgeon, for Haslar Hospital, June 8th; Richard A. Ross, M.B., to the *Jupiter*, June 8th; Harold Huskisson, M.B., Surgeon, to the *Empress of India*, June 8th; John F. Hall, M.B., Surgeon, to the *Mars*, June 8th; Charles M. Beadnell, Surgeon, to the *Powerful*, June 8th.

## ARMY MEDICAL STAFF.

Surgeon-Captain C. Dalton, Surgeon-Captain J. F. M. Kelly, M.B., Surgeon-Captain E. H. Condon, M.B., and Surgeon-Lieutenant E. B. Steel, M.B., are placed at the disposal of the Government of the North-West Provinces and Oude, for employment on plague duty.

Surgeon-Major J. C. Culling and Surgeon-Captain J. E. Brogden are placed at the disposal of the Government of Bombay for employment on plague duty.

Brigade-Surgeon David Arthur Leslie, M.D., died at Perth on February 26th last. He entered the service as Assistant-Surgeon, March 31st, 1864; became Surgeon, March 1st, 1873; Surgeon-Major, April 28th, 1876; and Honorary Brigade Surgeon on retirement, August 6th, 1884. He served with the Bhootan Expedition in 1865, being present at the recapture of Dewangiri (medal with clasp), and in the Zulu war in 1879.

Brigade-Surgeon-Lieutenant-Colonels T. O'Reilly and E. J. Fairland, recently placed on the retired list, have assumed medical charge of the troops, the former at Guernsey, the latter at Gravesend.

Brigade-Surgeon-Lieutenant-Colonel W. Keir, M.D., retired pay, recently in medical charge of the Station Hospital at Hamilton, has been transferred to London.

Surgeon-Major William Parsons Feltham died at Allahabad on March 13th. He was appointed Surgeon, August 4th, 1878: and Surgeon-Major, January 27th, 1891. He was on half pay in 1889 for about six months.

At the end of the present session in the Army Medical School at Netley Deputy Surgeon-General Henry Cayley (Retired I.M.S.) will cease to hold the Professorship of Clinical and Military Medicine. The name of Brigade-Surgeon-Lieutenant-Colonel Kenneth MacLeod is mentioned as a probable successor.

Surgeon-Lieutenant-Colonel Robert Francis Buchanan died at East Anstey, Devonshire, March 28th. He was appointed Assistant-Surgeon, March 31st, 1866: Surgeon, March 1st, 1873; Surgeon-Major, March 31st, 1878; and Surgeon-Lieutenant-Colonel, April 4th, 1888. He was in the Afghan war in 1878-79, with the Kuram Field Force, and has received the medal for that campaign.

Brigade-Surgeon Benjamin Hinde, M.D., died at Bristol on April 5th. He entered the service as Assistant-Surgeon, October 11th, 1859; became Surgeon, May 24th, 1864; Surgeon-Major, March 1st, 1873; and Honorary Brigade-Surgeon on retirement, November 10th, 1880. Dr. Hinde served with a field force under Colonel Murray up the River Gambia in 1861, and was present at all the operations, including the storming and capture of the stockaded town of Sabba, and was mentioned in despatches for attending wounded who were lying at point blank range of the stockade before it was finally carried.

## CHANGES OF STATION.

The following changes of Station amongst the officers of the Army Medical Staff have been officially notified to have taken place during the past month:

| | From. | To. |
|---|---|---|
| Brig.-Surg.-Lt.-Col. R. Exham ... ... | India ... ... | Devonport. |
| ,, ,, R. H. Robinson ... | Dublin ... ... | Cork. |
| Surg.-Major W. A. Parker ... ... ... | Portsmouth ... | Malta. |
| ,, J. Tidbury, M.D. ... ... | Southern Dist. ... | Parkhurst. |
| ,, K. S. Wallis ... ... ... | ,, ... | Portland. |
| ,, S. J. Flood ... ... ... | Weedon ... ... | Holywood. |
| ,, H. L. Battersby ... ... | Bengal ... ... | Dover. |
| ,, R. L. Love, M.D. ... ... | Dublin ... ... | Londonderry. |
| ,, F. A. Harris ... ... ... | Dover ... ... | Woolwich. |
| ,, R. P. Hetherington, M.B.... | Madras ... ... | Dublin. |
| ,, W. Babtie, M.B. ... ... | Malta ... ... | Crete. |
| ,, S. F. Lougheed, M.D. ... | Bengal ... ... | Woolwich. |
| ,, H. O. Trevor ... ... ... | Dover ... ... | Canterbury. |
| ,, D. V. O'Connell, M.D. ... | Malta ... ... | Crete. |
| ,, G. B. Russell, M.B. ... ... | Holywood ... | Dublin. |
| ,, L. R. Colledge ... ... | Mauritius ... | C. of G. Hope. |
| ,, S. Butterworth ... ... | ,, ... | ,, |
| ,, R. Crofts ... ... ... | W. Africa... ... | Cork. |
| ,, C. C. Reilly ... ... ... | Curragh ... ... | Malta. |
| Surg.-Capt. H. T. Baylor ... ... ... | Malta ... ... | Crete. |
| ,, H. L. G. Chevers ... ... | Punjab ... ... | Netley. |
| ,, F. J. W. Stoney ... ... | Limerick ... ... | Fermoy. |
| ,, C. P. Walker, M.B. ... ... | Parkhurst ... | Mauritius. |
| ,, C. J. MacDonald, M.B. ... | Cork ... ... | Fermoy. |
| ,, R. J. C. Cottell ... ... | Woolwich ... | C. of G. Hope. |
| ,, D. M. O'Callaghan ... ... | Portland ... ... | Malta. |
| ,, M. J. Whitty, M.D. ... ... | Dublin ... ... | Hong Kong. |
| ,, R. Holyoake ... ... ... | Norwich ... ... | C. of G. Hope. |
| ,, J. W. Cockerill ... ... | Dover ... ... | Lydd. |
| ,, W. L. Gray, M.B. ... ... | Lydd ... ... | Mauritius. |
| ,, G. F. Alexander, M.B. ... | Cork ... ... | Spike Island. |
| ,, C. W. Reilly ... ... ... | Punjab ... ... | Woolwich. |
| ,, E. C. Freeman ... ... | Portsmouth ... | Gosport. |
| ,, J. Girvin ... ... ... | Cork ... ... | Fort Camden. |
| ,, A. J. Luther ... ... ... | Malta ... ... | Crete. |
| ,, H. E. Winter ... ... ... | Bengal ... ... | Dover. |
| ,, G. S. M'Loughlin, M.B. ... | ,, ... ... | Curragh. |
| ,, B. Forde, M.B. ... ... | Londonderry ... | Belfast. |
| ,, C. G. Spencer, M.B.... | Woolwich ... | Bengal. |
| Surg.-Lieut. J. C. B. Statham ... ... | Maryhill ... ... | Piershill. |
| ,, G. B. Riddick... ... ... | Gosport ... ... | Portsmouth. |
| ,, R. W. Clements, M.B. ... | Spike Island ... | Cork. |
| ,, H. Hewetson ... ... ... | Belfast ... ... | Curragh. |
| ,, G. E. F. Stammers ... ... | Aldershot ... | Dublin. |
| ,, C. F. Wanhill ... ... ... | ,, ... | Portsmouth. |
| ,, F. J. Gaine ... ... ... | ,, ... | Woolwich. |
| ,, L. Addams-Williams ... ... | ,, ... | Devonport. |
| ,, E. W. Bliss ... ... ... | ,, ... | Shorncliffe. |
| ,, M. M. Rattray, M.B. ... | ,, ... | Edinburgh. |
| ,, J. H. Power ... ... ... | ,, ... | Chester. |
| ,, R. E. G. Phillips ... ... | ,, ... | Woolwich. |
| ,, T. H. M. Clarke, M.B. ... | ,, ... | Cork. |
| ,, E. W. P. V. Marriott ... | ,, ... | Dover. |
| Quartermaster T. F. Kennedy ... ... | Dublin ... ... | South Africa. |

## INDIAN MEDICAL SERVICE.

Surgeon-Captain F. H. Burton-Brown, M.B., Bengal Establishment, Medical Officer 10th Bengal Infantry, is permitted to resign the service from June 2nd. He was appointed Surgeon-Captain, July 28th, 1891.

Surgeon-Major John Hoey, Madras Establishment, Medical Officer 25th Madras Infantry, died at Calcutta, March 1st. His commission as Surgeon dated from October 31st, 1879; and as Surgeon-Major twelve years thereafter. He was in the Egyptian war of 1882, including the battle of Tel-el-Kebir (medal with clasp, and Khedive's bronze star), and with the Burmese expedition in 1885-89 (medal with two clasps).

### THE VOLUNTEERS.

THE Volunteer Officers' Decoration has been conferred upon the following: Surgeon-Major CHARLES RICHARDSON, 2nd West Riding of Yorkshire (Leeds) Engineers, retired; Surgeon-Lieutenant-Colonel W. R. DAMBRILL DAVIES, 5th Volunteer Battalion the Cheshire Regiment; Brigade-Surgeon-Lieutenant-Colonel EBENEZER SHEDD, 2nd Volunteer Battalion the Essex Regiment; Surgeon-Lieutenant G. L. L. HAWKEN, 2nd Volunteer Battalion the Royal Sussex Regiment, retired; Surgeon-Major JOHN E. SQUIRE, the London Companies Volunteer Medical Staff Corps; Surgeon-Major JAMES A. ADAMS, M.D., 1st Lanarkshire Rifles; Surgeon-Lieutenant ROBERT GRANT, 2nd (Angus) Volunteer Battalion the Black Watch (Royal Highlanders).

Surgeon-Lieutenant D. R. BOWEN, 1st Glamorganshire Artillery, has resigned his commission, May 19th.

Surgeon-Major W. T. WHITMORE, 3rd London Rifles, is promoted to be Surgeon-Lieutenant-Colonel, May 19th.

Surgeon-Lieutenant G. WILLIAMSON, M.B., 1st Volunteer Battalion the Gordon Highlanders, is promoted to be Surgeon-Captain, May 19th.

### ARMY MEDICAL RESERVE.

SURGEON-MAJOR GEORGE HASTINGS, having resigned his Volunteer appointment, ceases to be an officer of Army Medical Reserve, May 11th.

### VOLUNTEER MEDICAL STAFF CORPS.

SURGEON-CAPTAIN A. MACGREGOR, M.D., the Aberdeen Company, has resigned his commission, May 19th.

### MESS ALLOWANCE TO MEDICAL OFFICERS.

IN this month's Army Orders there is a revision of the Allowance Regulations whereby a daily mess allowance (4s.) will be given to the Army Medical Staff when attached to a militia unit during preliminary drill and training. This is a tardy reparation of a crying act of injustice, which has often formed the subject of complaint and comment in these columns. Since the abolition of militia medical officers those of the Medical Staff are often detailed to go into camp with militia units under training. While all other officers are given the mess allowance under such circumstances it has hitherto been refused to the unfortunate medical officer. Such a glaring inequity has now been removed. It was refused only a year ago. The lack of candidates is a great persuader!

### A "COMMEMORATION" SLIGHT.

A CORRESPONDENT draws attention to the fact that from the published lists of the troops to be employed (on police duties) in London at the Jubilee, every branch, combatant and non-combatant, is represented except one—the medical branch. Not even a handful of the Medical Staff Corps is thrown in, as though the "military authorities" were afraid the public might think the Medica Service forms part of the army. It is quite impossible this slight can be countenanced by Her Majesty, who knows nothing about it. It is quite in keeping, however, with the attitude of those who direct military affairs to ignore, as much as they can venture to do, an Army Medical Service.

### FEES FROM VOLUNTEERS.

MEMBER B.M.A. writes: I was asked to furnish a certificate on behalf of a sick volunteer officer unable to attend the annual inspection, and for such claimed a fee. The officer said he was not called upon to pay, and the commanding officer, who required the certificate, also declined. Can you tell me of any regulations bearing on the question?

*** We cannot. If our correspondent is himself a volunteer, then we think he ought to give a brother volunteer such a certificate without charge; if not, then he may decline to give certificates without fee, if so minded. He does not state whether the sick volunteer was a patient of his own; that would also enter into the question of such gratuitous service.

### GOOD (ARMY) DOCTORS.

TIMEO DANAOS writes: We have lately heard from the highest military officials how much "good doctors" are appreciated in the army. Would we could really believe in the sincerity of such an excellent sentiment. But alas, we have heard the same admirable talk any time these forty years back, but only as a pious opinion. The real question is, are such doctors encouraged to enter the army, where we are told they are so highly appreciated? The very opposite. Even if he is "good" when caught, the conditions of service and the treatment he receives do not conduce to maintain his goodness. He finds himself "sweated" at home and abroad, with no opportunity or encouragement to maintain a good standard. There are few or no billets for him should he distinguish himself professionally or otherwise; he must slave on at routine duties. The best efforts he can make are smothered under a dead level standard. He may become an F.R.C.S. or obtain any other professional distinction, but it will not help him in the service a single bit. If a good doctor is a desideratum in the service, whose is the fault? Let the saddle be put on the right horse. A life of worry, denial of leave and status, of moderate pay and heavy expenses, of existence in "furnished lodgings," and no substantial prospects ahead, is not calculated to develop "good doctors" either in the army or out of it.

# MEDICO-LEGAL.

### FEES TO MEDICAL WITNESSES.

AT a recent meeting of the Surrey County Council, Mr. Summerhays said the medical profession in Wimbledon, and he believed medical gentlemen generally, were very much exercised with regard to the question of the payment of fees to medical witnesses. They gave their services voluntarily to local hospitals, and, in the case of an accident terminating fatally, they had to attend and give evidence before the coroner. Oftentimes cases occurred in which a *post-mortem* examination had to be made, and in such cases it was a peculiar hardship that the medical man should be deprived of his fee. He moved that the attention of the Home Secretary be directed to the operation of Section XXII of the Coroners Act of 1887, by which unpaid medical officers were deprived of their fees. Mr. Dowson (North Wimbledon) seconded the motion. Alderman Cave supported the motion, and said the Finance Committee were quite willing to make the payments; but the words of the Act were quite clear on the point. The motion was agreed to.

# MEDICO-PARLIAMENTARY.

*HOUSE OF LORDS.*

THE RICHMOND DISTRICT LUNATIC ASYLUM BILL.

THIS Bill has passed through the House of Lords, with amendments.

INFANT LIFE PROTECTION BILL.

In Committee on this Bill,

Lord BELPER, on Clause 3, which deals with the appointment and powers of inspectors, etc., moved several amendments to make the Act more effectual than existing legislation had proved to be, and to render it enforcible, particularly in country districts, without throwing unreasonable expense on the local authority. According to evidence given before the Select Committee, and also returns made to the Home Office, the present Act was a dead letter in a very large number of places, although it was very efficiently carried out by the county council in London, and in one or two other large towns. As the Bill stood the onus was thrown on the person who took in more than one child for hire or reward to give notice of the fact to the local authority, and he was afraid that in many cases the local authority, if they did not receive such notice, would practically do nothing. Accordingly he proposed to lay it down as a distinct obligation on the local authority that it "should from time to time make inquiry." Under the Bill as it stood, moreover, there was no absolute obligation on the local authority to appoint inspectors, and he proposed that, where it was found there were houses where children were kept, in that case steps should be taken to provide proper inspection either "by appointing inspectors or arranging for the infants being visited by ladies nominated by the local authority and authorised by it in writing to enforce the provisions of this Act." He believed that Boards of Guardians who had visiting committees would have no difficulty in asking such ladies to visit the houses and make an inspection if necessary.—The Earl of DENBIGH thought these amendments moved on behalf of the Home Office were calculated to make the Act more efficacious, and would do away with the reproach which had up to now been very justly levelled against the local authorities in connection with the present law.—The amendments were agreed to, and Clause 3 as amended was ordered to stand part of the Bill. Amendments were also agreed to for the purpose of preventing any person who had been convicted of cruelty to children from keeping even one child for hire or reward. Other amendments having been made, a proposal was accepted substituting the Board of Guardians as the authority under the Bill for the borough or district council.—Lord LEIGH moved to insert a new clause providing that any person retaining or receiving an infant under the age of two years on consideration of a sum of money paid or agreed to be paid down as value for the care and bringing up of the said infant until it was reclaimed or of an age to provide for itself should, within forty-eight hours, give notice of the fact to the local authority. If he did not give the notice, he should be guilty of an offence against this Act, and should, in addition to any other penalty, forfeit the amount of any sum received by him in respect of such infant, and the Court should cause the infant to be removed to a workhouse or place of safety.—The Earl of DENBIGH doubted if convictions could be obtained under the clause, but as the Children's Aid Society and other people considered that the clause might act as a deterrent, he was disposed to accept the clause subject to drafting amendments.—Lord JAMES OF HEREFORD thought the penalty under the clause would fall on the wrong individual or the child, and not on the evildoer, because the money forfeited did not go to the child but to the local authority.—After some discussion the clause was withdrawn on the understanding that it would be moved again on report.—The Bill was ordered to be reported to the House.

CONTAGIOUS DISEASES IN THE ARMY.

The Earl of DUNRAVEN moved: "That in view of the Report of the Departmental Committee of the India Office of February 20th, 1897, it is, in the opinion of this House, urgently necessary that an inquiry be made into the effect of contagious diseases upon the forces of the Crown, the civil population, and the native races within Her Majesty's dominions, and into the nature and results of the measures which are or have been in force in this and other countries for the prevention of such diseases." The noble lord, in the course of a long speech, asked for an inquiry to inform public opinion. He pointed out that in 1887 the admissions to hospitals from venereal diseases were 362 per 1,000. In 1895 they had risen to 537 per 1,000; that was to say that during those eight years the proportion of men on the sick list owing to these causes had increased at the rate of 48 per cent.; and while the cases of disease had risen in number they had also risen enormously in virulence. In 1887 there were 29 per 1,000 suffering from secondary syphilis. That number had been steadily rising until it now amounted to 85 per 1,000. The

returns for 1894 showed that out of a total of 70,000 men in India, 5,421 had been in hospital for secondary diseases during the term of their Indian service, and probably many more were suffering from the same disease who had not been treated in hospital for it. The officials at Netley declared that never had there been so many cases of secondary syphilis in the hospital, nor of so bad a type. Having dealt with the evils attendant upon absorbing into the population at home the large number of men who returned from India diseased, he stated that statistics in England, as compared with those in foreign countries, of the men diseased, were not creditable to us. In round numbers the figures per 1,000 were: in Germany 27, France 44, Russia 43, Austria 65, Italy 71, and British troops in the United Kingdom 204. He complained of the abolition of the cantonment regulations under the resolution of the House of Commons, venereal disease having thereby become privileged and allowed to contract itself out of the Contagious Diseases Act. He was glad the Government had relieved the country of the gross slur upon its common sense and humanity. He was sure that the common sense of the country would sustain the Government in the adoption of energetic measures.

Lord ROBERTS OF KANDAHAR said: The subject brought forward by the noble Earl is one which nobody would willingly discuss in public if he could conscientiously avoid doing so, and I have been most reluctant to take part in this debate. But I recognise so strongly the necessity for measures being adopted to arrest the progress of a great and growing evil—an evil which is sapping the strength of our army and and paralysing many of our best troops—that I feel I should be wanting in my duty to my country and the service to which I have the honour to belong were I to shrink from speaking plainly, or neglect to do whatever lies in my power to make my countrymen understand the culpability of permitting to continue unchecked a horrible disease, so far-reaching in its results that it threatens to seriously injure the health and physique of a large proportion of the population of the United Kingdom. I do not propose to take up your lordships' time by giving detailed statistics of the disastrous effects of this disease upon the British troops in India; the proceedings of the Committee presided over by the Under-Secretary of State for India show how appalling these effects are. I wish merely to draw your attention, my lords, to two facts which completely, I think, prove the fallacy of the assertion that disease in India has not increased since the abolition of a certain Act, and clearly demonstrate the necessity for action being taken without delay to preserve the health and efficiency of British soldiers serving in our Eastern Empire. One of the facts, my lords, which I would bring to your notice, is the extraordinary number of men now being invalided from India suffering from the effects of this loathsome disease, as compared with the numbers invalided from the same cause when the Contagious Diseases Act was in force. In the statement which I hold in my hand the comparison is made out for 1879 and 1880, the two years immediately preceding the relaxation of the regulations framed under the Contagious Diseases Act, and for 1894 and 1895, the two latest years for which returns are available. In 1879 and 1880 the number of British soldiers in India (exclusive of those on service in Afghanistan) were respectively 49,537 and 50 136. During these two years only 126, or less than 0.13 per cent., were invalided to England on account of this special disease. In 1894 and 1895 the number of British soldiers in India were respectively 70,983 and 68,331, of whom a total of no fewer than 648, or nearly 0.5 per cent., were sent home from this same cause. In other words, the proportion of men invalided during the latter period on account of this disease was more than four times as great as it was when the Act was in force. The other fact, my lords, to which I would draw your attention is the number of British soldiers who were found unfit to do their duty during the short time the Chitral Expeditionary force was employed in 1895. That force consisted, in round numbers, of 6,000 British and 11,000 native soldiers. The troops selected were all medically examined before the expedition started, and about 8 per cent. of the British soldiers were weeded out as unfit for service on account of this most horrible form of contagious disease. The force crossed the frontier on April 3rd, and by July 31st, less than four months, 957 British and only 204 native soldiers had been sent back sick to India; and Lieutenant-General Sir Robert Low, commanding the force, reported that this enormous excess of British soldiers was entirely due to contagious disease—not disease contracted locally, for the condition of affairs rendered that an impossibility, but the old disease breaking out afresh in consequence of the hardships and privations of a four months' campaign. In all other respects the British were as healthy as the native soldiers; so, taking the number of natives sent back as normal, the proportion of British should have been 160 instead of 957; or, to put it in plainer language, 797 men, more than 13 per cent. of the British troops engaged, were rendered unfit for their duty as soldiers, and therefore a useless expense to the State, from what the majority of our medical officers call preventable disease. These figures, and those given in Lord Onslow's report, alarming as, I think, my lords, you must consider them, for they show that one-fourth of the 70,000 soldiers serving in India are unable to take the field from contagious disease and its consequent disabilities, cannot be gainsaid. And they further prove how fallacious is the argument urged by the opponents of the Contagious Diseases Act, that the protective regulations enforced under that Act failed to mitigate the evil which caused them to be introduced. I know, my lords, that those regulations did not work all the good that was hoped for, but this was not the fault of the regulations, but of the half-hearted manner in which they were applied. So apathetically were they brought into force that although the Cantonment Act which legalised the regulations was passed in 1864, it was not until 1860, five years later, that Fort William and its environs were protected, although this is certainly the station most in need of precautionary measures on account of its immediate proximity to the city of Calcutta. Up to the last, twelve military stations in Bengal were left unprotected, and at three of those stations in 1879 the number of admissions to hospital from contagious disease actually rose to upwards of 700 per 1,000 men. I think, my lords, you must agree with me that it speaks well for the beneficial results of the Act that, notwithstanding these astounding figures were included in the total number of registered cases during the year, the proportion of men invalided was, as I have already shown, four times greater in 1894 and 1895 than it was in 1879 and 1880. The truth is, my lords, the Contagious Diseases Act was never given a fair trial in India. It was not believed in by the authority responsible to the Government of India for its being properly carried out, and, in consequence, no attempt was ever made to investigate the working of the Act, or to ascertain what cases of disease were contracted within the area to which the Act applied, and what cases were contracted outside that area; so that, even if every station in India had been brought within the scope of the Act, the good really done by the Act could not have been correctly appreciated from the figures furnished by the sanitary commissioner. Tables prepared from such unreliable data were bound to bring the Act into disrepute, and to strengthen the arguments of those who were, and are still, opposed to its introduction. Then, again, my lords, the Act was administered in some places with zeal and intelligence by medical officers, in others it was carried on in a very perfunctory manner. When visiting lock hospitals I invariably found that success was complete when the medical officer in charge took an interest in his work, and satisfied himself that those who came for treatment were properly looked after. The disease under such auspices diminished rapidly, and at one station, where it had been extremely prevalent, it was almost entirely stamped out owing to the exertions of the medical officer. I am well aware, my lords, that those who are opposed to the enforcement of the Contagious Diseases Act contend that direct interference is adverse to morality, and that, in all justice, the sinner should be allowed to reap the punishment of his sin. Although to my mind this is not a very Christian doctrine, I can understand and respect the horror of wrong doing of which it is the outcome, provided the punishment could be confined to the sinner himself; but what I cannot understand is how anyone can think it right to take no measures to prevent the spread of an evil which involves disease and misery on innocent women and children, and which must seriously injure equally innocent generations in the future. In my opinion it is as bad, or worse, than it would be to allow a mad dog to bite as many people as he felt inclined, or to permit a person known to have small-pox or diphtheria to mix freely with people in health. I say worse, because the evil in such cases might, at all events, be limited to those bitten or infected; while, in the other, it is impossible to calculate how far-reaching will be the deadly results of neglecting to take precautions. My lords, we have to deal with human nature, and, in considering the question at issue, we must not lose sight of the fact that, year by year, several thousand young men—mere boys indeed—freed from all moral restraint, arrive in India and are at once subject to great and peculiar temptations. For many months of the year they are necessarily kept within barracks from sunrise to sunset, only to emerge when darkness, which comes on so rapidly in the east, prohibits anything in the shape of such healthy recreation as outdoor games. A great deal has been done of late years by the Government of India to enable the men to amuse themselves in a rational manner, by providing comfortable and attractive reading rooms, coffee shops, etc. These regimental institutes, as they are called, have helped materially to raise the tone of our soldiers and to reduce crime, especially drunkenness, but they seem to have had, I regret to say, but little effect in preventing contagious disease, which, though it might have assumed still more gigantic proportions had these counter attractions not been provided, has, notwithstanding all that has been done in this direction, gone on steadily increasing, as your lordships will perceive from Lord Onslow's Committee report. Other and more direct measures should now be resorted to. The disease under consideration ought to be treated as all other contagious diseases are treated. It is even more essential that precautionary measures should be adopted in regard to it than to any other disease, for, as stated in the report of the Royal College of Physicians, dated the 23rd March last, "the constitutional form of the disease is one of the most serious, insidious, and lasting of all the contagious diseases that afflict humanity." When it is prevalent there should be periodical examinations of all unmarried soldiers during their first period of service, and of older soldiers, if thought necessary, and any infringement of the order requiring men to report themselves on the first sign of becoming affected should be severely punished. There ought to be no doubt as to the intention of these orders in the Army Regulations, for I am afraid that they are now frequently lost sight of, and the importance of strictly enforcing them is not thoroughly appreciated. With regard to women, I would leave the matter in the hands of the Government of India on the distinct understanding, as stated in the Secretary of State's despatch, that "there must be nothing which can be represented as an encouragement to vice." In the interests of morality, and to protect as far as is possible young soldiers from temptation, women professedly belonging to a certain class should be forbidden to reside in regimental bazaars, or follow regiments on the line of march. And in every military station all women, professionals or otherwise, known to have communicated disease to any soldier should be obliged to submit to medical treatment and subsequent periodical examinations, or to quit the station and its immediate neighbourhood. Each case of expulsion should be carried out in communication with the local civil authorities, who will, I trust, be empowered to take such further action as may be considered necessary for the protection of the community at large. To limit the Contagious Diseases Act (or whatever regulations the Government of India may think proper to introduce) to cantonments and to exclude the neighbouring cities and towns would, in my opinion, be altogether insufficient, and would certainly not get at the root of the evil. There must, of course, be some punishment such as fine or imprisonment for disobedience of orders, but my belief is that it would seldom have to be enforced if the women are kindly treated in the Government hospitals. The employment of women as coolies in the construction and repairs of barracks should be discouraged, but where this kind of labour is unavoidable, special precautions should be taken by means of civil and regimental police. These are surely only reasonable preventative measures in the enforcement of which there should be little difficulty, for the calling of every person in a cantonment in India is well known. Boundary pillars mark off the space set apart for the soldiers' barracks, parade ground, and officers' quarters, and within these limits at any rate it is our bounden duty to protect the health of our soldiers, who, we must remember, are cut off from the pleasures and enjoyments of home life, and are compelled to live as single men for a certain number of years. If there is reason to suspect that the disease is contracted outside the cantonment limits, the country round should be put out of bounds, and

the number of men on duty as regimental police should be increased until matters improve. I have myself found this an effective way of checking the spread of this terrible scourge. I believe that much valuable assistance might be afforded by military chaplains if they would interest themselves in the matter. An excellent example has been set by the Rev. John Crauford, a Presbyterian clergyman at Meerut, who, a few years ago, established a "Purity Society" at that station for the benefit of soldiers, many of whom joined it, with the happiest results both as regards health and conduct. Something also might be gained by warning young and inexperienced soldiers, on first arrival in India, of the aggravated effects of immorality in such a climate, and its appalling results as can be seen at Netley Hospital. I am certain, too, that medical officers would be able to do a great deal towards the desired end if they were brought into closer communication with troops than they are at present. They never now see or know the men as they did formerly except those who come to them for treatment in hospital; and the cordial intercourse which used to exist between the combatant and medical officers, and which was so conducive to good fellowship and to the general health of the army, is, unfortunately, a thing of the past. I trust, my lords, I have not wearied you. My excuse for taking up so much of your time is that the efficiency of the army and the moral and material well-being of the soldiers I love so well are at stake. I beg you, my lords, to give this painful subject your most careful consideration, and I earnestly hope that the British public may be induced to look upon it from a wise and prudent, as well as from a merciful and Christian point of view.

The Archbishop of CANTERBURY expressed a hope that the subject would be considered on its moral as well as its physical aspect, the latter being only the symptom and not the root of the evil. He believed that those who had brought the subject forward had done no more than their duty, and trusted that steps would be taken to raise the whole tone of the Army.

The Earl of ONSLOW hoped the question would not be pressed. He considered that the time for inquiry was past, and that the time for action had arrived. The draft regulations sent home by the Viceroy of India would be carefully considered by the Secretary of State, and he believed that the measures which would be at once taken by the Government both in India and in this country would be those most likely to attain the desired subject.

Lord REAY said that lunatics, lepers, and habitual drunkards were segregated, and he saw no reason why the same principles should not be applied in this case. The progress of medicine had provided effectual means of dealing with venereal disease, and the object of the legislation proposed in the Secretary of State's despatch was to leave no excuse to anyone to neglect the remedies which were available. He trusted that one of the first measures would be the reopening of the hospitals, and that access to them would be rendered as easy as possible. The evidence contained in the papers laid on the table was overwhelming, and if anything more was required he thought it could be found in the advice tendered by the Colleges of Physicians and Surgeons that immediate action was necessary.

Lord LISTER, who addressed their lordships for the first time, was cordially cheered. He said there was no necessity for him to add evidence as to the appalling gravity of the subject of syphilitic disease, or as to its far-reaching effects, not only to those contracting it, but also to innocent women and children in future generations. There was no more difficult thing to do than to advise a man who had once contracted this disease as to when it was safe for him to enter into matrimony. He cordially welcomed the action now taken by the Secretary of State to prevent venereal disease any longer being allowed to run riot in the army in India, and to treat it on the same principles as other contagious or infectious diseases. However, he could not help thinking that the action now determined upon was hampered with restrictions which would seriously interfere with its utility. There was to be no compulsory examination of women, and the despatch laid down that the rules in operation against other infectious or contagious diseases should be applied to venereal disease. In the case, say, of small-pox the operation of these rules was satisfactory, because there was abundant evidence of the disease discernible by any medical man. But with regard to venereal disease the case was totally different. In its earlier stages—and efficient treatment depended upon its early recognition—the person suffering from it appeared to all ordinary examination healthy, and it was only by special examination that evidence of its existence could be obtained. Under these circumstances how could the requisite notice be given that a person had such a disease? It was the fact of prostitution, not evidence of venereal disease, on which the authorities must proceed. If the construction to be put upon the despatch of the Secretary of State was that the mere fact of prostitution must be regarded as reasonable probability of the existence of the disease, his objection would, of course, fall to the ground. He saw no objection in principle to the Contagious Diseases Acts. Prostitution was not in itself criminal, but if a woman placed herself in the position of being a danger to the community public steps should be taken to minimise that danger. As a surgeon he knew how very wholesome a moral influence residence in a hospital brought to bear upon the humbler classes. An accident was to some a blessing in disguise, for through it they first learnt what respect and gratitude meant, and he was proud to say that the same humane and kindly care was given by the medical profession to the most degraded as to the most exalted. He was pleased beyond measure to hear Lord Roberts say that without anything that could be fairly construed as an encouragement of vice, measures might be taken in the cantonments which would enormously diminish the evil of which they were speaking. He trusted that, whether inquiry were instituted or not, the House would give distinct encouragement to the Government of India to persevere in the good and Christian course on which they had entered.

Lord PLAYFAIR feared they were behind other nations in regard to hygienic measures. It was not the case that the moral tone of the Indian army had been lowered, but moral agencies were ineffective alone to combat this fearful disease.

The Duke of CAMBRIDGE said that none but those intimately acquainted with the army could gauge the miserable effects of repealing the former regulations, or the evils brought upon the civil population to whom the disease was communicated by men returned from India. Not an hour should be lost in adopting the most stringent measures to end the present cruel state of things. He could not see why enforced measures such as were formerly used should not be taken for its discovery—the necessary preliminary to preventive or curative treatment. He trusted that the Government would not only enforce strictly the regulations now laid down, but would, if necessary, add to their strength.

The Bishop of SOUTHWELL appealed strongly against the revival of the Acts themselves, but gave hearty support to proposals for hygienic reform.

The Marquis of LANSDOWNE said that the Government only accepted the policy embodied in the despatch of the Secretary of State for India, but admitted that it ought to be applied to the army as a whole wherever stationed. Lord Lister had, he said, expressed a fear lest the new regulations might not go far enough, but similar rules were enforced not long ago in India, and would have probably proved successful had they not been repealed. It was the duty of the Government to mitigate this evil, and also to consider the effect of the present state of things in the Indian army upon the civil population at home. Only 5,000 out of the 30,000 soldiers who returned from India every year were entirely free from this disease. The present state of the law in India was intolerable, because the same regulations were not applied to this as to other diseases. He did not consider that further inquiry was necessary, there being no difference of opinion as to the facts or as to the direction in which they should look for a remedy. As to the moral side of the question, he believed that commanding officers were most anxious to raise the moral tone of the men, and he had every hope that the efforts now being made would be successful in raising the moral standard of the men in the army.

The Earl of KIMBERLEY entirely concurred in the steps proposed to be taken by Her Majesty's Government, but he hoped they would not be disappointed if they did not have all the effect which was desired. If they were not found to be entirely successful he trusted they would take measures still more stringent. It was a matter they could not afford to temporise with. It might be said that if they checked disease they would take away an incentive to morality, but experience showed that disease did not prevent vice.

After a few words from Lord CLARINA, the Earl of DUNRAVEN withdrew his motion and the subject dropped.

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## *HOUSE OF COMMONS.*

### THE POOR-LAW OFFICERS SUPERANNUATION ACT (1896) AMENDMENT BILL.

THIS Bill was read a second time.

### THE HEALTH OF BRITISH TROOPS IN INDIA.

MR. STUART-WORTLEY asked the Secretary for India whether he had received any representative memorials or petitions from the general public on the subject of the proposals contained in his despatch of March 26th, 1897, for improving the health of the British troops in India; and if so, whether he has any objection to make them public?—LORD G. HAMILTON: I have received only two memorials which can be held to be representative of general public opinion on the subject of my despatch of March 26th, 1897, regarding the health of the British troops in India, and I have no objection to make them public. A few memorials have also been received from local meetings and societies, embodying protests against the action taken by Her Majesty's Government.

### REFORMATORIES FOR INEBRIATES.

Dr. FARQUHARSON asked the First Lord of the Treasury whether it was his intention to introduce, during the present session, the Bill for the establishment of reformatories for inebriates, mentioned in the Queen's Speech; and, if he did so, whether he would include in it arrangements for the reception of habitual offenders in labour settlements, as recommended in the Departmental Committee (1895) on Habitual Offenders, Vagrants, Beggars, Inebriates, and Juvenile Delinquents (Scotland), and the report from the Departmental Committee on Prisons (1895)?—Mr. BALFOUR: No, Sir, I do not think there is any probability of the Home Secretary being able to introduce such a Bill during the present session.—Dr. FARQUHARSON: If the right honourable gentleman cannot find time to introduce the Bill in this House, can he follow the precedent of the Private Bill Legislation (Scotland) Bill, and introduce it in another place where there is plenty of leisure?—Mr. BALFOUR:—I will consult the Home Secretary.

### THE REPORT ON VACCINATION.

Sir SEYMOUR KING asked the President of the Local Government Board if he would explain why a considerable part of the evidence and several of the special reports on which the final report of the Royal Commission on Vaccination was based had not yet been published; and when this evidence and these special reports would be issued.—Mr. CHAPLIN: I have made inquiry, but have not received any information beyond that I have already communicated to the House.

### NOTIFICATION OF INFECTIOUS DISEASES.

Sir JOHN BRUNNER asked the President of the Local Government Board how many local authorities had adopted the Notification of Infectious Diseases Act, and what proportion that number was of the whole number empowered to adopt it.—Mr. CHAPLIN: Excluding London, where the notification of infectious disease is compulsory under the Public Health (London) Act, 1891, the Local Government Board have, up to May 11th, 1897, received information of the adoption of the Infectious Disease (Notification) Act, 1889, in 654 rural districts out of a total of 671 rural districts, and in 904 urban districts out of 1,088 urban districts. But in 49 of the 184 urban districts where the Act of 1889 has not been adopted, the notification of infectious disease is compulsory under provisions in local Acts.

### THE SALE OF FOOD AND DRUGS ACT.

Mr. JEFFREYS asked the First Lord of the Treasury if he could state when he would introduce the promised Bill for the amendment of the Sale of Food and Drugs Act.—Mr. BALFOUR: I have been in consultation

with my right hon. friend the President of the Local Government Board on this subject, and I am afraid I cannot fix a day at present.

THE MIDWIVES REGISTRATION BILL.

Mr. LOUGH (for Mr. HAZELL) asked the First Lord of the Treasury whether his attention had been called to the Midwives' Registration Bill now waiting its second reading in this house; whether he was aware that the Bill carried out the unanimous recommendations of the Select Committee of the House of Commons on the subject, and that Bills with this object had been introduced time after time into Parliament, but that they had been dropped through failure to secure Parliamentary time; and whether, in view of the large amount of mortality and widespread suffering both of mothers and of infants which the Committee reported, the Government would give time during the present session for the discussion of the Bill now before the House; and, if this were not possible, whether they could hold out hope of its being made a Government measure next session.—Mr. BALFOUR: The hon. gentleman asks me to give special facilities for the discussion of a private member's Bill. Without expressing any opinion upon the merits of the measure, I think the House will see that it is a course to which the Government cannot consent.

THE UNIVERSITY OF LONDON BILL.

Mr. BRYNMOR JONES asked the First Lord of the Treasury whether it was the intention of the Government to reintroduce the University of London Bill this session; and, if so, when?—Mr. BALFOUR: The Lord President of the Council informs me that he hopes to introduce the Bill in the House of Lords shortly. There is some reason to expect that the difficulty which prevented its passing last year may be removed. Certain negotiations are going on with that object, but I am unable at present to speak with certainty on the subject.

THE MEDICAL DEPARTMENT OF THE BRIGADE OF GUARDS.

Dr. FARQUHARSON: I beg to ask the Under-Secretary of State for War whether he is aware that the Medical Department of the Brigade of Foot Guards is shorthanded, and that much difficulty is experienced in filling vacancies in consequence of insecurity of tenure and the expense of living in London; whether an official application was lately made by the commanding officers of the three regiments of Foot Guards for a return to the regimental system; and whether the War Office is prepared to give sympathetic consideration to this request?—Mr. BRODRICK: There is at present one vacancy on the medical establishment of the Foot Guards. Appointments are made from medical officers who volunteer for the service; and, as the appointments are for a fixed term of five years, there is no insecurity of tenure. The officers commanding the regiments did recently suggest a return to the old regimental system, but, under the existing system, no difficulty has hitherto been experienced in finding candidates for the appointments.

THE WATER SUPPLY OF LONDON.

Mr. HARRY SAMUEL asked the President of the Local Government Board whether the Royal Commission on the Water Supply of London had yet commenced its inquiry; if not, whether he could state what were the reasons for the delay, and when it was expected the inquiry would begin.—Mr. CHAPLIN: The Royal Warrant for the appointment of the Commission was issued on May 6th. The question of accommodating the Commission has not been finally settled; but when it is the Commissioners will hold a meeting.—Mr. SAMUEL also asked whether, in view of the satisfactory progress in public business, the President of the Local Government Board was now in a position to fix the date when he would introduce the Bill for the benefit of the water consumers of the metropolis.—Mr. CHAPLIN: I have had no opportunity of consulting the Leader of the House since the question was put on the paper. I cannot state the exact day when the Bill will be brought in, but it will be introduced shortly.

LOCK HOSPITALS.

In reply to Mr. JEFFREYS, Mr. BRODRICK said: There is not now at Aldershot a lock hospital under military control, but the Government subscribes to a certain number of beds in the Hartley Wintney and Farnham Union. A resolution from the committee of the hospital of the union has been received by the Secretary of State. While sympathising with the object of the resolution, the Secretary of State for War has no power to make regulations for the treatment of patients in union hospitals.—Mr. JEFFREYS: May I ask if the right hon. gentleman is not aware that there is a voluntary lock hospital at Aldershot now where there are a number of soldier patients?—Mr. BRODRICK: I understood the question to refer to union hospitals. As to voluntary hospitals, the Secretary of State has no power to use them except as voluntary hospitals.

ARMY SURGEONS.

Dr. FARQUHARSON: I beg to ask the Under-Secretary of State for War, in view of the fact that in 1879 the War Office agreed to the issue of a warrant sanctioning the formation of a Royal Corps of Army Surgeons, whether he can state the reasons why legislative effect was not given to this recommendation; and whether the present War Office is prepared to follow the example of its predecessor.—Mr. BRODRICK: A proposal to constitute the medical officers a corps of Royal Army Surgeons was made and considered in 1879, but was not adopted. I have explained already the reasons which make the Secretary of State unwilling to reopen the question.

THE MUZZLING ORDER.—The Board of Agriculture have issued muzzling orders affecting the greater part of the West Riding of Yorkshire, the whole of the county of Brecon, and certain districts in the counties of Monmouth, and Radnor. The orders come into effect on June 8th.

THE COUNTESS OF GERDERNE-EGMONT, a descendant of the celebrated Count Egmont, has recently passed the final examination for the degree of Doctor of Medicine at the University of Zurich. The Countess is said to be enthusiastically devoted to the profession which she has adopted.

# UNIVERSITIES AND COLLEGES.

## WOMEN'S DEGREES AT CAMBRIDGE.

OUR Cambridge correspondent writes: The tide of opposition to the proposals of the Women's Syndicate has risen steadily since last week, and though the result of the voting in the Senate will not be declared until Friday evening (May 21st), after you have gone to press, the omens point to the rejection of the Graces. Four influential supporters of the scheme for titular degrees, Professor Ryle, President of Queens' College; Mr. J. W. Clark, Registrary; Mr. Roberts and Mr. Mollison, senior tutors of Caius and Clare Colleges respectively, who a few days ago were put forward in the newspapers as men to be "weighed" against the "numerical majority" of hostile residents, have dealt the movement a crushing blow by publicly announcing their reluctant change of view. They now urge the rejection of the proposals on the ground that a victory at the present moment would be worse than a defeat for the cause of women's education. "The removal of a grievance which, after all, has pressed upon a comparatively small number of persons, can be bought at too high a price, when considerably more than half of the resident members of the Senate are known to be bitterly opposed to the measure, and would view it, if carried, as a grave betrayal of trust." They "hope before long for a solution of the problem with which the Syndicate had to deal, in which the Universities of Oxford and Cambridge may act together." This is, indeed, the general hope in Cambridge, but it is a widespread conviction that until the present scheme is set aside, nothing effective in such a direction can be looked for.

DEGREES.—At the Congregation on May 13th, the following medical and surgical degrees were conferred:

*M.D.*—T. A. Bowes, B.A., M.B., B.C., Caius.
*M.B.*—C. F. Lillie, B.A., B.C., St. John's.
*M.B. and B.C.*—F. H. Blatchford, B.A., Sydney.

## GLASGOW UNIVERSITY.

JAMES F. GEMMELL, M.A., M.B., C.M., one of Professor Cleland's assistants, has just been appointed to the recently-instituted lectureship on Embryology in the University.

## ROYAL UNIVERSITY OF IRELAND.

WE have received the Calendar of the Royal University of Ireland for the year 1897. It is published in Dublin by Alex. Thom and Co., and in London by Longmans, Green, and Co. The examination papers are issued in a separate volume as a supplement to the University Calendar.

M.B., B.CH., B.A.O. DEGREES EXAMINATION.—The Examiners have recommended that the following candidates be adjudged to have passed the undermentioned examinations respectively:

*Upper Pass.*—J. G. Corry, Queen's College, Galway, and University of Edinburgh; J. F. Keenan, B.A., Catholic University School of Medicine, and School of Medicine, Edinburgh; *A. L. McCully, Queen's College, Belfast; G. J. Maguire, Queen's College, Belfast; *A. W. Montgomery, B.A., Queen's College, Galway; *W. B. Robertson, M.A., Queen's College, Belfast; *L. Robinson, Catholic University School of Medicine; G. C. Welply, Queen's College, Cork.

Those marked with an asterisk may present themselves for the Further Examination for Honours.

*Pass Division.*—J. McA. Boyd, B.A., Queen's Colleges, Belfast and Cork; W. Calwell, Queen's College, Belfast; E. O. B. Carbery, Queen's College, Galway; H. Currell, Queen's College, Belfast; R. P. Farnan, Catholic University School of Medicine; T. H. Gloster, B.A., Queen's College, Cork; P. J. Hamilton, Catholic University School of Medicine; J. Harvey, Queen's College, Belfast; D. Henry, Queen's College, Belfast; J. Johnston, Queen's College, Belfast; T. A. Kelleher, Queen's College, Cork; J. J. Kinsella, Catholic University School of Medicine; J. H. McComb, Queen's College, Belfast; E. McDonald, Catholic University School of Medicine; J. J. A. G. McMurtry, Queen's College, Belfast; M. Moran, Queen's College, Galway, and Edinburgh University; J. P. J. Murphy, Queen's College, Cork; R. J. Murray, Catholic University School of Medicine; H. Paterson, Queen's College, Cork; W. Porter, Queen's College, Belfast; G. Ross, B.A., Queen's College, Cork; W. S. Shaw, Queen's College, Cork; J. H. Stewart, Queen's College, Belfast; H. Turkington, Queen's College, Belfast; R. T. Young, Queen's College, Cork.

M.D. DEGREE EXAMINATION.—The following have passed this examination:

N. Morton, M.B., Royal Infirmary, Glasgow; J. Priestley, Guy's Hospital.

## UNIVERSITY OF DURHAM COLLEGE OF MEDICINE.

HEATH SCHOLARSHIP.—The subject of the essay for this scholarship, which was originally announced to Deformities, Congenital and Acquired, has now been limited to Congenital Deformities.

## ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

R. T. SMITH, B.A., M.D., Univ. Dubl., has been admitted to the Licence in Medicine; and T. M. Clayton, M.B., Univ. Durh. to the Licence in Midwifery.

### QUEEN'S COLLEGE, GALWAY.

WE have received the Calendar for 1896-7 of Queen's College, Galway. It is printed at the Dublin University Press, and contains the usual information as to the College and its courses, particulars as to the mode of entering the various professions, and a set of examination papers for various scholarships.

### ROYAL COLLEGE OF SURGEONS OF ENGLAND.

FIRST PROFESSIONAL EXAMINATION FOR THE DIPLOMA OF FELLOW.—The following candidates have passed this examination:

A. W. Nuthall, M.R.C.S.Eng., L.R.C.P.Lond., Mason College, Birmingham, and St. Bartholomew's Hospital; J. Moreton, B.Sc.Vict.Univ., Owens College, Manchester; W. Billington and H. E. Brawn, Mason College, Birmingham; H. M. Fletcher, University College, Liverpool; W. B. Stokes, M.R.C.P.Lond., M.D.T.C.D., Trinity College, Dublin, and St. George's Hospital; H. J. Paterson, M.R.C.S.Eng., L.R.C.P.Lond., M.B., B.C.Cantab., and L. C. P. Phillips, M.R.C.S. Eng., L.R.C.P.Lond., M.B., B.C.Cantab., Cambridge University and St. Bartholomew's Hospital; G. C. Hayes, M.R.C.S.Eng., L.R.C.P. Eng., Melbourne University and King's College Hospital; D. D. Wright, M.R.C.S.Eng., L.R.C.P.Lond., University College Hospital; E. H. Freeland, M.R.C.S.Eng., L.R.C.P.Lond., L.S.A., Middlesex Hospital; F. Barnes and J. Bradley, Mason College, Birmingham; W. J. Porter, Charing Cross Hospital; G. S. Simpson, L.D.S.Eng., Guy's Hospital; F. F. Elwes, Middlesex Hospital; E. L. Lilley, Charing Cross Hospital; A. J. Rodocanachi, M.D., B.S.Lond., M.R.C.S.Eng., L.R.C.P.Lond., University College Hospital; A. R. J. Douglas, M.R.C.S.Eng., L.R.C.P.Lond., M.B., B.S.Lond., and F. C. Borrow, St. Bartholomew's Hospital; H. J. Phillips, St. Thomas's Hospital; C. T. Hilton, Guy's Hospital; J. J. Evans, M.B.Edin., M.R.C.S.Eng., L.R.C.P.Lond., Edinburgh University and Mason College, Birmingham; T. A. Mayo, B.A.Cantab., Cambridge University and St. Bartholomew's Hospital; W. B. Secretan, Guy's Hospital; J. F. Northcott, B.A.Cantab., Cambridge University and Guy's Hospital; P. L. Daniel, Charing Cross Hospital; S. R. Scott, St. Bartholomew's Hospital; J. Morrison, M.D.Lond., M.R.C.S.Eng., L.R.C.P.Lond., St. Bartholomew's Hospital; B. Dyball, M.R.C.S.Eng., L.R.C.P.Lond.; W. A. Bowring, M.R.C.S.Eng., L.R.C.P.Lond.; J. L. Prain, M.R.C.S.Eng., L.R.C.P.Lond., St. Thomas's Hospital; and P. Gabell, M.R.C.S.Eng., L.R.C.P.Lond., L.D.S.Eng., Charing Cross Hospital.

Of the total number of candidates examined at this examination (113), 33 passed and 80 were referred, or nearly 71 per cent.

The following are the arrangements for the Final Examination for the Diploma of Fellow, for which 46 gentlemen have entered their names, namely:

At Examination Hall.

| | | | |
|---|---|---|---|
| Monday, May 24th | ... Written Examination | ... | 1.30 to 5.30 |
| Tuesday, May 25th | ... Clinical Examination | ... | 2.30 to about 6.30 |
| Wednesday, May 26th | ... Operations ... ... | ... | 1.30 to about 6 |
| Thursday, May 27th | ... Surgical Anatomy ... | ... | 2 to 4.15 |

At Royal College of Surgeons.

| | | | |
|---|---|---|---|
| Friday, May 28th ... | ... Pathology, *viva voce* | ... | 5 to about 7.30 |
| Saturday, May 29th | ... Pathology, *viva voce* | ... | 5 to about 7. |

All candidates will be required to attend on the first four days and on Friday or Saturday.

# PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

### HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,332 births and 3,469 deaths were registered during the week ending Saturday last, May 15th. The annual rate of mortality in these towns, which had declined from 18.8 to 17.0 per 1,000 in the three preceding weeks, further fell to 16.5 last week. The rates in the several towns ranged from 10.4 in Swansea, 11.3 in Huddersfield, 11.6 in Croydon, and 12.0 in Brighton and in Leicester to 21.2 in Derby and in Liverpool, 22.0 in Sunderland, 22.3 in Manchester, and 23.0 in Salford. In the thirty-two provincial towns the mean death-rate was 17.1 per 1,000, and exceeded by 1.5 the rate recorded in London, which was only 15.6 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.6 per 1,000; in London the rate was equal to 1.5 per 1,000, while it averaged 1.7 in the thirty-two provincial towns, among which the highest zymotic rates were 2.9 in Sunderland, 3.0 in Manchester, 3.9 in Burnley, and 4.2 in Salford. Measles caused a death-rate of 1.5 in Sunderland, 1.7 in Bolton and in Manchester, and 3.2 in Salford; and whooping-cough of 1.2 in Blackburn, 1.4 in Oldham, 2.0 in Burnley, and 2.1 in Plymouth. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 56 deaths from diphtheria in the thirty-three towns included 42 in London, and 2 each in West Ham, Cardiff, Birmingham, Liverpool, and Sheffield. No fatal case of small-pox was registered during the week, either in London or in any of the thirty-two large provincial towns. There were 15 cases of small-pox under treatment in the Metropolitan Asylums Hospitals on Saturday last, May 15th, against 7, 12, and 11 at the end of the three preceding weeks; 6 new cases were admitted during the week, against 6 and 3 in the two preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 2,380 and 2,385 at the end of the two preceding weeks, had further increased to 2,416 on Saturday last: 239 new cases were admitted during the week, against 269, 223, and 231 in the three preceding weeks.

### HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, May 15th, 929 births and 620 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 22.6 to 20.7 per 1,000 in the three preceding weeks, was 20.8 last week, and exceeded by 4.3 per 1,000 the mean rate during the same period in the thirty-three large English towns. The lowest rates in the eight Scotch towns were 13.6 in Perth and 16.6 in Aberdeen, and the highest rates 21.4 in Glasgow and in Leith, and 23.7 in Edinburgh. The zymotic death-rate in these towns averaged 3.4 per 1,000, the highest rates being recorded in Leith and Edinburgh. The 294 deaths registered last week in Glasgow included 16 from measles, 4 from scarlet fever, 4 from diphtheria, 12 from whooping-cough, and 15 from diarrhœa. Twenty-one fatal cases of measles and 13 of whooping-cough were recorded in Edinburgh.

### THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

THE Registrar-General has just issued his return relating to the births and deaths registered in England and Wales during the first or winter quarter of this year, and to the marriages during the three months ending December last. The marriage-rate was equal to 17.7 per 1,000 of the population, and slightly exceeded the rate recorded in the corresponding quarters of the ten preceding years.

The births registered in England and Wales during the three months ending March last numbered 235,711, and were equal to an annual rate of 30.8 per 1,000 of the population, estimated by the Registrar-General to be rather more than thirty-one millions in the middle of this year. This rate was 0.5 per 1,000 below the mean rate in the corresponding periods of the ten preceding years, but considerably exceeded the very low rate recorded in the first quarter of last year. The birth-rates in the several counties ranged from 24.2 in Sussex, 24.4 in Westmorland, and 24.5 in Rutlandshire to 34.5 in Durham, 34.7 in South Wales, 36.4 in Monmouthshire, and 36.5 in Staffordshire. In thirty-three of the largest English towns, including London, the birth-rate last quarter averaged 31.7 per 1,000, and exceeded by 0.9 per 1,000 the general English rate. In London the birth-rate was 31.1 per 1,000, while it averaged 32.1 in the thirty-two large provincial towns, among which it ranged from 20.8 in Huddersfield, 21.0 in Halifax, and 24.7 in Brighton, to 36.6 in Liverpool, 36.7 in Gateshead, 37.1 in Wolverhampton, and 37.9 in Salford.

The births registered in England and Wales during the quarter ending March last exceeded the deaths by 92,081; this represents the natural increase of the population during that period. It appears from returns issued by the Board of Trade that 34,267 emigrants embarked during last quarter, for places outside Europe, from the various ports of the United Kingdom at which emigration officers are stationed. Of these, 18,111 were English, 2,414 Scotch, 3,492 Irish, and 10,250 were of foreign origin. Compared with the averages in the corresponding periods of recent years, the proportion of English and Irish emigrants showed a decline, while that of Scotch emigrants showed an increase.

During the first quarter of the current year the deaths of 143,630 persons were registered in England and Wales, equal to an annual rate of 18.8 per 1,000 of the estimated population; this rate was, with one exception, below that in the corresponding period of any year on record, and was 2.5 per 1,000 below the average rate in the first quarters of the ten preceding years. The lowest county death-rates last quarter were 13.1 in Middlesex, 14.5 in Surrey, 15.3 in Essex, and 15.6 in Kent and in Sussex; while the highest rates were 21.4 in Staffordshire, 22.2 in Shropshire, 22.7 in North Wales, and 22.9 in Herefordshire. In the urban population of England and Wales, estimated at rather more than twenty-one millions, the rate of mortality during the quarter under notice was equal to 18.9 per 1,000; while in the remaining and chiefly rural population of nearly ten millions the rate was 18.4 per 1,000. These rates were respectively 2.9 and 1.9 per 1,000 below the average rates in the corresponding quarters of the ten preceding years. Among thirty-three of the largest English towns the mean death-rate was 19.2 per 1,000, or 0.4 per 1,000 in excess of the death-rate in the whole country. In London the rate was 18.4 per 1,000, while it averaged 19.8 in the thirty-two large provincial towns, among which the rates ranged from 13.6 in Croydon, 14.9 in West Ham, 15.3 in Brighton, and 16.0 in Derby, to 22.5 in Bolton, 23.1 in Salford, 23.5 in Manchester, and 23.9 in Liverpool. In sixty-seven other large towns, with an estimated aggregate population of about three and a half millions, the mean death-rate was 18.2 per 1,000, and 1.0 per 1,000 below the rate in the thirty-three large towns.

The 143,630 deaths from all causes registered in England and Wales during the three months ending March last included 3,809 which resulted from whooping-cough, 2,562 from measles, 2,084 from diphtheria, 1,390 from diarrhœa, 1,040 from scarlet fever, 918 from "fever" (including typhus, enteric, and ill-defined forms of continued fever), and 16 from small-pox; in all, 11,828 deaths were referred to these principal zymotic diseases, equal to an annual rate of 1.54 per 1,000, against an average rate of 1.75 in the corresponding quarters of the ten preceding years. The mortality from diphtheria showed an excess last quarter, but that from each of the other principal zymotic diseases was below the average. Only 16 fatal cases of small-pox were recorded in England and Wales during the quarter under notice, of which 12 occurred in London, and 1 each in the registration districts of Dartford, Redruth, Dewsbury, and Bridgend.

The rate of infant mortality in England and Wales last quarter, or the proportion of deaths under 1 year of age to registered births, was equal to 141 per 1,000, and was slightly below the mean proportion in the corresponding periods of the ten preceding years. In London the rate of infant mortality was 128 per 1,000, while it averaged 147 in the thirty-two provincial towns, among which it ranged from 107 in Croydon, 109 in Birkenhead, 121 in Derby, and 122 in Brighton and in Huddersfield, to 167 in Preston, 175 in Nottingham, 179 in Blackburn, 181 in Plymouth, and 210 in Burnley.

The mean temperature of the air during last quarter at the Royal Observatory, Greenwich, was 41.1°, and was 2.3° above the average in the corresponding quarters of 126 years; it was 1.3° below the average in January, but showed an excess of 4.3° in February, and of 3.9° in March. The rainfall during the quarter amounted to 7.35 inches, and was 2.43 inches above the average.

### ZYMOTIC MORTALITY IN LONDON.

[SPECIALLY REPORTED FOR THE "BRITISH MEDICAL JOURNAL."]

THE accompanying diagram shows the prevalence of the principal zymotic diseases in London during each week of the first quarter of the

DEATHS FROM ZYMOTIC DISEASES IN LONDON DURING THE FIRST QUARTER OF 1897.




NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding week of the ten preceding years 1887-96.

current year. The fluctuations of each disease, and its fatal prevalence as compared with that recorded in the corresponding weeks of recent years, can thus be readily seen.

*Small-pox.*—Twelve deaths were referred to small-pox in London last quarter, which exceeded by 4 the corrected average number in the corresponding periods of the ten preceding years 1887-96. Of these 12 fatal cases, 5 belonged to Camberwell, 2 to Greenwich, 2 to Strand, and 1 each to St. Pancras, St. Martin-in-the-Fields, and St. George Southwark sanitary areas. The number of small-pox patients in the Metropolitan Asylums Hospitals, which had been 4 and 3 at the end of the two preceding quarters, was 7 at the end of December last; 68 new cases were admitted during the quarter, against 74, 41, and 5 in the three preceding quarters.

*Measles.*—The fatal cases of measles, which had declined from 1,632 to 184 in the three preceding quarters, further fell to 162 during the three months under notice, and were less than a fourth of the corrected average number. Among the various sanitary areas of the metropolis measles showed the highest proportional fatality in Clerkenwell, St. Luke, Bethnal Green, St. George-in-the-East, Limehouse, Mile End Old Town, and Rotherhithe.

*Scarlet Fever.*—The deaths referred to this disease, which had been 197, 218, and 263 in the three preceding quarters, declined again to 166 during the quarter ending March last, and were 75 below the corrected average number in the corresponding periods of the ten preceding years. Among the various sanitary areas this disease showed the highest proportional fatality in Chelsea, Westminster, Hackney, Holborn, City of London, and St. George-in-the East. The number of scarlet fever patients in the Metropolitan Asylums Hospitals, which had been 2,795, 3,847, and 3,599 at the end of the three preceding quarters, had further declined to 2,468 at the end of March last. The number of cases admitted into these hospitals, which had increased from 3,366 to 4,835 in the three preceding quarters, declined to 2,934 during the three months ending March last.

*Diphtheria.*—The fatal cases of diphtheria registered in London, which had been 566, 649, and 785 in the three preceding quarters, declined to 641 during the three months under notice, but were 183 above the corrected average number. Among the various sanitary areas this disease was proportionally most fatal in Shoreditch, Bethnal Green, Mile End Old Town, Bermondsey, Rotherhithe, Wandsworth, Camberwell, and Woolwich. The cases of diphtheria admitted into the Metropolitan Asylum Hospitals, which had been 1,269, 1,275, and 1,558 in the three preceding quarters, declined to 1,328 during the three months ending March last, and 776 patients remained under treatment at the end of the quarter.

*Whooping-cough.*—The deaths from this disease, which had been 1,188, 504, and 266 in the three preceding quarters, rose again to 543 during the three months ending March last, but were 391 below the corrected average number; among the various sanitary areas whooping-cough showed the highest proportional fatality in Clerkenwell, St. George-in-the-East, Newington, St. Olave, Bermondsey, Rotherhithe, and Plumstead.

*Fever.*—Under this heading are included deaths from typhus, enteric, and simple and ill-defined forms of continued fever. The deaths referred to these different forms of "fever," which had been 85, 169, and 213 in the three preceding quarters, declined again to 127 during the three months ending March last, and were 13 below the corrected average number. Of these 127 deaths from "fever," 124 were certified as enteric fever and 3 as simple continued fever. Among the various sanitary areas the highest proportional fatality of "fever" was recorded in Chelsea, St. Giles, and City of London. The Metropolitan Asylums Hospitals contained 75 enteric fever patients at the end of March last, against 75, 149, and 116 at the end of the three preceding quarters; 188 new cases were admitted during last quarter, against 174, 288, and 263 in the three preceding quarters.

*Diarrhœa.*—The 179 fatal cases of diarrhœa registered in London during the three months ending March last almost corresponded with the corrected average number. This disease was proportionally most fatal in Strand, Holborn, Bethnal Green, St. Olave Southwark, and Woolwich sanitary areas.

In conclusion, it may be stated that the 1,830 deaths referred to these principal zymotic diseases in London during the first or winter quarter of this year were 827, or as much as 31 per cent. below the average number in the corresponding periods of the ten preceding years 1887-96, all these diseases, except small-pox and diphtheria, being below the average. Among the various sanitary areas the lowest zymotic death-rates last quarter were recorded in Kensington, St. George Hanover Square, Westminster, St. Marylebone, Hampstead, Whitechapel, St. George Southwark, and Lee; and the highest rates in Strand, Bethnal Green, St. George-in-the-East, Limehouse, Newington, Bermondsey, Rotherhithe, and Woolwich.

## POSTAGE OF NOTIFICATION CERTIFICATES.

ALPHA.—The Local Government Board held, on the question being raised by the Radcliue Local Board whether certifying practitioners should pay the cost of postage on notification certificates transmitted to medical officers of health under the General Act of 1889, that the authority could deduct the amount of postage from fees payable in respect of certificates posted without being stamped. But in the case of Chisholm *v.* Radcliffe Local Board, at Bury, Lancashire, Judge Jones decided in favour of the practitioner.

# MEDICAL NEWS.

The Duke of York has accorded permission to the Committee of the Consumption Hospital, Brompton, to name one of the galleries in the new building, "The York Gallery."

At the meeting of the Sheffield City Council on May 12th, Dr. Gould, Medical Officer of Health of Bolton, was elected Medical Officer for Sheffield at a salary of £500 a year. Dr. Gould was at one time in charge of the Sheffield Fever Hospital.

A meeting of the No. 1 West End Branch of the London and Counties Medical Protection Society, Limited, will be held, by permission of Dr. Alderson, at Southerton House, Hammersmith, on Thursday, May 27th, at 4.45 P.M. Dr. G. A. Heron (Treasurer of the Society), Mr. Andrew Clark, Mr. Nelson Hardy, and Mr. Gilbert Dickinson will address the meeting.

Charing Cross Hospital.—A cheque for £1,000 has been received from the Augustus Harris Memorial Committee, through the treasurer, Mr. Alderman Frank Green, for the endowment in perpetuity of a bed in memory of the late Sir Augustus Harris. The bed is to be reserved for patients connected with dramatic, musical, and music hall professions.

Dr. Meredith Young, who was recently appointed Medical Officer of Health for Crewe, took an active interest in ambulance instruction during his tenure of office as Medical Officer of Health for Brighouse and the Halifax Rural District Council. Through his exertions an Ambulance Carriage Committee has been formed in the district. A sum of over £100 has been subscribed, and it is intended to present a carriage to the Local Board this year.

The Preston Medico-Ethical Society.—At the meeting of this Society on May 6th the following officers for the year were elected:—*President:* Dr. J. A. Lightbourne. *President-Elect:* Dr. J. H. Hammond. *Committee:* Messrs. F. W. Collinson, J. E. Dunn, J. E. Garner, J. Holden, A. C. Rayner, D. Turnbull Smith. *Hon. Treasurer:* G. M. King. *Hon. General and Clinical Secretary:* W. H. Irwin Sellers.

West of Scotland Clinical Research Laboratory.—The Governors of Anderson's College Medical School, Glasgow, have taken an important and useful step in establishing within the school buildings a clinical research laboratory for Glasgow and the West of Scotland. The laboratory is to be under the direction of Drs. R. M. Buchanan, Barclay Ness, and John H. Teacher, and should receive the ungrudging support of the profession in the West of Scotland.

The Medico-Psychological Association.—An examination for the certificate of Psychological Medicine, granted by the Medico-Psychological Association of Great Britain and Ireland, will be held in July in London, Edinburgh, Glasgow, Aberdeen, and Dublin. Candidates must give fourteen days' notice to the Registrar, Dr. Spence, Burntwood Asylum, near Lichfield. The examination for the Gaskell Prize, open to all who possess the certificate of the Association, will be held in London in July.

At the annual dinner of graduates and students of Queen's College, Belfast, held at the Grand Hotel, Charing Cross, on May 12th, under the presidency of Mr. R. A. McCall, Q.C., Sir William Mac Cormac, the outgoing president, was presented with an illuminated address congratulating him on his election to the presidency of the Royal College of Surgeons of England, and on his complete restoration to health. Sir William Mac Cormac acknowledged the address in suitable terms, and in the course of his speech related some interesting personal reminiscences of the Franco-Prussian war.

Patients in Hospitals.—With the object of denouncing what was said to be "the frequent performance of experiments upon human subjects in the metropolitan hospitals, and to demand that the Prince of Wales's Hospital Fund be not handed over to the hospital authorities until some guarantee was given that hospital patients should not be used for the purpose of research to their detriment," a public meeting was held at the Poplar Town Hall on May 14th. The proceedings from first to last were of a most demonstrative character, and at the close, on the motion of the Hon. Sydney Holland, Chairman of the London and Poplar Hospitals, and supported by Mr. W. Crooks, L.C.C., the Rev. Marmaduke Hare, and others, the resolution submitted by the platform speakers was ignominiously rejected. The overwhelming majority of those present affirmed that they had listened with great regret to the statements made, but had no belief in them. All kinds of vague charges were levelled at the metropolitan hospitals, and several disorderly scenes occurred following references of a personal character between those on the platform and others in the body of the meeting.

The Clinical Research Association Limited. — The annual report of this company for 1896, which has just been issued, shows the rapid headway made since its foundation two years ago. The number of members is now 2,400, whilst no fewer than 7,227 investigations were carried out in the laboratories during last year. The main objects of the Association are the examination of morbid products for diagnostic purposes, and the bulk of its work consists in the search for tubercle and diphtheria bacilli and the examination of urine and tumours. There has recently been added a department for medical photography, including Roentgen ray work. Members have the advantage of obtaining the services of the laboratory at reduced prices. Appended to the report are some valuable hints as to the methods to be adopted in sending specimens for examination, and a description of a sterile swab which should be very useful in obtaining material from the throat. In the reports of the various departments interesting details are given as to the processes used in the different investigations; as a rule no attempt is made at clinical deductions from the results. This wise reserve is broken through in the chemical section, the author of which is to be congratulated neither on his clinical generalisations nor on his attempts at humour. On the whole, however, it must be freely acknowledged that the Association, in addition to achieving commercial success, is doing good scientific work. We may add that a recent development of its activity is in the direction of supplying slides and cultures illustrating typical pathological processes for lecture and demonstration purposes.

## MEDICAL VACANCIES.

The following vacancies are announced:

BATH GENERAL OR ROYAL MINERAL WATER HOSPITAL.—Resident Medical Officer. Applications to the Secretary by May 24th.

BIRMINGHAM CITY ASYLUM, Resident Clinical Assistant.—Board and apartments provided, but no salary. Applications to the Medical Superintendent.

BRADFORD INFIRMARY.—Junior House-Surgeon, unmarried, doubly qualified. Applications, endorsed "Junior House-Surgeon," by May 24th.

BRENTFORD UNION.—Assistant Medical Officer at the new Infirmary; unmarried, doubly qualified. Salary, £100 per annum, with furnished apartments in the infirmary, rations, and washing, etc. Applications, on forms to be obtained of the Clerk, to be sent to William Stephens, Clerk to the Guardians, Union Offices, Isleworth, Middlesex, by May 26th.

BRISTOL GENERAL HOSPITAL.—Casualty Officer. Salary at the rate of £50 per annum, with board and lodging. Applications to the Secretary by May 24th.

BUCKINGHAMSHIRE GENERAL INFIRMARY, Aylesbury.—Resident Surgeon and Apothecary, doubly qualified. Salary, £80 for the first year, with an advance of £10 per annum up to £100, with board and lodging, washing, coals and candles, in furnished apartments. Applications to Mr. George Fell, Solicitor, Aylesbury, by July 5th.

BURY INFIRMARY.—Junior House-Surgeon, doubly qualified. Salary, £60 per annum, with board, residence, and attendance. Applications to the Honorary Secretary, Infirmary, Bury, Lancashire.

COUNTY ASYLUM, Rainhill, near Liverpool.—Assistant Medical Officer to act as *locum tenens* for three or four months during the summer. Salary, £2 2s. per week, with furnished apartments and board. Applications to the Medical Superintendent.

COUNTY ASYLUM, Whittingham, Preston.—Locum Tenens for six months. Two guineas a week, with board, lodging, and washing. Applications to the Medical Superintendent.

COUNTY LUNATIC ASYLUM, Lancaster.—Assistant Medical Officer for five or six months. Salary, £2 2s. per week, with board, etc. Applications to the Medical Superintendent.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Glamis Road, Shadwell, E. — House-Physician. Board-residence, etc., provided, and an honorarium of £15 15s on completion

of six months' approved service. Applications to Thomas Hayes, Secretary, by June 12th.

EAST SUFFOLK AND IPSWICH HOSPITAL, Thoroughfare, Ipswich.—Vacancy in the Honorary Medical Staff. Candidates must be doubly qualified. Applications to the Secretary by June 1st.

GLASGOW ROYAL INFIRMARY, GLASGOW OPHTHALMIC INSTITUTION, ST. MUNGO'S COLLEGE.—Surgeon to the Glasgow Ophthalmic Institution; Ophthalmic Surgeon to the Dispensary of the Glasgow Royal Infirmary; Consulting Ophthalmic Surgeon to the Wards of the Infirmary; and Professor of Ophthalmology in St. Mungo's College. By agreement the same person will be appointed to all these offices. Salary £100 per annum, with share of students' fees. Applications to Henry Lamond, Secretary, 93, West Regent Street, Glasgow, by May 25th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, Bloomsbury.—Resident Medical Superintendent. Appointment for one year, subject to annual re-election for a period of three years. Salary, £105 per annum, with board and residence in the hospital. House-Surgeon to Out-Patients (non-resident). Appointment for six months, but eligible for a second term of office. Salary, 25 guineas. Applications to the Secretary for the former appointment by June 30th, and for the latter by June 1st.

LIVERPOOL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Honorary Assistant Physician. Applications to the Committee by May 29th.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon, doubly qualified. Salary, £70 per annum, with residence and maintenance in the house. Applications to the Chairman by May 26th.

MERCER'S HOSPITAL, Dublin.—Vacancies on the Surgical and Medical Staff. Applications to the Registrar at the Hospital by June 18th.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS, Soho Square, W.—Resident Medical Officer, doubly qualified, and an honorarium of ten guineas for six months. Applications to the Secretary.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—Two fully qualified Medical Women as House-Surgeons, and one as Clinical Assistant: also a Second Assistant Anæsthetist. Applications to Margaret M. Bagster, Secretary, by May 26th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—Surgeon; must be F.R.C.S.Eng. Applications to the Secretary by June 15th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—House-Physician, doubly qualified, for six months, at expiration of which period will be eligible to serve as House-Surgeon for a similar period. Salary as former at the rate of £60 per annum, as the latter (senior post) at the rate of £80 per annum; also Junior House-Physician for six months, doubly qualified. No salary, board, lodging, and washing provided. Applications to T. Glenton-Kerr, Secretary, by June 16th.

NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Mount Vernon, Hampstead, N.W., and Fitzroy Square, W.—Surgeon Laryngologist. Applications to W. G. Farrance Bosworth, Secretary, at the office, 41, Fitzroy Square, W., by June 5th.

PARISH COUNCIL OF DELTING, Shetland.—Medical Officer. Salary, £60 per annum. Applications to Mr. Robert Robertson, Inspector of Poor of Delting, Vae, Shetland, by June 15th.

ROYAL BERKSHIRE HOSPITAL.—House-Surgeon. Salary, £60 per annum, with board, lodging, and washing; also Assistant Medical Officer, with board, lodging, and washing, and an honorarium of 13 guineas if duties are performed to the satisfaction of the medical staff. Appointments for six months. Applications to the Secretary by May 28th.

ROYAL EAR HOSPITAL, Soho.—House-Surgeon, non-resident, for six months. Honorarium 12 guineas. Applications to D. Murray, Secretary, by June 5th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—House-Physician. Appointment for six months. Salary at the rate of £40 per annum, with board, lodging, and washing. Applications to the Secretary by June 22nd.

ROYAL VICTORIA HOSPITAL, Bournemouth.—Ophthalmic Surgeon; must be F.R.C.S., or take the Fellowship within a year. Applications to the Chairman by June 15th.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, West Strand.—House-Surgeon, must possess some knowledge of ophthalmic surgery; and Clinical Assistants for six months. Applications to T. Beattie-Campbell, Secretary, by May 29th.

ST. PETER'S HOSPITAL, Henrietta Street, Covent Garden, W.C.—House-Surgeon, duly qualified, who has held similar position in a general hospital. Appointment for six months, at the expiration of which will be eligible for re-election for a further term of six months, subject to the approval of the medical staff. Salary at the rate of £100 per annum, with board, lodging and washing. Applications to Irwin H. Beattie, Secretary, by June 10th.

SUNDERLAND INFIRMARY.—House-Physician and House-Surgeon, doubly qualified. Salary in each case, £80 per annum, rising £10 annually to £100, with board and residence. Applications to the Chairman of the Medical Board by June 1st.

SUSSEX COUNTY HOSPITAL, Brighton.—Assistant Physician; must be F. or M.R.C.P.Lond. or graduate in medicine of one of the Universities in the United Kingdom. Applications to the Secretary by June 2nd.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, Newcastle-on-Tyne.—Heath Scholarship for the best essay on "Congenital Deformities, their Pathology and Treatment," value £200. All graduates in medicine or surgery of the University of Durham eligible to compete. Essays to be received by the Trustees (Dr. W. C. Arnison and Dr. Frederick Page) by March 31st, 1898.

WARNEFORD LUNATIC ASYLUM.—Medical Superintendent and Secretary. Salary, £500 a year, with furnished house, coals, gas, garden produce, milk, laundry, and keep for one horse. Applications to the Secretary by June 10th.

WOOLWICH UNION.—Assistant Medical Officer (Resident) at the Infirmary at Plumstead. Unmarried, and not more than 30 years of age. Doubly qualified. Salary, £90 per annum, with apartments, rations, and washing. Applications, on printed forms provided, to be sent to Tom Cutter, Clerk to the Board, Union Offices, Woolwich, by May 26th.

## MEDICAL APPOINTMENTS.

ARMSTRONG, John Richardson, M.D.Edin., M.B., C.M., appointed Surgeon to the Cwm Park and Cwm Dare Pits, Ocean Collieries, Treorchy, R.S.O., Glamorganshire, *vice* Dr. James Rowland James, deceased.

ASHE, Charles S., M.B., B.Ch.Vict., appointed Junior Resident Medical Officer of the Crumpsall Workhouse of the Township of Manchester, *vice* H. Roscoe, M.R.C.S., L.R.C.P.Lond.

BEBB, W. J., L.R.C.P., L.R.C.S.Edin., appointed Second Assistant Medical Officer to the Workhouse of the Parish of St. Matthew Bethnal Green, *vice* T. D. Forbes, M.B.Edin.

BRUCE, C. Kelly, M.B., M.C.Edin., L.R.C.P.Lond., M.R.C.S.Eng., appointed Senior Resident Medical Officer to the Liverpool Hospital for Sick Children.

BURTON, Robert G., M.D., L.R.C.S.Edin., reappointed Medical Officer of Health to the Greenford Urban District Council.

COX, R. F., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health for the Teme Rural District, *vice* F. H. Hardman, M.B.Edin., resigned, and Medical Officer of Health for the Knighton Rural District.

DUCAT, A. D., M.D., L.R.C.S.Edin., appointed Medical Officer for the Chiswick District of the Brentford Union, *vice* J. Tily, M.D.St.And., L.R.C.P.Edin., M.R.C.S.Eng., resigned.

DURRANT, C. E., L.R.C.P.Lond., M.R.C.S.Eng., appointed Assistant House-Surgeon to the Taunton and Somerset Hospital, Taunton.

DYKE, Dr., reappointed Medical Officer of Health to the Gelligaer Rural District Council.

FERNANDES, R. W. L., M.B., C.M.Edin., appointed Medical Officer for the Second District of the Hemsworth Union.

FORBES, T. D., M.B.Edin., appointed First Assistant Medical Officer to the Workhouse at the Parish of St. Matthew Bethnal Green, *vice* R. Jones, L.R.C.P.Lond., M.R.C.S.Eng.

GAYLOR, Edward, L.R.C.P.Edin., L.M., L.F.P.S.Glasg., reappointed Medical Officer of Health to the Ripley Urban District Council.

GENGE, G. G., M.B., B.S.Lond., D.P.H.Camb., M.R.C.S., L.R.C.P., appointed Resident Medical Officer of the Croydon Borough Hospital.

GOULD, John E., M.D.Lond., L.R.C.P., D.P.H., appointed Medical Officer of Health for Sheffield, *vice* H. Harvey Littlejohn, M.A., M.B.Edin., C.M., F.R.C.S., resigned.

HARRIS, Dr. D. D., appointed Medical Officer of the Workhouse and the Carmarthen District of the Carmarthen Union, *vice* W. L. Hughes, L.R.C.P., L.R.C.S.Edin., resigned.

HONNYWILL, A. O., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Sutton and Cheam District of the Epsom Union, *vice* W. A. Cox, M.R.C.S., deceased.

HUSBAND, J. C. Radclyffe, L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the No. 2 District of the Ripon Union.

GALLOWAY, A. R., M.B., C.M.Aberd., appointed Ophthalmic Surgeon to the Aberdeen Ophthalmic Institution, *vice* J. McKenzie Davidson, M.B., C.M.Aberd.

JONES, Dr. G. D. E., appointed Assistant Medical Officer of the Workhouse of the Township of Toxteth Park, *vice* J. O'Connell, L.R.C.P., L.R.C.S.Edin., resigned.

KELLOCK, T. H., M.A., M.D., B.C.Cantab., F.R.C.S., L.R.C.P., appointed Assistant Surgeon to the Middlesex Hospital, *vice* Leopold Hudson, F.R.C.S.Eng., deceased.

LYSTER, A. E., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Fourth District of the Chelmsford Union, *vice* W. Hart, L.R.C.P.Edin., M.R.C.S., resigned.

MACFARLANE, Aylmer, A., L.R.C.S., L.R.C.P., appointed Honorary Medical Officer to the St. Mary's Hospital, Brighton, *vice* A. J. Richardson, M.D.Cantab., M.R.C.P., deceased.

MACKINTOSH, A., M.D.Glasg., L.F.P.S., L.M., reappointed Medical Officer of Health to the Clay Cross Urban District Council.

MARTIN, James S., M.B., C.M.Edin., M.R.C.S.Eng., L.R.C.P.Lond., appointed Junior House-Surgeon to the Sheffield General Infirmary.

MELVILLE, David, M.B., C.M.Edin., appointed District Surgeon for the Tsolo District of Griqualand East, Cape Colony, *vice* A. W. Pearse, M.R.C.S., L.R.C.P.Lond., resigned.

MORGAN, O. W., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of the Newport (Mon.) Union.

PAGET, Stephen, M.A.Oxon., F.R.C.S., appointed Aural Surgeon to the Middlesex Hospital, *vice* Leopold Hudson, F.R.C.S.Eng., deceased.

PRATT, Eldon, M.B.Lond., M.R.C.S., L.R.C.P., appointed Assistant Resident Medical Officer to the Cardiff Infirmary.

RIMELL, A. T., M.R.C.S.Eng., L.R.C.P.Edin., appointed Medical Officer for the Long Sutton and Tydd St. Mary District of the Holbeach Union.

ROBINSON, Thomas, M.R.C.S., L.R.C.P.Lond., D.P.H.Camb., appointed Medical Officer of Health for the Borough of Burton-on-Trent.

RUTHERFORD, John V. W., M.B., C.M.Edin., M.R.C.S.Eng., appointed Assistant Surgeon to the Royal Infirmary, Newcastle-upon-Tyne.

SELLARS, A. E, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health to the Thornhill District Council.

SMALLWOOD, R. P., M.B., B.C.Camb., M.R.C.S., appointed Medical Officer for the Eighth District of the Chelmsford Union, *vice* E. P. Cockey, M.D.Lond., resigned.

SMITH, William E., M.B., C.M.Edin., appointed Junior House-Surgeon to the Royal Eye Hospital, Manchester.

SOUTAR, Robert, M.D Aberd., appointed Medical Officer of Health to the Montrose Parish Council, *vice* M. S. W. Gunning, L.R.C.P., L.R.C.S.Edin.

SPENCER, Dr., appointed Medical Officer for the Seventh District of the Mansfield Union.

SUTTON, Thomas S., M.R.C.S.Eng., appointed Medical Officer for the Norbury District of the Clun Union, *vice* J. F. Boa, M.B., C.M.Glasg., resigned.

TREADWELL, O. F. N., M.R.C.S.Eng., L.S.A., appointed Medical Officer of Her Majesty's Convict Prison at Portland, *vice* Geo. Herbert Lilley, M.D.Brux., M.R.C.P.Edin., M.R.C.S.Eng., resigned.

## DIARY FOR NEXT WEEK.

### MONDAY.

LONDON POST-GRADUATE COURSE, London Throat Hospital, 204, Great Portland Street, W., 8 P.M.—Dr. Tilley: Demonstration of Cases.

### TUESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 4.30 P.M.—Dr. Abraham: Ringworm and Favus.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W. 8.30 P.M.—Mr. H. H. Clutton: (1) Case of Subclavian Aneurysm successfully treated by Ligature; (2) Case of Pharyngeal Abscess; Hæmorrhage; Ligature of Carotid Arteries. Mr. Warrington Haward: On Irreducible Hernia.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square W.C., 3.30 P.M.—Dr. Ferrier: Clinical Demonstrations.

### WEDNESDAY.

LONDON POST-GRADUATE COURSE, Parkes Museum, 74A, Margaret Street, W., 4.30 P.M.—Professor Wynter Blyth: Sources of Water, etc.

THE CLINICAL MUSEUM, 211, Great Portland Street, 4 P.M.—Demonstration by Mr. Jonathan Hutchinson.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W., 4 P.M.—Dr. Maguire: Physical Signs of Excavation of the Lungs.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M. Dr. Seymour Taylor: Surface Anatomy of the Lower Extremities.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND, 20, Hanover Square, W., 4.30 P.M.—Annual meeting and conference. Discussion on the Influence of Light and other Forms of Radiant Energy on the Skin and Tissues, to be introduced by Dr. R. L. Bowles. Exhibition of cases, drawings, and specimens.

### THURSDAY.

LONDON POST-GRADUATE COURSE, Cleveland Street Sick Asylum, 5.30 P.M. —Dr. Stephen Mackenzie: Clinical Lecture.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M. —Dr. Seymour Taylor: Surface Anatomy of the Head and Neck.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, 3 P.M.—Mr. L. A. Dunn: Tuberculous Inflammation of the Joints in Children.

### FRIDAY.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, W.C., 3 to 5 P.M.—Professor Crookshank: Tuberculosis and Leprosy.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 P.M.—Annual General Meeting. Election of officers for session 1897-98. Mr. A. Pearce Gould: A case of Pancreatic Calculus. Dr. W. Ewart and Dr. H. D. Rolleston: A case of Intracardiac Thrombus arising from the Fossa Ovalis projecting through the Mitral Orifice, and giving rise to signs of Mitral Stenosis. Dr. G. Bertram Hunt: A case of Dissecting Aneurysm; Rupture into both Pleural Cavities.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Dr. Taylor: Epilepsy.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s 6d., which sum should be forwarded in post-office order and stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.*

### BIRTHS.

DICKINSON.—On the 14th instant, at 33, Sloane Street, S.W., the wife of T. Vincent Dickinson, M.D., M.R.C.P.Lond., of a daughter.

TIDEY.—On May 10th, at 10, Via dei Panzani, Florence, the wife of Stuart Tidey, M.D.Lond., M.R.C.P.Lond., of a daughter.

WATERHOUSE.—On May 9th, at 81, Wimpole Street, the wife of Herbert F. Waterhouse, M.D.Edin., F.R.C.S.Eng., of a daughter.

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances*—Daily, 2. *Operations.*—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR.—*Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—Daily.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30 Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1: Dental, daily, 9; Throat, F., 1. *Operations.*—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations.*—M. F. S., 2.

LONDON. *Attendances.*—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operations.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations.*—M. Th., 4.30.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations.*—F., 9.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations.*—W., 1.30; S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30 *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 3; Dental, Th., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 1. *Operations*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., W. S., 9; Eye, W. Tu. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th. 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations.*—M. Tu. Th. F. S., 1.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males S., 3; females, W., 9.45. *Operations.*—M., 2; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Tu., 3; Orthopædic, W., 10; Throat, Tu. F., 3.0; Skin, M. Th., 9.30; Electro-therapeutics, M. Th., 2.30; Dental, W. S., 9.30; Children's Medical, Tu. F., 9.15; Children's Surgical, S., 9.15. *Operations.*—M., 2.30.; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M. 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children). 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Th., 2.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations.*—Tu. F., 2.30.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1; Obstetric, Tu., F., 1; Eye, Tu. F., 9.30; Ear, M. Th., 9.30; Skin, W., 1; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

## LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

SENEX asks for the experience of country readers who have used hooded gigs in a level country district. Are they draughty?

VARSITY would be much obliged for information with regard to pattern and makers of suitable suspensory bandages for cyclists. They are, he thinks, for those with a relaxed scrotum, an absolute necessity.

DR. CHARLES F. ROUTH (Uppingham, Rutland) desires to hear of an institution where a child of weak intellect, but not absolutely idiotic, with no power of speech, and partially deaf, can be admitted for a time to ascertain whether there is any possibility of improvement. The parents are in poor circumstances, and could not afford to pay more than a few shillings a week at the most.

MEMBER B.M.A. asks as to the use of liquor ammoniæ fortior hypodermically. He has used it (mv) on two occasions lately (drowning cases who were *in articulo mortis*) in the absence of ether, and with good effect On the third day there was marked general disturbance, and a black slough formed at the point of puncture. This came away after poulticing, etc. The syringe was aseptic. I can (he adds) understand the irritation produced by the ammonia, but not the sloughing, etc.; it looked to me like septicæmia. Both cases recovered.

### TYPEWRITER FOR THE BLIND.

MEMBER will be grateful for advice as to the best typewriter for a blind patient. It must be easy to learn and manipulate. The patient has not learned the Braille system.

### GALL STONES.

MEMBER would feel grateful for particulars of oil treatment for the above condition, and the best way to collect the stones when passed. He has tried diluting the fæces with water and used the sieve, but failed to find any.

### THE PHARMACY OF CELANDINE.

LANCASTRIAN writes: I have grown a lot of celandine, which is just coming into flower. As it is time to prepare it for use, which is the best way to deal with it so that I can preserve it for hypodermic and other methods of administration?

### THE REST CURE.

G. H. (Bordighera) asks: (1) Is there any little book or pamphlet published on the subject of "rest cure" as it is now carried on by Playfair in London? (2) Where should one apply to obtain a nurse who understands the treatment and who would be expected to take entire charge of an invalid who would undergo the rest cure at home?

*** (1) Dr. Playfair published a handbook on the "rest cure," entitled *The Systematic Treatment of Nerve Prostration and Hysteria* (Smith, Elder and Co., 1883), which, however, is now out of print. Further writings of his on this subject are the articles, The Systematic Treatment of Functional Neuroses, in the *Dictionary of Psychological Medicine*, and Neurasthenia, in the second edition of Quain's *Dictionary of Medicine*.

(2) All nursing institutes profess to supply nurses; but the "rest cure" carried out at the patient's own home, in 99 cases out of 100, is doomed to failure. Dr. Playfair has insisted very strongly on this in all his writings on the subject, and compared it to *Hamlet* with the part of Hamlet left out.

### DEATH-RATES IN SOUTH LONDON.

THE REV. J. W. HORSLEY (S. Peter's Rectory, Walworth, S.E.) writes: As a sanitarian, and also as Chairman of the Newington Vestry, I am interested in the statistics concerning the true death-rates of South London, and have for years compiled tables out of your quarterly and annual returns. I find, however, that the figures in the reports of our medical officer of health do not correspond with those I have quoted from your tables, and, therefore, I should be much obliged if you could give me your figures for Hampstead, London, and Newington from 1887-96.

*** In accordance with the above request a table is appended showing the death-rate in London, Hampstead, and Newington respectively, in each of the ten years 1887-97. These rates differ from those published from time to time in the BRITISH MEDICAL JOURNAL, since the latter are necessarily based upon the population as then estimated. When a new census is taken it becomes possible to revise the population for each year since the preceding census, and more correct rates for the intervening years can therefore be calculated. The populations for each of the last ten years has been specially calculated for the purpose of the table given, and the death-rates reworked. The number of deaths are taken from the returns of the Registrar-General, who each year since 1885 has published a special table showing the deaths in each of the metropolitan sanitary areas, after distribution of deaths in public institutions. The numbers of deaths, etc., published in the JOURNAL correspond with those issued by the Registrar-General. No rates of mortality for the sanitary areas were published by the Registrar-General until last year (1896). The rates appearing from time to time in the JOURNAL are correctly worked out on the then estimated populations: probably the medical officer of health for Newington has reworked some of his rates for back years on revised populations, or he may have worked them on a different total of deaths; from either of these causes they might differ from those published in the JOURNAL.

The rates in the appended table are based throughout on the numbers of deaths according to the Registrar-General's official returns:

*Death-rates per 1,000 Persons Living, calculated on Revised Estimates of Population.*

| Year. | London. | Hampstead. | Newington. |
|---|---|---|---|
| 1887 ... ... ... ... | 20.0 | 12.2 | 21.9 |
| 1888 ... ... ... ... | 19.0 | 11 6 | 19 0 |
| 1889 ... ... ... ... | 18.0 | 11.8 | 21.2 |
| 1890 ... ... ... ... | 21.1 | 13.3 | 23.6 |
| 1891 ... ... ... ... | 21.1 | 12 3 | 24.3 |
| 1892 ... ... ... ... | 20.3 | 12.5 | 24.4 |
| 1893 ... ... ... ... | 21.0 | 13.3 | 24.3 |
| 1894 ... ... ... ... | 17.4 | 11.0 | 19.9 |
| 1895 ... ... ... ... | 19.5 | 12.6 | 24 0 |
| 1896 ... ... ... ... | 18.2 | 11.9 | 20.5 |

### RED LIGHT TREATMENT OF SMALL-POX.

P. N. asks whether the red light treatment of small-pox, designed to prevent excessive suppuration and pitting, has been tried in this country, and if so, with what results? The method was described by Dr. Finsen, of Copenhagen, in the BRITISH MEDICAL JOURNAL of December 7th, 1895.

## ANSWERS.

F.R.C.S.—Our correspondent must in all cases obtain permission.

DR. T. H. MORRIS.—We may refer our correspondent to the paragraph published in the BRITISH MEDICAL JOURNAL of March 20th, page 740.

DISTRICT NURSE might consult *The Art of Dispensing*, published by the *Chemist and Druggist*, 42, Cannon Street, E.C.

F. G. H.—We should strongly advise our correspondent not to use the advertisement referred to as a wrapping.

COUNTRY PRACTITIONER might communicate with Mr. H. K. Lewis, 136, Gower Street, London, W.C.

T. W.—The particulars furnished are hardly sufficient to warrant a definite opinion. There seems to be no good reason why our correspondent's name should be appended to the certificate to be issued with the concert programme.

P. AND O. writes in reply to "Camera" that the best developer for use at sea is rodinol, partly on account of its keeping qualities. Ilford ordinary plates will be found quite fast enough for most work. An easy method of making a cabin practically light-tight is to close the port on to a sheet—doubled or quadrupled if necessary—of red fabric, and to paste pieces of fabric over all slits which might admit light. Development in the tropics is best done at night, when the port can be open. It is very difficult to prevent "frilling," if development be carried on when the temperature is over 82°.

### BERI-BERI.

S. H. H., who asks for reference to works on beri-beri, might consult the following:—*Die Beri-Beri Krankheit*, von Dr. B. Scheube. Jena: Gustav Fischer. 1894. M. 9. *Beri-Beri*, by C. A. Pekelharing and C. Winkler: translated by James Cantlie, M.A., M.B. Edinburgh and London: Young J. Pentland. 1893. 10s. 6d. *Beri-Beri*, by Dr. A. J. M. Bentley. London: Young J. Pentland. 1893. 10s. Articles by Dr. Patrick Manson in *Hygiene and Diseases of Warm Climates*, by Dr. A Davidson. London; Young J. Pentland. 1893. 31s. 6d.; and in the *System of Medicine*, edited by Professor T. Clifford Allbutt. Vol. 2. London: Macmillan and Co. 1897. 25s.

### INTRODUCING A SUCCESSOR.

ZERO.—A medical man who is selling his practice and introducing his successor should not call upon the patients of his professional neighbours. A medical practitioner under such circumstances cannot be too careful in abstaining from anything that might look like an attempt to tamper with the patients of others. It is likewise very unwise in the interests of the successor, as it tends to alienate him from his professional brethren in the district.

## NOTES, LETTERS, Etc.

### IRREGULAR LEGAL PRACTITIONERS.

DR. ARTHUR MAUDE (Westerham) writes: A vote passed last week in the House of Commons forms a striking object lesson to our profession. The Incorporated Law Society, the association of solicitors which does so effectually protect that profession from irregular and unauthorised practitioners, is in future to have the expenses of procedure against irregular practitioners paid for out of public funds.

*** The solicitors pay £80,000 a year for the licences. The Council of the Society and all its Committees give their services gratuitously and without any payment for railway or other expenses.

### DOCTORS' BADGES.

DR. JOSEPH WILLIAM GILL (Liskeard, Cornwall), writes: I see a note in the BRITISH MEDICAL JOURNAL of May 8th relative to Russian doctors having the privilege of wearing a badge on the right breast. This to my mind is a most desirable thing for all medical men, and I should be glad if the medical men of this country could procure the same right. Could not the various colleges and universities give this honour to their members and licentiates? Of course certain differences would be allowed according to the qualifications; and I presume it would be wise for different colours to be assigned each college or university. The medical pro-

fession have done as much as any profession in promoting the welfare of our kingdom, and the progress made in the science of medicine has been extraordinary during the present reign, and I think it would be befitting a Jubilee celebration to give to the preservers of health of this country the right of wearing a badge upon the right breast. This I think will appeal to all who have the interests of the profession at heart, and if possible let something be done for those who have so ably advanced the physical welfare of Britain. This would be a compliment, and the expense would be little.

*** We doubt whether more than a very few would care to wear such a badge in this country.

### Creasote and Quinine in Malaria.

York Moore, L.R.C.P.Ed. (Stony Hill, Jamaica) writes: On former occasions communications have appeared in the British Medical Journal advocating the use of creasote rubbed into the axilla, and quinine administered in suppositories in cases of malarial fever. From the results I have obtained I am inclined to believe that very satisfactory effects may often be secured by a combination of these two treatments. I have frequently confirmed Surgeon-Lieutenant Rogers's statement that within two hours of the epidermic application of creasote the temperature drops very considerably, in some cases becoming normal in a few hours and showing no tendency to rise again, in others remaining at about 100° F. or 101°, or intermitting between this and normal. In this latter class of cases I have found that quinine administered *per rectum* (commencing when the lowest temperature is reached after administration of creasote, which it is probably useless to repeat more than once during the same defervescence) in doses of 20 to 30 grains at first then 10 grains every three or four hours, will speedily check the fever, usually, as has been previously pointed out, without causing any signs of cinchonism, and obviously without upset, ting the digestion. I am also inclined to believe that quinine enematamay aid in checking simple diarrhœa in those cases of fever where this symptom occurs chiefly as the result of a congested liver, but shows a tendency to continue after that organ has received appropriate treatment.

In private practice suppositories are doubtless the most convenient form for exhibition, but small enemata containing the quinine dissolved by the addition of just sufficient dilute sulphuric acid are quite effectual, sometimes more accessible, and possibly more efficacious in cases in which there is a tendency to diarrhœa.

### A Medical Treatment Company.

According to the American papers, a medical trust has recently been formed in New York for the purpose of supplying medical attendance on the contract system. The following extract from the prospectus shows the character of this new form of commercial enterprise: "The Medical Treatment Company. Incorporated under the laws of the State of New York. Office: 19, Park Place, New York City. For $1 a month the Medical Treatment Company provides a doctor as often as you need one, who will treat you or your family at his office, or at your home, as the severity of the case requires, and has the prescriptions filled at the druggist's without extra cost to you.....The medical staff is composed of physicians who are graduates of the leading medical colleges of this State, and are in every way fully qualified by experience to treat any case of disease.....The birth of a child is a physiological condition, and therefore not classed under medical treatment. Under our system, upon payment of $5 at the time of the birth to the attending physician, the mother will receive proper attention during convalescence." Are we indeed coming to a system of co-operative medicine in which doctors as well as drugs will be supplied by "universal providers"?

### Violent Remedies.

Professor Brouardel, in a recent lecture, related the following case: A man had a pharyngeal abscess so deeply seated that his medical attendant was afraid to meddle with it. One night a burglar broke into his house, and, on his calling out for help, tried to throttle him. The abscess burst, deluging the burglar with pus and causing him to beat a rapid retreat. His intended victim experienced instant relief, and made a rapid recovery. This reminds us of a case which we remember to have read somewhere, though we cannot now supply the reference, of a well-known London physician who was eased of a goître, and at the same time of a gold watch, by a garotter.

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LETTERS, COMMUNICATIONS, Etc., have been received from:

(**A**) Mr. W. H. Adsett, London; Mr. H. W. Allingham, London; Dr. F. H. Alderson, London; Alpha; Messrs. Armour and Co., London; Dr. J. R. Armstrong, Treorchy. (**B**) Dr. J. Barr, Liverpool; Dr. C. Black, Glasgow; Mr. H. C. Burdett, London; Messrs. Burroughs, Wellcome, and Co., London; Mr. W. M. Beaumont, Bath; Mr. F. Burnside, St. Leonard's-on-Sea; Dr. Bond, Gloucester; Mr. J. F. Bush, Bristol; Dr. J. W. Ballantyne, Edinburgh; Dr. C. B. Ball, Dublin. (**C**) Mr. J. D. Costine, London; Mr. A. H. Chalmers, London; Correspondent; Mr. J. Cording, Beckenham; Mr. J. Jackson Clarke, London; Country Practitioner. (**D**) Mr. D. L. Davies, Criccieth; Mr. C. E. Durrant, Taunton. (**E**) Epidemiological Society of London, the Secretary of the, London; Dr. W. A. Evans, Bradford. (**F**) Mr. H. H. Formoy, London; F.R.C.S.; Mr. W. Fergusson, Banff. (**G**) Dr. J. C. Graham, Medon; G. P.; Mr. A. Greenwood, London; G. G. Genge, M.B., Southport. (**H**) Mr. T. G. Horder, Cardiff; Mr. W. Hurst, Cardiff; Rev. W. Horsley, London; Dr. J. M. Helme, Rusholme; Mr. W. C. Hossack, Banff; Mr. E. Hooker, Hastings; S. H. Hawley, M.B., Darwen; Dr. D. Heath, Birmingham. (**J**) Mr. A. Jones, Stokesley. (**K**) A. King, M.B., Watford; Dr. B. C. Kelly, Newcastle-on-Tyne. (**L**) Mr. F. P. Loveridge, St. Leonard's-on-Sea; G. V. Lockett, M.B., Kingston, Jamaica; Mr. F. W. Longridge, Ilfracombe; Dr. W. G. V. Lush, Weymouth; Miss C. M Lehr, Potters Bar; Leeds and West Riding Medico-Chirurgical Society, the Secretary of the, Leeds; Lancastrian; Lex. (**M**) Member B.M.A.; Member; Mr. W. Martindale, London; Dr. J. Mackenzie, Douglas; Mr. Y. T. Moore, Stony Hill, Jamaica; Mr. J. S. Martin, Sheffield; Medical Guardian; Mr. E. S. Medcalf, Hove; Mr. G. H. Makins, London; Mr. A. Maude, Westerham; Dr. A. Muñoz, Madrid; D. Melville, M.B., Isola; Mr. J. H. Marsh, Macclesfield; Mr. H. Manders, London; Dr. J. M. MacCormac, Belfast; C. R. Marshall, M.B., Cambridge; Mr. M. G. McElligott, Belper; Mr. J. MacMunn, London; Mr. M. Martin, London. (**N**) Dr. A. Newsholme, Brighton; Dr. J. Niven, Manchester; Mr. A. Norman, London. (**O**) Mr. W. H. Orton, Brighton; Mr. W. Osborn, Milverton; Mr. G. P. O'Connor, Manea, Cambs.; Mr. M. Ouseley, London; One of a Family of Doctors who are Members of the Association. (**P**) Mr. A. Pereira, Bombay; Pater; Mr. F. A. Peter, Frankfort; P. and O.; Mr. A. Powell, Bengal; E. Pratt, M.B., London; Mr. F. T. Paul, Liverpool. (**R**) Dr. J. Robertson, Dumbarton; Dr. H. B. Robinson, London; Mr. T. Robinson, Burton-on-Trent; Dr. C. H. F. Routh, London; Dr. C. F. Routh, Uppingham; Mr. W. Radermacher, London; Mr. T. F. Raven, Broadstairs; Professor W. Ramsay, London; Mr. F. B. Reilly, London; R. R. Y.; Dr. J. S. R. Russell, London. (**S**) Dr. J. B. Spence, Lichfield; W. E. Smith, M.B., Dumfries; Mr. A. Smith, London; Dr. D. W. Samways, Mentone; Lord Stamford, London; Messrs. Street and Co., London; Mr. G. Stoker, London; W. H. J. Sellers, M.B., Preston; Mr. W. P. Stocks, Salford; Rev. J. Stansfeld, Monmouth; Dr. W. H. Stephen, Smethwick. (**T**) Mr. M. Thompson, Hemel Hempstead; Mr. R. F. Tobin, Dublin; Dr. S. G. Toller, London; A. H. Tubby, M.B., London; Dr. StC. Thomson, London; Mr. J. L. Thomas, Cardiff. (**V**) Varsity; Mr. R. H. Vereker, Taunton; Mr. T. J. Verrall, Brighton. (**W**) Dr. T. J. Wood, Bradford; T. Wakefield, M.B., London; Mr. A. H. Walker, Cranleigh; Mr. J. Wycliffe-Goodwin, Bournemouth. (**Z**) Zero; etc.

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## BOOKS, Etc., RECEIVED.

Exercises in Practical Physiology. By A. D. Waller, M.D., F.R.S. Part III. London: Longmans, Green and Co. 1897. 2s. 6d.

Practical Handbook of the Diseases of the Eye. By D. C. Watson, M.B., C.M. Edinburgh: W. F. Clay. 1897. 4s. 6d.

Die Serumbehandlung der Diphtherie. Von Dr. F. Ganghofner. Jena: Gustav Fischer. 1897. M.2.

Chirurgische Operationslehre. Von Dr. T. Kocher, Jena: Gustav Fischer. 1897. M.11.

Heart Disease and the Nauheim Treatment. By J. Kidd, M.D. London: Hodder and Stoughton. 1897. 1s.

The Return to Nature. By J. F. Newton. London: Ideal Publishing Union. 1897.

Reports from the Laboratory of the Royal College of Physicians, Edinburgh. Edited by J. B. Tuke, M.D., and D. N. Paton, M.D. Vol. vi. Edinburgh: W. F. Clay. 1897. 8s. 6d.

Handbuch der Laryngologie und Rhinologie. Herausgegeben von Dr. P. Heymann. Lief. 14 und 15. Vienna: Alfred Hölder. 1897.

Über puerperale Psychosen. Von Dr. O. Knauer. London: Williams and Norgate. 1897. M.1.80.

Flint's Medical and Surgical Directory of the United States and Canada, 1897. Compiled by A. L. Chatterton. New York: J. B. Flint and Co. 1897.

Diseases of the Ear, Nose, and Throat, and their Accessory Cavities. By S. S. Bishop, M.D., LL.D. Philadelphia: F. A. Davis Co. 1897. $4.00.

Manual d'Ophtalmologie. Par Dr. E. Fuchs. Deuxième Edition par Dr. C. Lacompte et Dr. L. Leplat. Paris: G. Carré et C. Naud. 1897. Fr.25.

La Technique des Rayons X. Par A. Hébert. Paris: G. Carré et C. Naud. 1897. Fr.5.

Suite de Monographies Cliniques sur les Questions Nouvelles en Médecine, en Chirurgie, en Biologie. No. 1, De l'Appendicite, par Dr. F. Legueu. Paris. Masson et Cie. 1897. Fr.1.25.

*** In forwarding books the publishers are requested to state the selling prices.

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# CLINICAL REMARKS
ON
## REPEATED HÆMOPTYSES IN NON-TUBERCULOUS SUBJECTS, WITH ILLUSTRATIVE CASES.

By DAVID NEWMAN, M.D., F.F.P.S.GLASG.,
Surgeon to the Glasgow Royal Infirmary; late Surgeon in Charge of the Department for Diseases of the Throat and Nose.

SIX years ago I brought under the notice of the members of the Pathological and Clinical Society of Glasgow a subject which at that time was of considerable interest to me, namely, frequently repeated hæmoptyses in persons who were not suffering from phthisis pulmonalis; and since then so many cases of hæmoptysis of this kind have come under my observation that the subject appears to me to be worthy of further attention.

Although the precise cause of the hæmoptysis varies considerably in the different cases, both in those previously reported and in the cases now brought forward, still they all have one important practical fact in common, namely, the hæmoptyses were believed at one time to be due to tuberculous disease of the lung, while ultimately they proved to be the result of a lesion in the upper air channels.

The tissues in these passages having a very free vascular supply, and being exposed to injury, blood vessels already weakened by disease are liable to rupture, and so give rise to small hæmoptyses, and, after these bleedings have ceased, in some instances almost no trace of the hæmorrhages can be discovered unless by very careful and frequently-repeated examinations. No one will argue that hæmorrhage is likely to proceed from a previously healthy mucous surface; but it is undoubted that hæmorrhages do occur from comparatively trivial lesion of the larynx and pharynx, and are attributed not to their proper source but to pulmonary tuberculosis, even in the absence of physical signs of that condition.

Hæmoptysis is looked upon by the public and by most general practitioners as of great significance, being regarded as a danger signal for phthisis pulmonalis, and a condition not to be lightly considered or carelessly treated, even although unaccompanied by any symptoms or physical signs of pulmonary disease. But while in not a few cases minute hæmorrhages are the first indication of tuberculous disease of the lung, every physician must have met with cases of hæmoptysis where no serious results have followed. Hæmoptysis, or blood spitting, having its source in pulmonary or bronchial hæmorrhage, is usually easy of diagnosis; but, as I shall point out presently, it is not always so. A hæmorrhage which appears to be derived from the parenchyma of the lung or from the bronchioles may originate in other parts, and find its way into the trachea.

A patient may have a hæmoptysis and at the same time may be suffering from more or less acute laryngitis, and blood may actually be seen in the larynx, but because of this we have no right to assume that the hæmorrhage is not from the lungs. Because no abnormal physical signs can be detected in the chest at the time is no reason why we should exclude the possibility of the hæmorrhage being pulmonary. It is indeed held by those who have had a large experience of pulmonary disease that in many cases there is a complete absence of the symptoms and physical signs of phthisis in the stage of early hæmoptysis. And I have shown elsewhere[1] that *phthisis ab hæmoptöe* may originate from blood derived from the upper air passages, and inspired into the minute ramifications of the lung, instead of, as is commonly the case, from the blood vessels within the substance of the organ.

Undoubtedly in most cases hæmoptysis is indicative of pulmonary disease, or is at least suggestive of a grave lesion, either in the lungs or in the upper air passages. In some cases, however, as will be shown presently, the laryngoscope gives us the means of discovering purely local causes of hæmorrhage.

A hæmoptysis is often the first symptom which induces the patient to seek medical advice, and not infrequently the patient has an explanation of his own to offer as a reason for the bleeding. The causes of hæmoptysis are often lost sight of both by the laity and by medical practitioners, and they speak of "blood spitting" and "bleeding from the lungs" as being synonymous. If it is clear that the blood is not coming from the gums or the mucous membrane of the mouth and there is no general constitutional malady, such as hæmophilia, purpura, scurvy, or any of the forms of anæmia, the conclusion is at once come to that the patient is threatened with phthisis. The mental effect which "a bleeding" produces on the individual affected by it is often very marked, and even when he is assured as to the innocent nature of the lesion causing the loss of blood, he may take a long time to recover from its depressing mental effect. And doubtless also the history of a hæmoptysis greatly influences the prognosis of the medical attendant.

I have seen a considerable number of cases where patients have been told that they are suffering from phthisis, and some of them have been recommended to go abroad, where a laryngoscopic examination has revealed the true source of the blood and relieved the patient from the fear of grave consequences.

Excluding diseases characterised by changes in the blood or blood vessels which permit the escape of blood on the mucous surfaces, and without attempting to give anything like a complete list of the lesions, which may cause an extravasation of blood into the larynx or pharynx, the causes of hæmorrhage from these parts may be classified as follows: Acute inflammation, and the various forms of ulceration of the mucous membrane (these are causes too obvious to require illustration or remark). The less evident lesions are more likely to be overlooked, such as varicose veins, or small varicose aneurysms in the mucous membrane; very vascular tumours in the larynx, at the base of the tongue, or in the naso-pharynx.

In describing the cases I shall only refer to points in their history bearing upon the hæmoptysis, and for illustration I shall select cases which have been under observation for three years or more, and so obviate, as far as may be possible, errors in diagnosis. Before describing these I may refer in a word or two to the cases previously published,[2] and their subsequent history as far as is known.

### EPITOME OF OLD CASES.

1883. CASE I.—Aged 40, frequent hæmoptysis for sixteen months, varying from a few drops to one ounce and a-half, attributed by physicians to phthisis; without physical signs in chest, but expectoration tinged with blood for some time after the hæmoptysis. Patient anæmic and emaciated from anxiety and loss of appetite. At fourth examination, with laryngoscope, source of hæmoptysis with difficulty discovered to be from bleeding points below anterior commissure. When treated locally hæmoptysis ceased. Since 1883 till 1894, when last heard of, patient enjoyed perfect health; no recurrence of hæmoptysis.

1883. CASE II.—Aged 56, small repeated hæmoptysis for nine months, recurring about once a month. Two days after a hæmorrhage trachea found deeply injected, and erosion of mucous membrane below cricoid; hyperæmia disappeared and erosion healed in two days, but recurred in twenty-six days. Under treatment for six months, cure, no recurrence 1891. General health poor, but no pulmonary disease.

1886. CASE III.—Aged 35, profuse hæmoptysis in 1879, one pint of blood freely mixed with air; frequent hæmorrhage at intervals of from six to eighteen months till 1886; cough, but no pain or physical signs in chest. Pale and anæmic, much mental depression from fear of phthisis. After hæmoptysis larynx and trachea deeply bloodstained, and streaks of blood on posterior pharyngeal wall. Larynx and trachea healthy, but varicose veins on pharyngeal arch. Veins closed by electrolysis. No recurrence; reported well 1890.

In these cases the patients complained of "blood spitting" only, but undoubtedly also suffered in health from the alarm produced by the fear of phthisis, as in each individual case competent physicians had expressed the opinion that the hæmoptysis was from the lungs.

Of all the local causes of hæmorrhage from the upper air passages dilated veins in the pharynx or the larynx is the most common, and therefore the most important to consider here. From this source the bleeding is generally small, and seldom does more than tinge the mucus or saliva, but even although not large in amount the bleeding may be persistent. The following case may be taken as an illustration:

CASE IV. *Repeated Hæmoptysis during Seventeen Months, said to be due to Phthisis; Voice Hoarse, from Hypertrophic Laryngitis: Hæmorrhage due to an Erosion of the Mucous Membrane and Passive Hyperæmia.*—J. C., aged 27, consulted me at the Royal Infirmary in November, 1889. The patient complained of weakness, and said that during the previous seventeen months he had suffered from a cough, which troubled him most when at his work, and that at least on six occasions he had noticed the expectoration mixed with blood, but the quantity so coughed up was never great. The blood always came up easily, sometimes fluid, at other times in the form of small clots. The bleeding seldom lasted more than a few days, and, on questioning the patient, the mucus was found not to be intimately

mixed with the blood. The cough was not accompanied by pain in the chest, but was so persistent that he consulted several doctors, who told him when he mentioned the "blood-spitting" that he was very probably suffering from phthisis. Under ordinary circumstances the expectoration was mucous, but for some time after the hæmoptysis the sputa were tinged with blood. The blood was usually noticed in the sputa after some considerable exertion, but on one occasion the hæmorrhage occurred in the morning. The voice had been hoarse for three or four months, but this came on so gradually that the patient had difficulty in fixing the date of its onset. He was poorly nourished, and his occupation, that of a steel worker, exposed him to rapid and considerable variations in temperature. He had a feeble circulation, and suffered from varicose veins in both legs, from a left varicocele: the veins of the face and neck were very distinctly marked, and the thyroid gland was enlarged in both lobes. The cardiac sounds were feeble, but free from murmur or accentuation, and there was no evidence of enlargement or dilatation of the heart. The liver dulness was not increased, and there was no albuminuria, nor were tube casts discovered. The lungs were carefully examined on several occasions, and, beyond a possible want of due resonance at both bases behind, nothing abnormal could be made out. Inspection of the air passages after a bleeding showed the larynx and trachea to be tinged with blood, and also a few streaks were seen on the posterior wall of the pharynx. Two days after, on examining the throat, the patient was observed to be suffering from chronic hypertrophic laryngitis: on the mucous membrane of the false cords there were several distended veins and some submucous hæmorrhages, and in the anterior aspect of the left arytenoid cartilage there was a distinct erosion, which disappeared within ten days. But the same appearances were noticed after a subsequent hæmoptysis. The chest was carefully examined on many occasions between November, 1889, and July, 1892, by Dr. McKellar Dewar and myself, and no physical sign of disease could be made out. Under local treatment the hæmoptysis disappeared, the laryngitis improved steadily, and the patient reported himself well at the beginning of 1894, when he was last seen and examined.

CASE V.—*History of repeated Small but Prolonged Hæmoptyses, and Pleurisy of Old Standing, pronounced due to Phthisis in 1879. Blood from Spot in Pharynx. Died 1888, from Septic Renal Disease. No Tuberculous Disease in Lungs.*—A. B., aged 47, came under my observation in November, 1885, when I was asked by the late Dr. Robert Smart to see the patient in consultation with him. From the history, it appeared that the patient had small hæmoptyses for seven years, varying in amount, and coming on at intervals of from one to three months; he also had an attack of pleurisy involving the base of the left lung, which confined him to bed for three weeks in the autumn of 1873, but from it he made a good recovery. He, however, complained of a chronic cough with considerable mucous expectoration. Under ordinary circumstances the expectoration was mucous, or slightly muco-purulent, but after the hæmoptysis the mucus was sometimes tinged with blood for some hours. When the hæmoptysis occurred during the day, the blood expectorated was almost pure and sometimes clotted, but when the bleeding came on in the morning the mucus was mixed with it. He had no pain in the chest, and the temperature was normal. The patient was pale and thin, but had not emaciated during the last seven years. In 1879 he consulted two physicians in London, along with Dr. Smart, and they both attributed the hæmoptysis to phthisis pulmonalis, but the grounds upon which the diagnosis was made are not known to me. The patient was able to follow his occupation, but was much depressed by the repeated expectoration of blood, and his appetite was poor. Careful physical examination of the chest failed to reveal the cause of hæmoptysis, or the presence of disease in the lungs. Immediately after a hæmoptysis had passed, I examined the air passages, and found a small, highly-vascular area about ½ inch square, on the posterior wall of the naso-pharynx. There was no blood issuing from it, but on touching it with a probe an attack of coughing was at once brought on, and the patient complained of great irritation and pain in the spot, soon followed by the expectoration of some blood. At the next examination the same condition was found, and by applying the probe again similar effects followed. There was some granular pharyngitis, and the vocal cords were slightly congested, but otherwise the air passages were normal. After a third examination fused chromic acid was applied to the vascular area; when the slough separated a firm cicatrix formed, and hæmoptysis did not again occur up to the time of the patient's death in 1888, from secondary septic renal disease. *Post mortem*, old pleuritic adhesions were found at the base of the left lung, but there were no evidences of old or recent tuberculous disease, or other lesions in the lungs. No cardiac disease.

Tumours composed of blood vessels are seldom met with in the nasal mucous membrane, and very rarely give rise to hæmorrhage of the kind that we are now considering. It might be expected that vascular tumours, such as the angiomata, would readily develop in erectile tissues such as the corpus cavernosum or clitoris, or the spongy turbinated bodies, but as a clinical fact these tissues are markedly exempt from nævous growths, and the most frequent seats of the capillary vascular tumours are in the subcutaneous tissues of the scalp, face, or trunk.

In the case about to be described the tumour was not found on the highly vascular part of the turbinated body, but was attached to the posterior aspect, where the blood supply is comparatively small. It is of interest, not only as a cause of severe hæmorrhage, but also on account of the almost unique character of the growth from which the blood escaped.

CASE VI. *Angioma of the Posterior Part of the Left Turbinated Body, causing Repeated Hæmoptyses during Eighteen Months. Phthisis strongly suspected: Emaciation and Anæmia of Mucous Membrane of Larynx, Pharynx, etc.: Bleeding stopped by Removal of Tumour.*—C. R., aged 27, was sent to me at the Royal Infirmary by Dr. J. W. Anderson, who stated that the patient had been suffering from hæmoptysis for eighteen months previous to November, 1890. Sometimes the patient coughed up a considerable quantity of pure blood (the exact amount unknown), at other times the blood was small in quantity and intimately mixed with very tough mucus. Generally the hæmoptysis occurred on awaking in the morning, but once or twice the bleeding happened during the day, when the patient had been over-exerting himself. At these times he had cough, pain in the throat, and difficulty in swallowing. Emaciation and anæmia were well marked. The sputa contained no tuberculous bacilli, but the existence of phthisis was strongly suspected. On examination of the throat the mucous membranes of the pharynx, palate, and larynx were seen to be very anæmic, while the margins of the pillars were of a bright red colour, but there was no tuberculous swelling at any part. The marked anæmia was, however, very suggestive of tuberculous disease. There was extensive granular pharyngitis. Examination of the posterior nares showed enlargement of the inferior turbinated body, and at its posterior limit there was a growth of the size and shape of a haricot bean. Its surface was of a dark reddish copper colour, presented very much the appearance of a ripe bramble, and on being touched with a probe it bled readily. The left nostril was very small, and considerably obstructed in front by the enlargement of the inferior turbinated body. Examination of the lungs revealed a small area of diminished resonance at the right apex in front, with no *râles*, but a slight prolongation of expiration only; otherwise no objective or subjective evidences of tuberculous disease. The granular pharyngitis and the hypertrophy of the turbinated body were treated by the local application of fused chromic acid. Afterwards the growth was removed with an electric snare, and subsequently the base was cauterised several times, until no remnant of the vascular tissue remained. The patient reported himself well in September, 1893, having had no hæmoptysis since a week after the last operation (January, 1891). His general health was improved, and he had gained 9 lbs. in weight.

In all cases of hæmoptysis the important point to determine is the source of the bleeding. In the cases just described not infrequently the blood escaped in such a way as, had the cause been suspected, at once to suggest the nature of the hæmoptysis, but sometimes in the same case the blood trickled down into the larynx or trachea, and was expectorated as if from the lungs. Hence the mode in which the blood escapes, or even the impressions of the patient, cannot be taken as a guide in determining the source of the bleeding; it therefore becomes all the more important to carefully employ the laryngoscope or the rhinoscope to establish the precise lesion from which the blood flows. It is believed by many that if blood is seen in the trachea we may conclude that the hæmoptysis is from the lungs. This is not altogether correct. The blood, as I have shown in some of the foregoing cases, may flow into and even collect in the trachea from the higher air passages, but it may be asserted as a general rule that during pulmonary hæmoptysis the trachea is blood-stained, and the blood is intimately mixed with the mucus. Whereas in hæmorrhage from the larynx or the parts above it, the trachea is seldom stained, the blood expectorated is pure, only on the surface of a mass of mucus, inspissated, or in dry clots. In all cases if the source of the bleeding is in the larynx or upper parts of the air passages, the laryngoscope should reveal its source, but perhaps not with one examination only, many careful observations may be required.

In the great majority of cases it is easy to distinguish a pulmonary hæmorrhage from other hæmoptysis, but in a few instances the distinction between the two forms of bleeding is a matter of considerable difficulty. In the absence of any lesion in the upper air passages to account for it, the bleeding may be safely attributed to a pulmonary lesion, even although there may be no appreciable evidence of disease in the lungs, and on this assumption treatment should be adopted until unmistakable symptoms or physical signs render the diagnosis certain.

REFERENCES.

1 *Glasgow Medical Journal*, November, 1890. 2 *Ibid.*

THE annual general meeting of the St. George's Hospital Graphic Society will be held at the hospital on Tuesday, June 1st, at 2.30 P.M. By permission of the Board of Governors the annual exhibition, which is strictly limited to the work of members, will be held in the Board Room of the hospital. The exhibition will be opened immediately after the meeting, and will remain open until the end of the week.

THE Sociedad Cientifica Argentina is organising a Latin-American Scientific Congress, to be held in Buenos Ayres in April, 1898, under the patronage of the President of the Republic, and the honorary presidency of the Minister of Justice, Worship, and Public Instruction. One section will be allotted to medicine and surgery, and another to anthropology.

# THE INGLEBY LECTURES

ON THE

# OPERATIVE TREATMENT OF CANCER OF THE BREAST.

*Delivered at Mason College, Birmingham,*

BY BENNETT MAY, F.R.C.S.,

Joint Professor of Surgery in the College, and Surgeon to the Queen's Hospital.

## LECTURE II.

I SHALL now proceed to consider the results which have been obtained from this method of operating, adopting Volkmann's three-years' limit as the standard of a cure. Experience shows that the prospect of permanent immunity is then considerable. At the same time I do not accept this, or indeed any other period as at all absolute owing to the way in which minute deposits may temporarily remain quiescent and latent. I have seen external recurrence after an interval of eleven years, and not infrequently a patient dies of the disease five, six, or more years after operation, though in these cases I think some sign might have been detected within the three-years' limit. However in this limited and provisional sense I accept it as a cure. Then a distinction is to be drawn between local external recurrence and internal metastatic deposit as evidence of completeness of operation. The efficiency of the operation is more correctly measured by freedom from local recurrence than internal deposit, as the former is evidence that the operative limits were reached, and nothing further could have been done. Moreover it is supposed that cases are taken without special selection so long as they are operable.

I believe the following is an exposition of the best work which has been done in the treatment of cancer of the breast on the lines of the radical operation described.

The following table shows the recently published returns of three operators:—

*Table of Cases operated on by the Radical Method and observed for at least Three Years.*

| Surgeon. | Number of Cases. | No Local Recurrence. | | Local Recurrence. | Percentage of Cures. | Date. |
|---|---|---|---|---|---|---|
| | | Cured. | Died. | | | |
| Rotter ... ... | 10 | 6 | 2 | 2 | 60.0 | 1896 |
| Helferich ... | 35 | 10 | 11 | 14 | 30.5 | 1896 |
| Watson Cheyne | 21 | 12 | 4 | 5 | 57.0 | 1896 |
| Total ... | 66 | 28 | 17 | 21 | 42.1 | |

Per cent. of cures (average), 42.1. Per cent. no local recurrence, 68. Mortality of operation, 0.0.

Bergmann does a bold operation on ordinary lines, removing the breast widely with the paramammary tissues, systematically clearing the axilla, and in some cases removes the sternal portion of the pectoralis major. His latest statistics, however, do not come down later than 1885, when he was less careful about clearing the fascia, etc., than now, and I have not included them in this table.

Rotter (Berlin) does a wide operation. He removes the whole of the sternal part of the pectoralis major and the pectoralis minor. He also removes the clavicular part of the major when the infraclavicular glands are enlarged. In some cases he removes the supraclavicular glands, but does not resect the clavicle.

Helferich (Greifswald) does a similar operation, but without removing the pectoralis minor.

Watson Cheyne does a wide clean operation on ordinary lines, occasionally removing the sternal portion of the pectoralis major. He does not ordinarily remove the supraclavicular glands. His results, which I take from the Bradshawe Lecture, February, 1896, seem the best recorded, namely, 21 cases with 12 cures=57 per cent.

*Table of Statistics showing Gradual Improvement in Results.*

| Operator. | Date. | Cures. |
|---|---|---|
| Billroth ... ... ... ... ... ... | 1876 | 4.7 per cent |
| Esmarch ... ... ... ... ... ... | ,, | 11.8 ,, |
| Volkmann ... ... ... ... ... | 1880 | 17.8 ,, |
| Kuster ... ... ... ... ... ... | 188 | 21.0 ,, |
| Konig ... ... ... ... ... ... | ,, | 23.0 ,, |
| Bergmann (v.) ... ... ... ... | ,, | 32. |
| Average of Rotter, Helferich, and Watson Cheyne | 1896 | 42.5 |

Looking to my own results, I have seen that the effect of thorough removal is very marked indeed. I find it almost impossible to present these in a complete tabular form, principally owing to the difficulty of tracing the hospital patients. I commenced to clear out the axilla as an addition to the ordinary operation in selected cases about 1887. These earlier ones, though not available in statistical form, were of great value to me, and were largely instrumental in forming my opinion. Thus a lady whose breast and axilla I cleared in May, 1888, for a small scirrhous tumour microscopically verified is now alive and perfectly well. Another operated on in April, 1889, in the same way is perfectly well to-day.

From the commencement of 1891 I have cleared out the axilla in every case of cancer I have operated on with one exception, namely, a very feeble old lady of 70 with a small hard scirrhous nodule, who presented anæsthetic difficulties. This has been the only exception. Since that date I have performed the complete operation more or less perfectly on 78 patients, 44 in private practice, and 34 in hospital. The ages ranged from 28 to 75 years. There was not one death from operation, nor one even seriously ill so as to give anxiety. It is right to say I have had one death from breast excision for a simple tumour, due to acute septic infiltration in hospital. I have found it impossible to trace the subsequent histories of a sufficient number of the hospital cases dated three years back to make them of any value for statistical purposes, so they must be put aside altogether. Of the 44 private cases I have a report up to date in every one. These cases are divisible into two periods—the first prior to May, 1894, and the second subsequent to that date. Those in the first group only are available for the three years' limit, and they are 20 in number; of these 7 are now alive and free from any sign of the disease, 11 have died from it, and 2 are alive but show signs. Out of the 13 in whom the disease has reappeared it was solely internal in 7.

I should state that this epoch contained an unusual proportion of bad cases, of complete failures, and very early recurrences. I have no doubt the 24 in the second epoch will show much better results. In the first place, I have continuously improved upon my method of operating, particularly in respect of wider removal of muscle and paramammary tissue. Then the selection of cases was more careful and judicious. Thus of 9 operations (private) in 1896, only 1 shows any sign of reappearance (internal only): of 7 in 1895 1 died within 8 months, and 1 shows signs of internal deposit; all the others are quite well.

The advantages which have followed thorough and systematic operation are, I think, sufficiently apparent, and have fully established its superiority over the older methods. An important dissentient is to be noted in Mr. Frederick Treves, who considers that practically the results are no better than by the older methods, while being more tedious and dangerous, but, as he allows an average mortality of 5 per cent. for these older ones, and an average reappearance within twenty months, it is clear that he does not do justice to the possibilities of the newer method, while he considerably exaggerates its dangers and drawbacks, its average mortality being below 5 per cent., and immunity from return far more than twenty months.

I think it is more difficult to decide upon the merits of some of the more extensive operations which have recently been introduced, especially by our Transatlantic brethren.

Halsted and Meyer do not consider the operation complete unless it includes also the whole of both pectoral muscles, every trace of fatty and connective tissue in the axilla and

subpectoral region, and the supraclavicular glands in the posterior triangle of the neck.

Halsted's operation is rather startling in its extent and magnitude. The technique is not quite easy to understand, but it is fully explained in his article in the *Annals of Surgery*, vol. xx, 1894, and also described by Jacobson in the last edition of his excellent work on *Operative Surgery*. Suffice it to say that Halsted encircles the breast by a very wide incision, which is carried below the clavicle on to the arm. A flap of skin is reflected down from the axilla and chest wall, and is subsequently slid up to form a lining for the fornix of the axilla. Another incision, bisecting the main one, is carried over the clavicle to the neck, and the flaps of skin are reflected. Both pectoral muscles are detached from the ribs and clavicle and humerus, and the cleaning of the axillary contents is commenced and carried from above downwards. The whole of the tissues are dissected away with scrupulous care, not a trace being left behind, and the whole mass is removed in one piece, so that cancerous tissue is never cut into. He now also adds to this a dissection of the supraclavicular glands from the posterior triangle of the neck. It is described as a bloodless operation, as many as 100 or more ligatures being required, and the time occupied is said to be three or four hours. He claims for it but little shock, as he allows no loss of blood, and as he has done it fifty-one times without a death he is entitled to do this. Halsted distinguishes between local and regionary recurrence. By the former he means return of the disease in the field of operation in the scar or in the glands above the clavicle. By regionary recurrence he means skin metastases at a distance from the scar, and which he believes appear as independent formation, being against the lymph current. The distinction, however, cannot well be maintained, and seems superfluous. Of his 51 operations Halsted claims that there has been true local recurrence only in 3, but 8 have shown regionary recurrence, or 11 in all. In 5 the result was not known. The remainder, 34 in number, showed no external recurrence. Of these, 10 had died, presumably of internal metastasis, so that 24, or 50 per cent., may be considered as cured. The weak point in these statistics is that they are not based upon the three-years or any limit; in fact, it does not appear that the three-years limit has been passed in more than 3 or 4 of them, a large number being within a few months of the publication. In any case they do not show better results than by the ordinary complete operation such as Watson Cheyne's. It is clear that in both cases the majority that die do so of internal metastasis without local recurrence. The operation seems one which may well be reserved for advanced cases where the muscles are infiltrated and the infrascapular and cervical glands are enlarged; if, indeed, it is thought advisable to touch such cases at all. I believe it was not Halsted's intention to publish any more results till the three years had passed, so that a further and more valuable record should shortly be due.

Meyer's operation goes even further. He makes the usual oval incisions on a wide scale, and bisects the upper by a vertical one carried up over the clavicle to the neck. The integumental flaps are dissected well back. Both the pectoral muscles are then removed entire, commencing at the humeral attachment of the major, and throwing both inwards. These, with all the infraclavicular and axillary fat, etc., lymphatics, are carefully cleaned away with the knife absolutely and continuously working round the seat of disease, and never trespassing even on the belly of the muscle. The supraclavicular glands are also dissected out of the posterior triangle of the neck through the vertical incision. Any defect of the skin is made up by grafting in eight or ten days. This operation he claims adds only twenty minutes to the ordinary one, and the disability afterwards is not great. At the time of publication he appears to have done it only in one case a few months previously, so that no opinion can be formed of its special merits. Further than this it is scarcely possible to go without amputating the entire upper extremity with the shoulder girdle. I believe this has been done a few times, though with indifferent success. It is clearly inadmissible, and can only be condemned as a dangerous and useless mutilation without corresponding advantage. Then, at least one operator has removed the sternal glands from within the chest, a procedure which is not likely to be frequently followed. Heidenhain also includes the periosteum in stripping the muscles from their bony attachments.

There is diversity of view as to the treatment of the supraclavicular glands. This is certainly our weakest point, and the most common seat of external recurrence, just as the axilla used to be. My own opinion is that if enlarged glands can be plainly felt above the clavicle there is no hope of cure, and the case is hardly suitable for operation. It is to be noted that these supraclavicular growths often appear to grow very slowly, and that owing to the roomy space and fat in which they lie a long time may elapse before they show any sign of enlarging. Consequently by the time this has taken place the chain of glands beyond them, which is close to the lymphatic duct and passes into the chest, will be extensively infected, and the disease will have passed into a region where it cannot be followed.

How far it should be carried as an addition to the ordinary operation is as yet somewhat doubtful. To clear out the posterior triangle of the neck means a considerable addition to the operation, and is frequently unnecessary. If, however, it is found during the operation that the highest axillary glands are infected, it is clearly necessary to follow them into the neck, unless the case is to be forthwith abandoned as hopeless. There is then a reasonable prospect of getting beyond the limits of the disease. It is not considered that division or resection of the clavicle materially helps the exposure and removal.

I think it is very doubtful whether some of these more extensive operative procedures confer any additional immunity from recurrence at all commensurate with their severity. It is clear that in both classes of operation the majority of the fatal cases die of the internal metastasis without external recurrence and against internal metastasis no operation can protect. It is very certain that but little good can result from these extensive measures if there exists some deep-seated nidus of infection which is beyond the reach of the knife. That such a source of infection exists is in many cases only too certain though not apparent. Dr. Herbert Snow finds it in the bone marrow. He claims that this is the great obstacle to radical cure in breast cancer. This infection he states takes place in all ordinary cases within six months of the inception of the disease. The typical indication is a prominence of the sternum, though there may not be any more visible evidence for many years, the disease remaining quiet and latent. There is considerable force in his views, though probably much too sweeping. I have on several occasions recognised this enlargement of the sternum as an unfavourable prognostic sign indicating bone infection, and I have found bone a frequent seat of metastatic deposit.

So far, then, there is no conclusive evidence that any corresponding advantage accrues from some of the more recent developments of the operation, and I am of opinion that the utmost benefit of which it is capable may be conferred in a large majority of cases by the one I have described as the standard. The cases for which this will not suffice are probably unsuited for operation. At the same time, final judgment must be suspended till we receive further reports of these procedures.

### Clinical Varieties.

The clinical varieties of cancer of the breast vary, as is well known, within wide limits, and appear to me to depend very much on the age, habit of body, and constitution of individual patients. At one extreme is the large, soft, rapidly-growing and vascular tumour, known as medullary cancer, which occurs in robust, healthy young women, and in stout women of more mature years. These cases are most unfavourable for operation, and, except in their earliest stages, are quite unsuitable. They furnish a large proportion of the early recurrences and failures, as the disease sometimes reappears before the healing of the wound, and spreads with great rapidity. Of all the unfavourable modifying conditions I think rapidity of growth is the worst. The actual duration is by no means the only criterion of the stage of the disease. A large tumour of the tuberous forms of slow growth, and unattached, has a much more favourable prognosis than an infiltrating medullary one in its earliest stages.

At the other extreme is the small, chronic, dry infiltration

of shrivelled and aged women, though not confined to old women. Opinions differ as to the propriety of operating on atrophic cancer. In my own opinion it is a question of the stage of the disease. In an early stage they are the most favourable of all, and should certainly be removed. Later, when there is any notable skin infiltration or attachment to the muscles, the most radical operation is not only ineffectual, but harmful. It is not only that an early reappearance may be expected, but the type of the disease is thereby changed, and the recurrent malady may run its course in as many months as it would have occupied years if undisturbed. I have known a case extend over thirteen years of fairly comfortable life. Atrophic cancer has a remarkable faculty of attaching itself to surrounding parts, and of reproducing fibroid indurations in its recurrences, both regionary and metastatic.

*On Paget's Disease.*—I have had four cases of this peculiar cancerous dermatitis of the nipple. I should advise immediate operation in every case of chronic eczema or ulcer of the nipple, even though no tumour is perceptible, as the relationship between this and cancer is constant. In all my cases the ulceration preceded the tumour by several years. In two of them the tumour was limited to the nipple, and of the kind known as duct cancer, and preceded by a bloody discharge from the nipple, a symptom of very grave significance.

*On Secondary Operations.*—Secondary operations are advisable only when the growths are small, solitary, and freely movable. I think these operable cases generally imply an imperfect primary operation, and should get rarer as we make this more efficient. In two of my cases only have I thought it advisable to remove recurrent nodules by secondary operation, and in neither was the result very satisfactory, as general infiltration soon showed itself. I have seen but one case, and that in the practice of a predecessor, which was greatly benefited by repeated operations, two small nodules being removed from the scar at intervals of four and three years respectively.

*On the Complete Operation.*—All cases should be subjected to the complete operation, even in their earliest stages. Except as a palliative in a few rare cases and for benign tumours, the incomplete operation—that is, of the breast alone—should be abandoned. The additional risk to life is scarcely appreciable, and the advantage of clearing the axilla, the next resting place of the disease, is obvious. After incomplete operations reappearance takes place in at least 80 per cent. within six months. Even as a palliative the complete operation is much more effective, in particular in preventing that very distressing feature, œdema of the upper extremity.

It is occasionally necessary to perform a palliative operation on a patient past hope of cure for the sake of the moral effect. To some women the verdict "too late" comes as a crushing blow, and it is more humane to yield to their request, if this can be done with any prospect of relief. For instance, we may get rid of a foul and bleeding ulcer while the patient's spirits are maintained by hopefulness.

### On the Limits of the Operation for Cure and Non-operable Cases.

A judicious and careful selection of cases should be exercised, and involves consideration of the constitutional state of the patient as well as the local conditions. Among non-operable cases I class:

1. Large medullary cancers.
2. Scattered tubercles in the skin and œdema.
3. Internal metastasis of all kinds.
4. Œdema and solid enlargement of the upper limb.

This latter I regard as an emphatic *noli me tangere* and contra-indication. This waxy œdema is one of the most distressing features of the disease. I am sorry to say I know no means of relieving it. I have tried puncture, but it is worthless. Amputation at the shoulder-girdle has been practised on a few occasions, and I have been asked by patients to do this: but even this heroic remedy does not arrest the progress of the disease.

Among debatable cases I include:

1. Enlargement of supraclavicular glands. I have hitherto regarded this as an absolute contra-indication, but I am inclined now to extend the field of operation to some of these cases, clearing the supraclavicular fossa as an addition to the ordinary operation. I would limit it, however, to small and movable tumours, or to the condition I previously indicated of the highest axillary gland being found infected. Fixed and painful enlargements or with œdema of the limb should not be touched. Before long we may expect some further evidence of the merit of this addition to the operation, as it is being extensively practised by some surgeons.

2. Cancer in both breasts. The appearance of the disease in the other breast is now commonly regarded as a late general infection, and not as an independent growth. It is explained by the free anastomosis and intersection between the lymphatics of the two breasts. It is rarely desirable to operate, but Jacobson records a satisfactory case. The surgeon must consider the probabilities in each case with the interval that has elapsed and the conditions of the reappearance. It happened in two of my patients. In one of them I operated on the second breast with unsatisfactory results: in the other I did not operate on the second breast. The disease reappeared in this one two years after removal of the first, and very curiously it was preceded by enlargement of the axillary glands on the corresponding side.

### Diagnosis.

The importance of early operation, obvious as it is, cannot be too strongly enforced. It is unfortunate that the disease is frequently so insidious in its onset that considerable advance has been made before the patient is aware of its existence. Another great hindrance to early operation is the difficulty of diagnosis in the incipient stages. The first care should be to place the patient in favourable circumstances for the examination. The chest should be quite undressed so as of admit of easy examination of the pectoral region and axilla as well as of both breasts.

In a matter of this urgency and importance I agree with those who think accuracy of diagnosis should be subsidiary to promptitude in treatment as there are cases in which it is impossible to be accurate without exploratory incision. The two conditions which give the greatest trouble are chronic inflammatory hyperplasia and the case of a tense cyst situated deeply in the breast. The latter is distinguished by its mobility, globular outline, and verified by the exploring needle, which should never be overlooked as an aid to diagnosis. Chronic mastitis is often much more difficult to discriminate, and some experience in handling and exploring these indurations is needed. Students are taught to recognise cancer by the well-known evidences in a developed stage when the malignant characters are patent to observation, and we are all more or less under the influence of these teachings.

In the simple disease which often follows lactation or weaning the thickening is sensitive to the touch, firm and elastic, but the outlines are more diffused than in cancer. On pressing the mass against the chest wall the induration and sense of tumour disappear. Then, again, the area of breast occupied is more diffuse and larger, or both breasts may be similarly affected. The same sort of dimpling of the skin may occur as in cancer, but this is quickly followed by fluctuation and suppuration.

It is prudent to come to a decision at the first interview: that is to say, if the surgeon is unable to convince himself of the non-malignant nature of the neoplasm it is better to take action at once. I deprecate the practice of keeping cases under prolonged observation to see how they will develop. Patients either get restive and will not consent to remain long in doubt or, what is more common, if told to report themselves in a month they turn up in six, when the mischief is done. Moreover, the sequel in about five cases out of six shows the delay to have been unwise.

A very important question arises as to the existence of any direct etiological relationship between chronic mastitis and cancer. It is generally assumed that such a relationship exists, that chronic hyperplasia is likely to become cancer, but the stages of development from this supposed precancerous state have not been traced. There seems distinct clinical proof that cancer may be grafted on to it if prolonged. I believe this did take place in the case of one of my patients. This lady, aged 48, had chronic mastitis, and after an interval of 3½ years from its first incidence a small

scirrhous nodule appeared on the site. This made me regret being too precise and nice in my diagnosis.

There can be no doubt that before proceeding to do one of these wide operations we must first positively satisfy ourselves that the disease is malignant. In a large proportion, too many indeed, this is only too obvious. In doubtful cases a preliminary exploratory incision is to be made, and precaution is to be taken against auto-infection. The knife should be changed and the hands of the operator as well as the surface of the breast washed and the incision plugged with sterile gauze.

Can we rely upon the naked-eye appearance of the cut surface? I think so. The fresh cut section of cancer is unmistakable, quite different from the leathery toughness of chronic mammitis. Some contend that the surgeon, if not an experienced pathologist himself, should always be accompanied by one with his freezing microtome. This, however, is a luxury which cannot always be had unless he is to be an official provided at State expense as suggested in America. One is very glad of the opinion of a skilled pathologist, but in case of a conflict of opinion the responsibility of deciding and acting would remain with the operator.

In closing let me summarise by saying that so far as is at present known our only hope of advancement lies in the direction of more thorough and more early operation. The limit of what is possible in the former direction will soon be, if it is not already, reached. The result must carry conviction that we may hopefully anticipate a real cure in at least 30 or 40, or, some would say, 50 per cent. of our cases. I would not like to place 30 as a limit, but it is with somewhat chastened hope that I look for anything beyond. Longer observation is required particularly as to the future development of those cases who pass the three-years limit. Even now, however, the operation in too many cases is not practised to the best advantage, and is not used for all it is worth. Certainly some of the disrepute and prejudice which have surrounded it may fairly be ascribed to the incomplete and inadequate manner in which it is too often done by men who have had no proper surgical training, and whose ill results serve to injure the cause as a whole and to reflect prejudicially on the work of others. The fact is it has been everyone's operation because it is thought to be easy, but now that surgery is specialised to such an extent these happy-go-lucky methods should be abolished in this as in other branches of surgery.

In respect to the second point—more early operation—much has yet to be accomplished. I think, however, that I observe some improvement in this direction, and that we now operate at a somewhat earlier average stage than was customary fifteen or twenty years ago.

I gladly testify to the alertness of the profession in this respect. When undue delay occurs it is usually the fault of the patient who has concealed it from herself, her friends, and her doctor till too late; for this the well-known want of success of the operation is partly responsible. If we can show better results women will probably be less reluctant to undergo treatment. I think in lay circles as well as medical there is an increasing recognition of the value of early and complete operation as offering the only hope of cure.

For the present all pretensions to influence the course of the disease by other measures seem to have subsided, and one after another the worthless cancer cures have ceased to distract the public mind.

In thanking you for your kind attention, I am too well aware that I have added nothing of novelty or weight to what has already been better said by others, but I hope some service may have been done by showing that the operation deserves more careful study and attention than it commonly receives.

British surgery has been rather lax in its treatment of breast cancer, and in particular in our own district I think we have much leeway to make up.

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Presentation.—On leaving the County Asylum at Hatton recently, Dr. William Gardner was the recipient of a silver centre bowl and cigarette case, the gift of the nurses and attendants. The Medical Superintendent, Dr. Miller, in making the presentation on behalf of the nursing staff, referred with regret to Dr. Gardner's departure.

# AN ADDRESS
ON
# THE PROGRESS OF MEDICINE IN THE VICTORIAN ERA.

*Delivered before the East Anglian Branch of the British Medical Association on May 27th, 1897,*

By Mrs. GARRETT ANDERSON, M.D.,
President of the East Anglian Branch of the British Medical Association.

[Abstract.]

"My first duty," Mrs. Garrett Anderson said, "is to thank you most heartily for the honour I am receiving at your hands. To be invited to preside over the senior Branch of our Association would in any case be a great and valued distinction, and the honour in my case is enhanced by the fact that it has been given by my own countrymen, by those among whom my family has lived for so many years."

Proceeding to the subject of her address Mrs. Anderson asked what were the keynotes of medical practice sixty to a hundred years ago, and what were they now? Then the keynote in medicine was observation, which must precede the birth of real knowledge; in surgery the main note was manual skill, meaning by this rapidity, courage, and perfection in doing surely and neatly. The keynote in medicine of to-day was precision; of surgery a sense of personal responsibility combined with attention to detail and patience.

The starting-point of modern medicine, and of what might be called the method of observation checked by experiment, dated from Jenner's priceless observation of the fact that immunity to one of the worst scourges that had ever afflicted mankind could be gained by the inoculation of an attenuated form of an identical or closely related virus obtained from the cow. Jenner's great merit was that he set himself to study the reasons for the popular belief that cow-pox protected against small-pox. He was a young student when the local belief came to his knowledge. It was not for thirty years that he announced that he had tested the belief and proved it true. In 1770 John Hunter had said to him, in reference to the local belief, "Do not think; try, be patient, be accurate." "It is impossible," Mrs. Garrett Anderson continued, "not to regret that Jenner, and everyone else after him for nearly 100 years, accepted the letter of Hunter's dictum in a sense in which it would have been wiser to discard it. It is certainly not complimentary to human intelligence that we went on for 100 years, all over the civilised world, not thinking half as much as we ought to have done as to what could be the meaning or explanation of the experiment we were too familiar with to study carefully. Experience taught us that though Jenner's predictions were not absolutely realised, though the degree of immunity acquired through vaccination varied in different people, though in almost all cases it could be partially exhausted in the course of years and required renewal, though other and less innocent poison could be accidentally inoculated along with the vaccine lymph, yet that by its means, when adequately applied, the plague of small-pox could be certainly prevented; and this being so, it is, as I said before, vexing to remember how little we pondered over the fact, and how little we understood it. We obeyed Hunter's injunction 'not to think' only too thoroughly."

Mrs. Garrett Anderson referred next to the discovery of anæsthetics. "In 1842," she adds, "Long, of Georgia, operated under ether narcosis. In 1844 a dentist (Horace Wells) used it several times, and in 1846 it was given by him in the Massachusetts General Hospital while Dr. Morton removed a tumour from the neck. Dr. Morton from that date continued to use it. In December of the same year the news of the discovery reached England. Professor Simpson took it up in Edinburgh, studied the comparative merits of several chemically-related bodies, pronounced in favour of chloroform, and in 1847 he published details of 50 cases in which, with perfect safety, it had been used to relieve the pain of parturition. From that moment the production of anæsthesia became a factor of great importance in all surgical work ..... An immediate result of the use of anæsthetics

was that extreme rapidity on the part of the surgeon became unnecessary. He could now, for the first time, take time enough to be careful and minutely painstaking as to details. Another and less obvious result was the improvement of nursing which the abolition of pain made possible. While all surgery was torture scarcely less terrible to see than to bear, only women of unusually strong nerves were likely to place themselves in the way of having to witness, almost daily, suffering on that scale. At the time of the Crimean war this effect of the milder methods of treatment was just beginning to be felt; and the enthusiasm called forth by Miss Nightingale's services at that time expressed itself in the adoption of nursing as a profession by many women who would not, I think, have entered hospitals in the preanæsthetic days.

"The influence of the discovery of anæsthetics on research work has also been immense and far-reaching. Very little of that which we now know for certain as to the action of drugs, of physiology, of bacteriology could have been arrived at had we been without the aid of anæsthesia. It is because it has made antiseptic surgery, good nursing, and medical research work possible that I put Morton and Simpson's discovery in the forefront of all that we have gained in the Victorian era."

Immediately resulting from the discovery and general use of anæsthetics was the remarkable advance in abdominal surgery, beginning as it did with the revival of ovariotomy. Ovariotomy, Mrs. Anderson observed, was waiting for three things, without which it could not advance to its full measure of success and usefulness. It needed anæsthesia; it needed a man with the qualities of mind and temperament which should fit him to win for it the sanction of the medical profession and of society at large; and it needed, perhaps most of all, the new light upon the conditions which led to success in peritoneal surgery which the world owed to Lord Lister. In England especially the victory over opposition to the operation was chiefly due to Spencer Wells, whose honesty of purpose was appreciated by the profession, and whose courage and cheerful optimism communicated themselves to the patient.

Referring next to the rise and development of the antiseptic method of the treatment of wounds which was due to Lord Lister and which would for ever be accounted one of the greatest glories of the Victorian age, Mrs. Anderson said: "The beginning of the search for antiseptics may, I think, be dated from Sir James Paget's wonderful address in 1862 on the *Treatment of Wounds*. In it he appealed to his hearers not to be content with the existing state of things; and, as usual, noble discontent resulted in the slow and laborious working out, by the aid of many minds, of a better way. Sir James Paget spoke especially of 'the sore plagues of surgery,' septicæmia, pyæmia, and erysipelas, and of the supreme value of 'repose and cleanliness,' and of the difficulty of getting either, and more especially 'cleanliness' in a surgical sense. He thought surgeons should be content 'to keep out mischief, always a very difficult task,' and he added these significant and almost prophetic words: 'I can only suspect that there are yet some things hidden.' We know now that in 1862 almost the whole of bacteriology was hidden. It is probable that Paget's words of weight directly influenced Professor Lister, and stimulated him to start his researches into the means at our command for 'keeping out mischief' and for providing cleanliness for wounds."

Lister had, in 1867, first formulated his view that putrescence in wounds was a process resembling fermentation, like it due to the presence of micro-organisms, and to be prevented by keeping them out or by destroying them. It was one of his marks of distinction that he had always been searching for improvements in the method, so that though his idea did not vary his method of reaching the ideal did. During the past thirty years the methods had been made progressively simpler, while the doctrine on which they rested had been universally accepted.

The history of the progress of midwifery was very similar to that of surgery. Semmelweis, who had made it certain that puerperal fever was mainly due to the inoculation of the patient with poisonous matter by the hands of the accoucheur or nurse, and that this mode of infection could be absolutely prevented, had never received the honour which was his due. The effect of antiseptics in midwifery practice was in fact more easily measured now than in surgery, because it was possible to compare the mortality statistics under the two contrasted conditions. Without antiseptics the risk of septic infection was enormously on the side of hospitals: with them the relatively greater risk was transferred in almost a greater degree to the other side, namely, the cases occurring in ordinary family practice. "The responsibility," Mrs. Anderson continued, "of not taking the precautions in private practice which have all but removed puerperal fever from the causes of death in lying-in hospitals, is very great, and one that no one ought to have the temerity to accept."

After a brief reference to the use of antitoxins, and to the existence of internal secretions and the therapeutic uses to which knowledge of this nature had been put, Mrs. Anderson concluded by asking her hearers to consider in what direction further progress was most wanted. "I think we may say that surgery and midwifery have had their turn, and that it is in medicine proper that more light is specially needed. We want, in medicine, more of the knowledge that can only be gained through research. We want to know the real nature of malignant growths, the complete life-history of the bacillus of diphtheria, of the parasite of malaria, the conditions they require, and how to produce immunity from them and from tuberculosis. It does not need much imagination to realise how the world would be helped and its sorrows lightened if cancer, consumption, and diphtheria could be brought under control in at all the same measure as small-pox, thanks to Jenner, has been brought; nor how civilisation would advance by leaps and bounds in many parts of the world if malaria could be effectually combated. Victory in these directions can only come through patient and laborious research, and we should all do our best so to educate public opinion that the true value of this work should be generally recognised, and that the demand for it should no longer be restricted within the narrow limit of the world of science."

## ACQUIRED CRETINISM OR JUVENILE MYXŒDEMA.

By WILLIAM RUSHTON PARKER, M.A., M.D.Cantab.,
Surgeon to the Kendal Hospital.

Cretinism is the result of loss of thyroid action in youth, and varies in proportion both to the extent of the loss and to the degree of youthfulness. Three varieties may be distinguished both etiologically and pathologically. In one the thyroid is embryologically not developed, or very partially developed, the cause being presumably akin to that which brings about any other embryological deficiency, such as acardia, acephalia, anencephalia, absence or abortion of uterus, ovaries, or testicles. In a second the thyroid undergoes the same changes as in endemic goître, and doubtless from the same cause, any differences being due to loss of thyroid function. In a third the thyroid, after functionating healthily for a time, atrophies, doubtless from causes akin to those of adult myxœdema. This third variety may be distinguished from congenital cretinism and from goîtrous cretinism by the term acquired (non-goîtrous) cretinism or juvenile myxœdema. A few examples may make this variety clear.

1. A young man, under Dr. E. Hertoghe,[1] of Antwerp. Growth stopped without apparent cause at the age of 12. At the age of 27 his voice was childish, his face beardless, his movements slow, his face and hands swollen, his height 4 feet 6 inches. Under thyroid extract he grew an inch and three-quarters in 14 months.

2. A young woman, also under Dr. Hertoghe.[1] Growth stopped without apparent cause at the age of 7. At the age of 20 her face and hands were swollen; she was dull and apathetic; always felt cold; could read and write well; and was just under 4 feet high. In about a year and a half she grew 4½ inches, lost her puffiness, and became bright and cheerful. The photographs are very similar to those of Case 1.

3. A girl, under the late Dr. C. Hilton Fagge. She made good progress at school till a severe attack of measles, with erysipelas, at the age of 8, soon after which growth ceased; her features and hair underwent profound changes; pseudo-

lipomata were noticed at 12; and at 16¾ Dr. Fagge diagnosed cretinism.[2]

4. A girl, under Dr. Dawson Williams. She learnt to talk and walk, and cut her teeth at about the usual age, and seemed in all respects normal until scarlatina with dropsy at the age of 5, after which growth nearly ceased, and a great change came over her mental state. At 18½ she seemed like a child of 5, played with dolls, showed no signs of puberty, was slow in all movements and speech, had a cretinous aspect, stood 3 ft. 8 in. high, and weighed 3 st. 6 lbs. Under thyroid extract she grew 4 inches in about a year, and became much brisker and brighter, but progress was retarded by pronounced scoliosis.



Case 1.—Aged 27.



After 3 months.

5. I saw a very typical case in the London German Hospital in February, 1886—H. E., aged 17½, who had carried off several prizes at school, and had subsequently been engaged at the *Graphic* office at 10s. per week. At 15½ he gradually lost his sight from (apparently primary) optic atrophy, and simultaneously myxœdema developed, so that when I saw him he was very stunted and broad, much swollen in the abdomen, hands, lower limbs, and face; had a staggering gait, very rudimentary genitals, very badly enamelled teeth, and was a complete imbecile. Dr. W. M. Ord diagnosed the case. A younger brother was simultaneously attending at Moorfields Hospital with kerato-iritis and choroiditis; and it was in the search for syphilis in the family that I had hunted out the myxœdematous youth.



Case 3.—Aged 16¾ years.



Case 4.—Aged over 19 years.

6 and 7. Brothers, under Dr. Hertoghe.[1] At 21 and 7 months of age respectively they had suffered simultaneously from a nearly fatal throat affection (diphtheria?), after which growth was slow. They learnt to walk at 7, and were sent to school at 12. At 19 and 18 respectively they stood 3 ft. 8½ in. and 3 ft. 7 in., and under thyroid extract they both grew over 7 in. within two years, losing their cretinous aspect, and acquiring much more intelligent features.

8. A woman, aged 26, under Dr. S. Holgate Owen. Nothing abnormal was noticed till aged 6, when scoliosis was found. She began to menstruate at 23. At 26 she had the characteristic features of cretinism; she stood 3 ft. 4¼ in. high, and weighed 3 st. 3 lbs.[3]

9. A girl, who went to school till 8½ years old, reading well, and learning arithmetic. At 13 myxœdema was diagnosed by Drs. W. M. Ord and Barlow. Her intelligence was then equal to a child of 4. She had lost her memory, her power of speaking and writing, and the use of most of her voluntary muscles.[4]

10. A woman, aged 20, who had apparently suffered from myxœdema for 5 years, and died suddenly of pneumonia.[5]



Aged 13. Aged 18. Cases 6 and 7, brothers. After 11 months.



References.

[1] *De l'Influence des Produits Thyroïdiens sur la Croissance.* [2] *Medico-Chirurgical Transactions*, vol. liv, p. 159, and plate. [3] *Lancet*, 1893, December 16th, p. 1516. [4] *Clinical Society's Report on Myxœdema*, case 14. [5] *Report on Myxœdema*, Case 107.

## PROGRESS REPORT OF A MYXŒDEMATOUS SPORADIC CRETIN.

By J. LOCKHART GIBSON, M.D.Edin., M.R.C.S.Eng.,
Brisbane.

The photograph (Fig. 1), which is reproduced to accompany this paper was taken in January, 1896, will show for itself that since 1892 very considerable improvement has occurred in the boy of whom a former series of photographs were published in the British Medical Journal for 1893, vol. i, p. 59. [We reproduce two photographs (Figs. 2 and 3) of the patient showing his condition at the age of six years before any treatment was undertaken.]

The series of photographs then published showed the myxœdematous sporadic cretin first getting steadily more myxœdematous, and then, after thyroid grafting, steadily improving. The improvement continued for some months after the last photograph published, and then became stationary. It seemed probable that sufficient of the gland which had been grafted into the peritoneal cavity had not survived for the boy's needs, and that thyroid feeding would prove the truth or fallacy of this surmise. He was put therefore, on thyroid tabloids (Burroughs, Wellcome), and began to improve further. It has, however, never been possible to give him many tabloids, as an excessive dose at once induces marked irritability of temper and diarrhœa. He has

been taking latterly one tabloid daily, and this is the largest daily dose he will bear. It seems likely, therefore, that at least some of the grafted gland survives, otherwise he would probably bear a larger dose by the mouth. He had before the last report lost all signs of myxœdema, though remaining a cretin. He is steadily losing his cretinism, and is now a really intelligent looking, sturdy little boy. His age is 10½ years, and he looks about 6 years, and is as firm on his legs as a boy of that age, and as muscular. It is quite evident, from the expression of his face when spoken to, and from the fact that he readily does what he is told, that his intelligence is



Fig. 1.—January, 1896. Age, 10½ years. Height, 3 feet 3 inches. (The right hand moved.) Compare specially with No. 3, reproduced from BRITISH MEDICAL JOURNAL, 1893.

good. He can be sent to do anything or to deliver anything except a verbal message. He says "Yes" and "No" quite plainly, and the names of some of the other children, and tries to answer and to say other words; but although the sound produced is something like, his pronunciation is very imperfect. I firmly believe, however, that he will ere long speak intelligently and well, and am so satisfied with his very intelligent expression and behaviour that I now think it quite possible that he may develop into a useful member of society. His memory for places and people seems equal to that of an average child of 6 years. His height is now 3 feet 3 inches. At the end of 1892 it was just below 33 inches. I think of making a further endeavour to graft thyroid gland, as the outlook of thyroid feeding for the rest of his life is not a satisfactory one.



Fig. 2.—Before treatment; ordinary expression (Age, 6.)

*Postscript.*—In November, 1896, it was noted that the all-round improvement for the previous ten months had been very satisfactory. His height was 3 feet 6 inches, or a gain of 3



Fig. 3.—Before treatment; "Pleased" or "Intelligent" expression (Age 6.)

inches. He was able to say most ordinary words, though some of them were still not very plainly spoken. He insisted upon being called "Jack" instead of "Johnnie,' as he was previously called.

## GUNSHOT WOUNDS OF CHEST WITH PENETRATION OF LUNG: EXTRACTION OF BULLETS: RECOVERY.

By CHARLES D. MUSGROVE, M.D.,
Penarth, South Wales.

The following case is of interest in two particulars: (1) The proximity of one of the bullet tracks to the heart; (2) the fact that the bullet which traversed this path passed through the lung from front to back, accompanied by a small piece of bone and fragments of a woollen singlet.

D. C., an Italian seaman, aged 26, was found lying in a field near Penarth at 2.30 P.M. on November 10th, 1896, in a state of collapse, and bleeding profusely from the front of the chest. He was conscious, and said that at 9 o'clock that morning he had fired two bullets from a revolver into his chest with the intention of killing himself. This statement was afterwards proved to be correct, so that by the time he was discovered he had lain in the field for about 5½ hours. He was taken home in a cab, and when I saw him shortly afterwards, he was lying on a bed fully dressed, and his singlets, woollen shirt, waistcoat, coat, and overcoat were literally soaked in blood down the whole of the front and left side. He was extremely weak, his pulse being scarcely perceptible.

On opening out the clothes, I found two circular wounds in the præcordial region, one over the fourth rib and the other in the fourth interspace, both blackened with gunpowder, and both bleeding profusely, and from the lower one air was also escaping at each expiration, whilst there was emphysema of the cellular tissue on the left side, extending up into the neck and down to the level of the lower ribs.

On probing these wounds, the track of the upper one was found to pass outwards along the rib, while that of the lower led almost directly backwards with a slight inclination to the left. I used the probe freely, for reasons which will be stated later on, passing the instrument along the track of the lower wound for 6 inches backwards through the cavity of the chest. No bullets could be felt in either of the wounds. On account of the weak condition of the patient, no further search was possible until the evening, when I was able to turn him on to his right side, and by making incisions along the inner border of the scapula, and using a probe, was fortunate enough to discover two bullets: one of these, corresponding to the upper wound in front, was lying in contact with the outer aspect of the fourth rib, along which it had evidently run; the other one lay projecting between two ribs, and had to be forcibly dragged out by forceps, along with a piece of bone (apparently from the anterior part of the fourth rib), with which there were entangled fragments of wool, corresponding in colour and texture to that of his singlet. These bullets were of large size, and had sharp projecting spiral spurs on their surface, evidently due to their having been too large for the bore of the revolver.

As ether and chloroform were inadmissible, owing to the patient's condition, local anæsthesia was employed before performing the operation, and was effected by means of ethyl chloride spray and hypodermic injection of cocaine. The incisions were afterwards packed with boracic lint soaked in carbolic lotion, 1 in 20, no attempt being made, for reasons to be afterwards stated, to keep patent the communication, if such existed, between the incisions and the pleural cavity.

For the first three days the respirations were rapid—48 to the minute—but the pyrexia was slight, the temperature not being above 100° F. morning or evening. On the second day he had a severe attack of dyspnœa in the early morning, simply gasping for breath for two hours.

There was no expectoration or cough until the fourth day, when he brought up a small quantity of plum-coloured sputum, this being repeated once or twice daily until the tenth day, after which it disappeared. On the first appearance of the sputum the odour of the breath became offensive, and a creasote spray was put in operation several times a day, the nozzle of the instrument being placed inside the mouth, and the patient made to deeply inhale the vapour, while the air of the room was also sprayed. The bad odour of the breath disappeared in a couple of days. No lung tissue was found in the sputum.

The incisions in the back were dressed daily, being packed with boracic lint soaked in carbolic lotion, as at the first. From the fourth to the sixth day a rubber drainage tube was substituted for the lint, but was discarded again, as the latter was found to produce more efficient drainage. The wounds in front had become filled with blood-clot, and were simply protected by boracic ointment and lint, and on the tenth day the clots fell out, leaving healthy-looking surfaces.

Throughout the progress of the case the highest temperature was 101.5° F., and this on one occasion only, the average temperature being between 99° and 100° F.

On about the fifth day dulness and other signs of pleuritic effusion on the left side appeared, and on December 2nd, the twenty-third day of the illness, when this dulness had reached the level of the spine of the scapula, an exploratory trochar was introduced, and 4 ounces of transparent blood-stained fluid drawn off. A week afterwards this operation was repeated, but this time no fluid could be obtained; on this occasion the costal pleura was felt to be enormously thickened. The dulness cleared up, except for a slight want of tone in the percussion sound, evidently due to the thickening of the pleura.

The posterior incisions finally healed up by the middle of December, and by the first week in January the patient was able to take a long walk, at the rate of four miles an hour without any sign of dyspnœa or fatigue.

### Remarks.

The first point of interest in connection with this case is the proximity of the lower bullet track to the heart. As has been already described, a probe inserted along this track passed backwards, in the direction of a straight line drawn from the lower wound in front to the inner of the two incisions behind. The position of the heart was as follows:—The apex beat was felt 1 inch vertically below the nipple, and the line limiting the absolute cardiac dulness passed outside the lower wound, so that it was evident that the track of this bullet must have been in the closest proximity to the heart, for the fact of the absolute dulness extending outside the wound showed that the latter must have lain well within the left border of the organ. To those who had an opportunity of examining the patient and observing the relation of parts, it appeared impossible that the bullet which traversed this track could have missed the heart; but, for my own part, I cannot believe that any penetration, or even grazing of its substance took place for the following reasons: (*a*) The relation which the outline of the heart bears to the direction of the track of the lower wound is such that if the bullet had come into contact with the organ, it seems most probable that it would have passed through the interventricular septum and the edge of the left ventricle, necessitating a wound of the left coronary artery, which seems incompatible with a recovery devoid of any cardiac symptoms. (*b*) There would further have been extensive laceration of the pericardium, considering the size and jagged nature of the bullet and the direction of the track, whereas symptoms of any pericardial affection were conspicuous by their absence. On the other hand, however, it must be borne in mind that gunshot wounds of the heart have been proved to be by no means necessarily fatal, since it has been shown beyond doubt that men have lived for months after the heart has been penetrated by bullets, and, further, that wounds of the ventricle are not so dangerous as those of the auricles.

The second point of interest is the injury to the lung, and here we have more definite data upon which to form conclusions, as there was no doubt of the fact that penetration of the lung tissue occurred, considering the escape of air from the wound at each expiration, and the emphysema of the cellular tissue. It is a cause for wonder that the patient did not die from primary hæmorrhage, seeing that he had lain in a field for 5½ hours after the infliction of the injuries, during which time he had evidently, from the state of his clothes, lost an enormous quantity of blood. The point which I wish to discuss, however, is the absence of septic pneumonia or empyema. When we consider that not only a bullet and a piece of rib, but that a fragment of woollen singlet also, had passed through the lung substance from front to back, it must be acknowledged that the risk which the patient ran of septic mischief within the chest was very great. One other factor has to be taken into consideration, however—namely, the presence or absence of external air along the bullet track, and by the phrase "external air" I mean air which has entered the thorax through its walls, in contrast to that which enters by the trachea and bronchi. It is this difference in the mode of entrance of the air, which, as is well known, constitutes its septicity or otherwise. Erichsen, for instance, asserts that "the air which escapes from a wound of the lung is...thoroughly filtered, and has no tendency to give rise to putrefaction of the extravasated blood or inflammatory effusions in the parts about the wound." Now in the case of this patient there was no evidence that air had entered through the bullet wound, for whereas air could be heard to pass out through the latter on expiration, none appeared to enter during inspiration. The inference was therefore that any air present in the pleural cavity had in all probability arrived there through the lung tissue, which was a guarantee of its aseptic condition; and it was the consideration of this fact which led me to make no attempt to keep the posterior incisions in communication with the pleural cavity, the more so as, in removing the bullet from between the ribs, I was unable to make sure as to whether it was lying on the inner or the outer aspect of the costal pleura. It appears to me that such an incision, even if it does include the pleura, is by no means sufficient for the purpose of thoroughly irrigating and draining the pleural cavity; hence it seems best either to pack the incision well and close the

aperture of communication, or to make a suitable opening by excising a portion of the rib, in order to provide facilities for efficient drainage. As the condition of the patient was such as to render any further operative procedure than was absolutely necessary inexpedient at the time, I chose the former alternative.

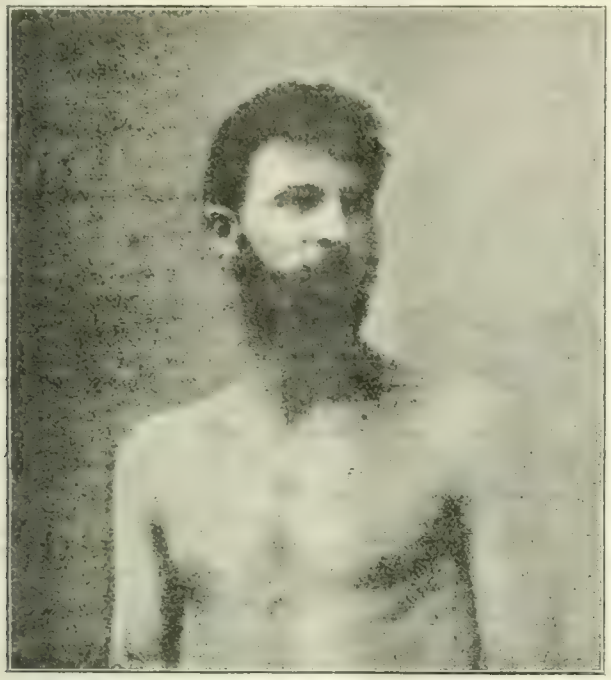


Fig. 1.—Scars of wound of entry.



Fig. 2.—Scars of wound of extraction.

One other point in the mode of treatment in this case remains to be explained, namely, the free probing of the bullet tracks, which was carried out when I first examined the patient. As has been mentioned already, a probe was passed through one of the wounds almost directly backwards for a distance of 6 inches, not once but a number of times during my first visit. This is contrary to the usual teaching, but I fail to see what harm a blunt probe, rendered aseptic, is going to do provided it be used with the utmost care and gentleness, after a large bullet, with sharp ridges on its surface, has passed through the chest. The only danger seems to me to be the admission of air; but if the probing be performed whilst blood is flowing from the wound this risk is entirely avoided, while the same proviso dispenses with the argument that the introduction of the probe might disturb blood clots in the track. At the same time the procedure facilitates the escape of the effused blood from within the chest, thus tending to empty the pleural cavity, as probably happened in this case (for the fluid which was afterwards drawn off by the aspirator contained but a trace of blood, only as much, in fact, as might have resulted from the introduction of the exploring needle), and it is to this primary drainage, if we may so term it, of the pleural cavity that I am inclined to ascribe to a great extent the uninterrupted recovery of the patient.

The withdrawal of the effused blood through the very track which has caused the hæmorrhage, is likely to be of the most effective nature, and it certainly frees the patient from one of his greatest dangers; for otherwise, if the patient's condition is such as to limit operative procedure to what is absolutely necessary for immediate exigencies, should effused blood have to be left within the cavity of the chest, if only for a few days, it must pass through one or other of three changes, each of which is full of risk to the patient: (1) To be absorbed unchanged, which is the least dangerous but probably the least frequent, and which makes a severe demand upon the strength of a patient, already prostrated; (2) it may break down and make its way through the lung tissue into the bronchi, and thus be discharged, which is a process fraught with danger; (3) it may form a nidus for the growth of organisms, giving rise to septic empyema or pneumonia, or both, the dangerous character of which, in cases of gunshot wounds of chest, is too well-known to need further reference.

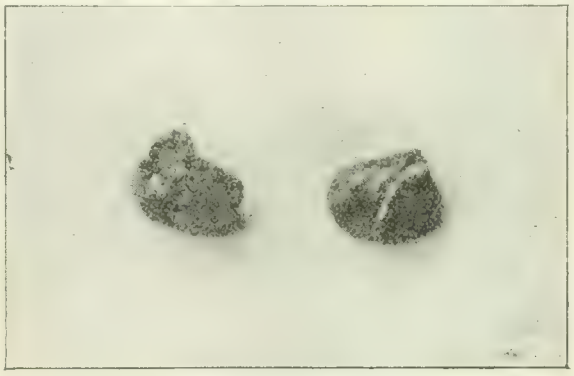


Fig. 3.—The bullets removed

To summarise, the two principles on which I would lay special emphasis in the treatment of gunshot wounds of the lung are: (1) To facilitate as much as possible the escape of effused blood through the original wounds; (2) to prevent the entrance of air into the chest, either through these wounds or through incisions which may be made for the purpose of extracting the foreign bodies.

Attention to this second point will limit as far as possible the entrance of septic organisms, whilst that paid to the first will deprive them of the principal nidus for their growth and development.

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Foreigners and Medical Degrees in France.—During the academic year 1895-96 the degree of Doctor of Medicine was conferred by the seven faculties of medicine in France on 1,029 persons. Of these, 125 were foreigners, of whom 95 (including 12 women) graduated in Paris, and 30 (including 2 women) in one or other of the provincial faculties. Among the various nationalities represented by these foreign students, Russia headed the list with 36 doctors, of whom 12 were women; next came Turkey with 28, including 1 woman; then Roumania with 9, South America with 6, Great Britain 5, Greece 5, Africa 5, etc.

## THE TREATMENT OF ENTERIC FEVER BY CARBOLIC ACID.

BY SURGEON-CAPTAIN R. C. THACKER, A.M.S.,
Station Hospital, Poona.

HAVING arrived at Poona towards the close of July, 1896, and being placed in medical charge of the enteric wards, my interest was naturally aroused as to the results of previous treatment. I found that during the year 1895, 46 cases occurred in the cantonment, and were treated in the Station Hospital, with 13 deaths, giving a mortality of 28.2 per cent. I found that for the first seven months of 1896, 14 cases were treated, including three officers, with 11 deaths—a mortality of 78.5 per cent.

I determined on adopting an old treatment of intestinal antisepsis, which had previously afforded me most excellent results, and was originally taught me in the Dublin School of Medicine, the treatment by carbolic acid, which has lately been strongly advocated by Professor Charteris and Brigade-Surgeon-Lieutenant-Colonel Quill, A.M.S. The latter prescribes a mixture of ♏iij of Calvert's pure carbolic acid in combination with chloroform, and gives the medicine for five doses on the first day, seven on the second, and so on till he reaches ten or twelve doses in the 24 hours.

*List of Enteric Cases Treated by Carbolic Acid.*

| No. | Regimental Number and Rank and Name. | Complications. | Relapses. | No. of Days in Hospital. | Remarks. |
|---|---|---|---|---|---|
| 1 | 4379 Private C., D.L.I. ... | Severe bronchitis | Two | 108 | Excellent recovery. |
| 2 | 4555 Private C. ,, ... | Hæmorrhage | Nil | 50 | R. |
| 3 | 3765 Private B. ,, ... | — | ,, | 32 | Mild and uncomplicated. |
| 4 | 4557 Private R. ,, ... | Hæmorrhage | One | 41 | Severe. R. |
| 5 | 5154 Private R. ,, ... | — | Nil | 44 | Mild. R. |
| 6 | 4515 Private C. ,, ... | — | ,, | 62 | Severe. R. |
| 7 | 3945 Private C. ,, ... | — | ,, | 48 | Mild. R. |
| 8 | 2310 Private C., R.I.R. ... | — | ,, | 50 | ,, |
| 9 | 97775 Gr. D., R.A. ... ... | Hæmorrhage | One | 52 | Severe. R. |
| 10 | 752 Sergeant W., R.I.R. ... | ,, | ,, | 62 | ,, |
| 11 | 2221 Private L. ,, ... | ,, | ,, | 82 | ,, |
| 12 | 4918 Private M., D.L.I. ... | — | Nil | 72 | ,, |
| 13 | 4249 Private C. ,, ... | Hæmorrhage | ,, | 50 | Mild. R. |
| 14 | 4736 Private M. ,, ... | — | ,, | 19 | Died. |
| 15 | 5097 Private Ch. ,, ... | — | ,, | 50 | Mild. R. |
| 16 | 4413 Corporal B. ,, ... | — | ,, | 72 | Severe. R. |
| 17 | 4576 Private B. ,, ... | — | ,, | 75 | ,, |
| 18 | 82612 Gunner R., R.A. ... | Hæmorrhage | One | 75 | ,, |
| 19 | 3308 Corpl. S., 21st Hussars | — | Nil | 56 | Mild. R. |
| 20 | 3641 Private R., 2nd Mid. R. | — | ,, | 73 | Severe. R. |
| 21 | 5224 Private O'B., D.L.I. ... | — | One | 97 | ,, |
| 22 | Lieutenant C., D.L.I. ... | — | Nil | 73 | Mild. R. |
| 23 | Lieutenant T., R.H.A. ... | — | One | 75 | Severe. R. |

I am convinced that some patients are much more readily affected than others, and serious symptoms may be produced, including wild delirium, tendency to collapse, and in one case (seen *post mortem*) a condition of acute congestion of the whole intestinal tract, unexampled in my experience of ten years in close association with the malady. I adopt a more guarded administration of the acid: ♏xij are given in four doses in ℥viij of water, to which is added a little syrup and spirits of chloroform, and supplemented at night, if the patient is awake, with a couple of doses of ordinary diaphoretic mixture. This plan of treatment, combined with careful nursing and suitable dietary, has afforded fairly satisfactory results.

In all, 23 cases, including 2 officers, were treated with 1 death, a mortality of 4.3 per cent., and this loss I attribute solely to the weak, nervous, and prostrate condition of the patient, as he was only recently convalescent from a severe and malignant attack of acute dysentery.

Hæmorrhage occurred in 8 cases, but was easily controlled by that admirable method recommended by Dr. I. Burney Yeo (*Manual of Medical Treatment*): enemata of Dover's powder and tannin, 10 grains of each, with gallic acid, aromatic sulphuric acid, and liquor opii sedativus internally. In every case it acted promptly, and I can quite concur in his remark that "lives have been saved by the precaution of having it kept ready at hand in case of emergency." In this hospital it always is, and with no uncertain result.

Cardiac asthenia was generally treated by stimulation, strychnine hypodermically, or caffeine in gr.iij doses every sixth hour.

Hyperpyrexia in three instances caused apprehension, but yielded to ice sponging, ice pack, etc. In one case a layer of ice was suspended about a foot from the body, along the whole length of the patient, the cradle being covered with thick blankets. The plan acted splendidly, as it kept the temperature at a moderate level, under 103° F.

I claim for carbolic acid, judiciously administered in enteric fever, that in the majority of cases it modifies favourably the duration and height of the pyrexia. The tongue rapidly shows a remarkable tendency to clean and become moist. The evacuations become odourless and inoffensive, and tympanitis is held in check. The mental clearness and physical vigour of the patient are well maintained, with frequently a rapid and complete recovery.

I present a tabulated statement giving the names, complications, relapses, and number of days in hospital of the 23 cases treated by the acid. Perhaps I might add that all the cases were most carefully diagnosed with the sanction and concurrence of the senior medical officer and the other medical officers serving here at the time, and in almost every instance they were of a severe and grave type.

## DOUBLE OPTIC NEURITIS IN ENTERIC FEVER.

BY C. BRAINE-HARTNELL, M.R.C.S., L.R.C.P.,
London.

THE well-known difficulties of making a diagnosis in children between enteric fever and meningitis were strikingly illustrated in the following case:

E. W., aged 11, a boy of weak intellectual development, "ailed" for a few days without presenting any definite symptoms. On the third day the temperature was 103.4° F., and he was purged five times. For the next four days he was purged twice daily. He was restless and noisy, and could with difficulty be kept in bed. Photophobia and signs of cerebral irritation developed. The face was pale, the pupils were equal, the tongue dry, and sordes formed on the lips. There was no purging from the seventh day until he died upon the eighteenth day of his illness, but formed motions were constantly passed. The abdomen was, if anything, somewhat retracted. There were no spots; the spleen could not be felt, nor could an enlarged area be percussed out. The temperature fell on the tenth day to normal, but rose again on the fifteenth, and on the eighteenth day, just before death, it reached 105.2°. The pulse-rate varied from 120 to 160. The left knee-jerk could not be elicited; the right was present. Plantar, cremasteric, and abdominal reflexes were all present. There was no impairment of sensation; no retention of urine. There was never any strabismus, and no convulsions were noticed. Two days before death there was slight inequality of the pupils and well-marked double optic neuritis, more pronounced upon the right side. There was no nasal or aural discharge, and nothing could be heard in the lungs.

The difficulty of diagnosing enteric fever, in the absence of spots, distension of the abdomen, and enlargement of the spleen, was extreme. The temperature was by no means suggestive, and there was no bronchial catarrh. The motions after the seventh day were always formed, but there was no constipation. Before the discovery of optic neuritis the diagnosis was uncertain, but after that distinctly in favour of meningitis. The nervous symptoms themselves were regarded with great caution, for, as Latham[1] has said, "the nervous system will run on to such an excess of sympathy as to seem to engross all living action and suffering, and allow nothing to appear in the body but what directly proceeds from itself." Of no disease is this more true than enteric fever, especially in children. I regret that in this case the urine was not tested for Erhlich's reaction.

The *post-mortem* examination (by Dr. Goodliffe) revealed distinct inflammation of Peyer's patches, with decided enlargement of the mesenteric glands and solitary follicles. There was nothing in the brain to give rise to the optic

neuritis. It is interesting to note that optic neuritis is not mentioned as occurring in enteric fever by either Fagge, Osler, or Strümpell, while Sir William Broadbent, in *Quain's Dictionary*, mentions it only as an almost pathognomonic sign of meningitis. On the other hand, Gowers speaks of it as being not uncommon in both enteric and scarlet fevers; and Taylor records a similar case that has come under his notice.

REFERENCE.
1 *Diseases of the Heart.*

## A CASE ILLUSTRATING THE DIFFICULTY OF DIAGNOSIS IN GASTRIC ULCER.

By W. CLARK ALEXANDER, L.R.C.P.and S.Edin.,
Bowdon.

X. Y., aged 35, had suffered from dyspepsia since boyhood. The pain, seldom acute, occurred two or three hours after meals. He suffered also from flatulence and constipation, seldom vomited, and had had no hæmatemesis. For a fortnight before the present attack he had been very constipated, and the feeling of nausea and discomfort after food had increased. The pain was slight.

On February 23rd I found the patient, who had just returned from a long railway journey, in acute pain over the epigastrium. At night he vomited about a pint of bile and mucus, and felt relieved. Next day the acute pain was better, but there was tenderness over a small area, 2 to 3 inches above the umbilicus. Milk diet was ordered and a purgative prescribed. As it did not act, enemata were ordered, but with no result. On the fourth day small doses of castor oil were given, and the bowels moved twice; the motions soft, with some hard pieces. The feeling of soreness was not relieved, and at times the pain was fairly acute. There was now some distension of the abdomen and epigastrium, and a feeling of resistance on palpation over the latter.

On March 3rd, as the pain was constant, the patient was seen by Dr. Dreschfeld, who diagnosed some slight intestinal obstruction, probably due to adhesions. He advised opium and belladonna pills, and a continuance of fluid diet and enemata. As the latter wholly failed to relieve, I returned to small doses of castor oil. The bowels acted on several occasions, and some quite large hard pieces were passed. After a motion the patient felt that something had moved from the tender area, and the pain got somewhat better, but it gradually came back. I then resorted to large enemata of olive oil (with the foot of the bed raised) which relieved wonderfully for a time, but after some hours the pain returned.

On March 17th, Dr. Dreschfeld again saw the patient, and advised a surgical opinion.

On March 20th, Mr. T. Jones saw the patient, and coincided with the theory of adhesions causing obstruction, and advised laparotomy. After the day I first saw the patient the symptoms, subjective and objective, pointed to some intestinal lesion. There had been no vomiting, no pain referred to the ingestion of food, and the pulse and temperature had been practically normal.

### Operation.

An incision was made in the middle line 4 inches long, extending upwards from 1 inch above the umbilicus. Colon presented at the lower angle of the wound; it seemed quite healthy and free from adhesions. The liver was much adherent to the abdominal wall, and on careful separation a small escape of gas was noted, having the odour of sulphuretted hydrogen. On further exploration by the probe and sinus forceps about ʒj of pus escaped. The peritoneum at the lower angle of the wound was sutured, a large drainage tube inserted into the abscess cavity, the wound in the abdominal wall packed with iodoform gauze, and then left to granulate. The patient had a good night but the wound discharged very freely, and in the morning the dressings, sheets, and nightclothes were saturated. On removal of the dressings a great rush of discharge came through the drainage tube which seemed like stomach contents; this was verified by further examination.

The diagnosis now was gastric ulcer, localised peritonitis, perigastric abscess. This diagnosis Mr. Jones supported on seeing the patient next day. Nutrient enemata were now given every three hours (ʒiij peptonised milk with half an egg and a little brandy, alternating with a suppository of peptonised beef). After the first twelve hours the flow of stomach contents ceased, and a viscid bile-stained fluid was freely discharged.

Despite the greatest attention to nursing and feeding, the patient gradually sank, and died five days after the operation, apparently from rapid emaciation through pure lack of nourishment. The temperature rose a little from the time of the operation till death, its greatest height being 100.6° C.

At the necropsy (at which I was assisted by Dr. Gardner, of Manchester) an ulcer, evidently, from the condition of its edges, of long standing and of about the size of a crown piece, was found on the anterior stomach wall in the lesser curvature and close to the pylorus. The site of the ulcer corresponded on the outer side of the stomach with an abscess cavity which would hold about ʒiv of fluid, and was in the midst of dense and strong adhesions binding liver and stomach together. The floor of the ulcer had practically been formed by cicatricial tissue and adhesions, and an abscess having formed at the expense of these, the stomach wall had given way at the point of least resistance.

As to the cause of the rapidly fatal issue, even after the establishment of the gastric fistula, there was no evidence of shock; there was no peritonitis or further pus formation; but the fact of the very free exit for the digestive juices externally would lead one to believe that the nutrient enemata could not be prepared for assimilation.

The points of interest in the case are: The occurrence of a gastric ulcer of this size with only the ordinary symptoms of dyspepsia. (The pain had no reference to the ingestion of food, and at no time had there been any hæmatemesis.) The pain being relieved so much by the olive oil injections—a fact which made the diagnosis of ulcer still more difficult. The absence of vomiting during the month he was in bed prior to the operation. The absence of any connection between the ingestion of food and the occurrence of pain in this acute attack, although one would think the ulcer during this period would be easily irritated; and the extreme and rapid emaciation which obtained after commencing the nutritive enemata.

Reasoning from analogy it may be assumed that the correspondence of the pain to the ingestion of food in gastric ulcer must vary greatly according to the position of the ulcer, as in this case the site of the ulcer on the anterior wall and close to lesser curvature would lend itself to escape irritation, either by food passing over it or being deposited in its floor.

## A CASE OF ABSCESS OF ABDOMINAL WALL FOLLOWING TYPHOID FEVER: INCISION: RECOVERY.

By GEORGE WESTBY, L.R.C.S.I., M.R.C.P.I.,
Liverpool.

Mr. R., aged 21, was under the care of Surgeon-Lieutenant Steel, A.M.D., from February, 1896, to the end of May, 1896, as reported by him in the British Medical Journal of January 2nd, 1897. The particulars of the case prior to coming under my charge, are briefly these: Mr. R., in February, 1896, was found to have developed typhoid fever, complicated with peritonitis, passing on to abscess of the abdominal wall, which was incised; it was not considered advisable to do more at that time, owing to the excessively weak state he was in. This abscess apparently healed, and he returned home to Liverpool at the end of May; he was still weak, but improving, while the aperture in the abdominal wall to the right of and below the level of the umbilicus had apparently closed.

I was summoned to see him at 4.30 A.M. on June 18th, and found that he had had a sharp rigor, followed by pain in the back, and afterwards by pains all over the body, comparable with those from which he had suffered during an attack of influenza. Around the situation of the former wound there was no special pain or tenderness on pressure, but the cica-

trix had a raised and glassy look. In a few days it thinned down to a mere blister, which gave way, allowing the escape of about ʒij of fœtid pus. There was nothing fæcal about it, however, and I never heard that such was the case at any period of the patient's illness. Mr. Mitchell Banks now took up the case with me, and on passing a probe he found it passed 4½ inches into a tortuous channel running downwards and towards the middle line in the direction of the bladder; it was clear the original wound had never healed soundly but had left behind it this long sinus, the orifice of which had closed over imperfectly, and then had given rise to the belief that everything was sound. Some pus having accumulated in the sinus had caused the patient to feel very ill, a condition from which he at once recovered as soon as the cicatrix gave way and the pus escaped.

To lay this extensive sinus open in its entire length was a distinctly serious proceeding, not devoid of danger, and with the possibility of leaving behind it a weakened abdominal wall, which would be a serious thing for an officer. It was resolved, therefore, to try to get the sinus to heal if possible by various stimulating and other liquid applications, nitrate of silver, etc., all to no effect. At last Mr. R.'s patience became exhausted, and he resolved to have the sinus completely laid open, which was done by Mr. Banks on August 19th. The steps of the operation are as described by himself. As the process of laying open went on the incision necessarily became deeper and deeper. The rectus, and with it the epigastric artery, were completely divided, the incision finally ending in the suprapubic fat and cellular tissue. It was impossible, moreover, to help opening the peritoneum. Through the rent the finger introduced into the abdomen found no evidence of adherent intestine; all seemed perfectly right.

The point of interest, however, is that in the course of laying open the sinus something was cut across which exactly resembled a very small intestine; it was recognised to be the appendix vermiformis, and was stitched up. The sinus was thoroughly scraped in its whole extent, and having been put into the condition of a fresh raw wound was stitched up in its entire length, except for a small portion at its lower end, in which a tube was inserted. By this means primary union was obtained of the peritoneum, and through a portion of the long gash, thereby greatly diminishing the liability of rupture which would otherwise have resulted. The wound finally closed in December, and, having gone away for a change, the patient returned to duty in the beginning of March, the part being protected by an aluminium plate. He has remained well up to the present date.

The points of interest are:

(1) The occurrence after typhoid fever of an abscess probably perityphlitic in character.

(2) The occurrence of a long and deep sinus after this abscess, which had closed over unsoundly, only to give rise to a collection of retained pus.

(3) The discovery and division of the vermiform appendix imbedded in the hard tissue of the sinus.

(4) The satisfactory result of the operation, and the complete recovery, after so prolonged and serious illness.

## POISONING BY THE "PRIMULA OBCONICA."

By J. HEADLEY NEALE, M.B., M.R.C.P.Lond.,
Physician to the Leicester Infirmary.

On April 9th, 1896, Mrs. W., a young married lady, consulted me for a rash which had suddenly appeared the day before on her face and hands, "which itched and burned intensely." On the face the eruption was urticarial, but the blotches were too confluent; while on the hands, especially between the fingers, it was suggestive of scabies. I suspected some local irritant, and finding that the soap used was not irritating I described as carefully as I could the flowers of the P. obconica, but she denied having handled any. Under a topical soothing application the face was soon better, and desquamating, but the hands became intensely painful. On the dorsal aspect the spots had turned to purple blotches, while the whole palmar surface of hands and fingers had become stiff and unusable. Two days later the face was comparatively well, the blotches on the dorsal aspect of hands and fingers fading, but there was evidence of deep-seated blisters forming at the tip of each finger and above and below each phalangeal flexure. To make sure I smartly pricked the tip of one finger and a bead of clear fluid escaped. I ordered the patient to macerate her hands thrice daily for ten minutes at a time in rectified spirit (to which was added a fair proportion of tincture of belladonna), and then to swathe them in lint soaked in glycerine and covered with oil silk, relying upon the hygroscopic properties of the spirit and glycerine and the possible action of the belladonna as an anodyne. The result fully justified the experiment. A few days later she told me that "her hands were nearly well," and she "could bend her fingers." The first thing that attracted my attention as I entered her room was the presence of three fine blooms of the P. obconica among other flowers on the table. On pointing out that these were the very flowers I had been looking for and asking about, she told me she had gathered them the day before in the conservatory, and on going there I found eight fine plants, some in full bloom, which she had been in the habit of watering, etc. That they had not bloomed on April 9th, when the rash appeared, opens out a fair field for research as to the properties of the several parts of this pretty but obnoxious plant.

This case recalls to my mind the result of the enthusiasm of a young assistant at the Botanical Gardens in Edinburgh. Having in his menial capacity been present at a lecture when the late Professor Dickson was descanting upon the poisonous properties of the "Rhus toxicodendron," this inquiring youth straightway broke a twig and smeared some of the exuding juice on his left arm, appearing at the infirmary a few days later. Never shall I forget that arm with its gangrenous-like line of demarcation, midway between the shoulder and elbow-joint, while below it was intensely red and swollen; one huge pemphigoid eruption, some of the "bullæ" being as large as pigeon's eggs. Nor shall I easily forget the enthusiasm displayed upon the faces of Professor Fraser and Dr. Murrell as, between the "clinics" which were then in progress, they watched me making a water-colour sketch of the arm. The drawing is no doubt still in Dr. Fraser's possession, and is possibly the only one extant of the result of poisoning by "Rhus toxicodendron."

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

### AN ANENCEPHALOUS MONSTER.

On the afternoon of April 10th I was called to attend a lady, aged 28, a primipara, eight months pregnant. She had suffered greatly from pain in the abdomen for some days previously, and had not slept the preceding night owing to it. She was a rather thin woman of average height. The abdomen was of large size, the abdominal walls very tense, rendering palpation difficult. The fœtal heart was audible at the left side, above the level of the umbilicus; the movements of the fœtus could be felt low down on the right side, and were, indeed, a source of discomfort to the patient. I could not feel the head at the fundus. The os was dilated to the size of a shilling.

I ordered a simple enema, and then, having administered a dose of chloral and opium, left the house. On the following day the patient felt much better, and was able to be out of bed and came downstairs.

About 7 A.M. on April 13th I was again sent for. Throughout the night the patient had severe and frequent labour pains; the membranes ruptured before my arrival, and a foot presented. The child was delivered in about twenty minutes; when placed on the bed it did not cry, but moved its arms and legs freely for about a minute, during which time the chord pulsated distinctly; it soon, however, ceased to move.

The child, a female, was 15 inches long, the arms and legs were very thin, but of average length, the abdomen normal. It had no neck whatever, the chin being continuous with the thorax. The face was very small and the eyes prominent. The head at the level of the supraorbital ridges was perfectly flat, covered in by pretty hard bone and skin, through

which no sutures could be felt. The hair was very abundant, and perhaps two inches long. On the posterior aspect of the head and thorax was a dark mass: its surface was uneven. It was about the consistence of normal brain, and extended from the top of the head above to about the level of the mid-dorsal vertebra below, and laterally to the posterior borders of the scapulæ. It was covered over and held in position by a rather thick membrane. On removing it the spines of the vertebræ and the posterior parts of the upper five or six ribs could be seen. It communicated above through a small opening with the deformed cranial cavity. Owing to the prejudice of the patient's friends, I was unable to remove any portion of this brain-like mass for microscopic examination.

Considerable *post-partum* hæmorrhage followed the delivery of the child. The placenta, though very small, seemed normal, the chord, about 18 inches long, was very tortuous. The patient made an excellent recovery.

The patient and her husband are both healthy, and she did not meet with any accident during pregnancy. No history could be obtained of monstrosity in any ancestor.

Chippenham, Wilts. FRANCIS BOLSTER, M.B.Dubl. Univ.

## A GRANULOMA FOLLOWING REVACCINATION.

SOME time ago I revaccinated Miss L., aged 35, in four places with calf lymph. The arm bore well-marked scars of vaccination performed during infancy.

Two of the places "took" naturally, but the course of the others was unusual from the first. In a day or two, painful red, flattened papules began to form, and grew rather rapidly, and in twelve days from the insertion of the lymph the condition was as follows: There were two natural, well-formed vesicles, and two red, glazed masses, very much like pieces of cock's comb, on the arm, quite one-eighth of an inch in thickness, and as large as a shilling in area. There was little surrounding inflammation or induration, but a great deal of pain was complained of. The amount of discharge, which was watery, was very considerable. These masses tended to become pedunculated, the edges growing a little way over the neighbouring healthy skin, and as they did so the amount of discharge increased. The pain still continued to be severe. The vesicles now began to change in appearance, and at the edge of each appeared a growth similar in appearance to the larger ones. These ultimately reached the size of peas.

Under the influence of astringent lotions these growths grew smaller and disappeared, and now, about eight weeks from the time of vaccination, the scars are almost normal, but more raised than they should be, and when rolled between the thumb and finger they feel quite nodular.

I am at a loss to know what to call this condition, and several medical friends who saw it, including a surgeon to a large hospital, were quite unable to give it a name. I imagine the masses were in reality merely granulation tissue, but they had a more distinct pellicle than granulations usually have. I thought at first I had to deal with a very acute case of keloid, attacking small wounds, but the subsequent course of the growths negatives such a supposition.

Warwick. F. G. GARDNER, M.R.C.S.

## URTICARIA FOLLOWING AN ENEMA.

THE occurrence of an urticarious rash following the administration of an enema has been referred to in the BRITISH MEDICAL JOURNAL by Dr. Suckling, Dr. Hale, and others.[1] The following is a description of a similar case: Mrs. M., aged 38, suffered in March, 1897, from an attack of dysenteric diarrhœa followed by constipation. To relieve the latter condition, a soap and water enema was given at 7 P.M. on March 22nd. Next evening at 9 P.M. a rash appeared over a considerable part of the body. In character it was a small-whealed urticaria, and it extended over the lower end of the back, the front and back of the thighs, the temples, and the sides of the neck. On the 24th it was found to have spread over the whole body except round the middle third of the trunk. It was most marked, as before, on the lower third of the trunk and the thighs.

The itchiness due to the eruption was very slight. There was no sore throat, the tongue was clean, and there was no feverishness. In the evening for about three hours the rash took on an appearance like that of scarlet fever. Then the urticarial condition returned, and the rash gradually faded away.

On March 27th it had disappeared everywhere except over the lower end of the spine. The enema was repeated on April 10th, 15th, and 25th, but there was no return of the skin disturbance.

There can be little doubt that the rash was the direct result of a toxæmia due to the absorption of fæcal matter liquefied by the warm water, although the urine failed to give reactions to the tests for indican. The patient is of a rheumatic diathesis, but had never before suffered from any skin eruption except a slight eczema of the fingers. The only drug she was taking at the time (calomel) was not likely to produce such a condition, and the diet was of a light, unstimulating character. She had never before had a rectal injection other than of glycerine. The points of interest appear to be:

1. The pronounced urticarial character of the rash, changing to a scarlatinal form for only a few hours. In the cases referred to above the opposite sequence of events seems to have been the rule.

2. The localisation of the eruption. Usually the place of greatest intensity and duration has been the face; in this case the lower third of the back.

3. The time of appearance and duration of the rash. There was no sign of it for twenty-six hours, and the condition persisted for four days. It is said the rash usually appears in two hours and disappears in twenty-four.

4. The very slight amount of itching and discomfort.

The case bears many points of resemblance to that reported by Dr. Hale in the BRITISH MEDICAL JOURNAL, 1895, i, p. 474.

Stirling. J. ERNEST MOORHOUSE, M.A., B.Sc., M.D.

## THE PATHOLOGY OF GENU VALGUM.

I HAVE had a skiagraph taken of a marked case of genu valgum in a child, to see if the elongation of the internal condyle of the femur, which is described as so frequently present in such cases, existed. The skiagraph failed to show any such change, but demonstrated instead the presence of a very marked curvature in the shafts of both the tibia and fibula. A skiagraph taken from another case shows the same thing. I shall have skiagraphs taken of all marked cases, and publish them later on; but I am anxious to record the results of skiagraphy in the investigation of the pathology of these two cases, that others who also see many of these deformities may experiment in this way also, so that the question as to the frequent existence of elongation of the condyle may be settled. I may add that there was no "uprising" of the inner part of the head of the tibia in my two cases, the changes were in the shafts of the tibia and fibula, where they were very marked. So far as I know, curvature in the shafts of these bones is not described in genu valgum.

Bristol. CHARLES A. MORTON, F.R.C.S.Eng.

# REPORTS

ON

## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

## ROYAL INFIRMARY, NEWCASTLE-UPON-TYNE.

### CASE ILLUSTRATING THE VALUE OF PAUL'S TUBE IN CERTAIN CASES OF ACUTE INTESTINAL OBSTRUCTION.

(By FREDERICK PAGE, Surgeon to the Infirmary.)

A CHILD, aged 12 years, was admitted under my care on January 9th, 1897. When 5 years old she suffered from tabes mesenterica, but made a good recovery, and though not strong is reported to have enjoyed good health since her illness. Early on the morning of January 4th she was seized with severe pain in the abdomen. She had a rigor, and vomited. On January 6th she was seen by Dr. Oakley, of Heaton, who found her suffering from general peritonitis, the explanation of which he could not ascertain. Three days

[1] BRITISH MEDICAL JOURNAL, 1894, i, p. 1190 and p. 1413; 1894, ii, p. 867; 1895, i, p. 474.

after, that is to say on the sixth day of the attack, a lump could be felt in the right iliac region, and Dr. Oakley came to the conclusion that an abscess had formed, probably appendicular. She was sent to the infirmary.

On admission (January 9th) her temperature was 102.4°; there was vomiting and constipation, with some slight distension and general tenderness of the abdomen. The child was in great pain, and very ill. On January 10th a pericæcal abscess was opened and drained. No concretion was found in it, and the appendix was not seen. During the day the temperature fell to normal, and the bowels acted twice. On January 11th the bowels again acted twice, and the child seemed to be very much relieved. The next day there was a return of pain, vomiting, and distension. On January 14th the vomiting had become stercoraceous, and the abdomen was very much distended. No flatus nor fæces had passed *per anum* since January 11th.

The abdomen was now opened in the middle line, midway between the umbilicus and the pubes; two fingers were introduced, and a search made for a portion of collapsed gut. None was found, and a Paul's tube was secured in the nearest coil of distended intestine. The vomiting did not recur, and the distension subsided. A week after the tube was removed. Ten days after the insertion of the tube, and two days after its removal, no flatus nor fæces having passed by the anus, an enema was given, but it returned unstained. Seven days after this abortive attempt, the bowels not having acted by the anus now for nearly a month, another enema was given, which brought away a considerable quantity of pale-coloured but solid stool, since which the bowels acted regularly. On March 3rd the note was: Both the wounds closed, and the child convalescent.

The case teaches, I think, a useful lesson, and illustrates the value of Paul's tube in certain cases of acute obstruction of the bowels, where there is much distension, and the patient is in such a condition as not to admit of any prolonged operation. Had a determined attempt been made in this case to find a mechanical obstruction—which possibly was not present—I feel sure the child would have died upon the table. By means of Paul's tube the intestines were emptied, and in due time the cause of obstruction, whatever it was, subsided, and the fæcal fistula closed spontaneously.

On March 13th, two months after the opening of the pericæcal abscess, when the child was about to be discharged, she was suddenly seized again with abdominal pain, became distended and rapidly died. On *post-mortem* examination, evidence or old and of recent peritonitis was found. The old pericæcal abscess cavity communicated with the cæcum. Through this opening bowel contents had escaped, distending the cavity, which bursting into the pelvis caused rapid death. The appendix was five inches long and by its tip, which was gangrenous, was firmly attached to the right ovary.

# REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

W. H. Dickinson, M.D., President, in the Chair.

*Tuesday, May 25th, 1897.*

### Address to Her Majesty the Queen.

The President proposed in graceful terms that the Council should be empowered to draw up an address to Her Gracious Majesty the Queen, expressing their loyalty and devotion on the occasion of the Jubilee of the longest reign. This was carried by acclamation. He added that it would interest Fellows to see the book of the Society signed by the Queen in 1840.

### Subclavian Aneurysm successfully Treated by Ligature.

Mr. H. H. Clutton read a report of a case of aneurysm of the third part of the right subclavian, for which the first part of the subclavian artery was ligatured twice, and on the second occasion a distal ligature was also applied to the first part of the axillary. A spare healthy man, aged 54, was seen by Dr. Sharkey in February, 1896, and sent to Mr. Clutton with the statement that the heart and aorta were free from any obvious signs of disease. There was a small sacculated aneurysm in the third part of the right subclavian artery, reaching from the outer border of the scalenus anticus to the clavicle. On March 18th, 1896, an animal ligature was applied on the proximal side at the junction of the first and second part of subclavian artery. The ligature was tied as a "stay-knot" with sufficient tightness to arrest the circulation, but without rupturing the coats. The superior intercostal was also tied at the same time, and in the same manner. At the end of five or six weeks the aneurysm and the radial artery were pulsating as they did before the operation. On June 10th the first part of the subclavian artery was exposed and tied with floss silk on the proximal side of the first ligature. The internal mammary and thyroid axis were also tied at the same time. The stay-knot was employed for each ligature, and the walls of the vessels were approximated without sufficient tightness to rupture the coats. Pulsation in the aneurysm and in the radial artery ceased as the ligature on the main vessel was being tightened. On June 17th the aneurysm was again pulsating. The first part of axillary was therefore immediately tied in the same manner with floss silk so as to cut off all the collateral vessels from the intercostals in the axilla. After this operation the aneurysm ceased to pulsate, and gradually disappeared, so that he left the hospital on August 8th without any swelling above the clavicle. The author thought it probable that if the first ligature had been of silk instead of an animal material the subsequent operations would have been unnecessary.

Mr. Barwell said that ligature of the first part of the subclavian artery was a very rare operation until recent times. Fourteen years ago he had insisted on the importance of not dividing the coats of large arteries on the neck, because it was unsafe to expose an artery so weakened to the high blood pressure existing in vessels so close to the heart. He hardly thought ligatures of goldbeaters' skin would be sufficiently firm to occlude a large vessel. There was considerable difficulty in occluding a large and resistant vessel without rupturing its inner coats. Ligaturing the subclavian in two places and dividing the vessel between would be difficult, because there was but little space, and dangerous from the risk of secondary hæmorrhage, while if the inner coats were divided an aneurysm might develop on the proximal side.

Mr. B. Pitts had a similar case under his care shortly after seeing Mr. Clutton's. The patient was a man with cardiac disease and a large aneurysm involving the second and third parts of the right subclavian. As the patient suffered much pain, the first part of the artery was tied with a double floss ligature, and special attention was paid to not rupturing the inner coats. The vessels coming off from the subclavian were not tied. The wound healed by primary intention, and from what was seen later it was probable that had there been any sepsis extensive hæmorrhage would have resulted. For two weeks the patient was better, then the pain recurred and became very severe, and pulsation reappeared in the aneurysm. The parts were explored by Mr. Ballance, and it was found impossible to ligature the first part of the subclavian, as it was hidden by an aneurysm thought at the time to be aortic. The first part of the axillary artery was ligatured. Death eventually resulted from hæmorrhage, and at the *post-mortem* examination it was found that the artery was much affected by soft atheroma, and that, in spite of the care at the first operation, the inner coats had been ruptured, and that an aneurysm had developed at the situation of the ligature; this aneurysm was separated by a small piece of artery from the original one.

### Pharyngeal Abscess: Hæmorrhage: Ligature of Carotid Arteries.

Mr. H. H. Clutton read this paper. The case was one of very severe hæmorrhage from an abscess in the roof of the pharynx above the right tonsil, which was eventually successfully arrested by the ligature of the common, external, and internal carotid arteries. A victualler, aged 28, was admitted into St. Thomas's Hospital, under Dr. Sharkey, on June 20th, 1896. The day after admission he bled rather profusely from an abscess in the pharynx above the right tonsil. On June 24th the soft palate was divided for the purpose of a complete examination of the abscess. A hole was then found passing through the wall of the pharynx into the tissues of the neck. This opening was enlarged and the cavity plugged

with cyanide gauze, as it was thought from the character of the hæmorrhage that the bleeding might be from the internal jugular vein. During the night following this operation he bled so furiously that no doubt could be entertained as to the hæmorrhage being from a large artery, probably the internal carotid. The next day, June 25th, the bifurcation of the common carotid on the right side was exposed, and an animal ligature applied by means of a "stay knot" to the common carotid and its two branches. A saline infusion of two pints was given whilst the wound was being closed with sutures. The wound in the neck healed by first intention, and the abscess cavity in the pharynx was found by digital examination to have closed on July 16th. He had no further hæmorrhage after the ligature of the carotid arteries, and left the hospital for a convalescent home on July 25th. Considering the difficulties in determining the exact source of hæmorrhage when it occurred from a pharyngeal abscess, it seemed to the author to be the safest practice to tie both the external and internal carotid arteries as well as the common carotid, since all three arteries could be reached through the same incision at the bifurcation. The necessity for tying two of them had been well shown by Mr. Pitts's paper in *St. Thomas's Hospital Reports*, vol. xii, and the addition of the third scarcely increased the length of the operation.

Mr. B. Pitts had seen a similar case 15 years ago in a man with tonsillitis, and discharge first of pus, then of a small and eventually of a larger quantity of blood. The common carotid on the affected side, which was only indicated by slight brawny swelling, was tied, but two days later the man had another hæmorrhage to two pints, and died. At the necropsy the internal carotid artery had been opened by an abscess. The occurrence of hæmorrhage so soon after showed that ligature of the common carotid alone was ineffectual. He had performed experiments in the dead house with glass tubes inserted into the carotids, and water injections, which showed that the hæmorrhage which followed after ligature of the common carotid in the cases under discussion was the result of anastomosis between the branches of the external carotid arteries on the two sides. He therefore advocated ligature of the external carotid as well as of the common carotid. Mr. Clutton's plan of ligaturing the internal in addition to the other two was even better.

Mr. Harrison Cripps had read a paper before the Society nineteen years ago, discussing which vessel should be ligatured in perforating wounds about the face and throat. Generally speaking the common carotid was the one selected. He had performed experiments on the same lines as Mr. Pitts. His method was as follows: The right common carotid was ligatured and the facial artery on that side was cut across; water was then driven into the left common carotid artery, and issued from the proximal end of the cut right facial artery, showing that the anastomosis was between the internal carotids, and not between the external carotids. He advocated ligature of the external carotid low down. Analysis of 68 cases showed that ligature of the common carotid was followed by a high mortality, which was not due to sepsis but to two causes: (1) brain symptoms either coming on directly after ligature, or supervening some three or four weeks later; the brains of patients already anæmic from hæmorrhage being very intolerant of further privation of blood. (2) From recurrent hæmorrhage. It was very rarely that hæmorrhage came directly from the internal carotid; in only one out of his 68 cases did it occur. He insisted it was better to do the safe operation of ligature of the external carotid with every probability of success, and, if need be, ligature the common carotid later, rather than adopt the dangerous operation of ligature of the common carotid in the first instance.

### Irreducible Hernia.

Mr. Warrington Haward said his paper was based upon an analysis of 85 cases in which an operation was performed for irreducible hernia. The cases were tabulated so as to show the sex and age of the patients, the situation of the hernia, the duration of the hernia and of its irreducibility, the occurrence of strangulation, the contents of the sac, the cause of irreducibility, the treatment adopted, and the result. The dangers of irreducible herniæ were described and illustrative cases quoted. The conditions on which irreducibility depended were considered, and arranged as follows: Thickened and adherent omentum, 31: adhesion of omentum to sac, 34; twisting of omentum, 1; cysts in omentum, 1; total number of cases in which irreducibility was due to condition of omentum, 67. Adhesion of intestine to sac, 12; adhesion of coils of intestine, 4; large amount of intestine, 3; total number of cases due to conditions affecting intestine, 19. Due to thickening of mesentery, 1; due to conditions affecting the sac only, 3; ventral hernia of subperitoneal fat, 1. Note: In a few cases more than one of the above causes of irreducibility were present. It was shown that in nearly every case these conditions were such as were remediable only by operation. From the facts and arguments adduced the following conclusions were drawn: (1) That irreducible hernia was a condition of serious danger, the gravity of which increased with its duration or neglect. (2) That the application of a truss upon an irreducible hernia was not only useless but harmful. (3) That irreducible herniæ which consisted wholly or in part of bowel were very apt to become strangulated. (4) That herniæ consisting wholly of bowel, upon which no truss had been worn, might (even when of large size and of considerable duration) generally be returned by appropriate treatment. (5) That of the cases of hernia in which proper treatment failed to obtain reduction, the great majority were irreducible because of adhesions of, or changes in, the protruding viscera, conditions which were remediable only by operation. (6) That the most common cause of irreducibility was the presence in the sac of adherent omentum. (7) That the presence of irreducible omentum in the sac of a hernia was a source of constant danger, which could, nevertheless, be remedied by an operation of extremely small risk. (8) That herniæ containing irreducible bowel were more dangerous than those containing only omentum, and that, as the danger of operation increased with the magnitude of the hernia, and with the occurrence of adhesions, these herniæ should be operated upon as soon as they are proved by the failure of proper treatment to be irreducible.

Mr. Barker heartily endorsed the author's conclusions. He drew attention to the difficulties experienced in reducing the sigmoid flexure when it was in such a hernial sac; it became adherent to the tissues of the scrotum, and required special treatment. He had met with special form of irreducible hernia three or four times in 200 cases.

Mr. Macready, while agreeing as to the advantages obtained by operative interference in irreducible hernia, did not think that it could be insisted on in every case. In a considerable number of cases pressure was successful. From analogy he was inclined to think continuous pressure produced absorption of adhesions, and did not give rise to them. He did not think that the author had proved his second conclusion—namely, that the application of a truss on an irreducible hernia was harmful.

Mr. Haward had only said that pressure by trusses did harm to irreducible herniæ, other forms of pressure might be of great service. He concluded since some irreducible herniæ which had not been fitted with trusses did not show intestinal adhesions while others which had been subjected to the pressures of trusses did, that adhesions were the result of inflammation set up by the irritation of trusses. The omentum might become adherent without any truss being worn. He considered that a patient with an irreducible hernia ran a grave risk by wearing a truss.

## BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

### Clinical and Pathological Section.

Priestley Smith, M.R.C.S., in the Chair.

*Friday, April 30th, 1897.*

### Election of Officers.

Dr. R. M. Simon was elected Chairman; Mr. J. T. J. Morrison and Dr. J. W. Russell were re-elected Honorary Secretaries for 1897-98.

### Raynaud's Disease.

Dr. Short showed two cases of Raynaud's disease. The first was in a woman, aged 25, who had suffered from cold fingers, toes, nose, and ears all her life, the extremities going

dead white after exposure. About five years ago the white appearance was succeeded by cyanosis with cracking of the skin, producing distinct loss of substance, especially well marked in the nose and ears. Electricity had failed to benefit her. She had improved greatly on extract of thyroid gland. The second case was also a woman, aged 27. The blue cyanotic condition was well shown in the hands. Her toes used to be affected with chilblains, but lately, since the fingers became blue and swollen, these had ceased to trouble her. The condition had lasted altogether four years. She was improving on small doses of sodium nitrite.

### Obstruction of Pulmonary Artery.

Dr. Short showed a case of deadly pallor with cyanosis in a girl aged 25, which had come on suddenly six months ago after exertion, accompanied by considerable dyspnœa, which had continued on bodily movement. Well-marked systolic *bruits* could be heard in the mitral and pulmonary areas. The heart's apex was in the fourth space, but the heart was apparently not enlarged. The patient said she had been well till the blueness came on suddenly. Dr. White, Pathologist to the General Hospital, had examined the blood and reported that the red corpuscles and the hæmoglobin were both diminished and the white corpuscles actually as well as relatively increased. The blood also contained small masses of brown pigment and minute cells in clusters, which stained well, and which appeared to be of a fungoid nature. He hoped to report more fully at some future date on the blood and on the urine, which contained a brown pigment of a doubtful nature. Inhalation of oxygen did not make the least difference in the colour of the patient. The author thought it possible that there was a communication between the two sides of the heart, and perhaps also some obstruction at the pulmonary orifice; but whether this was so or not, there was evidently a marked change in the blood itself, the precise nature of this change not being at present determined.

Dr. Foxwell showed a heart presenting extreme stenosis (mulberry vegetations on two of the flaps, very little thickening or adhesion of flaps) of the pulmonary valve. The patient was a well-developed man, aged 23, fair (red and white) complexion with no sign of cyanosis at any time. He came under Dr. Foxwell's care first in 1892, again in 1895, and now in 1897. On the first occasion he complained of palpitation, and congenital pulmonary disease was diagnosed. There was also a doubtful note on the condition of the apices of the lungs. In 1895 and 1897 he came complaining of "bronchitis," and on each occasion localised axillary pneumothorax was diagnosed on the left side; this was confirmed *post mortem*. He died of tuberculous peritonitis, with well-marked symptoms of rapid onset and deep coma. The murmur was heard best in the second left space, beneath the left clavicle and in the left suprascapular fossa. It was sometimes accompanied by a presystolic *bruit* heard best down the right edge of the sternum. The right ventricle overlapped the left, and its wall was, if anything, thicker than that of the left.

### Binocular Vision after Strabismus.

The Chairman communicated some results obtained in cases of strabismus by functional education of the squinting eye, according to the principles laid down by Javal. The cases in which the method gave important benefit were those in which the squinting eye retained useful vision, but did not spontaneously resume its part in binocular vision even after a correct operation and the use of suitable glasses.

### Sarcoma of Bladder.

Mr. John W. Taylor showed a specimen of sarcoma of the bladder removed by vaginal cystotomy one year ago from a married woman, aged 27, who had been confined three months previously. The operation was followed by complete recovery, and so far there had been no sign of recurrence.

### Paracentesis Pericardii.

Dr. Foxwell showed a heart and pericardium taken from a lad, aged 20, whose previous history was good. The duration of the illness was eight weeks; onset insidious; only slight pericardial friction and pulmonary catarrh being noted in the fourth week. The pericardium was tapped by Mr. Marsh in the left third space, a little to the left of the nipple line, as Dr. Foxwell had noted the dulness to be peculiarly extensive in this direction, 12 ounces of blood-stained fluid being withdrawn. Thirty ounces of similar fluid had been previously withdrawn from the right pleura, where a severe pleuropneumonia had developed. The patient rallied for a week, and then gradually sank. The pericardium varied from one-eighth to half an inch in thickness. The endocardium appeared healthy. Pleuropneumonia of both lungs existed. neither the bacillus of tubercle nor the pneumococcus could be obtained by Dr. Kauffmann from fluid or tissue; but a variety of germs were cultivated *post mortem* from the tissues. One noteworthy point was this: the right pleura was tapped twice; the first time the fluid was deeply bloodstained, the second clear serum.

### Specimens.

Mr. Morrison showed (for Mr. Marsh) a specimen of Sarcoma of the Neck, which had invaded the lumen of the internal jugular vein.—Dr. Douglas Stanley showed a Brain from a Case of Deaf-mutism.

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## ROYAL ACADEMY OF MEDICINE IN IRELAND.

### Section of Obstetrics.

Lombe Atthill, M.D., President, in the Chair.

*Friday, April 23rd, 1897.*

### Specimens.

Dr. E. Hastings Tweedy showed an Ovarian Cyst with Adhesions.—Dr. Alfred Smith showed a large Hæmatosalpinx with Hæmatoma of the Ovary, which he removed from a girl, aged 20. Recovery.—Dr. W. J. Smyly showed an Ovarian Tumour and Carcinomatous Uterus.

### Strangulation of an Intraligamentous Fibromyoma which formed Contents of Inguinal Hernia.

Dr. Alfred Smith and Mr. M'Ardle read notes of a case of broad ligament myoma strangulated by protrusion through inguinal canal, and exhibited the specimen. Dr. Alfred Smith saw the case in consultation with Mr. M'Ardle, who demonstrated the large hernial opening and the tumour. The history of pregnancy, the appearance of the tumour and its elastic feel, gave the impression that the case was one of ectopic gestation, probably in the cornua of a bicornis uterus, and accordingly Dr. Smith, through permission of Mr. M'Ardle, performed abdominal section. He noticed that the handling of the tumour did not cause any rhythmic contractions. On closer inspection he found that he could differentiate two masses: one was more or less pedunculated, and was evidently the portion that had descended into the hernial sac, and the other filled the right side of the pelvis and firmly wedged there. The two masses were united together by a broad base. He incised the capsule to determine the nature of the contents, and found it was not a cyst, but a soft œdematous tumour, the tissue easily tearing with the finger; he then removed the pedunculated lobe, and rapidly enucleated the remaining portion out of the fold of the broad ligament. Professor McWeeney reported the specimen as an intraligamentous fibroid undergoing mucoid degeneration. The points of interest were: (1) The difficulty in diagnosticating tumour; (2) the presence of an intraligamentous uterine fibroid in an inguinal hernial sac. The recovery was rapid.

Mr. M'Ardle, in reply to Dr. E. Winifred Dickson and Dr. Smyly, said that there was no bowel down along with the tumour. It was the second time that stercoraceous vomiting had come under his notice in connection with troubles in close proximity to the end of the ileum. He mentioned a case where an œdematous ovarian tumour had pressed on the ileum causing spasm, which produced obstruction. With regard to Dr. Smyly's question about the second opening, he (Mr. M'Ardle) had avoided any incision which would endanger the deep epigastric artery as well as the arteries of the rectus muscle, the patient having been for a considerable time under chloroform. Also, it was impossible to get inwards because the tumour was so large, crushing the uterus to the left side.

Dr. Smith, in reply, said that he thought at first he had to deal with a bicornuous uterus. He found that the round ligament was apparently quite right on each side.

The Use and Abuse of Ergot in Obstetrics.

Dr. T. More Madden read a paper on the Use and Abuse of Ergot in Obstetrics. The reaction against the former abuse of ergot in obstetrics had led to its desuetude in many instances wherein this ecbolic might be most advantageously employed. To use ergot or any of its preparations safely and effectively during parturition the presentation should, as a rule, be cranial; there should be no disproportion between the fœtus and the maternal parts, nor any obstacle to deliverance in the genital tract; the os uteri, if not previously fully dilated, should at least be sufficiently dilatable to allow speedy delivery by the forceps whenever that may become necessary; and a preparation of ergot should be selected and a dose given calculated to produce the required ecbolic effect. Under such conditions ergot might be given with utility when required either before, during, or after the second stage of labour, namely: 1. In some instances (*a*) of delay from inertia of the uterus before the full dilatation of a dilatable os, and in which there was any evident danger to either mother or child from protraction of labour. 2. It might be administered during the second stage (*b*) in nearly every case of long delay from inertia wherein the presentation was natural and the delivery not otherwise impeded, or in which (*c*) there was then either reason to apprehend the probability of subsequent hæmorrhage, or any such complication as might call for its use. 3. During the last stage of labour ergot might be employed (*d*) to hasten the expulsion of the placenta when delayed by inertia, or (*e*) for the arrest of hæmorrhage. 4. After it might be resorted to either immediately (*f*) to prevent or check flooding, or subsequently (*g*) to produce such tonic or permanent contraction as would effectually seal up the uterine vessels, and so lessen the liability to subsequent septic invasion, or (*h*) to effect the expulsion of clots, and so arrest after-pains. 5. (*i*) To stimulate such contraction as might quicken or secure the process of involution after parturition. In such cases ergot should be administered only once during labour, and then in such a bold, full, and effective dosage as might be likely to excite speedy and permanent or tonic uterine contractibility. Dr. More Madden generally used the fresh liquid extract of ergot of the *Pharmacopœia*, of which he commonly gave a couple of drachms, or in some cases three drachms, by the mouth, together with a drachm by deep hypodermic injection in the gluteal region at the same time. He gave an account of 150 cases in which ergot was employed. In 70 of these the patients were primiparæ; in 80 multiparæ. In 148 instances the result was favourable to the mother. In 95 of the cases referred to the drug was given before the birth of the child, namely, in 15 for delay from inertia in the first stage of labour, the os being previously dilatable and the head presenting; and in 80 either for delay similarly occasioned in the second stage, or for the prevention of hæmorrhage, or for other complications. In 92 of these instances the children were delivered alive, either by uterine action or by the forceps. Of the 95 cases in which ergot was given before the birth of the child, in 86 the placenta was normally expelled, and in 9 its removal had to be assisted for morbid adhesions or other causes, one only of which was a case of hour-glass contraction. In 55 cases the ergot was given after the birth of the child, namely, in 25 during the third stage to hasten expulsion of placenta or to prevent hæmorrhage; and in 30 after delivery, for the arrest of *post-partum* flooding, or for some other reasons to stimulate and secure tonic contraction of the uterus. The author's experience pointed to the conclusion that the dangers now so commonly ascribed to the use of ergot in obstetrics were probably largely attributable to its misuse, or its administration in unsuitable cases, or in insufficient doses.

Dr. Alfred Smith was rather surprised that Dr. Madden should advocate ergot.

Dr. Horne's experience corresponded in great measure with Dr. Smith's. Some years ago he had been in the habit of using ergot, but latterly he had practically given up ergot altogether, except in cases of severe *post-partum* hæmorrhage occurring in the third stage of labour. If used at all, he preferred to use it hypodermically.

Dr. Kidd was not prepared to join either side as an extremist. The principal use to which he put ergot was after the completion of labour and during convalescence. He had found the liquid preparations of ergot as supplied to hospitals extremely unstable and unreliable, and thought ergotine and ergole much more reliable. He believed that ergot should not be used during the first or second stage of labour unless in the case of a woman who was known to be a habitual bleeder. Ergot combined with opium was useful in relieving after-pains.

Dr. More Madden replied.

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Clinical Society of London.—The annual meeting will be held this (Friday) evening, when the officers and council for the year 1897-98 will be elected. The following is the list of officers and council proposed for election:—*President:* *John Langton. *Vice-Presidents*: T. Barlow, M.D.; *J. F. Goodhart, M.D.; *L. W. Sedgwick, M.D.; W. H. Bennett, R. J. Godlee, M.S.; W. J. Walsham, C.M. *Treasurer:* W. M. Ord, M.D. *Council:* *J. Ford Anderson, M.D.; *A. T. Davies, M.D.; Sidney Martin, M.D., F.R.S.; *W. J. Mickle, M.D.; F. W. Mott, M.D., F.R.S.; *J. F. Payne, M.D.; F. G. Penrose, M.D.; *J. J. Pringle, M.B.; S. J. Sharkey, M.D.; E. Markham Skerritt, M.D.; W. Hale White, M.D.; A. Pearce Gould, M.S.; C. R. B. Keetley; C. B. Lockwood; Rushton Parker, B.S.; Bilton Pollard, B.S.; A. Q. Silcock, B.S.; W. G. Spencer, M.S.; *T. P. Teale, F.R.S.; *G. R. Turner. *Honorary Secretaries:* G. H. Makins; J. Kingston Fowler, M.D. *Trustees:* Christopher Heath; William Miller Ord, M.D.; J. Burdon Sanderson, M.D., F.R.S. The gentlemen whose names are marked with an asterisk were not on the council, or did not hold the same office, during the year 1896-97. The report of the council to be presented to the meeting dwells on the general prosperity of the Society. The members now number 577, of whom 20 have been elected during the past year; within that time 8 members have died and 3 have resigned. The manuscript of the Index of all the volumes of *Transactions*, prepared by Dr. Archibald E. Garrod, is nearly completed; it is expected that it will be ready for use at the commencement of the next session. The committee appointed to investigate the clinical value of the antitoxin of diphtheria is preparing a report which, it is hoped, will be presented to the Society early in the ensuing session. The Treasurer's statement of accounts shows that the finances of the Society are in a satisfactory condition.

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South-West London Medical Society.—At a meeting held at Wandsworth on May 12th, Surgeon-Major Mark Robinson in the chair, in the absence of the President, a paper was read by Mr. T. S. Howell, entitled the Welfare of the General Practitioner. Having referred to the fact that this year was the "diamond jubilee" of his entrance into the profession, Mr. Howell dwelt upon the importance to the practitioner of retaining his proper duties in his own hands, and not delegating them to others. Stress was laid upon the advantage to medical men of dispensing their own medicines, and upon the evil of allowing the modern race of nurses too free a hand in dealing with patients.—A discussion followed, in which Messrs. Richard Oram, Hugh Ker, M. G. Briggs, W. G. Dickinson, and others took part.

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# REVIEWS.

A Manual of Chemistry: Theoretical and Practical. (Based on Watts's edition of Fownes's *Manual*.) By William A. Tilden, D.Sc., F.R.S., Professor of Chemistry in the Royal College of Science. London: J. and A. Churchill. 1897. (Cr. 8vo, pp. 616. 10s.)

This volume, although admittedly based on Watts's well-known edition of Fownes's classical *Manual*, is to all intents and purposes a new book. In the successive changes that the work has undergone all traces of Fownes have disappeared, and, although the general arrangement of the subject matter is similar to that of the original and some traces of Watts still remain, yet Professor Tilden is responsible for the work as it now stands, and under his name it appears. A very excellent chapter reviewing the historical development of the science from the time of Boyle constitutes an appro-

priate introduction to the mass of material that follows, in which, too, will be found some characteristic features.

The arrangement of the elements preferred by the author is not that strictly of the periodic system, preference being given to a system of classification in which the elements are arranged in groups of natural and more obvious relationship than that determined by mere questions of valency. The volume is well illustrated with woodcuts, and is provided with a very full and careful index. The matter is accurate, and, considering the necessarily descriptive character of much of the work, is well put and clearly written. Paragraphs headed "experiment" inserted in the text give concise directions for obtaining the characteristic reactions and preparations described. This plan of combining practical work with textbook reading is well calculated to bridge over the gulf which too often exists between the laboratory and the lecture room. Professor Tilden is to be congratulated not only on having preserved an old favourite from being lost, but in addition on having written a very clear and scientific textbook.

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THE NATURAL HISTORY OF THE MARKETABLE MARINE FISHES OF THE BRITISH ISLANDS. By J. T. CUNNINGHAM, M.A. London: Macmillan and Co. 1896. (Roy. 8vo, pp. 384, 2 maps. 7s. 6d.)

IT is a strange thing that, situated as England is in the midst of the sea, which even under the natural unchecked conditions of struggle for existence teems with food material ready to hand, so small a literature exists on the subject of our fisheries and their practical management. Since the time of the Fisheries Exhibition in 1883, it is true that much work has been done on scientific lines in artificial pisciculture, but this for the most part is hidden away in technical journals; and as far as the general public is concerned, it may truly be said that very little advance in knowledge or interest in the subject has been made. The publication, then, of an authoritative work on the subject by the Naturalist of the Marine Biological Association at Plymouth marks an epoch in history of the science, as it is the first book written in a purely untechnical manner by an eminent authority. Professor CUNNINGHAM'S book is divided into two parts. Part I is the more interesting reading, and deals generally with the distribution, habits, migration, breeding, and characteristics of the fishes. To those who are accustomed to regard a fish as something to eat in the first place, and as something slimy which lives in the sea in the second, the facts and natural history so well and simply described in this part of the work will come with all the charm of novelty and the unexpected. Part II is special and descriptive, and deals with the specific characters of the fish tribe under the headings of its several natural orders. That there is still a vast field for research among the questions treated in this volume must be obvious to the most casual reader; it is only curious that such a profitable field of work has been left so long uncultivated by an island people.

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DIE LEHREN VON DEN FUNKTIONEN DER EINZELNEN THEILE DES OHRLABYRINTHS. [Studies of the Functions of the Individual Parts of the Labyrinth of the Ear.] Von Dr. STANISLAUS VON STEIN. Aus dem Russichen übersetzt, von Dr. C. VON KRZYWICKI. Jena: Gustav Fischer. 1894. (Pp. 697.)

A BOOK of such magnitude on so limited a subject is naturally one for reference rather than for continuous reading. The author's conclusions (pp. 510-516) support in general the view that the labyrinth contains two distinct functional apparatuses, the one for recognition of position, change of position, etc.—the utricle, semicircular canals and sacculi—the other for the perception of sounds—the cochlea or macula neglecta. To the otoliths are attributed static functions to the exclusion of auditory ones. The undecided points are frankly drawn up in a somewhat formidable array, showing the small amount of fact in proportion to the wealth of hypothesis. Thus (pp. 511, etc.) there is no positive observation to prove that the utricle, sacculi, and canals have no share in the perception of sound. Further, the extraordinary variations in the degree of development of the otoliths (p. 512) and of the semicircular canals (p. 513) in different classes of animals is not found directly related to variations in their functional capabilities. Difficulties arise in view of Ranke's experiments (p. 119) which would indicate that the otoliths may act as "dampers" to a presumably acoustic mechanism. Finally, the author begs for further patient investigation in the midst of the many contradictions and complications.

A large section is occupied with a minute description of the methods of experimenting on various animals which will be invaluable to original investigators.

The summary is rather difficult to find, even with the help of the table of contents, as its title appears there in small type, "Allgemeiner Ueberblick über die Lehren," etc. (p. 17) as if it were a section of the subject tabulated above it "Der Endmagnetismus als normaler Erreger der Bogengänge," a paragraph inserted, as the writer says, merely for the sake of completeness and curiosity.

This work is undoubtedly the compendium of all that is known on the subject, and is destined to stand for many years as the recognised guidebook. It is regrettable that it has no index.

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A FIRST SERIES OF FIFTY-FOUR CONSECUTIVE OVARIOTOMIES, WITH FIFTY-THREE RECOVERIES. By A. C. BUTLER-SMYTHE, F.R.C.S.Ed., etc, Senior Surgeon to the Grosvenor Hospital; Senior Surgeon to Out-patients, Samaritan Free Hospital. London: J. and A. Churchill. 1897. (Demy 8vo, pp. 119. 6s. 6d.)

CLINICAL reports are always useful, hence Mr. BUTLER-SMYTHE'S work is of value, for it consists of a full account of all the 54 cases in which it is founded. The author is quite candid about pulse, temperature, and other matters important for the surgeon's consideration. Thus we are the more inclined to trust our author, since we find that he notes temperatures of 102° or higher in cases that clearly made rapid recoveries. Such statements are more likely to convince others than the stereotyped phrase, "The patient recovered without a bad symptom." Some authorities look on a temperature of 102° in a case otherwise doing well as in no sense a bad symptom. Others insist that it is essentially and intrinsically bad, and take steps to reduce it. As for those who boast that they "never have temperatures," such persons are hardly to be taken seriously. The reader looks for facts, and in this work they appear to be stated with perfect candour. The author is a painstaking observer; the sole distinctly misleading observation which we can detect is at page 17, where it is implied that in sepsis the tongue necessarily becomes dry and brown. In some of the worst cases it remains quite moist, and even when peritonitis is evidently present the tongue may remain free from dryness or discoloration.

The most interesting task for the reader will be to compare this work with the authentic records of other workers. It is astonishing to see how ovariotomy cases do well under absolutely different methods of treatment—routine use of opium or absolute avoidance of opium; early feeding or delayed feeding; early purgation or locking up of the bowels for a week. Skill, care, and kindness are the essential requisites for an ovariotomist.

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ANTISEPTIC PRINCIPLES FOR NURSES. By C. E. RICHMOND, F.R.C.S. London: J. and A. Churchill. 1897. (Cr. 8vo, pp. 47. 1s.)

THE author states that his intention in writing this handy little volume was to encourage nurses to take a more intelligent interest in the methods of antiseptic surgery. It is true enough that nurses have to prepare complicated dressings, but are often quite in ignorance of the principles underlying the use of the various preparations. These principles the author explains in a simple non-technical manner. We should recommend nurses to make themselves acquainted with the subject of which this manual treats; it cannot fail to give them a greater interest in their work.

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AN Ophthalmological Association has recently been formed for the advancement of the knowledge and treatment of eye diseases in Japan.

# REPORTS AND ANALYSES
AND
# DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

## MEDICAL COD LIVER.

WE have received from the Norwegian Medical Cod Liver Company of Christiania, and of 7 and 8, Idol Lane, E.C., samples of medical cod liver which is intended for use as a substitute for cod liver oil. It is said to have the advantage over the oil of being palatable, and of containing, in addition to the oil, the other original ingredients of the liver, such as the albuminous matter and mineral constituents, all of which, according to a report by Professor Chittenden, must add materially to its value as a nutrient. The difficulty hitherto experienced in preparing cod livers so as to keep them without the use of antiseptics, has been overcome, it is stated, by a process of sterilisation. The samples sent to us were contained in earthenware jars, each containing 8 ozs. of liver, and were found to be exceedingly palatable, and without the nauseous taste of many samples of cod liver oils. Further examination showed the preparation to contain 49 per cent. of cod liver oil, the rest being evidently liver constituents. The medical cod liver is certainly worthy of a trial as a substitute for ordinary cod liver oil. The dose for an adult is three tablespoonsful daily, spread on bread or toast.

## AN INVALID BEDSTEAD.

THE accompanying illustration shows an invalid bedstead, to which the name "Facile Princeps" has been applied. A demonstration of the bed, which is the invention of Mrs. William Douglas, was given by Dr. William Douglas in Dr. Lauder Brunton's wards at St. Bartholomew's Hospital. It was originally designed merely to afford a means of changing a patient's sheet without disturbing him, but subsequent improvements have, it is believed, materially increased its usefulness. The sheet is divided down the centre from head to foot, and attached at either end to a roller (B B in the figure), which can be moved up and down on the pillars of the bedstead. By means of webbing the two rollers with their attached sheet can be raised or lowered by turning the single wheel F, the height at which they are fixed is determined by locking the apparatus with a ratchet. For changing the sheet the patient is raised as high as necessary, and the clean sheet placed on the mattress; the bands of webbing (K K) are pinned to the sheet, which is then lowered to within about an inch of the other. On pulling the bands the soiled sheet is removed, and the patient sinks comfortably on to the clean one. A similar plan can be adopted for giving the patient baths, as in typhoid, mackintosh sheets being here of course employed. By releasing the webbing at one end, and raising the sheet at the other, the latter can be converted into an inclined plane, and, with the aid of a rest, various other positions—appropriate to the treatment of fracture, etc., can be devised. A specially constructed detachable operating table can be slipped under the patient in the position shown in the diagram, and fixed to the iron sheet rollers.

The bed is simple in conception, and easy in application; it cannot fail to be of service in the directions already indicated, and it also greatly facilitates the use of the bedpan. It is particularly likely to be valuable in institutions with small nursing staffs, or for cases nursed at home. No better testimony to its value can be found than the fact that it is already in use at several large institutions. Its present price is about £8, but it is hoped that this will decrease as the demand augments. The bed can be obtained from Messrs. Maw, Son, and Thompson, Aldersgate Street, E.C.

## TWO CLINICAL CHARTS.

THE following is a description designed by Dr. John B. Hellier, Lecturer on Diseases of Women and Children, Yorkshire College, Surgeon, Hospital for Women and Children, Leeds. The first of the accompanying illustrations (Fig. 1)

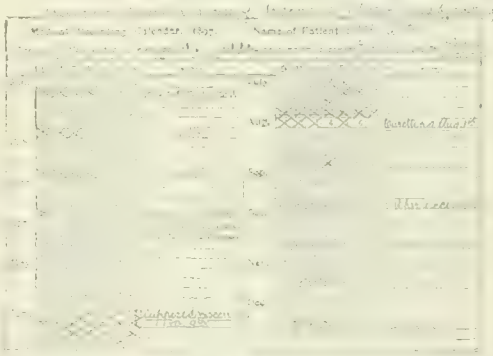
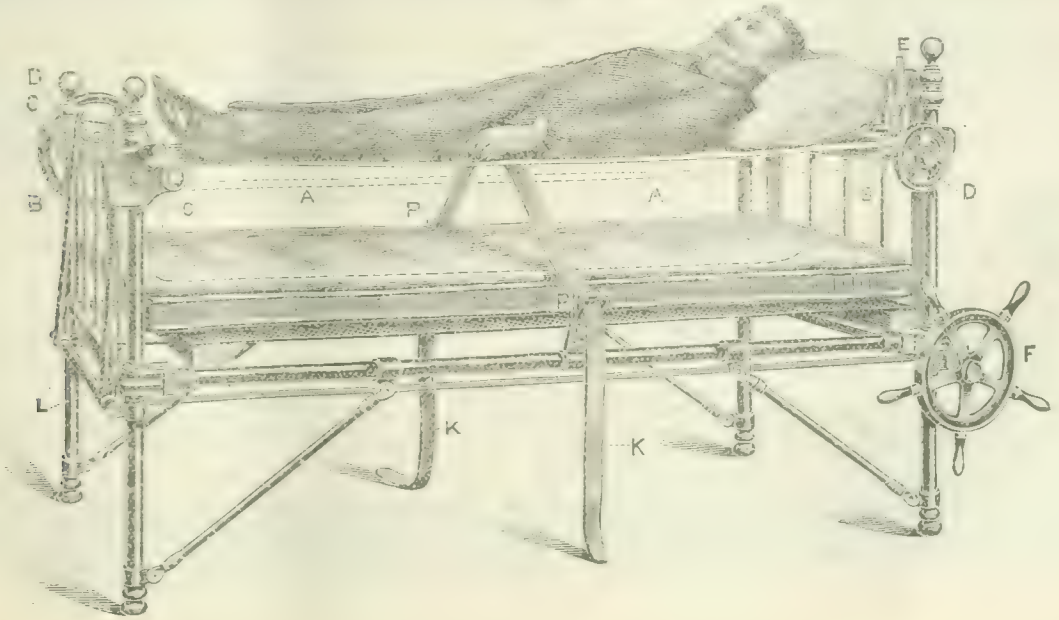


Fig. 1.

shows a simple chart in the form of a calendar, which may be called a Medical Recording Calendar. It is designed principally for use during the treatment of menstrual irregularities. The record here given shows a case of regular menstruation interrupted by pregnancy, which terminates in incomplete abortion causing menorrhagia; curetting cures the



condition, and normal menstruation is re-established. The history of a year is here seen at a glance. The chart is equally useful in treating epilepsy, nocturnal incontinence, ague, or any periodic symptom. It also serves to record weekly weighings or the passage of bougies, etc. The patient's part is reduced to making a cross on particular days; a coloured pencil is best for this purpose. The second chart (Fig. 2) is for recording weekly weighings in infancy.

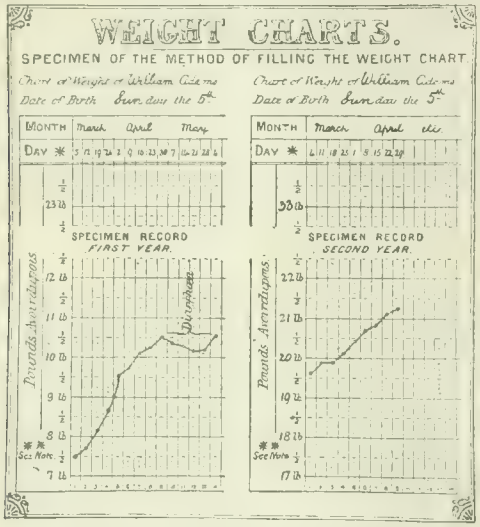



Fig. 2.

Such a weight chart is of great use and interest in the first two years of life. It is a useful guide in questions of food and general hygiene. The chart is particularly useful for patients brought for malnutrition due to errors of diet. Both charts can be obtained from Messrs. Reynolds and Branson, Leeds.

## A CONTRIVANCE FOR INTESTINAL ANASTOMOSIS.

MR. R. CHARLES B. MAUNSELL, M.B. (late House Surgeon Sir P. Dun's Hospital, Dublin), writes to us on this subject as follows: Many buttons and bobbins have lately been made for effecting anastomosis; but to most minds they all have many serious faults. Murphy's button is not absorbable, causes sloughing too close to the line of union, and, if in position in the intestine and locked, cannot be re-adjusted if the surgeon is not satisfied with the grip of the gut.

All the bone bobbins, although many of them render good service, are, at most, only supports, and union has to be effected by stitching. Many of them also leave a bulky mass of intestine inverted at the line of union.

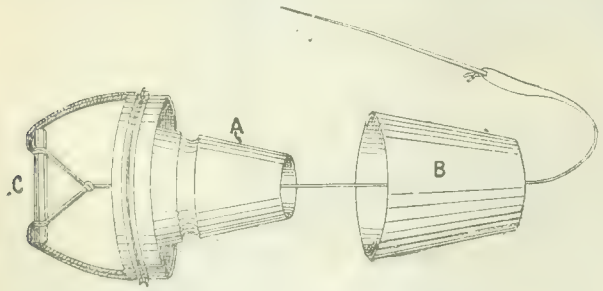



Fig. 1.—A. A button with conical hollow stem and wide undercut flange; on the flange a groove, and another on the stem.

B. A hollow cone, made to fit loosely over stem of A, and of such length that as it sits in the undercut of the flange its apex projects slightly beyond the apex of A.

C. Two short bands of ordinary thread-covered elastic (as used in children's hats) joined in middle by a short thin ivory bar. The free ends of elastic are tied on either side into the groove on the flange of A. A silk thread (No. 12) is fastened to the bar after the manner of a trapeze, and then passed through both cones and threaded on a needle.

I wish in this notice to describe a contrivance which I have lately made, and which I think possesses many of the advantages of both Murphy's button and the bone bobbins without many of their disadvantages. It consists of three parts, A, B, and C.

All parts are made of decalcified ivory except the locking part C. To lock (Fig. 2), superimpose the cones, push the

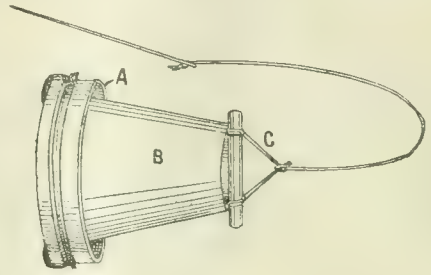



Fig. 2.

ivory bar of C into the lumen of A, pull the silk thread until the bar is pulled out at the apex. Now, on account of the trapeze and the even counterpull of the elastic bands, the bar rights itself, and, when the thread is slackened, rests securely across the apex of B, thus pushing the base of B firmly into the flange of A.

To introduce (Fig. 3), first run a purse string suture loosely

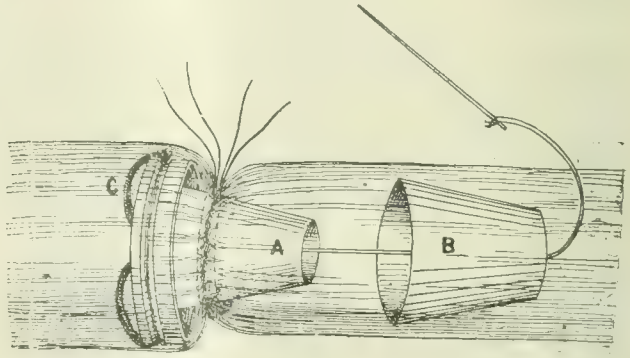



Fig 3.

around either cut end of the intestine. Then pass the needle of C from within out about 2½ inches from the cut end of the lower intestine. Next let the cone B slip into the same intestine and leave it for the time. Tie the lower intestine by means of a purse-string suture into the groove on the stem of A, and then tie the upper intestine in the same way. Now steady A through the intestinal wall, and shove up B until it inverts both intestines into the flange of A. When satisfied that apposition is good, the thread should be pulled and the instrument locked. Then the thread should be pulled short, and cut off.

Fig. 4 shows section of the result. The advantages claimed

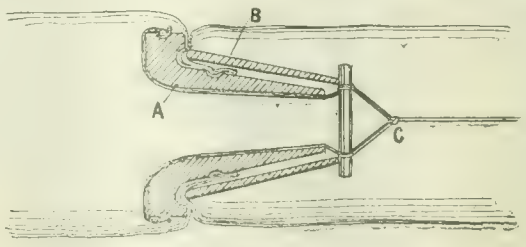



Fig. 4.

for the appliance are that it (1) can be applied as fast as any other; (2) that it leaves very little residue; (3) that it inverts so much intestine and keeps such even pressure on it that leakage is impossible; (4) that it cuts off by necrosis the

inverted part, but not so dangerously short as Murphy's button; (5) By making the flange of A larger in proportion to B, a large intestine could be evenly joined to a smaller, following the plan introduced by Dr. Charles B. Ball in his bobbin.[1] The buttons are made in several sizes by Fannin and Co., Dublin. They can be kept in alcohol except the elastic, which is put on by the surgeon.

## THE LEICESTER HOSPITAL STRAPPING.

MESSRS. A. DE ST. DALMAS AND CO., of Leicester, forward us a sample of their Leicester hospital strapping on holland, which they state is largely used by the profession, and also for hospital and ambulance work, and of which they have supplied twenty dozen tins to the *Daily Chronicle* fund for the Greek wounded. Each tin contains six yards of 8-inch strapping, a convenient quantity for a surgeon to have ready for cases of emergency; it is practically self-adhesive, even at a low temperature, is very tenacious, and not liable to slip. These qualities, combined with the ease with which it can be applied, render it specially suitable for rapid handling in accident cases.

## DR. CREIGHTON AND VACCINATION.

THOSE of our readers who are acquainted with the contributions which Dr. Creighton has made to the literature of the vaccination controversy will know that they have been eminently critical in their character. It is true that in his remarkable exercitation on *The Natural History of Cow-Pox and Vaccinal Syphilis*, he has given us a specimen of his large imaginative powers; but it is as the literary *avvocato del diavolo*, repudiating the claims of Jenner to canonisation in any form, and representing him as a "fraud" of the highest order, on the strength of a captious criticism of his writings, that Dr. Creighton has found the many opportunities for the exercise of his pen. It is not surprising that one who has thus shown himself an unsparing iconoclast should have invited reprisals, and those who may be interested in seeing how Dr. Creighton looks when the same measure is applied to him that he has meted out to Jenner, and at the same time of becoming acquainted with one of the best specimens of polished irony to be found in medical literature, will do well to read Dr. McVail's critique on *Dr. Creighton and His Theories*.[2]

But, apart from their intrinsic interest as instructive illustrations of the intellectual vagaries to which a man of culture and scientific training will sometimes commit himself, Dr. Creighton's theories derive some importance from the fact that he is the only medical writer of any weight who has also identified himself as a public speaker with the propaganda of the Antivaccination League. In this latter capacity he has lately made Gloucester the scene of his prelections, having, as appears from a report in a local paper, been imported there by the local branch of the League for the purpose of exposing to the residents in the cathedral city the futilities of the Royal Commission on Vaccination. It is quite consistent with Dr. Creighton's habits of expression that he should on this occasion have asserted that "a trick was played upon the whole world" when vaccination was first introduced by Jenner, and that he should have followed up this charge by representing the Commissioners as "performing conjuring tricks with sets of figures," for the purpose of bolstering up the fraud thus initiated. His view of the matter appears to be that not only the great majority of the profession to which he himself belongs, but everyone else who, having investigated the vaccination question, has come to a different conclusion from that at which he has himself arrived, is in a conspiracy to delude mankind. He complains that the Commission have not dealt with the question as to whether vaccination was an efficacious substitute for the old inoculation, "either in its scientific or, what is quite as important, in its moral aspect." We are not clear as to what Dr. Creighton means by the "moral aspect" of vaccination, unless it be an allusion to the charge of fraud which he has formulated against its supporters, from Jenner downwards. If by the "scientific" aspect of cow-pox he wishes us to understand the ingenious but highly speculative views which he himself entertains on the relations of this disease to syphilis, we can well appreciate the opinion of the Commissioners that such speculations "can have little weight against positive evidence of vaccination having conferred immunity."

The Commissioners appear to think that solid facts are more assuring than theoretical assumptions. After discussing at some length the question whether small-pox and cow-pox are or are not the same disease, they remark that "if an impartial study of the facts led to the conclusion that small-pox treats the vaccinated and unvaccinated alike, this would throw, no doubt, an intereresting light on the theories which have been advanced. If it leads to the contrary conclusion, then any theory inconsistent with it, especially any theory based upon hypotheses drawn from the obscure regions which science has not yet completely illuminated, may safely and wisely be disregarded." These are weighty words, but they evidently do not weigh with Dr. Creighton, who prefers to rely for his authority as to the efficacy of vaccination on "the mere maternal feeling—the dislike of the practice of vaccination on the part of the mother," rather than on "those statistical, pedantic tables which Lord Herschell appeared, from his recent speech, to think amounted to mathematical demonstration." To talk of "mitigated small-pox" Dr. Creighton considers to be unmitigated nonsense, because "all the types of small-pox, from the very mildest to the most severe, were just as common—no more or less—before there was any vaccination as at the present time."

Dr. Creighton has himself put forward the curious theory that cow-pox and syphilis are, if not identical diseases, at least cousins-german, and that the "ferocity" of the more virulent infection has been gradually "tamed" by a process for which "mitigation" is certainly not an inappropriate term. But if cow-pox can be mitigated in this way, why not small-pox? Dr. Creighton seems to think that the argument in favour of vaccination which has been founded on the large number of unvaccinated persons who were attacked in the Gloucester epidemic is sufficiently met by the assertion that "it was in proportion to the estimated number of unvaccinated persons living in the whole community." Even if this were so, which is open to question, it is only what we might expect, but is no explanation of the fact that of 722 children under 10 years of age who were attacked, only 23 had been vaccinated in any way.

It is useless to follow Dr. Creighton any further in his criticisms on the report of the Royal Commission. A critic who is unable to distinguish between the clearance which the experience of a century and the results of scientific research have effected in our views as to a highly-complex physiological problem and the "shuffling, change of ground, and excuses" which he alleges have "marked the history of vaccination from the first year of its promulgation down to the present," may evoke applause from an audience of Gloucester antivaccinators, but he must make up his mind at the same time to sacrifice all reputation for scientific accuracy and judicial impartiality.

[1] BRITISH MEDICAL JOURNAL, March 24th, 1897.

[2] Originally published in the *Edinburgh Medical Journal*, and lately republished by the Jenner Society, Gloucester.

THE "Optometry Bill," by which it was proposed to grant opticians in the State of New York the right to test for refraction and to prescribe glasses has been defeated in the Legislature by 73 votes to 51.

THE foundation stone of the New York Dispensary was laid laid on May 24th by the Lord Mayor of Yorkshire. The old buildings in New Street have long been found to be inadequate for the growing requirements of the city, and the directors therefore determined to take steps at once to obtain a site on which could be erected a building worthy of the city. During the last year no fewer than 6,577 cases were treated by the medical staff of the institution.

MILLPORT MARINE STATION.—The new biological station at Millport, on the Clyde, was formally opened last week by Dr. John Murray, F.R.S. The station has been erected at a cost of £1,500, and though in regard to accommodation and equipment it cannot compare with many similar institutions in this country and the Continent, as Dr. Murray pointed out, its position makes it a place of very great possibilities. The collection of the late Dr. Robertson, who did so much for the station, has been presented by his wife for the museum of the building.

# GENERAL COUNCIL

OF

## MEDICAL EDUCATION AND REGISTRATION.

*SUMMER SESSION, 1897.*

*Tuesday, May 25th.*

Sir Richard Quain, Bart., President, in the Chair.

The sixty-second session of the General Medical Council commenced at the Council Chamber, Oxford Street, at 2 P.M., on May 25th.

### New Members.

The official notification of the election of direct representatives for England and Wales for five years from January 1st, 1897, of Dr. Robert Reid Rentoul, Mr. George Brown, and Dr. James Grey Glover was received. Dr. Rentoul and Mr. Brown were introduced to the Council, and took their seats. Dr. Robert William Reid was introduced to the Council and took his seat as representative of the University of Aberdeen.

### President's Address.

The President delivered the following address:

### Business of the Council.

We assemble to-day, Gentlemen, to discharge the duties of the sixty-second session of the Council. My observations on this occasion will be few, for, as many members of the Council are aware, I have been very seriously ill for many weeks, and unable to make preparations for a fuller address. I have much pleasure in saying, however, that I am now much better, and greatly gratified in being able to meet the Council again. I have the further satisfaction of knowing that notwithstanding my illness I have been able, with the zealous co-operation of the various members of the official staff, to arrange that the business of the Council shall not suffer. I trust that all the arrangements for the transaction of business of the present session will be found in perfect order.

Certain changes will be observed to have taken place in the *personnel* of the Council. The recent election of direct representatives has happily restored to us two valued and much respected colleagues, namely, Dr. Glover and Dr. Bruce. Two new members who have been elected replace Mr. Wheelhouse and Sir Walter Foster, who expressed their great regret at leaving the Council, as the Council has already recorded how much it felt the loss of two such valued colleagues. Dr. Rentoul and Mr. George Brown have succeeded them. We shall bid them welcome, and hope that they will endeavour to mitigate our sense of the loss of those with whom we have parted.

Dr. Angus Fraser, the representative of the University of Aberdeen, at the close of the period of five years for which he was elected a member of this Council, has been replaced by Professor Robert William Reid. We shall miss Dr. Fraser's valuable services on the Education Committee; and though he did not often address the Council, his observations were always valuable and received with attention and respect. Professor Reid, who succeeds him, has had much experience, not only in Scottish but also in English educational subjects, and will no doubt prove a valuable member of our Council.

In accordance with the powers conferred on the Executive Committee by the Standing Orders, Mr. Carter and Dr. Glover have been appointed to fill the vacancies on that Committee, caused by the retirement of Mr. Wheelhouse and Sir Walter Foster, until the approaching re-election, during this session, of the whole Committee.

### Resignation of the Registrar.

I have much regret in announcing that the health of the Registrar, Mr. Miller, has so far failed that he has felt it his duty to send in his resignation. We all know how conscientiously Mr. Miller has discharged the duties of his office. You will be asked to consider in what way you will recognise his past services, and it will be necessary to direct that steps should be taken to provide for a successor.

### The Council's House.

Since our last session we have completed the purchase of the remaining (leasehold) interest of the Office of Works in our premises and those of the tenant in Hanover Square. The purchase of the freehold and leasehold of the premises, together with all the expenses incidental thereto, and to the rebuilding and alterations which have been undertaken, have cost the Council £22,506 13s. 10d., an amount which has been advanced by the English Branch Council at 3 per cent. interest. We may therefore consider we hold both the premises at a rent of £675 per annum. From this sum we have to deduct £250 per annum paid for 16, Hanover Square, leaving our rental at £425 compared with a former nominal rental of £300 which was paid to the Office of Works for the unaltered premises. Our additional rental, therefore, will amount to £125 per annum for eight years, when the whole premises in Hanover Square and Oxford Street will be at our own disposal, and we shall then be in possession of a very valuable property. I may mention that Mr. Taylor, the Chief Surveyor of the Office of Works, who recently visited the premises, said that the whole of the arrangements were perfect and might be regarded as models for the purposes for which they were intended.

### Registration of Deaths.

We have taken such action as was possible in the matter of the registration of deaths. The Council's resolution of November 27th, 1896, in regard to death certification was formally communicated to the Registrar-General on December 3rd, 1896. He answered to the effect that so far as the law was concerned he was unable to find any irregularity in the conduct of the registrar of Hetton-le-Hole in accepting the informal "statement from the unregistered—perhaps unqualified—attendant as part of the information of the informant." Such being the answer of the Registrar-General, we had, in accordance with the direction of the Council, to seek an interview with the President of the Local Government Board. Various circumstances, including the illness of the President of the Board, and the absence abroad on important official business of Dr. Thorne Thorne, have rendered it hitherto impossible to obtain an interview with the right honourable gentleman. In the meantime an important statement has been prepared, with the assistance of the legal advisers of the Council, for submission to him, and an early opportunity will be sought of presenting it by a deputation.

### Disciplinary Powers of Licensing Bodies.

The Executive Committee has prepared a report on the disciplinary powers of the licensing bodies—a matter which was referred back to it by the General Medical Council on November 24th, 1896. It will be seen that two bodies—namely the Victoria University and the University of Durham—have taken steps in the direction of obtaining modifications of their charters, which would give them penal powers over their graduates. The University of Cambridge has already obtained and exercised such powers, and the Royal University of Ireland is said to be engaged in obtaining them. It is much to be regretted that the Scottish Universities still find difficulty in moving in the matter. The existing evil will be further accentuated when we see at this meeting of the Council that a graduate of the University has been sentenced to penal servitude for life, and that he will continue to retain his Aberdeen degree for that period.

### The "British Pharmacopœia."

I have very great satisfaction in announcing that the material for the *British Pharmacopœia* has been completed, and will be placed in the hands of the Council during the present session. This material has been most thoroughly revised by the eminent experts who were invited to assist in the revision, and who have done so with great care.

The most hearty thanks of the Council are due to these gentlemen for their services, to the Pharmacopœia Committee of the Pharmaceutical Society, and also to the Pharmacopœia Committee, who, since the last session of the Council, have held two protracted meetings. It is proposed that the Pharmacopœia Committee should meet again when they have received the revised proofs from the members of the Council, that the preface, the appendix, and the index, which are in

course of preparation, should be added to the material of the work, and that the work in its complete form should be submitted to the Council at its November meeting.

### Fines and Penalties.

We have recently taken advantage of the introduction into Parliament of a measure for the regulation of the payment of the Metropolitan Police to propose the insertion of a clause, giving the penalties inflicted in all cases under the Medical Acts to the Treasurers of the General Medical Council, so as fulfil the intention of the provisions of the Medical Act (1858), Section xlii. It will be remembered that in London the penalties go to the police, and that claims to these penalties have arisen also—outside the metropolis—under certain local Acts. It seemed to me desirable to settle these questions in the way so clearly indicated by the Medical Act (1858), which says:

"Section xlii.—Any sum or sums of money arising from conviction and recovery of penalties as aforesaid shall be paid to the Treasurer of the General Medical Council;" and

"Section xliii.—All moneys received by any treasurer arising from fees to be paid on registration from the sale of registers, from penalties, or otherwise, shall be applied for expenses of registration and of the execution of this Act."

### The Apothecaries' Hall, Dublin.

With reference to the business before the Council, we shall have to deal with the decision and direction of the Privy Council with reference to the appeal of the Apothecaries' Hall, Dublin, as set forth in the Order in Council of April 13th, 1897. I trust that the General Medical Council, which is thereby clear of all responsibility in the matter, will comply with the direction of the Privy Council without further comment. It will be found that the Council's legal advisers have prepared a statement by which the position of the General Medical Council will be made clear.

It may be mentioned that the late Conjoint Board of the Surgeons and Apothecaries of Dublin has, since the last meeting of the Council, held one examination, at which certainly not more than one candidate was to be present. The office of inspector being vacant, no inspection has taken place.

### Medical Aid Associations.

The question of the medical aid associations has been again brought under the notice of the Executive Committee by communications from various medical societies. It will be seen that some of these communications relate to aspects of the question which have been already dealt with by our Committee on medical aid associations. The writers of other communications have been informed that the matters referred to do not come within the statutory powers of the General Medical Council. It will be for the Council to determine whether it will reopen the question or be satisfied with the replies which have been made to the various communications addressed to them.

### Midwives Registration Bill.

A Bill for the Registration of Midwives (entitled the "Midwives' Registration Bill") was forwarded from the Privy Council Office on February 16th, with a request that the General Medical Council would favour their lordships with an opinion thereon. As the Bill had already been introduced in the House of Commons, and as the General Medical Council did not meet till May 25th, the Executive Committee, at its meeting on February 22nd, 1897, directed that the resolutions passed by the Council on November 29th, 1889, and June 5th, 1895—which will be found set forth in the programme of business—should be forwarded to the Privy Council. It is my duty to mention to the Council that Dr. Rentoul informed me that he had prepared a Bill which he was desirous of submitting to the Council on the subject of midwives. I pointed out to Dr. Rentoul the very decided language in which the Council had spoken on the subject of not interfering with legislation for midwives:

> That, if any Department of Her Majesty's Government were constituted controlling authority in relation to local arrangements made under statute for the licensing and registration of midwives, the General Medical Council would, if the Government Department so wished, be willing to advise as to the general rules of education, examination, and discipline which ought to be established in the matter; but the Council would not be able to discharge, and would, therefore, not be prepared to undertake any duties of detail as to the registration of midwives, or as to the local arrangements for licensing and controlling them.—November 29th, 1889 (*Minutes*, vol. xxvi, p. 166).

I could not, therefore, sanction his giving notice of a motion for the discussion of his Bill, but informed him that it was open for him to give notice of a motion that the above resolution should be rescinded, and that if that resolution were rescinded he would be free to introduce his Bill. It is for the Council to decide what further action, if any, should be taken in this matter.

### Reports of Committees.

In accordance with the resolution passed by the Council on November 25th, 1896, the report of the Education Committee on the Preliminary Examination of the Conjoint Board in Ireland has been forwarded to the Colleges concerned and acknowledged. The Education Committee, in accordance with the Council's resolution of November 25th, 1896, has had under consideration the expediency of raising the standard of the Junior Preliminary Examinations. A circular letter inviting information was sent to the bodies concerned on January 8th, 1897, and the answers are now before the Committee, which has to report at the November session. The attention of the Executive Committee was called to several cases of deficiency in spelling exhibited by candidates for commissions in H. M. Naval Medical Department at an examination held in November last. The matter was, by direction of the Committee, brought under the notice of the preliminary examining bodies concerned, but in the absence of information as to the names of the candidates the bodies have been unable to investigate the matter thoroughly. It is probable, however, that the repeated notice taken of this subject by the Council will indicate to the examiners the necessity of devoting more attention to the subject of bad spelling.

We shall have to take up the discussion of some subjects which were left over at the last session, namely, a revised Standing Order dealing with penal removals, and three reports by the Dental Education and Examination Committee. Reports will also be presented by the Examination Committee, the Finance Committee, and the Students' Registration Committee. The question of rendering more stringent the Council's resolutions in reference to "covering" and the employment of unqualified assistants, and the question of how best to bring them under the notice of all practitioners on the *Medical Register*, will also come before the notice of the Council.

### Penal Cases.

Since we last met the Scottish Branch Council has successfully prosecuted in Scotland a person who had assumed the name and qualifications of one Daniel Sutherland, deceased. The penalty has been handed over to the Branch Council by the treasurers, and the Branch Council now asks for a supplemental payment towards the costs incurred.

With reference to penal cases, I may state that one case in which judgment was deferred at the last session and three new cases will come before the Council. Of the latter, two are cases of "covering," and one is a case of conviction for felony.

### Dental Business.

In reference to dental business I may mention that Mr. Merrill, an Australian dentist, who had applied for registration under Section xxxvii of the Dentists Act, and had been refused registration, appealed to the Privy Council against the General Medical Council's decision, and that his appeal was rejected. Mr. Spero, one of a large number of English dental applicants under Section xxxvii, who applied for a mandamus directing the General Medical Council to place him on the *Dentists' Register*, has had his application dismissed with costs by the Queen's Bench. Mr. Spero has given notice of appeal against the decision.

I will not detain you with any further observations of my own from the various important matters of business which demand your attention. I can only say that the closer we keep within the paths marked out for us by our statutory powers, the less trouble we shall have, and the more satisfactory will be the result of our proceedings.

Sir Wm. Turner, in moving a vote of thanks to the President for his address, said the Council was glad to know

that he had sufficiently recovered to be able to preside over the Council's deliberations.

Mr. BRYANT seconded the motion, which was agreed to.

BUSINESS COMMITTEE.

The following gentlemen were appointed members of the Business Committee: Sir Wm. Turner (Chairman), Mr. Bryant, Dr. MacAlister, and Dr. Wm. Moore.

ADDRESS TO HER MAJESTY.

The PRESIDENT moved:

That a Committee be appointed, consisting of Mr. Brudenell Carter, Dr. Glover, Dr. MacAlister, and Sir Wm. Turner, to frame an address to Her Majesty the Queen on the occasion of the completion of the sixtieth year of Her reign

There was no body in the world, he said, that would offer such a tribute to Her Majesty with more sincerity than the medical profession.

On the motion of Mr. BRYANT it was resolved:

That an appropriate sum be spent, under the direction of the Treasurers, in providing some illumination on the Jubilee day, June 22nd.

RESULTS OF EXAMINATIONS.

The usual tables were received showing (*a*) results of professional examinations during 1896; (*b*) results of professional examinations for qualifications in sanitary science, public health, or State medicine during 1896; (*c*) results of professional dental examinations during 1896; (*d*) results of preliminary examinations during 1896; (*e*) exceptional cases in regard to length of course of study during the same period; (*f*) results of competition held in February, 1897, for commissions in the medical staff of the army; and (*g*) results of competition held in February, 1896, for commissions in the Indian Medical Service.

Dr. HERON WATSON moved a vote of thanks to the Director-General of the Army Medical Department and the Examining Board of the medical department of the Indian Medical Service for the statements furnished to the Council.

Dr. THORNE THORNE seconded the motion.

Dr. ATTHILL suggested that information should henceforth be given as to candidates who had failed in any particular subject to enable the Council to ascertain where they had undergone their Preliminary Examination. He had heard that a licentiate of his own college had failed in spelling, but the place of his Preliminary Examination was unknown.

Mr. BROWN supported the suggestion. It was, he said, a great scandal that men should be admitted to the profession who did not understand the elementary rules of the English language.

Sir DYCE DUCKWORTH said there must be some grave fault in Boards which passed such candidates; and the examining bodies should be called upon to furnish the Council with the necessary information on the subject. It had been proposed that every candidate on registering himself as a student should add to his name the title of the body before which he passed his preliminary arts examination, so that in case of any deficiency in his subsequent examinations the body could be traced. It was important to trace bodies which passed men into the profession on most inadequate examinations.

Dr. TUKE said the Examination Committee had carefully considered the subject, and he believed a report would be laid before the Council respecting it.

The motion was agreed to.

THE APOTHECARIES' HALL OF IRELAND.

A communication was received from the Privy Council notifying its opinion that occasion had arisen for the General Medical Council to appoint assistant examiners in surgery for the purpose of qualifying examinations to be held by the Apothecaries' Hall of Ireland, and directing it to appoint such examiners.

The ACTING REGISTRAR (Mr. Allen) was about to read a statement on the subject by the Council's legal adviser, when

Dr. MCVAIL proposed:

That the statement by the Council's legal advisers in regard to the decision in the appeal of the Apothecaries' Hall to the Privy Council be read *in camerd*.

Dr. GLOVER thought that such a course was unnecessary, as all the proceedings before the Privy Council were public.

The motion was put and negatived, 16 voting against it and 6 for; 8 did not vote.

The statement was then read. It gave a short history of recent proceedings, and concluded with the suggestion that, under the circumstances, the direction of the Privy Council should be acted on without comment.

An application was read from the Apothecaries' Hall, Dublin, for the appointment of Dr. Ormsby and Dr. Dwyer as Assistant Examiners in Surgery.

Mr. TICHBORNE moved:

That the following gentlemen be appointed Assistant Examiners in Surgery to the Apothecaries' Hall, Dublin: L. Hepenstal Ormsby, M.D., F.R.C.S., Surgeon to the Meath Hospital and County of Dublin Infirmary, Surgeon to the Children's Hospital, Dublin, and ex-Examiner in Surgery, Royal College of Surgeons, Ireland; Frederick Conway Dwyer, M.D., B.Ch. Univ. Dub., Sen. Mod. and Gold Medal in Exper. Science, Ex. Med. Schol. T.C.D., Surgeon, Jervis Street Hospital, Demonstrator of Anatomy, Royal College of Surgeons, Ireland.

Sir JOHN BANKS seconded the motion. Dr. Ormsby and Dr. Dwyer were, in his opinion, thoroughly fit and proper persons to be entrusted with the post of Assistant Examiners.

Mr. BRYANT proposed as an amendment:

That the Council act on the direction of the Privy Council, and appoint a committee to nominate assistant examiners, and to recommend the amount of remuneration to be attached to the office, and to report to the Council during the present session.

If such a course were taken the different subjects discussed could be brought before the Committee and threshed out before they were dealt with by the Council.

Mr. TUKE seconded the amendment.

Sir DYCE DUCKWORTH, in supporting the amendment, said that as chairman of the Examination Committee for the last five years he had been going through the work of inspection throughout the three kingdoms. As the result of those inspections, the examinations at the Apothecaries' Hall had been reported again and again as inadequate, and the Council had taken a definite action in the matter. What he should like to know was, how the Council was to act if ever in the exercise of its duties it should light upon a body that was found to be doing its duties inadequately? The work of the Council had been rudely interfered with, and the question now was, whether it was any use to carry on inspections of medical bodies in the future? What was the use of spending time and money in inspecting bodies if the Council had no power to act? The decision of the Privy Council had taken the heart out of the Examining Committee. It had tried to do its best, and it had done all it was allowed to do under the Act, but to no purpose. They had been told that the Privy Council had not intended to interfere, and had not, in fact, interfered with the discretion or usefulness of the Council, but that, he believed, was not the opinion of the majority of those who sat round the table. He thought it would be found that their authority had been most seriously encroached upon, and their usefulness greatly impaired. As a statutory body appointed for definite purposes, their action had been completely stultified.

Dr. GLOVER said he had hoped that this matter would have been passed over in silence. He was present and heard the proceedings before the Privy Council on both occasions, and if there was one thing of which he was convinced more than another, it was that the Lords of the Privy Council acted as if they had the greatest respect for the General Medical Council. He hoped the Council would clearly understand that all that had been established by the decision of the Privy Council was that there had been some error in their procedure. The Council had the same right to represent the inadequacy of an examination that it had ever had, and if that representation were made in the proper way, and according to the Act of Parliament, it would have effect. But, according the opinion of the Privy Council, as well as that of their own legal advisers, they had proceeded in the wrong direction. He hoped, therefore, that the Council would not adopt Sir Dyce Duckworth's statement that there was anything disparaging in the course that had been taken. All they had to do was to take a certain course, and if the examinations did not proceed to their satisfaction, to make a representation in a different way to the Privy Council, and the end would be obtained. He was convinced that the Privy Council had acted under a deep sense of responsibility, and

were only anxious to act in cordial co-operation with the General Medical Council.

Mr. Tichborne, in endorsing Dr. Glover's remarks, said he was sure the Privy Council had treated the General Medical Council with the greatest respect; in fact, that was the reason why the matter had been sent back.

Mr. Teale said he must support Sir Dyce Duckworth's observations. The General Medical Council in its judgment had thought that it had a discretion as to whether it should appoint the examiners or not, but the Privy Council had said that it had not that discretion. In his opinion it did not alter the position of the General Medical Council in the least. Had they appointed examiners they might have been open to blame.

Dr. Gairdner said that the reason why the Council were directed to appoint the surgical examiners had no reference to the efficiency or inefficiency of the examination of the Apothecaries' Hall in its own department. It had simply reference to the fact that unless they appointed those examiners the Apothecaries' Hall would be legally disabled from conducting examinations, because they could not get any of the other bodies in Ireland or elsewhere to give them those surgical examinations.

Sir Wm. Turner said that the difference between Mr. Tichborne's motion and Mr. Bryant's amendment was simply this: that Mr. Tichborne wished the Council to appoint the two gentlemen specified, while Mr. Bryant did not wish the Council to act at once. Both accepted the position that the Council must act on the direction of the Privy Council, but Mr. Bryant asked for a certain delay in order that a Committee might be appointed to report on the matter. He should like to say a word on the amendment, because it introduced a question which Mr. Tichborne had not touched upon—namely, that of remuneration, which was a very important matter. There was a distinct reference to it in a specific subsection of the Act. The amount of remuneration was a question rather for the consideration of a Committee: and he thought Mr. Bryant's amendment was one which the Council might very well adopt at that stage of the discussion.

Mr. Tichbore said he was perfectly prepared to accept the principles that had been laid down with regard to the fixing of the remuneration: in fact, when the Council had granted the Apothecaries' Hall examiners on similar occasions many years ago, the remuneration had been fixed by the Council.

Mr. Brown: What was it?

Mr. Tichborne: Five guineas for each examiner.

Sir Wm. Turner asked Mr. Tichborne if he would accept the amendment.

Mr. Tichborne: Certainly.

The motion having been withdrawn, the amendment was then put as a substantive motion and agreed to.

A Committee consisting of the following gentlemen was then appointed: Mr. Bryant, Mr. Tichborne, Dr. Heron Watson, Dr. Tuke, Mr. Brudenell Carter, and Sir John Banks.

### The Midwives Registration Bill.

A communication was received from the Privy Council transmitting a copy of the Midwives Registration Bill, and requesting the General Medical Council to favour their lordships with their opinion on the Bill.

It was stated that the following resolution, passed on February 22nd, 1897, had been sent to the Privy Council by the Executive Committee as the answer to the communication:

"That, as the meeting of the General Medical Council does not take place until May 25th, the Registration of Midwives Bill cannot be submitted for the opinion of the Council until that date; but that under these circumstances the Executive Committee, who have authority to act for the General Medical Council, beg to forward for the information of the Lords of the Council the enclosed resolutions which were adopted by the Council on November 29th, 1889, and on June 5th, 1895, on the Midwives Registration Bill, transmitted by the Lord President on May 16th, 1895, with the request that the Council would favour him with observations on it.

Mr. Brown said that the resolution passed by the Executive Committee and forwarded to the Lord President of the Privy Council gave no reply to the question asked. He submitted that the Executive Committee had no authority to deal with such matters which affected the most vital interests of the medical profession. They were sitting as a Council, and, although he had great confidence in Mr. Bryant and Sir Dyce Duckworth, he would not allow them to speak for him in matters of that kind. He trusted there were many other members who held similar views on the subject. He moved:

That the communication from the Privy Council of February 16th, 1897, be referred to a Special Committee, and that the Committee be empowered to draft a reply and submit it to the Council during the present session.

Dr. Bruce seconded the motion.

Dr. Rentoul said that some days ago he had written to the President, asking if he could send up amendments to the present Midwives Registration Bill then before the House of Commons, and the President had replied that the Council would be out of order in considering the Bill. He wished to know whether the President still held that opinion.

The President: I have the strongest opinion that the General Medical Council will have nothing to do with the Midwives Bill. Before any question can be brought before the Council on the subject you must move that the resolution of Sir John Simon, seconded by Sir Walter Foster, and confirmed over and over again, that "The Council would not be able to discharge, and would, therefore, not be prepared to undertake any duties of detail as to the registration of midwives, or as to the local arrangements for licensing and controlling them," be rescinded. If you move that it be rescinded, you will be at perfect liberty to introduce any question, but while that resolution stands the question of the Midwives Registration Bill cannot be discussed.

Dr. Glover said he saw no harm in referring the matter to a committtee, and he should support Mr. Brown's motion.

Dr. MacAlister said he should be very sorry to see the resolution carried. Notwithstanding all that had been said about the importance of the Bill and of its novelty of character, there was not a ghost of a chance of its being passed this session, or ever coming up again. The Privy Council knew that, and they had the General Medical Council's formal answer to a formal question. The Bill was dead, and there was no necessity to waste time discussing it.

Dr. McVail said that, as a Crown member appointed by the Privy Council, he could not take Dr. MacAlister's view of the case. He did not suppose the Privy Council would desire the General Medical Council to consider the Bill unless they thought there was some chance of the Bill passing. He therefore moved as an amendment:

That inquiry be made as to whether the Privy Council still desires that the Midwives Bill, sent on February 16th, should be considered during the present session of the General Medical Council.

Dr. Thorne Thorne seconded the amendment.

Dr. Heron Watson said that some misapprehension had arisen under the idea that the Executive Committee had meant to take out of the hands of the Council duties which belonged to it. When the Council was not in session it was the duty of the Committee at its next meeting to take up any press of business. A letter had been received from the Privy Council Office on February 16th, and on February 22nd the Committee sent an acknowledgment affording information as to the action of the Council on the previous occasion. The matter was now before the Council for its ultimate decision.

Dr. Rentoul suggested that Mr. Brown should withdraw his motion in favour of an amendment.

Mr. Brown assented, and the amendment was then carried; it was also adopted as a substantive motion.

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*Wednesday, March 26th.*

Sir Richard Quain, Bart., President, in the Chair.

### Report of Executive Committee.

The minutes of the previous day's proceedings having been read and confirmed,

The Council considered the report from the Executive Committee on the Standing Orders relating to Penal Removals. The Executive Committee having considered the amendments suggested by Mr. Muir Mackenzie to Chapter xiv of the Standing Orders, which were recommitted to the Executive Committee by the General Medical Council on November 24th, 1896, recommended to the Council the adoption of the Standing Orders as modified by the Executive Committee.

Dr. Heron Watson, in moving:

That the Council approve of the Standing Orders as now modified.

said the Standing Orders had been revised for the purpose of protecting the Council from having any decision at which it had arrived reconsidered in any court where objection was taken to the action of the Council. The Executive Committee had obtained the assistance of the Council's legal advisers with regard to the matter, with the result that the Standing Orders had been recast by Mr. Muir Mackenzie, and he hoped they would receive the sanction and approval of the Council.

Sir Dyce Duckworth seconded the motion.

Dr. Bruce, in supporting the alteration of the Standing Orders, said he thought the matter was one of very great importance, and there was no matter with which the Council had to deal which needed more accurate and deliberate steps than penal prosecutions. As a direct representative, it was a subject in which he was particularly interested. Coming in contact, as he did, with the great body of the profession, he understood the sort of pressure that was exercised by such bodies as the Defence Union in order to keep the *Register* clear of men whose names should not be there. The Standing Orders, as revised, he thought were most excellent, and most thoroughly met the object which the Council wished to effect; but there was one clause, No. 3, subsection (*b*), which he should like to see somewhat modified, by omitting the words, "if the case be considered by him (the President) to be outside the jurisdiction of the General Medical Council, he may direct the General Registrar to signify the same to the applicant; but, if the case in his opinion may come within such jurisdiction, he shall direct the General Registrar," and inserting the word "shall" before "refer." The clause would then read: "The complaint and the said abstract, and the documents which accompany the complaint, shall be submitted by the General Registrar to the President, who shall refer the case to the Committee on Penal Cases," etc. He had every possible respect for Sir Richard Quain, but he did not think that any single individual should be put into a position where he would have to determine such nice points. He thought that every case that was brought up should be submitted to the Penal Committee.

Dr. Rentoul and Mr. Brown supported Dr. Bruce's amendment, which on being put was carried, 14 voting for and 3 against. It was also carried as a substantive motion.

### Mr. Miller's Resignation.

A letter was read from Mr. Miller, the General Registrar, resigning his post in consequence of failing health.

The following report was also read:—

(*a*) The Executive Committee recommend the Council to accept Mr. Miller's resignation as from May 31st. The Committee have been advised by Mr. Muir Mackenzie that the Council is not empowered to grant a pension or supernumerary allowance to any of its officers, but that a gratuity may be awarded on retirement.

(*b*) The Executive Committee recommend the Council to appoint a Committee consisting of the two Treasurers and of additional members to bring up a report on this subject at the present meeting of the Council. Also that the same Committee should report on the steps to be taken as to filling up the vacancy.

(*c*) The Committee recommend the following members to act together with the Treasurers: Mr. Teale, Dr. Heron Watson, Sir Philip Smyly, Sir Wm. Turner.

Sir William Turner, in moving the adoption of the report, said the position of the Council was a somewhat painful one, for they were about to lose the services of an officer who had been associated with the Council for upwards of twenty years, and had given his time and services to his work most ungrudgingly. Mr. Miller had always been held in the highest respect and regard by all the members of the Council, and they were extremely sorry to think that his state of health was such that he felt compelled to resign his appointment. That naturally led one to the consideration of what should be done, and the feeling of the Executive Committee was that some authoritative statement should be obtained as to what the powers of the Council were with regard to what could be done for a retired officer in the way of monetary gift for his services. They had been advised by Mr. Muir Mackenzie that no power was granted to the Council in its Act of Parliament to confer a pension. The Council, however, had power to give a gratuity, and he would remind the Council of the course taken when, twenty years ago, Dr. Hawkins retired from his position of Registrar, and a gratuity was given to him for his services. It was now suggested that a similar course should be adopted. At that time the work of the Council was not to be compared with the work that had been done during the greater part of Mr. Miller's tenure of office. The Executive Committee suggested that a Committee should be appointed, consisting of the two Treasurers and of additional members, to bring up a report on the subject of a gratuity to Mr. Miller at the present meeting of the Council. Another point raised in the report of the Executive Committee was, "That the same Committee should report on the steps to be taken as to filling up the vacancy." The report was divided into three parts, and he would now move the first clause.

Mr. Teale seconded the motion. Mr. Miller when appointed Registrar was a skilled schoolmaster, a leading mathematician of the country, and essentially a literary man, and those qualities had been of inestimable advantage to the Council.

Sir John Banks, as one of the oldest members of the Council, said he entirely agreed with what had fallen from Sir William Turner and Mr. Teale in praise of Mr. Miller's work. He hoped the Council would treat Mr. Miller with great generosity.

Dr. MacAlister bore testimony to Mr. Miller's mathematical and other attainments, and to his devotion to the business of the Council.

Dr. Pettigrew spoke in a similar strain.

Mr. Brown said that Mr. Allen had well fulfilled the duties of Acting Registrar, and should, he thought, be continued in that position. He hoped that the Council would not take any further steps in the matter until November, when the real condition of things with regard to Mr. Miller could be ascertained.

The first paragraph of the report was put and adopted. The other two paragraphs were also agreed to.

Sir Dyce Duckworth moved:

That in accepting the resignation of the Registrar, Mr. W. J. C. Miller, the Council desire to place on record its high appreciation of his services during his tenure of office for a period of over twenty years, and to express its regret that, owing to failure of health, it is to lose the benefit of his special tact, urbanity, and knowledge.

He said he could bear out everything that had been said with regard to Mr. Miller's services, and he deeply regretted his resignation.

Mr. Bryant seconded the motion, which was agreed to.

### Penal Cases.

Dr. Tuke moved:

(*a*) That the Penal Cases Committee consist of five members, three from England, one from Scotland, and one from Ireland. That the Committee if necessary meet four times a year. That the President shall be empowered to summon the Committee at other times if he deems necessary.

(*b*) That the President be empowered not to summon the Scottish or Irish members of the Committee unless cases forwarded from either of these countries have been presented for consideration.

(*c*) That all documents bearing on cases from Scotland or Ireland shall be submitted to their respective representatives on the Penal Cases Committee, who in consultation with two other members of the Scottish or of the Irish Branch Councils respectively, as the case may be, to be appointed annually by the respective Councils, shall send a report to the President of the General Medical Council to be brought before the Penal Cases Committee at the first subsequent meeting.

In moving the first paragraph he said the object of the motion was to obtain a thoroughly representative Penal Cases Committee at as small an outlay of money to the Council as possible. His suggestion only provided fresh machinery for carrying out the Standing Order.

Mr. Teale seconded the motion.

Dr. Glover supported the motion, which he considered perfectly reasonable.

Dr. MacAlister did not see why Dr. Tuke should depart from the Standing Orders of the Executive Committee. For uniformity's sake he thought it would be well to adopt the same course that had been taken by the Executive Committee.

Dr. Bruce suggested that the matter should be referred to the Branch Council, and then referred back to the Committee.

Mr. Brown suggested that the Penal Committee for each division of the kingdom be the Branch Council.

Dr. Tuke asked whether it was possible to rescind the present Standing Orders without due notice being given.

Dr. Rentoul moved as an amendment:

That the proposed Standing Orders be referred back to the Executive Committee with instructions to the Committee to include Dr. Bruce's resolution and to provide that cases be referred to each Branch Council.

This was ruled out of order.

Dr. Bruce moved as an amendment:

That the Executive Committee for the time being be the Penal Cases Committee.

Dr. Pettigrew seconded the amendment, which was negatived, and the first paragraph of the resolution was carried.

Mr. Brown said he opposed the second paragraph, as he thought it was important that the Irish and Scotch members should attend every meeting of the Penal Committee.

After some discussion the second and third paragraphs of Dr. Tuke's motion were agreed to.

Dr. Rentoul moved:

That the same payments be made to members attending a meeting of the Penal Cases Committee as are now made to members attending meetings of the General Medical Council.

Mr. Brown seconded the motion.

Sir Wm. Turner suggested that Dr. Rentoul's motion should be placed upon the programme for future consideration.

On the further consideration of the Standing Orders,

Dr. Tuke moved:

That the Council go into Committee on the subject.

Dr. McVail seconded the motion.

Dr. Rentoul moved as an amendment:

That the Standing Orders now under debate, with the amendment of Dr. Bruce and the proposal of Dr. Tuke, be referred back to the Executive Committee, with instructions to embody these alterations and submit them to the next session of the Council.

Mr. Brown seconded the amendment, which, on being put, was negatived.

Dr. Tuke's motion was then put and lost, 11 voting for and 13 against.

Mr. Carter then moved:

That the Standing Orders, as reported by the Executive Committee, and amended by Dr. Bruce, be adopted by the Council.

Dr. MacAlister seconded the motion.

Dr. McVail moved an amendment in Order 15:

In the event of a resolution for adjournment of the further consideration of the charge being carried, the Council, on the case coming on again for consideration, may hear the accused practitioner and the complainant (if any), and receive such further evidence as it shall think fit.

The amendment was that the latter part of the Order should read: "May hear the accused practitioner, and receive such further evidence as the practitioner shall think fit to lay before the Council."

Mr. Brown seconded the amendment, which, after some discussion, was negatived, and the original motion for the adoption of the amended Standing Orders, was carried, 18 voting for and 1 against.

[At this stage Sir Richard Quain vacated the chair, which was occupied during the remainder of the sitting by Sir William Turner.]

### Dental Business.

Mr. Bryant, as Chairman of the Dental Education and Examination Committee, brought up the following reports: (1) On the Inspection of the Qualifying Examinations of the Royal College of Surgeons of England and the Royal College of Surgeons in Ireland; and (2) on the Qualifying Examinations in Dentistry.

Dr. Watson moved:

That the recommendations of the Committee on Dental Education and Examination, together with the reports on the recent inspection of the four bodies granting diplomas in dentistry be sent to those bodies for their consideration, with a view to their expressing their opinions on the same, and these opinions be brought before the Council at its November sitting, before the Council comes to a decision on the recommendations of the Committee.

Dr. Bruce seconded the motion, which was agreed to.

Mr. Bryant said that a paragraph in his draft report had been objected to by his colleagues on the Committee, and he had toned it down; but he thought it might be brought before the Council. "The Committee cannot too strongly urge upon the General Medical Council to so influence the Royal College of Surgeons in Ireland as to induce them to give up as speedily as possible examining *sine curriculo* candidates." He should be glad, as the Chairman of the Committee, to make the proposition as it stood.

After some conversation, Mr. Bryant said he would defer his resolution till the replies had been received from the bodies.

Dr. McVail asked Mr. Bryant how the two bodies, the Royal College of Surgeons of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow could form a Conjoint Board as suggested, there being no power under the Dental Act for them to do so, though there was such a power under the Medical Act.

Dr. Rentoul maintained that power was given under Section xxviii of the Dentists Act of 1878.

The Chairman said that no doubt the bodies referred to would allude to the matter in their answers to the Council, now that attention had been drawn to it.

The Council then adjourned.

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*Thursday, May 27th.*

Sir Richard Quain, Bart., President, in the chair.

### Penal Cases.

The Council proceeded to further consider the case of Mr. Rees Thomas Edward Davies, of New Tredegar, whose case was dealt with in November last, when the Council found that the charge of covering brought against Mr. Davies had been proved, but adjourned the further consideration until the present session.

Mr. Farrer now stated that Mr. Davies had got rid of both of his unqualified assistants and ceased to employ unqualified men.

After deliberation, the Council informed Mr. Davies that he was not adjudged guilty of conduct infamous in a professional respect.

The Council then considered the case of Timothy Siddall Jones, convicted of manslaughter and sent to penal servitude for life, at the Glamorgan Assizes in November last; and the Registrar was directed to erase the name of Timothy Siddall Jones from the *Register*.

### General Business.

On the motion of Mr. Carter it was resolved to appoint Mr. Louis Albert Dunn, M.B., M.S., F.R.C.S., as Assistant Examiner to the Society of Apothecaries in the place of Mr. Adams Frost, who retires by rotation.

A communication was read from Mr. J. J. Eyre concerning medical practice in Italy, suggesting that there should be an endeavour to carry into effect the "reciprocity clause" of the Medical Act of 1886, and asking what were the necessary steps to be taken for the purpose of obtaining that object.

The Council ordered the receipt of Mr. Eyre's letter to be acknowledged, and resolved that a Committee should be formed to make representations to the Privy Council, and to ask the Secretary for Foreign Affairs to take some action in the matter.

The report of the Pharmacopœia Committee was then presented, in which it was stated that the only work remaining to be done with regard to the *British Pharmacopœia* consisted of the preface, the completion of the Appendix, and the preparation of the index. The report further stated that it was proposed to place the modifications desired by the Colonies in the Appendix, and also to somewhat alter the arrangement of the index to include complete lists of official preparations and also of doses.

The report was adopted and ordered to be entered on the minutes.

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At the recent monthly meeting of the Royal Meteorological Society, Mr. F. Gaster, of the Meteorological Office, read a paper by himself and Mr. R. H. Scott on the mean monthly temperatures of the British Isles in the twenty-five years—1871-1895. They pointed out that there is a great difference between the amount of range of temperature at the coast stations and that recorded inland. The range between January and July amounts to about 16° at coast stations, but to more than 23° at the inland stations.

# SPECIAL REPORT

ON

## THE EXISTING ARRANGEMENTS IN CASES OF SICKNESS AND DEATH IN HOTELS AT HOME AND ABROAD.

The British Consul in Naples, in a recent report, referred to difficulties which frequently arise in consequence of the exorbitant claims of Neapolitan hotel proprietors for damages in consequence of the deaths of visitors to their establishments. He mentions a case of a visitor dying of a wholly non-infectious disorder in an hotel, the landlord's claim for damages (exclusive of the ordinary bill) being upwards of £80, which, after a strong remonstrance from the Consulate, was reduced to something under £60. Mr. Neville-Rolfe believes that these questions constantly arise in other Consulates also, and suggests that some definite rule should be arrived at as to the amount of damage payable, distinguishing between infectious cases and those which are not infectious. He thinks that the Hotel Keepers' Association could be led to agree upon a scale, which would save much trouble. He refers to the case of a London hotel company which put up in the bedrooms a notice that a uniform charge of £40 would be made to the executors of any person who died in the hotel. Owing to vigorous remonstrances in the press, the notice was withdrawn; but the sum named forms, he thinks, a useful basis for such claims, and he proposes a maximum of £50 in infectious cases and £20 in those which are non-infectious, where the rooms are charged 10s. and upwards per day, and half these amounts where the rooms are less than 10s.

We have therefore thought it desirable to institute careful inquiries on this subject, and to endeavour to ascertain as far as possible what are the existing arrangements in cases of sickness and death, and especially of infectious sickness at home and abroad.

We have made inquiries at 64 of the best known hotels at home and abroad concerning the usual customs in case of deaths occurring in hotels; 23 of the hotels are in London, 19 in the rest of England and Wales, 9 in Scotland, 4 in Ireland, and the remaining 9 are on the Continent or the Mediterranean coast. From what we hear, it seems that in the British Islands there is seldom any settled custom as to what charges are to be made. There are, however, some exceptions; for instance, at one English watering place a charge is made of £5 for deaths in non-infectious and £50 in infectious cases. The general custom seems to be to charge for necessary expenses only, such as the cleaning, damage done to bedding and furniture, cost of disinfection (in both infectious and non-infectious cases), papering, etc.; something has likewise to be paid for rent of rooms, and this naturally varies according to the class of rooms, the season of the year, and whether the death was from an infectious disease or not.

In some cases it appears that no charges have been made for deaths from ordinary illnesses; but in these there could scarcely have been much disinfection carried out, and we believe that it is best to disinfect after most cases of death, even from supposed non-infectious illnesses. In one case the occurrence of death in an hotel is looked on as a business risk, and therefore no charge is made.

Some of the managers mention approximate charges which might be made, and consider that an acknowledged basis for claims in such cases would be desirable, whilst one manager thinks that any fixed tariff charge would be repugnant at such a time. Following are examples of the charges which have been suggested:

The cost of rent of room for three weeks in infectious cases, for ten days in non-infectious cases. One guinea and one week's rent. Two days' extra rent for cleaning, disinfection, etc. One week's rent. £5 was the charge actually made in two cases. £5 is likewise suggested as the maximum charge for non-infectious cases. One manager would charge three to ten guineas in non-infectious cases, but more in infectious cases. Another says £10 is the highest charge he knows of. £10 to £15 is once mentioned. At a well-known London hotel the average charge of about £20 is stated scarcely to cover the expense incidental to cleaning, disinfection, papering, etc. At a provincial hotel £10 has been claimed for an ordinary death, but £50 is considered a reasonable charge at the same locality (a seaside watering place), should the disease be infectious.

It will thus be seen that there is a wide difference of opinion as to the charges which should be made. One hotel considers the occurrence of death as a business risk, and, as I have mentioned, makes no special charge. In another case no charge is made for rent when the death does not occur during the season. One management thinks damage to business is fanciful, and says no charge ought to be made except in notoriously infectious cases. Another manager has never made any charge, but has left it to the relations to acknowledge extra work and cost. Some think that in case of death from infectious disease it would be impossible to fix the damage, or that the cost from loss of business would be far greater than could be charged. Others agree exactly with the charges suggested by Mr. Neville-Rolfe, namely, a maximum of £50 in infectious cases and £20 in those which are non-infectious if the rooms cost 10s. a day or upwards, and half these amounts where the rooms cost less than 10s. One says that where £40 is claimed, the charge can only be based on the capabilities of the deceased's estate to pay; whilst another suggests £50 as a maximum charge, though he thinks that nothing could repay the loss of business involved. Yet another mentions a charge of £30, but only in infectious cases; some suggest £40 or £50 for infectious cases; one even proposes a maximum of £80 in infectious cases. In ordinary non-infectious cases of death, though some assent to the proposal of Mr. Neville-Rolfe, others think that a uniform charge of £20 or £25 would be fair.

Amongst the foreign hotels consulted, one considers Mr. Neville-Rolfe's suggestion reasonable; two charge £20 for ordinary cases, others between £6 and £20. One manager thinks that if an infectious case occurred he would probably charge £20 to £30—for cost of furniture, etc.; another mentions £14 to £16 in infectious cases and £2 to £4 in ordinary cases. A German hotel charges fourteen days' rent of room in cases of infectious disease and four weeks' if death occurs.

Both at home, therefore, and abroad the charges made in cases of death vary considerably at different hotels; so probably do the charges on the occurrence of an infectious disease. In non-infectious illnesses, not leading to death, obviously no special charge is justified. Many proprietors and managers would probably be in favour of the adoption of some uniform scale of charges, whilst others think that each case should be decided separately according to the special costs involved, though probably in some circumstances (infectious cases) the loss to the hotel must be greater than any charge which can be made. On the whole, with good feeling and proper tact on the part of the landlord or manager, disagreements about such questions are not likely often to arise, and the claims made will not generally be thought excessive. That some charge should be made is only reasonable, for it is to the visitor's interest that rooms should be thoroughly disinfected after persons with any infectious disease have used them, and so also after any death except an absolutely sudden one, such as from syncope, rapidly fatal apoplexy, etc.

In conclusion, to illustrate what we believe can fairly be accepted as the average opinion on the subject, we will quote a few passages from a guide recently issued by the Association of Swiss Hotel Proprietors and Managers:

"Every respectable landlord will attend to a guest taken ill, and will consider it his duty, as a man and as a host, to do his best to tend the patient properly. He will not allow himself to be misled by mean and selfish considerations of gain, nor will he be deterred by possibly ensuing trouble and unpleasantness.

"If a guest be attacked by an infectious disease, the regulations of the sanitary police and the regard to the other inhabitants of the house will necessitate his removal to a suitable place, or to a special establishment. The patient is bound to pay all expenses incurred in carrying out sanitary measures (disinfecting) prescribed by the physician.

"Parents or nurses of children attacked by an infectious disease, as whooping-cough, diphtheria, etc., or when there

is a suspicion of such, are in duty bound to give notice to that effect, and must submit to a medical examination. In cases of concealment, the persons in charge of the children can be held responsible for the consequences.

"Cases of death in hotels are very unpleasant occurrences, which, however, cannot always be avoided. According to the cause of death, it is the duty of the landlord to take all the necessary precautions for the protection of the other inhabitants without creating unnecessary commotion. It is evident that all expenses incurred, including renewal of furniture if necessary, must be paid out of the estate of the deceased. An exact specification of the bill of costs is all the more desirable, as, according to circumstances, the further outlays for burial or conveying the body home, may be very considerable, leaving out of consideration endless formalities, inconveniences, and the responsibility and personal efforts of the landlord. Although the latter has a claim to compensation for all the outlays caused by such a deplorable occurrence, he should not in a case like this try to take any special advantage of the estate of the deceased. As host, on the contrary, devolves upon him the duty to guard, as much as possible, the interests of his deceased guest and of the surviving relatives."

In connection with all this a medical question of some importance arises—namely, What diseases are we to include under the term "infectious diseases?" For practical purposes are we to include cases of acute pneumonia, and, above all, of pulmonary tuberculosis? We believe that after a room has been inhabited by a patient with pneumonia or with active phthisis, it is necessary to have it disinfected. Probably with many cases of quiescent phthisis this precaution is unnecessary, but the question in doubtful cases should be referred to a responsible medical man. If the room be specially adapted for consumptives, and for the prevention of infection (polished floors and walls, corners rounded off, etc.), particularly if the patient takes care never to expectorate on the floor, or allow his expectoration to dry on his handkerchief, the room can be kept properly disinfected all the time he resides in it, and on his leaving no special disinfection will be absolutely necessary. After most cases of death, however, even after deaths from chronic non-infectious diseases, the rooms should be disinfected, for some infective process, such as pneumonia, is not seldom present during the final stage of many chronic diseases, non-infectious in themselves.

## THE AMENDED INFANT LIFE PROTECTION BILL.

THE Infant Life Protection Bill has passed through the Committee stage of the House of Lords and had its third reading, and we are glad to notice that in the course of the discussion thereon certain amendments were introduced and adopted, as the result of which the Bill has been much strengthened and improved. It is, however, undeniably a matter for regret that the clause allowing a woman to receive one child for hire or reward, thus leaving single children without legal protection, is still retained in the Bill.

It was originally proposed by Mr. Ernest Hart, in his reports to the BRITISH MEDICAL JOURNAL on the Infant Life Protection, published in 1868, and in his evidence before the House of Commons, and the proposal was included in the original draft of the Infant Life Protection Bill that infants taken for gain by persons not nearly related to them should have the protection of registration, seeing that they are utterly helpless, and that otherwise those who receive charge of them for payment are entirely without check or restraint. This clause was struck out of the Bill in passing through the Commons by the influence of Miss Lydia Becker and her friends, and the result has been, as was predicted, great abuse and much murder of infants in "single file."

We have repeatedly pointed out this serious objection, and, sentiment notwithstanding, it is certain that the proper humane course is to provide equal legal protection for all children whose lot in life has relegated them to the care of foster parents. When the Bill reaches the House of Commons, it is to be hoped that this very important question will be fully dealt with and the urgency of the Bill being thus amended pointed out. There is all the failure in this respect of the Act at present in force to emphasise the inexpediency of permitting such a clause to stand again.

The amendments, however, adopted on the initiative of Lord Belper respecting Clause 3, dealing with the appointment and powers of inspectors, are a distinct improvement. Our Special Commissioner, whose reports upon the "Baby Farming System and its Evils" were published in the BRITISH MEDICAL JOURNAL in the early part of last year, was able clearly to show that the present Act was practically a dead letter out of London, owing to the inaction of the local authorities. Lord Belper alluded to these facts, and asserted that the same result might happen again were the Bill, as it stood, to become law. Accordingly he proposed to lay it down as a distinct obligation upon the local authority that "it should from time to time make inquiry" as to the baby farms in the district, and that where it was found there were houses where children were kept that steps should be taken to provide proper inspection either "by appointing inspectors or arranging for the infants being visited by ladies nominated by the local authority, and authorised by it in writing to enforce the provisions of this Act." The value of these amendments is obvious. The local authority will by their means be called upon to actively bestir itself instead of allowing the law to remain inoperative, as is at present the case. If the amendments become law, it will be compulsory upon the local authority to take the initiative in enforcing the Act. These amendments were brought forward on behalf of the Home Office, and as such were readily accepted by Lord Denbigh. Presumably the Home Office were induced to pay some attention to the subject by reason of the disclosures made by our Special Commissioner of the extraordinary ignorance of the provincial police respecting the Infant Life Protection Act now in force.

The next most important amendment was the substitution of the Board of Guardians as the authority under the Bill for the borough or district council. There can be no question that this is a distinct advance upon the present order of things. Boards of Guardians may not be altogether exemplary in their decisions upon all matters of local government, but it is certain that their organisation is especially adapted for meeting the requirements of the administration of an Act designed for the better protection of infant life. Upon the whole, then, the discussion of the Bill in the Committee of the House of Lords was not only satisfactory on account of the important and useful amendments which were adopted, but also because of the evidence which was therein shown of the support which the Bill was likely to receive from the Government. From this point of view it is extremely gratifying to see that Lord Salisbury has admitted the necessity of legislation upon the subject. When the Bill was reported to the House of Lords last year, after the Select Committee had concluded its sittings, the Prime Minister did not receive it with much favour: but now it may be concluded that the prospects of the Bill passing into law during the course of the session are highly promising.

## TEMPORARY TREATMENT OF INCIPIENT INSANITY.

ON Thursday a joint deputation of the British Medical Association and the Medico-Psychological Association attended at the offices of the Commissioners of Lunacy, Whitehall Place, with the object of placing before the Commissioners the views of the medical profession on the subject of the treatment of incipient and non-confirmed insanity. The deputation, which was introduced by Mr. Ernest Hart, consisted of Dr. Blandford, Dr. Cleveland, Dr. Douglas, Dr. Fletcher Beach, Dr. Mickle, Dr. Savage, Dr. Shuttleworth, Dr. E. W. White, and Mr. Francis Fowke. Dr. Blandford stated the desires of the deputation: and on the part of the Commissioners Mr. Bagot suggested that if any legislation was desired representations should be made to the Lord Chancellor. A full report of the proceedings will be published in our next issue.

## MEDICAL SICKNESS AND ACCIDENT SOCIETY.

The fourteenth general meeting of this Society was held in the rooms of the Medical Society of London, 11, Chandos Street on May 19th, under the presidency of Dr. de Havilland Hall. Among those present were Mr. E. Bartlett, Dr. Beaton, Dr. Barkwell, Dr. Cahill, Mr. R. S. Charsley, Dr. Major Greenwood, Mr. Brindley James, Dr. Macintyre, Dr. T. Marshall, Dr. F. R. Mutch, Dr. J. Pickett, Dr. Walter Smith, and Mr. F. Wallace.

The Secretary read the notice convening the meeting.

Dr. Hall said he had much pleasure in welcoming the members to the fourteenth general meeting. It had been found convenient for office purposes to have the year of the Society to correspond with the accounts which they had to send to the Board of Trade, therefore the report presented only treated of a period of six months: in future, of course, it would be for a year. He had to congratulate the Society on its continued progress, but he might, however, sound a note of warning in pointing out the marked increase in the sickness and accident claims made during the past six months. It showed that the actuary, Mr. Neison, on whose figures the Society's calculations were based, was justified in requiring what they thought at one time was rather a large margin. During the six months there had been very great sickness, and during the whole of one month the rate of expenditure was in excess of expectation. This, coupled with the difficulty which they had in investing their money, showed that they must be very careful in their supervision of claims, and that they must undertake no measures which would tend to increase the expenses of the Society. Some members seemed to think that they had too great an accumulation in reserve, and one member proposed that a reserve of £10,000 would be sufficient to meet their demands. Those who took an interest in the working of the Society knew that was quite out of the question. He thought it well from time to time to review the advantages which the Society offered to members of the medical profession. In doing so he would relate four cases. The first, a gentleman, had paid £108 13s. into the Society and had received £1,400 16s. In the second case payments made by the member amounted to £139 10s. 8d. and he had received £862 10s. The third case was very sad. A medical man in practice was called out late one night to see a patient and was thrown out of his trap, and got a compound fracture of the skull, he had gone out of his mind, and was now in a lunatic asylum, while his wife was depending on the money received from the Society. He had paid in £57 8s., and had drawn £649 18s. The last case of the four had paid in £71 9s. 2d., and had received £374. These members had paid in between themselves less than £400, and had received between them upwards of £3,000; that indicated the way in which the Society's money was spent. They had now invested upwards of £100,000, which he thought a very creditable performance for a Society which was only fourteen years old. The meeting would have submitted to them certain alterations in the rules for consideration and approval. The Committee were desirous of extending the benefits of the Society to as large a number of members as possible. It was thought the entrance fee, which at the starting of the Society was looked upon more or less as a temporary expedient, should be abolished, and that the six months' probation should also be discontinued. Up to the present time members joining the Society had not been allowed to claim for the first six months. It had been pointed out that no entrance fee nor period of probation were required by other competing societies, so that if the proposed alterations were passed the Society would be on the same footing as others, and they hoped by these means to make it more attractive to the medical profession. The other alterations proposed were merely to simplify matters. As far as he (the Chairman) could judge from what he heard, the Society's subscription to the Royal Medical Benevolent Fund at Epsom had been very well received by the members of the Society. At the next election at Epsom there were four children of deceased members who were applying, and he had divided the votes equally among them. Possibly in future it might be better that when there was one child with a good chance of being elected to give the whole of the votes to one or divide them between two. The votes were strictly reserved for the children of deceased members of the Society. A letter had been received from a member calling attention to the fact that in the balance-sheet, under the management accounts, there appeared the item of £105, paid to the medical examiner of the Society, and asking who the examiner was, and suggesting that his name should be printed on the list of officers. He (the Chairman) stated that the Society for many years went on without a paid examiner. He himself had done the work for eleven years, and was succeeded by Dr. Ball, who for two years had done the work for nothing. It had been brought to the notice of the Committee that the amount of work had increased to such an extent that they thought it desirable that the medical examiner should be paid a defined amount for the work of the year, and it was decided that an honorarium of one hundred guineas should be paid to Dr. Ball for the work, which took up a good deal of time. During the past six months they had had most excellent attendances at the meetings of the Executive Committee. He thought that at no previous period had they been so largely attended, and the work done had been most satisfactory. Everything had been thoroughly investigated, cases most carefully analysed and scrutinised, and criticism in all shape had been exercised on the work of the Society. They had fortunately an excellent Committee, composed of men who took different views, and sometimes at the meetings there were very warm but friendly contests. As in the last two or three years he had again to thank their Secretary for the able and careful way in which he had carried out the duties of his post. Dr. Hall, in concluding his remarks, hoped to see a larger number of members of the Society, and the Committee hoped that by the alteration of the rules they would get a large number. He had great pleasure in proposing:

That the report be received and adopted.

The resolution, which was seconded by Mr. R. S. Charsley, was carried.

Some debate took place as to the various suggested alterations in the rules, which after discussion were agreed to.

Dr. Barkwell suggested certain emendations in the wording of the receipt to be signed by members receiving sick pay, which he considered at present objectionable, and also suggested that the Society should insure against partial disablement.

Dr. Hall said the question of partial disablement had been considered by the Committee, who came to the conclusion that it was quite out of the question with regard to sickness. The premium for partial disablement from accident was estimated to be half as much again as the premium for total disablement.

It was proposed and carried:

That the officers and Committee as in the printed list be and are hereby elected, together with Dr. Ball as medical examiner.

Dr. Barkwell said he would be glad if the question of placing members upon half-pay for accidents could be brought up and discussed at the next Executive Committee with a view to an alteration of the rules.

The following resolution having been proposed and seconded, was carried unanimously:

That a vote of thanks of the Society be given to the medical and insurance press in general, and the British Medical Journal in particular, for their assistance during the past six months.

Dr. Barkwell proposed:

That a vote of thanks be passed to the Chairman and Executive Committee for the way in which they had conducted the business of the Society.

He said that in moving the resolution he hoped they would take into consideration the suggestions which had been made that day.

The resolution was seconded and carried unanimously.

Dr. Hall, in reply, said that, speaking for the Executive Committee, they were much obliged for the confidence placed in them. As he had mentioned at the commencement of the meeting, they had had an unusual number of full meetings, and, as a rule, they lasted for an hour and a half, and sometimes longer. They met every month, so that the Society had had plenty of work out of them during the past six months. It was pleasant work both for the good of the Society and the profession at large.

A vote of thanks to the Chairman brought the proceedings to a close.

## BRITISH MEDICAL ASSOCIATION.
## SUBSCRIPTIONS FOR 1897.

**Subscriptions to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.**


# British Medical Journal.

SATURDAY, MAY 29TH, 1897.


## INDUSTRIAL ACCIDENTS AND INTERNAL INJURIES.

However numerous and varied the amendments which may yet be made upon the Workmen's Compensation Bill, it is already abundantly evident that from the day when the Bill takes effect much will be expected of the medical profession. For the first fortnight, all accidents except such as are almost immediately fatal are to be relegated to the tontines and friendly clubs. And as the injured man will draw upon his club for expenses during that period, it will be the care of the club to see that he does not neglect the technical treatment which his case requires. Malingering is not a common vice among British workmen. It is, on the contrary, rather their boast to make light of what may be serious, and to wish to return to their work when they would be better at home or in hospital. Still, all sorts are met with, and it is probable that some will be tempted by the prospect of pecuniary gain to magnify the untoward results of an accident. So that, practically, it will devolve upon the medical men in the employment of the friendly clubs not only to be alert in the application of the modern methods of antisepsis, but also in distinguishing those who are really injured from those whose hurt is more or less imaginary.

When the fortnight is past and the amount of compensation is in dispute the duties of the medical profession seem likely to be still more onerous. As the Bill stands the accidents of six million workmen will have to be appraised, and the number may yet be increased. All dangerous trades except that of seamen, says the Home Secretary, are included in the Bill. But a maritime country will not be content to have her sailors forgotten. It was the dreadful accidents occurring among miners and sailors that made so profound an impression upon the public conscience when the question of compensation was first raised.

The assessment of injury and of the effect which that injury will have upon the workman's future employment must often be a matter for skilled medical inquiry. The Bill is not automatic in its working, and there is no attempt to draw a hard-and-fast line between total and partial or between permanent and temporary disablement. In Germany the loss of two eyes counts for so much, a pair of legs costs this, and an arm and a leg are worth that. But the varieties of accidents and of internal injuries are so great that this scheme must have proved quite impracticable, and a crude classification of injuries and their different economic results would certainly be unsatisfactory. The Bill is properly content to define the maximum and minimum of compensation; and, as it is the habitual business of our profession not only to diagnose and treat injuries but also to advise upon the kind of work which will be possible in the future, it is intended that the county court judge—who is, of course, without this experience—shall be empowered to appoint a medical assessor to assist him. It is proposed that the medical assessor shall be paid by the employer. This is an unfortunate mistake, for it certainly places the medical assessor in an invidious position. It would be as reasonable to expect the judge to get his fee from the employer.

But it is hoped that the majority of disputed cases of compensation will never reach the county court. No compulsory boards of arbitration are proposed, and no scheme of compulsory insurance. The bureaucratic method of the German law has not been copied. In place of this it is hoped that voluntary committees, representing both employers and employees, will be formed for the settlement of compensation out of court. And to promote this intention it is proposed that a Government arbitrator, to whom these committees may appeal, shall be appointed. Unfortunately, there seems to be no provision that this arbitrator shall either have, or shall be able to call for, the medical knowledge which must so often be required. It is not an easy matter to determine offhand the gravity of obscure internal bruising, nor to distinguish between prolonged mental shock following upon accident and downright physical incapacity. The difficulties, for example, in the diagnosis of supposed spinal paralysis, especially when money is in question, are well understood by the profession, though they would perplex a layman or a lawyer. Then, again, it is sometimes only by careful examination and inquiry that it can be ascertained that a young workman has been occasionally subject to slight epileptic fits. It is, of course, quite right for such a man to obtain employment when he can. But if an accident occur through his suffering from a fit while at work, this fact should have weight in the estimation of the compensation due to him; for, if not, then employers will naturally protect themselves by refusing to employ such men. Similar considerations hold with regard to the aged and infirm. It would be an unfortunate sequence to the passing of this Bill to find that all the aged and infirm had notice to quit. It will be the duty of the Government arbitrator to give just and equitable weight to all these points.

## THE DEBATE IN THE HOUSE OF LORDS ON THE HEALTH OF THE ARMY IN INDIA.

This debate, which lasted two days and of which we gave a report in our last issue, was raised by the Earl of Dunraven, who moved for further inquiry as to the effect of venereal disease on the army and on the civil population in India and in this country, and as to the nature and results of the measures which have been adopted in this and other countries for the prevention of such diseases. Lord Dunraven marshalled his facts and arguments with admirable clearness and force. He was supported by the Duke of Cambridge and Lord Roberts of Kandahar, who from long and intimate acquaintance with the subject were able to

produce telling statistics indicating the serious amount of inefficiency caused in the army by these maladies. The experience of the Chitral expedition showed how tainted men, apparently sound at starting, broke down under the hardships of service. Lord Roberts was able to represent how much has been done to provide the soldier with means of recreation and to improve his mind and morals; but how ineffective all this has been as a preventive of these diseases.

The medical aspects of the question were expounded by Lords Lister and Playfair. Lord Lister, in a maiden speech of great power, pointed out how important the earliest possible detection of these diseases was; how difficult it was to say when it was safe for a syphilitic to marry without risk of contaminating his wife and begetting diseased children; how special means must be taken to detect a disease for whose concealment so many strong motives existed, and "how very wholesome a moral influence residence in a hospital brought to bear on the humbler classes." He did not mince matters. "It was the fact of prostitution, not evidence of venereal disease, on which the authorities must proceed."...."Prostitution was not in itself criminal; but if a woman placed herself in a position of being a danger to the community public steps should be taken to minimise that danger."

The reforming influence of the hospital is a fact which should never be forgotten. When a poor woman has fallen to the very lowest grades of her wretched calling, when vice and suffering and degradation have almost abolished her right to be called human, and when any change in her life would be a change for the better, then are influences applied by Christian and humane women most likely to benefit and induce the sufferer to exchange a life of shame and misery for one of decency, industry, and comfort. The Archbishop of Canterbury, while impressing the obligation of using every means of moral reform, approved also, as befitted his office, of resorting to all legitimate preventives and cures of physical suffering and constitutional damage. The Bishop of Southwell ably represented the position of the purists, but he also supported proposals for hygienic reforms. The official attitude was well sustained by the Marquis of Lansdowne and the Earl of Onslow, the former representing the War Office and the latter the India Office. Both officials deprecated the delay which would arise from further inquiry, and contended that enough was known of the magnitude and gravity of the evil to justify prompt and energetic action for its mitigation.

The principles underlying Lord George Hamilton's despatch were approved, including the employment of every feasible means, religious, and moral, to discountenance vice; the exercise of the influence of commanding officers, chaplains, and medical officers in this direction; the removal of temptation and opportunity; the suppression of intemperance; the provision of means of employment, recreation, and refinement; the avoidance of any semblance of pandering to passion or making vicious indulgence safe: the recognition of these diseases as transmissible complaints whose suppression must and may be compassed by controlling the conditions of transmission; and to this end the early detection of their existence, and the segregation and treatment or expulsion of their subjects as dangerous members of the community as long as they continue to be so. The Government of India has been given a free hand to devise measures of prevention on these lines, and has readily accepted the responsibility of doing all in its power to diminish the plague, for such in reality it is.

The Earl of Kimberley, on the part of the Opposition, expressed a hope that if the steps proposed to be taken by Her Majesty's Government were not found to be entirely successful, they would take measures still more stringent.

On the whole, the discussion was worthy of the august assembly in which it took place, and reflected well the present state of educated public opinion on this subject. The speakers unanimously shunned the absurdity of advocating a counsel of impossible perfection, and urged the necessity and feasibility of strenuous effort to minimise the suffering which the frailties and follies of erring men and women entail.

## THE NURSE AS A SANITARY OFFICIAL.

The importance of good nursing in the treatment of all disease can hardly be overestimated, and the trained nurse has come to be recognised as almost as essential an element of the therapeutic hierarchy as the doctor. For some diseases, indeed, especially those of infancy, she may be said to be even more so. Take, for instance, such affections as measles and whooping-cough, the medical treatment of which is of the simplest and most routine nature, but in which careful and intelligent nursing is of the essence of the cure. How many children who are annually sacrificed in the visitations of these two diseases alone which periodically sweep through this country might not be saved were only a good nurse at hand to instruct their mothers how to deal with them? There is no question here of supplanting the medical profession by a lower order of practitioners. In the great majority of cases of these two diseases especially the doctor is never called in at all, or if he is, it is only when the child is so ill that his services are of little use. A trained nurse would know when the doctor's aid was indispensable, and would thus often promote his intervention at an earlier stage of the illness than would be otherwise likely.

Much has already been done in the direction of establishing nursing organisations for the aid of the sick poor, especially in the larger centres of population. But even in these the work is much handicapped for want of funds. The public are beginning to appreciate and support these institutions, and the local authorities, by whom they could be effectively assisted, are well disposed towards them as a rule, but their power to assist them by pecuniary contributions is, in the present state of the law, open to considerable doubt. But it is in the rural districts that the need of the trained nurse is most felt, especially for infectious diseases, and above all for the two affections to which we have above referred.

We observe that Dr. Bond, Medical Officer of Health for the Gloucestershire Combined District, has called attention to this need in his own district in his annual report for 1896. He even goes so far as to suggest that the nurse is as essential a member of the sanitary organisation as the sanitary inspector and the medical officer of health. Such a claim is certainly no more derogatory to these latter officials than it would be to assert that the nurse is as necessary a feature of every hospital as is the surgeon or the physician. Dr. Bond urges that sanitary authorities should be distinctly empowered to employ nurses either for temporary purposes or

as permanent members of their staff. In every rural district there is always ample work to employ one nurse, who would thus be able to be drafted by the medical officer of health to any part of it in which her services were required, and who might be supplemented, when necessary, by assistance to be obtained from the various nursing institutions which are now so common in all our large towns.

There can, we think, be no doubt as to the importance of these suggestions, and we have the less hesitation in referring to them because a Bill has just been introduced into the House of Commons by Sir Alfred Hickman, one of the members for Wolverhampton, under the title of the Public Health Acts Amendment Bill, which, amongst other useful provisions, incorporates one empowering local authorities to employ nurses for attendance on persons suffering from infectious disease. The principle has been already embodied in local Acts obtained by St. Helens, Brighton, and Burton-on-Trent, and Sir Alfred Hickman is doing good service to the cause of sanitary progress by seeking to give it a permanent place in the armament of sanitary authorities. But the section of the Bill containing this provision will need to be enlarged in order to insure its full degree of utility. At present it only authorises the employment of nurses "from time to time." This leaves doubt as to whether it would authorise the engagement of a nurse as a permanent official. There can be no objection to such an extension, as the power is merely an enabling one. The Bill in question, like its predecessor of 1890, is framed on the principle of drafting into general legislation powers which have been acquired experimentally by independent authorities in local Bills, and we shall have occasion to refer to it more fully hereafter. It is sincerely to be hoped that the Government will prevent it from falling into that limbo of blighted hopes into which so many other Bills brought in by private members are annually precipitated when the cries of the grouse and the partridge overpower the exhausted enthusiasm of our legislators for public work.

By Standing Order, dated May 21st, 1897, the Commissioners of Prisons, on the authority of the Secretary of State, order that the title of "Assistant Surgeon" be discontinued from that date, and that the title "Deputy Medical Officer" be substituted for it.

Among the fifteen candidates—the usual number selected by the Council—for admission into the Royal Society this year are Sir W. H. Broadbent, Bart., Consulting Physician to St. Mary's Hospital, and Dr. J. S. Haldane, Lecturer in Physiology, University of Oxford, and well known for his investigations on respiration and on carbonic oxide poisoning. Dr. H. Alleyne Nicholson, Regius Professor of Natural History in the University of Aberdeen, and Dr. Robert Bell, Assistant Director of the Geological Survey of Canada, who are among the selected candidates, are also members of the medical profession, though they have earned distinction in other walks of science.

## LONGEVITY OF TEETOTALLERS.

The remarkable difference in favour of abstaining lives over those of non-abstainers, which has characterised the yearly returns of the United Kingdom Temperance Insurance Company for a quarter of a century, has been again exhibited. During last year, in the non-abstaining section, the actual death claims were 356, or 46 fewer than the expectancy. In the temperance section the actual death claims were 246, or 118 fewer than the expectancy. In other words, if the death-rate of the abstainers had been the same as of the non-abstainers, instead of 246 there would have been 320 deaths, or 74 more. While if the death-rate of the non-abstainers had been the same as of the abstainers, there would have been 84 fewer deaths.

## YET ANOTHER NON-COMBATANT!

During the operations of the Colonial forces on April 6th, 1897, at Langberg Mountain, Bechuanaland, Surgeon-Lieutenant-Colonel E. B. Hartley, V.C., Cape Mounted Riflemen, was hit in the ribs by a ricochet bullet while dressing the wound of Lieutenant Harris, Cape Town Rifles. Fortunately the medical officer only sustained a severe bruise, and was able to get the wounded under cover and attend to their injuries. Lieutenant Harris's thigh was amputated the next day, but he died the same night. One man was on this occasion dangerously wounded, and five others more or less severely. There are five surgeons in the field, and forty Cape Volunteer Medical Staff Corps.

## THE ANTITOXIN TREATMENT OF RINDERPEST.

We are glad to see that the Basutoland Government have not dropped the subject of the experimental investigation and antitoxin treatment of the rinderpest. Although Professor Koch and Dr. Edington have not, according to all accounts, completely solved the problem of the prophylactic and curative treatment of the disease, yet their work has been of such a nature that it holds out some prospect of being profitably followed up. Hence the decision of the Basutoland authorities to offer a salary of £350, together with all expenses, for a suitably qualified veterinary surgeon to proceed to the Cape, and to carry on the inoculation experiments, is a step in the right direction. Professor Koch having carried the question so far further research may be carried out by a less distinguished operator. Failing authoritative information—for the officials at the Crown Office for the Colonies know nothing of the matter—we must conclude that this is the meaning of the advertisement which appeared recently asking for a suitably qualified man to undertake the experimental investigation of the inoculation against the disease by Koch's method.

## INSPECTION OF MEAT.

The report of the late Royal Commission on Tuberculosis showed the great necessity that exists for the adoption of proper administrative methods designed to prevent the sale of meat from tuberculous animals, or of meat from healthy animals that has become infected by the slaughterers from diseased carcasses in the processes of dressing. The existing Royal Commission is to report on those administrative methods which are practicable in this country, and is so much impressed with the general concurrence amongst the witnesses who have been heard as to the necessity of establishing public abattoirs wherever this is possible, both in the interests of the public health, and to protect graziers and butchers against the present want of uniformity in the seizure of carcasses on account of tuberculosis, that several of its members, with its Honorary Secretary, Dr. Legge, have commenced a tour of inspection of foreign cities to study this question. The first cities to be visited are Brussels, Cologne, Berlin, and Leipzig, where the municipal abattoir system has reached a high stage of development. It may be anticipated then that the recommendations of the Royal Commission will include the establishment of public abattoirs in all municipal centres, the regular and systematic inspection of all beasts intended for slaughtering, and of all carcasses during the processes of dressing, and the adoption of some plan for the gradual abolition of private slaughterhouses. The Council of the Sanitary Institute has for long recognised that a course of instruction in meat inspection formed a most essential part of the technical education of sanitary inspectors, to whom

large powers of condemnation are entrusted by the existing Public Health Acts, and to whom will be relegated in many instances those larger duties in connection with public abattoirs which are likely to be a feature of the municipal methods of the near future. The Council, therefore, in the spring of 1896 organised in connection with the sanitary officers' lectures, special demonstrations, held at the institute, for the inspection of meat. The students also were taken, under competent guidance, to one of the London meat markets, to see the methods of preparing meat for sale; and demonstrations were given as to the appearances and physical characteristics of healthy meat, and where to look for, and how to recognise, abnormal appearances indicating disease and unsoundness. The demonstrations given in the museum of the institute were rendered possible by the kindness of medical officers of health in various parts of the country, in sending up carcasses and portions of animals affected by various diseases. These specimens were carefully explained to the students by the lecturer, and the students were afforded the opportunity of handling and closely examining the various tissues both before and after the demonstration. The following are some of the diseases which have been illustrated; Cysticerci, trichinæ, hydatid cysts of lungs and liver, flukes, tuberculosis of lung, pleura, udders and lymphatic glands, swine fever, septicæmia, milk fever, inflammatory womb of cow, pericarditis, fibroid tumour, joint-ill, joint-felon, broncho-pneumonia, ankylosis, and slink meat. The numbers of students attending the demonstrations at the meat market in the three sessions were 77, and at the museum 233. Many of the specimens have been preserved for permanent exhibition in the museum by immersing them (1) for 24 hours in formalin, (2) for 12 hours in 80 per cent. alcohol, (3) for 2 hours in 95 per cent. alcohol, and finally bottling them in a solution of equal parts of water and glycerine. This process has been found advantageous for fixing the colour of the specimens, and for preserving their normal appearances. For the better preservation of the carcasses sent to the museum for demonstration, a large cold storage chamber with well packed double walls, has been specially constructed in the basement. By means of ice specimens may be preserved in this chamber for several days, even in warm weather. Convenient tables for dressing and arranging specimens have also been provided.

## BELFAST ROYAL HOSPITAL.

The resignation of the Staff Surgeoncy by Mr. Fagan, on his appointment as Chairman of the Board of Industrial Schools of Ireland, has necessitated certain changes in the staff. At a meeting of the General Committee of the hospital held on May 24th, on the motion of President Hamilton, seconded by Dr. Lindsay, Professor Sinclair, F.R.C.S.Eng., the Senior Assistant Surgeon, was unanimously elected to fill the vacancy created by Mr. Fagan's retirement, and Dr. Sinclair Kirk was unanimously chosen Assistant Surgeon in room of Professor Sinclair. Both speakers paid a high tribute to Mr. Fagan, who, during his twenty years' tenure of the surgeonship had proved himself an able surgeon, and had given faithful and valuable service to the institution. The new appointments are in all respects excellent, and the fact that there was no opposition in either case is a sufficient proof that the gentlemen selected have the entire confidence both of the profession and the public. At the same meeting Dr. McCutcheon was elected House Surgeon to the Extern Department.

## AN ANTIVIVISECTION HOSPITAL.

We see it stated that a committee has been formed for the foundation of an antivivisection hospital from which "all vivisectors will be for ever excluded." No proposition could well be sillier than this; nevertheless, we shall be glad to see the attempt made to carry it out, for its absurdity will then be all the more evident. Let us see what and whom it will be necessary to exclude in order to be logical in the determination to derive no benefit from the labours of experimental physiologists and pathologists who are here stigmatised shortly as vivisectors. First and foremost it will of course be necessary to exclude the Listerian treatment, and to resolve not to profit by the researches of Pasteur and Lister and the antiseptic practice which is now so universal, and has been so beneficent in its life-saving effects. Of course, all those who object to profit by the teachings of experimental physiology and pathology must at once exclude the use of the stethoscope or any of the knowledge which the experiments on respiration of living animals by Boyle, and the sounds of the valves of the heart by Hope have brought to our aid in the treatment of heart diseases and lung disease. Properly speaking, and to be logical, no pulse should be felt, and the knowledge gained by Harvey's experiments on the heart and discovery of the nature of the circulation should be altogether kept out of view. Nitrite of amyl must, of course, not be used for the relief of angina pectoris, for that is one of the most recent conquests of physiological experiments; neither must any brain disease be localised or operations for the removal of tumours be performed, for they will be based on the knowledge gained by the researches of Ferrier and of Horsley. The use of antitoxins in the treatment of diphtheria, plague, pneumonia, erysipelas, or tetanus must, of course, be rigidly excluded. But first of all it will be necessary to find medical men of ordinary scientific standing, or, indeed, any medical men, who would willingly exclude as far as they could (for none could wholly exclude) the knowledge and methods of treatment with which so-called "vivisectors" have so richly endowed preventive and curative medicine and surgery of our day.

## EDINBURGH AND THE QUEEN'S REIGN.

The Committee of citizens appointed to make arrangements for a scheme for commemorating the sixty years' reign of Her Majesty have recommended that efforts be made to raise the sum of £60,000 for the object of first building a special pavilion to the Royal Infirmary for the Diseases of Women at a cost of £54,000; and, secondly, to spend £6,000 on the extension of Queen Victoria's Institute of Jubilee Nurses.

## PASS AND PLUCK.

Among the tables presented to the General Medical Council this week is one showing the results of professional examinations held in 1896 for qualifications to practise granted under the Medical Act by various bodies. The grand totals show that at the Second Professional Examinations 44 per cent. of the candidates were rejected, while at the Final Examinations 37.3 were rejected. A study of the figures for different examining bodies shows very great variations. In some cases the actual numbers are so small that no conclusions can safely be drawn from calculation of percentages, but in the case of some of the principal qualifying bodies it will be interesting to indicate the percentages plucked. Taking, first of all, the Conjoint Boards, we find that the rejections were in England at the Second Examination 48.2, at the Final Examination 36.5 per cent.; in Scotland at the Second Examination 52.1 per cent., at the Final Examination 57.4 per cent.; in Ireland (the Royal Colleges of Physicians and Surgeons) the rejections were at the Second Examination 58.2 per cent., at the Final Examination 58.4 per cent. The rejections at the Final Examination both in Scotland and Ireland appear to be quite abnormally high. In the Universities the rejections at both corresponding examinations ruled lower. Thus at Cambridge they were at the Second Examination 40.3 per cent., at the Final Examination 41 per cent. At the University of London at the Second Examination 46.6 per cent., and at the Final 34.5 per cent. In the University of Edinburgh (Old Regulations) 36.9 per cent. were plucked at the Second Examination, and 15.4 per cent. at the Final Examination; in the Royal University of Ireland

43 per cent. at the Second Examination, and 42.5 per cent. at the Final Examination. At the University of Glasgow (Old Regulations) the percentage of rejections at the Final Examination was 36, and it is at least a coincidence worthy of remark that the percentage proportion of students plucked in the Final Examinations of the Conjoint Board in England, the University of London, and the University of Glasgow, should be almost exactly the same, and that the proportion should be nearly twice that which ruled in the University of Edinburgh, while it was only two-thirds of the proportion at the Final Examination of the Conjoint Boards in Scotland and Ireland.

## PRESENTATION TO DRS. PHILIPSON AND ARNISON.

On Wednesday evening, May 19th, Professors Philipson and Arnison were entertained at dinner by the present and past Newcastle students on the occasion of their retirement from the active staff of the Royal Infirmary. Dr. Drummond presided, and the large gathering included members of the staff of the infirmary and the medical college, together with many students. During the evening a large and handsome silver bowl was presented to each of the guests by Dr. Paterson on behalf of the past and present students.

## THE MEDICAL SICKNESS AND ACCIDENT SOCIETY.

The report of the fourteenth annual meeting of the Medical Sickness and Accident Society, which we publish elsewhere, ought to receive widespread attention, as it certainly deserves general congratulations and thankfulness. The profession cannot acknowledge too warmly the gratuitous services which are rendered to this Society by its Executive Committee. It is true that in other professions—pharmaceutical, legal, and theological—like services are rendered in the administration of the affairs of those professions, and especially of its charities, with perhaps equal zeal and almost as great success. The affairs of the legal profession as represented by the Law Institute involve a great number of heavy details and frequent attendance at important committees, and such services are invariably ungrudgingly rendered. In the case of the Medical Sickness and Accident Society we have a rare example of beneficent labours carried on with great care and with an efficiency and economy which is not only not to be exceeded, but has never been equalled or even approached by any similar institution. Beginning entirely without capital, and securing the whole of the surplus thus obtained for the benefit of the members without any reservation except for their greater future security, this Society has been conducted with ever-growing efficiency and success at a rate of outlay which has from the first been less than 5 per cent. on the annual premium income. Those who know how often these expenses rise, even in well-managed societies, to 15, 20, or 30 per cent., will appreciate at their true value the results which have been secured by a system which from the first not only excluded all payments to shareholders, but also all payments to directors and managers, all commissions, advertisements, outlay on agency, and all costly building. In this way, the Committee have not only been able to divide substantial bonuses among all the members, but to lay up against future claims for annuities a sum fully adequate to provide for them, with the prospect of periodic repetition of bonuses. This Society affords a ready means for all medical men to provide against the mischances of temporary accident, passing illness, or permanent disablement, and its operation should make itself felt in diminishing the pitiful tales of suffering from these causes. It does not, however, attempt to provide for widows and orphans, and not all members of the profession can afford even to make this slender provision during their lifetime, so that there will always remain a large margin of unfortunates for whose relief the exercise of an ample charity will continue to be required. We may mention that the testimonial in recognition of the work of the founder and President of the society on his retirement has been expended in the commissioning of Mr. Solomon J. Solomon, A.R.A., to execute a portrait picture of a dinner at which were present many of the leaders of the profession to welcome Mr. Ernest Hart on his return from America. The picture is a great success. Among the portraits in this interesting work are those of the late Sir Spencer Wells, Sir James Paget, Sir Richard Quain, Sir Henry Thompson (the host of the dinner), Sir William Broadbent, Sir Joseph Fayrer, Dr. Lauder Brunton, Mr. Critchett, Mr. Horsley, and the guest of the evening, Mr. Ernest Hart. The picture, whether from the point of view of vivid portraiture or of a difficult achievement in the way of artistic *ensemble*, representing a table decorated with roses and lighted artificially, is a remarkable success, and in many ways interesting. It has much contemporary interest, and will have hereafter historic value, for groups of portraits of eminent medical men are rare in the history of art.

## AMBULANCES FOR HILL WARFARE.

As we have already announced, litters have been withdrawn from the equipment of the Medical Staff Corps, and in future the men of the corps will not be instructed in the transport of sick and wounded in litters. This training has hitherto been given at the depôt and training school at Aldershot. The cacolet carriage was condemned by General Sir Richard Harrison after personal experience of its discomforts. It may have been desirable to give up the use of these litters, but we have not heard that any substitute has been provided, and it must strike the ordinary observer as rather an unwise course to get rid of an appliance of a kind absolutely necessary in countries where there are no carriage roads, on the ground that it is not comfortable, before settling upon a pattern which is comfortable. We are glad to have an opportunity of publishing the views of an officer of the Indian Medical Service of considerable experience during five campaigns on the advantages of the "Lushai dandy" for all purposes, including hill warfare. He says: "The present pattern of Lushai dandy is excellent for all purposes, inclusive of hill warfare. In the Shan States I conducted a party of these dandies for several hundreds of miles through thick jungle, along footpaths amongst the hills, in one place along a precipice with the road so narrow, that four mules and a baggage pony went down the Khud; in another place down a hillside with a drop of 2,000 feet in a mile where there was no road (in both the above instances the doolies were laden), along the bed of swollen streams (here the poles were taken out and the dandies carried shoulders high, with extra men along the sides. I have seen wounded men brought up from the Akhel Valley during a sharp engagement with the enemy to a plateau about 1,000 feet higher by a very steep goat track. These dandies make comfortable beds; the cover can be spread out into a little tent; they can be packed into a comparatively small space, and have numerous little fittings to increase the comfort of their occupants. Indeed, in all my rather extended experience of them, I can only remember one occasion where I had trouble with one, and that was when one of the wire ropes broke while carrying a patient. Of course, care is necessary on the part of the medical officer or the medical subordinate in charge of the dandies, especially in jungle or thorny places, to keep the covers from being torn to ribbons by thorns or sharp stones, etc. This can be done, but if a cover is torn it can be repaired." In face of the above expression of opinion by a medical officer experienced in hill warfare, it may be assumed that when Major-Carter (in giving his opinion as to India) pronounced the stretcher now used as "quite unsuitable for hillsides," he cannot have had in his mind the Lushai dandy. Colonel Adams went a step further still by saying that "we were absolutely without ambulance for hill warfare." This cannot be if the Lushai dandy has all the advantages enumerated above. We are told that there is now in India a representative of the Tortoise Equipment Company which has

brought out a folding stretcher of the regulation 32 lb. weight which we understand would, with one improvement, be useful as being portable by mules, that is, two stretchers could be carried, one on each side of the mule, with some baggage as well. This tortoise stretcher folds into three parts. The camel "kajawahs" are well spoken of where these animals can be utilised in war, and an improved form of this "kajawah" is now under construction and trial.

## ENTHETIC DISEASE IN INDIA.

Lord George Hamilton has received an influentially-signed women's memorial, drawing attention to the serious state of affairs disclosed by the report of Lord Onslow's Committee, and expressing an earnest hope that the Government will take such steps as may be necessary to prevent the spread of disease in our Indian army. The first three signatories are Princess Christian, the Duchess of Connaught, and Princess Mary of Teck, associated with whom are many ladies of title and distinction; also the matrons of every big hospital in the metropolis. Miss Florence Nightingale and Mrs. Humphry Ward signed with a reservation. The *National Observer and British Review* considers that the late debates in the House of Lords on the health of the army in India are to be welcomed as an indication that public opinion at last is beginning to recover from a malady almost as fatal as that whose ghastly ravages have been creating such a profound sensation. If we judge the question impartially on its own merits, it is impossible to doubt, that, in some form or another, it is imperative on us to revive the legislation for checking contagious disease, which was, at the instigation of a body of impure fanatics, repealed, to the disgrace of the nation, some years ago. The original Acts may have had objectionable features. If that were so, the Acts ought to have been amended; and any amendments that were reasonable would have rendered them more efficient. The agitation which led to the Acts in question being repealed was not in reality directed against details at all. It was directed against the end which the Acts had in view, not against the means by which that end was to be achieved; and the only opposition which sane men need now fear will be opposition of the old kind, and will emanate from the old quarters.

## WOOLSORTERS' DISEASE.

An inquest was held at Shipley, Yorkshire, recently, relative to the death of a woolsorters' labourer, aged 62 years, who died after an illness of only two days' duration, and under circumstances suggesting anthrax. It appears that the man had worked at Saltaire Mills for several years, and that his duties of late had been the "drawing of the fans" and the sweeping out of the rooms where the wool was stored. In one of the rooms he had swept there were several bales of "van mohair" which had been opened. He had felt the work rather dusty and disagreeable, and on the first day of his illness had complained of pain in his chest and of a sense of choking. Next day he was dead, and the evidence given by the medical man who had seen the patient was to the effect that the case was one of woolsorters' disease. As another death from a similar cause occurred in January last, at Denholme, Yorkshire, in a man aged 42, after a few days' illness, in whom the symptoms and physical signs were at first simply those of congestion of the lungs, and who had been employed in emptying a very dusty bale of hair, the inquest on the Saltaire case naturally attracted considerable attention. So far as the physical signs of disease in either patient are concerned they were slight. In the Denholme patient the temperature never rose above 100.4°, and the pulse 80. At the necropsy evidence of congestion of the lungs alone was found, the other organs being healthy. That the death of the woolsorter at Saltaire was due to anthrax there is no doubt, for on microscopical examination the fluid removed from the brain and pleura at the necropsy was found to be swarming with the bacillus anthracis. When we know the dusty and dirty state in which foreign hair reaches England, the filthy conditions under which it is gathered, the blood-besmeared state of the hides and the various forms of septicæmia from which the animals have died, we can readily understand something of the risks that are run by men who empty the bales filled with such material. Some time ago it was an "order" that in factories where such work is carried on no floor should be swept until it was freely sprinkled with carbolic acid. Whatever value we may attach to the practice it is interesting to know that in neither of these two cases had sprinkling of the floor with carbolic acid taken place. The cleaning of the "fan" that ventilates a workroom where dusty processes are carried on is at all times a dangerous and risky occupation, and in a woolsorting establishment ought never to be undertaken by anyone whose skin is broken, and whose breathing organs do not allow of his wearing a good fitting respirator. One or two points in addition require mention. Mr. Beaumont, H.M.'s Superintendent Inspector of Factories at Leeds, who attended the inquest at Shipley, drew attention to the fact that certain new rules had been sent out from the Home Office, and that they came into force on February 1st of this year, failure to comply with which imposed heavy penalties upon workpeople as well as employers. In a dangerous industry like woolsorting it is absolutely necessary that in the workrooms there should be a 4-inch aperture in the sorting boards, so that, by having a down draught, the dust is prevented rising into the atmosphere of the room. Although a 4-inch shaft is mentioned in the rules, this, as Mr. Beaumont stated, was to be taken simply as a standard, and an 8 or 10-inch shaft was much better. It is also ordered that neither the coats nor any part of the clothing of workers shall be kept as hitherto in the sorting rooms. To the verdict returned by the coroner's jury at Shipley that the deceased had died from woolsorters' disease there was added that in future wherever dangerous wool is stored the floor of the warehouses should be sprinkled daily with disinfectants.

## THE SUGGESTED INCORPORATION OF METROPOLITAN DISTRICTS.

The vestry of St. Marylebone has had for some time under consideration the possibility of a scheme for local autonomy, but a public meeting recently summoned to discuss the question separated in disorder without coming to a definite conclusion. Nevertheless, it is fairly clear that a majority of the ratepayers would welcome any scheme which might reasonably be expected to give them more complete control over local matters. Incorporation involves a severance from the London School Board, and probably from other central spending bodies. A moment's consideration, however, shows that neither Westminster nor St. Marylebone nor Kensington can ever become such distinct municipalities as the large provincial towns. There must of necessity be a central body in charge of the main sewerage, nor can the organisation of the Asylums Board be supplanted by local effort with any public advantage. The incorporation of any of the London districts is, as a rule, looked upon with favour by the sanitary officers; it is a general belief that a local authority invested with the dignity of an incorporation will attract a more educated class of candidates than the average vestryman, and that the increase of educated members will render it possible for large questions such as the housing of the working classes, and the carrying out of the Public Health statutes to be dealt with in a more logical and systematic manner. On the other hand, a statesman is hardly likely to view with favour a spasmodic haphazard breaking up of portions of the metropolis into distinct entities, and if the aspirations of these districts are realised in practice, where is the process of disintegration to stop? If it is good for St. Marylebone to become a separate corporate body, it is also good for the whole metropolitan area to be mapped out into some ten or twelve districts, each to possess as full civic rights as under the circumstances may be practical. The continued

agitation of several of the most important London districts points out the urgent necessity for the Government to seriously take up the question of London government, and to devise a reasonable scheme, and one which will admit of provisions for the future growth of so vast a community.

## NEUROLOGICAL SOCIETY OF LONDON.

AT the next meeting of this Society to be held at the Physiological Laboratory, University College, Gower Street, W.C., on June 3rd, at 8.30 P.M., Professor Schäfer will bring forward the following question: "Is there a direct relationship between the motor paralysis produced by lesions of the cortex and loss of sensibility, muscular or other?" and will show some experiments bearing on the subject. Professor Boyce and Dr. Warrington will make a communication on Some of the Ascending and Descending Nerve Tracts in the Fowl.

## IRREGULAR DENTAL PRACTITIONERS.

SEVERAL months since the dentists of Brighton combined to prosecute several irregular practitioners of that town. A case was adjourned (that of Moss Harris) because he was one of a number of unregistered men who had applied to the High Court for a mandamus to compel the General Medical Council to place their names on the *Register*, under the provisions of Clause 37 of the Dentists' Act (the Apprentices' Clause). The case of Spero, to which we referred in a recent issue of the BRITISH MEDICAL JOURNAL, has been selected as a test one. He was unsuccessful, and has not appealed, consequently none of them can now be registered. Application was therefore made for judgment to be given on the Moss Harris case, with the result that a fine of £5 and costs was inflicted, or in default 21 days' imprisonment. The Brighton dentists may be congratulated on their success, but such cases are better undertaken by societies such as the British Dental Association, and by counsel familiar with the Act and its interpretation by magistrates in the large number of cases that have now been undertaken. On more than one occasion prosecutions undertaken by the dentists of a town have failed for this reason. In one of the Brighton cases a doctor was allowed to give evidence as to the skill of the prosecuted, which should not have been permitted, the question of skill not being under consideration, and no evidence should have been allowed upon that side of the question. We deprecate any action of members of the medical profession tending to encourage irregular dental practitioners by sending patients to them or by administering anæsthetics for them. Each year over 100 students, who have gone through a very complete dental education extending over four years, receive their diplomas from the various Colleges of Surgeons in the United Kingdom, and their names appear subsequently in the *Medical Directory*. The process which results in "the survival of the fittest" could be materially hastened if medical practitioners would give their encouragement to qualified dental practitioners only.

## PROGRESS IN ARMY MEDICAL REFORM.

SOME of the more recent concessions to the claims of the Parliamentary Bills Committee and the BRITISH MEDICAL JOURNAL on behalf of army medical officers are thus summed up in a semi-official communication which appears this week in the press. "The continuity of army medical administration in military districts will in future be placed upon a stronger basis by the retention of surgeon-major-generals and surgeon-colonels in their staff appointments as principal medical officers until they vacate that position by promotion or retirement. The length of a tour of service in India, the Mediterranean, and Canada will, in the case of officers of the Army Medical Staff, be reduced from six to five years. Special leave for professional studies will be granted, and a paid substitute will also be provided for medical officers proceeding on private leave in all cases when their effective strength is below the authorised establishment. An officer of the Army Medical Staff detailed to act as president or member of a mixed Board, court of inquiry, or committee will take his place thereon according to his seniority as compared with that of the other members, thus clearly defining his status in matters unconnected with general command. The pecuniary allowance now issued to officers of militia regiments during their periods of annual training will in future be granted to medical officers when attached to those units." It will be noted that all of these reforms were first put forward, and have since been repeatedly pressed on the War Office in memorials presented on behalf of our Association and in the pages of the JOURNAL. At first they were all summarily and peremptorily rejected, and this only three years ago, but they have since been gradually conceded, ungraciously, however, and in driblets, but only under the pressure of the extreme unpopularity which the course pursued by the War Office has reflected on this department of the Government service, and the consequent deficiency of candidates capable of passing the entrance examinations. The most important of all the reforms urged, namely, the constitution of an Army Medical Corps with substantive rank, and the abolition of cumbrous compound titles, yet remain to be granted. With steady perseverance, however, no doubt the authorities will become impressed with the necessity of granting these.

## THE JENNER MEMORIAL MEDAL.

THE appeal of the Epidemiological Society for a fund to found a medal in memory of Edward Jenner has been successful, and Mr. Allan Wyon, F.S.A. has been commissioned to carry out the design which he had submitted. The medal will bear on the obverse the head of Jenner, and on the reverse the arms of the Society. As a practical contribution to the public discussion of vaccination, the Society has resolved to publish in a cheap and convenient form the paper in which, during the last session of the Society, Dr. McVail dwelt in a masterly manner with the dissentient statement in the report of the Royal Commission on Vaccination. It is particularly desired that members of Parliament, who in view of future legislation will have to give special attention to the questions, should have an opportunity of studying Dr. McVail's criticism.

## DOG OWNERS AND MUZZLES.

COMING after the many and varied manifestations of those who oppose muzzling, it is refreshing to read that, at its last meeting, the Metropolitan Canine Association passed a resolution recommending that all dogs should be muzzled for a period, that no breed of dog should be exempt, and that the order should be universal in Great Britain; also that leather muzzles should be allowed provided they be effective. The period set forth in the recommendation of the Association is six months, but while it is possible that this might suffice, the evidence that the incubation of rabies sometimes exceeds this period is strong enough to warrant the conclusion that it would be wiser to enforce the muzzle for twelve months. With this modification the above resolution represents the position we have always held, and is almost identical with the programme of the Society for the Prevention of Hydrophobia and the Amendment of the Dog Laws. It is satisfactory to find that muzzling and importation orders are to be simultaneously enforced in Ireland, and that as the cases of of rabies in Ireland are so widely scattered the order will extend to the whole of that country. The Irish Privy Council intend also to issue an order relating to the importation of dogs, following closely upon the lines of the order already sanctioned for Great Britain, which is to come into operation on September 18th next. Fortified by all the support which has recently been accorded him, it is to be earnestly hoped the Minister of Agriculture will now make a serious and determined attempt to eradicate and keep out this malady, which brings such cruel suffering and annoyance to man and the lower animals. The introduction of the impor-

tation order, and the manner in which Mr. Long has confuted the statements of the antimuzzlers, certainly lend an air of earnestness to his action in this matter. It is, however, difficult to understand why the order is not made general. To make an order which will allow a dog, necessarily muzzled in a suspected area, to be taken into another area and therein go unmuzzled, is a weak point in the present regulations. If there be reason to muzzle a dog in an area in which rabies is existent, there is surely the same reason why he should remain muzzled in an area believed to be free from rabies. It cannot be suggested that the muzzle prevents rabies except by preventing biting, yet dogs are daily leaving London for various parts of the country in which they immediately go unmuzzled; indeed, we know of nothing to prevent an owner taking his dogs just outside the prescribed boundary, and letting them go loose and unmuzzled, without the slightest assurance of their being free from rabies, and the power of communicating the disease to man or their fellows in an area presumably free. It is to be feared that, unless the Minister of Agriculture make the order general, he will have little claim to escape the odium which would follow failure of the present order.

## ICE IN THE TROPICS.

The use of ice in tropical countries contributes largely to maintaining the health of people who are not ill, but for sick persons it is, in many cases, almost indispensable; and the medical man who has to treat fever and feverish illnesses when the temperature is tropical without the use of ice is deprived not only of one of the most valuable means of soothing the distress of his patients, but of contributing to their recovery. We are therefore glad that attention has again been called in the public press to the fact that there is as yet as a rule on board men-of-war in the tropics no provision for supplying ice for the use of invalids. We have no hesitation in stating that the want of ice for sick men in a tropical climate means prolonged illness and increased mortality, and that it should not be supplied argues bad economy, even from the low point of view of mere money. We are satisfied that if it is the case that sick sailors on board a man-of-war are denied ice, the fact has only to be sufficiently made known in this country to induce the officials who are responsible for it to remedy the want. The civilian on shore can by the expenditure of money procure for himself necessities of this kind, but the sick sailor is absolutely helpless in such a matter, and is in the hands of his superiors, and we hope that we have now arrived at a time when a sense of what is due to the men who risk their lives by exposure to tropical diseases for the defence of their country will lead to their being provided with every available means of relieving the pain and overcoming the risk to life associated with attacks of severe fever.

## THE INDIAN MEDICAL SERVICE.

The first annual dinner in London of the Indian Medical Service took place on May 20th at the Café Monico. Seventy-six members of the service were present, of whom forty-five were on the retired list, the small attendance of members on the active list being due to the prevalence of plague and famine in India. The toast of the evening, "The Indian Medical Service," was given by Sir William Mac Cormac, and acknowledged by the Chairman, Sir Joseph Fayrer, who sketched the early beginnings and traditions of the service. He referred to the important part which had been played by Broughton and Hamilton in the early days of "the Company." In recognition of their professional services to native potentates, the one had obtained territorial concessions for his company which had furnished another starting point from which British rule rapidly extended over Bengal, while the other had done much to popularise British influence, and had been able to smooth over difficult negotiations that had led to important results. The service had done much in times well within the memory of most, not only to advance medicine and surgery, but to start and develop other departments which are now important factors in the Government of India. In this connection Dr. O'Shaughnessy's experiments and the part he played in starting the Telegraph Department were specially dwelt on. The speaker enumerated the names of many who had distinguished themselves in the most various directions. In responding to the toast of "The Guests," Lord George Hamilton, Secretary of State for India, said that the officers of the Indian Medical Service had acquitted themselves with credit in the discharge of the very varied duties that had fallen to their hands in the development of the Indian empire, duties that were often quite outside the scope of their profession; he specially recognised, however, the work that had been done by the service in advancing science, and in its special capacity as a medical service. He commented on its humanising effects and on the assistance it had rendered in developing and consolidating the empire. In illustration of this he said that he had been informed on good authority that the dispensaries on the Gilgit frontier had done signal service in reconciling the inhabitants to the new order of things, and that in its general tranquillising effect on conditions on the border, the Medical Service was at least equal to another battalion of troops. The statement in the last annual reports that 19 millions of people had during the year received relief from the dispensaries throughout India was some measure of the benefits conferred on the people of India by the Indian Medical Service. Mr. P. J. Freyer, F.R.C.S., who acted as Secretary of the Dinner Committee, is to be congratulated on the success of his arrangements, and it is probable that the dinner will become an annual event.

## MEAT AND MILK INSPECTION.

The Provincial Board of Health for Ontario has issued a pamphlet[1] giving (1) the text of the Act Providing for the Inspection of Meat and Milk Supplies of Cities and Towns passed by the Legislature of Ontario in 1896; (2) plans and estimate of cost of a municipal abattoir, and regulations of the Provincial Board of Health regarding the same; and (3) a Report on Inspection of Meat and Milk, and Regulations relating thereto. The pamphlet contains an abundance of suggestive and practical information. It comes, too, at a time when public opinion in this country has been fully roused to the danger of using meat or milk from animals suffering from tuberculosis. The two best means of limiting this danger are by efficient examination of carcasses of animals slaughtered for human food, and by the testing of milch cows with tuberculin. Both these can be arranged for now by the cities and towns of the province of Ontario, for every municipal council is empowered to provide a public slaughterhouse, cattle yards, and pens, and to equip and regulate the same, the local Board of health having the control and supervision. Further, every urban Board of health may examine into the purity of the milk supplies, the sanitary condition of the byres, and the health of the milch cows. In particular the Board may provide for the testing with tuberculin by a registered veterinary surgeon of every cow giving public milk supplies for the diagnosis of tuberculosis. Each cow found healthy is to be ear-marked with a metal tag on which is a number, corresponding to the number of an entry describing the cow in the veterinary inspector's book. Any animal giving the tuberculin reaction is to be removed from the herd, and (*a*) if wasted and having clinical symptoms of lung disease, the cow is to be destroyed and the carcass so disposed of that it shall not be used for human food; (*b*) if in fair condition, the cow is to be fattened as speedily as possible for slaughter; the milk may be allowed to stop, or it may be boiled for half an hour and fed to pigs or calves.

[1] Pamphlet No. 1, 1896, *On Meat and Milk Inspection*. Toronto: Warwick, Bros., and Rutter, printers, demy 8vo, pp. 33.

## OPENING OF NEW LABORATORIES AT GUY'S HOSPITAL BY THE PRINCE OF WALES.

The new school buildings at Guy's Hospital were opened on Wednesday, May 26th, by the Prince of Wales, with all the ceremony befitting the occasion. The result will be a great advance in the arrangements for teaching physiology at the Borough Hospital.

The new building is designed to provide under one roof all the accommodation required by the school in all branches of the medical curriculum, and the portion opened by the Prince of Wales forms the south wing, which is about one-third of the whole structure that is to be. The centre of the wing is occupied by a theatre capable of seating 400 students. This and all other parts of the building are lit by electricity, and every provision for teaching has been made. Beneath the theatre are various class rooms and dark rooms for the spectroscope and photographic work. In other parts of the building are chemical laboratories, fitted with benches, sinks, etc., a padded calorimeter room, with double windows, and a balance room and gas room, a laboratory and preparation room for normal and morbid histology, a demonstrator's room, etc. The whole will accommodate large classes, whilst the claims of investigators have received ample consideration, and research in the varied problems of physiology and general pathology can be also conducted. The building, already completed, has been erected at the cost of the staff of the medical school at an expense of about £12,000. A further sum of about £35,000 will be required for the completion of the scheme.

His Royal Highness was received by Mr. Cosmo Bonsor, the Treasurer, and Dr. Perry, the Superintendent of the Hospital. Accompanied by the Duke of Cambridge, he proceeded to the Court Room, where he presided over a meeting of the General Court.

The Treasurer stated that up to December, 1896, £172,000 had been received on account of the Re-endowment Fund; since then £11,973 had been received, and a grant of £10,000 from the estate of the late Mr. W. E. Guesdon which will shortly be paid will bring up the total in answer to the Prince's appeal to £194,000. This allowed of the opening of one of the closed wards.

The Prince next proceeded to a platform erected at the south end of the Colonnade, where members of the staff were presented, and Mr. Howse read an address of welcome.

His Royal Highness next proceeded through the grounds to the new buildings, followed by the governors and medical staff, and being everywhere received with loud applause by the large company assembled to do honour to the occasion. After inspecting the laboratories and class rooms, the royal party entered the theatre, whilst the choir of nurses and students sang "God Bless the Prince of Wales."

Dr. Pye-Smith, Senior Physician, then spoke as follows:

"Your Royal Highness, my Lords, Ladies, and Gentlemen,—I have been asked by my colleagues, the lecturers, demonstrators, and tutors of this school of medicine, to state very shortly the purpose and object of the buildings opened to-day.

"While in every civilised country except England and the United States the training of physicians and surgeons is provided for by the Government as part of its duties, our profession provides for itself and for the public. The schools of medicine in London have formed themselves around the great hospitals, and have only gradually acquired their present importance and repute.

"Apart from the practical instruction in the wards of the hospital, some knowledge of natural science has always been included in the preparation for a liberal profession like that of medicine. Physicians have always been botanists and chemists; surgeons have always been anatomists. During the last sixty years great has been the development of these preliminary scientific studies, the indispensable foundation of rational medicine. We have now not only lectures on physics, on chemistry, and on biology, but well-equipped laboratories for each of these subjects, in which our students become practically familiar with scientific facts. We have twice rebuilt, or greatly enlarged, our museums and laboratories since the old buildings were erected in 1826. We have now laboratories for physiology, for clinical chemistry, for histology, and for the new science of bacteriology. But again, as our numbers increase and the progress of science goes on, we must pull down our barns and build greater. In medical science, as in a still more important discipline, the Augustinian saying is true, 'Qui Satis dixerit, perditus est.' We must go on if we are not to fall back.

"Accordingly, after repeatedly considering various plans for enlarging and remodelling the old museums and laboratories, we determined that none of them were satisfactory, and that we must erect at least a new building for the important department of physiology; one not comparable to the magnificent palaces which are called 'Institutes' at Berlin and Strassburg, but fitted for the best possible teaching and the most advanced researches.

"This part of the future and more extensive block of museums and class rooms is now completed. Immense labour has been bestowed upon it; similar institutions in this kingdom and on the Continent have been visited and studied by our lecturers, and the result is, what we have every reason to believe, will be useful for another fifty years. Two names among the many to whom we are deeply indebted demand particular mention—those of our architect, Mr. Woodd, and of Dr. Shaw, Dean of the medical school.

"It is only right to explain how the necessary funds were raised. You, Sir, know well—none better—the sad depression of rents which has compelled the governors of Guy's Hospital to close some of their wards. We know, Sir, and shall never forget how you came to their help, and how, by your generous and practical aid, the prospect of further curtailment of the charity was banished and replaced by a hope that before long its closed beds may be reopened to the public.

"The treasurer of the hospital could not give, and we could not ask, for any help from the hospital funds. Every pound given to Guy's Hospital is devoted to the direct relief of the patients. The school does not receive from, but gives to, the hospital with which its prosperity and almost its existence are united.

"It is needless to say that the Government does not help medical science as it does on the Continent, and our rich men are only beginning to learn to devote their wealth to founding colleges and laboraties and observatories, like those which do honour to our kinsmen across the Atlantic. Only one resource remained open, and we determined to appeal to ourselves. We made a collection, each giving something, as he was able, and with the money subscribed the present institute was built.

"Here physiology will be zealously and efficiently taught, and fresh knowledge will be acquired. The old laboratories where Sir William Gull, Dr. Pavy, Mr. Golding-Bird, and the late Dr. Wooldridge worked, will hand over a good tradition of industry, intelligence, and zeal to their successors. And the benefit will not be only for our students, but for the whole community. Such institutes are too few, for they are not only 'light bringing' but 'fruit bearing'; they not only form the foundation of scientific and efficient treatment of disease, but are the source whence spring such discoveries as bless the whole world, and crown with the gratitude of nations the names of Jenner, of Simpson, of Pasteur, and of Lister.

"May I invite you, Sir, and our other visitors, in Harvey's words: 'Ad viliorum animalium inspectionem cum Heraclito apud Aristotelem.....introire si vultis, accedite: nam neque hic desunt Dii immortales.'"

The Prince of Wales then said that he had much pleasure in declaring the building open. He said it was impossible to overestimate the value of laboratory work in the investigation and treatment of disease, and that students should cultivate a gentle and humane spirit, the best possession of the medical faculty. His personal inquiries had led him to believe that whenever experiments upon animals were performed in that school they were undertaken with the object of promoting advances in medicine and surgery, which were likely to be of benefit to suffering humanity. That such experiments were conducted by highly-qualified investigators, and that the only operations performed upon animals not anæsthetised were inoculations and hypodermic injections. He then alluded to the work done at Guy's by Astley Cooper, Bright, Addison, Hodgkin, and Gull, who with

but slender aid from scientific apparatus added so largely to the sum of human knowledge. For the present and future generations it remained with more exact appliances and more delicate apparatus to seek in other fields to emulate the example of their illustrious predecessors. To this end were needed ampler buildings, and specially designed rooms, and complicated mechanical contrivances, all involving additional expenditure. Relying entirely upon themselves, the staff of the medical school had erected this building. But as it stood it was an instalment of a more extensive design and the Prince expressed the hope that the day for its completion would not be long delayed, and that eventually room would be provided adequately to display the unique collection of wax models which had so much interested him when he first visited the museum. The medical staff had expended as much as they safely could and it was to men of wealth and philanthropic aspirations that he looked with confidence for further assistance. Let such men once realise that money given for the purpose of medical education directly benefited humanity, and it could not be doubted that that spirit which had prompted the British people to provide by voluntary effort what in other countries was provided by the State would prove effective in the present need.

The Bishop of ROCHESTER next invoked the Divine blessing upon the work.

Mr. COSMO BONSOR (Treasurer) moved a vote of thanks to the Prince for the part he had taken in the day's proceedings, and begged him to rename the ward which was about to be reopened.

In reply, HIS ROYAL HIGHNESS expressed his hearty thanks for his very hearty reception, and named the reopened ward "Queen Victoria Ward." The choir and audience then sang "God Save the Queen," and the Prince, returning to the reception platform, took leave of the governors and staff, and departed amidst the cheers of the visitors and onlookers.

Subsequently prizes and medals were distributed to successful students of the past year by Mrs. Cosmo Bonsor, the wife of the Treasurer.

## LORD LISTER AND HIS OLD PUPILS.

ON Wednesday evening, May 26th, Lord Lister was entertained at the Café Royal, London, at dinner by his former house-surgeons, clerks, and dressers. The occasion was one of peculiar interest, and much enthusiasm was displayed. The company was representative of those who have worked with Lord Lister during his career as a teacher. Thus of eight surviving house-surgeons of his at Glasgow seven were present. Five of those who acted in a similar capacity at Edinburgh attended, while no fewer than eighteen of his house-surgeons at King's College Hospital were present. Every person present received a souvenir bearing on the cover the excellent portrait of Lord Lister, reproduced above. Within it, the inner pages contained a list arranged in chronological order of all those, so far as their names could be ascertained, who had acted as house-surgeons, clerks, or dressers from 1861 to 1893.



Portrait of Lord Lister which appeared on the Souvenir Card.

After the usual loyal and patriotic toasts, that of the "Navy, Army, and Reserve Forces" being given by Dr. HECTOR CAMERON, Dr. R. HAMILTON RAMSAY, of Torquay, who was Professor Lister's house-surgeon in 1863 at Glasgow, presented to Lord Lister an album containing the following address, and the signatures of those present:

MY LORD,—We have had the honour and great privilege of serving under your lordship as house-surgeons, clerks, or dressers, and we beg leave to offer you, on the occasion of your elevation to the peerage, our affectionate and respectful congratulations. This memorable year of a memorable reign will, by all of us, ever be associated with the public recognition of your splendid work. To you, our revered master, we can never adequately express our indebtedness for all you have taught us, and for the example you have been to us. We beg leave to hand you a list of those who have had the honour of being intimately associated with your lordship in the great work by which you have made possible the triumph of modern surgery, and on behalf of those who have been prevented from joining us this evening, we beg to subscribe ourselves your ever grateful and affectionate pupils.—The address was signed by Joseph Coats (Chairman), StClair Thomson (Honorary Secretary), and all those present to the number of 130.

Subsequently the Rev. J. E. LONDON, M.R.C.S., presented an address from the practitioners of British Guiana, of which colony he is a native.

Lord LISTER expressed in suitable terms his acknowledgements for these presentations.

The Chairman, Professor COATS, of Glasgow, in rising to propose the toast of the evening, "The Health of Lord Lister," said that each one present had had more or less personal relations with Lord Lister, and the occasion was thus one of a personal and intimate character. His Glasgow students had had certain advantages over those of the two other medical schools to which Lord Lister had been attached. Glasgow had known him before antiseptic surgery, when as a young man he had come with a reputation based chiefly on pathological researches in relation to inflammation, and Glasgow students had quickly recognised that they had a master amongst them. Again, Glasgow alone had known him as a systematic lecturer, a capacity in which he was pre-eminent, and finally Glasgow had seen the beginnings of antiseptic surgery in the Royal Infirmary there. "I was present at and witnessed," Professor Coats continued, "the first application of antiseptics. I was the dresser to the case. I remember well Ward xxiv, with old Mrs. Martin as nurse, and I could go now to the bed where the patient lay. It was a case of compound fracture of the leg. Lister, after a few words giving his reasons for the procedure, produced a small bottle of carbolic acid. He put some of the pure carbolic acid into the wound and made a paste or coagulation of the mixture of carbolic acid and blood with which he filled the wound. This he covered with a case of block tin. From day to day he removed the tin and added some fresh carbolic acid. By-and-bye the coagulation in the wound was replaced by vascular granulation tissue, and the case went on to healing. This was the beginning, and it has always been to me a prominent feature of my life that I was present at it." Continuing, Professor Coats said that he believed that all his old pupils would recognise that the antiseptic system had never seemed to Lord Lister to be anything in the nature of a personal possession of which he might be legitimately proud. It was this attitude which made the term "Listerism" inappropriate. It was not a cut-and-dried system to which the name of a man could be applied, but it was a scientific principle which had a living existence, and which in the future as in the past might be expected to expand, and have new and unexpected evolutions. This attitude had been a stumbling block to some. He had known Lord Lister spend much thought and labour in some particular arrangement till a lesser man would have grown fond of it and stuck to it, but to Lister the principle was everything, and there was a continual effort after improvement, with a casting off of those parts which had been proved less fit. In conclusion, Professor Coats referred to the warm personal affection with which Lord Lister was regarded by his old pupils.

Lord LISTER replied in a genial speech, in the course of which he said that when his old house-surgeon, Dr. StClair Thomson, had first hinted to him that there was a proposal on foot to hold such a banquet, he had objected that his old pupils should again be called upon so soon after they had presented him with his portrait. However, the response to the preliminary inquiries was such as showed that they desired to offer him some special congratulations, and

the result was the great and indeed unique company present. For many years of his life he had to work single-handed and alone as regarded the senior members of the profession, but he had always been able to count on the affectionate loyalty of his students. "I have," he said, "loved our calling, its science, and its art, and I have learned to love, also, those who have worked with me."

The toast of "The Organisers of the Festival" was given by Mr. A. DANIELL, and acknowledged by Dr. ELDER and Dr. STCLAIR THOMSON, who had acted as Secretary to the Committee.

Lord LISTER, in a few graceful words, proposed "The Health of Professor Coats," and congratulated him on the success which had attended his persevering efforts to obtain an adequate recognition of pathology in the University of Glasgow.

Dr. COATS, having suitably acknowledged the compliment, the proceedings, which throughout were of a most enthusiastic character, were brought to an end by the whole company singing "Auld Lang Syne."

## HOSPITAL REFORM ASSOCIATION.

OUR Manchester correspondent writes: A meeting of the medical profession and of others interested in the organisation of medical charities was held in Manchester on Tuesday last under the auspices of the Hospital Reform Association.

Mr. WALTER WHITEHEAD, who presided, said the Society had for its object the prevention of abuses, and any society of that sort deserved commendation and support. Those of them who had to do with charities and hospitals would agree that abuses did exist.

Dr. GARRETT HORDER (Cardiff) said that an examination of the reports of the Manchester medical charities had led him to the opinion that very much abuse existed, and that the investigation system carried out by the district provident society was far from preventing it.

A committee was appointed to draw up a circular to be sent to the various hospitals and charitable institutions, inviting them to nominate gentlemen on the Committee of Inquiry.

On the motion of Dr. BRIERLEY, seconded by Dr. RITCHIE, it was resolved:

That in the opinion of this meeting, while considering the question of hospital abuse, it is essential that all money payments by patients and also recommendations should be abolished.

It was also resolved:

That in the opinion of this meeting the time has arrived when an inquiry should be made into the mode of administering medical relief in the Manchester and Salford hospitals and dispensaries; and it is further of opinion that such an inquiry should be conducted by a Committee which should be representative of all the interests concerned.

## THE BATTLE OF THE CLUBS.

PENGE AND BECKENHAM.

IT is to be regretted that a medical practitioner has been found to assist the clubs at Beckenham and Penge against his professional brethren.

It would appear that the London and Manchester Medical Aid, which was practically expelled from this district last year by the resignation of its medical officers, have sent down a Dr. Wallace, a graduate of Glasgow, guaranteeing him house rent. An active house-to-house canvass is now, we are informed, being made on his behalf throughout the district by the agents of the Society, and he has also offered to accept the clubs recently vacated at the old rates.

Dr. Wallace cannot be congratulated on the work he has undertaken. However great pecuniarily may be his success, this success can only be achieved by the ruin of the position the great majority of his profession have thought it necessary to take up in order to maintain the dignity of the profession, and to support which many of his brethren have not hesitated to resign emoluments they could ill spare.

THE Committee of the Queen's Commemoration Fund for Jubilee Nurses is organising an exhibit at the Earl's Court Victorian Era Exhibition with the object of showing the work done by the Queen's nurses among the poorer classes.

## LITERARY NOTES.

MESSRS. BAILLIÈRE, TINDALL AND COX will shortly publish a new work by Sir William Broadbent entitled *The Heart*. They will also issue a new *Clinical Manual of Mental Diseases*, by Dr. Clark, medical superintendent of the Lanark County Asylum; *Diseases of the Gall Bladder and Bile Ducts*, by Professor Mayo Robson; a third edition of Dr. Ball's *Diseases of the Nose and Pharynx*: and an authorised translation by Dr. Arthur Giles and B. L. Eastman of *The History and Technique of Vaginal Operations*, by Professor Landau, of Berlin.

At the ninth annual meeting of the American Pediatric Society held at Washington on May 4th, 5th, and 6th, the President, Dr. Samuel S. Adams, in his opening address, dealt with the evolution of pediatric literature in the United States. He reviewed in chronological order the various works on the diseases of children which had been written in that country during the past hundred years. Every author who had written on the subject before 1870 was mentioned. Since that date the output had been too great to allow every individual contribution to be mentioned. The first definite contribution to pediatric literature was made by Dr. Rush in 1789 in a description of influenza. Then came the names of Caldwell in 1796, Steuart in 1806, the American Matron in 1810, Jackson in 1812, Miller in 1814, and Logan in 1825. There were numerous contributions between that date and 1848, when J. Forsyth Meigs published his important work on the diseases of children, the last two editions of which bore the names of Meigs and Pepper on the title page. In 1858 Jacobi published his first paper on children. In the same year J. Lewis Smith made his first appearance in pedriatic literature, but the first edition of his well-known work on diseases of children was not published till 1869. The most important systematic works on the subject published since that date are those of Keating (1889), Starr (1894), Sachs (1895), Rotch (1895), and Holt (1896).

It is not only in this country that the voice of the reformer of spelling is like that of one crying in the wilderness. Professor Charles Richet, the distinguished physiologist and editor of the *Revue Scientifique*, has just had to submit to defeat a third time in an attempt to change the orthography of the French tongue. Some time since he tried a "referendum" of his subscribers on the question whether they would have *f* substituted for *ph* in words derived from the Greek; whether they would have *y* banished from the community of letters, its place being taken by *i*, and whether they would have *s* substituted for *x* in the plural of words. The result was a large majority in favour of the proposed reforms, and for some weeks the "Revue Rose" presented a curious appearance to eyes accustomed to French "as she is wrote." But the able editor had reckoned without his contributors, who being, as is the way of their kind a stiff-necked generation, kicked against the pricks. Professor Richet has therefore in the meantime consented to sacrifice *fisiologie*, *psichopathique*, and the like, but he lives in the hope of a day of triumph when the reforms which he advocates will be "imposed by use, or by the dictionary of the Academy, or by the schools."

*A Medical and Surgical Directory of the United States and Canada*, compiled by A. L. Chatterton, has been issued by J. B. Flint and Co., 104, Fulton Street. The volume before us, which is intended to be the first of an annual issue, contains over 1,000 pages, and consists of little more than a list of the names, addresses, date, and place of graduation of the practitioners. The names are classified under places of residence.

*La Revue Philanthropique* is the title of a new monthly periodical founded by M. Paul Strauss, and edited by him with the co-operation of a Committee which includes among its members Dr. Theophile Roussel (President), Dr. P. Budin (Obstetric Physician to the Paris Maternité), Dr. C. Bergeron (Perpetual Secretary of the Académie de Médecine), Dr. Bourneville, Dr. H. Napias, M. Henri Monod (Director of the Assistance Publique), and others. The first number contains articles on the Protection of Childhood, by Dr. Roussel; on the Feeding of Infants, by Dr. Budin; on Assistance for Superior Degenerates, by Dr. Thulié, and other papers on philanthropic subjects by well-known writers.

## THE ANTITOXIN TREATMENT OF DIPHTHERIA.

### DIPHTHERIA ANTITOXIC SERUM IN THE HOSPITALS OF THE METROPOLITAN ASYLUMS BOARD.

A second report has just been issued on the use of antitoxic serum in the treatment of diphtheria by the medical superintendents of the hospitals of the Metropolitan Asylums Board. The cases included deal with the year 1896, and it may be broadly stated that it shows that the favourable results met with during the preceding year have been fully maintained.

The report is divided into two sections, the first dealing with primary diphtheria, the second with post-scarlatinal diphtheria, and an appendix is added in which various tables dealing with the statistics of the different hospitals are given.

The cases at the Brook Hospital are excluded, for in consequence of that institution not having been opened until August, the completed list of its cases was not fairly comparable with those from other hospitals in which the cases remaining over from the previous year were included.

During the year—excepting at the North Western Hospital—the serum has been given to a very large proportion of the cases of undoubted diphtheria; in fact, excluding that hospital, 71.3 per cent. of the total number of cases have been thus treated; the cases not so treated being those which were obviously moribund on admission and those which were very mild.

Much hinges upon the assurance that the cases treated were, on the average, of greater severity than those which were not treated with the serum, because a crude comparison of the results obtained among those so treated, and among the whole mass of the cases, both treated and not treated, shows that the mortality was highest in the serum cases.

#### Age Distribution.

Not only, however, do we have the assurance of the superintendents of the hospitals that with the exception of the moribund it has been the practice to administer the serum to all but the mild cases, but we find evidence of the greater severity of the serum cases by observing the age distribution among the two classes. No less than 48.6 per cent. of the antitoxin cases were under 5 years of age, against 31.1 per cent. of the non-antitoxin group; while only 13 per cent. in the former class were over 10 years of age, against 36.7 per cent. in the latter. If we bear in mind the notoriously high mortality of diphtheria in the earlier years of life, this strongly confirms the statement that the antitoxin group contained a larger proportion of severe cases than the non-antitoxin group. Ths same thing is shown if the proportion of laryngeal cases be taken as an indication of the severity of the cases; the proportion in the antitoxin group being 17.6, against only 1.9 in the other.

#### Period of Disease.

The cases treated with antitoxin during 1896 have been arranged, both according to their ages and according to the day of the disease on which treatment was commenced, and the results are interesting. The total number so treated was 2,764, and the average mortality of the whole was 25.9 per cent. But, taking them according to age, the percentage mortality is seen to diminish progressively from 32.2 among those under 5 years of age to 4.2 at ages over 20; while, according to days of the disease, it rises from 5.2 in those who came under treatment on the first day of illness to 31.7 in those admitted on the fifth day and after. In comparing the antitoxin with the non-antitoxin treatment in the same hospitals, the only possibility of obtaining comparable data is to take the whole of the cases, both treated and non-treated, during 1896, and compare them with the whole of the cases in 1894, before the treatment was introduced. When this is done it is seen that the total mortality, which in 1894 was 29.6 per cent., had fallen in 1896 to 20.8; and, on comparing details, it is found that this lowering of the fatality of the disease under antitoxin has especially occurred among the children under 5 (from 47.4 to 30.2), among whom it naturally is the highest.

To all this it may be objected that there is apt to be great variation in the severity of diphtheria year by year, and that, perhaps, the explanation is that the natural fatality of the disease is diminishing. Against this, however, there happens to be a curious bit of evidence. As we have already said, excepting the North-Western Hospital, 71.3 per cent. of all the cases have been treated with the serum. But at this hospital only 44.3 per cent. of the cases were so treated; and here comes the interesting fact that while the percentage mortality has been reduced between 1894 and 1896 at all the other hospitals, at this particular hospital, where the antitoxin has been so much less used, the percentage mortality has actually increased, which would seem to indicate that but for the treatment the natural tendency of the disease, at any rate, has not been to become milder.

#### Tracheotomy.

One of the most striking results of the year's work is seen in the greatly improved results from tracheotomy, nearly 60 per cent. of the children on whom the operation has been performed having been saved. The fact is that the fatality of the laryngeal cases in 1896 was less than half what it was in 1894; the percentage requiring tracheotomy was much diminished, and the mortality of those operated was also lessened. Further comment on this is unnecessary. In regard to the complications noted, there is no doubt that the proportion is greater than it used to be. But this increase is especially notable in regard to albuminuria; and, bearing in mind our former criticisms as to the recording of these complications, we feel inclined to believe that much of the apparent increase is due to improved registration. The dosage used is a matter of some interest. The average number of injections was 2.3, the average dose being 1,983.3 units per injection. The number of units which may conveniently be injected seems to depend entirely on the concentration of the serum. With the strongest which has been supplied 8,000 units can easily be given in one injection. "With such a serum the rule must be to give in severe cases 8,000 to 12,000 units when the patient is first seen, followed by another 2,000 to 8,000 units every twelve hours for the next twenty-four or forty-eight hours, or longer, according to the gravity of the case and the persistence of the local exudation. But undoubtedly the cardinal point is to commence the treatment as early as possible." In regard to post-scarlatinal diphtheria the report shows a mortality of only 5.2 per cent., a mortality which is extraordinarily low compared with the records of such cases before the introduction of the serum treatment.

#### Uniformity of Record.

The report states that every endeavour has been made to secure uniformity in definition and record in these returns. These efforts, however, do not seem to have been entirely successful, and if we were inclined to be critical we might express surprise at finding, in the detailed list of fatal cases amongst those not treated with antitoxin, that at one hospital twenty-five cases died from anuria—a cause of death which did not carry off a single patient at any one of the other hospitals.

#### Conclusions.

The conclusions as to the effects of the treatment arrived at by all the signatories except Dr. Gayton (who differs from them) are as follows:

(1) A great reduction in the mortality of cases brought under treatment on the first three days of illness.

(2) The lowering of the combined general mortality to a point below that of any former year.

(3) The still more remarkable reduction in the mortality of the laryngeal cases.

(4) The uniform improvement in the results of tracheotomy at each separate hospital.

(5) The beneficial effect produced on the clinical course of the disease.

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## THE ANTITOXIN TREATMENT OF DIPHTHERIA IN PRIVATE PRACTICE.

### Further Report of the American Pediatric Society.

Nearly a year ago the American Pediatric Society published a first report of the results of a collective investigation as to the use of antitoxin in the treatment of diphtheria in private practice. An abstract of that report was published in the

British Medical Journal of July 4th, 1896 (p. 37). A second report has just been published giving the results of a further investigation. Sixty thousand circulars were distributed through the United States and Canada, the period covered being the eleven months ending April 1st, 1897.

### Points Investigated.

The specific points as to which information was requested were: (1) What percentage of cases of laryngeal diphtheria recover without operation under antitoxin treatment? (2) What percentage of cases operated on recover?

### Statistics.

The replies received furnished a total of 1,704 cases of laryngeal diphtheria for study. The following table shows the age and result of treatment in all the cases:

| | Fatal. | Recov. | Totals. | Mortality. |
|---|---|---|---|---|
| 1 year and under ... ... ... | 25 | 35 | 60 | 41.66 per cent. |
| 1 to 2 years ... ... ... | 77 | 219 | 296 | 26.01 ,, |
| 2 to 3 years ... ... ... | 81 | 260 | 341 | 23.75 ,, |
| 3 to 4 years ... ... ... | 42 | 216 | 258 | 16.27 ,, |
| 4 to 5 years ... ... ... | 47 | 160 | 207 | 22.70 ,, |
| 5 to 10 years ... ... ... | 72 | 345 | 417 | 17.26 ,, |
| 10 to 15 years ... ... ... | 9 | 64 | 73 | 12.32 ,, |
| 15 to 20 years ... ... ... | 2 | 24 | 26 | 7.65 ,, |
| Over 20 years ... ... ... | 5 | 17 | 22 | 22.72 ,, |
| Unknown ... ... ... | | 4 | 4 | — |
| | 360 | 1,344 | 1,704 | 21.12 per cent. |

### Cases not Operated upon.

Of the total number of 1,704 cases, 1,036 were not operated upon (60.79 per cent.). Of these, most did not require operative interference; in a few cases in which it was thought to be needed, it was declined. Among these 1,306 cases not operated upon, there were 178 deaths (= 17.18 per cent.); in other words, 858 cases recovered (= 82.82 per cent.). This percentage is compared with that of 10 per cent., which was the former estimate of recoveries without operation in cases of laryngeal diphtheria.

### Cases Operated Upon.

The number of cases operated upon was 668. Among these there were 182 deaths, a mortality of 27.24 per cent. The operations were (*a*) intubation in 637 cases, with 166 deaths, a mortality of 26.05 per cent.; (*b*) tracheotomy in 20 cases, with 9 deaths, a mortality of 45 per cent.; (*c*) intubation and tracheotomy in 11 cases, with 7 deaths, a mortality of 63.63 per cent.

### Summary.

Therefore, among the whole number of cases reported (1,704) there were 1,036 not operated upon, with a mortality of 17.8 per cent.; and 668 operated upon, with a mortality of 27.24 per cent. It is pointed out in the report that before the use of antitoxin it was estimated that 90 per cent. of laryngeal cases required operation, whereas now, with the use of antitoxin, only 39.21 per cent. require it. The percentage figures have been reversed; formerly 27 per cent. approximately represented the recoveries, while under the antitoxin treatment 27 per cent. represents the mortality. In other words, before the use of antitoxin 27 per cent. recovered; now 73 per cent. recover; and this in the severest type of diphtheria.

### The Mortality still too large.

The report points out, however, that the mortality is still larger than the personal experience of many in private practice would lead them to expect. The reasons for this are: (1) that antitoxin is still used too late, either from procrastination on the part of the practitioner or objection on the part of the friends; or (2) in a half-hearted way which shows itself in the administration of doses from one-tenth to one-fourth as large as they should be.

### The Points Established.

The Committee (composed of Drs. W. P. Northrup, J. O'Dwyer, L. Emmett Holt, and Samuel S. Adams) consider that the three most valuable points established by the investigation are:

1. The mortality of laryngeal diphtheria at present rests at 21.12 per cent.
2. That 60 per cent. approximately have not required intubation.
3. That the mortality of operated cases is at present 27.24 per cent.

### Recommendations.

They add the following recommendations:—

Antitoxin should be given at the earliest possible moment in all cases of suspected diphtheria.

*Quality.*—Of the products on the market some have by test been found to contain one-half to one-third the antitoxin units stated on the label. Select the most concentrated strength of an absolutely reliable preparation.

*Dosage.*—All cases of laryngeal diphtheria, the patient being 2 years of age or over, should receive as follows:

First dose, 2,000 units at the earliest possible moment.

Second dose, 2,000 units, twelve to eighteen hours after the first dose, if there is no improvement in symptoms.

Third dose, 2,000 units, twenty-four hours after the second dose, if there is still no improvement in symptoms.

Patients under 2 years of age should receive 1,000 to 1,500 units, the doses to be repeated as above.

## WOMEN'S DEGREES AT CAMBRIDGE.

Our Cambridge correspondent writes: The anticipations to which we gave expression last week have been abundantly justified. The great and increasing opposition manifested by the resident members of the University to the proposals of the Women's Degrees Syndicate was seconded in the most emphatic manner by the non-residents, and the proposals were rejected by 1,707 votes to 661. The utmost enthusiasm was shown by the graduates and undergraduates alike, and the influx of voters from all parts of the country was unprecedented. It is believed that a large majority of the graduates in medicine voted *non-placet;* but until the poll is published it is impossible to say whether this belief is well founded or not. Certainly Gonville and Caius College took the question very seriously, and as night fell the word "saved" was outlined in jubilee lamps on its façade. The students celebrated their triumph by a bonfire and fireworks in the market place; but though they were undoubtedly hilarious the police were not called upon to interfere, and there were no crestfallen appearances before the magistrates next morning, as at Oxford on a recent occasion. Discussion proceeds as to the next step to be taken by the "Women's party." It is stated that inasmuch as all hope of incorporation with the University must now be given up, at least for this generation, the best plan would be that the Women's Colleges should apply for independent degree-granting powers. It is thought that a simple charter might without difficulty be obtained, which would enable these colleges to give an academic title to women who had received instruction in the University, and had duly passed its examinations. None of the substantial advantages now afforded by Cambridge to women students would be lost; but the alleged disability involved in the absence of formal academic recognition would be done away with if the coveted B.A. were conferred by Newnham and Girton on those of their members who possess or acquire the Vice-Chancellor's Tripos Certificate. Among other advantages offered by this solution not the least is that the bodies which are most capable of exercising disciplinary control over women would assume the responsibility of "graduating" them. The feeling that the men's University as at present constituted was ill fitted to undertake this control had doubtless much to do with the decision which the Senate has pronounced. The feeling was indeed freely expressed by many who in the past have shown themselves to be true friends of the higher education of women in Cambridge.

## EDINBURGH HARVEIAN FESTIVAL.

The 115th Harveian Festival was held in the Hall of the Royal College of Physicians on Friday, May 14th, when Mr. Joseph Bell delivered the oration on Some Harveian Gleanings.

After expressing his thanks for the honour done in calling him to the presidential chair, the orator referred to the connection between the Harveian Society and the Bell family. His great-grandfather, Benjamin Bell, was an original member 115 years ago; his grandfather, Joseph, was a guest 60 years ago; and his father, Benjamin, was President 30 years ago. He next referred to the death of an old Harveian, Dr. T. Graham Weir, during the past year. He "was one of those happy souls who see what is best and brightest in others..... We all miss his hearty laugh, his appreciation of song or story, and his snuff box, which he used so regularly, and was so free in handing to others."

### Old Harveians.

In the first quarter of the nineteenth century there was found on the roll of the Society many a name that remains more than a mere *nominis umbra*. Robert Graham, of the Botany Chair; William Pulteney Alison, the physiologist and physician, the courteous and charitable gentleman, the brother of Sir Archibald of the *History of Europe*, the uncle of the second Sir Archibald of the Crimea, India, Ashanti, and Egypt; Sir George Ballingall, the Professor of Military Surgery in the University; Robert Hamilton, one of the founders of the Eye Infirmary; Robert Christison, *ultimus Romanorum;* Richard Huie, the gentle bard, who at a great age still remained an examiner of the College of Surgeons, in the fine old days when every examiner felt himself competent to examine in each and all of the subjects; John Thatcher, the famous obstetrician; James Begbie, the gifted father of a more gifted son, Warburton, the "beloved physician"; David Maclagan, that splendid specimen of a Scotch gentleman and family doctor, who left seven gifted sons, the eldest of whom, Sir Douglas, is still with us; Samuel Pagan, the discoverer of Pagan's corner, who fought at Waterloo, and left an ear on the field of battle, an ear which produced as much wit as Jenkin's ear bloodshed; Archibald Inglis, a noted classical scholar; John Smith, the uncle of the President of the Royal College of Physicians (Batty Tuke).

James Syme and Andrew Wood entered in 1837, a great year for the Harveian, for in that year Douglas Maclagan also entered, and now he is celebrating his diamond wedding, his jubilee and ten years more. In 1850 the Society determined to admit country Fellows, and one of the first of these was a young man from Cramond named George William Balfour.

### The Functions of the Society.

The functions of the Society, in addition to the promotion of good-fellowship and the keeping of Harvey's memory green, were the offering of prizes for competition by students and young practitioners, and the delivery of addresses on various subjects by the President before the annual banquet. The subjects given out for the prize essays were sometimes quaint and generally fairly wide—the changes which the blood undergoes in inflammation, the influences of atmospheric pressure on the animal economy, the chemical and medicinal properties of creasote, ergot of rye, deleterious gases, urine in its morbid states, and so on. The subjects of the Harveian Oration had varied much—many had been biographical. In 1839 the laws were revised, and James Young Simpson was admitted a member. In 1842 Professor Traill read the Oration on Servetus, and also upon vapour baths. The connection is obvious, but at dinner the Harveians made up for their sufferings from the address by drinking twenty toasts. In 1845, Douglas Maclagan wrote and sang a splendid ode, in consequence of which he received his diploma as Dr. Hilaritatis. In 1851 our beloved and lamented James Donaldson Gillespie, who did more for the Harveian Society than any other man since its foundation, as member, as Secretary, and as President. By a curious irony of fate, a few years afterwards the Harveians as a body were starved on a famous occasion on which at a certain hotel they had neither room to sit in nor food to eat. In 1869, Gillespie was elected Secretary, and since that happy day for the Harveian, its members increased, its sphere widened, its dinners improved, and, above all, the *Minutes* assumed an importance apparently previously unknown, and from then wit and wisdom became a prominent feature in the evening's entertainment.

### The Life and Work of Harvey.

Mr. Bell then gave a brief Survey of the Life and work of Harvey. "It was his to do for our knowledge of the circulation of the blood what in later days Charles Bell did for the nervous system, and in our own days Pasteur and Lister, Koch and Metchnikoff have done in bacteriological research." He then proceeded to show (1) what surgeons were doing before Harvey's day; (2) what they were doing about his time; and (3) what improvements in method followed him.

1. The history of the thermometer or thermoscope, from Galileo's invention on to its first practical use by Santorio Sanctorini, the work of George Martine, of Kepler, and others was passed in review. Various writers and their works were referred to, Thomas Gale, Richard Ferris, Fabricius, Riolan the predecessor and opponent of Harvey, Lazarus, Reverius, and others.

2. Richard Wiseman, surgeon during the civil wars, Sergeant Surgeon to Charles II, a clear-sighted able man, whose surgical practice was wonderfully modern. His treatment of varicose veins is that of the present day. He trepanned for gunshot injuries of the head with daring and success, and was assisted by Mr. Alexander Pennycuik, a Fellow of the Royal College of Surgeons of Edinburgh, and the surgeon to Alexander Leslie, afterwards Earl of Leven. The effects of Harvey's discoveries on Sir Kenelm Digby, one of the most interesting characters in English history, were alluded to. Before Harvey's day Scottish medical men seemed to have written nothing, and after him very little. Scottish historians and the reports of travellers in Scotland have left the healing art severely alone.

3. By the kindness of Sir Arthur Mitchell, the orator had obtained one or two graduation theses, written after Harvey's publication and under the spell of his great discovery. George Hepburne wrote a "Dissertatio de motu sanguinis per vasa minima," etc., and a "Dissertatio de circulatione sanguinis in animalibus," etc. Johannes Strachanus, an Aberdonian Scot, dedicates his thesis to Sir John Middleton, of Fettercairn, in an epistle of most fulsome adulation.

### Glimpses of Modern Discoveries in Antiquity.

Mr. Bell then referred to some lost arts, progress forgotten, glimpses of great principles, which only needed time and the man to open wide gates of discovery. Nephrotomy and free incision in empyema were both legitimate operations in the age of Hippocrates. O'Dwyer's intubation tubes were new, yet they, too, were used by the Hippocratic school.

Praxagoras recommended laparotomy and enterectomy, followed by suture, in cases of obstruction where milder means had failed. Heliodorus practised internal urethrotomy. The vaginal specula of the Romans were not much behind those of to-day. Medical rubbers flourished in Rome in Seneca's days. Bacteriology was discovered and allowed to drop more than 200 years ago, when Antony von Leeuwenhoek wrote to the Secretary of the Royal Society describing mouth organisms, and sent a sketch in which bacilli and bacteria, micrococci, and spirillum can be clearly recognised. This was in September, 1683.

### A Look into the Future.

Mr. Bell concluded. "To-night, Harveians, we have been looking into the past, let us for a moment project our minds into the future; we have admired Galileo and Kepler, Wiseman and Harvey; we have smiled at the touch for the king's evil, at Digby's sympathetic powder. What will the Harveians fifty years hence think of the animal extracts—testiculin for perpetual virility; of antitoxins for every plague; of our proprietary medicines to cure every symptom advertised and distributed by every postal delivery?"

### Vote of Thanks to the Orator.

Sir Douglas Maclagan proposed, and Sir Henry P. Littlejohn seconded, a vote of thanks to the President for his excellent oration.

### DINNER.

Thereafter the Harveians dined together. "The Queen," and the other loyal and patriotic toasts were given from the Chair, as was also "The Immortal Memory of Harvey." Sir Alexander Christison proposed the health of the honoured guest of the evening, the oldest Harveian present, Sir Douglas Maclagan, who replied. "The Medical Schools of Scotland" was given by the President of the Royal College of Surgeons (Professor Struthers) and replied to by Dr. Renton, of Glasgow. "The President," by Sir Henry Littlejohn; "The Vice-President," by Dr. Crum Brown; "The Secretaries," by Dr. John Smith.

Songs, stories, and recitations added to the pleasure of the evening which as usual closed with *Floreat Res Medica*.

## THE PLAGUE.

### BOMBAY.

THE returns from Bombay are interesting reading in view of the opinion expressed by us, as long ago as December, 1896, that the epidemic of plague would be practically over by the month of May. In the *Times of India* we read that the total number of cases in Bombay in the week ending April 29th was 222, and of deaths 191.

The district of Mandvi, in Bombay, which was the first to be attacked, as was the first reported free of the disease, is again plague stricken. It would appear that the period of recrudescence has begun in that district of the city, and that a continuance may be looked for: it may be of some months' duration. The statistics from Karachi given below show a striking diminution, without at present any signs of recrudescence. The general drift of the spread of the disease is still northward, and many towns in the north-west are suffering severely.

### WORK OF THE PLAGUE COMMITTEES.

Meanwhile the Plague Committees in the several towns are prosecuting their efforts with vigour. The work is stupendous, and the patience and tact necessary to get the details carried through without causing a native rebellion are most creditable. Many of the extra-stringent regulations imposed at European ports, more especially Mediterranean, have been removed, but there is much inconvenience caused at Western Indian ports by the prohibition placed upon immigration.

Some months ago a number of merchants from Mombassa, Zanzibar, Delagoa Bay, and other East African ports, came to Bombay to celebrate some wedding festivities. These men, some hundreds in number, were prevented from returning to their homes, and their business and means of livelihood are meantime being ruined. No ayah or personal servant is allowed to leave the harbours, and English families proceeding homewards are thereby seriously inconvenienced. These are necessary restrictions no doubt, but they indicate the thousand and one ways by which strict quarantine regulations affect an epidemic-stricken district.

### THE RETURN TO KARACHI.

Our correspondent in Karachi states that those who fled from Karachi during the earlier stages of the epidemic, estimated to number 45,000 or 50,000 persons, began to return about the end of April. Many came from badly infected areas—such as Cutch Mandvi, Sukkur, Hyderabad, etc.—The Plague Committee are taking special precautions to prevent the reinfection of the town. At the large detention camp, situated at Malir (8 miles from Karachi) all persons arriving by train and road are medically examined and disinfected, and, after a detention, which may last for ten days, are, after further disinfection of themselves and baggage, allowed to proceed on their journey. Passengers arriving by sea are similarly detained and disinfected at three large detention camps, which are capable of accommodating over 2,000 persons. The arrangements in these camps are all under commissioned European medical officers, the camps are strictly guarded, and every attention is paid to the accommodation and general well-being of the persons detained, and to the sanitation of the areas. The system by which no house is allowed to be reoccupied until certified as cleaned, disinfected, and fit for human occupation by the Divisional Plague Superintendent, has already been explained.

The military search parties instituted by the Plague Committee carry out their duties in the various quarters of the town. Concealed cases are, however, rarely detected, as the system of compulsory notification in force works well and is understood by the people. Whitewashing and disinfecting are still being rigorously carried on, special attention being paid to the condition of the cesspools, privies, etc., attached to the houses. As before stated, the whole of the Municipal Conservancy arrangements have been reorganised by the Plague Committee. The various units of conservancy establishments and equipments have been placed under the direct personal control of the plague superintendents in charge of the various divisions, a special European supervising staff being provided to check the establishment muster rolls, supervise the work, etc. The new arrangement has worked well. Of the importance of this work there can be no doubt. For instance, the plague has appeared at Cutch Mandvi (a little over twenty-four hours by steamer from Karachi); the disease has shown so virulent a form there that of a population of 20,000 souls nearly 100 are dying per diem.

The Karachi Plague Committee strongly urged Government not to permit passengers to leave Cutch for Karachi, excepting in such numbers as the available detention camps could accommodate. This request Government was unable to comply with. The Plague Committee has therefore had to arrange to have in readiness accommodation for 3,000 persons. The preparation, supervising, guarding, etc., of such large camps is a source of much trouble and expense. Ten days' observation is insisted upon in the case of all arrivals by sea from badly infected areas. As usual, every subterfuge is resorted to by the natives to avoid detention. Instances have occurred in which persons resident in Cutch have obtained Bombay steamer tickets through the intervention of friends travelling from that port.

### DECLINE OF THE EPIDEMIC IN KARACHI.

The following are the statistics for Karachi down to the end of April:

| | Week ending April 22nd. | Week ending April 29th. |
|---|---|---|
| Total death-rate from all causes ... ... | 88.44 | 59.84 |
| Plague death-rate ... ... ... | 67.25 | 45.54 |
| Mean death-rate for corresponding week (5 years) ... ... ... | 27.01 | 27.01 |
| Quarters with highest death-rates: | | |
| Runchore ... ... ... ... | 336.75 | 213.08 |
| Garden ... ... ... ... | 250.32 | 133.50 |
| Quarters in which the disease was at first very virulent: | | |
| Old Town ... ... ... ... | 5.43 | 10.86 |
| Napier ... ... ... ... | 12.14 | 6.07 |
| Number of cases of plague ... ... | 182 | 123 |
| Number of deaths from plague ... ... | 127 | 86 |

The total number of cases of plague in Karachi since the date of the outbreak (December 10th, 1896) has been 3,905, and of deaths 3,186.

THE JUBILEE OF ANÆSTHESIA IN JAPAN.—A semicentenary festival in commemoration of the discovery of anæsthesia was held at Tokio on March 4th. Addresses were delivered by Mr. J. Otsaki on the Relation of Foreign Languages and Medicine in Japan; by Professor S. Sato on the History of the Discovery of Anæsthetics; by Dr. C. Ishiguro on Anæsthetics in Japan; by Dr. T. Miwa on Anæsthetic Apparatuses; and by Professor N. Nagai on the Nature of Ether and Chloroform. A large collection of books, pictures, etc., relating to the history of medical science was exhibited. Amongst these the portraits of Simpson, Morton, and Hanaoka excited special interest.

DR. ADOLFO MORENO POZO, a distinguished Spanish surgeon and professor in the University of Madrid was, we regret to learn, assassinated recently when on his way to deliver his lecture in the Colegio de San Carlos.

THIRTY-FOUR residents at Matlock were recently summoned for disregarding orders of previous courts under the vaccination laws. The Bench refused to convict and refused to state a case for appeal.

# ASSOCIATION INTELLIGENCE.

## NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1897.

Meetings of the Council will be held on July 14th, and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 24th and September 30th.

### Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

## GRANTS FOR SCIENTIFIC RESEARCH.

The Council of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that they are prepared to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting must be made on or before June 15th in writing addressed to the General Secretary, at the office of the Association, 429, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

Francis Fowke, *General Secretary.*

429, Strand, London, April 21st, 1897.

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M., Saturdays, 10 A.M. to 2 P.M. Members can have their letters addressed to them at the office.

## BRANCH MEETINGS TO BE HELD.

Cork and South of Ireland Branch.—A special general meeting of this Branch will be held on Saturday, May 29th, in the Medical Society Rooms, 118, Patrick Street, Cork, at 4.30 P.M., to consider: Medical Defence; the Admission of Homœopaths as Members of the Association; Resolutions from the East Anglian Branch relative to preventing the growing evils of Medical Aid Associations; Communication from the Montreal Branch *re* Annual Meeting.—Philip G. Lee, Honorary Secretary, 25, St. Patrick's Hill, Cork.

Perthshire Branch.—The annual meeting will be held at Aberfeldy, under the presidency of Dr Mackay, on Saturday, June 12th, at 1.30 P.M. Business: Minutes. Candidate for election. Consider invitation from Montreal. Dr. Liddell will open a discussion on the Public Health Bill. Lunch at Aberfeldy. Arrangements will be made to drive to Ballinley to catch the 6.43 P.M. train. Members intending to be present will kindly intimate to A. R. Urquhart, Honorary Secretary, James Murray's Royal Asylum, Perth.

Metropolitan Counties Branch: West London District.—The meeting for the election of officers and Committee is unavoidably postponed to Tuesday, June 1st, at 5, Pembridge Gardens, W., 4.30 P.M.—Thomas Dutton, Honorary Secretary, 7, Portland Place, W.

South-Eastern Branch.—The annual meeting of the above Branch will be held at Croydon on Wednesday, June 16th, Dr. Duncan (President-elect in the chair.—T. Jenner Verrall, Brighton, Honorary Secretary.

Northern Counties of Scotland Branch.—The annual meeting will be held in the Stotfield Hotel, Lossiemouth, on Wednesday, June 9th, at 1 P.M.; Dr. Mackenzie, Inverness, President; Dr. Galletly, Elgin, President-elect. It is requested that members wishing to bring any communication before the meeting should at once inform the Secretary.—J. W. Norris Mackay, M.D., Honorary Secretary, Elgin.

Midland Branch.—The annual meeting will be held at the Infirmary, Leicester, on Thursday, June 3rd, at 2 P.M. After the transaction of the usual business, the following papers will be read and discussed:—Mr. C. J. Bond: The Physiology and Pathology of the Fallopian Tubes, with lantern demonstration. Dr. W. B. Ransom: Remarks on Pernicious Anæmia, with lantern illustration. Dr. F. M. Pope: Three cases of Adult Hereditary, or Huntingdon's Chorea. Mr. W. Armstrong: Gastro-intestinal Toxins, their clinical significance and therapeutic indications. Dr. E. M. Sympson: (1) Notes, with coloured drawing, of a case of Chronic Superficial Glossitis; (2) Notes of a case of Epithelioma of the Tongue and Floor of the Mouth, with removal of 4 inches of the lower jaw. Dr. R. Pratt: (1) Short Notes of a case of Cyclic Albuminuria; (2) Two Urinary Calculi with Unusual Nuclei. Dr. J. H. Neale: Poisoning by the Primula Obconica. Dr. Ridley: Clinical Cases. Luncheon will be provided by the President-elect at the Infirmary, at 12.45 P.M., and the dinner will take place at the Royal Hotel at 5 P.M., tickets 7s. 6d., exclusive of wine.—W. A. Carline, Honorary Secretary and Treasurer, Lincoln.

Lancashire and Cheshire Branch.—The annual meeting of this Branch will be held in Manchester on Wednesday, June 30th. Members who wish to read papers or make any communication should write at once to the Honorary Secretary, Dr. James Barr, 72, Rodney Street, Liverpool.

Shropshire and Mid-Wales Branch.—By invitation of the President, Mr. J. T. Lloyd, the spring meeting will be held at Chirk, on Thursday, June 10th. Mr. Mitchell Banks will read a paper on Some Practical Hints on the Treatment of Rectal Disease. Special train arrangements will be made which will be duly announced.—H. Willoughby Gardner, Honorary Secretary, Swan Hill, Shrewsbury.

## METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

A meeting of this District was held at Tottenham Hospital on May 13th. Dr. Cleveland presiding.

*Election of Officers.*—The following officers were appointed for the coming year:—*Vice-President of the District:* Thomas Morton, M.D. *Representative of District on Branch Council:* Hugh Woods, M.D. *Honorary Secretary of the District:* Henry John Macevoy, M.D. *District Committee:* Drs. and Messrs. C. F. Bailey, A. W. George, Frank Greaves, Norman Kerr, W. Cubitt Lucey, J. Dysart McCaw, E. Hooper May, and A. Ogier Ward.

*Vote of Thanks to Dr. Cleveland.*—A hearty vote of thanks was passed to Dr. Cleveland, the retiring Vice-President, for his services in the chair during the past five years.

*Symptoms and Treatment of Adenoid Vegetations.*—Dr. Macevoy read a paper on this subject based on notes of cases occurring at Kilburn Dispensary and in private during the last three years. In 40 of these cases taken at random, the leading symptoms for which advice was sought were: In 5 cough, in 4 headache, in 3 deafness, in 3 general ill health, in 2 wasting, in 2 adenitis, in 2 the throat; 2 children had adenoiditis, and were brought on account of "feverish cold;" 2 had "cold in the head and nose;" etc. In other cases the main complaint was of bronchial catarrh, epistaxis, constant stuffy noses, fear of "consumption," shortness of breath, defective speech, etc. Most of the case did not look well; many were not sufficiently developed, pale, thin, listless, etc. In nearly all, operation was advised and performed. As regards treatment, operation alone was recommended when the symptoms are prominent, and it was imperative with progressive deafness or otorrhœa. Chloroform and A.C.E. were the anæsthetics used. Dr. Macevoy personally liked A.C.E., and hoped ether might become extensively used for children in future; the position he preferred was with the patient on his back, and the head hanging down. Gottstein's or Delstanche's curette answered well for removing the growths in almost every case; exceptionally, Löwenberg's forceps were required. Antiseptic precautions were most important during operation; no after-treatment locally was required. With the exception of one child who complained of earache, there were no complications or untoward symptoms after operation. Marked improvement was noted in all the cases. Thorough removal of growths was advocated when enlarged tonsils were also present, it did not add to the risks of the operation to remove them at the same time in children; with adults, it was safer to deal with them separately.—An interesting discussion ensued.

*Cases and Specimens.*—Dr. LLOYD SMITH showed the following cases and specimens: (1) Excision of lower end of the Fibula for Necrosis, with complete Formation of New Bone in a boy. (2) Excision of the whole Shaft of the Fibula for Acute Necrosis. (3) Excision of the Tibia of Right Leg and Ulna of Left Arm for Acute Necrosis. (4) Specimens of Shaft of Fibula excised for Acute Necrosis; specimens of Shaft of Tibia excised for Acute Necrosis. (5) A patient with a large Exostosis on Frontal and Parietal Bones, and on whom an operation for Cataract had been performed successfully. (6) A large heavy Mole on side of Face, and numerous Pigmented Moles over Body in an Infant. (7) A girl whose Knee had been Excised successfully for Synovial and Bone Disease, and who subsequently Fractured the Femur by accident. —Dr. HOOPER MAY showed (1) two cases of Excision of the Synovial Membrane of the Knee. (2) A woman with a Large Growth of Scalp forming Pendulous Folds in the Occipital Region, part of which had been removed by operation.

*Votes of Thanks.*—Votes of thanks were passed to Dr. Macevoy, Dr. Lloyd Smith, Dr. Hooper May, and to the director and authorities of the hospital for their kind hospitality.

## METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

THE fifth meeting of the session was held (by kind invitation of Dr. Adams) at Brooke House, Upper Clapton, on Thursday, May 20th. Fifteen members and three visitors were present. The chair was taken by Dr. SHADWELL, Vice-President of the District.

*Confirmation of Minutes.*—The minutes of preceding meeting were read and confirmed.

*Demonstrations.*—Dr. HUNT showed a case of Lichen Planus. —Dr. STEPHEN MACKENZIE gave a demonstration of the following cases of Skin Disease: (1) Leucodermia; (2) Psoriasis; (3) Pityriasis Rubra Pilaris of Devergie; (4) Sclerodermia Guttata (localised); (5) Old Morphœa, with necrosis of pinnæ and necrotic patches on scalp: (6) Local Asphyxia, with necrotic lesions: (7) Acne Indurata Scrofulosorum, Bazin's Disease: (8) Verruca Senilis: (9) Lichen Planus Verrucosus: (10) Eczema Erythematosum: (11) Gummatous Syphilide.

*Vote of Thanks.*—A hearty vote of thanks to Dr. Mackenzie for his interesting and instructive demonstration was proposed by Dr. CLARKE and seconded by the HONORARY SECRETARY, and carried unanimously.

## GIBRALTAR BRANCH.

THE sixth ordinary meeting of this Branch was held on May 6th in the Board Room of the Colonial Hospital, Surgeon-Colonel CATHERWOOD, President, in the chair. There was a good attendance of members, and Dr. Hewlett, of London, was present as a guest.

*Confirmation of Minutes.*—The minutes of the previous meeting were read and approved.

*New Members.*—The following were duly elected members: Brigade-Surgeon-Lieutenant-Colonel Pratt, A.M.S.; Surgeon-Major Faunce, A.M.S.; Surgeon-Captain Elkington, M.O.H., A.M.S.: Surgeon-Captain Saunders, A.M.S.

*Election of Treasurer.*—Surgeon-Major Franklin was appointed Treasurer of the Branch in succession to Surgeon-Major Macpherson, who has left the station.

*Cases, etc.*—Brigade-Surgeon-Lieutenant-Colonel PRATT exhibited his Electro-probe and Bullet Forceps, and explained their advantages and the manner of using them. Both these have now been adopted, not only in the English service but in the German army.—Dr. TURNER exhibited a Berkefeld Filter for the rapid supply of sterile water, and also a Schimmelbusch's apparatus for sterilising instruments and dressings.

*Mediterranean Fever.*—A discussion on Mediterranean Fever was introduced by Surgeon-Major FRANKLIN, and continued by Dr. TURNER, Brigade-Surgeon-Lieutenant-Colonel PRATT, Surgeon-Major PERRY MARSH, and most of the other members present. Conflicting theories with regard to the nature and proper classification of this fever were propounded, some maintaining its identity with enteric fever, others holding that it ought to be classified as a distinct form of continued fever. Its comparative rarity in Gibraltar of recent years as compared with its prevalence in former times was remarked upon with satisfaction as evidence of the efficacy of recent improvements in the sanitary administration on the Rock.

# SPECIAL CORRESPONDENCE.

## PARIS.

*The Treatment of Burns.—Dangers of Female Dress in Fires.—Radiography in Diseases of the Chest.—Ambulance Organisation in Paris.*

DR. LUTAUD publishes some notes on the treatment of burns, the deplorable Charity Bazaar accident having furnished him with material for observation. A patient he treated with picric acid suffering too much pain with this dressing, it was removed by means of immersion of the burnt arm. This method could not be applied to the head and face, to which it adhered firmly. Dr. Lutaud conceived the idea of removing it by applying the wool dressing invented by Dr. Langlebert. This dressing was afterwards applied to the arm with most satisfactory results; the pains ceased, and the patient became quiet and comfortable. Another patient treated entirely with picric acid dressings suffered more, and recovery was slower, though the burns were not so deep nor so extensive. Dr. Lutaud arrives at the following conclusions after his recent experience: For superficial burns of the first degree a solution of picric acid (2 per cent.) can be used without renewing the dressing: this class of burns is very slight, and only needs treatment when it spreads over a good deal of surface. For deep burns of the second, third, and fourth degrees it is necessary to wash the burns with an antiseptic solution which is not caustic: permanganate of potassium (1 per 1,000) has been recommended, but Dr. Lutaud prefers picric acid (2 per cent.). As soon as the blebs are formed they must be opened without destroying the epidermis. One of Langlebert's wool dressings should then be applied, and changed every twelve hours that the sore may be watched and adhesions prevented. The pain is immediately relieved, and the lesions are kept in an aseptic condition. About a week afterwards, when the vesicles begin to dry up, the following should be applied with a brush: Oil of sweet almonds 30 grammes: glyco-carbolic acid 30 grammes; yolks of new laid eggs 2. The following powder should be applied in order to form a protective covering: Aristol 4 grammes; talc 16 grammes. From time to time the covering must be pressed in order to ascertain that there is not an accumulation of serum or pus: if there is any indication of the presence of either the crust thus formed must be removed by applying Langlebert's wool dressing. In burns of the fourth degree the dressing must be renewed every two days and the suppurations healed like an ordinary wound. Cicatrisation can be hastened by the application of nitrate of silver and by flesh grafts.

The number of female victims in the terrible Charity Bazaar fire is attributed by the "feminists" to the fact that women are obliged to wear petticoats and skirts instead of attire more resembling that adopted by the male sex, forbidden to them by a police regulation. It is asserted by Mme. Astie de Valsayre, Secrétaire-Général de l'Affranchissement des Femmes, that owing to the encumbrance of the petticoats and skirts the movements of the wearers were paralysed, and in the "sauve qui peut" they were helpless, whilst the men reached the exits in a "clin d'œil." All the societies and leagues working for female emancipation are on the alert, and a petition, signed by Mme. Astie de Valsayre in the name of her sister members, has been addressed to the Chamber of Deputies, praying for freedom in costume which will lessen the danger for those who prefer simple costumes to dangerous furbelows. "Dr. Minime," in the "feuilleton" of the *Journal de Médecine*, lifts up his voice against the insanitary act of obliging women to wear dressses which sweep up microbes, sputa, and dust. This is certainly a true and heavy charge against the tyranny of fashion which holds women in bondage. "Dr. Minime" urges women to exert themselves to shake off this bondage, and discard their insanitary skirts, which ill protect the lower limbs from cold, hinder physical exercise, and gather up in the streets all the pathogenous microbes to carry them into dwelling houses.

MM. Béclère Oudin and Barthélémy have by radiography diagnosed pulmonary tuberculous infiltrations, hitherto unrecognised by auscultation or percussion; a suppurating interlobular pleurisy in a child aged 3 years, supposed to be

phthisical; also an aneurysm of the aorta which had not been diagnosed by the usual means.

M. Laurent, General Secretary of the Police Prefecture, assured M. Paul Strauss at a recent meeting of the Municipal Council, that the plan of the work to be done to assure prompt help in all neighbourhoods in case of fire is drawn up and ready to be executed. The expense will be £140,000. The particulars will soon be submitted to the Council. M. Menant, Director of Municipal Affairs, stated that a station would soon be organised on ground bought by the State in the Rue Malar, in the Champs Elysées neighbourhood. M. Menant also affirmed that the *ambulances urbaines* were of great assistance in the recent catastrophe. They reached the scene of the disaster sixteen minutes after it was notified. New ambulance posts will be created at the Rue Coulaincourt, at the Saint Honoré Market, at the Place des Halles, and at Grenelle. The ambulance post at the Saint Louis Hospital will be greatly developed. A special service of nurses will be created; also a network of fire signals communicating in all directions will be organised. A competitive examination for a new form of ambulance carriage has been arranged. A central post has been organised in the Avenue Victoria, which is in working order night and day to summon the ambulance carriages. New warning posts will soon be placed in the public streets.

## ST. PETERSBURG.

*The Twelfth International Medical Congress: Reception of Deputations by the Czar: The Funds of the Congress: Moscow as a Centre of Attraction: The Entertainments and Excursions to the Volga and the Caucasus.*

The preparations for the Twelfth International Congress, which will meet in Moscow in August, are proceding apace. The Czar, who has recently taken it under his own patronage, has expressed his readiness to receive, through their respective ambassadors, certain representatives of each of the nations which may send members to the Congress.

The sum granted by the Russian Government towards the expenses of the Congress was originally 50,000 roubles, but this has recently been increased by a second grant of 25,000, making a total of 75,000 roubles, or about £8,000. This sum has been increased by private subscriptions, and by grants from corporate bodies, such as the Municipalities of Moscow and St. Petersburg, the *zemstvo* of the "Government" of Moscow, and others. The State has, indeed, dealt most liberally with the Congress, not only granting the sums already named, but by also promising to all members of the Congress free return tickets to Moscow, from the frontier for foreigners, and from any part of the country for Russian members. This will reduce the cost of the trip to Moscow by some £4 or £5, whatever be the route chosen.

The arrangements for accommodating the influx of visitors to Moscow are under consideration, but are not yet completed. Some fifty medical men in Moscow have offered to take in members of the Congress as guests; and the Executive Committee believe they can reckon on 700 beds at hotels and 1,600 in furnished apartments as available at the time of the Congress. Some arrangement will probably be come to with the leading hotels by which, if a certain number of visitors be guaranteed, a reduction will be made in the hotel terms. Special cards are to be printed, which will be handed to the member on his arrival at the station, giving addresses of hotels and lodgings and their terms.

The city of Moscow is certainly one of the most interesting, and perhaps the most picturesque of European, or, indeed, of the world's, capitals. To members of a medical congress it presents other attractions. Moscow now possesses one of the largest and most perfect clinics in the world. In addition to this it has a large number of municipal and private hospitals and asylums and other medical institutions which are fully equal to those of any western capital. Visitors to the Congress will have an opportunity of seeing all these, and also of becoming acquainted with them in detail, through the means of a *Guide*, to the medical institutions of Moscow, which is in course of preparation by the Executive Committee. Each member will receive a copy of this, as well as a general guide to the city, a description of the University clinic with plans, and a pamphlet giving a full account of the system of medical aid provided for the peasants by the *zemstvos*, or local governing bodies, in Russia. These will be printed in French. A fourth pamphlet, describing the medical societies of Russia, will be printed in French and Russian.

The lighter side of the Congress—the provision of entertainments for the members—has not been forgotten. It appears probable that every evening of the eight days the Congress lasts will be taken up by some reception or dinner or other form of entertainment. Excursions to places of interest are also being arranged for. The two most extensive and important of these excursions will be to the Caucasus and to the cities of the Volga. The details of the latter have not been published, but those of the former have been, and a most attractive bill of fare they present. This Caucasian tour will start on August 27th (new style), the day after the close of the Congress. It will occupy exactly a fortnight, and those who are fortunate enough to be able to avail themselves of this unique opportunity will be able to see some of the most interesting parts of the Caucasus, including the famous mineral spas, the Georgian Military Road (or, as an alternative, a bit of the Caspian Sea), Baku, Tiflis, Batoum, and many other interesting places. The total cost of the fortnight's tour, exclusive of meals, is 150 francs, or £6. There will be no hotel expenses, as arrangements are made for the travellers to sleep each night either in a train or on board a steamer.

## HONG KONG.

*Report of the Medical Officer of Health: Native Practitioners and Midwives in Hong Kong.—The Plague.—Small-pox in Hong Kong.—Bubonic Plague in South China.*

A report for the year 1896 submitted to the Sanitary Board by Dr. F. W. Clark, Medical Officer of Health of the Colony of Hong Kong, contains a good deal that is of more than local interest. He believes that Hong Kong compares favourably with most cities in the East as regard its general sanitary condition, but urges immediate action in the matter of improving the Chinese quarters of the colony, whose arrangements are usually such as to exclude light and air from the buildings almost entirely. During the year the Sanitary Board took measures to improve and control the system of daily removal of nightsoil by buckets, which is in force thoughout the colony. The ordinary daily scavenging of the colony is now well organised, the refuse being removed daily by boats to a place on the main land some six or seven miles distant, and there destroyed by combustion. Commenting on the recent census of the colony, he points out that of the Chinese population of 226,710, 70.7 per cent. are males and 29.3 per cent. females. The boat population, living entirely on board small craft in the harbour, number 33,150.

The death-rate for the year, augmented by the occurrence of an epidemic of bubonic plague, was 24.5 per 1,000. Exclusive of the plague cases, it was 19.9 per 1,000. Dr. Clark again emphasises the need for dealing with the native Chinese practitioners and midwives, in whose hands the infant death-rate was much the same as in the previous year, reaching the alarming rate of 745 per 1,000, while among non-Chinese it was only 147 per 1,000. Two deaths of Europeans were from rheumatic fever, which was formerly supposed not to occur in the colony; 139 deaths were from beri-beri, and 77 from dysentery; 1,349 cases notified under the Infectious Diseases By-laws included 1,204 of bubonic plague, of whom 1,078 proved fatal, 53 of cholera, 37 of small-pox, 37 of enteric fever, 13 of diphtheria, 4 of puerperal fever, and 1 of typhus fever. Of the cases of infectious disease, exclusive of plague, more than half were traced to sources of infection outside the colony, and Dr. Clark recommends improvements for the medical inspection of all vessels entering the harbour, which he believes would greatly reduce the number of such diseases. In connection with the subject of bubonic plague, Dr. Clark mentions one valuable lesson as having been learnt during the epidemic of 1894. This is the paramount importance of rendering the ground surfaces of all domestic dwellings and of all yards, areas, and other adjuncts thereto im-

pervious, thus preventing the access of ground air and of damp to the dwellings, and preventing the pollution of the soil. Under pressure from the Sanitary Board, no fewer than 1,885 dwellings have during the year had all their ground surfaces laid with six inches of concrete. In view of the existing prevalence of plague in Bombay and Karachi, he records his belief that it almost invariably travels overland, and that there is very little risk of its introduction by shipping, provided that the importation of rags, bedding, and soiled linen is controlled, and that a strict medical inspection of passengers and crew, before they are permitted to land, is enforced.

During the past four weeks the small-pox epidemic has been dying out, only 36 cases, of which 35 were Chinese, with 30 deaths, all Chinese, having occurred during that period.

Bubonic plague is again prevalent in Swatow and its neighbourhood, and in the island of Formosa, while it is rumoured to have made its appearance also in the Portuguese settlement of Macao, only forty miles distant from Hong Kong. The Hong Kong Government has issued a Gazette Extraordinary forbidding the immigration or importation of any Chinese from Swatow or Formosa.

# CORRESPONDENCE.

## THE BRITISH MEDICAL BENEVOLENT FUND.

Sir,—In this eventful Jubilee year many of us are doubtless hampered with special appeals of all kinds, but we shall all agree that those of our poorer brethren who have fallen in the battle of life and who are helpless and sore stricken are especially deserving our sympathy and help at the present time.

The funds of the British Medical Benevolent Society are now at a very low ebb, and have for some time been quite inadequate to the relief of the large and increasing number of cases, many of which are very distressing. A glance at the last report will show the excellent work done by the Fund; but how piteous are the stories of those 158 cases which were relieved, representing every kind of trouble, affliction, and distress, which at any time may befall any one of us, and how much more could be accomplished with a little additional help from the profession. Surely at such a time our hearts will respond to an appeal for thank offerings, if only for our own good health and prosperity.

It should be especially noted that the applicants for relief are spared all the trouble and expense of canvassing, or the pain of publicity, and that the cases are most carefully investigated by the Committee; while no fund could be more judiciously and economically administered.

It would relieve the anxiety of the Treasurer and officers of the Society, and add greatly to the zest of our own enjoyment of all the good things we have, and which are awaiting us, if at this time of general rejoicing, we could gladden the hearts of some of our poorer brethren and sisters by a substantial addition to the fund.

It is a great privilege to be able to help others at any time, and this is an unparalleled occasion, which can never return in our time.

From the report we learn that donations and subscriptions —especially the latter—will be gratefully received by the Treasurer, Sir W. Broadbent, Bart., 84, Brook Street, W.; by Dr. Samuel West, 15, Wimpole Street, W., Honorary Financial Secretary; by Mr. Joseph White, Honorary Secretary for Cases, 6, Southwell Gardens, Queen's Gate, W.; or by the London and County Bank, 21, Hanover Square, W.—I am, etc., Bis Dat Qui Cito Dat.

May 23rd.

## THE PERSONAL HYGIENE OF THE SOLDIER.

Sir,—Your comment in the British Medical Journal of May 15th on my article with the above heading, which appeared in the current month's number of the *United Service Magazine*, does not correctly define my position in relation to the regimental system. I have never advocated a reinstitution of that system on its former lines, but I have invariably pointed out the necessity to have a medical officer always doing duty with each regimental unit not only living with the corps, but actually belonging to it. While I believe it to be a necessity to prevent sanitary and medical failure, I consider the arrangement no less desirable for medical officers themselves, and as being conducive to their well-being in more ways than one. It would occupy too much of your valuable space to discuss these points; moreover, I wish to avoid an unprofitable controversy. Let me, however, point out, as you seem to desire that the department should be so constituted as best to meet the requirements of war, that it does seem odd you ignore the question of organisation on those lines, and which rest on a strong regimental basis, for during war a medical officer is attached to each corps. To effect this change on the eve of a campaign places the department in an unfair position, and, as I have said elsewhere, it simply courts disaster. I say that until the department exists during peace as it must be during war its power is "cramped, cabined, and confined," and if the great objection advanced against it is that senior medical officers are afraid of the domination of officers commanding corps, it is but a reflection upon themselves and upon the loyalty of their juniors to which I demur. My views may not, as you say, find present favour with a large number of my military brethren; but that is not the point. The question must be decided upon what is best for the army, which, in the end, will be what is best for the department also.

In conclusion, I would invite your attention to the speech of Lord Roberts of Kandahar, delivered in the House of Lords on May 14th, on the health of the army in India, in which he advocates a closer union between regiments and the Army Medical Service such as existed in former times. He indicates the advantages it would be to both, and how great the loss is in the existing state of things. Such has always been my belief. If, Sir, my labours during the past few years contribute, however remotely, to hasten this time of union, I shall be well satisfied.

I trust you will publish this letter, as I do not wish to be misunderstood.—I am, etc., W. Hill Climo, M.D.,
Brigade-Surgeon-Lieutenant-Colonel Army Medical Staff (Ret.).

Holland Park, W., May 17th.

## A PROBABLE DIAGNOSTIC SIGN OF TRICUSPID STENOSIS.

Sir,—Dr. Samways's mind resents the supposition that blood can be driven back through the venæ cavæ by the auricular systole, and suggests that the waves I have described in the venous and liver pulses as being caused by the auricular systole are really due to stasis. If one considers the extremely feeble force producing stasis, and then studies in suitable cases the force with which the blood is injected into veins and liver, he will have no difficulty in arriving at the conclusion that mere stasis cannot produce the venous and liver pulses. There is no difficulty in demonstrating clinically the regurgitation due to the auricular systole. Near the lower end of the internal jugular veins are two valves, which are, as a rule, readily rendered incompetent by backward pressure of blood. In a suitable case, if the jugular be compressed high up in the neck so that the blood does not enter from above, the waves of blood can be observed distending the veins from below. Tracings taken of these waves show that they occur immediately before the ventricular systole, that is, they are auricular systolic in time. In rare cases these jugular valves remain competent notwithstanding that considerable force is applied against them. The patient from whom Figs. 1 and 5 in my paper published in the British Medical Journal of May 8th were taken has died since that paper was written. In her the jugular valves were competent and the jugular below the valves was distended into a bulbous enlargement, and the pulsations could be detected by sight at the distance of six yards, while she herself was conscious of the beating in her neck. The force with which the jugular here was distended was readily perceptible to the finger, and it raised a fairly strong steel spring, so that I could get a good tracing directly from it. Numerous tracings were taken during the three years I had her under observation, and the large strong wave was always auricular systolic in time, as can be seen from the tracings in the paper referred to. The force with which the blood was sent back was utterly inconsistent with the stasis hypothesis. So great was the force of

the wave that it closed the jugular valves so sharply that a sound was produced readily audible on auscultation. Thus on listening below the clavicle one could hear the first and second sounds of the heart. On auscultating the pulsation above the clavicle, three sounds were heard, the two sounds of the heart, and a short sharp sound synchronous with the pulsation in the jugular. This was the jugular valve sound described long ago by Bamberger and Friedreich. Above the closed valves there was no visible pulsation, and yet stasis must have been present. There was but one cause capable of producing these phenomena—namely, the contracting auricle sending blood back through the superior vena cava. This view, which might otherwise have been put down as merely conjectural, received corroboration in a most striking way. One morning this patient became conscious that the beating in her neck had ceased. I examined her, and found that the pulsation in the jugular and in the liver had disappeared, and only two sounds could be heard above the clavicle—the first and second sounds of the heart, that due to the closure of the jugular valves being absent. Four days afterwards she suddenly died. In the *post-mortem* examination there was found tricuspid stenosis, hypertrophied right auricle, and the right auricular appendage was filled by a white firm fibrinous clot. Water injected into the superior vena cava distended the jugular below the valves, but none escaped above them. Here it is evident the auricle had ceased to contract four days before death, when the clot formed, and with the cessation of the auricular systole there was absence of the liver and jugular pulses and of the jugular valve sound.

The evidence from experimental observations is even more conclusive. Reflux from the right auricle was demonstrated by Haller and by numerous physiologists since his day. To determine the nature of the venous pulse Gothard, Riegel, and François-Franck have severally opened the chest of animals and found regurgitant waves from the auricular systole in the superior vena cava, while Diemer, Riegel, Chauveau, and Faivre found the auricular reflux always present in the inferior vena cava.—I am, etc.,

Burnley, May 22nd. J. MACKENZIE.

## SMALL PELVES, THEIR CONSIDERATION AND TREATMENT.

SIR,—My letter of May 8th was not intended as a critique of Dr. Cousins's case of Cæsarean section, published in the BRITISH MEDICAL JOURNAL of May 1st, inasmuch as from the facts given I opined that probably it was one of those unfortunate cases in which pregnant women have delayed engaging medical attendance. I desire to assure Dr. Cousins that my experience is at one with that of the many eminent practitioners to whom he refers. I rather borrowed Dr. Cousins's case as a peg on which to hang my plea for more universal obstetric observation, having the induction of labour as one corollary; a matter which seems to me to be of considerable importance, perhaps the more so as Cæsarean section is somewhat desirous of becoming an operation of election to the detriment of craniotomy and other crushing operations, any such competition, in many cases, being avoided by obstetric observation and induction of premature labour.—I am, etc.,

Kensington, May 22nd. HERBERT ALDERSON, M.B.

## ON THE OCCURRENCE OF MALTA FEVER IN INDIA.

SIR,—As one who has for years maintained that the fevers occurring both in Malta and Gibraltar are identical with those in India, it is gratifying to me to find that Professor Wright and Surgeon-Captain Smith have come to a similar conclusion on more scientific grounds than mine, which were simply clinical and pathological.

Referring to Surgeon-Major Freyer's communication in the BRITISH MEDICAL JOURNAL of May 22nd, I beg to observe that having been in medical charge at both Sabathu and Dagshai, I formed the opinion that the fever in these places was similar to that of Malta and Gibraltar. I have never seen a fatal case of Malta fever in which there was not swelling of the mesenteric glands and spleen. As at Sabathu and Dagshai, so at Malta and Gibraltar, cases of true enteric fever occur side by side with those having "atypical" charts and constipation.—I am, etc., J. MACARTNEY, M.D.,

Dublin, May 23rd. Brigade-Surgeon-Lieutenant-Colonel.

## KRASKE'S OPERATION FOR RECTAL CANCER.

SIR,—On referring to Mr. F. T. Paul's paper on Excision of the Rectum, published in the BRITISH MEDICAL JOURNAL of March 9th, 1895, to which he directs my attention, I find that it differs in two respects from the paper I read on May 10th at the Medical Society of London, and which you were good enough to publish in the JOURNAL of May 15th.

Whereas I limited the scope of my paper to 14 consecutive cases of Kraske's operation, Mr. Paul included in his series 5 cases of the old or perineal excision. If we include these 5 cases, there remain only 9 cases of Kraske's operation, with a death-rate of 22 per cent., as against my series of 14 cases, with a mortality of a little over 14 per cent. I maintain, therefore, I was correct in saying that I was "unable to find any like series of cases, etc."—I am, etc.,

Harley Street, W., May 25th. F. SWINFORD EDWARDS.

## CHLOROFORM ADMINISTRATION.

SIR,—The summary of Dr. Soloweischik's tables of 500 cases of chloroform administrations in Professor Traube's clinic, published in the *Lancet*, May 8th, serves to show that with chloroform cautiously administered by Snow's method, by means of an apparatus which ensures its precise dilution with air in one uniform and teachable systematic manner, identical effects can be ensured from the use of a regulated amount of chloroform in a given time, wherever that method may be employed, making due allowance not only for the varying temperatures of the air and the age and condition of the patient, but also that some administrators carry the effects of chloroform to a more or less deep narcotism than found necessary by the more experienced. Dr. Soloweischik's Tables VII and VIII show like results as obtained in London, Weymouth, Aberdare, Belfast, Lyons, and elsewhere, with a like apparatus:

Sixty-five males required during complete narcosis 217 drachms in 2,105 minutes, an average for each patient of 3.34 drachms used in 32.4 minutes, equal to 6.2 minims equal 0.54 gramme for each minute.

Thirty-five females required during complete narcosis 85 drachms in 1092 minutes, or each patient used 2.4 drachms in 31.2 minutes, which gives an average of 4.67 minims equal 0.41 gramme per minute.

Dr. Carter, of Weymouth, used in his first series of 20 administrations to adults 4.7 minims—equal 0.41 gramme on an average per minute; in his second series of 8 cases, 3.8 minims—equal 0.33 gramme on an average per minute.[1] The smallest amount used was in a boy aged 8 for an operation lasting fifty minutes, 1.4 minim per minute, and the largest amount, 10 minims per minute, in a female aged 40, the operation lasting twenty minutes—equal 2 minims per minute. Dr. Vincent, of Lyons, expended, in 78 children of both sexes, 4.58 minims, and in 28 adult females, 4.93 minims on an average per minute. Dr. W. G. Holloway, of London, expended, in 12 adults varying in age from 22 to 51 years, 3.7 minims on an average per minute, varying from 2.8 to 5 minims[2] (from 0.64 to 1.15 per cent. of vapour in air breathed). Mr. W. J. J. Arnold, of the Cottage Hospital, Aberdare, shows in his table of his first series of 18 administrations, an average expenditure of 6.4 minims per minute, varying from 1.3 minim in a man aged 74, in an operation lasting ninety minutes, to 12 minims on an average per minute in an alcoholic muscular man aged 40. Twelve minims—equal 2.76 per cent. of vapour of chloroform in the air breathed—is the largest amount which it has been found necessary to administer.[3]

Dr. W. C. Steen, Children's Hospital, Belfast, expended in his first series of 59 administrations in children, varying in age from three weeks to twelve years, 3 minims on an average per minute. In a child of 5 years, with paraplegia, an operation for the removal of diseased bone in the bodies of the upper dorsal vertebræ was performed, lasting 2 hours

[1] BRITISH MEDICAL JOURNAL, December 16th, 1893, and October 10th, 1894.
[2] *Medical Magazine*, vol. v, June, 1896.
[3] BRITISH MEDICAL JOURNAL, December 12th, 1896.

35 minutes; chloroform used, 3 drachms 15 minims, equal to 1.26 minim on an average per minute.

Dr. V. H. W. Wingrave, London, shows in a table of his first series of 34 administrations an expenditure of chloroform on an average of 6.1 minims per minute, varying from 2 to 12 minims per minute.

These facts prove that normal anæsthesia can be induced and maintained anywhere with an expenditure of chloroform varying from 1 minim upwards to 12 minims on an average per minute, or with from 0.23 upwards to 2.76 per cent. of chloroform vapour in the air breathed. These small amounts, though sufficient to cause unconsciousness when gradually and uniformly diffused in the blood,[4] are quite incapable of causing in the same patient any of the alarming symptoms which in the "usual way" of chloroform administration constitute misleading guides. This is evident when it is borne in mind that students are taught to estimate the effects of inhaled and absorbed chloroform, not as Snow demonstrated, by the amount administered in a given time, and by the symptoms of normal anæsthesia, but by symptoms denoting danger near at hand, namely, a change of colour from the natural to a ghastly pallor or blueness, the result of a lethal, or nearly lethal, overdose already in the circulation.—I am, etc.,

ROBERT BELL.

Glasgow, May 18th.

## OSTEOTOMY OF THE FEMUR AS A TREATMENT FOR TUBERCULOUS DISEASE OF THE HIP IN ITS EARLY STAGES.

SIR,—Criticism from such an authority as Mr. Howard Marsh on disease of the hip does my paper honour. Let me assure Mr. Marsh that it was not ignorance of the methods in common use that caused me to use osteotomy as a treatment, but because these methods, although they do many excellent things, do not meet what I believe to be an important difficulty of the situation.

In my communication in the BRITISH MEDICAL JOURNAL of April 24th I set forth this as follows: "The difficulty of giving rest to the joint lies, it seems to me, in the fact that the position of greatest ease for the joint is one of great awkwardness for the limb." In other words, the problem I had before me was, How shall I allow the joint to retain what Nature indicates to be the position of greatest ease and at the same time correct the awkward position of the limb? It is plain that the methods to which Mr. Marsh calls my attention do not meet this difficulty, for you do not allow a joint to retain a certain position by proceeding to move it from that position, however gently you go about the task.

I beg leave to submit a few additional remarks for consideration under the following heads:

1. It is desirable in hip disease to retain the position of greatest ease, provided the awkward position of the limb is not also retained: osteotomy is, as far as I know, the only method of treatment that attempts to do this.

2. Osteotomy at once puts the parts in the position in which they are to remain.

3. There is reason to believe that section has a beneficial effect on tuberculous bone.

As regards the first consideration, there can be no doubt that whatever be the cause, whether it is distension of the joint with fluid, or "in order that the swollen and sensitive soft structures may as far as possible be placed in a state of relaxation," the inflamed hip assumes a regular position. It does so in a very determined way, so much so, that if it is an expression of a desire for a rest in a particular position, it is no small indication. Should we not believe in such an indication till it is proved to be false? Are not Nature's ways as a rule conservative?

Moreover, a large number of cases, treated by means that disturb this position, go on to suppuration. I make the following quotation from Erichsen, last edition, vol. ii, p. 424:

> The report of the Committee of the Clinical Society contains the most accurate information we possess concerning the death-rate of hip disease, in the statistics furnished by Howard Marsh of the cases treated by him in the Alexandra Hospital between 1867 and 1879. The total number of cases amounted to 401. These may be divided first into 277, or 69 per cent., in which suppuration took place, and 124, or 31 per cent., in which no abscess is formed.

A treatment that in good hands yields such results does not silence speculation. In my mind it raises such questions as the following: May not treatment by extension, while it does good in some respects, do harm in others? When a tuberculous centre forms in the articular end of a bone (its favourite starting point in hip disease), and is tending towards a joint, may not coaptation of the articular surfaces without undue pressure be preferable to separation?

As regards the second consideration, I shall only point out that it often takes the usual methods two months to accomplish what osteotomy does at once.

The third consideration submits that there is reason to believe that section has a beneficial effect on tuberculous bone. This is, I think, the experience of all operating surgeons. How often in resections of the knee do we put together bones much rarefied and otherwise affected by tuberculous disease, and find that they unite soundly and remain sound? As regards the after-treatment of cases subjected to osteotomy, I have only to say that each case must be treated on its merits, and on the condition it is found in when union is complete.

Not the least advantage of the operation is that by straightening the limb it makes easy the application of a Thomas's splint. In the after-treatment of the cases I have published I contented myself with seeing that the patients used crutches when up, and when lying down rested on their backs on a flat surface. The latter precaution was adopted to prevent the adduction likely to occur by the patient resting on his sound side, and so causing the affected limb to fall across its fellow.

There remains one point to which I would allude in conclusion. Mr. Howard Marsh takes me to task because he read remarks of mine which refer to the way in which the plates in handbooks of (general) surgery illustrate the application of a weight and pulley to hip cases as applying to the letterpress. I excluded the letterpress by specifying the plates. The works of general surgery, to which Mr. Howard Marsh gives references in order to show me in the wrong, are, when illustrated at all, illustrated as I said, that is, the weight is shown as applied to the limb in the line of its normal instead of its abnormal position. The letterpress in the same books is, on the other hand, full and explicit in describing the correct method; so much so, indeed, that I wonder how it was worth Mr. Howard Marsh's while to again go over the subject.—I am, etc.,

R. F. TOBIN.

Dublin, May 17th.

[4] Snow's masterly teaching, the slow and cautiously progressive, systematic method of chloroform administration, is in direct opposition to the teaching of the present day (*Lancet*, May 15th, 1897, p. 1336.) "An intermittent and sparing administration of chloroform," says another teacher, "is undoubtedly objectionable, and positively dangerous in some cases. When chloroform is given in very small doses, swallowing, holding the breath, and exhaustion from struggle: coughing and vomiting are all likely to arise, and the asphyxiated state thus induced, may, as we know, prove a source of danger. All such phenomena are avoided by a more liberal use of the drug" (*Anæsthetics and their Administration*, by Frederic W. Hewitt, M.A., M.D. London, 1893).

# OBITUARY.

## CHARLES A. LOCKHART ROBERTSON, M.D.CANTAB. AND ST. AND., F.R.C.P.LOND. AND EDIN.,

Late Lord Chancellor's Visitor in Lunacy.

DR. LOCKHART ROBERTSON, whose death on May 18th, at Exmouth, is announced, belonged to an old Scotch family, his father being a distinguished surgeon, and his brother, Dr. Argyll Robertson, the eminent ophthalmologist.

His general and medical education did not follow the ordinary lines, for after studying in Edinburgh and St. Andrews he went into the Army Medical Service, and became Assistant Surgeon to the Yarmouth Army Lunatic Asylum. It was here that he first gained his deep interest in insanity and its treatment. He remained at Yarmouth for five years, then resumed his medical studies by entering at Cambridge, when he was about 26: he took a medical degree there, and then, though young, determined to try his fortune as a consulting physician in London. About this time Dr. Bucknill and others were starting the Medico-Psychological Association, and Dr. Robertson became the Secretary: he held this post during the development of the Society, and later followed Dr. Bucknill, in association with Dr. Maudsley, in the editorship

of the *Journal of Mental Science*. He was President of the Association, and he contributed many reviews and original articles to the pages of its *Journal*.

His tendency was rather to the practically useful than to the purely academic. He took from the first very strong views as to the non-restraint system. He was appointed in 1859 Superintendent of the Sussex County Asylum, and here he introduced his special methods of treatment, particularly using Turkish and other baths, and he made considerable use of the wet pack in controlling violent and excited patients. His management of the asylum caused it to be visited by most of the physicians on the Continent who were devoted to the advance of humane treatment of the insane.

His army training had a good deal to do with making him a successful administrator, and he was especially acute in selecting suitable persons to carry out his plans. He suffered from neuralgias of various forms, due chiefly to gouty conditions, and these neuralgic attacks interfered considerably with his habits of life and his powers of exercise. In 1867, in association with Dr. J. Rutherford, he translated for the Sydenham Society Griesinger's classical book on *Mental Disease*, this book remaining as a very valuable addition to the English literature of insanity. In 1870 the Lord Chancellor selected him a Visitor to the Chancery lunatics, and he held this post till last year, when, at the age of 70, and in consequence of increasing infirmities, he retired to the south of England, where he passed the rest of his life with his wife and family. He married quite late in life the daughter of Colonel Rochfort. Dr. Robertson was a man of large fortune, and could enjoy the amenities of life to the full.

When the International Medical Congress met in London he was selected as President of the Medico-Psychological Section, and in this position he delivered an interesting address on the position of lunacy at the time. This was, like all the work done by Dr. Robertson, careful and instructive.

Dr. Robertson was a very well-known man, but, at least for many years, was little seen and not much heard of in medical circles, his special legal work, his love of the country, and his recurring attacks of neuralgia cutting him off from much of the active life of his profession. He was very definite and dogmatic in his beliefs, and was in the habit of expressing these without regard for consequences. He was, in fact, a very truthful and direct critic of any conduct which he considered inconsistent with kind and humane treatment of the insane. He was benevolent and kind-hearted, though he often covered his good deeds with a cloak of cynicism. He was essentially a clubable man, and few men belonged to so many clubs in all parts of the country. He had the means to enjoy learned leisure, and he followed his inclination in this direction. He was very dependent on the refinements of life, and perhaps a little intolerant of those who differed from him. With delicate sensibility and an earnest wish for the welfare of mental sufferers, he leaves a reputation which will probably grow greater rather than less as time enables one to judge fairly of those who directed the great revolution in the treatment of the insane.

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## GEORGE CHAPMAN BRIGGS, M.B.Lond.

We regret to have to record the death on May 5th of Dr. G. C. Briggs, of Harrow-on-the-Hill. He was born at Burgh-le-Marsh in 1847, and was educated at Uppingham School, then under the control of the famous head master, the late Dr. Thring. After reaching the sixth form he left the school, and commenced his medical education by serving as an apprentice to his uncle, the late Mr. Frederick Fawssitt, F.R.C.S., of Wisbech. In 1867 he matriculated at King's College, London, and obtained a junior scholarship. Two years later he gained the Warneford scholarship, and the senior scholarship in 1871. He won prizes also in chemistry, obstetrics, and in other classes. In 1871 he obtained the diplomas of M.R.C.S. and L.S.A., and shortly afterwards held the posts of Resident Medical Officer to the St. Pancras and Northern Dispensary, and of Resident Accoucheur to King's College Hospital. In 1874 he graduated as M.B.Lond., and in the same year he became a junior partner of Dr. Bridgwater and Dr. Tonge, at Harrow. Dr. Briggs held the post of Poor-law Medical Officer and Public Vaccinator for the Harrow District, but his most important office was that of Chief Medical Officer to the Harrow School; he discharged the duties of that office with much assiduity and success. He took an active interest in the Medical Officers of Schools Association, and was a member of its council.

Dr. Briggs centred his interests in his profession, and into its work he threw the whole of his energies. Endowed with great natural ability and of a genial and kindly disposition, he was beloved and esteemed by rich and poor. For the last six years he was aware that he was the subject of diabetes but worked on with unselfish devotion, placing the interests and welfare of his patients before every other consideration. A few weeks before his death he was attacked by middle-ear disease, upon which diabetic coma supervened.

He married in 1879 the daughter of Mr. B. G. Cooke, of Alverstoke, near Gosport, the sister of his friend and fellow student, Dr. Marriott Cooke, Superintendent of the Worcester County Asylum. Dr. Briggs leaves her a widow with two sons, both now attending Harrow School. The funeral, which took place in the churchyard of the old parish church at Harrow, was attended by a large number of sorrowing relations and friends.

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## FREDERICK ALCOCK NIXON, F.R.C.S.I.,

Dublin.

We have to record with regret the untimely death of Mr. F. A. Nixon, of Dublin, after a very short illness. He died at his residence 31, Merrion Square, on May 23rd, of apoplexy, by which he had been attacked while at dinner on the previous Tuesday. He had only reached his 47th year, and was apparently in excellent health when his illness occurred. The sadness of the event is accentuated by the fact that he had entered into a new residence only a few weeks ago, and that he had declared his intention of seeking the vice-presidency of his College in 1898.

Mr. Nixon became a Licentiate of the Royal College of Surgeons in Ireland in 1870, and a Fellow in 1876. He was also a Licentiate of the Royal College of Physicians, Ireland (1871), and Member (1880). At the time of the amalgamation of medical schools in Dublin he was Lecturer on Anatomy in the Ledwich School, and he then became Professor of Surgical Anatomy in the Royal College of Surgeons. He had been for some years a Surgeon in Mercer's Hospital, and it was said that he had been much worried about recent events in that institution. He had served for a long time on the Council of the College of Surgeons, and was one of the Committee of the Conjoint Board of Management. Mr. Nixon in all these positions showed himself to be possessed of many high qualities, and he discharged his duties with great efficiency. In his surgical work he exhibited much ability as an operator, and he enjoyed deservedly the reputation of being a wise and reliable practitioner.

In his relations with his professional brethren he had earned the respect of all and the affection of many, and the general public highly appreciated his professional skill and the kindliness which was a marked quality of his character. His death is generally mourned.

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We regret to have to announce the death of Mr. Hugh Walter Davies, of Bedford, and formerly of Newcastle-on-Tyne, which took place on May 10th at the early age of 47. The deceased qualified as M.R.C.S.Eng. in 1872, and L.R.C.P. Edin. and L.M. in 1880. Before leaving the north his health had failed him, and a severe attack of pleurisy last winter increased his weakness, which was patiently borne until the last. Mr. Davies was formerly Surgeon to the Newcastle Eye Infirmary, and had also occupied the posts of House-Surgeon and Registrar to the Cancer Hospital, Brompton, and Resident Obstetric Officer and House-Surgeon to St. Mary's Hospital, and House-Surgeon and Chloroformist to the Western Ophthalmic Hospital, London.

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Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. Deroubaix, President and Honorary Professor in the Medical Faculty of the University of Brussels, aged 84; and Dr. Joseph W. Cushing, a prominent practitioner of Boston, U.S., aged 60.

# NAVAL AND MILITARY MEDICAL SERVICES.

## ARMY MEDICAL STAFF EXCHANGE.

*The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.*

EXCHANGE wanted by Medical Officer A.M.S., arrived in India December 7th, 1895, with Officer (above Captain's rank); tour expired trooping season 1898-99. Reply at once, S.M.O., Station Hospital, Nusseerabad, Rajpootana.

## THE NAVY.

FLEET-SURGEON JOHN A. McADAM has been placed on the retired list at his own request, May 20th. He was appointed Surgeon March 31st, 1875; Staff-Surgeon March 31st, 1887; and Fleet-Surgeon September 10th, 1895. He was Surgeon of the *Superb* at the bombardment of the Alexandria forts in July, 1882, and during the Egyptian war. He received the medal with clasp and the Khedive's bronze star.

Surgeon CLEMENT ALSOP has also been placed on the retired list, April 7th. His commission dates from February 16th, 1885.

The following appointments have been made at the Admiralty: WILLIAM BROWN, Fleet-Surgeon (retired), to be Surgeon and Agent at Southampton, May 18th; HUBERT W. A. BURKE, Staff-Surgeon to the *Leander*, June 8th; HENRY HARRIES, Staff-Surgeon to the *Phaeton*, June 8th; WILLIAM SPRY, Surgeon to the *Calypso*, June 8th; JOHN E. COAD, M.B., Surgeon to the *Barracouta*, June 8th; JOSEPH A. MOON, Surgeon to the *Majestic*, June 8th; EDWARD E. MAHON, C.B., Fleet-Surgeon to the *Excellent*, June 8th; HERBERT M. ELLIS, Fleet-Surgeon, to the Royal Marine Artillery, Eastney, June 8th; ALEXANDER J. J. JOHNSTON, Staff-Surgeon, and WILLIAM J. STITT, Surgeon, to the *Victorious*, June 8th; MICHAEL FITZGERALD, Fleet-Surgeon to the *Majestic*, May 20th; ANTHONY GORHAM, M.D., Fleet-Surgeon to the *President*, May 20th; JOHN ACHESON, M.D., Staff-Surgeon to the *President*, additional, for R. N. Rendezvous, June 8th.

## ARMY MEDICAL STAFF.

The services of the undermentioned Surgeon-Captains are placed at the disposal of the Government of Bombay for employment on plague duty: M. BOYLE, E. S. CLARK, H. A. BRAY, W. J. TAYLOR, M.B., and J. A. RIVERS.

The services of Surgeon-Captain G. D. BROWNING are placed at the disposal of the Foreign Department, India, for employment on plague duty.

Surgeon-Captain H. L. G. CHEVERS retires from the service, receiving a gratuity. His commission bears date August 1st, 1885.

## INDIAN MEDICAL SERVICE.

THE retirement from the service of the undermentioned officers, which has been already announced in the BRITISH MEDICAL JOURNAL, has received the approval of the Queen:—Brigade Surgeon-Lieutenant-Colonel HUGH JOHNSTONE, M.D., Bengal Establishment; Surgeon-Lieutenant-Colonel ALEXANDER K. STEWART, Bombay Establishment; Surgeon-Lieutenant-Colonel EDWARD W. YOUNG, Bombay Establishment; and Surgeon-Major DONALD F. DYMOTT, Madras Establishment.

Brigade-Surgeon-Lieutenant-Colonel H. J. HAZLETT, Madras Establishment is permitted to retire from the service from July 6th. He was appointed to the Department April 1st, 1867, and became Brigade-Surgeon-Lieutenant Colonel March 7th, 1891.

The services of Surgeon-Captains G. W. JENNEY, M.B., and H. F. CLEVELAND, of the Bombay Establishment, are placed at the disposal of the Government of Bombay for employment on plague duty.

## THE MILITIA.

SURGEON-LIEUTENANT-COLONEL L. F. OSBALDESTON, Medical Officer to the 4th Battalion of the Bedfordshire Regiment (Hertfordshire Militia), died at Royston Hospital on May 24th. His battalion was in training. He was found in his tent very ill, and was taken to the hospital, where he soon after expired. He had been connected with the regiment more than thirty years.

## MILITIA MEDICAL STAFF CORPS.

WE are asked to state that several vacancies exist for officers in the Militia Medical Staff Corps, in consequence of the formation of two new companies (Berkshire and Kent). Application should be made immediately to the officer commanding, Militia Medical Staff Corps, Aldershot.

## THE YEOMANRY AND VOLUNTEER RIFLES.

SURGEON-CAPTAIN R. E. WOOD, Lanarkshire Yeomanry, is promoted to be Surgeon-Major, May 26th.

Surgeon-Captain D. RICE, 1st Worcestershire and Warwickshire Artillery, and Surgeon-Lieutenant A. MURDOCH, 1st Volunteer Battalion the Buffs (East Kent Regiment), have resigned their commissions, May 26th.

Mr. ROBERT MCCOULL is appointed Surgeon-Lieutenant in the 1st Volunteer Battalion the Northumberland Fusiliers, May 26th.

Surgeon-Lieutenant H. H. L. PATCH, 5th (the Hay Tor) Volunteer Battalion the Devonshire Regiment, has resigned his commission, and is appointed Second Lieutenant in the same corps, May 26th.

Consequent on the division of the 2nd Volunteer Battalion the Royal Welsh Fusiliers into two battalions, styled respectively the 2nd Volunteer Battalion Royal Welsh Fusiliers and the 3rd Volunteer Battalion Royal Welsh Fusiliers, the following, among other officers, are transferred to the 3rd Volunteer Battalion, their commissions retaining their rank and date as previously held: Surgeon-Captains R. A. PRICHARD, W. J. MORRIS, T. E. JONES, and T. L. K. DAVIES, M.B., and Surgeon-Lieutenant E. T. HUGHES.

## HONOURS FOR THE BENIN EXPEDITION.

THE *London Gazette* of May 25th contains the names of the officers singled out for distinction for services with the recent Benin expedition. Among them are the following: Fleet-Surgeon Michael Fitzgerald to be a Companion of the Order of St. Michael and St. George; Staff-Surgeons James McC. Martin and Edgar R. Dimsey to be Companions of the Distinguished Service Order. In the BRITISH MEDICAL JOURNAL for May 15th are printed quotations from the despatches describing the operations of the expedition, and citing the special services of the above-mentioned officers.

## DISTINGUISHED SERVICE ORDER.

OUR contemporary, the *Aberdeen Free Press*, congratulates Surgeon-Captain Charles Henry Hale, Army Medical Staff, on obtaining this Order on the recommendation of General Carrington, for gallantry in action during the Mashonaland campaign. His elder brother obtained the same Order for gallantry as an army medical officer in Burmah. We congratulate the brave brothers: but would ask, How do medical officers obtain such distinctions, if, as according to certain military "authorities," they are not to be considered "in" the army at all?

## LORD ROBERTS ON THE ARMY MEDICAL SERVICE.

THE words with which Lord Roberts concluded his speech in the House of Lords on the health of the Army are deserving of more than short comment, as they indicate the views of an experienced and able commander on the present deplorable condition of the Army Medical Service. His lordship says: "The cordial intercourse which used to exist between the combatant and medical officers, and which was so conducive to good fellowship and to the general health of the Army, is, unfortunately, a thing of the past." These words cannot be disputed, whatever may be the cause of the condition. That the interests of the service suffer while such a state of things exist who will deny? Prejudice against the Army Medical Service is, many say, caused by the abolition of the regimental system, but as this was unworkable in war, unification replaced it, not to speak of the advantages financially of the latter system.

## THE HEALTH OF THE ARMY.

AN interesting letter on the above subject appears in the *Times of India*, weekly edition, April 24th. The writer, a lock hospital surgeon of large experience, enters into the reasons assignable for the comparative failure of the lock hospital system, and does not hesitate to say that, in one word, a dual control brought disaster on the Army and locked up the specific hospitals in 1888. The screw loose in the machinery, useless at best, thwarting the system at every turn, was the cantonment magistrate, whose being mixed up with the business was its ruin. He proceeds to say that "the system was good, but the operators with their divided responsibility were faulty," and that his facts show how a non-medical authority can paralyse all progress towards good results. The writer concludes his long letter by suggesting that the whole administration should be placed in medical hands, and that if this be carried out Government may calculate on reasonable, or rather triumphant, results in grappling with this modern terror for the Army. The medical officer to have magisterial powers and to command a special posse of police responsible to him alone for the control of prostitution. The functions of medical officer and cantonment magistrate would then be embodied in a single person, and responsibility for maladministration could be rightly laid on one shoulder.

## MARLBOROUGH'S MEDICAL STAFF.

A CORRESPONDENT draws our attention to the following extract from *The Army Book of the British Empire*, chapter xv, by Lieutenant-General Goodenough and Lieutenant-Colonel Dalton: "During the campaign of Marlborough (under the clever administration of the Senior Medical Officer, Sir John Pringle) medical officers then, and until 1796, not infrequently held double commissions, and could act in the double capacity of Captain and Surgeon."

*** The above arrangement held good for nearly a century. As our correspondent suggests, the biographer of the great Marlborough—our present Commander-in-Chief—is, of course, well aware of the above facts; which at least shows that the great Marlborough saw no incongruity in even a "doctor" being recognised inside the "fighting caste." According to Lord Wolseley (Camperdown Commission), even the enlisted men of the Medical Staff Corps are not soldiers. What would Marlborough have said to that?

## MIXED MILITARY BOARDS.

A CORRESPONDENT points out: The weak point in the recent revise of the regulations is, that it rests with the combatant officer who assembles the Boards to exclude medical officers from them either as members or presidents. I hope (he says) your correspondents will keep you informed as to whether this will be done in future, and whether the new order will, like many more, become a dead letter. Some member of Parliament should ask whether the regulations of principal medical officers disposing of sanitary questions "by order" have ever been carried out. That would show how the Queen's Regulations are, or are expected, to be obeyed.

## GONORRHŒA IN INDIA.

A CORRESPONDENT points out that, while the terrible ravages of syphilis in India are justly and naturally brought into prominence; the suffering caused in many innocent victims of gonorrhœa is apt to be overlooked. He says in India venereal disease is considered a misfortune and not a shame; that is to say, its moral aspects do not occur to the native mind. One of the most terrible results of gonorrhœa is the "ophthalmia neonatorum" of infants. The same micro-organisms are found in this disease as in specific gonorrhœa, and the newborn infant

contracts it at the moment of birth. Dr. Mookerji, in his address on Ophthalmology at the Indian Medical Congress of 1894, stated that in Bengal alone there were 600,000 totally blind beggars, 40 per cent. of whom had lost their sight through ophthalmia neonatorum, that is, from gonorrhœa in the mother (*Transactions Ind Med Cong.*; 1894, p. 168): and this refers to the beggar class alone, and not to other classes. Such a horrible launching of half a million blind babies, from the day of birth to time of death, must surely satisfy the call for vengeance of those who would, without wincing, punish the innocent children for the sins of their fathers. In addition to the shocking results on sight, the writer says he takes no account of the suffering from cystitis, stricture, etc., as results of gonorrhœa. Even the so-called lesser forms of venereal disease are not to be made light of.

ERRATA.—In the BRITISH MEDICAL JOURNAL of May 15th it is stated that Surgeon-Lieutenant-Colonel J. A. GORMLEY, M.D., is promoted to be Surgeon-Lieutenant-Colonel instead of Brigade-Surgeon-Lieutenant-Colonel. In the same issue Surgeon-Captain C. H. HALE is mentioned as having been awarded the "Distinguished Order;" it should be "Distinguished Service Order."

# MEDICO-PARLIAMENTARY.

## *HOUSE OF LORDS.*

### THE INFANT LIFE PROTECTION BILL.

THE report of the amendments to this Bill having been received, the Earl of DENBIGH, who is in charge of the measure, moved an amendment to Clause 4 in the following terms. "Any person retaining or receiving an infant under the age of 2 years on consideration of a sum of money not exceeding £20 paid down, and without any agreement for further payment, as value for the care and bringing up of the said infant until it is reclaimed or of an age to provide for itself, shall within forty-eight hours from the time of receiving such infant give notice of the fact to the local authority. If he does not give the notice required by this section he shall be liable to forfeit the amount of any sum received by him in respect of such infant, or such less sum as the Court having cognisance of the case shall deem just, and the Court shall give directions as to the manner in which the sum forfeited shall be applied for the benefit of the infant, and shall, if necessary, cause the infant to be removed to a workhouse or place of safety, and the master of such workhouse shall receive such infant, which shall be maintained in the workhouse or place of safety until it can be otherwise lawfully disposed of." The object of the amendment was to provide a deterrent in cases where a lump sum was paid down for the care of an infant. Where a comparatively small sum was given which would not pay for the bringing up of the child, the inference might fairly be drawn that the child was put out to nurse with the idea that it would never be heard of again. The limit of £20 would include the greater number of cases of baby farming which were at the root of so many of the evils connected with the trade, and would exclude the greater number of genuine cases in which well-to-do people, who, being obliged to leave the country, paid down a lump sum for the care and up-bringing of the children they left at home. The clause was agreed to. At a subsequent sitting the Bill was read a third time and sent down to the Commons.

### CONTAGIOUS DISEASES IN THE ARMY.

On the question of the health of the army a women's memorial has been prepared, which is signed by Princess Christian, the Duchess of Connaught, and the Duchess of Teck; the Duchesses of Bedford, Buckingham and Chandos, St. Albans, and Montrose; the Marchionesses of Headfort, Tweeddale, and Zetland; the Countess Dowager of Shrewsbury, Susan Countess of Malmesbury, the Countess of Shaftesbury, and the Dowager Countess of Airlie; the Countesses of Wharncliffe, Jersey, Bantry, and Denbigh; Countess Stanhope; the Countesses of Arran and Ilchester; Countess Lytton; the Countess of Erne; Countess Cowper; the Countesses of Selkirk, Onslow, Latham, and Ancaster; and a large number of viscountesses, baronesses, and ladies. The text is as follows:

"To the Marquis of Salisbury, K.G., the Marquis of Lansdowne, K.G., the Right Hon. Lord George Hamilton, M.P., and the Right Hon. A. J. Balfour, M.P.

"We desire to express our anxious hope that effectual measures will be taken to check the spread of contagious diseases among our soldiers, especially in India.

"We appreciate and respect the opinions of those who, notwithstanding the appalling statistics to which a competent committee, appointed by Government, has recently given authority, are opposed to us on this subject. We believe that they hold, in all sincerity, that the evil of rendering vice safer and the risk of degrading women outweigh all other considerations.

"But, speaking as women, we feel bound to protest against these views. We believe not only that preventive measures, if exercised with scrupulous care, do not cause any real danger to women, but that they constitute a valuable safeguard of women's virtue, and afford a great opportunity of escape from a life of vice.

"We feel that it is the duty of the State, which, of necessity, collects together large numbers of unmarried men in military service, to protect them from the consequences of evils which are, in fact, unavoidable in such a community and under such conditions; and with the deepest earnestness we call on the Government to do all that can be done to save innocent women and children in the present and future generations from the terrible results of vices for which they are not responsible."

## *HOUSE OF COMMONS.*

### THE LONDON WATER SUPPLY.

Mr. CHAPLIN has brought in and the House has read a first time a Bill to amend the law with respect to the metropolitan water companies. At present, if a consumer feels aggrieved he can in some cases apply to the magistrate, and in others appeal to the Local Government Board. In the latter instance he must have the support of twenty householders. By the new Bill, as explained by Mr. Chaplin, all his existing rights are preserved, but if he considers that a company has failed to perform some statutory duty the Bill enables him to lodge a complaint with the Railway Commissioners, who may take steps to secure the proper fulfilment of the duty. The local authorities are at liberty to aid and assist the consumer, or they may take the initiative themselves, in any question which may appear to them to affect the interests of consumers. For the protection of the companies, however, the Railway Commissioners will have power to award costs against the party making a frivolous or vexatious complaint.—The Bill is backed by Mr. Chamberlain, Mr. Ritchie, and Mr. T. W. Russell.

### THE IRISH POOR LAW SYSTEM.

In Committee of Supply, on the vote to complete the sum of £139,389 for the Irish Local Government Board, a debate arose on the Irish Poor-law system. Mr. J. P. FARRELL complained of the system of dietary in the workhouses, which was in most cases entirely unsuited to the unfortunate inmates. The so-called infirmary in the average Irish workhouse was little better than a death trap. If the Poor-law guardians, from motives of humanity, tried to remedy the defects of workhouse management the Local Government Board disallowed the expense and made them pay it out of their own pockets. While between 1875 and 1895 the population of Ireland had decreased by more than a million, the taxation for Poor-law purposes had increased by about £500,000. The Poor-law system in Ireland was a very antiquated one. The very poor of the community were not properly relieved; officialism took more than its due share of the money by which the system was worked; and great reforms were needed before the Local Government Board in Ireland would commend itself to the Irish people.—Sir J. COLOMB drew attention to the subject of dispensary doctors, who were not now of a character on which the districts could be congratulated.—Mr. POWER expressed approval of the system under which children were boarded out in Ireland. The results of the system in Waterford were very satisfactory.—Mr. TULLY welcomed the announcement of the First Lord of the Treasury that a new system of local government was to be established, for he believed that the present "antiquated machinery," as it had been justly called, had been the means of debasing public life in many localities.—Mr. G. BALFOUR, who replied for the Government, defended the Irish Local Government Board, and in the course of his remarks, referring to the workhouse system, he said he would be the last to say that he was satisfied with that system in Ireland. He had brought in a Bill the object of which was to make a thorough reform of the system possible. It was impossible to pass that measure this year, but he hoped sooner or later to see an amalgamation of unions which would be likely to form the best foundation for workhouse reform in other directions. The Local Government Board was continually trying to improve its administration, and he could not say that many complaints had come before him to show that the strictures of hon. members as to dietary, ventilation, and so forth were justified. As to the desirability of adopting the system of boarding out workhouse children, he thought its extension to Ireland would be of the greatest possible benefit, and he had included it in the Bill introduced by himself this year. As to the complaint about the deterioration of the dispensary doctors, he could not offer any opinion, but the matter should have his consideration. It was impossible, however, to think of taking the appointments out of the hands of the present authority.—Colonel WARING thought that the employment of trained nurses by Boards of Guardians was a matter of great importance. In his part of the country the workhouses were not, in the ordinary sense, institutions for the poor. They were infirmaries, and therefore it was of the greatest importance that they should be carried on on proper hospital principles.—Mr. DILLON said that no man could deny that there was great room for improvement in the Irish workhouses, and that there were many workhouses in which the treatment of the sick poor especially, and of the able-bodied paupers, was not of a kind to commend itself to any humane man.—After some further debate, Dr. TANNER complained that the demand of the Irish dispensary doctors for horse money was ignored by the Local Government Board.—The vote was then agreed to.

### PREVENTION OF PREMATURE BURIAL.

Mr. MACDONA asked the Secretary of State for the Home Department whether his attention had been drawn to the statement made by the London Association for the Prevention of Premature Burial, that in England and Wales 16,000 persons were annually buried without medical certificates; and whether the Government would take the matter into serious consideration so as to prevent as much as possible persons being prematurely buried.—The HOME SECRETARY: I have not seen the statement to which the hon. member alludes, but it is not the case that 16,000 persons are buried annually without medical certificates. The number of uncertificated deaths in 1896 was 11,464, and there has been a steady decrease for many years past, both in the actual number of such deaths and in the proportion which they bear to the total number of deaths. No cases of premature burial have been brought to my notice, nor am I aware that it is a matter which falls within my jurisdiction; but in any case I am unable to see that the obtaining of a certificate of death would be a guarantee against a premature burial taking place.—Mr. MACDONA asked whether the right hon. gentleman was not aware that a great number of medical men were of opinion that many people were prematurely buried?—The HOME SECRETARY: The certificates are given by the members of the medical profession, therefore it follows that, in their opinion, the persons in regard to whom the certificates are given are dead.

### SCHOOL EPIDEMICS.

Mr. CAREW asked the Chief Secretary to the Lord Lieutenant if he was aware that in Ireland the sanitary authority had no power to have schools closed for the protection of public health in the case of epidemics breaking out, while in England the sanitary authority had such power: and would the Government extend the same salutary protective power to Ireland?—Mr. GERALD BALFOUR: The facts are correctly stated in the first part of the question, though in England the managers of a school may appeal to the Education Department if they consider the notice requiring the school to be closed unrersonable. I should not like to answer the second part of the question without having an opportunity of consulting the Commissioners of National Education, and taking their views.

### KISSING THE BOOK.

Sir WALTER FOSTER asked the Attorney-General if his attention had been called to the growing fear of infection attaching to the ordinary form of English oath as administered in courts of justice; and whether it was the intention of the Government to introduce a Bill to alter the ordinary form of English oath, and to abolish the objectionable practice known as kissing the book in the administration of oaths of all descriptions?—The ATTORNEY-GENERAL: My attention has been called to the question of the desirability of changing the form of oath, but I think that the fear of infection has been somewhat exaggerated. I would remind the hon. member that under the provisions of the Oaths Act, 1888, witnesses are now permitted to take the oath in Scotch form, under which it is unnecessary to kiss the book. I will, however, consider whether any further amendment of the law is required.

### SCOTCH PRISON TREATMENT.

Mr. HEDDERWICK asked the Lord Advocate whether, under the present prison system of Scotland, imbecile or weak-minded prisoners were associated in cells with other criminals, without the personal supervision either of officers or hired attendants, whose duty it should be to see that such prisoners were not maltreated? Whether sick prisoners were left to the care of fellow criminals who were wholly without experience in the treatment of invalids? Whether evidence showing that these practices prevailed was given in November last by a number of medical men holding appointments in connection with prisons in Scotland? And whether, in view of the fact that such practices had been condemned by Commissioners of Prisons, and abolished both in England and Ireland, he would undertake at an early date to endeavour to assimilate the prison system of Scotland in these particulars to the more humane modes of treatment obtaining in England and Ireland?—The LORD ADVOCATE: I am informed by the Prison Commissioners for Scotland that when weak-minded prisoners are associated, on medical grounds, they are under the close inspection of prison officers, who are responsible for seeing that no prisoner is maltreated, but that all are properly cared for; and by the rules the medical officer has to satisfy himself that the arrangements are effective; that sick prisoners are not left to their care; and that no record can be found of any evidence given by prison medical officers in November last regarding the care of the sick. The Prison Commissioners are satisfied that the treatment of the sick prisoners is humane, and they have always directed their special attention to this part of prison administration.

### LEAD POISONING.

Mr. M'KENNA asked the Home Secretary whether his attention had been called to the case of James A. Garvey, aged 17, a lead filer, lately employed at the Electrical Power Storage Company's Works, Millwall, who died recently from the effects of lead poisoning; whether he was aware that there was only one bath at the works, at which from forty to fifty boys were employed, and that the regulation compelling the use of the bath was habitually disregarded; and whether he proposed to take steps under the circumstances?—The HOME SECRETARY: My attention has been called to this case, but I was unable to find on inquiry that there had been any breach of the Factory Acts or the special rules which have been made for electric accumulative works. Employers are required by those rules to provide a bath. This was done at the works in question, and a time for bathing was appointed for each person employed. It is not obligatory at present, however, on the workers to use the bath, and I regret to find that at those works bathing has often been omitted. It may become necessary to take steps to remedy this.

### VACCINE LYMPH.

Sir WILLIAM PRIESTLEY: I beg to ask the President of the Local Government Board whether he is able to say what course he proposes to take in consequence of the recommendation of the Royal Commission on Vaccination as to the lymph supply to be issued in future by the National Vaccine Establishment.—Mr. T. W. RUSSELL (replying for Mr. Chaplin) said: Shortly after the issue of the report of the Royal Commission on Vaccination, I issued fresh instructions to public vaccinators, by which they are enabled, whenever they deem it desirable, to use calf lymph instead of humanised lymph. I have also been making inquiries abroad as to the preparation and employment of glycerinated calf lymph. The report on this subject has been delayed by reason of the fact that in some Continental countries public vaccination is practically suspended during winter months, and is only resumed in May. But, from the information already by me, it is more than probable in my opinion that glycerinated calf lymph will be found to present distinct advantages over other forms of vaccine lymph, and one of the points which I shall have to consider will be how far it may be practicable for me to issue a gratuitous supply of vaccine lymph in this form to all registered medical practitioners applying for it. I should also have to consider how far any considerable change, such as is indicated, in the form or the extent of the lymph supply for the National Vaccine Establishment will be practicable pending fresh legislation on the whole question.

### THE BLACK WATCH AND ENTERIC FEVER.

Colonel WYNDHAM MURRAY asked the Secretary for India whether an outbreak of enteric fever had occurred among the Black Watch regiment at Sabathu; whether the same regiment suffered severely from the same disease last summer in the same place: whether at that time the prevalence of the disease was accounted for by one of the reservoirs being infected with the particular bacillus which was associated with this disease, the water being found to be swarming with the characteristic microbes; what steps had been taken in the matter since last summer; and, if all precautions had been taken, what special advantages existed at this place that it should be maintained longer as a troop station.—Lord GEORGE HAMILTON: A fresh outbreak of enteric fever has, I regret to say, occurred among the Black Watch, which arrived at Sabathu on March 24th last. A telegram from the Viceroy, dated May 23rd, states that 18 cases have occurred, 14 of which, however, are believed to have been contracted on the march up from the plains. Two cases have resulted fatally. Every possible sanitary precaution has been taken, and a thorough bacteriological examination into the cause of the disease is being made. A scheme for improving the permanent water supply, involving the acquisition of land and springs, is being carried out; meanwhile the laying of a temporary pipe is nearly completed. Sabathu, which is 4,500 feet above the sea, has a good climate, and is not usually unhealthy.

# UNIVERSITIES AND COLLEGES.

## UNIVERSITY OF LONDON.

M.B. PASS EXAMINATION.—The following candidates have satisfied the Examiners:

*First Division.*—R. H. Ashwin, Guy's Hospital; S. L. Box, St. Bartholomew's Hospital; H. M. Cooper, St. George's Hospital; A. H. Evans, Westminster Hospital; G. F. S. Genge, Westminster Hospital; C. H. J. Lockyer, Charing Cross Hospital; R. Row, B.Sc., Grant Medical College, Bombay, and University; F. C. Sprawson, King's College Hospital.

*Second Division.*—P. C. Barford, St. Bartholomew's Hospital; W. B. Bell, King's College Hospital; R. A. Bennett, Mason College and Queen's Hospital, Birmingham; J. F. Bill, St. Bartholomew's Hospital; M. Cameron, London Hospital; J. S. Chater, St. Bartholomew's Hospital; W. W. Clegg, Yorkshire College and Middlesex Hospital; J. M. S. Coutts, University College; E. S. Dukes, Guy's Hospital; A. Earnshaw, Guy's Hospital; E. Fisk, Guy's Hospital; Ella Catherine Flint, London School of Medicine and Royal Free Hospital; H. Fox, Middlesex Hospital, Glasgow Infirmary, and University of Aberdeen; F. C. B. Gittings, Middlesex Hospital; J. C. Griffiths, B.Sc., Mason College, Queen's and General Hospitals, Birmingham; E. W. H. Groves, B.Sc., St. Bartholomew's Hospital; W. Hardcastle, Charing Cross Hospital; Sarah Kaye, London School of Medicine and Royal Free Hospital; Urania Latham, London School of Medicine and Royal Free Hospital; W. Liversidge, University College; J. L. Maxwell, St. Bartholomew's Hospital; J. Moore, Guy's Hospital; P. Northcote, St. Thomas's Hospital; J. Owen, Royal Infirmary, Liverpool; H. E. Pace, London Hospital; W. Redpath, St. Thomas's Hospital; F. M. Seal, University College; S. F. Smith, St. Bartholomew's Hospital; H. Weeks, St. Bartholomew's Hospital; S. Whicher, Guy's Hospital.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen, having passed the necessary examinations and having conformed to the by-laws and regulations, have been admitted Members of the College:

Ahlswede, O. J. L.
Amenábar, J. D.
Beadles, H. S.
Bean, L. C.
Betts, E. H.
Brebner, A.
Brodribb, A. H.
Brushfield, A. N.
Burn, A.
Butler, S. G.
Callum, H. S. H.
Campbell, A.
Carter, A. B.
Case, H. M.
Chambers, J. M.
Clowes, E. F.
Cock, H. E.
Coop, E. J. E.
Cooper, H. G.
Cowie, R. M.
Crisp, G. B.
Croker, E. W.
Dickson, A. W.
Dodgson, G. S.
Dove, W. B.
Dykes, P. A.
Dyson, M. G.
Eliwood, T. A.
Evans, C. R.
Evans, J. J.
Facey, S. H.
Fegan, R. A.
Fenn, J. H.
Foote, V. P.
French, L. A. W.
Gairdner, J. F. R.
Gardner, T. H.
Gilbertson, W.
Goode, H. N.
Granville, A.
Gundlach, J.
Hall, J. S.
Hayward, W. C.
Hindley, G. J. D.
Howard, E.
Hunt, G. H.
Hunt, S.
Hyde, R. H.
Ireland, A. E.
Jonas, H. C.
Knowles, A.
Knox, R. G.
Lange, M. H. J.
Laurence, B. E.
Lee, W. H.
Le Geyt, E.
Littlehales, A. G.
Lovitt, A. E.
Low, W. S.
Lower, N. Y.
McClean, J. F.
McKie, G. McK.
McSorley, A. S.
Manasseh, A. J.
Manning, H. C.
Martin, J. S.
Mellish, J. S.
Michael, C. E.
Mills-Roberts, R. A.
Moore, J.
Muir, J. C.
Mundy, H.
Myers, W.
Nowell, W. S.
Parkinson, W.
Pearse, W. H.
Peile, W. H.
Phipps, J. H.
Porter, A. E.
Prince, P. C.
Ralston, R. G.
Read, E. H.
Rouillard, J. A. A.
Rowland, S. D.
Rygate, A. M.
Sandilands, J. E.
Sanguinetti, H. H.
Seymour, L. W.
Smith, A. L. H.
Smith, E. C. T.
Smith, J. H.
Stamford, R. B.
Thomas, W. J.
Thorman, W. H.
Thornton, G. L.
Thursfield, J. H.
Tressider, M. E.
Turner, H. F.
Walker, J. N.
Walker, S. R.
Weekes, C. P.
Westcott, W. G.
Williams, J. C.
Wilson, A. G.
Wood, P.
Woolcombe, A.
Woolliscroft, W. W.

## ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE following candidates having passed the necessary examination have been admitted Fellows of the College: H. J. Flanegan, L.R.C.S.I.; G. W. Joyce, L.R.C.S.I.; and J. R. Wallace, L.R.C.S.Edin.

The following candidates have passed the primary part of the examination: G. W. Little; J. M'Donald; H. G. Martin, L.R.C.S.I.; D. P. O'Brien, L.R.C.S.I.; and H. J. C. Wallace.

## SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, May, 1897.—The following candidates passed in:

*Surgery.*—A. Avent, St. George's Hospital; M. I. Baker, St. George's Hospital; S. R. Bhagtani, King's College Hospital; P. H. Collingwood, St. Thomas's Hospital; R. B. Greaves, Sheffield; A. J. Hull (Section I and II), Guy's Hospital; J. S. A. Murphy, Leeds; H. R. Rice, London Hospital; G. Steel, Cambridge.

*Medicine.*—F. Adams, St. Thomas's Hospital; H. A. Ahrens, King's College Hospital; J. Ash, St. Thomas's Hospital; A. J. Hull (Section I and II), Guy's Hospital; R. A. Lewty, Leeds and St. Mary's Hospital; B. S. Mankar, London Hospital; J. S. A. Murphy, Leeds.

*Forensic Medicine.*—T. M. Clayton, Durham; A. J. Hull, Guy's Hospital; R. A. Lewty, Leeds and St. Mary's Hospital: H. H. Monckton, King's College Hospital; C. W. Moore, Manchester; F. M. Simmonds, Edinburgh.

*Midwifery.*—F. M. Aldred, Liverpool; C. H. Church, McGill University; T. M. Clayton, Durham; G. J. D. Davies, Leeds; C. W. Moore, Manchester; H. R. Rice, London Hospital; F. M. Simmonds, Edinburgh.

The diploma of the Society was granted to Messrs. Avent, Baker, Church, Clayton, Greaves, Hull, Moore, Murphy, Rice, and Simmonds.

# PUBLIC HEALTH
AND
# POOR-LAW MEDICAL SERVICES.

## SOME PROCEEDINGS OF COUNTY COUNCILS.

THE Durham County Council recently decided to increase the salary of their excellent health officer, Dr. Eustace Hill, from £500 to £700. At the same meeting they resolved to insist on the efficient treatment of the sewage of the Auckland Rural District, at present polluting the stream above the intake of the Bishop Auckland water supply.

The Berkshire County Council have not appointed a medical officer of their own, but propose to avail themselves of the services of Dr. Woodforde as a consulting health officer. This offer Dr. Woodforde, owing to the nature of his whole-time engagement with the combined districts of Abingdon, Wallingford, etc., could not accept without the consent of his authority. We learn that the Wallingford District Council has given in its adhesion to the scheme.

## HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,119 births and 3,617 deaths were registered during the week ending Saturday last, May 22nd. The annual rate of mortality in these towns, which had declined from 18.8 to 16.5 per 1,000 in the four preceding weeks, rose again to 17.2 last week. The rates in the several towns ranged from 12.9 in Croydon, 13.1 in Leicester and in Bradford, and 13.7 in West Ham, to 22.0 in Manchester, 22.1 in Burnley, 22.4 in Plymouth, and 23.3 in Liverpool. In the thirty-two provincial towns the mean death-rate was 18.3 per 1,000, and exceeded by 2.0 the rate recorded in London, which was only 15.4 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was equal to 1.3 per 1,000, while it averaged 1.9 in the thirty-two provincial towns, among which the highest zymotic rates were 3.0 in Wolverhampton, 3.5 in Liverpool, 4.4 in Salford, and 5.9 in Burnley. Measles caused a death-rate of 1.4 in Manchester, 1.5 in Liverpool, 1.7 in Bolton, 2.2 in Salford, and 2.5 in Burnley; scarlet fever of 1.1 in Halifax; whooping-cough of 1.4 in Oldham, 1.6 in Bristol, 2.1 in Plymouth, and 2.5 in Burnley; and "fever" of 1.3 in Croydon. The 42 deaths from diphtheria in the thirty-three towns included 33 in London, 3 in Liverpool, and 2 in Cardiff. One fatal case of small-pox was registered in London, but not one in any of the thirty-two large provincial towns. There were 13 small-pox patients under treatment in the Metropolitan Asylums Hospitals on Saturday last, May 22nd, against 12, 11, and 14 at the end of the three preceding weeks; 1 new case was admitted during the week, against 6, 3, and 6 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had increased from 2,380 to 2,416 at the end of the three preceding weeks, had further risen to 2,508 on Saturday last; 311 new cases were admitted during the week, against 223, 231, and 239 in the three preceding weeks.

## HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, May 22nd, 952 births and 664 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.7 and 20.8 per 1,000 in the two preceding weeks, further rose to 22.3 last week, and exceeded by 5.1 per 1,000 the mean rate during the same period in the thirty-three large English towns. The lowest rates in the eight Scotch towns were 14.4 in Greenock and 18.8 in Aberdeen, and the highest rates 25.2 in Paisley and 26.9 in Edinburgh. The zymotic death-rate in these towns averaged 3.7 per 1,000, the highest rates being recorded in Leith and Edinburgh. The 305 deaths registered last week in Glasgow included 15 from measles, 3 from scarlet fever, 2 from diphtheria, 16 from whooping-cough, 2 from "fever," and 6 from diarrhœa. Thirty fatal cases of measles, 2 of diphtheria, and 9 of whooping-cough were recorded in Edinburgh.

## AN ADVANTAGE WITH A DRAWBACK.

WHEN a town has completed its works of main drainage for nearly twenty years it seems lamentable that its midden privies should still run into four figures. This state of things is the more to be deplored when it exists, as it does, in a locality like Southport, where we find from the records of Dr. Vernon, the medical officer of health, that 1,121 such abominations still survive, 483 being in the four urban wards of the borough, or 12 per 1,000 persons, with an "infectious disease" rate of 13 per 1,000, and 638 in the two rural wards, or 88 per 1,000 persons, with an "infectious disease" rate of 39 per 1,000. Dr. Vernon very properly condemns these structures, as in previous reports, and points to the opportunities which they offer for the pollution of air and for the broadcast dissemination of disease, since they must contain dejections from the bowels of the infectious sick, dejections which are too frequently imperfectly or not at all disinfected. We have spoken of this question at Southport before, but we must confess that the continuance of the privies is the more to be deplored when we learn that the death-rate of the town, which was 23.82 per 1,000 per annum in the eight years preceding the completion of the main drainage scheme, was only 14.46 last year. True, one year's figures are not convincing, but when they convey the saving of 442 lives they are full of meaning. And we can only hope that the rapid removal of the remaining midden privies will repay the cost in lightened rates, both monetary and vital, permitting the town death-returns to become increasingly smaller.

## GUARDIANS AND THE SUPPLY OF CALF LYMPH.

WE stated, on the information of a provincial public vaccinator, in the BRITISH MEDICAL JOURNAL of May 15th, that the Local Government Board had laid it down that Boards of Guardians could not themselves supply calf lymph to public vaccinators, and we have no desire to question the statement furnished, for we have had independent testimony to the same effect since that date. But the matter would seem not to be by any means finally settled in the direction indicated, because we notice in an account of a meeting of the Stow Board of Guardians that a neighbouring Board report themselves to have been purchasing calf lymph for some time past, and to have been supplying their public vaccinator with it, and that no objection has been raised at the audit of accounts. The point at issue would seem to be a splitting of straws were it not that it would seem desirable that public vaccinators should have a voice in the matter of lymph source. But it may be that they have been consulted in the instance named, and that there is a record of the precise derivation of each consignment.

## DRAINAGE AT FARNBOROUGH.

THE differences of opinion regarding the drainage scheme at Farnborough have brought about the resignation of the chairman of the Farnborough Council. The *Aldershot News* of May 1st, in adverting to this matter says, in reference to objects of improvement, "But the scheme for drainage, the greatest and most important of them all, has been hampered at every turn during the past six months, and hampered by some of the very men who were at first pledged to support it." Alluding to the voting against a scheme proposed by an expert, and accepted by the Local Government Board, the *Aldershot News* states that "the possibilities of epidemic disease in Farnborough, of preventable disease, and disease which may put off indefinitely the town's claim to a health resort have never been reckoned. Whether a child more or less dies of diphtheria, or a husband or wife removed by typhoid, has not entered into the calculation of three hundred ratepayers."

## THE CONTROL OF MEASLES.

SINCE 1877 and up to mid-November, 1896, Coventry has had in force a system of notification of measles, that up to 1891 being on a voluntary basis at 3s. 6d. for each certificate, and that for the succeeding five years under the Notification Act of 1889. In April of last year the Town Council decided to abandon the system, and in November, whilst experimental closure of all schools was in process, the sanction of the Local Government Board was received, and the local action as to schools was robbed of its ability to demonstrate results. In the period covered by notification of measles there have been seven years of epidemicity of the disease, and the rates of its prevalence in four successive quinquennia have been 1.0, 2.0, 1.6, and (under compulsory notification) 1.7 per 1,000 of population. This seems to point, says Dr. Fenton, the health officer, to but little result accruing from compulsory as against voluntary notification; but surely it gives no reason for the abandonment of the latter. Perhaps, however, it is the intention of Coventry to return to the latter and long-tried system, though it is difficult to imply this from the annual report of Dr. Fenton. The health officer, however, would seem to incline to inter-epidemic notification, visitation, and hospital treatment of cases as best calculated to lead to effective control of measles; and we trust that at no distant date the evident desirability of these measures may be forced home on the public mind, and, together with other needed co-operative features of local sanitary administration, adopted by our health bodies generally.

## THE ASYLUMS BOARD AND THE PAUPER CHILDREN.

AN order of the Local Government Board, dated April 2nd, having imposed upon the Metropolitan Asylums Board the duty of providing for various classes of children who have hitherto come under the care of the guardians, the recommendations of the Committee appointed to make arrangements for this purpose came before the last meeting of the Board and were adopted. They were to the effect (*a*) that accommodation should be provided for about 800 children suffering from ophthalmia and other contagious diseases of the eye in three institutions, with administrative buildings suitable for allowing of the subsequent enlargement of each institution to a maximum, if necessary, of 400 inmates; (*b*) that the ophthalmic hospital attached to the schools at Hanwell should be transferred to the Board at an annual rental; (*c*) that isolation accommodation should be provided for 400 children suffering from ringworm of the scalp; (*d*) that arrangements should be made for the acquisition of the convalescent homes at Herne Bay and Margate, and for providing such further accommodation for convalescents at the seaside in small homes for about 25 children each, as might be necessary; (*e*) that provision should be made for weak-minded and infirm children in small houses in the vicinity of some of the special schools of the London School Board; (*f*) that accommodation should be provided for 150 remand cases in three institutions; (*g*) that a standing committee should be appointed, to be called the "Children's Committee."

## FEE FOR ADMINISTRATION OF CHLOROFORM BY A SECOND PRACTITIONER.

W. T. writes to say that in the year 1873 the Local Government Board suspended in his union some of the regulations previously in force in reference to extra medical fees, and that he cannot now obtain any

fee for midwifery cases, though the relieving officer charges some of the applicants for medical attendance in confinements a fee, and this is paid by them, but never handed over to the medical officer. "W. T." further states that on a recent occasion he required assistance to administer chloroform, and, having obtained it, the guardians refused to pay for it, on the ground that any such payment would be illegal. He asks for our opinion, but says that he was not aware of these arrangements when he entered in his contract with the guardians.

*** "W. T." does not appear even now to know precisely on what terms he holds his office. He admits that he signed a contract without knowing its provisions in reference to midwifery cases; we cannot, therefore, tell what he has engaged to do. We should advise him to ask the clerk to allow him to see the contract he has signed, and to take a copy of it, or any part of it; he will then in all probability understand his position much better. We believe that the guardians are empowered to pay a special fee for the administration of chloroform if they desire to do so, and that the Local Government Board would at once sanction any such payment if applied to, though we are not by any means sure that their sanction for such payment is necessary.

### COST OF SMALL INFECTIOUS HOSPITAL.

Country Member asks the probable cost of one or two cottages to contain four to six beds for the infectious hospital of a district of 4,000 to 5,000 inhabitants.

*** A contract] was lately let, three miles from the centre of a large Yorkshire town, for isolation pavilion for fever patients, containing six beds, for £1,070. This pavilion consists of two wings, joined together, but opening on to separate east and west verandahs. Each wing has two wards, one for two the other for one bed, separated by a nurse's room. Each patient has 2,000 cubic feet and 144 square feet; floor, concrete, with oak let in; walls, parian, etc. Cost of furnishing and six beds from bedsteads to bedpans, thermometers to night dresses, salt cellars to dressing forceps, £81; total, £1,151. "County Member" should get the memorandum on hospitals issued by the Local Government Board. The pavilion, with nurses' house on first sheet, would cost about same as above, which does not include accommodation for nurses off duty. Perhaps some reader will give actual cost of cottages for corresponding accommodation.

### RESIGNATION OF PUBLIC VACCINATOR AND SUPERANNUATION.

A. P. writes, saying he has just resigned his appointment as public vaccinator, and he wishes to know whether, in the event of the clause drafted by the Parliamentary Bills Committee being passed into law this session, he will be entitled to superannuation as a late public vaccinator.

*** If the clause is passed as it has been framed A. P. will, we are advised, be entitled to claim under it.

## HOSPITAL AND DISPENSARY MANAGEMENT.

### PAISLEY INFIRMARY.

The memorial stone of the new infirmary at present being erected in Paisley was formally laid on Saturday, May 15th. The building will accommodate between 140 and 150 beds, and is to cost £72,000, of which only about £8,000 remain to be provided. In connection with the new infirmary, a nurses' home has already been built and equipped by Mr. Peter Coats, and the public of Paisley have decided to raise £5,000 as a memorial of the Queen's Diamond Jubilee to provide a dispensary.

### HOSPITAL ABUSE IN THE UNITED STATES.

The following recommendations were adopted by the Medical Association of the District of Columbia at a recent meeting: (1) That every institution for medical charity shall require from every applicant for relief in a hospital or dispensary a written certificate, to be obtained as hereinafter provided. Emergency cases are to be excepted from the operation of this rule. (2) That such certificate be obtained from physicians to the poor, the Board of Associated Charities, and any registered physician. (3) That cases of sick and injured persons found upon the streets, in the stations, or elsewhere, who require immediate treatment, shall be carried to the emergency hospital or the nearest hospital having an emergency service, or to their homes, if so directed by the patient or his friends. (4) That emergency patients shall not be detained longer in such institutions than the necessity of the case imperatively demands, but shall be discharged from the service and sent to their homes or to some public hospital as the patient may elect. (5) That members of this Association shall be entitled to the privilege of attending private patients occupying private rooms in any of the public hospitals of this city. (6) That in future the members of the medical staff of hospitals when attending medical or surgical cases in private pay rooms shall insist upon proper payment for their services, except in the case of such patients who are clearly unable to pay for same. (7) That whenever the medical staff or a majority thereof of a hospital or dispensary resigns, and when, after due hearing, this Association finds that the resignations were for just and sufficient cause, it shall be forbidden for any member of this Association to accept a position on the staff of said hospital or dispensary. (8) That whenever one or more members of the medical staff of a hospital or dispensary are dismissed, and when, after due investigation, this Association finds that such dismissal was without just and sufficient cause, it shall be forbidden for any member of this Association to fill the vacancy created thereby. (9) That complaints made under Rules 7 and 8 shall be made in writing to the standing committee, which, after due consideration, shall report its findings to the Association.

## MEDICAL NEWS.

The distribution of prizes to students at Charing Cross Hospital will take place on Wednesday, June 2nd, at 4 P.M., Field Marshal Sir John Lintorn Simmons, G.C.B., G.C.M.G., in the chair.

The University of Buda-Pesth has followed the example of the University of Vienna by conferring the degree of Doctor of Medicine on Frau Wilhelmina Wartha, *née* Countess Hugonay. The lady's husband is a lecturer in the Medical Faculty of Buda-Pesth.

We have received the first number of the *London Argus*, "a weekly journal and review of municipal life." It is well illustrated, and its contents are varied and interesting. We gather that its special object is the promotion of Unionist principles in municipal matters in London.

Pass and Pluck in the French Medical Faculties.—The following figures, showing the proportion of rejections at the examinations for the M.D. degree in the several faculties of France in the academic year 1895-96, are given by the French papers. Nancy plucks 1 candidate in 4; Toulouse, 1 in 5.8; Lille, 1 in 6; Paris 1 in 6.8; Lyons and Montpellier, 1 in 7.5; and Bordeaux 1 in 8.4.

H.R.H. Princess Henry of Battenberg has fixed July 31st as the date for the ceremony of laying the foundation stone of the eleventh block of houses of the Royal National Hospital for Consumption and Diseases of the Chest. By permission of the Queen and Princess Henry the new block will be named: "In Memory of His Royal Highness Colonel Prince Henry of Battenberg, K.G., Governor of the Isle of Wight."

Decrease in Rabies.—During the past few weeks there has been a considerable decrease in the number of cases of rabies officially reported as occurring among dogs. In the six weeks there have been only 20 cases distributed among eleven counties, as under: Lancashire 4 cases, the counties of Warwick, Worcester, Gloucester, Hereford, Glamorganshire, and London 2 each, and the counties of Stafford, Brecon, Hants, and Salop 1 each. Last week only 1 case of rabies was officially reported, that being in Staffordshire. In the twenty weeks of the current year that have expired only 74 cases have been officially reported, a very small number, as the total compares with 279 for the first twenty weeks of 1896, and 320 for the first twenty weeks of 1895. There were only 64 cases in the first twenty weeks of 1894. Although the 20 cases of rabies that have occurred during the past six weeks have been confined to eleven counties, including London, the new orders will apply to fourteen counties or parts of counties, inclusive of London and the metropolitan districts.

The National Health Society.—On Saturday afternoon, May 22nd, at Grosvenor House, Lady George Hamilton presented the diplomas, medals, and certificate of the National Health Society to those persons who had successfully passed the Society's examinations during the past year. Sir Dyce Duckworth occupied the chair, and amongst those present were Lady Duckworth, Lady Priestley, Lady Arnold, the Rev. Sir Borradaile and Lady Savory, Dr. Farquharson, M.P., Dr. Thorne Thorne (Chairman of the Council), Sir Joseph Fayrer, Dr. Cullingworth, and Dr. A. T. Schofield. The Chairman, in opening the proceedings, said that the object of the Society was to diffuse a knowledge of the laws of health amongst all classes of society, rich as well as poor. It organised lectures in drawing rooms and elsewhere on domestic hygiene, home nursing and first aid to the injured, and at mother's meetings and working men's clubs on the prevention of the spread of infectious disease, on food and cookery, on the rearing of infants, the management of households, and on kindred subjects. During the past year 800 persons have been examined for the elementary certificate of the Society, and 300 for the drawing-room certificate. Examinations had been held in nine counties in addition to those held in London. During the course of the afternoon addresses were delivered by Dr. Thorne Thorne, the Rev. Sir Borradaile Savory, and Sir Joseph

Fayrer. Votes of thanks to Lady George Hamilton, the Duke of Westminster, and the Chairman, concluded the proceedings.

SIR JAMES PAGET presided at the annual general meeting of the Society for the Relief of Widows and Orphans of Medical Men on May 19th. It was reported that 13 new members had been elected during 1896, while 13 had died and 4 had resigned, leaving 292 on the books. Fifty-three widows and 11 orphans had received £2,893 10s. during the year. The total expenditure had amounted to £3,136 13s. 9d., and the total receipts to £3,291 11s. 5d. Four widows and 4 orphans had been added to the list of those already in receipt of grants, while 4 widows had died or become ineligible, and 1 orphan had become ineligible through age. The funded property of the Society, increased by the investment of £1,600, the residue of Miss Emma Carpue's legacy, amounted to £97,300. A vote of thanks to the editors of the medical journals for their assistance in making known the working of the Society, proposed by Dr. Wilks and seconded by Mr. Milburn, was carried unanimously. Drs. Wilks, Pollock, and Felce were elected vice-presidents, and Drs. Brodie, Ogle, Blandford, Slight, de H. Hall, James Miller, Lovett, and Day were elected directors. On the motion of Dr. Potter, the acting treasurer, a vote of thanks to the President, Sir James Paget, was passed with great cordiality. Particulars of the work of this Society can be obtained from the Secretary, 11, Chandos Street, Cavendish Square, W.

## MEDICAL VACANCIES.

The following vacancies are announced:

ANCOATS HOSPITAL, Manchester.—Resident Junior House-Surgeon. Salary, £50 per annum, with board and washing. Applications to Alexander Forrest, Secretary.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL.—House-Surgeon. Appointment for six months. Board, lodging, and washing provided. Applications to the Honorary Secretary of the Medical Committee by June 10th.

BUCKINGHAMSHIRE GENERAL INFIRMARY, Aylesbury.—Resident Surgeon and Apothecary, doubly qualified. Salary, £80 for the first year, with an advance of £10 per annum up to £100, with board and lodging, washing, coals and candles, in furnished apartments. Applications to Mr. George Fell, Solicitor, Aylesbury, by July 5th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST Victoria Park, E.—House-Physician. Appointment for six months. Board and residence provided, and salary at the rate of £30 per annum. Applications to the Secretary by June 10th.

CONSUMPTIVE HOSPITAL AND ORPHAN HOMES OF SCOTLAND, Bridge of Weir.—Resident Medical Officer; hospital experience and knowledge of bacteriology required. Salary, £80 per annum, with furnished apartments, board, etc. Applications to the Secretary, D. Hill Jack, 194, St. Vincent Street, Glasgow, by July 1st.

DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester Square.—Demonstrator. Honorarium, £50 per annum. Also Medical Tutor. Salary, £40 per annum. Applications to Morton Smale, Dean, by June 21st.

DERBYSHIRE ROYAL INFIRMARY, Derby.—Assistant House-Surgeon. Appointment for six months. Honorarium of £10 will be given after satisfactory service, and board, residence, and washing provided. Applications to Walter G. Carnt, Secretary, by June 19th.

DEVON COUNTY ASYLUM.—Assistant Medical Officer; unmarried. Salary, £120 per annum, with board, lodging, and washing. Applications to Arthur E. Ward, Clerk to the Visitors, 9, Bedford Circus, Exeter, by June 7th.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Glamis Road, Shadwell, E.—House-Physician. Board-residence, etc., provided, and an honorarium of £15 15s. on completion of six months' approved service. Applications to Thomas Hayes, Secretary, by June 12th.

EAST SUFFOLK AND IPSWICH HOSPITAL, Thoroughfare, Ipswich.—Vacancy in the Honorary Medical Staff. Candidates must be doubly qualified. Applications to the Secretary by June 1st.

GENERAL HOSPITAL, Birmingham.—Two Assistant House-Physicians. Appointment for six months. No salary, but residence, board, and washing provided. Applications to Howard J. Collins, House Governor, by May 31st.

HEREFORD GENERAL INFIRMARY.—Honorary Physician and Honorary Surgeon. Applications to Charles B. Beddoe, Secretary, by June 5th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, Bloomsbury.—Resident Medical Superintendent. Appointment for one year, subject to annual re-election for a period of three years. Salary, £105 per annum, with board and residence in the hospital. House-Surgeon to Out-Patients (non-resident). Appointment for six months, but eligible for a second term of office. Salary, 25 guineas. Applications to the Secretary for the former appointment by June 30th, and for the latter by June 1st.

MERCER'S HOSPITAL, Dublin.—Vacancies on the Surgical and Medical Staff. Applications to the Registrar at the Hospital by June 18th.

NATIONAL SANATORIUM FOR CONSUMPTION AND DISEASES OF THE CHEST, Bournemouth.—Resident Medical Officer: must have a knowledge of bacteriological work. Salary, £80 per annum, with board, lodging, and washing. Applications to the Secretary by July 15th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—Surgeon; must be F.R.C.S.Eng. Applications to the Secretary by June 15th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—House-Physician, doubly qualified, for six months, at expiration of which period will be eligible to serve as House-Surgeon for a similar period. Salary as former at the rate of £60 per annum, as the latter (senior post) at the rate of £80 per annum; also Junior House-Physician for six months, doubly qualified. No salary, board, lodging, and washing provided. Applications to T. Glenton-Kerr, Secretary, by June 16th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—Surgeon; must be F.R.C.S.Eng. Applications to the Secretary at the Office, 27, Clement's Lane, E.C., by June 15th.

NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Mount Vernon, Hampstead, N.W., and Fitzroy Square, W.—Surgeon Laryngologist. Applications to W. G. Farrance Bosworth, Secretary, at the office, 41, Fitzroy Square, W., by June 5th.

PARISH COUNCIL OF DELTING, Shetland.—Medical Officer. Salary, £60 per annum. Applications to Mr. Robert Robertson, Inspector of Poor of Delting, Vae, Shetland, by June 15th.

QUEEN'S HOSPITAL, Birmingham.—Honorary Physician. Applications to the Secretary of the Hospital by June 23rd.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Hunterian Professors, the Erasmus Wilson Lecturer, and the Arris and Gale Lecturer for the ensuing year. Applications to the Secretary by May 31st.

ROYAL EAR HOSPITAL, Soho.—House-Surgeon, non-resident, for six months. Honorarium 12 guineas. Applications to D. Murray, Secretary, by June 5th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—House-Physician. Appointment for six months. Salary at the rate of £40 per annum, with board, lodging, and washing. Applications to the Secretary by June 22nd.

ROYAL VICTORIA HOSPITAL, Bournemouth.—Ophthalmic Surgeon; must be F.R.C.S., or take the Fellowship within a year. Applications to the Chairman by June 15th.

ST. PETER'S HOSPITAL, Henrietta Street, Covent Garden, W.C.—House-Surgeon, duly qualified, who has held similar position in a general hospital. Appointment for six months, at the expiration of which will be eligible for re-election for a further term of six months, subject to the approval of the medical staff. Salary at the rate of £100 per annum, with board, lodging and washing. Applications to Irwin H. Beattie, Secretary, by June 10th.

SUNDERLAND INFIRMARY.—House-Physician and House-Surgeon, doubly qualified. Salary in each case, £80 per annum, rising £10 annually to £100, with board and residence. Applications to the Chairman of the Medical Board by June 1st.

SUSSEX COUNTY HOSPITAL, Brighton.—Assistant Physician; must be F. or M.R.C.P.Lond. or graduate in medicine of one of the Universities in the United Kingdom. Applications to the Secretary by June 2nd.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, Newcastle-on-Tyne.—Heath Scholarship for the best essay on "Congenital Deformities, their Pathology and Treatment," value £200. All graduates in medicine or surgery of the University of Durham eligible to compete. Essays to be received by the Trustees (Dr. W. C. Arnison and Dr. Frederick Page) by March 31st, 1898.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's Road, Chelsea, S.W.—House-Surgeon; doubly qualified. Appointment for twelve months. Honorarium, £50, with board and lodging. Applications to the Secretary at the Hospital.

WARNEFORD LUNATIC ASYLUM.—Medical Superintendent and Secretary. Salary, £500 a year, with furnished house, coals, gas, garden produce, milk, laundry, and keep for one horse. Applications to the Secretary by June 10th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointments for six months. Board and lodging provided. Applications to R. J. Gilbert, Secretary-Superintendent, by June 23rd.

## MEDICAL APPOINTMENTS.

ALLEN, C. P., M.R.C.S., L.R.C.P., L.S.A., appointed Assistant Resident Medical Officer to the North-West London Hospital.

ARMSTRONG, William, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Boldon and Whitburn District of the South Shields Union, *vice* John Grant, M.D.Brux., L.R.C.P., L.R.C.S.Edin., resigned.

BABINGTON, S. N., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital (extension).

BINCKES, F. W., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Electrical Department at St. Thomas's Hospital (extension).

BRICE, Ernest, L.R.C.P., L.R.C.S.E., L.F.P.S.Glasg., appointed Surgeon to the Coppice Colliery Company, Cannock Chace.

BROWN, William H., M.B., B.S.Durh., M.R.C.S., L.R.C.P.Lond., appointed Assistant House-Surgeon to the General Hospital, Birmingham.

BRUNYATE, T. T., M.D., appointed Clinical Assistant to Out-patients at the Chelsea Hospital for Women, Fulham Road, S.W.

BULLOCK, T. Warren, M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health for the Heston and Isleworth Urban Sanitary District.

BURDWOOD, James Watson, L.F.P.S.Glasg., L.M., L.S.A., reappointed Medical Officer of Health to the Bourne Rural District.

BYFORD, William F., M.R.C.S.Eng., L.R.C.P.Lond., appointed Senior House-Surgeon to the Chesterfield and North Derbyshire Hospital.

CARAHER, More, L.R.C.P., L.R.C.S.I., L.M., appointed Resident Medical Officer to the Children's Hospital, Temple Street, Dublin.

CRONE, John S., L.K.Q.C.P.I., L.S.A., appointed Public Vaccinator for the No. 1 District of the Parish of Willesden.

DALE, A. J., M.B.Durh., B.S., appointed Honorary Surgeon to the Stockton Hospital, *vice* H. Hind, F.R.C.S.Edin.

DAWES, William J., M.R.C.S.Eng., appointed Medical Officer for the Florence and Normacott District of the Stoke-upon-Trent Union.

EWING, Basil George, M.B., reappointed Medical Officer of Health to the Urban District Council of Ardsley, East and West.

FAIRBAIRN, J. S., B.A., M.B., B.Ch.Oxon., L.R.C.P., M.R.C.S., appointed House-Physician to St. Thomas's Hospital (extension).

FRAZER, W. D., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Ear at St. Thomas's Hospital.

GALLOWAY, Alexander Rudolf, M.A., M.B., C.M.Aberd., appointed Physician to the Aberdeen Asylum for the Blind, *vice* Dr. James M'Kenzie Davidson, resigned.

GERVIS, F. H., L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital (extension).

GILBERT, L., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital (extension).

GILFILLAN, S. J., M.A., M.B., appointed Assistant Medical Officer to the London County Asylum, Cane Hill.

GOODALL, J. K., L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer for the Heath District of the Chesterfield Union.

HALL, J. Spencer, L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Skin at St. Thomas's Hospital.

HIND, Henry, F.R.C.S.Edin., appointed Consulting Surgeon to the Stockton Hospital.

JONAS, H. C., L.R.C.P., M.R.C.S., appointed House-Physician to St. Thomas's Hospital.

KISBY, George, L.R.C.P.I., L.F.P.S.Glasg., appointed Medical Officer of Health for the Borough of Hyde, *vice* G. W. Sidebottom, M.R.C.S.Eng., resigned.

MACEVOY, H. J., M.D., B.Sc.Lond., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Ear at St. Thomas's Hospital (extension).

MADDEN, Frank C., M.B., B.S.Melb., L.R.C.P., M.R.C.S., F.R.C.S.Eng., appointed House-Surgeon to the Hospital for Sick Children, Great Ormond Street, W.C.

MARRIAGE, H. J., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Throat at St. Thomas's Hospital.

MARTINEAU, A. J., L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital (extenson).

MASON, James, M.D., D.P.H.Camb., appointed an Examiner in Pathology for the University of New Zealand.

MILLAR, W., M.B., C.M.Glasg., appointed Medical Officer for the West Green and St. Ann's Districts of the Edmonton Union.

MUNRO, Donald, M.B.Edin., appointed Medical Officer to the Ween Parish Council, Perthshire, *vice* John Thomson, L.R.C.S.Edin., resigned.

PARRY, Dr. D. C., appointed Honorary Medical Officer to the Carmarthenshire Infirmary, *vice* Dr. Lewis Hughes, resigned.

PATERSON, W. H. J., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital (extension).

PIRIE, W. R., M.B., C.M., M.A.Aberd., appointed Clinical Registrar in the Royal Infirmary, Aberdeen.

ROUILLARD, J. A. A., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Throat at St. Thomas's Hospital.

SCATCHARD, J. P., L.R.C.P., M.R.C.S., appointed Junior Obstetric House-Physician to St. Thomas's Hospital.

SCOTT, A. E., M.R.C.S., L.R.C.P., appointed Resident Medical Officer to the North-West London Hospital.

SELIGMANN, C. G., L.R.C.P., M.R.C.S., appointed House-Physician to St. Thomas's Hospital.

SKINNER, D. S., M.D., M.R.C.S., reappointed Medical Officer of Health for Willesden.

SMITH, J. A., M.D.Lond., appointed Medical Officer for the First District of the Parish of Willesden, *vice* J. King, deceased.

STAINER, E., M.A., M.B., B.Ch.Oxon., appointed House-Physician to St. Thomas's Hospital (extension).

STONE, W. Gream, M.A., M.B., B.Ch.Oxon., F.R.C.S., appointed Clinical Assistant in the Electrical Department at St. Thomas's Hospital.

STRANGE, R. G., L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital (extension).

TAYLOR, G. E. O., L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital (extension).

THOMAS, J. T., L.R.C.P.I., L.R.C.S.Edin., appointed Medical Officer of Health for the Counties of Leicestershire and Rutland.

THOMSON, Arnold J., M.R.C.S., L.R.C.P.Lond., appointed Assistant House-Surgeon to the General Hospital, Birmingham.

THORMAN, W. H., B.A.Cantab., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Skin at St. Thomas's Hospital.

TOMBLESON, J. B., B.A., M.B., B.Ch.Oxon., appointed Senior Obstetric House-Physician to St. Thomas's Hospital.

TUKE, A. W., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital (extension).

VERNON, Dr., appointed Medical Officer for the Bitton District of the Warmley Union.

WHICHER, Alex. H., M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health to the Midsomer Norton Urban District Council.

WHITAKER, E. T., M.B., C.M.Edin., D.P.H.Camb., appointed Medical Officer of Health to the Wellington Urban District Council.

## DIARY FOR NEXT WEEK.

**MONDAY.**

LONDON POST-GRADUATE COURSE, London Throat Hospital, 204, Great Portland Street, W., 8 P.M.—Dr. George Stoker: Chronic Glandular Disease of the Nose and Naso-pharynx.

**TUESDAY.**

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin Blackfriars, 4.30 P.M.—Dr. Payne: Prurigo and Pruritus.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Dr. Gowers, F.R.S.: Clinical Demonstrations.

**WEDNESDAY.**

LONDON POST-GRADUATE COURSE, Parkes Museum, 74A, Margaret Street, W., 4.30 P.M.—Professor Wynter Blyth: Sanitary Appliances, etc.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W., 4 P.M.—Dr. Schorstein: Bronchiectasis.

THE CLINICAL MUSEUM, 211, Great Portland Street, 4 P.M.—Demonstration by Mr. Jonathan Hutchinson.

OBSTETRICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8 P.M.—Specimens will be shown by Dr. Amand Routh and others. Paper: Dr. Amand Routh: Parturition during Paraplegia.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M.—Mr. S. Paget: Surgical Cases.

**THURSDAY.**

LONDON POST GRADUATE COURSE, Cleveland Street Sick Asylum, 5.30 P.M.—Mr. Watson Cheyne: Clinical Lecture.

**FRIDAY.**

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, W.C., 3 to 5 P.M.—Professor Crookshank: Actinomycosis and Glanders, etc.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Dr. Tooth: Paraplegia.

WEST-LONDON MEDICO-CHIRURGICAL SOCIETY, West London Hospital, W., 8 P.M.—Clinical Evening. Cases will be shown by Dr. Seymour Taylor, Dr. Potter, Dr. Chapman, Mr. Keetley, Mr. Bidwell, Mr. McAdam Eccles.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s 6d., which sum should be forwarded in post-office order and stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.*

### BIRTH.

THOMPSTONE.—On May 21st, at Marsh Parade, Newcastle-under-Lyme, the wife of Sydney W. Thompstone, F.R.C.S.E., District Medical Officer, H.M.'s Niger Coast Protectorate, West Africa, of a son.

### MARRIAGES.

EVES—TULK-HART.—On May 18th, at St. Peter's Church, Brighton, by the Rev. A. R. Buckland, morning preacher at the Foundling Hospital, London, assisted by the Rev. James Hussey, Rector of Pimperne, Dorsetshire, and the Rev. D. L. Secretan, of St. Peter's, P. Stanhope Eves, M.D.Lond., of 1, St. Peter's Place, Brighton, son of W. H. Eves, Esq., of Brunswick Square, London, to Alice Clara Guinevere, only daughter of Eugene J. Tulk-Hart, M.D., of 4, Gloucester Place, Brighton.

GUMPELT—CHAMNEY.—On April 29th, at Barkly West, Cape Colony, by the Rev. Canon Bell, Albert Gumpelt, Esq., of Barkly West, and Altenburgh, Saxony, to Sophia Chamney, M.D.Berne, L.R.C.P. and L.R.C.S.Edin., late in medical charge of the Dufferin Hospital, Patiala State, India.

MACLEOD—RUSTON.—On May 24th, at Newland Church, Lincoln, by the Rev. J. D. Jones, M.A., B.D., John MacLeod Hendrie MacLeod, M.A., M.B., C.M., of Airliebank, Dundee, elder son of the late John B. Macleod, Esq., M.D., to Eva Jane, daughter of Joseph Ruston, Esq., of Monk's Manor, Lincoln, and 5, St. George's Place, Hyde Park, S.W.

WILLIAMS—MEYLER.—On May 18th, at St. Catherine's Church, Milford Haven, by the Rev. W. Watkins-Edwards, Vicar of St. Mark's, Swansea, George James, second son of Mr. W. Williams, M.B., B.S., of Fishguard, Pemb., to Joanna, younger daughter of Mr. T. D. Meyler, of Milford Haven, and niece of the late Mr. and Mrs. J. C. Ludlow, formerly of Bristol and Blakeney, Gloucestershire.

### DEATH.

DAVIES.—On May 10th, at Tenella, Hurst Grove N., Bedford, Hugh Walter Davies, M.R.C.S., L.R.C.P., aged 47, formerly of 38, Jesmond Road, Newcastle-on-Tyne.

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances*—Daily, 2. *Operations.*—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR.—*Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—Daily.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30 Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations.*—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations.*—M. F. S., 2.

LONDON. *Attendances.*—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W., S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Tu., 9; Dental, Tu., 9. *Operations.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations.*—M. Th., 4.30.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations.*—F., 9.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations.*—W., 1.30; S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Attendances* —M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30 *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 3; Dental, Th., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 1. *Operations* —M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., W. S., 9; Eye, W. Tu. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th. 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations.*—M. Tu. Th. F. S., 1.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males S., 3; females; W., 9.45. *Operations.*—M., 2; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 1.30: Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Tu., 3; Orthopædic, W., 10; Throat, Tu. F., 3.0; Skin, M. Th., 9.30; Electro-therapeutics, M. Th., 2.30; Dental, W. S., 9.30; Children's Medical, Tu. F., 9.15; Children's Surgical, S., 9.15. *Operations.*—M., 2.30.; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children) 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Th., 2.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30, Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations.*—Tu. F., 2.30.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, Tu. F., 9.30; Ear, M. Th., 9.30; Skin, W., 1; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

# LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

### QUERIES.

CURIOSITY would like to know what the treatment of phthisis consists of, as carried out in the Black Forest, Germany, and what results have followed that treatment.

S C.R.M. writes: An elderly doctor, after an attack of influenza, finds that he has lost the sense of smell, and that his hair is coming off. What can he do to restore the one and prevent the other.

SURGEON-LIEUTENANT-COLONEL writes: Could any member with experience help me to find a suitable European residence, for all the year round, for doctor and wife, who are both rather delicate? As many as possible of the following requirements are desired: Warm and dry climate; no snow; not too near sea, and and a little elevated; means of continuing English education for boys aged 9 and 15, but not in an expensive too-British place; expenses of living and house rent or apartments moderate; library and reading room. Switzerland or Italy preferred, or Austrian Tyrol.

J. W. L. asks to be recommended a small handbook on the practical management of the insane, with directions as to forced feeding, methods of restraint, etc

*** Our correspondent might consult: *Lunatic Asylums: their Organisation and Management*, by Charles Mercier, M.B. (London: Charles Griffin and Co., 1894, 16s.); *Insanity and its Treatment*, by G. Fielding Blandford, M.D. (Edinburgh: Oliver and Boyd, 1884); *Insanity and Allied Neuroses*, by G. H. Savage, M.D. (London: Cassell and Co., 1886).

TROP DE ZÈLE.

A CORRESPONDENT informs us that he was recently handed by the head master of a grammar school, to which he is medical officer, a letter and printed document. The printed document is a reprint of a letter recommending a particular mode of treating scarlet fever. The letter, apparently lithographed, is addressed to the head master, and calls his "serious attention to the enclosed letter reprinted from the BRITISH MEDICAL JOURNAL." The writer proceeds to say that it would have been better, perhaps, had he written to the medical officer of the school, but states that he had no means of ascertaining who the medical officer is. He adds the hope "that you" (the head master) "may exert your influence with your medical officer to induce him to make a trial of the treatment should an opportunity for doing so present itself." The letter concludes with the request that should the medical attendant of the school try the method of treatment, "he will do me the favour to send the results he obtains either to me or to the Editor of the BRITISH MEDICAL JOURNAL for publication." Our correspondent asks for an expression of an opinion as to the propriety of a medical man appealing to the head master to use his influence with the medical officer of the school to induce him to make a trial of any new treatment

*** The writer was entirely without any authority to make application for reports in our name. The whole proceeding is most unusual, and, in our opinion, ill-judged.

PUBLIC HEALTH DIPLOMAS.

G. F. O. asks (1) if it is possible to study for the D.P.H. without attending any classes; he qualified before 1890. He also asks (2) information as to textbooks.

J. A. R. has received the appointment of medical officer of health in a rural district, and wishes (3) advice as to what books to consult.

*** (1) The London colleges do not require certificates of attendance in classes in candidates qualified before 1890. So much new work has been done in public health since 1890 that we hesitate to advise "G. F. O." to tempt his fate in the Examination Hall without some special instruction. The examination in chemistry and bacteriology is becoming more practical with most examining boards. (2) Notter's edition of Parkes's *Hygiene*; Whitelegge's *Hygiene and Public Health* (7s. 6d., Cassell); Wynter Blyth's *Manual of Public Health* (17s., Macmillan); Scott's *Meteorology* (Kegan); Statton's *Public Health Acts* (7s. 6d., Knight and Co.); Kanthack and Drysdale's *Practical Bacteriology*; Woodhead's *Bacteria and their Products* (3s. 6d., W. Scott); Corfield's *Dwelling Houses* (3s. 6d., Lewis); Kenwood's *Public Health Laboratory Work* may be consulted. Some more popular books dealing with sanitation might be of service to those who have no practical experience in health matters such as Teale's *Dangers to Health* (10s., Churchill); Cameron's *Is My House Healthy?* (1s., Simpkin and Marshall); Wilson's *Cottage Sanitation* (3d., Royal Agricultural Society) are freely illustrated, the first by excellent lithographs. (3) The book first named and for consultation Murphy and Stevenson's *Public Health* (three volumes, Churchill, 80s.).

### ANSWERS.

SUBSCRIBER should consult a medical practitioner in the neighbourhood.

R. R. Y.—Gums are classified according to their similarity in physica and chemical properties into gums which are soluble and gums whic mostly swell up in cold water. Arabin is the main constituent of soluble gums, as in gum acaciæ and bassorin of tragacanth, which swells in water. Solutions of arabin are precipitated by borax and per-

chloride of iron, but bassorin is unaffected. If one part of tragacanth be shaken with 100 parts of water, and the liquid filtered, a mucilage may be obtained which mixes clearly with a concentrated solution of borax.

### X RAYS AND CANCER.

R. M. C. writes to ask if the report be true that the Roentgen rays have any curative effect on carcinomatous growths exposed to their influence? According to a notice in the *British Australasian*, two exposures sufficed to stop the growth of a tumour, and even after one exposure the pain ceased. We very much doubt the accuracy of this statement. Many false and startling reports have already been circulated as to the physiological action of the *x* rays, very few of which have stood the test of experience and further research, that one cannot be too cautious in giving credence to stray reports from irresponsible sources.

### CYCLE SADDLES.

SADDLE SUFFERER.—We have referred our correspondent's letter to Mr. E. B. Turner, F.R.C.S., who writes:

"I have little to add to what I have already written *re* saddles. In his case he should be careful to get a saddle with sufficient spring, say 7 lbs., under his weight, and he must adjust it carefully and be careful in riding over rough roads to distribute his weight between saddle, pedals, and handles, and not simply sitting on the saddle like a sack, and pushing the pedals round. I have heard good reports of the 'Osoezi' saddle, but have not tried one, but it might suit him well when he first begins riding again. I have not tried the 'Dream' cycle, but of spring frame machines the 'Marvel,' made by Humber and Co., is good."

MR. W. RADERMACHER writes: I think, in justice to the Pattisson Saddle Company, of which I am manager, you will allow me to say a few words in answer to a "Cycling Surgeon," in the BRITISH MEDICAL JOURNAL of May 8th. Your correspondent says that the rider of our saddle sits on "two ridges." This is not so. The Pattisson saddle is constructed to take the weight of the rider on the ischial bones and the gluteal muscles, and to prevent the perineum being in any way pressed upon, as it is a bifurcated saddle from end to end. Indeed, I may say it is now stamped with the approval of all medical authorities as the only saddle which is perfectly safe to ride, and by the use of which any urethral trouble or enlargement of the prostate, or any mischief such as might occur from pressure on the rectum or other organs that should not bear the weight of the body, is absolutely avoided.

*** Mr. E. B Turner, F.R.C.S., writes, with reference to this: It is the same with this saddle as with all others. If it be properly adjusted to each rider it is a success; if it be not, then it is a failure, and this is the reason why some riders like and others dislike it. The idea is good, and it suits some of my friends admirably.

### PAYMENT FOR CALF VACCINE.

MEDICAL GUARDIAN has written to say that the Local Government Board have sanctioned the "enormous sum of sixpence" per case to be paid under contract to public vaccinators when they make use of calf lymph, over and above the contract fee for vaccinations with human lymph; and he urgently complains against the smallness of the sum, failing to see how a public vaccinator is to make the matter remunerative at the rate per case sanctioned. It may be, however, that the Central Board look at the question from the standpoint of local rates, and argue that sixpence—or many sixpences—judiciously expended on the best procurable glycerinated calf lymph, will suffice for many more vaccinations than the total of sixpences paid for its purchase. But if the experience of public vaccinators be to a contrary effect, we shall be glad to learn the facts. The covering of the cost of lymph procured is probably what is held in mind at headquarters as the object to be aimed at. Present fees are statutory.

### FOUNTAIN PENS.

WITH regard to a remark recently made in the BRITISH MEDICAL JOURNAL that all fountain pens with which we were acquainted required to be kept upright, correspondents write to us to say that Messrs. de la Rue's Pelican pen and Caw's Safety Fountain pen can be carried in any position.

## NOTES, LETTERS, Etc.

### AUSTRALIAN MEAT.

OUR Melbourne correspondent writes, with reference to certain reflections which are stated to have been made upon the quality of frozen meat imported from the Australian colonies, and its value as an article of diet, that the export from Victoria, from which alone upwards of a quarter of a million of carcasses of mutton are annually exported, is confined to mutton and pork. Any carcasses, he adds, found after slaughter to be bruised, or diseased, or impoverished, or otherwise blemished, are at once rejected. The carcasses, after being dressed, are allowed to hang in the chilling room, exposed to a current of air, for about from twelve to twenty-four hours. Chilling has this advantage, that the cold penetrates slowly through the carcass, and the whole substance in its entirety is chilled. If a carcass be plunged before the animal heat had disappeared into a chamber at a low temperature, say freezing point or below it, then the external parts are more quickly frozen than the internal, and the internal parts are cut off by this external frozen zone from receiving the same intensity of cold as it. The external frozen zone contracting on the internal portion causes many of the cells whose limiting membranes are stretched to their utmost capacity, to be ruptured, and the cell contents thus escape, and on cutting into carcasses so frozen a pulpy consistency of the meat is found adjacent to the bones. After having been chilled the carcasses are transferred to the freezing chambers, and the temperature is reduced by successive gradual stages until freezing point or below it is reached. When the carcasses are first placed in the freezing chambers the temperature of the chambers rises to 45° or thereabouts. When the cold blast is turned on, the temperature of the chambers sinks in eight or ten hours to freezing point or below it. The carcasses take thirty or forty hours before they are thoroughly frozen. After having been frozen, the carcasses are stored in a chamber at a temperature of 17° to 20° F., and the length of time they remain stored depends on commercial requirements. On the ships by which they are forwarded to England an equally low temperature must be maintained throughout the voyage. Meat properly frozen cannot suffer any deterioration. No rupturing of the cells occurs in properly-frozen meat. All the properties of fresh meat are retained in frozen meat. Neither the proteids nor the albumenoids nor the fats are chemically affected by cold, consequently there is no impairment of the nutritious properties when thawed. After having been frozen and thawed and then cut up into joints for retailment to consumers a little myosin may escape from each cut surface. Meat properly frozen, thawed, and cooked, when consumed is always much tenderer than meat not so treated. It will prove interesting to learn that the only diseases existing in Australian flocks are fluke, hydatids, intestinal worms, lung worms, and foot rot. Scab only exists now in the remote region of Western Australia. Tuberculosis does not exist in sheep. I am assured by Dr. Brown, the Government medical examiner of meats for export, that he has not seen one single case of tuberculosis amongst half a million sheep which he has seen slaughtered. Fluke is only found in a few damp districts. On the salt bush pastures, from which the sheep drawn for export are taken, fluke does not exist. Salt bush is inimical to fluke. Every variety of water snail and a few land snails in Victoria is a host for fluke embryos. The fluke only inhabits the bile ducts of the livers of sheep and of other animals. Hydatids are not very prevalent. They only exist in the viscera; they are never found in the muscles of sheep. The hydatid of the sheep becomes the tapeworm of the dog. Foot rot is found in some of the damp districts of New South Wales, but it is not frequent, and is in no wise injurious to man.

### DEATH OF FATHER KNEIPP.

FATHER SEBASTIAN KNEIPP, the parish priest of the Bavarian village of Wörishofen, who had acquired great notoriety as an unlicensed practitioner of the healing art, died recently at the age of 75. He began life as a weaver, but his desire was to be a priest, and after a good deal of difficulty he succeeded in getting himself ordained. His health broke down under the stress of combined work and privation, and he attributed his recovery to the "water cure" with which he became acquainted by the accidental perusal of a popular booklet on the subject. His "system" of treatment has been described more than once in the BRITISH MEDICAL JOURNAL. He seems to have had the courage of his opinions, for he boasts that he had tried all his baths and douches on himself. His book *Meine Wassercur* went through nearly forty editions. A more recent work entitled *My Will* has also had a very extensive vogue. Father Kneipp's writings show that his knowledge of medicine was of precisely the kind and degree that is handed down from one old woman to another in out-of-the-way villages. From his portraits, however, he would appear to have been a man of vigorous character, and he certainly had the power of impressing many of those who sought his counsel. His method was after all only the enforcement of simplicity in living with a fair amount of exercise and free use of cold water. We can well believe that for many victims of "neurasthenia" this line of treatment must have been useful; but Father Kneipp in his books carried his pretensions far beyond this, and professed to cure organic disease of the most serious kind with his douches and packs. For this he deserved censure.

### RABIES AND THE MUZZLE.

WE have received a letter from a correspondent with regard to the arguments commonly used as to the employment of the muzzle. While admitting the beneficial results of the previous muzzling order he points out that this may be attributed not to the fact that a certain number of dogs were muzzled, but to the destruction of the countless pariahs which could not claim the badge of ownership. We do not think it can fairly be argued that the muzzle is merely a badge of ownership. Our correspondent suggests that the only effectual means for eradicating the disease would be some system of protective inoculation of all dogs. We know of no system of protective inoculation which is practicable, so, with the evidence of Mr. Long's figures, which are so striking and conclusive, as to the beneficial results of the previous muzzling order, we strongly advocate its general adoption, "without a conscience clause."

### A DAY OF REST IN THE COUNTRY FOR LONDON NURSES.

IN the summer of last year an opportunity was provided for such of the nurses of the metropolis who could be spared, and were so disposed, to spend a quiet day at Hertingfordbury. Three short services were arranged at intervals during the day, allowing the nurses full opportunity for enjoying the country. Hospitality was offered, so that the actual expense to each nurse did not exceed a few shillings each, being the cost of the return fare from King's Cross. A similar invitation has been given for Thursday, June 3rd, when the Bishop of Wakefield has kindly promised to give the address at each service. Any information as to details may be obtained from the Secretary of the Hospital Chaplain's Union, the Rev. A. G. Locker, St. George's Hospital, who is carrying out the arrangements, or communications may be made to Canon Burnside, Rector of Hertingfordbury, Hertford.

### MALARIA AS A CAUSE OF OTITIS.

MR. THOMAS H. AQUINO, L.M.S., F.C.S. (Assistant-Surgeon, Gadag, Dharwar District, India), writes: The following notes of a case of otitis in a European officer are of interest as pointing to malaria as the *causa morbi*. The prominent symptoms were, briefly, intense pain in the left ear, of a throbbing character, radiating over the side of the head, and rendering sleep and rest quite impossible, despite large doses of sedatives and hypnotics. Examination of the ear with Brunton's otoscope revealed a clear but sensitive meatus, and hyperæmia of the tympanum, with slight bulging. The symptoms only abated on the escape of a purulent discharge from the ear, treatment by hot fomentations, sedatives, etc., having completely failed to afford relief. For some time previous

to the attack the patient had been subject to violent headaches and sickness, alternating with periodical bouts of fever. The breakdown in health is attributable to the enervating influence upon the system of fifteen years' continuous residence in India, coupled with hard work. The discharge from the ear stopped after some days, and the perforation in the tympanum healed without resulting in impairment of hearing. There has been no recurrence of the disease, although more than a year has elapsed since the first attack, but the patient still suffers from headache, and the health generally is below par. Quinine having failed it now remains to be seen what a change to Europe will effect for the patient. I am not aware that malaria has ever been spoken of as a cause of otitis, hence my reason for making the case known.

### DOCTORS' BADGES.

DR. R. E. P. SQUIBBS (Nottingham) writes: A correspondent who suggests the adoption of a badge as an honour for medical men appears to recommend a practice which would have but little chance of becoming popular. It would, like the three-cornered hat mentioned some time ago, be somewhat too distinctive, whilst the different shades of colour necessary might prove bewildering. It is not by these means that the true interests of the profession are to be advanced. It is by those qualifications, in which it has shown itself inherently deficient, that dangers are to be met and overcome, namely, by combination, union, and co-operation. A radical but probably efficient remedy for the ills to which medical men are liable would be the yearly payment of a fee (say 21s.) for the licence to practise, as is done by solicitors. This would raise the tone of the profession, and give it that coherence which is now lacking, whilst at the same time a sufficient sum of money would be provided successfully to safeguard its interests.

### CANVASSING EXTRAORDINARY.

A CORRESPONDENT desires to call the attention of members of the medical profession to the following facts: In 1895 a man called on him as a canvasser for what appeared to be a debt collecting association, but our correspondent refused to have anything to do with him. During the last six months, however, he has received several letters from the association in question, demanding payment of two guineas, and threatening the alternative of legal proceedings. In answer to the inquiry as to the ground of the claim the reply was that it was for "membership premium as per signed agreement." Knowing that he had never signed any paper whatever in the matter, our correspondent called at the offices of the association and asked to see the agreement, and found that his name had been filled in by some person entirely without authority, and presumably by the canvasser, and on pointing this out to the secretary he was met with the statement that they were not responsible for their agent's actions. Our correspondent adds that precisely the same thing happened to a friend of his practising in his neighbourhood, the sum claimed being three guineas; a lawyer's letter also being employed in his case. On being interviewed, the firm said it was a mistake. It would be interesting to know if this energetic canvasser has called on other medical men, and at any rate our correspondent thinks that it may be useful to his brother practitioners to be informed of his experiences.

### "OCULISTS AND OCCULTISTS."

MISPRINTS are strange perverters of the truth. In a contemporary's notice of a work by Mr. W. B. Yeats we read that in one of the stories, the "Rosa Alchemica," it is told "how some modern oculists practised their rites somewhere on the coasts of Galway." "Oculists" should be "occultists." The oculist is not a figure in romance, with the exception of Hubert in "King John."

### AN OPTIMISTIC CORONER.

AN inquest on the body of a man employed at a brewery, who had died somewhat suddenly, was recently held at Stroud. In evidence it came out that the deceased had been drinking freely, and a verdict was returned in accordance with this evidence. The coroner remarked that he was glad such cases were rare. Stroud must enjoy an exceptionally happy sobriety, or the coroner must have an optimistic turn of mind, for one lament of coroners for many years past has been that deaths from excessive drinking are, unhappily, too frequent.

### AMERICAN FEMALE MEDICAL STUDENTS AT VIENNA.

THE Vienna correspondent of the New York *Medical News* says that despite the fact that women are not admitted to university courses in Vienna, American women doctors have for fifteen or twenty years found it well worth the while to go their for advanced work. "Not every opportunity that they might wish has been open to them, but their own sterling common sense, their readiness to work, their general appreciation of what was done for them, and, one must add, their thorough intellectual qualities, added more and more to their opportunities, until now there is scarcely any privilege that they cannot have for the asking. Conservatism still has its hold, however, and to some of the professors' courses not even American doctoresses have been able to gain an entrance. It has not been because they have not tried hard enough though. One wonders whether, after the graceful bow of the University authorities to the Imperial wishes [by admitting the Baroness Possaner von Ehrenthal to the doctor's degree as recently announced in the BRITISH MEDICAL JOURNAL], this remaining exclusiveness will not finally vanish."

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LETTERS, COMMUNICATIONS, ETC., have been received from:

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## BOOKS, ETC., RECEIVED.

Year-Book of the Scientific and Learned Societies of Great Britain and Ireland, 1897. London: Charles Griffin and Co. 1897. 7s. 6d.

The Chances of Death, and other Studies in Evolution. By Karl Pearson, M.A., F.R.S. Vols. i and ii. London: Edwin Arnold. 1897. 25s.

The Blight of Respectability. By Geoffrey Mortimer. London: The University Press. 1897. 2s. 6d.

Mitteilungen aus den Grenzgebieten der Medizin und Chirurgie. Herausgegeben von J. Mikulicz, und B. Naunyn, Erster Band, Fünftes Heft. Jena: Gustav Fischer. 1896.

Die Schwerhörigkeit durch Starrheit der Paukenfenster. Von Dr. R. Panse. Jena: Gustav Fischer. 1897. M. 8.

Hoppe-Seyler's Zeitschrift für physiologische Chemie. Herausgegeben von Professor A. Kossel. Band xxiii. Strassburg: K. J. Trübner. 1897.

Excretory Irritation and the Action of certain Internal Remedies of the Skin. By David Walsh, M.D. London: Baillière, Tindall, and Cox. 1897. 3s. 6d.

Säuglingsernährung und Säuglingsspitäler. Von Dr. O. Heubner. Berlin: August Hirschwald. 1897. M. 1.60.

The Insane Poor in Private Dwellings and Licensed Houses. By J. F. Sutherland, M.D. Edinburgh: E. and S. Livingstone. 1897. 6d.

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# OBSERVATIONS
ON
# BRONCHO-BILIARY FISTULA.

(WITH THE REPORTS OF TWO CASES).*

BY J. E. GRAHAM, M.D.,
Professor of Medicine and Clinical Medicine, University of Toronto.

AT the meeting of the Association of American Physicians in 1886, I presented a paper entitled: "Notes of a Case of Hepatic Bronchial Fistula;" I then gave the history of a case in which a complete recovery seemed to have taken place. It is my present intention to describe the further progress of this case, and to give a summary of the literature relating to the subject, especially that which has appeared during the last ten years. A brief account of the previous history of the patient, as it was recorded in my former paper, is necessary to the proper understanding of the case. The following notes were made in the spring of 1887:

S. H., aged 33, paper-box manufacturer, married, father of two healthy children. Patient is temperate and regular in his habits, and has never suffered from any form of venereal disease. He has had but one illness, which occurred three years ago. This attack may have some bearing upon his present condition. He was seized with pain in the region of the gall bladder, which passed around to the back. He suffered from ever, but had no jaundice. The treatment employed was principally of a palliative character. Hot fomentations were applied locally, and sedatives given. Patient was in bed three weeks, and the attack lasted altogether about six weeks. He complained, however, both before and afterwards of pain in the hepatic region. He recovered completely, and remained quite well until the commencement of the illness about to be described. In the latter part of November, 1886, he was seized with coughing and pain in the right hypochondriac region, at a point 3 inches to the right of the median line, and a little below the margin of the ribs. He was also troubled with nausea and vomiting. The vomited matter had a greenish-yellow transparent appearance. These symptoms began on November 27th, and continued until December 2nd, when he first saw Dr. Stark, who is his family physician, and who attended him during the previous attack. His pulse was then 120; skin hot and dry; countenance flushed and anxious; mouth, nose, and ears stained with the greenish-yellow matter he had been vomiting. He had had a severe chill during the previous night. Temperature not taken. Treatment: quinine, hydrobromic acid, and compound tincture of camphor.

December 3rd. On examination of the chest, the area of hepatic dulness was found to be much increased, and a pleuritic friction sound could be distinctly heard immediately below the right nipple. The pain in that region was very severe: the patient complained of most intense headache; his face continued flushed: pulse 140; temperature 104°. He continued vomiting freely; bowels constipated; urine high coloured. During the evening he began to cough up bile.

December 4th. Patient coughed up bile freely, and complained of a burning sensation in the right side. He always had to cough several times before the bile came up. The bile was of a dark green colour. Temperature 102°; pulse 100; pain less severe; headache less intense.

He continued in this condition until December 9th, when I saw him, in consultation with Dr Stark. He was then lying in bed with his head and shoulders raised. Pulse 108; respiration 22; temperature 102; face flushed, skin slightly jaundiced. He coughed up bile at short intervals. During my visit he had two or three spells of coughing. He brought up each time a large tablespoonful of bile. It never came without coughing. A half cupful was collected that day, and sent to Professor Hayes for analysis. He reported it to be pure bile, and used it as a specimen for testing in his physiological chemistry class. The urine was also found to contain a small quantity of biliary colouring matter.

On examination of the chest and abdomen I found that the depth of hepatic dulness on a line below the right nipple was 6½ inches. A friction sound was heard over the upper surface of the liver in front. Coarse mucous *râles* were also heard over the anterior region of the right chest. On examination of the posterior region no abnormal sounds were heard; no dulness, no *râles*. So far as could be discovered the physical signs existing were: increased hepatic dulness, friction sounds, and *râles* over the anterior and lower portion of the chest.

From this date the patient gradually improved. The amount of bile became every day less, and ceased rather suddenly on December 19th, ten days after my visit. His cough ceased at the same time. He went back to work on January 1st, 1886.

During the attack the bowels were constipated, and when moved by a cathartic the motions were of a light greyish colour. Patient remained well until April 13. When riding in a street car he commenced to cough, and on going out on to the platform he felt a choking sensation, and expectorated matter similar to that coughed up in the winter. This was not examined by the physician. He felt no pain, and after a few days' rest resumed his work. The cough and expectoration continued for two days, and then ceased. During the attack he enjoyed fair health.

On April 21st the patient was carefully examined by Dr. Stark and myself. He was now quite free from cough, and presented a very healthy appearance. He was able to do an ordinary day's work. Pulse and temperature normal, and tongue clean; in fact, he seemed to be in excellent health. On examination of the chest we could find no abnormal condition. The area of hepatic dulness was normal, and there were no friction sounds or *râles*.

After this period (April, 1887), for a period of over ten years, the patient enjoyed good health. He had attacks of alternating constipation and diarrhœa, and during the latter part he noticed that the stools were light coloured. He also suffered almost constantly from an itching of the skin, which was not so severe as to prevent his sleeping.

In the early part of May, 1896, he noticed that his skin was becoming jaundiced, but did not consult a physician until the middle of the month. Late in the evening of Saturday, May 31st, he felt a severe pain in the right side in the region of the gall bladder, which gradually became worse, and on the following morning he was seen by his physician.

Soon after the commencement of the pain he coughed a greenish fluid, which was, no doubt, partly composed of bile. He remained in bed a month, and after getting up he noticed that his urine, which had previously been high coloured, had now a dark red tint. This passed away in two weeks' time. The attending physician thought that this change was due to the presence of blood, but neither a chemical nor a microscopical examination was made.

About the middle of July, 1896, the great toe of his right foot became swollen and very painful. The pain and swelling extended up the limb and became very severe. This lasted two weeks, and shortly afterwards his left shoulder became swollen and painful, a condition which continued three or four days. He was not troubled with pain in any of his joints before, nor has he had an attack since.

He continued to cough up bile from May 31st until November 22nd, with the exception of two or three days, when he expectorated a large amount of mucus. The amount of bile varied from a few ounces to 2 pints. The skin during that time, although not normal in colour, was not remarkably jaundiced. On the days when the biliary expectoration ceased he noticed a return of the jaundice, both in the integument and in the conjunctiva.

November 20th, 1896. Digestive system: The tongue was somewhat swollen, and covered with a yellowish green film. His appetite was good, and he could eat any ordinary food without inconvenience. Sometimes a disagreeable feeling of fulness in the stomach was noticed after dinner. The passages from the bowels during the summer were lightish in colour, but in the last two weeks they became darker, and at this time were of a slightly greenish tinge. On physical examination the abdomen was found slightly distended and tympanitic on percussion. The relative hepatic dulness in the nipple line commenced at the lower border of the fourth rib, and absolute dulness at about the seventh. The lower margin of absolute dulness was found in the nipple line at about 2 inches below the margin of the ribs. The lower line of dulness commenced on the left side at the seventh costal cartilage, about an inch from the left border of the sternum, passing downwards to the right to a point at equal distance from the ensiform cartilage and the umbilicus, and a little to the right of the median line. It then passed horizontally to the junction of the cartilages of the ninth and tenth ribs of the right side. A distinct swelling was noticed below the costal margin, which was more or less tender, and felt somewhat elastic. The patient complained at times of pain in the gall-bladder region, extending toward the umbilicus. The spleen was not enlarged.

*The Respiratory System.*—The patient had spells of coughing, which recurred at regular intervals, and were more distressing when he was in a recumbent position. The sputum contained bile and mucus. No pus was found. The chest was well developed and normal in shape. Expansion normal on both sides. The vocal fremitus was slightly increased on the right side. Dulness on percussion extended upwards from 1 to 2 inches above the normal limit between the mid-axillary line and the sternum. From the mid-axillary line to the spine, the lower margin of pulmonary resonance was in the normal situation. *Râles* of various kinds—sibilant, sonorous, and coarse mucous were heard in the right side below, from the mid-axillary line to the sternum. A friction sound of a creaking character was also heard in front. The impression given by physical examination was that the portion of the lung in front between the mid-axillary line and the sternum was probably the part through which the fistula passed.

*Genito-urinary System.*—No pain or difficulty in passing water. Analysis of urine: specific gravity 1020, reaction acid, albumen and sugar absent, bile pigment present in small quantities, no casts.

Facial expression comfortable when not troubled with cough, but during an attack of the latter the face became livid and the lips cyanosed. The blood was examined microscopically, and found normal. His temperature was taken night and morning for a week, and was often subnormal and never higher than normal.

November 12th. The patient was examined by Drs. Teskey Sweetnam, Stark and myself, and the liver and gall bladder were much palpated and percussed. For some days after the examination the patient ceased coughing up bile, and the jaundice was not increased. At the same time the stools became more coloured. The manipulation of the gall bladder appeared to assist the passage of bile through the natural channels.

In December and January the patient again coughed up bile as he had done during the previous six months. The amount coughed up in twenty-four hours varied from a-half to two pints. It was mixed with frothy mucus. Chemical examinations were made several times, when Gmelin's test showed the presence of bile. The general health of the patient had slowly declined during the summer, and in December he became much weaker.

* Contributed to the Association of American Physicians, at the Fourth Triennial Medical Congress, Washington, May, 1897

At the consultation on November 12th an operation was advised, to remove, if possible, the obstruction, so as to allow the bile to flow through the natural channels, and, if this were not possible, an opening between the gall bladder and some part of the intestines was spoken of.

The patient decided to have an operation done, and on January 26th Dr. Sweetnam operated, assisted by Dr. A. H. Wright and Dr. Stark. I am indebted to Dr. Sweetnam for the following notes:

"The abdominal incision, 6 ins. in length, was made in the right semilunar line. The muscles gave evidence of previous infiltration, and the fasciæ, when divided, passed rapidly out of sight, leaving a widely gaping wound. The peritoneum was deeply injected and the intestine distended and adherent. The fundus of the gall bladder was packed round about, and aspirated 6 or 7 ozs. of dark-coloured bile being secured. The common and hepatic ducts could be felt distended with gall stones, the ducts measuring something over ½ in. in diameter. As bile of fair colour kept oozing up through the wound in the gall bladder made by the aspirating needle, the obstruction in the hepatic and cystic ducts was thought to be but partial. As the gall bladder was deep set and separated by several inches from the abdominal wall, and the patient was coughing more or less constantly, it was not thought possible to bring about adhesion of the gall bladder to the abdominal wall. Owing to the distended and adherent condition of the intestines, and the known tendency of the patient to bleed, it was decided not to disturb the adhesions and incise the cystic and hepatic ducts, especially as this would involve leaving the abdominal wound partially open for drainage with the risk of having a loop or loops of intestine forced out by the violent and prolonged coughing. The wisest course under the circumstances seemed to be to do a cholecystenterostomy, which was done, making use of the hepatic flexus of the colon instead of the duodenum with the hope that the gall stones, which appeared to be small in size, would gradually find their way into the gall bladder, and on through the newly-formed opening into the bowel. The patient died on the twelfth day from hæmorrhage from the nasal mucous membrane, the stomach, and gall bladder."

Patient did fairly well until about the sixth day after the operation. During the first three or four days he continued to cough up large quantities of bile, but after that the amount was not so great. The cough was very distressing, so much so that on the third day during one attack the sutures were torn through the abdominal walls and had to be replaced. On the sixth day the patient coughed up matter having a disagreeable odour, which suggested the possibility of bowel contents, but the sputum was examined for the bacillus coli communis and it was not found.

The temperature gradually rose and evidences of pneumonic consolidation developed in the anterior and lower part of the right lung. On the eighth day he coughed up some blood; afterwards the cough became more constant and the hæmoptysis more marked. The sputum at times was largely made up of blood and bile; on the ninth day the amount of blood was increased, on the tenth coagula appeared in the sputum. On the same day patient had a severe attack of epistaxis; this continued for some hours, and plugging of the nostrils became necessary. On the eleventh day the cough and hæmorrhage ceased, but returned to a slight extent on the twelfth day. Death took place on the twelfth day after the operation. During the last few days of his life blood passed in large quantities from the bowels, and during the last week patient became intensely jaundiced. The temperature did not rise above 100° except on one occasion, when it reached 101° F. In the latter part of the illness the blood became more fluid.

I regret very much that it was quite impossible to obtain a *post-mortem* examination.

In my opinion, we may safely conclude that in the former illness, which occurred ten years ago, the obstruction to the flow of bile was of a temporary character, and on its removal the sinus to the bronchus closed. It would appear, however, that this closure, although it lasted ten years, was easily overcome, because in the last illness the patient expectorated bile very shortly after the symptoms of acute biliary obstruction made their appearance. In the latter attack the obstruction was of a more permanent character—calculi lodged in the common bile duct. It was not, however, complete at all times, as shown by the coloration of the stools.

Death was due to several causes. The constant coughing disturbed the parts operated on, and the hæmorrhage probably took place from a congestion of the gall-bladder mucosa. At the same time the sinus through the lung became closed either by blood clot or pneumonia, so that only a small amount of bile was expectorated. The patient then became intensely jaundiced, a condition which accounted for the general hæmorrhage which supervened. There were no special signs of any terminal infection except the pneumonia. In such rare cases one cannot foresee the results of surgical interference, but this case showed that it was necessary to make at once a free opening for the bile to pass in some safe direction, so that the patient might have rest from coughing. Then in making an opening between the gall bladder and any part of the intestinal tract, the possibility of a regurgitation of the contents of the canal into the biliary passages and then into the lung ought to be considered.

Under the head of fistula between the biliary passages and pleura or lung, Courvoisier mentions the fact that such fistulæ are rare, and usually result from tropical abscesses of the liver. Besides those produced in this way, Courvoisier tabulated 24 cases. I have collected 8 which occurred since the publication of Courvoisier's work: these with the 1 now given and 1 of Barth's make 10 cases, or 34 altogether. Of Courvoisier's 24 cases 6 were described during life, and the diagnosis in each was confirmed by the presence of bile in the expectoration. Recovery took place in all. In 2 of the 6 cases no cause was discovered; the origin in 1 was thought to be a calculus obstructing the hepatic duct. In 1 case hydatids without abscess, and in the remaining 2 hydatids with suppuration were present. In the 18 fatal cases *post-mortem* examinations were made. Echinococci were found in 6, and in 2 cases ascarides were the cause of the perforation. Ten were cases of cholelithiasis, and in 4 of them the right lung was adherent to the diaphragm, and the fistula was found within the adhesion; in these cases there was no pleural effusion. Since they more nearly resemble the case described by me, I will give briefly the pathological condition found in 3 of the cases.

1. *Bristowe's Case* (*a*).—Patient, a female, aged 32, suffered from intense jaundice and other symptoms of hepatic diseases. A few days before her death she commenced to cough up bile. At the *post-mortem* examination the lower part of the right lung was found adherent to the diaphragm. It had a leathery, tough consistence, and was slate-coloured. A fistula was found passing through the diaphragm, and communicating with the bronchial tube. The common bile duct was obstructed by a calculus. Dilatation, suppuration, and destruction of the hepatic ducts were observed. Cavities existed in the liver, some as large as hen's eggs. One of the latter, the largest, was situated at the convex surface of the right lobe and communicated with the lung. The contents of this, as well as of the other cavities, were soft, pulpy, and of an olive-green colour. The diaphragm was firmly adherent to the liver and lung, and presented an opening which corresponded to the opening situation of the abscess.

2. *Dreschfeld's Case* (*b*), which was described in my former paper, and which more closely resembled the one now under consideration than any one of the tabulated cases.

3. *Gaston's Case* (*c*) (Atlanta, Georgia).—The patient, a middle-aged man, suffered from symptoms of biliary obstruction, and a few days before death began to cough up offensive bile much stained. At the *post-mortem* examination the common bile duct was found to be completely occluded. "A collection of disorganised bile and serous exudation, which was doubtless confined in the dilated sac of the gall bladder, had made its way into a cavity found between the upper surface of the liver and the lower surface of the diaphragm, and extended through an aperture into the pulmonary tissue. The flow of the offensive matter into the bronchial tubes seemed to be the immediate cause of death.

4. *Laboulbène's Case* (*d*).—Male, aged 41. Enlargement of the liver. Broncho-biliary fistula. Spontaneous cure.

October 4th, 1875 The patient when in good health went on a journey, and while away was seized with a violent cough, and expectorated a greenish fluid, which had an offensive odour, and contained pure bile. This continued until the following March, when he was admitted into the hospital. He improved under treatment, and in May was discharged quite well. Mucous *râles* were heard over the right lung.

The following six cases of broncho-biliary fistula have occurred since the publication of Courvoisier's book.

1. *Carter's Case* (*e*).—A woman, aged 70, had good health, with the exception of occasional severe spasms in the hepatic region. Four years before the notes were taken she had suffered from biliary colic, followed by jaundice. These attacks recurred every five or six months until July, 1888, when, after a severe paroxysm of pain, jaundice supervened, and became persistent. A month after this the patient had what seemed to be bronchitis, during which she coughed up large quantities of bile. Moist *râles* were heard in the lower half of the right lung, but there was no tenderness in the right hypochondrium. The expectoration of bile continued with occasional intervals until April, 1889, when the patient gradually sank and died. A *post-mortem* examination was not made.

2. *Adam's Case* (*f*) is of special interest in this connection. The patient, aged 70, had for six or seven previous years severe attacks of jaundice, lasting a week, and then passing away. In January, 1889, jaundice appeared, accompanied by moderately severe pains in the hepatic region. These symptoms persisted until July of the same year, when severe pain was experienced in the region of the liver. Two days afterwards the pain ceased, when she coughed up bile. Patient could not lie down on account of the severity of the cough. Signs of acute bronchitis were present in the right lung. Temperature normal. No change in right hypochondrium. Patient continued to expectorate bile during the next four days, when the jaundice partially disappeared. Consolidation of the right lower lobe then took place, and the expectoration of bile ceased. The patient became intensely jaundiced, and the distended gall bladder could be felt below the liver. Death from cholæmia and marasmus. No *post-mortem* examination. In this case the immediate cause of death appeared to have been the complete closure of the broncho-biliary fistula by the pneumonia and the subsequent cholæmia.

3. *Colvée's Case* (*g*).—A general in the army who had been some years in the tropics, and had suffered from hepatic disease, the result of malaria. For four years he had attacks of bronchitis, and on October 7th, 1889, he was seized with a severe pain in the hypochondrium, accompanied by fever and vomiting. After some days he commenced to cough up bile. This continued until May, 1890, when the notes were written. The patient on several occasions coughed up small biliary calculi, which fell into the spittoon with a distinct noise. They were not examined chemically. The author concluded that the patient suffered from hepatic calculi, which had been the centre of an abscess that perforated the diaphragm into the lung.

4. *G. C. Macdonald's Case* (*h*).—The patient, a male, aged 49, commenced to cough up bile in the latter part of March, and this continued until June, when it gradually ceased. On June 1st, the patient coughed up three small gall stones, two of which were faceted about the size of a

split pea. The other ½ inch long, and ½ inch in diameter formed the mould of a tube. The patient ceased expectorating bile, and rapidly recovered his health. He had syphilis, and potassium iodide was given at the same time.

5. *Visserung's Case* (*i*).—The patient, a male aged 30 (?), suffered from pain in the right side in the cæcal region. The seat of pain moved afterwards to the under surface of the liver. Signs of pleurisy were discovered, and shortly afterwards the patient began to cough up foul-smelling pus and bile. Jaundice, which had previously existed, now disappeared. About two months subsequent to the commencement of the bilious expectoration, the patient coughed up a gall stone the size of a bean, of a brownish colour and with a roughened surface. After this the biliary expectoration ceased, and the patient recovered gradually. When the report was made, the patient could take outdoor exercise.

6. *Cattani's Case.*—A female, aged 48. Previously in good health. Suffered at first from pains in the hepatic region, and from digestive disturbances. She afterwards coughed up bile and pus. Sometimes lung and liver tissue and striated muscle fibre were found in the expectoration. Patient suffered from jaundice, and a tumour was noticed in the hepatic region. An inflammatory process followed by suppuration began in the liver and extended through the diaphragm into the lung. Cattani gives a most exhaustive account of the case. Patient recovered. The probable cause was calculi in the common duct.

The cases which I have collected in addition to those of Courvoisier are 10 in number, including the one now reported. All of these were published since 1889, except those of Barth's (*j*). Of these 2 were due to hydatids, and the remaining 8 to biliary calculi.

The diagnosis of broncho-biliary fistula is not difficult. There are cases of pneumonia and bronchitis occurring in connection with jaundice when the expectoration is stained with bile. When a fistula is present the amount and purity of the bile are sufficient to render the diagnosis certain. The bile is sometimes expectorated in very large quantities, as high as 700 c.cm. per day.

The physical signs have been very uniform in the cases described. Dulness, which in some extended as far back as the mid-axillary line, and forwards and inwards to the margin of the sternum and upwards as far as the third intercostal space. In one case, Laboulbène's, dulness was marked over the posterior part of the right lung. Roughened breathing, somewhat bronchial, was heard over the same area, and in most instances loud mucous *râles* were also heard. The cough is usually a very distressing symptom, and in many cases the patients were not able to lie down on this account. It is probable that so long as the bile is passing through the right lung in large quantities, it may, when the patient is in a recumbent position, find its way out through the left lung, thus interfering with respiration.

According to the pathological reports broncho-biliary fistula in cholelithiasis, may begin in three or four different ways:

1. The occlusion of the common bile duct by a calculus may be followed by a suppurative cholangitis, and the formation of abscesses in the liver. A large one near the convex surface may extend upwards through the capsule and diaphragm into the lung. Adhesive inflammation preceding the extension of the abscess would prevent entrance of pus into the pleural cavity.

2. After the closure of the ductus communis choledochus intrahepatic calculi may form and become the centre of an abscess, which, if it exists near the convex surface of the liver, may find its way into the lung in the way already described.

3. One or more gall stones from the gall bladder or larger bile ducts may perforate the liver and diaphragm into the lung. The writer, not long ago, was present at a *post-mortem* examination of a gall-stone case, in which an abscess about the size of an orange was found in the right lobe of the liver. The cavity, which nearly perforated the convex surface, was continuous with that of the gall bladder. It contained a large number of calculi. In such a case one can easily understand that by a continuation of the process a broncho-biliary fistula would be established.

4. It is quite possible that a gall bladder in a state of inflammation may rupture and a circumscribed abscess result, which may be situated on the upper surface of the liver, between it and the diaphragm, and that the abscess may perforate the diaphragm into the lung or pleural cavity.

Laboulbène mentions the possibility of bile passing directly from the gall bladder into the bronchi, and quotes two cases in which a communication was found between the gall bladder and an abscess cavity on the convex surface of the liver. Courvoisier mentions four cases in which this direct communication existed. In one of these the abscess ruptured into the mediastinum, and then into the right bronchus; and in another it perforated directly into the lung. In the other two empyema was also present.

The aseptic non-irritating character of the bile is well exemplified in these cases. In some the fistula lasted several months without exerting any injurious effects on the lung, while in those in which pneumonia supervened there was evidence of septic infection.

When the fistula is once formed, the passage of the bile upwards is not so difficult as might be imagined. The pressure of the diaphragm downwards in respiration favours the flow of bile into the bronchus, and the coughing assists it further.

The second case which I wish to present to the Association is one, perhaps, of greater interest to the surgeon than the physician, since the broncho-biliary fistula was formed after an injury.

The patient, a young man, aged 25, had enjoyed excellent health up to the time of the accident. There was no history of biliary colic, no syphilis, and no tuberculosis. He was kicked by a horse, January 28th, 1897. The blow was received over the cartilages of the fifth, sixth, seventh and eighth ribs. He was standing at the time, and was not knocked down The contusion was not marked, nor the cartilages injured. He felt immediately a severe pain beneath the part struck, as well as in the right shoulder. He was able to walk to the house, and since his sufferings rather increased than diminished, Dr. Thomson, of Galt, was sent for. He arrived about four hours after the accident, and found the patient suffering from most severe pain of a spasmodic character, both in the hepatic region and in the shoulder. The stomach was very much distended, and he had frequent eructations of gas, which seemed to relieve the pain. He at the same time expectorated mucus tinged with blood.

A hypodermic of morphine was given which relieved the pain. It was necessary to continue the morphine for four days after the accident. At the end of that time pneumonia developed in the lower and anterior part of the right lung. After about a week's time the inflammation of the lung subsided, but the consolidation did not altogether disappear. Fluid then formed in the right pleural cavity.

The patient began to cough up bile about February 15th. The quantity was small at first, and came up after a severe attack of coughing. Subsequently it came up in larger quantities, and with less effort. The amount of bile and mucus expectorated in twenty-four hours was never more than a pint, and as a rule much less. On February 23rd the right pleural cavity was aspirated, and about a pint and a half of bile stained with serum and pus was drawn off. On the following day an opening was made and a drainage tube introduced. For some time the bile-stained fluid made its way through the tube, but after a week or so the green colour disappeared. So that now (April 8th) a small quantity of serous purulent fluid escapes from the opening.

The expectoration of bile increased after the operation. Jaundice was not present at any time. After the operation the temperature fell to normal, and remained but slightly raised for a week, when it again began to ascend. At the same time an increased area of dulness was observed in the hepatic region, and on aspiration about a pint of bile and mucus was drawn off.

On March 2nd a second operation was determined on, and an oblique incision was made from the mid-axillary to the anterior axillary line, and portions of the sixth and seventh ribs were removed. A second drainage tube was introduced directly below the first, through which mucus and bile flowed. After the second operation the stools for the first time became colourless.

The patient was seen by me on April 8th, when the following conditions were found. He was pale and somewhat emaciated, and could sit up with difficulty. He did not complain of much pain when quiet. The posterior portion of the right chest did not present any abnormal condition except that the pulmonary resonance extended only to the ninth interspace. On the anterior surface resonance was normal as far down as the fourth rib, and then absolute dulness was observed down to the sixth rib; below the sixth rib to the costal margin a tympanitic note was present. The resonance on the right side was noticed over an area very similar to that of Traube's semilunar space on the left side. On the right side the line of the incision from the fourth rib to the eighth was plainly seen. Two openings were present in which were drainage tubes; the upper opening through the sixth intercostal space in the anterior axillary line gave vent to a small quantity of pus; the lower opening through the seventh intercostal space nearer the mid-axillary line gave exit to a green-coloured fluid composed of bile and mucus. When the drainage tubes were removed, and the patient coughed, the quantity flowing through both openings increased, and bubbles of air or gas produced a foam. The amount of gas which passed through the lower opening was much greater than that through the upper. The openings did not communicate with one another, since fluid injected into one never passed out through the other. At various times during the progress of the case the bile flowed in the different channels: (1) through the bronchi, (2) through the pleural cavity and out of the upper opening, (3) into a cavity on the convex surface of the liver and through the lower opening, (4) through the common bile duct. When I saw the patient on April 8th the bile passed upwards through the lungs and outwards through the lower opening.

After the second operation Dr. Thomson remarked that the patient suffered from severe pain in the right shoulder when the finger was introduced into the lower opening. He also noticed that the bile flowed in larger quantities after a quarter of a grain of calomel had been given every hour for five or six doses.

The history points to a partial closure of the common bile duct, and to the existence of a cavity beneath the diaphragm, which was either a distended gall bladder or an abscess with which the gall bladder communicated freely. Direct communication also existed between the biliary passages and the pleura and bronchi. Before the second opening was made the obstruction in the common duct was apparently not so complete but that it was overcome, and the bile passed into the duodenum. Afterwards the exit through the chest wall was easier, and the bile ceased flowing through the natural channels.

It is difficult to make an accurate diagnosis in such a case as this. There is no doubt a displacement of the liver backwards, so that the anterior border with the fundus of the gall bladder were brought into close contact with the diaphragm. A rupture of the diaphragm may have taken place at the time of the accident. This would account for the very severe pain and possibly for the pulmonary hæmorrhage. If the diaphragm had been ruptured one would have expected greater shock. Direct contusion of the lung might have accounted for the pulmonary hæmorrhage.

Cases of laceration of the liver have been described which were followed by little hæmorrhage, although the opposite is the general rule. Such lacerations have been known to occur from very slight injuries. A blow which is not heavy enough to produce much contusion of the skin may cause laceration of the liver. One case is mentioned where a quick turn in bed when the patient was very much frightened was the only cause which could be discovered for a laceration in the posterior part of the right lobe of the liver.

Dr. Peters[2] reports a case in which a blow over the liver resulted in perihepatitis and pleurisy on the right side. Dr. Peters thought there had been a wound of the liver substance. There was no interference with the biliary functions.

Drs. Thomson and Wardlow, of Galt, to whom I am indebted for the history of this case, have recently (April 26th) written to me that the patient is slowly recovering. The bile passes largely into the bowel, and the stools have become normal in colour. The patient coughs up very little bilious fluid, and very little finds its way through the lower opening.

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ITALIAN MEDICAL CONGRESS.—The Società Italiana di Medicina Interna will hold its eighth congress at Naples in October next under the presidency of His Excellency Professor Guido Baccelli, late Italian Minister of Public Instruction. In connection with the congress there will be an exhibition arranged in two sections—one of hydrology and climatology, the other of instruments and appliances used in medical practice for purposes of diagnosis and treatment.

# REMARKS
ON A
# CASE OF PANCREATITIS FOLLOWED BY CYST OF THE PANCREAS.

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CONCERNING disease of the pancreas there yet remains much to be made clear. Since the publication of the extensive studies of Senn[1] in 1885 and of Fitz[2] in 1889 our knowledge of these diseases has been added to chiefly by the reports of cases, each serving to demonstrate some special characteristics. The following case possesses some features that render it of special interest:

G. A. B., aged 53 years, a member of the Civil Service. His father had some liver affection, and died suddenly; his mother died of carcinoma of the breast. In all other respects the family history is good. His own history is good until 1891, when he had his first attack of what appeared to be biliary colic, lasting about one day, with well-marked jaundice and pale fæcal discharges; otherwise the attack was uneventful and recovery satisfactory. The jaundice disappeared within a few days. After this he had annually two or three similar but milder attacks. On the first threatenings of an attack he would call upon the nearest physician for a subcutaneous injection of morphine and then return to his official duties. Each physician of whom he sought relief accepted the diagnosis of gall-stone colic, and advised operation; one assured him that he had a "gall bladder full of gall stones." During the winter of 1894-95 the attacks became more frequent and his health began to suffer, in consequence of which he obtained leave of absence and spent the summer at the seaside. While there the attacks recurred very frequently but were not severe, nor was there any jaundice. There was indigestion with considerable flatulence, and almost constantly some degree of discomfort in the epigastrium.

After his return home he was taken with a severe paroxysm of pain, with vomiting and prostration. This was the first occasion on which I saw him since his first attack in 1891. This attack was very severe, and not fully relieved until the third day. There was pain and tenderness in the epigastrium, from which pain radiated in various directions. Vomiting did not recur after the first day; the tongue was heavily coated; no appetite; considerable thirst; bowels constipated. There was slight jaundice and some bile pigment in the urine. The temperature was elevated for five days, rising as high as 101° F. There was fulness in the gall-bladder area, but tenderness was too great to permit of examination of the deeper parts. There was some pain across the back in the lower dorsal region.

He improved gradually, and in ten days—September 16th—he returned to the office. His digestion improved, the bowels being kept open with Carlsbad water, but there was considerable flatulence. The discomfort in the epigastrium persisted, with some tenderness; on deep pressure slight thickening could be made out about the head of the pancreas and extending to the left. He had occasional attacks of pain, many of them due to intestinal colic. For these he took half a grain of codeine from time to time. In the severe attack he lost flesh, and still continued to fail a little, but he was not emaciated. His complexion was of a peculiar ashy-grey colour.

On October 5th it was noted that there was an increase in the thickening in the deep part of the epigastrium to the right side; some tenderness. He was feeling ill, and had to cease work; but on the 8th, when next examined, a large, smooth, cyst-like tumour was found in the epigastrium extending from the right parasternal line to the left mammary line and downward to the umbilicus. The upper boundary was ill-defined; stomach resonance was above and to the left. It was most prominent to the left, where the percussion note was flat; there was slight resonance over the right part of it. (Fig. 1.) There was no increase of tenderness.

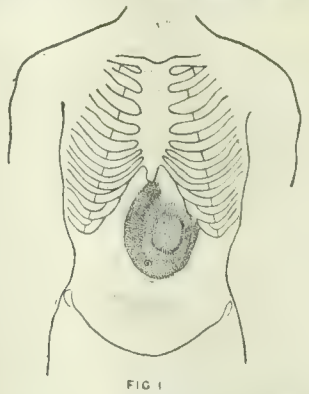


FIG 1

The temperature was 99.5° F.; pulse quiet. He was feeling quite ill.

From the sudden formation of the tumour and its situation it seemed evident that it was formed by fluid in the lesser peritoneal cavity, and on account of the absence of symptoms of hæmorrhage it was probably a

serous accumulation therein. On October 11th, Dr. Irving H. Cameron, assisted by Dr. George A. Peters, opened the cyst by an incision in the median line above the umbilicus, and evacuated a large quantity of clear straw-coloured serum. The stomach lay in front of the upper part of the cyst, and at the bottom lay the pancreas irregularly enlarged and firm, but somewhat elastic. The peritoneum over it was smooth and healthy looking. There was no sign of hæmorrhage anywhere. The liver, as far as could be examined, was healthy; the gall-bladder could not be reached.

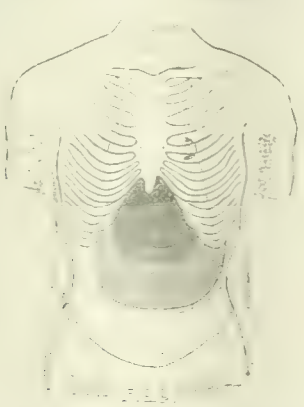
From the conditions found it was thought that probably there was malignant disease of the pancreas, with some inflammation, to which the exudate was due.

The incision was closed without drainage. Next day there was extreme prostration. Pulse 130; temperature 101.8° F.; marked cyanosis and irritable cough, with a little ropy mucous expectoration.

On the following day (13th) he was much better, and continued to do well until the 17th, when the temperature rose to 102°. It fell next day. The stitches were removed on the 18th; the union appeared healthy. The general condition improved satisfactorily, but the discomfort in the epigastrium required the subcutaneous injection of morphine every night. On the 30th the upper part of the incision opened and discharged half an ounce of thin white curdy-looking fluid. It came from a subcutaneous cavity to the right of the incision; there was no pain or tenderness about it, and little evidences of inflammation. It was slow in closing up. It was not an ordinary abscess; unfortunately, an examination was not made of the discharge. It is possible that it was due to an area of fat necrosis. After the removal of the dressings the deep tumour was found to have enlarged considerably.

On January 10th, 1896, the following note was made: He has improved so much as to be able to resume a moderate amount of his office duty. His face is thin, but has lost the ashy pallor and is of good colour. He is flatulent; the tumour is much larger: the stomach lies in front of the upper and left part of it, and is so compressed by it as to give a flat percussion note in the part overlying the tumour. By applying pressure at the left costal margin, and extending it to the right, gas can be forced through the pyloric orifice with a gurgling sound. The transverse colon crosses below the tumour. The urine is normal; it has always been free from sugar.

By March 12th the tumour had attained large dimensions, extending downward to the level of the anterior superior spinous process of the ileum, and laterally to the mammary line on the right, and the anterior axillary line on the left. It forced the diaphragm upward, so that the impulse of the heart was in the fourth intercostal space. (Fig. 2.) Pos-



teriorly it extended into the left lumbar region, rendering it full and upward as high as the ninth rib, producing the signs of effusion into the left pleural cavity. Its anterior surface presented a prominent quadrilateral area above the umbilicus, over which the percussion note was flat. The tumour felt elastic, but did not fluctuate. There was no pulsation communicated to it by the aorta, nor did it move with respiration.

On March 13th Dr. I. H. Cameron, assisted by Dr. George A. Peters and Dr. F. R. Eccles, of London, operated. The incision was again made in the middle line in front, and a cyst exposed lying behind the stomach. There were no adhesions. The cyst wall was about 2 mm. thick. A large quantity of fluid was evacuated: the fluid was opaque, whitish, and contained many flocculi and fibrin masses. Dr. R. R. Bensley, of the University of Toronto, Biological Department, reported that "the fluid contained considerable albumin, and held in suspension large numbers of leucocytes of the hyaline polynuclear variety. The solid particles were fibrin flocculi, in the meshes of which were large numbers of the leucocytes. The fluid was slightly alkaline in reaction." This showed the fluid to possess no digestive ferment. On bacteriological examination the fluid proved to be sterile. A good recovery was made, and Mr. B. was able to walk out early in April. The cyst cavity contracted rapidly, but a fistula persisted, extending to the original depth of the cyst—5¾ inches—backward to upper part of left kidney. The discharge was free, and in April began to excoriate the surface about the opening. This trouble from excoriation has recurred from time to time since then.

It has been difficult to obtain a sufficient quantity of the discharge to test its digestive power. On one occasion, while Mr. B. was in London, there was a free discharge, which Dr. Eccles examined and found to possess marked action on albuminoids, fats, and starches, leaving no room for doubt as to the presence of pancreatic secretion. Lately, what fluid can be obtained is mixed with slight purulent discharge, so that the pancreatic ferment is rapidly decomposed. It dissolved fibrin, however, but this property may possibly have been due to bacterial products.

The general health is now good. The sinus still persists, the discharge being so great as to necessitate a change of dressing three or four times a day. There is no retraction of the epigastrium, and the probe passes still as far as it did after the cyst contracted into the sinus—5¾ inches.

From the foregoing history it appears probable that the cause of the repeated attacks of colic, during the five years preceding the formation of the cyst, lay in the pancreas. Of the precise nature of the condition giving rise to the disturbance we cannot be certain. It may have been a calculus or some localised inflammatory process. Such recurrent attacks of pain, protracted over long periods of time, have been ascribed to disease or irritation of the semilunar ganglia and the solar plexus; but the moderation of the attacks on the formation of the cyst and their complete relief by its evacuation point strongly in this instance to mechanical obstruction, whether by stone, cicatricial contracture, or external pressure. The attack of September 6th, 1895, was probably caused by acute pancreatitis; it was certainly not due to gall-stones.

To produce symptoms resembling biliary colic it is not necessary that the obstructing body should be hard and unyielding. Kümmel[3] reports a case with the symptoms of gall-stone colic with icterus, in which, at the necropsy, the pancreatic duct was found dilated and containing many rice-grain-like bodies of soft consistence. To these apparently the colic had been due. Körte reports similar experiences. Before the formation of a perceptible tumour some inflammation of the pancreas or the peripancreatic tissue occurred possibly in repeated attacks, one of which was more severe than the others, and extending to the omental bursa, caused sudden exudation into it. With the inflammation there seemed to be no hæmorrhage; at least, there were no signs of such either in the serum evacuated at the first operation or in the appearance of the elongated tumour occupying the situation of the pancreas. Nor yet did the constitutional symptoms present signs of hæmorrhage. If this be correct, then the case will occupy another class than any of those given in the admirable monograph by Fitz, in which he divides cases of pancreatitis into the three classes of hæmorrhagic, suppurative, and gangrenous. It is quite conceivable that acute inflammation of the pancreas may be produced without the occurrence necessarily of any of these results.

That the cyst was actually formed in the pancreas there is little room for doubt. The physical characters of the tumour found at the time of the first operation, occupying the situation of the pancreas, could scarcely be produced except by obstruction of the duct of Wirsung. The obstruction probably caused distension of the whole duct, and some of its branches, giving rise to the elongated, irregular tumour found at the time.

The character of the contents of the cyst and of the subsequent discharge from the fistula is worthy of remark. That the contents of the cyst contained none of the active elements of pancreatic secretion does not render it even improbable that the cyst was of true pancreatic origin, because these elements may have been present at an earlier period, and have become absorbed or destroyed. Nor, on the other hand, does the appearance of pancreatic secretion in the discharge from the fistula at a later date prove that the cyst was developed in the pancreas and not in its neighbourhood, for the fistula may communicate with some of the ducts of the pancreas, or the digestive activity of the secretion may be due to the products of bacterial growth. Many instances are recorded in which the contents of cysts in contact with the pancreas possessed both amylolytic and emulsifying properties.[4] Such cysts are probably more frequently found as the result of injury in which the pancreas is lacerated. It is important to note, however, that cystic or other fluid formed in any part of the body may possess considerable emulsifying and amylolytic power, as may also fresh normal urine.[5]

It is unfortunate that the term pancreatic cyst has been applied, especially of late years, to all varieties of cysts occurring in the neighbourhood of the pancreas. Many of these so-called pancreatic cysts result from accumulation of fluid in the omental bursa, or are formed in the transverse meso-colon. This is especially true of the cases following traumatism, and they constitute a large proportion, if not the majority, of all cases of cysts reported. On this account it is difficult to make satisfactory analysis of the cases on record, as it is impossible, for want of accuracy in the details given, to separate the cases of pancreatic cyst from collections of fluid in the lesser peritoneal cavity, the transverse meso-colon, and possibly in the adjacent structures.

Attention was drawn to these facts by Jordan Lloyd, in a valuable paper published in 1892,[6] in which he relates two cases of accumulation of fluid in the lesser peritoneal cavity, in one of which the middle two-thirds of a gangrenous pancreas was detached and lay free in the fluid. A similar case to this last one of Lloyd's was reported by W. W. Ashhurst, of Mexico, in 1894,[7] in which a piece of the pancreas lay at the bottom of the cyst cavity, whose contents were seropurulent. The case is recorded as a cyst of the pancreas. Pancreatic cysts always result from obstruction of the duct, with retention of secretion and subsequent dilatation of the duct; or, in case of a laceration of the gland, from escape of the secretion into its parenchyma, and the subsequent dilatation of the capsule into a cyst. Neither of these cases is consistent with such a pathology.

The close resemblance as well as the points of contrast of pancreatic cyst to effusion into the omental bursa are well brought out in the history I have detailed. Both cysts occupied the same area, but differed in shape, the peritoneal effusion extending less to the right and further downward, being somewhat irregular in shape, with its longest diameter nearly vertical, while the pancreatic cyst was somewhat quadrilateral in shape, with the long diameter transversely. The peritoneal effusion took place within a few days, more rapidly than a cyst could form in so firm and friable a structure as the pancreas; while the pancreatic cyst formed comparatively slowly, increasing steadily in dimension.

The constitutional disturbances attending the development of both kinds of cyst bear a very close resemblance, as indeed they should, because they would press upon and injure the same nerve structures—the solar plexus and semilunar ganglia. In the peritoneal effusion, as well as in the pancreatic disease, there may be pain, vomiting, and prostration; emaciation and anæmia may be much more marked than these symptoms would account for. The temperature is usually little disturbed in either affection, and may be subnormal throughout in both. In a case of supposed tuberculous disease of the lesser peritoneal cavity closely resembling pancreatic cyst, under observation a few years ago all these symptoms were very marked.[7] After the cyst was incised and drained recovery was very rapid, the sinus being completely closed in less than a month, with much retraction of the epigastrium. It is probable that herein lies a distinction between the true and false pancreatic cysts, the latter becoming closed in a much shorter time than required by true cysts of the pancreas, especially if some of the gland tissue remains communicating with the cyst cavity.

Some years ago Senn[8] pointed out that complete obstruction of the pancreatic duct uncomplicated by morbid changes in the parenchyma of the gland never resulted in the formation of a cyst, the pancreatic juice accumulating in the duct being removed by absorption. If, however, pathological changes have occurred in the gland, absorption of the fluid is interfered with, and gradual distension follows, it may be, to enormous proportions. In this case repeated attacks of inflammation of the organ probably took place, the most severe being in September, 1895, and a second one before the sudden distension of the omental bursa with serum.

It has been thought that true, as well as false, pancreatic cysts are due to hæmorrhage, and that the hæmorrhage results from a lesion of the sympathetic system.[9] The first proposition is doubtless generally true of cysts following traumatism, but of those originating apart from traumatic causes, in many—perhaps the majority—no hæmorrhage takes place. In the case here detailed is an instance of a true pancreatic cyst without hæmorrhage.

There is ample evidence in this case in the preservation of a good state of nutrition and general vigour, together with the absence of excess of fats and of undigested proteids in the fæcal discharges, and of any symptoms of diabetes, that a part of the gland remains intact, discharging its secretion into the intestinal canal, as well as furnishing to the blood the "internal secretion" peculiar to it, without which general metabolism would be deranged. At no time during his protracted illness did he apparently suffer from derangement of the function of the pancreas.

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# CLINICAL LECTURE

ON

# HÆMATURIA.

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I PURPOSE giving short clinical reports of a few cases of hæmaturia that have come under my observation, adding afterwards some general and individual remarks.

CASE I.—Mrs. M., aged 62, mother of four children, passed the climacteric with only the ordinary disturbances, and had fairly good health up to a few weeks ago. On October 27th, 1887, she passed a large quantity of blood. This has since continued intermittently for some days, but with no inconvenience; then, when seen, she had fever, temperature 102°, and quite a number of long rod-like clots (ureteral) The quantity of urine at this time was from 2 to 3 pints, and there was tenderness and enlargement of the kidney. The cardinal symptoms were here present—tumour, hæmaturia, pain (although the pain was not marked); the bleeding occurred from time to time. The bleedings did not seem to be dependent on any exercise or sudden movements; it would come on when she was lying quietly in bed. When blood was not present in the urine there was no albumen, or at times only a trace. On March 24th, 1888, ureteral clots again passed, but only occasionally after that. She gradually lost flesh, and presented the usual cachexia, but lived until April 24th, 1890—that is, for over two and a half years. As a rule, this patient during the greater part of her illness passed more than the average quantity of urine.

CASE II.—Mrs. B., aged 60, admitted August 6th, 1896, for ulcer of the leg, which was treated in the usual manner. On September 2nd, 1896, she passed considerable blood, which was more or less mixed with the urine, and which partly clotted at the bottom of the vessel. The patient was then transferred to me. Upon examination, the kidney was found tender and enlarged—quite a tumour—and displaced forward and internal to its normal position. It was not nodulated. On September 7th, 8th, and 9th she passed blood each day; on the 9th the clots were large, and the temperature went up to 102°. On the 11th and 15th she passed dark blood and clots; temperature 101°. On October 1st chill, temperature 103.4°, and ureteral clots like fish worms. The patient was passing at this time from 40 to 60 ounces of urine in twenty-four hours. On October 2nd, 3rd, and 4th blood in large quantities appeared. On October 5th she had a chill lasting thirty minutes, followed by elevation of temperature to 104.4°. Patient gradually sank and died on the 7th.

CASE III.—W. M., aged 42, and of tuberculous history, and somewhat below the normal weight, complained of pain and tenderness in the right renal region, which became aggravated at times. In addition he had slight hæmorrhages and several attacks of renal colic. The urine contained albumen and pus. He was driving with me at one time when an attack came on. It did not come on very suddenly, but gradually got worse, requiring anodynes and stimulants to enable him to continue his journey. The symptoms were those of stone, and my opinion was thus given; but more advice was sought, and it was thought advisable to determine whether bacilli were present or not. None were found in any examination of the urinary sediments. Inoculation was then advised. After cleansing of the meatus the urine was passed into a sterilised bottle and a portion of the sediment injected into the anterior chamber of the eye of a rabbit; when in four weeks the iris was clearly and plainly packed with tubercles, and a large deposit on the lens capsule. The diagnosis was thus established. Dr. Howard Kelly frequently detected in women which kidney was tuberculous by passing the ureteral catheter into both ureters, and then examining the urine of each kidney, when there were no indications by tumour or otherwise which kidney was affected.

CASE IV.—M. M., aged 19, of good family and personal history. On March 13th, 1891, he had pretty free hæmaturia, no clots, and blood intimately mixed with urine. Temperature 102°, and pulse 140. Aconite, citrate of potash, and buchu were prescribed. On my second visit the temperature was still 102°, but the pulse had fallen to 118. Quinine was then prescribed, 12 grains daily. The bleeding continued for three or four days, and the temperature then returned to the normal. The patient was anæmic from loss of blood, but in the course of six or eight weeks regained her usual health. In June, 1889, this patient also had an attack of hæmaturia, but I made no notes, and do not now remember whether she had an elevated temperature or not. Neither do I know what the treatment then was. She has never had any hæmaturia since.

CASE V.—Mrs. C., aged 27, mother of two children; no miscarriages; no uterine trouble except dysmenorrhœa. She had some bad headaches, suffered at times from rheumatoid arthritis, and had slight lateral curvature. Family history: One brother died of heart trouble; father died of angular curvature of the spine, at 33 years; mother alive and well, age 77; one sister in good health. September 16th, 1896, patient had some chills and fever. I first visited her on September 18th, and found a considerable amount of blood in the urine, uniformly mixed. Her temperature was then 102°. I immediately put her on Warburg's tincture, and in four or five days the temperature was reduced to normal, and the hæmorrhage had ceased. She has had no attack since.

CASE VI.—Mrs. J., aged 30, married; one child aged 6 years. She had complete laceration of the perineum, on which I operated June 13th, 1892, with good result. December 29th, 1894, I again saw her, and she com-

plained of irritable bladder, which had lasted for some ten or twelve months. She passed blood December 1st, 1893, small quantity. April 6th, 1896, again passed blood, and as far as I could find out at the end of micturition and accompanied with burning, smarting pain. She also complained of pain in the right renal region, and upon examination of the kidney it was movable and enlarged. She had chills, and temperature 102.5°. On April 18th it dropped to 100°. The treatment was quinine in full doses. On April 28th I gave her a belt to wear to keep the kidney up. October 1st, 1896, no blood since, but passed two little substances (not hard) like grains of wheat. There was pain in the right kidney, passing down to the groin, but the kidney was smaller and less mobile. February 17th, 1897. She has had pain in the right kidney when she drives, especially when the roads are rough. When she lies down and rests it gets better. The urine was examined several times—result, no albumen. I do not know what was the cause of the hæmorrhage in this case; thought it was malaria, but the pain in the kidney and down the groin negatived it, especially as these symptoms continued from time to time.

CASE VII.—J. L., aged 48. Father well at 83, mother died in confinement; five brothers and five sisters in good health, no tuberculosis on either side. On January 6th, 1897, he called upon me, looked pale, complained of frequency and scalding, water abundant and clear. It was not examined and I did not take the temperature. I gave triticum repens and alkalies. In the evening of the same day I visited him and there was considerable hæmaturia, the blood being intimately mixed. On the 7th there was blood again and pain at the end of micturition; temperature 102°. The right kidney was tender, and there was pain running round to front. I gave quinine in full doses. There was albumen in the urine and some pus. On the 10th temperature was 103° and patient somewhat delirious. Warburg's tincture and alkalies were then given. On the 11th, high temperature continuing, quinine and Warburg's tincture were both given. On 13th Dr. McCallum visited him with me. We continued the tincture and the blood disappeared.

CASE VIII.—Dr. W., about 50 years of age, with good personal and family history. He was taken suddenly ill March 10th, 1894, with hepatic colic, followed by jaundice, which lasted two or three weeks. He seemed to be recovering satisfactorily when hæmaturia with frequency and pain occurred, accompanied by chills and fever, the temperature at times rising to 104°, followed by profuse sweats. Quinine in large doses was very properly given by his attending physician but with only partial relief. On April 13th I saw the patient in consultation, and he was much enfeebled from the loss of blood and the prolonged chills and high temperature. As quinine had been faithfully and perseveringly tried I advised large doses of Warburg's tincture, and the patient gradually and steadily improved. To use the doctor's own words, "As soon as I commenced taking the Warburg's tincture I improved rapidly in strength and weight; I lost 50 lbs. while ill and gained half of that."

Hæmaturia other than accidental as a symptom is of more than ordinary importance. Roughly speaking, it means blood from any portion of the urinary tract—kidney, ureter, bladder, or urethra. It is nearly always possible to know from what portion of the tract the blood comes: (*a*) If from the urethra it may ooze between the times of micturition; (*b*) if from the the neck of the bladder it is more particularly noticed at the end of micturition; (*c*) if from the bladder, it is usually abundant, more persistent, more likely to clot, and is accompanied by bladder irritability. It is well to remember that it occasionally produces obstinate retention.

Having determined with great care the point from which the blood comes, the more difficult problem lies before the inquirer—the determination of the cause of the blood flow.

In bleeding from the kidney the blood is generally intimately mixed with the urine. When, however, the quantity is large, we have ureteral clots, which I look upon as being highly diagnostic. They are occasionally productive of the same symptoms as stone in the ureter, and the colic continues until the blood is forced into the bladder.

There are cases of bleeding from the kidney, the causes of which are difficult to determine. The symptoms at a certain stage of tuberculous kidney and stone in the kidney have so much in common, that one is wholly unable to determine to which this symptom belongs. In both the hæmorrhage is usually small. The character of the pain is similar, and the quantity of albumen much the same. Repeated examinations of the urine may fail to discover the bacilli.

In the report of these few cases it will be noticed how this point was determined, and the diagnosis of a difficult case made plain, and the treatment properly directed. It is impossible to over-estimate this precise knowledge.

If tuberculous kidney is discovered in the early stage the operation ought to be as successful here as in local tuberculous disease in other parts, an operation ought not to be delayed long. Whereas if it be a case of stone in the kidney the operation could in most cases be delayed without endangering the case, and the operation is more frequently nephrotomy than nephrectomy.

In considering the report of these cases I have grouped them. Nos. 1 and 2 were, in my opinion, undoubtedly malignant, although no *post-mortem* examination was made. When tumour (kidney enlarged), pain, and hæmaturia coexist, we may feel pretty certain of the diagnosis. Pain was present, but was not a marked symptom in either, although No. 2 had considerable tenderness over the kidney from the time of my first examination. Emaciation and cachexia towards the end of the disease were well marked in both. Both passed ureteral clots. Several of them rolled up together, looked much like a bunch of earth worms; this alone is fairly diagnostic. Chills and fever were present in both cases, and both passed more than the normal amount of urine in 24 hours. In No. 2 the temperature three days before death ran up to 104.4° F., this condition was probably due to local septic causes.

No. 3 was tuberculous, and the report of the manner in which the diagnosis was established requires no comment from me.

The report of the inoculation and the cautions necessary in making it I have given in the words of the doctor who made the inoculation.

Causes 4, 5, 6 (?), 7, and 8 were in my opinion malarial. I now regret that the blood was not examined for the malarial "parasite."

But the fact that quinine or Warburg's tincture produced a termination of the hæmaturia, and a speedy return to health is important. Some authors speak of transient hæmaturia—not depending on any cause (perhaps it would be better to say any discoverable cause), and might assign these cases to this class, but the manifest improvement in these cases under the influence of drugs which are designated as specifics in the treatment of malaria must have considerable weight in the determination of the cause.

Case No. 6 I marked with a note of interrogation, as she had movable kidney and symptoms continuing after the attack which might point to stone—notably the tendency to pain in the kidney when driving over rough roads, and the relief of these symptoms when a recumbent posture was assumed. As she lives a long distance from town I see her only occasionally, but at no time after recovery from the attack of hæmaturia has albumen been detected in the urine.

I would suggest, therefore, in all cases of recent hæmaturia where the diagnosis is doubtful, and where there have been chills and fever, or where there has been a simple elevation of temperature, that Warburg's tincture should be tried.

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# A CLINICAL LECTURE
## ON
# THE TREATMENT OF DIPHTHERIA.

BY JOHN HERALD, M.A., M.D.,
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THE etiology of diphtheria I do not intend to discuss, merely stating that I concur in the now almost universally accepted opinion that it is primarily a local disease due to the presence of a specific germ, and secondarily a constitutional disease, the constitutional disturbances being occasioned by the absorption from the local focus of a chemical poison or toxin generated at the seat of infection by the bacilli diphtheriæ. This toxin may, and frequently does, affect distant organs, and so we may have during the course of diphtheria intercurrent diseases or complications. In this way the heart, the lungs, the kidneys, the nervous system may be seriously affected. The treatment, therefore, has three objects in view: the destruction of the bacilli at the point of infection; the neutralisation of the absorbed toxin; the combating the complications as they arise.

Such has been the mode of treatment adopted by myself and other physicians here. To illustrate I will give a synopsis of 100 successive cases treated in the Kingston General Hospital from October 1st, 1896, to March 31st, 1897. These cases were not all attended by myself, but as I have the records of all these cases before me, I will make use of them. In this hospital a patient who can afford to pay for a private ward is allowed to employ his own physician, while all who go into the public wards are placed under the care of the attending physician. For this reason these 100 cases of diphtheria were attended by different physicians, 36 coming under my care as

physician to the hospital, and the remaining 64 being distributed among twelve of my *confrères*.

I will now give a synopsis of these 100 cases, and then point out the mode of treatment adopted:

*One Hundred Successive Cases of Diphtheria treated in the Kingston General Hospital from October 1st, 1896, to March 31st, 1897.*

| | |
|---|---|
| Males | 33 |
| Females | 67 |
| Total | 100 |
| Under 1 years of age | 1 |
| Over 1 ,, up to 5 years of age | 33 |
| ,, 5 ,, ,, 10 ,, | 30 |
| ,, 10 ,, ,, 15 ,, | 11 |
| ,, 15 ,, ,, 20 ,, | 7 |
| ,, 20 ,, ,, 30 ,, | 12 |
| ,, 30 ,, | 6 |
| Total | 100 |

*Location of Membrane.*

| | |
|---|---|
| Tonsils | 86 |
| Pharynx | 24 |
| Larynx | 15 |
| Uvula | 11 |
| Nose | 5 |
| Mouth | 2 |
| Tongue | 2 |
| Total | 145* |

* This total (145) is explained by the fact that in a number of cases the membrane was deposited upon more than one of the above-mentioned locations.

*Days Ill before Admission to the Hospital.*

| | |
|---|---|
| One day | 29 |
| Two days | 38 |
| Three ,, | 18 |
| Four ,, | 7 |
| Five ,, | 4 |
| Seven ,, | 3 |
| Twelve days | 1 |
| Total | 100 |
| Intubations | 12 |
| Deaths | None. |

In all of these cases the diagnosis was made clinically, but in all cases of doubt this diagnosis was confirmed by a bacteriological examination by Dr. W. T. Connell. No doubtful case was classed as diphtheria unless the bacilli were actually found.

### Treatment.

1. *To Destroy the Germs at the Seat of Infection.*—As these cases were treated by a number of physicians a variety of local applications were employed. These local applications consisted of the following: Peroxide of hydrogen, tincture of the muriate of iron, sodium bicarbonate, carbolic acid, iodine, potassium chlorate, bichloride of mercury. In the intubation cases calomel was employed by sublimation. As all of these patients recovered no matter which of the above mentioned drugs were used, two conclusions might be drawn, namely, either all are equally good or the patients' recovery was not due to the local application but to the other treatment adopted. I am of opinion that a local application is of service and that the requirements of such an application are that it be non-irritating and capable of destroying or impairing the activity of the bacilli. If, as is now generally conceded, the constitutional symptoms are due to the toxin generated by the bacilli, then anything which lessens their vitality ought to decrease the amount of toxin generated. For this reason I am favourably disposed towards a local application. As I have used it for a number of years with gratifying success I am disposed to prefer a solution containing potassium chlorate, tincture of the muriate of iron, glycerine, and bichloride of mercury solution (1 to 4,000).

2. *Constitutional Treatment.*—Here all are a unit. All use antitoxin. Each of these 100 patients on admission was given hypodermically antitoxin. The dose in nearly every case was 1,000 units; only 4 received less, and of these 2 received a second injection, thus bringing the total amount administered in each case up to the 1,000 units. Sixteen of these patients received 1,000 units on admission and afterwards a second injection of 1,000 units, and one received the third 1,000 units. As these patients did not make a more favourable progress than did those who received only the first 1,000 units it would appear as if a dose of 1,000 units is all that is required.

Another point to be noted in these cases is that under the antitoxin treatment not only were the constitutional symptoms lessened in severity, but the spread of the membrane appeared to be checked, and what had already formed was more quickly dissolved and removed. Possibly the explanation of this is to be found in the fact that, as the poison in the system is neutralised by the antitoxin, the various tissues of the body retain their vitality to a greater extent, and thus have a greater power to resist the invasion of the bacilli. It may, I think, be accepted as an axiom that the lower the vitality of the tissues the more liable to infection the organism, and, conversely, the greater the vitality of the tissues the greater the power of resistance, and the less the liability to infection. If this be true, and if antitoxin has, as I believe it has, the power of overcoming the evil effects of the diphtheritic poison upon the organism, then the action of antitoxin is directly constitutional and indirectly local.

I would now mention a few points regarding the injection of antitoxin and its effects. With us the injection is always made into either groin, and we prefer to inject the full amount at one time, using a syringe which holds 1,000 units. Usually within a few hours after the injection the temperature was found to rise slightly—never more than 1° F. Frequently there appeared around the point of injection a rash closely resembling that of scarlet fever. This rash would cover a circular space of 3 or 4 inches in diameter. The only inconvenience occasioned by it was that the patient would complain of it being itchy. In four of these cases this rash extended over the whole body, and then presented an appearance somewhat between that of scarlet fever and that of measles. I am of opinion that this rash is occasioned by some impurity in the antitoxin solution. Latterly we have not had this rash in our cases.

It might well be asked is this antitoxin curative, or, in other words, has it the power of neutralising the poison absorbed from the seat of infection? Here we have a record 100 successive cases without a death. I am well aware that this number is too small to decide the question. But, be it remembered, as stated above, that the local treatment differed according as the patient was treated by one or another of thirteen physicians. The injection of antitoxin was the only made of treatment adopted by all. Would anyone of the local applications made in these 100 cases have produced the same gratifying results? Past experience in this disease emphatically answers No. If not, to what can we attribute our success? In my opinion, to the antitoxin. Would I, then, discard local applications entirely? By no means. As I have already stated, I favour the use of these topical applications, believing, as I do, that by them we impair the activity of the bacilli, and thus prevent the generation of the toxin in as great quantity as would happen were these applications not made.

3. *The Treatment of Complications and Sequelæ.*—Under this heading we have such conditions as weak heart, bronchitis, pneumonia, albuminuria, paralysis. The treatment of these will be that that would be adopted if these were the initial disease, with, perhaps, this difference, that the patient is already more or less exhausted by the diphtheria, and, in consequence, a more stimulating mode of treatment becomes necessary.

Another condition which may arise during the course of diphtheria is partial stenosis of the larynx due to the formation of the membrane in that situation. Here the treatment will be either tracheotomy or intubation. As Dr. J. C. Connell of this city, who has had experience in intubation, is to supplement my notes on these 100 cases by some observations upon this operation I will not discuss it, feeling that it will be much better dealt with by him than I could hope to do.

*Prophylactic Use of Antitoxin.*—Another use has been made of antitoxin; it has been employed as a prophylactic. I have not had much experience of it as a means of preventing the spread of diphtheria. I have inoculated 12 children from whose families one member had been removed to the hospital suffering with diphtheria. None of these children became infected although the infected member of the family had freely mixed with the others before I saw him and had him removed. In other cases, where inoculation was not practised, several members of the same family became infected. The dose that I used for inoculation was 500 units. I give these figures not because I think they are conclusive, but in the hope that others who have tried inoculation may

supplement them, and thus from the sum of the experience of many this important question may be decided. If, as my limited experience seems to indicate, antitoxin by inoculation has the power of preventing infection, then assuredly has this disease been robbed of much of its terror.

## THREE CASES OF FRIEDREICH'S DISEASE ALL PRESENTING MARKED INCREASE OF THE KNEE-JERK.

BY GEORGE HODGE, M.D.,
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### FAMILY HISTORY.

THE father, aged 72, is living, and has always enjoyed excellent health, except that during the last fourteen years he has suffered from eczema of the legs, which has produced such a condition as to necessitate the use of crutches in locomotion. The mother died three years ago, aged 70, of what was supposed to be cancer of the liver, after an illness of four months. Previously to her fatal illness she had always enjoyed good health. The father and mother were first cousins; both temperate and free from any syphilitic or tuberculous history.

There were eight children in the family, three boys and five girls. The two eldest (boys) died of scarlet fever in childhood; the remaining six are still living, three of whom form the subject of this paper—two females and one male. Of the other three, one, aged 41, is married and is the mother of six children, the eldest of whom is 16 years and the youngest 2 years. The mother and children are all healthy. A second one, aged 37, is also married, and is the mother of one child, aged 18 months; both mother and child are healthy. The other sister, aged 42, is unmarried, and is said to be strong and healthy.

Careful inquiry elicits the fact that, with the exception of the three whose cases are about to be described, there is no relative who has ever had deformity of the feet or any peculiarity of gait.

CASE I.—M. W., unmarried, aged 44, is the eldest of the family living. When between 3 and 4 years of age she fell down stairs and injured her back, after which she was never so active on her feet as other children of her age, and had a peculiarity of gait. She went to school till she was 12 years of age, then helped with house work for seven or eight years, during which time the difficulty in walking gradually increased, till at the age of 20 she was unable to walk without supporting herself on some stationary object or objects. At the present time she cannot even stand without support. On attempting to do so she sways backwards, forwards, and from side to side, and would fall forward if left to herself. She stands equally well with eyes closed as with them open.

There is the characteristic deformity of the feet, which is very well shown in the accompanying cut. (Fig. 1.) There

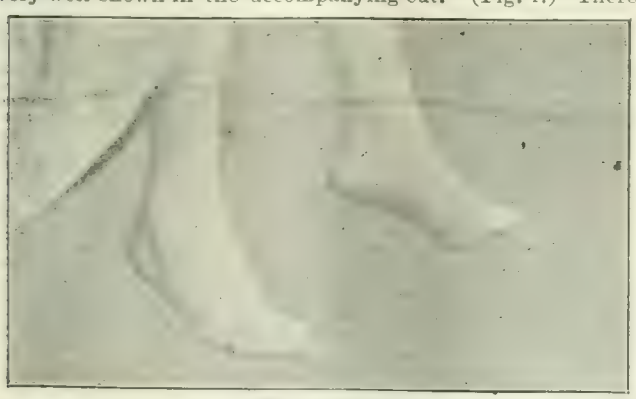


Fig. 1.—Case I.

is not much wasting of the lower extremities (not more than can be accounted for by disuse). The muscular power is somewhat, but not greatly, impaired.

There is neither ataxia nor tremor of the upper extremities. The muscles of the thenar and hypothenar eminences and also the lumbricales and interossei are atrophied, and the hands tend to assume the "bird-claw" shape. There is no tremor of the head. Lateral curvature of the spine is quite marked. Horizontal nystagmus is a well-marked symptom when the patient fixes on an object at either side. The pupils react normally both to light and accommodation. The visual field is not contracted. There is no dyschromatopsia.

Tactile sensibility, sensibility to pain and temperature, and muscular sense are all normal. The patellar reflex is markedly exaggerated on both sides. There is no ankle clonus; the plantar reflex is increased. The mind is unaffected, the patient being quite as intelligent as most people in her station in life. A slight change in speech is noticeable; it is slow and drawling.

The patient began to menstruate when 14 years old, and has continued to do so regularly till within the last six months.

CASE II.—S. W., aged 40, unmarried, attended school till she was 14 years old. She remembers that before she left school she had difficulty in walking, which she attributed to the fact that her boots hurt her feet. She was unable to get ready-made boots to fit her, in consequence of which she was taken to a shoemaker, who said that he would require to get special lasts made upon which to make her boots. There can be no doubt that the deformity of the feet existed prior to this. Even after she got boots to fit her she continued to have difficulty in walking, and this difficulty has steadily increased till at the present time she is unable to walk without the aid of both a cane and a crutch. She cannot rise from the sitting posture without aid, and when standing, if left to herself, she begins to sway about and would fall forward and to the left. She says she can stand better with her eyes open than with them closed. In walking her body is thrown forward and to the left, her feet are merely lifted off the ground (shuffled along the ground), she brings the anterior part of her feet to the ground first. The lower extremities are very well developed, but the muscular power is impaired, especially on the left side.

The feet are characteristically deformed, to a greater extent than Case I but to a less extent than Case III (see Fig. 2). There is no ataxia nor tremor of the upper ex-



Fig. 2.—Case II.

tremities. The hand grasp is much weaker than it should be, although the hand muscles are not atrophied as in Cases I and III. She can sew and knit, but says that she has noticed that if she attempts to cut out a garment the cut edge is zig-zag instead of straight. There is no tremor of the head. There is slight lateral curvature of the spine, not so marked as in Case I.

Horizontal nystagmus is evident when the patient fixes to either side. The pupils react normally to both light and accommodation. There is no contraction of the visual field. Tactile sensibility, sensibility to pain and temperature, and muscular sense are all normal. She says that the lower extremities feel numb, especially if they are cold. The patellar reflex is distinctly increased on both sides; the plantar reflexes are present but are not increased. Intelligence is unaffected. Her speech is affected, as indicated by the fact that her friends complain that when she talks they

do not understand her quite as well as formerly. She began to menstruate before she was 14 years old, and has continued to do so regularly ever since.

Case III.—A. W., aged 39 years, unmarried, went to school till he was 15 years of age. Before he left school he complained of the difficulty of walking much in the same way as Case II, and found it necessary to have his boots made on special lasts. After leaving school he worked as a farm labourer till four years ago, when he had to cease work because of the difficulty of standing and walking, and weakness of his right hand. When sitting, he cannot rise without aid, but when on his feet he can stand for a short time without support of any kind, by keeping his feet wide apart and his body bent forward. When standing, if he closes his eyes he at once begins to sway from side to side and backwards and forwards, and would fall forwards and to the right if left unsupported. Three years ago he could walk without the aid of a cane, but since that time the difficulty of walking has gradually grown worse, till now it is impossible for him to take more than a few steps without using his cane. He is unable to walk across the floor without his boots on, because of the great tenderness over the heads of the metatarsal bones. In walking the heel of the left foot is thrown outwards, and when the foot is off the ground a tremor is quite noticeable. The lower extremities are fairly well developed. The feet are characteristically deformed. This deformity is greater than in either Case I or II. (See Fig. 3.)



Fig. 3.—Case III.

There is no ataxia nor tremor of the upper extremities. There is marked atrophy of the muscles of the right hand, which has now assumed the "bird-claw" shape (Fig. 4.)



Fig. 4.—Case III.

The thenar eminence of the left hand is quite wasted, and there is also slight wasting of the lumbricales and interossei. There is no tremor of the head when the patient is sitting, but when he walks a tremor is to be noticed. There is no lateral curvature of the spine.

Horizontal nystagmus is marked when the patient fixes on an object at either side. The pupils are normal in size and reaction. There is no contraction of the visual field. Tactile sensibility is normal, as is also sensibility to pain. Sensibility to temperature is altered. The patient can recognise heat, but does not correctly recognise cold.

The patellar reflex is greatly increased in both legs. There is no ankle clonus. The plantar reflexes are much exaggerated. The cremasteric reflex on the right side is feebly present, absent on the left side. The abdominal and epigastric reflexes are absent.

The patient appears more stupid than either Case I or II, but this may be due to the fact that he is quite deaf. The speech does not appear to be at all changed.

## A RESPIRATORY SYMPTOM OF TOBACCO POISONING AND ITS EXPERIMENTAL INVESTIGATION.*

By WILLIAM S. MORROW, M.D.,
Lecturer on Physiology, McGill University.

The present paper is written with the object of describing and, as far as possible, explaining a certain peculiarity of breathing met with in cases of tobacco poisoning.

In the experience of the writer it is a very common symptom of excessive use of the "weed," as he has seen three cases in as many years exhibiting it to a marked degree, besides several others in which it was less characteristic. As considerable difficulty was experienced in finding a description of the symptom, it would seem to have been overlooked by most observers, and yet it is believed to be of considerable diagnostic importance. The following are short accounts of the three cases referred to above in which it was most typical:

Case I.—In December, 1893, a medical student came complaining of palpitation on slight exertion. He said he had used tobacco freely since 11 years of age. While examining his chest his breathing was observed to be peculiar. He would take a deep inspiration, and then there would be little or no breathing for a considerable interval, followed by another deep inspiration. On inquiry he said he believed he often went a long time without breathing. At any rate, he was often conscious of taking a very deep inspiration. He was advised to give up tobacco altogether. He did not do so immediately, and was lost sight of for a time. When seen a year or more later he had given up the habit, and the peculiarity of breathing had passed away. It was this case which first drew my attention to the subject.

Case II.—L. T., a boy of 14, small for his age, was first seen in December, 1895. He complained of pain in the left side, extending from the heart around to the back and down the left arm. It was sometimes severe enough to wake him up at night. His mother said he was restless and excitable, and ate poorly. He had smoked cigarettes for two years. While in the office peculiar heaving sighlike inspirations were observed. On being questioned he said he often breathed like that. Discontinuance of tobacco was enforced, it is believed, with success. He was seen at intervals after this, and the breathing did not become normal for over six months, during which the sighlike inspirations were frequently observed. The following case was only diagnosed by the light thrown on it by the two preceding.

Case III.—In December, 1896, Mr. T., a medical student, came complaining of not being able to take a deep breath. The difficulty had come on three days before, and was increasing. He said he was not prevented by pain, but it felt as if the air would not go in. When asked to try, he seemed to succeed very well, and as he sat in the office he took at intervals deep heaving breaths. He was conscious of effort in doing so. Once he remarked that the air seemed to go in that time. There was no palpitation or pain in the chest or arm. The pulse was 70. He said at first that he did not smoke much, but afterwards admitted that he had smoked far more than usual during the preceding week. One afternoon he had smoked seven cigars, and he was not used to smoking more than one or two. He said also that he chewed the ends of his cigars. He was told to stop tobacco and to report progress, but he did not return. A brother practitioner has, however, seen him since, and tells me that the peculiar breathing only lasted a few days after the smoking was discontinued.

The only satisfactory description of this symptom that I have been able to find is in a paper by Chapman, of Louisville, read at the Mississippi Valley Medical Society in 1891 (abstract published in the *Medical Record* and in *Sajous Annual*.) He described the breathing in a case of tobacco poisoning as irregular, consisting of several short shallow respirations, followed by one deep and gasping. He counted the respirations, and found them 20 to 22 per minute. I have to plead guilty myself to having failed to observe the kind of

* Read before the Montreal Medico-Chirurgical Society.

respiration intervening between the special deep inspirations to which I am drawing attention. As far as could be judged from the abstracts at my disposal, Chapman made no attempt to explain the peculiar breathing he described, and after a fairly careful search no explanation was found in the English literature within reach. Such a change in the breathing is in all probability due to some influence affecting either the respiratory centre, the pneumogastric nerve, or the blood.

It has been affirmed by many writers, though denied by some, that changes do take place in the blood in nicotine poisoning. It would seem, however, that any such explanation of the symptom in question may be excluded when we remember that in one of my cases the symptoms persisted for some months after cessation of the use of the drug.

In order to determine whether the respiratory centre or the pneumogastric nerve is chiefly affected, a somewhat detailed knowledge of the effect of tobacco on respiration is required, and as I could not find answers anywhere to some of the questions suggested by these cases, I decided to carry out a few experiments in the hope of settling the matter for myself.

Before describing the experiments I will take the liberty of reminding you in a few words of the principal factors in the nervous control of the respiration. There is a respiratory centre in the medulla which is divided physiologically into an inspiratory and an expiratory centre so distinct from one another that either one may be affected by stimuli which fail to influence the other. These centres may or may not be able to act automatically, but they are in any case profoundly affected by nervous impulses reaching them from the brain above and by various paths from below, especially by the pneumogastric nerves. The respiratory centres send their stimuli to the muscles of respiration by the ordinary spinal nerves such as the phrenics and intercostals. The experiments were carried out to determine as far as possible which parts of the nervous mechanism of respiration are affected in tobacco poisoning.

The apparatus used consisted of the well-known arrangement of Marey's tambour, shown in Fig. 71 of the sixth edition of Foster's *Physiology*. By this the movements of the air in and out of the chest can be recorded on a moving surface. A lever scratches curves on a strip of lamp-blacked paper in such a way that the upstroke of the curve reading from left to right corresponds to expiration, and the down stroke to inspiration. The amplitude of the curves is proportionate to the force of the respirations. The records may be preserved by varnishing the papers on which they are taken.

FIG I.

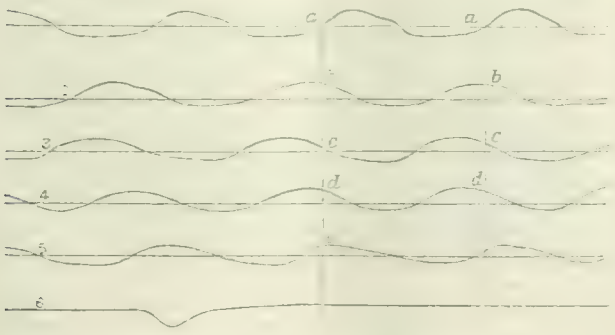



Fig. 1. Respiratory curves from a rabbit poisoned with tobacco: 1. Control—rabbit under ether. After this curve was taken, tobacco infusion was injected into the bowel, and enough ether given at intervals to keep the animal quiet. 2. Lengthening of curves showing slowing of respirations. Taken three minutes after injection. 3. Taken two minutes after 2: and 4. taken three minutes after 3. show the breathing becoming quicker again. 5. Taken five minutes after 4, shows slowing and change of type. 6. Taken five minutes after 5, shows failure of expiration. Respiration reduced to inspiratory gasp. See also Fig. 4, tracing 4. *General description of figures.*—Read from left to right. Up stroke corresponds to expiration. Down stroke to inspiration. Base line marks position of lever at rest. In tracing 4, Fig. 3, the base line is a fraction of an inch too high. The vertical lines in some of the figures are through corresponding parts of the curves for comparing the rate of respiration.

The first point investigated was the effect of tobacco on the respiratory curves of rabbits. For this two experiments were performed, in each of which the rabbit was first etherised. Tracheotomy was then performed and connection made with the apparatus. The rabbit was then poisoned by one or more doses of an infusion of tobacco, and then records were taken of the breathing at intervals. In one case the tobacco was given in repeated doses hypodermically, and in the other one large dose was given by enema.

The effects which followed are shown in Fig. 1, and were:

FIG II.

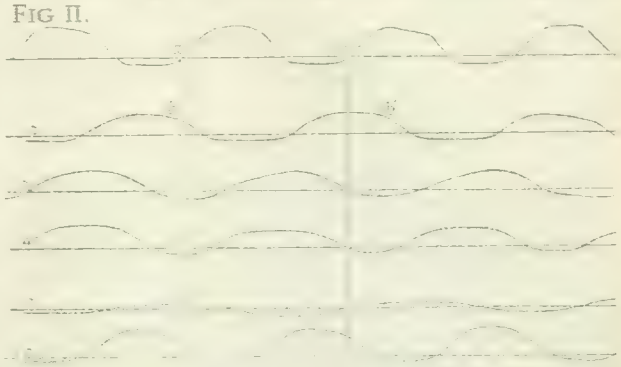


Fig. 2. Respiratory tracings in various degrees of ether anæsthesia. 1. Rabbit well under ether. 2 and 3. Partly out, showing resemblance to the first slowing in the curves of tobacco poisoning. 4. Partly under again. 5. Very deeply under. 6. Partly out again.

(1) Slowing of respiration; (2) quickening to beyond the original rate; (3) slowing again and shallowing; (4) a change in type in which expiration became absolutely passive, and the breathing consisted of an infrequent deep inspiration, gasping in character.

The next experiment was carried out to determine whether any of the above effects were due to differing degrees of ether anæsthesia. The results are seen in Fig. 2, and show that the preliminary slowing was probably due to the ether partially passing off, but the ether failed to cause the great quickening seen in the tobacco experiments or the still more characteristic breathing of the later stages.

The third point investigated was the effect of poisoning with tobacco after first cutting the pneumogastric nerves (see Fig. 3). The results were (1) quickening and increased amplitude; (2) slowing and weakening; (3) failure of expiration, and confinement of breathing to active inspiration and purely passive expiration. This is practically the same series of changes as with the pneumogastrics intact, showing that the characteristics effect of tobacco poisoning are not likely to be due to any effect on the peripheral pneumogastrics.

FIG III

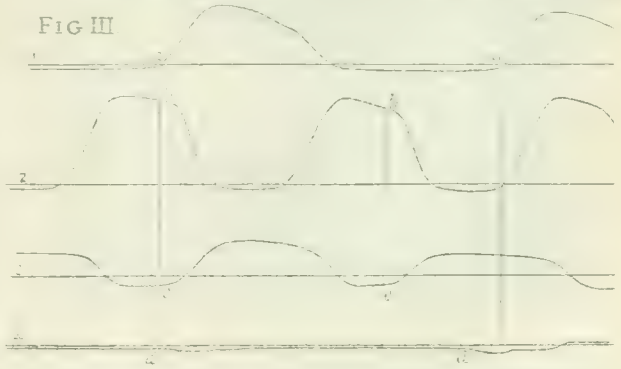


Fig. 3.—Tobacco poisoning after section of both pneumogastric nerves. 1. Respiratory tracings taken after section of these nerves. 2. After an injection of tobacco infusion showing preliminary stimulation of respiratory centre. 3 and 4. Slowing and weakening, with failure of expiration before inspiration.

Next a rabbit was poisoned as before with tobacco, and the intact pneumogastrics were stimulated at intervals with a faradic current (see Fig. 4). The effect of the stimulation

FIG IV

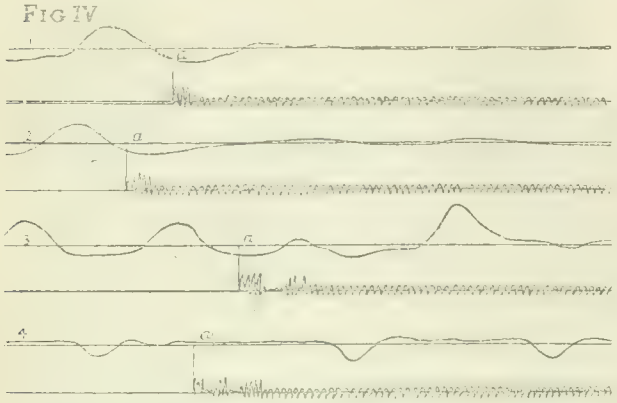


Fig. 4.—Effect of stimulating the pneumogastric nerves at various stages of tobacco poisoning. In each curve (*a*) marks the point at which a moderately strong current from a Du Bois-Reymond inductorium was turned into the nerve. At first the breathing is stopped or greatly modified, but in the final stage of poisoning seen in Tracing 4 the stimulation has no effect.

was at first to stop respiration, or in some cases to render it very shallow and rapid, but towards the end the effect became less marked, and in the final stage of poisoning stimulation of the nerve failed to affect respiration to any appreciable degree although inspirations were still taking place.

This showed that there was loss of irritability either in the nerve itself, or in the nerve roots, or on the sensory side of the respiratory centre. It is hard to decide for certain which, but I believe that the profound change in the breathing at this stage may be attributed with reason to all the afferent impulses being cut off from the centre, so that it was only stimulated to action in an imperfect way by the impure blood which reached it. This assumption is borne out by the work of Loewy, as referred to in Landois and Stirling's *Physiology*. He found that on cutting off all possible nervous impulses from the centre the respiration became extraordinarily slow, and each individual respiration became deeper. He believes that these respiratory movements were due to the stimulation of the centre by the blood. He says that in these cases the total volume of air respired was diminished, as it evidently is in the later stages of tobacco poisoning, and this has been shown not to be the case where the pneumogastric stimulation of the centre alone is cut off.

To return to our experiments. A rabbit was next poisoned with chloral, and the tracings taken which are shown in Fig. 5. These show that in respiratory failure expiration

FIG V.

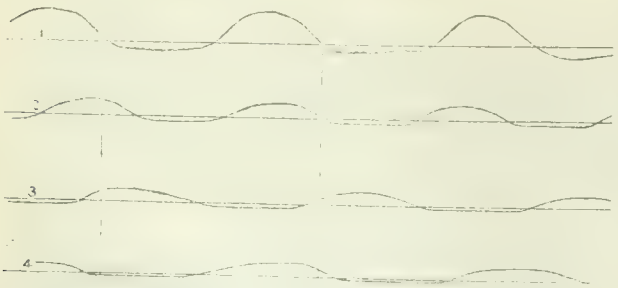


Fig. 5.—Stages of chloral poisoning, shows weakening and slowing o respiration following a preliminary quickening. The failure of inspiration is, if anything, more marked than that of expiration.

does not necessarily fail first, as in chloral poisoning the reverse seems to be the case. After this an experiment was performed which showed that the trunk of the pneumogastric is able to conduct nervous impulses after death from tobacco. A frog's nerve connected with a muscle was laid upon the upper end of the pneumogastric, and the lower end stimulated with a moderate current. The frog's muscle contracted, showing that a nerve impulse had travelled up the trunk of the pneumogastric, and the electrical changes which accompany every nervous impulse had stimulated the nerve going to the frog's muscle. When the pneumogastric was bruised midway the experiment failed, showing that the result had not been due to escape of current.

Paralysis of the phrenic nerve was next excluded by the fact that after death from tobacco stimulation of the nerve caused contraction of the diaphragm. Control experiments were done on dogs, all hitherto mentioned having been performed on rabbits. Tobacco was administered to two dogs, and tracings taken, of which one series is shown in Fig. 6. Al-

FIG VI.

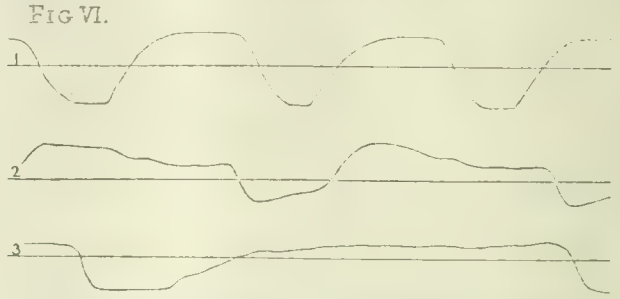


Fig. 6. Tobacco poisoning in dog. 1. Control tracing under ether. 2 and 3. Successive stages of poisoning with tobacco infusion.

though these are described last they were really among the first performed, and in my inexperience I waited too long before taking my second tracing. This probably explains the fact that the stage of quickening is not shown; but the final and most characteristic stages of slowing and expiratory failure, with deep, gasping inspirations, are well seen. For purposes of comparison and control other experiments were performed on rabbits, determining the effects of varying degrees of asphyxia and opium poisoning, and also of cutting and stimulating the pneumogastrics, etc., but as they have no special bearing on the central theme of this paper they are only mentioned.

From these experiments we reach the following conclusions:

In experimental poisoning, as in the clinical cases reported, the inspiratory phase of respiration becomes more pronounced and expiration less.

Tobacco does not produce this characteristic effect through the peripheral endings of the pneumogastric nerves, as its action is practically the same after those nerves have been cut. The same experiment makes it unlikely that it acts through the trunks of these nerves.

Moreover, they seem capable of conducting nerve impulses after death from tobacco, and it would be difficult to explain the diminution which seems to occur in the total volume of air breathed by any action on these nerves.

I do not deny that the pulmonary branches of the pneumogastrics may be affected in any way. On the contrary, Roy and Graham Brown have shown that nicotine dilates the bronchial tubes, presumably through these nerves, but the characteristic symptom forming the subject of this paper cannot be explained by any action of the poison on them.

The poison seems to act principally on the respiratory centre, paralysing the expiratory division of it, and rendering the whole centre insensitive to afferent nervous impulses. The deep-drawn inspirations seen in my three cases may correspond exactly to the deep-drawn inspirations seen in the rabbit and dog in the final stage of poisoning, but from the fact that respiration may be carried on in a feeble way between them, and that they are seen in cases of moderate degrees of poisoning, it seems more likely that they are due to a less severe interference with the sensory side of the centre causing a partial failure of response to the ordinary stimulating influences from above and below. This properly brings into play direct stimulation of the centre by the blood from partial asphyxia, which explains the subjective feeling of lack of air complained of in Case III.

### SUMMARY AND APPLICATION.

A fairly common symptom of tobacco poisoning is a deep gasping inspiration occurring at intervals, and sometimes quite audible. This may be practically the only symptom complained of. It is probably due to a paralysing action of the drug on the respiratory centre, affecting especially the ex-

piratory division, but also diminishing the irritability of the whole centre to afferent impulses. This symptom may persist from a few days to some months after the poison is discontinued.

## AIKINS'S HOOP-IRON SPLINT IN FRACTURES OF THE HUMERUS.

BY GEO. A. PETERS, M.B.TOR., F.R.C.S.ENG.,
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ON consulting standard works on the treatment of fractures, I find no reference to any splint in the least like the "hoop-iron" splint which Dr. W. T. Aikins and many of his pupils have used for nearly twenty years. This splint has been used with such satisfaction by its inventor and by large numbers of surgeons throughout Canada who have had the advantage of sitting at the feet of Dr. Aikins during his admirable lectures on fractures from the chair of surgery in the University of Toronto, that I, with many others of his old pupils, have never ceased to regret that its designer failed to find time in his busy life to place a description of the splint on record. And now that our much-respected professor has laid aside as well his industrious scalpel as his always reluctant pen, and has retired from active duty to crown "a youth of labour with an age of ease," I gladly take upon myself the task which his diffidence, not less than the arduous duties of his calling, prevented him from performing in his earlier years.



Fig. 1

The material of the "Aikins's splint," as it is usually designated, is the ordinary flexible band or hoop iron, such as may be procured at any ironmonger's or blacksmith's shop. For infants and very young children a band 1 inch wide is amply strong; for adults a width of from 1½ to 2 inches will usually be found to be of sufficient strength. The thickness and strength of the material are usually in proportion to the width. As a rule, the material can be worked by hand, bending it over the edge of a table, or around a pillar or bedpost, but it will be found convenient to have a strong pair of pliers, or a couple of "monkey-wrenches," as well as a file, hammer, etc.

With the entire approval of Dr. Aikins, the author has introduced a material modification of the splint as regards the part applied to the shoulder, and as the description of the application of the modified form fully includes that of the original, while the converse is not the case, it is proposed to describe the former.

The material, having been selected with due regard to the muscularity of the patient, is now bent and twisted in such a way that an arch is formed over the top of the shoulder. The anterior limb of this arch reaches downwards over the front of the chest in a direction approximately towards the umbilicus, and may be 8 to 12 inches in length. The posterior limb forms the vertical part of the splint, and passes down the back part of the shoulder and arm to a point about an inch below the point of the bent elbow. At this level the iron is again bent somewhat obliquely so as to pass under the forearm in a direction towards the mid-line of the body. The splint, in fact, almost forms a triangle, the sides of which, however, do not lie in the same plane. (Fig. 2.) It is not an object to make the arch over the shoulder to fit at all accurately; on the contrary, the bend should be made in such generous proportions that the arch will stand almost entirely free from the shoulder, otherwise its edges might press painfully upon the bony prominences.

Then it is a distinctive feature of the splint that the distance from the shoulder arch to the bend under the elbow should be such that when the arch is fixed in position by strapping, considerable extension may be made on the muscles of the arm by drawing the forearm down to the horizontal limb of the splint below the elbow.

The splint may be padded to any desired extent by wrapping it with a roller of sheet cotton. (For the sake of simplicity it is represented in the photographs without any padding.)



Fig. 2.

In applying the splint the patient should, if possible, be in a sitting posture, with the spine quite erect. If confined to bed he should be turned somewhat towards the sound side, or a firm pillow should be placed under the spine and sound shoulder. The splint is now placed in position, with the arch over the shoulder, and secured very firmly (but quite free) by one or two strips of rubber adhesive strapping about an inch and a half broad, and long enough to reach well down upon the front and back of the thorax. For the sake of additional security one or both straps may be given a turn round the top of the arch. Similar straps are made to embrace the anterior limb of the arch, and pass horizontally round the thorax.

A moulded splint for the upper surface of the forearm—raw hide, gutta-purcha, Gooch's, or pasteboard—should now be very carefully fitted and padded. The reason for so much care in preparing this is that here is the point of greatest pressure, as extension is made by strapping the forearm down to the horizontal limb of the splint. A moment's consideration will show that very effectual counter-extension is made by the elasticity of the skin to which the shoulder arch is strapped.

The broken humerus is now set, and while an assistant makes steady pressure on the arm, with the elbow bent to a right angle, palm up, and approximates the moulded splint to the iron one, the surgeon secures the position by a couple of broad strips of plaster. If necessary or desirable short coaptation splints may now be applied to any or all aspects of the limb, and secured by strapping or bandage to the vertical portion of the splint. These give a sense of security to the patient, but I have treated many fractures of the humerus satisfactorily with no more complicated apparatus than is shown in the figures.

In the case of multiple, compound, or complicated fractures, the fixation and extension afforded by this splint may be supplemented by plaster-of-paris, starch, or other fixed dressings, appropriately "trapped" to afford access to wounds, etc.

When the fracture is situated at or below the middle of the humerus, the simpler form of the original splint (Fig. 2), in which the shoulder portion merely projects towards the base of the neck, while the vertical portion occupies the outer aspect of the arm, will be found to answer every requirement. When, however, the lesion is in any part of the humerus above the middle, and firm fixation of the shoulder-joint becomes increasingly important, the additional security afforded by the arch (Fig. 1) will be found to be of great advantage.

With the possible—though doubtful—exception of avulsion of the greater tuberosity, I believe there is no fracture of the humerus—shaft, upper or lower extremity—which cannot be treated satisfactorily by means of this splint. And without expecting that all surgeons will agree with me, I do not hesitate to express my preference for this over all other splints for any fracture of the humerus. Its unquestionable power of making extension enables us to enlist by its use the moulding power of the extended muscles, and to appreciate the value of this one need only consider for a moment the excellent fit of the tense deltoid as a shoulder cap, and the support afforded by the bulky muscles, which almost surround the shaft of the bone. In fractures of the condyles, or in T-shaped fractures into the elbow-joint, the control which may be obtained by the use of this splint of the bones of the forearm, and through them of the fragments, constitutes one of the most valuable applications of the splint. In dislocations forwards of the radius also, the difficulty of overcoming the action of the biceps in reproducing the dislocation is met by its judicious use.

### ADVANTAGES CLAIMED FOR THE SPLINT.

It is the only splint described (so far as I know) which furnishes in itself the means of making effectual extension of the muscles of the arm.

It is cool, light, and affords ready means of examining the parts during healing, with the minimum of disturbance.

It permits the direct application of evaporating lotions or the cold coil where indicated.

In compound fractures ready access may be obtained to the wounds, and if the iron of the splint be brushed over with melted paraffin it can be readily rendered aseptic, and lotions and discharges leave it unaffected.

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BEATTY v. CULLINGWORTH.—The plaintiff in this case having presented a petition for leave to prosecute an appeal before the House of Lords *in formâ pauperis*, the matter was referred, according to the usual course, to the Appeal Committee, and was duly considered at a sitting of the Committee held on Thursday, May 27th. The petition was dismissed. The result of this decision is that if the plaintiff persists in her intention of bringing her case before the House of Lords she will have to conform to the ordinary rules, one of which involves the payment of a substantial deposit (£200) as a preliminary proceeding.

## INTUBATION AND ANTITOXIN.

By J. C. CONNELL, M.A., M.D.,

Laryngologist to the Kingston (Toronto) General Hospital; Professor of Ophthalmology in Queen's University.

IN conversation with Dr. O'Dwyer last October, he expressed the opinion that the early use of antitoxin in laryngeal diphtheria would entirely remove the necessity for intubation. My experience of the past winter does not lead me to accept this extreme view, but it goes to prove that the period of intubation is materially reduced by the use of antitoxin.

In the General Hospital since last October I have intubated 12 cases of laryngeal diphtheria, and in addition 4 cases in the Hôtel Dieu and 2 in private houses, making 18 in all. There were no fatal cases in the hospital, and of the others 2 died. Neither of the fatal cases received any antitoxin. One began as bronchitis, and after four days developed laryngitis, with some membrane on the tonsils and pharynx. Intubation did not give much relief, and death followed twelve hours later. The other fatal case began as a tonsillar and pharyngeal diphtheria. No antitoxin was used, but the membrane disappeared about the sixth day. On the ninth day, when I first saw the case, laryngitis had developed with the secondary formation of membrane. Intubation relieved the dyspnœa, but death took place twelve hours later from cardiac paralysis.

The following table shows the duration of the illness before the use of antitoxin, the amount of antitoxin used and the number of injections, the period of intubation, and the frequency of reintubation:

| Case. | Age. | | Duration of Illness before Use of Antitoxin. | Antitoxin. | | Period of Intubation. | Reintubation. |
|---|---|---|---|---|---|---|---|
| | Mths. | Yrs. | | No. of Injections. | Total Amount. | | |
| 1 | 1 | 4 | 4 days | 2 | 2,000 units | 9 days | Twice. |
| 2 | 7 | 0 | 1 day | 2 | 1,000 ,, | 30 hours | 0 |
| 3 | 2 | 6 | 1 ,, | 1 | 1,000 ,, | 6½ ,, | 0 |
| 4 | 3 | 7 | 2 days | 2 | 2,000 ,, | 5½ days | Once. |
| 5 | 9 | 0 | 1 day | 1 | 1,000 ,, | 1½ ,, | 0 |
| 6 | 3 | 1 | 3 days | 1 | 1,000 ,, | 4 ,, | Once. |
| 7 | 5 | 0 | 2 ,, | 1 | 1,000 ,, | 2 ,, | ,, |
| 8 | 10 | 0 | No antitoxin | — | — | 3½ ,, | ,, |
| 9 | 3 | 3 | 2 days | 1 | 1,000 ,, | 4 ,, | ,, |
| 10 | 3 | 6 | No antitoxin | — | — | Death in 12 hours | — |
| 11 | 5 | 0 | 1 day | 3 | 2,500 ,, | 3 days | Twice. |
| 12 | 2 | 6 | 1 ,, | 1 | 1,000 ,, | 2 ,, | 0 |
| 13 | 6 | 0 | No antitoxin | — | — | 2 ,, | 0 |
| 14 | 4 | 0 | ,, | — | — | Death in 12 hours | — |
| 15 | 6 | 2 | 1 day | 1 | 1,000 ,, | 2 days | 0 |
| 16 | 2 | 6 | 1 ,, | 1 | 1,000 ,, | 3 ,, | Once. |
| 17 | 7 | 0 | ½ ,, | 1 | 1,000 ,, | 1½ ,, | 0 |
| 18 | 2 | 6 | 1 ,, | 1 | 1,000 ,, | 3½ ,, | Once. |

It will be noticed that, of the 4 cases in which no antitoxin was used, 2 recovered and 2 died. The average period of intubation in the 16 cases of recovery is three days. In 2 cases twelve hours elapsed between the injection of antitoxin and the operation. In all the others there was an interval of a few minutes only. All were fed by means of the catheter through the nose. This method I believe to be the best, as it ensures a sufficient quantity of nourishment without effort on the part of the patient, and without producing exhaustion from coughing. Usually after the second introduction of the catheter no resistance is offered. The other treatment consisted in the use of calomel, chiefly by sublimation. No local applications were made.

My experience in these cases leads me to consider it advisable to extubate after thirty-six or forty-eight hours. This is the time when, by the action of the antitoxin, the membrane is being thrown off. It may be unnecessary to reintubate. At any rate, it is usual to see a great deal of membrane coughed up immediately after the removal of the tube, and if dyspnœa returns and it must be replaced there is less coughing and less danger of plugging of the tube.

## A CASE OF MALIGNANT PLEURISY.

By J. T. FOTHERINGHAM, B.A., M.D., C.M.,
Physician to St. Michael's Hospital and Hospital for Sick Children, Toronto; Lecturer in Clinical Medicine, Trinity Medical College.

A. M., aged 56, born in Glasgow, Scotland, a bachelor and dry goods salesman, consulted me October 25th, 1896, for shortness of breath on exertion. I found very large effusion in the right pleural cavity, and sent him in to St. Michael's Hospital, where he died on March 30th, 1897, a little over five months after.

The signs of effusion I need not dwell on. They were those ordinarily seen. The heart was much displaced downwards about 1 inch, and to the left as far as the anterior axillary line. This malposition it retained with very little change to the last. The onset of the effusion could not be determined. The patient had never any pleuritic pain at any period of his illness. The physical signs presented during the first half of his illness were diametrically the opposite of those seen during the later stages. In the latter half, while the heart remained fixed in its malposition, the hypertrophy of the left lung and the gradual compression of the right, with the failure of the effusion to return, gradually changed the physical conditions to be seen in the thorax, so that in place of the full bulging immobile right thorax of large effusion, one saw the small collapsed fixed chest wall of cured empyema, a chronic cirrhotic disease of the lung. This marked change in general appearance was due to two causes, first, the non-return of the effusion after aspiration; and, secondly, the scirrhous contracting growth which was found *post mortem* spreading *en cuirasse* over the whole pleura, and compressing the lung to much less than its ordinary size.

Aspiration for the relief of dyspnœa had to be done three times—November 7th (about two weeks after admission), when 56 ozs. were removed; again on November 21st (two weeks later), when 80 ozs. were taken; and for the last time on November 17th (six days later), when 81 ozs. were taken, and a full stream still running into the bottle. The fluid removed was on each occasion slightly fibrinous, translucent, of a ruddy straw colour, but distinctly not bloody, though containing some red blood corpuscles. It was quite odourless, and free from purulency. The colour was most ruddy on the first occasion.

Some points of difference may be noted between these aspirations and all others that I have done for pleuritic effusions. First, the relief to dyspnœa was but slight compared with what one should expect. The breath-rate remained absolutely unimproved, running from 28 to 32 as before. This was fully explained by the non-expansion of a lung compressed as this one was found to be. Secondly, the peculiar fixation of the heart in its faulty position, the return towards the normal place not exceeding half an inch. Thirdly, neither before nor after the removal of so large a quantity as 80 ozs. from the right pleural sac could any change in the position of the liver be made out. This very mystifying circumstance was also explained *post mortem*. Fourthly, aspiration was not followed by the pain, coughing, and tendency to syncope so often seen. This, too, is explained by the condition of the lung and pleura found after death. The stem of the needle I used in aspirating was 3½ inches long, and when cautiously but fully introduced for exploratory purposes, while aspiration was going on, could be made to touch first the dome of the diaphragm, then, after an interval of half an inch, the thick rounded lower and outer border of the lung, and above that nothing. What structures could be touched were peculiarly insensitive, and no cough or other signs of discomfort were elicited by gently pricking them with the needlepoint. This also was fully explained by the *post mortem* findings.

About two weeks after the last aspiration a small nodule began to form at the site of the punctures. (They had all been made in the usual place, the sixth interspace in the right mid-axillary line.) This was at first thought to be inflammatory, but as a chain of enlarged glands was soon to be noted running up towards the axilla, a diagnosis of malignancy was made. The axilla very soon filled with shotty glands right up to the apex, and the infection travelled across the base of the axilla and caused distinct enlargement of two or three glands in the ninth interspace behind, in the line of the angle of the scapula. The nodule at the site of the punctures grew in the sixteen weeks preceding death to the size of a large walnut, but did not involve the skin.

Cough, though fairly persistent through the illness, was never troublesome. During the last few weeks a peculiar sputum was noted, odourless, clear, viscid, amber-coloured, jelly-like, very slightly frothy if at all, and changed in a few minutes by the carbolic acid solution in the sputum bowl into a dead-white opaque nummular mass, evidently highly fibrinous, and probably largely from the tubes of the compressed right lung. The wasted cachectic look of malignant disease did not appear. The colour never resembled that usually seen, though emaciation was distinct.

Throughout the whole five months the subjective condition of the patient varied very little. His temperature ran during the last five weeks almost entirely a subnormal course, and it was never at any time anything over 100° F., and seldom so high. His pulse, to the last, seldom exceeded 100, and never fell below 80.

About one month before death mild œdema of the lower limbs and a slight ascites were noted, both cardiac in origin. Death was due to asthenia, heart failure coming on as he sat in his chair, and not very suddenly.

The points of interest found *post mortem* are as follows:

### I.—THE ABDOMEN.

(*a*) *Kidneys.*—Both cirrhotic and with adherent capsule. Atrophy of both cortex and medulla, with hardening. Stellate scarring and fibrosis specially marked at upper end of left kidney, beneath which scar was found a rough uric acid calculus one-half by one-third by one-quarter inch in size, with two smaller ones as large as wheat grains.

(*b*) *Liver.*—Much enlarged, left lobe touching left side, and appearing during life as smooth firm mass in epigastrium. Its exact nature had not been determined during life from the disturbance of conditions usually discoverable by percussion and palpation, from the fact that the colon lay in front of the anterior surface of the liver, and had formed a permanent groove across it with marked *ante-mortem* coloration. The dislocation of the liver had been concealed by this cause, though the gall bladder was found to lie an inch and a-half to left of median line. The downward dislocation of the liver was as much as 3½ inches, the highest point of the dome of the diaphragm being at the level of the sixth rib. The organ was much enlarged, slightly pale, and friable. To the right of the broad ligament lay a string of about twenty small white flattish nodules, the size of a split pea, under Glisson's capsule. A similar condition was found in the apposed area of the diaphragm, though there was no adhesion between diaphragm and liver, an instance of what has been noted by other observers that cancer can spread by apposition of tissues without the formation of adhesions. The greater part of the right half of the dome of the diaphragm was thickened, fixed, and adherent to the growth in the thorax. The abdomen contained about a pint of serous straw-coloured ascitic fluid.

### II.—THE THORAX.

On opening this cavity, the right half of the sternum with the cartilages of that side, were found very densely adherent to the subjacent mass.

(*a*) *The Heart.*—Lying horizontally, apex in left anterior axillary line, in sixth interspace. Much hypertrophied, especially right side. Almost quite covered by edge of left lung, which was very voluminous. Heart muscle soft and fatty. Mitral and tricuspid valves thickened round base, and aortic arch large and atheromatous. Pericardium contained about five ounces of serous fluid.

(*b*) *Lungs.*—Left one very ample, and rather emphysematous. Anterior margin over almost to right edge of sternum, and covering area of heart dulness to the fifth interspace. About 25 ounces of serous fluid in left pleural cavity. Right lung completely compressed and destroyed except for small portion at apex. It was only about one-third the normal size, dark, collapsed, œdematous, lower lobe tough and carnified.

*Pleura.*—Parietal pleura almost normal. Visceral pleura entirely changed, covering the lung with a layer of whitish nodulated new growth averaging ¼ inch in thickness, but in places up to ¾, especially at anterior margin, where it formed

a matted mass densely adherent to the sternum and cartilages from the third cartilage down to the diaphragm, which was also infiltrated, fixed, and largely destroyed by adhesions to base of lung. There was in addition a third adhesion, making the axillary growth already mentioned directly continuous through the fifth interspace with the mass in the chest. Apart from these adhesions, the parietal pleura was remarkably healthy. There was in the lower posterior part of the cavity a smooth-walled space containing 10 or 12 ounces of fluid.

There was no secondary or terminal infection in this case. The only evidence noted of inflammatory process was in a small cavity between the layers of the pleura towards the base of the lung behind, which, in addition to some fluid, had its walls covered with a fairly thick layer of recent fibrin. The fluid seems to have been unusually free from blood, which has been noted in large quantity by other observers.

Microscopical examination of the growth, kindly made for by Dr. H. B. Anderson, Professor of Pathology in Trinity Medical College, shows it to be a scirrhous endothelioma, with origin probably in the lymphatics of the pleura. It consists mainly of dense fibrous tissue, with many long slit-like lymphatic spaces, lined by flat nucleated cells of endothelial appearance. The nodule in the axilla is practically identical in appearance with the pleural growth.

Delafield, of New York, describes in his *Textbook on Pathology* two cases almost exactly similar to this, in which the growth was primary in the pleura, and of which he says, after giving a description of the microscopic findings that might apply to my case as well as to his own: "It is very difficult to class these tumours; whether to call them by the name of carcinoma, sarcoma, or endothelioma it is not easy to say." His bibliographical references make it plain that a primary new growth in the pleura does certainly occur. He refers to articles by E. Wagner, Fraenkel, R. Schulz, Birch-Hirschfeld, and Thierfelder; so that the view so positively expressed in *Ziemssen's Cyclopædia* by Fräntzel in his article on Diseases of the Pleura, that "sarcomas or cancers of the pleura are never primary, is no longer tenable."

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

### RE-ESTABLISHMENT OF THE MILK-FLOW AFTER AN INTERVAL OF FOUR WEEKS.

ON January 13th last I was asked to see Mrs. R.'s first child, aged 6 weeks. For four weeks it had been wholly bottle-fed, having been given first one patent food, then another, each disagreeing in turn. It had been unable to digest any of the foods, and as a consequence was suffering from acute gastro-intestinal irritation. The small, thin, white face, with puckered brows and clenched fists, the anxious and pained expression, the restlessness and half-starved cry, showed at one glance that the baby was suffering from "abdominal distress," and that he was being slowly but surely starved to death unless an entire change could be made in the character of the food given him.

On asking the reason for not nursing her baby the mother told me "that her nipples had been sore and the breasts inflamed," and that when her baby was a fortnight old she was advised by her physician to go to the Toronto General Hospital for treatment. She did so, leaving her baby at home in the care of a young unmarried sister. The mother remained in the hospital a fortnight, recovered from her breast trouble, and had been at home another fortnight when I saw the baby. On examination I found the breasts soft and flabby, but otherwise healthy. I was able to squeeze out of the nipples a few drops of milk, and on the spur of the moment decided to make the attempt to re-establish the milk secretion, and in this way give the baby a chance.

I had the breasts emptied twice thoroughly by means of the fingers (not by the usual breast pump), and later in the day had the baby put to the breast. At first he would not try, but by repeated attempts, and by giving absolutely no other food (except whisky and water by a spoon, not from the bottle) for 24 or 30 hours, we had the satisfaction of seeing that the baby was willing to nurse as often as the mother would give him an opportunity.

Frequent drinks of milk, gruel, and an occasional glass of ale, with free bathing and gentle massage of the breasts helped to restore the secretion, and within a week the baby was getting all the milk he could take, and in about two weeks the flow was about as free as when the baby was weaned. On April 2nd I was called to see the mother, and on inquiring about the baby was shown a healthy, plump, pink and white, well-nourished baby, apparently no worse for his four weeks of hand feeding.

The practical deductions which may be drawn from this case are: That babies are sometimes weaned for insufficient cause; that it is better and more rational to treat the breasts than wean the baby; that the patent foods on the market are not suitable for infants; that mother's milk is the proper food; that some children will take to the breast again after having been weaned; that the milk-flow may be re-established after at least four weeks cessation from nursing; and that an attempt should always be made to bring about the secretion again if an interval of several weeks has elapsed.

HENRY T. MACHELL, M.D.Toronto, L.R.C.P.Edin.,
Professor of Midwifery at the Ontario Medical College for Women.
Toronto.

# REPORTS

ON

## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

### TORONTO GENERAL HOSPITAL.

TWO CASES: PULMONARY CAVITY TREATED BY DRAINAGE, AND PYLORIC CARCINOMA TREATED BY GASTRO-JEJUNOSTOMY.

[Reported with remarks by F. N. G. STARR, M.B.Tor., Senior Demonstrator of Anatomy, University of Toronto; Assistant Surgeon, Toronto General Hospital and Hospital for Sick Children; General Secretary, Canadian Medical Association.]

CASE I. *Offensive Pulmonary Vomica: Drainage: Gastro-jejunostomy for Carcinoma Pylori: Improvement in Health and Weight: Retained Murphy Button.*—A male patient, aged 59, was admitted to the General Hospital on February 26th, 1897, under he care of Dr. A. McPhedran. He complained that on February 20th he had got a severe wetting, and that two days later a pain commenced in the lower part of the left chest. His throat was sore, there was some cough, and he expectorated dark clotted blood, after which some of a brighter colour appeared. The pain in the side increased, and he was unable to recline upon either side. There was no chill. Upon the day following the cough became more troublesome, and a considerable quantity of blood-coloured sputum was expectorated.

On admission the temperature was found to be 100.8° F., and the concomitant symptoms of fever were present. The breath was very fœtid. After several careful examinations it was believed that he was suffering from gangrene of the lung. At the end of two weeks signs of a cavity appeared. He expectorated very copiously a foul-smelling sputum. The breath continued very offensive, so much so that the patient had to be isolated in an attic ward. His temperature ranged from 100.8° F. on admission to 103.8° F., and as his general condition became worse and worse operation was decided upon.

On March 26th Mr. I. H. Cameron made an incision in the mid-axillary line over the third interspace. The visceral and parietal pleuræ were adherent at this point, and the knife was therefore easily directed through it and the surrounding lung tissue into a cavity. A drainage tube was inserted, outside of which the wound was packed with iodoform gauze and the side dressed. The discharge from the cavity was not offensive at first.

Upon the day following the operation the temperature fell to 99.8° F., and until April 12th it ranged from that to 103° F., when it dropped to normal. It has remained normal since.

At the time of writing (April 30th) the discharge from the

tube has almost entirely stopped; the offensiveness of the breath has completely disappeared; the cough and expectoration have ceased. The patient's appetite is good, he sleeps well, his general condition has greatly improved, and there is every prospect of a speedy and complete recovery.

CASE II. *Gastro-jejunostomy for Pyloric Carcinoma.*—A man, aged 56 years, was admitted to the General Hospital on September 9th, 1896, under the care of Dr. McPhedran. He complained that in March, 1896, he developed a "pain in the stomach," which persisted. During July and August it was less severe, but it increased again in severity just before he entered the hospital. He said he had lost flesh: his weight on admission was 139 lbs. On inspection one could occasionally detect the peristaltic wave from the cardiac to the pyloric end of the stomach. There were other evidences of dilatation. Palpation discovered considerable tenderness in the epigastric region. A small, hard, nodular mass could be felt midway between the ensiform cartilage and the umbilicus, about an inch to the right of the median line. This lump was dull on percussion and was painful on pressure. He had vomited but twice, once fifteen hours after eating, when the food was undigested. Upon the other occasion he brought up some blood clot. The pain was always worse after eating, and became excruciating in from one to two hours. It was partially relieved by a drink of hot water. Constipation was persistent.

An examination of the stomach contents after a test breakfast showed an acid reaction, a trace of free HCl, and some lactic acid. On September 20th, 1896, neutral reaction, HCl absent, lactic acid absent; and on October 15th, acid reaction, HCl (free) present, lactic acid absent. November 10th, acid reaction, no free HCl, lactic acid absent. November 11th, acid reaction, free HCl present, lactic acid absent. Careful feeding was resorted to, with lavage of the stomach, and for a time he improved, gaining 15 lbs. in weight. From time to time it became necessary to intermit the washing, and he would rapidly relapse into his former condition.

On February 20th, 1897, he left the hospital to arrange some business affairs, and returned again in March for operation. At this time his weight was 137 lbs., having lost 17 lbs.

On March 18th, Mr. I. H. Cameron made an incision in the median line of the abdomen commencing about 4 cm. below the ensiform cartilage and continuing down about 8 cm. The stomach was found to be greatly dilated, and the diagnosis of carcinoma of the pyloric end was confirmed. The disease was extensive, and precluded the possibility of removal. It extended further upon the serous than upon the mucous coat. The jejunum was reached, and brought up over the transverse colon; some traction was then made upon the stomach, so as to reach a point as far away from the seat of disease as posssble without too much tension. The largest round Murphy button was then used, and the two united. The wound was then closed and dressed. Healing took place by first intention.

Upon the day following the operation, the temperature reached 99.8° F.; it then dropped to normal, where it has remained since.

For two days the patient was nourished by enemata; then for a week a little liquid nourishment was given, but enemata were depended upon principally.

At the end of three weeks the patient was up. At the time of writing (April 30th) he is going about, and he feels in the best of health and spirits. He is careful of his diet, but eats heartily, and his food seems to assimilate well, for he has gained 4½ lbs. during the past week, and now weighs 139½ lbs. He suffers no pain or distress.

So far there has been no sign of the button. There were two occasions upon which the stools were not examined, and it is possible it may have passed unnoticed. On the other hand, it may have dropped back into the stomach. Skiagraphy might throw some light upon the subject, but the *x* ray apparatus is at present out of order.

REMARKS BY MR. STARR.—These two cases are selected simply on account of their being a little unusual. In the case of the pulmonary vomica there was not the slightest difficulty for the surgeon, as the lung was absolutely adherent to the chest wall, and the physician indicated the point he desired to have incised. At the moment of incision the breath either *per os* or *per vulnus* was not so offensive as it had been before, perhaps on account of the chloroform inhaled. Afterwards it became offensive again for a little by both channels of emission, despite the iodoform gauze, but the improved drainage of the saprophytic focus soon effected a permanent change for the better. On one occasion a little antiseptic fluid (a 2 per cent. aqueous solution of creolin) was injected into the cavity, but once only, as it provoked cough and distress. In the gastro-jejunostomy everything was favourable except the extent to which the neoplasm had spread along the anterior wall of the stomach, rendering it difficult to get far enough away from the disease without too much traction on the stomach; and, except for the fact that although the stomach had been lavaged before the operation, it was found to contain more than a pint of brownish fluid, which was only kept from finding its way into the peritoneal cavity by careful sponge packing. The case presents a point of interest also in the fact that it was done without an anæsthetic. The administration of chloroform was begun, but had to be discontinued owing to cyanosis and respiratory obstruction. Alcohol was therefore substituted for the chloroform in the dropper, and the operation proceeded without any manifestation of severe suffering on the part of the patient beyond pretty constant moaning. Mr. Cameron has had occasion during the past winter to do three other cœliotomies with only local anæsthesia (either simple cocaine or Schleich's solution), and this, with an equal experience in former years of opening the abdomen without anæsthesia, leads him to the conclusion that the operation is not a very painful one.

# REPORTS OF SOCIETIES.

## CLINICAL SOCIETY OF LONDON.

THOMAS BUZZARD, M.D., F.R.C.P., President, in the Chair.

*Friday, May 28th, 1897.*

### INTRACARDIAC THROMBUS OF LEFT AURICLE PROJECTING THROUGH MITRAL VALVE.

DRS. EWART and ROLLESTON described a case in which "a large *ante-mortem* thrombus was attached to the fossa ovalis in the left auricle, and passed through the mitral valve, which was not not constricted, into the left ventricle." The patient was a woman, aged 43, whose cardiac symptoms dated from an attack of what appeared to be pneumonia, but might have been a pulmonary apoplexy. Her symptoms and signs were those of mitral stenosis, with failure of compensation. At the necropsy the clot was hour-glass shaped, with an intra-auricular and an intraventricular enlargement; examination of the clot showed that it was old internally, and that recent clot had been added to it externally. Both the extent and the attachment of the thrombus were extremely rare. Clinically, the interest was in the fact that the symptoms and signs were exactly those of mitral obstruction, which indeed existed, although there was no actual disease of the mitral valve segments.

Dr. KINGSTON FOWLER observed that in Voelcker's paper it was noted that the cardiac rhythm was suggestive of a presystolic murmur, but this could not be defined. He himself thought it suggested mitral stenosis. A peculiar lengthening of the systole was one feature of the accentuation, and the first sound was another. The two cases were very similar in character. He commented on the fact that in Dr. Ewart's case there was a cavity in the centre of the clot, and he pointed out that this fact made the clot very similar to others which had been observed—that is, the ball clots alluded to by the author. When in the auricle these clots probably originated in the auricular appendix, and in the ventricle they arose between the musculi pectinati. In the early stages the central part probably underwent softening, and the cardiac contractions generally made them project as polypi.

### DISSECTING ANEURYSM WITH RUPTURE INTO BOTH PLEURAL CAVITIES.

Dr. BERTRAM HUNT contributed this case. A woman, aged 43, was admitted into University College Hospital with intense pain in the chest and side of abdomen. While under observation a left-sided hæmothorax developed, and 33 ounces

of pure blood were removed by aspiration. A murmur was then heard over the spine. The patient remained in fair health for nine months, when she died suddenly. At the necropsy there was found a large dissecting aneurysm, commencing by an orifice in the aorta just below the left subclavian, and opening again into the left common iliac. Death was due to rupture into the right pleura, which was full of blood. The site of the old leak into the left pleura was closed by adhesions. These cases of large dissecting aneurysms, along which a blood stream evidently flowed, were decidedly rare; only about 10 cases having been recorded. The clinical history of the cases was very similar, and might possibly allow a correct diagnosis to be made during life, as was actually done in one case. It was interesting that an aneurysm leaking into the pleura should close after aspiration of the effused blood.

Dr. F. de Havilland Hall said that in his experience, when an aneurysm opened into a serous cavity there was usually a large escape of blood, whereas, when the aneurysm ruptured on to a mucous suface, a valve-like opening was formed with leakage.

Dr. Kingston Fowler said the reason why the hæmorrhage was not immediately fatal in the author's case was probably because it was not, properly speaking, a dissecting aneurysm.

Dr. Rolleston recalled two cases of the kind, one of a man who was admitted with signs of pericarditis with much effusion. He died eight days later, when the pericardium was found greatly distended, with signs of acute pericarditis, and a leaking aneurysm. The other specimen was one with a very small opening in the pericardial sac, which, however, contained 25 ounces of blood. The effusion must have taken place very gradually, seeing that 10 ounces of blood, if rapidly effused, was sufficient to bring about arrest of the heart. With respect to the diagnosis during life, he recalled a case observed by Dr. Lee Dickinson, in which a dissecting aneurysm gave rise to intense pain along the arteries, and it was this fact that led to the diagnosis being made.

Dr. Ewart agreed that gradual leakage sometimes occurred in rupture of an intrapericardial aneurysm. He had prepared a specimen of the kind in which, although there was considerable effusion of the blood, the orifice was so small that they could not find it. He asked where the puncture was made in Dr. Hunt's case to relieve the pleural effusion, and suggested that the blood might not have been removed from the pleural cavity, but from the subpleural tissue.

Dr. Bertram Hunt, in reply, said that on the right side there was obviously leakage. The needle was inserted under the angle of the left scapula, and he thought it must have gone into the pleura, because not only the aspirating needle, but also an exploratory cannula had withdrawn nothing but blood. Microscopical sections showed the presence of muscle fibres in the wall of the sac, so it must have burrowed in the middle coat.

## ANNUAL MEETING.

### Votes of Thanks.

Votes of thanks were proposed: (1) To the retiring President, by Dr. de Havilland Hall and Mr. A. E. Barker; this was carried by acclamation, and suitably acknowledged by Dr. Buzzard; (2) to the retiring Vice-Presidents, Dr. Whipham and Dr. F. Taylor, proposed by Dr. W. Ewart and Dr. Baxter Forman; and (3) to the retiring members of Council, Drs. Allchin, Herringham, Holman, Manson, and Dawson Williams, and Messrs. Bruce Clark and J. B. Sutton, proposed by Mr. W. G. Spencer and Dr. Rolleston.

### Alterations in the Rules.

Dr. W. S. Colman and Dr. Benham proposed the acceptance of certain verbal alterations in the rules submitted by the Council. The resolution was carried.

### New President and Council.

Dr. de Havilland Hall and Mr. W. G. Spencer were appointed scrutineers of the ballot, and reported that the list of members proposed by the Council for various offices (published in the British Medical Journal, May 29th, p. 1351) had been approved by the Society, Mr. John Langton being the new President.

## BRITISH GYNÆCOLOGICAL SOCIETY.

Professor Mayo Robson, F.R.C.S., President, in the Chair.

*Thursday, May 13th, 1897.*

### Specimens.

Mr. F. Bowreman Jessett showed: (1) Fibromyoma of the Uterus: Subperitoneal Hysterectomy; (2) Fibromyoma of the Uterus: Oöphorectomy; (3) Myoma of the Uterus: Double Pyosalpinx: Subperitoneal Hysterectomy; (4) Large Fibromyoma of the Uterus complicated with Pregnancy. The President and Drs. Purcell, C. H. F. Routh, Godson, and Heywood Smith made some observations, and Mr. Jessett replied.

### Exploratory Laparotomy in Malignant Disease of Abdominal Organs.

Dr. Herbert Snow read a paper on the value of exploratory laparotomy *per se* in (*a*) real, (*b*) supposed, malignant disease of abdominal organs. He had been struck by the remarkable improvement in certain cases of indubitable malignant disease which followed a simple incision without further operative procedure; and thought that if future explorations were scanned in the light of expected amelioration, it would be found that the peritoneum, thus stimulated, behaved to a certain extent as in tuberculosis. In illustration of this he read notes of some cases: 1. A woman, aged 49, with advanced carcinoma of the sigmoid flexure, gained flesh and lost all bad symptoms, though the favourable change lasted only six weeks. (2) A woman, aged 55, with rapidly advancing and very vascular deposit in the omentum, secondary to breast scirrhus. After incision the advance was materially checked, the mass diminished in size, there was no ascitic trouble, and the patient lived eighteen months. (3) A man, aged 58, with extensive deposit of carcinoma along the whole posterior surface, and most of greater curvature of the stomach. After incision great improvement took place, but the patient was quickly lost sight of. (4) A man, aged 64, with a large sarcomatous mass infiltrating both recti. Since exploration in June, 1896, the growth had diminished, the man had no bad symptom, and was able to work regularly as a sawyer. (5) An exploratory incision was performed in the case of a woman for a renal growth infiltrating the lumbar muscles, and thought, perhaps erroneously, to be cancerous. All bad symptoms had subsequently vanished. (6) A woman, aged 48, with carcinoma of the gall bladder. After exploration she stated that she felt better, and more free from pain than she had done for months. She went home and has since succumbed. From a recent paper by Mr. Leonard Bidwell two cases of diffused peritoneal cancer were quoted, in which very pronounced benefit similarly followed laparotomy *per se*. Others were cited in which the diagnosis of abdominal lumps was shown to contain, in even the ablest hands, a strong element of uncertainty. The author concluded that routine exploration should be early resorted to in every instance of supposed abdominal cancer for two reasons: (*a*) The possibility of error, (*b*) the fact that as a mere measure of treatment this step always improves, and often materially checks the advance of truly malignant disease, permitting scope for the administration, on which he placed the greatest reliance, of opium with cocaine.

The President had himself operated on cases where, on opening the abdomen, he believed that he had to do with ineradicable malignant disease, and had closed the abdomen without proceeding further; yet the patients had got quite well. In one case the operation was in the region of the gall bladder, and before she left hospital the patient was already much better; and now, several years after the operation, she remained quite well. Increased experience would, he thought, show that many of these cases were not malignant.

Dr. Clement Godson related a case, seen by the late Sir Spencer Wells, and which was thought to be kidney or spleen. She came under the care of Mr. Meredith, who advised operation. This was agreed to, and he assisted Mr. Meredith. On opening the abdomen a large firm mass was found, which seemed malignant, and it was agreed to close the abdomen. The patient was now quite well.

Dr. MACNAUGHTON JONES thought the main point was that most of the cases were not malignant. In true malignant cases, while he admitted that a temporary improvement might follow, he did not believe that a permanent cure could be expected. He agreed with the President that cases of this kind were mainly inflammatory or tuberculous.

Dr. PURCELL had a case in which there was a mass in the left iliac region, and ascites (which he believed always occurred with malignant disease involving the peritoneum). On opening the abdomen a tumour of the bowel was found, not occluding it, but adherent to everything. He closed the abdomen, and the patient was now (eighteen months after) in good health.

Mr. BOWREMAN JESSETT thought the title of the paper was somewhat of a misnomer, since Dr. Snow had not the opportunity in all the cases of saying whether the tumour was malignant or not. In one case he saw a lady with a large tumour; she had vomiting and watery motions. Her doctor diagnosed cancer of the liver, and two experienced physicians confirmed the diagnosis. A copious sweet-oil enema caused that tumour to come down into the bed pan. In one or two other cases he had had a similar experience, and in such cases a similar improvement would have followed abdominal section.

After some remarks by Dr. C. H. F. ROUTH,

Mr. J. WALKER SMYTH said he had had two cases similar to those of Mr. Jessett: in one an enema was given, with the same result; the other was a man with a lump over the pubes: with the catheter a quantity of urine, containing pus, was drawn off; the tumour disappeared, and the man got well.

Dr. HERBERT SNOW replied.

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EPIDEMIOLOGICAL SOCIETY.—At a meeting of this Society on May 21st, Surgeon-Lieutenant-Colonel J. LANE NOTTER, M.D., President, in the chair, Dr. ANDREW DAVIDSON read a paper on Seasonal Fluctuations in Epidemic Diseases. These were distinguished alike from the rare pandemic waves and from the greater and lesser epidemiological waves recurring regularly at longer or shorter intervals, which had been investigated by Drs. Ransome and Whitelegge, by the constant recurrence at the same season in each place, though different from that at another, these differences of season frequently corresponding with similarity of conditions of temperature and moisture. This was well seen in the curves of cholera for Europe and the various provinces of India; in the former the heat of summer, and in the latter the rains, being the determining factor. As regards cholera, typhoid, and the paludal fevers which were caused by saprophytes growing and multiplying in the soil, the influence of meteorological conditions was rarely understood, but it was far from obvious in the case of small-pox, measles, and scarlatina, which were believed to be due to obligate parasites whose soil was the living body, and on which season and weather could have but an indirect influence. Small-pox and measles had spring-summer, and autumn-winter curves, the one being higher in some, and the other in other, countries, though when introduced into a highly susceptible population they spread irrespectively of season until the susceptible material was exhausted. Though composite curves gave two annual waves, there was generally only one in each and in London the deaths in epidemic years were highest in the second quarter, and in non-epidemic years in the fourth, though he could not say whether, as in Hamburg, the prevalence and the case-mortality corresponded with the death-rate. In Bagdad measles and small-pox had been spring diseases from the time of Rhazes, and were entirely absent during the hot, rainless season from June to October. In Europe, Asia, and America small-pox followed approximately the temperature curve, beginning, indeed, with the fall of temperature in the early winter, but reaching its maximum in the early summer, and measles showed a like curve or curves. With regard especially to the essentially infectious diseases, he would suggest in explanation of many other phenomena that (1) in non-epidemic periods the more susceptible only were attacked; but (2) the virus passing through such individuals gained in intensity, and the disease tended to spread; that (3) when it had thus assumed the character of an epidemic and the more resistant were struck down, it became in them more and more attenuated, until it died out. Flügge ascribed the winter appearance of small-pox to overcrowding and neglect of personal cleanliness in the cold weather, but this would not account for the greater prevalence in spring, nor apply to tropical countries. He had seen it raging in Madagascar when the temperature was between 90° and 100°, and in 1870 it spread through the Hudson's Bay Territory with the thermometer below Fahrenheit's zero. All alleged relations between these purely infectious diseases and seasons, etc., were local and accidental, and the influence of humidity on the diffusion of the virus was doubtful. The relation he believed to be indirect; susceptibility meant either a general lessened power of resistance or a local increased vulnerability, and either might be to a greater or less degree determined by the weather. As to the former, one could only conjecture, but as to the latter it was evident that conditions inducing catarrh of the pharyngeal and bronchial mucous membranes would tend to facilitate infection of scarlatina, diphtheria, and measles, and those of the gastro-intestinal tract of cholera and typhoid, these being respectively the surfaces by which the virus of these diseases usually gain access to the body, and this would apply equally to facultative and obligatory parasites. The sensitiveness of the respiratory passages set up with the advent of winter passed off as the system became inured to the cold, but returned with the warm suns and cutting east winds of spring. Other domestic and social habits contributed to the same result, school attendance and association in ill-ventilated rooms, for example; and, accordingly, it was common in Poland and parts of Germany to see an outbreak confined either to the Christian or the Jewish population. In the careful study of the personal habits of the people in their relation to the seasons in every part of the world, coupled with the law of intensification and attenuation, the clue to the seasonal fluctuations of epidemic diseases should be sought and might be found.—Dr. RANSOME showed numerous charts of the epidemiology of Manchester for ten years. He fully agreed with Dr. Davidson's suggestions as to the influence of tonsillitis, bronchitis, and diarrhœa in favouring the infection of specific diseases, and also as to the intensification or attenuation of the virus with the susceptibility or refractoriness of the individual, which was borne out by Pasteur's early researches; but he had observed also that at least 70 per cent. of scarlatinal outbreaks coincided with a fall of the barometer, which was suggestive of the ascent of the poison with sewer or infected ground air.—Dr. K. MCLEOD criticised the paper from the Indian standpoint, and the discussion was kept up by Drs. PARSONS, NEWSHOLME, WILLOUGHY, BULSTRODE, COUPLAND, and Mr. CHILD.

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HARVEIAN SOCIETY.—At a meeting on May 27th, Dr. MILSON (President) in the chair, Dr. LEONARD GUTHRIE showed a man, aged 29, the subject of "Muscular Dystrophy." There was marked atrophy of the quadriceps femoris on both sides, with pseudo-hypertrophy of the calf muscles. The infraspinati were apparently enlarged, but not the deltoids or pectorales: the buttocks were wasted; lordosis was slight; gait and method of rising to the erect position were typical of pseudo-hypertrophic paralysis. Swelling of the calf muscles and fatigue after exertion had been noted from early childhood. The symptoms had increased during the past three years. The patient's maternal grandfather and also an elder brother were said to be similarly affected. Mr. JACKSON CLARKE observed that when lordosis was present in these cases it was the result of disturbance of balance rather than of muscular action.—Dr. KNOWSLEY SIBLEY showed a woman, aged 64, who had lost a sister from phthisis. She had never been very strong, but until October, 1896, when both hands were attacked with rheumatism, she had never been laid up. Shortly after this a swelling appeared on the back of one hand and on the wrist of the other; these had persisted ever since. The patient had an irregular temperature, usually 100° to 101° at night, and subnormal in the morning. She had signs of old standing tuberculous mischief at the right apex. Both hands were enlarged, and all the fingers more or less stiff and painful. There was considerable thickening and grating about both the

wrist joints. There was a swelling about the size of a walnut over the dorsum of the left hand, and another rather larger over the ulnar surface of the right wrist. These swellings were soft, fluctuating, and not tender. The contents drawn off with a hypodermic syringe consisted of clear pus. A trace of albumen was present in the urine. The case was unusual in that one of chronic phthisis should late in life be attacked with a subacute form of rheumatism followed by what appeared to be subcutaneous abscess, probably of tuberculous nature. Dr. Sibley did not consider the whole process to be tuberculous, as there was distinct thickening, with stiffness of the individual finger-joints, apart from the disease of the wrist-joints. The patient had considerably improved since she was admitted into the North-West London Hospital, under the Tallerman-Sheffield hot air baths. Mr. RAYMOND JOHNSON was inclined to regard the affection of the wrist-joints as tuberculous, and believed that the superficial abscesses over the joint had a deep origin. Tuberculous disease of the wrist was usually met with in adults, and probably it was more commonly associated with tuberculous disease of the lungs than was the case with the other large joints. Dr. ALFRED EDDOWES said that it would not surprise him if such a condition of joints proved to be due to the tubercle bacillus, as that organism seemed to produce lesions varying greatly in appearance, according to the position of the part and nature of the tissue attacked. He held in his hand a photograph of a case of lupus vulgaris of the nose and right leg, the tubercle in the latter position having apparently produced elephantiasis.—Dr. SIBLEY also showed a case of Erythema Multiforme, associated with rheumatic symptoms, in a woman 57 years of age. Red spots appeared on her knee associated with general pain in the limbs and joints. Mr. RAYMOND JOHNSON asked whether the possibility of the skin eruption and the condition of the mouth being syphilitic had been entertained. Dr. EDDOWES, replying to a question of the President, said he thought the skin lesions might be the result of inoculation by insects, while the so-called "smoker's patches" he believed were sometimes due to the action of caustics employed for relief of toothache. Dr. SIBLEY replied that he had been unable to obtain any evidence of syphilis. —Dr. EDDOWES showed (1) a case of Lichen Simplex Chronicus in which the lesion had existed for many years without improvement. He strongly advocated the employment of Unna's compound mercurial plasters, especially Nos. 16 and 88, for this rebellious disease. He had had several such cases under his care, and all had progressed as favourably as the patient shown, who was nearly cured. (2) A patient suffering from Psoriasis Circinata in its most typical form.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND. —The annual general meeting and conference of this Society was held on May 26th, at 20, Hanover Square, W., Dr. J. F. PAYNE, President, in the chair. After the usual official business had been disposed of, the PRESIDENT delivered his annual address, leading up to the subject which had been chosen for discussion, namely, The Influence of Light and other Forms of Radiant Energy on the Skin and Tissues, that is, the Effects of Roentgen Rays, Solar Light, and the Electric Light. Dr. R. BOWLES opened the discussion with a paper, in which he reviewed the results of his own observations and experiments, together with those obtained by others. Dr. RADCLIFFE CROCKER followed, touching more especially on X-ray Dermatitis and the Etiology of Freckling. The subject was further discussed by the PRESIDENT, Dr. DAVID WALSH, and Mr. GEORGE PERNET, and also by some of the visitors present. Dr. BOWLES replied.—Numerous patients were exhibited: two cases of Leprosy (Dr. H. RADCLIFFE CROCKER); Seborrhœa of long standing (Dr. HARRISON, of Clifton); Dermatitis, Herpetiformis, Serpiginous Lesions of Hands, etc. (Dr. P. S. ABRAHAM); Traumatic Alopecia, etc. (Dr. J. H. STOWERS); Alopecia Areata, etc. (Dr. A. EDDOWES); and others. Various radiograms, photographs, coloured drawings, microscopic specimens, etc., were also shown.—The following were elected office-bearers for the session 1897-98:—*President:* Joseph Frank Payne, M.D. *Vice-Presidents:* Robert L. Bowles, M.D.; A. J. Harrison, M.B., J.P.; Jonathan Hutchinson, F.R.S.; Philip H. Pye-Smith, M.D., F.R.S.; Buxton Shillitoe, F.R.C.S.; Walter G. Smith, M.D. *Treasurer:* Jas. Herbert Stowers, M.D. *Hon. Secretaries:* George Pernet, M.R.C.S.; William T. Freeman, F.R.C.S. *Council:* P. S. Abraham, M.D.; F. H. Barendt, M.D.; Wallace Beatty, M.D.; Leonard A. Bidwell, F.R.C.S.; Henry A. G. Brooke, M.B.; John Cavafy, M.D.; Alfred Cooper, F.R.C.S.; T. Colcott Fox, M.B.; James Galloway, M.D.; Evan H. Hare, F.R.C.S.; Charles H. Thompson, M.D.; Henry Waldo, M.D.

CAMBRIDGE MEDICAL SOCIETY.—At a meeting on March 5th, Dr. HOLDEN, President, in the chair, Mr. W. GIFFORD NASH presented a communication on Axial Rotation of the Testis. Torsion of the spermatic cord gave rise to strangulation of the testis, which was followed by atrophy or gangrene. In 1891 a case occurred at Plymouth which was operated on by Whipple. The specimen removed was sent to the College of Surgeons Museum and reported by Mr. Nash in the BRITISH MEDICAL JOURNAL. Since 1891 cases had been recorded by Bryant, Keen, Davies-Colley, Page, Barker, Owen, Johnson, Sheen, and Taylor. One case also had been reported by Mr. Nash, in which he was able to reduce the twist without any operation. Some atrophy followed, although the twist had only been present three or four hours. He had since then had under his care a boy who on three separate occasions had had sudden swelling of the left testis, which had caused faintness and vomiting, which had rapidly disappeared on lying down. On one occasion when he saw him during an attack there was a distinct lump involving the cord just above the testis, which was twice its usual size. The only explanation of these attacks was the occurrence of a temporary twist. The symptoms and diagnosis of the condition were fully described. As regards treatment, if the case was seen early and recognised it might be possible to untwist: probably this occasionally occurred spontaneously. If this was not possible it was best to castrate, and if a hernia coexisted do a radical cure.—Dr. LAURENCE HUMPHRY read notes of cases of Addison's Disease and Pernicious Anæmia. He made remarks upon the two cases, and alluded to the difficulty of diagnosis in the earlier stages of the case of pernicious anæmia. The symptoms pointed then to Addison's disease, and the patient, a woman, aged 45, improved remarkably under the treatment by suprarenal extract. The blood at that time was examined, and showed no evidence of hæmolytic change. It was interesting to remember that Addison, when searching for a cause for cases of idiopathic anæmia, had made his discovery of the disease of the suprarenal capsules subsequently named after him.—Mr. DOUTY showed a case of Cæsarean Section for Contracted Pelvis. Six weeks after the operation, both mother and child appearing strong and well, and the mother's abdominal wound quite firm. He gave a full description of the case, and a history of the procedure from the earliest times.

# REVIEWS.

A COURSE OF PRACTICAL HISTOLOGY. By EDWARD ALBERT SCHÄFER, LL.D., F.R.S., Jodrell Professor of Physiology in University College, London. Second Edition. London: Smith, Elder and Co. 1897. (Cr. 8vo, pp. 310. 7s. 6d.)

IN these days of large classes and multiplicity of subjects studied, the practical teaching of histology presents great difficulties, owing to the large amount of time which must necessarily be spent if the student is to make for himself the preparations which are essential if his knowledge is to be practically acquired. Too often the histology class, even in the most reputed schools, is simply an hour or so spent in looking at sections prepared and given out ready mounted by the laboratory attendant. In some cases the student thinks himself lucky if he has the opportunity of adding the Canada balsam and putting in the cover slip. Professor SCHÄFER'S practical volume, which we are glad to see has reached its second edition, ought to go a long way to remove any excuses that might hitherto have been offered for the continuance of this kind of pseudo-practical work. The directions given in it for the preparation of various tissues of the body are so full and simple that any average student ought to be

able to carry out most of the practical work himself, without the constant intervention of a teacher.

The methods given embrace other than those of section cutting. To obtain a good mental picture of the minute structure of an organ or tissue from sections alone involves a considerable amount of skill in interpretation, as well as mastery of technique. Very often much can be more easily learnt by the simpler methods of teasing and maceration. The volume is too well known to need detailed description. We need only add that it is certainly the most practical of the many practical textbooks that have appeared.

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AN ATLAS OF HUMAN HISTOLOGY. By Dr. ARNOLD BRASS, Göttingen. Authorised Translation from the German, with additions, by R. A. YOUNG, M.D., B.Sc.Lond. London: Baillière, Tindall, and Cox. 1897. (Roy. 8vo, 60 plates, engraved and printed in colours, with letterpress.)

ENGLISH histologists owe a debt of gratitude to Dr. YOUNG for translating and editing this beautiful book, and so placing within the reach of that portion of the scientific community that does not read German one of the most perfect examples of technical drawing and colour printing yet published. The volume is a series of representations in colour of the appearances presented under the microscope by prepared and stained specimens of the various tissues and organs of the body. Its function must be as an incentive to the study of the actual preparations and as a companion to the textbook, and not as a substitute for the microscope and actual observation. A unique feature of the *Atlas* is that most of the specimens have been derived from some of the best German private collections, from which the figures have been faithfully drawn, the reproduction and colouring having been actually carried out by the author with his own apparatus. The fact that the specimens are in nearly all cases from the human species renders the work all the more valuable. In too many books animal tissues are used for illustration.

Each plate is accompanied by explanatory notes. These have wisely not been made sufficiently detailed to enable the *Atlas* to replace the textbook, and merely describe the nature of the section and indicate the various tissue elements of which it is composed.

The magnification in diameter, the method of hardening and staining, and the source of each preparation are given with each figure. No praise can be too high for the accuracy and beauty of the work, and we confidently recommend it to the students and teachers for whom it was written.

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DIE KRANKHEITEN DES GEHIRNS UND SEINER ADNEXA IM GEFOLGE VON NASENEITERUNGEN [Diseases of the Brain and its Annexa resulting from Nasal Suppuration]. Von Dr. R. DREYFUSS, Spezialarzt für Hals, Nasen und Ohrenleiden in Strassburg-i-Els. Jena: Gustav Fischer. 1896. (Roy. 8vo, pp. 106. M. 3.)

WHILE the dangerous intracranial lesions resulting from suppurative affections of the ear have been fully studied and the results collated by Koerner, Hessler, and other authors, those arising from diseases of the nose have not received the attention which the monograph before us would lead us to feel that they deserve. Their occurrence is not of very great frequency, but there can be little doubt that in many instances their presence has been overlooked. Dr. DREYFUSS has sought out all the published cases, and has found instances of fatal intracranial disease resulting from antral suppuration in 5, frontal suppuration in 22, ethmoidal in 10, and sphenoidal in 13. The paths of infection in the different cases are described, and the question of the necessity for, or the justifiability of, surgical intervention discussed.

The author goes very fully into the indications for external operation on the frontal sinus. In regard to ethmoidal suppuration, he recommends the intranasal methods of operation described by Schäffer and Grünwald as long as the disease is in the so-called latent stage, that is, before it has pushed its way into the orbit. When the latter has taken place an external operation is called for, and it is often advisable at the same time to lay open the frontal sinus. Intracranial complications of sphenoidal suppuration are, according to the author, practically beyond the range of therapeutics. In time no doubt this opinion will require modification. Meanwhile, the treatment of the intranasal condition is comparatively easy and satisfactory in its results. While pointing out the prophylactic value of judicious and thorough intranasal interference, the author inculcates the necessity for due caution in the use of probes and other instruments in the neighbourhood of the cribriform plate.

The book is a valuable one, and affords much scope for serious reflection, exposing as it does some often unsuspected sources of fatal disease.

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ATLAS UND GRUNDRISS DEL KEHLKOPFKRANKHEITEN (Atlas and Elements of Diseases of the Larynx]. Von Dr. L. GRÜNWALD, Munich. Munich: J. F. Lehman. 1897. (Cr. 8vo, pp. 100, with 107 coloured and 27 black and white illustrations, 44 plates with descriptions. M.8.)

THIS convenient little *Atlas* contains 107 coloured pictures, the majority being fairly typical representations of almost every variety of disease of the larynx. The remainder consist of microscopical sections, taken as a rule from cases of which the clinical appearances are represented in other parts of the *Atlas*. The description attached to each picture gives a concise epitome of the history of the case, and the reasons for the diagnosis arrived. The pictures are not grouped according to the different kinds of disease, but according to the region chiefly affected. Thus we have diseases of the epiglottis, diseases of the vocal cords, subcordal changes, diseases of the ventricular bands, diseases of the posterior wall, changes in the entrance to the larynx, diffused changes, paralyses, etc. This arrangement is interesting, and in any case it has the merit of novelty. Among the points brought out with some force, we should like to mention particularly the recognition of those forms of laryngitis which are secondary to disease, especially purulent disease, of the nose and naso-pharynx.

For personal study the work is most valuable, and the moderate price places it within the reach of all. The German is extremely clear, and may present attractions to the medical student of that language. As an aid to the teacher of laryngology it is invaluable.

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## NOTES ON BOOKS.

*Nurses' Report for Day and Night.* By Miss LÖHR, Member of the Royal British Nurses' Association. Arranged for Three Weeks. (Price 9d., or by the dozen, 6s.)—These reports are for the use of private nurses, and are arranged for food, stimulant, medicine, and sleep, with space for other observations. We have no doubt that to some nurses they may be of use, but for our own part we find that the report is of more use if it is adapted to the particular case that is under observation at the time. However, as it is not likely that all will agree on this point, we would suggest that nurses send to Miss Löhr at the Potter's Bar Cottage Hospital for a book of reports, and judge for themselves.

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*Plumbing.* By WILLIAM PATON BUCHAN. Seventh edition. (London: Crosby, Lockwood, and Son. 1897. Crown 8vo, pp. 372. 3s. 6d.)—To the medical man a work on plumbing by a practical plumber, which has run through seven editions, cannot fail to be of interest considering the great practical importance of the subject to the efficient carrying out of prophylactic measures. In it will be found not only the practical details of the art, but a large amount of material, which, being the outcome of many years' experience, must be of great value. The chapters dealing with drainage and ventilation are especially useful, and the precise directions given for applying the various tests for the safety of traps and closets are very valuable. The book is profusely illustrated with diagrams and explanatory sketches, and is written in clear and untechnical language. It is thoroughly practical from beginning to end, and, being of small dimensions and published at a moderate price, ought to continue to command public support.

# REPORTS AND ANALYSES
AND
# DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

## SAXIN TABLOIDS.

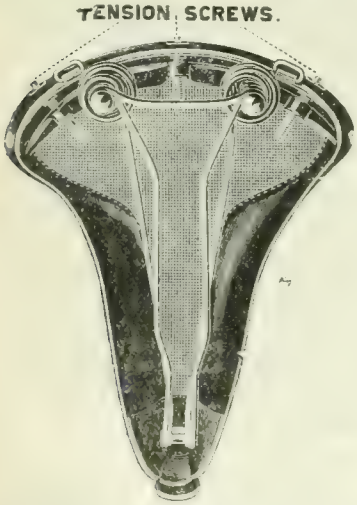
Messrs. Burroughs, Wellcome and Co., Snow Hill Buildings, E.C., have introduced, under the name of Saxin, a synthetic compound, which is stated to possess a sweetening power about 600 times greater than that of sugar. It is prepared in the form of compressed tabloids, which will be found convenient for the use of patients suffering from diabetes, gout, etc.

## PALATINOIDS.

Messrs. Oppenheimer, Son, and Co. Limited, 14, Worship Street, E.C., have sent a specimen of palatinoids containing the freshly-prepared phosphates of iron, quinine, and strychnine, equivalent in strength to half a drachm of Easton's Syrup. The phosphates, enclosed in a jujube cachet or palatinoid are entirely protected from the action of the air. The syrup is not a satisfactory preparation, as the strychnine is apt to be precipitated. The palatinoid form of administration can certainly be recommended as a reliable one.

## A NEW CYCLE SADDLE.

Now that the bicycle has become such a convenient and usual mode of progression among medical men, any improvement leading to greater comfort in riding, no matter how small, is welcome. The saddle is certainly the most important element in comfortable and healthy riding, and many riders have found that by getting a saddle that suits them they can ride with ease a greater distance than could previously be done with exertion. The saddle illustrated, which is called the St. Crispin saddle, presents several points that commend themselves, and have, moreover, stood the test of actual experience. The essential points in its construction are the following: It is very well provided with springs; it is very broad behind where the weight of the body is transmitted through the ischial tuberosities and gluteal muscles. It is well cut away in front so as to allow of free thigh movement, and the central position, on which the perineum rests is constructed of soft canvas, the rest being leather. The advantage of this latter method of construction is obvious, for it is the perineum that is endangered in most forms of saddles; and even in many forms of so-called anatomical saddles in which the central portion is cut away, the difficulty of direct pressure is but exchanged for that of lateral compression. The ideal arrangement would be to construct the saddle of some substance capable of exerting a graduated pressure, falling away to nothing in the centre, and this is very nearly accomplished in this saddle by the ingenious combination of leather and soft canvas. The addition of regulating screws at the back allows of exactly adjusting the tension of the whole supporting surface.




The saddle seems to be well and strongly made, easily attached to any machine, and is very moderate in price. It may be obtained from Messrs. Gerard and Son, 257, King's Road, Chelsea, S.W.

## EMERGENCY INFUSION CANNULA.

Mr. W. C. Hossack, M.B., writes that the ordinary forms of infusion apparatus are largely open to the criticism that they are too complicated and cumbrous to carry habitually. The simple funnel apparatus is free from these faults, but has one vital drawback—it requires a skilled assistant to see to the filling of the funnel. With an unskilled assistant there would be splashing and gurgling and grave risk of air entering the vein—the chief danger to avoid in infusion. The apparatus here brought forward is, he claims, free from these faults. It is based on the fact that most obstetricians carry with them the plain siphon douche as used at the Rotunda Hospital and other leading maternities.




The advantages of this douche are that it is easily kept aseptic, can be used with any vessel or receptacle, and reduces to a minimum the risk of air passing with the stream. All that is necessary to make it available for intravenous injection is to have a cannula to fit the siphon tube. This is secured by enlarging the upper end: it is made bulbous to secure not slipping. The vein opening is terminal instead of at the side, to avoid risk of air remaining in the blind end. It is enclosed in an aseptic metal case which can be boiled. This contains a couple of specific gravity beads, of 1030 and 1028. The advantages claimed for it are: It is perfectly simple; it is inexpensive, it adds no more to the bulk of a bag than would a thermometer, and can be habitually carried; its shape ensures its lying easily in the vein, risk of air in the veins is reduced to a minimum, it is aseptic and always ready for instant use; it can be used without having to send for a skilled assistant. The following is the method of use: A siphon douche, cannula, large and small jugs, a spoon, boiling water and cold boiled water if available, or tap water, and lastly common salt are required. Scald thoroughly all utensils to be used and boil the spoon. Make a saturated salt solution in the small jug. In the large jug mix two or three quarts of water as near 98.4° F. as possible, tested by an aseptic thermometer or by pouring on the back of the hand. Add a specific gravity bead and pour in salt solution till the bead rises to near the surface, mixing thoroughly with the spoon. The solution is now ready for infusion. Put the siphon end of the tube in the jug and start it running; then put on the catch on the lower end of the tube and leave it full and ready to run. Now expose but do not open the median cephalic vein. Next insert the cannula into the tube with the following precautions: First let the stream run into the warm water in the basin to ensure all air being out of the tube. While still running insert the cannula under water. That these precautions are necessary is proved by the fact that at any gynæcological clinic the ordinary vaginal glass nozzle may be seen at any time half full of air when the douche has been running some little time. With the cannula running, open the vein rapidly and insert the cannula, still running, and tie it in if necessary. Observe the level in the reservoir and allow the flow to continue until 1½ or 2 pints have entered the vein. Whisky or brandy should be added to the douche in the proportion of a teaspoonful to a pint. Messrs. Arnold and Sons, of 31, West Smithfield, are the makers.

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Quarantine Difficulties in the Red Sea.—The *Daily News* correspondent, telegraphing from Cairo on May 30th, states that some excitement prevails at El Tor owing to pilgrims from Mecca refusing to submit to the quarantine regulations, and breaking through the military cordon. Dr. Ruffer, President of the Quarantine Board, who is personally superintending the operations, has asked for more troops, and these are leaving at once. A suspicious case of cholera is reported.

# GENERAL COUNCIL

OF

## MEDICAL EDUCATION AND REGISTRATION.

*SUMMER SESSION, 1897.*

*Thursday, May 27th (continued).*

Sir RICHARD QUAIN, Bart., President, in the Chair.

### RESTITUTION OF NAME.

THE following report was received from the Executive Committee:

The Executive Committee have considered the application of Daniel Costelloe, Mem. R. Coll. Surg. Eng., for the restoration of his name to the *Medical Register*, from which it was removed on December 5th, 1894, under Section XXIX of the Medical Act (1858), on the ground of his having acted as a cover.

(*a*) The Committee have ascertained that the applicant has complied with the Standing Orders.

(*b*) The Committee have considered the case and accompanying certificates, and recommend the Council to restore the name and qualifications of Daniel Costelloe to the *Medical Register*.

On the motion of Sir WM. TURNER, seconded by Dr. GLOVER, the report was adopted, and the Acting Registrar was instructed to restore Mr. Costelloe's name to the *Register*.

### HER MAJESTY'S DIAMOND JUBILEE.

Sir WM. TURNER read a report from the Committee appointed to prepare an address to Her Majesty the Queen.

The address was adopted, the members all standing; and it was also resolved that it should be suitably engrossed and prepared for the signature of the members.

### DEATH CERTIFICATES.

The PRESIDENT made a statement in regard to the deputation to the Local Government Board directed by the Council on November 27th, 1896, on the subject of imperfect certificates of death being accepted as registration of death. One of the recommendations, he said, was that undertakers should be registered and have a sort of licence. Everything, he said, had been done in accordance with the direction of the Council.

### PENAL CASES.

The Council then proceeded with the consideration of the case of Robert Alexander Douglas Lithgow, of 27A, Lowndes Street, Belgrave Square, S.W., registered in England, May 5th, 1873, as Lic. Soc. Apoth. Lond. 1871, Lic. 1872, Mem. 1880, R. Coll. Phys. Edin., Lic. R. Coll. Surg. Edin. 1872, M.D. Univ. St. And. 1890, to answer the following charge, on the complaint of the Medical Defence Union:

The complaint has relation, first, to Dr. Lithgow's alleged association in medical practice with William Maunsell Collins, of 10, Cadogan Place, an unregistered person, whose name was erased from the *Medical Register* by direction of the Council, pursuant to Section XXIX of the Medical Act, 1858, on the ground that he had been convicted of felony, but who still held the qualifications of M.D., Mast. Surg. of the Queen's University of Ireland; secondly, to his alleged association with, and support given to, an unqualified person named Mrs. Maitland King, who purports to carry on, or has carried on, a medical practice at 49A, Park Street, Grosvenor Square, and 31A, Grosvenor Street, Grosvenor Square, or one of those places.

With regard to Dr. Lithgow's association with William Maunsell Collins, it is alleged by the complainants that he had acted as cover to him, and by his presence, advice, and assistance, and meeting him in consultation, and certifying deaths for him, had enabled W. M. Collins, notwithstanding the erasure of his name from the *Medical Register*, to carry on a medical practice as though he was a still duly registered practitioner. In particular, it is alleged that he so acted as cover to W. M. Collins in the particular case referred to in the depositions taken before the Coroner for West Middlesex on July 4th, 1895. With regard to his association with Mrs. Maitland King, the complainants allege that she carries on a so-called establishment for private massage and medical electric treatment, at which she professes to administer medical treatment to patients, and carry on a medical practice, and that such establishment is carried on under, or assisted by, Dr. Lithgow's medical supervision.

The complainants are the Medical Defence Union, Limited.

Mr. Farrer, the Council's solicitor, attended to advise the Council, and Mr. Muir Mackenzie attended as legal assessor. Dr. Lithgow attended in answer to his summons. Mr. R. W. Turner appeared as counsel for the complainants, the Medical Defence Union; and Dr. Bateman, the Secretary of the Union, was also present. Sir Frank Lockwood, Q.C., M.P., and Mr. Montague Lush, appeared as counsel for Dr. Lithgow.

Mr. TURNER desired that any member of the Council who might be connected with the Medical Defence Union in any way should be requested to retire during the hearing of the case, but was informed that the matter had been considered by the Council, and that no such member would take part in the proceedings.

Mr. FARRER read the charges against Dr. Lithgow, which were twofold: (1) That he had "covered" William Maunsell Collins: (2) that he had "covered" an unqualified female practitioner named M. Maitland King. The evidence upon Charge 1 was based on the depositions taken at the Coroner's Court, Kensington, touching the death of Laura Moncrieff Robertson Scott-Campbell, from which it appeared that Dr. Lithgow was in the habit of assisting Dr. Collins, and enabling him to practise as if he were duly qualified, and that, in addition, he signed death certificates for Collins. The evidence upon which Charge 2 was based was included (*a*) in a letter from an unqualified person, M. Maitland King, to the Secretary of the Medical Defence Union, in which she admitted being "covered" by Dr. Lithgow; (*b*) an advertisement from the *Provincial Medical Journal*: (*c*) the evidence in the case brought by Mrs. King against the Metropolitan Railway Company.

Mr. TURNER then proceeded to open the case on behalf of the prosecution. The material facts, he said, upon which he relied were contained in Dr. Lithgow's answer. From it it appeared that Dr. Lithgow was attending Dr. Collins, and at Dr. Collins's request had attended Mrs. Campbell from June 10th, 1895, until her death on June 18th. Mrs. Campbell had been an old friend of Dr. Lithgow's, and had been in the habit of visiting his house. Dr. Collins had told him that Mrs. Campbell had caught a chill while out bicycling, and the statement was also confirmed by the lady herself. On June 10th Dr. Lithgow was summoned to see Mrs. Campbell and he prescribed for her; he also saw her on the 11th, 12th, 13th, and 14th. On the 14th Dr. Collins offered to accompany him to visit Mrs. Campbell, to which he assented. Knowing that he was qualified, and knowing, also, that other medical men had recently met him in consultation, he did not think that he was guilty, or should be thought guilty, of any professional misconduct in assenting. They accordingly went to see Mrs. Campbell. On the 15th he saw the patient again. On the 16th he called but did not see her as she was better. On the 17th he called again, but did not see her as Dr. Collins had already seen her and she wanted rest. On the 18th he was sent for in a hurry by Dr. Collins, who had called and found her much worse. When he arrived she was in a state of collapse. He suggested consultation with Dr. Kidd, but she died before that gentleman could come. Dr. Lithgow thereupon gave a certificate of death, but that certificate, said the learned counsel, was found to be incorrect. It was suggested by the Medical Defence Union that Dr. Lithgow was acting with Dr. Collins, and doing something for him which Dr. Collins was not in law entitled to do, namely, to give a death certificate. Assuming that he had acted in that way for Dr. Collins during his illness, surely when Dr. Collins was able to do his work again Dr. Lithgow should not have gone on advising a patient in conjunction with a man who had been struck off the *Register*. It was for the Council to say whether it was to be a general practice in the medical profession that a registered man should assist in that way a man who was not on the *Register*, and who had been struck off for professional misconduct.

Mr. MUIR MACKENZIE pointed out that Dr. Collins had not been struck off for professional misconduct.

Mr. TURNER said he had been struck off for having been guilty of a felony.

The learned counsel then dealt with the charge against Dr. Lithgow in connection with Mrs. Frederick Maitland King, in

which he was alleged to have assisted that lady in her massage practice. Mrs. King styled herself Mrs. Dr. Maitland King, M.D. U.S.A., and she stated that she was on the American *Register*. He had that *Register*, which was supposed to contain all American diplomas, but it did not contain her name. In the puffs appearing in advertisements and circulars she was described as a "nerve specialist," "a leading authority on nerve cases," and in one particular instance "a brilliant physician and nerve specialist, taking rank amongst the members of the most conservative of professions." An advertisement appeared in the *Provincial Medical Journal* under the title of "masso-therapeutics," in which the name of Dr. Douglas Lithgow appeared as consulting physician. The learned counsel then referred to the case of King *v.* the Metropolitan Railway, in which Mrs. Maitland King was the plaintiff, having met with an accident on the railway on February 3rd, 1894. During the course of the trial she said that "she had been nine years and a half in practice, and held a diploma as a physician." It was an American degree which she had obtained after five months' study. Her takings were £1,500 per year, and she did not pay income-tax. Mr. Waddy in his cross-examination had asked, "Have you any bill from your doctor?" and she had replied, "We doctors never send in bills to each other; in the medical profession we pay indirectly by presents at Christmas." Dr. Lithgow gave evidence in the case, and said that "he attended the plaintiff from February 6th, and made thirty-five visits. He did not make any charge, nor did he expect to be paid by her." That, said the learned counsel, showed the relationship between Dr. Lithgow and Mrs. King.

Sir FRANK LOCKWOOD called attention to the fact that the last occasion on which Dr. Lithgow attended Mrs. King for the purpose of professional assistance was in September, 1893.

Mr. TURNER referred to a book entitled *Corpulence and some Feminine Ailments, their Cause and Cure under the Maitland Treatment*, in which there was a number of press notices dealing with Mrs. King's treatment, and also to a book entitled *Hygiene of Womanhood*, by Mrs. (Dr.) Maitland King. Mrs. King was at the time these complaints were made practising as a physician, and Dr. Lithgow's name was associated with hers in the pamphlet. It was for the Council to determine what was the relationship of Dr. Lithgow with Mrs. King. He submitted that Dr. Lithgow's conduct was not the conduct that could commend itself to the medical profession, or that would receive the sanction of the General Medical Council.

Sir FRANK LOCKWOOD then addressed the Council on behalf of Dr. Lithgow. He said that his client was glad to have the opportunity of meeting the charges of infamous professional conduct which had been made against him, and he hoped to be able to clear himself from them. Dr. Lithgow was now 50 years of age. He was educated in Ireland, and matriculated early in life in Belfast, subsequently obtaining degrees which qualified him for his practice in the University of St. Andrews, of which University he was an M.D. In 1881 he came to London, where he had since pursued his profession. Dealing with the charge against Dr. Lithgow with reference to Dr. Collins, the learned counsel said that his client had known Dr. Collins before the unfortunate circumstances took place which led to his being deprived of his right to practise. Dr. Lithgow had frequently acted at the request of Dr. Collins in attending cases in which Dr. Collins was interested before his conviction, and when he had a good position in the medical world. Coming to the charge of the association with Dr. Collins after he had been deprived of his right to practise, the Council had the depositions before them and had seen the finding of the jury. He was surprised that his learned friend had allowed himself to say that Dr. Lithgow's death certificate was proved to be wrong by the finding of the jury. Was it meant to suggest that Dr. Lithgow had any knowledge of any sort or kind of that which was disclosed by the *post-mortem* examination? Dr. Lithgow would state, as he had already done in his declaration, that on the facts before him he could form no other conclusion, and he had absolutely no knowledge or suspicion of what the *post-mortem* examination revealed. The learned counsel then detailed the history of Dr. Lithgow's attendance on Mrs. Scott-Campbell. Dr. Lithgow was absolutely unprepared for that which was disclosed at the *post-mortem* examination. On Tuesday, when he found that the lady was dead, he gave to the best of his ability the cause of death. He had seen her for three or four days, and attended her in the absence of Dr. Collins, and he gave the certificate of death. Was that conduct which could be determined as "infamous"? It might be imprudent and regrettable, and even censurable, but was it "infamous"? That word had been chosen by the framers of the rules for its strength to stamp conduct the most contemptible, wicked, and unprofessional. But he protested that that was not the conduct of his client with regard to his relationship with Dr. Collins. Dr. Lithgow was prepared to produce all his ledgers and books for the perusal of the Council in order that they could see the occasions upon which Dr. Lithgow had acted for Dr. Collins. From January, 1891, to June, 1891, there were fifteen cases in which Dr. Lithgow attended at the request of Dr. Collins. He called attention to that fact for the purpose of showing that what was done afterwards was a continuation of a course of conduct, and that it was not the case of a man coming in for the purpose of assisting to cover another man who was deprived of his right to practise. It appeared that Dr. Lithgow and Dr. Collins were on friendly terms with each other before the disaster fell upon the latter, and Dr. Lithgow had been in the habit of attending patients when for some reason or other Dr. Collins was not able to give his personal attention to them. Since 1882 up to the time of the case with which they were now dealing, the whole record would be found in the ledger of the occasions on which Dr. Lithgow had acted in any matter. The only case in which it could be said that there was anything approaching joint action was the unfortunate case which was the subject of the present inquiry. The Council might think that Dr. Lithgow had acted imprudently, and perhaps even improperly, but he begged them to believe that if his client had done wrong he had erred from want of thought. Coming to the case in which Dr. Lithgow was accused of having covered the practice of Mrs. Dr. Maitland King, it appeared that Dr. Lithgow had permitted his name to be used in connection with an advertisement in the *Provincial Medical Journal* in 1894 as a consulting physician to the establishment of that lady. That was a very foolish thing for a man to do, but he (the learned counsel) did not see where the enormity of the offence came in. In his answer Dr. Lithgow had said: "I would add that I have some recollection of Mrs. Maitland King informing me some years ago that she used to advertise her institution in the *Provincial Medical Journal*, and of her asking me if she might put my name down as physician to her establishment, to which I apparently assented. The paper was only circulated among medical men, and I believe the advertisement was stopped in February, 1894. I have never given any consent to my name being used by her in any other way or at any other time." He further said: "I have never seen any case with Mrs. Maitland King as to any treatment, the only matter for my opinion being in each case whether the patient was fit for electro-massage treatment or not. To this extent, and to this extent only, have I had any 'asssociation' with Mrs. Maitland King's establishment. I have never, as a matter of fact, seen any cases at her establishment since September, 1893." He submitted that there was no evidence that Dr. Lithgow had covered the practice of Mrs. Maitland King. With regard to this charge, as he had said with regard to the other, although it was possibly conduct of which the Council might not approve, and which they might think it their duty to condemn, he would ask whether it was conduct which amounted to a justification for driving a man out of his profession? If a man had made a mistake and been guilty of the imprudence of allowing his name to be associated with an establishment of that kind, was it "infamous conduct" for which he was to be held no longer fitted to follow his profession? Dr. Lithgow had gone to the establishment to examine people who were to be submitted to the process. That was all he was proved to have done. Surely he was right in saying that that conduct did not amount to such enormity as to be worthy of the description of "infamous," and to be followed by the disastrous consequences to which he had referred. He understood that evidence could not be given on oath before the Council, but

Dr. Lithgow wished to personally state that which was contained in his declaration, and with the permission of the Council he would call him.

Dr. LITHGOW, examined by Sir FRANK LOCKWOOD, said he was now 50 years of age, and received his early education in Ireland. He matriculated at Belfast, and afterwards took his degree of M.D. at St. Andrews, becoming qualified in 1870 or 1871. He had held held various public appointments, one at Wisbech, in Cambridgeshire. He was married in 1875, and in 1881 came to London, where he had practised ever since. His wife died on March 16th two years ago. Very soon after he came to London he made the acquaintance of Dr. Collins, who at that time, he believed, was connected with one of the Household regiments. He could produce his ledgers showing that before Dr. Collins ceased to be a qualified practitioner he had attended cases at his request. About February, 1885, he had attended three or four cases by himself for Dr. Collins, who was away ill. He received the fees, and for the time being the patients became his own. In April, 1885, he attended a Mr. Fletcher, who died of phthisis, and he had certified accordingly. With the exception of Mrs. Campbell's case there were no others in which he had acted in which Dr. Collins was interested. In June, 1895, he was attending Dr. Collins, who himself was ill. He then mentioned Mrs. Campbell, whom he found he knew when he heard where she lived. Mrs. Campbell was a lady moving in good society, and had been known to his wife during her lifetime. Mrs. Campbell was a widow lady, 43 or 44 years of age, and had grown-up daughters living with her. He first of all saw Mrs. Campbell in the presence of Dr. Collins on June 14th. As far as he recollected he had paid his last visit to Dr. Collins that day, and before leaving him he had mentioned that the nurses had told him that the napkins were rather offensive. He did not think much about it, but Dr. Collins seemed to think it might be of importance, and offered to accompany him. He assented, and they both went to the case and saw it together. No actual operation took place. What really did take place was an examination. On the following Saturday he saw her again. According to his depositions it appeared that he saw her with Dr. Collins, but that was not his recollection now. He called on Mrs. Campbell on the Saturday and the Sunday. On the Monday he called, but did not see her. When he arrived on the Tuesday he found that she was very ill. She died on the Tuesday, and he gave a certificate, in which he stated what he believed honestly to be the cause of the lady's death. There was nothing whatever from first to last to suggest the objective conditions which had been disclosed at the *post-mortem* examination. The certificate he gave was an honest and *bonâ fide* expression of his belief. Ultimately he was paid for his attendances by the brother of Mrs. Campbell. In attending the case he had not the slightest intention of "covering" Dr. Collins. With regard to Mrs. Maitland King, he first became acquainted with her about twelve years ago. In 1894 his name appeared in an advertisement in the *Provincial Medical Journal*. After the appearance of the advertisement he did not attend any person in connection with Mrs. Maitland King. Her patients were, for the most part, persons of very obese habit. If she was anxious to know whether they were fit to undergo her treatment she sent up to him asking him to examine the case. He did so, and said "Yes" or "No," as the case might be. That was all he had to do with Mrs. Maitland King's establishment, and he was paid in the ordinary way. He recommended her system, but he did not highly recommend it. His wife had received some benefit from it during the time she was alive.

Cross-examined by Mr. TURNER: From about 1885 he had attended Mrs. Maitland King and her family as family physician, during which period he had examined her patients who were going to be treated. He knew that in 1893 she was styling herself "Doctor." She told him that she was not entitled to be registered on the English *Medical Register*. He never saw advertisements in which she was described as "nerve specialist" and "brilliant physician." He certainly never read any of the advertisements, and he did not think he had even heard of them. It was a matter of opinion as to whether it would have been prudent of him to continue his association with her in regard to her establishment under those circumstances. He had never said he was "consulting physician" to her establishment; but he had assented to her using his name in connection with an advertisement which appeared in a medical paper. He suggested that she should use his name as "physician," but certainly not as "consulting physician." The advertisement appeared twice in the *Journal* mentioned. It was withdrawn in February, 1894. The reason why it was put in on the first occasion was because Mrs. Maitland King was anxious to appeal to the profession in the provinces. The advertisement, however, did not suit the purpose, as it brought no patients. The last professional visit he paid to Mrs. King's establishment was on September 13th, 1893. He had no knowledge of his name appearing in Mrs. Maitland King's pamphlet on *Corpulence*. He could not tell the date when his attention was called to the fact that his name was there. Now that his attention was called to the matter his name would certainly have to be removed. He had heard of a book entitled *Hygiene of Womanhood*, but he never read a line of it.

By Dr. ATTHILL: He had in general practice occasionally treated diseases peculiar to women. He did not consider dilatation, as applied to the present case, an operation, but rather an examination. He would not himself have adopted the course pursued by Dr. Collins, although he agreed to what was done.

Sir FRANK LOCKWOOD pointed out that there was no charge of malpractice as against his client. Dr. Lithgow's wish was not to shrink from any question of any sort, but at the same time no charge of that sort was made against him.

Mr. MUIR MACKENZIE said he was prepared to advise the Council that this matter could not be further gone into if Sir Frank Lockwood objected.

Sir FRANK LOCKWOOD said that that was putting his client in a terribly invidious position.

Dr. ATTHILL said his only object was to elucidate and not to incriminate. In the witness's depositions it was stated that it was not an operation but an examination. That he disagreed with. It had a very serious bearing on the death certificate, and that was why he had asked the question.

By Dr. GLOVER: The patients he attended for Dr. Collins in 1895 were attended by him entirely independent of Dr. Collins, and he did not hand them over to him again. He thought Mrs. Campbell had all the symptoms of peritonitis. Subsequently, however, the pain subsided, and the paroxysms he thought showed that she was suffering from rather acute enteritis, there being no pulse.

Dr. TUKE: Why did you grant the certificate at all?—Because I had full charge of the case. I thought I was perfectly justified under the circumstances in doing so.

By Dr. MACALISTER: He himself did not make the examination or operation which had been described.

Dr. RENTOUL: The question has been raised that this was not an operation. I should like to know whether chloroform was administered?—I am not quite sure. The uterus was curetted.

Dr. THORNE THORNE: I understand you to say you were in charge of the patient and gave the certificate?—Yes.

And yet it is the fact that you did not perform the operation, and you do not even know that an operation was performed under chloroform?—I am almost sure it was not—in fact, I may say I am certain it was not.

Re-examined by Sir FRANK LOCKWOOD: At the time your name was associated with Mrs. Maitland King had you any knowledge that you were transgressing the rules of your profession?—No, not at all. I should be the last man in the world to do such a thing. I very deeply regret it.

Sir FRANK LOCKWOOD and Mr. TURNER intimated that they did not propose further addressing the Council.

Sir FRANK LOCKWOOD then read various testimonials from eminent medical men, including Sir William Mac Cormac, speaking to Dr. Lithgow's professional character. The Council subsequently adjourned.

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*Friday, May 28th.*

Sir RICHARD QUAIN, Bart., President, in the Chair.

THE MIDWIVES BILL.

A LETTER was read from the Privy Council Office, stating hat, as the Midwives Bill might again be introduced next ession and might then obtain a more favourable position in he ballot, it would be desirable to hear the opinion of the

General Medical Council during their present session on the Bill for the information of the Government.

Dr. RENTOUL moved:

That the consideration of the letter from the Privy Council be postponed till to-morrow's meeting.

He did so, he said, because the second reading of the Bill was fixed for the following Wednesday, but as there seemed to be a difference of opinion in the Council as to whether the subject should be taken up during the present session of the Council, Mr. George Brown and he would like another day to consider what their feelings would be in the matter.

Mr. GEORGE BROWN seconded the motion.

Mr. MCVAIL moved as an amendment:

That the Council do proceed to consider the Midwives Bill during the present session.

Dr. PETTIGREW seconded the amendment.

With the consent of the Council and Mr. Brown (the seconder), Dr. RENTOUL withdrew his motion in favour of the amendment, which then became the substantive motion.

Dr. GLOVER then moved as an amendment:

That the Midwives Bill alluded to in the letter from the Privy Council be referred to a committee for consideration and report to the November meeting of the Council.

Dr. MACALISTER seconded the amendment, which, on being put, was agreed to, 16 voting for and 11 against; and on being put as a substantive motion it was carried.

### THE CASE OF DR. LITHGOW.

The Council then resumed *in camerâ* the adjourned consideration of the case of Robert Alexander Douglas Lithgow, who appeared before the Council on the previous day, and whose case is reported above. At the conclusion of the deliberations of the Council, on strangers being readmitted the PRESIDENT, addressing Dr. Lithgow, said: I am sorry to say that the Council, after very careful deliberation, have adjudged you to be guilty of infamous conduct in a professional respect, and do direct the Registrar to erase from the *Register* your name.

### CASE OF EDMUND EVANCE HOOPER.

The Council proceeded to the consideration of the case of Edmund Evance Hooper, of Bridport Place, New North Road, N., registered in England on January 1st, 1859, as Mem. R. Coll. Surg, Eng. 1841; Lic. Soc. Apoth. Lond. 1841, who had been summoned to appear before the Council to answer the following charge: That, being a registered medical practitioner, he authorised, permitted, and enabled an unqualified person named Frederick Taylor, under cover of his name and qualifications and assistance, to carry on medical practice as though he were duly qualified, and to perform the duties and exercise the functions which by law are confined to qualified and registered medical practitioners.

Mr. MUIR MACKENZIE and Mr. FARRER appeared on behalf of the Council, and Mr. HOOPER, who was unaccompanied by counsel or solicitor, attended in answer to his summons.

The charge arose out of the evidence given at an inquest held by Dr. Wynn Westcott on the body of a child named Bertram Lott, on December 24th, 1896. From the depositions read to the Council, it appeared that Frederick Taylor attended the deceased on several occasions during December, and had been in the habit of attending the family for the last eight or nine years. Mr. Taylor admitted that he was not a registered medical practitioner, but said that Mr. Hooper often saw cases with him. The practice belonged to Mr. Hooper, but had previously belonged to a Dr. Watts, Mr. Hooper's son-in-law. A statement was also read from Mr. Hooper in which he said that on the death of his son-in-law, Dr. Watts, in January, 1896, he was asked to take over his practice at 240, Hoxton Street, and, as his own surgery was only about 300 yards off, and both practices were small, it was well within his power to carry on both on the lines that Dr. Watts had conducted his for ten years. Mr. Taylor had been assistant to Dr. Watts during the whole of that time. His (Mr. Hooper's) mode of attending to the practice at 240, Hoxton Street, was to be there every day from 12 to 1 P.M. for consultations, then to go out visiting patients, sometimes with Mr. Taylor, sometimes alone, to diagnose the cases and prescribe for them in the same way that Dr. Watts had done, and he was not aware that carrying on the practice at 240 in that way was contrary to the rules of the Council. He had enjoined Mr. Taylor to acquaint him with every serious illness that came before his notice, so that he might see it as soon as possible, and he had particularly informed every patient that Mr. Taylor was not a qualified doctor.

In examination by the Council, Mr. HOOPER admitted that Mr. Lott had paid Mr. Taylor the sum of 3s. for five attendances. Mr. Taylor took everything that came to that particular surgery, and accounted for it afterwards. Mr. Hooper stated that he lived in Brunswick Square, two miles from the surgery.

In reply to Mr. MUIR MACKENZIE, Mr. Hooper said it was untrue that Mr. Taylor had been attending the Lott family for nine years; he had only done so for a few months. When Dr. Watts first came, he put up the name of Taylor as the resident medical officer, but it was soon taken down.

In further examination by the Council, Mr. Hooper said he had not the slightest knowledge of the action which had been taken by the Council in connection with the employment of unqualified assistants. "Do you never read the medical journals?" asked Sir WILLIAM TURNER. "Very seldom," replied Mr. Hooper; "my time is too much taken up to do that." Continuing, Mr. Hooper said that Taylor had been acting for twenty years as an unqualified assistant, and had passed no qualifying examinations. Witness had employed him for fifteen years, and he had been also employed by a Dr. Driver, of Caterham. Witness paid Taylor £2 10s. a week, but gave him no commission. Taylor signed no certificates of any kind. Taylor dispensed medicines, including poisons, but witness did not know that it was illegal for him to do so. Taylor would not attend any case at night except under witness's direction. On Mr. Hooper's attention being called to the fact that Taylor attended the child Lott in the evening, witness said that Taylor could have fetched him had he wished. No bills had ever to be sent out, as it was all ready-money work. Taylor attended all confinements and directly made the engagements, but witness visited all the cases very soon afterwards. Witness admitted that 3s. for five visits and medicines was a low fee; 3s. 6d. for three visits and medicine was the usual charge.

Strangers having withdrawn, the Council deliberated on the case *in camerâ*, and on strangers being once more admitted Mr. Hooper was informed that the further consideration of his case was adjourned until Monday at 4 P.M.

### DISCIPLINARY FUNCTIONS OF THE QUALIFYING BODIES.

An interim report by the Executive Committee on the disciplinary powers of the qualifying medical authorities was then read. On November 24th last a resolution was adopted by the Council referring the subject of the disciplinary functions of the qualifying bodies and all communications thereon received by the Council back to the Executive Committee for further consideration and report to the Council. The communications were considered by the Executive Committee on November 28th, and in December the Committee reported that the matter was still engaging its attention, and it would report to the Council at the May meeting. On April 15th last further inquiries were made, in answer to which and to the previous inquiry of the Council communications were received from the University of Cambridge, the University of Durham, the Victoria University, the University of St. Andrews, and the Royal University. In the communication received from Cambridge University it was stated that it was not proposed to seek any further extension of disciplinary powers in respect of the moral character of the graduates in medicine. The letter from the Durham University stated that the University had forwarded a petition to the Queen praying for a supplemental charter granting disciplinary powers, and that it was now before the Privy Council. The Registrar of the Victoria University announced that the subject would be decided at the next meeting of the Court of the University. The Secretary of St. Andrews informed the Council that the University Court had resolved to co-operate with the other University Courts in Scotland in an effort to obtain penal or disciplinary powers over graduates. The Secretaries of the Royal University of Ireland stated that the matter would be considered by the Standing Com-

mittee of the Senate towards the end of May. The Executive Committee reported that as from the communications received it would appear that some of the licensing bodies were engaged in seeking for further disciplinary powers, the General Medical Council should in the meantime defer action until the result of the applications by the bodies had been ascertained.

Mr. BRYANT moved:

That the report be received and entered on the minutes.

Dr. MACALISTER seconded.

Dr. MCVAIL pointed out that Clause 13 of the Dental Act gave power to erase any name from the list of licentiates in dental surgery or dentistry by the medical authority of which such person was a licentiate, should the name have been erased from the *Register* in pursuance of that section. He also showed that Clause 14 provided that where the name of a person restored to the *Register* had been erased from the list of licentiates in dental surgery or dentistry by any medical authority, that qualification should be restored to the name of such licentiate. He thought that the Committee might quite well, by next November, bring up a definite proposal to ask the Government to amend the Medical Act so as to conform to the Dental Act in that particular.

Mr. BRYANT said that a similar recommendation had been brought before the Council three sessions ago, but he did not know at that time that it was provided for in the Dental Act. It had, however, been opposed very strongly by the President, and therefore had dropped.

Dr. CHURCH thought the Council would never get the universities to agree that because a man was removed from the *Register* he must therefore necessarily be removed from the list of universities.

On the motion of Dr. GLOVER, seconded by Sir DYCE DUCKWORTH, it was agreed to adjourn the debate until the morrow.

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*Saturday, May 29th.*

Sir RICHARD QUAIN, Bart., President, in the Chair.

EXAMINATIONS FOR DIPLOMAS IN DENTISTRY.

On the resumption of the sitting on Saturday Mr. THOMSON, with the permission of the Chair, called attention to a statement on Mr. Tomes's report on the examination for the diploma in dentistry of the Royal College of Surgeons of England. He noticed that in the report which Mr. Tomes had sent in one or two statements were made which he thought it well the Council should have its attention called to, because it was quite possible that those statements might have some considerable effect on other licensing bodies. In Appendix 2 of the report Mr. Tomes stated that "the general conduct of the examination, the scope and suitability of the questions asked, and the methods of marking adopted left little to be desired;" and further on, in the report of the Dental Education Committee, which was signed by Mr. Bryant as chairman, it was said that "the Committee regard this report as a valuable one, and ask the Council to bestow upon it their close attention. The alterations which it contains in both the curriculum and course of examination appear to be in the right direction, and your Committee believe that many are worthy of adoption." That report had been sent to the other licensing bodies, and it was not unlikely that other licensing bodies might consider the question whether they ought not to model their examination upon the model which was sent to them. Mr. Thomson then drew attention to the fact that in the examination, which was purely and simply for a licence to practise dentistry, among others questions were asked with regard to the treatment of parotid fistula, tongue tie, removal of the tongue, sebaceous cyst of the scalp, wound of the radial artery, gummata, etc. He asked Mr. Bryant, as chairman of the Dental Committee and representative of the English College of Surgeons, whether he thought that such an examination in surgery for gentlemen who were to be dentists was one which was quite adapted to the purposes of the qualification. It seemed to him that it was putting the dentist into a much better position than the Licentiates or Members of any College of Surgeons in the kingdom, because they were not only testing his capacity to deal with the whole subject of dentistry, but they were enlarging his knowledge in general surgery.

Mr. BRYANT thought Mr. Thomson was quite right in calling attention to the matter, and said that he would call the attention of his Council to it.

By direction of the Council strangers withdrew, and the Council sat *in camerâ* for the purpose of considering a question raised by Dr. Rentoul.

DISCIPLINARY FUNCTIONS OF QUALIFYING BODIES.

Strangers having been readmitted, the Council resumed the adjourned debate on Mr. Bryant's motion:

That the interim report by the Executive Committee on the Disciplinary or Penal Powers, be received and entered on the minutes.

Dr. GLOVER said there were two or three circumstances which made the Council's action on the important subject of the disciplinary functions very important. In the first place the ethical standard of the profession was a matter of great importance to the public. Scarcely a day passed without their being reminded of that in the newspapers and the Law Courts, and the public looked to the Council primarily, and to all the medical qualifying bodies, together and singly, to maintain the ethical standard of the profession. Secondly, the profession looked very much to the Council and to those bodies for doing the same thing. The third reason was that there was a very considerable unanimity in the qualifying medical bodies on the subject—almost entire unanimity with the exception of one or two of the ancient universities, to which they all looked with so much respect.

In reply to Sir WILLIAM TURNER,

Dr. GLOVER said that he had no objection to the motion for the report being entered on the minutes, but he did not wish it to be taken as a full statement of the mind of the Council on the subject.

Sir WILLIAM TURNER pointed out that there was an expression of the mind of the Council asked for at that stage, and the motion that the report be received and entered on the minutes was carried.

Dr. CAMERON then moved:

That the subject of the Interim Report of the Executive Committee be referred back to the Committee for further consideration and report.

He understood Dr. Glover was a member of that Committee, and he would have every opportunity to fully consider the point which he wished considered.

Dr. MACALISTER seconded the motion, on the understanding that there was something to be referred back to the Committee. The Interim Report implied that the Committee were going further to consider the matter.

Dr. GLOVER said the motion did not quite meet his views. The Executive Committee had already considered the matter, and would probably come to no different finding. He desired to know if that short report stopped all further discussion and action by the Council, because if it did he did not want to go further.

Sir WILLIAM TURNER thought Dr. Glover might very well consent to the motion. Dr. Glover was on the Executive Committee, and would have the means of bringing the matter before the Executive Committee, and argue it there.

Dr. GLOVER said he would gladly do so, but thought it would only lead to a serious waste of time. He moved as an amendment:

That the Council do now proceed to discuss the Interim Report of the Executive Committee.

Sir DYCE DUCKWORTH seconded the amendment.

Mr. CARTER considered that if the Council proceeded to discuss the matter it did so in the absence of the necessary materials, and that before any resolution to which the Council might come could be acted upon, the conditions would in all probability have changed.

Mr. BRYANT agreed with Mr. Carter.

Dr. RENTOUL supported the amendment. He said it was only on the previous day that a man was struck off the *Register* who had the degree of the St. Andrews University, and so far as he could find in the Interim Report that man, although he had been struck off the *Register*, would be able to go on using the St. Andrews degree, and the Council could not punish him. Were not the Council, he asked, making themselves almost a public laughing stock by agreeing to postpone the subject?

Dr. MACALISTER thought they might discuss the question for a week, but would be no nearer conferring on St. Andrews University any powers it had not got.

Dr. Glover pointed out the strong replies that had been received to the representations of the Council, and he thought they should be immediately answered. They were at the stage of friendly correspondence upon the subject, and unless it was hurried through it would never be settled. He maintained that the communications from Edinburgh and Cambridge called for a strong and immediate answer. He dealt at length with the correspondence that had taken place with the various bodies on the subject of the Scotch universities; he said that he wanted the Council to move that the President of the Council should bring respectfully under the notice of the Scotch Commissioners the opinion of the Council.

The President: The President of the Council cannot and will not do it.

Dr. Glover: I know Sir Richard Quain better than he knows himself, and I am sure that if this Council requests him to do it, he will do it.

The President: He has no power to do it, and he says so.

Dr. Glover, continuing, hoped the Council would agree with him that they had already material for continuing the discussion of the subject with the universities, and that they would accept his motion.

Mr. Carter remarked that the sympathy of the Privy Council was limited to assisting bodies to obtain the same power which had been conferred upon the University of Cambridge, and that power Dr. Glover himself had pronounced to be wholly inefficient.

Sir Dyce Duckworth said his object in seconding the amendment was simply to drive home the point that the Council wished the authorities of the Scottish Universities to understand that the Council were strongly in earnest, and would do their utmost to move those authorities to take action in the matter. They would not on the Council accept the *non-possumus* from anybody, and were not to be put off from pillar to post, and told it was nobody's business.

The amendment was negatived, and the motion was agreed to with the addition of the following words, suggested by the President: "with authority to take such steps as they may think necessary," the resolution as passed reading, therefore:

That the subject of the Interim Report of the Executive Committee be remitted to the Committee for further consideration and report, with authority to take such steps as they may think necessary.

Mr. George Brown moved:

That the Executive Committee be instructed to send a copy of the letter from the Privy Council of July 17th, 1896, to the Scottish Universities' Commission.

Dr. Rentoul seconded the motion, which, when put, was lost, 11 voting for and 12 against.

### Mr. Miller's Retirement.

The Council then sat *in camerâ* to consider the question of Mr. Miller's retirement.

### Tropical Diseases.

On strangers being readmitted, the Council proceeded to consider the following motion, proposed by Dr. Leech:

That the attention of the licensing bodies be called to the urgent necessity of more particular attention being paid by students of medicine to the subject of tropical diseases.

Mr. Carter seconded the amendment.

After a short discussion, Dr. Leech agreed to withdraw his motion. He had no idea, he said, in proposing it, of increasing the curriculum, but only wished to draw the attention of the licensing bodies to a question which might induce the student to study the subject of tropical diseases.

### Case of Mr. R. B. Anderson.

Arising out of the question of the future business of the Council during its present session

Dr. Rentoul stated that he had been asked to present a petition by Mr. R. B. Anderson to the Council, and to move a resolution on it. The due consideration of the case would take at least two days. He had no wish whatever to bring the case up, but he was there as the representative of the medical profession, and the members of the Council would please listen for a few minutes. It was a most important point, and he would have notes and affidavits and other things to put before the Council which might take up two days. The Council had it in their power to say they would not hear it; but it was his duty to present the petition, and he should do it.

The President: I beg your pardon. It will take five or ten minutes. We have nothing to do with it. You need not trouble yourself about the question; we have decided it already. We have nothing to do with it, it is entirely outside our authority.

Dr. Rentoul: I shall be glad, with all due respect to the Chair, sir——

The President: We have nothing to do with it: I shall settle it in five minutes.

The Council then adjourned.

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*Monday, May 31st.*

Sir Richard Quain, President, in the Chair.

### Appointment of General Registrar.

A letter from Mr. Allen was read, accepting the appointment of General Registrar, and expressing his willingness to accede to the revised conditions under which the office was to be held. A letter from Mr. Miller was also read, thanking the Council for the resolution passed on his retirement.

### The Apothecaries' Hall, Ireland.

A report of the Committee appointed to consider the appointment of Assistant Surgical Examiners to the Apothecaries' Hall, Dublin, recommending Mr. Arthur Chance, F.R.C.S.I., L.A.H.Dub., and Mr. Henry Alexis Thomson, M.D.Edin., B.Sc., F.R.C.S.Edin., M.R.C.S.Eng., to fill the posts was received, and on the motion of Mr. Bryant, seconded by Mr. Tichborne, the recommendation was agreed to, the remuneration being fixed at 5 guineas each per diem while engaged in the examination, with expenses, 1 guinea per diem for hotel, and first-class railway and steamboat fares.

Dr. MacAlister moved, and Mr. Bryant seconded:

That it be remitted to the Executive Committee to inform the Assistant Examiners as to their duties under Section V (2) of the Medical Act, 1886.

### Report of Public Health Committee.

The following report of the Public Health Committee was adopted as expressing the opinion of the Council:

The attention of the General Medical Council having been called to a proposed modification of Clause 22 of the Public Health (Scotland) Bill, they cannot do otherwise than view with grave apprehension the proposal to place the opinion of the sanitary inspector, in matters where a judgment has to be formed as to what is or is not liable to constitute a danger to public health, on a statutory equality with that of the medical officer of health. The General Medical Council would recall the fact that the Legislature have from time to time extended, by statutory enactment, the requirement that medical officers of health should before their appointment give definite evidence of the possession of special acquirements fitting them for their public duties, and that the General Medical Council have spent much time and expense in requiring and maintaining at a high standard a scheme of education and examination that shall give effect to the intentions of the Legislature. And the General Medical Council feel convinced that if the opinion of officers, altogether without the requisite technical and professional training, is to be placed on a similar footing to that of medical officers of health, the efforts of the Council to ensure the distinctively high standard of efficiency in the public health service will be seriously frustrated.

It was agreed that copies of the report should be forwarded to the Secretary for Scotland; the Lord Advocate; to each of the signatories of the memorandum from the Society of Medical Officers of Health for Scotland, submitted to the Executive Committee on May 24th, 1897; and to each member of the Committee on Law in the House of Commons.

### Unqualified Assistants.

Dr. MacAlister moved:

That it be referred to the Executive Committee to consider whether th Council's resolutions on the employment of unqualified assistants, as they appear in the advertisements inserted in the medical journals, may not with advantage be rendered clearer and more stringent.

He said that unqualified assistants were a source of temptation to practitioners and of danger to the public. There was generally an element of fraud in their employment, as they were apt to be passed off to the public as though they were medical men. The time had come for withdrawing the guarding adjectives and adverbs which at present appeared in the Council's resolutions, but it must be done carefully and after great deliberation.

Dr. Cameron seconded the motion, which was supported by Mr. Bryant, and agreed to.

### CIRCULATION OF RULES OF THE COUNCIL UNDER THE MEDICAL AND DENTAL ACTS.

Dr. RENTOUL moved:

That in order to lessen the number of offences under the penal sections of the Medical and Dental Acts, the General Medical Council supply to the examining bodies under these two Acts, copies of their rules relating to "covering" and other offences against these Acts, with a request that these examining bodies supply a copy of such rules to each person upon his first obtaining his qualification; that each Branch Registrar, upon registering a qualification, supply a copy of such rules to the person when first registered; that each Branch Registrar shall supply to each person on first registering a qualification a copy of the *Medical Register* and of the Standing Orders of the General Medical Council of the date upon which the person is first registered.

Sir WM. TURNER asked Dr. Rentoul to withdraw his motion, on the ground that there had been a reference to the Executive Committee to frame a revised code of rules.

Dr. RENTOUL declined to do this, stating that the matter was not likely to be settled for at least two years. In support of his proposal he called attention to the large number of persons who, when summoned to appear before the Council on the charges of "covering," etc., declared their ignorance of the rules of the Council.

Mr. GEORGE BROWN seconded the motion, and while he was still on his legs,

Dr. TUKE moved, and Mr. CARTER seconded, "the previous question," which was agreed to.

On the requisition of Dr. RENTOUL the names of those voting were taken down, and it was found that 16 voted for the motion, 4 against (Dr. Rentoul, Mr. Brown, Mr. Thomson, and Dr. Glover), 8 did not vote, and 2 were absent.

### MEDICAL AID ASSOCIATIONS.

Dr. GLOVER moved:

That the following report from the Executive Committee in regard to communications received respecting medical aid associations be received and entered in the Minutes: "That the communications in regard to medical aid associations received by the Executive Committee on May 24th, 1897, be referred to the Medical Aid Associations Committee, appointed November 22nd, 1892, Mr. Bryant being appointed in place of Mr. Wheelhouse."

Dr. MACALISTER seconded the motion, which was agreed to.

Dr. GLOVER moved, and Dr. LEECH seconded:

That the said communication should be referred to a Committee, consisting of Mr. Teale, Dr. Bruce, Mr. Bryant, Dr. Glover, Dr. Rentoul, and Dr. Church.

Mr. GEORGE BROWN moved as an amendment:

That the question be referred to the English Branch Council for consideration and report to the General Medical Council.

He said that the English Branch Council would be better able to understand the question, as they were intimately acquainted with such matters, than would a body of consultants.

Dr. RENTOUL seconded the amendment, which was negatived.

The original motion was agreed to.

### PAYMENT OF MEMBERS OF THE COMMITTEE.

It was moved by Dr. GLOVER, and seconded by Dr. LEECH:

That the provision made as to expenditure by the Committee for the payment of expenses to members, and in other ways, and as to the hearing of witnesses, be as in 1892, namely, that the Committee do not incur expenditure beyond £100 without the previous sanction of the Finance Committee.

Dr. RENTOUL asked if he was to understand that his fees would be the first claim upon the £100.

Dr. HERON WATSON protested against the mercenary spirit which was being introduced into the Council.

Dr. RENTOUL said he was a general practitioner, and had had no wish to go on the Council. He was determined to do no unpaid work in connection with it. He had to pay his assistants to attend to his practice while he was away, and wanted a *quid pro quo*. It might be easy for Dr. Heron Watson and other consultants to work for nothing, but it was not easy for a general practitioner.

The motion was agreed to.

### PAYMENT OF MEMBERS OF PENAL CASES COMMITTEE

It was moved by Dr. RENTOUL, and seconded by Mr. BROWN:

That the same payments be made to members attending a meeting of the Penal Cases Committee as are now made to members attending a meeting of the General Medical Council.

The motion was negatived.

### THE CASE OF MR. E. E. HOOPER.

At the request of the President, and with the approval of the Council, the chair was taken by Sir WILLIAM TURNER during the hearing of this case, as the President had been absent during the previous hearing.

The case was resumed *in camerâ*, Mr. Hooper attending the Council.

On the readmission of strangers,

Sir WM. TURNER (from the chair) said that the Council had deliberated on the case, and had taken into consideration the promise made by Mr. Hooper that he would cease to employ an unqualified assistant. They had resolved that the further consideration of the charge should be adjourned till the next session in November, when Mr. Hooper would be called upon to appear before the Council, and produce evidence that he had not been covering an unqualified assistant during the interval between now and then.

### MEMORIAL TO THE HOME SECRETARY.

The PRESIDENT having resumed the chair, the Council proceeded to consider the following notice of motion by Dr. GLOVER.

That a committee be appointed to prepare a memorial to the Home Secretary in respect of fines accruing under the Medical Act or Acts within the metropolitan area, and that a copy of the memorial be presented to the House of Commons. That the committee consist of the President and Treasurers, Mr. Carter, and Dr. Glover.

Dr. GLOVER read a draft of the memorial that the Committee proposed to adopt, and it was agreed that the Committee should be empowered to prepare, and the President be requested to forward to the proper quarter, a formal memorial in accordance with the general tenour of the draft.

### LENGTH OF SPEECHES.

It was moved by Mr. CARTER and seconded by Dr. LEECH:

That it be referred to the Executive Committee to consider and report whether it would be desirable for the Council to pass a Standing Order to the effect that no member of the Council, other than the President or the Chairman of a Committee introducing a report, shall speak to any motion for more than ten minutes without the permission of the Council being asked from the chair, and granted by resolution moved, seconded, and put without debate.

Dr. GLOVER hoped that the motion would be withdrawn, as at that particular time it was somewhat invidious.

Dr. RENTOUL supported the remarks of Dr. Glover. Why had the question been brought up now, when no one had thought of proposing such a thing since 1858? It was a well-known fact that, notwithstanding all the rules against obstruction in the House of Commons, it was as easy to obstruct now as it was fifty years ago, and he would promise to talk to every motion and amend and challenge a division on every motion, should the Council accept the Standing Order suggested. He did not say that as a threat, but merely as a protest.

The motion was agreed to.

On the requisition of Dr. RENTOUL, the names of those voting was taken, and it appeared that 17 voted for, 10 against, 1 did not vote, and 2 were absent.

### THE APOTHECARIES' SOCIETY (LONDON) AND APOTHECARIES' HALL, IRELAND.

It was moved by Dr. RENTOUL, and seconded by Mr. THOMSON:

That the Registrar be now instructed to obtain a return showing: The number of persons who have applied during each of the last twenty years to be examined for the diploma of Assistant Licentiate of the Apothecaries Society, London, and of the Apothecaries' Hall, Dublin, under the the Apothecaries Act, Eng., 1815, SS. XVII and XVIII, and under the Apothecaries Act, Ireland, 1791, SS. XVIII and XIX. The number of persons who have been refused such diploma after examination. The sum paid for such examination and diploma. The privileges conferred by such diploma upon the holder of such. Period of study and curriculum required from candidates for such diploma. The form of diploma grante to such persons

The motion was negatived.

REPORTS.

Moved by Dr. MACALISTER, seconded by Mr. BRYANT, and agreed to:

That the following report from the English Branch Council be received, entered in the minutes, and adopted: "That the English Branch Council recommends the General Medical Council to register the name of Dr. Bruno Beheim-Schwarzbach, Lic. Fac. Phys. Surg. Glasg., 1880."

Moved by Sir WILLIAM TURNER, seconded by Dr. MACALISTER, and agreed to:

That the following report from the Business Committee be received and entered in the minutes, and adopted: "The Business Committee recommend that the Committee to be appointed for the consideration of the Midwives Registration Bill, referred to the Council by the Privy Council, consist of Dr. Thorne Thorne (chairman), Mr. Carter, Mr. Brown, Dr. Rentoul, Dr. Glover, Dr. Cameron, and Dr. Atthill."

THE CASE OF MR. HOOPER.

Dr. RENTOUL moved and Mr. THOMSON seconded:

That the Registrar forthwith call the attention of the Apothecaries' Society, London, to the case of E. E. Hooper and his "medical assistant," as heard before the General Medical Council. That a copy of the printed statements as presented to the Council be sent to the Apothecaries' Society.

Dr. MACALISTER moved as an amendment:

That the further consideration of Dr. Rentoul's motion be deferred until the case of E. E. Hooper is completely dealt with.

Mr. BRYANT seconded the amendment, which was carried, and, upon being put as a substantive motion, was also carried.

THE CASE OF MR. ANDERSON.

The Council considered a memorial from Mr. R. B. Anderson and from certain medical practitioners in support of his petition.

Mr. BRYANT moved and Dr. MACALISTER seconded:

That Mr. Anderson be informed that his petition has been laid before the Council, but that the Council is unable to take any action upon it.

Dr. RENTOUL moved as an amendment:

That the petition of Mr. Anderson be received and entered upon the minutes.

Mr. GEORGE BROWN seconded the amendment, which was negatived by 18 against 7.

The names were taken on the requisition of Dr. Rentoul.

The motion was agreed to.

Dr. RENTOUL moved, and Dr. MACALISTER seconded:

That the following opinion given by the Council's legal advisers, as to the powers of the Council in relation to Mr. Anderson's petition, be entered on the minutes: "Any action on the part of the Council, either by way of interference or contribution from its funds, would be absolutely *ultra vires* and illegal. If the Council were to vote any part of its funds in aid of Mr. Anderson's appeals, any member of the Council, and perhaps any registered practitioner, might obtain an injunction from the High Court restraining such an application of the funds vested in the Council and it is possible also that, as the Council's accounts are submitted to Parliament, any such application of its funds might be questioned there. —M. MUIR MACKENZIE, FREDK. WILLIS FARRER."

This was agreed to.

EXAMINATION COMMITTEE.

It was moved by Sir DYCE DUCKWORTH, seconded by Dr. MACALISTER, and agreed to:

That the following report from the Examination Committee be received and entered in the minutes: "The Examination Committee, having re-considered the motion of Mr. Teale, of June 2nd, 1896, already reported upon on November 30th, 1896, and remitted to the Committee for further consideration on November 30th, 1896, have instructed the Chairman to communicate with the Chairman of the Education Committee, with a view to a conference of the two Committees on the question raised in this motion."

FINANCE COMMITTEE.

On the motion of Mr. BRYANT, seconded by Sir DYCE DUCKWORTH, the report of the Finance Committee was adopted.

The Finance Committee reports that the income of the General and Branch Councils for the year ending December 31st, 1896, was £8,746, but that the expenditure for the same period, having been £10,273, exceeded the receipts by £1,526. The fees received by the Branch Councils were somewhat less than in the previous year, for while £279 more was received in England from that source, £426 less was received in Scotland, and £113 less in Ireland, making a total decrease of £260. Among the items of increased expenditure may be specified the following: An increase of £269 for the *Pharmacopœia*, of £309 in law expenses caused by the increased number of penal cases brought before the notice of the Committee and the Council and the cost (£123) incurred in preventing, in two cases, the continued use of withdrawn qualifications. The average yearly income of the General and Branch Councils for the last seven years has exceeded the average yearly expenditure by £158. The English Branch Council has, during the last twenty years saved £14,141, its present assets representing £39,141. The Scottish Branch Council has saved, during the same period, £5,088, with present assets £7,088. The Irish Branch Council has been steadily losing ground, its assets having lessened from £2,245, the amount at which they stood in 1877, to £801, the present value. To make the financial position of the Council quite clear it should be stated that in the four years including 1889 to 1892, the excess of income over expenditure amounted to £5,333, whilst in the four following years ending in 1896 the expenditure was in excess of income to the sum of £2,388. The balance of the last eight years is thus still in favour of income by the amount of £2,944. The receipts of the Dental Registration Fund for the year were £764, against £547 expended.

STUDENTS' REGISTRATION COMMITTEE.

Sir DYCE DUCKWORTH moved, and Dr. MACALISTER seconded, the adoption of the report of the Students' Registration Committee, which was agreed to.

COMMITTEES.

The following committees were then constituted: Executive, Examination, Education, Public Health, Pharmacopœia, Dental Education and Examination, Dental, Finance, Students' Registration, and Penal Cases.

VOTE OF THANKS TO THE PRESIDENT.

Sir WILLIAM TURNER said: Before the Council rises, its members would doubtless like to express their sense of the marvellous attention which the President has given to his duties, notwithstanding the serious illness through which he has recently passed. It is not customary for the Council to award a vote of thanks to its President at the conclusion of its meetings, but we cannot regard this as an ordinary occasion. There is a quality which we are apt to regard as especially characteristic of our race—a quality known by the short but expressive term "pluck." This quality has been displayed by the President on this occasion in no ordinary way. Throughout our meetings he has shown a virility and an energy most remarkable in one of his years, more especially considering all that he has recently gone through. I move:

That the best thanks of the Council be given him for his services in the chair during the present session.

Dr. GLOVER seconded the proposal. The vote was not without precedent. But what was quite unprecedented in the Council, or anywhere else, was the exhibition of determination displayed by the President during the session. Such devotion to duty, such public spirit, such grip of the business of the Council, and, as Sir William Turner had said, such "pluck" in the peculiar circumstances of Sir Richard Quain's health, had never before, as far as he knew, been exhibited. The incident would long remain in the mind of the Council and of the profession.

Dr. PETTIGREW, in supporting the motion, said he was fresh from reading a paper by the President to be read to the Royal Society dealing in a most interesting and original way with the question of the significance of the first sound of the heart.

The question on being put by Sir WILLIAM TURNER was carried by acclamation.

The PRESIDENT was much affected by the vote, and returned his hearty thanks to the Council. He said what had moved him at all times in his work was a sense of duty. His connection with the General Medical Council had been always a matter of pride and pleasure to him, and his great desire had always been to maintain the honour and efficiency of the Council. When he had to lay down his office it would be with every wish for the welfare of the Council and its members.

The session then concluded.

## THE BARRACK SCHOOLS REPORTS OF THE "BRITISH MEDICAL JOURNAL."

GOOD progress is being made by the State Aid Medical Association in furtherance of the results of the reports of the BRITISH MEDICAL JOURNAL and of the report made by the Departmental Committee appointed by Mr. Shaw Lefevre to investigate the statements made by Mr. Ernest Hart on behalf of the deputation organised by the Parliamentary Bills Committee on the subject.

A memorial, signed by Lord Peel on behalf of the Council of Reference and Executive Committee of the State Aid Children's Association, which consists of the Right Honourable Viscount Peel, the Bishop of Lichfield, the Bishop of Hereford, the Dean of Durham, the Right Hon. Sir William Hart Dyke, Bart., M.P.; Sir Samuel Montague, Bart., M.P.; the Hon. W. F. D. Smith, M.P.; Sir J. Crichton Browne, Sir William Markby, Sir Henry Thompson, M.B.; Canon Barnett, Dr. Barnardo, Mr. H. H. Bemrose, M.P.; Mr. Thomas Burt, M.P.; Mr. Francis Buxton (Honorary Treasurer), Mr. B. F. C. Costelloe, L.C.C.; Mr. Ernest Flower, M.P.; Mr. Ernest Hart, Mr. Walter Hazell, M.P.; Mr. Albert Spicer, M.P.; Mr. Samuel Smith, M.P.; the Lady Frances Balfour, the Baroness Burdett-Coutts, Mrs. S. A. Barnett, Miss F. Davenport Hill, and others. It is addressed to the President of the Local Government Board, and deals with the order recently issued which transfers to the Metropolitan Asylums Board the duty of providing for certain classes of children chargeable to the several unions and parishes of the metropolis. The classes are: Children suffering from ophthalmia or other contagious disease of the eye or of the skin or scalp; children requiring either special treatment during convalescence or the benefit of seaside air; children who, through physical or intellectual defect, cannot properly be trained in association with children in ordinary schools; and children who are ordered by two justices or a magistrate to be taken, under the Industrial Schools Act, 1866, to a workhouse or an asylum of the district. The memorialists fear that the very fact of providing special treatment for a few of the children will perpetuate the system of maintaining the bulk of them in barrack schools. They urge an enlargement of the scope of the order so as to entrust the Metropolitan Asylums Board with the duties of *(a)* providing for the children known as "ins-and-outs;" *(b)* making arrangements for the technical training of children; *(c)* boarding-out eligible children; *(d)* emigrating suitable children to the colonies. They commend this extension (1) to the "ins-and-outs," because they bring into the schools habits and diseases contracted in low quarters of the towns, and it would be better to put them under one central metropolitan authority, which would make the necessary special provision for them; (2) to those who require technical training, because this could be more readily and economically done in special establishments belonging to a central authority; (3) to those suitable for boarding out, because a central committee of the Metropolitan Asylums Board could more easily than the many Boards of Guardians keep in touch with the 145 boarding-out committees; (4) to those suitable for emigration, because one Board familiar with the practical details involved in placing children in the colonies would be better able to utilise the system than Boards of Guardians whose officials have many other duties, and find difficulties in getting children satisfactorily placed. They further urge that the Metropolitan Asylums Board should have compulsory powers to inspect the children in the existing schools, workhouses, and infirmaries, and to transfer to their own care all children in the classes above mentioned. If the powers of the Metropolitan Asylums Board were thus enlarged a far greater reduction in the number of children at present in the schools would be effected, and some of the schools might be allocated to special purposes under the management of the Metropolitan Asylums Board. They suggest, therefore, that the Board be empowered to take over from the guardians or managers any such schools upon equitable terms. Thus the ratepayers would not be taxed with the cost of providing additional buildings to meet the fresh requirements contemplated by the order. The proposed enlargement of the order would also assist a reduction in the charge upon the ratepayers. The returns of expenditure show that a child of 9 or 10 can be emigrated for £12 all told, whereas each pauper child who is kept five years in a barrack school costs over £145. The cost of the constant transfer of "ins-and-outs" to and from the workhouses to the suburban schools entails a large and fruitless expenditure. Each child in a barrack school costs over £29 a year, whilst the charge for a boarded-out child is only about £13 per annum. Thus a very considerable saving could be effected in the cost of the maintenance of Poor-law children. The memorialists believe that many of these children would have the best start in life in a new country; and, as the supply of excellent homes in Canada is practically unlimited, they think it advisable to increase the facilities for developing child emigration, under proper safeguards, to the Colonies. The provision also of special schools for technical and industrial training would give the elder children a greater sense of the dignity of labour, and fit them for association with skilled workmen; the neglected children, who are called "ins-and-outs," would draw more attention to their needs if they were dealt with in separate institutions; and in the boarding-out system the children have the best means of enjoying the benefits of the family life, and of receiving the training best suited to fit them to overcome the difficulties and temptations which may beset them. Lastly, the memorialists submit that if the Metropolitan Asylums Board is to be strengthened for its increased duties by the appointment of new members, the object in view will be best attained if the Board be directed to appoint a children's committee, which would have for its sole duty the care and interest of the children, and if men and women experienced with children and interested in educational questions should be then nominated to serve on such committee.

An influential meeting for promoting the objects of the State Children's Aid Association was held on June 1st, under the presidency of Lord PEEL, at the house of the Baroness Burdett-Coutts, who takes an active interest in furthering these reforms. Among those present were the Baroness Burdett-Coutts, Lady Londonderry, Mrs. Henry Fawcett, Mrs. S. A. Barnett, Lady Windeyer, the Bishop of Hereford, Mr. Burdett-Coutts, M.P., Mr. Pickersgill, M.P., Mr. Bemrose, M.P., Canon Barnett, and Prebendary Barker.

The CHAIRMAN said that in this matter they had nothing to say against the guardians. They had to do with the Poor-law school system, which had failed to give that individual supervision which was necessary for the full development of the children. Everything was done in a routine and mechanical manner, so that when the children left school they could point to a place where they had been subjected to the most rigorous rules, but where they had failed to receive efficient and good training. The Poor-law children went out into life from the large schools untrained, and when they missed the mechanical restraint to which they had been accustomed they fell upon their own resources, which amounted to nothing at all. It was this condition of things which the Association were seeking to reform, and that meeting had been called to enlist the interest of the influential and intelligent classes of London, so that the Association might continue to grow and put pressure upon the authorities to reform what was believed to be a standing scandal. They were anxious that the children should be taken away from the Poor-law system and placed under some great central authority. As was known, the Government had selected a few classes of the children, such as those who suffered from ophthalmia, to be placed under the authority of the Metropolitan Asylums Board. That was so much to the good, but they wanted more. It was desired that the children should be separated as early in life as possible from pauper influence, so that they would not in after life, either in this country or in the Colonies, be pointed at as having been brought up in a pauper house. After speaking of the advantages of boarding out and other plans for the separate treatment of children, he said that if the barrack schools were abolished the buildings could very easily be utilised by the metropolis for other purposes. There would thus be no waste, and a less expensive system would be established with a much greater degree of efficiency.

The other speakers included Mr. Bemrose, M.P.; Mr. Pickersgill, M.P.; Mr. A. Chapman, Mrs. Fawcett, Lady

Windeyer, and the Bishop of Hereford, who said that if they desired to do the best that it was possible to do for the children they must endeavour to secure to them some of the benefits of family life. As an old schoolmaster he knew well how a boy was protected by the influence which he brought from his mother.

A vote of thanks to the Chairman brought the proceedings to a close.

## THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

The members of the Council who retire in July, having served eight years, are Mr. Christopher Heath, Mr. Howse, and Mr. Ward Cousins. Mr. Heath and Mr. Howse have served in person for the whole term. Mr. Ward Cousins was elected in 1895 as substitute for Mr. Hulke, re-elected 1889. There will be five vacancies altogether, three normal, on account of the above time-served members, and two for "substitute members," to fill up the eight years of two who have died. Mr. Rivington was elected in 1891, so that his substitute will only hold his place for two years. Mr. Pemberton was re-elected in 1893, and his substitute will fill his place till 1901.

The Council consists of the following members, twenty-four in number, including the President and Vice-Presidents. Three retire yearly, whilst, as above explained, substitutes are elected to fill up the term of death vacancies.

*President.*—Sir William Mac Cormac; C, (1) 1883, (2) 1891.
*Vice-President.*—Mr. Macnamara; C, (1) 1885, (2) 1893.
*Vice-President.*—Mr. Langton; C, 1890.
*Other Members of Council.*—Mr. Bryant; C, (1) 1880, (2) 1888, (3) 1896, P, 1899-02.
Mr. T. Smith: C, (1) 1880 (substitute), (2) 1884, (3) 1892.
Mr. Christopher Heath; C, (1) 1881, (2) 1880; P, 1895 (took the place of Mr. Hulke after his decease in 1895; re-elected P, July, 1895).
Mr. Pemberton; C, (1) 1885, (2) 1893 (deceased).
Mr. Harrison; C, (1) 1886, (2) 1894.
Mr. Willett: C, (1) 1887, (2) 1895.
Mr. Pick; C, (1) 1888, (2) 1896.
Mr. Howse; C, 1889.
Mr. Mitchell Banks; C, 1890.
Mr. Rivington: C, 1891 (deceased).
Mr. T. R. Jessop; C, 1891.
Mr. H. Marsh: C, (1) 1892 (substitute), (2) 1894.
Mr. Tweedy; C. 1892.
Mr. Morris; C, 1893 (substitute for Mr. Marcus Beck until 1898).
Mr. Mayo Robson; C, 1893.
Mr. J. Hardie; C, 1894.
Mr. Ward Cousins; C, 1895 (substitute for Mr. Hulke till this year).
Mr. Alfred Cooper; C, 1895 (substitute for Mr. Durham till 1900).
Mr. Butlin; C, 1895.
Mr. Treves; C, 1895.
Mr. Davies-Colley; C, 1896.

The following list explains the proportional representation of metropolitan schools, special hospitals in London and the provinces:

| | |
|---|---|
| St. Bartholomew's | 5 |
| St. George's | 1 |
| Guy's | 3 |
| London | 2* |
| Middlesex | 1 |
| St. Thomas's | 1 |
| University College | 2 |
| Westminster | 1 |
| Total number of members of Council attached to London schools | 16 |
| Members attached to special hospitals in London | 2 |
| Provincial members | 6† |
| Total | 24 |

* 1 death. † 1 death.

Last year Messrs. Bryant and Pick were re-elected, and Mr. Cadge's place was filled by Mr. Davies-Colley, a gain of 1 to Guy's and London and a loss of 1 to the provincials. There is no other change since last year in London schools, so that as before July, 1896, there is no surgeon on the Council to represent Charing Cross, King's College, or St. Mary's Hospitals.

Re-elected members of Council rank in order of seniority dating from the year of their first election. When more than one "substitute member" is elected, the longest term goes to the candidate who gains the greater number of votes. Hence the successful candidate who comes in fourth will take Mr. Pemberton's place.

## PROPOSED EXTENSION OF HAMPSTEAD HEATH.

The Estate of the late Sir Spencer Wells.

Mr. Ernest Hart has addressed the following communication to the Press:

Sir,—Even in the present multiplicity of schemes for celebrating the long reign of the Queen by projects destined, in her own gracious words, "to brighten the lives of her poorer subjects," it will not, I trust, be hopeless to direct attention to a plan easy of accomplishment to Londoners, and eminently fitted to commemorate in the metropolis the longest reign, by giving, to both sick and well, and to all classes of the community, increased opportunities of health, joy, and recreation. The occasion for doing so, to which I wish by your permission to direct attention, is one which will quickly pass away if advantage of it be not now taken. The view from the flagstaff by the White Stone Pond on Hampstead Heath has been rendered immortal by painters and poets alike, and is a frequent source of never-ending pleasure to thousands of the poorer as well as of the richer inhabitants of the metropolis. But if the late Sir Spencer Wells's estate, which is now in the market, and about to be offered at auction, be used for building purposes, the beauty of the view will be gone; for the Hampstead Heath itself is on that side so limited that it largely depends on Sir Spencer Wells's grounds for much of its loveliness, as well as for the distant view and the sense of air and space which furnish nine-tenths of the sources of enjoyment. I am not aware of any sum having been definitely fixed for the purchase, but no doubt a valuation could easily be obtained; and it has been stated that £25,000 would go far to obtain that portion which is more immediately important to the public. If that sum could be raised amongst the public, and perhaps also in part from many admirers of the great surgeon, we should have at the same time a worthy tribute of one of the greatest recent benefactors of humanity, and a fitting memorial of this year of loyal rejoicing. The house, which stands at the extreme edge of the property, facing Golder's Hill, could readily be converted into a museum containing memorials of the worthies in art, literature, and science, who have rendered Hampstead historically famous. But this is a subsidiary project. The great aim should be to prevent this beautiful part of Hampstead Heath from becoming merely the forecourt of a series of villas or streets, which would immeasurably detract from the present rural beauty of the most favourite resort of jaded Londoners and the finest open space in the northern suburbs of London.

Towards this purpose, if it could be carried out, I should be happy to contribute £200, and would, until a treasurer could be appointed, be glad in the meantime to receive the names of other contributors.—I am, Sir, your obedient servant,

Ernest Hart,
Late Chairman of the National Health Society.

Some handsome donations of sums of £100 and £50 have at once been offered, and it is proposed to organise a committee to endeavour to carry out this object.

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The New York State Legislature has made an enactment requiring municipal authorities to pay a fee of 25 cents to medical practitioners for reporting births to the local Boards of Health.

The Duke of Cambridge, K.G., will preside at the dinner commemorative of the twenty-first anniversary of the Sanitary Institute, on Wednesday, July 7th, at the Holborn Restaurant.

British Medical Temperance Association.—At the annual meeting, held on Monday last, Dr. Sims Woodhead, F.R.S.E., delivered his inaugural presidential address, in the course of which he pointed how medical men had influenced the temperance movement. He referred to the pathological degradation observed after repeated moderate quantities of alcohol, and commended the work of the two medical societies—the Society for the Study of Inebriety and the British Medical Temperance Association—as worthy the support of the members of the profession. The medical membership is 453, with 309 medical students, and 2 non-medical Associates. Drs. Morton, Ridge, Norman Kerr, Surgeon-Major G. K. Poole, and others took part in the proceedings.

## BRITISH MEDICAL ASSOCIATION.

### SUBSCRIPTIONS FOR 1897.

**SUBSCRIPTIONS** to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.


# British Medical Journal.

SATURDAY, JUNE 5TH, 1897.


## THE MONTREAL MEETING.

WE publish elsewhere some additional particulars with regard to the arrangements for the annual meeting in Montreal, which are now in an advanced stage. The meeting commences on August 31st, about a week after the conclusion of the meeting of the British Association for the Advancement of Science in Toronto; and Lord Lister, who will go to Canada to resign his presidency of the British Association into the hands of Sir John Evans, will be among those who will take part in the proceedings of the annual meeting of both Associations. The length of the journey from this country to Montreal will no doubt render the attendance of members from this side of the Atlantic much smaller than we have been accustomed to see in recent years. Nevertheless the list published in this number of those who have already secured accommodation on the various steamers is distinctly large. When we take into account, moreover, that there will be several hundred members of the profession resident in Canada in attendance at the meeting, that there will be a full representation from the various Colonial Branches outside Canada, and, lastly, that a large number of the leaders in the various branches of medicine in the United States have accepted the invitation sent to them from Montreal, we may say that the Montreal meeting of 1897 promises to be one of the most important, and that assuredly it will be one of the most interesting in the annals of the Association.

During the last few days the number of those who expressed an intention to be present at the meeting has been so considerable, and the number of berths still to be obtained upon the various steamers is now so limited, that it is a matter of serious consideration whether it may not be well to charter or otherwise procure a special steamer to convey some at least of our members to Montreal. Whether such steamer be procured or no depends upon the applications received during the next few days. If a sufficient number express a willingness to travel at a moderate cost by a well-found ocean steamer, to spend ten days in Canada and to return by the same, it will be possible to make the necessary arrangements.

Montreal, the commercial capital of the Dominion, is also in a sense its intellectual capital also by right of the important universities within its borders. In welcoming the Association, Montreal has not had to contend with any local rivalries, but on the contrary has received the warmest support from Toronto and other important medical centres.

Indeed, as shown by the large subsidies voted for the purposes of the meeting by the Dominion Government, the Province of Quebec, and the City of Montreal, it is evident that the meeting is regarded throughout Canada as an event of national importance. To further emphasise this, his Excellency Lord Aberdeen, the Governor-General of the Dominion, will be present at the opening and throughout the meeting, as will also the Hon. Sir J. A. Chapleau, the Lieutenant-Governor of Quebec Province, while Sir Donald A. Smith, the High Commissioner, is coming from London to aid in entertaining the Association, and, as Chancellor of McGill University, to preside at the conferment of honorary degrees.

It may here be added that the universities which have their seat in Montreal are one and all doing everything in their power to render the meeting a success. In the extensive range of buildings belonging to McGill College—which were illustrated in the pages of the BRITISH MEDICAL JOURNAL of December 5th, 1896—ample accommodation will be found for all the Sectional meetings as well as for the executive and council rooms, reception rooms, and even for the provision of a spacious luncheon room capable of accommodating 700 to 800 guests. Convenient accommodation has been provided also for the Annual Museum, and the number of applications assures a successful collection.

In another portion of this number will be found the preliminary programme of proceedings in the various Sections. It is unnecessary, therefore, for us to detail here the subjects selected for discussion, or the names of those who have promised to contribute. Suffice it to say that already there is ample evidence that this meeting will not fall behind its predecessors in professional and scientific interest. On the contrary, the unique opportunity now afforded for British, Canadian, and American members of our profession to exchange views and to gain a personal and intimate knowledge of each other and of the work of each is such, that in no boasting spirit we may say that the Montreal meeting promises to be an historical event.

To take full advantage of the facilities afforded by the Canadian Pacific Railway Company, the traveller should leave England early in July, and cross the Rocky Mountains to Vancouver and return before the meeting. To those, however, who cannot afford a holiday of so luxurious a length, the excursions which have been arranged for the weeks immediately preceding and following the meeting itself will yet afford many opportunities of seeing interesting and beautiful scenery, and even of obtaining some sport in the rivers and forests not too remote from Montreal itself. What these opportunities are has been related by Dr. Drummond, of Montreal, in the JOURNAL, so recently as May 1st, and we may add that according to information received from Montreal visiting members of the Association from the old country will obtain permission to hunt and shoot without procuring a licence.

Finally, it should be said that the arrangements which have been made by the Reception Committee in Montreal for the comfort and convenience of members and the ladies accompanying them are most comprehensive. Through the General Purposes Committee the control has been obtained of a large number of rooms in the different hotels in Montreal, so that there is no difficulty in securing rooms in advance in these hotels on communicating with the Secre-

tary, Dr. F. E. Devlin, 79, Mackay Street, Montreal. The same Committee has also a list of lodging houses conveniently situated near the place of meeting, where accommodation without board can be obtained at very reasonable terms. In addition we are assured that there will be abundant private hospitality.

The invitation extended by the Montreal Branch to members of the medical profession in the United States and in France has been cordially accepted. The Address in Medicine will be given by Dr. Osler, the Professor of Medicine in the Johns Hopkins University of Baltimore, and that in Public Medicine by Dr. Herman Biggs, Professor of Hygiene in the University of New York. Dr. Charles Richet, Professor of Physiology in the Medical Faculty of the University of Paris, has been nominated as the representative of that University, and also as the delegate of the French Government. No more versatile and brilliant representative of the French school could have been selected, and he will be assured of a warm welcome not only from our French-speaking colleagues in the Province of Quebec, but also from all members of the British Medical Association. The Universities of Lyons and of Lille have also notified officially their intention to send representatives to Montreal.

## THE GENERAL MEDICAL COUNCIL.

THE General Medical Council, during the session which has just concluded, has somewhat bettered the example of the House of Commons. With a view to curtailing the length to which speeches have tended to be drawn out, it has instructed the Executive Committee to report to the Council whether it would not be desirable to adopt a standing order which would have the effect of restricting any single speech to ten minutes. Permission to extend the speech beyond this limit would have to be given by the Council voting formally upon a resolution to that effect. The tendency to undue prolixity is one which seems to afflict all public assemblies at the present day, and it is one which it is certain that each in turn must find means to remedy.

An important matter which came before the Council early in the session was that of the request of the Apothecaries' Hall, Ireland, for the appointment of assistant examiners in surgery. Owing to the recent decision of the Privy Council, the General Medical Council was practically told by its legal advisers that it had no choice in the matter. The Council did not at once accept the suggestion of the Apothecaries' Hall, however, but referred the matter to a Special Committee, which in the result reported in favour of the appointment of two assistant examiners in surgery, but selected, not the gentlemen suggested by the Apothecaries' Hall, but two surgeons, one resident in Dublin and the other in Edinburgh, and fixed the rate of remuneration to be paid to them. With regard to the duties of these examiners, it would seem to be the intention of the General Medical Council in the present case to give them a somewhat wider scope than would appear to have been previously contemplated, by instructing them to act as inspectors of the examinations in medicine and midwifery, to ascertain whether the standard of proficiency required by the Council is attained.

The perennial question of the registration of midwives again engaged the attention of the Council. In response to an inquiry the Clerk of the Privy Council stated that, as the Bill may be introduced again next session, and may then obtain a more favourable position in the ballot it would be desirable for the Privy Council to hear the opinion of the General Medical Council. After some discussion the Council accepted an amendment, proposed by Dr. Glover and seconded by Dr. MacAlister, referring the Bill for consideration to a Committee with instructions to report to the November meeting of the Council.

It will be seen with satisfaction that the subject of medical aid associations was again brought under the notice of the Council, and, at the instance of Dr. Glover and Dr. MacAlister, referred to the same Committee which had the matter under consideration four years ago, with the substitution of the name of Mr. Bryant for that of Mr. Wheelhouse. This Committee, in its original investigation, collected much valuable information, and made certain recommendations, all of which the Council were not at the time prepared to accept. Since then the subject has made considerable advance, and it is hoped that this renewed investigation will result in some practical means being found to give effective expression to the well-grounded belief that organisations of this kind are detrimental to the interests both of the public and of the profession.

A brief and interesting, but necessarily inconclusive, discussion arose in connection with the presentation of statistics of the examinations for the medical services of the navy and army. Year after year the examiners have reported some candidates as deficient in general education, a defect evinced by bad spelling, bad grammar, and an inability to express their ideas clearly in writing. This would appear to indicate that certain of the examinations in preliminary knowledge are defective, and as it is one of the duties of the Council to see that a uniform standard of education is maintained, the matter is one which should engage its attention at an early date. The Education Committee has the matter under consideration, and it is to be hoped that opportunity will be found after the presentation of its report next November for a serious discussion of the subject, which nearly affects the honour and best interests of the profession.

At the conclusion of the session on Monday afternoon, a well-merited compliment was paid to Sir Richard Quain in recognition of the courage and devotion to duty which has led him, though but recently convalescent from a serious illness, to preside over the meetings of the Council. Sir Richard Quain, who has been a member of the Council for over thirty years, has always taken an active share in its deliberations, and was before his election to the presidency a most diligent and valued member of several of its most important committees. He may be justly called the father of the Pharmacopœia Committee, and it is a fortunate circumstance that he has been able to direct the revision now in progress. During his presidency he has given even more time than before to the business of the Council, which has included the consideration of many questions of great importance to the general body of the profession. Under his guidance the Council has shown a disposition to take a somewhat broader view of its duties in more than one direction, and the profession at large is deeply grateful for the self-sacrificing spirit in which he has laboured for its good, a spirit of which he has given such striking evidence by his determination to be present in the chair during the session just terminated.

## "HUMANITARIAN" ATTACKS ON HOSPITALS.

WE recently noticed some articles in a paper called *Church Bells* with reference to our hospital system. The object of those articles was to warn the authorities of hospitals that the subscriptions are diminishing, and that the cause of that diminution is that the public is convinced (1) that the general administration is extravagant; (2) that "vivisection" is practised in our hospitals; and (3) that the patients there are made the subjects of experiments. We denied, and still deny, each one of those charges, and this denial has led to a series of nine articles in *Church Bells*, in which its editor submits them to a process which he calls "proof." This process consists mainly in reiterating the charge, in more words, and in showing that someone else has said the same. We have not the space, even if it were worth while, to imitate the prolixity of our contemporary; but we have waited till the series was complete to read it as a whole, and to express our opinion on it.

And first let us say that we do not question the good feeling or the good intentions of those concerned in these attacks. And it is needless to say that we do not write in any spirit of hostility to religion. It is a great pity that when anyone differs with persons who assume to represent "religion," they should conclude that their antagonist is influenced by irreligious motives. Many of those whom *Church Bells* speaks of as "vivisectors" are as religious, we believe, as the editor of *Church Bells* himself. Nor can we admit for a moment the claim which this paper puts forward to pose as a "representative" of the Church of England, nor are we in the least degree afraid that its disapprobation, if our hospital system should be so unlucky as to incur it, would cause the support which members of that Church so liberally give to our hospitals to be withdrawn.

Now to the substance of the three charges. As to the first, financial mismanagement, it is hardly mentioned again in the whole of this long series, and therefore we presume that it is withdrawn; though, if so, it would have been better to say so frankly. The second point is really the gist of the whole attack. The editor says truly that licences are issued for experiments on animals to persons who are connected with our hospitals. We never thought of questioning this fact, but it does not touch the management of the hospitals. The medical school is no doubt often a part of the same "premises" as the hospital; but it is a part which has been let off, usually on rent, to the school authorities by the governors of the hospital for the purpose of teaching medicine; our contemporary appears to suggest that a new condition should be introduced into the leases of all medical schools, by which all experiments on animals should be forbidden within their precincts. This would amount, in other words, to a restriction of the Home Secretary's licence, so that a man holding that licence would be prevented from doing within the walls of the school what he might lawfully do outside. Nothing is said in this long series to show that there has been any abuse of the Act, which was accepted as a settlement of the question, nor that any unnecessary suffering is really inflicted on animals, nor that the sufferings which the Act regards as necessary are in reality nearly as great as animals have daily to undergo in their domestic services to man, or their mutilation for their uses as food, which not the most ardent humanitarian proposes even to limit. The only point which the editor raises in all this mass of matter which seems to bear on practice is whether the inspection under the Act is efficient; but the way to raise this point practically is by submitting properly authenticated details to the Home Secretary, not by adopting the vague statements of irresponsible and for the most part anonymous newspaper correspondents.

After wading through the whole of this "rudis indigestaque moles" of letters and articles, we do not see one real substantial allegation of cruelty or abuse. The whole rests on the erroneous assumption that no animal ought ever to be the subject of any experiment; and therefore the editor naturally regards all experiments as equally execrable. He believes, on the authority of the Society for the Prevention of Cruelty to Animals, that such experiments have lately increased in number. If this be so, it is probably a consequence of the inoculations which have done so much, and promise to do so much more, to check the mortality of diphtheria, rabies, pneumonia, erysipelas, tetanus, myxœdema, plague, cholera, and other kindred diseases.

But nothing that he or his correspondents have said shakes in the least degree our assertion that there is no connection whatever between these licences and our hospital system. If the public were mad enough to forego all the incalculable benefits resulting from perseverance in the methods adopted in our own day by Pasteur and Lister, and in former ages by so many great physiological inquirers, it would no doubt check the progress of medicine, and sacrifice thousands of innocent lives, but it would not otherwise affect our hospitals.

We must add a few words about the charge of experimenting on patients in hospitals, though we really can scarcely treat it as serious. First let us say that in the whole of these papers there is no one case alleged in which anything which can be called an experiment is even said to have been performed on any patient except an anonymous story of some woman whose brain is said to have been laid bare by loss of portions of her skull, and in whom the medical man is said to have applied galvanism to the exposed brain. There is no evidence for the truth of the story, and as it is alleged to have happened years ago in the United States it is hardly a convincing argument for not subscribing now to a London hospital. Our contemporary is gravely scandalised by the published statements of various medical men that, in their opinion, the function of hospitals in teaching medicine is even more important than that of curing the sick. Yet why should that shock him? That function certainly exists, and there is a good deal to be said for the contention that the advance of medical science, and its diffusion by teaching, applicable as these are to all present and future members of the human race, are of more importance than any services rendered directly to individuals can be. We might fairly argue that when John Hunter first tied the femoral artery for aneurysm, the service that he did to surgical science, and thereby to thousands of patients since his day, was of much more importance than the cure that was wrought on the patient. But we forget that, in the eyes of humanitarians, John Hunter was a criminal, and the charitable public ought to have withdrawn their subscriptions from St. George's, and shut up an institution where such outrages were permitted.

We may note by the way, as an example of our contemporary's

acquaintance with the subject, that in quoting an opinion of Dr. Gilbart Smith's that "workhouse infirmaries afford a splendid field for pathological research," he explains the two last words to his disciples as meaning "experiment," so much does any hint of experiment revolt his feelings. Yet let us ask these good people how else, than by experiment, do they think that the progress of medicine, of which we all boast, was or could be attained?

Even humanitarians, we suppose, allow that new medicines must be introduced and new operations practised, and if so their first trial must be experimental. Of such experiments we have already adduced a famous example. But they are by no means confined to hospitals, and if they could be banished thence (which is luckily beyond the power of all the societies on earth) yet they would be practised elsewhere, unless the most progressive of all arts and sciences is to be suddenly arrested by ignorant clamour. It cannot, however, be so. These attacks may divert a few subscriptions; but anyone of intelligence who will investigate the matter for himself will see that our hospital system is in no need of defence on the matters in question. The editor of *Church Bells* might be better employed than in trying to diminish the subscriptions which are already inadequate, but he cannot do much harm that way, and as to the proposed anti-vivisection hospital, as we have said in our last, we shall look on its foundation with much more interest than apprehension.

The Croonian Lectures of the Royal College of Physicians of London will be given by Dr. Hale White at the Examination Hall, on the Embankment, on the following Tuesdays and Thursdays at five o'clock: June 15th, 17th, 24th, 29th. The subject of the lectures is The Means by which the Temperature of the Body is Maintained in Health and Disease.

Lord Lister and Sir John Williams, Bart., the Cavendish Lecturer, will be present as guests at the annual dinner of the West London Medico-Chirurgical Society on Friday, June 11th. The dinner will take place at the "Trocadero" at 7 P.M., Mr. Bruce Clarke, President of the Society, in the chair. The Society now has some 500 members on its roll, and it is expected that the attendance at the dinner will number 150.

Brigade-Surgeon-Lieutenant-Colonel Kenneth McLeod M.D., LL.D., F.R.C.S.Edin., has been appointed Professor of Clinical and Military Medicine in the Army Medical School, Netley, in succession to Deputy-Surgeon-General H. Cayley, whose term of office expires on July 31st. The appointment is tenable for seven years. Dr. McLeod, who has been a member of the Medical Board of the India Office since June, 1893, has a long record of distinguished service in India, but is perhaps best known to the profession as the Professor of Surgery in Calcutta Medical College from 1880 to 1892, and as the editor of the *Indian Medical Gazette* for twenty-one years.

## HOSPITAL REFORM.

We trust that the appeal for a larger measure of support of the Hospital Reform Association, made in another column by Mr. Garrett Horder, 10, Windsor Place, Cardiff, the Honorary Secretary of the Association, will meet with a ready response. There can, we think, be no question that the Association is doing an excellent work in keeping up an interest in the question of reform of hospital abuses, and is well advised in enlisting the co-operation of laymen who take an intelligent interest in the management of hospitals. The Chairman of the Association is Dr. Ward Cousins, recently President of the Council of the British Medical Association, and among the Vice-Presidents are Mr. Timothy Holmes, Dr. Thomas Bridgwater, and Dr. Isambard Owen. The Hospital Reform Association has held meetings both in London and the provinces which have been well attended, and have on many occasions been very fully reported in the local newspapers. This is an extremely useful work, but it is one which entails an expenditure of a certain amount of money. The Hospital Reform Association requires a wider basis of support, and the most effectual means of helping the movement would appear to be to become a subscribing member of that Association. The subscription is only 5s. a year, but if the appeal meets with the amount of support from the profession which it deserves, we make no doubt that the Association will soon be placed on a satisfactory financial position. We do not think, however, that subscriptions should be confined to members of the medical profession; they should be forthcoming from the general public, who are as much interested in the matter as are medical men.

## THE COUNCIL OF THE COLLEGE OF SURGEONS.

The elections will be held on July 1st at 1.30 P.M. Blank forms of the requisite notice from a candidate and of his nomination may be obtained on application to the Secretary, and the same must be received by him duly filled up not later, let it be remembered, than Friday next, June 11th. A voting paper will be sent by post to each Fellow of the College whose address in the United Kingdom is registered at the College on Monday, June 21st, and Fellows will not be required to apply for voting papers. Our readers must doubtless be aware that there is no proxy-voting; the papers are merely signed after the fashion in a ballot, put in an envelope and forwarded to the Secretary. There are five vacancies to be filled up; the deaths of Mr. Pemberton and Mr. Rivington make necessary two "substitute members" to finish the terms of office of the deceased members of Council. We direct the attention of our readers to the list of the Council, with the terms of office of each member, and an analysis of the representation of London schools and the provinces at page 1428. Of the three outgoing members, Mr. Christopher Heath declines, whilst Mr. Ward Cousins and Mr. Howse intend to seek re-election. Sir William Dalby, Mr. Bennett May, Mr. Rickman Godlee, Mr. Watson Cheyne, and Mr. Edmund Owen, we understand, will be candidates. An analysis of the candidatures would be premature at present. The half-yearly meeting of Fellows will take place at the College immediately after the election, that is, at 5 P.M. on July 1st.

## "KISSING THE BOOK."

At last we have arrived—thanks to Sir Walter Foster—at the point where the Government have actually promised to consider the question of bringing in a Bill to substitute, once for all, the method of taking the oath with uplifted hand for the old and now very undesirable method of kissing the Book. The Attorney-General, in answering Sir Walter Foster's question, blandly pointed out that the last Oaths Act "permits" the use of the new form, and he seemed to think that that was all any reasonable person could desire. The depths of official ignorance are dense in these matters, and we presume, therefore, that Sir Richard Webster has not realised the constant obstacles which have been put by judicial officers of all kinds in the way of this exceedingly simple reform. As we have had frequently to point out in these columns, judicial persons of all ranks, from the magistrates' clerks to coroners and judges, even of the High Court, have practically deprived doctors and others called to give evidence before them of the right which Parliament had deliberately given for important public reasons. We are glad to see that so influential an organ as the *Liverpool Mercury*, in commenting upon Sir Richard Webster's answer, expresses its conviction that only the express extinction of the old form will give the public any guarantee that it will

not be still forced upon them. For the serious sanitary reasons which we have so often explained we would much prefer to see a simple Bill passed enacting that in future all judicial oaths shall be administered in the new form, unless the witness demands to be sworn in any other way. We cannot imagine how this change could possibly do any harm, and we feel sure that vast numbers of people, who have never realised the sanitary danger, would feel that the dignity of judicial proceedings, and the real solemnity of the oath itself, would gain enormously by the change. We trust that Sir Walter Foster will not let the matter drop, and that the Attorney-General will be asked, before the session is out, to state what the Government intends to do.

## ROYAL COLLEGE OF SURGEONS, IRELAND.

CONSEQUENT upon the death of Mr. F. A. Nixon, there are now three candidates in the field for the Vice-Presidency of the College in 1898. The gentlemen who have signified their intention to seek the honour are: Mr. Lambert H. Ormsby, Surgeon to the Meath Hospital; Dr. C. B. Ball, Regius Professor of Surgery in the University of Dublin; and Mr. J. Myles, Surgeon to the Meath Hospital.

## GROG IN THE BRITISH NAVY.

THE Secretary to the American navy has christened their latest torpedo boat after Admiral Foote, who effected the discontinuance of the grog allowance to all enlisted men in the navy. The increased health and efficiency of that branch of the service have been very great. A similar beneficial result would undoubtedly follow a similar procedure in the British navy.

## "SWEETS."

A MEMORANDUM accompanying a Bill introduced into the House of Commons last week to amend the Licensing (Scotland) Acts from 1828 to 1887 reveals a curious state of things in the North. During the past few years several shops have been opened in Glasgow on Sunday for the sale of British-made wines known as "sweets," containing up to 27 per cent. of alcohol, a greater alcoholic strength than is found in much of the imported wine sold. As the law stands the Sunday sale of such wines cannot be prevented, because they are not excisable liquors. The remedy proposed is that licences for the sale of "sweets" in Scotland should be granted as in England, the applicants having first to obtain a justice's certificate. It is expected that the Bill will be passed, as the Inland Revenue Department has approved the draft.

## THE DIETARY OF CYCLISTS.

DR. LUCAS-CHAMPIONNIÈRE, of Paris, who has devoted a good deal of attention to the medical aspects of cycling, expresses his opinion that 600 kilometres in twenty hours, the time in the Paris-Bordeaux contest, was not too much for a healthy and well-trained rider. Dr. Championnière gives the following details of Rivierre and Cordang's methods during the Bordeaux-Paris race: "They did not eat nitrogenous food, and they were right. But though they did not eat they drank enormous quantities of liquid to replace the liquid or weight lost by perspiration. They drank tea, beef-tea, and milk. It is useless to eat during violent exercise, but it is important to drink, and if the body is in good working order the only result of the effort is a decrease in weight. The effect on animals is similar. M. Paillard, the sportsman, who rode 1,200 kilometres in sixteen days last year on his two mare Pomponne and Merveilleuse, did not increase their ration of oats, but gave them large quantities of green fodder and water. It is the same with our cyclists, who race on fruit and a deal of liquid." This is right as regards the quality of food required on a long-distance contest. Whether such a race be harmful to an exceptional rider, properly trained or not, we do not yet know. Mills, Shorland, Holbein, Bidlake, among English, and Rivierre, Huret, Stephane, Dubois among French riders, with many others who have frequently competed in such races, are still well and healthy, including D. Stanton, who raced about 1874 and 1875 in six-day races. We must watch their careers in future before we can lay down any rule. Our own opinion is that it does no harm to the one man of exceptional physique, but is most harmful to the many who are improperly trained.

## A GOVERNMENT SUPPLY OF VACCINE LYMPH.

THE answer to a question put in the House of Commons by Sir William Priestley given by the Parliamentary Secretary to the Local Government Board contained an announcement which may be taken to indicate the intentions of the Government as regards the future vaccine lymph supply for this country. It was to the effect that glycerinated calf lymph had been ascertained to present distinct advantages over other forms of vaccine lymph, and that the President of the Local Government Board was considering how far he could make a supply of such lymph gratuitous. This is evidently the direction in which this matter is tending. A Government department can easily prepare such lymph; and since there is evidence that the glycerinated lymph improves by being kept for some weeks, if not months, owing to the germicidal effect of the glycerine on extraneous organisms, such lymph could easily be stored in large quantities so as to meet the special demands likely to be made at certain seasons of the year. The Government are, however, not prepared at once to carry out this change, because it may involve fresh legislation, which has been postponed until next session.

## MICROBIAL CURE FOR RABBIT PEST.

THE use of the microbes of chicken cholera is, according to *Nature*, after all likely to be resorted to in dealing with the rabbit pest in New South Wales. When this plan was originally suggested by Pasteur, reluctance was felt to introduce a new disease into the colony. But the Government bacteriologist has recently shown that chicken cholera does exist both in New South Wales and Queensland, and he described in detail various scientific investigations, the results of which place the matter beyond doubt. Extensive experiments prove the efficacy of this method of destroying rabbits to be very great, and the Government has therefore been recommended to grant permission to persons who suffer from the depredations of the animals to utilise this novel means of suppressing them. It has been calculated that two gallons of broth infected with chicken cholera microbe is sufficient to destroy at least 20,000 rabbits irrespective of infection induced by contagion.

## A NOBLE EXAMPLE.

A POINTED object lesson is afforded to English people by the handsome volume recently published in commemoration of the opening of the new Hygienic Institute at Freiburg-in-Baden. For the last eight years the teaching of hygiene in that university has been much cramped by want of space, the only available rooms having been borrowed from the pathological department. The site, valued at some £1,500, was given by the town. Then the University Council voted the sum of £8,000 for the building; on applying to the Government for ratification, consent was not only given, but the whole amount was forthwith granted to the University, in addition to the ordinary budget. A further £2,000 was subsequently added for the Veterinary Institute. With such munificent support, the only care remaining was to perfect the efficiency of the work; thus, for example, a sum of nearly £420 could be used in providing the electrical installation. The new building is perhaps the most complete of its kind in existence. It is not only an institution in which hygiene can be investigated and taught, but an example, approximating to perfection, of an edifice constructed on the most approved principles of modern sanitation. Adequately to appreciate the completeness of the work, and the forethought with which

it has been designed and carried out, the account by Professor Schottelius in the book referred to must be consulted. Provision has been made enabling every corner of the building to be used for purposes of study. Laboratories and lecture rooms have been fitted with every convenience for working, either by day or by artificial light; the care bestowed upon the problems of lighting, heating, and ventilating the institution is exemplified in the special sections of the book devoted to those subjects. The building stands in its own ample grounds, including a fishpond and an experimental garden, together with an associated institute for veterinary hygiene. A natural spring is used, among other purposes, for investigations relating to the ground water. The thoroughness with which everything connected with this institution "made in Germany" has been carried out cannot but compel reflection. Freiburg-in-Baden is a town of just 50,000 inhabitants, little more than one-hundredth the size of London. The State spends, roughly, £12,000 on a hygienic institute for it, and who shall say that the money is ill invested? The experimental study of hygiene must lead—has, indeed, led—to the most far-reaching benefits to mankind, and it is a national disgrace that provision for it there is in England practically none. The record of one health institute alone—that of Professor Koch, in Berlin—should suffice, if but for very shame, to stimulate that public spirit in matters scientific which is as yet so foreign to our most insular country.

## THE PRINCE OF WALES ON EXPERIMENTAL MEDICINE.

The praise given by the Prince of Wales to the Medical School at Guy's in his speech at the opening ceremony, reported in the British Medical Journal of May 29th, is, of course, equally true of all our schools. It is true of all that when in connection with them experiments on animals are performed they are, to quote the Prince's words: "Undertaken with the object of promoting advances in medicine and surgery which are likely to be of benefit to suffering humanity, and I have satisfied myself that such experiments are conducted under strict supervision by highly qualified investigators, and that in practice the only operations performed upon animals which are not in a condition of complete anæsthesia are inoculations and hypodermic injections." Like all that he says on such occasions, it was carefully worded, of authority, exact, and final. Henceforth the agitators must face a fresh statement of old facts, made in public, by a speaker whom even they cannot call ignorant, reckless, prejudiced, or dishonest. But, more is the pity, it will make no difference to them. Other epithets they have in plenty, or they will shelve this difficulty. Men who have not scrupled to misquote what was said by Harvey and by Sir Charles Bell will find it easy to forget or to falsify the Prince's speech. We fight with some success against all the opposition that is honest; but we fail, generally, when we have to fight the deliberate fraud which underlies some of the false statements made about experiments on animals.

## THE MEDICAL OFFICER AND SANITARY INSPECTOR.

The opposition to the proposals made in a couple of amendments on the Public Health (Scotland) Bill, to the effect that the sanitary inspector shall be placed upon a footing of statutory equality with the medical officer in granting certificates as to matters which are injurious or dangerous to health, is extending and deepening. The General Medical Council have given forth no uncertain sound upon the subject. They have recognised that the matter is one which affects the status and dignity of the profession at large, and that the Council, as the body responsible for the curriculum and examinations for medical and public health diplomas, could not allow the matter to pass without comment. In the concluding part of this deliverance they sum up the whole matter; "The General Medical Council feel convinced that if the opinion of officers, altogether without the requisite technical and professional training, is to be placed on a similar footing to that of medical officers of health, the efforts of the Council to ensure a distinctively high standard of efficiency in the public health service will be seriously frustrated." Copies of this deliverance will be sent to the members of the Government in charge of the Bill and to the members of the Grand Committee to which the Bill has been relegated. The leading Scottish newspapers—the *Scotsman* and the *Herald*—have taken the matter up, and have pronounced strongly against the alterations which have been made upon the Bill as originally introduced. And various public bodies in Scotland have already made representations urging the Government to drop the objectionable insertions. The matter will be settled in one way or another on the report stage in Committee of the whole House towards the end of June. It is highly desirable that the Branches of the Association should take the matter up and use their influence with members of the Lower House with whom they may be acquainted during the recess. We understand that copies of notanda explaining the nature and bearings of the objectionable amendments will be forwarded on application to the Joint Secretaries of the Society of Medical Officers of Health for Scotland, Dr. Campbell Munro, Paisley, and Dr. Maxwell Ross, Dumfries.

## KALA-AZAR.

We have received a communication which gives some interesting information concerning the investigation conducted by Surgeon-Captain Leonard Rogers, I.M.S., into the epidemic known as kala-azar. Dr. Rogers, in expressing his thanks for the grant in aid of research work which he received from the British Medical Association in 1895, mentions that he confirmed when in Assam the results he previously got showing the close relation between the rise and fall of the ground water level and that of the malarial fever prevalence which he established in Doranda. He found the subject of kala-azar in a very confused state, owing to the erroneous nature of Giles's investigation in 1890, when he come to the conclusion that the disease was simply ankylostomiasis, while Dobson had previously shown that these parasites were just as common in healthy men from all over India as they were in the Assam epidemic cases. The first important point that Dr. Rogers has established was that the anæmia met with in kala-azar is of an entirely different type from that produced by the ankylostoma, which immediately differentiated the two diseases; and he has found that the anæmia was in direct proportion to the fever, and the blood improved if these were absent for two or three weeks. He has also found that the disease was indistinguishable from simple malarial fever in its earlier stages, and from malarial cachexia in its later ones, while the constant presence of the malarial organism, together with the marked pigmentation of the liver, spleen, and kidneys met with *post mortem*, completed the proof that the disease is from first to last a malarial fever. The spread of the disease was then investigated, and it was clearly established that the disease is spread by one person who has contracted the fever in an infected village going to live in one which has hitherto been free from it, and then the next two or three cases will be among the inhabitants of the very house in which he had been living. The fever is then a communicable one. It is also of a very much more intense nature than the ordinary malarial fevers of Assam, and causes marked cachexia in about as many months as the ordinary fever takes years to produce the same condition in. The origin of the disease is of still greater interest, as Dr. Rogers has found that it did not begin in Assam at all, but in the Rungpore district of Bengal, which is, however, only separated from the Garo Hills, at the foot of which the disease was first noticed, by the Brahmaputra, and it was caused by an extraordinary succession of five out of six very unhealthy years, which

so intensified the fever year by year until it actually attained to the power of spreading from one district to another in the absence of exciting causes in the districts affected, just as the "Burdwan fever" of the sixties and seventies did. In fact, the two epidemics are so exactly alike in all their more important features, that it was only after a minute examination of all the old reports that Dr. Rogers was convinced that they were not continuous, and he believes that his work affords a satisfactory solution to the vexed question of this old epidemic as well as of the Assam epidemic "malarial fever," as he has named the disease formerly called kala-azar. Although Dr. Rogers's view, that kala-azar is but an epidemic of a very intense form of malarial fever, which is actually communicable from person to person, directly through the air, or probably more commonly through the soil, is opposed to all the old ideas on the subject, yet it is in accordance with all recent bacteriological work, which goes to show that all germ diseases are capable of intensification artificially or naturally, while both pneumonia, and apparently also plague, form examples of diseases which are sometimes non-infectious, yet at times attain to epidemic proportions, in which case they are communicable.

## DR. RUSSELL ON OPEN SPACES.

AT a recent meeting of the Glasgow Corporation the Medical Officer of the city read an admirable report on open spaces. Like the rest of such reports it was conceived not only in what is called a "scientific spirit," but it abounded in the rarer qualities of common sense and imaginative observation of human nature. Dr. Russell properly condemned the confusion between breathing spaces and playgrounds, and warned the public against encroachment on the latter by æsthetic adornments, gardening, and the proprieties generally. He pointed out that vigorous and unrestrained play is a part of education, and that open playgrounds should indeed be considered in relation to schools as well as to groups of houses. Dr. Russell especially urged that the pavements of such playgrounds should be such as to secure a level and dry foot surface in all seasons. Apparatus should be simple, and not such as to lead to accidents. As regards older youths the medical officer went on to point out that adolescents should be excluded from the playgrounds of children, and should have, in grounds of their own, proper cricket pitches, football fields, and so forth. In the grounds of adolescents Dr. Russell would not forget that some discipline should be maintained, so that they should not be scenes of brutality or bad language. In his vivid words the "big boy raids every vacant space within the reach of his legs; the vigour of his sports make him the terror of children; his morals a terror to their mothers; and his language often a terror to all decent folk." We are glad to observe, from the columns of the *North British Daily Mail*, that Dr. Russell's report was received with the cordiality it deserved, and we look to see the Glasgow open spaces become a model for other towns to follow.

## THE CEREBRAL CIRCULATION.

IN a recent number of the *Monist*, Dr. Cappie has put forward some views of intracranial physics of the cerebral circulation which are somewhat startling to the modern physiologist. We must go back some sixty years and read the discussions on capillary attraction in Alisen's *Outlines of Physiology* (Supplement, Edin., 1836) and in Todd's *Cyclopædia* (vol. i, p. 672, 1836) before we can place ourselves in a position of sympathetic tolerance with Dr. Cappie's extraordinary theories. No physiologist trained in the strict school of experimental inquiry would now venture to maintain "that the physical changes between the fluids within and outside the capillary walls, the chemical affinities, the attractions and repulsions, the inconceivably rapid oscillation of the molecules—all go to constitute a force which draws the blood onwards and actively transmits it through the capillaries." To substantiate such a statement Dr. Cappie does not, and we believe cannot, produce a particle of experimental evidence. Dr. Cappie points to the portal circulation, and insists that some other force than the heart is required to maintain this in efficiency. Such a force is to be found in the action of the respiratory pump. By the descent of the diaphragm blood is not only aspirated into the thorax, but is expressed from the abdomen. If the abdominal expiratory muscles be brought into play the expression of blood will then take place to a great extent. By squeezing the liver with the hand a large volume of blood can be driven with ease into the right heart. There is not the slightest need to introduce either here or in the case of the cerebral circulation a theory of molecular attraction. Neglecting the essential fact that fluid transmits pressure equally in all directions, Dr. Cappie believes that the exit of the venous blood from the cranium is opposed by the atmospheric pressure. He therefore supposes that the blood must "move through the (cerebral) vessels not passively, but with an actively distending force, resulting from the direct influence of molecular changes. These powerfully attract the blood and urge it onwards through the vessels." "Physical restraint," he says, "is essential in order to control the direction of motion and to condition the amount of force," and therefore the brain is enclosed by the cranial wall. As "super-heated steam, surging in vain against the walls of the boiler, spends its force on the piston and puts powerful levers in motion," so acts the nervous energy of the brain stored in the skull cavity. "Straining tension on the one hand and steady support on the other are essential." Thus he concludes, "However strenuously the will may attempt to operate, it will fail in the presence of a flaccid brain. We may as well expect the piston of an engine to be efficiently raised when there is a rent in the boiler." Such fanciful views as these cannot be entertained for one moment. It has been thoroughly established by experiment that there is nothing very essentially different in the circulation of the brain from the circulation in any other organ. Owing to the cranial wall the brain is unable to expand or collapse with changes of circulatory pressure. Intracranial tension is the same as cerebral venous tension, and varies proportionately with general arterial tension, and directly as general venous tension. The cerebral vessels are governed by the vasomotor nerves; the cerebral circulation depends on the force of the heart and the vasomotor tone of the splanchnic area. The splanchnic vessels form the resistance base of the circulatory system. When these vessels constrict, the velocity of blood flow through the brain and the intracranial tension are increased. When they dilate the opposite results occur. A flaccid brain is an anæmic brain, and is sequential to a toneless condition of the circulatory system. In place of Dr. Cappie's theories the reader is directed to the modern experimental inquiries on this important subject.[1]

## INTER-NOTIFICATION.

WE have often strongly advocated the adoption of some form of general notification and inter-notification of infectious disease, whereby districts in and around each county shall learn at weekly intervals, and the county generally at frequent intervals (preferably also weekly), the nature and amount of notified sickness in neighbouring sanitary areas and in sanitary areas all over the country respectively. This is an object to be aimed at not only as desirable, but as essential to the highest standard of excellence in our preventive administration. Yet we seem but little nearer a realisation of such a scheme than when we first propounded it, except that the number of county medical officers of health has increased, and these have nearly all established a weekly notification return in respect of their geographical county. What we now need is universal notification, and absolute and compulsory openness, with a general and public distribution of data at frequent intervals. We are just ap-

[1] A summary of these will be found in the Hunterian Lectures on the Cerebral Circulation, by Leonard Hill (Churchill, 1896).

proaching a period of the year during which it will be the aim of many so-called health resorts to conceal the presence of infectious disease in their midst, to their pocket's gain no doubt, but also not improbably to the detriment of unsuspecting visitors, and even the death of some of the latter. Concealment of disease by any district ought to be an impossibility in our country, and should, when discovered, certainly be held up to public execration. If all districts were alike subjected to public scrutiny as regards disease occurrence in the same way in which deaths are now brought forward in our large towns, it would be to the immense advantage in many ways of the public health. The medical officer of health for Keighley last year notified to Hornsey the advent to the former from the latter district of two cases of small-pox. This led to the discovery in Hornsey of five additional cases. So far, good; but what of districts adjacent to Hornsey? Was any hint given to them of the danger near their borders? As matters stand, Middlesex having no county health officer (we believe we are right in this), such omission would be quite pardonable. But the scheme we advocate would supply such an obvious desideratum, and this is only an instance of what is daily taking place in localities which have large concern with neighbouring areas by way of personal inter-communication.

## THE BRITISH MEDICAL BENEVOLENT FUND.

The report presented to the annual general meeting of the Royal Medical Benevolent Fund, which was held on May 28th, showed that the amount received from subscriptions and donations during the year 1896 amounted to £1,551, which was rather less than the total for 1895. The amount distributed in grants, ranging in amount from £5 to £20 among 159 applicants, was £1,464; the number of annuities, which are paid from the annual income of invested property, was 107, and the nett amount thus paid was £2,175. The number of new annuitants elected to fill vacancies caused by death was 5; as a rule the amount of the annuity is £20, but a special fund, established in 1873, permits of the payment of £26—such of the annuities as are granted to medical men themselves. At almost every meeting of the Committee of late cases have had to be left unrelieved for lack of funds. The working expenses are very modest, and, both in this respect and in the care which is taken in the selection of those who are assisted, the Fund deserves the confidence and support of the profession. The Honorary Financial Secretary is Dr. Samuel West, 15, Wimpole Street, W.

## THE ROYAL CORPS OF ARMY SURGEONS.

Mr. Brodrick's reply to Dr. Farquharson's question in the House of Commons on May 17th substantiates in every particular the information we gave on this subject on May 8th. We have now to face the disquieting fact that notwithstanding the recommendations of no fewer than three Commissions (Sir Ralph Thomson's, Lord Morley's, and Lord Camperdown's) to constitute the Army Medical Staff into a Royal Corps, successive Secretaries of State for War have failed to give effect to the recommendations simply because "their military advisers" are against it, which, in other words, signifies that so strong is the prejudice against the medical service that even a Secretary of State for War is rendered impotent to act. Mr. Brodrick's reasons for the Secretary of State's refusal to carry out the proposal for a Royal Corps were not expressed in replying to Dr. Farquharson's question, but the "already explained" reasons may be found in Mr. Brodrick's speech on the Army Estimates, which appeared in the *Times* a short time ago. Then it was generally rumoured that Mr. Brodrick possessed no authority for making the full statement on army medical affairs that he did. Now we may assume that the Secretary of State for War is decided on the point of refusal till he is forced to concede what is absolutely required, and the need for which was plain enough to three Commissions of inquiry on army medical affairs. Little do army surgeons know of the resistance that was offered by the military authorities to the grant of departmental (medical) precedence on mixed boards, which, although it now takes shape in the Queen's Regulations, will, if carried out at all, be very grudgingly given effect to, as it is always easy to constitute a mixed board with only a junior medical officer. It is almost a certainty that no mixed board will ever be constituted so that an army medical officer of surgeon-major-general's or colonel's rank shall ever sit as president of a Board where major-generals or colonels in the combatant ranks shall sit as members. This places the concession recently granted in a nutshell, for the information of those inexperienced in army affairs.

## AN ANTICIPATION OF DARWIN AND WEISMANN.

In the April number of *Science Progress* Professor E. B. Poulton calls attention to what he calls a "remarkable anticipation of modern views on evolution." The second volume of Dr. J. C. Prichard's *Researches into the Physical History of Mankind*, 2nd edition, 1826, contains passages which show that Prichard apprehended with perfect clearness that domesticated races of animals and plants have been produced by the selection of man and not by favourable surroundings, careful training, or cultivation. He believed in the possibility of organic evolution, and supported it by excellent arguments which still have the strongest weight to-day. He even recognised the operation of natural selection, although he assigned to it a subordinate *rôle*. The most important anticipation, however, in Professor Poulton's opinion is the masterly discussion on the transmission of acquired characters, in which the distinction between acquired and inherent or congenital characters is clearly drawn, and many of the most difficult cases are argued fully out, the conclusions reached being those independently arrived at by Professor Weismann half a century later. The fact that all this should have passed unnoticed can only be explained, Mr. Poulton believes, by supposing that this particular edition of Prichard's work was never consulted, but that Darwin and others always went to later editions of the same work. Prichard appears to have been not very confident in the strength of his own conclusions, and an examination of later editions and works leads Professor Poulton to believe that his convictions weakened still further. James Cowles Prichard was born at Ross, in Herefordshire, on February 11th, 1786. He was brought up a member of the Society of Friends, to which body his parents belonged. He studied medicine and took his doctor's degree at Edinburgh. Afterwards he read for a year at Trinity College, Cambridge. He joined the Church of England, and migrated to St. John's College, Oxford, afterwards entering as a commoner at Trinity College in the same University. He does not appear, however, to have sought a degree either at Oxford or at Cambridge. In 1810 he settled at Bristol as a physician. Among his many great achievements in anthropology, says Professor G. B. Tyler, was "the proof that the Celtic nations are allied by language with the Slavonian, German, and Pelasgian (Greek and Latin), thus forming a fourth European branch of the Asiatic stock (which would now be called Indo-European or Aryan)." This treatise on the subject, entitled *Eastern Origin of the Celtic Nations*, appeared in 1831. Mr. Augustin Prichard, of Bristol, an old and highly respected member of the British Medical Association, on the Council of which he sat for several years, is, we believe, a son of the author of the *Physical History of Mankind*.

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Field Marshal Sir J. Lintorn Simmons, G.C.B., presented the scholarships, medals, and prizes to the students of Charing Cross Hospital Medical School on June 2nd. The report of the Dean (Dr. Montague Murray) stated that during the present year the first Livingstone scholarship and the first Huxley scholarship, both founded in memory of distinguished old students, had been awarded to Mr. C. J. Mercier and Mr. F. B. Pinniger respectively.



The City of Montreal

SIXTY-FIFTH ANNUAL MEETING
OF THE
# BRITISH MEDICAL ASSOCIATION.

## MONTREAL, 1897.

### GENERAL ARRANGEMENTS.

OF the sixty-fifth annual meeting of the British Medical Association, to be held in Montreal from August 31st to September 4th of the present year, very full particulars have already been published in the BRITISH MEDICAL JOURNAL.

Articles have appeared in the JOURNAL from time to time, notably on December 5th, 1896, and since then much additional information has been published. Further, a *Preliminary Programme* has been issued and has been received we trust, by every member at home, and by the officers of all the Colonial Branches.

This little book has been prepared at the cost of some labour to bring together and give in a short form all those facts which it was thought might be of use to members about to attend the meeting. Some drawings have been added which illustrate many of the most interesting cities and districts of Canada. It contains a complete list of officers and committees; a brief survey of Montreal, its colleges, hospitals, and medical institutions in general. The various routes by which Montreal may be reached are set forth—namely, the passage by the St. Lawrence river and that by New York. There are hints to travellers, which may be found to be useful, upon clothing, luggage, money, and generally upon their conduct in a strange land. There is a cable code in duplicate, a complete list of sailings, which has also been published in the JOURNAL, and rates, together with some short reference to excursions and their cost. In addition to this, a complete plan of possible excursions has been prepared, and may be had upon inquiry. Last of all, the service of an agent well skilled in Canadian travel has been placed at the disposal of members by the Canadian Pacific and other railway companies. He may be addressed at the office of the JOURNAL, and he will promptly reply to any combination of questions which may be propounded to him. Upon a careful consideration of all these sources of information it appears that there are some new and material facts which should be mentioned, and others which may be insisted upon even at the risk of repetition.

To ensure the comfort of members and to provide that a hearty welcome shall be extended to them, four separate bodies are co-operating—the Government of Canada, the authorities of the Province of Quebec, the Council of the City of Montreal, and the medical profession throughout the whole Dominion. The Governments have set aside generous grants for this purpose, and have entrusted them to the medical profession to be expended in a wise and liberal way. The railway companies also have made important concessions in respect of fares, and private citizens have promised a large hospitality.

### THE JOURNEY TO MONTREAL.

Full particulars have already on several occasions been published as to the best modes of reaching Montreal from Great Britain, and details are given also in the *Preliminary Programme*, to which reference has already been made, and which is in the hands of all the members of the Association. In the centre of the JOURNAL this week will be found pages which give for convenience of reference a list of the sailings of boats by the various lines both to Montreal and to New York. We would call special attention to the fact that in consequence of the representations made to them the managers of the Beaver Line have consented to alter the date of sailing of the *Lake Ontario*, one of the best steamboats of that line, to August 20th, so as to render it practically certain that she will arrive in time to permit members to reach Montreal on August 29th or 30th, in time for the opening of the annual meeting on August 31st.

### PROPOSED SPECIAL STEAMBOAT.

Many of the August boats by the St. Lawrence route have already their full complement of passengers, but although this fact in itself indicates that there will be a most satisfactory attendance of British members, the Local Executive in Montreal are so anxious that no member should be disappointed that they are prepared to receive notice within a reasonable time—say within the next fortnight—from a sufficient number of members to make arrangements for a special steamboat. This boat would be an ocean steamer comfortably fitted and well found in every respect. The "round-trip" fares would range from a minimum fare of 20 guineas to 30 guineas, according to the location of the cabin. The boat would remain ten full days at Montreal. If such a boat, however, is to be chartered it is imperative that notice should be given at once by those willing to take



The Hôtel Dieu, Montreal (the first hospital established on the American continent).

passage in her, and for this purpose a special form will be found printed on the detachable centre page of this issue of the JOURNAL.

### THE ACCOMMODATION OF MEMBERS AT MONTREAL.

It has been felt at Montreal that, however willing members of the profession and the citizens may be to entertain the visiting members from the old country, a very large number, perhaps the majority, will prefer to be untrammelled, and to take rooms in hotels and lodgings rather than accept private hospitality. To this end the General Purposes Committee have arranged with the leading hotels to have allotted to them a large number of rooms in each. They have also prepared a list of lodgings conveniently situated near to the place of meeting. The list of hotels and the cost of rooms and board in the same have already been given both in this JOURNAL on December 5th, 1896, and February 20th, 1897, and in the *Preliminary Programme* issued from Montreal. We would here point out out that those desiring such accommodation are requested to write to Dr. F. E. Devlin (79, Mackay Street, Montreal, Secretary of the General Purposes Committee), stating the nature and maximum cost of the accommodation required.

This same Committee have arranged that those so desiring it can obtain lunch at McGill University. For this purpose the drawing rooms in the engineering building will be available. These are spacious, and can easily accommodate between 700 and 800 guests.

It should, however, be added that many members of the profession and many of the leading citizens have offered to entertain guests during the meeting, and that the Reception Committee is already issuing invitations.

It may here be noted that Montreal is well supplied with restaurants, and that it will be easy for members who may prefer to put up in lodgings rather than hotels to find convenient accommodation for meals within a few minutes' walk of their lodgings or of the McGill College where the Sections will meet.

For the wives and daughters of visiting members, the Redpath Library will provide all necessary accommodation. Drawing and writing rooms will be arranged for their convenience, while some of the smaller class rooms on the ground floor will be converted into well-furnished receiving rooms, which can be obtained in advance for small private afternoon tea parties, etc.

A Ladies' Committee has already been formed, and those ladies accompanying members to Montreal may feel assured that their pleasure will be as fully looked after as that of the members themselves.

For the members themselves, the Molson Hall (in close connection with the suite of reception rooms) will be tastefully decorated and converted into a reading and writing room. It is scarcely necessary to add that there will be post, telegraph, and telephone offices in connection with the reception rooms, and a service of messenger boys.

### SCENERY AND SPORT.

The Excursion Committee have recognised that members are not making a journey of so great extent for the purpose of attending the meeting alone, and they have arranged accordingly. If any love quietness and fishing, the "Laurentian," "St. Maurice," and other fishing clubs are open to them. Within three hours of Montreal, they may spend a few easy days and take as many of the speckled trout as they desire. What is of more value, they will see the splendour and glory of the autumn foliage upon the Laurentian hills. The matter of this and kindred occupations—the pursuit of maskinonge, the lordly ouananiche, the bass, and the pickerel—all are dealt with by Dr. Drummond in the BRITISH MEDICAL JOURNAL of May 1st.

In the *Preliminary Programme* issued from Montreal was a note to the effect that all wishing to shoot or fish are required to obtain a licence. This was inserted in accordance with the official regulations. We are informed that the different Provincial Governments have consented to waive this regulation in this instance, and that all members of the Association will gain free permits to shoot and fish.

### EXCURSIONS.

It would be too long a task to set down in detail an account of the sights to be witnessed upon the various journeys. The mere recital of the names of Niagara and Montmorency Falls, the St. Lawrence, the Ottawa and the Saguenay Rivers, the Laurentian, the Rocky and Selkirk Mountains, the great lakes, and the great prairies, call up images which a description in words would rather deface than explain. These places are to be seen and can be seen with the least expenditure of time and industry.

But all members are enjoined to travel across the Canadian Continent, and so gain an impression of its vastness, variety, and resources. Stop-over privileges are allowed at all points, from some of which interesting side trips can be made. From Rat Portage the new gold fields of the Lake of the Woods, Rainy Lake, and Seine River can be reached by steamer. The Canadian Pacific Railway has promised to members going to Vancouver free passes all over their branch railway and steamboat lines in Manitoba, the Canadian North-West Territories, and British Columbia, enabling them to visit

Rossland and other points of interest. By the payment of an extra 5 dols. members may return by the Great Northern or Northern Pacific, and (at a further but reasonable outlay) visit the Yellowstone Park. This journey had better be undertaken before the meeting in Montreal.

It yet remains to consider how much of the American Continent may be visited in a given time, and at what cost.

From Montreal there are four series of excursions which may be taken singly or combined, according to circumstances:

1. The St. Lawrence River, Quebec, the Saguenay and Lake St. John Region.

2. The Ottawa Valley, Toronto, Niagara, and the Thousand Islands.

3. The journey to the Maritime Provinces of Canada, Halifax, and "the land of Evangeline."

4. The great trip over the Canadian Pacific, across the Rocky Mountains to the Western Ocean.

Further, the cities of the United States may be visited.

In one month a member can travel from England to Canada, attend the meeting, and take any of the first three trips: in five weeks he may take all three. In six weeks he may go as far as the Pacific Ocean, returning by the Yellowstone Park (the great American Reservation), and in less than two months the whole programme may be covered, including the cities of the United States.

Those who wish to visit Alaska should leave England, so that they may arrive in Montreal about July 27th or 28th. They can then go by the Canadian Pacific Railway to Vancouver, and there take the steamer *Queen*, which leaves Victoria on August 5th for Alaska. The time occupied from Victoria to Alaska and return is 12 days; fare, including everything, 80 dollars (£16), for the round trip from Victoria.

This programme is worth examining somewhat in detail, and it may be reduced to the following schedule:

| | | Minimum Time for whole Excursion, Returning at Starting Point. | Approximate Transportation Cost of Round Trip. | Notes. |
|---|---|---|---|---|
| | | | Dollars. | |
| Montreal to Quebec | Steamer | 2 days | 3.00 | Meals and berths extra. |
| " " | Rail | " | 3.50 | — |
| Quebec to Lake St. John | Rail | " | 5.70 | — |
| Quebec to Montmorency Falls | Carriage | ½ day | — | — |
| Quebec up the Saguenay River to Chicoutoumi and Ha Ha Bay | Steamer | 2 days | 4.00 | Meals and berths extra. |
| Quebec to St. Anne de Beaupré (Pilgrimage Church) | Rail | ½ day | 0.60 | — |
| Montreal to Ottawa | Rail | 1 " | 3.50 | — |
| " " | Steamer | 2 days | 5.00 | Regular rate, going rail, returning steamer. Meals and berths extra. |
| Montreal to Newport, Lake Memphremagog | Rail | 1 day | 3.50 | — |
| Montreal to Kingston | Rail | 2 days | 5.25 | — |
| " " | Steamer | " | 4.00 | Meals and berths extra. |
| Kingston to the Thousand Islands | Steamer | ½ day | 1.00 | — |
| Montreal to Toronto | Rail | 3 days | 10.00 | — |
| Toronto to Niagara Falls | Steamer | 1 day | 1.50 | — |
| Niagara District | Steamer and rail | 2 days | — | — |
| Muskoka Lakes | Steamer and rail | " | 3.40 | Muskoka Wharf. |
| Montreal to Winnipeg | Rail | 6 to 14 days | 42.00 | — |
| Banff (Rocky Mountains) | Rail | 2 to 3 weeks | 70.45 | — |
| Montreal to Revelstoke | Rail | " " | 70.45 | — |
| Revelstoke to Kootenay District | Rail and steamer | 3 days | Nelson 7.80, Trail 7.40, Rossland, 8.40 | Free transportation. Meals and berths extra. |
| Montreal to Vancouver | Rail | 3 to 4 weeks | 70.45 | — |
| Montreal to St. John, N.B. | Rail | 4 days | 14.15 | — |
| St. John through New Brunswick | Rail and steamer | 3 to 5 days | — | — |
| St. John to Annapolis Valley and Land of Evangeline | Steamer | 1 day | — | — |
| St. John to Halifax | Rail and steamer | 3 days | 6.00 H. R., 4.50 D. A. Ry. | — |
| Montreal to Halifax | Rail | " | 16.50 | — |
| Halifax to C. Breton | Rail and steamer | " | — | — |

The rates given are single first-class one-way fare. All the Canadian railways will give the members of the British Medical Association and their families single tickets for half one fare, or return tickets for one first-class fare. The railroads in the New England States, including those coming from Boston and New York to Montreal, have granted return tickets for their lines for one fare and a third good for three days before the meeting, and three days after the meeting. The rates on the Canadian railways are good from July 1st to September 30th.

It is understood that these journeys may be made by members singly or in small groups, and no attempt has been made to send out large parties under direction, save upon the Saturday of the week of meeting, where there will be a large excursion to Newport and Lake Memphremagog, one of the most beautiful of the many splendid Canadian Lakes. On the same day there is also being arranged an excursion to Saranac Lake and the Adirondacks, to visit, among other notable sights, Dr. Trudeau's Sanitarium for Consumptives, the pioneer institute of this nature.

### CANADA AND CANADIAN MEDICAL INSTITUTIONS.

To those interested in the growth and development of the British Empire and of British institutions, Canada offers a most instructive object lesson. In point of extent the by far the largest of our colonies, she is at the same time that in which the idea of unity has been rendered most effective. Already in 1867 by the Confederation Act she passed from being a group of independent autonomous provinces and became a single dominion, Newfoundland alone remaining out of the fold, and only now, thirty years later, does it seem likely that the next most important group of continental colonies, the Australian, profiting from her experience, will shortly fuse. Within the last few weeks, she has again acted as a pioneer in offering to establish preferential trade with the mother country. These are matters which cannot be too firmly impressed upon those at home. We cannot regard the coming meeting simply in its medical aspect, but must recognise its great importance as a means of bringing about an increased intimacy between the home country and the colonies, an increased knowledge of the strength and resources of the nation. Nevertheless, it is not appropriate that in these pages we should enter at length into matters of history and of politics.

We can but recommend those about to visit Montreal to gain beforehand some knowledge of the development of the country, and to this end we suggest that they obtain and read the admirable *précis* of Canadian history written by Dr. Bourinot, Clerk of the Canadian House of Commons and late President of the Canadian Royal Society; and again, for fuller knowledge of periods of Canadian history, the most interesting and admirably-written works of Francis Parkman, *Montcalm and Wolfe*, *Frontenac*, *La Salle*, *The Conspiracy of Pontiac*, etc. Those who now read Parkman for the first time will rejoice in the discovery of a great writer.



The Arts Building, McGill College, Montreal (Reception Rooms, Offices, etc.).

It is, however, necessary to say a few words here about the medical history of Canada. By the Confederation Act of 1867 matters of education were not taken up by the Dominion Government, but—as in the Commonwealth to the south—were left to the individual states or provinces. Each province thus has its own laws regulating medical education and medical practice, and, almost of necessity, each province has within it a diploma-giving and licensing body, together with more than one university and medical school. This, it will be seen, is almost inevitable. Only when, as now, the condition brought about by this provincial independence is seen to be distinctly harmful to the wellbeing of the profession, and when all combine, will it be possible to bring about a more satisfactory condition of affairs.

While recognising this, it must, on the other hand, be admitted that the, in general, friendly rivalry of the many opposing schools and universities has had its good and beneficial aspect. Montreal, Toronto, and the smaller medical centres would not be nearly so far advanced to-day but for this rivalry. An advance made by one school must be met by a greater advance in another, and our visitors will, we feel assured, be not a little surprised at the opportunities which they will find afforded for medical study and medical education throughout Canada.

## THE MEDICAL INSTITUTIONS OF ONTARIO.

The province of Ontario boasts the possession of a most complete system of primary and higher education. The State looks after the student in every profession, from his earliest years until he is prepared to pass its licensing examination. Nowhere is there a stronger representative assemblage of practitioners than in the College of Physicians and Surgeons at Toronto.

### TORONTO.

Toronto is a close competitor with Montreal, by reason of its commercial importance, its high intellectual standard, and its educational facilities.

Toronto is a very convenient point from which to visit the Falls of Niagara, distance sixty miles from Toronto. A pleasant trip would be from Montreal to Toronto by rail, from Toronto to Niagara and back to Montreal through the Thousand Islands and the Rapids of the St. Lawrence by steamer.

### THE MEDICAL INSTITUTIONS OF TORONTO.

As a medical centre Toronto stands as a formidable second to Montreal; it possesses three medical schools, three general hospitals, and an excellent Home for Incurables and Convalescent Home.

Of the medical schools, that associated with the University of Toronto may be first mentioned. This school exacts a course of four years of eight months, leading up to the degree of M.B.; the doctorate is given at the end of an additional year, either for original investigation or after an examination in clinical medicine and clinical surgery. There are 240 medical students, excluding dental and conditional students. The Medical School of the University of Trinity College has about an equal number of students; it grants the degree of M.D. at the conclusion of a four years' course. There is, thirdly, the Women's Medical College, with about sixty students, which has also a four years' course. Most of the students obtain their degrees from Trinity College.

It may here be added that in the Province of Ontario all medical students who propose to obtain a provincial licence of practice must pass the University Departmental Arts Matriculation before entering upon their medical studies.



The University of Toronto.

The three public hospitals in Toronto are: The Toronto General, with over 300 beds, supported by the City and the Province. The St. Michael's (Roman Catholic) Hospital, to which, however, patients of all creeds are admitted. This also receives a grant from the Province; it has 200 beds. The Western Hospital—recently organised—gathers its cases from the western end of the city, as do the other two from the eastern. It likewise has civic and provincial support. Mention must also be made of the Children's Hospital, one of the finest children's hospitals in the world, well situated close to the University, and having 150 beds. Its staff is mainly composed of members of the medical faculty of Toronto University.

### QUEBEC.

The medical institutions of Montreal have already been referred to in this JOURNAL. Quebec, the capital of the Province, has also its medical school, besides being the seat of the College of Physicians and Surgeons, the licensing body of the province. Here is Laval University, instituted in 1852 by Royal Charter from the Queen and papal charter from Pius IX, in further development of the Grand seminary founded by Laval in 1663. The university building is large and spacious, with a library of more than 85,000 volumes. Its medical school is, however, relatively small, and has suffered from the establishment of a Montreal branch of the University. There are four hospitals, two—the Hôtel Dieu and the General Hospital—founded in the seventeenth century; the other two—Marine and the Jeffrey Hale—being of this century. There are other and numerous educational and charitable institutions, among which may be mentioned the lunatic asylum at Beauport. The profession, the mayor, and the citizens of Quebec are most anxious to entertain visiting members, and we can most heartily recommend all who possibly can to visit this, one of the most picturesque and nobly situated cities of the Empire.

### KINGSTON.

Kingston, occupying the site of the old French fort Frontenac, and for three years the capital of Canada (1841-44), will be visited by all those who take the journey to Niagara and the Thousand Islands. It is a pleasant, well situated city, the home of many retired officers and government officials, and is the seat of a University (Queen's), directed now by one of the best known Canadians of the day, Principal Grant. The Kingston Medical School (Royal College of Physicians and Surgeons of Kingston) is affiliated with this. The hospital has of late been greatly improved and enlarged.

### OTTAWA.

Ottawa, the seat of the Dominion Government, and thus the capital of Canada, should be visited by all members of the Association, if only to see the Houses of Parliament, Government buildings and library—buildings nobly designed and occupying a commanding position on a bluff overlooking the Ottawa river. There is a small medical college here, without degree-giving powers, and there are several hospitals. The profession in Ottawa in most anxious to entertain visiting members.

### LONDON, ONT.

Yet another Ontario town, London, possesses a medical school in connection with a university—the Western University. As at Kingston, so here, some of the best known and most popular members of the profession in the Dominion have thrown in their lot with the school. London is an active, not to say ambitious town of some 30,000 inhabitants, with a Thames, Westminster, Blackfriars Bridge, Hyde Park, Covent Garden, and Crystal Palace! There is a good hospital and a large lunatic asylum, under the management of Dr. R. M. Bucke, the President of the Section of Psychology.

### HALIFAX.

Of other cities in other provinces Halifax stands foremost in medical matters, as, indeed, it occupies a foremost rank place in the history of our Association, as possessing the oldest Canadian, if not the oldest Colonial, Branch of the Association. Of all Canadian cities, with the possible exception of Victoria, British Columbia, it is the most English. It is beautifully situated, and in a centre from which some of the most lovely scenery in America can be visited. We cordially recommend visiting members to travel down to Halifax, and from here to visit the Annapolis Valley, the Bay of Fundy with its wonderful tides, Cape Breton and the Bras d'Or Lakes, and Nova Scotia in general. The Halifax Medical College is independent of the University of Dalhousie College, but most of its professors form the Faculty of Medicine of the same, a body having only powers as examiners.

### MANITOBA.

Manitoba also possesses a University at Winnipeg, and the medical school of the same is undergoing a steady development.

### THE BRITISH ASSOCIATION AT TORONTO.

It will be in mind that the meeting of the British Association for the Advancement of Science is to be held in Toronto from August 18th to 26th. The members of the British



Canadian National Park, Rocky Mountains (Banff Springs Hotel).

Medical Association desiring to be present need only hasten their departure from England by ten days. In this case they will have even more favourable steamship rates than could be arranged for the Montreal meeting in addition to all the railway privileges which membership of the British Medical Association confers.

The arrangements for the meeting of the British Association are briefly as follows.

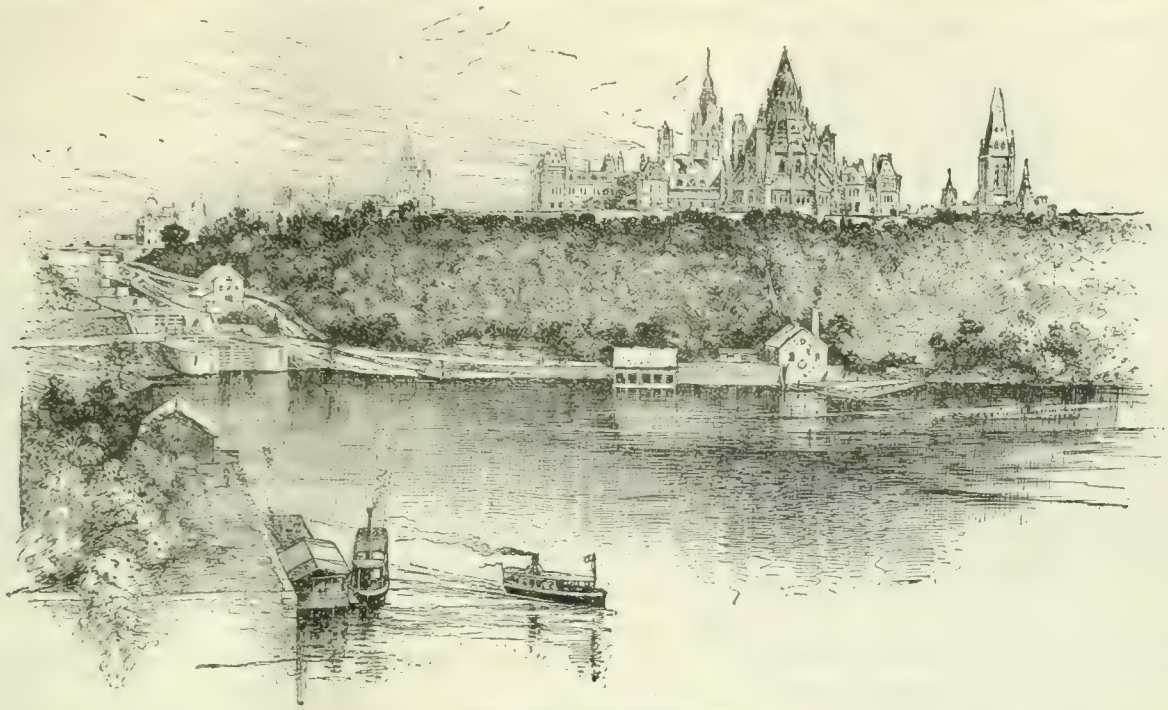
The President is Lord Lister, who will on Wednesday evening, August 18th, introduce his successor, Sir John Evans, K.C.B., Treasurer of the Royal Society. On taking the chair the new President will deliver the customary address. The reception room will be open on that day from 8 A.M. to 6 P.M.

There will be ten Sections, and of these the Sections of Chemistry, Zoology, Anthropology, Physiology, and Botany will more or less directly interest not a few medical men. We here insert the list of officers in those Sections:



The Fraser River at Yale, British Columbia.

CHEMISTRY.—*President:* Professor W. Ramsay, Ph.D., F.R.S. *Vice-Presidents:* Professor H. B. Dixon, M.A., F.R.S.; W. R. Dunstan, M.A., F.R.S.; Professor W. H. Pike, M.A., Ph.D.; Professor W. C. Roberts-Austen, C.B., F.R.S.; T. E. Thorpe, Ph.D., F.R.S. *Secretaries:* Professor



Parliament Buildings, Ottawa.

W. H. Ellis, M.A., M.P.: Arthur Harden, Ph.D., M.Sc. (Recorder); C. A. Kohn, Ph.D; Professor R. F. Ruttan.

ZOOLOGY.—*President:* Professor L. C. Miall, F.R.S., F.L.S. *Vice-Presidents:* Professor W. A. Herdman, F.R.S.; Professor R. Meldola, F.R.S.; Professor E. B. Poulton, F.R.S.; Professor R. Ramsay Wright, M.A., B.Sc. *Secretaries:* G. C. Bourne, F.L.S., M.A. (Recorder); W. E. Hoyle, M.A.; Professor E. E. Prince, B.A.

ANTHROPOLOGY.—*President:* Professor Sir W. Turner, M.B., LL.D., F.R.S. *Vice-Presidents:* E. W. Brabrook, Pres.Anth.Inst.; G. L. Gomme, F.S.A. *Secretaries:* A. F. Chamberlain, Ph.D.; H. O. Forbes, LL.D.; J. L. Myres, M.A., F.S.A. (Recorder).

PHYSIOLOGY.—*President:* Professor Michael Foster, M.A., LL.D., Sec.R.S. *Vice-Presidents:* W. H. Gaskell, M.D., F.R.S.; Professor A. B. Macallum, M.B., Ph.D. *Secretaries:* Professor Rubert Boyce, M.B. (Recorder); A. Kirschmann, Ph.D.; Professor C. S. Sherrington, M.D., F.R.S.; Dr. L. E. Shore.

BOTANY.—*President:* Professor H. Marshall Ward, D.Sc., F.R.S., F.L.S. *Vice-Presidents:* Professor F. O. Bower, D.Sc., F.R.S.; Professor D. P. Penhallow; Dr. D. H. Scott, M.A., F.R.S. *Secretaries:* Professor J. B. Farmer, M.A., F.L.S.; E. C. Jeffrey, M.A.; A. C. Seward, M.A., F.G.S.; Professor F. E. Weiss, B.Sc., F.L.S. (Recorder).

The Sections will meet on the mornings of Thursday, August 19th; Friday, August 20th; Saturday, August 21st; Monday, August 23rd; and Tuesday, August 24th. Except on Saturday (when they rise at 1 P.M.) the sessions will, as a rule, continue until 3 P.M. Some of the Sections will meet also on Wednesday, August 25th, from 10 to 1.

The Public Lectures will be given by Professor W. C. Roberts-Austen, C.B., on Friday, August 20th, and by Professor J. Milne, who has chosen the subject of Earthquakes, on Tuesday, August 23rd. There will also be a lecture to working men on Saturday, August 21st.

On Thursday evening, August 19th, his Excellency the Governor-General of Canada and the Countess of Aberdeen will hold a reception, and on the afternoon of the following day a garden party will be given at Government House. Garden parties will be given also on Monday, August 23rd, Tuesday, August 24th, and Wednesday, August 25th; and on the evening of the last day of the meeting a banquet will be held in honour of Lord Kelvin, Lord Lister, and Sir John Evans. On Tuesday, August 24th, a *conversazione* will be given in the University Building.

Numerous excursions have been arranged. Thus, on Saturday, August 21st, there will be an excursion to Hamilton and the neighbourhood, Niagara Falls, and the Muskoka Lake Region, returning on Monday morning. The members of the Mechanical Science Section will give up the whole of this day to an excursion to Niagara, and those of the Geology Section will devote the afternoon of Monday, August 23rd, to an excursion to Scarborough Heights. On Thursday, August 26th, many excursions will commence: to Ottawa, Upper Lakes, Manitoba, and British Columbia, Niagara Peninsula, Thousand Islands, etc.

Full information as to the arrangements for and the privileges granted to those attending the meeting of the British Association at Toronto can be obtained from the Assistant General Secretary of the Association, Mr. G. Griffith, M.A., Burlington House, Piccadilly, London, W. The circulars prepared for this Association include a useful steamship circular.

*Local Secretaries for the Meeting at Toronto:* Professor A. B. Macallum, M.B., Ph.D., Mr. B. E. Walker, F.G.S., and Mr. J. S. Willison. *Local Treasurers:* Mr. James Bain and Professor R. Ramsay Wright, M.A., B.Sc.

*List of Members from the United Kingdom who have already intimated their intention of attending the Meeting at Montreal:*

| | NAME OF SHIP. |
|---|---|
| Alexander, R. R., M.D., The Asylum, Hanwell, Middlesex | |
| Allden, John H., M.R.C.S., The Firs, Bassett, Southampton | *Lake Ontario* |
| Armstrong, H. G., M.R.C.S., Wellington College, Berks | *Lake Superior* |
| Ashworth, J. W., L.R.C.P., Thorn Bank, Heaton Moor, near Stockport | |
| Atkinson, Geo., A.M.D., 82, Jesmond Road, Newcastle-on-Tyne | |
| Bailey, T., M.D., Bilston | *Lake Ontario* |
| Banks, William Mitchell, F.R.C.S., 28, Rodney Street, Liverpool | |
| Barclay, W. B., L.R.C.P.Edin., Forest House, Bacup | *Lake Ontario* |
| Barnes, Henry, M.D., 6, Portland Square, Carlisle | *Parisian* |
| Barr, James, M.D., 72, Rodney Street, Liverpool | |
| Bickerton, T. H., M.R.C.S., 88, Rodney Street, Liverpool | |
| Blair, William, M.D., Abbey Green, Jedburgh, N.B. | |
| Blandford, J. G., M.R.C.S., Banstead Asylum, Sutton | |
| Boyce, Professor R., M.B., University College, Liverpool | *Parisian* |
| Brennan, M.A., L.R.C.P.I., Charlestown, co. Mayo | |
| Burton, S. H., F.R.C.S., Norwich | *Parisian* |
| Campbell, John A., M.D., County Asylum, Carlisle | |
| Campbell, John, M.D., 21, Great Victoria Street, Belfast | |
| Cargill, Mrs. Eveline A., L.R.C.P.Edin., 61, Gloucester Terrace, Hyde Park, W. | |
| Carlyon, F. H., M.B., Truro | *Labrador* |
| Cheyne, Watson, F.R.C.S., F.R.S., 75, Harley Street, London, W. | |
| Chill, Edwin, M.D., 95, Tollington Park, N. | *Labrador* |
| Clifford, T., M.B., 33, Portland Road, Stalybridge | *Labrador* |
| Colgan, Francis P., M.D., Greenville, Carlow | |
| Copeman, S. Monckton, M.D., 19, Cromwell Crescent, Kensington, S.W. | |

| | NAME OF SHIP. |
|---|---|
| Coupland, Sidney, M.D., 16, Queen Anne Street, London, W. | |
| Coutts, James Allan, M.D., Waterfoot, near Manchester | *Lake Ontario* |
| Cousins, J. Ward, M.D., Riversdale, Kent Road, Southsea | *Carthaginian* |
| Crocker, J. H., M.D., Monks Hall, Eccles, Lancashire | |
| Crookshank, Professor E.M., M.B., Saint Hill, East Grinstead, Sussex | |
| Ealand, H. F., L.R.C.P.Edin, Puckeridge, Herts | *Lake Ontario* |
| Esler, Robert, M.D., London | *Labrador* |
| Evans, Samuel, L.R.C.P., Banksea, Dovercourt, Essex | *Labrador* |
| Evans, Maurice G., M.D., The Mount, Caerphilly; Glamorganshire | *Lake Superior* |
| Fallows, John, L.R.C.S.Edin., 2, Princes Mansions, 66, Victoria Street, Westminster, S.W. | |
| Farquharson, Deputy-Surgeon-General W., M.D., 40, Westbourne Gardens, Bayswater, W. | |
| Felce, Stamford, L.R.C.P.Edin., Kenmure Lodge, Elgin Avenue, W. | |
| Fulton, G. C. H., M.B., Meadowcroft, Eston, Middlesboro'-on-Tees, Yorks | |
| Gabe, John, M.D., 16, Mecklenburgh Square, W.C. | *Labrador* |
| Galloway, James, M.D., 54, Harley Street, Cavendish Square, W. | *Numidian* |
| Galton, John H., M.D., Chunam, Sylvan Road, Norwood, S.E. | *Lake Huron* |
| Giles, Arthur E., M.B., 58, Harley Street, W. | |
| Giles, John, L.R.C.P.Edin., Caxton, near Cambridge | |
| Goodwin, A. G., L.F.P.S.Glasg., 4, Jubilee Drive, Kensington Gardens, Liverpool | |
| Griffiths, T. D., M.D., Swansea | *Labrador* |
| Halket, Geo., M.D., 4, Royal Crescent, Glasgow | |
| Hamilton, Surgeon-Major-General, J. B., M.D., 5, Elliott Terrace, The Hoe, Plymouth | |
| Hann, H. F., L.R.C.P.Edin., 66, Commercial Road, Portsmouth | *Lake Ontario* |
| Handford, Henry, M.D., Hardwick House, The Park, Nottingham | *Lake Ontario* |
| Harper, Joseph, L.R.C.P., Barnstaple | |
| Harrison, Mrs. Beatrice M., M.D., 61, Gloucester Terrace, Hyde Park, W. | |
| Hart, D. Berry, M.D., 29, Charlotte Square, Edinburgh | |
| Hearn, R. T., M.D., 7, Belgrave Square, Dublin | |
| Heath, C., F.R.C.S., 36, Cavendish Square, W. | *Carthaginian* |
| Henderson, Mrs. Jane B., L.R.C.P.Edin., 23, Royal Crescent, Glasgow | |
| Henderson, T. Brown, M.D., 19, Elmbank Place, Glasgow | |
| Hudson, Geo., M.D., Westbourne Ho., Scarborough | |
| Hutchison, Robt., M.D., Toynbee Hall, London, E. | *Labrador* |
| Jones, Evan, M.R.C.S., Aberdare, S. Wales | |
| Kaye, James R., M.B., Wentworth Lodge, Wakefield | *Parisian* |
| Kelsey, Arthur, M.R.C.S., Redhill, Surrey | *Lake Huron* |
| Leech, D. J., M.D., 96, Moseley Street, Manchester | |
| Lindow, Albert, M.R.C.S., 2, Gallosson Road, Plumstead, S.E. | |
| Linton, Simon, M.B., Grangemouth | |
| Lister, Right Hon. Lord, P.R.S., 12, Park Crescent, Portland Place, W. | *Parisian* |
| Littlejohn, Harvey, M.B., Surgeons' Hall, Edinburgh | |
| Livesey, William, M.D., Sudbury, Derby | |
| Lloyd, Evan, M.B., Llys Einon, Tregaron, Cardiganshire | |
| Lloyd, Jordan, F.R.C.S., Broad Street, Birmingham | |
| Lundie, Wm. Tasker, M.D., 3, Glengyle Terrace, Edinburgh | |
| Macalister, Alex., M.D., F.R.S., Torrisdale, Cambridge | *Parisian* |
| MacAlister, Donald, M.D., St. John's College, Cambridge | *Parisian* |
| MacCarthy, W. Ffennell, M.D., 58, The Tything, Worcester | |
| McClure Henry, M.D., Cromer, Norfolk | |
| Macdonald, Greville, M.D., 85, Harley Street, W. | |
| Mackenzie, Stephen, M.D., 18, Cavendish Square, W. | |
| McNamara, I., M.D., 73, Milson Road, West Kensington | |
| Macnamara, N. C., F.R.C.S., 13, Grosvenor Street, W. | |
| Macvie, Wm., M.D., 214, Stanley Road, Bootle | |
| Madden, Thomas M., M.D., 55, Merrion Square, Dublin | |
| Mahon, R. B., F.R.C.S., Ballinrobe, co. Mayo | |
| Marshall, C. R., M.B., Ferndale, Cherryhinton, Cambridge | |
| Milburn, C. H., M.B., 3, Balmoral Terrace, Anlaby Road, Hull | |
| Miller, John M., M.B., Largs, Ayrshire | |
| Morgan, E. Rice, M.R.C.S., Morriston, R.S.O., Glam. | *Labrador* |
| Morris, Malcolm, F.R.C.S.Edin., 8, Harley Street, W. | |
| Morris, W. Jones, L.R.C.P.Edin., Portmadoc, North Wales | |
| Nettleship, E., F.R.C.S., 5, Wimpole Street, W. | *Labrador* |
| Oswald, J. W. J., M.D., 245, Kennington Road, London, S.E. | |
| Parsons, Chas., M.D., 7, Waterloo Crescent, Dover | *Lake Huron* |
| Pasteur, Wm., M.D., 4, Chandos Street, Cavendish Square, W. | |
| Penny, F., M.R.C.S., Barnstaple | |
| Permewan, W., M.D., 7, Rodney Street, Liverpool | |
| Philip, R. W., M.D., 4, Melville Crescent, Edinburgh | |
| Philpots, J. R., L.R.C.P.Edin., Moorcroft, Parkstone, Dorset | |
| Pope, H. B., M.D., Kington, Herefordshire | *Lake Ontario* |
| Porter, A., Surgeon-Colonel, M.D., Verdahla, Cheltenham | *Parisian* |
| Pridie, H. H., M.B., Wansford, Northamptonshire | |
| Ramsey, James, M.D., 23, High Petergate, York | |
| Rayner, Edwin, M.D., Tiviot Dale, Stockport | |
| Reid, Whitehead, M.D., Canterbury | *Labrador* |
| Roe, F. Leyland, L.R.C.P.Edin., Eccles, Lancashire | *Lake Ontario* |
| Roth, Bernard, F.R.C.S., 29, Queen Anne Street, W. | |
| Saundby, Robert, M.D., Birmingham | *Parisian* |
| Scott, W. G., M.D., Newton Abbot | *Parisian* |
| Seccombe, T., M.D., Granville Mansions, Torquay | |
| Sherrington, Professor C. S., M.D., F.R.S., 16, Grove Park, Liverpool | *Parisian* |
| Shore, L. E., M.D., Cambridge | *Parisian* |
| Sinclair, W. J., M.D., Oxford Street, Manchester | |
| Smith, H. Shingleton, M.D., Deepholm, Clifton, Bristol | |
| Smith, J., M.D., 47, Castle Street, Dumfries | |
| Smith, R. T., M.D., 117, Haverstock Hill | *Parisian* |
| Somers, Edward, L.R.C.P., 4, Leaf Square, Pendleton, Manchester | |
| Starr, W. Henderson, Surgeon-Captain A.M.S., Milton Barracks, Gravesend | |
| Stewart, Rothsay C., M.R.C.S., County Asylum, Leicester | *Lake Ontario* |
| Thomas, David, M.D., Ystalyfera, R.S.O., Glamorganshire | *Labrador* |
| Thomson, Alexis, M.D., 32, Rutland Square, Edinburgh | *Parisian* |
| Thompson, Professor W. H., M.D., Averard, Marlborough Park, Belfast | *Parisian* |
| Thomson, John, M.D., 14, Coates Crescent, Edinburgh | *Labrador* |
| Turner, A. Logan, M.D., 20, Coates Crescent, Edinburgh | |
| Urquhart, A. R., M.D., Murray House, Perth | |
| Waller, Augustus, M.D., F.R.S., 16, Grove End Road, N.W. | *Parisian* |
| Walton, R. S., M.B., Hebdon Bridge, Yorkshire | *Parisian* |
| Warden, Chas., M.B., 4, Greenfield Crescent, Edgbaston | |
| Watson, James, M.D., Elmwood Grove Road, Southsea, Hants | *Carthaginian* |
| Wheelhouse, C. G., F.R.C.S., Cliff Point, Filey, Yorkshire | *Numidian* |
| Williams, Dawson, M.D., 101, Harley Street, W. | *Numidian* |
| Winterbotham, W. L., M.B., Bridgwater | |
| Withers, R. W. O., L.R.C.P., Shrewsbury | *Labrador* |
| Worswick, F. H., M.D., 160, Chorlton Road, Manchester | |
| Worthington, Sidney, M.D., Pattensweir, Enfield, Middlesex | |

## TEMPORARY TREATMENT OF INCIPIENT INSANITY.

A JOINT deputation of the British Medical Association and the Medico-Psychological Association attended at the offices of the Commissioners in Lunacy, Whitehall Place, on Thursday, May 27th, with the object of placing before the Commissioners the views of the medical profession on the subject of the treatment of incipient and non-confirmed insanity. The deputation, which was introduced by Mr. Ernest Hart, consisted of Dr. Blandford, Dr. Cleveland, Dr. Douglas, Dr. Fletcher Beach, Dr. Mickle, Dr. Savage, Dr. Shuttleworth, Dr. E. W. White, and Mr. Francis Fowke. The deputation was received by Mr. Bagot (chairman), Mr. Cleator, Mr. Urmson, Mr. Frere, and Dr. Needham.

Mr. ERNEST HART, in introducing the deputation, after explaining that the precise manner in which the deputation arose was through a discussion at the Psychological Section of the British Medical Association, when a paper was read by Dr. Rayner on the advantages which were felt in Scotland, and the facilities that existed there for the temporary care of lunatics in the early stages of their condition, drew attention to the fact that the deputation was sent by the Parliamentary Bills Committee after consultation with the Council and the Medico-Physiological Association, and called on Dr. Blandford to state in detail the matter in hand.

Dr. BLANDFORD drew the attention of the Commissioners to the clause of the Scotch Act, 29 and 30 Vict., Cap. 51, which recites the Act under which patients are to be placed under certificates, and then goes on to say at the end, "Provided that the enactments of this section shall not apply to any case where the person so received and kept has been sent to such home for the purpose of temporary residence only not exceeding six months, and under the certificate of a medical person, which certificate shall be in the form of Schedule G of the first recited Act annexed." He then explained that in the opinion of the deputation it would be advisable if some such provision could be introduced into this country. A recent case exemplified the objection the public had to certificates in lunacy. The intervention of the magistrates presented the greatest difficulty. The friends of the patient make every possible objection to going to the magistrate, and medical men are getting more and more afraid of signing certificates. Should the provision above be introduced into this country, it would be possible in a great number of cases to put patients under some sort of proper restraint without the formalities which are now requisite. Dr. Blandford then read a communication from Dr. Sibbald,

one of the Scotch Commissioners, on the same question, in which was stated the opinion that the proposed form would be a wise provision of the law.

Mr. BAGOT indicated a difficulty that had presented itself to him personally. He would suggest that, if official supervision is of any value, it ought to be as valuable in the first six months as in the last six months. On the question of the stigma attaching itself to the patient, he thought much exaggeration existed.

Dr. DOUGLAS pointed out that in other diseases certain care and medicines are necessary, and in the case of mental disease certain control is necessary. The deputation would only ask, as physicians dealing with these matters, that such therapeutic means of applying remedies to the patient might be attainable.

Mr. BAGOT replied that, under the present system, this power was even more strongly possessed.

Dr. BLANDFORD having reminded the deputation that the Committee recommended as a solution of the difficulty that notice of the certificates should be sent to the Commissioners of Lunacy by the person receiving the patient,

Dr. NEEDHAM said that the question was, Whether, if official inspection be not included, it would make much difference? Would it make very much difference if the patient is certified, or if a visitation is instituted? The absence of any official visitation was a remarkable fact; official information ought in all cases to be given.

Mr. BAGOT replied that mere information would be of no use whatever.

Mr. URMSON asked whether the friends of persons who object to certification would object to official visitation?

Dr. BLANDFORD did not think they would; the difficulty was to get the certification.

Dr. SAVAGE said that the real difficulty was that the patients and the patients' friends say, "Well, anything, but not certification." There was the very greatest difficulty among consultants, and he thought that would be very greatly reduced if some such clause was inserted as would enable patients to be put in definite residences. First of all he believed it would restrict the residences. At the present moment every person, whether he is a decayed gentleman or a decayed person, thinks he is justified in taking a person of unsound mind into his house, and applications are made by hundreds and hundreds. He believed if it were known that there was a possibility of the cases being occasionally visited, most of these people would not apply to have persons of this kind in their houses. He believed the present circumstances tended to secrecy; the Board objected highly to it.

Mr. BAGOT pointed out that their objection to it was that it was not according to law.

Dr. SAVAGE felt very strongly that anything that would make it more definite—if there could be any kind of registration, any kind of knowledge of the houses that people were received into, even if they were not visited officially—would do much good. He could not limit the houses to those of medical men, but thought that some definite medical statement as to fitness should be received by the Board, and that it should be known where the patients were being placed.

Mr. BAGOT thought that a mere sending of the copy of the certificate to the office of the Board, if not recorded in any way would be utterly futile.

Dr. SAVAGE, referring to the resolution of the Subcommittee "That the first period of the care and treatment shall not exceed six months, which may be extended by two further periods, not exceeding three months each by a similar certificate," pointed out that the original certificate would state that the patient was in the opinion of the doctor an acute but presumably a curable case, and such a case that could be either relieved or cured in six months. If the certificate at the end of six months stated that the patient was improving, and a further period of three months would be all that was necessary a similar certificate to the original one could be granted.

Dr. CLEVELAND pointed out that if the plans under consideration were adopted there would not be the feeling of objection among patients, which was very strong, of having been in an asylum.

Mr. BAGOT thought there was another side to this question. He would ask which is best for the patient, to be treated in a scientific way in an asylum or casually in a private house; and if Dr. Cleveland's suggestion of limiting the proposals be adopted there would be a great difficulty in defining the class of cases to be put under the section.

Dr. DOUGLAS thought that only incipient or transitory cases as far as one could judge should be included.

Dr. NEEDHAM asked what had been the effect of the clause on the number of certificates in Scotland. He thought that the strong point of the whole matter existed in the fact that there was a large amount of illicit treatment of insane people going on, and if the introduction of the clause could regulate this it would be sufficient ground for the introduction.

Dr. DOUGLAS thought that it would also make a line of demarcation for the ordinary public which would operate to get a large number of cases certified that cannot be so at present.

Dr. NEEDHAM thought that the essence of the certificate was its vagueness, for as soon as facts were specified there was no difference between this certificate and a medical certificate; but a very decided difference existed between a certificate saying a person is suffering from mental trouble of some kind, and a certificate for a case for which short treatment only was necessary.

Dr. BLANDFORD thought that the great difference would be that on the new certificate there would be nothing for the friends to do. The greatest objection was to the magistrate.

Mr. BAGOT drew attention to the legal aspect of the case. Is this certificate protection against false imprisonment? and thought that all would be agreed that any feasible plan for putting an end to what must be called the illegal treatment of lunacy was desirable, but was not prepared to say that the document would carry this into effect. In reply to Dr. White, who quoted the terms of the resolution, "that the recommendations be forwarded to the Commissioners in Lunacy, with the request to transmit them to the Lord Chancellor," he thought it had better go direct from the deputation.

Dr. NEEDHAM advised asking for an interview with the Lord Chancellor, arguing the matter with him as persons who could be publicly affected by the change in the law.

In introducing the subject of the pension clause, Dr. WHITE quoted a letter from Dr. Cassidy, in which he said: "Section xxiii of the new Bill applies the provisions of the Poor-law Officers' Superannuation Act, 1896, to the Visiting Committee, and to every officer of an asylum in like manner, as nearly as may be, as they apply to guardians and their officers and servants." This is a most objectionable clause. The age for voluntary retirement of asylum officers and servants would be 60, and in proportion of pension to salary for each year of service would be one-sixtieth. Thus a nurse entering the service at 20 to 25 years of age would have to serve forty years to attain to full pension, which is limited to forty-sixtieths, and be 60 to 65 years of age—far too great an age and too long a service for the majority. We claim that the anxieties and responsibilities connected with the care of lunatics are far greater than those of officials engaged in Poor-law administration. There is some provision for adding a number of years, not exceeding 10, to the aggregate number of years which the officer or servant has served, but it seems intended to be exceptional and at any rate is purely permissive. I have had a good deal of correspondence with the Lord Chancellor's Office and with the whole of the English superintendents of asylums about the new pension clauses in the Lunacy Bill. Of course we shall not get them, but we must have the present Clause 23 amended; and I am asking you if you could point out to the Commissioners the objectionable feature I have mentioned, and ask them to do what they can to have it altered.

Mr. BAGOT said he was very much afraid the only amendment would be its elimination.

Dr. WHITE thought that would be far preferable to allowing it to remain.

Dr. NEEDHAM was very strongly in favour, and thought the Board was with him, of granting compulsory pensions. He thought the pensions ought to be of right, and that it ought to be in the hands of the Committee and not of the county.

Mr. BAGOT having reminded the deputation that the Commissioners were not entrusted with legislative functions, the deputation withdrew.

## MILKBORNE DISEASE: THE LEGISLATION REQUIRED.

The report just completed in our pages by Mr. Ernest Hart on the influence of milk in spreading zymotic disease has proved, as might be expected, to have aroused great public comment and professional interest, and we are receiving from many sources warm recommendations that it should be republished in a separate form, as was the former report of 1881, which laid the foundation for much recent legislation for the protection of the public in this matter. Although laborious in its nature and elaborate in the precautions taken to obtain full and exact details of the numerous epidemics, it will be noted that the conclusions of the report are in themselves sufficiently simple. The report has to do with 95 local outbreaks of disease—diphtheria, scarlatina, typhoid fever, and allied maladies—an abstract of the reports on which accompany it. In 83 instances where the facts are recorded, 2,946 cases of disease were caused by specifically-contaminated milk; whilst in 53 instances where deaths are recorded these total to 367, and these data are felt to be far below the actual, both as to suffering and mortality. The suggestions for further legislation and for additional precautions which arise out of it will no doubt be submitted at an early date to the notice of the Parliamentary Bills Committee. For, in addition to the daily growing necessity for urging upon the public the undoubted need for the boiling of all milk received into houses, and upon all dairy farmers and milksellers the need for absolute cleanliness in all dairying and milk-distributing matters, there remain not a few important considerations which seem to demand the attention—indeed, the early attention—of the Legislature.

With the report on The Influence of Milk in Spreading Zymotic Disease before our readers, little more need here be done than simply to enumerate the points.

1. Need for setting up some authority—central or county—having in its charge the dairy farms and milkshops of the country or county, with adequate power of inspection and regulation of all premises on which milk is produced, manipulated, or sold.

2. Statutory inspection by local medical officers of health of all such premises in their districts, with right of entry at all reasonable hours and on all (emergent and other) occasions, with power of inspection of all cattle, apparatus, utensils, etc.

3. Power to local authority to immediately prohibit the sale of milk reported by their medical officer of health to be causing, in his opinion, disease in human consumers, the dairyman, etc., interested having the onus of showing within (say) twenty-four hours valid reason why the prohibition should be removed, such reason to carry with it reimbursement of the amount of loss sustained by the action of the local authority.

4. Prohibition of milk to be absolute—that is, to operate as regards the particular milk service to its total prohibition everywhere, for the time being, as food for man.

5. Certain diseases, to be defined, and, if need be, added to, of teats and udders of milch cows to be scheduled as infectious diseases of cattle for the purpose of securing penalty on all persons selling milk secreted by cattle so suffering. (See also 13.)

6. All persons keeping milch cows, or selling milk, to seek registration under local authority under pain of heavy penalty for neglect of this duty.

7. All such persons to be under obligation to furnish the local authority from time to time with complete or supplementary or amended lists of customers, wholesale and retail, at a specified rate of payment.

8. Local authority to have powers of condemnation of improper or polluted water supplies, and defective means of drainage of dairy farms, premises, etc., and to have power of prohibition of sale of milk produce whilst conditions dangerous to human consumers of the milk obtain after notice for their remedy has been issued.

9. The cubic space per cow to be fixed, a minimum being 800 feet.

10. Matters concerning the notification, concealment, and nursing of infectious disease on premises connected with any dairying business, or in the persons of individuals exercised in such business, to be stringently dealt with by statute, since experience has demonstrated the danger of unnotified, concealed, and badly housed disease in relation with the production and sale of milk.

11. The manufacture of ice cream to be placed on a basis of safety to its consumers, in respect of production, materials, etc., place of manipulation, storage, and sale.

12. The penalties imposed to be commensurate with the issues at stake.

13. No milk to be allowed to be used for the food of man coming from a shed in which any cow is housed whilst suffering under a scheduled disease (see No. 5), even though the milch cow producing the milk be not herself visibly so suffering.

## TWELFTH INTERNATIONAL MEDICAL CONGRESS, MOSCOW.

Mr. G. H. Makins informs us that guests of the Congress, including ladies, will pay no admission fee, but they will not be entitled to free railway passes from the frontier stations on the Russian lines accorded to members. They will, however, enjoy the privileges accorded by other foreign railway and navigation companies, and may take part in the excursion to the Caucasus organised by the executive of the Congress. They will also, probably, be able to avail themselves of the advantages of cheap circular tickets, the arrangements for which are still under discussion.

A Special Committee has been formed in Moscow to arrange for hotel and lodging accommodation for visitors, under the presidency of Professor Chervinsky, of Moscow, to whom applications may be made for information. Rooms may be retained in advance, and in addition offices will be established at each of the railway stations in Moscow, where application way be made on arrival. The cost of rooms will average about 4s. 6d. (2 roubles) per diem.

A Committee of ladies of Moscow has also been formed, with the object of ensuring the object and convenience of ladies belonging to the family of members of the Congress who may attend. This Committee will have a central office at which visitors on their arrival may obtain any information they require, and also learn the most satisfactory way of employing their time in visiting places of interest in Moscow during the sittings of the Congress. This Committee wishes to be apprised in advance of the names of all ladies who will be present, and notice should at once be given to Professor Sairelieff, the Secretary of the Ladies' Committee, through Professor W. K. Roth, the General Secretary.

A general prospectus of the arrangements of the Congress will shortly be ready, and will be obtainable on application to Professor W. K. Roth, Secretary-General, Twelfth International Medical Congress, Moscow.

## DEATHS UNDER ANÆSTHETICS.

### Chloroform.

Mr. W. E. L. Horner, M.B. (House-Physician, Derbyshire Royal Infirmary), informs us that a death under chloroform occurred at the infirmary on May 17th. The patient was a child, aged 1 year 5 months, suffering from a large empyema in the left pleura. The heart was pushed so far over to the right that the apex was just inside the right nipple line. An exploratory puncture had been made before admission to the hospital, and pus withdrawn. The child's general condition was bad, there being dark rings under the eyes, the face and lips pale and slightly cyanosed. The child had had a convulsive attack the night previously, which, however, passed off in a few minutes. The usual operation for empyema having been decided upon, chloroform was administered on a folded piece of lint. About two minutes after the commencement of the administration the child suddenly stopped breathing and collapsed. Artificial respiration was at once resorted to, both in the horizontal and inverted positions, and kept up for fully half an hour, but with no avail. A few slight attempts at spontaneous respiration were noticed at one period, but soon stopped. Stimulants (ether and strychnine) were also injected. Not more than half a drachm of chloroform was used altogether. There was no *post-mortem* examination.

# ASSOCIATION INTELLIGENCE.

## NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1897.

MEETINGS of the Council will be held on July 14th, and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 24th and September 30th.

### ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary*.

## GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that they are prepared to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting must be made on or before June 15th in writing addressed to the General Secretary, at the office of the Association, 429, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

### RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association are prepared to receive applications for one of the three Research Scholarships which is vacant, of the value of £150 per annum, tenable for one year, and subject to renewal by the Council for another year.

Applications to be sent in writing addressed to the General Secretary on or before June 15th, stating the particulars of the intended research, qualifications, and work done.

FRANCIS FOWKE, *General Secretary*.

429, Strand, London, May 27th, 1897.

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

NOTICE is hereby given that the Library will be closed on June 12th for the purpose of cleaning; due notice will be given of its reopening.

## BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH.—The annual meeting of the above Branch will be held at the Town Hall, Croydon, on Wednesday, June 16th, at 1.45 P.M. Dr. Duncan (President-elect) kindly wishes members to lunch at his house, Park House near the Town Hall, and four minutes' walk from East Croydon Station) from 12.30 to 2 P.M. Dinner at the Greyhound Hotel at 5.45 P.M., charge 7s. each.—T. JENNER VERRALL, Brighton, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The annual meeting for the election of officers will be held at the Royal Forest Hotel, Chingford, on Friday, June 18th, at 6 P.M. At 6.15 the members and their friends will dine together, Dr. Shadwell, Vice-President of the District, in the chair: tickets, 7s. 6d.; morning dress.—HERBERT G. POWELL, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The twenty-seventh annual meeting will be held at Swansea on Friday, July 2nd, J. L. W. Ward (Merthyr), President-elect. Further particulars in circulars, signed A. SHEEN, Swansea, and D. A. DAVIES, Cardiff, Honorary Secretaries.

PERTHSHIRE BRANCH.—The annual meeting will be held at Aberfeldy, under the presidency of Dr. Mackay, on Saturday, June 12th, at 1.30 P.M. Business: Minutes. Candidate for election. Consider invitation from Montreal. Dr. Liddell will open a discussion on the Public Health Bill. Lunch at Aberfeldy. Arrangements will be made to drive to Ballinley to catch the 6.43 P.M. train. Members intending to be present will kindly intimate to A. R. URQUHART, Honorary Secretary, James Murray's Royal Asylum, Perth.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—The annual meeting will be held in the Stotfield Hotel, Lossiemouth, on Wednesday, June 9th, at 1 P.M.; Dr. Mackenzie, Inverness, President; Dr. Galletly, Elgin, President-elect. It is requested that members wishing to bring any communication before the meeting should at once inform the Secretary.—J. W. NORRIS MACKAY, M.D., Honorary Secretary, Elgin.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will be held in Manchester on Wednesday, June 30th. Members who wish to read papers or make any communication should write at once to the Honorary Secretary, Dr. JAMES BARR, 72, Rodney Street, Liverpool.

SHROPSHIRE AND MID-WALES BRANCH.—By invitation of the President, Mr. J. T. Lloyd, the spring meeting will be held at Chirk, on Thursday, June 10th. Mr. Mitchell Banks will read a paper on Some Practical Hints on the Treatment of Rectal Disease. Special train arrangements will be made which will be duly announced.—H. WILLOUGHBY GARDNER, Honorary Secretary, Swan Hill, Shrewsbury.

## BATH AND BRISTOL BRANCH.

THE seventh ordinary meeting of the session was held in the Medical Library, University College, Bristol, on May 26th, Dr. E. MARKHAM SKERRITT, President, in the chair. Fifty-one members and four visitors were present.

*New Members.*—H. Elwin Harris, B.A., M.B.Camb., F.R.C.S., and Percy G. McReddie, M.B., C.M.Glasg., were duly elected.

*Communications.*—Dr. MICHELL CLARKE showed a case of Disseminated Sclerosis which presented some unusual features.—Dr. R. SHINGLETON SMITH read a paper on the Usé of Antiphthisin in Tuberculous Disease. He had found it of benefit in some cases, but thought that it was probably only a step in the evolution of more potent remedies of the same class. Dr. WATSON WILLIAMS and the PRESIDENT remarked on the cases.—Professor E. FAWCETT showed a subject, aged 17, hardened in Chromic Acid after the method of His. A part of the thoracic and the abdominal walls had been removed, and Professor Fawcett demonstrated the superficial relations of the viscera, especially the position and shape of the various parts of the colon and of the kidneys.—Mr. HARSANT read notes of the case of a man who died of Perforative Peritonitis from an Ulcer in the Duodenum. Laparotomy was performed, but the seat of the perforation could not be found at the operation. He remarked on the chief clinical features of duodenal ulcer, and showed the specimen. Dr. MICHELL CLARKE, the PRESIDENT, Dr. T. FISHER, and Dr. SHINGLETON SMITH discussed the case.—Dr. ROGERS showed a Fœtus born nearly at term the subject of Agnathia, and alluded to the extreme rarity of this malformation. Professor FAWCETT made some suggestions as to the cause of the deformity.—Dr. WATSON WILLIAMS showed the specimens and read the notes of a case of Septic Infection from a Carbuncle. Dr. JAS. SWAIN made remarks.—Dr. J. L. FRITH related a case of Adenoma of the Hard Palate, and showed a cast and also microscopic sections of the growth.

THE Treasurer of Charing Cross Hospital has received from the executors of the late Mr. Andrew Guesdon a cheque for £3,000, being the share assigned to the hospital by the executors from the residue of Mr. Guesdon's estate, bequeathed by him for distribution amongst charities. This amount has been placed to the credit of the Special Appeal Fund, which has now reached the sum of £30,749.

INFIRMARY MEDICAL SUPERINTENDENTS' SOCIETY. — The annual "up river" trip was held on May 29th, and was largely attended. The start was made from Caversham Bridge on Bona's launch *Fashion*. Lunch was served on board, and the party trained back to town from Windsor. The President (Mr. Walter Burney) proposed a vote of thanks to Dr. F. S. Toogood for the admirable way in which he had conducted the arrangements to so successful an issue.

# BRITISH MEDICAL ASSOCIATION.

## SIXTY-FIFTH ANNUAL MEETING.

NOTICE IS HEREBY GIVEN that the Sixty-Fifth Annual General Meeting of members of the British Medical Association, for the transaction of business, the consideration of Reports of Council and Committees, will be held in the Exeter Hall, London, on Tuesday, the 27th day of July next, at 11.0 o'clock in the forenoon. The meeting will be adjourned to August 31st, to be held at Montreal, for the scientific business of the meeting, Reading of Addresses, Meetings of Sections, etc.

FRANCIS FOWKE, *General Secretary.*

April, 1897.

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THE adjourned annual meeting of the British Medical Association will be held at Montreal on Tuesday, Wednesday, Thursday, and Friday, August 31st, September 1st, 2nd, and 3rd, 1897.

*President.*—HENRY BARNES, M.D., F.R.S.E., Senior Physician to the Cumberland Infirmary, Carlisle.

*President-Elect.*—T. G. RODDICK, M.D., Professor of Surgery in McGill University, Montreal.

*President of the Council:* ROBERT SAUNDBY, M.D., F.R.C.P., Physician to the General Hospital, Birmingham.

*Treasurer:* CHARLES PARSONS, M.D., Dover.

An Address in Medicine will be delivered by W. OSLER, M.D., F.R.C.P., Professor of Medicine in the Johns Hopkins University, Baltimore, U.S.A.

An Address in Surgery will be delivered by WILLIAM MITCHELL BANKS, F.R.C.S., Surgeon to the Liverpool Royal Infirmary.

An Address in Public Medicine will be delivered by HERMAN M. BIGGS, M.D., Director of the Bacteriological Laboratory of the Health Department, New York City.

The Scientific Business of the Meeting will be conducted in Eleven Sections, as follows, namely:

### A. MEDICINE.

*Macdonald Chemical Building.*

*President:* STEPHEN MACKENZIE, M.D., London. *Vice-Presidents:* J. E. GRAHAM, M.D., Toronto; W. BAYARD, M.D., St. John, N.B.; J. P. ROTTOT, M.D., Montreal: F. W. CAMPBELL, M.D., Montreal; JAMES STEWART, M.D., Montreal; H. P. WRIGHT, M.D., Ottawa. *Hon. Secretaries:* H. A. LAFLEUR, M.D., Montreal; W. F. HAMILTON, M.D., Montreal; WILLIAM PASTEUR, M.D., 4, Chandos Street, Cavendish Square, London, W.

The following discussions will probably take place:

1. The Dietetic Treatment of Diabetes, to be opened by Dr. Robert Saundby, and will be continued by Dr. Osler and Dr. Sidney Coupland.

2. Arthritis Deformans (Rheumatoid Arthritis), more especially its Relation to Rheumatism, Nervous Disease, and Tuberculosis. This discussion will probably be opened by Professor J. Stewart (McGill University).

3. On Gall Stones, with reference particularly to Biliary Colic, Cholangitis, and Hepatic Intermittent Fever without Icterus. Dr. Graham, Dr. Osler, Dr. Handford (Nottingham), Dr. Sidney Coupland (London), and Dr. Wm. Hunter (London), intend to take part in this debate.

The following, among others, are expected to take part in the discussions in this Section: Dr. Reginald Fitz (Boston), Dr. Jacobi (New York), Dr. Musser (Philadelphia), Dr. Pepper (Philadelphia), Dr. F. C. Shattuck (Boston), Dr. E. L. Trudeau (Saranac Lake, N.Y.), Dr. Jas. Tyson (Philadelphia), Dr. Wyman (Marine Hospital Service, Washington).

### B. SURGERY.

*Large Lecture Room, McGill Medical College.*

*President:* CHRISTOPHER HEATH, F.R.C.S., London. *Vice-Presidents:* Hon. Sir WILLIAM HINGSTON, M.D., Montreal; Hon. M. SULLIVAN, M.D., Kingston, Ontario; Hon E. FARRELL, M.D., Halifax, Nova Scotia; I. H. CAMERON, M.D., Toronto; F. LE M. GRASETT, M.D., Toronto; JAMES BELL, M.D., Montreal; GEORGE E. ARMSTRONG, M.D., Montreal. *Hon. Secretaries:* ROBERT C. KIRKPATRICK, M.D., Montreal; THOMAS WALKER, M.D., St. John, N.B.; JORDAN LLOYD, F.R.C.S., Broad Street, Birmingham.

The President will give a short introductory address.

A discussion will take place upon the Surgical Treatment of Appendicitis, which will be opened by Dr. G. E. Armstrong (Montreal).

A discussion will also take place upon the Treatment of Cancer of the Rectum by Kraske's Operation.

Among those who, it is anticipated, will take part in the discussions in this Section are: Dr. W. W. Keen (Philadelphia), Dr. Collins Warren (Boston), Dr. John Ashurst (Philadelphia), Dr. Cheever (Boston), Dr. Dennis (New York), Dr. Murphy (Chicago), Dr. McGraw (Detroit), Dr. J. C. White (Boston), Dr. Chas. T. Bull (New York).

The following gentlemen have given notice of their intention to read papers in this Section:

ROSS, James F. W., M.D. (Toronto). Some Rare Conditions of the Kidney.
MARCY, H. O., M.D. (Boston). On the Suturing of Wounds.
MCGRAW, Theo., M.D. (Detroit). Invagination of the Cæcum and Vermiform Appendix.
SHEPHERD, F. J., M.D. (Montreal). A case of Abdominal Tumour, in which nearly eight feet of the small intestine were resected.

### C. PUBLIC MEDICINE.

*Large Lecture Room of the Redpath Museum.*

*President:* E. P. LACHAPELLE, M.D., Montreal. *Vice-Presidents:* F. MONTIZAMBERT, M.D., Quebec; ROBERT CRAIK, M.D., Montreal; P. H. BRYCE, M.D., Toronto; Sir JAMES GRANT, Ottawa; R. H. POWELL, M.D., Ottawa. *Honorary Secretaries:* WYATT JOHNSTON, M.D., Montreal; E. PELLETIER, M.D., Montreal; HARVEY LITTLEJOHN, M.B., C.M., Surgeons Hall, Edinburgh.

The President will give an address on the Sanitary Movement in Canada.

The subjects more particularly proposed for discussion are:

1. How Far should Mandatory Measures go in Dealing with (*a*) Measles, (*b*) Whooping Cough, (*c*) Tuberculosis, (*d*) Leprosy. To be introduced by Dr. P. H. Bryce (Toronto).

2. As to the Utility of Quarantine as now Conducted (Inspection, Disinfection, and Isolation Stations) in Certain Countries at Least. To be opened by Dr. F. Montizambert (Grosse Ile, Quebec).

3. The Control of Venereal Disease by Restrictive Legislation.

Among those who have expressed their intention to take part in the work of the Section and to read papers are:

JANIN, G. (Montreal). The Conditions Necessary to the Success of Sewage Farming.
KAYE, J. R. (M.O.H. to the Council of the West Riding of the County of Yorkshire). The Relationship of the Health Officer to the Registration and Certification of Deaths.
JOHNSTON, Wyatt, M.D. (Montreal). Experiments with Disinfectant Gases.
NEWSHOLME, A., M.D. (M.O.H. Brighton). A Plea for the International Study of Diphtheria, Illustrated by Facts and Figures.

### D. OBSTETRICS AND GYNÆCOLOGY.

*Large Lecture Room, McDonald Physics Building.*

*President:* WILLIAM JAPP SINCLAIR, M.D., Manchester. *Vice-Presidents:* WILLIAM GARDNER, M.D., Montreal; JAMES PERRIGO, M.D., Montreal; J. A. TEMPLE, M.D., Toronto; J. C. CAMERON, M.D., Montreal; T. JOHNSTON ALLOWAY, M.D., Montreal; JAMES ROSS, M.D., Toronto. *Honorary Secretaries:* D. J. EVANS, M.D., Montreal; W. BURNETT, M.D., Montreal; ARTHUR E. GILES, M.D., 58, Harley Street, Cavendish Square, London, W.

The following discussions will, it is proposed, be held in this Section on the days indicated:

September 1st.—The Causation and Treatment of Hyperemesis Gravidarum.

September 2nd.—The Vaginal *versus* the Abdominal Route in dealing with Inflammatory Conditions and Tumours in the Pelvis.

September 3rd.—The Palliative and Radical Treatment of Uterine Flexions and Displacements.

The following papers are promised:

MADDEN, T. More, M.D., F.R.C.S.I. (Dublin). 1. On some Points in Modern Treatment of Tedious Labour with description of a new Traction Forces; (2) On the Conservative Treatment of Fallopian Tube Disease.

CAMPBELL, John, M.D., F.R.C.S.I. (Belfast). Labour Complicated by Abnormalities of the Cervix Uteri and Vagina.

Among those who are expected to take part in the work of this Section are Professor A. W. Mayo Robson (Leeds), Mr. Lawson Tait (Birmingham), Dr. T. W. Eden (London), Dr. Inglis Parsons (London), W. H. A. Kelly (Baltimore), Dr. P. F. Munde (New York), and W. R. Goffe (New York).

### E. PHARMACOLOGY AND THERAPEUTICS.

*Lecture Hall of the Wesleyan College.*

*President:* D. J. LEECH, M.D., Manchester. *Vice-Presidents:* A. D. BLACKADER, M.D., Montreal; JAMES THORBURN, M.D., Toronto; C. R. CHURCH, M.D., Ottawa; J. B. MCCONNELL, M.D., Montreal; F. J. AUSTIN, M.D., Sherbrooke; WALTER GEORGE SMITH, M.D., Dublin. *Honorary Secretaries:* F. X. L. DE MARTIGNY, M.D., Montreal; J. R. SPIER, M.D., Montreal; CHARLES ROBERTSHAW MARSHALL, M.B., Pharmacological Laboratory, Downing College, Cambridge.

It is intended that discussions shall be held upon the following subjects:

1. The Treatment of Insomnia, embracing (*a*) general treatment; (*b*) the value of individual drugs, especially the newer hypnotics; (*c*) their ill effects and the contraindications to their use; (*d*) their mode of action. This discussion will be opened by Dr. Clarke, of the Rookwood Asylum, (Kingston).

2. On Diuretics, including (*a*) their pharmacological action, and (*b*) their therapeutic uses.

3. On The Treatment of Syphilis, to be introduced by Dr. Whitla (Belfast).

Among the papers those who intend to take part in the proceedings of the Section are Dr. A. R. Cushny (University of Michigan, Ann Arbor), Dr. A. D. Blackader (Montreal), and Dr. H. A. Hare (Philadelphia), who will read a paper on The Importance of Studying the Absorption and Elimination of Drugs.

### F. PATHOLOGY AND BACTERIOLOGY.

*Lecture Room II, McGill Medical College.*

*President:* WATSON CHEYNE, F.R.C.S., F.R.S., London. *Vice-Presidents:* J. G. ADAMI, M.D., Montreal; J. CAVEN, M.D., Toronto; J. STEWART, M.D., Halifax; J. C. DAVIE, M.D., Victoria, B.C.; L. C. PREVOST, M.D., Ottawa; M. T. BRENNAN, M.D., Montreal. *Honorary Secretaries:* W. T. CONNELL, M.D., Kingston, Ontario; C. F. MARTIN, M.D., Montreal; RUBERT W. BOYCE, M.B., University College, Liverpool.

The following will be the subjects for discussion:

1. Serum Diagnosis and the Agglutinating Action of Serums, to be introduced by Professor Wyatt Johnston (Montreal).

2. Immunisation.

3. The bubonic plague.

Papers have been offered by Dr. Sidney Copeman (London), on Vaccinia: Dr. Herter (New York), Dr. C. F. Martin (Montreal), Dr. Hamilton Wright (Montreal), Dr. Adami, and several others.

Among those who will take part in the discussions will be Professor Welch (Johns Hopkins), Professor Crookshank London), Dr. W. Hunter (London), Dr. A. C. Abbott (Philadelphia), Dr. T. M. Cheesman (New York), Dr. R. Fitz (Boston), Dr. E. Hodenpyl (New York), Dr. Trudeau (Saranac), and Dr. F. F. Wesbrook (Minneapolis).

It is urged that British pathologists unable to be present should send to Dr. Rupert Boyce lantern slides and other material for demonstration bearing upon the subjects selected for discussion.

### G. PSYCHOLOGY.

*Morris Hall, Presbyterian College.*

*President:* R. M. BUCKE, M.D., London, Ontario. *Vice-Presidents:* D. CLARKE, M.D., Toronto; T. J. BURGESS, M.D., Verdun, Quebec; A. VALLEE, M.D., Quebec; G. WILKINS, M.D., Montreal. *Honorary Secretaries:* J. V. ANGLIN, M.D., Montreal; GEORGE VILLENEUVE, M.D., Montreal; J. G. BLANDFORD, M.R.C.S., D.P.H., London County Asylum, Banstead, Sutton, Surrey.

The officers of this Section, believing that many of the papers already offered will be provocative of considerable debate, have determined to announce no special subjects for discussion. Among those who have offered to contribute papers are:

BUCKE, R. M., M.D. (London, Ontario, Asylum). On Mental Evolution.

CLARK, W., M.D. (Toronto Asylum). The Reflexes in Psychiatry.

HOBBS, —, M.D. (London, Ontario, Asylum). Surgical Gynæcology in Insanity.

RUSSELL, J., M.D. (Hamilton, Ontario, Asylum). Insanity in its Relation to the State.

VILLENEUVE, George, M.D. (Longue Pointe). Crime and Insanity.

Among those who intend to take part in the business of the Section are Dr. N. H. Beemer (Mimico Asylum, Ontario), Dr. G. Alder Blumer (Utica, New York), Dr. C. K. Clark (Rockwood Hospital, Kingston, Ontario), Dr. Edward Cowles (Waverley, Mass.), Dr. T. D. Crowthers (Hartford, Conn.), Dr. G. Stanley Hall (Worcester, Mass.), Dr. Hazlitt (Sunbury), Dr. Henry Hurd (Baltimore), Dr. Rogers (Asylum for the Feeble Minded, Faribault, Minn.), Dr. George H. Rohe (Maryland Hospital for the Insane, Catonsville), and Dr. Rothesay Stewart (Leicester).

### H. OPHTHALMOLOGY.

*Lecture Room I, McDonald Engineering Building.*

*President:* EDWARD NETTLESHIP, F.R.C.S., London. *Vice-Presidents:* F. BULLER, M.D., Montreal; R. A. REEVE, M.D., Toronto; ED. DESJARDINS, M.D., Montreal; A. A. FOUCHER, M.D., Montreal. *Honorary Secretaries:* W. H. SMITH, M.D., Winnipeg; JEHIN PRUME, M.D., Montreal; THOMAS HERBERT BICKERTON, M.R.C.S., 88, Rodney Street, Liverpool.

It is intended that a discussion should take place on the Prevention of Accidents to the Eyes of Persons engaged in Industrial Employments. The following gentlemen have expressed their intention of contributing papers to the Section:

LEE, Charles G. (Liverpool). On an Unusual Case of Orbital Tumour.

BICKERTON, T. H. (Liverpool). (1) The Question of Colour Vision in the Public Services; (2) on Mules's Operation.

*Specimens.*—Specimens will be shown by Mr. TREACHER COLLINS and Mr. PRIESTLEY SMITH.

### I. LARYNGOLOGY AND OTOLOGY.

*Lecture Room II, McDonald Engineering Building.*

*President:* GREVILLE MACDONALD, M.D., London. *Vice-Presidents:* W. TOBIN, M.D., Halifax; G. A. S. RYERSON, M.D., Toronto; H. S. BIRKETT, M.D., Montreal; G. R. MCDONAGH, M.D., Toronto. *Honorary Secretaries:* A. CHRETIEN, M.D., Montreal; H. D. HAMILTON, M.D., Montreal; W. PERMEWAN, M.D., 7, Rodney Street, Liverpool.

The following papers are announced in this Section:

BRYAN, J. H. (Washington). A Contribution to the Anatomy of the Fronto-Ethmoidal and Frontal Maxillary Regions.

HOBBS, Arthur G., M.D. (Atlanta, Ga.). When not to Inflate the Middle Ear.

HORNE, Jobson, M.D., and YEARSLEY, Macleod, F.R.C.S. (1) On Eucaine as a Local Anæsthetic in the Surgery of the Throat, Nose, and Ear. (2) On Turbinectomy.

INGALS, E. Fletcher, M.D. (Chicago). On the Relation of Nasal Diseases to Pulmonary Tuberculosis.

KNIGHT, Chas. H., M.D. (New York). Upon a Foreign Body (Metallic Button Hook) removed from the Larynx by Laryngo-Fissure.

O'DWYER, J., M.D. (New York). Acute Syphilitic Stenosis of the Larynx in the Adult treated by Intubation.

ROE, John O., M.D. (Rochester, New York). The Correction of Nasal Deformities by Subcutaneous Operations.

SPICER, Scanes, M.D. (London). (1) On Reduction of the Inferior Turbinate Bone in Certain Cases of Nasal Obstruction. (2) On the Significance and Treatment of Recurrent Retention of Secretion in the Lacunæ of the Tonsils. (3) A Case of Multiple Papillomata of Larynx in a Man aged 73.

Among those who intend to take part in the business of the Section are also Dr. J. Solis-Cohen (Philadelphia), Dr. Birkett (Montreal), Dr. Chretien (Montreal), Dr. G. R. McDonagh (Toronto), Dr. D. B. Delavan (New York), and Dr. J. W. Mackenzie (Baltimore).

### J. ANATOMY AND PHYSIOLOGY.

*Lecture Room I, McGill Medical College.*

*President:* AUGUSTUS D. WALLER, M.D., F.R.S., London. *Vice-Presidents:* F. SHEPHERD, M.D., Montreal; A. B. MACALLUM, M.D., Toronto; T. WESLEY MILLS, M.D., Montreal; A. PRIMROSE, M.D., Toronto; J. B. A. LAMARCHE, M.D., Montreal; D. B. FRASER, M.D., Stratford, Ontario. *Hon. Secretaries:* J. M. ELDER, M.D., Montreal; W. S. MORROW, M.D., Montreal; ROBERT HUTCHISON, M.D., Physiological Laboratory, London Hospital Medical College, Turner Street, Mile End, E.

The following have been selected as subjects for the discussions:

September 1st. Anæsthetics, to be introduced by the President of the Section (Dr. A. Waller). Among those who are

expected to take part in this discussion are Dr. Shore (Cambridge) and Dr. Kemp (Baltimore).

September 2nd. The best methods of Teaching Anatomy, to be introduced by Professor Alex. Macalister (Cambridge) and Dr. F. J. Shepherd (Montreal).

September 3rd. The Causation of the Heart Beat and its Modifications, introduced by Dr. Gaskell (Cambridge) and Professor T. Wesley Mills (Montreal). Dr. Porter (Boston), Dr. Howell (Baltimore), and Dr. Bowditch (Boston) are expected to take part in the discussion.

The following papers have been promised:

MACALISTER, Professor Alex. (Cambridge). The Influence of Head Shape on Cranio-cerebral Topography.

THOMPSON, Professor W. H. (Belfast). Degenerations resulting from Lesions of the Sensory Area of the Cortex Cerebri.

Dr. Gustav Mann will send for exhibition specimens illustrating the Minute Histology of the Liver in Active and Resting Conditions. Dr. D. A. Welsh (Edinburgh) will exhibit specimens illustrating the Histology of the Parathyroid Glands. Dr. Geo. Oliver will exhibit his new Hæmoglobinometer and Hæmocytometer.

### K. DERMATOLOGY.

*Lecture Room III, McDonald Engineering Building.*

*President:* MALCOLM MORRIS, F.R.C.S.Ed., London. *Vice-Presidents:* J. E. GRAHAM, M.D., Toronto; F. J. SHEPHERD, M.D., Montreal; J. A. S. BRUNELLE, Montreal; G. L. MILNE, M.D., Victoria, B.C. *Hon. Secretaries:* GORDON CAMPBELL, M.D., Montreal; J. M. JACK, M.D., Montreal; JAMES GALLOWAY, M.D., 54, Harley Street, Cavendish Square, W.

A subject selected for discussion in this Section is the Clinical and Pathological Characteristics of Vesicular Skin Diseases, especially the Dermatitis Herpetiformis Group.

It is intended that a joint meeting should be held with the Section of Pharmacology and Therapeutics for the discussion of the subject of the Treatment of Syphilis (see p. 1449).

The following papers are announced:

GALLOWAY, James (London) On Melanotic Conditions of the Skin preceding Malignant Disease of the Skin.

FOX, T. Colcott. Demonstration of the Biology of the Trichophyte.

Among those who are expected to take part in the discussions of this Section are Dr. E. B. Bronson (New York), Dr. L. D. Bulkley (New York), Dr. J. A. Fordyce (New York), Dr. J. N. Hyde (Chicago), Dr. G. T. Jackson (New York), Dr. Stephen Mackenzie (London), Dr. A. Eddowes (London), and Dr. White (Boston).

### PROGRAMME OF PROCEEDINGS.

TUESDAY, AUGUST 31ST, 1897.

11 A.M.—Cathedral Service.
2.30 P.M.—Opening Ceremonies. Welcome by His Excellency the Governor-General, Lord Aberdeen, the Mayor of Montreal, and others. Address by the President-elect, Dr. T. G. Roddick.
4 P.M.—Garden Party at the Royal Victoria Hospital (Mr. W. B. Angus, President of Royal Victoria Hospital), etc.
9 P.M.—*Conversazione* at Laval University. Address by Professor Richet, Delegate from the French Government, etc.

WEDNESDAY, SEPTEMBER 1ST, 1897.

10 A.M.—McGill University: Opening of Sections.
2.30 P.M.—Windsor Hall: Address in Medicine by Dr. W. Osler.
4 P.M.—Excursion down the St. Lawrence: Garden Parties, etc.
9 P.M.—Reception by the Hon. Sir Donald A. Smith, High Commissioner of Canada.

THURSDAY, SEPTEMBER 2ND, 1897.

9.30 A.M.—McGill University: Sectional Meetings.
2.30 P.M.—Windsor Hall: Address in Surgery by Mr. W. Mitchell Banks.
4 P.M.—Excursion across the Island, International Golf Match, etc.
7.45 P.M.—Annual Dinner of the Association

FRIDAY, SEPTEMBER 3RD 1807.

9.30 A.M.—McGill University: Sectional Meetings.
1 P.M.—Lunch on the Mountain, given by the Mayor.
2.30 P.M.—Windsor Hall: Address in Public Medicine by Dr. Herman Biggs: Concluding Speeches, etc.
4 P.M.—Excursion down the Lachine Rapids; Garden Parties, etc.
9 P.M.—*Conversazione* at McGill University.

SATURDAY, SEPTEMBER 4TH, 1807.

Excursions to Lake Memphremageg, Saranac, Ottawa, Quebec, etc.

### ANNUAL MUSEUM.

#### THE PATHOLOGICAL MUSEUM.

The Pathological Museum will be established in the Dissecting Room of McGill Medical College, a large, lofty, and well-lighted room. The Secretary of the Pathological Subcommittee of the Museum Committee is Dr. C. F. Martin, McGill Medical College, Montreal, who will be glad to receive the loan of specimens, drawings, and photographs illustrative of both normal and morbid anatomy, as also any new apparatus for research in physiology, pathology, or bacteriology.

Specimens illustrating diseases peculiar to the remoter portions of the Empire are especially desired. It is proposed to make a special collection of photographs and microphotographs of morbid conditions. These will be suitably mounted and carefully returned to the owners.

Suitable vessels and jars, and spirit and other media will be provided for moist specimens.

#### FOODS, DRUGS, AND APPLIANCES.

*Regulations Regarding Exhibits.*

1. Communications on general matters connected with the Museum and applications from intending exhibitors should be addressed to the Honorary Secretaries, Drs. J. W. Stirling or J. M. Jack, 2204, St. Catherine Street (British Medical Association Rooms).

2. Applications for space must be in the hands of the Secretaries before July 25th, accompanied with a brief descriptive account of each exhibit for insertion in the Museum Catalogue. Information of the allotment of space will be furnished as promptly as possible, and on receipt of cheque for the cost of such space, a card for the admission of the exhibit will be forwarded.

3. All cheques to be made payable to J. W. Stirling, M.B.

4. All exhibits should be directed to the British Medical Museum, Victoria Skating Rink, Drummond Street, Montreal, Canada, with the name of the Section for which they are intended. Packages must also be addressed to a firm's representative at the Museum.

5. Exhibits must be delivered between August 27th and 28th; they must each bear a card indicating the name and address of the exhibitor; they must be arranged in their allotted space before 2 P.M. on August 28th, and it is desirable that they be not removed till September 6th.

6. Signs or placards must be so arranged as not to interfere with adjacent exhibits: on the central tables no sign or placard must reach higher than 2 feet 6 inches from the table.

7. The Committee will not be responsible for any risks or expenses incurred; they reserve discretionary power to exclude any exhibit they may consider unsuitable; they will only receive exhibits conditionally upon strict compliance with the foregoing regulations, and in all matters of doubt and difficulty their decision shall be final.

8. The Museum Committee or its representatives must be recognised as being in full control of the exhibition building and its management.

Tables occupying the centre of the Hall, and other prominent positions, are to be let by private tender; other tables varying in charges from 4s. to 2s. per square foot. Certain floor space will be let at 1s. per square foot.

## CORRESPONDENCE.

### BRITISH MEDICAL BENEVOLENT FUND.

SIR,—I was very glad to see the letter relative to the above from your correspondent "Bis Dat Qui Cito Dat" in the BRITISH MEDICAL JOURNAL of May 29th. The facts therein mentioned speak for themselves, and I am sorry to say that, since the publication of the report from which your correspondent quotes, the utter inadequacy of our funds to meet the ever-increasing numbers of pressing applications for relief has become more and more emphatically manifest.

I feel sure, however, that it is only necessary to make this inadequacy known amongst our professional brethren, who are ever ready to help the distressed in time of need, and amongst others who have the cause of true charity at heart, to ensure a speedy and effectual response to those urgent and pitiful appeals for help which we are daily receiving, but which the Committee have recently been compelled to postpone month after month for want of funds.

The annual report just published shows the excellent work done by the fund during the last year, and the distressing nature of the cases brought before the Committee at our

monthly meetings, and I shall be happy to send a copy of this report to anyone who is willing to help us.—I am, etc.,

JOSEPH WHITE,
Southwell Gardens, S.W., June 1st. Honorary Secretary for Cases.

## HOSPITAL REFORM ASSOCIATION.

SIR,—May I be allowed to make an appeal to the members of the profession, to ask them to support financially the Hospital Reform Association?

We are, as you are aware, a very young Association, but since our inauguration (October 1st, 1896) we have endeavoured by every means in our power to bring about some practical reforms in the administration of gratuitous medical relief in the hospitals of England and Wales. That these efforts have not been entirely fruitless is shown by the fact that the general hospitals of the metropolis have appointed a Committee to consider the question of attendance on the out-patients and casualty cases. That Committee, I understand, has made the following report:

1. That an inquiry officer should be appointed at each general hospital.
2. That the number of new cases should be limited as far as possible to the number of fifteen.
3. That cases which are not considered eligible for hospital treatment should be referred to the provident dispensaries.
4. That some arrangements should be made whereby the overcrowding which usually takes place on the first days of the week should be obviated.

It will be manifest to all these gentlemen who have taken an interest in the subject that these recommendations are very similar to those issued by my Association.

We are most anxious to continue the work of organisation in the provincial towns, and to do so we must receive more support than we have hitherto done. The holding of meetings to discuss the question involves a considerable expenditure, and we have no hesitation in appealing to all those who are of opinion that the relief afforded by our hospitals should be as far as possible restricted to the necessitous poor.

We may be allowed to mention the report on the special hospitals of London as an example of the earnestness of our members to bring about a reform of the present unsatisfactory condition of affairs.—I am, etc.,

Cardiff, May 29th. T. GARRETT HORDER.

## MERCER'S HOSPITAL.

SIR,—The governors of Mercer's Hospital, Dublin, advertise in the BRITISH MEDICAL JOURNAL for physicians and surgeons to fill the places of the dismissed honorary medical staff; but the advertisement does not give any hint as to the conditions under which the new staff is to be elected. I cannot think Mercer's under its present governors would be a desirable appointment. There is nothing to prevent the new staff being ignominiously dismissed. Nothing appears to influence the autocrats of Mercer's: long years of service, great abilities, unceasing attention to duties, successful results medical and surgical, and in one notable instance large money grants—all this is not enough; subserviency is the one thing wanted; all the rest is as naught. Are the coming candidates to play the part of Macklin's "Man of the World," and become MacSycophants and succeed by "booing"? What is to be thought of governors who refuse to accept Dr. Mason's resignation, after forty years' honorary service, but elect to dismiss him—a strange reward for a life's work?

It is a strange state of society that permits a body of men, nine-tenths of whom are unknown to the citizens of Dublin, to act in this arbitrary manner with a body of professional gentlemen, and to ignore the wishes of the subscribers to the charity. Candidates may be found through the advertisements, and gentlemen who are ignorant of the facts may apply, or persons who have no sense of sodality, no respect for medicine, or feeling other than that of personal advantage for appointments; these latter would most suit.—I am, etc.,

May 25th. HOSPITAL.

## INSPECTION OF MEAT.

SIR,—Attention having been directed to an article on the inspection of meat in the BRITISH MEDICAL JOURNAL of May 29th, I am directed by the Chairman to inform you that the statements contained therein, referring to the proceedings of the Royal Commission on Tuberculosis, are wholly unauthorised and premature, and calculated to convey an erroneous impression of the method of inquiry pursued by the Commission. The evidence has not been concluded, and it is a pure assumption on the part of your correspondent that any determination has been arrived at regarding the recommendations to be included in the report.—I am, etc.,

June 1st. T. M. LEGGE,
Secretary, Royal Commission on Tuberculosis.

## AN EARLY EMBRYO: A REQUEST.

SIR,—May I, through the medium of your valuable paper, request your readers, if they should come across an abortion in the earlier weeks of pregnancy, to kindly forward to me at the address given below, the ovum for physiological purposes. I should be very grateful, and would willingly pay the carriage for such.

The best medium for preservation is Müller's fluid, but one more commonly at hand and which answers the purpose almost as well is a dilute solution of perchloride of mercury. Thanking you in anticipation.—I am, etc.,

GILBERT KEMPE, M.D.Dun.
Endless Street, Salisbury, May 27th.

# OBITUARY.

## JAMES GREIG SMITH, M.A., M.B., C.M.ABERD., F.R.S.E.,

Surgeon to the Bristol Royal Infirmary; Professor of Surgery, University College, Bristol.

WE deeply regret to have to record the death of Mr. James Greig Smith, of Bristol, after a few days' illness. The loss that the profession, of which he was so great an ornament, must suffer by his untimely death is not confined to the district in which his services were most in requisition; for though the city in which he resided and practised for twenty years must feel the loss most acutely, the profession of medicine all over the world, whether English-speaking or not, must mourn the death of this brilliant exponent of the science and art of surgery. To a large circle of friends, which his kindly nature had drawn around him, his death has come as a blow that will not be readily recovered from, for with all his faults—and the least of us is not without them—James Greig Smith was loved and admired as an honourable and upright man, and a true and trusty friend.

Born in 1854 at a small village a few miles from Aberdeen, James Greig Smith was sent at an early age to the Grammar School of that city, from which he proceeded in due course to the University, taking his Arts degree in 1873 with the highest honours. Having selected the profession of medicine, he applied himself to that course of study, and took the Bachelorship of Medicine and Mastership of Surgery in 1876. All through his university career his progress was marked by the highest distinctions that could be obtained, while the powers of application he displayed, the clearness and method of his reasoning, and the brilliancy of his intellectual powers gave early promise that he would leave a mark on the profession he had elected to follow, its culture, and its literature. His teachers did not fail to observe that among their students was a young man destined to rise to distinction, and the late Professor Pirrie spoke of him as a man after his own heart.

In the year 1876 he applied for and was elected to the post of Assistant or Junior House-Surgeon at the Bristol Royal Infirmary, and thus began his connection with the institution that lasted till his death. His intention at first was subsequently to practise as a physician, and this may have induced him to undertake the course of private lectures on physiology that he gave to the students in his rooms at the infirmary. Fate had, however, ordained that he should practise that other branch of medicine, for which, it must be admitted, his abilities better qualified him. By the death of one surgeon and the retirement of another, two vacancies occurred on the surgical staff, and to these posts Mr. F. R. Cross and Mr. Greig Smith were elected in 1879, so that by a stroke of fortune he was placed at once on the staff as a full Surgeon. Starting private practice, at first but only for a short time, as

a general practitioner, Mr. Greig Smith rapidly rose to distinction as a careful and brilliant diagnostician and a skilful and bold operator; and though he was best known to the profession and public for these qualities, his knowledge of pathology was wide and extensive. Early in his career he published papers on the Pathology and Treatment of Chronic Osteo-arthritis, and the Mode of Growth of Spicular Osteophytes in the *Royal Infirmary Reports*, while more followed on other subjects in different journals.

Mr. Greig Smith took no part in public life; but there was nothing he would leave undone for the sake of his profession. It was largely, but not solely, due to his initiative that one of the most successful provincial medical periodicals, the *Bristol Medico-Chirurgical Journal*, was started. In conjunction with Mr. L. M. Griffiths, he from 1883 to 1890 edited the journal, and carried it through the perilous years of its early existence, with that energy and perseverance that characterised him when he took any matter in hand. The early numbers of the journal afford abundant evidence of the labour he expended on the literary venture he had undertaken to make a success; and though in later years the work of publication has been undertaken by others, he ever kept up his interest in it. Another matter with which he was more or less closely associated was the formation of the library of the Medico-Chirurgical Society in 1891; and on its fusion with that of the medical school he was elected the first chairman of the Library Committee. A regular attendant at the meetings, he gave the benefit of his wide and comprehensive knowledge of books and medical literature, in the selection and purchase of publications of all sorts that in his opinion would be of value to the students of the medical school and to his fellow-practitioners. In 1893 he was elected President of the Bristol Medico-Chirurgical Society, and delivered an address on Modern Medical Journalism which encountered a good deal of criticism at the time.

In 1888 he began to lecture on surgery in conjunction with Mr. N. C. Dobson at the medical school, and on the retirement of his colleague in 1893 he undertook the whole course. As in his writings, so in his lectures, his style was clear, forcible, and lucid, and the perfect mastery that he had of his subject rendered his lectures of great value to the students.

As an author Greig Smith is so well known that little need be said about literary productions. His best known work, *Abdominal Surgery*, has gone through five editions since its first publication in 1888, and the continued demand for it in this country and America necessitated a sixth edition, which is at present in the printer's hands. It has been translated into French, German, and Italian. There is no doubt that this work, on which he spent an infinite amount of care, added largely to his reputation, and the favour with which it was received was very gratifying to him. The book is a reflection of the man himself. The clear and forcible methods of expression, the genuineness and conspicuous honesty of the opinions held by him are thoroughly characteristic of Greig Smith, as his fellow-practitioners of Bristol and the neighbourhood knew him. Scattered through medical literature can be found numerous articles from his pen, all of them on subjects connected with pathology and surgery; and though of late years these publications have been more particularly on matters bearing on the special branch of surgery with which his name must ever be associated, they show that he was not a mere specialist on abdominal surgery, but a capable and experienced all-round surgeon.

When the British Medical Association visited Bristol in 1894, Greig Smith delivered the Address in Surgery, taking for his subject the Art of the Surgeon, and we have no hesitation in saying that as an oration it has seldom been equalled, and possibly never surpassed, for depth of thought, originality of ideas, and finish of expression.

A member of several of the medical societies, Greig Smith was some years ago made a Fellow of the Royal Society of Edinburgh, and was for some time an examiner in surgery at his old University.

But Greig Smith was not only a well-read and skilful surgeon. He was a man of wide intellectual culture, well read, not only in the history of his profession, but in the current literature of the day. He was, further, an able modeller in clay, a finished carpenter, and a by no means indifferent draughtsman. His consulting room was adorned with many beautiful medallions in clay, worked with his own hands. The museum of University College, Bristol, contains many well-executed models and preparations mounted by a process he had perfected, and the writer of this notice can call to mind many stories he has heard from Greig Smith of successful sailing races in a boat constructed while yet a student at Aberdeen. He was a keen sportsman and a good shot, and frequently entertained small shooting parties of his friends at his country house near Bristol. Of late years he had been an enthusiastic golfer, and while a resident at the infirmary was known as a forcible, if a not very scientific, boxer. Though possessed of great muscular strength and a robust frame, an attack of acute rheumatism some years ago, and of pneumonia in 1894, must have left a scar on what was once a strong constitution, so that a second attack of the latter disease found him a too ready victim.

On Monday, May 24th, he was in consultation in Wiltshire, and dined at a friend's house in Clifton in the evening. He then complained of feeling unwell, but ascribed it to rheumatism, from which he constantly suffered. The next morning symptoms of pneumonia showed themselves, but no great anxiety was felt for his condition till Thursday, when he began to fail, and in spite of the unremitting care of his friends Drs. Shaw and Swain, he passed away on Friday morning at 8.15.

The funeral took place on Tuesday, June 1st, at Redland Green, and his body was followed to the grave by a large number of his professional brethren and friends who wished to show their respect to his memory. There were also present representatives of the institutions with which he was associated, many of the nurses from the Royal Infirmary and Nursing Home, and a large number of students from the medical school.

Mr. Greig Smith married about fifteen years ago, and leaves a widow and daughter to mourn his loss.

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## FREDERICK EASTES, M.D.Durh.

We regret to record the death of Dr. Frederick Eastes, at Folkestone, on May 27th, at the age of 38. He was the youngest of four sons of the late Silvester Eastes, M.R.C.S., J.P., and died in the house in which he was born. After his education at Epsom College, Guy's Hospital, and the Newcastle-on-Tyne School of Medicine, he graduated at Durham, becoming M.B. in 1883, M.D. in 1885, and L.S.Sc. in 1888. He settled in practice in Folkestone in 1884, and was shortly afterwards elected one of the honorary medical officers of the Victoria Hospital in that town.

Dr. Frederick Eastes contributed papers on clinical cases to the British Medical Journal in 1885 and 1888. For the last five or six years he had been a sufferer from diabetes, but did his work up to the evening of May 26th, when coma supervened, and in less than sixteen hours death ensued. He had never married. He was greatly beloved by a wide circle of friends and patients; and his funeral was attended by nearly all the medical practitioners of Folkestone, by many members of the two local Masonic lodges, and by a large concourse of other people.

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## THEODORE D'ORVILLE PARTRIDGE, M.R.C.S.Eng., L.R.C.P.Edin.

We regret to announce the death on March 23rd, from cholera, under peculiarly sad circumstances, of Dr. T. d'O. Partridge, Civil Surgeon, of Cachar. He had completed his term of service, and was looking forward to a well-earned rest. Arrangements had been made for the presenting of a testimonial at a farewell dinner and dance on May 3rd. The deceased was educated at St. George's Hospital, and obtained the M.R.C.S.Eng. in 1862, the L.R.C.P.Edin. in 1865. After some years in the Colonial Medical Service, during which he was in charge of the Mauritius Hospital throughout the epidemic of malaria in 1867-68, he joined the uncovenanted medical service of India in 1868. Since 1885 he had been Civil Surgeon of Cachar, where he and Mrs. Partridge were from the first leaders in all social matters. As a volunteer he was Commandant of the Lakhimpur Rifles, 1882-84, and served for ten years in the Surma Valley Light Horse, retiring with

the rank of Lieutenant-Colonel. His war services included the Chin Lushai expedition, 1889-90, for which he obtained the medal and clasp. Mr. Partridge married in 1870, and is survived by his widow, two daughters, and one son.

EDWARD FRANCIS WESTON, M.R.C.S.

WE regret to have to record the death of Mr. Edward Francis Weston, of Stafford. Mr. Weston, who was born in 1834, was the son of Mr. E. W. Weston, who practised at Shrewsbury. After a successful student career at Guy's Hospital, he obtained in 1856 the diplomas of M.R.C.S.Eng. and L.S.A., and shortly afterwards was appointed House-Surgeon to the Staffordshire General Infirmary. This appointment he retained until 1858, when he went into partnership with Mr. Waddell. In 1860 he was elected Surgeon to the Staffordshire General Infirmary, and at the time of his death was Senior Surgeon to that institution. Mr. Weston was President of the Staffordshire Branch of the British Medical Association in 1878-79, and was widely known in the district as a skilful surgeon, whose advice was highly valued by his medical brethren. Mr. Weston's death occurred on May 26th, after a short illness, and the funeral, which took place on May 29th, was attended by many of the officials of the county and borough and by many personal friends, including the following members of the medical profession: Dr. G. Reid, Dr. C. Reid, Dr. Blumer, Drs. Cookson, Christie, Hewson, Taylor, Greaves, Hunt, Mr. Lawson Tait, Mr. T. Vincent Jackson, Drs. Ridley, Bayley, etc.

THE death is reported of Dr. W. R. HAYDON of Tiverton, who died somewhat suddenly in his sleep on May 26th. Dr. Haydon, who was 53 years of age, qualified as M.B., C.M. Glasg., in 1867, and took the degree of M.D.Glasg. in 1870. He was an alderman of the borough, and held the appointment of Medical Officer to the Tiverton Workhouse and Tiverton Rural District. He leaves a widow, two sons, and a daughter.

THE death is recorded of Mr. W. BAYLDON, M.R.C.S.Eng., L.S.A.Lond., of Batley. He was a nephew of the late Sir Charles Wood, was born at Roystone, near Barnsley, in 1823, and in 1858 succeeded Dr. Knowles, of Batley, in practice. Mr. Bayldon held the office of Medical Officer of the parish (under the Dewsbury Board of Guardians), and his resignation was only accepted on May 21st. He retired from the service with a pension.

THE death occurred on May 29th of Dr. C. H. FISHER of Sittingbourne. He was one of the oldest practitioners in the town, having been in practice there over thirty-five years. He qualified as M.R.C.S.Eng. and L.S.A. in 1856, and became M.D.Glasg. in 1857. He held the appointment of Medical Officer to the Sittingbourne District and Workhouse, and Public Vaccinator First District Milton Union, and was Medical Officer of Health to the Milton Urban District Council.

PROFESSOR LOUIS DEROUBAIX, who, as announced in the BRITISH MEDICAL JOURNAL of May 29th, died recently, was for many years one of the most conspicuous figures in the medical profession of Belgium. Born at Estaimpuis in Hainault in 1813 he studied medicine at Brussels, and while still a student was in 1832 sent to Courtrai to investigate an outbreak of cholera in that place. In 1833 he became *interne* under Seutin in the Hôpital Saint Pierre, Brussels. In 1835 he took his Doctor's degree in the University of Louvain. After a further period of study in Paris he returned to Belgium, and was appointed prosector in the recently founded Université Libre of Brussels. In 1841 he was appointed Professor of Anatomy, a subject which he continued to teach with unabated zeal for fifty years. At the same time he cultivated surgery with success. In 1850 he was appointed Surgeon to the Hôpital Saint Jean. He devised several new procedures, particularly for the treatment of vesico-vaginal fistulæ. He embodied his experience in this department of surgical work in a book entitled *Traité des Fistules Uro-Génitales de la Femme*, which was "crowned" by the Paris Académie de Médecine. Deroubaix also took an active part in the promotion of the reform of medical education and in politics. He was a member of several scientific societies, Belgian and foreign, and the Belgian Government conferred on him the exceptional distinction of Grand Officer of the Order of Leopold. King Leopold I. appointed him his consulting physician. He was a man of perfect honesty of character and great firmness of purpose, and was popular both with his profession and with his fellow countrymen in general.

# MEDICO-PARLIAMENTARY.

*HOUSE OF COMMONS.*

DANGEROUS PERFORMANCES BILL.

THIS Bill has been read a second time and committed.

LONDON WATER COMPANIES AMALGAMATION BILL.

The second reading of this Bill has been deferred until Monday, June 28th. At a subsequent sitting Mr. SYDNEY BUXTON asked the First Lord of the Treasury when he proposed to take the second reading of the Metropolitan Water Companies Bill.—Mr. BALFOUR: I cannot give an absolute pledge in the matter, but in all probability the Bill will be taken on Monday, June 28th.

VACCINATION (CALF LYMPH).

Mr. CARLILE has given notice of his intention to introduce a Bill "to amend the Vaccination Laws by providing a compulsory supply of calf lymph under Government control; and for other purposes."

THE PLAGUE IN BOMBAY.

Mr. MACLEAN: I beg to ask the Secretary of State for India whether the measures of segregation of the sick and of the healthy from plague-infected houses, recently ordered by the Government of Bombay on the recommendation of medical men from Hong Kong, were in substance urged upon that Government early in October, 1896, by the Surgeon-General with the Government of Bombay, and again in December by a committee of Bombay medical officers presided over by the late Surgeon-Major Manser; whether the Surgeon-General in October advised medical examination of railway passengers at Kalyan and Virar as being more effectual than inspection at terminal stations within Bombay limits, and whether the recommendation was disregarded by the Bombay Government for three and a half months, during which the plague was carried to numerous fresh centres of infection; whether in the measures that have been adopted and the special appointments made to deal with the plague the Bombay Government have acted in consultation with the Surgeon-General and the Sanitary Commissioner, and on their recommendation; and whether he will lay upon the table copies of the report of the Committee above referred to and of the recommendations of the Surgeon-General.—Lord G. HAMILTON: I am unable to answer the first two questions as to the origin and paternity of the measures taken to suppress the plague in Bombay; but so far as I know there has been no divergence of opinion as to the most effective measures of stamping out the pestilence, though there may have been difference of opinion as to the possibility of enforcing off-hand drastic measures. So far as I know, the Bombay Government have acted throughout in consultation with the Surgeon-General and the Sanitary Commissioner. As to the reports referred to, I will inquire about them and consider whether they should be made public.

NUNS IN IRISH INFIRMARIES.

Mr. TULLY asked the Chief Secretary for Ireland whether he could state the grounds on which the Local Government Board had annulled the appointment of Miss Walker as night nurse in Granard Union, and whether ladies with similar qualifications had been sanctioned in the neighbouring union of Longford, and also in unions in the north of Ireland.—Mr. G. BALFOUR: Miss Walker, aged 22 years, and without previous experience in nursing, was elected by the guardians at a salary of £10 a year. The Local Government Board have now informed the guardians that they cannot sanction her appointment until they receive a report from the workhouse medical officer stating that, in his opinion, she is qualified to discharge the duties of night nurse. The Board have added that if the guardians persist in their refusal to secure the services of a trained nurse, the medical officer may requisition such additional nursing assistance as he may require. The night nursing in Longford Workhouse is in charge of the Sisters of Mercy, who are nurses in the workhouse, the duty being undertaken in rotation by these Sisters. The Board have repeatedly addressed Boards of Guardians relative to the necessity of appointing only trained and experienced persons to take charge of the workhouse infirmaries and fever hospitals, and whenever vacancies occur the Local Government Board urge upon the guardians the desirability of offering such salaries as will induce qualified applicants to present themselves as candidates for the office of nurse.

LADY INSPECTORS IN IRISH INFIRMARIES.

Mr. CAREW asked the Chief Secretary for Ireland whether, in consequence of the defective condition of the nursing in Irish workhouse infirmaries and fever hospitals, he would consider the desirability of suggesting to the Local Government Board to appoint at least one or two lady inspectors, professionally qualified as doctors or nurses, to inspect the Poor-law fever hospitals and infirmaries, and who would also inspect the state of the women and children, the idiots, lunatics, and infirm.—Mr. G. BALFOUR: The major portion of the duties of an inspector of the Local Government Board could not be undertaken by a lady inspector. As to the expediency of appointing a lady inspector, the question is not one on which I should be prepared to offer an opinion at present.

SALE OF FOOD AND DRUGS BILL.

Mr. DILLON asked the First Lord of the Treasury when the Sale of Food

and Drugs Bill would be introduced.—Mr. Balfour: The Bill will be introduced this session, but I do not think there is much chance of its being passed into law.—Mr. Dillon: May I ask the First Lord of the Treasury whether he will endeavour to get the Bill passed this session, inasmuch as two Irish Bills have been blocked, and surely some of the time spent on those Bills might have been spent on this?—Mr. Balfour: It depends on a general survey of the business of the session. I am afraid I cannot add anything to the statement I have already made. Of course, if it should unexpectedly turn out that there is a universal enthusiasm for this Bill, it may possibly be carried.

### The Lewis Hospital and Naval Reserves.

Mr. Weir asked the First Lord of the Admiralty whether, having regard to the fact that the largest naval reserve station in the kingdom was at Stornoway, Island of Lewis, and that no provision was made for the reserve men in case of accident, would the Admiralty consider the advisability of making some contribution to the Lewis Hospital at Stornoway, seeing that it was the only hospital in the island where accident cases could be received, and was moreover maintained entirely by voluntary contributions.—Mr. Goschen: No case of injury requiring hospital treatment has occurred among Royal Naval Reserve men drilling at Stornoway since the Lewis Hospital was built. In the event of any man being hurt, and requiring hospital treatment, he would be sent to that hospital, and the usual rate of 2s. a day would be paid for his maintenance. There is no reason for making a special contribution to the hospital.

### Charges against Inspectors and Medical Officers.

Mr. Weir asked the Lord Advocate, as representing the Secretary for Scotland, whether, as in the last report of the Local Government Board for Scotland allegations of a serious nature were stated to have been made against fifteen inspectors of poor, and that the Board were called upon to investigate eight charges against medical officers, he would state in what counties the inspectors of poor and medical officers were employed.—The Lord Advocate: To supply the information requested would be an entire departure from ordinary practice, and would not, in the opinion of the Local Government Board, be to the interests of sound administration.

### The Plague and Quarantine.

Mr. Henniker Heaton: I wish to ask the Secretary to the Treasury, as representing the Postmaster General, whether he is aware that all P. and O. steamships from Australia, which take on board Bombay mails and passengers at Aden, are, in consequence of the existence of bubonic plague at Bombay, quarantined with their passengers at all the points of call, Suez, Port Said, Brindisi, Marseilles, etc.; whether he has received petitions, signed by nearly all the passengers by the P. and O. steamer *Parramatta* from Australia, strongly protesting against the present practice of taking the Bombay passengers at Aden on their clean ship, pointing out the further inconvenience they were subjected to by not being allowed to land at ports of call, entailing delay and discomfort, and also that there is a weekly service of mails from Bombay to Aden which might be extended to Brindisi, as it is now done fortnightly; whether the statement made by the petitioners is correct that the P. and O. Company is not responsible, as the terms of their mail contract compel their steamers to call at Aden; and whether the Government will take action in the matter without delay.—Mr. Hanbury: The Postmaster General understands that all P. and O. steamships from Australia which take on board passengers from Bombay at Aden are placed in quarantine at the Egyptian ports of call. At Brindisi and Marseilles he believes there is now no regular quarantine, but only a certain medical inspection which causes little delay. The petition referred to from passengers on the steamship *Parramatta* has been received. The statement that the call at Aden is compulsory under the contracts of the P. and O. Company with the Postmaster General is not quite correct. The mail steamers from Australia are not obliged to call at Aden, but the company are at liberty under the terms of the contracts to make these steamers call there and carry the mails from Bombay to Europe. A copy of the petition has been sent to the company, but as I stated in reply to a similar question on April 12th last it is not in accord with the duty of the Post Office Department to take further steps in a matter which does not directly affect the mail service.

### Vivisection.

A return has been presented, on the motion of Mr. Jesse Collings, relative to experiments on living animals.

### Infant Life Protection Bill.

This Bill, which has passed the House of Lords, has been introduced in the House of Commons, read a first time, and ordered to be printed.

## UNIVERSITIES AND COLLEGES.

### UNIVERSITY OF CAMBRIDGE.

Rede Lecture.—Professor Rücker, Rede Lecturer for the year, will discourse on Recent Researches in Terrestrial Magnetism, in the Senate House, on June 9th.

Experimental Psychology.—A new University Lectureship in Physiological and Experimental Psychology, in connection with the Board for Biology, is about to be created. The lecturer will give advanced instruction in the physiology of the senses and in psycho-physics. It is expected that the appointment will be made next month.

A Medical Vice-Chancellor.—Dr. Alex Hill, Master of Downing College, and University Lecturer in [illegible] been elected Vice-Chancellor for the next academical year.

Balfour Studentship.—Mr. Adam Sedgwick, F.R.S., has been appointed a manager of the Balfour Fund for five years.

Pathology.—During the [illegible] Dr. Braithwaite will give courses in Bacteriology for public-health students and others, in Morbid Anatomy and Histology (elementary and advanced), and in General Pathology. The courses begin on July 7th and 8th.

Honorary Degrees.—On July 17th, honorary degrees will be conferred on the Archbishop of Canterbury, Lord Lansdowne, Lord Russell of Killowen, Chief Justice Way of South Australia, the Premiers of Canada, Victoria, New Zealand, Tasmania, Western Australia, and Natal; Sir George Taubman Goldie, Sir Arthur Arnold, Sir John Kirk, F.R.S., and Sir William H. White, F.R.S.

Medical Degrees.—At the Congregation, on May 27th, the following degrees were conferred:

*M.D.*—Hugh Walsham, M.A., Caius; Noel Lockwood Hood, M.A., Downing.

*M.B. and B.C.*—L. T. R. Hutchinson, B.A., Trinity; W. McDougall, B.A., St. John's; L. T. Giles, B.A., Peterhouse; R. D. Parker, B.A., Caius; W. B. Heywood, B.A., Emmanuel.

*M.B.*—W. M. Sing, M.A., Christ's.

## MEDICO-LEGAL.

### RECOVERY OF CHARGES FOR VISITS OF UNQUALIFIED ASSISTANTS.

Violin.—The present leading authority upon the question of the right of a medical man to make a charge in respect of services rendered by an unqualified assistant is contained in the case of Howarth *v.* Brearley (*L. R.*, 19, Queen's Bench Division). In giving judgment, Lord Coleridge said: "If the qualified man had given advice, and the unqualified man had been merely the ministering hand under the directing brain of the qualified man, I should be prepared to hold that the services were those of the qualified man. I think that view consistent with common sense." We understand that in the case referred to by our correspondent, the patient was under the immediate care of the qualified man, and that the assistant (who had paid two visits only) had received express instructions to be particular to repeat the employer's treatment if at any time he was called upon by the patient to visit him, and this being so we are inclined to think that if the attention of the county court judge had been specially drawn to the case of Howarth *v.* Brearley, the items charged for the assistant's visits might not have been disallowed.

### COMPENSATION UNDER THE LANDS CLAUSES ACTS.

R. O'B.—On the facts stated by our correspondent we do not think he would have any claim for compensation for his loss of practice, the house in which such practice was carried on not having been taken; or, as would appear from the decisions, "injuriously affected" within the meaning of the Lands Clauses Consolidation and Railway Clauses Consolidation Acts. In case there might be some provision in the private Act of the railway company in question, it might be well to refer to it, and perhaps to consult a solicitor.

E. J. inquires whether anyone holding the diploma of L.R.C.P. of either London or Edinburgh, and M.R.C.S.Eng., is entitled to put "Physician and Surgeon" on his door-plate.

*** Certainly.

## NAVAL AND MILITARY MEDICAL SERVICES.

### THE NAVY.

Staff-Surgeon Henry Clerke died at Boulogne-sur-Mer on May 25th, aged 52 years. He entered the service as Surgeon, July 11th, 1868: became Staff-Surgeon, December 25th, 1879; and retired September 20th, 1881.

The following appointments have been made at the Admiralty:—John L. Aherne, Staff-Surgeon, to the *Northampton*, May 28th: Henry S. Jackson, Staff-Surgeon, to Chatham Hospital, June 8th: Standish T. O'Grady, Staff-Surgeon, to the *Cambridge*, June 8th; John L. Thomas, Staff-Surgeon, to the *Victory*, additional, for the *Duke of Wellington*, May 28th; Reginald T. A. Levinge, Surgeon, to the *Vivid*, supernumerary, June 7th; Percy V. Jackson and Francis J. Barter, M.B., Surgeons, to the *Pembroke*, supernumerary, June 7th; Mathew L. M. Vaudin, Surgeon, to Plymouth Hospital, June 8th; Bernard Renshaw, Fleet-Surgeon, to the *Pembroke*, June 8th; Francis J. Barter, M.B., Surgeon, to the *Medusa*, June 8th; Arthur W. B. Livesay, M.B., Surgeon, to the *Pembroke*, June 1st; Harold G. T. Major, Surgeon, to the *Blenheim*, June 1st.

### ARMY MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel Maurice Knox retires on retired pay, June 2nd. His commissions are thus dated: Assistant-Surgeon, March 31st, 1868; Surgeon, March 1st, 1873; Surgeon-Major, March 31st, 1880; and Brigade-Surgeon-Lieutenant-Colonel, May 2nd, 1894. He was in the Afghan war in 1878-79, was mentioned in despatches for his services, and received the medal granted for the campaign.

### INDIAN MEDICAL SERVICE.

Surgeon-Lieutenant-Colonel A. H. Williams, M.B., Bengal Establishment, Medical Officer of the Gurkha (Bengal) Infantry, is permitted to retire from the service from July 4th. He was appointed Assistant-Surgeon, March 30th, 1872, and became Surgeon-Lieutenant-Colonel twenty years later. He was in the Afghan war in 1880 (medal), and with the Burmese Expedition in 1886-87 (medal with clasp).

The services of Surgeon-Captain G. S. Thomson, M.B., Bombay Establishment, are placed at the disposal of the Government of Bombay for employment on plague duty, from February 17th.

The three additional doctors sanctioned for the Indian Medical Service will probably go out next year, a Bombay paper says. They will be appointed through Netley, and will help to relieve the strain put upon the Service by the plague. The stations for which they are nominally

appointed already have doctors, but are only kept supplied by drawing upon men who would otherwise be on furlough.

With a view to meet the large demand for medical officers for plague duty the Government of India have sanctioned the employment of retired officers, provided they can produce medical certificates showing physical fitness.

## THE VOLUNTEERS.

MR. HOWARD MARSHALL, M.B., is appointed Surgeon-Lieutenant in the 2nd Cinque Ports Artillery (Eastern Division Royal Artillery), June 2nd.

Surgeon-Captain JAMES W. H. BROWN, 2nd West Riding of Yorkshire (Leeds) Engineers, resigns his commission, and is appointed Lieutenant, June 2nd.

Surgeon-Lieutenant WILLIAM A. WETWAN, 2nd Volunteer Battalion the East Yorkshire Regiment, resigns his commission, and is appointed Second Lieutenant, June 2nd.

Surgeon-Captain J. F. ARLIDGE, 1st Volunteer Battalion the Prince of Wales's North Staffordshire Regiment, has resigned his commission, June 2nd; he retains his rank and uniform.

## EXAMINATION FOR THE MEDICAL SERVICE R.N.

THE undermentioned gentlemen, who competed on May 17th and following days at the Examination Hall, Victoria Embankment, for appointment as Surgeon in the Royal Navy, have been granted commissions:

| | Marks. | | Marks. |
|---|---|---|---|
| H. P. Turnbull ... ... ... | 2,780 | R. F. Clark ... ... ... ... | 2,174 |
| W. B. Maurice ... ... ... | 2,757 | F. C. Stearn ... ... ... | 2,173 |
| C. R. Sheward, M.B. ... ... | 2,393 | H. E. Fryer ... ... ... | 2,171 |
| S. Roach ... ... ... ... | 2,315 | A. C. Bean ... ... ... ... | 2,053 |
| E. Arkwright, M.B. ... ... | 2,311 | S. Couner, M.B. ... ... ... | 2,019 |
| E. D. J. O'Malley ... ... ... | 2,211 | R. H. Mornement ... ... | 2,016 |
| M. Breton ... ... ... ... | 2,200 | E. Folliott ... ... ... ... | 1,931 |
| W. K. Hopkins ... ... ... | 2,195 | H. Hunt ... ... ... ... | 1,797 |
| W. H. O. Garde ... ... ... | 2,183 | | |

## COURTS MARTIAL.

A COURT MARTIAL was held at Belgaum on March 11th last for the trial of Surgeon-Major M. F. Macnamara, of the Army Medical Staff. It was charged that he so negligently exercised supervision, that patients in the wards under his medical charge were in the habit of administering to themselves their doses of medicines, and themselves attending to parts of their bodies which had been "operated" upon; secondly, that between May 30th and September 21st, 1896, while he was in medical charge of Nos. 1 and 2 wards of the Station Hospital, Belgaum, he negligently conducted his duties by failing to keep the diet sheets of the patients under his charge, according to the regulations, namely, by not entering the diets in his own handwriting; and, thirdly, he, after being directed by Surgeon-Major R. H. Forman, under whose orders he was at the time, to fill in certain diet sheets which had not been kept by him up to date as they should have been, neglected to do so, and proceeded on leave on September 22nd, 1896, without having done so. The prisoner was found guilty of the first and second items, but not guilty as to the third, and was sentenced to take rank and precedence in the Army Medical Staff and in the army as if his appointment as Surgeon-Major bore date July 31st, 1893, and to be severely reprimanded.

Surgeon-Major P. J. O'Sullivan, Army Medical Staff, was arraigned at Umballa on February 10th last, charged, first, with drunkenness while on duty; and, secondly, that at Sabathu, on November 7th, he neglected to attend himself, or to provide adequate medical attendance for, a female patient in the hospital of which he was in medical charge. He was found guilty of the first but not of the second charge. He was sentenced to take rank and precedence in the Army Medical Staff and in the army as if his appointment as Surgeon-Major bore date August 5th, 1893, and to be severely reprimanded. He was subsequently released from arrest and ordered to return to his duty.

## MOBILISATION OF No. 5 FIELD HOSPITAL AT DUBLIN.

WE are very pleased to learn that, on the invitation of that great soldier Lord Roberts, a complete field hospital was lately mobilised with complete success under the command of Surgeon-Lieutenant-Colonel Greene. Such a unit provides accommodation for 100 sick or wounded, in five wards or sections of 20 each, together with all the surgical and medical appliances and material necessary for field service. Tents apparently were not pitched on this occasion, but the equipment was all systematically laid out at the Island Bridge Barracks, whether the *personnel* of the hospital had marched under the command of Surgeon-Lieutenant-Colonel Greene from the point of concentration at Arbor Hill. The *personnel* of a field hospital consists of four medical officers, one quartermaster, one warrant officer, and thirty-nine non-commissioned officers and men, besides the transport furnished by the Army Service Corps. The unpacking and entire disposition of men and equipment were within an hour ready for the inspection of Major-General Viscount Frankfort, commanding the Dublin district, who expressed his complete satisfaction with all he saw, and afterwards issued an order highly complimentary to Surgeon-Lieutenant-Colonel Greene and the officers and men under him, who organised and took part in the mobilisation. Upon this order the *Irish Times* suggestively remarks: "When the Army Medical Staff is praised, the praise must be deserved." Our own congratulations are coupled with the question: Why should such a mobilisation be so rare as to call for special comment? We put it to the Commander-in-Chief, who is as directly responsible to the nation for the efficiency of the medical as any other branch of the service: Why should not field hospitals and bearer companies be constantly mobilised, as a mere matter of drill? It is surely just as necessary for the humane success of a campaign that the forty-five officers and men of a field hospital should be accustomed to drill and act together as, say, an equal number of field artillery. We fear that, besides the notorious military neglect of the medical service, there are other obstacles to efficiency of the medical service; it is so undermanned and broken up, that it is next to impossible to mobilise the medical units for field service. The country, to its dismay, will certainly find out this on the outbreak of a great war. It is also to be hoped it will know who to blame.

## SPECIAL GRANT TO MEDICAL OFFICERS (INDIA).

THE Government of India have sanctioned the grant of a daily allowance of Rs.13 to surgeon-captains and surgeon-lieutenants temporarily attached for duty with British regiments and detachments moving in ordinary relief.

## PRIVILEGE LEAVE REFUSED TO MEDICAL OFFICERS IN INDIA.

IN consequence of the severe strain on the Medical Services to provide officers for plague and famine duty, the Government of India has decided that privilege leave cannot be granted to medical officers, except in cases in which, if not granted, leave would have to be taken on medical certificate.

## INCREASE OF ESTABLISHMENT, INDIAN MEDICAL SERVICE.

THE Secretary of State has sanctioned the proposal to add three officers to the establishment of the Indian Medical Service, to meet the requirements of certain garisons (Buxa, Kuram escort, and the Kajuri Kutch outpost), and has approved of the Madras Establishment, Indian Medical Services, being increased by one officer, as a consequence of the arrangement proposed by the Government of India, which, while withdrawing medical officers from Haka, Maymyo, and Kalemyo stations in Burmah, where they are not required, will provide officers for four other stations where their services are needed, namely, Pallaveram, Port Blair, Fatam, and Kalewa.

## THE OPERATIONS IN MATABELELAND AND MASHONALAND.

THE *London Gazette* of June 1st contains despatches on the subject of these operations from Sir Frederick Carrington, who commanded the force, and from Mr. Joseph Chamberlain, the Secretary of State for the Colonies. General Carrington brings to notice the services of some of those under his command, and emphasises the good work done by the Mounted Infantry and other detachments of Imperial troops. Mr. Chamberlain, in acknowledging the receipt of the despatch, says: "I have read with satisfaction the favourable report which Sir F. Carrington is able to give respecting the conduct of the forces under his command, and which reflects much credit on all concerned." After reciting the conduct of the operations and singling out for special commendation the names of officers to whom success was largely due, Mr. Chamberlain concludes: "It only remains for me to say that I have perused with much interest the record of those officers of the Imperial and of the local forces whom Sir F. Carrington recommends to favourable notice as having distinguished themselves by gallantry in action and by the value of their services during the operations. The list of these recommendations has been published in the *London Gazette*, and has been very carefully considered by the Secretary of State for War and by myself, with a view to submitting a certain number of the names to Her Majesty the Queen for suitable recognition."

## THE ARMY NURSING SERVICE RESERVE.

A RESERVE of fully-trained nurses has been organised to serve in time of war, and H.R.H. Princess Christian has recently distributed the badges and certificates to those who had already been enrolled on the list. It is the habit of the present day to form reserves, and the Army Nursing Service has only followed the fashion. We conclude that the authorities have reason for this action, but we also feel confident that when the need arises there will be no lack of volunteers, competent and eager, to minister to their countrymen. It will require discrimination to administer the reserve. Those nurses who are enrolled may not be free to leave their patients at a moment's notice, whilst others not enrolled, or lower down in the list, may be waiting for work.

## ARMY MEDICAL STATUS.

SURGEON-GENERAL RETIRED writes: It cannot be too strongly pressed upon those who oppose reforms in the Army Medical Service that it is not the medical officers merely, but chiefly the universities and medical schools that they are fighting. The officers cannot, indeed, by combination bring about desired reforms; it is the civil medical profession which commands the situation. It is the latter who insist that medical officers must have due army status, otherwise the army will be shunned by medical men. Forty years ago Sir Douglas Maclagan, in a speech to Edinburgh graduates, is reported to have spoken to the following effect: "I am the son, the brother, uncle, and father of medical officers in the medical service of the army; you may, therefore, imagine the interest I have in that service, and will understand what I feel when I say that it is the last service I should recommend you to enter." Many reforms have been effected since these weighty words were spoken, yet the same ridiculous caste objections against granting equality of military status to medical officers exist now as then: until these prejudices are overcome the medical profession will not remove its bar from the Army Medical Department.

The objections to granting due military status to medical officers as set forth in certain newspapers are so puerile as to lose all validity. The question of command is constantly trotted out, but the claims of medical officers have nothing to do with that, as has been stated from the beginning of the agitation. Does a military title bring command to a paymaster? Then it is said that soldierly instincts in a medical officer destroy his professional qualifications. Could any assertion be more monstrous? The soldierly appearance of men of the Medical Staff Corps was said to be an offence to the late Commander-in-Chief. What about the soldierly instincts of volunteers who belong to all professions? A late military writer in the *Globe* was actually insulting to the medical profession. Do the War Office hope by such advocacy to attract candidates to a service rapidly melting away? They surely cannot be so blind.

# PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

## HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,226 births and 3,492 deaths were registered during the week ending Saturday last, May 29th. The annual rate of mortality in these towns, which had been 16.5 and 17.2 per 1,000 in the two preceding weeks, declined to 16.6 last week. The rates in the several towns ranged from 6.9 in Croydon, 9.5 in Cardiff, 12.5 in Swansea, and 12.9 in Portsmouth to 23.2 in Gateshead, 23.6 in Bolton, 24.0 in Sheffield, and 28.6 in Salford. In the thirty-two provincial towns the mean death-rate was 17.7 per 1,000, and exceeded by 2.8 the rate recorded in London, which was only 14.9 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was equal to 1.6 per 1,000, while it averaged 1.8 in the thirty-two provincial towns, among which the highest zymotic rates were 3.2 in Manchester, 3.4 in Bolton, 4.3 in Oldham, and 6.4 in Salford. Measles caused a death-rate of 1.8 in Oldham, 1.9 in Birkenhead, 3.4 in Bolton, and 3.9 in Salford; scarlet fever of 1.0 in Huddersfield; and whooping-cough of 1.1 in Plymouth and in Halifax, and 1.2 in Manchester and in Salford. The mortality from "fever" showed no marked excess in any of the large towns. The 57 deaths from diphtheria in the thirty-three towns included 36 in London, 4 in Birmingham, 3 in Leicester, and 3 in Burnley. No fatal case of small-pox was registered during the week, either in London or in any of the thirty-two large provincial towns. There were 12 small-pox patients under treatment in the Metropolitan Asylums Hospitals on Saturday last, May 29th, against 11, 14, and 13 at the end of the three preceding weeks; no new case was admitted during the week. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had increased from 2,380 to 2,508 at the end of the four preceding weeks, had further risen to 2,546 on Saturday last; 278 new cases were admitted during the week, against 231, 239, and 311 in the three preceding weeks.

## HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, May 29th, 992 births and 648 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 20.7 to 22.3 per 1,000 in the three preceding weeks, declined to 21.7 last week, but was 5.1 per 1,000 above the mean rate during the same period in the thirty-three large English towns. The lowest rates in the eight Scotch towns were 10.2 in Perth and 18.9 in Paisley, and the highest rates 26.9 in Edinburgh and 30.4 in Leith. The zymotic death-rate in these towns averaged 3.1 per 1,000, the highest rates being recorded in Edinburgh and Leith. The 278 deaths registered last week in Glasgow included 4 from measles, 3 from diphtheria, 18 from whooping-cough, 4 from "fever," and 6 from diarrhœa. Sixteen fatal cases of measles, 2 of diphtheria, and 9 of whooping-cough were recorded in Edinburgh; and 3 deaths from measles and 5 from whooping-cough in Leith.

## ANNUAL REPORT OF THE METROPOLITAN ASYLUMS BOARD.

THE annual report of the Metropolitan Asylums Board shows the large amount of work which has been done by its several committees during the past year.

Notwithstanding the opening of the Brook Hospital, by which nearly 500 beds were placed at the disposal of the managers, the number of cases of scarlet fever and diphtheria was so great during the summer and autumn that they were compelled to limit the admissions to those cases which, by reason of their surroundings and conditions of life, had the first claim upon hospital treatment.

Every endeavour, however, was made to receive as many cases as possible into the Board's hospitals, as is shown by the fact that the certified normal accommodation was during many months largely exceeded, there being at one time nearly 1,100 more patients warded than the normal number of beds, the extra accommodation being obtained by placing more beds in the wards of the fever hospitals, and by opening and appropriating for fever and diphtheria patients the Upper Hospital at Gore Farm, originally intended for convalescent small-pox patients.

In regard to small-pox, no serious demands were at any time of the year made upon the accommodation provided, the total number of cases admitted during 1896 being only 225, against 1,020 in 1895. The total number of cases of all kinds admitted to the hospitals of the Board amounted to 21,289. The mortality was as follows in the several diseases dealt with: Scarlet fever, 4.2 per cent.; typhoid fever, 15.8 per cent.; typhus, 25.0 per cent.; diphtheria, 21.2 per cent.; and small-pox 4.0 per cent.; 22,152 cases of fever and diphtheria were removed from their homes to the Board's hospitals during the year, being nearly 4,000 more than in any previous year.

From January 1st, 1896, the arrangements which had been in force with the Royal Colleges of Physicians and Surgeons for the bacteriological investigation of the cases of diphtheria in the Board's hospitals, have been discontinued, and the medical superintendents are now held responsible for such investigations as may be thought desirable; the services of Dr. Sims Woodhead being at the same time retained for consultation where the medical superintendents deem it expedient to obtain the opinion of an expert in bacteriology. During the year, 312 students have attended classes at the Board's fever hospitals where instruction is now given, and it has been decided to apply the surplus arising from the fees paid by students to the provision of special teaching appliances and accommodation.

In view of the fact that the buildings now in course of erection, and those the plans for which are now awaiting the sanction of the Local Government Board, will involve the outlay of over £1,000,000, the managers have appointed a Works Committee to consider all proposals for building works which may be presented to them from time to time.

The total accommodation in the institutions under the Board is as follows: For imbeciles, 6,097; fever patients, 5,112; small-pox patients, 1,492; training ship for boys, 600. The total expenditure for 1896 amounted to £666,453 19s. 4d.

## THE POWERS OF THE RELIEVING OFFICER IN REFERENCE TO MEDICAL EXTRAS.

WE see from the *Launceston Weekly News* that the old question has cropped up before the Camelford (Cornwall) Board of Guardians, as to whether a relieving officer is compelled to supply all extras ordered by a district medical officer. This is a matter which has frequently been brought under notice, and we are by no means sure that the present system is as faulty as it is sometimes supposed to be. It is well that district medical officers should understand that they have only the power to recommend any supply of extras, and that the relieving officer is not compelled to act on their recommendation in reference to such extras. If he declines to provide them he of course does so at some risk, and a coroner's jury might make him feel this. We believe it is quite the exception for extras recommended by district medical officers not to be given, but as long as the Poor Law Board permit relieving officers to have a discretionary power on this point, some cases of refusal will occasionally crop up. It should be borne in mind that as long as medical officers have not the absolute power to order extras, less responsibility must rest on them, and cases have occurred in which, at a public inquiry, this has been a point on the side of the medical officers. If all district medical officers had the power to order medical extras in any or every case, without any limit whatever, they might often be placed in very invidious positions.

## HOSPITAL TREATMENT OF SCARLET FEVER.

BIRMINGHAM has during recent years passed through a severe epidemic wave of scarlet fever, of which the crest seems to have been reached in 1896. In the five years during which the city has been of its present extended limits the notified cases of the disease have grown annually, having been 1,418, 1,614, 1,788, 2,964, and last year 3,389. The deaths last year numbered 154, against an average of 88 in the previous five years. The case mortality last year was 4.5 per cent. Nearly 1,000 cases occurred in children aged from 1 to 5 years, with a case mortality of 10.2 per cent.; in the succeeding ten years of life the case mortality fell to 2.2, and to 1.4 in the period 15 to 25 years; 3,261 cases and 148 deaths occurring in persons under the latter age. In four succeeding groups of years the case mortality from scarlet fever in Birmingham, as judged by the city hospital data, has been during 1875-78 as high as 14.6 per cent., falling to 10.6 in the next five years 1879-83, further falling to 6.2 in the period 1884-90, whilst during 1891-96 the rate was only 4.4 per cent. Dr. Hill attributes this continuous fall in the case rate of fatality to the extended use which has been made of the isolation hospital, the percentage of total cases occurring in the several groups of years named above removed to hospital having been 10, 25, 70, and 85 respectively. All having been treated in hospital, Dr. Hill thinks difference of treatment may be set aside; and he opines that, since so large a proportion of cases has of late been isolated, the smaller amount of infectious material present in the localities whence the cases have been taken to hospital has been marked by a lessened fatality rate as a consequence. Dr. Hill says, in support of his thesis, that the case mortality in the city was highest in the years of the several epidemics in which the disease was most prevalent, and when presumably the germs were most abundant. Whilst, therefore, feeling that he cannot assert any very definite opinion on the matter, Dr. Hill still finds himself leaning strongly to the view that extensive use of hospitals in the case of scarlet fever leads to reduced malignancy of type.

## POOR-LAW MEDICAL OFFICERS SUPERANNUATION AMENDMENT BILL.

E. D. writes to ask whether this Bill, if passed, will have a retrospective effect?

*** It is intended that this Bill shall have the retrospective effect which our correspondent appears to desire.

# INDIA AND THE COLONIES.

## CAPE COLONY.

LUNACY LEGISLATION.—Dr. T. Duncan Greenlees, the Medical Superintendent of the Grahamstown Asylum, brought this subject forward at the Fourth South African Medical Congress in December last, and gave an interesting account of lunacy legislation in the colony. The first attempt to bring the insane under legal cognisance was as recently as 1879, and was naturally of a vague and inefficient nature, tending to delay in treatment, and rendering it necessary to treat the patient as a criminal and send him to gaol. The next Act was promulgated in 1892, and although an improvement in some respects, still hampered the early treatment of the patient, and surrounded his admission into an asylum with an exasperating amount of red tape. One extraordinary feature is that there is nothing to prevent a magistrate issuing an order for the detention of a lunatic on medical certificates of a very ancient date, so that it is possible for a person to be ordered into an asylum years after an attack of insanity, and that if the medical superintendent finds a person on admission is not insane he has no power to discharge him. Dr. Greenlees also called attention to the inadequate provision provided in the colony for dealing with habitual drunkards, and as the result of his communication to the congress and the discussion which followed, the following resolutions were passed and forwarded to the various Governments of South Africa: "1. That greater facilities be allowed in the Lunacy Acts for the early admission to asylums of ordinary cases of insanity. 2. That, in the opinion of this congress, homes for inebriates should be provided and maintained by the State for the compulsory detention and treatment of such cases

# MEDICAL NEWS.

FIFTY-SEVEN fresh medical men applied for registration and licence in South Africa last year. If this rate continues the profession will soon be as overstocked there as in England.

DR. ANDRÉ CHANTEMESSE has been appointed to the Chair of Experimental and Comparative Pathology in the Medical Faculty of the University of Paris.

H.R.H. PRINCESS LOUISE, Marchioness of Lorne, has graciously promised to open, some time in July, the Convalescent Home at Cranbrook, Kent, given by Mr. Passmore Edwards to the Metropolitan Hospital, N.E.

DR. ANDREW JOLLY, of Liverpool, was recently found dead in bed in Dublin, where he was on a visit to his brother, and at the inquest it appeared that death was due to an overdose of laudanum, which the deceased was in the habit of taking to relieve rheumatism.

THE Hospital Reform Association proposes to hold a dinner in London on July 26th, the day before the annual business meeting of the British Medical Association. After dinner, discussion will take place on hospital reform and medical defence. The secretary of the Association, Mr. Garrett Horder, 10, Windsor Place, Cardiff, asks us to state that he will be glad to hear from gentlemen willing to take part in the discussion. This Association intends to hold a meeting in Bristol on June 16th, at 4 P.M., under the presidency of Dr. Markham Skerritt.

The Honorary Librarian informs us that the library of the Medical Faculty of the McGill University, Montreal, has been in correspondence with him, desiring a grant of duplicates from the library of the British Medical Association. A list was accordingly sent them by desire of the Library Committee, from which they have made a selection of about a hundred volumes, which will at once be forwarded. In making grants of this kind, the library of the British Medical Association has, in many instances, fulfilled a very useful and agreeable function.

THE deaths due to poisons and poisonous vapours numbered 598 in 1895, including 389 males and 209 females. Of the former, 116 succumbed to the effects of lead poisoning; opium, laudanum, and morphine accounted for 63; chloroform, 43; carbolic acid, 11; chlorodyne, 9; chloral, 8; and belladonna, 7; no other poison being responsible for more than 5 deaths. Amongst women, opium, laudanum, and morphine are credited with 40 deaths; lead, 27; chloroform, 25; carbolic acid, 23; ammonia, 6; and others for smaller numbers.

THE ROCHDALE INFIRMARY.—The trustees of the late Mr. James Holden, of Marland, Rochdale, have presented to the Rochdale Infirmary £18,000 in commemoration of the Diamond Jubilee. The intention of the trustees is to endow a wing lately added to the building, which is to bear the name of the Holden wing. It will contain twelve beds for men, the cost of endowing which is £1,000 each, and twelve cots for children at £500 each. Two of the beds for men are to be reserved for patients from the Castleton Urban Council District, in which the late Mr. Holden resided. Other subscriptions have raised this sum to nearly £23,000. It is hoped to raise £30,000 for the infirmary extension.

INTERNATIONAL CONGRESS OF FORENSIC MEDICINE.—An International Congress of Forensic Medicine will be held at Brussels from August 2nd to 7th. The following are the questions proposed for discussion: (1) The internal factors of the putrefaction of corpses; (2) the place and duties of the medical jurist in expert evidence as to accidents caused by tainted meat; (3) the toxicology of acetylene; (4) poisoning by carbonic oxide; (5) criminal lunatics and asylum houses; (6) doctors and professional secrecy in the law courts; (7) the lung test and the determination of life after birth; (8) the medico-legal significance of subserous ecchymoses; (9) responsibility, particularly partial responsibility; (10) hypnotism in relation to criminality.

AUSTRALIAN HOME FOR CONSUMPTIVES.—At a great public meeting, held recently in Sydney, it was resolved to celebrate the Queen's reign by the erection of a home for consumptives. We learn from a *Times* telegram that Lord Hampden, Governor of New South Wales, in moving the resolution declaring the desirability of erecting such a home, said that it was a cruel fact that consumptives were sent to the Australian colonies too often merely to die; such a practice was not only cruel to the patients but involved great danger to the colonists. He urged that regulations should be made in regard to the admission of pauper phthisical patients, and that the Colonial Government should take steps to bring to the notice of the medical profession in Great Britain the class of cases likely to benefit by residence in Australia. He further recommended that patients should be admitted only on payment. The sum of £3,000 was collected at the meeting.

THE annual meeting of the Western Branch No. 1 of the London and Counties Medical Protection Society was held on May 27th at Sutherland House, Hammersmith, under the presidency of Dr. Alderson. Dr. Heron, the treasurer of the Society, said that it was a matter for congratulation that during the past year it had not been necessary to take any important legal proceedings. A very large amount of useful business, however, had been done, the chief burden of which fell upon the two secretaries of the Society, but especially upon Dr. Woods. Dr. Heron said it would be a matter for consideration whether the Society should not pay these gentlemen substantial honoraria. In referring to the question of hospital abuse, he expressed the opinion that the remedy was to a large extent in the hands of the medical profession itself. While recognising that the work of medical defence would best be carried out by one Society, he had not yet seen any scheme which seemed likely to attain this end in the near future. After some remarks from the Chairman, Mr. Nelson Hardy, Dr. Dickinson, and others, the meeting concluded with a vote of thanks to the Chairman.

ST. GEORGE'S HOSPITAL GRAPHIC SOCIETY.—The annual meeting of this Society was held on June 1st at 2.30 P.M. Dr. J. W. Ogle was in the chair, and after the usual business had been disposed of the Chairman declared the exhibition open until June 5th. The exhibition is composed of contributions from the students present and past of the hospital, among whom some members of the staff are conspicuous. The subject matter is both natural and morbid, but the pathological exhibits are less numerous than in past years. Mr. Dent has provided some excellent photographs of surgical patients, and there are some remarkable skiagraphs from a case of mollities ossium. The general part of the exhibition was in the Board Room, and had been tastefully arranged by the Honorary Secretary, Dr. C. Slater, whose own delicate water colours form an attractive feature. Messrs. G. J. and H. Spitta's photographs of the Matterhorn are most beautifully executed, and the enlargement does them the highest credit. Mr. Dent's Alpine photographs are always a striking feature of these exhibitions; he has also contributed some admirable portrait photographs, among which is a speaking likeness of the lecturer on surgery (Mr. Pick) which recalls the well known picture of Sir J. Paget in St. Bartholomew's Hospital. There are some artistic photographs by Messrs. Rooth, Barwell and Mercer, while Dr. Dakin, Dr. G. F. Blandford, Dr. W. Davis, Mr. A. H. Ward (water colours), Dr. Drewett (water colours and pencil) are well represented. Mr. E. A. Wilson's pencil sketches are particularly attractive, and show considerable power. Some curious rubbings from brasses are from the hand of Mr. E. S. Peck. The attractions of the exhibition are further enhanced by evening lantern demonstrations during the week.

## MEDICAL VACANCIES.

The following vacancies are announced:

ANCOATS HOSPITAL, Manchester.—Resident Junior House-Surgeon. Salary, £50 per annum with board and washing. Applications to Alexander Forrest, Secretary.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL.—House-Surgeon. Appointment for six months. Board, lodging, and washing provided. Applications to the Honorary Secretary of the Medical Committee by June 10th.

BUCKINGHAMSHIRE GENERAL INFIRMARY, Aylesbury.—Resident Surgeon and Apothecary, doubly qualified. Salary, £80 for the first year, with an advance of £10 per annum up to £100, with board and lodging, washing, coals and candles, in furnished apartments. Applications to Mr. George Fell, Solicitor, Aylesbury, by July 5th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST Victoria Park, E.—House-Physician. Appointment for six months. Board and residence provided, and salary at the rate of £30 per annum. Applications to the Secretary by June 10th.

CONSUMPTIVE HOSPITAL AND ORPHAN HOMES OF SCOTLAND, Bridge of Weir.—Resident Medical Officer; hospital experience and knowledge of bacteriology required. Salary, £80 per annum, with furnished apartments, board, etc. Applications to the Secretary, D. Hill Jack, 104, St. Vincent Street, Glasgow, by July 1st.

CORPORATION OF MANCHESTER: MONSALL FEVER HOSPITAL.—First and Second Medical Assistants; fully qualified. Salary, £150 and £100 per annum respectively with board and lodging. Applications, endorsed "Appointment of First or Second Medical Assistants," to be sent to the Chairman of the Sanitary Committee, Public Health Office, Town Hall, Manchester, by June 18th.

DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester Square.—Demonstrator. Honorarium, £50 per annum. Also Medical Tutor. Salary, £40 per annum. Applications to Morton Smale, Dean, by June 21st.

DERBYSHIRE ROYAL INFIRMARY, Derby.—Assistant House-Surgeon. Appointment for six months. Honorarium of £10 will be given after satisfactory service, and board, residence, and washing provided. Applications to Walter G. Carnt, Secretary, by June 19th.

DEVON COUNTY ASYLUM.—Assistant Medical Officer; unmarried, Salary, £120 per annum, with board, lodging, and washing. Applications to Arthur E. Ward, Clerk to the Visitors, 9, Bedford Circus, Exeter, by June 7th.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Glamis Road, Shadwell, E.—House-Physician. Board-residence, etc., provided, and an honorarium of £15 15s. on completion of six months' approved service. Applications to Thomas Hayes, Secretary, by June 12th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Applications to the Secretary by June 30th.

LEITH PUBLIC HEALTH FEVER HOSPITAL.—Resident Physician. Appointment for six months. Salary, £1 a week. Applications to Dr. W. L. Mackenzie, Medical Officer of Health, Leith.

MERCER'S HOSPITAL, Dublin.—Vacancies on the Surgical and Medical Staff. Applications to the Registrar at the Hospital by June 18th.

METROPOLITAN ASYLUMS BOARD.—Dispenser at the Park Fever Hospital, Hither Green, Lewisham, S.E. Salary, 35s. per week, with dinner daily. Must be qualified under the Pharmacy Act, and not exceed 40 years of age. Applications on forms to be obtained at the offices of the Board, Norfolk House, Norfolk Street, Strand, where they must be sent in by June 12th.

NATIONAL SANATORIUM FOR CONSUMPTION AND DISEASES OF THE CHEST, Bournemouth.—Resident Medical Officer; must have a knowledge of bacteriological work. Salary, £80 per annum, with board, lodging, and washing. Applications to the Secretary by July 15th.

NOBLE'S ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY, Douglas, Isle of Man.—Resident House-Surgeon; unmarried; doubly qualified. Salary, £90 per annum, with apartments, gas, coals, and washing. The House-Surgeon is usually appointed by the Committee of the House of Industry as Medical Attendant to that institution at a salary of £10 a year. Applications to F. B. Fleming, Honorary Secretary, 25, Athol Street, Douglas, Isle of Man, by June 21st.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—House-Physician, doubly qualified, for six months, at expiration of which period will be eligible to serve as House-Surgeon for a similar period. Salary as former at the rate of £60 per annum, as the latter (senior post) at the rate of £80 per annum; also Junior House-Physician for six months, doubly qualified. No salary, board, lodging, and washing provided. Applications to T. Glenton-Kerr, Secretary, by June 16th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—Surgeon; must be F.R.C.S.Eng. Applications to the Secretary at the Office, 27, Clement's Lane, E.C., by June 15th.

PARISH COUNCIL OF DELTING, Shetland.—Medical Officer. Salary. £60 per annum. Applications to Mr. Robert Robertson, Inspector of Poor of Delting, Vae, Shetland, by June 15th.

QUEEN'S HOSPITAL, Birmingham.—Honorary Physician. Applications to the Secretary of the Hospital by June 23rd.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—House-Physician. Appointment for six months. Salary at the rate of £40 per annum, with board, lodging, and washing. Applications to the Secretary by June 22nd.

ROYAL VICTORIA HOSPITAL, Bournemouth.—Ophthalmic Surgeon; must be F.R.C.S., or take the Fellowship within a year. Applications to the Chairman by June 15th.

ST. PETER'S HOSPITAL, Henrietta Street, Covent Garden, W.C.—House-Surgeon, duly qualified, who has held similar position in a general hospital. Appointment for six months, at the expiration of which will be eligible for re-election for a further term of six months, subject to the approval of the medical staff. Salary at the rate of £100 per annum, with board, lodging and washing. Applications to Irwin H. Beattie, Secretary, by June 10th.

SOMERSET AND BATH LUNATIC ASYLUM, Wells, Somerset.—Junior Assistant Medical Officer; unmarried, and under 30 years of age. Salary, £110, rising to £130 per annum, with board, lodging, washing, and attendance. Applications to Dr. Wade, Medical Superintendent.

SUFFOLK COUNTY ASYLUM, Melton.—Locum tenens; fully qualified: for six weeks. Salary, £2 2s. a week, with board, lodging, and washing. Applications to the Medical Superintendent.

TOTTENHAM HOSPITAL, The Green, South Tottenham.—Resident Junior House-Surgeon; doubly qualified.. Salary, £40 per annum, with residence, board, and washing. Applications to Colonel E. S. Skinner, Director, by June 15th.

WARNEFORD LUNATIC ASYLUM.—Medical Superintendent and Secretary. Salary, £500 a year, with furnished house, coals, gas, garden produce, milk, laundry, and keep for one horse. Applications to the Secretary by June 10th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointments for six months. Board and lodging provided. Applications to R. J. Gilbert, Secretary-Superintendent, by June 23rd.

## MEDICAL APPOINTMENTS.

ARMSTRONG, William, L.R.C.P., L.R.C.S.Edin., L.S.A.Lond., appointed District Medical Officer and Public Vaccinator for the Boldon and Whitburn Districts of the South Shields Union.

ARNOLD, E. G. Emerson, M.B., appointed Clinical Assistant to the Chelsea Hospital for Women, Fulham Road.

AULD, Archibald, M.B., C.M.Glasg., appointed Medical Officer for the Snaith District of the Goole Union, *vice* Thomas Perkins, M.R.C.S. Eng.

BEATTIE, Robert, M.D.R.U.I., reappointed Medical Officer of Health for Soothill Upper.

BELBIN, H. Ashley, L.S.A., appointed Junior House-Surgeon to the Guest Hospital, Dudley.

COLEMAN, J. G. B., appointed Medical Officer of Health to the Sutton Bridge Urban Sanitary District; also District Medical Officer, Holbeck Union, *vice* R. Henslowe Wellington, resigned.

CRANSTOUN, C. B., M.B.Durh., M.R.C.S., appointed Medical Officer of Health to the Ludlow Town Council, *vice* W. N. Thursfield, M.D.Edin resigned.

EARLE, H. M., M.R.C.S., L.R.C.P., appointed Clinical Assistant to the Chelsea Hospital for Women, Fulham Road.

EVERS, C. J., M.D.Durh., appointed Medical Officer of Health to the Faversham Urban and Port Sanitary Authorities.

FLANAGAN, G. B. N., L.R.C.P., L.R.C.S.I., appointed Medical Officer and Public Vaccinator for the No. 6 District of the East Grinstead Union, *vice* J. Magrath, M.D.R.U.I., deceased.

GOLDING —, appointed Medical Officer for the Headford District.

GRIMSDALE, T. B., B.A., M.B.Cantab., M.R.C.S.Eng., appointed Honorary Surgeon to the Hospital for Women, Liverpool.

HUGHES, W. Lewis, M.R.C.S.Eng., L.S.A., appointed Consulting Surgeon to the Carmarthenshire Infirmary.

IVES, W. R. Y., jun., L.R.C.P.Lond., L.S.A., appointed Medical Officer for the Portswood District of the South Stoneham Union.

LLOYD, Jordan, M.S., F.R.C.S., appointed Honorary Consulting Surgeon to the West Bromwich District Hospital, *vice* Oliver Pemberton, F.R.C.S., deceased.

MURRAY, Dr., appointed Medical Officer and Public Vaccinator for the Carlton and Drax Districts of the Selby Union, *vice* T. Perkins, M.R.C.S.

NICHOLSON, Dr., appointed Medical Officer for the Bolton and Thurnscoe District of the Doncaster Union.

O'NEILL, Jeremiah, M.B.I., appointed Medical Officer to the Workhouse of the Athy Union.

PARKHURST, R., M.B., M.S Edin., appointed Medical Officer of Health for Long Sutton, *vice* J. G. Dunlop, M.B., C.M.Glasg., resigned.

PARRY, Dr., appointed Surgeon to the Carmarthenshire Infirmary, *vice* W. Lewis Hughes, M.R.C.S.Eng., resigned.

POWNE, Leslie, M.R.C.S.Eng., L.S.A., reappointed Medical Officer for the Newton St. Cyres and Shobrooke District of the Crediton Union.

SANKEY, Julius Ottaway, M.R.C.S., appointed Consulting Surgeon to the Littlemore County Asylum, Oxford, *vice* E. L. Hussey, F.R.C.S., resigned.

SCOTT, Dr. Hugh, reappointed Medical Officer for the Combined Districts of East Sussex, *vice* E. F. Fussell, M.B.Aberd., M.R.C.P.Lond.

SKINNER, R. A., M.R.C.S.Eng., L.R.C.P.I., appointed Medical Officer for the Tenterden District and the Workhouse of the Tenterden Union, *vice* J. H. Newington, M.R.C.S.Eng., resigned.

SNELL, Ernest Hugh, M.D., B.Sc.Lond., D.P.H.Camb., appointed Medical Officer of Health for Coventry, *vice* M. Fenton, M.D., deceased.

STONEY, Florence, M.B.Lond., appointed House-Surgeon to the Victoria Hospital for Children, Hull, *vice* Miss M. Jones, M.D.Lond., resigned.

SWEETEN, Benjamin, M.B.Edin., appointed Medical Officer for the Mexborough District of the Doncaster Union.

TUBB, Thomas J., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health for the Combined Districts in Leicestershire, Warwickshire, and Rutlandshire.

WHITAKER, Edmund T., M.B., C.M.Edin., D.P.H.Camb., appointed Medical Officer of Health to the Burford, Cleobury Mortimer, Rock, and Tenbury Rural District Councils.

CARTWRIGHT, J. A. T., M.R.C.S.Eng., L.S.A., L.M.Lond., reappointed Medical Officer of Health to the Wigmore Rural District Council.

WEDGWOOD, W. B., L.R.C.P.Lond., M.R.C.S.Eng., L.S.A., appointed Physician to the West Norfolk and King's Lynn Hospital.

WILLIAMS, Egerton H., M.R.C.S.Eng., L.R.C.P.Lond., D.P.H.Cantab., appointed Assistant Medical Officer to the Eastern Fever Hospital, Homerton, of the Metropolitan Asylums Board.

WEBSTER, Dr. J. Clarence, appointed Demonstrator of Gynæcology in McGill University, Montreal.

## DIARY FOR NEXT WEEK.

### TUESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 4.30 P.M.—Dr. Abraham: Pityriasis Rosea.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Dr. Tooth: Clinical Demonstration.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W. 8.30 P.M.—Dr. W. Howship Dickinson: On the Occurrence of Musical Mitral Murmurs in connection with Aortic Stenosis. Dr. Sidney Phillips: A case of Calcareous Metamorphosis of Tracheal Glands; formation of Mediastinal Abscess and Bronchial Fistula; subsequent Perforation of the Arch of the Aorta, with long-continued Hæmoptysis and Death.

### WEDNESDAY.

LONDON POST-GRADUATE COURSE, Parkes Museum, 74A, Margaret Street, W., 4.30 P.M.—Professor Wynter Blyth: Air, Cubic Space, etc.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W., 4 P.M.—Dr. Habershon: Fibroid Disease of the Lungs.

THE CLINICAL MUSEUM, 211, Great Portland Street, 4 P.M.—Demonstration by Mr. Jonathan Hutchinson.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M —Dr. Mansell Moullin: Gynæcological Cases.

LARYNGOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 5 P.M.—Cases and specimens will be shown by Mr. W. G. Spencer, Mr. R. Lake, Dr. E. Law, Dr. Bond, Dr. W. Jobson Horne, and Dr. StClair Thomson.

### THURSDAY.

LONDON POST-GRADUATE COURSE, Cleveland Street Sick Asylum, 5.30 P.M. —Dr. Stephen Mackenzie: Clinical Lecture.

BRITISH GYNÆCOLOGICAL SOCIETY, 20, Hanover Square, W., 8.30 P.M.—Specimens will be exhibited by Dr. Macnaughton Jones and Dr. Hodgson. Papers: Dr. R. P. Smith: A case of Puerperal Peritonitis treated with the Antistreptococcus Serum. Dr. Meek: Two cases of Advanced Carcinoma of the Cervix Uteri treated by Curettage and Chloride of Zinc Paste.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, Cavendish Square, W.—Card Specimens at 8 P.M. by Mr. J. R Lunn and Mr. Marshall. Papers at 8.30 P.M.: Dr. Argyll Robertson: Note on the Further History of a case of Filaria Loa. Mr. F. R. Cross: Some cases of Sympathetic Ophthalmitis. Mr. S. Snell: (1) Electrolysis in Trachoma; (2) Tumour of Orbit extending to Cranial Cavity. Mr. Bickerton: Cases of Spontaneous Dislocation of Lens into Anterior Chamber. Dr. Edridge-Green: The Varieties and Degrees of Colour Blindness.

### FRIDAY.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, W.C., 3 to 5 P.M.—Professor Crookshank: Typhoid Fever and Diphtheria, etc.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Dr. Beevor: Examination of Muscles.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 8s 6d, which sum should be forwarded in post-office order and stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.*

### BIRTHS.

VAN DER PANT.—On May 21st, at 46, Seymour Street, Portman Square, W., the wife of Francis H. Van der Pant, L.D.S.R.C.S.Eng., of a daughter.

WILKINSON.—On May 16th, at 17, Harcourt Road, Sheffield, the wife of George Wilkinson, M.B., F.R.C.S., of a daughter.

CLARK.—On May 22nd, at Sandgate, Kent, the wife of Surgeon-Captain S. F. Clark, Army Medical Staff, of a son.

### MARRIAGES.

ELLIOTT—SACRÉ.—On May 12th, at St. Anne's-on-the-Sea, by the Rev. Arthur J. Sacré, Rector of East Hanningfield, Essex, uncle of the bride, assisted by the Rev. W. G. Terry, M.A., Vicar of St. Anne's, and the Rev. C. H. Ellison, B.A., Assistant Curate, Arthur Campbell Elliott, M.B., C.M.Edin., of St. Anne's-on-the-Sea, eldest son of Thomas Elliott, Esq., C.M.G., of Ealing, late of Mauritius, to Alice Beatrice Sacré, eldest daughter of the late C. R. A. Sacré, Esq., M.E., and granddaughter of the late Charles Sacré, Esq., C.E., of Manchester

### DEATHS.

SMITH.—May 28th, at 16, Victoria Square, Clifton, Bristol, James Greig Smith, M.A., M.B., C.M., aged 42 years.

WESTON.—On May 26th, at Chetwynd House, Stafford, Edward Francis Weston, M.R.C.S., aged 62 years.

HAYDON.—May 26th, at his residence, 25, St. Peter Street, Tiverton, Devon, William Rudall Haydon, M.D., aged 52. Canadian, American, and New Zealand papers please copy

CAMPBELL.—At Duns, N.B., on Friday, May 21st, William Watson Campbell, M.D., F.R.C.P.E., in his 63rd year.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

H. A. P., who is about to enter the volunteer service as a surgeon, desires to know what books he would require to read for the examination.

A MEMBER desires to hear of some place or places on the Continent where there is a good clinic on the ear, where he could profitably spend a few weeks' holidays towards the end of June, July, or August.

J.W.W. asks for suggestions to combat sleeplessness in high altitudes without giving chloral or opiates. The sleeplessness does not pass off after some days, but continues during the whole term of residence.

A.S-W. desires information as to an institution to which a backward "incorrigible" boy, aged 10, could be sent. Parents of the lower middle class; could only afford a small sum for maintenance.

PERPLEXED has a lady patient, who, after suffering much from neuralgia of the head, now has a narrow patch of white hair in place of the natural colour (dark brown). He wishes to hear of a harmless but effectual dye to give the white hair the dark-brown colour.

OBSTINATE VOMITING.

TYRO has a patient, a girl aged 22 years, who has vomited food, drink, and medicine of any description for the past two months, attributed to a fright about two months ago. She always had a tendency to be a little simple minded, but is otherwise healthy. He is now giving nutrient enemata, but, if there is soon no change for the better, she cannot hold out long, so he would feel extremely grateful for any advice in treatment. Would washing out the stomach be of any use? or is it a nervous disorder?

HORSE AND STABLE.

LEX would like to know the best books on horses and stable management which would be found useful for a practitioner. Also the name of a reliable horse and carriage insurance company.

*** *Horses and Stables*, by Sir F. W. FitzWygram, Bart., F.R.C.V.S. (London: Longmans, Green and Co.), will probably answer our correspondent's purpose. For insurance of horses and carriages we have heard very highly spoken of the Imperial Liv Stock Insurance Association Limited, Pall Mall East, S.W.: The Carriage Insurance Company Limited, 17, Pall Mall East, S.W.

NURSES FOR TYPHOID FEVER.

PHYSICIAN writes: I am obliged by your answer to my question as to whether a district nurse can attend on cases of typhoid fever without risk to her other cases. You say she can do so "if she is scrupulous in carrying out the rules given her for disinfection." May I ask what these rules ought to be?

*** The following rules would probably answer the purpose:

1. In nursing cases of typhoid or similar diseases, remove, and if possible leave behind in the patient's house, the apron you have been wearing before going to another patient.

2. Wash your hands and arms, and clean nails, with disinfectant.

3. Cloak or other outside garment to be left outside the patient's room where possible.

4. Brush clothing well before leaving the sick room.

N.B.—It is taken for granted that the nurse is suitably clothed in short washing dress, is wearing a large apron covering front and sides of dress, and that she wears her bonnet whilst at work.

THE SUMMER CLIMATE OF MONTREAL.

COUNTRY DOCTOR would be glad if some member having experience of the climate of Canada in August-September would give advice as to the the most suitable clothing for members going to the Montreal meeting to provide themselves with, more particularly as to the weight of underclothing, and the need or otherwise of taking a macintosh or heavy overcoat.

*** We have referred this question to Professor Adami, one of the local secretaries of the annual meeting in Montreal, at present in this country, who writes as follows: "Country Doctor" will find a note upon this subject of suitable clothing in the "Preliminary Programme" issued from Montreal, and forwarded to every member of the Associa- in the British Isles (p. 31). I can only repeat that the summer climate of Montreal is distinctly warm, and that light and not heavy clothing and underclothing is to be recommended. The weather in Lower Canada is much more settled than in the old country. It frequently happens that the last ten days of August tend to cooler and showery, with an overcast sky (about English August temperature), and that during the first week in September the weather is most pleasant, with bright sky and an agreeable summer heat. Later, about the second week in September, there is very frequently a period of considerable heat, the thermometer ranging between 80° and 95°. For the voyage (if by the St. Lawrence route) a warm overcoat and a rug or wrap is to be recommended, and the same will be found useful if the member visits Banff and the "Rockies."

## ANSWERS.

ARGUS and S.A.—From inquiries which we have made it would appear that the cards to which our correspondents take exception were forwarded in error to certain practitioners, and that steps have been taken to prevent the repetition of this error.

BON ZIG.—As the alleged "cure" is secret, and as it is widely advertised in the general press in the same style as many recognised quack remedies, we do not think that a medical man is justified in recommending it.

PUBLIC HEALTH DIPLOMAS.

IN our reply to "G. F. O." we omitted to mention among the works on bacteriology Dr. J. W. Moore's *Meteorology: Practical and Applied*, an excellent work, published by Rebman, 8s. Notter and Firth's *Theory and Practice of Hygiene* (Churchill, 24s.) should also have been mentioned as the most modern textbook on the subject.

VACCINATION IN CHRONIC SKIN DISEASES.

DR. YORK MOORE (Stony Hill, Jamaica) writes: In the BRITISH MEDICAL JOURNAL of March 27th, p. 804, there appeared a short note under this title. In connection with this it may be interesting to note some cases which occurred in my practice a few years ago: Two children, both badly affected by yaws, were attacked with small-pox of moderate severity during the epidemics of 1886-87, when they first came under my notice; they were not specially treated for yaws, nor is it likely they ever had been; by the time they had recovered from small-pox the yaws was also cured. A most obstinate case of yaws in a boy, who had been under treatment for very many months, and appeared to be incurable, was attacked by measles; when he had recovered from this disease the yaws was found to be quite cured, and did not recur whilst under my notice.

## NOTES, LETTERS, Etc.

THE friends of the late Mr. Lucas may be glad to know that his widow, who has been sorely tried and much needs assistance, has taken a house at Upper Clapton in which she will be glad to receive three or four patients (not mental or infectious). Communications may be addressed to Mrs. A. H. Lucas, 3, Stamford Grove West, Upper Clapton, N.E.

MEDICAL READERS IN THE BRITISH MUSEUM.

DR. LEWIS LEWIS (Plymouth) writes: Medical visitors to the British Museum Reading Room are indebted to the editor of the *Literary Year-book* and to Dr. Garnett, C.B., for pointing out that though 4 is the latest hour for putting in application slips in the ordinary way, it is permitted to fill in the slips and send them in on the day before that on which the books are needed. Instead of putting a desk number the applicant marks Bar A or Bar T, and the books are kept for him. A bashful reader may use the room for years without finding out this custom of the place. Hence this note.

THE POPE'S ADVICE ON DIETARY.

THE Pope Leo XIII, now almost 90 years of age, still shows remarkable power of bearing prolonged fatigue. In the recent ceremonial of canonisation at St. Peter's he had to endure six long hours of ceremonial function performed before many thousands of people collected from all parts of the world. He still continues, however, the private literary recreations of his leisure, and in his recent poem, which is described as full of charm and quaint humour, he discusses the evils of intemperance in living, and gives dietary advice which is of no small interest. He writes: "Pay attention before all to cleanliness, that the table appointments are spotless, glass bright, napery immaculate, that from the cellar comes the purest wine of the Albanian Hills, which exhilarates the spirit and keeps away trouble; but do not trust Bacchus, so do not be sparing in diluting wine with water; obtain from healthy grain well cooked bread; eat sparingly of chicken, lamb, and beef, which are most nourishing to the body; meat should be tender without abundant sauces or root vegetables, which spoil it; fresh fruits are excellent whether raw or slightly cooked; an abundant quantity of foaming milk, it nourishes infants and assists old age; also honey, celestial gift, but this Ibleo nectar (from Mount Ibla in Sicily) use frugally; add to this the sweet herbs and fresh vegetables that the garden supplies; add ripe fruit according to the season, and especially tender apples, which with their pink tints brighten the banquet; lastly comes the drink, which in hard seeds fertile Moka sends you, softly sipping the black liquor that comforts the heart." The Pontiff ends this first part of the poem, saying that it is by following these precepts that man may live healthy and strong to a good old age. As one must suppose he has practised his own maxims, he is a good proof of their efficiency.

LETTERS, COMMUNICATIONS, Etc., have been received from:

(**A**) Mr. W. Armstrong, West Boldon; Mr. G. Arnott, Newcastle-on-Tyne; Argus; Mr. W. C. Alderton, Calne; Altmann Company, London; Dr. H. Alderson, London. (**B**) Dr. R. Bell, Glasgow; A. A. Beale, M.B., London; Mr. P. J. Brayn, Jersey; Dr. H. T. Bulstrode, London; Mrs. W. Bruce, London; Messrs. A. Bishop and Sons, London; Dr. J. W. Ballantyne, Edinburgh; Bon Zig; Mr. E. Buxton, Liverpool; Dr. J. Barr, Liverpool; Dr. E. G. Barnes, Eye. (**C**) C. J. W.; Mr. J. M. Clarke, Bristol; Correspondent; Country Doctor; Mr. J. Cartwright, Leintwardine; Dr. F. F. Caiger, London; Mr. S. Comfort, Oxford. (**D**) Dr. W. L. Desai, Surat; Dr. E. Diver, London; Disgusted; Despondens; Dr. H. Dobell, Parkstone Heights; Deltoid; Mr. P. Dunn, London. (**E**) Enquirer; Etiquette; Dr. T. Elliott, Tunbridge Wells. (**F**) Mr. E. H. Freeland, London; Dr. J. Finlayson, Glasgow. (**G**) General Electric Company, Limited, London; G. C. M.; Mr. J. F. M. Gaston, Atlanta; Professor W. T. Gairdner, Glasgow; Mr. J. W. Gill, Liskeard; Dr. J. G. Glover, London; Dr. T. B. Grimsdale, Liverpool. (**H**) Dr. J. S. Haldane, Oxford; W. E. L. Horner, M.B., Derby; Dr. W. W. Hardwicke, East Molesey; Dr. W. R. Hunter, Glasgow; W. Hardman, M.B., Blackpool; Dr. L. Henry, Melbourne; Mr. T. G. Horder, Cardiff; Mr. R. C. Harrison, London; Mr. J. B. Hughes, Macclesfield; E. A. Hill, M.B., Liverpool. (**I**) Messrs. Irving, Son and Jones, Liverpool; Inquirer. (**J**) Mr. J. B. James, London; Mr. H. H. Jennings, London; J. W. W. (**K**) J. R. Kaye, M.B., Wakefield; Mr. G. Kempe, Salisbury; G. E. Keith, M.B., London (**L**) Messrs. E. and S. Livingstone, Edinburgh; Dr. J. F. Little, London; Mr. E. M. Little, London; Dr. J. Laird, Huddersfield; J. Lloyd, M.B., Birmingham; Mr. A. Lovell, London; L.M. (**M**) Dr. J. M. Moir, Edinburgh; Mr. J. Miller, London; Member; Mr. York Moore, Jamaica; C. R. Marshall, M.B., Cambridge; Mac; Mr. V. J. Margrave, Darlaston; Mr. J. H. Mummery, London; M.D.G.; G. V. Miller, M.B., Stockton-on-Tees; M.R.C.S.Eng., L.R.C.P.Lond.; J. McClure, M.B., Epsom; T. Marshall, M.B., London; Messrs. Mayer and Meltzer, London; M.D. in Rure. (**N**) A. G. Newell, M.B., Greenock. (**O**) Over Twenty-five Years' Service; Mr. E. A. Opie, Portmadoc. (**P**) Dr. P. H. Pye-Smith, London; Mr. J. J. Pitcairn, London; Perplexed; A. W. C. Peskett, M.B., Nottingham; Mr. A. Powell, Kalain, India; Mr. H. E. Powell, London; Dr. L. C. Parkes, London; H. A. Pattullo, M.B., Kirkcudbright. (**R**) Mr. C. Roberts, Eastbourne; Messrs. T. A. Radcliffe and Co., Heckmondwike; Mr. R. P. Ryan, Devonport; Mr. S. J. Ross, Bedford; Dr. H. D. Rolleston, London; Dr. W. B. Ransom, Nottingham; A. W. Russell, M.B., Glasgow; Retired. (**S**) Dr. A. L. Smith, Montreal; Mr. B. Schumacher, London; Mr. W. D. Severn, London; Dr. R. Saundby, Birmingham; Dr. W. B. Saunders, Philadelphia; Mr. R. Swan, Dublin; Dr. D. W. Samways, Crouch End; Dr. P. Stewart, Glasgow; Dr. R. P. Smith, London. (**T**) Dr. W. E. F. Thomson, Glasgow; T. D. C.; Tyro; Dr. F. S. Toogood, London. (**U**) Ummedwar; Urban. (**V**) Mr. T. J. Verrall, Brighton; Mr. T. B. Vernon, London. (**W**) Dr. E. F. Willoughby, London; Dr. C. H. Wise, London; Dr. W. R. Williams, Preston; Mr. A. S. Wohlmann, Bath; Dr. R. Wise, London; Mr. M. M. Wills, London, Mr. W. B. Wedgwood, King's Lynn; Dr. F. J. Waldo, London; Messrs. G. W. Wilson and Co., London; Mr. J. White, London. (**X**) X.; etc.

## BOOKS, Etc., RECEIVED.

Notes on Stable Management in India and the Colonies. By Veterinary-Captain J. A. Nunn, F.R.C.V.S., C.I.E., D.S.O. London: W. Thacker and Co. 1897.

Bradshaw's Dictionary of Mineral Waters, Climatic Health Resorts, etc. London: Kegan Paul, Trench, Trübner and Co. 1897. 2s. 6d.

A New Classification of the Motor Anomalies of the Eye. By Alex. Duane, M.D. New York: J. H. Vail and Co. 1897.

A Pictorial Atlas of Skin Diseases and Syphilitic Affections. Edited by J. J. Pringle, M.B., F.R.C.P. Part IX. London: Rebman Publishing Co. 1897. 10s. 6d.

Remarks on the Uses of Some of the Bazaar Medicines and Common Medical Plants of India. By E. J. Waring, C.I.E., M.D. Fifth Edition. London: J. and A. Churchill. 1897. 5s.

The Administration of Nitrous Oxide and Oxygen for Dental Operations. By F. W. Hewitt, M.A., M.D. London: Claudius Ash and Sons. 4s.

Molière and his Medical Associations. By A. M. Brown, M.D. London: The Cotton Press. 1897. 6s.

Mrs. Keith's Crime. By Mrs. W. K. Clifford. London: T. Fisher Unwin. 1897. 6s.

A Doctor's Idle Hours. By "Scalpel." London: Downey and Co. 1897. 6s.

From our Dead Selves to Higher Things. By F. J. Grant, F.R.C.S. Second Edition. London: Baillière, Tindall and Cox. 1897. 3s. 6d.

The Induction Coil in Practical Work. By L. Wright. London: Macmillan and Co. 1897.

Left-hand Writing: A Complete Course of Exercises. By J. Jackson, F.E.I.S. London: Sampson Low, Marston and Co.

The Value of Electrical Treatment. By J. Althaus, M.D., M.R.C.P., M.R.I. Second Edition. London: Longmans, Green and Co. 1897. 2s.

*** In forwarding books the publishers are requested to state the selling prices.

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# REMARKS
ON
# THE PLAGUE PROPHYLACTIC FLUID.

BY W. M. HAFFKINE, D.Sc.,
of the Pasteur Institute.

DR. HAFFKINE, who as is well known, is now employed on a special bacteriological mission under the auspices of the Government of India, for the investigation of the prophylactic and therapeutic treatment of plague, writes to us from Bombay as follows:

The first condition to be fulfilled for carrying out laboratory work on a microbe is to become able to recognise it with certainty, and to distinguish it from amongst all others which in the course of the work may become associated with it, or substitute for it.

The following are the features by which the plague bacillus may be recognised:

### 1. STALACTITE GROWTH IN BROTH.

Broth richly inoculated with the plague bacillus is to be placed in a perfectly quiet position on an absolutely solid table or shelf, and observed undisturbed. The least oscillation will destroy the reaction. Twenty-four to forty-eight hours after inoculation, the liquid remaining limpid, flakes appear underneath the surface, forming little islands of growth. In the next twenty-four to forty-eight hours the flakes grow down in a long stalactite-like jungle, the liquid always remaining clear.

In four to six days the islands of growth get more compact and solidified. If the flask is slightly disturbed then, the islands fall down to the bottom in a sort of snowfall, bringing down the stalactites, the whole growth getting deposited at the bottom. The islands, when solidified, are not disintegrated even by violent shaking, whereas the stalactites are very fragile. The appearance of the islands of growth underneath the surface is accompanied or preceded by the deposition of a residue on the sloped walls of the flask and at the bottom, as well as by the appearance of a ring round the surface of the liquid.

### 2. INVOLUTION FORMS ON AGAR-AGAR.

The medium is not to contain glycerine, and is not to be freshly prepared, but must be partly desiccated, and have the surface perfectly dry, showing a good alkaline reaction. The germs are to be inoculated abundantly, and preferably spread over the whole surface of the agar in a continuous layer.

Rarely in twenty-four hours, as a rule in three to four days, the individual microbes begin to swell up, and form large round, oval, pear, or spindle-shaped or biscuit-like bodies, staining in the beginning well, afterwards showing colourless central regions, which extend gradually to the peripheral parts. The bacilli become unrecognisable, lose the appearance of schizomycetic microbes, and acquire that of a yeast cell or alga. The swelling continues often to the extent of forming a body about twenty times larger in surface than the original bacillus. The power of staining is afterwards lost completely, and the remains of the microbe appear in the shape of an unrecognisable dusty spot.

These forms are not to be seen in liquid cultures, but I have discovered them in the tissues of inoculated rabbits, and demonstrated them to the officer in charge of the *post-mortem* examinations, Surgeon-Captain Childe, who was afterwards able to trace their presence in human tissues in a perfectly certain manner. Their appearance in the tissues suggests at first the idea of modified blood corpuscles, or disintegrated tissue cells, or stained drops of albumen.

### THE PROPHYLACTIC FLUID.

The theoretical conjectures which led to the plan of preparation of the plague prophylactic were the following:—The inoculation against cholera, which is made with the bodies of Koch's bacilli, cultivated on solid media, results in a reduction of the susceptibility and of the absolute mortality from the disease, but does not affect the case mortality. In the light of the present knowledge this is to be put in relation with the production in the inoculated individual of bactericidal powers and not of antitoxic, as has been actually demonstrated by Pfeiffer and Kolle. There is the possibility of the bactericidal powers being created by the injection of bodies of microbes, or substances enclosed in them, while antitoxic properties may be communicated by injection of the metabolic substances secreted or produced in the surrounding media, as is the case in the diphtheria treatment of horses.

In the present instance I decided to make an attempt to effect both a reduction of the susceptibility and of the case mortality, by combining in the prophylactic substance large quantities of bodies of microbes together with intensified extracellular toxins.

I cultivate luxurious crops of plague microbes by adding to the nutritive media abundant quantities of fat exposed to free aëration. For the preparation of the prophylactic fluid I utilise the fat of milk in the shape of what is called in this country "ghee," which is clarified butter, used not pure, but suspended in large flasks on the surface of nutritious fluids employed for cultivation of microbes generally. The growth begins first of all underneath the drops of butter, in the shape of flakes and stalactites, described above, leaving the liquid limpid.

When the fluid is filled with a rich jungle the growth is shaken off the drops of butter, and brought down to the bottom of the liquid, leaving the butter on the surface free to produce a second crop of growth. In the course of a month half a dozen successive crops are thus obtained, which fill the liquid, when shaken, with an opaque milky emulsion. The microbes in this fluid are killed by the temperature of 70° C., maintained for one hour. In a quiet position in test tubes two different substances are then obtained: a thick white sediment and a perfectly limpid fluid. Injected subcutaneously into animals they produce (1) the sediment, a local inflammation and a nodule at the seat of inoculation, accompanied with little fever or general effect: and (2) the fluid, a considerable rise of temperature and a general affection, with no noticeable local effects.

On January 23rd, 1897, the plague broke out in Her Majesty's House of Correction, Byculla, Bombay, while the number of inmates was 345. Between January 23rd and 29th 9 cases with 5 deaths occurred. On the morning of January 30th 6 more cases took place, of which 3 proved fatal. In the afternoon 154 prisoners belonging to the same batches as the rest, and living with them in perfectly identical conditions, volunteered to undergo the preventive inoculation, and received 3 c.cm. of the mixture of sediment and fluid described above. One of these men had a swollen gland at the time of inoculation, and two others developed glands on the same evening, within a few hours after inoculation. These three cases proved also fatal.

From the next morning a difference showed itself in the susceptibility and mortality of the inoculated when compared with the non-inoculated, as is to be seen from the subjoined table:

| Date of Attack. | Amongst the Non-Inoculated. | Amongst the Inoculated. |
|---|---|---|
| 1897 Between January 23rd and 29th ... ... | 9 cases, 5 fatal | — — |
| 1897 January 30th, day of inoculation — Forenoon, before inoculation | 6 cases, 3 fatal | — — |
| 1897 January 30th, day of inoculation — Afternoon, after inoculation | — — | 3 cases, fatal |
| 1897 January 31st, first day after inoculation | 2 cases, 1 fatal | 1 case, recovered. |
| February 1st, second .. .. .. | 1 case, fatal | — — |
| ,, 2nd, third .. .. .. | 1 case, fatal | — — |
| ,, 4th, fifth .. .. .. | 1 case, fatal | — — |
| ,, 5th, sixth .. .. .. | 2 cases, 1 fatal | — — |
| ,, 6th, seventh .. .. .. | 2 cases, 1 fatal | 1 case, recovered. |

Total occurrences from the first day after inoculation till the end of epidemic: 12 cases, 6 fatal, in an average daily strength of 173 non-inoculated; 2 cases, none fatal, in an average daily strength of 148 inocu-

If repeated observations in similarly precise conditions

confirm the results in the Byculla Gaol, the plague prophylactic will appear to influence the disease in men in a very advanced stage of incubation, the period of the latter being in plague apparently between two and seven days, whereas the prophylactic will appear to act in some twelve to fourteen hours, arresting or mitigating the disease in individuals infected several days before. The rapidity of its effect would recall the immunity produced in a few hours in animals by injection of non-fatal doses of comma bacilli into the peritoneal cavity.

Between January 10th and May 6th, 1897, 11,362 individuals from the infected areas have been inoculated by the above process with the following occurrences, which do not include those in the Byculla House of Correction detailed above.

The fatal occurrences were 12, namely: 3 patients who were already unwell at the time of inoculation; 3 patients who contracted the disease within twelve hours after inoculation; 2 patients who fell ill within three days after inoculation; 4 patients attacked fifteen to twenty-five days after inoculation. The attacks with recoveries numbered 33.

Figures relating to the general population are not available for an exact comparison with the death-rate from plague in the corresponding classes of non-inoculated persons. A rough estimate, however, would seem to show that the inoculated have suffered to an extent about twenty times smaller than than the non-inoculated living under the same conditions and exposed to the same chances of infection.

## ON SOME TYPICAL CASES OF DISEASES OF THE EAR.*

By GEORGE P. FIELD, M.R.C.S.,
Aural Surgeon to St. Mary's Hospital, London.

In the following remarks I purpose to call attention to certain typical classes of cases which frequently come under my notice as an aural surgeon, and as to the nature and treatment of which I think it will be advantageous that I should make some observations, in order that those who are engaged in general practice may perceive the point of view from which these cases are regarded by the aurist.

### Acute Otitis Media in Young Infants Presenting Symptoms simulating those of Meningitis.

For these cases paracentesis is necessary; but it is to be regretted that they have not yet generally received the benefit of treatment. I have operated now in a great number of them with excellent results. Paracentesis has sometimes proved ineffectual because it has been deferred till too late, there having been retraction of the head for more than a week, or because after puncture the Politzer's bag had not been used to dislodge the accumulated pus. The evacuation of the pus is followed directly by relief of the urgent symptoms.

My attention was first drawn to this subject by Dr. Cheadle, Dr. Barlow, and Dr. Lees, of the Children's Hospital, Great Ormond Street, and they have very kindly, in response to a request from me, placed at my disposal some valuable remarks thereon. Dr. Cheadle writes as follows:

"I recognise fully the value of puncture of the membrana tympani in certain cases of head affection in young children, notably in cases of suspected meningitis of a non-tuberculous type, and in obscure head pains in infants occasionally due to median otitis. I have seen young patients with acute symptoms closely resembling 'posterior basic meningitis,' who have been quickly relieved, and who have got well after puncture of the membrane and free discharge of purulent matter. Indeed, I can call to mind one instance in which grave symptoms ceased immediately after this operation, although there was not at the time or afterwards any apparent discharge of offending matter. Some of those curious cases of incessant screaming and sleeplessness met with occasionally in infants, and almost invariably attributed to the pains of teething, are really due to otitis. One instance of the kind occurs to me in which a child a year old had screamed violently and almost incessantly for a fortnight. There was clearly extreme pain, but the medical man who sent the case to me could discover no cause for it. I failed to find either inflammation from teeth, pleurisy, colic, otitis, or any of the usual sources of pain. Although there were no outward signs of otitis, however, I remembered an instance in which the similar obvious intense pain and incessant screaming for many days of a young child had suddenly come to an end with the free discharge from the ear of pus, the existence of which had not been suspected. I suggested that the question of median otitis should be solved by puncture of the membrane. As you may remember, this was effected by you with satisfactory result of immediate relief and peaceful sleep directly afterwards. It is possible, I think, that certain cases of simple meningitis the cause of which has not yet been traced may be due to the entrance of infective matter through the ear passages from the throat. Puncture of the membrane might in these cases be of great service."

I have received also a most instructive statement from Dr. Barlow, who writes:

"I may briefly say that my friend, Dr. Lees, and I have for several years been struck with the importance of the relation of otitis media in the cases of posterior basic meningitis in infants. It is perfectly true that some degree of otitis media is a very common condition found *post mortem* in young children dying from very many diseases apart from meningitis. But this very great frequency of otitis media has suggested to us that it may afford a ready mode of transmission of the results of infective catarrhs from the mouth and upper passages to the membranes of the brain. We believe it to be almost impossible to distinguish some cases of early posterior basic meningitis from cases of otitis media. Thus we have seen marked head retraction, fever, extreme irritability, vomiting, and even convulsions—symptoms compatible with commencing posterior basic meningitis—relieved by incision of both tympanic membranes and subsequent escape of thin mucopurulent fluid, and followed by complete ultimate recovery. In other cases there has been only temporary relief from this measure, amd the further progress of the case has showed renewed cervical opisthotonos, tonic spasms of limbs, gradual supervention of hydrocephalus, and death, with *post-mortem* evidence of meningitis in the posterior base. The position, therefore, that we have felt justified in taking is this: In a given case there is a chance that incision of the tympanic membranes may give relief and eventuate in perfect recovery, and, if it does not procure more than temporary relief, the operation, performed by a competent surgeon, does no harm. I may mention that in at least eight cases under my care recovery took place after the operation had been performed, sometimes by Mr. Pollard, sometimes by Mr. Ballance, and that these were all cases in which the diagnosis of slight but early posterior basic meningitis was tenable. In a great number of severe cases, in which the head retracting and other symptoms were more pronounced, the incision was only temporarily beneficial; but in no case was there any ill result. You will recall the cases in which Dr. Lees has had the advantage of your help, and in which, I think, I am right in affirming the results were parallel to the above."

I have further to quote the testimony of Dr. Lees, who writes to me thus:

"I would point out that otitis in infants, owing to the incomplete development of the petrous bone during the first year of life, is very apt to infect the cerebral membranes and cause meningitis. This extension may occur even when symptoms pointing definitely to the ear have been slight or absent. Paracentesis of the tympanic membranes has undoubtedly arrested the symptoms in several cases where it has been employed early, but at a later stage it has often proved quite useless. Retraction of the head is the most important symptom; when this occurs within a few days after the commencement of the illness, and especially if it is accompanied by vomiting or any kind of convulsion, the question of paracentesis should always be considered at once. Sometimes the head is turned partly to one side, and obvious signs of pain in the ear may be present; but these may be absent. Otorrhœa is rare, and must never be waited for. Optic neuritis, also, is extremely rare. The fontanelle may be tense. If paracentesis is performed within a few days after the development of such symptoms, it will often save life. But in

*Read at a meeting of the South Eastern Branch of the British Medical Association.

view of the smallness of the parts, and the proximity of the carotid and the lateral sinus, I think that the help of a skilled aural surgeon is almost indispensable."

To this testimony I have to add only that I feel confident that every year, owing simply to the non-discovery of pent-up pus in the tympanic cavity, scores of children die or fall victims to chronic hydrocephalus or complete idiocy.

### Influenza.

It is remarkable how many cases of various forms of ear disease result from that recent scourge, influenza. One may, perhaps, suspect that it is credited with the origin of many a complaint simply for lack of any other assignable cause, just as formerly gout was regarded as directly or indirectly the source of every malady under the sun. This, however, is no matter for wonderment when we consider the extremely grave condition to which patients may be reduced by an attack of influenza. The thorough prostration of the bodily powers is then frequently evidenced in affection of the auditory with the other nerves, eventuating in excessive deafness. Without enlarging on this subject, I may state that I have found strychnine in small doses to be in most cases the best remedy. In very obstinate instances I have had excellent results from pilocarpin. One gentleman, Mr. R , a resident in Perthshire, who was almost stone deaf, was completely restored after taking one-tenth of a grain three times a day for six weeks. Another case, Mr. G., whom I saw in consultation with Mr. Howard Barrett, derived astonishing benefit from its use. I should mention also that I have seen some cases which, after the ineffectual exhibition of this drug, have been cured by the judicious employment of the syringe and warm water.

As regards labyrinthine deafness following influenza, I have had the advantage of learning the opinion of Dr. Gowers respecting several of his patients whom I have seen, and for further information on this interesting subject I would refer you to his admirable Bradshaw Lecture on the Subjective Sensations of Sound, published in the British Medical Journal of November 11th, 1896.

But of the diseases met with after influenza, the most common is acute otitis media with perforation of the membrana tympani. The development of the inflammation is so rapid that perforation usually takes place after a few hours' intense pain, before the surgeon has been sent for. It is astonishing how in such cases—of which I have seen hundreds—immense quantities of blood and pus will continue for days or even weeks to pour from the drum of the ear. Very disagreeable results, as I have witnessed on several occasions, may come of the common practice of using strong lotions in the acute stages of the disease or of filling the meatus with antiseptic powders, sudden cessation of the discharge, accompanied often by very serious brain symptoms, having been so occasioned.

The plan I adopt, if there be acute inflammation and the pain severe, is to leech repeatedly till all suffering has subsided, and to syringe the ear very gently six times a day with a solution of potassium permanganate in warm water. When the discharge has lessened stronger lotions may be substituted. For healing the perforation I have found the application to the edges of a solution of silver nitrate, 15 gr. to ℥j, by means of cotton wool twisted on a fine probe, to be the most promising method of treatment. Six years ago I saw a young lady with a perforation of the right membrana tympani after influenza. Treated in the way just indicated she soon got quite well. Four years later I was called into the country to treat her for the second time for the same disease, now located in the other, the left, ear. She was then dangerously ill, and her acute symptoms did not subside before she had been twice leeched. The discharge was the most copious I have ever seen, and it continued for a month. The perforation was then healed by means of nitrate of silver. The condition of both ears is now quite normal.

In older persons the perforation does not heal so rapidly as in this instance, especially if it has persisted for long. J. W., aged 63, came to me with a profuse discharge that had been going on for six months. It had been treated in vain by various powders, including boracic acid, but was soon got rid of by the treatment I have mentioned. The perforation, however, did not heal.

I saw in consultation with Dr. Hughlings Jackson, Dr. Stephen Mackenzie, and Dr. Howard a similar case—a lady of about the same age, whose ear steadily improved after being frequently washed out with the lotions referred to, though, when I last saw her, the discharge had not quite stopped. Here, again, the perforation is not likely to close. A strong, healthy young man, on the other hand, who was sent to me by Dr. Symes Thompson with a large perforation and abundant discharge, became perfectly well after a fortnight's treatment, the perforation being completely healed. In very young children not only is the treatment troublesome, but progress may be tedious. An American lady, Mrs. C., sent for me a fortnight ago at Mr. Critchett's request to see her baby, aged 7 weeks, who had double perforation and profuse discharge, and the child's very slow improvement is delaying its relatives' return to New York. It is evident that, in giving a prognosis in cases of otitis with perforation, the patients' age should be taken into account.

A gentleman, Mr. O., had suffered from an offensive discharge after perforation of the membrane, a sequel of influenza. Carbolic, boracic, and salicylic acids, both in strong solution and in the form of powder, had been tried on him without avail. I prescribed syringing four times a day with weak solution of potassium permanganate, to be followed by the use of a lotion of lead acetate, glycerine, and opium. The swollen, tender, and excoriated meatus soon improved in appearance, and in three weeks the discharge ceased; during the two years that have since elapsed there has been no return of it. I had a like case, that of a medical man, recently. There had been a profuse discharge for a long time, which had obstinately resisted the heroic remedies employed for its cure, but which yielded in a fortnight to mild applications. These and similar experiences point to the necessity of avoiding the common error of assuming that violent inflammatory action is, as a matter of course, to be quelled by strong remedies.

Quite recently I was called in consultation by Dr. R. J. B. Howard to see the case of a lady suffering from influenza. The disease had already run through the house, and she was the last to be attacked. She had a high temperature, constant cough, and acute pharyngitis, and complained of great pain in both ears. I saw her only about an hour after the pain had come on, and owing to the immediate resort to free application of mustard all round both ears the redness of the membranes disappeared, the pain subsided, and the patient got well without progress of the inflammation to the formation of pus. But it is rarely that the surgeon is called in so early to see a case of this sort; usually by the time he has arrived an abscess has formed, and has ruptured the membrane, through which there is a free discharge.

### Ear Drums.

The question of the use of artificial ear drums in the case of persistent perforation of the membrana tympani is one which the practitioner may at any time be called upon to decide. One fact which cannot fail sooner or later to force itself upon his attention is that, apparently from some mistaken notion as to what constitutes the sacred liberty of the British subject, quacks are quietly permitted by the legislature to advertise and do a large trade in ear drums as a panacea for every form of deafness. I have seen numerous hospital out-patients who have pinched themselves and saved up for weeks in order to buy these contrivances for the extortion of cash from the credulous. Finding that not the slightest benefit has been derived from the drums, their purchasers come to the hospital complaining that the vendors will not take back their wares. In reply to the observation that such trash should never have been bought, one is told, "But, if you read their books, you will see they cure all their cases." Great is the astonishment at the suggestion that all the glowing testimonials have emanated from those persons themselves.

An instance in point is one which presented itself to me a short time ago. A gentleman brought his wife to me, and asked me to examine her right ear. I told him that hers was a hopeless case of long-standing thickening of the drumhead. "Oh," said he, "you don't know your business; she has a perforation." "I perceive," was my answer, "that you have been to the patent ear drum place—I won't say where." I

had seen already many other cases from this establishment. The friends who go with the patient to the quack's den are requested to look through a machine like a telescope, and they behold what they are given to understand is a large hole in the drumhead of the affected ear. They are not aware that, whoever the patient, the hole is one and the same, being a manufactured object which, like the fly that the astronomers of Butler's verse take to be an elephant in the moon, has its existence within the telescope. I believe that this is the only country in the world where barefaced imposture such as this is allowed to go on, and it is high time the General Medical Council should begin to deal with it.

There can, I think, be no doubt that the best form of artificial ear drum is Yearsley's pellet of cotton wool. Its very simplicity, however, is its defect in the eyes of the public, who prefer the more complicated, largely advertised, and practically useless articles. I taught a lady to use the cotton-wool drum. Before its use she was so deaf that for mental entertainment she always read at her meals, but afterwards she could hear quite well. "When I don't want to hear what my husband has to say," she observed, "I take the wool out." It is a remarkable fact that often, after using the pellets of wool for some time, the patient finds that his hearing is so much improved that they can be dispensed with. To obviate speedy drying the wool is best moistened with glycerine and water.

### THE SYMPTOMS, TREATMENT, AND PROGNOSIS OF OBSTRUCTION OF BOTH EUSTACHIAN TUBES FROM CHRONIC NON-SUPPURATIVE CATARRH.

I may remark that in our extraordinarily variable climate, with possibly summer weather in April and winter in May, this affection is perhaps the most common that we have to deal with. The longer I live the stranger does it seem to me that large numbers of persons allow themselves to remain for years more or less deaf from this cause without once attempting to seek relief. It would seem that the members of our profession are partly accountable for this, for I have repeatedly discovered that patients, after being blistered once or twice without perceptible result, have been told that nothing further can be done for them. Now the very medical men who will make such pronouncements, if ever it is their lot to become in the slightest degree deaf, resort not to blistering—that for themselves they utterly abhor—but to such aid as their friend the aural surgeon can afford. To him they come with long faces—I have seen as many as ten of these sufferers in one day, and all are possessed with the same apprehension that they will ere long find themselves incapable of using the stethoscope.

I will now give you a typical case of a patient who was told by his doctor not to seek for additional advice as to his deafness. He is a solicitor, aged 51, in large practice, and he came to me suffering from obstruction of both Eustachian tubes. He was so deaf at the time I first saw him that one had to shout into his ears to make speech at all perceptible. The tuning fork he could hear fairly well, but the watch was unnoted by either ear. He heard neither better nor worse in a noise, a fact evidencing that there was neither considerable thickening of the drumhead nor much implication of the auditory nerve. The membranes were of course drawn inwards.

The history of this patient, as related by himself, is to the following effect: When about 21 or 22 he became conscious of slight deafness in one ear. As several visits to an aurist had been productive of no result, and his general hearing was unaffected, he soon ceased to trouble himself about his condition. During the next fifteen or sixteen years, however, the affected ear gradually became worse, until at length he lost all hearing in it. Some twelve years back, during a period of serious illness characterised by insomnia and mental depression, the hearing of the other ear began to be impaired. Some simple remedies for the deafness, together with general treatment, were then employed by the patient's doctor. From year to year there was an increase in deafness, which was accelerated in the early part of 1896. Towards the autumn of that year there was the greatest difficulty in hearing anything, and the patient concluded that he should no longer be able to remain in practice. For many years he had strongly held to the persuasion that his deafness was incurable, and had resisted the importunities of his friends to consult an aurist; when, however, the question arose of abandoning his profession, he came to me.

He reports that he can now converse with clients easily, and can hear the striking of clocks, and even the playing of a piano in a room adjoining his own. What he thinks calls for special mention is that he can hear equally well with either ear. The treatment by which these, to the patient, surprising results were achieved consisted in the passing of a Eustachian catheter three times a week, and injecting through it sterilised vaseline, the inhalation of the vapour of iodine and acetic ether, ℥xx of each in a pint of hot water, and counter-irritation over the mastoids.

### BOILS IN THE EXTERNAL AUDITORY MEATUS.

These constitute another frequent and intensely painful form of disease, occurring most usually in spring and autumn, or in the spring and fall of the year, as the Americans have it. As an application for the relief of the pain, which is to be attributed to pressure of the circumscribed abscess on the opposite hard wall of the meatus, there is in my experience nothing better than glycerine. This acts by relieving tension, and it should be mixed with an equal quantity of tincture of opium and some boracic acid, and applied hot on wool. The operative treatment necessary is incision, which must be deep, in order to obviate recurrence of the boil on the tragus or other parts of the ear.

Persons who eat much sugar appear to be specially liable to boils, and the efficacy of yeast in furuncular disease may possibly be accounted for as a result of its disintegrating action upon that substance. In this connection I think I cannot do better than quote the opinions and experience of one who, though not a medical man, is a gentleman of considerable scientific repute. I was consulted by him a fortnight since, as on several other occasions during some ten years, on account of boils in the meatus. In a letter I have lately received from him he points out that members of the same group of cocci as those which cause boils grow and multiply in a sugary solution, and that diabetics, whose blood is charged with sugar, are peculiarly susceptible to boils and carbuncles, but in the most marked degree before the discovery of the nature of their ailment has necessitated an alteration in their diet. He further maintains that, inasmuch as yeast certainly carries on some of its fermentative processes in the stomach, its use as a remedy for boils is attributable to its destruction of sugar in the food ingested. When a boy he noticed that honey acted with him as a poison, being sure to produce boils, for which yeast was a certain cure. Sugary diet in general, and even a treacly medicine taken on one occasion he found to produce a similar effect. Inability properly to digest sugar, dependent on a low state of health, and a consequent excess of it in the organism may, he concludes, be the explanation of the frequent association of boils with defective vitality. In his case a tablespoonful of yeast after breakfast, borax as a local application, and attention to diet have invariably been efficacious in the treatment of boils.

The weak point in this argument is, obviously, that it adduces no evidence that saccharine material as such—indispensable for the yeast plant—can serve as a pabulum for the staphylococci specially associated with boils. It may further be urged that boils are among the manifestations of a great variety of unhealthy conditions, being occasional sequelæ of typhoid fever and frequent concomitants of the cachexia produced by the inhalation of sewer gas, and that their presence by no means necessarily points to the existence in the blood of a superfluity of saccharine material, but simply emphasises the fact that the resistance of the whole organism to the attacks of disease germs is weakened by any condition adverse to the bodily well-being. It may again be suggested that possibly the antitoxic effect of the introduction into the blood of by-products of the processes of fermentation may be the true explanation of the potency of yeast as a remedy for boils. The whole subject, however, is one which well deserves careful attention.

I will not recapitulate here observations which I have already made on the desirability of ascertaining in respect of every case of boils in the ear or of acute otitis media that the *fons et origo mali* is not an escape of sewer gas. Some

tact and resolution may be requisite in pressing for an inquiry into this important matter; indeed, some individuals seem to resent almost as a personal affront a hint that the sanitary arrangements of a house which they have made their abode can be otherwise than perfect. Latterly, I have seen a great many cases from India, more especially from certain parts of Bombay and Burmah, in which acute inflammation of the tympanum has gone on to perforation and discharge, and I have been unable to attribute this mischief to anything else than foulness of atmosphere from unhealthy surroundings.

## THE SAFE ADMINISTRATION OF ANÆSTHETICS: WITH SPECIAL REFERENCE TO CHLOROFORM AND METHYLENE.

A REPORT OF SIX HUNDRED CASES.

BY CHARLES O'NEILL, M.D., MCH., D.P.H.,
Belfast.

THE high death-rate caused during the administration of anæsthetics is a sufficient reason for every medical man so to study the subject and perfect the system of giving anæsthetics as to reduce the mortality to the lowest possible amount.

### THE PREPARATION OF THE PATIENT.

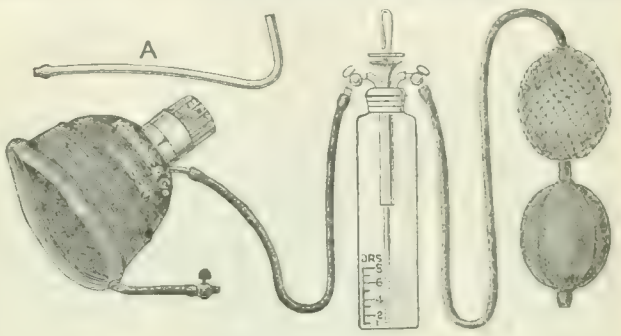
The patient should be prepared by taking a hot bath the night before, and at bedtime a brisk purgative, and the following morning a light breakfast about three hours before the anæsthetic is administered. Giving an anæsthetic on a fasting stomach tends to retching, and occasionally great depression and weakness. Should the patient have taken a full meal shortly before having an anæsthetic, it often causes vomiting during the administration, allowing them to recover and causing delay. When vomiting occurs during its use, the patient should be turned on the left side, so as to prevent any of the vomited matter from entering the trachea. Should vomiting occur after the anæsthetic is stopped, it is merely a sign of returning consciousness.

Before giving an anæsthetic you should examine carefully for any signs of mitral disease, fatty degeneration or dilatation of the heart, or calcareous degeneration in the vessels, or chronic bronchitis, asthma, or pleurisy. Should abdominal dropsy be present, sufficient to cause thoracic pressure, any of these conditions should warn you to use great care in the administration. See that there is no tight clothing on the chest or abdomen; everything must be loose to allow of free breathing. If the patient has got artificial teeth, they must be removed. If possible the urine should be examined for albumen and sugar.

### THE METHODS OF ADMINISTRATION.

In administering anæsthetics, one of two ways may be employed. First the so-called "open" or "Syme's" method—why so called is a mystery, as it is really a method where the fresh air is almost entirely excluded from the patient while taking the anæsthetic. In this method you pour a certain quantity of the anæsthetic on a towel, sponge, or lint, and hold it over the patient's mouth and nose. The distance it should be kept off the face cannot be ascertained in any reliable manner. On the other hand, distance makes little difference whether it is held 2, 4, or 6 inches from the face. If the atmosphere of the room is quiet, the vapour drops down in a more or less undiluted form, being heavier than air; while if the room is draughty it is more uncertain still, as the patient may only get an occasional breath of the anæsthetic. Unless in midwifery practice and in some exceptional cases, I consider this a most unscientific way of giving it. It is idle to talk of graduating the dose of the anæsthetic to the age and requirements of the patient, so long as this rough and ready way is employed. We should dilute an anæsthetic with air as carefully before it is breathed as we would dilute hydrocyanic acid with water before administering it to the stomach. In this method the dose is uncertain, and depends, not on what you put on the towel, but on what quantity reaches the lungs, and the patient is compelled at first to inhale air saturated with the vapour of the anæsthetic until little is left on the towel. On adding more you keep the patient oscillating between an overdose and an underdose. This is a very wasteful way of giving an anæsthetic, a case being recorded in the BRITISH MEDICAL JOURNAL of July 14th, 1894, where a female, aged 25, had 12 drachms administered in thirteen minutes before becoming unconscious. The operation lasted fifty minutes, and the chloroform used was 31 drachms.

The second method, which I consider the safe one for administering methylene or chloroform, is by giving it through a Junker's inhaler, which has been much improved by Messrs. Krohne and Sesemann, London. The improvements on the older inhaler consist in the addition of a respiration indicator and a soft inflating indiarubber cushion fitted on the facepiece. When this inhaler is used you can regulate the dose, and the patient at each inspiration takes in the normal supply of air properly mixed with the anæsthetic. It may be used with equal safety for persons of any age. In giving an anæsthetic a most important point is carefully to observe the breathing: see that it keeps regular, and stop giving the anæsthetic whenever it shows signs of irregularity, and allow free access of air until it becomes normal. Since the breathing is of much more importance to observe than the pulse, the pulse is of importance where the patient has had severe hæmorrhage previous to or during the administration. In these cases the pulse is very important to watch carefully for showing signs of collapse. In ordinary cases it is sufficient to watch the respiration, as there is great danger in watching the pulse to overlook the breathing, since the heart is only affected secondarily in consequence of the failure of the respiration. If an anæsthetic is pushed so far as to cause the pulse to show signs of heart failure the limit of safety has been so far exceeded that a fatal result is likely to ensue. One great source of danger in administering anæsthetics is when the person giving it watches some interesting operation and takes his attention completely off his own duties. Should the patient cease breathing for thirty seconds it is almost impossible to restore animation. Another danger is when the patient struggles while taking the anæsthetic and requires holding, you should see that no pressure is applied to the chest or abdomen, as the breathing obstructed in this way causes collapse. If the tongue falls back it is also a source of danger; or the patient may require to be turned on the side for an operation to be performed; this may also cause dangerous symptoms.



Junker's inhaler.

Death from sudden stoppage of the heart without any previous warning from irregular breathing is most frequently caused by giving too much of the anæsthetic, since in an overdose the supply of air is cut off, and in its place a narcotic is given. The risk is increased by the patient struggling, or by anything which causes them to take gasping or irregular inspirations. Sir James Simpson advised the administration of a large dose at first as he considered the state of semianæsthesia the critical time. Of course, fatal cases have occurred at the beginning of the administration, but it is more likely they occur from an overdose than an underdose, as the more of the anæsthetic used the less air is inhaled. In using a Junker's inhaler, you add the vapour of the anæsthetic to the normal quantity of air used in breathing. In giving an anæsthetic to grown-up persons, you should instruct them to breathe in the ordinary regular way,

and try if possible to reassure them, should they show signs of nervousness, and bring the facepiece gradually forward, so as to avoid the suffocating sensation which is caused by bringing it suddenly over their mouth and nose. If you succeed in this, the patient, generally speaking, gives very little trouble; but, on the other hand, without giving any instructions to the patient, you place the facepiece suddenly over their mouth and nose. This causes a feeling of suffocation, and so frightens them that it is with great difficulty they are quieted, and all through the administration they show signs of nervousness. The only exception to this is in the case of children; you should put them over as quickly as possible, as they nearly always shout and struggle.

### The Advantages of Methylene and Chloroform.

Methylene or bichloride of methylene, discovered by Sir Benjamin Richardson in 1867 ($CH_2Cl_2$), contains one volume less chlorine than chloroform. Some consider it only diluted chloroform, but this is an error, as it is a distinct preparation. Its advantages as an anæsthetic when given through a Junker's inhaler are: 1. It is quick in action; you can have complete anæsthesia in an adult from five till ten minutes. 2. It may be prolonged up till two hours or more with safety. 3. It seldom causes sickness or vomiting. 4. The patient recovers consciousness from three till five minutes after its administration is stopped. Sir Spencer Wells in 1,200 cases used this anæsthetic, to the exclusion of all others. But there are certain cases and certain classes of patients where this preparation is not strong enough to produce full anæsthesia. I shall specify some of these in speaking of chloroform. I do not wish it to be understood that any anæsthetic is absolutely safe, since there are always a certain number of persons which constitute a class where a comparatively slight shock may prove fatal. In these cases death is caused by syncope, or sudden arrest of the heart's action, and no previous warning is given. In using methylene through a Junker's inhaler we have the safest anæsthetic at present known, provided the precautions I have mentioned are strictly attended to.

Chloroform ($CaHCl_3$) contains one volume more chlorine than methylene. It can be administered the same way—that is, through a Junker's inhaler. As it is a stronger preparation than methylene, the danger of giving an overdose is greater. There are four unfavourable symptoms I shall give in their order of importance, which should be carefully attended to: (1) coughing, (2) gasping, (3) choking, (4) struggling. We should pay attention to the first symptom, "coughing," which is a sure sign that the patient is getting the anæsthetic too concentrated. If this warning is neglected, the patient may become worse, and a fatal issue may result. By attending to these symptoms and remedying them in time, we find that prevention is better than cure.

When chloroform is administered the patient loses consciousness sooner than in methylene; but they are more liable to be sick, and do not recover so soon after its administrations is stopped. But on the other hand there are, as I mentioned before, certain operations and certain classes of patients which require this stronger preparation, such as persons of intemperate habits and those of a nervous temperament, and also in operations of a painful nature, such as excision of piles, etc.

### Resuscitation in Collapse.

Should collapse occur during the administration of an anæsthetic, we should always have a number of suitable remedies beside us to be prepared for any emergency—such as nitrite of amyl, strong solution of ammonia, ether, liquor strychnine, and a hypodermic syringe, tongue forceps, and an electric battery—as prompt application of remedies is a very important factor in restoring a patient. Should a patient show signs of collapse—that is, should the breathing get irregular, slow, sighing, or stop, or the face suddenly get pale, or the lips cyanosed—we should stop the administration immediately, lower the patient's head, draw forward the tongue, and use artificial respiration according to Sylvester's method, apply nitrite of amyl or strong solution of ammonia to the nostrils, inject ether hypodermically, or liquor strychnine (from three to five drops for an adult), apply the poles of the battery over the diaphragm; pure oxygen may also be administered. Inversion of the patient may also be tried. But if a patient suddenly stops breathing, and the heart collapses at the same time, any restorative we apply is almost useless. At the present time we have at least fifty different ways for restoring consciousness after an overdose of an anæsthetic. A great number of these hail from America. But we require little explanation how to treat collapse if we administer the anæsthetic carefully; for if you give air too much impregnated with an anæsthetic to maintain life, it is difficult to restore breathing when life is almost extinct.

I shall now refer to a series of 600 cases extending over the six years from 1890 till 1896, where a note was taken of the age of the patient, the quantity of the anæsthetic used, and the average time taken to produce anæsthesia, as well as remarks on sickness and vomiting. These include both methylene and chloroform cases. The ages ranged from 1 hour (in this case it was given to aid in the reduction of an umbilical hernia) up till 80 years. The quantity given every five minutes to an adult until complete anæsthesia was about 40 minims; complete anæsthesia usually occurred from five till ten minutes, and about half this quantity was required to keep up the anæsthesia, which is at first in the proportion of $\frac{2}{3}$ of a minim during each inspiration, taking 20 inspirations per minute as normal, and afterwards $\frac{1}{5}$ of a minim each inspiration to keep the patient unconscious. Three drachms was the usual quantity used in half an hour, and about 4 drachms was sufficient for an hour. Two per cent. of the vapour is enough to use until the patient gets accustomed to the anæsthetic, and afterwards increase it to about 4 per cent. Had the open method been used this quantity would have been altogether insufficient. The average length of time until complete anæsthesia occurred was in infants two minutes, children three minutes, and in adults from five till ten minutes. Great care should be taken not to produce anæsthesia too quickly, as this is a great source of danger. In 12 per cent. of the cases sickness and vomiting occurred either during or after the administration. Up to the present time I have never had a death from the effects of an anæsthetic.

Regarding fatal cases occurring we should never treat lightly the giving of an anæsthetic, no matter how short a time the administration is required, since fatal cases have occurred during any stage, even in the first few inspirations; therefore we should keep before us the fact that while giving an anæsthetic the patient's life is in our hands. My reasons for placing methylene before chloroform are it is safer, and adapts itself for use in minor operations. In these cases we would hesitate before giving a stronger preparation, and so deprive the patient of the benefit of a painless operation. Therefore we have for all practical purposes in these two valuable anæsthetics all that is required to allow of any operation being safely performed without pain.

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The report presented by the Water Committee to the London County Council for the six months ending April 27th states that there is a remarkable disparity between the quality of the water delivered by the different companies, notwithstanding the fact that five of them draw their water from the same source. The Southwark and Vauxhall Company is reported to have allowed to pass twice as much suspended matter as the other Thames companies; and in the case of that company the samples containing objectionable matter were nearly thrice as numerous as in the case of the West Middlesex Company. Great variations occurred also in the number of occasions on which the proportion of microbe present exceeded 100 per cubic centimetre. This was the case with the Kent Company on 14 days out of 100, but on 58 out of 100 days with the Southwark and Vauxhall Company.

The foundation stone of the Acton Cottage Hospital was laid by Lady Rothschild on June 9th. The site has been given by Lord Rothschild and Mr. Leopold Rothschild, while Mr. Passmore Edwards has subscribed £2,500 towards the building expenses. The two main wards will each contain four beds, but there will be in addition convalescent wards.

The Drapers' Company of London has offered £15,000 to the University of Oxford for the erection of a building to provide additional accommodation for the Radcliffe Library. This munificent gift has been gratefully accepted.

# THREE CASES OF OTITIS MEDIA WITH BRAIN ABSCESS.*

BY GILBERT BARLING, M.B., F.R.C.S.,

Professor of Surgery in Mason College; Surgeon to the General Hospital, Birmingham.

I HAVE in another place recorded former experiences of cerebral abscess; but by one of those curious coincidences which occur in surgical practice three cases of brain abscess from middle ear disease came under my care in the course of a few weeks at the beginning of 1896. The interest such cases always have justifies me, I hope, in placing them before you. In the first instance, I propose to relate the cases, and subsequently to offer some brief comments upon them.

CASE I.—OTITIS MEDIA; EXTRADURAL SUPPURATION; CEREBELLAR ABSCESS; HERNIA CEREBELLI; RECOVERY.

J. F., aged 14, was admitted to the General Hospital under my care, complaining of extreme pain in the left side of his head. This commenced as an earache several days previously, at which time he vomited thrice. When I first saw him on November 16th, 1895, he complained of extreme pain in the left ear and side of the head: he was rather restless and very irritable, the pupils were dilated but equal, there was early optic neuritis on the right side, there was no evident paralysis, the head was retracted on the neck. From an incision behind the left ear pus was discharging: there was also pus in the ear, there were several enlarged glands down the left side of the neck, and the parts were swollen and infiltrated. It was probable that the otitis was of old standing; no history of rigors could be obtained. The temperature was about 100°, the pulse 76 and irregular. On this day I opened the mastoid antrum and let out some pus, and, finding no perforation in either of its walls, proceeded to chisel away the bone over the sigmoid sinus and adjacent parts. A considerable quantity of pus escaped from between the dura mater and the bone in the posterior fossa, but the sinus was not thrombosed. On pressing the boggy part of the neck, pus passed up by the side of the internal jugular, through the jugular foramen into the skull, and out at the opening I had made. An incision was therefore made in the neck behind the internal jugular vein, drainage provided for, and some glands removed. As the presence of pus bathing the dura mater made it very undesirable to open this membrane, and as, further, it was hoped that evacuation of the pus found would suffice to relieve the patient, nothing further was done at this time. During the next two days there was some improvement, and retraction of the neck almost disappeared: but on the third day the patient became very restless again and the temperature rose to 103°, though the pulse was only 70.

On the fourth day after the operation, that is on November 20th, the temperature was 101.2°, the pulse 120. There was slow horizontal nystagmus of both eyes, and internal strabismus of the left eye: the patient was very restless and noisy. From the failure in the left sixth nerve it was most probable that an abscess of the cerebellum was compressing it. The skull was therefore trephined over the left cerebellar lobe, as far as could be managed from the former suppurating wound. After opening the dura, an abscess at a depth of an inch containing about 3 drachms of pus under great tension, was evacuated by a trocar and cannula. A drainage tube was then secured *in situ*. There was immediate relief to the strabismus, and the patient was quieter and his mind much clearer. In a day or two, however, the restlessness and headache returned, and on November 27th it was noted that a cerebellar hernia was commencing.

From this time onwards there was restlessness, occasional severe headache and vomiting, with irregular elevation of temperature and quick pulse, and the hernia steadily increased. On December 28th ptosis of the right eyelid was noticed, and imperfect movement downwards and outwards of the right eye. The hernia had by this time attained to the size of a moderately large orange, although it was kept compressed as firmly as could be ventured. By the middle of January it was noticed that the hernia was commencing to shrink, and that cicatrisation was beginning at the skin margin. With this improvement in the hernia the general symptoms also began to improve, and by the end of February the patient was allowed to get up. At first he staggered very much as though from inco-ordination, but by the middle of March he could walk fairly well, and by this time the hernia was cicatrised over. When seen in May, the boy was quite well, the hernia had shrunk practically to the level of the skull; but since that time I have been unable to trace the patient, who was a typical street arab, and I cannot therefore give any account of his present condition, but he has recently been seen disporting himself at one of the railway stations.




A, incision to let out pus around internal jugular; B, hernia shrinking and skin cicatrising. This shows the condition thirteen weeks after operation.

CASE I. — OTITIS MEDIA; CEREBELLAR ABSCESS TREPHINING; DEATH; A SECOND ABSCESS FOUND AT THE NECROPSY.

Mrs. R., aged 44, was admitted under my care on March 5th, 1896, in a semi-unconscious state. Her history showed that since childhood there had been from time to time a purulent discharge from the right ear. A month before admission she had severe pain in this ear and on the same side of the head; a week later she had a rigor, and a fortnight after this she vomited at intervals for three days. When admitted the patient lay in a semi-unconscious stupid state. There was a little pus in the right ear, and some tenderness over the right mastoid process. There was no evident paralysis of limbs, face, tongue, or eyes; but examination was difficult owing to the stupid condition. There was slight horizontal nystagmus. The breathing was of the Cheyne-Stokes type and at times stertorous; the temperature was 98.2°, and pulse 84. No reliable examination of the optic discs could be made.

On the day of admission the mastoid antrum was opened and a little pus let out, but there was no perforation of its walls into the cranial cavity. The skull was then trephined over the right temporo-sphenoidal lobe, and several punctures made in the brain, but without finding pus, though a quantity of fluid was evacuated from the lateral ventricle, where it was evidently under considerable pressure. This wound was then closed, and the trephine applied over the right lobe of the cerebellum 1½ inch behind the mastoid process. On removing the crown of bone a little pus oozed out, and the dura was found inflamed and breaking down. On opening this membrane small scattered points of suppuration were found in the superficial part of the right cerebellar lobe. With a trocar and cannula an abscess containing a drachm and a-half of fœtid pus was evacuated at a depth of nearly an inch from the same part of the cerebellum. The cannula was left as a drain in the abscess cavity, and the scalp flap sutured.

* Read at a meeting of the Birmingham and Midland Counties Branch of the British Medical Association.

The notes of the few days following the operation show very little alteration in her condition, the most noticeable point being that her pulse quickened, varying between 105 and 130, and that she was restless, and called out at times. On March 10th—that is, five days after the operation, twitching of the left arm and leg was noticed, and the temperature rose to 102°; but there was no paralysis, the half unconscious condition remained, sometimes a little better at other times worse. The next note of importance was made on March 13th, when the patient had a slight rigor, and as the abscess had ceased discharging another exploration of the cerebellum was made, but no pus was found. On March 17th there were two distinct rigors, but no tenderness could be elicited over the internal jugular vein, nor was there any thickening to be detected in its course. Infective thrombosis, whilst suspected, was so uncertain, and the patient so feeble, that exploration of the sigmoid sinus and internal jugular vein was not resorted to. Other conditions, which included Cheyne-Stokes respiration, remained much as before; the pulse was always 120 or more, and the temperature fluctuated between 99° and 101°.

On March 23rd there was distinct paralysis of the right arm; motions were passed involuntarily, the unconsciousness became deeper, the curious breathing continued. The wound was now nearly healed, and exploration of the cerebellum failed again to find any further collection of pus. Death occurred on March 26th, without further developments of any kind.

The necropsy made by Dr. Stanley showed that an abscess existed at the surface of the cerebellum close to the tentorium, to which the right cerebellar lobe was adherent. This was well above the position of the abscess which had been opened. The right lateral sinus was thrombosed, but the thrombus was not breaking down at all, it was merely an adherent organising clot. The thrombus did not extend into the internal jugular vein. There was no secondary infection of the lungs or other viscera.

CASE III.—OTITIS MEDIA; CEREBRAL ABSCESS; RECOVERY.

Miss C., aged about 30, had for some years been subject to a purulent discharge from the right ear. On December 1st, 1895, she complained of headache, was sick once, and her temperature ran up to 103.6°. For the next week headache, often very severe, continued, with irregular elevation of temperature, ranging between 100° and 103.6°, the pulse being quickened up to something below 100°. On December 8th the patient again vomited once; the temperature was 101°, pulse 96. From this day until December 16th the temperature gradually dropped to 98°, at which point it remained for two days; the pulse-rate also fell to between 50 and 60, headache continued, and the patient became dull and apathetic.

I first saw Miss C. in consultation with Dr. Churchill, of Chesham, on December 16th. She lay in bed supine and indifferent; roused with difficulty, she relapsed directly into insensibility. The left arm was doubled under the patient as she lay in bed, as though it were paralysed, but there was no other paralysis evident either in limb, face, eyes, or tongue. The condition of the optic discs could not be determined owing to the patient's insensibility. The temperature was 98°, pulse 52. A little fœtid pus lay in the right ear, but there was no swelling, redness, or œdema over the mastoid, nor thickening over the internal jugular vein.

The symptoms pointed in my opinion clearly to cerebral abscess, depending upon the old ear trouble. I determined first to explore the right mastoid antrum, and failing to find perforation of its roof into the cranial cavity, to examine the temporo-sphenoidal lobe, and if necessary the cerebellum on the same side. The antrum was exposed at a depth of three-quarters of an inch from the surface; it was a small dense walled cavity containing only about a couple of drops of pus; its roof was not perforated. A small circle of bone was next removed an inch and a-half above and three-quarters of an inch behind the middle of the right external auditory meatus. The dura mater was not pulsating, and it bulged into the wound; on incising it the brain matter squeezed out. A trocar and cannula thrust straight in let out about an ounce of fœtid pus with sloughs of brain tissue. An india-rubber drainage tube 2½ inches long was placed in the cavity, and its outer end brought through the middle of the scalp flap. The flap was then secured all round with sutures, the mastoid cavity was packed, and the patient put back to bed. The next day she had recovered consciousness; she could use her left hand, and there was no bad indication. During recovery she was under the care of Dr. Churchill. He removed the drainage tube on the fourteenth day after operation, and reported an uninterrupted convalescence. The patient remains well, and engages in mental and physical work just as formerly.

In commenting upon these cases I will first refer to the marked retraction of the neck in Case I. I attribute this symptom to the extradural suppuration rather than to the cerebellar abscess, as it subsided to a great extent when the pus outside the dura was evacuated. I have only once before seen such extreme retraction, and that was in a case[1] of suppuration in the lateral ventricles extending into the fourth ventricle. In Case I I did not feel justified, after opening the extradural abscess, in at once proceeding further, for at this time there were no focal symptoms, and there was the danger of carrying infection inside the dura if it did not already exist there. When, however, horizontal nystagmus developed with paralysis of the sixth nerve on the left side the case was different, as it seemed to me that pressure on the sixth nerve, and no other, could best be explained by pressure forwards from the cerebellum catching this nerve where it has its surface origin between the medulla and the pons. One of the most remarkable features of this first case was the retrogression of the very large hernia of the brain.

Turning now to Case II we find the indications not at all clear. It was uncertain whether the case was one of circumscribed meningitis or of abscess in the brain tissue, and, if the latter, whether it was in the temporo-sphenoidal lobe or the cerebellum. The slight nystagmus, a condition which existed in Case I to a much more marked degree, implicated to some extent the cerebellum. The Cheyne-Stokes type of respiration, suggestive of compression of the medulla or the nerves derived from it, also pointed somewhat in the same direction, but the evidence was not at all emphatic, especially in the absence of paralysis of the sixth nerve and of retraction of the neck. The second abscess, revealed at the necropsy, I have no doubt existed at the time of the operation, for the relief given by the evacuation of the one abscess was only slight. For this reason, on two subsequent occasions, exploration of the cerebellum was made in the belief that a further collection existed. I do not regret the non-interference with the sinus, the thrombus in which had, I think, little to do with the fatality. It was firm and apparently organising, and there was no evidence of secondary infection from it.

I may refer briefly to Case III as a typical example of abscess of the brain, in which, not only was the presence of an abscess clear, but its locality also; and it is in such cases as these that very good results may be expected.

Turning now to the procedure by which intracranial suppuration from middle-ear disease is to be attacked, I may say at once that I accept the rule laid down first I believe by Macewen that the mastoid antrum should first be opened in all cases, and its walls explored for perforations, through which suppuration may have extended to the inside of the cranium. Pus not being found here, there will often be some localising indication which will call for trephining over the temporo-sphenoidal lobe or the cerebellum, as the case may be. If, however, after opening the mastoid antrum and not finding pus outside it, there are no focal symptoms to guide as to the next step, it becomes a matter of considerable importance to reduce the exploratory process to a minimum. If after exposure of the antrum a scalp flap is raised and the trephine applied over the temporo-sphenoidal lobe, and pus is not found, and the same process has to be repeated over the cerebellum, it is evident that a considerable traumatism and a lengthy operation will be inflicted on the patient. To avoid this I shall in the future adopt the suggestion of Mr. Percy Dean. From the mastoid incision behind the ear the upper end is curved into a scalp flap covering a portion of the temporo-sphenoidal lobe, the lateral sinus, and the cerebellum. The trephine is applied 1¼ inch behind the external auditory meatus and ¼ inch above the centre of that canal. By enlarging this opening slightly upwards the parts above the tentorium can be explored; by enlarging it downwards the cerebellum is accessible, and at the same time the lateral sinus is exposed and its condition can be determined.

REFERENCE.

[1] *Birmingham Medical Review*, vol. xxxiv, p. 302.

## AN OPERATION FOR EXTROVERSION OF THE BLADDER.

BY R. W. MURRAY, F.R.C.S.,
Honorary Surgeon, Liverpool Infirmary for Children.

EXTROVERSION of the bladder is a rare malformation, though it probably occurs more frequently than is generally supposed. The older surgeons were of opinion that no operation could benefit the unfortunate victims of this deformity, and it is well known that persons suffering from it have lived to advanced years; so that any operative interference is proposed with the view of relieving suffering rather than with the object of adding to the duration of life. That very material benefit can be obtained by means of a plastic operation there can be no doubt. The method of operating most generally known, and probably still most frequently practised, is that of the late Mr. John Wood.

The principle of this and of all similar operations is to so arrange the flaps that skin shall be next to the bladder surface. The objections to this operation are:

1. That it is prolonged and necessarily severe.
2. That partial failure is the rule, thus necessitating several subsequent operations.
3. That, although affording a covering for the bladder, the

subsequent growth of hair from the skin flaps next the bladder causes an accumulation of phosphates, the annoyance from which is frequently as great as was the original trouble.

In 1885 Professor Trendelenburg, of Bonn, published the account of an operation he had performed. In this operation the principle is entirely different from that of Mr. Wood. Immediate union of the lateral margins of the bladder is obtained after division of the sacro-iliac synchondroses. I have never performed this operation, for it seems to me that the benefits following it hardly justify its severity.

The following operation, which I first performed in June, 1893, has the advantage of being comparatively simple; it affords a good covering for the bladder, and as there is a raw surface and not skin next the bladder mucous membrane there can be no subsequent trouble from the growth of hair and phosphatic deposit. Two lateral flaps are raised as represented in Fig. 1. These flaps should be of considerable thickness, which the tissues here fortunately permit, and broader than the bladder surface. The extent to which they must be raised will of course depend upon the size of the extroverted bladder surface. I have always found they can easily be made to more than meet in the middle line. This is a matter of great importance, for, considering that the raw surface of the flaps is next the bladder and will be irritated by the urine, it is essential in order to obtain union that two broad surfaces should be in apposition. This apposition I ensure by means of three or four button sutures uniting the everted flaps about one inch from their margins (see Fig. 2). The margins of the flaps are united by silkworm gut. A bridge is thus formed completely covering the bladder. It is well not to attempt at first to close the small opening remaining in the middle line above, for this opening renders the effect of irrigation more perfect, contracts very considerably later on, and is then more readily closed. During the week following the operation I arrange for the continuous irrigation of the parts, warm boracic lotion dripping constantly on to the wound.

The following is a short clinical report of two cases:

CASE I.—V. B., aged 1 year 7 months, was admitted to the Liverpool Infirmary for Children on April 10th, 1895. The child was in good health, and his malformation is well illustrated in the accompanying photograph (Fig. 1). The area of the extroverted bladder measured 2½ inches transversely and 2 inches vertically. The symphysis pubis was deficient, the bones being about 1 inch apart. The scrotum was imperfectly developed, and the testes were just outside the inguinal canal. The penis was in a condition of complete epispadias. On April 13th the bladder surface was covered by means of lateral flaps in the manner already described. In raising these flaps several vessels required twisting, and throughout the operation, which lasted about three-quarters of an hour, the wound was constantly irrigated with warm boracic lotion. A piece of lamp wick was passed from above downwards under the united flaps, and retained there, in order to facilitate drainage, and to assist in the subsequent irrigation. The child was afterwards so arranged in bed that warm boracic lotion should constantly drip on to the wound. He subsequently did very well, and suffered in no way from the constant irrigation, which was continued for four days. The button sutures were removed at the end of a week.

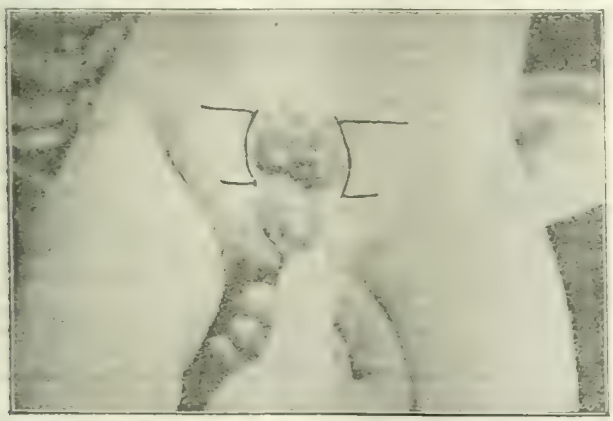


Fig. 1.—Before operation. Incisions for raising lateral flaps.

He was readmitted on January 16th, 1896. The result of the previous operation was very satisfactory, the bladder surface being completely covered, and there was no trouble, as is so frequently the case with reversed skin flaps, from phosphatic concretion. It was curious to observe that on exploring the new bladder with the finger the original raw surface of the flaps was now covered with what to the touch at all events exactly resembled mucous membrane; what the real histological substitution has been it would be interesting to know. He was admitted in order to have the opening leading to the bladder from above closed. This part was left unclosed at the first operation in order to secure thorough irrigation of the bladder and raw surfaces of the flaps. The opening had contracted to a mere sinus, through which a little urine escaped when the child was lying down (Fig. 3).

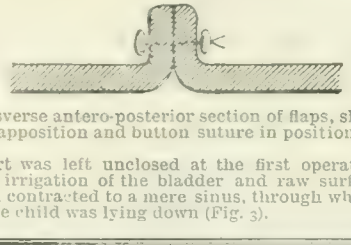


Fig. 2.—Transverse antero-posterior section of flaps, showing broad apposition and button suture in position.



Fig. 3.—After operation.

On January 25th the margins of this sinus were freshened and stitched together, but it did not close completely until February 28th.

CASE II.—M. J., female, aged 3, was admitted into the infirmary on May 17th, 1893. This was the first case of extroverted bladder in which I performed the above-described operation. I much regret I did not secure a photograph of the child before operation, but her condition was almost exactly the same as that of the boy V. B. I adopted precisely the same procedure in both cases, but in this case the second operation for the closure of the sinus leading to the bladder from above was more troublesome, and required an application of the actual cautery before it finally closed. The final result after operation is shown in Fig. 4.

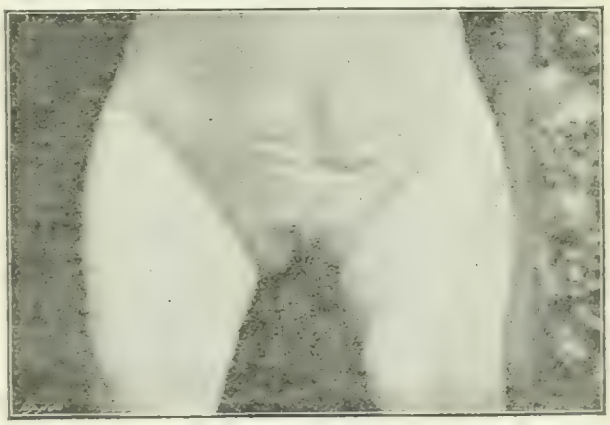


Fig. 4.—After operation.

This operation I have performed three times, and the results have been so satisfactory that I trust other surgeons may be induced to give it a trial. All that is attempted is to give the bladder an efficient covering, and one that will not give subsequent trouble by the accumulation of phosphatic deposits. I hope in a future communication to deal with the treatment of the epispadias which accompanies this deformity.

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M. FALGUIÈRES has received the commission to design the Pasteur statue to be erected in Paris by international subscription. The sum subscribed now amounts to 297,000 francs (£11,880).

## CHRONIC INTUSSUSCEPTION OF THE APPENDIX INTO THE CÆCUM: OPERATION: RECOVERY.

BY

G. A. WRIGHT, F.R.C.S., Surgeon to the Hospital for Children, Pendlebury; Senior Assistant-Surgeon to the Manchester Royal Infirmary.

and KNOWLES RENSHAW, M.B., B.C.Cantab., Ashton-on-Mersey.

W. S., aged 2 years and 10 months, was seen on December 7th, 1896, by Dr. Knowles Renshaw, who gives the following report of the case up to the time of its admission to hospital.

A brother of this child died of diarrhœa in the summer, and the patient himself had for twelve months frequent alternations between constipation and diarrhœa. He had been suffering for some weeks from slight protrusion of the anus. On December 5th the child had an attack of diarrhœa; on the 7th he suddenly complained of pain in the abdomen, and was sick; a dose of castor oil was given without relief. Dr. Renshaw was then called in. He found the child suffering from well marked attacks of colic, each attack lasting for a few seconds. The right leg was drawn up, and there was increased resistance at the right side of the umbilicus, but no definite tumour could be felt. There was no special tenderness near McBurney's point, but palpation soon brought on an attack of colic. The temperature was normal; the tongue slightly furred. The bowels had not been open since December 5th. Milk diet, hot fomentations, and a mixture containing bromide and an alkali were ordered. The same evening the bowels were moved, the stool being natural. The attacks of colic continued with some sickness on December 8th, and were worse during the night and early in the morning of the 9th, when the vomiting became frequent. On December 9th the colic continued, and a distinct tumour about the size and shape of a large walnut could be felt above and to the right of the umbilicus, just below the liver. Vomiting was frequent. A large simple enema was ordered, which brought away a quantity of mucus and a well-formed motion. On December 10th the vomiting ceased and the colic diminished, though there were several sharp attacks during the night. The tumour could be distinctly felt just above the umbilicus. On December 11th the attacks continued. An enema brought away a good motion, and the colic was relieved by opium. The child continued in much the same state till December 17th. An enema was given each day, and a formed motion came away. The tumour was felt between the umbilicus and the spleen on December 12th, and later moved downwards and towards the right. On December 16th it was just to the left of the umbilicus. Gurgling was several times heard at the seat of the tumour during an attack of colic. No more mucus and no blood were at any time seen in the stools; the temperature was normal throughout. On December 17th the child was admitted to the Children's Hospital under Mr. Wright's care, as Dr. Renshaw considered the case to be one of intussusception, which would probably require operation.

On admission to the hospital the resident medical officer, Mr. Izard, found the abdomen "apparently in normal condition;" no tension, there was "a vague sense of something in the nature of a swelling in the left hypochondriac region." Nothing abnormal was felt *per rectum*, some lumps of well-formed fæcal material came away during the examination, but there was no mucus or blood. There was no "abdominal expression," and the pulse was good. On the following day (December 18th) the bowels were opened by simple enema; the child took food well, and for the next two days the pain seemed to have quite disappeared, but it returned on December 23rd. On December 26th the child was examined under chloroform by Mr. Izard; nothing abnormal was felt *per rectum*, but there was a definite tumour in the course of the transverse colon, most distinctly felt in the left hypochondrium. Manipulation of the swelling without an anæsthetic caused considerable pain. The condition did not materially change up to January 1st, 1897; the bowels acted and there was sickness once or twice. There was visible peristalsis during the attacks of colic, which occurred at intervals, and were brought on by palpation of the abdomen.

The general condition of the child slowly got worse, and on January 7th the abdomen was opened by a median incision above the umbilicus. The mesenteric glands were found to be enlarged and hard, apparently tuberculous, but there were no tubercles seen on the intestines. A hard very freely movable mass was also felt evidently identical with the "tumour." This mass slipped about freely in the abdomen from the right iliac fossa into the right loin and over to the left side of the abdomen, but it was only with considerable difficulty that it could be brought out of the wound. It was then found that the tumour consisted of the cæcum much thickened by inflammatory infiltration of its walls, together with the adjacent small intestine firmly matted to it. The appendix thickened and bent upon itself with a coating of lymph upon its surface was found firmly tied down by its apex between the cæcum and ileum.

It was difficult, in consequence of the matting of the parts together, to make out the exact condition of affairs; but after carefully dissecting out the tip of the appendix it could be traced to its base, and here an invagination of the root of the appendix into the cæcum was found. The condition was as if the base of the appendix had been pushed into the cæcum, carrying part of the cæcal wall with it, and forming a depression about the size of the first joint of an adult index finger, from which the appendix sprang like the stalk of a mushroom. An enlarged gland lay close to the tip of the appendix. Attempts were made by squeezing and traction to withdraw the intussusception; but the rigidity and infiltration of the parts was so great that but little progress was made, and the peritoneal and muscular coats of the cæcum began to split at one or two points. An incision was then made into the cæcum in the course of a longitudinal muscular band and the finger passed into the bowel. By this pressure from within, aided by traction from without, part of the invagination was reduced, but the depression could not be completely obliterated. It having been ascertained that the lumen of the bowel in both directions was not materially encroached upon, the wound in the cæcum was closed by Lembert sutures; the appendix was ligatured and removed, its lumen being found completely obliterated at the root, and the abdomen was then closed. The after-progress of the case was satisfactory; the bowels acted on the 9th; the symptoms previously existing were relieved, and the child steadily improved in its general condition, and is now—May 4th—attending occasionally as an out-patient, though apparently quite well.

### Remarks by Dr. Knowles Renshaw.

The reasons I came to the conclusion that the case was probably one of intussusception were as follows:

1. The symptoms pointed to trouble in the right iliac fossa when I first saw the patient, but from the absence of any rise of temperature or special tenderness near McBurney's point, I did not think that it was a case of appendicitis.
2. The persistent colic, the attacks of which became longer and worse as time progressed, seemed to me to be due to some lesion of the intestinal wall.
3. The tumour between December 9th and 12th moved from right to left in the path of the transverse colon, exactly as an intussusception does. This subsequently proved to be due to the extreme length of the mesocolon, which allowed the cæcum a great range of motion.
4. It was evident from the slightness of the general symptoms that whatever the cause it was not sufficient to completely obstruct the intestine.
5. After the first enema a quantity of mucus escaped.

Against these facts must be placed the following:

1. The rarity of chronic intussusception in children.
2. The tumour was not sausage-shaped, but oval.
3. There was no blood passed by the anus, and, except on one occasion, little mucus.

### Remarks by Mr. Wright.

When I first examined the case, and indeed up to the time of the operation, my opinion was that the case was not one of intussusception, but of tuberculosis of the mesenteric glands, with incomplete obstruction by pressure and flexion of the bowel by an enlarged gland. Indeed, in this case there were enlarged tuberculous glands also present. I have twice been called to cases of supposed intussusception in which this con-

dition existed, and the absence of any characteristic signs of invagination, together with the history and appearance of the child, led me to this conclusion, though Dr. Renshaw's diagnosis proved to be the correct one. As the child's health was getting worse, I decided to explore the abdomen with a view of finding out which of the two conditions really existed, and whether it was possible to relieve the obstruction by removal of the gland, if that was the cause of the mischief, or by dealing with the intussusception if such it should prove to be. The condition found was puzzling, but I am inclined to explain it as probably primarily an appendicitis, for the appendix was thickened, its lumen obliterated, and it was firmly bound down by old adhesions as well as coated in part with more recent lymph.

The root of the appendix, by its hardness and fixity, probably became the starting point of the intussusception, just as a polypus or a shrunken segment of bowel may be; or, as in a case of Dr. Ashby's upon which I operated, just as a tuberculous gland may press into the wall of the gut, and cause an invagination. The slightness of the symptoms was no doubt due to the fact that the lumen of the gut was little if at all interfered with. The extreme mobility of the tumour was due to the length of the mesocæcum, possibly drawn out in the long course of the case. The question of resection of the cæcum in whole or in part was considered, but it was not thought advisable because the child was too feeble, and because exploration of the bowel from within showed that the gut was patent. Possibly the method of reduction adopted in this instance might prove useful even in cases where the invagination had gone further.

It is too soon yet to say whether the child will succumb to tuberculosis, or whether any future trouble will arise in the cæcum, but the removal of the appendix and the partial reduction of the invagination, as well as the great improvement in condition, make me hopeful that its troubles from that cause are at an end.

This particular form of intussusception must be exceedingly rare. I have not met with nor found a record of a similar case. We are indebted to Mr. Izard for notes of the case after its admission to hospital.

## FOUR CASES OF RUPTURED TUBAL PREGNANCY.

By T. ARTHUR HELME, M.D., M.R.C.P., F.R.S.E.,
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THE lodgment and development of a fertilised ovum within the lumen of a Fallopian tube is one of the most important abnormalities of pregnancy, and the almost inevitable rupture of the distended tube from growth and expansion of the ovum leads to one of the most anxious conditions with which a medical man is called upon to deal. The four cases, whose histories are here recorded, are examples of the latter condition—that is, rupture of the tube—in three of which surgical interference was called for:

CASE I.—The first case was that of the wife of a schoolmaster, aged 33, residing in a village some sixty miles from Manchester. She was the mother of three children, the youngest of whom was 2½ years old at the time when the events to be described took place. She had for some months worn a Hodge pessary on account of uterine prolapse; had always been regular until the month of May. Menstruation was due on May 21st, but did not appear; she had morning sickness and peculiar fancies about her food, just as in previous pregnancies, and therefore concluded that she was again pregnant. On June 14th—that is, about seven weeks from her last menstruation, there was some hæmorrhage from the vagina. On June 20th she sent for her doctor, Dr. Douglas Bone, of Hornby, on account of severe cramp-like pains in the lower part of the abdomen: she also complained of a bearing-down sensation, as if something wanted to pass by the bowel, although the bowels had freely moved that morning. On bimanual examination, Dr. Bone found a small lump above the left lateral fornix; the uterus was enlarged and the cervix patulous and softened. As the patient was in great pain, Dr. Bone returned to his surgery, some miles distant, for medicine; he was, however, followed by a messenger and hastily summoned back to the patient, who had suddenly become collapsed and fainted. On his return he found the patient blanched, with a pulse of 160, and the abdomen distended. The tumour, which had been felt an hour or two previously in the left half of the pelvis, had disappeared. The patient was in a state of collapse and remained so during the night, requiring repeated hypodermic administrations of digitalin and strychnine. Vomiting was troublesome, and no nourishment could be retained. This state persisted for twenty-four hours, and then the pulse improved a little. At this time I received a telegram to go over prepared to operate. This I did, and found the condition much as above described. The patient's face was blanched, lips almost white, pulse 120, abdomen much distended, and dull to percussion in the lower half. *Per vaginam* no pelvic tumour was to be felt, but an indefinite sensation of fluid in the pouch of Douglas. On opening the abdomen I found the peritoneal cavity full of blood and blood clot. The exact information received from the doctor led me at once to examine the appendages on the left side, and on so doing I found the left tube enlarged and distended, with a rupture into which I could pass my finger about one-third of an inch distant from the uterus. The tube was secured by ligature and excised, together with its ovary, and as much blood as possible cleared out from the peritoneal cavity at the same time. No fœtus was discovered, but the tube contained evident placental tissue. The patient made an uninterrupted recovery, and in March of the following year Dr. Bone wrote to me, "Mrs. N. is in the best of health; has been skating all winter."

This was a case of primary intraperitoneal rupture, at the seventh or eighth week, of a tubal pregnancy, where the ovum was implanted in the inner third of the tube, this being the usual ending of such a condition. Owing to the anatomical disposition of the layers of the peritoneum of the broad ligament at this point, it is unusual for anything but a rupture directly into the peritoneal cavity to occur, probably always before the twelfth week.

CASE II.—In this instance the patient was a young lady, aged 22, who had previously enjoyed perfect health. She was under the care of Dr. Ritchie, of Manchester, who carefully observed the case from the beginning. The patient married in July, and menstruated regularly in July and August, but not in September. On October 1st, that is, one month and ten days after the last menstruation, she fell off a chair on which she had been standing, and immediately thereafter felt a pain in the left side of her abdomen, and vaginal hæmorrhage came on. There was no fainting, no sickness, no shock, nor any sign of internal hæmorrhage (when seen by her doctor). The pain and bleeding continued at intervals for 13 days, when the pains became more severe and something was passed *per vaginam* while the patient was at stool. After that time the pains and hæmorrhage recurred more frequently and more severely. On examination (October 22nd) Dr. Ritchie found a mass in the left half of the pelvis, and recognising that probably he had to do with a tubal pregnancy, asked me to see the case. On October 23rd I found the following condition: The uterus, about normal in size, was retroverted; the cervix was slightly softened; there was marked pulsation in the left lateral fornix, through which could be felt a smooth, firm, somewhat elastic body, distinct from the uterus, movable and tender. The greater portion of this mass lay to the left of the uterus, but its inner portion projected inwards to the middle line in front of the uterus—that is, in the utero-vesical pouch. I again examined the patient before performing abdominal section on October 26th, and found the size of the mass had in the meantime somewhat (slightly) increased. On opening the abdomen the parietal peritoneum of the anterior abdominal wall was found to be discoloured by blood pigment, and escaped blood was found free in the general peritoneal cavity. On passing the fingers downwards along the omentum, to which pieces of blood clot were adhering, its extremity was found to be adherent slightly to the upper surface of a mass occupying the left half of the pelvis, and coming forwards as far as the middle of the utero-vesical pouch in front of the uterus, which was retroverted. This mass was made up of the enlarged and distended tube surrounded by blood clot; on the posterior and upper portion of the tube, about its middle, was a large rupture which was occupied by a firm body, afterwards found to be an apoplectic ovum. This ovum had somewhat of the shape of a dumb-bell, and at the time of operation was halfway protruded through the rupture, the smoother end being still retained and attached to the interior of the Fallopian tube, while the other end projected into the peritoneal cavity, and was adherent to the sigmoid flexure of the colon. Ligatures were applied, and the tube with its ovary and part of the broad ligament were removed. Microscopic examination of the dumb-bell-shaped body showed the presence of chorionic villi, which proved its fœtal origin. The patient made an uninterrupted recovery, and Dr. Ritchie informs me that he has recently delivered the patient of a full-time healthy child, the labour being normal in every way.

This case, then, was a primary intraperitoneal rupture, probably before the eighth week of pregnancy, the ovum being implanted in the middle third of the tube; but the clinical history is essentially different from that of Case I, and this is accounted for by the different and very unusual pathological condition found—namely, rupture of the tube with blocking of the rupture by the partially detached ovum.

As to the diagnosis of these two conditions, in Case I the history was decisive: first, there were evidences of pregnancy—namely, amenorrhœa and morning sickness; secondly, a tumour was felt in the left pelvis, these facts giving a presumptive diagnosis of tubal pregnancy; later, there were signs of severe internal hæmorrhage, with disappearance of the tubal mass, pointing to intraperitoneal rupture.

In Case II there was again no difficulty in recognising that tubal pregnancy existed; the difficulty lay in deciding whether the pregnant tube was still unruptured, or whether tubal rupture or tubal abortion had taken place. The chief points against there being a still unruptured tube were (1) the size of the mass, this being too large for the probable length of time pregnancy had existed; and (2) the position of the mass. The history was suggestive of tubal abortion—that is, the escape of the ovum into the peritoneal cavity through

the open fimbriated extremity as distinct from tubal rupture.

In tubal pregnancy we may have escape of the ovum either into the broad ligament (primary extraperitoneal rupture) or into the peritoneal cavity. Neglecting the former at present, we find four varieties of the latter described when the ovum perishes:

1. *Primary intraperitoneal rupture*, in which there is free hæmorrhage into the general peritoneal cavity, the clinical signs being pronounced shock and acute anæmia, generally so severe as to be rapidly fatal unless the bleeding points are secured. In these cases often no pelvic tumour is felt. Case I belongs to this class.

2. *Intraperitoneal Rupture with Limitation of Bleeding by the Formation of a False Sac.*—Hæmorrhage in this case goes on slowly, allowing time for adhesions to form between intestine and omentum, which limit the amount of bleeding, so that a mass is formed which is felt *per vaginam*. Shock and anæmia are not so severe as in No. 1.

3. *Complete tubal abortion*, very similar to No. 1, but with the signs of acute internal hæmorrhage less marked though severe. Shock may and generally does occur.

4. *Incomplete tubal abortion*, where we get oft-recurring abdominal pain with signs of internal hæmorrhage, often severe, and a gradually-increasing hæmatocele.

But none of these groups embraces the condition found in the second of my cases, so that we must add a fifth group in which, while the pathological conditions are entirely different, the symptoms and signs vary little from those of the fourth group:—

5. *Intraperitoneal rupture of tube and plugging of the rupture by partially-detached ovum with limitation of bleeding*, the clinical features in my case being (1) tubal pain; (2) vaginal hæmorrhage; (3) absence of shock; (4) expulsion of uterine decidua(?); (5) recurrent tubal labour pains and slight internal hæmorrhages; (6) increasing size of hæmatocele; (7) localised peritonitis; the hæmorrhage is not, however, shut off from the general peritoneal cavity.

As to the question of causation, it is evident that in Case II there is no apparent cause, the tubal pregnancy occurring in a young healthy newly-married woman, who had given no signs of pelvic mischief. In Case I Dr. Bone pointed out that the prolapse of the uterus might, by elongating the tube, have diminished the lumen, and so hampered the movement of the fertilised ovum.

The next two cases are examples of extraperitoneal rupture:

CASE III. Mrs. S., aged 27, has one child, aged 3. When six weeks pregnant (there being morning sickness, amenorrhœa, and other signs just as in her previous pregnancy) patient lifted a dresser, and immediately felt an unusual and queer sensation in the lower part of the abdomen. Two days later severe pains in the abdomen occurred, and patient had repeated attacks of faintness, the pains being very severe. The doctor was called in, and in spite of treatment the pains continued. One month after the accident there was bleeding from the vagina, and the abdominal pains grew worse. Two weeks later patient felt a lump in the right side, and as the pains increased in severity she was seen by one of my colleagues, who admitted her into hospital. On bimanual examination a firm mass the size of a fœtal head was felt to the right of the uterus bulging downwards the right lateral fornix, and rising out of the pelvis above. The patient was kept under observation, and a week later the swelling had increased in size, extending now behind the uterus, and bulging the posterior fornix into the vagina, where fluctuation could be felt. I now saw the patient for the first time, and as it was evident that we had to deal with an intraligamentous rupture of a tubal pregnancy, in which the hæmorrhage was extending, operation was advised. The patient was observed for another week, during which time there was a further and rapid increase in the size of the tumour, which had now crossed the middle line into the left broad ligament, extending up into the left iliac fossa. The upper limit of the mass on the left side was almost on a level with the umbilicus. The patient's general condition was rapidly becoming serious, the temperature had assumed a hectic type with rapid pulse and severe pain, peritonitis being indicated, if not suppuration. It was decided to perform abdominal section, and the patient was placed under my care. On opening the abdomen the following condition was found: The uterus, enlarged and pushed upwards, lay mesially; the right tube was enlarged, its middle portion being greatly distended and riding upon the right broad ligament, between the layers of which was a fluctuating mass; continuous with this and lying immediately outside the peritoneum of the pouch of Douglas, which was lifted up by it, was a large mass of blood; towards the left (as on the right) this hæmatoma extended into the substance of the left broad ligament, the layers of which were widely separated by the blood which passed outwards (under the peritoneum) into the iliac fossa; the left tube and ovary were lying upon and in front of this mass, to the upper surface of which the omentum and intestines were adherent (that is, on the left side). Owing to the central position of the uterus the sac could not be stitched to the margins of the abdominal incision, which was therefore closed. The patient having been placed in the lithotomy position, a posterior colpotomy was performed, the posterior vaginal wall being incised at its cervical reflexion, and the extraperitoneal hæmatoma opened by a wide incision; a very large quantity of blood and blood clot escaped, but no fœtus was found. The opening was kept patent and the sac washed out daily, the patient making an uninterrupted recovery. The pathological condition was evidently produced as follows: A tubal pregnancy of the right side ruptured into the substance of the right broad ligament; at intervals there were recurrent hæmorrhages, the blood pushing its way along the loose connective tissue outside the peritoneum and above the vaginal roof, behind the cervix uteri, lifting up the peritoneum of Douglas's pouch and bulging down the vaginal roof, at the same time pushing the uterus upwards and forwards. As the hæmorrhage increased it extended into the left broad ligament, and came to form the huge hæmatoma, which passed on into the left iliac fossa, and eventually formed a mass reaching up nearly to the level of the umbilicus on the left side. By secondary peritonitis the omentum and intestines became adherent to the upper surface of the mass. This was not a primary rupture of the tube into the pouch of Douglas, with the formation of a false sac or capsule by peritonitic adhesion, a condition which is sometimes met with. The pouch of Douglas was readily seen and the hand passed into it, when I opened the peritoneal cavity from above, and the intestinal adhesions were limited to the left side. The right tube was quite free from adhesion, riding, as it were, on the top of its greatly swollen ligament, but distended and enlarged in its middle portion, where no doubt the pregnancy had been located. Six months later the pelvis felt almost normal except for a slight "thickening" of the right broad ligament. I examined the patient again a few weeks since, and it seemed almost extraordinary that the parts could have returned to a condition so nearly normal.

In contrast with the preceding three cases in which surgical treatment was necessary the next case is one in which medical treatment alone sufficed.

CASE IV.—Mrs. B., aged 39, multipara. This patient was seen in consultation in Bolton. There was the usual history of symptoms pointing to the existence of pregnancy, namely, delayed menstruation and morning sickness. A fortnight before I saw the patient she had experienced a severe pain in the abdomen, and had fainted in the street. After this she suffered from frequent micturition. Four days later she again fainted when on the chamber, and the doctor, on making a vaginal examination, found a swelling to the right of the uterus. Several days later she again had an attack of severe pain, and fainted; the pelvic swelling was found to be larger and the patient's condition became somewhat serious, her pulse being 120. The patient, however, rallied, and I was then called in, and made an examination under chloroform. The patient's general condition had improved, and at this time the pulse was fairly strong, regular, and beating at 90. On examination I found a swelling about the size of a fœtal head occupying the position of the right broad ligament, and extending across the middle line behind the uterus, which was much enlarged, its fundus being pushed across to the left: the swelling had a firm doughy feeling. I carefully passed the sound, which went a distance of 4½ inches. The diagnosis was rupture of a tubal gestation between the layers of the right broad ligament. As the patient had recovered from the shock I advised that no operation should at that time be performed; that the patient should be kept at absolute rest and watched, the vagina meanwhile being douched with antiseptics, so that we might proceed at once to perform colpotomy if hæmorrhage recurred and interference became necessary. Three days later a perfect decidual cast escaped from the uterus, which confirmed our diagnosis. The patient made a steady recovery, the mass of effused blood being completely absorbed in four or five weeks.

These two cases (III and IV) are examples of the extraperitoneal variety of rupture. Case IV illustrates the fact that the patient may recover from this condition without operative interference, a not by any means unusual ending. In such cases the indication is to watch the patient closely; if no further hæmorrhage occurs (as shown by absence of increase in the size of the hæmatoma) and no destructive changes take place, interference may be unnecessary, the hæmatoma gradually becoming absorbed in the course of a few weeks; but if, on the other hand, further hæmorrhages occur, as in Case III, or suppurative or peritonitic processes arise, the sac should be opened. Case III illustrates how satisfactorily this may be done *per vaginam*, this method giving the advantage of free drainage from the most dependent part.

## RUPTURED INTERSTITIAL TUBAL PREGNANCY TREATED BY SUTURE OF THE FISSURE.

BY PETER TYTLER, M.D.ABERD.,
Honorary Surgeon to the Ancoats Hospital, Manchester.

THOUGH cases of tubal pregnancy are frequently reported at medical societies and in medical journals, yet, so far as I have observed, no case where the tube was ruptured in the interstitial part of the uterus has been fully recorded.

F. D., aged 31, the mother of seven children, was admitted to Ancoats Hospital on May 13th, 1895, in a state of collapse from internal hæmorrhage. Her history previous to illness was that she had not menstruated for six weeks when she was seized on May 3rd with a severe pain at the bottom of the

abdomen, but after a few hours she got up again and went about her work as usual. She noticed that the menses came on after this, but were very dark and very scanty. On May 8th, five days after the first attack, when she was washing clothes, she was again suddenly attacked with great pain in the stomach, and became cold as death. She was carried upstairs to bed, and remained there in a state of great collapse from May 8th to 13th, when, as there was no improvement, she was sent into the hospital.

Her condition on admission was that of great collapse, pallor, coldness of surface, feeble pulse, etc. Physical examination of the abdomen revealed a rounded mass, softish and smooth, low down and to the right of the middle line. Impulse applied to the cervix uteri was communicated to the tumour. There was mucus and blood in the vagina. The cervix uteri was deeply torn on the left side. The thoracic and other organs were normal.

I first saw the case on May 15th, two days after admission, and eight days after the second attack I found the condition in the abdomen as already stated. Percussion over the lower part of the abdomen was clear, and nothing was to be felt in Douglas's space. As she seemed to be rallying we agreed to watch events.

On May 17th I received an urgent message that the patient was vomiting, very much worse, and anxious to have something done. After chloroform had been administered I made a small exploratory incision between the pubes and umbilicus, with a view to verify the diagnosis of ruptured tubal pregnancy, which had been made from the first by Mr. Emery, the house-surgeon. On opening the peritoneum the abdomen was found to be full of black clotted blood. The incision was at once enlarged, and a hand introduced to compress the right broad ligament to prevent fresh bleeding, which was feared might recur on the pressure being relieved by opening the abdomen and removing the clots. However, when the clots were removed there was no sign of recurrence or even of recent bleeding. We found a rent in the fundus of the uterus on the right side, extending from the middle to the origin of the right Fallopian tube. The right side of the fundus was twice the breadth of the left. The length of the rent was nearly 2 inches. This opened into a spherical cavity filled with fibrin, which was removed, finding no trace of cyst wall or ovum.

After carefully clearing the peritoneal cavity, we removed the right tube and ovary. Then after carefully washing out the fundus of the uterus, the rent was closed with four fishing gut sutures, the edges being inverted slightly. After again carefully clearing out and inspecting the peritoneal cavity, a drainage tube was put in, and the abdomen closed in the ordinary way.

The patient made a good recovery, and was discharged on July 2nd about six weeks after operation, with a small sinus at the lower end of the wound in the site of the drainage tube. This sinus remained open for some months, discharging a suture now and again till it healed.

About eight months later the patient had a severe attack of dysentery, and since then has had more or less diarrhœa at every monthly period.

The usual treatment in these cases is to remove the uterus. This I ascertained afterwards from some remarks made by Mr. Bland Sutton some time after I operated on my case. He also mentions that he had heard of a case which had been treated in a manner similar to the method I had adopted, and considered it an advance on the previous method of removing the uterus. So that with ordinary surgical principles it is possible under this Listerian dispensation to be wisely ignorant of the orthodox procedures of a less happy time.

THE PRINCE OF WALES'S FUND.—The Honorary Secretaries of the Prince of Wales's Hospital Fund for London request us to announce that an illustrated programme of the Royal Jubilee procession will be published in aid of the funds, to which the entire profits will be devoted. It will give detailed particulars of the procession, and 64 pages of illustration. The volume, the publication of which has been authorised by the Prince of Wales, will be sold at the price of 1s., and will be on sale four or five days before the date of the procession.

## FOUR CASES OF INTRAUTERINE DEATH: SPONTANEOUS EXPULSION OF THE OVUM LONG AFTER ITS DEATH.

BY JAMES OLIVER, M.D., F.L.S., F.R.S.EDIN.

CASE I. *Retention of a 4½ Months' Product of Conception for Two and a Half Months after its Death.*—M. R., aged 26, and married eight years, had had four children and no miscarriage. The last child was born in June, 1890, and was suckled until June, 1892. After this confinement the menstrual discharge reappeared in September, 1891, and it recurred regularly thereafter for six months. She menstruated for four days in March, 1892, the discharge ceasing on March 24th. From March 24th until August 15th there was complete amenorrhœa. From August 15th until August 29th there was a slight amount of coloured discharge every day. During the fourteen days that this hæmorrhagic discharge was noted, she complained occasionally of slight pain in the lower abdomen. From August 29th until September 21st, when she came under my observation, there had been no recurrence of the hæmorrhagic discharge. On September 21st, 1892, the following notes of the physical signs were made: "There is nothing to note regarding the abdominal examination. Vaginal examination: The cervix uteri is located towards the left side of the pelvis; it is not soft. The os is directed downwards. In front and to the right of the cervix the vaginal roof is pushed down by a somewhat lobulated swelling of about the size of an ordinary cocoa-nut; this swelling is the body of the uterus." On October 21st, 1892, a blood-coloured discharge was again observed, and simultaneously pain was experienced in the lower abdomen. On the following morning a mass was extruded from the vagina, almost round in shape, with a diameter of about 3 inches. It contained a fœtus which measured in length 5 inches, and appeared to be 4½ months old. The placenta was hard and cup-shaped.

REMARKS.—This patient became pregnant whilst suckling. The fœtus died probably about August 15th, conception having occurred soon after the menstruation in March.

CASE II. *Retention of a 5½ Months' Fœtus for Three Months after its Death. Death of Fœtus probably dependent upon an Epileptic Seizure attacking the Mother.*—J. C., aged 22, married twelve months, who had had no child and no miscarriage, came under my observation on March 29th, 1893. She then stated that she had not menstruated since July 20th, 1892. She added that during the three weeks preceding an epileptic seizure which she had on January 5th, 1893, she had observed the movements of the child, but since this attack she had felt no movement. On March 29th the following notes were made: "Colostrum can be obtained from both breasts. The abdomen is occupied by a central and globular swelling which extends from the pubes to within an inch of the umbilicus. The cervix uteri is soft and the os is patulous. The abdominal tumour is the enlarged uterus. On auscultation, neither the placental *souffle* nor the fœtal heart could be detected." On April 10th, what appeared to be a 5½ months' fœtus was expelled.

REMARKS.—In this case the death of the fœtus was probably dependent upon the epileptic seizure. Throughout the existence of the fœtus *in utero* no external hæmorrhage occurred until a few hours before the dead ovum was expelled.

CASE III. *Retention of an Embryo of from 4 to 6 Weeks for Four Months after its Death.*—E. S., aged 40, and married thirteen years, had had seven children and no miscarriage. The last child was born in March, 1892; it was not suckled, and the menstrual discharge reappeared five weeks after this confinement. During the succeeding twelve months menstruation recurred regularly. She menstruated as usual in April, 1893, the discharge ceasing on April, 14th. From April until the last week in July there was complete amenorrhœa. During the last week in July a hæmorrhagic discharge from the vagina was observed, and although slight in amount this discharge had been noted every day thereafter until the patient came under my care, on September 6th, 1893, when the following notes were made: "Abdominal examination is negative. Vaginal examination: The cervix uteri, which is

firm, is located rather higher than usual, and far back. The os is not patulous. The body of the uterus, enlarged to the extent of an eight or nine weeks pregnancy, is detected readily by bimanual examination. On September 24th, labour-like pain was experienced, and a mass was expelled from the vagina. This mass, which was of the size of an orange, contained an embryo of about 1½ inch in length and 1½ ounce of dark biliary-looking fluid.

REMARKS.—In this case the death of the embryo was probably due to defective evolutional power in the fecundated ovum, and no external hæmorrhage occurred for three months after its death.

CASE IV. *Retention of a 3 or a 3½ Months' Fœtus for Five Months after its Death.*—R. S., aged 40, and married fourteen years, had had five children and two miscarriages. The miscarriages occurred between the births of the fourth and fifth children, and the last child was born in 1890. She ceased menstruating on August 26th, 1895, and thereafter there was complete amenorrhœa until February 12th, 1896, when a dark blood-coloured discharge from the vagina was observed. On March 18th, 1896, the patient came under my care, and she stated that daily since February 12th the blood-coloured discharge from the vagina had been noted. She had complained of no pain. On March 18th the following notes were made. "Abdominal examination is negative. Vaginal examination: The cervix, which is soft, is located towards the left wall of the pelvis, and the os is slightly open. By bimanual examination the body of the uterus is readily defined, and is equal in size to about a ten weeks pregnancy. The consistence of the uterus is doughy, and its right half is lobulated. No colostrum could be obtained from the breasts."

From March 18th until April 24th there was daily a blood-coloured discharge from the vagina. On April 24th with a slight labour-like pain, a mass was expelled from the vagina. This mass contained what appeared to be a 3 or a 3½ months fœtus, and, although the membranes were perfectly intact, the sac contained no fluid.

REMARKS.—In this case the fœtus had probably died in the early part of December, but no external hæmorrhage was observed until February 12th.

## NOTE ON A PECULIAR POST-MORTEM APPEARANCE OF THE CARDIAC WALLS.

BY F. PARKES WEBER, M.D.,
Physician, German Hospital, Dalston.

THE heart in question was that of a man, aged 56, who had disease of the aortic valve and a malignant tumour of the liver. He died from chronic jaundice and progressive cachexia. The necropsy showed that the tumour was a primary columnar cell carcinoma, completely enclosing the gall bladder, which was crammed full of gall stones. There were a few secondary nodules in the liver, but no metastatic growths were observed in other parts of the body.

The heart was hypertrophied, and there were thickening and retraction of the aortic valves, but the cardiac walls presented an unexpected appearance, namely, multiple spots of a paler colour than the rest of the cardiac tissue. These patches were observed under the exocardium, and on cutting into the heart muscle they were found to be scattered about throughout the cardiac substance. They were somewhat globular in shape, and on the average about the size of a small pea. The tissue of which they were composed seemed to the naked eye to be of the same consistence as, and continuous with, that of the rest of the heart muscle. The only difference which distinguished these spots from the tissue around them was that they were less red, and this, associated with the universal icteric staining, gave them a dirty yellowish appearance. In the centre of some of these spots a minute speck could be distinguished with the naked eye, as if from the prick of a pin.

Under the microscope collections of bacilli, which had taken on the ordinary logwood stain deeply, were seen occupying spaces (sometimes blood vessels) amongst the muscle fibres. These spaces had apparently formed the centres of the pale areas observed by the naked eye, the main part of the areas having stained just the same as the ordinary cardiac tissue.

Though the necropsy was performed on the day following the patient's death (the commencement of January), I believe that the pale areas in the heart muscle were due to *post-mortem* changes, that is, to some chemical action exerted by the products of metabolism of *post-mortem* growths of bacilli on the tissue around them.

The position of the bacillary colonies, sprinkled as they were through the cardiac substance, necessitates the conclusion that the parent microbes of the colonies must have been disseminated during life, though the absence of an inflammatory reaction shows probably that they only commenced to grow after the blood stream had ceased.

It must be mentioned that besides the definite foci already alluded to there were likewise scattered bacilli seen in other parts of the sections, especially at the edges, as if their growth had continued after the *post-mortem* examination; the pieces removed for microscopic examination were unfortunately not immediately placed in an antiseptic hardening reagent. However, the main conclusion which I have stated remains, I believe, unaffected, for there is no other way of accounting for the unusual appearance of the cardiac substance, an appearance which attracted the attention of, and was novel to, all those present at the *post-mortem* examination. In short, my explanation is that micro-organisms (more or less saprophytic in character) from the intestine or gall passages, gained an entrance during the last moments of life into the blood stream, and by the blood were scattered through the different tissues of the body, so that instead of the *post-mortem* changes having to spread from the intestines, air passages, etc., they commenced at many different spots at the same time, there being already single microbes scattered through the tissues, each one ready to form a colony the moment that the tissue life around it became extinct. The reason why similar appearances were not observed in other tissues is probably, first, that they were not carefully looked for; and secondly, that the comparatively homogeneous texture and tint of the heart substance renders it particularly easy to recognise circumscribed changes, even though slight, in this organ.

## NOTES ON AN EPIDEMIC OF RUBELLA.

BY W. J. J. ARNOLD, B.A., M.B.R.U.I.,
Aberdare.

THE case mentioned in the BRITISH MEDICAL JOURNAL of April 23rd by Dr. Waters accords more with the clinical features of rubella than those of scarlet fever. Subsequent desquamation is not conclusive evidence that a given rash was that of scarlet fever, nor is the fact that rheumatism complicated the course of the illness.

Desquamation to a greater or less extent is quite common after rubella, though it is often overlooked, owing to its usually limited distribution and the minute size of the epithelial scales.

A word or two on an epidemic which recently occurred in this neighbourhood may be of interest, as illustrating the points of distinction between the two affections. The note is based on the observation of considerably over 200 cases. In its mode of onset the disease closely resembled scarlet fever,—headache, sore throat, vomiting, rise of temperature, and quickened pulse. One of the most striking differences between these two diseases is to be found in the pulse-rate. In all the cases in this epidemic its frequency bore a distinct relation to the temperature, being increased as the temperature rose, but where the temperature was but slightly elevated the pulse, as compared with the rapid and excited pulse of scarlet fever, was distinctly slow and quiet. In one case only did it rise beyond 120 per minute, in very few did it reach this figure, and in the vast majority it was but little over 100 per minute.

The rash appeared almost invariably on the first day, though in one or two instances it was delayed till the second. The rash was of a fainter red shade than that of scarlet fever, and more papular, giving rise very commonly to the "goose skin" condition.

Contrary to what is generally stated, I never observed the rash on the face, though a suffused blush at the commencement of the illness was common. The white line which remains for a few seconds on drawing the fingernail across the skin, and which is spoken of as "typical" in scarlet fever, I invariably failed to produce. If this line be pathognomonic of the scarlet fever rash, as some say it is, its absence would be a valuable sign to rely on in distinguishing the two rashes.

Enlargement of the posterior cervical glands was a constant and marked feature, I think, without exception, in all the cases. In the great majority of the cases little complaint of illness was made, and that only transitory, seldom lasting beyond the first or second day; and, with rare exceptions, the appetite was scarcely, if at all, impaired. In some few, however, convalescence was not established for a week or ten days.

In one case, that of a child aged 5, the temperature rose to 105° on three or four successive days; there was considerable delirium; pulse as rapid as 130, and there was very abundant rash, followed by conspicuous desquamation, which was general over the body, and was not completed till some weeks had elapsed. There were several other cases which resembled this one, though of lessened severity.

Many of the children, including the child above-mentioned, were, despite the precautionary orders to the contrary, allowed to play in the open air during the desquamation stage, yet no harm resulted.

In all the cases which were at all severe the urine was examined for albumen on different occasions, yet in not one instance was albumen present. In two cases pains in the joints were complained of for three or four days, accompanied by slight exacerbation of the fever, but ending in rapid convalescence. No ear mischief was discoverable in any case, and catarrhal symptoms were uniformly absent.

In general practice the two diseases are undoubtedly often confounded, and this fact frequently accounts for the supposed appearance of scarlet fever twice in the same patient. If in doubt I believe that most practitioners err on the side of safety, and pronounce in favour of the more serious disease, though this course often involves an unnecessary amount of restriction in the treatment of the patient, considering that rubella is practically free from the grave complications and sequelæ attendant upon scarlet fever.

## THE PRODUCTION OF ASEPSIS IN ACUTELY SEPTIC WOUNDS BY THE FREE APPLICATION OF PURE CARBOLIC ACID.

BY A. ERNEST MAYLARD, M.B.LOND., B.S.,
Surgeon to the Victoria Infirmary, Glasgow.

THE following brief extracts of cases show the great potency of pure carbolic, when freely applied, of rendering rapidly aseptic all the parts of an acutely septic wound. In some of these cases the septic process was that of acute traumatic gangrene, and some ounces of the pure acid were brushed over the raw and freely exposed surfaces. In each instance in which it was employed improvement set in immediately after the application.

CASE I. *Extensive Laceration of Foot by Railway Accident: Amputation: Traumatic Gangrene: Free Application of Pure Carbolic Acid: Cessation of Septic Process: Cure.*—A. B., aged 35 years, was admitted into the Victoria Infirmary in March, 1897. His foot had been badly smashed by a railway accident. The foot was amputated, but the stump became attacked with typical acute traumatic gangrene. The question became one of reamputation or a trial of carbolic acid. The latter method was selected, the whole wound exposed, and the acid freely applied. Improvement was noticed the next day. The acid was applied daily for about a week until all smell had disappeared, all inflammation checked, and healthy granulations were seen to be springing up. As soon as the stump was quite aseptic sufficient bone was removed to enable proper flaps to be formed.

In this case the man's great pain subsided, and all constitutional symptoms at once disappeared on the first application of the acid. No anæsthetic was needed for applying the acid. The result of checking the septic process was to allow more of the limb being saved than would have been possible if reamputation had had to have been performed for the traumatic gangrene.

CASE II. *Extensive Tuberculosis of Hip-joint: Acute Suppuration: Amputation at Hip: Acute Inflammation and Sloughing of Wound: Free Application of Pure Carbolic Acid: Cessation of Septic Process: Cure.*—A girl, aged 15 years, practically eaten up with tuberculosis, and possessing little or no recuperative power, was admitted into the Victoria Infirmary in January, 1897. The hip-joint had been excised some weeks previously; a large acute abscess had formed in front of the thigh. The child's condition became such as to render it advisable to amputate at the hip-joint. The anterior flap contained part of the lining wall of the large septic abscess. Transfusion of saline solution was performed immediately after the operation; the pulse and general condition greatly improved. Notwithstanding stuffing and dressing, the large wound became actively septic, and the girl very ill; secondary hæmorrhage was feared, for considerable-sized sloughs were separating, and the discharge was very fœtid. The wound was freely opened up, and every part of it copiously swabbed with pure carbolic. The following day showed much improvement both locally and generally. In less than a week the whole septic process was stopped; healthy granulations were seen springing up everywhere, the patient eating and sleeping well, with a normal temperature.

In this case matters looked as bad as they well could, and a nurse was in constant attendance for fear of secondary hæmorrhage. In one of the dressings, after the wound had become practically aseptic and was healing rapidly, we discovered a part of the femoral artery with the ligature attached to it, which had almost separated. The artery itself, however, was well covered over with healthy granulations. It is therefore beyond doubt that had we not checked promptly the septic action, we should have had secondary hæmorrhage.

CASE III. *Extensive Laceration of Foot: Acute Traumatic Gangrene: Free Application of Pure Carbolic Acid: Immediate Cessation of Septic Process: Cure.*—A boy, aged 2½ years, was admitted into the Victoria Infirmary suffering from an extensive lacerated wound of the foot, with dislocation of the internal cuneiform. The case was first seen by my assistant colleague, Dr. Grant Andrew, who replaced the bone, cleansed the wound, and dressed antiseptically. In the course of a few days, however, sloughing set in, with acute inflammation and much fœtor of the discharge. It was considered necessary to amputate. An attempt, however, was first made with pure carbolic acid freely applied to every part. Marked improvement at once set in, and the boy left the hospital with a serviceable foot.

The satisfactory progress which at once set in this case after the first application of the acid was very striking. Every effort had been made by prolonged submersion in antiseptic solutions to render the parts aseptic but without avail, and amputation was urgent if the inflammation had not been stopped by the acid.

CASE IV. *Extensive Laceration of Forearm and Hand: Amputation: Acute Gangrene of Stump: Free Application of Pure Carbolic Acid: Immediate Cessation of Septic Process: Cure.*—A man, aged 27, was admitted to the Victoria Infirmary having received an extensive lacerated wound of the soft part of the forearm and hand. An endeavour was made by carefully cleansing and dressing to save the parts. Amputation had, however, to be performed at the junction of the middle and upper thirds of the forearm. The stump became attacked with acute traumatic gangrene. The flaps were opened out, and pure carbolic acid applied freely to every part. The septic process at once ceased, the temperature fell, and in the course of a few days the wound became quite healthy, and a good stump without further operation resulted.

In this case the man, on the morning following that on which the application had been made, told us he had slept well, had been free from pain, and felt hungry. His temperature had fallen from 102.8° F. to 99.4°. Nothing could have been more striking than the comparison of the man's condition, both locally and generally, before and after the application.

I could add other cases to those briefly narrated above to show how powerful is the germicidal effect (for such I believe to be the action) of pure carbolic acid in all kinds of acute septic cases, whether these be of the nature of acute abscesses, of acute gangrene, or of septic inflammatory processes connected with malignant disease. There appears to be no pain connected with the application of the acid except so far as is entailed in the mechanical manipulation of the wound and its surfaces. When sloughs exist these should be practically soaked in the acid. On the living tissues the acid appears to have no deleterious effect; if allowed, however, to run over the skin it excoriates and causes pain.

## NON-VENEREAL BUBO.

BY CHARLES C. GODDING, M.R.C.S.,
Fleet-Surgeon, H.M.S. *Centurion*, Hong Kong.

[Communicated by the DIRECTOR-GENERAL OF THE MEDICAL DEPARTMENT R.N.]

SINCE my paper on Non-venereal Bubo appeared in the BRITISH MEDICAL JOURNAL of September 26th, 1896, three communications have been made relating to this disease: two from

army medical officers—one suggesting a purely venereal origin, the other boils, dhobi, itch, malaria, and septic infection from intestines; finally, Dr. Cantlie's account of these idiopathic buboes, given at the Epidemiological Society, December 16th, and published in the BRITISH MEDICAL JOURNAL, January 9th, 1897, connecting them with plague, and classifying them as pestis minor. I should like to deal as briefly as possible with each of these propositions, and to state explicitly that my remarks apply only to non-venereal bubo.

It is an old idea that the prevalence of these bubo cases in the army is due to venereal disease, but, in order to show reason for my conviction that venereal disease is not a cause, I have investigated the personal histories of 13 men in this ship who suffered from the disease during the past year (1896) with these results: In 4 young men there was no venereal history whatever; in 1 senior petty officer certainly none for many years; in 5 there had been no venereal history for about eighteen months; 1 had a doubtful history before joining the service, and in 2 only was there any considerable venereal history. The cases with venereal history do not last longer, and the results of treatment also discountenance the venereal idea; mercury and potassium iodide are absolutely harmful, as I found out many years ago, these drugs increasing the general cachexia and tendency of the bubo to suppurate. All cases of bubo associated with venereal disease are invariably so classified.

Malaria, dhobi, boils, and sepsis from intestines are causes suggested by Surgeon-Major B. M. Skinner, A.M.S.[1] I do not consider malaria to be a common cause, and my opinion is fixed because I have found quinine useless, have practically abandoned it, and, as stated in my paper, only give it in those cases in which there are definite indications for its use. My recent cases also are men who have mostly been with me in this ship for the last three years, and who have shown no signs of malarial poisoning. Sympathetic bubo associated with boils, dhobi, etc., would be returned nosologically under their respective headings; but admitting these as immediate causes of origin, they do not account for the long train of constitutional symptoms which mark this disease. The suggestion of septic poisoning from the intestine is very plausible, but in none of my cases has there been dysentery or symptoms of ulceration of the bowel, and I imagine the treatment (free use of arsenic) would very soon have given prominence to such conditions.

As to pestis minor, Dr. Cantlie's account of these idiopathic buboes corresponds very closely to my own, especially the symptoms of fever, anæmia and bogginess of the bubo towards the twentieth day. The possible connection of non-venereal bubo with plague has certainly never before occurred to me; doubtless many abortive cases of plague occur during an epidemic (and the same may be said of other epidemic diseases) when from some personal idiosyncracy the individual is partially protected, and these abortive cases may have given rise to the idea; and had non-venereal bubo been unknown till after the plague epidemic there would have been still more substantial grounds for the association, but non-venereal or sympathetic bubo is a disease which has long existed, and has a distinct nosological heading.

Finally, I have seen these cases for the last twenty years, in various places, the worst on the East African Coast, when there was no suspicion of plague, and for many years past the *Health of the Navy* shows a fairly constant number of these cases, so I fail to draw any connection between the two diseases.

In the absence of any account of this disease, the treatment is necessarily an outcome of personal experience. I deprecate surgical interference for two reasons: (1) Because they are operations on patients already suffering from a disease marked by anæmia and weakness, and consequently (2) the wounds often take a long time to heal, and the resulting scars are sometimes truly formidable and liable to break down. See Case III in my paper.

I think excision of inguinal glands has become rather a matter of routine, and is sometimes undertaken without due regard to the value of the glands. On the other hand, believing as I do that this is a constitutional disease, it would be very illogical on my part to expect to cure it by excising these enlarged glands, which are only a local symptom. This is a distinct disease; has long existed, and though there are some intractable cases requiring operation, yet the disease can mostly be cured by constitutional treatment. I have received a gratifying account of a case in H.M.S. *Redpole* at Hankow from Surgeon M. J. Rodd, and there are now many recovered men in this ship with sound groins and useful glands to support the statement. I now regard arsenic almost as specific in these cases as quinine in malaria.

NOTE.

[1] BRITISH MEDICAL JOURNAL, January 9th, 1897.

# MEMORANDA:

## MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

### A CASE OF RECURRENT BULLOUS KERATITIS.

CASES of bullous keratitis are interesting not only because of their rarity, but also from a pathological point of view. It will be understood that I do not include vesicular keratitis or herpes cornea, which has been so fully described by Horner. In the course of four years I have only seen three cases of recurrent bullous keratitis—one in Fuchs's clinic, another when house-surgeon with Mr. Berry at Edinburgh, and the one at present under my care. The causes are chiefly two, each giving rise to a distinct form. One form is illustrated by the following case:

Mrs. C., 42, was sent to me three months ago by Dr. Howell of Middlesbrough. She complained of great pain in the right eye, as if there were a foreign body in it. The upper lid was red and somewhat swollen, and there was marked lachrymation and photophobia. The eye itself showed much circumcorneal injection, and occupying the lower half of the cornea was a very large bulla, with opaque contents. The tension was + 1. The cause is old deep-seated disease (irido-choroiditis) with raised tension, causing probably œdema of the cornea. A large iridectomy had been performed previous to my seeing the case, and the left eye showed old iritis, with complete posterior synechiæ, and cataract.

Treatment consisted in applying cocaine, removing the bulla as thoroughly as possible with a pair of iris forceps, and the application of a firm pad to keep the eyelids steady, the pad to be removed once or twice daily for the purpose of having the eye washed with weak boracic lotion and applying a little boracic ointment to the edges of the lids. Eserine was also occasionally instilled.

If there is a specific history suitable remedies should be administered, and followed up with tonics. Tonics in any case should be given as the patient gets run down from the constant irritation. The patient should also be out as much as possible.

This case has greatly improved under treatment, but a good deal of corneal opacity remains.

The other form, first described by Professor Hansen Grut, of Copenhagen, results from a superficial wound of the cornea. The symptoms are much the same, but the bulla is usually smaller and has clear contents, and tension is not raised. The tendency to recurrence in this form is ascribed to faulty healing, the epithelium being readily detached so as to form a bulla.

Stockton-on-Tees. G. VICTOR MILLER, M.B.

### INVERSION AND AVULSION OF THE UTERUS: RECOVERY.

I WAS sent for in haste five miles down the country on December 29th, 1896, to see a woman who had just been confined. On my arrival at the house the midwife informed me that the child had been born two hours before on the floor, while the mother was on her hands and knees. After separating the child and getting the patient into bed, she found a large lump protruding from the vagina, which she thought was the head of another child, and consequently pulled on it for three-quarters of an hour, until she got it away. I immediately examined this, and found it to be the inverted uterus. This I turned back again, and found the whole of the uterus and cervix, with its peritoneal covering, and one

broad ligament and Fallopian tube, without the ovary. The broad ligament of the other side was congenitally absent. On examining the patient I perceived her to be suffering from shock.

On inserting my finger into the vagina it moved freely about among the intestines, and the absence of the uterus was distinctly apparent. The hæmorrhage was but slight, and gave no trouble. I feared that the natural result of such a catastrophe would be prolapse of the bowels and general peritonitis. I therefore kept her on her back, put in an antiseptic plug, and in order to quicken the peritoneum administered morphine, and ordered a strictly milk diet. At the end of a week the bowels were moved by an enema. Contrary to what might have been expected no serious symptoms occurred. The peritoneum closed up, and the top of the vagina cicatrised over. In about three weeks the patient was able to get up and go about. On visiting her three months later she was in her usual health, and the vagina was now a *cul-de-sac*.

E. HICKSON SMITH, M.R.C.S., L.R.C.P.Lond.,
Assistant Surgeon to the Longton Hospital.

## THE TREATMENT OF WHOOPING-COUGH BY NAPHTHALENE.

IT occurred to me two years ago to try naphthalene in the treatment of whooping-cough. I confess not having observed much improvement in some cases when I applied that drug; but that was owing partially to inability to thoroughly study and observe the cases under treatment. During the last epidemic I determined to go into the treatment very carefully, and the results have been most satisfactory.

I treated 12 cases in children in whose mothers I could in every way place confidence with regard to veracity, and whose intelligence and common sense were above the average. The ages ranged from 3 to 8 years. The usual routine of treatment was tincture of belladonna and potassium bromide in varying doses and naphthalene fumes inhaled continuously day and night.

A simple method of procedure was to instruct the child's mother to make a small muslin or linen bag containing the drug, and to suspend it around the child's neck. At other times I ordered the drug to be well rubbed into the child's clothes. The floor of the sick chamber was also sprinkled with it.

From careful inquiries made, and visits paid at irregular intervals, I am quite sure that the frequency of the paroxysms was very much diminished, and the patients made more comfortable in every way.

I selected the above cases, among a great many I had under treatment, not with regard to the malady, but in reference to the integrity and truthfulness of the patients' friends.

So far as the prophylactic influence of the drug is concerned, I may note that in some families infected with whooping-cough, one or two members in each escaped infection. At present, however, I do not wish to attribute too much to the usefulness of the drug in that direction.

PHILIP J. BRAYN,
Jersey. Admiralty Surgeon.

## URTICARIA FOLLOWING AN ENEMA.

THE case reported by Dr. Moorhouse in the BRITISH MEDICAL JOURNAL of May 29th recalls a somewhat similar case which came under my notice in October, 1895, in the gynæcological ward of St. George's Hospital.

The patient was a young unmarried woman, aged about 23, suffering from perimetritis and constipation. In order to relieve this latter condition, which had persisted some three days, an ordinary enema of common yellow soap and water was administered.

In about eighteen hours there appeared a copious urticaria spreading over the front of the thighs, shins, and arms, and on the cheeks and sides of the neck, where it was especially well marked. The rest of the body was quite free. In character the rash was mainly urticarial, but in some places simply erythematous, in others papular; it was accompanied by a severe burning sensation and intense itching. The temperature was raised to 101° for a few hours, but soon came down to normal. There was no sore throat; the tongue was furred, but cleaned as soon as the bowels were relieved. The rash soon began to fade, and had quite disappeared in forty-eight hours. There was no subsequent desquamation. The presence of indican in the urine could not be demonstrated, though specially sought for.

An enema of soft soap and water, administered two days later, was not followed by any rash. She had never before had a rectal injection of any kind. She was not taking any drug at the time except the ordinary morning white mixture.

There can be little doubt I think that these rashes occurring after enemata are toxic in origin, due to the absorption of some fæcal product set free by the liquefying action of the warm water. At the same time one must bear in mind the possible irritating effect of the particular soap used in the enema, as was suggested by Dr. Kinsey Morgan.[1] In this case the first enema, made from common yellow soap, was followed by a rash; the second, made from soft soap, was followed by no skin eruption. This, however, I think was merely a coincidence, and not due in any way to the difference in the soap used.

The absence of rash on the second occasion was most likely to have been due either to the removal of all the toxic material by the first enema or possibly to the patient being rendered immune to the further action of the poison by the absorption of the initial dose.

Liverpool. CHARLES A. HILL, M.B.,B.C.,B.A.Camb.

## A CASE OF WANDERING ŒDEMA.

MRS. A., aged 45, married twenty years without family, had been a cook for the last twenty-five years. She used to perspire profusely while cooking, and then get suddenly cooled while assisting to wait at table. The perspiration had a very sour odour. She was well built and fairly proportioned. The lower eyelids looked puffy. The skin looked greasy and dull, more so at her catamenial periods. The lungs were healthy. The heart sounds were altered, the first shortened, the second accentuated. Palpitation occurred on exertion, and the legs and feet were occasionally a little swollen towards night. She had suffered a great deal from dyspepsia. The tongue was clean, the bowels rather relaxed. The urine, specific gravity 1022, was of pale straw colour, slightly acid; there was a deposit of phosphates, but no sugar or albumen. The pulse was 82, respirations 19, and temperature 99° F.

About ten years ago she suffered from acute rheumatism and herpes zoster. One winter evening three years and a half ago, while she was sitting by the fireside, the plantar surface of one heel gradually became painfully itchy and swollen. The rest of the foot and calf swelled, and the pain became intense. The following day she was out driving with her husband, when the itching, pain, and swelling attacked the gluteal and perineal regions, and compelled her to leave the carriage. The œdema was very tense, and did not pit on pressure. It became bright pink on the unexposed parts of the body. The œdema subsided in the foot and leg, and attacked the back of one wrist. A few patches also occurred on the anterior surface of the forearm. It then attacked the upper eyelids, first one and then the other. They swelled until they hung down over the lower lids. It then attacked the ears one after the other, and in like manner the temples. As it commenced in one part it subsided in another, flitting from the perineum to a finger, from thence to the face or scalp. On one or two occasions a few vesicles the size of a threepenny-piece appeared on the front of the thorax and abdomen. They became purulent and then dried up.

The attacks came on suddenly every two or three days, less frequently now. Sometimes the lips are attacked, and they become pendulous and hang over the chin. Sometimes the mucous membrane of the larynx is attacked, almost suffocating the patient. So evanescent is the œdema, that it may have subsided between the patient leaving home and reaching my residence, a quarter of a mile distant. The skin of the part affected is pink on the unexposed parts of the body and reddish blue on the exposed parts. When the œdema subsides the part feels cold and numb but regains its normal condition in a few hours. On two occasions the condition lasted two days.

Notes of two cases by Mr. E. W. G. Masterman, F.R.C.S., published in BRITISH MEDICAL JOURNAL of April 3rd, very closely correspond with this case. The principal points of

[1] BRITISH MEDICAL JOURNAL, March 30th, 1895.

difference are (1) absence of septic origin: (2) frequent recurrence; (3) duration of attack. What the exact nature of this wandering œdema is I am unable to say, but I am inclined to the opinion that it is due to nervous influence in a rheumatic subject.

Smethwick. W. H. STEPHEN, M.B., C.M.

# REPORTS

ON

## MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

### GENERAL HOSPITAL, MADRAS.

#### A CASE OF SUCCESSFUL GASTRO-ENTEROSTOMY FOR PYLORIC CANCER.

(Under the care of Surgeon-Major NAILER.)

A WOMAN named Thoolkanam, aged 45, sought relief at the General Hospital on July 7th, 1896, for the following symptoms: Persistent vomiting, pain and flatus in abdomen, loss of appetite, and general wasting. She states that six months since she was attacked with a low kind of fever, of an intermittent type. After this had subsided she noticed a small tumour in the right side of her abdomen which gradually increased in size; that subsequently she experienced a burning sensation at the pit of her stomach, attended with occasional vomiting. This last symptom became very distressing, and she has lost flesh in consequence of it. At present she vomits about four or five hours after taking food, the ejecta consisting of a digested meal, frothy and acid. Sometimes, especially in the morning, she vomits large quantities of frothy mucus. During the act of vomiting she feels the tumour rise, and it falls when the stomach is empty. The woman is rather emaciated, with a soft, small pulse.

On examination of the abdomen a small irregular tumour can be felt, occupying the region about midway between the margin of the costal arch, right side, and the umbilicus; the stomach is distended, the small intestines feel soft and flabby. On manipulation of the abdomen the large intestine occasionally exhibits peristaltic action. She was placed at once upon milk diet, which she was able to digest to a certain extent, but the vomiting still continued, and she began to lose flesh. The tumour was then diagnosed to be connected with the pylorus, and probably cancerous, and in this I was confirmed by Surgeon-Lieutenant-Colonel Browne and Surgeon-Lieutenant-Colonel J. Maitland.

On July 20th all nourishment by the mouth was stopped, and she was fed by enemata. On July 27th, her consent and that of her relatives having been obtained, she was transferred to the surgical ward for operation.

*Operation*, July 27th, 1896.—The patient having been duly prepared the day previous, she was chloroformed and the stomach was cleared of its contents by a warm water injection which was removed by a siphon tube. A transverse incision was made in the abdomen, commencing at a point a little beyond the right linea semilunaris, to a point about an inch above the umbilicus—the muscles being carefully divided on a director and all hæmorrhage therefrom arrested, the peritoneum was likewise divided to the same extent; the transverse colon presenting was pushed aside and the pyloric end of the stomach was looked for. It was found to occupy a site corresponding to that of the tumour felt through the abdominal parietes; the whole circumference of the pylorus was seen to be involved in a firm, nodulated, cancerous-looking mass, which could not be lifted up and isolated, being adherent to the structures below. The question of pylorectomy being set aside owing to the above, gastro-enterostomy was decided on. A small loop of the jejunum was caught up, a linear incision made into it about an inch long, and the male portion of Murphy's button was carefully inserted into its orifice, the cut portions of the incision being gathered up by a running suture of chromicised cut, and tied round the central hollow stem. The apron of the mesentery was found to be adherent below, and could not be lifted up, so an opening was torn through that part which obscured the stomach so as to reach its inferior surface. Here a similar incision was made, and the female portion of the button similarly made fast; both portions of the button were then adjusted "home." The several parts of the abdominal incision were next brought together—namely, peritoneum to peritoneum, muscle to muscle, skin to skin. The patient being dressed in the usual way, was removed to a corner of the general ward, hypodermic injection of ether being first administered, she being in a state of partial collapse; the temperature fell to 97.4° F., but rose to 98.2° at 4.30 P.M., after the application of hot bottles to feet. She passed a fair night, and the only symptom that distressed her was thirst, for which she had small pieces of ice to suck.

The following is a summary of the several interesting features of the case:

*Temperature.*—Reaction set in fairly strong on the day succeeding the operation, the evening temperature being 101.4°; during the night it stood at 100°. On 29th, morning—that is, forty-eight hours after operation—it stood at 100°; at night it fell to 98°, and remained at that point for 48 hours. On 31st, morning, it stood at 99°, and remained about that point for five days, when again there was a drop to a morning subnormal temperature for five days, after which the temperature regained its normal character and still remains so. I attribute the subnormal morning temperature for five days to chilling of the body by cold wind, as there was a strong wind blowing from an open window leading to the main staircase, which had to be closed temporarily with blankets. The pulse ranged, for the fifteen days after operation, between 134 during the height of reaction and 100. On the sixteenth day it fell to 82.

*Progress of Button.*—The button was passed between 1 and 2 P.M. on August 10th, enveloped in a mass of fæces, fourteen days after operation. On August 7th she complained to me of slight pain and tenderness in the right iliac fossa, where I fancied I felt a mass like the button. On August 9th the apothecary in charge reported that he felt the button in the left iliac fossa, and that he tried to pass it down to the rectum, but failed. I then ordered that all feeding by enemata should be stopped, and that she should be fed by the mouth, with the happy result above recorded.

*Food.*—All her food—that is, the enemata—was peptonised. To assuage the thirst she had crushed ice to suck; occasionally I allowed her to sip 2 ounces of pancreatised beef-tea to satisfy her craving to allow some food to enter her mouth. Since the passing of the button she has been put on the usual milk diet.

I may here state that the abdominal wound healed by first intention.

I have here to tender my cordial thanks to Surgeon-Captain Robertson for his willing help to me during the several steps of the operation.

The patient was shown at a meeting of the South Indian Branch on August 27th, 1897, a month after the operation. She could walk fairly well. Her appetite was fair, and she slept well. She had picked up somewhat, and it seemed likely that her life, with care and attention to dietetic rules, would be prolonged for some months. The obstruction at the pylorus had not been removed, but the distressing symptoms and consequences of such obstruction had been successfully combated by the operation. The case is believed to be the first successful case of gastro-enterostomy recorded in Southern India.

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THE eleventh session of the French Surgical Congress will commence in Paris on October 18th; the main subjects suggested for discussion are: (1) Contusions of the Abdomen; (2) the Indications for Operation and the Treatment of Cancer of the Rectum.

THE Sei-I-Kwai *Medical Journal* states that the number of sick and wounded in the Chino-Japanese war reached the total of 330,775 cases. Of this number, 5,870 were cases of gunshot wound and 415 of incised wound. Malaria was the chief cause of sickness, producing 41,734 cases with 718 deaths. Beri-beri caused 23,456 cases with 2,113 deaths. Over 10,000 cases of frostbite and dysentery occurred. Altogether the number of days on the sick list was nearly 7,000,000.

# REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

W. H. DICKINSON, M.D., President, in the Chair.

*Tuesday, June 8th, 1897.*

ALTERATION OF BY-LAWS.

On the proposal of the Council some verbal alterations were agreed to; and after some discussion the radius of fifteen miles from the Society's house, within which Fellows of the Society were considered as resident Fellows, was altered to seven miles. Fellows, however, living outside the radius could be resident Fellows if they so desired.

ADDRESS TO HER MAJESTY THE QUEEN.

An address on the event of the completion of the longest reign, which had been drawn up in graceful terms by the Council, was read, and received the approval of the Society.

MUSICAL MITRAL MURMURS IN CONNECTION WITH AORTIC STENOSIS.

Dr. W. HOWSHIP DICKINSON read this paper, which consisted of the recital of four cases in which a musical murmur, thought to be produced by mitral regurgitation, was associated with obstruction of the aortic exit. In one the mitral valve was practically sound; in the others the mitral valve was diseased as well as the aortic. Case I was that of a boy who had, together with much evidence of intraventricular tension, an intense apex systolic murmur which had a musical tone. After death the aortic orifice was found to be almost completely closed, the mitral valve practically natural. The mitral murmur, as it was thought to be, was the only murmur heard. It was attributed to the over-distension of the ventricle due to the obstruction of its aortic exit, and to consequent leakage of the mitral valve under the abnormal pressure to which it was subjected. Case II was that of a man who, after having been for some time under treatment with the ordinary signs and symptoms of disease of the aortic valve, developed a murmur indicative of mitral regurgitation, which was attended with a definite squeak like that of a mouse. After death the heart was found to be greatly hypertrophied, especially as to the left ventricle. The pericardial cavity was obliterated by old adhesions. The aortic orifice was obstructed by fibroid thickening, the mitral crescentic and contracted. Case III was that of an old man who displayed, shortly after admission, and shortly before his death, a systolic whistle in the mitral area. The left ventricle was found to be hypertrophied, the aortic valves calcified, and the opening contracted; the mitral valve thickened. Case IV was that of a man, aged 54, who had at the apex a distinct systolic squeak, like the high note of a fiddle. The heart was hypertrophied. The aortic orifice was almost closed, partly by old rigid thickening, partly by recent soft vegetations. The edges of the mitral valve were slightly thickened, as also were those of the tricuspid. The musical murmur was attributed, as in the other cases, to the occurrence of mitral regurgitation in small volume and at high pressure, the high pressure being due to the ventricular hypertrophy and obstruction. The cases were held to indicate that in aortic obstruction, together with hypertrophy of the left ventricle, a peculiar tone might be imparted to mitral regurgitation, probably in consequence of the force under which it was produced.

Dr. NORMAN MOORE said that it was often assumed that the signs of valvular disease were thoroughly worked out. This, however, was not so, and the President's valuable paper dealt with a case in point. The ingenious hypothesis put forward as to the causation of these musical murmurs was probably the correct one. There might, however, be other explanations, and in this connection it would be interesting to hear whether these murmurs were audible behind. Following the late Dr. Andrew, he would regard a systolic apex murmur audible at the angle of the scapula as due to mitral regurgitation; but if it was not heard behind it might be aortic. If in a case where a loud systolic murmur was audible both at the apex and at the base, so as to suggest mitral reflux and aortic stenosis, auscultation of the right supraspinous fossa revealed a loud systolic murmur which was not audible at the angle of the left scapula, the lesion was aortic stenosis without mitral reflux, while if the murmur was audible in both situations both lesions were present. The examination of the pulse by sphygmographic tracings in the class of case referred to by the author might be of value in revealing signs of aortic reflux.

Dr. F. DE HAVILLAND HALL had seen cases of musical mitral murmurs without any other evidence of mitral disease, but had not been able to verify the actual anatomical condition by a necropsy. He inquired whether the musical murmurs were accompanied by a thrill.

Mr. GANT inquired whether the presence of such murmurs would affect the prognosis in pneumonia.

Dr. DICKINSON, in reply, said that some of the squeaky murmurs were associated with ordinary blowing mitral murmurs; in one case the musical murmur could be heard in the axilla; in one case there was a thrill, but this was due to co-existing mitral stenosis. From the position and character of the murmurs, and from the evidence of chronic venous congestion of the viscera, such as œdema, pulmonary apoplexy, and albuminuria, he felt certain these musical murmurs were produced at the mitral orifice.

## OBSTETRICAL SOCIETY OF LONDON.

C. J. CULLINGWORTH, M.D., President, in the Chair.

*Wednesday, June 2nd, 1897.*

SPECIMENS.

THE following specimens were shown: Dr. AMAND ROUTH: Uterus, etc., Spinal Fracture, and Section of Spinal Cord from a paraplegic woman.—Dr. LEWERS: Ruptured Right Fallopian Tube from a case of tubal pregnancy (tubal mole) and a Hæmatosalpinx of the opposite Fallopian Tube. Microscopical sections of the mole were also shown.

PARTURITION DURING PARAPLEGIA, WITH CASES.

Dr. AMAND ROUTH read this paper. A multipara, with complete paraplegia below the level of the sixth dorsal vertebra, was admitted into a surgical ward of Charing Cross Hospital under Mr. Astley Bloxam, half an hour after the accident which caused the paralysis. She was then nearly seven months pregnant. For eight days uterine intermittent contractions were absent, and then became gradually more and more perceptible. After over two months the patient was transferred to a special ward, and labour came on 261 days after the last menstruation, without the patient feeling any pain. The first stage lasted ten hours, the second two and a quarter hours. The placenta followed, aided by slight "expression," in five minutes. The patient's only sensation during a "pain" was a "tight feeling" at the epigastrium, giving her an inclination to hold her breath; but this tightness was in no sense painful. As the head was passing the vulva the patient cried out, but this also seemed a reflex act, and was unaccompanied with sensation of pain. The "pains" were not as well defined as in a normal case, the intermissions being often absent, as judged by the vaginal touch and the hand on the uterus. In fact, the "pains" rather remitted than intermitted. Retraction was not good for some hours, but there was no undue hæmorrhage. Death occurred six months later, and full details of the pelvic organs, the fractured spine, and the cord were given. Uterine involution and lactation were quite normal. The views held at different times as regards the physiology of parturition were discussed, and cases described by Ollivier (1827), Nasse (1835), Benicke (1874), Scanzoni (1848), Paget, and Brachet (1837) were given. Experiments by Sir James Simpson (1849), von Rohrig (1879), Serres (1824), Langley and Anderson (1895-6), Riemann (1871), Goltz (1874 and 1893), Dembo (1884), and others were summarised. The evidence afforded by cases of *post-mortem* parturition was also reviewed. Finally, the secondary questions of conception and lactation during paraplegia were mentioned, and the following views were given as being borne out by the facts stated. In pregnant women affected with paraplegia, from injury or disease in the dorsal region of the cord, labour might commence at the normal period of gestation, and progress in an approximately normal manner, but without sensation of pain. Involution and lactation were also normal. It was proved also from both cases and experiments that conception might take place during paraplegia. Further experiments as well as clinical

acts were required before the physiology of parturition could be known, and much would be done when it was discovered with certainty what was the force by which the process of labour was initiated at the end of gestation. Meanwhile the following views seemed to be fairly established: (1) The act of parturition is partly automatic and partly reflex, these actions corresponding in the main to the first and second stages of labour respectively. (2) Direct communication with the brain is not essential to co-ordinate uterine action, though the brain seems to have a controlling influence upon the "pains," helping to make them regular with well-defined intermissions. (3) Direct communication between the uterus and the lumbar enlargement of the cord, through the medium of the sympathetic ganglia between the first and third lumbar, is probably essential to the regular and co-ordinate contraction and retraction of the uterus, as occurs in normal parturition. (4) It seems also probable that the uterus is able automatically to expel its contents, as far as the relaxed part of the genital canal, even when deprived absolutely of spinal influence, spinal reflexes being then necessarily absent. But in the absence of reflex action the entire process of parturition would be irregularly, and probably incompletely performed, as in Sir James Simpson's experiments and Brachet's case. (5) Lactation is not solely due to nervous influence, but partly to chemical changes in the blood, which affect secondarily the mammary glands and other tissues of the body. This chemical change in the blood is not of ovarian origin, but is probably due to the metabolism of the pregnant uterus.

Dr. MOTT, being called upon by the PRESIDENT, remarked that he had examined sections of the spinal cord at the seat of the lesion, and had found that the crush had completely destroyed the nervous structure at the seat of the injury, but that apparently many cells in the anterior horn of the lumbar enlargement were fairly normal in appearance; inasmuch as these were still in connection with the uterus, this case did not prove, like the dog of Goltz, the independence of action of the uterus. Dr. Mott had seen demonstrated at the International Congress at Berne the control of the sphincters in this animal deprived previously of a great part of its spinal cord. The experiment proved that in the dog the uterus could contract effectually without cerebro-spinal influence, and that the sphincters could maintain their tonus—facts which upset all previous notions. It must be remembered, however, that the sympathetic chain and the posterior spinal ganglia remained. These were connected, and probably formed the reflex arc which maintained the tonus in the sphincters. He ventured to suggest that the physiological stimulus for the onset of labour might be a bio-chemical condition of the blood of the fœtus at full term—for example, an increase of carbonic dioxide. That profound bio-chemical changes took place during pregnancy was highly probable. The enlargement of the mammary glands in this case, after interruption of the spinal connection between these structures and the uterus, suggested this, and the fact that the mammary gland enlarged after all the nerves had been divided, both cerebro-spinal and sympathetic, proved that an altered condition of the blood could be the only means of bringing about dissociated functional activity in two remote structures.

Dr. HORROCKS thought that natural labour was not only automatic and reflex, but also voluntary. Experiments had shown that after removal of all external nerve influence the uterus was able to expel its contents. This was really only an instance of a general law. Whether, however, it was possible for an organ like the uterus to contract rhythmically without any nerve ganglia in its own walls was a question.

After remarks from Dr. MCCANN, Dr. PEMBREY, Dr. HEYWOOD SMITH, and Dr. HANDFIELD-JONES,

Dr. JOHN PHILLIPS mentioned the case of a woman with syphilitic paraplegia in which labour had been quite normal.

Dr. DAKIN asked the author if any reflex contractions of the abdominal muscles had been observed during the second stage of labour, also what connection he thought there was between involution of the uterus and lactation.

Dr. BERTRAM ABRAHAMS criticised Dr. McCann's views as to the meaning of Paul Bert's experiments, pointing out that as the breasts of the goats were removed the sugar in the urine must have been formed in the blood and not absorbed from the mammary glands, and that the same reasoning applied to the belladonna experiments. Dr. Abrahams wished to emphasise the view that the initiation of the action of smooth muscle and of secreting glands did not necessarily depend on nervous action. With regard to the uterus, it appeared to be conclusively shown that this important mass of smooth muscle continued to contract even when removed from the body; but this case could not be taken as deciding the question as to the causation of parturition, as the so-called lumbar centre was practically intact. Still, he held that there was no evidence as to the reflex origin of parturition, while at the same time there could be no doubt, as in the case of the heart beat, of its reflex control.

After remarks by Dr. GILES and the PRESIDENT,

Dr. AMAND ROUTH replied. He agreed with Dr. Mott that the crux of the whole question was the difficulty in determining the cause of the onset of the labour at term. The cause was probably a bio-chemical one, and Dr. Mott's suggestion that this resulted from the accumulation of carbonic acid in the placental circulation was not likely to be rejected, for it was known that asphyxia produced uterine contraction and caused abortion if pregnancy existed. In reply to Dr. Abrahams, he thought there could be no doubt that the second stage in the case recorded was mainly reflex, for, though there was no sensation of pain, there was an involuntary holding of the breath, and though there was no action of the abdominal muscles there was undoubtedly diaphragmatic contraction, and even crying out, at the end of the second stage. These were clearly reflex phenomena, and other proofs were adduced in the paper.

## EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

D. ARGYLL ROBERTSON, M.D., President, in the Chair.

*Wednesday, June 2nd, 1897.*

### CASES.

MR. C. W. CATHCART showed a patient after operation for Gastric Ulcer.—Dr. STEWART STIRLING showed a case of Psoriasis in a young boy with a very unusual distribution.—Dr. NORMAN WALKER showed a case of Sclerodermia in a young girl. The situation was the left arm, and the treatment had been the exhibition of thyroid extract, with massage and baths.

### SPECIMENS.

Mr. MILES showed: (1) Specimen of Hydrocele of the Cord; (2) the Temporal Bone illustrating Middle-ear Disease.—Dr. JAMES CARMICHAEL showed the Brain of a child who had died from Basal Tuberculous Meningitis, the special feature being occlusion of the foramen of Majendie.

### THE ENDOGENOUS OR INTRINSIC FIBRES IN THE LUMBO-SACRAL REGION OF THE SPINAL CORD.

Dr. ALEXANDER BRUCE read a paper on this subject, illustrated by a series of diagrams, by lantern slides, and by microscopic sections. Attention was drawn to the fact that in destructive lesions of the cauda equina certain tracts in these regions escaped degeneration, one lying in the anterior portion of the column, the other in the posterior part, in the neighbourhood of the septum. These tracts, again, were found to degenerate in lesions, experimental and pathological, of the grey matter, and in cases of total transverse destruction of the cord, as had been shown to the Society last year by Dr. Robert Muir and himself. In locomotor ataxia these two sets of fibres were spared in most, if not in all, cases, but generally escaped observation because the investigation of the lowest portion of the cord was usually neglected. The tract in the anterior part of the column had been termed the "cornu-commissural" by Maül, who first pointed out its endogenous nature. The relations of this to the various segments were demonstrated. It was found to be very small in the lower dorsal, to attain its maximum at the level of the fifth lumbar and first sacral segments, and below this to diminish with the gradually diminishing posterior column through the rest of the sacral region of the cord. The other and less well known tract, which, along with Dr. Muir, he had termed the "descending septo-marginal tract," was also shown to escape degeneration in ataxia. It could be first seen as a distinct tract about the twelfth dorsal segment, and gradually in-

creased in size in a downward direction, passing in so doing along the margin of the septum till it became intermingled with the hindmost fibres of the cornu-commissural tract, as is shown in the accompanying diagram, from the level



Diagram to illustrate the relative size and position of the cornu-commissural and septo-marginal tracts at the second sacral segment. Section stained by Pal's method; undegenerated fibres black. The septo-marginal tract forms the narrow wedge-shaped band along the septum. The cornu-commissural tract is the irregular dark area in the anterior part of the column.

of the second sacral segment. The tract in question was compared with the few cases already recorded by Pineles, Dufour, Schasinger, Hoche, and others; and the agreement between the various accounts appeared sufficiently exact to warrant the assumption that there was a distinct tract of endogenous origin. The cornu-commissural tract appeared to be a descending tract of short course intermingled with a small number of ascending endogenous fibres and a certain number of fibres derived from the posterior roots (Déjerine); the septo-marginal tract one of longer course, derived from the dorsal, and even, according to one observer (Hoche), from the cervical cord. The lowest fibres were found to terminate by passing forwards along the side of the septum into the grey matter at the base of the posterior horn. It was very desirable that all recent cases of complete transverse compression of the cord should be examined by Marche's method, with the view of demonstrating the origin, course, and termination of these fibres.

Several members highly complimented Dr. Bruce on the interest and value of his paper.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

WILLIAM THOMSON, P.R.C.S.I., President, in the Chair.

*Friday, May 14th, 1897.*

### APPARATUS FOR AIR DISTENSION OF BLADDER IN SUPRAPUBIC CYSTOTOMY.

MR. JOHN LENTAIGNE exhibited an apparatus for distending the bladder with air in the operation of suprapubic cystotomy. The apparatus consisted of an india-rubber air-pump with reservoir of the same material, similar to that used with the ordinary hand spray: this was attached by means of a rubber tube to a silver catheter, which was introduced into the bladder. In using the apparatus the reservoir was first distended with air, which was then allowed to gradually distend the bladder, and the operation was then performed. If it became necessary to force the bladder forward in the wound, pressure was made on the reservoir outside. The reservoir indicated the amount of tension in the bladder, which could thus easily and safely be increased when required. Mr. Lentaigne had used this apparatus in a case quite recently, and had found it of great service in many ways. He had closed the bladder wound with catgut sutures, and the entire wound had healed by first intention.

### PYLOROPLASTY.

Mr. JOHN LENTAIGNE exhibited a patient on whom he had performed pyloroplasty on February 26th, 1897, for fibrous stricture of pylorus with great dilatation of stomach. The patient, who had been brought to him by Dr. M. A. Boyd, was then in an extremely weak and emaciated condition. He had been suffering for nine years, and it was evident he could not have lasted much longer without relief. Owing to the presence of numerous and firm adhesions the operation had proved very tedious and troublesome, lasting nearly two hours, but the result had proved in every way most satisfactory. The healing of the wound had been uneventful, and the patient, who was now apparently in perfect health, had gained over 2 st. in weight. Mr. Lentaigne detailed some statistics in connection with the operation, and contrasted it with other procedures applicable to the relief of stricture of the pylorus and dilatation of the stomach. The result in this very trying case could not have been better under any circumstances with any other method.

The PRESIDENT said the operation seemed to him to be an improvement upon Loreta's method. The comparative success of the proceeding was a very strong recommendation that they should do that operation in suitable cases, rather than simply dilating the strictured pylorus, and the method was much safer.

After remarks by Professor BENNETT and Sir WILLIAM STOKES,

Mr. NIXON said that he had seen the patient shortly after the operation, and in looking at him now he had no hesitation in saying that the man was brought from death to life.

Mr. MYLES said that if the operation of pyloroplasty took two hours in the hands of a skilful operator, he thought that it compared very unfavourably with the operation of gastro-duodenostomy, which could be done in about twenty-five minutes. The results of the latter operation were also very favourable. Another objection was that until a microscopic section had been made one could not be sure that the stricture was fibrous.

Mr. E. H. TAYLOR did not agree with Mr. Myles in placing the operation of gastro-duodenostomy in cases of this kind before the operation of pyloroplasty. If the case was one of malignant stricture, he thought the ideal operation was gastro-duodenostomy. Recent French statistics showed that the operation was very successful, and it was an operation which, in his opinion, ought to be advocated.

Mr. LENTAIGNE, in reply, said that the success of the operation in such a large number of the cases reported seemed to him to justify a place for it in surgery. He considered that a surgeon could almost always be able to decide with accuracy whether a patient was suffering from simple or malignant stricture when he considered the conditions of the parts seen in the operation along with the clinical history.

### FRACTURE OF THE METACARPAL BONE OF THE THUMB.

Dr. E. H. BENNETT placed on record the following facts in relation to the fracture of the base of the metacarpal bone of the thumb in addition to those which he published in 1881 and in 1886. Continued observation had fully established this injury as the commonest metacarpal fracture. The specimens now placed in the museum of the School of Physic, Trinity College, were all alike in pattern, nine being bones of the right side, one a left bone, the latter the first specimen he had seen. With the *x* rays the photographs established the details of the recent injury, and confirm the view he had published as to the path of the fracture passing obliquely through base without implication of the dorsal surface of the bone. He exhibited photographs taken by Dr. W. S. Haughton from two patients observed this session in Sir P. Dun's Hospital, one a three-days old fracture, the second three weeks after the occurrence of the injury. Lastly, he exhibited casts of the hands, and *x* ray photographs of them, from a man who had sustained the injuries in both hands simultaneously by a fall from a ladder, the deformities in both hands being characteristic of the fracture as seen in the plaster casts and in photographed outlines of the bones.

The PRESIDENT said the photographs exhibited by Dr. Haughton showed the condition of the fracture in the living, which, as pathological conditions after death, it had been so difficult to find.

Mr. SWAN said that the paper was of particular interest to him, inasmuch as he himself had sustained a fracture similar to that described by Dr. Bennett. He had received the injury by striking an object, and he subsequently found that he was unable to grasp a glass because the metacarpal bone of his right thumb slid away from what he conceived to be the carpal or near extremity of the fracture, or, in other words, that the shaft of the bone was dislocated from the small portion which remained in position with the trapezium. There was a great deal of swelling in the hand, and the pain was intolerable. Many surgeons had considered the injury

to be a dislocation, but it was not until reading Professor Bennett's communication in the *Dublin Quarterly Journal* of 1881 that he understood the nature of the injury.

After remarks from Mr. LENTAIGNE, Sir WILLIAM STOKES expressed the wish that the injury might in the future be associated with the name of Professor Bennett.

Remarks were also made by Dr. KNOTT, and Professor BENNETT replied.

## GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

MALCOLM BLACK, M.D., President, in the Chair.

*Wednesday, May 26th, 1897.*

EXHIBITION OF SPECIMENS.

DR. OLIPHANT showed (for Dr. DALZIEL) a Large Fibroma which had been removed from the Left Labium Majus of a patient aged 50.—Dr. JARDINE, in the absence of Professor MURDOCH CAMERON, showed the new form of Cephalotribe which Dr. Cameron had designed, using his recently-designed axis-traction antero-posterior compression forceps as his model.

A YEAR'S WORK IN THE MATERNITY HOSPITAL.

The PRESIDENT, in giving this report, said that it referred to the hospital year beginning November 15th, 1895, and ending November 14th, 1896. In all 2,620 cases had been attended in connection with the hospital. Of these, 482 had been admitted into the hospital as shown in the following table of results of indoor cases:

MOTHERS.

| | |
|---|---|
| Confined at full time | 394 |
| Confined prematurely | 73 |
| Miscarried | 9 |
| Other cases admitted, not confined in hospital | 6 |
| | 482 |

CHILDREN.

| | Boys. | Girls. | |
|---|---|---|---|
| Children born alive in hospital at full time | 184 | 178 | 362 |
| Children stillborn at full time | 24 | 12 | 36 |
| Children premature, alive | 19 | 21 | 40 |
| Children premature, dead | 22 | 14 | 36 |
| | 249 | 225 | 474 |

There were 7 cases of twins.

OPERATIVE CASES IN HOSPITAL.

| | |
|---|---|
| Forceps | 89 |
| Version | 18 |
| Craniotomy | 10 |
| Induction of labour | 26 |
| Cæsarean section | 2 |
| Abdominal section for ruptured uterus (delivered before admission) | 1 |
| Evisceration | 1 |
| | 153 |

Maternal deaths in hospital, 13.

Of the 6 cases admitted, but not delivered in the hospital, 2 died of pernicious anæmia, the others were dismissed. Of the 13 deaths, 2 were due to pernicious anæmia, as already noted, and in both cases the child appeared to be dead at the time of admission, and any attempt at delivery would only have hastened the end of the mother. One case of eclampsia died, and another had suppression of urine, and died of uræmia without any marked eclamptic fits. A case of placenta prævia was fatal from syncope on the third day after delivery. A patient who was sent in exhausted by long-continued vomiting had abortion induced, but too late to save her. Two patients were brought into the hospital with ruptured uterus. One had the rupture sutured, while in the other it was decided not to operate, and both died. One patient died after Cæserean section, and 4 after craniotomy. The most noteworthy, and at the same time regrettable, incident of the year was the occurrence of septicæmia, owing to which 9 patients had to be transferred to Belvidere Fever Hospital, and 4 of them died. The hospital was ultimately closed on this account, and the whole house thoroughly cleaned and disinfected.

The PRESIDENT described a few of the more interesting cases that had been under his care: (1) A case of Ruptured Uterus. (2) A case of long-continued Vomiting, for which abortion in the fifth or sixth month of pregnancy was induced by means of a bougie and rupture of the membranes. The vomiting ceased, and patient was able to retain the nourishment and stimulant given, but she gradually sank, and died next day. (3) A case of suppression of Urine and Uræmia. (4) A case of complete Placenta Prævia, with fatal syncope on the third day of the puerperium. (5 and 6) Two fatal cases of Difficult Labour, in which Craniotomy was necessary. (7, 8, and 9) Three cases of Septicæmia, with recovery. (10) A case of Breech Presentation, with epileptiform seizures and also septicæmia. Recovery. (11) A case of Chorea Gravidarum, coming on during a third pregnancy. After admission she took fits of hysterical screaming and developed delusions. She was ultimately examined carefully under chloroform, as it came to be a question of induction of labour. The os was dilated to admit two fingers. Two days later a normal labour resulted in a living child 17 inches long and weighing 1½ lb. She required restraint during the second stage. Nearly a fortnight later she was transferred to Woodilee Asylum, from which she was discharged well four weeks later.

LARYNGOLOGICAL SOCIETY OF LONDON.—At a meeting of this Society on May 12th, Mr. H. T. BUTLIN in the chair, Dr. DUNDAS GRANT opened a discussion on the Uses of Turbinotomy as applied to the Inferior Turbinated Body. Eighteen cases were exhibited by him, illustrating the results of the operation. He said turbinotomy or turbinectomy (perhaps better, conchotomy or conchectomy) might be practised on the superior, middle, and inferior turbinated body, and might be either total or partial. The procedures of total inferior turbinectomy and partial turbinectomy (anterior inferior and posterior inferior) were described, and the indications for these operations stated. The author had records of about 35 cases of complete turbinectomy performed by him, out of, roughly, some 11,000 cases of mixed throat, nose, and ear cases. Only 18 could be got to come up for reinspection, and the notes were too meagre to allow of drawing deductions from any of the others. Out of the 18 (of whom 12 were males and 6 females, varying in age from 15 to 60), 9 were completely freed from their primary symptoms, and 9 relieved. Notable regeneration of the turbinal body took place in 6, and very little in the remainder. In all the general condition had improved. Hæmorrhage was very considerable in somewhat under a third of the cases (5), moderate in nearly one-half (7), and practically absent in the remainder (5). In 1 case the hæmorrhage was such as to place the patient's life in considerable jeopardy, but her want of care was chiefly accountable for it. Of 12 cases of anterior tubinectomy, of which the results are as yet not available in more than 8, in 5 of whom the nasal symptoms are reported as cured, and in 2 as relieved. The restoration of nasal breathing seemed quite adequate. In view of the ease and safety of anterior tubinectomy, as well as the comparatively good results as regards restoration of nasal patency, it was advisable to adopt it if only as preliminary to a subsequent posterior operation. Mr. CRESSWELL BABER considered inferior turbinotomy of value in cases of nasal obstruction due to enlargement of the inferior turbinated bodies, which could not be relieved with the snare or the galvanic cautery. The results on the whole were very satisfactory. He had not met with any troublesome hæmorrhage or complaint of dryness in the nose or throat. He thought the operation was especially useful in cas s of bad deflection of the bony septum, in which, after removing all the projecting portion of the septum possible, there was still insufficient breathing space. Dr. LAMBERT LACK held that, except possibly in some extremely rare and altogether exceptional cases, complete relief could be obtained from the symptoms arising from enlargement of the inferior turbinated bodies by other and better means. Enlargement of the posterior extremities of these bodies was always overgrowth of soft parts, and was never bony, and we possessed in the cold wire snare an effectual and safe method of dealing with it. Enlargement of the anterior extremity of the inferior turbinate was sometimes of similar character and amenable to the same treatment. In cases of deflected septum the septum should always be dealt with, and it was bad surgery to make a passage round a deflection by removing a piece of turbinate. Dr. HERBERT TILLEY showed an enormous moriform hypertrophy of the right inferior turbinate bone which he had recently removed. His experience in this and other cases quite coincided with Dr. Lack. He believed that in the vast majority partial anterior turbinectomy would be found to be amply sufficient to meet the

needs of the case. Dr. SEMON stated that, having no personal experience of the operation, he wished to have some fuller information on two points: (1) The question of secondary hæmorrhage; and (2) the physiological question of the effect of so great a clearance of the nose proper as that effected by total turbinectomy with regard to the drying up of the mucous membrane of the pharynx and formation of crusts. With regard to the first point, he had been told by a leading general practitioner that within a very short time he had been called to four of his patients in whom turbinectomy had been performed, and in whom serious secondary hæmorrhages had occurred several days after the operation. With regard to the second question, Dr. Semon reported a case he had seen only two days before the meeting. A young student of theology had frequently suffered from laryngitis and loss of voice. He had consulted a London specialist, who had discovered an obstruction in the nose, and had removed both lower turbinated bones. The immediate effect of the operation had been one of great relief to the breathing; two months afterwards, however, the patient began to suffer from great dryness in the throat, which gradually had become almost intolerable, and from the formation of crusts which he could only hawk up with much difficulty. At the same time, his laryngitis had become much more pronounced, and was now practically always present. On examination, the nose presented exactly the same aspect as that seen in old atrophic rhinitis. Dr. SCANES SPICER had never observed "pharyngitis sicca" after the operation; though patients sometimes noticed the dryness at the back of nose for a time, it was far less annoying than the dry mouth and throat before. Dr. WATSON WILLIAMS (Bristol) said that although he had charge of a considerable clinic at the Royal Infirmary at Bristol, he had yet to see the case which, in his opinion, justified recourse to such a radical measure as complete turbinotomy, and which could not be adequately relieved by other methods which were less dangerous, more under control, and less likely to be followed by unfortunate secondary complications. After some remarks from Dr. WILLIAM HILL, Dr. STCLAIR THOMSON said that personally he was not aware of any cases in which the after-effects had been harmful. He referred, however, to the experiments of Freudenthal, of New York,[1] on patients who had been discharged as "cured" of nasal stenosis, but who later fell into his hands with all the symptoms consequent on the loss of the warming and moistening function of the Schneiderian membrane. He thought the debate had served a useful purpose in emphasising the alternatives to turbinotomy, and, in addition to the suggestions of Drs. Lack and Tilley, he would like to point out that in many cases where the inferior turbinal appeared enlarged and blocked against the septum, it would be found that this was due to polypoid hypertrophy concealed from view in the concavity of the turbinal. It was well to remember that this turbinal hypertrophy was in many cases a consequence of a condition which could not always be remembered, such as a stenosis of the bony walls of the nose, either congenital or consequent on adenoids which had atrophied. Dr. DUNDAS GRANT replied.

# REVIEWS.

NERVOUS AFFECTIONS OF THE HAND AND OTHER CLINICAL STUDIES. By GEORGE VIVIAN POORE, M.D., F.R.C.P. London: Smith, Elder, and Co. 1897. (Demy 8vo, pp. 308. 7s. 6d.)

THIS interesting volume contains a collection of papers and lectures ranging in date from 1879 to 1896, and in subject from "The Sulphur Waters of the Pyrenees" to the so-called writers' and piano players' cramp. Almost half the book is occupied by the consideration of the "professional neuroses" of the hand, on which Dr. POORE is well known as an authority. He points out the necessity of excluding cases in which the brachial plexus may be damaged, as by aneurysm, and cases of definite cerebral or spinal disease, such as slight hemiplegia, general paralysis of the insane, and disseminated sclerosis, before making the diagnosis of writers' cramp. As regards the muscles affected, Dr. Poore concludes that in the various "occupation neuroses," whether of writers, tailors, pianists, or sawyers, it is the muscles subjected to prolonged strain rather than those the seat of rhythmic movements which become feeble and liable to irregular spasmodic contractions.

The pathology of the affection is but lightly touched upon, though the author appears to consider it due to "chronic fatigue" of the muscles rather than to disorder of the central nervous system. Slight neuritis is also held to be the most common peripheral cause of writers' cramp. The remarks on treatment will be found valuable by the practitioner, although we miss any reference to the suggestion of Dr. Gowers that writing should be taught so that the pen movements are executed by the larger muscles of the arm and shoulder instead of by the intrinsic muscles of the hand. The muscles of prehension should surely be spared the work of movement.

Chapters VIII to XI deal with poisoning by phosphorus, lead, food toxins, and with a case of auto-intoxication after great muscular exertion. The similarity of the symptoms of phosphorus poisoning to those of acute yellow atrophy of the liver is pointed out, and the probability mentioned that some cases of the latter disease may really have been due to phosphorus. In a chapter on gout, Dr. Poore in a few paragraphs of clear, practical reasoning demolishes some fashionable fallacies of treatment, and emphasises the Abernethian rule of the simple life.

Similar useful suggestions are contained in the chapters on the management of chronic heart disease and of pulmonary tuberculosis. The chapter on albuminuria in relation to life assurance is of interest not merely to the medical examiner for assurance, but also to the general practitioner. In short, the whole book will well repay study.

DISEASES OF THE EAR, NOSE, AND THROAT, AND THEIR ACCESSORY CAVITIES: A Condensed Textbook. By SETH SCOTT BISHOP, M.D., LL.D., Professor of the Post-graduate Medical School and Hospital, Surgeon to the Illinois Eye and Ear Infirmary, etc. Philadelphia, New York, and Chicago: F. A. Davis Company. 1897. (Roy. 8vo, pp. 512, 268 illustrations, 100 coloured. Dols. 4.)

CONSIDERING the complexity and extent of the subjects treated of, this book is a model of condensation and terseness. Great prominence is given to the use of fine sprays, nebulæ, and vapours, and especially to that of camphor menthol. The author gives good reasons for his confidence in this latter remedy. His treatment of the tympanic cavity by the use of compressed air inflation and the method of examining the membrane by the use of his "massage otoscope" are well explained. We can especially commend the chapter on the diseases of the mastoid cells and the operations required for their relief. Politzer's magnified views of the membrana tympani and Sajous's coloured plates add much to the value of the work.

Dr. BISHOP prefers to call hay fever "nervous catarrh," and holds that it is the outcome of three conspiring influences, namely: (1) "Uric acidæmia" in a neurotic patient; (2) hyperæsthesia of the mucous membrane of the upper air passages; (3) the existence of some material irritation in the nasal cavities. The three-fold-origin theory, which is not entirely original (see Bosworth, de Havilland Hall, and others) might be retained if so atrocious a word be dropped, and "gouty tendencies" substituted.

Dr. Haight's contribution on eye affections in relation to diseases of the nose is good and readable, and well illustrated. The parts on laryngeal disease are reliable as guides to the student and general practitioner.

In the directions for posterior rhinoscopy the relative positions of the observer and patient are not clearly given. The patient's head should be on a slightly higher level than the surgeon's. The reverse obtains in laryngoscopy, when the patient should be seated lower than the surgeon. The woodcuts in illustration of this part of the work do not mark this distinction, nor is it pointed out in the text. With these exceptions, and perhaps a few others, brevity, usefulness, and accuracy are well combined throughout.

[1] *The Journal of the American Medical Association*, November 6th, 1895.

ON DEAFNESS, GIDDINESS, AND NOISES IN THE HEAD. By EDWARD WOAKES, M.D.Lond., Senior Aural Surgeon, London Hospital: assisted by CLAUDE WOAKES, M.R.C.S., Assistant-Surgeon to the London Throat Hospital. Fourth Edition. London: H. K. Lewis. 1896. (Demy 8vo, pp. 240. 10s. 6d.)

THIS is a much enlarged edition of Dr. WOAKES's well-known work on the causal relations existing between aural and nasal disorders. The author's teaching is familiar to all workers in the special field of medical science in which he has laboured assiduously and not unsuccessfully for many years. Whether his views find acceptance or not, it must be admitted by all who read his own exposition of them that he displays wide professional knowledge and much subtlety in reasoning, and in particular a singular power of furnishing plausible explanations of obscure phenomena.

In this edition Dr. Woakes has introduced some interesting extracts from the report of Dr. Ewald's experiments as to the physical causes of giddiness and as to the influence of the labyrinth in maintaining the even tonic action of certain muscles. As in his previous work, so in the present one, Dr. Woakes explains most of the phenomena of giddiness, tinnitus, and even progressive inflammatory changes by means of the sympathetic vasomotor system. While admitting that vertigo from hepatic disorder may be set right by the timely action of a blue pill, he does not appear to lay much stress upon the influence of morbid states of blood as having any effect upon the centres themselves, but appears to see only a chain of reflex action from what he believes to be the primary seat of disorder to the deranged organ. The fact that many, indeed most, of his speculations are incapable of disproof does not warrant their acceptance as proven facts, and the reader must judge for himself as to the validity of the theories.

The book is clearly written, and contains much that is likely to be most useful from the point of view of treatment. A still greater recommendation is that it is eminently suggestive; it stimulates even an indolent reader to think out for himself a solution of the problems discussed by the author. The work, in short, is the reverse of a compilation; it is a living book, embodying the views of a man who has looked at things with his own eyes. This is a merit sufficiently rare in the medical literature of the present day to deserve acknowledgment.

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ERGEBNISSE DER ALLGEMEINEN PATHOLOGIE UND PATHOLOGISCHEN ANATOMIE DES MENSCHEN UND DER TIERE [The General Pathology and Pathological Anatomy of Man and Animals]. Herausgegeben von O. LUBARSCH, A.O. Professor der pathol. Anatomie an der Universität Rostock, und R. OSTERTAG, Professor der Hygiene an der Tierarztlicher Hochschule in Berlin. Zweiter Jahrgang. 1895. Wiesbaden: J. F. Bergmann. 1897.

IN a work of this kind, in which an attempt, and a very successful attempt, is made to give the important data up to the time of issue, it is essential that some common plan should be drawn up and adhered to in order that a certain amount of continuity of thought and object may be attained. Dr. LUBARSCH, of Rostock, and Dr. OSTERTAG, Professor of Hygiene in the Veterinary High School at Berlin, have certainly, with the aid of their colleagues, succeeded in making their work homogeneous. With so many as sixteen contributors it is natural that the chapters are not all equally well done, but in no case has an author departed from the general plan; the result is that we have in this work a most valuable, almost encyclopædic, series of references to the work that has recently been done in human and comparative pathology.

The first chapter, which is contributed by J. Bernheim, with the co-operation of Max Gruber, deals with general myco-pathology; and as this will serve to give an idea of the plan of the book, we may state briefly on what lines it is drawn up. First comes a list of literature containing 230 references, and on going over these it may fairly be said that they include comparatively few of the unimportant and most of the important papers that have recently been published. After a short introduction, mixed infection, double infection, secondary infection, and various experiments on mixed infection, on bacterial antagonism, and on theories based upon experiments and results are described, after which three examples of true spontaneous mixed infective diseases are described—that is, mixed infection in tuberculosis, mixed infection and its bearing on typhoid fever, and mixed infection in diphtheria.

In the same way are treated special myco-pathology, bacterial intoxications, new growths, including those the result of inflammation and infection, cysts and tumours. A chapter is devoted to teratology and one to special pathological anatomy and physiology, in which are treated the blood, certain diseases of the liver, and the pathology of the ear, whilst a special chapter is devoted to the literature of Italian pathology.

Altogether this work has been well conceived and carried out, and will be a most valuable addition to any library for reference. Not the least important feature in the book is a fairly full index.

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SPECIELLE DIÄTETIK UND HYGIENE DES LUNGEN-UND-KEHLKOPF SCHWINDSÜCHTIGEN. [Special Dietetics and Hygiene of Pulmonary and Laryngeal Consumptives.] Von Dr. FELIX BLUMENFELD, Wiesbaden. Berlin: August Hirschwald. 1897. (Demy 8vo, pp. 108. M. 2.80.)

ALTHOUGH ostensibly devoted to the consideration of diet and hygiene, this small work covers all the essential points in the treatment of consumption. Less than a quarter of the whole is devoted to the question of diet; then follows a chapter on the management of the body apart from food and drugs, and the use and abuse of fresh air, exercise, etc., are in turn discussed. The treatment of individual symptoms and of morbid conditions in various organs is also considered, and thus the whole work contains in small compass a fairly comprehensive account of the general treatment of the disease.

The views which are expressed as to certain forms of treatment, such as excessive feeding, the use of alcohol, etc., are rendered especially interesting, as the author gives sound reasons for them, and does not rest his case on assertion only. Such treatment as he recommends can only be carried out effectively in sanatoria or other institutions specially devoted to the purpose, but the principles which he enunciates are capable of being applied in a less perfect manner even by the home patients, if only they could be brought to recognise their importance. In respect of details in the treatment of special complications and untoward symptoms the suggestions are numerous, and for the most part very apt and clear, guarded where necessary by a timely hint as to possible dangers or risks. The important subject of hæmorrhage is dealt with somewhat at length, and the observations made upon it are well worthy of perusal and consideration.

The work as a whole is a sound and practical contribution to the literature of a subject that must be ever before the minds of the profession and the public until the bacillus of tubercle has become a thing of the past.

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LES TOXINES MICROBIENNES ET ANIMALES. [Microbial and Animal Toxins.] Par ARMAND GAUTIER, Membre de l'Institut, Professeur de Chimie à la Faculté de Médecine de Paris, Membre de l'Académie de Médecine. Avec 20 figures dans le texte. Paris: Société d'Editions Scientifiques, 4, Rue Antoine-Dubois. 1896.

TO those who take an interest in the toxins formed by living organisms, whether they be microbes or animal or vegetable cells, M. ARMAND GAUTIER'S work should prove most instructive, as he took a very important part in advancing the study of the subject at a comparatively early date. He gives a full account of his own method of extracting what he called ptomaines and leucomaines, and of the work that he did as a pioneer. With our present knowledge of the subject, it is impossible to agree with certain theories advanced by M. Gautier; but whether we agree with him or not, we cannot but feel that the work here recorded has contributed not a little to the advance of knowledge of the subject.

After dealing with his own special work, M. Gautier gives

an exceedingly interesting summary of more modern work, bringing to bear upon it a mind specially trained to deal with the question; he examines in turn the various toxins, and describes the method of attenuation of virus, the transformation of active virus into vaccine matter, and gives a short account of the mechanism of immunisation and phagocytosis.

Then, taking up the question of "anti" bodies, he describes the method of production and the nature of antitoxins and the relation of these to serumtherapy, after which he gives detailed accounts of the various toxins and animal and vegetable ferments, paying special attention to the venins, antivenins, and, lastly, describes fairly fully the history of the production of toxins met with in the various specific infective diseases. A full literature is given, but we are sorry to see that no index is appended, although a table of contents is found at the end of the book. In a work of this nature an index should be essential, as so many cross references are required in reading up any subject, and, from the table of contents, simply the main headings can be obtained. The book is exceedingly well printed, and had there been an index we should have said that it was all that could be desired from the book-making point of view.

## NOTES ON BOOKS.

*Annuaires des Eaux Minérales, Stations Climatiques et Sanatoria de la France et de l'Etranger* [Annual of the French and Foreign Mineral Waters, Climatic Stations, and Sanatoria]. Thirty-ninth year. (Paris: Office of the *Gazette des Eaux* and Librairie Maloine. 1897. (Cr. 8vo, pp. 259. Fr. 1.50.)—The new edition of this useful little work contains notices of all, or nearly all, the French spas and mineral waters of any importance, as well as of hydrotherapeutic establishments, and seaside and other climatic stations. Foreign health resorts, including some in England, are referred to at less length. The notes on French spas, the composition of their waters, their altitudes, arrangements for thermal treatment, and railway communications will be found of real value as short reminders on the points in question. The various managing bodies, aided by medical men and the Société d'Hydrologie Médicale, are evidently doing much towards the advancement of French spas and health resorts, the utility of which is being constantly increased by improvement in the thermal establishments, hydrotherapeutic arrangements, means of access, and accommodation. The lists of medical men practising at French health resorts is of especial value for reference, though not quite free from misprints.

*Collected Papers from the Pathological Laboratory of Guy's Hospital Medical School, London.* Edited by J. W. WASHBOURN and E. H. STARLING, Lecturers on Physiology. 1895-6. —In this volume are bound up together reprints of papers published in various periodicals by workers in the Physiological Laboratory. The collection is evidence of the advantage which is taken of the facilities afforded by the laboratory for original research.

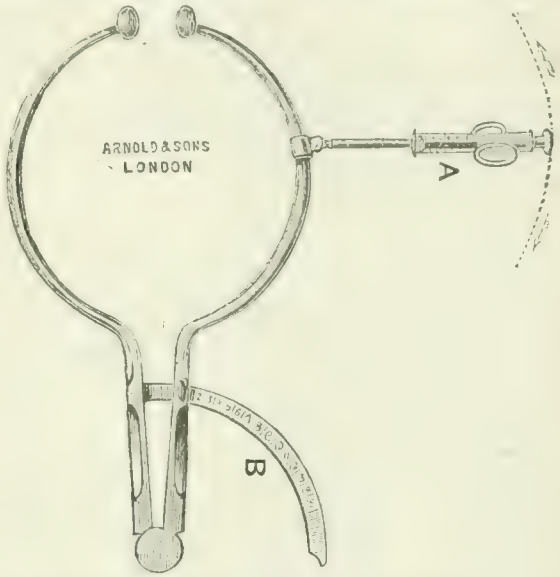
## REPORTS AND ANALYSES
AND
## DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

### PEAT WOOL.

THE absorbent and disinfectant properties of peat moss have been recognised on the Continent for many years. It appears to have been first used as a surgical dressing in the form of powder made up into pads or cushions. Applied in this manner the peat moss did not possess the mechanical advantage of cotton wool, tow, and similar preparations. By Béraudine's patent process the moss fibres extracted from the peat can be obtained as compressible and elastic as ordinary cotton wool or tow. We have received from the Peat Industries Syndicate Limited, 15, Walbrook, E.C., a sample of peat wool, prepared by the Béraudine process. This substance is very much like ordinary tow in appearance and texture, but is much darker in colour. It possesses properties which would seem to render it a good and serviceable dressing.

### SPRING PRESSURE GAUGE CALIPERS.

THE accompanying woodcut shows a pair of calipers made at Mr. James MacMunn's suggestion by Messrs. Arnold and Sons, and presents an innovation at A the use of which is claimed to meet a distinct want. Calipers, Mr. MacMunn considers,




might with advantage be adopted in many cases of surgery as a diagnostic aid, for instance, not only in fractures and dislocations, and joint diseases, but in some cases of abdominal and pelvic tumours, in the latter case one limb of the instrument being placed in the rectum or vagina. Mr. MacMunn calls attention to this instrument because it is common, especially in the obese, to wish for a more accurate means of determining the degree of resistance experienced by the hand when palpating the abdomen. The instrument in question, he submits, will meet this want. If, for example, it takes in one locality a pressure of 5 lbs. of the spring A (note scale) to approximate the limbs so as to register 6 inches on the scale B whilst at another locality it takes a pressure of 4 lbs. only, then, of course, the former part will have a resistance, and an abnormal one, of 1 lb. more than the latter. A little study will, Mr. MacMunn thinks, soon render the instrument of practical use.

### BOUGIE CATHETERS.

THE Medical Supply Association of Edinburgh have manufactured, at the suggestion of Dr. Cuthbert Bowen, of the General Hospital, Barbados, W.I., a set of silver bougie catheters, which claims to be an improvement on the instruments at present in use. The advantage these bougie-catheters are said to possess over simple catheters is the facility with which they can be cleansed and rendered aseptic, the aperture being in the blunt end of the bougie, and not at the side as in the ordinary silver catheter. These instruments, as their name implies, are capable of being used either for gradual dilatation of the urethra in stricture, or for the withdrawal of urine in cases of simple retention. By the removal of a screw plug in the handle the bougie can be at once converted into a catheter, uncertainty as to whether the instrument is in the bladder being removed by the flowing of urine through the handle. These instruments run in sizes from 1 to 21. The graduations are extremely gradual.

# REPORT ON THE APPLICATION OF THE NEW PHOTOGRAPHY TO MEDICINE AND SURGERY.

[Report to the British Medical Journal.]

By SYDNEY ROWLAND, B.A.,

Late Shuter Scholar of St. Bartholomew's Hospital.

## XVII.

The following illustrative cases selected from the literature serve to show the position the *x* rays have attained in their application to medical as distinguished from surgical practice. That the rays do possess undoubted power of affecting living tissues cannot be doubted after the many cases that have been published of dermatitis, and even periostitis following exposure. But beyond this observation nothing can be said to be known with certainty on this point.

M. Th. Guillon has been following up the announcement of Edison that the rays could be perceived by the unaided retina, but with negative results.

### Effect on Infectious Processes.

With regard to their effect on pathogenic micro-organisms, Sormain has established that the *x* rays, acting for even considerable periods of time in cultures *in vitro*, do not exercise any recognisable effect. Similar results have been obtained in this country by Dr. J. Brunton Blaikie. On the other hand, the researches of Lortet and Genoud have tended to show that the rays, acting on experimental animals, retard in a remarkable manner the development of tuberculous infection, and more recently Fiorentini and Linaschi have come to the same conclusions.

In these experiments guinea-pigs were inoculated intraperitoneally with an emulsion in broth of virulent tubercle, animals similar in all other respects being kept for control purposes. In each experiment an animal was exposed to the source of the rays at a distance of from 10 to 20 cm. in such a position that the rays traversed the seat of inoculation. At the necropsy all the animals were found to be tuberculous but in varying degrees, those that had been exposed to the rays showing fewer tubercles than those that developed in animals not so exposed, and these, moreover, further from the point of inoculation, which was also the point of maximum exposure. In a second series similar results were obtained, with the remarkable effect in one case of the subsidence of the nodule that had formed at the seat of inoculation after repeated exposures. No explanation can at present be offered of these remarkable effects. The authors suggest that possibly the passage of the radiations through the tissues cause an aggregation of phagocytes to the seat of inoculation, or some special endowment of resisting power to the tissues themselves as the result of exposure.

M. Rendu and Du Castel report a truly remarkable case, which cannot but be received with great caution. A young man aged 20 years, suffering apparently from acute pneumonia, was in so serious a condition that his life was despaired of. As a last resource the curative effect of exposure to a Crookes's tube was tried, with the result that on the third day of the treatment his condition was markedly improved, and he passed the night without fever. This improvement continued, and the patient ultimately recovered. As the authors confess that they were not certain of the diagnosis and admit the possibility of coincidence, which, however, they do not think probable, this case is clearly open to very serious doubt.

### The *X* Rays in Diagnosis.

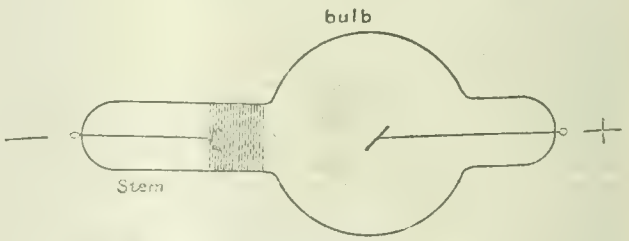
In the region of physical examination there is, however, a large field of genuine utility, as the following cases show; but even here all that can be seen by the screen can be made out with far greater facility by means of the ordinary methods of physical examination. Bouchard reports a case of pleurisy investigated by means of the fluorescent screen. He found that in the case of three men suffering from pleurisy with effusion, the side of the chest occupied by the fluid gave a darker shadow than did the healthy side. It was found possible to define the upper limit of the fluid by the same means. The displacement of the mediastinum laterally could also be made out. Lévy-Dorn took the opportunity of examining with the screen the chest of a patient suffering from chronic bronchitis and asthma. He observed that the left half of the diaphragm fell rapidly at each inspiration, and rose slowly and by successive stages. The right half, on the other hand, remained from the first absolutely fixed in the position of extreme inspiration, only to rise at the termination of the attack with the expectoration of viscid mucus.

These results suggest that the screen is a valuable addition to our present means of physical examination, which, however, it cannot replace or equal for rapidity and ease of application.

### The Rejuvenescence of Worn-out Roentgen Lamps.

Mr. J. Lynn Thomas, F.R.C.S. (Assistant Surgeon to the Cardiff Infirmary), writes: In connection with Drs. Ireland and Howlett's useful and valuable advice for increasing the efficiency of the tubes by applying damp cotton wool or lint to the kathodal extremity of the bulb and to the cathode wire,[1] I venture to express the opinion that the result is due entirely to the fact that their damp wool or lint acts as a conductor of kathodic current to one particular area of the tube, which seems to me to be responsible to a great extent for the inefficiency of worn-out Roentgen lamps.

The shaded area in the rough sketch shows this particular area of the glass involved, and is noticed to be that region




represents the area of the glass that responds to the Kathodic current.

which surrounds the aluminium disc of the kathode terminal and the immediate neighbourhood towards the anode end of the tube.

A simple way of demonstrating the effect as well as the extent of what one may call the responsive kathodic area of glass of the lamp is to attach one end of a piece of thin fusion wire to the kathode wire and to make a loop with the other end to fit over the kathodic stem of the bulb; now drive the current through, and by gliding the loop over the region indicated in the sketch the limits of this area are easily shown by the appearance and disappearance of the "apple-green effulgence." The effect when the loop is pushed to either side of this area is *nil* with regard to the alteration of the internal resistance of the Roentgen lamp. Fusion wire is easily adapted to the tube, and the result when the loop is over this area is practically the same as when Drs. Ireland and Howlett's damp wool or lint is used.

In many varieties of tubes, focus and otherwise, the effect of the iron loop demonstrates the existence of a localised responsive area in the near neighbourhood of the kathode terminal. It will also be found that it is quite sufficient to heat only this particular area in order to restore the efficiency of the tube, instead of the usual method of heating all the tube.

The best forms of Roentgen lamps for use are those in which the kathode terminal is in the stem and not in the bulb, because it is very easy in the former variety to glide the wire beyond or to fix it to the responsive kathodic area of the glass.

The effect of one loop of wire is the same as that of several turns round the stem. For practical purposes the end of the kathodic wire can be drawn through its usual loop of attachment and its end twisted round the area indicated in the sketch with results equally satisfactory.

[1] British Medical Journal, May 8th, 1897.

## THE EXTRA PREMIUM CHARGED TO TROPICAL RESIDENTS BY LIFE INSURANCE COMPANIES.

By JAMES CANTLIE, M.B., F.R.C.S.

A FAIRLY extensive acquaintance with life insurance in the tropics is my excuse for bringing this important subject forward; and for the mutual consideration of both insured and insurers, I venture to point out a few of the anomalies and grievances which appear to me to attach themselves to this subject.

I must at once state that I do not advocate that no extra premium be demanded for Europeans proceeding to the tropics. I have had enough experience to know that there is a risk—it might be called a considerable risk—to the company that takes upon itself the insurance of residents in the tropics, and I hold that every insurance company should protect itself in the matter. At the same time, I dissuade all young men who ask my advice as to the desirability of insuring their lives before proceeding to the East. If no family ties are in evidence, I freely pronounce against insurance under the present circumstances. It is the extra premium required of tropical residents that compels me so to advise. It is not the question of no premium, but it is the fact that this sum is demanded indefinitely; that the insured, after returning to dwell in a temperate climate, gets no compensation for the sums of money he has paid; that the extra premium bestows no increase of capital, no increase in the surrender value of the policy. It is a sum required by the insurance companies for "the risk they run." Good and well, but after the risk is over, and the insured none the worse physically for his sojourn abroad, surely he has a just claim upon the moneys he has paid so as to protect the companies, when he returns to take up his abode in a temperate climate. Such, however, is not the case; the insurers alone benefit by the transaction, and the extra premium, although paid throughout a period of forty years, accrues to the benefit of the insurance companies alone.

Of course a simple and sweeping reply is that insurance companies cannot view the interest of individual cases, but must take the average, and as there is an acknowledged risk attaching to the lives of Europeans dwelling in the tropics, the companies must be content to charge the extra premium indefinitely, even at the risk of being considered hard upon the individual. This is a comfortable, not to say a selfish, method of dealing with the subject, and one that cannot be said to be quite fair. Without detriment to the company a more equitable plan can surely be devised.

In many cases the insured is acting under medical advice when he proceeds to take up his residence in a tropical country. Nevertheless, the insurance company charges an extra premium, although the insured is going to the only place where a prolongation of life is at all possible. Again, an old tropical resident may find it impossible to maintain his health in a temperate climate, such as England, and returns to the tropics where alone his health can be restored. Still the insurance company imposes its restrictions, and exacts an extra premium for dwelling in the only place where its client can live with direct benefit to the company itself.

There are many lives insured in the tropics now, on which an extra premium has been charged over thirty years, although the insured knows full well that he can reside nowhere else with so good a chance of living to old age. Yet another condition obtains: A man insured in a company at home proceeds to the tropics, where he remains, say, 10 years, and then returns to take up his permanent residence in England, or some other temperate climate. During his stay abroad the company charges an extra premium for "the risk" it runs. That is all right and fair, but the man's health is in no way injured—instead it may be improved—by residence abroad, and now all risk is over. The insured may be able to prove, by medical certificate, that his general health has in no way suffered, yet no benefit accrues to him for the moneys he has paid in: the company alone benefits, and to the company the extra premium is clear profit. The risk is over, the condition of the client's health may be bettered, yet no consideration is allowed the insured: and the only answer he gets, when his status with the company is inquired into, is that the sums received for extra premium are not added to profits, nor are they considered in the question of the surrender value of the policy.

I repeat, again, I am not advocating the abolition of the extra premium system (except when the patient is proceeding to a tropical country by medical advice). In fact, I would be inclined to increase the initial extra premium, as I am aware it is during the first few years of tropical residence that the chief danger exists. But I do consider it a hardship that a man, having dwelt for twenty years in a tropical country in good health, should be called upon to continue paying an extra premium without any benefit to himself, other than by the general benefit he contributes towards the company in which he is insured.

If the object of the company is to cause the insured to let the policy lapse, then the system is no doubt conducive to that end; and although we know that insurance companies count upon paying only one death claim out of three originally insured persons, still the system of driving men to allow their policy to lapse seems unjust.

It must be remembered that there are a few anomalies in connection with the probability of life in the tropics.

(*a*) The younger the man going out to take up residence in the tropics, the greater the risk. There is no doubt that young men between the ages of 18 and 25 are more liable to succumb to malaria, dysentery, etc., than men beyond that age.

(*b*) A man over 30 in good health when he leaves a temperate for a tropical climate has a better chance of withstanding hot weather than a younger man.

(*c*) A man after five years' residence in a warm climate is a much better risk than one newly arrived.

(*d*) It seems absurd that a man who has been, say, thirty years resident in the tropics should be called upon for all these years to pay an extra premium. In all probability he is more likely to live to a good age remaining where he is than were he to come home; still is he, by rule of thumb, charged extra for residing in the very place where his health is best.

These are a few of the anomalies worthy of consideration, and by drawing attention to them it may help business men to put forward some scheme whereby the resident in warm countries may be insured on better terms, with benefit to himself, and without loss to the company.

I now venture to make a few suggestions in connection with this subject.

### A. THE TROPICAL EXTRA PREMIUM.

The following method of dealing with the extra premium demanded of a resident in the tropics is suggested:

1. After seven years' residence in a proscribed country (that is, a region for which an extra premium is charged by an insurance office) the extra premium should be reduced by one-half. This step to be conditional upon a certificate from the company's medical officer that no permanent injury to health has been incurred, the expenses of such certificate to be borne by the insured.

2. That after ten years' residence in a proscribed region the extra premium be reduced to say one-third of the original sum charged, provided a medical certificate be forthcoming that no permanent injury has been incurred.

3. That for the three following years one-fourth only of the original sum charged as extra premium be demanded, provided the requisite certificate be produced.

4. That after the thirteenth year of residence in a proscribed region no extra premium be charged, provided the necessary certificate be shown.

### B. RETURNED TROPICAL RESIDENT.

In the event of an old tropical resident returning to reside in Britain or other temperate climate permanently:

1. That within twelve months (but not before six months) of the return of a tropical resident to a temperate climate, whence he has come with the idea of permanent residence, he be examined by the medical officer of the company as to his physical condition before any question of reimbursement be considered. (The specification that a six months' residence in a temperate climate be passed, before coming for examination, is suggested in order that time may be allowed

to ascertain whether or no the change of climate and circumstance are likely to prejudice his health.)

2. In the event of the medical officer reporting favourably upon the candidate, that one half of the annual extra premium, paid when abroad, be deducted from the annual sum for ordinary premium, for a number of years corresponding to the residence abroad. By way of explanation: Suppose a man to have been abroad ten years, and suppose £15 extra had been paid annually during residence abroad, that £7 10s. be deducted annually from the ordinary insurance (annual premium) payments for the next ten years.

3. These are two methods of recompensing the insured; there are several others. It might take the form of a part (or the whole) of the extra premium paid for foreign residence going towards the actual sum accruing for profits, for bonuses, or surrender value of the policy.

4. In the event of the medical man reporting that the health of the insured is not so good as it was, but that no actual disease is present, then that a less sum than one-half is accredited to the insured.

5. In the event of the medical man reporting that there is actual detriment to health, that no allowance be made. But in the event of the insured, even after such report, living five years after his return in good health, that the insured may have his case reconsidered.

There is, in my opinion, too much made of the dangers of residence in the tropics by insurance companies. India and most tropical places are very different from a health point of view to what they were when many of these restrictions were primarily imposed. Change of air nowadays is more easy of attainment; medical advice is more readily obtainable; by the opening of railways the invalid can be quickly conveyed to a healthy locality; and the frequent despatch of swift steamers affords rapid transit to temperate climates.

Another point in favour of more elastic views, in regard to life insurance in the case of tropical residents, is that almost all Europeans, before they are selected for foreign service, have to pass a careful medical examination. The young men proceeding to the tropics are, as a whole, the most healthy and of the best physique that can be obtained; so that the insurance company is selecting from a community already physically chosen.

With these considerations before one, surely a modified scheme of insurance can be devised whereby the claims of the insured to some share in the moneys he pays can be furthered without detriment to the company.

## NATIONAL HYGIENE IN THE UNITED STATES.

The annual report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the year 1896 is the twenty-fifth, but deals with the ninety-eighth year of the existence of the service. It forms a large 8vo volume numbering 1,079 pages. The import of the title "Marine Hospital Service" taken in the abstract would afford but a narrow view of the actual work effected by its officers in medicine, surgery, hygiene, and vital statistics. In fact its grasp is so comprehensive that it will, in all probability, either become or give origin to a National Board of Health, which appears to be demanded on every hand to connect and give effect to the working of the State Boards of Health already existing. Though the latter are of great importance and indispensable in their way, the Marine Hospital Service takes with the army and navy a leading position under the American Government, and its work is in keeping with the advance made by science and civilisation.

Passing through numerous departmental particulars, we find under the heading of "Aid to other Branches of the Public Service:"

(1) Aid to the Life Saving Service: 1,297 keepers and surfmen examined physically, 12 rejected.

(2) Aid to the Inspection Service of Steam Vessels: 1,103 pilots examined, and 58 rejected on account of colour blindness.

(3) Aid to Revenue Cutter Service: 582 seamen examined, and 27 rejected.

(4) Aid to the Immigration Service: adding up the number of immigrants examined in New York and seven other ports the figures are 372,337, representing a considerable amount of work in that way.

Attention has been called to the "lack of shelter for deck crews on western rivers," and several cogent letters on the subject have been drawn up by the medical officers of the service, showing the evils arising from this neglect and the cruelty of making men work with frostbitten fingers, etc. In a notable case of this kind the jury returned true bills against the master and the mate. The prosecution came to naught, as no violence had been used, as implied in the legal wording of the enactment. There is even no sleeping accommodation for the so-called "roustabouts," or low class of men submitted to this treatment, and it is to be hoped that the Marine Hospital Service will be successful in its humane efforts to effect a satisfactory change. The diet or daily ration of the seamen has also been thoroughly gone into, and daily and weekly scales have been drawn up for adoption.

In an excellent letter on Antivivisection from the Supervising Surgeon-General Walter Wyman, he remarks that "Had this principle prevailed, there would have been no discovery of the bacillus of cholera, upon which the suppression of that hitherto irrepressible disease has become a scientific and practicable possibility. In fact, I may add that the quarantine methods of the present day, through which epidemic diseases are excluded from the United States by scientific disinfection, have their basis in these experiments."

A large number of cases with necropsies, enough to form a little volume by themselves, are given, as also articles contributed by the several officers named, and a series of interesting historical sketches of the Marine Hospital Service at the ports of Detroit, San Francisco, Boston, Vineyard Haven, Evansville, and Cleveland are included between pp. 187 and 296. From p. 297 to p. 362 elaborate tables are included dealing with the statistics of the service. The classification of diseases adopted is that of the London College of Surgeons; some are of peculiar interest, and would admit of extensive comment if space were available.

The Public Health Service commences with valuable articles on cholera, yellow fever, small-pox, and plague by officers of the Marine Hospital Service. In due course the whole question of quarantine is dealt with, and the most satisfactory means of combating infection are described.

The report of the medical officers in charge of the Hygienic Laboratory is full of interest and instruction, reflecting great credit upon the officers in charge, namely, J. J. Kenyon, passed Assistant Surgeon, and Dr. Edo Andrade Penny, Assistant.

As to the contents and illustrations, the closing words of the Supervising Surgeon-General may be quoted here: "Attention is respectfully invited to the table of contents published with this volume, which gives a faithful *résumé* of the transactions of the service. In my last annual report (1895) I stated that the illustrations accompanying it included one-half of the total number of marine hospitals and one-half of the total number of quarantine stations, and that the other hospitals and quarantine stations were illustrated in the report of 1894." "The hospital at Cleveland, Ohio, which had been leased for a number of years to a local association, has been returned, and is now operated by the Service, and the illustration thereof in this report completes the list of marine hospitals." Since the last report also "the quarantine station near Southport has been erected, and is represented herein. Acknowledgment is due to United States Coast and Geodetic Survey for the preparation of maps, and assistance in the construction of scientific appliances designed in the laboratory for use in experiments relating to disinfection."

The General Hospital, Calcutta.—The Government of India, while approving generally of the proposals tendered in connection with the scheme for the reconstruction of the General Hospital, Calcutta, have expressed their inability to make any addition at present to the assignment to the local government for the carrying out of the project.

Enteric Fever at Lucknow.—This disease is still prevalent at the station, the Duke of Cornwall's Light Infantry being the chief sufferers. One officer has died and another is ill. There are between 20 and 30 men in the station hospital suffering from enteric, the regiment having already lost 10 or 11 men. The corps is quartered in the barracks which obtained such an evil reputation when tenanted by the East Lancashire regiment. A special inquiry into the causes of the epidemic would seem, says *The Pioneer*, to be needed. The epidemic at Sabathu has ceased, no further cases having been admitted. The temporary water-supply scheme is in working order.

## THE ROYAL HOSPITAL OF THE INNOCENTS, FLORENCE.

[FROM A CORRESPONDENT.]

ON entering the Piazza of the Most Holy Annunciation from the Via Ricasoli, the graceful arcades forming the loggia of the Foundling Hospital proclaim the design of a master mind. The silk mercers of Florence in the year 1419 determined to make further provision than already existed for the reception and charge of foundlings, and entrusted the design to Filippo di ser Brunellesco. The building gradually grew up, and was completed in 1444, its architectural grace being further adorned by some of the finest specimens of Andrea della Robbia's work portraying a variety of infant forms in pleading postures, which surmount the pillars and occupy the wall veil between the spring of the arches.

The range of low windows which extend the length of the building above the loggia suggests to the modern sanitarian a sacrifice of hygiene to architectural excellence, and he unconsciously pictures to himself a correspondence between the internal arrangements for the infants and the mediæval exterior. But the director has requested me to be at the door at 5 o'clock, and I find him there with the *chef de clinique*, Dr. Bosi, to whose guidance I am entrusted. We pass under the main portico and enter a small door on the right. I soon learn that this small door is the Rubicon which divides mediæval surroundings from modern hygiene. This is the receiving room, and Dr. Bosi informed me that illegitimacy is the passport to the hospital, although the children of legally married parents are admitted also, and are recommended and maintained by the municipality.

There are about 1,000 admissions annually. Each infant is brought with a certificate from a medical man stating the date of birth and all that can be ascertained about the health of the parents, especially as regards syphilis. It is at once washed and weighed, and is tended by a midwife in the adjacent waiting room, pending the arrival of Dr. Bosi or the second medical officer. The first examination is very thorough, and should it, in conjunction with the history as to the condition of the parents, be satisfactory, the child is allotted to a *balia*, or wet-nurse, and consigned to the ward for healthy children. Should there be any suspicion of syphilis, the infant is closely watched and periodically weighed to ascertain if its daily increase in weight is normal, and so long as any doubt exists as to hereditary taint it is artificially fed.

Each infant on admission receives a card on which are entered the date of its birth, the sex, weight, and general condition, and also its identifying number and letter. This card accompanies it throughout its life of adoption by the institute, namely, till the age of 21, and furnishes a history of its organic life. At the same time an aluminium medallion, on which are stamped its identifying letter and number, is placed round its neck, and fastened by crushing a small leaden bullet which runs on a cord necklet. For illegitimate children the card is white and the medallion silvered: for legitimate children the card is blue and the medallion gilt.

The receiving and waiting rooms may be described as types of the wards throughout the establishment. Cleanliness, fresh paint, iron swing cots and clean linen strike the eye at once. The angle between the wall and floor is filled in, concave, and, like the floor and walls to a height of two metres, it is varnished. Each ward has a cupboard for clean linen, a linen warming oven, and a trap door in the wall opening into a shaft, through which dirty linen finds its way to the basement.

Proceeding upstairs and passing through a large garret-like room, into which the low windows seen from the piazza open and which is destined for accessory purposes, the wards of the foundlings are reached. These occupy the east aspect of the building, which is lighted by high windows overlooking the extensive garden and dairy farm. The numerous wards lead out of a broad and airy corridor, which on the opposite side is pierced by glazed eyelet holes, each one commanding an isolation ward, which are thus under the eye of the sister in charge, while the entrance to them is quite apart.

The medical officers' room is well found in testing apparatus for all necessary purposes. Important among these are the various appliances for the daily testing of milk. The working hypothesis is that if the proportion of cream in a sample of milk is adequate, the milk is of a sufficiently good quality. The microscope and Conrad's apparatus combined are the tests on which Dr. Bosi chiefly relies.

Incubators are used for weakly and prematurely-born infants. The inner or warmer chamber is maintained at a temperature ranging between 20° and 25° C. Should the temperature pass beyond these limits in either direction, a bimetallic spring thermometer rings a warning bell in the sister's room. A hygrometer indicates the degree of moisture in the chamber. The outer chamber is kept at a temperature ranging from 18° to 20° C., and has similar appliances for regulating the heat and moisture. It serves to break the sudden change from the high temperature of the warmer chamber to that of the ordinary wards, which are maintained at 15° or 16° C.

The infants are kept in hospital for a minimum of fifteen days; the healthy ones are then sent to foster mothers in the country, while the diseased or suspected ones are kept under observation or treatment. The foster parents receive 10 francs a month during the first year of charge, 8 francs during the second, and 6 francs during the third, fourth, and fifth years. At 5 years old the child can make itself useful in the *podere* (farm), and its foster parents are usually willing to keep it on permanently. It would appear that when the foundlings grow up they are in no wise ashamed of their connection with the institution which adopted them: on the contrary, they sometimes adopt it as a patronymic; thus, a baker who supplies bread to a goodly number of English families is known as "Baldassare degl'Innocenti." Altogether a visit to this ancient institution leaves the impression that many a child of wealthy parents would stand a better chance under the roof of the Innocenti than under the indulgent eye of its natural mother.

## ARCHÆOLOGICA MEDICA.

### XXXI.—HEALTH APHORISMS.

HEALTH aphorisms form a special branch of folk medicine which has never yet received adequate attention at the hands of medical men or of students of folk lore. Health is so important an item in the life of mankind that it is no wonder if every language teems with proverbs relating to its preservation. The ideas are in many cases identical, partly because similar facts impressed themselves upon the minds of different nations, but chiefly, no doubt, because the people in the Middle Ages drew most of their stock of knowledge from one or two semipopular works on dietetics which had an enormous circulation. The *Regimen Sanitatis* was one of the most popular of these works. Its origin is lost in the mists of antiquity, but it seems to have been edited by John of Milan, who dedicated it in the name of the school at Salerne to Duke Robert, the eldest son of William the Conqueror. The *Regimen* ran through many editions in manuscript, and more than twenty editions of it appeared in Latin within a century after the invention of printing. Many of the aphorisms are dietetic, and are distinctly founded on common sense, for they are the result of experience. Thus:

> Ex magna cœna stomacho fit maxima pœna
> Ut sis nocte levis, sit tibi cœna brevis.

which was made to speak English thus:

> Great suppers put the stomacke to great paine,
> Sup lightly if good rest you mean to gaine.

Cheese from quite early times has been considered indigestible, so that it became a proverb, "Caseus ille bonus quem dat avara manus;" "that cheese is onely good that cometh out of a niggard's hands"—a dict which took root amongst ourselves in the form:

> Cheese is a surly elf,
> Digesting all things but itself.

We are returning of late years to some of the ancient teachings of the *Regimen of Health*, which says:

> Sunt nutritiva plus dulcia candida vina.
> The sweetest wines doe most of all revive
> And cheere the spirits, being nutritive.

for even now there are some physicians who would have us

drink sweet rather than brut champagne. It is worthy of remark, too, that the doctrine of "taking a hair of the dog that bit you" dates back even to the time of Avicenna, who is credited with teaching

> Si tibi serotina noceat potatio vini:
> Hora matutina rebibas, & erit medicina.
> If overmuch wine thy brain hath offended.
> Drink early the next morning and it's mended.

Here, too, is the ancient cure for sea sickness, whose efficacy is still maintained by many:

> Sea water drunk with wine doth well defend thee
> If on the sea casting (nausea) chance to offend thee.

Many of the aphorisms are in all probability wholly false, thus it is said of figs:

> Pediculos veneremque facit, sed cuilibet obstat.
> Both Lice and Lust by figges engendered are
> Of those corrupting humours they prepare.

but it is useless to pursue falsehood amongst the ancients, for we see too much of it in our daily life.

## MEDICAL SICKNESS AND ACCIDENT SOCIETY.

THE usual monthly meeting of the Executive Committee of the Medical Sickness and Accident Society was held at 429, Strand, London, W.C., on May 28th, at 4.45 P.M. There were present Dr. de Havilland Hall (Chairman), Dr. J. B. Ball (Medical Examiner), Mr. J. Brindley James, Dr. Walter Smith, Dr. W. Knowsley Sibley, Dr. F. J. Allan, Mr. Edward Bartlett, and Dr. J. Pickett.

The accounts presented showed that the Society is doing an ever-increasing amount of good work, the total of the sickness claims paid to the members during the early part of this year being greater than in any previous spring since the commencement of the business. The list of current sickness claims was examined, and after a careful consideration of the cases the Committee concluded that there are now at least eight members who will have to remain in permanent sick benefit. It is one of the most important features of the business of the Medical Sickness and Accident Society that it makes provision for those of its members who through illness or accident are permanently disabled from the practice of their profession. Such members receive from the Society a substantial annuity, and the value of this, to some at least, cannot be overestimated.

These annuities have to be secured by heavy reserves. In addition to its large income the Society has now an accumulated fund of over £108,000, and the investment of this money at even moderately remunerative rates is one of the most difficult of the tasks performed by the Committee. Fresh investments have to be made at short intervals, and at the last meeting the Committee, considering that a sufficient amount of colonial stock was now held by the Society, determined to take up some more loans to local bodies under the Public Health Acts.

Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

# PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

### HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,581 births and 3,661 deaths were registered during the week ending Saturday last, June 5th. The annual rate of mortality in these towns, which had been 17.2 and 16.6 per 1,000 in the two preceding weeks, rose again to 17.4 last week. The rates in the several towns ranged from 12.0 in Brighton, 13.1 in Derby and in Birkenhead, 13.4 in Portsmouth, and 13.7 in Norwich to 23.3 in Sheffield, 23.4 in Halifax, 24.9 in Bolton, and 27.1 in Salford. In the thirty-two provincial towns the mean death-rate was 18.7 per 1,000, and exceeded by 3.3 the rate recorded in London, which was only 15.4 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was 1.4 per 1,000, while it averaged 1.9 in the thirty-two provincial towns, among which the highest zymotic rates were 3.3 in Birkenhead, 4.0 in Burnley, 5.2 in Bolton, and 7.8 in Salford. Measles caused a death-rate of 1.4 in Birmingham and in Manchester, 2.5 in Burnley, 3.4 in Bolton, and 6.1 in Salford; and whooping-cough of 1.2 in Blackburn, 1.3 in Bolton, and 1.4 in Manchester and in Oldham. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 56 deaths from diphtheria in the thirty-three towns included 23 in London, 3 in Birmingham, and 3 in Burnley. No fatal case of small-pox was registered during the week, either in London or in any of the thirty-two large provincial towns. There were 4 small-pox patients under treatment in the Metropolitan Asylums Hospitals on Saturday last, June 5th, against 14, 13, and 12 at the end of the three preceding weeks; no new cases were admitted during the week. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had increased from 2,380 to 2,546 at the end of the five preceding weeks, had further risen to 2,601 on Saturday last; 274 new cases were admitted during the week, against 239, 311, and 278 in the three preceding weeks.

### HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, June 5th, 997 births and 605 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 22.3 and 21.7 per 1,000 in the two preceding weeks, further declined to 20.3 last week, but was 3.9 per 1,000 above the mean rate during the same period in the thirty-three large English towns. The lowest rates in the eight Scotch towns were 10.9 in Aberdeen and 17.9 in Dundee, and the highest rates 29.0 in Leith and 37.5 in Perth. The zymotic death-rate in these towns averaged 3.1 per 1,000, the highest rates being recorded in Edinburgh and Leith. The 265 deaths registered last week in Glasgow included 6 from measles, 21 from whooping-cough, 2 from "fever," and 8 from diarrhœa. Fifteen fatal cases of measles, and 14 of whooping-cough were recorded in Edinburgh, and 7 of measles in Leith.

### AN OBJECT LESSON IN PATCHING.

CAMBERWELL built itself a new workhouse, but the infirmary accommodation being too small the overflow patients were placed in the old condemned workhouse, much against the judgment of the Local Government Board. Now the medical officer comes to his Board with a story of three assistant medical officers suffering from blood poisoning, several nurses complaining of headache or sore throat, and the night nurse unable to do her duty as she has to mount the table to escape the rats which "are swarming around her, and which had been known to scamper over the children's beds." Mr. Wakley, early in the forties, when he began his crusade against the workhouses, spoke of them as veritable death traps. We think that in the late nineties several of the workhouses still reach this standard, nor do we think that one of the guardians (Dr. Partridge) said more than the circumstances demanded when he warned his colleagues "that they should remember that although they were guardians of the poor they were not licensed murderers of the poor."

### A QUESTION OF PROBABILITIES.

A POOR-LAW MEDICAL OFFICER raises the question whether, under the Superannuation Act of last year, there is any possibility of the heirs to the estate of an officer dying prior to his retirement on pension securing any portion of his annual contributions to the common fund of the union, made by him in the hope of future benefit in the shape of superannuation? Our correspondent points to insurances on commercial bases which carry with them a system of repayment of a percentage of premiums in case of death prior to the age of 65 years of the person insuring for an annuity after that age. But our correspondent fails to tell us the amount of extra premium necessary to secure this. In so far as the Act in question is concerned, there is no such power in the hands of the authorities administering the measure as to enable them to grant return of any part of contributions made by way of deferred pay to the representatives of officers and servants dying in harness. The whole Act is framed on the bases of averages and probabilities, and the proportion of officers and servants dying prior to their superannuation has, we doubt not, been carefully considered, along with other contingencies, in arriving at the rates of contribution which go to ensure superannuation allowances. All insurances are effected on mutual benefit lines, the non-participation of such and such percentages of policy holders being an important factor in securing reasonable premiums on the part of all. To establish the desideratum aimed at by our correspondent would simply mean taking from him in life the (additional) premium to be returned to his heirs in the event of death prior to retirement on superannuation allowance. But the matter would not end here, for we can easily imagine instances where officers and servants die (say) within a few weeks of retirement. How are their representatives to be treated? It will be seen that the problem opened up is one difficult to solve if attempt be made on any piecemeal lines. To answer it fully means an entire remodelling of the Act. We would say, let it alone in this particular, and permit the many (for once) to benefit at the cost of the few.

### THE MUTILATION OF HEALTH REPORTS.

WE rather fear from the discussion which recently took place at a meeting of the St. George's Vestry, as reported in the *Southwark Recorder*, that there is a disposition to burke the report of the medical officer of health. The real inwardness of the apparently harmless motion of Mr. Redman, "That the annual report be referred to the Public Health Committee," was exposed by Mr. Hilton. He put it that the vestry had been kept hungering for this information, and now that it was come they were to be kept still longer without it "in order that a precious Committee might consider, alter, and mutilate it." A member asked if this was to be the report of the medical officer or of a secret or subcommittee, while another pointed out that the Local Government Board had a right to know what was in the original document. The reference was, however, carried. We hope not only the Central Board but the local ratepayers will insist on having the full report *totus, teres, atque rotundus.*

## BRITISH MEDICAL ASSOCIATION.

### SUBSCRIPTIONS FOR 1897.

SUBSCRIPTIONS to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JUNE 12TH, 1897.

## MEDICAL PRACTICE IN ITALY.

AN announcement has been made that the Under-Secretary of the Italian Parliament is about to introduce a project of law for the purpose of modifying, in a manner unfavourable to foreign medical practitioners in Italy, the present Sanitary Laws of November 13th, 1859, and December 22nd, 1888, under which foreign doctors are enabled to practise in Italy so long as such practice is confined to foreigners. The change now proposed will have the effect, if made retrospective, of depriving present foreign practitioners in Italy of this advantage (and consequently of their means of livelihood there), and even if restricted to the future the contemplated alteration of law is sufficiently serious both to practitioners and patients to warrant earnest endeavours being made to secure its withdrawal.

The subject has already been under discussion by the General Medical Council, and we are glad to find that steps are being taken by the Council for bringing the matter before Her Majesty's Privy Council in order that the Secretary of State for Foreign Affairs may be moved to take some action in the matter. The reason, we understand, which is assigned for the suggested change in the law is that Italian doctors are not permitted to practise in the other countries of Europe without possessing the diplomas of the respective countries.

So far as concerns the United Kingdom, such reasoning would appear to be based upon a misapprehension, and we have every hope, therefore, that on proper representations being made to the Italian Government the measure now promulgated may be abandoned.

As far back as 1893 the General Medical Council caused to be transmitted to the various European Governments, including that of Italy, a memorandum showing the conditions under which foreign doctors are allowed to practise medicine and surgery in the United Kingdom, and the Italian Minister, in acknowledging receipt of this memorandum, quoted without comment the existing sanitary laws in Italy to which we have already drawn attention.

It seems almost incredible that the suggested alterations can now be seriously contemplated. The numerous visitors from various countries who resort to Italy for the winter season for their health's sake would naturally prefer to go elsewhere if they were to be deprived of the privilege of having the attendance of a physician of their own nationality, and in this way the proposed alteration of the law would necessarily have some depreciatory effect on Italian prosperity.

If the Italian Government merely desired to protect the foreign visitor from the charlatan or quack, nothing could be easier than to require every foreign practitioner to produce, and have verified, his credentials, before allowing him to practise.

Strenuous efforts should be made by the foreign practitioners in Italy to secure their privileges, and if these efforts are well directed it is quite within the bounds of possibility that a full discussion of the subject may bring about, at any rate between the United Kingdom and Italy (if not with other foreign countries) that "reciprocity" of medical practice which it was one of the special objects of the Medical Act of 1886 to facilitate. It may serve some useful purpose if we briefly refer to the provisions of the Medical Act of 1886 in this respect:

By Section XII it is provided that on and after the prescribed day where a person (meaning *inter alios* a foreigner) shows to the satisfaction of the Registrar of the General Medical Council that he holds some recognised foreign medical diploma or diplomas (as in the Act defined) granted in a foreign country, to which the Act applies, and that he is of good character, and that he is by law entitled to practise medicine, surgery, and midwifery in such foreign country, he shall, on application to the Registrar, and on payment of the requisite fee, be entitled without examination in the United Kingdom to be registered as a foreign practitioner in the *Medical Register*.

By Section XIII a medical diploma granted in a foreign country to which the Act applies, which is to be deemed such recognised foreign medical diploma as is required for the purposes of the Act, shall be such medical diploma as may be recognised for the time being by the General Medical Council, as furnishing a sufficient guarantee of the possession of the requisite knowledge and skill for the efficient practice of medicine, surgery, and midwifery.

And by Section XVII Her Majesty's Privy Council has power to declare that this part of the Act shall be deemed, on and after a day to be named in such order, to apply to any foreign country which in the opinion of Her Majesty affords to the registered medical practitioners of the United Kingdom such privileges of practising in such foreign country as to Her Majesty may seem just; and from and after the day named in such Order in Council such foreign country shall be deemed to be a foreign country to which the Act applies; and the expression "the prescribed day" shall mean the day on and after which this part of the Act is declared to apply to such foreign country. Such foreign practitioner, on registration, would have all the rights and privileges of persons on the English *Medical Register*.

Nothing, it would appear, could be fairer or more reasonable than these provisions, and it is greatly to be regretted—and to many it is no doubt a matter of astonishment—that reciprocity in medical practice among the nations has not already become an accomplished fact.

THE total receipts of the Prince of Wales's Hospital Fund, inclusive of sums received by branches and through collections by various journals, down to June 9th are as follows: Annual subscriptions, £19,503 15s. 6d.; donations, £110,735 3s. 1d.; commuted subscriptions to be invested, £19,972 1s.

## HAFFKINE'S PLAGUE PROPHYLACTIC.

A striking instance of the value of antitoxic methods of prophylaxis is afforded by the results of Professor Haffkine's inoculations against the bubonic plague in India. On reading the description of his technique, which he has communicated to us, and which is given in full in another column, one cannot help being struck by the roughness of the methods employed, and by the wonderful success that attended them.

That the introduction into the body of the mixture which results from the growth of the plague bacillus in a mass chemically so complicated as a mixture of native "ghee" and bouillon should cause the inoculated to suffer to an extent about twenty times less than the non-inoculated, living under the same conditions and exposed to the same chances of infection, is indeed a remarkable fact. It would almost seem as if the old definition of a physician as one who poured substances about which he knew little into the body about which he knew less, were exemplified in the modern scientific therapeutist. The results of the method, however, would appear to be successful.

Where, then, are we to look for the explanation of the process? How shall we find the exact element among the many upon which success depends? If such striking results have followed and continue to follow the method, how much greater results may we expect to ensue when bacteriologists have succeeded in isolating from the complex mass of proteid and other elements of which such an antitoxic material must be composed, the essential body upon which the result depends? Truly here are vast fields of research, and a good hope that important results may follow the ultimate solution of the puzzle.

Professor Haffkine prefaces his paper with the remark that the first condition to be fulfilled in carrying out laboratory work on a microbe is to become able to recognise it with certainty and to distinguish it amongst all others which in the course of the work may become associated with it, or substituted for it, and then proceeds to describe in detail the characteristic growth by which the plague bacillus may be unfailingly recognised.

Here we have an allusion to a difficulty which besets the bacteriologist at every turn, and one which has, perhaps, caused more confusion in an already intricate science than any one of the many difficulties with which the path of the accurate investigator is strewn. Anyone who has tried to recognise from the descriptions given in the textbooks a bacillus not previously encountered must have felt the great want that exists for differential characteristics. Microscopically many varieties of bacteria resemble each other closely; in culture they present differences which in many cases are small. The most beautiful instance of an accurate series of differential tests between allied organisms is exemplified in Klein's classical series of distinctions between the B. coli communis and B. typhosus, a series of differential characteristics which must always remain the type of what is requisite in such cases. It is not too much to say that much of the confusion that exists in bacteriological literature is due to the want of such distinctive reactions. The mode of growth of the plague bacillus described by M. Haffkine seems to be very characteristic, and will apparently enable bacteriologists to recognise it with certainty.

Having obtained a pure culture, the next process in the preparation of the antitoxic material is to cultivate luxurious crops of bacilli by adding to the nutritive medium abundant quantities of fat freely exposed to the air; the fat used is the native "ghee," or clarified butter. In the course of a month sufficient growth has formed. The microbes are then killed by heat and the inoculation fluid is ready. The whole process appears to be simple; the results, however, show it to embody the essential elements, for even in the first experiments made at the House of Correction at Byculla, out of 173 persons non-inoculated there were 12 cases and 6 deaths, while among the inoculated, who numbered 148, there were but 2 cases and no deaths. What this essential element in the process is it remains for future research to discover, but M. Haffkine is to be congratulated on the large measure of success which has already attended his investigation.

## THE DISAPPEARANCE OF PLAGUE FROM BOMBAY.

The epidemic of plague which has devastated Bombay since the month of September, 1896, is practically at an end. Certainly the initial epidemic is over, and although a few cases will no doubt be recorded, probably, for the next twelve months, and though it must be forgotten that a recrudescence is possible, nay even likely, we do not anticipate that plague will recur for years with anything like its virulence.

Whilst congratulating Bombay upon its escape from present evils, we would in all earnestness beseech the authorities to devote their attention to the sanitation of the town, and thereby derive some good from the bitter lesson they have just learned. From what we knew, from the several records presented to us, of the Hong Kong epidemic, we ventured to predict that the epidemic of plague would have expended itself by May, 1897, and although the basis of our belief was rather limited in numbers the results have not belied our statement. It would seem, in fact, that in a given district the bacillus of plague has a more or less defined life-history.

How different is this modern belief from the opinions which we form from ancient records of the plague in this and other countries. The 1666 plague in London, as we read of it to-day, impresses upon us the long continuance of the pest, and the terrible virulence of its behaviour. The seventeenth century records ascribe a mortality to plague of something approaching 40 per cent. of the entire population, and we read of half the population of England being swept off in previous epidemics.

A very different state of things obtains in Bombay; there only some 15,000 deaths are recorded in a population of well-nigh 800,000, or about 1 in 60 of the inhabitants. Has plague then lost its virulence, or has the better knowledge of sanitation and medicine checked its power to kill; or, on the other hand, is it the same disease with which we are dealing? The latter question may be at once set aside, for the links of connection from what may be called mediæval times to the present day are clear and convincing. How then has a limit to its virulence been brought about? Is it not a limit in the duration of its life-history due to sanitation and improved medical knowledge? This was conclusively proved by the lesson we learned from plague in China during 1894.

It has been pointed out by more than one writer that the plague in Canton and in Hong Kong ran an almost simultaneous course as far as the time of its continuance was concerned. Canton being the larger city, it may have existed a month or two longer than in Hong Kong, but practically six to nine months was the length of time it existed in an epidemic form in both places. Hong Kong, with its modern and well-nigh perfect water supply; with its most approved system of modern drainage; with sanitary, medical, and governmental control of its city and people, did not get rid of its epidemic of plague any sooner than did Canton, where there is no sanitary or medical supervision, and where everything that can harbour an epidemic is allowed to persist. But here the similarity ends; for although the registration of deaths in Canton is little more than guesswork (merely an enumeration of the extra coffins required during the epidemic), still we know that about 100,000 persons died of the disease in seven or eight months in a population of about 1,000,000.

It would seem, therefore, that sanitation has nothing to do with the *duration* of the existence of any given *epidemic* when once it takes hold upon a community. Sanitation and active medical measures have, however, much, if not everything, to do with the limitation of the number of persons attacked during an epidemic. The mortality from plague in Bombay has been small indeed compared to previous records, when half a population was swept away, and is strong evidence in favour of modern sanitation when the numbers attacked in Bombay and Canton are compared. Estimating, for the moment, the populations of Canton and Bombay as approximating each other, we have 15,000 persons in one (Bombay) and 100,000 in the other (Canton) who have succumbed to plague. We would argue, therefore, that the work which has been carried on in Bombay, so ably and effectively, has been the means, if not of checking the duration of the epidemic, at least of saving tens of thousands of lives.

That faulty sanitation is the handmaid of plague seems abundantly evident, for not only has plague disappeared before the improved sanitation of Western Europe, but even in a city in which it is rife, the Europeans with their modern sanitary surroundings—and not only Europeans, but also natives in good circumstances—have escaped in what seems to have been a miraculous manner. There is, however, no miracle in the matter, as investigation will show. Improved sanitation is the weapon by which this dread scourge has been, and will be, fought.

In future, should plague become epidemic in any civilised community, there are a few essential points which must at all hazards be maintained: (1) That there is no such thing as a mild outbreak of true bubonic plague. (2) That private interests must stand aside for the time being, and that full powers must be granted to a supreme body to deal with all sanitary measures in the manner which seems best calculated to lessen the number of persons attacked.

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AT the meeting of the Royal Statistical Society on Tuesday next, June 15th, at 5.30 P.M., Mr. Alfred Milnes, M.A., will read a paper on Statistics of Small-pox and Vaccination, with special reference to Age Incidence, Sex Incidence, and Sanitation.

## THE NEW YORK UNIVERSITY.

UNDER an arrangement recently effected the Medical Schools of the Bellevue Hospital, New York, and the New York City Hospital will be amalgamated and will form the Medical Faculty of the New York University. New York will thus in future possess two great medical faculties—that of the Columbia University, to which the Roosevelt Hospital is attached, and that of the New York University. The Chair of Pathology in the latter has been offered to Dr. Adami, the Professor of Pathology in McGill College, Montreal.

## DEATH OF PROFESSOR CHARTERIS, OF GLASGOW.

PROFESSOR CHARTERIS, of the Chair of Materia Medica in Glasgow University, died on June 7th. He was living at Comrie, in Perthshire, having obtained leave for the summer session in order to recuperate after an attack of influenza. His illness took a decidedly serious change on Sunday, and he died on the following day, soon after the arrival of one of his colleagues who had been summoned to his assistance.

## A NEW CONVALESCENT HOME.

AT Littlehampton there has been recently opened the Rustington Convalescent Home, for the use of working men from all parts of the country, though those recommended by the North-West London Convalescent Home Fund will have a certain preference. The Home contains 45 beds; seventeen rooms have 1 bed apiece, ten contain 2 beds each, and two rooms have 4 beds, whilst no room has more than 4 beds. In the establishment are a large reading-room well supplied with books, a spacious smoking-room, and a "quiet" room, a large entertainment hall, and fresh and sea-water baths; whilst the entire building is lighted by electricity. Its erection has cost £50,000, and is due to the munificence of Mr. H. Harben, of Hampstead, who (with certain members of his family) is further endowing it with £20,000, which it is expected will pay the usual current expenses. Every attention has been paid to sanitation and ventilation; the building is of fireproof construction, and fire alarms and hydrants are abundant. Each subscriber's letter admits a patient for three weeks, and a charge of 5s. per week has usually to be paid by the patient. The Home stands in grounds of over nine acres, and is certain to prove a great boon to all convalescents who may be admitted to it. Indeed, the wants and pleasures of the inmates have been provided for in every way that sympathetic thought can devise.

## MEDICAL HINTS FOR JUBILEE DAY.

WHILST the London County Council and other public authorities are by their surveyors examining the miles of seats now being erected on each side of the route to be traversed by the Queen and the Royal procession on Jubilee Day, testing their strength and providing as far as possible for their preservation from fire, it would be well if arrangements could be made in other ways to increase the comfort and convenience of the huge crowds who will be drawn together for several hours on that special day. It is certain that many seat-holders will have to be present for five or six consecutive hours if they wish to arrive and depart without being in a great crush. Most of them during those hours of excitement will probably require food (either liquid or solid), and, still more, will certainly want drink to allay thirst in the dusty London atmosphere, especially if the weather be hot, as at midsummer in England it can be. All those attending will, therefore, do well to provide themselves with some light food and refreshing beverage in accordance with their various tastes. But there are other wants of the human body more peremptory with many folk than even hunger and thirst, and such calls of Nature, if not attended to for some hours, cause not only great temporary distress, but also in many cases serious subsequent illness. Persons taking seats in balconies, windows, or other parts of houses should see that there are retiring rooms—two if

possible—which can be used by gentlemen and ladies respectively. All the blocks of stands, whether huge or small, which are being constructed along the route of the procession should each have one or more retiring rooms appropriated to the ladies and others to the gentlemen who will be occupants of the stands on Jubilee day. In 1887 one large block of such stands in Trafalgar Square was quite devoid of any such accommodation, and certain ladies suffered much in consequence during their forced detention there. If surveyors, besides testing these wooden erections for strength and providing against fire, can also be instructed to insist upon the addition of waiting rooms for ladies and gentlemen, such extra precaution will add greatly to the enjoyment of thousands of sightseers. As far as the crowds upon the pavements are concerned some discomfort seems inevitable, since retirement means loss of position. But the trouble would be, with this exception, moderated if the various authorities concerned on the route could arrange in adjacent side streets public conveniences, at any rate for women. Vacant houses might be hired for a few days, fitted up suitably for the purpose, and placed under the care of female attendants, whilst a charge of one penny for admission would doubtless cover the moderate outlay incurred.

## JUBILEE DAY AND THE HOSPITALS.

The organisation of the pageant on Jubilee Day must be complete in every detail. No margin must be left for a hitch, and, in view of possible contingencies, the arrangements for providing for cases of accidents and sudden illness must be as perfect as they can be made. The organisation of the St. John Ambulance Association, the men of which will be on duty throughout the day, together with the Volunteer Medical Staff Corps, has already been carefully planned out. The whole route of the procession might advantageously be divided into hospital districts, such, for example, as the Westminster Hospital, Charing Cross Hospital, Guy's Hospital, and St. Thomas's Hospital districts respectively. Within these respective areas, all patients requiring urgent treatment should, as to a base hospital, be sent. Before the proceedings of the day begin, a complete list should be furnished of the empty medical and surgical beds at all the general hospitals in the metropolis, together with any further information likely to be of service to those whose duties will consist in attending to the sudden illnesses and accidents which may occur. By inquiries among some of the hospital authorities concerning the arrangements which they have made for Jubilee Day, we have obtained the following particulars: At St. Thomas's Hospital a full medical and nursing staff will be in readiness to meet the contingencies of Jubilee Day. Beds are being especially reserved for cases of accident which may occur. The out-patient department will be closed, and only accidents, urgent cases, and casualties will be treated. At St. George's Hospital special arrangements are being made for the reception of patients during Jubilee week, and a large number of empty beds will be provided. At the Middlesex Hospital no special provision will be made on June 21st and 22nd, but as the out-patient department will be closed to all except accidents and urgent cases the medical staff on duty will be able to give these their undivided attention. At Charing Cross Hospital the whole of the out-patient department will be closed on Jubilee Day, and the rooms used for the reception of minor casualties in addition to the usual casualty rooms. Six extra dressers will be on duty, and the general arrangements will be supervised by members of the senior staff. The wards of the hospital will be emptied as far as possible, so as to leave a number of beds available. At Guy's Hospital during Jubilee week an extra number of dressers will be available, and a ward will be in readiness for accident cases should existing accommodation be found likely to be insufficient. Beds will be reserved at the Westminster Hospital, and all other suitable arrangements will be made for dealing with any patients who may be brought to the hospital on Jubilee Day. At the London Hospital the ordinary staff of the hospital is held to be equal to all emergencies.

## EXTRA INSURANCE PREMIUMS FOR TROPICAL RESIDENCE.

The subject raised by Dr. Cantlie, in his article on this subject, is one of great importance. Many, if not most, offices which accept tropical lives have already acknowledged the greatly diminished risks of residence in the tropics by a substantial reduction of extra premiums; and competition in this branch of business is so keen that gross overcharge is practically impossible. That individual hardships and losses arise in such cases as he specifies is unquestionable, and the suggestion which he offers with a view to meet these appear just and reasonable; but insurance companies must be guided in these matters by experience, and the question is really an actuarial one. Most offices which do a large business in the East must by this time have collected data sufficient for actuarial study regarding the mortality which has taken place among adolescents and adults proceeding to the tropics and during their residence there, and the mortality among those who, after a longer or shorter tropical residence, have returned to reside permanently in a temperate climate. Such data ought to be periodically examined, and the charges for insurance adjusted accordingly. Companies must, however, proceed on the basis of general results, and they cannot in reason be expected to reimburse exceptional hard cases.

## EDINBURGH ROYAL INFIRMARY RESIDENTS' CLUB.

The third annual general meeting of this club was held in the Royal Hotel on June 4th. Lord Lister was unanimously elected President for next year, and the Committee was authorised to make arrangements for entertaining the British Medical Association at a smoking concert on the occasion of its visit to Edinburgh next year. The members of the club afterwards dined together, the President, Professor Sir Thomas Grainger Stewart, occupied the chair, and the croupiers were Dr. Alexander James and Dr. Claude B. Ker, the Secretary. About sixty members were present, including the President of the Royal College of Surgeons of Edinburgh (Professor Struthers) and Professor Chiene. The proceedings terminated in an impromptu "smoker," at which Drs. A. G. Macdonald, R. J. A. Berry, and Gallie were the chief performers.

## THE INTERNATIONAL MEDICAL CONGRESS, MOSCOW.

The arrangements for the Twelfth International Medical Congress to be held at Moscow from August 19th to 26th are not yet complete, and it is impossible to supply all the information for which correspondents inquire. Members of the medical profession in England who purpose to attend the Congress should, in the first place, procure a membership form from Mr. G. H. Makins, F.R.C.S., 47, Charles Street, Berkeley Square, London, W., the Secretary of the English committee, and obtain particulars as to the journey to Moscow. They will have the choice of several routes—*viâ* Flushing, Berlin, and Warsaw; *viâ* Flushing, Berlin, and St. Petersburg; by sea from London or Hull to St. Petersburg, and thence by train to Moscow; by sea from Hull to Helsingfors, and thence by train to St. Petersburg and Moscow; or by sea from London, Hull, or Grimsby to Gothenburg, thence by train or canal to Stockholm, and from Stockholm to St. Petersburg by sea, and thence by rail to Moscow. Messrs. Cook and Son have arranged a specially-conducted party, out by Berlin and Warsaw, and back by St. Petersburg, Stockholm, Copenhagen, and Hamburg. Dr. Lunn is sending the *Norse King* from Newcastle to St. Petersburg and back by Stockholm, Copenhagen, and Christiania. The profession in St. Petersburg are taking steps by united action to make the stay of

travellers in that city on their way to Moscow agreeable and instructive, and in Moscow itself every facility will be afforded, and every effort will be made to render residence there easy to strangers. After the Congress there will be many excursions, of which the most interesting will probably be that to the Caucasus. Some further particulars will be found in another column, and in the letter from our correspondent in St. Petersburg published in the JOURNAL on May 29th, p. 1382.

## EPIDEMIC DISEASE IN EDINBURGH.

FOR some weeks past the death-rate of Edinburgh has been unusually high for May and June; last week, for example, it was equivalent to an annual mortality of 23 per 1,000. The causes of this unusual state of affairs are mainly these—long-continued cold weather, persistent east wind, many sunless days; a big epidemic of measles, with a high mortality; whooping-cough of a somewhat virulent form; influenza, accompanied or followed by pneumonia, pleurisy, empyema, and other troublesome complications. The mortality from measles has been mainly from concurrent or intercurrent broncho-pneumonia, while a large number of deaths in whooping-cough have occurred during and in consequence of convulsions. These convulsions have been of such character as to suggest an infective source, while they have not had the recognised characteristics of epidemic cerebro-spinal meningitis. There has been a wide prevalence of pneumonia, often of a rapidly fatal type. In Edinburgh, as elsewhere, pneumonia appears to be changing in type; it is less regular in its course, and far more frequently culminates in a fatal issue. A curious feature of the prevailing influenza has been the occurrence of pseudo-angina of such a nature as to deceive highly-competent observers, and to cause them to be in great doubt as to whether they were not dealing with true angina pectoris. Less competent observers have thereby been led into grave indiscretions of statement. Three hundred and and thirty-four new cases of measles were reported in the week ending June 5th, while during the same period 13 deaths were due to measles and 15 to whooping-cough.

## AN IMPERIAL OBLIGATION.

THE thirty-first annual report of the Museums and Lecture Rooms Syndicate (for 1896) of the University of Cambridge is a remarkable document in several ways. It is dry and official, but it is the summation of an immense amount of good work done through many years by many hands. Many of those who have contributed to bring about the present state of efficiency are no longer with us, but, though dead, their work lives. The report contains a well-deserved tribute to the memory of Sir George Humphry, "who had been connected with the scientific work of the University for nearly half a century." "As a lecturer," the report continues, "he had the gift of attracting students and of riveting their attention by wide knowledge of his subject and by a rare personal charm of delivery, while in promoting the increase of the collections under his charge, both by preparation in Cambridge and by purchase elsewhere, often at great personal cost to himself, he unquestionably had no rival. The whole of his scientific library, part of which he had placed in the museums during his lifetime, has been presented since his death to the surgical department by Lady Humphry." Appended to the report are a series of reports by the professors and their assistants in the several departments, and to those who have the progress of science at heart it is satisfactory to find that in many cases these reports embody statements setting forth the need of the several departments for further extension. To those who are responsible for the financial administration of the University these ever-growing demands for better sinews of war may be less agreeable, but we cannot believe that the rich men of this great and wealthy country will permit the great work which the University is doing for science to be hampered for want of funds. We are not induced to write this, because at the present moment it is the medical school which is in the direst straits, although such is the case, for the members of the Syndicate report "that the condition of the buildings in which the department of medicine and surgery is placed is most unsatisfactory. The roof is unsound, and the building is infested with dry rot. They have taken steps to check the spread of the fungus and to render the roof waterproof, but these measures can only be of a temporary nature, and they are convinced that the wisest course is to pull the building down and rebuild it with as little delay as possible." There is a widespread belief, fostered by succeeding Chancellors of the Exchequer, that a medical school ought to be self supporting, because it educates men for a profession. That such a fallacy should be entertained by educated men proves the altogether false conception which has been allowed to dominate higher education in this country in too many directions. The fact is that we are being beaten out of the field by Germany and France, and that not many years can go by at the present rate before we shall see this country as a home of learning and of science hopelessly distanced by America, where private munificence has supplied the place taken in the two other countries by the State. We cannot altogether look to Canada to redress the balance, magnificent as have been recent additions to higher educational facilities in the Dominion. In this very year of Imperial congratulation we have seen a great colony seek assistance from Germany to solve a scientific problem, and our greatest dependency in like case turn to France. Let us by all means honour great men of whatever nationality, but let us not neglect to give to our own men the opportunity to render great services to humanity.

## MERCER'S HOSPITAL, DUBLIN.

IT will have been gathered from the correspondence and statements published in our columns that a very undesirable state of things prevails in the Mercer's Hospital in respect to the recent dismissal of the medical officers there, and the announced elections. The *Medical Press and Circular* of June 9th has on this subject the following strong and remarkable statements: "We gave warning recently that these appointments, supposed to be vacant, may not improbably go to the highest bidder who happens to have a friend at court. We have confirmatory information that this is so, and that any young man who thinks he can get a sanctioning majority on the Board, may now buy his surgeoncy or physiciancy at Mercer's as readily as he buys a pound of cheese. The governors rest on the theory that the purchase and sale is no business of theirs, but they are well aware that every such bargain is well known to them, and depends for its eventual result on their own votes, and, in our opinion, all the corruption of such a transaction is to be laid at their door."

## VACCINATION AND REVACCINATION.

A CONFERENCE of medical practitioners was held recently at Leeds to consider the report of the Royal Commission on Vaccination. The conference was convened by the Yorkshire Branch of the Society of Medical Officers of Health, and had before it a very able synopsis drawn up by Dr. J. R. Kaye, M.O.H. West Riding, of the points investigated by the Commissioners, and a statement of some of the conclusions at which they arrived. The object of the conference was to ascertain the views of general practitioners and public vaccinators as to future legislation. The chair was taken by Dr. F. E. Atkinson, M.O.H. Craven. A general opinion was expressed in favour of calf lymph, and in condemnation of inefficient vaccination. Much discussion took place as to the age limit which should be fixed, but the voting showed a majority in favour of retaining the limit of three months. In spite of some opposition a recommendation in favour of giving power to magistrates to

excuse parents who had conscientious objections to vaccination from the compulsory law was carried. With regard to revaccination it was held that all children in schools and institutions, on attaining the age of 12 years, or 10 years after primary vaccination, which ever might occur first, and all persons entering the public service, should be revaccinated. Further, the vaccination on admission into any school or institution of all children who had not been efficiently vaccinated before was recommended. Other recommendations may be summarised as follows: That sanitary authorities be empowered to require vaccination and revaccination of persons immediately exposed to infection in an outbreak of small-pox; that calf lymph be provided under necessary precautions; that every vaccination certificate bear on the face of it the number of successful vaccination marks; that the vaccination laws be administered by those authorities to whom the execution of other measures of protective medicine are entrusted; and that the Infectious Diseases (Notification) Act be universally applied, isolation hospitals for small-pox be provided compulsorily, and tramps and common lodging houses be subject to more stringent inspection.

## PLAGUE IN INDIA.

The prevention of the spread of plague at Hardwar is a matter of supreme moment to India, and a subject upon which the local authorities are to be congratulated. The successful fight they waged is only one more testimony to the praiseworthy work which has distinguished the medical department throughout this trying time. Hardwar is a great centre on the Ganges, and the spring gatherings held there include people from all parts of India. The appearance of a few plague cases amongst the townspeople of Hardwar itself, on the eve of the great gathering, might well have caused the authorities to have forbidden it entirely, as was the case in recent years when cholera broke out at a similar time. Better counsels prevailed, however, and whilst allowing the celebration to take place, stringent measures were imposed with complete success. The latest papers from Bombay state that on May 15th there were 11 new cases of plague in the city and 12 deaths, a confirmation of the telegraphic news that plague was wellnigh over. The Indus Valley returns also point to a diminution of the disease along that line of infection. The report from Cutch-Mandvi, a native State northwards from Bombay, shows that the disease is only now at its maximum there, and the death-rate is enormous. It was not discovered until the epidemic had obtained a firm hold, and the natives frustrate all attempts of the Government to stamp out the disease. The ingress and egress regulations recommended by Dr. Lowson are being evaded, and a number of persons have absconded, carrying with them infection to the neighbouring ports. Reuter's agent at Jeddah, telegraphing on June 7th, states that several cases of illness suspected to be bubonic plague have occurred there.

## THE WELFARE OF THE FEEBLEMINDED.

The first annual meeting of the Association for Promoting the Welfare of the Feebleminded was held on June 2nd at 36, Lancaster Gate. The Chairman, Mr. W. H. Dickinson, L.C.C., moved the adoption of the report, which was supported by Drs. Shuttleworth and Warner; and other resolutions were spoken to by Mrs. Barnett, Mr. G. T. Pilcher, C.O.S., Mr. Timothy Holmes, Dr. Savage, and Dr. Needham, Commissioners in Lunacy. The report stated that a considerable amount of information had been collected and diffused by the Association as to the necessities of the feebleminded class and the best modes of aiding them; that a home for girls had been established by the Association at Shepherd's Bush; and two independent homes had also been opened, the one at Halifax, the other at Morpeth. Funds had been liberally subscribed for a home for boys, but so far difficulty had been experienced in securing suitable quarters, which needed to be where outdoor work could be found for the inmates. The balance sheet showed a total of £432 18s. subscribed for the objects of the Association, of which £231 had been specifically given for the boys' home. Mrs. Barnett laid stress upon the necessity of home-like surroundings in the successful training of the young persons aided by the Association, citing the history of a mentally feeble girl discharged helpless and useless from a large Poor-law institution, who had become self-supporting after domestic training in a small home, where she was treated as one of a family. Dr. Needham stated that his official experience in the inspection of workhouses had much impressed him with the necessity of something being done for a large class of constitutionally defective inmates, especially young women, who, while not imbecile in the technical sense, were so far weak-minded as to run great risk of falling into mischief and misfortune if left without guidance to their own impulses. He agreed with the statement in the report that these defectives ought to be a charge on the State; but, in the absence of State machinery for the purpose, a voluntary association like this had a large field of useful work before it. Dr. Savage alluded to the gradual development during recent years of the scientific classification of defectives; and we think that the new Association, if it exercises a wise discrimination in the class it aids, so as not to overlap previously existing charitable agencies, will become a power for good in our social economy.

## BIRMINGHAM MEDICAL BENEVOLENT SOCIETY.

The seventy-fifth annual meeting of this Society was held at the Grand Hotel, Birmingham, on Friday, May 28th. The directors' report showed that the invested funds now amount to £12,291, and that during the year £510 had been expended in grants varying from £20 to £40. In addition to these £3 was sent to each of the sixteen annuitants at Christmas. Twenty-seven new members were elected during the year, making a total of 370. The directors again drew attention to the very large number of practitioners in the district who have not yet availed themselves of the advantages of membership. Considering the small subscription—only a guinea a year for twenty-one years—and the extent of the help given to those who are from various causes unfortunately in need of it, it is indeed a wonder that more do not join, and so make provision against possible misfortune. Mr. Arthur Oakes, of Birmingham, was elected President, Dr. Savage and Mr. T. F. Chavasse were re-elected Treasurers, and Mr. W. F. Haslam was re-elected Honorary Secretary for the ensuing year.

## AN UNDESIRABLE DELEGATION.

The Carnarvonshire Joint Sanitary Committee have recently held a meeting at Bangor, at which the annual report for 1896 of Dr. Fraser, M.O.H. for the several sanitary districts represented by the committee, was under discussion. A somewhat unique point was raised by a member, who asserted that the one and only function of the Joint Committee lay in the appointment of a medical officer of health, and he gave notice of motion that the committee cease to be, and that its functions be transferred to the County Council. Apart from the question of the power of the committee to dissolve itself (since its single function may at any time be again called into requisition), there is the necessity for action of a conjoint character as sanitary authorities of those districts which now appoint their health officer in common. Dr. Fraser must be the local health officer of each separate district until he retire, or die, or be removed. We do not by any means agree with the idea which would relegate to the county authority the power of demanding the services of a medical man who has local interests at heart. Statutory the matter may be, and is, but that fact does not rob it of its undesirableness. If the Carnar-

vonshire districts wish to retain the services of a health officer with undivided interests let the Joint Committee retain its constitutional character of a combined local council. Everything in its place; the local district and its sanitary officers, and the county council with its separate officials. Each should exist, but, best, distinctly.

## THE CASE OF MR. ANDERSON.

OWING to the influence exerted by the Plymouth Medical Society and by many medical men in Plymouth, a committee, including the leading men of both political parties, has been formed by the Liberal and Conservative clubs. This committee has convened a public meeting to be held on June 14th to receive a deputation of the Civil Rights Defence Committee. An address will be given by Mr. R. B. Anderson, F.R.C.S., and the Earl of Stamford, President of the Civil Rights Defence Committee, has been invited to introduce the deputation. The joint action of the two political parties proves that it is felt that the violations of Mr. Anderson's civil rights, lay and medical, are of so grave a character as to deserve most careful consideration free from party bias.

## THE SUPPOSED POISONOUS ORGANIC MATTER IN EXPIRED AIR.

A PAPER recently published in the Smithsonian Reports,[1] by Drs. Billings, Weir Mitchell, and Bergey, contains the results of a renewed investigation as to the poisonous organic matter which has for so long been supposed to exist in expired air, and to explain the unpleasant effects produced in many persons by the air of badly-ventilated rooms. The experiments reported by the authors were made on mice, sparrows, guinea-pigs, and rabbits, and were chiefly directed towards controlling the experiments of Brown-Séquard and d'Arsonval, who concluded a few years ago that a volatile organic poison does really exist in expired air. The results of this renewed investigation are entirely confirmatory of the negative results obtained by Hermans, Dastre, and Loze, v. Hofmann, Wellenhof, Haldane and Lorrain Smith, and others. The evidence against the theory of poisonous organic matter in expired air seems now to be overwhelming. Apart from any effects produced through the nerves of smell, respired air has no action whatever except what is due to excess of carbonic acid or moisture and deficiency of oxygen. With increased vitiation of the air, the panting at first produced is due to the carbonic acid alone, but the want of oxygen finally produces death. The effects of even the carbonic acid, however, are not definitely appreciable until 3 per cent. is present, and this represents a degree of vitiation about ten times as great as is ordinarily met with even in very badly-ventilated rooms. The question, of course, remains as to what is the reason of the headache, nausea, etc., caused by the atmosphere of close rooms, and of the increased mortality associated with living in such air. The authors agree with the hypothesis that the unpleasant effects at the time are probably due largely to impressions produced through the sense of smell. There seems to be little doubt that this hypothesis is correct, and that it also points to the explanation of the unpleasant effects, including the sore throats, produced by slight escapes of coal gas or so-called "sewer gas." The increased mortality, on the other hand, is most easily explained by the increased risk of tuberculous or other infection in polluted air. How enormously the proportion of bacteria commonly rises in crowded and ill-ventilated rooms is clearly shown by the analyses which were published some years ago of the air of Board schools in this country. One practical conclusion which results from the disappearance of the theory of an organic poison in expired air is that the proportion of carbonic acid cannot by itself be regarded as a satisfactory indication of the degree of pollution of the air of a room. The traditional teaching on this point was doubtless convenient, but must be modified in accordance with the advance of knowledge. Simply because, for instance, the proportion of carbonic acid is very low in the air of a musty church or library, or in a factory where dust abounds, we ought not to look upon the atmosphere as satisfactory; nor need we be too hasty in condemning the atmosphere of a clean room, filled by clean persons, because the proportion of carbonic acid is above the standards ordinarily accepted.

[1] Report for 1895, pp. 389-412.

## PARTURITION IN PARAPLEGIA.

THE case which Dr. Amand Routh brought before the last meeting of the Obstetrical Society is of unusual interest from many points of view. Clinically it is noteworthy in that, although the patient was to all intents and purposes unconscious of her "pains," the labour proceeded in a practically normal manner. Obstetrically there is to be considered its bearing upon the question of the causation of parturition. The careful investigations of Dr. Mott showed that the lumbar cord, though itself practically intact, was entirely shut off from all communication with any part of the central nervous axis above the level of the sixth dorsal vertebra. The initiation of labour must thus depend either upon reflex stimulation of the "parturition centre" in the lumbar cord, or upon a bio-chemical change affecting the whole body. The latter explanation, that put forward by Dr. Mott, seems the more probable, and is confirmed by the fact that although there was no direct connection between the uterus and the breasts, lactation started and proceeded in a perfectly normal manner. Physiologically the case presented several interesting points, of which we need only refer to the partial and temporary return of the lost knee-jerk shortly after delivery, and the poikilothermic condition in which the region below the lesion was found. The main importance of the case, however, lies in the light it throws on the physiology of labour. From it, and similar instances, Dr. Routh concludes that the first stage is automatic, the second reflex, through the cord. It would seem, however, that the *rôle* of the central nervous system has been somewhat exaggerated in relation to the action of unstriped muscle and of secreting glands. The activity of these appears to depend largely, if not mainly, upon their inherent tendency to contract and to secrete respectively. The submaxillary gland with all its nerves cut secretes spontaneously, and a strip of heart muscle from the tortoise beats vigorously when excised from the body. Parturition is normally under the control of the nervous system, both voluntary and involuntary; we have, however, no evidence that it cannot proceed quite naturally in the absence of any nervous regulation whatsoever, as the result, in truth, of bio-chemical changes in the blood.

## PUBLIC HEALTH (SCOTLAND) BILL.

MR. CALDWELL, the author of the now famous amendment to Clause 22 of the Bill, by which the sanitary inspector is put on the same statutory equality with the medical officer of health in the certification of nuisances dangerous or injurious to health, attempts in a letter in the *Glasgow Herald* of June 5th to justify the position he has taken up. In this letter he endeavours to explain what he does mean by stating that there are certain kinds of nuisances so palpably dangerous to health that no medical certificate is needed, and he instances the case of a well known to be polluted by sewage. Even in this extreme case we differ from his contention, and hold that whenever the question of health is involved it is a matter for medical opinion and advice. Moreover, in the cases of polluted wells there are many and various gradations of pollution requiring the most expert medical evidence to prove them dangerous to health; but apparently Mr. Caldwell recognises no distinction, and contemplates no difficulty in any legal procedure which may be necessitated. This is strong testimony in support of Professor Gairdner's statement that many of the amendments have not been well considered.

Let us, for Mr. Caldwell's benefit, state a case by no means a hypothetical one. In one of the numerous small burghs in Scotland there is a well known to be polluted by sewage. There is a general water supply for the burgh, so that the owner of the well is not compelled to use it for his domestic supply, but for some reason or other he desires to do so. The burgh commissioners—the local authority for the burgh—decline to take any action in the matter, and the owner of the well must raise an action under common law against the person responsible for its contamination, and to be successful in his action he must be able to prove "material injury." If life is endangered or health is affected by the alleged nuisance, the fact will necessarily demonstrate that the injury suffered is material. We should like Mr. Caldwell to answer the following questions: Whether, if he were the owner of the well in question, he would ask the sanitary inspector or the medical officer of health of the burgh to give a report on the conditions of ill health likely to arise from the use of the water; and, further, which certificate would be likely to have most weight in a law court. We are quite satisfied that Mr. Caldwell has endeavoured to act impartially towards medical officers of health and sanitary inspectors throughout the discussion of the Bill. He has, however, by bracketing the two officials together for the certification of matters dangerous to health, paved the way for serious complications and differences of opinion, and thus supplied arguments for local authorities desirous of ignoring the certificates of both officials.

## THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

AT the last meeting of the Royal Medical and Chirurgical Society, which was made special for the purpose, the changes in the by-laws proposed by the Council were agreed to. The only alteration of general interest is the change in the radius as regards resident and non-resident Fellows. Until five years ago all medical men residing more than seven miles from the General Post Office were eligible for election as non-resident Fellows, but in 1892 the radius was extended to fifteen miles and the point of measurement altered to the Society's house in Hanover Square. After five years' experience of its working, this has clearly been proved to have been a mistake, the seven miles radius has once more been adopted, and the non-resident Fellowship of the Society is therefore again open to practitioners beyond that area.

## THE ANATOMICAL SOCIETY.

THE summer meeting of the Anatomical Society of Great Britain opened in the Medical School of Trinity College, Dublin, on Thursday, under the presidency of Professor Thane, of University College, London. Amongst those who attended were Professor Waldeyer, Professor His, Professor Spalteholtz, Professor Lebouceq, Professor Kaestner, Dr. Otis, Professor Disse, Professor De Bruyne, Sir William Turner, Professor Cunningham, Professor Birmingham, Professor Alex. Macalister, Professor Young, Professor Dixon, Professor Redfern.

## ROYAL MEDICAL BENEVOLENT COLLEGE.

THE annual general meeting of this institution was held on May 28th; the Treasurer (Dr. Holman) in the chair. After the election of three pensioners, six foundation scholars, and one Morgan annuitant, the SECRETARY read the report of the Council to the Governors, which was satisfactory in every respect. In this reference was made to an occurrence which was not unprecedented, and was likely to happen again—namely, a foundation scholar of marked ability obtained in open examination a scholarship at Cambridge University, but who could not, for want of means, avail himself of that opportunity of making his way in the world.

The CHAIRMAN, in commenting on this "too early souring of a life," laid great stress upon the fact that it was not necessary to capitalise a large sum of money in order to meet such cases, because a sum of say £400 or £500 would enable the Council to assist deserving necessitous foundationers for some years; and he read a letter from a general practitioner, who did not wish his name to be made public, offering a cheque for £50 for the purpose in view if nine others would contribute the same amount by a certain date. The new building for the junior or lower school, capable of accommodating 100 boys, was opened in May, and the new chancel in the College chapel, designed by Sir A. W. Blomfield and Sons, has increased the accommodation by 120 sittings. The altar was the gift of Mr. John F. France, who had placed at the disposal of the Council the nine free scholarships for girls at the Royal Asylum of St. Anne's Society. During the past twelve months six open University honours in classics, mathematics, or natural science had been won by pupils of the College at Oxford or Cambridge, which was a good result for a school of 250 boys, and should lead to the education given at the College being recognised by the parents of other boys than those being prepared for the medical profession.

The annual report having been duly approved, Dr. Ralph Gooding was elected a Vice-President of the College, in consideration of his having collected £1,000 as Honorary Local Secretary; after which the usual formal business was transacted.

The proceedings were brought to a close by a vote of thanks to the Chairman, proposed by Sir JOSEPH FAYRER, Bart., and seconded by Dr. HARE.

## THE INTERNATIONAL MEDICAL CONGRESS.

THE completed programme of the Sections of the Congress is now nearly ready, and will shortly appear in one volume. The orations to be read at the general meetings of the Congress have already been arranged, and are as follow: Professor Danilevski (Kharkof), on the Action of Distant Electric Rays on the Animal Organism; Professor Lukianof (St. Petersburg), on a subject not yet named; Professor Krafft-Ebing (Vienna), on the Etiology of Progressive Paralysis; Professor Senn (Chicago), on the Diagnosis and Surgical Treatment of Acute Peritonitis; Professor Lombroso (Turin) on New Horizons in Psychiatry; Professor Leyden (Berlin), on Present Modes of Treating Tuberculous Patients, and the State Control of such; Professor Lauder Brunton (London), on the Relationship between Physiology, Pharmacology, Pathology, and Clinical Medicine; Professor Robert (Barcelona), on a subject yet named; Professor Virchow (Berlin) and Professor Roux (Paris) have also been asked to read orations, but their answers have not yet been received.

A request has been published that all intending members of the Congress would send in their names and subscriptions early. Forms of inscription in England can be obtained from the Secretary of the English Committee, Mr. G. H. Makins, 47, Charles Street, Berkeley Square, London, W. The form should be filled in, and sent with a foreign money order for the equivalent of 25 francs, or 10 roubles, to Professor Filatof, Treasurer of the International Medical Congress, the University Clinic, Moscow. Such letters should be registered. All other communications should addressed to the Secretary, Professor W. K. Roth, the University Clinic, Moscow.

At the suggestion of Professor Ssklifossowsky a meeting was quite recently held in St. Petersburg with the view of raising a fund for a special reception in that city to the visitors to the Congress. This meeting was attended by over 150 medical men of the metropolis, and resulted in subscriptions which will enable this object to be carried out on a large scale.

It is announced that Professor A. A. Herzen, who was to deliver an address in one of the general meetings, will be, on account of failing health, prevented from attending the Congress. In his place the Organisation Committee has elected Professor Fredericq, of Liége, who is to represent the Belgian Government on that occasion.

THE Caxton Convalescent Home, which is situated at Limpsfield, in one of the most charming parts of Surrey, is doing a useful work, as is shown by the increasing number of convalescent patients received. Persons interested in the home are invited to visit it on Saturday, July 17th. Tickets can be obtained from Mr. C. Irving, Secretary, 33, Chancery Lane.

## THE WORKMEN'S COMPENSATION BILL FROM A MEDICAL AND SOCIAL STANDPOINT.

IN a leading article in the BRITISH MEDICAL JOURNAL of May 29th attention was drawn to some aspects of the Workmen's Compensation Bill, particularly as it affects our profession. Since then the Bill has been piloted through Committee, and bids fair shortly to pass its final reading in the House of Commons. It has had a varied public reception. By some it is spoken of as a benevolent measure, by others as revolutionary and socialistic. To all persons, whether employer or employed, it has supplied material for reflection. It places capital and labour in quite a new relation, and is an indication on the part of the Government that human limbs and life have money values, and that neither can be injured nor destroyed without the employer compensating for the loss.

No wonder, therefore, many employers regard the Bill as going too far, and many of the employed as not going far enough. The measure is acknowledged to be purely tentative. It is simply the admission of a principle that no workman shall be injured in our staple industries without the employer being made to feel his financial liability for the accident. The Act confines its operation to persons employed on railways, in factories, mines, quarries, and engineering works. Since these industries alone are being legislated for there will be many workmen following other trades who cannot if injured claim compensation under the Bill. This is obviously an inequality, but time will correct it. How far advantage will be taken by workmen who have received minor accidents to claim the full benefits which the Act secures to them it is impossible to say, but it is certain that some will be tempted to magnify the seriousness of their accident. Upon medical men, therefore, will be thrown the responsibility of certifying in such cases. All accidents should be notified, and the nature of the injuries registered, for the death of a workman a long time after may be made the occasion of a claim by friends who will maintain that the health of the deceased had been seriously impaired by the injury, and that death has been directly or indirectly the consequence of the accident.

In addition to our staple industries, there are certain selected trades enumerated in one of the sections, and to which the Bill may ultimately apply; but, so far as securing the passage of the Bill through the Lower House is concerned, it was the safer course for the Home Secretary to refuse to bring within the scope of the Act the accidents connected with seafaring and agriculture, and also the effects of certain dangerous trades, since should success follow the operation of the Act other trades would be included.

Under all circumstances, if the Bill becomes law it will considerably increase the financial responsibility of employers. Short of wilfulness on the part of a workman, the employer becomes liable for all accidents, even when caused by one workman to another. The consequences of the Bill are therefore far reaching, and ought to secure for the measure before it is passed the careful consideration which is so necessary when such tremendous responsibilities are about to be imposed. It is not surprising that the coal trade has been putting forth all its energies to defeat the Bill, since coal mining, although naturally a hazardous industry, is one in which many of the minor accidents are attributable to the negligence of the miners themselves. The objects sought by all mining engineers are (1) to work the mines with the least possible loss of life, and (2) at the least expense. The complaint of coal owners is that already everything is being done to improve the former, whilst, as regards the latter, every recent legislative enactment has only tended to increase the cost of production. Should the Bill pass, colliery proprietors will doubtless take advantage of the contracting-out clause, or seek to cover risk by insurance. It strikes us that the accident charge, actuarially arrived at, which would be required according to the proprietors to be added to each ton of coal raised in order to cover risks—namely, 2d. to 3d. per ton—is far in excess of the need. About 1,000 miners are killed annually, and we have it on the authority of Dr. Le Neve Foster, of the Home Office, that 105,000 miners are injured every year seriously enough to be detained from work for a week or more. With such an annual array of injured life and limb, well may we ask whether the time has not now come when something should be done to oblige the owner of a pit to make coal getting a safer occupation than it is. After all, the expense which the Bill would impose upon proprietors would not be 3d. added to the cost of producing each ton of coal, but probably ¾d.

It is true that explosions in coal mines cannot always be foreseen or prevented, but improved ventilation alone has already effected much. It is the minor accidents, those caused, for example, by falls from the roofs and sides, that will come mostly within the scope of the Bill. At the present time accidents from these cause 41 per cent. of the total deaths in mines, and many of them could probably be prevented by experienced workmen alone being allowed to remove or alter the timbering. It is believed that 1 per cent. on the wages at present paid by employers will more than prove itself an effective insurance premium for all accidents, and there is no reason as time goes on and accidents become fewer why less should not suffice.

Considerable surprise has been created in this country by Parliament seeking to make employers liable for accidents; yet in Germany the practice has for long been followed. As far back as 1838 Prussia had introduced a form of sick insurance into her railway system, and in 1885 the scheme was adopted in Germany, where at the present time two societies exist—one a sickness insurance and the other for accidents. The funds to the sickness insurance are contributed by the workmen and masters together, the workmen providing two-thirds and the masters one-third of the moneys, but the accident fund which was established to cover all cases of serious or fatal injury is supplied entirely by the employer or by a corporation of the employers in a particular trade. This insurance is compulsory and provides for nearly all accidents. In Germany in 1895 the total accidents were 310,000, and of these 234,000 were cured within thirteen weeks, so that only 76,000 cases came on the fund, and of the 37,217 coalminers who were injured only 1,507 were still unfit for work after the thirteenth week. These facts demonstrate that in the minds of the employers of labour in this country there is an undue dread of the magnitude of the liability they are asked to assume. We cannot ignore the fact that the mining industry of this country is bound to feel the weight of the financial burden which is being imposed upon it; but against that must be reckoned the fact that it is only by placing a money value upon accidents of all kinds that employers are driven to adopt all precautions for safety.

In dealing thus at length with the Bill as it affects employers we have chosen as our illustration the coal trade, but the above remarks apply equally to the textile and other industries. It scarcely comes within our province to discuss from a political standpoint the merits of the Bill, and yet the question of "contracting out" is not necessarily outside our sphere. It is an interesting fact, although the statement is opposed to one made by an honourable member recently in the House of Commons that "contracting out" or "no contracting out" makes practically no difference so far as the number of accidents is concerned. For several years past accidents in coal mines have been decreasing; during the periods 1851-55 the average annual death-rate in British mines was 4.294 per 1,000 miners, whereas in 1896 it was only 1.48. It is known amongst the Northumberland and Durham miners that in those districts in the North of England where the opportunity to contract out under a recent Bill was not taken advantage of, the number of accidents did not diminish at a greater rate than in those districts where contracting out was adopted. No security has therefore been conferred by "not contracting out" in coal mining.

Since under the Act we have been considering compensation will be paid for accidents, the money must come from somewhere. What will be the effect of the operation of the Bill upon the workmen themselves? By several of the employed the Bill is looked upon as an effort on the part of the Government to give a free gift to labour; in other words, that now the working men are going to get something for nothing. Workmen must not be deceived on this point. Something for nothing is as impossible in the wage world as elsewhere. If the employer has to give compensations for accidents it is only the primary cost that falls upon him. Sooner or later the accident charge has to be paid by the consumer, or, what

is more likely, to be paid by the workmen themselves. The accident charge will ultimately become a tax imposed upon the producer. The workman will not then, as now, receive the whole of his moneys in wages for a week's work, but money *plus* something remitted to the insurance fund from which the employer will draw to cover his liability. This is one method of introducing a pension scheme. The Bill, in a round-about way, obliges workmen compulsorily to provide for their own accidents.

If there is one thing among our working-class population that deserves to be encouraged, it is thrift. Working men put by for a rainy day at present by subscribing to a club or a trade union, and we all know what a boon benefit societies have been to the members when ill or injured. Will the knowledge possessed by the employed, that for the future no accident can happen without compensation, operate in the direction of better maintenance of the funds of their own clubs? We are inclined to think not; and, if so, then our working classes will become more thriftless than ever.

## MEDICO-PSYCHOLOGICAL ASSOCIATION.

A general meeting of this Association was held on May 18th, Dr. Julius Mickle in the chair. Fifteen new members were elected.

Dr. Outterson Wood read a statement calling the attention of the meeting to the desirability of mental nurses being admitted to the membership of the Royal British Nurses' Association.

Dr. Mott gave a demonstration by means of lantern slides and microscopical specimens to illustrate some points concerning the degeneration of the neuron. He pointed out that the neuron must be considered as a very complex cell with processes, of which, as Golgi had maintained, one is the neuraxon, or axis cylinder process, the other dendrons. The dendrons receives the impulse which, passing through the cell, is conveyed to the neuraxon. Every neuron is an independent protoplasmic unit, anatomically distinct, in contiguity with other neurons but not in continuity. There is no anatomical—only physiological association. A neuron consists of two histo-chemical substances, one stainable by basic dyes, the other unstainable by such dyes. The former is termed chromatophil or basophil substance, which probably, owing to the hardening reagent, takes on the form of granules, but very likely only represents a fluid plasma of a cell. The achromatic substance represents the intracellular network of a cell. The fibrillæ of the dendron and the dendrites or terminal expansion of the dendron pass through the body of the cell, being connected with the intracellular achromatic structures, and then pass out at the pole of emission into the neuraxon. He then showed a number of photographs of neurons undergoing degeneration, as evidenced by the changes in the chromatophil substance, its disappearance at the periphery of the cell, the diffuse staining of the cell, the changes in the nucleus and in the form of the cell, its disintegration and the action of phagocytes upon the degenerated neuron. He showed also that cells stained by the Golgi method may appear normal, although Nissl's method had revealed in the same portion of brain very marked evidence of degenerative changes. One photograph was particularly interesting, as after the disappearance of the chromatophil substance the fibrillæ of the dendron could be distinctly traced through the cell to the neuraxon. He pointed out that if the cell underwent chemical changes either of hydration or dehydration which caused destruction of the continuity of these fibrillæ, it was probable regeneration was impossible. He then referred to his own experimental researches in conjunction with Dr. Hill, and compared them with the researches of Nissl, Lugaro, Marinesco, and others upon the degeneration of the neuron. These observers had obtained similar results by chronic lead and other poisoning in animals as Dr. Mott had found. After the interesting demonstration Dr. Mott proceeded to show by his researches the probability of the production of toxins by the degeneration of nerve structures, and he referred to experiments which he had been pursuing in conjunction with Dr. Halliburton, a preliminary account of which had been published in the *Proceedings* of the Physiological Society. He supported the probability of auto-intoxication by the frequency in which he found degeneration of the heart and other muscles in general paralysis, a degeneration which he could not account for solely by terminal infection from microbic influences. Nor could he explain it by degeneration of the vagus, cardiac plexus, or other nerves, of which a number had been examined. He therefore assumed that there was a probability that some toxin exerted its influence upon the muscle or motor end-plates of the nerves. He suggested that protagon might break up into stearic acid, glycerophosphoric acid, and cholin. The latter he had shown in the paper referred to had a depressant action on the heart, and probably was formed when nervous tissue underwent degeneration. Finally he referred to the probability that general paralysis was a primary progressive degeneration of the neuron (taken collectively) affecting especially the neurons of association which form the great bulk of the brain, but starting sometimes in the afferent or efferent projection systems, and then being respectively of the ataxic or lateral sclerosis type. He was not of opinion that general paralysis should be considered as a primary meningo-encephalitis; it was a primary progressive degeneration of the neuron, with secondary inflammatory reaction due to the irritation of the products of degeneration. He thought that this of itself would give rise to congestive stasis, anæmia, increased irritability of the neurons of the cortex, and epileptiform discharge; hence the seizures. But with each seizure a fresh set of neurons would undergo degeneration, and thus a vicious circle was established which must of necessity lead to progressive destruction of the nervous system and cumulative effects in the way of complications. The influence of syphilis in the production of progressive paralysis of the insane received its most convincing support from those cases of juvenile general paralysis, the subjects of which had been found to be affected by congenital syphilis. He showed photographs of two very remarkable cases in young males, both with Hutchinson's teeth and other characteristic symptoms; these patients had died of typical general paralysis. He considered that syphilis, by its toxic influence, produced premature decay of the "neurons"; any other toxin that remained in the system as long as syphilis might do the same. General paralysis, like locomotor ataxy, was not a syphilitic lesion *per se*, but syphilis was generally the most potent factor in the production of these diseases, because of its prevalence and because of its long duration in the system. Most of the details of this work will be published shortly in the archives of the Pathological Laboratory of the London County Council.

Dr. Shuttleworth referred to 6 cases which resembled general paralysis occurring in children of 12 or 13 in which there was a history of inherited syphilis.

Mr. Kesteven asked as to the explanation of pigmentation in nerve cells.

Dr. Mercier pointed out that microscopic observation was based upon the reactions of dead organic matter to staining fluids after alteration of its constitution by preservative fluids, and that any positive conclusions ought to be accepted with great caution.

The President referred to the different conceptions as to the meaning of the "neuron," and to the fact that Dr. Mott had contributed towards the subject of auto-intoxication.

Dr. Mott, in reply, thought that the chromatophil substance was very probably a fluid plasma coagulated by the alcohol or corrosive sublimate solution, and the granular character possibly due to the arrangement of the intracellular network. He considered pigmentation largely a question of age. He defined the "neuron" as an independent protoplasmic unit, a nervous independent cellular body with processes. The term "neuron" had been applied by Schäfer to the axis cylinder, and this had led to confusion. Cholin and neurin appeared to be allied to muscarin, and acted as toxic agents upon the heart and other muscles.

Dr. Goodall gave a demonstration of an exact method for recording deformities of the hard palate, a cast of the palate being taken first in plaster, and then a second cast from this in a specially prepared composition, measurements of which can then be taken in various directions, and recorded on millimetre paper in outline. The advantages were comparative simplicity, cheapness of material, convenience of record for comparison, and a positive representation of the palate vault more striking than a plaster mould for demonstration.

Dr. Seymour Tuke read a short note on an action taken

against him by a patient for false imprisonment and illegal detention, damages being claimed for £20,000. Application was made to the High Court for stay of action under the protective clauses of the Lunacy Act, and the judge without hesitation pronounced for the defendant, giving an order for the staying of the action with costs. The case exhibited the trouble and anxiety with which medical men in asylums might be confronted, but showed also that justice and protection can be obtained under the special clauses of the Act of 1890.

## THE ROENTGEN SOCIETY.

THE first general meeting of this Society was held on June 3rd, in the Rooms of the Medical Society, Chandos Street, W. The chair was taken by Professor SILVANUS THOMPSON. The business included passing laws, enrolling of forty-four original members, and the election of officers. The list of the executive was as follows:—*President:* Professor Silvanus P. Thompson, D.Sc., F.R.S. *Vice-Presidents:* Professor Ferrier, F.R.S.; J. H. Gladstone, Ph.D., F.R.S.; John MacIntyre, M.B.; C. W. Mansell Moullin, F.R.C.S.; Fletcher Moulton, Q.C., F.R.S. *Hon. Member:* Professor Röentgen. *Council:* F. E. Fenton, F.R.C.S.; MacKenzie Davidson; J. E. Greenhill; W. S. Hedley, M.D.; F. H. Low, M.B.; T. Moore, F.R.C.S.; Sydney Rowland; A. A. Campbell Swinton; W. Webster, F.C.S.; Norris Wolfenden, M.D.; Snowden Ward. *Secretary:* David Walsh, M.D.

Professor SILVANUS P. THOMPSON (President) then delivered a brief introductory speech. He suggested a formal presidential address and an exhibition in the autumn. The position of their Society, he said, was between those devoted purely to medicine, to physics, and to photography. In themselves they focussed a number of interests provided for by no other existing bodies, such as, for instance, the Royal, the Physical, the Photographic Societies, or the Institution of Electrical Engineers. There was a very definite place to occupy and function to fulfil. Some members would study the sources of the rays, others their application, some the induction coils, others the tubes and the various forms and adaptations of appliances. The Society would always gladly welcome the experiences of others, whether they dealt with the photographic, the luminescent, or the purely physical aspects of the subject. Among those interested in the application of the rays, the surgeons no doubt had the largest field in the detection of foreign bodies, of fractures, the diagnosis of soft tumours, and so on. Further applications were the botanical, in the study of seed pods and their contents, the mineralogical and the metallurgical. Quite recently, Mr. C. T. Heycock of Cambridge, by placing thin slices of alloys under the rays, had revealed their structure in a marvellous way. But quite apart from the sources and applications of the rays was the study of their physical nature. Many attempts to measure their wave-lengths had been made in European laboratories, but none of the results were so far trustworthy. Certain questions of intense interest to a few might still be asked. For instance, were these waves longitudinal or transverse? Were they waves at all? Were they flights of atoms or subatoms? Then there were a number of closely-allied phenomena of interest, chiefly as to the relation of the Roentgen rays to other rays, namely, those of the kathode of Lenard, and of the so-called "discharge." The rays of Becquerel, again, observed independently by the speaker himself, were given off in the dark week after week by certain substances, notably by metallic uranium. They penetrated like the *x* rays, but differed in being polarisable and because they could be refracted and reflected. Other sources of light phenomena awaiting investigation were to be found in insects that gave out light, such as glowworms, fireflies, and some centipedes. The light of glowworms passes through aluminium and casts shadows. Then the light given off by rotten wood and stale fish might be expected to pass through aluminium and to take photographs. Phosphorus, when slowly oxidising, threw off a light in the dark, that could not pass through aluminium, but nevertheless penetrated celluloid and black cardboard and took photographs. There was, therefore, a wide field other than the surgical in which the members might labour. Into the Roentgen Society they would be glad to welcome any combination f workers. He hoped that their membership would extend to other countries, and that their published transactions, by furnishing solid contributions to scientific progress, might occupy an important place in the literature of science.

## ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE annual meeting of the Royal College of Surgeons in Ireland was held on Saturday, June 5th, Mr. W. THOMSON, President, in the chair.

The annual report stated that the Carmichael School had been sold for £2,000. The result of this would be a saving of £230 per annum to the College funds. With regard to the Carmichael Prize Essay Fund, the Council reported that after repeated trials the application of it to the purposes named by the testator had been found to be unsatisfactory. It had been determined, therefore, to ask the Master of the Rolls for leave to apply the money to some more useful educational object.

The report and statement of accounts were adopted, and the meeting adjourned.

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At a meeting of the Fellows, held on June 7th, for the election of President, Vice-President, Council, and Secretary for the ensuing year, the following were elected:—*President:* William Thomson. *Vice-President:* Robert Lafayette Swan. *Secretary:* Sir Charles A. Cameron. *Council:* Archibald H. Jacob, Edward Hallaran Bennett, Henry Gray Croly, Sir Philip Crampton Smyly, Sir William Stokes, Henry Rosborough Swanzy, Sir Thornley Stoker, William Ireland Wheeler, Austin Meldon, D.L., Sir Charles A. Cameron, L. Hepenstal Ormsby, Richard D. Purefoy, Charles Bent Ball, Henry Fitzgibbon, Arthur Henry Benson, Francis T. Heuston, Thomas Myles, John Lentaigne, and George M. P. Murray.

Mr. Myles and Mr. Murray gain seats on the Council in room of Mr. Carte and the late Mr. F. A. Nixon. Mr. Murray is surgeon to the Dental Hospital.

In the paragraph referring to candidates for the Vice-Presidency of the Royal College of Surgeons in Ireland for 1898, which appeared in the BRITISH MEDICAL JOURNAL of June 5th, Mr. T. Myles was described as surgeon to the Meath Hospital. It should have been the Richmond Hospital.

## IRISH MEDICAL ASSOCIATION.

THE annual meeting of this Association was held in the Royal College of Surgeons, Dublin, on Monday, June 7th; Dr. THOMAS H. MOORHEAD, of Cootehill (President) occupied the chair.

### POOR-LAW OFFICERS' SUPERANNUATION BILL.

Dr. J. P. GARLAND (Honorary Secretary) read the annual report, which stated that an understanding had been arrived at with the promoters of the English Superannuation Bill, and a pledge had been given that unless such opposition to the extension of that Bill to Ireland was raised in Parliament as would imperil its passing, the promoters would afford their utmost assistance to the adoption of a clause to extend its provisions to Ireland. Up to the last three days of the session this understanding was observed, and a clause for such extension appeared on the notice paper, with the full approval of the promoters of the Bill. At this critical juncture the Council was urged to allow of the withdrawal of that proposal, in order to permit of the passing of the measure for England only. After most careful consideration and conference with the Poor-law Officers' (Non-medical) Association, the Council felt unable to accede to that request, inasmuch as they considered that a great opportunity would be lost if they permitted any such Bill to pass, to the exclusion of the Irish officers. This decision they communicated by telegraph to the promoters of the Bill, and to the member who had charge of the extension clause, and they learned the next day, with regret and astonishment, that that clause had already been withdrawn. Immediate steps were taken to cause it to be reinstated, but as forty-eight hours now only remained of the Parliamentary session, it was not found possible, having regard to the rules of Parliament, to effect that object. The Bill—without the Irish clause—was submitted for third reading, but was opposed by influential English Radical members

no opposition being raised from the Irish representatives. It was therefore stated in Parliament, and so reported in all the London papers, that the Bill would not be proceeded with, and, consequently, no further steps were taken on behalf of the Association. Notwithstanding that statement, the measure was taken most unexpectedly on the succeeding night, and was forthwith passed through all its stages in the Commons and Lords, without the inclusion of Ireland. Your Council very much regret this result, but consider that nothing would be now gained by entering into a statement or discussion as to the means by which the member in charge of the Irish amendment was induced to withdraw it.

ABUSES OF MEDICAL RELIEF.

The report referred to correspondence on the subject in November last between the Council and the Chief Secretary. It also referred to the order of May 4th last amending dispensary regulations, and amongst other subjects with which it dealt was the "abuse in the issue of red tickets," fees to witnesses attending constabulary and other inquiries, sanitary prosecutions, consultation fees, payment of substitutes, workhouse hospital reform; and with regard to the Poor Relief (Ireland) Bill the report stated: The earnest attention of the Council has been given to the Poor Relief (Ireland) Bill, introduced by the Chief Secretary, and now before the House of Commons. The principle and detail of this measure are far-reaching and of great importance to the Poor-law medical officers of Ireland; but for the present the Council has confined its attention to Clauses 13 and 14, which deal with the superannuation of future officers of a Board of Management of conjoined districts. These clauses, the Council observes, make no provision whatever for the officers who may be deprived of their position and emoluments by the extinction of their union. So far as your Council has been able to see, such officers, losing all emoluments accruing from their duty in the workhouse, will come under the operation of the Act of 1885 (48 and 49 Vic., cap. 80), passed when the amalgamation of unions commenced. This Act leaves the disestablished officer absolutely at the mercy of the guardians of his union, who may or may not—and in some instances did not—grant any abolition compensation whatever. The Council regards the prospect of the extension of this system to a considerable number of workhouse medical officers as a matter of the gravest importance, and is anxiously considering what course can effectually be pursued to provide in the Bill now before Parliament a more just arrangement.

The following resolutions were adopted:

That the Council be instructed to take such proceedings as may seem to them advisable to procure an amendment of the existing Poor-law system, having particular regard to superannuation, annual leave of absence to medical officers, workhouse infirmaries, and the abuses so prevalent in the issue of medical relief tickets.

That the Council be requested to use every influence to secure to officers of workhouses which may be closed adequate compensation for their loss of office either in the form of pensions or allowances.

A vote of thanks to the outgoing President, Dr. Meldon, was also passed.

Among the speakers were Dr. Meldon, Dr. Delahoyd, Dr. Leeper, Dr. Jacob, Sir Thornley Stoker, Dr. Dillon Kelly, Dr. Ninian Falkiner, and Dr. Hepburn.

ANNUAL DINNER.

In the evening the annual dinner took place. Dr. Moorhead presided, and among those present were the Right Hon. C. H. Hemphill, Q.C., the President of the Royal College of Surgeons (Mr. Thomson), Sir Robert Jackson, C.B., Lord Monteagle, Sir Andrew Reed, Dr. Meldon, D.L., the outgoing President, the President of the Royal College of Physicians (Dr. Duffey), Sir Charles Cameron, Mr. William Field, M.P., Dr. E. Hamilton, Surgeon-General Preston, Dr. Stewart Woodhouse, and the Registrar-General. Speeches were made by the President, Lord Monteagle, Right Hon. C. H. Hemphill, Dr. Duffey, Mr. Thomson, Dr. Meldon, Mr. Field, M.P., and Dr. Patton.

A BILL has been introduced into the New York State Legislature providing for the restriction of dispensary assistance to the really poor.

## ROYAL BENEVOLENT FUND SOCIETY OF IRELAND.

THE annual meeting of this Society was held in the Royal College of Surgeons, Dublin, on June 7th, Mr. W. THOMSON, President of the College, in the chair.

Dr. FINNY, Honorary Secretary, read the report, from which it appeared that the total amount granted since last distribution was £1,251, and the applications included 4 from medical men, 67 from widows, and 9 from or on behalf of orphans. In only 24 instances had the medical man whose death or misfortune had rendered the application necessary ever contributed anything to the Society's funds. Some of the country branches during the year had furnished most encouraging reports. Some of the reports received were, however, discouraging, as they exhibited the apathy and selfishness which prevented so many medical men from helping, even in a small way, their poorer brethren. It was encouraging that in the subscriptions there was a definite increase in the sums received through both the central and the branch treasurers. There was an increase of £10 in the one and £50 in the other. Under the head of donations and bequests there had been a falling off of £238. The Counties Longford and Westmeath contributed nothing to the Society. The total grants were less than those of the previous year by £172.

The report was adopted.

The speakers were Dr. T. W. GRIMSHAW, Registrar-General; Sir C. CAMERON, Sir THORNLEY STOKER, Dr. LAFFAN (Navan), Dr. TAGGART, Mr. H. G. CROLY, Dr. MOORHEAD (Cootehill), Dr. SMITH (Naas), Dr. JACOB, and Mr. THOMSON. Dr. G. F. DUFFEY filled the second chair.

## DEATHS UNDER ANÆSTHETICS.

CHLOROFORM.

WE have been favoured by Mr. HENRY E. THOMPSON, of the Blackburn Infirmary, with the notes of a death which occurred at that institution during the administration of chloroform.

W. H., aged 57, was admitted into the Blackburn Infirmary for the amputation of a stiff finger. He underwent the usual preparations for an operation the night previously. When placed on the table he showed slight nervousness, and on inhaling the chloroform struggled a little. The respirations then became regular, and after taking three or four regular respirations he suddenly became deeply cyanosed, ceased breathing, and the pulse stopped almost simultaneously. This occurred about four minutes from the time of starting the anæsthetic. The tongue was immediately pulled forward, as there was no rigidity or spasm of the jaw, and artificial respiration commenced; so immediately was this done that not one respiration was intermitted. Strychnine and ether were injected hypodermically, amyl nitrite inhaled, oxygen applied, and finally the galvanic current. Artificial respiration was continued for one hour without a single involuntary inspiratory effort on the part of the patient.

The chloroform was administered on lint by means of a graduated drop bottle. It was that prepared by Messrs. Duncan and Flockhart, and the amount used was 1 drachm. The *post-mortem* examination showed that all the cavities of the heart were dilated. The left ventricle was slightly hypertrophied. There was commencing atheroma of the mitral and aortic valves, but no actual valvular disease. The heart weighed 1 lb. All the other organs were congested and cyanotic. The trachea and larynx were otherwise normal. As there was no spasm or rigidity of the jaw, and on artificial respiration there was good entry and exit of air, laryngotomy was deemed unnecessary.

We are indebted to Mr. GEORGE ASHTON, M.B.Vict., House-Surgeon to the Manchester Southern Hospital, for the following account of a death while under the influence of chloroform which occurred in that hospital some months ago. Its publication has been inadvertently delayed:

The patient, a healthy child of 12 months old, was the subject of marked phimosis, and it was proposed to perform circumcision. The operation was undertaken on February 15th. The child was prepared for the anæsthetic in the usual manner. The chloroform was administered on a fold of lint,

about 2 drachms being used. The child took the anæsthetic quietly without crying or struggling. The operation had hardly commenced when the patient became very pale and the pulse very feeble, and suddenly ceased; the respirations continued quietly and slightly spasmodically. Ether was at once injected hypodermically, the tongue was pulled forward, and artificial respiration commenced. The heart did not resume beating, so brandy was injected *per rectum* and hot sponges placed over the precordial region. These had no effect, so the child was immersed in a hot mustard bath, and, as a last resource, the heart was punctured with a needle. From the time when the pulse ceased the respirations continued irregularly and spasmodically for upwards of ten minutes. The treatment was continued for forty-five minutes, but without avail. No *post-mortem* examination was obtained.

## THE BATTLE OF THE CLUBS.

### Touting by Medical Aid Societies.

"ANTI-TOUT" writes to ask if anything can be done "to a medical practitioner who offers £5 to canvassers of the London and Manchester Medical Aid Society to tout for him and him only, and work up a big list of members." If our correspondent has good evidence to prove this he should lay it before the General Medical Council, which has just reappointed the Committee which reported on the medical aid societies in 1893. He further writes "that were the men in our profession to unite and for six months only stand side by side refusing to touch the clubs under any pretence" medical aid societies would be defunct. Such a union would doubtless be productive of great results, but at the present time it is hardly attainable. Our correspondent, however, need not despair; there is much more union now in the profession than a short time ago, and he may yet live to see some of his aspirations realised.

### Medical Combination.

A CORRESPONDENT, who signs himself "Equality," writing to the *Portsmouth Evening News*, expresses his approval of the attitude taken by the doctors of Portsmouth, and says that they have there "morally and practically come off victors." He is himself a layman, and he asserts that "many of the societies are rich, and can well afford to pay what seems to most people only the fair and just demands of the doctors." Further on he significantly remarks that "it is a well-known fact in the history of peoples that those who have righted a grievance with regard to themselves, when they get into power become the hardest task-masters." This is just the experience of the medical profession, and many of us have felt considerable surprise at the bitter feeling that has been apparently engendered among the working classes in certain parts of the country, because medical men have taken a leaf out of their book. This, however, may be regarded as evidence of the influence of members of the middle class over many of the clubs and friendly societies originally organised wholly for the working classes, for it is this element which is the most bitterly opposed to the claims of the profession. Consisting mostly of well-to-do tradesmen, who join the clubs for no other reason than to avoid "doctors' bills."—for they rarely avail themselves of the sick fund—they bitterly resent the present efforts made to exclude them from medical benefit, and by their determined resistance to reform are in many instances endangering the very existence of the present club system.

It is to be hoped that working men will shortly have the wisdom to see that they are not interested in assisting their well-to-do brethren to obtain advantages designed for the benefit of the working man, and that if they desire to obtain medical services at any thing like the rate they have been accustomed to pay in the past, they must use every effort to prevent this privilege from being abused by limiting it to those who, owing to the smallness of their means, may fairly claim to avail themselves of its benefit.

### Contests for Appointments.

"AN OLD MAN" writes: At a time when the Examining Boards, the heads of the profession, and all the educational bodies are endeavouring to raise the intellectual standard and the social position of medical practitioners, it is disheartening to find that their efforts are likely to be frustrated by the conduct of those whom it is desired to benefit. It is surely discouraging to observe that in one of the great industrial centres in the Midlands some of the profession are canvassing for the post of surgeon to a large and important club, and, to assist this canvass, are distributing their photographs accompanied by self-adulatory phrases such as are to be found in the usual trade circulars. Votes are unblushingly asked for "ability," "efficiency," and "experience." Such a line of conduct can hardly be considered to increase the honour and dignity of the profession.

## LITERARY NOTES.

THE May number of the *Phonographic Record of Clinical Teaching and Medical Science* contains an article by Mr. W. Jones Greer on West Africa and Palustral Fever founded on personal observation and experience. Mr. Greer thinks that two years should be the maximum period for continuous residence in West Africa, and that Government officials are better off than surgeons, as they usually get home after fifteen months' service. Some useful hints are given for the treatment of palustral fever.

Professor Young recently delivered a most interesting address upon the Hunterian Library at the annua meeting of the subscribers to the Sterling's and Glasgow Public Library. Dr. Young's address proves the truth of the dictum which the late Dr. Matthews Duncan never tired of enunciating, that William Hunter was a greater man than John, his brother. He was more catholic in his tastes, more refined, and better educated. Yet the Hunterian Library is but little known outside Glasgow, though it contains a wealth of material which should render it of the greatest public value. We learn from Dr. Young's report that it is especially rich in pamphlets relating to the medical controversies of the last century, though it is not even primarily a collection of medical works. The manuscripts are so numerous and important that as early as 1839 a list of them was published in Hænnel's *Catalogus Librorum Manuscriptorum*.

The Rebman Publishing Company announce that they will shortly issue a new work entitled *Cardiac Failure and its Treatment, with Special Reference to the Use of Baths and Exercises*, by Dr. Alexander Morison, of London. The book will contain an appendix by Dr. Grodel, of Nauheim.

An interesting posthumous paper by the late Sir Richard Burton gives his opinion on Spiritualism in Eastern Lands. Burton believed that "perception is possible without the ordinary channels of sensation," a phrase by which, as he explains, he simply meant to state his conviction that "the senses which, little known as the 'Laws of Nature' are, after the study of twenty-four centuries, still conceal so many secrets, sometimes are, and often may be, made independent of their organs." But Burton defined his position as being that of "a spiritualist without the spirits," for he had seen nothing to convince him of their existence. As to those of which others told him he says he felt inclined to apostrophise them thus:

> If in your new state you cannot rest,
> But must return. Oh grant us this request:
> Come with a noble and celestial air,
> And prove your titles to the name you bear;
> Write as good English as you wrote on earth.
> And what were once superfluous to advise,
> Don't tell, I beg you, such stupendous lies!

Of Sir Richard's verses one might say with Touchstone: "I'll rhyme you so eight years together, dinners and suppers and sleeping hours excepted;" but the halting lines convey a message of which too many people of intelligence and culture at the present day stand in need.

The June number of the *Humanitarian* contains the report of an interview with Sir Henry Thompson on the revival of cremation, a movement of which that eminent surgeon may truly say *Pars magna fui*.

In the past Roumanian medical literature of the periodical kind was represented by the *Bulletin* of the Medical Society of Naturalists of Jassy, the *Journal* of the Medical Society of Bucharest, and *Progresul medical Roman*: more recently *Spitalul*, a monthly review, also published at Bucharest, has held the field. We have now to chronicle the appearance of a new venture, *Revista de Chirurgie*, which is to be issued monthly, and is to contain 48 pages of matter in each number. It is edited by Professor Thoma Ionnescu, with the assistance of Dr. E. Juvara and a number of collaborators, mostly residing in Bucharest. The first number contains three original articles, two by Ionnescu and one by Juvara, with a number of abstracts almost entirely from French journals. In one communication Ionnescu considers the removal by abdominal section of the uterus, tubes, and ovaries for septic lesions of the uterine annexa, describing specially the method of operation; while in his other paper he advances a new method of treating uterine retrodeviations by what he terms anterior cuneo-hysterectomy combined with shortening of the round ligaments and folding of the broad ones. E. Juvara's article deals with the radical cure of inguinal hernia by Bassini's method. There are numerous and good illustrations.

DR. BONNAFY, of the French navy, from a study of the statistics of the French force in Cochin China, arrives at the conclusion that the minimum age at which soldiers should be sent to the colony is 22 years, a result which agrees very closely with Anglo-Indian experience. The death-rate in the force at present in Cochin China is 16.9 per mille, as compared with 16.2 in British India, and 30.3 in the Dutch East Indies. The sick-rate in Cochin China, however, is lower than in British India—9.07 per mille instead of 15.21 per mille.

# ASSOCIATION INTELLIGENCE.

## COUNCIL.

### NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday the 14th day of July next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

June, 1897.

### ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

### GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that they are prepared to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting must be made on or before June 15th in writing addressed to the General Secretary, at the office of the Association, 429, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

#### RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association are prepared to receive applications for one of the three Research Scholarships which is vacant, of the value of £150 per annum, tenable for one year, and subject to renewal by the Council for another year.

Applications to be sent in writing addressed to the General Secretary on or before June 15th, stating the particulars of the intended research, qualifications, and work done.

FRANCIS FOWKE, *General Secretary.*

429, Strand, London, May 27th, 1897.

### LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

NOTICE is hereby given that the Library will be closed on June 12th for the purpose of cleaning; due notice will be given of its reopening.

### BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The annual meeting for the election of officers will be held at the Royal Forest Hotel, Chingford, on Friday, June 18th, at 6 P.M. At 6.15 the members and their friends will dine together, Dr. Shadwell, Vice-President of the District, in the chair; tickets, 7s. 6d.; morning dress.—HERBERT G. POWELL, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The twenty-seventh annual meeting will be held at Swansea on Friday, July 2nd, Mr. J. L. W. Ward (Merthyr), President-elect. Further particulars in circulars. —A. SHEEN, Cardiff, and D. A. DAVIES, Swansea, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will be held in Manchester on Wednesday, June 30th. Members who wish to read papers or make any communication should write at once to the Honorary Secretary, Dr. JAMES BARR, 72, Rodney Street, Liverpool.

SOUTH-EASTERN BRANCH.—The annual meeting of the above Branch will be held at the Town Hall, Croydon, on Wednesday, June 16th, at 1.45 P.M. Dr. Duncan (President-elect) kindly wishes members to lunch at his house, Park House near the Town Hall, and four minutes' walk from East Croydon Station) from 12.30 to 2 P.M. Dinner at the Greyhound Hotel at 5.45 P.M., charge 7s. each.—T. JENNER VERRALL, Brighton, Honorary Secretary.

EDINBURGH (LOTHIAN AND FIFE) BRANCH.—The annual meeting will be held in the Royal College of Physicians, 9, Queen Street, Edinburgh, on Wednesday, June 30th, at 4.30 P.M. Notice of motion or other business should be given, not later than June 17th, to the Honorary Secretary, R. W. PHILIP, 4, Melville Crescent, Edinburgh.

WEST SOMERSET BRANCH.—The annual meeting of this Branch will be held at the Luttrell Arms Hotel, Dunster, on Tuesday, July 6th, at 1 P.M., under the presidency of Mr. F. G. Hayes. Medical Aid Associations: The following resolutions, which were passed at a meeting of the East Anglian Branch on March 25th (BRITISH MEDICAL JOURNAL, p. 878), to be considered: (1) "The members of the East Anglian Branch desire to obtain from the British Medical Association an expression of opinion on the question of consultations with the medical officers of medical aid associations and medical institutes." (2) "That the Council of the British Medical Association be requested to memorialise the Medical Council on the urgent necessity to take steps to prevent the growing evils of medical aid associations and medical institutes." (3) "That the Branch representatives be directed to bring these resolutions before the next meeting of the Council of the Association, and that the Secretaries be instructed to forward copies of the same to the Branches throughout the United Kingdom, and to obtain their opinion thereon." The President will deliver an address on Some Cases Bearing on the Question of Prognosis in Pleuritic Effusion. A substantial luncheon will be ready at 2 o'clock, 3s. 6d. a head, exclusive of wine (but including beer or cider and attendance). Excursions at 3 P.M.: (1) A drive by Wootton Courtenay to Porlock Weir, returning by Minehead to Dunster. (2) A visit to the Minehead and West Somerset Golf Links. (3) Mr. and Mrs. Luttrell, of Dunster Castle, have kindly offered to allow members to look over the Castle and grounds. Members may bring friends. In order that due preparation may be made, an intimation from gentlemen proposing to attend should be sent to Mr. Hayes four clear days at least before July 6th.—W. M. KELLY, M.D. Honorary Secretary, Taunton.

BORDER COUNTIES BRANCH.—The annual meeting of this Branch will be held at Galashiels on Friday, July 2nd.—R. DUNDAS HELM, Carlisle, Honorary Secretary.

SOUTHERN BRANCH.—The twenty-fourth annual meeting will be held at the Guildhall, Winchester, on Friday, June 18th, 1897. The President-elect kindly invites the members to luncheon (from 12.45) at the Guildhall before the meeting, and to light refreshments after the business of the day is concluded. There will be no dinner this year. The general meeting will be held after luncheon. At this meeting the result of the polling for officers for the ensuing year will be declared. The Honorary Secretary will move that By-law 5 be altered as follows: "Any member of the British Medical Association who is not disqualified by any by-law or resolution of the Association may, on the recommendation of two members of the Branch from personal knowledge, be elected a member of the Branch, either (1) by the Branch Council, (2) by a district meeting, or (3) by the President and Secretary of the Branch; the admission in the last case being subject to confirmation by the Branch Council." Members desirous of reading papers are requested to forward the titles to the Honorary Secretary at once. No communication must exceed 7 minutes in length, and no subsequent speech must exceed 5 minutes. The address will be delivered by W. M. Harman, M.D., President-elect. During the afternoon the members are invited to visit the cathedral and other places of interest. Members who intend to be present at luncheon are requested to communicate with Mr. T. C. Langdon, Winchester, not later than June 16th.—H. J. MANNING, Salisbury, Honorary Secretary and Treasurer.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The summer meeting of the Branch will be held at Muchalls on Thursday, June 24th, at 2 P.M. Business: Minutes. Ballot for the admission of members. Appointment of Representative to the General Council of the Association. A dinner will be held in the Muchalls Hotel after the meeting. There will be a drive arranged for the convenience of members, leaving the Free Church College at 12 noon. Members must give notice of their intention of taking advantage of this means of conveyance. It is also intended to have a bicycle section. A train leaves Aberdeen at 1.30 P.M., and arrives in time for the meeting. Full particulars will be sent to members by circular.—C. THISELTON URQUHART, J. SCOTT RIDDELL, Aberdeen, Joint Honorary Secretaries.

### EAST ANGLIAN BRANCH.

THE annual general meeting of this Branch was held at Ipswich on May 27th.

*New Members.*—The following gentlemen were elected members of the Association, and of the East Anglian Branch: Frederick Richard Anness, Ipswich; W. G. H. Bradford, M.B., Debenham; Arthur Hanbury Frere, M.B., Stradbroke; H. Cecil Harper, Stowmarket; James F. C. Hossack, Ipswich; S. C. Hounsfield, Ipswich; Alban Henry Moxon, Great Yarmouth; E. H. T. Nash, Ipswich; F. H. Turner, East Bergholt; Robert Percy Smallwood, M.B., Little Waltham; Francis Ward, M.B., Ipswich. The following members of the Association were elected members of the Branch: A. W.

Aldrich. Mildenhall; Arthur E. Lyster, Great Baddow, Chelmsford; W. A. Mahon, Holbrook; Henry W. Newton, Chelmsford; Redmond Roche, Hollesley Bay; James R. Whitwell, M.B., Melton.

*Report of Council.*—The report of Council stated that the Branch still continued to increase in numbers, 34 new members having joined the Branch since the last annual meeting. After deducting the unavoidable vacancies left in their ranks by death and by resignations, their numbers had increased to 310. The losses by death included Mr. Barrington, of King's Lynn; Mr. Carter, of Chelmsford; Dr. Compton, formerly of the Heigham Hall Asylum, Norwich; Mr. J. W. Harper, of Stowmarket, for many years a member of the Council of the Branch; and Mr. J. Kilner, of Bury St. Edmunds, a former President of the Branch, and President-elect at the time of his decease. The Branch also suffered a great loss in the death of Sir G. Murray Humphry, who was one of those who assisted in the formation of the Branch sixty years ago, and although not a member of late years, was a frequent and ever-welcome visitor at their meetings. The annual meeting was held at Dersingham, under the presidency of Dr. Manby. It was a large and successful meeting, and was rendered specially attractive by the gardens and grounds at Sandringham being graciously thrown open to members by His Royal Highness the Prince of Wales, who also entertained those present at afternoon tea. The members present received from His Royal Highness a telegram of welcome, which was suitably responded to by the President. The best thanks of the Branch were due to Dr. and Mrs. Manby for their hospitality on this occasion. The autumnal meeting was held at Chelmsford in September, and was a small but successful gathering. Those present were kindly entertained at afternoon tea by Dr. and Mrs. Thresh. A largely attended meeting was held at Norwich in March, which was devoted to business, and mainly to the consideration of the questions of medical defence and of medical aid associations. The President having expressed her wish to entertain the members of the Branch at luncheon at Aldeburgh in September, the Council recommended that the autumnal meeting of the Branch should be held in that town on Thursday, September 16th. The Council recommended that the spring meeting next year be held in Essex, the place and date of meeting to be determined on at the Aldeburgh meeting. The Council had accepted on behalf of the members an invitation from the Cambridge and Huntingdon Branch to join them and the South Midland Branch in a conjoint meeting at Cambridge on July 8th and 9th.

*Treasurer's Report.*—The TREASURER reported that the balance in favour of the Branch amounted to £66 13s.

*Election of Officers.*—The following were elected officers for the year 1897-8: *President-elect:* Haynes Robinson, M.R.C.S., Norwich. *Three Honorary Secretaries:* Norfolk—*M. Beverley, M.D., Norwich; Suffolk—*E. G. Barnes, M.D., Eye; Essex—*T. Carr, M.D., Braintree. *General Secretary for Branch:* *E. G. Barnes, M.D., Eye. *Two Representatives on Council of Association:* *M. Beverley, M.D., Norwich; *W. A. Elliston, M.D., Ipswich. *Representatives on Parliamentary Bills Committee:* *A. R. Manby, M.D., East Rudham; *J. C. Thresh, M.D., Chelmsford. *Seven elected Members of Council:* *S. J. Barton, M.D., Norwich; *T. H. Morse, F.R.C.S., Norwich; *R. W. Brogden, M.B., Ipswich; *C. S. Kilner, M.B., Bury St. Edmunds; *M. E. Ling, London; H. B. Walker, Lowestoft; *C. E. Addison, Colchester. (Those members who held the same office last year are distinguished by an asterisk.)

*Delegates for Montreal.*—The following were nominated delegates to represent the Branch at the Montreal meeting: Mrs. Garrett Anderson, M.D., President; Mr. Haynes Robinson, President-elect; Mr. S. H. Burton, F.R.C.S., Norwich; Mr. S. Evans, Harwich; Dr. Thomas Carr, Braintree.

*New President.*—Dr. MANBY, the retiring President, introduced Mrs. Garrett Anderson, M.D., as the President for the ensuing year.

*President's Address.*—The PRESIDENT delivered an address on the Progress of Medicine in the Victorian Era, an abstract of which has already appeared in the BRITISH MEDICAL JOURNAL.

*Votes of Thanks.*—The thanks of the Branch were cordially given to the President for her excellent address, and to the retiring President (Dr. Manby) for the able manner in which he had presided over the Branch during the past year.

*Luncheon.*—The members then adjourned to the Council Chamber for luncheon, at which ninety-seven members and visitors were present.

*Communications.*—R. K. CASLEY, M.D. (Ipswich), showed a Case of Fracture of the Patella treated by the immediate application of a subcutaneous wire suture, with skiagraphs of the present condition of the joint.—W. W. SINCLAIR, M.B. (Ipswich) showed: (1) A case in which a piece iron was removed from the interior of the eyeball by means of the electro-magnet: (2) a case of Congenital Ectopia Pupillæ.—J. RYDER RICHARDSON, M.B. (Saxmundham), showed a case of Diffuse Nævus of Neck and Buccal Cavity.—STANLEY BOYD, M.B., F.R.C.S. (London) read a paper entitled Recent Suggestions in the Treatment of Cancer. HOWARD MARSH, F.R.C.S. (London) took part in the discussion that followed.—Mrs. SCHARLIEB, M.D., M.S. (London), read a paper on Surgery at the New Hospital for Women in 1896.—S. H. BURTON, M.B., F.R.C.S. (Norwich), read notes of a case of Fibroid of Uterus causing Inversion.

*Exhibition of Instruments, etc.*—There was an exhibition of surgical instruments and appliances by Messrs. Down Bros. (London), and of pharmaceutical novelties by Messrs. Burroughs, Wellcome, and Co., and by Messrs. Parke, Davis, and Co. (London).

*Tea.*—After the meeting members and ladies accompanying them were kindly entertained at afternoon tea by Dr. and Mrs. Casley, at their residence, the Old House, Carr Street.

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## SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE annual meeting of this District was held on May 27th, at the Kent and Canterbury Hospital, Dr. HACKNEY, of Hythe, in the chair. There were fourteen members and visitors present.

*Confirmation of Minutes.*—The minutes of the last meeting, which were held conjointly with the West and North Kent Districts, and of the last annual meeting, were read and confirmed.

*Accounts.*—The accounts of the past year, audited by Dr. Sturges, were presented and passed.

*Re-election of the Honorary Secretary.*—Mr. Raven (Broadstairs), the Honorary Secretary, was unanimously re-elected. After acknowledging his re-election, Mr. RAVEN spoke of the difficulty that he had found in securing a sufficient number of members to attend the annual dinner. He feared that unless a greater interest was shown in the success of the dinner it would have to fall through. This he would deeply regret, as it appeared to him that the dinner was an important feature of the meetings, and that it tended to bring about professional cohesion and good fellowship.—A conversation ensued, in which it was generally agreed that the maintenance of the annual dinner was most desirable, and suggestions were made as to the possibility of securing a better attendance.

*Future Meetings.*—The meeting in September next was fixed to take place at Folkestone, and Dr. H. Lewis was appointed chairman. The meeting in March, 1898, was fixed to be held at Ashford.

*Communications.*—Dr. COURTNEY (Ramsgate) read a paper on Serum Diagnosis with especial reference to Enteric Fever. After briefly describing Pfeiffer's experiments with the cholera vibrio, he pointed out that from these serum diagnosis originated. The history of serum diagnosis was traced. Delépine's method was described as being most suitable for scientific results, but its disadvantages from a busy practitioner's standpoint were dwelt upon, and the dry method of collecting serum was advocated as the simplest and best. The work of Drs. Wright and Semple in the use of dead cultures was remarked upon, which, if verified, would bring serum diagnosis into the routine of every practitioner, as their method would obviate the use of elaborate apparatus.—Dr. PITTOCK (Margate) read an account of a case of Lymphadenoma with Dermato-melasma (probably Addison's Disease) and a Peculiar Eruption allied to Prurigo. A young woman, suffering from anæmia and enlargement of cervical glands, was revaccinated late in July, 1896, in accordance with regulations, she holding an appointment in a post office,

A week only after revaccination, when she came under Dr. Pittock's observation, there were considerable anæmia and glandular enlargement. At the same time there was an eruption of papules all over the body. In the course of three months bronzing of the skin developed, together with cachexia and extension of glandular disease. At this stage the diagnosis of lymphadenoma and Addison's disease was confirmed by high authority. Treatment was tonic; iron and arsenic were given and bone marrow. In December the hæmocytometer showed only 88 per cent. of red corpuscles, the hæmoglobin amounting to only 62 per cent. of the normal quantity. She died of exhaustion early in February. The case became notorious by reason of the antivaccinist party, who published sensational articles in the *Star*, in which it was declared that the patient died of the effects of revaccination. An interpellation was made in the House of Commons in February last, and the official contradiction of the statement that the young woman died from revaccination was not enough to stop the progress of misrepresentation in the *Star*. Indeed in March an article appeared in which the writer had the temerity to suggest that the cause of death was falsely registered.—Mr. RAVEN (Broadstairs) read a paper on Some Medical Etymology. He enumerated a number of obscure and corrupt terms, and traced their derivations. He alluded to the extraordinary jumble of our medical nomenclature, and, judging from the fact that quite recently the serum of the blood from an immunised horse had been dubbed a "vaccine," he did not anticipate any immediate reform of medical terminology.

*Dinner.*—After the meeting eleven members dined at the County Hotel under the presidency of the Chairman.

## EAST YORK AND NORTH LINCOLN BRANCH.

THE forty-first annual meeting of this Branch was held at Hull on May 25th.

*Election of Officers and Council.*—The following officers were elected for 1897-98:—*President:* H. W. Pigeon, M.A., M.C. *Ex-President:* D. Lowson, M.D. *President-Elect:* E. Harrison, M.B. *Vice-Presidents:* T. Morley, M.D., and J. B. Close, M.D. *Secretary and Treasurer:* A. G. Francis, F.R.C.S. *Representative of the Branch:* R. H. B. Nicholson. *Representative on the Parliamentary Bills Committee:* C. H. Milburn, M.B. *Council:* G. F. Elliott, M.D., E. P. Hardey, E. O. Daley, M.D., H. Thompson, J. F. Nicholson, M.D., A. Parkin, M.D., E. H. Howlett, and A. Legge Roe.

*President's Address.*—Dr. PIGEON read his Presidential Address on Orthopædic Surgery.

*Communications.*—The following cases and specimens were exhibited:—Mr. HENRY THOMPSON: Cerebral Abscess; trephined; cured.—Dr. HOWLETT: (1) A Case of Hereditary Syphilis; (2) Report of a Case of Typhoid Fever, treated with antityphoid serum; cured.—Dr. CAMERON: Case of Compound Comminuted Fracture of the Skull.—Dr. MERSON: A specimen of Tumour of Pituitary in a Case of Acromegaly.

*Dinner.*—The annual dinner was held at the Royal Station Hotel at 8 o'clock, 35 members being present.

## YORKSHIRE BRANCH.

THE annual meeting of the Branch was held at Harrogate on June 2nd.

*Election of President.*—Dr. MYRTLE was elected President, and delivered a most interesting address.

*New Members.*—Dr. Wear was elected a member of the Association and Branch, and Drs. and Messrs. Helen Wilson, Kay, Liddell, Hallett, and Basil Hall members of the Branch.

*Communications.*—Dr. GIBSON showed (1) a case of Psoriasis which had been under his care at the Bath Hospital for five weeks, and treated with the baths and waters with marked success; (2) a case of Scrofulodermia, which was treated by Harrogate waters, and locally by salicylic acid and creasote. —Dr. OLIVER demonstrated his method for the clinical examination of the Blood.—Dr. MOUILLOT showed a case of Raynaud's Disease, which had been under treatment for two months, and was now practically cured.—Mr. MAYO ROBSON read notes of two cases in which a Coin had been impacted in the Œsophagus for six months; they were revealed by the Roentgen rays and removed by the coin catcher. He also read a paper on Suppurative Cholangitis, and related a case in which influenza was the cause of the disease. After dwelling on the symptoms and diagnosis, he remarked that unless free evacuation of the infected contents of the bile passages could be accomplished either naturally or artificially, the treatment was practically useless. He advocated cholecystotomy with free drainage, which might be expected to give relief in a fair proportion of cases. The serious nature of the disease made the prognosis extremely grave.—Dr. CAMPBELL read notes on six cases of Intrathoracic Growth. He first referred to the comparative rarity and the diagnostic and prognostic importance of intrathoracic growths. He then gave the clinical history of six cases which had come under his care during the past three years, five of them being cases of anterior mediastinal and one of pulmonary growth. His cases emphasised the fact that temporary remission of symptoms and partial apparent recovery are commoner than was usually thought; that the age at which such growths generally occurred was usually greater than was stated by most authorities; and that the severe dyspnœa on the slightest exertion—out of all proportion to the physical signs—the marked interference with the return of blood to the heart, the non-implication of the recurrent laryngeal nerve, even when the growth extended to the right side of the chest, the dulness, the deficient entry of air, and the distant soft tubular breathing were the most noticeable features of the disease. The discussion that followed this paper was of considerable interest, and was joined in by Drs. MOSSOP, MAJOR, GRIFFITHS, and MYRTLE.—Dr. EDMUND M. SMITH (York) read a paper on Digestive Aids, in which he commended the use of the compound preparations of the digestive ferments in the treatment of most conditions of dyspepsia, especially in atonic conditions; and claimed that, according to experimental evidence, compounds of the ferments are compatible, and as thoroughly reliable as the ferments used singly, and much more useful. He also demonstrated the superiority of the pepsins produced to-day over those so discredited by observers twenty years ago. —Dr. GREEN read notes on a case of Hypospadias in a patient, aged 24, who had always passed as a woman. Photographs of the parts were shown.—A paper was read by Dr. BRAITHWAITE on the Connection (if any) between Mental and Non-Puerperal Uterine Disease. This was chiefly founded upon the case of a lady who was cured of mental depression by the application in London of electricity to her uterus three times a week. There was, however, nothing the matter with the uterus. The conclusion come to by the author was that there was only a very indirect connection between these diseases. Whenever uterine disease tended to cause exhaustion, along with irritation of mind from suffering, of course it might induce mental disease. There were, however, cases of insanity of a peculiar type associated with amenorrhœa, and there are the forms of disease known as climacteric insanity, and the insanity of adolescents. These are not, however, fairly to be called insanity from or connected with uterine disease.

*Next Meeting.*—It was decided to hold the next meeting at Halifax, and that Dr. Dolan be the President-elect.

*Visit to New Baths.*—After the meeting the members visited the new baths, which had just been built by the corporation at an expense of over £100,000.

*Dinner.*—Thirty-two members dined at the Queen's Hotel. The meeting was a most interesting and enjoyable one. The best thanks of the meeting were due to Dr. Gibson, the local secretary, and other local members, who spared no trouble to make the meeting a success.

## DORSET AND WEST HANTS BRANCH.

THE annual meeting of this Branch was held at the Royal Bath Hotel, Bournemouth, on Wednesday, May 26th. The members were entertained to luncheon by the President-elect (Dr. Davison) before the meeting. Mr. W. RENDALL, of Maiden Newton, President, in the chair, and fifty-five members and visitors were present. The minutes of the last meeting were read and confirmed.

*New President.*—Mr. Rendall then resigned the chair to Dr. J. DAVISON, the President-elect, and a vote of thanks was accorded to the out-going President, who briefly returned thanks.

*Annual Business.*—The Secretary's accounts, showing a

balance of £26 2s. 3d. in favour of the Branch, having been duly audited, were presented and passed. The following gentlemen were declared duly elected to fill the vacancies on the Branch Council, namely: Mr. W. Wykesmith, of Wimborne; Mr. W. Rendall, of Maiden Newton; and Mr. Ernest Good, of Dorchester. Mr. Parkinson was re-elected Branch representative on the Council of the Association and Parliamentary Bills Committee.

*New Member.*—The following gentleman, being a member of the Association, was elected a member of the Branch, namely, Eric Norman Pridmore, M.B., of Weymouth.

*Summer Meeting.*—It was resolved:

That the summer meeting be held in the neighbourhood of Ringwood on Wednesday, July 28th, and the President, Vice-Presidents and Secretaries, with Dr. Dyer, be a Committee to carry out the necessary arrangements, and that ladies be invited to attend.

*Other Business.*—It was resolved:

That for the future the question of a dinner after the meeting be left to the discretion of the President (for the time being) and the two Honorary Secretaries and Treasurers.

Communications from the Council of the Association and the East Anglian Branch were brought before the meeting.

*Montreal Meeting.*—A letter from Dr. Roddick, of Montreal (President-elect) was read, asking the Branch to appoint delegates to the forthcoming annual meeting at Montreal. It was resolved to appoint Mr. J. R. Philpots, of Parkstone, to represent the Branch, and it was hoped that other members would accompany him.

*Moscow Congress.*—Dr. Davison (President), Dr. Macdonald, of Charminster, and Mr. Parkinson were appointed delegates to the International Medical Congress at Moscow.

*Presidential Address.*—Dr. DAVISON then delivered his presidential address on Follicular Tonsillitis. Dr. MOORHEAD, of Weymouth, proposed, and Mr. MAHOMED, of Bournemouth, seconded a hearty vote of thanks to the President for his most interesting and instructive address.

*Communications, etc.*—Mr. G. W. GRAHAM, of Wimborne, read notes of two cases of Cancer, showing the expediency of early removal.—Dr. A. DAVIDSON, of the Dorset County Asylum, read notes of a case of Cerebellar Hæmorrhage. Specimen shown.—Mr. B. SCOTT and Mr. MCGILLICUDDY, of Bournemouth, read notes of a case of Perforating Appendicitis with general Septic Peritonitis, followed by recovery after operation.—Mr. W. WYKESMITH, of Wimborne, showed a New Pattern Cycle Saddle on hygienic and anatomical principles, and explained its advantages. The members present expressed their approval, and hoped the saddle would prove a success.—Dr. F. W. RAMSAY, of Bournemouth, showed Four Uteri from cases of Total Hysterectomy.—Other communications from Dr. Ransome, F.R.S., Dr. Lawrie, and Mr. Wykesmith were deferred to a future meeting.

*Dinner.*—After the meeting, twenty-two members and visitors dined together at the Royal Bath Hotel.

## SYDNEY AND NEW SOUTH WALES BRANCH.

THE annual meeting of this Branch was held at the Royal Society's Room, Sydney, on March 26th: Dr. SYDNEY JONES, President, in the chair. There were also sixty-five members present.

*Confirmation of Minutes.*—The minutes of the previous meeting were read and confirmed.

*New Members.*—The PRESIDENT announced the election of the following members: Drs. Button, W. Leahy, Meeke, Sproule, Brennan, Bean, Hester, Robertson, and Rygate.

*Scrutineers.*—The PRESIDENT appointed Drs. Shewen and Dixson as scrutineers, and Drs. Spencer and Blaxland as assistants.

*Report of the Council and Treasurer.*—The report of the Council for the year 1896 was taken as read. Dr. CRAGO read the Treasurer's statements of the Branch and *Gazette* funds, and moved the adoption of the report and balance sheets. The resolution was seconded by Dr. POCKLEY, and carried.

*Australasia Medical Gazette.*—Dr. RENNIE proposed a hearty vote of thank to Drs. Knaggs and Crago for their untiring work in connection with the *Australasia Medical Gazette*; this was seconded by Dr. QUAIFE, and carried.

*President's Address.*—Dr. SYDNEY JONES read his address.—Dr. FIASCHI proposed a vote of thanks to Dr. Sydney Jones for his address. Carried by acclamation.

*Auditors.*—Dr. CRAGO proposed that Drs. Todd and Jarvie Hood be appointed auditors for the year. Carried.

*Congratulation to Lord Lister.*—Dr. MACSWINNEY proposed that a vote of congratulation be forwarded to Lord Lister upon his elevation to the peerage. Seconded by Dr. QUAIFE and carried.

*Election of Officers.*—The PRESIDENT announced the result of the election of officers and Council as follows:—*President:* Dr. C. B. Clubbe. *Vice-President:* Dr. W. Chisholm. *Councillors:* Dr. Sydney Jones, Dr. G. E. Rennie, Dr. F. H. Quaife, Dr. Coutie, Dr. Knaggs, Dr. Scot Skirving, Dr. Worrall, Dr. W. H. Crago, Dr. Fiaschi, Dr. Newmarch, Dr. Thring, Dr. MacSwinney.

*Vote of Thanks.*—Dr. TODD proposed a vote of thanks to the retiring Council. Seconded by Dr. JAMIESON, and carried.

## BRITISH GUIANA BRANCH.

THE second quarterly meeting of this Branch was held on April 29th at the Public Hospital, Georgetown; Dr. D. PALMER ROSS, President, in the chair. Twenty members were present.

*Delegate to Montreal Meeting.*—Dr. W. S. BARNES was appointed as a delegate of the Branch at the Montreal meeting.

*New Member.*—Dr. De Freitus was elected a member of the Branch.

*Address to Lord Lister.*—It was unanimously decided to send an address to Lord Lister congratulating him on his elevation to the peerage, and the address, as drafted by the Council, was approved of, and it was decided that the General Secretary of the Association should be requested to forward it to Lord Lister.

*Discussion.*—Dr. DANIELS opened a discussion on the Localisation and Spread of Some Diseases in the Colony. In the discussion most of the members present took part.

*Specimens.*—Specimens of Midday and Midnight Blood from an Aboriginal were shown by Dr. Daniels, showing the filaria perstans.

## HONG KONG AND CHINA BRANCH.

A MEETING of the Hong Kong and China Branch was held in Hong Kong on Friday, April 30th, Surgeon-Colonel EVATT, M.D., P.M.O., President, in the chair.

*Paper.*—Dr. STEDMAN read a paper entitled Notes of a Case of Appendicitis, with Operation, for which he was awarded the hearty thanks of the meeting.

# SPECIAL CORRESPONDENCE.

## PARIS.

*The Spitting Nuisance in Paris.—Water-colour Sketches as a Part of Medical Evidence.—Paris Stenches.*

DR. PAUL RICHARD recently read before the Society of Paris Medical Inspectors a long and able paper on the prevention of tuberculosis in schools. Dr. L. Séailles, President of the Medical Society of the Bureaux de Bienfaisance, read another lengthy and thoroughly "documented" paper on sputa and spittoons before the said Society. Reports on tuberculoses likewise abound, overrunning with good advice and hygienic directions. But the fact is evident that the condition of the Paris omnibuses and railways is not only an object of disgust but of danger. They are not precisely the spittoons recommended in official reports, but they serve the same purpose. This intolerable nuisance and crying danger increases sooner than decreases.

A curious system of pathological identification, if such it can be called, was practised in a recent French trial. An unfortunate child was beaten and burnt until his body was a mass of sores and wounds by an unnatural father. The child died from the effects of this brutal treatment. The body was kept thirty-six days unburied, in order to have water-colour sketches taken of the wounds and injuries inflicted on the unfortunate child to be shown to the jurors. The prisoner's counsel, M. Lagasse, objected to the use of these sketches,

considering that they are not, from a legal point of view, sufficiently authentic to be put in evidence. Photographs and the evidence of medical experts, he argued, constitute testimony much more reliable. The water-colour representations of the pathological condition of the child, M. Lagasse maintained, were the work of an accomplished artist, who expressed in his sketches the horror inspired by the sight of the wounds; their aim inevitably was to inspire the jurors with the same horror. Such means of proving an accusation ought to be rejected. M. Felix Decori supported the argument of M. Lagasse, and declared that this system of furnishing evidence is as dangerous as it is novel. M. Blondel, the *Avocat-général*, considered that the sketches ought to be produced. The Court deliberated for three-quarters of an hour, and adhered to the decision of M. Blondel. M. Ch. Mendel, in a letter to the *Progrès Médical*, questions the fidelity of the pathological character of water-colour sketches, and asks why the process called *photogravure en trois couleurs* was not employed. This process was discovered by Cros in 1867, and is in current use; it has the advantage of not being expensive. Specimens of it have appeared in the *Archives Provinciales de Chirurgie* since 1892.

The annual farce of the reunion of the "Commission des Odeurs de Paris" has again been played at the Prefecture of Police. The report on the work done during the year showed that 3,520 inspections had been made and 329 special reports drawn up; 63 investigations concerning complaints were ordered. It is probable that the complaints have been more numerous than the investigations, and reasons for complaining much more abundant than the complaints. This yearly palaver is painfully fruitless in practical results. However, the reunion of the Commission on Paris Stenches has made known to the long-suffering Parisians that the "établissements suspects" are constantly overlooked by a "brigade d'inspecteurs des recherches." This body with the formidable-sounding title has positively succeeded in discovering that the establishments where sewage is treated are specially responsible for the stinks which spread over Paris. It is declared that these establishments only partly burn the material treated during the night; consequently noxious gases escape and half stifle the neighbouring population. This insanitary proceeding is more economical than perfect combustion, and the law forbids *procès verbaux* being drawn up during the night. Professor Gauthier, the well-known chemist and member of the Institute, in the name of the Technical Commission, expressed his belief that the Paris soil is the principal factor in the question. It is only by important changes to be effected by those who are responsible for public works and establishments that the Paris stenches can be got rid of. The responsibility of the establishments is not lessened. M. Armand Gautier read to the Commission a list of questions he has drawn up for the use of the city engineers. This was approved of by the Commission.

## BERLIN.

*The Congress of Internal Medicine.—Children's Sanatoria.—Medical Reform Committee.—The International Medical Congress.—Professor Virchow.*

After an interval of thirteen years the Congress for Internal Medicine will hold its annual meeting in Berlin this month. Professor von Leyden will preside. The committee has specially invited Professor O. Liebreich and Professor Behring to read papers. Liebreich's subjects will be: The Objects of Modern Medicinal Therapeutics, and Behring's, Experimental Therapeutics. On special subjects more than fifty papers have been announced, though perhaps the time will be too short to permit them all to be heard. Morbus Basedowii, epilepsy, and chronic articular rheumatism have been selected for discussions. A novelty of the congress will be the "Demonstration sitting," entirely devoted to the demonstration of rare cases and special experiments. The usual exhibition of scientific instruments, nursing apparatus, and invalids' food will accompany the congress.

The society for the establishment of children's sanatoria at seaside places has just held its annual meeting in Berlin. The report was most favourable, and showed a considerable increase in the number of children taken charge of—1,503 in all, varying from the ages of 2 to 16. The medical report, read by Professor Ewald, contained careful statistics from each of the society's sanatoria, with a high percentage of cures and distinct improvements, and with only solitary cases of little or no improvement. The newly-introduced "winter cures" had proved eminently beneficial. An animated discussion followed the reading of the report. Professor von Leyden took part in it; he advocated the greatest caution in the selection of tuberculous cases, and gave it as his decided opinion that all cases of advanced tuberculosis should be rigidly excluded from the sanatoria, for fear of infection to the other children.

The mixed Committee for the consideration of proposed reforms in medical affairs has got through its task in five sittings. The cardinal question for the Committee was whether private practice should be permitted to the district physicians (Government officials), and the final vote was in the affirmative by a good majority. Other questions were: (1) The abolition of the provincial medical Boards, which was agreed to in the main, though in some points of detail it was decided to confer with the Minister of Justice and the Minister of the Interior; (2) the creation of new official medical posts—such as "parish Board of Health," "district Board of Health," etc.—which was negatived, the Committee being of opinion that Prussia has too many official organisations of the kind already; (3) a proposal to empower the district official to act on his own responsibility and without consultation with the police authorities, where delay might entail dangerous consequences—for instance, in cases of sudden outbreak of infectious disease—which was agreed to. Other questions were of a financial nature. The Committee has thus finished its work as expeditiously as possible, and now the negotiations between the different Ministers will commence. It is to be hoped that there will be no unnecessary delay, and that these long discussions may be followed by successful action.

A Berlin local Committee for the International Medical Congress in Moscow has been formed, with the object of protecting the interests of the Berlin colleagues attending the Congress, and also as a Reception Committee for foreign doctors passing through Berlin on their way to Russia. Professor O. Liebreich is President of the Committee, which numbers among its members Professors Furbringer, Tolly, Hahn, H. Munck, Olshausen, Landau, Renvers, Senator, Sonnenburg, and others.

Professor Virchow has always been among the men of rare brain power who find repose from work in taking up work of another kind; nor does age seem to diminish his activity. At present he is staying at Brünn, in Austria, where, in the company of several distinguished German and Austrian anthropologists, he is examining prehistoric caves, in which bones of diluvial man and of diluvial animals—such as the mammoth, wisent, cave bear, etc.—have been discovered, and where he hopes to bring the question whether diluvial man was contemporaneous with the diluvial animals a little nearer solution.

## ROME.

*Foreign Practitioners in Italy.—Agitation to Forbid their Practice.—Meeting of British and American Practitioners in Rome. Interviews with the British Ambassador and the Under-Secretary of State for the Interior.—Resolution of the Superior Council of Health Disapproving of any Alterations in the Law.—Action of the General Medical Council.*

For some time past a movement has been in progress amongst some of the Italian medical men practising in Italy in reference to the prohibition of foreign doctors practising their profession in Italy without having first obtained an Italian diploma. Within the last two months a circular has been sent to all the Italian practitioners, which states that it has been decided to present a petition to the Minister of the Interior, in order that by legal means professional practice in Italy should be forbidden to those foreign doctors who have not an Italian degree as is required by the other European nations, including England. The Council of the Ordine dei Medici dele Provincia di Roma have also been active in promoting this object, and have had a special audience with

the Minister of the Interior, who, it is stated, gave them a favourable answer.

On May 6th, in the House of Parliament, in reply to a question of Dr. Santini, one of the medical deputies, the Under-Secretaty of State for the Interior, Signor Serena, stated that "the Government had already considered the question, and would place some proposals before the Superior Council of Health, which will afterwards serve as a basis for a project of law."

On May 10th a meeting of the British medical men practising in Rome was held at Dr. Charles's house, he being in the chair, for the purpose of considering the steps to be taken in reference to the projected Bill, to safeguard the interests not only of the English and American practitioners in Italy, but also the interests of those who in the future may desire to practise here.

It was pointed out at the meeting that the statement made in the above-mentioned circular was not according to the law as far as the United Kingdom was concerned, because foreign medical men can practise there without restriction, but, unless they are registered, they cannot recover their fees by legal process, nor give medical evidence in courts of law, nor hold public offices. Moreover, under the Medical Act of 1886, the General Medical Council may recognise equivalent qualifications obtained in countries which treat the United Kingdom with reciprocity. In Italy foreign doctors are permitted to practise only among foreigners unless they obtain an Italian diploma, or excepting the occasions in which foreign physicians and surgeons are expressly called for special cases. This is the substance of Article 23 of the Italian sanitary law which Dr. Santini and the other Italian doctors wish to have modified.

After a full discussion the meeting unanimously agreed that a deputation consisting of Dr. Eyre and Dr. Brock should call upon the British and American Ambassadors in Rome to request their powerful support and aid; that they should endeavour to obtain an audience with the Minister of the Interior for the purpose of placing the above facts before him; and that they should also act for the other British and American members of the profession now practising in Italy. The meeting also requested Dr. Eyre to write a letter to these gentlemen giving a statement of the question, and requesting their adhesion to the above resolutions. Dr. Eyre has heard from all these gentlemen with the exception of one, and they heartily agree with the resolutions passed at the meeting. Dr. Brock and Dr. Eyre have had an interview with Sir Clare Ford, the British Ambassador, and he has promised to do what he can. The new American Ambassador has not yet arrived in Rome, so they have not been able to see him.

These gentlemen had an audience with Signor Serena, the Under-Secretary of State for the Interior, on May 25th, and they gave him an account of the law of England in reference to foreign practitioners in the United Kingdom and in the United States. They also said that they felt quite certain that, should the Italian Government introduce the change in the law wished for by some of their Italian colleagues, the sense of justice with which not only the present Government but the whole Italian nation are credited would prevent such a change being made retrospective because otherwise it would be the means of producing irreparable financial injury to many of those who had established themselves in Italy on the faith of the present sanitary law. This change in the law also would undoubtedly affect the number of English-speaking visitors who come yearly to Italy, and especially the invalids and others who permanently reside in this country, because the large majority of them speak only their own language, and consequently prefer to be attended by the doctors of their own country. Signor Serena, in his reply, said that he was then studying the question, and that the facts placed before him by Dr. Eyre and Dr. Brock should have due consideration.

The Superior Council of Health have considered the proposals of the Under-Secretary of State for the Interior, and they have agreed that no alterations should be made in Article 23, chiefly because in Italy, a country where so many foreigners come on account of its position, greater restrictions would injuriously affect the finances, and that it would lose the profit of about 800 millions of francs, which strangers, as it has been proved, annually spend in Italy.

This is the present position of the question as far as the Italian Government are concerned. There is little chance of any modification in the law being introduced during the present session of Parliament, owing to its being the first session of a new Government, and also to pressure of business, still it is the duty of all the foreign doctors practising in this country to use every means possible to prevent the proposed change being introduced or adopted.

Dr. Eyre on his own initiative has written to the Acting Registrar of the General Medical Council with the view of having the "reciprocity clause" of the Medical Act of 1886 adopted between the United Kingdom and Italy. His letter was discussed at the meeting of the General Medical Council of May 27th. It was moved by Sir William Turner, seconded by Dr. Glover, and carried:

That a Committee consisting of the President, Sir Dyce Duckworth, Dr. Thorne Thorne, and Mr. Carter, be appointed to frame and forward to the Privy Council a representation calling attention to the subject of Dr. Eyre's letter, and asking that the Secretary of State for Foreign Affairs may be moved to take such action as is possible in regard to it.

## MELBOURNE.

*Medical Inspection and the Exclusion of Infectious Diseases.—Proposed Infectious Disease Hospital for Melbourne.—The Tick Disease.—The Frevalence o Tuberculosis in New South Wales.—The Health of Melbourne.*

THE Australian system of medical inspection of passengers arriving by vessels from over the seas is not absolutely protective against the introduction of disease. The cursory examination to which new arrivals are subjected may prevent the introduction of diseases that display well-marked characteristic symptoms and appearances. Small-pox does not exist in our midst, yet we are continually in danger from invasion from it. Where well-marked cases occur on board incoming vessels there is of course no danger, as such cases are readily identified. Cases of small-pox may be so modified that the eruption may be sparse or absent, the symptoms vague, and diagnosis uncertain. In these doubtful cases, with few or no spots, the constitutional disturbances may be so slight that patients feel no inconvenience, make no complaints, and go about as usual, and yet these cases are capable of giving rise to severe attacks of small-pox in other individuals. There is always a chance of patients of this class landing in a country where small-pox is unknown. Again, a passenger may suffer from leprosy, and his condition may even be unknown to his friends, yet such a person may, from the imperfect system of inspection adopted at ports, be allowed ingress. Discovery of vague cases to which attention has been drawn can only be made by compelling all persons arriving from over seas to submit to a thorough clinical examination. When the disease manifests itself on exposed parts so that it can be seen and recognised, then of course the vessels on which the disease, if it be infectious, breaks out, are placed in quarantine. In the case of an outbreak of small-pox the patients are isolated in hospital from all the rest of the ship's company, and are so kept until the process of desquamation has been thoroughly completed. The rest of the ship's company are landed and detained at the quarantine grounds a little while longer than the full period of incubation of the disease. The whole of the effects of the passengers are disinfected, as well as the fittings and cabins of the vessel. In the beginning of the century small-pox is said to have been introduced into the colony by convicts with whom the British Government tried to establish a settlement on the shores of Corio Bay. It is said to have carried off many blacks, and then appears to have died out. There cannot be a doubt that with our present system of examination small-pox will eventually introduce itself amongst us. To keep it away from our shores the inspection will have to be more rigid. Nothing short of clinical examination of all people arriving from other lands can prevent its introduction.

For many years past opinions have been held that an Infectious Diseases Hospital in Melbourne would result in the converging of all infectious cases into a central focus, and so would tend to materially limit their spread. At present no such institution exists and infectious diseases extensively prevail. The general hospitals have not sufficient room to accommodate these cases, consequently they

are treated in their own homes and thus favour the spread of infection and increase mortality. There is now on foot a movement to establish an infectious diseases hospital, and large sums of money have already been subscribed by the public, which the Government have decided to augment in order that the project may be consummated.

At the conference of Ministers of Agriculture representing the Australian colonies, recently held at Sydney, it was decided that the colonies combine in offering a reward of £5,000 to any person who discovered and made known a satisfactory remedy for the tick disease which has caused so much destruction amongst cattle.

The prevalence of consumption in New South Wales was brought under the notice of the Government of that colony by a deputation, which requested that steps should be taken to provide for this class of sufferers. The suggestion made was that the system of grading should be followed, so that those regarded as incurable should be removed to a suitable climate, and those in the intermediate state should be isolated in a special hospital in a suitable locality, and that the incurables should be removed to a special institution away from any centre of general population. The Cabinet will probably appoint a Commission who will inquire into the whole matter.

The health officer of the City of Melbourne, Dr. Jamieson, reports that during the last twelve months the health of the population has been good, the rate of mortality being 14.3 per 1,000. There has been a continuous improvement of the sanitary condition of the city during the last ten years. In 1887 the mortality was 20.6; 1888, 18.54; 1889, 21.49; 1890, 19.1; 1891, 19.24; 1892, 15.1; 1893, 16.8; 1894, 15.2; 1895, 15.1; 1896, 14.3. As showing how Melbourne compares with the other great cities of the empire, it is pointed out that the general mortality per 1,000 for London is 18.2, and for other English towns 19.4, as against our 14.3. Our infant mortality per 1,000 was 157, against London 160 and other English towns 172. Here, however, the typhoid mortality is 2.6, as against 1.27 for London and 2.27 for other English towns. In diphtheria our mortality record is only 1.44, as against London 6.0 and English towns 2.36.

## CHICAGO.

*A New Health Commissioner.—Post-Graduate Medical Schools.—National Association of Railway Surgeons.—The Diamond Jubilee in Chicago.*

One result of the recent municipal election has been to re-establish Dr. A. R. Reynolds as health commissioner in the place of a non-medical ward politician. Dr. Reynolds is popular with the profession, is a good executive officer, and is a sanitarian of acknowledged ability.

Chicago now has three post-graduate medical schools, one in each of the geographical divisions of the city. The Post-Graduate Medical School has a fine new structure on the south side, while the west side Post-graduate Medical School and Policlinic has the quarters formerly occupied by the first-named institution. Each school has good hospital facilities and a good corps of teachers.

Nearly five hundred members of the National Association of Railway Surgeons attended the late annual meeting in this city. After a three days' session in listening to and discussing papers on topics directly bearing upon the work of railway surgeons, adjournment was declared after the election of the following officers:—Dr. G. E. Ross, Richmond, Va., President; Dr. J. A. Hutchinson, Toronto, Canada, Vice-President; Dr. E. R. Lewis, Kansas City, Mo., Treasurer; and Dr. J. Mitchell, Chicago, Secretary. The next annual meeting will be held at Toronto, Canada. This association of professional men is unique in a number of respects. For instance, it is strong principally throughout the Mississippi Valley and the western part of the nation for two reasons largely, (1) because the western and central railroads strongly encourage this branch of railroad service in appointing a surgeon at almost every junction, terminal and division point on their systems, and at all considerable towns between; this creates in the aggregate a large number of railway surgeons; (2) because the central and western railroads are liberal in granting transportation to any railway surgeon for any distance. This permits of the attendance of members from long distances, and makes it possible to gather at the annual meeting an average of one-third of the total membership. And then again this courtesy between railroads of granting passes to the surgeons which obtains generally throughout the central west, does away with the enforcement of the strictly local associations which exist in the east. This Society stands peculiar also in that it is at once more decidedly interested in emergency surgery, asepsis, artificial limbs, and certain medico-legal questions than any other body of professional men; and these subjects are brought out with the best possible force and clearness. Then, again, it is believed that in this large national association there is not a female member, at least we have yet to hear of the female railway surgeon. No doubt woman will find her way into this field in time; but yet the demand will be limited.

Even in Chicago, the great western city of a great republic, and which has so many times been pointed out as the colossal embodiment of civic egotism, the Queen's Diamond Jubilee is to be observed as in other parts of the world. The Victorian Diamond Jubilee Association of Chicago is extending an invitation to the liberal-minded citizens of the city, of whatever nationality, but particularly those of British birth and descent, to contribute to the endowment of hospitals and hospital beds in Chicago upon the occasion of the next anniversary of the Queen's reign. It is hoped that the hospitals of Chicago will be well remembered at this time of great commemoration, for they stand in need of assistance at this period particularly, owing to the loss of funds from the annual charity ball, which was thrown over this year, and to the increased demands upon them during the past winter.

## LIVERPOOL.

*Tuberculosis as Affecting the Milk Supply.—Presentation to Dr. Barr.—The Royal Infirmary.*

The medical officer of health Liverpool has recently submitted to the Health Committee an exhaustive report on Tuberculosis as Affecting the Milk Supply of the City. After describing the conditions which are recognised as the causes of tuberculosis, it is pointed out that the effect of improved sanitation in Liverpool has been to produce a notable decrease in the death-rate from this cause. Thus the annual average death-rate per 100,000 of the population from all forms of tuberculosis in the decade 1866-1875 was 430.8, while in the year 1896 it was only 292.5. Investigations into the condition of the milk supplied to the city were made by Professors Boyce, Delépine, Hamilton, and Woodhead. A total of 168 samples were taken from different sources so as to fairly represent the city supply. The examinations were made, both by means of the microscope and by the method of inoculation, but for obvious reasons the results arrived at by the latter method were much more valuable. The conclusions drawn as to the infective properties of the milk are on the whole fairly satisfactory, though indicating the need for further vigilance on the part of the authorities. Contrary to what might have been anticipated, the samples of milk derived from sources within the city were much freer from the germs of tuberculosis than those obtained from the country supply. Thus, out of 122 samples of city milk, only 2.8 per cent. gave evidence of infection, while of 24 specimens obtained at the railway stations 29.1 per cent. were capable of producing the disease. The comparative freedom of the milk obtained from town cows is no doubt due to the excellent supervision exercised by the health authorities over the dairies and shippons within their jurisdiction. The report points out that the risk of infection from drinking the milk of tuberculous cows can be entirely avoided by boiling it for a few seconds, and that the common prejudice against this proceeding is entirely groundless. Dr. Hope concludes his report by stating that there is need for additional powers to prevent the erection of town shippons without adequate yard space, and without adequate open spaces around them. Also that more direct powers are required to enable the compulsory removal of diseased animals from shippons, and that measures are called for to prevent the importation into cities of the diseased products of insanitary country shippons.

Dr. James Barr, who was recently appointed Physician to

the Royal Infirmary, has been presented with a handsome silver inkstand by the residents and nurses of the Northern Hospital, where he has been physician for the past ten years. It bears the following inscription: "Presented to Dr. James Barr by the Residents and Nursing Staff of the Northern Hospital as a token of their esteem and regard. 3rd May, 1897."

Mr. George Melly, a member of the Committee of the Royal Infirmary, has generously presented that institution with a complete set of apparatus for the employment of the Roentgen rays. The report of the Royal Infirmary for 1896 has just been issued. The number of in-door patients was practically the same as the year before, but there has been a notable increase of out-door patients in every department. For the first time the report includes an extensive analysis of the cases treated in the wards, drawn up by the medical and surgical tutors. The pathological report, drawn up by Professor Boyce, is issued separately for the use of the medical profession.

# CORRESPONDENCE.

## APHASIA AND WILL-MAKING.

SIR,—In the interesting questions raised in your leading article of May 22nd on "Aphasia and Will-making," one curious point referred to by you as follows has particularly attracted my attention: "Even in total aphasia," you say, "it is conceivable that the sufferer might still communicate his wishes by signs. That this should ever be practically possible is very doubtful, but it is to be borne in mind that such a condition has been asserted to have occurred."

The nearest approach to this *crux* of aphasic will-making that has occurred within my experience was in the case of a very old patient of mine about whose testamentary dispositions a dispute took place about a year ago, which was to have been brought into court, but almost at the last moment was arranged between the parties, no doubt to their advantage, but equally certainly in some respects to the loss of some valuable contributions to medical and legal science. I do not feel quite at liberty, under these circumstances, to go into the details of what I all along said would be a most perplexing and interesting legal and psychological puzzle; but the main facts, as presented to the mind of one who was certainly not an interested, and would have been, had the case gone on, an impartial witness, were, in brief, the following:

This old gentleman, 79 years of age at his death, had been known to me more or less intimately for about thirty years, and was a most shrewd and clear-headed man of business, taking an active part in large concerns which he managed almost entirely himself. Owing to various senile infirmities in his latter years, he had been led by me to consult a practitioner of high standing and reputation who lived quite close to him, and with whom I saw him in consultation when required. In February, 1894, he had an aphasic attack of moderate severity, with right-side paralysis, in all respects of the usual kind; and as I had not at this time any definite information as to his having made a will, I communicated with the solicitor with whom I supposed he was most in confidential relations at that time, to the effect that anything that ought to be done had better be attended to immediately, as it was quite probable that the attack might recur, or become so much worse as to defeat any purpose of will-making. I knew nothing whatever of his affairs, or of his intentions at this time, but had been led to believe that he had, to a certain limited extent, talked over the subject with his legal adviser without any document having been the result. Be this as it may, the old gentleman for some reason or other, which is not very pertinent to the present question, consulted another lawyer with whom he had previously had some relations, and the result was that in March, 1894, he gave some verbal directions (his aphasia at the time apparently permitting of this) for a disposition of his affairs, the completion of which, however, was intercepted by a second attack much more severe than the first, within two or at most three days after giving the directions alluded to above. From this time onwards to his death his condition as regards speech was certainly very bad, not, perhaps, total aphasia, but certainly such as made it almost impossible to be sure at any moment whether the two or three consecutive words he was able to utter were intelligently spoken or not. He was very emotional, and easily broke down after an effort; so that altogether I regarded it as extremely difficult to carry on a conversation, even about the most trivial details of his own health, the essential facts as to which had always to be communicated to me by his nurses and attendants. He was not, apparently, word-deaf to the same degree as his motor aphasia, but the condition of his intelligence, as well as of his speech faculty in detail, was extremely difficult to define, and it would have been, in my opinion, almost entirely a question of detail how far he was able to assent with complete intelligence to any definite proposition during the greater part of the interval between his second attack of aphasia and his death, which happened in July, 1895. He was able, however, during this period to go to his country residence, and, up to a certain point, to enjoy life, though, quite obviously, with a very gradual deterioration of faculty, ending in a sudden comatose attack, which was attributed to embolism (he had a cardiac lesion also).

The will, which was to have been challenged, but which ultimately was allowed to be maintained under legal advice by an arrangement between parties, was brought into existence in the following manner. The deed which had been drawn up by the second legal adviser above alluded to was brought to him, and read over clause by clause in the presence of his immediate medical adviser and a legal clerk, it being explained to him previously that he was to indicate assent, if so disposed, by a definite sign with his left hand. Both of the witnesses to the deed affirmed, and were ready to declare in court, that they believed he knew the sense of what was read to him, though not without frequent reminders being necessary as to the mode in which it had been arranged that he should convey his assent. In regard to one particular clause the assent was given with a quickness and decision that, to the mind of the observers, was more striking than in the case of the others, but, in the end, the whole of the will was thus assented to. There was, of course, no signature.

Now, not to go too much into technical details in this brief and informal communication, I apprehend that the legal position of a testamentary document, when regularly executed and signed before witnesses, is that it proves itself, as it were, the *onus probandi* being entirely thrown upon the parties who, either on the ground of insanity or undue influence or any other reason, dispute the validity of the instrument. The point that has to be proved, in short, is that the document, being apparently the expression of the will of the testator, does not, in point of fact, carry out his real intention—in short, that it is not his will (morally speaking) at all. The peculiarity in the case of aphasia is not that there is any essential or unadvoidable incompetency on the part of an aphasic to dispose of his property, but that the dangers of misdirection in the expression of his intentions are so indefinitely multiplied as to form a more or less complete barrier to the framing of a legal instrument; for the aphasic may be (1) word deaf, (2) word blind, (3) incapable of utterance, either by speech or writing, or both; and he may have any or all of these defects in every possible degree, without necessarily being deprived of the faculty of forming and of maintaining a very clear and settled purpose, provided the intention can be discovered and attested by others without risk of error or deception.

But, over and above all this, there is, of course, a risk, at least, that the mental organisation may be involved, and that from facility, or fraudulent intention on the part of others, or from positive unsoundness of mind, the will of the testator may have been deranged so as to make it, in the eye of the law, invalid. And in an aphasic, if such facility or mental unsoundness is alleged, the difficulty of proving the negative is enormously increased in proportion to the physical hindrances in the way of free verbal communication. Hence it is almost impossible, I think, to lay down categorically or dogmatically the conditions under which a particular aphasic can, or cannot, make a bequest; and in giving my opinion to the legal advisers of both parties in the above case, I said that the whole question depended on minute and multiplied details of evidence, which could only be fully appreciated when the whole evidence was led in court. When the case (as a Court case) broke down, I had hoped by getting

access to the precognitions on both sides to work it into something like scientific shape, as a contribution to the natural history of aphasia, but this was not allowed, and I therefore think it right to place on record this very brief and imperfect notice.—I am, etc.,

St. James's Street, S.W., May 31st. W. T. GAIRDNER.

P.S.—Since writing as above, I have had the opportunity of submitting this letter in MS. to the other practitioner alluded to, whose name and residence are by mutual consent suppressed, in order not to bring the parties concerned into unnecessary notice, or perhaps controversy. The details which follow illustrate exceedingly well the slight divergences which may arise both as to facts and as to opinion in such a case, the sifting of which under cross-examination in a court of law would have been so extremely interesting, that although these apparent incongruities might easily have been explained away by a few slight alterations in my letter, I think it best to allow them to remain. Dr. ——— writes as follows: "I note that on the 6th, the day on which ——— was instructed, Mr. ———'s speech was thicker; on the 8th that it was almost impossible to make out anything he said, and on the morning of the 9th that he was absolutely aphasic, with complete right hemiplegia. Were your letter a joint one, I should have modified the statement of Mr. ———'s case *quoad* aphasia later on in the letter. My experience was that he was frequently (that is, when he had recovered a little after the second attack) able to utter sentences of six to eight or ten words, and my opinion is that they were no mere speech reflexes, but often reasoned opinions, and very tenaciously adhered to. However, from my recollection of your interviews with him, I quite agree that what you state is a quite warrantable deduction from your individual interviews." I may add, that I was fully sensible at the time that when I came to see him, he usually did not do himself justice, as it were; for the footing on which he wished me to come, as the result of a long and friendly intercourse for many years, was that of a friend as well as a medical adviser, and he was very prone to break down completely in his disappointment at not being able to get beyond the merest commonplaces, in which the conversation, as it were, was almost all on one side.—W. T. G.

## THE WAR OFFICE AND THE MEDICAL PROFESSION.

SIR,—It seems to me the time has now arrived for the medical profession to express its opinion in plain terms as to the attitude taken up the War Office regarding the reforms necessary to place the medical department of the army on an efficient and satisfactory footing.

Your columns have given full information on the various matters in dispute, so that I need not recapitulate them, and it will be sufficient to point out that in May, 1893, the deputation from the British Medical Association that waited on Mr. Campbell-Bannerman laid before him a statement in which ten points were embodied that were considered to require reform. Mr. Campbell-Bannerman rejected them one and all, and thus declared open war against the medical profession and its powerful organisation—the British Medical Association.

The result of this folly showed itself in such a dearth of candidates that in sheer terror of public opinion the War Office has granted nearly all the minor reforms asked for, not, indeed, in an open and straightforward way—that is, by means of a Royal Warrant—but in circulars and army orders, as if they were doing good by stealth and blushed to find it fame.

Without doubt many of the points granted are valuable, at all events from a sentimental point of view, but the chief pecuniary one, the increase of pay in India, is a mere farce and hardly worth acceptance—for example, surgeon-captains and surgeon-lieutenants of less than five years' service get Rs.350 instead of Rs.317, an increase of Rs.33 a month, not equivalent to £2, and barely the cost of keeping the pony necessary to perform a man's official duties. When it is remembered that a veterinary lieutenant draws Rs.400 for the charge of the horses of a regiment or battery, the medical profession must feel proud of the value placed on its services.

I need not go into this question further, but what I most particularly wish to emphasise is the fact that Mr. Brodrick, speaking in the House for the Secretary of State for War, refused to reopen the question regarding "rank, titles, and corps," and it is now the duty of the profession to unite as one man and prove to the War Office that no concessions short of forming the medical department and the Medical Staff Corps into a corps can ever be accepted as a settlement of this *vexata quæstio*.

When it is considered that three Parliamentary Commissions, namely, Sir Ralph Thompson's, Lord Morley's, and Lord Camperdown's, all recommended the formation of a medical corps, it seems incomprehensible how so sensible and fair-minded a man as Lord Lansdowne can allow himself to be held back by a small clique of military advisers.

What is absolutely necessary to the well-being of the Army Medical Service is: (1) The formation of the A.M.S. and M.S.C. into a Royal corps; (2) the granting of substantive army rank, with limited command; and (3) such a revision of titles as will make them usable, and clearly show the rank medical officers hold in Her Majesty's forces.

Let me conclude with a few facts. Comparing the Army Estimates for 1897-98 with the official *Army List* for May, it will be seen the Medical Department is 43 short, and adding to this 5 officers lent for plague duty in India, and 2 seconded for service at Mombasa, the present real working deficiency is 50 executive medical officers.

This deficiency means (1) the utmost difficulty in getting leave; (2) very much shorter home service (exchanges now cost £300 to £500, against £100 or £150 ten years ago); (3) no study leave as promised; (4) overwork for all with a loss to the soldier of much of the necessary professional care he should receive.

It is now for the medical profession to decide if it will accept the War Office terms, but let it remember that this is the time to be in the battle. Let candidates be forthcoming and necessary reforms will be postponed, but let the profession be true to itself and the day must be ours. The recommendation of three Parliamentary Commissions on the one hand, combined with the united strength of the profession, can surely defeat the petty jealousy of a small military clique headed by one who, though the brother of an "army doctor," endeavours in every way to throw dirt on a noble service. United we stand, divided we fall.—I am, etc.,

June 8th. MILES MEDICUS.

## THE OCCURRENCE OF MALTA FEVER IN INDIA.

SIR,—In view of the letters of Surgeon-Major Freyer and Brigade-Surgeon Macartney in the BRITISH MEDICAL JOURNAL of May 22nd and 29th in sequence to a note on the above by Professor Wright and Surgeon-Captain Smith in April 10th issue, in which, "based on sero-sedimentation effects on blood of invalids" with continued fever "from Sabathu, Nowshera, and Mean Meer, the conclusion" is drawn "that Maltese fever probably prevails, not only in the Mediterranean basin, but in India," and that it "must be very prevalent in Sabathu," I ask you, in view of the ascribed "importance of the subject," to give me a little space to briefly state my own experience derived from service in Malta and India (with two years at Dagshai), several years' practical work at Netley (mainly in the pathological department), and a special inquiry into enteric fever. And at once I may say that the conclusions arrived at by Surgeon-Major Freyer are markedly in accord with my own.

Broadly put, we can recognise in Malta the following continued forms of fever: (1) The simple uncomplicated type, very common in the hot months, and among new arrivals, lasting from a few days to three or more weeks, having a variety of causes, especially climatic, and rarely fatal; (2) the enteric type, in all ways following the same disease elsewhere, and regarded as having a special cause—the B. typhosus—developing special characteristic lesions in the agminated glands of the small intestine, often fatal, with seasonal prevalence in the last quarter of the year; (3) the fever in question, spoken of as "bilious" or "gastric remittent," with local designations as "Maltese," "Rock," a continued form marked often by relapses, not as a rule complicated during the active stage, but often having as sequelæ lesions rheumatoid in character affecting the fibrous tissues, long persistent but not generally fatal, prevalent during the hot weather, thought by some

to be associated in causation with heat and insanitation, but lately referred to a micro-organism—micrococcus melitensis. The first two, without doubt, exist also in India and elsewhere, but with reference to the last my own experience is adverse to the results arrived at in the Netley laboratory. However, if this "Maltese fever" be dependent on a micro-organism capable of transfer and subsequent development, there seems no reason why it may not have been introduced into India and be now present where formerly non-existent; yet this view is quite distinct from that apparently brought forward that some at least of the Indian enteric is wrongly diagnosed, being, in fact, "Maltese." It would be interesting to hear what some of the experienced men of the Indian Medical Staff now practising in that country have to say on this subject.

But hardly less important is the inference underlying these three communications—in the use of the term "atypical" as applied to the "temperature curves"—that in enteric fever there is a type form of fever range special to the disease and useful for purposes of differentiation. At the onset the difficulty is to understand what the so-called typical chart means, where it is to be found, and on what it is based. Does it represent the conclusions derived from a series of cases left to Nature, the bacillus evolving in the human organism free and uncontrolled? Is it what a mild case with aborted intestinal lesion will follow? Is it what the majority of hospital cases reveal, with all the variations in sequence to complications, treatment, etc.? And, whatever be the basis of construction, can we upon it identify enteric fever apart from all other continued forms? The observations of Wunderlich in a severe and prolonged case made morning and evening have been adduced as such, and the progressive rise during the first few days, the stationary interval, and the remittent-like vacillations at the decline, have been regarded as diagnostic; but in this insidious disease the rise is as a rule accomplished before the case comes under observation, and the ending is excluded in fatal cases, so that the intermediate period only is available, and this in the majority, far from being a period of uniformity, is one of marked irregularity, due to complications, treatment, and the individuality of the sufferer. When we consider that in this disease controlling of the body heat is an important element, and that by means of cold applicants and internal remedies we do often vary the temperature by some 2° or 3°, we do not thereby produce "atypical" cases, markedly diverging from a type case left to Nature, and so destroy the asserted means of differentiation?

Of one point I am convinced, and that is that to require as a proof of identity compliance of enteric fever cases in the tropics with any so-called "type chart" is fraught with as much disaster to true pathology as the old requirement in the Madras Presidency of cases conforming to book details in all particulars was to the accuracy of the resultant statistics. The temperature range in this disease in India is as variable as the general symptoms, especially if a malarial taint be existent, it conforms to no one type, and in many cases approximates other febrile states. If instead of taking a morning and evening observation only we record the results of every three hours, the extraordinary undulations which the body heat undergoes will be apparent—undulations which render it impossible to say when the daily acme or decline has been reached, and which contrast markedly day by day. A continued temperature may suggest enteric fever, but I submit something beyond any known form is necessary to determine it. This is the outcome of evidence of abdominal lesions superadded to the fact of febrile disturbance. Surgeon-Major Freyer notes that in recent cases at Dagshai "some one-third of them at least had temperature charts atypical"; and further observations will show on how fragile a basis the asserted type form rests.—I am, etc.,

FRANCIS H. WELCH, F.R.C.S.,
Lee, S.E., June 1st. Surgeon-Colonel (Retired) A.M.S.

## THE TREATMENT OF ENTERIC FEVER BY CARBOLIC ACID.

SIR,—In the BRITISH MEDICAL JOURNAL of May 29th, 1897, you publish a paper by Surgeon-Captain Thacker, A.M.S., on the treatment of enteric fever by carbolic acid. I beg you will give me space to briefly reply to certain points raised in that paper.

Surgeon-Captain Thacker mentions two serious symptoms (wild delirium and collapse), and one pathological appearance (acute congestion of the intestinal tract), which he has observed in some of his cases of enteric fever, and ascribes them to the administration of carbolic acid in the full doses recommended by me for serious cases of the fever.

I have careful records of 42 cases of enteric fever, all treated with carbolic acid in the full doses I recommend, and I can truly say that in none of those cases have I observed either wild delirium or collapse. But had those symptoms appeared it would never have occurred to me to at once connect them with the carbolic acid which was being given. I would have remembered that wild delirium and collapse are not uncommonly met with in severe cases of the fever in question when expectantly treated; and further, that the symptoms I have named are not, so far as I am aware, among those which are usually set down as accompanying chronic carbolic acid poisoning.

Next as to the pathological appearance (acute congestion of the intestinal tract) which is ascribed to the use of the acid as given by me. I would remind Surgeon-Captain Thacker that each dose of 3 minims of the acid is given in 2 ounces of water immediately after 6 ounces of liquid food. In other words, the strength of the acid solution in the stomach is 1 part in 1,280 parts of water and milk.

I would ask, Is it possible for a quantity of carbolic acid so attenuated to produce the acute intestinal congestion described?

In the 42 consecutive cases of enteric fever treated by me with carbolic acid, I had two deaths. Both those fatal cases took full doses of carbolic acid, one for fifteen consecutive days, the other for twenty-nine consecutive days. I carefully sought in the stomach and intestine for any evidence of subacute inflammation of the mucous membrane, but I failed to find a particle of such inflammation.

I would submit, then, that the acute intestinal injection found by Surgeon-Captain Thacker in one of his fever cases was due to some incidence of the fever process, and not to administration of attenuated doses of carbolic acid.—I am, etc.,

RICHARD H. QUILL, M.D.,
Chatham, June 2nd. Brigade-Surgeon-Lieutenant-Colonel A.M.S.

## THE DETECTION OF DUNCES.

SIR,—I am glad to see that Dr. F. Warner's paper on the relation of brain conditions to bodily development read recently at the Royal Medical and Chirurgical Society did not escape adverse criticism. Dr. Warner's scheme for the detection of dunces—to give it a short title—is so very elaborate and is bolstered up by such a formidable array of statistics that one runs serious risks of declaring oneself a dunce if one attempts to call any part of it in question. What strikes me as a specially weak feature of the scheme is the absence of a preliminary inquiry into the condition of the children's senses, especially those of hearing and sight. Everybody knows how apparently stupid and "nervous" a partially deaf child is to persons not acquainted with its physical defects; and the same is true of a child with faulty vision, timidity with its numerous "nervous" manifestations being specially conspicuous.

I have recently been engaged in examining the eyesight of the children in the elementary schools at Eastbourne for the Education Department on the lines of Mr. Brudenell Carter's recent report to the Department, and I have kept Dr. Warner's methods in mind throughout the examination, and I have been much struck by the greater prevalence of his nerve signs among children with defective sight than among those who possess normal vision. It is true that, within certain limits, there are correlated physical developments in the head and face with hypermetropia and myopia, but they do not indicate imperfect mental development, as such persons, with the use of spectacles, can hold their own in adult life with persons of normal vision. Now, according to Mr. Brudenell Carter's report, there are only 39.15 per cent. of children with normal vision in the London elementary schools, and consequently 60.85 per cent. of children with various degrees of defective vision; and it is obvious that

the two sets of children should not be examined under identical conditions, or, being so examined, the results could not be trustworthy.

Of the number of children with imperfect hearing in the London elementary schools it would be impossible to form an idea, but seeing how common are scarlet fever, diphtheria, scrofula, enlarged tonsils, and other throat affections which are neglected or overlooked, there must be a considerable number of partially deaf children with the correlative limited capacity for acquiring knowledge on common educational lines. Between defective sight and hearing probably half the children in the London schools are subnormal, not necessarily in mental incapacity for education, but in the means of developing it. Moreover, it is most desirable that Dr. Warner's observations should be extended to the country population. London children are peculiar in many respects, and their peculiar nervous developments will hardly be found in children living under more healthy conditions. Thus Mr. Carter reports the existence of 60.85 per cent. of faulty eyesight in London schools, while in the Eastbourne schools I find only 22 per cent. exists. One country school of 48 children only contained 2 cases of defective refraction of the eye, and they were a brother and a sister, with myopia of one diopter each. If other physical defects exist on the same scale, there will be little opportunity for the employment of Dr. Warner's methods for the detection of the dunces. If it were possible for schoolmasters to master and employ Dr. Warner's plan, I am inclined to think that they would do well to adhere to their own methods of submitting all the children to the usual educational discipline and weeding out those who fail to do justice to them. The intelligence of children is subject to the same law of variation as their physical proportions—for example, stature or weight. A large number are of the average, and a considerable number are above and a corresponding number below the average, and these variations must be determined by a common and simple measure, such as the ability to acquire the three R's. In truth Dr. Warner is driven to rely on the schoolmaster's experience in this respect in order to establish the connection between his nerve signs and the lack of intelligence in the children in whom he thinks they are associated. I have listened to Dr. Warner's lectures, and I have read his numerous reports as they have appeared, including the final one, and I fear I may not now thoroughly understand his scheme. It is certainly an interesting subject of scientific inquiry, but it will have to be cut down very much if it is to be of practical use to scientific educationalists and schoolmasters. I think there is much more promise of usefulness in the line of inquiry suggested by Dr. Clouston in his book on *The Neuroses of Development*, because he deals with groups of symptoms which we have learnt to look on as separate diseases, and not with a new set of nerve signs.—I am, etc.,

Eastbourne, May 27th. CHARLES ROBERTS.

## THE PATHOLOGY OF GENU VALGUM.

SIR,—In a memorandum in the BRITISH MEDICAL JOURNAL of May 29th, Mr. Charles A. Morton refers to curvature of the leg bones in genu valgum, which, he says, as far as he knows, has not been described before. I venture to think that this is a mistake. Such curvatures are well known to exist in rachitic in-knee, and will be found described in a monograph on the subject by W. J. Little and myself.[1] In 1852 A. Mayer, of Wurzburg, figured cases of rachitic in-knee in which the tibia was markedly curved. These figures are reproduced, one on page 22 of the book above mentioned, and another in the article, Orthopædic Surgery, in the third edition of Holmes's *System of Surgery*, vol. ii, p. 262. On examining the specimens of rachitic in-knee in the College of Surgeons and other museums some years ago, I was much struck by the fact that bowing of the femur inwards as described by Macewen was seldom obvious, but that nearly every specimen examined showed marked inward convexity of the upper thirds of tibia and fibula, the internal condyle and the joint having little concern in the deformity. Since then I have often observed the same fact clinically, and have more than once treated such cases by linear osteotomy of the leg bones.

It is curious that although Mayer described a case of non-rachitic genu valgum in which the internal condyle of the femur was disproportionately long, he treated the case by removal of a wedge from the tibia. This figure is reproduced on page 48 of our book. In those days before Lister, Mayer's results were more valuable to his museum than to his patients.—I am, etc.,

Seymour Street, W., May 30th. E. MUIRHEAD LITTLE.

[1] *In-knee* (Longmans', London, 1882.

## EXTIRPATION OF THE OVARIES AS A CURE FOR CANCER.

SIR,—I am desirous of calling the attention of those who are advocating the removal of the ovaries as a cure for cancer to the following remarkable facts:

In his work on *Ovarian Tumours* Spencer Wells gives a table showing the subsequent history of all those who recovered after completed ovariotomy. It was found that 117 had since died, the cause of death being unknown in 29. Of the remaining 88, no fewer than 32 had succumbed to cancer, that is to say, 1 in 2.75. During the same period the cancer mortality in the general population, among women of about the same age, was 1 in 15.

Thus the cancer mortality was nearly 5½ times greater for those whose ovaries had been extirpated than for those who had undergone no such operation.

Of these 32 cancer cases, in 19 the seat of the disease is not stated, in 3 it was peritoneal, in 3 uterine, in 2 in the pedicle, in 2 rectal, and in the lung, liver, and kidney each in 1 case.

The date after ovariotomy at which death from cancer supervened is stated in 29 cases; 10 died in the first year, 10 in the second, 4 in the third, and 5 at later periods.

In none of the foregoing cases was there any reason to suspect, at the time of ovariotomy, that malignant disease was then present.

In 6 of the 32 operations it is distinctly stated that both ovaries were removed.

Pfannenstiel, who has made a special study of cases of this kind, concludes that the cancerous disease arises from epithelial elements detached from the ovarian cystoma at the time of operation, which suddenly become grafted in a new position, and there take on such luxuriance of growth as to eventuate in cancer.

However this may be, it is evident that in these cases the removal of the ovaries, instead of checking the tendency to cancer, had quite the contrary result.—I am, etc.,

Preston, May 27th. W. ROGER WILLIAMS.

## A PROBABLE DIAGNOSTIC SIGN OF TRICUSPID STENOSIS.

SIR,—Dr. Mackenzie misrepresents me when he says "Dr. Samways's mind resents the supposition that blood can be driven back through the venæ cavæ by the auricular systole." What I do resent is his supposition that the liver pulse wave (*b*) described by him is necessarily so produced.

A wave may start at the auricle, run back towards the veins and liver, be auricular-systolic in time, and yet not auricular-systolic in origin.

If a long rubber tube be connected with a water tap, and water be allowed to slowly flow through it, and if the tube be pinched at a point remote from the tap, a positive wave is generated. The wave appears first near the obstacle, reaches there its maximum intensity, and travels back towards the tap—that is, in the direction opposed to that of flow.

Similarly, when the auricle and the venæ cavæ near it contract, and stop the oncoming blood column, a positive wave ought to start near the auricle and travel backwards on the veins, and in exceptional cases (as when the stoppage is prolonged and abrupt, as it probably is with the hypertrophied auricle of tricuspid stenosis) this might even be recognisable at the liver.

It is a pity to apply either the term stasis or inertia to this phenomenon, as neither of them adequately describes it.

When in exceptional cases, as in that cited by Dr. Mackenzie in his letter of May 29th, auricular-systolic regurgitation occurs, the oncoming blood is more actively arrested than normally, and even forced back. The venous rise of blood pressure is consequently rapid and marked, and the liver pulse wave is well developed.

Dr. Mackenzie cites several observers, and especially Riegel, as upholding the theory that the venous pulse is due to reflux from the auricle. This is exactly what Riegel does

not uphold. On the contrary, he maintains, as I do, that the positive venous pulse wave, which is auricular-systolic in time, is due to the temporary hindrance to the venous blood flow which the auricular systole introduces; thus he writes:[1] "We have seen above that in healthy people the outflow of blood from the jugular veins is rendered difficult by the auricular systole, that it will be facilitated by the heart systole (ventricular), hence the presystolic positive, systolic negative, normal vein pulse."

Valves at the junction of the great veins and auricle would be of little, if any, use for the purposes of the circulation, inasmuch as they would leak if the auricle and veins dilated. If dilatation do not occur, the sphincter action of the contracting veins is efficient. For preventing misconceptions, valves would be invaluable.—I am, etc.,

Crouch End, N., May 31st. D. W. SAMWAYS.

*** This correspondence must now close.

## EXPERIMENTS ON PATIENTS.

SIR,—Will you kindly afford me an opportunity of correcting an impression which some persons appear to have derived from the perusal of a letter written by Dr. Carne Ross, of Ancoats Hospital, on the value of cinnamon in the treatment of scarlet fever, which appeared in the BRITISH MEDICAL JOURNAL of May 1st? The suggestion would appear to have arisen in the minds of a body styling itself the Society for the Protection of Hospital Patients that the writer of this letter "obviously implies that Dr. Caiger has been experimenting on the patients of the Stockwell Fever Hospital—not for the benefit of the patients on whom the experiments were tried, but in order to oblige Dr. Carne Ross and his friend, the late Dr. John Syer Bristowe." In consequence of the aforesaid Society having addressed a communication to the Metropolitan Asylums Board to this effect, I have carefully re-read Dr. Carne Ross's letter, and must confess that I am unable to convince myself that he implied anything of the kind. The assumption, moreover, is at variance with the facts.

The reasons which led me to try the effect of cinnamon water in scarlet fever were threefold. First, because in my opinion Dr. Carne Ross had made out a very good case for expecting that it would prove beneficial; secondly, because in the event of the remedy proving to be without value, it was undoubtedly harmless; and, thirdly, because the treatment commended itself to the critical mind of the late Dr. Bristowe, whose scepticism as to the value of new methods of treatment was probably as well recognised as was the depth of his pathological knowledge. That I adopted the cinnamon treatment with the object of pleasing either Dr. Carne Ross, whom at that time I had not the pleasure of knowing, or Dr. Bristowe, is a purely gratuitous assumption; and, moreover, it is quite untrue.

It is only natural that Dr. Carne Ross should feel gratified at the diminished incidence of complications noted amongst the cases of scarlet fever treated with the remedy with which he is so closely identified; and I take this opportunity of acknowledging the courtesy which prompted him to express his obligation to me personally for having given the treatment a fair trial; and I can assure him that any expression of thanks on his part was quite unnecessary.

It is unfortunate that the word "experiment" should have been used, as, apart from its providing the unscrupulous agitator with an opportunity of achieving cheap notoriety by the wilful misrepresentation of the practice and aims of hospital officials, it is calculated to give rise to an erroneous impression amongst the laity, many of whom, though doubtless actuated by the best intentions, as in the case of the Society for the Protection of Hospital Patients, may quite fail to recognise the fact that the employment of a new remedy in an old disease, or an old remedy in a new patient, are just as much experiments as are those which may be undertaken to ascertain the range of a new gun, or the resistance which a particular substance may exhibit to the penetration of its projectile.

That the experimental method is even more essential to the advancement of medicine than it is in the case of the more exact sciences is too frequently overlooked. As a consequence of this oversight the administration of an innocent drug in the hope of its doing some good may assume the proportions of a crime against society. Logic and philanthropy, however, are not always to be found under the same hat.—I am, etc., F. FOORD CAIGER.

South-Western Fever Hospital, Stockwell, June 1st.

[1] Ueber die diagnostiche Bedeutung des Venenpulsus, Franz Riegel, *Sammlung klinischer Vorträge*, No. 62-92, p. 2071.

# OBITUARY.

THE death is recorded of Dr. WILLIAM WATSON CAMPBELL, of Westwood, Duns. The deceased, who was the representative of a family who for many years had enjoyed wide reputation as members of the medical profession, after passing through the art classes in Edinburgh University with a view to entering the Divinity Hall of the United Presbyterian Church, was induced to study medicine, and in 1862 he graduated as M.D. In 1866 he became a Licentiate of the Royal College of Physicians. In 1863 he returned to Duns to assist his father, and two years later, when his father died, he succeeded to his practice. Dr. Campbell, who was born at Yetholm in 1835, was in his 63rd year. He is survived by one son and two daughters.

THE announcement of the death of Dr. JAMES CRAN, Salford, at the age of 54, on June 4th, will be received with feelings of regret by many old friends. Dr. Cran was a native of Aberdeenshire, was educated at Aberdeen Grammar School and University, where he graduated M.A. in 1864. He commenced the study of medicine at Aberdeen, but completed the curriculum at Edinburgh University, and there took the degree of M.B. He was a favourite pupil of the late Dr. Matthews Duncan, of whom he always spoke with the greatest reverence and admiration. He commenced his career in Manchester as Resident Officer at the Ardwick and Ancoats Dispensary. Shortly afterwards he obtained an appointment in Salford, where he settled down in general practice. He rapidly attained success, and for many years conducted a very large and arduous practice. His skill was much appreciated, and was specially displayed in the department of midwifery. He is succeeded in his practice by his son.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. Mollien, formerly Professor of Clinical Medicine in the Medical School of Amiens; and Dr. Stefano Sciolla, of Genoa, whose name was well known from his researches in the effects of hypodermic injection of guaiacol in reducing temperature.

# NAVAL AND MILITARY MEDICAL SERVICES.

## THE NAVY.

FLEET-SURGEON WILLIAM H. STEWART, M.B., has been placed on the retired list, with the rank of Deputy-Inspector-General, May 31st. He was appointed Surgeon, February 20th, 1865; Staff-Surgeon, September 6th, 1877; and Fleet-Surgeon, March 25th, 1885.

Staff-Surgeon CHARLES F. NEWLAND is promoted to be Fleet-Surgeon, May 30th. His previous commissions bear date: Surgeon, September 30th, 1876; Staff-Surgeon, September 40th, 1888.

The following appointments have been made at the Admiralty: P. K. RIX, M.B., Surgeon, to the *Pembroke*, June 4th; ARTHUR R. H. SKEY, M.B., Surgeon, to the *Alexandra*, June 4th; ARTHUR W. B. LIVESAY, M.B., Surgeon, to the *Herald*, June 4th; JOHN MENARY, M.D., Surgeon, to the *Minerva*, for the manœuvres, June 15th; ERNEST C. LOMAS, M.B., Surgeon, to the *Warspite*, June 15th; ERNEST A. PENFOLD, M.B., Surgeon, to the *Collingwood*, June 15th; JOHN ANDREWS, M.D., Surgeon, to the *Benbow*, June 15th; FREDERICK W. PARKER, Surgeon, to the *Colossus*, June 15th; CHARLES J. E. COCK, Surgeon, to the *Galatea*, June 15th; GEORGE MCGREGOR, Surgeon, to the *Excellent*, June 8th.

## ARMY MEDICAL STAFF.

THE undermentioned Surgeon-Captains, having completed twelve years' full-pay service, are promoted to be Surgeon-Majors, dated May 30th: S. HICKSON, M.B., H. J. FLETCHER, M.B., E. DAVIS, S. POWELL, M.B., F. W. C. JONES, M.B., J. MEEK, M.D., A. E. MORRIS, M.D., A. O. FITZGERALD, F. D. ELDERTON, R. E. MOLESWORTH, J. W. F. LONG, C. L. JOSLING, J. F. BATESON, M.B., W. T. SWAN, M.B., R. L. R. MACLEOD, M.B., G. G. ADAMS, J. M. F. SHINE, M.D., W. B. DAY, M.B., D. R. HAMILTON, M.B., R. G. THOMPSON, M.D., C. T. BLACKWELL, R. I. POWER, C. R. KILKELLY, M.B., N. C. FERGUSON, M.B., S. R. WILLS, M. L. HEARN, R. H. HALL, M.D., J. H. GREENWAY, R. G. HANLEY, M.B., G. CREE, S. C. PHILSON, J. M. NICOLLS,

M.B., F. W. H. D. Harris. The war services of these officers are as follow, H. J. Fletcher, Miranzai expedition, 1891 (medal, with clasp); F. W. C. Jones, Burmese Expedition, 1886-9 (mentioned in despatches, medal, with two clasps); J. Meek, Sikkim expedition, 1888 (medal, with clasp); C. L. Josling, operations against the Sofas, West Coast of Africa, and expedition to the Gambia against Fodey Silah, 1893-4 (mentioned in despatches, medal, with clasp), and Ashanti expedition, 1895-6 (star); D. R. Hamilton, Burmese expedition, 1886-8 (medal, with two clasps); S. R. Wills, Hazara expedition, 1891 (medal, with clasp); S. C. Philson, Burmah, 1891-2 (medal, with clasp).

Quartermaster H. J. Scott is cashiered by sentence of a general court-martial, May 14th.

Sergeant-Major G. L. Allen, from the Medical Staff Corps, is appointed Quartermaster, with the honorary rank of Lieutenant, *vice* Hon. Lieut. H. J. Scott, June 9th.

The services of Surgeon-Captain W. P. Barter, who is serving in the Bengal Command, are placed at the disposal of the Government of the North-West Provinces and Oudh, for employment on plague duty.

The services of Surgeon-Captain F. M. Mangin, who is serving in the Punjab Command, are placed at the disposal of the Punjab Government for employment on plague duty from April 3rd.

Deputy-Inspector-General Ethelbert Henry Blake, M.D., died at Bedford on June 6th, aged 78. He entered the service as Assistant-Surgeon, November 16th, 1841; became Surgeon, January 7th, 1853; Surgeon-Major, November 16th, 1861; and Honorary Deputy-Inspector-General on retirement on half pay, June 8th, 1867. We learn from Hart's *Army List* that he served with the 98th Regiment in China (medal), and was present at the storming and capture of Ching-kiang Foo. He was also in the Crimean campaign of 1854-55, including the battles of the Alma and of Inkerman, the siege of Sevastopol, and the repulse of the sortie on October 26th, 1854 (medal and three clasps, and Turkish medal).

### ARMY MEDICAL RESERVE.

Surgeon-Captain R. T. C. Robertson, M.B., 2nd Volunteer Battalion the Cameronians (Scottish Rifles), is promoted to be Surgeon-Major, June 9th.

Surgeon-Captain H. F. H. Barham, having resigned his Volunteer appointment, ceases to be an officer of Army Medical Reserve, June 9th.

### THE VOLUNTEERS.

Surgeon-Lieutenants T. Hammond, 1st Lancashire Artillery, and R. Humphreys, M.B., 6th Lancashire Artillery, are promoted to be Surgeon-Captains, June 9th.

The following gentlemen are appointed Surgeon-Lieutenants in the corps mentioned, dated June 9th:—Frank B. Manning, 4th Volunteer Battalion the Devonshire Regiment; John L. Cuppaidge, M.D., 5th (the Hay Tor) Volunteer Battalion the Devonshire Regiment; William Roxburgh, M.B., 2nd Volunteer Battalion the Royal Scots Fusiliers.

Surgeon-Lieutenant L. G. Carré, M.D., 1st Surrey (South London) Rifles, has resigned his commission, June 9th.

Surgeon-Major W. A. E. Hay, 1st Volunteer Battalion the Dorsetshire Regiment, has resigned his commission, retaining his rank and uniform, June 9th.

Surgeon-Major W. Mortimer, 2nd Volunteer Battalion the Gordon Highlanders, is promoted to be Surgeon-Lieutenant-Colonel, June 9th.

Surgeon-Lieutenant J. Brown Robertson, M.B., 4th (Stirlingshire) Volunteer Battalion Princess Louise's Argyll and Sutherland Highlanders, has resigned his commission, June 9th.

### VOLUNTEER MEDICAL STAFF CORPS.

Messrs. William S. Sharpe and Frederic Harvey are appointed Surgeon-Lieutenants in the London Companies, June 9th.

Surgeon-Captain F. L. Stephenson, M.B., the Woolwich Company, is promoted to be Surgeon-Major, June 9th.

### INDIAN MEDICAL SERVICE.

The services of Surgeon-Lieutenant-Colonel J. S. Wilkins, Bombay Establishment, are placed at the disposal of the Government of Bombay for employment on plague duty, from April 27th.

The services of Surgeon-Captain W. W. White, M.D., Bengal Establishment, are placed at the disposal of the Government of the North-West Provinces and Oude, for employment on famine duty.

### PRINCIPAL MEDICAL OFFICER IN INDIA.

The office of the Principal Medical Officer of Her Majesty's forces in India has been moved into the new buildings added on to the Army Headquarter Block, the offices vacated in the Government of India buildings being taken over by the Commissariat. There is great pressure from want of room in the Headquarter buildings at Simla.

# MEDICO-PARLIAMENTARY.

## *HOUSE OF LORDS.*

### Factory and Workshop Dangerous Trades (Anthrax) Committee.

A report has been presented to both Houses, as received by the Home Secretary from the Departmental Committee appointed to inquire into the conditions of work in wool-sorting and other kindred trades.

### New Acts.

The following amongst other Acts have received the royal assent: The Paisley Waterworks Provisional Order; the Clackmannan (Alloa and Tillicoultry) Water Supply Provisional Order; the Torquay Corporation Water; the Crichton Royal Institution; the Dumfries and Maxwelltown Water; the Richmond District Lunatic Asylum; the Devonport Water, and the Chichester Corporation Water.

## *HOUSE OF COMMONS.*

### The Vaccination Laws.

Mr. Carlile obtained leave to introduce a Bill to amend the Vaccination Laws by providing a compulsory supply of calf lymph under Government control, and for other purposes. The measure, which is backed by Sir Cameron Gull, Mr. Bemrose, Mr. Howell, and Mr. Wanklyn, was subsequently brought in and read a first time.

### Yorkshire Coroners.

Mr. John Hutton (supported by Commander Bethell, Mr. Briggs, Mr. Pickard, and Mr. Wilson-Todd) has brought in a Bill to constitute the Ridings of Yorkshire separate counties for all the purposes of the Coroners' Acts.

### Experiments on Living Animals.

A return was presented on June 1st relative to experiments on living animals. It was ordered to be printed, and was circulated on June 5th. The return relates to England and Scotland, and deals with the number of these experiments which took place last year. According to this document the number of persons who held licences was 236, of whom 70 made no experiments. The names of all licensed places are given in a table, and tabular evidence is afforded establishing these points: (1) That licences and certificates have been granted only on the recommendation of persons of high scientific standing; (2) that the licensees are persons who, by their training and education, are fitted to undertake experimental work, and to profit by it; and (3) that all experimental work has been conducted in suitable places. There is also a table showing the number and nature of the experiments performed, and specifying whether these were done under licence alone or under any special certificate, so that the public may judge which experiments, if any, were of a painful nature. From previous reports it has appeared that the only experiments performed without anæsthetics are of the nature of inoculations or hypodermic injections. These, says the Medical Inspector for the Home Office (Dr. G. V. Poore), are now, in order to lessen any chance of misapprehension, placed in a class by themselves. According to the report, the process of inoculation is inadequately provided for in the Act of Parliament: "It would be cruel, rather than otherwise, to anæsthetise an animal before subjecting it to the trivial operation of a prick with a needle, and yet the wording of the Act is such that the administration of anæsthetics can, in no case, be dispensed with except by a certificate (A) stating that 'insensibility cannot be produced without necessarily frustrating the objects' of such experiments. Notwithstanding that the wording of Certificate A is not wholly applicable to the circumstances, it is nevertheless allowed for inoculations." The large increase of inoculations and allied experiments, which has been noticeable for the last few years, is, says the report, likely to continue. The discovery of antitoxins has necessitated a large number of inoculation experiments, as these remedies cannot safely and effectually be used upon human beings without being previously tested on rodents. In one class (Table A) the total number of experiments was 1,516, and in the other (Table B) 5,984. Nearly all the latter were inoculations (made, under anæsthetics, upon rodents) with the object of diagnosing rabies. The licensees have been loyal to the spirit of the Act, and there were only two cases in which the letter of the law was doubtfully complied with, and these are quoted as showing the difficulties of interpreting the Act in relation to inoculation: "The first case was that of a licensee who holds a Certificate A (dispensing with anæsthetics) for the inoculation of guinea-pigs with tuberculous matter. In his annual return he reported four inoculations (as performed under A) for which an anæsthetic was administered. It was necessary to take notice of this, because Certificate A is never allowed except for proceedings so slight as to cause no appreciable pain. This gentleman has explained to me that anæsthetics were used because it was necessary to ensure perfect tranquillity while a minute incision was made in the skin, but that after the recovery from the anæsthetic the animals never afforded any evidence of discomfort. This being the case, it is possible that the experiment might have been performed under the licence alone, but it clearly could not be allowed under Certificate A, as used in relation to inoculations. The second case was that of a gentleman who holds a licence only, and who returned four experiments, which consisted in the attempt (which failed) to give ringworm to four mice by applying the fungus, which is the cause of the disease, to the back of the animals by a few bloodless scratches without anæsthetics. It would be cruel, rather than otherwise, to administer an anæsthetic for such a proceeding. No experiment under the licence alone, however, can be performed without an anæsthetic, and the licensee held no certificate enabling him to dispense with anæsthetics. It might possibly be contended that such a proceeding is not 'an experiment calculated to give pain' within the meaning of the Act. This, however, is a question which has to be decided by the licensee and those who sign his application for a licence." The report adds that the usual inspection of licensed places was made during the year by Sir James Russell and Dr. Poore.

### The Poor Law Officers' Superannuation Act (1896) Amendment Bill.

This Bill was considered in Committee, reported without amendment, and read a third time and passed.

### The Victoria Eye and Ear Hospital (Dublin) Bill.

This Bill, which emanates from the Lords, has been reported to the Commons, with amendments.

### Public Health (Scotland) Bill.

This Bill has been reported with amendments from the Standing Committee on Law, etc. It will be taken into consideration, according to present arrangements, on the day the House reassembles after the Whitsuntide recess.

### Bills Deferred.

The second reading of the District Councils (Water Supply Facilities) Bill, the second reading of the Metropolitan Company's Bill, the resumption of the Committee stage of the Dangerous Performances Bill, the second reading of the Infant Life Protection Bill, and the third reading

of the Verminous Persons Bill have been deferred to June 17th; the second reading of the Rivers Pollution Prevention Bill has been deferred until June 18th; the second reading of the Steam Engines and Boilers (Persons in Charge) Bill to June 23rd; the second reading of the Prisoners' Personal Correction Prohibition Bill and of the Sale of Food and Drugs Bill to June 24th; and the second reading of the Midwives Registration Bill, of the Street Noises Bill, and of the Public Health Acts Amendment Bill have been deferred to June 30th.

# UNIVERSITIES AND COLLEGES.

## UNIVERSITY OF CAMBRIDGE.

MEDICAL EXAMINERS.—Dr. L. Humphry, Dr. W. A. Foxwell, Dr. Sidney Martin, and Dr. Mitchell Bruce have been appointed Examiners in Medicine; Dr. J. Phillips and Dr. Cullingworth, Examiners in Midwifery; Mr. Bernard Pitts, Mr. W. H. Bennett, Mr. Watson Cheyne, and Mr. Golding-Bird, Examiners in Surgery for the ensuing academical year.

ANATOMICAL DEPARTMENT.—Professor Macalister announces a course in human osteology during the long vacation.

EXPEDITION TO TORRES STRAITS.—Dr. A. C. Haddon has received a grant of £300 from the Worts Fund towards the expenses of an expedition under his direction to Torres Straits for the purpose of anthropological research. Two or three medical graduates are likely to accompany him, and the results of their observations will hereafter be published to the University.

PATHOLOGY AND BACTERIOLOGY.—The deputy for the Professor of Pathology (Dr. Kanthack) gives notice that the following courses will be held during the long vacation: (1) A course in Bacteriology, to be given by Dr. Kanthack, commencing July 8th; fee, £4 4s. Special instruction will be given to candidates for diplomas in public health. (2) A practical course of general Morbid Anatomy and Histology, to be given by Dr. Kanthack and Dr. Lazarus-Barlow, commencing on July 7th; fee, £2 2s. (3) A practical course of general Morbid Anatomy and Histology for beginners, to be given by the same, commencing July 8th; fee, £2 2s. (4) A course of lectures in Pathology, to be given by Dr. Kanthack, and adapted to the requirements of those attending either (2) or (3), beginning July 7th; fee, £1 1s. The names of those wishing to attend should be sent as early as possible to Dr. Kanthack, New Museums, Cambridge.

## ROYAL COLLEGE OF PHYSICIANS IN IRELAND.

On June 4th the Fellows of the Royal College of Physicians in Ireland elected Dr. James Craig as Registrar of the College, in the place of the late Dr. Guy Nugent. Dr. Craig is one of the Physicians to the Meath Hospital and is Honorary Secretary of the Dublin Branch of the British Medical Association.

# MEDICO-LEGAL.

## GOODWILL OF PRACTICE.

L. M. inquires whether in the case of a medical man becoming insolvent his practice, originally bought, could be viewed as an asset and sold without his consent.

*** We think there is no doubt that a trustee in bankruptcy could sell the goodwill, but we doubt whether a purchaser from such trustee could restrain the bankrupt from *bonâ fide* beginning a new practice in the same neighbourhood. We assume, of course, that restraint from future practice in the neighbourhood with a view of enhancing the value of the goodwill was not made a condition of the debtor's discharge.

## MEDICAL TITLES.

A CORRESPONDENT inquires if a Licentiate of the Society of Apothecaries, London, having no other qualification is entitled by law to put up a plate on his door with his name on it, "Dr. ——, Physician and Surgeon, etc." Also if such a practitioner is entitled to put up any letters but "L.S.A.Lond." after his name on death certificates.

*** In reply to our correspondent's question, if the licentiate referred to acquired his diploma since the passing of the Medical Act, 1886, he is entitled to practise medicine, surgery, and midwifery, and, in fact, possesses the same qualifications as a Licentiate of the Conjoint Board of the Royal Colleges of Physicians and Surgeons. He must not of course, use any letter after his name on death certificates which imply that he holds a University degree.

# MEDICAL NEWS.

THE annual *conversazione* of the Royal Society will be held on Wednesday next, June 16th.

A DONATION of £1,000 has been given anonymously by Mrs. M. to St. Thomas's Hospital for the purpose of endowing a bed.

MR. J. C. WORDIE, Oriental Club, London, has through Dr. Hunter Mackenzie given a second donation of £100 to the Eye, Ear, and Throat Infirmary, Edinburgh.

AT the annual meeting of the American Academy of Arts and Sciences Dr. William Osler and Dr. William H. Welsh were elected Associate Fellows in the Section of Medicine and Surgery.

THE annual meeting of the Association of Registered Medical Women was held in the library of the Association (New Hospital for Women), on June 1st at 8 P.M. There were present Mrs. Garrett Anderson, M.D., retiring President, in the chair, and twenty-four members. The proceedings were of a business character. The Managing Committee and Subcommittees for the ensuing year were elected, and the constitution of the Association was reconsidered. Miss Cock M.D., was elected President for the year in succession to Mrs. Garrett Anderson, M.D., and Mrs. Stanley Boyd, M.D., was elected Vice President.

## MEDICAL VACANCIES.

The following vacancies are announced:

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL.—House-Surgeon. Appointment for six months. Honorarium given at conclusion of appointment. Applications to the Honorary Secretary of the Medical Committee by June 17th.

BRIDGWATER INFIRMARY.—House-Surgeon. Salary, £80 per annum, with board and residence. Applications to Mr. John Coombs, Honorary Secretary, Bridgwater Infirmary, Bridgwater, by June 25th.

BUCKINGHAMSHIRE GENERAL INFIRMARY, Aylesbury.—Resident Surgeon and Apothecary, doubly qualified. Salary, £80 for the first year, with an advance of £10 per annum up to £100, with board and lodging, washing, coals and candles, in furnished apartments. Applications to Mr. George Fell, Solicitor, Aylesbury, by July 5th.

CONSUMPTIVE HOSPITAL AND ORPHAN HOMES OF SCOTLAND, Bridge of Weir.—Resident Medical Officer; hospital experience and knowledge of bacteriology required. Salary, £80 per annum, with furnished apartments, board, etc. Applications to the Secretary, D. Hill Jack, 194, St. Vincent Street, Glasgow, by July 1st.

CORPORATION OF MANCHESTER: MONSALL FEVER HOSPITAL.—First and Second Medical Assistants; fully qualified. Salary, £150 and £100 per annum respectively with board and lodging. Applications, endorsed "Appointment of First or Second Medical Assistants," to be sent to the Chairman of the Sanitary Committee, Public Health Office, Town Hall, Manchester, by June 18th.

DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester Square.—Demonstrator. Honorarium, £50 per annum. Also Medical Tutor. Salary, £40 per annum. Applications to Morton Smale, Dean, by June 21st.

DERBYSHIRE ROYAL INFIRMARY, Derby.—Assistant House-Surgeon. Appointment for six months. Honorarium of £10 will be given after satisfactory service, and board, residence, and washing provided. Applications to Walter G. Carnt, Secretary, by June 19th.

EAST GRINSTEAD ISOLATION HOSPITALS.—Medical Officer. Applications endorsed "Medical Appointment" to E. P. Whitley Hughes, Clerk to the Urban District Council, East Grinstead, by June 30th.

FISHERTON ASYLUM.—*Locum Tenens* for about six weeks from first week in July, fully qualified, and about 30 years of age. Salary, £3 3s. per week, with board, lodging, and washing. Applications to Dr. Finch, The Asylum, Salisbury.

GENERAL HOSPITAL, Birmingham.—Two Assistant House-Physicians. Appointment for six months. No salary, but residence, board, and washing provided. Applications to Howard J. Collins, House Governor, by June 26th.

GENERAL HOSPITAL, Nottingham.—Assistant House-Physician. Appointment for six months. Board, lodging, and washing provided. Honorarium of £10 10s. on completion of six months' satisfactory service. Applications to the Secretary by June 26th.

GNOSALL DISTRICT COUNCIL.—Medical Officer of Health. Salary at the rate of £25 per annum. Applications endorsed "Medical Officer" to H. G. U. Elliott, Clerk to the Council, Newport, Salop, by June 18th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Applications to the Secretary by June 30th.

LONDON LOCK HOSPITAL, 91, Dean Street, W.—Surgeon and Anæsthetist to Out-patients; must be respectively either M.R.C.P. or F.R.C.S.Eng. Applications to the Secretary at Harrow Road by June 26th.

MERCER'S HOSPITAL, Dublin.—Vacancies on the Surgical and Medical Staff. Applications to the Registrar at the Hospital by June 18th.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART, Soho Square, W.—Resident Medical Officer, doubly qualified. Board, residence, laundry, and honorarium of £10 10s, for the six months. Assistant Physician, must be M.R.C.P. Lond. Applications to the Secretary.

NATIONAL SANATORIUM FOR CONSUMPTION AND DISEASES OF THE CHEST, Bournemouth.—Resident Medical Officer; must have a knowledge of bacteriological work. Salary, £80 per annum, with board, lodging, and washing. Applications to the Secretary by July 15th.

NOBLE'S ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY, Douglas, Isle of Man.—Resident House-Surgeon; unmarried; doubly qualified. Salary, £90 per annum, with apartments, gas, coals, and washing. The House-Surgeon is usually appointed by the Committee of the House of Industry as Medical Attendant to that institution at a salary of £10 a year. Applications to F. B. Fleming, Honorary Secretary, 25, Athol Street, Douglas, Isle of Man, by June 21st.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—Surgeon; must be F.R.C.S.Eng. Also House-Physician, doubly qualified, for six months, at expiration of which period will be eligible to serve as House-Surgeon for a similar period; salary as former at the rate of £60 per annum, as the latter (senior post) at the rate of £80 per annum; also Junior House-Physician for six months, doubly qualified. No salary, board, lodging, and washing provided. Applications to T. Glenton-Kerr, Secretary, 25, Clement's Lane, E.C., for the former post by June 15th, and for the latter by June 16th.

PARISH COUNCIL OF DELTING, Shetland.—Medical Officer. Salary, £60 per annum. Applications to Mr. Robert Robertson, Inspector of Poor of Delting, Vae, Shetland, by June 15th.

PWLLHELI UNION.—Medical Officer and Public Vaccinator for the District of Aberdaron. Must reside in a central position in the district. Salary, £50 per annum and usual extra medical and other fees. Applications to R. Owen Jones, Clerk to the Guardians, by June 15th.

QUEEN'S HOSPITAL, Birmingham.—Honorary Physician. Applications to the Secretary of the Hospital by June 23rd.

ROYAL FREE HOSPITAL. Gray's Inn Road, W.C.—House-Physician, doubly qualified. Appointment for six months. No salary, but board, etc., provided. Applications to the Secretary by June 28th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—House-Physician. Appointment for six months. Salary at the rate of £40 per annum, with board, lodging, and washing. Applications to the Secretary by June 22nd.

ROYAL VICTORIA HOSPITAL, Bournemouth.—Ophthalmic Surgeon; must be F.R.C.S., or take the Fellowship within a year. Applications to the Chairman by June 15th.

SHEFFIELD ROYAL HOSPITAL.—Junior Assistant House-Surgeon, unmarried. Salary, 60 guineas per annum, with board (exclusive of wine and beer) and lodging. Applications to Dr. Sinclair White, Secretary to the Honorary Medical Staff by June 17th.

STAFFORDSHIRE COUNTY ASYLUM, Stafford. Medical Officer to act as *Locum Tenens*, unmarried. Applications to the Medical Superintendent.

TOTTENHAM HOSPITAL, The Green, South Tottenham.—Resident Junior House-Surgeon; doubly qualified. Salary, £40 per annum, with residence, board, and washing. Applications to Colonel E. S. Skinner, Director, by June 15th.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's Road, Chelsea, S.W.—House Surgeon, doubly qualified. Appointments for twelve months. Honorarium, £50, with board and lodging. Applications to the Secretary by June 12th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointments for six months. Board and lodging provided. Applications to R. J. Gilbert, Secretary-Superintendent, by June 23rd.

## MEDICAL APPOINTMENTS.

BROWN, Herbert, M.D.Lond., appointed Medical Officer to the Ipswich and East Suffolk Hospital, *vice* — Hetherington, M.D.Durh., resigned.

CRANSTOUN, C. B., M.B.Durh., appointed Medical Officer of Health for the Borough of Ludlow, *vice* Dr. Thursfield.

ELLIS, H. D'Arcy, L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer of Health to the Kingswinford Rural District Council.

FRY, Dr. W., appointed Medical Officer for the East Peckham District of the Malling Union.

GITTINGS, C. B., M.B.Lond., appointed Resident Medical Officer to the St. Marylebone General Dispensary.

HARRISON, John Wm., M.B., C.M.Aberd., reappointed Medical Officer of Health to the Sandwich Town Council.

HAWTHORNE, Ernest S., L.R.C.P.&L.M., L.R.C.S.&L.M.I., appointed Surgeon to the Etheridge District Hospital, Georgetown, Queensland.

HENRY, J., M.D.R.U.I., M.Ch., appointed Medical Officer for the Monoghan Dispensary District, *vice* G. W. Dunwoody, B.A.Dub., M.B., resigned.

HIGGINS, Dr., appointed Medical Officer for the Dungiven Dispensary District, *vice* C. W. Allison, M.A., M.D.R.U.I., deceased.

HIRSCH, Charles T. W., M.R.C.S.Eng., L.R.C.P.Lond., L.S.A., appointed Divisional Surgeon to the police of R Division stationed at Woolwich, and to police of Woolwich Division stationed at the Royal Arsenal Railway Plant Depôt and Woolwich Dockyard.

HUSBAND, J. C. R., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Workhouse and to the No. 2 District of the Ripon Union, *vice* C. Husband, M.R.C.S.Eng., L.S.A., resigned.

LEGGE, Sydney C., M.R.C.S., L.R.C.P., reappointed Clinical Assistant to the Birmingham and Midland Hospital for Skin and Urinary Diseases.

MACLENNAN, Alex., M.B., C.M.Glasg., L.M.Rotunda Hospital Dub., appointed Resident Medical Officer to the Hospital for Women, Soho Square, W.

M'DONNELL, Joseph, L.R.C.P.I., L.R.C.S.Edin., appointed Medical Officer for the Roscommon Dispensary District, *vice* Joseph Heily, M.D. Glasg., deceased.

O'SULLIVAN, P. T., M.B., B.Ch., R.U.I., appointed Physician to the South Charitable Infirmary and County Hospital, Cork, *vice* E. R. Townsend, M.D.Dub., deceased.

PICKFORD, J. S., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health to the Little Lever Urban District Council, *vice* A. Taylor, F.R.C.S.Edin., deceased.

RANKIN, John S., M.B., C.M.Glasg., appointed Medical Officer for the Central District of the Govan Parish Council, *vice* John Larrie, M.D., deceased.

ROBERTSON, John, M.D.Edin., appointed Medical Officer of Health for Sheffield, *vice* H. H. Littlejohn, M.A., M.B.Edin., resigned.

STEWART, Dr. Charles, appointed Medical Officer for the Parish of Kilmaurs.

SYLVESTER, Herbert M., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer of Health to the Leiston-cum-Sizewell Urban District Council.

THORNE, May, L.S.A.Lond., M.D.Brux., appointed Senior Resident House-Surgeon to the New Hospital for Women, *vice* Miss Keith, L.R.C.P.&S.Edin.

## DIARY FOR NEXT WEEK.

### MONDAY.

LONDON POST-GRADUATE COURSE, London Throat Hospital, 204, Great Portland Street, W., 8 P.M.—Dr. George Stoker: Impaired Movements of the Vocal Cords.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 40, Leicester Square, W.C., 8 P.M.—Annual meeting and election of officers. Dr. J. E. Grevers (Amsterdam): Notes on Various Forms of the Articulation of the Upper and Lower Teeth, illustrated by lantern slides.

### TUESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 4.30 P.M.—Dr. Payne: Pemphigus and Allied Affections.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Dr. Gowers: Clinical Demonstration.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Examination Hall, Savoy, W.C., 5 P.M.—Dr. W. Hale White: The Means by which the Temperature of the Body is maintained in Health and Disease (Croonian Lecture I.)

### WEDNESDAY.

LONDON POST-GRADUATE COURSE, Parkes Museum, 74A, Margaret Street, W., 4.30 P.M.—Professor Wynter Blyth: Infectious Diseases, Incubation Periods, etc.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W., 4 P.M.—Mr. Godlee: Surgical Lecture.

THE CLINICAL MUSEUM, 211, Great Portland Street, 4 P.M.—Demonstration by Mr. Jonathan Hutchinson.

NORTH-WEST LONDON CLINICAL SOCIETY, North-West London Hospital, 8.30 P.M.—Demonstration of Clinical Cases.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M. Dr. A. Whitfield: Differential Diagnosis of Sore Throats.

### THURSDAY.

LONDON POST-GRADUATE COURSE, Cleveland Street Sick Asylum, 5.30 P.M. Mr. James Cantlie: Sprue Tropical Sore Throat and Diarrhœa.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Examination Hall, Savoy, W.C., 5 P.M.—Dr. W. Hale White: The Means by which the Temperature of the Body is Maintained in Health and Disease (Croonian Lecture II).

ROYAL METEOROLOGICAL SOCIETY, Rooms of the Royal Astronomical Society, Burlington House, Piccadilly, W., 4.30 P.M.

### FRIDAY.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, W.C., 3 to 5 P.M.—Professor Crookshank: Erysipelas and Suppuration, etc.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Dr. Ormerod: Hemiplegia.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s 6d., which sum should be forwarded in post-office order and stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.*

### BIRTHS.

AIRD.—On May 20th, at Thorn Band, Wallington, Surrey, the wife of T. W. Aird, of a son.

BROCK.—On June 5th, at Via Veneto, B. Rome, the wife of G. Sandison Brock, M.D., of a son. (South African papers please copy.)

FEATHERSTONE.—At Ballandalloch, Blackheath, on Sunday, June 6th, the wife of J. A. Featherstone, M.B., C.M., Warrender Park Road, Edinburgh, of a son.

MCELLIGOTT.—June 1st, 1897, at Belper, Derbyshire, the wife of Maurice Gerald McElligott, L.R.C.P.I., L.R.C.S.I., etc., of a son.

POLLARD.—On May 29th, at 8, Higher Terrace, Torquay, the wife of Reginald Pollard, M.B., M.R.C.S., of a son.

### MARRIAGES.

HALL—CLARK.—On June 3rd, at Quex Road Unitarian Church, by the Rev. J. E. Stronge, William Winslow Hall, M.D., M.R.C.S., to Marian Taylor Clark.

NEWNHAM—BELOE.—On June 9th, at St. Mary Redcliffe, Bristol, by the Rev. Canon Cornish, Vicar, assisted by the Rev. R. O. Hutchinson and the Rev. G. R. Wood, W. H. C. Newnham, M.A., M.D.Cantab., of Chandos Villa, Clifton, to Kathleen Mervyn, second daughter of W. C. Beloe, of 21, Conyngе Road, Clifton, Bristol.

### DEATH.

DUDLEY.—On March 27th, at Headlands, near Umtali, South Africa, of malarial fever, Frederick Cousett Dudley, aged 23, the dearly-loved younger son of J. Gardner Dudley, M.A., M.D.Cantab., of The Ferns, Fairfield, Farnham, Surrey.

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances*—Daily, 2. *Operations.*—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR.—*Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—Daily.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30 Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations.*—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations.*—M. F. S., 12.

LONDON. *Attendances.*—Medical daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operations.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations*—M. Th., 4.30.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations*—F., 9.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations.*—W., 1.30; S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30 *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 3; Dental, Th., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 1. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th. 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations.*—M. Tu. Th. F. S., 1.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males S., 3; females; W., 9.45. *Operations.*—M., 2; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Tu., 3; Orthopædic, W., 10; Throat, Tu. F., 3.0; Skin, M. Th., 9.30; Electro-therapeutics, M. Th., 2.30; Dental, W. S., 9.30; Children's Medical, Tu. F., 9.15; Children's Surgical, S., 9.15. *Operations.*—M., 2.30.; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Th., 2.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Tu., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9 Dental, W., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations.*—Tu. F., 2.30.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1; Obstetric, Tu., F., 1; Eye, Tu. F., 9.30; Ear, M. Th., 9.30; Skin, W., 1; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

# LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

### QUERIES.

H. J. asks if there is any book published epitomising the Contagious Diseases Acts. He has read the various Parliamentary Blue Books.

IMMEDIATE would be glad to know of a really successful method of treatment for hay fever.

McG. asks what steps or precautions it is necessary to observe in order to inject cocaine successfully into the gums for the purpose of extracting teeth.

W. L. wishes to hear of a home for a boy of 10 who has been cured of epilepsy at a hospital, but would probably relapse if he again lived with his parents.

E. J. M. would be glad to know if Koch's tuberculin has been successfully used in the treatment of lupus erythematosus, and, if so, in what doses?

W. R. E. is anxious to know whether any member can tell him of anything really efficacious for the itching of chronic jaundice from occlusion of the bile duct.

F.R.C.S.Eng. writes: A woman, aged 47, has marked growth of strong, dark hairs both on chin and upper lip. Will some practical worker with *x*-rays kindly say if the process can safely be used to destroy these unwelcome adjuncts, the probable time of exposure needed, and the best mode of shading the eyes?

DR. PERCY NEWELL (Crowborough, Sussex) writes: Can any of your readers inform me through the BRITISH MEDICAL JOURNAL of a good form of weighing machine for the consulting room, small size and reasonable price; also where a description of the Black Forest treatment of consumption can be found.

TYRO writes: A young man complains of constant dull pain over the region of the left kidney, with spasmodic contractions in that spot "drawing him down to the ground," and the pain shooting down into thigh. Would these be symptoms of floating kidney, or what treatment would be best for this seemingly neuralgic condition? He is in every other way perfectly healthy.

DR. ALBERT ROSENAU (Kissingen) writes: Can any one of your readers inform we whether there is any chance of a child 15 years old regaining the sense of hearing? She was born deaf and dumb, but seems fairly intelligent, and does not present any specific symptom (Hutchinson's trias). Her father contracted syphilis before marriage, and married his own cousin, so that there is consanguinity. Is there any chance of gaining hearing power by a strong specific treatment?

W. H. has been consulted as to a severe case of epilepsy in a young girl, aged 15. The attacks followed an injury. Treatment seems useless, and she is rapidly becoming demented and utterly unmanageable. "W. H." wishes to know if there is any asylum or place where such a case would be received and cared for.

*** Application might be made to the National Hospital for the Paralysed and Epileptic, Queen Square, W.C.; but if she be so excited as to be certifiable an asylum is the only place.

#### HÆMORRHAGE FROM THE URETHRA.

H. G. D. asks for assistance in the diagnosis of the following case: Last Easter a very healthy boy, aged 4 years, was noticed to have blood (what looked equal to about a teaspoonful) on that part of his clothing which was against the penis. No history of injury; no wound apparent. The day before the bleeding he complained of pricking in the part. There has been no recurrence, and his health is perfect.

#### REGISTRARS AND CORONERS.

T. D. C. writes: The registrar of births and deaths tells me that he has to report to the coroner every case where death has occurred after an operation performed under an anæsthetic. Is this the law?

*** As all responsibility for the exercise of their discretion as to the necessity or desirability of holding an inquest in any case is vested with coroners, registrars of births and deaths are required by their instructions to report to the local coroner previously to the registration of the death, every case the circumstances relating to which suggest the possibility that the coroner would consider it necessary to hold an inquest. A registrar by his instructions would, we are informed, certainly be required to report to the coroner the case of any death which appeared to be directly or indirectly due to the administration of an anæsthetic.

#### CHILDREN CYCLING.

DR. EDWARD A. OPIE (Nailsea, Somerset) writes: Questions frequently asked by parents of medical men are, "How old should my little boy, or girl, be before commencing to cycle?" "When they commence, how fast should they ride, and for how long?" etc. An apparently rather widespread idea among mothers is that their daughters, if they commence cycling too early, will have more difficult confinements if they live to have children. The exercise of cycling is so different from that of other outdoor sports and games of children, involving, as most of the latter do, incessant change of position and the use of all the muscles, that the above parental questions are not very easily answered off-hand. One feels rather a heavy responsibility in saying that a juvenile of either sex who has been bothering his parents to buy him or her a bicycle can have the wish gratified. It is in the hope of eliciting some authoritative opinions on the subject of children cycling that I am troubling you with this communication.

### A QUESTION OF INTERPRETATION.

URBAN asks if one medical man can be a councillor in an urban district, and his partner the medical officer of health.

*** The 46th section of the Local Government Act, 1894, enacts that "a person shall be disqualified for being elected or being a member or chairman of a council of a parish or of a district other than a borough .....if he.....is concerned in any bargain or contract entered into with the council.....or participates in the profit of any such bargain or contract, or of any work done under the authority of the council....." There are certain exceptions in the following subsection, but none of them covers the case put by "Urban."

## ANSWERS.

G.C.H.—We are not aware of any provision for recovery of the fees referred to.

X.—It would seem to be impossible to express upon the subject any opinion which would be of value.

M.D.G.—We think our correspondent should make any intimation of the nature which he desires on the occasion of a personal visit.

DR. E. H. FREELAND (London, W.) writes, in answer to "Perplexed's" query in the BRITISH MEDICAL JOURNAL as to patch of white hair: If he will refer to the *Extra Pharmacopœia*, by Martindale and Westcott, under heading Argenti Nitras, he will probably find that for which he is seeking.

### OBSTINATE VOMITING.

DR. SPENCER T. SMYTH (Tunbridge Wells) writes in reply to "Tyro" in the BRITISH MEDICAL JOURNAL of June 5th: I attended many years since a young lady who suffered for nearly twelve months with vomiting more or less after partaking food, even of the lightest kind, and drinks, whereby flatulency arose, occasioning much distress. Upon examination no cause could be detected. Marasmus became great. She was of an excitable temperament, family history good. The case was regarded as one of hysteria. Medicines in vogue at that date were had recourse to, without much effect. She was allowed to be in the open air as freely as possible, and to mix with her friends. In those days massage treatment was not carried out. In general she slept fairly well; at length as little physic as desirable was given, and when inclined she was allowed to swallow a little champagne or cold brandy and water occasionally, and a stimulating plaster containing a few minims of croton oil was kept applied over the scrobiculus cordis, and *si opus sit*, an aloetic pill as a laxative, catamenia being absent. Ol. morrhuæ was rubbed in over abdomen, inside of thighs, and in axillæ night and morning as a nutrient, and teaspoonful doses of cream and lime water in equal quantities given every hour or so until the stomach became tolerant of a large amount, when in due course she was enabled to take a more suitable regimen. Eventually she regained strength, the explosive attack, as it were, having expended itself. Nutrients may be given as enemata, and thus allow the stomach to become rested until a regular diet can be had. As to washing out the stomach, unless there be dilatation, no object is gained, as there cannot be in such extreme cases any special matter to be dislodged needing expulsion. Best, if possible, to remove her from all present surroundings, and place her under the charge of some efficient nurse accustomed to deal with neurotic disorders.

DR. J. C. RUSSEL (Southport) writes: I should suggest that "Tyro" should pass a tube into the stomach, making quite sure that the tube is in the stomach, and introduce some food, such as Benger's food, through it. If this food is not rejected there is an indication for treatment.

DR. E. HARDING FREELAND (London, W.) writes: I would suggest that "Tyro" first examine the rectum digitally and palpate the course of the colon and region of sigmoid flexure for hardened fæces, and if found remove by enemata. This I would advise in spite of assurances that the bowels are acting. I have seen several cases similar to "Tyro's" where the symptoms were caused by this condition, and with the relief of which they promptly disappeared. Having satisfied myself that no impaction of fæces or organic obstruction existed, and that the case was functional, I should advise the following: A mustard leaf to the epigastrium repeated as often as necessary, or flying blisters; calomel, gr. ss. to gr. j; sacch. alb. gr. ij to be placed on the tongue three times daily between times of feeding; peptinzyme in form of elixir tabloid or powder before food is introduced into the stomach. This method of treatment I have often found of the greatest value in such cases. Evaporated milk will probably prove useful as a food.

### ALCOHOL CURES.

M.B.—Almost every species of drug has on analysis been found in one or other of the 200 "cures." It is not unlikely that their components are varied from time to time. As with other much advertised secret remedies, the proprietors claim a "cure" in every, or nearly every, case. They bear a family likeness to "cancer cures," etc.

### TYPE WRITER FOR THE BLIND.

MR. J. MUNRO MOIR (Inverness) writes in answer to a query from a "Member," in the BRITISH MEDICAL JOURNAL of May 22nd: The inmates of the Northern Counties Institute for the Blind use a typewriter supplied by Atkinson and Co., 17, Elmwood Street, Leeds, and find it answer well. It is simple and cheap, costing 12s. 6d. Possibly a better finished and more expensive article could be supplied than the one I refer to, but the matron of the institute informs me that this simple one suits very well.

## NOTES, LETTERS, Etc.

### THE EXCISE AND PUBLIC HEALTH.

IT is well understood that intoxicating liquors are defined by the Inland Revenue authorities as containing over 2 per cent. of proof spirit (practically 1 per cent. of absolute alcohol). Yet it would appear, from an answer by the Chancellor of the Exchequer to a question in the House of Commons a few days ago, that cider, perry, and British wine, containing up to 15 per cent. of alcohol, may be manufactured and sold free of any other duty than a small licence fee for their sale by retail. In the interest alike of public health and of the revenue it is desirable that all beverages containing a proportion of alcohol beyond the 2 per cent. Inland Revenue standard of a non-intoxicant should be taxed and recognised as an intoxicating liquor.

### HOSPITAL REFORM ASSOCIATION.

THE Hon. Secretary has received the following donations in answer to the appeal in the BRITISH MEDICAL JOURNAL of June 5th:

| | | | | |
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| Dr. J. G. Glover | ... | ... | ... | £2 2 0 |
| Mr. D. B. Balding, F.R.C.S. | ... | ... | | 1 1 0 |

LETTERS, COMMUNICATIONS, ETC., have been received from: (**A**) Against the Stream; Aldershot; A. Ashby, M.B., Reading; Mr. F. R. B. Atkinson, London; Argus; A. T. S. (**B**) *Belgravia* Magazine, Editor of, London; Mr. W. Banks, Bolton; Mr. E. J. Barton, Hove; Mr. A. Biddlecombe, London; Dr. J. W. Ballantyne, Edinburgh; Mr. L. A. Bidwell, London; R. D. Booth, M.B., Kimberley; Dr. A. Bronner, Bradford; Mr. F. Burnside, St. Leonard's-on-Sea. (**C**) Mr. E. Coyle, Glasgow; Mr. G. W. Cazalet, Coventry; Mr. E. J. Cross, St. Neots; Dr. J. Craig, Dublin; Mr. A. C. Clarke, Brighton; Dr. M. Craig, London; Dr. J. H. Crocker, Eccles; Dr. T. Carr, Manchester; Dr. W. H. Cooke, Bath; Cotopaxi. (**D**) Dr. J. Dawson, London; D. A. Davies, M.B., Swansea. (**E**) Mr. W. L. Emmerson, Leicester. (**F**) Mr. W. Frazer, Dublin; Dr. J. Finlayson, Glasgow; Mr. G. Foy, Dublin; Father; Mr. E. H. Freeland, London; F.R.C.S.Eng.; Mr. W. A. Frost, London; Mr. E. R. Fothergill, London. (**G**) Mr. C. B. Gillings, London; Mr. F. Greave, London; J. F. Gemmel, M.B., Lancaster; General Practitioner; Dr. L. Guthrie, London. (**H**) Mr. T. G. Horder, Cardiff; Mr. C. T. Holland, Liverpool; Mr. R. G. Hogarth, Salisbury; Mr. W. F. Haslam, Birmingham; H. J.; Mr. C. T. W. Hiroch, London; Mr. G. H. Huntly, Oldham; Mr. E. H. Howlett, London; Mr. R. N. Hartly, St. Albans; Mr. D. Horwick, Brakfontein; H. G. D. (**I**) Immediate. (**J**) J. R.; Mr. F. Jourdain, Ashbourne. (**K**) Dr. W. M. Kelly, Taunton. (**L**) Dr. T. M. Legge, London; Mr. S. C. Legge, Birmingham; Mr. J. B. Lamb, London; Dr. J. F. Little, London; Dr. A. E. Lloyd, Rhyl. (**M**) Mr. F. C. Melhado, London; Messrs. Morris and Co., London; Dr. H. Mackenzie, Edinburgh; R. M'C. Service, M.B., Glasgow; Mr. J. C. MacGown, Millport; F. H. Morison, M.B., West Hartlepool; Mr. A. MacLennan, London; F. J. McCann, M.B., London. (**N**) Dr. T. G. Nasmyth, Cupar Fife; Mr. J. Neal, Birmingham; Mr. P. Newell, Crowborough. (**O**) Old Man (An). (**P**) Perplex; J. C. Potter, M.B., Spennymoor; Mr. W. H. J. Patterson, London; Dr. R. W. Philip, Edinburgh; Mr. J. S. Pickford, Bolton; Mr. C. H. W. Parkinson, Wimborne. (**Q**) Mr. E. Quayle, Urmston. (**R**) Mr. G. Q. Roberts, London; Mr. T. F. Raven, Broadstairs; Dr. R. R. Rentoul, Liverpool; Mr. A. Read, London; E. W. Reid, M.B., Dundee; Mr. J. Rendall, Edinburgh; R. R. V.; Dr. A. Rosenau, Bad Kissengen; Mr. J. C. Russell, Southport; Messrs. J. A. Radcliffe and Co., Heckmondwike; Mr. J. Robinson, Kidderminster; Dr. R. M. H. Randell, Beckenham. (**S**) Messrs. A. G. Spalding and Sons, London; Subscriber West; Dr. G. E. Shuttleworth, Richmond Hill; Dr. W. Sellers, Radcliffe, Lancashire; Standfast; Dr. W. Sykes, Gosport; Sanitary Institute, Secretary of, London; Dr. S. T. Smyth, Tunbridge Wells; Mr. E. A. G. Simpson, London; Mr. E. M. Sympson, Lincoln; Dr. A. Stewart, Manchester; Dr. G. T. Sinclair, Culross; R. H. Shaw, M.B., Yarmouth; Dr. W. D. Symington, Wolverton. (**T**) T. P. Teale, M.B., Leeds; Mr. H. E. Thompson, Blackburn; Dr. M. Thorne, London. (**W**) Dr. J. C. Webster, Montreal; Mr. J. D. Windle, London; G. E. Williamson, M.B., Newcastle-on-Tyne; Dr. T. A. Woodruff, Chicago; Mr. R. H. Welington, Wisbech; W. S. Watson, M.B., London; Dr. R. Wise, London; Mr. R. R. Williams, London; G. Warner, M.B., London; W. N. E.; etc.


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BRITISH MEDICAL JOURNAL

# Queen's Commemoration Number

BEING

## *A RECORD OF THE PROGRESS OF THE MEDICAL SCIENCES IN THE VICTORIAN AGE.*

LONDON: SATURDAY, JUNE 19TH, 1897.

## PAST AND PRESENT.

### The Expansion of Medicine.

It is in every way fitting that the British Medical Journal, which is the mouthpiece of the great body of the medical profession throughout the empire, should join in the loyal tribute of congratulation now being offered to our gracious Sovereign by her subjects of every class, of every clime, and of every colour, at this time of unexampled national rejoicing. In all the vast development of science and arts and industries that has taken place during the Queen's reign, there is nothing comparable in its far-reaching effects on human life, whether of the individual or the race, to the enormous advance that has been made in our knowledge of the causes and processes of disease, and in our power of controlling them and preventing or mitigating their effects. The expansion of the empire in the last sixty years has been great, but the expansion of the realm of medicine has been immeasurably greater. The old order has passed away, and given place to the new. The very language of medicine in the early Victorian period is now a dead tongue. Yet so swiftly has the change been accomplished that there are still among us men the beginning of whose professional life goes back to the time of the Queen's accession. Among these are Sir William Jenner and Sir James Paget. The marvellous story of the march of modern medicine from conquest to conquest is told in detail in the following pages.

### Instruments of Precision.

The main factor in the advance of medicine has been the application of scientific methods to the solution of the problems which it presents. Before 1837 Bright, Addison, and others had done excellent work by observation at the bedside and in the deadhouse; nevertheless at the beginning of the Victorian era the knowledge even of the appearances of disease was confused and in large measure erroneous, and the knowledge of the causes and mechanism of disease was of the most rudimentary character. This was due to the want of accurate means of observation. The invention of instruments of precision has had a large share in the transformation of medicine into a science. To the physiologist and pathologist the microscope has been more than the telescope has been to the astronomer, and it is a remarkable coincidence that this instrument owes much of the practical usefulness which has made it so powerful an aid to discovery to the inventive genius of the father of Lord Lister. Without the stethoscope, the ophthalmoscope, the thermometer, the laryngoscope, the sphygmograph, the hæmatocytometer, and the test tube, accuracy in diagnosis is impossible. Practitioners in the early days of the Queen's reign had none of these aids except the stethoscope, and this was looked upon as a toy even by some of the leaders of the profession. In this respect alone the progress in medicine has been almost incalculable; yet increased precision in observation is one of the smallest achievements to be recorded since the Queen's accession.

### Discovery of Causes.

The greatest step forward has been the discovery of the causes of many diseases—a province of research which, to the minds of our immediate professional ancestors, seemed almost outside the limits of the knowable. The discovery of microorganisms having the power to excite disease of one kind or another; of the manner in which they increase and multiply under various conditions; of the modes of their conveyance into the human body by water, air, food, and other vehicles; of the poisons which they produce and the disturbances to which they give rise in the economy, has placed in our hands the means of protecting ourselves against a large number of diseases which in days not very remote levied a heavy tribute of human life in all civilised countries, and has made the total abolition of infectious diseases something more than a mere dream.

To appreciate the advance which has been made between 1837 and 1897 in our knowledge of the causation of epidemic disease it is sufficient to contrast the state of abject terror and helpless resignation to what was looked upon as a visitation of God when cholera for the first time overran Europe, with the well-grounded confidence and disciplined defence

with which a threatened invasion is met at the present day.

### The Fruits of Preventive Medicine.

The improvement in the means of preventing disease which a better knowledge of its causation has placed at our disposal has already added from three to four years to the average span of human life; how much it has already added to its happiness and efficiency is past actuarial computation. A striking instance of the immense improvement in hygiene that has taken place during Her Majesty's reign is afforded by the fact that whereas the mortality of the army at home was 15 per 1,000 and abroad 57 per 1,000 in 1837-38, the corresponding death-rates at the present time are 4.32 and 12.5 respectively. A similar improvement has taken place in the navy. The relatively insignificant losses of life in our many recent "little wars" in most unhealthy climates as compared with the Walcheren and other expeditions in the earlier part of the century is a proof "gross as a mountain, open, palpable," of the progress of preventive medicine.

### Simplification of Treatment.

In the department of therapeutics improvement has taken place in the direction of greater simplicity of medication. In 1837 *purgare et seignare* was still one of the first principles of practice, and the remedies used were not only drastic but administered in clumsy and disagreeable forms. In reading reports of cases of that date, one feels the point of Byron's gibe that a man who had got well of his fever had afterwards died of his physician. The following passage from an introductory lecture delivered by Robert Graves at the Meath Hospital, Dublin, only a few years before the Queen's accession, shows that this was no mere spiteful jest:

"Often have I regretted that, under the present system, experience is only to be acquired at a considerable expense of human life. There is, indeed, no concealing the truth—the melancholy truth—that numbers of lives are annually lost in consequence of maltreatment. The victims selected for this sacrifice at the shrine of experience generally belong to the poorer classes of society, and their immolation is never long delayed when a successful candidate for a dispensary commences the discharge of his duty. The rich, however, do not always escape, nor is the possession of wealth in every instance a safeguard against the blunders of inexperience." Nowadays we may fairly congratulate ourselves on the fact that even the blunders of inexperience are far less fatal. The extraction of the active principles of many drugs enables us to administer them in forms at once more convenient and more effective; and the introduction of tablets, soluble capsules, and cachets with other refinements of pharmaceutical skill, and the administration of remedies by hypodermic injection and enemata, has robbed medication of most of its traditional horrors.

### Antitoxins and Organic Extracts.

A most remarkable development of therapeutics is the antitoxic method, whereby the disease itself is made to supply the instrument of its cure. The expansion of the isolated fact observed by Jenner into a law by the labours of Pasteur and his disciples, notably Behring, Roux, and Haffkine, is another great advance. These methods, though they have not yet come to their season of mellow fruitfulness, open up possibilities undreamt of by our predecessors of 1837.

### Anæsthesia.

But the progress of medicine, great as it has been, is as nothing to that in surgery. The discovery of anæsthesia, in addition to the incalculable diminution in human suffering which it has brought about, has immensely helped the perfecting of surgical handicraft. It has rendered an even greater service by bringing all departments of medical science within the range of the experimental method, without the aid of which real progress is impossible. It is only right that in this place we should acknowledge the share which the example of the Queen had in facilitating the introduction of anæsthesia into medical practice. More than ordinary courage and more than common enlightenment were needed to submit to be put to sleep with chloroform at a time when the use of it was condemned by divines as a violation of the law of God, and by doctors as a dangerous experiment.

### Antisepsis.

The most powerful agency in the development of surgery, however, has been the introduction of the antiseptic and aseptic methods of wound treatment which we owe to Lister. This has made operative proceedings possible which only twenty-five years ago would have been justly condemned as criminal; has freed surgical wards from pyæmia and allied scourges which used to infest them; and has reduced the mortality of lying-in hospitals, which, without such precautions, have generally been hotbeds of septic disease, to the limits of normal childbed.

### The Work of the Queen's Subjects.

In concluding this brief review of the advancement of the healing art in the reign of Queen Victoria, expression may not inappropriately be given to the feeling of pride which Britons naturally feel at the very large share in it which has been taken by subjects of Her Majesty. The names of Addison, Bright, Hodgkin, Graves, Charles Bell, Marshall Hall, Simpson, Spencer Wells, Parkes, and, above all, Lister, all represent discoveries and practical improvements which form the foundation of modern medicine.

### The British Medical Association.

Nor must the part which the British Medical Association has played in the furtherance of medical progress be forgotten. By its meetings and by its Journal it has stimulated and aided scientific work, and given workers the means of making known their results. It has largely helped research by grants of money, and has rewarded men who have distinguished themselves in various ways. It has ever been active in the reform of medical education, and in the promotion of everything likely to better the condition and enhance the dignity and influence of the profession.

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The preparation of this number of the British Medical Journal has, it need hardly be said, been a somewhat laborious undertaking, and, in spite of the fact that it is nearly twice the ordinary size, we have been compelled to omit many interesting illustrations and other matter. We take this opportunity of expressing our gratitude to the contributors and others who have kindly rendered assistance. Our special thanks are due to Sir James Reid, K.C.B., Dr. Theodore Dyke Acland, Professor Stirling, of Manchester; Sir John F. Clark, Bart., of Tillypronie, N.B.; the Rev. Alfred Locock, and many others for their courtesy in lending photographs and other illustrations.

## MEDICINE.

### SPECIFIC FEVERS.

By the year 1837 most of the common fevers had been recognised and described. There were, however, two notable exceptions: typhus and typhoid still remained partially undistinguished, and diphtheria, though it had been described by Bretonneau in 1821, was not yet well recognised in England.

French pathologists had discovered the intestinal lesions of typhoid fever many years before, and the English had shown that they did not exist in cases of typhus. Louis in 1841 already stated that the diseases were different, but Jenner in 1849 proved that they bred true, and so established, though not without prolonged opposition, their severally specific character.

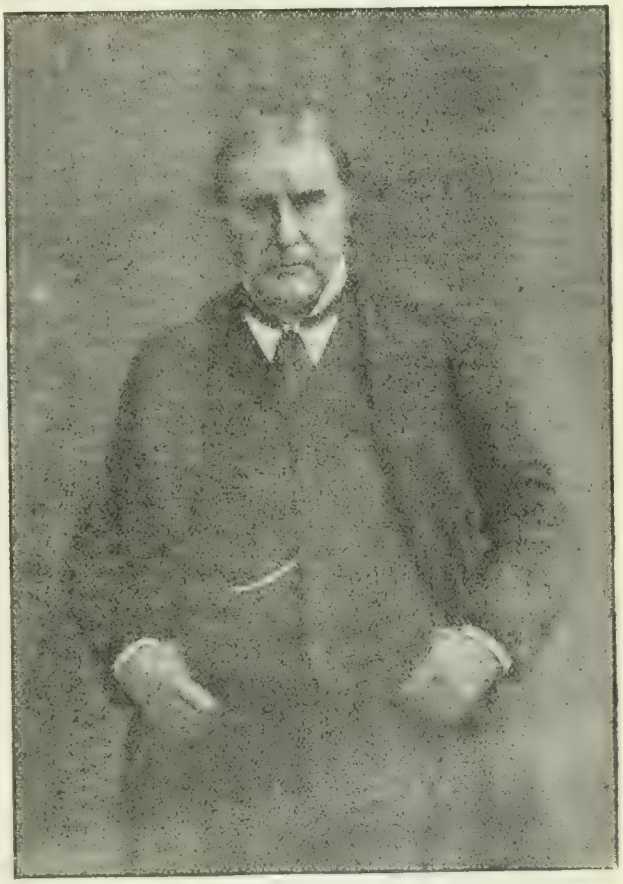


Sir Thomas Watson.

Diphtheria had similarly been distinguished by Bretonneau in 1821, but it seems as if his views were not widely known, for cases are recorded from time to time which were evidently of this nature but which are not so named. Yet in 1848, in a discussion on a case, Hird said that "diphthérite" was endemic at the time. It was not, however, until 1857 that it increased to such an extent as to force itself upon the attention of all.

W. B. Carpenter, in 1853, lays down two conditions as requisite for a person to take an infectious disease: (1) receptivity, which he thinks is due to the presence in the blood of a large quantity of nitrogenous matter in a state of retrograde metamorphosis, and (2) a specific poison. But it is interesting to note the different thought which underlies words that we might almost use to-day. The retrograde nitrogenous matter was due to degeneration of muscular tissue, as during involution of the uterus or fatigue, not to any action of the disease itself; and, secondly, though he traces a case of cholera to contaminated water, he believes this to have "predisposed" the patient by introducing this retrograde nitrogenous material into the blood. It never strikes him that the exciting cause lay in the water, and he has no idea that the specific poison is a living thing.

It was not till 1860 that Budd, relating the North Tawton epidemic, concludes of typhoid fever that it is contagious, that the specific poison breeds in the body, that all the emanations, especially the alvine discharges, are infectious, that the sewers are on that account the main channels of infection, and that the stools may be disinfected by chloride of zinc. In 1866 the third great epidemic of cholera in London during the Queen's reign afforded ample confirmation of the opinion formed in 1855 that the specific poison was conveyed by water. Radcliffe's report upon the East London epidemic is one of the classics of medicine.



Sir William W. Gull.

It was in the very same year that Pasteur, by discovering the cause of fermentation, laid the foundation of the germ theory of disease. It was applied to surgical infection first by Lemaire in Paris, and in 1867 Lister wrote "On Preventing Suppuration in Compound Fractures by Disinfectants," and thus began that series of publications which changed the whole of surgery. In 1874 the discussion at the Clinical Society showed that opinion had not yet been converted; but in 1877 Pasteur discovered—or as he himself with characteristic modesty insisted—rediscovered the bacillary nature of anthrax, and in the next year Koch's researches on surgical infections established the microbic origin of these also. Pasteur predicted that anthrax would be the first of many diseases which would prove to depend upon microbes; and in 1882 Koch discovered the bacillus of tubercle, in 1883 Klebs and Loeffler the bacillus diphtheriæ, and since that day the number of these discoveries has increased so greatly that

we no longer hesitate to infer a like cause for all fevers. The method in which the bacillus diphtheriæ acts by the production of toxins in the blood and the effects of these upon the tissues were first shown by Sidney Martin in 1893.

The treatment of fever in general had in 1837 already been reformed. In place of the violent bleeding and purging of the beginning of the century, treatment of the ordinary fevers was by this time based upon a true appreciation of its exhausting character. Under Dr. Todd, indeed, the pendulum swung in the opposite direction, and very large quantities of stimulant were given. It was not till about 1860 that, under the guidance of Gairdner and Wilks, a rational moderation was again adopted.

In 1866 thermometry was introduced from Germany, and in 1868 Brand, of Stettin, advocated the routine treatment of typhoid by baths at a temperature of 68° F. In England this has made little way. It is doubtful if it is carried out, for instance, at a single large hospital in London in the ordinary course of affairs, but it has been adopted a good deal abroad and in the United States. Since that time the only great change has been the recent discovery of the method of treatment by serum injection, first originated by Pasteur for anthrax. As yet established for diphtheria alone, it is impossible to predict how far its effects may extend.

### THE RESPIRATORY SYSTEM.

The great discovery of Laennec in the earlier years of the century had already enabled physicians to diagnose and describe the chief diseases of the lungs. The many papers written upon percussion and auscultation in the early years of the present reign show that these methods had not yet become the common-place of education, but there is little we know now which was then unknown.

Pneumonia was still treated by depletion. West, writing in 1843 on the treatment of the disease in children, advises bleeding if over and leeching if under 2 years of age, tartar emetic and calomel or mercurial inunction, and stimulants if necessary. Todd, in 1852, takes the more modern view, and hopes to aid the system to rid itself of the poison by increasing the natural emunctories. To this end he gives nothing but liq. amm. acet. ʒvj every three hours, together with an occasional purge. He advises stimulants for the asthenic cases, and in excessive sweating quinine, and he notes the absence of chlorides from the urine during the stage of hepatisation. Hughes Bennett showed the great success of this system as compared with the former. The discovery of the diplococcus pneumoniæ by Friedlaender in 1883 is the only recent addition to our knowledge.

In 1850 Gairdner described the pathology of bronchitis, bronchopneumonia, and bronchiectasis, and in 1851 brought out his theory that emphysema was inspiratory and compensatory. But Jenner, in 1856, proved that ordinary emphysema was expiratory and not compensatory. Gairdner's explanation still holds good for that partial emphysema occurring in contracted and fibrous lungs.

In 1844 the *Dublin Journal* contains the account by McDonnell of a case of empyema bursting outwards under his care. It is evident that the idea of opening the chest in such a condition did not occur to him. In the same *Journal* is an account by Green of the spitting up of an empyema. The explanation of the symptoms, suggested in consultation by Dr. Hutton, is clearly quite a novelty. It was in 1843 that Trousseau advocated paracentesis thoracis for serous effusion; and, though it was adopted for empyemata when they were diagnosed, it was long before it became usual for serous cases. In 1856 Addison lectured against this practice "lately come much into fashion, especially in Continental hospitals," and declared that it turned serous effusions into purulent.

The mechanism of collapse was first demonstrated by Lichtheim in 1879. He showed that in animals it could be produced by stoppage of a bronchus, and explained the absorption of the air already contained in the affected part of the lung.

The pathology of tubercle was long a vexed question. In 1842 Scudamore stated that all varieties of tubercle were cellular, that they were of the same nature, and says of the softening process, "the low vitality which I conceive a tubercle to possess by virtue of its cells may not be sustained, and then a decomposition of its chemical constituents may take place. Yet probably in most cases softening is due to ulcerative action in the tissues which it has irritated." He thought them due to a specific virus or poison in the blood, and that this was sometimes transmitted from the blood of the parent to that of the fœtus. He recommends the inhalation of iodine, and, above all, as a preventive free and regular exercise in the open air, and avoidance of hot close rooms. About 1850 Virchow published his views on tubercle. He calls the constitutional predisposition scrofulosis; tuberculosis is the local process which gives rise to cells that "tubercularise;" "tuberculisation" includes endogenous development of cells, atrophy, shrivelling, and desiccation; a tubercle is formed of the detritus of metamorphosed and atrophied cells with the remains of the blood vessels. Little further was done until Koch, in 1881, showed that Scudamore's virus was a bacillus. A practical point in diagnosis was the discovery by Andrew Clark in 1860 that the elastic trabeculæ of the air vesicles could be found in the sputum.

In 1840 Stokes related the case of a man who had recovered from phthisis after setting all laws of health at defiance, and devoting himself to duck shooting and whisky. In 1864 Blake recommended open air life in the Californian mountains, and in 1867 Weber drew attention to the curative effect of high Swiss residences. Davos-am-Platz was first accurately tested in 1865 by Dr. Unger, himself a sufferer from phthisis.

Cod-liver oil was first tested and recommended in Germany about 1839. In 1840 it was very difficult to procure in England. Hughes Bennett corroborated in 1842 what Klencke and Ascherson had already stated respecting its beneficial effect.

In 1855 Garcia invented the laryngoscope (which had been already used by Liston, but forgotten); and Türck and Czermak applied it to medicine. In 1860 Czermak gave demonstrations of its use at the London hospitals. But in 1852 Horace Green, of New York, had read a paper to the Medical Society upon intralaryngeal and intratracheal medication. He passed sponges on a probang as far as the bifurcation of the trachea. Eben Watson, in Scotland, treated laryngeal affections in the same way, and Thompson in the same year invented a laryngeal syringe. In 1858 Hughes Bennett supported Horace Green, stating that intratracheal injections were quite possible, and that in a case of bronchitis and asthma he had obtained marked benefit by two-drachm injections of a solution of nitrate of silver. It is interesting to note the original appearance of a method which has been revived forty years later.

In the same year—1859—Bouchut introduced intubation of the larynx for croup. This, too, has been revived of late.

In 1865-7 appeared the important paper by Buchanan which showed that the death-rate of phthisis had in many places fallen considerably in consequence of subsoil drainage.

In 1874 Hermann Weber produced evidence, which has been largely increased by others, of the communicability of phthisis.

### THE CIRCULATORY SYSTEM.

The diseases of the heart had, like those of the lungs, been already diagnosed before 1837. Corrigan in 1841 and Christison in 1845 described the functional derangement of youths, and Stokes in 1846 wrote on the permanently slow pulse of aortic disease. In 1850 Brakyn, by means of a pneumatic apparatus, tried to show that the first as well as the second cardiac sound was produced by the valves alone and not by muscular contraction. The idea was taken up by Halford, who in 1852 proved the truth of this theory by clamping the pulmonary and cava veins. Though the heart still contracted as before, the sounds were inaudible, since there was no fluid to stretch the valves and force them together.

In 1852 Kirkes read to the Royal Medico-Chirurgical Society his famous paper on embolism. His conclusions were (1) that fibrinous concretions on the valves admit of being readily detached during life; (2) that if detached and transmitted in large masses, they may suddenly block up a large artery, and thus cut off the supply of blood to an important part; if in smaller masses, they might be arrested by vessels of smaller size, and give rise to various morbid appearances in internal organs (he describes infarcts); or the particles mingled with the blood may produce a poisoned state, and bring on

typhoid or phlebitic symptoms. This is the first discovery of septic endocarditis. In 1856 the same physician showed the connection between apoplexy, cardiac hypertrophy, renal disease, and atheroma of the cerebral vessels. In 1863 he further stated that in pyæmia the lungs are the first seats of the characteristic secondary deposits, owing to the venous blood being contaminated by the wound or injury. The results of contamination are mechanical owing to the arrest of foreign particles in the capillaries; yet they are arrested not because they are too big, but by interference with the normal relations between the blood and the vessels. These papers are so extremely able that to quote them at length is excusable.

It was in 1863 that digitalis was established by Sutton, Wilks, and others to be a cardiac tonic. Before this time it had been considered valuable in hypertrophy but dangerous for dilatation. In 1867 Brunton discovered the treatment of angina by nitrite of amyl.



Dr. A. P. Stewart.

Paracentesis pericardii had been performed and recommended by Trousseau in 1854. Allbutt in 1866 had it performed by Wheelhouse, and in 1869 by Teale. Rosenstein in 1881 and Samuel West in 1883 opened and drained the sac.

In 1887 Langton and Bowlby described aneurysm produced by embolism, and showed that it is caused by inflammation at the site of plugging, and that in these cases the endocarditis is septic.

### Rheumatism and Gout.

The symptoms of rheumatic fever were well understood in 1837, and but little has since then been added to the natural history of the disease. In 1853 appeared Dr. Fuller's book. He believed rheumatic fever to be due to some morbid condition of the blood, and, like Prout, Todd, and others, thought this to lie in an excess of lactic acid. He clearly distinguished osteo-arthritis and chronic rheumatism as we know them now.

On the other hand, the treatment of the disease has a varied and interesting history. In 1842 Hope advised that a robust patient in rheumatic fever should be copiously bled, should take 8 to 10 gr. of calomel and 1½ gr. of opium every night, with a strong black draught in the morning, and thrice daily should be given 20 minims of vinum colchici and 10 gr. of Dover's powder.

In 1844 Henry Bennet recommended 4 to 6 drachms of potassium nitrate, increasing to 12 drachms in the twenty-four hours. In 1849 Rees advised lemon juice. In 1851 his colleague, Golding-Bird, used acetate of potash, and in 1862 Dickinson reported that, of 48 cases in whom the heart was, on admission, unaffected, only 1 contracted endocarditis under treatment by bicarbonate and acetate of potash, and that the average stay in hospital was only twenty-five days. In 1866 Hughes Bennett stated that in Edinburgh the acute symptoms of rheumatism tended under any plan of treatment to disappear in six or seven days.

In 1856 salicin, made from white willow bark and used as a popular remedy in Spain, was recommended by Macari, of



Sir John Russell Reynolds.

Sardinia, as an efficient substitute for quinine in ague. In 1864 this statement was repeated by Cazin, of Calais, and he remarked how fortunate it was that willow grew in malarious districts. In 1875 salicylic acid was largely tested as an antipyretic in Germany. Several physicians found that, while in some fevers it had little effect, in rheumatism it acted like a charm, both lowering the temperature and curing the pain. In 1876 Maclagan made the same statement of salicin. Salicylate of soda has from that time maintained its place as a specific for those symptoms of rheumatism.

The symptoms of gout had already been as well described as those of rheumatism. Its pathology was yet imperfect, and it remained for Garrod, in 1848, to show that in a fit of gout the blood contains uric acid salts, that the excretion of these in the urine is diminished before a gouty fit, and that uric salts are always present in the blood and deficient in the urine of patients with chalk stones. In 1854 he con-

trasted this condition with that of acute rheumatism, in which the blood contains no urates, and thus established the humoral theory which held its own for many years. In 1873 Ord pleaded for a view which seemed to himself to be wider, and contended that gout is a mode of decay of the whole system. Of late years Duckworth has declared his belief that gout is partly nervous and partly humoral in origin; and Roberts, who showed how the soluble quadriurates tended to change into the insoluble biurates which then tended to be deposited, declared at the same time for a view of gout which should embrace the lithæmic symptoms of Murchison, though without believing in their causation by uric acid. He summed up his position by stating that in his opinion, even though there were no such thing as uric acid there would still be gout. The opinion seems to be forming that other as yet unknown faults of metabolism are at the bottom, not only of the symptoms called lithæmic, but possibly of the uric acid retention and deposition of true gout.

An important addition to joint disease was made in 1868 by Charcot's description of tabetic arthropathy, and in the last year Still has shown good grounds for believing that under the name of osteo-arthritis more than one disease is cloaked.

### ALIMENTARY SYSTEM.

No great addition to our knowledge of diseases of the intestine has been made in the present reign. Brinton in 1856 published his classical work on gastric ulcer. In 1854 the change of water supply to Millbank afforded clear proof that the poison of dysentery could be conveyed by water, and in 1864 the outbreaks in the Cumberland and Westmorland Asylum gave equally good evidence that it could also be carried in the air.

Perityphlitis had been noticed under different names before 1840, but was first thus called by Seller in 1844. Its origin in the appendix, which is now a commonly accepted theory, was not then known. Ulcerative colitis was apparently not distinguished from dysentery before about 1885. Since then it has become acknowledged as a not uncommon disease. In 1891 Thin gave an exhaustive description of the endemic disease of China, which the Dutch call "sprue," and which he named "psilosis."

### THE URINARY SYSTEM.

Before 1830 Bright had shown dropsy and albuminuria to depend on diseases of the kidneys. The early years of the Queen's reign are prolific in papers upon the subject. In 1850 Johnson described hypertrophy of the inner and outer coats of the renal vessels, and explained renal dropsy by impeded circulation through systematic capillaries, due to retention of urinary constituents in the blood. Frerichs in 1851 argued the various forms of nephritis are but stages of one single disease; but Wilks in 1853 showed that there were at least two—nephritis of inflammatory or degenerative nature, and a senile atrophy which gives few if any symptoms. In 1856 Heymann discovered albuminuric retinitis. Various theories of uræmia have held the day in turn since 1837. None have been considered satisfactory.

In 1866 Pavy described and named paroxysmal hæmaturia due to cold. A few cases had been published the year before, but had been ascribed to ague. In 1865 Roberts drew for the first time the distinction between obstructive and non-obstructive suppression of urine. Johnson in 1874 found that cold bathing would produce a temporary albuminuria; Leube in 1878 found the same effect in soldiers from long marches; and Moxon in the same year described the temporary or periodic albuminuria of adolescents. The exact bearing of these observations upon the production of nephritis has not even yet been settled.

The occurrence of sugar in the urine and the symptoms of diabetes mellitus had been known for a considerable time, but what we know of its pathology is wholly the work of the last sixty years. It is interesting to date opinion. Aldridge in 1844 says that sugar has not been proved to be present in the blood of diabetics, and that the amount passed is too great to be derived wholly from the carbonaceous part of the food, so that it must be partly derived from the nitrogenous also. In 1848 Bernard discovered that the liver formed sugar, and in 1849 that glycosuria could be produced by a puncture of the medulla. In 1851 Todd's opinion was that diabetes was primarily a disease of the stomach wherein an abnormal diastase was formed which converted the food into sugar—that this was absorbed into the blood and excreted by the kidneys. In 1852 Hughes Bennett, who had seen and repeated Bernard's experiments, explained that sugar did not appear in healthy blood or urine because it was rapidly decomposed and excreted by the lungs. But in 1860 Pavy showed that the sugar formation of the liver was a *post-mortem* process only. He suggested that glycogen, or, as he named it, "hepatine," was destined to form fat but not glucose. About 1890 it was noticed that the pancreas was affected in some cases of diabetes, and in the same year Lépine found that blood had the power of decomposing sugar. Complete extirpation of the pancreas was performed on animals with the result that they became acutely diabetic and died. This led Lépine to form the theory that the blood contained a "glycolytic" ferment, and that this was derived from the pancreas by some internal secretion which was poured into the circulation. The matter is yet unsettled.

The endemic hæmaturia of tropical countries was shown by Bilharz in 1851 to be due to the pointed ova of bilharzia hæmatobia which reach the bladder from the abdominal veins. Chyluria also, which had been first described by Prout, has been proved to be due to a parasite worm—the filaria sanguinis hominis. Wucherer, in Brazil, found the embryos in the urine (1866), Lewis in India found them in the blood (1872), Bancroft, of Brisbane, in 1876; and Manson, at Amoy, in 1880 removed the worms from the cord and scrotum; and in 1877 Manson, exposing a filarious Chinaman to mosquitos, found the embryos in the stomach of the mosquito, and argued that thence they probably reached the water, and were drunk again by man.

Treatment of kidney disease has not advanced.

### THE BLOOD AND DUCTLESS GLANDS.

This chapter of medicine has been almost entirely written in the last sixty years. It was in 1849 that Addison first spoke of idiopathic, or what is now called "pernicious," anæmia, and in a paper read to the South London Medical Society ascribed it to disease of the suprarenal bodies. In 1855, endeavouring to prove his theory by *post-mortem* evidence, he had been led to discover the disease which bears his name, and to distinguish between this and pernicious anæmia. In 1851 Hughes Bennett described leucocythæmia, giving cases of the splenic and of the lymphatic forms; and in 1859 Wilks described Hodgkin's disease under the name of anæmia lymphatica. Various improvements made in the microscopic examination of the blood by Malassez, Gowers, and others have enabled us to classify the anæmias more accurately, and Quincke and Hunter have thrown much light on their pathology.

Perhaps the most complete bit of work has been that connected with the thyroid gland. Schiff had noticed the disastrous effect of removing the thyroid in animals, but this discovery was not at the time appreciated. In 1873 Gull wrote a paper on the "cretinoid condition" occasionally seen in adults; and Ord in 1877 named it myxœdema. Kocher and the Reverdins showed that it was practically the same condition as that caused by removal of the thyroid for goître; Horsley in 1885 produced a similar condition in monkeys by the same operation, and stated that the consequences could be averted by grafting; and lastly Murray, of Newcastle, made the happy suggestion to administer the gland to the human patients. How rapidly this knowledge has grown may be gauged by the fact that in Fagge's second edition (1886) the disease is hardly mentioned.

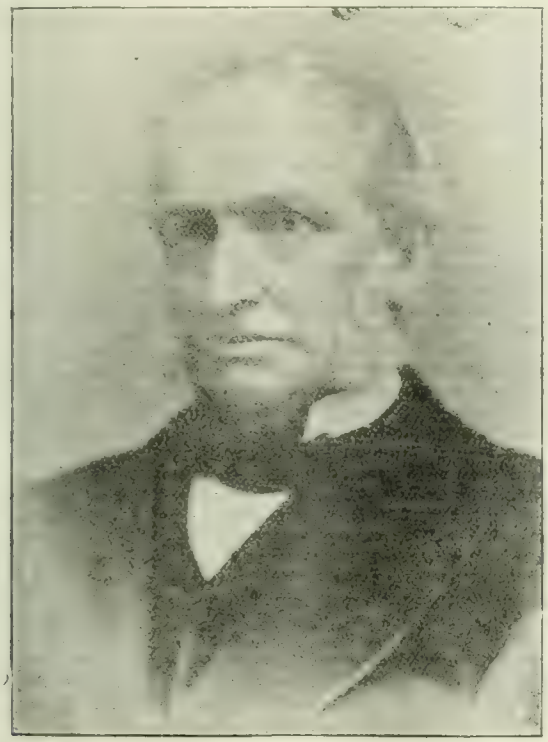
An interesting parasitic disease—endemic anæmia of hot climates—has been proved to depend upon the ankylostoma duodenale. The symptoms are as old as the hieroglyphs. Dubini, of Milan, in 1843 first found the worm; Bilharz and Gresinger in 1854 connected it (in Egypt) with the disease; and its prevalence in 1880 among the St. Gothard excavators showed that it was found in temperate climates also.

### THE NERVOUS SYSTEM.

The greatest advance during the Victorian era has been in this department. The textbooks of medicine of sixty years ago show almost complete ignorance of any physiology of the nervous system. Up to 1850 the dispute raged between Todd

and Marshall Hall, the first of whom held nearly the modern view of the functions of the brain and cord, but the latter was misled by his discovery of reflex action to a belief that physical and emotional acts were performed by "true spinal nerves" having no ultimate connection with the brain. In 1848 he goes so far as to write in his usual impetuous way that "the accurate experiments of Flourens have finally established the great physiological and pathological principle that no physical irritation of the cerebrum or cerebellum, or of the purely cerebral nerves, or indeed of any part of the nervous system except the spinal marrow or the muscular nerves, can produce muscular action."

In 1859 were given Brown-Séquard's lectures at the College of Surgeons, which established the decussation of the sensory tracts in the cord, of the motor in the medulla, and which described epileptogenous areas in guinea-pigs after operation on the cord. In 1847 Todd described tabes dorsalis, and found the lesion which he had originally located by inference. In 1858 and later Duchenne distinguished between the muscular and spinal forms of muscular atrophy. Ménière wrote



Sir George Johnson.

on the symptoms which go by his name in 1861. From 1860 onwards Hughlings Jackson began to establish by a series of wonderful clinical observations the cortical motor centres in man, and experiments by Hitzig and Ferrier corroborated his results for animals. To Hughlings Jackson we owe that profound and metaphysical view of the nervous system which distinguishes the English school. From 1860 also began Lockhart Clarke's admirable microscopic researches. Charcot's lectures appeared in 1870. In 1881 Lancereaux discovered that alcoholic paralysis was due to peripheral neuritis, and since then this part of the system has been studied with the care which had already been given to the brain and cord.

### Drugs.

The introduction of cod-liver oil in 1840, of nitrite of amyl in 1867, and of salicylic salts in 1875 has already been noted. There are not many other important additions to the pharmacopœia to notice. Valerianate of zinc was introduced from Italy about 1844; in 1847 kousso was investigated by the Paris Academy of Medicine, and began to be used in England about 1850; in 1862 Wilks recommended bromide of potassium for epilepsy. This drug was not altogether new, for it had been used by Sir C. Locock for ovarian disorders. In 1872 Wilks also brought forward guarana for sick headache; in 1874 gelseminum was used with great success by Wickham Legg for facial neuralgia. Both these two last were derived from North America.

Hypodermic medication was first practised by Wood, of Edinburgh, in 1843, with morphine for neuralgia. He thought it had only a local action. Hunter, of London, began in 1858 to inject at a distance from the site of pain, and he was the first to notice that morphine when so used was much more active than when taken by the mouth.

### Conclusion.

One cannot but admire, in reviewing the Queen's reign, the immense advances that medicine has made. It is, and always will be, true that treatment has not kept pace with diagnosis. It is, and always will be, our part rather to watch Nature than to rule her. Much had been done before our epoch begins; the heart, the lungs, the alimentary and the excretory organs had been deeply studied, and we have not added much to the knowledge of our grandfathers. Yet even here we have accomplished something, and the comprehension of the nervous system and its diseases is entirely of our fathers' time and of our own. Of late years nothing has made so profound a change in our view of the world as the progress of bacteriology, and in the last few years a younger theory still—that of the "auto-intoxications"—has made a certain impression upon thought. While we have won for ourselves some active weapons, it is our higher merit to have learnt the lesson which the great men were busy teaching us in 1840: that disease is the effort which the body makes in answer to attack, and that he is the better physician who studies more to assist the defence than to defeat the enemy.

## SURGERY.

### The Renaissance of Surgery in the Victorian Age.

The advancement of Surgery from 1837 to 1897 may be likened to the Renaissance in the age of Augustus, or in "the spacious times of great Elizabeth." Virgil and Shakespeare, the elect poets of Augustan Rome and Elizabethan England, contain excellent texts for a discourse in praise of modern surgery:

> Redeunt Saturnia regna;
> Jam nova progenies cœlo demittitur alto.

The Golden Age has come back; Heaven has given us a new race of men. Or we may take Shakespeare's lines on Elizabeth:

> She promises
> Upon this land a thousand thousand blessings,
> Which time shall bring to ripeness:
> She shall be, to the happiness of England,
> An aged princess; many days shall see her,
> And yet no day without a deed to crown it.

And the Laureate might well include in his expected ode some mention of modern surgery. But the influence of science on poetry is invariably bad; we must, therefore, trust to prose for emphasising the contrast between surgery sixty years ago and surgery now.

### Before 1837.

When the Queen came to the throne, there was still much truth left in the prophecy that Ambroise Paré made in 1575; it had worn well for more than two centuries and a half. "God is my witness, and men are not ignorant of it, that I have laboured more than forty years to illumine the art of surgery, and bring it to perfection. And in this labour I have striven so diligently to attain my end, that the ancients have nothing wherein to excel us, save only the discovery of first principles; and posterity will not be able to surpass us (be it said without envy or offence) except by the addition of a few things, such as are easily added to discoveries already made." Here was a prophecy with no uncertain sound about it; and, on the whole, it held good down to times that are within the memory of men now living. Nelson, when he lost his arm (July 25th, 1797) got no better surgery or nursing on board the *Theseus* than François de Guise got from Paré, when the French soldiers chased the English out of Boulogne (1545).

To take another instance: there is frequent mention made by Paré of the frightful mortality among his wounded soldiers from pyæmia, hospital gangrene, and acute septicæmia: "There came such a stench from the wounds when they were dressed that the bystanders could scarce endure it; nor could this be set down to the want of dressing, or to the surgeon's fault, for the wounds of the princes and the nobility stank as ill as those of the common soldiers. And the corruption was so great, that if any chanced to be left without dressing for one day—which sometimes happened with such a multitude of wounded—next day the wound was full of worms. Many also had abscesses in parts opposite to their wounds, which I remember befell the King of Navarre, the Duc de Nevers, and divers others." This was at the capture of Rouen, in 1562. But the mortality from blood poisoning after amputations was still terrific, two centuries and a half later, at Paré's old hospital, the Hôtel Dieu; and the breeding of maggots in wounds was not unknown, even in the American Civil War.

Sixty years ago surgery had not yet come fairly out of the twilight that was bright enough for Ambroise Paré. Modern surgery is not, like music or painting, wholly subject, for better for worse, for richer for poorer, to art; it was born not of improvement in men, but of improvement in methods. There had always been great surgeons in England—Wiseman, Cheselden, Percivall Pott, Hunter. But Hunter was inimitable; he gave us a new ideal, not new methods. Paget, who in 1837 was already qualified, set himself heart and soul to dispel that uncertainty of physiology and pathology which was hindering the surgeons of his time; he taught physiology as no man in London was teaching it, and he founded the knowledge of the relations between microscopic morbid structure and morbid action. Still modern surgery remained in the future. Then, suddenly, and out of all connection with surgery, came in America in 1842 the discovery of anæsthetics. Now, at last, the way was made ready for the rapid advancement of all surgical practice. But the fear of the powers of the air was still dominant over surgeons, as in Paré's time; and the infection of operation wounds was misinterpreted. Then, by Lister, came the discovery of antiseptics.

### APPRENTICESHIP AND STUDENT LIFE, 1837.

At this present time, the things that are said in praise of surgery are like the praises of Her Majesty that illuminate the streets; all true, but all alike. We may give a new setting to the truth, if we take that view of surgery which was open in 1837 to a young student who was just entering his apprenticeship, and had not yet seen the inside of a hospital. First, he would be apprenticed to a general practitioner in good practice in some flourishing provincial town. The indenture would cost a hundred guineas, and he would be bound for five years; that was the time required by the Society of Apothecaries sixty years ago. He might obtain leave for this period to be somewhat shortened; and certainly it was too long. But he learned thoroughly many practical experiences which were valuable to him in later years. He had, for example, to keep the books, and to enter in them his master's visits and his own, and the prescriptions; to dispense the medicines, make the pills, and send out everything—draughts, pills, leeches, and ointments—as neatly done up as we now get them from the chemists. At Christmas, or at other set times of the year, he had to send out the accounts. He saw many of the patients that came to the surgery, and practised all the minor operations again and again. He would be in attendance for six or seven hours daily, and every market day brought a great afflux of patients, including many who came to be bled, and went home in their market carts afterward, none the worse. And he helped his master in all such graver operations as might from time to time occur; and if the master was on the staff of the hospital, so much the better for the apprentice.

The term of apprenticeship was too long, but there were other things to be studied during it. He would be well grounded in anatomy, learning it from the bones, and from such material as he could get from the hospital and from *post-mortem* examinations. He might be able to attend one or more courses of lectures given by some young and zealous practitioner in the town. Moreover, the industrious apprentice would have some taste for botany, chemistry, or natural history which he could cultivate. His master would lend him a few books—Cullen, Pott, Hunter, the *Dublin Dissector*, and the back numbers of the *Lancet*—and he would have access to the casebooks, and learn for himself the whole art of note-taking.

The contrast of these years of apprenticeship with as many years of university life is, of course, very great, but the advantages are not all on the side of the university. Now, in 1897, the overcrowding of the profession is so frightful, the examinations are so many and so hard, that most men drop their classics and *literæ humaniores* in the fight, and never pick them up again. In 1837 a man who had been at Oxford or Cambridge—and the University of London was then of no account—was something remarkable and precious, enviable, elect, marked for promotion, living in a set of his own at the hospital. Now a University degree, like silver in the days of King Solomon, is common enough. We begin later, we wait longer, than they did sixty years ago; we are goods whose supply is in excess of the demand for us; and unhappily we have not only to work as hard as the men of 1837, but also to die as soon.

After his apprenticeship, the student whom we are figuring would enter at one of the hospitals of London. Here he would not enjoy that amount of guidance, advice, and general superintendence of his work and his play that is given to the modern student; no deans or wardens, no residential colleges, no athletic clubs—altogether he would be more isolated, free, and self-determined, for good and for evil, than the 1897 students.

Thus left pretty much to himself, he would oscillate between the dissecting rooms, the out-patient department, the theatre, and the wards. The surgical out-patients of a London hospital sixty years ago were but a handful of cases contrasted with the huge crowds that come now. And his attendance at the *post-mortem* examinations need not be considered; the pathology of 1837 was a very simple business, and the examinations were made without much care or intelligence.

In the theatre he would see no anæsthetics: and the whole range of practice would scarcely be wider, or the operations more skilful, than those of Ambroise Paré. We may take in turn the different regions of the body, and note how far they were subjected sixty years ago to surgical treatment.

### THE SURGERY OF THE HEAD, 1837-97.

The surgery of the head was at a standstill. Nothing was known of cerebral localisation; all the science and art that are connoted by the names of Hughlings Jackson, Ferrier, and Victor Horsley, were yet in the future, and there they were to remain so long as surgeons were in terror of touching the dura mater. Just sixty-two years ago, Palmer published Hunter's collected works. In his lecture on Injuries of the Head, Hunter said:

> Whenever I have seen the dura mater opened, the brain has worked through the opening and the patients have died. This was the case with a Mr. Cooper, whose dura mater I opened with a crucial incision on account of the state of the parts beneath; he died, and I think it is probable that I killed him by opening the dura mater.....It has been recommended lately, after trepanning, to put the scalp down again and unite it by the first intention; but I doubt whether we should be able to bring the angles perfectly together, and, if not, part of the dura mater must be exposed and must suppurate.....A poultice is the best application after either scalping or trepanning, because it always admits of immediate removal and keeps parts in an easy, agreeable state.

Hunter said this in 1787. Palmer, in 1835, wrote this astonishing note to it:

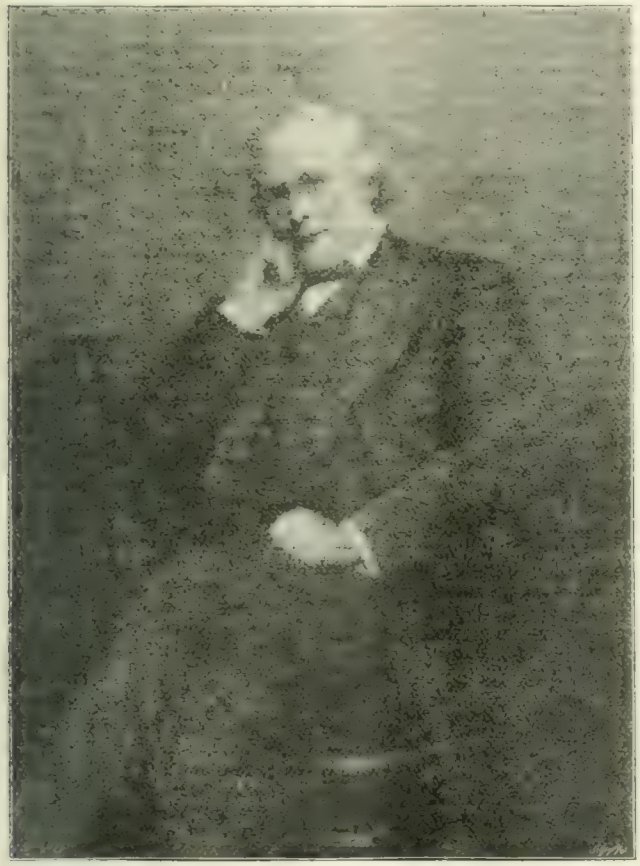
> No part of surgical treatment has undergone such important amelioration as that which relates to injuries of the head. Whoever will look into the writings of the period when these lectures were delivered, will be astonished at the officiousness of surgeons in counteracting the restorative efforts of Nature by their rude interference, and converting into complicated wounds what were simple in their origin.

The trephine, sixty years ago, had fallen into most fatal disuse. Of this retrograde surgery, Walsham has given a good account in the 1882 *Reports* of St. Bartholomew's Hospital:

> Following upon the reckless use of the trephine during the sixteenth and seventeenth centuries, the operation gradually fell into disrepute, and, notwithstanding the strong advocacy which it received in later times from the writings of Pott in England, and from the Royal Academy of Surgery in France, it had till within the last two decades—in France at least—almost ceased to be practised. Among the chief opponents of the trephine were Desault and Malgaigne, who, struck with the fatal results following its use, especially in the Paris hospitals, maintained that the operation was absolutely useless, and ought to be altogether abandoned.

M. Le Fort, writing in 1867, states that within the preceding ten years the operation had only been performed four times in France. That the operation had also lost ground in this country is evident from the statement of Mr. Callender,[1] that there had been no case of trephining for over six years in the wards of St. Bartholomew's.

Thus, in 1837, the use of the trephine was almost unknown, and the whole of cerebral surgery was yet to come. Furthermore, there was no general or methodical treatment of suppuration of the middle ear and its consequences; no knowledge of such work as of late years has been published by Macewen, Ballance, Arbuthnot Lane, and many others; the most that was ever done was to open a mastoid abscess, or perhaps scrape a sinus in the bone. Contrast this with the magnificent results published by Macewen four years ago in his book, *Pyogenic Diseases of the Brain and Spinal Cord*.



Lord Lister.

From the portrait by W. W. Ouless, R.A. (By permission of Messrs. Cassell and Co.)

| Condition found at Operation. | | Cases. | Operations. | Cures. |
|---|---|---|---|---|
| I. EXTRACRANIAL. Pus in mastoid cells, antrum, and tympanum | | 54 | 54 | 54 |
| II. INTRACRANIAL, BUT EXTRADURAL. Pus or granulation tissue between bone and dura mater | | 22 | 22 | 22 |
| III. INTRADURAL. | 1. Cerebral or cerebro-spinal meningitis | 18 | 11 | 7 |
| | 2. Superficial ulceration of brain tissue | 4 | 4 | 4 |
| | 3. Cerebral abscess: | | | |
| | *a*. Temporo-sphenoidal ... | 10 | 9 | 8 |
| | *b*. Cerebellar ..... | 8 | 4 | 4 |
| | *c*. Frontal or parietal ... ... | 3 | 2 | 2 |
| | 4. Septic thrombosis of lateral sinus | 22 | 20 | 16 |

Truly, the surgery of the head, in 1837, was not advanced beyond the place where Paré left it in 1590. True, the use of the trephine had been, in the seventeenth century, irrational and reckless; but the disuse of it was also irrational.

[1] *St. Bartholomew's Hospital Reports*, 1867.

### THE SURGERY OF THE CHEST, 1837-1897.

The surgery of the chest is an example, equally vivid, of the onward movement of our art; and the story of the treatment of empyema sixty years ago is one of the darkest pages in the whole history of surgery. The free incision practised by Hippocrates, the excellent drainage tubes used by Paré, had fallen into disuse; it was that evil period when empyema was treated with repeated punctures, for fear lest air should enter the cavity.

So late as 1872 M. Bouchart published a case of empyema in a boy, aged 9, cured in sixteen months, after 58 punctures. In another case he punctured the chest, in eleven months, 122 times. Lilly records a case where he made 56 punctures. Gimbert, in a child aged 11, made 74 punctures in nine months, obtaining a grand total of thirty pints of pus. Out of 48 patients thus tormented, only 6 were cured. Nor did free incision, before Lister's time, fare much better. Out of 12 cases, under the care of Velpeau, not one recovered; out of 50 cases under the care of Dupuytren, all but 2 died; and Sir Astley Cooper complained that he could not get a single cure.



Sir James Paget.

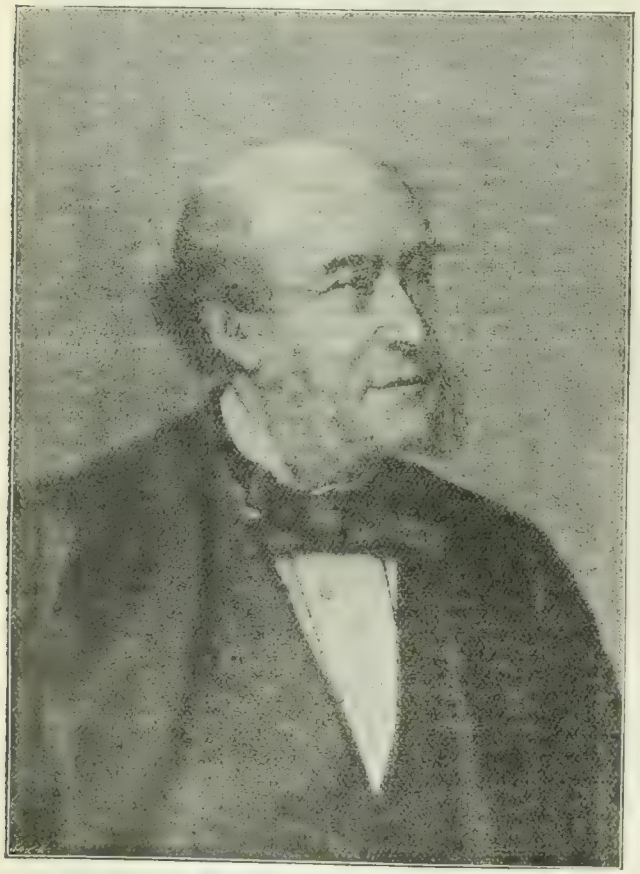
The mortality of empyema is still from 15 to 20 per cent., but this is due to the complications—phthisis, pneumonia, pericarditis. If it were not for these, we might reckon it below 10 per cent. Foltanek has published 21 operations, all on children, with 16 recoveries; and Rosenbach had 15, at all ages, which all recovered. The operation is so familiar, so straightforward and simple, that it is hard to picture the hopeless and fatal perversity of the old method; to realise that the surgeon himself sooner or later infected the pus that he dared not let out by free incision, so that it became first offensive, then fœtid, then of a gangrenous smell, and so the patient died. There is no question here of diagnosis, or of the want of anæsthetics: one thing alone was responsible for the frightful fatality of this wrong treatment, and that was the error of attributing to the atmosphere what was due to septic instruments.

Of that which may be called the higher surgery of the chest there was hardly a sign sixty years ago. Once, in 1844, a tuberculous cavity had been incised with success, by Hastings and Storks; but the operation remained without result on practice. Isolated record of operations on the lung had from time to time been published, mostly on the Continent; but there was no idea in England of such work as Godlee has made familiar to us.

In 1812, Richerand spoke of incision of the lung as if it were now established beyond the reach of criticism: and suggested the use of exploratory punctures in doubtful cases of abscess. In 1818, Zang reported fifteen cases of incision of the chest wall, seven of them for empyema, eight for abscess of the lung: in 1830 Krimer made careful study of the relation of pleural adhesions to operations on the lung; and in 1844 occurred the celebrated Hastings-Storks case. But, in 1850, Graux, of Brussels, published thirteen cases of incision of pulmonary cavities without a single success; and for the next twenty years the treatment of empyema was so bad that there was not likely to be any advance in the surgical treatment of the lung itself.

### The Surgery of the Breast, 1837-1897.

From the surgery of the chest we come to the surgery of the breast, in 1837, contrasted with 1897. Here the surgeon was kept back not so much by the fear of wound-infection as by the want of anæsthetics, for there is no disease in the world that women know so well, and conceal so long, and take



Sir William Fergusson.

so much to heart, as scirrhus of the breast: and sixty years ago there were no anæsthetics. All sorts of palliative treatment were being tried; and the disease was still held to be "constitutional." Walshe, in 1846, published the following bad advice to surgeons—himself a physician:

It is in cases of cancer of the breast that (when the patient presents herself at an early period) the internal use of arsenic, inunction with iodoretted lead ointment, and compression with the slack air cushion apparatus may be had recourse to with the fairest prospect of success. It is here that by persevering use of these means the issue, if not of actually curing the disease completely, at least of arresting its local advance men and throwing into permanent abeyance the constitutional dyscrasia that led the way to its development, may be most frequently accomplished. The advantages secured by early operation are perhaps rather matter of imagination than of demonstrable reality; and unprejudiced examination of the available (statistical) material leads to the inference that treatment in the early periods *plus* operation (if necessary) in the later gives greater chance of suspension of the disease and of prolongation of life than early operation *minus* treatment. The operation should, as a general truth, be abstained from. Enlargement and induration of the lymphatic glands are in my mind absolutely prohibitory of the operation. The existence of retraction of the nipple, or even in my mind of dimpling of the skin, renders operation inadmissible.

Then he appeals to Liston, who had lately said: "When enlarged glands are perceptible above the clavicle, or in the intercostal spaces, the practitioner who would advise interference with the original tumour must be grossly ignorant, atrociously unprincipled, or of unsound mind." Both in pathology and in treatment we have advanced well in the last sixty years; but no man knows what will come next, or whence we shall at last get complete mastery over cancer of the breast, whether from pathology, or from experimental work, or from universal acceptance among women of the absolute necessity of immediate operation.

### Abdominal Surgery, 1837-1897.

Abdominal surgery is a field of work so vast that no useful account of it can find room here. The student sixty years ago would see an occasional operation for strangulated hernia, perhaps an ovariotomy; there he would stop. The radical cure of hernia, known to Paré, had fallen into disuse; the surgery of the liver, the gall bladder, and the kidney, was unknown. Perforation of the stomach, or the bowels, or the appendix, was left to itself; cases of acute obstruction shared the same fate; so did ruptures of the abdominal viscera from external violence. The general work of abdominal surgery was hardly so much as attempted, save perhaps once or twice in a surgeon's lifetime. Of such success as we now obtain there was not a trace. With our successes we associate the names of many surgeons—Treves, Greig Smith (whom now we have lost), Mayo Robson, Knowsley Thornton, Lawson Tait; or we may take, for one example out of many, Knowsley Thornton's cases of hepatic surgery, from the *Transactions* of the Medical Society of last year:

| — | Cases. | Deaths |
|---|---|---|
| Cholecystotomy ... ... ... ... | 15 | 1 |
| Cholecystectomy ... ... ... ... | 3 | 0 |
| Choledochotomy ... ... ... ... | 5 | 1 |
| Drainage of abscesses resulting from gall stones ... | 2 | 0 |
| Separation of adhesion round gall bladder... ... | 2 | 0 |
| Dilatation of contracted gall bladder ... ... | 1 | 0 |
| Drainage of hepatic abscesses ... ... ... | 2 | 0 |
| Hydatids of gall bladder ... ... .. | 1 | 0 |
| Hydatids of liver ... ... ... ... | 2 | 0 |
| Exploratory operations on liver ... ... ... | 8 | 1 |

Or, for the everlasting edification of surgeons, there is the history of ovariotomy—how the famous isolated achievements of Ephraim McDowell in 1809 and Nathan Smith in 1821 were followed by Lizars in 1823, and Granville in 1826; yet, till 1842, there had been no successful operation in London. Charles Clay, of Manchester, first operated in 1842, Spencer Wells in 1858, Keith in 1862, Lawson Tait in 1867. The evil use of the long ligature, and of the clamp, and the want of antiseptics—these defects in the method of operating cost the lives of hundreds of patients; and not till surgeons, more than half a century after McDowell, returned to his way of treating the pedicle, could ovariotomy advance to the zenith that it now holds.

The surgery of the urinary tract in 1837 was practically limited to puncture of the bladder and lithotomy. The kidney, Lawrence used to say in his lectures, was "happily out of the reach of the surgeon." Suprapubic cystotomy had fallen into disuse; modern lithotrity was as much in the future as was the cystoscope.

### Amputations, 1837-97.

So we might extend the list. The surgery of tuberculous disease of the joints sixty years ago was not advanced beyond the place where it stood in the days of Paré. Brodie, writing in 1818, recommends caustic issues, setons, and even the cautery; abscesses are to be poulticed till they burst, or may

be pricked with a lancet; and then, "when the organisation of the joint is completely destroyed, and the constitution has become affected so that the patient's health is evidently failing, there can be no doubt of the necessity of the local disease being removed by amputation." Further, he attributes the occurrence of tuberculous disease elsewhere in the body, not to the fact that the joint disease had been left so long to itself, but to the amputation; therefore, he advises that in some cases of disorganisation of the joints, with caries and sinuses, amputation should be deferred for "one, or two, or more years." But of resection he says not one word. Amputations, then, fascinated the 1837 students, and were performed, without anæsthetics, with such swiftness and skill as have never been given to them since. In a good hospital they did well:

The number of cases of amputation in the University College Hospital, from the last day of June, 1835, to the termination of the year 1840, a period of six years and a half, has been 66, and of these 56 have proved successful.[2]

But all hospitals were not like University College. In 1855 Dr. Walter F. Atlee, of Philadelphia, published notes from the clinic of M. Nélaton, which he had attended in the years 1851-54. It seems that during this period every case of amputation of the thigh died a few days after the operation of septic absorption. Of one such case Dr. Atlee wrote the following note:

M. Nélaton was very much affected by the fatal result in this case. Things had come to such a point, he said, that really he was forced to ask himself the question whether morally he ought to undertake such operations in his hospital; and it was not the only one in Paris where the mortality was so frightful: radical reforms were needed in all. Of all the cases operated upon by amputation in the preceding twelve months only two had been saved.

And those patients who recovered after amputation healed slowly, after much suppuration. Potter gives, in his paper already quoted, the periods that elapsed in seven amputation cases before healing was complete; they were 23, 30, 35, 48, 61, 75, and 146 days. "When ligatures have been tied around the principal arteries of a stump the hæmorrhage from the smaller vessels is arrested by covering the recently-divided surfaces with lint soaked in cold water: this is removed and reapplied every few minutes at first, and then at longer intervals, until all bleeding has ceased; and when the divided surfaces become glazed over (which happens generally in from four to seven hours after the operation), the wet lint and small remaining coagula are removed, and the dressing of the stump is proceeded with. The flaps, which are in the most favourable state for union, are now brought accurately together; the number of sutures varies from two to four, but more than three are seldom used, even in amputation of the thigh; strips of plaster are also used, so as to allow of the ready escape of discharge."

Thus for weeks or months there was still the risk of erysipelas, even of hospital gangrene, septicæmia, and pyæmia; nor was there any enforcement of rules to keep students from coming straight from the dissecting rooms and the dead house to the wards. "Radical reforms are needed in all our hospitals," said Nélaton; and Semmelweis was the first great reformer, the proto-martyr of the reformation.

Men could do no more. Among the surgeons of 1837 were men as skilful and as observant as any surgeons of the present day, yet they had to see their patients decimated by all forms of wound infection, and they were bound hand and foot by fear of it. Then, inspired by Pasteur, began Lister's life-work, into whose labours we have entered.

The wider range of the modern surgeon is Lister's doing, not his own; he is himself not a whit more skilful or more careful than the men of sixty years ago. With him surgery will again come to a standstill, and those who shall succeed and surpass him will pity his ignorance of things that will then be known. We are nearing the end of the Renaissance of Surgery: we have seen such a pageant as may never come again.

A few days ago, Sir James Paget and Lord Lister received the gold medal of the Royal College of Surgeons of England. They stand for the rise and the zenith of modern surgery. It is too late now to honour the men who discovered anæsthetics, or to make amends for the neglect and the opposition that they suffered. Happily for the world, their work was not lost by the world's ingratitude.

[2] J. P. Potter, *Trans. Roy. Med Chir. Soc.*, May 11th, 1841.



## OBSTETRICS AND GYNÆCOLOGY.

### Midwifery in the London Schools in 1837.

In this department of medicine "growth" is a happier term than progress, for when the Queen came to the throne obstetrics was hardly recognised as a part of medical education or as a field of medical science worthy of cultivation by men of first-rate ability. It was in its childhood; its history is not that of progress from one stage to another, but of development from childhood to adolescence. In the *Lancet* for September 24th, 1836, we find an account of the medical schools of London, and their arrangements for the session of 1836-37. Not one of the hospitals had at that time an obstetric physician on its staff. They had in the schools lectures on midwifery. Dr. D. D. Davis lectured at University, Dr. F. H. Ramsbotham at the London, Dr. Rigby at St. Thomas's, Dr. Ashwell at Guy's, Dr. Robert Lee at St. George's, and Dr. Ferguson at King's College. At the other schools the lecturers were men who have not left behind them any permanent mark upon the science of their subject. The textbook which at that time represented obstetrical knowledge up to date was Dr. D. D. Davis's *Principles and Practice of Obstetric Medicine*, which we find reviewed in the medical journals published during the session of 1836-37. This work—one of much ability—is an interesting link between the present and the past; it contains many narratives of personal experience, drawings of actual specimens, and shrewd practical advice, mingled with profuse quotations from, and references to, authors now no longer referred to, from the strong probability that what in them seems extraordinary are instances only of imperfect observation.

### Mode of Dealing with Mechanical Difficulties in Parturition.

Comparing our power of dealing with the difficulties and dangers of childbirth now as compared with then, we observe that pelvic deformities and the altered mechanism of delivery in those slighter forms of pelvic contraction which do not make the birth of a living child impossible have been made the subject of careful and exact observation, mainly in German lying-in hospitals, but also, to some extent, in America and England. We owe to Michaelis and his successor Litzmann, and later to Simpson, Matthews Duncan, and Goodell, information which enables a well-informed accoucheur to infer the existence of pelvic contraction from the way in which the head enters the pelvis; and to ascertain early by examination the kind and degree of pelvic contraction, without waiting until the perilous condition of the mother announces that delivery is impossible. With this knowledge, it is possible at once to select the best way of delivering: to use forceps, turning, perforation, symphysiotomy, or Cæsarean section, while the patient's strength is good and her tissues undamaged; instead of, as in former times, finding out the necessity for destruction of the child, or delivery otherwise than by the natural passage, only by the failure of attempts to deliver by tugging at the forceps till the operator could tug no longer.

### Artificial Delivery.

The advances alluded to in the foregoing paragraph have enabled us to use methods of artificial delivery at a more favourable time. These methods have been themselves improved. Although the older accoucheurs could probably extract the head after perforation as well as we can, yet the introduction of the cephalotribe and improvement of the craniotomy forceps has made this operation a simpler and easier one. In the operation of turning, a step forward of great importance has been made by the adoption of bipolar version. This method of changing the position of the child had been used in occasional and exceptional cases by many accoucheurs; but it was reserved for Braxton Hicks to bring together the experience of those before him, to apply it in his own practice, and so to systematise and define the method and the application of bipolar version as a regular operation in midwifery, to be used whenever circumstances permitted; either in preference to internal version, or when internal version cannot be done. This is an instance of how one improvement often leads to others. Bipolar version at first seemed only a means of correcting early in labour wrong positions of the child. If this were all

that came from it, its advantages would be slight, for there are many who now think that it is better not to try to correct malpresentations early in labour, lest the membranes should be ruptured, but to aim at keeping the membranes unruptured until the os uteri is fully dilated, and then to deliver by internal version. But in placenta prævia the practice of early bipolar version has saved the lives of thousands. Turning was practised for this condition before Braxton Hicks. But before him accoucheurs had either to wait till the os was dilated (the patient in the meantime being brought nigh to death by bleeding) or to tear open by force an imperfectly dilated cervix. Hicks taught how to turn early in the labour without doing violence to the cervix, and by this teaching reduced the mortality from 30 to 5 per cent.

### CÆSAREAN SECTION.

Our power of enabling mothers suffering from high degrees of pelvic deformity to rejoice over living children instead of mourning over mutilated remains has been enormously increased. In the very worst cases of bony deformity delivery can be effected by Cæsarean section. When the Queen came to the throne the mortality of this operation was estimated at 84 per cent.; it was a risk too terrible to be incurred if by any means it could be avoided. Its results now are so good, that if done on healthy women and under proper conditions, the mortality does not exceed 10 per cent. This achievement is in large measure due to the beneficent work of Lord Lister; but this alone would not have given us safety in this operation were it not for the improvement in the method of suture—or, rather, we should say, for the demonstration of the right way of suture by Professor Sänger, of Leipzig. In pelves of deformity less extreme than those requiring Cæsarean section, craniotomy has been in many cases rendered unnecessary by the revival of symphysiotomy. This operation, long ago devised but relinquished on account of its danger, has been made safe by antiseptics.

### PREVENTION OF PUERPERAL FEVER.

The greatest of all improvements that has been wrought in the practice of midwifery is the demonstration that it is possible to prevent puerperal fever. This is one application of the teaching of Lord Lister. It is not possible to describe the progress of any branch of medical science without referring again and again to the benefits wrought by the acquisition of the power of preventing septic poisoning. At the beginning of Her Majesty's reign the mortality of childbirth in lying-in hospitals was so terrible that many persons thought such institutions ought not to exist; and those who managed them found themselves every few years obliged to shut them up. Now, lying-in hospitals all over the world—in Germany, France, Russia, America, and in England—can be pointed to in which childbirth has been made safer than childbirth outside them. This is sufficient proof that puerperal fever is preventable. It is a melancholy thing that the President of the Obstetrical Society of London had recently to ask the attention of that body to the fact that, notwithstanding this proof of the preventability of puerperal fever, the danger of that disease has not disappeared from private practice. This is not the time to inquire why; whether it is the teaching of midwifery in our medical schools that is in fault; whether the training and registration of the midwives who attend the poor would mend matters; whether sufficient control over midwives and monthly nurses is exercised by medical men; whether, as the clergy say is the case with religion, men accept the theory of antisepsis, but do not act up to it in their daily lives—whatever be the true explanation, the knowledge that we have of the way to prevent the chief cause of death in childbed has not yet produced its full effect. But knowledge is power. When it becomes familiar knowledge, as in no long time it must do, that puerperal fever is prevented in lying-in hospitals, medical men will not be backward in preventing it in private practice also.

### THE BEGINNINGS OF GYNÆCOLOGY.

While midwifery has improved, it may almost be said that gynæcology has been created. In 1837 ovarian tumours, uterine fibroids, and cancer were known. Ovariotomy had been performed with success by a few isolated surgeons, who were successful probably because they operated in the pure air of clean country houses, instead of the tainted atmosphere of hospitals, which surgeons then knew not how to purify. Jeaffreson, of Framlingham, and R. C. King, of Saxmundham, published some successful cases of ovariotomy in 1837. But such cases were so few, and the operation in the hands of hospital surgeons had been so fatal, that the recoveries were looked on as happy accidents, which had probably got into print because they ended well. It is accurate to say that in 1836 a patient with ovarian dropsy would have been told by 99 medical men out of 100—and the opinion would have been confirmed by almost any consultant—that she had an incurable disease, which would inevitably increase, cause extreme suffering, and put an end to her life. Uterine fibroids were inflictions which must be borne with; for no treatment would do away with them. Fibrous polypi were cured with Gooch's cannula, an instrument by which a tight ligature was put round the stalk of the tumour, which was then left to slough off; a method of cure which was effective but attended with offensive discharge and risk of blood poisoning. Something had been done to cure cancer, for Osiander and Lisfranc had introduced the amputation of the vaginal portions of the cervix for very early cancer, and this was occasionally done with good results. But the uncertainty of the result, and the absence of anæsthetics, made the operation one seldom performed. Great prolapsus was treated with much the same kind of pessaries as are now used. The diseases of the pelvic organs, which do not produce striking external signs but destroy the patient's healthy activity by keeping her in constant pain, were practically unknown; cases in which they were present were described by careful and accurate observers in a group, under the title of "irritable uterus" or "uterine irritation;" the physical signs of the morbid conditions causing the suffering were unrecognised. Extrauterine gestation was regarded as a rare accident, which was nearly always fatal, and the treatment of which was as dangerous as the disease.

### ANÆSTHESIA AND ANTISEPSIS IN GYNÆCOLOGY.

The great advances in our therapeutic power have been due to the two great discoveries of the Victorian era—anæsthetics and antiseptics. The effect of these have been greater upon gynæcology than upon almost any branch of surgery. Women are more sensitive, and get more resigned to suffering than men, and, therefore, more reluctant to endure pain for a possible benefit. Without anæsthetics many operations now so brilliantly successful could never have been initiated. When antisepsis was unknown, the opening of the peritoneal cavity added a large risk to any operation additional to that involved in what was actually done. Without antiseptics modern abdominal surgery would have been impossible. Abdominal surgery began with ovariotomy.

### OVARIOTOMY.

The father of ovariotomy in Europe was Dr. Charles Clay, of Manchester, a man of boldness, originality, and surgical insight. He was the first man who persevered in recommending and performing the operative treatment of ovarian tumour; but he had no hospital, and he was not a methodical man, and therefore his practice was not public and his records were incomplete. Ovariotomy was established as a legitimate operation by Sir Spencer Wells. He operated in public, and made a point of publishing his experience with candour and completeness. No one could say of him that he published his successes and said nothing about his failures. He also described his operations so fully as to make the reports of them instructive to other surgeons. Clay's reports, on the contrary, were so wanting in detail, that one who reads them even at the present day will often fail to gather from them what Clay did. Baker Brown was an able operator, but his influence on professional opinion was small. Bryant, Hutchinson, Tyler Smith, and others did sporadic operations in general hospitals, but, as antiseptics were unknown, their results were not such as to encourage imitators. Ovariotomy owes its acceptance to Wells's character as well as to his surgical skill. Wells had shown before the introduction of antiseptics that ovarian tumours could be removed with a risk to life small enough to make the operation justifiable,

seeing that the disease which the operation cured was one inevitably fatal.

### Abdominal Surgery.

Antiseptics took away the great risk of abdominal surgery, and made it possible to do anything in the abdomen, provided that hæmorrhage was stopped, and irreparable injury avoided. Tait proceeded to remove not only ovarian tumours, but tubes and ovaries damaged by inflammation, and in certain cases healthy tubes and ovaries. His example was followed by operators all over the civilised world, and has been fruitful. This extension of abdominal surgery has revealed the nature of the pathological conditions which cause and keep up pelvic peritonitis. It has taught us what a common thing ectopic gestation is, and how Nature often cures it. It has enabled us to do away with the injurious effects of uterine fibroids, either by removing the tumours themselves or by stopping their growth and making them dwindle. At the present time there seems, indeed, a possibility that, as regards at least the inflammatory diseases of the uterine appendages, abdominal surgery may, like Saturn



Sir James Young Simpson.

and the French Revolution, be devoured by its own children; for the vaginal extirpation of the diseased parts has come to be preferred by some to operation by the abdomen. If what is now the lead of a few should come to be the generally-adopted practice, and abdominal section be discarded as the treatment of inflamed Fallopian tubes, will that show that the surgery of Tait and his followers in those diseases was all a mistake? By no means: for it was the abdominal surgery that made the diagnosis and the vaginal operation possible. Abdominal operations revealed the nature of the disease and showed how adhesions were to be dealt with, and without this knowledge no one would ever have attempted to remove inflamed uterine appendages by the vagina.

### Uterine Fibroids.

It seems now as if the removal of uterine fibroids were coming to be as safe as the removal of ovarian tumours. This is an improvement which, like everything in abdominal surgery, depends upon anæsthetics and antisepsis, for these made it possible, but the special step in advance consisted in small points of technique. The difficulty was that a stump made of uterine tissue contracted after it was tied, and therefore that no ligature round part of the uterus could be relied on to stop hæmorrhage. The practice now is to stop bleeding by securing the uterine arteries; and this simple modification, one practised simultaneously and independently by several operators, seems likely to lead to success in dealing with fibroids such as 15 or 20 years ago hardly anyone hoped for. The prompt treatment of ruptured ectopic pregnancy by operation has been now done so often and so successfully that it is one which will soon be like that of strangulated hernia, an operation which every general practitioner ought to be able and ready to do. The introduction of methods of local examination have revealed minor changes in the pelvic organs, which account for many of the pelvic pains from which women suffer. Thus the speculum revealed erosions, and helped much in the early diagnosis of cancer; the sound demonstrated retroflexion. These, together with the teaching of abdominal surgery to which we have referred, have made the "irritable uterus" a ghost of the past. Modern methods of hysterectomy have enabled us to cure cancer far more frequently than was at one time hoped.

## GYNÆCOLOGICAL SURGERY.

By Alban Doran, F.R.C.S.,
Surgeon to the Samaritan Free Hospital.

### The British Medical Journal and Ovariotomy in 1837.

In 1837 this Journal, then in its embryonic form known as the *Transactions of the Provincial Medical and Surgical Association*, published a remarkable paper read before that Association during the previous year, a communication of bright omen, almost indeed prophetic. The author was Dr. Jeaffreson, of Framlingham, and the paper was entitled a Case of Ovarian Tumour Successfully Removed. His previous experience needs no comment. "During about thirty years, the extent of my professional life," he writes, "I may have witnessed the progress of about twenty cases of this disease, but these have been invariably fatal in their termination, after years of protracted suffering of greater or less severity, according to the importance of the organ which might have had its function interrupted by the pressure." Under the circumstances the operation was, indeed, a gallant feat. Time has justified him, not only for doing ovariotomy, but also for his treatment of the pedicle by ligature. So great was the dread of the peritoneum in 1837, that our bold pioneer noted how "a very small portion of omentum protruded with the sac (that is, the collapsed ovarian cyst), but was very readily returned." He clearly looked upon the prolapse of omentum as a possibly grave complication.

### Gynæcology in 1837.

Otherwise gynæcology was not widely taught nor practised. The teachers at the London schools—Blundell, Lee, Rigby, Davis, and Ramsbotham—were great as obstetricians, but taught little or nothing systematically about diseases of women. The speculum, introduced years before from France, was already in use though ill understood. Drs. Fleming and Marshall Hall, however, had recently devised and performed a plastic operation for prolapse—anterior colpotomy, in fact—and, what is more, Velpeau openly admitted the excellence of this English operation.

Yet instruction in gynæcology was not absolutely neglected in England in 1837. Marshall Hall issued an excellent synopsis of diseases of women in his *Theory and Practice of Medicine* that very year. So systematic is his brief summary, that its errors can be plainly seen; for truth is easier to extract out of error than out of confusion. The speculum was in use, anteversion and retroversion recognised, whilst, as we have seen, operations for prolapse were already practised. There was great cocksuredness about the differences between inflammation of the uterine substance, of its mucous and peritoneal coats and of the cervix. Particularly interesting are Marshall Hall's notes on what he calls, as we do still, "inflammation of the appendages." "The symptoms are local tenderness and tumour, and perhaps fluctuation;

sometimes the bladder or its cervix, or the rectum, is compressed, and the tumour is felt on an examination *per vaginam*. The case sometimes terminates by resolution, sometimes by suppuration, the pus having its issue in the iliac region, into the intestine, in the peritoneum, etc." That is what was taught in 1837, and Marshall Hall taught rightly in days when teachers had little means at their disposal of verifying their teaching. It is strange to find that so great an authority, who knew how to teach well and to work on scientific lines, nevertheless supported Gooch's mischievous fad about "irritable uterus." What illusions in gynæcology do our living teachers unwittingly support? What will be said about them in 1957, about the men who did so much, thanks to themselves and Lord Lister, yet remained deluded about what will seem so plain sixty years hence?

### The "Ulcer" and Speculum Era.

In the Forties gynæcology made some progress, especially in the direction of uterine therapeutics. This expression has been much condemned; but it properly implies cleanliness, care, good position of the patient so as to favour exploration, and good instruments to allow of the safe application of chemicals and injections. It is vain to abuse a good thing because wrong use has been made of it. Before the triumphs of ovariotomy, surgeons in particular were apt to ridicule the gynæcologist with his speculum and stick of caustic, forgetting that uterine therapeutics meant good dressing and enforced one of the soundest surgical principles, which insists that an operation may relatively be "minor," but is never an absolutely minor affair. At this period great attention was paid to the anatomy, physiology, and pathology of the cervix, os externum, and os internum. Sir James Simpson and Dr. Henry Bennet took much interest in the question. Fifty years have passed, but it is by no means settled yet. The association of mischief in the region of the cervix with sterility and dysmenorrhœa, and the nature of obstructions to the menstrual flow, whether from spasm or from flexions, have been hotly disputed, and many of the combatants yet live and have younger followers. The "stick and speculum" epoch represented a necessary stage in the history of gynæcology. Those instruments were not more abused or misunderstood than many another instrument, and their employment led to great improvements in our knowledge and treatment of diseases of women.

The explanation of the state and progress of gynæcology between 1840 and 1860 is not difficult. There were as yet few surgeons bold enough to open the peritoneal cavity and inspect the internal organs. But before 1837 Récamier, Lisfranc, Velpeau, and others had urged the inspection of the internal parts and those regions accessible to the speculum and had devised instruments to facilitate inspection. Operations for ruptured perineum, fistulæ, and prolapse therefore became frequent, and the discovery of anæsthetics greatly facilitated these procedures. By means of the speculum gynæcologists got a sight of the cervix and os externum. In consequence they learnt much, but assumed too much. They attributed to what they saw diseases and pain really seated in deeper organs, which they dared not expose. Hence we must not ridicule old authorities like Dr. Henry Bennet, who traced "nineteen out of twenty cases" of women's diseases to inflammation and ulceration of the neck of the womb. Dr. Tyler Smith was nearer the truth when he laid stress on "over-secretion of the mucous glands of the cervix." Dr. Robert Lee distrusted "ulceration," and looked on it as an element of cervical endometritis. Hodge, of Philadelphia, before 1860 strongly opposed the pathology of "ulceration," and still more the clinical ideas associated with it. A common feature in practice thirty years ago was the lady who had been told by a doctor that she had an ulcerated womb. She felt very bad indeed till another authority told her that there was no ulcer; then spontaneous recovery occurred. Even now charitable ladies come across mendicant females who seek alms on the score that they have "ulcers." The physicians of these times were led into error not only by reason of want of means to explore higher than the cervix, but also because women are bad hands at explaining subjective symptoms. Many of the authorities above mentioned wrote chapters on "irritable uterus," chapters worth reading if only to teach us how careful we must be when we draw inferences from clinical symptoms. The "ulcer" involved free application of chemicals, with the assistance of the speculum. Of course these practices led to grave quackery, but the authorities who advocated them were in no sense quacks. They simply drew false conclusions. A lady suffering from what she was told was an "ulcer," felt all the better after being "burned." Sickly hospital patients kept at rest, and, treated kindly, got well, and it was concluded that the "ulcer" was cured. At last the suspicions of good observers were justified by Runge and Veit and other pathologists, who showed that the "ulcer of the cervix" was no ulcer at all, but the replacement of the pavement epithelium of the surface of the cervix by the columnar epithelium of the cervical canal. This discovery did great service, and tinkering with caustics is no longer held justifiable. But one good came out of the evil—a sounder knowledge of the anatomy, histology, and pathology of the cervix, which has led to improvements in treatment.

### The Age of Flexions and the Apogee of the Pessary.

Just as in the Forties there were authorities who laid too much stress on inflammation of the cervix, so in the early Fifties over-great importance was laid on flexions and displacements. No doubt Dr. Graily Hewitt has to answer for propagating much pathological and clinical error. His views, however, were the result of careful investigation, and his treatment forced the gynæcologist to explore the pelvis very thoroughly, to use the sound properly, and to watch his patient closely for months or years. Hewitt, having encouraged men to search for flexions, which, he maintained, spontaneously grew worse, and caused obstructions and inflammation, lived to see a new school who, thanks to his improved methods of exploration, examined flexions yet more intelligently, and found that they do not necessarily grow worse of themselves, nor cause any obstruction or inflammation. One very objectionable result of the new doctrines on flexion was the abuse of the pessary and multiplication of its patterns. At the worst, however, it implied an eager endeavour to bestow comfort on women troubled with pelvic lesions. The free use of stems, at this epoch, greatly generalised a very practical knowledge of pelvic inflammations, which these appliances so frequently produced that they soon became as freely abandoned.

Matthews Duncan was the great opponent of the flexion-obstruction theory and the abuse of the pessary. Three or four types of that instrument are still largely used, and thanks to extended experience they give rest and comfort to thousands of women if intelligently applied by competent practitioners. Unfortunately there are still far too many varieties of pessary figured in makers' lists, which is not so much the fault of the dealers as of those who demand what they must therefore supply.

### Conflicts about Dysmenorrhœa.

There is no adequate space in these columns for recording the progress made in our knowledge of menstruation and its diseases. Simpson, Robert Barnes, Matthews Duncan, and others studied this complicated question most carefully. Fierce controversies arose about the relation of mechanical and other obstructions to painful menstruation. They formed a familiar feature of this epoch, and continued far into the era of abdominal section. They involved grave questions of practice and treatment, and the merits and evils of dilators and instruments for cutting the os uteri were severally discussed. One benefit of the introduction of the dilator has been that it has come to be used as a valuable aid in exploring the uterine cavity for evidence of disease. The whole question remains unsettled. In fact, notwithstanding much good recent work, the precise nature of the catamenial process is by no means evident, nor is it certain how far dysmenorrhœa may be a neurosis, and how far a true aberration of a distinct local process.

### Great Advances in Plastic Surgery.

Before 1860 the great age of gynæcology had dawned. The advance of plastic surgery, the foundation of the Obstetrical Society, and the establishment of ovariotomy as a justifiable operation were the distinguishing features of this epoch. Plastic surgery advanced under strange conditions, now

appily gone and for ever. This very period marked the last decade of negro slavery. One of its special curses involved early pregnancy and neglected labour in women of a neglected, self-neglecting, and indolent race. Marion Sims and Bozemann practised in the Southern States of the American Union in those days. They had ample opportunities of studying ruptured perineum and vesico-vaginal fistula in female slaves. They greatly advanced this important department of operative surgery, and as these operations demand the use of instruments needed for many other operations in the same parts Sims effected great improvements in the use and form of the speculum and other aids to diagnosis. He also introduced important innovations in postural exploration. "Sims's position" having aided thousands in diagnosing pelvic disease. In England Baker Brown gave a stimulus to plastic surgery, especially perineorrhaphy.



Sir Spencer Wells.

THE INFLUENCE OF THE OBSTETRICAL SOCIETY ON GYNÆCOLOGY.

The foundation of the Obstetrical Society of London in 1859 aided the cause of gynæcology. Amongst its founders were Dr. Robert Barnes, still among us, a standard authority on diseases of women; Dr. C. H. F. Routh, yet living; Sir Spencer Wells, so recently departed from us; and Sir William Fergusson. In respect to the views of that great surgeon, it is remarkable that he spoke at the inaugural meeting in the following terms, which give the impression, till the remainder of his speech is read, that he meant to lead up to operative gynæcology: "It might seem curious that one in that department of the profession to which he had chiefly devoted his attention should come to such a meeting." Yet the rest of his speech includes no mention of ovariotomy, but is an apology for pure obstetrics, which then really required the support of so distinguished an advocate, strange though that fact seems in these days. In short, Sir William Fergusson did not perceive in 1852 that modern gynæcological surgery had begun, Spencer Wells and Clay having already set to work in earnest. Great men are often bad prophets; Fergusson did not foresee how ovariotomy was destined to revolutionise abdominal surgery, just as Pitt failed to recognise the French Revolution till several years after its beginning. By the way, there is a speculum which bear the name of Ferguson, though with one "s;" the inventor was Dr. Ferguson, well-known in North London in those days. The pioneers of the Society displayed unsurgical timidity about the treatment of ovarian cysts, as may be seen by a glance at the first volume of its *Transactions*, but they only acted up to their lights.

In 1884 a celebrated schism occurred in the Obstetrical Society, and the British Gynæcological Society was founded. An Obstetrical Society was founded in Edinburgh, after which town it is named, in 1840, nineteen years before its homologue in London, and in 1890 the North of England Obstetrical and Gynæcological Society was established. All



Dr. Marion Sims.

the four institutions just named exist and flourish. The great general Societies, especially the Royal Medical and Chirurgical, Medical, and Pathological, have repeatedly held discussions on the surgery and pathology of the female organs. Indeed, Spencer Wells made much use of the first named, especially for the announcement of his series of ovariotomies.

THE ESTABLISHMENT OF OVARIOTOMY.

1858 is a great date in gynæcology, for in that year Sir Spencer Wells began his remarkable series which established ovariotomy as a justifiable operation. The circumstances associated with this surgical triumph are familiar to most of us; no epoch in the history of surgery is better known. It revolutionised abdominal surgery, which is at this moment still in a state of active development. The pioneering efforts of Houston and McDowell had been fitfully followed up in the early part of the century; just at the Queen's accession came a temporary rally. In 1836 Jeaffreson performed the successful ovariotomy reported in the *Journal* in 1837, as

already related; in the same year King, of Saxmundham, and West, of Tonbridge, scored similar triumphs. In 1838 Crisp, of Harleston, Suffolk, had similar good fortune; in 1839 West operated on his second and third cases, but lost the latter. Dr. Clay, of Manchester, it must never be forgotten, set to work in an earnest and methodical manner in 1842, before the days of anæsthetics, and had fair results; his technique was undoubtedly good, but for reasons never made plain he did not succeed in making a strong impression on the profession. Hence Clay's work was, and is doubtless still, underrated.

The well-known history of ovariotomy in metropolitan hospitals shows that much might then have been learnt from Dr. Clay. The surgeons who did isolated operations showed more courage than enterprise; none of them established ovariotomy by operating on a good number of cases. Mr. Solly warned his pupils against the danger of the ligature; it is curious that the idea of simply tying the ovarian vessels separately never seems to have entered the head of that eminent surgeon. Unfortunately, in 1850, Dr. Duffin began to advocate the extraperitoneal treatment of the ovarian pedicle. He pointed out the supposed danger of leaving the tied end of the pedicle to decompose in the peritoneal cavity, and insisted on the importance of keeping the strangulated stump outside. He jumped to the conclusion that the pedicle was completely strangulated, and must necessarily decompose, being ignorant of the remarkable process by which the distal end of the stump of the pedicle is saved from decomposing. The nature of germs being then unknown, he did not see that the pedicle was in far greater danger of putrefaction if fixed in the wound. Spencer Wells himself adopted Duffin's views, and thus complete intraperitoneal ligature was thrown back for about fifteen years. Even as late as 1870, a great surgeon, still living, stated that "nothing but the large amount of success which has recently followed the adoption of this most unsurgical method appears to me to justify it." Mr. Baker Brown, renowned in those days for his great skill in plastic operations on the genitals, was an unsuccessful ovariotomist. Yet Spencer Wells undoubtedly learnt much from seeing that ill-fated surgeon perform ovariotomy. As a manipulator, Baker Brown could not be excelled, and Wells often spoke of the care with which he managed to separate adhesions. But Brown dreaded the peritoneum, and that fear made him avoid precautions which he believed must increase danger. In striking contrast and most instructive to the surgeon is the boldness of Spencer Wells, who feared not to sponge the contents of the abdomen till they were clean, and the courage of Mr. Lawson Tait, who, in later years, introduced flushing of the peritoneum.

Sir Spencer Wells's plan of campaign is too well known to require description in detail. Contriving to obtain plenty of cases he set to work fearlessly, soon gaining a high reputation. He was not only a bold surgeon but also a careful man, extremely particular about minute precautions. It is significant that his boldest innovation, the "toilet of the peritoneum" was one of the best features in his surgery, and led to yet more effectual methods of cleansing the abdominal cavity, whilst the clamp which he used because he dreaded to return the ligatured pedicle was soon discarded by his own assistants. In insisting on the short incision he was right, in so far that an unnecessarily long wound used to be made for the extraction of a cyst. The intrinsic danger of a long incision was exaggerated by his earlier followers. Wells himself, like a true surgeon, was always ready to learn. Within a few years of his triumphs Keith and several foreign surgeons followed his example. Later, Lawson Tait overstepped the limits of ovarian tumours, as will presently be related. His bold defiance of the peritoneum has been justified by results. Like Spencer Wells, he is a believer in short incisions. Experience has shown that the abdominal wound should be as short as will allow of a clear view of the seat of operation, and at the same time permit the easy extraction of the tumour without any bruising of the edges of the wound.

### Drainage: the Surgery of Uterine Fibroids.

Keith, the immediate follower of Wells in point of date, first distinguished himself specially in the field of ovariotomy by his advocacy of the drainage tube. This instrument was more needed before the days of antisepsis and asepsis than at present. Olshausen even speaks of it this year as a "cunning delusion" (eine arge Täuschung), but its introduction was an advance. Keith's fame, however, rests greatly on his extension of abdominal surgery to the treatment of uterine myoma. At first the results of removal of fibroids were most discouraging. The use of the *serrenœud* was gradually perfected; now an age has come when operators endeavour to dispense with it. Thanks chiefly to foreign surgeons, the retroperitoneal treatment of the stump, brought to great perfection by Olshausen, and total removal of the uterus, practised by Péan, Doyen of Rheims, Martin, and others, have been widely undertaken with excellent results, and the former, at least, is now largely adopted in the United Kingdom. The removal of small fibroid uteri through the vagina is rightly looked upon with disfavour in this country, it being doubtful whether a myoma small enough to allow of such an operation is large enough to justify surgical intervention of any kind, save for intractable hæmorrhage.

### Influence of Listerism on Gynæcology.

Ovariotomy had not been established twenty years when the principles of Pasteur and Lister became applied to surgery with the grand results now so evident to all of us. Abdominal surgery profited more than any other department of the art; its evolution from ovariotomy to renal, hepatic, and intestinal surgery now advanced by leaps and bounds, and the ovariotomists of that time played a leading share in advancing Listerism. Many modifications in the old "strict antiseptic precautions" were brought about by these operators. Thus the spray was found to be inconvenient and not indispensable. Some French authorities proved by experiment that strong antiseptic solutions applied directly to the peritoneum were apt to destroy the endothelium, and thus encouraged instead of preventing the entry of germs into the system. This discovery was one of the chief factors in the introduction of sterilisation and the "aseptic" system. Bacteriology, that remarkable new science, has taught the gynæcologist the precise significance of certain precautions and the uselessness of others, and, on the other hand, has learnt much from the experiences of Spencer Wells and his followers. Thus the dangerous elements in pus have been detected, whilst the reason why pus is so often spilt into the peritoneum without any alarming results is comprehensible now that it is known that septic germs enclosed within a pyosalpinx or ovarian abscess soon lose their virulence and die off altogether.

### Tumours of the Tube: Deciduoma Malignum.

The abdominal surgery of the last twenty years has led to many other valuable discoveries. Some living British and foreign workers have distinguished a remarkable affection, papilloma of the Fallopian tube, and have further found that primary cancer of the tube is not so rare as was once taught. A much more serious matter was the discovery of "deciduoma malignum" by Sänger in 1889. This term signifies malignant degeneration of portions of the fœtal appendages left attached to the uterus after delivery. Metastases develop rapidly. Many alleged cases have been published since 1889. In this country several authorities suspect that in many instances the disease was simply sarcoma of the uterus coincident with and stimulated by gestation.

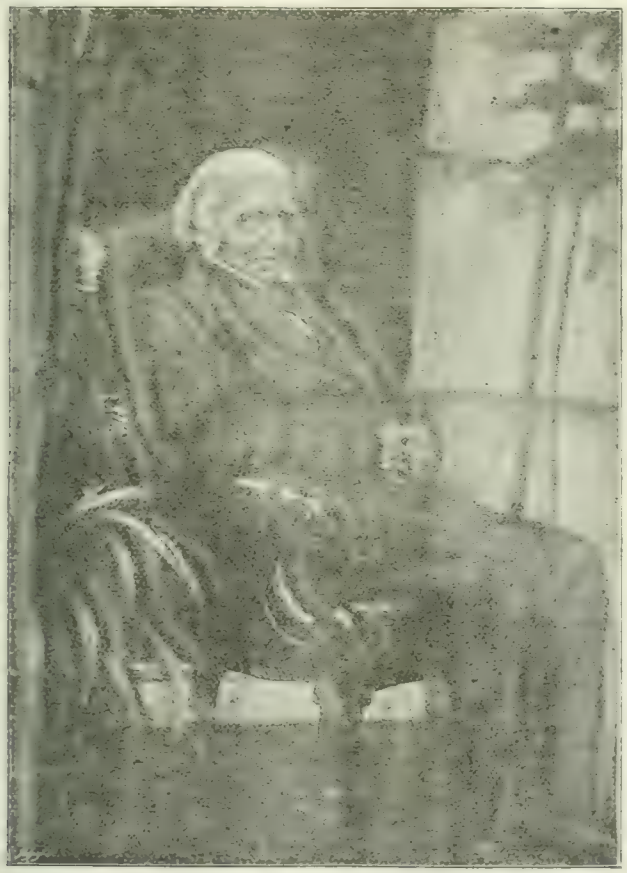
### Ectopic Gestation.

Amongst other developments of abdominal surgery we must not dwell here on that essentially obstetrical subject, operation for advanced extrauterine pregnancy; but it must be remembered in association with this matter that operations in the earlier stages of ectopic gestation have practically developed out of similar procedures for the removal of inflamed appendages. For diagnosis or even distinction between the two conditions is not always possible, nor are pathologists certain that hæmatosalpinx belongs exclusively to either.

### Pelvic Inflammation: Radical Surgical Measures.

Amongst the earlier and more direct results of the establishment of ovariotomy was a great increase in our knowledge of inflammations above the level of the cervix. Already (before

18;8) pelvic peritonitis was becoming distinguished from pelvic cellulitis. Bernutz and Goupil, Matthews Duncan, and others, especially made their mark by good work in this field. Duncan, early in the reign, had availed himself of opportunities of dissecting the internal parts of women who died after labour in Paris hospitals, where the mortality was then very great. He thus distinguished "cellulitis," "parametritis," or "perimetric phlegmon" with great precision. Owing to the attention then paid to the cervix deeper inflammations were somewhat neglected till the age of ovariotomy set in. Then dilated tubes and inflamed ovaries were exposed to the naked eye. Sir C. Clarke, in 1821, had spoken of suppurating ovaries as things known to "everyone at all accustomed to examine dead bodies." It must be noted that what he saw after death had often given no evidence of its existence during life. Drs. Kingston Fowler and Lewers repeated Clarke's researches some ten years since. The truth lies between two extremes; inflammation of the appendages is usually curable, but may require operation. Specimens of very advanced destructive inflammatory changes in the tube and ovary are now familiar objects in museums. We feel that the patient must be better without them, and after-histories support that opinion. On the other hand, Dr. Howard Kelly candidly admitted, three years ago, that over 15 per cent. of the last 200 cases of pelvic inflammation under his care had no pelvic disease at all, though all were expressly sent him for operation. Again, "pyosalpinx" is a true and definite morbid condition, but bacteriologists have shown, as was noted in the paragraph on Listerism in relation to gynæcology, that the pus confined in the obstructed tube becomes, after a time, almost or quite harmless.



William Jeaffreson (from a photograph kindly lent by Mr. J. Cody Jeaffreson).

It was in the year 1872 that the removal of the appendages for diseases other than new growths of the ovary was first practised. In February of that year Mr. Lawson Tait removed a suppurating ovary with success. In the summer Mr. Tait removed the appendages for the cure of menorrhagia from fibroid with good results. A few days earlier Hegar did the same operation for "ovarian neuralgia," but the patient died. Not many days later Dr. Battey removed the ovaries in order to induce a premature menopause in a young lady subject to grave neurotic symptoms associated with the menstrual molimen. Thus three varieties of one operation were introduced within six months. Removal of the appendages for old-standing disease, the first variety, is undoubtedly advisable in many patients. It has been greatly abused, and its extension is clearly more serious than its limitation. We mean that the newer practice of removing the uterus as well as the appendages is very doubtful surgery. On the Continent it is much practised; in the United Kingdom it is very unpopular: several Americans have recently declared against it. The second variety is removal of the appendages for the cure of bleeding fibroids. Under limitations now fairly known this operation is still quite justifiable, but it is not so much practised now since hysterectomy for fibroid has been made a relatively safe proceeding. The last variety, removal of the appendages for the cure of neuroses even as severe as epilepsy, has had authoritative supporters, but is now considered by most gynæcologists as unjustifiable on the grounds both of principle and experience.



Charles Clay.

### Vaginal Hysterectomy for Cancer.

The extreme practice of removing the uterus as well as the appendages for chronic inflammatory disease was much encouraged by the results of a more justifiable proceeding, vaginal hysterectomy for cancer. This latter operation has triumphed over assumptions. Terrible mortality was predicted; but distinguished German authorities soon demonstrated that this radical proceeding is fairly safe. The most extraordinary feature of this operation is the relative immunity of the patient from recurrence as compared with what is seen in cases of cancer of the breast. That gland

is situated in a position very favourable for operation. Yet, though such extensive clearing away of neighbouring structures as Mitchell Banks and others advocate can be practised with little immediate danger, recurrence is not rarely rapid. The uterus lies in a position where free excision of surrounding parts is impossible for evident reasons. Nevertheless, when cancerous, its removal, provided the disease be not advanced, often ensures a long interval of immunity. Some operators maintain that it is actually safer than amputation of the cervix, which Sir John Williams advocates as not more likely to be followed by recurrence. Finally, we must note that vagino-abdominal surgery has certainly become established. The vagina, once made aseptic, allows of drainage, so that in some respects a vaginal wound communicating with the peritoneum is safer than the abdominal wound in the median line.

New Therapeutics in Neuroses: More Plastic Surgery.

The Weir-Mitchell treatment has certainly proved useful in many cases where a great amount of neurosis is associated with a trifling pelvic disorder. Much has still to be learnt about what was termed "irritable womb" in 1837, but "treatment" not operation is the more justifiable. Since the era of ovariotomy plastic operations have made relatively small advance, chiefly because practitioners are more skilful obstetricians now than at the beginning of the reign. Mr. Lawson Tait's flap-splitting operation for ruptured perineum is a comparatively recent operation, and is certainly good surgery. Emmet, of New York, introduced his operation for the repair of lacerated cervix. This "trachelorrhaphy" has still its advocates. Its inventor admits that it has been grossly abused, and that in justifiable cases it is often ill-performed, while the treatment of the patient before and after is often faulty.

Electricity in Gynæcology.

In 1886 there was much excitement about Dr. Apostoli's experiences of electricity as a therapeutic agent in gynæcology. British authorities flocked to Paris, and Dr. Keith seriously set to work to prove the merits of the method in the case of uterine fibroids. It must be admitted that before this date electrical treatment of tumours of the uterus was empirical and dangerous. Keith, after some experience, declared that electricity could not dissolve a fibroid, but it could place a woman who suffered inconvenience from such a tumour in the position of a woman who had a fibroid which gave her no trouble. Other authorities cannot claim such good results, and many patients, finding bad symptoms returning, apply to another doctor, who may succeed or fail with some different treatment. Operators declare that such cases show local signs of being much the worse for electricity, an objection which the followers of Apostoli state to be groundless. The employment of electricity for the cure of pelvic inflammation is a doubtful proceeding, but it appears to be of real benefit in endometritis and in other conditions where the electrode can actually touch the diseased tissues. Unfortunately it is hard to believe in the accuracy of the conclusions at which many able advocates of electricity have arrived. These gentlemen are recognised as authorities on diseases of women, but on what grounds can they be accepted as authorities on electricity? On the other hand, the professional electrician is no authority in physic, and above all cannot well be admitted into gynæcological wards.

Plastic Surgery for Uterine Displacements.

A curious development of plastic surgery is associated with the name of a living British gynæcologist, Dr. Alexander, of Liverpool. He and Dr. Adams, of Glasgow, advocate and practise the shortening of the round ligaments in the inguinal canals, in order to rectify backward displacements. Remarkable variations of the new practice have been adopted abroad. Another class of operation for the same object is the sewing of the uterus to the anterior abdominal walls, known as hysteropexy or hysterorrhaphy. This innovation, which is not without danger to the patient, has its advocates, nor do they fail to show good results. Still, neither hysteropexy nor shortening of the round ligaments is an established operation, held by all to be justifiable. The fact is, that the true cause and significance of flexions and displacements of the uterus are matters by no means thoroughly understood. The total amputation of a prolapsed uterus, often performed on the Continent, is not considered good surgery in this country.

The Rehabilitation of the Curette.

Lastly, the curette has led to fresh discoveries, since it has been employed of late years intelligently as a surgical instrument. Thanks to improvements in microscopy, scrapings from the uterine wall can now be examined with a view to investigate suspicions of malignancy, and other points connected with the physiology and pathology of the endometrium. The history of this instrument is worth bearing in mind. It was introduced by Récamier not very long after the date of the Queen's accession, but a few years later fell into almost complete disfavour. Owing in great part to the valuable results of the intelligent use of Volkmann's spoon, the curette once more came into fashion, and is now extensively employed, not only in midwifery, but also in the treatment of endometritis, and also, as above remarked, as an aid to diagnosis. Along with the curette the use of the uterine dilator has advanced, its benefits being now distinguished and its dangers counteracted. Drainage of the uterine cavity, one of the most important features in uterine therapeutics, is greatly facilitated by the proper use of the curette and the dilator.

Gynæcology Triumphant in the Victorian Era.

The above record is undoubtedly remarkable. Gynæcology was literally the inventor of the new abdominal surgery, which it has taught to general surgeons, who have proved willing and ready pupils, not slow to avail themselves right ably of its resources. The blots on gynæcology are due to ignorance, which it has dissipated in the course of its triumphal advance, and to a few ill-advised persons whom it has disowned without ignoring how far they did good. Let us prize the more purely British triumphs above recorded, without forgetting the labours of European and Transatlantic gynæcologists. They have learnt from us, and we have much to learn from them. In particular, they excel in the perfection of asepsis in the operating theatre. Special credit must be given to the Johns Hopkins Hospital, Baltimore, the appliances contrived by Howard Kelly and other gynæcologists on its staff having been widely adopted in our country.

## PHYSIOLOGY.

The foundation stone of physiology was laid by William Harvey more than three centuries ago, when he propounded the doctrine that correct observation must be guided and controlled by experiment. It was his own faithful adherence to this principle that enabled him to present to the world his discovery of the circulation of the blood. But the science which he founded remained in a lamentably unfinished state as the years rolled by, and it is only the last sixty years that have seen its rapid and triumphant progress, because it is only during that time that the study of vital processes has been lifted from the regions of mysticism, and the work carried out on the lines formulated by its founder.

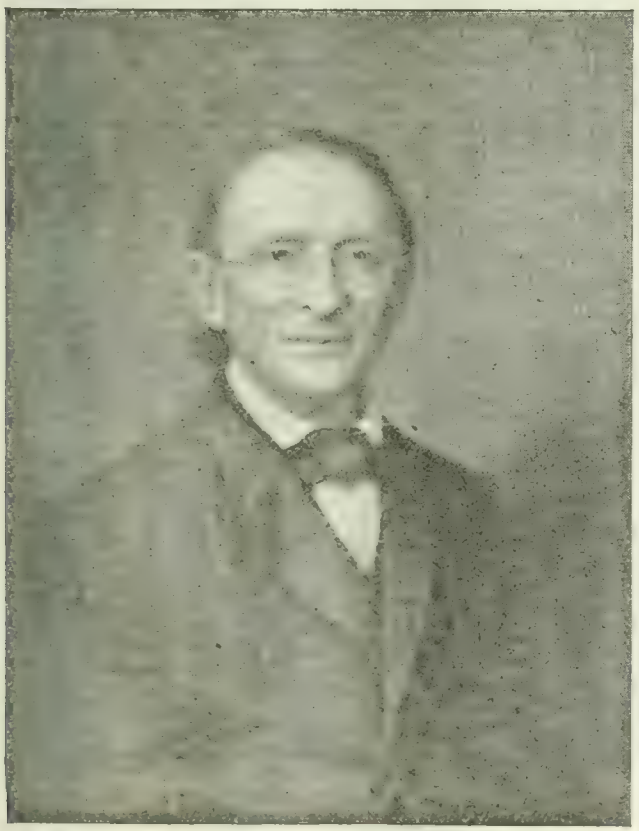
From Harvey to Johannes Müller.

It would of course be incorrect to say that no progress was made in the years that intervened between Harvey and Johannes Müller. Malpighi, who completed Harvey's work by the discovery of the capillaries, came soon after him: Glisson, Mayow, Boerhaave, Spallanzani, Borelli, Lower are other names that will at once suggest themselves to the student of physiological history. Further, Haller's great treatise on *Irritability* marks a very important turning point. Though it was Glisson who introduced this word, and, to some extent, the notion, in the latter half of the seventeenth century, it was Haller who placed it on the firm basis of experiment; and it was his experiments, in spite of the active opposition of Whytt, then Professor of Medicine at Edinburgh, which dealt the deathblow to Stahlism and other similar conceptions of an immaterial *anima* endowed with unlimited spontaneous powers. Even in Whytt's writings the doctrine had dwindled to one of vital force, and this term is adopted in the writings of John Hunter. Indeed, this idea prevailed till the time of Justus von Liebig, and Johannes Müller himself was frankly vitalistic. It was the work of the

pupils of these two eminent men to emancipate physiology from such thralls, and to place it on a rational and scientific footing. When we remember that it was only in 1845 that J. B. Mayer, the early apostle of the conservation of energy, combated Liebig's ideas on this subject, one may well gaze with astonishment at the contrast between what physiology is now, and what it was sixty years ago.

### THEODOR SCHWANN.

Among the pupils of Johannes Müller was Theodor Schwann, who, after serving in the position of naturalist at the Berlin Museum, was appointed a professor at the University of Louvain, and subsequently at Liége. The publication of his first treatise, that on elastic tissue, coincides almost exactly with the commencement of the epoch we are considering (1836). The same year saw the discovery of pepsin by the same worker. All that was known prior to this time concerning gastric digestion was obtained from the experiments of Réaumur, Spallanzani, and Gmelin. Dr. Beaumont had only just published his fascinating work in connection with his observations on Alexis St. Martin, but the honour of discovering the first of the digestive ferments remains with Schwann.



Carl Ludwig.

### MICRO-ORGANISMS AND FERMENTATION.

In the other great branch of fermentation, too, namely, that caused by the organised ferments, Schwann's name is to be for ever associated with the discovery that the alcoholic fermentation, and the fermentations known as putrefaction, are produced by the living micro-organisms which Leeuwenhoek had seen in 1680, and mistaken for crystals. Here Schwann met with a redoubtable antagonist in the person of Baron Liebig, who ridiculed the idea as preposterous, and Schwann's dislike for polemics gave to Liebig a temporary triumph. A quarter of a century later he had his revenge, for the doctrine of Schwann, rediscovered and rejuvenated by the work of Pasteur, has laid the foundation of all our modern ideas on this subject; Pasteur himself is ranked as an immortal, and bacteriology, originally an offshoot of physiology, threatens to be bigger than the parent tree. The benefit of this work to the human race is sufficiently indicated by the one word, Listerism.

### THE CELL THEORY.

Discoveries such as these would seem enough for one man, but it is with neither of these early investigations, all published before he was 27 years old, that Schwann's name will for ever be indissolubly linked. It is as the founder of the cell theory that Schwann is best known. The nucleus of the cell was discovered in 1821 by Robert Brown, and the existence of cells was known in animals; Müller had described them in the spinal cord; Henle had studied them in the epidermis; Henle and Purkinje in glands; Ehrenberg and Valentin in nerve centres; but these were isolated facts: no one had yet thought of carrying into the domain of animal histology the general notions derived from the microscopic study, by Schleiden and others, of vegetable structures. This was left for the genius of Theodor Schwann, and he devoted many years to promulgating the theory now recognised as universally true, that the unit of living things, animal and vegetable alike, is the cell. In subsequent years, Virchow carried the doctrine into the new science of pathology,



Emil Du Bois-Reymond.

another of physiology's numerous offspring, and summed up the situation in the classic phrase *omnis cellula e cellulâ*, which, though so young in years, is so familiar as to sound more like a truism than one of the most important truths in the whole kingdom of natural science.

### THE DEVELOPMENT OF HISTOLOGY.

Schwann lived to see histology, the twin sister of physiology, become a large and important science too; but even in the twenty years that have elapsed since his death the progress made has been so prodigious that the physiology of the cell alone is becoming a specialised branch of biology; and in the wider aspects of microscopic anatomy how vastly

different are the methods now used, and how overwhelming the accumulation of new knowledge. One method alone, that of Golgi, has revolutionised our conceptions of the nervous system; the simple division of cells as described by Remak is now eclipsed by karyokinesis, the centrosome, and the attraction sphere. There is always something to regret even in progress, and here we may pause to utter a passing sigh over the lost art of cutting sections by hand; yet in 1878, when Schwann died, the microtome was hardly born. In spite of Schwann's ecclesiastical surroundings at Louvain, he would never subscribe to the old doctrine of vital force. He was one of the earliest to see its insufficiency, its superfluity, and the unsoundness of its basis. He was one of the first among the pupils of Müller to formulate a theory of life which teaches that any progress that is to be made in the solution of vital problems should be sought for in the light of the known rather than in the darkness of the unknown and mysterious.

A short review like the preceding of the main trend of mind and principal discoveries of the life of a single man, brings home to one the principal stepping stones in the advance of physiology along one line; but physiology is many sided, and the lines of advance numerous. If one had selected the work of Magendie, followed by that of the illustrious Claude Bernard in France, there would have been the same tale to tell. A science that might sixty years ago have almost been described as an unploughed field, or an unworked mine of rich discoveries, lay before the hands of a man of genius. We might have followed Bernard, who, during his career, unearthed nugget after nugget, and paved the way for understanding the phenomena of life in many directions. To the young physiologist nowadays it sometimes looks as though the mine were exhausted, but the great and growing literature that has sprung up around the science amply indicates how inexhaustible it is. Every year some new and important advance is made. This is the great charm of physiology: the more we learn the greater we find is the extent of that which has to be discovered. Even the students know this, and with the Examination Board ahead lament the ever-changing aspects of the books they have to "get up."

It is impossible to follow out all the lines of advance; the steps in our knowledge of the nervous system alone would demand a lengthy treatise if properly detailed. Cerebral localisation was undreamt of by Flourens, but now, thanks to Hitzig, Ferrier, Munk, and many more, it has become the basis of modern brain surgery.

There are, however, some other pupils of Johannes Müller to whom we must devote a passing word, as no review of the physiology of the last half-century, however imperfect, would have an excuse for omitting a mention of their names. One alludes to that brilliant quartette the last of whom passed away only within the last few months. The four consisted of Carl Ludwig, Ernest Brücke, Helmholtz, and Emil du Bois-Reymond. These four have each in different ways played an important part in the progress of the science; all, however, were alike in their determination to raise it into the region of true knowledge from that in which they found it. Helmholtz, though he did much in his earlier years in assisting the advance of its physical side, soon turned his attention to pure physics and chemistry. Brücke did a great deal both in chemical and histological ways to assist the onward march; but the influence of the remaining two has been more marked since they attracted large numbers of students from all countries to their laboratories, and thus their teaching has borne more fruit.

### CARL LUDWIG.

This is especially true for Carl Ludwig; his work on secretion, on lymph formation, on blood pressure, on the heart nerves (here the brothers Weber must also be mentioned), and on other subjects too numerous to catalogue, were but recently reviewed in this JOURNAL, when little more than two years ago the scientific world had to regret his death. It is perhaps not too much to say that Ludwig's labours have revolutionised physiology. He was essentially a born experimenter. He always submitted to experimental investigation all his ideas, and in doing so exhibited a faculty for the invention of mechanical appliances which was surprising. It is to Ludwig that we owe the introduction of the graphic method in physiology, by which observations that would otherwise be haphazard and inexact are rendered accurate, measurable, and permanent. The kymograph, which we may call the sheet anchor of the modern physiologist, was his invention.

But his influence as a teacher was still more remarkable; and his pupils were more than the ordinary students who attended his lectures. They included students of older growth attracted from all parts of the world to his laboratory, to pursue there original research under his direction. To enumerate these would be to mention the names of nearly every physiologist of the present day. They differ in the various branches of the science to which they have turned, but all are alike in the reverence and affection they bear for their old master.

### DU BOIS-REYMOND.

Du Bois-Reymond, the last of the quartette, began his student's life in the Faculty of Theology, and in so doing he resembled Cuvier, Boerhaave, and Johannes Müller. It was the lectures on chemistry by Mitscherlich that gave him a bias to the study of natural science. He studied in Bonn, and later in Berlin, took his doctor's degree there in 1838, and two years later he became Müller's assistant. The latter died in 1858, and Du Bois-Reymond, at the comparatively early age of 40, became his successor. His graduation thesis was on the subject of the electrical fishes, and with singleness of purpose he devoted his whole life to a study of animal electricity. The invention of the galvanometer placed in his hands an instrument which had been wanting in those of Galvani, and enabled him to rescue the important subject of his life work from the slough of charlatanism and disrepute into which it had fallen in the days of Mesmer and his disciples. Du Bois-Reymond was also a great experimenter, and a man of the keenest observation. Professor Burdon Sanderson once said of him that he probably never made an incorrect observation. Some of his deductions from his work have been questioned, it is true, but never his facts. Curiously enough, his principal theory was first questioned by one of his former assistants, L. Hermann, and at present Hermann's views hold the field. He was a conspicuous figure in the scientific world, a traveller, a *littérateur*, and a linguist; he exercised considerable in circles outside that of science, and within the scientific circle had a goodly number of former pupils now holding independent professorships. He was also for many years editor of one of the most widely read of physiological journals.

### THE GROWTH OF SPECIALISM.

The mention of Du Bois-Reymond recalls many interesting facts in connection with the progress of physiology; one of these is the growth of specialism. As late as 1856 Müller lectured on anthropotomy, comparative and pathological anatomy, physiology and embryology. When Du Bois-Reymond was a student there was neither chemical nor experimental physiology. Another is the growth of new words: tetanise, muscle curve, electrotonus, negative variation were coined by Du Bois-Reymond. Of new instruments the Du Bois-Reymond coil, the Du Bois-Reymond key were his inventions. Then how different is the teaching now from what it was then. Professor Stirling, in a recently published essay, tells us that in 1840 half a dozen experiments—outside those on voice—represented all the objective teaching given by Müller.

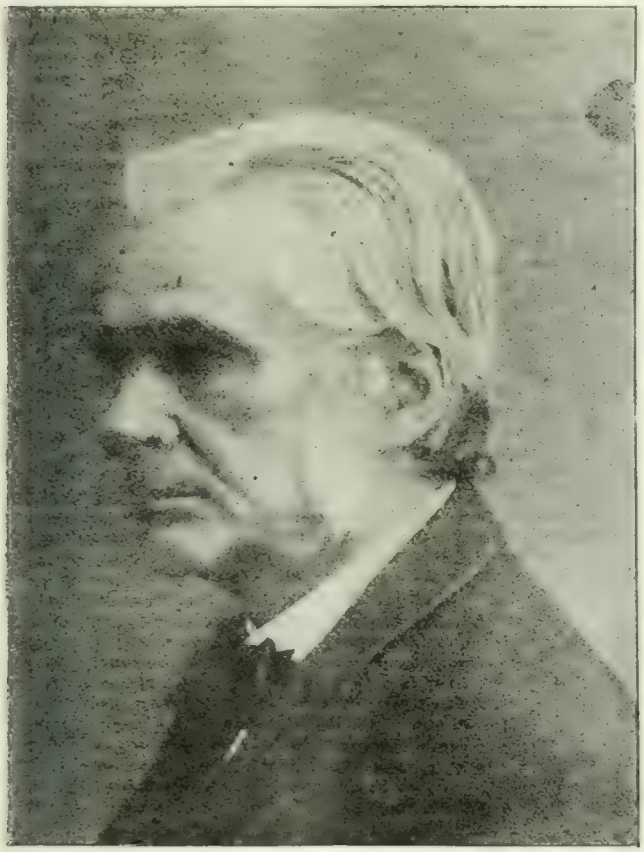
### PHYSIOLOGICAL INSTITUTES.

Probably the first independent physiological institute in Europe was that built in Breslau by that keen observer of his own visual field, the discoverer with Valentin of ciliary motion, the describer of the cells of the cerebellum, and the heart fibres that bear his name, to wit Johannes Evangelista Purkinje. The first institute for experimental physiology in Germany was built under Vierordt in Tübingen (1865), and then came that of Ludwig in Leipzig (1869), which has proved the parent and type of all succeeding institutes throughout the world, our own country and its colonies included. When we consider the numerous laboratories devoted now to physiological research, the number of workers in them, the daily experimental and practical classes for junior students and for seniors, and above all the tendency for lectures and teaching generally to become objective, experimental, and prac-

tical, well may we wonder when we consider how new are all these developments of modern physiology.

### PHYSIOLOGICAL CHEMISTRY.

The important branch of physiology, known as physiological chemistry, or better, as chemical physiology, has within recent years become surrounded with a literature of its own. Independent professorships in this branch of the science, and laboratories devoted entirely to its study are springing up. Of the teachers, Hoppe-Seyler was perhaps the foremost in causing this change, but there are many others still living who must have a considerable share of the honour of being pioneers in this division of physiology. It was initiated by the celebrated chemist Mulder. At about the period when our present Queen began her reign, he worked at Utrecht in a laboratory that had formerly been part of an ancient monastery, and here the alphabet of physiological chemistry, the division of the important proximate principles of the body into proteids, carbohydrates, and fats, was conceived. He was the first to investigate the still unsolved



Thomas Henry Huxley.

problem of the chemical constitution of the most complex and most important of all organic substances, the proteids. His views were attacked with great vigour by Liebig, and so great was the acrimony raised, that Mulder is said one day to have exclaimed, "Not Justus, but Injustus von Liebig!" In this instance, however, Liebig had truth on his side, and Mulder's elaborate theories toppled to the ground; the survival of the word "proteid" is all that remains to mark the spot.

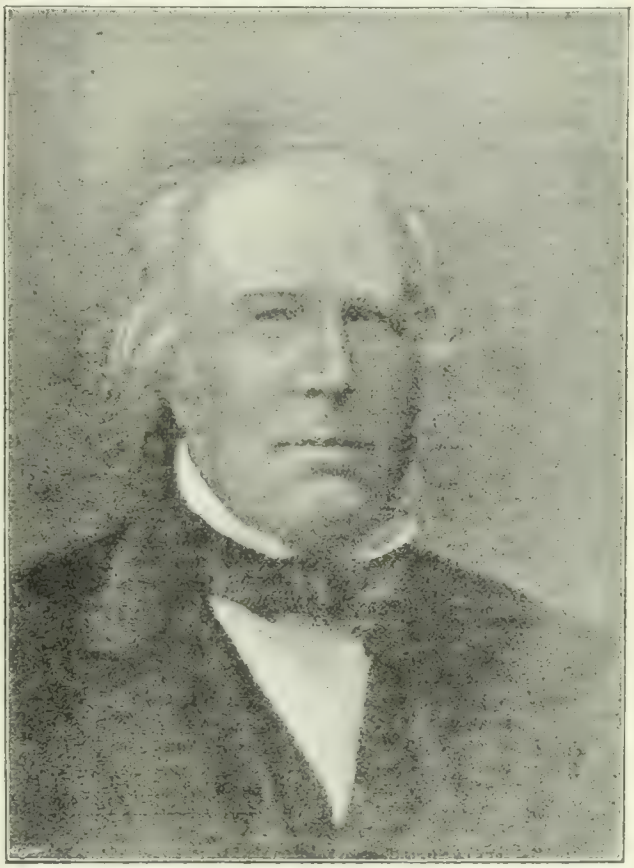
But though the proteids have not yielded their secret to the chemist, the carbohydrates have, and this work has culminated in the synthetic production of many of the sugars. Among other recent researches of the chemical physiologists must be reckoned their work on internal secretions, and their attempts to isolate and identify the active physiological substances produced by the ductless glands, whose function hitherto had been so shrouded in darkness.

### BRITISH PHYSIOLOGISTS.

Some readers might gather from what has been written in the paragraphs preceding this, that physiology is a science of Continental and principally of German origin. It is true that many of the leaders have been Germans; and it is also undoubtedly true that they have exercised a more marked influence in the recent progress of the science than the physiologists of other nations. But the mention of the names of Harvey, Glisson, Mayow, Hunter, and Lister is sufficient to show that our own country has contributed no small share in the past to the ranks of physiologists; and to those that have been already mentioned may be added those of Hewson and Andrew Buchanan.

### THE VIVISECTION ACT.

There are at present signs that England will not be far behind Germany, or may even take the lead in the future. The antivivisection movement in this country with which physiologists have had to grapple has had some share in retarding the progress of physiology here. To-day, though we



William Sharpey.

have a Vivisection Act in operation but few physiologists have had cause to grumble on this score, for the Act has been administered by successive Home Secretaries with wisdom and fairness. To-day also we can hardly doubt that the antivivisectionists, though a noisy section, constitute a very small section of the public. The discovery of anæsthetics, the jubilee of which is only just over, has robbed experiments on animals of the terrors they formerly possessed.

### SCIENCE AT THE OLDER UNIVERSITIES.

Another sign of the times is the part the ancient universities are taking in the matter of science. It was not until 1847, that Dr. (now Sir Henry) Acland, with two or three more, urged the erection of a science institute worthy of Oxford and of science, and the present museum was completed a few years later. Up to that time the University had scarcely provided any means for the serious study of medicine,

and the present museum, with its important staff of professors, the Radcliffe library, and the resuscitation of what used to be called the lost school of medicine, are monuments to the patience and perseverance of him who, until a few years ago, when ill-health compelled him to resign, was the Regius Professor of Medicine. The first Professor of Physiology at Oxford, Dr. Burdon Sanderson, was, however, appointed only fourteen years ago. The growth of the medical school of the old University, of Harvey, and of Glisson, has been still more remarkable. This dates from the appointment of Dr. Michael Foster as Professor of Physiology there, but that, after all, is not many years since.

### WILLIAM SHARPEY.

Though Burdon Sanderson came in the first place from Edinburgh, it is not too much to say that as a physiologist he is a product of London, and, more than that, of the same College which has given to Cambridge her Professor of Physiology. Though the metropolis was destitute of a university in the true sense then as now, she has the credit of containing the home of modern English physiology; and though not wishing to minimise the important part played by John Goodsir in Edinburgh, we may safely say that the man who played in this country the part that Johannes Müller played in Germany was William Sharpey. Charles Bell and Marshall Hall had previous to that time been engaged in elucidating the functions of the nervous system, but their labours were isolated, and formed but oases in the Sahara of neglect into which the pursuit of physiology had fallen in this country; and this during a period when it was being pursued with activity and success both in France and Germany.



Johannes Müller.

Both Sharpey and Johannes Müller were pupils of Rudolphi, who was Professor of Anatomy and Physiology in Berlin until 1833. They were, moreover, nearly of the same age. Müller was born in 1801; Sharpey in 1802. Müller's intellectual development was more rapid than that of his contemporary, and he was called upon to succeed his old master at a date when Sharpey was still perfecting his education

In 1830 Sharpey published his first essay in research, entitled *On a Peculiar Motion excited in Fluids by the Surfaces of Certain Animals:* these observations were preliminary to the discovery of cilia in vertebrates. In 1836 he was called to the newly-established Professorship of Anatomy and Physiology at University College, London, which he filled for so many years with such signal success. Like Müller, Sharpey, though deservedly great as a physiologist, remained to his dying day, above all, an anatomist. Specialism is inevitable as knowledge grows, and though the association of physiology with anatomy, and especially with microscopic anatomy, must ever be close, the separation of the two in the work of research, of teaching, and, we may add, of examining, is recognised to be not only wise but essential. Just as the practical pursuit of physiology in Germany radiated from the centre where Müller taught, so in this country nearly all our present physiologists emanated either from the physiological school that Sharpey established, or indirectly from those set on foot by his pupils.



T. Wharton Jones.

### WHARTON JONES.

A contemporary of Sharpey, but one who never exercised the same widespread influence as he did, was Wharton Jones. His intimate friends were few, but those who succeeded in penetrating his outer crust of reserve regarded him with the deepest respect and admiration. Among these was the late Professor Huxley, who fell under his influence first when a student at Charing Cross Hospital, and Huxley has stated that it was Jones who first inspired him with that biological and physiological bent which he subsequently developed to such a marvellous degree. Though Wharton Jones began as a demonstrator of anatomy, he was more of a physiologist in the true sense of the word than his friend, and sometimes his antagonist Sharpey. Jones, unfortunately, was fond of

polemics throughout his life, and this no doubt did much to estrange him from many who would have been glad to learn from him. After he had given up his position of lecturer on physiology, when he was professor of ophthalmic medicine at University College, and subsequently when he lived in retirement at Ventnor, his pen was always busy, and usually on physiological subjects. He was a fervent disciple of Harvey, and throughout his life the circulation of the blood was his favourite study. His discovery of the germinal vesicle was published in 1835, and in 1837 this was followed by another paper on the origin of the chorion that attracted the attention and approval of the celebrated anatomist, Purkinje. His essay on the State of the Blood and Blood Vessels in Inflammation was awarded the Astley Cooper prize in 1830. His greatest discovery, that of amœboid movement in the colourless corpuscles of the blood, was made in 1845. Other papers he wrote were on the rhythmically contractile veins of the bat's wing (a discovery of which he was especially proud), on lymph hearts in the eel and frog, and on the tonic contractions of the main artery of the rabbit's ear; his publications on ophthalmic medicine were also numerous. Wharton Jones, however, never advanced with the times; he was never able to accept the doctrine of evolution; he was unable to recognise the value of his own discovery of amœboid movement, and rejected *in toto* the teachings of Waller and Cohnheim regarding the emigration of leucocytes; he distrusted and detested all the stains and modern methods of histology, and the pertinacity with which he upheld his own opinions caused him to be slighted and neglected in spite of his arduous labours. He knew his own greatness, felt bitterly and resented the non-appreciation of his contemporaries, and, retiring into his shell, became in time little short of a recluse.

### Augustus Waller.

A few words concerning Waller, William Bowman, and Dr. Pavy, will complete these notes on the physiologists of the early Victorian epoch. Augustus Waller's first piece of important work (1846) was his discovery of the emigration of the leucocytes. The amplification of this discovery by Cohnheim has laid the foundation of our knowledge of inflammation. But the name of Waller is most closely associated with what we now call Wallerian degeneration. He subsequently published papers on the Cilio-spinal Region, and on Vaso-constrictor Nerves, but his claim to the grateful remembrance of mankind will always rest on the paper on Degeneration and Regeneration of Nerve, which was published in 1850.

### Bowman.

William Bowman did not begin his medical studies at King's College till 1837, but there was no five years' curriculum in those days, and his principal investigations were carried out in the three years 1839-42. These included his work on the Structure of Striated Muscle, the Structure of the Alimentary Canal, and the Structure of the Kidney. Bowman's work on these subjects, like his subsequent work on the Eye, has stood the test of time, and, though mainly anatomical, yet forms the basis of physiological teaching. At the time that Bowman entered King's College, the celebrated Dr. Todd was Professor of Anatomy and Physiology there. Todd exercised great influence on all his pupils and assistants, and the physiological twist in such men as the late Sir George Johnson is largely to be traced to the early influence that Todd exerted on him. In 1839 Todd commenced the publication of the *Cyclopædia of Anatomy and Physiology*, the largest and most important work of the kind that has appeared in England, and still valuable for the number and variety of the original articles contributed by men of the highest standing. Bowman, as he had proved himself to be a first-rate microscopist, was engaged to write numerous articles; in 1843 he appeared as co-editor, though only 27 years of age at the time, and in 1856 the fourth and last volume was completed. It was the first physiological work in which histology appeared, and thus an epoch in physiology was constituted. The immense superiority of the book may be appreciated by comparing it with other treatises published about the same time by Bostock, Elliotson, and Carpenter.

When later in life he devoted himself to a special branch of his profession, he stepped naturally and easily into the position of leader and representative of ophthalmic medicine and surgery, holding the same position in this country which was occupied in Germany by his friend von Graefe, and in Holland by his still more intimate associate Donders. When, in 1851, the ophthalmoscope was invented by Helmholtz, he was one of the first to become expert in its use. Sir William Bowman died in 1891.

Dr. Pavy is happily still with us, and continues to work with no diminution of the vigour of his youth.

### The Physiology of Our Own Time.

Such then were the physiologists of 1837—in England as in Germany to be counted almost on the fingers of one hand. Of the physiologists of 1897, it is not our place to speak here. They are more numerous, but they have one and all to thank these early pioneers for the groundwork they laid down. The superstructure is modern; we have endeavoured to indicate how new most of it is. The structure is far from complete, and there are indications that physiology sixty years hence will be wider and more perfect, though not perhaps so largely different, as the physiology of to-day differs from that of the thirties. For physiologists have now learnt and taken to heart the teaching of Harvey; the use of the microscope has enabled them to make their observations accurate; the persistent use of experiment has raised the science into the region of certain knowledge. The difference in the manner of its presentment we indicated when comparing the six experiments of Johannes Müller with the practical classes that may be seen any day at work in any of our great laboratories. A visit to the laboratory at University College will provide a useful object lesson of what teaching was in Sharpey's day with what it is now. There may be seen an oval table at which Sharpey sat with his class when teaching them practical histology; around the table is a sort of tramway, along which the solitary microscope travelled as it passed from master to student, and student to student. How the early physiologists would rejoice if they could see the practical histological classes of to-day, the experimental classes, the chemico-physiological classes, and the research in the laboratories. The change is matter for the most sincere congratulation, and we cannot wonder that the votaries of physiology accept with approbation du Bois-Reymond's description of it, as the "Queen of the Natural Sciences."

## PATHOLOGY.

### The Dawn of Scientific Medicine.

Looking back from our present standpoint on the evolution of pathology during the last sixty years, we cannot but be struck, as Virchow once said, by the fact that scientific medicine, as we know it to-day, is indeed very young. The development of scientific medicine has no doubt gone on very rapidly during this period of six decades, but we are forced to acknowledge that it is only during this period that the Hippocratic system and the method of Galen in medicine have been replaced by those of Bacon and of Paracelsus. The workers in medicine began their crusade against theory, and insisted that observation and experiment should take the place of hypothesis and tradition only so late as the sixteenth century, indeed medicine, with its humoral pathology, made little more advance from the times of the Egyptian physicians than did astronomy from the time of Ptolemy. With the advent of the sixteenth century, however, medicine came, first to be looked upon as a science, and then, along with the other sciences, went forward by leaps and bounds. The great anatomists, physiologists, and chemists of this period, by patient observation and careful deduction, built up the foundation upon which medicine rose from an art to a science, in which, however, empiricism necessarily still played a most important part.

At the end of the eighteenth century John Hunter and those working with him had probed very carefully such secrets of surgery and pathology as they were able to lay bare with the methods available before their time, and with others devised by means of their ingenuity. Morbid anatomy had been carefully studied, and the gross naked-eye lesions of disease had been most carefully observed; in fact, it may be said that it was due to the working out of this field of path-

ology that led medical men to turn to the botanists for new methods of research.

### PRE-VICTORIAN PATHOLOGY.

In 1822 William Cook had translated Morgagni's *De Sedibus et Causis Morborum per Anatomen Indagatis* (published in the original form in 1760, when the author had nearly attained his 80th year). The English edition, which from the list of subscribers appears to have found its way into the hands of many of the principal physicians and surgeons of London and Edinburgh, must be looked upon as the first systematic attempt to locate the effects of disease in various organs, and appears to have set men thinking of the processes of disease as apart from their mere effects. The information to be gathered at this time, owing to the meagre information that had as yet been obtained as to the structure of the various organs was, however, necessarily very scattered and sketchy. There appears, however, to have been an earlier English translation of Morgagni's works in 1769, made by Dr. Benjamin Alexander, but this, like the original, was used for little but reference, and though it was to be found in the best libraries, it was seldom in the hands of those who were teaching and studying pathology. Just at the end of the eighteenth century a countryman of our own, Matthew Baillie, following somewhat the method adopted by Morgagni, but leaving out a very great amount of detail that characterised Morgagni's work, published a work (the second edition appeared in 1797) in which the various pathological changes met with in different organs were set forth. It may be interesting to give the amount of information that Baillie had concerning inflammation of the kidney. He says: "I don't recollect to have seen the proper capsule of the kidney inflamed, and I am disposed to consider it a rare morbid appearance. When the substance of the kidney is inflamed, it frequently advances to suppuration, and perhaps there is no considerable gland in the body so liable to form abscesses as the kidneys. In some cases which I have seen, the abscesses have appeared to be of a common nature; but in the greater number of cases they have been scrofulous. The kidney I have once seen converted into a hard inflamed substance, somewhat intersected by membrane, in which the natural structure of this gland was entirely lost. The kidney was at the same time very much enlarged in its size. This alteration of structure I should call scirrhous, but it exactly resembles scirrhus in other parts of the body; it occurs very rarely in the kidneys." This gives an indication of the knowledge that had at that time been obtained by those who were most carefully searching after pathological light. We gain in these few paragraphs some idea of the enormous advance made by Richard Bright, when he gave to the medical world his classical description of Bright's disease. In France Broussais, Louis Portal, and later Cruveilhier, were doing for pathology what Matthew Baillie and those who succeeded him were doing in this country. Early in the nineteenth century Bichat published his celebrated *Anatomie Générale appliquée à la Physiologie et à la Médecine*, in which we have for the first time a differentiation of the organs of the body into what were called tissues. It may be accepted that Bichat made it possible to carry on the study of pathology to a point beyond that gained by Morgagni and the earlier morbid anatomists—in fact, basing its work upon Bichat's published method and teaching, the French school of pathology or morbid anatomy, under the masters abovementioned, made exceedingly rapid strides, and some of the earlier and previously unnoted pathological processes now came to be observed and described. In this country, although the number of workers was apparently not so great as in France, and although less progress appeared to be made, we now know that a truer conception of pathology was being gained even than in France. The influence of John Hunter and his teaching had left a strong impress on the work of his time, and on that done by his pupils immediately after his death; the work of Matthew Baillie, his nephew, still remains as a monument to the accuracy of the observations of this period. The reason for this appears to have been that Hunter and Baillie were not content with the humoral pathology of their predecessors; they made a careful study of the effects of disease, and traced the relationship between normal and pathological processes. Crude theories however brilliant, they carefully avoided and discounted, unless they could find facts which would support them. Speaking of this period and the period immediately following, Professor Welch,[1] of Baltimore, writes: "The plain purely objective descriptions, free from the prevailing tendency towards unwarranted generalisations, have given a permanent value to this work. Sound observations continued to be made by such men as Abernethy, the Bells, Abercromby, Cooper, Howship, Munro, Addison, Gulliver, Bright, Hope, Carswell; but much as they enriched the storehouse of pathological anatomy, the fundamental principles of pathology remained the same, although commendably free from many of the speculative tendencies of the Continent."

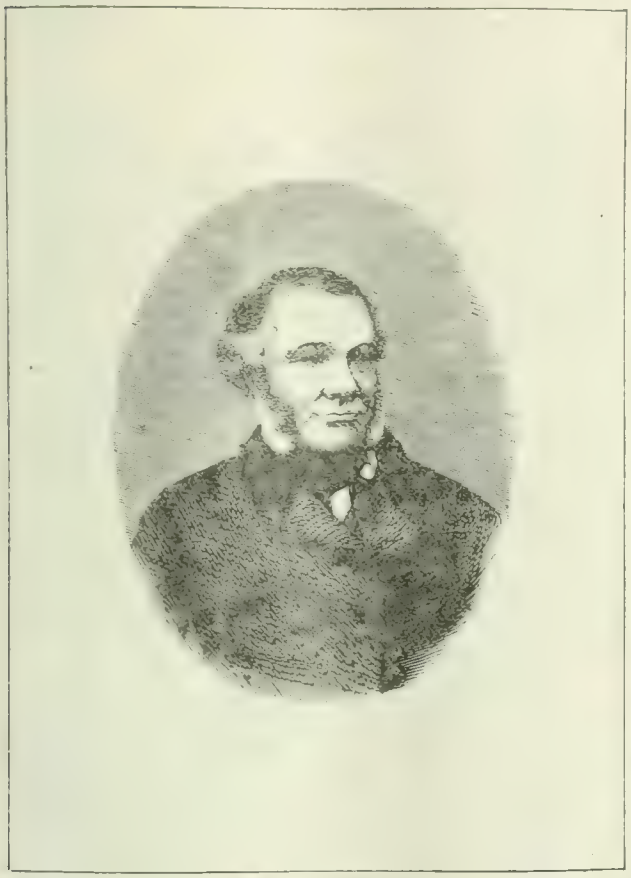
Whilst endorsing a great part of this statement, one cannot but feel that many of the men mentioned in this list did something more than merely accumulate facts. In the work of almost all of them we have suggestions of new principles, or at any rate of the application of the old principles in a new fashion. Sir Charles Bell's work on the *Nervous System*, and his observations on the method of transmission of nerve impulses and on the nature and course of the degenerative processes in nerves may truly be said to have opened up a new era in both physiology and pathology. Howship's observations on the Structure of Bone and the relation of this structure to nutrition in the normal and pathological condition also marked a great advance in our knowledge, especially of inflammatory processes, whilst Addison, by his careful observations on diseases of the suprarenal capsule, gave a definite and marked impetus to the localisation of disease, which was soon accelerated by Bright's observations on inflammatory diseases of the kidney. Carswell, in the beautiful drawings of diseased organs and parts, many of them preserved in the new pathological department in the University of Edinburgh, and others in University College, London (where he was professor of pathological anatomy about the commencement of the reign of the Queen), left a record of cases which has been a mine of wealth and a source of inspiration to more recent morbid anatomists. Concerning Hope and his work, it will be necessary to enter into somewhat greater detail in connection with the pathology of diseases of the heart. So completely has pathology become revolutionised during this period under review that it is now difficult to appreciate the fact that a little over sixty years ago Rokitansky was at the height of his fame as the head of an enormous pathological department in Vienna. After being appointed assistant in the pathologico-anatomical department of the University, he in 1834 was made professor of pathological anatomy and prosector at the General Hospital at Vienna, and medico-legal anatomist to the municipal authorities. Between the years 1843-6 he gave to the medical world his work on *General Pathological Anatomy*, in which, as he says, he attempted to pin his faith more and more upon Nature alone, and to make pathological anatomy the great work, not alone of all medical knowledge, but also of all medical treatment, whilst he attempted to bring within the domain of pathology a pathological chemistry. At the time that his work was published—1846—he writes: "Amongst these views I may here single out for exemplification the doctrine of a primitive diversity in blastemata, as the only tenable basis for a humoral pathology." Here we have ample evidence that the teachings of Schleiden and Schwann had had no influence on the thought and work of Rokitansky, who, however, places on record such an enormous number of well-observed facts that, although at the present day he is seldom or never quoted, future historians must necessarily turn to the Vienna school for a record of what had been done by German-speaking nations at this period. Up to the birth of the cell theory, Rokitansky dominated the pathological world, except so far as France and Great Britain were concerned; whilst his teachings exerted an enormous influence in stimulating the study of pathological anatomy even in this country, where, however, the cell theory was much earlier received than in Germany, although not so promptly applied.

### ROKITANSKY AND PATHOLOGICAL PESSIMISM.

The reason for Rokitansky's failure to keep the attention of

[1] Rudolph Virchow, Pathologist, by William Welch, M.D. *Boston Medical and Surgical Journal*, October 29th, 1891.

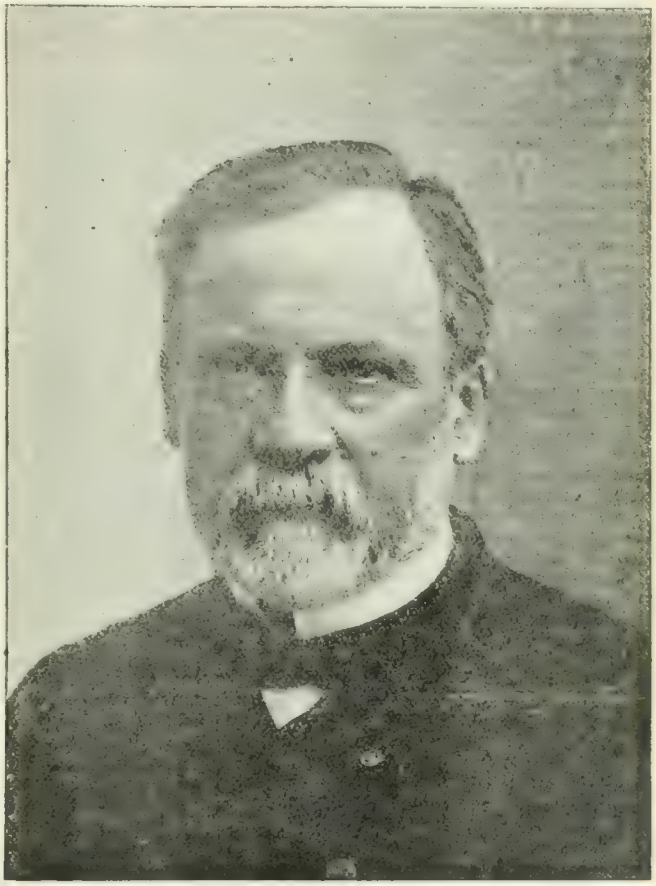
workers in this country was that, in spite of his attempt to trace a relation between the symptoms and signs of disease observed during life and the changes in the organs as seen on the *post-mortem* table, he accepted the advanced processes found in diseased organs after death as not only the ultimate, but also as the only changes of which cognisance was to be taken. The earlier and minor lessons leading up to these advanced changes were either not recognised, or were ignored by him as being of comparatively slight importance. The gradual development of disease in an organ, or rather the change produced by a disease, was to a large extent passed over, with the result (the effects of which might be seen even fifteen years ago in the work in the Vienna hospitals) that his pupils took an exceedingly pessimistic view of the cases that came under their care. With them an illness was merely the disturbance of function which would give way under the slightest treatment, and therefore did not require to be specially treated, or the patient suffered from disease in which the organs were so profoundly altered that it was little use attempting to prescribe anything more than a series of placebos, therapeutic and general treatment being both deemed to be of little avail. To a certain extent this was probably a reaction against the system of indiscriminate drugging that characterised much of the practice of the earlier part of this century, and indirectly the practice then built up was extremely valuable from the fact that it cleared the way for more careful observations on the action of single drugs, and opened up an almost entirely new system of therapeutics and pharmacology.



Thomas Addison.

### LAENNEC AND AUSCULTATION.

Before this period, however, one of the greatest advances in the art and science of diagnosis had been made by Laennec, who, in his *Traité de l'Auscultation Médiate et des Maladies des Poumons et du Cœur*, by applying the physical method of percussion, which he assigns in the first place to Corvisart and then to Bayle (two great pioneers in the advance of pathology), states that he found that there were certain cases from which he could not learn anything as to the conditions within the thorax either by percussion or palpation. In 1816, after applying his ear to the region over the heart and noticing a series of very marked sounds, he conceived the idea of listening to these sounds through a roll of paper. After this the same method of conveying sound from the chest to the ear was adopted in certain cases of phthisis, with the result that *râles*, he found, could be readily heard. After a time he used a small cylinder of wood about the thickness of a quill for the same purpose, and gradually built up his method of exploration of the chest, which practically revolutionised, or formed the basis of a revolution of, the methods of diagnosis of heart and lung disease. This system, however, was of even greater importance from the point of view of the practical physician as bearing on the gradual modification of structure during the advance of disease in the lifetime of the patient, for by its aid the alterations that occurred from time to time in the structure of the organ could at any rate be guessed at, with the result that as auscultation and percussion came to be more generally used the pessimistic theories introduced by the earlier morbid anatomists who viewed only the ultimate results of disease as seen on the *post-mortem* table, could be corrected by the information gained that in most cases the disease was a steadily advancing process, which, although it could not be absolutely cured, might be cut short at any rate in a certain proportion of cases. It thus also became possible to differentiate between those cases in which general symptoms only were present, often attributable to functional disorders, and those cases in which well-marked organic lesions were present. Bertin said of Laennec's system of auscultation that it was a discovery which "has in a few years more completely illuminated the diagnosis of the diseases in question



Louis Pasteur.

than all the other modes of experimentation had done for centuries."[2]

### The Sounds of the Heart.

With all this it was not to be expected that Laennec should interpret aright all the physical signs that he observed, and in the case of the diseases of the heart it was left to a young Edinburgh physician, John Hope, to give a comparatively full and rational explanation of the murmurs that could be heard during the heart cycle in health and in disease. Laennec certainly mistook the effects of the action of the heart, and was unable to analyse the various signs made available by his method of observation. This, however, can scarcely be wondered at when it is remembered what an enormous amount of work he had to get through during the short period between his first observation and the publication of his results. He ascribed the sounds to mere muscular contraction; Hope, on the other hand, ascribed the different *bruits* to the modified motion of fluid, and speaking of a bellows murmur as being produced by regurgitation through the valves, he says: "The murmurs attending valvular disease, hypertrophy with dilatation, nervous action of the heart, reaction from loss of blood, pericarditis and adhesion of the pericardium, also the allied phenomena of purring tremor, arterial thrill, throb, and murmur, I have attributed to modifications in the motion of the blood, and explained according to the laws of hydraulics and acoustics. In this way not only may organic diseases of the heart be readily and certainly distinguished from nervous and other affections wearing their aspect which I have offered respecting the situations where valvular sounds are to be explored and of certain corroboration derived from general symptoms, the particular valve diseased may in general be detected with precision. Such at least are the conclusions to which I have been brought by a considerable number of cases, a small proportion of which are appended in this volume."

Although Hope's complete work was published in 1831, many of his observations had already been made and described before the Royal Medical Society of Edinburgh in 1824-25, and he had already shown that Laennec's three diseases which were said to show no pathognomonic signs —aneurysm of the aorta, pericarditis, and polypi in the heart previous to death—should be removed from this category, though in his work in 1831 he added very greatly to the accuracy of his descriptions and the detail of his experiments. Before 1831 Dr. C. J. B. Williams had written his *Rational Exposition of the Physical Signs of Diseases of the Lungs*, and had placed in the hands of English readers much of Laennec's valuable work, to which he added keen criticism and copious annotations.

Hope now only did for the heart what was already being done for the lungs. He referred the heart sounds to particular phases and periods of its action, associating the first sound with the ventricular systole and the second with the ventricular diastole, showing how at the same time modifications in these sounds could be brought about during life in those hearts where after death it was found that the valves were stenosed, the incompetence being due to imperfect closure by contraction of the cusps, to the presence of a vegetation on the valve or to the rupture or displacement of a valve. He also showed how the alterations in the elasticity of the walls of the aorta might affect the sound, and thus built up as a result of examination during life of the symptoms and signs, and after death of the morbid conditions presented, a system of diagnosis which in its essential features has not been altered to the present day. By those who will read Laennec's description of the physical signs of a diseased heart some idea of the advance in medicine made possible by Hope's work may be gathered. Hope showed that a sharp line of demarcation might be drawn between diseases of the heart due to mere functional disturbance and those due to organic lesions; he showed, too, that heart disease was by no means the hopeless condition that it had been considered. He was able to differentiate between those cases that were due to changes in the heart itself and those that were due to alterations in the kidneys and in the blood vessels, and he opened up the way for Addison's observations made twenty-five years later on the relation between certain cerebral diseases and diseases of the kidney.

### The Work of Richard Bright.

In 1824, Richard Bright had published the first volume of his *Select Medical Reports*, but it was not until some ten or fifteen years later that the importance of his work, especially that on renal disease, came into great prominence, partly, apparently, through his own additional writings and partly through the observations of those, Christison and others, who set themselves to criticise or to corroborate his observations. The directness of his method was only equalled by the logical accuracy of his reasoning, and although renal disease is a subject with which his name will be most associated, his observations on diseases of the spleen and liver, and on abdominal tumours and dropsy formed contributions to pathology, in the truest sense of the word, of the very greatest value to the science, and laid the foundation for much good work subsequently done, especially in accentuating the necessity for associating progressive symptoms with progressive morbid processes as observed in the patient under different conditions. Bright, with Alison, Hodgkin, and Addison, may be looked upon as taking the place in medicine that John Hunter, Sir George Humphry, and Sir James Paget have taken in surgical pathology.

It is interesting to find that many of those who afterwards made their reputation in clinical medicine were keen disciples of Laennec, but at the same time were most diligent students of the pathological anatomy of that period. Andral, with whom Hope and Carswell and a number of young London and Edinburgh physicians appear to have been associated, brought out his *Précis d'Anatomie Pathologique* in 1829: this had been preceded by his work *Clinique Médicale*, whilst, as we have already seen, he edited Laennec's work just sixty years ago. This period, to which much space has been devoted, is of special interest from the fact that in no country in the world were medical men so well prepared by sound medical training and practical observation to receive, apply, and extend new theories as were British physicians who had followed the teaching of John Hunter and of the other great physicians and surgeons of the end of the eighteenth and the beginning of the nineteenth centuries.

### The Cell Theory.

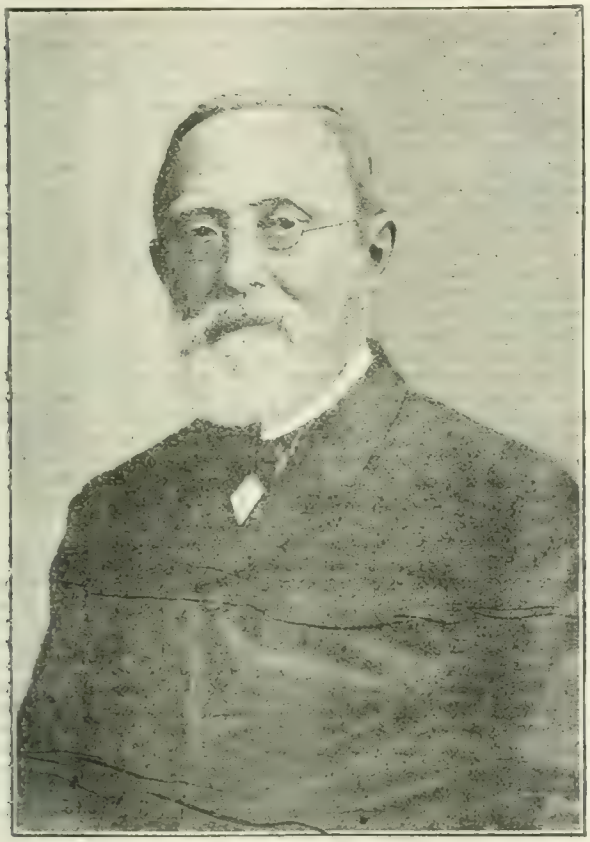
In 1837 there opened up a new era for both medicine and surgery, as at that time botanists studying the tissues of plants had just arrived at the conclusion that the cells of these tissues were of far more definite and complicated structure than had hitherto been supposed. Six years before, Robert Brown had first demonstrated the presence of the "areola" or nucleus of certain cells in plants, and had drawn attention to the fact that each of these cells appeared to be a separate entity, and even indicated that the increase in the number of cells was due to a division of these cells, in which the nucleus probably took part. In 1838 Schleiden, and a year later Schwann, gave still more detailed accounts of the structure of cells, and pointed out that not only did each contain a nucleus, but also a nucleolus. In the meantime, numerous observers had found that what was true of vegetable tissue was also true of animal structures, and that these were composed of nucleated cells, of which the type was earliest observed in the ovum. In our own country Wharton Jones had demonstrated the presence of the germinal vesicle in the ovum in the animal ovary about the same time that similar observations had been made on the Continent, but Schwann's great generalisation that there is one universal principle of development for the elementary part of organisms, however different, and that this principle is the formation of cells, was first published in 1838, and it may be accepted that most of the advances that have been made in our accurate knowledge of disease and its treatment are based almost in their entirety on the observations that led up to this generalisation.

[2] Laennec's earliest observations were made in 1816, and a second edition of his book was published in 1826. A new edition, edited by Andral, was given out in 1837. This edition appears to be the basis of much of the teaching given on diagnosis of diseases of the chest not only in France, but also in England and Germany, up to the present day indeed, one is struck by the remarkable persistence of the terms used at that time—"Egophonie, vésicularie, râles, râle crepitant humide, râle muceux, tintement métallique, bronchial breathing," and similar terms.

In this country Martin Barry,[3] from the years 1838-41, made most valuable contributions to our knowledge of the physiology of the cell, and stimulated to increased activity the physiologists and pathologists of that period.

### THE FORMATION OF THE PATHOLOGICAL SOCIETY.

To John Brown, Martin Barry, and Wharton Jones, we owe much of the impetus that was given to careful investigation at this period, especially in regard to fissiparous generation of cells, and later the passage of leucocytes from blood vessels in the process of inflammation, and within the next few years there seemed to be opened up a new era of pathological investigation, the first outcome of which was the formation of the Pathological Society, with C. J. B. Williams as its first President in the year 1846, with Edward Bentley and Nathaniel Ward as Secretaries, and James Copland as Treasurer. This Society, which was "instituted for the cultivation and promotion of pathology by the exhibition and description of specimens, drawings, microscopic preparations, casts

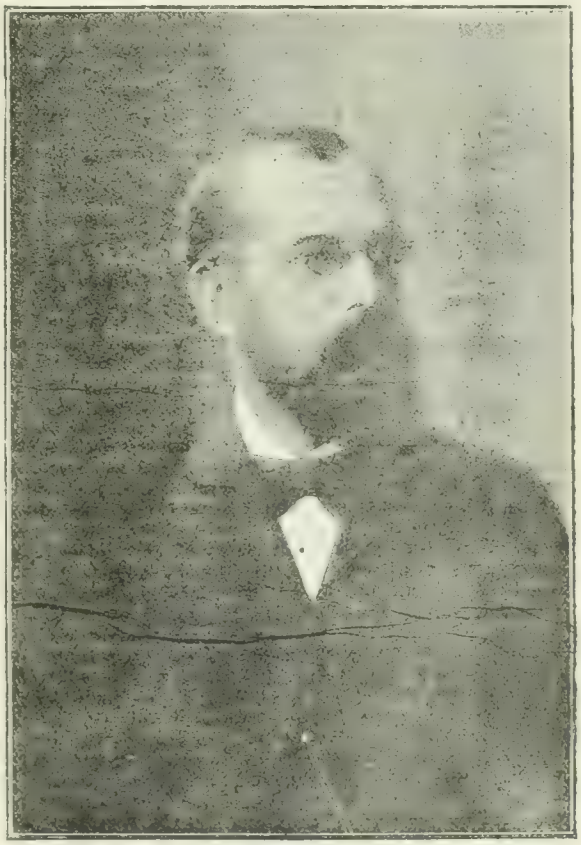


Professor Rudolf Virchow.

or models of morbid parts," was open to "physicians, surgeons, general practitioners, and persons distinguished in other departments of science connected with medicine." These regulations and the original list of honorary members, which included such men as Andral, Cruveilhier, Alison, Carswell, Julius Vogel, Stokes, Otto, Henle, and Rokitansky, show how the researches carried on by the men named were arousing the spirit of investigation at this time.

### CLASSIFICATION OF TUMOURS.

The younger physiologists certainly played a most important part in studying the structure of tissues immediately after Schleiden and Schwann had published their observations on the cell and its relation to the development of the tissues, but so far as the relation of the cell to pathology is concerned, we cannot claim that any countrymen of ours took any very active share in the adaptation of the cell theory. Johannes Müller must be looked upon as the pioneer along these lines, as his work on the *Intimate Structure and the Forms of Morbid Tumours*, which appeared in 1838, or only one year after Schwann's work was published, was the first systematic attempt to give a detailed account and classification of the minute structure of tumour tissues as distinguished from the tissues normally present in the body, and to compare and to contrast the arrangement of these tissues in the two sets of structures. The influence that Johannes Müller exerted on Martin Barry, on Wharton Jones, on John Goodsir, and a number of English workers is evident from the frequency with which reference is made to his work by those investigators, but on no one does he appear to have exerted a greater influence than on Rudolph Virchow, who in 1846 and 1847 published his now well-known articles on Diseases of the Pulmonary Artery and on Acute Inflammation of the Arteries. Virchow seems to have made the composition of the blood, with the changes that take place in it under various



Professor Robert Koch

conditions, his first great field of observation, and there can be little doubt that his investigations into the structure and action of leucocytes, which he came to look upon as type cells, and his careful study of their behaviour first led him to differentiate between the action of these cells circulating in the blood and those fixed cells that undergo proliferation in the tissues. The marvellous grasp that Virchow early acquired of the behaviour of cells under pathological conditions, aided by his careful study of the work of his teachers in normal histology, enabled him to obtain an insight into pathological processes which, as we know, extended throughout the whole domain of pathological histology. So careful and thorough was his work, in spite of the vast field it covered, that it may safely be maintained that few workers have found it necessary to revise so little of their work as has Virchow. It was not until 1854, however, that Virchow entirely repudiated the blastema theory of the origin of cells.

[3] The Cell Theory Past and Present. Inaugural Address to the Scottish Microscopical Society by Sir William Turner, Kt., President of the Society, Edinburgh, 1890

### Omnis Cellula e Cellulâ.

One can well imagine that it must have been an exceedingly difficult matter for a young man to throw aside any part of a system which had so thoroughly laid hold of the sense and imagination of scientific investigators as had Schwann's great theory, and although glimpses of a critical attitude are obtained now and again in Virchow's writings, it was not until long after histologists had finally rejected the blastema theory that Virchow, going even beyond the embryologist and the histologist, applied his extension of Harvey's dictum in the words *omnis cellula e cellulâ*, the full recognition of which he obtained on the publication of his work on cellular pathology now only thirty-nine years ago. It must be remembered in this connection that he was dealing with tissues which in many respects differed very materially from the slowly growing cells of normal tissues, tissues which were undergoing rapid multiplication but early degenerative changes. Few well defined and stable cells, such as those found in the ovum and studied by histologists were at Virchow's disposal, and it was much easier from the appearances presented by pathological tissues to assume the blastemic origin of the cells, even than in the case of normal cells. It is often stated by those who do not take this into consideration that Virchow did nothing more than apply at a late date to pathology what had already been applied in histology. Such a statement conveys an entirely erroneous impression of the value of Virchow's work. In Germany especially tradition had assigned to pathological processes methods of development perfectly distinct from anything that occurs under normal conditions, and pathologists had invoked the aid of all kinds of extraordinary theories to account for abnormal conditions. They considered that disease must be the result of something entirely different from what occurs during the processes of health, and anything that could not at the first blush be reconciled with what was found under normal conditions was at once put down under some theory or other to the credit of some not understood process. It is to the great honour of Virchow that he broke through all the traditions that maintained at this time, and applied in disease the same general laws as regards cell proliferation that were acknowledged to regulate the multiplication of cells in health. Virchow's extension of the knowledge of the life-history of the cell, his application of the microscope to the examination of morbid tissues in all stages of growth and development, and his calling in of physiological and clinical observations and experiments to help in the interpretation of this life-history of the cell, mark the commencement of a new era not only of morbid histology, but of general pathology, of clinical diagnosis, and of treatment. To Virchow an anatomical lesion became the evidence of a perversion of function due to some extraneous excitement or irritation of the cells of which an organ was composed, or of which a tissue in which the growth was found originally consisted. Each cell derived from an earlier cell had under normal physiological conditions special functions to perform; during the performance of these normal functions they retained their original and more or less characteristic form and arrangement. If therefore these characteristic features were observed to be undergoing modification of any kind, it became necessary to search for minute changes, to note in what they consisted, and then to work back from such minute changes to the perversion of function which accompanied, caused, or succeeded them, and finally to study the altered conditions of growth and environment that determined these modifications both of function and of structure.

At the present day such a statement may sound trite and obvious, but to the medical man of his time Virchow's observations that normal and pathological processes were closely related and correlated was a complete revelation, and when he pointed out that in many cases it was almost impossible to determine where the one commenced and the other ended, and that the morbid changes in altered cells, tissues, and organs might be just as much the result of altered environment and modified stimulation as the cause of perverted function, a new and wonderfully hopeful future seemed to be opened up for medicine. Comparative and experimental pathology, if these things were true, might be called in to the aid of the human pathologist, for the history of a cell, whether in health or in disease, could be traced with equal certainty in an animal and in the human subject, and what would apply to the individual cells of which an organ is composed might also be made to apply to the organs themselves.

### The Cell Theory the Basis of Modern Pathology.

We have in Virchow's application of the cell theory the basis of modern pathology and of modern medicine and treatment, as it must be acknowledged that without a thorough understanding of the biological, including the vital chemical, the anatomical and the physiological aspects of the reactions of cells, the germ theory of disease, especially in relation to the production of immunity, could never have been evolved; this quite apart from the fact that the study of micro-organisms in the course of its evolution has followed almost exactly the lines of the building up of the cell theory of the structure of tissues.

### Diapedesis and Inflammation.

Just as Virchow was on the portal of his great career, 1846, one of the most important discoveries from the pathologist's point of view that had ever been made was given to the world by Augustus Waller, with whose name is associated the Wallerian degeneration of nerves. During his study of the blood and blood vessels he observed that white blood corpuscles under certain conditions made their way through the walls of the more minute vessels. So impressed was he by this observation and its far-reaching consequences that he immediately associated it with the formation of pus, and indicated that the cells in inflamed parts, which afterwards became purulent, were in no sense of blastemic origin, but were derived from cells already to be found in the blood vessels. More than twenty years later Cohnheim again drew attention to this question. So little importance had up to that time been attached to Waller's observations that Cohnheim was actually unaware that they had been made. The impetus that was given to pathology by the controversy concerning the origin of pus cells and the relation of the healing process to different kinds of cells contributed very largely to the advances in pathology from 1867 onward, the period during which experiments, designed with the object of determining the nature of changes in and around blood vessels, were carried on with the greatest activity; Cohnheim and his school maintaining that the cells found in suppuration and in regenerating parts were derived entirely from the blood vessels and were merely escaped leucocytes, whilst Virchow and his followers maintained with equal determination and ingenuity that these cells were the result of proliferation of the fixed connective tissues. Although this point has not yet been absolutely settled, most observers have now come to the conclusion expressed by Sir Roger de Coverley that "there is much to be said on both sides." Whatever may be the standpoint of any pathologist of the present day, he must acknowledge that Waller's observations on diapedesis and Virchow's work on phlebitis and thrombosis formed the groundwork of experimental pathology from which so much concerning inflammation and the healing of wounds has since been gained.

### Addison and the Suprarenal Bodies.

Addison maintained that, although pathology is a branch of medicine which must necessarily be founded on physiology, physiology in many cases may derive information from pathological investigations such as can be obtained in no other way, and that the physiology of disease is as truly a branch of the whole subject as normal physiology itself; and forty-two years ago he pointed out that there may arise questions "regarding the true character of a structure or organ to which occasionally the pathologist may be able to return a more satisfactory and decisive reply than the physiologist, these two branches of medical knowledge being thus found mutually to advance and illustrate each other." In 1855 he wrote: "There are still, however, certain organs of the body, the actual functions and influence of which have hitherto entirely eluded the researches and bid defiance to the united efforts of both physiologists and pathologists. Of these, not the least remarkable are the suprarenal capsules, the atrabiliary capsules of Casper Bartho-

linus; and it is as a first and feeble step towards inquiry into the functions and influence of these organs, suggested by pathology, that I now put forth the following pages." His observations on the suprarenal capsules and the conditions in the skin and mucous membranes and in the nervous system associated with disease of these organs were entirely new and formed the basis of the whole of our present knowledge of the part that these glands play in our economy.

### "BELATED RUDIMENTS" AND TUMOUR FORMATION.

Cohnheim, following up Müller's work, devoted himself for a time to the study of the structure of tumours, and his theory of "belated rudiments," did much to stimulate the interest of pathologists in the history of these growths, but it is to Waldeyer that we owe the sharp line of demarcation that was drawn between the epithelial and the connective tissue groups of tumours. Thirty years ago, he showed how epithelial tissues, apparently under certain forms of stimulation, broke beyond their normal limits and passed down into the underlying connective tissue spaces, following the course of the lymphatics and gradually invading tissues further and further away from the seat of origin of the epithelial proliferation and prolongation. He also showed how under certain conditions, new connective tissue might be formed along the lines of the invading epithelium but indicated that this was a secondary rather than a primary process, the connective tissue new formation being distinct from that found in sarcomata in which the new growth of imperfectly developed tissue is the main factor in the tumour.

### "CANCER BODIES."

As yet we have not got much beyond the point at which Waldeyer and his pupils left the subject, but within the last seven or eight years a new impetus has been given to the study of the nature of the irritation that causes the proliferation by Russell's observations on "cancer bodies." Many workers, both in this country and abroad, have taken the matter up again, but as yet adequate proof of the exact nature of cancer bodies has not been brought forward.

### THE INFECTIVITY OF TUBERCULOSIS.

In 1865 and 1866 Villemin brought forward experimental proof of the infective nature of tuberculosis, observations that were confirmed by Hérard and Corneil in 1867, Lebert, Wyss, Klebs, Burdon Sanderson, Wilson Fox, Cohnheim, and other observers in 1868, though there still remained considerable doubt in the minds of certain of these observers and of those who criticised their experiments as to the exact value of their observations. In 1877 Salomonsen, working with Cohnheim, was the first to observe the actual development of inoculated tubercle in the anterior chamber of the eye, and to remove all doubt as to the connection between the implantation of a minute fragment of tuberculous material and the subsequent development of tubercle nodules along lines radiating from the inoculated substance. Of the subsequent history of tubercle and the publication of the discovery of the tubercle bacillus by Koch five years later, so much has been recently written that it is scarcely necessary to do more than mention them.

### LOCALISATION OF DISEASE IN THE CEREBRAL CENTRES.

It is only during the last twenty years that the localisation of disease in the cerebral centres has been at all generally received as a method to be utilised by the practitioner of medicine. No doubt Ferrier, Gowers, Buzzard, and other workers in this country, Charcot and his pupils in France, and Meynert, Hitzig, Fritsch, and others had been working on such localisation for some time, whilst Heubner and Duret had carefully noted the relation of lesions of the cerebral circulation to symptoms during life and the localisation of the disease after death. Duret's work was published, much of it, in 1872-3, and Heubner's was carried on contemporaneously, whilst Ferrier gave a systematic account of his investigations in his work on the functions of the brain, published in 1876, Charcot's lectures on localisation of cerebral and spinal diseases appearing in printed form in 1882. When we bear this in mind, the development of brain surgery, which even now appears to us to belong almost to ancient history, is simply marvellous, and British research may congratulate itself that to Macewen and Horsley has fallen so much of the credit of following up the work in which Ferrier played so important an initiative part.

### THE ORIGIN OF INFECTIOUS DISEASES.

Up to the present our attention has been occupied almost entirely with that phase of pathology and pathological anatomy concerned in the observation of actual changes in tissues and the relation of these changes to modification in function in organs and tissues—the pathology, in fact, of John Hunter, of Morgagni, of Laennec, of Rokitansky, of Virchow, of Cohnheim, of Litten, and of all the accurate observers who did so much to lay the foundation not only of our pathological anatomy, but of what has, up to the present, been called general pathology. Within the last twenty years, however an extension of the area of the field of investigation for the pathologist and an intension as regards the exact meaning of pathological changes have been made with the result that the pathology of the present day has come to deal more and more with subtle etiological causes, and with such questions as prevention and immunity, to an extent that had, up to thirty years ago, never been dreamt of by Edward Jenner, his contemporaries, and his successors even in their most sanguine moods.

It is easy to understand that before 1837, and even for a part of the sixty years that have gone between then and now, the origin and course of severe epidemics of disease should have been enshrouded in great doubt and obscurity. Although the theory of specific infection had already been promulgated, and although Jenner's specific protection had given proof of the nature of certain of the processes involved in these diseases, many still remained who looked upon infectious diseases as often arising *de novo*, and they looked upon the origin and evolution of an epidemic much as those who believed in spontaneous generation looked upon the origin of life. In fact, as already stated, the two processes were so intimately associated in the minds of many, that what was thought to apply in the case of one was used as an argument in favour of the accuracy of the theory in the other.

### THE GERM THEORY.

In 1836, however, came Spelanzani's observations, that in order to obtain absolute freedom from germs capable of development in animal or vegetable infusions, all that was necessary, after once killing these germs by boiling, was to prevent their access along with the air from without. Just sixty years ago, Donne, for the first time, definitely associated micro-organisms with the products of disease. Cagniard-Latour, and Schwann announced that the yeast cells, so fully described by Leeuwenhoek, were the exciting cause of fermentation; and Bassi described minute spores which he found on and within bodies of silkworms affected with a miasmatic disease well known to silkworm breeders—the same spores which Pasteur afterwards proved to be the cause of this disease. Early in the Forties, Henle, Swaine, Brittaine and Budd examined the excretions from cases of cholera, skin diseases, and other similar diseases, with the object of determining whether it was possible to find specific organisms which might be definitely put down as the cause of any one of these diseases; but it was not until 1849 and 1850 that Pollender and Davaine and Rayer detected anthrax bacilli in the blood and splenic pulp of cattle that had succumbed to splenic fever. Pollender described them as short rods, which could be differentiated from fragments of broken-down vessels or coagulated fibrin; and he mentioned that it was not impossible, as Henle had suggested, that these organisms were, in some way or other, etiologically connected with the outbreak of anthrax.

### TOXINS AND ANTITOXINS.

From this time onwards Pasteur, Davaine, Lister, Burdon Sanderson, Tyndall, Greenfield, Klein, Koch, Rosenbach, Roux, and all the younger generation of workers have continued to add to our knowledge of bacteria, of their relation to the production of specific infective disease, of the methods of studying the organisms outside the body and experimentally in animals, of the effects of the actions and reactions between micro-organisms and the tissues and fluids of the body, of the

modification of the micro-organisms and of the modifications of the cells, of the production of immunity, of the manufacture and storing up in the fluids of antitoxins, of the value of antitoxins in certain specific diseases, and of the value of bacteriological diagnosis and of serum therapeutics and serum diagnosis. All these are of such recent origin, and are matters of such familiar knowledge, that there seems to be a danger that we may forget that they are most of them of such recent growth that a period of ten years would cover almost the most ancient of them. We now speak so glibly of toxins, of antitoxins, of natural immunity, of acquired immunity, of bacteriological diagnosis, and of serum diagnosis, that we are apt to forget that after all many of these methods until a year or two ago were absolutely on their trial, and that even at the present day we have scarcely got beyond the application of some of the principles involved in them to a few of the more typical infective diseases. We have therefore the prospect that as great advances may be made during the next twenty years as any that have been made in the past couple of decades. After all there has merely been a focussing of the work of the earlier pathologists and physiologists—or shall we say of biologists?—that was done from 1835 to 1865, in regard to disease both surgical and medical, and it must never be forgotten that it was in this latter year that Lister commenced that long series of published investigations, which in the succeeding ten years revolutionised surgery in as marked a degree as Pasteur's and Koch's investigations on anthrax and the succeeding investigations on the various specific infective diseases have revolutionised our knowledge of the etiology, pathology, and treatment of disease generally and of epidemic diseases especially.

### Methods of Direct Examinations.

As an outcome of the introduction of exact methods of observation into the study of disease, and therefore as a direct outcome of the requirements for more exact pathological methods, we may take as examples the advances that have been made by the application of optical apparatus and instruments to the examination of organs and parts which are not readily accessible to direct examination. The tubular speculum for the examination of the various orifices of the body was only the first of these. After the ordinary tubular speculum and dilating speculum, the latter of which was applied to the examination of the ear, Gruber of Vienna, according to Wilde, writing to the *Dublin Journal of Medical Science*, in 1844, was the first to use a conical tube as an otoscope. In 1850, Cooper Forster, writing to the *Lancet*, described an addition to this conical tube of $\frac{3}{8}$ to $\frac{1}{2}$ an inch silver tubing, so that a better view of the tympanic membrane might be obtained. In the same year, Toynbee claimed for Avery the priority of having added an oval tube to Gruber's conical speculum. There can be no doubt that such advances as have been made in the treatment of ear disease, especially of the outer and middle ear, must date from the introduction of this modified speculum. The next piece of apparatus that contributed very greatly to the advance of medicine, especially in relation to disease of the brain and of the optic nerve, was the ophthalmoscope, first described by Helmholtz in his *Beschreibung eines Augenspiegels*, published in 1851. Apparently the first record of the use of the ophthalmoscope that we have in this country is that published by the late Sir Spencer Wells in the *Medical Times* of September 10th, 1853. As short a time ago as 1856, as pointed out by Clifford Allbutt, descending neuritis was not even dreamt of, whilst the relation of the cerebral and intraocular circulation with the valuable diagnostic outcome thereof, had not been made out until Dr. John Ogle, about the end of the Fifties, pointed out that the fundus oculi, as revealed through the ophthalmoscope, was the index face of the cerebral mechanism in a very large proportion of cases. Hulke's Jacksonian Prize Essay of 1859, published in 1861, under the title of *A Practical Treatise on the Use of the Ophthalmoscope*, was the first systematic attempt to place before English students the use and value of ophthalmoscopic investigation, whilst Clifford Allbutt, by contributing his work *On the Use of the Ophthalmoscope in Diseases of the Nervous System and of the Kidneys*, also in certain other general disorders, published in 1871, and W. R. Gowers, through his manual and atlas of medical ophthalmoscopy, gave a real stimulus to the adaptation of the ophthalmoscope to general medical work in this country.

The discovery of the laryngoscope and the vast improvements in the diagnosis and treatment of discovery of the upper air passages that have followed it are described elsewhere. (See p. 1557.)

One other instance of the application of apparatus devised for physiological investigation to the study of disease may, however, with propriety, be quoted. In 1733 the Rev. Stephen Hales introduced into the femoral artery of a horse a glass tube having one-sixth of an inch bore and a length of 9 feet, in order that he might observe the height to which the blood would rise in this tube, and the nature of the alterations in the height as indicating the blood pressure during different periods of the cycle of the heart's action. In 1828 M. Poiseuille introduced a similar tube, but bent in such a manner that the variation in pressure might be indicated by the rise and fall of a column of mercury. In both these series of experiments it was necessary to open the artery, and it was not until 1835 that any attempt was made to record arterial pressure by means of an instrument which should receive the impulse from the wall of an artery. This was done by Herisson in 1835, who used a glass tube, one end of which was closed by an elastic membrane placed on an exposed but unopened artery. Three years later Scott Alison, in order to get a column that could be observed more readily than mercury, and which would not compress the artery so much as the weight of a column of mercury of the height it was necessary to use, made use of spirit of wine, and applied the tube closed at one end with membrane not only to the arteries, but also to the heart, in order to determine the nature and extent of the impulse, especially of the apex beat. Then in 1855 Vierordt described his sphygmograph which consisted of a button, and a lever which was adjusted to the pulse tension by means of a cup, in which small weights were placed. In 1878 Marey improved on this instrument, and devised his now well known sphygmograph with its recording lever, its button regulated by a screw, and the clockwork apparatus for moving the card on which the record is taken, an apparatus that was simplified by Dudgeon in 1882 to such an extent that it could be carried about and used by every practitioner. There can be no doubt that the sphygmograph has played a most important part in the study of the history of disease, especially during the last ten or fifteen years, and the work that Hope commenced when he compared his observations during life with the conditions that were found on the *post-mortem* table and his arguments as to the gradual development of pathological lesions, laid the foundation for a pathology of the heart and vascular system which has led to the adoption of a much more hopeful treatment of these conditions, associated, however, with a much keener appreciation of the danger arising out of the neglect of the earlier indication of pathological conditions that has materially reduced the mortality from these diseases.

In view of the universal use of the clinical thermometer at the present day, and of the value of thermometric readings in determining alterations in the processes of metabolism, diagnostic conditions affecting the heat centres, and the condition of the heat-regulating centres themselves, those who study the history of pathology and its relation to medicine must be struck by the fact that it was not until about 1850 that the clinical thermometer came into anything like general use. For some years previously, however, thermometric investigations had been carried out in special diseases and under special conditions, whilst earlier still John Hunter had made his important temperature observations. About 1851-2, Traube, Von Baaerensprung, and especially Wunderlich, systematised what had already been gathered concerning the use of the thermometer in various febrile and cerebral conditions; and it is specially to these observers that we owe the recognition of the value of thermometry as indicating pathological changes which had, up to that time, escaped observation. The study of fevers from this period onwards became a very different matter from what it had hitherto been; and the observations concerning the relation of alterations in temperature regulation to morbid anatomical lesions and pathological processes became characterised by a definiteness and accuracy that had hitherto been entirely

wanting, with the result that many diseased conditions which had been grouped under a single heading were differentiated into distinct processes, and the ground was cleared for much of the work that has recently been done in determining the exact nature of the specific infective processes with which these diseases are known to be associated.

### THE RISE OF SCIENTIFIC MEDICINE.

The microscope and the test tube have come to be as important in their way as the ophthalmoscope, the sphygmograph and the thermometer. Every branch of science has been called in to the aid of the pathologist and the clinician, and the outlook for the study and treatment of disease has never been so bright as at the end of this period of sixty years, at the commencement of which the first steps along the present paths had only just been made. At the same time we must not forget that it is by those who took these earlier steps that our present day pathology has been rendered possible, and that the glory shed on medicine and surgery by the successful treatment and alleviation of disease and the protection against disease, was in part at any rate earned by the pioneers of the end of the 18th century and the beginning of the 19th century.

As has already been said just, as the science of astronomy made no advance from the time of Ptolemy down to Tycho Brahé and his successors, so little advance was made in the study of medicine except in regard to pharmacology and the treatment of symptoms of disease from the time of Aristotle down to Paracelsus and John Hunter. That medicine has become a science rather than an art we have evidence in its sudden awakening along with the renaissance in science, and it may fairly be claimed for pathology as a branch of biology, that it has during the last sixty years shared with anatomy, physiology, and chemistry the honour of raising medicine from a mere empirical art to a science based on accurate observation and patient research.

## THERAPEUTICS.

WHILE it is fairly easy to estimate the amount of progress which occurs in medicine from year to year, it is no light task to look back to the position of medicine sixty years ago, and to endeavour to give an account of the state of therapeutic knowledge at that time, and to compare it with the practice of the present day.

### DRUGS IN 1837.

If one were to judge by the drugs in use when the Queen ascended the throne, fallacious impressions might be formed. The medical journals of that time teem with articles and with lectures on materia medica and therapeutics, in which occur the names of drugs which are still in common use: it might therefore, at a first glance, be hastily assumed that a fair estimate of progress might be made by mere tabulation of those remedies now in use which were wholly unknown at the commencement of Her Majesty's reign. From such tabulation, however, although we should of necessity to a great extent realise the progress, we should still derive a very incomplete idea of the amount of good work which has been compassed during the last sixty years. To be more accurate, it is necessary, even with the drugs which were then employed, to consider the mode of their employment, and to compare it with that at present in vogue. In this way it will be found that many explanatory theories of action have died out, in obedience to progress in other branches of medical science, and that they have been replaced in some instances by other theories, which may be doomed to pass away in the future, while in other cases theory has been replaced by knowledge of the mode of action, and this has led to more precise employment of remedies for diseases and conditions for which they are more suitable.

### EXAMPLES OF EARLY VICTORIAN TREATMENT.

Medicine at the beginning of the reign was guided mainly by observation, which to a very large extent was purely clinical: and, although this led to the accumulation of a vast store of information, the facts were frequently confused and often misinterpreted owing to the limitations of knowledge by an imperfect pathology. Thus, a case of pneumonia is recorded as having been treated with spirits of turpentine, when bleeding and calomel were of no avail in arresting the disease and the pulse had risen to 140; the dose of spirits of turpentine was sufficient to cause "frequent watery discharges from the bowels," and the patient complained "very much of pain from strangury;" and yet, as the respiration was 34 and free, on the ninth day from the initial rigors, the medical man "surprised to find an extraordinary improvement," attributed the result to the turpentine, and published the case for the instruction and guidance of his professional brethren.

In considering all the facts presented to us in this case it is impossible to doubt that the surprise was really due to the usual fall of temperature with the crisis of the case. On the other hand, the apparent strangeness of the mode of employment of some drugs ceases to be peculiar if due regard is paid to the general condition of medicine at that time. For example, a paper of about the same date is headed "On the Pre-eminence of Tobacco in Strangulated Hernia.' General muscular relaxation was, before the introduction of anæsthetics, obtained by the use of emetics and nauseants. Tobacco was frequently employed as an enema: but in the case detailed in the paper referred to "there was no syringe nor means of administering an enema, nor was there any fire in the house by which a tobacco cataplasm could be quickly made," so the patient "was furnished with a cigar and desired to make vehement efforts to pass the smoke into his stomach. He soon became sick and puked, his whole frame relaxed, and covered with a cold sweat. The bowel was now very easily reduced, and the free use of volatile spirits both internally and externally soon restored him." Here, undoubtedly, the treatment was justified by the result, and perhaps on an emergency even in the present day, in the absence of an anæsthetic, the same plan might be followed.

### CASE REPORTING.

An interesting feature in the medical literature of the early part of the reign is the apparent frankness with which details are given. Frequently the name of the patient appears in full, together with the age and occupation, but sometimes an air of mystery prevails, and the patient becomes "a well-known lady," or the practitioner is "called to the country to see a lady of wealth and importance;" and this secures attention and allows the narration of the benefits to be derived from the use of the essential oil of valerian as a remedy in nervous and hysterical affections.

### EARLY VICTORIAN THERAPEUTIC LITERATURE.

It is an interesting fact that during the first year of the reign Pereira's lectures on "Materia Medica, or Pharmacology, and General Therapeutics" were in course of publication in the *London Medical Gazette*, while "Lectures on Materia Medica and Therapeutics," by Dr. George G. Sigmond, were appearing in the *Lancet*. Only five years before, the first edition of Dr. Anthony Todd Thomson's *Elements of Materia Medica and Therapeutics* had been published, and a third edition appeared in 1843. Yet a few years earlier Woodville's *Medical Botany*, containing systematic and general descriptions, with plates, of all the medicinal plants, was published in two substantial volumes, the plates being remarkable for their accuracy and in many cases for the beauty of the drawing. These publications indicate that in the beginning of the century a considerable amount of attention was being paid to the drugs then in use. It is interesting to compare the scope of some of these books, as they show the extent of therapeutic skill at that time, and still more, the relative importance then attached to the different branches of the subject.

Woodville's *Medical Botany* was valuable chiefly for the illustrations; the descriptions of indigenous plants were complete, but the amount of information relating to the action of the plants was far from being satisfactory. Woodville set out, according to his title page, with the intent to supply "circumstantial detail of their medicinal effects and of the diseases in which they have been most successfully employed," but when this "detail" is examined, it is found to consist largely of generalities culled from various sources, and in some cases of very doubtful authenticity.

Dr. Thomson's volume was more ambitious in its scope, or

at least, he endeavoured to present a more full account of the therapeutic uses of drugs. In the preface to the third edition, he states that his work is not intended to afford minute details of the natural history and the commerce of the medicinal agents it treats of, but to supply that general information respecting the chemistry and therapeutical employment of the articles of the materia medica which is likely to prove practically useful to students and junior practitioners of the healing art; and in a footnote he states that, regarding the minute details of the natural history and the commerce, every satisfactory information may be obtained from Dr. Pereira's justly-appreciated volumes.

### Pereira's "Materia Medica."

*It* is just these characters which distinguish the lectures which form the basis of the first edition of Pereira's *Elements of Materia Medica*, a work which in its second edition consisted of 2,002 pages, published in two volumes.

Of the various works which have been mentioned, Pereira's undoubtedly was the one which attracted the greatest amount of attention, and it may be interesting, therefore, to give some account of the nature of the work. The advertisement of the second edition stated that the volumes comprehended the "natural history, preparation, properties, composition, effects and uses of medicine; that it consisted of two parts, the first containing the general action and classification of medicines, mineral materia medica; the second part comprising the vegetable and animal kingdoms, with a vast number of engravings on wood, including diagrams explanatory of the processes of the *Pharmacopœia*, a tabular view of the history of the materia medica from the earliest times to the present day, and a very copious index." It also contained articles on mental remedies, light, heat, cold, electricity, magnetism, exercises, dietetics, and climate, with about a hundred additional woodcuts illustrative of pharmaceutical operations, crystallography, shape and organisation of the feculas of commerce, and the natural history of the materia medica. When the lectures originally appeared in the *London Medical Gazette* they were truly encyclopædic in their information, and the sections dealing with each drug formed veritable monographs, which included nearly all available information.

Senna may be taken as a fair example of these remarks. Pereira commenced with the history of the drug, and gave arguments for and against the supposition of its employment by Mahomet. He states that it was mentioned by certain Arabian writers—Mesuë, Serapion, Avicenna—who, however, referred to the fruit and not to the leaves. One of these writers, he tells us, believed that the drug was known to Dioscorides and Galen, and probably even Theophrastus. We are told that Actuarius is the earliest Greek writer who mentions senna. Then he passes on to consider the botanical history of senna, and notes that "the usually very accurate Woodville has published a plate representing the leaflets of the acute-leaved with the fruit of the blunt-leaved senna." After further detail concerning the botanical history, he considers the generic characters and the deviations of the genus, giving descriptions of cassia obovata, cassia acutifolia, and cassia lanceolata. These descriptions include geographical details. Thus we find mention of Karnak, Luxor, Thebes, Esneh, Edfou and Assouan, of Philæ and the Valley of Bicharaé, about twelve or fifteen days' journey beyond Assouan, and of numerous other places of historic fame. He deals next with the commerce and the varieties of senna, stating how much senna is derived from the different localities, and he gives figures of the true leaflets and of the various adulterations with which they may be mixed. Then follows a full account of the chemistry of senna, and altogether twelve columns are devoted to these preliminary details before the physiological effects are even mentioned. The physiological effects on men, on animals, the comparison of senna with other purgatives, the comparison of actions of leaflets, petioles, and legumes, of senna and argel, the *modus operandi* and uses, are all included within two and a-half columns.

Many of the drugs mentioned with so much care by Pereira have entirely dropped out of use in modern days, but he has much to say on many drugs which are still employed. Thus, in the volume of the *London Medical Gazette* which was published in the year of Her Majesty's accession to the throne, he deals with logwood, varieties of acacia, catechu, the different forms of pepper, quercus infectoria, and galls, krameria, rhamnus catharticus, benzoin, benzoic acid, elaterium, colocynth, quassia, myrrh, copiaba, gentian, salix, guaiacum, castor oil, croton oil, gamboge, digitalis, scammony, turpentine, and juniper. All of these drugs are familiar at the present day, and the list might be greatly extended by the inclusion of drugs mentioned in the lectures in later volumes.

Confining attention to one author might create wrong impressions of the scope of employment of various drugs. In Dr. Anthony Todd Thomson's *Materia Medica* the drugs are grouped according to their actions as sedatives, refrigerants, narcotics, antispasmodics, tonics, astringents, emetics, and so on, thus something may be learned of the state of knowledge from the position assigned to particular remedies.

### Some Old Authorities on Digitalis.

Digitalis is included in this volume amongst the narcotics, its principal companions being opium (with the various salts of morphine), belladonna, stramonium, aconite, colchichum, camphor, arnica, and veratria. This strange fellowship necessarily excites surprise, which is increased on reading the account of the action of digitalis. It is stated that foxglove operates upon the nervous system, producing stimulant and afterwards sedative effects. Its diuretic effects are noted, but it is asserted that as a diuretic it seldom succeeded if the dropsical patient was in a state of vascular excitement. The circulation is said to be depressed by this drug and its sedative influence shown by a small, feeble, irregular pulse. On the other hand, we are told that digitalis cannot with safety or advantage be ventured on where the inflammatory diathesis presents itself. Its value as a sedative in cases of mania and its use as a diuretic appear to be the chief purposes for which digitalis is recommended by this author. It might be thought that this classification of digitalis might depend upon the definition of a narcotic, but at the commencement of the group we find that the terms "anodyne" and "hypnotic" are used as synonymous with "narcotic," and narcotics are defined as medicines which are fitted to diminish the sensibility and irritability of the nervous system, and which in moderate doses produce temporary excitement, succeeded by depression and generally followed by sleep. The influence of the drug on the circulation is almost ignored, and the possibility of its use in cases of heart disease is not mentioned. When it is remembered that this account is written by a medical man, it is curious to turn to Pereira's description, and to find that he believes that in many diseases of the heart and great vessels an important indication is to reduce the force and velocity of the circulation, and amongst the methods of obtaining this result he places low diet, repeated blood letting, and employment of foxglove. It must be noted here that the drug is recommended, not only to diminish frequency, but to diminish the force of the cardiac contractions, and that this is not due to any oversight is shown by its repetition a little later, where Pereira states that no means diminish the impulsion of the heart so completely and so certainly as digitalis. In the next paragraph, however, Pereira repeats that foxglove has at all times proved remarkably efficacious in some affections of the nervous system, as mania, epilepsy, and spasmodic asthma, apparently from its specific influence over the cerebro-spinal system and independent of its sedative operation on the vascular system. Even in speaking of digitalis Pereira speaks at secondhand, giving the experience of practitioners in individual cases. The account, although an improvement upon Thomson's, only represents the belief of a limited number of practitioners, founded upon observation in a limited number of cases of sickness.

Sir Henry Holland's *Medical Notes and Reflections*, as the outcome of the work of a practising physician, may perhaps give a more accurate representation of the knowledge possessed by one in active practice. The papers of which this book consists are founded upon notes made in the course of twenty years of medical practice in London; hence it is interesting, as one of the papers deals with the use of digitalis, to compare his recommendations with those of the textbooks. Sir Henry Holland, while maintaining that he has not seen any injurious consequences from the sedative effect on the heart

produced by this drug, admits that in the early effects of digitalis intermittent action may occur. He also notes that the character of the pulse during the administration of digitalis will vary greatly according to whether the patient is recumbent or in the upright posture at the time of examination. He strongly recommends the combination of digitalis with tincture of iron, and he used this combination in old cases of general dropsy, in the œdematous swellings from debility, and in the anasarca following scarlet fever, where together with weakness there still remains an excitable and irritable state of the arterial system. He notes that digitalis, although under certain circumstances tending to produce intermittent pulsation, may at other times correct the irregularity already existing. He recognises that the drug may be employed beneficially in cases where the heart is actually diseased in structure, but he warns that failure may attend its employment in cases of enlarged and flaccid heart. He speaks of the drug as a sedative, understanding by this term its peculiar influence on the heart and circulation, and he raises the question whether the action of digitalis, as a diuretic, is immediately upon the kidneys or intermediately through changes it produces on "the vital actions of the sanguiniferous system," and he thinks that the doubtful or anomalous effects of the medicine will hereafter be found to resolve themselves into its influence direct or indirect on different parts of the vascular system. Of its use as a diuretic he speaks enthusiastically, and he groups it with mercury, squill, cantharides, and diuretic salts. Without burdening his account by details of the employment of the drug in particular diseases, he lays stress upon its use as a sedative to the circulation in cases of inflammation or excitement, and thinks that it may supersede depletion in some cases, the use of narcotics in others. His concluding remarks are specially valuable, as they confirm the experience of most physicians at the present day, since he considers that there is reason to believe that the infusion rightly prepared is the most certain and beneficial in its effects, and he suggests that many of the inequalities and seeming anomalies in the effects of digitalis are owing to lack of uniformity in the strength of the preparations employed.

### Other Remedies.

Notwithstanding the bulk of the works on materia medica and therapeutics published soon after Her Majesty's accession, and in spite of the inclusion of references to numerous drugs, which are now little more than names, the current literature shows that a large share of attention was, even then, attracted by drugs, which are still trusted and employed. This may be shown by the following headlines of some of the articles in the first volume of Braithwaite's *Retrospect*, which was published in 1840: The Treatment of Acute Rheumatism by Opium, Acetate of Morphia in Arthritis and Nervous Affections, the Use of Arsenic in Chorea, Inhalation of Conium and Iodine in Tubercular Phthisis, Precipitated Carbonate of Iron, Ipecacuan in Internal Hæmorrhage, Preparation of Koumiss, Use of Oil of Cod Fish in Scrofula, Treatment of Nervous Headache from Exhaustion with Aconite, Acetate of Lead in Bronchitis. Few, if any, of these headlines would excite surprise if found amongst the clinical and therapeutical notes published in our columns at the present day. On the other hand it is quite exceptional to find reference to the employment of remedies which are now discarded, such as Observations on Monesia, On the Bark of Ulmus Campestris, on the Fucus Amylaceus or Ceylon Moss. The essential difference in the method of investigating the action of these drugs lies in their employment upon the human being for the relief of some prominent symptom, and the narration of the apparent result. Judged by modern standards, it is to be feared that the credit of the possession of curative powers is often assigned on insufficient grounds. Two or three cases are narrated where the patient recovered after certain substances had been employed, and the whole tendency of therapeutics appears to have been empirical rather than rational. Experiments on animals are sometimes mentioned, but in most cases they consisted merely of the administration of a toxic dose, and the observation of the mode of death.

### Drugs in 1897.

When we turn from the past state of therapeutics to the present, it will be found not only that the number of drugs employed has been considerably amplified, but also that they are regarded in textbooks from a new point of view. The textbooks of materia medica and therapeutics supply far less information concerning the origin, the physical properties, and the mode of manufacture of the various drugs, while increased attention is paid to their physiological action and therapeutic uses. This change is to a certain extent the result of altered methods of practice. Medical men less commonly dispense their drugs, and it has therefore become less essential that they should be able to recognise them by their physical properties, and to detect the various impurities and adulterations. On the other hand, so much more is known of the relation between the physiological action of drugs and their uses in diseases, that these sections are of necessity treated more fully. Even the classification of the drugs has been altered. The modern tendency is to group remedies according to their most prominent physiological action, and accordingly we find that physiological terms predominate. These physiological actions have been the subject of very wide experiment, and it is now generally considered that students study the subject of therapeutics most usefully when it is approached from a physiological standpoint.

The number of new drugs which have been introduced during the last sixty years would form a lengthy list; but even in that time many which have been received with acclamation have already passed out of use. The new drugs have been drawn from new sources, which were not available at the commencement of the reign. Advances in every branch of science, at home and abroad, have been eagerly watched, closely criticised and tested, and in many cases they have led to the introduction of new remedies for the relief of pain and suffering, and, in some happy instances, they have contributed to the reduction of the average mortality from certain diseases.

The number of new drugs of vegetable origin is comparatively small, although some, like strophanthus, are of considerable importance. We owe the large majority to the enormous progress of chemistry during recent years, more particularly to the growth of organic chemistry and the knowledge of synthetic compounds.

### Anæsthetics.

Perhaps one of the greatest advances resulted from the introduction of anæsthetics. So soon as the possibility of producing anæsthesia was acknowledged the research for anæsthetics was diligently pursued, and the range was speedily extended beyond ether and chloroform, although these have remained the favourite anæsthetics for major operations. The similarity of the composition of chloroform and chloral led to the employment of the latter internally; and although it was first used on an erroneous theory, yet its hypnotic action was speedily recognised, and the limitations of its employment soon became well defined. It was quickly followed by butyl chloral, and as objections to each of these remedies became apparent numerous other hypnotics, such as paraldehyde, chloralamide, sulphonal, and hyoscin were proposed, and their range of application defined.

### Antiseptics.

Another class of remedies which has been developed during the last few years is the group of antiseptics. For a long time antiseptic and disinfectant properties were recognised and mentioned in textbooks, but the study of the application of antiseptics received the greatest impetus from the work of Lord Lister and others who have followed him. With the first burst of enthusiasm the possession of antiseptic properties was attributed to a very large number of drugs which were already in use. Increased experiment and observation have narrowed the list to more reasonable limits, though this desirable result has been attained only after prolonged labour. Perchloride of mercury had long been in use, but its power of arresting the development of germs was necessarily unrecognised so long as germs were mere nebulous hypotheses. The amount of benefit which has been obtained as the result of the introduction of the antiseptic treatment is almost incalculable, but it is satisfactory to find that it has been adequately recognised during Her Majesty's reign by the honour bestowed upon Lord Lister.

### Antipyretics.

To the growth of organic chemistry is to be attributed the introduction of numerous antipyretics. These in most cases have been derived from various substitution products of the aniline series. The number of antipyretics introduced has been excessive. In fact, as in all manufacturing processes, as soon as a new idea is started new applications and extensions speedily follow. The antipyretic craze has already gone through the natural history of new remedies, the rise in favour being followed by the fall. Of the many new remedies which were originally introduced with the idea of their possession of antipyretic properties, the few that remain are now scarcely employed for the purpose of lowering the temperature, since they have been found so often to produce dangerous symptoms of collapse. The salicylates remain, and seem likely to maintain their place for the treatment of rheumatic conditions; but the other antipyretics are used rather for the treatment of neuralgic conditions than for their influence in lowering the temperature in the course of a continued fever.

### Chemical Industry and Pharmacological Research.

Chemical industry is constantly suggesting new compounds for the employment of the medical profession, but this progress, which is rapid, is being accompanied and kept in check by more slowly advancing pharmacological research. New substances are continually being introduced with the statement that, judged by the analogy of their chemical constitution, they should possess certain active properties. A large part of the work of the pharmacologist consists in testing experimentally the claims set forth for these new remedies. Much has already been done to indicate the influence of chemical constitution upon pharmacological action, but from time to time it has been found that remedies which, in their formulæ, appear to agree, may possess totally different properties; hence the pharmacologist has to struggle experimentally through the bewildering structural formulæ of synthetic organic compounds, and by dint of painstaking experiment to endeavour to evolve order out of chaos. Much of this experimental work of necessity depends upon the growth of physiology. It is only during the present reign that the influence of nerves upon the size of the blood vessels has been recognised, and that experiments upon alterations of blood pressure have been possible. It is therefore only during the present reign that the valuable group of nitrites has been introduced, and their pharmacological position established. Even in mentioning this group, however, it would be wrong to omit reference to the work of those who, from the clinical side, have been advancing science by the recognition of alterations in the cardio-vascular system in connection with Bright's disease. The work of the modern pharmacologist has not, however, been confined to the estimation of the proper position to be assigned to new remedies. Older remedies are continually being subjected to certain tests, and much work has been done in connection with the various astringents with a view of determining whether their action depends upon alterations produced in the size of the vessels by muscular contraction or by external pressure.

The class of hæmatinics has also of late received a great deal of attention, and although it was once considered that the influence of iron compounds in anæmia was clinically so certain as to leave no room for further investigation, yet experiment has shown that there is considerable difference of opinion, even in connection with what had previously been considered an indisputable clinical fact.

Bacteriological research has further contributed to the extension of the remedies at present at our disposal. It forms the foundation of the serum treatment, which has of late years been extended in various directions with such marked benefit.

### Modern Therapeutics.

The tendency of modern times is to treat symptoms less, and to pay greater attention to the etiology of disease. The extension of pathology has provided the profession with more accurate ideas of the causation of disease, and also of the natural course pursued by numerous diseases which, as in the case of the exanthemata, follow a well-defined type. This increased knowledge has, to a certain extent, limited the sanguine employment of drugs; but, on the other hand, the increased knowledge of the physiological actions of our remedies has undoubtedly led to their more scientific and accurate employment.

The treatment of disease at the beginning of the reign was very largely empirical; the advance of knowledge during the reign has permitted the treatment to become mainly rational. Science is cosmopolitan, and it would be unjust to claim all advances for the English nation, but none the less in casting up the accounts it will be found that Her Majesty's subjects have done their share, and perhaps far more than their share, towards the advancement of therapeutics. While we look back respectfully to the position of medicine at the beginning of the reign, and marvel that, with so many limitations, so much good clinical and therapeutic work was accomplished, it is pardonable to regard the present state of therapeutics with pride, mingled with confidence and hope for the future. The science of therapeutics, whatever may be its shortcomings, now rests upon a firmer foundation; experiment has enabled the uncertainties, inseparable from clinical observation, to be replaced by knowledge.

## OPHTHALMOLOGY.

The growth of specialism in medicine during the Queen's reign has been remarkable. In 1837, for example, eye surgery formed merely a part of general surgery, and pure specialists in this department of medical practice were, in England, unknown. In attempting, however, to make a survey of the development of ophthalmic science during the past sixty years, only the briefest references can be made to the landmarks of progress—to those, for instance, which have chiefly contributed to placing the specialty in the high position of efficiency to which it has now attained. In the first place, let attention be directed to the treatment of cataract at the time of the Queen's accession.

### The Treatment of Cataract.

To peruse the records of this subject in the medical journals and textbooks of that day is not a task which anyone can nowadays undertake with any sense of complacency. Indeed, in comparison with modern methods, it is painfully impressive to read of the various, almost terrible, details which sixty years ago comprised the ordeal of the treatment of cataract. Anæsthesia, general and local, was, of course, unknown; suppuration in more or less degree was an almost ever present accompaniment of an operation for cataract, owing to the deficiency of knowledge respecting its causation. Severe reaction, due mostly, it may be assumed, to septic causes, was the rule, and to subdue this the patients were subjected to repeated venesections, dosed with calomel and opium until severe salivation supervened, and in the later stages, provided that the eye and the patients had survived, were then extensively blistered behind the ear, over the nape of the neck, and sometimes even between the shoulders. The methods of operating were by (1) "couching," or displacement as it was subsequently called; (2) extraction; and (3) division, corresponding to "needling" of the present day. Inasmuch as the extraction method was admitted to be the only proper mode of removing a hard cataract, it is of interest to refer to the opinion held by Mackenzie upon this subject. In the third edition of his work on *Diseases of the Eye* he wrote: "The operation of extraction through the cornea is too artificial a piece of surgery to be trusted to the hands of those who have not made themselves masters of the subject ..... It is too nice and dangerous an operation to be undertaken without the utmost precaution, composure, and steadiness. Nor is it likely that extraction through the sclerotic is less difficult or less dangerous. Indeed, this method appears to be universally abandoned as exposing the eye to the almost certain loss of a large quantity of vitreous, and consequent destruction of the organ." Notwithstanding, however, the hazardous nature of these extraction methods they were for the most part resorted to by our forefathers, who looked to the heroic measures of their after-treatment to bring them good results. But even at the time of the Queen's accession these heroic measures were admitted to be severe, so much so that Guthrie, who was then one of the surgeons at the Westminster Ophthalmic Hospital, advocated the unsurgical procedure of operating upon both cataractous eyes at one sitting.

His reasons for doing so are so noteworthy that we may be pardoned for quoting them here. "If an accident," he says, "should occur to an eye where only one has been operated upon, and a very vigorous or prolonged after-treatment should be necessary, the patient, whatever the result may be, will not readily submit to a second operation, and, in the case of an elderly person, will not be in a fit state of health to submit for a great length of time afterwards: on the other hand, if the second operation be unlucky, requiring also vigorous after-treatment, the loss of health, and ultimately that of life, may be the consequence. Elderly persons can generally bear a vigorous treatment once well and recover from it completely, but they cannot often bear and recover from it twice." But a new era in regard to the extraction operation began when Graefe introduced his linear method. Although certain modifications and improvements in the procedure have since been advocated and practised, nevertheless, the credit must be attributed to Graefe for placing the operative treatment of hard cataract upon a satisfactory footing. It remains, so far



Sir William Bowman.

as this part of the subject is concerned, to say that in the present day the treatment of cataract may be described as sublimely simple in comparison with that which prevailed in the days of our forefathers, sixty years ago, and though the remark seems scarcely called for, at no time have the results been so good.

### THE TREATMENT OF CONVERGENT STRABISMUS.

The first noteworthy advance in ophthalmic science which occurred soon after the accession of the Queen was that of the treatment of convergent strabismus by tenotomy of the internal rectus. For this operation we are indebted to Dieffenbach, who first practised it in 1841. Stromeyer, however, was the first to suggest it, and he proved its practicability in 1838 by performing it upon the dead body. At first the operation as devised by Dieffenbach was far from satisfactory so far as its technique was concerned. He used several hooks for its performance, and required the services of two or three assistants. The hooks from the first were regarded as unnecessary and cumbersome. Accordingly means were at once resorted to in order to improve upon the method. In the end the instruments now employed were suggested and adopted; but two years later, that is about 1843, when almost every practitioner had operated upon all the squinting patients who had been under his care, a change came over the scene so far as squinting persons were concerned. The squints, instead of being any longer convergent, were noticed to have changed their venue—that is to say, they had become divergent. This became so apparent in the public streets and other places, that a medical journal, in commenting upon the fact, said "in view so far of the results of Dieffenbach's procedure, we must concede that the true science of strabismus is still very obscure." However, in after years matters began to improve in this respect. The introduction by the late Mr. Critchett of the subconjunctival method of operating practically placed the operation upon a scientific footing, and Donders showed that convergent strabismus was usually dependent upon an error of refraction—namely, hypermetropia—and that the deformity required for its treatment the correction of this error by means of spectacles. Upon these beginnings, then, the scientific treatment of convergent strabismus was based. Tenotomy in the present day is only resorted to when other means have failed to bring the ocular axes into a parallel



Hermann von Helmholtz.
(Reproduced from *Nature* by permission of Messrs. Macmillan and Co.)

position, and the demoralising result of a tenotomy for convergent strabismus—namely, divergence—is nowadays only very exceptionally seen.

### THE DISCOVERY OF THE OPHTHALMOSCOPE.

The year 1851 was a very memorable one for the ophthalmic world, inasmuch as during its course Helmholtz made known his discovery of the ophthalmoscope. The appliance was first called Helmholtz's eye speculum, and needless perhaps to say its construction was of a very primitive description. The complaint about it was that its illuminating power was far too feeble to enable anything to be distinctly seen in the fundus. On the other hand, it was admitted to be of great assistance in examining the refractive media of the eye; for example, the lens and its capsule and the vitreous humour. Hence efforts were soon made to improve upon it, and one of the first ophthalmoscopes to find favour, on account of its improved design, was one which was invented by Coccius. But to pursue the interesting theme of what the ophthalmoscope has been able to accomplish in the elucidation of intraocular disease, and to discuss the benefits which it has conferred upon general medicine and surgery would

occupy too much space. Suffice it, however, to say that the term "amaurosis," which the older surgeons employed to cover a multitude of empirical diagnoses, is now no longer a

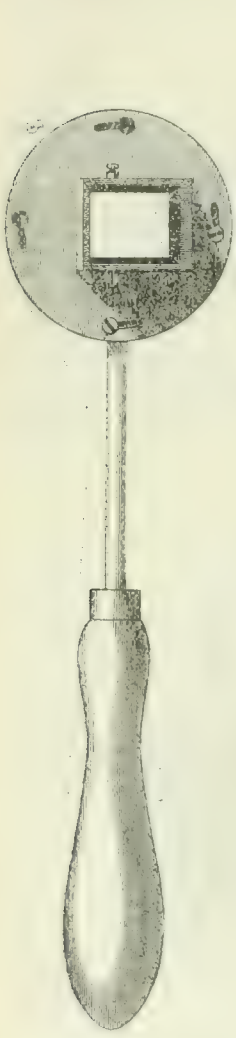


Fig. 1.

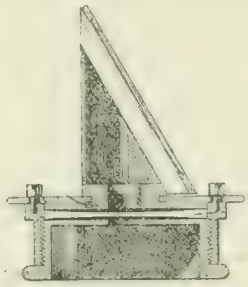


Fig. 2.

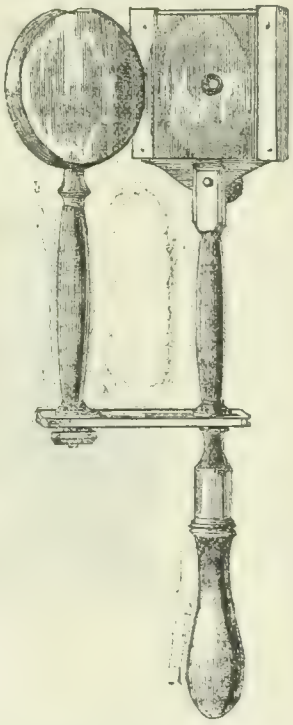


Fig. 3.

Figs. 1 and 2.—Helmholtz's Ophthalmoscope.
Fig. 3.—Coccius's ophthalmoscope as described and figured by Sir Spencer Wells in the *Medical Times*.

reproach to the ophthalmologist, for the very sufficient reason that he never uses it, never, that is to say, in the sense that it was used by those who had no other cloak available to cover the ignorance of which they were the pardonable exponents.

### Iridectomy for Glaucoma.

At the time of the Queen's accession, and for twenty years afterwards, there was a disease of the eye which baffled all treatment; moreover, the most distressing feature about it was that its onset and progress always tended to terminate in fatal blindness. The disease in question was glaucoma. But in 1857 the news casually reached Moorfields, conveyed by two German practitioners who had come to England to see the practice in London, that Graefe was treating his glaucoma cases by means of iridectomy. Sir William (then Mr.) Bowman was immediately attracted by the information, and forthwith he proceeded to make a trial of the new treatment.

In May, 1857, the first two iridectomies were performed by Bowman at Moorfields for the relief of glaucoma. The results were such as naturally to excite enthusiasm in one who was so wedded to his art. Bowman became enamoured of the operation and its most ardent advocate. The results which he obtained by its means amply justified him in pressing the adoption of its practice upon others. But, curiously enough, although the procedure was one which over and over again was proved to be highly beneficial in its effects, the opposition which it encountered was such as to call forth the exercise of some moral courage on the part of those who, convinced of its value, continued to practise it. The Dublin surgeons, for example, would not countenance the treatment at any price, and there were many English surgeons who could not believe that the removal of a piece of the iris could have any effect in reducing the glaucomatous symptoms in an eye. The great grievance against the operation was that the "iridectomists," as they were called, could not explain how it was that the relief was obtained. The "iridectomists" retorted that, whatever the explanation might be, the fact was indisputable that the patient's vision was oftentimes restored as the result of the surgical interference.

An interesting fact so far as the history of this matter is concerned is that Graefe began to treat his glaucoma cases by iridectomy about June, 1856, but he never published a word upon the subject until he read a paper describing his cases at the meeting of the Ophthalmological Congress in Brussels in September, 1857. The experience of many years has shown that some of the most brilliant results in ophthalmic surgery have been obtained in the treatment of glaucoma by iridectomy; moreover, although it is the case that the etiology of the disease has long been a perennial subject for discussion and speculation, it is nevertheless true that iridectomy is still the only efficient means for counteracting the destructive effects of glaucoma upon the vision.

### Antiseptics in Eye Surgery.

No account descriptive of the progress of ophthalmic science during the Queen's reign would be complete which did not include some reference to the application of the principles of Listerism to eye surgery. Speaking generally, it may be said that the ophthalmic surgeon has benefited just as much as the general surgeon from the practice of antisepticism. It was not, however, until the year 1881 that any serious effort was made to point out the advantages associated with the use of antiseptics in ophthalmic surgery. The subject was dealt with in three papers read in the Ophthalmic Section at the International Medical Congress in London. Perhaps the most noteworthy feature in connection with the proceedings was that, despite the fact that the meeting was held almost in the centre of Lister's work, no English surgeon had anything to say upon the subject. This may have been only a coincidence, but it is somewhat remarkable that no British surgeon had any testimony to bring forward showing that he had applied Lister's teaching to the surgery of the eye. On the other hand, the foreign members who spoke for the most part enthusiastically referred to the improvement which the use of antiseptics had effected in their records. Horner stated that the results of his cataract cases were improved from 6.6 to 1.1 per cent. during the period of from 1867 to 1881, in consequence of his adoption of the principles of antisepticism. With the lapse of time, however, and the undoubted improvement in the technique of antiseptic methods, together with the happy alliance with the latter of the principles of asepticism, Listerism has become the rule among ophthalmic surgeons, and there can be no question that it is a rule which should invariably, thoroughly, even conscientiously, be followed.

### The Discovery of Cocaine Anæsthesia.

In the year 1884 a brilliant meteor flashed across the horizon of ophthalmic science, leaving in its train results so valuable as to exceed even the extravagant imaginings of the most enthusiastic followers of Graefe. When Koller, of Vienna, was able to demonstrate, as he did at the Heidelberg Congress in 1884, that the instillation into an eye of a 2 per cent. solution of cocaine was followed some moments later by complete anæsthesia of the cornea and conjunctiva, it was at once admitted that a most momentous discovery had been made. Throughout the civilised world the news rapidly spread of the valuable properties which cocaine had been shown to possess. At first, owing to the sudden demand for

it, the alkaloid was difficult to obtain, and was very expensive. But these difficulties were soon overcome, and for many years now cocaine has so far superseded the use of a general anæsthetic in eye surgery, that for anæsthetic purposes little else is used. Shortly after it began to be generally employed, however, the brilliancy of its effects were somewhat dimmed by sinister reports that surgeons were beginning to have bad results in their cataract cases in consequence of suppuration. These results were attributed to the cocaine, and the conclusion was arrived at that possibly septic matter was conveyed to the eye by means of the special cocaine preparation employed. The rule was, therefore, deduced that cocaine solutions for ophthalmic operations should be freshly prepared, and made up with some appropriate antiseptic. The outcome of the observance of this rule was that the confidence in the drug was at once restored, while as its use increased the value of its advantages became more and more recognised.

### The Estimation of Errors of Refraction.

Some mention should now be made of the improvement which has been effected within the past two decades in the method of estimating errors of refraction. Since the introduction and perfecting of the method known as retinoscopy ophthalmic surgeons have every reason for being satisfied with the progress which has been achieved in this department of their work. If retinoscopy be not wholly based upon scientific detail, nevertheless it gives excellent results. The ease, for example, with which a complicated case of astigmatism can be worked out by its aid leaves nothing to be desired in this respect. Moreover, its utility, as applied to children, in whom, for instance, a convergent squint is developing before the school age, is by no means the least of its advantages. Formerly the only method available to the surgeon for estimating the error of refraction under these circumstances was by the use of a refraction ophthalmoscope; but retinoscopy is simplicity itself in comparison therewith. Cuignet of Lille, in 1874, was the first to suggest the principles upon which retinoscopy are based, but ten years previously to this Bowman had pointed out the possibility of diagnosing regular astigmatism by the use of an ophthalmoscopic mirror. Another improvement in connection with this subject was the introduction of the metrical system into ophthalmology. In May, 1874, Donders delivered a lecture at Moorfields fully explaining its advantages, and gradually since then the system has come to be adopted in this country. It is only very rarely now that the notes of ophthalmic cases contain the condition of the vision recorded by the old-time $\frac{20}{20}$ method, while the focal strength of lenses, represented by inches, is now quite forgotten.

### Conclusion.

It has not been possible in the foregoing remarks to do more than refer briefly to some of the features of the progress of ophthalmic science during the past sixty years. Many other facts closely concerned with this progress might have been mentioned had space permitted; but enough probably has been said to show the high standard of efficiency to which this special department of the medical art has now attained.

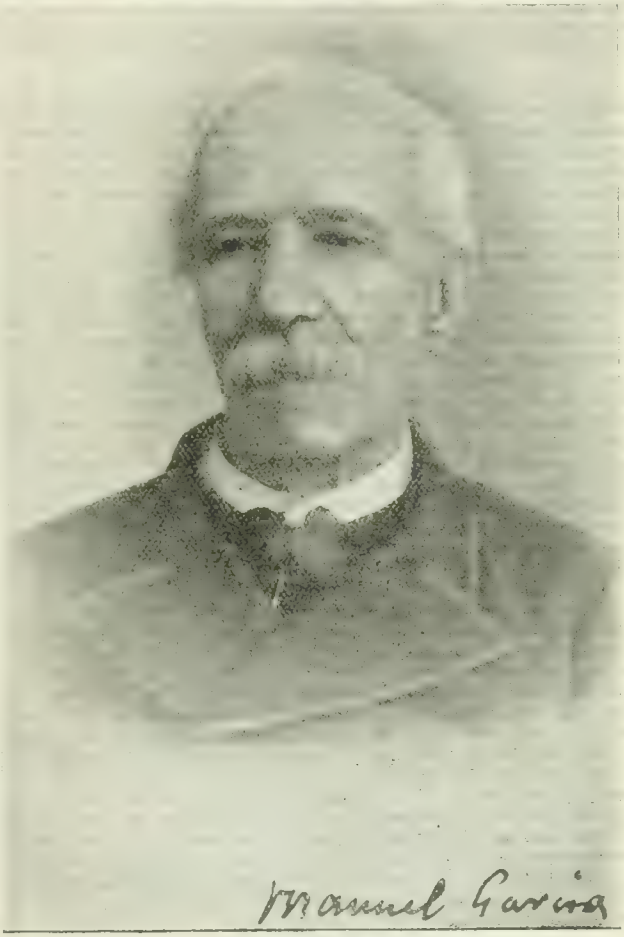
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## LARYNGOLOGY AND RHINOLOGY.

By StClair Thomson, M.D., M.R.C.P.Lond., F.R.C.S.Eng.

Laryngology in 1837 was practically non-existent, for a suitable instrument had not yet been invented for the inspection of the interior of the larynx, although many attempts had been made to supply this want.

At the beginning of the century a certain Dr. Bozzini, of Frankfort-on-the-Maine, designed an instrument for illuminating "the internal cavities and spaces in the living animal body." It was really a curved speculum, and although it was much too clumsy ever to be of any practical service, still its inventor recognised the necessity of the two principles which are met with in the laryngoscope of the present day: these are, the reflection of light and the reception in a mirror of the image of the region hidden from direct inspection. Bozzini effected this by arranging two mirrors in the angle of his laryngeal speculum, one being intended to convey the light, the other to receive the image. We know that this arrangement is unnecessary, and that the one mirror can serve both for reflecting the light and for receiving the image of the parts which are thus illuminated. This was recognised twenty-two years afterwards, namely, in 1829, when Dr. Benjamin Guy Babington showed his "glottiscope" to the Hunterian Society of London, for he used a single laryngeal mirror, very similar to those used at the present day, and on this he concentrated the sun's rays by means of a common hand-looking glass. There are no cases recorded in which Babington's laryngoscope was employed, although he used it on many patients, and a method which depended on so uncertain a luminary as the sun—at least in this climate—could not be expected to secure any general adoption.




Manuel Garcia.

Another distinct objection was that it demanded the use of the operator's two hands; the right one holding the laryngeal mirror, while the left manipulated the hand-glass.

### The Larynx a Terra Incognita in 1837.

Although, however, the larynx was still a *terra incognita* at the beginning of the Victorian era, it must not be thought that nothing was known of its diseases or their treatment. On the contrary, although diagnosis depended entirely on symptoms unaided by direct inspection, a wide knowledge had been stored up ready to burst into full fruition when once the living vocal cords were made visible. The foundation of laryngeal anatomy and physiology had been laid by the older anatomists. Morgagni not only gave his name to part of the organ, but made pathological observations which were of the highest importance; Bayle had studied œdema of the glottis (1819); Bretonneau's classical work on diph-

theria had appeared (1826); and Trousseau and Belloc had won the prizes of the Paris Academy of Medicine for their work on laryngeal phthisis (1837). Tracheotomy had been performed before the Christian era. Thyrotomy had been carried out with success by Brauers, of Louvain (1834). In 1827, Dr. Physick, of Philadelphia, invented, for the removal of enlarged tonsils, an instrument which is practically identical with the guillotine so frequently called after Fahnestock or Mackenzie. The knowledge of rhinology—generally looked upon as one of the youngest of the specialties—was of still older date. Hippocrates and Galen were far from being ignorant of affections of the nose, or unsuccessful in the treatment of them; Schneider revolutionised the older views as to its being the cloaca of the brain (1660); Highmore had given his name to one of the accessory cavities (1651), and this same cavity had been drained by Cowper by an opening through a tooth-socket from the alveolar border (1698), while Desault had opened it from the canine fossa (1790).

But it is unnecessary to refer at greater length to the condition of laryngology and rhinology sixty years ago, for although much was known both of diseases of the throat and nose, and something could be done to give relief, the art was still awaiting the fitting instrument. Attempts were made by Liston, in 1840, when treating œdematous tumours which obstruct the larynx, to obtain a deeper view "by means of such a glass as is used by dentists on a long stalk, previously dipped in hot water, introduced with its reflecting surface downwards, and carried well into the fauces." In 1844, Warden tried to inspect the interior of the larynx by means of prisms, but was so unsuccessful that he was forced to the conclusion that his method would give no assistance in the investigation of disease below the pharynx. About the same time, Mr. Avery, of London, was attempting to see the vocal cords by an arrangement of which the principles were sound, although the construction was too cumbersome to be practical. Like Bozzini he employed artificial light, and he made use of a frontal mirror; but instead of using it to reflect light from some distance, the mirror only served to increase the luminous power of a candle held at a short distance from the patient's mouth. The laryngeal mirror was not mounted on a shank, but was fixed in a speculum—as in Bozzini's invention.

### THE INVENTION OF THE LARYNGOSCOPE.

The century had more than half run its course before laryngoscopy became a practical art. For the invention of the laryngoscope we are indebted to Signor Manuel Garcia, a distinguished Spanish singing master, long resident in London, and, happily, still living amongst us, a hale and hearty nonagenarian. His discovery was made in 1854, and in the following year he presented a paper to the Royal Society of London entitled Physiological Observations on the Human Voice. His investigations were all carried out on himself, and in his autoscopic examination he employed two mirrors—a small one at the end of a long stem for introducing into the pharynx, and a large one, which served both for directing the light on to the smaller mirror, and for enabling the operator to see the image formed on it. This method had been independently imagined by Garcia, but it will at once be recognised that it is precisely similar to the one employed by Babington twenty-two years previously; the latter, however, never examined his own larynx, while Garcia's observations were made on himself. So far as this country was concerned, Garcia's discovery shared the same fate as Babington's; it was treated with apathy, and even with incredulity. His paper, however, fell into the hands of Dr. Türck, of Vienna, who, after some experiments, appears to have thrown the mirrors aside as useless, and to have formed the conclusion that "he was far from entertaining too sanguine hopes about the employment of the laryngeal mirror in practice." In the same year the mirrors were borrowed by Dr. Czermak, of Buda-Pesth, and he was quick to see what was wanting to complete an invention which he recognised at once as being of the greatest promise. Czermak substituted artificial light for the uncertain rays of the sun; the light was reflected and concentrated by a large ophthalmoscopic mirror; laryngeal mirrors were constructed of different sizes; and finally, the art of laryngoscopy was perfected, and presented to the world in an article in the *Wiener medizinische Wochenschrift* on March 27th, 1858. The question of priority of this invention need not detain us in this article. The difficulty of deciding it induced the French Academy of Science, in 1860, to divide the Prix Monthyon between the two candidates, Türck and Czermak. It is sufficient to recognise that the possibility of viewing the interior of the larynx was certainly demonstrated by Babington in 1829, but he failed to conceive the future of his invention. The successful attempt to view the vocal cords was independently carried out by Garcia in 1854. An effort to apply the discovery to medical use was made by Türck in 1857; but the perfecting of the technique, and the realisation of its possibilities, must be attributed to Czermak. Indeed, in one of his earliest communications on the subject, he insisted on the fact that the invention was not only of the greatest service in diagnosis, but also in treatment. He was the first to demonstrate its use in posterior rhinoscopy, and in 1863 he detected, with the mirror, in the post-nasal space the "growths like a cock's comb," which, five years later, were fully discovered by Meyer, of Copenhagen, and described as adenoid vegetations.

The progress of laryngology from 1858 to the present date has, probably, been more rapid than that of any department of medicine during a similar period of time. Affections of the throat and nose are no longer dependent on symptoms for their diagnosis; but positive ocular signs reveal the exact condition of affairs. The practitioner has no need to content himself with indirect medication of a condition he could only suspect from inference; the mirror now truthfully reflects the local mischief, and under its guidance the hand can carry treatment to the spot affected. Foreign bodies lodged in the air passages are detected and removed under the guidance of the eye. Tuberculosis in the larynx may in some cases be eradicated, while in many the distressing symptoms to which it gives rise can be greatly alleviated by local treatment. The early diagnosis of cancer is rendered possible, and, instead of the desperate resource of excision of the larynx, the operation of laryngo-fissure now places in our hands the means of effecting a permanent cure in over 58 per cent. of the cases. In fact a brief reference to medical literature in the early Victorian period shows that at that date laryngeal diseases were only diagnosed from the consequent aphonia, dysphagia, or laryngeal obstruction, and, as their exact diagnosis was impossible, so their relief had hardly been advanced since the introduction of the operation of tracheotomy in pre-Christian days.

### FIRST REMOVAL OF A LARYNGEAL GROWTH.

Endo-laryngeal surgery may be said to have first seen the light of day in this country, for although Lewin, Lindwurm, and Victor v. Bruns are said to have previously removed polypi from the larynx, the first published case is recorded in the *Lancet* for November 9th, 1861. It refers to a laryngeal growth removed by Dr. T. J. Walker of Peterborough, who undoubtedly was the first practitioner in this country to succeed in removing a growth from the larynx *per vias naturales*.

### LOCAL ANÆSTHESIA.

Of the steps which marked the rapid career of this department of medicine, the only one which need detain us is the discovery of the anæsthetic properties of cocaine by Koller, in 1884. In both examination and treatment of laryngeal affections, the discovery of the virtues of this drug was the most epoch-marking event after the invention of the laryngoscope itself. It spared patients not only the pain of operation, but relieved the particularly sensitive of the discomfort of examination; while it rendered the practice of laryngoscopy so much more simple, that instead of its being an art limited to the dexterity and skill of a few who were constantly and extensively practised in it, it now became a department of practice which could be exercised by the many.

In rhinology not only were the anæsthetic properties of cocaine of the greatest value, but its power of contracting the tissues immensely facilitated examination and operative interference. The discovery of local anæsthesia was even more important than the development of antiseptic principles, for although, naturally, operative treatment in diseases of the throat shared in the advantages of Lister's great discoveries, they did so to a less extent, for the communication of the air

tubes with the normally septic mouth and pharynx excluded the possibility of rigorous asepticism.

LARYNGOLOGY IN ITS RELATION TO GENERAL MEDICINE.

Of wider interest and more general importance are the benefits which laryngology has bestowed on medicine in other than a local sense. I refer here particularly to the manner in which it is now frequently possible by the discovery of one particular sign in the throat to throw a flood of light on a number of obscure symptoms elsewhere. A syphilitic process in the post-nasal space, a tuberculous ulceration in the larynx, a paralysis of one vocal cord may positively settle the diagnosis of an affection which would otherwise have remained impossible, or one of mere conjecture. The discovery of suppuration in one or more of the accessory cavities of the nose will not only explain the persistence of many forms of headache and neuralgia, but the direct treatment of the cause is as satisfactory as the previous symptomatic medication was disappointing. Many cases of obscure fever, cough, hæmoptysis, laryngeal spasm, many diseases of the ear, and certain diseases of the eye are found to have their source of origin in affections of the throat and nose. Although the reflexes of the nose have possibly been exaggerated, diseases of this organ have not infrequently been found to be the source of asthma, laryngismus stridulus, enuresis nocturna, tachycardia, and many other affections. The observations of those who have devoted their attention to this department of practice have also added no inconsiderable amount to our knowledge of the physiology of the human body. Before the investigations of rhinologists it was thought that the inspired air was warmed and moistened by the mucous surface of the lungs. Now it has been repeatedly proved that this warming and moistening take place in the nose, and the great importance of nasal respiration as a normal physiological process has thus been established. Lately I have shown with Dr. Hewlett that in conditions of health this organ serves the equally important function of acting as a perfect germ filter. The innervation of the larynx has to a large extent been elucidated by the researches of laryngologists. The discovery by Meyer, of Copenhagen, of adenoid vegetations has revealed what, it is hardly an exaggeration to say, is the most important affection of childhood. We have hardly even yet realised the benefit which will accrue to the rising generation from the recognition and removal of this common source of nasal obstruction, with its consequent aprosexia, impeded development, and facial deformity.

RECENT DEVELOPMENTS.

Other developments in laryngology and rhinology are of too recent date to permit us to gauge their value correctly. Still, the autoscope appears to be a useful addition to our armamentarium, intubation is gradually defining its sphere of usefulness, and the employment of the Roentgen rays is of undoubted value in the detection and removal of foreign bodies. In time these rays may assist in the diagnosis and treatment of other conditions. In connection with the wider questions of pathology it is to be hoped that workers in this field will be able to throw light on many of the problems of infection which await solution. Nearly all infections enter the system through the alimentary canal with the food, or else through the respiratory tract with the air. To the laryngologist, therefore, falls the opportunity of detecting the circumstances under which the upper air passages are attacked, and to him may fall the credit of discovering the means by which the first lines of defence may be protected and strengthened.

## DISEASES OF CHILDREN.

Those who are able to look back for no more than half the period over which the Queen's reign has extended will yet be able to perceive that among the social changes which have come about have been some which nearly affect childhood. More thought and more skill are devoted to their education, and greater care to the preservation of their health, while greater anxiety is displayed to make the period of childhood happy. If the tendency of the age has been such, it is not surprising that it should have witnessed also on the part of the medical profession a greater disposition to study the pathology, the etiology, and the treatment of disease as it occurs in childhood. The development of interest in the subject within the last 50 years, and the growth of knowledge in connection with it, has indeed been remarkable. The gains have been made simultaneously in this country, in Germany, in France, and in America.

LONDON.

That this assertion can truly be made is due to the scientific spirit and unselfish devotion exhibited at an early date by Dr. Charles West, who may justly be called the founder of the study in this country. By his writings, which have been translated into many languages, he has been one of those who have influenced most powerfully medical opinion throughout the world towards a more serious apprehension of the importance of acquiring a better knowledge of the causes and the cure of the diseases most prone to afflict childhood. It is, therefore, with great pleasure that we are able to print below some brief reminiscences which Dr. West has been good enough to write in response to a request for his assistance:—

"At the time when I settled in London, in the year 1838, the only English books specially treating of the diseases of children were those of Dr. Underwood, and of Doctors Maunsell and Evanson; and the only institution specially set apart for children's diseases was the dispensary in the Waterloo Bridge Road, where I worked for twelve years. During that time I preserved a record of 600 cases and 180 *post-mortem* examinations, made at the homes of the poor in Lambeth and Southwark.

"The results of these observations appeared partly in the medical journals, and completely in the *Medical Gazette*, as 'Lectures on the Diseases of Children,' which were delivered at the Middlesex Hospital, and were afterwards published, in 1848, as a separate book. This book has since gone through seven editions, the last of which was based on the record of 2,250 cases, and 650 *post-mortem* examinations, and appeared in 1884. This book has gone through 5 editions in America, 4 in Germany, 2 in France, and 2 in Italy, and has also been translated into Spanish, Danish, Dutch, and Arabic.

"When the Hospital for Sick Children, in Ormond Street, was opened, in February, 1852, no other children's hospital existed in England or in America. At present there are 43 in England, Ireland and Scotland, and I know not how many in America—all lineal descendants of the Ormond Street Hospital, which opened with 14 beds, and one little girl—the solitary inpatient.

"The foundation of a hospital for sick children was the dream of my youth, and the occupation of 30 years of manhood. I looked forward to helping to organise the institution which is housed in a building planned by me in conjunction with my dear friend (the late Mr. Edward Barry), and which, like the old hospital, was fitted and furnished throughout by me, and I trusted that when old age came I might be allowed to linger about the place to which my heart turns as a parent's towards his child.

"This happiness has been denied me to my life-long heart break; and it is now too late for me to hope for more than this—that when I have passed away those to whom my memory will still be dear may hear my name sometimes mentioned as the founder of the first children's hospital that ever existed in this country, and as having given the impulse to that movement which has led to the establishment of children's hospitals in almost every town in England and America, and has enriched the once scanty literature of the subject with contributions of surpassing value.

"That, with increased opportunities for observation, knowledge too would increase was certain. The evidence of this is seen in various papers communicated to the *Transactions* of societies and to medical journals, as well as in systematic works. Of both the merit is in many instances very great, and to me in my old age it is a real pleasure to see some of my mistakes corrected, some of my doubts answered, and my lagging pace outstripped by younger runners in the race, of which the goal is not alone the honour of him who wins the race, but above all the common good. May they act on the motto of the first great inmate of 49, Great Ormond Street, *Non sibi, sed toti*."

The movement which made it possible to found the Hospital for Sick Children in Great Ormond Street did not by any means expend itself in that effort. Owing not a little to the influence, direct or indirect, of Charles Dickens, public sympathy was aroused, and numerous hospitals sprang up in various parts of London; thus hospitals for children were founded in Pimlico, and in Chelsea in 1866, in Hackney in 1867, in Shadwell in 1868, in Southwark in 1869, and in Paddington as recently as 1883.

### EDINBURGH.

Edinburgh can boast that the first step towards a study of disease in children was taken there somewhere about the years 1838, by Dr. William Campbell, lecturer on midwifery and diseases of women in the extra-mural school, who gave a separate course of lectures on that subject. It has taken sixty years to bring his early sowing to full fruition, for only now are students examined on disease in children for the university degrees.

In 1856, Dr. Charles Wilson urged the "expediency of founding a hospital for the diseases of children in Edinburgh" in a series of articles in the *Edinburgh Medical Journal*. Nothing practical followed. But again, in February, 1859, another series of letters appeared in the *Scotsman* above the signature "Sigma, M.D." These are now known to have been written by Dr. John Smith, who was not only a pioneer in this department of medicine, but also in that of dental surgery. At that time, in the eight largest towns of Scotland, the mortality among children under 5 years of age was 46 per cent. The public press now espoused the cause of the children, and the result was, that on May 5th, 1859, at a public meeting, it was resolved on the motion of Dean Ramsay, that a hospital for the relief of sick children be forthwith established in Edinburgh. On February 15th, 1860, a small hospital of 24 beds was opened at 7, Lauriston Lane. A year later, Meadowside House, at the foot of the same Lane, was bought by the directors, altered and fitted up with 40 beds, and opened in May, 1864. It was extended from time to time till it had 73 beds. Compelled thereto by sanitary defects, culminating in an outbreak of enteric fever, a lease of Morningside College was got, and the old hospital of Meadowside House was pulled down. With a view to the extension of the Royal Infirmary the managers of that institution bought the grounds of Meadowside House, and the directors of the Children's Hospital in turn bought the Trades' Maiden Hospital and Grounds at Rillbank Terrace. The old building was pulled down, and an excellent hospital of 120 beds built on the site. This was opened by Princess Beatrice (Princess Henry of Battenberg) on October 31st, 1895. Her Royal Highness was accompanied by her husband, Prince Henry of Battenberg, in this the last public function in which he took part before he left for West Africa. The cost of the new hospital, including site, electric installation, etc., was about £47,000.[1]

### OTHER HOSPITALS IN THE UNITED KINGDOM.

Altogether the number of hospitals for children in various cities and towns throughout the United Kingdom is now very large, amounting altogether, according to Dr. West's calculation, to 43. It would be tedious to enumerate them and we may refer only to the important hospital established at Pendlebury for the use of Manchester, to the Fleming Memorial Hospital at Newcastle-on-Tyne, to the Jenny Lind Hospital at Norwich, which owed so much to the great singer whose name it bears, and to the Bristol Hospital for Sick Children, founded over forty years ago. In Scotland, we find well appointed hospitals for sick children not only in Edinburgh, but also in Glasgow, and Aberdeen. In Ireland, Dublin and Belfast possess hospitals for children founded within the last five and twenty years.

### "THE SPECIALTY OF THE GENERAL PRACTITIONER."

The multiplication of hospitals is not an unmixed advantage, but these facts are mentioned as an indication of the increased interest exhibited, during the present reign, in the study and the treatment of disease in childhood. The labours of many physicians and surgeons has gradually accumulated a body of knowledge which has been fully placed at the disposal of the profession in their writings, and through the instruction which has been given in many of these hospitals to students and junior practitioners. It has been said, with what truth we shall not pretend to say, that "pædiatrics is the specialty of the general practitioner." Certain it is that the treatment of the diseases of children constitutes no small part of general practice, and a part the importance of which has been steadily growing in the eyes of the public.

### THE INFLUENCE OF BACTERIOLOGY.

In no department of medicine has the recent development of the science of bacteriology had more important practical influence on successful practice. It is not merely that it has placed in our hands a reasoned basis of action to prevent the spread of infectious diseases which are so great a scourge of childhood, but it has shown us that the cause of death, in probably the very large majority of cases of acute infection, is not the severity of the disease itself but the secondary infections, especially of the lungs and intestines to which the febrile condition renders the organism specially liable. It has shown that the prevalence of these secondary infections can be diminished enormously by precautions which are within the reach of all. The problems which demand immediate consideration are the means to be used to check the enormous mortality from certain acute specific diseases, especially measles and whooping-cough, and the prevention of the spread of tuberculosis.

### TUBERCULOSIS.

The treatment of surgical disorders in childhood has always been an important part of general surgery, but in the earlier years of the Queen's reign not only was the mortality produced by "strumous" disease of bones and joints enormous, but the fact that of those who recovered so large a proportion had undergone amputation, or were left with crippled limbs and ruined health, was a veritable *opprobrium chirurgiæ*. Modern surgery has diminished immensely the number of cripples and the tale of deaths. Amyloid disease of the viscera, once a common consequence of long continued suppuration, is almost a pathological curiosity, for the application of antiseptic methods and of a more intelligent system of after-treatment, for which we are largely indebted to Thomas, of Liverpool, and Sayre, of New York, have worked a revolution. The experimental study of the specific infection of tubercle has already shown the nature of the precautions which are required for its prevention, and the administrative measures which must be taken in order to put this knowledge into practice are engaging the attention of health authorities throughout the civilised world. If in some respects the prophylactic methods are as yet crude and imperfect, in others very considerable practical success has been attained. Greater and more general success will certainly attend longer experience and a more widespread education of public opinion.

### SECONDARY INFECTIONS.

With regard to the diminution of the mortality among children from the acute specific diseases the difficulty is greater, and the outlook less hopeful. Much has been done to diminish the mortality produced by scarlet fever, but with regard to measles and whooping cough the early date at which the patient is infectious presents a difficulty apparently insurmountable by methods of the same kind as those which have been found more or less effectual against scarlet and typhoid fevers. Though there is at present no way which promises to enable us successfully to prevent the spread of these diseases among susceptible children congregated in schools, yet, as has been said, bacteriology has advanced evidence which can hardly be gainsaid to prove that the complications, bronchopneumonia in particular, to which most of the deaths from measles and whooping cough are due, can be prevented. The same science has taught us also how the terrible mortality from diarrhœal diseases which has too long prevailed in young children at all seasons of the year, but especially in warm weather, may be diminished. When prophylactic measures against these three classes of disease have been effectually enforced the change brought about by the study of diseases of children will be even more conspicuous than it is at present.

[1] No notice of the Edinburgh Children's Hospital, however brief, ought to omit mention of the great part played by the late Dr. T. Graham Weir, Mr. John Henry, and Dr. George W. Balfour in the early stages of its career. Mr. John Henry's interest and good work has gone on throughout the whole history of the hospital.

# PROGRESS IN PSYCHOLOGICAL MEDICINE AND CHANGES IN LUNACY LEGISLATION DURING THE REIGN OF QUEEN VICTORIA.

By W. JULIUS MICKLE, M.D., F.R.C.P.Lond.

## I.—PSYCHOLOGICAL MEDICINE.

THE humane crusade led in England by Samuel Tuke, of York, and by Philippe Pinel in France, at nearly the close of the last century, and the spread of more compassionate feeling and of better insight into the nature of mental disease, had wrought considerable amelioration in the condition of the insane in this country by the time Her Majesty ascended the throne; and the battle of non-restraint was being fought both before and after that event. For a generation or more the warfare was maintained. We do not purpose to disinter the weapons or the wreckage of the earlier phases of this warfare. Indeed, the reverberations of the contest have not yet wholly died away. Both sides erred and fell into extremes. The doctrine of non-restraint—absolute, complete, and without admissible exception—became to some a mere fetish; a form of worship of the word; a senseless idolatry. On the contrary, the principles of their opponents led to the fostering and promotion of unnecessary evil in the form of mechanical restraint not absolutely necessary. We take it that, at the present time, nearly all men of balanced mind, who have accurate clinical knowledge of insanity and practical experience in dealing with various forms of that group of diseases, and on whom for a number of years in succession has devolved the full responsibility for the treatment of many hundreds of lunatics, will be ready to declare themselves unreservedly as adherents to the general principle of non-use of mechanical restraint; and, nevertheless, equally to declare that in some few, indeed rare, cases mechanical restraint is not only the best treatment medically, but the most humane, and the only common-sense one; that in a few cases it is the only one capable of securing safety to the unfortunate sufferer and to those around him; the one less likely than any other to aggravate and infuriate him; and, in a different kind of case, the most likely of all to husband his strength and avert the tendency to death. This is true of the rare exceptional cases only. Is the patient suffering from insanity of rare exceptional character or results to be deprived of the best and the most appropriate methods of dealing with the evils which are direct outcomes of the mental disease? Has he not the same right to receive the appropriate but rare exceptional form of treatment best adapted to his case? In this matter, is he to be less well served than his brother in suffering who is of the ordinary medical or surgical class? To this there can be but one reply.

### PIONEERS OF REFORM.

Some of the promoters of the more gentle and humane system of treatment of the insane carried the principle of so-called non-restraint as a banner in the fight. But whether they did so or not, the members of a band of earnest men, scattered broadcast over the country, wielded an ameliorating influence on the lot of the insane, both before and for long after the beginning of the last sixty years. Gardiner Hill, Charlesworth, Conolly, and many others, bore an important part in bringing this benign influence to bear. They were workers in the dawn and the early struggling light of a brighter day. Here, as everywhere, all honour to the pioneers, to those who break new ground, who point the road where others see darkness only, who, amidst opposition and hate, continue the even tenour of their beneficent way.

As a general principle, in the care and control of the insane, a guarded non-restraint doctrine has long ago become the ruling one in this country. Hence, it has extended to the Continent. Some institutions in the United States and Canada were early followers of the general principle; but throughout America a few were, in this respect, out of line with their fellows, and until very recently remained—perhaps even now one still remains here and there—as exemplars of the old and evil state of things, as the theatres of an abuse of the application of mechanical restraint.

### THE ANATOMY OF THE NERVOUS SYSTEM.

It is during the past sixty years that much of our knowledge of the macroscopic anatomy of the nervous system has been gained, and most of our existing knowlege of its microscopic structure. As regards microscopic nervous anatomy, little of real value was known in 1837. As regards the naked-eye anatomy—including the study of gyri and sulci—it was then in embryo stage, or little more advanced. The researches of recent investigators, using new methods of preparation, staining, and mounting, have carried the microscopical anatomy to a far higher level than ever before; they form the evidence for a great change of view as to the relations of the nervous elements and structures, and are of far-reaching effect upon all theories connected with the more recondite problems and investigations concerning the nervous structures.

### THE PHYSIOLOGY OF THE NERVOUS SYSTEM.

The strides made within this space of time in knowledge of the physiology of the nervous system have been enormous. What is known on the scientific localisation of brain and cord function has been almost entirely learned within the sixty years under review. To medico-psychology this is of vast importance; witness the intricate study of affections of language, so inwrought with mental abnormal states as to be inextricable, and forming a daily study to the mental physician. The physiological study of the nervous functions has been advanced many stages, and hosts of careful experiments have thrown light upon nervous action, healthy and morbid; and have done much to clarify our ideas on nervous functions and their perversions.

### PHYSIOLOGICAL PSYCHOLOGY.

Physiological psychology, which deals with psychical processes contingent on cerebral functions, still in its infancy, may, for practical purposes, be stated to have come to birth within the Victorian era. The application of experimental observation to mental processes is necessarily most difficult and complex; fallacies abound, and pitfalls beset the investigator on every side. In this study the consumption of time is on an extravagant scale, but is justified by the importance of the results that may justly be expected from it. It has been said that science is measurement; and the attempt to measure the amazingly delicate, concealed and swift lightning-play of thought at first seems to be hopeless. But with commendable, unwearied patience, the pioneers in this difficult investigation have laid siege to the difficulties, and have mastered the outer lines of resistance. This has not been achieved by direct assault, so to speak, but by oblique attack. Sensation has been made use of to measure quantity in mental life; and voluntary movement has been utilised to measure time in mental life. Hence an important and integral part of mental physiology is metric physiological psychology or psycho-physics, or psycho-metrics.

The investigations on sensation and the measurement of quantity or intensity in mental life have largely grouped around the focal facts concerned in Weber's and Fechner's formulæ or "laws." The measurement of mental time relations has been carefully studied, and a number of reaction times established, some of these being constituted by several elements which together make up the total time consumed by the psychic and psycho-physical series.

This department of mental physiology has been greatly neglected in this country; whereas in Germany, the United States, and Italy, and particularly in the first two of these countries, it has been cultivated to a much greater extent; and a number of teachers and well-equipped special laboratories minister to instruction and investigation in this subject, at once promoting both the teaching of the known, and original research for fresh knowledge.

When shall we see chairs of psycho-physics established in our universities?

### COMBINED LINES OF STUDY.

Anatomy, physiology, physiological psychology, and experimental pathology all bear profoundly on mental medicine, and work hand in hand with clinical observation and with necroscopic investigation to elucidate the complex problems of psychiatry; and work of this kind, so brilliantly restarted a generation ago in this country, in Germany, and in France, has of late years been most ably pursued in Italy, as part

of that general renaissance of scientific activity which for some years past has characterised Italian medicine.

It is not necessary to dwell here upon the fruitful bearing of investigations of these several kinds upon the progress of psychiatry. But it is well, hereanent, to utter a note of warning against too precipitate adoption of alleged or of apparent conclusions. Let nothing be adopted and applied in psychiatry, which has not stood every possible test by control experimentation, and by thorough discussion and application of every reasonable objection that may be raised. Only after it has triumphantly emerged from a series of trials of the kind should the new doctrine be accepted and applied, and then only in a tentative and circumspect manner. Neglect of precautions such as these has greatly retarded progress in the past, and retards it still.

### Pathology of the Nervous System.

The pathological anatomy of the nervous system has grown with equally rapid paces, and the improved recent microscopical methods have been as useful therein as in the study of normal nervous structure. Much finer changes than were formerly detectable are now made manifest in diseased nervous structures.

Bacteriology lends its aid, and the microbic origin of some mental affections becomes more distinctly manifest; so that the doctrine of their microbic origin, possessing more than a simply hypothetic base, calls for confirmation, or refutation, or for modification, as may turn out to be the case when the apparent facts become accurately fitted to the truth.

A wide field for future study, as yet not well tilled, is that of the production of nervous and mental diseases by processes of self-intoxication. There is nothing to be surprised at in this fact. When we consider the extremely delicate, intricate, and elaborate total set of processes which concur to constitute the whole phenomena of metabolism in our frames, the marvel is that they can ever be effected in a normal way beyond a very brief space of time. It is marvellous, indeed, that so complicately elaborated and nicely adjusted and numerous a set of processes could ever have become evolved. And yet, in their essence, they represent a comparatively early triumph of differentiating and elaborating evolutionary force. Conversely, if, as we believe, the powers of his organism are in a measure summed up in, and represented by, the brain of man, it is *primâ facie* not unlikely that defect and disorder of brain function may conduce to decay, defect, or derangement in metabolic function, this occurring either within a general or a circumscribed sphere of action.

Deranged metabolism, however set up, is apt speedily to lead to some degree of self-intoxication, be this last mild, or considerable, or severe, or lethal. The natural protective forces of the organism may right the disturbance in the less severe instances of self-intoxication. But let the nervous system, or any part of it, be, by inheritance or by acquirement, the least resistive part, or a part but little resistive, and then toxæmic states may easily lead to various nervous and even mental disturbances, varying in accord with the peculiarities of the individual case, including the hereditary endowment, and with the particular form and degree and time-relations of the self-intoxication.

Chiefly arisen during the Victorian era, this subject has been pressing forward of late, and now presents a host of problems which may well occupy the attention of careful investigators for many years to come.

### Internal Secretions in Relation to Mental Medicine.

Some good and careful work has been and still is being done with regard to the defects and disorders of metabolism dependent upon excess, diminution, or cessation of some of the natural internal secretions of the body. Some of them bear very intimately upon mental medicine. Of these, perhaps the most important is the thyroidal secretion. A series of brilliant investigations—in which our own countrymen have borne the chief part—has cleared up much that was formerly obscure, and discovered much that formerly was concealed, with regard to the effect of cessation and of disorder of thyroidal secretion. Here one need only mention the light thrown upon the pathology and therapeusis of myxœdema; of cretinism, both endemic and sporadic; of many cretinoid states (as yet so little studied); and of exophthalmic goitre.

Much is still obscure with regard to the *rôle* of the thymus body, and its physiological, pathological, and therapeutical relations. In acromegaly, the pituitary body plays a part not yet fully worked out. All the morbid states just mentioned have intimate relations to mental conditions, and afford us much help towards a more complete conception of mental pathology. And if we only make bare mention of Addison's disease, and various forms of lymphadenoma, it is because their relations to mental derangement are less strikingly manifest than are those of the deviations from normal already glanced at above.

But in regard to the internal secretions, and to the streams of nervous and other energy they arouse or constrain, it is not pathological process alone which gives us useful information. Artificial interference by the operative proceedings of the surgeon teaches us the same lesson. Needful these operative proceedings may be in the given case, and preventive of a worse evil, or even, possibly, preservative of a life which otherwise would be lost by the unchecked course of disease. But the mutilation involves a risk to nervous or mental health in many examples: witness the effect of excision of both testicles or of both ovaries. What a lesson on the far-reaching influence of vital processes not immediately essential to the continuance of individual existence do we get from the effects of excision of the ovaries of women during the period of sexual activity; how manifold the disturbances which arise in many cases! The knowledge thus gained is the complement of that already possessed, clinically, with regard to the nervous and mental disturbances which so often coincide with the evolutional changes at puberty attending the establishment of sexual life in both sexes; and with the involutional changes of woman's climacterium, especially; and even in less degree with man's—shorn as his "change of life" is of the more striking perturbations so often seen in that of woman.

The nervous and mental results of deprival of ovarian influence by total ablation of these organs during active sexual life constitute a study of deep significance, great complexity, profound interest. In such ablation there is destruction of the physiological processes culminating in the production of ova, and the maturation of the same; destruction more or less of the recurrent molimen marking female life; destruction also of a portion of ablated nervous system; change in, and finally, as a rule, abrogation of the normal incitations issuing from genital organs, and exerting a wide influence on the processes and welfare of the organism at large. And of these influences, the most important to mention here is that on the encephalon; the representation of sexual life in the brain of man and woman is far greater than is usually known. Mankind owes more to sexual life than it is aware of; and a mistaken prudery leads to concealment, to formal ignoring of the sexual life, and to a false and impure shame in reference to it.

The importance of the sexual life and its derangements in relation to mental states and aberrations need not be further dwelt upon. But before leaving the subject of insanity after pathological destruction or operative removal of certain organs of the body, we simply mention the mental affections connected more or less with the shock of operation, or with the administration of anæsthetic agents, whether used in connection with surgical operation or employed for some purpose other than surgical. It is within comparatively recent years that most has been gained of that which we know with regard to mental states related to destruction or to surgical ablation of certain organs, or related to the shock of operation, or to the administration of anæsthetic agents. And we dwell a little on these factors, inasmuch as we look hopefully to the future for increase of knowledge concerning them.

### Treatment of Mental Disease.

Mental diseases, as a part of the study of general medicine, have benefited by the advances in medical art during the last sixty years; by therapeutic improvements which have become part of the general body of medical knowledge, whether hygienic or therapeutic in a narrower sense of the word. These we need not discuss.

Over and above these are a number of changes in mental

practice, based upon observation and careful experimental inquiry, both in this country and in others.

The more humane and gentle methods of general control and management of the insane deserve mention here again, although they have already been discussed in the early part of this review as fully as space permits. The importance of general hygiene in the treatment of the insane has been established by observation more fully than before; the value of work in many cases, of quietude and rest in others, has been proved; and so has the importance of the resources of a truly restorative medicine in the attempted prevention or cure of mental ill-health. To corroborate, to upbuild the general or special energies, whilst, if possible, removing, modifying, or regulating the factors productive of the mental disease—if these are still existent—is in many cases the most promising and best line of treatment.

Certain conditions of mental disease are among the departures from normal which are benefited by administration of thyroid gland or of preparations made from it. We are now referring to cases quite other than the myxœdematous and cretinous or cretinoid states found among the subjects of mental disease. Much more may be expected, in the early future, from medical treatment of analogous kind, suggestions towards which arise out of the remarks already made on mental disease from disorder or defect of internal secretion.

Just as to attain some real knowledge of mental disease requires the most complete general medical training as the foundation on which to begin to build, so in like manner does the therapeusis of mental disease demand as its basis the most complete equipment of practical knowledge in the appropriate treatment of all other diseases. The whole problem is carried a stage higher, to a different level. Most often the problem is not how to influence this or that simple process of disease as such, but how to modify an ultimate effect of some process or processes of disease, which, or each of which, may itself be of complex causation or origin. Successful scientific mental therapeusis and scientific mental medicine, when fully attained, must, in the nature of things, form the consummate efflorescence of the whole of medical art and of medical science.

## II.—LUNACY LEGISLATION AND THE PROVISIONS FOR CARE OF THE INSANE.

At the beginning of the present reign the lunacy laws and the provision for the care and treatment of persons of unsound mind in this country were comparatively simple. At that time the institutions for the insane were neither numerous nor very important. Then, as now, some were public and some were private. But most of the present asylums did not yet exist, and those that did have undergone a progressive series of changes during the sixty years, and as a rule have been replaced by practically new structures. Devolution and specialisation have also worked their part in the changes, so that, for example, idiots and imbeciles have become more and more separated from their insane fellows by establishment of distinct and separate institutions for each.

### PRE-VICTORIAN LEGISLATION.

Before Her Majesty came to the throne the regulation of asylums had undergone a series of changes, sometimes swiftly succeeding one another. For, to go no further back than the sixty years immediately precedent to the sixty of the present reign now under review, the power of asylum control had been vested in a succession of authorities. During the first part of that antecedent space of sixty years the control of asylums had been, in the provinces, vested in the justices of the peace, but in the metropolis and its immediate surroundings vested in Commissioners appointed by the College of Physicians. Next, and by several Acts of Parliament, these Commissioners were replaced by Commissioners appointed by the Home Secretary; and these in their turn were supplanted by "Metropolitan Commissioners in Lunacy," appointed annually by the Lord Chancellor. Amendment of the preceding Acts, shortly after Her Majesty came to the throne, empowered these Metropolitan Commissioners in Lunacy to visit, inspect, and control all the public and private asylums in England and Wales. And it was eight years after the beginning of Victoria's reign that the Act of 1845, repealing previous measures, constituted a Board of Commissioners in Lunacy, under which the care and control of the great majority of lunatics have been carried on during most of the remaining years of the reign. And the Lunacy Act of 1890, which repealed that of 1845, has practically done little in the way of alteration of power, except to strengthen and to make more widely reaching the departmental control of the Commissioners in Lunacy and the bearing of their rules, which derive statutory force from the Act. And, as before, the lunatics so found by inquisition remain under the immediate authority of the Lord Chancellor and his Visitors in Lunacy.

### THE ACT OF 1845.

The Act of 1845 gave great impetus to the erection of public lunatic asylums. In most counties, and in cities or boroughs of any considerable size, asylums were soon being built. Some, indeed, had already made provision of the kind, but even here the old was extended or reconstructed, or, in some examples, replaced by new.

The Act of 1845, although modified and amended by several successive Acts during the next forty years, remained the basis on which the care and treatment of lunatics were effected. It provided for these, but failed efficiently to prevent much agitation which arose, and much public discussion of the provisions of lunacy law and of the alleged grievances of persons dealt with under it. It also failed efficiently to protect from legal persecution those who had acted under it in good faith and with reasonable care in relation to the placing or receiving of lunatics under care or treatment. In the Seventies these agitations culminated in the appointment of a Royal Commission to investigate the alleged grievances and offer suggestions as to future legislation. This Commission worked hard and long, and patiently heard the evidence of many people, some of the witnesses being persons alleging the grievance of illegal detention. But, in the result, the report of the Commission on this point was practically to the effect that no case of detention improperly or in ill faith had been made out.

Nevertheless, many hardships had occurred, and continued to occur, in the law courts in relation to lunacy matters; medical men and others were being frequently haled before the judges for some alleged breach of good faith in the certification, or the sending or reception of lunatics under care and control, and examples of hardship arose wherein persons, acting in good faith, were subject to persecutory, vindictive actions before the tribunals, and, although gaining their cases, were necessarily compelled to pay their costs, which, although awarded to them by verdict and legal decision, were in most cases totally irrecoverable from impecunious plaintiffs, or from those whose slender means had already reached the pockets of the speculative lawyers who had championed their cause. For their own protection many medical men were compelled to refuse to sign certificates of lunacy. In those days more than usual of wild and whirling words were spoken of the medical men whose misfortune it was to be concerned in lunacy practice; misrepresentation and heartburning were rife; and, to crown all, the work of the law courts was often hindered and hampered by the unrestrained litigious tendencies of here and there a paranoiac.

### THE ACTS OF 1890-91.

In the sessions of 1885 and of the four next years, successive Bills to amend the lunacy law were annually introduced into the House of Lords, and thence into the Commons; but a series of obstructions and crises in the Houses of Parliament precluded the passing of any Act until the session of 1889. For practical purposes the new Act came into force early in 1890, and its re-enactment virtually makes the Lunacy Act of 1890, which, with the addition of the Act of 1891—making provision on a few minor points—is at present the ægis of protection both to the lunatic and to the medical practitioner. As to the former, under the Act the protection of the lunatic has reached a high degree of evolution; and, indeed, the tendency is to make the lunatic in some respects master of the situation.

As to medical men, in cases actually tried under the Act, it has been found that, to the medical practitioner acting in good faith and with reasonable care in the certification or reception of a lunatic, the attainment of protection is usually preceded by prolix and costly proceedings, and followed by

the impossibility of recovering costs from the unsuccessful plaintiff; whilst, on the other hand, occasionally the action at law has been stayed more promptly and after a more simple set of proceedings in the courts. This is the general result, and it is sufficient to state it here; a description of the bearing of the protective clauses of the Act, and the manner in which they work out in actual practice, being quite beyond the scope of this summarising article.

The Act of 1890 also put an end to any increase of private asylums; its provisions disallowing a bestowal of licence upon any fresh ones, although permitting of substitution of a new building in another place for the one previously in use, and prohibiting any increase of the total number of patients receivable in each. Furthermore, the Act empowers and encourages the local authorities governing the public asylums to make accommodation for private insane patients.

The provision for the care of the practically non-increasing class of private insane patients is, therefore, great in this country, and is augmenting. That for the care of the rapidly increasing pauper class of insane has become much greater, and vastly enhanced in cost, for, before the Lunacy Act of 1890 came into force, the Local Government Act of 1888, by the institution of county, city, and borough councils, had placed a large amount of spending power over public money in the hands of persons not accustomed to spend for others, and with the usual result of some scandals in relation to expenditure. And, indeed, the erection of huge palaces for pauper lunatics, into which they are driven in herds—palaces which are apt to be administered in a lavish way—needs full, impartial consideration from honest, candid representatives of the true interests of both public and lunatic. The true welfare of the insane must not lightly be sacrificed to the play of any fad or requirement of no real service to them.

### A New Bill.

Finally, a Bill to amend the Lunacy Acts has, at the moment of writing, just been brought before Parliament.

## THE STUDY OF INSANITY AND THE TREATMENT OF THE INSANE IN SCOTLAND.

By John Sibbald, M.D.,
Commissioner in Lunacy for Scotland.

There is no branch of medicine whose position has undergone a more remarkable change during the reign of Queen Victoria than that which is concerned with the study of insanity and its treatment. At the time of Her Majesty's accession it had scarcely begun to be recognised that diseases affecting the mind require to be studied according to the same methods of physiological, pathological, and clinical investigation as are applicable to other forms of disease. Scientific psychology was undreamt of, and so little was the importance of clinical study realised that the words of Dr. Conolly written in 1830 remain substantially true of Scotland as of other parts of the kingdom in 1837. "The interests of the public," he said, "greatly require that medical men should have opportunities of studying the forms of insanity and of preparing themselves for its treatment in the same manner in which they prepare themselves for the treatment of other disorders. They have at present no such opportunities. During the term allotted to medical study the student never sees a case of insanity except by some rare accident. Whilst every hospital is open, every lunatic asylum is closed to him; he can study all diseases but those affecting the understanding, of all diseases the most calamitous." At that time there was no instruction in insanity given in any of the seats of medical education in Scotland, and no question in regard to it required to be put to any candidate for a medical qualification. The change that has taken place since then is indicated by the facts that instruction in insanity is now compulsory in every medical school, and that systematic and clinical teaching is given by lecturers attached to every university and every extra-mural school. The study of insanity has thus in Scotland as elsewhere taken its place as an important section of medical science.

The history of the treatment of insanity is in some of its aspects so bound up with the history of lunacy administration that they can best be dealt with together, and, independently of this consideration, it is desirable to call special attention to the character which Scottish lunacy administration has assumed within the period under review, because it is in some of its features exceptional.

### Asylums in 1837.

In 1837 the public institutions devoted to the treatment of insanity were the asylums of Edinburgh, Glasgow, Dundee, Perth, Montrose, Elgin, and Aberdeen, the largest of which did not contain more than 150 patients. These institutions, however, occupied no ignoble place among the asylums of the period, and it is pleasing to know that they owed their existence in a great degree, and in some cases almost wholly, to philanthropic efforts of members of the medical profession. They were, however, conducted more or less in accordance with views which were trammelled by traditional and mistaken beliefs with regard to the methods of treating insanity. Their struggles towards fuller enlightenment were greatly furthered by the lunacy legislation of 1857, which placed the whole system of providing for the insane in Scotland in an improved position, as had been done for England by similar legislation in 1845.

One of the results of the passing of the Lunacy Act of 1857 was to provide asylum accommodation for the requirements of every part of Scotland, and to create, as in England, administrative machinery for supervision and control.

### Modern Asylums.

The asylums that had been erected in accordance with the provisions of the Act of 1857 and the subsequent amending Acts are specially intended for the accommodation and treatment of the insane poor, and they are, both as regards their construction and their management, examples of what public institutions for this class of the insane should be. Their distinguishing characteristic is the evidence they show of a desire to avoid what may be regarded as specially asylum features in their arrangements. The most striking illustration of this, to one accustomed to asylum arrangements elsewhere, is the universal absence of walled airing courts. In the more recently erected asylums no airing courts have been provided. In those asylums where airing courts were originally provided the walls have in almost every case now been removed, and in the very few cases in which the airing courts still exist they have ceased to be used as such. Other distinguishing characteristics are the extensive use of ordinary handles instead of keys for opening the doors, the considerable extent of land attached to most of the asylums, and the prominence that is given to outdoor work in the treatment of the patients. One of the most valuable of the improvements in Scottish asylums during recent years is the great importance that is given to the distinctively medical or hospital aspect of asylum administration. Most of the asylums now possess large and more or less independent sections of specially hospital character, where the medical treatment of the patients in the more restricted meaning of the words is the predominant aim, and where special facilities are given for the clinical study of insanity.

### Control by Central Authority.

The most important change in regard to lunacy administration in Scotland which has taken place during Her Majesty's reign is that by the Act of 1857 there are vested in one central authority—the General Board of Commissioners in Lunacy—the supervision and control of every person of unsound mind who is either possessed of property administered under the control of the Courts of Law, or who is kept by anyone for gain, or detained in an asylum, or maintained either wholly or partially out of the poor-rate. In this completeness of the control by a central authority Scotland stands alone. This unity of control has led to beneficial results in various directions, one of the most important being the development of a system of administration affecting pauper lunatics which does not exist in so comprehensive a form anywhere else. Under this system every pauper lunatic who does not require, or who has ceased to require, detention in an asylum either for his own welfare or the safety of the public, may be provided for in a private dwelling by the parish council liable for his maintenance. In order to do this, however, the parish council must in every case satisfy the General Board of Lunacy of

the sufficiency of the arrangements they have made for the care of the patient. Adequate regulations exist to prevent unsuitable patients from being thus provided for, and also to secure that patients, who though suitable at first may become unsuitable, shall be removed to an asylum. Besides periodical inspection duly recorded by the parochial officials every such patient is visited at least once a year by a Deputy Commissioner in Lunacy, who reports in detail as to the efficiency of the local supervision, and the suitability of the way in which the patient is provided for. These visits of the Deputy Commissioners give the General Board a thorough knowledge of the condition and the circumstances of every pauper lunatic in a private dwelling, such as is not possessed by any central authority elsewhere. The existence of this complete system of supervision makes it possible for many patients to enjoy the comforts of ordinary home life, and to live in circumstances similar to those in which they would have lived had they not suffered from insanity. Without the guarantees furnished by systematic supervision by a central authority, and by the power which that authority can exercise of obtaining the removal of patients unsatisfactorily provided for, to places where they will be efficiently cared for, many of the patients now boarded out in Scotland would require to be permanently detained in asylums. The number of pauper lunatics provided for under this system in private dwellings on January 1st of the present year was 2,667.

### Progress in Knowledge.

From one point of view we cannot but feel how imperfect is our present knowledge of the nature of insanity, and how little we can do to effect its cure; but yet looking back over the past sixty years it is gratifying to note the progress that has been made. The study of insanity has, within that period, been placed on a sound scientific basis, and earnest workers have created a new branch of medical science in the pathology of the brain and nervous system. If we have not arrived at a solution of the mysteries of mental action, it is one of the glories of the epoch that we have found the path by which true progress is to be made. In the therapeutics of insanity we have taken steps that will not have to be retraced. One remarkable illustration of this is furnished by the success with which the thyroid treatment removes the dementia of myxœdema along with the other features of that formerly intractable disease. In this a signal therapeutic victory has been won. But the greatest fact of all is the universal recognition that the insane are sufferers from disease who require the aid of the physician, and are not subjects merely for coercion or neglect. It is not possible to ascertain the number of the insane who were under the protection of the law at the commencement of the reign. The number in public establishments for the insane in 1837 was, however, under 600. It is now over 11,000. This does not mean that mental disorder is to this extent more prevalent than it was, but that those who can benefit by asylum treatment are so much the more adequately provided for and under efficient public supervision.

## A CURSORY SURVEY OF THE HISTORY OF THE BRITISH MEDICAL ASSOCIATION FROM ITS INSTITUTION TO THE PRESENT TIME.[1]

By An Old Member.

### The Origin of the Association.

The history of the British Medical Association, and the struggles through which, in those early days, it had to pass, are probably unknown to the bulk of its members of to-day.

It is now so flourishing, has so great influence, social and political, and forms so firm a bond of union and fellowship among the members of the profession, that what it may have passed through in attaining that position is but little regarded by those who now reap the benefit of its existence and organisation.

Yet there may be, here and there, a few to whom the story of those early days may be a matter of interest.

Prior to the time when the happy thought of such an Association arose in the mind of Sir Charles Hastings, the profession had no general bond of union, no common ground upon which all could rest, from which all could demand equal rights and equal privileges, and on which all could stand shoulder to shoulder in aid of such rights and in furtherance of the great common objects of professional life; or on which, by the interchange of social amenities, the interdiffusion of professional experience, the discussion of personal and public grievances, to advance either medical science, or personal, professional, or the public good. But some sixty-five years ago the idea occurred to Sir Charles Hastings, of Worcester, and was by him communicated first to a few of his personal friends; by them to others; and so on, until at last a nucleus was formed, for what might have remained a mere local body, such as most large provincial centres now possess, but of which comparatively few were at that time in existence.

This ideal, however, did not seem to meet to the full the aspirations of Sir Charles Hastings, whose wish seems to have been not only to unite the profession in his own city, but to bring town into professional union with town, and so on, until throughout the whole of provincial England this bond should have established a common tie and have brought the whole provincial profession into a common brotherhood.

With this object in view it was proposed that the Society should move about from place to place; that in each it should add, if possible, a few adherents, until it should be strong enough to venture upon annual meetings, and there hold discussions on such subjects—medical, medico-political, medico-social, and so on—as for the time being were chiefly occupying the professional mind.

### The Objects of its Foundation.

The objects of the Association were formulated in the first instance by Sir Charles Hastings as follows:

(1) Collection of useful information, whether speculative or practical, through ordinary essays or reports of provincial hospitals, infirmaries, dispensaries, or of private practice.

(2) Increase of knowledge of the medical topography of England through statistical, meteorological, geological, and botanical inquiries.

(3) Investigation of the modification of endemic and epidemic diseases in different situations and at various periods, so as to trace, so far as the present imperfect state of the art will permit, their connection with peculiarities of soil and climate, or with the localities, habits, and occupations of the people.

(4) Advancement of medico-legal science through succinct reports of cases occurring in provincial courts of judicature.

(5) Maintenance of the honour and respectability of the profession generally in the provinces by promoting friendly intercourse and free communication of its members, and by establishing among them the harmony and good feeling which ought ever to characterise a liberal profession.[2]

### The Provincial Medical and Surgical Association.

London was known to be strong enough to hold its own, and important enough to claim precedence over all other places in all professional matters. In great measure, therefore, to protect the interests of provincial reputations, provincial rights and claims, the Association, as sketched by Sir Charles Hastings, was, from the first, to be a purely provincial one, and received as its first designation that of "The Provincial Medical and Surgical Association."

The movements and proceedings of the Association during its earliest years were very quiet and unostentatious, and for a time it differed very little from many other of the local and county medical societies, until, foreseeing the advantages which must necessarily accrue from union, and stimulated by appeals from those who had already joined the roll of the Association, these societies began, with increasing frequency, to join the larger body, and each year was pretty sure to add to its list the names of any existing medical societies in or around the town in which it held its annual meeting.

[1] This sketch is of the slightest, and is only intended for the amusement of a passing half-hour, but, should it excite sufficient interest in the mind of any reader to cause a desire for fuller information and greater detail, he is referred to the much more elaborate account published by Dr. Alexander Henry in the British Medical Journals for 1881, vol. ii, p. 598, and 1882, vol. i, p. 847.

[2] See British Medical Journal, 1881, vol. ii, p. 952.

### THE EARLIEST ANNUAL MEETINGS.

Thus within the first decade of its existence annual meetings were held in Bristol (1833) in the West; centrally in Birmingham (1834), Oxford (1835), Manchester (1836), Cheltenham (1837), Bath (1838), Liverpool (1839), Southampton (1840), York (1841), Exeter (1842), Leeds (1843), and so on, and from this time onward towns in all parts of the kingdom began to vie with each other for the honour, as it had soon come to be considered, of entertaining the Association.

Up to this time, too, the meetings were so simple in their arrangements that no difficulty was experienced in providing for them; the personal hospitality of the members of the locality, a good public room—often the Board Room of the hospital, in which the address and communications offered could be read—were all that was necessary, and, when supplemented by an evening gathering, a *conversazione*, so much the better and so much the more brilliant would the record of the meeting be.

By this means it was hoped, not only that any unusually important or useful discovery in medicine, surgery, or the allied sciences would be made public, and be brought by public discussion fully before the profession, but that the more private achievements in each Branch would receive such attention and discussion as might suffice to bring them into greater prominence also.

In this way many names which would otherwise have remained unheard of, many subjects which have proved to be of infinite value to mankind, have been brought into prominence, and many a successful application of principle and treatment have been made public which would otherwise have faded into oblivion after a short local usage.

Such an Association, and such annual gatherings could not fail to bring together the best men, old and young, of each district, and as, year after year, district was joined to district, so, in direct proportion, grew the acquaintance, good fellowship, and friendship of men from all parts of the kingdom.

### FORMATION OF THE BRANCHES.

Thus it was not very long before the Association had become too large to be able to continue on its original lines, and it became necessary to subdivide it into "Branches," each to be in itself a fair representative of the parent Society; each to have its President, Secretary, Council, and its own by-laws, which were to be subject to the approval of the Council of the Association; and each to hold its own separate ordinary and annual meetings, and to have its representative or representatives, according to numerical strength, on the Council of the parent Association.

Of these Branches, the East Anglian and the Bath and Bristol, seem to have been the first formed, Bath taking the lead in 1836, followed by Bristol in 1840, and these two becoming united, with a combined membership of 286 in 1842.

In 1837 the Lancashire and Cheshire Branch was formed, but during 1838 and 1839 there appears to have been a lull, no new Branch having arisen in either of those years.

The *forties*, again, appear to have been more vigorous, and besides the union of the Bath and Bristol Branches we have:

The South-Western in 1840,
The Yorkshire in 1842,
The South-Eastern in 1844,
The Cambridge and Huntingdon in 1844,
The West Somerset in 1844,
The North Wales in 1849.

During the *fifties* six new Branches were formed, and joined the parent Association:

The Midland Counties in 1851,
The Metropolitan Counties in 1852,
The Birmingham and Midland Counties in 1854,
The East York and North Lincoln in 1856,
The Reading and Upper Thames in 1856,
The South Midland in 1856.

In the *sixties* very little progress was recorded.

The North of England in 1865,
The Border Counties in 1868,
The Gloucestershire in 1868.

But in the *seventies* strength and confidence seemed to revive, and the spread of the Association was increased by the addition of twelve new Branches:

The South Wales and Monmouth in 1871,
The Aberdeen, Banff, and Kincardine in 1872,
The Northern Counties of Scotland in 1873,
The Southern Counties in 1874,
The Staffordshire in 1874,
The Thames Valley in 1875,
The Edinburgh in 1875,
The Shropshire and Mid Wales in 1875,
The Glasgow and West of Scotland in 1876,
The Dublin in 1877,
The Jamaica in 1877,
The North of Ireland in 1878.

Thus by the end of 1878, not only had the Association spread over the whole of the United Kingdom, but by the formation of the Jamaica Branch the Colonies had put in their claim for representation, and in the *eighties* not only were five new Branches registered,

The Worcestershire and Herefordshire in 1880,
The Dorset and West Hampshire in 1883,
The Oxford in 1885,
The Perthshire in 1888,
The Stirling, Kinross, and Clackmannan in 1889,

but no fewer than thirteen Colonial applications were received and granted.

The Adelaide and South Australia in 1880,
The Melbourne and Victoria in 1880,
The Sydney and New South Wales in 1880,

incorporating our great Australian Colonies with the Branches in the parent country.

The British Guiana in 1883,
The South Indian and Madras in 1884,
The Bermuda in 1886,
The Halifax and Nova Scotia in 1887,
The Colombo and Ceylon in 1887,
The Malta and Mediterranean in 1888,
The Griqualand West in 1888,
The Barbadoes in 1889,
The Cape of Good Hope in 1889,
The Bombay in 1889,
The Punjab in 1889,

thus bringing a great part of the British Empire into affiliation.

What the *nineties* have done so far is:

The Londonderry and North-West of Ireland in 1890,
The Leeward Islands in 1890,
The Burmah in 1891,
The Hong Kong in 1891,
The Montreal in 1891,
The Manitoba and West of Canada in 1891,
The Trinidad and Tobago in 1892,
The Cork and South of Ireland in 1893,
The Dundee and District in 1893,
The South-East District of Ireland in 1893,
The Grahamstown and Eastern Province in 1893,
The Brisbane and Queensland in 1894,
The British Columbia in 1894,
The Deccan in 1894,
The Gibraltar in 1894,
The Malaya in 1894.

### CONTINUED GROWTH OF THE ASSOCIATION.

Without doubt the end of the present century will see the Association well represented in those portions of Africa which are now rapidly receiving civilisation and colonisation, and will thus bring it into recognition wherever the British flag waves over any and every part of the British empire.

The number of members now (1897) is 16,955, surely a great work to have been accomplished in some sixty and odd years, and one which even Sir Charles Hastings can hardly, in his most sanguine moments, have anticipated; a work which not only brings the influence of British medicine and surgery to bear on the whole world, and a knowledge of the diseases of the whole world to the ken of British medicine and surgery, but must be of incalculable benefit to the inhabitants of every region.

Such a work cannot have been carried on without many vicissitudes; let us now, therefore, glance at the ups and downs which it has met with in its growth.

### A CRITICAL PERIOD.

During all the early years of its existence, far indeed into its life, a want of organisation in the conduct of the affairs of the Association and divided administration undoubtedly tended to impede what might otherwise have been much more rapid progress.

With editors in one place, treasurers in another, and secretaries, again, elsewhere; with offices, if such they could be called, in yet another, and with no settled abode anywhere; with no one to give business attention to the collection of subscriptions, or to take real and active supervision of the financial condition of the Association, it cannot be wondered that for many years "the financial condition of the Association was a source of great anxiety and of much discus-

sion at the annual meetings." So grave had this anxiety become between the Fifties and the Sixties, and so entirely dissatisfied were many members of the Council with the general management, that at length it rose to the height of a burning question, and gave rise to heated and somewhat acrimonious discussions not only at the annual meetings, but amongst members of the Council also.

### EARLY FINANCIAL EMBARRASSMENTS.

It was found that subscriptions were paid with great irregularity; that arrears were scarcely capable of collection; that debts had accumulated in a manner which boded inability to carry on the Association at all; that the books were insufficient, and the Secretary overburdened with the work, which was more than any man in active practice could be expected to undertake; and, in fact, that unless some very radical changes were made, the Association would soon stand face to face with financial ruin.



Sir Charles Hastings.

### A COMMITTEE OF INQUIRY.

Under these circumstances, at a meeting of the Council held in Birmingham, under the presidency of the late Dr. Sibson, the matter was so plainly laid before it by Mr. Clayton, Mr. G. F. Hodgson, of Brighton (whose death we have to deplore as these pages are passing through the press), Dr. (now Sir) Willoughby Wade, Mr. Alfred Baker (both of Birmingham), Mr. Husband (of York), and others, that a committee was appointed to examine into the matter, and to place the result of their inspection before the Council with all available speed.

And that result, when it came, was an alarming one. So alarming that it was unhesitatingly determined to reconstitute the entire working fabric of the Association.

### A SCHEME OF REFORM.

After several meetings the result of the deliberations of this Special Committee was handed to the Council, and its judgment was summed up in the following recommendations:

That the office in Birmingham be closed and removed to London.

That the Secretary be replaced by a paid "General Manager," whose whole time should be devoted to the duties of the office.

That these should be the collection of the subscriptions from either the local secretaries of the Branches, or from such subscribers, attached or unattached to the Branches, as preferred to pay them through him.

To overlook and arrange for procuring advertisements for the JOURNAL.

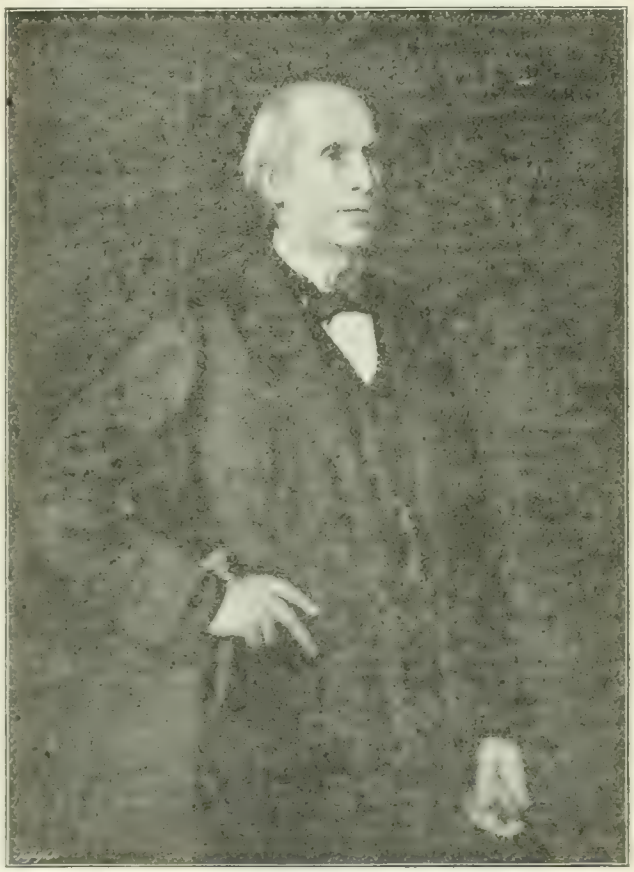
To be responsible for the keeping of the books and correspondence of the Association.

To overlook the office work, the printing of the JOURNAL, and generally to manage the business of the Association as distinct from the literary and editorial work of the JOURNAL, with which, of course, he was to have nothing to do.

These recommendations were carried out, and the entire management of the business of the Association was transferred to London.

### THE NEW RÉGIME.

Mr. Francis Fowke was appointed General Manager, and he entered upon his duties on January 1st, 1872. His was



Dr. Edward Waters.

a difficult task. Nevertheless, he began his work with the determination to bring it to a successful issue; and though he had to labour long and arduously before any great result was apparent, he had the satisfaction of seeing a tendency towards improvement from the beginning, and of knowing that he had the hearty support of every member of the Council, and the goodwill of all in furtherance of his efforts. His office consisted of one room only over the printing establishment of Mr. Richards, who was at that time the printer of the JOURNAL in Great Queen Street, near Lincoln's Inn Fields. The staff consisted of the Manager and two clerks, one for outdoor employment, the collection of debts, the looking up of advertisements and so on, and one for indoor work—the keeping of the books. The books were very inadequate, and it was soon found that the Association itself, had it been necessary to wind it up there and then, was in such case that the debts

then owing were considerably greater than the available cash with which to pay them.

At the close of 1871 advertisements produced £1,992, by 1881 they had risen to £6,089, by 1891 to £14,568. The issues of the Journal and the subscriptions for the same periods showed equally marked and encouraging results. In 1871, subscriptions amounted to £4,677; in 1881, £9,147; in 1891, £14,759, and up to the present time the increase is continuing in similar proportion, and the number of Journals issued weekly now exceeds 20,000. It must be remembered, however, that the number of Journals issued does not represent the number of members of the Association, as it includes, besides those issued to the members, the sales in the office to private individuals, clubs, and such like.

Mr. Fowke, fortunately for the Association, still retains his appointment, and to him it must be a matter of proud satisfaction to know that his work has been crowned with such signal success, a success which is also due to the way in which his office has responded to his calls.

### A Move to New Premises.

After a few years' residence in Great Queen Street the business was so cramped for room that the Manager was compelled to appeal to the Council for further accommodation, and in response to this request the Association moved into its second metropolitan home.

This—161A, Strand—though of much the same kind as the house in Great Queen Street, more than doubled the space at Mr. Fowke's disposal, gave him a private office, and provided increased and much better accommodation for his clerks, and for the more public business of the Association.

It also provided a large room in which the Committee of Council could meet, and which, when not required for such meetings, was of great use for a variety of minor purposes in the now steadily increasing character of the business of the office; above was also a composing room for the printers. Mr. Fowke had by that time been compelled to increase his staff of clerks, and in all ways the work of the office was so increasing in amount and in complication alike, that more space and accommodation had become a matter of absolute necessity.

With an eye to keeping the office in a good public situation, an object of which Mr. Fowke has never lost sight, and for which the Strand is about the best in London, this was chosen as the second metropolitan home of the Association, and in it the business was carried on for some years.

### The Printing of the Journal.

In the meantime a project had been brewing in Mr. Fowke's mind, and, by his instigation in the minds of some members of the Committee of Council also, that the printing of its own Journal was one of the objects which the Association might properly and with business advantage contemplate.

During the early years of the existence of the Association it had published an annual volume of *Transactions*, but that effort had speedily come to an end, and for many years the Journal—small, and of small reputation—had been published instead, and even for the production of that, the Council had been so greatly indebted to Mr. Richards, its printer, both in a pecuniary and in other ways, that for a long time it hesitated to take the printing into its own hands, and thus complete its responsibilities by doing all its own work.

Naturally, such an undertaking as this, involving as it did several thousand pounds a year, required the utmost caution and deliberation, and when, at last, it seemed to Mr. Fowke that the time was ripe for its proposal, there were still members of the Council who so seriously disputed the advisability of the undertaking that it was only after several meetings, at which feeling ran very high, and after very mature deliberation, that it was at last decided on.

The Committee of Council, after having gone thoroughly into details in connection with the proposed adventure, was satisfied as to its advisability, notwithstanding opposition, and in 1879 it was undertaken, and the result has justified the step.

### Another Move.

This step again necessitated another change of premises, and only those who can remember the anxiety involved in the choice of a new location, and the number of sites proposed, discussed and examined by various members of the Council, can at all appreciate the difficulty that body had in making an ultimate selection.

This, finally, resulted in the establishment of the Association in its present home, in what had hitherto been the offices of the Briton Life Insurance Company, still in the Strand, with a second façade in Agar Street. With necessary alterations, the new premises afforded the space required, not only for commodious offices, but for a printing establishment as well. As it was surrounded by other property, which it seemed not unlikely might from time to time come into the market, or be otherwise acquired, and made available for Committee rooms and such like purposes, the Council agreed to purchase the remainder of the lease held by the Board of the Briton Company, and this was done in 1886.

### The Library.

Over these offices is an excellent and comfortably-arranged Library, where members can not only study and consult almost any modern work on medical subjects, but can keep themselves abreast of the times by seeing almost any foreign journal, and can also enjoy the privilege of the use of a very large and important reference library. These are great privileges, and the Association is mainly indebted for them to the efforts of Mr. Ernest Hart, the Editor of the Journal.

When the Committee of Council found it necessary to migrate from its second home, No 161A, Strand, to its present quarters, the idea of the library first arose in their minds, and, encouraged by the support of Mr. Hart, and by the promise of his hearty co-operation, they ventured upon its institution, Mr. Hart himself undertaking the duties of Honorary Librarian, throwing his great powers of organisation into the work, and using freely his more than ordinary opportunities for the acquisition of books and materials of all kinds necessary for its growth.

The Library now contains some 9,000 volumes, and includes not only almost every modern medical work, but a large number of most valuable books of reference; it is also provided with accommodation for correspondence, and is daily used by many members.

An appointed Librarian is in constant attendance, and is most attentive to the wants and wishes of those using the room.

### A Settled Home for the Association.

The lease of these premises had then some eighteen years to run, and for that time, at least, there is little likelihood that any further change will be necessary.

But, even now, the Association has no settled home in property of its own—a position at which the Council still aims, and hopes some day to accomplish; and, until that has been effected, either by purchase of the freehold of the present property, or of some other equally eligible one, it is to be hoped it will not relax in its efforts to continue to accumulate such surplus funds as may enable it to seize any favourable opportunity that may occur, and so put the crowning stroke to its work.

### The Constitution of the Association and its Changes.

In the early years of its life, as has been already seen, the constitution of the Association was of the simplest—a small Council by which all its affairs were governed, and, until the establishment of the Branches began, this sufficed for all its requirements.

But, on this Council the Branches soon desired to have some representation, and, as they grew in number, so the Council also gradually increased in size, until at last it became so unwieldy as greatly to hamper the conduct of business. It was decided that a special Committee, to be known as the "Committee of Council," should be brought into existence, and, subject to the veto of the Council at the annual meeting, was to be the real managing "Cabinet" of the Association.

This Committee was to consist of past Officers—Presidents, Presidents of Council, Treasurers, and so on, who were made "Vice-Presidents for life," and twenty members of the Council to be elected, by ballot, by the Council, was to meet

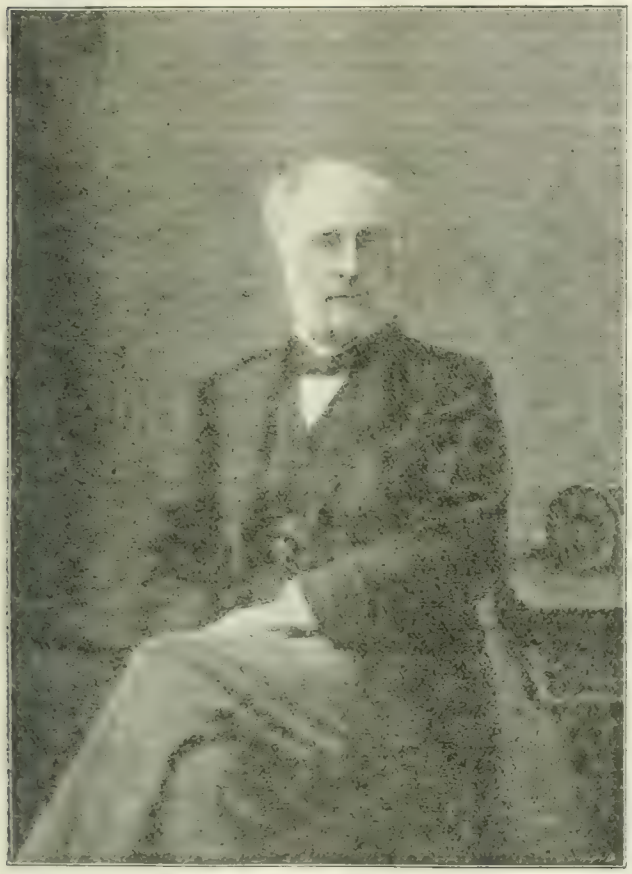
four times in every year, and, at the end of each year was to be accountable to the Council for its actions and policy, and to stand or fall thereby.

It was during the reign of this "Committee of Council" that much of the best work of the Association was done.

The whole work was a labour of love. No expenses were asked or dreamed of; each member paid his own, and the honour of the position was regarded as ample recompense for any sacrifices made.

### MUTTERINGS OF OPPOSITION.

This comparatively small body worked well; but, of course, at every annual meeting there were mutterings and thunder heard, as there always are, and must always be, where large bodies of men are gathered together who are actuated by a variety of motives, hold varying views of policy, and cannot all have just what they would like.



Dr. Charles Chadwick.

After a time, though most carefully chosen—chosen by ballot, year after year, by the Council itself—it was denounced as "self-elected." "insufficient," "inefficient," "incapable of taking broad views," and so on, until at last a spirit of change was so extensively aroused that a new Constitution was so imperatively demanded as to leave the annual meeting no option but to yield.

### DEMAND FOR REPRESENTATIVE GOVERNMENT.

Accordingly, at the annual meeting held in Worcester in 1882, the questions of the constitution and government of the Association were raised by the following motion, of which due notice had been previously given:

That the Committee of Council be requested to consider in which way direct representation of the Branches can best be secured.

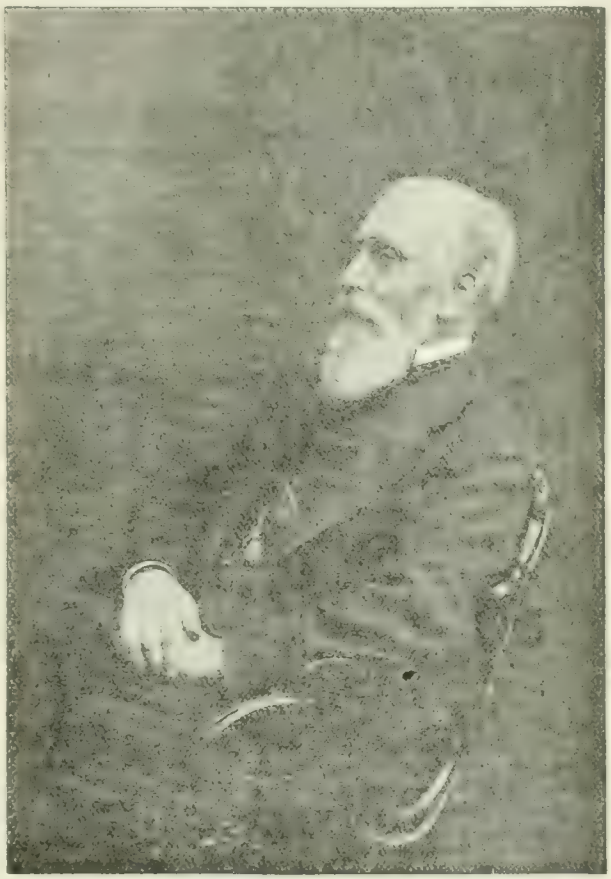
From this point of view the matter was discussed by the Council. The above resolution was carried, and in response to it on October 18th, 1882, a Subcommittee was appointed fully to consider the question in all its bearings, and to report to the Council.

This Subcommittee held its first meeting on November 19th following, and, after carefully considering the subject referred to it, came to the conclusion that its first duty was to ascertain the mind of the Association generally concerning the matter in question.

### A REFERENDUM TO THE BRANCHES.

With this object it was determined to issue through the President of Council a series of questions, together with a covering circular letter, addressed to the President and Secretary of every home Branch, asking its views on the subject.

This letter set forth the question under consideration in its fullest aspect, sought the counsel and advice of the Presidents and Secretaries of every home Branch concerning it,



Mr. W. D. Husband.

and appended to it was a series of questions, the answers to which, it was thought, would be decisive.

Up to this time every Branch had been represented on the Committee of Council by its Honorary Secretary *ex-officio*, and the first question was:

Is your Branch satisfied with its present method of representation in the Committee of Council by its Honorary Secretary *ex-officio*?

Six other questions were added to enable each Branch to make clear its objection to the above, if it had any, and aimed at getting fairly at the root of the matter. They ran as follows:

Has your Branch, having the power to elect a special Honorary Secretary to represent it in the Committee of Council, availed itself of that power?

What is the total number of the members of your Branch,

and what is the income of your Branch from Branch subscriptions?

Are the travelling expenses of your Honorary Secretary to the meetings of the Committee of Council defrayed by the Branch?

Is there any feeling in your Branch of inadequate representation?

Is the attendance of your Honorary Secretary at the meetings of the Committee of Council influenced by the payment or non-payment of his travelling expenses?

Have you any other suggestions to offer to the Subcommittee with regard to the representation of your Branch in the Committee of Council?

### VOX POPULI.

The answers received in reply to these questions were very difficult to summarise; but the Subcommittee, acting upon what appeared to be their general sense, drew up an exhaustive report; and this report, which for convenience of debate was drawn up in two parts, was considered at a meeting of the Council specially called for the purpose, and held at the Queen's Hotel, Birmingham, on May 17th, 1883.

Seventy members were present, and letters of apology were received from eight others, so that no fault could be found with the attendance, nor could any doubt be attached to the significance of the proceedings.

Eventually the report, with some slight modifications was adopted, and it was resolved:

That the Committee of Council be requested to give due notice before the annual meeting of such alterations in the laws and by-laws of the Association as may be necessary for carrying into effect the change in the constitution of the government of the Association embodied in the report of the Subcommittee on the representation of the Branches in the Committee of Council as amended by the Council this day.

And this resolution was followed by another:

That as the Council, as proposed to be elected, will in future be the executive or governing body, and the Committee of Council thus being no longer required will cease to exist; the required alterations of the laws and by-laws be made by the Committee of Council, with the assistance of the solicitor of the Association.

### THE NEW GOVERNING BODY.

Thus died the old Committee of Council, and the new Council was to consist of the officers as before, the Vice-Presidents, who had been, or should in future, be elected for life, of one representative for every Branch as heretofore, the larger Branches having the right to elect out of their members additional representatives on the following scale—namely, that in Branches numbering over 200 members there should be one additional representative for every 200 members.

### PAYMENT OF EXPENSES OF REPRESENTATIVES.

But yet another great, and so far as the finances of the Association are concerned, a most important change, was soon to be inaugurated.

The new Council was to meet, as the old Committee of Council had done, four times in every year, and consisting of men whose interests and duties mainly centred in the representation of those of their respective Branches, it is not to be wondered at that the expenses of four journeys to London each year soon came to be felt, and that a feeling gradually arose that, in some way or other, they ought to be paid for them.

This it was for some time, and by many thought ought to be done by the Branches themselves; but, as many of these were poor, and many members for whose benefit the work was undertaken were "unattached," and did not, therefore, contribute anything to the working expenses, while they enjoyed the full benefit of representation, the Branch Councils did not feel themselves in a position to respond to this additional call, and claimed that such expenses should come out of the general income of the Association.

From the North of Scotland first, and gradually from other of the more distant Branches, the expenses of whose representatives were heavy, this call steadily grew more importunate, and after consideration at several annual meetings, at last in Leeds in 1889, at the close of the general meeting, and in a very thin room, a resolution was carried that first-class railway fares, to and fro, were to be allowed to such representatives. This has been done since that time, and thus another item has been added to the general stated expenditure of the Association.

### THE WORK OF THE COMMITTEES.

But the main life of the Association has not, after all, been seen in its government, its annual meetings, or in its general meetings. It has been in its various Committees that its real work has been done.

No large body such as the Council could possibly undertake to deal with the many and important subjects that are continually cropping up and claiming settlement or consideration at its hands, and for such purposes it is the almost invariable custom, in the first instance, to commit nearly everything to the searching scrutiny of a small committee by whom it may be examined in all its bearings and reported on—in print—to the Council.

To some of these Committees very special duties have been entrusted, and concerns of the greatest importance to the profession at large have been given into their charge. Of this order was the old "Reform Committee," composed of a few of the most devoted and most trusted members of the Committee of Council, which, among other things, was charged with the consideration of the momentous question of the direct representation of the profession on the General Medical Council. Its chairman, the late Dr. Edward Waters, of Chester, worked so indefatigably, so laboriously, and so unselfishly for years, that, at last, when his labour in endeavouring to win that boon for the profession was crowned with success, and he was able to announce that direct representation had been conceded, so great was the satisfaction of the Council that the gold medal of the Association was unanimously conferred upon him.

This was the first and only occasion on which this distinction had been won for any purely Association work, and it was felt to be no more than ought to be offered Dr. Waters in acknowledgment of his unwearied efforts.

Several of the committees are permanent bodies, only a certain number of whose members are changed from time to time, and they have thus a thorough knowledge of the matters each takes in hand.

The Journal and Finance Committee, the Parliamentary Bills Committee, the Scientific Grants Committee, the Trust Funds Committee, and the Library and Premises Committee may be taken as examples of permanent committees, without whose special attention in their several directions it would be impossible for the Council to act intelligently; and, as special questions arise from time to time concerning which some members are known to possess special knowledge, they in like manner are generally placed in the hands of such members—are threshed out by them first, and then reported on to the Council for ultimate decision or dismissal. Of such—the Committee on Anæsthetics, the General Practitioners Committee, the Committee on the Eyesight of Public Servants, that on Weak-minded Children, are examples, and all serve to show how deep and careful is the thought given by the Council to every subject by which the daily life of the members of the Association is, or may be, influenced.

### THE ADVANTAGES OF MEMBERSHIP.

The question has often been asked—What real benefits beyond the supply of the JOURNAL does membership in the Association confer? and the broad answer might truthfully be—well nigh every advantage a medical man can require or covet; advantages social, political, personal, ethical; for there is no subject which really affects the welfare of either the profession at large, or the interests of individual practitioners, that has not at some time or other passed through the mill of the committees of the British Medical Association.

### THE JOURNAL.

We have an incomparable means of binding the whole Association together in a cohesive body, of diffusing knowledge of every kind—professional, Association matters, social, scientific, political—among us in our JOURNAL.

This may best be described as the pivot on which the whole machinery of the Association revolves, for were it other than it is, one of the first medical journals in the world, the Association could not have reached its present pinnacle of greatness.

Time was in the early days of the Association when, in spite of the most earnest endeavours of able editors—cramped, alas, by want of funds—the JOURNAL was very far from the powerful organ it has since become. In the hands, for many years, of editors resident in various provincial centres it remained, as it was then intended it should be, essentially provincial in its character, and of very ordinary reputation. As a record of the work and proceedings of the Association it was always welcome to the members, and in its pages are preserved addresses, lectures, papers, records of cases, and other matters of the greatest value and importance,[3] but it was not yet the world-famed organ that it has now become.

In 1867 it first came under the editorship of Mr. Ernest Hart, and since that time, with a very slight interregnum in 1869 and 1870, it has remained so, and year by year has continued to make unceasing strides in value. Devoted as it has been, not only to the advance of science in all its branches, but to the service of the members of the Association of every class—to the public services, military, naval, and Poor-law—it has been of incalculable value; and representative as it has been of every advance in medicine, surgery, and midwifery in every part of the world, it has become one of the leading medical journals of the world, and is acknowledged everywhere to be the type of what a medical journal should be, and happy has the Association been in the possession of such an instrument of power.

Year after year it has increased the number of its pages and its usefulness alike.

The EPITOME, a digest of all that is most valuable in the records of foreign journals, has been added; and other features intended to increase the attractiveness and value of the JOURNAL are always being introduced as the occasion arises. A staff of contributors has been gathered around the Editor which includes those men who can speak with the greatest authority on all the varied subjects that have to be dealt with in a publication of this kind.

Without the JOURNAL no care or efforts on the part of the management, no assiduity in the details of the working of the Association, could have raised it to the proud pre-eminence it now enjoys, and whatever position it may come in the future to occupy is owing in the main to the excellence of its JOURNAL, aided by the unceasing care bestowed upon its management, and upon the efforts of its Council and its various committees, to overlook and advance the interests of its members.

That it is the largest, most influential medical Association in the world there can be no doubt, and that it may long continue to be so, may continue to grow in numbers, in importance, and in power, until its Branches have overspread the world, should be the earnest aspiration of its every member and wellwisher.

## THE PARLIAMENTARY BILLS COMMITTEE.

IF there is one part of the work of the British Medical Association which is insufficiently appreciated by those for whom it is done, it is that of the Parliamentary Bills Committee. This body holds a watching brief, not only for our own profession, but in the interests of the whole nation. During its thirty odd years of existence it has studied, attacked, and often abolished evils affecting every class of society and every period of life; it has sought to improve the adulterated food of the opulent and the sick bed of the dying pauper, and has taken under its care the health of the newborn infant and the pension of the superannuated officer. It has not done its work without opposition, nor has it failed upon occasion to call down upon itself that abuse which is the ordinary reward of unselfishness; still, the Association has every reason to feel proud of what it has accomplished, and hopeful as to the continuance of its good deeds in the future. In the brief sketch which follows no mention is made of the part played by the Committee in connection with vaccination and vivisection, the account of which will be found in the special articles devoted to those subjects.

### ORIGIN AND EARLY HISTORY.

The Parliamentary Bills Committee arose from a very small beginning. The Association had accomplished several useful pieces of public work, notably in connection with vaccination, but always in a sporadic and discontinuous manner. It occurred to the executive of the Metropolitan Counties Branch that the value of work of this kind would be much enhanced by its relegation to a standing Committee, which should remain on the watch for opportunities of correcting abuses affecting public health or the welfare of the profession. This Committee was accordingly appointed in 1864, and, as will be gathered, was at first drawn only from members of the Metropolitan Counties Branch. It soon found ample work ready to its hand, but at the same time it became obvious that its influence would be far greater if it could claim to represent the whole Association, and not merely a single local section of its members. As a result of this it became in 1868 a Committee of the Association, including representatives from all its Branches. By an oversight in the technical procedure at the annual general meeting the Committee was not reappointed in 1870, and in consequence lapsed. In 1871, however, it was reconstituted in its present form, and Mr. Ernest Hart appointed chairman, a post which he has continued to fill till the present time. It is well known that far from this post being a sinecure Mr. Hart has from that day to this been the originator of nine-tenths of the reforms accomplished by the Committee.

### THE WORK OF THE COMMITTEE.

The Committee consists at present of over 70 members, every Branch of the Association having, as already stated, the right of electing a representative upon it. It holds quarterly meetings, in addition to which special meetings are frequently convened under circumstances requiring immediate attention. The reports of all meetings appear in full in the BRITISH MEDICAL JOURNAL; they form, however, only the preliminary stage, so to speak, in the activity of the Committee. The resolutions that are passed require to be acted upon, and for this purpose reports are drawn up, conferences held, and deputations formed to give them effect. An immense amount of labour is also entailed in certain cases in investigating subjects and bringing the facts relating to them into a convenient form for discussion by the Committee. The energies of the Committee are devoted mainly to the reform of two sets of abuses affecting respectively the public health and the status of the medical profession. Under the latter heading come not only general grievances, but also individual acts of injustice, as in the cases of Dr. A. Collie, Mr. R. B. Anderson, and Surgeon-Captain Fowler. A brief record of the career and accomplishments of the Committee up till 1881 will be found in the JOURNAL of June 10th, 1882, the number commemorating the jubilee of the Association. Reading its history one can hardly credit the struggles it had to go through in initiating reforms now so long established that any other state of affairs seems to belong to prehistoric and barbarous times. Since 1882 the work of the Committee has increased both in scope and variety, and the present seems a convenient time for indicating some of the channels into which its activity has flowed. No feature of its record is more striking than the rebuffs at first meted out to most attempts at reform, and the years which as a rule elapsed before such reforms could be brought into being.

### THE PUBLIC MEDICAL SERVICES.

First among the achievements of the Parliamentary Bills Committee must be reckoned the improvements which it has effected in the lot of the officers in the Government Medical Services. Each branch—naval, military, Indian, and militia—has been separately dealt with. The Services, enmeshed in serpentine coils of red tape, have gradually been freed, but the struggle has lasted continuously for five-and-twenty years, and the victory, though signal, is as yet incomplete. It was over the Senior Service that the battle began, most appropriately as it happened, for the

[3] For example, Mr. Ceely's celebrated paper on Vaccinia (*Trans. of the Provincial Med. and Surg. Assoc.*, vol. viii, 1840, p. 287) and others.

Chairman of the Committee had made his first appearance in public life, so long back as 1854, as an advocate, and a successful one, of better treatment for naval surgeons. The subject first came under the notice of the Parliamentary Bills Committee in 1873. In consequence of the false position, social and otherwise, in which naval surgeons were placed, there was a dearth of competitors for vacancies in the Service, and, as a result of this, many who had completed their term of service were not permitted to resign their commissions. This was made the subject of a deputation to Sir A. Armstrong, the director of the Medical Department of the Navy, and in the following year Mr. Hart drew up a complete report on the question. Acting on this, a deputation from the Committee then sought the First Lord of the Admiralty to call his attention to the causes of the deficient supply of medical officers in the navy, and to suggest means for the removal of their grievances. This step was attended with immediate success, and a year later, in 1875, a Royal Warrant was issued granting many concessions relating to rank, pay, and retirement. The state of affairs was still, however, far from giving satisfaction, and in 1880 Mr. Hart drew up another report as to the disabilities of medical officers in the navy, and a subcommittee was appointed to prepare a memorial on the subject. At the request of the Lords of the Admiralty, Mr. Hart drew up a draft scheme containing recommendations, and which were largely adopted in the new Royal Warrant issued in the following year, 1881.

With regard to the army the agitation also began in 1873, but has been renewed with increased vigour during the past nine years, and although considerable reforms have been obtained readers of the JOURNAL will readily remember that still more are called for, and that a final solution of the problem has not yet been reached. The grievances of army medical officers had long called for redress, when in 1888 the abolition of "relative rank" threatened at one blow to deprive them of any *locus standi* in the military service whatever. Mr. Hart at once opened the question of the relative and honorary rank of medical officers in the army, whose protests against the action of the Government flooded the correspondence columns of the JOURNAL for months. The Director-General of the Army Medical Department was interviewed, with but little result, while a deputation to the Secretary of State for War (the late Mr. Stanhope) met with a decided rebuff. In the following year, however, on pressure again being brought to bear, Mr. Stanhope was more conciliatory, and admitted that the complaints were based upon a real grievance; he further promised an early opportunity for their ventilation during the following session. The pledge was kept in 1889 by the formation of a Committee, with Lord Camperdown as the Chairman, the medical profession being represented by Mr. MacNamara and Dr. T. G. Balfour. This Committee, after much deliberation, conceded the main point urged by the Parliamentary Bills Committee, and recommended that the members of the Army Medical Service should have titles indicating their rank. During 1890 strenuous efforts were made by the Parliamentary Bills Committee to get this recommendation carried into effect, and in the following year Mr. Stanhope announced his willingness to accept in large measure the findings of the Commission. Accordingly on August 10th, 1891, a Royal Warrant was issued admitting the substantive rank of Army Medical Officers, and providing them with compound titles in indication thereof. They were further, by a very tardy act of justice, placed on the same footing as regimental officers in the matter of sick leave. The compound titles have on the whole given fair satisfaction, though some of them—notably that *monstrum infandum*, "brigade-surgeon-lieutenant-colonel,"- are too cumbrous for use. The warrant, for reasons which it is difficult to understand, was not made applicable to retired army surgeons or to those serving in India, and in the following year Mr. Hart drew up a further memorial praying that these disabilities should be removed, and also that the periods of foreign tours should be shortened. In 1893 deputations urging these points were sent by the Parliamentary Bills Committee to interview the Secretaries of State for War and for India. In 1895 the Chairman was informed that some concessions had been made in the latter case. Of late it has become more and more obvious that the provisions of the Royal Warrant, wrung with such difficulty from the Government by the Parliamentary Bills Committee, do not efficiently relieve the disabilities of the Army Medical Department. The dearth of candidates continues to increase and although elaborate means have been taken to conceal or render it less apparent, readers of the JOURNAL do not require to be informed as to the great danger to the army therefrom resulting. Last year Mr. Brodrick instituted an inquiry into the causes of the deficiency, and the Committee drew up a memorandum showing them forth. The principal grievances still awaiting removal are the army status of medical officers, their long tours of foreign service, and the limited opportunities given them of obtaining leave for study and research. Till these points are conceded, the Service cannot become efficient.

In 1882-3 the Committee had before it a serious grievance on the part of militia surgeons, who were compelled to retire at the age of 65, without becoming entitled to a pension. A resolution brought into the House of Commons to remedy this was defeated by the Government, who, however, pledged themselves to attend, as far as possible, to individual hardships arising from the enactments.

With regard to the Indian Medical Service, Mr. Hart acted as spokesman of a deputation to the Duke of Devonshire (then Lord Hartington) pointing out the grievances of the medical officers, particularly in the matter of the loss of important administrative appointments by the seniors, and the small pensions and long period of service of the juniors. The deputation was successful in relieving the Service of many of its burdens, and an enormous increase in the Indian membership of the Association resulted. The promises made to the junior medical officers were not at first carried out, so that in 1883 Mr. Hart again summarised their grievances and reported them to the Secretary of State for India, with a considerable measure of success.

### INFANT LIFE PROTECTION.

The efforts of the Committee towards the diminution of infant mortality were attended with more immediate success, as appealing more directly to national sentiment, than those just chronicled. In 1868 Mr. Hart published in the JOURNAL his investigations into the practice of baby farming, then largely prevalent and entirely unchecked by legislation. The articles attracted much attention and formed the subject of a question by the Earl of Shaftesbury in the House of Lords. The Committee did not, however, take up the question till after its reconstitution in 1871, when it made a strenuous endeavour to obtain enactments which should check the evil. In the following year the Government appointed a Select Committee to investigate the matter; Mr. Hart was called as the first witness, and the Committee, which included Lord (then Dr.) Playfair, and Sir Charles (then Dr.) Cameron, M.P., reported entirely in support of his views. A Bill was accordingly introduced, framed largely by him, and became law in the same year. There can be no doubt that this Act has largely diminished the prevalence of criminal baby-farming. The Committee, has, however, continued to watch over infant mortality, and in 1880 endeavoured to secure an extension of the scope of the Act; this was, however, frustrated by the defeat of the Government. During the last year or two the Committee has on several occasions drawn attention to the great mortality among the children of women employed in factories, and it is hoped that this state of affairs will soon be dealt with by remedial measures.

### THE REGULATION OF MIDWIVES.

This important question has been anxiously considered by the Committee. Its settlement has of late been hindered by differences of opinion between various members; in former days when agreement was arrived at, failure invariably followed from external causes. The subject had occupied the attention of the Committee intermittently for a long period, when it was brought up in a definite shape by a deputation from the Obstetrical Society in 1882. A Bill for the regulation of midwives by examination and registration was accordingly drafted and submitted to the General Medical Council, by whom it was approved. The Government took it up in the following year, but were compelled to drop it owing to pressure of other business; this was the nearest approach to legislation as yet arrived at. The Committee continued to remind the Government of their pledges with regard to the

Bill, but pressure of business prevented its reintroduction. In 1800 another Bill was brought in by private members and referred to a Select Committee. The Parliamentary Bills Committee considered this Bill, and induced the Select Committee to incorporate some important amendments in it; this measure also came to nothing. In 1895 a Midwives Registration Bill was introduced into the House of Lords by Lord Balfour. This was considered by the Parliamentary Bills Committee and by a subcommittee appointed by it. Eventually the Association and its Branches took up the whole question, with as will be readily remembered, the result of eliciting widely divergent opinions. Meanwhile, the Bill lapsed with the defeat of the last Government.

### THE NOTIFICATION OF INFECTIOUS DISEASE.

The subject of the registration of disease at one time occupied the attention of a special Committee of the Association. The question of its notification if infectious was brought before the Parliamentary Bills Committee in 1879 by Mr. Hart. The Public Health Act of 1875 had recognised the importance of notification, but it was left for local corporations in applying for private Bills to state in what manner they proposed to carry it out. At first the tendency was to throw the onus of notification upon the medical attendant; the memorandum drawn up by Mr. Hart in 1879 was directed at this and intended to exhibit its defects. It was pointed out that it really amounted to a breach of confidence, besides rendering the doctor liable to vexatious actions, particularly in the case of mistaken diagnosis. In 1882-3 the Parliamentary Bills Committee watched over a number of private Bills involving this point; in the former year alone they succeeded in modifying eight such Bills, so as to make the duty of notification concurrent upon the doctor and the householder. In 1884 the Committee made an effort to do away with this private and local legislation altogether, and petitioned for the appointment of a Select Committee or Royal Commission to inquire into the whole subject. The attempt to protect the medical profession in this matter was continued for some years; in 1885 several private Bills were modified in the direction indicated by the Committee, and in 1889 Sir Walter Foster took up the same attitude in relation to Mr. Ritchie's Bill.

### PUBLIC SANITATION IN SCOTLAND.

The efforts of the Parliamentary Bill Committee have, as is well known, not been confined to England. We have already referred to reforms in the Indian Medical Service, while, in 1894-6, the cholera in India received much consideration from the Committee. Want of space prevents us referring at length to the efforts which have been and are still being made on behalf of Irish dispensary doctors and Poor-Law medical officers; but we cannot pass over the important part which the Association has played in securing adequate public health regulations for Scotland in the teeth of the most strenuous and long-continued opposition. The struggle began in 1884 with the introduction of the Burgh Police and Health Bill. The drafting of this measure was conducted in the most extraordinary manner, at the rate of about seventy to eighty clauses a sitting, by a Select Committee which contained no medical man, which sat in private, and which refused to hear evidence. The Lord Advocate, having backed the Bill, tried to carry it through, but soon abandoned the struggle, and withdrew it. The Chairman of the Parliamentary Bills Committee had previously submitted to him a memorandum in which the unsound and frequently contradictory nature of the proposed legislation was fully exposed. In the following year, however, the Bill was again introduced into the Lords, again vigorously opposed by the Parliamentary Bills Committee, and again referred to a Select Committee. In 1886 the Bill was actually rushed through the House of Lords; its progress through the Commons was delayed by representations made to Scotch members by the Parliamentary Bills Committee, and its career was terminated by the defeat of the Government. In 1889 a more enlightened measure, the Scotch Local Government Bill, was introduced, and the Parliamentary Bills Committee succeeded in inserting a clause by which every County Council in Scotland was bound to appoint a medical officer of health. In 1894 a determined attempt was made to swamp the medical element in the official Board to be appointed by the Grand Committee on this Bill. This was originally intended to consist of a chairman, together with one legal and one medical member; the alterations proposed would have led practically to the appointment of three lawyers. Dr. Farquharson, M.P., vigorously opposed this amendment, and eventually succeeded in overthrowing it by a majority of 36 to 27. Only last year the Parliamentary Bills Committee succeeded in introducing into Lord Balfour's Public Health (Scotland) Bill important modifications relating to security of tenure and qualifications of medical officers of health, to the notification of births, deaths, and infectious diseases, and to the inspection and seizure of diseased meat.

### OTHER MEASURES.

Such are some of the leading features of the work done by by the Committee; want of space forbids us to do more than merely mention many others. Among these are the consideration of the Lunacy Acts, and the introduction of regulations protecting the certifying medical man, with other modifications favouring the medical profession, into the Bill amending them, and the continuous endeavour to enforce the Pharmacy Act, with regard to the sale of poisons under the name of patent medicines. In this connection pressure was brought to bear on the Public Prosecutor and the Pharmaceutical Society, and several successful prosecutions were instituted. The reform of barrack schools is another result of the Committee's work, as is also the appointment of county medical officers under the Local Government Act of 1888. In the latter year the Committee succeeded in having the appointment of coroners taken from the Lord Chancellor and vested in the County Councils, and in 1891 it was instrumental in the rejection of a clause in the Factory Act intended to abolish the medical certification of the fitness of children and young people for employment in factories and workshops.

In addition to these public works there are equally important private and unrecorded offices of the Committee, which have produced, and are ever producing, valuable results.

## WORKHOUSE INFIRMARIES.

No record of English progress during the Queen's reign can be complete which does not embrace an account of the steps which have been taken to ameliorate the condition of the most helpless and friendless class of the whole community—the sick poor in workhouses; and nowhere can this account find so fitting a place as in the columns of a medical paper, for the reforms which have been enacted arose at the initiation of the medical profession, and the BRITISH MEDICAL JOURNAL has of late again given particular attention to the advocacy of an extension of the measures already existing.

### THE DARK AGE.

The first half of Her Majesty's reign was a veritable dark age for pauper invalids and imbeciles. The Whig Government, which had achieved universal popularity by the Reform Act of 1832, lost it by the harsh provisions of the Poor Law Act of 1834. Professor Thorold Rogers has pointed out that the gravest defect of this lay in the fact that the action of the Boards of Guardians which it created was controlled only by the permanent officials of the central Board, who as a rule, according to the custom of their class, pursued that course which entailed least personal trouble upon themselves. It is true that in the early Fifties the Workhouse Visiting Committee, under the guidance of its devoted secretary, Miss Louisa Twining, had begun to throw some light upon the horrible state of affairs then existing in those institutions, but the turning point as regards London was only brought about by the events of 1865. In the provinces and in Ireland many of the workhouse infirmaries are still unfortunately in the semi-barbarous condition that similar institutions in the metropolis exhibited prior to that date. How awful this was may best be understood by reference to Dr. Joseph Rogers's *Reminiscences of a Workhouse Medical Officer*, a work which from the personal integrity of the writer and his inti-

mate acquaintance with the facts must carry conviction to the most sceptical.

### The Strand Workhouse as it was.

Dr. Rogers, so well known for his efforts in regard to the establishment of mortuaries and the abolition of intramural interment, was in one sense the hero of workhouse reform. In 1855 he was appointed medical officer to the Strand Workhouse at the munificent salary of £50 per annum, out of which he was to provide all drugs. The master of the workhouse was a man who might have been the original of "Bumble" in *Oliver Twist*. He had been a policeman in Clare Market, and had somehow ingratiated himself with the chairman of the guardians, who kept an *à la mode* beef shop in that locality, and whose niece he subsequently married. The "nurses" were pauper inmates, usually infirm and more often drunk than sober, who were remunerated for their services by an amended dietary and a pint of beer, to which was added a glass of gin when their duties were peculiarly repulsive. Underneath the dining hall was the laundry, with the fumes of which it was filled four days out of the week, while the lying-in ward was immediately above the female insane ward, the presence of a noisy lunatic or two in which no doubt greatly conduced to the well-being of the parturient women. The ward for fevers and foul cases contained but two beds, and was separated from a tinker's shop by a lath and plaster partition only 8 feet high. As to this ward, we cannot do better than quote Dr. Rogers's own account:

"It was altogether unsuitable for the reception of any human being, however degraded he might be; but it had to be used. I remember a poor wretch being admitted with frost-bitten feet, which speedily mortified, rendering the atmosphere of the ward and shop frightfully offensive. At first I was at a loss to know whom to get to go through the offensive duty of waiting on him. At last a little fellow called Wiseman undertook the task, the bribe being two pints of beer and some gin daily, with steaks or chops for dinner. Presently the patient was seized with tetanus and, after the most fearful sufferings, died. He was followed almost immediately afterwards by poor Wiseman, who had contracted from his patient one of the most malignant forms of blood-poisoning I ever saw.

"These two successive deaths took place whilst the tinker was plying his business on the other side of the partition which separated this ward from his smithy. This place was an utter disgrace to the Board, but they never attempted to alter it whilst I was there. I have referred also to the nursery ward. This place was situated on the third floor, opposite to the lying-in ward. It was a wretchedly damp and miserable room, nearly always overcrowded with young mothers and their infant children. That death relieved these young women of their illegitimate offspring was only what was to be expected, and that frequently the mothers followed in the same direction was only too true. I used to dread to go into this ward, it was so depressing. Scores and scores of distinctly preventable deaths of both mothers and children took place during my continuance in office through their being located in this horrible den."

The male insane ward was used also for epileptics and imbeciles, and is described by Dr. Rogers as "ludicrously unsuitable." Immediately outside the male ward there was a continuous beating of carpets by the able-bodied inmates, from which the guardians reaped at least £400 a year; the noise was so great as to preclude any possibility of sleep, and the dust so thick as to prevent the windows of the ward from being opened till the day's work was done. Such was the condition of a workhouse infirmary in London but little more than thirty years ago; mediæval as the horrors narrated no doubt appear, we must insist most emphatically that similar conditions may be and have been found at this present moment in workhouse infirmaries in the provinces and in Ireland. Surely no act of mercy in this year of charity is more needed than the sweeping away of these abominations.

### The Breaking of the Day.

As has already been indicated two resolute persons had for years devoted their energies to the attempt to remedy the abuses we have sketched. One was Miss Twining, who after years of appeal to the guardians of the poor and the Poor Law Board succeeded in abolishing the system of entrusting the care of the sick poor to the Sairey Gamps and Betsy Prigs. The other was Dr. Rogers, who maintained a sturdy but unequal fight against the prejudice of the Board of Guardians, the treachery of their clerk, and the brutality of the workhouse master. In 1862 the Poor Laws were considered by a Select Committee of the House of Commons, and Dr. Rogers volunteered to give evidence; he was courteously encouraged by Mr. H. B. Farnall, the one permanent official who showed any consideration for the welfare of the sick poor, of whom he was the metropolitan inspector. Dr. Richard Griffin, of Weymouth, and Dr. Fowler, of Bishopsgate Street, drew up documents illustrating the abuses referred to, but the Committee took these as read, and practically shelved their evidence. Dr. Rogers's evidence, given impromptu, received rather more consideration, and his recommendations as to the provision of drugs being undertaken by the guardians instead of the medical officers, were partially adopted, though the prejudice of the permanent officials prevented them from being carried into effect till many months and, in some instances, years, had elapsed. In 1865 he succeeded in inducing his own Board of Guardians to appoint a superintendent nurse, and he also increased the cubic space of some of the sick wards by raising the ceilings; even then the floor space was so limited that there was no room for the patients to get out of bed at the side, and they could consequently only do so by the foot! This is the sum of what was accomplished during ten years' strenuous agitation, and will well indicate how hopeless was the outlook at the time of the institution of the *Lancet* Commission, the efforts of which, and the subsequent steps taken by its members, are mainly responsible for the reforms which followed.

### The Commission of 1865.

This Commission was suggested in April, 1865, by Mr. Ernest Hart, then on the staff of the *Lancet*, who drew up the scheme of inquiry, and with whom Dr. Francis Anstie and Dr. Carr were associated in the necessary investigations. These comprised inspection of all the metropolitan workhouses into which admission could be procured, with a particular reference to eight main points. First of all there had to be considered the general characters of the infirmary buildings, their suitability to the purposes for which they were intended, the accommodation which they provided, and the proportionate number of inmates. The great point made by the Commission was the patchwork character of the workhouses, which had originally been intended for the reception of able-bodied inmates, and had been more or less inefficiently adapted to the infirm. In many of them the proportion of healthy to sick was not more than 1 to 8, and of the whole number of inmates—some 33,000—it was computed that nearly 27,000 were on the sick list. The disadvantage of having the sick and healthy under one roof is obvious, but this was not the full extent of the evil, for patients with contagious fevers were often kept perforce in the common wards, wards in which there was less than 500 cubic feet of space per patient. With regard to the buildings the Commission trenchantly divided them into three classes—those which were utterly unfit, those which with some alteration might be adapted to the reception of chronic cases, and those which fairly fulfilled the purposes for which they were constructed. Many and grave were the defects reported in the ventilation, cleanliness, and furniture of the wards, whilst the sanitary arrangements and provisions for personal cleanliness were often abominable. The system of nursing was carefully investigated, and found to vary between a small but fairly efficient staff of paid nurses with pauper help, and the consignment of the care of the sick to those who had been brought to the workhouse, not by disease, but by intemperance. The quality of the provisions and their management were on the whole satisfactory, but the dietaries, in spite of Dr. Rogers's efforts, varied considerably at the various institutions, in many of which no sufficient provision was made for meeting the natural fastidiousness of invalids. The medical officers were found to be practically all overworked, and the Commission strongly recommended that they should be relieved of the expense of providing and the labour of dispensing the drugs. There can be no doubt that

some medical officers were tempted to eke out their miserable pittances by providing as little medicine as possible. An extreme case is that of a gentleman who was medical officer of the Westminster Union till Dr. Rogers's appointment in 1872. This philanthropist "did not believe in medicine," and treated all his patients with water coloured in various ways, and flavoured with peppermint and other essences. The Commission next investigated the histories of epidemics in various workhouses, and urgently advised the construction of isolation wards. Finally the question of mortality was taken up, both from the general point of view and that of the special causes affecting its rate. The Commissioners found a great excess in the mortality from zymotic diseases, as, indeed, could only have been expected, and also a terrible death-rate among the infants born in the institutions.

The findings of the Commission produced a profound impression; a national evil had been laid bare, and a national remedy was called for. Hence the labours of the Commissioners were terminated by the appointment of Dr. Edward Smith and Mr. Farnall by the President of the Poor Law Board to conduct an official investigation into the matter. Meanwhile, as the result of a meeting at Dr. Rogers's house, the Workhouse Infirmaries Association was formed, with Mr. Ernest Hart, Dr. Anstie, and Dr. Rogers as Honorary Secretaries. Mr. John Storr generously put down £100 to float the Society, which speedily prospered and did much good work in further enlightening the public mind. This was in January, 1866. In the following June, Mr. Ernest Hart, acting on the statements of the superintendent nurse, got Lord Carnarvon, a member of the Society, to obtain from Mr. C. P. Villiers, then President of the Board, an inquiry into the management and condition of the Strand Workhouse. This was held by Mr. R. B. Caine, one of the official inspectors, whose report was bitterly biassed against Dr. Rogers, whom it blamed as the cause of the state of affairs through not having made proper representations to the guardians. Soon after the Poor Law Board sent a circular letter of inquiry to all the metropolitan workhouse medical officers. Dr. Rogers called them together to discuss a general form of reply, and from this meeting arose the Poor-law Medical Officers' Association, of which he was so long chairman.

### THE REFORMATION.

But the end of Bumbledom in London was rapidly approaching. Mr. Ernest Hart's article in the *Fortnightly Review* for April, 1866, of which 50,000 copies were reprinted, completed the stirring up of the public mind, and the title "Hospitals of the State" has passed into common speech. Then followed a mass meeting in St. James's Hall, and an enormous and influential deputation to the President of the Poor Law Board. Mr. Gathorne Hardy (now Lord Cranbrook) then succeeded to that position, and in 1867 brought in and carried his famous Metropolitan Poor Bill, which was largely drafted on the lines laid down by Mr. Ernest Hart, and incorporated many suggestions from Dr. Rogers. Out of this have grown the Metropolitan Asylums system and the institution of the present suitable workhouse infirmaries. Two prime movers in the reformation reaped an immediate reward; Mr. Farnall, previously referred to as the most enlightened of the permanent inspectors, was banished from London, where his home was, to service in the North of England, and Dr. Rogers was dismissed from his appointment with every mark of insult and contumely.

### THE NEW CRUSADE.

Although the reforms already mentioned have long prevailed in the metropolis the condition of provincial workhouse infirmaries, particularly in the smaller towns, is far less satisfactory. For the last three years the BRITISH MEDICAL JOURNAL, as the result of Commissions of Inquiry into the workhouses of the provinces and Ireland, has demanded the same treatment for their sick poor as obtains in the metropolis. In many provincial infirmaries the "straw sack" was found to be still in use, the "assistant nurse" was still receiving her £12 per annum, and night nurses were few and far between. The unpaid pauper had charge of the nursing in many an infirmary, and for the infirm, the sick, and the helpless imbeciles to be mixed up together was the rule rather than the exception. Small wonder could therefore be felt at tragedies such as those in the workhouses of Oldham and of Newton Abbot. Of individual houses we may mention Bath, where the Commissioner found a building of 230 beds for the accommodation of the sick with no hot water laid on. Here the day nursing was done by one nurse with three untrained assistants. Night nursing there was none, nor even a bell by which assistance could be summoned. At Bristol there were two paid nurses to 132 patients; at Bedminster, two to 128; at Truro, one to 78, and at Falmouth, none at all. At Sedgefield, among other scandals, confinements took place in a corner of the general ward.

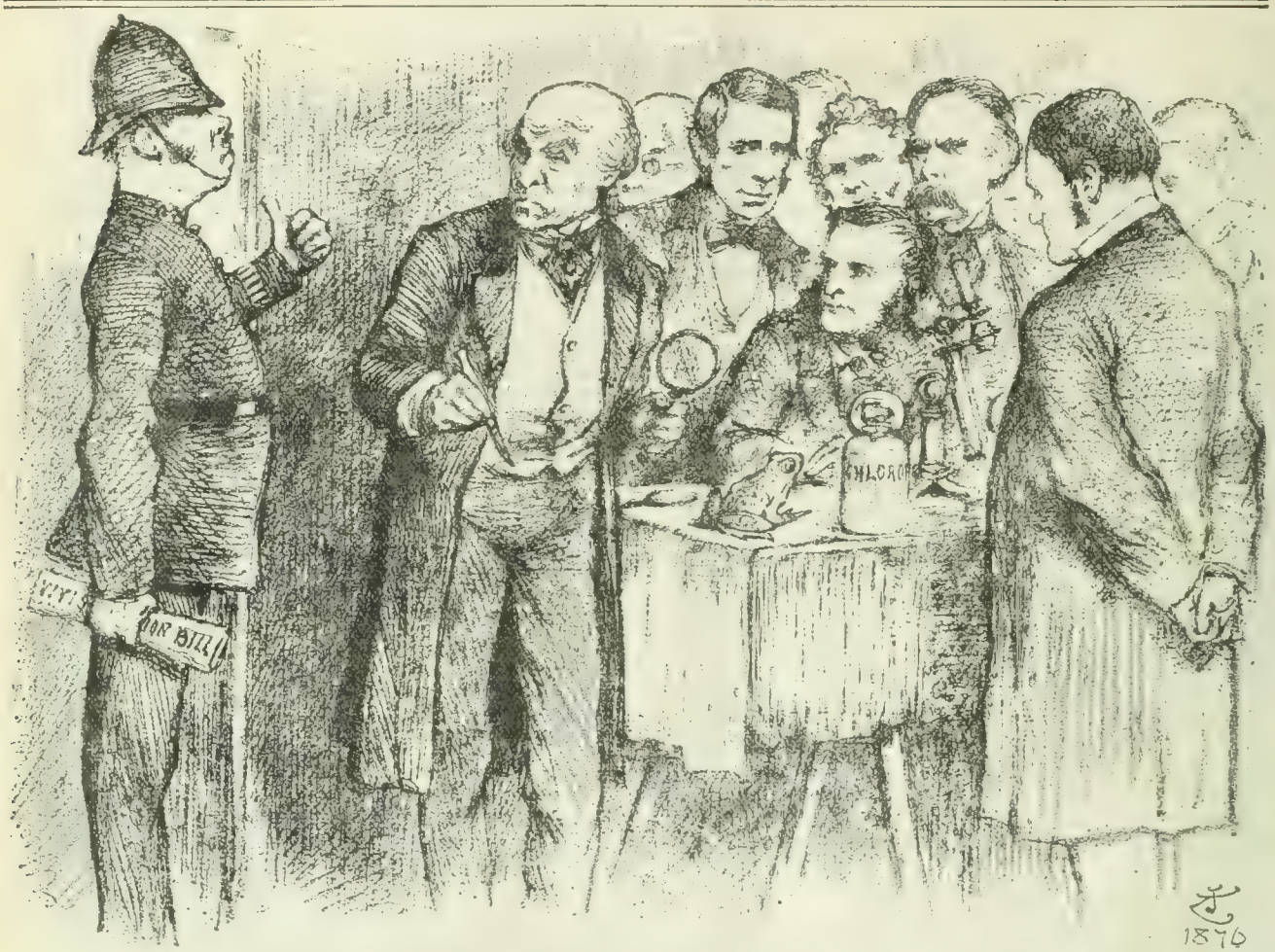
But these conditions are civilised and enlightened compared with those prevailing in nine-tenths of the workhouse infirmaries in Ireland. The reports have so recently appeared in these columns that a brief reference to them will suffice. Of Castleblayney it is said, "There are no indoor closets, no water is laid on, the roller towel is used by all the patients in common, and the female lunatics, dirty and unkempt, have no paid attendant." At Ballyvaughan the place was in a state of dirt and neglect, the inmates left entirely, except for the name of the thing, to the care of untrained women or feeble old men, their condition being but little removed from that of animals on the land. The deadhouse was opposite the door of the wards, and was used by the inmates as a dayroom. At Lisburn the lot of the paupers was simply described as "a living death." The inspection of twenty-eight workhouses by our Commissioner prove to the hilt the charges made by Dr. Moorhead and the Irish Medical Association. Meetings have been and are being held to consider the question, and in one or two cases local action has been taken out of very shame. What is wanted, however, is legislation, and that of the most stringent kind. Scores of Augean stables have to be cleansed, scores of festering sores in the complexion of our land to be healed. The BRITISH MEDICAL JOURNAL has taken the lead; it is for the nation to follow and to conquer.

## VIVISECTION DURING THE QUEEN'S REIGN.

DURING the early years of the Queen's reign science in England was being enriched by the vivisections done by Marshall Hall: these and the subsequent investigations of Waller were as little interfered with as had been the previous ones of Harvey, Hales, Hunter, and Jenner. During the whole operation of Martin's Act for the prevention of cruelty to domestic animals no single conviction of a vivisectionist was ever achieved by the Society for the Prevention of Cruelty to Animals. In spite of the constant employment of detectives, only one prosecution was instituted, and even that failed. The publication of Sanderson's and Foster's *Handbook to the Physiological Laboratory* in 1871 seems to have not inconsiderably inflamed the minds of lay persons, ignorant alike of its premisses and its intentions. Then at the 1874 meeting of the British Medical Association occurred an incident which raised their feelings to fever heat, and was in fact the determining cause of antivivisectionist legislation. This was simply the demonstration by Dr. Magnan of the physiological effects of absinthe and alcohol when injected into the circulation of living animals. The prosecution referred to followed, but Dr. Magnan was beyond British jurisdiction, and no case could be made out against his alleged English associates. Undaunted by this reverse the agitators carried the matter into the newspapers, which were soon flooded with revolting details of experiments said to have been performed in foreign laboratories, and insinuations that similar tortures were enacted in England.

### THE ROYAL COMMISSION ON VIVISECTION.

The outcry increased, and the vivisectors themselves courting investigation a Royal Commission was appointed in 1875, which presented its well-known report in January, 1876. This report exhibits some striking and extraordinary anomalies. After acquitting English physiologists of the charge of cruelty and after testifying to the humanity of the entire medical profession of the country, it goes on to recommend that the whole matter of making experiments upon living animals be placed under the control of the Secretary




SCIENCE AND STUPIDITY. *(Meeting of Medical Professors.)*

RATING PROFESSOR.—"By this experiment we have ascertained that we can alleviate the sufferings of thousands of our fellow creatures. may further add ——!" POLICEMAN *(interrupting)*.—"No you may'nt! We've had enough o' this sort o' thing, you must move on!" PROFESSOR.—"Move on, we can't *move* on if *you* interfere! [From *Punch*, July 29th, 1875, by kind permission of Messrs. Bradbury, Agnew, & Co.]

f State, who should have the power of granting and withdrawing licences for their performance. In the words of Lord Sherbrooke, the Commission "acquitted the accused and sentenced them to be under the surveillance of the police for life."

### LORD CARNARVON'S BILL.

There can be no doubt that the curious attitude taken in this report led the way to the remarkable Bill drafted by Lord Carnarvon in 1876, a Bill which, if passed in its original form would probably have completely stopped the carrying out of physiological investigations in England. The biologists of the country were panic-stricken; the Parliamentary Bills Committee summoned all the leading teachers of physiology to a conference, at which Mr. Ernest Hart presented a temperate and cogent report on the subject. The report was adopted and circulated, together with the suggested amendments to the Bill, and a memorial embodying the latter was signed by 2,000 members of the Association. Lord Carnarvon was interviewed, and adopted some of the modifications, but the Bill nevertheless passed the Lords in a form obstructive to science. The Parliamentary Bills Committee carried on their opposition in the Commons, and sent a deputation to wait on Mr. Cross, who had charge of the measure there. Many important objections were removed at the third reading, at which the Bill became the present Vivisection, or to give it its somewhat minatory true title, the Cruelty to Animals, Act.

### THE VIVISECTION ACT.

The provisions of this measure are known to everyone interested in the subject. Experiments on living animals require a licence to be obtained from the Home Secretary on the recommendation of certain leading medical and scientific men. The process is so cumbrous and slow that the performance of a vivisection, such as the inoculation of a guinea-pig with anthrax, for diagnostic purposes is impossible except for those already licensed. The whole machinery is placed in the hands of a man chosen for political reasons, and not on scientific grounds; a biassed Home Secretary could go to either extreme without let or hindrance. In condemning the state of the law, one must not, however, forget the condition of popular indignation which called it forth, which called indeed for even severer and more repressive legislation. How this indignation appeared to the cultivated classes can best be gathered from the accompanying cartoon by Sir John Tenniel reproduced from *Punch*. The aspect and attitude of the policeman fitly symbolise an ignorant and uneducated opposition, and contrast well with the refined and sympathetic figures of the scientific men he is obstructing. At the table sits Mr. Hart, who, as the ablest advocate of vivisection, was of course regarded by its opponents as the arch-offender, while around him will be readily recognised Sir William Jenner, Sir James Paget, and Sir William Gull, then the three leading English champions of suffering humanity in the war against disease. That the intended

victim should be a frog is only fitting, for the Act in its wisdom permits the vivisection of invertebrate animals without the necessity for a licence, and it is said that the House was for some time much exercised with the endeavour to decide the claims of the fortunate batrachian to a spinal column.

### Proposal for the Total Abolition of Vivisection.

It was not to be expected that the antivivisectors would be satisfied with their partial victory. In February, 1882, they introduced into the House of Commons a Bill for the total abolition of vivisection, with or without anæsthetics. But, in the meantime the medical opposition to their schemes had been consolidated, and with this had come a distinct revulsion of public feeling. The Bill failed ignominiously, and to this end no doubt the vigorous action of the International Medical Congress and the British Medical Association at the meetings held in 1881 no doubt largely contributed. At both these gatherings resolutions were passed with practical unanimity affirming the indispensable value of vivisection to scientific progress. The late Sir George Murray Humphry's address at the meeting of the British Medical Association, which has since been reprinted in pamphlet form, is a noble tribute to experimental physiology and its followers, and should be read by all who have at heart the welfare of their race.

### The Society for the Advancement of Medicine by Research.

Out of the proceedings of the International Congress grew the Society for the Advancement of Medicine by Research, which is presided over alternately by the Presidents of the Royal Colleges of Physicians and Surgeons, and which to all intents and purposes *visas* the application of a physiologist to a vivisection licence. Since the institution of this valuable Society the number of licences obtained has greatly increased, although in this connection we must not refuse the antivivisectionists themselves all possible credit for their efficient though unintentional assistance. The torrents of hysterical abuse that have poured from the mouths of these persons have served to bring their cause into hopeless discredit. The public mind is becoming educated to an understanding of what science has done for humanity, and the time is now ripe for legislation relating to vivisection, if legislation there must be, to be placed upon a footing at once rational, enlightened, and humane.

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## THE GENERAL MEDICAL COUNCIL.

### Medical Regulations before 1858.

The Medical Act of 1858 was designed to enable the public to distinguish between qualified and unqualified practitioners, to ensure uniformity of education and examination throughout the United Kingdom, and to secure reciprocity of practice in all parts of the kingdom.

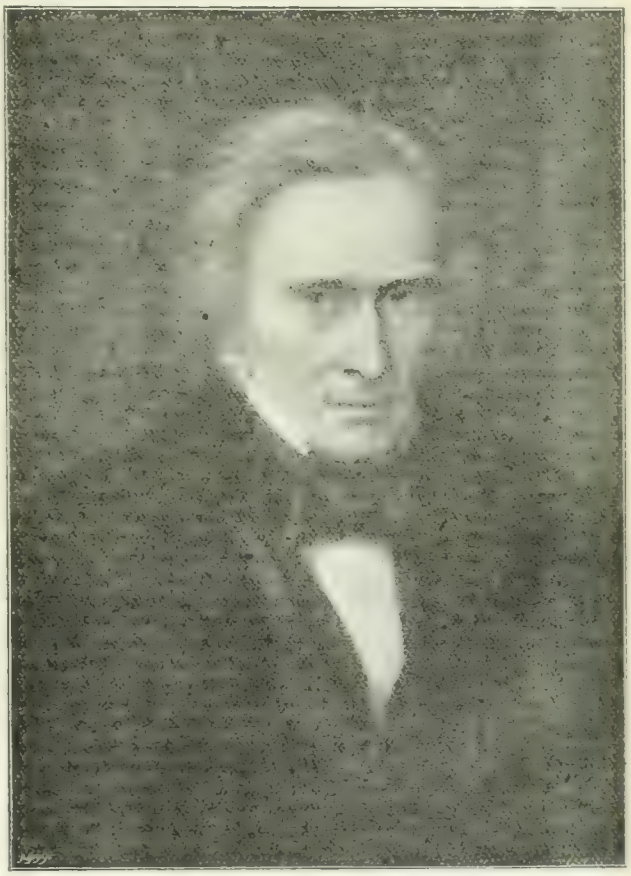
The conflict of jurisdictions, the privileges and restrictions which existed before 1858 seem now well nigh incredible. The medical corporations for the most part possessed exclusive privileges of giving the right to practise in certain cities and districts. Graduates of Scottish and Irish universities had no legal right to practise in England; graduates of English universities had no legal right to practise in London or seven miles round it, nor in Dublin.

Within London and the district around it no man could legally practise as a physician who was not a Fellow or Licentiate (equivalent to Member under the present regulations) of the Royal College of Physicians. Scottish graduates were excluded altogether from Ireland. In England or Ireland practitioners who had not served an apprenticeship to an apothecary and passed the examination of the Apothecaries Societies in London and Dublin respectively could not dispense their own drugs. The Act of 1858 swept away a whole series of anomalies which had gradually grown up by enacting that every person registered under the Act should be entitled to practise in any part of Her Majesty's dominions.

### The Formation of the Council.

The General Medical Council was called into existence to carry out the other objects of the Act—namely, to enable the public to distinguish between qualified and unqualified practitioners, and to ensure uniformity of education and examination. It consisted of representatives of the medical corporations, six persons nominated by the Crown, and a president elected by the Council.

The first meeting of the newly-constituted Council was held at the Royal College of Physicians on November 23rd, 1858, all the twenty-three members being present—namely, seventeen representing the universities and medical corporations and six nominated by the Crown. The first business was to elect a President, and Sir Benjamin Brodie, Bart., was chosen, the number of members being thus raised to twenty-four. The Council then proceeded to nominate a committee to take the preliminary steps for preparing a National *Pharmacopœia*.



Sir Benjamin Brodie: The first President.

### The "Medical Register."

The main work of the Council at first, however, was to compile the *Medical Register*: and, as it was found impossible to accomplish the task within the specified time, an amending Act had to be obtained. Finally, however, the *Medical Register* for 1859, the first of the series, made its appearance, with an apologetic preface by the Registrar, Dr. Francis Hawkins. Since this date the *Register* has been subject to annual revision; and in 1886, in connection with the first election of direct representatives, special means were taken to obtain a high standard of accuracy. The Council possesses the power of omitting from the *Register* the name of any person who does not respond to inquiries: and, partly owing to its exercise, the annual volume is now remarkably complete and correct.

### The Presidents of the Council.

In 1860 Sir Benjamin Brodie resigned the Presidency, and was succeeded by Mr. J. H. Green, who held the office until his death, in 1863. He was succeeded by Dr. (afterwards Sir) George Burrows, who remained in office until 1869, when he resigned, and was succeeded by Dr. (afterwards Sir) George Paget, the representative of the University of Cambridge. On his retirement the representative of the University of Oxford, Dr. (now Sir) Henry Acland, was chosen in his place, and remained in office until 1887, when he was succeeded by the late Mr. John Marshall, who remained in office until his death, in 1891. At the summer session the Council elected as his successor Sir Richard Quain, who, we may hope, will long be spared to serve the profession in that capacity.

### The "British Pharmacopœia."

The first edition of the *British Pharmacopœia* was published in 1864, and its preface asserts that of all the duties laid on the General Medical Council not one had caused it more



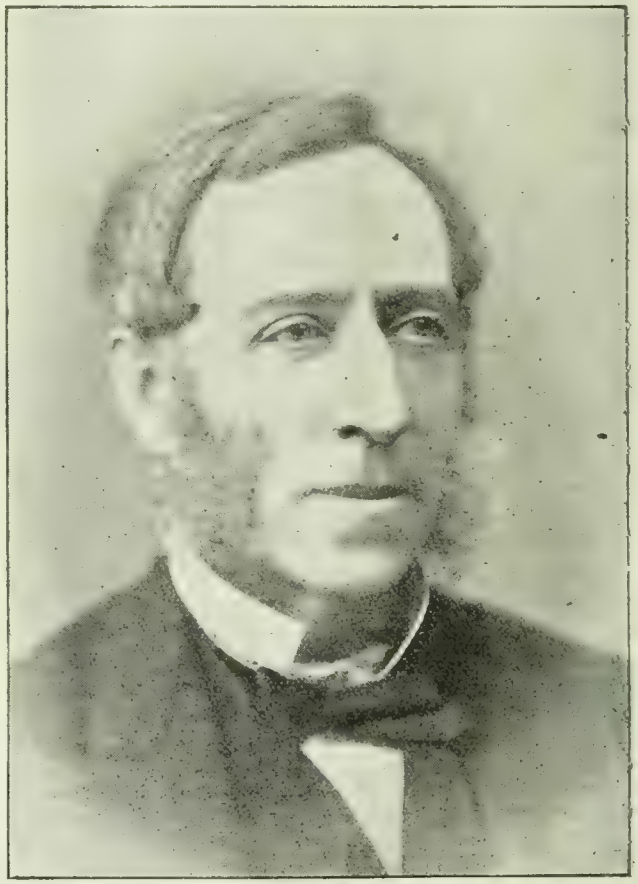
John Marshall, F.R.S.: The late President.

anxiety. It was divided into two parts: the first was the *materia medica* which was intended to contain in its simplest pharmaceutic form every definite medicinal substance; the second contained directions for the making of the preparations and compounds. There was also an appendix of articles employed for the chemical processes of the second part. The arrangement and the contents of the volume, not less than the omissions from it, were keenly criticised, and it was shortly found desirable to undertake a revision.

In the second edition of the *Pharmacopœia*, published in 1867, the division of the body of the work into two parts was abandoned as inconvenient in practice, and all articles were arranged in alphabetical order. The volume was prepared by a committee, of which Dr. Quain acted as secretary, thus commencing his long association with the Pharmacopœia Committee. The *Pharmacopœia* differed from that of 1864 mainly by the addition of a large number of preparations, and a few remedies; the omissions were very few and unimportant. This volume remained the standard until 1885, although in 1874 some additions were made, of which probably the most notable was pepsin, the first appearance of a body of this nature in the *British Pharmacopœia*.

During the intervening period the *British Pharmacopœia* had become the standard, and both the medical profession and pharmaceutical chemists had become thoroughly familiar with it.

The demand for the new edition issued in 1885 was enormous, and the first impression of 20,000 copies was so quickly exhausted that it was found necessary to issue reprints in October 1886, and again in February 1887. The chairman of the Committee which carried through this edition was Dr. (now Sir Richard) Quain. The number of articles and preparations added was large, being far greater than the number of those omitted. For this reason the volume was considerably larger than the previous edition. In spite of this, however, it was found desirable in 1890 to



Sir Richard Quain, Bart.: The present President.

issue an *Appendix* of additions, and as is well known the *Pharmacopœia* is now again under revision, and the new edition may be expected at the end of this year.

### Medical Education.

It would be tedious to attempt to recapitulate the history of the Council's relations to the subject of medical education. It would indeed be impossible to do so in the space at our disposal without incurring the risk of omitting incidents which had an important bearing upon the course of events. Generally speaking, the history of the Council falls into three epochs. First the early stage when it was mainly occupied in the preparation of the *Medical Register* and of the *British Pharmacopœia*, and in organising its business generally. Secondly, the period down to the passing of the Medical Act of 1886, and thirdly, the last ten years of its existence.

During the second period, one of the chief works accomplished by the Council was the enforcement of regulations with regard to preliminary examination and the efforts made to induce the Corporations to leave this task to the national educational bodies, a policy which has now borne fruit, so that, as we showed recently, the examination of students by the Corporations in preliminary knowledge has practically been abandoned. By its visitation and inspection of professional examinations, and by the issue of recommendations to the examining bodies, a great stride has been made towards ensuring the uniformity of education and examination, aimed at by the Act of 1858, and so desirable in the interest of the profession and of the public. Much of the time of the Council during this intermediate period was occupied by the consideration of conjoint schemes, and the discussion of Bills for the amendment of the Medical Act which to the number of over twenty were at various times introduced both by the Government and by private members, to remedy some of the defects which had been found in the Act of 1858.

The Act of 1886, though it disappointed many who had worked most energetically in the cause of medical reform, embodied several important principles which have greatly strengthened the influence of the General Medical Council. In the first place, the Act empowered the Council in the future to register only persons who have passed qualifying examinations in medicine, surgery, and midwifery, and contained special provisions for promoting combinations between medical corporations. It also, for the first time, granted to the general body of the profession in the three kingdoms the right to elect direct representatives on the Council. Much greater alacrity is now displayed by the medical corporations in accepting the recommendations of the Council with regard to the curriculum and to examinations, and a much nearer approach has been made to a uniform standard of examination, though undoubtedly much still remains to be done in this direction.

### Disciplinary Powers.

The powers of the Council to deal with conduct on the part of registered medical practictioners deemed by it to be infamous in any professional respect have been more freely used of recent years, and the effect has undoubtedly been to purge the profession of many whose conduct has brought discredit upon it, and to serve as a warning to others. It is one of the primary duties of the Council to enable the public to distinguish between qualified and unqualified practitioners. Obviously, this intention of the Medical Act of 1856 is defeated if qualified practitioners enable unqualified persons to practise under cover of their names and diplomas. It was many years before the Council took effectual action in this respect, but the definition of the offence of covering, and the determination exhibited to punish those who continued to cover unqualified practitioners after due warning had been given, has had a very marked effect; and there is reason to hope that an equal, if not a greater, stringency will be observed in the future. The action of the Council in dealing with offences against breaches of discipline has been somewhat hampered by the fact that the only penalty which it has it in its power to inflict is the removal of the name of the offender from the *Medical Register*. This punishment is a severe one, and cases have from time to time occurred in which, while deemed worthy of censure, the accused has not been thought to have committed an offence rendering the removal of his name from the *Medical Register* imperative. There is, however, nothing to prevent the Medical Council from restoring a name to the *Register*, and this course has been followed in some cases.

### The "Dentists' Register."

By the Dentists' Act of 1878 the General Medical Council was charged with the duty of preparing and maintaining a register of all dentists practising as such. The *Register* as at first formed contained the names of a large number of persons engaged in the practice of dentistry without a diploma, but this class is now decreasing, though it still constitutes 67 per cent. of the names on the *Dentists' Register*. No person can henceforth be registered who is not a Licentiate in Dental Surgery or Dentistry of one of the medical authorities. The General Medical Council has from time to time laid down regulations with regard to the dental curriculum, and has exercised an important influence upon the course of dental education. The dental business of the Council is conducted by a special Dental Committee and a Dental Education and Examination Committee—subject to reference to the Council.

## BRITISH LEADERS IN MEDICINE DURING THE VICTORIAN AGE.

THE medical history of the reign of Queen Victoria would be incomplete without some account of the men who have taken a prominent part in the making of it. Of some of these men portraits will be found in the articles dealing with the branches of medical science with which their names are particularly associated, and brief sketches of their lives and of those of other leaders in medicine are given in the following pages. Want of space has compelled us to omit from our "gallery of illustrations" the portraits of many for whom the title of "leader" might justly be claimed. To this cause alone must be attributed the omission of Robert Graves, Richard Bright, Charles Bell, Robert Liston, John Conolly, Marshall Hall, William Farr, and Edwin Chadwick; not to mention other living leaders who have done much to further the progress of the healing art.

The fact that so few foreign workers have been included must not be taken as implying that we wish to claim all the achievements of medical science during the past half century as our own. Medicine, fortunately for mankind, is of no nation; moreover, in this field of competition we have done enough to enable us to be not merely just but generous. The share which our brethren in other lands have taken in widening the boundaries of medicine in its various departments is fully set forth in the special articles allotted to these subjects. In a number of the BRITISH MEDICAL JOURNAL, however, expressly devoted to the commemoration of the reign of Queen Victoria, it appears fitting that the work of Her Majesty's subjects should be placed in the foreground.

### The Queen and Her Medical Advisers.

Among British leaders of medicine, precedence rightfully belongs to those whom the Queen has chosen to be the guardians of her own health. The list of Her Majesty's titular physicians and surgeons is a formidable one. The appointments are many and multifarious even at the present day; in the earlier part of the reign they included such posts as "Cupper to Her Majesty," "Medical Galvanist and Electrician to Her Majesty," "Dentist to Her Majesty at Cambridge," "Apothecaries Extraordinary at Kensington," and "Surgeons and Apothecaries to Her Majesty at Brighton." Of the multitude of medical counsellors whose names appear in the list of Court appointments[1] since the Queen came to the throne, however, very few have had the privilege of rendering personal services to Her Majesty. Thus, of the three physicians in Ordinary (Sir James Clark, Sir Henry Halford, and Dr. W. F. Chambers) appointed on her accession, the first alone had personal charge of the Queen. Sir Charles Locock officiated at the birth of all Her Majesty's children, Dr. John Snow giving chloroform on the last two occasions. For some years before the death of Sir James Clark, the duties of personal physician to the Queen gradually passed more and more into the hands of Sir William Jenner, and when he in turn retired from active professional life into those of Sir James Reid, who since 1889 has had the undivided responsibility of the care of Her Majesty's health. Before Sir James Reid was appointed resident physician to the Queen, that post was held for a number of years by the late Dr. William Marshall, who, however, was not on the list of Her Majesty's physicians and always acted under Sir William Jenner. The Queen has been fortunate enough to have very little need for the services of her surgeons; Sir James Paget has, with the exception of Lord Lister on one occasion, been the only one she has had occasion to consult.

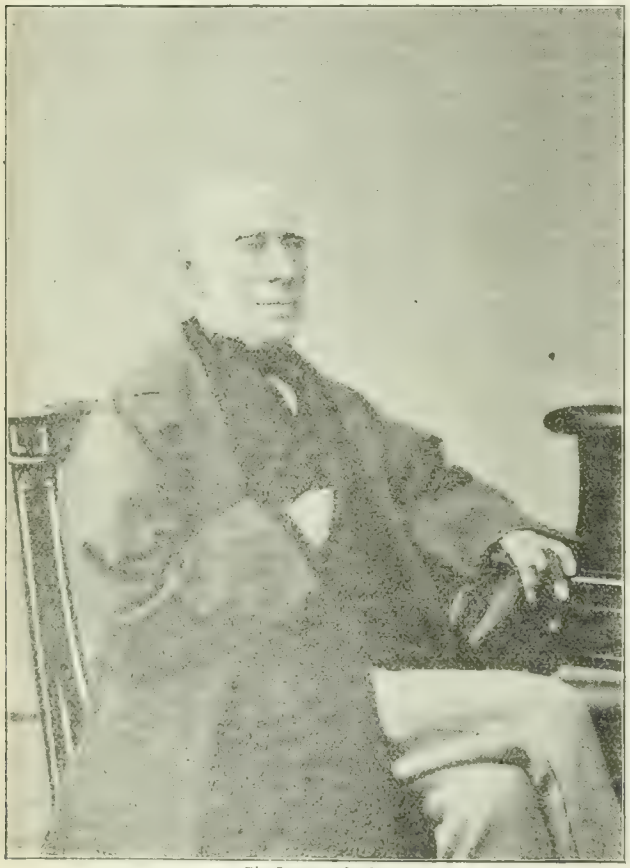
[1] A complete list of all the medical appointments at Court since the Queen's accession to the present day, supplied with Her Majesty's sanction by the Lord Chamberlain's Office, is published in the *Practitioner* for June, pp. 572-76.

Of the Queen's personal relations to her medical advisers, it need only be said in general terms that she is, as Dr. Snow pronounced her to be, "a model patient." She acts in the spirit of the precept "Honour the physician for the need thou hast of him," though, as we are thankful to know, she has throughout her life had less need of him than the majority of her subjects. She has always treated them with the greatest confidence and consideration, and their advice has at all times been received by her with trust and reliance. They have always been consulted by Her Majesty on many confidential subjects apart from their professional duties, and they form an essential element in the inner working of Court life. How greatly she values their services is shown by the way in which she has delighted to honour them.

## Court Physicians.

### I.—Sir James Clark, M.D., F.R.S.

Sir James Clark was born at Cullen in Banffshire in 1788. He was educated at the Grammar School of Fordyce, and afterwards went through the arts curriculum in King's College, Aberdeen. After spending some time in a lawyer's office he studied medicine, obtaining the licence of the Royal



Sir James Clark.
[From a photograph in the Queen's private collection.]

College of Surgeons of Edinburgh in 1809. He then entered the Royal Navy, and saw a good deal of service afloat in various parts of the world until the end of the great war in 1815. He then proceeded to the University of Edinburgh, where he took the degree of M.D. in 1817, the subject of his thesis, On the Effects of Cold, indicating that his attention had already been turned to the field of observation in which he was afterwards to make his reputation. After graduation he travelled on the Continent with a consumptive patient, and in their journeying from place to place in the south of Europe he closely studied the effects of climate on his patient's condition. He settled in Rome, where his special skill in the recognition of the early stage of phthisis and its treatment soon made him a man of mark in his profession. In the Eternal City he made many influential friends, among them being Prince Leopold of Saxe-Coburg, afterwards King of the Belgians, who chose him for his personal physician. Dr. Clark was one of the first among British physicians who gave much attention to the therapeutic effects of foreign medicinal springs and baths. He also visited most of the medical schools of Italy, France, and Germany; thus acquiring a knowledge of the condition of medical education which he was afterwards able to apply to good purpose when he had to take a prominent part in the organisation of the medical faculty of the University of London.

In 1826 Dr. Clark came to London, where he speedily made a position for himself. In 1834, on the recommendation of Prince Leopold, he was appointed Physician to the Duchess of Kent, and on the accession of Queen Victoria in 1837 he was appointed Physician in Ordinary to Her Majesty, and was created a baronet.

Sir James Clark was greatly trusted by his royal patient, who continued to hold him in affectionate personal regard till the end of his life. He was also very much in the confidence of the Prince Consort, who was accustomed to rely upon his advice in many matters outside the range of his professional duties. Sir James was a man of singular integrity of character and kindness of heart, and in difficult circumstances behaved with a quiet dignity, devotion, and self-sacrifice of which few men in his position would have been capable.

In 1820 he had published some notes on Climate, which he afterwards enlarged into the well-known work *The Influence of Climate in the Prevention and Cure of Chronic Diseases*, which was published in 1829. Four editions of this work appeared in the author's lifetime. Clark may be called the founder of scientific climatology as applied to the treatment of disease, especially of the respiratory organs. In 1835 he published a treatise on *Pulmonary Consumption and Scrofulous Diseases*, and he also contributed to the *Cyclopædia of Practical Medicine* articles on Climate and Change of Air. Two years before his death he published a *Memoir of Dr. John Conolly*, the object of which was not only to perpetuate the memory of a friend, but to rebut attacks made on the humane treatment of the insane which Conolly had been instrumental in introducing in this country.

In 1832 he was elected Fellow of the Royal Society, and on the establishment of the University of London he was appointed a member of the Senate. Early in his career he had shown an interest in the subject of medical education by the publication of notes on the medical schools of France and Italy (1820), and an Italian letter on medical education in Edinburgh (1822). He took an active part in furthering medical reform, as to which he addressed letters to Sir James Graham, which were published in the form of pamphlets.

The foundation of the College of Chemistry was mainly due to his initiative, and his counsel was sought by legislators in matters connected with public health. This naturally gave him great influence, which was always used for the promotion of the public weal.

In 1860 Sir James Clark retired from the practice of his profession, and spent the remainder of his days at Bagshot Park House in Surrey, which was lent to him by the Queen. Here he died, in 1870, at the age of 82. The portrait of him here given is reproduced from a photograph taken when he was 80 years of age.

### II.—Sir Charles Locock, Bart., M.D., F.R.S.

Sir Charles Locock was born at Northampton in 1799, being the son of Dr. Henry Locock of that city. He was at first intended by his father for a consulting physician, and with that object he was placed as a pupil under Sir Benjamin Brodie, under whose roof he lived for nearly three years. On Brodie's advice he determined to take up midwifery as his line of practice. With that object he went to Edinburgh, where he took his doctor's degree in 1821. Returning to London he attracted the favourable notice of Dr. Gooch, who was then making arrangements to retire from practice. Gooch transferred the active part of his midwifery practice to Locock, who quickly took the lead in that department in London. In 1840 he was appointed Physician Accoucheur to the Queen, and in that capacity he officiated at the birth of all Her

Majesty's children. Sir James Clark and Dr. Ferguson were also present on these occasions, but the management of the case was entirely in the hands of Locock.

Dr. Locock was created a baronet in 1857. He was elected a Fellow of the Royal Society in 1864. The University of Oxford conferred on him the honorary degree of D.C.L.; he was a Deputy Lieutenant for Kent, and stood as a candidate for the Isle of Wight at the general election in 1865, but was unsuccessful. He died in 1875.

Sir Charles Locock received from the Queen many proofs of the regard and esteem which Her Majesty felt for him. When on his deathbed, less than two days before he died, Her Majesty graciously went from Osborne to see him for the last time, and after his death wrote herself to one of the members of his family "to express her sincere and deep sympathy" with them, and added that "the Queen personally deeply grieved for the loss of a kind and faithful friend."

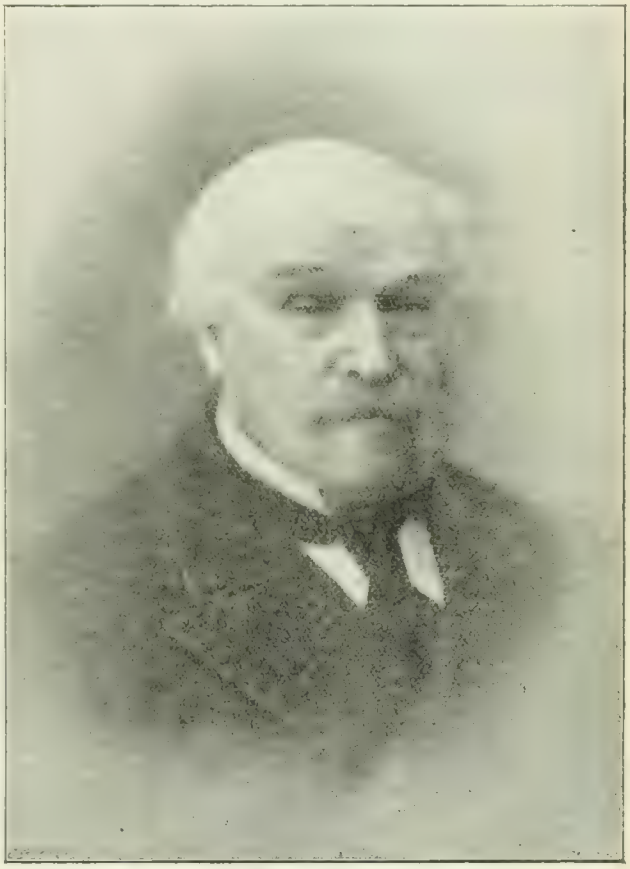


Sir Charles Locock.

Locock was essentially a healer of disease. His contributions to medical literature were entirely of a practical character. He was the first to point out the value of bromide of potassium in epilepsy. Dr. C. J. B. Williams describes him as one of the ablest practitioners he had ever met. He adds: "By dint of intelligent and persevering trials he [Locock] had acquired the knowledge of a great number of remedies, which supplied him with a variety of resources and made him often successful where everyone else had failed. .....In obstinate or difficult disorders not at all confined to his department, when I have resorted to Locock for a new remedy, I have been well satisfied with the success of the result."

The following appreciation of Sir Charles Locock, quoted by Dr. Munk in the *Roll of the Royal College of Physicians of London*, is from the pen of Sir James Paget:

"Sir Charles Locock was rewarded by many proofs of Her Majesty's approval and constant confidence; and the last honour of which he could be conscious was conferred on him when the Queen visited him on his dying bed, and proved to him the regard which his wise and loyal care had earned. Such a proof of gracious friendship must have been to him like an after-glow. When his sun had gone down, and there seemed in this world only coming darkness, light flashed again, and in the light he died. Sir Charles Locock had great power of work, and was active and unsparing of himself in his devotion to duty; he had a quick, keen insight, and a large and ready store of knowledge for the daily needs of his practice. Besides, he was skilful in his use of knowledge; his beliefs were strong; all that he believed he felt sure of; and with clear plain speech he would so express his surety as to make most of those he spoke to believe that he must be right. He gathered knowledge from all quarters, from the honest and dishonest, from high and low; if only he thought that it was knowledge he could do good with, he cared little whence it came. Doubtless Sir Charles owed some of his success to his social qualities. He was a very amusing companion, light-hearted and genial, a pleasant, vivid talker, a lover of news, a good story-teller. Thus without design he became a general favourite, both in his profession and in society. But if we must admit that these qualities often raised a prejudice in his favour, it is as certain that the prejudice soon gave way to a yet more favourable calm judgment, when it was seen how fit he was for the daily duties of his calling; how patient and watchful; how gentle in his sympathy with grief; how calm in the midst of others' tears; how joyous in their joys.



Sir William Jenner

III.—Sir WILLIAM JENNER, Bart., G.C.B., M.D., F.R.S.

Sir William Jenner, for many years the Queen's most trusted adviser, and the acknowledged head of the medical profession, was born at Chatham on January 30th, 1815. He was educated at University College, London, and became a qualified practitioner in 1837, the year of Her Majesty's accession. He had a hard struggle for existence in the earlier

years of professional life, and experienced to the full the truth of Johnson's words—

Slow rises worth by poverty deprest.

By sheer force of ability and steadfast effort, however, he made his way. He took the degree of M.D. at the London University in 1844, and, giving up general practice, was admitted a Member of the Royal College of Physicians in 1848 and a Fellow in 1852. He was appointed Assistant Physician to University College Hospital in 1848, and in the same year he became Professor of Pathological Anatomy in the College. In 1854 he was promoted to be full physician to the hospital, and in 1862 he resigned his Chair of Pathology to occupy that of Medicine. Sir William Jenner was also for a number of years physician to the London Fever Hospital and to the Hospital for Sick Children in Great Ormond Street.

To Sir William Jenner we owe the final differentiation of typhoid fever as a specific disease altogether distinct from typhus. To him is also due a vast mass of clinical observation and therapeutic experience given in his systematic lectures on medicine, in his clinical lectures, still more perhaps in occasional remarks at the bedside and in the *post-mortem* room, and diffused by his many pupils through the medical world, often without indication of the source. Those who have "sat under" Sir William Jenner must often have been surprised at the extent to which his teaching has infiltrated professional thought. Yet he has published but little; a few scattered papers and lectures gathered up within the last few years into two volumes—*Lectures and Essays on Fever and Diphtheria*, 1849-79 (1893), and *Clinical Lectures and Essays on Rickets, Tuberculosis, Abdominal Tumours, and other Subjects* (1895)—make up the bulk of his contributions to medical literature. What he has written, however, is of the most solid character, as is shown by the fact that, although republished nearly half a century after it was written, it to a large extent stands firm at the present day amid the ruins of most that was held as orthodox medical doctrine when it first appeared. How much of contemporary medical literature is likely to stand this test?

Sir William Jenner's connection with the Court began in 1861, when he was appointed Physician Extraordinary to the Queen, in succession to Dr. William Baly. He attended the Prince Consort in the attack of typhoid fever which cut short that valuable life. In 1862 he was appointed Physician in Ordinary to the Queen and to the Prince of Wales, whom ten years later he attended through a severe attack of the same fever that had proved fatal to his Royal Highness's father. In recognition of this service Sir William, who had been created a Baronet in 1868, had the distinction of K.C.B. conferred upon him in 1872. In 1889 he received the further exceptional honour of the Grand Cross of the Bath. Since that time Sir William Jenner has lived in retirement; for some years subsequent to 1888 he paid a visit at intervals to the Court, but for the last four years he has practically ceased to attend Her Majesty.

Sir William Jenner was elected a Fellow of the Royal Society in 1864. In 1881 he was elected President of the Royal College of Physicians, and such was his position in the esteem of the Fellows that he was annually re-elected to that high office for seven years.

He is a Commander of the Order of Leopold of Belgium, an Hon. LL.D. of the Universities of Cambridge snd Edinburgh, D.C.L. of the University of Oxford, etc.

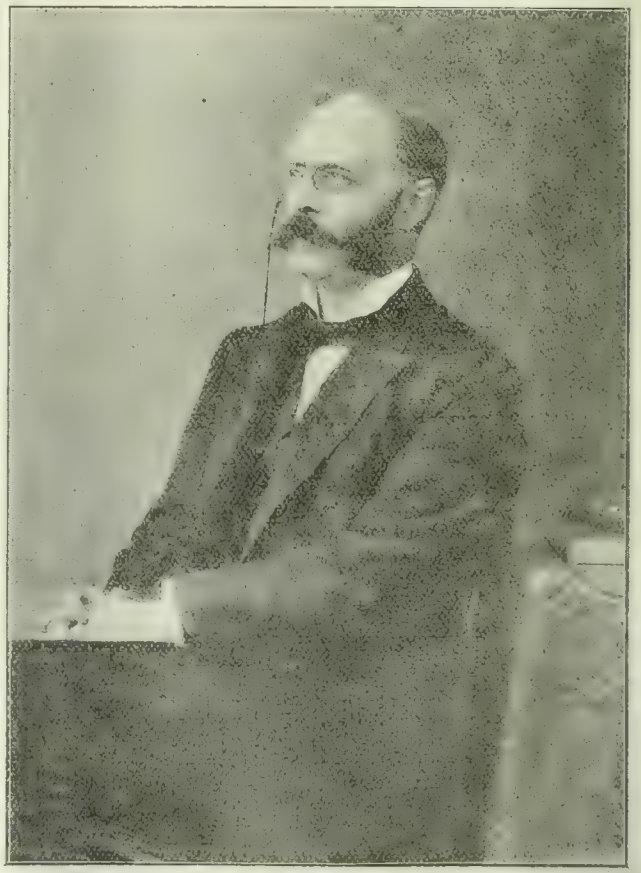
Probably no man during Her Majesty's reign has had greater influence in the medical profession, either by force of intellect or of character, than Sir William Jenner. In him we revere, not only a great physician and a great teacher, but that "noblest work of God" an honest man.

### IV.—Sir James Reid, K.C.B., M.D., F.R.C.P.

Sir James Reid was born in 1849, the son of the late James Reid, M.D., of Ellon, in Aberdeenshire. He was educated at the Grammar School of Aberdeen, and afterwards went through the Arts course in the University of that city, graduating M.A. with honours in natural science and a gold medal in 1869. He studied medicine in the same seat of learning, taking the degrees of M.B., C.M. with the highest honours in 1872. He became M.D. in 1875. Dr. Reid practised in London from 1873 to 1875; he then went through a further course of study in the University of Vienna in 1876 and 1877; he practised in Scotland from 1877 till 1881, when he was appointed Resident Physician to the Queen in succession to the late Dr. William Marshall, who had held that post for the previous twelve years.

For the first year of his residence at Court Dr. Reid acted under Sir William Jenner, who paid a weekly visit to the Queen, except when Her Majesty was in Scotland or abroad. When Sir William's health broke down in 1888 Dr. Reid, who had been appointed Physician Extraordinary in 1887, gradually took over the duties of the office, and became in title, as well as in fact, Physician in Ordinary in 1889.

Dr. Reid was made a C.B. in 1889, and a K.C.B. in 1895. He also holds the Red Eagle of Prussia, and the Ernestine Order of Coburg. His own University of Aberdeen conferred



Sir James Reid.

on him the honorary degree of LL.D. in 1895. He was admitted a Member of the Royal College of Physicians of London 1887, and elected to the Fellowship in 1892.

Sir James Reid is the only one of Her Majesty's Physicians in Ordinary who has resided constantly at Court, and been employed exclusively in the duties of the office. He is the author of various communications to medical journals, and it is no secret that his professional knowledge earned for him the very high opinion of the distinguished physician with whom he was associated in the medical charge of the Queen in the earlier years of his connection with the Court.

Of the confidence which Sir James Reid's august patient has in his skill, and of her personal regard for him, there is a sufficient proof in the manner in which she has recognised his services.

### Court Physicians and Surgeons.

On the Queen's accession, as already said, Sir Henry Halford and Dr. W. F. Chambers were appointed Physicians in Ordinary in addition to Sir James Clark. In their case, how-

ever, the title carried with it no corresponding duties. Halford's active connection with the Court ceased on the death of William IV. Born in 1766 and educated at Rugby, Oxford, and Edinburgh, he had been Physician in Ordinary not in name only, but in fact to George III. and George IV., as well as William IV.; he had been the trusted adviser of Queen Charlotte and of all the Royal dukes and princesses of the first quarter of the present century: and, as Dr. Munk puts it, "it had been his melancholy privilege to minister at the deathbed of no fewer than seven of the Royal Family." His counsel was at one time or another sought by several of the contemporary sovereigns of Europe. Probably no physician before or since had so many royal patients. Halford was a born courtier, and he improved this native talent by assiduous cultivation. A lady of the highest rank declared that she would rather die under Sir Henry Halford's care than recover under that of any other physician. Another enthusiastic patient spoke of him as "the Prince and Lord Chesterfield of all medical practitioners." Even if a noble patient were unconscious Halford never forgot what was due to his rank: Bransby Cooper describes him as making "three profound formal bows to Lord Liverpool as he lay senseless on the sofa." He appears to have put in practice Sir Pertinax MacSycophant's maxim as to "booing," and this led to his being nicknamed by disrespectful contemporaries the "eel-backed baronet." Halford, however, in spite of Brodie's statement that he had no scientific knowledge of his profession, was a good practical physician: he did his best to cure his patients, or, failing that, to relieve their sufferings, and this after all is the real business of a doctor. He was also an elegant scholar, remarkable—even in a day when such an accomplishment was not so rare among physicians as it is now—for his skill in writing Latin: when the Duke of Wellington, as Chancellor of the University of Oxford, had to deliver an address in that language, he got Halford to write it for him. Halford was a man of good family, and became by inheritance a county magnate in Leicestershire. For many years he had the leading practice in London, his professional income being from ten to twelve thousand guineas. He was President of the Royal College of Physicians for twenty-five years. He died in 1844.

Dr. W. F. Chambers was a younger man than Halford, having been born in 1786. He was educated at Westminster and Cambridge, and was physician to St. George's Hospital. On the death of Dr. Maton, not long before the Queen's accession, Chambers got much of his practice, and the death of Halford left him in undisputed possession of the leadership. He was physician to William IV and to Queen Adelaide, who, it is said, liked his straightforwardness better than the courtly smoothness of Halford. From about 1836 till his retirement early in the Fifties his professional earnings ranged from seven to nine thousand guineas a year. He made no original contribution to medical science, but was a painstaking, judicious practitioner, and very methodical in his work, keeping notes of his cases fully written up in Latin, and carefully indexed. He died after some years of disablement from ill health in 1844.

Sir Henry Holland, who was appointed Physician Extraordinary at the Queen's accession, was born at Knutsford, in Cheshire, in 1788, and studied medicine at Edinburgh, where he took the M.D. degree in 1811. He had before that brought himself into some public notice by accompanying Sir George Mackenzie and his fellow-student, Richard Bright, on a two months' trip to Iceland. A book which the travellers collaborated was the result. After further wanderings in Portugal, Sicily, Greece, and other countries—duly chronicled in another book—Holland settled in London. In 1814 he was Domestic Physician to the Princess of Wales, afterwards Queen Caroline, and he was a witness at her trial. His discretion in this delicate position helped to gain for him the confidence of the upper classes, among whom it was his ambition from the first to practise. Almost from the beginning of his career he made up his mind never to let his practice exceed £5,000 a year. Such a resolution most practitioners would find no difficulty in keeping with the utmost strictness, but for Holland it was not altogether easy. He regularly spent two months of each year in travel at a time when the annual holiday was almost unknown in the medical profession; and so accurately did he make his arrangements, that, on his return to London, he would drive straight from the station to keep a professional appointment. He retained his vigour of mind and body to the last, and died in 1873 on his eighty-sixth birthday. Holland was a man of cultivated mind, of considerable literary faculties, and some tincture of science; in fact, to adapt a well-known epigram, he knew a little of everything, even of medicine. He never held any hospital appointment, but was a fashionable physician in the full sense of the word. It is related of him that, calling one day on a great lady who was his patient, he was informed that her ladyship was too ill to see him that day. Another physician, being asked about the condition of a leader of society whom he was attending, replied: "I cannot give you a better idea of how well she is going on than by saying that I have just taken my last fee and handed the case over to Holland." Holland wrote essays in the *Edinburgh* and *Quarterly Reviews*, and a most interesting autobiography entitled *Recollections of Past Life*.

Dr. William Baly, who was appointed Physician Extraordinary to Her Majesty in 1839 and Physician in Ordinary in 1861, was born in 1814. He was educated at University College and St. Bartholomew's, and afterwards at Berlin, where he graduated M.D. in 1836. He translated Johannes Müller's *Physiology*, and made a name for himself by his investigation of an outbreak of dysentery in Millbank Prison. He was appointed assistant physician to St. Bartholomew's Hospital in 1854. In 1859, when it became advisable to get a physician who might share the responsibility of personal attendance on the Queen with Sir James Clark, Baly was selected for the post. He had a great future before him, but at the beginning of 1862 he was killed in a railway accident while on his way to Osborne. He had reached the station only in time to see the train steam out of it. On his explaining that he was summoned to attend the Queen, the train was stopped. Baly was the only passenger killed.

> But the fair guerdon when we hope to find
> Comes the blind Fury with th' abhorrèd shears,
> And slits the thin-spun life.

Of Syme, Fergusson, Prescott Hewett, Bowman, Spencer Wells, Erichsen, Paget, and Lister, who have held or hold office as Court surgeons, it is needless to say anything here; their work is known of all men.

Richard Bright, who was appointed Physician-Extraordinary to the Queen in 1837, was born in Bristol, in 1789. He studied medicine at Edinburgh, where he had as a fellow student, Henry Holland, who was also his fellow traveller on a trip to Iceland with Sir George Mackenzie. To the record of this exploration—for such it was—Bright contributed the portion dealing with botany and natural history. He took his degree in 1813, and after viewing men and cities on the Continent for a considerable period, he came to London. He was appointed assistant physician to Guy's Hospital in 1820, becoming physician in 1824. In this position he used his opportunities to such purpose that he made the discovery by which his name has become a part of medical terminology, besides making many other important to the sum of knowledge. He was one of the founders of modern pathology, but he was also a great physician. He was a man of amiable and upright character, sincerely religious, and of great kindness of heart.

Dr. Peter Mere Latham, also appointed Physician-Extraordinary in 1837, was the son of a former president of the Royal College of Physicians, and was born in 1789. He took his degree at Oxford in 1816, and was physician to the Middlesex and afterwards to St. Bartholomew's Hospitals. His efforts brought about a great improvement in clinical teaching, and his writings on diseases of the heart and other practical subjects may still be read for their closeness of observation, their suggestiveness and their grace of style. He is described by those who knew him as a type of the Christian physician. He died in 1875.

Dr. Neil Arnott, another of the Physicians-Extraordinary of 1837, was born at Arbroath, in 1788. He was educated at Aberdeen and from the first showed a marked talent for mechanical inventions. When a ship's surgeon in his early youth he was able to put to rights the captain's chronometers which had gone out of order in a violent storm. He wrote a

book entitled *Elements of Physics*, which was one of the most successful works of the kind ever produced. To his inventive genius the world owes the water-bed, and numerous devices for the ventilation and warming of dwellings. He left large bequests in furtherance of scientific education. His whole life was given to the service of his fellow men. He died in 1874.

Dr. Robert Ferguson, who was appointed a Physician Extraordinary in 1857, was born in 1779, graduated at Edinburgh in 1823, and coming to London was taken up by Dr. Good, and thus was led to devote himself to obstetrics. On the opening of King's College, Ferguson was appointed Professor of Midwifery there. He was one of Her Majesty's Physician Accoucheurs from 1840 till 1858. He then gave up special work and became a general physician. In this new sphere of practice he was very successful; he had been an intimate friend of Sir Walter Scott, and when he died Lord Palmerston said of him to Sir Thomas Watson: "I have lost in Ferguson not only an able physician, but a personal friend." He was held in equal esteem by Lord Derby. He died in 1865.

Of the other distinguished physicians—Sir Thomas Watson, Sir George Burrows, Dr. Wilson Fox, Sir William Gull, Dr. C. J. B. Williams, Sir James Alderson, Dr. Arthur Farre, Dr. Owen Rees, Sir George Johnson, and Sir J. Russell Reynolds—who have held Court appointments nothing need be said here. Their memory is yet green in the minds and hearts of hosts of friends, pupils, and patients.

Of the many eminent men who have held the office of Physician in Ordinary and Physician Extraordinary to the Queen in Scotland—W. P. Alison, J. Home, J. Thomson, Robert Christison, J. Abercrombie, J. H. Davidson, J. Scott, and J. Begbie—space will only allow particular mention of one inasmuch as his work marks a new era in our knowledge of poisons. Sir Robert Christison was born in Edinburgh in 1797. He graduated in the university of his native city in 1819, and afterwards studied toxicology under Orfila in Paris. At the age of twenty-five he was elected Professor of Medical Jurisprudence in the University of Edinburgh. In 1829 he published his *Treatise on Poisons* which made him a recognised authority on the subject. In 1832 he exchanged his Chair for that of Materia Medica, which he continued to hold till 1877, when he retired. During the greater part of his active career he was also Physician to the Royal Infirmary. Christison was twice President of the Edinburgh Royal Society from 1868 to 1873. Christison's boldness as an experimenter with poisons more than once nearly cut short his career. As an expert witness he was in great request. An eminent judge said that Christison was the only man he ever met with in open court who refused to be browbeaten by counsel endeavouring to undermine his evidence. His ascent of Ben Vorlich at the age of 78, undertaken to test the restorative powers of the erythroxylon coca, is famous in the annals of athletics as well as in those of therapeutics. He took a great interest in botany and in arboriculture, and wrote some valuable papers on these subjects. He died in 1882.

Of Sir James Young Simpson, who held the office of Physician-Accoucheur to the Queen in Scotland from 1848 till his death, it is unnecessary to say much here, as his work, especially in connection with the discovery of anæsthesia, was reviewed not long ago in the British Medical Journal (October 17th, 1896). He was born in 1811 and rose by his own ability and indefatigable industry from a humble position to the very top of his profession. Probably no man ever contrived to get more work into so short a space of years, for he died before he had completed his sixtieth year. And his work was of the most multifarious kind—a most laborious practice, teaching, writing on all kinds of subjects, the invention of instruments and methods, experiments, archæology, public work, controversy, and even street preaching. Yet on his deathbed he expressed regret that he had not been busier! He was a great brained and large-hearted man, one of those who since the world began have deserved best of mankind.

In Ireland the post of Physician in Ordinary to the Queen has been held by Sir Henry Marsh, Sir Dominic Corrigan, Dr. William Stokes, Dr. Alfred Hudson, and Dr. B. G. McDowel. Among these names those of Corrigan and Stokes are writ large in the history of medicine. Corrigan was born in Dublin in 1802, and graduated in Edinburgh in 1825. Returning to Dublin, he devoted himself particularly to the study of diseases of the heart, a subject on which he made some valuable contributions to medical science. He became the leading practitioner in Dublin, was elected a member of the General Medical Council on its foundation, and entered Parliament in 1868. He died in 1880. Stokes was the son of Whitley Stokes, Professor of Medicine in the University of Dublin, and was born in 1804. He graduated at Edinburgh in 1825, and immediately published a little book, *The Use of the Stethoscope*, for which an enthusiastic publisher gave him £70. In 1837 he published his great work on *Diseases of the Chest*, and in 1842 he succeeded his father in the Chair of Physic in Dublin University. In 1854 his reputation as one of the greatest clinicians was established by the publication of his *Treatise on Diseases of the Heart*. He died in 1878. Stokes was a physician who studied his patients as men and women as well as "cases." He was a man of great kindness of heart, and of much social charm, and he had many intellectual interests outside his professional studies. He was a tireless worker, and used to say: "My father left me but one legacy—the blessed gift of rising early."

At the time of the Queen's accession Sir Astley Cooper, who had been Serjeant-Surgeon both to George IV and to William IV, was continued in that office, but had practically retired from active professional life. Born in 1768, he was a pupil first of his uncle, a lecturer at Guy's Hospital and afterwards of Clive, and was appointed Demonstrator of Anatomy at St. Thomas's in 1789. Two years later he became joint-lecturer on surgery with Clive, and thenceforward his progress was rapid. He had everything in his favour—influence, talent, indefatigable industry, an attractive presence, and last but not least a stomach that in his own words could "digest anything but sawdust." He was an enthusiastic anatomist, and was thus brought into intimate relations with the body-snatchers, who were then the chief source of supply of "subjects." Before the passing of the Anatomy Act he stated to a Committee of the House of Commons:—"There is no person, let his situation in life be what it may, whom if I were disposed to dissect, I could not obtain. The law only enhances the price and does not prevent the exhumation." He was also an eager vivisector, and thus became indirectly a patron of dog stealers. His professional income for many years was £15,000; in one year it reached £21,000. He used to say that Abernethy's rough manner was worth £1,000 to him. He was skilful with the knife, but he describes himself as "never a good operator where delicacy was required." He felt too much when he began ever to make a perfect operator. He reduced medicinal treatment to its simplest expression. "Give me," he would say, "opium, tartarised antimony, sulphate of magnesia, calomel and bark, and I would ask for little else." Astley Cooper was one of the greatest surgeons that ever lived, and unlike many men equally skilful, his work lives after him—in his classical treatises on fractures and dislocation, hernia, and diseases of the breast, which in the words of Billroth still "fill the student with wonder."

Sir Benjamin Collins Brodie, who was also continued in the office of Serjeant-Surgeon on the Queen's accession, was born in 1783, being the son of a country rector. He studied anatomy under Abernethy and Wilson. He says of himself, with regard to this period, "I was naturally very clumsy in the use of my hands, and it was only by taking great pains that I became otherwise." He became assistant-surgeon at St. George's Hospital in 1808, and there he lectured till 1840. He also pursued physiological researches on the influence of the brain, on the action of the heart, and the generation of animal heat, on respiration, vegetable poisons, etc. In 1819 he published the work on the pathology and surgery of diseases of the joints, which laid the foundation of his surgical fame. From 1830, or thereabouts, when Astley Cooper's retirement left the leadership in surgery to him, Brodie's earnings amounted to £10,000 or £11,000 a year, a very large income when it is considered that it was mostly made up of fees for opinions, not for operations. Brodie was never much of an operator, and in his later years he handed over cases requiring the knife to younger men. He was held in great honour by his profession, and on the establishment of the General

Medical Council he was chosen to be its first President. In 1858 he was elected President of the Royal Society, being the first, and, until the election of Lord Lister, the only surgeon on whom that high dignity has been conferred. Towards the end of his life he became blind, and in 1862 he died.

The following is a list of the physicians and surgeons holding Court appointments at the present time:

ENGLAND.

*Physicians in Ordinary:* Sir William Jenner, Bart., G.C.B., M.D.; Sir Edward H. Sieveking, M.D.; Sir James Reid, K.C.B., M.D.

*Physicians Extraordinary:* Sir Richard Douglas Powell, Bart., M.D.; Sir Richard Quain, Bart., M.D.; Sir Alfred B. Garrod, M.D.; Samuel Wilks, M.D.

*Physician to the Household:* Thomas Barlow, M.D.

*Serjeant-Surgeon to Her Majesty:* Sir James Paget, Bart.

*Surgeons Extraordinary:* Lord Lister, Thomas Smith, Thomas Bryant.

*Surgeon to the Household:* Rickman J. Godlee.

*Surgeon Oculist in Ordinary:* George Lawson.

*Surgeon Apothecary to Her Majesty:* Sir Francis H. Laking.

*Apothecary to the Household:* Sir Francis H. Laking.

*Surgeon Dentist:* Sir Edwin Saunders.

*Dentist to the Household:* Edward T. Truman.

*Surgeons and Apothecaries to the Household at Windsor:* W. Fairbank, W. A. Ellison.

*Surgeons and Apothecaries to Her Majesty at Osborne:* William Hoffmeister, John B. Hoffmeister.

SCOTLAND.

*Physicians in Ordinary:* W. T. Gairdner, Sir T. Grainger Stewart.

*Surgeons in Ordinary:* Patrick Heron Watson, Alexander Ogston.

*Surgeon Oculist:* Douglas Argyll Robertson.

*Surgeon Dentist:* John Smith.

IRELAND.

*Physicians in Ordinary:* Sir John Banks, K.C.B., M.D.; William Moore, M.D.

*Surgeons in Ordinary:* Sir William Stokes; Sir Philip C. Smyly.

*Surgeon Oculist:* C. E. Fitzgerald.

OTHER PROMINENT FIGURES.

Sir Charles Hastings, to whose initiative the foundation of the British Medical Association was mainly due, was the son of the Rev. James Hastings, the rector of Martley, and was born at Ludlow in 1794. He began the study of medicine as pupil to a firm of practitioners at Stourport, and at the age of 18 he was elected house-surgeon to the County Hospital. In this position he was employed by Dr. Wilson Philip in making a series of experiments on the functions of the cerebral, spinal, and ganglionic systems of nerves, and on the effects of galvanism in producing the results of nervous energy. In 1815 young Hastings proceeded to the University of Edinburgh, where he devoted himself to microscopic observations with regard to the various doctrines of physiologists on the irritability of blood vessels. At that time he was the only student in the University who made use of the microscope in such investigations. After graduation he settled in Worcester, being appointed physician to the hospital of that city; he continued to discharge the duties of this office for nearly half a century. In 1820 he published a treatise on inflammation of mucous membrane of the lungs; in 1828 he founded a quarterly journal, entitled the *Midland Medical and Surgical Reporter:* the journal came to a premature end, owing to the failure of the publisher; and Hastings, who had long felt the necessity of some means for promoting union for both scientific and social objects among provincial medical men, conceived the idea of forming an association for the advancement of medical knowledge and the maintenance of the honour of the profession. The result was the Provincial Medical and Surgical Association, which, as related elsewhere, subsequently developed into the British Medical Association. In recognition of his scientific eminence and of his services to the profession, the honour of knighthood was conferred on Dr. Hastings in 1850.

Sir Charles Hastings employed the hours that he could snatch from his labours in practice and in the furtherance of the interests of the profession in the study of natural history. In 1834 he published illustrations of the natural history of Worcestershire, and subsequently of the Salt Springs in the same county. To him the Worcester Museum owes its existence. He died full of years and honours in 1866.

Thomas Addison was born at Longbenton, Newcastle-on-Tyne, in 1793. He studied medicine at Edinburgh, where he took his degree in 1815. After a time he came to London, and, becoming physician to the General Dispensary, worked at skin diseases with Bateman. In 1819 or 1820 he became associated with Guy's Hospital, to which he was appointed assistant physician in 1824. In 1837 he was elected full physician, and was appointed joint lecturer with Bright on medicine. He gave the results of his observation to the profession in monographs on the action of poisonous agents on the living body, on pneumonia, on the pathology of phthisis, on diseases of the liver, and many other subjects. His great achievement was the discovery of the disease which bears his name. He was a man of perfect integrity and great force of character, a conscientious physician, and a most painstaking investigator. "He never," says Dr. Wilks, "reasoned from a half-discovered fact, but would remain at the bedside with a dogged determination to track out the disease to its very source for a period which constantly wearied his class and his attendant friends. So severely did he tax his mind with the minutest details bearing upon the exact exposition of a case that he has been known to startle the 'sister' of the ward in the middle of the night by his presence; after going to bed with the case present in his mind some point of what he considered important detail in reference to it occurred to him, and he could not rest till he had cleared it up. He has been known, after seeing a patient within the radius of eight or ten miles, to have remembered on his near approach to London—thinking over the case on his way—that he had omitted some seemingly important inquiry, and to have posted back some miles for the purpose of satisfying his mind on the doubt which had occurred to it." The same writer adds: "Addison was of good height and well made, stood erect, with coat buttoned up very high, over which hung his guard and eyeglass. He wore a black stock with scarcely visible shirt collar, and this further elevated his head. He had a well-proportioned, good head, with dark hair and side whiskers, large bushy eyebrows, and smallish dark eyes, nose thick, as were also the lips which enclosed his firmly-knit mouth. His features were not refined, but belonged to a powerful mind, and showed no trace of any kind of sentiment. His penetrating glance seemed to look through you, and his whole demeanour was that of a leader of men, enhanced by his somewhat martial attitude." He died in 1860.

John Conolly was born at Market Rasen in Lincolnshire in 1794. In his youth he served for several years as an officer in the militia; in 1817 he began the study of medicine in the University of Edinburgh, where in due course he took his doctor's degree. In 1827 he was appointed Professor of the Practice of Medicine in London University, but finding the life of a London physician not to his taste, he resigned his post in 1831, and established himself in Warwick. The subject of insanity had long engaged his attention, and in 1830 he published *An Inquiry concerning the Indications of Insanity, with Suggestions for the Better Protection and Care of the Insane*, in which he proposed a complete scheme for the care of all lunatics by the State, provision being made for perfect publicity of procedure. In 1839 he was appointed Resident Physician to the Middlesex County Asylum at Hanwell, at that time the largest in England. Hanwell had the reputation of being one of the best managed asylums in the country, yet when Conolly took office, "instruments of mechanical restraint of one kind or other were so abundant in the wards as to amount when collected together to about 600, about one half of them being handcuffs and leglocks." Of 800 patients in the asylum when Conolly entered on his duties he found 40 under restraint. Within a few months he was able to report that "no form of strait waistcoat, no handcuffs, no leglocks, nor any contrivance confining the trunk or limbs or any of the muscles is now in use. The coercion chairs, about 40 in number, have been altogether removed

from the wards"—in fact, they had been cut up to make a floor for the carpenter's shop. After ten years, when the non-restraint system was firmly established in Hanwell, Conolly became Visiting Physician. In 1852 he resigned this appointment; he embodied the results of his lifework in a work entitled *The Treatment of the Insane without Mechanical Restraints*, published in 1856. After years of failing health he died in 1867. In Conolly scientific knowledge and literary culture were combined with the enthusiasm of humanity; and although he was not the first to introduce a milder and more rational treatment of insanity, it was undoubtedly mainly to his example and influence that the new system finally prevailed.

John Snow was born at York in 1815. After serving his apprenticeship to a surgeon at Newcastle-on-Tyne and spending some years as assistant to various country doctors, he came to London and studied medicine in the Windmill Street School and in Westminster Hospital. In 1838 he became a Member of the College of Surgeons, and he afterwards took the M.D. degree at the London University in 1843. His health was somewhat delicate, and he was very reserved and somewhat peculiar in manner. On the discovery of anæsthesia he devoted himself with ardour to researches on the subject, his experiments being often attended with considerable danger to himself. He acquired a great reputation as an administrator of anæsthetics, and he gave chloroform to the Queen at the birth of the late Duke of Albany and at that of Princess Henry of Battenberg. Snow also worked earnestly at the problem of the mode of conveyance of cholera, and to him is due not only the theory that cholera is communicated by the direct introduction of the poison excreted by the sick into the alimentary systems of the sound, but the demonstration of the connection between contamination of the water supply and outbreaks of the disease. He was a man of marked originality of mind and indefatigable in the search for truth, but so careless of gain that he never made more than £1,000 a year by his profession. He died in 1857, before the completion of his 42nd year.

Edward Cator Seaton was the son of a naval surgeon. He was born at Rochester. He studied medicine in Edinburgh, where he graduated in 1837. After a time he settled in practice in Chelsea. He was one of the original members of the Epidemiological Society, and had the principal share in preparing the report on small-pox and vaccination which led to the passing of the Compulsory Vaccination Act, 1853. In 1858, at the invitation of Mr. (now Sir) John Simon he entered the public service as a medical inspector under the Privy Council. His work was largely concerned with vaccination, and to his untiring efforts a remarkable improvement in that important part of public health administration was due. He was the author of numerous reports and writings on the subject, his *Handbook of Vaccination*, which was published in 1868, being still an indispensable work of reference on the subject. Dr. Seaton represented Great Britain in the Sanitary Conference held at Vienna in 1874. In 1876 he succeeded Mr. Simon as Medical Officer to the Local Government Board. Rather more than a year later his health began to fail, largely no doubt owing to overwork, and he died in 1878 at the age of 64.

Charles Clay, one of the pioneers of ovariotomy in this country, was born in 1801. He was apprenticed at an early age to one of the medical officers of the lying-in hospital of the newly-established school in Manchester, and before completing his apprenticeship he is said to have read more than 500 works on medicine and surgery, besides attending more than 500 confinements. He afterwards proceeded to Edinburgh, where he became a Licentiate of the Royal College of Surgeons in 1823. He settled in practice at Ashton-under-Lyne. In the midst of his professional engagements he found time to edit a newspaper. In 1839 he removed to Manchester, where he became senior medical officer and Lecturer on the Principles and Practice of Midwifery in St. Mary's Hospital. In 1823 he had seen Lizars unsuccessfully attempt the removal of a large tumour from a woman's abdomen. In 1842 he performed his first ovariotomy by the large incision. According to Mr. Lawson Tait, Dr. Clay continued to operate with great success for many years, until he had performed 395 operations with 101 deaths, his total mortality being therefore about 25 per cent. It must be remembered that Clay operated in the face of much adverse professional opinion. In 1866 the Royal College of Surgeons of England awarded him the Jacksonian Prize for a paper on Asphyxia or Restoration to Life from Apparent Death. He was the author of a handbook of *Obstetric Nursing*, and numerous other contributions to medical literature. He was also distinguished as an archæologist and a geologist. He died in 1893 at the age of 92.

Thomas Pridgin Teale the elder was born at Leeds on the first day of the present century. He studied medicine at the Leeds General Infirmary, at Edinburgh, at Guy's and St. Thomas's, where he was a pupil of Astley Cooper, Green, and other distinguished teachers; and in Paris, where he worked under Dupuytren and Lisfranc. He became a Member of the Royal College of Surgeons in 1823, and settled in Leeds. Almost at the outset of his career he came into note as the first provincial surgeon in England who had tied the subclavian artery for axillary aneurysm. Mr. Teale was one of the first lecturers in the Leeds school of medicine, and he was surgeon to the General Infirmary of that city for thirty-one years. He made many contributions of the greatest value to the science and art of surgery, that by which he is probably best known being his method of amputation by a long and a short rectangular flap. He was also the author of several works of great practical value, including a small volume on neuralgic diseases dependent upon irritation of the spinal marrow and ganglia of the sympathetic nerve, and a practical treatise on abdominal hernia. In 1858 he was appointed by the Queen a member of the General Medical Council on its establishment, and in 1862 he was elected a Fellow of the Royal Society. Mr. Teale also made many valuable contributions to zoological and geological literature. He died in 1867.

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We have no space to do more than mention the names of many other remarkable men who have graced Britannia's medical story during the Queen's reign. The names of Hodgkin, Romsey, Farr, Burrows, Liston, Copland, J. A. Symonds, Bence Jones, Spencer Cobbold, W. Carpenter, W. A. Guy, Alfred Swayne Taylor, Ranald Martin, and James McGrigor, among the dead; and of Joseph Fayrer, W. C. Maclean, Joseph Banks, Willoughby Wade, Grainger Stewart, W. T. Gairdner, Douglas Maclagan, and Henry Littlejohn among the living, are honourably known to the whole medical world.

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## THE MEDICAL CORPORATIONS IN ENGLAND

At the Queen's accession three great corporate bodies had supreme control over the medical education in London. They were the Royal College of Physicians, the Royal College of Surgeons, and the Society of Apothecaries. The University of London, indeed, existed as an examining body, but as yet without prestige. University College, the original London University, had caused so much alarm by its liberal tendencies that King's College was established to counteract what was then considered to be its pernicious influence. The establishment of the original University of London in Gower Street was the outcome partly of a real desire for improved methods of medical teaching and training: partly it was the result of a long simmering discontent about the exclusive attitude adopted by the College of Physicians and the College of Surgeons. Why, men asked, were the best teachers and often the largest practitioners excluded from the Fellowship of the College of Physicians? Why were such men as Grainger and Carpue never elected members of the Council of the College of Surgeons? To answer these questions it was ordered by the House of Commons, on Thursday, February 11th, 1834, "that a Select Committee be appointed to inquire into and consider of the Laws, Regulations, and Usages regarding the Education and Practice of the various branches of the Medical Profession in the United Kingdom." The Committee continued to meet at frequent intervals until August, when it had acquired a vast amount of valuable evidence which has given us an accurate knowledge of the state of the medical profession about the commencement of the reign.

## THE ROYAL COLLEGE OF PHYSICIANS.

By D'ARCY POWER, M.B., F.R.C.S., F.S.A.

The evidence given before the Select Committee on Medical Education showed that no one could practise physic in London or within a radius of seven miles of the city until he had enrolled himself a Member of the Body Corporate of the Royal College of Physicians. Any medical student could become a Licentiate, but the majority had been educated at Oxford or Cambridge.

### LICENTIATES.

The university student, when he had obtained his degree in medicine presented himself before the Censors' Board at the Royal College of Physicians to be examined as to his fitness to be admitted a Licentiate of the College. He was not required to bring forward any evidence of the means by which he had acquired his knowledge, though he was expected to have attended the medical practice of a hospital. Three examinations had to be passed before the Censors'



Sir Andrew Clark.
Late President of the Royal College of Physicians.

Board upon the principles and practice of medicine and upon the diseases of women and midwifery. The examination upon midwifery, however, stopped short of labour, for the College considered the act of delivery rather as "a manual operation not unlikely to throw discredit upon men who had been educated at the universities who had taken time to acquire improvement of their minds in literary and scientific acquirements." Each examination lasted about two hours, but there was no limit of time, and only very rarely was a candidate found to be below the standard required for a licence. A ballot was taken when the Censors' Board had been satisfied as to whether the successful graduate should be admitted a member of the College; if it proved favourable he was admitted a Licentiate of the College, with authority to practise physic in London and within seven miles of the city, his university degree in medicine having already given him a licence to practise in England and Wales. At the end of a year from the date of his admission he could be proposed as a candidate or an Inceptor candidate, which was the next step towards obtaining the full privileges of the College as a Fellow. The Licentiate was debarred from the practice of pharmacy for gain, the Inceptor candidate was further prohibited from midwifery. A duly qualified Licentiate of ten years' standing or one of seven years' standing if he was more than 36 years of age could be proposed as a Fellow. Neither Licentiate nor Fellow might consult except with a Licentiate or Fellow of the College under the penalty of a fine, and there was an unwritten rule that *cæteris paribus* he should help one of his own College rather than another.

Before anyone was admitted a Licentiate he was bound to surrender his membership of the Royal College of Surgeons or his licentiateship of the Society of Apothecaries, if he happened to belong to either of these bodies, and before he could be elected a Fellow he was obliged to disfranchise himself from any community, whether lay or clerical, that was not strictly medical. The fee for renunciation at the College of Surgeons was 10 guineas at this time, and Sir Charles Clark said that when he was invited to become a Licentiate of the College of Physicians his acceptance of the honour involved him in positive loss, for he had been accustomed to perform a variety of operations in surgery, which he afterwards considered it his duty to omit. This, however, must have been a personal matter, for the College of Physicians always maintained that they had a right to practise both physic and surgery, and for many years one of their Fellows held the office of Lumleian Professor of Surgery and Anatomy.

### EXTRA-LICENTIATES.

Besides the ordinary Licentiates of the College, there was a separate class known as the Extra-Licentiates, who had the authority of the College to practise anywhere in England or Wales, except in London or within its precinct of seven miles. The Extra-Licentiates were all elderly men who had been general practitioners, and were ambitious to become doctors. They often came up long distances from the country, and their examination, conducted by the senior body of the Elects, was concluded in a single day. It lasted but little more than an hour, and no one was known to have failed at it. The fee required for a licence of the College was £57.

### FELLOWS.

The Licentiates, however, were looked upon as mere appendages to the College, for the Fellows alone formed the governing body. It was only with the greatest difficulty that a Licentiate could become a Fellow unless he had been educated at Oxford or Cambridge. From 1771 to 1834 147 graduates were admitted Fellows, but only 19 Licentiates who had not received a training in an English university were advanced to the higher grade. This was legitimate grievance. The College exacted no religious test, but every graduate at Oxford and Cambridge was obliged to be a member of the Established Church, and Nonconformists were therefore practically debarred from becoming Fellows of the College of Physicians. This too was a grievance, for some of the hospitals required their physicians to be Fellows of the College, and Dissenters were thus prevented from holding places of honour and emolument to which perhaps they were otherwise well entitled. The force of public opinion gradually made itself felt in this matter, and when the College moved into Pall Mall in 1825 the President was empowered to nominate every year one Licentiate for election as a Fellow. Such a nomination did not necessarily imply election, for on several occasions the ballot proved unfavourable. From time to time the Licentiates endeavoured to force the hands of the Fellows, and this was notably the case when Dr. Sims and afterwards Dr. Wells were proposed as Fellows. Their defeat was so decided that it was felt to be useless to proceed further in the matter, for the Fellows held that no Licentiate had a right to be admitted as a Fellow.

### THE MONOPOLY OF THE COLLEGE.

It will be apparent from this sketch that in its highest grades the College of Physicians at this time was a very close body, practically consisting of those who had received a complete University training at Oxford or Cambridge. The system had very many disadvantages, but it produced a select class of highly educated and cultivated persons, of whom Sir Henry Halford was a type—men who were held in high estimation, and who occupied a position in society which the medical profession has not been able to obtain since the monopoly was destroyed. A position which compared most

favourably with that occupied by physicians in the other civilised countries of the world.

But the disadvantages far outweighed the advantages. The rank and file of the profession chose to become Licentiates of the Society of Apothecaries with freedom to practise throughout England and Wales, rather than seek a limited licence hampered with inconveniences and fettered with petty restrictions. A considerable number, however, still desired to practise physic in London without becoming apothecaries, and without obtaining a licence from the College of Physicians; these shielded themselves from the penalties which they incurred by calling themselves physician-accoucheurs.

### The Right of Search.

It was a sign of the times that the College still exercised its ancient right of search. This consisted in visiting, examining, and, if necessary, condemning the wares sold by the various apothecaries in and near London. The examination was not made at any stated periods, but at some time in the spring and autumn of every year the Censors summoned the wardens and the beadle of the Apothecaries' Company to meet them at 1 o'clock. The first visit was always paid to the Apothecaries' Hall that the visitors might see the best specimens of drugs that could be produced, and with these fresh in their minds they made a visitation of the various apothecaries' and druggists' shops. From twenty to thirty were examined in the course of each day, and the work was usually finished by 6 o'clock in the evening, so that the examination of each shop was necessarily brief. The warehouses of the wholesale druggists, as well as of the retail vendors, were liable to examination, but the manufactories and the sellers of patent medicines escaped. The usual method adopted was for the Commission to enter the shop and ask at random for various drugs. Rough tests were applied to ascertain their purity and effectiveness, and the sample in use was then rapidly compared with the whole amount in stock to prevent any possibility of fraud. If the drugs were found to be bad or adulterated they were destroyed there and then by the simple but effectual method of casting them out into the street. The beadle of the College accompanied the deputation, and took the name of each individual, with the observations made by the examiners upon the appearance of the drugs. These were afterwards entered in a book the property of the College of Physicians.

It is almost as difficult now for us to picture to ourselves the start of such a cavalcade as it is to imagine the start of the Canterbury Pilgrims. It will be still more difficult to our successors, for we still see occasionally the procession which accompanies "the beating of the bounds," a ceremony which cannot last very much longer; yet this visitation by the Physicians started from the hall which they still occupy in Pall Mall. The College had moved from the City in 1825, and Warwick Hall was for some time occupied by the Equitable Loan Company. When this failed the venerable hall became a butchers' market, and it is now in the ruined condition which we pictured[1] two years since. It is hemmed in on every side by tall buildings which entirely prevent any access.

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## THE ROYAL COLLEGE OF SURGEONS.

### The College at the Accession.

When Queen Victoria came to the throne, the "Royal College of Surgeons in London" had been exactly thirty-seven years in existence. Seventeen years before the accession a new charter substituted a President, Vice-Presidents, and Council, for the Master, Governors, and Court of Assistants. Great progress had already been made since the days of anarchy which prevailed amongst surgeons at the end of the last century. John Hunter's influence was slowly bearing fruit.

The College, born of the Corporation of Surgeons in the Old Bailey, set up its buildings in Lincoln's Inn Fields, where they yet remain. In 1837 the outward visible sign of the institution, the conspicuous edifice so familiar to us, was a year and a half old. Sir Charles Barry practically rebuilt it on the foundations of a smaller building erected in 1813. Fifteen years after the accession, the Eastern Museum was set up. It occupies a site famous in the history of the British drama. The Duke of York's company of players set up in 1666 at the Old Tennis Court, where the Eastern Museum now stands. This theatre was always known as "The Fields." Davenant drew crowded audiences, including Charles II., and his well-known associates, to the spot where sober scientists now study Sir William Flower's serial osteology of the mammalia. On December 5th, 1732, was played the last drama ever acted in "The Fields." "The Anatomist" was the prophetic title of that play! According to the late Dr. John Doran, it was eminently second rate. The theatre became a barrack, and lastly Copeland's China Repository, bought up in 1847 by the College. The old stage door through which Quin had so often passed was not pulled down till 1848. It stood near the famous back door to the museum, through which alone the ordinary Member was admitted till shortly before the Victorian era.

Until the Erasmus Wilson bequest in 1886 there were no further architectural changes of marked importance, but then the enriched College extended the premises. In 1888 the library, as well as the museum, was enlarged, and a fine series of laboratories constructed on the top of the buildings. Artistically speaking, the big round windows of the laboratories greatly damage the effect of the portico, but practically they are indispensable. The history of the museum and its curators will presently be considered.

### The College and the Members.

In the midst of strife about medical reform men are apt to forget what "the College" is. Properly it is the collection of men who practise surgery in England. Such is the correct signification of the term, subject to certain well-known limitations. Those who think that "the College" means the President and Council are in error, but their mistake is due to an idea that there is usurped authority. The surest way of perpetuating such an abuse is to forget the true meaning of the term. The remarkable struggles during the past ten years show that the collection of English surgeons, in other words "the College," is beginning to know itself. Most interesting is the manner in which the correct name for the body is often taken as signifiying the building. This mistake is in part due to a custom at the old universities, where a college is always understood to mean the edifice where the collegiates assemble, and are supposed to study. Our Fellows and Members had best remember, for reasons just made clear, that they, not the building, are the College. If a Member is informed that a celebrity is "in the Church of Rome," he does not think that the illustrious person alluded to lives inside St. Peter's or the Pro-Cathedral. Nor would he ask an American friend who talks of the attitude of the "Electoral Colleges" of the States towards bimetallism, whether those colleges were built like Greek temples or like Gothic cathedrals.

In 1837, the Members had no voice in the management of College affairs, but thanks to Sir William Lawrence, who in the present reign became as reactionary as the men whom he had formerly denounced, the authorities treated them with some consideration. They were no longer forbidden to enter the College buildings except by a back door in Portugal Street. Clift and Willis had been empowered to place at their disposal the resources of the library and museum. The day had passed since a solitary visitor, surprising the officials unused to see anybody in the museum, came to consult them about a wager on the question "whether a woodcock had no guts." Grave abuses remained, however. The examiners held their places for life and were often too old for their work. The oral examination was a disgraceful farce. Anecdotes abounded about candidates being passed by an examiner, half asleep, or "too much of a gentleman" or too good-natured to pluck anybody. Equally bad was the rejection of able young men who did not know the prejudices of some senile member of the Court. The famours "grinders" of the period easily learnt such fads, for though the examinations were held almost in secret, the examiners were well-known hospital surgeons. The single oral examination included anatomy, physiology, surgery, pathology or what was taken for that science in those days, and bits of other branches of learning. In short, the examination system was highly defective.

[1] British Medical Journal, vol. i, 1895, p. 1214, fig. 3.

### Government of the College at the Accession.

The constitution of the Council and of the Court of Examiners was antiquated, dating from the first Charter of 1800. At the accession, the 1822 Charter was in force; amongst other important provisions, was the changing of the officers' names, already noted. It likewise gave the College a pretty mace, which still looks very well on the table in the lecture room. It regulated the dissection of executed criminals; this cheerful provision was, of course, nullified when the Anatomy Act became law. The twenty-one life-members who made up the Council, included ten examiners, also elected for life. The President and Vice-Presidents were selected from the favoured ten, and if the serjeant-surgeons to the Sovereign and the surgeon-general to the forces were members of the Council those dignitaries had a preference—established by by-law—when there was a vacancy in the Court of Examiners. The evils of this arrangement are self-evident. The election for life system favoured senility, and a large proportion of the Court were too aged for their duties. The composition of the very limited Court practically compelled the Council to choose the President from out of the favoured ten, which was unfair for the remaining eleven, and accounted for the habit of re-electing a President at long intervals. No reforms, no improvements in medical education could come out of such a Council.

### The Fellowship and the Charter of 1843.

Thanks to Lawrence, Wakeley, and other able agitators in these early Victorian days, some reform was seen to be urgent. It was determined to form a privileged class of Members, who would hold a higher diploma. On September 14th, 1843, the Sovereign granted a new Charter. The institution was henceforward to be known as the Royal College of Surgeons of England. There was a change of name, so prominent a feature in the preceeding Charter. More important was the creation of "a new class of Members of the said College, to be called Fellows." Undoubtedly the Fellowship was an excellent innovation. It did much towards ensuring a proper training for young men who were fitted to become hospital surgeons, or thought themselves so. It was one of the chief agents in abolishing an odious system. In those days, an incapable youth, whose friends had paid a large sum for pupilage to a superannuated hospital surgeon, might be elected as the successor to his teacher, who had possibly taught him nothing. Again, thanks to Abernethy, Astley Cooper, Travers, and other celebrated surgeons of the beginning of the century, major operations were regularly performed with due publicity and precautions at the medical schools. As operating was becoming generalised, it was right that the training of hospital surgeons should be encouraged by a second and higher surgical diploma, now of high value.

The election of the Council by the Fellows, another provision of the Charter of 1843, was an advance in itself. Unfortunately, the Members did not succeed in making their views heard when the Fellowship was being devised. Before 1843, they were practically the College, and we have explained how, by definition and analogy, that idea was correct. The Charter of 1843 once made law, the Fellows became real governors, though with great limitations, only removed in part during the past ten years. The Members found, too late, that they were now mere licentiates, yet it was not till over forty years later that they raised their voices in earnest. By the terms of the Charter, the members of Council, increased to twenty-four, held their place for eight years only, under circumstances familiar to our readers. The life examinerships were most rightly abolished, as was the strange privilege which the serjeant-surgeons and surgeon-generals to the forces hitherto enjoyed—if an elderly dignitary thought it an enjoyment to be an examiner. The Court of Examiners was opened up to Fellows not members of the Council.

Within two years after 1843 nearly 600 Fellows were in possession of their rights. Young demonstrators and teachers eagerly worked for the coveted diploma, and soon it was required of all candidates for vacancies on the staff of medical schools. The system of personal voting had, however, great drawbacks, as it gave an unfair advantage to Fellows living within a few miles of Lincoln's Inn, especially to the large number of young men waiting about the metropolitan schools. Provincial Fellows and the smaller London schools were at a disadvantage.

### The Midwifery and the Dental Boards.

For many years after 1843 the history of the College was uneventful. The election of Fellows and examiners was modified by the Charter of 1852, and there was some sneering about a diploma "which boys could get by cramming and dotards by purchase." The same year saw an excellent innovation, the establishment of a Diploma of Licentiate in Midwifery. Thus the College recognised obstetrics as a science. The Board of Examiners in Midwifery extinguished itself in 1875, under circumstances which will presently be related. In 1859 the Dental Board was established; the L.D.S. proved altogether a popular degree. About fifteen years after it was founded, however, there was much agitation among London dentists, who considered that a purely dental education and examination was insufficient, and held that the dentist should be educated as a surgeon, and take, at least, the Membership of the College. The valuable Diploma in Public Health is a "conjoint" affair with the College of Physicians, and has only been nine years in existence.

### The Examinations: Disappearance of Apprenticeship.

The sixties saw the Court of Examiners insisting on a fuller curriculum. There was now a preliminary examination, and a not very searching medicine examination. The professional tests were divided into two parts—the famous "first College," or "anatomical," and the "second College," or "surgical" examinations (including medicine, unless the candidate had passed in that subject elsewhere), separated by an interval of two years. In accordance with the apprentice system, the student who had begun life under its provisions was eligible as a candidate for his "second" College one year after he had "passed his first." Yet, by the end of the sixties the apprentice was all but extinct.

In this manner disappeared the medical student of the old type in truth and fiction, especially in fiction. Scientific education must now be commenced early and before practical training. Many elderly doctors believe that the change was not entirely a blessing. Sir Spencer Wells used to declare to his juniors that the self-reliance which carried him to fame was gained in apprenticeship, and not at the schools. Bob Sawyer was undoubtedly, in many respects, an objectionable young man, but this was largely owing to the fact that he looked upon coming up to a metropolitan hospital as a little holiday. Giving up visits to remote cottages, through storm and rain, he now "saw life." On the other hand, it must be remembered that he had already begun life by seeing in a direct fashion the way by which he would gain his livelihood. He, as a rule, got through his studies fairly, notwithstanding half-in-half, "marrowskying," Evans's, and the theatres. To drink ale mixed with porter, and to talk of "poking a snipe' at the "Gar and Starter," did not necessarily ruin the student's fitness for his profession; indeed, these peculiarities have distinguished in their youth more than one of those gentlemen known to our old friend the *Medical Directory* as "Members of the Profession who have received Titular Distinction." The student of the old type at least dissected and auscultated—in short, he received a tincture of science, which counteracted much of the empiricism to which the uneducated "practical" man inclines. He managed to pass his hall and his college, and then started in practice. What that meant he had learnt before ever he came to town. His little eccentricities—magnified by Dickens, Thackeray, and Albert Smith—were left behind in the vast metropolis. The average student of to-day is a gentlemanly young man, who begins life by scientific training at a hospital. Unless he be the son of a doctor, he will know nothing of practice until he sets up as a practitioner after five years of hospital work. That kind of education too often spoils him by making him wish to be a hospital physician or surgeon. He begins practice knowing more about aneurysms and major operations than about prescribing and the treatment of minor maladies.

### Creation of the Anatomy Board: Fate of the Midwifery Board.

In the midst of the seventies the examination system was reformed by the creation of a Board, which undertook the

examination in Anatomy and Physiology. This allowed of younger examiners more conversant with those sciences. A curious episode occurred at this not very remote epoch, the more remarkable when we remember how powerful the "New Woman" has become. The Diploma of Licentiate in Midwifery was considerably valued in those days. Women sought admission, but the Board, which consisted of Dr. Robert Barnes, Dr. Arthur Farre, and Sir W. Priestley, strongly objected to admit "imperfectly qualified persons" to the right of being placed on the *Medical Register*, a right which the "L.M." would have given them. These gentlemen resigned, and no fit persons could be induced to fill the vacancy. For twelve years the Board of Examiners in Midwifery still existed, but in the pages of the College Calendar only, and it required a clause in the 1888 Charter to abolish it. In 1884 when a more stormy period of the College history had set in, an examination in elementary Anatomy was instituted. The aim was to examine students at the end of the first year, so as to check their tendency to waste that important epoch of their lives. No doubt the College was right to encourage the study of anatomy. There are many, however, who think that the chief duty of the College is to see that British subjects and foreigners in these realms can make use of the service of surgeons, who really know something of surgery. The duty of making sure that the student works is a responsibility which should be borne by the medical schools.

### The Beginning of Agitation.

Before the middle of the Eighties the united action of the Fellows and Members brought about a change in College affairs, which hitherto had been relatively peaceful. We have dwelt on the precise meaning of the term "The College of Surgeons," and indicated the nature of the ideas and grievances peculiar to those who hold its diplomas. They now became manifest as the Fellows and Members took action. An era of excitement set in, but though irritation was shown on both sides, little real ill-feeling was aroused and salutary reform was the net result of the agitation to which a few paragraphs will now be devoted.

### The Association of Fellows: The Meetings in the College.

About 1880 agitation for further progress in College affairs became very active, and in 1882 the first Association of Fellows was founded. It pressed on the Council the necessity of considering sundry reforms, and owing partly to its direct action and also to the general feeling which had called it into existence, the first meeting of Fellows and Members was held in the College on March 24th, 1884. This remarkable conclave showed that there was much need amongst the Fellows and Members for learning how to combine and also how to master the intricacies of procedure. Thus some persons present could not understand why people wanted "pedantic amendments," when an original resolution was good enough for everybody. The President, Mr. Marshall, had to explain that "the previous question" and the subject just discussed mean two different things in procedure. The President and most of the Council undoubtedly viewed the new departure with little favour, the assembly itself was unprepared to argue with the more experienced Council. Nevertheless, March 24th, 1884, was a memorable day, and, henceforth, these meetings have become an established institution. Very soon, as in all popular movements, some differences developed amidst the agitators. The Members feared that the despotism of the Council might be replaced by a usurpation of the Fellows, and the question of changes in the election of the President especially brought this source of difference forward. More will be said about the matter when we come to speak of the Presidents. One result of the storm that gathered over Lincoln's Inn in 1884 was the re-election of a very strong man, Sir W. Savory, as President for several years. The practice of simply electing the Senior Vice-President to replace the President at the end of each College year now ceased, and the new arrangement undoubtably woke up the whole Council, and inspired the individual members with new energy. One member suffered, the great anatomist and surgeon, John Wood, lost his chance of succeeding Savory through impaired health, which was considered to unfit him for Presidential duties under the new order of things.

The old Association of Fellows, chiefly made up of provincials, dissolved, and in June, 1884, the present association was formed. The late Mr. Pollock and Mr. Rivington, as well as Mr. Timothy Holmes, and others still amongst us, were very active in developing it. Their recommendations, as well as many independent resolutions passed at the general meetings, were treated rather lightly by the Council, who referred the questions to sub-committees. At the meeting in October, 1885, the Council supplied the audience for the first time with a printed report of its transactions for the past medical year. This was a new feature, and a gain to progress, for which both sides could claim credit. The progressive party, no doubt, may occasionally show undue haste. Before expressing irritation about the action of the Council in refusing any request, the progressives must remember that the Charter may not empower the Council to grant it. Anyone who desires to join in the struggle in earnest must do as the Editor of the JOURNAL and Mr. Tweedy have done—that is, they must master the charters. Otherwise they will simply invite rebuffs for their cause.

### The Association of Members: the Forbidden Meeting.

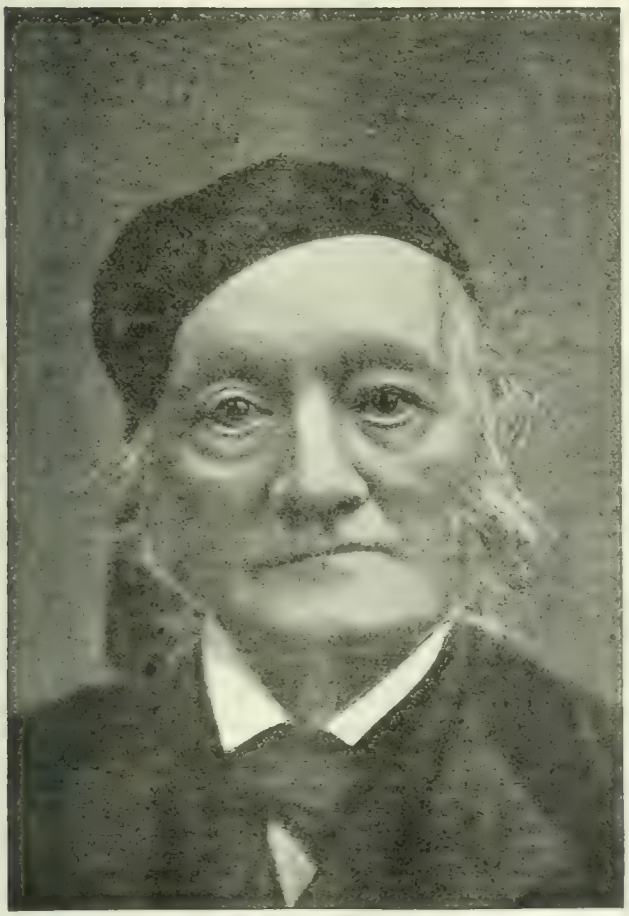
The desire of the Members to strengthen their own interests led, in 1884, to the formation of the old "Association of Members"—for, like the corresponding confederation of the Fellows, it has been reconstructed. This association will be remembered on account of a dramatic incident. It displayed much energy in opposing the supplemental Charter which was granted, after all, in 1888. This legal instrument was rendered necessary by the Erasmus Wilson bequest. The College was only empowered, before 1888, to hold property of the yearly value of £2,000; now it obtained power to hold lands to the yearly value of £20,000. The supplemental Charter further allowed Fellows to use voting papers at the annual elections, and made any Fellow of ten years' standing eligible for the Council. The Association of Members strove before the Charter was granted to insist on the admission of several other clauses, making the annual meeting statutory, extending the franchise to Members, and even making a limited number of Members eligible for the Council. The Lord President of the Privy Council was petitioned, but the Charter was granted after all.

The Members' Association was deeply irritated, and undertook to test the right of meeting. The Council was called upon to summon a meeting of Fellows and Members. This was refused, and the secretaries of the Members' Association advertised a meeting at the College on February 28th, 1889, an action, however, which is contrary to a by-law of the College, according to which "no meeting or assemblage of Fellows or Members of the College shall be held in the hall or Council House of the College, or in any of its appurtenances, unless convened by or under the authority of the President and Council." The secretary of the College, on the direction of the Council, replied that such illegal meeting would not be allowed, and that the College would be closed on the announced day. Accordingly, on the afternoon of February 28th, a strange spectacle was witnessed in Lincoln's Inn Fields. A crowd of Members stood in front of the closed gates of the College, which was packed with police. The Members adjourned to the Holborn Town Hall, where they held their meeting. Legal proceedings were determined upon, hence the celebrated case of "Steele v. Savory." Judgment was ultimately, in January, 1892, given against the Members' Association, which then broke up, but the present "Society of Members of the Royal College of Surgeons in England" was soon afterwards constituted, and in 1894 petitioned the Home Secretary against certain proposals of the Council to strengthen the penal clauses of the by-laws. On this occasion the Members were successful. Mr. Asquith pointed out that the changes desired by the College Council would make it legally more powerful than even the General Medical Council, and leave any action by the College Council against the Members wholly uncontrollable by any court of law. The Society of Members still exists, and is very active in endeavouring to obtain, not only extension of the franchise to Members, but also their admission to seats in the Council. In fact, they interpret their corporation after the literal fashion given in the earlier part of this sketch of the College in the reign of Queen Victoria.

When we remember the tendencies of the age we feel sure that the Members will ultimately obtain their object.

### ELECTION OF COUNCIL: THE VOTING PAPERS.

In July, 1889, whilst these disputes were so active, a great reform was effected in the system of election of members of Council. The electors, the Fellows of the College, gained, by the Charter of 1888, the right of voting by papers, which, being sent from Lincoln's Inn, are marked by the electors, sent back under cover, and opened, with the other balloting-papers marked by voters in person, on the day of election. At first, many were under the impression that the new arrangement was proxy-voting, and, as that system involved trouble, they failed to avail themselves of the papers. No fairer method could be devised than the use of voting papers. Since every Fellow has the right to vote, the old arrangement, which only allowed voting in person, was most unfair. It profoundly



Sir Richard Owen.

irritated provincial Members, and gave unnecessary trouble to Londoners who might not be able to go to Lincoln's Inn on the afternoon of the elections. The electors soon availed themselves of the privilege. Ten years ago, in July, 1887, only 199 Fellows voted. In 1889, the first year of voting-papers, 600 voted—424 by papers. As 308 of these papers were from the country, the fairness of the arrangement became evident, and it was also seen that 116 Londoners could save a great deal of their valuable time without losing their votes. In July, 1896, the votes amounted to 620; the number of voting-papers were 572; so that only 48 Fellows voted in person. No doubt the election day, on which begins the annual show of specimens added to the museum, has lost much of its picturesqueness: but all who take a real interest in the show come to see the specimens, whilst voters are saved from great and needless inconvenience.

### THE PRESIDENTS.

At the actual date of Her Majesty's accession, the chair was worthily held by Sir Astley Cooper, who was succeeded, in July, 1837, by Sir Anthony Carlisle. Sixteen years had elapsed since the last Master, Thompson Forster, had given place to the first President, Sir Everard Home. Owing to the constitution of the Council, already explained, Presidents, always members of the Board of Examiners, who held office for life, were often re-elected at long intervals. Astley Cooper had already been President in 1827. Honoratus Leigh Thomas, Robert Keate, Vincent, Guthrie, Anthony White, and J. Goldwyer Andrews had all held the chair before, and were all re-elected after 1837. Lawrence, Travers, Stanley, Green, Moncrieff Arnott, Flint South, Cæsar Hawkins, and Luke, elected Presidents for the first time after the year of accession, all had a second term. With the second presidency of Mr. Luke, of hernial fame, in 1862, the practice came



Sir John Erichsen.

to an end. This resulted from the rejection of Sir Benjamin Brodie, who had ceased to be on the Court, owing to the regulations of 1843. The absurdity of passing over a great man, who happened to be still your g enough for presidential duties, became evident.

From 1862 to 1885 no former President was ever re-elected. The abolition of the old practice was right, as the second-term President was very often too old for his work. On the other hand, towards the end of the twenty-three years during which the principle of no re-election to the chair prevailed, another evil, the tendency to a mere rotation into the Presidency, the senior Vice-President being the next President, became suspected, though the Presidents during that era were mostly representative surgeons. In 1886 the need of a strong man, well versed in procedure and the duties of a chairman, was keenly felt, and the Council did wisely in re-electing Sir William Savory. He held the chair for four years in succession. No doubt, it is very good that an individual member of

Council should feel that the chair is a prize not to be won with ease; it stimulates him to attend to his duties, and obliges him to find out if he can really master the rules of procedure, without which a man has no right to be a Councillor, much less a President. Unfortunately, men of undoubted ability often fail to acquire the elements of the art in question; hence, a great deal of sifting of Councillors is needed before a good President can be detected, Savory has beaten the record. Guthrie only served three times as President, and then, according to the old custom above noted, never in successive years. The more advanced party amongst the Fellows and Members desire that the President be elected in future by the Fellows (and by the Members also, if possible), direct. The idea is liberal enough, but has manifest objections. The evil of mere rotation has been obviated by pressure from without, which forced on the Council the election of a strong man. But it is only the Council itself that can fairly judge to what degree one of its own members is fitted for the chair. It can see how far he is conciliatory; how far ready to oppose that to which he objects with vigour, and yet with tact; and how far he understands the duties of a chairman. A President elected in ignorance of his powers might prove as incapable as a man who succeeds to the chair by mere seniority. The same evil would be prominent in both cases; the Council would be too much controlled by permanent officials, who would themselves be in no way to blame for the abuse.

Since Savory, Mr. Bryant has held the chair for three years, Mr. Hulke elected a second time, died during his second year of office, in 1894, to be replaced by Mr. Christopher Heath, who afterwards held the chair for a full year. Sir William Mac Cormac, the present President, succeeded him. Thus the late Mr. Hulke is the sole President in the present reign who died in office. Mr. Headington died President of the College seven years before the accession. No other President has died in office.

### The Conservators.

In 1837, William Clift was still in office. An old assistant of John Hunter himself, he had helped that great man to prepare his own collection, the "Hunterian Museum," properly so called, and had been appointed in 1800 to the museum of the Corporation, which, in the same year, became the Royal College of Surgeons in London. Clift remained Conservator till his death in 1842. He scientifically and physically saved the Hunterian collection and knew how to blend it with the vast store of other specimens which gradually came to the museum. Knowing the substance of John Hunter's notes, he counteracted much of the harm caused by Sir Everard Home, who had thought good, for reasons never clearly explained, to destroy Hunter's manuscripts. He was succeeded by that great scientist, Sir Richard Owen, who had been his assistant since 1827. Owen's standard work was founded on his labours in the museum. In 1852, he was promoted to the British Museum and was succeeded by J. T. Quekett, who remained Conservator till 1861. This scientist has been somewhat under-rated, and he was greatly handicapped by ill-health. His reputation rested on his skill as a microscopist. When we look at the specimens in the microscopical collection at the College, we regret that he did not live later. The methods of preparation, known fifty years ago, did not favour pathological research. Now that section-cutting and staining have reached so high a degree of perfection, we must feel that Quekett would, in these days, have attained a yet higher fame. Those who would seek his monument can contemplate the Quekett Microscopical Club, and bear in mind that he was also one of the original members of the Royal Microscopical Society, its secretary for nineteen years and its president in 1860. He gave a stimulus to microscopical research which influenced younger men more able and more purely medical than himself, encouraged microscopy in medical schools, and showed amateurs how to use their microscopes more to their own instruction than heretofore.

In December, 1861, Sir William Flower, previously assistant-surgeon to the Middlesex Hospital, was elected Conservator, and held the appointment until 1884. This distinguished scientist proved especially fitted for the post. No doubt the museum had already gained a reputation. In 1843, our contemporary the *Lancet*, then a most unsparing critic, admitted that it was "a rich mine of professional instruction" and characteristically added, that "with this exception, there is not one public, ample unadulterated source of information for the medical profession in the kingdom." Under previous curators, important work was done by Sir James Paget, Drs. Vandyke Carter, Sylvester, Murie and others. Flower, however, brought museum management to a high pitch of perfection. Independently of his social qualities and the special scientific work which he did so well in his museum, he showed admirable skill in organisation. Students and assistants, as well as pure volunteers and amateurs were actively encouraged by him. Amongst the duly appointed students, who were termed "assistants in the museum," was Professor Bell Pettigrew, the first dissector of modern high-class permanent anatomical preparations. His work, demonstrating the muscular apparatus of the heart, stomach and bladder, stands in the museum as a monument. Flower and Pettigrew developed the talents of the prosector to the College, Mr. Pearson, a true artist in dissection. Under the Conservator's directions, he prepared the fine series of spirit preparations illustrating human and comparative anatomy, which is so much admired by all visitors to the museum. The late Lord Tennyson, hardly an enthusiast about modern science, remarked, when paying a visit to the museum, twenty years ago, that he had never imagined how so grim a subject as anatomy could be made so beautiful.

Among the best of Flowers's innovations, was the issue of annual supplements to the catalogues of the different series, and the institution of an annual show of new specimens. This exhibition is closely associated with the annual Council elections. Other curators have followed the example set at Lincoln's Inn Fields, so that catalogues are constantly kept up to date.

In 1881, the Conservator having drawn attention to the need of such a change, a special official, instead of the former assistant in the museum, was appointed to superintend the pathological department. To avoid confusion, he is known as the pathological curator. The first gentleman to hold that office was Mr. F. S. Eve, now surgeon to the London Hospital, he was succeeded in 1890 by Mr. Targett, who resigns this month, to be succeeded by Mr. Samuel Shattock.

In 1884 Sir William Flower left the College for the Natural History Department of the British Museum. He was succeeded at Lincoln's Inn Fields by that distinguished scientist, Professor Charles Stewart, who has maintained his office and the museum at its highest standard. His series illustrating the remarkable uses to which Nature applies the form and colour of certain of the lower animals reveal a poetry in science which the late Laureate would have doubtless preferred to the poetry which he discovered, not without surprise, in Scarpa's triangle and the popliteal space!

### The Invasion of the Antivivisectionists.

We have noted how the Erasmus Wilson legacy allowed of a great enlargement of the College buildings in 1888. While the changes were being projected a curious incident, quite in the spirit of the times, took place. In the spring of 1887 the leading scientists of this country signed a circular in favour of the establishment of an institution for anatomical and physiological research, to be supported by the Erasmus Wilson legacy. The antivivisectionists grew alarmed, and on March 23rd a deputation, headed by Earl Stanhope, was received by the President, who, unfortunately, had not consulted the Council. The President admitted, however, that he had no power to move in the matter, agreed to lay the memorials which the deputation presented before the Council, and allayed the fears of his visitors by assuring them that he was not aware that the Council entertained any idea of establishing an institution of the kind which the scientists desired. The matter then dropped. Just two years after the College let the antivivisectionists in, it succeeded in keeping the Members out!

### The College Department.

At the accession Mr. Edmund Belfour was secretary to the College. He had been appointed in 1811, and held that appointment for fifty-four years, a phenomenally long period, and all the more remarkable when we remember the changes in which he took an official part.

In 1865, after six years experience as assistant, Mr. Edward Trimmer was appointed secretary—a gentleman well known in the profession. Of his courtesy most of us can speak, and his knowledge of the charters, procedure and standing orders has proved invaluable to the Council and to junior officers working under him. Amongst them were Mr. C. S. Loch, now secretary to the Charity Organisation Society, and Mr. Frederick Hallett, at present secretary to the Conjoint Board at the Examination Hall, Victoria Embankment. Mr. Cowell is the present assistant secretary to the College. Of the genial and venerable Mr. T. M. Stone, now long passed from us, but once so familiar in the office, we shall say more presently.

### The Library.

Called into life by Hunter, helped a little by Gunning and Sir Charles Blicke early in the century, the library had been more substantially assisted by a grant of over £5,000 just ten years before the accession. In February, 1837, the library in Sir Charles Barry's new building was opened. The books profited even more than the specimens by the reconstruction of the College edifices. The first building suffered much, it was officially reported, from dry rot, not a frivolous expression reflecting on Hunterian orations and the contents of the library shelves, but a term applied to a well-known destructive change in timber. Two years before the accession Sir Anthony Carlisle gave evidence before a committee appointed by the Lords of the Admiralty to enquire into Kyan's patent for the prevention of dry rot. The chemical employed for suspected timber was corrosive sublimate. Thus in 1837 a compound now so generally used in surgery was then used for the shelves and floors of libraries. Sir Anthony seems to have volunteered his evidence out of regard to the College buildings and for the interest which he therefore took in the patent. Speaking in its favour, he declared before the Committee that he had chewed a mouthful of sawdust from timber treated with Kyan's patent, and could distinctly trace the sublimate. Thus there was one man at least attentive to the interests of the library. There was yet another, the Librarian, Dr. Robert Willis, the first ever appointed. He had at the Queen's accession already held that office for nearly nine years. Five years later he resigned, and went into practice at Barnes. He was a very learned man, and after his retirement about thirty years ago returned to literature, pure science, and (like Faust) *leider auch Theologie*. His *Servetus and Calvin* is doubtless a remarkable work: it is curious, however, that it was published shortly after Strauss had described Servetus as an excellent physician, whose only fault was that he would not leave theology alone. Willis, shortly before his death, wrote his best work, *William Harvey*, (1878). He was succeeded at the library in 1845 by Mr. Thomas Madden Stone, never formally appointed. Stone was not precisely fitted for the post, and in 1853 retired. He worked till his retirement, about fifteen years since, as clerk in the secretarial office, where he was so well-known as the venerable, white-haired, white-bearded, "Tommy Stone," famous for his extreme geniality to students, and for the fine collection of autographs and portraits which he presented to the museum.

Mr. Chatto, appointed in 1853, did not resign till 1887, holding the office thirty-four years. He had been in practice in Lincolnshire before his appointment, and therefore, though inferior as a scholar to the learned Dr. Willis, who was undoubtedly the founder of the library as a collection of books which could be got at by those who applied for them, Chatto understood how to recommend the selection of new works to the Library Committee. He could distinguish science and art from quackery. He was long troubled with ill-health, which made him look gloomy and affected his temper, but he was one of the most vigilant of librarians in guarding the collection from damage and losses. Woe to the reader caught making dog's-ears or leaving a book wide open with its covers upwards and its pages against the table! The Council and Museum authorities applied to Chatto with fear and trembling when they desired to take a book out of the library for use in other parts of the same building, and he would hover about the room to which it was taken, never at ease till it was returned. Chatto was, indeed, a good shepherd to his literary flock. In 1887 he was succeeded by Mr. James Bläke Bailey, then at the Royal Medical and Chirurgical Society, a professional librarian of the best kind in every sense. He at once set to work on a new catalogue of the most approved and useful type. On Bailey devolved the task and toil of rearranging the collection after the enlargement of the library building a year after his appointment. His melancholy death last April remains fresh in our memories. Only twelve months ago it seemed as if many years of useful work lay before him; now his loss is felt as very serious to the interests of the Library, which he was so well-fitted to superintend. That library now consists of over fifty thousand volumes.

### Lecturers.

In conclusion, a number of Lectureships have been instituted since the accession. Sir Benjamin Brodie had the honour of delivering the Hunterian Oration in 1837. Mr. Stanley was at that date Arris and Gale Professor of Human Anatomy and Surgery. The Chair of Anatomy, Physiology, and Surgery had been abolished in 1835, Mr. Earle being the last lecturer; no further change came till thirty years after the accession, when a Hunterian Professorship of Surgery and Pathology was instituted. Mr. Le Gros Clark held the chair first, having been the last Arris and Gale Professor under the old terms in 1867. The change was due to the importance of including pathology amongst the subjects to be delivered by surgical teachers, whilst anatomy was relegated to pure scientists, or surgeons famed in the field of pure science, human anatomy being now a vain thing without morphology. In 1837 the Chair of Comparative Anatomy and Physiology was held by Sir Richard Owen. Great names in science—Busk, Savory, Gulliver, Huxley, and W. K. Parker, all departed, as well as those of the last and present Conservator, will be found in the list of Owen's successors to the chair. Huxley had a wonderful gift of making abstruse morphological questions clear. The learned and amiable Professor Parker, on the other hand, delivered lectures on the embryology of the cranium, marvels of analytical labour, invaluable in the archives of science, but far too deep to be comprehensible to a non-specialist audience.

Turning to complete innovations since the accession, we may first dispose of the remodelled Arris and Gale Professorship, which in 1868 became the Arris and Gale Lectureship in Anatomy and Physiology. Mr. Hulke was the first in this chair, and was succeeded by a line of well-known surgeons famed in science and professional scientists—Humphry, Turner, Gerald Yeo, Power, Schäfer, Wooldridge, and others.

In 1853 Mr. Quekett became Professor of Histology, but had no successors, whilst Erasmus Wilson was the sole Professor of Dermatology, beginning in 1869 and continuing for several years. Unfortunately the value of this course was not very high, as the illustrious professor was too elderly to understand dermatological discoveries which had developed since he had passed the prime of life. The practice of selecting relatively young men, at the present time, to fill the chairs has great advantages. Through Wilson's munificence a professorship bearing his name was established in 1880, Mr. Butlin and Mr. Treves inaugurating the line of men who have held the chair by delivering the first course, but it was replaced by a lectureship in 1881.

Two remarkable lectureships were founded in the eighties. In 1866 died Mr. William Bradshaw, F.R.C.S., who practised at Andover and Reading, a man who loved to study literature and science in private. His widow survived him fourteen years, and being desirous of testifying her gratitude for the happiness which she owed to him bequeathed £1,000 to the College of Surgeons and as much to the sister College in London, on the condition that each should institute a lecture, to be given annually and to bear her husband's name. The lecture was to be on some subject connected with medicine or surgery. The eloquent voice of Sir James Paget was the first to be heard in the new Chair. His Bradshaw Lecture was delivered on December 13th, 1882, and he chose as his subject "Some Rare and New Diseases." The same great surgeon, just five years later, was the first Morton Lecturer on Cancer and Cancerous Diseases. This lectureship was instituted in 1887 by Mr. J. T. Morton of Caterham Valley with a view to encourage the discovery of a remedy for cancer. Mr. Morton gave the sum of £94 10s., which was divided among the first three lecturers. After an interval

three more lectures were delivered, under the same arrangement, but since 1893 no more have been given.

No doubt in 1837 the lectureships were deficient in quantity, but not in quality. At present, it seems agreed that there are enough "chairs" at the College. A fair number of lectures by distinguished persons are delivered annually, whilst promising younger men are allowed a chance of transferring the benefits of their oratory and teaching powers from their hospital pupils to a higher sphere. At the College they can teach their elders, who often both require and desire to be taught, and can learn better from lectures than from new books. As to munificent persons who bequeath money for the advancement of science, it is evident that there are better ways of obtaining their noble object than by founding lectureships and prizes for essays.

## THE SOCIETY OF APOTHECARIES.

The Society of Apothecaries was really the official guardian of the medical profession. The Apothecaries Act of 1815 ordained that no person should practise as an apothecary in any part of England or Wales without being properly qualified; that the qualification should be ascertained by examination, and that no person should be admitted to examination unless he had served an apprenticeship to an apothecary of not less than five years' duration, and could bring certificates of a sufficient medical education and of good moral conduct. The Act did not affect those who carried on the business of a chemist or druggist, and the licensing powers of the Universities of Oxford and Cambridge, of the Royal College of Physicians and of the Royal College of Surgeons were especially exempted from its provisions. The Society of Apothecaries executed its difficult trust with judgment, and a regular system of medical education was soon developed.

The ordinary medical student who wished to become a Licentiate of the Society of Apothecaries presented himself on a given day at the Apothecaries' Hall with such of his friends as chose to accompany him, his future master being in attendance. One of the wardens then took him aside, and examined him for a quarter of an hour or twenty minutes to ascertain the amount of his preliminary education, testing him more particularly upon the *Selecta e profanis*, which was a selection of passages from classical authors. The examiner being satisfied, the indenture was drawn out and the apprenticeship fee—usually 150 guineas—having been paid, the indenture was signed in the presence of the Master and Wardens of the Company. The apprentices of the Hall had the advantage of attending lectures upon materia medica, upon botany, and of going with Mr. Wheeler, the lecturer upon botany, in his celebrated herborising expeditions. Many of the apprentices, however, came up from the country, where they had been bound to general practitioners for a less fee, and these were admitted to the botanical lectures and to the garden at Chelsea, but they were not allowed to go to the herborisings.

The hospital schools taught especially with a view to the examinations at the Apothecaries' Hall, the fees for the lectures ranging from £67 12s. at University College to £40 at the Westminster Hospital. After an apprenticeship of five years, of which at least two years were to be spent in attendance upon lectures, the student might present himself for examination to test his fitness to have the licence. The examination was conducted in private by a court of twelve governors divided into four sections, three members sitting at each table. One examiner conducted the examination in chief with occasional assistance from his colleagues. So long as the candidate acquitted himself well no change took place, but if his answers were unsatisfactory a majority of the court were asked to listen to his examination, and this probably ended in his being referred to his professional studies for a further period of six months. By this means a very fair examination was secured of no great difficulty, the proportion of rejections being about one in eight. In addition to the other parts of his examination, each candidate was required to read three or four manuscript prescriptions, giving the terminations of the Latin words and then translating them into English.

Like the College of Physicians, the Society of Apothecaries did not examine its candidates in midwifery. It desired to do so, but upon taking the opinion of counsel it was decided that it had no power, for though the Society might ask questions no student could be compelled to answer. The delivery of a woman was held to be a surgical operation, and the Society had no authority to examine upon surgery.

The examination passed, the student became an apothecary, that is to say, he was a person who attended an individual afflicted with an internal disease not requiring external or manual aid. He prescribed for the cure of the disease and supplied the medicine. The bad point in connection with the working of the Apothecaries Act was that a Licentiate was paid for the medicine which he supplied and not for the advice or for the time which he devoted to his patient. Every apothecary was subject, therefore, to the imputation that the quantity of medicine which he supplied had less reference to the wants of the patient than to his own pecuniary advantage. From this system of payment, too, arose the custom of sending out black draughts in packets of a dozen at a time, each draught with a box containing a blue pill upon the top.

Unqualified practitioners were very numerous and very active at this time in spite of the strenuous efforts made by the Society of Apothecaries to bring them within reach of the law; but the task proved so invidious and the loopholes for escape were so numerous that, with every good intention, the Society became disheartened.

## MEDICINE AT OXFORD,

By D'ARCY POWER, M.A., M.B.Oxon.

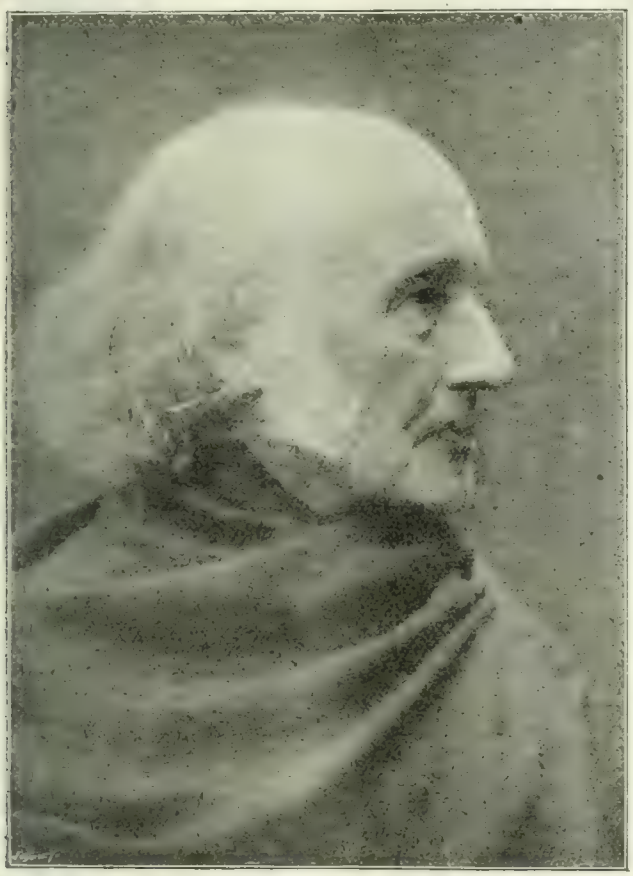
The traditions of medical teaching at Oxford are glorious, but they are so peculiar as to be understood with difficulty by those who think that examination and worldly success are the sole tests of merit. The glory of the school has always been its breadth of thought, founded on facts and illuminated by sidelights of wide general knowledge. For many years anatomy was studied with peculiar assiduity. Harvey taught Scarborough and Willis, Willis had as his pupil Lower, and when he lectured on anatomy (Sir) Christopher Wren was his demonstrator. Wren drew the plates for Willis's work on the anatomy of the brain, and he was the first to perform a series of important experiments on living animals which led directly to the practice of transfusion. The pupils of Rolleston are not likely to forget how the Harveian method thus impressed upon the Oxford school renewed its youth under the rule of their master.

### MEDICAL GRADUATION SIXTY YEARS AGO.

When the Queen came to the throne the system of medical education differed but little from that pursued in mediæval times. Then, as now, the student spent three or four years in preparing himself for the study of medicine by a sound general education. Then, as now, he left the university where he had obtained his degree in arts, to seek in London, Edinburgh, or some foreign town, those facilities for learning his profession which have only lately been granted him in his Alma Mater. Here, however, all resemblance ceases. At the time of the Queen's accession, no graduate could become a candidate for the degree of Bachelor of Physic until he had been a Master of Arts for at least a year. At the expiration of this time, he called upon the Regius Professor of Medicine and told him of the manner in which his student days had been spent. No certificates of study were required of him. His bare word, given as a gentleman, was rightly held to be sufficient evidence that he had done his best to perfect himself in the knowledge of his profession. It was only in the rarest instances that the Professor felt himself called upon to obtain the collateral testimony of other persons that such a one had been satisfactorily employed in the study of his profession. Nor was it tedious or difficult to obtain such evidence or to trace the course of each individual. From 1822 to April, 1834, only twenty-eight persons were admitted to the degree of B.M., and during the same period but fifteen graduated as D.M., of whom three were incorporated from Trinity College, Dublin.

The candidate for the degree of Bachelor of Physic was required to hold two formal disputations upon subjects previously approved by the Regius Professor. The disputations were held in the schools on two different days. During the first

day, the candidate acted as a respondent, and during the second day as an opponent. When it was convenient, therefore, two candidates agreed to take their degree together. The statutes provided that the Professor of Medicine, or his deputy, should attend these acts during which the candidate might be submitted to interrogation. But it sometimes happened that the theses were maintained in the presence only of the bedel of the faculty, and it was even said, that on occasion, the bedel would actually provide the theses. It is hardly a matter of surprise, therefore, that no candidate was ever rejected on account of his insufficiency in medicine. After undergoing these formalities, the candidate was presented to the University, was admitted to the degree of Medicinæ Baccalaureus and was granted permission to practise physic *per universum Angliæ regnum*. This licence which was not to be construed too literally, for the statutes of the College of Physicans expressly forbade anyone, whether a



Sir Henry Acland (from a photograph by Miss Acland).

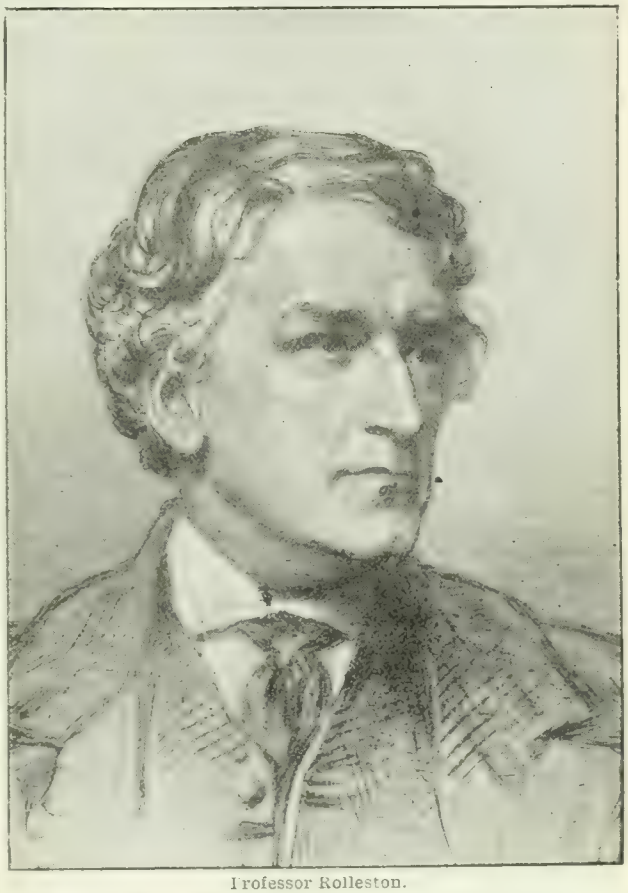
graduate or not, to practise medicine in London or within seven miles, under the penalty of fine and imprisonment, until he had become a member of that corporate body.

Three years later, the bachelor returned to Oxford and read six lectures as a preliminary to his admission to the degree of Doctor of Physic. These six lectures were again given in the schools, but they were, if possible, even more a matter of form than those required for the inferior degree. Three lectures were read on each day, and as it was supposed that the lecturer was there for the purpose of teaching, the Regius Professor was not summoned to attend. The candidate and the bedel were therefore usually alone and the reading of any book or scrap of paper within the precincts of the school satisfied the requirements of the university.

### MEDICAL TEACHING.

Yet Oxford was not without the apparatus of teaching. The Regius Professor of Physic gave annually two courses of lectures on anatomy—one course on a recent subject, which corresponded with "the visceral lecture" of the older anatomists, the other course upon the skeleton—which was the "osteological" lecture of long bygone times. The dissecting room was a private endowment at Christ Church, where the Lee's reader was bound to lecture to six students on the Westminster foundation. Carus, physician to the King of Saxony, said of it a few years later:—

"We also visited the theatrum anatomicum, the whole arrangement of which brought back the times of Vesal to my mind. Above the Professor's table hung a human skeleton, and a figure showing the muscular conformation of the human subject, so that they could be let down and drawn up again by cords; the latter was that sort of preparation which Albin was celebrated for, and is such as to cause a feeling of disgust in an uninitiated spectator. All round the theatre, behind the amphitheatrical seats of the audience, were skulls



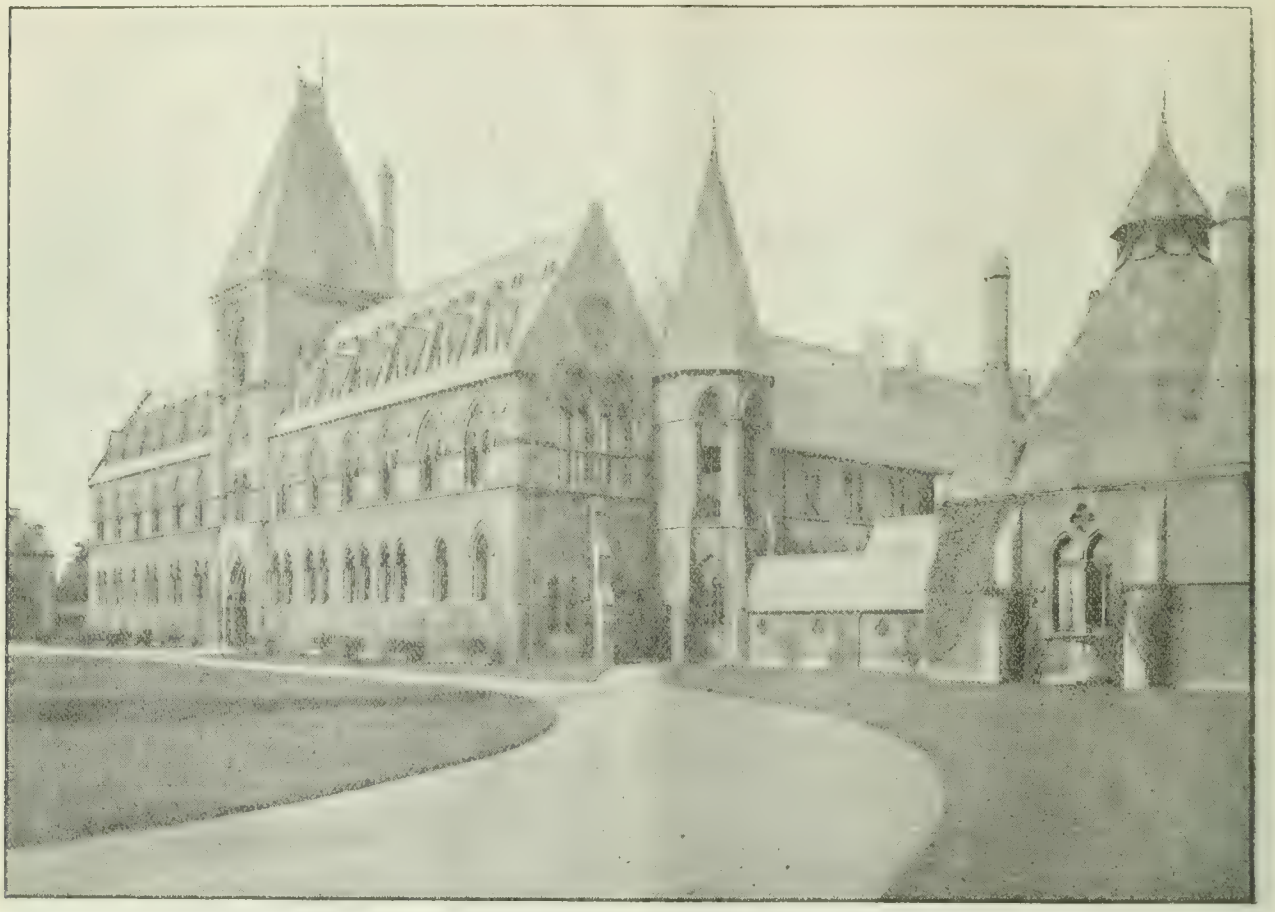
Professor Rolleston.

and anatomical preparations, everything quite in the antique style. Professor Kidd, a good natured old gentleman, quite corresponded with these ancient treasures."

The lectures, however, had been held in high estimation by the students of medicine, and for many years it was considered not to be the thing to leave Oxford without attending at least one course. During the troubles which preceded the passing of the Anatomy Act it became increasingly difficult to obtain subjects, and at last, as it was impossible to procure them, the lectures practically ceased.

Professor Daubeny gave an effective course of lectures upon chemistry, and he also held office as Professor of Botany, though his lectures were only given at intervals when a class could be formed.

Provision was also made in the University for the teaching of medicine. Dr. Aldrich had founded a lectureship on the theory and practice of medicine, which was held by Dr. Ogle, whilst clinical lectures on medicine were given at the



Oxford Museum (looking north).

Radcliffe Infirmary upon an endowment founded by the third Earl of Lichfield. The surgeons as they went round the wards of the infirmary gave some informal teaching, but there was no regular course of instruction in surgery.

The literature of medicine was admirably represented in the University. The Radcliffe and the Bodleian Libraries enabled the student and the graduate to read all that was published upon medicine and natural history, whilst the treasures contained in the college libraries enabled the University to produce such a finished medical scholar as the late Dr. Greenhill, for it would be invidious to name those who still live amongst us.

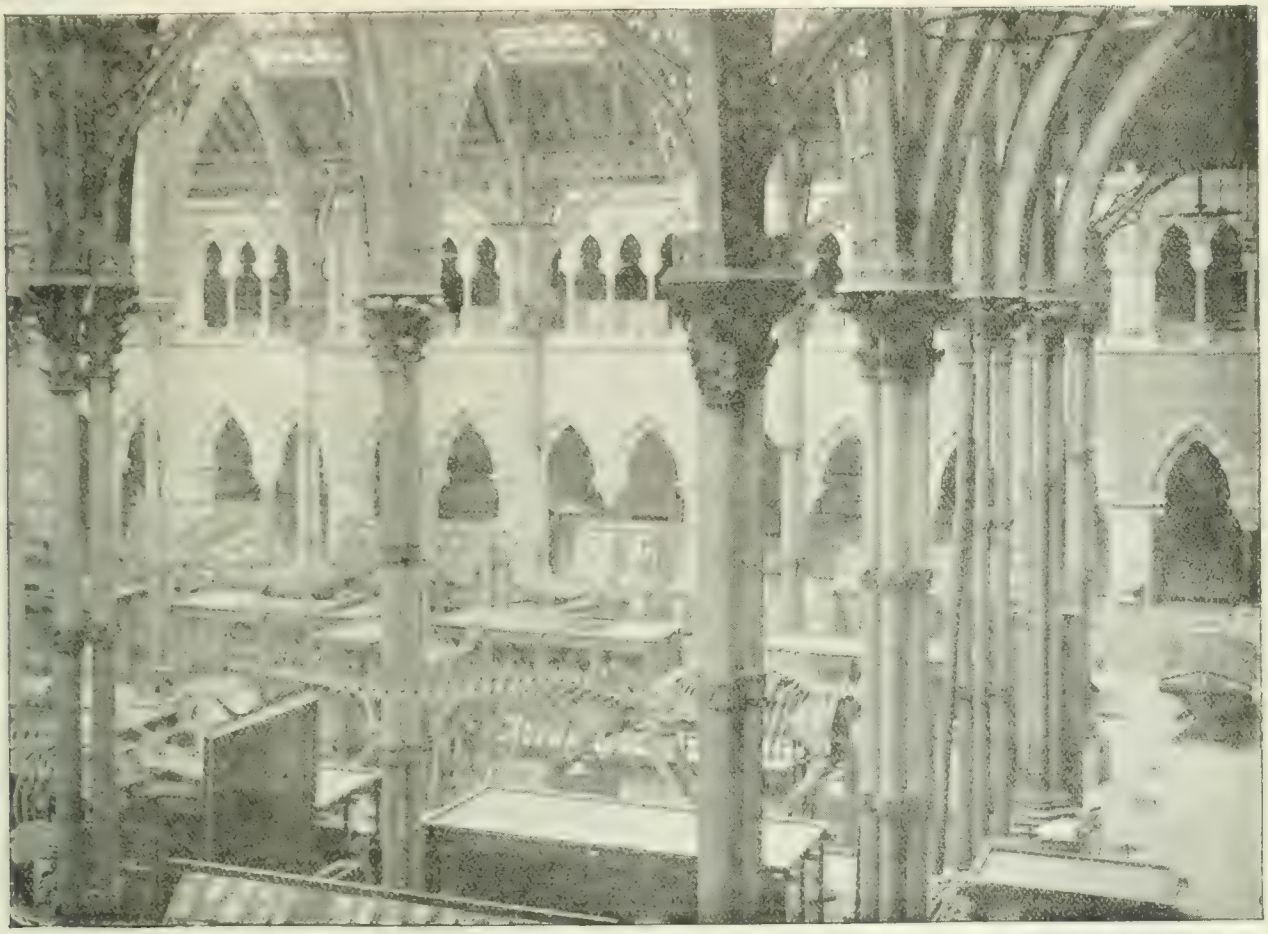
### The Beginning of Progress.

This was the state of science at Oxford in 1837; but even then there were signs of a coming change. Buckland and Daubeny, Richard Gresswell, the faithful steward, and Jacobson, afterwards the single-minded Bishop of Chester, were still resident within the University. All were men of the highest order of intellect—all were desirous that the teaching of science should be advanced. But it was not until 1847 that the University began to bring itself into line with the times. The evolution was slow and difficult. Its commencement was synchronous with the appointment of (Sir) Henry Acland to the post of Lee's Reader of Anatomy at Christ Church. His energy led him at first to remodel the Anatomical Museum, and to add to it a physiological series, but his ability soon enabled him to amalgamate the friends of progress into a solid body, even though it consisted of such heterogeneous elements as Pusey and Stanley, Liddell and Thompson (afterwards Archbishop of York), (Dean) Church and Westwood, Pritchard and Henry Smith, Brodie and Prestwich. Much as they differed in other points, each of these great men desired that the study of Nature in a complete and efficient manner, and with all modern appliances, should be an integral part of the general education of the University. Medicine and surgery they looked upon only as a part of the Kosmos—important, no doubt, to individuals, but less far-reaching in their results than physics, astronomy, chemistry, or pathology. The interests of the individual were, therefore, and perhaps wisely, subordinated at first to wider considerations, and it seemed for a time as though medical teaching would have neither part nor lot in the University.

### The Museum.

The first tangible result of the new order was the establishment of a museum, which was intended to realise, in nature as in name, the idea of the original Museum of Alexandria, where mathematicians, astronomers and chemists were gathered together under the same roof, engaged in research and teaching, where an anatomical school formed the basis for the education of physicians, and a great library put within reach of the student all the knowledge hitherto amassed. The building was designed by Professor Ruskin, but its erection was bitterly opposed from the outset, and its cost gave rise to a series of absurd faction fights—fights which in one case turned upon so trivial a question as whether burners should be supplied for the gas-pipes that had already been voted to light the building. In 1860 the central hall and galleries were opened for the collections which were to provide materials for instruction; and the lecture rooms, for the professors who were to convert these materials into scientific education.

Christ Church removed its anatomical collections to the University Museum, and the Lee's Reader in Anatomy migrated with it. Acland also induced the Radcliffe



Oxford Museum (from Upper Gallery, looking south).

trustees to move the Radcliffe Camera Library thither. About the same time the professorial chairs of science in the University were rearranged. Merton College endowed the Linacre Professorship of Anatomy and Physiology, Dr. Rolleston being elected the first occupant of the chair. A few years later, in 1865, Professor Clifton was appointed head of the physics laboratory, whilst in the following year the Waynflete Professorship of Chemistry was established by Magdalen College, and in 1872 Dr. Odling became professor of chemistry.

### A Futile Crusade.

At first the teaching of anatomy and physiology was generalised, yet happy was the student who received his introduction to the medical profession at the hands of Rolleston. He became imbued with a truly catholic spirit, and the general knowledge thus gained enabled him to specialise with advantage in after years. But still the number of medical students in the University was few, and there was no attempt to teach them what would be of direct value from a merely professional standpoint. In 1878 a determined attempt was made to establish a medical school in the University, but it failed partly on account of the manner in which the crusade was conducted, and partly owing to the inherent difficulties of the case. Professor Rolleston died in 1881, and his chair was divided, Professor Moseley being appointed to teach Biology, Professor Burdon Sanderson Physiology, and Professor Arthur Thomson Human Anatomy. Dr. Tylor at the same time was made keeper of the museum. In too short a time Moseley died and his place was filled by Professor Ray Lankester, and, on the death of Professor Westwood, Mr. Poulton was elected Hope Professor of Zoology. In 1895 Sir Henry Acland resigned the offices he had held for so many years, and Professor Burdon Sanderson was promoted to be the Regius Professor of Physic in his place, whilst Professor Gotch succeeded to the chair of Physiology.

### A New Medical School.

A new medical school has thus begun in Oxford. It is felt that all the sciences ancillary to medicine, and even pathology itself, can be better and more healthily taught in a University town, and that the rudiments of clinical observation can be inculcated in a hospital of the size of the Radcliffe Infirmary, and like it drawing patients from a purely agricultural district. The University has not, therefore spared money or talent to equip thoroughly the various establishments necessary to instruct students in the elements of their profession. She feels, however, that the art of curing, and the repeated observations of obscure and rare cases, can only be obtained in the great centres of population, and she therefore still recommends her students to further perfect their attainments by seeking information beyond her walls.

The University is, as it has ever been, a bad school of medicine for those who are afterwards to gain their livelihood by the lower forms of general practice. It is a bad school for those who adopt the profession with the ideas of a shopkeeper. It is bad too for empirics. But for the truly scientific student, for the man who desires and proposes to live on equal terms with the most thoughtful and highly cultivated of his fellows, and who wishes to make his profession respected and continually to advance it, Oxford is a good school. It is still incomplete, but there is no reason why its progress towards perfection should not be even more rapid in the future than in the immediate past. The tendency of modern medicine is to become more scientific and less mechanical, as the value of prevention over cure is

daily becoming more manifest. And it is in the studies leading to prophylaxis that the University mind can be made pre-eminent.

## THE UNIVERSITY OF CAMBRIDGE.

By Professor G. D. LIVEING, F.R.S.

AT the accession of Queen Victoria the University of Cambridge was still governed by the statutes of Elizabeth; tests were rigidly enforced; no one could be admitted to a degree or to a professorship until he had made a declaration of conformity, nor acquire a vote in the Senate until he had subscribed the 36th canon. In two and a half centuries changes had been inevitable, but they had proceeded for the most part by easy gradations, and though they amounted on the whole to a revolution, the old forms were in most cases retained.

### GENERAL EDUCATION.

The exercises in the schools by which the students publicly tested each other's knowledge and dialectic skill had been practically superseded for degrees in arts by a system of examinations of a very one-sided character, in which, so far as honours were concerned, the arts had no place and the sciences were represented only by those branches of natural philosophy which Newton and his successors had made classical. For a degree without honours candidates were still expected to study Homer and Virgil as the best examples of the art of poetry, and were examined in Locke's and Paley's philosophy; and for the last thirteen years there had also been an examination for honours in classical scholarship, but it was open only to those who had already obtained honours in mathematics. For the Master's degree no exercise was exacted, though the form of one still survived in "huddling" the candidates in a body through the schools, and asking them some question which was usually a joke.

### THE TEACHING AND THE TEACHERS.

The general education of the students was entirely in the hands of the colleges, and college lectures embraced a wider range than the examinations for degrees, but no natural science except such as was mathematically treated. No student could get a degree unless he were presented as fit by his college, while the University awarded honours and checked the colleges by rejecting such as were grossly ill-prepared to graduate.

The professorships were for the most part honorary; the stipends attached to them, except in the case of Divinity, were hardly more than nominal; the professors lectured as much or as little as they pleased, and, except in the faculties of Divinity, Civil Law, and Medicine, had no part in the education of the bulk of the undergraduates. In the natural sciences, however, they were the only teachers, and they attracted to their classes those whose love of knowledge and of Nature was strong enough to draw them out of the ordinary routine. Theirs, too, were the only lectures experimentally illustrated. Farish, who had long given such lectures on mechanism, and had a good-sized class—attracted as much by the vigorous personality of the lecturer as by the excellence of his working models—had just been succeeded by an equally good lecturer, Willis. Henslow's unrivalled power of exposition and illustration exercised a wonderful fascination, and drew to his lecture room and herborising excursions all who cared for natural history, while Sedgwick's class—or such of them as could afford the hire of a hunter—followed him on horseback across the country on geological field days. Such studies were not the avenue to degrees or honours; but as the system of forcing the idle to work by means of examinations was not yet in vogue, they were pursued in a less specialised but, for the learners, more healthy way than now prevails.

Airy had with great success given experimental lectures on optics and hydrostatics, and these were continued by Challis, who had just succeeded him as Plumian Professor; but Challis, though an excellent observer, was no experimenter, and too honest to take the advice that Airy is said to have given him—to ensure success by nailing the weight in showing Lagrange's proof of the principle of virtual velocities. Babbage at this time occupied Newton's chair, but neither he nor his immediate successor lectured, and it was not until Stokes succeeded to it in 1849 that Challis's experimental lectures were discontinued.

### MEDICAL STUDENTS IN 1837.

Medical students at Cambridge were few. The *Calendar* for 1837 records that in the year preceding five had taken the degree of M.B., and ten the licence to practise. This licence was given to graduates in arts who had gone through the prescribed course of study, and they often pursued their medical studies in London, so that the average number studying medicine at Cambridge was hardly more than fifteen or twenty all told. They were obliged to attend the lectures on botany, chemistry, and anatomy. Cumming gave fifty experimental lectures on chemistry, of which about one-third were on electricity (then considered part of chemistry), and another third on the then just developing branch of organic chemistry. The professor had two rooms for his own use, fitted entirely at his own cost, but there was no laboratory of any kind in which undergraduates could carry on experimental work, either in chemistry or in any other branch of physics. Clark gave a course of fifty lectures on anatomy, and dissection was carried on in the anatomical theatre, for want of proper room, whenever subjects could be had; but the restrictions of the Anatomy Act, and the prejudices of the community, made the supply very precarious. Only a year or two had passed since the removal of an unclaimed body from the hospital to the anatomy school had caused a riot, in which the mob tore up the pavement, smashed the neighbouring college windows, broke into the anatomical museum, and did great damage to the specimens. From that time no bodies have ever been taken from the hospital for dissection. The Regius Professor of Physic lectured on pathology and the practise of physic, and the Downing Professor on morbid anatomy, and the hospital staff gave clinical lectures on medicine and on surgery; but students were expected to, and did, complete their medical education elsewhere, usually at some London hospital. A candidate for the medical degree was examined by the professors, and had to keep an Act at which he read an original thesis on some medical question, and had to answer in public the objections of one or more fellow students, as well as any questions that might be put by the presiding professor. There was no degree in surgery, and no professorship of surgery. Physiology, in its then undeveloped state, was taught along with anatomy. Not only were there no laboratories, but many of the professors had no lecture rooms, except such as they provided for themselves, and the collections of natural history could not be displayed, or even made generally accessible, for want of room.

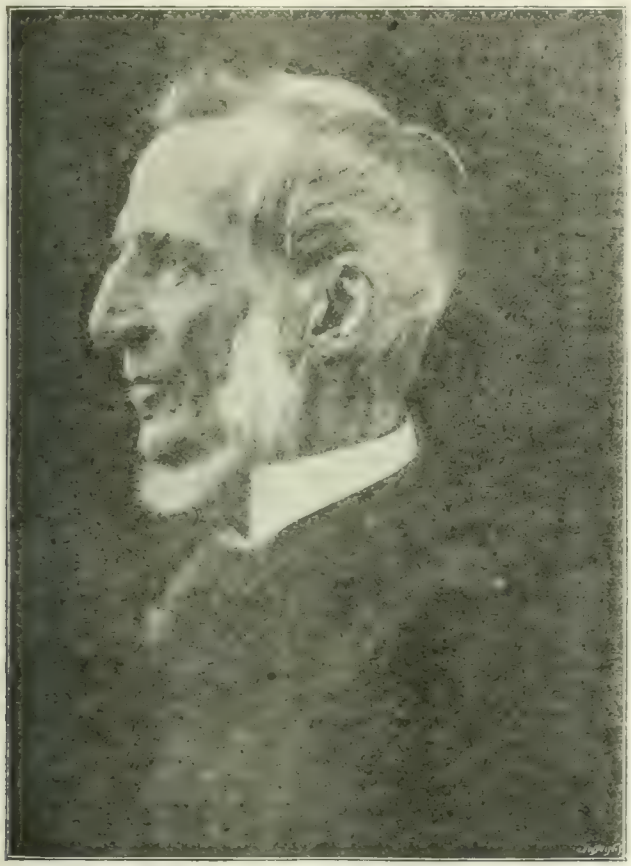
### MUSEUMS.

The only museum built for the purpose, that of anatomy, had been erected about four years, and contained the collection made by Sir B. Harwood during his tenure of the professorship from 1785 to 1814, and that of Dr. Macartney, purchased in 1836, as well as Clark's specimens of comparative anatomy; but it was a very poor building, and soon became overcrowded with the skeletons which Clark's assiduity accumulated. There was a botanic garden in the middle of the town, and a herbarium so ill-housed as to be greatly injured by damp. Woodward's cabinets of fossils were stowed in a dark room; and Sedgwick, who had promised when elected professor in 1818 that, as he had hitherto never turned a stone, he would henceforth leave no stone unturned, had kept his word and accumulated a large store of specimens from every stratum in England, but was obliged to keep a great part of them in his own rooms in college for want of a museum. The mineralogical collection was in like case. A proposal was, indeed, made this year (1837) to rebuild the library with the addition of lecture rooms and museums, but it was three years later before even a small portion of this scheme was carried out. The delay was caused by lack of funds, which had to be obtained by subscription. This may well seem incredible to those who are not well acquainted with the University; but apart from trusts for specific purposes, such as scholarships and the like, the whole endowment of the University was not more than about £1,000 a year, and the fees for matriculation and degrees brought in about £2,000 a year more. The library was supported by a tax of 6s. a head on all members of the University, and the proctors and other officers were paid by fees, so that the income available for

general purposes was only about £3,000 a year. On the other hand, the college endowments were large, and it was to the colleges that the students paid the bulk of their fees, and from them received in return tuition and supervision. But the colleges did not provide any instruction in natural sciences, or give scholarships or fellowships for proficiency therein, and in 1837 were not at all inclined to help the University with money, content with a system which had produced such philosophers as Wollaston, Fox-Talbot, Herschell, and Whewell, and in that very year had brought out Sylvester and Green, and within the next few years was destined to bring out Stokes, Cayley, Adams, and Kelvin.

### NATURAL SCIENCE IN 1837.

There were, nevertheless, some who followed natural science, and they had their hearts in it. The Philosophical Society—for the discussion and publication of papers on physical science—had existed nearly 20 years, and had done good service to science not only in that way but also by maintaining the only zoological museum in the University; and



Sir George Paget.

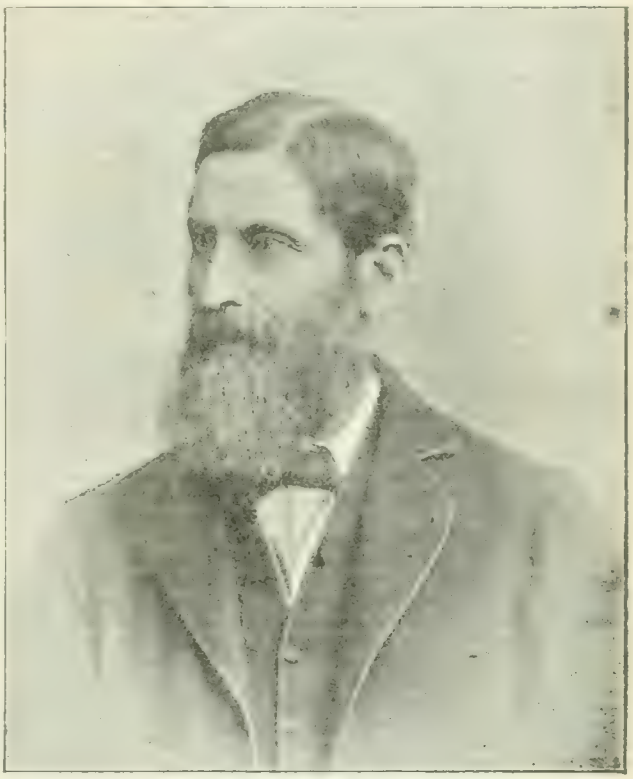
in 1837 a club of naturalists, named after Ray, instituted weekly conversational meetings to keep up the interest in natural history aroused by the weekly receptions which Henslow had been wont to hold at his house until he was given a benefice in Suffolk, and ceased to reside in Cambridge for more than one term in the year.

The conflict of theologians with science, rife outside over the Mosaic cosmogony, was quiet enough within the University. Most of the scientific professors, even the professor of anatomy, were clergymen, and the traditional Cambridge respect for inductive philosophy compelled the theological faculty, if they did not entirely side with the followers of natural science, to give them a fair field.

The spirit of reform pervading the community was felt in the University. A large number of influential residents, including not only scientific professors but such men as Musgrave (afterwards Archbishop of York), and Thirlwall (afterwards Bishop of St. David's), had recently, but in vain, petitioned Parliament for the relaxation of the religious tests; and, soon after, Whewell and others made proposals for widening the examinations for honours; but no change of any importance was made during the first decade of Victoria's reign, except that Humphry came as surgeon to the hospital, and undertook the teaching in human anatomy as assistant to Clark, who thenceforth devoted himself to comparative anatomy.

### THE BEGINNING OF A REVOLUTION.

In 1847 the Prince Consort was elected, after a sharp contest, Chancellor of the University. He took a real interest in its welfare, made friends of many of the leading men, and had Sedgwick for his University secretary, and though, with much tact, in view of the prejudice against German methods, he kept in the background, there is no doubt that he exerted his influence in favour of the new honour triposes in the moral and natural sciences which, mainly through the advocacy of Whewell, were sanctioned by the Senate in 1848, and com-



Sir George Murray Humphry.

menced in 1851. At the same time attendance on a course of some professors' lectures was exacted of all candidates for an ordinary degree. This was the beginning of a revolution, for, though only six names appeared in the first Natural Science Tripos, more men in 1896 took honours in it than in any other tripos except the Classical. In the next year one of the above-mentioned six, though as yet only a Bachelor of Arts, with the sanction of the Vice-Chancellor opened, at his own expense, a laboratory for the instruction of the medical students in practical chemistry. This was the first attempt to supply training in experimental work, and was followed by a long struggle with impecuniosity on the part of the University—a struggle not yet over—to provide means of instruction commensurate with the growth of knowledge. In 1853 St. John's College was the first to appoint a lecturer in natural science and to build a small chemical

laboratory; and in the same year the Senate took in hand the erection of museums and lecture rooms, though for lack of funds it was ten years ere the first stone of them was laid.

### A Royal Commission.

Meantime a Royal Commission of Inquiry had been issued, which was followed in 1856 by an Act of Parliament under which the University and colleges received new statutes. Unfortunately the Commissioners failed to carry out a scheme for making the colleges contribute to the needs of the University, and the resources of the latter were unequal to the erection of more than a part of the new museums, or to raise the stipends of the professors of natural science beyond the modest figure of £300 a year, leaving them to provide at their own expense the whole of the apparatus required either for lectures or research. Indeed, the Museum of Comparative Anatomy could not have been built but for the liberality of the Professor of Anatomy in lending the money for it at a nominal rate of interest. In 1865 the collections of comparative anatomy, botany, and mechanism were removed to the new museum, and out of the old building were constructed a dissecting room and a chemical laboratory, and from this time the expansion of the University began. The number of students, which during and after the Crimean war had fallen to about 1,500, was now again increasing, and their fees made progress a little easier.

### Establishment of Laboratories.

The University now for the first time set apart annually a sum of money for the maintenance of museums and laboratories; and the Chairs of Human and Comparative Anatomy were divided, Humphry taking the former and A. Newton the latter. In 1870 Trinity College brought Michael Foster to Cambridge to fill a new college office of prelector in physiology, and he conducted an enthusiastic class in the physical apparatus rooms until the existing physiological laboratory was built in 1878. In the same year (1870) the Duke of Devonshire (Chancellor) offered to build and equip a laboratory of experimental physics, and in the following year Clerk-Maxwell became the first Cavendish Professor of that subject. In the same year religious tests were abolished.

Additions continued to be made to the buildings in order to provide laboratories for increasing, as well as for new, classes, especially in animal morphology and in mechanism, of which new professorships were instituted, and in chemistry for Dewar, under whom the Jacksonian chair had reverted to the original intention of the founder to be a professorship of chemical science. Money, however, was scarce, and practical efficiency had to be secured at the expense of all architectural effect.

### Another Commission.

By an Act of Parliament new Commissioners were appointed in 1877, who made new statutes under which the Colleges contribute to the common fund of the University, and though, in consequence of the agricultural depression, the amount of that contribution has been much reduced, the University has been enabled to establish new professorships of physiology and of pathology, to increase the stipends of many other chairs, and, by borrowing on the security of the fund, to build a new chemical laboratory, and new anatomical schools on a scale commensurate with modern requirements, and to convert the old chemical laboratory into one for pathology; but the professorship of surgery, established in 1883, was held by the late Sir G. M. Humphry without stipend, and the engineering laboratory has been built by subscription, the present Chancellor contributing £1,000. For the Geological Museum, as a memorial of Sedgwick, a large sum was raised by subscription after his death, but the University has not yet been able to provide the additional sum required to erect it.

### The Extension of Teaching.

This continual expansion has, moreover, involved the creation of a large staff of lecturers and demonstrators, who mostly get very moderate remuneration. Whereas in 1837 9 professors and 3 or 4 others were engaged in teaching natural science or medicine, there are in 1897 15 professors, 2 readers, 15 University lecturers, and as many other recognised teachers, as well as 24 demonstrators so engaged. Whereas in 1837 no honours were given for natural science, except it were mathematically treated, now nearly 100 every year obtain the degree of B.A. with honours in natural science, and half as many more take up natural science for an ordinary degree. Whereas then there were fewer than a score of medical students, there are now more at Cambridge than in any other single medical school in England.

In 1837 the programme of lectures for medical students included only anatomy and physiology, botany, chemistry, pathology, and practice of physic, the programme for 1897, owing to the subdivision of some of the foregoing subjects, and the addition of others such as pharmacology and therapeutics, surgery and midwifery, medical jurisprudence, hygiene, and bacteriology, has become too long to quote. Whereas in 1837 there was not a single laboratory for students, there is now no important branch of natural science except psychology which has not a laboratory, in many cases ample and well equipped, and in others, such as those of pathology, bacteriology and pharmacology, temporary until the University has funds for their improvement, but in all cases used not only for education but also for research. For these changes we have in the main to thank two men—Sir George Paget, for many years Regius Professor of Physic, and Sir George M. Humphry.

### Examinations.

It goes without saying that examinations have kept pace with the extension of teaching. In 1837 the only examinations for honours were in mathematics, pure and applied, and in scholarship, subjects which can hardly be crammed up, but in which the value of the answers can be gauged by an exact scale. It was the success with which these examinations were conducted, together with the scrupulous fairness with which the prize fellowships were awarded, that paved the way to competitive examinations for posts in the Civil Service, and the examination fever that has ensued. Candidates can now compete for honours in almost every branch of knowledge, but in few of them can the merits of candidates be estimated by examination with as much nicety as in mathematics, and it is pretty well understood that to learn a subject well is not the same thing as to learn to pass an examination in it. In natural science the examinations always include practical work, and for medical degrees the University led the way in introducing clinical examination. In 1867 State Medicine was introduced into the examination for the M.D. degree, and in 1875 was held the first examination for the Diploma in Public Health, open to all whose names were on the *Medical Register*. The old exercises for medical degrees—namely, the public reading of an original essay by the candidate, and subsequent oral questioning, are fortunately still retained, and it may be said that the examinations fairly reach the limit of utility. Fellowships are awarded for distinction in learning of every kind, and with as much fairness as ever; but it is significant that they are no longer awarded merely by examination, but much more on the merits of the original work done by the candidates, in which the men of science can, and do, hold their own.

### The Encouragement of Technical Science.

It is remarkable that the great expansion of scientific study at Cambridge has not been made at the expense of other learning, but has been achieved in spite of ever-growing demands for developments in literature, in art, and in other departments. The University is sometimes accused of not encouraging technical science, but the eagerness of young men to take to any particular professional work depends not so much on the teacher as on the remuneration it commands in the world. Cambridge does turn out the ablest electrical engineers, and would do as much for many other arts if it were not for the distrust of the University which, unhappily, is entertained by the trading class, a distrust exemplified by the fact that, though there is at Cambridge a growing school of scientific agriculture, farmers cannot be bribed by the scholarships, freely offered by many county councils, to send their sons to take advantage of it. The change which has come over the University during the latter half of Victoria's reign has been too great to be at once understood by the public, but as there is no other place in the kingdom where physical science is so large a factor of general, as distinct from professional education, it is through the better appreciation of such knowledge by the rising generation that further advances may, it is hoped, become possible.

# THE UNIVERSITY OF LONDON.

## ITS ORIGIN.

THE University of London is almost coeval with the Queen's reign. It is true that in 1825-26, in response to the appeal of Thomas Campbell, the poet, which took the form of a letter to Mr. Brougham, a capital sum of £160,000 had been raised by shareholders, and that the body which aspired to be the London University, but which was better known as "the Institution in Gower Street," had begun in 1828 to hold classes in the faculties of arts, law, and medicine. That it was able to admit 557 students at once showed how greatly the want of facilities for higher education in London was felt. The real strength of the movement, however, lay rather in the strong and growing feeling that the religious tests imposed by the Universities of Oxford and Cambridge were unjust. And the real difficulties in the way of the shareholders when they sought a charter of incorporation with power to grant degrees arose through the opposition of those who believed that such tests should be continued. King's College, London, founded as a Church of England institution, received a Charter of Incorporation in 1829, and the Government of the day arrived at the conclusion that it would be wiser to grant a similar charter to the "Institution in Gower Street" by the title of London University College, and to grant another charter "to persons eminent in literature and science to act as a board of examiners, and to perform all the functions of the examiners in the Senate House of Cambridge, this body to be termed the 'University of London.'" This decision was come to in November, 1835, but it was not until November 28th, 1836, that the Charter of the University was granted. The Earl of Burlington, afterwards Duke of Devonshire, was named the first Chancellor, and Sir John William Lubbock, the first Vice-Chancellor. Among the first Fellows, by whom the Senate is constituted, were Lord Brougham, Dr. Arnold, Dr. John Dalton, Sir George Airy, Dr. Stanley (Bishop of Norwich and father of Dean Stanley), Bishop Thirlwall, Sir Charles Locock, Sir Philip Crampton, Sir James Macgriger, Sir James Clark, Dr. Jones Quain, Dr. Hodgkin, Dr. P. M. Roget, and Dr. Neill Arnott.

The University of London was thus but a few months old at the Queen's accession, and one of the first acts of the new reign was formally to renew the Charter. Under it the students of University College, King's College, and certain other colleges, metropolitan and provincial, were alone eligible for the degrees of the University. The list of these Colleges was enlarged in 1850 but the restriction remained. Meanwhile, the graduates of the new University had begun to show a desire to take an active interest in its affairs. In 1848 a Graduates' Committee was formed to cultivate more intimate relations among the graduates and with the Senate, and to obtain a recognition of the graduates as a body corporate with a representative in Parliament. One of the first results of its activity was the Medical Graduates Act (1854), which extended the rights enjoyed by the graduates of Oxford and Cambridge in respect to the practice of physic to the graduates of the University of London, that is to say, the degree of M.D. became a licence to practise.

## ITS GROWTH SINCE 1858.

It was in 1858, the same year in which the General Medical Council and the *Medical Register* came into existence, that the University of London received a new charter, which gave it its distinctive character as an Imperial University, granting its degrees to all comers who were able to satisfy its examiners. All restrictions as to place of residence and certificates of study were abolished except in the case of medical degrees, applicants for which were and are required to give evidence of attendance and clinical practice at some recognised medical institution, a requirement which in practice has not at all narrowed the area from which the University has drawn its medical graduates.

Whether this enlarging of the boundaries was good or evil, whether it would have been better for higher education in London had the University remained a local university or not, it is certain that the effect of the change was to lead to a steady increase in the number of candidates for its examinations. In 1858 the number of candidates for matriculation was 299, and for the degree of B.A. 72. In 1895 the numbers were respectively 3,420 and 498. In the first fifty years of the University's existence the average annual number who graduated M.B. was 25, while the number who took the degree of M.D. was less than 16. In 1895 the numbers were 97 and 61 respectively.

The large number of persons who become undergraduates of the University by matriculation (in 1895 the number was 1,710), a number out of proportion to the annual number of graduates, is an indication of the widespread influence which the University has had on secondary education in this country. Its Matriculation examination was for many years, and to no small extent is in the present day also, a standard and test of which schools other than the great public schools have availed themselves. It has been accepted also as a certificate of competence for entry on the special training for various pursuits, professional and commercial. Moreover, from 1858 down to the present time it has opened to many deserving men—debarred by the *res angusta domi* from keeping the three years of residence required by the older universities from obtaining a degree in arts from them—a way to the coveted distinction. Altogether the degree of B.A. has been granted to over five thousand persons, and that of B.Sc. to some eleven hundred, of whom the large majority have passed since 1858. While the University has thus done a useful work, the creation of this great body of graduates without university ties, and without any special interest in London or comprehension of its educational requirements, has in recent times somewhat embarrassed the University in its aspirations towards meeting the growing needs of London.

The Charter of 1858 admitted the graduates as part of the body corporate of the University, and gave them the right to assemble in Convocation. To Convocation was granted the power of accepting any new or supplemental charter, and of consenting to the surrender of the old charter. These powers granted to Convocation, together with that of discussing any matter relating to the University, have undoubtedly, on the whole, operated for the benefit of the University, but in recent years they have had the effect of seriously retarding the settlement of the vexed question of the formation of a teaching university for London. When this proposal was once again raised,[1] some twenty years ago, it encountered considerable opposition, and this opposition has not yet ceased. It is based mainly on the fear that the special conditions under which degrees would be granted to students of London colleges, constituent of the University, would have the effect of lowering the general standard of the examinations on which the degrees have hitherto been granted, and which have constituted their special value to non-collegiate students. The inadvisability of establishing a separate University has now been recognised by two Royal Commissions, and as Convocation has, in meeting assembled, more than once affirmed the principle of making the University a true teaching university while retaining the special regulations as to non-collegiate students which have given it an imperial character.

## DEGREES FOR WOMEN.

One distinction of which the University can never be deprived is that it was the first academical body in the United Kingdom to admit women as candidates for degrees. The first tentative move in this direction was made in a charter granted in 1867, but in 1878 another charter made every degree, honour, and prize awarded by the University accessible to both sexes on perfectly equal terms. Under these regulations over 600 women have taken the degree of B.A. over 100 that of B.Sc., and over 50 that of M.B. In many cases the degrees have been gained with distinction, and women have won at least a fair share of the prizes and honours which the University has to give.

[1] When the idea of a teaching university in and for London first arose it would be difficult to say. It was certainly present to the mind of Sir Thomas Gresham when, in 1548, he founded professorships of divinity, music, astronomy, geometry, law, physic, and rhetoric, and assigned his house in Bishopsgate as the home of what ought at once to have become the University of London; but the finishing touch was not given, why it is impossible now to say. The need for a University of London continued from time to time to occupy the thoughts of friends of learning, and in 1661 Cowley the poet sketched out an ambitious scheme for a great college in London, with laboratories and apparatus for the investigation of the natural sciences, and a great body of professors to give instruction. Nothing came of it, and it was reserved for another poet to set the ball rolling, which resulted in the foundation of the existing University. There is good reason to hope that Sir Thomas Gresham's foundation may yet form an integral part of the London University of the future.

### Science and Medicine.

The University of London will always be gratefully remembered for the encouragement which, within the somewhat narrow limits of its activities, it has given to science. In 1860, for the first time in England, it founded a Faculty of Science, and determined to grant the degrees of B.Sc. and D.Sc. It has given also to students of the great metropolitan medical schools the opportunity of obtaining degrees in medicine and in surgery. That these opportunities have not been more largely used has been due in part to the defective state of secondary education in the country generally, in part to the somewhat high standard in preliminary science which the University set, a standard which the teaching institutions of the metropolis were by no means prepared to meet, and in part to the hard-and-fast character of many of its regulations which have borne hardly upon medical students, who are seldom in a financial position to face the expense which rejection at an examination in preliminary science has entailed. Even as things are, we may feel grateful to the University for having made plain the existence of a need which it has hitherto not been in a position altogether to fulfil. The earnestness with which those responsible for the government of the University have sought a remedy for the evil is of good augury for its future growth and usefulness.

### Some Members of the Senate.

Though the University of London, owing to its peculiar constitution, has not been able to stimulate the degree of affection and enthusiasm invoked by many another Alma Mater, it is yet guarded by a strong body of graduates jealous for its honour and reputation; and, in spite of the gibe that few Londoners know where the University buildings stands, the meetings of its Senate have brought together within its walls some of the most eminent men of the Victorian era. We have already mentioned some of those who formed part of the governing body of the University at its incorporation. Since then it has had as Chancellors two distinguished statesmen, Earl Granville and the Earl of Derby, who both died in office. The present Chancellor (Lord Herschell) is the first graduate of the University who has held the office. Its Vice-Chancellors have been Sir J. G. Shaw Lefevre (1842-62); Mr. Grote, the historian (1862-71); Sir E. Ryan (1871-72); Sir John Lubbock, who was nominated in 1872, but retired in 1880, when he was elected to represent the University in Parliament to the vacancy caused by the elevation to the peerage of Mr. Robert Lowe, who had been chosen the first member for the University in 1868; Sir George Jessel, Master of the Rolls (1880-83); Sir James Paget, chosen to succeed Sir George Jessel, held the office until 1895, when he resigned, and was succeeded by Sir Julian Goldsmid, whose untimely death soon caused another vacancy, which has been filled by the nomination of Sir Henry Roscoe. Among the distinguished men who have served in times past on the Senate of the University have been, to mention those only who are not now living, Mr. Hallam, the historian of the Middle Ages, and his great contemporary, Lord Macaulay; Professor Faraday, Sir George Cornewall Lewis, Dr. E. A. Parkes, Dr. Francis Sibson, Professor Sharpey, Dr. Archibald Billing, Lord Cardwell, Sir Henry S. Maine, Sir Joseph Hooker, Sir George Burrows, Sir William Gull, Sir William Jenner, Lord Rayleigh, Professor Huxley, and Sir George Buchanan.

Finally, as on the present occasion a very appropriate conclusion to these brief notes, we may recall the fact that the Queen is the Visitor of the University, which has in its history reflected some of the chief intellectual movements of her reign—the revolt against ecclesiastical exclusiveness, the criticism of secondary education, the extension of the imperial idea, and, in these later times, the quickening of the idea of civic duty in Londoners.

## PROVINCIAL MEDICAL CENTRES.

### BIRMINGHAM.

When Her Majesty ascended the throne, Birmingham, as compared with the Birmingham of to-day, was comparatively a small town, notorious for its somewhat sordid appearance, a low level of municipal life, and the production—so its critics said—of untrustworthy goods. In the sixty years which have passed, the city, for such it has now become, with a Lord Mayor, has made enormous progress in every direction. Its population has increased from 179,000 to 617,000; its central area has practically been rebuilt and remodelled, and now presents a very handsome appearance, whilst its municipal government is regarded as a pattern which other towns seek to emulate. It would be strange indeed if, with this great general progress a remarkable development of its medical institutions had not taken place.

At the commencement of the Queen's reign, of the many hospitals and allied institutions now existing only the General Hospital, the General Dispensary, and the Orthopædic Hospital had then been founded.

### The General Hospital.

The General Hospital had flourished for nearly sixty years, having been opened in 1779 with 100 beds, of which only forty were at first occupied, but in 1837 an extension of the original building took place, and room was made for 160 beds. A further extension was made in 1842, and another in 1857, when the total number of beds was raised to about 240. In 1865, owing to the unsatisfactory sanitary conditions, and consequent wound infections, two large accident wards were built, with out-patient rooms underneath them, and a redistribution of beds was made, so that whilst the number of them remained the same, the cubic space for each was considerably increased.

In 1870, to meet a great emergency, a temporary ward was erected to accommodate sixteen cases of burn, and in 1881 the final additions were made to the old building. These consisted of two wards intended mainly for burn cases—one for each sex, accommodating fifteen beds each; the nurses' home, with room for about fifty nurses, and a pathological department which contained, in addition to the mortuary and so on, an excellent laboratory. These buildings brought the service of the hospital up to 270 beds.

Some seven years ago a legacy of £25,000 was left to the hospital by the late Miss Ryland, a generous benefactress to Birmingham, on condition that within a certain number of years the hospital should be rebuilt to the satisfaction of her trustees. The low level of the site, the undesirable manufactures carried on in the immediate neighbourhood of the hospital, the extreme inconvenience of many parts of the building, which had been added to so often, and the necessity, if the present building was to continue long in use, for expending a very large sum in alterations and improvements, had suggested for some time that it might be desirable to rebuild the hospital on another site, and this legacy of Miss Ryland's crystallised the project. The matter was enthusiastically taken up by Mr. Holder, a fresh site was obtained at a cost of nearly £52,000, and a building, to accommodate 340 beds built and equipped at a further expenditure of about £150,000, is to be opened on July 7th of this year, by H.R.H. Princess Christian, on behalf of Her Majesty the Queen.

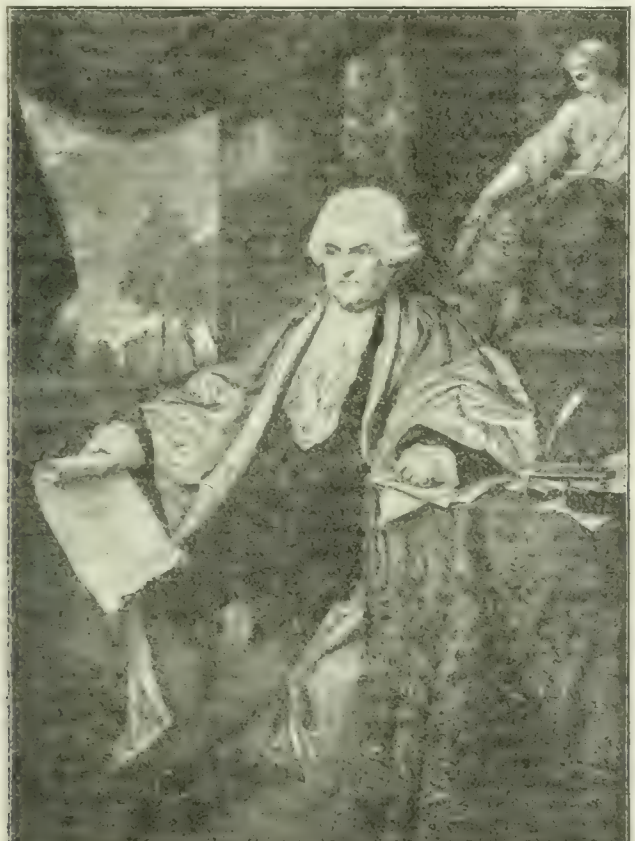
The building is an extremely handsome one in red brick and a rich red brown terra cotta. In erecting it, everything that could be designed to secure sanitary conditions for the patients, and facilities for carrying out the very large amount of work going to the hospital, has been provided. Key's plenum system of heating and ventilating has been adopted, by which air—washed, moistened, and warmed if necessary—is driven through every part of the hospital by very large fans driving the air up ducts which give branches to every ward, so arranged that each may be kept at any temperature desired, and the air in any room in the building can be changed from six up to ten times an hour.

The lighting throughout is by electric light, and whilst there are plenty of staircases, and every part of the building is made as fireproof as possible, the chief means of distribution of patients' food, etc., is by means of two lifts, around which the administrative block centres. The nurses' home provides room for about 100 nurses. Whilst it seems almost invidious to mention individual names of the crowd of generous supporters of the hospital, yet it is impossible to omit to mention that it is largely owing to the munificence of Mr. Holder, and to his great sacrifice of time and energy that the present building has been erected. In 1883 Sir John Jaffray conceived the idea of building a hospital for the more chronic cases at the General Hospital, whither they might be drafted to relieve the congestion of the beds. He accordingly provided a site and built a hospital containing fifty beds, which has afforded great assistance to the parent institution.

As showing the amount of work done by the parent and daughter institution, it may be mentioned that in 1895 there were treated 4,717 in-patients and 52,608 out-patients. A ticket system of admission is in vogue, but practically the hospital is a free one, as about four-fifths of the patients are admitted without ticket, and recommended only by the urgency of their condition.

### THE GENERAL DISPENSARY.

The General Dispensary, next to the General Hospital, is the oldest medical institution in the town, it having been founded in 1794. At that time, in addition to ordinary sickness, it undertook midwifery and small-pox inoculation. The work was carried on partly at the dispensary in the centre of the town and partly by the visiting of patients at their own homes. About the year 1870 the midwifery and vaccination departments were abandoned, and the following year the first branch establishment was opened. Up to this time about 9,000 patients had been treated annually, but since then there has been an enormous increase of its work, so that, in 1896, 35,000 patients were treated. At the present time there are five branch dispensaries in addition to the central one, and



Dr. Ash, founder of the Hospital.
(From the portrait by Sir Joshua Reynolds which hangs in the Board Room of the Birmingham General Hospital.)

the number of medical officers has increased from one to eleven, who reside at the various dispensaries and devote their whole time to the service of the institution. Admission is by ticket, and there is a considerable endowment fund.

### THE ORTHOPÆDIC HOSPITAL.

As early as 1817 an institution was established for the relief of persons labouring under bodily deformity, and it is interesting to note that it owed its origin to the efforts of George Freer, surgeon to the General Hospital, and renowned for the first successful ligature of the external iliac artery. The institution existed for a great many years for out-patients only, but it has now a service of 22 beds, and the proper title is the Royal Orthopædic and Spinal Hospital.

### THE BIRMINGHAM AND MIDLAND EYE HOSPITAL

was founded in 1837, but for the treatment of out-patients only. Later a few beds were provided, but only in what may be regarded as temporary premises not specially adapted for the purposes of a hospital. In 1883 the present handsome building was opened. It provided room for 70 beds, and was one of the best arranged and equipped eye hospitals in the kingdom, the arrangements for out-patients as well as for in-patients being admirable. Since its opening the building has been added to, and now provides room for 103 beds. Admission is mainly by ticket, and the number of patients treated in 1896 was—in-patients, 1,149; out-patients, 31,682.

### THE QUEEN'S HOSPITAL.

Whilst the General Hospital had already been in existence in 1837 for many years the sister institution the Queen's Hospital did not exist. In 1840, greatly owing to the exertions of Mr. Sands Cox, the Queen's Hospital was commenced, and it was speedily opened with provision for 150 beds, of which, however, only 70 appear at first to have been occupied. In the year 1845 the building was enlarged by the erection of detached fever wards to receive 180 patients. In 1862 another extension took place, and a chapel and some new wards were built. The year 1873 saw the plan of a scheme, organised by the late Mr. Gamgee, by which, greatly owing to the contributions of the working classes of Birmingham, a very fine out-patient department and annexes, mortuary, and pathological theatre were erected close to but detached from the in-patients' department. Since that date alterations have been made in the accommodation for in-patients, so as to secure more cubic space and the best sanitary conditions for the patients, and the operating theatre has been altered and furnished with modern requirements. The number of beds is now 132.

The work done by the hospital is shown by the fact that in 1896 2,109 in-patients and 28,820 out-patients were treated. In 1876 the ticket system of admission until then in vogue was abolished, but in the case of out-patients, apart from accidents, a small registration fee is required.

In 1842 a lying-in hospital was established for the reception of poor women during their confinement. In 1868, partly owing to financial difficulties, and partly to the general unsatisfactory mortality in places of this kind at that time, admissions were done away with. Now the patients are attended at their own homes by midwives, who in all cases where the labour is otherwise than natural have to summon a member of the medical staff. About 800 cases are attended annually.

### THE EAR AND THROAT HOSPITAL.

In 1844 an institution for the relief of deafness and diseases of the ear was founded. Later on it absorbed another charity known as the Eye and Ear Dispensary, the eye work being then discontinued as there was an excellent eye hospital. Previous to 1891 the work was carried on in a building not especially adapted for the purpose, but at the above-mentioned date a new and well-equipped hospital building was opened. Even then only out-patients were treated, but in 1895, and when the finances had somewhat improved, an in-patient department, for which space was provided in the new building, was opened, and there is now a service of nearly 20 beds. The statistics for 1896 show that 373 in-patients, and 3,300 out-patients were treated during that year.

Homœopathic practice in Birmingham was first provided with a small hospital in 1847, but the work was carried on under considerable difficulties as to accommodation until 1873, when the present hospital was erected and opened. Only half of the proposed building was then built, and it provided 40 beds; the remainder of the structure is yet unbuilt. This is the only public institution where private patients can be admitted for treatment by the staff.

### THE DENTAL HOSPITAL.

This institution was founded in 1858, and in 1880 it was recognised by the Royal College of Surgeons for the teaching of dental students, and the next year it became associated with Queen's College in the formation of the Dental School. Subsequently, when the Queen's Faculty of Medicine was transferred to Mason College, the Dental Hospital also became associated with the latter College. The number of patients treated is about 10,000 annually.

### The Children's Hospital.

Mainly owing to the exertions of the late Dr. Heslop, this hospital was opened in 1862 for both in-patients and out-patients, only 10 beds being at first provided. In the following three years the number of beds was increased to 24, and in 1869 a commodious and well arranged out-patient department was built close to, but not directly connected with, the in-patient portion of the hospital. The latter premises being incapable of further extension, more suitable ones were found about half a mile from the centre of the town, where some 50 beds were provided. In 1877 a fever department, containing 37 beds, was opened, and now that the city authorities provide for the treatment of certain of the zymotic diseases, these beds are devoted to ordinary medical and surgical work. At the present time there is room for 62 beds. This was the first hospital in the town established as a free or non-ticket hospital. Its importance is shown by the fact that in 1896 it treated 922 in-patients, and over 13,000 out-patients.

### Hospital for Diseases of Women.

This was founded in 1871 for out-patients only at first, but in the same year 4 beds were provided for in-patients. The formation of the hospital was due mainly to the exertions of Mr. Arthur Chamberlain; later it had substantial assistance from the late Miss Ryland. In 1878 the old premises in the centre of the town, being inconvenient for the purpose for which they were being used, and further, being suspected of insanitary conditions, the present hospital was opened at Sparkhill, some three miles from the centre of the town. This being too far away for the out-patients to attend, suitable provision was made for seeing them at a building in the centre of the town. The present service of the hospital is 18 beds.

Although this hospital is of small size, there is no doubt that the work done there has contributed considerably to the advance of abdominal surgery and its position compared with other similar hospitals is second to none.

### The Provident Dispensary.

This dispensary was founded in 1877, its object being "By the application of the co-operative principle to enable those whose circumstances rendered small periodical payments advisable to secure the boon of medical attendance and medicine during illness."

Mr. Sands Cox at his death left in the hands of trustees a fund for similar purposes, and eventually a portion of the fund was bestowed upon the Provident Dispensary, as well as a site upon which the dispensary rests at the present time.

The medical officer resides at the dispensary, and devotes the whole of his time to it, and the members are also able to obtain the service of a certificated midwife who resides close to. It may be of interest to note that the following is the scale of payment: An entrance fee of 1s. for a single member, and 2s. for a family is required, and for those above 14 years of age 5d. per month, and for those under 14 years of age 3d. per month must be paid; and for this, advice, medicine, and attendance is provided.

### The Skin and Lock Hospital.

This was the second hospital for special purposes which owes its origin to the late Dr. Heslop. Opened in 1881 for out-patients only, pending the acquisition of funds for building purposes, it was not until 1887 that the present hospital was built. In 1890, 6 beds for in-patients were provided, and these have gradually increased until at the present time room is found for 25 beds. One of the features of this hospital is the provision of medicated baths for in-patients and out-patients, and they are largely used by both classes. Admission is mainly by means of a registration fee, and during 1896 167 in-patients and nearly 6,000 out-patients were treated.

### Provision for the Sick Poor.

It would be impossible to close these brief notes of the medical institutions of Birmingham without referring to the excellent accommodation provided by the Poor-law authorities for the sick poor who have claims upon them. In 1889 the Board of Guardians opened an admirably planned and arranged workhouse infirmary, with accommodation for 1,665 patients. There are three visiting physicians and one visiting surgeon, all of them holding similar appointments at one of the general hospitals, and each of these visiting officers is provided with a house-physician or house-surgeon. As showing how complete the system is, it may be mentioned that the nursing staff consists of the matron, assistant matron, and night superintendent, of 59 nurses and probationers, in addition to 33 paying probationers and 10 attendants for the epileptics. At the present time the beds in the workhouse infirmary are not used for purposes of clinical instruction.

### District Nursing Society.

That valuable institution, the District Nursing Society, was founded in 1870, mainly through the instrumentality of Mrs. J. W. Beale. Its purpose was to provide nurses for the poor, to visit them at their own homes, mainly in cases of acute illness. Commencing with one nurse there are now fifteen stationed at a central home, from which they visit all parts of the city. A portion of the Diamond Jubilee Fund, however, is to be expended in the provision of two homes for this Society in different parts of the city, so as to render easier and more effective the work of the nurses, the number of whom will again be increased.

### Isolation of Cases of Infectious Diseases.

For more than twenty years the Corporation through its Health Committee has made provision for the treatment of small-pox cases and scarlet fever in hospitals managed by the Health Committee and supported by the rates. The work has been admirably done, and reflects great credit upon the Committee. For some years the two diseases were treated in buildings on adjacent sites. The increasing demand, however, for accommodation for scarlet fever and the limits of the site compelled the Health Committee to go farther afield with their small-pox hospital, leaving the old site for scarlet fever cases. In 1895 a new small-pox hospital was opened at a distance of about three miles from the centre of the city, though within its boundary, and in a thinly-populated rural district. Four pavilions are now in existence, each accommodating 24 beds, and giving each patient over 2,000 cubic feet of air space. There is also a receiving ward, isolating pavilion, and discharging ward. There is room for six additional pavilions on the same site, which are to be erected as required. As already mentioned, scarlet fever is provided for at the old site nearer to the centre of the city. The removal of the small-pox hospital left more room for provision for scarlet fever cases, and accordingly the scarlet fever hospital was enlarged last year so that it will now accommodate 400 cases, and it goes without saying that every detail has received careful consideration, and that the arrangements are altogether excellent. As showing the confidence of the public in the ability of the Health Committee to undertake this work, it may be mentioned that of 3,389 cases notified in 1896, 83 per cent. were removed to the City Hospital.

### The School of Medicine.

The School of Medicine in Birmingham is at present located in Mason College; the clinical teaching is carried on at the General and Queen's Hospitals, with which are associated the City Fever Hospital, the City Asylum, the Eye Hospital, the Orthopædic, and the Ear and Throat Hospitals. Summed up, this means that an immense amount of clinical material is provided for the students of the school, the number of beds contained in these various hospitals amounting to nearly 600, excluding those of the Fever Hospital and Asylum.

In 1837 a school of medicine existed which was organised by Mr. Sands Cox; but it was not until somewhat later that it seems to have been established on anything like a secure basis. In 1841, when the Queen's Hospital was opened, proper provision was first made for clinical teaching; and in 1845 the Queen by Royal Charter conferred on the Medical School the title of "Queen's College," and at the same time became its patron. Somewhat later, departments of arts, law, engineering, and architecture were added to the College, and though for a time money was forthcoming in considerable quantities, yet eventually mismanagement seems to have brought about monetary difficulties, and the Charity Commissioners held an inquiry into the position of the College. As the result of this inquiry an Act of Parliament was passed



The New General Hospital, Birmingham.

under the provisions of which the College affairs were managed until the School of Medicine was united with Mason College in 1892 under the title of "Queen's Faculty of Medicine." Prior to this, however, in 1882, an arrangement was made with Mason College by which the Professors of Chemistry, Physiology, Botany, Physics, and Comparative Anatomy undertook to teach these subjects to the students of Queen's College who attended Mason College for that purpose.

### Sydenham College.

It is now necessary to retrace our steps somewhat and refer to the second school of medicine, known as Sydenham College, connected with the General Hospital, and opened in 1851.

This school was carried on with fair success until 1868. It appears to have been evident that there was not scope enough for two schools of medicine, and, after much discussion and negotiation, the Sydenham College was merged into Queen's College, and to the latter the valuable museum of the first-mentioned school was transferred. We have thus the Queen's College with clinical teaching carried on at the General and Queen's Hospitals. From the date of this amalgamation in 1868 until 1881 no very noteworthy occurrence marked the progress of the College. At the last-mentioned date, however, a dental faculty was constituted with the Dental Hospital as its clinical school. The progress of this faculty has been steady and continual, and it is at the present time in a very flourishing condition. The opening of the Mason College in 1880 foreshadowed the subsequent fusion which eventually took place, and which has already been briefly indicated. Prior to the transfer of the Queen's Faculty of Medicine to Mason College the governing body of that institution expended a large sum of money on the necessary buildings to receive the incoming faculty, a fine dissecting room, with a large theatre, demonstrator's rooms, museum, a general medical theatre, museums of pathology, materia medica, public health, and dentistry, with the annexes, were built. At the present time a large bacteriological class room is in course of construction in which not only will the students be taught, but work will be performed on behalf of the Public Health Committee, who have shown a wise public spirit in the arrangements they have made with the college.

At present a Bill is before Parliament for the incorporation of the college, and this may be regarded as the first determined step towards the promotion of a university.

### The Birmingham Medical Institute.

In 1871 the friends of Dr. George Fabian Evans raised a testimonial fund of £1,200 to show their appreciation of his merit and distinguished character. A portion of this was expended on a portrait which is now in the General Hospital. The remainder being placed at the disposal of Dr. Evans, he added to it and devoted the sum of about £1,000 to the foundation of this institute. The primary purpose was to form a library of the medical and allied sciences. With the assistance of a few friends, two of the most prominent of whom still remain—Sir Willoughby Wade and Mr. Furneaux Jordan—the medical profession was canvassed with so much success that a handsome building was erected at a cost of £6,500 in the centre of the city. It consists of a large and well-appointed library hall containing over 12,000 volumes which are being added to in number constantly, and the hall is used as a place of meeting for the local medical societies. There is also a reading and writing room supplied with a very large number of British, foreign, and American periodicals, and with standard books of reference. A smoking room and lavatory also exist on the ground floor. The rooms are lit by electric light, and are comfortably furnished throughout. Altogether the institute is a foundation of which the medical profession in Birmingham has reason to be proud.

### Medical Worthies of Birmingham.

Early in Her Majesty's reign, we meet with, amongst the memoirs of past times, the name of Dr. Male, who died in 1845, having acted as physician to the General Hospital for thirty-six years. It is evident that he held a high place in the confidence of the public, and possessed great reputation amongst his professional brethren. He has been styled "the father of medical jurisprudence in this country," for to him is attributed the first complete English treatise upon that science; this was published in 1816. Its importance at the time of its publication cannot be overestimated, for it appeared at a time when the profession was extremely ill-informed in a science upon which so much depends in the administration of justice.

James Johnson, M.D., F.R.C.P., was a member of a family which had been closely identified with the practice of medicine in Birmingham and the surrounding towns for a long period of years. He was for thirty-one years physician to the General Hospital, and filled the Chair of Medicine at Queen's

College, and in 1856 was President of the British Medical Association when it first met at Birmingham. Apart from his writings on Materia Medica, and on the "Phenomena of Sensation," he wielded wide influence as a teacher of high character and culture.

Practically contemporary with him was another gifted physician and cultivated gentleman, Dr. G. F. Evans. A graduate and wrangler at Cambridge, obtaining his medical education at Dublin and Paris and St. Bartholomew's Hospital, he was a highly educated man and physician in the widest sense of the word. Like his colleague at the General Hospital, who has just been referred to, he was one who had great influence, not only because of his marked ability as a physician, but because he possessed in a high degree that attribute of "character" which, apart from the ability of its possessors, has such great influence on the bulk of mankind. For one reason, if for no other, his memory should be held in gratitude by the medical profession of Birmingham—that he was the main promoter and founder of the Medical Institute.

Another gentle physician whose memory is still green among us is Dr. James Russell. Of those who knew him, who does not recall his fine presence, his genial and lovable manner, his honourable character? As a physician he was very widely read, a careful observer and collector of facts, especially in nervous diseases, which greatly interested him. In one direction, however, above all others, we are indebted to him—for the time and trouble and expense he bestowed upon the preparation of permanent pathological specimens. Only those who are well acquainted with the contents of our museum know how deeply we are obliged to him.

On the surgical side of the General Hospital, going back to sixty years ago, whilst it is evident that men like Wood and Vaux were capable surgeons in their day, and were held highly in the respect and regard of their fellow townsmen, yet we do not find they have left any mark on the past like that produced by Mr. Joseph Hodgson, F.R.S. A pupil of George Freer's, and subsequently a student at St. Bartholomew's, he early obtained general appreciation of his powers and character. It appears that he practised for a time in London, and subsequently migrated to Birmingham, and for twenty-seven years was surgeon to the General Hospital. His most important work was on diseases of arteries and veins and their treatment. No doubt in these subjects he was influenced by the work of his old master, George Freer, and we find that when in London he obtained the Jacksonian prize for an essay on the same subject. His work is an example of careful observation, accurate reasoning, and artistic ability, for all the beautiful drawings which it contains were executed by himself. He was the chief promoter of the establishment of the Eye Hospital in Birmingham, to which he was the first surgeon. As showing the position he held in the metropolis, it may be mentioned that he was elected Examiner in Surgery at the University of London, and a member of the Council of the Royal College of Surgeons. After he retired from the service of the General Hospital he returned to London, where he practised until his death.

One of the names still cherished in Birmingham is that of Dickenson Crompton, who was appointed surgeon to the General Hospital in 1843; he was another Birmingham representative who obtained the distinction of winning the Jacksonian prize, the subject of his essay being "Diseases of the Nose and Face." He was one of Dr. Evans's warmest supporters in the foundation of the Birmingham Medical Institute, of which he was always one of the most generous supporters. An excellent surgeon, he attracted everyone to him by his genial, kindly character. A contemporary of his, although somewhat younger, was Alfred Baker, appointed surgeon to the General Hospital in 1848; he was a capable and facile operator, and a man of considerable force of character. Amongst his contributions to surgical literature were articles on Aneurysm and Amputation at the Hip Joint. He was associated with Dr. Bell Fletcher in the formation of Sydenham College, in which he was Lecturer on Surgery, and he was one of the staunchest supporters of the British Medical Association, taking active part in the formation of the Birmingham Branch in 1854; whilst in 1872 he was President of the meeting of the Association in Birmingham. For several years he was a member of the Council of the College of Surgeons.

A name that will always hold an important place in the annals of medicine in Birmingham is that of Mr. Sands Cox, to whom is due the credit of founding the Queen's Hospital, and subsequently the Queen's College. He was elected surgeon to the Queen's Hospital on its formation, and remained on its staff for twenty years, during which time he made many valuable contributions to surgical literature, amongst them a *Handbook on Anatomy*, and papers on Aneurysm of the Femoral Artery and on Amputation at the Hip Joint. He was a son of a well-known surgeon, Mr. E. T. Cox, and appears to have been a man of great energy, determination, and ability.

Langston Parker, also appointed surgeon to the Queen's Hospital on its foundation, was, with Cox, one of the ardent promoters of the Queen's College. He obtained a European reputation as a syphilographer, the best known of his works probably being the *Modern Treatment of Syphilitic Diseases*. He made many other contributions to medical literature, one of the most important being *The Stomach in its Morbid States*.

Another staunch supporter of Sands Cox in the foundation of the Queen's Hospital and Queen's College was Dr. Birt Davies, who was appointed one of the first physicians to the Queen's Hospital; he was for thirty-six years coroner for the city, being the first appointment under the new Charter of Incorporation. It is a remarkable fact that during the time he held the office of coroner he did not appoint a deputy but held every inquest himself.

Amongst the physicians of a later date the name of Dr. T. P. Heslop stands out prominently; he was a man of great energy, courage, and attainments, and possessed a remarkable degree of oratorical ability. Although he contributed little to medical literature, he was a clinician of high order; he was the main promoter of the Children's and of the Skin and Lock Hospital, and was one of the warm supporters of the foundation of the Women's Hospital. As President of Mason College he had greatly at heart the formation and extension of its library, which he made his special care, giving freely of his time and money to its support. He was, with Mr. Furneaux Jordan, the founder of the *Birmingham Medical Review*.

Another physician of the Queen's Hospital who brought to it much reputation was Dr. Alexander Fleming. An able and widely-educated physician, he is, perhaps, best known for his treatise on aconite, which brought him early fame. He made several other contributions to medical literature, amongst them one on *Lead Poisoning and its Treatment*, and he was an admirable teacher. Unfortunately he died in the prime of his career.

The name of Sampson Gamgee, who was for twenty-four years surgeon to Queen's Hospital, will be remembered, if for no other reason, by his valuable invention of the dressing material known as "Gamgee tissue." He had, however, many other attributes. As a speaker he had a remarkable flow of language and wealth of imagery; he possessed a wide knowledge of medical literature and great linguistic ability. He made numerous contributions to medical literature, the best known being his two books on the *Treatment of Fractures* and on the *Treatment of Wounds*.

Last, but not least affectionately remembered, is the name of Oliver Pemberton, whose obituary notice, recording all his good work and many charming qualities, the BRITISH MEDICAL JOURNAL has only recently published.

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## BRISTOL.

A FEW years before Her Majesty's accession to the throne, the Bristol Medical School was founded. It was the necessary outcome of the desire for medical education in the provinces—a desire that had been imperfectly fulfilled for some years previously by the establishment of private classes for anatomy and dissection in the houses of individual surgeons of repute, by lectures on medicine such as had been given by Drs. J. C. Prichard, the well-known physician and ethnologist, and by the Bristol Royal Infirmary being licensed for the teaching of anatomy, where for some periods of the day the dead-house was turned into a dissecting-room, in which instruction in anatomy was given by members of the staff.

Dr. Riley and Mr. Henry Clark were the real founders of the school. The subjects for instruction were not differentiated quite so much as now, but they more or less covered similar ground. Thus there were lecturers on the principles and practice of surgery, chemistry, and chemical toxicology, materia medica and therapeutics, the theory and practice of medicine, midwifery, and diseases of women, forensic medicine, anatomy and physiology, anatomical dissections, and botany.

The first staff of lecturers included men of no slight distinction. The chair of chemistry was filled by Mr. Herepath, who was before his age in methods of chemical analysis. Dr. Symonds took the chair of forensic medicine, and afterwards that of medicine, being succeeded in the former chair by Dr. Carpenter, the physiologist. The midwifery post was filled by Mr. John Swayne, whose distinguished son, Dr. J. G. Swayne, has done honour not only to the school, but to British medicine, by his book that has been translated into most European and several Asiatic languages.

The accommodation at the first medical school buildings was far inferior to that of the present school, but the work done was worthy of the great city of the West. The names of the earlier lecturers, Dr. Carpenter, Dr. Riley, Dr. Symonds, Dr. G. D. Frippe, Mr. Augustin Prichard, Mr. Coé, Dr. J. G. Swayne, Dr. William Budd, Dr. James Bernard, and Mr. W. Herepath, are those of men who, whilst excellent lecturers and teachers, have all made their mark by their writings or in the practice of their profession, whilst at a later date—not to speak of present members of the teaching body—Dr. Beddoe, Dr. Martyn, Dr. Shingleton Smith, Mr. Arthur Prichard, and the present Dean of the School, Dr. Markham Skerritt have worthily carried on the work of their predecessors. To mention results is necessarily impossible. Many of the later lecturers have received a portion if not the whole of their education at the school, and it has sent forth a large number of men who in India, Australia, and South Africa have worthily carried out in practice the teaching of the old school.

In 1892 the Medical School became incorporated with Bristol University College, and entered upon an ever-advancing career of usefulness. The state of medical science in the present day necessitates a greater differentiation in teaching. The old curriculum has given place to one that includes descriptive and general anatomy, the theory and practice of surgery, operative surgery, practical surgery, general anatomy and physiology, practical physiology, theory and practice of medicine, pathology and morbid anatomy, practical pathology and morbid anatomy, forensic medicine, chemistry, materia medica and therapeutics, midwifery and diseases of women, public health, comparative anatomy and physiology, and the anatomical teaching is carried out by a skilled professor who devotes his whole time to the subject.

At the foundation of the old school the Royal Infirmary was the only recognised hospital for students, and it was almost a chance whether the staff held among its members any capable of teaching in the various specialties. Bristol now possesses another large hospital, the General Hospital, the Hospital for Diseases of Women and Children; opportunities in more than one direction for education in diseases of the eye, the Eye Hospital and another, besides the departments in both the large hospitals for special education in diseases of the eye, the ear, the nose, the throat, and the skin. Two large dispensaries and other special institutions afford relief to the poor and education to the students, whilst, besides the pathological museums in the chief hospitals, the Medical School holds a teaching museum for students, fostered by very real work on the part of Dr. Swayne and the late Mr. Greig Smith, and constantly added to by the energy of the professor of anatomy.

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## LEEDS.

### THE LEEDS SCHOOL OF MEDICINE.

By R. N. HARTLEY, M.B., B.S.Lond.,
Late Honorary Surgeon, Leeds General Infirmary, etc.

In the time of the first William Hey, in 1800, some instruction in professional subjects was given at the old Leeds Infirmary; but the earliest systematic professional teaching given in Leeds was at a private school of anatomy, conducted by Charles Turner Thackrah, from 1826 to 1830.

### THE OLD SCHOOL.

From these beginnings sprang the Leeds Medical School, which was inaugurated in October, 1831, the premises consisting of rooms at the back of the old Leeds Dispensary.

The first President, Dr. Williamson, was Mayor of the borough at the time when Her Majesty the Queen attained her majority, and the first introductory lecture was delivered by the late Mr. T. P. Teale, F.R.S., in the year 1831. Closely associated with these gentlemen, in the establishment of a permanent school of medicine in Leeds, were William Hey and Joseph P. Garlick; and it may be interesting to reprint the prospectus of the session which commenced on October 1st, 1832.



Thomas Pridgin Teale, the elder.

LEEDS SCHOOL OF MEDICINE.
DISPENSARY—NORTH STREET.

The next Session will commence on Monday, October 1st, 1832, in which the following courses of lectures will be delivered:—

Anatomy, Physiology, and Pathology, by Mr. T. P. Teale and Mr. Garlick.
The Lectures on the Thoracic Viscera, by Mr. Thackrah.
Demonstrations and Dissections, by Mr. Price.
Principles and Practice of Surgery, by Mr. William Hey.
The Lectures on Hernia and on the Diseases of the Pelvic Viscera, by Mr. Thackrah.
Operative Surgery, by Mr. S. Smith and Mr. Hey.
Materia Medica and Therapeutics, by Dr. Hunter.
Chemistry, by Mr. West.
Principles and Practice of Physic, by Dr. Williamson.
Botany, by Mr. John Hey and Mr. Denny.
Forensic Medicine, by Dr. Disney Thorp.
Midwifery, and Diseases of Women and Children, by Mr. S. Smith.

These lectures are recognised by the Royal College of Surgeons and the Worshipful Society of Apothecaries, and Certificates of Attendance upon them confer the same qualification for examination as the certificate from the medical schools of London.

The accommodation at the old dispensary was soon found to be inadequate, and in 1834 the school was removed to a

house which for thirty years afforded all the available space.

### Early Teachers.

It is impossible in a brief sketch to do justice to the untiring industry and self-sacrificing enthusiasm of those who in a former generation constituted the lecturing and teaching staff of the Leeds School of Medicine—men of varied gifts and widespread reputation. One is tempted to recall the public-spirited citizen and learned physician as combined in the person of Dr. Williamson; the ever-green buoyancy of Sam Smith, the surgeon who, in his 75th year, announced his intention to institute a new course of lectures; the wide experience and sound surgical practice of the earlier Heys; the cultured mind and independent research into branches of science not immediately connected with his profession of the late Thomas Pridgin Teale; the devotion of Dr. Disney Thorp to the special study of forensic medicine; the unassuming modesty and unselfish character of George Morley, whose absorbing interest in his work acquired for him a high reputation as practical toxicologist. The names of these and many others, such as Dr. Hardwick, Dr. Chadwick, Dr. Heaton, Mr. Nunneley, are still cherished by former students of the Leeds School, while within recent years we have had to mourn the death of two brilliant professors—McGill and Jacob.

The survivors of those who lectured in the school between 1835 and 1865 are, Mr. C. G. Wheelhouse, Mr. T. Pridgin Teale, Mr. Edward Atkinson, Dr. Clifford Allbutt, Mr. Hall, Mr. Reynolds and Mr. Scattergood (the present Dean of the Medical School).

### New Buildings.

In 1865, the new medical buildings were specially built, and at the opening of these, an address was delivered by Mr. (now Sir James) Paget, which still amply repays perusal. Reminiscences of what is now the "old school" are still fresh in the memories of its alumni, and its teaching staff may recall with justifiable pride the good work done in it. But so rapidly have the methods of teaching been developed within the last quarter of a century, that it is small wonder that a building which in 1865 was said to be "unsurpassed in educational opportunities by any similar institution in the kindgdom," should in twenty years be found to be inadequate to the demands made upon it.

### The New School.

In 1884 the Leeds School of Medicine was incorporated with the institution known as the Yorkshire College, an amalgamation for the mutual advantage of both, inasmuch as on the one hand it supplied the Yorkshire College with a fully equipped Faculty of Medicine, and so facilitated its admission as a constituent College of the Victoria University; while on the other hand it provided the Medical School with a Science and Art Department, in which students could receive a wider and more liberal training in science subjects than could be given in a medical school. The present new and handsome buildings of the Medical Department were formally opened on October 6th, 1894, by their Royal Highnesses the Duke and Duchess of York; and the Yorkshire College, as a constituent College of the Victoria University, is thus enabled to qualify students educated within its walls to proceed to the degrees in Medicine and Surgery of its own University.

### Addendum.

By T. Pridgin Teale, F.R.S.

In the year of the Queen's accession, 1837, the Leeds School of Medicine, in common no doubt with the other provincial schools, consisted of a converted private house in which two lower rooms thrown together formed the museum, the attic storey with a skylight formed the dissecting-room, and a narrow room, about 8 feet by 15, was the only place available for the injection of "subjects," for the use of the prosector, and for the preparation of specimens for the museum. In addition there was a small theatre, barely capable of holding fifty students. The staff of lecturers, ten in number, included the three physicians to the infirmary and the three surgeons, the latter being all of them engaged in general practice, including midwifery. The lectures were given, some of them, for instance midwifery, at seven in the morning, others, for instance, surgery, at eight o'clock in the evening. Such an arrangement was possible at a time when nearly every student was a resident apprentice with a general practitioner in the town, but is impossible at the present time when a large proportion of the students in the medical department of the Yorkshire College come in by train from neighbouring towns and villages. Two of the lecturers were not medical men, Mr. West, a highly accomplished chemist and F.R.S., and Mr. Denny, curator of the museum of the Leeds Philosophical Society, an eminent naturalist.

After thirty years of excellent work, in the face of very restricted conveniences, the school was moved, in 1865, to new premises in Park Street, specially and carefully designed to meet what were then considered to be the most advanced demands of medical teaching, and providing, as some thought extravagantly, for a possible one hundred students, at a time when the number was about fifty.

Thirty years later, this school, built for one hundred students, had become inadequate, seeing that the number of students was approaching two hundred. Its single theatre—supplemented as it had been, as a temporary means of relief, by lecture rooms at the Yorkshire College—failed to meet the needs and demands of the various lecturers. Its single laboratory was unequal to the requirements for teaching physiology or pathology, and its dissecting room was in size far below what was needed for the increased number of students. It had become imperatively necessary for the Yorkshire College to face the question of providing a new medical school adequate to meet, in the best-known way, the multifarious and exacting requirements of medical education at the present day.

Hence, whereas at the commencement of Her Majesty's reign we had a small theatre, a small prosector's room, an attic dissecting room, and two ordinary rooms as a museum, doing the work of all the lectureships in the school, we have now a complete and self-contained anatomical department, with its own lecture theatre, museum, dissecting room, prosector's room, professor's room, preparation room, and convenience for storing and preparing subjects for dissection; a complete physiological department, with special theatre, two laboratories, and accessory rooms; a suite of rooms for pathological work; a large library; museum, students' common room, and other rooms providing every known accessory for the convenient carrying on of a large medical school. All this is in close relation with the Leeds Infirmary, which is situated at the opposite side of the street.

The teaching staff in 1837 numbered twelve; in 1897, including the chemical and biological teachers at the Yorkshire College, it numbers about forty.

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## LIVERPOOL.

### The Medical Faculty of University College.

The earliest beginnings of this institution are traceable to courses of private lectures on anatomy and midwifery given at their own houses by sundry gentlemen in general practice in Liverpool. In the year 1834 several of these gentlemen joined their efforts and organised a medical school. This was nearly contemporary with the commencement of the Queen's reign, which has thus seen the origin and progress of medical teaching in this city. Among the first lecturers we find the names of men who are still remembered locally, such as those of Dr. Formby, who lectured on medicine, of Mr. Long on anatomy, of Dr. Reynolds on chemistry, and of Mr. Batty on midwifery. The lectures were given in a building called the Royal Institution, and the school was therefore called the Liverpool Royal Institution School of Medicine and Surgery. In 1845, however, the authorities of the infirmary built a school for the lectures on land belonging to the infirmary, and practically made it an appanage thereof, so that it henceforth called itself the Infirmary School of Medicine. The building contained a waiting room for students, a museum, a general theatre, a dissecting room, an anatomical theatre, and a demonstrator's room. It also boasted of a microscope and a papier maché anatomical figure, which could be taken to pieces.

### Decline of the Old Medical School.

For a period of twenty years its fortunes were varied, but

the great improvements which took place in the London schools about that period, and the presence of the galaxy of professorial talent at the University of Edinburgh, which raised its fame as a teaching centre in such a wonderful way, were in the end too much for the struggling Liverpool school, which slowly but steadily began to go downhill until about 1865. The burst of educational enthusiasm which has since arisen all through the provinces was not dreamed of then, and so about the middle of the Queen's reign the school reached its lowest point: so low, that it was seriously debated whether it was worth while carrying it on or not. The drunken porter (its factotum) had even pawned the school microscope!

### A New Birth.

At that juncture Mr. Reginald Harrison settled in Liverpool, and was made registrar of the school. Presently there came a body of young men who joined him and who essayed to prop up the fortunes of the decaying school. Among the most active of these may be mentioned Drs. Campbell Brown, Davidson, Caton, and Banks, although there were others who, coming a little later to its help, assisted valiantly in the general effort. From that period the progress of the school has been steadily upwards. In 1870 an appeal was made to the public of Liverpool by the lecturers, who collected about £6,000, with which a well-designed museum, a chemical department, and a physiological laboratory were built; this last being one of the earliest in the country. Some ten years later the formation of a college—a scheme which had long been simmering in the minds of many persons who took an interest in the educational welfare of Liverpool—assumed a palpable form, and University College came into being. By a happy chance, the best site for the new college was found to be one immediately adjoining the medical school and the Royal Infirmary. So soon as the college had taken a definite form and settled itself down, the medical school joined it as its medical faculty. A little later the University College was admitted a college of the newly founded Victoria University, at present constituted by the Owens College, Manchester, the University College, Liverpool, and the Yorkshire College, Leeds. The status of the medical faculty at once rose from that of a mere medical college attached to a hospital to that of an integral part of a young and active university having a great future before it. At the present moment the chairs of physics, botany, natural history, chemistry, anatomy, physiology and pathology are all endowed, each professor having a guaranteed £400 a year, and two-thirds of his fees. The chemical department has been built and fitted up at a cost of £28,000, and forms a striking contrast to the room, 12 feet by 10, in which Dr. Campbell Brown commenced his teaching in the old school. By the generosity of Mr. Thomson Yates, a splendid pile of buildings dedicated to pathology and physiology, which will cost about £25,000, is rapidly approaching completion, and will be opened by Lord Lister next spring. The old medical school buildings have been improved, and serve chiefly for the anatomical department, but it is hoped that ere long this part of the medical school will be brought up to the mark of the other departments just alluded to. Among other gifts to the school may be mentioned that of a reading room presented by Dr. Paget-Tomlinson, J.P., of Kirkby Lonsdale.

### Scholarships and Prizes.

At the commencement of the school there were naturally no scholarships or prizes of any kind. To-day there are given yearly two scholarships of £100 each, the recipients being senior students or junior graduates who assist as tutors in the school. These were given by the late Mr. George Holt. Also there are two Lyon Jones Scholarships of £21 each, given annually to students working for the Victoria degree, and there is a Derby Scholarship of £15 given annually to the best student at a clinical examination.

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## MANCHESTER.

One of the most striking features of the present reign as regards medical education is the fact of the endowment and equipment of provincial colleges, so that in connection with Manchester institutions we make no apology for beginning with a short account of Owens College, so far as relates to its medical department.

### Owens College.

Owens College may be said to have been at once the parent and pattern of the provincial colleges now dotted over the populous and mercantile districts of England. Towards the end of last century divers schemes for the institution of colleges were proposed; these colleges were to afford a training "for the learned professions as well as for commerce." There was not much hope of success when the idea prevailed that higher education spoilt youths for the pursuit of commerce and for business generally. In 1786 lectures on anatomy were given by Charles White, F.R.S., and upon chemistry by Thomas Henry, F.R.S., at a time when Manchester had a population of perhaps 66,000. But there was no medical school, as such. During the first thirty years of the century Manchester prospered enormously; its population had doubled, its accumulated wealth was great. In 1830 the "Royal Institution" was built, and again the cry for a university was heard, and it is noteworthy that then, as now, it was to be of a type different from the then existing universities, namely, such as "to be entirely consistent with the integrity of individual religious opinion."

The material progress of Manchester during the decade 1830-40 went on at an even greater rate than in the previous decade. In 1836 we have a proposal by Harry Jones, read before the Statistical Society, entitled, Plan of the University for the Town of Manchester. At this time there existed a medical school, or rather schools, in Manchester, and at a meeting of citizens held to confer regarding the proposal to institute a college for general education, it was deemed essential that "a medical department should form a constituent element of the contemplated college."

As already mentioned, Mr. Charles White gave lectures on Anatomy, and, according to Dr. Angus Smith, the Lying-in Hospital was founded by his influence in 1790, while the Manchester Infirmary was greatly indebted to him. In 1814 Mr. Jordan commenced an anatomical school, and his certificates were accepted by the Royal College of Surgeons, London. It appears, however, that Mr. Thomas Turner was the first to establish a really well-equipped medical school in Manchester. He lived long enough to see the full realisation of his ideal. He died in 1873.

The state of medical education was very defective in the second decade of this century, nor was the general education at all satisfactory. Mr. Turner in 1825 secured a suitable building in Pine Street, and the lectures were distributed as follows: Anatomy, Mr. Turner; Materia Medica, Dr. J. L. Bardsley; Surgery, Mr. Ransome; Chemistry, Mr. (Dr.) Dalton (died 1844); Midwifery, Mr. K. Wood; Botany, Mr. Thomson. This was the first medical school established in the provinces, and in consideration of this circumstance "and of its excellent equipment" it was permitted in March, 1836, to attach the prefix "Royal." Manchester was pre-eminently well situated for a medical school. It had its infirmary only too replete with medical and surgical cases; its lying-in hospital, lunatic asylum, lock hospital, and its eye institution; but though its hospital contained 200 beds, its school was without privileges. The certificates of attendance at the infirmary were not recognised by the London College of Surgeons, although the Edinburgh College recognised them, and so did the Society of Apothecaries. A second medical school was opened by Mr. Jordan in 1827 and closed in 1834, and with the disappearance of Mr. Jordan's school there arose phœnix-like a third medical school, in Marsden Street, which lasted until 1840.

We have said that in 1836 there was an attempt to establish a college at Manchester, but it failed, "mainly through the difficulty of bringing the two medical schools into harmony," that is, the Pine Street School, or "Royal School of Medicine," and the Marsden Street School. The Pine Street School held the field alone until 1850, when Mr. Southam, Dr. Watts, and Mr. Dumville established a medical school in Chatham Street, Piccadilly, but this was amalgamated with the Royal School of Medicine in 1858.

Here we must leave the medical schools for a little to return to the foundation of Owens College, which owes its origin to the liberality of a Manchester merchant, John

Owens, who died in 1846, and left the residue of his personal estate to trustees for the purpose of affording to youths instruction in the branches of the education taught at the English universities free from all religious tests. How nobly the original and present trustees have carried out the wishes of the testator he who runs may read. Has not Owens College been the prototype of all our provincial colleges? The total sum received from Owens's estate was £97,000, and how nobly the public of Manchester has supplemented this bequest is testified to to-day, not only by the magnitude and equipment of the College buildings and laboratories, but also by the worldwide fame of this institution in all departments of learning. The College was opened in a comparatively humble building in Quay Street in the city in 1851, Dr. Frankland being the first Professor of Chemistry, and Dr. W. C. Williamson Professor of Natural History. We need not follow the fortunes of the College as an educational institution until its removal in 1873 to its present palatial buildings in Oxford Road, nor need we more than refer to the great renown which its chemical department achieved under the direction of Sir Henry E. Roscoe, assisted by Professor C. Schorlemmer.

### The College and the Medical Schools.

As early as 1856 a movement was set on foot with a view to the union of the medical schools with the College. The trustees of the College contemplated the addition of a medical faculty to the existing departments of the now very thriving and prosperous College, so that in 1870 the question of amalgamation of the Royal School of Medicine with Owens College was ripe for consideration, and at a meeting of the Court in 1872 it was announced that "terms of a satisfactory nature had been arranged for the incorporation of the Manchester Royal School of Medicine with the College." In 1873 the Extension Committee of the College accepted a tender for the building of a new medical school behind the new College, to cost about £13,000, and there were also endowments for at least one of the proposed chairs, namely, the Brackenbury Chair of Physiology, Dr. Gamgee being its first occupant. Dr. M. Watson was appointed Professor of Anatomy. At that time (April, 1873) the number of medical students on the register was 112. Messrs. W. Smith, Southam, and Lund, and Dr. (now Sir) Wm. Roberts and Dr. Morgan, formerly lecturers in the Medical School, were appointed professors of the College. The new medical school buildings were opened in October, 1874, by Professor Huxley.

Nor must we forget to mention the great development on the biological side of the College. The Council spent nearly £70,000 on the biological laboratories and on museum accommodation.

### The Victoria University.

We have shown how from very early times there had been in Manchester aspirations towards the foundation of a "College," and even a "University." How liberally, nay, even munificently, the Manchester public, practically unaided, have achieved the first object is known to all, but the very growth of the College as now established, the number of its professors, lecturers, and students, its importance as an educational institution, the perfection of its laboratories and its general equipment, its buildings, endowments, and its worldwide reputation all suggested its natural evolution—namely, the granting of rights to confer degrees—that is, to become a university. The university question did not take definite form till 1875, and, as far as the medical aspect of the question was concerned, the reasons for a charter being obtained were cogently urged by the late Professor Morgan in a pamphlet entitled *Medical Education at the Universities* (1875). After much delay all seemed in a fair way for Owens College obtaining a charter for a local university in Manchester, when in 1878 opposition was set up by the Yorkshire College. Ultimately it was agreed to call the proposed university Victoria University, and the charter constituting Owens College a college therein was received in 1880, but the charter did not confer the right to grant degrees in Medicine, in fact it expressly excluded this. At that time the Government were busy with a one-portal system scheme. Already there were nineteen degree-granting bodies in the United Kingdom, and there was strong opposition to the addition of another degree-granting body.

Victoria University is unique in the history of such institutions. It confers degrees only on its own students; it is at once a teaching and a degree-granting body, but it is "federal" in its principle, consisting at present of three colleges—Owens, University (Liverpool), and Yorkshire (Leeds), which are not situated in one town as are the Colleges of Oxford and Cambridge. On the report of the Royal Commissioners on the Medical Acts, Victoria University obtained a supplementary charter in 1883 removing the restriction as to the power to confer degrees in Medicine and Surgery.

University College was incorporated in 1884 and Yorkshire in 1887. These Colleges, following the example of Owens, have made enormous endeavours to equip, and that successfully, their respective medical schools; and it is safe to say that as regards equipment the medical departments of the three constituent Colleges of Victoria University stand out as unsurpassed in the United Kingdom.

### The Medical School.

The growing requirements of medical education, the great and steady increase in the number of medical students, and especially of those seeking to qualify for a degree in medicine, soon necessitated additions to the original medical school buildings, in fact the school was embarrassed with its own success. In 1881 the Council raised the status of the departments of materia medica and pathology, Drs. Leech and Dreschfeld becoming respectively professors of these subjects. The extension of the medical school and containing rooms for the medical library, costing about £8,000, was arranged for in 1882, and these new buildings were formally inaugurated in 1883, the medical school having doubled its numbers since 1874. At present there are nearly four hundred medical students attending the college. More wonderful still, owing to the growth of the medical school, and above all true to a principle which has guided the Council of the College in its dealings with all departments, namely, to provide and equip laboratories, giving ample space for practical work, the Council found itself faced in the early Nineties with demands for additional accommodation. They boldly faced the problem, and only two years ago new laboratories and lecture rooms for physiology, pathology, medical jurisprudence, bacteriology, and hygiene were opened at a cost of nearly £40,000.

When one surveys the extraordinary evolution of medical education in Manchester on its non-clinical side—not from 1837, but from the amalgamation of the Royal School of Medicine with Owens College in 1873—one is struck by the fact that during a period of less than a quarter of a century, the Council of the College has spent over £60,000 on its medical school, and by its liberality has enabled it to keep a foremost place amongst the great medical schools of the country. Somewhat later a dental school, replete with laboratories and class rooms, was added to the medical department of the College.

### The Hospitals.

Turning now to the hospitals, first, of course, comes the Royal Infirmary, instituted in 1752, but opened in 1755, which was at once an infirmary, dispensary, and lunatic asylum (1765). The asylum was removed, and in its place in 1847 was erected the south wing, and in 1851 the north wing, the latter costing £19,000. Large additions for various purposes have since been made, until at present the infirmary contains 298 beds. The columns of the British Medical Journal of recent years testify to the numerous proposals which have been made regarding this institution by way of enlarging and improving it so as meet the ever-growing demands. At present a Committee is sitting with a view to determine what is best to be done to meet these demands, whether to rebuild it on its present site or to erect a new hospital elsewhere. There is also the Royal Lunatic Hospital at Cheadle, the Barnes Convalescent Home, and the Monsall Fever Hospital, the last now administered by the Corporation.

Everything connected with the great hospitals in Manchester seems to be in a transition state at present. St. Mary's (53 beds), founded in 1790 and extended in 1855, chiefly devoted to the diseases of women, and the Southern (over 50 beds), founded in 1866, with similar aims, seemed some few months ago to be about to amalgamate, and share

between them a large sum of money offered by the David Lewis trustees, but this proposal came to nothing, and these hospitals remain as they were. In the history of the hospital question in Manchester within the last decade, nothing is more remarkable than the fact that it has not been possible for various institutions to accept large sums of money offered for hospital purposes. Thus a few years ago the Council of the Owens College was unable to accept a gift of over £70,000 for a hospital offered by the Whitworth legatees, and quite recently, owing to one cause or other, an almost similar sum offered by the David Lewis trustees was lost for hospital purposes. True, the Whitworth legatees presented a large piece of land to Owens College for hospital purposes, but so far only the cancer pavilion has been established there. The hospital question as regards a general infirmary still awaits solution, and it is earnestly to be hoped that during this year of grace a solution satisfactory to all parties and all interests will be found.



Thomas Turner.

The Eye Institution was opened in 1815, and its present extensive and commodious building in Oxford Road with 100 beds was opened in 1886. The Manchester and Salford Institution for Skin Diseases was opened in 1885. A scheme for provident dispensaries was completed in six different localities, and all six were opened by 1875. In this year a bazaar realised £21,000 in aid of the Sick Children's Hospital, which has a magnificent building (140 beds) situated at Pendlebury. In 1875, also largely through the energy of the late Mr. Shepherd Fletcher, the scheme for establishing the "Hospital for Consumption and Diseases of the Throat" took definite shape. In 1874 a hospital was added to the Ancoats Dispensary (1828) by Miss Brackenbury. The Manchester Clinical Hospital (70 beds) was founded in 1856, the Victoria Dental Hospital in 1884. The Manchester and Salford Sanitary Association, founded in 1852, which has done so much to enlighten public opinion on health matters, owed much at its inception to Mr. Thomas Turner, who did so much for medical education in Manchester.

### What Manchester has done.

During the sixty years of the Queen's reign from 1837 to 1897 the population of Manchester has increased from 220,000 to 405,000. This does not include Salford, and with this increase there has been a great development of medical institutions and medical charities which we cannot find space to enumerate; nor have we space to refer to the Literary and Philosophical Institution, dating from 1781, or to the distinguished scientists and medical men who have made the Manchester School of Medicine what it is.

This short sketch will show how liberally the Manchester public has supported the efforts of its leading public men to provide and maintain hospitals, and similar agencies, for the benefit of this work-a-day community; and when we reflect how nobly and cheerfully these same public-spirited men, even in the face of great difficulties, have founded and endowed a College complete in all its departments, one cannot but feel that they at least have done something to promote the well-being of their fellow citizens, and to leave a large impress of their liberality, foresight, and wisdom, as an example to their successors.

When the Queen visited Manchester in October, 1851, she noted in her diary, with reference to the crowds in the street, how "both in Salford and Manchester a very intelligent, but painfully unhealthy, population they all are, men as well as women." We hope that the ever-increasing beneficent agencies called into being since then have done something to improve the physical surroundings of a population which is one of the most crowded and industrious in this busy country.

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## NEWCASTLE-UPON-TYNE.

The School of Medicine of Newcastle-upon-Tyne, from a small beginning, during the sixty-five years of its existence, has pursued a gradually upward course of labour and consequent success. Its name has been three times changed. At its commencement in 1832, it was called the Newcastle-upon-Tyne School of Medicine and Surgery; in 1851, it was brought into connection with the University of Durham, and assumed the title of the Newcastle-upon-Tyne College of Medicine, in connection with the University of Durham; and in 1870, the connection with the University having been made more intimate, it became the University of Durham College of Medicine, Newcastle-upon-Tyne. In 1887, a new college building was erected, at a cost of £32,000. In this College, every modern improvement has been adopted by which the medical education and the wellbeing of the students may be furthered, residence at the College being allowed to count as residence in the University towards graduation. As evidence of the progress of the College is the fact, that in the year 1832 its students numbered 8, and in 1895-96, 219.

The University of Durham was founded during the Ministry of the first Earl Grey by Bishop van Mildert, with the co-operation of the Dean and Chapter of Durham, by Act of Parliament, which received the Royal assent July 4th, 1832—that is, three months before the commencement of lectures in the School of Medicine of Newcastle-upon-Tyne. The year 1856 was the commencement of the system of examination of students proceeding to degrees in medicine in the University. The examination was conducted by printed papers of questions, *viva voce* interrogation, and a practical examination in the dissecting-room, chemical laboratory, and in the wards of the Newcastle Infirmary. Of the examining bodies of the United Kingdom, the University of Durham was the first to institute this system of examination. It is specially to be noted that this was two years prior to the formation of the General Medical Council. In the year 1856 there were three successful candidates at the examinations for degrees in medicine, and in 1895-96 the number of degrees and titles conferred was 141. Of the successes of the students it is noteworthy that at the competitive examinations of Her Majesty's Royal Navy on three occasions a graduate in medicine of the University of Durham has been placed in the first position. Likewise on three occasions a graduate in medicine of the University of Durham has been placed in the

first position at the Army Medical Examinations. The majority of the students proceed to the degrees of Bachelor in Medicine and Bachelor in Surgery, and a proportion subsequently to the degrees of Doctor in Medicine and Master in Surgery. Previous to the establishment of the examinations by the University the students proceeded to the Membership of the Royal College of Surgeons of England and the Licentiateship of the Apothecaries Society of London, or to analogous examinations at Edinburgh and Glasgow.

A supplementary charter was granted to the University in 1895, the chief provisions of which were the authorisation to hold convocations for the conferring of degrees in Newcastle-upon-Tyne, in addition to Durham; and ordaining that all powers of granting degrees, degrees in divinity only excepted, shall apply to women as well as to men. At the April examinations of the present year, for degrees in medicine and surgery, eleven women students were candidates.

University hostels, as the recognised halls of residence for men and women undergraduates, have been established in Newcastle. It is proposed that a residential hall shall be added to the College of Medicine, so as to give the advantages of a university training to the students in medicine.

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## UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE.

### Cardiff Medical School.

England, Scotland, and Ireland have for years—nay, centuries—had their medical schools, and now in these latter days, with increasing national enthusiasm, it has been felt that Wales should also have its medical school. The establishment of university colleges in Wales has not only given an impetus in the direction of higher education in the Principality, but also in that of medical education, which has not been allowed to drop. More than ten years ago Dr. W. T. Edwards, of Cardiff, a Vice-President of the British Medical Association and consulting physician to the Cardiff Infirmary, offered £1,000 towards the establishment of a medical school in connection with the University College at Cardiff. In 1885 the Government of the day was approached by a very strong deputation, and asked to make an annual grant of £2,000 towards establishing two professorships—one of anatomy and one of physiology; but the deputation was not successful in its appeal. Five years later, in 1890, at the twentieth annual meeting of the South Wales and Monmouthshire Branch of the British Medical Association at Cardiff, renewed efforts were made with a view of obtaining funds to start a medical school, and with a fair amount of success. Dr. W. Price, of Cardiff, promised £1,000, and several members of the Branch followed with promises of handsome donations. A committee was appointed to appeal to the profession in South Wales, and others, for funds, with Dr. A. Sheen (Cardiff), and Dr. Latimer (Swansea), as honorary secretaries; and, mainly as a result, directly or indirectly, of their efforts, the amount promised was brought up to about £5,000, which sum was further increased later on by a legacy from the late Dr. C. Jones, of Pontypridd, of £1,800. Amongst those who subscribed were Mr. Arthur H. Thompson, of Hampstead, £1,000; Mr. John Cory, £250; Miss Williams, London, £200; Mr. R. Cory, £200; Mr. James Howell, £125; Lord Aberdare, Lord Tredegar, Mr. D. T. Edwards, and Dr. Garrod Thomas, £100 each. Lord Aberdare, who was deeply interested in the project, presided over a meeting held in London in July, 1890, when a committee was formed, with Miss Williams, Vicarage Gate, and Dr. Isambard Owen as honorary secretaries, to appeal for funds to Welsh residents in London.

At the annual meeting of the governors of the University College of South Wales and Monmouthshire, held at Cardiff in October, 1892, it was practically decided that a department of medical sciences should be formed in connection with the College. A resolution to this effect, moved by Mr. Alfred Thomas, M.P., seconded by Dr. A. Sheen, and supported by Lord Aberdare, Principal Viriamu Jones and others, was carried unaimously in a full meeting. It was understood that, for the present at all events, teaching would be provided only in those subjects which would carry a student as far as the first M.B., London University and the early examinations of the other examining bodies. The University College at Cardiff, founded in 1883, already provided a complete course in arts and science, and medical students received instruction for the Preliminary Scientific examination of London University. The change proposed was the extension of the curriculum to include human anatomy, physiology and histology, and materia medica and pharmacology. The proposal had been officially approved by the Conjoint Board in England, and it had the warm support of the medical staff and executive committee of the Cardiff Infirmary, at which institution, now containing 160 beds, ample material would be found for training in the elements of practical surgery and medicine. After completion of the courses in the above mentioned subjects, and after passing the First M.B. examination, students would be in a position to commence attendance on clinical and systematic courses in medicine, surgery, and midwifery at one of the large metropolitan hospitals, upon much the same footing as the numerous students who now go up to London from Oxford and Cambridge.

In March, 1893, two admirable appointments were made by the Council of University College, at Cardiff, namely, those of Alfred W. Hughes, M.B., F.R.C.S.(Eng. and Edin.) to the professorship of anatomy, and of J. Berry Haycraft, M.D., D.Sc., F.R.S.E., to the professorship of physiology, and on October 5th, 1893, the medical school was opened in some temporary buildings, the opening of the session being inaugurated by an address given by Professor Haycraft on "Some of the Present Aspects of Medical Education."

At a later date, D. R. Paterson, of Cardiff, M.D., M.R.C.P., was appointed lecturer in materia medica and pharmacology.

No time was lost in finding a more suitable habitation for the Medical School. Plans were drawn for a third storey of the University College buildings, providing in the anatomical department a lecture room to seat 100 students, a dissecting room, a museum and bone room, and preparation and retiring rooms; in the physiological department, a lecture room for 120 students, a practical class room for 30 students, a research and preparation laboratory, retiring room, museum and photographic room. On February 14th, 1894, this new department of the College was formally opened by Sir Richard Quain, M.D., F.R.S., President of the General Council of Medical Education, who delivered an address before a large and sympathetic audience presided over by Lord Windsor. The new building cost about £6,000.

The Medical School is open to both men and women, and its progress so far has been eminently satisfactory. Eight students entered at the first session in October 1893, in 1894 the number had increased to 24, in 1895 to 40, and in 1896 to 47, five of these being women. The College provides a considerable number of scholarships and exhibitions, and in 1895-96, eleven of these were held by medical students. Of the students at present attending 33 are preparing for the London University degree, 1 for the Edinburgh University degree, and 13 for the diploma of the Colleges of Physicians and Surgeons in London. During the past year one student obtained third-class honours in physiology at the intermediate examination, London University, and has since obtained an entrance scholarship at St. Bartholomew's Hospital, and another, at the same examination, obtained a first class in anatomy, taking the gold medal and exhibition, an honour which has only once been gained during the last fifteen years by a student from a provincial school; he has since gained an entrance scholarship at Charing Cross Hospital. In spite of their having teaching duties the members of the staff have been able to contribute to the advance of medical science, and several of their papers are to be found in the *Anatomischer Anzeiger*, the *Journal of Physiology*, and the *International Journal of Anatomy and Physiology*.

Professor Hughes resigned his post in February last owing to the ill-health of his wife, and was subsequently appointed to

the Chair of Anatomy at King's College, London. Mr. A. Francis Dixon, B.A., M.B., late Senior Demonstrator of Anatomy at Trinity College, Dublin, has been elected Professor of Anatomy. Professor Hughes marked his retirement by the generous gift of his museum of anatomical models and dissections, which are to remain under certain conditions in the anatomical department of the College. During the year the school has received a very generous gift of £500 from Messrs. Samuel Brothers, of Cardiff. The medical school is at present without any endowment, and it is most necessary that assistance of this kind should be forthcoming, and as soon as possible.

Students of medicine can spend three out of the five years of prescribed study at the Cardiff Medical School. The course of study is recognised by the Universities of London, Edinburgh, Glasgow, Aberdeen, and Durham, by the Examining Board of the Royal Colleges of Physicians and Surgeons of England, by the Scottish Colleges, and by the Society of Apothecaries, London. Students have also opportunities of attending the Cardiff Infirmary, a large and well-ordered hospital, situated within five minutes' walk of the College.

## SCOTTISH MEDICAL SCHOOLS.

### ABERDEEN.

By W. LESLIE MACKENZIE, M.A., M.D.,
Medical Officer of Health, Leith.

#### THE PRE-VICTORIAN ERA.

"Tell me," said I to the revered Professor Nestor Emeritus, "is it true—what they say—that Aberdeen University had a chair of medicine from the beginning?" "True, in a sense, it is," he answered, "if a man makes a chair: for King's College—one of Aberdeen's two universities when England had no more—always had a mediciner." And then he sketched the outline of that long story: how, in the fifteenth century—that spacious time of great ideas—medicine had not yet separated off from the liberal arts; how the King's College University had its mediciner; how, generation after generation, he taught or did not teach; how the office fell to a mere abuse and a name; how its only, or almost its only, glory was that, in the eighteenth century, it offered a temporary sphere for the energy and genius of some offshoots of the Great Gregory Family—known to every British infant; how, as the University emerged into the nearer light of this century, the academic form of the mediciner's office united with the living content of the Medical Society to constitute the true rudiments of a medical school; and how, some twenty years before the Victorian era, King's College shared with other institutions in the actual teaching of medicine.

#### THE TWO UNIVERSITIES.

What were the other institutions? One was the university of Marischal College; another—and the principal—was the Medical Society. I must add the Aberdeen Royal Infirmary, opened in 1742, and the Dispensary, opened "forty years later."[1]

Marischal College—the second of Aberdeen's two universities—had a chair of medicine as early as 1700; but the teaching of medicine in the University did not become a reality until the nineteenth century was well advanced. The chronicles give many dates, and it were interesting to set them forth; but here one is enough to focus the chief facts of the pre-Victorian teaching. The year 1818 saw the formation of the joint Medical School. A year earlier King's College had reformed the regulations for the degree of M.D. Marischal College had already established lectureships in anatomy, midwifery, surgery, and materia medica.[2] In the Joint School the two universities were to combine their resources; the courses of lectures were to include anatomy, animal economy, surgery, practice of physic, theory of physic, materia medica, clinical medicine, midwifery, and botany. Here was a fairly extended programme. The Joint School lasted for 20 years; but the Old Town (King's) and the New (Marischal) never pulled well under the same yoke, and in 1839 King's College took steps to dissolve the school and to re-organise a medical school of her own. Marischal College did the same. And so we find the two universities within the Victorian era.

[1] *Bulloch*, p. 166.
[2] *Rait*, p. 395.

#### THE MEDICAL SOCIETY.

Meanwhile, there was another institution—the Medical Society. And this had more power than either of the other two. For it was formed by young men with ideas and courage. When, as a boy, I first went with a friend to spend a Saturday afternoon at the Marischal College Museum, I was, like all strangers, arrested by the magnificent red-granite obelisk that still stands in the quadrangle. In those days, we went in by an old archway, which hid, for the moment, both college and monument; to-day, the building is greater and the obelisk is sooner seen; but nothing will better the fine surprise of the earlier times. Whose was the obelisk? It is the monument of Sir James MacGrigor, whose energy created—others helping—the Medical Society; whose practical insight made him a favourite of Wellington in the Peninsula; who spared nothing to develop the Society he founded, until it grew to a school outside the academic school. The story of the Medical Society, from its formation in 1789—the great year—to its present condition of Medico-Chirurgical Society, reads like a story of adventure. Enterprise, intellect, valour, sacrifice, indomitable tenacity of humane purpose, these were things of every day among the giants of those days. Some names are forgotten; but some remain. It is enough to imagine Dr. Neil Arnott acting as secretary of the Society, apportioning the charges for "subjects" from fresh graves, exacting fines for non-attendance, recording the debates, dissecting with his fellows under the terrors of popular discovery, and all because of the invincible scientific impulse that no knowledge could satiate and no speculation tire. He is the Neil Arnott who, in the leisure of an unleisured London practice, found time to produce the most popular work on "physics" known in English until his time. Probably it still holds the record, and deserves to hold it. He now looks down from the Marischal College picture gallery and again from the window of the Mitchell Hall to guide and stimulate the more fortunate youths of to-day. They know more; but perhaps they are not more wise. Arnott was an Aberdeen type: he was scientific first, and practical afterwards, but he was always both. Many a time I have heard Professor Bain speak of his innumerable ingenuities of invention—the Arnott water-bed, the Arnott chair, the Arnott stove, the Arnott valves, the Arnott heater, the Arnott grate. Of men like Arnott, the Medical Society was fashioned. Its irrepressible energy affected both universities. It was the efficient force that organised the Medical School. It had the patronage of professors, both medical and lay. It stimulated research; it vivified academic teaching; it organised the scientific energies of the town. To gather the floating tales of its early days would be merely to rewrite much of Mrs. Rodger's charming *Aberdeen Doctors*, that pleasant, unhindered narrative, where one reads of resurrection days, of churchyards where children were buried when the doctors wanted to know what had been wrong with them, of the "burking-house" burnt by the mob (in 1831), of the anatomical genius, Andrew Moir, and of many another of the "great ones gone for ever and ever by."

When the hour struck, the Medical Society and the two universities grew into an organic unity, and thus the evolution of a medical school was made secure. And so, by three routes—two universities and an independent Society—we reach the Victorian era.

#### THE VICTORIAN ERA: 1837-1860.

##### MARISCHAL COLLEGE.

In the year 1837—the first of the Queen's reign—the Duke of Richmond laid the foundation of a new Marischal College. And not without need. "The Colledge," said an old Aberdonian to me the other day—he remembers Waterloo and knows Aberdeen as a boy knows his native town—"the Colledge (pronounce the 'o' as in 'old') wis jist beelt o' roch rooble stanes. It wisna drest stanes, ye ken, bit jist stanes liftit affen the surface o' the airth. I suppose there

wisna a drest stane in it. It wis jist a bit o' rale auld beeldin'. Oh, ay! I hae seen the Merischal Colledge in the auld days. It wisna the gran' thing it is noo." I have heard Professor David Masson—himself a graduate of Marischal, and a great one—speak of the "gloomy old place." Of it there remains identifiable but a single stone, still in the vestibule of the newest building, supporting the motto: "They haif said; quhat say thay; lat thame say." And nothing better fits the whole history of Marischal College—beginning in the Reformation and ending as a great scientific school of medicine. To the old "rochness" succeeded the simple grace of Simpson's building. This, with one or two additions, served the school for fifty years—that is, for thirty years after the union of the universities. And with the expanded building, the Medical School of Marischal gained in organisation and numbers. There were Chairs or Lectureships of Medicine, Anatomy and Surgery, and I have already indicated the other Lectureships. For the degree of M.D., "recommendation" was displaced by "examination." And thereby hangs the tale of a bitter war. For the King's College authorities threw doubts on the right of Marischal to grant degrees; and Thomas Clark—a great controversialist and a great chemist—threw himself boldly on the traducers of Marischal. Doubtless, to expiscate the history of that pamphlet war would be to enrich the history of Scottish Medicine with some "braw fechtin';" but the fusion of Universities closed the doors of the past, "and all its aching joys are now no more." Clark has passed into science as the inventor of Clark's process for softening hard waters. He had a sensitive and subtle mind; but he was feeble in body, and chemistry lost by his feebleness. Professor Bain says he refined too much in his composition to produce the amount due from such a man. But—the degrees were granted on "examination." What that amounted to I can only conjecture from what I heard the late Professor Smith-Shand say once. He told us, with uncontrollable laughter, how his whole "final" consisted of a twenty minutes' oral—including anatomy, surgery, midwifery, and whatever else there was. And this was a preliminary to the diploma of the Edinburgh College of Surgeons or Physicians.

Of the other Marischal Professors, only two remained to teach up to nearly my student days. They were Professor Francis Ogston—father of the present professor of surgery—and Professor William Pirrie, known to tradition as "the Baron." Ogston made a name as a medical jurist, and Pirrie was professor of surgery.

### William Pirrie.

The first time I saw Pirrie was when, as a junior Arts student, I attended the Senatus with the other "nations" to meet the protest made against Professor Bain's election as Lord Rector. The protest, of course, failed; but I remember a tall, powerful, old man, who stood at a corner of the Senate table. This was Pirrie. Two or three years later, I saw his funeral, and all Aberdeen lined the streets on that day; for Pirrie was a great name and he was almost, if not quite, the "last of the Barons." The stories of him and his sayings are like the sands of the sea-shore for multitude. In my junior days, the memory of every student was reeking with them. They were mostly of the occasion; needing the inimitable doric to send them home; losing much in telling, more in writing. "My good man," he would say to a new patient, "ye're no in a good way, but don't lose heart; I'll do all for ye that mortal man can do. Let me see yer tongue!" "Now, see," he would say to his clinical followers at the infirmary, "jist make a large square circle round the bed, for instance. The aim of the surgeon," as he would examine a primary amputation "is to *ob*-tain and to *main*-tain perfect apposition of parts." He spared no device that would impress the attention. "Now just, for instance, look at this beautiful diagram—a beautiful diagram—it's worth coming to see by itself." And then he would stretch upon tip-toe to *feel* on the paper the indurated ulcer or white swelling represented. He had the *ethos* of a surgeon and a teacher. As one old pupil, comparing him with some others of the same day, said, "he had mair bowels." One story used to go the rounds at the infirmary and turns up yet where graduates meet to dine and recline at ease together. It is possibly invented and placed to Pirrie's credit, but as there is no offence in it, I give it as if it were his. A man with some skin affection came to the clinic one day. "Now, see, make a large square circle and examine this case. What's wrong, my man? Yer hand? Show me yer hand." When he examined it, "My good man," he said, "ye've got the itch. What is yer trade, ma man?" "A baker, sir." "A baker? There, see a beautiful case of baker's itch, a most beautiful case. And who are ye a baker wi', ma man?" "Wi' Blankman, in the Broad Hill," he answered. "Wi' Blankman? God o' ma fathers! ma ain baker!" It was Pirrie, too, that said, at one of the breakfasts a celebrated Aberdeen lawyer used to give: "There's nae twa o' his (meaning the medical men of the town) that'll speak to ane anither." "And," said the lawyer, pointing the difference, "there's nae twa o' his that widna." Of course that was in the old days; the doctors, I suppose, never quarrel now. It is a pity that some pupil of Pirrie's does not collect his "good things" and give them to the world, with a picture of the man. Acupressure—one of his hobbies—is less interesting to this generation than such a collection would be.

### Other Bygone Worthies.

Of others the tales are less numerous, but not less characteristic. Dr. Keith was a surgeon of note at the infirmary; he was great in lithotomy, and it is said that he was all but chosen to operate on a foreign monarch. At the least he had great personal force. Pathology in those days was less a science than an interesting adjunct to practice. When Keith saw a swollen knee he felt it carefully, looked at it, handled it this way and that. Then he delivered his mind:—"There's some infernal bobbery going on in that joint." And that was all the pathology he needed—for excision or other treatment. A woman—an old patient—with some abdominal tumour, once presumed to correct him when he made some assertion. "Wumman!" he said, "dinna tell me! I ken yer inside as weel as if I'd walkit up and doon it wi' a fite can'l" [white candle]. Another patient asked him one day:—"When do you put off your winter clothes, Dr. Keith?" "On June 30th," he answered. "And when do you put them on again?" "On July 1st!"

Then there were Kilgour and MacRobin distinguished among physicians. But of these the tradition is more faded. They were men of power and originality, and they find a favoured place in Mrs. Rodger's gallery of portraits. I remember once hearing a distinguished man, who had known the professors and doctors of forty years, say, when they were all gone and none seemed likely to take their place:—"It is time in God's good providence that a great doctor should arise—as Sydney Smith once said of the bishops." But the more recent generations hold their own for all that, and there was point in Smith-Shand's ironical delight that he required of his students six times as much knowledge for their "final" alone in a single subject as he himself had to give for his whole degree! Wisdom may linger, but certainly knowledge has come.

### King's College.

I may add a few words of King's College. In 1839—on the dissolution of the joint school—the duties of the mediciner were "restricted to the teaching of chemistry." "Restricted," as Professor Bain points out, is hardly the word; for one cannot restrict what does not exist. It is interesting to know that Thomas Clark (Marischal) unofficially put the chair before Graham, the chemist, but William Gregory (removed to Edinburgh in 1844) was appointed. Doubtless he was a good man; but there were so many Gregories, and only one Graham. The lectures covered much the same ground as at Marischal. Dr. Kilgour, Dr. Andrew Moir, Dr. Redfern—these are among the names of the lecturers. But Marischal College seems to have gained the advantage, and in the fulness of time, it became at the union, the natural home of the Medical Faculty. King's College with even greater felicity remained the home of the Arts.

## The Victorian Era: 1860-1897.

### The Union of the Universities.

The great variation that ensured the evolution of the Medical School was the union of the universities. "From and after September 15th, 1860," the "University and King's College of Aberdeen," and "Marischal College and University

of Aberdeen," were "united and incorporated into one university, under the style and title of the University of Aberdeen." The faculties were re-organised; medicine—now taught at Marischal—had new chairs added to it, and, from the union until now, the teaching has in every department undergone a progressive differentiation. Between 1837 and the union the contrast is not so striking as between the union and 1897.

Professor Struthers, in his "Notes on the Progress of Aberdeen University during the last thirty years" (1860-90) brings together some effective figures to indicate the material progress of the school. And not the material progress only; for he has some pointed observations on the radical changes of didactic method.

### Professor Struthers.

Among the causes of the recorded progress Professor Struthers was himself not least. I remember as though it were yesterday the first time I saw him, and heard the delicate irony of his voice. He was on the platform at the Aberdeen Congress (1876) of the Educational Institute of Scotland. A friend took me to the congress, and I saw Professor Struthers and Professor Bain. Dr. Bain, as a leading authority—he is still a leading authority—read a long paper in his beautiful voice. Professor Struthers made observations to the discredit of classical, and to the credit of scientific teaching. Later—and still as a Grammar School boy—I attended his Saturday evening lectures, which he gave off with an individual charm and grace that I have not seen surpassed. Later still, we all knew his anatomy, and it was a big segment of the medical circle. Professor Struthers is now filling in the afternoon of his time as Chairman of Leith Hospital Board, as a Director of the Edinburgh Infirmary, and as President of the Royal College of Surgeons. He always fought at the front. He is still fighting there. The Medical School of Aberdeen owes an untold amount to the persistence of his efforts to keep its claims before the public mind, to make the teaching objective and observational, and to improve the standards for medical registration. He was, I suppose, the first to teach Darwinism in Aberdeen. And that was a bold thing even twenty years ago: for Darwin was not yet laid in Westminster Abbey, and Professor Drummond—that bright scientific journalist—had not made evolution the fashion. But Professor Struthers never missed his opportunity of indicating an "adaptation" or of patronising the "old teleology." Like his great hero, John Hunter, he set about constructing a museum. He kept adding to it year in, year out, and it became a treasure house of fine specimens. He never ceased to decry mere verbal and book knowledge, unverified on the object. He began the microscope in the Aberdeen School. In a multitude of minor ways he impressed his personality on his students, he developed his department, he helped in developing other departments, and I have chosen him to represent the thirty years, because, though not himself an Aberdonian, he is a type of the invincible tenacity that stamps the scientific Aberdeen professor. The professors in Aberdeen meant business.

### Development of the School.

Needs there proof? There stands the new Marischal College, whose continued expansion since 1890 would alone take more than this whole article to record. The new buildings will cost, in the aggregate, over £100,000.

Of Professor Struthers's figures one or two will be enough to indicate the material progress of the thirty years. In 1861-62 the students of medicine numbered 160; in 1889-90 they numbered 433. In 1864-5 the beginners in medicine were 29; in 1888-9 they were 109. In 1894-95—the latest figures before me—the number of students was 331. The falling-off, which is a result of many causes, is not peculiar to Aberdeen among the Scotch universities. Of money, it is enough to say that in 1860 Marischal College began with practically no bursaries, prizes, or fellowships. Now the annual value of bursaries, etc., is about £800. The newly-instituted assistantships are practically teaching fellowships, which, in the aggregate, amount to from £700 to £1,000 a year. This sum pays about twelve recent graduates. The splendid gifts of Dr. Mitchell and his son—the Mitchell Hall and Students' Union—are too recent in the memory to need more than a reference.

### Teachers Past and Present.

Did space allow, it would have been a charm to go through the curriculum again with some of the potent personalities that, in my twelve crowded years, "came to the making of man:" to botanise over Scotston Moor with Professor Trail; to biologise round Lunan Bay with Professor Alleyne Nicholson; to climb the Darwinian Tree with Professor Struthers: to catch the first embryonic pulsation or measure the vital capacity with Professor Reid; to cheer good Brazier's beautiful experiments, or analyse school air with Carnelly, or cheat atomism of its secret with Professor Japp; to examine Professor Stirling's non-polarisable electrodes, or watch Professor MacWilliam at the feline heart, or photographing the muscle tremors; to see Professor Cash shining science into the medley of materia medica; to admire in Professor Ogston the invincible patience and fine form of a surgeon; to slice brains, or follow the leucocyte, or play at anthrax inoculation with Professor Hamilton; to analyse the Tichborne claimant, or stay the major infections with Professor Matthew Hay: to study women and children with Professor Stephenson; to hear again the placid voice of Smith-Shand, whom no harm could irritate or disturb; to follow Professor Finlay's scientific clinics, and then—under the new regulations—to walk down the clinical year brimming with all that culture, and to go forth again, wise and sad, into the "clay-hamlets of reality." It were pleasant to go beyond the walls and wander with Dr. Reid among the lunatics; to go round the infirmary wards again, picking this from Dr. Angus Fraser's vivid simplicity, that from Dr. Blaikie-Smith's careful records: catching a deft surgical movement from Dr. Ogilvie Will or Dr. Garden, a joke from John Hall, gentlest of men, or a flash from Dyce Davidson's blue eye [how I hear his dying words: "Four o'clock on Monday, gentlemen, four o'clock"—and in that hour he fell asleep]; making electric batteries or working the magnet in the vitreous with Dr. McKenzie Davidson; recording a *sectio cadaveris* with Dr. Rodger. And then—after training one's observation to grasp the new and vast expansions of the old Infirmary buildings—it were profitable to turn towards the unnumbered young men of the most modern school and learn how far scientific medicine has moved in these ten growing years. And who are these young men? The University knows them for her numerous and most promising children. They are the progeny of MacGrigor's brain a hundred years ago—the spiritual posterity of Neil Arnott and Kilgour and the other great prophets. They are filled with the impulse of scientific medicine. On occasions, I have been privileged to carry the idea of my university to the rural peoples of Scotland, or again, to dwellers in dim towns: but in moments of depression or solitude my mind turns ever back to where the Double Crown of King's College radiates the calm presence of the mediæval spirit over the unending energies of science as it lives in the airy splendours of the New Marischal; and, in the civilisation of my country to-day, I see nothing that more fills me with joy than the trained bands of fine young men gathered, as it were but yesterday, within the shadows of our intellectual home. The wise Mother has at last made provision for her children.

### Aberdeen University at the Present Day.

Since 1890 Marischal College has changed almost beyond recognition. A few months ago I took some colleagues of the Society of Medical Officers of Health (Scotland) to see the new buildings. As we stood before the historical window, where Mr. P. J. Anderson's scholarship has bodied forth the life of the University, I saw advancing the handsome and venerable form of Principal Sir William Geddes. I introduced our members to the Principal, and as my mind flashed back to the Greek class-room and heard again, his happy phrase—"the discipline of well-ordered knowledge," and remembered how it sent me home on winged heels to my Greek poets—I felt that our meeting was peculiarly fitting—the literary culture of King's College and the latest born Medical Service meeting in presence of the new sacred history of the University. Then we continued our inspection. Botany, Chemistry, Physics, Zoology, Geology, Anatomy, Physiology, Medical Jurisprudence, Public Health, Materia Medica, Surgery, Pathology, Midwifery, Medicine—every department now has accommodation fitted to its require-

ments. Every subject has its laboratory or museum. The "practical class" is in the ascendant. Private research is provided for. Even a purely scientific specialist like Professor Nicholson has expressed himself as more or less gratified and satisfied—satisfied at the improved spaces, gratified at the continued increase of scientific students. The Faculty of Science is now a reality. Science will continue practical and medicine will continue scientific—so maintaining the oldest Aberdeen tradition. In *personnel* and in accommodation, Aberdeen University to-day may offer to her students every chance that the best universities of the world can offer. Gaps in the curriculum have been filled. The experience of age is wedded to the enthusiasm of youth. The Mitchell Tower—airiness and grace wrought out of adamant—fitly expresses the invincible life swelling everywhere. From the first beginnings of the Medical Society to the rich environment of the medical student to-day the leap is vast, but the continuity is unmistakable, and the last wave of the renascence has risen within the Queen's reign. Surely of things that make empire worthy and great none is more powerful than a scientific School of Medicine, where young men and old give their substance to the unveiling of the idea; where, without worldly after-thought, knowledge is distilled to further the cultivation of life: where, through trial and discipline and broken hopes, young men become skilful ministers in the service of man.

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## EDINBURGH.

By George P. Boddie, M.B.

### I.—The Royal College of Surgeons.

The Royal College of Surgeons of Edinburgh is not only the most ancient of all the medical corporations of the United Kingdom (its first seal of cause from the Town Council bearing the date of July 1st, 1505, and its Charter of Confirmation by King James IV. that of October 13th, 1506), but it has perhaps more than any other shown the *animus paternus* towards aspirants to the medical profession. The Charter expressly granted the right to teach, and the College diploma was a professional qualification long before the University degree of M.D. was instituted. It took precedence among the crafts of old Edinburgh, when on its "Bill of Supplication" it was incorporated with them as "the Corporation of Surregenry and Barbouris."

In a communication appearing in *The Student* of November 20th, 1896, an Edinburgh University magazine, Dr. J. Smith, a former President of the College, writes that fifty years ago, "The Diploma of the Royal College of Surgeons of Edinburgh was generally considered necessary towards fortifying and supplementing the higher degree of the University. The diploma, like the degree, was then a full medical and surgical qualification, and many great men—Syme among the rest—had no other. While conferring this licence to practise, the College, almost *ab initio*, had its recognised and most efficient staff of extra-mural teachers in different branches of medicine and surgery as well. The Royal College of Physicians, again, dealt more in medical titles, with which it honoured only the already full-fledged practitioners of medicine, or those who wished to enter for its fellowship. To the joint fostering care of both these bodies, however, we owe much of the advance of medical science and its teaching in our midst, as well as the high value now set upon the diplomas emanating from their examining Board, and indeed, the prestige of Edinburgh generally as a great medical school. To that school our noble and distinguished University has added an imperishable lustre and the academic brilliance of its name; but the colleges, and particularly the old incorporation of the surgeons, have, in their day, done yeoman service in this cause." And they still do yeoman service, for competition seems not only to keep up but to raise the standard of both intra- and extramural medical education. "The extra-mural teaching," the article proceeds, "was always excellent. Never was there a set of lecturers who displayed a greater amount of individuality than did those of that time. All of them have served their day and generation, and passed away, but there is a flavour of improbability in supposing that we can ever look upon their like again."

"At that time," says the same writer, "and different from what is now the case, the Royal College of Surgeons of England's examination was regarded (by students) as the harbour of refuge to which those rejected at the Edinburgh College could betake themselves with all confidence for sympathy and success. The prevailing and consolatory idea was that the subjects of examination were fewer, and the examination itself more lenient."....."The examination at Edinburgh was not then conducted in the same way as it is now. It may not have been so searching or so satisfactory, but it was, perhaps, even a greater strain upon the examined than it is now. There was no 'written,' and everything, including the preliminary, was knocked off at the same sederunt. Round the table at which the candidate was placed, like Jericho surrounded by its besiegers, were seated some half-dozen examiners, who bombarded him right and left, delivering an occasional shot in front. There seems to have been no record kept of these old examinations. Pity that it is so. The candidates were supposed to like them. At least none of those who got through ever objected to them. Yet this fine old system was cut down in the fulness of its years and honours long, long ago. Perhaps it was time. *Vivere sat vincere.*" In the year 1837 118 Licentiates were admitted; while in 1896 the number was 226.

The Fellowship of the College had previously to 1851, that is, the date of the new Royal Charter, been obtainable by examination, the production of a thesis, and entrance to the Widows' Fund of the College. These restrictions, and the expenses—something like £300—connected with becoming a Fellow, formed a barrier to many desirous of this honour. At that date, new regulations were introduced, and continued in force till 1884, whereby the Fellowship was conferred exclusively by the ballot of the College, and at much less cost, the necessity for joining the Widow's Fund, and passing the examination being withdrawn. But, after many meetings in consideration of this state of matters, it was once more resolved in 1884 that an examination of a still more strict character than before should be exacted of all ordinary candidates, who, on passing it, should, moreover, be subsequently ballotted for by the Fellows; this arrangement being that followed at the present day. In the year 1837 only one Fellow appears to have been admitted, namely, George Stewart Newbigging, the son of Sir William Newbigging. He paid on entry £8 6s. 8d., besides £2 2s. for examination. That low rate was in consequence of his father having been admitted a Fellow before 1820. In 1896 twenty-six new Fellows were admitted.

The Museum comprises an extensive anatomical and pathological collection, contained in the New Hall erected in 1832. The pathological collection has grown by specimens presented by Fellows of the College, conspicuous among them being a number from Professor John Thomson, and some fine dissections by Robert Liston, Sir William Fergusson, and Professor Spence. The Museum received a large accession by purchase of the collection of Sir Charles Bell, when he returned to Edinburgh as Professor of Surgery. The collection was formed by Bell when Lecturer on Anatomy and Surgery in Edinburgh, and in London, in conjunction with James Wilson, and is known as the "Bell and Wilson" collection. The anatomical collection has lately received a further addition by the presentation of the collection of Professor John Struthers, President of the College, formed by him while lecturer on anatomy in Edinburgh. Among the conservators of the Museum have been Dr. Robert Knox, the anatomist, and Professor John Goodsir, previous to his becoming professor of anatomy in the University. The present conservator, Mr. Charles Cathcart, has recently issued the first volume of a newly arranged catalogue of the pathological collection, and is engaged in the preparation of the second volume.

The College has a library, and has recently provided a series of new examination rooms, in which oral and practical examination can be conveniently conducted, and has acquired adjoining premises for a research laboratory.

The President of the College in 1837 was Sir George Ballingall, the Professor of Military Surgery in the University. The present President is Emeritus Professor John Struthers, once Goodsir's assistant, a Lecturer on Anatomy in the Edinburgh Extra-mural School, and subsequently Professor at Aberdeen. Between these two were twenty-eight Presidents, including

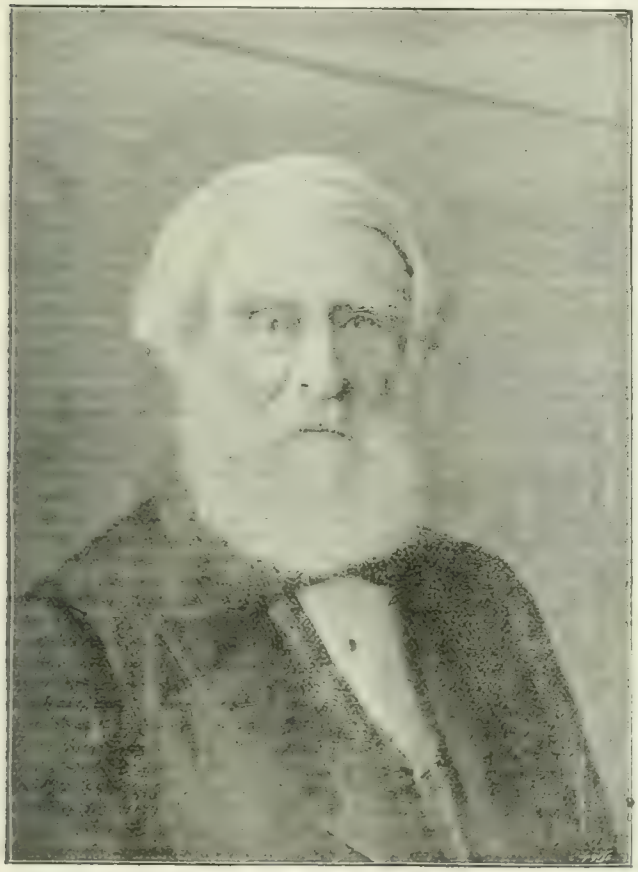
Andrew Fyfe, James Syme, Andrew Wood, Douglas Maclagan, Benjamin Bell, James Spence, Littlejohn, Heron Watson, Imlach, Turner, John Smith, Argyll Robertson, Joseph Bell, and John Duncan.

The last list, issued on October 21st, 1896, shows 701 Fellows, of whom Sir Douglas Maclagan, admitted in 1833, and Professor John Struthers, admitted in 1845, are the seniors.

## II.—The Extra-mural School.

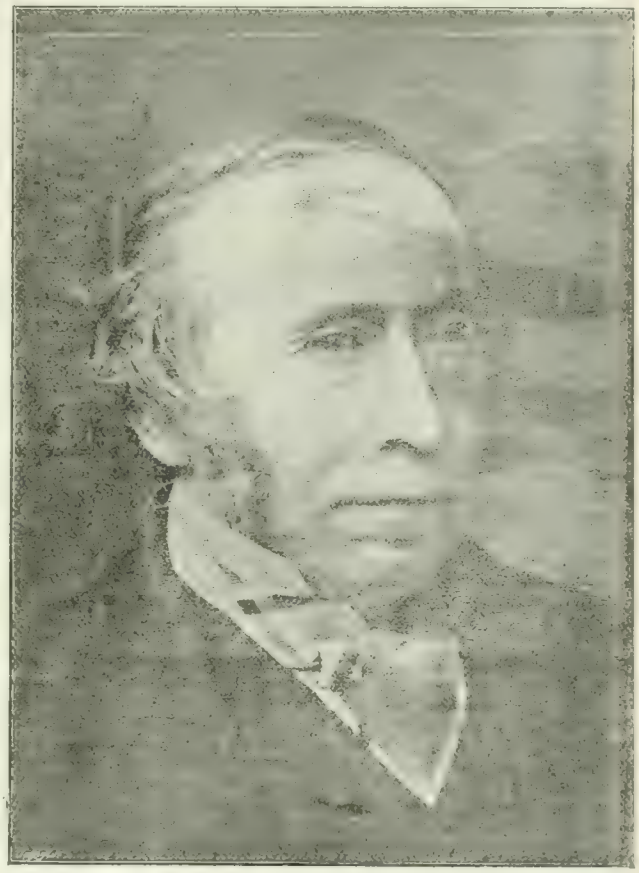
The Extra-mural School grew up alongside of, and under the patronage of, the College of Surgeons, and later alongside of the University and College of Physicians. It was not, however, till 1855 that the School was recognised by the University. Now three of the five years' necessary curriculum for the University Degree of M.B. and Ch.B., may be taken in the extra-academical school.

The Extra-mural School has long played a most important part in the medical education of Edinburgh, long before its teachers were recognised as giving qualifying courses. Sir



Sir Robert Christison.

Douglas Maclagan tells us: "At 9, Surgeons' Square began a large number of men as extra-academical lecturers who afterwards became professors; some 13 of them in my early days were passed on to the University, among them John Thomson, John William Turner, Sharpey, Allen Thomson, James Syme, and several others. At that time no qualification was required of those who undertook the task of lecturing, the only requisites being a fixed number of lectures, and that the teacher should lecture on one subject only, except when the second subject was a clinical one." This latter limitation came originally from the College of Surgeons, which under date June, 1829, enacted "that no professor or lecturer shall be recognised who shall teach more than two branches of education recognised by this College." And in 1838, the College refused to recognise any teacher for more than one branch. "I well remember to have seen Barclay," Sir Douglas goes on, "one of the most remarkable of the early teachers of anatomy in the school. He must sometimes have had a class of 300, and that at a time when the total number of students in Edinburgh was 800 or 900. His museum was, at his death in 1826, bequeathed to the Royal College of Surgeons, the first great acquisition to that museum. Barclay lectured twice a day, at 11 and 6, because his lecture room was not large enough to hold all his students at one time. He was succeeded by Knox, who became celebrated, if not notorious, from his connection with Burke and Hare. In In reality Knox had probably no guilty knowledge, any more than his demonstrator William Fergusson had. the go-between was David Paterson, the keeper of Knox's museum. Knox was a most brilliant and popular lecturer, had a class of some 500 students, far more than even the second Monro ever had. James Y. Simpson came in later, in 1838, as lecturer in midwifery. In 1837, at 9, Surgeons' Square, I began to lecture on materia medica with a class of 13. Sir Robert Christison encouraged me to this, and gave me many specimens for my museum. Like Simpson, I was at an earlier



Professor Syme.

period assistant to old John Thomson, the lecturer on, and afterwards Professor of, Pathology. Christison was Professor of Medical Jurisprudence from 1822 till 1832, when he became Professor of Materia Medica. I joined the College of Surgeons in 1833. For the Fellowship of the College we were then examined by and before the whole College. The candidate wrote and printed a probationary essay (mine was on carbuncle). Then came the examination. First a Latin preliminary, probably a bit of Celsus to translate; then an examination in anatomy, surgery, and medicine; and, lastly, a cross-examination on the essay. It was all done in English My hospital career began in surgery about the year 1840, a junior surgeon with wards of my own, and I used to assist Syme and other surgeons."

The present number of lecturers is sixty-five, of whom fifty-four deliver qualifying courses of instruction of the same

length and scope as those given in the universities, while a large number of lecturers conduct courses on special departments of medicine and surgery, but which are not included in the curriculum of the Colleges.

### III.—THE UNIVERSITY.

The University of Edinburgh has grown into its present status out of what was originally a small college called the "College of Edinburgh," or "The Town's College," which was founded in 1583 by the Town Council of Edinburgh, under the general powers to found educational institutions granted to them by the charter of King James VI, dated April 14th, 1582. No separate charter of foundation is now extant, but from the first the College possessed the privilege of conferring degrees.

In 1837 these were the Professors in the Medical Faculty: Robert Graham, in Medicine and Botany; William Pulteney Alison, in Physiology; James Home, in Medicine; Alexander Monro, Tertius, in Anatomy; Thomas Charles Hope, in Chemistry and Medicine; James Hamilton, in Midwifery; Robert Jameson, in Natural History; Sir Robert Christison, in Materia Medica; Sir Charles Bell, in Surgery; James Syme, in Clinical Surgery; John Thomson, in Pathology; and Sir George Ballingall, in Military Surgery.

In 1869 the total number of students in all the Faculties had risen to 1,500, and that of the professors to 33, while there were only 17 class rooms for their use. From 1873 to 1878 steps were being taken towards the erection of buildings to meet this enormous increase. Between public subscriptions and Government grant the sum of £244,587 was raised.

The University new buildings, begun in 1878, were partly opened for teaching purposes in October, 1880, and after their completion, were transferred by the Committee to the University in October in 1888. They contain the lecture rooms, etc., of the Faculty of Medicine (excepting those of botany and natural history), the museums of practice of physic, anatomy, chemistry, obstetrics, materia medica, and surgery; a students' reading room, students' common room, Faculty of Medicine reception and reading rooms, and office of the Faculty.

The building which completes the group of the University New Buildings, or School of Medicine, is the McEwan Hall, the munificent gift of Mr. William McEwan, M.P., Edinburgh. The Greek Theatre forms the basis of the design. The longer diameter of the semicircle is 134 feet; the shorter, including the platform recess, is 107 feet; and the total height is 90 feet. At the north-west corner, and connecting the hall with the present buildings, is to be erected the campanile, 32 feet square at the base, and rising to a height of 275 feet. At the south-west corner is the entrance to the principal staircase, and on the outer circumference of the circle are two double staircases for access to the galleries. No fewer than seven entrances to the hall are provided. One of the chief of these is in the base of the tower. The hall is capable of holding 3,000 people, and will be used for examinations, academic ceremonials, concerts, etc. A large platform and ample floor space and galleries have accordingly been provided, and a great organ will be erected over the platform, which is placed on the straight (west) side of the hall, and has seats for the Chancellor, the Rector, the Principal, the University Court, the Senatus, the Curators, etc. The hall was begun in 1889, and it is expected that it will be completed and opened during the present year.

#### STUDENTS AND TEACHERS.

The University has had curious vicissitudes in the numbers of students. In 1836-37 the number of matriculated students of medicine was 625, and in session 1845-46 the number was 330, the minimum of the period of sixty years under review. What was the meaning of this great falling away? Professor Struthers puts it kindly, "The period between the end of Dr. Barclay's time and the retirement of the third Monro in 1846—twenty years—was one of much interest in the Edinburgh Anatomical School. Lecturers on anatomy multiplied, and succeeded in attracting classes with comparative ease. It was a period not only of the anatomical but of the whole medical school, which cannot be understood apart from the consideration of the state of anatomical teaching under the third Monro. The numerous students of the University had to resort to the lecturers (extra-mural) for anatomical instruction, and this greatly supported the lecturers on other departments of the curriculum."[1]

When Goodsir became Professor in 1846 there was a rush of students to the University, not only from the extra-mural schools, but from other medical schools in the country, and his class rose to something like 600, many taking it who were not reading for the University degree. In session 1858-59 there were 526 matriculated students of medicine, while in 1889-90 the high-water level was reached with 2,024. Since that time there has been a gradual decrease, the numbers for 1896-97 being 1,415. Among the causes of the decrease may be noted the overcrowding of the medical profession; the extension of the curriculum to five years; the addition of more subjects, more practical classes, and the consequent greater expense of a medical course; higher examination fees; more numerous and more severe examinations; and the increase of successful schools of medicine throughout the country.

#### DEGREES.

In 1837 the M.D. degree was the only medical qualification given; it was not till 1861 that a surgical qualification became available in the University. In that year the M.D. examination was taken at one sitting; it was all *vivâ voce*, the professors alone were the examiners, and this ordeal was usually held in one of their houses. Sir Robert Christison says: "The custom then was for the Medical Faculty to meet for examination successively at one another's houses, and for the host to bear the chief brunt of duty. Dr. Gregory examined me for an hour on the anatomy, physiology, and diseases of the stomach, their treatment, and the chemistry of some of the remedies mentioned. I have not since heard so masterly an examination, so thorough, and yet so fair a scrutiny. Each of the five other professors then put a few questions on desultory subjects." Somewhere about 1845 the M.D. examination was taken in two parts, and there was both a written and a *vivâ voce*. Extra examiners outside the professoriate came in at a still later date. Now there is a Preliminary and four Professionals for the Bachelor's degrees; and a further examination and thesis for M.D. or Ch.M. The fee for M.D. in 1837 was £15, with £10 for stamp duty, and 105 gentlemen in that year received the degree. Now the stamp duty has been abolished, and the fee for M.D. alone is £10 10s., but then it is only open to those who have previously taken the degrees of M.B. and Ch.B., and these cost £23 2s.

The Medical Act of 1858 brought about a change in the old *régime*. Not, however, till 1861 did the new regulations consequent on that Act come into force. The change was the conferring of a surgical in conjunction with a medical qualification, in other words the institution of M.B., C.M. The new degrees were not immediately popular, for in 1861 no candidate appeared, in 1862 they were conferred on one candidate, in 1863 on 2, in 1864 on none, in 1865 on 4, in 1866 on 3, in 1889 on 210, and in 1896 on 198.

Class fees have varied little. The fee of each class in 1837 was 4 guineas, except Clinical Surgery, Military Surgery, and Medical Jurisprudence, each of which was 3 guineas. The Chair of Military Surgery was abolished on the death, in 1856, of its second occupant, Sir George Ballingall.

There are fellowships, scholarships, bursaries, and prizes belonging exclusively to the Faculty of Medicine, of the annual of about £3,400; and fellowships, etc., in other Faculties, which may be held by students or graduates of medicine, of the annual value of about £1,820.

### IV.—THE UNIVERSITIES COMMISSION.

The Universities (Scotland) Act was passed in 1889, and the Commissioners armed with full powers began their sittings soon thereafter. They have sat many times. They have issued ordinances and draft ordinances, they have modified, amended, supplemented, and abrogated ordinances, till the result is positively bewildering; and, as far as medicine is concerned, it is not a brilliant result. Want of funds is said to be the reason for this.

#### CURRICULUM.

The increase of the medical curriculum for five years was

[1] *Historical Sketch of the Edinburgh Anatomical School*, 1867.



McEwan Hall and New Medical Buildings, University of Edinburgh.

the work of the General Medical Council, and not of the Commission. The Commissioners have ordained that the professors shall no longer have any financial interest in their chairs. Some of the salaries have been reduced so far that they are not such as to attract the best men. A central fee fund has been created. Some changes have been made in the curriculum and in the examinations. Certain regulations for special study and research and for the appointment of research Fellows have been formulated. Three new lectureships have been created, and the status of university assistants has been defined. Finally, by the recognition of the Students' Representative Council the students have been given an important voice in university affairs. Those who looked for larger statesmanship and less peddling have been grievously disappointed.

### V.—The Royal College of Physicians.

The Royal College of Physicians is by much the younger of the two medical corporations of Edinburgh. After great opposition on the part of the surgeons, the university, the municipal corporation, and even the bishops and archbishops, a charter of incorporation was obtained from Charles II., and the great seal appended on St. Andrew's Day, 1681. It conferred the power to enact laws for promoting the science and regulating the practice of medicine within the cities of Edinburgh and Leith and their suburbs; it prevented anyone from practising medicine within the jurisdiction of the College who had not obtained its licence or diploma; it had the power to fine unlicensed practitioners, and to examine the medicines kept by apothecaries. The College was obliged to admit to its licence all Scottish university graduates without examination and without ballot; it was expressly prohibited from being connected with a medical school, and it had not the power to expel unworthy members.

Thus restricted by its original charter, it occupied a position of a very peculiar character among the medical bodies. Highly respectable and respected, containing among its Fellows the most eminent physicians in Edinburgh, and the medical professors of the University, full of good works and charity, it never comprised any large proportion of those practising medicine in Edinburgh, or in Scotland, who usually joined the College of Surgeons.[2] A new charter was obtained in 1871.

The College has always been ready to lend a helping hand to plans for the welfare of the citizens of Edinburgh. The Orphan Hospital, the High School, the Blind Asylum, the Lunatic Asylum, the Charity Workhouse, the building fund of the Royal Maternity Hospital, the Livingstone Medical Missionary Memorial Dispensary, the Queen Victoria's Jubilee Institute of Nurses, the restoration of the Cathedral Church of St. Giles, the poor in the famine of 1796, the sufferers by the failure of the City of Glasgow Bank, and many other schemes have been aided by its liberality.

In 1789 the sum of £150 was subscribed to assist in the erection of the University of Edinburgh: and towards the building of the present Medical School in Teviot Place the College in 1873 gave 1,000 guineas.

So early as 1682 the College appointed two of its Fellows to serve the poor of the city and suburbs, but from lack of suitable accommodation, diet, and nursing, their efforts were often fruitless. Accordingly we find, in the beginning of 1726, proposals for an infirmary or hospital, of which the

[2] *Historical Sketch of the College of Surgeons*, p. 41.



Edinburgh Royal Infirmary (from the meadows).

College bound itself to undertake the medical charge "until the stock of the said hospital shall be so increased that it can afford a reasonable allowance for one or two physicians." On August 6th, 1729, the "small hired house," to which reference has already been made, was opened, and the sick poor attended by the Fellows. In 1785 the College voted 50 guineas to the funds of the Royal Infirmary, in 1819 other 50 guineas, in 1868 the sum of £1,000, and in 1879 a sufficient sum (£630) to furnish two medical wards. By the 1736 charter it was provided that five of the 20 managers should consist of the President of the College and four of its Fellows. By the Royal Infirmary Act (June 20th, 1870, 33 and 34 Vic.) this number of five managers was reduced to two. It still holds, as resolved by the infirmary managers in 1783, that none but Fellows of the colleges of physicians or surgeons shall be on the permanent staff of the hospital.

### Past Presidents.

The President of the College in 1837 was Dr. William Pulteney Alison, the University Professor of Physiology and Medicine, "the courteous, charitable gentleman, whose house in Heriot Row could be seen and scented from afar by the crowds of beggars—often we fear impostors—who waited outside till the innocent old man appeared. He was not a terror to evil doers like his distinguished brother, the first Sir Archibald, author of the 'History of Europe,' and for so many years the brilliant sheriff of Glasgow. The second Sir Archibald, William's nephew, certainly did not get his fighting powers, which have been tested in the Crimea, India, Ashanti, and Egypt, from his doctor uncle."[2] In 1838, Alison was succeeded in the President's chair by Sir Robert Christison, to whom fell the unusual honour of being asked to occupy a second time that high office. Sir James Simpson was President in 1850, and in 1854 James Begbie, "for many a year consulted over the length and breadth of Scotland as a physician whose fame lasted till it was eclipsed by that of his more gifted son, Warburton."[2] Begbie's successor was David Maclagan, "that splendid specimen of a Scotch gentleman and family doctor, who left seven gifted sons, the eldest of whom, Sir Douglas, is still with us,"[2] and another of whom is the present Archbishop of York. David Maclagan went through the greater part of the Peninsular War, was physician to the forces, was President of the Royal College of Surgeons in 1826-27, became a Fellow of the Royal College of Physicians in 1848, and was President in 1856-57. "He was an active and eloquent citizen, who made himself useful in many public positions in Edinburgh." Among other Presidents we find the names of Alexander Wood, David Craigie, John Smith, John Moir, Alexander Peddie, D. R. Haldane, and G. W. Balfour. Next, in 1884-85, we have Sir Douglas Maclagan, who, like his distinguished father, had the unique honour of being President of both Colleges. Never before or since has that happened. R. Peel Ritchie, Sir T. Grainger Stewart, A. R. Simpson, W. T. Gairdner, follow. The present occupant is J. Batty Tuke. There are to-day 116 Fellows on the roll of attendance, and 69 Fellows not on that roll. The number of Members is 178.

[2] Mr. Joseph Bell's Harveian Oration for 1897.

### The Library.

Sir Robert Sibbald, mainly through whose exertions the College was established, was an early and large contributor to the library, but there were many other benefactors, both lay and medical. In 1683 Dr. Archibald Stevenson was elected its first librarian, and in 1696 it was enacted that every Fellow on entering should contribute a book or books. In the end of 1705 the first library committee was appointed, and in 1741 the College came into possession of the books of Dr. John Drummond, to the number of 1,250. In 1763 there was a proposal from the University for a joint-library, but this was rejected. In 1767 the first printed catalogue appeared; it gave a list of 2,346 volumes. In 1791 some of Dr. Cullen's books were purchased. In 1828, Dr. Andrew Duncan, sen., made a bequest of 180 volumes of manuscript notes and lectures, being the lectures of the founders of the Edinburgh School of Medicine, and his own practical observations used as notes for his clinical lectures. Five years later by presenting four engraved prints of medical practitioners, Dr. Spens began the collection of engravings, which is now large and valuable. In 1849 the number of volumes contained in the library was estimated at 9,000. During the past 30 years large additions have been made, and it is now estimated to contain about 55,000 volumes, and is perhaps the most extensive library of medical and scientific literature in the northern kingdom.

The portraits are numerous and include most of the medical worthies of the last two centuries, the most notable from an artistic point of view being a fine portrait of Dr. Andrew Duncan by Sir Henry Raeburn.

### The Museum of Materia Medica.

The formation of this museum dates from August, 1835, and among earlier contributors were Drs. Davidson, Christison, and James Wood, Mr. Duncan (of Duncan and

Flockhart) Mr. J. F. McFarlane, Messrs. Lawson and Son, and the Royal Botanic Gardens. In 1847, the College, having heard that Dr. Theodore Martius, of Erlangen, the brother of the celebrated Brazilian traveller, wished to dispose of his collection of Materia Medica, resolved to purchase it for the sum of £250. From this time onwards the museum received many valuable additions, for example, a complete series of cinchona and allied barks (including all the barks met with in British commerce, and also a series of the lichens growing on these barks). It latterly contained some 3,000 preparations. At the end of 1896 the College handed over the museum to the care and keeping of the North British Branch of the Pharmaceutical Society, with the proviso that it should still be available to the Fellows and Members of the College, and be at the service of the public.

### Research Laboratory.

After two years' discussion it was resolved, in February, 1887, to establish and maintain a laboratory for the prosecution of original research, to be open without fee to Fellows and Members of the College, and those licentiates and medical men who should obtain permission from the Council. It was opened on February 21st, 1889, in a house close beside the Royal Infirmary, Dr. Sims Woodhead being the first superintendent. The extension of the Royal Infirmary compelled a change of locale, and in 1896, the laboratory moved into the present building—between Forrest Road and Bristo Place—which has been purchased and altered and equipped at a cost of £10,000.

### Prizes.

The College gives two research prizes, each of the value of fifty guineas, open for competition annually, for the two best essays on medical subjects submitted by Fellows, Members, and licentiates who have not been more than 15 years' on the *Medical Register*. The College has certain other prizes, fellowships, and busaries, at its disposal. There is the "Victoria Jubilee Cullen Prize for the greatest benefit done to practical medicine," of the value of £100, awarded triennially; the Freeland Barbour Fellowship of £100, awarded biennially, and open to those who have conducted original investigations in the laboratory of the College; the Parkin Prize of £100 offered triennially, the subject for this year being "the curative effects of carbonic acid gas, or other forms of carbon in cholera, for different forms of fever, and other diseases"; the Thomas Hill Pattison's Bursary and the Wood Bursary open to students.

## VI.—The Royal Infirmary.

The Royal Infirmary, which during the Victorian era has grown to be one of the wealthiest corporations—if not the very wealthiest—of the kind in the kingdom, had its day of small things. It began, chiefly at the instance of the Royal College of Physicians, in "a small hired house," opened with 6 beds on August 6th, 1729. In this hired house, during the first year of its existence, 35 patients were treated. The names, addresses, and ailments of the patients remain. Four of them suffered from cancer, 4 from scorbutic affections, 4 from bloody flux, 3 from ague, 3 from consumption, and 2 from hysteric disorders. Under better auspices a new building was incorporated by Royal Charter of King George II, dated August 25th, 1736, a hundred years before the dawn of the Victorian era. It was not open for the reception of patients till December, 1741.

### The King's Bath at the Infirmary.

One link of connection with royalty must not be omitted. When King George IV visited Scotland in 1822 he had a bath at the Royal Infirmary. The old record runs: "In the west wing are one cold and two hot baths, with their respective dressing rooms.....intended for the people of the city, no patient in the hospital having at any time admittance to them." His Majesty paid royally for his bath, for in the minute book under date August 26th, 1822, we read that "the Treasurer reported having received a donation of 200 guineas from His Majesty through Sir William Knighton, Privy Purse."

### The Infirmary as it was.

"In the ground floor are twelve vaulted cells for mad people," runs another part of the record, with an appended note to the effect that "it hath appeared that so many cells for maniacs are unnecessary, some of them, therefore, are converted into other uses."

"On the attic story, and in a remote part of the house, is a *salivating ward* for female patients, containing twelve beds..... under the management of a prudent nurse.....These patients cannot have any intercourse with the other wards of the hospital. There is still a small ward with four beds, for the same purpose as the preceding.....fitted up for sufferers not by any fault of their own."

There was a ward of six beds for lying-in patients, each patient paying 4s. 6d. per day, and wards for fevers.

The fever wards remained till October, 1879, when the new and present Royal Infirmary buildings were opened. How long the vaulted cells for mad people and the lying-in wards were continued one cannot gather from the records. The Royal Maternity Hospital was not established till 1843, though there was as early as 1793 a general lying-in hospital in Edinburgh. The Royal Asylum was opened in 1813, with fifty beds.

It was only sixty years before the beginning of the Queen's reign that clinical teaching was allowed in the Royal Infirmary.

In the year 1837 there were some 300 beds in the hospital, and "68 of a family," which we presume means the resident physicians and surgeons, nurses, servants, and porters. In that year 4,164 indoor patients were treated, there were 450 deaths (equal 10.80 per cent.), and only a record of 6 outdoor patients "dismissed with advice." There was, however, an unusual prevalence of typhus in the autumn of that year, said to be due to the great influx of Irish harvesters, so that the managers had to utilise every possible corner, and even to hire a building close by, into which they put 30 patients. Of the 300 available beds, 140 were set apart for fevers, and during the last three months of 1837 no fewer than 636 such cases were admitted. Yet the managers were able to say that none of the other patients had shown during that time any symptom of suffering from the vicinity of patients in fever.

The capital of the infirmary in that year amounted to £34,144 15s. 11d., the income to £5,381 2s. 8½d., the portion of this from students' fees being £1,933 11s. 6d., and the expenditure to £6,727 15s. 9½d.

The staff consisted of four ordinary attending physicians—to wit, Drs. Thomas Spens, Thomas Short, David Craigie, and G. A. Borthwick. There were three consulting surgeons—Sir George Ballingall, Sir Charles Bell, and John Campbell. There were three acting surgeons—James Lizars, James Syme, and Alexander Watson; one assistant surgeon—William Fergusson (afterwards Sir William, of London), and seven resident and non-resident physicians and surgeons.

### The Infirmary as it is.

In October, 1879, the present new Royal Infirmary was opened with 474 beds, at a cost of £351,826, and Sir Douglas Maclagan gave the first clinical lecture.

Now there are 740 beds and 40 cots for children. In 1896, 9,478 indoor patients and 28,110 outdoor patients were treated, and there were 596 deaths=6.28 per cent. The capital amounted to £311,884 13s. 10d., the income to £107,046 11s. 8d. (including £3,619 17s. for students' fees), and the expenditure to £44,292 5s. 6d.

The staff now consists of 55 members, including four professors of clinical medicine, four ordinary physicians, eight assistant physicians, two professors of surgery, four ordinary surgeons, seven assistant surgeons, physicians and surgeons for special departments, and 33 resident and non-resident medical and surgical officers.

There are some points of interest on the nursing staff that show the great change that has come about during the Victorian period. In 1837 there were 45 nurses, in 1897 there are 180. In 1837 a night superintendent received a salary of £40, now she receives £60; a day nurse in 1837 received £13, now £40; a night nurse in 1837 received £10, now £20, and upwards. And it has to be added that the night nurses in 1837 were the ward assistants, that is they did all the scrubbing and other menial work of the house.

Then, when one thinks of the men who have been on the staff of the infirmary in these sixty years, what shall be said? Lister, Syme, Liston, Sir James Simpson, Matthews

Duncan, Sir Robert Christison, Thomas Keith, Sanders, Hughes Bennett, Laycock, Begbie, Haldane, Brakenridge, Sir Douglas Maclagan, the Bells, James Miller, and James Spence. What, and how much, do not these names suggest!

The infirmary is moving with the times—witness new nursing home, better nurses, new laundry, electric lighting at a cost of £5,500, new operating theatres, an extension of the pathological department, and now, as a commemoration of this year of Diamond Jubilee, it is proposed to erect a special pavilion for the treatment of diseases peculiar to women, the sum aimed at being £54,000.

The Convalescent House, Corstorphine, was opened for the reception of sixty patients in 1867. In 1892 a large legacy left by Mr. Nasmyth, the celebrated engineer, enabled the managers to erect two new wings, increasing the accommodation by forty beds. The Convalescent House is on a site 200 feet above sea level, in a park of six acres, sloping to the south, sheltered on the north and east by Corstorphine Hill and Woods, and having a pretty view of Edinburgh, the Pentland Hills, and the country to the west. Some 1,400 patients are annually received for a period of three weeks or more. The capital sum available is only £5,700, while the annual expenditure is about £2,500.

## VII.—Dental Surgery.

In no department of medicine or surgery in Edinburgh have greater advances been made within the last half century than in that of dentistry. A communication so far back as in 1858 had been addressed to the Royal College of Surgeons of Edinburgh by Dr. John Smith, now Dental Surgeon to Her Majesty in Scotland, urging the requirements of the dental profession. A course of lectures on dental anatomy and surgery had before that time been initiated by him at the Medical School of Surgeons' Hall; and in 1860 he set on foot the Edinburgh Dental Dispensary, in which venture he was at first joined by Mr. Nasmyth, Dr. Orphoot, and Mr. Imlach, and in subsequent years by nearly all the local members of the dental profession. The existence of this institution between the years 1860 and 1878 led to the formation of the Odonto-Chirurgical Society of Scotland. The passing of the Dentists Act in 1878, the resolution of the Edinburgh College of Surgeons to grant a dental examination and diploma, rendered the teaching of the Dental Dispensary or some such school indispensable, and that institution was accordingly soon merged in the Incorporated Edinburgh Dental Hospital and School, now a largely attended and well-equipped teaching establishment, having as its energetic Dean Mr. W. Bowman Macleod; while the dental diploma of the Royal College of Surgeons of Edinburgh ranks as one of the highest of such licences existing at the present day, both in the extent of its curriculum and the strictness of its examinations.

## VIII.—The Profession.

In his 1890 Harveian Oration Dr. Alexander Peddie, who was apprenticed to Mr. Syme on November 15th, 1830, says: "In regard to the apprenticeship system which existed at this time, but which came to a close soon after 1837, I may here remark that it had great advantages when under masters who held office in any hospital, dispensary, or large institution, and when studies and habits were properly supervised; but under other circumstances that bond was a waste of time, and the result in many instances unfavourable, even disastrous. In the early course of the students' life under such masters as Abercrombie, the Bells, Liston, Lizars, Syme, and others, there was less theoretical teaching, less done by cramming, and more by private practical instruction and impressions photographed, as it were, on the brain from sight and touch. The study was thus made more fascinating from its commencement, by gradual child-like opening up of a road through the gates of the senses to higher knowledge, and so, by quickening the power of observation, a desire was created for further insight of the mysteries of life, health, and disease."

An apprentice usually paid a fee of about £60 to the Fellow to whom he had been indentured, and he consequently paid only £7 to the College of Surgeons for his diploma of Licentiate.

### Qualifications.

The University of Edinburgh did not grant a surgical degree until 1860, and previous to that time about two-thirds of those who held the degree of M.D. of the University of Edinburgh were also Licentiates of the Royal College of Surgeons.

The Royal College of Physicians had issued a licence to practise up to 1829, but this was granted to University graduates only, and without examination. Their licence had been from November 1st, 1763, a necessary stepping-stone to the Fellowship, but when this requirement was abolished in 1829 the old licence ceased to exist. In 1859 the College renewed the licence, and in conjunction with the College of Surgeons gave what was called the Double Qualification, and since the end of that year no one has received the licence without examination. In 1861 the University regulations for the degrees of M.B. and C.M. came into force. In 1884 the Triple Qualification came into existence by the amalgamation of the two Edinburgh corporations with the Glasgow College.

In the *Edinburgh Postal Directory* for 1838, there appear the names of 222 practitioners. Of these 43 are designated doctors of medicine, and 182 are named surgeons. Three names appear in both lists. Of the 43 doctors of medicine in that list only one survives, namely, Dr. John Moir, and of the surgeons only two, namely, Sir Douglas Maclagan and Dr. Alexander Peddie. The population of Edinburgh in 1838 was 136,301, giving one doctor of medicine or surgeon for every 614 persons. In that year 19 dentists appeared in the *Directory*. In 1881 there appear to have been 202 practitioners in Edinburgh and Leith, with a population of 287,831, equivalent to one in 1,425. In 1891 the number had grown to 282, and the population to 330,677, equivalent to one in 1,173. In 1896 the number is 370, and the population 350,624, equivalent to one in 948. In the same year there appear 68 dentists. But in these later years there has to be noted an enormous increase of medical charities. Thus the infirmary alone in 1896 treated no fewer than 28,110 outdoor patients. And if both indoor and outdoor patients are taken, we have a record of considerably over half a million from 1837 to 1896. Then there has been in these years a great development of club practice, so that the city must now be held to be overmanned in the matter of physicians. Approximately there is one practitioner for every 500 persons.

## IX.—Students.

Dr. John Moir, who graduated in 1829, and became F.R.C.P.E., in 1837, writes:—"There was much more rowdyism among the students in those days than now, many of them forming clubs or sets under the name of some ship of war, the *St. George*, or some other, with captains and lieutenants, etc., meeting in the evening and setting out after 10 o'clock to all kinds of mischief. I think the periodical examinations have done much to amend this state of things, tending to make the students apply to their work from the commencement of their course. Everything has been altered and improved since I began medical study in 1824. At that time the course of study required for the M.D. degree was only three years, though next year it was increased to four. There were no preliminary examinations, but all was carried out in one day, and conducted in Latin, rather a shield than otherwise to some not well up in their subjects." The thesis, however, continued to be written in Latin for a good many years longer. Now, surely, examinations are carried to their furthest limit. Class examinations are obligatory, two or three in each subject in each session. Then there is a preliminary and four professional examinations for the M.B. degree. The thesis and a further examination for M.D. still remain. Does the new system produce as large a proportion of first-rate men? Or a larger number of groove men?

Of those who remain from 50 years ago, Dr. John Smith Smith writes:—"Are they our old companions of 'the College?' Are they, in all their surrounding of pomp and circumstance and staid demeanour and intense respectability, to be identified with the rollicking medical, full of life and fun, our bosom friend at the 'Society' suppers in Cork's University Tavern, at the snowball batteries and University bickers of 50 years ago? Are they the same men? We cannot, and we will not believe it."[3]

[3] *Student*, November 20th, 1896.

The relations between students and the police have changed. A torch-light procession is now headed by mounted police, and accompanied by a large number on foot, not for the purpose of finding cause to quarrel and use their batons as of old, but to aid them in their good-natured enjoyment.

Certificates of attendances and calling of cards only came into vogue a few years before the beginning of the reign, and was obviously little attended to at first.

The Royal Medical Society was founded by Cullen and others in 1737, but several societies have come into existence during the period under review—the Chemical Society, the Natural Science Club, the Medical Students' Christian Association, and others.

### THE STUDENTS' CLUB.

In 1876 the Students' Club was instituted "for the purpose of obviating some of the disadvantages attendant on the system of residence in separate lodgings." This was the first step of importance in the direction of developing the social and collegiate life of the Edinburgh student. It was further extended when, in 1889, "The University Union" was opened for "the provision and maintenance of means of social and academic intercourse for its members," with, in that year, a membership of 700 students, which it maintained for about two years. Recently, however, the membership has declined proportionately with the decline in the number of students attending the university. At present the membership is not quite 400. The union has always found its main support in the medical faculty. It seems impossible, however, to graft English modes on Scotch students. On one occasion, when cards making students members for one day were issued to all the students of the university, only three gentlemen had enough interest in the union to avail themselves of this invitation.

### UNIVERSITY HALL.

By way of further carrying out the social idea the buildings known as University Hall were begun in 1887, and have now grown to considerable dimensions. The internal arrangements of each house are managed by a committee of the residents elected monthly.

### STUDENTS' REPRESENTATIVE COUNCIL.

The Students' Representative Council was founded in 1884, to represent the students in matters affecting their interests, to afford a recognised means of communication between the students and the university authorities, and to promote social life and academic unity among the students. So important a place does the Council now fill in the body corporate that the commissioners under the Universities (Scotland) Act, 1889, have issued an ordinance recognising it as an integral part of the University, and giving it a legal status with certain rights, privileges, and powers. *The Student*, a vigorously conducted weekly journal, which has already lived longer than is usual for such literature, is the organ of the Council.

During the Queen's reign, by the 1858 Act, the office of University Rector was created. He is elected by the matriculated students, and holds office for three years. He is president of, and nominates an assessor in, the University Court. He may, before he appoints his assessor, confer with the Students' Representative Council. Thus have the students in a second way a voice in the government of the University. The first Lord Rector was Mr. Gladstone, who held office for six years. The second was Thomas Carlyle, who, in a tragic setting, delivered an ever memorable address. The Duke of Devonshire, then the Marquis of Hartington, held the office from 1877, and he was succeeded by Lord Rosebery.

Quite recently, and at a great cost, the students have bought and equipped a field for athletic purposes.

[The writer desires to express his thanks for much valuable help most kindly given by Sir Douglas Maclagan, Sir Henry Littlejohn, Sir James Russell, the President of the Royal College of Surgeons (Professor Struthers) Drs. Sophia Jex-Blake, John Smith, John Moir, Alexander Peddie. John Sibbald, John Duncan, William Craig, Joseph Bell, David Brodie, Alexander James, R. W. Philip, the Secretary of the Royal Society (Dr. Alexander Buchan); Mr. W. S. Caw, the Treasurer of the Royal Infirmary; Mr. T. Gilbert, the Clerk to the University of Edinburgh; Mr. James Robertson, the Clerk to the Royal College of Surgeons; Mr. John Matheson Shaw, the Sub-Librarian of the Royal College of Physicians; and Mr. McDougall, the Assistant Clerk to the College of Surgeons, who has prefixed a brief but admirable historical sketch of the Royal Colleges and School of Medicine to the official Calendar of these bodies.]

## GLASGOW.

By JAMES FINLAYSON, M.D.,
Physician, Western Infirmary, Glasgow.

### "'TIS SIXTY YEARS SINCE."

"'Tis sixty years since," and there is not now a single member of the profession in Glasgow who was in practice when the young Queen ascended the throne. We are thus deprived of any local professional reminiscences of that time, and are dependent only on historical data. These are sufficiently numerous on many points, although naturally enough they are deficient on some matters regarding which our curiosity may be aroused. In addition, however, to mere data, we greatly require the historic imagination which in his case enabled the author of *Waverley* to bridge over the sixty years and to make the old times pass before our eyes.

In trying to think back on sixty years ago, the enormous extension of the limits of the city and the equally startling increase of the number of its inhabitants must be constantly borne in mind The population of Glasgow and its suburbs was estimated as 253,000 in 1837, and as about 900,000 in 1896. By keeping before our minds alike the *personnel* of the profession and the environment of the time we may be able to form some idea of medical Glasgow in 1837.

### MEDICAL INSTITUTIONS IN 1837.

The University, which was then approaching its fourth centenary, and the Faculty of Physicians and Surgeons, which is now nearing its third, can both, from their age, "smile at the claims" on our veneration of even a sixty years' reign; this period, long as it is, constitutes but a fraction of their life and history. On the other hand, nearly all the hospitals and other medical institutions of the present day have grown up during this period. The *Glasgow Medical Journal* had made its first appearance, under the editorship of Dr. William Mackenzie, in 1828, but by 1837 it had ceased to appear, although resuscitated somewhat later. In 1837 Glasgow had but one general hospital, the Royal Infirmary, opened in 1794;[1] the other hospitals were the Lunatic Asylum, opened in 1814, then in Parliamentary Road, the building being now the Town's Hospital there; the Lock Hospital, with 11 beds, in Rottenrow, a little further west than at present, which had been incorporated in 1807; the Lying-in Hospital, just then struggling into existence, in the Grammar School Wynd; and the Eye Infirmary, founded in 1824, in North Albion Street, and removed to College Street in 1835. Apart from parochial institutions for the paupers, these were then the only hospitals in Glasgow, as against these and two additional large general hospitals and the long list of special institutions which have arisen since. The old hospitals have been themselves greatly extended since 1837. The provisions for fever and small-pox shall be referred to separately.

### A TRIO OF GLASGOW SCIENTISTS IN 1837.

Before proceeding to speak of the strictly medical professors of the time, we may refer to three great teachers on the borderland of medical science, whose names added lustre to the Glasgow Medical School in 1837. Thomas Thomson, Thomas Graham, and Sir William Jackson Hooker form a trio not easily matched at that or any other time.

Professor Thomas Thomson, of Glasgow University, the author of a *History of the Royal Society* (1812), and also of *Chemistry* (1830), was well known from his *System of Chemistry*, which went through seven editions. He was the teacher of chemistry of the widest reputation in the country, and he was thought of for the Chemical Chair in the new University College in London; but although still active he felt he was too old to be thus transplanted, and the place was left to be adorned by his pupil, Thomas Graham. Although a physician, at times, to

[1] As a memento of the Diamond Jubilee a movement is on foot at present to raise funds to rebuild the old front house, which has become somewhat antiquated, after a long period of useful service.

the Glasgow Royal Infirmary, it is probable that Thomson did not otherwise practise medicine, reserving himself for the teaching of chemistry, the practical instruction in which he was about the first to develop. The greatest claim, perhaps, which Thomson has to an enduring niche in the great temple of chemical learning is his introduction of the use of chemical symbols; their use received an enormous impetus when taken up by Berzelius, who, however, distinctly states in his book that in using them he was following the lead of Thomson.

Thomas Graham was admitted a Member of the Glasgow Faculty of Physicians and Surgeons in 1830. This connection with our profession has, curiously enough, been almost if not entirely ignored in the numerous notices of his life. His probationary essay for admission there is entitled "On the Tendency of Air and the Different Gases to Mutual Penetration," at once reminding us of one of his great claims to enduring fame. A native of Glasgow, and educated there, he was a pupil of Thomson's, but went to Edinburgh to study also under Hope. He returned to Glasgow in 1828, and taught in the Portland Street School of Medicine, and afterwards as Professor in Anderson's University, where his greatest chemical researches were made or planned. In 1837 he was appointed Professor of Chemistry in University College, London, and, as is well known, subsequently became Master of the Mint.

Sir William Jackson Hooker was not a medical man, but he was for twenty years Professor of Botany in the University of Glasgow. In this position he excited great enthusiasm for his subject, and this proved contagious enough to infect even the busy commercial city itself; his marvellous success in this respect may be judged of by the enormous increase of the fees in his class, which rose from £60 to £700 per annum. In 1841 he left the University to be Director of Kew.

### Medical Teachers in 1837.

Some of the most celebrated of the medical teachers in 1837 had already attained European reputation. Dr. William Mackenzie, after various experiences in teaching, was appointed lecturer on the eye in the University in 1828, and his celebrated *Practical Treatise* was already in a second edition (1835). It became known throughout Europe in French, German, and Italian translations.

Dr. John Burns was Professor of Surgery in the University; although he published an important work on *Surgery* (1829-38), his wide reputation was based on his *Midwifery*, which reached its tenth edition about this time (1843); its value was recognised abroad by various translations. With an enormous reputation in midwifery, he was Professor of Surgery in the University, and, about the time we are dealing with, one of the physicians of the Royal Infirmary. This versatility and all-round ability in a consultant were features of medical practice at the time which now seems peculiar in view of modern tendencies.

Dr. Andrew Buchanan, whose researches on the coagulation of the blood are now adequately recognised in the history of physiology, and whose introduction of the rectangular staff for lithotomy made him widely known to surgeons, was in 1837 one of the teachers in Anderson's University.

Dr. Badham was Professor of Medicine in Glasgow University. His chief claim to fame rests on his introduction of the word "bronchitis" into medical nomenclature; and if his reputation is to be judged by the enormous popularity which this word has attained, he may be judged to be great indeed. But a professor of medicine, however erudite and cultured, who resided abroad one-half of the year, and accepted duty as physician to the infirmary only on condition of not being obliged to see cases of fever, would not excite admiration in these latter days; and, truth to tell, it did not do so sixty years ago.

Dr. Robert Perry and Dr. A. P. Stewart both figure in the Royal Infirmary report for 1837, and their names at once suggest the subject of typhus fever.

### "The Pestilence that Walketh in Darkness:" Typhus in 1837.

The enormous increase of Glasgow, already in full progress at the accession of Her Majesty, was rapidly changing the character of the population. The demand for female workers in the manufacturing industries, and the immigration of Irish labourers of the lowest and poorest type to the convenient port on the Clyde were both of them potent agencies at work; the distress of the handloom weavers was another factor. The crowded condition of the city, telling especially on the lowest quarters, brought about a state of matters extremely favourable for the propagation of typhus fever. The condition of the slums was such as can scarcely be realised by the imagination of the present generation. The guarded official language of Mr. J. C. Symons, of the Handloom Weavers' Commission, written in 1838, may be quoted:

> I have four times visited these districts; once in the morning and three times at night. I have seen human degradation in some of its worst phases, both in England and abroad, but I can advisedly say that I did not believe, until I visited the wynds of Glasgow, that so large an amount of filth, crime, misery, and disease existed on one spot in any civilised country. The wynds consist of long lanes, so narrow that a cart could with difficulty pass along them; out of these open the "closes," which are courts about 15 or 20 feet square, round which the houses, mostly of three storeys high, are built; the centre of the court is the dunghill, etc.

The lodging houses reached a lower depth; ten, twelve, sometimes twenty persons of both sexes and all ages are described as sleeping promiscuously on the floor in different degrees of nakedness; and as regards dirt, damp, and decay, the houses were said to be quite unfit to stable a horse in. With this to stimulate the imagination, the reader may now be prepared to be told that the great fact which dominated medical Glasgow in 1837 was the presence of epidemic fever. It meets us at every turn. The Royal Infirmary report for 1837 is full of it. It counted among its victims many doctors and nurses. A man was seldom long in medical practice till he took fever, unless, indeed, as was very likely, he had gone through the fire before. It no doubt brought work to the profession, but it equally thinned its ranks. A clause from a statistical paper of Dr. Robert Cowan's in 1837 gives a glimpse into this:

> During last year twenty-seven of the nurses of the establishment (Royal Infirmary) were seized with fever, and five of them died. Several of the students have been affected. One gentleman who acted as apothecary died in the house.

In the infirmary report for 1837 we find the death there lamented of Dr. William Young, from typhus fever contracted while on duty in the wards; he was probably the leading physician at that time in the city. The report further shows that the addition of a separate "fever house" for 220 patients within the infirmary grounds, completed in 1832, was totally inadequate to meet the demand for fever beds, and a fever hospital under the infirmary management was opened in North Albion Street. In 1837 there were admitted to the fever house of the infirmary 4,454 patients, and 954 to the Albion Street Fever Hospital, with 559 and 129 deaths respectively. To be strictly accurate a few cases of small-pox, scarlet fever, etc., should be deducted, as the figures for these diseases were all massed together; but practically the whole of the cases were due to epidemic fever, chiefly typhus, with, however, some enteric fever cases, which were then being distinguished for the first time. But these figures, enormous as they are, only represent the infirmary cases. Dr. R. Cowan gives for 1837 the deaths from fever in the city as 2,180. Basing his calculations on the usual rate of mortality in this fever, he states that 21,800 persons were affected with fever in 1837 in a population estimated at 253,000.

### The Distinction of Typhus and Typhoid Fevers.

In the report of the Glasgow Royal Infirmary for 1837, we find in the list of officers in the institution the name of Dr. R. Perry amongst the physicians, and among the clerks (resident assistants) that of Mr. A. P. Stewart. These two names are honourably associated with the work of distinguishing the two forms of fever. Some rivalry as to their respective claims in this respect has arisen; but this need not detain us here, for whichever of the two had the greatest merit, the credit goes in any case to Glasgow and the Royal Infirmary, where they were both simultaneously working out this great subject as pioneers. Dr. Stewart frankly admitted that he was fully aware of the new "views" promulgated by Dr. R. Perry, a Glasgow physician, then on active duty in the infirmary, but he claimed to have been driven, by ambiguities in his teaching, to study the matter for himself, and he published his paper in 1840. After leaving Glasgow, his residence in Paris probably aided Dr. Stewart in the acquisition of some of that lucidity in thought and expression for which the French are famous, qualities which his strongest upholders

cannot accord to Dr. Perry, at least in his papers on this subject. As is well known, Dr. A. P. Stewart afterwards attained an eminent position in London, and was one of the physicians to Middlesex Hospital. The study of the rash in typhus fever had been constantly kept in view after the visit of Dr. Peebles in 1835 to the Royal Infirmary, who explained to Dr. Perry and others, including Dr. Stewart, the nature of the eruption in the fever as seen in Italy. The subsequent masterly researches of Sir William Jenner on this subject do not fall to be noticed here.

### TYPHUS FEVER IN 1897: CITY IMPROVEMENT ACT OF 1870.

The year 1837 by no means marks the last of the monster epidemics of typhus in Glasgow, great outbreaks occurring in 1848 and in 1864: even in 1869 it was notable, although perhaps chiefly because of the comparatively moderate prevalence of this fever for some years before. Since then, it has been diminishing more and more, till in 1897 it may be said to be almost vanishing. In 1896, there were only 50 cases in the city, all treated in the hospital, with 13 deaths. An important feature of the case, however, is that it is never entirely absent for any length of time from the city. The seeds of the disease are never quite away, but the soil has changed; the spread is lessened chiefly in this way, although the care and vigilance of Dr. J. B. Russell and his sanitary officers in preventing its taking root count for much also.

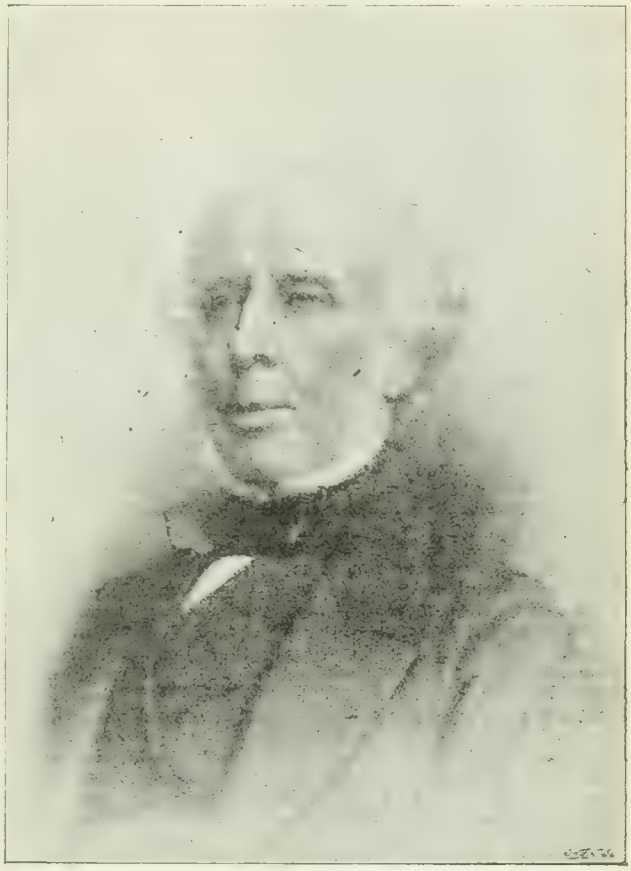
The explanation of this marvellous change is to be sought in the City Improvement Act of 1870, and the clearances effected within a few years thereafter. The old crowded parts of the city can scarcely be recognised now by those who remember them before this epoch. Even before this gigantic sanitary operation was effected, something was achieved by the appointment of a medical officer of health in 1863 (Professor W. T. Gairdner being the first to hold this office), and by the systematic prevention of overcrowding through the "ticketing" of certain tenements, so as to supervise and prevent the evil. A curious feature has developed itself with the subsidence of epidemic typhus, the cases which do occur having for years lost the terribly malignant character frequently met with in the old days.

### FEVER HOSPITAL ACCOMMODATION.

In 1837 the provision for fever was by the Fever House of the Royal Infirmary and the temporary hospital under its auspices, in North Albion Street, along with the parochial hospitals for paupers. In 1865, the municipality opened a fever hospital of 136 beds in Parliamentary Road for those who were not paupers, or who were sent in and paid for as such by certain parishes. In 1870, the municipality increased these beds to 250, and added another 250 at Belvidere, the latter being increased to 390 in 1887. Taught by experience the city authorities at last saw that in paupers or non-paupers fever was always infectious, and required equally prompt removal for this to be effectual; the Royal Infirmary managers shut their fever wards in 1876, the parochial fever wards having been previously closed. From this year, the municipality has dealt with all the fever and small-pox cases within the city bounds, their provision being a total of 740 beds in Kennedy Street (Parliamentary Road) Hospital for the northern district, and in Belvidere Fever and Small-pox Hospitals for the extreme east. With the recent extension of the city boundaries some part of Knightswood Fever Hospital in the west also falls to Glasgow; and at present a large hospital in the north-west district is being built, and is nearly ready, so as to supply the needs of a larger population, and to avoid unduly great distances in the removal of the sick. When this rearrangement takes effect, 1,000 beds are to be available for the infectious diseases of the city.

### SMALL-POX 1837-1897: HOSPITAL TREATMENT.

In 1836 the deaths from small-pox in Glasgow, according to Dr. R. Cowan, were 577, and in 1837 there were 352. Even with a so-called epidemic appearance of the disease in 1893 and 1895, the total deaths from small-pox in the six years of this decade only amount to 58 in all. The cases were all treated in hospital with the exception of two. Sixty years ago small-pox was treated in the Fever House of the Royal Infirmary in wards which, in a sense, were separate, but with little real isolation as we understand it nowadays. In 1836 Dr. R. Cowan tells us there were 110 cases of small-pox treated in the Royal Infirmary, and in the report for that year we find 45 deaths from this disease. These figures are large if we think of the persons so admitted being a source of infection to the other patients in the hospital; but they are small if looked at in connection with the prevalence of the disease in the town, for in 1836, as stated above, 577 deaths had occurred. We find that of late years practically all the cases of small-pox occurring in the city are treated in the Small-pox Hospital, scarcely any being allowed by the sanitary office to remain in private houses. The treatment of small-pox in the Royal Infirmary Fever House was discontinued (with good reason) in 1871; and a still further step in the isolation of the Small-pox Hospital itself was made by the city when a special hospital for small-pox, isolated from the fever department, was opened at Belvidere in 1877.



Dr. William Mackenzie.

### CHOLERA: LOCH KATRINE WATER.

In 1832 Glasgow experienced a bad epidemic of cholera, the deaths numbering 2,842; a second visitation occurred in 1848-49, when the deaths amounted to 3,772; and in 1854 there was a third epidemic, with 3,886 deaths. Up till 1848 the water supply of the city, apart from local wells and springs, was obtained from the Clyde, with necessarily grave contamination even when taken from a point above the city. In 1848 a pure supply was obtained for the southern part of the town, from the Gorbals gravitation waterworks. In 1859 the magnificent supply brought from Loch Katrine gave the whole city and its suburbs a supply of water free from any suspicion of sewage contamination. The benefit experienced in the epidemic of 1866 was notable, as only 68 deaths were entered from cholera for the whole city; and since then only 2 cases, in immigrants, are known to have occurred.

As in the case of typhus, the seeds of cholera have not been entirely absent, but with pure water from the mains in the houses of the people the soil has been unsuitable for its

propagation. Local causes were traced for some of the cases which did occur in 1866. With the increasing population fresh reservoirs for the Loch Katrine water at Craigmaddie have been secured for the city, and the new works were inaugurated in 1896. The doleful prognostication of wholesale lead poisoning by the action on the pipes of soft water from a mountain lake have been completely falsified by the most ample experience.

### The Air and the River.

The brilliant results obtained by the wisdom and enterprise of our City governors have been well illustrated in the progress of events during the last sixty years; but increase of population, increase of manufacturing works, and even sanitary improvements themselves in the way of multiplication of waterclosets, and the increased perfection of drains and sewers, have all tended to a notable deterioration both of the atmosphere of the city and of the river. Some sanitarians have denied the influence of the pollution of the Clyde as a cause of disease, although the growing stench was readily admitted. At times this has been so great that it is not easy to believe that it exercises no injurious influence on health, even if not increasing the mortality to any serious extent. Indeed, it has now become a clamant evil, openly recognised. An important although so far a partial remedy was inaugurated in 1894 by the opening of the Dalmarnock works, which intercept a portion of the city sewage, and discharge the water in a pure form into the river. As in the case of the City Improvement Act, the operations of railway extension in the city have been found to fit in with a sanitary movement. Plans applying to other sections drained by the Clyde are at present in preparation, and important developments may be looked for in the immediate future.

The sombre pall of smoke and soot, rendered acrid and more irritating by admixture with chemical vapours, continues to be an increasing evil to the population; it is certainly in part responsible for the unfavourable course of respiratory disorders, and especially of infantile bronchitis, in Glasgow. The problem how to remove it is no doubt a difficult one to face in a manufacturing community, but the enlightened energy which planned the Improvements Act and the Loch Katrine Waterworks still remains in the city.

### Medical Schools.

Any real activity in medical teaching in Glasgow (apart from apprenticeships) may be dated from the time when Cullen began to lecture outside of the University in 1744. In the following year, by arrangement with the Professor, he lectured within the College. Since then, much activity has always been shown in medical teaching, partly by regular schools, partly by separate and independent teachers. By the year 1837, Glasgow had not only the University school, but also the Andersonian and the Portland Street school of medicine. In 1897, there are still three medical schools—the University, Anderson's College, and St. Mungo's College, which is in close relationship with the Royal Infirmary. Some of the distinguished teachers sixty years ago have been noticed in the opening paragraphs of this paper; but in addition the name of Dr. Moses Buchanan, the historian of the Royal Infirmary, should perhaps be also mentioned. He was then Lecturer on Anatomy in the Portland Street School. The total numbers attending medical classes in Glasgow varied enormously, with the vicissitudes of war and the demand for army surgeons. The students of anatomy in Glasgow University amounted to no fewer than 352 in 1813, shortly before the battle of Waterloo. After the peace, the numbers fell at once. By 1836, they had fallen to 97 in the anatomy class. This enormous reduction from old times was, however, due in part to the University professor being then very old, and to the attractions of new schools which had arisen. In the Portland Street School, there were 55 students of anatomy in 1836, and no doubt at least as many in the Andersonian school. The total number of medical students is difficult to estimate. In 1836, we have an apparently reliable entry in the University records of 239 medical students; and in the Portland Street School there were, in the same year, 166; the Andersonian attendance may be guessed as not less than the last-named school. This would bring the total up to 571. A difficulty (apart from this guess) as to possibly duplicated entries in two schools, from some students taking classes in both places in the same year, cannot be overcome. In estimating the medical students in 1896-97, the same difficulty exists; many men take classes both at the University and Anderson's College, and so appear in both returns. There are definite entries at the University of 518 men and 79 women, or 597 in all. An estimate of additional students in the other two schools (without duplicated entries) brings the total up to 800; this estimate is based on figures supplied to the writer. This shows an increase; but when the women are deducted, and when allowance is made for the longer attendance in a five years' course, as compared with the three or four years' course 60 years ago, the increase is not very great. The five years' course now in full force, and some of the new University regulations have checked the number of entrants within the last few years.

### New College and Western Infirmary.

The buildings where medical classes were held in 1837 are now all demolished or changed. Of the old college in High Street not a trace remains, except the name "College Station," of the North British Railway, which has swept everything away. A portion of an old stair has been preserved at Gilmorehill, and some of the fine old front has been utilised in a building at the gatehouse in University Avenue. These serve as mementoes of the past. The huge pile on the summit of Gilmorehill, and the more secluded buildings of Queen Margaret College for the women; on the banks of Kelvin, a little higher up, constitute the present accommodation for the University students, along with an extensive block of buildings in the Western Infirmary grounds, let by the managers to the University for the teaching of pathology, and opened last October. Anderson's College Medical



The Old Infirmary, Glasgow.

School has now a building near the Western Infirmary gate in Partick, the old Andersonian buildings in George Street, and indeed all the non-medical department, being now a part of the Technical College. The Portland Street School of Medicine, in full vigour in 1837, ceased a few years afterwards; and the anatomy class there also collapsed in 1844, although galvanised into life for a month by the brilliant but unfortunate genius of Dr. Robert Knox.

### Women in the Glasgow Medical School.

The advent of women to the medical schools of Glasgow was certainly never contemplated as a possibility by the profession in 1837. The first fight for their medical education was not made in Glasgow; but when the Triple Board in Scotland admitted female Licentiates in 1884 women began to be attracted to Glasgow, where anatomical and clinical facilities have long abounded. At first they found a school in St. Mungo's College, in mixed classes there, and also in exclusively female classes in Queen Margaret College at a time when the latter had no official connection with the University, although it has always been fostered by some of its professors. By-and-bye St. Mungo's College decided to stop mixed classes, and the Royal Infirmary, in which the women had been studying alongside of the men, followed suit. The absorption of Queen Margaret College by the University, beginning with the session 1892-93, changed matters as regards the women there, as they became University students. The



University of Glasgow.

Royal Infirmary, after some little difficulty, was induced to apportion a fairly large allowance of beds in certain wards for the exclusive instruction of women. The Victorian reign is, perhaps appropriately enough, to be known as the epoch when University education for women triumphantly asserted itself in Glasgow and elsewhere in Scotland. Notwithstanding many advantages which the women undoubtedly have in their medical studies in Glasgow, some of them fret at their entire exclusion from not a few of the classes taught by the University professors, and at their being relegated in some instances to assistants for perhaps four out of the five teaching days in the week. As they are, equally with the men, University students, they have, it would seem, some ground for complaining that in treating them in this way the University is a stepmother rather than an Alma Mater. Some of them also fret at the limitations imposed on their clinical studies by their being relegated, without much, if any, choice, to the wards of certain physicians and surgeons at the Royal Infirmary, situated at some miles' distance from their College, and at their total exclusion from the Western Infirmary, to the students of which the professors of clinical medicine and surgery in their University exclusively limit their teaching. An allied difficulty, as regards women, is being slowly solved in the Arts Faculty of Glasgow University by one subject after another being made over to mixed classes at Gilmorehill. The future of medicine in this respect may depend on the results of these experiments. From small beginnings the numbers studying medicine are now considerable, 79 women being matriculated at Queen Margaret College as University students of medicine for 1896-97.

### Growth of the Medical Profession in Glasgow.

A curious feature has been noticed by several writers, in that the number of men in the medical profession in Glasgow remained for many years almost stationary, notwithstanding the great increase in the general population. Figures were not published for the period before 1841, but in that year the number of medical practitioners is reported as 217, and for the next thirty-five years it varied only between 230 and 239; the estimated population of Glasgow and the suburbs had meanwhile risen from 280,000 in 1840 to 640,000 in 1875. The numbers of practitioners were taken from the local directory; although, probably, they do not represent the actual numbers with absolute accuracy, still they are fairly comparable with each other. It is true that of late years the numbers in the profession have been increasing; this increase was notable just after these very figures were published in the BRITISH MEDICAL JOURNAL in 1876; at least, by 1881, it was distinct. In the present year 1896-97, the Glasgow Directory gives the number of medical practitioners, including 6 women, as 487 (10 duplicated names being deducted). The population of Glasgow and the suburbs is now estimated at 900,000, but this leaves a much larger proportion of medical men than in 1875. The explanation of the slow increase or almost stationary condition of the medical profession in Glasgow during the first forty years of the Queen's reign is not very clear. Probably the great dominating factor of epidemic fever had to do with it. This, indeed, might give work; but the class of patients usually affected with fever could give but little remuneration for medical attendance, and the fever itself was constantly thinning the ranks of the profession. With small fees, hard work, the risk of infection, and the influence on the ranks of death from fever, it is little wonder that even in a growing city the recruits were not numerous. The best practice went to a few who had grown in reputation with the city's growth, and most of the others had but a poor living. The rapid increase of late years depends, to some extent on new ideas and new developments of practice which have next to be considered.

### Specialisation in Practice.

It has been already stated that in 1837 Professor John Burns, who occupied the chair of Surgery in the University, was also physician to the infirmary, and, above all, an authority on midwifery. No doubt there were some physicians about this time—"pures" as they were called—who

kept rigidly to physic. One of the most distinguished, and about the last, of this class was Dr. Thomas Brown (of Lanfine), well known as a mineralogist, who had lectured for some years on botany at the University before the professorship was founded in 1818. He had an important practice as a consulting physician, and his clinical acumen may be judged from his seeing, in 1820, that cases of infectious sore throat (or our diphtheria) sometimes "ended in croup." The infirmary regulations, however, which had given a certain prominence to the "pures," had been changed, and the tendency was all the other way. Mackenzie, the great ophthalmologist, had not only taught anatomy and surgery, but also materia medica and medical jurisprudence, before he was made lecturer on the eye at the University, and even to the last he continued to have a certain amount of general practice. The immediate predecessor of the present distinguished professor of medicine in the University made his first reputation as a surgeon; indeed, as an author Dr. John McFarlane remains known only by his *Surgical Reports*. Hospital surgeons attended midwifery cases and all manner of illnesses. The consultants (after the disappearance of the "pures") were by a process of selection developed from general practice. No doubt one who had contended successfully with all sorts of cases was not unlikely to give welcome guidance where the diagnosis might halt, for example, between typhoid fever and an abdominal abscess, as he would be equally ready to prescribe diet and medicine, or to use the knife for the relief of the patient. With the advent of Professor (now Lord) Lister to the chair of surgery in the University in 1860, and of Professor W. T. Gairdner to the chair of medicine in 1862, a new departure was established, and special practice was introduced in these two important departments. After a period of uncertainty it now seems obvious that in Glasgow practice the time of the "all-round consultant" is past, and that specialising in medicine and surgery, and in the departments of the eye, ear, and throat, and in some other special diseases, is to win the day; consulting midwifery practice and gynæcology are also passing to specialists. All this tendency is reflected in hospital practice. The growth of the city explains, so far, the addition to the general hospitals of the "Western" and the "Victoria" for different districts of the city. The three great general infirmaries, however, are all provided with a multitude of special departments as regards their out-patients, and in not a few specialities as regards their in-patients also. These developments of the general infirmaries came too late to impose much, if any, check on the growth of special hospitals and dispensaries. There are now two eye institutions, an ear hospital and ear institution, two gynæcological hospitals, a maternity hospital, a skin hospital and dispensary, a cancer hospital as well as a cancer and skin institution, and a children's hospital. A chest and throat dispensary has only lately ceased to exist, the latter department being provided for by the Royal Infirmary. With the exception of the Eye Infirmary and the Maternity Hospital all these special institutions have been developed within the time covered by this sketch. Quite a number of new dispensaries for the treatment of out-patients have arisen during the same period, many of them with special departments, and one of these, where clinical instruction is given, is therefore called a "polyklinik" (1885). The medical mission established in 1867 has of late years undergone great extension, and a dispensary with a school for the partial medical instruction of ladies going out to zenana work may also be mentioned in this connection.

The number of medical men, with one or two women, connected with all these general and special hospitals and dispensaries, is very great. They are waiting and looking forward to taking a more or less leading position, and this new development has led to a marked increase of the numbers of the profession in Glasgow of recent years. Although many are comparatively young in the profession, and may have as yet but slender emoluments, the revolution in practice is none the less marked.

Another manifestation of the same specialising tendency is seen in the medical societies. In 1837 there was but one, the Medical Society, founded early in the century mainly by Watt, the bibliographer; this was subsequently absorbed by the younger and more energetic Medico-Chirurgical Society. This Society, however, has now been itself subdivided for many years (1886) into special sections, a move which has not yet extinguished newer and more specialised societies—namely, the Pathological and Clinical Society (1873) and the Obstetrical and Gynæcological (1885). District societies, due to the size of the city, also exist in the old Southern Medical Society, and the new "Eastern;" while a "Northern" society, after lasting a short time, has been defunct for the last twenty-five years. The local Branch of the British Medical Association has also to some extent the functions of a medical society for Glasgow and the West of Scotland.

### Nursing and Private Hospitals.

Another revolution in practice has been gradually introduced by the development of nursing. In the earlier years of this sketch, with typhus fever periodically rampant, nurses were often required, but even when obtained were not always desirable. With the Crimean war and Miss Nightingale a nursing propaganda was established in the country. The first institution in Glasgow to show marked effects in this direction was the Parliamentary Road Fever Hospital, opened by the municipality in 1865, under the superintendence of Dr. J. B. Russell, now the Officer of Health. Since then, the various hospitals have vied with each other in the improvement of their nurses and nursing. Concurrently with this, or rather a little later, trained nurses in private practice became more and more common, and district nursing for the poor was introduced in 1875. Nursing homes or private hospitals began, about twenty or twenty-five years ago, to assume greater and greater prominence, especially in the practice of surgery. The importance attached to the dressing of wounds and to antiseptic and aseptic surgical methods was naturally early realised from Lister's teaching in Glasgow, where his antiseptic method was begun in 1866, the first results being published in the *Lancet* for 1867. The desire for efficient nursing and the application of antiseptic dressings made some of the leading surgeons in Glasgow rather unwilling to face many of the commoner operations in the houses of their poorer patients, and in the case of the graver operations they often preferred a nursing home even to the commodious houses of the well-to-do. With the appliances of the nursing homes at hand, their proximity to the residence of the surgeon, and the aid of trained nurses, such procedures became much easier for the operating surgeon. This has to a large extent revolutionised surgical practice in various ways, and especially as regards the general practitioners and the country doctors, who may desire their cases to be operated on by Glasgow surgeons. Formerly, the operation over, the practitioner had charge of his patient; now, the "home" and the nurses supersede him in large measure. This may be well for the special patients—probably it is—but for the surgical experience, education, and work of the general practitioner, it is felt by many to be the reverse.

### Outlook for the Future.

If in 1837 Glasgow medical life and practice were dominated by fever and its ever recurring epidemics, in 1897 the dominating features are the growth of general and special hospitals, and the attendant changes. The infectious diseases of the city are now, in very large part, treated by the municipality; and multitudes of patients, of a class formerly treated by their own doctors, are now dealt with by hospitals and dispensaries. In operative surgery the private hospitals take in many who may be called opulent, both from the town and country, to be under the care of surgeons or specialists. The very large number of practitioners attached to the general and special medical hospitals and dispensaries, and to the three medical schools, are all striving for distinction, not, as before, by working up to a reputation from a general practice, but by aiming at special experience and special practice in hospital work and teaching, so as to attain reputation and lucrative work in some one department of their profession. As yet, the number of women practising in Glasgow has not introduced any very notable disturbance, as only half a dozen, or thereby, can be numbered, and the exact way in which the profession may yet be affected by the growth of this element is not apparent. Very likely, however, it may operate in the direction of specialising to some extent. The influence of trained nurses and of nursing homes and private hospitals is

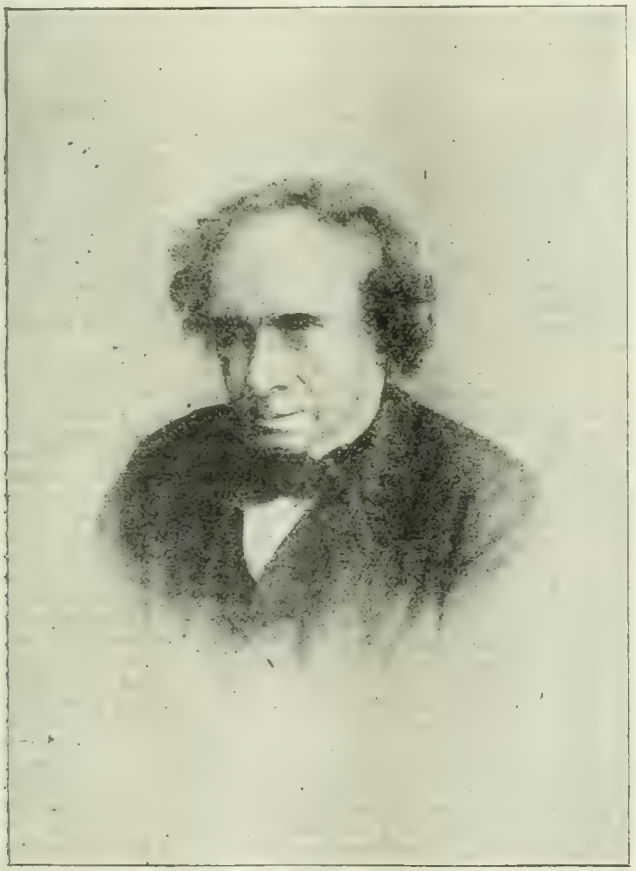
likely to go on increasing, at least for a time; all this undoubtedly has a tendency to the specialising of practice. When, however, the development of special practice becomes excessive, we may readily see a change in current ideas. Even already some people are getting tired, not only of paying specialists' fees, but of being sent about to two or three different practitioners, according to the part of their body affected. Some of them look back with regret on the times when attendance by one man of recognised reputation in the city sufficed for nearly all the ailments of themselves, their wives and children, whether medical or surgical. A member of the profession in Glasgow has humorously said that the only specialty left unoccupied nowadays is general practice! Men of the old stamp still exist; but the developments of the time prevent their being readily known to the public.

## IRISH MEDICAL SCHOOLS.

### DUBLIN.

By JOHN WILLIAM MOORE, M.D., Univ. Dubl., F.R.C.P.I.

The sixty years which are fulfilled in this month of June, 1897, have left their mark upon the medical history of the Irish metropolis in no small degree. Steady and substantial,



Dr. William Stokes

if not brilliant, has been the progress in all three branches of the healing art—medicine, surgery, and midwifery—during the long and wonderful reign of Queen Victoria.

THE DUBLIN PROFESSION IN THE QUEEN'S REIGN.

When Her Most Gracious Majesty ascended the throne several striking personalities occupied the foremost rank in the great profession of medicine, to which we are so proud, so justly proud, to belong. Sir Philip Crampton, Bart., *facile princeps* in surgery, was the Queen's first surgeon-in-ordinary in Ireland, an honourable post which he continued to fill until his death on June 10th, 1858, at the patriarchal age of 81 years. His biographer, Sir Charles A. Cameron, writes, "Crampton takes rank with the greatest surgeons which the United Kingdom has produced. He was sagacious in diagnosis, ready in resources, dexterous in the use of instrument, and sympathetic in his treatment of his patients." He filled many high offices, and served as President of the Royal College of Surgeons in Ireland on as many as four different occasions—1811, 1820, 1844, and 1855. In 1839 Her Majesty created him a baronet.

Sir Henry Marsh, Bart., was the Queen's first physician-in-ordinary, an honour which he enjoyed even longer than his colleague, Sir Philip Crampton, for he lived until December 1st, 1860. His baronetcy, like Crampton's, dated from 1839. Marsh was President of the King and Queen's College of Physicians (now the Royal College of Physicians of Ireland) during the years 1841, 1842, 1845 and 1846. His baronetcy, like those of Crampton and Corrigan, is now extinct.

It may be convenient here to give the names of Her Majesty's physicians and surgeons in Ireland throughout her reign.

*Physicians-in-Ordinary*:—Sir Henry Marsh, Bart., M.D. (1837-1860), Sir Dominic J. Corrigan, Bart., M.D. (1847-1880), William Stokes, M.D., F.R.S., (1861-1878), Alfred Hudson, M.D., (1878-1880), Sir John T. Banks, K.C.B., M.D. (1880-1897), Benjamin George McDowel, M.D. (1881-1885), and William Moore, M.D. (1885-1897).

*Surgeons-in-Ordinary*:—Sir Philip Crampton, Bart., M.D. (1837-1858), James W. Cusack, M.D. (1858-1862), Robert Adams, M.D. (1861-1875), Sir George Hornidge Porter, Bart., M.D. (1869-1895), John Hamilton, F.R.C.S.I. (1875, dying in the same year), William Colles, M.D. (1875-1892), Sir William Stokes, M.D., (1892-1897), and Sir Philip Crampton Smyly (1895-1897).

*Surgeon-Oculists*:—Sir William Wilde, M.D. (1863-1876), Charles Edward FitzGerald, M.D. (1876-1897).

Dr. James O'Beirne, President of the Royal College of Surgeons in Ireland in 1843, held the honorary office of surgeon extraordinary to the King in Ireland at the time of the death of William IV. in 1837. He retained his appointment as surgeon extraordinary to the Queen in Ireland until his death in 1862, when the office was discontinued.

So far as relates to Medicine and Surgery the foregoing list contains the names of representative men, but it is far from being an exhaustive list, and in it some of the best known and most trusted names of the present day find no place. To particularise these would be an invidious and ungracious task. But the statement may be hazarded that the sixty years' reign has witnessed a remarkable change in the *personnel* of the profession in Dublin. At its dawn a few commanding names like those of Marsh, Corrigan, Graves, and Stokes in Medicine, of Crampton, Cusack, William Henry Porter, and Robert Adams in Surgery, stood prominently forth—the *primores atque optimates* in the Commonwealth of Medicine. The names of Robert W. Smith and of Richard G. Butcher belong to a later period. At the present day, if there are no bright particular stars in the firmament, it is at least beset with a galaxy of talented and skilful physicians and surgeons, who well uphold the best traditions of their profession.

It is to be regretted that the Queen's Household has never included representatives of Irish Obstetric Science and Art, more especially as at all times the fame of the Dublin School of Medicine has rested in no small degree upon the world-wide reputation enjoyed by its great lying-in hospitals and maternities. During the reign, such names as those of Thomas Edward Beatty, Evory Kennedy, Fleetwood Churchill, Alfred Henry McClintock, and George Hugh Kidd among the departed; Lombe Atthill, Arthur V. Macan, and William J. Smyly among the living have shed lustre on this branch of the profession, which has so long outlived the obloquy showered upon it in the days of Sir Fielding Ould.

STATE MEDICINE.

Since the Queen's reign began, State Medicine may be said to have sprung into existence. Its principles have progressed in Ireland more slowly, indeed, than in Great Britain, but none the less surely. The statistical department of this great subject

has had worthy exponents in Sir William Wilde, the medical statistician of the Irish Census of 1851, and in Dr. Thomas Wrigley Grimshaw, the eminent and philanthropic Registrar-General for Ireland. The successive Medical Officers of the Local Government Board, which was formerly known as the Poor Law Commission, have also contributed largely in their Annual Reports to the literature of State Medicine. Not least among them is Sir Francis Xavier MacCabe, who now holds the office. In this connection the name of Sir Charles A. Cameron, M.D., Medical Superintendent Officer of Health for the city of Dublin, should receive honourable mention.

Passing now from men to corporations and institutions, we find a remarkable development in the sixty years under review.

### The University of Dublin.

The far-famed and venerable University of Dublin has held on the even tenour of its way throughout the Victorian era. It apparently enjoys perennial youth. But it is not an inactive youth. In all directions its beneficent work has developed, but in no direction so marvellously as in its arrangements for medical teaching and examinations. A splendidly managed hospital—that of Sir Patrick Dun—a medical school second to none in the world in respect to site, buildings, equipment, and staff, are sending out into the profession year after year men who have enjoyed the boon of a full education in arts as well as in medicine, and that, too, in numbers ten or twenty-fold as great as in 1837. The anatomical school of the University of Dublin, founded (it may be said) by James Macartney, has, under the fostering care of Alexander Macalister, and more recently of his brilliant successor, Daniel J. Cunningham, attained a celebrity of which any university might well be proud.

### The Royal University of Ireland.

Ten years after the Queen's accession the Queen's University in Ireland was founded. In 1880 its place was taken by the Royal University of Ireland, which occupies in that country somewhat the same position as the University of London does in England. The Queen's Colleges of Belfast, Cork, and Galway, created in 1845, were affiliated to the Queen's University, but have an independent existence in regard to the Royal University. Each has a fully-equipped and efficient medical school—that of Queen's College, Belfast, being particularly prosperous and successful.

### The Royal Colleges of Physicians and Surgeons.

Over no public bodies has the wave of progress passed more notably than over the Royal Colleges of Physicians and Surgeons. The King and Queen's College of Physicians at the beginning of the reign was in a state almost of suspended animation. The Fellows met in the Board-room of Sir Patrick Dun's Hospital. Its Licentiates could be counted by tens. Now the Royal College of Physicians of Ireland occupies handsome premises in Kildare Street, Dublin. Its halls are of fine proportions. Its statue hall is the cynosure of all visitors: in this medical Walhalla have been erected four magnificent marble statues of the most famous of its sons—Marsh, Corrigan, Graves, and Stokes. But it is its public work which has most developed. United in a conjoint scheme with the sister College of Surgeons, the College of Physicians now sends into the ranks of the profession every year a large body of carefully trained, well-educated, and thoroughly examined medical practitioners, who are found in all parts of the Empire. Successive Governments seek the opinion of the College on questions affecting the public health, and responsible duties are imposed upon the President and Fellows under various Acts of Parliament.

The Royal College of Surgeons has progressed no less rapidly in numbers and in reputation. Its Schools of Surgery have survived many a crisis, and at the present time are prospering beyond the precedent of recent years.

### Hospitals.

But it is when we turn to the hospitals that the influence of the genius of the Victorian age is everywhere seen. It would be tedious, nor is it necessary, to go into details. Improved ventilation and furnishing of the wards, proper segregation of the sick, the treatment of infectious patients in isolated epidemic wings, and above all the skilled nursing of the sick are the outward and visible signs of the peaceful revolution in hospital management which has taken place within the past three decades. No doubt there is still room for improvement. An isolation hospital for the treatment of small-pox has not yet been built, nor has adequate provision been made for the treatment in convalescent homes of those recovering from infectious fevers. But these defects will not outlast the nineteenth century, for public attention has of late been repeatedly drawn to them, and public opinion demands an immediate remedy.

### Sick Nursing.

The nursing of the sick has vastly improved both in hospital and in private practice. In the city of Dublin, there are several nursing homes, whereat a moment's notice skilled nurses may be obtained. But one of the brightest gems in the crown of the Queen's reign is the provision of trained nurses for attendance upon the sick poor in their own homes. Queen Victoria's Jubilee Institute for Nurses flourishes in Dublin. St. Patrick's Home in St. Stephen's Green and St. Lawrence's Home in Rutland Square, represent the interest which the Protestant and Roman Catholic denominations alike take in this good and noble and Christian work. In the present year, the usefulness and scope of these institutions are likely to be much developed.

### Medical Societies.

Nor has the progress of the scientific and literary branches of medicine been less decided than its practical work. When the Queen came to the throne, two scientific medical societies were already at work—the Association of the Fellows and Licentiates of the King and Queen's College of Physicians of Ireland, which had been founded in 1816 and which afterwards was known as the Medical Society of the College of Physicians; and the Surgical Society, which was instituted in July, 1821. In 1836 Dr. Stokes and Dr. Robert W. Smith established the famous Pathological Society of Dublin, and in November of the same year Dr. Evory Kennedy founded the equally well-known Dublin Obstetrical Society.

### The Royal Academy of Medicine.

Towards the close of 1882, the four societies just mentioned—the Medical, the Surgical, the Pathological, and the Obstetrical—agreed to amalgamate and to constitute "The Academy of Medicine in Ireland." This important change proved a complete success. In 1887 an Address of Congratulation was presented to the Queen on the occasion of her Jubilee, and in the month of June Her Majesty was graciously pleased to command that the Academy should henceforth be known as "The Royal Academy of Medicine in Ireland." The work of the Academy is carried on from the end of October to the end of May in each year in six sections—those namely of Medicine, Surgery, Obstetrics, Pathology, State Medicine, and Anatomy and Physiology. Up to the present, fourteen substantial volumes of Transactions have been published under the editorship of Dr. William Thomson, now President of the Royal College of Surgeons in Ireland. On his accession to the Presidency, Mr. Thomson resigned the office of General Secretary of the Academy, and was succeeded by Mr. John B. Story. So high is the local reputation of the Academy, that its presidency is justly regarded as one of the highest honours to which a physician or a surgeon can attain. Nor does the headroll of those who have been selected to fill this office belie its claim to be looked upon as the blue ribband of the profession in Ireland. The first triennial President was Sir John Banks, K.C.B. He was succeeded by Dr. Robert McDonnell, F.R.S. Then came Dr. Samuel Gordon and Dr. George H. Kidd in succession, while Dr. James Little now worthily fills the chair.

### Other Associations.

Allusion should here be made to the existence in Dublin of less formal medical societies, such as the "Biological Club," the "Clinical Club," and various students' associations, in which excellent clinical pathological, and scientific work is done throughout each medical session.

### Medical Journals.

In the matter of periodical medical literature the first place is naturally taken by the *Dublin Journal of Medical Science*. This is the lineal descendant of the *Dublin Journal of Medical and Chemical Science*, a bimonthly periodical, the first number of which appeared in March, 1832, under the editorship of Mr. (afterwards Sir Robert) Kane. Drs. Graves and Stokes became associated with Kane in his editorial capacity in a short time, and when he severed his connection with the *Dublin Journal*, in 1834, continued as joint editors up to 1842, when it passed into the hands of Mr. John Hamilton and Dr. John McDonnell. In 1846, after twenty-eight volumes had appeared, a new series was begun with Mr. (afterwards Sir William) Wilde, as editor, and under the title of the *Dublin Quarterly Journal of Medical Science*. From that time onward this old-established periodical has continued to appear—as a quarterly up to the close of 1871, and since that date as a monthly journal. The editors in succession have been Sir William Wilde, Dr. John Moore Neligan, Dr. George Hugh Kidd, Dr. James Little, and Dr. J. W. Moore (since 1873).

In January, 1839, appeared the *Dublin Medical Press*—a weekly politico-medical periodical, of which Dr. Arthur Jacob and Dr. Henry Maunsell were the editors and publishers. After many years this publication was amalgamated with the *Medical Circular*, and the publishing offices were transferred to London, where they still remain, although there is a branch publishing office in Dublin.

The reign has witnessed the appearance and disappearance of two brilliant but short-lived medical periodicals in Dublin. In 1845, Dr. (afterwards Sir Dominic) Corrigan, Dr. O'Ferrall, Dr. Evans, and Dr. Aldridge established the *Dublin Hospital Gazette*, a two-weekly periodical, entirely devoted to matters of practical and scientific import, unconnected with medical politics, and uninfluenced by party feeling, jealousy, or personal hostility. It afforded a good medium for lectures, clinical reports, and cases, as well as short retrospects of medicine and its collateral branches.

Many years after the *Dublin Hospital Gazette* had ceased to appear, the first number of an analogous periodical was published on January 1st, 1873, under the title of the *Irish Hospital Gazette*. The editor was Dr. George F. Duffey, now President of the Royal College of Physicians of Ireland. Like its predecessor, the *Irish Hospital Gazette* was strictly non-political in character. Among its contents it embraced the following topics: hospital reports, pathological observations, original communications, original lectures, extracts from British and foreign journals, reviews and notices of books, abstracts of reports of societies, sanitary and meteorological notes, etc. After a short but brilliant career of two-and-a-half years, the *Irish Hospital Gazette* became amalgamated with the *Dublin Journal of Medical Science* in July, 1875.

### Medical Literature.

Within the fateful years of the Queen's reign the Dublin School has not been silent in the matter of contributions to medical literature. Indeed, some of the earlier publications are justly regarded as classical works—the heritage of medicine to all time. Graves's *Clinical Lectures on the Practice of Medicine* first appeared in 1843. A second edition was called for in 1848, and was edited by Dr. John Moore Neligan. It was translated into French, and eulogised by Professor Trousseau, the great physician of the Hôtel Dieu of Paris. His tribute to his Irish colleague is worth quoting: "Graves is, in my acceptation of the term, a perfect clinical teacher. An attentive observer, a profound philosopher, an ingenious artist, an able therapeutist, he commends to our admiration the art whose domain he enlarges, and the practice of which he renders more useful and more fertile."

In 1847 Robert W. Smith brought out his admirable *Treatise on Fractures in the Vicinity of Joints*. It was followed, in 1849, by his folio *Treatise on the Pathology, Diagnosis, and Treatment of Neuroma*, comprising fifteen artistic plates, and the largest work of the kind ever produced in Dublin.

Next in chronological order comes Stokes's admirable treatise on *The Diseases of the Heart and the Aorta*, published in 1854. Two other classical works came from the pen of the same author—*A Treatise on the Diagnosis and Treatment of Diseases of the Chest* had already been published in 1837. The third volume of the triad appeared in 1874 and was entitled *Lectures on Fever*. His conception of fever and particularly of the relation of typhus to typhoid, although not now accepted, is philosophical and characteristic.

In 1857, Mr. Robert Adams, afterwards Regius Professor of Surgery in the University of Dublin, published his classical *Treatise on Rheumatic Gout, or Chronic Rheumatic Arthritis of all the Joints*—a work which embodies the close observations of many years, both at the bedside and in the *post-mortem* room.

To this list may be added Mr. Richard G. Butcher's *Operative Surgery*, Dr. Fleetwood Churchill's *Diseases of Children*, and Dr. John Moore Neligan's *Medicines and their Mode of Administration*.

It may perhaps be thought invidious to name more recent works like Alfred Hudson's *Lectures on the Study of Fever* (1867), Lombe Atthill's *Diseases of Women* (1871), Samuel Haughton's *Principles of Animal Mechanics* (1873), Walter G. Smith's *Commentary on the British Pharmacopœia* (1875), J. M. Purser's *Manual of Histology* (1884), Swanzy's *Diseases of the Eye* (1884), Ball's *Diseases of the Rectum and Anus* (1887), Sir Christopher Nixon's *Handbook of Hospital Practice and Physical Diagnosis* (1889), J. W. Moore's *Eruptive and Continued Fevers* (1892) and *Meteorology* (1894), and last, not least, in 1897, Henry Jellett's excellent *Practice of Midwifery*. Nor in the matter of translations and new editions has Dublin failed to render a good account of her sons. For the series of publications by the New Sydenham Society, Dr. McClintock edited Smellie's works, Dr. Alfred Hudson did a like service in the case of Stokes's *Diseases of the Chest*. For the same Society Dr. William Daniel Moore, described by an Italian biographer as "un altro Cardinale Mezzofanti, un vero poliglotto," rendered into pure and flowing English from the Dutch the works of Schroeder van der Kolk on the *Minute Structure and Functions of the Spinal Cord and Medulla Oblongata* and on the *Proximate Cause and Rational Treatment of Epilepsy* (1859), and of F. C. Donders on the *Anomalies of Accommodation and Refraction of the Eye* (1864). To Dr. George Sigerson, of Dublin, also we owe the translation of Charcot's *Lectures on Diseases of the Nervous System* in the New Sydenham's Society's library.

### Scientific Work.

It is not going too far to say that Dublin has left on modern Medicine and Surgery alike the impress of the work of her sons. The philosophic researches on Fever of Cheyne, Graves, Stokes, Corrigan, Lyons, Henry Kennedy, Grimshaw, and others, are recognised by the highest authorities upon that subject at home and abroad. The masterly investigations in Animal Mechanics of the Rev. Samuel Haughton, M.D., F.R.S., Senior Fellow of Trinity College, Dublin, have attracted widespread attention in the scientific world. The science of Chemistry has been enriched by the discoveries of Emerson Reynolds, the Professor of Chemistry in the University of Dublin. And, in the domain of surgery, the diagnosis of aneurysm of the abdominal aorta may safely be said to date from the year 1830, when Dr. Thomas Beatty, of Dublin, published his accurate observations on a single case of the disease. About a decade later, O'Brien, Bellingham, and William Henry Porter published their researches on the treatment of aneurysm by compression, of which no less an authority than John Eric Erichsen wrote thus: "It was not until 1841-2 that the Dublin surgeons, distinguished as they ever have been by their practical skill as much as by their scientific devotion to their art, inaugurated a new era in the treatment of this disease ..... They established triumphantly this great fact, that wherever the artery could be reached so as to admit of compression between the sac and the heart, the tying the vessel was no longer the only hope of cure in this formidable disease." Another honoured name in connection with the surgical treatment of aneurysm is that of Jolliffe Tufnell, President of the Royal College of Surgeons in Ireland in 1874-75.

### Loyalty of the Medical Profession.

The loyalty and devotion of the medical profession in Dublin to the Throne and Constitution are, and always have been, unquestioned, and by no body of the Queen's subjects

will the completion of the sixtieth year of Her Majesty's reign be more cordially and thankfully, if quietly, celebrated.

## BELFAST.

### The Royal Academical Institution.

The present reign has witnessed the gradual rise of a large and efficient medical school in Belfast. Prior to the year 1835 lectures on anatomy, chemistry, and other subjects of the medical curriculum had been delivered, but it could not be said that any regular medical school existed in Belfast. In that year a medical department was established in connection with the Royal Academical Institution, and the following chairs were occupied, namely, Anatomy, Theory of Physic, Surgery, Practice of Physic, Chemistry, Materia Medica, Midwifery, and Botany. Dr. J. L. Drummond was appointed Professor of Anatomy; Dr. Andrews, Professor of Chemistry; Dr. John M'Donnell, Professor of Surgery; Dr. Little, Professor of Midwifery; and Dr. Marshall, Professor of Materia Medica. In 1836 Dr. William Mateer was appointed to the Chair of Botany, and Dr. MacCormac to the Chair of Practice of Physic; and in 1840 Dr. Hurst commenced a course of lectures on Medical Jurisprudence. The Chair of Surgery was occupied successively by Dr. Thomas Ferrar, Dr. Coffey, and Dr. Gordon. In 1840 Dr. Burden succeeded Dr. Little in the Chair of Midwifery.

### Queen's College.

In the year 1849 the Queen's College was opened, and Drs. Andrews, Burden, and Gordon were transferred to the new institution, occupying respectively the Chairs of Chemistry, Midwifery, and Surgery. The number of students who attended the courses of medical lectures in the Royal Academical Institution rose in some years to about 60 or 70. Excluding some gentlemen who were appointed to chairs in the newly-founded Queen's College, but who never lectured, the following was the original medical staff: Anatomy and Physiology, Professor Carlisle; Surgery, Dr. Gordon; Practice of Medicine, Dr. Creery Ferguson; Materia Medica, Dr. Horatio Stewart: Midwifery, Dr. Burden; Natural History, Dr. Dickie; Chemistry, Dr. Andrews; Medical Jurisprudence, Dr. Hodges. The number of students attending the first session of lectures, which began on November 7th, 1849, was as follows: Anatomy and Physiology, 25; Surgery, 24; Medicine, 9; Materia Medica, 11; Midwifery, 14; Natural History, 8; Chemistry, 37. Among the most important events in the subsequent history of the Medical Faculty were the following: In 1857 Dr. Seaton Reid succeeded Dr. Stewart in the Chair of Materia Medica. In 1860 Professor Carlisle died, and was succeeded by Dr. Redfern, to whose initiative was mainly due the erection of the new medical buildings, which were begun in 1862. In 1865 Dr. Cuming became Professor of Medicine in succession to Dr. Ferguson. In 1868 Dr. Dill succeeded Professor Burden in the Chair of Midwifery. In 1870 Dr. Cunningham became Professor of Natural History. In 1879 Dr. Letts succeeded Dr. Andrews in the Chair of Chemistry. In 1886 Dr. Sinclair succeeded Dr. Gordon in the Chair of Surgery. In 1890 Dr. Whitla succeeded Professor Seaton Reid in the Chair of Materia Medica. In 1892 a new lectureship in Pathology was instituted, and to this post Dr. W. H. Barrett was appointed. On his retirement, after a short tenure of office, Dr. Lorrain Smith was appointed his successor. When in the year 1893 Professor Redfern retired after thirty-three years of invaluable service in the Chair of Anatomy and Physiology, it was felt that the time had come for the separation of these two subjects. This was accordingly done, the funds for the foundation of the new chair—henceforth called the Dunville Chair of Physiology—being furnished by one of the leading families of Belfast. To this chair Dr. W. H. Thompson was appointed, Dr. Johnson Symington succeeding to the Chair of Anatomy. In the same year Dr. J. W. Byers succeeded Professor Dill in the Chair of Midwifery.

### New Laboratories.

In 1894 the new chemical laboratories were opened, and at the Jubilee of the College in the present year there were opened the new physiological and pathological laboratories. The most recent additions to the medical department of the College have been the foundation of a lectureship in ophthalmology, to which Dr. W. A. McKeown was appointed, and a lectureship in sanitary science, to which Dr. Henry Whitaker was appointed.

### Students.

The number of students in attendance upon the medical curriculum has shown a very large and (with the exception of the time immediately succeeding the founding of the Royal University) a steady and unbroken increase. From the small beginnings already mentioned the number has grown, until in the session 1895-96 there were 228 medical students in attendance. The recent establishment of a Students' Union, which is proving most successful, has added another element of strength and stability to the Belfast Medical School.

### The Royal Victoria Hospital.

Turning to the clinical side, which is not less important than the academic for the efficiency and prosperity of a medical school, the admitted deficiencies of Belfast in the all-important matter of hospital accommodation are on the verge of being supplied in the most complete and satisfactory manner. The movement for the foundation of a new hospital to succeed the Royal Hospital (the chief clinical hospital), which was inaugurated last November by the Lord Mayor, Alderman Pirrie, J.P., has proved brilliantly successful. Of the £100,000 required for this enterprise more than £94,000 has already been promised, and there can be no doubt that the small remaining balance will shortly be raised. No slight share of the credit for this noble result is due to the Lady Mayoress, Mrs. Pirrie, whose untiring energy, enthusiasm, and resource have been beyond praise. The staff of the Royal Hospital have heartily co-operated in the movement, which has their entire sympathy and approval. It is hoped that the foundation stone of the new hospital—which is to be called the Royal Victoria Hospital in honour of the Diamond Jubilee of the Queen—will be laid before the end of the present year.

### Other Hospitals.

In addition to the Royal Hospital, clinical instruction is given to students at the Belfast Hospital for Sick Children, the Ulster Hospital for Children and Women, the Ulster Eye, Ear, and Throat Hospital, the Belfast Ophthalmic Hospital, the Union Fever Hospital, the Samaritan Hospital, the Belfast Lying-in Hospital, and the Belfast Lunatic Asylum. The new Mater Infirmorum Hospital is now well advanced towards completion, and will prove a valuable addition to the hospital resources of Belfast.

### Present and Future.

The Diamond Jubilee finds the Belfast Medical School in a sound and healthy state, with evidences of progress all along the line. The new chairs, lectureships, and laboratories have made the school very strong on the academic side, and it is in a fair way soon to become equally strong on the clinical side. There can be no doubt that the education thus given is eminently adapted to the needs of Ulster, and the rapid growth and development of the great industrial city of Belfast, of which the population is now 300,000, are happy auguries for the future prosperity of her large and efficient medical school.

## NAVAL SURGERY AND HYGIENE.

Although any decided advance made in the practice of medicine, surgery, and hygiene in a general way would equally apply to the medical officers of both services, their special duties and the numerous incidental matters associated with each demanded a preparatory course of instruction for their recruits, which could not be so well carried out in the ordinary medical schools. The basis of the army medical school was laid in Chatham long before the beautiful military hospital with its medical school was erected at Netley. When the proposal to inaugurate a naval medical school was made, it was at once determined to take advantage of the teaching of the Netley professors, who were always men of ability, and chosen for their intimate knowledge of the subjects they were selected to take up. Thus the names of Parkes, De Chaumont, Longmore, and Aitken will live permanently in the memory of the profession at

large. It was necessary, under the circumstances, to establish a chair of Naval Hygiene to be occupied by a naval man who should supervise the naval medical candidates and take part in the general work.

HASLAR.

In course of time, however it was thought that the great resources of Haslar Hospital might be turned to account, and a course of instruction was planned out for the newly-entered men. It should be mentioned here that, although the teaching could scarcely be expected to be so good as that given at Netley, there was an important set-off in the fact that the candidates would undoubtedly have a better opportunity of studying the more active forms of disease and surgical injuries usually occurring in the naval service both afloat and ashore.

THE CARE OF THE WOUNDED.

In our former wars, when the Army Hospital Corps was but faintly shadowed forth, it stood to reason that the neglect of the wounded was to a great extent necessitated; for, if it would take two men to carry one man off the field, the loss of one-third would practically render a given force ineffective. In modern tactics, however, this and other defects have been remedied considerably by the organisation of a special service to deal with them, under the control of the Medical Department, and it is curious to observe how the increase of merciful provision is going hand in hand with increase in the destructive energy of the modern implements of warfare.

NAVAL NURSES.

It is a matter of historical interest, but not perhaps commonly known, that female nurses were employed in the surface afloat in Nelson's time. One of these nurses, named Alicia (or Ally) Macguire, a citizen of Cork, used to give most interesting sketches of her own experience, having actually been a helping hand in Nelson's own ship, and having been in several of Rodney's battles. There was also, of course, the "sickbay man," or sick-berth attendant, who was aided in emergencies by any useful men who could be spared out of the ship's company.

Though subsequently, even up to the accession of Queen Victoria to the throne, no female nurses appear to have existed in the service afloat, they were always to be found in the naval hospitals on shore; but even here male nurses had the predominance until duly qualified nursing sisters were placed on the staff in military hospitals.

In the earlier part of Her Majesty's reign the nursing of the hospitals was conducted by female nurses, and although many of them, as far as the actual requirements of nursing were concerned, were in some respects superior to those of the present day, yet too many of them were often merely casual applicants drawn from a low class of people; these were quite untrained, difficult to control, not infrequently drunkards, and, forming *liaisons* with the patients, became troublesome, and had to be discharged. Afloat the "sickbay man" was often a most unsatisfactory official, although there were many very superior men amongst these; he was picked up whenever he could be got, and on board ship was commonly looked on as an outsider and "idler," and treated accordingly. All this has been altered; the nursing is now conducted by a male "sick berth staff," both in hospitals and afloat; the recruits, who before being entered have to undergo both a physical and educational examination, are subsequently well trained at Haslar by a special medical officer, who is placed there as "instructor to the sick berth staff," after which they undergo a period of service at other naval hospitals before being drafted on board ship; they form a distinct corps, and wear the Geneva Cross badge on their uniforms; they are classified as wardmasters, ranking with chief petty officers; sick berth stewards, ranking with first and second class petty officers, according to abilities and length of service; and sick berth attendants, ranking with seamen.

NAVAL HOSPITALS.

The hospitals have undergone enormous improvement to bring them up to the requirements of modern science; the old absorbent wooden floors of the wards have been replaced by teak kept highly polished, the walls silicated, the objectionable matting, always more or less foul from dust, discharge, and slops, has been abolished, and replaced by strips of corticine; the old Mason's drains have disappeared, and have been removed from beneath the buildings; the water-closets have been fitted with the most recent sanitary improvements, the old cisterns for the storage of drinking water have ceased to exist, and a perfect system of regular flushing and deodorising of drains is inaugurated. In the early part of Her Majesty's reign the wards were often much overcrowded; this has been altered, and proper cubic space allowed for every case; the ventilation of the buildings has also undergone great improvement; diseases such as hospital gangrene, erysipelas, septicæmia, etc., are now practically unknown.

THE SUPPLY OF MEDICINES TO SHIPS.

The arrangements for the supply of medicines and appliances to ships have undergone much improvement, among which may be mentioned the introduction of special chests easy for transport, for use in the field with naval brigades, and fitted with all the most recent articles required by antiseptic surgery, surgical haversacks for landing parties, etc., while all the newest drugs and medical and surgical appliances, the efficiency of which and their suitability for naval purposes have been tested by experience, are liberally furnished.

## THE MEDICAL SERVICE OF THE ARMY.

As in everything else, the Victorian era has been remarkable for extensive changes in the medical and surgical management of the soldier. When Her Majesty ascended the throne in 1837 the country was barely recovering from the exhaustion following the prolonged drain upon its resources caused by the Napoleonic wars, and, glad to be rid of military questions, was contented to leave military organisation to take care of itself.

The hospital service of the army at that time was conducted by two distinct departments, each responsible to the Secretary of State for War: these were the Medical Department and the Purveyor's Department. The former was charged with the treatment of the sick and wounded, the supervision of sanitation, the compilation of all professional reports and statistics, and also the provision of medicines, appliances, and instruments. The Purveyor's Department was charged with the surveillance of all hospital buildings and grounds, the provision of subsistence and medical comforts for the sick, also furniture, bedding, clothing, utensils, books, stationery, and other articles required for hospital establishments. On field service this department had also to supply tents, intrenching tools, and other implements required for hospital purposes.

HOSPITALS.

Following the custom which had been found to work well in the Peninsular war the hospitals were regimental and general. Of these latter there was practically only one in this country—namely, that at Fort Pitt, Chatham. The requisite amount of hospital accommodation, with furniture, bedding, and clothing for the sick, and all requisite utensils, were provided at the various stations by the Purveyor's Department. Regiments were furnished, according to their establishments, with one or more medicine chests, containing drugs and surgical appliances, agreeably to an invoice contained in the Medical Regulations of the day; to which invoice the regimental medical officers were expected to confine their practice. The regimental surgeon, however, had to provide himself, at his own expense, with a complete set of capital instruments in accordance with an official list, and also with a pocket case of minor instruments. Each regimental hospital was in itself a separate unit, with separate accounts kept by the regimental medical officer, under the officer commanding. The only provision for the nursing and personal care of the sick soldier was by the employment of regimental comrades who, either as volunteers or as specially detailed men, constituted the hospital orderly or nurse of that day.

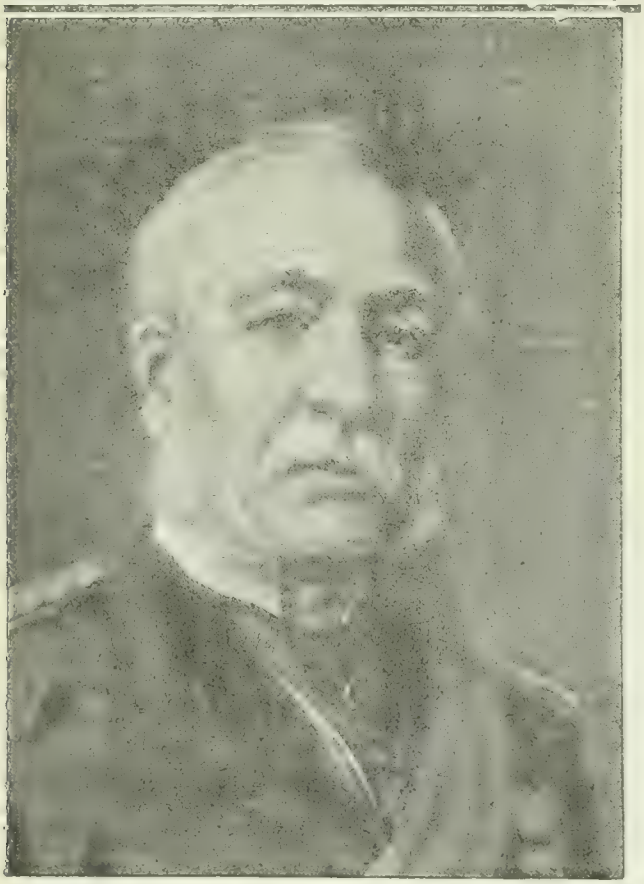
THE ROYAL WAGGON TRAIN.

Although the experience of the Peninsular war had produced some improvements in the interior accommodation and administration of general and regimental hospitals, still the organisation, *personnel*, and general character of military me-

dical establishments was the same in 1837 as it had been in 1807. In the early years of the Queen's reign there was no hospital and ambulance corps in the British army corresponding to the Medical Staff Corps of the present time. A corps called the Royal Waggon Train had been organised in 1812 for general transport and commissariat purposes; waggons with springs were specially designed as part of its equipment for the carriage of sick and wounded men, but, proving defective, it was broken up in 1833.

### The Hospital Conveyance Corps.

In this condition of inefficiency and unpreparedness for field duties the medical service, in common with the rest of the army, drifted until the outbreak of the Crimean war in 1854, when the Hospital Conveyance Corps was hastily originated; this corps was for the most part recruited from military pensioners and other non-effectives. Their duties were to remove the wounded from battlefields, and act generally as utility men in the medical service of the army. A very short experience demonstrated the failure of this hastily organised

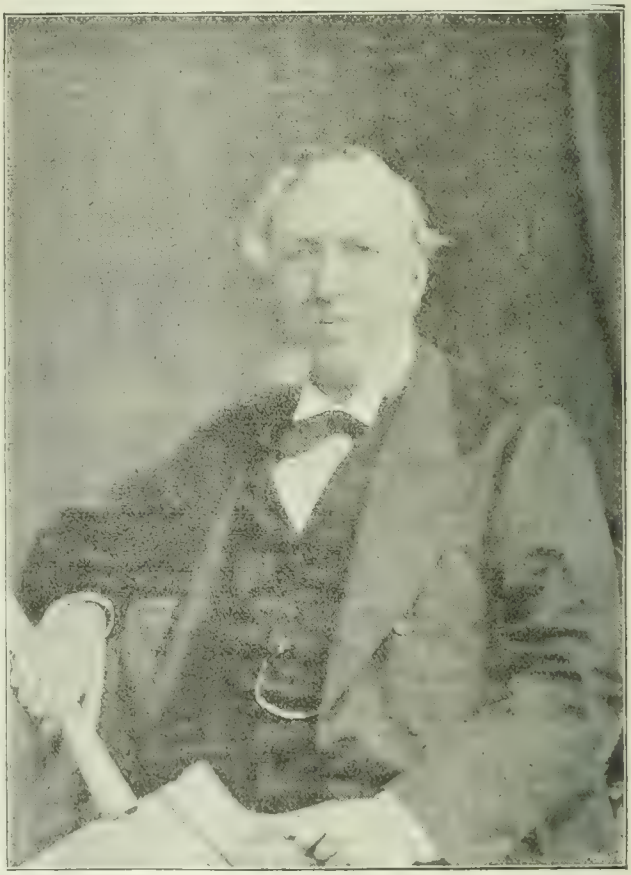


Sir Thomas Longmore.

establishment; the men were untrained for the varied and at times highly specialised services demanded of them; some were too old and many were of disorderly habits. Further, although the medical officers overlooked in a general way the work of this Hospital Conveyance Corps, there was no true military organisation, no system of command, and neither discipline nor authority could be directly enforced by them. After this breakdown, the transport of the sick was undertaken by the Land Transport Corps, but practically as a result of absence of supplies and appliances, coupled with the want of official connection between the military medical officers and the Land Transport or any other corps, there was even then no ambulance system at all, as we understand it now, in our army during the latter part of the Crimean war. As for the other and more important duties of a medical corps—namely, the attendance on the sick and wounded in the actual hospitals, that still remained to be provided for in other ways.

### Organisation of a Medical Staff Corps.

By Royal Warrant of June 11th, 1855, the first true Medical Staff Corps was organised. It consisted of nine companies, each 78 strong, and arranged so as "to be employed in any way that may be required in hospital duties." Again, owing to the absence of any military feature in its organisation, and to the doubtful and anomalous position in respect of its relations with the combatant authorities, this Medical Staff Corps did not last more than a few months. Its place was taken by the Army Hospital Corps, which by Royal Warrant of September 20th, 1855, was granted a complete military organisation. The ranks were filled mainly by the transfer of men of good character from regiments; each man on transfer passing a probationary period of three months in a military hospital before permanent appointment to the corps. Concurrently with these official attempts to supply adequate nursing of and attendance upon the sick soldier in military hos-



Sir William Aitken.

pitals, private enterprise, more particularly by the efforts of Miss Nightingale, provided female nurses and other medical comforts for the sick in the various hospitals of the army in the Crimea.

### Sidney Herbert's Commission.

At the conclusion of the war, the famous Royal Commission under Sidney Herbert inquired into the whole question of the sanitary condition of the army, the organisation of military hospitals, the treatment of the sick, and the provision for their transport from the field of battle. The report of this Commission in 1858 was of far-reaching consequences, and from this date a marked improvement in the condition of military medical affairs became manifest. One of the earliest results of this Commission was the establishment of the large general hospital at Netley and the organisation of

a practical military medical school. At the same time, certain female nurses, drafted from the Crimean hospitals, were officially retained for duty in the hospital at Fort Pitt, Chatham. On the opening of the Royal Victoria Hospital in 1863, these ladies were transferred to Netley; but it was not until 1869, however, that the Army Nursing Service was placed upon a satisfactory and official basis, when Mrs. Deeble, herself the widow of an army surgeon, took down the first contingent of military nursing sisters from St. Thomas's Nursing Institute. Since then, female nurses have been continuously employed at Netley and gradually introduced into all the larger garrison hospitals at home and abroad.

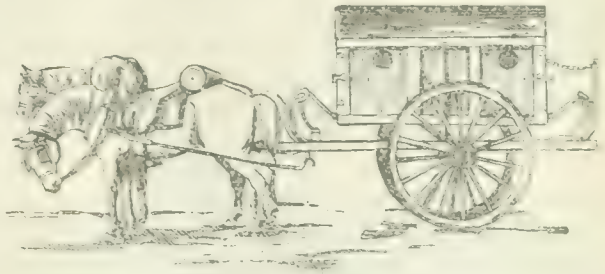
### UNIFICATION OF THE SERVICE.

In March, 1873, the Royal Warrant, devised by Mr. Cardwell, abolished the Purveyors Department and the system of regimental hospitals and regimental surgeons, substituting



Professor De Chaumont.

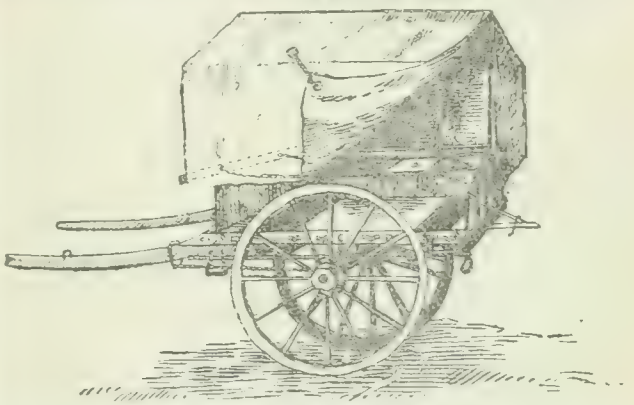
for them the unification of the medical service into an autonomous medical department, endowed with complete control over all military hospitals, which from that date became either general hospitals, station hospitals, or field hospitals. A second or complementary Warrant of the same date organised the existing Army Hospital Corps for extended duties in connection with hospital service, both for peace and war, more especially by the formation of bearer companies and field hospital *personnel*. Four years later, the Army Hospital Corps, all patients in military hospitals, as well as soldiers attached to them for duty, were placed under the command of officers of the Army Medical Department. In 1884 the officers of the Army Medical Department and the Quartermasters of the Army Hospital Corps were designated the Army Medical Staff, and the non-commissioned officers and men of the Army Hospital Corps were designated the Medical Staff Corps. This organisation still obtains, while upon the Army Service Corps, created in 1888 from the old Commissariat and Transport Corps, devolves the duty of supplying transport for the medical service; the transport officer of the Army Service Corps taking orders from the medical officer commanding the bearer company or field hospital to which the transport is attached.



Ambulance, 1837.

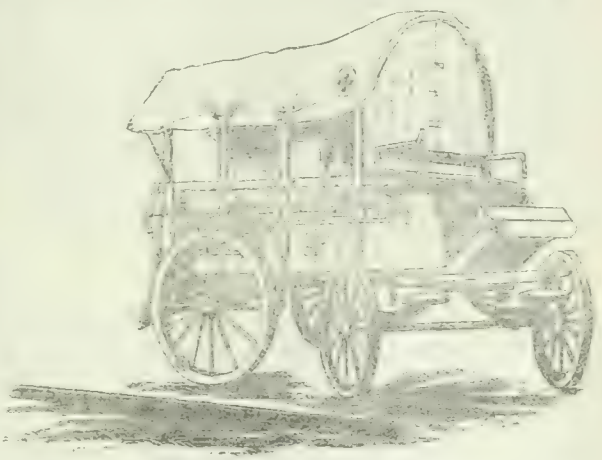
### THE MEDICAL CARE OF THE SOLDIER TO-DAY.

Coincident with all these developments in military medical organisation—from the simple regimental hospital with a very limited and really inadequate equipment, and practically no true provision for the nursing and transport of the sick be-



Ambulance, Intermediate Period.

yond what was afforded by untrained soldiers and by the hiring or impressment of country carts, to the well-organised garrison, general and field hospitals, with trained female and male attendants, and a proper ambulance service—there has been a gradual levelling up of equipment, whereby step by step the progressive improvements in all branches of medicine and surgery, which have been such conspicuous features of the Victorian era, have been applied to the needs of the



Ambulance, Present Day.

sick and wounded soldier. It may be even now that our military medical organisation and equipment are not perfect, nor perhaps have reached the ideal we would wish to see attained; but, as compared with the state of affairs in 1837,

those now responsible for these branches of our army may well point with pride to the vast progress made during the Queen's reign in these matters, and contrast the mortality of the army at home of 15 per 1,000 and of 57 per 1,000 for those serving abroad for the years 1837-8 with the corresponding death-rates of 4.32 and 12.5 respectively at the present time.

## EVOLUTION OF SANITARY ADMINISTRATION IN THE VICTORIAN ERA.

By Edward Seaton, M.D., F.R.C.P.,
Lecturer on Public Health, St. Thomas's Hospital Medical College; and Examiner in State Medicine, University of London.

If some accomplished essay writer, thoroughly understanding and appreciating the various ways in which medical influence and knowledge could be made reasonably available for the public service, were to formulate a scheme of local and central administration for dealing with diseases more or less preventable, he would find it wonderfully different from the reality. Such comparison would, however, be instructive and useful if only for the purpose of showing us how the natural processes of development had been hindered or distorted at different stages of growth. But short of this ambitious project, we may with advantage record some of the principal developments of our legislative and administrative machinery, noting as we proceed the points of obstruction or deviation in what may be termed its natural growth. Fortunately, we are able to do this, for among his many great works, Sir John Simon has written a remarkable history of the developments of our sanitary institutions, not omitting anything essential from earliest times to within about twenty years of the present date. In thus introducing the theme of our article, let us not in our natural feeling of pride at all that has been accomplished during the blessed reign of our Queen, forget that some of the soundest foundations of modern preventive medicine were laid by our wise forefathers, Mead, Pringle, Lind, Baker, Blane, Jenner, Turner, and Thackrah.

### The Great Awakening.

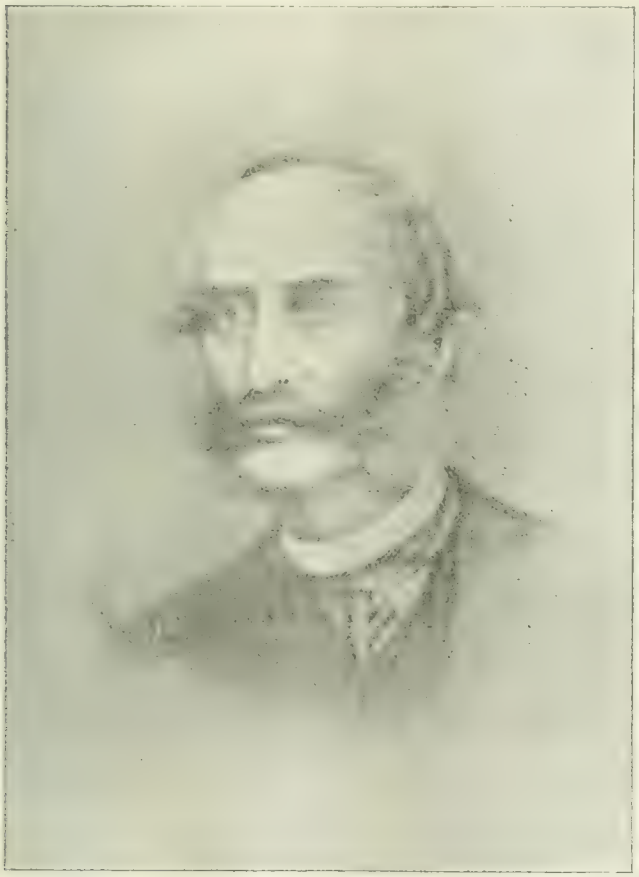
Their influence had made itself felt, so that when the great awakening of the national conscience came in 1837 the growth of humanity in British politics—"the larger sympathy of man with man"—had prepared the minds of the statesmen of the period for receiving the idea that health must necessarily take rank as an object of practical politics. The dependence of this policy, not only upon the rapidly advancing medical knowledge of the era, but even more upon the maintenance of high professional tradition, can be exhibited at any point. It has been the chief function of our Royal College of Physicians to uphold those traditions. It is owing to their predominating influence which requires men of medical cult to sacrifice opportunities of gain where, as is so often the case, such gain means also relaxation of their humane duty towards suffering and illness, that the condition of the masses of the Queen's subjects has been so remarkably improved. That influence permeates all branches of the profession. To no section of the profession is honour more justly due than that of the Poor-Law medical officers of this country. They have not only alleviated the sufferings of the poor, but at obvious sacrifice of personal interest have protested against the causes of those sufferings, not seldom incurring thereby the dislike and loss of patronage of property owners and other influential persons.

### The Seed.

The beginning of Sanitary Reform, as it was called in this country, was so to speak a by-product of the work of the Poor Law Commissioners, initiated by Chadwick in 1838. It was in the spring of that year that in a letter to the then Home Secretary, Lord John Russell, the Commissioners pointed out that the most prominent and pressing of the charges on the public purse which had to be made were for the means of averting the charges necessitated by illness, followed by destitution, the result of "nuisances," which at that time were such fruitful causes of ill-health. Here we have the first indication that prevention of certain burdens on the rates, striking at their root or cause, was to be the higher aim of the Legislature in the future. The Commission had directed local examinations to be made in parts of the metropolis where fever was most prevalent by Dr. Arnott, Dr. Southwood Smith, and Dr. Kay, and they hastened to represent to Lord John Russell the urgent necessity of applying to the Legislature for immediate measures for the removal of these constantly acting causes of destitution and death. Much of what was written at that time, which will ever be associated with the name of Edwin Chadwick, relates to conditions which are happily nearly obsolete in London and most of the large towns of Great Britain. But they are still permitted to flourish in many a little country town, where the annual death-rate unmistakably indicates the neglect of the local sanitary (or rather *in*sanitary) authority. The discontent of great bodies of the working classes (which, in the course of a debate in the House of Commons, it was shrewdly remarked arose from the intelligence rather than the ignorance of the people), helped to establish the General Board of Health in 1848. Broadly, the effect of the legislation of that time was to create a system of sanitary administration of a more centralised character than has ever been thought of since. The General Board of Health was intended to be an executive department for certain local improvement and disease prevention purposes. It did not, it is true, attempt to take the place of the local self-governing body in matters such as removal of health nuisances, which have never been thought of except as subjects for essentially local jurisdiction. But it introduced a principle of conferring on a central department certain powers to imperatively direct measures of disease prevention in certain districts or towns which were conspicuous examples of ill-government or mismanagement.

But although endowed with certain powers which are ever regarded with jealousy by the upholders of local self-government, the chief work of this Central Board was educational. In this respect it may be said that all real sanitary authorities have points of resemblance. For is it not true that some of the best work in promoting the interests of public health has consisted in the sound teaching of men possessed of medical and scientific understanding, and who have the ability and tact to use their special knowledge with discretion? Simon was a brilliant example of what a great teacher could do by identifying himself with his authority; so also in later years have been some others, notably Russell, of Glasgow. Government in a drastic sense is only possible in this country where it is founded on a general sense of rightness, and carries with it the convictions of the people. Students of the famous literature of the period will perceive how essential was the teaching element of health government during the Forties and the Fifties. In Chadwick's official days, it was the teachings as to district cleanliness, "sanitation" as it is generally called nowadays. The effects which had been produced by his memorable report in 1842 was, thanks to the Board's persistence, sufficiently maintained and diffused to determine real progressive growth in a hitherto neglected branch of national culture, so that the English, more than any other European nation, has always had "some sort of conscience against filth." Grateful as our country must be to one whose name is associated with the creation of a national feeling, we must not shut our eyes to the fact that he was, like so many great reformers, essentially a man of one idea. He took a side, and his side then, as often now, treats medicine and its representatives with very small regard. His own historian tells us that Chadwick disliked doctors. It is certain that he disregarded the lifework of famous physicians, and probably could not understand the questions involved in the diagnosis, classification and etiology of disease. It is with sorrow that we read of a man so earnest and singleminded, who spoke as if the pathologist were not, and as if the existence of insanitary conditions and the coexistence of illness of any kind was a demonstration of cause and effect. Here let us pause for a moment to consider an attitude which can only be justly described as "prejudiced." What is the secret of that dislike or jealousy of medical influence on which comments are sometimes made? It undoubtedly concerns the public interest that it should be discussed more fully than is possible here. To omit reference thereto would leave unexplained the deformities of our present system of administration, the development of which we are endeavouring to trace. The principles

of pathology are as important to the State as are the principles of law-making. Good medical administration should rank with good legal administration. Both are essential to the welfare of the community in different ways. Even in the direction of expenditure, which is directly under the control of sanitary authorities, there is surely room for improvement. Public money would be far better spent at the present day in the cultivation and support of medical and other scientific knowledge than in the continuous production of drain pipes and mechanical appliances with which the market must now be well stocked. Plain truths, like this, unpalatable though they may be to some, should be proclaimed from the housetops. Reflecting on the great work and teaching of the first score years of Her Majesty's reign, and comparing with it the still greater work of the next score years, and comparing again with that the experiences of the last twenty years, we are bound to declare that the progress of evolution of sound sanitary administration has been prevented by restrictions and impediments which it is possible for the Legislature to remove.



Professor E. A. Parkes.

The seed of sanitary administration was sown in the Forties when, in spite of the dislike of doctors' influence above referred to, medical health appointments were initiated at Liverpool and London, germinated and flourished in the fifties. During that period the central appointments were brought into existence. John Simon, who had then had seven years' familiarity with the spirit and working of local representative government in the City of London, being invited to become the advising officer of the General Board of Health in 1885. Synchronously with this new creation and as part of a necessary complement thereto the Legislature required that fixed medical appointments should be created for all the districts of the metropolis. Among the early holders of these local appointments were physicians already distinguished in their profession, Edward Ballard, Andrew Barclay, Robert Barnes, John Syer Bristowe, George Buchanan, Robert Druitt, Conway Evans, William Odling, Burdon Sanderson, Thomas Stevenson, and Dundas Thomson. Here let it be noted that the temptation to connect the appointment of health officer with some definite popularly understood function was exhibited at the outset. For in addition to the all-important work of permeating sanitary science and organisation with medical intelligence and influence, the physicians first appointed were saddled with the responsibility of pointing out the most efficient modes of ventilating churches and chapels.

### THE SAPLING.

The twenty years that followed these appointments, and which intervened between that period and the surrender of medical influence to the traditions of a Circumlocution Office in the mid-seventies, were full of promising growth. Under the General Board of Health, and subsequently the Privy Council, reports were made which acquired for the profession a just renown for statesmanlike qualifications. It was nearly



Sir John Simon

"sixty years since" Jenner's great discovery had been known to the world, and the State had not as yet grasped the fact that a Government could not be said to have fulfilled its functions which left to the operation of mere chance the protection of the masses of the population, to whom at that time systematic and efficient vaccination practically meant the only means of salvation against small-pox. Times are changed to some extent, and the very fact that the masses are now educated, and in a better position to judge for themselves of the extent to which the principle of compulsion should be carried in *all* matters affecting health, somewhat alters the situation. So also does the proved capacity of medical sanitary organisation. Frankly admitting these essential facts, we may still claim for the system of compulsory vaccination that, besides its splendid achievements in the direct saving of life, it has itself been a powerful educational influence—so much so, that a Royal Commission, distinguished for its eminently judicial character, draws its conclusions largely

from the experiences furnished by the compulsory system, the abandonment of which, it significantly remarks, cannot at the present day be contemplated "without dismay."

In describing this, the comparatively flourishing stage of the young tree, one cannot but observe the wonderful influence in statecraft of a single master mind. Robert Lowe (afterwards Viscount Sherbrooke), as Education Vice-President, did more than any one man, before or since, to assist the medical profession to its proper place in the councils of the nation. It was under his ministry that those exact studies respecting the local and personal causes of disease were carried out which raised the work of the inspector of nuisances by enabling him, with the medical officer at his side, to combat the actual rather than the potential causes of disease, and in this way to secure the goodwill and support of all intelligent and unbiassed persons. In the days of the first General Board of Health, many a local measure of sanitary improvement must have failed simply for want of that medical intelligence. Such intelligence led to the discoveries of Snow and Budd, which were followed by the studies of Netten Radcliffe, Buchanan, Ballard, and Burdon Sanderson. By those discoveries and investigations, and by the powerful pens of our famous journalists, weapons were forged against which the whole armoury of vested interests became powerless to stay the advance of sanitary reform.

The spirit of practicality and precise statement which these exact studies embodied characterised all the medical reports of that time, as they do now those of the less palmy days. It is significant to note that in those days an annual subsidy of £2,000 was granted for auxiliary scientific laboratory investigations, which were obviously of fundamental importance. During these eventful years were laid the foundations of a sound system of sanitary administration. Local as well as central knowledge was acquired respecting famine diseases, cholera, and typhoid. The public and their medical advisers were enlightened—chiefly by Greenhow and Buchanan—as to the indirect causes of pulmonary consumption, and the method of regulating industries that conduced to its development, as well as other lung-diseasing influences, were described. The causes of infant mortality were laid bare. Cattle diseases were investigated by Gamgee. The food supply, the house accommodation, the physical surroundings, and the industrial circumstances of the people, and the hospitals of the United Kingdom, were subjects of investigation by Edward Smith, Robert Barnes, Swayne Taylor, Hunter, Guy, Whitley, Bristowe, and Timothy Holmes.

The labours of Netten Radcliffe and subsequently Thorne Thorne, the present medical officer of the Local Government Board, were largely devoted to explaining the reasons why quarantine, in the Continental sense, is comparatively useless for England. The rate of travel, which has increased with every decade of the Queen's reign, taken in conjunction with our more certain knowledge of the incubative periods of exotic diseases, now furnished the groundwork of their argument. Sir Thomas Watson in the first edition of his classical *Lectures on the Principles and Practice of Physic*, described how originally the cholera, which first attacked England began to rage in India. "From India it spread to Persia; and thence to Russia; and across through Poland to Germany; and at length it was found at Hamburg. It was predicted before that time that the distemper would at length reach Great Britain. Our Government had sent two physicians into Russia to investigate its nature, in the fearful anticipation that its march across the earth would continue progressive, and accordingly at the expiration of fourteen years, it made its appearance on the eastern coast of this country—in Sunderland—and in due time extended over every part of these islands." Sir Thomas Watson gave it as his belief in those early days of scientific medicine that the poison was "portable" and "travelled." We know this for certain now, and if we compare the knowledge of that time with the exact studies of epidemiology and the able reports of Netten Radcliffe, such as that on the effect of the construction of the Tiflis and Poti Railway in 1873, we can see plainly enough what arguments have influenced our statesmen. The reports of the present medical officer of the Local Government Board have done much towards enlightening us about the uses and abuses of quarantine. It only remains to add to this brief discussion of a most important part of one system of sanitary administration that, as the present writer endeavoured to explain in the Milroy Lectures of 1896, the most valuable and essential part of quarantine is really preserved in England under the different name of "coast isolation." In the elaboration of this system of defence the chief credit is due to local administrators and many medical officers of health for port authorities, of whom Leach, Parsons, Barry, Armstrong, and Collingridge are well known.

The labours of official medical sanitarians in the Sixties bore their fruit partly, it has been said, in the great educational influence they provided and partly also in legislation. The chief of these measures of legislation Sir John Simon tells us was the great Sanitary Act of 1866, which was promoted by the Lords of the Privy Council. Asiatic cholera at that time began to be severely epidemic in London. A moment of "popular piety" towards the cause of sanitary reform happened in consequence, and this ill wind (to justify the proverb) blew very favourably to fill the sails of the reformers, so that Lord Aberdare's Bill rapidly became law. It is only due to one of the greatest of sanitary reformers that we should quote *verbatim* what he says in his monumental work:

> All who had anything to do with the passing of that Act may rejoice to the end of their lives in contemplating the gains which it achieved. Among its many noteworthy features, the one which perhaps first claims notice, is that, under the Act the grammar of common sanitary legislation acquired the novel virtue of an imperative mood. The Act expressly declares it "the duty" of the local authorities to provide for the proper inspection of their districts, and to proceed for the suppression of whatsoever nuisances should be found existing in them; and, as against the inaction of local authorities, it enacts that, when sewers are not duly provided, or water not duly supplied, or nuisances not duly removed, then, on complaint made, a Secretary of State and the Court of Queen's Bench shall be able to enforce the neglected duty. Besides the introducing an invaluable "must" into some of the most important branches of local sanitary functions, the Act largely increased the powers of authorities in relation to the needs of their districts; both as to the range of cases in which the authorities could intervene, and also as to the remedies it could apply. The Act gave for all districts the power to provide water-supply. It gave for town districts the extremely valuable power of regulating for sanitary purposes the so-called "tenement-houses" of the poor. It gave a series of enactments in relation to dangerous contagious diseases; on the one hand, affixing penalties to the various sorts of personal conduct which tend to spread dangerous contagions; on the other hand, giving power to authorities to fortify their districts against such contagions, by provision of hospital accommodation, mortuaries, and other necessary apparatus and facilities relating to the requirements of infected persons, and to the disinfection or destruction of infected things. Not least, the Act gave most important extensions to the term "nuisance," bringing within the term, and thus making subject to summary nuisance law, various largely morbific influences, which till then had been under little or no control. One of those extensions made the Nuisance Act operative, as it had never before been, against the unwholesome overcrowding of dwelling-places; and another, which cannot be too gratefully remembered, concerned the unwholesomeness of places of labour. By the latter, together with provisions of like intent introduced into the various Factory and Workshop Acts of the time, proper protection was at last constituted for the special sanitary interests of the artisan population; not only enacting for all factories and workshops whatsoever that they should be kept free from common nuisances of uncleanliness, overcrowding and the like; but equally enacting (as against the special insalubrities which had been shown to be prevalent in so many particular branches of industries) that all gases, vapours, dust and other impurities, generated in the work, and tending to injure health, should, as far as practicable, be made harmless by proper uses of ventilation; and further enacting in regard of the more dangerous industries, that special sanitary rules, as to the conduct of the workers, or at least of the children, young persons, and women, among them, should be enforced.

The report of the Royal Sanitary Commission in 1871, which led to the first Public Health Act of 1872, followed by that of 1875, which suggested and enabled the appointments generally of medical officers of health, constituted the chief health legislation of the period under notice. Solidly regarding the whole of this important but piecemeal legislation, the present writer, who has had the advantage of twenty-five years' actual and continuous local sanitary administrative medical work, may be permitted to make a few independent observations. The remark that naturally occurs to one first is that legislation, which is much too far in advance of public opinion, and which though nominally compulsory is virtually permissive, can only have an indirect influence. The cardinal error in the legislation of 1865-75 seems to the present writer to have been, to use a familiar phrase, "the putting the cart before the horse."

In 1873-75 medical officers of health were appointed for all the 1,400 or more sanitary authorities in England. In the vast majority of cases this was done without proper stipulation as to the character of the appointment, the qualifications

of the officer, or the position he was to hold. In a few exceptional cases medical officers have declined to be nominated without some proper stipulations; but their influence was unhappily more than neutralised by the fact that almost everywhere, except in very large towns, the necessity for appointing a medical officer of health necessitated also the selection of some well-known local general practitioner for the office, the successful practitioner acting as an occasional "referee" rather than an important public servant.

If in 1865 the Legislature had concentrated its efforts on securing the appointment for towns of the first magnitude of thoroughly competent officers of health who would at once have taken rank commensurate with the importance of the interests, public, personal, and pecuniary, with which they were constantly called upon to deal, even greater progress would have been made than we can record at present. No doubt there would have been serious local opposition to such a scheme; but the sources of this opposition would have been tolerably transparent, at any rate to old Parliamentary hands. The number of appointments would not have been large—fifty or a hundred at the most—and some device could easily have been contrived by the legislature for relieving the holders from the immediate effects of the jealousies of pre-existing local municipal officials. By this means, results would have been arrived at even more satisfactory to the public, and far more worthy of the great medical profession of which it ought to be proud.

### THE TREE.

The tree which has grown from the seed sown in 1838 is still young, and shows at present defects which may disappear at later stages of its growth. Like the sapling, it is not to be represented by a single stem. From its root upwards, local administration, municipal and county, form stems parallel to the central one. This last may be said to be represented by the Government department at Whitehall. On either side are the municipal and county administrative trunks. Bonds of connection exist between—sometimes close, sometimes distant and rather strained. So that, apart from their origin from common stock, they are mutually dependent on each other to a considerable extent. Independence of existence is more nearly approached in the case of the large municipal centres than elsewhere. But this independence relates to the work of administration where it is generally recognised that business is conducted more expeditiously and efficiently by the representatives of local self-government, provided always that the area and population is of sufficient size to secure a good choice of representatives. In regard of the highest interests of sanitary administration—namely, scientific research, collective investigation, and the determination of problems of practical epidemiology, etc., dependent thereon, central and local organisation cannot be too closely allied. It is, perhaps, owing to want of appreciation of this fact that the process of development has not advanced as well as was expected in 1872. But other conditions have operated to make evolution, for a time at least, resemble devolution. As to one of the chief, we cannot be altogether silent. The want of cohesion on the part of our own profession in all matters in which they are brought into relation with the public is, on public grounds, simply deplorable. Cohesion of the kind seems absolutely necessary to prevent downward competition. Such competition, if unchecked, must ultimately tend to the destruction of a pure or unalloyed "profession," which, officially speaking, it is of paramount importance in the public interest to maintain. Here let it be noted that we distinctly mean the serving of public interests by a singleness of purpose which it would be unreasonable to expect under the conditions which prevail. Some manifesto from the medical profession, as a whole, is greatly needed in this respect for the guidance of the general public. Much of the hindrance to development of sanitary administration has, no doubt, arisen from the simple fact that the authorities have not had the case clearly put before them by competent persons. It is impossible for any intelligent person who has a regard for the health interests of the people not to sympathise with the protests of Sir John Simon as to the action of the President of the Local Government Board in 1872. This is not the place to discuss unpleasantly the circumstances under which the establishment of sanitary authorities took place; but it may be safely remarked, as obvious to any person of common sense, that to entrust the education of the authorities to general inspectors of the Local Government Board, who had no knowledge of the problems to be dealt with, was not by any means the best course to pursue. It may also be observed that in failing to maintain and increase the auxiliary scientific work of the medical department, the Board has also failed to promote the health interests of the people through its central department. In other ways, which it is not necessary to describe, the position of things is worse now than what it was a quarter of a century ago.

In spite of all this and in spite of the difficulties arising from the highly complicated interests involved not only in the constitution of the local authorities, but also in the constitution of medical officers' appointments, wonderful advances have been made. We may indeed be proud of the achievements of public preventive medicine in the Victorian era. In the case of public health interests the work of medical officers during the quarter of a century now drawing to a close has been unceasing. Its results are such as are abundantly evident to the sanitarian and practical epidemiologist, although from their very nature they are incapable of demonstration in a popular manner.[1]

The chief developments in sanitary administration during the last third of the reign have been in the endeavours to extend the principle of local self-government. The Act of 1888 created for the great metropolitan area a representative Council, which in time will unite the segments of the vast London population in matters of high common interest. By the same measure the counties of England were afforded opportunities of adapting to comparatively small urban and rural populations the machinery of government which has proved so advantageous to municipalities. By the Act of 1894 the relation of parish to district, and district to county, is established, and in time it may be expected that the representatives of local government will see more clearly and appreciate more fully where their common interests lie. At first the reconstitution of county government was intended to be accompanied by some much-needed measures of decentralisation. Without such measures, however, considerable change has been effected by the indirect influence of county gentlemen, who represent widely different interests, meeting together as a sanitary committee, and discussing the best means of securing objects that are for the welfare of all alike. In this way improvements in water supply, drainage, management of trades and sanitation generally have been quickened and brought about. The deterioration of rivers by progressive pollution has been, in many counties, partially stopped. Water supplies in the Valley of the Thames have been improved by the action of various authorities. The deficiency of house accommodation

[1] Although it is always difficult, in tracing the effect of different kinds of sanitary work, to disentangle that which should be credited to its proper source, it may be possible here. The net gain in respect of small-pox mortality in London, is thus ably and fairly stated by Dr. Dudfield the medical officer of health for Kensington:

"The Asylums Board were first called upon to provide for the accommodation of small-pox patients at the end of 1870. During the ten years, 1871-80, they dealt with upwards of 33,000 cases, all of which were treated in the town hospitals. The deaths in London in the ten years were 15,539, including 7,912 in 1871. In May, 1881, the 'Camp Hospital' was opened at Darenth, and the system of removing cases of small-pox to the country thus initiated was gradually perfected, so that for many years all of the sufferers coming under the managers' care have been treated at extra-mural hospitals. During the ten years, 1887-96, the number of cases admitted to the hospitals was 5,232. The deaths in London were 429 only, and of these 206 were registered in 1893, in which year 2,376 cases of small-pox were admitted to the managers hospitals. Had the mortality during the ten years, 1887-96, been at the rate as in the ten years, 1871-80, regard being had to increase of population, the deaths would have been, not 429, but 18,752. The net gain in life saved during the ten years, therefore, was represented by 18,323 lives. In other words, had the average death-rate from small-pox in the ten years, 1871-80, continued throughout the ten years, 1887-96, 18,323 lives would have been sacrificed in addition to the 429 which were actually lost by death from this cause. This satisfactory result is admittedly due in a large measure, if not entirely, to the removal of nearly all cases of small-pox out of London, and this was the outcome of the deputation of the sanitary authorities and other public bodies, to the President of the Local Government Board on April 23rd, 1881, the primary object of the deputation being to present the resolutions adopted at the conference of sanitary authorities, held at the Town Hall, March 23rd, to consider the question of the compulsory notification of infectious disease, a measure for which London had to wait a further period of eight years."—(Dr. Dudfield's report for 1[illegible]

For this result, the community generally have to thank members of the society of local medical officers of health, with whom the system of notification in its practical working originated.

and the consequent overcrowding of rural cottages is receiving earnest attention. In the face of much opposition facilities have been afforded for the isolation and treatment of the cases of infectious fevers occurring in such cottages, and for valuable legislative help in this direction the public have to thank the County Councils Association, and especially Lord Thring. But perhaps not the least of the changes effected in the few years of county government is, by the very nature of things, impossible to demonstrate. By improved organisation and inter-notification among medical officers of health an effective vigilance system has now been created, which, by the help of consultative assistance freely afforded, acts as a check on outbreaks of epidemic disease, which are more or less controllable in various ways. By such means and by facilitating the cultivation and diffusion of knowledge respecting the causes of consumption and other kinds of chronic disabling illness some county councils are taking a leading part as sanitary authorities in the kingdom.

In concluding this brief and perhaps imperfect sketch of the development of sanitary administration during the reign of Queen Victoria, let us not forget that one of the chief responsibilities of medical officials in the public service is that of teachers as well as learners. Let us remember that while we must strive to learn something of the spirit of local government, and to identify ourselves therewith, we must endeavour also to the best of our ability to forward the work of sanitary administration by explaining to the public whom we desire to serve the medical principles involved. This brief sketch may be fittingly closed by reference to the late Dr. Edmund Alexander Parkes, whose bright example should inspire all medical men of true public spirit. He is thus referred to by Sir John Simon:

"His work at the Crimean period alone might have sufficed to certify him for the chair at Netley; but in fact long before that he had gained high-class reputation in ordinary professional work, investigative and practical. While Professor at Netley, he did duty in other spheres of public service, as notably in the General Medical Council and in the Senate of the University of London; and it seemed that wherever he worked, his public spirit, and the kindliness and bright sincerity of his nature, won the confidence and affection of his fellow-workers. His life, abounding in industry and usefulness, and always of good cheer for whatever duty had to be done, was an arduous, gallant struggle against heavy disadvantages of ill-health, and his early death gave rise to public and private expressions of such personal sorrow as is felt only for the best of men when they pass away" (*English Sanitary Institutions*).

## VITAL STATISTICS IN RELATION TO PUBLIC HEALTH.

### Dr. Wm. Farr and the General Register Office.

The year in which Queen Victoria ascended the throne was also the year in which civil registration of births, deaths, and marriages came into operation. The sixty years which have elapsed therefore exactly represent the period for which accurate vital statistics are available for England and Wales. It was a happy thing for the value and applicability of these statistics to the purposes of public health that William Farr so soon became associated with the work of the first Registrar-General, Mr. T. H. Lister; and a history of the progress made in public health during Her Majesty's reign, in respect of the very great proportion of this progress which has resulted from accurate vital statistics, almost entirely resolves itself into a history of Farr's association with the General Register Office.

In July, 1839, William Farr was appointed "Compiler of Abstracts" in the newly-formed General Register Office at the modest salary of £350 per annum, a sum which was slowly raised, but never reached a tithe of the value of his great services to the country. At that time, Farr was only 32 years old, but he had already won his spurs by an article in M'Culloch's *Statistical Account of the British Empire*, on "Vital Statistics: or the Statistics of Health, Sickness, Diseases, and Deaths." This article will still repay study by all interested in vital statistics; and in it are to be seen the germs of ideas which were developed in detail in later reports. It may be hoped, in passing, that the sufficiency of the title "Vital Statistics" as defined above by the father of English vital statistics will prevent the general use of the objectionable phrase "Mortal Statistics," as though death from a statistical standpoint were more than the last act of life. If "Mortal Statistics" is to be allowed, then we must have Natal, Vital, and Mortal Statistics, an obvious absurdity. From the very first, Farr shaped the reports of the Registrar-General and stamped upon them his own original mind. The subjects of nomenclature and classification of diseases received constant study and attention in his annual reports, until something approaching order was evolved out of the chaos previously prevailing. Thus in 1894, the deaths ascribed to "dropsy" in England and Wales were only 190, and to "ill-defined and not specified causes" 1,764, as compared with "12,251, and 8,482 respectively in 1839, with a population only half that of 1894. This gradual transference to more accurate headings, while it steadily increases the value of each year's returns, has led to much erroneous argument as to the supposed increase of such diseases as Bright's disease and cancer, for which there is no sufficient basis of fact.

### The Life Table Method.

Very early Farr realised the importance of the life table method of investigating and measuring the duration of life, and in the Fifth Annual Report of the Registrar-General appeared his English Life Table No. 1, based on the deaths and the population of 1841. It is satisfactory to know that after nearly sixty years the importance of this method is being realised by medical officers of health, and that we have now life tables for such towns as Manchester, Brighton, Glasgow, Liverpool, and Portsmouth based on the experience of the decennium 1881-90. By means of these life tables the exact vital conditions of these communities can be contrasted in the only way that is completely free from fallacies.

### Comparison of 1841 with 1881-90.

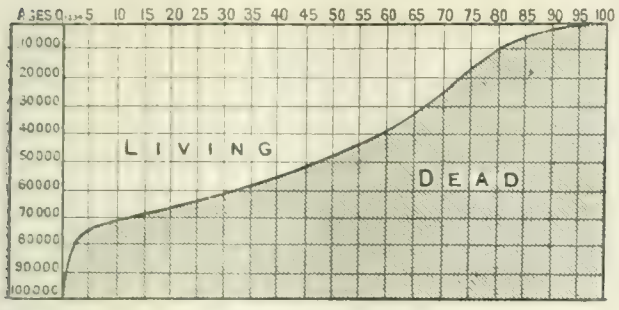
A comparison of Farr's English Life Table No. 1 (1841) with Dr. Tatham's life table for the decennium 1881-90 gives a very important measure of the improvement in public health which has been secured. At birth the mean expectation of life for males in 1841 was 40.19 years, for females 42.18 years; in 1881-90 it was 43.66 and 47.18 years respectively, representing an improvement of 8.6 per cent. for males and 11.8 per cent. for females. The following extracts from the two life tables show that the greater part of the improvement in life prospects during the past fifty years has been secured by saving the lives of children, there being after the age of 30 a slightly diminished prospect of life as compared with the earlier period.

| | Mean Expectation of Life for Males. | | | Females. | | |
|---|---|---|---|---|---|---|
| At Age. | 1841. | | 1881-90. | 1841. | | 1881-90. |
| 20 | 39.88 | ..... | 40.27 | 40.81 | ..... | 42.44 |
| 30 | 33.13 | ..... | 32.52 | 34.25 | ..... | 34.76 |
| 40 | 26.56 | ..... | 25.42 | 27.72 | ..... | 27.60 |
| 50 | 20.02 | ..... | 18.82 | 21.07 | ..... | 20.56 |

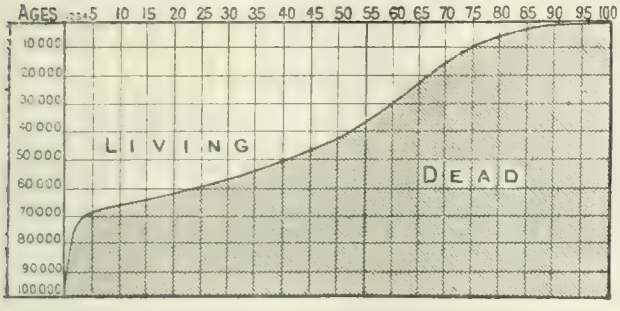
The same facts are brought out in another form by the accompanying diagrams, which show at a glance the gain in the total years of life lived by a generation of 100,000 persons starting at birth, in accordance with the experience of England as a whole and of London in 1841 and 1881-90 respectively. Each diagram represents the progress of a generation of English people or Londoners through life. The light part indicates the living, the dark the dead, at each age out of 100,000 born alive. The vertical lines dividing the generation into five yearly periods serve to measure at every fifth year the number alive and dead at the respective ages. The extent of light space upon each diagram gives a general notion of the relative population living in England and in London respectively out of an equal number of births. Thus it will be seen that the 100,000 born were reduced to 50,000 according to the experience of 1841, at the age of 46 years in England, and at the age of 40 years in London; while in 1881-90 the number born was only reduced to one half at the ages of 55 and 50 years respectively.

This was but the first of a series of three life tables, the most important being that based on the recorded deaths in the seventeen years 1838-54 and on the three census populations of 1831, 1841, and 1851.

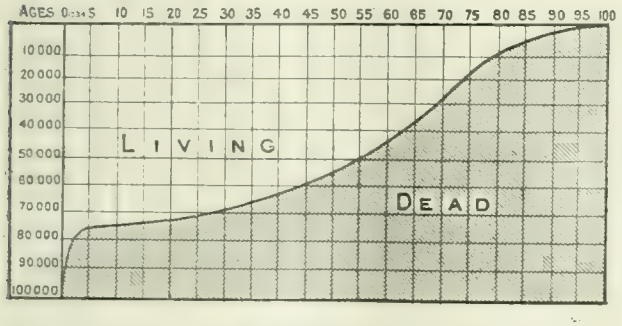
*Progress of a Generation through Life, beginning with 100,000 at Birth: based on the Experience of* A, *England and Wales: and* B, *London.*



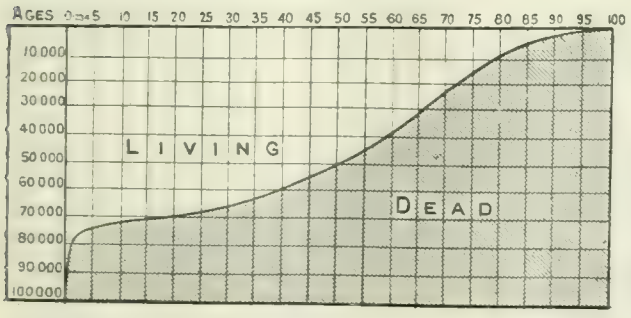

A.—Year 1841.




B. Year 1841.




A.—Years 1881-90.




B.—Years 1881-90.

RELATIONSHIP OF PUBLIC HEALTH TO VITAL STATISTICS.

The Registrar-General's Annual Reports from their commencement have emphasised the relationship of public health to vital statistics. In the article in M'Culloch's *Statistical Account*, to which we have already referred, Farr, before his official association with the General Register Office, had shown his sense of the importance of both morbidity and mortality statistics. He commenced by showing that "in one class of English counties the mortality of males below 5 years of age is still 81.9 per 1,000, in others 41.9, and between the ages of 15 and 60 it varies from 11.0 to 19.0 .....so that if the health of the entire 13½ millions now between the ages of 15 and 60 in these islands were as good as that enjoyed by the inhabitants of some counties, the numbers constantly sick would not be so numerous by 554,000 as if the standard of health were reduced to that obtaining in the more insalubrious districts." He adds: "Whether it be possible or not to raise the standard of health to the height enjoyed in the former counties or to one still higher, the importance of the subject recommends it to a careful experimental investigation; because when the character and causes of our diseases are known some provision may be made for their alleviation."

Thus numerical investigation was in a large measure the basis of preventive medicine. Vital statistics were at once the leverage by means of which the necessity for sanitary improvements was enforced, and the measure of success of any improvements that were secured. Each report emphasised the excessive mortality in towns; and in one of them Farr quotes Dr. Rice, who concludes, after a similar inquiry, "from this investigation it appears with how much truth great cities have been called the graves of mankind." As early as the 5th Annual Report, Farr makes the wide and sweeping induction that "it is then to matters suspended in the atmosphere of cities that the excessive mortality must be referred." In the same report he makes the statement, which, repeated and emphasised year by year, has probably had more influence upon the progress of sanitation in towns than any other: "it is proved beyond doubt that, if the population be the same in other respects, an increase of density implies an increase of mortality, and that the ratio of increase in the mortality is as certain roots of the density." It is a striking comment on this axiom that whereas in 1851-60, out of equal numbers living, there were 124 deaths in town districts to 100 deaths in country districts, in 1894 there were only 110 in town to every 100 in country districts. This indicates rather that the continued warning embodied in the Registrar-General's reports has led to active counteracting sanitary measures in towns, than that the axiom has lost its essential and fundamental importance.

COMPULSORY CERTIFICATION OF DEATHS.

The attempts at classification of cause of deaths could obviously not be completely successful until a compulsory system of medical certification of deaths was applied, and this was not until 1874. Early attention was called in the Registrar-General's reports to the insufficiency of returns of causes of death in coroners' inquests, but this has not yet been completely remedied.

In 1847 the causes of death of males and females were first abstracted in England and Wales in accordance with age. This constituted a great advance. From 1848 to 1854 this was not continued, but from 1855 onwards these important data have been given.

THE FOUR DECENNIAL SUPPLEMENTS.

Probably of the publications issued from the General Register Office the most influential on the public health have been the four decennial supplements. The first two of these were written by Farr, and they undoubtedly have had a far-reaching influence in determining the direction and extent of sanitary progress, and in indicating the districts in which its application is most required. The first of these includes the rudiment of the very valuable occupational mortality statistics contained in Dr. Ogle's 1871-80 report. Here Farr states the fundamental proposition which underlay all his writings and investigations: "as in the case of towns, so it may be said of men of unhealthy occupations, the mortality is susceptible of reduction by the investigation and removal of its causes." The second decennial supplement is Farr's masterpiece. In this report *inter alia* the death-rates of men over 15 years of age in 62 selected occupations are given,

while in Dr. Ogle's supplement the number is increased to 100, and there is a very scholarly discussion of the degree of trustworthiness of these statistics. The supplement dealing with occupations for 1881-90 has not yet been issued, but it may be expected to be more complete and valuable than its predecessors. In the decennial supplement for 1871-80 Farr laid down more exactly his proposition as to the effect of density of population on health; and he showed the effect of the extinction of any single disease on the duration of life, and the economic effect of deaths by different diseases.

### FALLACIOUS INFERENCES.

It was natural that in the early days of compulsory vital statistics fallacious inferences should have been common, and much space in the Registrar-General's reports was occupied in exposing these. Chadwick and Richardson were especially guilty of using the mean age at death in different communities as a test of relative salubrity, although Farr repeatedly exposed the fallaciousness of this test. Another common notion was that a high birth-rate necessarily caused a high death-rate. The exposure of this error led to emphasis being laid upon the importance of death-rates at different groups of ages. Later (in 1883) were first published the factors of correction for the death-rates of the great towns of England and Wales. In the recently issued first volume of the *Fourth Decennial Supplement*, corrected death-rates for counties are given, and the same system of correction for age and sex distribution is introduced with useful results in the statement of the relative cancer mortality in the various counties. The importance of this most recent correction may be judged from the fact that whereas the crude death-rates at all ages represent Huntingdonshire and Cambridgeshire as subject to a cancer mortality in excess of the English rate by 56 and 34 per cent. respectively, the rates over 35 years of age corrected for age and sex differences of population show an excess of only 17 per cent. in the former and of 9 per cent. in the latter instance. Similarly, in regard to population the Registrar-General's reports have done much to clear the public mind of the Malthusian notion that the fewer the population the happier; and the object lesson now displayed by France is not likely to cause England to seek the solution of its social problems by the artificial limitation of families.

### IDEAL NOT YET REALISED.

A review of the work of the General Register Office during the last sixty years would not be complete without a statement of some of the particulars in which its original ideal, as sketched by the genius of Farr, has failed to secure realisation. One of the most important of these early proposals was the establishment of medical superintendent registrars of births and deaths. It is still, notwithstanding its favourable reception by Parliamentary Committees and others, an ideal unrealised. As to the registration of sickness as originally sketched out, the results are almost equally unsatisfactory. It is true that notification of the chief infectious diseases has been secured in the majority of districts; but the wider returns of all sickness treated at the public expense, whether in rate-supported or State-supported institutions, or in hospitals supported by charity, are still left almost completely unutilised. As Farr said, "the thing to aim at ultimately is a return of cases of sickness in the civil population as complete as is now procured for the army in England." By means of such returns "illusion will be dispelled, quackery as completely as astrology suppressed, a science of therapeutics created, suffering diminished, life shielded from many dangers. The national returns of cases and of causes of death will be an arsenal which the genius of English healers cannot fail to turn to account."

A limited effort is now being made to circulate among contributing towns and districts weekly notification returns. This should be transferred from the Local Government Board, and such statistics of sickness published weekly and quarterly alongside of the corresponding death returns. When in, response to the advocacy of ardent hygienists, many now dead, some still living, will the statesman arise who will forsake the course out of which party capital can be made, and will devote himself to the useful task of co-ordinating all the public health statistics both of sickness and deaths under one department? When, in order to this end, are we to have a Minister of Health of Cabinet rank?

What has been said may serve to indicate the work already done in the last sixty years, and the incompleteness of this work. That the work accomplished is not less complete is due, on the one hand, to the organising genius of Farr and his *confrères* and successors; and, on the other hand, to the medical profession, who have with increasing care and without remuneration supplied death certificates of causes of death, and thus laid the foundation of our present splendid system of vital statistics. It is not too much to claim that the registration of deaths, corresponding exactly in duration as it does with the Queen's reign, is the basis of our sanitary progress. As the late Dr. Parkes stated it: "The attention now paid to public health is in a large degree owing to the careful collection of the statistics of births and deaths, and of the causes of death which have been collected for the last thirty-eight years." That was written twenty-two years ago. It is even truer at the present time. If we had trustworthy records on a wide basis of the wounded as well as of the killed in our national life, the progress of the public health would be still further stimulated; and we venture to express the hope that in the near future progress will be made in this direction, and that the "wasted records of disease" will soon be utilised.

## SIXTY YEARS OF VACCINATION.

IN the days when pestilences were regarded as heaven-sent portents or warnings, they were often supposed to herald the death of kings or heroes, and a patriotic astrologer would have had no difficulty in associating the terrible epidemic of 1837 with the decease of His Majesty King William the Fourth. However this may be, it is certain that at the time of the accession of our present Sovereign a fearful outbreak of small-pox was devastating the country. The first systematic tables of mortality published by the Registrar-General refer to the latter half of 1837, and we find from them that the number of deaths from small-pox in England and Wales during that period was no less than 6,000. In the following year over 6,000 people, or a thousandth of the total population, were carried off by the disease, while the mortality in London approached 4,000, which means that 1 person in every 450 succumbed to the malady. When one considers that many of those who escaped death had to pay a heavy toll in disfigurement and often blindness, some idea of the ravages of the scourge may be obtained. An unprejudiced observer can hardly fail to connect these ravages with the fact that at this time Great Britain stood almost alone among European countries in having formulated no laws or regulations relative to vaccination. Commencing in 1803 with Sweden, Government after Government had extended the benefits of Jenner's discoveries to its nation; the fellow-countrymen of the discoverer were almost solitary in their aloofness to legislation. It is true that in 1808 Parliament had founded and endowed the National Vaccine Establishment, but this had neither the power nor the means of carrying out a general system of vaccination. Its operations did not extend beyond the metropolis, and even in the year of terror—1838—not more than one-third of the children born in London were vaccinated by its aid.

### THE ASSOCIATION AND COMPULSORY VACCINATION.

It is a fact not generally known that the credit of the honour of having terminated this appalling state of affairs belongs very largely to the British Medical Association, or, as it was then called, the Provincial Medical and Surgical Association. At the annual meeting in 1838, Mr. A. T. S. Dodd, of Chichester, read a memorandum on the question of small-pox and vaccination, and proposed the formation of a committee to investigate the then state of vaccination in England.[1] Dr. John Baron, the friend and biographer of Jenner, was appointed President, and Dr. Conolly and Mr. Dodd Secretaries of this Committee, the report of which was read at the annual meeting at Liverpool on July 25th, 1839, and appears in vol. viii of the Association's *Transactions*, the volume containing the account of Robert Ceely's masterly researches into the nature of variolæ vac-

[1] *Transactions*, vol. vii, p. 45.

cinæ. The report is admirable alike from the completeness of the investigations and the judicial balance of the conclusions. The continued prevalence of small-pox is clearly traced to the neglect of vaccination, and this in its turn to the absence of proper provision for the vaccination of the poor. In consequence of the report, the Association drew up a petition to the Government praying for the abolition of variolous inoculation, then still very prevalent, and the establishment of a system of public vaccination. It is interesting to note that, as Dr. E. C. Seaton pointed out in his *Handbook of Vaccination*, the petition demanded the appointment of paid medical vaccinators in connection with the National Vaccine Establishment. The wise foresight with which the medical supervision of vaccination was suggested was not recognised by the Government till nearly twenty years later.

The petition was presented in the House of Lords on March 10th, 1840, and produced such an impression that two days later Lord Ellenborough introduced a Bill to give effect to its main suggestions. Within a very short time this Bill, somewhat amended, became the first Vaccination Law. The provisions of the Act are well known. The whole scheme was to be under the control of the Poor-law Commissioners. The various unions were constituted vaccination districts, in each of which the overseers were empowered to appoint medical vaccination officers whose emoluments were to depend upon the number of first vaccinations performed by them, such vaccinations being gratuitous and not restricted to the poor. Imperfect as this legislation was, its effects were immediate, and the proportional death-rate from small-pox fell almost at once by more than 60 per cent. In the recent report of the Royal Commission on Vaccination the influence of this and subsequent legislative measures upon small-pox mortality is well brought out, the result of compulsory infant vaccination in showing the age of greatest incidence from the first decade into later ones being particularly striking.

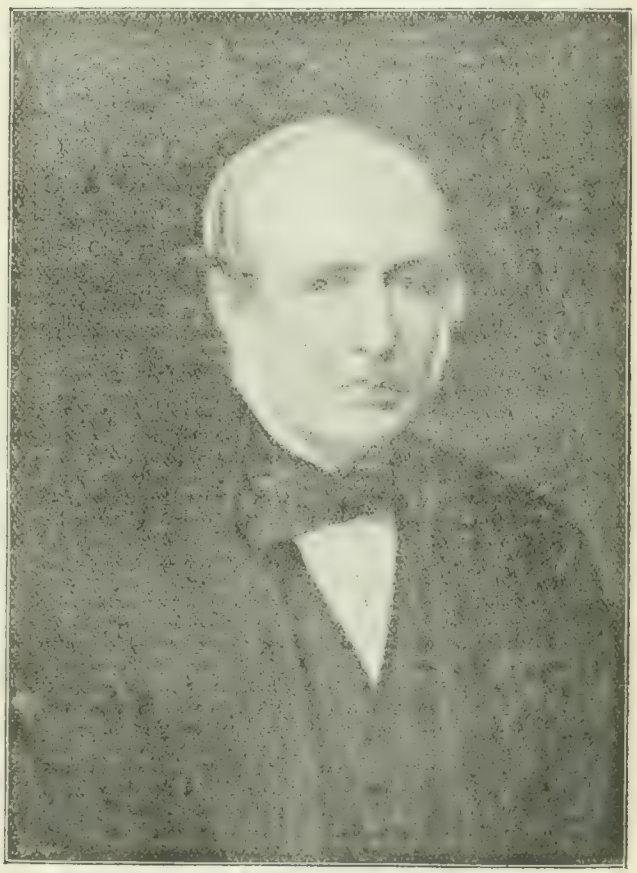
The beneficial working of the Act of 1841 was cramped by the absence of those provisions on which the Association had particularly insisted, more especially by the lack of any arrangement for the medical supervision of vaccination. Other disadvantages soon made themselves felt. The placing of the machinery in the hands of the Poor-law authorities was peculiarly unfortunate, for in spite of repeated assurances and even legislation to the effect that free vaccination was not to be regarded in the light of medical relief, a considerable amount of prejudice was evoked and persisted. It was further found that the identity of vaccination districts with those for medical relief was often extremely inconvenient and indeed unsuitable. Hence, although a great impetus had been given to popular vaccination, the results were not so complete as had been hoped by those who looked forward to the stamping out of small-pox by the measure.

### INQUIRY BY THE EPIDEMIOLOGICAL SOCIETY.

The annual mortality from the disease in England continued to average over 5,000, and in 1850 the subject was reinvestigated by a committee of the Epidemiological Society. The researches of this Committee were of the most thorough character, and resulted in the conclusion that the incomplete success of the Vaccination Act was not due to the inefficacy of vaccination but to its neglect. The Committee strongly recommended compulsory vaccination before the age of 3 months, separation of the public vaccination system from that of administration of the Poor Law, and adequate payment of public vaccinators. Most of these recommendations were incorporated into a Bill which Lord Lyttelton brought before the House of Lords in 1853, and which passed into law in August of that year. This law made vaccination compulsory in England, and as Dr. Seaton drily remarks, "It was the solemn decision of Parliament that personal predilections for small-pox should not be cultivated by individuals to the danger of the neighbours."

The fixing of an age limit within which vaccination was to be performed stimulated its adoption to a considerable extent, and the average small-pox mortality during the following decade was correspondingly less than in the preceding. But the new Act not only failed to touch the principal defects of its predecessor, but also possessed some obvious defects of its own. In the first place the registration machinery was so clumsily drawn up as to be ineffectual, or at least easily evaded; and secondly, although non-compliance rendered parents liable to prosecution no officer was appointed for the purpose of conducting such prosecution, and no provision was made for the recovery of costs by a successful prosecutor in the event of the defendant being unable to pay. This last grievance was remedied in 1861. Still in spite of these faults this Act, during the fourteen years it was in force, saved, according to Dr. Seaton's calculations, one hundred lives out of every million per annum.

Meanwhile the Public Health Act of 1858 included several important provisions with regard to vaccination, the bulk of which had been sought in the original petition of the Association. The National Vaccine Establishment was brought under the direction of the Privy Council, regulations were enacted to ensure the proper qualification of public vaccinators and the correct performance of the operation, and a systematic professional inspection of public vaccination was



Dr Edward Cator Seaton

at length instituted. Still the imperfections of the Vaccination Act remained uncorrected until 1867. In 1864 the Parliamentary Bills Committee of the Association was instituted, and the subject of vaccination was one of the earliest considered by it. In 1866 it drafted amendments to a proposed law, which appear to have had some part in causing it to be dropped, and in 1867 a vigorous protest was made against some of the clauses of Lord Robert Montagu's Bill, which, however, became law on August 12th of that year. The main effect of this Act was to give unions which possessed public vaccinators the power to make vaccination obligatory. It was not, however, till 1871 that a consolidating Act was passed rendering it compulsory for all unions to appoint public vaccinators, and at the same time greatly simplifying and improving the machinery of registration. In this Bill the Parliamentary Bills Committee successfully opposed a

clause intended to abolish the enforcement of more than two penalties (or one of more than 20s.) for non-compliance with the rule as to vaccinating a child within three months of its birth. In 1872 and 1881 the Committee again successfully opposed attempts to abolish multiple penalties.

### Results of Vaccination.

Such is, in brief, the history of vaccination legislation in this country: of the benefits which it has wrought it is difficult to speak in measured terms. In 1838 the population of London was one and three-quarter million, and the mortality from small-pox over 3,800; in 1889 the population was nearly four and a quarter millions and the mortality absolutely *nil*. During the five years 1887-91 inclusive only 30 deaths from small-pox occurred in London. Within the last few years, however, those who never knew the disease as the universal scourge which it once was, and who are consequently in no position to appreciate the benefits of vaccination, have neglected and even decried this precaution. As an inevitable result has come the recrudescence of the malady, with its sharp lessons for all who are not impervious to facts. On the Continent, and particularly in Germany, the salutary influence of vaccination, and especially of revaccination, has been much better appreciated. In the celebrations attending the Jenner centenary Professor Gerhardt was able to point out that during the Franco-German war of a million and a half German soldiers but 49 died of small-pox, while the much less thoroughly vaccinated French army lost 23,400 lives from the disease.

### Calf Vaccine.

The final report of the Vaccination Commission has been dealt with so recently in these columns that we need not refer to it again. One point, however, merits particular attention. The bugbear of the antivaccinator—or perhaps one should rather say his stalking horse—is the communication of syphilis. Now this very rare occurrence can be entirely obviated by the use of calf vaccine. This question was brought before the Association at the annual meeting in 1869 by Dr. Blanc, and though opposed by so successful a vaccinator as Mr. Steele, of Liverpool, the sense of the majority was obviously in favour of the introduction of animal vaccination. In 1879 Mr. Ernest Hart convened a conference, including some of the leading authorities in England on the vaccinal process, for the purpose of threshing out the question. He prepared for the use of the conference a memorandum[2] embodying his investigations into the results of vaccination from the calf in various countries, and summarising its principal advantages, as well as discussing the objections which had been raised to it. He also invited Dr. Warlomont, who had long carried on an animal vaccine establishment at Brussels, to address the meeting. Mr. Hart urged most strongly that the National Vaccine Establishment should distribute calf lymph only, and that a central vaccinal establishment should be formed, at which the Government would maintain a small series of calves which could be vaccinated from week to week. As a result of the conference, a deputation waited on Mr. Sclater-Booth, the then President of the Local Government Board, on February 9th, 1880, and in consequence of its representations a central department for the supply of calf lymph to vaccinators was established. The carrying out of Mr. Hart's plan was thus only partial, and it is interesting to note that the Royal Commissioners report most emphatically in favour of the Government providing the use of calf lymph for every compulsorily vaccinated case (Section ccccxxxvii).

### The Future of Vaccination.

What of the future of vaccination in this country? We fear that in spite of recent appalling lessons the influence of the ignorant and the prejudiced, the fanatics and the faddists is not yet extinct. Nothing short of a national catastrophe seems likely to evoke a sufficiently powerful wave of popular feeling to destroy them. Such a catastrophe will be rendered possible if the present neglect of the vaccination laws continues to increase. Not till it comes to pass will the people of England relearn the lesson that they have forgotten—that an unvaccinated person is a danger to the community.

[2] British Medical Journal, November 29th, 1879.

## THE NURSING OF THE SICK UNDER QUEEN VICTORIA.

It is meet that in recording the events of the longest reign of the most womanly woman that ever sat on a throne, a space should be given to the advance that has been made in the care and nursing of the sick and to the chronicling of the steps which have led to the present position of the nursing profession. It is a far cry from Sairey Gamp to the modern nurse; it has been accomplished within these last sixty years, and represents a marvellous development and growth, almost synchronous with the reign of Queen Victoria.



Mrs. Fry.

### The Evolution of Nursing.

There have been three causes at work to account for this development, first the religious, secondly the medical, and thirdly the social. In Germany, somewhere prior to 1836, the attention of philanthropists had been directed to the condition of the sick and wounded and also to the miserable lack of anything approaching a sense of responsibility in the care of prisoners or of the sick in hospitals; Pastor Fliedner and his wife when on a visit to England conferred with Mrs. Fry, whose noble work among the outcasts had attracted much attention, as to a remedy; and the result of that conference was the foundation of Kaiserwerth. This is an establishment combining hospitals, schools, and asylums; the work is in the hands of a religious order of deaconesses. It attained

such a high reputation for training, that in after years it became the school of the leading philanthropists, and it was the first attempt made by Protestants to form a band of women trained to practical work and living under rule.

### Mrs. Fry, the Founder of Nursing.

Mrs. Fry, the founder of nursing, whose work led her among all forms of suffering, was moved to make some attempt at organised nursing of the sick poor in London; hitherto the sick had been in the hands of the unprincipled and irresponsible attendants so graphically described by Charles Dickens. The Dowager Queen Adelaide and the Bishop of London joined hands in this laudable effort, and the Protestant nursing sisters began their work in Whitechapel in 1840, afterwards removing to Devonshire Square, where they may be found at the present time. This was the first nursing institution, and marks the origin of that movement which has attained to such proportions in our own time; it started from the Quaker lady whose name has hitherto been almost exclusively claimed by the prisoners, but she must now be accepted as the founder of sick nursing.



Miss Florence Nightingale.

### Religious and Social Causes.

At the same time, that revival in the Church generally known as the Oxford movement was awakening in the hearts of earnest women a desire for definite religious work; this wish found its fulfilment for many in the English sisterhoods, and, for those to whom the severe and dedicated life of the religious was not possible, in a life devoted to the care and nursing of the sick. As soon as the pioneers of the movement had demonstrated the possibility of a woman working in the wards of a hospital and yet retaining her womanliness and modesty, such women turned to nursing the poor in hospitals. They in their turn were followed by the many who, from stress of circumstances, have to earn their bread, and this large class quickly discerned an advantageous opening in the unoccupied field of sick nursing. These bread-winners have in their turn been succeeded by their fashionable sisters, of whom many have sought to relieve the vacuity of a purposeless life by the variety and excitement of a nurse's training. Hence we find these three classes of workers among the nurses, and for each of them there is a *raison d'être*.

### Demand of the Medical Profession.

In enumerating the religious and social influences at work among women, we must not forget that in the medical profession there was arising a demand for a higher class of women to tend at the bedside, and this demand has naturally had its influence in creating the supply. For in the thirties, there was a stir all along the line of the medical profession, prompted by investigations into the conditions under which the sick were treated, and into the circumstances surrounding the wounded on the field of battle. The object lessons of the battlefield and of the field hospitals were pointing the moral that there was a grievous waste of human life from causes which were within the control of man, and the more thoughtful were gradually awakening to the



Miss Agnes Jones.

limitless resources of Nature and to the wonderful recuperative powers in the body—forces which might be turned to good account by the physician or surgeon in their fight with disease and death. The physician at the bedside and the surgeon in the operating theatre had the conviction forced upon them that if they were to do the best possible for their patients, they wanted hands, gentle, skilful, and sympathetic, which would work with them and for them at the bedside. In other words, the old hospital methods, which had accepted any rough, incapable, and sometimes disreputable female as an attendant on the sick, were found to be insufficient both from the scientific and the humanitarian point of view, and the leading members of the medical profession were taking counsel with the leading philanthropists in search of a remedy.

### Charles Dickens.

There can be no doubt that Charles Dickens's graphic portraiture of the nurse of 1848 just gave that rude awakening to the national self-respect which was required to arouse it into action, but it needed a yet sharper shock before the lethargy of the public conscience was completely overcome. That shock was administered when the sad tales of the sufferings of our soldiers and sailors in the Russian war reached these shores, and it was with a thrill of satisfaction that the nation heard that Florence Nightingale and a band of trained nurses and ladies had left to nurse in the field hospitals in Crimea.

### Florence Nightingale.

Florence Nightingale was not unprepared for the great work which was placed in her hands. In 1851 she had availed herself of the course in Kaiserwerth to obtain an insight into sick nursing and hospital management, and later she was Superintendent of the Home for Invalid Ladies in Harley Street. Indeed, it seems that any work which had for its aim the improving of the circumstances and conditions of the sick was sure of her sympathy, and it is because she had been a dilligent student of the public institutions of this and other countries that when the call came she was ready to answer it. The history of Miss Nightingale's work is now part of the national records. The valuable experience in the



Queen Adelaide, First Patroness of Nurses.

Crimean war has often been made use of in planning hospitals for civil or military service, and in advising on matters of nursing. Miss Nightingale was accompanied by eleven nurses from

St. John's House, Norfolk Street, Strand,

an institution which is with us to the present day. It owed its foundation, in 1848, to the combined efforts of Sir William Bowman, of King's College Hospital, and the Bishops of London and Lincoln. This gives us the dates of the first attempt at hospital reform. Though here and there in the hospitals a few good examples of a womanly nurse were to be found, it was as the exception to women of the type of Betsy Prig. Sir William Bowman was anxious to improve the nursing of King's College Hospital, and an arrangement was entered into with the authorities of St. John's House to provide the nurses and to supervise the wards of the hospital. St. Thomas's Hospital, under Mrs. Wardroper, was the next to follow, and for some time these were the only two hospitals of any size which endeavoured to bring about a better state of sick nursing.

### Training of Nurses Commences.

This is the first we hear of the systematic training of nurses. Until now such special knowledge as distinguished either the Protestant or Roman Catholic nurses was "acquired" either by the light of Nature, or by spending two or more hours in the out-patient department of a hospital (the manner of the Devonshire Square Sisters). Some of the religious orders still feel a diffidence at submitting to a hospital training, but others have faced the situation and accepted the fact that nursing must be learned in the only place where it can be taught—in a hospital. It was not, however, until the deed of Florence Nightingale had aroused a wave of enthusiasm, and as the result the raising of a national testimonial, that the training of nurses to any large extent was possible. The Nightingale School was founded as the nation's act of gratitude to the woman who had saved the lives of the soldiers and sailors, and it was attached to St. Thomas's Hospital, where Mrs. Wardroper had already been at work quietly bringing order out of chaos. Miss Nightingale's influence and advice still guide the counsels of the authorities of this hospital.

### Hospital Reform.

Hospital reform moved slowly; it was some years before the Nightingale nurses began to be of any account in the hospital world. They were sent principally to the provincial towns, and it was one of the regulations of the school that they should not be sent out in units, but a superintendent nurse should be accompanied by a sufficient staff to organise the work of the hospital. This rule was dictated by that wise forethought which saw that reform by units was often slow and disappointing work. In London the large hospitals did not come into the movement until several years later. In 1861 these two hospitals were still the only ones where a training could be obtained. In 1862 University College Hospital was placed under the Community of All Saints, and it has remained in the hands of these Sisters ever since. Old prejudices die hard, and the medical students viewed with a disfavour not altogether unreasonable the intrusion of these novel nurses into wards where they had had uncontrolled liberty. The "night-prowler" (the night superintendent) had a hard time of it; the prejudice against her was the last to die, and she required inexhaustible tact and patience to win her way. But this very opposition was in itself an indication of the need of reform, and the difference between the hospitals of 1850 and 1890 justifies the action then taken.

### The Overtraining of Nurses.

As time passed on, the training of the probationers becam more specialised; from clinical and practical it became to greater extent theoretical, lectures were given by the sta and matron, examinations were instituted, and certificates were granted on the strength of marks obtained, some hospitals bestowing a gold medal on the most successfu pupil of the year. In moderation there could be nothing but praise for this system; but there is no doubt that the theoretical side has been overdone, the style and method o training, being on the same lines as those of the medica student, have not proved equally suitable to the sick nurse, whose work is essentially practical, and whose efficiency depends more on skilful handling and observation than on acquaintance with the minutiæ of physiology or of anatomy.

### Results of Overtraining.

A bad style of nurse has resulted from this false training it is not at present, happily, a very large class, but it is on the increase, and therefore it is necessary to raise a protest against the perpetuation of a system which is doing incalculable harm to the profession and to the patients. The nurse's function is to be the doctor's hands and eyes; when sh assumes the functions of his brain she has mistaken her place and the result must be disastrous. To the medical profession must be apportioned much of the blame of this mistake; the lecturers have lost sight of the aim and object of their instructions, and the schools, in unwholesome emulation, have vied with each other in the severity of their examinations and [the number of the subjects crammed.

### Difference between Medical Student and Nurse.

Anything which approximates the training of the nurse to that of the medical student is to be avoided; with the one will rest the responsibility of diagnosis and treatment, with the other the accepting of the diagnosis and the carrying through of the prescribed treatment. When this fact is firmly grasped, it will be evident that the medical student and the nurse approach their work from different points of view. A thorough acquaintance with the structure of the body, and the various influences to which it is subjected, are the necessary equipment of the doctor; for the nurse a knowledge of the laws of life and health, of the functions of the various organs of the body and the outlines of its anatomy, would fit her for an intelligent performance of her duties and leave her ample leisure to make herself proficient in those bedside duties on which depend the comfort and well-being of her patient. Such a grounding would lead to the development of those qualities of observation, perception, and accurate reasoning which are the essential characteristics of a good nurse, and when united to steady obedience and unswerving loyalty, make all the difference between an intelligent and a mechanical nurse. Over and above these qualifications are those intangible qualities—womanliness, sympathy, gentleness, tact, and refinement—qualities which cannot be catalogued but which lie at the root of all sick nursing, and which are fast being lost in the hurry and cram of modern hospital life. Considering the very varied fields of work now open to the nurses, whether it be the hospital, the district, the workhouse, or private patients, and not taking into account the demand for nurses abroad and in the colonies, it seems that the training should fit the nurse to be the doctor's handmaid, and should to a certain extent prepare her for the life before her when she leaves the hospital. Here we fear it fails, for the present training does not enable the nurse to understand what is required of her in private nursing, without some supplemental experience often gained at the cost of her patients, when she leaves the four walls of her training school.



Rahere Ward, St. Bartholomew's Hospital, in 1833. (From a water-colour sketch now hanging in the ward).

### Workhouse Nursing.

Thus far it has been our pleasant duty to chronicle a period of progress and success, marred only by blemishes which may be taken as indications of exuberant vitality and juvenility, but there is one branch which is still hampered by tradition and fetters of the worst kinds: we refer to the Poor-law nursing service. So long as the "pauper nurse" disgraces the statute book, so long as the innumerable evils which result from the employment of legalised Sairey Gamps and Betsy Prigs, who derive their authority from the Consolidated Orders continue, so long will the nursing of our sick paupers be a disgrace to this country. It would have been one of the grandest triumphs of this reign, so full of gracious influences and humanising efforts, if the pauper nurses had been wiped out of the statute book; with them had gone the untold misery, cruelty, blackmailing, and callous indifference that belong to that wretched system. Still, much has been done; the Gathorne-Hardy Act, the result of the labours of Miss Louisa Twining and Dr. Joseph Rogers, the steady, unobtrusive work of the Workhouse Infirmary Nursing Association, which has influenced the country guardian on the question of workhouse nursing, and after inducing him to desire the trained nurse, has provided him with that official, all these are gratifying signs of the trend of public opinion; but compared with other branches of the service, workhouse nursing lags sadly in the rear.

### Agnes Jones, the Pioneer of Workhouse Nursing.

The pioneer of workhouse nursing was Agnes Jones, another of the students of Kaiserwerth. She was an Irish lady, who from her earliest years had been drawn to works of charity and benevolence. She went through a training first at Kaiserwerth, and afterwards at St. Thomas's Hospital as a Nightingale Probationer. Mr. Rathbone, one of the Liverpool guardians, anxious to improve the nursing of the paupers in the Brownlow Hill Workhouse, applied to Miss Nightingale to find him a lady who would undertake the care of the sick; Miss Jones was selected, and responded to the call. Bad as the circumstances are in many of the antiquated workhouses at the present time, there is nothing to approach the unspeakable dreariness and wretchedness of the Liverpool workhouse when Agnes Jones first entered on her duties in 1865. There was an entire absence of anything like comfort, either in the rooms appropriated to her use or in the wards themselves. Neither patients nor officials gave anything like a cordial welcome to the solitary worker, who came among them with her life in her hand and without a friend with whom to take counsel or to ask for sympathy. There are few lives which have touched the simple heroism and self-sacrifice of that solitary worker in the Liverpool Workhouse. It was all too short, for in three years she died, worn out by her labours in the cause of the paupers; but those short years sufficed to work such a change that as her coffin was carried out of the hall into the hearse on its way to Ireland, the gallery was full of weeping patients who sincerely mourned the devoted nurse who had laid down her life for them; the very same patients who on her arrival had greeted her with the choice language of pauper dislike and resentment.

### Difficulties of the Work.

That grand life is bearing fruit to this day; hundreds of nurses are at work among these neglected folk, and by slow degrees, the refinements and courtesies of trained nursing are revolutionising the workhouse infimaries of this country. In the large cities these State hospitals are rapidly assimilating to the hospitals from which they differ only in name, and the nursing is carried out on similar lines. But Poor-law nursing is suffering from the spirit of disorganisation which is crippling the whole profession; though the Local Government

Board employs more nurses than any other section of the community, there is no machinery for the efficient control and supervision of this army of women. The existence of the pauper nurse clings as a dead weight around the workhouses. It hinders progress and drags down the nurse who has these "nurses" for her assistants until she forgets the standards and traditions of her training school; it blights all efforts to raise the tone of the wards, and for the patients themselves, they only can unfold the horrors of the night when the pauper "nurse" is left as their sole helper. Would that the reign of our gracious Queen might see the end of this iniquitous system!

### Present Position of Nursing.

To those who have followed the history of the nursing movement it will be evident that, like all great movements, it was begun by individuals, then it was taken up by associated workers, who undertook the nursing of the sick in their own homes, and finally it penetrated into the hospitals, from which time it began to take rank as a skilled profession, and attracted to itself in large numbers women of culture, position, and education: at that point we now stand. What is still lacking is organisation; within the last ten years an attempt has been made to supply this need.

The Royal British Nurses' Association, which from the first secured the countenance and assistance of the medical profession and framed a good scheme on paper, was intended by its founders to form the basis of professional union. Unfortunately, it has not fulfilled these hopes; it has not produced union, and at present it is no more than the association of a section. This lack of organisation and consequent absence of *esprit de corps* are answerable for much that at present is doing damage to as noble a profession as ever woman put her hand to.

### Bad Style of Nurse.

The best traditions of service can find scope only through the recognised association of the units; unhappily blatant self-advertisment exists, stripping off the veil of reserve and modesty, which has ever been the most cherished of woman's characteristics, so that now the ordinary deeds of everyday life are introduced to the public with all the flourish of the newspaper reporter, medals are worn before they are won, badges are scattered in heedless profusion, portraits are sprinkled as plums in the columns of the press, and unfortunately an indiscriminating public accepts these travesties of the nurse. How different from the quiet unobtrusive manner in which Florence Nightingale returned to her country after her work in the Crimea, slipping quietly on board a French ship, in preference to the passage on a British man-war, so that she was back in her country home before it was known that she had left the seat of war!

### Want of Organisation.

The manners and customs of this noisy section may be, and are, repudiated by the rank and file of the nurses, but lack of organisation gives them no means of creating a healthy professional opinion, or of raising up a standard of tradition and etiquette which shall govern the conduct of business, To our minds, this lack of organisation is the one great hindrance to development and progress. The question of registration, advocated by its promoters as the remedy for existing evils, has yet to be fought out; but the time has by no means come when legislation can step in to give effect to some one of the many theories which cluster round the scheme. Nurses are no tat one on the necessity for registration; and it is unprofitable to discuss methods until the question of principle has been agreed on. When registration is enforced it must be undertaken by a body which will command the respect of both medicine and nursing, and which will have such machinery at its command as will enable it to carry the matter through in an effective and authoritative manner. There can be no doubt that the public require protection from charlatans, whether midwives or nurses; but the zeal to protect the public may result in a measure which would only give a false guarantee, and so be worse than useless.

### Progress of Nursing Retarded through Disorganisation.

The lack of organisation confronts us at every step; the exuberance of some of the uniforms, as far removed from sensible, serviceable dress as the garb of the lady of fashion; the unhappy intrusion into the nursing ranks of women who are exploiting the trade for some fraudulent or immoral purpose; the absence of anything like control over the fees of the independent private nurse, or of her conduct in the home of the patient and of her attitude to the medical attendant; the impossibility under existing circumstances of either prescribing the course of training or ascertaining the efficiency of the thousands of women who are swelling the ranks: all these evils, which intrude themselves on us day by day, call for some remedy; but that remedy will not be found until greater self-control and a sense of solidarity are manifest in the individual nurse. When we cast our glance over the ever-widening field of nurses' work—in the district, the workhouse, among the wealthy, or in the villages, abroad and at home—we can form a more accurate estimate of the need of some central control, though we acknowledge that the powers to be exercised from the centre must be so elastic that they will adapt themselves to these varying demands. This problem is yet unsolved; it requires patience, tact, and wide experience to work it out. Delay is inevitable in the consolidation of all great movements, and we should deprecate hasty legislation and all-embracing schemes.

# ASSOCIATION INTELLIGENCE.

## COUNCIL.

### NOTICE OF MEETING.

A meeting of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday the 14th day of July next, at 2 o'clock in the afternoon.

Francis Fowke, *General Secretary.*

June, 1897.

### NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1897.

Meetings of the Council will be held on July 14th, and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 24th and September 30th.

### Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

## BRANCH MEETINGS TO BE HELD.

Metropolitan Counties Branch.—The annual general meeting of this Branch will be held in the Imperial Institute, South Kensington, S.W., on Wednesday, June 30th, at 6 P.M. After the ordinary business, an address will be delivered by the incoming President, Mr. Frederick Wallace. The members will dine together at 7 P.M., tickets 8s. 6d. each, not including wine.—Isambard Owen, M.D., and H. Betham Robinson, M.S., Honorary Secretaries.

Aberdeen, Banff, and Kincardine Branch.—The summer meeting of the Branch will be held at Muchalls on Thursday, June 24th, at 2 P.M. Business: Minutes. Ballot for the admission of members. Appointment of Representative to the General Council of the Association. A dinner will be held in the Muchalls Hotel after the meeting. There will be a drive arranged for the convenience of members, leaving the Free Church College at 12 noon. Members must give notice of their intention of taking advantage of this means of conveyance. It is also intended to have a bicycle section. A train leaves Aberdeen at 1.30 P.M., and arrives in time for the meeting. Full particulars will be sent to members by circular.—C. Thiselton Urquhart, J. Scott Riddell, Aberdeen, Joint Honorary Secretaries.

Border Counties Branch.—The annual meeting of this Branch will be held at Galashiels on Friday, July 2nd.—R. Dundas Helm, Carlisle, Honorary Secretary.

# AN INAUGURAL ADDRESS
ON THE
# GROUNDWORK OF THERAPEUTICS.

*Delivered at the Annual Meeting of the Birmingham and Midland Counties Branch, June 17th, 1897.*

BY ROBERT SAUNDBY, M.D.,

Fellow of the Royal College of Physicians; President of the Birmingham and Midland Counties Branch and of the Council of the British Medical Association; Professor of Medicine in Mason College; Physician to the General Hospital, Birmingham, etc.

THE first and most pleasant duty imposed upon the occupant of this chair is to thank the Branch for the great honour conferred upon him by selecting him for such an important office; and this I beg to do most sincerely, my recognition of your kindness being reinforced by a deep consciousness of my deficiencies as I recall to my recollection those who have preceded me in this place.

I am proud of our Branch, not only because it is one of the oldest and largest, not only because it has supplied a large number of most important and influential officers to the Association, nor on account of its activity and good organisation, but more than all these because it has always shown itself able to take a leading part in the discussion of the burning questions of the day, and that its deliberations have been characterised by remarkable moderation, liberality, and prudence. This character, which I trust you may never lose, gives to your collective opinion an influence which is second to none in the affairs of the Association, and is of an inestimable advantage to your representatives upon the Council. It is no less true that your authority has been maintained by your wise choice of those representatives, and no one can regret that their office is highly prized and frequently the object of keen contest. From such a struggle your representatives emerge with renewed vigour, and it is only in this way that the Council can be kept strong enough to bear the increasing burden of the responsibilities of our great Association.

But these topics must not be allowed to take up more of our time. We meet together in the first place for the promotion of medical science, and on these annual occasions it is incumbent upon your President to justify his vocation to the best of his ability by devoting the main part of his address to some scientific subject. The highest, and in many cases the most difficult of our duties is to heal the sick, and yet it is one which is expected from the humblest amongst us; it cannot, therefore, be unprofitable to turn our thoughts for a short time towards the basis or groundwork upon which our treatment rests. There is no subject in which we are more exposed to the scorn of the scornful than the slow progress which has been made in the discovery of efficient remedies, and every language possesses a collection of biting sarcasms which suggest that whatever else we can do, we cannot cure diseases. The people who repeat these epigrams presume to regard us as ignorant pretenders, using remedies of which we know little in conditions of which we know less. While not admitting for a moment that this view is either fair or accurate, we may allow that our treatment of disease is not as satisfactory as we could desire, and it may be instructive to review the circumstances that have co-operated to make therapeutics a laggard among the sciences, and to inquire how far there is a prospect of better progress in the future than has been in the past.

The desire to relieve the pain and suffering of other people, at any rate of those for whom he has natural affection, must always have supplied man with the strongest motives to seek for the necessary means. But in order that he can do this successfully, two things are essential. In the first place he must know the cause of the ailment, and in the second place he must have access to agents for its removal. For example, the extraction of a splinter from the hand is usually a successful proceeding because both these conditions can be fulfilled, and the simpler surgical procedures afford numerous illustrations of the same kind. But in the treatment of internal diseases neither can be readily attained. In fact, so baffling has been the search for the causes of diseases, that it has for long periods been abandoned in despair; but as the need for remedies has always been urgent, these have been and are constantly employed in an experimental manner, occasionally successfully, often, it must be confessed, without good results, and sometimes with distinct injury to the sick. When the proximate causes of disease are unknown, what principles are there to guide us in the selection of remedies; nay, what ground is there for assuming that such remedies exist? The answer to the latter part of the question appears to be the widespread belief that every ill has its remedy, a phase of the optimism so characteristic of human nature, which has enabled it to come off victorious in so many apparently hopeless contests with the forces by which it is surrounded.

But the principles which have guided the selection of remedies are very complex, and have varied from time to time in the history of therapeutics. Before the employment of remedies can be hazarded we must assume the possession of some knowledge of their medicinal action. We must inquire in what way this was obtained. As the sum of countless experiments primitive man arrived at a knowledge of the edible and nutritious as distinguished from the poisonous and harmful among fruits, roots, and other vegetable substances, and in the acquisition of this essential information he must have gained acquaintance with the medicinal action of some of them. To take the simplest illustrations, he could not fail to recognise those which were purgative or emetic, and in this way a store of facts would be gradually accumulated. That this was accomplished there is no doubt, for primitive man as he exists in the present day possesses some share of this knowledge, and much of ours comes to us from immemorial antiquity. The question that remains is, how could this knowledge be successfully applied to the cure of disease?

It might be supposed that as men had in the course of time contrived to learn pretty correctly in the main what was good for food, they would also learn what was useful as medicine, and in a few instances undoubtedly they did attain this result. The reason success was not more frequent lay in the fact that the two problems are dissimilar. We derive accurate information from an experiment when we vary only one of its conditions, but if many are changed the result is inconclusive. Now the conditions of digestion and nutrition in healthy men are fairly uniform, but the conditions of disease are multiform, so that the results of such experiments with drugs are generally contradictory and confusing. Correct general conclusions cannot be drawn, especially when diseases are badly differentiated, as must have been the case in such primitive experiments. Every isolated success made then, as it does now, for the fame of the remedy and its administrator, but without permanent advantage to therapeutics. The failure of what we may call the popular empirical method compelled other attempts to solve the problem. Too often men fell back upon superstition, and attributed their failure to the power of supernatural agencies, but this was generally in the presence of those malignant epidemics which have always seemed beyond therapeutic resource. In happier times the healthy human mind has always turned to some more hopeful explanation of disease, and has tried to combat it by natural means. This is emphasised by the fact that even the priests, who under the influence of such superstitious notions have been so often appealed to for help in disease, have generally become in the end true physicians, treating their patients by drugs instead of by prayers and incantations. In the hands of a regular class devoted more or less exclusively to the practice of medicine, possessing the art of transmitting by writing and by oral instruction the experience they acquired, a certain amount of knowledge would be accumulated, a rough nosology would be constructed: leading symptoms would be noted, many types of disease would be differentiated, and upon this basis a more orderly therapeutic system would be established; but it would be a treatment of symptoms, and the means used would too often fail to control the disease. This was the state of medicine in ancient Egypt and Greece for more than a thousand years, during which time it made scarcely any advance beyond this point.

The method was bad, and the task seemed hopeless, as Hippocrates must have thought. *Ars longa, vita brevis, ex-*

*perientia fallax*, sums up the result of the empirical method. But progress might be made by careful bedside study of disease, and observation showed that many maladies tend to a spontaneous cure. Therefore the physician has an ally whom he must seek to know, the *vis medicatrix naturæ* by whose help he may secure that which unassisted he cannot accomplish; or at least he must take care not ignorantly to hinder that which Nature can effect. Animated by such principles Hippocrates devoted himself to the study of the natural course of diseases; to noting how they are influenced by external conditions; to observing the indications of a favourable event or the reverse; and in this way he sought to widen the basis of therapeutics, while he limited its immediate application. Such a modest estimate of the function of the physician as Hippocrates conceived could not be popular. It was contrary to the prejudices of the public, which demands active intervention, and was consequently opposed to the interests of the physicians. It is therefore not surprising that, although many have preached in the name of Hippocrates, few have followed in his footsteps.

The post-Hippocratic practice of medicine among the Greek and Roman physicians was a professional empiricism based upon better clinical knowledge of diseases, but there is no evidence that Hippocrates or his successors attempted scientifically to solve any part of the problem of the causes of disease. Their knowledge even of the nature of the symptoms which they endeavoured to treat was scanty and fallacious, for they had little real acquaintance with the structure and functions of the body in health or disease, while their pathology consisted in the Galenical doctrine that diseases were seated in the fluids of the body, and might be removed by purging, bleeding, sweating, etc.

During the decay of the Roman empire, and throughout the period which is sometimes called the Dark Ages, European medicine sank to a very low ebb. If the world is a stage upon which the powers of light and darkness contend for the mastery of mankind, and punish and injure him by sickness and death, the most potent remedies must be those means by which such supernatural powers are invoked or controlled. Prayers and holy water, amulets and charms, magic and spells, therefore, superseded drugs in the treatment of disease. Yet to some extent empirical medicine, following the Roman and Greek tradition, continued to be practised by the Jews and Mohammedans, and even by the monks themselves.

As faith declined and the influence of the Church began to wane, the European intellect became able to profit by the Greek teachers and Greek books which the fall of Constantinople scattered over the Western world. In this revival of learning the study of Greek medicine held a prominent place, but the genius of reawakened Europe could not be long confined by any parchment bonds. By the accurate labours of the Italian anatomists a solid foundation of scientific knowledge was laid, which has ever since held its place as the basis of medical education. Physiology followed more slowly, but Harvey's great discovery of the circulation of the blood had a most unhappy influence on therapeutics by the explanation it afforded of the pulse, the changes in which constituted such a notable symptom in disease, for it was owing to this discovery that blood letting, a practice long established, developed so as to throw into the background every other therapeutic resource. With this important exception the great progress in anatomy and physiology had little direct influence upon medical treatment. The humoral pathology of Galen, which localised all diseases in the fluids of the body, to the great encouragement of bleeding, purging, vomiting, and sweating, was the orthodoxy of medicine for 400 years after the revival of learning. Like other orthodoxies it did not escape criticism, but so great was its reputation that it survived all attacks, and with that elasticity which is essential to long life, it incorporated in itself such new ideas as became popular. Thus the doctrines of Paracelsus, who classified diseases as states of tension, were incorporated with it, and we talk of "tonics" and "laxatives" to the present day. The animism of Stahl was very similar to the Hippocratic *vis medicatrix*, substituting the "soul" for "Nature," and the cautious practice it enjoined received the name of "expectant" treatment, a phrase still in common use. Brown's theory of "sthenia" and "asthenia" also adapted itself readily enough to the prevailing doctrine. It is worth noting that Paracelsus and Brown appear to agree in this merit, that in the absence of any certain knowledge of the nature and causes of diseases, they desired to direct treatment to the general condition of the patient rather than to particular symptoms. Unfortunately we can only judge of general conditions when we rightly appreciate all the particular symptoms, but this neither Paracelsus nor Brown was able to do, and consequently their rules were arbitrary, their indications fallacious, and their practical results often disastrous.

The orthodox therapeutics of the eighteenth century, the result of 2,000 years of scientific endeavour, is fairly enough summed up in the doggerel verse of Dr. John Lettsom (1744-1815):

> When patients come to I
> I physicks, bleeds, and sweats 'em,
> Then if they choose to die
> Well what care I?
>
> I. Lettsom.

Even the progress of morbid anatomy at first did little to restrain the enthusiastic supporters of the evacuant treatment, which perhaps reached its highest development under the combined influence of Brown and Broussais at the end of the last century and the beginning of the present. In spite of the enormous advantages enjoyed for medical observation in the great hospitals which the genius of Christianity had established throughout Europe, only a small number of diseases had been differentiated. Even so late as in the edition of *Cullen's Practice of Physic* for 1796, although it includes insanity and diseases of women, there are only 71 headings as compared with over 300 in a corresponding modern work (1896) from which those special diseases are excluded. We know that this increase is due to the recognition of types formerly confounded together, and we can realise how much this confusion must have interfered with the successful progress of any empirical symptomatic treatment.

But the Galenical pathology, like many another great institution, was unable to withstand that revolt against authority which found its fiercest expression in the French Revolution. The study of morbid anatomy transferred the seat of diseases from the fluids to the solids of the body, and with this change the evacuant treatment began to wane. Its decay afforded encouragement to many more or less fanciful systems, of which homœopathy, mesmerism, and hydropathy are the best known. They were all founded on false theories of disease, but such was the revolutionary spirit, that any doctrine which was opposed to authority was sure to find numbers ready to accept it. This spirit, so characteristic of the age in which we live, still influences, and often degrades, popular therapeutics.

The first half of the present century was marked by enormous strides in morbid anatomy, the primary effect of which was to produce a desponding sense of the uselessness of drugs, and to create a school of sceptics who were not even supported by the confidence in a benevolent Nature which sustained Hippocrates. Yet this school, by devoting itself to clinical observation, to diagnosis, and to morbid anatomy, helped greatly to form a better basis for therapeutics. Great progress also was made in experimental physiology and in chemistry. The relations of acids and alkalies had long before suggested pathological theories, and both had been extensively used in medicine with the object of correcting opposite states in the fluids of the body; but modern chemistry came greatly to the aid of pharmacy. Experimental physiology discovered the functions of the nervous system, and by demonstrating that the various organs, including the blood vessels, are under the control of the nerves, gave rise to the pathological conception of the nervous origin of disease.

The success of the experimental physiologists determined the formation of a school of experimental pharmacologists, who were able to show that many drugs excite or control nerve action and organic functions. This school has been, with some justice, accused of ignoring the essential importance of clinical experience, and of claiming for laboratory experiments more weight than can fairly be conceded to them. It is necessary to learn all that we can about the constitution and action of remedies, but until we know more than we do at present about disease, we cannot reason *a priori*

about their application without great risk of failure, or worse than failure. Their use must be tested at the bedside, and so long as we have only symptoms to guide us in their selection, our choice is beset with fallacies.

It is a striking instance of the success of this school that it has asserted the right to teach therapeutics apart from clinical medicine, and even clamours to have its subject made a distinct part of the final medical examination, as if it had really established a scientific basis for the treatment of disease in the pharmacological data which it has so industriously accumulated. But the neuropathology, which was the groundwork of their system, has not stood the test of time, and the system itself will pass away into the limbo of the forgotten.

We have now traced the progress of therapeutics almost to our own days. I began by stating the two essentials for the cure of disease to be (1) The knowledge of the cause of disease, and (2) access to the proper agents for its removal. I have shown how from failure to obtain the first of these, the search for the second has been for so many thousand years a haphazard proceeding, and that although we have learnt pretty thoroughly the structure and functions of the human body, and the changes in it caused by disease, although a great store of information has been acquired respecting the constitution and action of drugs, yet for want of the first essential condition of success, the evolution of scientific therapeutics has been impossible. Successive theories of disease have been started, pursued for a time, and then abandoned as false or inadequate. But in our own time, may I dare to express the belief that by the immortal labours of Pasteur, the true solution of this problem has been rendered possible? We are still, perhaps, too near to his discoveries, and not sufficiently emancipated from the dominion of older modes of thought to appreciate entirely the significance of the revolution they have effected in medical science.

Pasteur and his followers have proved to us that many infectious diseases are caused by minute parasitic organisms, and that the phenomena of these diseases, the fever, rapid pulse, nervous prostration, etc., are the effect of poisons generated in the body by these parasites in the course of their growth and multiplication; further, that what we call organic diseases are for the most part the results of the reaction of the tissues to those same poisons. Reasoning by analogy, we believe that all infectious processes will sooner or later be proved to be due to the same causes.

No better illustration of the extent of organic mischief caused by an infectious process could be desired than has been afforded by the recent epidemics of influenza. This disease, after having been absent in epidemic form for more than forty years, reappeared amongst us six or seven years ago in a most virulent shape. Its pathogenic parasite, identified by Pfeiffer as a small motionless bacillus, has given rise to outbreaks of the most varied type, and to organic diseases of nearly every kind. We have seen that the same cause may produce coryza, pneumonia, gastro-enteritis, meningitis, peripheral neuritis, and acute nephritis; and that it may leave behind it insanity, heart disease, chronic gastritis, Bright's disease, etc. These are not new facts, but they have been put before us very abundantly. We have long known that acute rheumatism is often followed by heart disease, and scarlatina by Bright's disease; but it is not sufficiently understood that all infectious processes possess more or less of this mischievous power, and that there is good ground for believing that organic disease mainly originates in the reactions of the tissues to the poisons secreted by parasitic organisms.

The successful revolution in surgical practice which has followed the acceptance of the discovery of the origin of those infectious processes which retard the healing of wounds and cause surgical fever, a revolution with which the name of Lister must always be associated, is well known; but it must be admitted that the attempts to destroy pathogenic organisms after they have gained access to the interior of the body by the administration of so-called antiseptic drugs have ended in failure. Yet these experiments have not been altogether without result, if we allow that it was through them that we learnt the value of salicylic acid in acute rheumatism, a discovery which has enabled us to alleviate vastly the sufferings of a most painful disease. But Pasteur's object in studying the causes of diseases was to discover a remedy for them, and his genius enabled him to seize upon a fact in the life-history of these organisms which afforded a clue. When a microbe is grown in a suitable medium outside the human body it inevitably happens that sooner or later its growth stops, and its vitality seems suspended: if it is transferred to a fresh supply of the medium it revives and renews the cycle of its existence, which in turn terminates in the same way. Careful investigation of this phenomenon showed that it does not depend upon the exhaustion of the material necessary for nutrition, but upon the presence of some new substance or substances produced by the microbe, and resulting from its vital activity. Thus, for example, yeast after a time ceases to grow, and falls to the bottom of the vat; if more sugar is added no effect is produced, but if the yeast is transferred to a fresh solution of sugar at a proper temperature it revives; the inhibiting substance in this case is alcohol, produced by the action of yeast on sugar.

An analogous change apparently takes place whenever pathogenic organisms are grown in suitable media inside the body, a material being formed which limits the activity of the parasite. This material affords more or less protection to the host for a longer or shorter time against fresh attacks, and may in some cases be used to protect other individuals if introduced into their bodies. Pasteur regarded this material as at once the cause of disease and its cure; but further research has revealed that the vital products of these parasites are more complex. They consist, first, of a poison or toxin which produces the phenomena we call disease; secondly, of a substance called the alexin, which in some cases merely deprives the parasite of its activity, while in others becomes actually destructive to it; and, thirdly, of an antitoxin which neutralises the action of the disease-producing toxin, but does not affect or injure the parasite. The last two are generally spoken of collectively as "antitoxins." The second of these products is that which confers immunity or prevents the growth and development of the invading parasite; the third is curative, and if used in time prevents the phenomena of disease.

These discoveries open up an altogether new prospect in therapeutics, upon the threshold of which we are now standing. The medical press week by week records the pioneer attempts to apply these principles in the prevention or cure of rabies, diphtheria, tetanus, septicæmia, tuberculosis, cholera, plague, rinderpest, swine fever, etc. We should be unreasonable to expect that the most efficient methods for preparing and administering these new remedies can be immediately devised, and we must be prepared for many disappointments before conclusive results are obtained. Only widespread failure, carrying with it distrust of the new principles, will, it is to be feared, follow, if too great haste is displayed to apply on a large scale and with imperfect knowledge the little understood and crudely prepared substances which the first attempts can supply. We can all remember the unfortunate result of the trial of Koch's too hastily announced tuberculin; but it is satisfactory to know that the discouragement so universally experienced has not prevented that distinguished investigator from sticking to the problem, and he has recently announced the preparation of an improved material,[1] for which we may all hope better success. In ordinary tuberculosis of the lungs there seems little evidence of the production of any alexins, as the bacilli go on living for years and continue their destructive process; but Koch affirms that in some cases of acute tuberculosis, especially in guinea-pigs, all the bacilli have been found to be dead. This observation affords a basis for the belief that there is a substance formed by or in the bacilli, which, if it can be separated from the poisonous toxins, and obtained in sufficient quantities, may prove curative.

The problem at present is how to obtain these antitoxins in sufficient quantity and separated from poisonous allied substances. One plan very generally in use is to employ the blood serum of an animal which has been made to pass through the infectious process, but such serum contains only minimal quantities of the remedy, and unfortunately may contain active toxins. The rabies antitoxin is obtained by drying the spinal cord of an infected rabbit, during which process the toxin appears to diminish more rapidly than the antitoxin. If the antitoxin could be prepared direct from a culture of the microbe it would be possible to have it of any

strength and in any quantity, but it would still need to be separated from its dangerous associates.

Koch's tuberculin was a preparation made directly from a pure culture, sterilised and extracted with glycerine, but it was a very complex body in which toxin and antitoxin were combined. In his new tuberculin he has endeavoured to effect this separation by trituration and centrifugation of an emulsion in distilled water of young cultures of the bacillus tuberculosis. By these means he has prepared a substance which is not soluble in glycerine, and when injected into the body produces no febrile reaction, but possesses powerful protective qualities. Experiments on animals have shown that it takes from two to three weeks to produce complete immunisation; therefore it can be of no service in the later stages of consumption.

Professor Hirschfelder,[2] of San Francisco, has adopted a different method for attaining the same object. He contends that the healing of peritoneal tuberculosis after abdominal section points to oxidation of the tuberculin as the means by which an immunising substance is formed, and he asserts that he has been able to prepare such a substance in large quantities from a virulent culture of the bacillus tuberculosis by mixing it with hydrogen peroxide and keeping it in a steam steriliser for four days. He thinks the same principle is applicable to other microbes, and he claims to have prepared by similar means a streptococcus oxytoxin, which he has used in some cases of phthisis in addition to the oxytuberculin. He even speaks of having made some trials with material derived from malignant tumours, cancers of the breast and stomach, which gave sufficient encouragement to him to induce him to pursue his researches.

A third method is that of Smirnow,[3] who endeavours to separate the antitoxin from the toxin by means of the electrolysis of a culture in bouillon, the fluid in the neighbourhood of the positive pole becoming charged with antitoxin, which is regarded as an oxidised or hydroxidised toxin. This method has only been applied to the diphtheritic toxin, and not, so far as I am aware, to tubercle. Smirnow's claims are supported by Bolton and Pease[4] with experiments on animals, but I have not seen any published results of the use of this preparation in the treatment of disease in man.

In considering the possible utility of these remedies we must recognise that they cannot afford us an infallible cure for all cases. Their effect must depend upon (1) the stage of the disease; (2) the virulence of the morbid process; (3) the presence of complications. It is only in the early stages of disease before a fatal quantity of toxin has been secreted that any real benefit can be derived from remedies which kill the bacillus or antagonise the toxin. As the toxin varies in its intensity, it is always possible that a small quantity of great virulence may be formed before it is possible to use the remedy. Lastly, when there are complications such as old-standing organic disease, a small quantity of toxin of moderate virulence may prove fatal before the remedy can be used or in spite of it. As these conditions must occur from time to time, diseases will continue to claim their victims even when all that we now hope for shall have been attained.

Our attitude towards these researches should be one of appreciative attention, for we may be well assured that never before in the history of the world has there been so hopeful a prospect of solving the great problem of the prevention and cure of infectious disease. If the history of therapeutics is one of promises constantly unfulfilled, it may be thought too sanguine to hope for better fortune now; but we stand to-day upon an edifice erected by the labours of all the collateral sciences, and it is somewhat remarkable that it is to a chemist engaged in researches intended primarily to aid the great wine and silk-growing industries of France that we owe the discoveries that have opened to us a new era in medicine. Nothing could illustrate better than this fact the dependence of therapeutics upon the general advance of science. The labours of innumerable workers in chemistry have been needed to furnish the key which has unlocked the secrets of fermentation, and has led to the discovery of the nature and causes of infectious diseases. It is so great a thing to have made these enormous strides in the knowledge of the causes of disease that we may be excused for anticipating that this department of our science will, before many years have passed by, be complete and perfect, but we must not forget that when this is effected only half the therapeutic problem is solved. Its completion places therapeutical research upon a sound basis, but it does not ensure that that research shall be successful. Our sanguine hopes in this direction depend entirely upon that optimism which has always been our best source of inspiration.

I think it is a vague recognition of this that makes therapeutic scepticism so unpopular that it is difficult and almost dangerous for a physician to maintain an attitude of even reasonable scientific doubt without risking his reputation as a practitioner. Yet the best friends of therapeutics have not been those who have been the most enthusiastic devisers of new remedies, but those who have paved the way by the study of the etiology and diagnosis of disease, and our therapeutic progress, as individuals as well as a profession, will always be limited by the extent to which we have attained mastery of those subjects.

Unfortunately, the less a man knows of diagnosis and the smaller his acquaintance with the clinical varieties of the diseases which go under the same name, the more likely he is to overestimate his therapeutic successes. Even Trousseau confesses that in his younger days he attributed the excellent results he obtained in scarlatina to his method of treatment, until after a time the epidemic changed in type, and he had to admit that he was no more able than other people to control the disease. How many instances are there of drugs which have gained a great temporary reputation from having been introduced at the time when an epidemic was on the wane and the malignity of the infection had diminished? Such facts justify caution in accepting therapeutic conclusions even when based on statistics, and there is no reason to believe that such an attidude, if generally adopted, would hinder progress.

It is not my intention to trouble you with the seamy side of modern therapeutics. We all deplore the overwhelming influence of advertising, the confusion created by the enormous multiplication of remedies, good, bad, and indifferent; and the pernicious influence upon medical practice of the popular love of change and novelty. These are much less agreeable topics than those to which I have directed your attention, and on this occasion I would rather look on the pleasant side of things. The nation is just about to join with our honoured Queen in rejoicing at her attainment of the longest reign in our history. It has been not only the longest reign, but, in respect of the progress achieved, quite the most remarkable; and we are glad to attribute no small share in that progress to the civic peace which we have enjoyed under the mild rule of our beloved and most gracious Sovereign. As loyal subjects, we congratulate her on her long life, and as members of the medical profession we wish her health and strength to enjoy for many years to come the happiness of seeing her children's children growing up around her, and her people on all hands waxing greater, stronger, and happier.

We believe that the medical profession has the warmest sympathy of the Queen and Royal Family in all matters pertaining to our scientific advancement and to the relief of human sickness and suffering. This city will in a few days enjoy a signal mark of Royal favour in the visit of Her Royal Highness Princess Christian to open the new General Hospital on behalf of Her Majesty the Queen. We all know how ardently that Princess has devoted herself to the encouragement and promotion of the profession of nursing—a profession to which we owe in so large a degree the efficiency of our therapeutic efforts. We can assure her Royal Highness of a warm welcome from all classes, but I venture to think that we as a profession may feel ourselves entitled to regard this visit as an especial compliment, and we shall be second to none in the expression of our grateful and loyal acknowledgments.

In bringing this address to a close I would ask you to bear in mind that progress in therapeutics depends primarily, not on our knowledge of remedies, but upon our acquaintance with the nature and causes of disease and our ability to differentiate their various forms. It is by the advance of knowledge along these lines that to-day we dare to hope that we stand within measurable distance of the solution of the problem which has baffled the wit of man since first he knew the meaning of disease and death.

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# THE CROONIAN LECTURES

ON

# THE MEANS BY WHICH THE TEMPERATURE OF THE BODY IS MAINTAINED IN HEALTH AND DISEASE.

*Delivered before the Royal College of Physicians of London,*

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## LECTURE I.

[ABSTRACT.]

BEFORE studying pyrexia experimentally there are some pitfalls of which we must beware. In the first place, the normal range of temperature in the lower animals is wider than in man. I have very often taken the rectal temperature of rabbits, dogs, and monkeys, and in these animals the range is greater than in man. I have compiled from Dr. Pembrey's article on Animal Heat in Professor Schäfer's forthcoming *Physiology* the appended table (Table I.), which shows very well the range of temperature in different animals.

TABLE I.

| Animal. | Average rectal temperature. | Extremes of observations. | Number of observations. |
|---|---|---|---|
| | Degrees C. | Degrees C. | |
| Horse ... ... ... | 37.8 | 36.1—38.6 | 962 |
| Cow ... ... ... | 38.7 | 37.5—39.4 | 116 |
| Sheep ... ... ... | 40.4 | 38.5—41.8 | 304 |
| Dog ... ... ... | 39.0 | 37.1—39.9 | 250 |
| Cat ... ... ... | 38.7 | 37.9—39.7 | 41 |
| Pig ... ... ... | 39.2 | 38.7—40.8 | 269 |
| Rabbit ... ... ... | 38.9 | 37.0—40.8 | 110 |
| Guinea-pig ... ... | 37.9 | 37.0—39.2 | 19 |
| Rat ... ... ... | 37.5 | 37.0—38.5 | 16 |
| Mouse ... ... ... | 37.4 | 37.1—38.6 | 27 |
| Monkey (Rhesus) ... | 38.4 | 36.9—39.7 | 22 |

The prolonged administration of an anæsthetic causes a fall of temperature. Kappeler found that after the administration of ether to human beings the bodily temperature sinks from 0.3° to 1.5° C. (the mean of twenty etherisations was 0.68° C.); but it rises again in a few hours to normal. Twenty-three observations were made on the effect of chloroform on human beings, and it was found that on the average the temperature fell 0.53° C. The fall did not begin till at least twenty minutes after commencing inhalation and was generally most marked after narcosis had passed off. In from twenty minutes to five hours the normal temperature was regained.

The performance of artificial respiration will by itself cause a considerable alteration of temperature. Dr. Fawcett and I in the course of some experiments we were conducting on the physiological action of β-tetrahydronapthylamine made some observations upon the combined effect upon the temperature of etherisation and artificial respiration. Rabbits were used, the animal was kept fully under ether for two hours, and during this time it was fixed to a board in the usual way, and artificial respiration was carried on through an opening in the trachea.

The depression of temperature was very considerable; in one case 4.8° C. in $3\frac{3}{4}$ hours, in another 2.2° C. in $2\frac{3}{4}$ hours, and in a third 3.4° C. in $3\frac{3}{4}$ hours. It could not be prevented by wrapping the animal in cotton-wool.

The fundamental problem in a study of pyrexia is to discover whether or not the production of heat is increased, for it is clear that the temperature of the body may rise either because the loss of heat from it is less, while the production remains the same, or because the loss of heat remains the same while the production of heat is increased, or, if both vary, because the variations in the production have not been exactly counterbalanced by variations in the loss. I hope I shall, in these lectures, be able to bring forward evidence to show that sometimes pyrexia is due to an increased production of heat and sometimes to a diminution of the loss.

I should like to call attention to a point I have never seen discussed—namely, whether there is any evidence that pyrexia may be due to a variation in the specific heat of the body. It takes more heat units to warm to a given temperature a body with a high specific heat than it does to warm a body with a low specific heat to the same temperature, so that if the specific heat of the human body diminished while its production and loss of heat remained the same its temperature would rise. Most observers have estimated the specific heat of the body by calculation after death from that of the various tissues of the body. The lowest estimate given by this method is 0.75, the highest 0.9; but this is what might have been expected when we remember that a large proportion of the body is water. The properties of dead and living bodies are so unlike, and the specific heat of complex substances is often so difficult to foretell, that I thought it would be worth while to see if some means could be devised of estimating the specific heat of living animals. This would be easy enough in the case of cold-blooded animals, but the thermic mechanism of warm and cold-blooded animals is so different that it would be rash to assume that the specific heat of warm-blooded animals is the same as that of cold-blooded animals.

It struck me, however, that by using hybernating mammals it would be possible to calculate the specific heat of living animals not far removed from man. I employed dormice, for they are easy to obtain and to observe. When hybernating they lie tightly curled up in a ball, with their feet tucked away in the centre of the ball, and it is easy to take their temperature by placing the bulb of a thermometer in the centre of the ball. When hybernating their temperature rises and falls with that of the surrounding medium. Experment showed, for instance, that when the temperature of the room was 37° F. that of the dormouse was 37.5°, and that when it was brought into a room at 52° its temperature slowly rose till it was 49.25°; it was then put back into the cold room and its temperature slowly fell. A large number of observations gave similar results.[1]

It is clear that as the temperature of the dormouse rose and fell with that of the air, the number of degrees an equal weight of distilled water rose or fell divided by the number of degrees the temperature of the dormouse rose or fell in the same time will give the specific heat of the dormouse. I performed many experiments and found that, calculated in this way, the specific heat of the dormouse varies between 0.812 and 1.18, so that if we set it down at 0.95 we shall probably be very near the mark. It is noteworthy that when the thermometer stand was first brought into a warm room the earlier observations always gave a slightly lower specific heat for the dormouse than the later ones, because at first the rise of the temperature of the animal was, in comparison with the rise of that of the water, slightly the faster. The consequent slight increase in the creature's specific heat was often uniform. Thus in one experiment the first observation gave a specific heat of 0.857; according to the second it was 0.917; according to the third it was 0.933; and according to the fourth it was 1.0. Another noteworthy fact is that if the specific heat was calculated from observations made when the thermometer stand had been removed from a warm room into a cold one, it was always slightly higher than if calculated from observations made when the stand was brought from a cold into a warm room, and also the earlier observations gave the lower specific heat.

The close agreement of these results with those obtained by calculation from the dead tissues shows, I think, that we may safely put down the specific heat of dormice as being slightly below that of water. There are in these experiments several unavoidable fallacies, so that the specific heat obtained

by this method is only approximately accurate; but the fallacies lead to only a slight error. On the whole, the specific heat calculated by this method is slightly too low. Probably the results are more accurate than those obtained by calculating the specific heat of each of the tissues of the dead body and from these results estimating the specific heat of the body as a whole; the figures obtained by the two methods are in close accord, but by the method here given the specific heat appears higher than when calculated from the dead tissues.

I should not have introduced these figures had I not wished to show that whether we calculate from dead or living tissues the specific heat of the body is high, and it is obviously an advantage for warm-blooded animals, as they have to maintain a constant temperature, to have a high specific heat, for bodies with a low specific heat cool much more readily when the temperature of the surrounding medium falls than do those with a high specific heat; and although it would be unfair definitely to apply results obtained from hybernating dormice to a man suffering from fever, I think we may say that at present there is no evidence that in man the rise of temperature is due to a diminution of the specific heat of the body, as whatever the temperature of these dormice their specific heat varied very little, for reference to the paper from which I have quoted will show that experiments conducted for the same time usually gave nearly the same specific heat. Further, there is no reason to believe that the human body disobeys the law that the specific heat increases with the temperature, and, therefore, until the contrary is proved we must suppose that, other things being equal, it takes a few more calories of heat, and therefore requires a greater production of heat to raise the temperature of the body from 104° to 105° than it did to raise it from 98° to 99°.

### Comparison of the Variations of the Loss on Heat with Variations of Internal Temperature.

The communication which Dr. Waller made to the Physiological Society on November 11th, 1893, suggests the possibility of easily finding out whether in man the production of heat is increased when the temperature is raised, and of studying in detail the means employed to keep the temperature constant in health. It is clear that when the surface temperature of the body rises the loss of heat by radiation and conduction will be increased, and that when the amount of sweat secreted is increased the loss of heat from evaporation is increased, so that if in any case it can be shown that the internal temperature has risen, and at the same time the surface temperature has risen and the amount of sweat secreted has increased, the production of heat must have increased, provided that the temperature of the surrounding air is constant, and in the wards of a hospital it is kept nearly so.

I will now describe the means I have employed to obtain these data.

*The Internal Temperature.*—This is taken with an accurate self-registering clinical thermometer. When only slight variations are expected, it should be taken in the rectum or the axilla, for the rapidity of respiration and the temperature of the respired air affect the mouth; but when, as in many cases of fever, the temperature is raised several degrees above normal, an observation taken in the mouth will suffice, and if the observer is single-handed it is a great convenience to take it in the mouth, for the internal temperature, that of the surface, and the amount of sweat secreted should all be observed simultaneously.

*The Surface Temperature.*—This should be taken with a flat-bulbed thermometer held gently on the skin until the index is stationary; if it be held too firmly the pressure exercised will send up the mercury. The skin of the abdomen near the umbilicus is the best place to take the temperature, for the skin here is less liable than that elsewhere to transient variations of temperature from exposure to currents of air. The temperature registered by the thermometer does not represent that of the skin with absolute accuracy, for part of the bulb is exposed to the air, and the skin covered by the bulb slowly gets warmed because the bulb protects it, but as my object has always been to obtain comparative, not absolute, results these errors are of no importance. I exposed the extensor surface of my forearm for some hours to the sun; the vessels consequently dilated, and the part was red: the surface thermometer showed the temperature at a spot well inside the margin of the red area to be 34·25° C., one-third of an inch outside the margin—the vascular dilatation here being just visible—it was 33.25°; and some distance from the red patch the temperature was 32.5°. I have tried this experiment several times and the differences are always well shown. It is of interest to observe that even extreme vascular dilatation quite as great as is observed in any fever, only increased the surface temperature of the skin 1.75° C.

*The Estimation of the Sweat.*—This was estimated by using calcium chloride as an absorbent. It was fused into the bottom of a shallow circular glass box. When a reading is taken the box is held inverted on the skin for a given time (in the observations I have made I have, except in a few preliminary cases, always held it for ten minutes) and the difference in its weight before and after gives the amount of sweat secreted. It is best held with one finger so that the heat of the hand shall not affect it. The most suitable place at which to take an observation is on the skin near the umbilicus. To obtain accurate results the boxes must not be weighed directly after they are removed from the skin, for the glass has been warmed by the skin, consequently it displaces more air and warm air currents proceed from it while it is on the pan of the balance, and I always found that as it cools its weight slowly increases.

As the calcium chloride would otherwise absorb moisture from the air, each box is provided with an air-tight glass lid, which is taken off immediately before the glass box is put on the skin, and is put on again immediately the box is taken off. The box is always weighed with its lid on.

## LECTURE II.

### Temperature Raised by Hot Bath.

Dr. Hale White commenced his second lecture by relating certain experiments made on himself:

#### Hot Bath.

*Experiment 1.*—At 7 P.M. the temperature in the mouth was 98.2° F.; of the abdominal surface 93.7°; and in ten minutes 2.4 milligrammes of sweat were yielded by the abdomen. At 7.25 a bath at 112° F. was entered: it was left in 14 minutes, when its temperature had sunk to 108° F. The observer felt faint, and was breathing deeply; at 7.45 the temperature in the mouth was 103.2° F.; of the abdomen, 94.5° F., and the quantity of sweat in milligrammes in 10 minutes was 185.7. At 8.5 P.M. the temperature in the mouth was 99.5° F.: at 9 P.M. it was 98.0° F. The abdominal surface temperature was 92.8° F., and the sweat was 1.5 milligramme.

*Experiment 2.*—At 3.30 P.M. the temperature in the mouth was 98.2° F.; of the surface, 92.3° F., and the sweat 1.5 milligramme. At 3.40 a bath at 112° F. was entered; it was left in 14 minutes, when its temperature had sunk to 106° F. Faintness and rapid breathing were not so marked. At 4 P.M. the temperature in the mouth was 101.0° F.; of the surface, 93.7° F., and the sweat in 10 minutes was 92.4 milligrammes. At 5 P.M. the temperature in the mouth was 98.2° F.; of the surface 93.7° F., and the sweat was 3.9 milligrammes.

#### Turkish Bath.

Before the bath the temperature was 98.8° F., and the surface temperature of the abdomen 90.5° F.; milligrammes of sweat from the abdomen in 10 minutes, 2.2. One hour and 20 minutes was spent in the hot rooms, mostly at 120° F., but for some time at 150° F. and 190° F. Shampooing and a shower bath followed, and the surface was dried. The temperature in the mouth was then 99.8° F., of the surface 92.3° F., and the sweat in 10 minutes 46.1 milligrammes.

Commenting on these experiments Dr. Hale White said that the temperature rises in the hot bath owing to the fact that the hot water stops the loss of bodily heat by radiation and conduction, and prevents evaporation of sweat. Probably the hot water does not warm the body much in so short a time, as the specific heat of the body is high. In both these experiments I could, by watching the skin, see that the secretion of sweat did not begin to be very profuse till a few minutes after I was out of the bath, but by ten minutes after it was extraordinarily abundant. It will be seen that in all respects the first bath produced more marked effects than the second; probably this was because the second cooled the faster. But both experiments teach that the evaporation of sweat is by far the most important agent in reducing the bodily temperature when it has been artificially raised by a bath, and it will be noticed that when such a large amount of sweat is secreted the surface temperature is lower than it was either before the experiment began, immediately after the bath, or some time after the experiment, when the secretion of sweat is nearly normal. This is

no doubt due to the rapid evaporation of the sweat, and this means of reducing the temperature is so energetic that it actually makes the loss by radiation and conduction less. Other striking facts are the rapidity with which a normal temperature is regained and the enormous quantity of sweat secreted. The Turkish bath experiment also showed what a very energetic agent sweating is in reducing an artificially-raised temperature, for after sweating profusely for eighty minutes in the bath the sweat was still being secreted twenty times as fast as before the bath, but the quantity was not enough to make the surface temperature lower than before the bath.

### TEMPERATURE RAISED BY DAMAGE TO THE BRAIN.

In two papers[2] I have shown that damage to the corpus striatum in rabbits raises their internal temperature. So many experimenters have confirmed this observation that I need not now trouble you with the details.

Many instances in which the temperature has been raised in man after a hæmorrhage into the corpus striatum have been recorded by Bourneville, Ferrier, J. H. Bryant, myself, and others, and references to these authors will be found in an address I gave at a meeting of the British Medical Association at Bristol in 1894.[3] These cases show that if after a hæmorrhage takes place into one corpus striatum the temperature is raised, it will be higher in the opposite or paralysed axilla than in the axilla on the non-paralysed side, and that the temperature on the paralysed side remains higher than that on the other even during the subnormal period which succeeds the rise. I have seen several cases which illustrate this, and I will show you charts of two of them (see Charts 1 and 2), and since I began to investigate

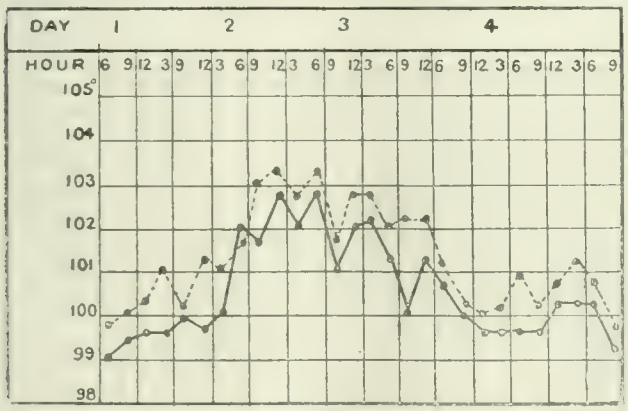



Chart 1, showing the temperature after hæmorrhage into the corpus striatum on one side. The dotted line shows that in the axilla on the side opposite to the hæmorrhage; the straight line that on the same side as the hæmorrhage.

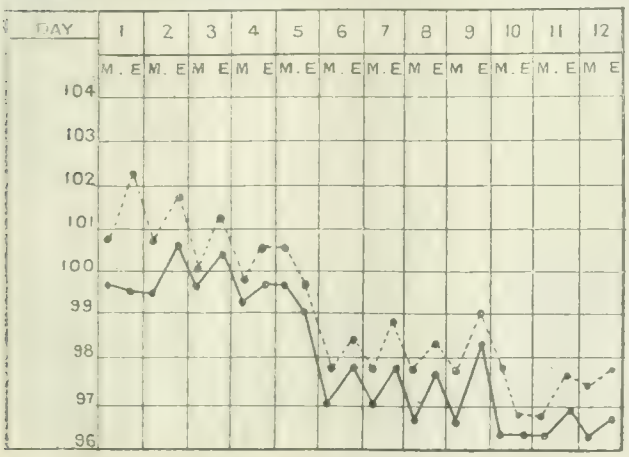



Chart 2.—From another but similar case to the preceding.

surface temperatures two more such cases have come under my care. They gave the following results:

| Temperature in Two Cases of Left Hemiplegia Due to Right Cerebral Hæmorrhage. | | Temperature in Axilla. | Difference in Axilla. | Surface Temperature (Forearm.) | Milligrammes of Sweat (Forearm). |
|---|---|---|---|---|---|
| | | F | ° | ° | ° |
| Case III. | Paralysed side ... ... | 100.8 | +0.8 | 92.8 | 41.1 |
| | Non-paralysed side ... | 100.0 | — | 92.8 | 21.2 |
| Case IV. | Paralysed side ... ... | 97.8 | +0.8 | 93.6 | 5.4 |
| | Non-paralysed side ... | 97.0 | — | 92.3 | 6.1 |

It will be seen that in both these cases the temperature was always higher in the paralysed axilla—that is to say, the internal temperature was higher on the paralysed than on the sound side. In the first case the surface temperature of the two arms was equal, but the amount of sweat secreted on the paralysed arm was much greater than on the other, therefore the loss of heat must have been more rapid on the paralysed side; but as in spite of this the internal temperature was raised, the quantity of heat in the paralysed arm must have been greater than that in the unparalysed arm. In the second case, on one occasion the secretion of sweat was almost equal on the two arms, and on two other occasions it was greater on the paralysed side. The surface temperature was always considerably greater on the paralysed arm, so that here the losses from evaporation, radiation, and conduction are all greater from the arm with the higher internal temperature; therefore in this case, too, the quantity of heat must have been considerably greater in the paralysed arm than in the other. In neither case was there any visible dilatation of the vessels on the paralysed side, nor have I ever observed, even when the difference of temperature has been considerable, any dilatation of the vessels on the paralysed side in hemiplegia. This is evidence against the view that the increased temperature on the paralysed side is due simply to there being more blood in the paralysed arm, and when we remember that damage to the central nervous system, whether experimental or clinical (it is the commonest cause of hyperpyrexia in man), frequently causes such a high temperature that we must suppose the production of heat to be increased, the observations I quote do lend strong support to the view that when in hemiplegia the temperature is raised in the paralysed axilla the increased quantity of heat in the paralysed arm is due to a greater production of heat in the paralysed than in the corresponding unparalysed limb. If this is so we have an instance in which a lesion that paralyses the motor function of muscle excites the thermogenetic, and thus we see that the functions are distinct.

### TEMPERATURE RAISED IN FEVER.

In any fever the general conditions and temperature of different patients vary very much, and, therefore, single observations would be of little value. I have consequently made several observations on different patients in the following fevers, and if all the cases of any particular fever point in the same direction we shall probably be justified in drawing conclusions. I have always compared the observations made on a patient with a febrile temperature with those made on the same patient before he got up, but when his temperature was normal, or very nearly normal, unless his death prevented this.

1. *Typhoid Fever.*—In all cases the amount of sweat secreted during the fever was small, and less than when the temperature had fallen, therefore during the fever the loss of heat from evaporation was diminished. Also in every case except one the surface temperature rose less than the internal; in other words, the loss from radiation and conduction was not increased proportionately to the rise of internal temperature, and was therefore, relatively to the internal temperature, less during the fever. Thus, there is distinct evidence that in typhoid fever the loss of heat is relatively to the rise of temperature diminished, and this diminished loss no doubt helps to raise the internal temperature. Still, as the

surface temperature always rose considerably, the actual loss by radiation and conduction must have increased during the fever, and probably the decreased secretion of sweat was not enough to counteract this. Therefore, we may conclude that although certainly in typhoid fever the pyrexia is partly due to a lessened loss of heat, yet probably, too, the production is increased. Typhoid fever is remarkable in that, although it is a long-lasting disease with a high temperature, it has a low mortality, and these results suggest that one reason for this may be that the temperature is raised with the least expenditure of energy, for it is obviously more economical of energy to raise the temperature by diminishing the loss of heat than by increasing the production. Then, too, it is interesting to note that experience has shown that the best way to reduce pyrexia in typhoid fever is by sponging, that is, by increasing the loss of heat. It is well known that the internal temperature of typhoid fever is irregular as convalescence approaches, and the same is true of the surface temperature. In one case as the patient got worse the surface temperature approached the internal—that is to say, he was dissipating energy the faster.

2. *Pneumonia.*—In all cases except one the excessive sweating associated with the crisis lasted some days after it. This sweating must aid in keeping down the temperature after the fever. In every case during the fever the secretion of sweat is less than when the temperature has fallen, but as then the secretion is still rather more than in healthy individuals and in typhoid fever patients whose temperature has fallen, probably the sweat secreted during fever is not much less than before the fever began. Therefore it appears that the diminution of the loss of heat owing to a diminution in the amount of sweat secreted plays but a small part in raising the temperature. In only two cases did the surface temperature rise less than the internal, and in two it rose more (this explains the hot skin of pneumonia); therefore often in pneumonia the loss by radiation and conduction during the fever must be enormous. As, therefore, in pneumonia the loss of heat is so increased that the rise of temperature is for the most part due to an increased production of heat.

3. *Erysipelas.*—In both these cases observed the sweat was increased during the fever, and the surface temperature rose more than the internal temperature, so the dissipation of heat by evaporation, conduction, and radiation must have been very much increased. Consequently, the rise of temperature must have been entirely due to an increased production of heat, and not at all to a diminution of the loss.

4. *Suppuration.*—Here the considerable amount of sweat secreted after the abscess was opened and the temperature had fallen, appears to show that sweating helped to keep the temperature down. In the first case at least the quantity secreted during the fever was so small that the raised internal temperature may have been partly due to a diminished loss of heat from lessened evaporation. In both cases, too, there was a diminished loss from radiation and conduction, for the rise of surface temperature was less than that of the internal temperature; in fact, on one occasion the surface temperature was actually lower during the fever than when the internal temperature had fallen, and that although there was no excessive evaporation of sweat to bring it down. We may conclude that in these two cases of suppuration the raised internal temperature was, in part at least, due to a diminution in the loss of heat.

5. *Tubercle.*—Although the temperature fluctuates considerably tuberculous patients are always suffering from their disease, and therefore it is very difficult to obtain a normal standard. Consequently I do not think the figures teach much about the process of this fever. The amount of sweat secreted was large in the cases observed even when the temperature was low, so that no doubt the increased secretion of sweat is often the cause of the fall of temperature. It is interesting to notice that, on the whole, the cases of general tuberculosis secreted less sweat than those of phthisis. In both forms of disease the surface temperature is, as a rule, low; this may be due to the large amount of sweat. As the evaporation of this sweat must lead to a considerable loss of heat it is probable that in tubercle the production of heat is, as a rule, increased.

It appears from these observations that in some fevers the pyrexia is, in part at least, due to a diminished loss of heat; in others this is of but slight importance, and then the production of heat is very great; and this result goes to prove the truth of the suggestion I made earlier—namely, that the processes which lead to a rise in temperature are different in different fevers. We have also incidentally learnt much about the surface temperature, and the secretion of sweat in the fevers we have considered.

Before leaving this subject I should like to draw your attention to some interesting figures obtained from a case of leucocythæmia. There was one white corpuscle to every ten red. The hæmoglobin was reduced to 17 per cent. of the normal, and the red corpuscles to 24 per cent. An observation gave the following result. The temperature of the mouth was 102.2°. The surface temperature at the umbilicus was 102.2°. The amount of sweat secreted in ten minutes was 1.2 mg. There are two points of interest here. First we have the high surface temperature with very little sweat; probably it would be impossible to have so high a surface temperature if there were much sweat, for the evaporation of the sweat would reduce it. Secondly, as the surface temperature was so high the loss by radiation and conduction must have been excessive, so the production must have been very high, and therefore even the small amount of hæmoglobin and the plasma carried between them enough oxygen for the metabolism necessary for this increased production. My best thanks are due to my house physicians, Dr. A. Salter and Mr. C. J. Harnett, for much help in these investigations. I have many observations on other fevers which I hope to publish subsequently.

Maragliano has published some observations which show that in some fevers the temperature depends very much upon the state of the cutaneous circulation—that is to say, upon the loss from radiation and conduction. He[4] applied the plethysmograph to the arm of fever patients after experiments on healthy men, and, in the fevers upon which he experimented, he found that as the temperature rose the volume of the arm diminished, and as the volume of the arm is chiefly dependent upon the flow of blood through the vessels of the skin, it follows that this was diminished; in other words, less heat was lost by radiation and conduction when the temperature rose.

In one case, a man suffering from malaria, the contraction of the vessels preceded the rise of temperature; this is very strongly suggestive that it was the cause of it. In another case, a young man suffering from ague, the vessels began to dilate before the temperature began to fall—a fact which also strongly suggests that the fall of temperature was due to the increased vascular cutaneous dilatation.

I should like now to refer to some observations which Dr. Archibald Garrod and I made upon each other with the object of finding out how healthy individuals varied their loss of heat under different circumstances. In five pairs of observations, all made after dinner in the evening, the temperature of the mouth of both of us was almost the same, but four times out of the five my surface temperature was higher than his—on two occasions as much as 3.6° F. A possible explanation for the fact that on the other occasion my surface temperature was lower than his, is that we made the observations in his house, which is about 200 yards from mine, and on the evening on which this observation was made I strolled to his house after dinner while there was a cold north-east wind blowing. On four out of the five occasions I sweated more than he did. The whole amount I perspired during the five observations was 15.3 milligrammes, but his total amount was only 11.1, so that I perspired 38 per cent. more than he did. As, therefore, my surface temperature was higher, and the amount of sweat that I secreted was greater, I lost heat from radiation, conduction, and evaporation faster than he, and therefore my production per kilogramme was greater than his. We consequently learn that even healthy individuals vary much in their production and loss of heat.

It is well known that muscular contraction is accompanied by a rise of temperature; therefore, were it not that the loss of heat is increased during exercise the temperature would always rise. In fact, often the increased loss does not compensate for the increased production, and so the temperature does rise. Jürgensen found that the work involved in sawing wood for six hours raises the temperature of a healthy

man 1.2° C. above normal. Davy showed that walking for two or three hours raised the temperature of the urine 0.8° C. Clifford Allbutt found that Alpine climbing raised the temperature of the mouth half a degree, and Liebermeister and Hoffman found their axillary temperature raised by the exertion both of coming up and going down a mountain. Hobday, too, has taken the rectal temperature of omnibus horses, and he finds that it is raised about 2° C. by hard work. Dr. Garrod and I thought, therefore, it would be of interest to make a series of observations on the effect of exercise on each other. A bicycle ride of seventeen miles in a high, dry, cold wind reduced the internal temperature of Dr. Garrod by 1.0, and my own by 0.8 of a degree. I do not think this can have been due to the inhalation of cold air cooling the mouth, for we did not take the temperature of the mouth until we had been in the house for twenty minutes after the ride, and it must have been due to the rapid loss of heat caused by our going quickly through the high, dry, cold wind. With the exception of this bicycle ride exercise always raised Dr. Garrod's internal temperature, while mine was either unaltered or raised, but, on the whole, much less affected than his. There are other interesting points of contrast between us. Dr. Garrod's surface temperature was always considerably raised by exercise, while mine was usually slightly diminished. On the other hand, he sweated but little in comparison with me, for his average increased amount of sweat was 3.5 milligrammes, while mine was 7.05. The difference is really greater than this, for I took two bicycle rides in a cold dry wind to his one, and in a very dry wind the sweat evaporates fast, and consequently not much is secreted when the observation is taken. Apparently, therefore, we are different in our methods of accommodating the loss of heat to the increased production due to the muscular exercise; he chiefly increased his radiating and conducting power; I chiefly increased my loss by evaporation. We have, therefore, a demonstrated proof that different people accommodate differently. Further, when at rest my surface temperature is always higher than Dr. Garrod's, and I perspire more than he does: in other words, I lose heat faster, and, therefore, must produce more calories per kilogramme. As in fever, so here the data are not sufficient for us to say how many calories of heat the muscular exercises causes to be produced; we can only say that it must at least have been more than a certain number: for instance, my weight without my clothes is 61 kilogrammes; supposing the effect of exercise was to raise my temperature 0.5° C., and the loss by radiation, conduction, and evaporation were all increased, then I, as soon as when taking exercise I had raised my temperature 0.5° C., I must have produced at least more than an additional 30.5 kilogramme Centigrade calories, as my specific heat is nearly that of water.

REFERENCES.

[1] These experiments were related and discussed in the *Journal of Physiology*, Supplementary Number, 1892. [2] Published in the *Journal of Physiology*, vols. xi and xii. [3] BRITISH MEDICAL JOURNAL, November 17th, 1894. [4] Das Verhalten der Blutgefasse im Fieber und bei Antipyrese, *Zeit. f. klin. Med.*, Bd. xiv., 1888.

# REPORTS OF SOCIETIES.

## OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

E. NETTLESHIP, F.R.C.S., President, in the Chair.

*Thursday, June 10th, 1897.*

### FILARIA LOA.

DR. ARGYLL ROBERTSON read notes of the further history of a case of filaria loa previously reported to the Society. The chief point of interest arose from the circumstance that on returning to Old Calabar the patient was again troubled with the appearance of a worm in different parts of the body, and on one occasion a worm was removed by a missionary who possessed some medical skill from the abdominal wall in the left lumbar region. The parasite thus removed was sent to Dr. Robertson for examination. Unfortunately the preparation was imperfect, consisting merely of the uterine tubes and appendages and alimentary canal of a filaria. The embryos in the uterus presented all the characters of the embryos found in the interior of a female filaria loa. It would thus appear that the filaria loa does not confine its visits to the neighbourhood of the eye or eyelids, but may appear under the skin of any part of the body, attracting attention only when it appears at a part where the skin is thin and sensitive, or when it presents itself under the delicate thin conjunctiva. The blood drawn at different periods of day and night, the urine, the fæces, the saliva and nasal mucus were all carefully examined by Dr. Robert Thin, the patient's medical attendant, for the presence of embryo filariæ, but the result was negative. The preparation of the parasite from the abdominal wall, and the preparation of a female filaria loa removed from the same patient's eyelid were exhibited microscopically.

### SYMPATHETIC OPHTHALMIA.

MR. F. R. CROSS related some cases. Ten years ago he had reported to the Society a series of cases in which Mules's operation had been done instead of enucleation; in 2 of them mild sympathetic ophthalmia had occurred seventeen and twenty-one days respectively after the operation. He now reported a serious case of sympathetic ophthalmia occurring after evisceration of the sclerotic. A boy, aged 15, had been struck with a stick three weeks before he was first seen; there was a perforating wound of the left eye in the sclero-corneal region, with prolapse of the iris and traumatic cataract. Vision was barely p. l. The right eye was well V = $\frac{6}{6}$ and J. 1, pupil active, media and fundus n. The left eye was eviscerated on the day of admission, and a small glass vitreous was introduced. Considerable chemosis followed, and on the fourth day a few conjunctival punctures were made, after which recovery was uninterrupted. The patient was discharged from the hospital apparently quite well fourteen days after the operation; twenty-six days after, on August 18th, he returned with irido-cyclitis in the right eye; there was ciliary injection, discoloured iris, small sluggish pupil, posterior synechiæ, hazy media T.n.; V = $\frac{5}{60}$. The eye had become irritable a day or two after leaving the hospital. The stump of the eviscerated eye was at once removed; atropine, and later scopolamine, were used, and a dark bandage was applied. The eye gradually improved, but the pupil did not dilate well till nearly two months later. On stopping the mydriatic the iritis recurred at once, and it was found necessary to continue the treatment and dark bandage for three months longer. The patient remained in the hospital seven months after removal of the stump. Recovery seemed to have been complete; the pupil acted well; the fundus and media were normal—V = $\frac{6}{6}$ and J. 1. The author was of opinion that enucleation in the first instance instead of evisceration would probably have prevented the sympathetic inflammation in the other eye. Destructive irido-cyclitis, however, did occur in the other eye some time after enucleation for injury, and the author quoted cases illustrating this.

MR. ADAMS FROST thought that Mr. Cross's case was to be considered as one of those in which sympathetic inflammation in the other eye had occurred after enucleation, and that it did not bear on the question of the safety of evisceration. In his experience Mules's operation was very satisfactory; he had had 1 case of nine years' duration, 1 of eight, and perhaps 12 of more than four years' duration, and in none of his cases, which had healed completely without leaving a fistulous opening, was there any after-trouble; the stump was not irritable as frequently as after excision.

MR. BICKERTON, referring to Mr. Cross's cases, said that in all three of them the recovery was perfect; he himself had had one case of sympathetic inflammation after Mules's operation, in which also there was a complete recovery, so that the sympathetic inflammation in these cases did not appear to be very serious. What was wanted was a case of sympathetic ophthalmia after Mules's operation in an eye which could not of itself have started the inflammation, as for instance a glaucomatous eye, before it could be said that the inflammation was the direct result of the evisceration.

MR. CRICHETT and DR. ARGYLL ROBERTSON thought that the percentage of cases of sympathetic inflammation after excision was extremely low.

The PRESIDENT agreed with the two last speakers, and thought it would be hazardous to act upon the supposition

that sympathetic ophthalmia, after evisceration, was less severe than the other forms.

In answer to Mr. Treacher Collins, Mr. Cross said that the stump had unfortunately not been examined to see whether the choroid had been completely removed.

### Optic Atrophy following Injury, chiefly of the Anterior Part of the Head.

Mr. Simeon Snell reported a series of cases. There were four of direct injury to the nerve by penetrating wounds of the orbit, in three of which objective signs of pallor of the disc appeared quite early in the cases. Seven cases followed injury to the eyebrow; one followed injury to the malar region, and one to the frontal and malar region; in another the frontal region only was injured; in another the parietal, and in another the occipital were the injured regions. Although injuries to the anterior part of the skull were those most likely to be accompanied by injury to the optic nerve, yet danger to other parts might have the same effect. In three out of four of the illustrations in Treves's *System of Surgery* showing the lines of fracture, the optic foramen was involved. In most of the cases brought forward, vision in the eye was totally destroyed, but in five of the cases there appeared to be an area in which perception of light was retained. In one case blindness resulted in both eyes, showing that either both nerves or the chiasma were injured. The lesson to be learnt from the medico-legal standpoint was that a guarded opinion should be given in the early stages of an injury in which the patient complains of blindness, and in which no objective signs can be made out, as it is possible that decoloration of the disc may ensue after three or more weeks' interval.

Mr. Bickerton spoke of the interest of these cases in cycling accidents.

Mr. Lindsay Johnson remarked on the frequency of injury to the optic nerve following blows on the head in animals.

Mr. Critchett spoke of a case in which a blow on the nose had been followed by double optic atrophy; when he saw the case there had only been one recorded instance of this; he gave his opinion that the blow had caused the injury.

The President said it was important to distinguish between immediate and remote loss of sight.

### Card Specimens.

The following were the card specimens:—Mr. J. R. Lunn, (1) Foreign Body in the Orbit, four years; (2) Double Facial Palsy, Deafness, and Ulceration of the Cornea. Mr. Jessop, Intraocular Tumour.

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Anatomical Society of Great Britain and Ireland.—The summer meeting of the Anatomical Society was held in the Medical School, Trinity College, Dublin, on June 10th and 11th, under the presidency of Professor Thane, of University College, London. The attendance was large, and, as already stated, many foreign professors were present as guests. The hospitalities included a reception by Professor and Mrs. Cunningham on the evening of June 9th; on the following evening the members were entertained at a banquet by Dr. James Little, President of the Royal Academy of Medicine. The toast of "The Society" was responded to by Professor Thane, and of "The Guests" by Professor Waldeyer. On the evening of June 11th the Provost and senior Fellows of Trinity College received a large party at dinner in the Great Hall. There was in addition much private hospitality. On June 12th many of the members and guests left for Killarney on an excursion organised by Dr. W. Haughton. On June 11th Professor His gave an important address in the new theatre of the Royal Dublin Society on The Development of the Brain and the Nerves in connection with it. There was a large audience. Altogether the meeting passed off with undoubted success. The following was a list of communications: Thursday: Specimens: Thomas H. Bryce, M.A., M.D.: A pair of Negro Femora, the left of which shows a remarkable development of the popliteal surface.—Professor W. Spalteholtz (Leipzig): Stereoscopical photographs illustrating the distribution of the Arteries in the Human Skin.—Professor H. Leboucq (Ghent): The ossification of the Terminal Phalanges of the Finger in relation with hyperphalangy.—Professor A. Birmingham: Models and specimens illustrating the topographical anatomy of certain of the Abdominal Viscera.—Dr. Kaestner (Leipzig): Some specimens and photographs of Malformed Chick Embryos.—Papers: Dr. Otis (Boston, U.S.A.): Some points in the Structure of the Rectum.—Professor A. Macalister, F.R.S.: A study of Australian Brains.—James Cantlie, M.A., M.B.: On the position of the Gall Bladder.—Professor R. Howden, M.B.: Note on a case of marked Distension of the Colon.—Professor Redfern, M.D.: Observations on the Development and Nutrition of Bone and Cartilage, and on the relations of connective tissues to each other in health and disease.—Professor B. C. Windle and F. G. Parsons, F.R.C.S.: Note on some points in the Nomenclature of Comparative Myology.—Thursday, June 10th, Afternoon Meeting, 2.30 p.m. Papers and Lantern Demonstrations: Professor Disse (Marburg): The Development of the Olfactory Nerve in Birds.—Professor W. Spalteholtz (Leipzig): Reticulated Tissue: its relation to the cells and its arrangement in different organs.—Professor A. F. Dixon, M.B.: Some Points in the Development of the Eye Muscle Nerves in Mammals.—E. H. Taylor, M.D., F.R.C.S.: Demonstration of the Applied Anatomy of the Rectum (illustrated by lantern slides).—Professor D. J. Cunningham, F.R.S.: 1. The development of the Fissure of Rolando and the relation which this presents to the growth of the functional areas of the cortex. 2. The development of the Calcarine Fissure (lantern demonstration).—Friday, June 11th, Forenoon Meeting, 11 a.m.: Specimens: Professor Karl v. Bardeleben (Jena) and Dr. Frohse (Berlin): Specimens illustrating the finer ramifications of Nerve-filaments supplying Muscle.—C. J. Patten, M.B.: 1. Two Curious Modifications of the Lower Jaw. 2. Cervical Vertebra in which the Laminæ have not fused.—Professor D. J. Cunningham, F.R.S.: Models and Specimens illustrating the form, position, and relation of the Kidneys.—Papers and Lantern Demonstrations: G. Elliot Smith, M.D., C.M.: Observations on the Morphology of the Fornix and Margin of the Cerebral Cortex.—Professor B. C. Windle, M.D., Sc.D.: Priestley Smith's Formol Method of mounting specimens of the Eye.—Professor R. Howden, M.B.: Note on a case of Bifid Scrotum.—Dr. C. de Bruyne (Ghent): Adaptation Fonctionelle de la Phagocytose.—Richard J. Berry, M.D.: Some points concerning the Anatomy of the Cæcum and Vermiform Appendix (lantern demonstration).—W. Booth Pearsall, F.R.C.S.I.: On the Linear Determination of the Human Toothform.—William S. Haughton, M.D.: Some applications of X-ray Photography to Anatomical Investigation.—Professor D. J. Cunningham, F.R.S.: 1. Note on the Cape Hunting Dogs (*Lycaon Pictus*) in the Gardens of the Royal Zoological Society of Ireland. 2. Lantern Demonstration of the deep connections of certain of the Cranial Nerves (fourth, sixth, and seventh) in the Orang and the Chimpanzee.

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Wigan Medical Society.—At a meeting on June 3rd, the President, Mr. C. I. Street, in the chair, the President read his address on The Refusal of Food and Feeding. A discussion followed, in which Messrs. Graham, R. P. White, Brady, Monks, Rees, Blair, Milroy, and Macdonald took part. The President replied. A cordial vote of thanks was accorded to Mr. Street for his interesting address.—Dr. Benson showed a Radiograph of a coin impacted in the Œsophagus taken by Mr. Thurston Holland of Liverpool. He related notes of the case, and described the method of removal (after being lodged for nearly six months), and exhibited the coin. The child was now quite well. A discussion ensued, Messrs. Brady, Rees, White, Graham, Monks, Blair, Milroy, and the President taking part in it. Dr. Benson replied.

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A Temperance Congress in Belgium.—An International Congress for the Repression of the Abuse of Alcoholic Drinks will be held in Brussels from August 30th to September 3rd. Addresses will be delivered by Drs. Mottet of the Paris Academy of Medicine, Legrain, of Paris, Lefebvre, of Louvain, and several other members of the medical profession, Belgian and foreign. The General Secretary of the Congress is Dr. de Vaucleroy, 290, Avenue Louise, Brussels.

# HOSPITAL EVOLUTION IN THE VICTORIAN ERA.

## OLD AND NEW IDEAS AS TO HOSPITALS.

AMONG the modes adopted for celebrating the fact that the Queen's reign has now exceeded in length that of any of her predecessors, schemes for benefiting the hospitals of the country, and especially those of London, occupy so large a place that one is tempted to cast one's thoughts backward, and consider how different was the position of these institutions at the time when Her Majesty ascended the throne from that which they occupy now, after her reign of sixty years.

The changes which have happened during these years have been so various and so great, and the conditions of life at the present time are, in many ways, so absolutely different from what they were at the beginning of the reign, that it would be idle to suggest that the growth of the hospital idea is the most striking event of the period. Nevertheless, those who have taken the trouble to observe the social changes which have occurred around them during recent years can hardly have failed to be struck by the great alteration which has occurred in the view taken by the people in regard to entry into the hospitals, and by hospital managers in regard to the standard of comfort and of medical relief which it is proper to offer to hospital patients.

The old idea that a hospital was to be looked upon as an asylum or refuge from the buffetings of the outer world has died away, and given place to the modern notion that it is a great and complicated piece of machinery, every detail of which, however obscure at first sight its meaning may appear, has for its aim and object the cure of the patient and his restoration to health.

The elaborate system of nursing, the constant visits of the medical officers, the great frequency of operations, the continuous tabulation and comparison of results, and lastly, the very shortened stay of patients in hospitals nowadays, all point to the fact that these institutions are no longer looked upon as places of refuge, but as places of cure; and this, undoubtedly, is the key by which are to be explained many of the changes which have taken place in their construction, in their management, and in the character of the cases which are now admitted to their wards.

It is impossible to understand the reasons for all the changes which have taken place in hospital construction and in hospital management during the Victorian era, unless we bear in mind some of the great changes which have at the same time occurred in the social and economic condition of the poor, for whose relief these hospitals were intended.

## THE SOCIAL CONDITION OF THE POOR.

The poor we have always with us, and even now, no doubt, a large number of the labouring classes are very poor. But we do not now see what those did who lived in 1832—viz., a whole country steeped in poverty, and a Poor Law so arranged that it was next to impossible for those who had received its dole again to rise to independence.

It was in the early part of the last century that workhouses were established and that the workhouse test was introduced, those who refused the shelter of the poorhouse being struck off the poor's roll and refused relief. But towards the end of the century a great relaxation took place in the rigour with which the Poor Laws were administered. In 1796 the workhouse test was removed, and from that date onwards outdoor relief became the rule. The effects of this change were disastrous. In many places it was soon found that pauperism swallowed up three-fourths of the rent, and it became an almost universal custom for relief to be given to ordinary labourers, thus lowering the current rate of wages to such an extent that no man could live on them alone, and that it became next to impossible for anyone to rise above the almost universal pauperism which was the rule throughout the country districts.

In 1834, as the result of a report by a Royal Commission appointed to inquire into the whole matter, the Act was passed under which the poor relief is now administered; and so it happened that when Her Majesty ascended the throne, in 1837, the poor of the country were just settling down to the new condition of affairs—one of which conditions was the use of workhouses as a deterrent to pauperism.

We cannot wonder, then, that the voluntary hospitals of the country, admission to which was almost universally by ticket, became filled with the *protégés* of the subscribers; chronic cases needing an asylum rather than acute cases needing treatment. And perhaps one of the most striking changes which has come over the hospitals, taken as a whole, during the past sixty years, is the elimination of the "chronics" and the filling of the wards with cases of acute disease requiring constant supervision or investigation, and more especially the vast increase which has taken place in the amount of surgical work which is now being done under their roofs.

This change, however, was far from being a sudden one, and, in fact, the old system cannot be said to be dead even yet.

## WHY DEFECTIVE HOSPITALS REMAINED HEALTHY.

In a report on the hospitals of the United Kingdom, made to the Privy Council in 1863 by Dr. Bristowe and Mr. Holmes, the effect of the ticket system of admission on the character of the cases received by hospitals is well described. These authors say that in the country districts of England the hospitals are reserved for the chronic cases.

"In many country hospitals the beds are taken for some time beforehand. In many the subscribers would not think they obtained fair value for their subscription unless their nominee was admitted, however little prospect there might be of his receiving more benefit by treatment at the hospital than at home, and not only admitted, but kept for the full 'term,' as it is called; that is to say, the time during which the letter is good. The consequence is, and must be, that the hospital is looked upon amongst the poor as a private charity, so far as the disease is concerned, and admission into it is sought through private channels, just as into an almshouse; in fact, these country hospitals have become in great measure sick clubs in which the employer pays instead of the patient. . . . Such a hospital, therefore, usually contains a few grave accidents requiring surgical operation amongst a much larger number of chronic invalids who have little more influence on the sanitary condition or the atmosphere of the hospital than if they were in a condition of health. Another effect of this strict adherence to the letter system is that the hospital is seldom if ever full. It is for these reasons we conceive that many country hospitals are said to be "very healthy," and we have no doubt that they are so, although they utterly violate all the rules of construction which experience has shown to be necessary in hospitals for acute disease, and the violation of which in the case of such hospitals is promptly followed by the outbreak of hospital diseases."

The great change in the character of the work done in hospital wards which, in 1863, had not yet materially affected the country hospitals, the change that is caused by their invasion by acute cases and especially by cases of operation, had at that time already taken place in the larger hospitals of our great towns, and had already culminated in the production of such a death rate as to have drawn attention to the question of their sanitary condition.

## WANT OF EXPERIENCE AS TO ESSENTIAL CONDITIONS OF CONSTRUCTION.

The fact has to be recognised that the healthiness of a hospital, under ordinary conditions, is no proof of its being properly constructed, and there is very little doubt that many of the erroneous ideas as to the planning and construction of hospitals which were current in the first half of the present century, were due to the fact that but few of the existing hospitals had been used to the full or had been subjected to that strain which was necessary to show wherein lay their weak points.

From this, it happened that architects were allowed to exercise their sweet will in the erection of buildings pleasing to the eye and admirably fulfilling the purpose of providing monumental "public buildings," but most unfitted for standing the strain of being crowded with operations and acute cases.

Nor could they be blamed. Even in the medical profession there was a considerable dread of fresh air, and the public

looked upon it as anathema. Moreover, the older hospitals gave but little clue to the conditions necessary for the maintenance of health under the new conditions, and finding that patients seemed to do fairly well in buildings of all sorts and shapes, the architects, when asked to draw plans for hospitals, fell in with prevailing architectural fashion, erected really handsome frontages, often in the form of Grecian temples with elaborate porticos, behind which they crowded together the wards for the sick.

Yet even these hospitals did very well so long as they were not fully used, or were, to a considerable extent, occupied by chronic medical cases.

### Why the old Hospitals broke down.

Their arrangements broke down, however, as soon as they became crowded or were largely occupied with serious surgical cases.

As an instance of a hospital, which had been healthy under normal conditions, becoming unhealthy under the strain of full occupation, we may refer to that of Chester, given in the report above quoted.

"Dr. Peacock, who some considerable time since, was for several years house-surgeon to the hospital, tells us that for the first two and a half or three years of his tenure of office, serious accidents and injuries were admitted only occasionally, the wards were never overcrowded, and erysipelas and other hospital diseases never occurred in the cases under treatment. During the last twelve or eighteen months of his time, however, the Chester and Crewe and the Chester and Birkenhead Railways were in course of construction, and many serious accidents from them were admitted into the infirmary, so that the wards devoted to their reception were often overcrowded. The wards became in consequence very unhealthy, erysipelas constantly occurred in them and they had to be temporarily closed."

The experience of the Cumberland Infirmary at Carlisle was the same. No cases of pyæmia occurred for several years after its foundation in 1841, but while railways were being made in the neighbourhood and serious accidents became more numerous, the mortality after operations was distinctly increased, and erysipelas and pyæmia prevailed on more than one occasion. Huddersfield Infirmary again had the same experience during the construction of railways.

The teaching of all this is that the actual good results obtained at any hospital tell but little as to the appropriateness of its plan. Any method of construction will do at times; it is under conditions of strain that the badly constructed hospitals break down.

To what then was the strain upon the hospitals due which caused the outcry as to their unhealthiness which was raised by Sir James Simpson and led to the introduction of the word "hospitalism" into hospital literature? The answer is, Chloroform.

### The Effect of Anæsthetics on the Salubrity of Hospitals.

Until the introduction of anæsthesia, in 1846, no one underwent any operation unless he was absolutely driven to it. The writings of the older surgeons and the older records of the hospitals show that the operations which were performed were operations of necessity—amputations, lithotomies, the removal of malignant tumours, and a few trephinings and ligatures of arteries.

Looking back from these days of absolute anæsthesia and quiescence during operation, one cannot but admire the boldness both of the patient and the surgeon which made it possible to operate at all, when the one had to bear the pain, even to its bitterest extremity, and the other had to perform the delicate manipulations of the operation, however great were the struggles of the patient and however distressing the manifestations of his agony.

Under such circumstances, operative surgery was restricted within the narrowest possible limits. But, with the introduction of anæsthetics, all this was changed; the number of operations which it was possible to perform, and which it was justifiable to advise, was increased every year, and the patients who were willing to submit to the knife, now that they could do so without pain, became innumerable.

This great increase in the operative work of the hospitals seriously affected their salubrity, and the old lesson was enforced again that, for the prevention of erysipelas and pyæmia, light and air and segregation were absolutely essential.

About the same time the terrible experiences of the Crimean war, and the efforts of Florence Nightingale to alleviate the lot of our sick soldiers at Scutari and before Sebastopol, all tended in the same direction, and helped to impress on hospital architects the ever-present necessity of providing light and ventilation far more systematically than had previously been done.

### The Pavilion System.

The result was that the pavilion system of hospital construction became generally accepted, and has ever since remained the ideal at which architects have aimed, although with very varying success.

Not all the light and all the air, however, which was so afforded, could overcome the evils which arose from the aggregation of large numbers of patients suffering from open wounds. The civil hospitals, even the best of them, became affected with hospital diseases, which had been looked upon as the special pests of military surgery.

Undoubtedly, the improved methods of construction which were so generally adopted in the hospitals built after the time of the Crimean war had great influence in diminishing the evils of hospitalism; and particularly was this the case where, as was more especially done in some of the German hospitals, the pavilions were constructed only of one storey in height, and were absolutely separated the one from the other by the abolition of all connecting corridors. All surgeons saw that these hospital diseases were infectious, and were carried from patient to patient, and it became increasingly evident that the smaller the groups of patients under one roof the less was the chance of any of these diseases spreading throughout the hospital. Clearly, the chances of any individual becoming infected were lessened, so far as infection was carried by air, by breaking the hospital up into a number of separate buildings, and for a considerable time the shed system of construction had a great vogue.

### A Reign of Terror.

But for all that, it was clear that something more than mere aërial infection was at work in producing the gangrene and the pyæmia, which, in an intermittent and apparently causeless manner, again and again ran through the wards of our hospitals.

A general timidity seized upon surgeons, especially in France; a dread arose of clean incisions, and strange methods of operating were invented, such as by the *écraseur*, by the actual cautery, and by the use of *flèches caustiques* (short arrow heads made of chloride of zinc and flour), which were inserted all around the part to be removed, with the object making it slough away.

At the same time an infinite variety of modes of dressing were introduced. Wounds were left absolutely open, or they were covered with water dressing, or they were irrigated by a constant stream of water like a dropping well, or they were covered with absolutely dry cotton wool, or this dressing was combined with pressure. Some surgeons went back to the teaching of the monks of old and closed up all their wounds with friar's balsam, while Chassaignac on the other hand invented the drainage tube. Almost every system succeeded in some cases, and especially in its inventor's hands, only to fail as often in other hands and in other cases.

### A Prevision of Aseptic Surgery.

Undoubtedly, in many of these methods there was a germ of what we now call antiseptic practice. But the underlying principle was not understood: all was mere guesswork and empiricism, and as no one could give the reason no one could be induced to follow precisely in the steps of his master.

Looking back from these aseptic days to the time of Chassaignac one cannot but see that the efficacy of his methods depended on their cleanliness. He did his own dressings. One assistant carried a basket of snowy charpie, another a bowl of *vin aromatique*, another a solution of nitrate of silver and a number of sticks armed with cotton wool. On

removing the old dressing the drainage tube was seen, as it should be, just projecting from the surface. With clean charpie the surface was wiped; then the part around the tube was dabbed with silver nitrate by means of a clean swab, then taking a great handful of charpie out of the basket and dipping the lower surface of the mass in *vin aromatique*, the whole was placed upon the wound. No sponging, no water, no touching of the wound, and everything clean and fresh for every patient; we need not wonder then that Chassaignac had success in such cases, abscesses especially, as were fitted for drainage. This was aseptic surgery if he had but known it. But like every inventor this great surgeon rode his hobby hard, and it must be added aimlessly; for like all the rest who succeeded here and there, he knew not why success had come.

Amid this chaos arose the next great influence by which the management and even the construction of hospitals was to be affected.

### Lister.

Working in an insalubrious hospital and surrounded by cases of hospital disease, Lister discovered that the cause of these diseases was a living thing, an infective micro-organism. He discovered also that by taking measures to prevent the growth of these micro-organisms suppuration was prevented, wounds could be made to heal by first intention, and that a stop could be put to that reign of terror which the erratic prevalence of hospital diseases had so long imposed upon patients and surgeons alike.

Thus arose the great doctrine on which all modern surgery is based. Some called it "Listerism," affected to look on it as but yet another system added to the effete ones which cumbered medical literature, and threw no small scorn on its inventor when they found that his methods were continually changing. What Lister discovered, however, was not a method but a principle, and it is to the application of that principle far more than to any improvement in hospital construction that the greater safety of hospital patients at the present day is due.

During the past five-and-twenty years a multitude of surgeons, working in a multitude of ways and amid every conceivable variety of surroundings, have been striving to carry out the principles laid down by Lister. Their methods have been different, their aims even have been different so far as some of them have understood their own aims, the materials and the proceedings employed in different countries, in different hands, and at different times, have varied enormously, so that the onlooker might hardly recognise the slightest link connecting the elaborate processes current in the era of the spray with the apparently simple proceedings which are in vogue among those who practise the so-called aseptic surgery. But, all along, the root principle of all these varied methods has been the same, namely, the protection of all wounds from the action of infective organisms.

### The Influence of Lister's Teaching upon Hospitals.

Although the first triumphs of antiseptic surgery were won amidst the most terribly septic surroundings, and although the successes then obtained remain still the most striking proofs of the truth of the principles on which the treatment was founded, it was soon made manifest that a still greater success could be attained, and by far simpler methods, when the general broad principle, the truly antiseptic principle, of cleanliness was carried far beyond the mere wound, and was made to include the whole patient, his bed, his nurse, his ward, and in fact the whole hospital in which he lived.

The influence of all this upon the hospitals has been very great. The semi-sweet, semi-fetid smell, in reality a smell of pus in various stages of decomposition, which used to pervade the hospitals of old, gave way to strange and searching odours of carbolic acid, iodoform, and other chemical compounds. The signs of the constant conflict which was going on between septicity and antiseptics were patent to the nostrils of every visitor. But these scents, the smoke, as it were of the battle against germs, have passed away; septicity is kept down by sheer force of cleanliness, and the calm after the storm is typified by the simple purity of atmosphere which is now maintained in the wards of all our best hospitals.

### The Trained Nurse.

Intimately connected with these great changes in the inner working of our hospitals has been what, to the outside public, has seemed the greatest change of all, namely, the alteration which has taken place in the character of the nursing and in the *personnel* and position of the nurse.

Perhaps it is not so fully recognised as it should be that the reason for the improved position of the modern nurse is not that she now does better what she did less well before, but that she now does quite fresh things which in old days were not done at all. The *raison d'être* for the trained nurse, whom we now meet in every serious case, is that she carries out the treatment of the patient. Exactly in proportion as the treatment of disease has ceased to be expressible in doses of physic, and has come to include the modification of the whole surroundings of the patient and the carrying out of certain highly technical manœuvres, in proportion in fact as treatment has become continuous, so has it become necessary to have continuously on the spot someone trained in the processes involved. Hence the modern nurse.

### The Nurse of Old.

It must not, however, be imagined that the nurse of to-day, except so far as the knowledge of these technical processes is concerned, is so infinitely superior to the nurse of those days sixty years ago. Still, although it is unfair to speak of the nurses of 1837 as "Gamps," they were very different from the nurses of to-day.

In an old parliamentary report into the conditions of the charities of London, which was issued in 1839, we find that in 1835 St. Bartholomew's Hospital had 5,644 inpatients, against 6,474 in 1894. Probably the average number in the wards was about the same.

But how about the nurses? At the present time, including sisters and probationers, the nursing staff at St. Bartholomew's numbers about 250 persons. Sixty years ago, however, or to be precise, in 1835, the sisters and nurses together numbered only 104, there being twenty-nine sisters and seventy-five nurses. This, however, by no means shows the change which has taken place. It is stated that the nurses "perform all the usual duties of servants, in waiting on and cleaning the patients, beds, furniture, wards, and stairs." One wonders where the nursing came in! They evidently occupied much more the position of ward maids than of nurses[1]. Then we are told that "they receive from the steward 7s. each weekly. They are allowed two gowns and a cap per annum, half a loaf, and a pint of beer daily, with the meat from the hospital broth, also a dinner on Sunday." Fifty of the nurses also took night duty by rotation, and for this they ordinarily had 1s. 9d. a week allowed in addition. It was, however, in contemplation, to provide them with "a dinner of meat and potatoes every day, and make the wages of all 8s. 9d. per week."

The sisters also only had a dinner provided for them on the Sundays, at the cost of the hospital. On referring to the rules, we find one to the effect that "no sister or nurse shall go out of the hospital to fetch porter or other liquor after the outward gates are closed."

Doubtless these good women did well and properly the work that was placed in their way; but we recognise how little that way went towards nursing, in the modern sense of the term, when we picture them scrubbing floors and stairs, finding themselves in food, except for the "meat from the broth," and running out for pots of porter at all hours of the day until the "outward gates" were closed. Talking of beer, it is worth noting, that in those days, every woman on meat diet had a pint of beer and every man two pints of beer a-day.

### New Influences in Hospital Construction.

To return to the question of hospital construction, we see in the introduction of modern systems of nursing, and in the general acceptance of the principles enunciated by Lister, two influences which are sure to tell and indeed have begun to tell upon the architectural mind, and are likely in the future to lead to considerable modifications in the prevalent

[1] A search through the table of expenses of that date shows no sign of any other female servants except in the kitchen and laundry departments.

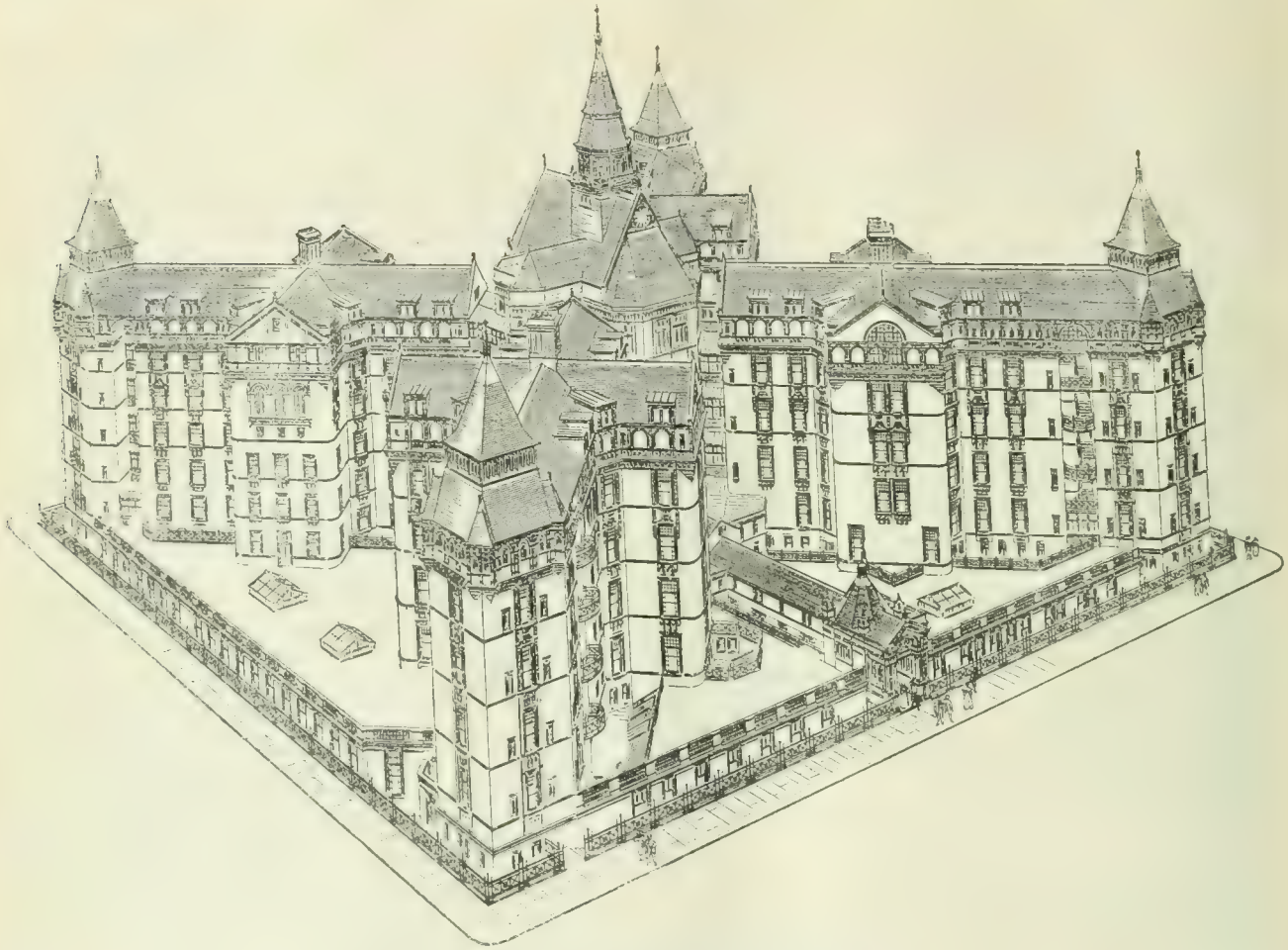


Fig. 1.—University College Hospital (about to be erected).

type of hospital building. A reaction is already visible in regard to the size of the ward. It had been laid down as a sort of axiom that a ward of thirty or thirty-two beds was a good working unit so far as nursing was concerned, but with the growing proportion of nurses to patients which is now looked upon as desirable there is an evident tendency to build smaller wards. Again, with the experience of the last quarter of a century, it has become abundantly clear that while the most perfectly constructed hospitals may become unhealthy with defective management, a careful attention to antiseptic precautions may make it possible to get good results in the midst of the strangest surroundings. Architects have recognised this and have not been slow to advocate a return to a more solid and connected type of building. For thirty years past they have been driven, much against the grain, to erect isolated pavilions, but now in view of the demand for smaller wards and the evident efficacy of modern surgical proceedings in preventing the evils which used to arise from the aggregation of patients—and in view also, be it said, of the apparent success of forced mechanical ventilation in preventing the intermingling of the air even from contiguous wards—a strong tendency is showing itself to revert to a more concentrated and "architectural" style of hospital construction.

### Mechanical Ventilation.

Forced ventilation has no doubt earned for itself a bad name in the history of hospitals. Instance after instance has been adduced in which the most elaborate plans for artificial ventilation have failed and in which recourse to open windows has been attended with the happiest results. But then it may be questioned whether many of the failures which have occurred have not been due to an under-estimation of the mechanical power required and of the size of the airways which are necessary. The introduction of large airways and of engine power in place of chimney draught has made a considerable difference in the position of the question, and there can be little doubt about the success of some of the more recent examples of mechanical ventilation. The Glasgow Victoria Infirmary may be taken as an example of what has been done in the direction of supplying the wards of a hospital with warmed and filtered air on the plenum system, and the new General Hospital which is shortly to be opened at Birmingham will be ventilated on the same plan. While then there is no doubt that architects will endeavour to retain one characteristic of the pavilion system, namely, the large amount of light which it provides for the inmates, there are indications that they will in future feel less tied down than in the past to that scattered form of construction which has of late years been so generally adopted.

### Old and New Buildings.

To show the sort of building which architects at the beginning of the reign felt themselves justified in erecting, we give a plan (Fig. 2) of an English hospital, founded not many years after the Queen came to the Throne. It will be seen how the wards were massed together. They were large and lofty, allowing a good cubic space per patient, but from the manner in which they were arranged isolation was impossible. Bristowe and Holmes say, in their Report, "The ventilation is, from the construction of the hospital, necessarily imperfect. The plan on which

the hospital is built we think defective. The wards, with one exception, have windows on one side only,[2] they communicate with one another, and indeed would appear to have all the defects of the corridor system of building without the advantage of the corridor itself."

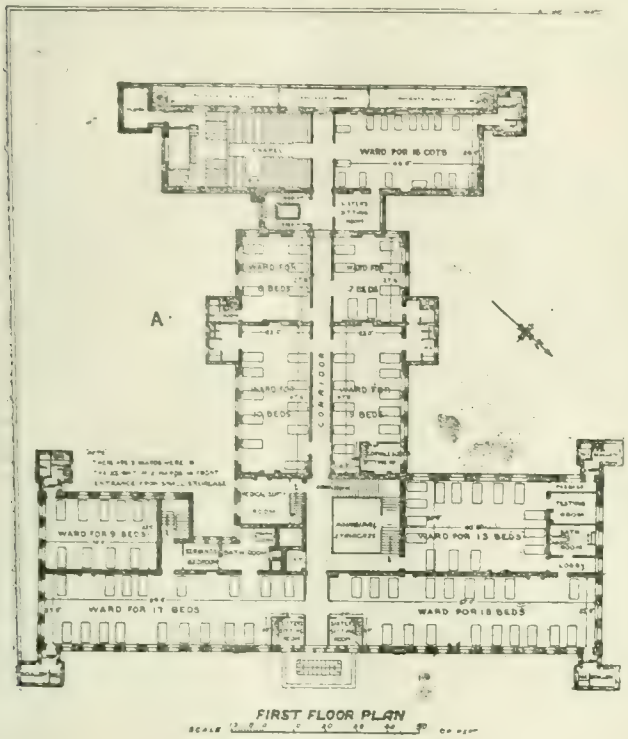



Fig. 2.—An early Victorian hospital.

We do not think it necessary to give any illustration of the familiar oblong pavilion type, but would mention that while in the earlier examples of this system of construction the wards were built close up to the connecting corridors, the tendency has been of late years to interpose a short passage between corridor and ward. In many hospitals also the corridor has been done away with, either being reduced to a mere covered way, as in the new hospitals of the Metropolitan Asylums Board, or absolutely abolished, as in many German hospitals.

As an example of the most recent development of views as to hospital construction and as showing what the pavilion system is capable of, even on a comparatively contracted site, we give sketch plans (Fig. 3 and Fig. 4), and an elevation (Fig. 1) of the new University College Hospital; plans, however, which are subject to certain modifications. No doubt, the shape of the plot of land was a dominating influence in the evolution of the scheme, but it will be noticed how carefully the wards are isolated from each other, while on the other hand space is gained by their cruciform shape.

The problem of hospital construction in towns is greatly complicated by the dearness of land, and it is absolutely necessary to build high. The evils of piling ward upon ward, however, seem not to depend so much upon the fact of one ward being over another as upon their all being connected with a staircase, where a general intermingling of the air takes place. In this new hospital, however, the greatest care is taken to separate all the wards from the staircase by carrying the connecting passages on bridges, by which means also free circulation of the outer surrounding air is much facilitated. Although the cruciform wards will look very different from the long flat-walled rooms to which we are so accustomed, the whole hospital is planned in strict adherence

[2] It should be noted that the original building ended at the point marked A, all behind being a later addition, and also that in the original building the sanitary towers which now project from the four corners of the front block did not exist.

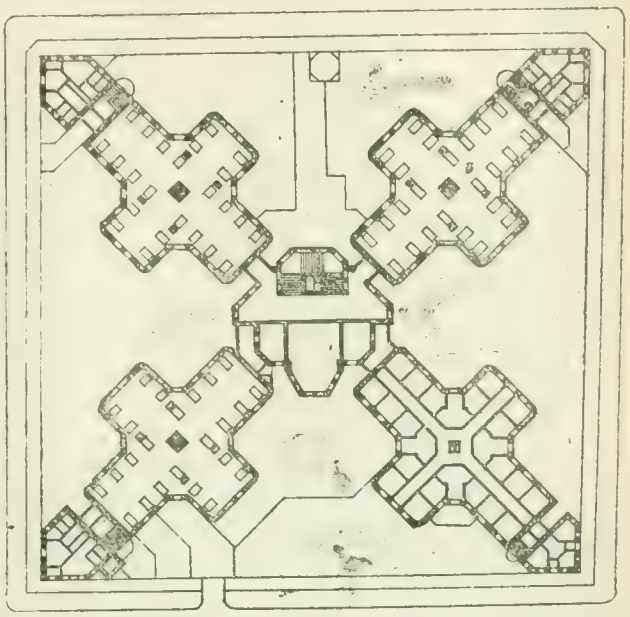


Fig. 3.—University College Hospital (about to be erected). General plan.

to those elementary principles which have been the cause of the great success of the pavilion system of construction, namely, the provision of light and air on every side, and the breaking up of the hospital into a series of wards having no connection with each other except by means of corridors, which are practically open to the outer air. As a contrast, we give a plan of the hospital as it is (Fig. 5).

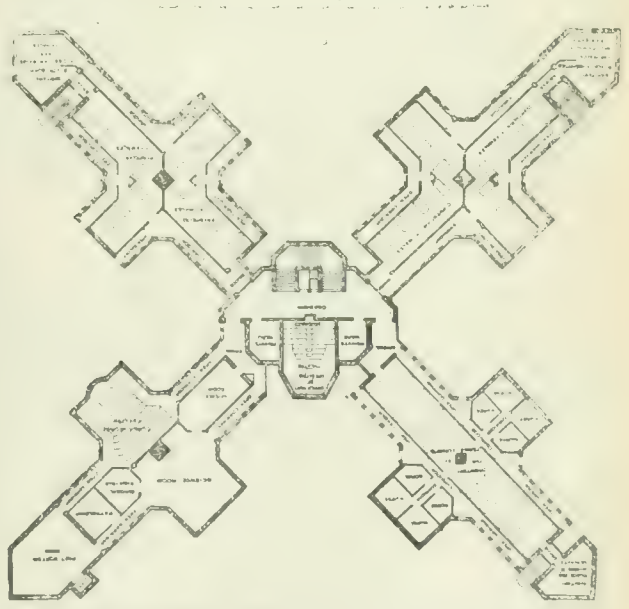


Fig. 4.—University College Hospital (about to be erected). Top floor.

These principles, we believe, cannot be safely departed from, unless by the introduction of a purely mechanical system of forced ventilation; and it will be an interesting thing, and a vastly important matter to the future of hospital construction, to compare the progress and the success of the General Hospital, Birmingham, and the University College Hospital, London—two noble monuments of the position to which hospital construction has arrived at this end of this

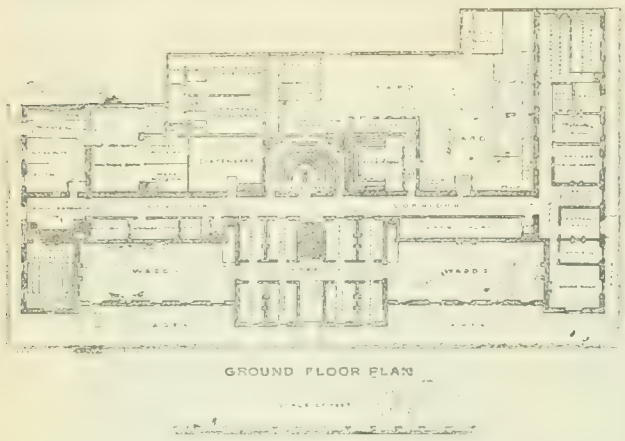



Fig. 5.—University College Hospital (about to be pulled down).

progressive century. The advance since the beginning of the century, the advance even in the sixty years of the Queen's reign, has been immense. Yet we cannot but feel that the problem is unsolved, and that we stand at the parting of the ways. Shall we trust to the engine and the fan; shall we secure—as by mechanical appliances no doubt we can, absolutely and with certainty—that every patient shall be supplied with fresh air, and that air once used shall pass away, meanwhile risking the utter failure of the whole arrangement if the engine should but break down for a single hour; or shall we leave the ventilation to natural means, trusting for safety to so planning the building as entirely to prevent air ever passing from one ward to another? This is the great problem which now awaits solution.

## THE HEALTH OF THE WORKING CLASSES.

Among the satisfactory consequences of Parliamentary legislation effected during Her Majesty's reign may be mentioned the more humane treatment of children, the greater respect shown in our industries for human life, and the generally improved conditions under which our working classes live. When the Queen ascended the throne in 1837, the conditions of labour—for example, in our coal mines—were such as can scarcely now be mentioned without calling forth expressions of regret that to human lives spent in such hard toil there should have been extended so little sympathy and respect.

### Industrial Progress.

The close of the Napoleonic wars and the peace thereby insured to Europe allowed Britain to turn her thoughts inwards and give attention to the development of her own resources. The Victorian era will long be remembered as that in which we as a nation attained commercial supremacy, and our country as that above all others in which the social conscience was first awakened to a due sense of appreciation of the value of human life, and of the necessity for placing a limit to the hours of toil. Owing to the employment of steam and the more frequent use of machinery, labour sixty years ago had become more productive, and new trades were developing. At the date of the Accession home industries were prevalent, and many of them were prosperous. The quietude so noticeable in many of our villages to-day was then broken by the sound of the shuttle and the fall of the hammer; but, as machine-made goods began to replace those made by hand, large factories sprang up in our towns and cheapened production, a larger circulation of money, and increasing demand, stimulated output and promoted consumption. A wave of commercial prosperity passed over the country, male and female labour was absorbed into the factories, and thus was encouraged the rise of large towns at the expense of our rural population, and a period of industrial prosperity inaugurated unexampled in the annals of history. Whilst the development of the factory system is not an unmixed blessing, the industrial progress already alluded to could scarcely have been possible had it not been for the many national advantages we possess—such as our extensive seaboard, a rapidly increasing population supplying cheap labour, and our extensive mineral deposits. Fortunately Great Britain was rich in coal. We do not err when we say that the home consumption of coal is a measure of our own industrial activity, and that the amount of coal raised in this and other countries is an index of trade generally. At the beginning of this century only 10,000,000 tons of coal were raised, but in 1895 189,652,562 tons were raised, and in 1896 the output of coal was the highest ever recorded, 195,000,000 tons.

### Coal Mines.

It could scarcely be expected that the working classes would be prepared either to enjoy or to utilise to the full all the advantages which an increased prosperity was bringing. Social life ameliorates but slowly. Improved environment is one factor which makes for human betterment. Wherever it has had the opportunity of operating there has been progress, but in no industrial community has this been more manifest than amongst our colliery population. Work in a coal mine is admitted to be hard and hazardous. What plea, therefore, can be offered in extenuation of a custom which within the memory of living man not only allowed, but encouraged, the employment of children of tender years in coal pits? Miners are still following their occupation who tell of the time when at 7 or 8 years of age they were taken underground to work for twelve to fourteen hours a day, compelled to sit in utter darkness, often in wet and unwholesome places, their allotted task being to open and close the doors, that formed part of the means for ventilating the passages, to allow of the empty or laden coal tubs passing. During many months in the year such children only saw daylight once a week—on Sunday. Women fared little better, particularly when they worked underground. Almost naked, they were compelled to carry loads of coal upon their backs, or harnessed like beasts of burden were forced to drag heavily-ladened trucks. At the present day it is almost impossible to realise that such were some of the conditions of life and labour sixty years ago.

### Explosions.

In the early part of this century explosions in coal mines were frequent and the loss of life great, but as there was no Government inspection, and no daily press to voice public opinion, enlist sympathy, and disseminate information, facts were concealed, individual expression stifled, and a condition of things was allowed for which no single person was held responsible. It is impossible to estimate accurately the amount of human life lost underground in the first twenty years of this century, or how preventable many of the accidents might have been, but so frequent had explosions become, and so severe their consequences, that after numerous unsuccessful efforts had been made to deal with miners working with naked lights in an atmosphere impregnated with inflammable gas, an appeal was made by the Sunderland "Society for the Prevention of Accidents in Coal Mines," to Sir Humphry Davy, requesting him to solve the problem. In 1815 he gave to the pitman the "safety" lamp. Whilst the "Davy" is considered the safest of lamps for ordinary mining purposes, it is interesting to know that the individual who first drew attention to the necessity for the abolition of naked light in coal pits, and for substituting an insulated miner's light, was a member of our own profession—Dr. Clanny, of Sunderland.

At the commencement of the Queen's reign the "Davy" lamp was already in use in mines, but as the upper seams of coal were being worked out it became necessary for colliery owners to sink their shafts deeper, and just in proportion as strata were reached further and further from the surface, so did the dangers of mining increase. The deeper seams of coal are more fiery, and are therefore more liable to be the seat of explosion.

### "Child Slavery."

At the present time the working of a colliery is a marvel of precision and safety compared to what it was sixty years ago. There are still many capitalists who resent Government interference with mining operations, and who consider all restrictions as vexatious; but whilst we admit that it is in mining matters that the State has shown its hand most, we are bound to acknowledge that legislation and inspection

have effected a wonderful improvement in the industrial, social, and moral condition of the coal miners, and by rescuing their children from an early and involuntary servitude have returned to the nation in the improved physique of recent and present generations with their greater capacity for work far more than the continuation of the hateful system could financially have benefited the parents. The exploitation of infant labour and a disregard for children's lives are possible only where bad economic conditions prevail, as witness at the present time the employment of children from the age of 8 years upwards in the sulphur mines at Caltanisetta, in Sicily. The term "child slavery" is truly applicable to a condition which allows of little children, half-starved and naked, working twelve hours a day in insufferable heat, in total darkness, and in an oppressively sulphur-ladened atmosphere, carrying on their heads loads of material, and climbling 600 steps, roughly hewn out of the rock, several times a day, their only sustenance being sour bread and garlic, and their wages sixpence a day—when they get it. What is occurring in Sicily to-day was, to some extent, enacted in our own country six to eight decades ago, and it will ever be one of the brightest pages in the British legislation of this century that children were freed from a condition of toil that degraded and crushed the spirit of those whom the misfortune of birth brought within its incidence.

### A Dangerous Method of Entering the Pit.

As coal came to be worked at a greater depth and there was less of drift mining, that is, simply cutting into a hillside at the level of the road, it became necessary to replace by means of the steam engine the double waterwheels then in use to bring the raw material to the surface. Fifty to sixty years ago coal was brought to bank in corves or baskets made of hazel rods, hauled up by round or flat hempen ropes. As time went on and larger quantities of coal were raised it was found necessary to strengthen the corves with iron bars. Up and down the same shaft—for at this period there was only one entrance into a pit—two or more corves might be ascending and descending at once, and it was in these corves that children entered and escaped from the pits; these baskets frequently collided in the shaft, doing injury to the young labourers. In Northumberland there are still living many miners who thus remember being let down into the pit. Hardly safe as we would now regard this means of ingress and egress, it was a great advance over what existed in some coal mines, where the only means for lifting children out of the pit was by an adult miner putting his leg through a loop on the rope, taking one or two children on his knee, or by the children holding on the rope above him. As the children reached the surface they were picked off the rope one by one by a man told off for this purpose. Considering that these children were frequently lifted 1,600 to 1,800 feet, simply clinging to a rope, we shudder to think of the consequences of one or other relaxing his hold or of the surface-man failing to remove a boy at the proper time. Dangerous as the practice was, it is a comfort to know that few accidents happened through it.

Shortly before the Queen ascended the throne, Hall, of South Hetton Colliery, had recommended that iron cages should be used instead of corves, and, as Mr. Albert, in the mines at Clausthal on the Hartz Mountains, had satisfactorily demonstrated the superiority of iron-wire ropes over hempen and the Prussian collieries had seen their way to adopt them, this circumstance after forming the basis of a paper read by Count Breuner, of Hungary, at a meeting of the British Association in Newcastle-upon-Tyne in 1838, led to their introduction into the collieries in the north of England. A lengthened experience of their use has confirmed Albert's opinion as to their superiority over hempen ropes in lightness, durability, and safety.

### Intervention of Parliament.

Ultimately the attention of Parliament had to be drawn to the great loss of human life in coal mines. In 1835 Mr. Pease, the member for South Durham, moved for the appointment of a Select Committee to inquire into the causes of mining accidents and to suggest means for their prevention. That such a step was necessary was amply demonstrated the day after the Committee met by the occurrence at Wallsend of a lamentable explosion, which caused the death of 102 colliers. Although this Parliamentary Committee collected a large amount of valuable material, it failed to make any recommendations, and it was consequently left for voluntary enterprise to finish what the Government inquiry had failed to accomplish.

To a Committee formed in South Shields at a public meeting held in that town, in consequence of a local colliery explosion in 1839, is due the credit of having paved the way for mining legislation in this country, and of having shown how the naked "Davy" lamp may become a dangerous instrument, of the extreme necessity for having pits well ventilated, and of insisting upon no mine being allowed to be worked unless it possessed two shafts—a "down cast" and an "up cast." Apart from the immediate dangers incidental to a single shaft, down which the men descended to and arose from their work, and up which also there escaped the smoke from the furnace at the foot of the shaft and the foul air returning from the mine, the drawback to the single shaft system was severely demonstrated by the direful accident at Hartley Colliery near Newcastle in 1862, when the beam of the engine broke, and, falling down the shaft, carried machinery and scaffolding with it, entombing 204 miners. Since then, by Act of Parliament, each mine must be provided with two shafts not less than 15 yards apart, and capable of affording separate means of ingress and egress to the miners employed in every seam of coal that is being worked. By one of these, the "down cast" shaft, men proceed to and emerge from the pit, whilst by the other, the "up cast," the foul air of the mine is carried away. By means of the two shafts and the blast engine, atmospheric air is efficiently carried into the utmost recesses of coal mines. As a result of the excellent ventilation, there has been a gradual but marked declension in the amount of phthisis, which formerly played such havoc amongst colliers. The coal-black lung, or anthracosis, is to-day a rarity. Pulmonary disease has greatly diminished amongst underground workers. Until lately in almost every mining village in Northumberland it was not at all uncommon to see men of middle age walking bent, and older miners almost doubled up, the subjects of asthma. This fortunately is also a thing of the past. Whatever may be the dangers incidental to working in fiery pits, the air is kept free from accumulation of carbonic acid, and it is no longer necessary, as in days gone by, for miners, in order to obtain the light required for their work to have three candles burning in a horizontal position, the foul air having already extinguished them when lit separately or kept in the upright position. It has taken many years to devise what is now looked upon as an almost perfect system of ventilation of coal mines. As it was a non-miner, Dr. Clanny, who suggested the abolition of naked lights in pits, it is interesting to know that it was the well-known artist, John Martin, who recommended for ventilation purposes the employment of a large exhausting fan driven by a steam engine as a substitute for the furnace at the foot of the shaft.

It is unnecessary to give in detail the items of the various Acts of Parliament 1842-55-60-72-87, and 1896. These Acts have mainly had for their object the abolition of young children's and women's labour in coal mines, the restriction of women's labour to the pit banks, the raising of the age of boys from 10 to 13, restriction of the hours of labour generally, improved ventilation of pits, the proper timbering of the main ways, and certain regulations as to the mode of payment of wages. As many of the accidents in coal mines are due to falls of stone from the roof, it is incumbent that the roof shall be supported by timber.

### Diminished Loss of Life.

Since Parliament has insisted upon a proper quantity of wood props being supplied and readily accessible to the overman, there has been a marked declension in the number of accidents during the last forty years. Mr. Ralph Young, of the Northumberland Miners' Mutual Confident Association, has been good enough to supply the following statistics confirming this statement. During the ten years from 1833 to 1842 the average number of lives lost by accidents in coal mines (excluding explosions) amounted to 4.1 per 1,000 colliers employed: for 1842 to 1853 data cannot be obtained; from 1853 to 1862 the deaths equalled 3.4 per 1,000; 1873-72, 2

per 1,000; 1883-92 only 1.8 per 1,000; whilst in the year 1893-94 the proportion was 1.5 per 1,000 miners employed. The diminution in the number of deaths per 1,000 for the thirty years ending 1872 was 50 per cent., whereas the diminution for the twenty-two years ending 1894 was only 22 per cent.

Since the ventilation of pits has improved, and Parliament has made penal the employment of naked lights and miners striking lucifer matches in fiery mines there have been fewer explosions. Notwithstanding the care thus exercised the fact that explosions still occurred led scientific mining engineers to seek the aid of the chemist and physicist for other causes than the presence of fiery gas in pits. It is now almost universally admitted that coal dust when dry and finely divided may be ignited and cause explosion when gunpowder has been employed as the disruptive agent. Accordingly the Home Secretary now requires that in fiery mines gunpowder should be replaced by flameless explosives, and that coal pits should be well watered to lay the dust.

### The Condition of the Miner To-day.

Comparing the calling of the coal miner to-day with what it was sixty years ago, it must be acknowledged that it is safer and freer from risk to life and limb, that the conditions of labour are altogether better, and that coal mining, hard and trying as the work undoubtedly is, is not an unhealthy occupation. Running parallel with this improvement in his industrial conditions house accommodation is better, his children receive superior education, and his wages have risen. In the Thirties a miner's wages stood at 11s. a week, in 1872 they had risen to 23s. 4d., whilst in 1892 he received 33s. 3d. Taking the Northumberland miner, his wages per diem in the Thirties was 2s. 10d.; in 1872, 8s.; 1873, 9s.; and in 1892, 6s. 8d., and on an average he would work five days a week. Along with the rise in wages his hours of toil have been shortened from 12 hours a shift to 7 or 8. With more leisure at his command, and the benefits of a larger education, increased wages, and their greater purchasing power, we may say that in the improved social, moral, and financial condition of the coal-miner of to-day we find a fairly accurate reflection of the general industrial prosperity characteristic of the Queen's reign.

### Factory Life and Labour.

The conditions of life and labour in our factories at the close of last century and commencement of this were appalling. We can scarcely imagine such a state of things existing. It was to the cotton and woollen industries that the attention of Parliament was first directed. There was, practically speaking, no restriction to the hours of labour. When machinery began to replace hand labour, employers, on account of cheapness, substituted children for adults. The hardships endured by children owing to the early age at which they began work, their long hours of toil, and the brutal treatment they received at the hands of overmen, form one of the blackest pages in the history of the factory system of this country. Because money and parental interests were at stake Parliamentary inquiry and legislation were resisted. It is short-sighted of any nation when it fails to recognise that its wealth consists, not in the amount of its funded capital, but in the health and fitness of its workers. The physical unfitness and moral degradation of the working classes were notorious sixty to eighty years ago, and were attributed to the early age at which children were sent into the mills, the excessively long hours of toil frequently carried into the midnight, and the absence of separation of the sexes.

### Children in Factories.

Britain has justly been regarded as the pioneer in factory legislation. At the time of which we speak, so degraded and ground down were the workers that they themselves were unable to give forcible expression to their sufferings. The movement which was to lead to their betterment had, therefore, to be initiated by such masters of labour as Dale and Owen, and carried on by Sir Robert Peel, who, in 1802, introduced what is spoken of as the First Factory Act. The State was obliged to step in and protect children against the greed of parents and the rapacity of employers. Parents were inhuman enough to regard their children as so many wealth-producing units that they sent them out at the early age of 7, 8, or 9 years to earn wages, a proceeding, too, of which Boards of Guardians were guilty. Given such views of human relationship, it is not difficult to explain the widespread opposition to Parliamentary interference. It is an unfortunate fact that in the earlier days of factory legislation Parliament did not receive the unanimous support of the medical profession. There were several members of our profession whose voices were never still throughout the storm, and who eloquently pleaded for children whose physical frame was bending beneath the heavy load, long hours of toil, scanty food, and brutal treatment; but there were others, unfortunately, who prostituted their professional opinion, and worshipped at the shrine of Moloch. It is one of the grandest facts of our legislation that it has demonstrated to parents that they only hold their children on trust—not theirs to do with them as they please; that even children have rights which the State insists upon protecting. When the Queen ascended the throne there were upwards of 1,000,000 children employed in factories. Theirs was a life of unceasing toil. If the measure of civilisation is to be found in the conditions of child life and respect shown to women, England of sixty years ago compares most unfavourably with the England of to-day. Since that date there has been a steady diminution in the number of children employed, although according to the census of 1891 there were still 817,982 children under 13 years of age working in the United Kingdom, a half-time system has been introduced, the benefits of free education have been conferred, and, as a consequence, there has been a gradual emancipation from the serfdom of labour, the conditions of which were extremely exacting.

### Factory Legislation.

The first law regulating the periods of labour in factories, usually known as Sir Robert Peel's Act, was passed in 1802, and the first Parliamentary inquiry into the conditions of factory labour, which was held in 1815 (the Act passing in 1819) was concerned only with cotton mills. The age of children was raised to 9 years, and their hours of labour restricted to 12 a day. In spite of these laws overwork still continued, and it required all the oratory and zeal of such men as Oastler, Sadler, and Hobhouse, etc., to convince public and Parliamentary opinion as to the wrongs inflicted upon the young. Medical experience bore testimony to the soundness of their arguments by showing the excessive mortality that prevailed, for in the factory districts as many people died under the age of 20 years as in other places under 40. It was a fortunate circumstance which impelled Lord Ashley (subsequently Shaftesbury) to join the movement. Heart and soul in it, he was instrumental in introducing the Ten Hours Bill into Parliament. Like many good measures, it failed to be passed, nor was the Committee of Inquiry which was formed favourably received either by masters or workmen, for the latter believed that fewer hours' work meant smaller wages.

Whilst Lord Ashley's Bill failed, the Whig Government of the day, recognising that something must be done for the children, passed what is known as Lord Althorp's Bill in 1833, by which night labour was prohibited to all young persons under 18 years of age, which drew a distinction between "children" from 9 to 13 years of age and "young persons" from 13 to 18, and which reduced the hours of labour for children to nine and for the others to twelve a day. Although a moderate measure, various were the devices resorted to both by employers and parents to deceive the authorities. Lord Ashley still persisted in exposing the wrongs of his time. To his untiring labours we are largely indebted for the abolition of children's and women's labour in coal mines, and many of the improved conditions in our factory system. By the Act of 1844 medical inspection was arranged for, but very little has been accomplished by it owing to its limitations, although at first very necessary on account of the insanitary state of many of the mills. It may be mentioned that, while by the Act of 1844 large numbers of children were still employed in factories, increased experience of employers led to their diminution. In 1835, for example, there were employed in the textile industries 27,715 boys and 28,378 girls under 13 years of age, whereas in 1850 only 21,137 boys and 19,638 girls. Manufacturers soon found out how readily children's labour could be supplanted by adult females and machinery.

### DANGEROUS TRADES.

Into the details of later legislation we need hardly enter. It has all tended towards an amelioration of the conditions of labour, and it has been to benefit the working classes. The various Departmental Committees of the Home Office, for example, the White Lead, Chemical, Potteries, Anthrax, and Dangerous Trades Committees, have not only collected a vast amount of extremely valuable information, but owing to the fact that upon each of these Committees there not only sits a medical expert, but practical men and representatives of the Factory Department, recommendations have invariably been made to the Secretary of State which when carried out have tended to promote the health of the workers and safeguard them from accidents. However improved our industrial conditions have become, much yet remains to be accomplished. Socially and financially the textile workers of to-day compare most favourably with those of sixty to eighty years ago.

## INDIA IN THE VICTORIAN ERA.

### HISTORICAL SKETCH.

DURING Her Majesty's reign a great expansion has taken place in the extent of territory under direct British rule. The successive annexations which have increased the size of the British Empire in India since 1837 have been—Sind in 1843, the Punjab in 1849, Tanjore and Sattara in the same year, Pegu in 1852, Jhansi and Berar in 1853, Nagpur in 1854, Oudh in 1856, and Upper Burmah and the Shan States in 1885. With these accretions the Indian Empire now covers an area of 964,993 square miles, and contained in 1891 a population of over 221 millions of inhabitants. The native States which still retain their independence but acknowledge British suzerainty and a large measure of British administrative control, cover 595,167 square miles, and contained over 66 millions of inhabitants. The population of India may in round numbers be estimated at 300 millions at the present time. The principal event of the reign has undoubtedly been the Sepoy Mutiny of 1857, which led to the abolition of the rule of the East India Company, and the assumption by the British Crown of the direct administration of this huge territory and immense population; but the sixty years of Queen Victoria's reign have been crowded in India with other events of great importance. There have been wars within and without. Of the former the chief have been the Sind war of 1843, the Sikh wars of 1845-46 and 1848-49, the Gwalior war of 1843, and the Mutiny struggles of 1857-58. Of the latter the most important have been the Afghan wars of 1839-42 and 1878-80, the Burmese wars of 1851-53 and 1885, the China, Persian, Abyssinian and Egyptian wars, and the numerous frontier expeditions undertaken for the purpose of quelling and punishing turbulent and aggressive tribes. Notwithstanding these wars the history of India during Her Majesty's long reign has been one of progressive development—of orderly and humane government; of increased protection of person and property; of the enaction and supremacy of good laws; of great educational advance; of growing material prosperity; of rapid increase of postal and telegraphic communication, of railroads, canals, and public works beneficial to convenience, comfort, and health; of liberty and self-government, and generally of great elevation of the standard of personal and social life. The prosperity of the empire has been clouded on several occasions by famines, but these have been dealt with in a liberal and humane spirit, and with the increasing success in saving life which experience has rendered possible. Nor has the Government of India been blind to the destructive effects of pestilence; on the contrary, measures of prevention and relief have always bulked largely in the deliberations and efforts of all Indian administrations.

### THE MEDICAL SERVICES OF INDIA

have taken a conspicuous part in these undertakings, and contributed materially to the success of benevolent rule in India. The physical welfare of the European army has been guarded by the imperial Army Medical Staff. Prior to 1858 European troops were lent to the Company, which employed its own medical officers for administrative purposes, and to some extent also for executive work. Some jealousy and friction in consequence existed between the imperial and local medical services. When the administration of India was assumed by the Crown, the medical and sanitary interests of the European army in India were entrusted entirely to the Army Medical Department. The medical charge of the native army of India has constituted the fundamental function of the Indian Medical Service; but the officers of this service have also been employed largely in civil medical duties—in ministering to the medical needs of civil officers and establishments: in charge of hospitals, gaols, asylums, and medical schools; in promoting vaccination and sanitation among the people of India; and in many other capacities, social, educational, political, administrative, and scientific, for which their ability and education have fitted them. Through the instrumentality of this service, Indians and Indian-born youths of European and mixed parentage have been trained and educated in medicine, and employed in subordinate capacities with European and native troops, and in civil hospitals and institutions. Under the Company's rule all medical administration in India was conducted by the Indian Medical Service, whose members also held medical charge of the European troops enlisted by the Company. The Mutiny resulted in the disbandment or transfer to imperial control of these, and in the disorganisation and reorganisation of the native army. The need of maintaining a local medical service remained for some time in doubt, and from 1860 to 1863 no admissions were made to its ranks. Since 1865, however, medical officers have been regularly recruited for military and civil work in India, and these have had the advantage of special training in the Army Medical School at Netley along with the officers of the sister service.

### ADMINISTRATIVE CHANGES.

The circumstances which have been briefly sketched have rendered necessary various administrative readjustments. In the year 1866 the administration of British army hospitals and medical and subordinate staff was formally and finally assigned to the British medical department; and in the following year a civil medical department was organised, the administration of which was entrusted to the officers of the Indian Medical Service in addition to that of the hospitals of native regiments. In 1880 military and civil medical administrations were entirely dissevered and the medical staff serving with both British and native troops placed under one control. This unification was further confirmed when in 1894 the army of India was distributed into four army corps under one supreme head. Civil medical administration was in 1880 placed on a systematic and efficient basis, the medical and sanitary concerns of provinces being entrusted to the control of one head. More recently the medical services of the three presidencies, Bengal, Madras, and Bombay, have been united and subjected to the departmental rule of a Director-General, who is also Sanitary Commissioner with the Government of India. The Central Government, as well as each separate civil administration, has thus at its disposal a medical and sanitary adviser, aided by subordinate officers, controlling and harmonising the work of all medical and sanitary executive.

### MEDICAL AND SANITARY REFORMS IN THE ARMY.

The mortality of British troops serving in India averaged up to the year 1857 about 70 per 1,000. This rate includes losses in battle as well as deaths by disease, but the former bear a very small proportion to the latter. According to the most recent returns, the death-rate of the European army of India has now been reduced to about 15 per 1,000. The statistics of native troops exhibit a corresponding improvement, the fall being from 18 to 15. This eminently satisfactory result is unquestionably due to improved sanitation achieved by the enlightened and liberal orders of the Government of India, loyally and heartily carried out by military and medical officers of both services. The chief items in the programme of sanitary reform have been better barrack and hospital accommodation, attention to food and water, more rational clothing, a more thorough system of conservancy, avoidance of unnecessary exposure and fatigue, less intemperance, location on the hills during the hot season, the provision of means of employment and recreation, and the adoption of special precautions against epidemic diseases. The general hospital system has conduced to economy and efficiency.

The regimental system still obtains in the native army, for which it appears to be better adapted. The health of the European army has, however, been seriously affected by the short service system which has resulted in the introduction into India of soldiers at an age at which susceptibility to the infection of typhoid fever is at its maximum. Since the existence of this disease as a substantial cause of sickness and death in the British army in India was established by the late Dr. Bryden in 1867, the proportion of cases and deaths has gradually risen in accordance with the rise of the percentage of men under 25 years of age, which now amounts to 55. This same circumstance has resulted in the reduction of the proportion of married men from 11 to 3 per cent., and to a gradual increase in the prevalence of venereal diseases, the annual admissions from which now amount to over 520 per 1,000. This increase was kept in check by the operation of the Contagious Diseases Act, which was in force from 1868 to 1884. Under pressure from this country this was modified in 1884 and abolished in 1888. The result has been a rapid rise in amount and virulence of these maladies, until they have attained scandalous and most disastrous proportions. Recently the Secretary of State for India has directed stringent preventive measures to be adopted, which it is hoped will cause an abatement of this serious source of suffering, deterioration, and inefficiency in the British army, the effect of which is by no means limited to soldiers, but, through their marriage after discharge, must seriously compromise the health and vigour of the British race. Of the services of medical officers and subordinates of both armies in war it is unnecessary to write. They have proved equal to all the demands made upon them (and these have been neither few nor light), and have frequently earned distinction for their management, skill, and intrepidity. Since the amalgamation of the military medical services under one administration they have worked harmoniously and efficiently.

### Medical Relief.

Nothing is so remarkable in Indian administration as the great multiplication of charitable hospitals and dispensaries which has taken place during the past thirty years. At the beginning of the Queen's reign effort in this direction was limited to the headquarters stations of districts, but now there is not a subdivision or town which has not its charitable hospital, supported by local subscriptions or funds, aided in some cases by Government, and dispensaries have been established in the larger villages and in many country places as well. In the year 1895, 2,168 dispensaries were open throughout India, in which nearly nineteen millions of sick were treated at a cost of about 46 lakhs of rupees, of which 35½ were contributed locally, the remainder being paid by Government. This does not include the charitable medical institutions belonging to native States, which are numerous and useful. Some of the hospitals in the Presidency towns, both general and special, are magnificent and well equipped, in which all the most recent and approved resources of medicine and surgery are applied with conspicuous skill and success to the relief of suffering. The practice in the larger district hospitals is also very active and excellent, the surgical work, which is necessarily more conspicuous than the medical, being of a specially meritorious kind. The results obtained in dealing with cataract and stone are deserving of special mention, and ovariotomy and the radical cure of hernia are performed with excellent results. An Indian civil surgeon must be a good administrator, sanitarian, statistician, and report writer, but he must above all be a good physician and surgeon, and as a matter of fact such he is. One of the most beneficent movements that have taken place in India during Her Majesty's reign, with which also the Queen has specially identified herself, has been the organisation called into existence by the Marchioness of Dufferin in 1883 for supplying medical and nursing aid through members of their own sex to Indian females. This enterprise has been conspicuously successful. Nor has the lower animal creation been forgotten. The elaborate report of the Cattle Plague Commission published in 1870 revealed an immense amount of disease among cattle, and efforts have been made to bring educated veterinary agency to bear on the prevention and cure of the infirmities and blemishes of agricultural stock.

### Medical Education.

In the early days of the Company's rule subordinates were trained in hospitals—regimental and civil—to assist officers in the discharge of their duties. Useful compounders and dressers were thus educated, the best of whom became apothecaries and native doctors. The first medical school was the Native Medical Institution, which was founded in Calcutta in 1822. The Calcutta Medical College was founded by Lord William Bentinck in 1834; followed by similar institutions in Madras and Bombay. When universities were organised in 1857 these medical colleges were affiliated with them for the purpose of training up to university degrees. A medical college was subsequently established at Lahore in affiliation with the Punjab University, and there is an important school at Agra in the North-Western Provinces. There are four medical schools in Bengal, three in Bombay, and two in Madras in which men and women are educated for the subordinate departments. Attempts have been made in Calcutta to start private medical schools. Four of these give instruction in homœopathy, which commends itself to the timid, fanciful, and credulous disposition of the native. Two are run on the lines of the Government schools. The Indian medical colleges have a five years' curriculum, and the instruction and examinations are on a high level, comparing favourably with European models. The schools have a shorter and more practical course. Licences are granted in these by Government after examination by special Boards. There is an important medical school at Hyderabad in the Nizam's dominion, which was originally started by Surgeon-General W. C. Maclean. These colleges and schools supply annually a large number of excellent officials for the public services. This was the original object of their foundation; but they have also given the public a considerable body of educated and skilful doctors, who have settled in practice in the larger towns and villages. The success of medical education in India has been entirely due to officers of the Indian Medical service. Veterinary schools have been started at Poona, Lahore, and Calcutta.

### Sanitation.

Sanitary effort in India was in the first instance confined to the European quarter of Presidency towns, to cantonments and the headquarter stations of civil districts, and to Government establishments and institutions such as gaols, lunatic asylums, and the lines of native troops and police. Native towns, bazaars, villages, and hamlets were left alone in filth and disease, and native communities allowed to pursue their objectionable ways without let or hindrance. The conviction gradually dawned upon Indian rulers that, however carefully sanitated the dwellings and surroundings of Europeans might be, danger to health lurked in the adjoining native quarters; and as the condition of the inhabitants of the country became better known it was realised that disease, both endemic and epidemic, levied a terrible tribute of sickness and mortality from causes largely of a preventable kind. A great impetus to sanitary reform was given by the appointment in 1866 of Imperial and provincial Sanitary Commissioners. The gifted and laborious men who have held these offices have by inquiry and advice supplied a vast fund of knowledge regarding the prevalence and causation of disease in India, and sought to persuade and induce authorities of every description and grade to adopt measures conducive to public health: but ignorance, prejudice, apathy, poverty, and ineptitude have opposed obstinate and almost hopeless barriers to reform, and their representations have been as a voice crying in the wilderness. In the Presidency towns considerable sanitary progress has been made and useful municipal laws and regulations enacted. As some measure of local self-government has been extended throughout the Empire, sanitation has been made a leading concern of urban and rural authorities. Sanitary laws and by-laws have been enacted and local revenues largely devoted to sanitary purposes.

In the year 1888 an important resolution was issued by the Government of India reviewing the whole subject, and describing the difficulties opposed to urban and rural sanitation, and the directions in which effort should be made. Provincial sanitary boards were created, and loans on easy terms were sanctioned for sanitary work. More recently, in 1895,

as a result of representations made by the Medical Congress, in which Mr. Ernest Hart took a prominent and active part, the Government issued another resolution sanctioning the education and training of a sanitary executive, the appointment of health officers to municipalities, and the formation of sanitary committees presided over by medical men to carry out the sanitation of towns and villages. These measures are to take effect from the year 1900. Meantime sanitary administration and effort have been greatly stimulated, and sanitary education and enlightenment considerably promoted by these proceedings.

The history of the army in India, of the police, of gaols, of emigration, of tea gardens, factories, and other enterprises where labourers are employed, indicates that sanitation has made substantial progress in India. Sanitary works for water supply and drainage have been conspicuously successful in arresting disease and saving life, and vaccination, which was introduced *viâ* Constantinople and Turkish Arabia in the year 1804, has become a universal practice, which has made a decided impression on the prevalence and mortality of smallpox. Experience gained during the recent outbreak of plague in Western India has revealed the fact that conditions eminently unfavourable to health are still rampant; but, on the other hand, never has more strenuous sanitary work been accomplished, or the exercise of authority and interference with social and domestic life for the purpose of cleansing been more patiently tolerated by the people than on this occasion.

### THE MEDICAL PROFESSION IN INDIA.

India was at one time, as compared with other nations, the home of learning and enlightenment. A most elaborate system of medical science was evolved by its wise men, partly by keen observation and partly by lively imagination. The Mohammedan invaders of the country, in more recent times, introduced the knowledge and practice of Arabian medicine, and at the commencement of Her Majesty's reign the representatives of Hindu and Arabian medicine—the *baids* and *hakims*—and a host of snake charmers and other quacks constituted the medical profession in India. These men were taught by a system of apprenticeship the traditions and tricks of ancient practice, and these they slavishly and ignorantly followed. Gradually, as men were trained in hospitals, schools, and colleges, a large number of them settled in towns and villages to practise rational medicine. Many men discharged or retired from the subordinate services also set up in practice. Later on, Indian students journeyed to England and obtained diplomas and degrees. Many of these have entered the Indian medical service and rendered excellent service; but most have returned to settle in the larger towns where they obtain remunerative occupation. The medical profession in India is at the present time constituted by the members of the Army Medical Staff and Indian Medical Service, a considerable number of whom are permitted to practise; by a considerable and growing number of Europeans who are employed by Government or municipalities or railway and emigration companies, tea gardens, or native States, or practise in large towns and hill stations; by members of the subordinate medical services, most of whom settle in practice after retirement; by licentiates and graduates of Government colleges and schools; by failed students; by the *baids* and *hakims;* and by a host of irregular practitioners, homœopathic and otherwise. The constitution of the profession is therefore heterogeneous, and there is no system of medical registration to enable the public to discriminate between the qualified and unqualified. In Presidency towns associations and societies have been organised for the purpose of mutual improvement and support, but the profession is, and will probably remain for some time, in a chaotic state. About two years ago a movement originated in Bombay to procure "medical reform," which term virtually meant more extensive employment of indigenous medical men in the Government service. The expansion of sanitary administration will probably conduce to that end, but as regards the charge of Government institutions and establishments, the system of recruitment by competition in England, which has done so well for India in the past, will probably be continued in the future. The status of the members of the Indian Medical Service is still military, and it has been contended that a purely civil establishment would do civil work better. This, in view of the peculiar hold which England has of India, is disputable. The present system has worked well, and it is as yet probably best to leave it as it is.

### MEDICAL AND SCIENTIFIC PROGRESS.

The medical services in India are a mere handful of men, burdened with a heavy load of executive duties and responsibilities, and discharging these in a trying climate, in isolation, and often under pressure of exhaustion and ill-health. To expect men under such circumstances to produce much scientific work—which in these days demands leisure, special culture, opportunities, and appliances—seems unreasonable. Enough, surely, if they do the work allotted to them faithfully and well, keep themselves well abreast of the knowledge of the day, grow wise and skilful by experience, and take note of any novelties or wonders they may encounter. India medical officers have done more than this. They have produced, in pathology, medicine, surgery, hygiene, pharmacology, medical jurisprudence, botany, zoology, etc., work of much merit. Medical literature in India mostly takes the form of official reports. The amount of literary effort annually bestowed on these documents is immense. Too much of it is statistical, and the exercise of a lively imagination and ingenious intellect on figures—too often undeserving of much reliance—is apt to result in infructuous speculation. Epidemiological description and theorising have always bulked too large in Indian medical literature, but sound clinical and pathological work has not been wanting. The identification of typhus, typhoid, relapsing, and (quite recently) Malta fever has helped to unravel that complex Gordian knot—remittent; the diagnosis and treatment of dysentery have been greatly advanced, and the management of tropical diarrhœa placed on a more satisfactory basis; the true pathology of chyluria and elephantiasis has been worked out, and that of Madura foot, Delhi boil, leprosy, and other tropical diseases carefully studied; the nature and prevalence of biliary cirrhosis among children demonstrated; the condition of ankylostomiasis described; the great prevalence and fatality of rinderpest among cattle has been placed beyond doubt; and the causation of "surra" in horses cleared up. Much good work has been done in snakebite, jequirity poisoning, hill plague, and many other subjects. Men like Martin and Fayrer have lived lives of industry and usefulness in India, and contributed materially to the progress of medical and surgical science and of sanitation.

The pages of the *Indian Annals of Medical Science* and the *Indian Medical Gazette*, the transactions of medical societies, and a goodly number of books published both in England and in India, attest the literary and scientific ardour and ability of Indian medical officers. It is true that the pathogeny of cholera and of paludism was discovered by a German in Egypt and a Frenchman in Algeria; still, much has been done by Cunningham, Carter, Ross, and others to confirm and modify the results of their investigations, and the recent work of Hankin, Haffkine, and Simpson shows that, given the special advantages, without which good scientific work is impossible, medical men in India are quite equal to undertaking it, and adding valuable facts to the store of medical knowledge. Hitherto special investigation in India has tended to assume the form of committees and commissions, collecting oral and written evidence, and amassing figures from which practical and useful conclusions do not readily flow. The necessity of employing specially educated, trained and skilled workers, provided with well-equipped laboratories for inquiries of this sort, has now been realised by the Government of India, and there is every reason to hope that in the future more solid and fruitful work will be forthcoming than in the past. The indigenous men taught in Indian colleges and schools have exhibited much capacity for the successful practice of medicine and surgery, but they have not as yet distinguished themselves by devotion to scientific research, nor by the display of originality or inventiveness in devising novel methods of treating disease. The multiplication of medical journals, the opening of medical schools, and the formation of medical societies and associations, indicate a desire for mutual help, encouragement, and improvement which bodes well for the future.

# THE MEDICAL SOCIETIES AND PERIODICALS IN THE EARLY PART OF THE REIGN.

By the late J. Blake Bailey, B.A.,
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## Societies at the Queen's Accession.

In 1837 there were but six Societies of any note in London; of these four still remain. The Medical Society of London, founded in 1773, chiefly by the exertions of Dr. Lettsom, had not yet found its way westwards, but was holding its meetings at the house belonging to the Society in Bolt Court, Fleet Street, under the presidency of Mr. Bryant. The Royal Medical and Chirurgical Society, founded in 1805 as an offshoot from the Medical Society, had three years before this date moved from Lincoln's Inn Fields to 53, Berners Street, where it found a home until 1889, when it removed to its present premises, 20, Hanover Square. Dr. Bright filled the presidential chair in 1837. The Westminster Medical Society, founded mainly by Sir C. Mansfield Clarke and Sir Benjamin Brodie in 1809, was for many years one of the foremost societies in London; it was connected with the Great Windmill Street School of Medicine, and its numbers were largely increased by the fact that every student at the school became a member of the Society. Later on, after the dissolution of the school, the membership of the Society greatly fell off, and in 1850 it was amalgamated with the Medical Society. Mr. Richard Quain was president at the time of the Queen's accession. The Hunterian Society, which is still flourishing, was founded in 1819; in 1837 the home of the Society was at 4, Blomfield Street, where it remained until 1866; these premises being then required by a railway company, the Society moved to the London Institution, where it still finds a home. The Harveian Society was founded in 1831 for the benefit of practitioners in the western part of London, and was originally called the Western London Medical Society. Its meetings in 1837 were held at the Marylebone Literary and Scientific Institution in Edward Street, Portman Square, under the presidency of Drs. Clendenning and Edgar Barker.

The South London Medical Society was founded in 1832 for general practitioners in Southwark and its vicinity. It is interesting to note that Addison's first paper on Disease of the Suprarenal Capsules was read before this Society on March 15th, 1849. The Society had no journal of its own, but a short report of the paper may be found in the *London Medical Gazette*, N.S. viii, 1849, p. 517.

To these societies should, perhaps, be added the Medico-Botanical Society, founded by the eccentric John Frost in 1821. Many of the papers read before this Society were of considerable interest and value. But about the time of the Queen's accession the supervision of papers had become very lax. Earl Stanhope, who was president for many years, would admit any paper of a botanical character. The value of some of these may be judged by one read in June, 1837, by Mr. Whitlaw, the keeper of a herb bath. The title of the paper was An Account of Mr. Whitlaw's Method of preparing Plants so that their Virtues may be Retained for a Considerable Period. The main object of the paper was to try and prove that polygala senega was a remedy for all diseases; at the conclusion the author stated that he should be pleased to supply medical men with any quantity on most reasonable terms, or he would receive patients who could afford to pay for what he might order them to take. In the course of the paper Mr. Whitlaw attempted to prove that the influenza epidemic of 1837 was due to the cows having eaten largely of buttercups, which in that season were most abundant.

Of the societies connected with the hospitals, there were in existence in 1837 the Middlesex Hospital Medical School Society (1774); the Abernethian, St. Bartholomew's (1795); St. Thomas's Medical and Physical Society (1820); the Guy's Pupils' Physical Society (1830) (this was an offshoot of the Guy's Physical Society founded in 1771; in its early days the Physical Society was one of the most important of the London societies, and its members were not confined to those persons connected with Guy's Hospital; in 1837, it had lost much of its former influence, and it ceased to exist in 1852); the King's College Medical Society (1833). Since 1837 there have been added to this list the St. Mary's Hospital Medical School Society (1866), the London Hospital Medical Society (1873), and the Guthrie Society at the Westminster Hospital.

## Societies at the Present Day.

In the present day there are about fifty medical societies in London, omitting all political and philanthropic ones. It may be noticed that in the societies in existence at the Queen's accession, there is not one devoted to the study of any special subject or to the interests of any one class of practitioners. At the present day there are no fewer than twenty London societies formed for the purpose of investigating some particular branch of medicine or surgery, and for bringing together those who specially devote themselves to that special line of practice.

## Medical Periodicals in 1837.

It 1837 it would have been no difficult matter for a man in considerable practice to have found time to read all the London professional journals then issued. There were but three weekly journals, the *Lancet*, the *London Medical Gazette*, and the *London Medical and Surgical Journal*. The first of these, started in 1823, is the only professional paper still in existence which was being issued when the Queen came to the throne. The *London Medical Gazette* was founded in 1828, and was the longest lived rival of the *Lancet*, in opposition to which it was avowedly started. It was owned and edited by Dr. Roderick Macleod. In 1837 a new series was started; this lasted until 1851, when the *Gazette* became incorporated with the *Medical Times*, under the title of *Medical Times and Gazette*, and in this form was continued until 1885.

The *London Medical and Surgical Journal* was started in 1828 as a monthly, but in 1832 was converted into a weekly. It was edited by Michael Ryan, of whom Mr. J. F. Clarke says: "He was learned, had most agreeable manners, and was strongly impressed with the importance of appearance in a physician. He dressed in black, wore a white choker, carried a large watch as big as a turnip, to which was appended a massive chain with seals and keys. It is true he did not carry a gold-headed cane, but he had a huge gold snuff box, the contents of which were frequently applied to his olfactory organ." The number of the *London Medical Journal* for January 21st, 1837, is of special interest to our readers, for it contains a long account of the first meeting of the British Medical Association. The meeting was held at Exeter Hall, Mr. George Webster, of Dulwich, presiding, with William Eales as Honorary Secretary. For a short time this journal was very vigorous, but its downfall was brought about by a quarrel between Dr. Ryan, the editor, and Renshaw, the publisher. This took place in August, 1834, during the issue of Volume vi of the new series. The first 96 pages of the two sets are identical; then they begin with different matter. Renshaw's journal, which was edited by John Foote, ceased July 25th, 1835; and Dr. Ryan's lasted until December, 1837. In 1835 a small publication was started with the title of *British Medical Almanac*; it only continued for a few years, and contained very little useful information.

In 1837 the British Medical Association issued only an annual volume of *Transactions*. The publication of the British Medical Journal was commenced in 1841. The history of its development was told by "An Old Member" in the Queen's Commemoration Number, June 19th.

The last of the old quarterlies, known to the older members of the profession as the *British and Foreign Medico-Chirurgical Review*, was in 1837 issued as the *British and Foreign Medical Review*, under the editorship of Forbes and Conolly. In 1847 the *Review* was amalgamated with the *Medico-Chirurgical Review*, another quarterly which, until 1843, was edited by Dr. James Johnson.

It will be noticed that in 1837 there were no journals devoted to special subjects. Guy's was the only hospital issuing a series of *Reports*, vol. i being dated 1836. St. Thomas's issued one volume in this same year, but the regular publication of their *Reports* did not begin until 1870.

The difficulty at the root of journalism—lay as well as medical—was the insuperable objection to publicity which was shared by private individuals as well as by all public bodies. It was only with the greatest difficulty that ab-

stracts of really important papers could be obtained, whilst the discussions at the Societies went unreported, not so much from the want of a good system of stenography—for Pitman invented his system in 1837—as from the danger of personal violence run by the reporter if he was detected in the act of making notes.

## THE MEDICAL PROFESSION IN 1837.

By D'Arcy Power, F.R.C.S., F.S.A.,
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The condition of the medical profession in 1837 is separated *toto cœlo* from its present condition. The social position of its members, the habits of its students, the relationships of its great corporate bodies, even the ideas and the methods of thought have undergone a radical change.

In 1837 the medical profession consisted of scattered units loosely held together by the Apothecaries Act of 1815, and its members were sharply defined into two great groups—a superior grade of physicians, an inferior grade of surgeons, apothecaries, and prescribing druggists.

### The Medical Student.

The difference in the two grades was marked from the very outset of the medical education. Sir James Paget recalls that when he entered at St. Bartholomew's Hospital there were three sets of students—the University men, who were regarded as the sole claimants for the higher medical offices: the hospital apprentices, who were alone deemed eligible for the surgical appointments; and the general body of other students.

The Oxford and Cambridge men were usually of far higher general culture than most of their fellow students. They had all taken a degree in Arts before beginning the study of medicine, and many of them were of higher social position. A few indeed had gained their position by the process then known as "term trotting," which consisted in going up to Cambridge at irregular intervals to keep the minimum number of days in each term required to obtain a degree, but even these had acquired some leaven of the University. The London University was so young that it had not attained any of its present repute, and "Scotch Doctor" was in England rather a term of reproach, though the professional education in Scotland was very far ahead of the English teaching.

The hospital apprentices were those apprenticed to any of the surgeons or assistant surgeons. They had a longer and better hospital teaching than the ordinary students, for their course lasted four years instead of eighteen months. They might be specially taught by their own masters, and they had the first choice for dresserships, and generally were well off, being the sons of fathers who could pay apprenticeship fees of 500, 800, or even 1,000 guineas. Both these classes had some apparent claim to special privileges; but, as usual, too much dependence on supposed rights brought failures; many of them were beaten by those who had nothing but their work to depend upon.

The general body of students were, in comparison with others of the same age and the same level, about as they are now. Perhaps they came to the hospital better prepared than those of the present day. They had been for three or more years apprentices to general practitioners or to surgeons of provincial hospitals; they knew the language in which they were to be taught; they knew more or less of the business of practice; many of them had dissected, many had read well. As among other students there were a few thoroughly vicious fellows who came to a bad end, left the school in disgrace, or were plucked and no more heard of; and some idle fools and some blockheads and untaught who could never learn their duty. These have been caricatured as if they were types of the whole class. It would be as reasonable to sketch the general characteristics of Englishmen from a slight acquaintance with some inmates of a lunatic asylum. The majority of students then, as now, worked well; some were laborious, as with a natural pleasure in the exercise of mental power, or in emulation or in consciousness of duty or of necessity, or with all these motives.

There is a greater contrast in the play than in the work of that time and this. The pleasures and amusements then were coarser. There was much more drinking, a few were often drunk and many who never were so would boast of drinking more than they thought they needed. Cursing and swearing were common in ordinary talk, frequent for emphasis, and nasty stories were very often told and deemed of the same worth as witty ones—all common foibles and a reflection of the habits of the Society of the time, for as yet no Jowett had arisen to say in his small voice after such an exhibition, "I think, Mr. , there is more dirt than wit in that story." Impurity of life and conversation were scarcely thought disgraceful or worth concealing. But in all these faults there were great differences among the students; some might boast of them, but many only tolerated them and kept as clear as they could; a few rebuked them, chiefly those who, in the slang of the day, were called Saints or Simeonites after the great Cambridge preacher. At that time there was no boat club or cricket club, there were no regular athletics of any kind, no concerts, no private theatricals. Boxing, fencing, walking, and long excursions into the country with the lecturer on botany then formed the staple exercise of the more rational medical student.

### Number of Students.

It is extremely difficult to estimate with any degree of accuracy the number of medical students in London at the beginning of Her Majesty's reign. Sir William Lawrence thought that in 1834 the students of St. Bartholomew's Hospital, including those who attended the various lectures, were nearly 300 in the winter time, but of these only between 100 and 200 attended the practice of the hospital. This statement is substantially correct, as it is borne out by independent figures, and the following table enables us to put the schools in the order of their numerical strength. It gives the average number of candidates who presented themseves for examination each year at the Royal College of Surgeons and at the Society of Apothecaries:

| School. | College. | Apothecaries. |
|---|---|---|
| St. Bartholomew's ... ... ... | 67 | 84 |
| Webb Street ... ... ... ... | 57 | 75 |
| Guy's ... ... ... ... ... | 38 | 44 |
| The London University (University College) | 39 | 37 |
| St. Thomas's ... ... ... ... | 32 | 31 |
| The London ... ... ... ... | 14 | 20 |
| Aldersgate Street ... ... ... | 11 | 0 |
| Windmill Street ... ... ... | 13 | 1 |
| St. George's ... ... ... ... | 12 | 1 |
| King's... ... ... ... ... | 5 | 0 |

### Medical Teaching.

The method of teaching differed very considerably at the beginning of the reign of Queen Victoria from that which is in vogue at the present time. Great importance was attached to the mere attendance upon lectures; in England very little stress was laid upon any form of clinical teaching, though the Edinburgh school had long been remarkable for the excellence of its bedside instruction. The limited time during which the majority of students stayed in London often rendered it necessary for them to attend as many as four lectures a day during the winter session, besides the dissections and the hospital practice. Of the sciences ancillary to medicine anatomy and botany were taught thoroughly well, chemistry moderately well, but the teaching of physiology, like the science itself, was most unsatisfactory. Each course of lectures could be entered to separately, for no general entrance fee was usually paid, there was no marking and very little observance of attendance. Yet many of the lectures were excellently attended. The long intervals between the two examinations, at the College and at the Hall—for apprenticeship and qualification—gave the better men more time to think for themselves, as they were not worried by perpetual classes and school examinations. This interval, however, often proved the ruin of the inferior and moderate men, who wasted long periods of time and then sought to recover lost opportunities by a process of "coaching." In too many cases this degenerated into mere "grinds," where everything was sacrificed to memory and "tips," the passing of the examination being the only object in view. The palmy days of the

private schools had passed away, and their place was taken by the "grinder," who has in turn disappeared before the improved methods of teaching which increased competition has compelled the medical schools to afford to their students.

### Specialism.

Specialism, in the present sense of the word, hardly existed. Ophthalmic surgery, as requiring a somewhat greater delicacy of manipulation than the ordinary operations, was beginning to become specialised, though Lawrence, essentially a general surgeon, had but lately published the best textbook on diseases of the eye. Orthopædic surgery became a special study about 1830, but "the Royal Orthopædic Hospital for the cure of club foot, lateral curvature of the spine, and all other contractions and deformities," was not established until the year 1838, and in the same year was founded the Metropolitan Institution for diseases of the ear. The Infirmary for Fistula, Piles, and Diseases of the Rectum had been called into existence in 1836. The practice of midwifery, as has been shown, was a bar to the highest position in the Royal College of Physicians, until coming reforms caused its relaxation in the case of Sir Charles Locock, who was admitted a Fellow in 1836, and was Consiliarius in 1840, 1841, and 1842.

### Dentistry.

The practice of dentistry was practically unregulated, though an attempt was made in 1841 to obtain public recognition for dentistry as a branch of surgery. Negotiations were opened with the Royal College of Surgeons to obtain an enactment that no one should practise as a dentist until he had been duly examined by one or more members of that body, but the negotiations failed, and it was not until 1855 that a more successful attempt was made.

### The Public Services.

The prospects of those who wished to serve their country professionally in a public capacity were even less promising then they are at the present time in the army. Three services were open to them—the army, the navy, and the East India Company—but the army was considered to hold open the widest door to honourable and profitable employment. A candidate was required to be a Member of the College of Surgeons of London, Edinburgh, or Dublin, unmarried, and not more than 26 nor less than 21 years of age. He passed an examination in mathematics, natural history, and moral philosophy, as well as in the more strictly professional subjects. The examination passed he might have to wait for some years before he obtained his commission as assistant-surgeon which carried the rank and pay of a lieutenant with an additional allowance of one shilling a day. The medical portion of his education was carried on at Chatham, but his chance of promotion was so small that in 1840 the list of assistant-surgeons contained 310 names, of which number 30 had been upwards of twenty years without promotion. After ten years' actual service in the army the assistant-surgeons received an increase of pay of half-a-crown a day.

The following fact, illustrative of the treatment received by medical officers at the hands of the authorities, shows how little matters have progressed in the course of sixty years: "At one of our foreign stations a strong detachment of a regiment was employed in making a road through a marshy and insalubrious district; all the men had extra pay, and the officers who merely mustered their respective parties and marched them to work, were allowed 4s. 4d. per diem, while the medical officers in charge of the whole, with strict orders to visit all the detachment once or twice a day, making a circuit of eight or ten miles, were granted nothing, not even forage for a horse, for so laborious a duty." Very similar was the condition of the naval surgeon, but his scale of pay was even less satisfactory than that of his brother in the army. The naval surgeon received no increase of pay, however long the term of his service as an assistant, whilst every three years or oftener he was put upon half pay in consequence of his ship being paid off.

The East India Company's service was next in point of rank and superior in point of pay to the British service. The candidate had first to receive a nomination as an assistant surgeon. He then gave proofs of his proficiency in surgery and in medicine, after which he was sworn before the Military Committee, and entered into an undertaking to proceed to his destination within three months. If he proceeded by one of the ships belonging to the Company he paid £95 for his accommodation at the captain's table, or £55 for his accommodation at the third mate's mess, in addition to £12, his charter passage money to the owners. During the first six months after his arrival in India he was attached to the Presidency Garrison Hospital to study tropical diseases, and drew a pay at 1s. 8d. the rupee of 333.8 rupees (£28 4s. 2d.) per month if he belonged to the cavalry, or 224 rupees (£18 3s. 4d.) if he was attached to the infantry. On joining the regiment he received substantial allowances of batta (£2 10s. a month), and for his palanquin, though his expenses were increased by the necessity of subscribing to the medical fund. The average time required to ascend to the rank of full surgeon was 15 years, and he could retire on the full pay of his rank after 25 years' service in India.

### State Medicine.

The care of the public health, hygiene, or the science of State medicine, was unknown, and there was no sanitary measure upon the statute books at the time of the Queen's accession. The foundation of the science was laid in 1838, when (Sir) Edwin Chadwick, as Secretary to the Poor-Law Commissioners, addressed a letter to Lord John Russell, pointing out, in the following memorable sentences, that preventable disease was a cause of pauperism:

"All epidemics and all infectious diseases are attended with charges, immediate and remote, on the poor rates. Labourers are suddenly thrown by infectious disease into a state of destitution, for which immediate relief must be given. In the case of death the widow and the children are thrown as paupers on the parish; the amount of burthens thus produced is frequently so great as to render it good economy on the part of the administrators of the Poor Laws to incur the charges for preventing the evils where they are ascribable to physical causes, which there are no other means of removing.....During the last two years the public has suffered severely from epidemics. At the present time fever prevails to an unusually alarming extent in the metropolis, and the pressure of claims for relief in the rural unions, on the ground of destitution, have recently been extremely severe."

The report proceeded to declare that "all delay must be attended with extensive misery, and we would urge the consideration of the fact that, in a large proportion of cases, the labouring classes, though aware of the surrounding causes of evil, have few or no means of avoiding them, and little or no choice of their dwelling."

No effective legislation took place in regard to public health until Lord Morpeth's Health of Towns Act received the Royal Assent on the last day of August, 1848, although in 1846 a temporary Act for the Removal of Nuisances and the Prevention of Epidemic Diseases, enforced the first and most elementary sanitary regulations. The State, however, had acknowledged its duties in relation to the prevention of disease in 1840, when it rendered penal the inoculation of small-pox, and made further progress in the same direction when it began to consider the dangers attending burials within the limits of the various towns though the practice of intramural interment was not prohibited until 1852.

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The Queen has been pleased to confer the decoration of the Royal Red Cross upon Nursing Sister Louisa Watson Tulloh, Army Nursing Service, in recognition of her services in tending the sick and wounded in Egypt during the period 1888 to 1894.

At the Edinburgh City Hospital, on June 9th, a silver tea service was presented to Nurse Gilchrist, the oldest staff nurse of the hospital, who has just been promoted to be matron of the Infectious Hospital at Portobello, now under the Public-health authorities of Edinburgh. Bailie Pollard, the Convener of the Public Health Committee, made the presentation, and referred to the long and excellent work Nurse Gilchrist had done. Dr. Claude B. Ker, the Medical Superintendent, returned thanks for Nurse Gilchrist. The subscribers to the presentation were the medical and nursing staff of the hospital, former residents, and some of the practitioners of Edinburgh.

## THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

ELEVEN candidates will contest the five vacancies on the Council at the election on Thursday next, July 1st. Unfortunately an eminent provincial surgeon, who would have made up the dozen, is precluded from coming forward this year, for Mr. Jordan Lloyd's "notice" or signed declaration of candidature was not received till after the expiration of the prescribed time, and the Council are prevented, by law, from granting any indulgence in such a case, the like of which occurred a few years since. The two members of Council who seek re-election are Dr. Ward Cousins (Fellow, 1860, Member, 1856), and Mr. Howse (F., 1868, M., 1865). There remain nine new candidates: Sir William Dalby (F., 1870, M., 1867), Mr. Clement Lucas (F., 1871, M., 1868), Mr. Edmund Owen (F., 1872, M., 1868), Mr. Andrew Clark (F., 1873, M., 1869), Mr. Bennett May (F., 1876, M., 1868), Mr. J. H. Morgan (F., 1876, M., 1872), Mr. Rickman Godlee (F., 1876, M., 1872), Mr. G. Jackson (F, 1876, M., 1864), and Mr. Watson Cheyne (F. and M., 1879). Thus there are no fewer than 3 provincial candidates. At present 5 such members are on the Council, the sixth (Mr. Pemberton) died since last July, but one (Dr. Ward Cousins) will have to seek re-election, and it would be a matter of regret if so progressive a candidate, who has as yet served only two years, should fail to be re-elected. There is another distinguished candidate from Birmingham (Mr. Bennett May) famous in the contemporary history of arterial surgery, and a third provincial surgeon (Mr. George Jackson, of Plymouth) will offer himself for election. St. Bartholomew's Hospital, with already 5 members on the Council, refrains from sending up a candidate. Guy's is represented by 3 members, but one (Mr. Howse) will have to seek re-election, whilst there is another candidate, Mr. Clement Lucas, from the same school. Should both succeed, the number of Guy's representatives will be 4; University College Hospital, which now has 2 members, loses 1 (Mr. Christopher Heath) altogether, but sends up a distinguished candidate, Mr. Rickman Godlee. The London Hospital, reduced to 1 through the loss of Mr. Rivington, sends up no candidate, and St. Thomas's and the Westminster, with 1 member apiece, have likewise refrained from endeavouring to strengthen their representation. Sir William Dalby is connected with St. George's, which already possesses 1 member of Council, Mr. Pick, but the candidate in this case represents specialism as well as a school. On the other hand, the three unrepresented metropolitan schools are showing signs of activity, and so is the Middlesex, which with Mr. Morris (who retires next year, when he will have completed the late Mr. Marcus Beck's term), already a member, sends up Mr. Andrew Clark. From St. Mary's there is Mr. Edmund Owen, undoubtedly a strong candidate, whilst Mr. Watson Cheyne, one of the most distinguished of Lord Lister's disciples, will strive to represent King's College on that Council where once sat Sir William Fergusson and Professor John Wood. Charing Cross, which has not had a representative for five-and-twenty years, will endeavour to secure the election of Mr. John H. Morgan, a very progressive Fellow of the College. For many reasons it would seem advisable for the electors to give some encouragement to the smaller London schools. Undoubtedly if he had belonged to a larger hospital, one at least of the three candidates from the unrepresented schools would have been already on the Council. It will be interesting to see how many of these gentlemen will be successful. Otherwise, excepting that there is an unusual number of candidates, there is not likely to be much excitement about the coming elections.

## THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS, ENGLAND.

THE Committee of the Association of Fellows at its last meeting had the melancholy duty of passing two votes of sympathy and condolence, one to the family of their late President, Mr. George Pollock, and the other to the family of Mr. Walter Rivington, one of their Vice-Presidents, who died last month.

One of the most important matters with which the Committee dealt was that in reference to the forthcoming election of Members of the Council at the Royal College of Surgeons. The feeling which generally found expression at the meeting was that the Association, as a body, should take no active part in the contest, on the grounds that there were no questions of reform which could be usefully advanced upon the present occasion. It was therefore agreed not to nominate any candidates this year. It was, however, pointed out that there were two candidates, members of the Committee, namely, Mr. Ward Cousins and Mr. Jordan Lloyd, who deserved the support of the Members of the Association, and a general agreement was arrived at to do everything to assist the return of these candidates, so far as individual efforts were concerned.

A letter was read from the honorary secretary of the society of members forwarding a copy of two resolutions, one of which referred to the recent proposal to invite Lord Lister to come forward as a candidate for a vacancy on the council, with a view to his election as President of the College. But as the committee had already decided to take no active part in the election, it was agreed that nothing should be done in the matter. The subcommittee appointed to draw up the report of the proceedings of the Association from the date of the last report till the present time have nearly completed their task, and the announcement was made that the report would be published as soon as it was ready.

## ROYAL COLLEGE OF SURGEONS.

AN ordinary Council was held at the College on Thursday, June 10th; Sir WILLIAM MAC CORMAC was in the chair.

The minutes of the last meeting were read and confirmed.

Sir James Paget, Bart., F.R.S., and Lord Lister, P.R.S., were introduced, and the PRESIDENT presented to each the honorary medal of the College, together with a document declaratory of its award.

Mr. Charles Lissmore Tomes, F.R.S., was introduced, and the PRESIDENT handed him a cheque for £24 14s. 1d., the amount of the John Tomes Prize, together with the instrument declaratory of the same.

It was resolved that the Sheffield Royal Hospital be recognised for dental hospital practice.

On the recommendation of the Library Committee, it was resolved that the vacancy in the office of librarian be advertised, and applications invited for July 10th. These applications will be considered by the Committee, and their nomination will be submitted to the Council for election.

The Laboratories Committee presented the following report on the preparation of antitoxic serum for the Metropolitan Asylums Board:

"Since March 5th the Director has supplied 3,125 doses of antitoxic serum containing 4,000 units each, 944 doses containing 3,000 units each, and 50 doses containing 1,000 units, for the treatment of diphtheria in the hospitals of the Metropolitan Asylums Board, and all the demands have been fully met. During this period 15,382,000 units have been supplied, against 14,028,000 units last quarter, being an increase of 1,354,000 units.

"In fulfilment of one of the conditions of the grant from the Goldsmiths Company, that antitoxin should be, if possible, supplied for use amongst the poorer classes of the community, antitoxic serum has continued to be supplied to various general and children's hospitals in London during the past quarter, as well as to certain medical practitioners for cases fulfilling the necessary conditions."

The following examiners for the ensuing year were appointed:

*Elementary Biology.*—Peyton T. B. Beale, Geo. A. Buckmaster, Thomas William Shore, Thomas George Stevens.

Anatomy and Physiology: Conjoint Board:

*Anatomy.*—Stanley Boyd, William Bruce Clarke, George Henry Makins, Arthur Robinson.

*Physiology.*—John Rose Bradford, Leonard Erskine Hill Walter George Spencer.

Anatomy and Physiology: Primary F.R.C.S. Examination:

*Anatomy.*—William Frederick Haslam, Walter H. A. Jacobson, Charles Barrett Lockwood, John Bland Sutton.

*Physiology.*—Thomas Grigor Brodie, D'Arcy Power, Ernest Henry Starling, William Henry Thompson.

*Midwifery.*—Montagu Handfield-Jones, Arthur H. N. Lewers, Amand Routh, Herbert Ritchie Spencer.

Diploma in Public Health:

*Part I.*—Arthur Pearson Luff.

*Part II.*—Edward Seaton.

The Council considered a letter from the Portsmouth Medical Union asking whether the College is prepared (provided suitable evidence was forthcoming) to take action against its Members relative to the practice of "touting" and canvassing from door to door carried on by some Members who run private medical clubs, and who employ a paid collector for the purpose; and also against those Members who belong to and hold office in the so-called medical aid societies where canvassers are employed and who "tout" for the benefit of particular individual practitioners.

In the case of the private club the employment of a canvasser is direct; in that of the medical aid society exactly the same evils exist, but the employment of canvassers, so far as the doctor is concerned, is indirect. In both cases the collector or canvasser is paid on commission, and in the case of the medical aid society it is known that some medical men actually bribe the canvassers to "tout" especially for them.

It was resolved that the following reply be sent:

The Council, while not prepared to express an abstract opinion on the question raised by the Portsmouth Medical Union, are willing to consider any evidence which may be submitted to them respecting canvassing for patients either directly or indirectly by any individual Fellow or Member of the College, with a view to determining whether or not such Fellow or Member has been guilty of a breach of the by-laws.

The Council having considered a memorial signed by forty-one members of the medical profession resident in Norwich, giving particulars respecting the Norwich Medical Institute, and asking for the advice and guidance of the Council on the question of meeting in consultation the medical officers of the institute, it was resolved that the following reply be sent:

The Council having considered the memorial of members of the medical profession in Norwich and the additional statements made by the deputation from Norwich, are of opinion that the disciplinary powers provided by Section xvi of the By-laws do not entitle the Council to call in question the legality of Fellows and Members of the College holding the appointment of medical officer to the Norwich Medical Institute or to similar institutions, and therefore they cannot endorse the refusal of any of its Fellows or Members to meet in consultation (particularly in urgent cases) registered practitioners when acting in conformity with their legal rights.

A letter was received from Mr. Bryant reporting the proceedings of the General Medical Council at their late session. The letter was received and entered on the minutes, and Mr. Bryant was thanked for his services as the representative of the College on the General Medical Council.

## SOCIETY OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

We are requested to state that the following letter has been sent to all the candidates for the vacant seats on the Council of the College:

*Society of Members of the Royal College of Surgeons of England.*
West Hill, Putney, S.W.,
June 18th, 1897.

Dear Sir,—Understanding that you are a candidate at the approaching election to the Council of the College, the Executive Committee of this Society has instructed me to ask you to be good enough to communicate your views on certain matters of interest to the Fellows and Members.

In explanation of this request from those who are not directly electors, I am to refer you to a resolution passed by the Council in March, 1896, to the following effect:

"That this Council represents the Body Corporate of the College, and, therefore, the Members as well as the Fellows."

I am further to add that should you be good enough to favour me with a reply, we propose to publish it, subject to your approval.

The Committee of this Society feels that it is desirable that in future the Fellows and Members should be in possession of something more than vague statements in the press as to the views of candidates on current topics.

The following are the questions to which I am directed to solicit a reply:

1. Are you in favour of granting the Members a limited direct representation on the Council?

2. Do you consider that the President should be elected by the Fellows generally or as at present?

3. How do you think that the representative of the College on the General Medical Council should be appointed in accordance with the Act of 1858?

4. Will you support a literal interpretation of By-law xv, and do you consider that the rights, privileges, etc., of a Fellow or Member referred to in the By-law are those in virtue of which he practises his profession?

I remain, faithfully yours,
W. G. Dickinson, Hon. Sec

We are informed that of the replies up to date:

Mr. Jackson replies Yes to the first question; to the second he answers that he thinks the President should have been a member of Council for at least two or three years, and should be elected by the reformed Council; the third question he does not answer clearly, and replies Yes to the fourth.

Mr. Howse replies No to the first question; "as at present" to the second and third; to the fourth, which he objects to as "vaguer than the by-law itself," he says he will "support any legal interpretation which seems to me just and good for the profession and the College."

Mr. Edmund Owen prefers to reserve his freedom of action and independence as a member of Council if elected, and therefore declines to answer the questions.

Mr. Andrew Clark coincides with the present policy of the Council, and is in sympathy with their resolution of March 16th.

Mr. Watson Cheyne does not propose to pledge himself to any course of action if elected.

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We are asked to state that a Medical, Surgical, and Hygienic Exhibition will be held at the Queen's Hall, Langham Place, London, from July 26th to July 30th. The exhibition is designed to show the progress which has been made during the Queen's reign in the manufacture of chemical preparations for medical purposes, of surgical instruments and appliances, of food products, and of sanitary compounds and apparatus, and in medical and surgical literature. The exhibition is under the control of some of the leading firms of manufacturers to whose enterprise many of the advances made in drugs, food preparations, and appliances are due. There is good reason to hope that the exhibition will be both interesting and successful.

Street Hygiene on Jubilee Day.—In view of the large number of troops and the great crowd of the general public which were expected to assemble in the neighbourhood of the route taken by the procession on Jubilee Day, special arrangements were made for the supply of water. Temporary water posts were erected at many points, and were largely used by the troops, who much appreciated the provision. Dr. F. J. Allan, M.O.H. Strand, informs us that it was at one time thought that it might be possible to provide urinals on the dry system, but as the urinals were to be in use during the whole of Jubilee week, it was thought that some nuisance might arise in the removal of the saturated sawdust or peat. The idea was therefore given up, and in their places temporary urinals for the use of the public and the troops were erected by the Surveyor of the Strand Board at various convenient parts in that district and in St. Martin's. The urinals were substantial wooden structures, of rectangular shape, with openings at each end. No basins were inserted, but the floor and sides to a height of about 3 feet were covered with lead, in which gutters were formed, which conveyed the water and urine to a gulley near by. A constant flush of water was provided, and no offensive smell was produced.

Munificent Charitable Bequests.—A large number of charitable institutions in Edinburgh and Glasgow are to receive valuable bequests under the will of a lady, Miss Martha Brown, of Waterhaughs, who died at Lanfine on May 21st. The total bequests to Edinburgh amount to £7,685, of which the Royal Infirmary is to receive £5,000, and the Sick Children's Hospital £1,000. To Glasgow institutions £7,300 are bequeathed—£5,000 to the Royal Infirmary, and £1,000 to each of the other two general general hospitals. The Fever Hospital, Kilmarnock, is to receive £300, that at Ayr £200, while a large number of other charitable institutions, nursing institutions, convalescent homes, etc., receive smaller sums. To Edinburgh University £5,000 are left for bursaries, and to Glasgow University a similar sum, while to each of the Homes for Incurables at Edinburgh and Kirkintilloch the sum of £21,000 is bequeathed. The total bequests to such charitable and philanthropic institutions amount to £97,475. Dr. William Frew, of Kilmarnock, is named as one of the trustees and executors.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1897.

**SUBSCRIPTIONS to the Association for 1897 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.**

# British Medical Journal.

SATURDAY, JUNE 26TH, 1897.

## THE QUEEN'S JUBILEE.

THE Bishop of London concluded his sermon at the Coronation of Queen Victoria by a reference to "the ancient and well-remembered glory of female reigns—the glory not of outward magnificence and splendour, but the enduring glory of internal improvement and tranquillity."[1] If the preacher had lived to see the pageant of Tuesday, and still more the demeanour of the crowd which crammed the streets and filled to overflowing the balconies which lined the route, he would have admitted that outward magnificence and splendour as evidenced not merely or chiefly by brilliant trappings, but the living witnesses to extended empire, were not wanting. It would have needed, however, a deeper insight to perceive that the greater glory of internal improvement and of the fruits of tranquillity was not wanting. We gave last week some account of the progress of medicine and surgery during the Queen's long reign, and we showed how this progress had acted for the benefit of the empire and of the world. In another part of the present issue we trace the more direct influence of this progress in certain departments of social life, and particular attention is called to the striking evolution which has taken place in our ideas of how a hospital should be constructed and administered. University College Hospital, old and new, illustrates well the chief points of difference, and how in the present day we seek, even on a cramped site, so to utilise every inch of space as to give the maximum of light and air to every ward, and to avoid agglomerations of wards blocking away the sunlight and the fresh air from each other.

In another article the great advance which has been achieved in the regulation of the conditions under which the chief industries of the country are carried on is briefly indicated. And, again, in the article on India, a brief sketch is given of the means which have been taken to carry to India the advantages which we have slowly won for ourselves by the spread of the knowledge of hygiene, by the progress in medicine, and by improved methods of sanitary administration.

In no department of human activity has a more beneficent work been done than in those of Medicine and Hygiene, and none has earned for the reign of Victoria a better right to claim "the enduring glory of internal improvement."

The welcome accorded to Her Majesty on Tuesday, not only by the people of London, but by visitors from every part of the Empire, was an expression of personal affection founded upon a true sense of the fact that the quiet influence of the Queen has counted for not a little in the prosperity which has come to us. "The English," wrote the Queen's grandmother, "like queens;" and surely we have good reason to do so; in the future we shall have the privilege of comparing with the spacious times of Great Elizabeth the great era of Victoria, during which the mind of man has widened, and his control over the forces of Nature—both those which war against his health and life, and those which may be made subservient to his needs—have been so greatly extended.

It is pleasant to know that this great popular ceremony has passed without any serious accident, and without, we believe, the cost of a single human life. That this has been so is due in no small measure to the care and forethought displayed in providing for the comfort of troops and people, and in the admirable arrangements made for the ambulance service. A considerable number of minor cases of accident and illness were promptly and skilfully treated, and more serious consequences averted.

Gratitude and congratulation are at such a moment the natural expressions of a nation's sentiments, but the lesson of the past must not be forgotten. The progress which has been made has been due to the thirst for knowledge, and in the future it can only be continued in the same way, by giving even greater facilities for winning fresh victories in the fields of science, and providing ever-extending means for disseminating this knowledge so that it permeates more and more our national life. Civilisation has at least advanced so far that the real foundations of empire are now laid in the laboratory and the class room.

[1] Reprint of the *Times* of June 29th, 1838.

## RECENT STUDIES IN IMMUNITY.

THE manner in which the living organism protects itself against the ravages of noxious microbes and their poisonous products is a branch of pathology yielding to no other in interest. Over it the old warfare of the cellular and humoral schools has again been waged, and although we must admit that the brilliant researches of Metchnikoff have established the doctrine of phagocytosis upon a firm basis, it cannot be denied that it fails to explain a certain number of facts which are better accounted for by the humoral theory, of which Pfeiffer is one of the most ardent and distinguished supporters. Upon the solution of this question hangs one of even greater practical importance, the means by which the more or less permanent immunity following an attack of a specific infective nature is established. The study of so-called antitoxic serums shows that they fall in two groups: those which are truly antitoxic—that is, neutralise microbic poisons, and those which are bactericidal in their action. Most serums possess both these properties to some extent, but one is usually far in excess of the other: thus the serums of cholera and typhoid are mainly bactericidal, those of diphtheria and tetanus mainly antitoxic. A most important contribution to our knowledge of this subject was not long ago made by Wassermann,[1] who succeeded in obtaining from cultivations of B. pyocyaneus a serum possessing both these functions to a marked degree, and also serums possessing one or

[1] *Zeit. f. Hygiene*, xxii, 1896, p. 263.

the other property at will. He found that an animal treated with toxins was protected against both toxins and bacteria, while one treated with bacteria was immune as regards bacteria only. He showed that minimal immunity could be produced by the injection of a single dose of toxin, insufficient to cause severe symptoms; it often appeared on the second day, never later than the fifth. The amount of immunity varied mathematically with the quantity of toxin injected, but much more with the individual animal. Wassermann made use of the fact that the toxicity of pyocyaneotoxin is but slightly diminished by boiling to attack the vexed problem as to the identity or non-identity of toxic and immunising substances in bacterial cultures. He found that weakening the toxicity of the toxin diminished *pari passu* its immunising power, and that consequently—contrary to his formerly-expressed opinion—the poison was at the same time the agent conferring immunity.

Turning to the question of ordinary passive immunity—that is, the protection of an animal against an infective disease by means other than its contraction—the author immunised a goat in various ways, and showed that the properties of its serum varied with the method adopted. Thus when the animal was immunised with increasing doses of toxin, its serum was found to possess both antitoxic and bactericidal properties up to a certain limit beyond which they could not be developed. On further immunisation with increasing doses of sterile living cultures, the bactericidal power of the serum increased, while the antitoxic markedly diminished. There can hence be no doubt that, although they are not distinguishable by their behaviour with chemical or physical reagents, antitoxic and bactericidal substances are different in nature. Thus, while as soon as the former are present in the serum as the result of inoculation with sterile broth cultures, it has also acquired bactericidal properties, it may be powerfully bactericidal without possessing any antitoxic power. To obtain protection against both microbes and toxins, it is therefore necessary to immunise with increasing doses of the latter.

A further interesting research had for its object the elucidation of the true cause of the bactericidal action of antitoxic serum. If this action were an inherent property of the serum it would be possible, by giving a sufficiently large dose of the serum, to kill any number of bacilli introduced into the body of an animal. But this is not the case; although 0.01 c.cm. of serum destroyed one loopful of a living culture in the animal body, 1 c.cm., or 100 times as much, could not destroy three loopfuls. We are, therefore, forced to believe—and this is the case with other micro-organisms besides bacillus pyocyaneus—that an actual reaction of the cells of the body takes place, gradually building up the bactericidal substance out of the inactive protective serum. Till this reaction occurs the microbes may kill the animal though an excess of immunising substance is present in its blood.

Wassermann finally made use of the fact that the virulence of pyocyaneotoxin is but little diminished by a temperature of 100° C. to solve the question as to whether the antitoxic serum really destroys the toxin or simply rapidly immunises the animal against it. That the latter is the case is shown by the result of boiling a mixture of pyocyaneotoxin and serum which was harmless to animals. The protective properties were by this means destroyed, while the toxic were unaffected; on cooling and adding a fresh supply of serum the mixture became again innocuous, proving that the toxin is not destroyed by the serum.

Furthermore, the doses of toxin and serum cannot be increased indefinitely without harm to the animal, which should be the case if they simply produced a harmless mixture. Wassermann never succeeded in rendering more than six times the ordinarily fatal dose of pyocyaneus poison harmless in the body, however great the amount of immunising serum he gave at the same time. There is no doubt, therefore, that in the case of the antitoxic as of the bactericidal substances in protective serums a reaction of the tissues is essential to their efficacy, and that their failure results from the non-development of this reaction.

## PHTHISIS AND OVERCROWDING.

A PAMPHLET has recently been issued by Dr. A. K. Chalmers, the able coadjutor of Dr. Russell, on the Distribution of Tuberculous Diseases in Glasgow, with Observations on the Relation of Phthisis to Room Density. It contains an exhaustive analysis of the changes in the phthisis death-rate of the city as constituted before its extension in 1891. For reasons given in the pamphlet, the investigation is limited to the twenty-four statistical districts comprising the old city, each district being separately dealt with.

The conclusions at which he arrives are as follows:[1] The room density of the whole city fell from 2.040 in 1881 to 2.033 in 1891 (or a decrease of 7 persons per 1,000 rooms), and its phthisis-rate from 268 to 230 per 100,000 living. All districts, save one, having a phthisis death-rate above the mean had a room density also above the mean. In all these districts, save St. Andrew's Square, the room density was greater in 1881 than in 1891. Eleven districts had a phthisis death-rate below the mean; five of them had a room density in excess of the mean, tending toward increase in three of them.

These exceptions, Dr. Chalmers contends, are sufficiently large to show that the relationship between room density and phthisis is not a simple one, and that excessive density is not at once responded to by an increased phthisis-rate. Still, in nine districts where the room density increased between 1881 and 1891 the phthisis death-rate fell 13.5 per cent., whereas in fourteen districts where the room density was reduced the phthisis-rate fell 10 per cent.

By reference to the tables we find that the death-rates 268 and 230 refer respectively to the years 1881-90 and 1890-95, but we have not found any statement as to whether the death-rates occurring in the union have been distributed to their respective districts. If this has not been done it will be unsafe to draw any precise conclusion as to the incidence of phthisis on the respective districts, since it would be certain to vary greatly in the proportion of their phthisical poor, a very important element in the continuance of the disease.

The comparatively low death-rates occurring in the various districts make it seem probable that this distribution has not been made. Possibly the main facts would remain the same whether distribution were or were not carried out. On the other hand, if so important and variable an element as the proportion of poor dying in the union is left out of

[1] By room density is to be understood the average number of persons inhabiting a room.

account, some amount of uncertainty is necessarily imported into the results.

It is, indeed, clear that, given an infectious disease like phthisis, increased room density will, other things being equal, be accompanied by a greater incidence of the disease. That would also be the case with any of the ordinary infectious diseases.

Dr. Chalmers contends that "the history of phthisis among masses of men so widely removed in their calling as soldiers, sailors, artisans, and having nothing in common save exposure to an atmosphere contaminated by the products of respiration in barracks, on shipboard, and in ill-ventilated workrooms, affords sufficient evidence for regarding respiratory impurity alone as one of the most powerful of the conditions which contribute towards its prevalence."

Without questioning the ill-effects of respiratory impurity, it may still be pointed out that in all the instances mentioned there is common also the infective matter from previous cases of phthisis, under conditions often singularly favourable to the retention of its viability, as well as to its distribution in the atmosphere. We are thus led to remark on the immense mortality from phthisis in the inhabitants of common lodging houses, and doubtless amongst those inhabiting the same district, many of whom, we may suppose, visit these houses, and occasionally resort to them. It is in certain districts difficult to distinguish the lodger from the non-lodger element, and Dr. Chalmers does not state whether lodgers other than those in common lodging houses are included in reckoning "room density." However completely these matters may be explained elsewhere, it is a pity, for the comprehension of this valuable piece of work, that some key is not supplied to them. While we accept Dr. Chalmers's contention that the number of persons inhabiting a room is a far better criterion of density of population than the number living on a given area, yet he is doubtless right in holding that the relation of phthisis to the number of persons per room is not a simple one. Assuredly an inquiry such as Dr. Chalmers has instituted is a fit prelude, and may be a useful guide, to the work of practical administrative prevention, which we are informed is about to be carried out in Glasgow. Accepting, then, the broad facts, we consider it matter for gratulation to find that the city has become generally less crowded than formerly, while phthisis appears to have diminished in a ratio greater in proportion to the improvement in this respect, as well as in proportion to the diminution of the general death-rate. The results of the new preventive action which has been inaugurated will be looked for with much interest when the next review is made of the phthisis mortality of Glasgow.

## ENTERIC FEVER IN INDIA.

The report of the Sanitary Commissioner with the Government of India for the year 1895 furnishes interesting information regarding the prevalence of enteric fever in the European army in India; 1,870 cases were admitted into hospital, of which 477 were fatal. The admission-rate was 26.3 and death-rate 6.72 per 1,000. The disease contributed to the admissions 1.8, and to the deaths 44 per cent. The case mortality was 25 per cent.: 31 cases and 8 deaths occurred among women, or 9.7 and 2.5 per 1,000, and 29 cases and 2 deaths among children, or 5.1 and 0.35 per 1,000. The very low case mortality among children is remarkable. The rates of 1895 are the highest annual rates on record, and the proportion of young soldiers was also the highest on record. As this proportion has gradually risen since 1870, so has the prevalence of venereal diseases and enteric, *pari passu*, increased. As usual, the statistics of the year show that the majority of cases occurred in men of less than 25 years of age and two years' service.

The geographical distribution of the disease is very remarkable. The upper Gangetic and sub-Himalayan plains, the Indus Valley, Central Provinces, Deccan plateau, and Hill stations give high figures, and Burmah, Bengal, the Western coast, and Southern India comparatively low rates. The most malarious and low-lying tracts are not those most favourable to enteric, nor do the seasonal curves of malarious and typhoid fevers coincide. Enteric presents maximum figures from April to August, and intermittent from July to October. The disease is not confined to the men; officers suffered and died in similar proportions; and civilian Europeans are also attacked in considerable numbers. It is recorded that civil surgeons in Bengal, the North-Western Provinces and Oudh, and the Punjab attended, in the years 1894 and 1895, 168 cases among European men, women, and children, of which 24 proved fatal. The disease was specially severe in the European regiments which formed part of the Chitral Field Force. The Bedfordshire Regiment lost 31 men, the Gordon Highlanders 15, and the King's Royal Rifle Corps 13 on this service.

The report contains interesting information regarding the results of bacteriological research in India and elsewhere as to the causation of enteric, and the effect of measures adopted to limit and terminate outbreaks. Great stress is laid on the difficulty of identifying Eberth's bacillus, and much evidence is adduced to show that there are "pseudo-typhoid or coliform" organisms—which are held to be transitions between the bacillus coli and the typical enteric microbe—which give similar reactions to the true pathogenetic form, but seem to be non-virulent. Mr. Hankin appears to hold that both the cholera and the enteric microbes are capable of losing their virulence under certain conditions, and it would appear that they are also capable of regaining it in suitable media and surroundings.

The evidence with regard to the effect of boiling the drinking water and the adoption of other precautions to prevent specific contamination of food and water is unsatisfactory reading. In several instances the immediate effect of the precautions was good, but the disease reappeared after an interval, and neglect and evasion will no doubt account for these failures. Many medical officers point out that soldiers are very apt to resort to places and practices involving great sanitary danger.

The report contains also some interesting observations on enteric fever among Indian communities. As regards the general native population, while they do not seem to possess an absolute immunity against the disease, Indian races appear to be wonderfully exempt from it. This exemption does not certainly arise from the absence of conditions favourable to its development, for susceptible subjects readily acquire the disease in surroundings in which non-susceptible subjects habitually spend their lives. Perhaps it is this very circumstance of habituation which accounts for the difference. Another view explaining the immunity is that

protection of the adult is gained by the Indian through undergoing an attack of the disease in infancy.

Our information regarding pathogeny among natives is as yet too crude to throw much light on this interesting question; but the statistics of native communities under systematic medical observation, namely, troops and prisoners, fully supports the belief in the existence of a relative immunity. Among native troops only 25 cases of enteric with 9 deaths occurred in 1895, and among the prisoners 38 cases and 14 deaths. These figures give admission-rates of 0.2 and 0.4, and death-rates of 0.07 and 0.13 per 1,000. It is worthy of remark that the Nepaulese in the native army suffer about four times as much as other natives. This fact goes in favour of the immunity doctrine; for Goorkhas are also more prone to succumb to the infection of cholera and tuberculosis than the inhabitants of the plains of Hindustan. The case mortality is much higher among natives than Europeans, probably indicating identification of severe or fatal cases only.

The special conditions which influence the etiology of enteric in India require more searching and exact investigation than has as yet been carried out; but there can be no question or doubt as to the necessity of paying strict attention to all the hygienic observances which the Sanitary Commissioner indicates as consistent with the present state of our knowledge.

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THE Senate of the University of Dublin have voted the degree of Doctor of Science *honoris causâ* to Professor His, of Leipzig, and Professor Ramsay, of London.

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THE annual meeting of the Society of Fellows of the Royal College of Surgeons of England will be held at 146, Harley Street, at 6 P.M. on Wednesday, June 30th.

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A TELEGRAM from Simla announces the death from the effects of the wounds received by him in the Tochi attack of Surgeon-Captain Cassidy, of the 1st Sikhs. He joined the Indian Medical Service in January, 1891.

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THE *Glasgow Herald* states that Professor McCall Anderson, of Glasgow University, has been appointed Examiner in Medicine and Pathology for the British and Indian Medical Services. Hitherto the examiners have always been London men.

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A REQUISITION to Lord Lister asking him to permit himself to be nominated for election to the Council of the Royal College of Surgeons was forwarded a short time ago by Mr. C. B. Keetley, Mr. George Jackson, Mr. R. B. Anderson, and Mr. Sydney Jones. Lord Lister, however, in reply, intimated his intention not to accept the nomination.

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DR. NEWSHOLME, the medical officer of health for Brighton, has reported to the Sanitary Committee of that town, recommending the establishment of a municipal hygienic laboratory at the Municipal Technical School. The value of such a laboratory would at the outset be chiefly to assist in the early recognition of doubtful cases of diphtheria which often cause the spread of the disease.

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## MIXED BOARDS.

A CORRESPONDENT informs us that, under the high-minded command of H.R.H. the Duke of Connaught, the recent order regarding mixed Boards has been put in operation at Aldershot, both in the spirit and letter; and an officer of surgeon-major's rank was detailed as a member on a mixed Board, to report on certain barrack buildings. We trust to receive similar reports from other stations.

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## RINDERPEST IN SOUTH AFRICA.

A REUTER'S telegram from Cape Town, dated June 16th, states that satisfactory experiments have been made with the new method of inoculation discovered by Dr. Edington.

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## LONDON POST-GRADUATE COURSE.

VACATION courses in bacteriology and hygiene have been arranged by the committee of the London Post-Graduate Course to commence on Monday, July 5th, and to be continued daily until Saturday, July 10th. The courses will be essentially practical, and have been so arranged that by giving up one week practitioners will be absent from home for the shortest time necessary for the work. Further information can be obtained from the Secretary, Dr. Fletcher Little, 32, Harley Street, London, W.

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## DR. SIMPSON, OF CALCUTTA.

WE are glad to learn that on Dr. Simpson's retirement from the post of Medical Officer of Health of the Municipality of Calcutta, a post which he has held to the great advantage of the municipality and, indeed, the whole of the people of Calcutta, the Corporation voluntarily propose to award him a yearly pension of 4,000 rupees. This resolution was carried unanimously, and it may be regarded as only a slight but just recognition of the admirable services which Dr. Simpson has rendered during his eleven years of office. Dr. Simpson's labours have, as is well known in England, been of very high scientific value, apart from the routine duties of his office. His investigations on cholera, cattle plague, and vaccine have been recognised as showing great skill and scientific ardour, and we have no doubt that on his return to England Dr. Simpson will be warmly received, and will take the high place among sanitarians to which his great knowledge and experience justly entitle him.

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## THE OWEN MEMORIAL.

THE bronze statue of the late Sir Richard Owen, executed by Mr. Thomas Brock, R.A., is now placed in the hall of the Natural History Museum. It is pronounced by all who were personally acquainted with the great anatomist to be an admirable likeness, and worthy of the position which it occupies. The total amount received by the Committee of the Owen Memorial Fund was £1,103 8s. 11d.; the expenses for printing and posting circulars and clerical assistance amounted to £75 8s. 8d., and the balance has been placed in the hands of Mr. Brock. The Numidian marble pedestal on which the statue stands has been provided by the trustees of the British Museum.

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## FEES FOR MEDICAL EVIDENCE AT INQUESTS.

DR. JOSEPH JOHN CLARKE, of Markhouse Road, Walthamstow, who ordered an injured woman into hospital, and when she died gave evidence at the inquest in response to a summons, recently sued the coroner, Mr. Charles Edgar Lewis, at Brentwood County Court, to obtain a guinea for his remuneration. The case being of some importance, plaintiff was represented by a barrister, Mr. W. Ellis Hill, instructed by Messrs. Le Brasseur and Oakley, the solicitors to the London and Counties Medical Protection Society, Limited, and the South Essex coroner, who was defendant, was represented by the South-West London coroner, Mr. A. Braxton Hicks, who is a barrister. Mr. Hill said that in the Coroners' Act there is a provision that where an inquest was held on the body of a person who had died in a hospital or infirmary used for the reception of patients, the medical officer whose duty it might have been to attend such deceased person as medical officer of such institution, should not be entitled to recover any fee or remuneration. The

plaintiff, counsel added, was not the medical officer of the institution. Mr. Hicks resisted the claim because, he said, coroners, if they paid fees to these medical men, were surcharged by the auditors. His Honour held the plaintiff was not the doctor whose duty it was to attend the deceased person as medical officer of the hospital, and was therefore entitled to his fee as a witness. Judgment was given for plaintiff, with costs on the higher scale. Mr. Hicks said the case would be taken to the High Court, and leave to appeal was given.

## SCARLET FEVER AND MILK

CLOSELY following on the publication of Mr. Ernest Hart's report on the contamination of milk comes the information that the epidemic of scarlet fever which lately asserted itself in the Portobello district of Edinburgh shows no signs of abating: on the contrary, it increases daily. Sir Henry Littlejohn believes this to be due to the fact that the trouble has now found an entrance into the schools, and the infection has thus spread amongst the children. The origin of the epidemic was, it seems, the quality of milk sold at a certain dairy, but the supply of milk to that establishment has now been completely changed. Some difficulty arose in the matter then, as the city sanitary authorities have no power to examine dairies within the jurisdiction of the county, and the county sanitary authorities have not a staff sufficient to deal with such an emergency. Sir Henry is in the meantime loth to order the schools in Portobello to be closed, but unless the epidemic begins to go down some such step may have to be taken.

## THE METROPOLITAN ASYLUMS BOARD.

THE report of the Statistical Committee of the Metropolitan Asylums Board for the year 1896 was presented on June 19th, and has now been issued. It deals with the work of the Board in all its departments, but the bulk of the volume is concerned with infectious diseases. During the year, 42,876 cases legally admissible to the Board's hospitals were notified, and of these 22,273 (51.94 per cent.) were actually admitted, a somewhat higher percentage than in 1895. The percentage of scarlet fever cases actually admitted was 62.65, but whereas during the first five months of the year it was possible to admit all applicants, in October, the month of greatest pressure, the percentage of admissions fell to 57.42.

## INTERESTED ZOOPHILISTS.

THE Antivivisection Society is a society engaged in obtaining money from the public, and it does so, apparently, with no small success by dint of continually putting forward as facts the inventions of its own interested imagination. Quite recently, Mr. Stephen Coleridge has written on behalf of this Society a letter to the Prince of Wales, bringing a definite accusation of cruelty of a diabolical kind against Dr. Starling, the well-known physiologist of the Guy's Medical School. After investigating the matter, His Royal Highness has expressed himself as satisfied that Mr. Coleridge is under a "misapprehension." Thereupon Mr. Coleridge indites another letter, which implies that Dr. Starling is a liar, and the Prince a fool for believing him. This remarkable letter closes with a paragraph, saying that no personal affront is intended to Dr. Starling! Mr. Coleridge says that when a physiologist describes, be it never so briefly, an operation upon an animal, and makes no mention of anæsthetics, his interested Society is justified in concluding that no anæsthetics were used, and has therefore a right to parade such operations as examples of cruelty, and to use them for getting money from a gullible public. We would respectfully remind Mr. Coleridge that several persons have done a term of "hard labour" as a reward for pursuing precisely that line of conduct which he appears to think is justifiable. No reader of the BRITISH MEDICAL JOURNAL, and, indeed, no sensible man could believe in the possibility of making accurate observations on any animal suffering acute pain, but it suits Mr. Coleridge's purpose to assume that it is not only possible but common. Mr. Coleridge is, or pretends to be, so ignorant of physiology that it is useless to argue with him. We would, however, point out that the statements of the antivivisectionists are never based upon observation. They are all hearsay of the flimsiest kind, the interested and perverse interpretations of the writings of physiologists made by moral imbeciles. It is quite clear to us that the time has come for the registration and surveillance of all so-called "societies" engaged in getting money from the public, and that such societies ought to be subject to some sort of regulation and control similar to that exercised by the Board of Trade over limited companies.

## PUBLIC HEALTH (SCOTLAND) BILL.

THE University Court, the governing body of the University of Glasgow, following upon the lines of the General Medical Council, have forwarded a strong representation to the Government in opposition to the erection of the sanitary inspector into a certifying official of equal authority, in matters of health, with the medical officer of health, under Clauses 22 and 36 of the Public Health (Scotland) Bill, which is presently to come up, on the report stage, in the House of Commons. The matter has also been taken up at Branch meetings of the British Medical Association over the country, and resolutions have been adopted protesting against the alterations which have been made in the Bill. If the Government adhere to these alterations, which by implication declare that the opinion of a trebly-qualified medical man is of no more value on a question of health than that of an ex-policeman or plumber, it will have, not a section, but the whole body of the medical profession to reckon with.

## PRACTICAL RESULTS OF KOCH'S RINDERPEST INOCULATION.

WRITING to a contemporary, the Secretary of the Pretoria Agricultural Society states that Professor Koch's results are better than usually stated to be. He says that the method carried out in hundreds of instances has proved successful: but the unfortunate part has been that the ignorant Boer has not carried out all the particulars as instructed. He knew of one instance in which a Boer, after inoculating an animal with the virus, actually cleaned his fingers on the back of the nearest one grazing. In his opinion, however, it is not quite possible to stamp out the disease by the method, as it is impossible to inoculate throughout South Africa the hundred thousands of heads of cattle belonging to the natives in isolated districts in various parts of the country, and this contagious virus is, moreover, carried by the aasvogels (a species of vulture), who feed on the carcasses and carry the rinderpest from farm to farm.

## HOSPITALS FOR THE TREATMENT OF CONSUMPTION IN SCOTLAND.

THERE has been of late some controversy on the subject of the hospitals for consumptive cases at present being built by Mr. Quarrier, of the homes for children, near Bridge of Weir, Renfrewshire. One hospital with executive buildings, baths, lodge, etc., is nearing completion, at a cost of £20,000. It affords accommodation for from 35 to 40 patients, and as the executive buildings, etc., are sufficient for the six separate houses originally proposed, to accommodate about 200, Mr. Quarrier is naturally desirous of securing the remainder of the money needed for the purpose, namely, £40,000. Meantime some public criticism has arisen; in particular it has been questioned whether, in the arrangements, Mr. Quarrier was proceeding under any competent medical advice, and whether he was following the counsels of an advisory medical board, the appointment of which he himself had obtained. This question has been set at rest by the publication of a statement signed by Professors Gairdner, Coats, McKendrick, and Drs. Yellowlees, J. B. Russell, and Eben. Duncan, who form the advisory Board. They state

that the hospital already erected is fitted to fulfil most of the requirements for the successful treatment of consumption, that the site is admirable, the building carefully planned, cubic space per patient sufficient, ventilation and drainage provided for efficiently, while the arrangements for the management of the hospital and medical supervision of the patients meet with their approval, and they support his appeal for the necessary funds to carry on this new department of charitable work.

## THE JUBILEE PROCESSION.

THE House of the Royal College of Physicians of London being upon the line of route at the corner of Pall Mall and Trafalgar Square, a Committee was some time ago appointed to arrange for seats to view the procession. A large number of Fellows, Members, and Licentiates of the College were present with members of their families, and invitations were extended to the Presidents of the Royal College of Surgeons of England and of the Royal Colleges of Physicians of Edinburgh and of Ireland. At the House of the British Medical Association, also, seats were provided for members of the Association, so far as the very limited space at the disposal of the Council permitted.

## THE JUBILEE SERVICE AT ST. PAUL'S.

AT the great Jubilee service at St. Paul's on Sunday, June 20th, the College of Physicians was represented by the President of the College, the Treasurer (Sir Dyce Duckworth), the Registrar (Dr. Edward Liveing), Sir William Broadbent, Sir Douglas Powell, Sir Joseph Fayrer, Dr. W. M. Ord, Dr. Sansom, Dr. Symes Thompson, Dr. Stephen Mackenzie, and Dr. Gilbart Smith. The Royal College of Surgeons was represented by the President (Sir William Mac Cormac), the Vice-Presidents (Mr. N. C. Macnamara and Mr. John Langton), Mr. Thomas Bryant, Mr. Thomas Smith, Mr. Christopher Heath, Mr. Reginald Harrison, Mr. John Tweedy, Mr. Alfred Cooper, Mr. H. T. Butlin, and the Assistant Secretary (Mr. Sibert Cowell). The Volunteer Medical Staff Corps furnished a guard of honour under the command of Surgeon-Major Squire, V.D.

## THE ARMY MEDICAL STAFF ON JUBILEE DAY.

UPWARDS of 47,000 officers and men took part in the proceedings on Jubilee Day, and the arrangements made by the Principal Medical Officer of the Home District, Surgeon-Colonel T. O'Farrell, were most extensive. The force was divided into four sections for administrative purposes, and four medical officers of the Guards—Surgeon-Majors E. N. Sheldrake, Grenadier Guards; W. C. Beevor, Scots Guards; A. P. Alexander, Coldstream Guards; and G. S. Robinson, Scots Guards, were detailed as administrative medical officers to the four sections. Ambulance stations to the number of 20 were formed at frequent intervals along the line of route of the procession, and were supplied with materials for rendering first aid. Stretchers with bearers were placed at every 75 yards of the route on both sides of the street. The stretcher bearers were placed in the interval between the troops and police lining the streets, and attended to casualties in the roadway, conveying them to an ambulance, or, if the case were one of gravity, to a civil hospital. Military, if not able to rejoin their corps were removed to one of the temporary field hospitals. These were established at Hyde Park (for 56 patients), King's College (100 patients), Tower Ditch (28 patients), Lambeth Palace Grounds (28 patients), Battersea Park (28 patients), St. James's Park (154 patients), Board School, James Street (50 patients). Arrangements were also made at Rochester Row for 100 patients. Army medical officers were posted at all the hospitals and ambulance stations with detachments of the Medical Staff Corps, and the Volunteer Medical Association provided medical officers to the number of 24, who rendered admirable service. Owing to the perfection of the arrangements for the transport, feeding, and accommodation of the troops, and to the excellent weather, very few casualties required to be treated; most of the cases were due to syncope, and a few cases of epilepsy, contusions, and ague made up the total. A good many fainting women were also attended to. Altogether about 400 cases were aided by the military medical corps; but, thanks to the completeness of the arrangements made by Surgeon-Colonel T. O'Farrell, assisted by Surgeon-Majors H. E. R. James and S. Powell as staff officers, a very much larger and more serious list could have easily been dealt with.

## JUBILEE HOSPITALS AND INSTITUTIONS.

AN Australian telegram announces that on Friday, June 25th, a *fête* was held at the Exhibition at Melbourne on behalf of the Queen's Memorial Fund, raised to erect a hospital for infectious diseases. The sum of £14,000 has already been collected. Another proposed memorial is the Queen Victoria Hospital for Women, conducted entirely by women, including the doctors. At Sydney it is proposed to erect, as a permanent memorial, a hospital for consumptives, and a sum of £5,000 has been already collected. At Brisbane a fund has been collected for the distribution of relief through charities, and for the erection, as a permanent memorial, of a convalescent home. The Jubilee will be celebrated at Townsville by the building of a hospital for women and children, and at Rockhampton by the foundation of a convalescent home. At Hobart a convalescent home will be built, and at Launceston a maternity hospital, a ward for infectious diseases at the General Hospital, and public baths. At Wellington, New Zealand, as a memorial, an operating theatre will be added to the hospital. At Cape Town Sir Alfred Milner has laid the foundation stone of the Victoria Wing of the new Somerset Hospital, which is to be built as a permanent memorial of the Jubilee.

## AMBULANCE WORK ON JUBILEE DAY.

NEVER were accidents fewer, and never were ambulance arrangements more complete, than on the Diamond Jubilee Day. Here and there a faint, an epileptiform convulsion, a scalp wound owing to a fall, a crushed finger or a bruised foot or shin occurred, but they were isolated cases, and it is a curious fact that at the hospitals along the line of route fewer accidents were treated than upon a day in which no celebration occurs. This is no doubt to be accounted for by the absence of wheeled traffic, and the perfection of the military and police arrangements, but more perhaps than anything else upon the good-natured give-and-take feeling which pervaded the people. The Volunteer Medical Staff Corps and the St. John Ambulance Association were on duty. The Army Service Corps furnished a guard of honour, 100 strong, in front of the College of Physicians. Of those in the procession only Lord Howe came by any accident; he sustained a somewhat severe concussion and scalp wound, but we are glad to learn that he is making satisfactory progress. Of the troops, in all 47,000 strong, some 25 fell out, an infinitesimal number, considering the arduous day's work they performed. The public were attended to by St. John Ambulance Association; their equipment was effective, being represented by 40 surgeons, 102 nursing sisters, and 700 men with 14 litters and 7 waggons. These were distributed over 95 stations with various substations along the line of route. During the early morning numerous faints were recorded where the crowd was especially great—as at Hyde Park Corner and Trafalgar Square, where almost 100 cases were treated. During the evening the men belonging to the brigade were stationed at prominent places, such as the stand around the Guard's Monument at the foot of Regent Street, but the main body moved with the crowd along the line of route in sections of four at definite intervals. The brigade paraded the streets until four o'clock Wednesday morning. Nothing but individual casualties, chiefly of a slight nature, were met with.

## ABSTINENCE VERSUS VIVISECTION.

WE have already had occasion to refer to the apparent diversion of an Abstinence Society from its legitimate work of promoting temperance to the antivivisection crusade. Our comment was based on the action of an officer of a branch of the Society in question. We had hoped that this warning would have been sufficient to prevent the Society from interfering in the antivivisection controversy. We regret, however, to learn, from reports of the proceedings of the National British Women's Temperance Association, that this body, at its recent meeting, passed resolutions against vivisection. The furtherance of abstinence is a work of which the members of the medical profession, whether themselves abstainers or non-abstainers, cordially approve. But when an associated body of abstainers passes resolutions against a method of scientific investigation which has afforded important information on the influence of alcohol on health and life, of which knowledge advocates of abstinence have freely availed themselves, it is time for medical science to protest. Abstaining women have an undoubted right, as individuals, to form and enunciate any opinion they choose; but official pronouncements on vexed questions such as vivisection, which have nothing to do with the temperance movement, can only injure this cause which these estimable ladies have so deeply at heart. They must surely be ignorant of the fact that such well-known medical abstainers as Professor Victor Horsley, Dr. Sims Woodhead, and the late Sir Benjamin Richardson, have found it necessary in the interests of science to employ the method of research now so loudly denounced.

## MERCER'S HOSPITAL.

ON June 18th the Governors of this hospital met to receive applications for appointment to the medical staff. As is already known, all the physicians and surgeons were dismissed some weeks ago. Since then Mr. Nixon, one of the surgeons, has died. Only one of the surgeons, Mr. Ward, applied for re-election. Mr. O'Grady and Mr. Auchinlech have not made any application, contending that the governors had no power to dismiss, and this will ultimately be tried at law. The applicants are Messrs. Kirkpatrick, Rainsford, Lumsden, M'Cutcheon, Ledwich, Winter, Elliott, G. N. Wynne, T. Mason, Kidd, M'Feely, Moore, Burgess, H. E. Wynne, M. A. Ward, White, Monsell, Cookman, Joynt, and Curran. The governors will meet on July 6th to make the appointments.

## PLAGUE AND THE PILGRIMAGE.

WE are indebted to Dr. E. D. Dickson, Physician to the British Embassy in Constantinople, for the information that official news received from Jeddah confirms the announcement of the outbreak of bubonic plague in that town. The cases stated to have occurred from June 5th to the 11th appear to have been few, and are said to have shown themselves in pilgrims that had returned from Mecca, and who were natives of Yemen, of Hadramut, of Abyssinia, and of Sudan. Mecca, however, and every other part of the Hedjaz, are stated to be free from plague, and it will be interesting to ascertain, if possible, the source whence this outbreak was derived, and the manner in which it reached Jeddah. The Constantinople Board of Health was convoked on June 9th to take into consideration the outbreak, and propose measures for stamping it out in Jeddah, and for preventing it from spreading in the Ottoman dominions. The Board decreed that cases of plague are to be placed in special isolated ambulances established for the purpose; that the clothing and the bedding of plague patients are to be destroyed by fire; that the houses in which cases of the plague have occurred are to be disinfected with a solution of corrosive sublimate, and whitewashed with lime, and then kept unoccupied for twenty days. A medical commission is to be sent to Jeddah from Constantinople to superintend this work. The Vali (governor-general) of the Hedjaz will be instructed to organise a cordon between Jeddah and Mecca so as to prevent communications between these two cities, and Mecca will then have to receive its maritime supplies—chiefly consisting of cereals—by way of Rabuk. Vessels sailing from any part of the Arabian shore extending from Rabuk to Lith, and bound to an Egyptian or Ottoman port, or to the Persian Gulf, will have to perform a quarantine of fifteen days at Camaran. Ships bound to India, however, will not be compelled to go to Camaran, unless they intend calling at an Egyptian or Ottoman port, or at a port in the Persian Gulf. The Egyptian Government will be requested to station cruisers along the Arabian shore to prevent clandestine communication with it. Dr. Dickson thinks there is good reason to hope that the plague will not assume an epidemic type in Jeddah, but that it will die out there when the temperature has risen above 100° F. Plague breaks out almost every year in some of the villages of the Assir, a lofty range of mountains that link the Hedjaz with the Yemen: yet it never shows itself in the towns and villages of the Tehama, or seaboard belt at the foot of those mountains, which extends along the whole Eastern boundary of the Red Sea. Nor has Dr. Dickson ever heard of any manifestation of the plague in the Nejd, or central Arabia. Jeddah, however, is situated in the Tehama, and plague made its appearance there in 1815 and again in 1832, when it prevailed amongst the Egyptian troops sent there by Mohammed-Ali Pasha, Viceroy of Egypt, to drive the Wahhabis out of Mecca.

## THE AMERICAN MEDICAL ASSOCIATION.

THE American Medical Association recently held its semi-centennial meeting at Philadelphia under the presidency of Dr. Nicolas Senn. About 1,600 members attended, this being the largest number yet assembled at any meeting of the Association. Dr. Senn, in his presidential address, traced the history of the Association. He said it was particularly fitting that Philadelphia should have been selected as the scene of the celebration of the jubilee of the Association, inasmuch as it was in that city that its organisation was completed half a century ago. The Civil War interrupted the meetings, but they again resumed their annual course at Boston in 1865. The influence of the Association had been markedly felt in improving the standard of medical education. Nearly all the medical schools of the United States, large and small, now required four years' attendance of eight months each upon a systematic graded course, and, with few exceptions, furnished adequate laboratory and clinical facilities. There was no longer any excuse for American students to go abroad for a thorough medical education. Indeed Dr. Senn predicted that within twenty-five years the United States would become the centre of medical education, and that its medical institutions would be sought by medical students, as they would in the course of that time furnish facilities for teaching far in advance of those of any other country. One of the potent agencies in the hands of the Association to place American literature upon a sound basis was its official organ the *Journal of the American Medical Association*. One of the present needs of the Association was a permanent home, with an editorial office, and a press room for its official organ, a hall for the meetings at least every three years, and a memorial home for paintings, busts of distinguished members, and a room for the collection of surgical instruments and indigenous medicinal plants. The present financial status of the Association justified the taking of the necessary steps to carry such a project into effect at an early date. In conclusion Dr. Senn foretold that when the first centennial celebration would be held in Philadelphia, the membership would have increased to 75,000, or 100,000. The Address in Medicine was delivered by Dr. Austin Flint, of New York; that in Surgery by Dr. W. W. Keen, of Philadelphia. Many papers of great value were read, some of which will be noticed more particularly in the EPITOME. The President of the United States was present for some time on one of the days of the meeting, and the gathering, from the social as well as the scientific point of view, was a brilliant success.

## THE DIAMOND JUBILEE HONOURS LIST.

### SIR SAMUEL WILKS, BART.

THE honour of a baronetcy has been conferred on Dr. Samuel Wilks, President of the Royal College of Physicians of London, and this recognition by the Crown of a long life spent in the service of humanity and the advancement of the scientific study of medicine will be a source of universal satisfaction throughout the medical profession. Dr. Wilks is not only respected as one of the founders of pathology, but by all who know him is looked upon with an affectionate esteem inspired by the strength and integrity of his character. He was born in Camberwell in 1824. His father, as also his grandfather and great-grandfather held appointments in the old India House. He was educated at Aldenham Grammar School and at University College School. He was a student of Guy's Hospital, and has remained attached to it ever since. It was as Curator of the Museum and the officer charged with the performance of *post-mortem* examinations that he found opportunities to begin those studies in pathology by which he has been enabled so greatly to advance that science. He was appointed Assistant Physician to Guy's Hospital in 1854 to the vacancy caused by the retirement of Dr. Bright. That connection has ever since continued, and we hope may long be maintained. Sir Samuel Wilks was elected President of the Royal College of Physicians of London last year.

### SIR WILLIAM MAC CORMAC, BART.

A baronetcy has also been conferred on the President of the Royal College of Surgeons of England. Sir William Mac Cormac received the honour of knighthood in 1881 in recognition of his services as Secretary-General of the International Medical Congress in that year. Sir William Mac Cormac, who was born in Belfast in 1836, the son of Dr. Henry Mac Cormac, was at one time surgeon to the Royal Hospital, Belfast. He was Surgeon-in-Chief to the Anglo-American Ambulance during the Franco-Prussian war, and subsequently became Surgeon to St. Thomas's Hospital. He was elected President of the Royal College of Surgeons last year.

### SIR THOMAS SMITH, BART.

A baronetcy has also been conferred on Mr. Thomas Smith, Surgeon-Extraordinary to the Queen. Sir Thomas Smith, who is the son of the late Mr. Benjamin Smith, was born in 1833, and was educated at Tonbridge School. He was afterwards, according to the old custom, apprenticed to the Royal College of Surgeons and Mr., now Sir James, Paget. His long connection with St. Bartholomew's Hospital, to which he is now Senior Surgeon, was thus commenced. After acting as Demonstrator of Anatomy, he was appointed Assistant Surgeon, and was also one of the earliest members of the Surgical Staff of the Hospital for Sick Children, Great Ormond Street.

### SIR WILLIAM GOWERS.

The honour of knigthood has been conferred on Dr. W. R. Gowers, who has won so distinguished a place among English physicians as an investigator of the nervous system, and as a most successful teacher, both by his clinical demonstrations and by his pen. Sir William Gowers was born in London in 1845, and was educated at Christ Church College School, Oxford, and at University College, London. He was appointed Assistant Physician to University College Hospital in 1873, and after holding the office of Physician, resigned in 1890. He was appointed Registrar to the National Hospital for the Paralysed and Epileptic in 1869, and has remained connected with that hospital ever since, being at the present time Physician. His writings have made his name familiar to physicians throughout the world, and his chief work, the *Manual of Diseases of the Nervous System*, has been translated into German, Italian, and Spanish. As a clinical teacher his influence has been hardly less extensive, and will, we may hope, long continue so to be.

### SIR FELIX SEMON.

Dr. Felix Semon, upon whom the Queen has conferred the honour of knighthood in recognition of his successful labours to extend the application of a special knowledge of laryngology to medicine by physiological and clinical investigations, was born in December, 1849, at Dantzig in Prussia, and was educated at the High Schools of Berlin, and at the Universities of Heidelberg and Berlin. On the outbreak of the Franco-German war he joined a regiment of Uhlans as a volunteer, and was present at the sieges of Metz and of Paris, and at the battles of Amiens, Bapaume, and St. Quentin. After the war he graduated M.D.Berlin in 1873, and after visiting Vienna and Paris, came to London in 1874. In 1877 he became Physician to the Throat Hospital, and in 1881 Assistant Physician in charge of the throat department at St. Thomas's Hospital, and was until recently Physician to that department. In 1888 he became Laryngologist to the National Hospital for the Paralysed and Epileptic. In the same year—the first occasion on which it was constituted—he was President of the Section of Laryngology of the annual meeting of the British Medical Association. In 1884 he founded the *Internationales Centralblatt für Laryngologie und Rhinologie*. He holds the German Order of the Red Eagle, and in 1894 was nominated Professor by the German Emperor.

### SIR GEORGE F. DUFFEY.

The President of the Royal College of Physicians in Ireland receives the honour of knighthood. Dr. Duffey received his professional education in the School of Physic of the University of Dublin, and at the Adelaide and Sir P. Dun's Hospital. He took the degrees of M.B. and M.Ch. in the University in June 1864, and in the following August entered the Army Medical Department, and was gazetted Assistant-Surgeon to the 1st Battalion of the 24th Regiment. He served with that distinguished corps for seven years, and succeeded in gaining the confidence, esteem, and friendship of all his brother officers. He resigned his commission in 1871, and married the sister of his old college friend and fellow graduate, Sir Charles Cameron, Bart., now one of the members of Parliament for Glasgow. The same year he took his degree of M.D. in the University. He became a Fellow of the College of Physicians in Ireland in 1873. He has served as Examiner, Censor, and Vice-President, and last year was unanimously elected President of the College. Dr. Duffey was appointed Physician to Mercer's Hospital, Dublin, in 1876, and in the same year succeeded Dr. Frazer as Professor of Materia Medica in the (then) Carmichael College of Medicine, which is now included in the School of the Royal College of Surgeons in Ireland. He now holds the Chair of Pharmacy as well as of Materia Medica. In 1882, he resigned his post at Mercer's Hospital on being elected to the City of Dublin Hospital, of which he is now the Senior Physician.

Many members of the Association will remember Dr. Duffey as the Honorary Secretary of the very successful annual meeting in Dublin in 1887. He was for many years previously our correspondent for Ireland, and in 1877 he organised the Dublin Branch of the British Medical Association, and was the first Honorary Secretary of it. Last year he was President of the Section of Medicine at the annual meeting at Carlisle.

Among the many offices Dr. Duffey has filled, the most important and responsible was that of Inspector under the General Medical Council of the Final Qualifying Examinations for admission to the *Medical Register*. This duty was carried out during the years 1892-96. Dr. Duffey was also commissioned to report to the Council on the several examinations in sanitary science held by the universities and licensing bodies of the United Kingdom, and Visitor for the Privy Council in Ireland of the examinations of the Pharmaceutical Society of Ireland. Dr. Duffey has made numerous contributions to the medical societies and to the medical journals. He founded in 1871, and edited for two and a-half years the *Irish Hospital Gazette*, which was subsequently amalgamated with the *Dublin Journal of Medical Science*. He is the editor, and in great part author, of the sixth edition (1879) of Handsel Griffith's *Materia Medica and Pharmacy*, and author of *Suggestions for a Plan of Taking Notes of Medical Cases* (second edition, 1890).

### SIR WILLIAM THOMSON.

The President of the Royal College of Surgeons in Ireland has also received the honour of knighthood. Mr. Thomson having graduated in Arts in the Queen's University, proceeded in 1872 to the degree of M.D. In the same year he

became Lecturer on Anatomy in the Carmichael School and House-Surgeon to the Richmond Hospital, Dublin, and in November, 1873, was elected Surgeon to that institution. He was subsequently Examiner in Surgery in the Queen's University. In the Royal College of Surgeons in Ireland he occupied a like position for many years. He was the first General Secretary of the Royal Academy of Medicine in Ireland, and held office for fourteen years. He resigned in 1896, when he became President of the Royal College of Surgeons in Ireland, an office to which he was three weeks ago re-elected for a second year. In the early part of 1896 he was elected by the profession in Ireland as direct representative on the General Medical Council. He has received the degree of M.A. *honoris causâ* from the Queen's University, and he has been elected three times as one of the representatives of the graduates on the Senate of the Royal University. He is Surgeon in Ordinary to His Excellency the Lord Lieutenant of Ireland.

THE ORDER OF THE BATH.

The Queen has promoted Dr. Thorne-Thorne, C.B., to be a Knight Commander of the Most Honourable Order of the Bath (Civil Division). Sir Richard Thorne-Thorne, who is the son of the late Mr. T. H. Thorne, banker, of Leamington, received his medical education at St. Bartholomew's Hospital, where he is now Lecturer on Public Health. He took the degree of M.B. in the University of London in 1866, and became a Medical Inspector to the Privy Council Office in 1871, Senior Assistant Medical Officer to the Local Government Board in 1883, and succeeded Sir George Buchanan as Medical Officer in 1892. Since his tenure of this office began, he has had to concert measures for the prevention of the introduction and extension of cholera in this country, measures which, as is well-known, have been attended with marvellous success. In addition to the work properly belonging to his office, he has on several occasions acted as delegate of the British Government at International Sanitary Conferences, and his services in this capacity have been highly appreciated by succeeding ministries.

Inspector-General of Hospitals and Fleets, Henry Frederick Norbury, who is promoted to be K.C.B., received his medical education at St. Bartholomew's Hospital, and entered the medical department of the Royal Navy in 1860. He was Staff-Surgeon of the *Active*, and was landed in medical charge of her naval brigade during the Kaffir war 1877-78, and for his services was mentioned in despatches. He subsequently served in many operations in South Africa, and was Principal Medical Officer of Colonel Pearson's column at the battle of Inyezane, and at the relief of Ekowe, and subsequently acted in a like capacity with General Crealock's column, and was twice mentioned in despatches. His most recent appointment has been that of Inspector-General of the Royal Hospital, Plymouth.

Surgeon-General Charles Alexander Gordon is also promoted to be K.C.B. He joined the Army Medical Department in 1841, and served through the Indian Mutiny. He served also in China. At the outbreak of the Franco-German war he was appointed by the War Office Medical Commissioner to the French army, and on many occasions rendered surgical assistance to the wounded in the field.

The Registrar-General for Ireland, Dr. Thomas Wrigley Grimshaw, has been appointed a Companion of the Bath, as has also Dr. David Nicolson, Lord Chancellor's Visitor in Lunacy, but until recently Superintendent of the State Criminal Lunatic Asylum at Broadmoor; Surgeon-Major-General James Jameson, Director-General of the Army Medical Staff, has been appointed C.B. (Civil Division); and Surgeon-Major-General Sibthorpe, of the Indian Medical Service (Madras), and Brigade-Surgeon George William MacNalty, of the Army Medical Service, have been appointed Companions of the Bath (Military Division).

Mr. Henry Burdett, whose eminent services in connection with the voluntary support of hospitals, and the improvement of their administration, is so well known, and Dr. Edward Frankland, the eminent analytical chemist, have also been appointed K.C.B.

ORDER OF ST. MICHAEL AND ST. GEORGE.

The Queen, on the recommendation of Lord Salisbury, has promoted Dr. James Mackie, C.M.G., Surgeon to the British Consulate at Alexandria, and late President of the Egyptian Quarantine Board to be K.C.M.G., and has appointed Dr. S. W. Bushell, Physician to the Legation at Pekin, to be C.M.G.

Her Majesty has also promoted Dr. Charles Gage Brown, C.M.G., for many years Physician and Medical Adviser to the Colonial Office, and the Crown Agents for the Colonies, to be K.C.M.G. She has also appointed John William Rowland, M.B. C.M.Edin., Colonial Surgeon of the Colony of Lagos, to be C.M.G.

THE ORDER OF THE STAR OF INDIA.

The Queen has promoted Sir Joseph Dalton Hooker, K.C.S.I., C.B., M.D., whose contributions to the knowledge of the Indian flora established his scientific reputation, and who was for twenty years Director of Kew Gardens, to be G.C.S.I. She has also appointed Surgeon-Major-General William Roe Hooper, the highly esteemed President of the Medical Board of the India Office, and Surgeon-Major-General James Cleghorn, M.D., Director-General of the Indian Medical Service, who recently represented the Government of India at the International Sanitary Conference at Venice, to be Companions of the Order (C.S.I.).

THE ORDER OF THE INDIAN EMPIRE.

The Queen has appointed Dr. W. M. Haffkine a Companion of the Order of the Indian Empire, and this recognition of M. Haffkine's devoted labours in India for the prevention of cholera and plague by preventive inoculation will cause universal satisfaction. She has also appointed the Rev. John Husband, F.R.C.S., Chairman of the Ajmere Municipal Committee, to be C.I.E.

ROYAL VICTORIAN ORDER.

The Queen has appointed Deputy Inspector-General of Hospitals and Fleets Henry Charles Woods, Surgeon to the Royal Yacht *Victoria and Albert*, to be member of the Fourth Class of this Order.

## THE SCIENTIFIC INVESTIGATION OF INDIAN DISEASES.

AMONG the most interesting announcements that have been made in connection with the main scientific projects likely to be advanced by the Jubilee commemoration is that contained in the address which is telegraphed to England of the Governor-General of India. Lord Elgin announces that the Native chiefs as a body have offered to found an institute for scientific investigation into Indian diseases, and that this offer has been accepted by the Government. This is likely to be a most important step, and one fraught with good promise for the future of India.

We believe from previous communications which have reached us that this is an indirect, if not indeed a direct, result of the visit of Mr. Ernest Hart, and of the addresses which he delivered to the Congress and to the gatherings of native nobles in Calcutta and Hyderabad, and, in even a more direct measure, of the resolution which he moved at the Congress, and which was formally conveyed to the Government of India, in favour of the establishment of such an institution or institutions, and finally of his open letter to Sir A. MacDonnell, K.C.S.I., then one of the secretaries of the Home Department of the Government of India, pointing out in detail the nature and extent of the desirable institutions for this purpose, and of the results which might be expected from them. There was manifested in the first instance some not unnatural sentiment of irritation in some quarters that Mr. Hart, who had come to bless Indian institutions and the great progress which had been made in spreading the benefits of British science in Indian dominions, had tempered expressions of praise and admiration by so distinct a review of the shortcomings in respect to scientific investigation of the causes and distinct features of tropical diseases not entirely special to India, which has reached there a lamentable development. He pointed[1] out in plain and candid language the inadequate attention given to this all important matter, and the comparatively slight

[1] BRITISH MEDICAL JOURNAL, December 29th, 1894.

additions to our scientific knowledge which have been made during the long course of years by the able members of the Indian Medical Service. He attributed this mainly to the want of special institutions for the purposes of scientific investigation, and to the want of opportunities for the study and research afforded to the capable members of that service. Sir A. MacDonnell expressed himself as warmly in sympathy with the objects in view, but unable to discern, however, from what quarter the financial resources necessary for the establishment of these institutions could come. Since that time some progress has already been made, and the Indian Government have especially indicated their desire to further the study and applications of sanitary science in India by a well-digested scheme which still, however, remains in an embryonic stage. The promised liberality of the Native chiefs, who have from the first publication of Mr. Hart's address manifested a great interest in the subject, and have been in frequent communication with us, will, it is hoped, afford a means of solving part of the problem. The recognition by the Indian Government of M. Haffkine's labours, and their alleviation by a stipend for work, which has hitherto been wholly disinterested and unremunerative, is an evidence of a growing sympathy with the scientific work of preventive medicine, and of the importance of pathological study. It is seldom that it is given to one Government so clearly to study, so strongly to enforce, and so rapidly to develop great imperial objects, and it will, we believe, be felt as a matter of general satisfaction both by the profession and the public, here and in India, that the Jubilee of the Queen has seen the decisive announcement of the sympathy and co-operation of Native India with this great project of sanitary and scientific advance.

## PUBLIC HEALTH (SCOTLAND) BILL.

THE protest of the General Medical Council against the investment of sanitary inspectors in Scotland with a statutory right to certify to injury to health has drawn these gentlemen into newspaper correspondence. In their corporate capacity, above the signatures of their president and secretary, they stigmatise this protest as only the natural utterance of a Trades Union! But the most interesting product of the controversy is the letters which have been written by individual inspectors, which fully divulge what they conceive to be their position by law at present, and the use which they are prepared to make of such expansions of their statutory powers as those contained in the Bill which is about to be reported after amendment in Committee. The most remarkable of these letters are signed respectively by the Chief Sanitary Inspectors of Glasgow and the County of Perth. We wish very much, for the sake of the medical officers of health of Scotland, that their brethren in England could have the advantage of reading those letters *in extenso*. They would there learn that "ever since sanitation was inaugurated in Scotland the inspector has been the executive officer who reported to and carried out the instructions of his local authority. The services of the medical officer were only required when it was considered necessary to certify the effect of a particular nuisance upon the health of human beings, or to tender scientific evidence in a court of law."

On the other hand, the sanitary inspector is a marvellous being of composite attainments—an architect, practised in all the trades necessary to carry out his designs, a civil engineer, a land surveyor, and a lawyer, all rolled into one. This many-sided man propels the whole machinery of public health, keeping the medical officer under lock and key like some familiar spirit in docile subserviency. All this fuss about the Public Health Bill is only an effort of those "spirits in prison" to turn the tables on the sanitary inspector, and make him a "mere tool in their hands to collect information and do everything for them which they ought to do for themselves, and for which they generally receive double or triple the remuneration given to the inspector." These claim that a system which may thus be truly described works with perfect harmony between the two officials, with perfect satisfaction as regards efficient performance of duty, and in short that it is a natural and reasonable method of doing business.

All we have to say is that the medical officers who have to co-operate with these individuals must be very angelic specimens of human nature if they can do so without remembering that their colleagues have had the indecency to write such letters. This is altogether apart from the inherent impossibility of working harmoniously under such a syytem.

But this is nothing to the ambitions which are floating in the minds of the sanitary inspectors of Scotland under the stimulus of the Bill. To these we invite the special attention of Mr. Caldwell. He is the author of the amendments which have brought those dreams into print. We believe he is actuated by a desire to promote health administration in Scotland, but we trust that he will now see that his efforts have been misdirected. If he would study the history of sanitation he would find that not so very long ago the very commonest conditions of nuisance now universally admitted to be injurious to health, which sanitary inspectors say it only requires common sense to recognise, were not so recognised, and to this day would not have been recognised but for the accumulated witness-bearing of medical men, and that the true method of reaping the fruits of medical testimony is to define such conditions, and stamp them for ever as nuisances, not to confer upon the sanitary inspector a function which he can never exercise in a court of law. Mr. Caldwell may legislate, but he can never thereby alter the nature of things. The worst enemy of the sanitary inspector could not desire for him a more miserable fate than to see him in the witness box testifying that a nuisance is injurious to health.

The following quotation from the letter signed by the sanitary inspector of Glasgow shows the "Hinterland" of his thoughts. We reproduce it because it is of the utmost importance that every medical officer of health in England and every medical practitioner everywhere should see what is in store for them if the sanitary inspector is installed by law even in Scotland in the position to which he so aspires. The whole fabric of sanitary administration rests upon the sympathies of the medical profession, and if such ideas as these once predominate in sanitary administration it will be ruined. The passage to which we refer is as follows, and we reproduce it without further comment:

"Dr. Nasmyth makes another statement which I feel some hesitation in remarking upon, but as it would, if uncontradicted, do injustice to many qualified inspectors in sanitary practice, I must refer to it. He states that 'sanitary inspectors are not qualified to examine cases of disease,' and therefore the right of examination of patients is not conferred upon them, and draws an inference from that that as they are not, in his opinion, qualified to certify danger or injury to health similarly no such right ought to be conferred upon them. Now, sir, I know personally sanitary inspectors who through experience are very much better qualified to examine and certify cases of infectious disease than medical men are who perhaps have seldom had a chance of seeing these cases, and several cases have occurred where sanitary officers have had to contradict and correct the medical certificate which was granted with reference to infectious cases."

## THE HOSPITAL REFORM ASSOCIATION.

MEETING AT BRISTOL.

A MEETING organised by the Hospital Reform Association was held last week in the Library of the Bristol Medical School under the presidency of Dr. MARKHAM SKERRITT, who said that those who knew most about hospital work had no doubt that abuse existed though there was a difference of opinion as to its extent.

Dr. T. GARRETT HORDER (Honorary Secretary of the Hospital Reform Association) said that in Bristol something like 90,000 persons were treated in the out-patient and casualty department of the chief hospitals and dispensaries. It was hardly possible that they were all deserving cases, and he maintained that if they were not the hospitals had been injured and the people pauperised. The Association which he represented believed that it was good to encourage the

provident system among the working classes, but that there should be a wage limit. The real difficulty was, however, to prevent abuse of the out-patient and casualty departments. Hospitals were intended for the treatment of severe ailments which could not be properly treated at home, but they had departed from the intentions of their founders. The Hospital Reform Association recommended that patients should be accepted on the recommendation of medical men who would best know the circumstances of the patient, and whether he was a fit subject for gratuitous relief. This would cost the hospitals nothing, whereas the inquiry system was expensive, and in Manchester had broken down. He moved

That in the opinion of this meeting it is most desirable that the medical charities of Bristol and Clifton should be restricted as far as possible to the wants of the necessitous poor; and it is further of opinion that the recommendations of the Hospital Reform Association for the prevention of the abuse of the out-patient and casualty departments are deserving of consideration by the governing bodies and acting medical staff of the various hospitals and dispensaries.

Colonel MONTEFIORE said that the Charity Organisation Society of London had come to the conclusion that there was a necessity for sorting out patients according to the gravity of their illness and of their social position. The Society thought that all the interests involved could only be dealt with by a central Board, and hoped to see such a Board at work in London and other large cities if only to prevent State or municipal interference.

The resolution was seconded by Dr. MILNE.

Dr. BERTRAM ROGERS said that in Bristol the number of persons treated at the hospitals and dispensaries had during the last two years risen from 356 to 409 per mille of population. He added that the working classes appeared to be under the impression that medical men on hospital staffs were paid for their services. Working men had told him that a single man with no one dependent on him ought to be able to pay 1d. or 2d. a week to a provident dispensary if his wages were 15s. a week, and a married man with no children if he had 20s. a week. Some of his informants were actually paying 5d. or 6d. a week into sick clubs.

Mr. A. N. PRICE, speaking as a manufacturer, said that working men paying a penny or a halfpenny a week as a subscription looked upon the hospital rather as a sick club, and demanded notes rather than asked for them. He feared that the working classes would resent the inquiry system.

Dr. MICHELL CLARKE confirmed the statement of the last speaker as to the light in which working men who subscribed looked upon the hospitals. He advocated the establishment of provident dispensaries, which should draft only the serious cases to the hospitals. This, combined with a proper system of inquiry, would, he believed, be the best means of meeting the difficulty.

Dr. MUNRO SMITH moved as an amendment that the resolution stop at the words "necessitous poor." If they went further, they might seem to the public outside to be approving the recommendations of the Association, and he did not think that desirable.

The amendment was seconded by Mr. PAUL BUSH, and opposed by Dr. ROGERS, and Mr. HORDER said they were not asking the meeting to adopt the recommendations, though they were drawn up by Mr. Timothy Holmes, who after thirty years' experience on the staff of St. George's Hospital was now Honorary Treasurer. The question of workmen's collections was very important, for the men who gave the pennies were mostly skilled mechanics and others who could pay full value for what they received.

Dr. WALKER referred to the difficulty created by the fact that many out-patients came from the country.

Dr. A. HARVEY said that in Birmingham plans were adopted eight years ago very much like those recommended by the Hospital Reform Association. Owing largely to the opposition of the Hospital Saturday Fund, the condition of things had not only not improved, but was actually worse. He was therefore not very sanguine as to what could be done in Bristol.

Mr. RICHARDSON CROSS said that the family doctor was often to blame for patients consulting a second doctor without informing him, because they did not listen to the patient's request for a second opinion. He considered that in the out-patient department there was often abuse by people who were well off. The great work of the hospitals was the in-patient department, and he thought that if the case was properly put before the public it would perceive that the reforms suggested were not part of a money-grasping policy, but of a policy in the best interests of the great voluntary system of hospitals.

The CHAIRMAN having pointed out that the resolution did not commit the meeting to details, the amendment was put to the vote and lost; the resolution was then put to the vote and carried by a large majority.

## THE BATTLE OF THE CLUBS.

THE ODDFELLOWS AND THE DEMANDS OF THEIR MEDICAL OFFICERS.

ACCORDING to the report of a contemporary at the annual meeting of the Oddfellows at Scarborough, the Grand Master (A. E. Jephcott) in the course of his inaugural address said that "with reference to the action of the medical profession in endeavouring to impair the services of the medical portion of their work, and the restrictions sought to be imposed by medical men as to who should be eligible to receive medical benefits through the societies, it seemed to him from his experience of working men that a conference on the points in dispute would more easily bring a better understanding than any system of autocratic conduct on the part of medical men."

It is satisfactory to find this Order willing to contemplate a conference. Autocratic conduct with regard to the question has been by no means a monopoly of the profession. No doubt a conference might be the means of removing some of the difficulties which complicate the subject, not the least of which is to make the Order understand that the small payment they have hitherto been charged for medical services was never meant to represent its market value. It was a concession to those who were unable to pay more for a commodity they could not do without. This being so, it is an abuse of a heinous character that a man, simply because he is a member of the Order, should be able to command medical services at this rate without any regard to his social position. The profession recognises the fact that there are many members of these Orders who under the existing rules could claim the services of the doctor, and yet do not, because they think such a course dishonourable to themselves and an imposition on the doctor. But, unfortunately, owing to a growing laxity of conscience on the part of certain sections of the middle classes the number of these is on the wane, and the tendency is to drive the strictest bargain possible with the unfortunate doctor, so that it is necessary for him to look after his own interest a little more keenly, and to define with greater care the limits of his benevolence, if he does not wish to be involved in ruin.

If the ordinary club rate is to be regarded as only representing the fair price a person ought to pay for his medical attendance in sickness irrespective of income, it becomes obvious that medical incomes in the future must be largely reduced, and it will be absolutely impossible for many to gain their livelihood through the profession as in the past.

CHEAPENING OF MEDICAL SERVICES.

A correspondent writes that he has been connected for some time past with a club which has paid at the rate of 2s. 6d. per member per annum. Owing to an attempt to further lower the terms of remuneration, he is about to terminate his engagement, and he is told there are several doctors in the town ready to take on his post at the terms offered. These are about a halfpenny a week for an adult, and less than a farthing a week for children.

*** Our correspondent is to be congratulated on having retired from such work, and it is to hoped for the credit of the profession that he is mistaken in his belief that others of his brethren are willing to give their services on such terms.

THE PROFESSION AT PORTSMOUTH AND THE FRIENDLY SOCIETIES.

THE *Hampshire Telegraph* in a recent article complains of the "dictatorial spirit" of the Portsmouth doctors, which it is alleged has appeared in the steps taken to raise their fees. It intimated that the local friendly societies were about to amalgamate and form dispensaries to be entirely under their own control, so as to have a sufficient number of medical men always at command to meet the wants of the sick. This may be the only course open to the Portsmouth friendly societies if they refuse to accept the reasonable code of regulations put forward by their doctors, but there are many obvious objections to such a course. Although it might be possible to find one or two qualified practitioners willing for their own selfish ends to oppose their brethren, it is not likely that a regular staff could be maintained of the same standing as their old one, and the members would soon find that the medical services rendered were very inferior to what they had been used to in the past. We believe, however, that the plan of forming dispensaries in Portsmouth is not much nearer accomplishment now than it was five years ago, and that there are many practical difficulties in the way of such institutions.

THE NOTTINGHAM MEDICAL UNION.

THE first annual report of this society was presented by the council to the annual meeting recently. This society has been engaged during the past year in promoting local union, and may be congratulated on the very business-like way in which it has dealt with some notorious professional evils. Attention seems to have been devoted to (1) the rate of payment in clubs; (2) medical aid combined with insurance societies; (3) hospital abuse.

With regard to the first considerable reform has been obtained, and the profession of Nottingham have all but unanimously agreed to take no clubs since January 1st, 1897, at a lower rate than 4s. per annum per

member. Although this rate is lower than it should be, it would appear to be a substantial gain on what has been the custom hitherto.

With regard to the second point, the success has not been so encouraging. On a canvass of the local practitioners the number who were prepared to resign their appointments in medical aid societies was not sufficient to warrant at the present time a general attack on these institutions, and the Council are of opinion that no successful stand could be made "until the profession is consolidated throughout the whole country." They also think that continual representations should be made to the General Medical Council and the licensing bodies against this class of practice. Attention was also drawn to "sick and annual clubs" which meet at publichouses, and the opinion expressed that they are open to grave criticism.

With regard to hospital abuse the profession at Nottingham has suffered as severely as their brethren in other parts of the country, and the view is stated that an important gain would result if some system of registration of all who applied for in- or out-patient relief were carried out; and if every applicant were required to give particulars as to his or her material condition; that the proper recipients of charity would not object to such an arrangement, which would greatly assist in keeping away improper applicants.

Attention was also drawn to the want in many places of a kind of nursing home for the use of members of the middle classes who require to be attended through serious illnesses or need important operations. Such persons could readily pay moderate fees both for nursing and for medical and surgical attendance, but they might not be able to sustain the expense of a major operation being done at home, so that at the present time a "general hospital is practically the only means of affording them relief."

The report suggested that a syndicate of medical men with a few laymen of business experience might establish such homes with a fair prospect of seeing a reasonable return on the capital expended.

On the whole the report of the Nottingham Medical Union deals with some important professional questions in a serious and thoughtful manner, and the conclusions arrived at are worthy of the attention of the profession throughout the country.

### The Plymouth Medical Society.

This Society has taken a bold and resolute attitude against the medical aid societies of Plymouth and the district, and seems to be supported by a considerable majority of the local profession. In addition to formally petitioning the Royal College of Surgeons of England to take steps to restrain its diplomates from accepting offices under degrading conditions, it has passed a series of stringent resolutions binding its members neither to meet in consultation officers of medical aid societies, nor those of their brethren who knowingly do so.

Under these circumstances some excitement has been caused among the West of England public. The Launceston *Post* is particularly angry, and in one of its issues last month attempts to ridicule the position taken up by the doctors. In doing so, however, it has succeeded in making itself not a little ridiculous.

Our contemporary remarks that the resolution of the doctors not to meet a medical aid practitioner in a critical case was in effect the "exaltation of manslaughter into the sublime heights of a professional virtue;" and it goes on to say: "We are not sure that a jury might not reasonably be tempted to put Levites on their trial on the first occasion of fatal neglect."

If our contemporary would consult an elementary manual on Criminal Law, and obtain a rudimentary insight into the nature of the crime of "manslaughter," it would hardly be guilty of such absurd statements. Doubtless, in event of such a case as that indicated it would be possible to excite indignation against the profession by means of inflammatory articles of this kind, and it is incumbent on us to protect ourselves against such libels by pointing out the true bearing of the case.

Although the profession has always recognised the moral right of the public to command its services, it has never conceded that they might do so on their own terms, however degrading these might be from a professional point of view. If a patient dangerously ill chose to be attended by a herbalist, a bonesetter, or some other quack, and required a consultation, the public would scarcely be surprised if he found some difficulty in getting a consultant. It is obviously the duty of the public not to put themselves under practitioners whom their brethren decline to meet, and if they knowingly do so, they must take on their own heads any harm arising from their wilful behaviour.

No medical man would refuse his services under the circumstances detailed by our contemporary if the objectionable practitioner in attendance were to withdraw, so that if death were to ensue in consequence of inability to procure the consultant, it would be just as much in consequence of the non-withdrawal of the former as of the refusal of the latter. This is entirely in the hands of the patient, so that it might be suggested that it was rather a case of *felo de se* than manslaughter.

It is questionable, however, whether some of the resolutions of the Plymouth Medical Society are not impolitic. The best principle to work upon would be to endeavour to diminish as far as possible the number of black sheep, and for this reason it is hardly wise to refuse to recognise those practitioners who, confessing the evil of their ways, are willing to abstain from such unprofessional conduct in the future.

### Beckenham and Penge Medical Society.

At the annual dinner of this Society at the New Assembly Rooms, High Street, Beckenham, Mr. Frank Sturges was in the chair, and the Rev. Mr. Green, in proposing the toast of the evening, "The Beckenham and Penge Medical Society," said that in a neighbourhood like theirs there must always be a certain amount of rivalry between medical men, but that he was much struck by the amicable relations which for the most part existed among them, and of which the Society was the result. Their records had not been lately of the most peaceable character, judging from certain letters that had appeared in the local press, and it was to be regretted that not a little division had arisen between the doctors and a certain class of their patients. He would not enter into the merits of the controversy, but he felt sure his medical friends had the kindest feelings towards the local lodges, and would be glad to settle the dispute on terms of Christian equity; he felt sure nothing would give the public of Beckenham and Penge greater pleasure than to learn that a good understanding in these matters had once more been established.

The President, in reply, said that as a society they had not sought notoriety, their desire being only to further the best interests of the profession. They were indebted to the vicar for his presence, and thanked him for his words of encouragement. Changes had taken place since last year; then the profession of Penge were the honoured guests of the Beckenham Medical Society, now the former had joined hands with them. He then briefly detailed the action of the society with regard to the local clubs, and the success they had met with in spite of angry opposition in certain quarters. He said their success would have been greater but for the advent in their midst of a medical gentleman from Bow "into the more airy and sunnier region of Beckenham," sent by one of the medical aid societies, which up to that time they had succeeded in banishing from the district; they did not blame this practitioner so much, not knowing the temptation to which he may have been exposed, but they rather admired his bravery in facing the cold neglect of those who under other conditions would have rejoiced to be professional brethren. It was a pity, he thought, that the licensing bodies who gave their diplomas did not place some restriction on their licentiates accepting appointments which in the opinion of the profession were derogatory. He had confidence, however, in the future, and it was a glorious fact that thirty-five medical men in that district had joined hands to make war against abuse. The fight would end in victory, for their cause was the cause of the right, and the right must prevail.

# BRITISH MEDICAL ASSOCIATION.

## SIXTY-FIFTH ANNUAL MEETING.

**Notice is hereby given that the Sixty-Fifth Annual General Meeting of members of the British Medical Association, for the transaction of business, the consideration of Reports of Council and Committees, will be held in the Exeter Hall, London, on Tuesday, the 27th day of July next, at 11.0 o'clock in the forenoon. The meeting will be adjourned to August 31st, to be held at Montreal, for the scientific business of the meeting, Reading of Addresses, Meetings of Sections, etc.**

Tuesday, July 27th.

9.30 A.M.—Meeting of Council 1896-97.

11.0 A.M.—First General Meeting, Exeter Hall. Report of Council; Reports of Committees; Notices of Motion; and other business.

Mr. Arthur Maude gives notice that he will move, and Surgeon-Major G. K. Poole will second, the following alteration in the articles of the Association:

That the general business meetings of the Association be held in London.

Mr. Nelson Hardy gives notice that he will move the following alterations in by-laws:

To By-law 12 add "and every Editor of the Journal who has served for twenty years shall be eligible on his retirement from that office for election as a Vice-President of the Association, and be entitled to a retiring pension equal to two-thirds of his salary at the time of retirement."

To By-law 13 add "and every Secretary who has served as such for twenty years shall be entitled on his retirement from office to a pension equal to two-thirds of his salary at the time of retiring, and shall be eligible for election as an honorary member of the Association."

In Law 17, lines 4 and 5, instead of "members representing the Branches," insert "members representative of Association members residing in Branch districts."

In (*a*) subdivision of same by-law, line 1, for "every Branch" insert "the Association members residing in the district of each Branch," and in lines 2 and 3, for "every Branch consisting of more than 200 members" insert "each Branch containing more than 400 members of the Association within its area," and in line 4 for "200" substitute "400."

To (*b*) subdivision of same by-law add: "But no representative member who has served as such for five consecutive years shall be eligible for re-election until one year has passed from the period of his retirement."

In (*c*) subdivision of same by-law insert at the commencement: "The election of the representative member or members shall be conducted by means of voting papers to be issued through the British Medical Journal to all members of the Association residing within the district of the Branch, the expense of such voting papers being borne by the Association."

Mr. Lawson Tait gives notice that he will move:

That inasmuch as it is specifically ordained in the 9th article of the Association that the British Medical Journal "shall be conducted by a paid editor who shall be responsible for all that appears in its pages, except such matters as may be printed by direction of the Council. The Journal shall contain papers on medical science, and shall be considered the medium of communication between members of the Association"; it is desirable that the Council should exercise a more complete control over this paid editor, should secure the exclusion of such matter from the

columns of the JOURNAL as does not come within the strict limitation made in the said article, and such matter as tends to defeat the legitimate objects of the JOURNAL; and further, should secure that the said editor is responsible under the terms of the 9th article of the Association.

He will also move that the by-laws of the Association shall be altered as follows:

Nos. 1 and 2. Any qualified medical practitioner not disqualified by any by-law of the Association who shall be recommended as eligible by any three members may be elected a member by the Council of the Branch within whose area he resides, provided he has agreed in writing to become a member and to pay all subscriptions as they become due, and that he receives a clear majority of the number of members of the Branch Council present at the meeting. Applicants who are not resident within the area of any recognised Branch may be elected by the Council of the Association.

No. 2. The names and addresses of all candidates for election shall be sent to each member of the Branch or Branches concerned at least seven clear days before the dates of election by the Branch Councils.

17 B. The election of such member or members shall be made at each annual meeting of the Branch by a majority of the members voting. The annual meetings of all the Branches shall be held in the month of June.

17 D. No person shall be eligible as a representative member of a Branch within the limits of the United Kingdom of Great Britain and Ireland unless, at the time of his election, he shall be resident within the area of the Branch electing him as their member, and no member of the Association shall be registered as an elector in more than one Branch.

19. The Council shall annually prepare a report of the general state and proceedings of the Association for the past year, which shall be published in the BRITISH MEDICAL JOURNAL not later than the second week in May, so that it may be discussed at the annual meetings of the Branches before it is presented at the annual meeting of the Association. That By-laws 28, 29, 30, and 31 shall be abolished, and that for them there shall be substituted as follows: "An Executive Committee shall be appointed by and from the Council at its first meeting, consisting of ten members, together with the President of Council and the Treasurer, and it shall meet at least once a month. This Committee shall have the management of the affairs of the Association, control over its officials and over the conduct of the JOURNAL. It shall report to each quarterly meeting of the Council, and be subject to its direction. For every complete attendance at this meeting each member shall receive a substantial honorarium in addition to his first-class return railway fare."

36. Each Branch shall pay its own expenses except such as are incurred in the election of representatives on the Council and for such other purposes as belong to the General Association.

## PROPOSED NEW BY-LAWS OF THE ASSOCIATION.

Dr. R. R. RENTOUL gives notice he will move:

That the following proposed by-laws relating to the nomination and mode of election of the Central Council of the Association, and other matters, be now adopted as by-laws of the Association, and that any existing by-laws of the Association which are antagonistic to these proposed by-laws are now hereby repealed.

1. *Constitution of Central Council.*—The Central Council of the Association shall be nominated and elected each year by Branch members only, and shall consist of Branch representatives, along with the President, President-elect, President of the Council, and Treasurer of the Association, and four members of the Association, such four being yearly elected by and at the annual meeting of the Association by the members then present.[1]

2. *Nomination of Candidates for Election to Central Council.*—Any twelve members of a Branch or of combined Branches shall be empowered to nominate as a candidate for election to the Central Council any person who is a member of a Branch, provided the nomination form duly signed be sent in to the Secretary of a Branch (or in the case of the candidate to be elected by and at the annual meeting of the Association to the General Secretary of the Association) on or before May 1st. Each member may sign as many nomination forms as there are vacancies, and each member shall have only one vote at such election. In default of such nomination(s) the Council of a Branch or of combined Branches shall be empowered to nominate any number of candidates not exceeding the number of vacancies. In no case shall the names of the nominators of candidates be printed on or accompany the official voting paper.

3. *Nomination of Candidates by Colonial Branches.*—The members of any Colonial Branch or of combined Colonial Branches may nominate and elect a member of a Branch who is resident in the United Kingdom as their representative on the Central Council.

4. *Notice of Coming Election.*—Notice of the coming election of the Central Council shall be given by the General Secretary in the first March issue of the JOURNAL, or in case of a casual vacancy as soon after as possible. In the same issue of the JOURNAL the Editor shall prepare and cause to be inserted in it a leading article calling attention to the approaching election.

5. *Nomination Form and Voting Paper.*—The Secretary of each electoral area shall prepare and print a nomination form, and shall on application supply such to any Branch member. Only such official nomination form and voting paper shall be valid, and these shall be as near as may be to those marked A. and B. in the Appendix. The names of candidates on the voting paper shall be printed in alphabetical order.

6. *Date of Annual Election of Central Council and Result of Election.*—Each electoral area shall elect its representative or representatives to the Central Council in the month of June of each year, and the result of such elections shall be published in the JOURNAL as soon as the returns have been received from the Branch Secretaries, and reported to the annual meeting of the Association.

7. *Voting Papers to be sent by Post to each Voter.*—The Central Council shall be elected by means of voting papers sent though the post to each Branch member by the Branch Secretary, or the Secretary appointed by combined Branches, and such voting papers must be returned by the voters to the appointed Branch Secretary at least ten clear days before the date of the annual election.

8. *Official List of Voters.*—The List of Members of the Association as published yearly in conformity with Section XXVI of the Companies Act, 1862, shall constitute the official list of voters, and only those whose names are on such list shall be entitled to nominate and vote for candidates. Each election shall be conducted on this official list, which shall be published and printed as soon as possible before the date of the election.

9. *Expenses of Election.*—The expenses incurred in printing and sending out notices, nomination forms, voting papers, and the counting of votes shall be defrayed out of the funds of a Branch or of combined Branches.

10. *Electoral Areas: Rearrangement of Branch Representation upon Central Council.*—(*a*) For the purpose only of electing a representative of a Branch, or of two or more combined Branches (referred to as "electoral areas" in other by-laws), each Branch which in November, 1895, had 300 attached members shall elect one representative for such 300 members, and an additional representative for each complete additional 300 members, and as set forth in Appendix C.

(*b*) A Branch which has not 300 attached members shall (for the purpose of election only) combine with one or more neighbouring Branches until the combined number of members of such combined Branches shall number 300 or more. Such combined Branches shall elect one representative for each 300 members, and an additional representative for each complete additional 300 members, and as set forth in Appendix C.

(*c*) Provided that when one of such combined Branches shall attain to 300 members or more, it may elect its own representative.

(*d*) Provided that after the first election of the Central Council no Branch shall increase its number of representatives except in the proportion of one representative to every complete 400 members.

(*e*) Provided no Branch shall be created within the United Kingdom unless it can show that at least 300 practitioners have agreed to be elected members of it.

(*f*) Such distribution of electoral areas may be altered from time to time by and at the annual meeting of the Association.

11. *Management of the Association.*—The affairs of the British Medical Association shall be under the management of the Central Council and of an Executive Committee, and the Central Council shall meet at least once each half year.

12. *Executive Committee: Election of.*—The Central Council shall each year appoint from among its own members an Executive Committee of ten. The President of the Council and the Treasurer of the Association shall be members of the Executive Committee, and these two shall be elected each year by the Central Council, and shall be eligible for re-election. The quorum of the Executive Committee shall be not less than five. The Executive Committee shall be elected by ballot by means of marked lists at a meeting of the Central Council to be held on the second day of the annual meeting of the Association.

13. *Duties of Executive Committee.*—(*a*) The Central Council shall relegate to the Executive Committee such of its powers and duties as it shall think fit, but the Executive Committee shall take the place and shall carry on the duties of the Journal and Finance Committee as now defined by By-laws (28 to 31); and shall generally, subject to the approval of the Central Council, carry out the provisions of the Memorandum, Articles, and By-laws of the Association.

(*b*) The Executive Committee shall meet each month, and shall keep minutes of its proceedings, copies of which, and also of the agenda paper of each meeting of the Executive Committee or of any of its sub-committees, shall be printed and forwarded forthwith to each member of the Central Council.

(*c*) When the chair is taken at any meeting of the Executive Committee the roll shall be called, and any member not present before the minutes of the previous meeting are confirmed shall be deemed to be absent. No member, after taking his place, shall leave the meeting without the permission of the President. A record of the attendances of each member of the Central Council, and of its Executive Committee, and of the work brought before and transacted by the Central Council and its Executive Committee shall be published forthwith in the JOURNAL.

(*d*) In all cases where any proceeding before the Central Council, or its Executive Committee, has been voted upon, any member may require that the names and the numbers of the majority, of the minority, of those who decline to vote, and of those who are absent from a division, shall be entered in the minutes and published in the JOURNAL.

(*e*) The General Secretary shall be present at every meeting of the Central Council and of the Executive Committee, and shall keep minutes of the proceedings of such meetings. He shall also have charge of and shall conduct all the correspondence, and shall issue the requisite notices.

14. *Fees for Attendance and Travelling Expenses.*—There shall be paid out of the funds of the Association to each member of the Executive Committee who has attended any of its meetings, the following fees and travelling expenses:

(1) Five guineas for each complete day of attendance, provided that if any meeting extend over one day only two guineas a day per member shall be paid for each consecutive day.

(2) Each member who resides more than one hundred miles from the place in which this Committee meets shall receive one guinea for the day of going to, and one guinea for the day of returning, from such meeting.

(3) Each member who has attended a meeting of this Committee shall receive first-class return travelling expenses.

(4) Each member who does not reside in the city or town in which this Committee meets, and who has to attend a committee meeting for more than one day in succession, shall receive one guinea a day for hotel expenses.

(5) No member of this Committee shall receive any payment in respect of any travelling expenses incurred outside of the United Kingdom by attending a committee meeting, but shall be entitled to all other above recognised payments.

(6) When the representative(s) of a Colonial Branch resides outside the

[1] This would give a Central Council of 33 on the 1895 list of members; but if the present 5,870 unattached members joined the Branches this would increase the Central Council to 45.

United Kingdom, the members of such Branch may combine to defray the travelling expenses of their representative(s).

15. *Travelling Expenses of Central Council.*—Members of the Central Council, resident in the United Kingdom, shall receive first-class return travelling expenses out of the funds of the Association for each Council meeting attended.

16. *Other Committees.*—The Central Council may from time to time appoint and pay as above other committees.

17. *Members of the Association to be Members of a Branch.*—Every member of the Association residing within the area of a Branch shall become a member of that Branch. Any person proposed for membership shall be elected either by or at a general meeting of a Branch, or by a Branch Council, and by a majority of the members then present. The name and address of each person proposed for election as a member shall be published either in the JOURNAL at least six clear days before the date of election, or in the notice paper calling a meeting of a Branch or of its Council. No person can be a member of more than one Branch, and any person who, at the date of the adoption of these by-laws, is a member of more than one Branch must forthwith declare to which Branch he wishes to be a member.

18. *Limited Proxy Voting.*—(1) At any general or special general meeting of the Association, or of a Branch of the Association, votes may be given either personally or by proxy. No member shall be entitled to vote at any meeting until all moneys due from him to the Association and Branch have been paid. No person shall be appointed a proxy who is not a member of the Association and of a Branch, and the instrument appointing him shall be sent by post to the General Secretary of the Association at his business address (or to the Secretary of the Branch in case of a Branch meeting) at least 72 hours before the time of holding the meeting at which he proposes to vote. A blank proxy form shall be sent, in the JOURNAL, to each member of the Association by the General Secretary (or in case of a Branch meeting by the Branch Secretary) at least two weeks before the date of the meeting (or in the case of a Branch meeting in the notice paper summoning the meeting). The instrument appointing a proxy must be stamped with an adhesive one penny stamp, and the initials of the member signing it and the date must also be written across the stamp. The signature of the member signing the instrument must be duly witnessed.

(2) No member shall be appointed to act as proxy for more than twenty members. The member appointed to act as a proxy must reside in the city, town, or district in which the member or members appointing him to act as their proxy reside. No voting by proxy will be allowed upon any motion until at least twenty-one days' notice of the motion (or motions) has been given in the JOURNAL (or in the case of a Branch at least fourteen days' notice).

(3) The instrument appointing a proxy shall be in the following form:

BRITISH MEDICAL ASSOCIATION.

I ..... of ..... in the County of ..... being a member of the British Medical Association, hereby appoint ..... of ..... as my proxy to vote for me and on my behalf at the (ordinary or special as the case may be) general meeting of the Association to be held on the ..... day of ..... and at any adjournment thereof to be held on the ..... days of ..... next.

As witness my hand this ..... day of .....

Signed by the said .....

In the presence of .....

19. *Widows and Orphans Fund.*—A Widows and Orphans Fund shall be established for the benefit of the widows and orphans of members of the Association who have been subscribers to the Fund. It shall be called the "Widows and Orphans Fund of the British Medical Association," and shall not be a charity.

Such Fund shall consist of two departments:

First, an annuity department, the annual subscription of a member to which shall be twenty shillings.

Secondly, an Immediate Benefit Department, to which each member of the Fund shall, if he so wish, pay a sum not exceeding five shillings on the death of each subscriber.

The annuity shall be paid to the widow so long as she remains a widow, and upon the death of a widow, or upon the death of a subscriber leaving no widow, to the male and female orphans (if any) of the subscriber until the youngest male orphan has attained the age of 18 and is unmarried, and the youngest female orphan has attained the age of 21 and is unmarried.

The sum collected under the Immediate Benefit Department at any one "call" shall be paid to the widow or orphans, or other nominee of the subscriber as the subscriber has so willed.

Rules relating to the management of the Fund, to the amount of entrance tax, age and additional age taxes, marriage tax, and husband and wife equalising age tax, shall be made and adopted by the Executive Committee with the aid of an actuary.

In no case shall the amount of annuity paid to a widow or to the orphans exceed £100.

The above taxes and half the annual subscriptions shall be invested. Only the interest on these, and other fund investments, and one-half of the annual subscriptions, shall be used for the payment of annuities.

20. *The Library of the Association.*—Any member of the Association may take out any book from the Library except such rare books as the Executive Committee may not allow to leave the Library. The cost of transmitting a volume from the Library to the member, and the return of the volume, shall be defrayed by the member who obtains the volume. If a volume be damaged by the borrower he shall be fined in a sum equal to the damage done. If a volume be retained for over one month and be not returned after written application has been made by the librarian, the Executive Committee may order it to be replaced, and recover the cost of the volume from the borrower, and in default to order that the JOURNAL be not forwarded to such member.

21. *Biannual Prizes.*—Every second year the Association shall offer two prizes, one of £80 and one of £50, for the best essay by members on a medico-political or medico-ethical subject, the exact subject to be announced and fixed by the Central Council at the annual meeting. The Council shall have the power of refusing to grant the prizes should the essays not be of sufficient interest. The successful essays shall be the property of the Association.

22. *Analyses of Patent and Proprietary Articles.*—There shall be provided out of the funds of the Association each year a sum not exceeding £250 for the purpose of making from time to time analyses of patent and proprietary articles of medicine; and the analyses shall state the names of the ingredients, their several quantities, and also the cost price of such ingredients. Such analyses shall be published from time to time in the JOURNAL.

23. *As to the Signing of Editorials, etc.*—Every editorial or leading article or leaderette, or review of a book or of a medicine or food, or letters from practitioners or others (when such letters contain reference of a personal nature regarding another person), and all home and foreign "special" or other correspondence which appears in the JOURNAL, shall be signed by the writer of such. Provided that only one unsigned editorial may appear in each weekly issue of the JOURNAL so that the writer of questions connected with the subjects criticised may not suffer thereby.

24. Any existing by-laws of the Association, or of any Branch of the Association which are antagonistic to any of those by-laws are now hereby repealed, and these new by-laws shall come into operation immediately after being adopted by the Association in annual meeting.

## APPENDIX A.

BRITISH MEDICAL ASSOCIATION.—NOMINATION FORM.

Nomination of Candidate(s) for the election of the Central Council.

We, the undersigned, being Members of the British Medical Association and of (*a*).....Branch, hereby nominate (*b*) ..... of..... a member of the Association and of a Branch, as a proper person to be elected to represent the (*c*)....., and I (*d*) .....of .....hereby agree to be nominated and to serve, if elected, as a Member of the Central Council.

Signed by the following 12 Members of the Association (*e*).....

Date.....

To.....Branch Secretary.

(*a*) Here insert the name of the Branch.
(*b*) Here insert the name and address of person nominated.
(*c*) Here insert name of Branch.
(*d*) Here the person nominated will sign his name in full.
(*e*) Here each of the 12 persons nominating will sign his full name and address.

## APPENDIX B.

BRITISH MEDICAL ASSOCIATION.—ELECTION OF CENTRAL COUNCIL.

VOTING PAPER.

No. of Voting Paper..... Name and Address of Voter.....

| Initials of Voter to be written against Name(s) of Person(s) for whom he votes. | Name of Candidate s) | Residence of Candidate(s). |
|---|---|---|
| | A. B. | |
| | C. D. | |
| | E. F. | |
| | G. H. | |
| | I. J. | |

I vote for the person(s) in the above list before whose name(s) I have placed my initials.

Signed (*a*).....

Address.....

Member of the British Medical Association and of the (*b*)..... Branch.

Signed by the said voter in the presence of (*c*).....

Address.....

The voter in this Branch is entitled to vote for (*d*).....candidates(s) and no more.

The voter must write his initials in front of the name of the candidate(s) and no more.

The voter must write his initials in front of the name of the candidate(s) for whom he votes, and must subscribe his full name and address.

If the voter writes his initials in front of the names of more candidates than there are vacancies, or otherwise fails to comply with any of the regulations, the voting paper shall be void.

The voting paper must be returned by post to the Branch Secretary, at his official address on or before the.....day of.....

To.....Branch Secretary.

(*a*) Here insert name and address of voter.
(*b*) Here insert name of Branch.
(*c*) Here insert name and address of witness.
(*d*) Here insert number of candidates the voter is entitled to vote for.

## APPENDIX C.

ELECTORAL AREAS.

The following Branches, according to By-law 17, are entitled to Representatives to the Central Council.

ENGLAND AND WALES.

1. Metropolitan Branch (in 1895), 1,283 Branch Members (1,325 unattached; total 2,608)... ... ... ... ... 4 Representatives
2. Lancashire and Cheshire Branch, 990 Branch members (314 unattached; total 1,304) ... ... ... ... 3 Representatives.

3. South-Eastern Branch, 505 Branch members (560 unattached: total 1,065) ... ... ... ... ... ... 1 Representative.
4. Yorkshire Branch, 464 Branch members (343 unattached: total 807) 1 Representative.
5. Birmingham Branch, 417 Branch Members (91 unattached; total 508) 1 Representative.
6. North of England and Border Counties Combined Branches, 474 Branch members (285 unattached; total 659) 1 Representative.
7. South Midland—Oxford and District—Reading and Upper Thames and Thames Valley Combined Branches, 372 Branch members (165 unattached; total 537) 1 Representative.
8. East Anglian and Cambridge and Huntingdon Combined Branches, 361 Branch members (147 unattached; total 408) ... ... ... ... ... ... ... ... 1 Representative.
9. Midland—East York and North Lincoln Combined Branches, 361 Branch members (224 unattached: total 585) 1 Representative.
10. South Wales and Monmouthshire and Worcestershire and Herefordshire Combined Branches, 320 Branch members (177 unattached; total 497) ... ... ... 1 Representative.
11. North Wales—Staffordshire and Shropshire and Mid-Wales Combined Branches, 386 Branch members (117 unattached: total 505) ... ... ... ... ... 1 Representative.
12. Gloucester and Bath and Bristol Combined Branches, 371 Branch members (165 unattached; total 513) ... ... 1 Representative.
13. West Somerset and South Western Combined Branches, 329 Branch members (165 unattached: total 494) ... ... 1 Representative.
14. Southern and Dorset and West Hants Combined Branches, 369 Branch members (164 unattached; total 533) 1 Representative.

SCOTLAND.

15. Edinburgh, Aberdeen, Banff and Kincardine and Northern Counties of Scotland Branches, 326 Branch members (299 unattached; total 625) ... ... ... ... 1 Representative.
16. Glasgow and West of Scotland—Stirling, Kinross, and Clackmannan—Perthshire and Dundee and District Combined Branches, 332 Branch members (489 unattached; total 821) ... ... ... ... ... 1 Representative.

IRELAND.

17. Dublin—Londonderry and North-West of Ireland—Cork and South of Ireland South-Eastern of Ireland Combined Branches, 246 Branch members (359 unattached: total 605) ... ... ... ... ... 1 Representative.

AUSTRALIA AND NEW ZEALAND.

18. Adelaide and South Australia—Melbourne and Victoria—Sydney and New South Wales—and Brisbane and Queensland Combined Branches, 706 Branch members (91 unattached; total 797) ... ... ... 2 Representatives.

CANADA.

19. British Colombia—Halifax and Nova Scotia—Manitoba and North-West of Canada and Montreal Combined Branches, 175 Branch members (25 unattached; total 200) ... ... ... ... ... 0 Representative.

WEST INDIES.

20. British Guiana—Leeward Islands, Jamaica, Barbadoes—Bermuda and Trinidad and Tobago Combined Branches, 249 Branch members (12 unattached; total 261) ... ... ... ... ... ... ... 0 Representative.

CAPE OF GOOD HOPE.

21. Cape of Good Hope—Grahamstown and Eastern Provinces and Griqualand Combined Branches) 133 Branch members (103 unattached; total 236) ... ... 0 Representative.

INDIA.

22. Bombay, Burmah, Deccan, Gibraltar, Hong Kong and China, Malaya South India and Madras, Punjab, and Malta and Mediterranean, 309 Branch Members (35 unattached; total 404) ... ... ... ... 1 Representative.

FRANCIS FOWKE, *General Secretary.*

June 24th, 1897.

# ASSOCIATION INTELLIGENCE.

## COUNCIL.

### NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday the 14th day of July next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

June, 1897.

### NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1897.

MEETINGS of the Council will be held on July 14th and October 20th, 1897. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before the latter meeting—namely, September 30th.

### ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

NOTICE is hereby given that the Library is closed for the purpose of cleaning; due notice will be given of its re-opening.

## BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH.—The annual general meeting of this Branch will be held in the Imperial Institute, South Kensington, S.W., on Wednesday, June 30th, at 6 P.M. After the ordinary business, an address will be delivered by the incoming President, Mr. Frederick Wallace. The members will dine together at 7 P.M., tickets 8s. 6d. each, not including wine.—ISAMBARD OWEN, M.D., and H. BETHAM ROBINSON, M.S., Honorary Secretaries.

BATH AND BRISTOL BRANCH.—The annual meeting of this Branch will be held on Wednesday, June 30th, in the Medical Library of University College, Bristol, at 4.30 P.M., when Dr. E. Markham Skerritt will resign the chair to Mr. F. Richardson Cross, President-elect, who will deliver the Presidential Address. The business of the meeting will be to receive the report of the Council; to elect the officers of the Branch; to transact the necessary business; and such subjects connected with the interest of the Branch and of the profession as may be brought before it. The Secretaries will be obliged if members will send them notice of any alteration in their diplomas or addresses. The dinner will be held at the Clifton Down Hotel at 7 P.M. Dinner tickets, including ice and dessert, 7s. 6d. each. The wines will be served at moderate charges. N.B.—The Bristol Secretary particularly requests that members will inform him by Monday, June 28th, whether it is their intention to be present at the dinner. By so doing they will greatly facilitate the satisfactory completion of the necessary arrangements.—J. MICHELL CLARKE, Honorary Secretary of the Bristol District, 28, Pembroke Road, Clifton; W. M. BEAUMONT, Honorary Secretary of the Bath District, 4, Gay Street, Bath.

OXFORD AND DISTRICT BRANCH.—The annual meeting will be held on Tuesday, July 6th, at Banbury. Dr. Pemberton, the President-elect, kindly invites the members to luncheon at 1.30 P.M. Full particulars will be sent to each member.—W. LEWIS MORGAN, Honorary Secretary, 37, Broad Street, Oxford.

NORTH WALES BRANCH.—The annual meeting of the Branch will be held at Rhyl, in the first week of July. Any member having a member to propose, paper to read, case to communicate, or specimen to show is requested to intimate on or before June 26th to W. JONES-MORRIS, Honorary Secretary, Is-y-Coed, Portmadoc.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The twenty-seventh annual meeting will be held at Swansea on Friday, July 2nd. Mr. J. L. W. Ward (Merthyr), President-elect. Further particulars in circulars.—A. SHEEN, Cardiff, and D. A. DAVIES, Swansea, Honorary Secretaries.

EDINBURGH (LOTHIAN AND FIFE) BRANCH.—The annual meeting will be held in the Royal College of Physicians, 9, Queen Street, Edinburgh, on Wednesday, June 30th, at 4.30 P.M.—R. W. PHILIP, Honorary Secretary, 4, Melville Crescent, Edinburgh.

WEST SOMERSET BRANCH.—The annual meeting of this Branch will be held at the Luttrell Arms Hotel, Dunster, on Tuesday, July 6th, at 1 P.M., under the presidency of Mr. F. G. Hayes. Medical Aid Associations: The following resolutions, which were passed at a meeting of the East Anglian Branch on March 25th (BRITISH MEDICAL JOURNAL, p. 878), to be considered: (1) "The members of the East Anglian Branch desire to obtain from the British Medical Association an expression of opinion on the question of consultations with the medical officers of medical aid associations and medical institutes." (2) "That the Council of the British Medical Association be requested to memorialise the Medical Council on the urgent necessity to take steps to prevent the growing evils of medical aid associations and medical institutes." (3) "That the Branch representatives be directed to bring these resolutions before the next meeting of the Council of the Association, and that the Secretaries be instructed to forward copies of the same to the Branches throughout the United Kingdom, and to obtain their opinion thereon." The President will deliver an address on Some Cases Bearing on the Question of Prognosis in Pleuritic Effusion. A substantial luncheon will be ready at 2 o'clock, 3s. 6d. a head, exclusive of wine (but including beer or cider and attendance). Excursions at 3 P.M.: (1) A drive by Wootton Courtenay to Porlock Weir returning by Minehead to Dunster. (2) A visit to the

Minehead and West Somerset Golf Links. (3) Mr. and Mrs. Luttrell, of Dunster Castle, have kindly offered to allow members to look over the Castle and grounds. Members may bring friends. In order that due preparation may be made, an intimation from gentlemen proposing to attend should be sent to Mr. Hayes four clear days at least before July 6th.—W. M. KELLY, M.D. Honorary Secretary, Taunton.

BORDER COUNTIES BRANCH.—The annual meeting of this Branch will be held at Galashiels on Friday, July 2nd.—R. DUNDAS HELM, Carlisle, Honorary Secretary.

EAST ANGLIAN, SOUTH MIDLAND, AND CAMBRIDGESHIRE AND HUNTINGDON BRANCHES.—A combined meeting of these Branches will be held in Cambridge on Thursday and Friday, July 8th and 9th.—JOSEPH GRIFFITHS, Cambridge, Honorary Secretary Cambs. and Hunts. Branch.

LANCASHIRE AND CHESHIRE BRANCH.—The sixty-first annual meeting of this Branch will be held in Owens College, Manchester, on Wednesday, June 30th, at 2 P.M. Agenda: Inaugural Address by the President, Dr. Samuel Woodcock; Report of Council and Financial Statement; Election of Office-bearers, Representatives in the Council of the Association, Representatives in the Parliamentary Bills Committee, and ordinary Members of the Council for 1897-98. Choice of place for holding next Annual Meeting: A cordial invitation, which has been provisionally accepted by the Council, has been received from the members resident in Wigan to hold the next annual meeting in that town. Appointment of two Auditors. Votes of thanks to the office bearers and members of late Council. The election of the following nominees of the Council is unopposed: President-elect, W. Berry, F.R.C.S.I.; Vice-Presidents, John Holden, J.P., C. J. Renshaw, M.D.; Honorary Secretary, James Barr, M.D.; Representatives in the Parliamentary Bills Committee, A. Godson, M.B., A. Brown Ritchie, M.B., G. E. Shuttleworth, M.D., Samuel Woodcock, M.D, Professor Adami will be present and explain the arrangements which have been made in Montreal for the reception of members from this country at the annual meeting of the Association. Dr. J. Brassey Brierley will call attention to the action of the Council of the Association in hanging up the Midwifery Nurses Bill, and will propose a motion thereon. Dr. Rentoul will move, and Dr. Dunn second: (*a*) That first-class travelling expenses of representatives of the Branches of the Association in the United Kingdom, and of those representatives of Colonial and foreign Branches who are resident in the United Kingdom, when attending any meeting of the Central Council of the Association be defrayed out of the funds of the Association. (*b*) That each such representative who resides outside an area of fifty miles of the place where the Central Council meets, be paid 1 guinea per diem hotel expenses for each day he attends any meeting of the Central Council. (*c*) That until provision is made by the Association for the payment of such hotel expenses, each representative of the Lancashire and Cheshire Branch upon the Central Council shall be paid such hotel expenses out of the funds of this Branch. (*d*) That the motions marked (for the purpose of identification) *a* and *b* be brought before the next annual meeting of the Association by our Branch representatives for consideration, and, if thought fit, for adoption. The following communications have been promised: Dr. William Armstrong, On Auto-intoxication; Dr. Imlach, On Accident Insurance. Professor Dreschfeld will show some cases illustrating rare forms of Muscular Atrophy. Professor Leech will give a Demonstration of some methods used in Pharmacological Investigations. Professor Delépine will give a Demonstration of (1) Serum Diagnosis in Typhoid Fever; (2) Cultures of Pathogenic Organisms; (3) The Examination of Milk in connection with the Prevention of Disease. Professor Stirling will show Histological Preparations. Dr. Milligan: The Operative Treatment of Suppurative Middle-Ear Disease, with special reference to recent modifications in the performance of Mastoid Operations. Mr. Roger Williams, On Cancer and Morbus Miseriæ. Dr. Garry: Cases of Uterine Fibroids successfully Treated by Electrolysis. There will be an exhibit of new drugs and chemicals, medical and surgical instruments, etc., in the Materia Medica Museum. A luncheon, provided by the President and members of the Branch in and around Manchester, will be served at Owens College, from 12 to 2 P.M. Arrangements have been made for a dinner at the Albion Hotel, Piccadilly, at 6.30 P.M. Tickets (wine not included) 5s. each. In order to facilitate arrangements the Secretary will feel much obliged if every member who intends to be present at the meeting will kindly state whether he proposes being present at the luncheon and dinner. Those gentlemen who intend coming, but who on the day of meeting may find it impossible to do so, will not be held responsible for their dinner tickets. The Secretary is very anxious to get the number as correctly as possible in order to assist the Reception Committee. Those gentlemen who have not yet paid their subscriptions will please remit such without further delay to the Honorary Secretary, Dr. Barr. Subscriptions to the Royal Medical Benevolent College can be paid to Dr. Barr.—JAMES BARR, M.D., 72, Rodney Street, Liverpool, Honorary Secretary.

## MIDLAND BRANCH.

THE annual meeting of this Branch was held at Leicester on June 3rd, under the presidency of Mr. BOND, about forty members being present.

*New Members.*—The Council reported the election of the following to the Association and Branch: N. C. Ridley, A. V. Clarke, and A. J. Dolman; and the election of the following to the Branch: A. E. Nuttall, E. Mabel Henwood, R. W. W. Henry, F. W. Jewitt, R. R. W. Logan, J. C. Burkitt, E. V. Phillips, H. Skipworth, Frances Armitage, R. H. Fagge.

*Officers and Council.*—The following were elected office-bearers for 1897-8:—*Representatives of the Branch on the Council of the Association:* Drs. Handford and Pope. *Representative on the Parliamentary Bills Committee:* Dr. Carline. *Vice-President for Derbyshire:* E. M. Wrench, F.R.C.S. *Vice-President for Nottinghamshire:* A. R. Anderson, F.R.C.S. *Branch Council:* Dr. Moore and Mr. Stewart (Leicestershire), Dr. Mutch and Mr. Appleby (Nottinghamshire), Dr. Laurie and Dr. Benthall (Derbyshire), Dr. Newman and Dr. Harrison (Lincolnshire). *Honorary Secretary and Treasurer:* Dr. Carline having resigned Dr. Pope was elected in his place, and Dr. Sympson was elected District Secretary for Lincolnshire. A vote of thanks was passed to Dr. Carline for his services. *President-elect:* Dr. Carline, Lincoln.

*Alteration of Rule.*—Due notice having been given, it was proposed, seconded, and unanimously carried that Rule 4 be so altered as to include the Representatives of the Branch on the Council of the Association as *ex-officio* members of the Branch Council.

*Medical Aid Associations.*—A communication from the East Anglian Branch having been read it was decided to adopt the following resolution:

That the Council of the British Medical Association be requested to memorialise the General Medical Council to take steps to prevent the growing evils of medical aid associations and medical institutes.

*The Montreal Meeting.*—Dr. Handford and Mr. Stewart were appointed delegates to represent the Branch at this meeting.

*President's Address.*—Mr. BOND delivered an address on the Physiology and Pathology of the Fallopian Tubes, illustrating his subject with the lantern.

*Communications.*—The following communications were presented: Dr. RANSOM, Remarks on Pernicious Anæmia, with lantern illustration; Dr. POPE, Three Cases of Adult Hereditary or Huntingdon's Chorea; Mr. ARMSTRONG, Gastro-intestinal Toxins—Their Clinical Significance and Therapeutic Indications; Dr. SYMPSON, Notes, with coloured drawing, of a case of Chronic Superficial Glossitis, and notes of a case of Epithelioma of the Tongue, with removal of 4 inches of the lower jaw; Dr. PRATT, Short notes of a case of Cyclic Albuminuria, and Two Urinary Calculi with Unusual Nuclei; Dr. RIDLEY, Clinical Cases in the Ophthalmic department of the Infirmary.

*Luncheon and Dinner.*—The President entertained the members at luncheon in the Infirmary, and after the meeting the dinner was held at the Royal Hotel.

## SOUTH-EASTERN BRANCH.

THE fifth-third annual meeting of this Branch was held at Croydon on June 16th.

*Luncheon.*—Luncheon was provided, at his house, by the President-elect, Dr. Duncan.

*President's Address.*—After a few remarks by the retiring PRESIDENT, Dr. DUNCAN gave his address. After alluding to the changes in the town of Croydon during the twenty years which had passed since the Branch had met there, he dealt with the advances in medicine in surgery and the allied sciences.

*Votes of Thanks.*—The President received the thanks of the meeting for his able address. The various officers of the Branch were cordially thanked for their work during the past year.

*Report of Council.*—The following were the chief points mentioned in the report of Council: The success of the new District, that of North Kent; the death of an old member, Mr. F. B. Hallowes, whose long connection with the Branch, and whose kindly disposition made his loss keenly felt; the election of Dr. Parsons to the Treasurership of the Association; the result of the voting on the question of medical defence; the present state of the midwifery nurses question, and the prospect of legislation thereon; and, finally, the necessity for steps to check the growth of medical aid associations and medical institutes, the Association Council being requested to memorialise the General Medical Council to this effect.

*Finance.*—A balance was reported of about £150.

*Votes of Money.*—Grants of 20 guineas were voted to the British Medical Benevolent Fund, and to the Royal Medical College, Epsom.

*Resolution of Condolence.*—The death of Mr. Hallowes had been previously noticed by the Branch Council, of which he was a member. On the motion of Dr. HOLMAN, seconded by Dr. PARSONS, the Branch passed the following resolution with reference to the death of Mr. G. F. Hodgson:

That the Secretary be requested to write expressing the sympathy of the members of the South-Eastern Branch with the family of the late Mr. Hodgson, who acted so zealously as Secretary to this Branch, and who, whilst serving on the Committee of Council, did such signal service in placing the financial position of the Association on a sound basis.

*Annual Meeting of 1898.*—It was decided to meet at Tunbridge Wells, and to request Dr. Ranking to preside.

*Delegates to Montreal.*—Dr. Galton, Dr. Parsons, and Dr. Bowles were appointed to represent the Branch.

*Officers and Council.*—The following were selected officers for the coming year: *Branch Council:* Dr. Adams, Croydon; Dr. Adeney, Tunbridge Wells; Dr. Allfrey, St. Leonard's; Dr. Bagshawe, St. Leonard's; Dr. Bowles, London; Dr. Buchanan, Chatham; Mr. C. W. Chaldecott, Dorking; Mr. A. H. Dodd, Brighton; Dr. T. Eastes, Folkestone; Sir J. Ewart, Brighton; Mr. E. H. Galton, Brixton; Mr. Hallowes, Maidstone; Dr. Hayman, Eastbourne; Dr. Hoar, Maidstone; Dr. Holman, London; Surgeon-General Jeffcoat, Surbiton; Mr. E. Kaye-Smith, St. Leonard's; Dr. Oldman, Blechingley; Dr. Parsons, Dover; Dr. T. W. Reid, Canterbury; Dr. Starling, Tunbridge Wells; Dr. Stowers, London; Mr. O. R. Travers, St. Leonard's; Mr. W. K. Treves, Margate; Mr. J. Sidney Turner, Anerley; Dr. Waring, Hove. *Honorary Secretary and Treasurer:* Mr. Verrall. *Representatives on the Association Council:* Dr. Galton, Dr. Tyson, Mr. Verrall. *Representatives on the Parliamentary Bills Committee:* Mr. E. H. Galton, Mr. Verrall.

*Dinner.*—The dinner took place at the Greyhound Hotel, the Vicar of Croydon, Mr. Alderman Rymer, and others being guests.

## CORK AND SOUTH OF IRELAND BRANCH.

A GENERAL meeting of this Branch was held on May 29th, Dr. J. J. CURRAN, President, in the chair.

*Confirmation of Minutes.*—The minutes of the last meeting were confirmed.

*Queen's College, Cork, and the Board of Examiners of the Royal University.*—It was proposed by Professor O'SULLIVAN, seconded by Dr. GUISANI, and carried unanimously that a copy of the Resolution *re* inadequate representation on the Senate and Board of Examiners of the Royal University of the Queen's College, Cork, as passed at general meeting of the Branch, December 19th, 1896, be forwarded to Sir ROWLAND BLENNERHASSET, President, Queen's College, Cork.

*Medical Aid Associations.*—It was proposed by Professor C. Y. PEARSON, seconded by Dr. GUISANI, and carried unanimously:

That we the Members of the Cork and South of Ireland Branch strongly disapprove of members of the Association consulting with medical officers of medical aid associations, and desire to obtain from the Council of this Association an expression of opinion thereon.

That we request the Council of the British Medical Association to memorialise the General Medical Council on the urgent necessity of taking steps to prevent the growing evils of medical aid associations, and that we ask our representative to bring these resolutions before the Council of the Association.

*The Association and Homœopathic Practitioners.*—It was proposed by Professor O'SULLIVAN, seconded by Dr. MORIARTY, and carried *nem. con.*

That no homœopath shall be admitted or retained a member of the British Medical Association.

*Medical Defence.*—The question was not finally decided at the meeting.

*Delegates to Montreal.*—Professor O'SULLIVAN and Dr. T. GELSTON ATKINS were unanimously deputed to represent the Branch at the annual general meeting at Montreal.

## STAFFORDSHIRE BRANCH.

THE third general meeting of the session was held at Wolverhampton on May 27th, Dr. J. RIDLEY BAILEY, President, in the chair. Fifteen other members and two visitors were present.

*Confirmation of Minutes.*—The minutes of the last general meeting were approved and signed.

*New Member.*—John F. Fernie, M.R.C.S.Eng., L.R.C.P. Lond., Infirmary, Stafford, was elected a member of the Branch.

*Montreal Meeting.*—A letter from Dr. Roddick, President-elect, was read, asking the Branch to appoint delegates to the forthcoming annual meeting at Montreal. Dr. Bailey, President, was elected to represent the Branch.

*Medical Aid Association.*—A letter from the Secretaries of the East Anglian Branch, enclosing resolution passed at a meeting of that Branch held on March 25th, was read. As the Branch had already this session had the question of medical aid associations (to which the letter referred) under consideration, it was resolved that no further action be taken.

*Royal Medical Benevolent College.*—The PRESIDENT reported the name of the candidate for whom he had given the votes of the Branch at the recent election.

*Death of Mr. Weston.*—The PRESIDENT referred in feeling terms to the loss the Branch had sustained in the death of Mr. E. F. Weston, who was an original member of the Branch, its first Treasurer, and a past President; and, on his proposal, a vote of condolence with the members of Mr. Weston's family was unanimously passed.

*Exhibits.*—Dr. DEANSLEY showed: (1) A Vermiform Appendix which he had recovered from a case of acute general peritonitis in a lad aged 14. After three days' illness, attended with purging, vomiting, and abdominal pain, a sudden access of very acute pain occurred, immediately followed by a state of collapse. Five hours after this occurrence the belly was opened by a median hypogastric incision, and about a quart of stinking turbid fluid removed from the pelvis and from among the coils of small intestines on both sides as high as the umbilicus. The appendix, which was gangrenous at the top, but not perforated, contained a firm concretion. It was removed by a lateral incision over the cæcum. The abdomen was cleaned with sponges without irrigation, and a glass tube passed to the bottom of the recto-vesical pouch. An iodoform gauze drain was passed through the lateral incision down to the stump of the appendix. After a critical illness the patient made a complete recovery, which was, however, retarded during the third week by an attack of acute intestinal obstruction, with stercoraceous vomiting apparently due to adhesions among the small intestines. This attack passed off under treatment by morphine and rectal feeding. (2) A large Hydronephrotic Kidney, containing a small uric acid calculus, successfully removed by abdominal nephrectomy from a young woman aged 19 years. The patient had sought advice on account of dragging pains in the back and side, and a large and very movable tumour was found in the right iliac and lumbar regions. The urine was normal. (3) A dilated and completely disorganised Kidney, containing two large uric acid calculi and about twenty smaller ones the size of a pea. The pelvis of the kidney and the greatly dilated calices were filled with thick offensive pus. This specimen was removed by lumbar nephrectomy six days previously, and the patient, a girl of 16 years, was making an uneventful recovery. (4) A gall stone 2 inches long and 1½ inch in diameter removed by enterotomy from the small intestine of a woman, aged 52 years, suffering from intestinal obstruction with stercoraceous vomiting. The case unfortunately was complicated by volvulus of the small intestine, which was not relieved by the operation, and the patient died thirty-six hours later.—Dr. FRED. EDGE showed: (1) A specimen of Uterus with Myomata. One myoma had sloughed after removal of the appendages, causing peritonitis and death on the eighth day after acute delirious mania. Dr. Edge thought that, if panhysterectomy had been resorted to, the result would have been different owing to its radical nature and perfect drainage. (2) A Myomatous Uterus removed successfully by a modified Doyen's operation of panhysterectomy. (3) A Uterus with Cancer of the Fundus removed successfully by vaginal hysterectomy. The peritoneum was intact. The patient, aged 69, had a dilated heart, and some bronchial asthma. (4) A Fœtal Sac of a tubal pregnancy removed at the fifth to sixth week of pregnancy. The tube had ruptured, but no fœtus was found.—Mr. T. VINCENT JACKSON exhibited a man, aged 73, admitted into the General Hospital, March 24th, 1897, having just previously cut his throat. For the last thirty years he had suffered such constant distress, amounting to agony, from retention of urine, with overflow dribbling, due to an excessively and generally enlarged prostate, that

he considered death preferable, and so attempted to take his life. Two days after admission the vasa deferentia were ligatured, and the portion between the ligatures excised. Within a month of the operation the catheter was dispensed with, and at the present time his condition is one of great comfort. The intervals of micturition are lengthening, and the amount of residual urine is steadily diminishing.—Mr. A. HUNT showed the Right Ovary and Tube which he had removed from a woman, aged 33, suffering from pyosalpinx. The Fallopian tube was found full of pus, and it and the ovary were greatly enlarged, and universally adherent to the pelvis. The patient recovered. Mr. Hunt also related a case of Extra-uterine Pregnancy upon which he had operated. The fœtus (three months) was in the pelvis, surrounded by adhesions; the placenta in the right Fallopian tube. The patient died from peritonitis.—Dr. J. A. CODD showed the Heart of a child, aged 4½ years, who had died suddenly on the fourth day after an abscess over the right great trochanter had been opened. There were also many abscesses in other parts of the body, mostly in connection with diseased bones and joints. The pericardial sac was found full of blood, clots, and pus. The endocardium revealed a few small white spots. The posterior cusp of the mitral valve was eroded, and the wall opposite its site was occupied by an abscess tracking in two directions in the cardiac wall, one leading directly into the pericardial cavity, into which the abscess had burst, causing the sudden death.

*Paper.*—Dr. CARTER (Birmingham) read a paper advocating the importance of adopting more Systematic and Exact Methods of Infant Feeding. He held that, at least for the purpose of medical practice, the percentage composition of the milk supplied to infants should be known, and he indicated the methods which he considered to be best adapted to secure the object. Attention was called to the valuable service rendered by the milk laboratories which have been established in certain cities in America.

# SPECIAL CORRESPONDENCE.

## PARIS.

*The New Tuberculin.*

M. NOCARD has reported on Koch's new tuberculin to the Paris Medical Academy. His report contained the following statements: In the present instance we have to consider a foreign product which it is impossible to examine; with French products of this nature an inspection and investigation at the place it is produced are always insisted on. The specimen which accompanies the demand that this new tuberculin should be used is too small (1 c.cm.), to be able to control it either experimentally or clinically. The pamphlet by Koch, too, is wanting in detail concerning the methods used in making the tuberculin to convince its readers of its immunity and efficacy. If the Academy observed its usual custom the said product would not be accepted until clinical proof, or at least experiments, proved the assertions made on its behalf. But these experiments would inevitably take several months. The scientific reputation of M. Koch, and the impatience of the sufferers to benefit by his proposed cure, place the Academy of Medicine in an exceptional position. M. Nocard considers that for these reasons the use of Koch's tuberculin cannot be deferred until it has been controlled and experimented with, as is customary in other cases. The Commission of Serums makes an exception in favour of Koch's tuberculin, and advises the Academy to permit its temporary use, which will only be definitely confirmed after it has been experimentally and clinically tested. But it is insisted on that a sufficient quantity of the serum be placed at the disposal of the Commission to make the required experiments; likewise that it be aseptic. The above decisions, adopted by the Academy of Medicine, will be forwarded to the Minister of the Interior.

ON Thursday, June 11th, Mr. R. Bevan, L.R.C.P.Lond., and D.P.H., was presented by the Lydd Ambulance Class with a very handsome malacca cane walking stick, suitably inscribed.

# CORRESPONDENCE.

## THE WAR OFFICE AND THE MEDICAL PROFESSION.

SIR,—The letter of your correspondent, "Miles Medicus," touches very materially the future of the Army Medical Department. It is practically an appeal to the profession to help those whom the nature of their service prevents from helping themselves. It is as certain as anything can be that the military authorities will not institute the necessary reforms until such pressure is brought to bear on them as will render the granting of the desired reforms essential. The one sure way of doing this is by cutting off the supply at the fountain head.

There are many retired medical officers who are under no military obligation which prevents their agitating in this direction; many, like myself, are now attached to medical schools, and have, therefore, considerable influence with students. It has occurred to me that some sort of Association should be formed amongst such men, having for its object such an agitation as that for which your correspondent pleads. If the facts were properly placed before students of medicine by pamphlets and the like, I have no doubt that many would be deterred from offering themselves as candidates for the Army Medical Staff until the conditions of their service have been rendered more honourable to the profession.

It is worth pointing out that long ago the "military advisers" objected strenuously to the formation of the corps of "Royal Artillery" and "Royal Engineers." I do not doubt that the formation of a corps of "Royal Surgeons," with *bonâ fide* military titles, would soon solve all existing difficulties, and would attract to the service the *élite* of the profession, which certainly cannot be said to be the case at present.—I am, etc.,

June 11th. OLIM MILES MEDICUS.

## THE CIVIL RIGHTS OF THE MEDICAL PROFESSION.

SIR,—Some explanation may be proper of the reasons which have led me to give notice of the motions standing in my name for the Fellows' meeting at the College on July 1st:

That, as asked in a memorial dated May, 1897, of Fellows and Members practising in Plymouth, Devonport, and Stonehouse and the neighbourhood, and in reference to resolutions of previous meetings of Fellows and Members, the Council be requested to afford the College some explanation as to the rights referred to in Section XV of the College by-laws: and particularly why Fellows and Members are in error in regarding the violation of the right to practise their profession as a disturbance in the exercise of a right acquired by them as Members of the College and the Council's undertaking to protect and defend Fellows and Members so disturbed as a binding obligation.

That this meeting desires to call the attention of the Council to the published reports of the proceedings of the General Medical Council at the recent session in the matter of a petition of a Fellow and Member praying for the defence by the General Medical Council of his rights guaranteed under the Medical Acts and to Mr. Bryant's action in the matter; and to inquire whether, in voting against the reception of the petition and its entry on the minutes, and in accepting the advice of the Council's legal adviser without considering it in relation to the merits and prayer of the petition, Mr. Bryant (*a*) correctly construed the views of the Council on the subject, or (*b*) acted satisfactorily as the representative of the Council on the General Medical Council.

Mr. Rivington had in vain pressed the matter of the first motion on the Council, and had given notice to move the appointment of a Committee to report on By-law XV, when his illness, which eventually cost the cause of College reform his inestimable services, necessitated his withdrawal of the notice. Since then I have myself twice applied to the Council, but have merely been informed that my letters have been laid before it. Last month, between thirty and forty signatories, including some Fellows as well as Members of the College residing in Plymouth, Devonport, Stonehouse

and the neighbourhood, addressed to the Council a memorial in which some explanation of the by-law was requested; and Mr. J. H. S. May has, as first signatory, pressed for such explanation, but has received a reply refusing it on the ground that the Council is under no obligation to explain the conclusions at which it arrives. Though sent in reference to my case, and with every sympathy for me, the memorial was intended in the interest of the signatories and all Fellows and Members: and to elicit from the Council some satisfactory expression as to the defence of their rights under the by-law, but in this it has signally failed. Others not taking the matter up, I was forced either to bring forward Motion No. I or to abandon the point; and in the latter course I should have been wanting alike to those who signed the memorial and to myself.

On the General Medical Council those friends who presented and favoured my petition had, as shown by our College minutes, to be considered on July 1st, some ground to expect support in feasible measure from the representative of the College, and have some interest in its being ascertained, and it is due to them to ascertain whether representatives of the bodies corporate have any responsibility, and if so what is its nature and extent? Therefore, however desirable it might be that points of so great constitutional importance should be in charge of some more influential Fellow, I hope that I may, in raising them, obtain the approbation and support of many who though not companions in my wrongs have interests identical with mine. I submit the text of By-law XV.—I am, etc.,

Montague Place, W.C., June 22nd. R. B. ANDERSON.

SECTION XV. (COLLEGE BY-LAWS) RIGHTS OF FELLOWS AND MEMBERS.

The Council will at all times protect and defend every Fellow and Member of the College who may be disturbed in the exercise and enjoyment of the rights, privileges, exemptions, and immunities acquired by him as a Fellow and Member or Member thereof.

## THE MIDWIVES BILL OPPOSITION: A BRANCH SECRETARY'S "GRANT."

SIR,—In the notice of business for the Lancashire and Cheshire Branch on June 30th, there is a most extraordinary blunder, and as it personally affects me, please allow me space to correct it. It is there stated in the balance sheet that a "grant" of £50 was made by the Branch to Dr. Rentoul. No such grant either of this or any other sum has been made to me. From 1890 to present date, I have advanced some £410 to oppose the five Midwives Bills. From time to time about £373 of this sum has been repaid to me. Any thinking person can see that the repaying of the money to me is in no respect a "grant." I have no special objection to a "grant" for work done by me, but I sincerely wish that persons occupying the position of Branch treasurers would be little more careful of the words they use. I repudiate this suggestion that my Branch has made me any grant. It might as well be suggested that when my Branch voted £250 to its Committee to oppose the Midwives Bill, it made a "grant" of £250 to the members of that Committee.—I am, etc.,

June 18th. ROBERT R. RENTOUL.

MEDICAL MAGISTRATE.—Dr. H. H. Vernon, F.R.S.E., President of the Lancashire and Cheshire Branch of the British Medical Association and Medical Officer of Health of Southport since 1873, has been placed upon the Commission of the Peace for that borough.

NURSES AND THE JUBILEE.—The Lady Mayoress issued invitations to hospital nurses to view the ceremony on Tuesday at St. Paul's Churchyard. About 170 nurses attended from St. Bartholomew's, London, Guy's, University College, Middlesex, the Metropolitan, and King's College Hospitals, from the Hospital for Children and Women, and from the following Children's hospitals: Great Ormond Street, Evelina Victoria, and Shadwell. Some disappointment was felt when it was found that it had been impossible to provide seats for the nurses, but with some difficulty standing room was obtained for them in the churchyard, and they were enabled to witness the religious ceremony in which the Queen took part.

# MEDICO-PARLIAMENTARY.

## *HOUSE OF COMMONS.*

THE MUZZLING ORDERS.

SIR CHARLES DILKE asked the President of the Board of Agriculture what was the result of the inquiries into the application of the dog-muzzling order to sheep dogs while working?—Mr. LONG: I have caused a special inquiry to be made as to this matter, the result of which goes to show that no really serious inconvenience is caused by requiring sheep dogs to be muzzled in districts in which such a measure is necessary. This view is confirmed by the past experience both of the Board of Agriculture and many local authorities, when muzzling regulations have been made. Moreover, the proposed exemption would seriously impair the efficiency of the orders now in force, and render it necessary for them to be continued for a longer perion than I hope will be necessary. I regret, therefore, that I do not see my way to adopt the suggestion which the right honourable baronet has made to me.

THE NAVAL HOSPITAL DIET SHEETS.

Dr. TANNER: I beg to ask the First Lord of the Admiralty whether any, and, if so, what, system is pursued with regard to the audit of all Naval Hospital diet sheets?—Mr. GOSCHEN: The various diet sheets are compiled by the medical officers of wards, who enter personally on them daily the diets they have ordered. These sheets are examined in the office of the principal medical officer in charge of the hospital, who certifies on the quarterly provision account that this has been done. The audit of hospital accounts, which includes that of diet sheets, has been conducted for some time past by the Controller and Auditor-General.

THE ADULTERATION OF FOOD PRODUCTS.

Mr. JEFFREYS asked the First Lord of the Treasury if he could now state when he proposed to introduce the Bill dealing with the adulteration of food products.—Major RASCH put a similar question, and Mr. BALFOUR, in reply, said he could give no specific pledge as to when the Bill dealing with this question would be introduced; but he hoped the introduction would take place at no distant date, probable next week or the week after.

THE PLAGUE IN INDIA.

There have been presented to Parliament copies of further papers relating to the outbreak of plague in India, with statements showing the quarantine and other restrictions recently placed upon Indian trade up to May, 1897.

WEIGHTS AND MEASURES (METRIC SYSTEM) BILL.

This Bill, the object of which is to render it no longer illegal for persons to use metric weights and measures in this country for purposes of trade, was read a second time.

DOG MUZZLING IN LEICESTER.

Mr. HAZELL proposes to ask the President of the Board of Agriculture whether he is aware that considerable dissatisfaction is felt at the order for the muzzling of dogs in the borough and county of Leicester, upon the ground that there has been no proved case of rabies in that county for several years, and that the order will cause much inconvenience to the agricultural residents? And whether, under these circumstances, he can hold out any hope of an early revocation of the order?

PETITIONS.

Petitions have been presented from Bristol against the alteration of the law as to contagious diseases: from Stockton-on-Tees and the National Agricultural Union for alteration in the law as to food products adulteration.

# UNIVERSITIES AND COLLEGES.

## UNIVERSITY OF CAMBRIDGE.

MEDICAL DEGREES.—The following degrees have been conferred:

*M.D.*—W. Broadbent, M.A., M.B., B.C., Trinity; A. L. Jackson, M.A., M.B., B.C., Clare; A. S. F. Grünbaum, M.A., M.B., B.C., Gonville and Caius; J. C. Waithman, M.A., Magdalene; J. Blumfield, B.A., Caius; E. N. Nason, B.A., Downing.

*M.B. and B.C.*—A. P. Beddard, B.A., Trinity; W. F. Lloyd, B.A., Clare; W. Myers, B.A., and C. A. Robinson, B.A., Gonville and Caius; F. F. Ward, B.A., Selwyn; J. M. Martin, B.A., Peterhouse; H. B. Milsome, B.A., Trinity; W. Irving, B.A., Caius; A. Mackenzie, B.A., Caius; W. B. Dove, B.A., Christ's; W. E. Manby, B.A., Christ's; H. Roper, B.A., Christ's; H. J. R. Twigg, B.A., Christ's; J. C. Muir, B.A., Emmanuel; G. B. Muriel, B.A., Downing.

*M.B.*—S. H. Long, Caius; L. P. Black, B.A., Trinity Hall.

*B.C.*—J. C. Waithman, M.A., Magdalene; P. J. A. Seccombe, M.A., St. John's.

SECOND EXAMINATION FOR MEDICAL AND SURGICAL DEGREES.—The following candidates have satisfied the Examiners:

*Part I. Pharmaceutical Chemistry.*—J. F. Alexander, Trin.; Beck, Cla.; S. Bennett, Down.; Bennion, Joh.; H. C. Brown, Emm.; Bulstrode, Trin.; Bryan, King's; Byles, King's; Candler, B.A., Corp. Chr.; E. R. Clarke, Joh.; Cole, Trin.; de Havilland, M.A., Pet; W. H. Dickinson, B.A., Trin.; Edwards, Down.; Etherington-Smith, Trin.; H. R. Fisher, Emm.; W. H. Fisher, Emm.; W. S. Fox, Trin.; Heath, Down.; H. T. James, B.A., Trin.; Jeudwine, H. Selw.; J. H. Kellgren, Trin.; Lambert, Joh.; McBryde, B.A., King's; Mart, Joh.; H. W. Masterman, Christ's; C. M. Murray, Pemb.; S. H. Nathan, Trin.; Noon, Trin.; Payne, Pet.; Rischbieth, Trin; Rix, Trin.; Robinson, Trin.; E. A. Ross, Trin.; Sapwell, B.A., Corp. Chr.; A. V. Sedgwick, Gonv. and Cai.; Shone, Emm.; Spicer, Trin.; Stiebel, Trin. H.; Stocker, Trin.; Trigg, Christ's; Wales, Sid. Suss.; Wild, Jes.; Wilson, H. Selw.

*Part II. Human Anatomy and Physiology.*—A. P. M. Anderson, B.A.

Trin.; Barnicott, B.A., Pemb.; Brenan, B.A., Trin.; Candler, B.A., Corp. Chr.; E. R. Clarke, Joh.; Cooke, B.A., Sid. Suss.; Dunne, Queens'; Eve, B.A., Emm.; Gillespie, Joh.; Glenn, B.A., Pemb.; Glover, Joh.; D. G. Hall, Emm.; Heath, Down.; Helm, B.A., Magd.; Hulbert, B.A., Trin.; Izard, B.A., Trin.; C. Killick, B.A., Trin.; Knobel, B.A., Trin; Linnell, B.A., H. Selw.; Malim, Christ's; H. N. Matthews, Joh.; Micklethwait, B.A., Trin.; Mullings, B.A., Christ's; Murison, B.A., Trin.; Nixon, B.A., Gonv. and Cai.; Pearson, B.A., Emm.; Philbrick, B.A., Trin.; L. Reynolds, B.A., Trin.; Scott, Christ's; Sellon, B.A., Gonv. and Cai.; Stiff, B.A., Gonv. and Cai.; Taylor, Down.; Timmins, B.A., Emm.; Topham, B.A., Christ's; Walker, B.A., King's; Walker, B.A., Cla.; R. F. C. Ward, Joh.; D. P. Watson, B.A., Trin.; West, B.A., Christ's; Whitmore, Gonv. and Cai.; Wilkinson, B.A.; Pemb; T. Wood, B.A., Gonv. and Cai.; H. C. S. Woodward, M.A., Down.

FIRST EXAMINATION FOR MEDICAL AND SURGICAL DEGREES.—The following candidates have satisfied the examiners:

*Part II. Elementary Biology.*—H. Akroyd, Gonv. and Cai.; Armitage, Emm.; Bain, Trin.; Barton, Pemb.; Birks, King's; Brailey, Down.; Breakey, Jes.; Burroughes, Trin.; Cardew, Cla; Clapham, Emm.; Cohen, Emm.; Cooper, Jes.; Cooper, Emm.; Courthauld, Trin.; W. R. Creighton, Emm.; W. L. Cripps, Trin.; Crowther, Joh.; Cunnington, non-coll.; Davidson, Gonv. and Cai.; Day, Christ's; Dodd, Gonv. and Cai; T. R. Elliott, Trin.; Elliott, Emm.; W. I. Evans, Joh.; Frere, Pemb.; Gardner, Gonv. and Cai.; Gardner-Medwin, Trin.; Goss, Jes.; Goulden, non-coll.; Goyder, Joh.; C. H. Gregory, Emm.; Gubbins, Cla.; Guinness, Emm.; Guthrie, King's; Haldane, Jes.; Hardwick, Trin.; Hardwick-Smith, Joh.; Harnett, Joh.; Harrisson, Cla.; Harry, Jes.; A. G. Harvey, Joh.; Haynes, Down.; Hocken, Cla.; Holtzman, Christ's; Iles, Gonv. and Cai.; E. G. Kellgren, Trin.; Kidd, Trin.; Kirk, King's; Ledward, Trin.; Leveaux, Joh.; H. B. McCaskie, Gonv. and Cai.; J. C. Matthews, Down.; Morris, Gonv. and Cai.; R. C. Mott, Trin.; Murphy, Joh.; Muspratt, Christ's; Nicholson, King's; Norman, Joh.; Paramore, Joh.; Parry, Gonv. and Cai.; Pellier, B.A., Cla.; Phelps, Trin.; G. L. Ranking, Pemb.; Rickett, King's; Robbins, Trin.; C. T. Y. Robson, M.A., Joh.; Rolfe, Cla.; Salzmann, Pemb.; Scarborough, Joh.; Scott, Sid. Suss.; Sidgwick, Cla.; Simpson, King's; Snell, Gonv. and Cai.; Strong, B.A., Trin.; H. C. Taylor, Trin.; Thurlow, Gonv. and Cai.; Tonge, Emm.; Tuck, Emm.; Ward, Cla.; B. B. Watson, Trin.; L. G. A. West, Joh.; Whitaker, Trin.; L. E. Wigram, Trin.; H. M. Wilson, Trin. H.; Wiltshire, Joh.; Woolley, King's; E. A. Wright, H. Selw.

### VICTORIA UNIVERSITY.

THE following have been adjudged worthy of the degree of M.D.: J. M. Johnson, M.B. Thesis: Disinfection by Means of the Vapours of some of the Phenol Series. C. E. Ligertwood, M.B. Thesis: A Form of Alcoholic Cardiac Failure. Frank Radcliffe, M.B. Thesis: Spread of Tuberculosis in Guinea-pigs. C. H. G. Ramsbottom, M.B. Thesis: The Isle of Man as a Health Resort.

### SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, June, 1897.—The following candidates passed in:

*Surgery.*—P. D'E. Burrell, St. George's Hospital; G. F. McCleary, Cambridge University and Middlesex Hospital; E. J. O'Meara (Sections I and II.), Guy's Hospital; A. H. Turner, London Hospital; J. H. Whitaker, Belfast.

*Medicine.*—J. T. Brickwell, Guy's Hospital; F. R. Greenwood, St. Bartholomew's Hospital; G. F. McCleary, Cambridge University and Middlesex Hospital; W. Mawer, St. Bartholomew's Hospital; E. J. O'Meara (Section II), Guy's Hospital; T. H. B. Yorath, Guy's Hospital.

*Forensic Medicine.*—J. T. Brickwell, Guy's Hospital; J. Cater, King's College Hospital; P. H. Collingwood, St. Thomas's Hospital; F. R. Greenwood, St. Bartholomew's Hospital; T. Jones, Middlesex Hospital; G. F. McCleary, Cambridge University and Middlesex Hospital; E. L. C. Muspratt, King's College Hospital.

*Midwifery.*—J. T. Brickwell, Guy's Hospital; J. Cater, King's College Hospital; T. Jones, Middlesex Hospital; H. Lewkowitsch, Breslau; G. F. McCleary, Cambridge University and Middlesex Hospital; A. E. Seller, London Hospital.

The diploma of the Society was granted to Messrs. J. T. Brickwell, P. H. Collingwood, H. Lewkowitsch, E. J. O'Meara, W. Mawer, G. F. McCleary, E. L. C. Muspratt, A. E. Seller, and J. H. Whitaker.

# NAVAL AND MILITARY MEDICAL SERVICES.

## ARMY MEDICAL STAFF EXCHANGE.

*The charge for inserting notices respecting Exchanges in the Army Medica Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.*

AN officer on Surgeon-Major's roster, who has finished about a year at home, wishes to exchange abroad. Apply, Gordon, 42, Powis Square, London, W.

ARRIVED in India December, 1895. Would exchange next trooping season to England or to any Colony.—Address (with terms), Surg.Lt.-Colonel Allen, A.M.S., Rangoon.

### ARMY MEDICAL STAFF.

SURGEON-CAPTAIN W. J. CROFTON, M.B., half-pay, is placed on retired pay, April 7th. He was appointed Surgeon-Captain, July 27th, 1887, and was placed on half-pay, April 7th, 1892, on account of ill-health.

### ARMY MEDICAL RESERVE.

SURGEON-CAPTAINS Q. CHALMERS, M.D., and J. J. de Z. MARSHALL are promoted to be Surgeon-Majors, June 16th.

Surgeon-Captain HARRY T. CHALLIS, 4th Volunteer Battalion the Essex Regiment, to be Surgeon-Captain, June 16th.

### INDIAN MEDICAL SERVICE.

SURGEON-LIEUTENANT-COLONEL E. G. RUSSELL, M.B., Bengal Establishment, is promoted to be Brigade-Surgeon-Lieutenant-Colonel, December 21st, 1896. He was appointed Assistant Surgeon, March 30th, 1872, and became Surgeon-Lieutenant-Colonel twenty years thereafter.

Surgeon-Lieutenant-Colonel W. MCCONAGHY, M.D., and T. S. WEIR, Bombay Establishment, are promoted to be Brigade-Surgeon-Lieutenant-Colonels, the former from October 4th, 1896, the latter from March 31st, 1897. The first appointment of Brigade-Surgeon-Lieutenant-Colonel McConaghy dates from October 1st, 1869; that of Brigade-Surgeon-Lieutenant-Colonel Weir from April 1st, 1870.

The undermentioned promotions to be Surgeon-Lieutenant-Colonels, which have been already announced in the BRITISH MEDICAL JOURNAL, have received the approval of the Queen:—Bengal: Surgeon-Majors WILLIAM OWEN, M.D., WALTER CONRY, GEORGE J. KELLY, DHARMADAS BASU, ALEXANDER W. MACKENZIE, JEREMIAH MULLANE, M.D., DOUGLAS FRENCH-MULLEN, M.D., JAMES A. NELIS, AYLMER M. CROFTS, JAMES CROFTS, M.D., WILLIAM COATES, M.D. Madras: HENRY A. F. NAILER, NITYANANDA CHATTERJIE. Bombay: WILLIAM K. HATCH, HORMASJI D. MASANI, KANÓBÁ R. KIRTIKAR.

The promotion of the under-mentioned Surgeon-Captains of the Bengal Establishment to be Surgeon-Majors, which also has been already stated in our columns, has received the Queen's sanction: FRANCIS J. DRURY, HERBERT J. DYSON, FREDERICK A. ROGERS, D.S.O., EDWARD R. W. C. CARROLL.

Surgeon-Captain F. H. BURTON-BROWN, M.B., Bengal Establishment, has resigned his commission, which bore date July 28th, 1891.

Surgeon-Lieutenant ALFRED MOORE, Madras Establishment, has resigned the service from April 15th last. He was appointed to the department July 29th, 1895.

The services of Surgeon-Lieutenant N. P. O'G. LALOR, M.B., Madras Establishment, are placed at the disposal of the Foreign Department for employment on plague duty.

The services of Surgeon-Lieutenant F. WALL, Madras Establishment, are placed at the disposal of the Foreign Department for famine duty.

The Government of India have decided that retired medical officers taken on for employment on plague and famine duty are to be allowed their salary and allowances at the time of retirement, *plus* travelling charges, from their homes to the stations to which they are posted, and also for the return journey.

Surgeon-Captain C. C. CASSIDY, Medical Officer 1st Sikh Infantry, was severely wounded in the treacherous attack by tribesmen on the escort accompanying the political officer in the Tochi Valley on June 10th. According to the latest telegram, Surgeon-Captain Cassidy was proceeding favourably.

Brigade-Surgeon-Lieutenant-Colonel F. H. BLENKINSOP, Madras Establishment, is granted the temporary rank of Surgeon-Colonel, from April 26th, while officiating as Principal Medical Officer Madras District.

Surgeon-Lieutenant-Colonel S. B. HALIDAY, Bombay Establishment, in medical charge of the 13th Bombay Infantry, is permitted to retire from the service, from February 15th. He was appointed Assistant-Surgeon April 1st, 1867, and became Brigade-Surgeon-Lieutenant-Colonel from April 1st, 1887. He was Assistant-Surgeon of a hospital ship during the Abyssinian war in 1867-8 (medal), and had medical charge of the 13th Bombay Infantry in the Afghan war in 1879-80 (medal).

### THE ANNUAL DINNER OF THE ARMY MEDICAL STAFF.

THE following is a list of officers attending the Army Medical Staff annual dinner at the Whitehall Rooms, Hotel Metropole, June 14th:—

*Surgeon-Major-Generals:* J. Jameson (Director-General) in chair; A. F. Bradshaw, C.B.; C. McD. Cuffe, C.B.; Sir J. Fayrer, K.C.S.I.; G. L. Hinde, C.B.; J. Inkson; W. Nash; J. F. O'Dwyer; A. F. Preston; J. B. C. Reade, C.B.; W. Taylor; W. M. Webb; J. Warren.

*Surgeon-Colonels:* O. Codrington; H. Cayley; W. G. Don; C. H. Harvey; H. C. Herbert; J. H. Hughes; J. H. Jeffcoat; C. M. Jessop; T. Ligertwood; J. Maturin; J. L. Notter; T. O'Farrell; W. Siy; J. Watts.

*Brigade-Surgeon-Lieutenant-Colonels:* W. B. Allin; B. M. Blennerhassett, C.M.G.; J. F. Beattie; J. A. Clery; R. de la C. Corbett, D.S.O.; W. Donovan; W. J. Fawcett; T. J. Gallwey, C.B.; W. L. Gubbins; L. A. Irving; W. Keir; C. Mackinnon; H. Mackinnon, D.S.O.; A. A. Macrobin; W. McNatty; W. Temple, V.C.

*Surgeon-Lieutenant-Colonels:* J. A. Anderson; F. E. Barrow; U. I. Bourke; W. L. Chester; A. Doig; J. B. Emerson; J. Hector; G. A. Hughes; J. G. Leask; G. H. Le Mottee; R. H. Quill; A. B. Robinson; T. Wright.

*Surgeon-Majors:* F. M. Baker; J. Battersby; W. G. Bedford; A. E. J. Croly; A. Dodd; J. R. Dodd; H. Grier; F. A. Harris; J. L. Hall; J. G. Harwood; R. J. Hackett; H. E. R. James; R. Jennings; S. F. Lougheed; R. E. R. Morse; W. J. Macpherson; H. W. Murray; F. B. Maclean; C. J. D. Mosse; F. P. Nichols; E. North; R. Porter; G. W. Robinson; G. H. Sylvester; J. Tidbury; G. Wilson; T. P. Woodhouse.

*Surgeon-Captains:* C. H. Hale, D.S.O.; E. M. Hassard; H. St. G. Hore; O. R. A. Julian; J. C. Jameson; R. E. Kelly; W. B. Leishman; F. J. Morgan; J. A. O. MacCarthy; J. Paterson; O. L. Robinson; R. J. Windle.

*Captain and Quartermaster:* D. J. Gillman.

The following guests were present: Sir William MacCormac (President of the Royal College of Surgeons); Surgeon-Major-General Hooper (President of the Indian Medical Board); Surgeon-Major W. Collingridge, Militia Medical Staff Corps; Mr. Vesey Holt. The President of the Royal College of Physicians and the Director-General of the Medical Department of the Royal Navy were unavoidably absent.

### VOLUNTEER MEDICAL STAFF CORPS.

SURGEON-LIEUTENANT H. C. REID, M.B., the Glasgow Companies is promoted to be Surgeon-Captain, June 16th

# PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

## HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 5,492 births and 3,297 deaths were registered during the week ending June 12th. The annual rate of mortality in these towns, which had been 16.6 and 17.4 per 1,000 in the two preceding weeks, declined to 15.6 last week. The rates in the several towns ranged from 8.2 in Croydon, 10.7 in Brighton, 12.0 in Swansea, and 12.3 in Plymouth and in Huddersfield to 20.3 in Manchester, 20.6 in Bolton and in Gateshead, 21.1 in Liverpool, and 23.7 in Salford. In the thirty-two provincial towns the mean death-rate was 16.0 per 1,000, and exceeded by 3.1 the rate recorded in London, which was only 13.8 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.8 per 1,000; in London the rate was 1.5 per 1,000, while it averaged 2.0 in the thirty-two provincial towns, among which the highest zymotic rates were 3.4 in Bolton and in Liverpool, 3.7 in Sunderland, 3.9 in Burnley, and 7.8 in Salford. Measles caused a death-rate of 2.0 in Burnley, 2.3 in Birkenhead, 3.0 in Bolton, and 6.4 in Salford; and whooping-cough of 1.1 in Liverpool, and 1.5 in Sunderland. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 57 deaths from diphtheria in the thirty-three towns included 39 in London, 3 in Birmingham, and 3 in Sheffield. One fatal case of small-pox was registered in London but not one in any of the thirty-two large provincial towns. There were 2 small-pox patients under treatment in the Metropolitan Asylums Hospitals on June 12th, against 13, 12, and 4 at the end of the three preceding weeks; no new cases were admitted during the week. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had increased from 2,380 to 2,601 at the end of the six preceding weeks, had further risen to 2,637 on June 12th: 255 new cases were admitted during the week, against 311, 278, and 274 in the three preceding weeks.

In thirty-three of the largest English towns, including London, 6,610 births and 3,328 deaths were registered during the week ending Saturday last, June 19th. The annual rate of mortality in these towns, which had been 17.4 and 15.6 per 1,000 in the two preceding weeks, rose again to 15.8 last week. The rates in the several towns ranged from 9.9 in West Ham, 10.8 in Burnley, 10.9 in Hull, and 11.6 in Brighton to 21.6 in Huddersfield, 22.2 in Preston, 22.8 in Bolton, and 26.9 in Salford. In the thirty-two provincial towns the mean death-rate was 16.6 per 1,000, and exceeded by 2.0 the rate recorded in London, which was 14.6 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the death-rate was equal to 1.4 per 1,000, while it averaged 1.9 in the thirty-two provincial towns, among which the highest zymotic rates were 3.1 in Huddersfield, 3.2 in Plymouth and in Preston, 5.2 in Bolton, and 8.8 in Salford. Measles caused a death-rate of 1.5 in Manchester and in Burnley, 2.7 in Preston, 3.4 in Bolton, and 6.9 in Salford; scarlet fever of 1.2 in Wolverhampton; and whooping-cough of 1.6 in Plymouth and 2.1 in Huddersfield. The mortality from "fever" showed no marked excess in any of the large towns. The 41 deaths from diphtheria in the thirty-three towns included 29 in London, 3 in Liverpool, 2 in Burnley, and 2 in Sheffield. No fatal case of small-pox was registered either in London or in any of the thirty-two large provincial towns. There were no cases of small-pox under treatment in the Metropolitan Asylums Hospitals on Saturday last, June 19th, and no new cases were admitted during the past three weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had increased from 2,380 to 2,637 at the end of the seven preceding weeks, had further risen to 2,670 on Saturday last; 274 new cases were admitted during the week, against 278, 274, and 255 in the three preceding weeks.

## HEALTH OF SCOTCH TOWNS.

DURING the week ending June 12th 976 births and 606 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 22.3 to 20.3 per 1,000 in the three preceding weeks, was again 20.3 in the week ending June 12th, and was 4.7 per 1,000 above the mean rate during the same period in the thirty-three large English towns. The lowest rates in the eight Scotch towns were 11.7 in Aberdeen and 16.1 in Greenock, and the highest rates 24.9 in Leith and 26.3 in Edinburgh. The zymotic death-rate in these towns averaged 3.2 per 1,000, the highest rates being recorded in Edinburgh and Leith. The 273 deaths registered in Glasgow included 1 from small-pox, 7 from measles, 14 from whooping-cough, 6 from "fever," and 9 from diarrhœa. Fifteen fatal cases of measles, 3 of scarlet fever, and 10 of whooping-cough were recorded in Edinburgh, and 4 of measles and 9 of whooping-cough in Leith.

During the week ending Saturday last, June 19th, 1,053 births and 577 were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.3 per 1,000 in each of the two preceding weeks, declined to 19.4 last week, but was 3.6 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the lowest rates were 11.9 in Perth and 16.1 in Greenock, and the highest rates 22.0 in Dundee and 27.0 in Leith. The zymotic death-rate in these towns averaged 2.9 per 1,000, the highest rates being recorded in Dundee and Leith. The 258 deaths registered last week in Glasgow included 5 from measles, 3 from scarlet fever, 13 from whooping-cough, 4 from "fever," and 9 from diarrhœa. Fifteen fatal cases of measles and 5 of whooping-cough were recorded in Edinburgh; and 3 of measles and 5 of whooping-cough in Leith.

THE high distinction of the Ordre pour le Mérite in the Section of Science and Art has been conferred on Professor Leuckart, of Leipzig.

# MEDICAL NEWS.

A MONUMENT to Duchenne of Boulogne will be unveiled on June 27th in the Salpêtrière, Paris. The Minister of the Interior will be present.

THE annual meeting of the Medico-Psychological Association of Great Britain and Ireland will be held at the College of Medicine, Newcastle-on-Tyne, on July 29th and 30th.

DR. NORMAN MOORE will give an address on the Deaths of the Kings of England at the mid-sessional meeting of the Abernethian Society of St. Bartholomew's Hospital on July 1st. Old members are invited to attend the meeting, which commences at 8 P.M.

THE Treasurers of the Middlesex and St. George's Hospitals have each received from the executors of the late Mr. David Brandon the sum of £10,000, being a payment on account of the residue of his estate, one-sixth share of which he had bequeathed to these hospitals in addition to a specific bequest of £3,000 already received.

WE are requested to state that Her Royal Highness the Princess Christian has graciously consented to become the President of the Society of Chartered Nurses. This Society was founded to supply to the public thoroughly competent private nurses. It is under the management of a professional Committee, and being conducted on co-operative principles, secures to each nurse the full remuneration of her work.

MUCH regret has been felt at the Aberdeen Royal Infirmary by Miss Lumsden's resignation of the post of superintendent which she has held for some twelve years. The directors have expressed their sense of the loss the infirmary will thus sustain, and have begged Miss Lumsden to remain if possible until the opening of the new wing which is nearing completion.

AT a meeting of Fellows of the Royal College of Surgeons resident in and around Birmingham in support of the candidature of Mr. Bennett May, the following resolution was adopted: "This meeting of Fellows of the Royal College of Surgeons desires to express its approval of the candidature of Mr. Bennett May for the seat on the Council vacant by the death of Mr. Oliver Pemberton, and pledges itself to his support."

PRESENTATION.—At the recent annual meeting of the Hastings and St. Leonard's centre of the St. John Ambulance Association, Dr. J. J. De Zouche Marshall was presented with a handsome silver salver and candlesticks, and an album containing the names of the subscribers. The presentation was made in recognition of Dr. Marshall's services as Honorary Secretary of the Centre, a post from which he was now retiring, and as one of its lecturers. Dr. Marshall, in response, said that he had taken the greatest pleasure in local ambulance work during the nine years for which he had been connected with it.

THE Duchess of Albany opened on June 16th a convalescent home which has been built at East Finchley for the reception of patients from the National Hospital for the Paralysed and Epileptic (Albany Memorial), Queen Square, Bloomsbury. The new home has a pleasant situation, with a prospect over Highgate Hill and Hampstead Heath. Its erection and equipment have cost £10,000, all of which has been provided by the supporters of the institution. The cost of its maintenance will, however, entail an extra charge of over £1,000 a year on the funds of the hospital. In all, forty beds are provided, the large majority of which are for female patients. The home stands in nearly four acres of ground, a perpetual lease of which has been granted by the Ecclesiastical Commissioners.

## MEDICAL VACANCIES.

The following vacancies are announced:

BOROUGH OF SHREWSBURY.—Medical Officer of Health. Salary, £200 per annum. Candidate will be allowed (subject to approval) to accept similar public health appointments, but must not engage in private practice. Applications, endorsed "Medical," to H. C. Clarke, Town Clerk, Guildhall, Shrewsbury, by July 14th.

BRISTOL ROYAL INFIRMARY.—House-Physician; doubly qualified. Appointment for two years. Salary, £100 per annum, with apart

ments, board, and washing. Applications to the Secretary by July 12th.

BUCKINGHAMSHIRE GENERAL INFIRMARY, Aylesbury.—Resident Surgeon and Apothecary, doubly qualified. Salary, £80 for the first year, with an advance of £10 per annum up to £100, with board and lodging, washing, coals and candles, in furnished apartments. Applications to Mr. George Fell, Solicitor, Aylesbury, by July 5th.

CONSUMPTIVE HOSPITAL AND ORPHAN HOMES OF SCOTLAND, Bridge of Weir.—Resident Medical Officer; hospital experience and knowledge of bacteriology required. Salary, £80 per annum, with furnished apartments, board, etc. Applications to the Secretary, D. Hill Jack, 194, St. Vincent Street, Glasgow, by July 1st.

COUNTY BOROUGH OF ST. HELENS.—Medical Officer. Salary, £400 per annum, rising by five equal annual instalments to £525 per annum. Candidate can also be appointed Public Analyst, with additional salary of £75 per annum. Applications, endorsed "M.O.H.," to the Chairman of the Official Staff Committee, Town Hall, St. Helens, by June 26th.

DISTRICT ASYLUM, Mullingar.—Junior Assistant Medical Officer, unmarried, and not more than 30 years of age. Salary, £100 per annum, with board, furnished apartments, attendance, and laundry. Applications to the Medical Superintendent by July 1st.

DUNDEE ROYAL LUNATIC ASYLUM.—Medical Assistant. Salary, £100 per annum, with board, lodging, and laundry. Also Resident Clinical Assistant. Board, lodging, etc., but no salary. Applications to Dr. Rorie, Royal Asylum, Dundee.

EAST GRINSTEAD ISOLATION HOSPITALS.—Medical Officer. Applications endorsed "Medical Appointment" to E. P. Whitley Hughes, Clerk to the Urban District Council, East Grinstead, by June 30th.

GENERAL INFIRMARY, Leeds.—*Locum Tenens* for Resident Surgical and Casualty Officer for five weeks from June 29th. Salary, 2 guineas a week. Applications to the Secretary of the Faculty, General Infirmary, Leeds.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Applications to the Secretary by June 30th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, Bloomsbury.—Resident Medical Superintendent. Appointment for one year, but eligible to annual re-election for a period of three years. Salary, £105 a year, with board and residence in the hospital. Applications on forms provided to be sent to the Secretary by June 28th.

LONDON TEMPERANCE HOSPITAL, Hampstead, N.W.—Assistant Resident Medical Officer. Appointment for six months. Doubly qualified. Residence, board, and washing provided, and an honorarium at the termination of the appointment. Applications to A. W. Badger, Secretary, by July 7th.

LONDON THROAT HOSPITAL, Great Portland Street, W.—Two Assistant Surgeons. Applications to the Honorary Medical Secretary, 204, Great Portland Street, W., before July 15th.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer, not less than 25 years of age, and unmarried; doubly qualified. Remuneration, £150 per annum, with board and residence. Applications to W. L. Saunder, General Superintendent and Secretary, by July 10th.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich Road, S.E.—Junior Resident Medical Officer. Appointment for six months, with prospect of re-election as Senior. Applications to the Secretary by July 9th.

MONKWEARMOUTH AND SOUTHWICK HOSPITAL, Sunderland.—House-Surgeon; unmarried, doubly qualified. Salary, £80 per annum, with board, residence, and washing. Applications to J. G. Jordan, Honorary Secretary, by June 30th

MONTROSE ROYAL ASYLUM, Sunnyside, Montrose, N.B.—Senior Assistant Medical Officer. Salary, £200 per annum, with board, furnished apartments, and washing; unmarried, and not more than 30 years of age. Applications, endorsed "Assistant Physician," to Dr. Havelock, Medical Superintendent, by July 1st.

NORFOLK AND NORWICH HOSPITAL.—House-Physician; unmarried, not more than 30 years of age, and doubly qualified. Salary, £60 per annum, with board, lodging, and washing. Appointment tenable for two years. Applications to Poole Gabbett, Secretary, by July 6th.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. Appointment for six months. No salary, but board, lodging, and washing provided. Applications to the House-Surgeon.

ROXBURGH DISTRICT ASYLUM, Melrose.—Assistant Medical Officer. Salary, £100 a year, with board, rooms, attendance, and washing. Applications to the Medical Superintendent.

ROYAL EYE HOSPITAL, Southwark.—House-Surgeon. Remuneration, £50 per annum, with full board and lodging in the hospital. Applications to the Secretary by June 28th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Librarian. Applications to Edward Trimmer, Secretary, by July 10th.

ROYAL FREE HOSPITAL. Gray's Inn Road, W.C.—House-Physician, doubly qualified. Appointment for six months. No salary, but board, etc., provided. Applications to the Secretary by June 28th.

SOMERSET AND BATH LUNATIC ASYLUM, Wells, Somerset.—Junior Assistant Medical Officer, unmarried, and under 30 years of age. Salary, £110, rising to £130 per annum, with board, lodging, washing, and attendance. Applications to Dr. Wade, Medical Superintendent.

TOTTENHAM HOSPITAL.—Assistant Surgeon. Applications to the Director by July 9th.

UNIVERSITY OF ABERDEEN.—Two Examiners for Graduation in Anatomy and Physiology. Appointments for four years. Applications to Robert Walker, Secretary, by July 6th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Resident Assistant. Appointment for six months. Board, lodging, and washing provided. Applications, inscribed "Application for Resident Assistant," to the Chairman of the Medical Committee by June 28th.

## MEDICAL APPOINTMENTS.

ANDERSON, John, M.B., C.M.Edin., appointed Parochial Medical Officer for the Eastern Division of the Parish of Logierait and Parochial Medical Officer, *vice* R. W. Irvine, M.A., M.D.Edin., deceased.

BAILEY, J. G., M.B., C.M.Edin., appointed Junior House-Surgeon to the Huddersfield Infirmary.

BARKER, Dr., appointed Medical Officer for the Haxey District of the Gainsborough Union.

BAYLISS, R. A., M.R.C.S., L.R.C.P.Lond., appointed Resident Medical Officer to the Royal Mineral Water Hospital, Bath.

BLACKMORE, Dr., appointed Temporary Assistant Medical Officer to the Workhouse of the Nottingham Union.

CAMERON, J. A., M.B.Glasg., appointed Medical Officer for Glenorchy and Inishail Districts of the Argyll County Council.

CARWARDINE, Thomas, M.B., M.S.Lond., F.R.C.S.Eng., appointed Assistant Surgeon to the Bristol Royal Infirmary.

COPEMAN, A. H., B.A.Camb., M.R.C.S.Eng., appointed Medical Officer for the Littleport District of the Ely Union, *vice* F. H. Moore, L.R.C.P., L.R.C.S.I., resigned.

COX, R. F., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Knighton District of the Knighton Union, *vice* F. H. Hardman, M.B.Edin., resigned.

DINGWALL, Archibald, M.B.Aberd., appointed Medical Officer of Health to the Presteign Urban District Council.

DOUGLAS, A. R., L.R.C.P., L.R.C.S., appointed Deputy Medical Officer a H.M. Prison, Portland.

DU BUISSON, E. W., M.R.C.S., L.R.C.P., appointed Honorary Surgeon to the Hereford General Infirmary, *vice* R. Thomason, resigned.

DYER, C. Harold, M.B., C.M.Aberd., reappointed Medical Officer of Health to the Cleckheaton Urban District Council.

EATON, James, M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health to the Grantham District Council.

EDGERLEY, S., M.A., M.B., appointed Second Assistant Medical Officer to the West Riding Asylum, Menston.

ELLIS, H. D'Arcy, L.R.C.P.Edin., M.R.C.S., appointed Medical Officer of Health to the Kingswinford Rural District, *vice* E. Turner, deceased.

FARRAR, Joseph, M.D.St.And., L.R.C.P.Edin., appointed Medical Officer for the Workhouse and the Gainsborough District of the Gainsborough Union.

FLEMMING, Percy, F.R.C.S., M.D., B.S.Lond., appointed Assistant Ophthalmic Surgeon to University College Hospital, *vice* Marcus Gunn, F.R.C.S., resigned.

FRIPP, A. D., M.S., appointed Assistant Surgeon to Guy's Hospital.

GAYLOR, Edward, L.R.C.P.Edin., L.F.P.S.Glasg., reappointed Medical Officer of Health to the Ripley Urban District.

HARRIS, H., M.D., appointed Medical Officer for the Ninth District of the Bedminster Union, *vice* J. B. Coumbe, F.R.C.S.Eng., resigned.

HARWOOD, Mr. F., appointed Medical Officer to the Brentford Union Infirmary.

HAVELOCK, John G., M.D.Edin., appointed Physician Superintendent to the Royal Asylum, Sunnyside, Montrose.

HELM, Robt. Dundas, M.D., appointed Physician to the Cumberland Infirmary.

HOWDEN, James E., M.D., appointed Consulting Physician to the Royal Asylum, Sunnyside, Montrose.

JACKSON, H. W., M.B.Lond., L.R.C.P., M.R.C.S., appointed House-Physician to the Royal Berkshire Hospital, Reading.

KEIGHLEY, H., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the Batley District of the Dewsbury Union.

LATTER, Cecil, M.D., B.C., B.A.Cantab., appointed Honorary Medical Officer to the Victoria Hospital, Folkestone, *vice* F. Eastes, M.D., deceased.

MCARTHUR, D. R., M.D.Edin., reappointed Medical Officer for the East Ward District of the Luton Union.

M'DONNELL, Joseph, L.R.C.P.I., L.R.C.S.Edin., appointed Medical Officer to the Roscommon Dispensary District.

MACNAUGHTON, A., M.D.Glasg., appointed Medical Officer for Kilchrenan and Dalvaich Districts of the Argyll County Council.

MARSHALL, E. W., L.R.C.P., M.R.C.S., appointed Medical Officer for the Sixth District of the Croydon Union, *vice* E. Marshall, M.R.C.S., L.S.A., resigned.

MARSHALL, J. R., M.B., C.M.Glasg., appointed Medical Officer of Health for Carriden.

MARSON, F. Herbert, M.B., M.D., B.S.Durh., L.R.C.P.Lond., F.R.C.S.Eng., appointed Honorary Surgeon to the Staffordshire General Infirmary, *vice* E. F. Weston, deceased.

MARTIN, George, L.R.C.S.I., L.R.C.P.I., appointed Visiting Medical Officer to the Cumberland and Westmorland Convalescent Home.

MAYNARD, E. F., M.D.Edin., appointed Assistant Physician to the Sussex County Hospital, *vice* A. J. Richardson, M.D.Cantab., deceased.

MICHELMORE, George, M.R.C.S.Eng., appointed Medical Officer for the Workhouse of the Tiverton Union, *vice* W. R. Haydon, M.D.Glasg., deceased.

MOLE, Harold F., F.R.C.S.Eng., appointed House-Surgeon and Senior Resident Officer to the Bristol Royal Infirmary.

MONAGHAN, P. F., L.R.C.P., L.R.C.S.I., appointed Medical Officer for the Kiltormier Dispensary District.

MOORE, W. Hodgson, M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the Workhouse of the Kidderminster Union, *vice* S. Stretton, M.R.C.S.Eng., resigned.

MORETON, C. P., M.R.C.S.Eng., L.S.A., appointed Medical Officer of Health to the Forden Rural District, *vice* W. H. Thursfield, M.D.Edin., resigned.

NICOLL, George, M.B.Glasg., appointed Medical Officer of Health to the Clyne Parish Council.

PASTEUR, W., M.D.Lond., appointed Consulting Physician to the North-Eastern Hospital for Children, Hackney Road.

PHILIP, James, F.R.C.S.Eng., L.R.C.P.Lond., appointed Official Railway Medical Officer for the Wellington Section of the New Zealand Government Railways.

PICKFORD, J. S., M.R.C.S.Eng., L.R.C.P., appointed Medical Officer of Health to the Little Lever Urban District, *vice* A. Taylor, F.R.C.S. Edin., deceased.

RICHARDS, H. Meredith, M.D.Lond., reappointed Medical Officer of Health to the Chesterfield Town Council.

ROBERTS, S. J., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the No. 3 District of the Aston Union.

ROTHERHAM, A., M.A., M.B., B.C.Cantab., appointed Assistant Medical Officer at the London County Asylum, Cane Hill, Purley, Surrey.

ROWBOTHAM, Arthur Joseph, M.R.C.S.Eng., reappointed Medical Officer for the Newton District of the Gainsborough Union.

ROYDEN, William, M.A.Cantab., M.R.C.S., L.R.C.P., reappointed Medical Officer of Health for the Incorporated Hundreds of the East and West Flegg Union, Norfolk.

RUSSELL, R. Hamilton, F.R.C.S.Eng., appointed Surgeon to In-patients at the Melbourne Hospital for Sick Children, Australia.

SCOTT, S. W., M.B., B.S., appointed House-Physician to the Sunderland Infirmary.

SHACKEL, G. A., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer of Health to the Ludlow Rural District Council, *vice* W. N. Thursfield, M.D.Edin., resigned.

SHARPLEY, John Ernest, M.R.C.S., L.R.C.P.Lond., reappointed Medical Officer for the Blyborough District of the Gainsborough Union.

SKINNER, W. A., M.B., C.M.Edin., appointed Junior Assistant Medical Officer to the Royal Asylum, Sunnyside, Montrose.

SLADER, G. W. B., L.S.A., L.R.C.S.I., appointed Medical Officer for the Blyton District of the Gainsborough Union.

SMITH, Dr., appointed Medical Officer for the Murragh Dispensary District.

SMITH, Lionel, M.R.C.S., L.R.C.P., appointed Resident Medical Officer to the Westminster General Dispensary, Soho, *vice* Frederick Green, M.D., resigned.

SMYTH, W. A., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Ashtead District of the Epsom Union.

SNOAD, P. E., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the Sixth District of the Leicester Union, *vice* E. H. Snoad, M.R.C.S. Eng., resigned.

SOUTAR, Robert, M.D.Aberd., reappointed Medical Officer to the Montrose Infirmary.

STENHOUSE, Dr., appointed Medical Officer for the Arnold District of the Basford Union, *vice* Wm. Lamb, M.D Edin.

STEPHENS, L. W., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Workhouse and the First District of the Westbourne Union, *vice* T. P. Stephens, L.R.C.P.Edin., L.F.P.S.Glasg.

STEWART, Dr. Charles, appointed Medical Officer for the Parish of Kilmaurs.

STOTT, Hugh, M.R.C.S.Eng., L.R.C.P.Lond., D.P.H.R.C.S.Eng., appointed Medical Officer of Health to the Battle, Cuckfield, Eastbourne, East Grinstead, Hailsham, Newhaven, Ticehurst, and Uckfield Rural District Councils, and Cuckfield, Hayward's Heath, and Uckfield Urban District Councils.

STUART, J. A. Erskine, L.R.C.P.Edin., L.R.C.S.Edin., reappointed Medical Officer of Health for the Borough of Batley, Yorkshire.

THORP, Albert, M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer to the Wooldale District of the Huddersfield Union.

TOWNSEND, Norman, L.R.C.P., L.R.C.S.I., appointed Extern Physician to the South Charitable Infirmary, Cork.

WARDALE, J. D., M.B.Durh., appointed Surgical Registrar to the Royal Infirmary, Newcastle-on-Tyne.

WARRINGTON, W. B., M.D.Lond., appointed Honorary Assistant Physician to the Hospital for Consumption and Diseases of the Chest, Liverpool, *vice* T. Bushby, M.B., C.M.Edin., resigned.

WIGHAM, Dr., appointed Medical Officer of Health to the South Molton Town Council.

WILLIS, W. Morley, F.R.C.S.Eng., appointed House-Surgeon to the Sunderland Infirmary.

## DIARY FOR NEXT WEEK.

### TUESDAY.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Dr. Ormerod: Clinical Demonstration.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Examination Hall, Savoy, W.C., 5 P.M.—Dr. W. Hale White: The Means by which the Temperature of the Body is Maintained in Health and Disease (Croonian Lecture IV).

### WEDNESDAY.

THE CLINICAL MUSEUM, 211, Great Portland Street, 4 P.M.—Demonstration by Mr. Jonathan Hutchinson.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M. —Mr. McAdam Eccles: Cases of Hernia.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND, 20, Hanover Square, W., 5 P.M.—Council meeting at 4.30 P.M.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W., 4 P.M.—Dr. Sidney Martin: On Aortic Stenosis.

### FRIDAY.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3.30 P.M.—Mr. Gunn: Intra-ocular Muscles.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Mr. Bickerton: Spontaneous Dislocation of Crystalline Lens into the Anterior Chamber. Mr. Priestley Smith: Tscherning's Theory of the Accommodation. Messrs. E. T. Collins and J. R. Rolston: Microphthalmos with Cystic Protrusion from the Globe. Mr. C. D. Marshall: Metastatic Carcinoma of the Choroid. Dr. John Eyre: Tuberculosis of the Conjunctiva. The annual general meeting for the election of officers, etc., will be held at the close of the ordinary meeting.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 8s 6d., which sum should be forwarded in post-office order and stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.*

### BIRTHS.

DICKINSON.—On June 18th, at 10, The Parade, Leamington, the wife of George Dickinson, M.R.C.S., L.R.C.P., of a son.

GREENLEES.—On May 18th, at the Residency, Grahamstown, South Africa, the wife of T. Duncan Greenlees, M.B., F.R.S.E., of a daughter.

KNOX.—On June 17th, at 94, Priory Park Road, Kilburn, N.W., the wife of Hugh Knox, L.R.C.P.& S.E., etc., of a daughter.

MARTIN.—On the 15th June, at 4, Park Terrace, Silloth, Cumberland, the wife of George Martin, L.R.C.S.I., L.R.C.P.I., of a son.

RENTZSCH.—On the 18th inst., at The Firs, Waltham Cross, Herts, the wife of Sigismund Henry Rentzsch, L.R.C.P., M.R.C.S., of a son.

### MARRIAGES.

BYRNE—WALTHEN.—On the 16th, at St. Chrysostom's, Victoria Park, Manchester, by the Rev. W. Marsden, M.A., Rector, George Byrne, M.R.C.S.Eng., L.R.C.P.Lond., of Sunwick, Chorlton-cum-Hardy, to Florence Annie, elder daughter of George Walthen, Esq., J.P., of Stockport, and Norman House, Victoria Park, Manchester.

CANDLER—MCKEAN.—On June 10th, at Holy Trinity Church, Wavertree, Liverpool, by the Rev. A. E. Brisco-Owen, Rector of Stone, assisted by the Rev. J. T. Mitchell, Rector of the Parish, and the Rev. T. Simcox Lea, Wallace Harry Charles Candler, of Stone, Staffs., to Mary Elizabeth, daughter of John McKean, Esq., of Wavertree.

HELME—KIRK.—On the 16th inst., at Sephton Parish Church, by the Rev. Canon Weatherhead, M.A., Vicar of Seacombe, cousin of the bride, George Edgar Helme, M.B., of Rusholme, Manchester, youngest son of the late James Helme, of Lancaster, to Florence, eldest daughter of Alexander Kirk, Waterloo.

MACKINTOSH—MCLEISH.—At the Bank of Scotland House, Fortwilliam, on the 16th inst., by the Rev. John McIntosh, Hugh John Mackintosh, M.B., C.M., Bishopbriggs, to Jeanie Scott, eldest daughter of Daniel McLeish, banker. At home on and after 8th July.

MOULD—GRAVES.—On May 7th, at Byculla Church, Bombay, by the Rev. S. Leigh Lye, Surgeon-Captain G. T. Mould, 1st Bengal Lancers, second son of Major-General F. Mould, late R.E., to Clara Maude, eldest daughter of Surgeon-Colonel W. Graves, A.M.S.

NANCE—MARSHALL.—On June 1st, at Croft, Yorkshire, by the Right Rev. the Bishop of Richmond, assisted by the Rev. Canon Yates, uncle of the bridegroom, Henry Chester Nance, F.R.C.S., of Norwich, son of the late J. Nance, Esq., F.R.C.S., of Eccleshall, Staffs., to Mary Dorothea, eldest daughter of the Rev. J. M. Marshall, late Head Master of Durham School.

ST. JOHNSTON—CATTELL.—On the 16th inst., at Erdington Parish Church (by the Rev. H. T. Hoitt, M.A., uncle of the bride, assisted by the Rev. R. H. Cattell, B.A., brother of the bride, and the Rev. F. S. Swindell, M.A., Vicar), Charles St. Johnston, M.R.C.S., son of the late Dr. James Johnston, of Birmingham, to Marion Hoitt, daughter of Thomas Cattell, Esq., of Erdington.

STUART—LINDSAY.—On June 1st, at 8, St. John's Place, Leith, N.B., by the Rev. James Mitchell, D.D., South Leith, assisted by the Rev. Archibald Henderson, D.D., Free Church, Crieff, Alexander Stuart, M.B., C.M.Edin., of Crieff, to Agnes Veitch, daughter of the late Thomas Lindsay, shipowner, Leith.

GOLDEN WEDDING.

SOMERVILLE—FRENCH.—On Sunday, June 13th, 1847, at Ross Cathedral, by the late Rev. W. Jennings, James Edward Somerville, Esq., M.D., L.R.C.S.I., of Union Hall, co. Cork, to Ellen, daughter of the late John French, Esq.

### DEATHS.

ATWOOL.—On June 11th, at Tunbridge Wells, in his 30th year, William Tillinghast Atwool, late Ophthalmic Surgeon to the Torbay Hospital.

BATEMAN.—On June 9th, suddenly, but after a protracted illness, Emma Brownfield, wife of Sir Frederic Bateman, M.D., LL.D., of Norwich, and of Burlingham Lodge, Alburgh, Norfolk, in the 62nd year of her age.

PARRY.—June 21st, at Kidlington, near Oxford, Henry Hitchcock Parry, son of the late Joseph Parry, of Allington, in his 61st year. No cards.

## HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances*—Daily, 2. *Operations*.—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances*.—Daily, 1. *Operations*.—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR.—*Attendances*.—M. W. Th. S., 3; Tu. F., 5. *Operations*.—Daily.

CHARING CROSS. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations*.—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances*.—Daily, 1.30. *Operations*.—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances*.—M. Tu. Th. F., 2. *Operations*.—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations*.—F., 2.

GREAT NORTHERN CENTRAL. *Attendances*.—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F. 2.30 Skin, W., 2.30; Dental, W., 2. *Operations*.—M. W. Th. F.

GUY'S. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations*.—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Attendances*.—Daily, 10. *Operations*.—M. Th., 2.

KING'S COLLEGE. *Attendances*.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations*.—M. F. S., 2.

LONDON. *Attendances*.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operations*.—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE. *Attendances*.—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations*.—M. Th., 4.30.

METROPOLITAN. *Attendances*.—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations*.—F., 9.

MIDDLESEX. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations*.—W., 1.30; S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Attendances*.—M. Tu. Th. F., 2. *Operations*.—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances*.—Daily, 2; Ophthalmic, W. S., 9.30 *Operations*.—Tu. F., 3.

NORTH-WEST LONDON. *Attendances*.—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations*.—Th., 2.30.

ROYAL EYE, Southwark. *Attendances*.—Daily, 2. *Operations*.—Daily.

ROYAL FREE. *Attendances*.—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, S., 3; Dental, Th., 9. *Operations*.—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances*.—Daily, 9. *Operations*.—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances*.—Daily, 1. *Operations*.—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances*.—Daily, 1. *Operations*.—Daily.

ST. BARTHOLOMEW'S. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operations*.—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th. 2.

ST. GEORGE'S. *Attendances*.—Medical and Surgical, daily, 12; Obstetric, M. Th. 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, F., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations*.—M. Tu. Th. F. S., 1.

ST. MARK'S. *Attendances*.—Fistula and Diseases of the Rectum, males S., 3; females; W., 9.45. *Operations*.—M., 2; Tu., 2.30.

ST. MARY'S. *Attendances*.—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 3.0; Skin, M. Th., 9.30; Electro-therapeutics, M. Th., 2.30; Dental, W. S., 9.30; Children's Medical, Tu. F., 9.15; Children's Surgical, S., 9.15. *Operations*.—M., 2.30.; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances*.—M. 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations*.—W. F., 2.

ST. THOMAS'S. *Attendances*.—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations*.—M. W. Th. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances*.—Daily, 1.30. *Operations*.—W., 2.30.

THROAT, Golden Square. *Attendances*.—Daily, 1.30; Tu. F., 6.30. *Operations*.—Th., 2.

UNIVERSITY COLLEGE. *Attendances*.—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9 Dental, W., 9.30. *Operations*.—Tu. W. Th., 2.

WEST LONDON. *Attendances*.—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations*.—Tu. F., 2.30.

WESTMINSTER. *Attendances*.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, Tu. F., 9.30; Ear, M. Th., 9.30; Skin, W., 1; Dental, W. S., 9.15. *Operations*.—M. Tu. W., 2.

# LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will found under their respective headings.*

### QUERIES.

L. F. N. writes: In prescribing yeast for boils what form of yeast is used, and what is the dose and mode of administration?

M.D. wishes to know the composition of Buxton water, and its use in the reduction of weight.

S. W. asks whether there is an institution in London where lip-reading is taught to the deaf. Have any books on the subject been published? Is it advisable for a patient who is only partially deaf to learn it?

PUZZLED asks for advice in the treatment of a patient who suffers from profuse unilateral perspiration of the face; otherwise she seems in perfect health.

M.D., who is anxious to gain practical experience in operative gynæcology, would be grateful to any member who would inform him where he could spend a month during the summer, and the fee.

M.R.C.S. desires to hear of an institution where the following case could be received and cared for: A lad, aged 15, hemiplegic from birth; subject at variable intervals to epileptic fits; subject also to ungovernable fits of passion; cleanly in habits, but unable to dress himself or to read or write, but not at all idiotic. The parents are not able to manage him, and would be willing to pay for his care and maintenance.

#### TREATMENT OF NOCTURNAL EPILEPSY.

NOCTURNUS asks for information concerning the treatment of nocturnal epilepsy in children, with special reference to the best method of administration and dosage of potassium bromide, suitable for a girl 9 years of age.

#### CLUB RATES.

A SUBSCRIBER asks the two following questions: (1) What is the usual fee per annum paid by Oddfellows and Foresters in London? (2) What is the usual fee paid in the provinces?

*** The usual fee in London is 4s. per annum per member. It is to be feared it is somewhat lower in the provinces.

#### CLIMATE OF TRINIDAD.

M.A., M.D. writes: A son of mine aged 18 years and 2 months, has got a good appointment in Trinidad. He is a strong, healthy boy, and full of energy. Would be glad to hear whether he is too young to withstand the influence (upon health) of a tropical climate. He will be engaged upon a sugar estate. He goes out in October next.

#### HOSPITAL WARD FLOORS.

RENOVATOR asks for information as to the best material for flooring the wards of a general hospital, and whether it is best to have the surface varnished, polished, or scrubbed; any hint as to relative cost would be welcomed.

#### TREATMENT OF LOCAL HEADACHE.

T. G. P. asks for advice in the treatment of the following case: A lady, aged 56, suffers from long standing headache, principally occurring in the left occipital region and almost invariably after sleep. Bromides, phenacetin, valerianate of zinc, etc., have been tried internally, and chloroform liniment, menthol, and belladonna as local applications, but without any permanent relief. During the attacks the surface of the body is very cold.

#### HOME FOR IMBECILE CHILD.

SURGEON-CAPTAIN (India) writes: I have been asked for information regarding any institution where an English child about 7 years of age (an idiot) would be taken care of. She is the daughter of an Indian official recently deceased who has left his widow practically penniless.

*** Earlswood Asylum, Redhill, Surrey, admits patients from all parts of the world. Other asylums are chiefly limited to children whose parents live in the neighbouring counties. Children are admitted to Earlswood on the voting system, but if some money can be paid not so many votes will be required.

#### LUNACY PATIENTS IN PRIVATE HOUSES.

H. H. asks: (1) Under what conditions must a medical practitioner, who takes resident mental patients, have the house registered? (2) What steps must be taken to get the house registered, and is any fee attached to doing so?

*** A person of unsound mind may be taken by sending the documents to the Commissioners in Lunacy, and otherwise complying with the numerous requirements of the Acts; otherwise the house must be licensed, for which application must be made to the Commissioners in Lunacy.

#### HOSPITAL ELECTIONS.

A CORRESPONDENT calls our attention to the publication, as an advertisement under the head of public announcements, of the address of a candidate for the office of honorary surgeon to a provincial infirmary. He asks for an opinion as to whether the publication of such an address is of the nature of an advertisement.

*** The practice of publishing such addresses in the general newspapers is one which in the interest of the profession it is desirable should be brought to an end. Under existing circumstances, however it would seem unjust to condemn individuals for acting upon a custom which has long existed in connection with certain hospitals. The real fault lies with the mode of election, and our correspondent would be well advised to use his influence to induce the governing body of the institution in question to alter its rules so as to conform with those of

the majority of hospitals. The selection of candidates should rest either with the medical staff or with a special selection committee upon which the medical staff is largely represented.

BICYCLE FOR HILLY COUNTRY.

F.R.C.S. writes: I can ride a bicycle fairly well, and wish to use it as much as possible when visiting patients, but my district is very hilly. I wish to know which gearing or mode of gearing would be the best to adopt. I have had the ordinary chain gearing recommended. I have had the Collier double-gearing recommended, and I have had another recommended which was described as follows: A rope is used instead of a chain, the rope is wound on a barrel in the form of a spiral, the barrel acts on the driving wheel axle through a ratchet, the other end of the rope is attached to the pedals, and they, instead of revolving, only rise up and down, and by means of an arrangement on the handle bar the gearing could be changed from high to low or low to high as desired.

*** We have referred this question to Mr. E. B. Turner, F.R.C.S., who writes: "F.R.C.S." had better have the ordinary chain gearing fitted to a good machine, and let the gearing be 56 inches. I know his part of the world, and have ridden all about it, and with a 56-inch gear he should manage most of the hills, and he will get about quite fast enough on the level. He should have a gear case. The Collier gear is good, and if he wants a high gear for the level and down hill he might get it with some such combination as 50 and 66, though I myself prefer a machine as free from complications as possible. The other gear he mentions I do not recommend.

## ANSWERS.

H. C. B.—1, no; 2, yes; 3, no.

FATHER.—The work on the moral education of boys to which our correspondent refers is probably *The Special Temptation of Early Life*, by C. G. Wheelhouse, F.R.C.S. (Henry Walker, 137, Briggate, Leeds); or *Morality*, by Mr. Maurice C. Hime, formerly Headmaster of Foyle College, Londonderry (London: Churchills. 1s. 6d.).

F.P.—We learn on inquiry from a trustworthy informant that the Society of Trained Masseuses, 12, Buckingham Street, Strand, is a reputable and trustworthy society, and persons putting themselves in the hands of its officials would be well and carefully advised.

SUFFOLK.—*The Medical Inspection of, and Physical Education in, Schools*, by Charles Roberts, F.R.C.S. (London, John Bale and Sons, 2s.), contains statistics of weight, height, girth, and strength of children at school ages. The pamphlet is a reprint from the report of the Royal Commission on Secondary Education, 1895.

COLITIS.

M.D.—A discussion on colitis and its treatment took place at the Clinical Society of London on December 13th, 1895, and was reported in the BRITISH MEDICAL JOURNAL of December 21st, 1895, p. 1559.

OBSTINATE VOMITING.

TYRO II writes to suggest the trial of valerian and assafœtida pills. He had a very similar case in a girl aged 14, the only apparent cause being a fall while sliding, about three weeks before the vomiting began. After prolonged trial of usual drugs, he put the patient on the above, which at once had the desired effect.

DR. GORDON BARKER (Brighton) writes in reply to "Tyro": I have had recent experience of a case of hysterical vomiting, and found the moral effect of the stomach tube and feeding thereby magical. In one of two cases vomiting persisted for a week, nothing was retained, and the patient was rapidly wasting. The stomach tube was passed, and half a pint of beef-tea (tepid) poured in. At the end of fifteen minutes the tube was withdrawn and hung up in sight of the patient "for regular use if the sickness returns." There was no return.

EUCAINE IN TOOTH EXTRACTION.

DR. HERBERT SMITH (Ealing) writes in reply to "McG.": Cocaine, when used, is in three injections up to one-third grain, and alongside the tooth well beyond the neck. As a local anæsthetic it is here superseded by eucaine in that (1) it does not affect the heart: (2) the anæsthesia is more complete; and (3) altogether it is more efficient and safe. Dr. Wolff's instructions are to dissolve one part of eucaine in ten parts of water, and boil; keep in stoppered bottles. Wash the gum with a 5 per cent. solution of phenol, insert the needle half way up the alveolus, and inject slowly just enough to make the focus of operation white and raised. About one to four grains are usually required, but larger quantities may be safely used.

THE TREATMENT OF HAY FEVER.

MR. C. C. GARFIT, M.B., Ch.B. (Kirby Muxloe) in reply to "Immediate," who in the BRITISH MEDICAL JOURNAL of June 12th, asked a question as to the treatment of hay fever, sends the following based on personal experience:

*General Treatment.*—Under this heading comes first and foremost sea air. It is not necessary to take a sea voyage, as the object will generally be accomplished by residing at a seaside resort, especially one facing the open sea, and not lying in a sheltered bay. A patient who cannot spend all the summer at such places will be benefited by even a short stay. The sea air seems to be beneficial in two ways: (1) By being practically free from pollen grains, dust, etc., it does not act as an irritant to the mucous membranes; (2) it acts as a tonic to the general system. For those who are unable to obtain sea air tonics, such as quinine, iron, nux vomica, and a little stout or bitter beer with meals are useful.

*Local Treatment:* 1. *Eyes.*—I have found the only efficient remedy or relieving the intense irritation of the conjunctivæ to be a $2\frac{1}{2}$ per cent. solution of cocaine hydrochlorate, to which may be added a little boric acid. The effect of this strength of cocaine is not sufficient to produce anæsthesia, but it is just sufficient to "numb" the part. The patient may carry a small vial of this in his pocket and an eye dropper, and will soon learn to put the drops into his own eyes. Very often after putting two drops into the eye he will feel no inconvenience for an hour or even longer.

2. *Nose.*—I think the most effectual remedy for the routine treatment is linimentum iodi used as a "smelling salt." For this purpose a small vial of it may be carried about by the patient, and "sniffed" occasionally when a paroxysm of sneezing is coming on. This, however, if used too freely is liable to injure the sense of smell for some time afterwards. Any of the strong ammonia smelling salts will often allay a paroxysm by acting as counter-irritants. When the mucous membrane becomes very irritable a nasal douche will frequently give great relief. This may consist of a 1 in 60 solution of carbolic acid, or, better, a solution of bicarbonate of soda and boric acid, in proportion of one teaspoonful of each to a pint of tepid water. It may be employed either with a nasal spray apparatus or an ordinary syringe. The carbolic douche is very comforting at the time, and acts as a local anæsthetic, but after a short time the anæsthetic effect passes off, and then it seems to act as an irritant. Sometimes a few drops of the cocaine solution may be placed in the hollow of the hand and sniffed up the nostrils, and so give relief.

3. *Air Passages.*—Perhaps the simplest and most efficacious remedy is to burn a strip of "nitre" paper in the room. This may be combined, if necessary, with a mixture of potassium iodide, tincture of lobelia, and other antiasthmatic remedies.

## NOTES, LETTERS, Etc.

THE DIRECTION OF ROTATION: A QUESTION OF NOMENCLATURE.

T. D. S. writes: Referring to Dr. Russell's article in the BRITISH MEDICAL JOURNAL of April 10th, allow me to suggest a simple method of describing direction of rotation. Starting from the east, a point moves either towards the north or the south; the one may be called en-gyration (or enrotation), the other es-gyration (or esrotation).

CUTANEOUS IRRITATION CAUSED BY "PRIMULA OBCONICA."

MR. W. FRAZER, F.R.C.S.I., M.R.I.A.Dub., writes with reference to this subject: A lady lately consulted me suffering from its irritant action on her skin which occurred after handling it at two distinct periods, separated by several months' interval. In both attacks, immediately after being stung, my patient had urticarial swellings of the affected parts, with tingling painful sensations. For treatment I employed locally hazelin with lanolin and benzoated lard, adding a few grains of muriate of cocaine, which is a valuable application for relieving many local irritations, and also advised the use of ichthyolanolian sop.

TWO CASES OF VOMITING OF ROUND WORMS.

DR. A. G. NEWELL (Greenock) writes: A brief account of two cases in which the patients were vomiting round worms may prove interesting, as not being of frequent occurrence. Both cases were among Italian immigrants on board the Anchor Line steamer *Victoria*, on which I acted as ship surgeon. In the one case, a woman, three worms were ejected by the stomach, and the other case was of a man who vomited up two. In both cases there had been constipation for some time previously. The worms were cylindrical, tapering to both ends, of a whitish-brown colour, and of the following lengths, taken after some time in alcohol: $4\frac{1}{2}$, $6\frac{1}{2}$, $6\frac{3}{4}$, $7\frac{1}{2}$, and $8\frac{1}{2}$ inches. In all cases the vomited worms were dead. I am not aware that round worms travel frequently to the stomach, and so perhaps my ignorance may excuse my suggestion that owing to the loaded and fœtid contents in the bowel (conditions perhaps obnoxious to the worm itself), there is a migration up to the stomach. The acid of the stomach then causes the death of the worm, which, becoming a foreign body, is ejected.

ARROW POISONS.

THE bushmen of the South African district "Kalahari" use the juice of the leaf beetle "diamphidia" and its larva for poisoning their arrow heads. Lewin, who calls the beetle *diamphidia simplex*, found in its body, besides inert fatty acids, a toxalbumin which causes paralysis, and finally death. According to Boehm, the poison from the larva also belongs to the toxalbumins, and Starke states that it causes the dissolution of the colouring matter of the blood and produces inflammation. To obtain a solution of the poison Boehm recommends the maceration of the whole larva with distilled water. After some hours they swell up, and the solution becomes light-yellow colour, and is acid in reaction. This reaction still remains after shaking out with ether. The aqueous solution then has poisonous properties. The action of the poison is destroyed by boiling. It gives the usual reactions of a toxalbumin, and may be precipitated from its aqueous solution by means of sulphate of ammonia.

LOCAL PRESSURE IN ANGINA PECTORIS.

DR. E. R. FOTHERGILL (Camden Road, N.W.) writes: Last July I was called out about 6 A.M. to a farmer "who, while carting hay on his farm, had had a sudden pain in his chest, and had to go home." It was an exceedingly hot morning, so that even walking along the lanes to the farm was a task, there not being a cloud anywhere nor a breath of air. I found that the farmer had never had a day's illness; he was about 55, short and stout, and weather-beaten in look, and had been in the fields since 4 A.M. His wife and daughter were at breakfast, and did not seem at all interested, while he was lying in bed in the same room. After asking a few questions, to which he answered easily, and being told he had only had this pain once, and that about an hour ago, I got him to draw up his shirt, and point to the position. He passed his hand over the region of the heart.

I, not thinking much of the whole matter, as he and all seemed so indifferent, suspected neuralgic twinges, and so tried for painful points. At the third or fourth touch in the left intercostal space (the fourth, I believe), a very sudden change at once took place. It was as if I had touched the push to an electric bell. His mouth fixed half open, eyes

rolled up, elbows bent, fingers contracted, the respiration was held after inspiration, and the face went ashy white. The arms resisted my attempts to move them. The arms then relaxed: no breathing took place. I injected strychnine from a tabloid over the heart, and tried artificial respiration for about fifteen minutes, although I felt it was useless. The heart sounds I may say were absent. I told the son the state, and at his request I went to explain it to the mother and daughters. They never thought he was even ill.

### Healthy Hastings.

We have before had to speak in a congratulatory manner of the low mortality-rates chronicled again and again by Hastings borough. The report just issued in respect of the first quarter of the current year tells of the place as a health resort during the winter months. The season treated of was rainy and dull, but the climatic conditions have been remarkably favourable to life, perhaps owing to absence of any prolonged severity of cold. Dr. Scarlyn Wilson states that the March quarter accounts for 29 per cent. of the annual deaths, speaking generally, we assume, of the country. But in Hastings the death-rate during the quarter was only 13.40 per 1,000 living, or as much as 5.40 per 1,000 below the average for the same period of the preceding quinquennia. Nor was this during an "empty" season, but the present year has witnessed an influx of visitors which has made the quarter one of exceptional prosperity. The smallness of the mortality-rate is chiefly attributable to the absence of fatal respiratory ailments, deaths from these diseases being 40 per cent. below the average.

### Mouth Breathing in Consumption.

Dr. F. Rufenacht Walters (London, W.) writes: Those who have not actually paid attention to the matter will be surprised at the large number of people who breathe through their mouths. While walking in London I have recently counted the relative numbers of mouth and nose breathers, disregarding those who were talking, laughing, smiling, gaping, eating, or smoking, or whose mouths were not clearly visible, and I find that, out of 1,007 taken at random, 553, or nearly 55 per cent., had their mouths open when I passed them. The proportion, which varies a little in different classes of society, would doubtless be higher if the observations were more prolonged, as most people from time to time breathe through their mouths, especially if they hurry or are out of breath.

It is unnecessary here to allude to the causes of habitual mouth breathing; but I should like to point out that phthisical patients, who are readily tired and soon get out of breath, are more liable to form such a habit, and also more likely to suffer from it, than others. Dust, which is to some extent arrested by the moist nasal mucosa, is particularly injurious to consumptives, and cold air or strong wind are also more felt if inhaled through the mouth, while all three are apt to cause dyspnœa in such patients. It follows that consumptives should either live in places which are protected against dust and wind, or, if this is not possible, should wear respirators whenever the weather is unsuitable. There is a widespread notion that respirators are not needed in summer, and that they are objectionable from their interfering with free respiration. As a matter of fact, they are in most places needed quite as much in hot, dry, dusty weather as in the depths of winter, and are far less injurious if properly constructed than the inhalation of a dust-laden air. Seeing that the majority of our consumptive patients are unable to leave the country for alpine or ocean climates, it behoves us all to protect them from the drawbacks of our own, which can sometimes be done by very simple means.

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## Books, Etc., Received.

The Countess of Dufferin's Fund. Twelfth Annual Report of the National Association for Supplying Female Medical Aid to the Women of India, for the Year 1896. Calcutta: Government Printing Office. 1897. Rs. 1.

Bakteriologie des weiblichen Genitalkanales. Von Dr. C. Menge und Dr. B. Krönig. Zwei Teile. Teil 1 und 2. Leipzig: Arthur Georgi. 1897. M. 20.

Clinical Manual of Mental Diseases. By A. C. Clark, M.D. London: Baillière, Tindall, and Cox. 1897. 10s. 6d.

My Father as I recall Him. By Mamie Dickens. London: The Roxburghe Press. 3s. 6d.

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# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

### (1) Etiology of Alimentary Glycosuria and Diabetes.

STRÜMPELL (*Berl. klin. Woch.*, November 16th, 1896) says that the problem of diabetes must remain unsolved so long as it is unknown how the sugar molecule is destroyed in the body. The normal capability of the individual to burn up sugar is not an unlimited one. If more than 200 g. of grape sugar is introduced into the body glycosuria appears, but there are variations in this limit even in healthy individuals. Alimentary glycosuria does not depend solely on the amount of sugar introduced, but also on the rapidity of absorption. The author has investigated this question of alimentary glycosuria, more especially in such general conditions of the body as are known to be in relation with diabetes rather than in actual visceral disease. In those suffering from marasmus in consequence of old age, etc., also in anæmia, a moderate amount of sugar given by the mouth (100 to 150 g.) did not produce glycosuria. In two patients with gout, where metabolism is known to be diminished, the results were negative. In three cases of severe muscular atrophy no alimentary glycosuria could be thus induced. This fact is interesting in relation to the view that the greatest part of carbohydrate metabolism occurs in the muscles. In patients with arterio-sclerosis doubtful results were obtained. Slight forms of diabetes are noted in arterio-sclerosis, and yet the explanation is not clear. In the neurasthenical positive results were so often found as to be of practical value, especially in the question of the so-called traumatic neuroses. The most undoubted results were obtained in the alcoholic, and especially in beer drinkers. The author has frequently found alimentary glycosuria in these cases. With the beer a large quantity of carbohydrates are introduced into the body. In discussing the etiology of diabetes the author divides the causes into exogenous and endogenous. If the hereditary predisposition is very great, then the disease may appear without the intervention of other causes. It is probable that a large number of the cases of diabetes, especially in the comparatively young, belong here; no other cause can be found on the most rigorous inquiry. Diabetes sometimes occurs along with other endogenous disease, and the author refers here to cases associated with spinal muscular atrophy and acromegaly. The possibility of external causes must not be overlooked. In addition to trauma, overstrain, excitement, acute illnesses, syphilis, etc., the author draws attention to the frequency with which he has observed diabetes in beer drinkers. The cases were generally of a mild variety, but also dangerous through possible complications. Other diseases usually referred to beer drinking may coexist. Alimentary glycosuria is frequent in these individuals, and no sharp line can be drawn between this condition and true diabetes. There hardly appears to be any other external cause (except certain other poisons) which interferes so much with destruction of sugar in the body as long continued excesses in beer drinking. The relation of this fact to prophylaxis and dietetic treatment is obvious.

### (2) Tetany following Scarlatina.

J. B. MCCONNELL has reported (*Mont. Med. Jl.*, September, 1896) a case in which well-marked tetany came on, while the child, a boy aged 5½, was doing well on the eleventh day after the commencement of an attack of scarlet fever. There was a neurotic family history, the patient had suffered frequent attacks of convulsions during the period of dentition, and had an attack of tetany at the age of 1½ year. The fingers were flexed at the metacarpo-phalangeal joints, the hands were flexed on the arms, the elbows flexed slightly. The feet were in the equino-varus position. The wrists and ankles were swollen and tender, and the skin over them red. The temperature was 101° F. Mechanical irritation of the nerves of the affected parts increased the contractions. Facial irritability was not present. Under treatment with sodium bromide and salicylate and potassium carbonate, the condition began to improve on the second day, and at the end of a week all the symptoms had disappeared. Commenting on the pathology of tetany, McConnell suggests that the recent views of Dercum, Wiedersheim, and others as to the mobility of the neurons (see BRITISH MEDICAL JOURNAL, October 31st, 1896, p. 1311) may throw light upon it. If the neurons, whether peripheral, cerebral, or in the cord, can separate so that one is isolated from the other in the various nervous arcs, he argues that it is possible that a tetanic condition may be kept up by an abnormally continuous approximation of associated neurons.

### (3) The Serum Diagnosis of Typhoid Fever.

PUGHESI (*Rif. Med.*, October 2nd, 1896) records a series (44) of observations on various patients with Widal's reaction (recently epitomised, EPITOME of the BRITISH MEDICAL JOURNAL, No. 257). The results were confirmatory of Widal's assertions. In the author's cases the serum was withdrawn from blisters in every case, confirmed in a small number by serum drawn directly from the blood. In the most typical cases the reaction was noticed in from five to six hours; sometimes, however, not for forty-eight hours. In 16 cases of typhoid the test gave positive results in 13 cases. In 11 cases of disease other than typhoid (dyspepsia, bronchitis, rheumatism, etc.) the reaction was negative in 8, and the results were uncertain in the remaining 3 cases. The author then briefly reports 6 cases where the diagnosis was doubtful. Of these there was a positive reaction in 4 and negative in 2. The third case was believed to be puerperal fever, but the necropsy showed typical typhoid lesions, and the Widal reaction was positive. On the other hand, a case diagnosed as typhoid gave no reaction, and *vost mortem* there was no evidence of enteric fever.

### (4) Acroparæsthesia.

THIS is the subject of a thesis by Chabot (*Thèse de Lyon*, 1896), in which he draws attention to this somewhat obscure affection. Acroparæsthesia is most common in women from 40 to 50 years of age, who, on account of their employment, are obliged to put their hands in cold water or to perform delicate and prolonged actions, such as sewing or knitting. The principal phenomena are subjective, and are described as tingling with a certain amount of stiffness in the extremities or a dull pain. A sensation of numbness may be one of the most important symptoms, and may possibly precede the others. It may first appear in the fingers and then spread to the whole hand, the forearm, the arm, shoulder, and even as far as the lips. In some rare cases the lower limbs may also be involved; but, as a rule, the altered sensations are confined to the hands or even a portion thereof, and do not exceed these limits. In more marked cases there may be a sensation of burning, pin-pricking, or even crushing, and in others the fingers may feel absolutely dead. On examination there may be objective signs of vasomotor disturbance, alteration in sensation and temperature; thus there may be abnormal pallor of the skin going on to a chalky whiteness, or even a swelling with dilatation of the veins. In other instances there may be a very faint bluish tint. There seems also at times to be a diminution in sensibility. All these phenomena are liable to progress, being at first merely remarked in the morning, while later they are equally common by day and by night. It is sometimes merely sufficient for the patient to put the hands in cold water, or to try to pick up some small object, or to perform some delicate action, for all the symptoms to appear. In a few rare cases the disease begins suddenly, almost immediately reaching its acme, and not afterwards progressing. There does not seem to be any motor derangement. Warmth always seems to allay the symptoms. The patients do not seem to present any trophic alteration or electric abnormality. The author states that the disease may last for years in a mild form, but that, sooner or later, it becomes more marked, and at the end there may be very severe suffering, more particularly in winter. The nature of the disease is very obscure, and its position seems to be close to local asphyxia. Warmth, bromides, and galvanic currents have constituted the best treatment in the author's hands.

## SURGERY.

### (5) Resection for Disease of the Anterior Lobe of the Brain.

DURANTE (*Supplem. al Policlinico*, October 31st, 1896) at the recent congress held in Rome reported the case of a man who had suffered for some time from pains in the head which were at first lessened by antisyphilitic treatment. Later, prominence of the left fronto-parietal region, exophthalmos, and amblyopia came on. The man's memory had diminished, and he became melancholy and unsociable; he also had hallucinations. A semicircular osteo-cutaneous flap was made, and the part trephined. Three hard syphilitic gummata were removed from the frontal lobe. Next day the man's vision returned, and eight days later the intellectual and moral faculties returned to their normal condition. The headache disappeared. Six months later he had an attack of Jacksonian epilepsy, probably due to post-operative meningo-encephalitis. The second case was that of a woman previously shown at a congress held in Perugia suffering from loss of memory of words and things, religious perversions, altered moral sense, etc. Upon operating a fibrous adherent body was found and removed. The patient changed as if by magic, and speedily recovered her intellectual and moral faculties, and left the hospital cured. Two months later slight epileptoid attacks occurred, probably due to slow inflammatory processes. The author dwells on the advantages of an osteo-cutaneous flap in these cases. Maffucci mentioned 5 cases confirming the view that the frontal lobe is the seat of ideation.

### (6) Surgical Iodoformism.

TUSSAU (*Sem. Méd.*, November, 1896) describes a pathological state which he names "surgical iodoformism," as distinguished from iodism. It occurs in some patients who have had their wounds treated by iodoform, and usually runs the following course: After a longer or shorter period of complete toleration the wound, while secreting no pus, is surrounded by an inflammatory area with development at its circumference of inflammatory vesicles (iodoformic herpes). Petechiæ appear near the wound or at a distance in patches or groups. The wound stagnates and inflames, but does not heal. A generalised pruritus along the collateral nerves of the fingers follows (iodoformic zoster), later blebs and diffuse phlyctenulæ. Areolar or pseudo-erysipelatous lymphangitis appears in the affected limb. If the use of iodoform is persisted in the lymphangitis progresses, the tongue becomes coated, and the patient is agitated and sleepless. A phlegmonous condition with general symptoms develops, and necrosis may threaten the patient with loss of limb or life. The symptoms in question seem to occur only in presence of a wound dressed with iodoform, and application of this substance to mucous membranes—for example, erosions of the cervix uteri or urethra—do not produce them. The surgical dressing of burns with iodoform is, however, very dangerous. The pathogeny of this group of symptoms is due to a localised or generalised reflex polyneuro-dermatitis dependent on localised or generalised reflex polyneuritis. Iodoformism is not simply iodoformic herpes; this is only a first stage of its manifestation. A rational assumption is that iodoform exerts an action *sui generis* on the terminations of the nerves or the sensory corpuscles. Like all analgesics capable of suppressing or allaying pain at a given spot, iodoform determines more or less marked changes in the sensory corpuscles. These are probably the results of a mixed impression due to the emanations of iodine and to the irritating action of the crystals on the cells attacked; possibly also to a septic combination of iodine with the organic matter in the wound. The action of this substance may be at first local, but when absorbed it gives rise to constitutional or reflex action. The dermatitis that follows is easily understood.

### (7) A New Sign of Fæcal Tumour.

GERSUNY (*Wien. klin. Woch.*, October 1st, 1896) describes a sign which, if detected, will often save a patient from needless laparotomy. He is not as yet certain how commonly it is to be met with in cases of fæcal impaction. If the tumour be firmly pressed on with the finger, the intestinal mucous membrane adheres to the sticky masses of which it is composed; when the pressure is removed the mucous membrane slowly disengages itself, and the sign consists in the recognition of this gradual separation. The only conditions necessary for its production are a certain degree of dryness of the intestinal mucous membrane and a certain impressibility of the fæcal mass; the surface of the latter can be softened if necessary by an oil enema. The important factor in the separation of the intestinal wall from the tumour is undoubtedly the pressure of the intestinal gases. The characteristic sensation can be obtained by pressing the oiled or soaped volar surface of one forefinger into the palm of the other hand and very slowly withdrawing it. Gersuny relates a case of an enormous fæcal tumour in a woman of 32; this sign was present, but as he did not at that time recognise its significance he opened the abdomen. He also records 2 cases occurring in Oser's practice, in which the detection of this sign not only saved the patients from operation, but also indicated the correct line of treatment. All these 3 cases seem to belong to the same clinical group; the affection began in infancy with irregularity of the bowels and constipation, which remitted for a time under the influence of purgatives and irrigation, only to recur with increased intensity, till at last chronic intestinal obstruction resulted. With this was associated hypertrophy of the large intestine, which became longer, wider, and more thick-walled; the contraction of the walls offered at times an increased obstacle to the passage of fæces. Patients suffering from this symptom complex are ill-developed, pale, and thin; purges, irrigation, and massage fail to affect the fæcal tumours. The only means of removing these is the combination of oil enemata and massage, which reduce the intestinal contents to a pasty mass, which can then be expressed. The detection of Gersuny's sign, therefore, indicates this treatment.

### (8) Mycosis of the Conjunctiva.

FUCHS (*Soc. Ophtal. de Heidelberg*; *Annal. d'Oculist*, September, 1896) in 4 cases has observed small spots on the conjunctiva which resembled the infarcts of Weiborn, but are found to be mycosic colonies similar to actinomycosis; some yellowish little grains collected into small balls, sometimes covered with epithelium, were also seen. The symptoms were those of a slight conjunctivitis. Scraping sufficed to remove the colonies, but a culture was not obtained.

### (9) Intradural Section of the Spinal Nerves for Neuralgia.

ABBE (*Boston Med. and Surg. Journ.*, October 1st, 1896) gives a report of 3 cases in which parts of the posterior roots of the brachial plexus were divided or resected at their origin from the cord for neuralgia. The immediate results of the operation in these cases were good, each patient being relieved from severe paroxysms, but still complaining of relatively slight pain from time to time. Thus far, it is pointed out, the operation has been devoid of risk, even in weak patients. This treatment, the author holds, is sound in theory, and has yielded satisfactory results. It should be resorted to early, he states, in cases of ascending neuritis, which have heretofore been subjected to successive nerve stretching and resection, and, finally, amputation, without benefit. Experimental and clinical facts show that two additional roots higher up than the apparent origin of pain should be included. There ought to be no risk in severing the posterior roots of the third and fourth cervical, as well as those of the brachial plexus, which supply the phrenic, inasmuch as this nerve needs motor supply only, and the opposite phrenic is always held in reserve.

## MIDWIFERY AND DISEASES OF WOMEN.

### (10) Central Placenta Prævia.

NYHOFF (*Monats. f. Geburtsh. u. Gynäk.*, November, 1896) strongly objects to the routine treatment of placenta prævia centralis by the same method as is right in placenta prævia lateralis, namely, rupture of the membranes and turning. He carefully breaks through the middle of the presenting placenta and separates it from the amnion; this manœuvre is easy when the amnion is tough and not adherent to the placental tissue. The labour can then continue as in normal

cases, the bag of waters dilates the os, and the chances are better for the child. No chloroform is needed, and an antiseptic tampon can readily be applied to the vagina. In lateral placenta prævia this manœuvre is not advisable, since the amnion and placenta adhere too firmly in such a case. Nyhoff also warns the obstetrician not to employ his method when pains are absent or weak, and when the amnion is closely adherent to the placenta, or gets torn during separation. Turning and bringing down the leg is needed at once in the latter condition. When pains are weak the tampon may be tried for a short time.

**(11) Pregnancy and Typhoid Fever: Serum Diagnosis in both Mother and Newborn Infant.**

CHAMBRELENT (*Journ. de Méd. de Bordeaux*, November 15th, 1896) reports the investigation of a case in which a woman, eight months pregnant, suffering from febrile symptoms and digestive disorder, was prematurely confined of a small, living, and well-formed infant. The effect of a few drops of the patient's blood upon Eberth's typhoid bacilli was to produce distinct agglutination (Widal's reaction). Both the infant's blood and the serum from a blister were tested in the same way, and gave the same result. In this manner the diagnosis of typhoid fever in the mother with infection of the fœtus was established, and subsequent events in both the woman and her infant confirmed this. The child had to be brought up in the *couveuse*; it showed a slight degree of icterus, the liver was much enlarged, and there was broncho-pulmonary catarrh. But for the serum diagnosis these symptoms might have been put down to its prematurity.

**(12) Dermoid Tumour of the Fallopian Tube.**

POZZI (*Traité de Gynécologie*, 3rd Edition, 1897) figures, without publishing any clinical notes, a Fallopian tube subject to dermoid disease. He describes the condition as quite exceptional, and diagnosis from ovarian cyst during oöphoro-salpingitis and pedunculated uterine myoma is, he adds, impossible. The drawings represent a dermoid growth absolutely inside the tube, except that the dilated tubal walls have been perforated by it superiorly. Some large hairs also grew out of the surface of the dermoid, projecting into the greatly dilated cavity of the tube. In fact the growth seems to have originated inside a very large hydrosalpinx. A normal ovary lies in natural relation to the diseased tube. The dermoid consists of fat, hair and sebaceous glands, and sudoriparous glands, and a free surface of skin. There appears to be neither bone nor cartilage.

**(13) Parotitis after Abdominal Section.**

KRUSEN (*Amer. Gynec. and Obstet. Journ.*, November 1st, 1896) reports two instances, both occurring in a Philadelphia hospital. In the first the patient was aged 17. She had hypertrophy of the cervix and retroversion of the uterus. The cervix was amputated, the abdomen opened and both appendages removed. The uterus was sutured to the parietes. The right parotid became inflamed on the second day. No suppuration occurred. The second patient was aged 32. Ovariotomy and supravaginal hysterectomy were performed for cystic and fibroid disease. One parotid inflamed on the fourth day, and the inflammation subsided within a week. On the seventeenth day it inflamed once more, and four days later it was incised, several drachms of pus coming away. Streptococcus pyogenes was found in the pus. The patient recovered, though symptoms of acute mania developed for a time.

**(14) Eclampsia and the Milk Treatment.**

FERRÉ (*L'Obstétrique*, November 15th, 1896) after a clinical review of the treatment of puerperal convulsions, insists that the milk treatment is most efficient from a prophylactic point of view, though it does not necessarily cause the other alarming symptoms, besides the fits, to vanish. He has never seen fits in a patient subjected for over a week to milk diet, nor any other trouble of a toxic origin. The alleged disappearance of albuminuria, on the other hand, does not necessarily occur. He speaks with equal decision on this point, declaring that he has never seen so much as an appreciable diminution of albumen, even after prolonged treatment by milk diet. Ferré says the same of the œdema; this treatment seems to have no effect on it. He emphasises the above facts because he is aware how some obstetricians have very naturally given up milk diet on account of persistence of albuminuria and œdema. Such a step is a mistake, for if the treatment be continued labour will proceed without any fits coming on, though the legs remain swollen and the urine albuminous.

**(15) Salivation a Symptom of Mollities.**

BRAUN (*Journ. d'Accouchements de Liège*, December 6th, 1896) publishes notes of a multipara who, after being laid up for three months with acute rheumatism, recovered, and bore four children. All four pregnancies and labours were normal. Seven years after the fourth, and when apparently in perfect health, she became pregnant again. During the first three months she suffered from profuse salivation. Rapid changes in the pelvis ensued, and Porro's operation was necessary: the mother and child were saved. Braun was struck by the absence of any premonitory symptom besides the ptyalism.

## THERAPEUTICS.

**(16) The Protective Inoculation of Man against Enteric Fever.**

PFEIFFER AND KOLLE (*Deut. med. Woch.*, November 12th, 1896) report the results of researches into this subject. They first refer to Haffkine's investigations into the protective inoculation against cholera. Pfeiffer and Kolle have already proved that the blood of typhoid convalescents as well as that of animals possessing an active or passive immunity against this infection, presents analogous relations to those found in Asiatic cholera. The blood contains specific bactericidal products. There is wanting also in the blood serum of typhoid convalescents the specific typhoid poison present in the bacterial cells. Considering the good results obtained in cholera, it became desirable to investigate the effects of the introduction of a small quantity of killed typhoid bacilli in man. The authors used a typhoid culture which had been made from a spleen two months previously, and the genuine character of which was proved by the specific reaction with the blood serum of typhoid convalescents. The virulence of the culture was very marked. Individuals were selected who were either in good health or at least free from febrile symptoms, and who were known not to have had enteric fever. One c.cm. of a bouillon preparation so completely sterilised at 56° C. that it contained no living micro-organisms was injected. A few hours after the inoculation the first symptoms appeared of shivering, vertigo, etc. The evening temperature rose to 38.5°, but it fell to normal during the following day. The authors append tables showing the results of their investigations with the blood serum of such individuals. From their experiments with it on animals it became obvious that a single injection of a minimum dose of killed typhoid cultures induced in man a specific change in the blood, which was apparent six days after the injection, and which attained at least the same degree as is visible in typhoid convalescents. It is more than probable that the appearance of specific bactericidal substances in the blood of individuals who have had typhoid fever represents the chief cause of the immunity possessed by them. If this is correct, then it is to be expected that these prophylactic inoculations with killed typhoid cultures can produce an immunity of equal intensity and duration as that found after an attack of typhoid fever. Haffkine's analogous, very numerous, successful, and practical investigations lend support to the same view. The authors hope that these protective inoculations against typhoid fever will be of practical service under certain circumstances, such as the prevalence of a severe epidemic, etc. The material for inoculation can be provided with comparative ease. They refer especially to its possible value in cases of sieges when enteric fever often decimates an army. Brieger, Wassermann, E. Fraenkel have used killed typhoid cultures in the treatment of enteric fever, but not for its prevention. Individuals with typhoid fever react quite differently from healthy persons, but even in the developed disease such injections have been known to produce a beneficial even though temporary effect.

**(17) Antistreptococcic Serum in Scarlatina.**

T. L. Rappapart (*Bolnitschnaja Gaz. Botkina*, No. 40) gives the results he has obtained with antistreptococcic serum in scarlatina as compared with those of Baginsky and Josias. The strength of Marmorek's serum is 1 in 30,000, relatively to the weight of the animal, whilst that prepared in the St. Petersburg Imperial Institute of Experimental Medicine is 1 in 15,000. Baginsky, as the result of a trial of Marmorek's serum, came to the conclusion that further experiments were desirable. Josias found that it did not have any influence on the course of the disease, unless it were that the necrotic angina had disappeared more quickly and the lymphadenitis resolved. Rappapart experimented with the carbolised solution of the serum from the Imperial Institute containing 0.5 per cent. of phenol. He injected the solution in 16 cases of scarlatina, amongst which were 10 with severe complications (cellulitis of the neck, catarrhal pneumonia, necrosis of the nose, uræmia, etc.). The serum, even when injected repeatedly, had no influence either on the temperature or on the complications; 4 of the patients died.

**(18) Tetanus Antitoxin in Practice.**

Behring and Knorr (*Deut. med. Woch.*, October 22nd, 1896) say that the tetanus antitoxin prepared under their supervision in the Höchst factory shows undoubted curative action in the already developed disease induced in guinea pigs and mice. This curative effect is seen both in the parasitic and the toxic affection. In a horse in which there was abundant tetanus toxin in the blood rapid recovery ensued after the use of this antitoxin. The antitoxin value is estimated in normal antitoxin units. Two preparations are to be obtained, the one a dry powder for curative purposes in the already developed disease, the other in solution for prophylactic purposes: (1) The dry powder contains in 1g. 100 normal units, the flasks holding 5 g., or 500 units, which constitutes the dose required for man and horses. It should be dissolved in 45 c.cm. of sterilised water, at a temperature not exceeding 40° C., and injected at one sitting. The authors recommend intravenous injection in the case of horses, as the effect is produced 24 hours earlier than with subcutaneous injection. In man also the therapeutical effect can thus be obtained earlier. When used subcutaneously it should be injected within 36 hours of the appearance of the symptoms. Any infecting foreign body should be removed, and the wound cleaned to prevent any further development of the poison. (2) Dissolved tetanus antitoxin is provided in bottles holding 5 c.cm., or 25 normal units; 0.5 to 5 c.cm. should be injected according to the time which has elapsed since the suspected infection. If the interval between the infection and injection is great, then prevention is not certain, but the disease is mild and the prognosis good. Before castration in animals 0.2 will serve as a protection against tetanus. The above preparations contain 100 times more of the effective substances than is present in 1 c.cm. of the tetanus serum previously described by the authors. The authors hope, on the ground of experimental work and of isolated cases of tetanus in man, that the death-rate from tetanus may thus be diminished. The fluid preparation is preserved by means of a small addition of carbolic acid. The dry powder contains no antiseptic, as in well-stoppered bottles it remains sterile and unaltered for an indefinite time. If dissolved, 1 per cent. chloroform may be added to keep it for a short time. The dosage cannot as yet be looked upon as final, as clinical investigation must settle it. The cost (30 m.) for the curative dose is moderate, considering the expenses of preparation. Veterinary practice affords special opportunities for determining the dose, but cases must be treated as soon as possible after the first appearance of the tetanic symptoms.

**(19) Thyroidin in Prurigo.**

A. Dobrowsky (*Sem. Méd.*, October 28th, 1896) has made a series of therapeutic experiments in the Pediatric Clinic of Professor A. Monti, of Vienna, with thyroid extract in children suffering from Hebra's prurigo. Under the influence of thyroidin, itching rapidly ceased, the prurigo nodules and eczematoid eruptions caused by scratching disappeared, sleep returned, and the general condition improved. This result was obtained in a few days in 8 cases in which the treatment was tried. In all these cases, however, discontinuance of the drug was followed by relapse in a period of time varying from one to thirteen weeks. Temporary disappearance of the symptoms followed renewal of the treatment. Thyroidin, therefore, in prurigo acts surely, but is not radically curative.

## PATHOLOGY.

**(20) The Micro-organisms of Typhus Fever.**

Levaschew (*Archives des Sciences Biolog. de l'Institut Impér. de Méd. Expér. à St. Pétersbourg*, Tome iv, No. 4, 1896) has investigated this subject. Method: Blood was obtained (1) from the spleen, (2) from the finger, (3) directly from a vein at the elbow. Microscopic examination of fresh blood: Nothing abnormal is seen until magnified 1,000, or better 2,000, diameters. Then round, very refractile bodies, generally single, sometimes in pairs, clusters, or short chains, can be observed. Most are motionless, but some very motile. Under special conditions it can be made out that one of the poles is sometimes elongated into a flagellum six or ten times the diameter of the coccus. Stained specimens: They stain best with a saturated aqueous solution of fuchsin or Loeffler's methyl blue; they are decolorised by alcohol, especially if acid. The number found in blood varies with (1) the period of illness when it is taken, there being very few at first, and a gradual increase taking place up to the acme of the disease; (2) the part from which it is taken; thus very few are found in the finger blood but a great number in the splenic. Their size is only 0.2 to 0.5 $\mu$, the largest being those just about to divide. The flagellate forms are found in one-fifth only of the total cases, and probably represent a definite but very short stage in the life-history of the coccus. The two forms may be named "micrococcus exanthematicus" and "coccospirillum exanthematicum" respectively. Artificial cultures: On the ordinary nutrient media no growth was obtained from blood from the finger or spleen in the first three cases. On ascitic fluid gelatine splenic blood usually produced a growth, but blood from the finger seldom did (? because of disinfectants used for the skin). Blood from veins, however, caused a growth on ordinary media, showing that the spleen lessens the vitality of the organism. A whole series of cultures must be made, as each drop of blood does not contain the coccus. At 36° to 37° C. growth is characteristic in from two to eight days, and frequently takes place at ordinary temperatures. The appearances vary somewhat according to the period of disease. In stab cultures in gelatine the growth is most rapid on the surface, which causes a cylindrical depression with liquefied gelatine at the bottom. Fresh cultures can be made from those started by venous blood, but not from those started by splenic. Direct inoculation of blood from veins into broth causes growth only if a current of oxygen is passed through it. Thus the organism is strictly aërobic. It refuses to grow on acid or saccharine media. The organism found in cultures is identical morphologically with that found in the blood. One hundred and fifty-eight cases of typhus were examined bacteriologically, and the organism was wanting in 2 only, and then the examination was made just before the end of the illness; 1,500 cultures were made, and no other organism was ever found. Cultures were generally obtained from the fluid in the conjunctival sac pure, but sometimes mixed with sarcinæ and bacilli. These organisms are not simply a mixture of staphylococcus and streptococcus, because (1) the two cannot be isolated in pure cultures; (2) staphylococcus is distinguished by size (0.87 $\mu$) and by more rapidly liquefying gelatine; (3) streptococcus forms long chains and its colonies in gelatine are quite different; (4) inoculations on animals have no effect; (5) oxygen is a necessity. It can also readily be distinguished from M. endocarditis rugatus, Mannaberg's streptococcus, M. conjunctivæ liquefaciens et flavus. Thus it is almost certainly the specific cause of typhus fever, its failure to affect animals being due to that disease being peculiar to man. Infection depends not on immunity, but on the number of organisms which gain access. Several other observers, both French and Russian, have within the last three years described organisms which are probably identical.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

### (21) The Effects of Influenza on the Heart.

BATZ has published an instructive work on this subject (*Thèse de Bordeaux*, 1896), in which he describes the cardiac complications of influenza and cardiac influenza, there being a distinction between the two. Under the first heading are included peri-, endo-, and myocarditis; while the second, a term due to Huchard, includes a much more complicated series of alterations in the heart's action through its nervous apparatus. The cardiac rhythm is more or less altered, there being acceleration of the beats, equalisation of both pauses, and both sounds come to resemble each other, a condition to which the term "embryocardia" has been given. Influenza would seem to be the disease in which this is most frequently met with, and its prognosis is very grave. The pulse very often becomes irregular in every way; it is frequently intermittent. There may be an extreme degree of bradycardia, the pulsations having been found as low as 15 or 16 to the minute. On the other hand a high degree of tachycardia has been noted by several observers. Extreme cardiac weakness, followed by syncope, is another frequent complication, but the author more particularly draws attention to influenzal angina, which bears a marked resemblance to angina pectoris, with which, indeed, it is probably identical, being produced under the same conditions, and accompanied by the same symptoms. There may be the same pain preceded by a kind of aura and a feeling of constriction of the chest. The duration of these sensations is variable, for the most part lasting some time. The author thinks that the variability of these cardiac affections depends on whether the vagi, the sympathetic, or intracardiac ganglia are affected, or they may even depend on a bulbar origin.

### (22) The Early Stages of Diabetes.

LOEB (*Centralbl. f. inn. Med.*, November 21st, 1896) remarks that really very little is known about the earliest stages of diabetes. Usually when definite symptoms lead to an examination of the urine, 1 per cent. sugar or more is found. Definite information is often given as to when the thirst, etc., commenced, but such accounts often cannot be trusted to fix the commencement of the disease. The author relates some illustrative cases: (1) A woman, aged 52, with every appearance of health, complained of profuse sweating and of thirst beginning 14 days previously. The urine contained 5.3 per cent. sugar, and the specific gravity was 1038. The author had examined the urine of this patient 2 years previously, when it contained 0.25 per cent. sugar, but it was afterwards free from sugar for 9 months. This was an example of the hereditary form of diabetes. A younger sister with rheumatic pains sent her urine for examination, when 4 per cent. sugar was present. An elder sister with diabetes had died the year before from some intercurrent affection. (2) A girl, aged 25, with bronchial catarrh, began to suffer from thirst. The urine was found to contain 7.9 per cent. sugar, although the thirst was said to have commenced only 4 weeks previously. The author had by chance examined this urine 5 months previously, and a trace of sugar was found, to which no importance was attached. The case appeared favourable, notwithstanding the youth of the patient. Under dieting the sugar disappeared, and the patient looked well. (3) A man, aged 57, had traces of sugar in the urine before diabetic symptoms appeared, when 4 per cent. sugar was found. (4) A man, aged 60, complained 4½ years previously of abnormal sensations and paræsthesiæ in the extremities, and 0.38 per cent. sugar was found in the urine. The urine was then examined every 2 to 4 weeks, but remained usually free from sugar or only with the slightest trace of it. During an attack of sciatica, sugar to the extent of 1 per cent. was found. Under suitable diet and when the pain disappeared, sugar was no longer present. The excretion of sugar was here controlled by a not very strict diet. The author concludes that in a large number of diabetics sugar is present in the urine for long periods before large quantities are excreted or definite symptoms arise. During these periods the patients may be in excellent health, and so the presence of the sugar may not be discovered. Some intercurrent disease or an insurance examination may draw attention to it. Thus the presence of small quantities of sugar is not a matter of indifference, but, on the other hand, it does not always indicate the presence of diabetes. The author does not agree with Ebstein that every glycosuria lasting over a long time is to be considered as diabetes, no matter how small the quantity of sugar may be.

### (23) Paralysis of the Ulnar Nerve from Cycling.

DESTOT (*Gazz. degli Osped.*, November 5th, 1896), after a long bicycle ride, suffered from paræsthesia of the ring and little finger, and loss of sensation to puncture and to touch, as well as paresis of the interossei, lumbricales, and adductor muscles. These effects were due to pressure of the nerve branches between the handle of the bicycle and the pisiform bone. The author believes that the obliquity of the handle bar was the chief cause; for this reason he suggests a strictly transverse bar, as the pressure then is thrown on the deeper and better-protected parts of the hand.

### (24) The Phonendoscope.

B. M. SCHAPOSCHNIKOFF (*Russkaja Medizinskaja Gazeta*, No. 39, 1896) has used Bianchi's phonendoscope (see EPITOME of the BRITISH MEDICAL JOURNAL, December 5th, 1896, par. 454) in over 100 cases, including patients and healthy people, and arrives at the following conclusions: (1) It is very doubtful whether the outline of the internal organs can be correctly mapped out by its help, as suggested by Bianchi. (2) The sounds and murmurs are greatly intensified, and thus a correct interpretation of the physical signs is made more difficult. (3) Further, the phonendoscope by itself produces a certain number of sounds, which, especially if a long-continued examination is required, are very troublesome.

### (25) The Mechanism of Knee-jerk.

GOTCH (*Journal of Physiology*, vol. xx, p. 322) has studied the time reactions of the knee-jerk. He concludes that the contraction of the vastus internus in response to the tendon tap is a single twitch of the muscle evoked by the direct mechanical excitation of its fibres. He obtained no evidence that the direct muscular excitability is diminished by circumstances which undoubtedly cause the above response to fail. The tendon tap may cause not only a direct response, but a reflex discharge from the spinal cord; and this, although it evokes no response on the struck side, may evoke a response on the opposite side, constituting a true crossed reflex effect. In the rabbit he found no evidence of the reflex effect on the struck side, but thinks it possible that conditions may be present in other animals and in man which would diminish the susceptibility of the vastus to the direct mechanical stimulation, whilst augmenting the reflex discharge from the spinal cord; under these circumstances a reflex effect on the struck side might occur. The discrepancies between different observers as to the fundamental nature of the effect (direct or reflex) are, he thinks, due probably to the augmented influence of one of these factors and the diminution of the other.

## SURGERY.

### (26) Cholelithiasis Statistics.

HANS KEHR (*Arch. f. Chirurgie*, 1896, vol. 53, p. 362) records the results of a series of 209 laparotomies for gall stones (174 different patients). The operations varied in extent from simple cholecystostomies, taking about fifteen minutes, to troublesome operations on the common bile duct, taking as long as four to five hours. Of the 174 patients 23 were men, 117 were married women who had borne children, 16 were childless married women, and 18 were single women. The majority of patients belonged to the working classes, to which the majority of the inhabitants of Halberstadt also belong. Out of 127 operations for stones in the gall bladder and cystic duct, in which it was not necessary to remove the gall bladder, only 1 patient died (an old man with pulmonary emphysema and arteriosclerosis). Of 21 cholecystectomies

only 1 was 'ata'. Out of 30 choledochotomies and 1 choledochotripsy 2 patients died, both of whom were weak and jaundiced before the operation. One patient operated on for stone in the hepatic duct died of collapse following the operation. Seventeen cases (15 recovered) were found at the operation to be suffering, not from gall stones, but from other troubles. Finally, in 19 cases, besides cholelithiasis, some other disease, such as carcinoma, suppurative cholangitis, cirrhosis, etc., was found to be present; some of these cases were temporarily improved. Of the whole 209 laparotomies 17 were fatal cases (8 per cent.). Kehr has only once seen a genuine relapse after his operations for gall stones. In choledochotomy it is sometimes hard to be sure of having removed all the stones. In 5 cases Kehr left stones behind; in 3 of them he had to repeat the operation, and in 2 he was able to remove them afterwards by the reopened wound. Apparently only 82 cases of choledochotomy have previously been recorded in surgical literature, and there were 26 deaths —that is, 31 per cent., though perhaps only 22 per cent. were directly due to the operation. In the present series of 30 only 2 (6.6 per cent.) proved fatal.

**(27) Cancer of the Ampulla of Vater.**

Durand-Fardel (Reprint from *La Presse Médicale*, 1896) relates a case of cancer of Vater's ampulla, which he states to be the thirteenth recorded. Two forms at least may be distinguished: that in which the disease starts from the intestinal wall; and that in which it takes origin from the orifice of the pancreatic duct. The symptoms of these are similar, comprising intermittent jaundice, wasting and progressive cachexia, but in the latter form the jaundice is more intermittent and the progress slower. The author's own case occurred in a man aged 58, whose personal and family history were without significance. His illness began with sudden jaundice, associated with pale and fatty stools. He was treated with purgation, Vichy water, and milk diet. He attempted to resume work in three weeks, but was too weak, and was consequently taken into hospital. He was much wasted, there was marked jaundice, the liver was much enlarged, and the gall bladder easily recognisable. The urine was deeply bile-stained, while the stools were colourless; there was absolutely no pain and no indication for operative interference was recognised. Four months after the onset the patient suddenly became much better, the stools recovered their normal colour, the jaundice cleared up a little, and the liver and gall bladder diminished in size. The improvement lasted about a month, when double pleuro-pneumonia supervened, with pericarditis and recrudescence of all the hepatic symptoms. Delirium followed, with death five months after the commencement of the jaundice. At the necropsy a tumour of Vater's ampulla was found of the size of a cherry stone. It grew from the anterior wall of the common bile duct, which it completely blocked: the pancreatic duct was, however, patent—a condition not previously described in this affection. The microscopical structure of the growth was that of a carcinoma derived from the epithelium of the bile duct, and containing no glandular elements. Durand-Fardel hence agrees with Rolleston's conclusion that one variety of cancer in this region may be regarded as originating from the termination of the common bile duct.

**(28) Obstetrical Keratitis.**

Dujardin points out (*Journ. des Sc. Méd. de Lille*, November 28th, 1896) that ocular lesions due to obstetrical interference are uncommon, and relates a case of keratitis in the newborn which seems to have resulted from a prolonged application of the forceps. The left eye alone was affected, and its appearance suggested a purulent ophthalmia; but the eyelids were more markedly swollen than is the case in commencing ophthalmia, and there was scarcely any discharge. On separating the eyelids it was seen that practically the whole cornea was cloudy, and there was intense conjunctival hyperæmia. The treatment consisted in the application of ice, atropine, and boric lotions. A similar case was reported by Wecker, due also to compression by forceps, but in it the pupil could not be recognised, whilst in Dujardin's instance it could be seen by looking obliquely. It is, therefore, important to remember that ocular lesions at birth are not invariably of a gonorrhœal nature; and in such cases as these referred to the treatment with an eye salve of nitrate of silver (under the supposition that it was purulent ophthalmia) might have disastrous effects upon the keratitis.

**(29) Castration for Prostatic Hypertrophy.**

G. Gabrielsen (*Norsk Mag. f. Lægevidensk.*, October, 1896) records the case of a man, 72 years old, who had suffered for 2½ years from dysuria and urinary incontinence (three or four times hourly). Bilateral castration was practised; at the end of three weeks the dysuria had disappeared; after an interval of five months the prostatic hypertrophy was greatly lessened, and urination occurred only twice or thrice a night.

**(30) Disease of the Bones, Articulations, and Ligaments in Influenza.**

Franke (*Arch. klin. Chir.*, 19, iii, 1895) has seen a certain number of cases of these affections as the result of influenza. Bone disease was the most frequent, affection of the articulation alone very rare. As regards ligaments, the plantar fascia was affected in 5 cases, with a painful inflammatory thickening chiefly on the internal aspect. The author observed only 2 cases of articular disease; the course of the disease was subacute in each case, and complete recovery occurred. In the bones, periostitis or osteo-periostitis of subacute character, without pus or the formation of sequestra, was the usual type. Considerable and disproportionate constitutional disturbance followed the appearance of this periostitis. On the whole, the prognosis is good. Soft nodes were occasionally observed.

## MIDWIFERY AND DISEASES OF WOMEN.

**(31) Use of the Uterine Stem.**

Pichevin (*Bull. et Mémoires de la Société Obstét. et Gynéc. de Paris*, No. 11, 1896) holds that Lefour and other contemporary authorities have rehabilitated the stem. The ill effects once so often seen were due to ignorance of gynæcology, carelessness, and absence of antiseptic precautions. The stem is necessary in cases of contraction of the uterus after cauterisation, as is so often seen when Dumontpallier's method has been used. It is also allowable in stenosis in neglected cases of amputation of the cervix. The stem is specially useful in cases of amenorrhœa and sterility, where the os internum is tender and contracted, and the body of the uterus sharply anteflexed. But it should never be used for similar symptoms when the canal is normal, or when there is pelvic cellulitis or perimetritis as well as metritis.

**(32) Galvano-Caustic Treatment in Gynæcology.**

S. Fredericq (*Belgique Méd.*, No. 51, December 17th, 1896) reports his experience of electricity in gynæcological practice. He is of opinion that it is truly useful only in cases of uterine fibromyomata, and possibly also in instances of uterine atony, and that in all other affections of the genital organs it is either harmful or so inferior to other modes of treatment that it is useless to try it. Thus it is distinctly contraindicated in sarcomatous and other malignant tumours of the ovary, and in all gynæcological troubles associated with chronic enteritis and marked hysteria. It is of no value in uterine displacements, ovarian prolapse, and inflammation of the uterine appendages, while in endometritis it is inferior to curettage. In uterine fibro-myomata, however, it is admirable as a means of stopping hæmorrhage and relieving pain, and sometimes its employment makes surgical intervention possible when it was not so previously.

**(33) Curettage for Hæmorrhagic Metritis in the Virgin.**

Blanc points out (*Loire Méd.*, No. 12, December 15th, 1896) that until recently purely medicinal and often inefficacious means have been used in the treatment of virginal metritis. He reports three cases in which curettage was employed for this affection with complete success, and a fourth in which permission for operation was refused by the patient's parents, and death followed. In the first two cases, aged 16 and 15 years respectively, the curette brought away large masses of whitish fungosities, of a firmer consistence than is usually met with in the scrapings of hæmorrhagic metritis in married women; the uterus

was afterwards packed with iodoform gauze. In the third patient, a girl of 14 years, the hæmorrhage began at the third menstrual epoch, and was continuous; in this instance the curette removed greyish-white fungosities, of a softer consistence than in the foregoing cases.

**(34) Hysteria Simulating Eclampsia in Pregnancy.**

BESCARLET (*L'Obstétrique*, November 15th, 1896) reported at the Geneva Congress the case of a pregnant woman who caught cold and inflammation of the kidney ensued. The fœtus died, and several convulsive attacks followed. Bascarlet maintained that they were purely hysterical. The chief positive evidence was their punctual recurrence at a certain time for several nights in succession. They differed from even mild eclampsia by the absence of vomiting, coma, deranged vision, and facial convulsions.

**(35) Ovarian Abscess after Delivery.**

BRÖSE (*Berl. klin. Woch.*, No. 52, 1896) relates that a woman after confinement, had high temperature, which subsided, but the severe pain which accompanied it continued till, at the end of three months, when he operated. Both appendages were removed. The right ovary was converted into an abscess larger than a walnut, the left contained a smaller amount of pus. The left tube was also suppurating. The temperature had been normal just before the operation. Recovery was rapid.

**(36) Kraurosis Vulvæ.**

CZEMPIN (*Berl. klin. Woch.*, No. 52, 1896) recently exhibited at a Society diseased structures excised from two cases of typical kraurosis where there was the usual intolerable itching with corresponding stenosis of the vulva. The first patient was single, and aged 23. On careful search an incipient epitheliomatous growth, as big as a bean, was detected and excised with three quarters of the vulva. The growth lay on the left of the clitoris. The second patient was aged 31. The kraurotic tissues, Czempin states, were excised. In both cases the wounds caused by the excision were united by a continuous catgut suture, and healed by first intention. It is not reported whether, as the above cases would imply, Czempin applies the term "kraurosis" both to purely symptomatic itching as in the first instance where there was cancer, and to a primary condition where itching is the earliest and most essential feature.

**(37) Gynæcological Treatment of Rheumatism and Gout.**

L. M. BOSSI (*Arch. di Ostet. e Ginec.*, No. 10, October, 1896) records three cases illustrating the influence which the female genital organs have over the interchange of materials in the organism. The most noteworthy of these was a patient aged 46 who had suffered since the age of 31 from painful menorrhagia with intestinal and urinary disturbances. Nine years ago she had an attack of articular rheumatism, and now at each menstrual period she had gouty manifestations in the joints with scanty high-coloured urine, dyspepsia, etc. She was very anæmic, and all the small joints were swollen and deformed. The uterus was enlarged and prolapsed, and a scraping from the interior suggested sarcoma. The uterus and ovaries were removed by hysterectomy, and immediately the joint condition began to improve, and the quantity of urine and of urea during the succeeding month was more than quadrupled. The patient also gained nearly a stone in weight, and traces of tophi were no longer to be found in the joints. In another case vaginal hysterectomy for fibroma of the fundus uteri led to a notable increase in the amount of urine and in its urea and to the disappearance of the articular pains. In yet a third patient rheumatic symptoms disappeared after the curettage of the uterus for endometritis hyperplastica. These observations the author advances simply as a preliminary note, but thinks that taken along with the recent researches of Curatulo and Tarulli and the results of castration for osteomalacia they demonstrate the influence exercised by the genital organs over the body metabolism.

## THERAPEUTICS.

**(38) Chinosol.**

BONNEMA (*Therap. Monats.*, December, 1896) says that chinosol combines large antiseptic properties with a relatively small power of doing harm. The author's experiments show that it is a protoplasmic poison; 1 per cent. solution arrested the movements of amœbæ almost instantaneously, and ½ per cent. solution in 1½ hour. Chinosol also hinders in a marked degree the decomposition of meat, and is even here superior to corrosive sublimate. It checks both alcoholic and lactic acid fermentation. It hinders the conversion of albuminous bodies into peptones, and it has a deterrent action on the coagulation of albumen. The author has also investigated the action of chinosol on bacteria. To solutions of chinosol (1 in 200, 500, 1,000) a pure cultivation of staphylococcus was added until the solution became slightly turbid. Agar plates were then inoculated with small quantities of these solutions. These experiments proved that chinosol in ½ to 2 per cent. solution did not kill this coccus in twenty-five, forty-five, or fifty minutes. Nor yet did solutions of 2½ to 3 per cent. in twelve minutes; but of 4 experiments with chinosol in 4 per cent. solution 2 only showed growth. A 5 per cent. solution killed the micro-organism. Chinosol hinders the development of the staphylococcus in a solution of 1 in 40,000. A mixture of 2 c.cm. chinosol (1 in 2,000) with 38 c.cm. bouillon was inoculated with a pure culture of the staphylococcus and kept at 37° C. for several days; it remained sterile, whereas 40 c.cm. of bouillon inoculated in the same way became turbid in twenty-four hours. Sublimate in similar solution produced the same result. The author has also made experiments on frogs and rabbits. In frogs chinosol showed itself to be a central poison. In one experiment a rabbit weighing 2,500 g. was given 1 g. chinosol by the mouth, and in 1½ hour a further 2 g. without any bad effect.

**(39) Serumtherapy in Pneumonia.**

DE RENZI (*Supplem. al Policlinico*, October 31st, 1896), at the recent Medical Congress in Rome, related his experience of serumtherapy in pneumonia. During the year 1894-95, 7 cases of pneumonia were admitted into hospital; 2 of these were treated with serum in addition to the routine alcoholic treatment; all the cases recovered. In 1895-96, 27 cases were admitted: of these, 13 were treated without serum and 3 died, that is, 23 per cent; of the other 14 treated with serum 2 died, that is, 14 per cent. In these 2 fatal cases 1 was moribund when admitted, and the others had arterial and renal lesions sufficient to cause death apart from pneumonia. It should also be said that the recent epidemic of pneumonia in Naples has been of a very severe type. After the injections the temperature usually dropped 1° to 3°, and there was a corresponding increase of general strength. The serum was well borne, and never gave rise to any bad symptoms.

**(40) Should the Internal Use of Atropine be Discontinued?**

LÉPINE (*Sem. Méd.*, November 25th, 1896) calls attention to the fact that more deaths have followed medicinal doses of atropine than of any other drug. If possible, therefore, other drugs should be substituted for it. Atropine has been used in the following diseases: (1) Neuralgia and other painful affections. Considering the large number of analgesics available, it should be used in the present day in exceptional cases only for example in angina pectoris. (2) Whooping-cough and asthma. If the cases are severe and have resisted all other treatment, atropine may be tried. The same applies to (3) epilepsy. (4) It is very doubtful whether it is of any use in hysteria, paralysis agitans, and other tremors. (5) Chronic constipation. As there are plenty of substitutes, its use should be discontinued. (6) Lead colic. In this the subcutaneous use of atropine has more disadvantages than advantages. (7) Nocturnal enuresis. Great caution is necessary, since large doses are required as a rule. (8) As a cardiac tonic, and in those cases of permanent bradycardia which often end in epilepsy, atropine has been tried without much success in the latter cases, possibly because a slow pulse does not always correspond to a slowly acting heart. According to Dehio it may benefit slight cases of cardiac irregularity, but is without effect in severe. (9) In night sweats it acts well, but although small doses tend to prevent collapse, which is common in phthisical patients, larger ones increase the liability to it. To begin

with a dose of $\frac{3}{250}$ gr. is unjustifiable in advanced cases of phthisis. (10) In chronic hypersecretion of HCl by the gastric mucosa several observers have found that atropine diminished the secretion, but others deny this. However, considering the bad effects of this hypersecretion on the gastric mucosa, in the present state of our knowledge atropine must still be tried. (11) Some observers state that atropine, given hypodermically, arrests hæmorrhage (hæmoptysis, etc.) by its action on the arterioles. (12) The injection of atropine before the administration of chloroform to prevent syncope has been given up by surgeons. (13) It has been recommended as an antidote to barium salts, hydrocyanic acid, nicotine, pilocarpin, veratrin, and muscarin poisoning. (14) The question of its use as an antidote to opium is left by the author for a further communication.

#### (41) Urea as a Diuretic.

Bettmann, of Erb's clinic (*Berl. klin. Woch.*, December 7th, 1896), relates the results of this treatment in 12 cases—3 of hepatic cirrhosis with much ascites, 4 of one-sided serous pleurisy, 5 of dropsy of several serous cavities. In no case was there any marked beneficial effect. The increase in the secretion of urine was never very considerable. In 1 case tapping was had recourse to five days after the commencement of the treatment. The fluid reaccumulated after the tapping, notwithstanding the administration of urea. In another case the combination of tapping with the urea treatment seemed to have a decidedly favourable effect. An examination of the tables shows that an increased diuresis during a lengthened use of urea occurred in only 3 cases; but here an improvement would have been expected without any diuretics. In no case was there any evidence of renal disease. Urea had not shown itself in these cases to be either a rapid or powerful diuretic, but the number of cases was small. No unpleasant effect followed the administration. A slight diarrhœa occasionally observed was beneficial. It is desirable to investigate whether the effects of tapping can be increased by the use of urea.

#### (42) Oil of Cade Collodion.

At the recent Congress of the Société Française de Dermatologie et de Syphiligraphie (*Méd. Mod.*, 1896), G. Gaucher stated that acetone collodion having been used as an excipient of certain substances employed as local remedies in skin affections, it occurred to him to associate oil of cade with it. He finds that this preparation is free from most of the drawbacks of oil of cade. It enables one to apply the remedy exclusively to affected points, and to keep it in position; it does not stain linen, and the odour of the acetone to some extent disguises that of the oil of cade. He has used the preparation successfully in psoriasis, lichenoid eczema, simple chronic lichen, nummular eczema, seborrhœic eczema, and lichen planus. It appears to him to cure patches of psoriasis in the same time as chrysophanic traumaticin, without the drawbacks of that preparation. He recommends that only pure oil of cade from juniper and pure acetone free from water be used; if these conditions are not fulfilled the preparation is either too fluid or too thick, and it does not adhere satisfactorily.

#### (43) Magnan's Symptom in Cocaine Poisoning.

Rybakoff, at the Moscow Neurological Society (*Münch. med Woch.*, p. 1175, 1896), insisted on the diagnostic value of Magnan's symptom in chronic intoxication of cocaine. It is an hallucination of sensation consisting in a feeling as of foreign bodies, grains of sand, crystals, worms, or microbes below the skin. Korsakoff mentioned a case in which this symptom was present, and was found to be due to the use of vaginal tampons containing cocaine, on the discontinuance of which it ceased.

#### (44) The Treatment of Œdema.

Rotmann (*Deut. med. Woch.*, 1896, Nos. 48 and 49) first refers to the various methods of treating œdema by incision, puncture, including Southey's trocars, etc. He has used cannulæ from 10.5 to 11 cm. long, and from 1.50 to 1.75 c.m in diameter. The skin was always thoroughly cleaned, and the instruments, together with tubing, previously boiled in soda solution. The places chosen for the insertion of the cannula were those in which the œdema was more recent, and the skin and subcutaneous tissues were not hardened by inflammatory changes. It is well to apply boracic ointment round about the puncture, so that if any fluid escapes to one side of the trocar, it will not irritate the skin. If the flow of fluid stops, it is mostly due to a clot in the cannula or tube. Usually a cannula was placed in either leg and left for twenty-four or more recently thirty-six hours. An absorbent aseptic dressing with moderate pressure is afterwards applied. The wound can be closed if desired with collodion. The author has never seen any unpleasant result follow upon the drainage whe i practised in this way. Details are then given of 9 cases among which 6 were examples of renal disease, 2 being acute and the rest chronic. In 7 cases, abundant fluid was thus drained away. In 1 case the amount was only moderate, and in the remaining one there was hardly any. Perhaps in this last case it might have been well to make incisions. The cases of acute nephritis recovered completely. In 3 other cases the good results obtained persisted for a long time. If the drainage does nothing else, it often considerably relieves the patients. In all the cases the ordinary treatment by drugs, etc., had been tried first.

## PATHOLOGY.

#### (45) Catgut Suppuration.

Popper (*Deut. med. Woch.*, No. 48, 1896) has made experiments, not as previous investigators by infecting catgut with pure or mixed cultures of bacteria, and examinations after disinfection by various methods, but by investigation of some catgut that was the cause of various accidents in the Giessen Clinic. The material after treatment with ether was submitted for days to watery solutions of sublimate and carbolic acid, but in vain; in spite of the most rigid antisepsis every stitch hole suppurated, other methods were tried, including dry heat, but even disinfection in a current of steam did not prevent this catgut from causing suppuration in animals. The ordinary pyogenic germs are killed with the greatest certainty by the more powerful antiseptics, and sublimate catgut, even as obtained from the manufacturers, has invariably proved sterile, and though a bacillus of extraordinary resistance has been found in raw catgut, this bacillus is in no sense pathogenic, and the idea that it creates a favourable medium for pathogenic germs, Popper considers an unfounded hypothesis. When a small piece of the catgut was placed below the skin or in the peritoneal cavity of a rabbit it was found that after three or four days a small focus of suppuration had formed round it, just as in the operation cases; the pus was greyish white, tenacious, and slimy, and, under the microscope, consisted of detritus and isolated pus corpuscles. No bacteria were ever visible, and every attempt at culture (gelatine, agar, blood serum) was negative. Popper, therefore, concludes that the suppuration was not due to bacteria, but to some chemical matter. The innocent nature of the suppurations agrees with this view; there was no phlegmonous extension—no diffuse peritonitis—but the purulent focus, in which the catgut might remain unabsorbed for months, was completely encapsuled. It is known that many of the metabolic products of bacteria (proteins) may cause suppuration chemically. In this case toxalbumens can be excluded as they are rendered harmless by heat (140° F.). What the chemical matter may be it is impossible at present to say; perhaps some product of decomposition during the manufacture of the raw catgut. Experience both in men and animals shows that no serious intoxication is to be feared from the use of even large quantities of such catgut; the suppuration is always of an innocent character, and has no tendency, like bacterial processes, to become diffuse. As no means are known of depriving it of this suppurative agent it should be tested by experiments on animals or by use in superficial sutures in suitable operation cases, and whenever absolute reliability of sutures and ligatures is desired—and therefore in all peritoneal operations—it is better to depend upon silk. Phlegmonous inflammation after operation can no longer be attributed to the use of catgut, but must be admitted to be an accident due to bacteria, and as carefully prepared sublimate catgut has invariably been found free from germs, it is not desirable to substitute any more elaborate process for disinfection by ether sublimate and alcohol.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

### (46) Examination of the Blood in Typhoid Fever.

R. STERN (*Centralbl. f. inn. Med.*, December 5th, 1896) says that this examination has been followed out in two ways: (1) In regard to diminished or absent leucocytosis; and (2) the presence of typhoid bacilli in the blood. The latter succeeds best when considerable amounts of blood are used, since the bacilli are present only in small numbers. In two of the author's cases the positive results thus obtained were of considerable diagnostic value. Recently a new method has been introduced by Widal, which depends upon the action of the serum obtained from the blood of one convalescent from or ill with typhoid fever. The typhoid bacilli become less motile, and tend to adhere together when exposed to this serum. The substances producing these effects have been called agglutinin, but the author thinks that paralysin is a better name. This agglutinative effect has been noted even on the fourth or fifth day of the disease. In the cases where it was absent at first it appeared later. The author has investigated this test in 16 cases. He has taken blood from the finger tip and added to it a bouillon suspension of the typhoid bacillus, and then separated off the red cells by means of the centrifugal machine. When the centrifugalisation is carried out a quarter to half an hour after the mixing the characteristic reaction is more marked. The disadvantage of this procedure is that an exact quantitative estimation of the effective substances in the blood cannot be made, but the author has also used Widal's procedure. The diminished motility and agglutination were seen after a few seconds, or at any rate, within the hour. The capillary pipette belonging to Gowers's hæmoglobinometer, previously sterilised, may be used for the purpose of collecting the blood. The ninth day was the earliest time that the author applied the test with success. Abundant control experiments in other diseases were made, but gave negative results except in one case of otitis, where a slight but distinct reaction was obtained in an hour. This patient had never had enteric fever. Thus the author says that for the serum diagnosis that proportion of the serum and culture must be determined which is powerless to give the reaction with the blood serum of a patient not suffering from typhoid fever. This proportion the author found in his cases to be 1 in 100, and even 1 in 2,000. Widal gives it as 1 in 60 or 80. A negative result in the early stage of the disease must not be looked upon as conclusive, but subsequent examinations must be frequently made.

### (47) Prodromal Eruptions in Measles.

ROBET has collected a number of observations (*Journ. de Méd.*, September 10th, 1896) showing that measles may have a premonitory rash as is the case with variola and varicella. These eruptions vary in character, being scarlatiniform, morbilliform, and erysipelatous. They may even resemble red miliaria, showing small vesicles filled with a clear fluid surrounded by a pink areola, and accompanied by itching. The erythemata generally appear about the second day of the period of invasion, and disappear before the measles eruption, and they do not seem to affect in any way the invasion period of the disease, and the temperature course in no wise differs from the cases in which there is no such premonitory rash; nor does the subsequent condition of the patient show the least difference; moreover, there does not seem to be any serious constitutional effect similar to that following the erythematous eruptions met with in diphtheria, enteric and some other diseases. The author admits that the number of cases sufficiently recorded is as yet too small to warrant any statistics being drawn, but he thinks that these premonitory rashes are much more frequent in measles than is generally supposed.

### (48) Nervous Diseases of Syphilitic Origin.

COLLINS (*The Post-Graduate*, July. 1896) tabulates cases of tabes dorsalis and other diseases of the nervous system considered to be of syphilitic origin. The conclusions he arrives at from the study of the casebooks are as follows: (1) That exudative and degenerative diseases of the nervous system, due to syphilis, are most liable to show themselves at the end of the third and the beginning of the fourth decade of life. (2) Thorough and prolonged administration of antisyphilitic remedies during the activity of the virus does not seem materially to prolong this time limit. (3) That active and prolonged antisyphilitic treatment does not seem to prevent the development of such diseases as locomotor ataxia and general paresis. And, further, that the cases in which syphilis is confessed, and in which treatment has been most desultory and incomplete, are not more liable to the earlier development of or to the severe manifestations of either of these diseases, than those cases are in which the treatment has been all it should be. (4) That the administration of antisyphilitic remedies in the most approved way does not fulfil the requirement of cure, and that syphilis is often an incurable disease.

### (49) Nephritis due to the Bacillus Coli.

MACAIGNE *Archives Générales de Médecine*, December, 1896) divides nephritis due to the activity of the bacillus coli into two distinct categories: (1) The more frequent, in which the infection is from below, ascending; (2) the more rarely recognised form, in which there is a hæmic infection with the bacillus coli; the kidney being affected by a descending nephritis. From the latter he excludes cases where the presence of bacilli coli on the urine is merely a sign of the general infection, and where nephritis is not the chief disease. Hallé and Albarran have shown that the bacillus coli is the chief cause of ascending pyelonephritis. The author devotes this article based on three cases to the study of descending nephritis due to this microbe. For auto-infection to take place two conditions are necessary: (1) A breach of surface on the alimentary canal; (2) increased virulence of the bacillus. Diarrhœa satisfies both these requirements. The breach of surface may be in the mouth, and in one case followed a sore throat. Clinically and pathologically, descending nephritis due to bacillus coli is met with in two forms: (1) The epithelial; the symptoms are those of ordinary acute nephritis, and has three degrees of severity, slight, intermediate, and grave. Recovery usually occurs. The histological appearances are those of a glomerular and tubal nephritis combined. The bacillus coli is found in the urine. In this form the epithelial lesions are due either to the direct action of the micro-organism or to the effect of the toxin produced by it. (2) The suppurative form. There is fever, œdema, and albuminuria and casts, as in acute nephritis, but the amount of urine passed is not diminished; there is pyuria, and the disease resembles pyelonephritis or primary suppurative nephritis, but the ureters, etc., are healthy. Microscopically, the miliary abscess contains the colon bacillus. The abscesses may form as the result of emboli lodging in the glomerular vessels or on the intertubular vessels or—and to this point the author draws special attention—as the result of masses of bacilli inside the tubules of the kidney. In the latter cases, the abscesses are peritubular and not perivascular. There is glomerulitis and intense periglomerulitis and small cell infiltration. The renal tubules are stuffed with masses of the bacilli coli.

## SURGERY.

### (50) Surgical Treatment of Spasmodic Lockjaw.

KOCHER (*Sem. Méd.*, December 18th, 1896) gives an account of his treatment of a case of spasmodic lockjaw. The patient was a woman, aged 28. Some years previously she began to suffer from acute lockjaw. This came and went; she was, however, able to separate the jaws a little and to eat. Later it became necessary to open the jaws forcibly to feed her. Arthrotomy of the temporo-maxillary joint was performed, and a partially dislocated fibro-cartilage was excised. The lockjaw recurred in a few days. Prolonged treatment by wooden and india-rubber wedges only gave temporary relief; cocaine injected into the muscles gave none. A further operation was undertaken in which one of the insertions of the masseter, tem-

poral and internal pterygoid, were detached. From that time the spasm entirely ceased, and did not recur again for six years. At the present time they had again recurred, and another operation similar to the last was contemplated. Spasmodic lockjaw may follow organic lesion of the brain or may occur in Duchenne's disease. A painful peripheral affection—for example, pain consecutive to the cutting of a wisdom tooth, rheumatic arthritis of the temporo-maxillary joint, or rarely a painful lesion at any other spot in the body—may cause it. Reflex spasms are also met with in nervous hysterical subjects. None of these causes were, however, present in this patient. There is a manifest resemblance between spasmodic lockjaw and spasmodic wryneck, not only as regards their clinical manifestations, but also in respect of the effects of the various methods of their treatment. In either case ordinary suggestion does little, while detachment of the affected muscles gives very favourable results. These facts permit us to class this form of spasmodic lockjaw with spasmodic wryneck and convulsive tic in one nosological group of idiopathic spasmodic neuroses, differentiating it also from hysteria.

**(51) Treatment of Prostatic Hypertrophy and Retention by Cauterisation Through the Rectum.**

NEGRETTO (*Gazz. degli Osped.*, December 27th, 1896) records 4 cases of prostatic retention treated with much success by the above method. After thoroughly emptying the rectum the patient is anæsthetised and a rectal speculum passed, the upper part of the bowel is plugged with gauze, and then, under the guidance of the finger, a specially devised hook with graduated stems is passed into the prostate to steady it. The prostate is then cauterized with a Paquelin or galvano-caustic over the extent required. The operation only lasts two minutes. The bowels are kept confined for a few days, and a catheter kept permanently in the bladder for some time. On the sixth or seventh day a purge is given, and at the end of ten or twelve days the catheter is removed, and the patient can urinate by himself. The patients were 56, 62, 74, and 78 respectively, and had suffered from prostatic disease from three to five years on an average. In each case cauterisation *per rectum* not only speedily relieved the congestion, but caused a notable diminution in the size of the prostate. The author believes this method to be superior both in its immediate and remote effects to castration or excision of the vas deferens.

**(52) Acute Intestinal Obstruction following Resection of the Large Intestine.**

HEIDENHAIN (*Centralbl. für Chirurgie*, No. 49, 1896) reports the case of a man who, when convalescent after an operation for the removal of the cæcum and ascending colon for cancer, in which the ileum had been implanted into the side of the large intestine was suddenly seized with symptoms of acute internal obstruction. On the performance of a second laparotomy a distended loop of small intestine about 30 inches in length was found to have slipped into a space between a free margin of the mesentery and the stump of the colon. The distension of the intestine was found to be due, not to compression by the margin of the mesentery, but to a twist of the ileum close to its insertion into the colon. As it was found impossible to relieve the distension and to reduce the volvulus, in consequence of close adhesion of the proximal portion of the loop to other portions of intestine, and also to the abdominal wall, the free margin of mesentery was sutured to the adherent portion of intestine, and the commencement of the distended loop was opened to give exit to the intestinal contents, and fixed by means of Murphy's button to the portion of ileum between the twist and its insertion into the colon. The patient made a good recovery, which, however, was retarded by the formation of an intestinal fistula, through which the button was extracted. The author states that in this case it would have been impossible to fix the margin of the mesentery to the hepatic flexure of the colon as the structures were so far apart. It is suggested that under similar circumstances the dangers of subsequent intestinal obstruction might be prevented by closing the cleft between the mesentery and large intestine by a mass of omentum.

**(53) Treatment of Appendicitis.**

MCBURNEY (*Med. News*, vol. lvix, No. 24) points out that there is no medical cure for appendicitis, even though some cases recover without operation; and whilst he considers appendicitis a surgical disease, yet operation may not be necessary in every case. The true cause of this affection is probably a stoppage of the drainage from the appendix to the colon, and preliminary treatment is often worse than useless. The opium treatment relieves pain and discomfort, but entirely masks the symptoms at a most important time, for it is in the first twenty-four hours from the beginning of the attack that we can decide not only as to the diagnosis, but as to the probable course and result of the case. If in five or six hours there is no increase in urgency, the patient is not in immediate danger kept at perfect rest in bed; if in twelve hours there is still no increase in the severity of the symptoms, the patient should soon begin to improve. On the other hand, if the urgency of the case has steadily increased in twelve hours from the time when the diagnosis was made, an operation will probably be called for. After two attacks a patient is sure to have a third, and each attack renders operation more difficult and dangerous. All the advantages lie with operation between the attacks. In an operation during an acute attack the prognosis is worse. In operating between the attacks it is rarely safe to do so in less than two weeks after an acute attack. McBurney was formerly more willing to operate during the attack than he is now. The chief cause of death is delay of one sort or another. In abscess cases the sooner we operate the better.

## MIDWIFERY AND DISEASES OF WOMEN.

**(54) Sulphate of Quinine in Labour.**

SCHWAB (*Revue Obstétricale et Gynécologique*, December, 1896) vaunts the efficiency of quinine as an oxytocic. Whenever he has given it in the course of a simple lingering labour it has awaked or accelerated uterine contractions. Quinine, he maintains, stimulates uterine fibres when once they have begun to contract of their own accord. Like ergot, it does not set contractions going; hence it is not an abortifacient. Quinine has one distinct advantage over ergot; the contractions which it sets going retain their normal intermittent character. It acts rapidly—within twenty-five minutes as a rule. Large doses are needed; Schwab gives a gramme, that is, 15½ gr. in two "cachets," taken at an interval of ten minutes. He prescribes these two doses of sulphate of quinine particularly when the membranes are ruptured and it is advisable that the labour should be ended as soon as possible. It is harmless to mother and child alike, since, should it fail, dilators or forceps may be used, and there is no difficulty from the tonic contractions caused by ergot. Schwab warns obstetricians that, as the placenta comes away, when quinine has been used there is a slight tendency to internal hæmorrhage. Coules, as long ago as 1888, advocated quinine in abortion with retention of fœtal relics. Schwab has given the drug in three such cases with good results, the relics being quickly expelled, but he cannot feel sure how far the quinine contributed to the good result until further experience. Of its direct value in labour he has no doubt.

**(55) Papillary Ovarian Cystomata.**

OSCAR SEMB, in a monograph of more than 100 pages (Suppl. to *Norsk. Mag. for Laegevidensk.*, October, 1896) discusses the subject of papillary growths of the ovary in respect of their pathological anatomy and clinical features. Such growths are of three kinds—the true ovarian papilloma, the colloid papillary cystoma, and the papillary cysto-carcinoma; but Semb has also met with a case of endothelioma taking the form of papillary excrescences in an ovarian cyst. Twenty cases in all are described, seven of the first kind, two of the second, and ten of the third, whilst the endothelioma referred to makes up the total number. The ovarian papillomata form a clearly-marked group of tumours, which ought to be distinguished from papillary cysto-carcinomata. They resemble each other in their naked-eye characters, in the formation of excrescences on the outer surface of the cyst wall, in their im-

plantation on the peritoneum, and in the concomitant existence of ascites; further, both are frequently bilateral and intraligamentary in nature. But the ovarian papilloma is to be distinguished by the following characters: it is quite benign; its epithelial proliferation never invades surrounding tissues in a destructive way; it grows slowly and does not occasion cachexia; and it does not cause typical metastatic growths. Semb does not agree with the authors who think carcinomatous degeneration of the papilloma of frequent occurrence; generally it retains its benign character, even when it has existed for several years. On the other hand, the papillary cysto-carcimoma is from the beginning a true carcinoma, and not a papilloma with cancerous degeneration. The ovarian papilloma most often originates in the surface epithelium of the ovary; but in one case it seemed at first to be connected with the epithelium of the primary follicles. When extirpated, such a growth does not return; but the other ovary, even if apparently healthy, ought always to be removed also, for it will ultimately develop similar tumours.

#### (56) Fatal Poisoning by Arsenic in the Vagina.

HABERDA (*Centralb. f. Gynäk.*, No. 50, 1896) states that a maidservant from Styria, aged 25, was seized with vomiting and faintness on September 20th, left her situation in Vienna on September 22nd, and was picked up prostrate a day later and sent into a hospital. She was almost pulseless, and the abdomen was very tender; she pretended that she was menstruating, and no pelvic examination was made, but as she stated that she was constipated an enema was given, and a stool with bloody mucus came away. There was scarcely any pulse, and she died on September 25th. At the necropsy acute fatty degeneration and hæmorrhages in solid viscera were detected, and phosphorus poisoning suspected, so Haberda made a closer examination of the subject on order from the magistrates. He found icterus and hæmorrhages under the skin and in the muscles. The spleen was greatly enlarged, and there was recent fibrinous pelvic peritonitis. Arsenic poisoning was suspected; on searching the vagina a paper bag was found containing still a quantity of white arsenic in fine crystals. Acute inflammation of the vagina with false membrane on the labia minora and incipient sloughing of the rectal mucosa over the recto-vaginal septum were detected. The labia majora were very œdematous. The case was probably suicidal, as the deceased had told the hospital authorities that she was menstruating so as to throw them off their guard, though the pain must have been intense and desire for relief urgent. Haberda states that in the last century a peasant murdered three of his wives by introducing arsenic into the vagina after connection. Another wife murder was effected in the same way in 1799. In 1864 a single woman finding herself pregnant, attempted to produce abortion by this means, but killed herself thereby. In 1890 a prostitute was murdered by a man who by force introduced a quantity of arsenic into the vagina, wrapped up in a knot of horsehair.

#### (57) Pregnancy and Fibroid Disease.

FERNAND MONOD (*Bulls. de la Soc. Anatomique de Paris*, October-November, 1896) in the course of the description of a large myoma, states that the patient was 39, and had married when 16 years old. She had never had the least sign of menorrhagia or of pregnancy, till she was surprised by the complete cessation of the period for four months, and the development of great abdominal swelling. A bilobed tumour filled the abdomen. The left lobe rose above the umbilicus and distended the flank; it felt like a fibroid. The right rose as high as the umbilicus, and fluctuated clearly. There was also a large fibroid mass in Douglas's pouch. Monod, sen., removed the entire mass by complete abdominal hysterectomy. The uterus, as is not rare under the circumstances, was distended by hydrops amnii. The late occurrence of pregnancy is much more unusual.

#### (58) Fatal Rupture of Tubal Sac Four Years after Operation for Hæmatosalpinx.

ROCHET (*Journal d'Accouchements*, Liége, January 3rd, 1897) states that in August, 1892, a patient was operated upon at Antwerp for right hæmatosalpinx, presumably due to tubal gestation. At the end of December, 1896, she was seized with hypogastric pain after uterine hæmorrhage had continued for several days. The period had been regular. She was put under chloroform. The uterus was found to be bulky and pushed to the right; there was a mass as big as a fist in the position of the left appendages. The patient was allowed to rest in the wards for a few hours before she went home, as she desired. She died suddenly in the night. The left tube was discovered ruptured and gravid, and the peritoneum was full of clots. The uterus was as big as in the third month of normal pregnancy; a mass as large as a hen's egg, the nature of which is not stated, lay in its cavity towards the right cornu. The possible recurrence of tubal gestation after removal of a gravid tube has long been proved by several cases.

#### (59) Infantile Vulvitis a Congenital Disease.

KEIFFER (*Bull. de la Soc. Belge de Gyn. et d'Obstét.*, No. 10, 1896) publishes important observations on the question of vulvar and vaginal discharges in infants and children. He shows that as a part of the process of development an active desquamation goes on in the vagina about the sixth month, and the canal is soon filled with broken-down tissue. The permanent mucous membrane is not thoroughly developed even at term, when desquamation is still in progress. Hence under unfavourable circumstances infection by germs is very easy. Keiffer believes that a similar incomplete state of the conjunctiva favours ophthalmia in the newborn. The broken-down tissue, which fills the fœtal vagina, is found in abundance in the discharge of infantile vulvitis, of which, in Keiffer's opinion, it is the cause, having become infected. When not infected it simply escapes through the vulva, without causing any purulent discharge.

## THERAPEUTICS.

#### (60) Injections of Artificial Serum in Uræmia.

RICHARDIÈRE (*Union Méd.*, December 5th, 1896) has used large injections of artificial serum in two cases with good results. His practice is to bleed to 300 to 400 grammes, and immediately inject slowly into the cellular tissue 800 grammes of the serum at the temperature of the body. The serum is made after Hayem's formula, and is used aseptically. His first case presented intense dyspnœa, numerous mucous and subcrepitant *râles* all over the chest, and nearly all the subjective symptoms of Bright's disease, with extensive œdema. Under ordinary treatment the patient got worse, respirations rising to 48 per minute, with Cheyne-Stokes character, and suffered from hallucinations, so that six days after admission he was comatose, and dyspnœa was still increasing. Bleeding to 300 grammes, with injection immediately after, was followed by a fall of pulse-rate from 140 to 120: the temperature rose from 37.8° to 37.9°, and the respiration became slower and regular. During the next few days the urine increased in amount, then fell again, when Cheyne-Stokes breathing reappeared, and the state became alarming. The patient was bled again 250 grammes, and injected 800 grammes; a second injection was given six hours afterwards. Temperature rose 35.8° to 37°, and no further trouble occurred, although the œdema persisted; respirations remaining regular, and he remained free from somnolence, passing about 1 litre of urine in twenty-four hours. The second case presented signs of grave uræmia; injection was followed by improvement, which failed again in twenty hours. A second injection was followed by profuse diarrhœa, and caused permanent amelioration of the condition. He quotes other cases, and points out that the injection is harmless, though painful: it raises the temperature, slows the pulse, and steadies breathing previously irregular, and of a Cheyne-Stokes character, lessening the rate at the same time. It also increases the amount of urine, and seems to have a tendency to produce diarrhœa, which he looks on as favourable.

#### (61) The Bath Treatment of Scarlet Fever.

SCHILL (*Jahrb. f. Kinderheilkunde*, Bd. xliii, p. 260) reports the results of the systematic treatment of scarlet fever by baths. The cases numbered 110, of which 63 were treated by himself and 47

by Schellenberg. The temperature of the baths was 28° R. (95° F.), and each lasted 10 minutes. During the first week of the illness they were given twice a-day, afterwards once a-day. Of Schill's 63 cases, only 1, in which, in addition to nephritis, there was a submaxillary abscess, developed severe symptoms. Schellenberg had no case of nephritis among the cases in which the treatment could be carried out. Desquamation was observed only on the fingers, the daily baths removing the epidermis as it exfoliated. Schill believes that the scarlet fever poison is eliminated by the skin, and that the constant removal of the desquamating epidermis favours this elimination, and so tends to render the attack mild, and to prevent nephritis and other complication. For the same reason, he condemns fatty applications to the skin.

#### (65) Preventive Inoculation against Diphtheria.

Kármán (*Pester Med.-Chir. Presse*, October 18th, 1896) was entrusted by the Hungarian Government with the task of instituting measures for preventing the spread of diphtheria in a village and its neighbourhood. As general hygienic regulations accomplished nothing, he tried preventive inoculation with concentrated Preirz's serum—1 c.cm. for children less than 1 year old, 2 c.cm. for those between 1 and 3, and 3 c.cm. for those above 3. Among 114 children thus treated, there was during the next two months no case of diphtheria, although the disease was prevalent in the village up to the date at which inoculation commenced and continued to rage in the surrounding villages afterwards. During those two months only 1 case of diphtheria appeared in the village under consideration, and this was in an uninoculated child, while in the previous five months 18.3 per cent. of the village children had been attacked, of whom 8 died, 6 not having been treated with serum. Considering the wretched hygienic condition of the village, the harmlessness of preventive inoculations, and the continuance of the disease in the neighbouring villages, where diphtheria vaccination was not carried out, the extraordinary value of the inoculations in the prophylaxis of diphtheria can hardly be denied.

#### (63) Ichthyol in Insect Bites.

Ottinger (*Münch. med. Woch.*, December 8th, 1896) refers to cases in which considerable swelling and other local symptoms are due to insect bites. The local application of ammonia has not given him satisfactory results, but he has found ichthyol an excellent remedy. The pain, burning, itching, rapidly disappear, as well as the swelling. The author paints pure ichthyol over the wound, or a paste of ichthyol and lanolin or vaseline in equal parts may be used. Ten per cent. ichthyol guttapercha plaster can be recommended. Pure ichthyol or the ichthyol ointment should be reserved for the severe cases. The author has seen good results produced when the whole of the arm was swollen and painful. In such a case the arm can be painted with ichthyol, then covered with gutta-percha tissue, and the whole enveloped in ice.

#### (64) Antistreptococcus Serum in Purulent Dacryocystitis.

Boucheron (*Sem. Méd.*, November 18th, 1896) has used injections of Marmorek's serum in a case of dacryocystitis, which had resisted other treatment for several years. The first injection caused a great improvement; the second, given a fortnight later, the disappearance of pus from the sac, at the time benefiting the rhinitis; and the third, given eight days later, completely cured the patient. Boucheron suggests that prophylactic injections should be given when local ocular streptococcus suppuration is present, and the operations for cataract, etc., are to be performed, and also in wounds of the eye.

## PATHOLOGY.

#### (65) The Organism of Syphilis.

Van Niessen (reprint from *Wien. med. Woch.*, Nos. 36-40, 1896) replies at some length to the critics of his book on the syphilis bacillus, and adduces further evidence in support of his views. His later work has been carried on mainly in two directions: First, the comparison of micro-organisms stained in syphilitic tissues with those observed in pure cultures; and, secondly, the cultivation of the specific bacillus from the affected tissues. He has especially investigated syphilitic lesions of the brain and spinal cord. Sections of these were stained by Gram's method or cultivations made by imbedding little pieces in gelatine, so that one surface was left exposed to the light. On this numerous colonies soon developed, which were employed in further researches. The author claims to have infected eight rabbits in various ways, so as to produce secondary syphilitic lesions, but he has not yet succeeded in inducing the primary lesion upon the genitals. Owing to the great difficulty of excluding other causes, such as infection by tubercle and coccidia, his researches in these directions are not yet ripe for publication. He has, however, been able to demonstrate the "syphilococcus" in an excised primary sore of the prepuce, and also to cultivate it in gelatine mixed with the blood taken from the wound produced by the excision. The cocci were present throughout the tissues removed, but were particularly abundant, often forming emboli, in the deeper layers. Van Niessen is therefore convinced of the diagnostic value of the organism in primary affections, and although the results with later syphilitic lesions of the central nervous system are not as yet equally consistent, he is convinced that further improvements in investigation will render them equally available for diagnosis. His inoculation experiments are very striking. A pure culture of the organism from the primary sore above mentioned on veal broth was injected two months later into three rabbits, a goat, a guinea-pig, and a pigeon. In several of the animals typical hard sores developed, which in the pigeon took on a phagedænic course, while in the goat and one of the rabbits gummata developed. The syphilis thus produced in animals was characterised by slow and protracted symptoms, by a marked tendency to cell proliferation in the form of a tumour with necrotic centres, and by involvement of the capillaries and lymphatics. The author claims to have proved that his syphilococcus when injected in pure culture into animals will produce both the typical primary affection and gummatous tumours

#### (66) Degenerative Gastritis.

Hayem (*Sem. Méd.*, October 30th, 1896) describes two varieties of degenerative gastritis, the fatty and the inflammatory. Inflammatory degeneration of the gastric epithelium takes the form of serous or albuminoid infiltration. The former is characterised by the interposition of clear spaces between the epithelial cells; the latter is constituted by a genuine necrobiotic process. Sometimes the epithelial, and more particularly the adelomorphous, cells assume a granular form (granular disintegration, coagulation necrosis of Weigert), after which they become absorbed; at other times the epithelium undergoes a peculiar change, a kind of lamellisation which Hayem describes as an epidermoid condition. In addition to granular and epidermic necrobiosis there is also a chemical necrobiosis observed in subjects who consume alcohol, absinthe, etc., in excess. This shows itself under granular or transparent forms. In the granular variety the epithelial cells form small corpuscles in which neither nucleus nor protoplasm can be distinguished; this variety is met with in alcoholic subjects. Transparent necrobiosis is characteristic of those who consume excessive quantities of absinthe, and in some cases the transparent changes to a vesicular condition. The above changes should be distinguished from genuine sloughing which may be met with in the stomachs of alcoholic subjects. The different varieties of degeneration are observed chiefly in patients who have died of infectious diseases, and in confirmed alcoholics. Bacteriological researches carried on by Lyon show that a certain part is played by microbes in their production. In one case spirilla were detected in the cavity of the stomach; in another microbes were found in the intertubular connective tissue.

#### (67) Myoma Arising from the Wall of a Vein.

Cornil (*Bull. de la Soc. Anat.*, Oct.-Nov., 1896) records a tumour composed of smooth muscular fibres arising from the walls of the veins of the arm. In parts the tumour formed part of the wall of the vein, while elsewhere it projected into the inside of the vessel and greatly distended it.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

**(68) Congenital Malformation of Heart.**

RHEINER (*Virchow's Archiv*, vol. cxlvi, part 3, December, 1896) publishes a full clinical report of two cases of extreme malformation of the heart, where the infants lived to 8 months and 5 years respectively. The first seemed a healthy infant till she was seized with bronchitis. A loud double cardiac murmur was heard. She soon died. The interventricular septum was very deficient: the aorta sprang entirely, the pulmonary artery chiefly, from the right ventricle. The conus pulmonalis was absent: there was stenosis of the pulmonary artery, and complete separation of its valves. The right ventricle was greatly dilated and hypertrophied, the foramen ovale open, and the ductus arteriosus was not completely closed. The second patient was a girl, aged 5 years, almost an idiot, and subject to otorrhœa and caries of the petrous bone for five months. She had become cyanosed, and died of purulent meningitis. Notwithstanding the condition of her heart, she had been a fairly nourished child till her fatal illness. The heart sounds were very puzzling. At the necropsy extreme pulmonary stenosis was detected. The pulmonary valves showed hardly any division. The interventricular septum was deficient. The left tricuspid valve was fissured, and the right ventricle hypertrophied.

**(69) Toxicity of the Urine during the Douche-Massage Treatment.**

A. RANGLARET (*Annales d'Hydrologie*, November, 1896) has studied the action of the douche-massage, the most original part of the treatment at Aix-les-Bains. He finds that after eight or ten consecutive daily applications there is a decided reduction of the body weight. The action of the douche-massage is rather on the general nutrition of the body than on the cardio-vascular system. It causes a slight diminution in the total quantity of the urine, with increase of the organic elements (urea and uric acid), and decrease of the mineral elements (chlorides and phosphoric acid). The urinary toxicity is increased even in healthy persons if they undergo the treatment. Since the work of Feltz and Ritter in Germany, and of Bouchard in France, many experiments have been made on the subject of urinary toxicity. According to Mairet and Bosc, whose methods have been followed by the author, the average amount of normal human urine which must be injected in order to kill a healthy rabbit amounts on the average to 80 c.cm. per kilogramme of the animal's weight. Ranglaret found the amount per kilogramme of the animal's weight required was 53 c.cm. of the urine from a healthy man on the second day of treatment; 50 c.cm. from the same man on the third day; 44 c.cm. from the same man on the fourth day. Then the urine become less toxic again; 66 c.cm. were required on the sixth day, and 90 c.cm. on the ninth day. Ranglaret found the urinary toxicity was especially great in a patient undergoing the treatment, and was particularly little in another patient who had been treated for several days already.

**(70) The Influence of Heredity in Mitral Disease.**

SERVIN has recently made this question the subject of investigation (*Journ. de Méd.*, September 10th, 1896). He finds that it is not uncommon for parents to transmit to their children visceral as well as external characteristics, and of all the viscera the heart seems the most susceptible to hereditary changes. Of these changes pure mitral stenosis would almost seem to be a variation in structure rather than an actual disease. Three points are found to obtain in this condition: (1) The mitral stenosis is fairly common, but may not manifest itself until somewhat late, and then as the result of some alteration of circumstances, such as unusual effort, fatigue, pregnancy, etc, (2) Certain observations go to show that some subjects of mitral stenosis have procreated children affected in the same way. (3) The mitral stenosis may be a family affection, that is to say, one may meet with it in several brothers and sisters. The author does not seem prepared to say what influence the father or mother may have in transmitting this condition. He thinks the question is of great importance, and one that is not sufficiently known, for he says much trouble and suffering can be saved if on the discovery of mitral stenosis in a parent the children be carefully examined, in order to ascertain their cardiac history; for under these circumstances exercise, avocation, and food can be regulated so as to avoid a sudden break down of cardiac vigour. It seems more particularly important in the case of women who so frequently suffer from the effects of mitral stenosis during pregnancy.

**(71) Ankylostoma Duodenale.**

ZINN AND JACOBI, of Gerhard's clinic (*Berl. klin. Woch.*, September 7th, 1896), describe the presence of this parasite in the alimentary canal of negroes without the occurrence of a secondary anæmia. The fæces were carefully examined in 23 negroes coming from West and East Africa and from New Guinea. The stools were mostly well formed, brown, and contained no blood or mucus. The ankylostoma was present in 21 cases, the trichocephalus dispar in 8, ascaris in 8, the anguillula in 4, tænia in 4, and amœba in 2. In the 2 cases without the ankylostoma, 1 had a long-continued diarrhœa, and the other had been resident in Germany for four years. The number of quite characteristic ova was not small. In 3 cases convalescent from pneumonia the red cells were present in the usual numbers and were healthy. In 1 case an ankylostoma was passed spontaneously. The anguillula has often been found along with the ankylostomum. In the 2 cases with amœba the ova of the ankylostoma and ascaris were also found in 1 case, and there was a long-continued diarrhœa in the other. In the latter case the amœba appeared to be pathogenic. The authors discuss the occurrence of Charcot-Leyden crystals in the stools of those with intestinal entozoa. These crystals were found in 8 of 16 cases carefully investigated. In 2 there were crystals but no ova; in 1 case, however, amœbæ were present. Both with the anguillula and the ankylostoma the presence of the crystals is not absolutely constant. From their researches the authors think that the endemic occurrence of the ankylostoma in negroes is probable, but that the parasite does not necessarily set up symptoms of disease. The parasite may, however, be transferred to another individual. The slight inconvenience caused by the ankylostoma in the negro may be a race peculiarity. Lussano has found in the urine of ankylostomiasis a poison destructive of red blood cells. The ill effects produced are not only due to hæmorrhage, but also to this toxin. The question of immunity against this intoxication has thus also to be considered. As the negro becomes more civilised, the change in mode of life will cause the parasite to be less frequent. In the European there is always a danger of ankylostomiasis against which precautions must be taken. In negroes in Europe, the stools should be examined and anthelmintics used if necessary. The clinical significance of the anguillula is much debated; in the 4 cases noted here no symptoms were produced. The harmlessness of the trichocephalus dispar has recently been denied. The alimentary canal of the negro contains many parasites.

## SURGERY.

**(72) Successful Tendon Grafting.**

LEON DESQUIN (*Belg. Méd.*, December 24th, 1896) draws attention to the usefulness of tenoplasty as an alternative to amputation in cases where destruction of tendons has followed suppurative tenovaginitis or deep whitlow. He records the following successful cases. Case 1. A blacksmith, aged 19, could not flex the right index finger through destruction of the flexor tendons by deep whitlow. Tenoplasty was practised some weeks after healing of the whitlow. An incision was carried from the pulp of the index finger along the normal course of the tendons as far as 6 to 7 centimetres above the wrist articulation. In the finger the bistoury cut down to the bone, in the palm the fascia was divided, and above that the annular carpal ligament and common flexor sheath were opened. The search for the tendon ends proved easy below, where a few tags remained adherent to the phalanx, but difficult at

the wrist. At length one was found lacking 10 centimetres of its length. To supply the gap an equivalent of the superficial tendon was taken. This was cut near its origin, and drawn down strongly until it could be sutured peripherally. The upper end of its lower fragment could then be sutured with silk to the lower end of the deficient deep flexor. The superficial parts were next accurately sutured, and the hand immobilised, with the fingers semi-flexed. Despite some suppuration, and the exposure of the transplanted tendon during a week over a small distance in the first phalanx, where the incision had divided purely cicatricial tissue, no exfoliation ensued. The result, as shown two years later, was perfect, flexion being performed as freely and strongly as in the other fingers. Case II. A carpenter, aged 25, had the right middle finger in permanent extension owing to the severance of the flexor tendons by broken glass. The small wound over the first phalanx had healed by first intention. The man came to the author thirteen months later seeking amputation. Tenoplasty was performed, the incision being similar to that in Case I, except that the annular ligament of the carpus was respected. The search for the tendon ends at the wrist was again difficult, the deep flexor not being found with certainty. There was wanting in this case 4 to 5 centimetres of the superficial tendon. By strong traction on the central end of the superficial tendon (seized in the palm of the hand) it could be brought in contact with and sutured to the phalangeal end. This could only be done by strongly flexing the finger, and it would have been impossible to unite the superficial parts over the tightly stretched tendon. Returning to the wrist, therefore, the tendon was cut at its muscular attachment, with a small piece of muscle adhering. The finger was then extended, and the divided tendon stitched above to that for the index finger, so that the flexor of the latter on its contraction acted upon both fingers. The result was perfect. After four weeks the fingers could all be flexed simultaneously or the index and middle together, the others remaining extended. The author remarks that if the tendon ends cannot be quite approximated, a plaited suture at a distance, of silk or catgut, etc., may succeed.

**(73) Defects in the Tracheal Wall.**

F. König (*Berl. klin. Woch.*, December 21st, 1896) describes the closing of these defects remaining after tracheotomy. He reports a case tracheotomised some three years previously, in which there were difficulties in leaving out the tube. Stenosis of the trachea may be due in these cases to polypus formation, sucking in of the edges of the tracheal wound, etc. The author specially draws attention to cases in which symptoms of suffocation arise gradually or at once on leaving out the cannula, and in which these symptoms are directly due to the defect in the tracheal wall. The wearing of the cannula thus becomes absolutely necessary. In the case of the boy, aged 11, reported here, granulations were scraped away from the trachea, and dilatation of the trachea had to be effected by bougies. It still remained impossible to leave out the cannula. A year after the high tracheotomy the bulging of the tracheal wall was visible in the laryngeal mirror. Ultimately it became necessary to take away a portion of the cartilaginous ring to remove the stenosis, but the cannula had to be reintroduced ten days after this operation. Eventually, when all stenosis had disappeared, the question of closing the tracheal fistula arose. A mere closing of the soft parts would have led to a fresh stenosis by the sucking in of these soft parts. The author then devised a new procedure for remedying the defect in the trachea. He raised a flap from the right side of and above the fistula, including a portion of the thyroid cartilage, which was thus split parallel to its surface. By means of this flap he covered in the tracheal defect, having previously attached to its under surface a small fold raised from the right side of the tracheal fistula. Five weeks after the operation there was no trouble with the breathing, and the patient spoke with a voice as good as a defective vocal cord would permit. Schimmelbusch closed a large defect in the trachea by means of an osteoplastic operation from the sternum. Resection of a portion of the trachea with a circular stitching has been practised by Küster. The defect in the trachea must be closed by some solid material even in small fistulæ, owing to the suction. In case of large defects Schimmelbusch's method should be adopted, but the smaller fistulæ are best repaired by the above described procedure.

**(74) Prolapse of the Liver treated by Suture.**

Ferrari (*Supplem. al Policlinico*, December 26th, 1896) records the case of a woman, aged 24, whose liver was completely rotated about its transverse axis, so that the superior surface was turned in front, and the anterior margin became inferior. The patient suffered great pain, which necessitated constant rest, and caused loss of flesh. Laparotomy was performed, and the liver freed from many strong adhesions holding it in its abnormal position, was fixed with four catgut sutures through the entire thickness of the hepatic substance and the abdominal parietes in a normal position. To prevent displacement from giving way of sutures the liver was kept in position for some time by a mass of iodoform gauze against the inferior surface of the liver, and for a month the patient was kept with the pelvis highly raised. The post-operative course was normal, and the patient remained well and free from all pain six months after the operation.

**(75) Laparotomy in Acute Pancreatitis.**

Allina, of Hofmokl's clinic, records (*Wien. klin. Wochenschrift*, November 5th, 1896) the case of a patient who was attacked with sudden and rapidly increasing abdominal pain, upon which vomiting soon supervened. No fæces or flatus was passed, and the patient was admitted to the hospital. There was a history of heartburn after food and also of constipation. On examination the pulse was small and quiet, the abdomen retracted, tender, and tympanitic. The urine contained neither albumen, sugar, nor indican. Irrigation failed to bring away a stool, and as stercoraceous vomiting came on laparotomy was performed on the day after the onset. About 5 drachms of turbid fluid escaped, but the gut was everywhere collapsed, and no basis for the physical signs could be detected. The abdomen was closed, and the patient died collapsed next day. At the necropsy hæmorrhagic pancreatitis was found, with necrosis and hæmorrhage of the cellular tissue of the mesentery. There was also general hæmorrhagic and purulent peritonitis. The exact simulation of the symptoms of intestinal obstruction and the absence of sugar in the urine are noteworthy features in this case.

## MIDWIFERY AND DISEASES OF WOMEN.

**(76) Oxygenised Water in Uterine Hæmorrhage.**

Petit (*France Méd.*, November 13th, 1896) has found oxygenised water a useful styptic in the diffuse bleeding of acute metritis, and in that due to fibroids which leave the uterine cavity sufficiently accessible. If a stem trimmed with cotton wool dipped in water containing twelve volumes of oxygen, and not allowed to dry in the air, be rapidly introduced to the fundus, an abundant froth pours from the outer os, and the uterus contracts upon the stem, though not so quickly or intensely as after the application of perchloride. After the discharge of a few drops of serum, more or less coloured by hæmatin, the hæmorrhage is immediately arrested; there is no pain, no modification of the tissues, except a slight bleaching of the mucosa, due rater to the decomposition of the liquids than to any caustic effect. The hæmostasis persists for days, enabling the woman to regain strength, and after one or more successful applications, undergo, if necessary, an appropriate radical operation.

**(77) Skene's Tubes and Chronic Gonorrhœa.**

Ehrmann (*Wien. med. Presse*, No. 52, 1896) has made a discovery in relation to the question of the "tubes" on the border of the female urinary meatus, which are of practical interest in that they are suspected of harbouring gonorrhœal virus. Pathologists and embryologists trace these tubes to Gärtner's ducts; but Ehrmann has discovered a similar "paraurethral duct" in a male subject opening at the border of the prepuce close to the frænum. He also removed a duct and surrounding tissue from the inner surface of the prepuce of a subject with gonorrhœa; this duct led

to a distinct sebaceous gland, and hence was a purely epidermic structure. Hence we are not at all certain about the morphology of these ducts near the urethral orifice in either sex, but we may feel sure that they must be taken into account in the treatment of gonorrhœa.

**(78) Post-partum Hæmorrhage: Danger of Gauze.**

SCHAEFFER (*Rev. Obstét. Internat.*, December 1st, 1896) agrees with those who distrust gauze as a material for uterine tampons in cases of flooding. If impregnated with iodoform or some other antiseptic, there is no danger of sepsis. If, however, it should happen, as is often the case, that the tampon fails to stimulate uterine contractions, and if when the bleeding is from a lacerated cervix the plug does not cause the torn artery to close by thrombosis, the gauze increases the danger, for it acts as a capillary drain and takes up much blood. All who have attended many labours know that the tolerance of hæmorrhage is very irregular in different subjects, and an apparently trifling loss will kill certain women. Hence the best rule in flooding is not to allow one drop more to be shed if possible. Gauze, above all if "absorbent"—which simply means more absorbent than commoner material—takes up many drops of blood at least. Schaeffer now uses non-absorbent gauze, prepared by impregnating it with gutta-percha. It can be mixed with iodoform or airol. By rolling it up into a ball it can be passed into the uterus, which it distends without absorbing any more blood. As a tampon the gutta-percha gauze retains its elasticity. Hence Schaeffer finds it suitable for inducing abortion.

**(79) Flooding at Puberty.**

BÉCIGNEUL (*Journal d'Accouchements*, Liége, January 3rd, 1897) was called to see a girl of 13 attacked with profuse uterine hæmorrhage. The first period began with the usual phenomena, but the show lasted a fortnight, and after an interval of a week reappeared and continued for a fortnight, when Bécigneul was consulted. Rest, cold drinks, and ergotine were of no avail. The parts were explored, and the uterus and ovaries appeared to be thoroughly well developed. An intrauterine injection of water at 113 F. at last stopped the flooding, which was becoming serious. Five days later the patient got up, the bleeding recurred, and an injection was thrown up into the uterus. The flooding ceased, but not so quickly as before. For a month the patient was kept in bed, and the injections were continued daily. Menstruation was afterwards definitely established. This patient seems to have suffered from the idiopathic metrorrhagia occasionally seen in young subjects. Bécigneul found that she had no sign of hæmophilia besides the bleeding, no cachexia of any kind, and no heart or liver complaint. She had never been attacked by any infectious disease; diabetes, albuminuria, and inherited syphilis were excluded, nor was there any evidence of poisonous diet. The uterus showed no sign of disease. The above negative history appears to be the rule in this flooding at puberty or "metrorrhogia of adolescence." Bécigneul admits that the theory of reflex irritation as a cause explains nothing.

**(80) Absence of Uterus: Tumour in Inguinal Canal taken for Hernia.**

ROCHET (*Bull. de la Soc. Belge de Gyn. et d'Obstét.*, No. 10, 1896) operated on a woman, aged 52, who for several years had had a tumour in the right groin, reducible at first but recently irreducible. It was as big as a hen's egg. The patient had never menstruated, and had been married for thirty years without ever noting the least symptoms of pregnancy. Absence of the uterus had been diagnosed already. Ascites was present. Rochet suspected hernia of the ovary. He laid open the inguinal canal, and discovered an oblong tumour over 2 inches long. It was connected with the peritoneal cavity by a band which bore large vessels, and resembled the spermatic cord rather than the broad ligament. The band was tied and divided, and when Rochet explored the abdominal cavity, he failed to find any trace of a uterus or broad ligament. There was suspicion of sarcoma of the omentum. The tumour was a fibrous mass, including traces of glandular tissue of uncertain nature.

## THERAPEUTICS.

**(81) Large Doses of Digitalis in Pneumonia.**

BARTH (*Sem. Méd.*, December 25th, 1896, discuses the treatment of pneumonia by the administration of large doses of digitalis continued without interruption until defervescence occurs. He instances two patients who were successfully treated in this way, one an elderly man worn out with hard work and strong drink; the other a feeble, neurotic patient, deformed by spinal curvature, and suffering from malaria, influenza, and general bronchitis. Large doses were given. Two grammes of the powdered leaves of digitalis were infused in 100 grammes of water, 25 grammes of rum, and of infusion of orange peel added, and a tablespoonful of the mixture given every two hours. Hirtz, of Strassburg, demonstrated that the average duration of fever was markedly shortened, and never met with a case of poisoning or serious ill-effects in the course of treatment by digitalis. Petrescu (Bucharest) gave to young robust soldiers suffering from pneumonia 6 to 8 grammes daily for several days. He observed no *malaise* or toxic effects. The temperature fell 1 to 3 degrees in one day, 5 to 6 in two days. Out of 825 cases he had only 17 deaths. Finkl reduced his mortality from 17 per cent. to *nil*. He gave small doses—2 to 3 grammes. Under the combined influence of the mechanical obstruction of the pulmonary arterial area and the paralysing action of the pneumococcic toxins the heart is liable to failure; this is the chief, if not the only, danger, and is the one met by the administration of digitalis. Large doses may cause complete fall of temperature, but this artificial defervescence twenty-four to forty-eight hours earlier than the normal is not proved to be advantageous. It is frequently followed by a rise, and the course of the disease is not perceptibly shortened. As regards symptoms following the administration of digitalis, hypothermia, slowing of the pulse, vertigo, and cerebral depression are without gravity in the young and robust; but with old, alcoholic, or weak patients it is better to employ it in doses calculated to increase the action of the heart, to diminish the congestion of the lung, and to facilitate the diuresis necessary for the elimation of pneumonial toxins. All grave cases of pneumonia in which treatment by baths is contraindicated or impracticable should be treated by the administration of digitalis.

**(82) Serum Treatment of Diphtheria.**

CUNO (*Deut. med. Woch.*, December 24th, 1896) records the results obtained in Dr. Christ's Children's Hospital in Frankfort during the past two years. Of 483 cases thus treated 282 were severe, 112 moderately severe, and 89 slight. The total mortality was 10.5 per cent., but if those dying within twenty hours and those subsequently dying of diseases independent of the diphtheria were subtracted, the mortality would have been further reduced to 7.03 per cent. In the years from 1889 to 1894 the mortality varied from 32.6 per cent. up to 43.8 per cent. No local treatment was adopted in these cases, but measures were taken to maintain the patients' strength, and to ward off the cardiac debility. In the cases complicated by albuminuria and nephritis, warm baths were avoided as likely to damage the weakened heart. No. 3 Behring's serum was injected on admission, and if the child's condition did not improve further injections were given. The good results became apparent in thirteen to fifteen hours. A markedly rapid healing of the local lesion was not observed. An extension to the air passages during treatment was never seen. One hundred and twenty-five children were admitted with commencing or severe stenosis of the larynx. In 71 of these cases the threatening symptoms gradually became less, often much against expectation. Tracheotomy was done in 54 cases, and of these 17, or 31.5 per cent., died; but in 2 cases death was really due to tuberculosis. Albuminuria was noted in 126 cases and acute nephritis in 4, but there was no obvious connection between the serum treatment and the nephritis. In 76 cases a more or less marked degree of cardiac weakness was present, for which alcohol and camphor injections were used. The number of cases of paralysis were, in the author's opinion, less than usual. Among 640 injections a local abscess appeared eight times, often due to the child pulling off the protective plaster. In 104 cases an exanthem was noted, and joint pains in 21 cases. In

363 cases examined bacteriologically diphtheria bacilli were found in 291 cases, and of these 13.05 per cent. died. The author concludes by drawing attention to the obvious value of the serum treatment in reducing the mortality from an average of 37 per cent. during five years to 10.5, or really 7.03 per cent. during the past two years.

**(83) Europhen.**

SAALFELD (*Lewin's Festschrift*, Berlin, March, 1896) recommends europhen as the best substitute for iodoform in many dermatoses; it has no smell, and it does not irritate inflamed skin. In varicose ulcers with eczema it is of great value, for it has a beneficial effect on the eczema. It may be applied in powder, either alone or mixed with powdered boric acid. As an application in the intertrigo of children he recommends: R europhen 5.0; lanolin anhydr. 5.0; talc. venet. ad 100.0. He has also found it of much value in pustular affections and folliculitis, in the form of a 10 per cent. ointment with lanolin, as well as in cases of pemphigus vulgaris and impetigo.

**(84) Tannigen in Intestinal Affections.**

J. VANDENBERGHE (*Belg. Méd.*, December 24th, 1896) remarks that hitherto attempted disinfection of the alimentary canal *per os* has not greatly succeeded. The chief obstacles to be overcome are too early absorption of the antiseptic, that is, before it reaches the affected parts; secondly, the prevention of decomposition of the antiseptic also during its early passage. Even if the drug reaches the bowel in relatively important quantity it finds itself spread over so large a surface and mass of contents as to destroy a seriously antiseptic effect. This difficulty in influencing directly the bowel contents has led to the trial of those substances which act on the bowel wall, and thus indirectly combat the phlogoses. Such remedies are the astringents, and notably tannin. The difficulty of a too rapid absorption has been overcome by etherising the tannin (as had been done with the aromatic esters, betol, salol, etc.). The tannic esters do not become changed till they reach a sufficiently low level. They there exert their astringent action. Tannigen or diacetylic tannin was first utilised by H. Meyer and J. Müller. Its anticatarrhal, antidiarrhœic action was reported by them as most obvious. The author confirms their experience. In twelve cases of various enteritis, acute and chronic (ten children, two adults), he prescribed tannigen in doses ranging from 0.5 to 2.5 gr. a day with much success. Its exhibition coupled with proper feeding repeatedly resuscitated children doomed otherwise to die of autointoxication and exhaustion. A typical case of its value is the following. D., a farmer, emaciated and collapsed, face subicteric and greatly altered, had six months endured gastro-intestinal pains with abdominal tension and vomiting. Abundant serous diarrhœa with colic alternated with constipation, sometimes obstinate. The food passed through the bowel to appear almost unchanged in the stools. The abdomen was distended, the liver slightly enlarged. The diagnosis was infective gastro-enteritis due to lapses in diet and dissipation. Treated by strict diet, boiled milk, toast, eggs, etc., and salicylate of bismuth with calumba for eight days without success. Benzonaphtol given during similar period with very slight improvement. Tannigen was next given (2.5 gr. in twenty-four doses, to be taken every hour day and night), there being as many as twenty stools a day at this time. Astonishingly rapid improvement followed, and complete recovery resulted.

**(85) Airol.**

TAUSIG (*Wien. med. Presse*, October 11th, 1896) gives his experiences with airol as follows: Two cases of whitlow; both showed a marked diminution in secretion. Five of boils; the discharge ceased in two days, cure was complete in five at longest. One of carbuncle, with redundant granulations after incision; under treatment with airol these were replaced by healthy granulations in four days, and cicatrisation was complete in eight. Two chronic ulcers of the foot; healed within a week. One case of otitis media; discharge disappeared in four days. Two of soft sore; cured within five days. The author calls special attention to the value of a 10 per cent. emulsion of airol in glycerine as injection in gonorrhœa. He has used this in three cases of acute and three of chronic gonorrhœa, all of which have recovered within ten to fourteen days after three to ten injections, never repeated more often than once daily. In trachoma the powder is valuable, when dusted on after the instillation of cocaine, to prevent smarting. Tausig found that in four cases the trachomatous conjunctivitis disappeared in three days; in one of them the granules also vanished in twelve days, but in the others these were not benefited. No toxic effects were observed, and the author supports strongly the favourable opinions which have been expressed in regard to airol as a substitute for iodoform.

## PATHOLOGY.

**(86) The Mouth and Throat, and Their Resistance to Pathogenic Organisms.**

HUGENSCHMIDT (*Annales de l'Institut Pasteur*, October 25th, 1896) has inquired experimentally into the reason why wounds of, or operations on, the buccal cavity are so seldom followed by infective complications. (1) Bactericidal power of the saliva: Petit, Sanarelli, and recently Albert Mills, have affirmed this power. Sanarelli, however, used filtered saliva as a culture medium, which contains only 0.15 per cent. organic matter. The author inoculated saliva passed through a Chamberland's filter with cultures of various organisms, and then inoculated gelatine tubes with it directly, and after leaving it at 37° C. for a quarter, one, twenty-four, and forty-eight hours respectively. In other experiments the saliva was previously heated to 60° C.; 37 experiments showed that the bactericidal action of saliva is very questionable, organisms increasing in number rapidly in it. Saliva warmed to 60° C., and thus deprived of the bactericidal principles analogous to those of blood serum, is more fatal to torula and staphylococcus aureus than before, but warmed or not it has no action whatever on sarcinæ, streptococcus, or cholera vibrios. (2) Mechanical action of saliva: Organisms are diluted and swallowed so that the gastric juice destroys many of them. (3) Sulphocyanide of potassium was proved in a solution of 0.06 to 0.20 per 1,000 to have no bactericidal power. (4) Phagocytosis and chemiotaxis. (*a*) Experiments with unfiltered saliva: In the mouth and pharynx there is a true lymphatic sac containing crowds of various kinds of phagocytes under the epithelial layer. Leucocytosis here is a physiological act, and migratory cells are constantly passing on to the mucous surface between the epithelial cells. The saliva was proved to possess the property of positive chemiotaxis, which accelerates the accumulation of leucocytes. The clear fluid obtained on the surface of human saliva after standing in test tubes was introduced into capillary tubes closed at one end. The latter were then placed in the peritoneal cavity of guinea-pigs or mice for eight hours, when a plug of leucocytes about 2 mm. long was found in the interior. Saliva which had previously been kept for twenty-four hours in the warm, and which contained more organisms, produced a longer plug, showing that the attractive power increases with the strength of the culture. Saliva of animals (guinea-pigs and mice) attracts the leucocytes of the same animal. Control tubes containing broth cultures of staphylococcus aureus, which exerts a positive chemiotaxis, and normal saline solution which exerts none, were also used. Stained cover-glass specimens showed that the leucocytes in the tubes were mostly polynuclear phagocytes. This positive chemiotaxis becomes very marked if there is an open wound in the mouth, the surface being quickly covered with a white layer of leucocytes. These were proved by stained specimens to be able to swallow and destroy different kinds of organisms present in the mouth. Normal saliva does not contain streptococci, but if a guinea-pig's mouth is wounded and a virulent culture inoculated into the saliva, chains of streptococci are found in the leucocytes covering the wound after four hours, and healing is rapid. Thus the resistance of the buccal tissues is due to phagocytosis. (*b*) Experiments with filtered saliva showed that the positive chemiotaxic power is due not to the saliva itself, but to its contained organisms. (5) Other agents in resisting bacterial invasion are the constant normal desquamation of epithelium, which dislodges quantities of microbes, which are then swallowed with the saliva, and the diminution in the number of varieties present by the struggle with the common salivary saprophytes.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

### (87) Downward Displacement of the Stomach.

BIAL, of Renvers's clinic, (*Berl. klin. Woch.*, December 14th, 1896) says that the relation of enteroptosis, including gastroptosis, to nervous affections of the intestinal tract is of considerable interest. He has investigated the changed position of the stomach in men, as they are less susceptible to functional nervous affections than women. He has examined 50 men of various ages, and those were selected in whom gastroptosis was suspected, including some with and others without gastric symptoms. To determine the position of the stomach, air was forced into it through the tube which had been used to withdraw the test meal. In this way the position of the greater and lesser curvature can be ascertained. The results obtained were controlled by percussion and palpation. The author gives these results in two classes: (1) Persons in whom there was a flat and a more or less paralytic thorax or other thoracic abnormality, and (2) persons with more or less downward displacement of the lower margin of the lungs. There was also a small group of cases with no abnormality of any kind. In ricketty and other deformed chests, as well as normal chests, with downward displacement of the diaphragm, dislocation of the stomach was frequently found, but these abnormalities do not necessarily produce it. There was gastroptosis in 12 of 18 cases with thoracic deformity, and in 18 of 26 cases of emphysema. Thus dislocation of the stomach is not such an uncommon event in men. In 17 of the 36 cases with displaced stomach there was no trace of gastric symptoms. In women also with well marked gastroptosis no complaint may be made, and yet others with only slight displacement may present marked symptoms. Among those with gastroptosis there were the characteristic pains, etc., in 4 cases, and in 2 of these there was hyperacidity; in the remaining 2 the symptoms disappeared under general treatment directed to the nervous system. In one case with gastric crises, dislocation of the stomach was present, but in 2 other cases of locomotor ataxia there was gastroptosis without crises or gastric symptoms. In the cases with gastric disturbance but no nervous symptoms, the motor or sensory functions of the stomach were mostly impaired. The gastroptosis may very possibly produce motor insufficiency, but other causes were present here, such as phthisis. In some cases with downward displacement of the lower margin of the lungs, chronic alcoholism was also present. Thus in nearly all the cases conditions were present sufficient to explain the gastric symptoms without appealing to the gastroptosis. Thus this gastroptosis is not to be included among ordinary causes, but undoubtedly gastric symptoms may be produced or accentuated by it. Usually changes in the position of the stomach in man do not produce symptoms. The difference between men and women in this respect must be due to the different vulnerability of the nervous system.

### (88) The Roentgen Rays in the Diagnosis of Pleurisy and Phthisis.

CH. BOUCHARD (*Sem. Méd.*, December 9th and 23rd, 1896) found that if a patient were placed between a Crookes's tube and a fluorescent screen the side of the thorax occupied by an effusion presented a darker tint than the healthy one. If the effusion did not fill the whole cavity the apex was clearer, and the upper border of the darker part corresponded to the upper limit of dulness on percussion. The mediastinum was seen as a shadow (in the case of right pleural effusions) to the left of the sternum, the apex being above and the base continuous with the opacity due to the heart. He was first led to use the same method in phthisis by observing in one case of pleurisy that the apex remained dark after a clearer zone had appeared in the middle of the thorax. Percussion and auscultation showed that there was consolidation at this apex. In all phthisical patients subsequently examined the shadows of the pulmonary lesions were seen. As a rule they corresponded to what one would have expected from the physical signs. In two cases clear patches on a dark ground marked the position of cavities already diagnosed by their physical signs. In two others, however, where cavities were diagnosed nothing abnormal was seen by the *x* rays. In one case where general symptoms pointed to commencing phthisis, but abnormal physical signs and bacilli in the sputum were both absent, the rays proved that one apex was more solid than the other, and a few days later bacilli and physical signs appeared. The author hopes the *x* rays may prove as useful to medicine as to surgery.

### (89) Widal's Typhoid Test.

COMBA (*Rif. Med.*, December 14th and 15th, 1896) furnishes confirmatory evidence of the value of this test in 13 cases reported by him. In every case of typhoid the reaction was positive; in other diseases it was negative. In the early days of the disease the reaction may fail. It is present during convalescence, although rather less marked. The bacillus coli gives a similar reaction, but much less marked, indeed not more than may be observed in patients affected with other infectious diseases. Each of the 13 cases is more or less fully recorded.

### (90) The Phonendoscope.

AUFRECHT (*Münch. med. Woch.*, December 29th, 1896) finds no special advantage attached to this instrument when used to render audible sounds and murmurs produced in organs; in determining the size of the organs, however, he thinks it of considerable value. For this latter purpose he refers particularly to the friction method, which consists in drawing the finger over the skin surface while auscultation is practised. With the ordinary methods it may be quite impossible to determine the shape and size of the heart, or its enlargement in cases of emphysema. By the above-mentioned method of using the phonendoscope, the size of the whole heart or of the ventricles and auricles may be exactly ascertained. The determination of the size of the ventricles, and especially of the right auricle, may be of great value in the diagnosis of some cardiac lesions. Relations of a pathological character must not be overlooked if mistakes are to be avoided. In three experiments carried out on the dead body the cardiac limits were wrongly placed owing to hydro-pericardium, carcinoma of the lung, etc., but in eight other cases the boundaries of the whole heart and of its individual parts were correctly mapped out. In other cases a diagnosis made during life by the friction method was confirmed after death. The author, however, draws special attention to the fact that the phonendoscope itself is not absolutely indispensable to the friction method, as its place may be taken by an ordinary stethoscope. He has modified the ordinary wooden stethoscope by attaching to it tubing and an earpiece, so as to make it available for this purpose.

## SURGERY.

### (91) The Surgery of the Liver.

KOUSNETZOFF AND PENSKY (*Rev. de Chir.*, December, 1896) give the results of extended clinical study and experimental research brought to bear on several practical points in connection with partial resection of the liver. A ligature applied to hepatic structure, if but slightly constricted, will not sufficiently guarantee against both primary and secondary hæmorrhage. The elasticity of the liver, it is stated, is so considerable as to hold in check a loosely-tied ligature, and the vessels in the middle of the pedicle are, therefore, but incompletely closed. The constricted portion of liver ought to be returned into the abdominal cavity. The extraperitoneal method guarantees against secondary hæmorrhage, but, the authors believe, a careful and improved procedure of hæmostasis should enable the surgeon to practise with success the intraperitoneal method. The disadvantages of the extraperitoneal method of treating the constricted portion of hepatic structure are the following: (1) As the liver moves with the diaphragm, the fixation of the hepatic surface to the abdominal wall cannot be very close or secure; (2) as the hepatic tissue is not very resistant it cannot react against much tension; (3) the prolonged duration of the closing of the external wound by granulation is contrary to the principles

of modern surgery. The authors recommend the use of blunt needles for carrying sutures through hepatic tissue in order to avoid lesions of the walls of the vessels and consequent grave results. The bleeding after resection of a portion of the liver may be completely arrested by tying very tightly but gradually the sutures passed through the liver at the seat of operation. By a tight and gradual constriction the surgeon will obtain complete occlusion of the vessels. The application of a ligature to a mass of hepatic vessels or to a single large vessel is not contraindicated, as there is no tendency in these vessels to rupture when compressed. Fixation by sutures of the omentum to the wounded portion of liver will not always prevent secondary hæmorrhage, and, moreover, it complicates the operation. Experiments on the dead subject have convinced the authors that the most suitable incision in the abdominal wall is one made parallel to the margins of the false ribs, as it affords free access to the liver.—In an elaborate paper on injuries of the liver (*ibid.*, October, 1896), Terrier and Audray advocate very prompt exploratory laparotomy in all serious cases with the objects of arresting actual hæmorrhage; of preventing further loss of blood when such hæmorrhage has apparently ceased; and, when the injury of the liver is complicated by a penetrating wound of the abdominal wall, of enabling the surgeon to explore the peritoneal cavity, and to remove any possible source of infection.

**(92) Cholecystectomy for Cholelithiasis.**

Von Török (*Wien. klin. Woch.*, November 5th, 1896) records a case of this operation, which Kehr has only performed nineteen times in 206 gall bladder cases. The patient was a woman, aged 51, who had borne sixteen children, the last five years ago. There was a history of pain in the right epigastric region for three years, with constipation and frequent vomiting. A year and a-half later there was jaundice, recurring in all three times. For the last few months the patient had been completely incapacitated by pain, calling for injections of morphine; no relief having been obtained from Carlsbad water or other internal remedies, operation was decided on. The region of the gall bladder was intensely tender, and gave a sense of resistance on pressure. A transverse incision parallel to the ribs was made, according to the method recommended by Courvoisier; the gall bladder was seen to be filled with stones. The hepato-duodenal ligament was divided and the liver turned up, when it was seen that the bile and hepatic ducts were normal, but that the cystic duct was filled close to its junction with the common bile duct with stones; just by the junction there was a cicatricial contraction of the cystic duct. There were numerous scars and losses of substance on the walls of the gall bladder and cystic duct, so that their contents were suspected of being purulent; as in any case ligature of these parts was obviously unsafe, cholecystectomy was performed, and the gall bladder and cystic duct as far as the constricted portion removed without any of the contents escaping. From the central end of the duct a protruding gallstone was removed with dressing forceps, and the lumen was then closed with Lembert's sutures, a little pad of fat from the hepato-duodenal ligament being sewn over the end, as Senn advises. The wound healed by first intention, and the patient was relieved from pain and regained her appetite. The gall bladder was found filled with a purulent matter, in which were about fifty gall stones, varying in size from a hemp seed to a hazel nut; the inner wall was scarred and ulcerated. Noteworthy points about the case were that the condition was at first mistaken for floating kidney, and further that the indications for cholecystectomy—absence of jaundice, patency of the bile and hepatic ducts, and occlusion of the cystic—were particularly clear.

**(93) A New Treatment of Pott's Curvature.**

Calot (*Sem. Méd.*, December 23rd, 1896) affirms that, judging from his experience of 37 cases, all children with Pott's curvature of the spine can be cured without deformity, by forcibly correcting the curve as soon as it appears. The patient is put under an anæsthetic, while four assistants pull the upper and lower extremity of the spinal column backwards, and the surgeon exerts strong pressure on the convexity of the curve. When the spine has thus been straightend a plaster jacket reaching from the head to the pelvis is applied. If it is impossible to correct the curve by these means, the projecting spinal processes should be removed. Exceptionally, however (in 2 out of 37 cases), the posterior wedge of bone which prevents the vertebral column from being straightened must be excised. Then, after cutting through the bone anterior to the spinal canal the column can be replaced in its normal position. Only five to ten months are needed for a cure, instead of two to three years as under the usual treatment, and the occurrence of paralysis is largely prevented. Calot showed five children before the Academy of Medicine whose humps, after existing for six months to six years, had been treated by his method. In some no trace, in others but very little of the former deformity remained. Photographs taken before treatment showed how marked the difference was.

**(94) Surgical Treatment of Epilepsy.**

Sachs and Gerster read a paper before the American Neurological Association (*Journ. of Nervous and Mental Dis.*, October, 1896) on the surgical treatment of focal epilepsy. In 19 cases such treatment had been tried, with the result that 3 were cured, 2 were greatly improved, 3 somewhat improved, while in the rest there was no improvement. The epilepsy in these cases followed injury or infantile cerebral palsy, or some other lesion of acute onset; epilepsy due to tumour was not included. From their experience the writers conclude that surgical interference is advisable in cases of partial epilepsy where not more than two years have elapsed since the injury or primary disease; but that where there is depression or other injury of the skull, the lapse of many years since the injury should not prevent operative treatment, although the longer the interval the less is the chance of recovery. Simple trephining may be sufficient where injury to the skull or some cystic condition is causing the epilepsy, but in many cases excision of cortical tissue is advisable, especially if the epilepsy be of recent onset and the symptoms point to a strictly circumscribed focus of disease. The cortex may appear normal when exposed, the lesion which determines the epilepsy being microscopical; in such cases care must be taken to define accurately the area to be removed. Epilepsy associated with infantile cerebral palsy may be amenable to operation if there has not been too long an interval since the onset of palsy, but in any case of epilepsy a long duration, with consequent extensive degeneration of the association fibres, makes surgical procedure useless.

## MIDWIFERY AND DISEASES OF WOMEN.

**(95) Dangers of Membranous Insertion of Cord.**

Lefèvre (*Thèse de Paris*, 1896) has collected 151 cases where the cord lost itself on the membranes some distance from the edge of the placenta. This condition is most frequent in twin pregnancy. Undoubtedly it exposes the fœtus to dangers during pregnancy as well as in labour. During gestation it may involve premature rupture of the membranes; in six cases at least no other reason could be found. Premature labour may be caused by membranous insertion of the cord, and Lefèvre believes that this anomaly of the funis explains certain cases of hydramnion and fœtal dropsy. In labour Lefèvre finds that some cases of premature rupture of the membranes is due to membranous insertion, but it appears to be not so frequent a cause of that accident in labour as in pregnancy. Membranous insertion is a predisposing cause of prolapse of the funis. In 2 of the 151 cases the fœtus was killed during labour through the anomaly in question, but it is important to remember that in both the death was due to pressure on the membranous insertion, and in no instance to tearing off the cord; in fact, it would seem that a labour pain would not cause the fœtus to tear off a cord of this kind, though it is easy to understand how it may cause great danger from pressure.

**(96) Vaginal Ovariotomy.**

Schauta (*Wien. med. Woch.*, January 1st, 1897) discusses at length the progress of the vaginal method in gynæcological operations, for which he claims the great advantages of lessened danger and the avoidance of an abdominal scar.

He holds that it is particularly indicated in operations upon the adnexa, more especially in gonorrhœal salpingitis, in which he considers it advisable that the uterus and both sets of appendages should be removed. The vaginal operation came into favour in such cases slowly, owing to its being considered necessary to leave a number of pressure forceps upon the vessels after the operation, but the author has shown that it is quite possible to ligature all the bleeding points at the time, and therefore to dispense with this tedious and dangerous procedure; the vaginal route is hence almost exclusively adopted on the Continent in removal of the tubes. Schauta is also accustomed to remove fibroids reaching as high as the umbilicus by vaginal myomectomy with *morcellement*, and to adopt the vaginal operation in early cases of extra-uterine gestation. Finally he advocates vaginal ovariotomy in most cases, restricting the abdominal operation to the removal of tubes which have become adherent to the bowel, of very large myomata, of advanced extra-uterine ova, and of certain ovarian tumours to be specified below. Vaginal ovariotomy has for some time been practised for small cysts; the first paper in which its employment for large growths was advocated was published by E. Bumm in 1895, and contained records of 5 cases. Schauta has now removed 23 large ovarian cysts by the vagina; the size varied from that of a man's head to the entire capacity of the abdomen, these latter tumours containing 20 to 30 pints of fluid. The main indication for this method of operation is that the cyst be free from adhesions either to the intestine or the abdominal wall; this does not apply, however, to growths with intraligamentous development, the situation of which renders them peculiarly accessible *per vaginam*. The diagnosis of mobility is very easy in medium-sized tumours, particularly if the examination be made under an anæsthetic immediately before the operation. In very large growths adhesions, which are *a priori* more probable, are much less easily excluded; the author lays most stress on the mobility of the upper border with respiration as indicating their absence. The technique of the operation consists in making a semilunar incision round the anterior aspect of the cervix, and then carefully separating that structure from the bladder till the anterior folds of peritoneum is reached. This is opened and provisionally stitched to the anterior vaginal wall. The tumour is pressed down into the wound by an assistant and packed round with gauze; a trocar is thrust in, and a certain amount of fluid withdrawn. The cyst wall is then gripped on either side of the trocar wound, and pulled upon. It is thus rapidly emptied, and the remains of the tumour having been drawn through the incision the pedicle is ligatured and cut off. The temporary stitches are next taken out and the peritoneum sewn up; the wound in the vagina is then closed, and the operation is completed. Multilocular cysts are treated similarly; if the contents are too viscid to pass through a trocar they must be removed with the aid of a knife. With dermoids particular care must be taken to avoid fouling the peritoneal cavity; in any case where this is suspected to have occurred the wound should be drained with iodoform gauze. The after-treatment is of the simplest; the vaginal stitches are removed on the eighth day, and on the ninth or tenth the patient can get up. With regard to results, of the author's 23 cases but 1 died, and in this one the cyst had ruptured before the operation, and the abdominal cavity was full of colloid masses, affording an excellent culture medium. The patient died of peritonitis on the twenty-fifth day after the operation, the mode of performing which cannot, according to the author's views, be held responsible for the fatal event.

**(97) Placenta Prævia.**

Heil (*L'Obstétrique*, January 15th, 1897) describes the practice now adopted at the Heidelberg Maternity in dealing with placenta prævia. The membranes are first ruptured so as to bring down the head. When dilatation is complete there is no doubt what ought to be done. But if the os remains narrow, and in cases where the hæmorrhage begins before labour, antiseptic plugging of the vagina and cervix is indicated. Braxton Hicks's method is dangerous for the child, but quite allowable if it be dead or hardly viable, or if the mother be in immediate danger. Heil notes 28 placenta prævia labours, 29 children being born; 4 mothers died (14.28 per cent.); 14 had high temperatures; in 10 of these the tampon had been employed; out of the remaining 14 where there was no fever the tampon had been inserted in 6. Out of the 29 children, 19 (65.5 per cent.) were at full term, 9 delivered dead, 4 died within twenty-four hours of birth, and 16 (55.1 per cent.) survived. In 2 cases admitted with complete dilatation both mother and child were saved. Out of 19 children at term that were living when labour began, 11 were delivered alive by turning, whilst in 8 cases the tampon was applied till dilatation was complete, only 1 child being lost, and in that instance the pelvis was rachitic; all 8 mothers were saved. These statistics are favourable to the tampon.

**(98) Extrauterine Pregnancy: Delivery per Rectum lasting many Years.**

Sepibus (*Rev. méd. de la Suisse Romande.*, December 20th, 1896) first saw the patient, a multipara, aged 28 years, at the beginning of May, 1884. Menstruation had been absent for three months, and from this and other symptoms he diagnosed pregnancy. In July he found by palpation that pregnancy was fairly advanced. At the beginning of September he was called again. On palpation the abdominal tumour had disappeared, and no gravid uterus could be felt. No signs or symptoms of recent miscarriage were present. The temperature was raised, and she was treated on the supposition that the cause was puerperal. The fever lasted during October, November, and December, 1884. After this she was not seen again till November, 1886, when she produced several fœtal bones which she had passed *per rectum*. The diagnosis of extrauterine pregnancy, which had burst in September, 1884, was then made. She was advised to go into hospital, but refused and had no further treatment. She continued to pass bones at intervals until December 31st, 1891. Their passage usually caused pain, and sometimes hæmorrhage; most of them were lost, but six fragments of the skull, one iliac bone, two tibiæ, one femur, one olecranon, one radius, and one rib were collected. After the last bone was passed on December 31st the patient recovered her usual health, and she began to menstruate again. On January 3rd, 1895, there was profuse hæmorrhage from the rectum, and among the clots another cranial bone was found. Acute peritonitis followed, and she died on January 4th, 1895.

## THERAPEUTICS.

**(99) Saline Injections.**

Lochelongue (*Th. de Paris*, No. 6, 1896-97) traces the history of this treatment from its introduction by Joehrnichen, of Moscow, in 1830 to its discussion in the Academy of Medicine and Society of Biology last year. In infectious diseases the injections are invariably followed by a well-marked rigor like that of pneumonia, the temperature rises, perhaps to 105.4° F., with a quick pulse, and panting respiration. These symptoms gradually improve, perspiration sets in freely, and in from three to four hours a feeling of comfort supervenes, the headache disappears, the temperature rapidly falls to normal, the emunctories become active and a veritable polyuria, or occasionally a profuse diarrhœa is established. If this improvement be not permanent another injection generally makes it so. Unhappily the system is sometimes so profoundly infected that death is hardly, if at all, postponed. The experiments hitherto made do not warrant any conclusions as to the action of these injections in intoxications. Nevertheless, in cholera, pneumonia, typhus and typhoid fever, scarlatina, etc., as well as in diabetes, uræmia, paroxysmal tachycardia, they have in all cases been followed by improvement of the general condition, lowering of the temperature, abundant diuresis, and increase of the blood pressure. In general the subcutaneous method is to be preferred; venesection may precede the injection, and is indicated in uræmia.—Mourette (*Th. de Paris*, No. 40, 1896-7) points out that intravenous injection aggravated and subcutaneous injection of saline fluid ameliorated the condition of a patient of Delbet's whose heart was apparently at fault, and that a typhoid patient of Widal's, twice benefited by a subcutaneous injection,

succumbed during an intravenous one; he also mentions a fatal case of Chauffard's from the same cause. He concludes that intravenous injection should not be employed if it is possible to wait for an hour or two; subcutaneous injection, though slower, is equally sure, and from it no accident has been reported. — Fourmeaux (*Th. de Paris*, No. 82, 1896-97) discusses the subcutaneous method very fully, both from the experimental and the clinical point of view, and gives a detailed and illustrated description of the technique. He agrees that the subcutaneous method is as efficient and less dangerous than the intravenous, and advocates the injection (about 600 g.) as often as may be indicated during careful observation day and night. In diffuse hæmorrhage the dose should be from 200 to 300 g. only. The injections are useful in shock and infection as well as in hæmorrhage; fever is no contraindication; hypothermy is not to be feared. Moreover, they may be used before or after operation on anæmic subjects by the surgeon, and should be in readiness during any intervention that is likely to be protracted. As a general tonic before, and more especially after, operative treatment, a daily injection of a more concentrated solution—2 per cent. of neutral phosphate of soda (Crocq)—may be employed. In grave asthenia Chéron injects every two or three days 5 to 10 g. of a solution containing 1 part of crystallised carbolic acid and 2 of chloride, 8 of sulphate, and 4 of phosphate of soda to 100.— Barbier (*Sem. Méd.*, 1896, p. 488) reported to the Société Médicale des Hôpitaux that in intestinal infections of children at the breast a 7.5 per mille solution injected under the skin of the abdomen in quantities not exceeding in all 30 c.cm. in the twenty-four hours, apparently, by increasing the blood pressure and raising the temperature, stimulated the entire system, and patients in a state of collapse, with pinched nose, half-closed eyes, and cold extremities, rallied after one or more injections. The treatment seems to him to be indicated in infectious enteritis with hypothermy, and in chronic cases with loss of strength and low temperature, but has no effect on the diarrhœa, general nutrition or any phenomena other than those of collapse. Hayem says that, while the injection of saline solution is one of the most powerful means of restorative treatment, and is indicated in all choleriform conditions, it would hardly have any beneficial influence on gastro-intestinal dyspepsias.

**(100) Thyroiodin.**

ISRAE (*Münch. med. Woch.*, December 22nd, 1896) relates his experiments on 12 thyroidectomised dogs. In 10 cases the characteristic symptoms appeared usually within two to seven days, but occasionally later. These were fibrillary twitchings, and eventually tetanic attacks. In some cases, after one or two tetanic spasms, the dogs died of increasing cachexia. In 4 experiments the author gave three to six thyroid tablets in the day, but these were without effect in warding off or curing the symptoms. In 2 other cases thyroiodin was given, with the result that the attacks were cut short; as soon as the thyroiodin was omitted the characteristic symptoms reappeared. Thus by means of thyroiodin the animals could be kept alive. Thyroiodin has a certain effect, but it must be given in sufficient doses. For a dog weighing 6 to 7 kilogrammes a daily dose of 3 g. sufficed. When a smaller dose was given the symptoms reappeared. Gottlieb obtained negative results in similar experiments, but he used thyroiodin prepared from pig's thyroid. Hofmeister and Hildebrandt's results were positive. Notkin found thyroiodin useless, although both he and the author used the same preparation (Bayer's). The author thinks that Notkin's experiments did not extend over a sufficient length of time. Israe concludes from the successful results obtained in 2 experiments carried on over forty-three and eighty-nine days respectively (1) that thyroiodin is able to prevent thyreotetany and thyreocachexia, and that the animal can thus be kept alive; (2) that thyroid tablets in the quantiiy used by the author were without effect; and (3) that iodine as such is useless.

**(101) Airol in Ophthalmic Practice.**

VALENTI (*Rif. Med.*, December 12th, 1896) reports very favourably of the effect of airol in various forms of keratitis and purulent conjunctivitis. It is an iodogallate of bismuth, and was used by the author in powder or ointment. Cases of kerato-hypopyon were cured in eight or nine days, trachomatous conjunctivitis after a month's treatment, and the purulent discharge is said to have disappeared in three days in cases of purulent ophthalmia. Phlyctenular and simple ulcerative conjunctivitis was cured after six or seven days' treatment with airol. No other member of the Royal Academy of Medicine of Rome, before which the paper was read, had experienced such favourable results.

**(102) Chinaphthol.**

RIEGLER (*Wien. med. Blätter*, November 19th, 1896) has prepared a compound of quinine with β-napthol and α-sulphonic acid to which he has given the name of chinaphthol. It is a yellow, crystalline, bitter powder, insoluble in cold water, and but slightly soluble in hot water and alcohol. It is unacted upon by acids, but is split up into quinine and β naphthol sulphonic acid by alkalies; the author considers that this decomposition takes place in the intestine where the drug, unchanged by the gastric juice, liberates its constituents in a "nascent" form, in which they are extremely potent. He particularly recommends it wherever intestinal antisepsis is required, and states that it has been used with great success in typhoid fever, both in hospital and private practice. It is also particularly indicated in dysentery and intestinal tuberculosis; its combined specific and antipyretic effects have been successfully obtained in two cases of articular rheumatism. Puerperal conditions are likewise considerably benefited by chinaphthol; and Riegler points out that the toxic properties of β-naphthol are obviated by the introduction of the sulphonic acid radical. When the temperature is over 104°, 75 grains a day, in 10 doses, may be given; ordinarily, 15 to 20 grains a day suffice. The drug contains 42 per cent. of quinine and similar compounds, the value of which has still to be determined, can be obtained with quinidin, cinchonin, and cinchonidin.

## PATHOLOGY.

**(103) A Congenital Tumour of the Pylorus.**

DE BRUYN KOPS records a case of tumour of the pylorus in a newborn male infant (*Nederlandsch Tijdschrift voor Geneeskunde*, No. 25, December 19th, 1896). The child's parents were healthy, and he was a well-nourished baby. Some hours after birth vomiting commenced, and thereafter every feeding, whether from the breast or with cow's milk, was speedily followed by emesis. Various means were employed, such as washing out the stomach; but the condition gradually grew worse, the child lost in weight, there was anasarca, and some degree of distension of the upper part of the adbomen, and death followed about three weeks after birth. At the necropsy the stomach was seen to be enlarged; it lay more horizontally than vertically, and reached to one finger's breadth below the umbilicus. In the position of the pylorus was a tumour of the size of marble, and of cartilaginous hardness. There was marked pyloric stenosis, and mitroscopical examination of the ring constituting the tumour showed it to be composed of the greatly hypertrophied muscular layer, even the muscularis mucosæ being clearly thicker than normal. It may be supposed that the stenosis gave rise to an enormous compensatory hypertrophy, but the manner in which this came about remains doubtful.

**(104) The Rapid Preparation of Frozen Sections by Means of Methyl or Ethyl Chloride.**

H. W. CATTELL (*International Magazine*, December, 1896) finds that perfectly fresh tissues can be frozen by chloride of methl or ethyl, and when cut yield satisfactory histological preparations. The tube containing the ethyl chloride, methyl chloride, or "anestile" (a mixture of these two reagents) is held about a foot from the tissue and the spray directed on to it. The specimen is readily frozen in a minute, and excellent stained specimens may be obtained in a quarter of an hour or less from the time that the tissue was removed from the body. A fuller report, accompanied by microphotographs of tissues prepared by this method is in preparation.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

### (105) Aural and Nasal Hæmorrhage in Bright's Disease.

Haug (*Deut. med. Woch.*, November 5th, 1896) after referring to the literature of the subject, relates a case occurring in an alcoholic aged 39. During the previous eighteen months he had suffered from cardiac weakness and arrhythmia. Three-quarters of a year ago he had a profuse epistaxis. The urine was then free from albumen. Quite recently he had a still more severe nasal hæmorrhage, which could be stopped only by plugging the nares from the front. The plugs had to be continued for a week. The urine now contained both albumen and casts. There now occurred very severe pain in both ears, together with tinnitus and some deafness. Hæmorrhage was found to have taken place in the tympanic cavities and membranæ tympani. An albuminuric retinitis with hæmorrhages was also noted. In three weeks' time the blood in the ears was absorbed without the hæmorrhagic otitis having become purulent. In this case epistaxis along with cardiac symptoms were among the earliest indications of Bright's disease. These hæmorrhagic manifestations were all more pronounced on the left than on the right side. They must have been brought about by vascular disease. The prognosis of these local manifestations in themselves is not so unfavourable, but when such hæmorrhages occur they usually indicate an early unfavourable termination of the kidney disease. The occurrence of such hæmorrhages should at once draw attention to the possibility of Bright's disease. The author thinks that these hæmorrhages are the result of diapedesis rather than the outcome of rupture of vessels. It is thus correct to speak of an albuminuric tympanitis or myringitis. The apparent rarity of this affection is to be explained by insufficient examination of the patient's ears; often the patient does not complain about these aural symptoms, so that it is easy to overlook their real cause.

### (106) Congenital Disease of the Pylorus in Infancy.

H. Finkelstein (*Jahrbuch f. Kinderheilk*, Bd. xliii, 1, p. 105) describes the clinical features due to this abnormality. The condition was described by Landerer in 1879, and later by Rud. Maier, by whom the symptoms in 31 cases were stated to be persistent vomiting, followed by dilatation of the stomach. The stenosis was found to be due, in some cases, to a simple narrowing of the pyloric orifice, and in others to hypertrophy of either the circular or longitudinal muscle fibres. Finkelstein describes 10 fatal cases, in 7 of these the results of the *post-mortem* examination are given; in the 3 others the patients survived. In the fatal cases the duration of life was from thirty days to two years. In some cases signs of the disease do not appear for a short time after birth, though there may be a tendency to vomiting if a large quantity of food be taken at one feeding. Later the gastric symptoms become aggravated, and there is obstinate vomiting even after small meals. The vomit does not contain bile. The stools are scanty and confined. Later the stomach undergoes dilatation, and this is accompanied by loss of digestive power and fermentation changes in the stomach contents. Slight degrees of stenosis may give rise to symptoms which can hardly be distinguished from those of chronic gastric catarrh. Finkelstein says that the most diagnostic signs of this condition are the persistent vomiting, even after very small meals, and the scanty constipated stools. The dilatation which results later may be recognised by abdominal examination or with a sound. In one case the thickened stenosed pylorus could be felt as a small cylindrical tumour above the umbilicus. After death the stomach invariably exhibits dilatation with narrowing of the pyloric orifice. Microscopically the stenosis is found to be caused by a thickening due to a localised hypertrophy of the longitudinal muscle fibres. This thickening is distinctly limited both above and below the orifice, thus differing from the more diffuse changes found in chronic gastritis. The walls of the stomach generally show some thickening, with small-celled infiltration of the mucosa and submucosa, due to secondary gastritis. Swelling of the mucous membrane from catarrh tends still further to increase the degree of stenosis. The treatment recommended for this condition consists of breast feeding, careful nursing, and attention to gastric catarrh to prevent any disturbance of the compensation of the stomach.

### (107) Cerebro-spinal Meningitis.

A discussion recently took place on this disease (*Münch. med. Woch.*, October 27th, 1896) at a Vienna Medical Society. Schlesinger showed two cases which had recovered. The disease generally began in this epidemic suddenly, with high temperature and vomiting. Herpes soon appeared. Ptosis, oculo-motor paralysis, or other ocular palsy or facial paralysis supervened. There was passing paralysis of the bladder and rectum. Rigidity of the neck was very marked, and appeared early. Once spinal puncture was practised. The fluid contained pus cells, but revealed no characteristic micro-organism. The puncture was not repeated, because there was no improvement after it. Convalescence was protracted. Schlesinger emphasised the value of hot packs. The hot cloths are applied for three-quarters to one hour. The rigidity of the neck and hyperæsthesia particularly diminished under this treatment. The fever was not influenced by it. Kaufmann spoke of the relation of meningitis to deafness. Berdach saw 2 cases in the same family, both fatal. In 2 other cases the disease was preceded by sore throat. The cause of the disease was Weichselbaum's meningococcus. The symptoms were variable. In one case improvement occurred, but on the nineteenth day there was a relapse, which proved fatal in twenty-four hours. In one case the patient first had pneumonia, then general furunculosis, and then meningitis. Schlesinger, in conclusion, said that this meningitis had been more common in Vienna recently, and had no doubt been introduced from without. He had not seen sore throat precede it. In early cases the diagnosis was difficult, and perhaps spinal puncture might be useful here. The prognosis was serious, the number of fatal cases being considerable. Hot packs were more easily carried out than hot baths.

### (108) Chylous Ascites.

Schramm (*Berl. klin. Woch.*, October 26th, 1896) reports a case due to carcinoma of the thoracic duct. A woman, aged 53, began to suffer from wasting six months before admission, and five months later the abdomen commenced to swell. On admission there was abdominal distension, the measurement at the umbilicus being 104 cm. As there was considerable difficulty in the differential diagnosis between an encapsuled ascites and an ovarian tumour, an exploratory laparotomy was performed and 16 litres of a milky fluid evacuated. Nothing abnormal could be felt in the abdomen. Death resulted from peritonitis. At the necropsy a tumour, about the size of the fist, was found in the neighbourhood of the pancreas. There were deposits, apparently secondary in character, near the portal fissure, and extending over the gall bladder, and also in the liver. Behind the aorta a band of new growth extended upwards to the place where the subclavian and jugular veins unite, and here a growth as large as a walnut was found. The microscope showed the presence of carcinomatous elements in the gall bladder, pancreas, retroperitoneal glands, and wall of the thoracic duct. From the arrangement of the cells it was impossible to determine the exact starting point of the growth, but the liver and gall bladder could be excluded. Twenty gall stones were present in the gall bladder. The thoracic duct was obliterated. The anatomical diagnosis was to this effect: carcinoma of the thoracic duct with metastases. The examination of the fluid showed that it corresponded in composition to chyle with some minor differences, due in all probability to the condition of the patient's nutrition. A trace of sugar was present. In Leydhecker's case there was also a chylous ascites, due to malignant disease of the thoracic duct. In 5 recorded cases of carcinoma of the thoracic duct there was no chylous ascites. Here either the duct remained permeable or the chyle got into the blood by means of a collateral circula-

tion. In the author's case there was a marked obliteration of the duct. The communication between the lymphatic and venous systems must have been entirely destroyed, and thus great stagnation of the chyle ensued, and transudation into the abdominal cavity. No rupture of the duct could be found. The author is inclined to believe that the malignant disease was primary in the pancreas, and that metastases appeared in the thoracic duct, liver, and gall bladder.

## SURGERY.

**(109) The Treatment of Umbilical Hernia.** SEBILEAU (*Sem. Méd.*, December 23rd, 1896) divides umbilical hernia into three groups: (1) Hernia neonatorum: This either (*a*) contains most of the viscera, and is a condition incompatible with life, or (*b*) is smaller and covered with a thin layer formed by the amnion, if arising in the embryonic period, or by a double layer of skin and peritoneum if formed during fœtal life. The operation which should be performed in these cases differs from that in the adult only in the ligature of the umbilical vessels and cord. (*c*) It may be quite small, when it should be treated as group (2). Hernia in children must be treated according as it occurs (*a*) in infants who cry, cannot walk, but soil their clothes (1 to 15 months); (*b*) in those who seldom cry, can walk, and are clean (2 to 8 years); (*c*) in older children. For group (*a*) no treatment is needed as a rule, as most are cured spontaneously. If anything is needed a four-shilling piece wrapped in cotton wool and kept over the umbilicus by crossed pieces of strapping is best. Nothing is worse than the common spherical apparatus, which penetrates the ring and prevents natural cicatrisation. In group (*b*) everything must be tried to cure the hernia, but operation is seldom justifiable. All ordinary bandages applied by the mother are useless. The best apparatus is that of Fournier des Lempdès. It consists of a piece of aluminium moulded to the subjacent musculo-aponeurotic layer, and therefore hollowed out to allow the recti free play, and having a semicylindrical projection fitting into the linea alba, but interrupted at the aperture of the ring so as to allow of its closing. This plate is kept in place by a flat band of elastic attached to its sides and passing behind the body. The hernia cannot escape unless the child retracts the recti voluntarily, and this he must be taught not to do. In group (*c*) cure cannot be expected, and although an apparatus may be tried, the necessity of operation must be considered. (3) Hernia in Adults: There are two well-defined classes of cases—(*a*) when the surgeon is forced to operate by the occurrence of acute complications (strangulation, etc.), and (*b*) when no acute complication is present. Here the only contra-indications are those of general health, such as obesity and emphysema, especially in old age, and advanced diabetes. In every other case radical cure ought to be advised, and in such as have shown signs of obstruction previously be insisted on. If no operation is done a truss such as that of F. de Lempdès should be worn if the hernia is reducible and can be kept in place, but if this is impossible it is better to leave it alone altogether. Operation: (*a*) Radical cure for a reducible hernia in a young subject is simple. The sac is dissected out and cut off at the neck, and the abdominal wound closed. (*b*) Radical cure with omphalectomy: With old-standing herniæ containing omentum, and with a very large ring, the operation is more difficult, chiefly owing to adhesions. First, a very long incision must be made through the skin, taking care not to wound the sac. The latter must then be opened freely, adhesions separated, the omentum resected, and the intestine returned. Two large curved incisions are then made on either side of the ring through the skin and the sac adherent to it; the fibromuscular layer is well exposed, and the umbilical ring resected. To close the wound an incision is made rather more than an inch from the margin in the sheath of the recti. The deepest layer of sutures unites from right to left, the peritoneum and the deep layer of the sheath of the recti, the middle layer unites the muscles and superficial layer of the sheath, and the superficial layer of sutures unites the skin. This method gives a very firm cicatrix.

**(110) Insufflation in Intrathoracic Operations.** TUFFIER AND HALLION (*Sem. Méd.*, November 25th, 1896) experimented on dogs as to whether it is possible to prevent pneumothorax in operations where the pleural cavity is opened. They find that pneumothorax following the pleural incision disappears at once if the lung is insufflated from the mouth or trachea. Thus if when operating insufflation is begun just before, and kept up till the pleuro-parietal wound is closed, pneumothorax if previously present is cured. Again, if insufflation is performed at the same time as the pleural opening is made no pneumothorax can occur, and the lung once distended does not collapse again. Their method was to introduce a long leather tube connected with bellows from the mouth into the trachea. After incising an intercostal space, the pleural cavity, illuminated by an incandescent lamp, was sufficiently accessible for operations on the œsophagus, sympathetic nerves, etc., and the animals lived afterwards without any bad effects.

**(111) Foreign Bodies in the Bladder.** GRÜNFELD (*Wien. med. Blätter*, November 26th, 1896) records 4 cases of foreign bodies in the bladder, 3 under the care of Hofmokl and 1 under that of von Dittel. He has collected in all 115 such cases, 68 in men and 47 in women. Of the former, pieces of catheters and bougies were found in the bladder in 41 instances. Of the women, in 30 cases foreign bodies slipped into the bladder when introduced by the patient into the urethra, while in 13 concretions formed around silk ligatures which had ulcerated into the organ after laparotomy. Grünfeld's first patient was a man, aged 73, who had suffered from difficulty of micturition with occasional hæmaturia for two years. There was often severe pain in the region of the bladder, particularly after movement. He was suddenly attacked with fever, and a swelling appeared in the anterior part of the perineum, which was incised and soon healed; another soon developed and burst, remaining open when he was admitted to hospital a year later. It was then found to be a urinary fistula, and examination of the bladder revealed the presence of a small, rough, foreign body. Lateral cystotomy was performed, and two spongy pieces of bone, encrusted with urates, removed, the patient making a perfect, though slow, recovery. There was evidently here necrosis of the pelvic bones, with a sinus communicating both with the bladder and perineum. The second case occurred in a man, aged 50, who was suddenly seized with retention of urine. The urethra was blocked by a foreign body, which was removed, and found to be a cherry stone. The urine was dirty brown, and had a fæcal odour. Washing out the bladder brought away a considerable quantity of fæcal matter. After the operation the urine remained foul, the patient became emaciated, a hard tumour developed in the right groin, and death followed in ten weeks, no doubt as the result of malignant disease of the colon, which had ulcerated into the bladder. The third patient was a man, aged 38, who had been cut for stone two years previously, since when he had been in the habit of passing a Mercier catheter from time to time, on account of a slight stricture of the urethra. The point of this broke off in the bladder one day, and gave rise to purulent cystitis; eight days later it was removed by perineal lithotomy, and found to be 3½ inches long. The patient rapidly recovered. The last case was that of a man who had passed a piece of of an old Nélaton catheter into his bladder some days before; there was slight cystitis. Nearly the whole catheter was removed with a *ramasseur*, in eleven pieces, at two sittings, and the patient was soon quite well.

## MIDWIFERY AND DISEASES OF WOMEN.

**(112) Hairpin in Bladder detected by Roentgen Rays.** SEIFFART (*Centralbl. f. Gynäk.*, No. 1, 1897) gives two photogravures of a hairpin in the bladder, taken by aid of *x* rays. The presence and even the nature of the foreign body were practically known before the new scientific appliance was made use of in this case. A girl, aged 18, applied for relief owing to the usual symptoms, and the presence of something in the bladder was ascertained by bimanual palpation and the use of the sound. There was very strong

evidence that the hairpin had been swallowed during an attempt to provoke vomiting. The patient was fixed in the lithotomy position, the Hittorf's tubes were placed as near as possible over the vesical area, and, for protective purposes, the front of the thighs and the abdomen above the hypogastrium were covered with gutta-percha paper. The plate was rounded off at one end, which was introduced into the vagina as far as it would pass; its form allowed it to lie in that canal comfortably. It was removed after eight minutes' exposure. A perfect image of the hairpin was thus obtained. A second photograph was less successful. It was introduced a little to the right of the middle line of the vagina; still, it displayed all that was wanted, since by comparing the two radiographs showing the pin in different positions, the degree of divergence of the two points was accurately defined. Two days later the hairpin was removed. This proved a difficult task, though it was already known that the pin lay with its points downwards. The urethra was dilated; both points proved to be embedded in the mucous membrane. The nearest was pushed backwards by a fine pair of forceps and pulled out, and then, by cautious bending of the pin as it was withdrawn through the urethra, it was extracted entire.

**(113) Fatty Degeneration of the Uterus during Pregnancy.**

L. M. Bossi, in the examination of three human uteri (*Annali di Ostet. e Ginec.*, December, 1896), one removed at the eighth month of pregnancy and the other two at full term, found the process of fatty degeneration of the muscular fibres in active progress. He asks whether this is a physiological condition, and if it be so whether it may not explain the wonderful rapidity with which involution of the uterus after labour normally takes place. Further, it may be asked whether in this fatty degeneration there exists an explanation of some cases of inertia uteri in labour. Bossi has attempted to investigate the subject by experiments on animals (tying the uterine blood vessels), but does not regard the results as applicable to the human uterus.

**(114) Treatment of Cancer of the Uterus.**

F. W. Johnson (*Boston Med. and Surg. Journ.*, December 31st, 1896) gives the results of 10 cases of uterine cancer operated on by suprapubic hysterectomy with removal of the broad ligaments up to the pelvic walls. Bougies were first inserted into the ureters under the local influence of cocaine to save time and conserve the patient's strength. The patient was put in the Trendelenburg posture, the adobmen opened, and the affected parts, including the cellular tissue and glands, widely removed. Three out of 10 cases died from the immediate effects of the operation; in 2 the disease returned in the scar tissue in the vaginal vault; 5 were alive with no return of the disease; 3 sixteen months after operation; 1 twelve months, and 1 eight months. This operation secures the removal of as wide an area of tissue as possible outside the uterus within the pelvic cavity, along with the removal of one-half or two-thirds of the vagina as may be necessary.

**(115) Inveterate Metrorrhagia.**

Petit (*Progrès Médical*, December 5th, 1896) holds that gynæcologists are often mistaken in using the curette as a remedy for metrorrhagia, relying on the pathological theories of others that the bleeding is due to disease of the uterine mucous membrane. In a case under his own care he used the curette repeatedly, but the bleeding went on as before. The uterus was removed and extensive changes were found in the muscular coat as well as in the tubes and ovaries. The changes represented angio-sclerosis. It is not stated whether they might not yield to less severe remedies than hysterectomy.

**(116) Malignant Tumour Developing after Labour.**

Duplant (*Lyon Méd.*, January 3rd, 1897) relates that a woman, aged 33, had her third child in September; the labour was normal. The uterus never seemed to undergo involution. A tumour developed, and on November 25th Duplant found that it was very large, whilst the liver was infected. There was ascites and double pleurisy with effusion: the serum from the pleura was bloody. Operation was quite out of the question. Death occurred on December 3rd. A large tumour, weighing over 13 lbs., was found; it seemed to take up all the internal genital organs. The uterine cavity, only an inch long, was just recognisable. The lungs, as well as the abdominal viscera, were infected. The tumour was, in Duplant's opinion, a malignant myoma; the muscle cells bore enormous nuclei. In no sense was it a deciduoma. The great frequency of malignant disease of the uterus following labour of late years is remarkable.

**(117) Virile Type in a Woman with Masculine Pelvis.**

Keiffer (*Bull. de la Soc. Belge de Gyn. et d'Obstét.*, No. 10, 1896) publishes a very complete description of a patient undoubtedly female, but with masculine features and distinct though not extreme tendency to hermaphroditism in the genitals. She was 25, and menstruated irregularly. The hair was long, the beard strong. The body was thin, very muscular and hairy. The breast was quite rudimentary, as in a normal male. The clitoris was very large, and there was an indication of a meatus on the glans. The true meatus was in the usual position in the female, but it was very wide. The labia were small, the vagina narrow and deep, the uterus of the infantile type, with no os. The ovaries could not be detected, even by bimanual palpation under chloroform. Without publishing any measurements, Keiffer states that he carefully examined the pelvis, and found that it was in all respects masculine. The diameters were rather less than those given under the head of "male pelvis" in Sappey's *Anatomy*.

## THERAPEUTICS.

**(118) Suprarenal Extract in Addison's Disease.**

Osler (*Johns Hopkins Hospital Bulletin*, November-December, 1896, p. 208) recently had under his care a girl, aged 21, with well-marked Addison's disease. The pigmentation began eleven months before admission, on the face, and spread over the body; weakness, loss of weight, and itching of the skin followed. About twenty black spots, like moles, were eventually seen on the skin. She was put on a glycerine adrenal extract, and took the equivalent of half a gland per diem. On the ninth day of this treatment the girl became delirious and died of collapse. At the necropsy the suprarenal bodies were found to be all caseous, and in parts calcareous, bnt the solar plexus and the splanchnic nerves were normal. Osler discusses the question whether the toxic symptoms, of which the patient died, were due to the administration of the extract; but seeing, first, that cases of Addison's disease often die in this manner quite apart from this form of treatment, and, secondly, that the dose was not excessive, he came to the conclusion that the treatment could not be held responsible for the fatal result.

**(119) A New Method of Preparing Diphtheria Antitoxin.**

Behring (*Fortschritte der Medicin*, January, 1897) strongly opposes the view that the evil sequences which have been ascribed to antitoxin are really due to the antitoxin. He emphatically asserts that "diphtheria antitoxin, the real and only substance of therapeutic significance in the antitoxin serum, is absolutely harmless, and can never under any circumstances, either in man or beast, in the healthy or unhealthy organism, produce any toxic effect whatever." The evil sequences observed after antitoxin treatment are entirely avoidable; they are due to albuminous bodies, salts, and accidental impurities, all of which have no therapeutic value. The living cells of the organism are found by experiment to be entirely uninfluenced by the antitoxin; whatever changes occur in them are due to the serum, and are produced equally by serum taken from a healthy animal, a fact further proved by the identity of the changes, whatever the amount of antitoxin in the serum. In order to eliminate partially or entirely the noxious substances mentioned, Behring has tried two methods of preparation of the antitoxin. He first obtained serum containing very concentrated antitoxin, and in this way hoped to minimise the dose of the serum required, and so to inject as little as possible of the noxious substances. A serious objection to this method was found to exist, for it was observed that these concentrated solutions quickly

lose their strength by keeping. He has therefore devised a new method: a dried form of antitoxin has been prepared, which is easily soluble in water. It is free from carbolic acid, contains no preservative, and is protected from micro-organisms by sealing in a closed vessel; 1 g. of the dried preparation is equivalent to 5,000 normal units. In this way it is claimed that all evil sequences are avoided. Behring has further made some experiments on the absorption and excretion of antitoxin. He finds that it does not form any chemical combination in the living organism, but circulates in the body fluids unaltered, and is gradually excreted in its unaltered condition. The rate of excretion, which was observed in the milk and urine of a goat, varies much, but it was found that an increased dose of antitoxin caused disproportionate increase of excretion. Therefore, in attempting to prolong the period of immunity conferred by antitoxin, it is better to repeat the dose than to increase the strength of the dose, for the repetition gives more certain prolongation of immunity.

#### (120) Suppositories.

Lewin and Eschbaum (*Deut. med. Woch.*, January 7th, 1897) describe a new method of preparing suppositories. The objects to be attained are (1) that the drug should be equally distributed through the basis; (2) that it is easily liberated from it; (3) that the suppository should be sterile and easy to introduce; and (4) that it must admit of being accurately prepared as regards the dose of the drug. (*a*) Cacoa butter suppositories. These fulfil the above indications the least of any. Experiments show that the drug is unequally distributed through the mass. An improvement is effected by adding a little fat or oil to the cacoa butter so as to form a plastic mass. (*b*) Glycerine gelatine suppositories. These are mostly not sterile, and owing to the uncertain source of the gelatine, they often contain, basic and other products which are not harmless to the individual. The amount of glycerine present may also produce irritating effects upon the intestine. (*c*) The authors have used agar as the basis for suppositories for nearly two years with good results; 1 part of agar is heated in a water bath with 29 parts of water until it can be easily poured out. It soon solidifies again on cooling. Agar agar is acid, and thus 1 g. of sodic bicarbonate is added to 10 g. of agar. It is best to make the agar as required. If it is desired to make a 0.1 g. potassic iodide suppository, 1 g. of neutral agar and 1 g. of the iodide are placed in a flask with 29 g. of water. The whole is then shaken up to dissolve the iodide and heated in a water bath. When fluid, the mass is poured out into ten paper moulds of suitable shape. Directions are also given for the making of antipyrin, tannic acid, and other suppositories. An examination of the suppository shows that the medicament is evenly distributed in it. Agar-agar is also a better vehicle for suppositories containing insoluble powders (such as bismuth subnitrate) than cacoa butter.

#### (121) Treatment of Nocturnal Enuresis.

Cognetti de Martiis (*Puglia Medica*, iii, 5) records the successful treatment of a case of nocturnal incontinence by Fiorani's method. The patient was a man who had suffered since his childhood from nocturnal enuresis, for which no organic cause could be found. A string was tied to the patient's hand as he lay in bed, and then, passing over the end of the bed, it was attached to a bag containing 50 grammes of dry sand. The first night there was one involuntary micturition, which, however, caused the patient to awake. The next night a weight of 100 grammes was attached to the string, with the result that the patient awoke when there was need to micturate. This treatment was continued for some nights with the same result, and finally the patient was able to resume his work cured. The writer finds the explanation of the success of this simple method in the nature of the disease as described by Fiorani. Nocturnal incontinence is a psychical disturbance; it is, in fact, nothing more than "somnambulism of the bladder," comparable to ordinary somnambulism, and amenable to the same method of treatment.

#### (122) Cocaine Anæsthesia.

The method employed by Wyeth (*Med. News*, vol. lxix, No. 24) is briefly as follows: The needle is carried obliquely through the epidermis until the point is in the Malpighian layer, just beneath the epidermis. Arriving at this point, force out a half-minim of 4 per cent. solution. The epidermis and skin turn white, and, with the needle still in position, with a sharp-pointed knife make an incision as far as the anæsthesia has spread. Then insert the needle one-quarter of an inch from the first point, and the incision thus extended if necessary. In this way we obtain the greatest area of anæsthesia from the minimum amount of cocaine, and, whilst we are certain of reaching the nerve endings, we avoid the risk of injecting the drug into the circulation.

#### (123) The Galvanic Current in the Treatment of Corneal Ulcers.

Pansier (*Annal. d'Oculist.*, December, 1896), while employing the galvanic current for its sedative action in inflammations and ulcers of the cornea, has noticed the remarkable effect it has in clearing up the resulting corneal opacities. A current of 4 or 5 milliampères was applied daily for twenty minutes, or even twice a day for fifteen minutes each time, the positive pole being on the neck, the negative on the eyelid. This is continued until the ulcer has cicatrised or until the scar tissue has become sufficiently transparent. The direct application of one electrode to the eye causes too much pain, even with a current of only 2 or 3 milliampères, to be recommended when there is any corneal inflammation. The usual local treatment of corneal ulcers is carried on at the same time—namely, by galvano-cautery, atropine, etc.

## PATHOLOGY.

#### (124) Experimental Eclampsia.

Van de Velde (*Wien. klin. Rundschau*, 1896, No. 50) seeks to give the auto-intoxication theory of eclampsia an experimental basis. He began by comparing the ease with which the injection of human urine induces convulsions in pregnant and non-pregnant rabbits, finding that the average dose required is in the former case 9 c.cm. per kilog. of body weight, in the latter 20 c.cm. per kilog. In only 1 out of 37 pregnant animals experimented upon was there any difficulty in evoking convulsions. The causes of this increased susceptibility may be two in number: the presence of a greater proportion of the toxins producing convulsions in the blood of pregnant animals or a greater vulnerability of their nerve centres to these toxins. Now the author finds that if the blood of a gravid and a non-gravid animal be injected at different times into the same rabbit, 18 c.cm. per kilog. of the former induce eclampsia as against 25 c.cm. per kilog. of the latter. If urine be substituted for blood, the figures are 18 and 30 c.cm. per kilog. The author concludes from these experiments that pregnancy leads to the formation in the female organism of substances whose principal action is the causation of convulsions, that these substances are normally eliminated by the urine, and that they circulate in the blood to a greater extent in pregnant than in normal animals, indicating in the former an excess of production over excretion. He further finds evidence of the increased susceptibility of the nerve centres during pregnancy, in that for some days after delivery the animal is more easily convulsed by the injection of blood or urine than the normal, although its own urine is no longer abnormally toxic. Van de Velde hence argues out the whole question of eclampsia, finally accepting Bouchard's views as to its cause being auto-intoxication by the accumulation in the blood of the "toxins of pregnancy."

#### (125) Changes in the Cardiac Ganglia in Relapsing Fever.

Nathanson (*Vratch*, No. 48, 1896) has made some investigations on this subject. His conclusions, based on a study of 28 uncomplicated cases of relapsing fever, are as follows: (1) In relapsing fever the automatic cardiac ganglia show a certain kind of degeneration; (2) this process involves the protoplasm as well as the nucleus; and (3) the changes it sets up in them are entirely dependent on the duration of the disease; (4) The neighbouring vessels are enlarged, being in a state of plethora; (5) In connection with these alterations there is also very often to be observed a caseous degeneration of the heart muscle.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

### (126) Alimentary Albumosuria.

Chvostek and Stromayer (*Wien. klin. Woch.*, 1896, No. 47) have devised a method by which Maixner's discoveries as to albumosuria can be utilised in the diagnosis of intestinal ulceration. Maixner found that in some cases of cancer of the stomach and of typhoid fever peptone could be detected in the urine; this result, which was confirmed by Hofmeister, he attributed to a defect in the assimilative power of the mucous membrane, the amount of peptone excreted being proportional to the extent of the lesion. Later researches showed that the substance detected in the urine was really not peptone, but albumose, and that its appearance was not sufficiently constant for diagnostic purposes. To obviate this difficulty the authors tried the effect of replacing the midday meal of patients suspected of suffering from gastric or intestinal ulceration by 1 or 2 ounces of peptone or somatose given in warm water or broth. The urine, which had previously been tested for albumen, the experiments only being carried on when this was absent, was examined for albumose by Devoto's method at intervals of two or three hours. Notes of nine cases are given, in six of which the feeding with peptone or somatose induced the appearance of albumosuria to a greater or less extent: the symptoms referable to the alimentary canal varied very widely, but in each instance the presence of tuberculous ulcers of the intestines was demonstrated *post mortem*. In the remaining three cases similar ulcers existed, but albumosuria could not be produced; this may have been caused in part by the presence of vomiting, on the one hand, and constipation on the other, interfering respectively with the ingestion and the absorption of the test substance. In twenty people without disease of the alimentary canal the administration of these foods invariably failed to induce albumosuria. The authors conclude that in normal individuals, or in those the mucous membrane of whose intestines is free from serious lesions, such as ulcers, it is impossible to cause the appearance of albumose in the urine by giving it, in however large quantities, in the food. Where, however, ulcerative processes are present in the bowel, the excretion of albumose may result. It is only the presence of this alimentary or enterogenous albumosuria which can be accepted as a proof: a negative result cannot be held to exclude the existence of ulcerative processes.

### (127) Cause of Deformity in Arthritis Deformans.

Potain (*Sem. Méd.*, December 18th, 1896) discusses the causes of deformity in arthritis deformans. There are two varieties of these: changes in the shape of the extremities of the bones, and changes in the muscles acting upon the joints which give the latter their abnormal directions. The thickening of the head of the bone gives rise to pain and difficult movement, but does not constitute ankylosis. Serious difficulty may arise from this, as, for instance, in the atlanto-axial articulation, in which the enlarged bone causes compression of the medulla. The ligaments are rarely involved, but are sometimes relaxed. The irregular swelling of the bones is only an accessory cause of deformity, contraction of the periarticular muscles determined by spasmodic contraction, paresis or atrophy being the chief cause. Muscular paresis may supervene at an early stage; it chiefly affects the hands and feet. The resulting deformities are so constant as to suggest that they follow in their production certain definite changes; as a matter of fact they can always be explained by the existing muscular changes. The loss of muscular power leads both to functional impotence in the joint and to change in direction. The muscles that are the least well nourished are the first to lose their energy. It has been asserted that chronic osseous rheumatism is an affection of the nervous system; this is only true in part. The nervous system is not the causative agent of the muscular paresis, which may be equally determined by a traumatic arthritis. The muscles in functional relationship with the articulation become weak, paralysed, or atrophied by reason of the articular lesion. This may be due to a reflex nervous action, but the spinal cord is in such cases not in the least diseased. To detect deviation before there is any articular manifestation is of the greatest practical importance.

### (128) Prognosis in Pneumonia.

Osler (*Amer. Journ. Med. Sci.*, January, 1897) points out that the higher the mortality the more difficult it is to estimate the elements of prognosis. Pneumonia is the most fatal of the acute infections of adults in temperate climates, the case mortality varying from 20 to 30 per cent. Some points on the prognosis are general, such as age, race, habits of life, and bodily health; others are special. Age is very important; in children the mortality, as quoted in Wells's statistics, is 1.9 to 3.3 per cent., while over 60 years of age the mortality is 50 to 80 per cent. Negroes show a higher death-rate as a rule than whites. Kidney disease was present in 25 out of 100 necropsies observed by the author. Healthy adults seldom succumb; thus in the German army the death-rate in 40,000 cases was only 3.6 per cent. Of the special points of prognostic importance the degree of fever and the amount of lung tissue involved are far less important than the toxæmia. Toxæmia has no constant relation to the extent of the lesion, and cases with profound toxæmia show wide variations from the typical clinical picture, while the local features of the disease are often quite overshadowed. Such cases early show cerebral symptoms, and are met with especially in epidemics and among old patients. Sudden death may be due to the action of the specific toxins, which probably affect the heart centres rather than the myocardium; symptoms of collapse may set in within the first twenty-four hours and rapidly prove fatal. The amount of lung affected, even though extensive, is a much less potent cause of death than toxæmia. The depressing action of the toxins on the cardio-respiratory centres and the weakening effect of pyrexia on the heart muscle are important factors during the crisis, and help to explain the fact that venesection in pneumonia is not attended with such good results as in emphysema, morbus cordis, etc. Against toxæmia, which is the important cause of the high mortality, there are at present no reliable measures at our disposal.

### (129) Post-scarlatinal Palsies.

Alekssjeeff (*Vratch*, No. 42, 1896) says that palsies are rare sequels of scarlatina; only 7 cases, which the author has collected and analysed, have hitherto been recorded. To these he adds 2 cases of his own, and on the basis of these 9 cases he endeavours to frame a clinical picture of this form of paralysis. The affection appears either as an early or late manifestation. The former occurs almost at the very commencement of the scarlet fever, and is characterised by a great tendency to involve at the same time both the upper and lower extremities, and is sometimes followed by aphasia. The latter forms do not appear till the end of the third week of illness, and only one-half of the body is affected. In such cases nephritis and endocarditis are usually met with. The prognosis of post-scarlatinal palsies is good, complete recovery generally taking place. Tonics combined with the use of electricity and massage are useful in promoting recovery.

## SURGERY.

### (130) Umbilical Hernia.

Sébileau (*Sem. Méd.*, January, 1897) gives the following indications for the treatment of umbilical hernia: During the first months of life no operation is necessary, for as a rule the hernia is reduced by contraction, tightening, and obliteration of the umbilical ring. In older children it is important to ensure the reduction of the tumour, as hernia developed in such children does not tend to spontaneous recovery. After 7 years of age operation is the only likely method of cure, as inquiry into the history of umbilical hernia in adults proves that the lesion invariably dates from childhood. Trusses are bad, as they press on the tissues, interfere with nutrition, determine atrophy, and render the abdominal walls unsatisfactory for reconstruction should operation be necessary. An exception may be made in

favour of a light aluminium cast of the front of the abdomen and recti muscles, fastened behind by a broad elastic band; this gives good support, and distends during respiration. In stout persons with any disease or impaired vitality it is better not to operate until serious symptoms supervene. Where there is an irreducible hernia with symptoms of impermeability, operation is indispensable; it should be prescribed for irreducible hernia, even if there have been no acute symptoms, for it is a necessity. It should be solicited for irreducible but incoercible hernia where it is beneficial; it should be advised for a reducible and coercible hernia as advantageous. Sébileau's operation is a modification of that recommended by Quénu.

**(131) Osseous Suture.**

SORRENTINO (*Rif. Med.*, January 6th, 7th, and 8th, 1897) records briefly 37 cases of irreducible or ununited fractures in which at various intervals of time after the injury metallic suture was successfully employed. In 8 cases (1 of the femur, 4 of the tibia, and 3 of the clavicle) the fractures were simple, but could not be reduced, either owing to obliquity, or interposition of soft parts, or blood between the fragments. In 24 cases (9 of the tibia, 8 of the humerus, 3 of the lower jaw, 2 of the femur, 1 of the elbow, and 1 of the knee) the fracture was compound and often complicated with other injuries. In 4 cases the operation was done for pseudarthrosis after fracture, and in 1 case for irregular callus after fracture of the ulna. Union occurred in every case after operation. The author used steel and silver wire, but prefers silver on the whole. In severe complicated fractures better results are obtained by suturing later rather than nearer to the time of injury. In the cases of false joint the results are owing largely to the reawakening of osseous neo-formation due to the presence of the wires.

**(132) A Peculiar Affection of the Mucous Membrane of the Lips and Mouth.**

FORDYCE (*Journ. of Cutaneous and Genito-urinary Dis.*, November, 1896) presented the first case of this disease to the New York Dermatological Society in 1895. The patient was a physician who noticed two years previously a symmetrical fading of the prolabium of the upper lip, extending from the corners of the mouth almost to the median line, leaving only a narrow margin free next to the skin, and a wedge-shaped one in the centre. By putting the tissues on the stretch, closely aggregated milium-like bodies of a light yellow colour, just beneath the surface, were to be seen. On the prolabium of the lower lip was a similar but uninterrupted line. The same condition was present in the mucous membrane of the mouth, along the line of the closed teeth. The patient stated that all other members of his family above the age of puberty were affected. Since his attention was called to the subject, Fordyce has noticed a number of other cases. In one it was associated with an indurated and slightly ulcerated nodule in the centre of the lower lip, probably commencing epithelioma. He therefore suggests that, like Paget's disease of the nipple, it may be a precancerous condition. A section of a piece removed from the cheek showed considerable thickening of the epithelium, which was covered by stratified cells like those of the stratum corneum of the skin. Also the epithelium extended by processes into the connective tissue. The protoplasm of the cells had undergone a peculiar change; it was broken up into irregular granules. These differed from keratohyalin in their large size and irregular outline. The disease differs from leucokeratosis, which presents a uniform bluish-white colour, and not the pale yellow seen here, and is a diffuse, instead of a granular, change. In 1890 Unna described a chronic affection of the lips (Baelz's disease), characterised by thickening suppuration with crusting, followed by scarring. He mentions no change of epithelium which would ally it to the present disease. Jameson discussed (BRITISH MEDICAL JOURNAL, December 7th, 1895) some superficial affections of the prolabia which clinically correspond to Baelz's disease. Galloway has reported a similar case (*Brit. Jour. of Dermatol.*, 1895, p. 113).

## MIDWIFERY AND DISEASES OF WOMEN.

**(133) Puerperal Inversion of Uterus.**

DEVET (*Monats. f. Geburtsh. u. Gynäk.*, December, 1896) favours vaginal extirpation in irreducible inversion, especially when complicated with severe pain or repeated hæmorrhage, stinking fœtid discharge or inflammation of the appendages or parametrium. Périer's elastic ligature treatment, the most improved method of the oldest way of managing an inversion, is perhaps allowable to the practitioner without experience in vaginal surgery. The mortality, however, is rather high, and the after-treatment painful and tedious. Vaginal hysterectomy remains the best way of dealing with irreducible inversion. By adopting Doyen's method of making a median incision through the uterus, the danger of damaging intestine which may lie in the abnormal pouch made by the inversion is avoided.—Henrotay (*Centralb. f. Gynäk.*, No. 1, 1897) attended a woman, aged 22, who had been normally delivered by a midwife some few months past. Four weeks after delivery constant and severe flooding set in. She had become very anæmic. The os externum formed a sharp ring, through which a tumour could be felt. The speculum was applied, and the surface of the tumour was seen to be uterine mucous membrane. All attempts to reduce the uterus having failed, a physiological salt solution was injected, and vaginal hysterectomy performed in twenty minutes, inclusive of the closure of the peritoneum. Henrotay objected to abdominal hysterectomy, and thought that all attempts to reduce the uterus through an abdominal incision would prove useless and involve danger. The operation actually performed proved easy, and was quite successful.

**(134) Prevention of Puerperal Convulsions.**

J. N. UPSHUR, in a paper read before the Richmond Academy of Medicine, records (*Virginia Med. Semi-Monthly*, December 11th, 1896) five cases illustrating the prevention of puerperal convulsions. He emphasises the necessity of the early engagement of the medical man by the patient and his subsequent close supervision of the case. The urine may yield negative evidence, but severe head symptoms (headache, vertigo, etc.), and a hot dry skin may warn us of danger. Excessive eating and overloading of the stomach are exciting causes. The preventive means are care of the diet, regular exercise in the fresh air, and special attention to the bowels and kidneys. In the attack Upshur recommends chloroform, bleeding, and active purgation, with prompt delivery of the child. If the patient remain unconscious after delivery, with symptoms of depression, a hypodermic injection of strychnine nitrate will do good by sustaining the heart, diminishing the cerebral congestion, and keeping up the contraction of the uterus; morphine is positively contra-indicated. In the discussion which followed the reading of Upshur's paper several speakers testified to the good results they had obtained from the use of veratrum viride in such cases.

**(135) An Acephalic Twin mistaken during Labour for a Uterine Fibroid.**

PILLIET exhibited to the Anatomical Society of Paris (*Bull. de la Soc. Anat. de Paris*, No. 22, Nov.-Dec., 1896) an acephalic twin fœtus born immediately after a healthy male infant. The monstrosity had no head or upper limbs, and was nevertheless larger than the normal twin. There was a single placenta, and both cords were inserted near to one another on the membranes (velamentous insertion). The mother, a 4-para, was confined about the beginning of the eighth month, and a small normal infant presented by the feet, and was delivered, the cord breaking in the process. The accoucheur then felt a large soft mass with a groove, which was at first regarded as the sagittal suture, presenting at the os. The medical attendant diagnosed a uterine fibroid, and dreaded a possibly fatal bleeding; but uterine pains expelled the acephalic fœtus, the upper part of whose œdematous trunk had been regarded as a fibroid tumour.

**(136) Primary Cancer of the Fallopian Tube.**

ECKARDT (*Archiv f. Gynäk.*, vol. liii, part 1, 1897) reports another undoubtedly authentic case of this disease which is clearly not so rare as was till recently supposed. The patient was 45, married twenty years, and absolutely sterile. The period was always irregular and very painful. There had been leucorrhœa, but latterly the patient had no

kind of discharge. The disease itself had been noted for only a month before operation, the symptoms being chiefly pelvic pain, dysuria, and painful defæcation. Emaciation had distinctly set in, and the patient noted a hypogastric swelling. Eckardt found the uterus anteverted and fixed. An elastic tumour of the size of a fœtal head at term filled the greater part of the pelvis, especially to the left. The abdomen was opened. There was no ascites; a tumour was found adherent to small intestine and to the uterus; it was seen to be connected with the left cornu. During extraction it burst, and much encephaloid matter escaped. It was at length removed entire with the left ovary. The right appendages were healthy. The patient made a good recovery. The tumour consisted chiefly of the left tube, greatly dilated, and stuffed with papillomatous masses which had undergone cancerous degeneration. The corresponding ovary remained free from any trace of the disease.—Von Rosthorn (*Prager Zeitschrift f. Heilkunde*, Bd. xvii, part 2-3, 1896) publishes a complete report of his case of primary cancer of the tube, hitherto only known through a brief note, The patient was old as 59, but had menstruated till 53. There was purulent discharge from the atrophied uterus, and a cystic swelling in the right side of the pelvis; the inguinal glands were enlarged on both sides. The cyst was removed through a vaginal incision. It proved to be the right tube full of malignant papilloma, with the ovary converted into a small cyst and suppurating, but not involved in the new growth. Half a year later some of the enlarged inguinal glands were excised; the patient died fourteen days afterwards. There were extensive metastases. The above cases show that symptoms at or after the menopause resembling those seen in simple inflammation of the appendages, must always be suspicious. Previous cases will confirm the suspicion of malignancy.

**(137) Extraordinary Hereditary Prolificacy.**

A. Valenta (*Wien. med. Woch.*, No. 3, 1897) has resuscitated the extraordinary case of plural pregnancies reported by H. X. Boër in 1808. The patient, a woman aged 40, suffered much from epileptic fits, and during a married life of twenty years gave birth to no fewer than thirty-two children in eleven pregnancies. There were twice quadruplets, six times triplets, and thrice twins. Twenty-six were boys, six were girls; twenty-eight came into the world alive, and four dead. Her first pregnancy was at the age of 14, and resulted in quadruplets. The mother herself was one of quadruplets, and her mother had a family of thirty-eight children, and died in the puerperium following the birth of twins. There was a hereditary history of plural births on the father's side also, for the patient's husband was himself a twin. Not the least interesting point in this unique case was the coexistence of oft-recurring epileptic attacks and the excessive child-bearing.

**(138) Danger of Vesicular Mole: Recognition of Deciduoma.**

Neumann (*Allgem. Wiener med. Zeitung*, January 19th, 1897) claims to have recently detected malignant deciduoma with metastases in a uterus in which had developed a vesicular mole. The malignant disease undoubtedly originated in relics of the latter growth. He declares that he has already observed several such cases. He urges the importance, not only of clearing the uterus of every trace of a mole of this class directly it is expelled, but of sending a fragment for examination by a competent pathologist. After examining 1,000 sections of moles, Neumann can distinguish the malignant cases, where special cell growths are to be found in the intervillous spaces.

## THERAPEUTICS.

**(139) Serumtherapy of Typhoid Fever.**

At a meeting of the Société de Biologie, on January 23rd (*Med. Mod.*, January 27th), Chantemesse stated that in conjunction with Widal he had investigated the action of the serum of animals inoculated with typhoid bacilli in dead cultures. This serum is to a certain degree preventive, but not curative. To obtain a sufficient antitoxic power it was necessary to have active typhoid toxins; he had, therefore, modified the process of ordinary culture; then he sought to breed a microbe of intense virulence. He had long remarked that animals inoculated with Eberth's bacillus often retain for a long time that bacillus in a living state in the spleen and in bone marrow. Thinking that these must be favourable media, he prepared culture media of spleen, bone marrow, and a little human blood. In these he sowed, after sterilisation, a bacillus which had evolved for two years in successive animals, and which had preserved in a very marked degree the virulence which it had when he extracted it from the blood by puncture of the spleen. After thirty-six hours there is a film on the surface of this new culture medium, and towards the fourth or fifth day the production of toxin is at its maximum. About the fifteenth day it disappears. This toxin can only be kept in a tube sealed and covered from the light; it keeps well at the ordinary room temperature. This toxin is alkaline; if given to an animal by the mouth it is almost completely inactive; injected under the skin or into the blood it is, on the contrary, very active. Twelve to fourteen centigrammes of dried residue of culture with toxin injected into a rabbit cause "enormous diarrhœa"; then the animal dies; after a smaller dose the animal shows hypothermia or hyperthermia, and ends by dying in five to six days. A dose capable of killing a rabbit produces in the dog local reaction and hyperthermia. Five centigrammes of dry residue of filtered toxin injected into the veins of a sheep caused grave symptoms; then the animal recovered, and the dose could be repeated at successive intervals. On *post-mortem* examination of an animal which has died there are found yellow intestinal matters and marked intestinal congestion, but little in the spleen or the liver. By progressive injections in the horse such as the author has been making for nine months past in the Pasteur Institute, a reaction is only obtained by the injection of 60 c.cm. of culture. The serum of these horses is definitely antitoxic, as has been seen in animals. In human patients the effects are favourable, but the experiments must be repeated on a much larger scale before a positive conclusion can be based on them.

**(140) Treatment of Epilepsy.**

Flechsig (*Neurol. Centralblatt*, January, 1897) reviews the unfavourable results of the Flechsig treatment of epilepsy with a combination of opium and bromides, as reported by several writers recently; he considers that in the fatal cases recorded no causal relation to the treatment has been shown, and points out that a fatal result is common enough in status epilepticus without any opium treatment. A careful watch should be kept by the physician for any untoward symptoms, which would indicate withdrawal of the drug; and Flechsig is more inclined to blame the physician than the drug for the fatal results. His own experience of his treatment by increasing doses of opium has been most satisfactory, 6 cases out of 50 treated thus have had no recurrence for 2½ years, and all the cases treated were severe cases of many years' duration, which had resisted all previous treatment. He begins with simple bromide treatment, and later, if there is no improvement, adds opium in increasing doses. If, however, the opium be used, the patient must be treated as one who is seriously ill, skilled nursing and the most careful medical attendance are essential to the treatment.

**(141) Treatment of Acne Rosacea.**

Ohmann-Dumesnil (*Tri-State. Med. Journ.*, September, 1896) says that treatment directed to the removal of any underlying constitutional factor and careful regulation of the diet are generally essential. Among local remedies are the reducing agents, or such as have a tendency to contract the capillaries, and thus reduce the supply of blood to the parts. Sulphur and its various combinations are among the most valuable. The best form in which this can be used in the author's opinion is the following lotion: ℞ Calcis vivæ, ℥ss; sulphuris sublimat, ℥j; aquæ, ℥x; M. Coque ad ℥vj, divide et filtra. The boiling must be carefully done over a water bath in a graduated vessel. The filtration must also be closely looked after, and the filtrate should be perfectly clear. If it is not clear the boiling has not been thorough, or the process of filtration has been imfect. The colour should be ruby red. This should be applied thin at night, and be followed in the morning by an ointment. If preferred, an ointment

may be applied both night and morning. The ointments may contain any of the following reducing agents in varying proportions: Sulphur, ichthyol, resorcin, or salicylic acid, either alone or in combination. The following formulæ are given as types: ℞ Sulphuris precipit., ʒss to ʒj; ung. aquæ rosæ, ʒj, M. ℞ Sulphuris precipit., ʒss; resorcin, gr. xv; ung. aquæ rosæ, ʒj, M. ℞ Ichthyol, ʒj; lanolini puriss.; ung. aquæ rosæ, āā ʒss, M. ℞ Acidi salicylici, ℈j; ichthyol, ʒss; ung. aquæ rosæ, ʒj, M. The amount of active agent employed must be governed entirely by the susceptibility of the skin to its irritating influence, for every one is an irritant. On this account the factitious redness produced by the remedy must not be confounded with the colour due to the disease. In more advanced cases electrolysis, linear and quadrilled scarifications, by means of Vidal's scarifier or Unna's *Microbrenner* an instrument constructed on the plan of the Paquelin thermocautery, whose point, however, is practically a needle, may be useful. In the most advanced stage or rhinophyma the hypertrophied mass can be dealt with only by the knife.

**(142) Exercise Treatment of Ataxia.**

Frenkel, of Heiden (*Deut. med. Woch.*, December 17th, 1896) has treated during the last six years a number of patients by this method, which was first introduced by him, and he has been able to keep some patients under observation for a long time. Improvement in the ataxia was almost always obtained, and much more may be expected of this exercise treatment than is usually believed. The author divides co-ordinated movements into: (1) Those which maintain the body or part of the body in a given position (static co-ordination); (2) those which regulate the change of position of the whole body, as in walking, etc.; and (3) those which effect co-ordinated movements of one or more parts of the body when the centre of gravity is left out of consideration, as in movements of the arms, legs, etc., in the sitting or lying position. Incordination may affect one or more of these groups. No. 1 represents the slightest and No. 3 the severest form of ataxia. The object of treatment is to convert the simplest ataxic movement into a normal one, and this can be effected by the exercises. Insufficient duration of the treatment, or an unsuitable selection of exercises, may give rise to an insufficient result. The author then draws attention to the absence of the feeling of fatigue in locomotor ataxia. In these cases great care is needed to find out the suitable amount of exercises required. The treatment is not without benefit even in cases in which there is marked disturbance of sensation. The movements should be made with the eyes both closed and open. The author gives details of cases in which the treatment produced good results. Perhaps in the earliest cases these exercises may be the means of warding off the ataxia. Sometimes improvement even occurs in some of the other symptoms. The improvement may last for years if the disease is stationary or only slowly progressive. With the intelligent patient it is possible to adapt the exercises to the actual state of the disease, even if slowly advancing. Frenkel says that the treatment is absolutely contra-indicated in cases of acute or subacute ataxia and relatively contra-indicated in cardiac valvular disease and marked arthropathy. There is a danger of fracture in the arthropathies. No results can be expected when other diseases of the nervous system are present. The author finally draws attention to the harm that may be done by passive movements and injudicious active movements, including those against resistance. He gives instances in which fracture, blood effusion, weakness in the legs, etc., have been known to follow such efforts. Prudence should be used in recommending walking exercise. The feeling of fatigue may be absent, and subsequently an increased ataxia may occur owing to the over-exertion. The less fatigue complained of the more needful is caution. Sport of all kinds should be forbidden, and especially cycling, even in the earliest stages of tabes. Any advantages obtained by the improved co-ordination is lost by the baneful effects of the over-exertion.

## PATHOLOGY.

**(143) Chrysoïdin and Cholera Vibrios.**

Blachstein (*Münch. med. Woch.*, November 3rd and 10th, 1896) says that chrysoïdin precipitates cholera bacilli from a suspension of these microbes. Two interesting facts are connected with this flocculent precipitation—namely (1) that the same peculiarity belongs to the serum of those immune against cholera; and (2) that no other body except chrysoïdin is known to possess this property. The nearest relative of chrysoïdin (vesuvin) and over fifty azo bodies investigated by the author have no such action. Gruber names the body in the serum which produces this result "cholera agglutin." Thus chrysoïdin is an artificial cholera agglutin. The experiment with this agent is thus made. An œseful of cholera bacilli are rubbed up in a test tube with 3 c.cm. distilled water, and 10 drops of a 0.25 per cent. solution of chrysoïdin added. In a few minutes, in place of the slight opalescence, dust-like particles are seen, and ten to fifteen minutes later a flocculent precipitate. In one to two hours the precipitation is complete. The flocculi are made up of masses of bacilli. No other cholera-like microbe behaves in the same way. If the reaction is negative Koch's cholera bacillus is not present. Chrysoïdin not only acts as a cholera agglutin, but also as a cholera disinfectant, occupying a position midway between sublimate and carbolic acid. Chrysoïdin is not poisonous. A solution of 1 in 1,000 may be taken in teaspoonful doses without harm. It might be of use in disinfecting water and also in the disinfection of the mouth, gullet, and stomach. It does not reach the intestine, as the solution is absorbed by the stomach and excreted by the kidneys. From his researches the author says that chrysoïdin is not a curative substance, but it may act as a prophylactic. Whilst Gruber maintains that the cholera bacilli adhere together in consequence of becoming sticky, Pfeiffer maintains that most bacteria have this glutinous property, and that agglutination only takes place because the microbes are paralysed. But other substances paralyse these bacilli and yet do not produce agglutination. Gruber thinks that agglutination is brought about by a change in the cholera membrane, but no such change is seen under the microscope. Agglutination is a chemical and not a purely mechanical effect. Chrysoïdin acts in the same way even after the suspension has been heated several times. The author shows that animals inoculated with cholera bouillon containing chrysoïdin continue to live, while control animals die. No such result is obtained when other vibrios are used. Thus chrysoïdin acts again like cholera serum. The author says that bactericidal cholera serum can thus be replaced both theoretically and practically by chrysoïdin.

**(144) Purulent Ophthalmia Neonatorum.**

Chartres (*Arch. Clin. de Bordeaux*, No. 12, December 12th, 1896) has made bacteriological examinations of the pus from 26 cases of ophthalmia neonatorum, and has found very numerous pathogenic microbes. In 36 per cent. of the patients there were gonococci alone; in other instances there were Loeffler's bacilli (12 per cent.), micrococci (12 per cent.), streptococci (8 per cent.), gonococci with streptococci (8 per cent.), and in yet other cases there were mixed germs. The worst instances were those in which there were streptococci either alone or associated with gonoccocci or the bacilli of Loeffler. Such cases ended in loss of vision, or were complicated by a fatally terminating broncho-pneumonia. When the gonococcus alone was found in the pus the prognosis was generally good, treatment resulting in cure. It is easy, therefore, to see that from the point of view of prognosis the bacteriological examination of the discharge at an early stage of the disease is of great importance. The treatment must be energetic from the first, and it ought to be mixed. The author does not deal in this paper with the prevention of the disease, but he remarks parenthetically that while Credé's method is good, care during labour is better still. When the disease is present the first step must be the thorough washing of the eye with a solution of permanganate of potash, so as to reveal the state of the cornea. Chartres then cauterises with nitrate of silver on two or three successive days with frequent eye washings with a solution of boracic acid in the intervals.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

**(145) The Diagnosis of Typhoid Fever and Widal's Test.**

Haedke of Neisser's clinic (*Deut. med. Woch.*, January 7th, 1897) says that puncture of the spleen and the bacteriological examination of the blood gives relatively certain results, but the method is not always available. He has employed it in a large number of cases, always with a satisfactory result. In one case a laceration of the splenic capsule and an extravasation of blood (nearly 100 c.cm.) were fonnd, but the puncture was not responsible for the death. The author has also tried Elsner's method, but only in a small percentage of cases could the typhoid bacillus be thus satisfactorily demonstrated in the stools. He thinks that Elsner's method constitutes an advance, but is not certain. Widal's test has given remarkably good results. Sufficient blood (5 to 6 c.cm.) can be obtained from the finger-tip by means of a lancet if a little pressure is used. A young, vigorous culture of the typhoid bacillus, not more than 18 hours old, is selected. The author does not use a bouillon culture, but obtains the bacilli from the water of condensation collecting in the agar tube. With this culture the bouillon and microscope tests are carried out. The bouillon test is the more certain. The serum and bacilli are added to a bouillon tube, and the whole is examined in 2, 8, 12, and 24 hours. Instead of an evenly divided turbidity, a distinct flocculent appearance is noted, and the bacilli thus sink to the bottom, mostly in six to eight hours. The relative amount of bouillon and serum is important. In every one of 22 cases the author obtained a positive result. In 20 cases of other acute disease the result was negative with the exception of one case, where the result was rather doubtful. The patient had suffered from an illness resembling typhoid fever ten years previously, but the appearance of the bouillon culture was really different here from that obtained in genuine typhoid fever. The bouillon became finely granular, and after shaking resumed the appearance of non-typhoid bouillon. If a drop of typhoid serum was inoculated with typhoid bacilli and examined, the movements of the bacilli were seen to cease, and agglutination and change in form resulted. Sometimes the effect was instantaneous. A negative result was obtained in non-typhoid cases. The author believes that if these appearances rapidly supervene, the case may be looked upon almost certainly as typhoid fever. In other cases the bouillon test should be used in addition. How long the serum retains its agglutinative power cannot be definitely stated. These cases were examined in the first to sixth week of the disease and one in a relapse. The author give some details of the more striking cases.

**(146) Tuberculosis and Heart Disease.**

Barié (*Sem. Méd.*, December 11th, 1896) asserts that recent researches have not only shown that there is no antagonism between tuberculosis and heart disease, but that tuberculosis may invade the heart itself. There may be tuberculous pericarditis, or endocarditis, or tuberculosis of the myocardium. The most frequent lesion of the myocardium is a large tubercle, varying from the size of a lentil to that of a hen's egg. These are frequently multiple. A second variety is miliary tuberculosis scattered throughout the tissues of the heart. This form is more rare. Genuine tuberculous myocarditis is still more rare, and is accompanied by sclerotic hypertrophy and blanching of the cardiac muscle. Tuberculosis of the myocardium is met with in all degrees of evolution except breaking down or forming cavities. It is probably transmitted through the veins as in miliary tuberculosis. The pulmonary veins may contain tuberculous products mixed with blood and carry them into the left cavities; myocardial tuberculosis is most frequently localised in the left ventricle. Tubercles in the cardiac muscle are often consecutive to tuberculous pericarditis; this is frequently the case in the pulmonary phthisis of cattle. Symptoms are those of constitutional disturbance observed in all cases of chronic heart disease. Cyanosis due to the pressure of the tubercle on the pulmonary veins has been observed, also dyspnœa, palpitation, syncope, arhythmia, tachycardia—in short, the usual symptoms of myocarditis. Tubercle of the aorta and larger arteries has been observed, but is extremely rare.

**(147) Percussion of the Spine.**

Bechterew (*Neurol. Centralbl.*, December, 1896) points out the diagnostic value of percussion of the lower part of the spine. In the sacral region over a triangular area with its base at the upper level of the sacrum and its apex at the tip of the coccyx there is normally a slightly tympanitic note. In cases where there is some morbid change, as in a case where the cauda equina was compressed by a fungoid tumour, the percussion note was definitely altered. Localisation of a lesion may thus be facilitated; in the case mentioned the localisation was proved *post mortem* to be correct.

**(148) Broncho-pulmonary Hæmorrhages in the Newborn.**

Demelin analyses the results of twenty-two observations of broncho-pulmonary hæmorrhages in the newborn infant reported by various observers past and present (*Rev. Obstét. Internat.*, No. 73, January 1st, 1897). In such cases apoplectic areas (often multiple) are found in the lungs, usually at the bases and posteriorly. The bronchi and trachea often contain blood, and so do the stomach and intestine, and in the latter fact probably lies the explanation of the puzzling cases of so-called melæna neonatorum, with complete integrity of the mucosa of the digestive tract. The predisposing causes are prematurity, congenital debility, the male sex, and malformations: while the hæmorrhage is most often produced by thoracic compression in breech cases or in turning; it may, however, occur after labour is over from congenital friability of the blood vessels. The most prominent symptoms are cyanosis, and the escape of blood from the mouth or nose, along with slow and painful respiration, and sometimes œdema of the lower limbs. Death follows in a few minutes or in a few hours. The diagnosis is easy when there is external hæmorrhage, care being taken not to confound the condition with gastro-intestinal bleeding; the distinguishing feature is the cyanosis which exists in the pulmonary cases. When there is no external hæmorrhage the diagnosis is difficult, and rests upon the cyanosis and the physical examination of the chest. The prognosis is always very grave, and treatment ought to follow the lines indicated for severe hæmorrhages. Billard recommended the application of a leech in the axilla on one or both sides. Usually, however, there is no time for treatment.

## SURGERY.

**(149) The Pathogenesis of Aponeurotic Lacerations and Muscular Hernia.**

Janni (*Rif. Med.*, November 23rd, 24th, 25th, 1896) reports the case of a muscular officer who, whilst marching three months previously, was suddenly seized with severe pain in the middle third of the antero-external region of the left leg. A few days' rest seemed to cure it, but on trying to walk the pain returned. Each time exercise was attempted pain recurred for a period of three months. Nothing could be felt externally during this time. On being further examined a small zone of lessened muscular resistance could be felt over the painful area. An incision was made, and the aponeurosis was found ruptured for about 2 cm. in length. There was no hernia of the muscle, and no rupture of its fibres. The aponeurotic laceration was sutured, and perfect recovery followed. The author then made experiments on dogs, and found that after a small laceration of the aponeurosis without injury to the muscle no hernia took place either during contraction or relaxation. He also found that, except at the very beginning of a muscular contraction, the muscle exercises no eccentric pressure on its aponeurotic sheath, as estimated by a manometric column of fluid. The author's experiments seem to show that a muscle, except under special conditions, cannot rupture its sheath, but clinically this appears to be the only possible explanation in certain cases, as, for example, the case recorded by the author himself. When opposing

muscles are not acting, or there is some morbid change in the relations between the muscle and its sheath (as, for example, in atrophy, etc.) rupture of the sheath may occur from simple contraction.

**(150) The Etiology of Abdominal Abscesses.** Kreibich (*Wien. klin. Woch.*, September 24th, 1896) records five cases illustrating this difficult question. The first patient was 52 years of age, and was the subject of a perinephric abscess, the symptoms of which came on very slowly. The abscess was opened and recovery was rapid. The pus contained staphylococci in small amount; cultures reproduced the staphylococcus pyogenes aureus. The second case was also one of perinephric abscess of somewhat acute onset, though of even longer duration than the first. The patient, a man of 36, soon got well after evacuation of the abscess. No bacteria were found in the pus except a few rods and coccus-like forms within some of the leucocytes. All attempts at cultivation were unsuccessful, as also were experimental inoculations into guinea-pigs and mice. No tubercle bacilli were present, although the man had some infiltration of both apices. The third case was that of a woman, aged 43, who had a preperitoneal abscess of six weeks' standing. Operation effected a complete cure; the pus contained the streptococcus pyogenes. The first two cases resembled each other in their situation and their slow course; but while in the second the presence of pyelitis pointed to infection from the urinary tract, there was no evidence to indicate whether the first originated through the blood, the intestinal canal, or the urinary organs. The absence of living organisms in the second case may possibly have been due to changes resulting from the long duration of the disease; in this respect it would resemble those abscesses of the uterine adnexa in which the pus is sterile. The preperitoneal abscess in the third patient may have arisen by infection either from the gut or the gall bladder. The fourth case was that of a man, aged 33, who was suddenly taken ill with colicky pains, vomiting, rigors, and fever. Six weeks later a tumour was observed in the umbilical region, and, after another three months, laparotomy was performed, and an abscess opened reaching to the head of the pancreas. Five weeks later the patient died, and the necropsy revealed a perforated duodenal ulcer, which had led first to a local and eventually to a general peritonitis. In the pus of the abscess, the secretion of the resulting fistula and the exudation of the general peritonitis was found an encapsuled bacillus, which was proved by cultures and inoculations to belong to the same group as Friedlaender's pneumonia bacillus. The last patient was a woman, aged 52, whose illness, characterised mainly by anorexia and hypochondriac pains, had lasted four months when she was admitted. There was a tumour extending from the right hypochondriac region to the umbilicus; this was found to be an abscess, and was opened and drained, a good recovery resulting. In the pus a micro-organism was found having definite cultural and pathogenic characters, but the author was unable to decide whether it was a bacillus or a vibrio, and, after numerous experiments, had to leave the question open. He considers that the abscess arose round an empyema of the gall bladder conditioned by the entrance of this organism from the alimentary canal. All these cases were operated on in Gussenbauer's clinic.

**(151) Tendon Grafting and Muscle Transplantation for Deformities following Infantile Paralysis.** Milliken (New York *Med. Rec.*, November 28th, 1896) has operated 14 times on 9 patients, forming 8 classes of operation: (1) Transplantation of sartorius into sheath of paralysed quadriceps extensor. (2) Graft of extensor proprius pollicis to paralysed tibialis anticus. (3) Gastrocnemius attached to paralysed peronei. (4) Extensor longus digitorum to paralysed tibialis anticus. (5) Tibialis anticus to paralysed extensor longus digitorum. (6) Extensor proprius pollicis to paralysed extensor longus digitorum. (7) Flexor longus pollicis transplanted to anterior surface of leg, and attached to tendon of paralysed tibialis anticus. (8) Graft from deltoid attached to tendon of paralysed triceps. There was only in one case failure to obtain union between the transplanted muscle and its attachment. The results were very encouraging in every case, but one. The following conclusions are drawn: (1) Infantile paralysis in the majority of instances attacks groups of muscles, or an individual muscle of a group. (2) Operative interference should be practised with a hope of re-establishing symmetry of the limb, and can be done in two ways: (*a*) when a whole group is paralysed a healthy muscle with its proper origin must be transplanted, and given the insertion of the paralysed group; and (*b*) when only part of the group is involved tendon grafting should be performed, so as to make one or more muscles do the work of those paralysed. (3) Animal sutures, preferably kangaroo tendon, should be employed in tendon and muscles, and to close the sheath; as this material requires 21 days for absorption, perfect union will generally be obtained. (4) Skin incision closed with interrupted catgut sutures, and sealed with dressings of collodion cotton. (5) Perfect immobilisation obtained best by plaster-of-paris. (6) The best results are to be expected in young subjects, as advantage is taken of the natural growth of muscle on which the additional work is placed.

**(152) Primary Sarcoma of the Small Intestine.** Mermet (*Bull. de la Soc. Anat. de Paris*, November, 1896) records the case of a woman aged 32, who came under observation with attacks of painful diarrhœa, and a tumour below and to the left of the umbilicus, which was thought to be a pyosalpinx adherent to the intestine. Laparotomy was performed, and the tumour was then found to involve the jejunum at one metre's distance from the duodenum. The portion of intestine was resected, but the patient died the next day. The growth was 20 c.cm. in length, and had sharp margins. The affected part of the gut was enlarged to the size of the transverse colon, its lumen also being increased in size. The mesenteric glands were enlarged. At the operation no other secondary growths were seen, but there was no necropsy. The growth was a small round-celled sarcoma, starting on the submucosa, and had infiltrated all the coats of the bowel. The author lays stress on the points of distinction between sarcoma and lymphadenoma of the intestine. Reference is made to 23 other cases of sarcoma of the small intestine. It occurs much oftener in males than in females—usually between 30 and 40 years of age, while lymphadenoma occurs earlier. In 8 out of 14 cases recorded by Balzer the growth was a small round-celled sarcoma.

## MIDWIFERY AND DISEASES OF WOMEN.

**(153) Laparotomy for Traumatism in Pregnancy.** E. Sava (*Archivio di Ostet. e Ginecol.*, November, 1896) records the case of a multiparous woman pregnant at the eighth month, who was brought into hospital suffering from a round penetrating wound with irregular ecchymosed edges in the epigastric region. She had fallen on a sharp piece of wood which had caused the wound. The patient was conscious, her pulse was small and frequent, and the temperature subnormal. There were no signs that labour had set in and the uterus was unwounded; but as there was evidently internal hæmorrhage laparotomy was performed. The source of the bleeding was found in a laceration of the epiploon; this was sutured and the hæmorrhage ceased. Some saline solution was left in the peritoneal cavity, as is done in cases of grave anæmia, and the abdomen was closed in the usual way. The woman left the hospital twenty days later, and she was delivered soon afterwards of a living, well-developed child; she was seen by the author a month after the confinement, and she remained well. The case is interesting because the pregnancy, notwithstanding the triple traumatism (the fall, the puncture of the abdomen, and the laparotomy) went on uninterruptedly to the full term.

**(154) Bringing Down the Foot in Breech Presentation.** Achsharumoff (*Monats. f. Geburt. u. Gynäk.*, January, 1897) acting on the collected opinions of others, has adopted this practice successfully in 42 of his own cases. Bringing down the foot is a prophylactic measure in breech presentations which has no unfavourable influence on the course of the labour. Indeed Achsharumoff finds that pains

weak before the manœuvre become strong after it. The chance of spontaneous delivery of the lower part of the trunk becomes greater, and if the labour lingers the trunk can be all the more easily extracted. The child is more likely to be saved when the foot has been brought down.

**(155) Uterine Fibroid: Acute Torsion.**

Heurtaux (*Bull. de l'Acad. de Méd.*, No. 50, 1896) refers to a case of twisting of a pedunculated fibroid reported by Schwartz (*ib.*, No. 48, no full clinical notes), and relates another case in his own experience. The patient was 48, and had been subject for three years to violent attacks of pain coming on every two or three months. These had no relation to the periods, and the pain started in the left ovarian region; they were accompanied by nausea, often vomiting, and dysuria. There was seldom any fever. The pain abated within a few hours; morphine seems to have been usually given. At length an attack of great severity occurred: the pains lasted several days, and there was clear evidence of peritonitis. A painful tumour was detected rising high in the hypogastrium. It seemed to lie in front of the cervix. It was taken for an ovarian cyst with a twisted pedicle. Abdominal section was performed. The tumour adhered closely to all surrounding structures by recent lymph, easily broken down. It was a pedunculated fibroid as large as two fists. The pedicle was 2 inches long and as thick as a man's forefinger: it was attached to the uterus near the left cornu, and was twisted one entire turn from right to left. The pedicle was tied and divided. This operation was performed in January, 1893. Last December, nearly four years after the operation, the patient was well and the pains had not recurred.

**(156) Double Ovariotomy at Third Month: Delivery at Term.**

Périer (*Gaz. des Hôpitaux*, January 21st, 1897) read before the Académie de Médecine, Paris, in January, notes of a case in which Mouchez, of Sens, removed both ovaries in a woman three months' pregnant, for double cystic disease. The patient made a good recovery, and a live child was born at term. Numerous ovariotomies have been performed on pregnant women, but removal of both ovaries during gestation is unusual, not one dozen cases having been reported. Mouchez insists that operation as early as possible is indicated when double cystic disease is diagnosed during pregnancy. The danger of waiting is greater than the danger of operating.

**(157) Tubal Pregnancy in an Inguinal Hernia.**

Max Jordan (*Münch. med. Woch.*, January 5th, 1897) reports a case of rupture of a tubal gestation in an inguinal hernia in a 3-parous woman, 37 years of age, who had previously suffered from a pelvic abscess resulting from pyosalpinx which had been opened above Poupart's ligament on the right side. She had also been operated upon for a vesico-vaginal fistula. She was between two and three months pregnant when she was seized with violent abdominal pain and vomiting. The abdomen was distended and tympanitic, and in the position of the left external inguinal ring was a hernial tumour the size of an apple, which could not be reduced. The signs of ileus continuing, the patient was operated upon, and in the hernial sac was found a fœtus with the uterine appendages and intestinal coils adhering together. The patient died, and at the necropsy multiple intestinal stenoses were discovered, along with chronic interstitial nephritis. The uterus contained decidual membranes. The right tube was adherent to neighbouring parts; the left was that in which the pregnancy had occurred.

**(158) Total Hysterectomy at Term: Contracted Pelvis.**

Pinard and Segond (*Gaz. des Hôpitaux*, January 21st, 1897) treated a pregnant woman who was much deformed. There was scolio-kyphosis and asymmetrical pelvis; the anterior and posterior bony boundaries on the right side almost touched. It was agreed to let pregnancy go on to term and then to remove the uterus. On December 16th, 1896, the operation was performed directly pains set in, term having been reached. A very free abdominal incision was made; then the uterus was pulled out, and immediately afterwards the upper part of the wound was closed by forceps applied to its edges so as to prevent prolapse of intestine. The elastic ligature was applied and the child extracted; it weighed 8 lbs., and was living and strong. Then the placenta was extracted. Pressure forceps were applied to the edges of the wound in the uterus, and that organ was then amputated, with its appendages, after the American method—that is, by a continuous incision from left to right. On January 19th the patient was quite well.

## THERAPEUTICS.

**(159) The Roentgen Rays in the Treatment of Cancer.**

V. Despeignes (*Lyon Méd.*, December 28th, 1896) states that after the appearance of his report of a case of cancer in which the Roentgen rays appeared to have a good effect (*ibid.*, July 26th and August 9th, 1896) he received a communication from L. Voigt, Director of the Vaccine Institute of Hamburg, giving an account of the following case: The patient was a man aged 83, who had complained for nine months of difficulty in swallowing and pain in the left ear, and in the occipital and cervical distributions of the left facial nerve. There was a small epithelial cancroid ulcer in the mouth, starting from the lingual fold, with an enlarged gland in the submaxillary region. Salivation was continual and pain so severe as to require regular administration of morphine. On August 28th the application of Roentgen rays was begun with an apparatus yielding sparks of 10 cm., used in two daily sittings of one half and sometimes a quarter of an hour; the pain almost immediately diminished so much that the morphine was discontinued, except an occasional dose at night to induce sleep. The patient was beginning to hope for a cure, but the disease invaded the left part of the tongue, salivation did not cease, and the difficulty in swallowing increased. The patient became emaciated, and died on October 22nd of pneumonia after 100 applications of the rays, which gave him considerable relief. The good effect of the rays cannot be attributed to suggestion, as it lasted eight weeks, nor to destruction of sensory nerves, since these were not destroyed. The growth did not, as in Despeignes's case, diminish in volume. It may, however, be taken as proved that if the rays have little or no action on the evolution of the disease their anæsthetic effect is very marked. It may be added that after the eightieth sitting the skin of the left cervical region became almost as black as that of a negro; a similar pigmentation took place on the right side when the rays were directed upon that side.

**(160) Digitoxin.**

V. Starck (*Münch. med. Woch.*, January 26th, 1897) draws attention to the disadvantages attending the use of the ordinary preparations of digitalis leaves. Merck has introduced a crystalline digitoxin which acts promptly, has no unpleasant by-effects, and lends itself easily to the requirements of dosage. Unverricht has administered this preparation *per rectum*, by the mouth, and subcutaneously. The author has used Merck's digitoxin in tablet form in 14 cases of cardiac disease, namely, 10 of valvular disease, 1 of fatty deposit on the heart, 2 of myocarditis, and 1 of arterio-sclerosis with renal complications. The tablets were well taken, and did not exercise any appreciable irritant effects on the stomach. The digitoxin was without effect in the case of fatty deposit on the heart and of only passing benefit in one case of myocarditis, but of marked value in the second case of myocarditis. In the cases of valvular disease with severe disturbance of compensation the beneficial effects belonging to digitalis leaves appeared. The result was obtained on an average in about twelve hours. In the case of arterio-sclerosis a more distinct diuretic action was observed under digitoxin than digitalis infusion. In 3 cases digitoxin had to be given on subsequent occasions, and always with good results. In one case symptoms of digitalis intoxication arose after the digitoxin had been given during three days, but these disappeared under camphor injections in four days time. At the end of this time the cardiac symptoms were improved, notwithstanding the intoxication. The dose was here, perhaps, too large, as 8 doses of $\frac{1}{4}$ mg. were given in

the three days. Usually the dose employed was ½ mg. twice a day, 10 such doses being sufficient. Wenzel and Unverricht have employed rather larger doses. Thus Merck's crystalline digitoxin may take the place of the usual preparations of digitalis leaves. The use of digitoxin requires much care, the pulse being especially watched. As to whether the addition to the digitoxin of other isolated and pure constituents of digitalis leaves would increase the therapeutic effect must be left to future investigation to determine.

#### (161) Eucaine.

G. W. Spencer (*Univ. Med. Mag.*, Philadelphia, November, 1896) has used eucaine hydrochlorate as a local anæsthetic in 20 cases of operation for various conditions, such as ingrowing toenail, abscess of the jaw, face, and elsewhere, infected wounds, epithelioma of nose, sebaceous tumour and ganglion; and his conclusion from this experience is that this agent produces the most complete local anæsthesia of any drug used up to date. He gives a table with full particulars of the operations, and the results were entirely satisfactory. In experiments made to determine the value of various local anæsthetics in operating upon ingrowing toenail, the same operative method was practised in all the cases, no matter what anæsthetic agent was employed. An attempt was made in a certain number of these cases to produce anæsthesia before and during the operation by constriction and ethyl chloride, and to produce it after the operation by the application of pure carbolic acid. This method was soon abandoned, as the anæsthesia was incomplete, but by the employment of eucaine in addition to the above means, the operation was rendered absolutely painless from the beginning to the end; in fact none of the patients were inconvenienced by pain, and the first pain they were conscious of was caused by the redressing twenty-four hours after the operation. The amount of eucaine to be used will depend upon the severity and duration of the operation. When the solution is to be injected as in the case of punctured wounds, tumours, etc., from 1 to 2 drachms of a 5 per cent. solution will be sufficient in most cases to cause complete anæsthesia. When the drug is to be applied to a raw surface or to mucous membrane, as in ulcers, if the surface is large it is best to apply 1 drachm of a 5 per cent. solution to the wound, then saturate a thin piece of cotton with a like amount of the same solution, and allow this to remain in contact with the surface for five minutes. At the expiration of this time the area can be lightly curetted without pain. After the superficial tissues of an ulcer have been removed by light curettement, two more drachms of the solution should be applied in the same manner. Small ulcers can be treated by the same process by using smaller amounts of the drug. In 11 of the cases the anæsthesia was complete within five minutes after the application. In seven cases it was complete three minutes after the administration. In one case anæsthesia was present two minutes after the introduction of a half-drachm of a 5 per cent. solution, and in one case in which the tissues were infiltrated with inflammatory products the anæsthesia was not complete before ten minutes. No systemic effects of the drug were observed in any of the cases. Eucaine is rapid in action, safe, produces positive and prolonged anæsthesia, causes no serious after-effects, and can be rendered aseptic by boiling. The author considers it the best local anæsthetic before the profession.—Legueu, at the Association Française des Médecins et Chirurgiens Urologistes (*Méd. Mod.*, October 28th, 1896), reported that for six months he had used eucaine instead of cocaine for three reasons: (1) the anæsthesia is at least equally perfect; (2) its toxicity is less, inasmuch as two guinea-pigs of the same weight are killed by 6 centigrammes of cocaine in three-quarters of an hour, and 8 centigrammes of eucaine in an hour and a-half respectively; (3) the solution can be sterilised by heat, whereas cocaine is decomposed by this means. He uses solutions of a strength of 1 in 100 to 1 in 500; he injects under the skin 8 to 10 c.cm. of a 1 in 100 solution, and into the bladder 100 to 200 g. of the 1 in 500 solution. The only drawback which he has found in eucaine so far is that it causes congestion of the parts to which it is applied.

#### (162) Glutoid Capsules.

Sahli (*Deut. med. Woch.*, January 1st, 1897) enumerates the objects of using pills possessed of a coating insoluble in the stomach as being (1) that substances can pass undissolved through the stomach into the intestine, where a local action is desired, as in the case of intestinal antiseptics; (2) that substances likely to be changed or destroyed by the gastric juice can pass through the stomach unaltered; and (3) that substances which are better tolerated by the intestine than the stomach can be thus administered. The methods hitherto used of coating pills for this purpose have not always proved satisfactory when tested either by experiment or by administration to patients. The author has investigated many kinds of coating, such as fat, wax, etc., but he has obtained the best results with capsules. Many experiments have been made by him upon gelatine capsules, with the object of so hardening the gelatine as to make it insoluble in hydrochloric acid and pepsin. With the help of Hausmann and Weyland formaldehyde was found to give very satisfactory results, and the name "glutoid" capsules has been given to the gelatine capsules thus hardened. The results of numerous experiments extending over two years show that these capsules can resist artificial peptic digestion for eight hours, or even longer, and pancreatic digestion for an hour and a half to three hours. In some cases a less degree of hardening suffices, and an advantage lies in the fact that the hardening can be exactly controlled. The author has also found that these glutoid capsules can completely resist digestion in the living stomach, and be dissolved in the intestine. Such agents must naturally only be included in the intestinal capsule as have not great diffusion powers. In a further communication Sahli will deal with the question of the most desirable substances to use, and will detail his investigations into the digestive processes with these glutoid capsules containing such indicators as salicyl and iodine preparations.

## PATHOLOGY.

#### (163) Microbic Diseases.

Jaccoud (*Sem. Méd.*, January, 1897) maintains that microbial diseases may be divided into two distinct classes: (1) Those that are invariably of extrinsic origin, and which never exist in the normal organism, but can only be present as a result of transmission from the outside; (2) those to which the doctrine of etiological dualism applies, in that they must be and often are of intrinsic origin, because their microbes may exist in a healthy organism without injury to the latter, becoming noxious only in consequence of changes undergone by the organism itself. There are two varieties of pathogenic microbes—the indifferent variety, the noxious action of which shows itself in different ways, according to the organic predisposition of the subject, for example, staphylococci, streptococci, pneumococci, bacillus coli communis; and those specific agents which produce invariable effects, such as the bacilli of tuberculosis, diphtheria, typhoid fever, etc. With specific microbes the introduction of the morbid agent and the onset of the disease are not isochronous. In some cases there is no disease, and the introduction of the microbes is without effect. In other cases the disease may not appear for an indefinite time during which the microbe remains in the organism without harm. This may be for months or years, until changes brought about by somatic or cosmic influences cause it to produce its special effect. The only known diseases not dependent on the laws of the duality of the source and dischronism of the effects of infection are zoonoses, eruptive fevers, and syphilis and gonorrhœa. In almost all diseases morbid autogenesis by changes in the organism is the rule, and the traditional etiology based on heredity, congeniality, predisposition, constitution, temperament, or on somatic and cosmic influences, retains all its force. These multiple and variable elements are the true causes of disease; the microbe is only the instrumental agent. The theory of etiological dualism as applied to all diseases with normal or indifferent microbes restricts the *rôle* of transmission from the outside, that is to say, contagion in all forms. A common error is that of considering any infection as recent and its results as immediate.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

**(164) Protection of Man against Asiatic Cholera.**

Kolle, of Koch's Institute (*Deut. med. Woch.*, January 1st, 1897) refers to the researches which have shown that the protective action of cholera serum is strictly specific, and due to the presence of specific bactericidal substances. The author has been able to show that the serum of individuals inoculated with cholera vibrios contained these substances, and not bodies antitoxic to the cholera poison belonging to the vibrios themselves. His investigations into the changes in the blood carried out on seventeen volunteers should serve as a means of estimating the value of Haffkine's protective inoculations. After the injection blood was withdrawn by the artificial leech, etc., and the serum separated and examined. The cholera cultures used possessed an equal virulence which was always determined by ascertaining the minimum fatal dose. Whereas the limit of protection before the injection was represented by 0.5 c.cm. of the serum of those inoculated, 0.00015 c.cm. of the serum taken eighteen days after the injection protected guinea-pigs against the disease. Variations were employed in the inoculations. In the first set of cases the method corresponded to that of Haffkine. Cholera culture previously killed by chloroform vapour was first injected, then a similar amount of living and very virulent vibrios after five days, and again a larger amount after a further interval of five days. In a second set of experiments only one injection of a killed cholera culture was given. In a third set the killed culture had been kept at room temperature for four weeks. As regards any distinction between the injection of living, dead, or the preserved cultures, nothing noteworthy was made out. A local and general reaction was noted. After a single injection the greatest protective powers of the serum were observed, and in such case this protection was found to be as great at the end of a year as in those inoculated with living cultures. Thus a sterilised vaccine is also from this point of view preferable to a living virus. With one exception the serum of none of those inoculated possessed greater protective powers before the injection than they did one year after it. The serum of those vaccinated against cholera had no protective action against other vibrios resembling the cholera micro-organism. The protective powers do not develop before the fifth day. They gradually increase up to the twentieth, and then diminish gradually. Kolle draws attention to the agreement between these results and those of Haffkine based on statistics. He emphasises the value of these inoculations in India, although the protection lasts only a year. In Europe they are not likely to find any wide application, but even here under special circumstances such vaccination may be desirable.

**(165) Paralysis after Mumps.**

L. Revillion (*Rev. Méd. de la Suisse Romande*, December 20th, 1896) reports a case where, directly after an attack of mumps, a boy, aged 7, became paralysed. Weakness of the legs was first noticed, and this was followed by dysphagia and rapid emaciation. The legs could be slightly moved, but he could not stand. There was left facial paralysis. Both eyes could be shut together, but the left not alone. The tongue could be scarcely protruded as far as the lips, and deviated to the right, but there was no atrophy. The movements of the palate were sluggish. Swallowing was almost impossible, and liquids swallowed brought on a paralytic cough, so that feeding with the tube was necessary. Respiration was laboured and sighing. All four limbs were equally affected. The sphincters, special senses, general sensation, and the vasomotor system were intact. Faradic excitability of the left facial was diminished. Galvanism caused great pain but no contraction. The cranial nerves involved were: the sixth on both sides, the left facial, the right hypoglossal, the external division of the spinal accessories to the neck and the internal (recurrent) branches. Diagnosis: Infantile paralysis could be excluded and diphtheritic paralysis was thought probable, but all inquiries negatived this. There had been no case of diphtheria in the commune for 5 years; the boy's throat had been examined when the mumps began, and no signs of diphtheria were present; his brothers and sisters all had mumps about the same time. Under treatment (hypodermic injections of strychnine, massage, etc.) the boy rapidly improved, and was quite well in about six weeks. It is not surprising that mumps, being an acute specific disease, should be followed by paralysis; nevertheless, only one other case has been reported.

**(166) Splenomegaly followed by Hepatic Cirrhosis.**

Bonardi (*Gazz. degli. Osped.*, January 3rd, 1897) records the case of a middle-aged woman, who, after prolonged suckling (twenty-two months), suffered from severe metrorrhagia and influenza, and at the same time first noticed a hard, tender swelling in the left hypochondriac region. Admitted into hospital at this time (1889), splenectomy was proposed but refused by the patient. The patient was readmitted in August, 1893, with enlarged spleen, anæmia, diarrhœa, slight trace of albumen, and mitral systolic murmur, but no ascites and no alteration in the liver. She was treated with injections of iron and arsenic, under which she improved considerably. She returned to the hospital in February, 1896, complaining of further swelling of the abdomen, evidently due to ascites. Examination of the blood showed: white corpuscles, 8,500; red, 2,780,000; no microcytes. The urine contained abundant urobilin but little urea. The patient improved somewhat under a milk diet and the administration of urea, but ultimately paracentesis was performed—and repeated twelve times, the fluid later being milky, specific gravity 1021, albuminous, and rich in white, disintegrated corpuscles. Bacteriological examination of the blood gave negative results. There was no history of malaria or syphilis, but she had suffered for many years from pellagra. There had been no abuse of alcohol or food likely to cause cirrhosis.

## SURGERY.

**(167) Cerebral Abscess due to Ear Disease.**

Grunert, of Schwartze's clinic (*Berl. klin. Woch.*, December 28th, 1896), observes that the prognosis of operative treatment is not as good as might be expected, (1) because these abscesses are not infrequently multiple (20 per cent.), and (2) because of the difficulty in correct diagnosis. A number of these abscesses run a latent course. Occasionally the symptoms are few and of a passing character. Again, the patient is sometimes seen in the last stage of the disease when the abscess has burst through on to the surface of the brain, or has ruptured into the ventricles. Even when the patient has been under observation in hospital for some time diagnostic mistakes are possible. When the abscess is complicated by other intracranial complications, a correct diagnosis may be out of the question. Case: A patient, aged 32, had a discharge from the ear for several weeks. The mastoid region was reddened and tender. As no improvement occurred the mastoid was opened and a breaking-down cholesteatoma cleared away. Symptoms of intracranial disease persisted, the pain radiating from the ear being marked. Either an epidural or a cerebral abscess was believed to exist. The absence of fever was not against this view. Considerable mental change was noted, consisting of impairment of memory, excitement varying with depression. There was infrequency of the pulse, marked constipation, loss of appetite, wasting. The greater frequency of temporo-sphenoidal than cerebellar abscess, the headache limited to the right temporal and frontal region, and the ultimate appearance of a distinct hemiparesis and anæsthesia on the opposite side indicated the situation of the abscess. A large cavity in the temporal lobe was laid open and drained. The pus contained the streptococcus in pure culture. The symptoms due to the abscess soon disappeared, and seven and a-half months later the patient was quite well. In the case of cholesteatoma even this period is too short to preclude the possibility of relapse. These cases should be observed for a long time. If the whole of the disease is not cleared away a reappearance of intracranial

symptoms is possible. One case of cerebellar abscess operated on by Schwartze ten years ago, and another of temporo-sphenoidal abscess three years ago remain in good health.

**(168) Congenital Dislocation of the Hip.**

Paci (*Archiv. di Ortoped.*, Au. 13, 6) contributes a final article on this subject. After referring to several cases successfully treated by his method, he reports fully the case of a child, aged 7, operated upon in May, 1892, for double congenital dislocation by the same method. The results were satisfactory. The child died of dysentery in September, 1892, and the author was able to secure the pelvis and femora. Excellent photographs of the preparation illustrative of the results and confirming the author's views on the treatment of this disease accompany the paper. A full description of the anatomical and pathological condition is given. The author then enters into a polemical discussion as to his method and that of Lorenz, which is a modification thereof. A comparative table is given showing the chief differences in the two methods (both bloodless) of treating congenital dislocation.

**(169) The Etiology of Trachoma.**

Chibret (*Wien. klin. Rundschau*, November 1st, 8th, 15th, and 22nd, 1896) has investigated this subject from the statistical and geographical points of view, and has arrived at the following conclusions: The micro-organism of trachoma is still unknown. There are some analogies between the corneal granulations in trachoma and the typical lesion of tubercle. The different forms, simple trachoma, catarrh, folliculitis, granulation of the conjunctival tissue, and spring catarrh, are merely the various ways in which the cornea may react to trachomatous infection, but all, like trachoma itself, may have another origin than specific trachoma infection. Direct contagion is only common in neighbourhoods where the population is very susceptible, and where the virulence has been heightened by the susceptiblity. In neighbourhoods where the frequency of trachoma falls below 1 per cent. there is practically no fear of infection. The etiology of trachoma is dominated by the racial factor. Racial immunity may be absolute as in the aborigines of Canada, or relative as in negroes and Celts. Among relatively immune people the virulence is slight and infection rare. Half-castes participate in greater or less degree in the immunity of their ancestors. The three great races of mankind, the black, white, and yellow, are unequally resistant to trachoma; the negro is relatively immune (0.2 per cent. or less); the white man is of medium susceptibility (0.5 to 50 per cent.); while the yellow race is the most vulnerable (70 to 75 per cent.). Profession appears to have but little real influence. Insufficient nourishment, bad hygienic surroundings, and uncleanliness are predisposing causes, as also is the lymphatic constitution. A mountain climate, especially in combination with cold and damp, is unfavourable to the spread of trachoma. In a hot climate, however, the influence of height is counterbalanced by the action of unfavourable circumstances. Certain climatic conditions on the sea coast appear to act in a similar manner to high altitudes. Finally insolation, drought, and heat raise the susceptibility of individuals, and may annul the immunising influence of elevation.

**(170) Graves's Disease Treated Surgically.**

Tricomi (*Il Policlinico*, November 15th, 1896) reports three cases of Graves's disease in which he removed parts of both lobes of the thyroid with resulting benefit. According to Buschan's figures 98 cases of operation in this disease have been recorded up to now; of these, 26 have not been fully reported with regard to the results, 43 died, 25 improved markedly, 16 were cured. The author's cases were typical, the goître very prominent, right lobe larger than left (in one case the median lobe was also developed). Palpitation, exophthalmos, frequent pulse (120 to 130), tremor, etc., were all present. Graefe's symptom was absent. After operation these symptoms disappeared in 2 cases, and in the third there was noteworthy improvement. In 2 of the cases the disease had developed after influenza. The author would have recourse to surgical treatment, with confidence, in these cases when all the usual medical resources had failed.

## MIDWIFERY AND DISEASES OF WOMEN.

**(171) Paralysis of Child's Arm after Delivery by Feet.**

Guillemot (*Annales de Gynéc. et d'Obstét.*, January, 1897) publishes a report of a large number of cases of paralysis of the arm, where all the infants were extracted by the feet and all by the same midwife. Prouff, of Morlaix, detected nearly 30 of these cases, Guillemot publishing clinical notes of 12 out of the same series. Twelve good photogravures illustrate these reports. Most of the patients were about 20 years old, for the cases have been most carefully watched. In many the shoulder-joint, elbow-joint, or wrist was the seat of disease, not neuropathic, but, like the nerve lesion, caused by damage during delivery. The midwife must have pulled with great force and very irregularly, knowing nothing about axes. Guillemot suspects that she in several instances turned, probably when quite unnecessary, and extracted before complete dilatation of the os. He gives reasons to show that the paralysis was not due to myelitis. Torticollis was present in some cases, but Guillemot admits that it might be a complication caused by laceration of the sterno-mastoid muscle and hæmatoma or by articular disease in the cervical spine. In nearly all the scapula on the affected side was elevated, indicating paralysis of the lower part of the trapezius. The branch of the cervical plexus which supplies this part must manifestly be stretched by the great depression of the shoulder caused by firm and prolonged traction on the arm. These tractions appear to damage the fifth and sixth cervical nerves most severely, judging from the lesions seen in the arm. When the cervical spine is torn through or the head torn off in delivery, the separation occurs at the level of the third, fourth, and fifth cervical vertebræ. Thus, at this level the tissues are least resistant and allow of the greatest amount of traction. In these cases sensation is usually preserved more or less, for during these violent and clumsy tractions on the arm the head is deflected and the neck forms a concavity backwards, so that the posterior and sensory roots of the cervical nerves suffer the least traction.—Fieux (*ibid.*) publishes an independent communication on the pathogeny of paralyses of the arm in newly-born children. In this paper valuable neurological observations will be found. Fieux turns attention to the law of Forgues, of Montpellier, that when a group of muscles receive their nerves from a plexus the highest muscles are supplied from the highest filaments in the plexus. The deltoid, according to that law, should be supplied from the highest filaments of the brachial plexus. The highest cords of that plexus suffer the most from traction on the arm during delivery, and therefore it is not surprising, in Fieux's opinion, that the deltoid is the most gravely affected of all the muscles in obstetric paralysis.

**(172) Paravaginal Hysterectomy.**

Schuchardt (*Arch. f. klin. Chir.*, liii, 1896, p. 473) publishes further experience (26 cases) of the operation he described in 1893 (*Centralb. f. Chir.*, p. 1121), in which he makes an incision through the vagina, paravaginal tissue, and perineum, extending from the portio nearly as far as the sacrum. The upper limit of this incision is formed by the levator ani, the fibres of which are exposed but not cut through, and as the operation is completed outside the cone of that muscle, the rectum need not be considered. The vascular and fatty connective tissue of the ischio-rectal fossa is then divided, and the wound so enlarged alongside the vagina that the operator has a good view of all that is to be done, can work with both hands in the wound, ligature every vessel separately, and, if necessary, remove the whole of the parametrium right up to the pelvic walls. The uterus becomes as accessible as an organ on the surface of the body, and the ureters can be laid bare in the whole of the lower part of their course. He secures the vessels with catgut ligatures, which are left long till the end of the operation, and by drawing upon them he can thoroughly inspect the parametrium and remove every suspicious spot. In the simpler cases the rest of the extirpation resembles the vaginal method: tubes and ovaries offer no particular difficulty. If the extensibility of the parts allows it the peritoneum is closed by catgut

suture, the parametric stumps fastened so as to project into the vagina, and the vaginal and perineal wound brought together by interrupted suture of catgut above and silk below. The after-treatment is by dry asepsis without drainage: in most cases the whole wound heals by first intention under a dressing of iodoform collodion; occasionally a small part opens to heal by granulation or secondary stitching. The success, even to the eye, was generally perfect; the healing was not more tedious than after a vaginal operation, and in a fortnight or three weeks was complete save the granulation of the stumps. The sacral operation takes three months to heal, but will still be necessary when the rectum is involved by the disease. In advanced uterine cancer the ureter is often embedded in the malignant growth, but with care can generally be freed from diseased tissue without the edge of the knife. Schuchardt has exposed in some cases from 8 to 14 cm. of its course from the vesical ampulla, and several times on both sides. The ureter was always easily found, and never accidentally injured during the operation. In two instances small fistulæ formed during recovery, but soon healed after cauterisation. The conditions in relation to the origin and development of cancer in the uterus are much more favourable for cure than those in many other organs. As long as the disease has not extended to the parametrium the glands are very rarely involved, and even when it has so extended, the glands are affected only in one-third of the cases. The chief source of recurrence is some remnant of diseased tissue left in the parametrium. Having witnessed cures in apparently hopeless cases Schuchardt advocates an attempt at radical treatment even in advanced disease. In the whole of his paravaginal operations there was only one instance of recurrence that could be attributed to transplantation of the disease during the operation, and while admitting that there is danger of such transplantation, he pleads for the more radical methods, deeming that the future treatment of uterine cancer must be by such proceedings as allow of the parametrium and other parts about the uterus to be thoroughly examined and dealt with.

#### (173) Deciduoma Malignum or Ecto-placental Epithelioma.

G. Durante describes (*Rev. Méd. de la Suisse Romande*, November 20th and December 20th, 1896) at considerable length the greatly discussed tumour known most commonly as deciduoma malignum. He regards it as a growth arising from the fœtal ectoderm in its placental portion. It is a fœtal epithelioma, originating either directly in the ectoplacenta (Duval) or in the syncytium, which represents the remains of it in the placenta at full term. The author gives a demonstration of the complete resemblance which exists between the histological characters of the ectoplacenta and those of the malign deciduoma. The deciduoma may, indeed, be compared to a malignant return of the physiological ectoplacenta occurring sometimes during pregnancy, but more often developing later from *débris* of syncytium, contained either in moles or in placental polypi, grafted on, perhaps, more easily on account of modern obstetrical asepsis. The diagnosis is made from the history of repeated severe uterine hæmorrhages, and from a careful intrauterine examination of the tumour (which is soft and friable and attached to a thinned and softened part of the uterine wall) and a microscopic inspection of fragments of the growth. Its progress is rapid, cachexia soon appears, and death results either from the severe hæmorrhages or from the frequently-occurring metastases. The only effectual treatment is total hysterectomy, performed early; much valuable time is lost by repeated curettings. Operation ought to be preceded by a careful examination of the lungs in order to be assured of the absence of pulmonary metastases. Even in the cases in which a cure seems to follow operation, two years must be allowed to elapse before all danger of recurrence is past.

## THERAPEUTICS.

#### (174) Eucaine.

L. S. Somers (*Therap. Gaz.*, January 15th) has recently used eucaine in a series of cases of hypertrophic nasal catarrh in place of cocaine to produce anæsthesia of the enlarged turbinals, so that reduction in their size by cauterisation might be effected. A 4 per cent. solution of eucaine hydrochlorate in distilled water was used, this corresponding to the strength of cocaine solution previously employed for that purpose. The drug was applied to the turbinated bodies in the same manner as cocaine, by saturating a cotton plug with a definite quantity of the solution, and applying it to the part to be operated on until anæsthesia was complete. The cauterisation was effected by means of chromic acid crystals melted on the end of an appropriate applicator by means of the alcohol lamp. The results obtained can better be expressed by comparing the effects of cocaine and eucaine *seriatim*. Cocaine usually produces its anæsthetic effects in the nasal cavity in from three to five minutes, anæsthesia continuing for twenty minutes to half an hour. In the series of cases in which eucaine was used anæsthesia was not complete until eight or ten minutes had expired, and the loss of sensibility remained about twenty minutes. When an excessive amount of cocaine solution is used in the nares it occasionally flows backwards into the naso-pharynx, producing a very uncomfortable sensation of numbness in that region. It was noticed that this did not occur so markedly when eucaine was used, probably because of its slower anæsthetic action. Eucaine causes hyperæmia of the mucous membrane when locally applied. This action is directly opposed to that of cocaine, and renders the drug of little value when the turbinal tissues are much hypertrophied, as the cauterising agent cannot be introduced into the nasal cavity without injuring the septum. This action of eucaine in producing a temporary local congestion militates greatly against the use of the drug in active inflammatory conditions, but may possibly be obviated by using equal parts of the eucaine and cocaine, as recommended by Berger. Eucaine is a poison similar to cocaine, but has the great advantage of being decidedly less harmful to the organism when used in the same doses. Another advantage which the drug possesses over cocaine is that it may be kept for an indefinite time in solution with sterilised water, 1 part to 10. The solution may be repeatedly sterilised by boiling, without impairing its anæsthetic properties.—Pouchet, at a meeting of the Société de Thérapeutique (*Sem. Méd.*, February 3rd), said that he had investigated the physiological action of eucaine, and had found that the toxic equivalent of that drug was almost equal to that of cocaine. Moreover, eucaine may produce toxic effects which may even prove fatal without any prodromic stage. It acts on the heart with an intensity equal, if not superior to, that of cocaine. In a frog in which 2 mg. of eucaine were injected there was observed a considerable slowing of the heart's beat with arhythmia, whereas equal doses of cocaine produced no effect. Eucaine must therefore be looked upon as rather a dangerous anæsthetic. Reclus, who has studied the effects of eucaine from the clinical point of view, has satisfied himself that in equal doses its anæsthetic power is less than that of cocaine, and he thinks therefore that it should not be used in serious operations.—J. S. Gibb (Philadelphia *Polyclinic*, January 23rd) has used eucaine in diseases of the throat and nose, and sums up the results of his experience as follows: (1) Eucaine is equally efficient with cocaine as an anæsthetic in ordinary examinations. (2) Eucaine possesses equal anæsthetic power with cocaine, and hence is as useful in operations in the nose, pharynx, or larynx. (3) Eucaine is nearly, if not quite, as effective as cocaine in reducing engorged turbinates. (4) Eucaine is superior to cocaine in that it is less likely to produce toxic symptoms. (5) Eucaine is superior to cocaine in that it produces far less unpleasant subjective symptoms; especially is this true as regards the pharynx.

#### (175) Ovarian Opotherapy.

Touvenaint, at a recent meeting of the Société Obstétricale et Gynécologique de Paris (*Méd. Moderne*, October 17th, 1896), presented a communication on the therapeutic use of ovarian substance. He has tried it during several months, using for the purpose heifer's ovaries reduced to powder by desiccation at a constant temperature of 25° C. He administers this substance in the form of pills containing 12 centigrammes of dry powder, corresponding to 80 centi-

grammes of fresh ovary; he prescribes two to three such pills to be taken daily about a quarter of an hour before food. He gives particulars of 15 cases treated in this manner. Of these, 4 had undergone complete vaginal hysterectomy, 2 removal of the appendages on both sides, 3 were suffering from amenorrhœa, 1 from dysmenorrhœa, 3 from grave chloranæmia, 2 from the effects of the menopause. Touvenaint sums up his conclusions as follows: (1) Ovarian medication can be prescribed without danger, and can be continued for a long time provided the effects are watched. (2) The average dose of dried ovary powder should not exceed 24 to 36 centigrammes daily. (3) The treatment should be continued for several months. (4) It appears to be particularly indicated in amenorrhœa and chloranæmia, in which the results are excellent. (5) It is very useful in all cases of artificial menopause due to removal of the genital apparatus. (6) It can also be tried with advantage for the removal of symptoms due to natural menopause.

#### (176) Artificial Diphtheria Antitoxin.

SMIRNOW (*Archives des Sci. Biolog. de l'Institut Imp. de Méd. expér. à St. Petersbourg*, Tome iv, No. 5) starting from Nencki's theory that on the one hand all organic physiological processes can be reduced chiefly to reactions of oxidation and reduction, while on the other bacteria cause like changes in culture media, conceived the idea that serum of therapeutic power could be manufactured by the same chemical processes from normal serum. Having proved that electrolysis of normal serum did not produce a curative one, he tried electrolysing serum, and finally broth containing diphtheria toxin. After many experiments the following method was adopted: (1) Broth toxin from 4 to 6 months old is poured into a U-tube provided with an arrangement for keeping the acid products at the positive pole and the alkaline at the negative apart; (2) 200 c.cm. toxin broth containing 0.5 per cent Na Cl is electrolysed by a current of 45 milliampères for seven hours, carbon electrodes being used; nascent chlorine comes off from the Na Cl and combines with the peptones in the broth; (3) K O H solution is then added to the liquid at the positive pole, and the carbon electrode replaced by one of silver, which withdraws chlorine from the broth by the formation of silver chloride, the process being continued for five to six hours; (4) a certain depth of fluid in the positive pole arm of the U-tube is siphoned off, and, after precipitation of any silver in solution, filtered. The curative power of this serum depends on the length of the treatment with chlorine. Antitoxin so prepared is alkaline. Its strength is such that 0.5 c.cm. to 1.0 c.cm. will cure guinea-pigs in 16 to 18 hours, after they have been injected with a virulent culture killing control animals in 30 hours. For dogs (and probably man) a longer exposure to the chlorine is required. The advantages of this antitoxin are: (1) It appears to be quite harmless and free from poisons; (2) if there is a supply of toxin the antitoxin is ready next day; (3) it is infinitely cheaper than ordinary antitoxin; (4) comparing ordinary with artificial antitoxin, in guinea-pigs they appear to possess an equal curative power in the early stages of disease, but later the advantages are all on the side of the artificial. The author draws the following theoretical conclusions from his experiments: (1) Antitoxin is oxidised toxin; (2) the electric current does not produce antitoxins specifically, but the latter result from the action and reaction of the organic substances in the diphtheria broth and the products of electrolysis of the added salts. Further experiments on the same lines are now being made in the treatment of tuberculosis.

#### (177) Bromide of Ethyl in Hysterical Aphonia.

ARSLAN (*Gazz. degli Osped.*, January 10th, 1897) reports 5 cases of hysterical aphonia in women treated with success by bromide of ethyl. The patients were rapidly anæsthetised with full doses (10 g.) of the drug, and as soon as they were partly insensible, it was suggested that they should shout loudly their name, count numbers, etc. The results obtained by this method were satisfactory. In 4 of the cases there was evidence of disease in the naso-pharynx. In three cases influenza was an exciting factor.

#### (178) Benzo-iodhydrin.

CHENAL (*Thèse de Paris*, No. 52, 1896-97) suggests this ether of glycerine as a useful substitute for iodide of potassium. It is prepared by shaking a mixture of benzoyl-iodide and epichlorhydrin, at a heat not exceeding 158 F.; the resulting brown fatty mass, a benzo-chlorhydro-iodhydrin, is soluble in ether, alcohol, and petroleum oils, but not in glycerine. Administered in doses of 0.13 g. (corresponding to 1 g. KI), he found that it caused no disagreeable symptoms of iodism; and from twelve observations he concludes that its immediate therapeutic effects are equal to those of the potash salt, while it is more slowly eliminated and a smaller dose is required. He attaches much weight to the antiseptic action of the considerable proportion of benzoic acid and chlorine contained in the drug, but admits that the question as to the permanence of the results requires more prolonged observation.

## PATHOLOGY.

#### (179) The Toxins of Diphtheria and Tetanus.

BRIEGER AND BOER (*Deut. med. Woch.*, December 3rd, 1896) mention that the chief object is to separate these bodies free from all other substances. The zinc salts have been very generally used for precipitating toxins. The separation of the toxins from the zinc combinations is more difficult. The toxin must not be injured in the process, and other indifferent bodies must also be eliminated. Carbonic acid and sulphuretted hydrogen which injure the toxin are not available for this purpose. Sodium phosphate also impairs the specific properties of these toxins. They are destroyed by acids, but are not in the least injured by weak alkalies. Thus alkaline and neutral salts of the alkalies or so-called alkaline earths are best adapted for the purpose. It is possible to achieve partial success by using such substances in succession, but only the combination of certain ammonia derivatives leads to certain success. *Diphtheria toxin.* After the peptone bouillon has been freed from bacteria, twice its volume of zinc chloride (1 per cent. solution) is added. The zinc precipitate is washed and shaken with a volume of ammonium bicarbonate (3 to 6 per cent.) equal to the original quantity of bouillon. Then ammonium phosphate is added, until everything is dissolved and the fluid becomes turbid, owing to the presence of zinc phosphate. The deposit is allowed to settle, and is filtered off. The filtrate is then saturated with ammonium sulphate. The deposit contains diphtheria toxin. The accompanying peptone may be eliminated by repeated additions of finely powdered sodium sulphate. Where the original nutrient fluid contains much albumen, it may be impossible to get rid of the albumen completely. For this reason the authors have used dialysed human urine as a culture medium. The specific diphtheria toxin is optically inactive. Alcohol, ether, acetone, acids, and especially carbonic acid, destroy it at once. Oxidising, but not reducing, substances also destroy it. By treating the diphtheria bacilli themselves with concentrated ammonium chloride, the remains of the soluble toxins can be separated out. That the substance separated out according to the above methods is the same toxin as exists in the filtered bouillon is proved by experiment. After the complete separation of the above toxin the substance of the bacteria themselves still contains a body very injurious to warm-blooded animals. The separation of this necrosis-producing substance has not hitherto been effected. The curative dose of serum does not counteract this last-named poison. The authors have not been able to protect guinea-pigs against this poison contained in the bacteria themselves. Unlike the diphtheria toxin, it is almost indestructible. *Tetanus toxin.* The amorphous tetanus toxin can also be separated out by the above-named methods. It is desirable, however, to precipitate the toxin with ammonium sulphate, and then to add 10 to 20 c.cm. corrosive sublimate solution (0.1 g. to 200 c.cm. water) to the toxin again dissolved in water. Large quantities of the material have to be used to obtain the toxin. By the above-named procedures, the authors have also investigated the toxin of botulismus, the toxins contained in the human cadaver, and such ferments as pancreatin, pepsin, which differ considerably from the toxins. The results will be published later.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

**(180) Graves's Disease and Diabetes.**

Bettmann, of Erb's Clinic (*Münch. med. Woch.*, December 8th and 15th, 1896) says that not only are the records of these diseases occurring together rare, but the information upon the sugar excretion is often insufficient to make the diagnosis of diabetes certain. Relations between these diseases cannot be denied. Case: A woman, aged 54, noticed six years ago, at the time of the menopause, that her neck was getting larger. She felt nervous, but had no palpitation. Soon after the eyes became prominent. About six months ago there was loss of strength, increased hunger, marked thirst, and augmented excretion of urine. The electrical conduction of the skin was lessened. On admission the symptoms of Graves's disease were marked. The urine was found to contain 4.45 per cent. sugar, the specific gravity being 1025. While staying in the hospital improvement in the symptoms of Graves's disease was noted, but later œdema of the legs appeared. Notwithstanding this she was ultimately discharged considerably improved. Four months later she was readmitted owing to a severe attack of palpitation with dyspnœa. Mental excitement was now present, and marked tremor. During the first stay in hospital she was gradually put on diabetic diet. The thirst and glycosuria diminished, and eventually the acetone reaction was not obtained. The sugar also disappeared from the urine, and a rather more generous diet was allowed. The administration of grape sugar, and also of rice, produced an abundant excretion of sugar. Thus a diminished power of assimilating carbohydrates was present. The sugar was most marked in the morning urine, passed after breakfast, as is usually seen in mild diabetes. These facts were even more marked on the second stay in hospital. The hæmoglobin in the blood was diminished. A close relationship between a diminished leucocytosis and the amount of sugar excreted could not be proved. As constantly seen, the sugar present in the blood was increased. A sharp distinction between glycosuria and true diabetes cannot be drawn. The diagnosis of true diabetes was made certain by the persistent glycosuria, as well as the reappearance of sugar when small quantities of carbohydrates were given. The polyphagia, polyuria, polydypsia, itching of the skin, gingivitis, and especially the wasting, were due to the diabetes. The symptoms of Graves's disease became less as the sugar disappeared from the urine. Exact anatomical changes in these two diseases combined have not been found, and hence the bulbar theory put forward to account for them has not been proved. The diabetes cannot be explained by any disturbed function of the thyroid body, and so it must be looked upon as a secondary effect of the poison of Graves's disease upon metabolism. Thus an alimentary diabetes is established which only differs from true diabetes in degree. The idea of the diabetes being thus caused is further supported by the clinical evidence of the disease following upon Graves's disease. The diminished leucocytosis is also evidence of disordered metabolism. The treatment in this case was chiefly directed to the diabetes. The opium treatment was adopted, and the author looks upon this drug as a valuable remedy in diabetes. Opium has hardly ever been recommended in Graves's disease. Perhaps it warded off in this case the attacks of cardiac asthma. The treatment produced an arrest of the diabetes and an improvement in the Graves's disease, but no cure. In 17 recorded cases only one occurred in a man.

**(181) Multiple Sclerosis and Cerebro-Spinal Syphilis.**

Cassirer, of Oppenheim's Poliklinik (*Deut. med. Woch.*, October 22nd, 1896) draws attention to the difficulty of distinguishing between these two affections. Thus ocular symptoms in the widest sense, and also symptoms of a spastic paralysis may occur in both diseases, and even a combination of the symptoms of both diseases has been seen in the same case. Sachs differentiates between them by the intentional tremor, nystagmus, scanning speech, and in cerebro-spinal syphilis by the frequent remissions. Remissions, however, also occur in multiple sclerosis. Oppenheim believes that no importance can be attached to the varying and oscillating course, and that in some cases a differential diagnosis is not possible. The author gives details of three cases: (I) In a woman, aged 51, the motor loss, increased reflexes, bladder and sensory disturbances could belong to either disease, but the loss of the light reflex and the age of the patient were in favour of syphilis. There was no history of syphilis. Although scanning speech and nystagmus were absent, yet the case was thought to be one of multiple sclerosis, especially on account of some tremor on exertion. (II) In a man, aged 28, the age and the absence of a syphilitic history were in favour of multiple sclerosis, yet there was improvement under iodide treatment. Scanning speech and tremor were absent, but nystagmus was noted. In this case there were changes in the fundus oculi, ocular paralysis, and alteration in the field of vision. The eye symptoms formed no absolute distinction between the two diseases. The case was looked upon as most probably multiple sclerosis. (III) In a man aged 31, a sudden hemiplegia improving later, general symptoms of mental confusion and weakness of memory, ocular paralysis and improvement under antisyphilitic treatment made the diagnosis of cerebro-spinal syphilis probable, but the presence of tremor raised a suspicion of disseminated sclerosis. A year later the latter disease seemed to be most probable, owing to the typical tremor, nystagmus, etc. The hemiparetic and sensory disturbances had disappeared. Apoplectiform hemiplegia may occur in multiple sclerosis. Considerable disturbance of sensation, with a loss of the sense of position, is not often seen in this disease. The improvement may have been a spontaneous remission. On account of the resemblances between these diseases the author discusses their possible relationship. The usual view is that syphilis plays no part in the causation of multiple sclerosis. In one set of cases the disease is characterised by its occurrence in more advanced life, by the absence of the usual symptoms of multiple sclerosis (tremor, scanning speech, etc.), by more frequent paralysis, and a more rapid course. In the diseased foci here the axis-cylinders are destroyed, and there is a great development of fibrous tissue. Caseous changes have even been found here. In the third case recorded here, as also in one recently reported by Oppenheim, it could not be denied that the sclerotic plaques may have developed out of encephalo-myelitic foci. Thus may arise the difficulties in diagnosis.

## SURGERY.

**(182) Extirpation of a Carcinomatous Gall Bladder.**

Heiderhain, of Helferich's clinic (*Deut. med. Woch.*, January 21st, 1879) reports a case in a woman, aged 61, who during nine months previous to admission had suffered from pain in the upper part of the abdomen, with occasional severe exacerbations. On admission the liver dulness began at the fifth rib, and did not extend below the costal margin in the mammary line. The enlarged gall bladder was very distinctly felt, and presented an uneven surface, attributed to omental adhesions. The abdomen was opened by an incision along the outer edge of the right rectus muscle. Extensive adhesions had to be separated. The enlarged gall bladder and adjacent part of the liver was drawn out of the wound. The liver in the neighbourhood of the gall bladder was greyish-white in colour, which was attributed to interstitial changes. The walls of the gall bladder were much thickened, and gall stones were easily felt inside it. An incision into the wall of the gall bladder showed that it was the seat of malignant disease. The cavity of the gall bladder was accordingly not laid open, but a portion of the liver, with the gall bladder, was resected by means of Paquelin's cautery. The cut edges of the liver, as well as the general surface of the liver, so far as it was open to examination, showed no evidence of malignant disease. The cystic duct was ligatured and divided and the whole removed. The patient made a good recovery from the operation, and was discharged six weeks

later. There was a large stone in the gall bladder as big as a walnut, and eighty-four smaller stones of the size of a pea. The mucous membrane of the gall bladder showed papillary excrescences. Microscopic examination of the liver substance also revealed malignant disease. The prognosis appeared here to be fairly good, as the growth seemed to be limited to the parts removed. Early diagnosis of carcinoma of the gall bladder is hardly possible, and the case is usually too advanced for operation when it is discovered. Courvoisier in 103 collected cases of carcinoma of the gall bladder found gall stones in seventh-eighths of the cases. The more it is recognised that long-continued gall-stone disease is best treated by operation, the more often will it happen that carcinoma of the gall bladder will be capable of being dealt with. In a footnote it is stated that the above-named patient three months after the operation was confined to bed with obvious recurrence of the growth in the liver.

**(183) Massage and Movements in Treatment of Fractures.**

Davis (*Annals of Surgery*, December, 1896) discusses these adjuncts to treatment in some varieties of fractures, and summarises as follows: (1) Massage and passive movements are not used to their proper extent in the treatment of fractures. (2) Immobility of the fractured ends favours good union with little deformity. (3) There are some cases in which, owing either to peculiarities of the fracture or to impaired constitution of the individual, the tendency to callus formation is increased. Motion in these tends to form exuberant callus and causes deformity. (4) There are others in which bony union is unduly delayed; disturbance in these hinders union. (5) It is wise to wait till fractured parts are glued together, usually in eight or ten days, before attempting any except the lightest massage, and any extensive passive motion after that time should be used carefully but diligently. (6) Passive motion and massage when first attempted should be of the most gentle character, and not so violent as to disturb the relations of the broken bones. (7) Any marked pain or inflammatory reaction following passive motion and massage is evidence of too great violence. (8) The limb should receive massage and manipulation at each inspection or change of dressing, often daily. (9) In some cases such massage as is possible should be administered without removing splints. (10) Persistent stiffness, particularly in fracture or injuries of the wrist, is often due to a rheumatoid affection locating itself in the injured region. Massage is valuable in the treatment of this. (11) Massage should be given to that part of a limb beyond the seat of fracture to preserve it in a normal condition. (12) Such dressing and methods of treatment should be adopted as will allow of the greatest use of massage and movements consistent with proper retention of fragments in position.



**(184) Intubation for Croup in Country Practice.**

Abarnou (*Thèse de Paris*, No. 17, 1896-97) has collected 26 cases of the above, 18 of which recovered, leaving a mortality of 30.7 per cent. only. The tube was once obstructed by false membranes and coughed up, but, as pointed out by Bokai, from an experience of 538 cases it is an exception for the false membrane to be pushed back by the tube, and accidents due to the operation are rare, and still more rarely serious. The introduction of serotherapy has been an important factor in the adoption of intubation which is now commonly practised, not only in hospitals, but in many towns; the continued presence or proximity of the medical attendant is not necessary, and Abarnou concludes that, when the technique is better known, intubation will become the operation of choice, and tracheotomy one of necessity only, even in country practice.

**(185) Abdominal Section for Perforation in Typhoid.**

Price (*Philadelphia Policlinic*, November 14th, 1896) reports 3 cases of perforation, sutured, with recovery. He states that surgery holds out the only chance in these cases, and that interference must be early, rapid, but thorough; the best needle is a round one from an ordinary sewing case.—Monod, at the Société de Chirurgie, referring to a fatal case, says that he had found 32 operations recorded, with 5 recoveries, of which 2 are absolutely incontestable, but 3 are incompletely reported; these results amply justify interference in every case where the patient's general condition allows it.—Routier had operated on the eighth or ninth day, basing the procedure on pain localised at a point in the right iliac fossa, finding and suturing two perforations, and draining the abdomen; the patient died from subsequent perforations.—Brun operated on a child that lived for seven days, when 5 other perforations were found; the ligature had held perfectly.—Lejars had operated on 2 cases, both ending fatally: the second lived for two days, and apparently died from the course of the fever, the operation preventing the use of cold.

## MIDWIFERY AND DISEASES OF WOMEN.

**(186) Puerperal Biliary Colic.**

Eiermann (*Münch. med. Woch.*, January 12th, 1897) says that the records of cases of biliary colic occurring after labour are few. He relates a case occurring in a primipara, aged 29, who suffered from albuminuria and œdema of the legs during pregnancy. Delivery had to be completed by forceps. There was a rupture of the perineum almost into the rectum which had to be stitched up. During the first four days the temperature ranged about 38.7° C., and only fell when the bronchitis from which the patient suffered improved. In five days' time the œdema of the legs disappeared, but now the author was suddenly summoned by the patient owing to shivering and severe pain in the upper part of the abdomen. On the next day there was distinct jaundice, which disappeared in two or three days. After this the patient had thrombosis in the veins of the legs, but ultimately made a good recovery. In this case there had been no previous history of gall stones. The author would attribute the colic to the suddenly-altered pressure relations in the abdomen after labour. It is not possible to speak very definitely about the frequency of gall-stone colic in the puerperal state, but it is not so rare as has been supposed. Gottschalk has seen 9 or 10 cases in ten years. In one case the colic reappeared after a subsequent pregnancy, the patient having been free from it in the meantime. The diagnosis may be difficult if there is no jaundice. Kraus has recently stated that the first attack of colic occurs in a large number of cases during pregnancy or after parturition. Freund has seen undoubted cases of gall-stone colic after the removal of large pelvic tumours.

**(187) Obstruction of the Lachrymal Duct in Newborn Children.**

Landolt (*Annales de Gynéc. et d'Obstét.*, January, 1897) finds that this condition is not rare, and is often overlooked till much harm is done. The affection should be inspected whenever there appears to be conjunctivitis in one eye only a day or two after birth. The conjunctiva itself is not infrequently cured, so to speak, by appropriate lotions. The obstetrician, mistaking a complication or result for a primary disease, finds to his surprise that the eye continues to water, the lids becoming glued together, and a drop of pus often exudes from the inner canthus. This condition is yet more alarming in certain cases where no conjunctivitis has been observed. It looks like the beginning of purulent ophthalmia. Landolt lays down as a rule that obstinate unilateral lachrymation in a newborn child usually signifies obstruction of the tear duct. As an ophthalmic surgeon he advocates sounding of the duct with a fine probe; on no account should the canaliculus be slit up. Afterwards weak antiseptic lotions must be injected into the duct by means of an Anel's syringe; the infant must be turned on its face directly afterwards lest any of the lotion be swallowed.

**(188) Importance and Treatment of Endometritis.**

W. P. Carr (*Virginia Med. Semi-Monthly*, January 8th, 1897) attempts to explain why it is that some cases of endometritis lead to serious inflammation of the uterine adnexa, while in others the Fallopian tubes are little, if at all, affected. He believes that the danger is regulated by virulence of the germ and the degree of obstruction in the cervical canal. In the non-puerperal uterus the risk of the inflammation spreading to the tubes is little save when the cervical canal is obstructed, or the infection gonorrhœal in nature; and, even in the latter case, it

is probably the marked swelling of the cervical mucosa induced by the gonococcus that leads to the tubal extension. With regard to treatment, Carr would attend first to the general health and then employ local means, among which he regards drainage of the uterus as the most important. Gauze drainage is "worse than useless," and the Outerbridge silver drainage tube is to be preferred. The vagina must be kept aseptic by tampons saturated with glycerine and iodine.

**(189) The Delivery of Twin Monsters.**

Lroff (*Zeitschr. f. Geburts. u. Gynäk.*, vol. xiv, No. 2, 1896) recommends the following manœuvres when a clear diagnosis of joined twins has been made. If the heads present, and are movable, one should be pushed up, the other will then be well engaged, and will most probably be delivered, the second following it; this fortunate result occurring in some instances spontaneously, while in others it can readily be effected by the forceps. Delivery of the bodies is not difficult. As a rule, however, especially when the heads are large, it safer to turn and to bring down all four legs. The same practice is advisable when the twins' breeches present.

**(190) Premature Menstruation.**

E. Seuvre (*Union Méd. du Nord-Est*, No. 2, January 30th, 1897) records the case of a girl, aged 4 years and 9 months, who had a sero-sanguinolent vaginal discharge, well-marked mammæ (like those of a girl of 15 or 16 years), enlarged labia majora covered with scanty hairs, and a broad pelvis. About a year previously the broadening of the pelvis and the mammary enlargement had been noted, and the child had become graver and more affectionate. There was no history of premature sexual development.

**(191) Porro's Supravaginal Amputation of the Uterus for Uncontrollable Hæmorrhage.**

Taendler (*Münch. med. Woch.*, No. 6, 1897) records the case of a woman, aged 30 years, who in both her confinements lost much blood. On the fifteenth day of the puerperium following the second labour, when making a slight exertion, she had a severe flooding. This recurred twice, and when Taendler saw her (about six weeks after confinement) the pulse was weak and quick, the temperature subnormal, the fundus uteri midway between the symphysis and the navel, the uterus formed a fluctuating elastic swelling, and the os uteri internum was closed. The finger passed into the uterus allowed a large quantity of blood to escape, and discovered one large and a number of small placental polypi on the uterine mucous surface. These were removed by the fingers and curette, and during the process there was much bleeding. The uterus was washed out with hot water and plugged. Next morning the plug was removed, when another hæmorrhage took place, and the uterus refused to contract notwithstanding active measures of various kinds. The patient was so anæmic that it was determined to remove the uterus by laparotomy. This was done; and the left ovary, which was cystic and fixed by adhesions, was also taken away. The patient's recovery was interrupted by a pneumonia on the sixth day. Six weeks after the operation the woman was in the best of health. The uterus showed signs of endometritis decidualis and chronic metritis. The cause of the want of contraction of the uterine musculature was not clear.

## THERAPEUTICS.

**(192) Schleich's Infiltration Anæsthesia.**

Noarck (*Münch. med. Woch.*, February 9th, 1897) says this method is harmless so long as too much cocaine is not used in lengthy operations or those embracing a wide area. He refers to two cases in which slight intoxication symptoms were produced, but this was the result of personal susceptibility, and could be avoided with increased experience. Everything must be ready for the operation, so as to avoid loss of time when once the tissues have become anæsthetic. That a little pain should be felt when the œdematous fluid is absorbed is no real argument against this method. The number of cases in which it cannot be used are steadily diminishing. Before the injections the skin at the site of the operation should not be kept enveloped in wet dressings for too long, as there is likely to be considerable resistance to the infiltration. Too much pressure should not be employed, as it might lead to sloughing in the infiltrated parts. The author has most frequently used this infiltration anæsthesia ior the purpose of cleaning and stitching up wounds, including the search for divided tendons. He has amputated, resected, and disarticulated fingers under it. For whitlows and suppurative inflammation of tendon sheaths it has proved very useful to him. Furuncles, carbuncles, cold abscesses, rectal fistulæ, ingrowing nails have also been dealt with by him under this anæsthesia. Tapping of serous cavities, and even resection of ribs can be carried out under it. The removal of small tumours and operations for hæmorrhoids have also been accomplished by the author with the help of this method. He has, in addition, employed it in a case of cholecystotomy, and in several cases of removal of the vermiform appendix, of hernia, etc. For tracheotomy and trephining the mastoid he has not found it available. The author concludes that Schleich's infiltration anæsthesia is a valuable assistance in operations, even in the more important ones, and especially for the general practitioner.

**(193) The Hydriatic Treatment of Typhoid Fever.**

Elmer Lee (*Chicago Medical Recorder*, January), instead of cold bathing in typhoid fever, uses the following method: Water at a temperature of 75° from a fountain syringe hanging from the bedpost is directed through a small sprinkle nozzle first on the front and then on the back of the patient's body. Only a small amount of water is used. After the bath the patient is covered with a blanket, and the water from the spray is allowed to evaporate. This sprinkle bath is repeated every two hours for forty-eight hours or so until improvement is manifest, when the intervals are gradually extended. The internal treatment consists in the frequent administration of water with a little digitalin. The colon is also irrigated from time to time with warm water by means of a fountain syringe. A compress of linen wrung out lightly from ice water is placed over the abdomen and covered with flannel. This is changed every hour. No food is given till the patient is fully convalescent. The internal administration of water is based both upon physiological data and experiment. It keeps the blood fluid; it prevents dryness of the skin and mucous membrane; it cleanses the system of waste and is agreeable to the patient, and there is absolutely no contraindication to its use. No case of fatality from typhoid fever has occurred in the author's practice for eight years, or since the adoption of the hydriatic method of treatment. His conclusions are as follows: (1) The internal administration of soft water, in definite doses, of proper temperature, and at regular intervals (with a satisfactory placebo always incorporated), according to the age and sex of the patient, the temperature of the fever, and the character of the urine, against which there are no veritable contraindications. (2) The application of water of suitable temperature to the surface of the body, preferably in the form of a sprinkle or rain contact, at frequent and regular intervals, as indicated by the severity of the symptoms and the age and sex of the patient. (3) The application of compresses of linen wrung dry from iced water, applied over the abdomen and to the head and neck as often as necessary, and so long as the fever continues. (4) The use of warm, cool, or cold irrigations of the colon, with plain, soapy, or normal salt water, from one to four times a day, and from one to three litres in quantity, during the acute stage and while there is fever. (5) Owing to the absence of hydrochloric acid and peptones in the gastric juice during the febrile stage in typhoid fever, food of every character and of any quantity is contraindicated, and can only augment the complications and prolong the disease. (6) In collapse and exhaustion from hæmorrhage, intravenous transfusion from one-half to two litres of normal salt solution is indicated and strongly recommended. The transfusion or subcutaneous injection is to be repeated from time to time if there are unfavourable reactions after such use. (7) Drugs and stimulants are absolutely contraindicated, as they are not essential to nutrition, but further increase the labour of the system, and exhaust the vitality in the process of oxidation and elimination of

tissue waste and toxic products. (8) In the hydriatic management of typhoid fever, ulceration and perforation of the intestine has never been known to take place; also there are no distressing after-effects, as there are no sequelæ. (9) It is the author's experience and his belief that when cases are seen within the first five days, typhoid fever can be aborted and convalescence established within ten days to two weeks. (10) A treatment which is so simple, and which has been proven by hydriatic experience with many thousands of cases, ought to secure its adoption by the whole profession in the interest of science and for the benefit of the sick.

**(194) Mercurial Injections in Syphilis.**

BARREYRE (*Thèse de Paris*, 1896-97, No. 25) says that, though these injections have been followed by numerous and even fatal accidents — abscesses, pyrexia, gangrenous stomatitis, as well as severe and sometimes atrocious pain —they are the most effective method of attacking severe and rebellious forms of syphilis. Unnecessary in ordinary cases, they are contra-indicated by bad conditions of the mouth, kidney disease, diabetes, hæmophilia, or even the necessity of getting about on the legs.—Gallois (*Soc. de Thér.*, 9, xii, 1896) recommends the following solution: neutral benzoate of mercury, 0.25; chloride of sodium and hydrochlorate of cocaine, of each 0.06, to sterilised water 30 parts. Of this Stoukovenkow, of Kieff, injects 2 g. every day for a month, Gallois only 1 g. in the upper part of the glutei. It causes numbness for a time, but no pain, abscess, albuminuria, diarrhœa, or stomatitis.—Hallopeau and Bureau (*Soc. de Der. et Syph.*, 10, xii, 1896) advises salicylate of mercury as one of the least dangerous methods. It is not painful like calomel, and hardly ever causes salivation—according to Tarnovsky only 12 times in 176,000 injections. Its injection ought to be the current practice; it is not contra-indicated by, but rapidly removes, albuminuria of syphilitic origin. As the mercurial salts all form chlorides in the system, their activity should depend on the facility with which they are absorbed, a condition in favour of the salicylate.

**(195) Bismuth Tribromphenylicum as a Surgical Antiseptic.**

C. G. CUMSTON (*Boston Med. and Surg. Journ.*, January 14th) states that of all the groups of antiseptics, bismuthum tribromphenylicum, or as it is also termed "zeroform," is recognised as the most active: first, because it contains, besides 49 per cent. of oxide of bismuth, 50 per cent. of tribromphenol, while other products contain only from 10 to 20 per cent. of phenol, cresol, or naphthol; and, secondly, tribromophenol is more antiseptic than phenol. Bismuthum tribromphenylicum has for chemical formula $C_6H_2Br_3O-Bi-O$, and is rapidly decomposed by acids and bases, especially when heated. But, on the other hand it may be heated to 110° C. without decomposing, and is thus superior to iodoform because it can be sterilised. It is a fine, yellow, neutral powder, which does not decompose when exposed to light; its odour is slightly carbolic; it is tasteless, and does not irritate the mucous membrane of the digestive tract. Cumston thinks it has a large field of usefulness in surgery. In open wounds, those in which no infection has taken place, the tribromophenol of bismuth will secure union by first intention. It appears to exercise a soothing influence on burns, like iodoform. In cutaneous affections with secretion of pus, such as impetigo and sycosis, the results obtained with this preparation were not satisfactory. In some cases of *pruritus localis sine materie* the itching was stopped by the application of this product. When applied after the curettement of tuberculous abscess or glands, cicatrisation was rapid. On account of the continual development of tribromophenol and oxide of bismuth, a wound will be kept in perfectly antiseptic condition, while the slightly irritating action of the former gives a fresh and healthy aspect to the wound. One of the properties of iodoform is to produce granulation tissue; tribromophenolate of bismuth and other antiseptics, such airol, europhen, iodol, etc., do not possess this property to such a degree; consequently, in order to cause granulations to spring up, iodoform should be first applied, and cicatrisation can be accomplished with the bismuth product. This method he tried with success in two cases of fistula *in ano* after having freely opened, excised, and curetted the fungous masses. His experience with bismuthum tribromphenylicum amounts in all to 26 cases, as follows: 5 cuts of the extremities, requiring from three to twelve sutures: 1 ulcus molle; 2 operations for bilateral laceration of the cervix: 7 curettements for acute gonorrhœal endometritis: 2 cases of vaginitis; 3 operations for tuberculosis of the bones: 1 abdominal hysteropexy; 1 tuberculous abscess of neck; 1 subaponeurotic abscess of axilla; 1 appendicitis: and 2 operations for fistula *in ano*. In all these cases the powder gave more satisfaction than he had ever had with iodol, europhen, iodoform, or tincture of iodine – all of which he he has thoroughly tried. In the gynæcological cases it appeared to him that this product had a marked influence on the regeneration of the epithelium. In no case did he meet with any toxic symptoms, although in the cases of tuberculosis of the bones and tuberculous abscess of the neck in a child aged 11 months he applied the powder very freely in the wounds. He strongly recommends this substance to the profession as a safe and sure antiseptic, and in many respects superior to iodoform or other powders of this class.

**(196) Schott's Treatment of Sciatica.**

BORISCHPOLSKI (*Neurol. Centralbl.*, December, 1896), adopting the view that sciatica is due to disturbance of the circulation followed by accumulation of the products of metabolism in the affected nerve, has applied the Schott douches to 32 cases of sciatica. Of these cases, 23 were cured, 7 were improved, and 2 remained in *statu quo*. The writer concludes that these douches are of real value in sciatica, a conclusion supported by Bechterew, who says that that are particularly useful in long-standing cases of sciatica.

## PATHOLOGY.

**(197) Hypertrophic Pigmentary Alcoholic Cirrhosis.**

LETULLE (*Bull. de la Soc. Anat. de Paris*, December, 1896) gives a detailed account of an example of this rare disease occurring in a male drunkard aged 43, who had been for three years under his observation with hepatic symptoms. The skin was not pigmented, the urine never contained sugar, and only when death was imminent from cardiac failure was there albuminuria. The liver was cirrhotic and contained new and false bile canaliculi, and showed the lesions of nodular hyperplasia and of pigmentary atrophy of the liver cells side by side. The spleen showed, as in previously recorded cases, but little pigment. Pigment was found on the pancreas, heart, lymphatic glands, thyroid, pituitary, and suprarenal bodies, in the connective tissue cells generally, including Küpfer's cells in the liver, and in the choroid plexuses of the brain. The pigment contained free iron, as shown by the reaction with Hcl and hydrochloric acid. There was some evidence showing that difficulty in excretion of the pigment had existed. Thus the kidneys contained very little pigment; the coiled parts of the sweat glands contained pigment but their ducts did not, and the seminal tubes were pigmented, while the excretory ducts of the epididymis were free. The other acinous and tubular glands of the body were free from pigment. There was none of this pigment on the skin or in the voluntary muscles, while the marrow of bones contained very little. The smooth muscles of the viscera and blood vessels showed an extensive granular pigmentary degeneration, but no reaction was obtained with Hcl and ferrocyanide of potassium; the same was true of the nerve cells of the central nervous and sympathetic systems.

**(198) Intrauterine Infection with Measles.**

A. BARTSCH (*Ugeskrift for Laeger*, No. 48, 1896) refers to the general belief that newborn infants are seldom affected with measles, and reports a case in which it must have been acquired *in utero*. The infant was born on the day when the mother exhibited the morbillary rash, and at the time of birth had nasal catarrh, conjunctivitis, and cough. When three days old the eruption was out over the whole body, the temperature was raised, and the whole clinical picture of measles was presented. The ran a tolerably mild course, and ended in recovery after the lapse of six days.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

**(199) Recurrent Transitory Diabetes.**

Dreyfus Brissac (*Sem Méd.*, February 12th, 1897) gives a summary of 6 cases of recurrent transitory diabetes. The proportion of sugar was very variable, but usually 30 to 40 g. a day. The glycosuria diminished rapidly under a rigid diet. The amount of sugar was invariably less in the second and third attacks than in the first, but the attacks lasted longer with each relapse, 1 or 2 g. of sugar persisting for weeks or months. As a rule there was albuminuria, which subsided with the glycosuria. The proportion of uric acid was high. In all cases there was a moderate degree of polyuria. Thirst and hunger were never marked, but emaciation, sense of physical exhaustion and depression, were prominent symptoms; these recurred with diminished intensity with each attack. Dryness of the mouth was constant, and violent palpitation, irritable temper, and sexual failure were signs of an oncoming glycosuric paroxysm. None of the ordinary complications occurred, except in one instance a small carbuncle. Months or years of perfect health sometimes intervened with the attacks. In one case ordinary diabetes supervened. The recurrent transitory variety of diabetes is connected in certain cases with constitutional arthritism, in others with an acquired arthritic tendency. In the former the diabetes occurs as an episode among other distinctly arthritic manifestations: in the latter there is no permanent constitutional substratum, but a temporary arthritism brought about by various morbid conditions of nervous or nutritional origin, this giving rise to perversion of the glycogenic function, as it may at other times to attacks of gout or piles. Transitory diabetes is not dangerous in itself; it is the expression of an enfeebled constitution or a passing dyscrasia. It may become transformed into chronic diabetes, or be a forerunner of infinitely more dangerous complications. The diet should be rigorous, as it need not be prolonged. Physical exercise is very important and tonics are advantageous. The urine should be frequently analysed that the diet in being suitable for the diabetic condition may not favour an attack of lithiasis or gout.

**(200) Widal's Test for Typhoid.**

Block (*Johns Hopkins Hosp. Bul.*, November-December, 1896) gives the record of typhoid cases subjected to the agglutination reaction in Osler's clinic. Of 20 cases tested with a dilution of 16 to 1, and the time limited to half an hour, the reaction was complete or marked in 11, the earliest reaction being on the twentieth and the latest on the 106th day. In 6 cases, all of moderate severity, the reaction was partial, and in the remaining 3 it is described as slight. Clumping of typhoid bacilli was also obtained with serum from cases of diabetes and malaria. Agglutination was obtained, not only with serum, but also with milk, urine, pus, blister fluid, tears, and probably stools, not with œdema fluid, aqueous humour, saliva, gastric juice, and bile. The agglutinative reaction has also been demonstrated in cholera, pyocyanean infections, tetanus, pneumococcus infections, diphtheria, etc., each one with its own specific serum. In one case of typhoid the blood taken at the necropsy yielded only a partial reaction. In the author's experiments typhoid cultures from three sources were used, the cases reacting much more markedly with one of them than with the other two, this being probably a test of virulence. Block has also tried the dried serum method as adopted by Wyatt Johnston, of Montreal. He finds it less constant in its results than the former method. Of 17 of Osler's cases the dried blood reaction was marked in 9—6 being severe and 3 slight cases. In 3—2 severe, 1 moderate—the reaction was partial; in 2 mild cases, one on the third, the other on the seventeenth day, it was doubtful. In 3 cases—1 mild, 1 severe, it was slight; the third at the beginning of a relapse of moderate severity showed no agglutination, but nine days later it was slight.

**(201) Early Diagnosis of Measles.**

Koplik (*Arch. of Pediatrics*, December, 1896) states that one of the most, if not the most, reliable sign of the invasion of measles has failed to receive due attention. He refers to the exanthematous eruption on the buccal mucous membrane. This reaches its height just as the skin eruption appears and is spreading: when the skin eruption is at its efflorescence, the buccal eruption has begun to decline. There is nothing specially distinctive about the condition of the pharynx or hard and soft palate in measles. The first twenty-four to forty-eight hours of invasion of measles is marked by suffusion of eyes, slight febrile movement, and perhaps cough or a little sneezing. At this period the skin eruption has not made its appearance, but on examining the mouth there may be a redness of the fauces. If now the buccal mucous membrane and the inside of the lips are examined, a distinct eruption of small irregular spots of a bright red colour is invariably seen; in strong daylight, in the centre of each spot is seen a minute bluish-white speck, which is absolutely pathognomonic of commencing measles. They do not occur in the palate. The number varies, sometimes requiring careful search. These spots are very different in appearance to sprue spots; the small specks retain their punctate character, and never coalesce. This diagnostic test is of greatest value at the very outset of the disease. In scarlet fever the buccal mucous membrane is not affected; it is sometimes affected by simple aphthæ, but here the spots are not so bright red, and do not show the bluish-white specks. Rötheln, properly so-called, has not the eruption on this mucous membrane. Commencing *grippe* in many cases resembles the onset of measles, but again this affection of the mouth is absent. In some cases of measles the spots are so few as to escape a casual examination; it is therefore well to carefully examine the mouth in a strong light from a window.

## SURGERY.

**(202) Urethral Calculi.**

Lieblein (*Beiträge zur. klin. Chirur.*, Bd. xvii, Hft. i) reports a case of very large calculus in the urethra, which, he concludes from a careful review of the clinical history, had been formed in an acquired urethral diverticulum. In discussing the mode of origin of such concretions, the author restricts the term urethral calculi to such as are either primarily deposited in the urethra or to arrested vesical calculi which have remained impacted for some time and increased in size. Instances of the latter kind are very rare, as an impacted vesical calculus usually sets up acute symptoms which demand prompt treatment. In most cases the urethral calculus is deposited from stagnant urine accumulated in a diverticulum, which may be either congenital or acquired. The former, of which but a dozen instances have hitherto been reported, is usually situated on the lower part of the urethra between the glans and the root of the penis. The acquired diverticulum, which may be the consequence of a ruptured retention cyst, blood cyst, or abscess, or of urethral stricture, is situated most frequently in the membranous portion of the canal, its formation in this region being favoured by the thin and yielding coats of the urethra, and the loose cellular tissue of the scrotum. In such a cavity a calculus may be readily formed as a result of ammoniacal decomposition of the stagnant urine, and of the deposit of urinary constituents on particles of mucus, or small blood clots. As the enlarging calculus usually extends into the scrotum and does not obstruct the urethral canal, the symptoms in most cases are so slight that the concretion is allowed to attain a considerable size before its presence is revealed.

**(203) Operative Treatment of Traumatic Displacement of the Superior Epiphysis of the Humerus.**

Walther (*Revue d'Orthopédie*, No. 1, 1897) reports two cases in which he operated successfully for the removal of the deformity caused by irreducible displacement of the upper epiphysis of the humerus. In this lesion the lower fragment is usually carried forwards, inwards, and upwards in front of the epiphysis, and when fixed in this position leads to decided functional impairment of the injured limb, the range of elevation and forward projection of the

arm being restricted by premature contact of the displaced lower or diaphysial fragment with the coracoid process or the acromio-coracoid arch. In the first case, which was one of quite recent injury, the author, after an attempt to reduce the displacement by extension of the upper limb, cut down on the seat of injury, and resected the upper extremity of the diaphysial fragment. Bloodless reduction, it was found, had been prevented by the projection through the deltoid muscle of the end of the lower fragment, and also by a large band of intact periosteum, which prevented movement of the fragments. The second case was one in which the displaced epiphysis had been fixed to the diaphysial fragment by a large mass of callus. The upper extremity of the shaft was divided and resected, and the projecting portions of calius removed. In each case the operative treatment was followed by good results with regard both to the removal of deformity and the restoration of the functions of the limb.

**(204) Resection of the Cervical Sympathetic Nerve for Exophthalmic Goitre and Epilepsy.**

JONNESCO (*Centralbl. f. Chir.*, No. 2, 1897) has been led by the results of clinical and pathological observations to perform complete and bilateral resection of the cervical sympathetic nerve in cases of Basedow's disease and epilepsy. In 1896 he removed from a patient affected with the first-mentioned disease the superior and middle cervical ganglia, together with the intervening portion of nerve fibres on both sides. The results of this operation were so good that the author thought a more extended procedure—extirpation of all three ganglia—might prove beneficial in 9 other cases, of which two were cases of Basedow's disease and 3 cases of genuine epilepsy, the remaining 4 being instances of chorea and of hysterical convulsions. In both cases of Basedow's disease the operation was followed, the author states, by disappearance of the exophthalmus and diminution in size of the goître. The increased frequency of the cardiac action was much relieved in one case but persisted in the other. There was decided improvement in the 3 cases of genuine epilepsy. Each patient, it is asserted, has remained quite free from any recurrence of convulsions; one only having suffered since the operation from slight, rare, and transient attacks of vertigo. In the remaining cases no good result was attained by operative treatment. Resection of the cervical ganglia, according to the author's experience, is not likely to be attended by any serious consequences, as the only abnormal signs observed in his cases were temporary blushing, lachrymation, and increased nasal secretion and contraction of the pupil.

**(205) Suture of Separated Nerve Ends.**

EHRMANN (*Thèse de Paris*, 1896-67, No. 22) maintains that when a living nerve of suitable size is available transplantation should be tried; success is doubtful, but if obtained restoration of the injured nerve is much more rapid. In autoplastic operations by splitting the nerve, the *rôle* of the flaps, which themselves must necessarily perish, is merely one of directing the process of revivification, and the section of the upper end is calculated to diminish the number of outgrowing terminals, thereby making this method less favourable than simple *suture à distance*, from which indeed it only differs in the suture being of nervous tissue. When the separation does not exceed 5 cm. he recommends suture with catgut, or by inserting the ends of the divided nerve into those of a drainage tube of decalcified bone and fixing them there with catgut. The ossein is absorbed as surely though not so rapidly as the catgut. When the separation exceeds 5 cm. he recommends that the junction should be made by less resorbable means, either an india-rubber tube or by threads of sublimated silk. While the technique of tube suture is more difficult than the other, the advantages, in his opinion, are not great.

## MIDWIFERY AND DISEASES OF WOMEN.

**(206) Vaginal Hysterectomy and Laparotomy for Lesions of the Uterine Appendages.**

FROM a study of 257 cases Victor Pauchet (*Gaz. Hebd. de Méd. et de Chir.*, February 18th, 1897) finds that the immediate results of vaginal hysterectomy and laparotomy for lesions of the appendages are practically the same; the mortality in the hands of practised surgeons oscillating between 4 and 7 per cent. The later results vary distinctly, the vaginal operation giving 94 per cent. of permanent cures, and laparotomy only 64.5 per cent. The troubles associated with the persistence of a uterus without its appendages are manifold; doubtless it often atrophies, but frequently it causes pelvic pain; it may become retroverted, it may set up localised pelvic peritonitis, and from it a leucorrhœal or sanguinolent discharge may take place. The special sequelæ of the vaginal operation are cystocele, leucorrhœa, and intestinal fistulæ. The failures in both kinds of castration are due to the nervous arthritic temperament of the patients; in them the local cure may be absolute. In conclusion, when radical treatment is required, vaginal hysterectomy is to be preferred, for it causes less shock than laparotomy, gives less danger of infection of the peritoneum, does not produce eventrations and a visible cicatrix, and allows the surgeon simply to drain adherent sacs which it would be dangerous to shell out.

**(207) Osteomalacia cured by Ovariotomy.**

S. FLATAU, of Nürnberg (*Münch. med. Woch.*, February 16th, 1897) records an instance of severe and rapidly advancing osteomalacia in a woman, 47 years of age, who had had six children, of whom the youngest was 8 years. The labours had been normal, and until three years previously she had been quite healthy. The illness began with pain in the sacrum and hip-joints, and the woman soon became round-backed, smaller in stature, and unable to walk. She ascribed her symptoms, which were at first regarded as those of muscular rheumatism, to the damp surroundings in which she lived. Every movement caused great pain, and there were the typical osteomalacic changes in the skeleton. A vaginal examination was rendered difficult by the close approximation of the pubic rami, and by the marked contraction of the adductor muscles, The uterus was retroverted and adherent. Removal of the ovaries was decided upon, the nearness of the climacteric not being regarded as a contraindication. On opening the abdomen it was found that the uterus was enlarged and adherent but easily separable; the ovaries and tubes were removed without difficulty; then the uterine ventrifixation was performed. The operation was well recovered from, and immediate benefit was felt, for after about a week the pains in the bones began to disappear, and in a month the patient could stand unsupported. Now, after nearly three years, pressure over the bones causes no pain at all, but there is still a slight difficulty in walking. In the ovaries was found connective tissue atrophy, along with a widespread hyaline degeneration of the perivascular tissue; but Flatau does not attach any pathological importance to these changes.

**(208) Uterine Inversion due to a Fibroid.**

VANDERLINDEN AND DE BUCK (*Bull. de l'Acad. Roy. de Méd. de Belgique*, x, No. 11, 1896) record the case of an unmarried woman, aged 42, who began to suffer from urinary troubles, and menorrhagia and metrorrhagia. A tumour as large as a child's head was found blocking the vagina, and causing a marked protrusion of the hymen. It was regarded as a pedunculated submucous fibroid, and its extirpation by the vagina was decided upon. Part of the mass was removed by *morcellement*, and then a pedicle was reached lying between the thin lips of the cervix. This pedicle was incised, when it was seen to be hollow. It was a case of uterine inversion, and the peritoneal cavity was opened into. Vaginal hysterectomy was then performed and the remains of the cervix removed. For some days septic symptoms were evident, and an injection of antistreptococcic serum was given but without good effect. The pulse was very rapid, and a subcutaneous injection was made of physiological solution into the tissue of the thigh, 3 litres on one occasion and 1 litre the day afterwards. Under this treatment, along with vaginal douching, the patient recovered. The whole uterus, save only the cervix, was in a myomatous condition, and the uterine musculature was in an atrophic state, which possibly in part explained the uterine inversion. The authors regard inversion as probably due to several causes rather than to any one etiological factor; and they think that the septic

symptoms in the above instance were due to infection of the stumps of the broad ligaments with staphylococci.

**(209) Is Cancer of Female Organs ever Transmitted to the Male?**

Volovsky (*Vratch*, November, 1896, p. 1414) discussed the question of conjugal inoculation of cancer before the Medical and Chirurgical Society of St. Petersburg. A case which he related was faulty as evidence. A woman underwent operation many years ago for cancer of the posterior vaginal fornix. She recovered, and there was no recurrence of this alleged cancer. A year after the operation, this woman's husband suffered from cancer of the prepuce, and died after operation. File, in discussing Volovsky's case, quoted another in his own experience, where a man contracted, as he termed it, cancer of the prepuce from genital cancer in his wife. File knew of a case of a woman who died of cancer (no mention is made of the affected part); when in hospital she was supplied with dainties which she would only just taste, giving them to her husband, who ate them up. He, a month later, developed cancer of the face. As usual, the evidence of transmission of cancer after the fashion of syphilis was not established by this discussion; Volovsky's man seems to have become cancerous a year after his wife had been freed from a disease which may not have been cancer. File's first case is insufficiently reported, his second is worthless, and neither of the two Russian surgeons made any mention of the possibility of coincidence.

**(210) Development of Mammary Functions by the Skin of Lying-in Women.**

Hintse (*Centralbl. f. Gynäk.*, No. 6, 1897) observed a case of tender swellings in both axillæ after labour. The left swelling, being as big as a hen's egg, was extirpated on the fifth day. The swelling in the right axilla was left alone; it began to diminish on the next day, and soon became very small. Many months after, when Hintse exhibited the patient, the scar in the left axilla was healthy. A small swelling could be felt in that space a little behind the scar, corresponding to a second collection of secreting tissue which was exposed during the operation but not excised. A small, nipple-like structure was removed at the same time as the larger mass. The swelling in the right axilla was only just recognisable; it had remained stationary for months. The excised mass was a true separate mammary gland, with acini complete, and blind galactophorous ducts. The nipple-like structure was not connected with the glandular mass. It seemed, microscopically, to be a papilloma of the skin. This glandular growth corresponds to the "axillary lumps without nipples or pores," described by Champneys. They are probably aberrant lobes of the main gland. Göpel, in discussing Hintse's case, said that he had seen primary cancer and primary adenofibroma of one of these axillary structures.

**(211) Rupture of Uterus in Labour from Hydatid Disease of Pelvis.**

Tissier (*Annales de Gynéc. et d'Obstét.*, February, 1897) records a case of high importance in regard to pregnancy in women who have suffered from hydatid disease of the liver. His patient had been under treatment for that malady eighteen years before the pregnancy for which he attended her. During labour the uterus burst and she died. At the necropsy, the diagnosis of the hepatic disease was confirmed; the omentum and abdominal cavity were full of hydatids. The uterus was surrounded by a mass of the same growths; it is not actually stated that any of them perforated the uterine wall. Other hydatids were encapsuled in the broad ligaments.

**(212) Cæcal Tumour mistaken for Diseased Appendages.**

Delassus (*Progrès Médical*, December 5th, 1896) records the case of a woman who suffered from hypogastric pains for some time. A tender movable tumour, as large as a hen's egg, lay in the right fornix, resembling a tube and ovary subject to chronic inflammation. There was constipation and the patient became sickly. The abdomen was opened and a malignant tumour of the cæcum was found in the right iliac fossa. It was quite irremovable. The earlier history was interesting, several experienced practitioners having attended the patient. The unilateral pelvic pain and swelling, accompanied by metritis, for which the curette had been used, very naturally baffled diagnosis.

## THERAPEUTICS.

**(213) Opotherapy in Addison's Disease.**

Schilling (*Münch. med. Woch.*, February 16th, 1897) first discusses the functions of the suprarenal bodies, referring particularly to the recent researches of Mühlmann. This investigator found pyrocatechin in the medulla of the suprarenal gland. The substance becomes of a brown colour in contact with air or alkaline tissues. According to his view pyrocatechin is not converted in Addison's disease into a harmless compound on leaving the suprarenal body and entering the circulation. Mühlmann believes that in health the elimination of pyrocatechin occurs through the agency of the sympathetic ganglion cells. The above-named theory offers the best explanation of the phenomena of Addison's disease, the debility, etc., being the signs of chronic poisoning with pyrocatechin. Thus Addison's disease is to be looked upon as an auto-intoxication. The author then records a case of this disease in a boy, aged 14, who began to develop the characteristic symptoms. The pulse was small and feeble, and later there was vomiting and diarrhœa, as well as progressive weakness. About twenty-one months after the onset of the disease the author gave him daily half a lamb's raw suprarenal gland, and in eight days this was increased to a whole gland. For three months this treatment was carried out with remarkably good results. Both the objective and subjective symptoms of the disease disappeared, only a slight pigmentation on the inner side of the cheeks remaining. His weight increased some 30 lbs. The lad went to work against advice, and was suddenly seized some two months later with symptoms of severe intoxication, consisting of vomiting and profuse diarrhœa. The case terminated fatally in a few hours. The usual lesions of Addison's disease were found, and a limited pneumonia of the right lower lobe. The suprarenal treatment in this case undoubtedly produced a temporary and relative cure, by supplying what was deficient owing to the destruction of these glands. The treatment was omitted for three months, and the author suggests that it would be well in similar cases not to discontinue it for more than two months. Many cases of cure in Addison's disease have been recorded, but this has really only been of the nature of improvement except in Merkel's case, where one suprarenal only was destroyed by syphilis. A fatal relapse occurred here some four years later through disease of the other suprarenal. The suprarenal feeding in the author's case produced no unpleasant by-effect. The pyrocatechin poisoning would appear to be neutralised by it. The author concludes by remarking that cases improving under opotherapy should be submitted to rigid criticism.

**(214) Injection of Antistreptococcic Serum in Puerperal Septicæmia.**

H. L. Reddy (*Canada Medical Record*, September, 1896) reports the following case: A primipara, aged 20, on the third day after normal confinement, had a temperature of 100°, pulse 90, but felt well. Two days later the temperature was 101°, pulse 90; no cause for the increase of temperature could be found in the pelvis or elsewhere; lochia normal. The next day the patient had a chill, and the temperature rose to 104°, pulse 106, respirations 28. The tongue was thickly coated with a heavy white fur, and she complained of headache. On examining the vulva, a varicose vein was seen to have burst, and on its site a whitish membrane about ½ inch in diameter was noticed. To the membrane was applied peroxide of hydrogen, an intrauterine douche of a solution of permanganate of potash was given and the vagina packed with dry iodoform gauze. Ten grains of sulphate of quinine internally and a tablet of 2 grains of protonuclein were given every two hours. Bacteriological examination having shown the membrane to be streptococcic, the intrauterine douche was ordered every three hours as well as an application of peroxide of hydrogen to the membrane, which had now spread to the right side, there being a couple of patches, each about the size of a quarter of a dollar. Between the douches the vagina in the vicinity of the patches was packed with wadding, soaked in peroxide of hydrogen, left *in*

*situ* ten minutes, and afterwards packed with dry iodoform gauze. An injection of 10 c.cm. of Marmorek's anti-streptococcic serum (obtained from a horse) was given on the right side about the middle of the abdomen, the ordinary precautions being observed. For forty-eight hours following the injection there was numbness and tingling of the extremities, and no pain with the exception of a little at the seat of the injection, which was quite free from swelling and redness. No rash was observed. The injection was given at 1.10 P.M. on July 13th. The temperature at the time of the injection of the serum was 103.4°, pulse 116; two hours later temperature 104, pulse 110, full, well sustained. The patient complained of a sharp pain on the right side of the abdomen at the site of the injection and tingling and numbness in arms, fingers, and feet, which continued forty-eight hours. Urine 23 ounces in amount, normal in character. Ten hours later the temperature had fallen to 101.4°, pulse 104. After 11 P.M. it fell a degree every two hours until 6 o'clock the following morning (July 14th), when it fell to 99.2°, and the membrane on both the right and left side of the vagina and labium had completely disappeared, leaving a raw surface. On July 15th at 2 P.M. the temperature rose to 100°, pulse 96, and severe hæmaturia appeared. At 8 P.M. the temperature fell to normal, where it remained until the patient left the hospital. The hæmaturia continued for three days. On July 24th the patient left the hospital perfectly recovered. On examination before leaving the hospital no signs of the local lesion were observable.

**(215) Permanganate of Potassium in Lupus.**

L. Butte (*Ann. de la Policlinique de Paris*, January) states that after having tried all the classical methods of treatment in lupus without satisfactory results, he believes that he has hit upon a local medication which, without having the drawbacks of scarifications or the cautery, brings about not only an arrest in the progress of the disease, but a real cure of the lupus nodules. The remedy is permanganate of potassium, which he has used for six months with excellent results. At first he employed this substance in lotions applied morning and night, beginning with solutions of 1 in 200 to 1 in 100, and afterwards of 2 in 100. These applications seemed to cause an arrest in the progress of the affection, and this encouraged Butte to push the treatment. He accordingly tried daily applications, continued for 10 or 15 minutes, of compresses saturated with a 2 per cent. solution of the permanganate. At the end of a fortnight the nodules were shrunken, covered with a thin blackish crust, and gave to the finger no sensation of being raised; they seemed, in fact, to be destroyed. The other parts of the skin were smooth and tense. The applications cause some pain for an hour or two, but cocaine ointment speedily relieves this. Butte has used this treatment in 11 cases, in all with the same good results. The method has not, he admits, been tried long enough to make it possible to affirm that the cures are complete and permanent. In the meantime, however, Butte is able to testify to the fact that the nodules have disappeared, and the progress of the disease has been arrested.

**(216) Salophen in Pruritus.**

De Wannemaeker (*La Belgique Méd.*, November 5th, 1896) has for some time used salophen—a compound of salicylic acid and acetyl-paramidophenol—in the treatment of pruritus, with very encouraging results. He gives it internally in doses of 4 to 5 g. a day; he has used it in cases of old-standing prurigo, urticaria, seborrhœic eczema, and in an annual recrudescence of psoriasis; in several other cases of the same disease, however, it had no effect. The author is doubtful whether the therapeutic effect is due to the action of the salicylic acid or to the phenol; he admits that the drug fails altogether in some cases where pruritus is a prominent symptom; but he is convinced that, under certain conditions which cannot at present be precisely determined, the internal use of salophen relieves forms of pruritus so troublesome as to make life unbearable.

**(217) Salipyrin in Peliosis Rheumatica.**

Mühlbauer (*Wien. med. Woch.*, 1897, No. 5) records three cases of this affection in which salipyrin was used with great benefit. The first patient was a woman, aged 56, who after being unwell for a week, had a violent rigor followed by pains in the left knee and ankle. Next day the typical spots appeared on the extensor surface of each joint, and the temperature fell from 101° to 99°. The pain, however, remained, resisting large doses of antipyrin, sodium salicylate, and phenacetin; they disappeared, however, "like magic," under the influence of salipyrin. The second case was that of an anæmic girl aged 27, who was suddenly seized with severe pains in both knees. The lungs were normal, there were cardiac and venous *bruits*, and the spleen was swollen; on the extensor surfaces of both knees were numerous petechial ecchymoses. These were also present on the outer side of the right ankle, which was much swollen. The temperature was nearly 102°, and remained up, the pain also persisting after the spots had faded. Quinine caused a temporary fall of 2½°, but both fever and pain were at once terminated by the administration of salipyrin. The last patient was a sturdy labourer, aged 34, who was suddenly and without apparent cause seized with violent pains in the right knee and hip, which were followed by numerous petechial spots in those parts. All the symptoms disappeared after the administration of 150 grains of salipyrin, which the patient took in a single dose. The author concludes that peliosis rheumatica is a definite clinical entity, not merely a variety of purpura or of articular rheumatism. As the heart was normal in at least two of his cases, he considers there is no ground for regarding the hæmorrhages as due to cutaneous embolisms; they are merely extravasations from the capillary network of the skin.

## PATHOLOGY.

**(218) Secondary or Terminal Infections in Chronic Diseases.**

Flexner (*Journ. of Experimental Med.*, vol. i, No. 3, 1896) gives the results of a statistical and experimental study of terminal infections based on the bacteriological examination of the necropsies of 255 cases of chronic heart or kidney disease, or of the two combined. Of these, 213 gave positive, and 42 gave negative, results. The infections may be (1) local—these are far the commoner—or (2) general. In the general infections there is a striking predominance of the usual pyogenic cocci; streptococci were the variety most often present, but were not highly pathogenic for laboratory animals. The usual lesions found were acute splenic enlargement and parenchymatous degenerations in the viscera; in a large proportion of cases visible focal lesions were not present. The portals of entry of the micro-organisms in these cases of general infection could not always be determined. In the local infections the micro-organisms were for the most part the same as in the general infections. The colon bacillus was so frequently found in the kidneys and lungs, and streptococci were so commonly present in congested and œdematous lungs that these organs must be regarded as specially favouring the growth of these micro-organisms. In the great majority of cases the presence of the colon bacillus was not regarded as of pathological importance; the exceptions were when it was met with generally all over the body and in large numbers, and when it was present together with pyococci. Lists of the micro-organisms found and of their portals of entry are given, and it is seen that the intestine is the portal of entry, for many of the bacteria found not only in peritonitis, but also in pleurisy, endocarditis, etc. The statistics show the value of systematic bacteriological examination in routine *post-mortem* work, and illustrate Osler's remark that secondary infections carry off many incurable cases. In order to throw light on the factors which render a patient with chronic disease so much more susceptible to infection than a healthy person, Flexner examined the bactericidal power of blood serum obtained from cases of chronic disease, and compared it with that of normal blood serum and of placental blood serum. The bactericidal power was tested on cultivations of the staphylococcus aureus. He found that normal blood serum possessed distinct bactericidal properties, and that this power was absent or diminished in at least some cases of advanced chronic disease.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

### (219) Sweating Typhoid Fever.

Jaccoud (*Sem. Méd.*, February 10th, 1897) calls attention to a form of enteric fever known as "fièvre typhoïde sudorale Italienne," or, shortly, "typhoïde sudorale." Two forms are described: (1) The typical form met with chiefly in Southern Italy, especially Naples. The onset is sudden, with violent retro-orbital and occipital headache, and rigors. Rigors are followed by a hot stage, and then by sweating, these stages being repeated daily, as in quotidian ague. The temperature may rise to 104° or 106° F. This initial intermittent stage lasts, as a rule, eight days. (2) The mixed form, seen chiefly in France. The initial stage is variable. Headache usually precedes the onset of fever, which is of a subcontinued and not an intermittent type. Sweating is not present at first, but when established is just as profuse as in the typical form. The tongue remains clean during the whole illness. In both forms the initial stage is followed by three weeks of remittent fever, accompanied by daily attacks of sweating, which correspond to slight elevations of temperature, and are generally preceded by shivering. In the third period, lasting a week, the daily paroxysms become less and less marked and the temperature falls. Thus the total length of the fever in both forms is five weeks. The patient has not the enteric facies: on the contrary, the expression is animated, recalling that of measles, especially as the eyes are red and watery. There is no diarrhœa. The bronchi and lungs are not affected. There are no cerebral symptoms, and the patient does not fall into a "typhoid" state. Rose spots as in ordinary enterica may be absent. The sweating, however, is extremely profuse, and may continue for some days after the fever has ended. There are practically no complications or sequelæ. Albuminuria is very rare, and perforation unknown. Hæmorrhage if present is always slight, causing no fall of temperature. No case has ever ended fatally. The diagnosis is usually easy. The complete uselessness of quinine distinguishes it from malarial and typho-malarial fevers. In influenza the initial pain is not limited to the head and neck. The absence of eruption on the head and neck distinguishes it from measles. The treatment consists of rest in bed and a strict milk diet. Quinine should be given only at first and for diagnostic purposes. Antipyrin and salicylate of sodium have no effect, and should not be given. Every kind of antisudorific has been tried and has failed.

### (220) Hysterical Hæmoptysis.

Strümpell (*Monatsschr. für Unfallheilkunde*, I, 1897) records a case of hysterical hæmoptysis after fracture of two ribs in a man. Three days after the accident the patient spat up some blood, and for the next three months did not leave his bed. He complained of frequent pain in the injured side, with cough and bloody expectoration. His expression was that of a melancholy hypochondriac. The cough was slight but almost continual, and had an artificial sound as if produced by an effort for the occasion. The surface of the soft palate was stippled with tiny hæmorrhagic spots; the larynx was normal. About 15 to 30 c.cm. of blood-stained expectoration accumulated daily in the spittoon; it consisted chiefly of mucus containing a few white and red blood corpuscles, which gave it a pale reddish colour, much paler than that of "rusty" sputum; there was only a trace of pus, and no tubercle bacillus. The lungs and other organs were normal. There was much complaint of headache and drowsiness, and other neurasthenic troubles. Treatment directed especially to the psychical condition was followed by improvement. Strümpell considers that such cases are not sufficiently recognised. The expectoration is almost always from the mouth or pharynx, or neighbouring parts, and may be distinguished from true hæmoptysis by the far smaller amount of blood in it, the absence of pus elements, and the large amount of squamous epithelium, leptothrix and food remains present. The blood expectorated is to be attributed to the mechanical injury to the mucous membrane from the continual cough. Such hysterical hæmoptysis occurs also apart from trauma in persons of hysterical or hypochondriacal temperament.

### (221) Diabetes Mellitus.

Loeb (*Centralb. f. inn. Med.*, February 6th, 1897) records another case illustrating the very early stages of diabetes, in which there is a small quantity of sugar in the urine, but as yet none of the symptoms of diabetes. A man, aged 53, came complaining of anosmia. Examination of the nose gave negative results. The urine, specific gravity 1018, contained, however, 0.25 per cent. sugar. There was no thirst or sense of weariness, and the patient was well nourished. Some 23 months later the patient was still able to do a full day's work. His weight was the same as before, but he looked as if he had become more corpulent. The only symptom complained of was cramps in the calves of the legs. When questioned he was found to drink more fluid and to pass more urine than formerly. The urine now contained 3.5 per cent. sugar. Thus this patient had passed small quantities of sugar in the urine for some time before symptoms of diabetes appeared. Unschuld laid stress upon cramp as being an early symptom of diabetes. A very small percentage of sugar in the urine does not suffice to establish the diagnosis of diabetes, and even years may pass before the disease can definitely be proved to exist.

### (222) The Serum Diagnosis of Enteric Fever.

Jemma of Maragliano's clinic (*Centralbl. f. inn. Med.*, January 23rd, 1897) has investigated 12 cases of enteric fever and 15 of other diseases. He obtained the blood by means of a sterilised syringe from a superficial vein at the bend of the elbow. One part of serum was added to 10 to 15 parts of typhoid bouillon culture. A positive result was always obtained in the cases of enteric fever, and a negative one in the others. In 6 out of 9 cases investigated at the height of the disease the typhoid bacillus was also demonstrated in the stools and in the splenic blood. The phenomenon was present in a characteristic manner during the febrile acme. The author has previously shown that the bactericidal action of the serum is most marked at the height of the disease and when the temperature is most raised. Less serum is required to obtain Widal's reaction at this phase of the disease. The phenomenon has been shown not to be due to the serum albumen, but to fibrinogen and serum globulin. Devoto separated out the globulin and dried it. He found that it was not to be distinguished chemically from globulin obtained from the blood of other people. If dried at 55° C. it lost its bacillus-precipitating properties, but if dried at room temperature it preserved them from eight to ten days; it was free from any globulicidal action. The exudation from blisters, the urine, the milk of female typhoid patients, tears, and exudations in general show the same bacillus-precipitating action. It has been disputed whether this action belongs to the infection or to the immunisation. The author has made experiments to ascertain whether heat has the same effect on this precipitation as upon the bactericidal action. A temperature of 37° C. for 24, 48, 96 hours has no effect on the reaction, nor yet has a temperature of 40° for 18, 36, or 50 hours. A temperature of 55° for 40 minutes or 60° for 20 minutes not only delays the development of the reaction, but more serum is required. A temperature of 70° for 10 minutes destroys completely the bacillus-precipitating powers of the serum. At ordinary temperatures of 12° to 15° C. these properties are preserved in a marked degree for 40 days.

## SURGERY.

### (223) Silver as an Antiseptic in Surgical Practice.

Credé (*Centralbl. f. Chirurg.*, No. 43, 1896) advocates the use of silver and silver salts, which he has found from a year's experience to be very effective, sure, and safe antiseptic agents in the treatment of wounds. An incision made in a surgical operation is covered with gauze impregnated with finely divided silver. When such gauze is used for ulcerated or wounded parts which

secrete freely, the silver is attacked by the products of decomposition and is converted into a lactate of this metal, which, though an active neurotic agent, is very irritating. Open surfaces, therefore, of some standing are covered at first by powdered citrate of silver (itrol) and then excluded from the air by the silver gauze. This method of treatment does not, it is stated, need such strict precautions as other methods of antiseptic treatment. There is no necessity to replace the dressing if the gauze be stained by discharge, and the author does not fear the contact of air with any secretion contained in the gauze. The results, he asserts, have hitherto been very good, and he regards the silver dressings as being most reliable in the treatment of all forms of wound.

**(224) Treatment of Fracture of the Clavicle by Massage.**

DRAGON (Reprint from the *Jour. de Méd. et de Chir. Prat.*) publishes the results of massage applied to 20 cases of fracture of the clavicle, under the care of Lucas-Championnière. The ordinary treatment of this lesion by bandages and slings is held to be very unsatisfactory, as it is very difficult by such appliances to keep the fragments at rest and in good position, whilst the functions of the shoulder and elbow are liable to become impaired for some time in consequence of prolonged immobility. The author practises a daily massage not only at the seat of fracture, but also of the adjacent joints and muscles, and insists particularly on massage of the deltoid muscles, and careful movements, both active and passive, of the shoulder. In the intervals the upper limb is supported by a sling. Consolidation of a fractured clavicle is usually effected between the eighteenth and twenty-fifth days from the date of injury, and at the end of this period the patient, when treated in the manner described by the author, is able to use the limb freely, as the main object of such treatment is to prevent articular rigidity, and to preserve the full muscular functions.

**(225) Appendicitis in Children.**

MLLE. GORDON (*Thèse de Paris*, No. 101, 1896-97) deals with this affection on the basis of upwards of 80 cases treated by Broca during a period of three years at the Hôpital Trousseau; 70 have not been previously published. The proportion of boys to girls was nearly 3 to 1 (58 to 21); 5 were aged between 2 and 5, 25 between 5 and 10, and 41 between 10 and 15 years. Broca operated in 72 cases with a mortality of 35 per cent. The resection of the appendix was performed in 13 cases after the inflammation had subsided, in all with rapid and complete success, and in 5 cases during the acute attack with 3 deaths. The mortality, including the cases not operated on, was 32 per cent. Mlle. Gordon concludes that pathogenesis from a closed cavity is not applicable to the appendicitis of children, in whom calculous or inflammatory obliteration of the appendix is rare; the predominant anatomical lesions are perforation and gangrene. Only two distinct forms of acute appendicitis are to be distinguished clinically—that in which the peritonitis, though purulent, is encysted, and that in which it is generalised. The elective treatment for the former is, in benign cases, resection of the appendix after the inflammation has subsided. When the intervention is one of necessity, an inguinal incision, or one along the external border of the right rectus, should be made, but no search for the appendix. When the case is one of general peritonitis with a local iliac focus, median and lateral laparotomy is indicated.

**(226) Double Cysticercus in an Eye.**

PERGENS (*Klin. Monats. f. Augen.*, December, 1896) relates the case of a girl, aged 21, who has been under observation since May, 1895. She then complained of failing vision in the left eye, and could only count fingers excentrically, in the upper and lower parts of the field. With the ophthalmoscope a cysticercus could be seen right in front of the papilla, its outline being iridescent, and the scolex freely movable in the vitreous. The scolex had four suckers, and was darkly pigmented, but there was no circlet of hooks. Behind the bladder the retina was detached and greyish in colour. On the temporal side there was a second globular detachment of retina. The tension was scarcely below normal. Two days later the temporal detachment showed a rupture, and disclosed the second cysticercus. The cysticerci could be well seen by oblique illumination, and the patient correctly projected their movements. Extraction was recommended, but refused. All the time she was under observation the iris retained its normal colour and reactions, and accommodation was undisturbed. Sometimes the scolices were withdrawn, but soon projected again. The patient was accustomed to eat much salad and raw meat, but never suffered from tapeworm. The nasal scolex remained free, the other becoming encapsuled; the retina became almost completely detached, and here and there showed formation of new vessels. Vision fell to perception of light, tension to −1, the vitreous became more and more opaque, and divergent strabismus ensued.

## MIDWIFERY AND DISEASES OF WOMEN.

**(227) The Curette in Labour.**

BUDIN AND CHARPENTIER (*Ann. de Gynéc. et d'Obstét.*, January, 1897) are quite at variance as to the use of the curette after delivery. Nitot exhibited recently at a French society a "giant curette," designed specially for the uterus in the puerperium, where the small sharp instruments useful for the non-parous uterus are inconvenient and dangerous. In the discussion Budin declared that he no longer uses the curette after labour. He has had excellent results following the simple practice of clearing off adherent fragments with the finger and then mopping the uterine walls. Charpentier, on the other hand, is a strong supporter of the early use of the curette under the same circumstances. Suitable cases are, in his opinion, kept waiting too long. The instrument must be employed before the infective process has become generalised; indeed, when the uterine tissue has undergone changes from that process, the curette actually increases the danger. He has never had any bad results, even indirectly, after the use of the curette in the puerperium.

**(228) Pelvic Varicocele.**

HERBET (*Annales de Gynéc. et d'Obstét.*, February, 1897), describes a very definite case of varicocele of the utero-ovarian veins. The patient, aged 34, was admitted in December, 1896, into Dr. Marchant's wards with symptoms of internal strangulation. She had been in the same hospital four years previously suffering from peritonitis due to suspected left salpingitis. The abdominal cavity was opened. Two fibrous bands proceeding from the left appendages, caused strangulation of the small intestine. They were divided, and the obstruction was completely relieved. An enormous mass of dilated veins lay in the left broad ligament and communicated with enlarged veins in the great omentum, which adhered to the fundus of the uterus. The left appendages were removed, and some of the omentum resected. The tube and ovary seemed healthy, some of the vessels were as thick as a goose-quill, and a very wide venous space was cut across, its proximal part remaining in the pedicle. The patient died within twenty-four hours, though flatus and fæces passed after the operation. The parts were carefully dissected, the uterine and ovarian veins and their branches were found enormously dilated. The right vessels were much affected; the left seemed to proceed from a large venous sinus, the same which had been divided, with the pedicle, at the operation. The walls of the veins were thickened. The disease probably originated in uterine phlebitis, and the adhesions were due to secondary conditions.

**(229) Ovarian Opotherapy.**

C. JACOBS, of Brussels (*La Policlinique*, December 1st, 1896), reports the results which he has obtained from the use of ovary juice in various diseases of women. The cases in which he has used this substance are grouped by him as follows: (1) A series of patients in whom partial or complete removal of the genital organs had been performed by the abdominal or vaginal route, and in whom various disturbances of the kind associated with the menopause or dysmenorrhœa had developed. (2) Patients who had reached the age of the natural "change of life," and who presented troublesome symptomatic phenomena. (3) Anæmic young girls. (4) Women suffering from amenorrhœa due to in-

complete development of the genital organs, or from dysmenorrhœa due to an arrest in the development of the internal genitals. Ovarian gland substance was given (1) in the natural state—in this form it is taken with difficulty; (2) in powder, after desiccation of the organ—in this form many patients cannot digest it; (3) in glycerinised or liquid extract, in form of "oöphorine wine," the basis of which is extract of cow's ovary. This is generally well borne in a daily dose of 20 grammes, corresponding to 20 centigrammes of the extract. Details are given of 51 cases, 34 of which were under the author's own observation, 15 under that of Dr. Raulier, and 1 under that of Dr. Balteaux, of Wavre. From the results Jacobs formulates the following conclusions: (1) The troublesome symptoms of the natural menopause disappeared or were greatly diminished by the use of extract of ovary without any other medication. (2) Similar effects were produced by the administration of that substance in the relief of symptoms—for instance, irritability of the bladder—that follow surgical operations which have for their result the suppression of the menstrual flow. (3) Rapid improvement is constantly seen in chlorosis and dysmenorrhœa. (4) The influence of extract of ovary on the psychical disturbances which accompany or are dependent on genital lesions are undeniable. (5) Rapid and permanent improvement in the general state. (6) Climacteric metrorrhagia without neoplasic lesions yield rapidly to the administration of the remedy. (7) Its therapeutic action on the nervous system is manifest from the first day of its administration. Jacobs states that he will shortly publish the results of laboratory researches as to the chemical constitution of the substance which he prescribes.

**(230) Self-inflicted Wound of Bladder in Childbed.**

Kalnikoff (*Monats. f. Geburt. u. Gynäk.*, January, 1897) reports, in the *Proceedings* of the Medical Society of the Don Province, that he was called into a patient who, when micturating on the second day of childbed, found that something projected from the vulva, and took it for "after-birth." She deliberately cut into the projecting object, which happened to be a cystocele. A vesico-vaginal fistula had formed, and the edges were gangrenous. No plastic operation was performed, but the fistula was healed after several months by antiseptic irrigations and catheterism of the bladder at regular hours.

**(231) Causation of Uterine Cancer.**

Bäcker (*Arch. f. Gynäk.*, liii, Hft. 1, 1897), from a statistical inquiry, connects the development of uterine cancer with pre-existent endometritis, especially puerperal and chronic in character. Other forms of endometritis do not seem to have the same influence for sterile women, and those with gonorrhœa rarely suffer from cancer. Certain facts support his view, such as the greater frequency of cancer in married women and widows than in the unmarried, and in the poor than in the rich—for the former are more likely to allow an endometritis (fluor albus) to go untreated, and so become chronic; and the influence of inflammation on the development of cancer elsewhere—for example, mastitis and mammary cancer, gastric ulcer, and gastric carcinoma, etc. The influence of labour is not direct, for most cancerous women do not become so till long after the close of the child-bearing period. Bäcker finds no ground for believing that cancer is due to a specific microbe.

## THERAPEUTICS.

**(232) The Action of Antitoxin.**

Ehrlich (*Fortschritte der Medicin*, January, 1897) considers that the action of antitoxins might be more usefully studied by test-tube experiments than by experiments with the complex living organism. The action of diphtheria antitoxin was regarded at first as a destruction of the poison, but this is disproved by the fact that in a "physiologically neutral" mixture of toxin and antitoxin these two constituents are found to be present unaltered. Two other views have been advanced: (1) That the toxin and antitoxin form a sort of combination which lacks the property of fixation in the tissues, and therefore the toxic effect is lost; (2) that the action of antitoxin is indirect—that is, it acts on the living cells and in some way renders them immune to the action of the toxin. Ehrlich has made some experiments with ricin, the toxalbumen of ricinus communis, which Kobert has shown to produce a peculiar coagulation of the blood, whether in the living body or outside. Immunity to the action of this toxalbumen can be obtained in certain animals by formation of an antiricin. The coagulation is proved to be a purely chemical phenomenon, not a vital reaction. A mixture was made of 5 c.cm. of rabbit's blood in 95 c.cm. of weak solution of sodium chloride, with a little sodium citrate; on adding to this mixture 1 c.cm. of a 2 per cent. ricin solution coagulation occurred at once. On adding antiricin in increasing quantities, starting with 0.3 c.cm., together with the ricin, coagulation is delayed slightly or considerably or prevented altogether, according to the amount of antiricin added. To make the analogy between this phenomenon and the action of diphtheria antitoxin more complete mice were injected with ricin combined with various doses of antiricin, and it was found that the effects of the ricin could be regulated from a fatal result to complete absence of symptoms, according to the amount of antiricin injected. These experiments would favour the view that the action of diphtheria antitoxin is a purely chemical not a vital phenomenon.

**(233) Local Treatment of Acne.**

G. T. Elliott (New York *Post-graduate*, October, 1896) gives the following hints as to the local treatment of acne. All the remedies which are of any benefit are to a certain degree antiseptic in action. They are in the form of lotions, salves, and powders. When the process is acute, and the inflammatory symptoms are active, then soothing applications are at first preferable, such as a 2 per cent. salicylic acid ointment, or a lotionof ℞ magnes. carbonat.; zinc oxid. āā ʒj; hydrarg. bichlor. gr. j to ij; aq. rosæ ʒiv; M. Sig. In place of this a dilute lead wash or the lot. plumbi et opii can be used or any other mild application. The remedy used should be kept as long as possible in contact with the surface, and not simply dabbed on once or twice daily. When the acute symptoms have subsided, or when the inflammatory reaction is more of a chronic type, and this is the rule, then more stimulating applications are necessary. The majority of those which offer good results contain sulphur, either in powder form, or in an ointment or a lotion. The sulphur mixed with starch in the proportion of 1 to 8 or 1 to 4 may be used, or it may be incorporated in Bassorin paste. When used as an ointment, its strength should be at least 10 per cent., and even 20 or more per cent. ℞ sulph. sublim. ʒij; ætheris, spts. vini, glycerini āā ʒij; aq. calcis, aq. rosæ āā ʒiv; M. Sig.; or ℞ sulph. lactis ʒiv; tinct. saponis viridis ʒx; glycerini ʒvj; spts. vini ʒj. M. Sig., are both good lotions in chronic cases. One of the most useful is ℞ Potass. sulphuret.; zinc. sulphat. āā ʒj; aq. rosæ ʒiv. M. Sig. All these are applied at night after a preliminary soap and water washing, and allowed to remain over night. They produce a certain amount of reaction, a more or less marked temporary shrivelling and scaling of the skin, but are not to be dispensed with for that reason. If their effects are severe, they can be weakened in strength or used less frequently. Vleminckx's solution is also at times of benefit, as is also a paste: ℞ Sulph. sublim. ʒjss; glycerini ʒj; spts. vini camphorat. ʒx; aq. rosæ q.s. M. Sig. (Besnier). The mercurial preparations are very useful, but care should be taken not to use them when any sulphur preparation is being or has been applied. A favourite lotion is: ℞ Hydrarg. bichlor. gr.xv; ammon. chlor. gr.xxx. to gr.lxx; spts. vini ʒiv; aq. rosæ ad Oj. M. Sig.; or the corrosive sublimate can be used in any other combination desired. Ointments are of value only in particular cases when uncomplicated by a seborrhœa oleosa, and when there is a natural dryness of the skin. The ointments may be a sulphur one, or of beta naphthol, 5 to 15 per cent.; or of ichthyol, 10 to 25 or more per cent.; or of resorcin, 5 to 20 per cent.; or of some of the mercurials; the white precipitate, the ungt. hyd. oxid. rub., 5 per cent.; or the ungt. hyd. nitratis, ʒj to ʒiij, ad ʒj. A very useful combination when much pustulation exists is: ℞ Ungt. hyd. oxid. rub. ʒiij; ungt. sulphuris ʒvj; ungt. zinc. oxid. ad ʒij. M. et sig. Comedones should be removed by the practitioner himself

n successive sittings. Any one of the comedo extractors in the market is all that is necessary for that purpose. Scraping the face with a curette has been recommended, but personally Elliott has not obtained any benefit from this procedure, and he has seen a great many patients who had thus been treated, and who were in no way benefited. After the comedones have been extracted the affected portion of the skin should be thoroughly washed with some antiseptic solution (Hg. Cl., 1 to aq. 1,000 or 2,000; boric acid, 5 per cent. in alcohol, etc.), and later in the day other remedies ordered may be applied.

#### (234) Eucaine in Ophthalmic Surgery.

Surgeon-Captain F. P. Maynard (*Indian Medical Gazette*, February) records his experience of eucaine in 20 operations: 6 cataract extractions, 1 pterygium, 2 iridectomies, 2 iridotomies, 3 needlings, 4 massagings of the cornea, and twice in his own eye. The instillations consisted of 3 drops of a 10 per cent. boiled solution. The results are described under the following heads: Pain usually lasted half to two minutes, and ceased as suddenly as it began; burning in 4, severely so in 1, slight in 13, very slight in 1, and none at all in 1. Lachrymation of blood vessels lasted half to three minutes; severe in 1, moderate in 7, slight in 8, very slight in 2, and none at all in 2. Injection of blood vessels came on with the lachrymation, and lasted several minutes longer; it involved the deep ciliary zone as well as the conjunctival vessels, the latter losing their injection first; it was severe in 1, moderate in 13, slight in 2, very slight in 2, none at all in 2. These effects were more marked in fair-skinned persons, and were less marked the blacker their skins. Anæsthesia came on in one to three and a-half minutes, usually within one minute, becoming complete within three. In no case had the anæsthesia passed off before the operation was completed. In all cases both cornea and conjunctiva were rendered anæsthetic, the cornea first and most completely. In 2 cases not included among those enumerated above eucaine failed to produce anæsthesia of the conjunctiva, though the cornea became anæsthetic. In them the conjunctiva was much inflamed and somewhat chemosed, and cocaine equally failed. Maynard has since used a 2 per cent. aqueous solution, but finds that in his own eye it produces as much smarting pain as the 10 per cent. solution, while the anæsthesia is less complete and less lasting. In other cases he has found several instillations of a 2 per cent. solution act as well as one of 10 per cent., but it takes longer to produce complete anæsthesia.

#### (235) Treatment of Pneumonia in Children.

Buxbaum (*Blätter für klin. Hydrotherapie*, August, 1896) discusses the bath treatment in infantile pneumonia, both croupous and lobular. In children the great danger of pneumonia is not hyperpyrexia but heart failure; next in importance are nervous disturbances and active or passive congestion of the lungs. The condition of the right heart being all-important, the pulse must be studied no less than the temperature. Buxbaum finds the best treatment of pneumonia in children is tepid hip baths with powerful douchea and rubbing not lasting more than five minutes; in special cases these may be combined with the local application of ice. Different authorities recommend various temperatures for the bath; Buxbaum obtains the best results with a temperature of 64° to 72° F. The temperature of the patient is by this means often reduced from 5° to 6°, and the vigorous friction helps to make the fall persistent, while at the same time it obviates the tendency to collapse. The circulation and respiration are markedly benefited, the action of the heart and lungs being slowed and deepened; the pulse frequency often falls 30 or 40 beats a minute. The effect upon the nervous system is even more powerful; the anxious expression, the stupor, the delirium, and the convulsions disappear, and give place to natural and peaceful sleep. The vasomotor centre is especially stimulated, and the vasomotor paralysis resulting from the action of the pneumococcus disappears in consequence. This action is materially assisted by the cold douche to the head and neck while the patient is in the bath; it is only in very bad cases that momentary immersion in cold water (50°) followed by rubbing is required. Local bandages soaked in cold water and tightly bound, especially round the loins, are, however, almost always of service, as also is swathing the extremities in warm moist bandages after the bath. A stimulant should be given both before and after bathing. The author states that his method compares favourably with packing or simple friction, and concludes by giving an account of some remarkably successful examples of its employment.

## PATHOLOGY.

#### (236) Confusion between Smegma Bacilli and Tubercle Bacilli.

Runge and Trautenroth (*Fortschr. der Med.*, Nos. 23 and 24, 1896) find that by the ordinary methods of staining for tubercle bacilli these micro-organisms may easily be supposed to be present when only smegma bacilli are there. The latter are not only contained in the smegma from the external genital organs, but also in accumulations of secretion from the skin in the axilla, external auditory meatus, etc.; they often resemble tubercle bacilli both morphologically, and in resistance to acid decolorising reagents. In order to exclude smegma bacilli the authors recommend the following method of staining for tubercle bacilli. The film is not passed through the flame, but is placed for three hours in absolute alcohol, and then for at least 15 minutes in a 5 per cent. watery solution of chromic acid. The chromic acid must then be carefully removed by repeated washing in water. The film is then ready for staining in the ordinary way by carbofuchsin. After this it can be decolorised by immersion in dilute sulphuric acid for three minutes, or in pure, nitric acid for one to three minutes, and be then counterstained for at least five minutes, in a concentrated alcoholic solution of methyl blue.

#### (237) Suppurative Changes in the Bone Marrow.

Roger and Josué (*Sem. Méd.*, December, 1896) discuss the mechanism of the increase in the number of white blood corpuscles in the pus formation. Their researches on bone marrow gave the following results. In a section of the marrow of one of the long bones of a rabbit three zones can be distinguished, namely, (1) a central zone represented by the principal artery surrounded on three sides by a wide vascular sinus; (2) a cortical zone formed by dense fibres, in the midst of which some marrow cells are seen; (3) a middle zone, which represents the medullary tissue proper, and is composed of slender fibrils, anastomosing and forming areolæ filled with fat; at the nodal points where these fibrils cross each other are small agglomerations of four or five marrow cells, and sometimes a large myeloplaxe. At certain points from thirty to forty marrow cells are massed together in the form of a band extending from one node to another. The masses of cells are separated from the fat by fibrils and by capillaries, which are dilated into sinuses around six or seven secondary arterioles, which run parallel to the long axis of the bone. These appearances are changed to a large extent in cases of suppuration. If 2 c.cm. of a very virulent culture of staphylococcus aureus be injected under the skin of a rabbit the animal dies within twenty-four hours. The fat in the bone marrow is found almost completely absorbed, and there is an enormous proliferation of marrow cells. With less active cultures, and therefore slower changes, there is manifest proliferation in forty-eight hours. On the third day the medullary cells, marrow cells, and myeloplaxes have invaded everything, filling up the central sinus. These changes become more marked until the sixth day. About the thirteenth day a change back to the normal begins: the central sinus reappears, the cells are less numerous, and the areolar arrangement again becomes perceptible. All these changes are due to the active proliferation of the three kinds of cells in the marrow. This hypergenesis explains the increase in the number of leucocytes. The bone marrow therefore plays a very important *rôle* in the struggle of the organism against infective germs — a fact which furnishes additional evidence of the remote results of an apparently local lesion, and showing the interdependence of all the parts of the animal economy.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

**(238) Diphtheria and Diphtheroid Anginæ.** VIERORDT (*Berl. klin. Woch.*, February 22nd, 1897) draws attention to the importance of distinguishing between non-membranous anginæ due to the diphtheria bacillus and other forms of harmless angina. There are, in addition, some anginæ which, although resembling diphtheria, are not caused by Loeffler's bacillus. The author gives his experience, based on the bacteriological examination of over 3,000 cases. Deycke's culture medium was the one used. (1) True diphtheria: In membranous tonsillar diphtheria there was either an extensive, tough, adherent, whitish membrane, or small localised patches, in which the exudation was greyish white in colour and attached, either tolerably firmly or loosely, to the surface of the tonsil. Often after the detachment of the membrane a whitish or yellowish spot or spots corresponding to the lacunæ were visible, but after the detachment of adherent membrane an easily-bleeding surface was left. The author has not infrequently found the diphtheria bacillus in typical lacunar angina. He gives details of 8 such cases where there was no characteristic membrane, and yet the diphtheria bacillus was present in great abundance in the cultures made. His observations show that in the beginning and at other times in the course of diphtheritic angina a typical lacunar tonsillitis may appear absolutely indistinguishable from ordinary follicular tonsillitis. It usually occurs early in the case within the first three days, but the disease may remain lacunar throughout. Sometimes the diphtheritic process may start in the lowest parts of the tonsils and so escape detection. In cases of laryngeal croup there may be only a thin layer of exudation in the fauces, hardly recognisable. Necrotic tonsillitis, often limited to one side, may be due to diphtheria. (2) Diphtherioid without diphtheria bacilli: The author then refers to 15 cases of angina simulating diphtheria where the bacillus was not to be found. There was no extension of the membrane to the nose or larynx, and no subsequent paralysis. Such cases may raise a suspicion of scarlet fever. The cases could not be distinguished locally or by their general symptoms from diphtheria or from so-called scarlet fever diphtheria. The author refers to relapsing diphtherioid anginæ. In some persons there would seem to be a tendency to the production of coagulation necrotic process in slight inflammations of the tonsils. (3) Necrotic anginæ due to the staphylococcus. Details are given of 2 such cases, but further information is wanted. The above observations have led the author to believe that diphtheria may occur in a lacunar form, and that after two or three days the characteristic membrane may appear. The term "lacunar diphtheria" is best applied to these cases. For membranous anginæ not due to the diphtheria bacillus the author would apply the term diphtheroid. Thus there may be a scarlatinal and non-scarlatinal diphtheroid. Simple lacunar tonsillitis is the name used for ordinary follicular tonsillitis. In doubtful cases—laryngeal croup and extension to the nose—are in favour of diphtheria. The state of the cervical glands, of the urine, or of the fever are not of any real diagnostic value. It is well to isolate cases of lacunar angina, and during an epidemic of diphtheria they should be looked upon with much suspicion. A bacteriological examination should, if possible, be made. It is better that diphtheria should be diagnosed too often than that cases of true diphtheria should be overlooked.

**(239) Spontaneous Pneumothorax.** CHAUFFARD (*Sem. Méd.*, February 12th, 1897) calls attention to a case of spontaneous pneumothorax, which was proved beyond doubt to be one of simple alveolar rupture, and not due, as is usual, to tuberculosis. Two milligrammes and 3 milligrammes of tuberculin, prepared by Roux, were used at intervals of four days for injection beneath the skin. There was not the slightest reaction of any kind whatever, while a control experiment upon a known tuberculous patient was followed by marked reaction. The pneumothorax proved benign, and recovery was complete in four weeks. Tuberculin should not be employed in all circumstances for the diagnosis of tubercle; this should be settled even early by percussion and auscultation. In some special cases where there is a possibility of tuberculosis without objective proofs, the tuberculin test may render signal service. Chauffard has recently been enabled by its means to determine the probably influenzal character of alarming meningeal symptoms. The method when properly carried out is without risk, and should be employed in cases in which a degree of certainty of the diagnosis is not otherwise attainable.

**(240) Hæmoglobinuria in Malaria.** BACCELLI (*Il Policlinico*, January 15th, 1897) in a clinical lecture on this subject, says that the disintegration of the hæmoglobin is not due to the hæmo-parasite itself, but to its toxic products. Hæmoglobinuria may exist with or without hæmoglobinæmia. Besides hæmoglobinuria directly due to malaria there are a certain number of cases where the administration of quinine, even in moderate doses, causes hæmoglobinuria. The author divides these cases into four classes: (1) Pernicious malaria with hæmoglobinuria cured by quinine; (2) mild attacks of malaria accompanied by hæmoglobinuria only when quinine is given; (3) hæmoglobinuria coming on in persons who have had malaria some time ago and not associated with quinine; (4) hæmoglobinuria produced by small doses of quinine in persons who have had malaria previously. Classes 3 and 4 may be due to quinine idiosyncrasy and have special connection with the previous malaria. In treatment persulphate of iron and inhalations of oxygen are the most useful. If the malarial attack necessitates quinine the author advises its continuance even in spite of hæmoglobinuria.

## SURGERY.

**(241) Operative Treatment of Hip-Joint Disease with Extensive Pelvic Caries.** WOLFF (*Centralbl. f. Chir.*, No. 7, 1897) reports a case in which Bardenheuer removed the whole of the lower limb and the corresponding half of the pelvis from a woman aged 46, who had suffered since infancy from tuberculous disease of the hip. Extensive caries of the pelvic bones was indicated by much distortion of the acetabulum, and by the presence of sinuses above Poupart's ligament, and of a "perforation abscess" in the iliac fossa. The extent and duration of the disease, the participation of the pelvic bones in the morbid process, the age of the patient, and excessive albuminuria, all contra-indicated resection of the hip. As the only hope of recovery lay in prompt removal of the source of suppuration it was decided to exarticulate the lower limb at the hip-joint, and at the same time to remove the diseased portion of the pelvis. This formidable operation was justified by the result, as the patient made a good recovery, and the urine became free from albumen on the fifth day. The first step in the operation consisted in ligature of the external and internal iliac vessels. This preliminary procedure, which in most cases of pelvic suppuration is attended with some difficulty, is regarded as an essential one, as it is very necessary in the subjects of chronic and exhaustive disease to prevent any free bleeding. This step was followed by removal of the lower limb at the hip. The horizontal ramus of the pubes was then sawn through, and afterwards the ascending ramus of the ischium. The ilio-psoas and the abdominal muscles having been separated from the ilium, the large portion of the os innominatum, now attached only at the sacro-iliac joint, was forcibly wrenched away. The only part of the affected half of the pelvis then left was a small portion as the ascending ramus of the ischium, which was not diseased. In closing the large wound the free end of the psoas muscle was fixed by sutures to the ends of the divided adductors with the object of preventing hernia.

**(242) Loose Fibrous Bodies in Joints.** BERTHIER AND SIEUR (*Archiv. de Méd. Expériment et d'Anat. Path.*, January, 1897, p. 77) give an account of a case in which three years after an injury to the ankle a man presented signs which led to a diagnosis of tuberculous synovitis of the

sheath of the extensor communis digitorum pedis muscle. On cutting down, however, it was found that obstruction was healthy, and eventually a loose body, 3 cm. in its greatest diameter and 1.5 cm. thick, was extracted from the ankle-joint. The patient made a complete recovery. Structurally the loose body was composed of epithelioid cells, giant cells which were seen to be myeloplaxes, fibrous tissue, and numerous vessels. In parts the polyhedral epithelioid cells had undergone degeneration. No fat, cartilage, or bone was found. The writers regard the loose body as resulting from a piece of bone chipped off at the time of the accident from the astragalus or internal malleolus, which had subsequently undergone regressive changes. The epithelioid cells which formed a considerable portion of the loose body they regard as derived from the bone cells. The fibrous transformation of fragments of bone introduced into the joints of dogs has been described by Poulet and Vaillard (*Archiv. de Physiol.*, 1885). The specimen forms a transitional stage between loose bodies formed of bone and those composed of pure fibrous tissue.

**(243) Congenital Transverse Division of the Glans Penis.**

HOFMOKL figures and describes (*Arch. f. klin. Chir.*, liv, Heft 1, 1897) a rare case of congenital transverse division of the glans penis into two parts, a dorsal larger and a lower smaller part. The urethra opened in the middle of the dividing furrow, and was surrounded by a frenulum which passed on to the upper part of the glans; while on the lower part was seen the orifice of a blindly ending duct about 2 mm. long. The patient was a man, 68 years old, who had been twice married, and had eight children. He suffered from congenital phimosis, and it was during operation, when the prepuce was turned back, that the anomaly of the glans was for the first time revealed. Hofmokl is unable to find in embryology a clear explanation of the origin of this defect.

**(244) Treatment of Old Fractures of the Patella.**

SUBERCAZE (*Thèse de Paris*, No. 23, 1896-97) holds that, unless the interval be very short, cure is hardly possible without surgical intervention, which should be undertaken as soon as the formation of callus is nearly or quite over, that is, about three months after the injury. If extension be deficient, the fragments should be united by suture. If they cannot be brought together, he recommends osteotomy of the tuberosity of the tibia, or section of the tendon of the patella. In other cases the upper fragment or the entire patella may have to be removed. Cautious early movements (ten days after operation), and progressive exercise, massage, and electricity, may give good results.

**(245) Megalo-syndactyly.**

D. CARVALLO (*El Progreso Medico* (Santiago, Chile), No. 10, October, 1896) describes and figures a rare case of digital malformation. The patient, 6 years of age, was born with the index and middle digits of the right foot united into one mass; they were not, however, out of proportion in size with the other digits. As the child grew, however, the united toes grew much more quickly than the others, and the condition of megalo-syndactyly was produced, necessitating amputation. The hypertrophied digits were accordingly removed at the metatarso-phalangeal joints. The skin showed neither sclerosis nor elephantiasis.

## MIDWIFERY AND DISEASES OF WOMEN.

**(246) Is Pruritus Vulvæ Curable?**

DIRNER (*Centralblatt f. Gynäk.*, No. 5, 1897) introduced, by reading a paper on the operative treatment of pruritus, an important discussion on that disease at a recent meeting of the Royal Hungarian Medical Association. He admitted that the diabetic variety was curable; so was that form of pruritus due to microbes in vaginal or cervical secretion. The intractable cases were clinically and pathologically primary. They represented subacute inflammation of the vulvar integument and fibrosis of the Pacinian corpuscles and other delicate structures. Dissecting off the skin involved in this morbid process, "vulvitis pruriginosa," alone effects a cure. He read notes of two cases, one particularly obstinate, where the patient was 65. He dissected off all the vulvar integument from the mons veneris to the navicular fossa, taking away the clitoris. The wound was sutured with silver wire, and covered with iodoform collodion. It healed by first intention. After healing, there was no tension, though so much skin had been removed. The itching entirely disappeared. Tauffer found that pruritus from germs, secondary to leucorrhœa and endometritis, is very hard to treat. Besides treatment of the exciting cause, free application of sublimate lotion is needed. Diabetic pruritus is certainly difficult to cure. Kézmárszky agreed with Dirner as to a primary prurigo, due to degenerative changes in the skin, and needing operation. He found, contrary to Tauffer, that the secondary forms, pruritus from diabetes and from germs in discharges, yield readily to symptomatic treatment.

**(247) Mismanaged Shoulder Presentation: Fatal Subperitoneal Rupture of Uterus.**

TISSIER AND DESFOSSES (*Bull. et Mém. de la Soc. Obstét. et Gynéc. de Paris*, January 14th, 1897) state that a midwife was called in to a woman, aged 41, in her fourteenth confinement. The waters were at once ruptured, and the pains remained strong for three days. She was at length admitted into hospital in a state of exhaustion. The left arm of the fœtus and the cord, cold and pulseless, protruded from the vulva. The left shoulder presented to the right anteriorly. Extraction by turning proved so easy that rupture of the uterus was suspected. On exploration next morning a long rent was felt extending from the left side of the cervix upwards and backwards. The fingers passed into a mass of clot limited by a membrane, behind which the iliac arteries could be felt beating and the intestines distinguished. The clot cavity extended indefinitely upwards. Some clot was cleared away and an attempt made to disinfect and pack the cavity, but the patient died about thirty-six hours later. As expected, it was found that the rupture of the uterus was entirely subperitoneal. Not a drop of blood had entered the peritoneal cavity, but the hæmorrhage had dissected up the whole of the posterior parietal peritoneum to the left of the spine. A mass of clot and fluid blood filled the left loin, reaching as high as the diaphragm and kidney. The parametrium, it is interesting to note, was infiltrated with blood all round, the effusion passing upwards on the left of the uterus, and extending above the laceration so as to touch the left cornu.

**(248) Total Abdominal Hysterectomy.**

J. PANTALONI reports (*Arch. Prov. de Chir.*, February 1st, 1897) 20 cases in which he performed total abdominal hysterectomy, in seventeen instances for fibroids, in two for cancer and sarcoma of the uterine body, and in one for pregnancy in a woman with double ankylosis of the hip. One of the fibroid cases was complicated by gestation with a dead fœtus, and in two of them there were also suppurative tubal lesions. None of the cases proved fatal. In the author's opinion the operation is now, thanks to the perfecting of the technique, one worthy of a place in the general practice of abdominal surgery. The particular method employed was that of Doyen, with in addition the use of H. Delagénière's collar ("collerette"), and the placing of the patient in the inclined position with the pelvis raised. The operation is specially indicated for such fibroids as require to be treated abdominally, and also for some hitherto removed by vaginal hysterectomy. It is also useful in some cases of cancer of the uterine body, bilateral suppurative tubal lesions, inveterate cases of metritis, and in pregnancy when delivery is quite impossible *per vias naturales*.

**(249) Congenital Teeth.**

J. W. BALLANTYNE (reprint from *Edinburgh Medical Journal*) gives details of 3 cases and references to some 70 more. He discusses fully the frequency, symptomatology, morbid anatomy, pathogenesis, and treatment of the anomaly, summing up the results of his research in the following general conclusions: 1. Congenital teeth form a rare anomaly, but one which has long been known both to the profession and to the public. 2. Their presence has often an ill effect upon lactation, partly on account of the imperfect closure of the infant's mouth, and partly by the wounding of the mother's nipple; sublingual ulceration may also be a result, and infantile diarrhœa and atrophy are more distant consequences. Sometimes, however, sym-

ptoms are altogether absent. 3. Congenital teeth have probably little or no prognostic significance as regards the bodily or mental vigour of the infant carrying them. 4. The teeth usually met with are lower incisors, but sometimes upper incisors may be seen, and very rarely molars of either the upper or lower jaw. Other facial or buccal malformations may occasionally be met with. 5. They are caused by the premature occurrence of the processes which normally lead to the cutting of the milk teeth; in a few cases it would seem that the anomaly is due to a true ectopia of the dental follicle and its contained tooth. 6. In a few instances a hereditary history has been established. 7. As the congenital teeth are usually incomplete and ill developed, and more likely to be more an inconvenience than an advantage to the infant they are best removed soon after birth, an operation which can be easily and, except in very rare instances, safely performed. 8. The occurrence of premature teeth in certain historical personages is an interesting fact, the importance of which has been much exaggerated.

**(250) Supravaginal Amputation of a Pregnant Myomatous Uterus.**

A. G. T. Becking (*Weekblad van het Nederl. Tydschr. voor Geneesk.*, Jan. 16th, 1897) reports his third successful case of myomotomy during pregnancy. The patient was a woman, aged 38, who had suffered in infancy from convulsions and hemiplegia, and had menstruated irregularly and scantily since her 12th year. In 1894 she suffered from abdominal pain; and in the succeeding year she married, and thereafter menstruation became more regular. She became pregnant in May, 1896, and shortly thereafter began to suffer from pain in the abdomen and difficulty in urination. Hard masses could be felt in the abdomen, which were diagnosed as uterine fibroids. The abdomen was opened in August, and two subperitoneal fibroids with thick pedicles were discovered along with several small and large interstitial ones. The whole mass of the uterus and fibroids was therefore removed supravaginally by Treub's method. The mother made a good recovery and left the hospital on the twenty-sixth day.

**(251) Hysterectomy and the Mistaking of Pregnancy for Fibroid.**

Lutaud (*Revue Pratique d'Obstét. et de Gynéc.*, January, 1897), in discussing the question of criminal and accidental abortion, observes that very competent men have mistaken a pregnant uterus for a fibroid, and removed it. Three years ago a surgeon in Paris, apparently relying too much on his assistants for the clinical examinations of his patients, opened the abdomen of a woman supposed to be suffering from a genuine fibro-myoma. When exposed, the uterus looked very much as though simply enlarged from pregnancy. Nevertheless, he removed it, and found a four-months' fœtus in its cavity. Believing that it had remained there for a long while and was macerated, he dropped it into alcohol. To his horror it moved vigorously as it fell into the preservative fluid. A less tragic and more remarkable case occurred about the same time at Bordeaux. An enormous uterus was cut away from its pedicle, and put aside in a corner of the room. The stump was carefully cauterised and dressed, and the patient put to bed with due deliberation. The uterus was then laid open. A great quantity of amniotic fluid escaped, and a live six months' child discovered. It was successfully reared, and the mother was also saved.

**(252) Delayed Delivery of a Second Twin.**

Kalnikoff (*Monats. f. Geburt. u. Gynäk.*, January, 1897) delivered a woman of a twin three days after the spontaneous birth of its brother. During this interval the mother had got up and attended to her household duties. He also removed both placentæ. The puerperium was normal. Both twins survived.

## THERAPEUTICS.

**(253) Bicarbonate of Sodium as a Dressing for Suppurating Wounds.**

N. V. Georgevsky (*Sem. Méd.*, March 3rd) has observed that the application of compresses saturated with a solution of chemically pure bicarbonate of sodium and covered with some impermeable material, has the effect of drying up purulent secretion and cutting short phlegmonous inflammations. These results are obtained by this means much more rapidly than by any other known antiseptic—carbolic acid, iodoform, etc. Georgevsky first noticed this action of bicarbonate of sodium by accident in treating a case of whitlow. A deep incision was made on the dorsal aspect of the diseased finger, and gave issue to a large quantity of laudable pus. The wound was washed out and dressed with an iodoform ointment. The suppurative process advanced, and a counter-incision was made on the palmar surface. The patient, however, drew back his hand at the critical moment, so that only the epidermis, which was much thickened at the spot, was penetrated. Georgevsky thereupon determined to wait a little, and in the meantime to soften the integument by applying compresses of tarlatan soaked in a 2 per cent. solution of bicarbonate of sodium. On examining the hand next day he was surprised to find that the situation was completely changed. There was no longer either pain or redness or swelling of the parts; there was no trace of pus on the dressing or in the wound, and not a drop could be squeezed out by pressure on the finger and on the palm. A complete cure very speedily took place. Georgevsky has since used the same treatment in a number of cases of whitlow and other phlegmonous lesions both circumscribed and diffused. In every case he first makes an incision into the suppurative focus; after squeezing out the pus, he applies directly to the gaping wound, as well as to the inflamed neighbouring parts, a compress soaked in a solution of bicarbonate of sodium of the strength indicated above. By this procedure he invariably succeeded in stopping both the pain and the suppuration, and in effecting a rapid cure without the necessity of using drainage. As a confirmation of the superior efficacy of the bicarbonate of sodium as compared with the antiseptics in common use in such cases, Georgevsky mentions that whenever he substituted an iodoform dressing for it, suppuration began anew, ceasing again as soon as the bicarbonate of sodium was reapplied.

**(254) The Physiological Action of Eucaine.**

Charteris (reprint from *Proceedings of Royal Society of Edinburgh*, Sess. 1895-96), assisted by MacLennan, has made a series of experiments on the physiological action of solutions of the hydrochlorate of eucaine and solutions of hydrochlorate of cocaine. Solutions of these salts were injected hypodermically into guinea-pigs of the same weight, and the results were compared. At first the quantity used was small, but it was gradually increased until the lethal dose of each was accurately ascertained. After repeated experiments they came to the conclusion that the lethal dose of eucaine per kilog. body weight is 0.09 g., and the lethal dose of cocaine per kilog. body weight 0.068 g. They also found that the mode of death by the two substances varied. With the cocaine salt they observed more rotatory movements of the head, more opisthotonos, more salivation, and more laboured breathing, than with the eucaine salt. It was also noticed that the physiological action produced by a given dose of the eucaine salt, under identical conditions with regard to the weight of the animal experimented on. Hence the action of eucaine is slower in onset and less in intensity. As regards local anæsthetic effect, 3 drops of a solution of hydrochlorate of eucaine (1 in 10), when injected into the eye of a guinea-pig, induced in 60 seconds complete anæsthesia of the cornea. The pupil was not affected, and there was no subsequent irritation. When used in operations on the eye, the evidence is clear that it has no effect on the pupil. Berger, of Paris, in operating for cataract, employs first a drop of a 1 per cent. solution, and after three minutes a drop of a 2 per cent. solution. This procedure, he says, causes complete anæsthesia of the cornea. In dental practice it is found that 5 drops of a solution (1 in 10) injected into the gum before extraction of a tooth are sufficient to render this operation painless.

**(255) The Treatment of Motor Disturbances by Cerebral Exercise.**

In 1896 Frenkel, of Paris (*Sem. Méd.*, March 25th) published a detailed communication on what he called *exercice cérébral* in the treatment of certain forms of motor disturbances, and which consists in inducing the patient to per-

form a series of systematic movements with the muscles diseased. A. A. Kalinin (*Vratch*, No. 7, 1897) has used this method (in the clinic of Schtzerbaka at Warsaw) in five cases of tabes dorsalis, with the result of greatly improving the condition of the patients. He arrives at the following conclusions: 1. By this treatment the loss of motion may be restored to a satisfactory degree, the gait and locomotion of the patient gradually becoming safer and firmer. 2. The sense of locality and that of movement are but little improved; the same may be said as regards skin sensibility. 3. What is very soon noticeable is the influence of this treatment on the so-called Romberg's symptom, which from the very commencement of the treatment becomes less pronounced, and appears much more rarely than before. 4. The duration of the treatment should entirely depend upon the progress and degree of the motor disturbances present, but in any case it should not amount to less than a month. 5. No ill effects were observed if the treatment was interrupted at short intervals from three to two weeks. This period, however, must not be exceeded.

**(256) Resorcin in Whooping-Cough.**

Roskam (*Ann. de la Soc. Méd. Chir. de Liége*, February) since 1890 has treated 290 children suffering from whooping-cough by the method introduced by Moncorvo, namely, by applications of a 2 to 3 per cent. solution of resorcin to the glottis with a fine sponge. Before the date mentioned he had used Moncorvo's method in its entirety, that is to say, before applying the resorcin he anæsthetised the glottis by the application of a 10 per cent. solution of cocaine. Finding, however, that this was apt to cause severe spasm he used the resorcin without previous cocainisation. In this way eighteen out of twenty-five children were cured in ten days. In three others in whom a relapse occurred a definitive cure was effected in three weeks. Two cases proved refractory to the treatment, and in two others death occurred from weakness, although the severity of the paroxysms was mitigated. In the 290 cases treated since 1890 no other therapeutic measure of any kind was employed in order that the effects of the resorcin might be tested as fairly as possible. The treatment was generally begun within the first fortnight of the illness, but in many of the cases it had existed for three weeks, and was of a very severe type. In 200 cases cure was complete within a fortnight; in 70 before the twenty-fifth day of the illness; in 18 before the thirtieth day. In two cases (brother and sister) in which relapse occurred a further course of applications of resorcin brought about a cure. Children under two years of age seemed to get well more easily than older ones. Infants under one year were, "in the immense majority of cases," cured in about a week from the first application of the resorcin. Roskam thinks it important to wait till the initial congestive stage is past and the "whoop" is fairly established before commencing the applications, as in that period they are apt to cause irritation. In children under one year a 2 per cent. solution should be used; in those between one and two, a 2 per cent. and then a 3 per cent.; from two years upwards, a 3 per cent. solution. The applications should be made every four hours, beginning at 6 A.M., and once or twice in the night. Improvement in the general condition shows itself within two or three days; in five or six days the paroxysms become shorter in duration and less severe. When the applications have been continued for ten or twelve days they should be suspended. Very often recovery takes place without further treatment; if not, after an interval of five or six days the applications may be resumed for some days. It may be added that after a few applications by the practitioner the treatment is carried out by those in charge of the patient.

**(257) Dulcin.**

S. Sterling (*Münch. med. Woch.*, December 16th, 1896) says that dulcin has many advantages over saccharin. It has a pleasant and very sweet taste, and dissolves in fifty parts of boiling water. It is not a nutritive agent, but merely communicates its sweet taste. The author refers to the investigations into its pharmacological action. He has used it in six diabetic patients. One patient was under observation for over a year, and during the whole period dulcin was used with no unpleasant effect. Three other patients had previously used saccharin, which was found to be harmful to them. The author employs dulcin in doses of 0.025 g., a quantity which corresponds to 5 g. of sugar. He also adds it at times to cooked articles of diet, such as sauces, jellies, fish, etc. It may also be combined with therapeutic agents, such as opium, in place of sugar, but, owing to the small quantity, an addition of sodic bicarbonate, etc., is necessary. Dulcin and mannite pastilles have been introduced, but occasionally mannite gives rise to abdominal pain. Lately the author has also employed dulcin for the purpose of sweetening oils administered to children, adding 4 g. of a 4 per cent. alcoholic solution of dulcin to 100 g. of the oil. No unpleasant result has been noticed when one to three teaspoonfuls of such oil has been given in the day. The author concludes that (1) saccharin has an unpleasant taste to many people, whereas dulcin approaches nearer to sugar in taste; and (2) saccharin is not altogether an indifferent agent for some people, whereas dulcin in suitable doses is harmless.

## PATHOLOGY.

**(258) The Effect of Tuberculin on the Liver and Kidneys.**

Carrière (*Archiv. de Méd. Expériment. et d'Anat. Path.*, January, 1897, p. 65) records the results of an experimental research undertaken in order to decide whether the fatty liver and the nephritis often seen in association with tuberculosis in man are due to the action of the toxin produced by the bacillus tuberculosis. Guinea-pigs and rabbits were injected with tuberculin either in large doses or in small doses for a considerable period. The liver and kidneys were subsequently examined histologically. There was no fatty or lardaceous change in any case, but the structures of the cells of the liver and kidney underwent a special degeneration characterised by fragmentation and vacuolation of the cell protoplasm and a granular and fragmentary change of the nucleus. These lesions are more marked when the injections had been given for some time. Large injections lead to endarteritis and endophlebitis, while small quantities given for a lengthy period produce periarteritis.

**(259) Combined Protozoon and Bacterial Infection.**

Flexner (*The Johns Hopkins Hospital Bulletin*, Nos. 66 and 67, September and October, 1896) gives a careful account of a case which proved fatal, and was shown to be affected simultaneously by amœbic dysentery, malaria, and acute fibrino-purulent peritonitis due to the micrococcus lanceolatus. A man who lived in a malarial district began, five weeks before his death, to suffer from dysentery. Amœbæ were found in the stools, and examination of the blood revealed hyaline bodies, crescents, and ovoid pigmented forms of the malarial parasite. The temperature was brought down by quinine, but the patient eventually died with hæmorrhage from the bowel. At the necropsy the whole of the large intestine showed extensive ulceration and necrosis, the wall being universally infiltrated with gelatinous pus. The vermiform appendix was affected in a high degree, but the ulceration, etc., stopped short at the ileocæcal valve. The liver and spleen were enlarged, and there were small abscesses on the former containing gelatinous pus. The kidneys showed parenchymatous changes, and emboli of hepatic cells were found in the renal veins. There was acute fibrino-purulent peritonitis. Amœbæ were found in the intestinal ulcers and in the contents of the liver abscesses, in which there were fewer pus cells and more necrotic liver cells than are met with in ordinary abscesses. No amœbæ could be found in the peritoneal exudation, and cultivations from it showed colonies of bacillus coli and of micrococcus lanceolatus. The ulceration and the necrosis of the vermiform appendix, originally set up by the amœba, probably allowed the micrococcus lanceolatus into the cavity of the peritoneum. Malarial bodies were found, though not in large numbers, in smear preparations from the spleen and bone marrow. Attention is drawn to the importance of examining the contents of the intestine in a fresh condition for amœba, otherwise their presence cannot be certainly determined, for in microscopic sections of hardened tissues swollen and vacuolated or fatty connective tissue cells closely resemble amœba.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

**(260) Lumbar Puncture.**

Leutert (*Münch. med. Woch.*, February 23rd and March 2nd, 1897) discusses the diagnostic value of lumbar puncture in the intracranial complications of ear disease. He says that it is not only of service in the diagnosis of meningitis, but also of sinus thrombosis and combined sinus thrombosis and cerebral abscess. The diagnosis between sinus thrombosis and meningitis is not under all circumstances easy, and yet in such cases early diagnosis is necessary owing to the importance of prompt operative treatment in sinus thrombosis. The author gives details of 12 cases in which lumbar puncture was practised. The cases were: suppurative meningitis, 2; suppurative meningitis with sinus thrombosis, 2; sinus thrombosis with intradural and cerebral abscesses. 1; sinus thrombosis with multiple cerebral abscess, 1; suppurative meningitis with cerebral abscess, 1: perisinuous abscess, 1; and sinus thrombosis, 1. Details are also given of 1 case of cerebro-spinal and of another of tuberculous meningitis and 1 of serous meningitis. All the cases ended fatally except the perisinuous abscess and the case of epidemic meningitis which was taken out at the parents' request. In the author's first case death occurred fifteen minutes after the puncture, but the patient was almost moribund before it. Attention is drawn to the value of the negative evidence. The presence of a large quantity of fluid shows that the communication between the cavities of the brain and cord is open. In purulent meningitis the fluid contains more or less inflammatory products. Thus, in cases of diagnosed sinus thrombosis or cerebral abscess meningitis may be excluded. Also the diagnosis of sinus thrombosis in the presence of considerable fever may be established. The author maintains that a diagnosis of sinus thrombosis or meningitis may be made when high fever lasts for some time. The diagnosis of sinus thrombosis may be confirmed by the negative result obtained from lumbar puncture. Uncomplicated sinus thrombosis can undoubtedly produce an excess in the amount of cerebro-spinal fluid. In cases of sinus thrombósis with cerebral abscess the exclusion of meningitis by lumbar puncture would lead to a successful operation on the sinus, and then the symptoms of cerebral pressure due to the abscess might become apparent. When cerebral abscess is alone present spinal puncture may also be of value. Inflammatory sinus thrombosis with a breaking-down clot which is completely shut off from the circulation may produce no fever. Cultivation experiments were negative in 5 out of 7 cases examined, and the author speculates on these negative results. A considerable number of leucocytes present make the diagnosis of meningitis very probable. The case of tuberculous meningitis was one in which a large subperiosteal abscess behind the ear was opened. Two or three weeks later cerebral symptoms appeared. Spinal puncture was practised, but no tubercle bacilli were found. At the necropsy general tuberculosis was found, but the author did not find sufficient evidence to connect the ear disease with the tuberculosis.

**(261) Habitual Constipation.**

Ewald (*Berl. Klinik*, March, 1897) says that there is beyond doubt a form of habitual constipation in which there is either a diminished irritability of the intestinal nerves or a defective development in the muscular coat of the intestine. An hereditary factor is often present. Constipation may be acquired through the habit of suppressing the desire. Unsuitable diet is frequently a cause. An abundant diet difficult to digest, deficient in water, or too easily absorbed, or of insufficient variety, may lead to constipation. Sedentary habits are also a cause, but obstinate habitual constipation may occur even in those who lead an active life. Disturbances in the circulation as in heart disease, mechanical pressure, and particularly pregnancy may produce it. Displacement of the bowel, such as occurs in Glénard's disease, is of doubtful influence. Adhesion of coils of intestine together, or to some other organ, is an occasional cause. The symptoms are general and local. The relation of constipation to mental disturbance is well known. The theory of intestinal intoxication, although not absolutely proved, cannot in the author's opinion be set aside. In the diagnosis mechanical obstruction must be carefully excluded. The prognosis as regards recovery from habitual constipation is doubtful. Under treatment the author says that as few purgatives as possible should be used. The various methods of treatment are (1) dietetic, (2) physico-mechanical, and (3) medicinal. (1) Such foods should be employed as are known to increase peristalsis. (2) Suitable massage is of the greatest value in many cases, but it sometimes fails, and the same may be said of electricity. The usual position taken up in defæcation is not the one best adapted for emptying the rectum. Under the head of "clysters" the author draws attention particularly to the anal part of the syringe. It should be made of vulcanised caoutchouc, and about 30 to 40 cm. long. The disadvantage of clysters is that ultimately small quantities of water do not suffice, and then large amounts must be used. The large intestine may thus become overdistended and the injections useless. Regular attempts at defæcation with slight pressure should be made. (3) The author discusses the various medicinal agents under mild and more powerful purgatives. An efficient rhubarb preparation is very useful, but it may become necessary for the patient to have constant recourse to it. The author mentions two cases in which rhubarb was taken for twenty and thirty years respectively. Calomel is especially useful in children. Castor oil is not suited for constant use. Aloes belongs to the stronger purgatives. In a few cases, with a certain diagnosis of fæcal tumour, the author obtained the best results by the use of croton oil with castor oil. He then refers to saline purgatives and mineral waters of German spas. Large injections of olive oil may very properly be recommended. Sometimes sedative and antispasmodic remedies are required where constipation is of the spastic type.

**(262) Medical Application of the Roentgen Rays.**

Rendu (*Sem. Méd.*, January 20th, 1897) reports the case of a man, aged 20, who had an illness beginning with characteristic typhoid symptoms and followed by typical infective pneumonia. Pure cultures of staphylococcus were found in the sputum. After an incomplete defervescence the fever returned, and all the signs of suppuration of the pleura or lung developed. Examination of the sputum, which could only be obtained twice, showed a few tubercle bacilli, but the respective parts played by the staphylococcus and the bacillus could not be determined. Whatever the exact nature of the illness, the patient at the end of six weeks' illness, with hectic temperature, appeared to be dying. He was then exposed to the Roentgen rays for fifty-five minutes every day. After the fourth exposure the temperature fell by crisis and never rose again. This was accompanied by diuresis and diaphoresis, and the patient was soon quite well. This may have been a coincidence, but was probably not so, since no other change in the treatment or conditions was made. After ten applications erythema and ulceration of the skin appeared, and it is possible that equally marked trophic changes take place in the deeper tissues also. In the discussion which followed the paper, Du Castel thought the success of the treatment pointed to the staphylococcus being the cause of the illness, since all the attempts to prevent the development of tuberculosis by the same means had hitherto failed.

## SURGERY.

**(263) Surgical Treatment of Renal Tuberculosis.**

Tuffier (*Sem. Méd.*, January 20th, 1897) says that at the present time more exact diagnosis and the results of operations have proved the existence of primary tuberculosis of the kidney, which may remain localised and unilateral for a long time. Operation, however, is still a last resource, only to be undertaken after medical treatment has failed, and with a view to treating complications, rather than curing the primary lesion. In the last eight years the

author has operated on the following 15 cases: (1) Twice for hæmaturia so copious as to endanger life; (*a*) woman, 42 years old, primary nephrectomy, August, 1893; seen again January, 1896; no return of hæmorrhage since operation; (*b*) girl, aged 20, nephrectomy, June, 1893; no return of hæmorrhage till January, 1895, and then only slight. (2) Three times for severe pain; (*a*) female, aged 28, nephrectomy, January, 1892; under observation for four years since, and appeared quite cured; (*b*) female, primary left nephrectomy February, 1895; ureter dilated; since seen by Israel, of Berlin, who found an ulceration, probably tuberculous, and caused by descending ureteritis, at the orifice of the left ureter; (*c*) female, ill, and losing flesh rapidly, nephrectomy, January, 1891; very well in January, 1895. (3) Once for secondary calculus; male, had suffered for many years from tuberculous pyelonephritis and cystitis. Cystotomy and removal of an enormous calculus encysted in the left ureter. (4) The most common indication for operation is infection or intoxication from septic products of renal origin, giving rise to very variable symptoms; they may be those of pyelonephritis, or of enormous collections of tuberculous matter without pyuria. In the latter case the difficulty is the differential diagnosis between tumours of the kidney, liver, or spleen, rather than between varieties of renal suppuration. Hectic fever, emaciation, etc., are present. Tuffier has operated 9 times on such cases—5 nephrotomies, with 1 death from the operation; 2 secondary nephrectomies after nephrotomy; and 2 primary nephrectomies (1 of which was partial). The two latter recovered, but the operations are too recent (June and October, 1896) to judge of the final result.

**(264) Congenital Sarcoma of the Skin.**

E. NEUHAUS (*Arch. f. Kinderheil.*, Bd. 21, p. 367) describes a case of this extremely rare condition occurring in a child aged 2 months. Five days after birth the left leg was noticed by the mother to be thicker than the right. When 5 weeks old a swelling the size of a hen's egg was removed from this leg. Two weeks later another tumour appeared over the right clavicle. The child was admitted to the hospital when 2 months old. The trunk and lower limbs were found to be covered with numerous tumours, varying in size from a lentil to a walnut. The tumours lay in the skin and subcutaneous tissue. Two had undergone ulceration. The outer side of the left leg was much thickened and infiltrated, and the fibula could not be felt through the mass of the tumour. The lymphatic glands, especially the inguinal and cervical, were generally somewhat swollen. There was a small nodule on the inner side of the cheek. Examination of excised nodules showed the growth to be a round-celled sarcoma. *Post mortem* a large mass of growth was found in the left leg and metastatic deposits in all parts of the body. The primary growth in the leg was connected with the skin and not with the bones. Both the tibia and fibula were unaltered. Neuhaus gives an analysis of previously recorded cases of congenital primary sarcoma of the skin. The total number, including his case, is six.

**(265) Excision of Scapula for Sarcoma**

SHEPHERD brought before the Montreal meeting of the Canadian Medical Association (August, 1896) the first case of excision of the scapula recorded in that country. The patient, a married woman of 33, had for six months suffered from intermittent severe pain in the left shoulder, extending down the arm. It was treated as rheumatic till a week before admission, when a want of symmetry between the two shoulders was noticed, which led to the discovery of a firm, non-fluctuating tumour, the size of a closed fist, fixed to the left scapula below the spine; it was confined to the infraspinous fossa, was not tender, and moved with the scapula. An incision was made from the acromion to the superior angle of the scapula, and continued down the posterior border to the inferior angle. The trapezius, levator anguli scapulæ, and rhomboids were now cut away; there was free bleeding from the muscular branches of the posterior scapular artery. A second horizontal incision was made at the base of the vertical one in order to facilitate the excision of the lower end of the bone. The tip of the acromion being quite free from disease was sawn through, leaving its muscles attached. The joint was opened, the end of the coracoid process cut through with forceps, and the scapula with the tumour removed. But little blood was lost during the operation, which was followed by considerable oozing, for which a rubber drainage tube was inserted. The wound healed by first intention, and the patient made an uninterrupted recovery, leaving the hospital in three weeks after the operation. The tumour was found to be a myeloid sarcoma confined to the infraspinous fossa.

## MIDWIFERY AND DISEASES OF WOMEN.

**(266) Injections of Artificial Serum in a Case of Hæmorrhage during Pregnancy.**

SCHUHL (*Rev. Méd. de l'Est*, February 1st, 1897) enumerates the different methods of introducing saline solution after hæmorrhage: (1) Intraperitoneal injection has been successfully employed, but there is danger of wounding important structures with the trocar. The method should therefore be employed only in hæmorrhage during laparotomy. (2) Rectal injection. Cholmogoroff advises about half a litre for the first injection, to be repeated after 20 to 30 minutes, and a third given if necessary. This is the best method when instruments for the third and fourth methods are not at hand. (3) Hypodermic injection gives excellent results unless the patient is so far gone that no absorption takes place. In such cases (4) injection directly into veins must be practised. The following is an example: Multipara, aged 42. The present (11th) pregnancy began at the end of November, 1895. On August 18th, 1896, copious metrorrhagia, without pains, which ceased with rest in bed. On August 26th fresh persistent hæmorrhage, lasting from early morning till evening, when she was admitted into hospital. The placental insertion was found to be abnormal, the lower margin being just posterior and to the right of internal os, which was nearly as large as a florin. Vertex presentation. The vagina was plugged antiseptically, and 360 c.cm. artificial serum (NaCl 5 g., and $Na_2SO_4$ 10 g. per litre) injected hypodermically. Champagne ordered. At 3.30 A.M. the next day condition was very serious; the patient was unconscious, and the radial pulse was imperceptible. Subcutaneous injections of caffeine and ether, and bandaging of all the limbs so as to drive blood to the trunk. As death still appeared imminent half a litre of artificial serum was injected into the right median basilic vein. Immediate improvement followed. At 10 A.M., though improvement was maintained, 200 c.cm. of the saline solution were injected hypodermically, at 12 mid-day 180 c.cm., and at 4 P.M. 200 c.cm., besides several injections of caffeine and ether. In the afternoon labour pains came on. At 5 P.M. the vaginal plug was withdrawn, and it was found that no hæmorrhage had taken place since its insertion. The os was rather larger than a florin, and the membranes were at once ruptured. In spite of the head engaging in the os, hæmorrhage recurred five minutes later. The hand was therefore introduced into the uterus, version performed, and the fœtus extracted alive. No further hæmorrhage during delivery or after the expulsion of the placenta. After delivery 240 c.cm. of saline solution were injected hypodermically, making nearly a litre and a half injected in all. Recovery was uninterrupted. Thus in this case, while 360 c.cm. hypodermically had very little effect, 500 c.cm. intravenously saved the life both of the mother and child.

**(267) Development and Maturation of Graafian Follicles during Pregnancy.**

FROM the microscopic examination of the ovaries of a woman who died in the sixth month of pregnancy, G. Cosentino (*Archivio di Ostet. e Ginec.*, January, 1897) concludes that during gestation the ovaries may be physiologically active, even to the extent of the dehiscence of an ovisac and the escape of an ovule. In this case death occurred quite suddenly from aortic stenosis and incompetence. Graafian follicles in all stages of development were met with up to the degree of full maturity. In one preparation an ovule with all its parts was seen in the midst of a well-marked discus proligerus; and in another section was an ovisac evidently just before rupture. Two recent corpora lutea also were present, one in each ovary, and that in the

right gland was much the larger. If pregnancy had gone on, Cosentino believes that the ovisac in a state of dehiscence would have supplied a third corpus luteum.

**(268) Bedsores after Vaginal Hysterectomy.** Segond (*Rev. de Gynéc. et de Chirurgie Abdominale*, No. 1, January-February, 1897) notes the frequency of acute bedsore after operations for the removal of the uterus through the vagina. Terrier and Hartmann in 1892 observed this complication in 3 out of 36 cases where the operation was performed for cancer. Segond, out of a total of 542 vaginal hysterectomies for all causes, has had 6 cases of acute bedsore; in all the 6 the operation was performed for inflammatory lesions. All had been ill for over two years excepting 1, who had recently been delivered; in this instance alone did the operation take long to perform. Pus had formed in this and in 3 other of the 6 cases; in 2 there was no evidence of suppuration. Within five days, in all 6 cases, a large circumscribed erythematous patch appeared over the sacrum. Sloughing and separation of the eschars went on slowly but steadily, and all the patients recovered. Segond believes that the sloughing is due to irritative nerve lesions caused by the necessary dragging on the pelvic nerves, and subsequent forcipressure. Charcot in 1875 described what Segond holds to be a homologous lesion. A patient suffered from a very large fibrous tumour in the left flank which pressed on the origins of the anterior crural and other nerves. There was paralysis and pain in the regions of the left leg supplied by the compressed nerves, as was to be expected, and there was also an acute bedsore, which developed on the left buttock close to the sacrum. The heavy tumour dragged on the origins of the cutaneous nerves supplying the seat of the sloughing process.

**(269) The Curette and Morbus Cordis.** Resnikoff (*Monats. f. Geburtsh. u. Gynäk.*, January, 1897) warns gynæcologists against scraping the endometrium for menorrhagia or metrorrhagia until the patient's heart has been examined. When organic disease of the heart exists the use of the curette is often followed by an increase, instead of a diminution, of the hæmorrhage.

## THERAPEUTICS.

**(270) Holocain.**

Gutmann (*Deut. med. Woch.*, March 11th, 1897) relates his clinical investigations with this new anæsthetic, which is closely allied to phenacetin. The chloride of holocain crystallises in white needles, dissolves in hot water, but is only sparingly soluble in cold water. If the salt is heated with water in a glass vessel the solution is often cloudy, owing to a small amount of alkali present; hence a porcelain vessel should be used. The author first records his experiments upon rabbits. He has used it in 30 cases in men, of which 13 were examples of a foreign body in the eye, 2 of keratitis, 7 of operations on the eye, and in 8 cases the eyes were healthy. One minute after the introduction of 3 to 5 drops of a 1 per cent. solution there was anæsthesia of the cornea. A passing burning sensation was felt. The foreign bodies were removed without inconvenience, and the galvano-cautery was used in a case of corneal ulcer and in a case of keratitis. Tattooing was also performed in 2 cases of leucoma. In one case it was possible to compare tenotomy of the eye muscles under cocaine and under holocain. Less pain was experienced in the latter instance. The duration of anæsthesia under holocain is from 5 to 15 minutes. The cornea remains moist and shining. The ocular tension is not diminished. The pupil remains unaltered and accommodation is unaffected. In a patient aged 48 3 drops of a 2 per cent. solution of cocaine were introduced into one eye; anæsthesia appeared in 2½ minutes, and lasted 3¼ minutes, the pupil dilated, and the tension diminished. With 3 drops of a 1 per cent. solution of holocain introduced into the other eye anæsthesia appeared after a slight feeling of burning 1 minute, and lasted 9 minutes, the pupil was not dilated, and there was no alteration in tension. The rapidity of anæsthesia with holocain is an advantage. The dilatation of the pupil under cocaine for the removal of foreign bodies is a disadvantage. The lessened pressure is a drawback in cataract extraction, but useful in operations for glaucoma. The author says that holocain should not be used subcutaneously, as intoxication symptoms were rapidly produced by a small dose in a rabbit. For external use he recommends it as a substitute for cocaine.

**(271) Parenchymatous Injection of Carbolic Acid in Relapsing Tonsillitis.** Kramer (*Centralbl. f. Chir.*, No. 47, 1896) warmly recommends the injection of a solution of carbolic acid into the tissue of the tonsil in all cases in which the patient is subject to repeated attacks of inflammation in the gland. He found the ordinary methods of treatment—free incision, removal of hypertrophied tissue, galvano-cautery, antiseptic gargles, etc.—ineffectual in preventing frequent relapse. Since using the carbolic acid injections, he has seen no return of inflammation, even in cases in which previously relapse had been of frequent occurrence. The method Kramer adopts is as follows: After an application of cocaine he injects with an ordinary Pravaz's hypodermic syringe about ½ c.cm. of a 2 per cent. to 3 per cent. solution of carbolic acid. The needle is thrust through the anterior pillar of the fauces to a depth of about 1 cm. and the fluid injected into the peritonsillar tissue. This is repeated every second or third day till from four to six injections have been given. The later injections are made in the same way as the first, but at different points in the anterior pillar of the fauces. During the process of injection, the point of the needle is thrust in different directions, so as to diffuse the fluid as much as possible. The treatment is carried out between the attacks of tonsillitis, after the inflammation has subsided. The author has never seen any ill result from the injection, nor the slightest sign of carbolic acid poisoning. The patients complained of but little pain, occasionally of slight transitory difficulty in swallowing, but never of any general disturbance. Kramer believes that frequent relapsing tonsillitis develops from latent foci of pus micro-organisms which have been left in the peritonsillar tissue from a previous attack, and stirred up into activity by some accidental cause. The good effect of the carbolic acid injection is, he believes, due to the fact that these foci are thereby rendered sterile.

**(272) Ozone as a Therapeutic Agent.** Labbé and Oudin (*Archives d'Electricité Médicale*, December 15th, 1896) report excellent results of the use of ozone in the treatment of whooping-cough and tuberculosis. In the former case two, three, or four inhalations are given a day, each lasting from ten to fifteen minutes. Owing to the great irritability of the throat in these cases the authors commence by using the ozone produced by the silent discharge from an induction coil giving an inch spark, and by holding the child some distance away from the tube. Later on the patient is brought nearer to the tube, the capacity of which is increased, the power of the coil being at the same time doubled. The effects are rapid diminution in the paroxysms, improvement in the general condition, gain in weight, and increase in oxyhæmoglobin. In tuberculosis the ozonised air is inhaled from the inner of two tubes, between which the silent discharge from a Ruhmkoff coil, giving a 1-inch spark, is passing. The proportion of ozone thus inspired never exceeds the therapeutic dose of 12 parts in one hundred million of air. Two or three sittings, each lasting ten to fifteen minutes, are recommended per diem. In six weeks there is marked increase in hæmoglobin and in the number of red corpuscles, diminution of that of white corpuscles, and especially noticeable gain in weight and respiratory capacity. The number of cases was 37, 7 being in the first stage, 22 in the second, and 8 in the third of the disease. The increase in oxyhæmoglobin varied from 1 to 5 per cent., that of respiratory capacity from 18 to 100 c.cm., averaging 50 c.cm.; the latter was much more marked in the earlier than in the late stages. The increase in weight ranged between 1 lb. to 20 lbs., averaging 6 lbs. In addition to this the cough became infrequent, the expectoration and mucus less abundant, while the dyspnœa and sweats disappeared, and the physical signs cleared up.—Caillé (*ibid.*) confirms Labbé and Oudin's results as regards whooping-cough, and finds ozone very valuable in bad cases of chlorosis, but has seen no benefit from it in 3 cases of

apical phthisis. He, however, suggests that its disinfecting properties will render it of much service in the treatment of diphtheria, scarlet fever, and other infectious diseases.

### (273) The Absorption of Iron from the Alimentary Canal.

CERVELLO (*Arch. ital. de Biologie*, xxv, 3) published some years ago a series of experiments tending to show that ferric chloride was transformed in the alimentary canal first into ferrous chloride, which combined with albumen to form a soluble product as which the iron was absorbed. He has of late extended these experiments and confirmed their results. He finds that when ferric chloride is added to egg albumen solution it forms a clot which soon dissolves, and that the solution by degrees ceases to give the ferric reactions in the following order: sulpho-cyanide, ferricyanide, ferro-cyanide, tannin, and ammonium sulphide; the last two reactions have not entirely disappeared at the end of twelve hours. The process may be hastened by gentle heat or by rendering the fluid alkaline. A more stable compound of iron with albumen may be produced by substituting morsels of frog, washed and freed from blood, for the egg white; the process is slower, but the iron is held more tenaciously. The substance thus produced is strictly comparable to Schmiedeberg and Marfori's ferratin, which is thus unnecessary, since the inorganic salts of iron are converted into it in the intestine. The objection which has been raised that the iron does not really go into solution, but is precipitated in an insoluble form, is negatived by the fact that in the filtered liquid obtained by adding ferric chloride to egg albumen the iron reactions can be readily obtained after treatment with strong acids. The author has strengthened his views by experiments on mammals. Thus, 0.5 g. of ferric chloride solution was given to a dog, followed by a test meal. Seven hours later the dog was killed, and the alimentary canal removed. In the gastric contents, which were strongly acid, a very faint and slow ferric reaction could be obtained, but no test for iron reacted with the acid duodenal or alkaline intestinal contents. On decomposing these, however, with strong acids, abundant evidence of the presence of iron was afforded, as was also the case with the fluid obtained by filtration when similarly treated. It must thus be admitted that medicinal salts of iron form a soluble compound in the albumen in the intestine. There is, therefore, no object in the administration of its organic compounds.

### (274) Diet for Diabetics.

VON NOORDEN (Reprint from *Die Heilkunde*, October and November, 1896) thinks that by not testing the metabolic powers in each case many patients are at present placed on an unnecessarily strict diet who would be better for the moderate use of carbohydrates. Other patients, on the contrary, would derive advantage from an even stricter diet than they have at present. In order that the proper diet for each patient may be ascertained, he advocates a few weeks' residence in a special establishment where the different test diets can be more easily tried and the urine for the twenty-four hours regularly examined. In ordinary cases a test diet for one day may be adopted containing no carbohydrates except 100 g. white bread (about 60 g. of starch): but if the urine after this contains no sugar, larger quantities of white bread must be tried. If the urine after the test diet contains sugar, a diet should be chosen similar to the test diet, but containing more fat and no bread. If after about six days of the latter (strict) diet the urine still contains sugar, the case is a grave one and demands a careful limitation of the kinds of food. If, however, the urine then contains no sugar, the capacity of the individual for carbohydrate metabolism must be still further tested, and not only for starch but also for other kinds of carbohydrates. Some diabetics, for instance, can stand milk sugar better, others worse, than the starch of bread; the same is found with the sugar of raw fruit. This exact examination of every diabetic case was introduced by the late Professor Külz. In cases when the 200 to 400 g. carbohydrates—the daily amount for a healthy man—cannot be taken, they must be replaced by an equivalent of fat and albuminous material. The nutritive equivalent of 200 g. carbohydrates in meat is about 800 to 1,000 g., in fat about 88 g.; therefore, it is evident that carbohydrates cannot be replaced in the diabetic dietary by meat only, but must be replaced by meat—which is usually combined with more or less fat—and fat together. The author regards the following as contra-indications to a very nitrogenous diet: (1) Considerable albuminuria; (2) old age; (3) gouty complications; and (4) the condition of some patients in which much nitrogenous food increases the glycosuria, more than a little carbohydrate does. In the latter class of cases Naunyn and von Mering interpose a regular fasting day, but the author prefers to confine the diet for one or more days to green vegetables prepared with fat, and then gradually again to increase the amount of albuminous food. Fat is a most essential article of diet for diabetics, and much of the doctor's success depends on the way in which he administers it so as to make it palatable to the patient. A proper amount and quality of alcohol Von Noorden believes to be of great use to diabetics, for alcohol makes the digestion of fat easier; and in some cases, he thinks, if given boldly, alcohol may ward off threatening diabetic coma. The opinion that a diabetic patient is "too weak" for "strict" antidiabetic diet has still often to be combated, even amongst medical men. Weakness is rather an indication than a contra-indication for strict diet. A diet may be "strict," and yet unsuitable for a particular patient: it is the unsuitableness, not the strictness of the diet, which may do harm. The real contra-indications (to some extent) for "strict" diet are old age, nephritis, severe gout, and tendency to diarrhœa, but even here there are exceptions to the rule. It is in the endeavour to ascertain what the best diet is for any particular case that a short residence in a special establishment is of so great utility. The author includes a careful classification of articles of diet in their relation to diabetes.

## PATHOLOGY.

### (275) Bacteriology of Plague.

KOLLE (*Deut. med. Woch.*, March 4th, 1897) says that in cover-glass preparations from the pus of the buboes there are, besides pus cells, detritus, and red blood cells, abundant bacilli with rounded ends. Both ends of this micro-organism stain deeply, whereas the central portion hardly stains at all. This peculiarity of staining is not really seen in any other microbe pathogenic to man. The bacillus is also found in the blood and in the enlarged spleen. Thus plague is a polyadenitis, the glands being the starting point of a septicæmia. The micro-organism is found almost always in organs where hæmorrhages have taken place. The typical bacillus is present in all cases of plague. As in other affections, the streptococcus is found as a secondary infection. The plague bacillus is decolorised by Gram's method, whereas the streptococcus retains the stain. The plague bacillus grows on agar, and forms a whitish grey, slightly iridescent colony. On gelatine the colony is light brown and finely granular. The gelatine is not liquefied. In alkaline bouillon the growth is slight, but the addition of grape sugar considerably increases it. No spore formation has been observed, and hence the resistance of the micro-organism is not great. The cultures are killed on exposure to a temperature of 100° C. for a few minutes or to 58° C. for several hours. Rats, mice, guinea-pigs, and perhaps pigs, are susceptible. If less virulent cultures are used, a disease is produced in animals exactly similar to that seen in man. The disease can also be produced in rats and mice by feeding them on cultures of the plague bacillus. The author refers to the spread of the disease by these animals. Plague can be conveyed to the human subject by inoculation with objects containing the poison, or even by the bite of insects. As regards immunity, it was found that the curative action of serum obtained from animals artificially made immune is only slight, whereas in men treated with this serum the result has apparently been favourable. Protective inoculations have been adopted against plague by Haffkine. The author succeeded in making 5 rats and 4 guinea-pigs immune against a full virulent dose of a culture of the plague bacillus by means of a single injection of a culture killed by being kept for several hours at 65° C.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

### (276) Renal Hæmorrhage.

Klemperer (*Deut. med. Woch.*, February 25th and March 4th, 1897) discusses this subject in cases where the kidney is healthy. He first gives evidence to show that hæmorrhage may take place from a healthy organ. This has also been proved where the bleeding kidney has been removed, and no disease discovered in it. The author thinks that the hæmorrhage must then be due to a paralysis of the vasoconstrictor nerves and an escape of red cells. Thus an angioneurotic bleeding may occur as well as an angioneurotic œdema. A mere laying bare the kidney in such cases may suffice to cure the bleeding, and the author thinks that this is due to suggestion. Details are given of cases under three headings: (1) Passing renal hæmorrhage after over-exertion. The two illustrative cases followed upon excessive horse riding and cycling respectively. The hæmorrhage was no doubt due to rupture of small vessels which rapidly healed again on rest. Although in the strict sense such kidneys might not be looked upon as healthy, yet afterwards these organs were left perfectly sound. Other possible causes of such hæmorrhage must be carefully excluded. (2) Hæmaturia in bleeders. Here a slight cause may suffice to bring on the bleeding. In the 2 cases given here both patients were the subjects of hæmophilia, as proved by their family and personal history. Perhaps even here nervous influences may have something to do with the hæmorrhage, thus explaining the recovery ensuing after hydrotherapeutic measures. (3) Angioneurotic hæmaturia. A man, aged 22, had hæmaturia lasting three months, which ceased by itself. In a year it reappeared. Nitze discovered by the cystoscope that the blood came from the left kidney. The organ was extirpated and found healthy. The hæmaturia ceased. Hæmaturia occurred in another case in a man aged 37. This ceased on milk diet, rest, and hydrotherapeutic treatment. All other causes of hæmaturia were excluded, but at least a year must elapse before the diagnosis can be looked upon as certain. Klemperer concludes that (1) renal hæmorrhage may occur after over-exertion and rapidly disappear, (2) in chronic renal hæmaturia, besides acute nephritis, stone, tuberculosis, pyelonephritis, and tumour, the hæmaturia of bleeders and angioneurotic hæmaturia must be considered; (3) in the hæmaturia of bleeders no operation, not even cystoscopy, should be practised; (4) in angioneurotic hæmaturia blood and urine are present without other pathological products. There is no enlargement of the organ. The origin of the bleeding is ascertained by tenderness in the renal region, blood casts, and cystoscopy. There may be evidence of general neuræsthenia, but not necessarily so; (5) angioneurotic hæmaturia may occur along with pain, and thus simulate renal calculus; (6) the diagnosis of angioneurotic hæmaturia can only be made after several weeks' observation of the patient; (7) the treatment consists in rest in bed, chiefly milk diet, and suggestive treatment: hydrotherapeutic treatment is much to be recommended; (8) exploratory operations on the kidney are only to be adopted when, after treatment for several weeks, the bleeding still continues, and the anæmia endangers life; (9) if the kidney is then found healthy, it should not be removed, but the effect of such exploratory operation be awaited.

### (277) The Serum Diagnosis of Typhoid Fever.

Peterman (*Vratch*, No. 3, 1897) records his experiences of Widal's method of diagnosing enteric fever. For several months he has employed Widal's test in a series of cases at the military hospital of the city of Moscow, and has never failed to obtain positive results. In two instances he has taken the blood serum from convalescents, who, as far back as eleven and sixteen years ago respectively, passed through an attack of typhoid, and mixed it with a fresh emulsion of living Eberth's bacilli. Within a few hours the latter became less motile and changed their shape. The process of agglutination has been observed to be fully developed within twenty-four hours, the specimen being kept for that time at the usual bodily temperature. This observation is of far-reaching importance, since it tends to show that for a very long period after convalescence the patient's serum is able to exert the described influence on the typhoid organisms. In conclusion, the author says that Widal's method is very useful for diagnostic purposes, and he expresses the belief that it will soon come into general use.

### (278) Hysteria with Strabismus and Ptosis.

E. Hitzig, of Halle (*Berl. klin. Woch.*, February 15th, 1897), points out that disorders of the oculomotor mechanism are rare in hysteria, though diminution of the visual field, and other phenomena due to fatigue of the retina, are very common. The patient, a Polish labourer, aged 36, had previously suffered from "inflammation in the eyes." He had indulged rather freely in spirits. In August, 1895, he wounded himself in the leg. The wound healed rapidly, but unfortunately he got the idea that, as there had been no suppuration, inflammation would occur elsewhere. After a week, in reality, he got inflammation in the eyes, followed by diplopia and ptosis. This condition lasted a long time without distressing him, but when he found himself unable to see two of his children, who had returned home in September, 1896, he attempted suicide by drowning, and for two days appeared insane. On admission (September, 1896) there was complete ptosis on both sides; both eyes were turned inwards and downwards. Later, in November, the pupils did not react to light, and the patient professed to see nothing. There was no evidence of any spasm of the orbicularis muscles. There was partial unilateral loss of taste and smell. Tactile sensation was absent over the whole of the body, and there was analgesia in the right arm, left leg, and left half of the trunk, neck, and head. Temporary improvement in the eye symptoms had followed chloroform narcosis in October, but their complete disappearance followed electricity and suggestion in November. A temporary partial hysterical deafness was likewise recovered from, and in January, 1897, the patient's condition was practically normal in every respect. Some of the eye symptoms were evidently due to spasm, namely, the squinting and the myosis. Charcot in 1888 still believed that all so-called hysterical unilateral palsies of the facial, lingual, and oculomotor muscles were in reality hemispasms. Charcot and his followers had, however, afterwards to modify their views, and in the present case Hitzig attributes the ptosis to hysterical paralysis of the levator muscles of the eyelids.

## SURGERY.

### (279) The Treatment of Injuries of the Gall Bladder and Biliary Ducts.

Terrier and Auvray (*Rev. de Chir.*, January, 1897) advocate operative intervention in doubtful as well as in assured cases of injury of the gall bladder or biliary ducts. Laparotomy, it is held, should be performed even though there may be a question whether a wound of the abdominal wall be a penetrating one or not, and also in cases of contusion in which a careful examination of the patient may excite a suspicion of rupture of any of the above-mentioned parts. Although the peritonitis caused by effusion of bile is usually restricted and of a mild character, provided the effused fluid be aseptic there can be no doubt that bile, when in contact with the peritoneum, may act as a poison. Moreover, the loss of bile resulting from the effusion of this fluid into the peritoneal cavity leads to a condition of exhaustion and emaciation which will sooner or later threaten the life of the patient, especially in cases in which it is necessary, on account of incessant re-accumulation of this fluid, to make repeated punctures. It is advisable therefore, according to the authors, to resort to prompt exploratory laparotomy in cases of abdominal contusion in which there is the least doubt as to the existence of a lesion of the biliary passages, and in which there is pain localised in the epigastric or right hypochondriac regions. In cases in which operative treatment has been delayed secondary laparotomy is preferred by the authors to puncture. The latter, it is held, is not free from risk, and is often futile, as there is usually an incessant reaccummulation of effused bile. The former operation, which,

when performed with strict antiseptic precautions, is quite free from danger, consists of a simple incision through the abdominal wall over the region in which the presence of the effused bile is revealed by dulness, and in evacuation of the fluid. Care must be taken not to wound any adherent intestine, and any false membrane that may have formed about the seat of rupture should be strictly respected. If the gall bladder be found torn through, the surgeon has to decide between cholecystorrhaphy and cholecystectomy, the former being practised for slight wounds, the latter when there has been much laceration and the wall of the bladder is much disorganised. Rupture of the cystic duct, it is stated, should be treated by ligature of the canal at its peripheral end, and subsequent cholecystectomy. Rupture of the hepatic duct, which is regarded as a a very grave injury, can be treated only by evacuation and temporary plugging and drainage, with the view of preventing further effusion into the abdominal cavity and the formation of protective adhesions. If the common duct be opened, it should be closed by a double ligature, and then the surgeon should establish a communication between the gall bladder and the small intestine.

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**(280) The Treatment of Wounds with Iodoform Calomel.**

Sprengel (*Centralbl. f. Chir.*, No. 5, 1897) recommends the use of a mixture of equal parts of calomel and iodoform in the treatment of those wounds which, from their nature, are especially liable to undergo decomposition—for example, a tracheotomy wound; and also in those cases where it is not possible entirely to remove all the morbid growth, such as operations upon tuberculous joints. Under the influence of light the iodoform combines in some way with the calomel, and forms a reddish powder, having antiseptic and escharotic properties. But it is the cauterising action which the author especially values. It is used as follows: After all bleeding has been arrested, the wound is lightly sprinkled and rubbed with the powder, and then gently packed with sterile gauze. At the end of three or four days, if the gauze is removed, a slight superficial slough will come away with the dressing, and the wound will present a healthy granulating surface. A special advantage of the powder is that the tampon does not adhere to the wound; it comes away readily without causing pain, bringing the slough with it.

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**(281) Treatment of Congenital Herniæ by Injection of Zinc Chloride.**

Lannelongue (*Bull. Méd.*, March 3rd, 1897) in a clinical demonstration showed his method of treating congenital hernia in children by zinc chloride injections in solutions of 1 in 10, using an ordinary Pravaz syringe. The assistant presses with his finger firmly over the situation of the internal ring to interrupt communication with the abdominal cavity; with the left index finger the operator displaces the cord towards the middle line and keeps it there; with the right hand four successive punctures are then made, each a little below the preceding one, close to the cord, downwards and a little backwards, on the upper border of the pubes, as far as the periosteum; 5 or 6 drops are then injected and the syringe quickly withdrawn, and pressure made on the punctures. The cord is then displaced outwards, and four punctures made on the inner side. Compression is made over the inner ring by pad and bandage. The operation lasts about two minutes. Lannelongue does not believe there is any danger for abdominal cavity or cord, even if the solution should implicate them; he has conducted some experiments that support him in this view. He also showed two cases operated on last June in this manner. The canals were closed, not admitting the finger; there was no impulse on coughing, and the cord and testicle were unharmed. He ended by pointing out the simplicity, rapidity, and security of the method.

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**(282) Dupuytren's Contraction of Palmar Fascia.**

Hutchinson (*Archives of Surgery*, vii, p. 335) states that it is an error to suppose that the palmar fascia alone is involved. The cellular tissue thickens and forms adventitious bands. In some instances the skin is thickened and contracted. The predisposing causes are hereditary gout, inheritance, and gouty tendencies in the patient. The exciting causes are pressure, injuries, and arthritis. In many cases no exciting cause has been present. Indurations may occur in other parts of the body, of the same nature, and in association with the disease. The fibrous structure of the penis may be involved, causing curving and difficulty in copulation. He thinks one of the causes of glaucoma may be analogous contraction of the sclerotic. Acute glaucoma and Dupuytren's contraction occur in much the same class of persons, at the same period of life, and in the same association with inherited gout. It is to be noted that by inherited gout he means something quite different from gout as ordinarily understood. It has nothing to do with the deposit of urate of soda in the tissues, nor probably with its presence in the blood. It is rather a peculiarity in the proclivities of fibrous structures, derived by inheritance from gouty ancestors. Dupuytren's contraction is found in gouty families rather than in gouty individuals. Many who develop it, as a matter of inheritance, are quite free from evidence of active gout. The subject who manifests it in middle life, possibly from exciting causes, has inherited fibrous structures which do not wear well; they harden and contract under continued irritation. The rare form which occurs in children, and is sometimes congenital, is yet more definitely hereditary. Some progenitor—*pace* Weismann—probably actually had at the time he became a father some existing changes of this kind.

## MIDWIFERY AND DISEASES OF WOMEN.

**(283) Symphysiotomy.**

C. Bitner (*Przeglad Chirurgiczny*, iii, Part 3, 1897) reports the case of a 3-parous woman, aged 28, who had in her two previous confinements required craniotomy of the infant on account of a generally contracted pelvis, the conjugata vera being 7 cm. In the present confinement labour had been going on for 28 hours, and it was already 6 hours since the membranes had ruptured; the os was widely dilated, but the vagina was markedly contracted; the vertex was presenting, but had not engaged. Symphysiotomy was performed in a peasant's hut, with the assistance of a midwife and the patient's husband and parents. An ordinary knife was used to divide the symphysis, and separation to the extent of from 1 to 1.5 cm. at once followed. Then Bitner applied a temporary dressing to the wound, and made lateral incisions in the vaginal walls. He then waited for natural efforts to complete the labour, and in two hours the head was on the perineum, the pubic bones showing a separation of 5 cm. But four hours later the labour was not yet terminated, notwithstanding strong pains, a delay which the author attributed to the absence of the pubic symphysis, the fixed point round which the head should swing in traversing the vaginal orifice. To correct this the hand was pushed firmly in by its outer border behind the subpubic ligament; then after two pains the head was born, the perineum remaining intact. After removal of the placenta the writer sutured the lateral vaginal incisions, brought together the pubic bones, and fixed them by four periosteal sutures and six cutaneous ones. The puerperium was normal, and the woman began to walk without discomfort on the seventeenth day. Bitner does not believe in the use of forceps after a symphysiotomy on account of the risk of vaginal and perineal lacerations.

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**(284) Deciduoma Malignum.**

Monod and Chabry (*Revue de Gynéc. et de Chirurgie Abdominale*, No. 1, January to February, 1897) report a case with much care, though they admit that the patient denied that she had ever been pregnant. She was a married woman, aged 27—how long married is not stated. In February, 1896, metrorrhagia set in, and continued till May, when it was complicated by severe hypogastric pain, and tendency to syncope. She therefore entered hospital. Anæmia, cachexia, and albuminuria were detected. The uterus reached 3 inches above the pubes, the os was very patulous. On examination the uterus seemed as though it had recently held a fœtus of the second month. A large blunt curette was introduced and brought away broken-down tissue and a few distinct hydatidiform vesicles. A few days later more tissue was scraped away. It contained cells bearing all the characters noted in those which make up decidual tumours.

Vaginal hysterectomy was performed on June 19th. The ovaries, slightly enlarged and cystic, were also removed. The uterine cavity measured 5½ inches. The walls seemed to be simply hypertrophied, but on examination they were found largely infected with deciduoma malignum. The albuminuria ceased during convalescence. In November, 1896, there was no sign of recurrence.—Neumann (*Wien. klin. Wochenschrift*, September 3rd, 1896) records the following case: The patient, a woman aged 35, bore her third child, a girl, in January, 1896, the labour being in all respects normal. She got up, as was her wont, on the sixth day, and went about her housework; there was, however, still slight bleeding from the genitals. Four weeks later there was a smart hæmorrhage, which lasted two days; at the beginning of March the bleeding increased, and the patient went to bed and was treated with ergotin and ice, but without improvement. On April 9th her doctor curetted the uterus, but the hæmorrhage soon began again, and on April 24th another physician was called in, who again curetted and sent the scrapings to Neumann for microscopical examination. The bleeding ceased for a week, but then returned with pains in the abdomen, and the patient, now much weakened, was admitted to Schauta's clinic on May 5th. Examination showed that the uterus was enlarged, soft, and movable; nothing abnormal was detected in the chest except anæmic murmurs over the cardiac area. The microscope had enabled the diagnosis of deciduoma malignum to be made, but there was no metastasis in the vagina. Total vaginal hysterectomy was performed by Schauta on May 9th; there was considerable bleeding, so that forceps had to be left on the broad ligaments for six days. The patient was temporarily benefited by the operation, but after a while an irregularly remitted fever supervened, accompanied by rigors. Then came thrombosis and phlebitis of the left saphenous vein, together with the signs of diffuse bronchitis at both bases. The lung condition grew steadily worse: the sputum became purulent, and eventually bloody; pleural friction could be heard, and there was dulness with weak breath sounds over both lower lobes and the right upper lobes. Malignant cell elements were never detected in the expectoration. The fever and hæmoptysis led to a cachetic condition, and the patient died of heart failure on July 31st. The extirpated uterus was large, very soft and doughy, and extremely vascular: the muscularis was œdematous, and the wall 1¼ inch thick. At the fundus was a small polypous sloughing tumour, which was spreading towards the opening of the right tube by means of little nodules, some of which were buried deeply in the muscular tissue. The whole mucous membrane of the uterus was thickened, yellowish, and ill-marked off from the muscularis. The scrapings upon which Neumann had made the diagnosis consisted of a typical syncytial growth surrounding the cells of Langhans's layer, and forming in places a network containing vacuoles filled with blood. Besides these malignant portions there were pieces of mucous membrane having a structure exactly like that of normal decidua. The mucous membrane of the extirpated uterus had completely degenerated, though curetted only a fortnight before; there was infiltration with small round cells in the neighbourhood of the growth. The tumour itself had the typical microscopical characters of the disease, and was evidently a malignant over-growth of the cells of the chorionic villi; a few of these cells were found in some of the small blood vessels. At the necropsy a large number of metastases were found in the lungs, with recent pleural adhesions; there was also a small growth in the right ureter, and a commencing purulent meningitis. This case is one of the most complete of those so far recorded; it illustrates particularly well the value of an exploratory curettage and the malignancy of the tumour, since while the growth was limited to the uterus there were already malignant cells in the lungs.

**(285) Menorrhagia in Young Girls and Hypertrophy of the Cervix Uteri.**

Froelich (*Arch. de Gynéc. et de Tocol.*, September-December, 1896) puts on record three cases of vaginal hæmorrhage at puberty in which a hypertrophic condition of the cervix uteri was found with a certain degree of fungous endocervicitis. The treatment recommended and carried out in two of the cases was curettage and removal of the superfluous portion of the cervix. In another group of cases uterine hæmorrhage at the period of puberty is due to chlorosis and anæmia; in them the hæmorrhage is not great, but is dangerous from its intractable nature and also on account of the chlorosis, of which it is an epiphenomenon. In these instances it is the chlorosis that calls for treatment.

## THERAPEUTICS.

**(286) Metabolism in Thyroid Feeding.**

Gluzinski and Lemberger (*Centralbl. f. inn. Med.*, January 30th, 1897) have investigated this subject, with special reference to thyroid feeding in obesity. They point out that it is necessary to find out whether the loss of weight takes place at the expense of the fat of the body or of the protoplasmic tissues, such as the muscles, etc. There is a class of cases of obesity not due to excess in eating or to deficient exercise, as when it occurs as an hereditary affection, or in sterile women, or after ovariotomy, at the climacteric, etc. Here there is a disturbance in the cells of the protoplasmic tissues, in which oxidation processes takes place. The authors have investigated the subject under the following conditions: (1) A sufficient number of calories were introduced with the food: (2) the thyroid treatment extended over a sufficient time; and (3) a comparison was made between thyroid tablets and the fresh gland. Their researches were made in the case of a man, aged 28, moderately fat, and continued during twenty-seven days, which they divided in five periods. In the first seven days the nitrogenous metabolism was investigated and an equilibrium produced, in the second seven days thyroid tablets were given, in the third period of six days no tablets were given, but during the next four days fresh thyroid was administered, and finally during the last three days no thyroid feeding of any kind was adopted. Tables showing the elaborate analyses of the nitrogenous income and output are appended. The authors arrive at the following conclusions: In a healthy man the thyroid tablets produced in seven days a loss of weight amounting to 400 g., the positive nitrogenous balance steadily diminishing. They attribute the fact that the nitrogenous balance did not become negative to the circumstance that the thyroid substance had been injured in the preparation of the tablets, since fresh thyroid acts much more energetically. During four days only the above-named patient consumed fresh thyroid, and he lost 1,000 g. in weight, and the nitrogenous balance became markedly negative. It is calculated that one-fifth of his loss of weight took place at the expense of his muscles. Fresh thyroid acts energetically on albuminous decomposition, but some of the efficiency is lost to the thyroid substance in the process of making tablets or in keeping it too long. The administration of the artificial products over long periods of time is, however, not without action on albuminous substances.

**(287) Lycetol.**

R. de Tollenaere (*Belg. Méd.*, January 28th) remarks that lycetol, or tartrate of dimethylpiperazin, unites to the solvent action of the piperazin the not less efficacious action of the tartaric component, which in the economy is transformed into a carbonate, alkalinising the blood whilst possessing a diuretic action. By its continued use, combined with a suitable dietary, the painful exacerbations of the chronically gouty may largely be prevented; sometimes even the biurate deposits may be caused to disappear from the articulations. The author had recourse to the drug in two cases of chronic gout, which had been under treatment for many years, in both of which almost all the anti-gout remedies had been exhibited with but poor results. In each the lycetol was given during an exacerbation. In the first case, that of a man aged 55, the result was very satisfactory; after ten days the pains had completely yielded, and the patient, who still takes half a grain of lycetol daily, has been for six months free from all uneasiness. In the second case, a man aged 35, the result was excellent for the first two to three days. But the effect was not maintained, and at the end of eight days the patient asked for a change in treatment. In this case, too, the author believes the partial success of the lycetol to have been greater than that

of any other drug previously prescribed. Lycetol was also given in 7 cases of chronic articular rheumatism. Of these, in 4 cases there was a satisfactory result, lasting, however, only a few days, so that after a fortnight the patients experienced no change in their condition; in the remaining 3 there ensued an obvious improvement of the local and general condition, the patients suffered less, felt less pain in the affected joints; in 1 case there was an evident betterment of the lesions. In one case of arthritis deformans the drug was tried, but with no result. Out of 4 cases of sciatica the result was favourable in 2, negative in 2. In 1 case of seven weeks' standing, of rheumatic origin, in a man of 40, the patient improved so rapidly that after three days he failed to present himself. Lycetol was also tried with doubtful result in 2 cases of acute articular rheumatism during that period often observed after a long duration of this disease, in which frequent relapses are experienced, and in which the organism seems to become insensible to the action of the salicylates. The author concludes that the drug, without being a specific against gout and the chronic forms of rheumatism, is yet a precious remedy in the treatment of these affections. The lycetol was usually given in divided doses, amounting to 1½ to 2 grains a day, a glass of water being taken with each powder.

**(288) Ozone Inhalations in Whooping-cough.**

DOUMER (*Nord Médical*, No. 50, 1896) reports his experience of this method, which Labbé and Oudin found very successful in 14 cases. He treated 5 cases—brothers and sisters and mother, all suffering from whooping-cough of a fortnight to a month's duration, with paroxysms of medium severity, varying in number from twenty to sixty a day. The ages of the patients ranged from 3 to 35 years. The treatment consisted in the inhalation of ozone for ten to fifteen minutes twice a day. The results were as follows: In 4 cases in which sleep at night was much broken there was improvement after four inhalations. In 1 case in which vomiting was severe it was speedily checked. In all the cases there was diminution both in the frequency and in the severity of the paroxysms from the second day, discontinuance of the inhalations, however, being always followed by relapse. A cure was effected after twelve to twenty-seven inhalations—that is, in nine to fifteen days. There was no relapse in any of the cases two months and a-half later.

**(289) P-Aminophenol Derivatives.**

TREUPEL AND HINSBERG (*Centralbl. f. inn. Med.*, March 20th, 1897) confirm their previous observation that the antipyretic effect of these agents is connected with the appearance of p-aminophenol or an n-acidyl-aminophenol in the body. The presence of these bodies is shown by the indolphenol reaction in the urine. Substances without any antipyretic action do not give rise to this indolphenol reaction. The reaction varies with the degree of antipyresis. The authors have investigated the following substances: (1) dulcin, (2) lactyl-aminophenol-ethyl-carbonate, (3) benzoyl-acetaminophenol, (4) æthyl-diacetaminophenol, and (5) oxyphenacetin-salicylate. Experiments were made on dogs, and clinical observations on man. With the first three substances a distinct antipyretic effect was visible in the febrile state, and the indolphenol reaction was present in the urine. The last two substances have only a feeble antipyretic action, and the indolphenol reaction was only slightly marked or absent. The experiments with these bodies, differing considerably in their physiological action, will not permit of any definite conclusions being drawn, but the authors emphasise the relation between the degree of antipyresis and the amount of aminophenol or acidyl-aminophenol set free. Charts are given showing the action of some of these bodies in febrile states.

**(290) Glycero-phosphate of Lime and Kola Wine.**

LABESSE (*Thèse de Paris*, No. 177, 1896-97) recommends glycero-phosphate of lime as the best medicine in every form of organic decay, especially in that of nervous origin. It can be safely prepared in any apothecary's shop, preserved in standard solutions without any such excess of alcohol as would cause precipitation, and may be conveniently prescribed with citric acid. In combination with an alcoholic extract of kola, which by the addition of a *vin de liqueur* becomes what is known as kola wine, it improves the nutrition and regulates all the organic functions. The kola nut, according to the researches of Heckel and Schladgenhauffen, since confirmed by Dubois, Marie, and Knebel, is richer than any other vegetable product in caffeine, of which it contains 2.346 per cent., but the nuts should be fresh and carefully selected. In addition to caffeine they contain theobromine and a kola red analogous to cinchona red. Apart from any nourishing qualities they save waste, modifying disassimilation without interfering with oxidation.

## PATHOLOGY.

**(291) Relation of Tabes and Multiple Sclerosis to Injury.**

MENDEL, at the Berlin Gesellschaft für Psychiatrie und Nervenkrankheiten, January, 1897, discussed the relation of tabes and multiple sclerosis to injury. In 7 out of 9 cases where the tabes had been referred to traumatism, the onset of the disease could be shown to be prior to the injury. In 2 cases, however, this was not so; one occurred three years after amputation through the thigh, but the patient had contracted syphilis six years before the operation; in the other the tabetic symptoms began three months after a fall in a patient addicted to alcoholic excess. The evidence in favour of traumatic tabes cannot be considered conclusive, but it is certain that injury may considerably aggravate the disease when present. In 4 cases Mendel has seen multiple sclerosis follow an injury, and he considers that there is conclusive evidence that this disease may be caused by injury. This difference in etiology might be expected, for in tabes one particular tract and no other is affected in a typical case, and it is difficult to see how violence which affects the whole nervous could produce so limited a disease; while, if tabes be regarded as due to a poison, it is very improbable that a sudden transitory injury could give rise to such a poison. Multiple sclerosis, on the other hand, is generally admitted to have its starting point in the blood vessels, and it is easy to see how an injury which causes severe disturbance of the cerebro-spinal fluid might produce rupture of vessels, stasis, migration of leucocytes, etc. This view does not, however, preclude the presence of some predisposing cause, such as the excessive development of neuroglia described by Ziegler, which renders the tissues less resistant.

**(292) Cirrhosis of the Liver from Phosphorus.**

AUFRECHT (*Deut. Arch. f. klin. Med.*, vol. lviii, p. 302) thinks that the diffuse "interstitial hepatitis," leading to cirrhosis, is never the result of an interstitial inflammation, but that it depends entirely on an inflammatory process, affecting the glandular cells of the peripheral parts of the acini. Human cirrhosis, he thinks, corresponds exactly with experimental cirrhosis as produced by phosphorus. Rabbits were injected with 1 or 2 mg. of phosphorus dissolved in olive oil. According to their individual powers of resistance to the poison the rabbits lived different lengths of time. Thus, of 8 rabbits experimented on, 4 died after two injections of 2 mg., whereas 1 lived to receive sixty-nine injections of 1 mg. The liver of the last-mentioned rabbit was found to have a finely-granular surface, analogous to that seen in human cirrhosis of the liver. In the experiments ascites twice occurred, but jaundice never. In some cases albumen and hyaline casts were found in the urine. Wegner thought that large doses of phosphorus affected the hepatic parenchyma, whereas small doses affected the interstitial tissues; but Aufrecht thinks he has proved that the hepatic cells are the only part ever affected. The difference he finds is that with large doses all the cells of the acini are damaged, whilst with frequently-repeated smaller doses the peripheral portions only of the acini are affected; in the former case the hepatic cells may be destroyed and their nuclei may disappear, but in the latter case no cells are destroyed, though the protoplasm of the affected cells is diminished, so as to give rise to the erroneous supposition of interstitial inflammation with newly-formed tissue between the acini.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

**(293) Serum Diagnosis of Enteric Fever.**

Stern (*Berl. klin. Woch.*, March 15th and 22nd, 1897) draws attention to possible sources of error in Widal's test: (1) The blood serum of persons not suffering from enteric fever may show the agglutinative action. The proportion of serum to the culture as first given by Widal (1 to 10 or 15) may permit of error. If the agglutinative action is to be quantitatively estimated, the culture used, the time, temperature, and other manifestations by which the effect of the serum is ascertained must be exactly determined. The author has found the pipette of Gowers's hæmoglobinometer previously sterilised useful. Minimum quantities of blood suffice. A pipette of larger size, so that $\frac{1}{5}$ c.cm. may be obtained, is recommended. The pipette can be filled as often as required with the bouillon culture, then washed with sterilised water and healed. It is then filled up to the mark with the serum. Thus the dilutions are readily made. The author holds that the macroscopic part of the test is due to a variety of factors not always dependent upon the agglutinative action. Considerably less serum is required for the microscopic test. The separation of the flocculi depends on the proportion of serum to culture and upon the time. The best possible time is from six to eight hours. The author adopts two hours as the standard of time. He has investigated 70 cases of persons who had never suffered from typhoid fever. The agglutinative action appeared in 20 such cases when the dilution was 1 in 10, in 5 when 1 in 20, in 2 when 1 in 30, and in none when 1 in 40. In the 50 cases the agglutination appeared when the dilution was 1 in 5. The author refers to some recorded cases in which a positive Widal's reaction gave rise to an incorrect diagnosis, and he adds that, when proper precautions have been adopted, a positive reaction has never been obtained where the case has been subsequently certainly proved not to be enteric fever. In all his own cases of typhoid a positive reaction was always obtained and a much higher value for the agglutination obtained. Thus, in 19 cases a positive reaction was obtained in 4 when the dilution was 1 in 50 to 100, in 6 when 1 in 100 to 500, in 3 when 1 in 500 to 1,000, and once when 1 in 1,000 to 5,000. In 1 case with high agglutinative action a relapse occurred, showing that immunity does not always stand in direct relation to agglutinative power. A constant relation between agglutinative power and severity of the disease could not be proved. Thus, for diagnostic purposes a greater degree of dilution must be used, and the author begins with 1 in 40 to 50. The flocculi may often be seen here in a few minutes; $\frac{1}{5}$ c.cm. serum will suffice, and the test may be made from dried blood. (2) A negative result has been obtained in genuine typhoid fever. Thus, in the first weeks too great an importance must not be attached to a negative result. A constant negative result up to the fourth week may be considered reliable. (3) After typhoid fever a positive reaction may be obtained for months or even years. The specific change in the blood may occur without the ordinary manifestations of typhoid. Slighter infections must frequently occur. Often, however, the agglutinative action disappears soon. The first source of error named above can with care be avoided; the second is common to all clinico-bacteriological investigations: and the third only applies to a few cases.

**(294) The Infectious Character of Rheumatism.**

In a clinical lecture on this subject (*Journ. de Méd.*, February 10th, 1897), Jaccoud pointed out that in very many cases of rheumatism some preceding local process has been observed which may serve as a point of invasion to the organism, whatever it may be, which is the cause of acute rheumatism. Among these by far the most important is tonsillitis, and a striking fact is that the organisms found are exactly the same as those found in the tissues which are the seat of the lesion. For this reason the pharynx, the tonsils, in fact any tissue showing a lesion, may allow the organism to enter, and a case has been quoted in which a wound of the foot seemed to be the lesion to blame. Although nothing definite is known concerning the origin of acute rheumatism, there is such a series of circumstances connected with the disease that its bacterial origin is rendered practically certain. Jaccoud looks upon the infectious nature of rheumatism as beyond doubt when its mode of evolution, its diffusive character, and the fact that there is intra-uterine transmission from mother to the fœtus are taken into consideration. One such case is recorded by Jaccoud himself in which a mother suffering from a severe attack of rheumatism gave birth to a child who in twelve hours developed pyrexia with pain and swelling of the joints, all of which gave way to salicylate of soda by the end of a week. This evidence the author looks upon as strongly showing the infectious nature of this disease.

**(295) Scurvy.**

Wright (Army Medical Report for 1895) discusses the pathology and therapeutics of scurvy from the theoretical side. He indicates three important lacunæ in our knowledge of scurvy: first, that it affords no explanation of the fact that a regimen consisting entirely of preserved meat and cereals or of either of these separately induces the symptoms of scurvy; secondly, that it does not furnish any absolutely trustworthy criterion of the disease; and, thirdly, that it does not provide us with any thoroughly satisfactory method of treating it. His objections to lime juice and fresh vegetables in this respect are the difficulty of transport, the fact that lime juice contains a substance which tends to accentuate the diminished coagulability of the blood in the disease, and Lind's statement that these remedies have but a slow and incomplete action upon a well-pronounced scorbutic condition. With regard to the causation of scurvy, the author refers to Walther's experiments on the results of feeding dogs and rabbits upon mineral acids, and concludes that the disease is an acid intoxication resulting from the withdrawal of all food stuffs giving an alkaline ash. He attributes the antiscorbutic effects of lime juice to the potash salts which it contains, citric acid having been shown to be useless in this respect. Wright further states that the differential diagnosis of scurvy from other conditions characterised by a similar defect in blood coagulability may be made by the determination of the existence or non-existence of acid intoxication, and that this may be ascertained by the determination of the total acid which is being excreted in the urine. In acid intoxication there is a notable increase of the ammonia-neutralised acid excreted as compared with the free acid. As to treatment, three indications are deduced: first, to supply the scorbutic organism with fixed alkalies to replace those which have passed out in the urine with the excessive acid of the food; secondly, to give remedies which at the same time shall relieve the defect of blood coagulability; and, thirdly, to combine these desiderata with portability and inexpensiveness in the drugs. Lime juice and fresh vegetables do not fulfil this last condition; they are slow in their action, and lime juice further aggravates the defective coagulability. Wright therefore suggests the use of non-poisonous organic acid salts of potash and soda. He recommends the use of 30 to 60 grains of Rochelle salt by the mouth, to which should be added 20 grains of calcium chloride crystals given three times a day to enhance the coagulability of the blood. For prophylaxis, 20 grains of Rochelle salts and 5 of calcium chloride, each given thrice daily, would suffice.

## SURGERY.

**(296) Articular Synovial Cysts.**

Dauchelle (*Thèse de Paris*, No. 212, 1896-97) rejects the term ganglion as indefinite, and belonging rather to anatomy than pathology, and under the above heading discusses cysts formed by a circumscribed portion of the synovial membrane to the exclusion of all those of tendinous origin. The greater number of these cysts are enlargements of the synoviparous follicles discovered by Gosselin; and to

this class belong those prolongations of the synovial membrane between separated fibres of the fibrous capsule on the dorsal aspect of the wrist described by Poirier. A smaller proportion are caused by a hernia of the synovial membrane, generally the result of increase of the pressure of the fluid in the joint from some previous lesion. Léveillé also maintained, and his view has been supported by the histological researches of Ledderhose and Ritsch, and more recently by Thorn of Berlin, that the periarticular connective tissue might be the origin of cysts, synovial in name only from their close proximity to the joint. Gosselin's follicles are found in most of the joints of man, but especially in the wrist, where the chosen seats of the articular cysts are, on the anterior surface, at the base of the styloid apophysis of the radius, and between the interstices of the annular ligament over the anterior edge of the radius; on the posterior, over the radio-carpal articulation, between the ligaments joining the trapezoid and os magnum to the scaphoid and semilunar bones. They also affect the knee-joint, the instep, and the fingers. They are generally solitary, but several may coexist about the same or different joints. They vary from the size of a pea to that of an egg, and are always in connection with the joint. Due to overwork or over-exertion their course is generally slow and insidious; when they occur suddenly, after exercise, the joint has often been the seat of disease or injury, and Poirier says that they subside under repose and reappear after renewed exertion. Gosselin does not attribute sudden appearance to a true hernia of the synovial membrane, but to the extrusion between the ligaments of a cyst which has lain for some time unperceived below them. Dauchelle quotes some curious instances of the temporary disappearance of these tumours during fits of gout or of nephritic colic during successive pregnancies, and during residence abroad. Verneuil, Dupuytren, and Chassaignac met with cases which suggested aneurysm, but the diagnosis is seldom difficult; aseptic puncture may sometimes be resorted to. The only radical cure is extirpation; the tumour is exposed, the pedicle ligatured, and the parts outside the ligature excised, the stump touched with zinc chloride, and gentle compression applied after the wound is closed. But as this operation, even under the strictest asepsis, is by no means easy or free from danger in all cases, and as the prognosis of the tumour is benign. Other treatments should first be tried. Of these Dauchelle advocates: (1) Forcible rupture by the operator's thumbs; or (2) puncture, and the injection of 6 drops of tincture of iodine; one injection is generally sufficient, and the tumour disappears in from six to ten days. Excellent results have been obtained by both these methods followed by compression. Rupture should be tried first.—Lecourt (*Thèse de Paris*, No. 186) admits the follicular and hernial origin of these tumours, and also advocates treatment by injection of iodine, but holds that, with the advantages of modern antisepsis, extirpation should be carried out not only in cases where the cyst recurs after other treatment, but in the first instance, in the case of cysts which are very large or very distinctly pedicled.



**(297) Albuminuria in Gonorrhœa.**

COLOMBINI (*Suppl. al Policlinico*, 1897) has made a study of this subject in 372 patients suffering from acute gonorrhœa, 72 being complicated by epididymitis. In none of the cases had any drug been administered, and there was no evidence of cystitis or any disease likely to cause albuminuria. The pus was carefully filtered off and five different tests for albumen were applied to the filtered urine. Out of the 372 cases, albuminuria lasting from four to thirty days was found in 66, and of these 42 had epididymitis, 24 simple gonorrhœa. The author believes that an ascending nephritis could be excluded in his cases as also the influence of any drug, and on the whole he considers that the albuminuria was due to a process of general blenorrhagic infection, comparable to that which occurs in other infectious fevers.

**(298) Laparotomy in Tuberculous Peritonitis.**

VON MARCHTHURN (*Wien. klin. Woch.*, March 4th, 1897) records 19 further cases of this affection operated on by Chrobak. No patient died directly from the operation, but 1 succumbed the day after from inanition. Twelve patients recovered entirely from the peritonitis, but 2 of them died five months and two years respectively after the operation of pre-existing pulmonary disease. In 3 cases a second laparotomy was necessary three to seven months after the operation; 2 of the patients recovered completely, the third died of pulmonary tuberculosis five months later without abdominal recurrence. Two patients had been tapped before the operation; one of these was cured, the other could not be traced. Eleven of the cases were complicated with lung trouble: of these 3 died, 2 from the pulmonary affection, the abdominal mischief having healed, the third from exhaustion. All the 8 patients with sound lungs recovered. The author is thus disinclined to follow Spaeth in forbidding operation in patients with lung disease. In 6 cases there was tuberculosis of the generative organs; in 4 both sets of appendages were affected, but too tightly bound down by adhesions to be removed. In 3 of these the tumours disappeared after the operation; the fourth patient left the hospital relieved, but was then lost sight of. Of the other 2 patients, 1, who died the day after operation, had a tuberculous abscess of the left ovary; the other a tubo-ovarian cyst, which could not be removed, and which eighteen months later had given rise to no further trouble. Three cases had high temperature before operation; these did perfectly well, and in only 1 of the others did the thermometer register 100° F. after laparotomy. The diagnosis was invariably verified microscopically. The after-history was unfortunately deficient in 6 cases. Altogether out of 38 cases treated by Chrobak in the years 1887-96 by simple laparotomy, 21 (55 per cent.) were completely cured. The most rational explanations of these cures appear to be stimulation of the peritoneum and the removal of fluid from the abdomen; the former is the more generally applicable, as dry tuberculous peritonitis is equally adapted to the treatment. The author concludes by giving Chrobak's opinion that in tuberculous peritonitis medical treatment is useless, and tapping at best of but temporary service; incision, and if necessary, evacuation, of the abdominal contents afford by far the best chance of recovery.

## MIDWIFERY AND DISEASES OF WOMEN.

**(299) Operations for Retroflexion.**

KÜSTNER (*Volkmann's klin. Vorträge*, No. 171, December, 1896) has prepared a valuable statistical monograph on these proceedings which are condemned by many and strongly advocated by others. Of central fixation of the uterus 1,120 cases are recorded, 265 in multiparæ, 830 in parous women, and 25 in old subjects. In 637 the displaced uterus was found fixed by adhesions; 7 only died, 2 deaths being from direct obstruction. In most cases the results were noted as "good," but in at least 44 the displacement recurred; 122 became pregnant after the operation; pregnancy and labour were normal in 74. Amongst bad results in pregnant cases were 15 abortions and premature labours, 1 tubal gestation, 3 crossbirths, and 1 retained placenta. In 2 Cæsarean section was found necessary, and in 1 of these cases it was performed by the operator who had fixed the uterus. Twice as many bad results in pregnancy were noted after Leopold's as after Olshausen's method of ventrifixation. Of vaginal fixations Küstner has collected 376 direct, and 410 where the vesico-uterine fold of peritoneum was opened. The patients were—nulliparæ, 87; parous, 502; elderly, 24. The majority, 514, were in cases where the uterus was not bound down by adhesions, the reverse of the proportion in the ventrifixation series. Three deaths occurred. In 72 patients the displacement of the uterus recurred soon after operation, in 92 functional uterine disturbances followed: out of 46 who became pregnant, 23 suffered no trouble, 13 aborted, 5 had bad labours, and in 5 the retroflexion was found to return in the puerperium. Of Alexander's operation 120 are collected—in nulliparæ 26, in parous subjects 79, no statement 15. In as many as 100 the uterus was expressly stated to be free from adhesions, in only 3 was it noted as fixed, and in 1 of these 3 the adhesions were broken down as a preliminary operation (Schultze). Recurrence of the retroflexion occurred in 1

case during convalescence, in 12 later in 27 the result was expressly stated as satisfactory, but many after-histories were defective; 27 became pregnant; of these details are wanting in 2, whilst 20 had normal pregnancies, and 5 aborted. Küstner gives statistics of several other operations for retroflexion, but they are too limited to be of any practical value.

**(300) Fleshy Moles and Abortion.**

Neumann (*Monatsschrift f. Geburtshülfe u. Gynäk.*, February, 1897) publishes an important communication on a disease of the products of gestation already described by Breus in 1892 under the name of "tuberous subchorionic hæmatoma of the decidua." He concludes, however, that Breus simply described a form of the well known fleshy mole. The histology, as laid down by Breus, corresponds to that of other moles described in scattered papers by careful observers. Blood being irregularly extravasated under the chorion, that membrane is pushed inwards in an irregular fashion. Hence no doubt the term "tuberous hæmatoma" is not incorrect, but the same might be applied to most fleshy moles. Neumann concludes that the fleshy mole is undoubtedly a form of the process known as abortion, a fact long admitted, but he advises the obstetrician to remember that the pathological changes which produce it may occur at very different stages of pregnancy. Hence the precise time at which the arrest of normal pregnancy occurred cannot always be determined by examination of a fleshy mole.

**(301) Non-ligation of Umbilical Cord.**

Kellar (*Pacific Med. Journ.*, January, 1897) advocates non-ligation of the cord; he has practised it in more than 2,000 cases, and after careful observation of these and other cases summarises as his views: (1) Ligation in man is unnecessary because (*a*) it is not required at birth of any other animal; (*b*) the imagined necessity to prevent hæmorrhage does not exist; (*c*) to tie for cleanliness is superfluous; (*d*) it is unreasonable to consider such an imperfection as need of ligature exists. (2) Ligation is in many cases injurious, (*a*) because it may justly be considered the cause of secondary hæmorrhage; (*b*) by interfering with desiccation, and thus preventing separation, it gives rise to ulceration, with not infrequent consequences of erysipelas, fungoid excrescence, etc.; (*c*) it causes inflammation of funicular vessels by keeping them distended with unnaturally retained blood, hindering their normal obliteration, and laying foundation for phlebitis, jaundice, pyæmia, etc.; (*d*) by preventing normal escape of blood and thus causing hyperæmia and congestion of portal circulation, it may lay the foundation of numerous infantile affections apparently originating in congestion of these vessels. (3) Certainly in some, and probably in not a few, cases ligature has been directly fatal; (*a*) numerous fatal cases attributed to ligation have been recorded by the highest authorities; (*b*) it can be seen in the newborn that the ligature maintains the right ventricle in a state of distension, otherwise relieved by bleeding from the hypogastric arteries, and this prevents renewal of action if the heart has stopped, or hastens its stoppage if it is failing; (*c*) in many instances removal of the ligature has saved life when other remedies have failed.

**(302) Pregnancy after Hysteropexy.**

Gibert (*L'Obstétrique*, March 15th, 1897) is of opinion that ventral fixation of the uterus entails no trouble should pregnancy occur, provided that the anterior and upper part of that organ be fixed to the abdominal walls. The common error of operators is to fix the top of the fundus at the level of the insertion of the tubes, low down and close over the bladder. The cervix is thus brought upwards, lying unnaturally high and very far back. When pregnancy occurs it is only the posterior wall of the uterus that can develop. In one case, where the fundus was thus fixed, the fœtal head lay in a natural attitude, though the height of the cervix was awkward for the obstetrician. The shoulders, however, lay in a big pouch to the left, separated from the head by a kind of spur. This pouch was the left half of the back of the uterus, which had developed very irregularly. Turning was effected with difficulty; as the shoulders were delivered the uterus straightened itself, and it was found afterwards that it had broken away from its adhesions. The child was saved. When the front of the uterus is well opposed to the parietes, the entire organ can develop during gestation, the cervix is not inconveniently placed at labour, and the anterior adhesion remains intact after delivery. Gibert describes a case in which this satisfactory result ensued. Involution was rapid, whilst in the first case the detached uterus apparently maintained its deformed condition.

**(303) Guaiacol in Puerperal Eclampsia.**

J. F. R. Appleby (*Boston Med. and Surg. Journ.*, March 18th, 1897) prefers guaiacol in the treatment of puerperal eclampsia. He has used it in two cases with "surprising and happy" results. Forty or fifty drops were poured upon the abdomen and gently rubbed in. In a few minutes the pulse became soft, free diaphoresis set in, and the convulsions died away. In both instances, there was albuminuria and œdema, and in both the recovery was good. Guaiacol possesses the advantages of ease of application, certainty of action, and speedy relief of urgent symptoms. Its physiological effect is to cause rapid and marked lessening of arterial blood pressure, lowering of temperature, and free diaphoresis.

**(304) Extirpation of Cancer of Vulva.**

Koblanck (*Centralbl. f. Gynäk.*, No. 9, 1897), when operating for cancer of the vulva, removes not only the new growth and the whole of the affected labium, but also the femoral and inguinal glands on the diseased side. He has already performed this operation on three patients, but the date of the first case is not published, and the third was exhibited at a German society within a fortnight after the growth had been removed. Martin considered that Koblanck's practice was good surgery, but required the evidence of wider future experience.

## THERAPEUTICS.

**(305) Thyreoantitoxin.**

Grünfeld (*Wien. med. Blätter*, 1896, Nos. 49 and 50) has investigated the action of thyreoantitoxin in 3 cases of exophthalmic goître, 4 of obesity (1 complicated with eczema and 1 with psoriasis) 2 of bronchocele and 1 of simple psoriasis. In 7 of the cases the drug induced a marked diminution of the body weight, usually in a few days and after the administration of quite small doses: the subsequent decrease in weight was not proportional to the increased dosage. In one of the cases of exophthalmic goître, however, the body weight rapidly increased, while in another it remained practically stationary; it increased also in one of the bronchocele patients, who, however, suffered from bulimia. The author reserves his judgment as to the value of thyreoantitoxin in exophthalmic goître. In one case there was rapid improvement at first, followed by a severe relapse; the patient then left off the drug, the causal relation of which to the symptomatic variations consequently remains undetermined. The other two cases improved markedly under the drug, but in both of them there was already slight amelioration when the treatment commenced. The action of the thyreoantitoxin on the enlarged gland was in all cases the same, namely, a distinct softening of the lobes without any marked diminution in size. Its influence on the skin in eczema and psoriasis remains doubtful, as in the author's cases, in order to bring about a rapid improvement, the ordinary standard remedies were used at the same time: in two of the exophthalmic cases, however, it produced a marked inhibition of the sweat secretion, in one of them also considerable decrease in the pigmentation. With the exception of the relapse in one of the exophthalmic cases no unpleasant after-effects were noticed, though doses of 2 grains per day were in some instances administered. Grünfeld considers that his results show that thyreoantitoxin has considerable therapeutic importance, and that Baumann's view that iodothyrin is the only thyroid preparation of medicinal efficacy is thereby disproved.

**(306) A Mechanical Treatment of Pneumothorax.**

D'Alessandro (*Gazz. degli Osped. e delle Clin.*, February 7th, 1897), as the result of experiments on dogs and guinea-pigs with artificially produced pneumothorax, thinks that the best treatment of this condition is by means of a tube

or cannula with a valve opening only from within outwards. By this means he found that air issued only during expiration, and that none entered the pleural cavity during inspiration, hence the air was gradually removed. A drawing of the trocar and cannula advocated is figured. The author believes that this method of treating pneumothorax is not only safer than thoracocentesis but more efficacious.

**(307) Infantile Diarrhœa and its Treatment by Sterilised Water.**

WATU (*Thèse de Paris*, 1896-97, No. 40, ii), on the basis of cases treated in Grancher's service, advocates the treatment of infantile diarrhœa by a regimen of boiled water, cooled to a suitable temperature, and given in small quantities every hour or half-hour, or as thirst demands, to the exclusion of all food, for eight, twelve, or even twenty-four hours. By diluting the irritating secretions, dislodging the *débris* of decomposed alimentary matter retained in the folds of the mucosa of the canal, increasing the pressure in the blood vessels and dissolving the toxins attached to the formal elements, the ingested water carries away and eliminates the poison from the system, changes the morbid character of the stools and effects a reduction of the temperature and recovery, especially when administered in acute cases at their commencement and in children not very young.

**(308) The Treatment of Tuberculosis with Oxytoxins.**

HIRSCHFELDER, of San Francisco, has published a "provisional report" of a new treatment of tuberculosis and other infectious diseases. Having regard to the well-known objections to the administration of antitoxins in solution in the serum of animals, he has sought a method of preparing them directly from the toxins in the culture fluids, without the intervention of the animal body. He believes that the spontaneous cure of tuberculous peritonitis after simple laparotomy is due to the oxidation of the tuberculin in the peritoneal cavity. He therefore concludes that the oxidation of toxins produces antitoxin, and has investigated the action of the oxytuberculin manufactured by lengthened treatment of tuberculin with peroxide of hydrogen. At the same time, as tuberculosis is usually a mixed infection, he prepared an oxysepsin in a similar manner from the sputa of cases showing high fever. The quantities of these oxytoxins which could be injected without causing a local disturbance were enormous, reaching 60 c.cm.; the ordinary daily dose was, however, 5 c.cm. of oxytuberculin and 10 c.cm. of oxysepsin. The author adduces 8 cases in support of his treatment, for which he claims the following remarkable properties: Within a few days the cough and expectoration diminish, the appearance of the patient reverts to that of health, and the appetite returns. The temperature rapidly sinks to normal, the infiltration of the lungs disappears, and the tubercle bacilli in the sputum rapidly diminish, and eventually disappear. A year's use of this treatment by the author has been singularly satisfactory, particularly in early cases. He has also obtained promising results with similar oxytoxins in pneumonia, empyema, and streptococcus infection. He has also tried an oxidised carcinoma extract with effects sufficient to justify further investigation.

**(309) Carbonate of Soda.**

THUBERT (*Thèse de Paris*, No. 39, 1896-97) points out that, much in the same way as calomel is changed in corrosive sublimate, so the bicarbonate of soda is in the system converted into the carbonate; it is, therefore, better to administer the latter than the former; the whole amount ingested is utilised in the stomach, a smaller dose is required, and less sodium is introduced into the body.

## PATHOLOGY.

**(310) The Connection of Disseminated Necrosis of Fat with Injury and Disease of the Pancreas.**

KÖRTE (*Berl. Klin.*, December, 1806), in a lecture on the surgical treatment of inflammatory affections of the pancreas, gives the results of some experimental investigations he has recently made on the part played by morbid conditions and traumatism of the pancreas in the causation of disseminated necrosis of adipose tissue. This affection, which has been studied by many pathologists abroad, occurs in most instances in association with hæmorrhagic inflammation and necrosis of the pancreas. It is met with in the fat of the omentum, mesentery, and subperitoneal tissue, and around and also within the pancreas itself, and is characterised by minute deposits of a pale yellow colour, which show under the microscope fat detritus, crystals of fatty acids, and flakes of flatty salts. The author's experiments were of three kinds. In the first series he studied the results of mechanical injury of the pancreas and its vessels, and also of transplantation of small pieces of pancreatic structure in the peritoneal cavity. He then endeavoured to set up inflammation of the gland by the injection of irritating or infective substances. Finally he investigated the effects of injury on the pancreas after inflammation had been set up in this organ by artificial means. It was found that in animals the pancreas may be severely injured without producing any noteworthy reaction. Fat necrosis was occasionally observed after injury and artificially excited inflammation of the pancreas, and especially after laceration of the gland and transplantation of detached portions into the abdominal cavity. The intensity and extent of the degenerative changes were much less marked than in cases of fat degeneration observed in man, and there were no signs of tendency to local hæmorrhages so frequently observed in the latter. The results of experiments on animals, and also of *post-mortem* examinations of man, show that it is extremely probable that in many cases fat necrosis is a result of a morbid condition, either due to inflammation or injury of the pancreatic gland. It cannot be denied, however, that in some few instances fat necrosis may occur quite independently of any marked signs of disease in the pancreas. The association of disseminated fat necrosis with an inflamed condition of the pancreas is, according to the author, due in all probability to the passage along the lymphatics of bacteria or chemical irritants from the diseased and blood-sodden tissue of the pancreas into the adipose tissue of the abdomen. It is pointed out that in operating on the pancreas the surgeon should always endeavour to guard the surface of the peritoneum against contact with the pancreatic secretion. This may be effected by careful plugging of the abdominal cavity, or by making the operation as far as possible an extra-peritoneal one.

**(311) The Toxic Action of Acetylene.**

MOSSO AND OTTOLENGHI (*Rif. Med.*, January 23rd, 1897) give the results of experiments with this gas on dogs, guinea-pigs, and other animals. They found that acetylene has considerable toxic power. Small quantities of the gas sufficed to endanger the lives of the animals. Half a litre of the pure gas caused severe symptoms of poisoning in dogs, and even when mixed with air (20 per cent.) it proved fatal after an hour. If the gas was administered rapidly, the animals recovered when placed in free air, but if given slowly this did not occur, and the animals died. Large doses act chiefly by paralysing the respiratory function, and throughout paralytic phenomena preponderate.

**(312) Retention of Chlorides in Uræmia.**

BOHNE (*Fortschr. der Medicin*, February, 1897) has studied the results of retention of chlorides in the animal organism by experiments on mice and guinea-pigs. A concentrated solution of sodium chloride was injected under the skin of the abdomen, and it was found that a very small dose—for example, 2.8 g. per kilog. of body weight, produced more or less violent clonic and tonic spasms alternating with a semicomatose condition, as in uræmia, and in some cases death resulted. Clinically, a marked diminution of the output of chlorides was observed in cases of acute and chronic nephritis, and in some other conditions in which uræmia occurred. Analysis of the liver in a case where uræmia had preceded death showed marked excess of chorides in its substance, as if the diminution of chlorides in the urine during life were due to their accumulation in the liver. The writer considers that retention of probably plays an important part in the causation of uræmia, and that estimation of the amount secreted may give valuable assistance in prognosis.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

**(313) Circumscribed Meningitis.**

Wolf (*Berl. klin. Woch.*, March 8th, 1897) discusses the etiology of meningitis, and records a case of circumscribed meningitis complicating ear disease, and due to pneumococcus. An intracranial abscess was opened during life. At the necropsy there was an old thrombus in the transverse sinus, and a pial vein opening into it was blocked, producing a localised cerebral softening. There was a localised suppurative pachymeningitis and leptomeningitis in the neighbourhood, a chronic otitis media and inflammation of the mastoid process, and a recent broncho-pneumonia. A complete bacteriological examination showed that the disease was caused by the pneumococcus. The point of entry was the ear. The limitation of the meningitis was due to the diminished virulence of the pneumococcus. Among 174 published cases of meningitis, there was only one with a circumscribed meningitis and encephalitis due to the pneumococcus. In sixty cases the diplococcus intracellularis was found. According to Jaeger this meningococcus is the cause of genuine cerebro-spinal meningitis. The author distinguished carefully between the pneumococcus in his case and the meningococcus. The latter is non-pathogenic to mice. He thinks that the pneumococcus and meningococcus are the chief producers of cerebro-spinal meningitis, and that other micro-organisms, especially the pyogenic cocci, play the causative part in only a few cases. In circumscribed meningitis the pneumococcus has up to the present alone been found. A general infection by way of the blood must be distinguished from a local infection arising from some region in the neighbourhood of the skull. One of the most frequent modes of infection is that the micro-organisms gain access from the naso-pharynx through the Eustachian tube into the middle ear, and thence into the cranial cavity. The author thinks that in a large majority of cases of metapneumonic meningitis the pneumococcus gains access by this route, and only in a few cases by way of the blood.

**(314) "Tic Douloureux," Facial Neuralgia, and Migraine.**

Gilles de la Tourette (*Sem. Méd.*, June 24th, 1896) describes some typical cases. (1) Tic douloureux and neuralgia. From a therapeutic point of view it is most important to distinguish two classes of facial neuralgia: the first transitory and usually due to cold and peripheral irritation, the second refractory and perhaps incurable. First form: The pain during attacks is less intense, but is seldom entirely absent between them. The onset is sudden, then there is an acme and a decline. Second: Tic douloureux is completely paroxysmal, pain being entirely absent in intervals; its maximum intensity is reached quickly, and it ceases as suddenly as it came, the whole attack being of short duration. There may be ten to one hundred attacks in the day, which are often brought on by physiological acts, such as blowing the nose, laughing, mastication, etc., or come on spontaneously. The patients compress the painful spot, and the face is contorted. Secondary vasomotor symptoms are injection of the eye, œdema of eyelids, discharge from one nostril, etc. If the lingual nerve is affected the mouth fills with a copious secretion. Herpes along the nerve is common. Most often the neuralgia lasts some time (weeks or months), and then vanishes completely for a period. However, as age advances these intervals tend to become shorter and the painful periods longer until the disease is permanent. A hysterical form can be distinguished from the true by the irregular occurrence of the attacks, perhaps one a day and then no more for some time, by the actual duration being longer, by the usual presence of an aura, and by terminating frequently with hysterical convulsions, which latter are never provoked by true tic, though hysteria and tic may coexist. Hysterical neuralgia is curable by suggestive treatment. Treatment: The first form of neuralgia is always benefited by analgesics (antipyrin, phenacetin, hydrobromate or valerianate of quinine): the second, or true tic, is quite uninfluenced by them. The only drug which can be relied on in the latter is opium in large doses. The author gives it in pills containing 2 centigrammes of the thebaic extract of the French pharmacopœia, made freshly and not too hard. Three a day are given at first, and the effect being carefully watched one pill is added every other day until the desired effect is produced. Trousseau gave in one case 14 and 15 g. a day. This dose is continued for a few days, and then diminished by one pill every other day. Prognosis: The attacks cured for a time almost always recur, and intolerance of opium is usually more marked during a second than in the first course. Still it is the best drug unless syphilis is present, when antisyphilitic treatment is indicated. (2) Migraine differs radically from trigeminal neuralgia; the two may coexist in the same person and be quite distinguishable. The treatment of severe cases, accompanied by aphasia, etc., used by the author succeeds where antipyrin and even opium fail. Bromides are given as follows: Starting with 2 g. a day for a week, the daily dose is raised by 1 g. every week, and after a time reduced progressively by the same amount, when it is again increased. Up to 7 g. a day may be tolerated. By this means migraine of years' standing may be completely cured, but the treatment must be absolutely continuous, and may extend over more than a year. Thus it is not suitable for slight cases, owing to the inconveniences attendant upon long course of bromides, and is useless during the attack. As an aid to treatment alcohol is forbidden. The treatment is the same as for epilepsy, and the author considers migraine to be a neurosis.

**(315) Acute Dilatation of the Heart following Exertion.**

Schott (*Berl. klin. Woch.*, March 22nd, 1897) showed in the Verein für Innere Medicin some skiagraphs of acute dilatation occurring in children of 12 to 14 years old. The position of the nipples was marked by little plates of lead attached with wax to the children's nipples before the skiagraphs were taken. The dilatation was most marked in the left ventricle. The children had been allowed to wrestle with each other until dyspnœa commenced, in some cases also wearing a belt, which compressed the abdominal blood vessels.

## SURGERY.

**(316) Total Exclusion of Intestine.**

Heydenreich (*Sem. Méd.*, March 19th, 1897), in reviewing this operation, states that when applied solely to the large intestine exclusion with complete closure of the excluded portion has often no ill-effects. Partial exclusion with an artificial fistula is to be preferred. Total exclusion may save the patient from the inconvenience of a fistula, but a second operation to make a fistula may at any time become necessary. Favourable cases for total exclusion are those in which the secretion in the excluded portion becomes slight. But it is in these that the partial operation is least objectionable. When the secretion is abundant total exclusion is out of the question. At any time if the secretion becomes slight the fistula may be closed. The operation of exclusion is only palliative, but is very useful in cases in which the danger of resection would be too great. When the patient is too weak to bear a long operation the ordinary operation for entero-anastomosis may be done. This, however, leaves a diverticulum in which intestinal fluids accumulate, and as this is at the very seat of the lesion for which the operation is performed the inevitable contact of the part with irritative fluids is a complication. Exclusion is therefore, from this point of view, the better operation. In such a case as cancer of the rectum the operation is preliminary to a more radical one, and after the establishment of an artificial anus tumours have been known to shrink so as to make an unhoped for removal possible. Lesions of the cæcum and colon are the most favourable and frequent indications for the operation. When performed on the small intestine results are much less favourable.

**(317) Operation for Elephantiasis scroti.**

Havelock Charles (*Indian Med. Rec.*, No. 5, 1897) describes a method of operating in cases of elephantiasis of the

penis and scrotum, in which, after removal of the diseased structures, the large wound occupying the anterior half of the perineum is covered by healthy skin taken on either side from the inner surface of the thigh; these flaps are made by a sliding of the skin, and are not cut, lifted up, and planted down in the usual way. Retraction of the flaps is prevented by quill sutures formed by strong silk twist secured over glass rods. The author claims several advantages for this method. As the wound is covered by skin, the patient is less liable to septic absorption. The healing is completed rapidly, the wound being quite closed in eight days. The flaps are continuous on and around the base of the penis, which organ remains free, and is not bound down by granulations, and, subsequently, by dense cicatricial tissue. The average period of after-treatment is much diminished—from 70 to 30 days, and there is, consequently, less crowding of the wards. The mortality of the operation, it is held, may be thus much reduced. The author appends a table of 60 consecutive operations performed by himself without a single death. These cases, he asserts, were not selected, but embraced the usual run of anæmic patients, some of whom suffered from splenic enlargement.

**(318) Splenectomy.**

Jonnesco (*Progrès Méd.*, No. 12, 1897) reports two instances of successful removal of a malarial spleen. The operation of splenectomy, this surgeon holds, is indicated in such cases in the absence of leukæmia, of extensive adhesions of the organ, and of well marked cachexia, whenever medical treatment has failed. The indications for surgical treatment need not be influenced in any way by the size of the spleen. The author in removing a malarial spleen breaks down in the first place the adhesions, both normal and pathological, which fix the organ to the diaphragm, any large vessels being divided between two ligatures. After the upper extremity of the enlarged spleen has been completely liberated, the organ is withdrawn from the abdominal cavity, and the vessels of the pedicle are carefully isolated and tied one by one. From observations on his two patients after splenectomy, and also from experiments on dogs, the author has found that for some few days after the operation there is an enormous relative increase of white corpuscles, but that subsequently the proportion between the white and red corpuscles becomes normal. It is stated with regard to the poisonous effects of the urine of a malarious patient as proved by injection into the veins of the dog, that this fluid is hypertoxic during the febrile accessions, and toxic in a normal degree during each interval. After splenectomy it remains hypotoxic, a fact indicating that the spleen plays a prominent part in the elimination and elaboration of toxins. Reference is made to 5 other cases of splenectomy recently under the author's care. Four of these were instances of enlarged spleen in association with malarial fever, and the fifth one of very large suppurating hydatid cyst. In all but one of these cases the operation resulted in speedy and complete recovery.

**(319) The Cause of Pain in Chronic Appendicitis.**

Byron Robinson (*Annals of Surgery*, p. 712) believes that the occurrence of pain in chronic cases of appendicitis depends on whether the appendix is or is not fixed to the underlying psoas muscle. If the appendix is adherent to the psoas, any movement of the muscle irritates it and sets up appendicular colic. This pain is not accompanied by any degree of fever or other disturbance. If the appendix is out of the line of activity of the psoas, the patient can walk or ride without pain. The author finds that in 70 per cent. of bodies examined by him there are signs of past peritonitis around the cæcum and appendix.

**(320) Coloured Spectacles.**

Pergens (*Klin. Monatsbl. f. Augen.*, February, 1897) finds that smoked or neutral glasses allow red rays to pass through more easily than other rays, and for that reason they are not to be recommended as protecting glasses, the red rays causing most irritation of the retina. For the same reason, ordinary blue glasses are also faulty; whereas a combination of a dark blue-green glass with a Number 6 blue glass, excludes red, and is to be recommended. In measuring smoked and blue glasses he takes as unity the weakest glass which at one metre does not transmit the light of a Hefner amylacetate candle. Contrasting glass and rock-crystal, he remarks that glass absorbs much more of the ultra-violet rays, and is therefore to be preferred for cataract glasses.

## MIDWIFERY AND DISEASES OF WOMEN.

**(321) Etiology of Mastitis.**

Rudolf Köstlin (*Arch. f. Gynäk.*, Bd. liii, Hft. 2, 1897) discusses the question of the relation between the germs contained in human milk and the production of mastitis. He has investigated bacteriologically the milk from the breasts of 100 pregnant women, of 137 patients in the puerperium, and of 60 children. Micro-organisms were found in the milk in these groups of cases in the proportion of 86, 91, and 75 per cent. With few exceptions these were of the nature of staphylococci, and especially the staphylococcus albus. The immigration of bacteria takes place from the outside from the mammary areola; their entrance along the line of the blood current has not yet been satisfactorily established. The entering germs are relatively innocuous; they injure neither the mother nor the infant. Mastitis without micro-organisms does not occur. The infection in mastitis takes place from the outside along the line of the lymphatic vessels from injuries in the skin. The result is the development either of the ordinary form of mastitis due to the invasion of staphylococci, especially the staphylococcus aureus, or of the much rarer form of pseudo-erysipelas and of retro-mammary abscesses caused by streptococci. These conclusions are supported by bacteriological, clinical, and pathologico-anatomical evidence. Mixed infections are, of course, quite possible. A metastatic mastitis developed along the line of the blood current has not yet been certainly established. The paper closes with a useful bibliography of eighty references.

**(322) Direct Insufflation of the Newborn with the Stethoscope.**

G. Fieux (*Rev. Obstét. Internat.*, February 21st, 1897) proposes the ordinary stethoscope as a means of resuscitating stillborn infants. Insufflating tubes, such as that of Ribemont-Dessaignes, are not always at hand, and, even when available, are not easy of introduction, but all medical men and midwives carry a stethoscope. Further, the stethoscope can be easily applied, and has been proved to give satisfactory results. The broad, bell-shaped end of the instrument is placed over the mouth and nose of the infant, fitting closely thereto like a mask. Through the other end, held in the left hand, the accoucheur blows air into the lungs, whilst he aids expiration by compressing the chest with the right hand after each insufflation. The head of the infant is kept in an extended position. It is difficult to understand wherein this method excels the ordinary methods of establishing respiration in cases of stillbirth, some of which—for example, Schultze's method—require no apparatus at all.

**(323) Disturbance of Lactation.**

Angel Money (*Australasian Med. Gaz.*, January 20th) maintains that the custom of weaning newly-born children is too prevalent, and too few attempts are made to correct the milk when at fault. A thorough investigation of mother and milk should be made, and the quantity and quality of the latter determined and the percentage of fat and proteid, which are the only variable factors, ascertained. Bad milk contains toxic matters, albumoses, and leucomaines, albumen being plentiful but of the wrong kind, while the percentage of fat is defective; colostrum corpuscles are present and may be numerous. The most successful milk is that of mothers desirous and confident of ability to nurse. Exercise can diminish percentage of proteids, and a moderate amount of beef or mutton can increase percentage of fats; these facts are seldom acted upon. A poor milk may be enriched by improving the maternal dietary, giving more meat and more milk, diminishing exercise, shortening intervals of nursing, and diminishing amount of liquids imbibed. Rich milk may be diluted by lengthening the intervals of nursing, decreasing the amount of meat eaten, increasing

exercise, augmenting fluid drunk; drinking rain or distilled water, Helidon, or Vichy water midway between the nurslings is an excellent practice. Colostrum corpuscles present after the first fortnight signify defective formation of milk. It is unjustifiable to diminish the water in poor milk by purgation, which may stop milk flow or may even cause the milk to contain toxic substances. The breast pump is not sufficiently used to improve the function of lactation; it should replace the baby while attempts are being made to improve the milk. The more perfectly-formed the milk is, the more caseinogen and less albumen it contains; however great the percentage of caseinogen, it never in the stomach forms dense clots as formed by cow's milk. It is a mistake to suppose that stout or porter improves milk. Another error is the belief that beef-tea and chicken broth are good for nursing mothers. Excitement, fatigue, and overfeeding should be avoided; also highly-spiced, rich, or stimulating foods. The bowels should be regulated by proper dieting and massage or exercise rather than by laxatives, and it is highly desirable that there should be at night uninterrupted sleep for six hours for mother and child.

**(324) Osteomalacia and Opotherapy.**

Senator (*Berl. klin. Woch.*, February 15th, 1897) concludes an article on this subject. In commenting upon a case treated with thyraden and oöphoirn, he observes that although there was considerable improvement in the subjective symptoms, and also in standing and walking, yet the good results are not altogether to be attributed to the organotherapy. The hygienic conditions of the patient were much improved. During the treatment the patient lost weight, and excreted more nitrogen than formerly, but the excretion of lime salts was considerably diminished during the period of treatment with oöphorin. Fehling observed a similar decrease in a case where Porro's operation had been performed. Neumann also noticed a like diminution during the period of improvement. The excretion of phosphoric acid ran parallel with that of the lime salts during the thyraden treatment. In the author's case it was observed that improvement also occurred at a time when there was no diminution in the excretion of lime salts. The increase during the oöphorin treatment was not due to any lime salts present in the oöphorin tablets. Probably the increase in the solid constituents of the urine was due to the increased diuresis. It has been proved that increased nitrogenous excretion results from increased albuminous decomposition, and further, that increase in the alloxuric bodies in the urine and augmented diuresis are the results of thyroid treatment. The excretion of lime salts may thus also be increased. Of the action of oöphorin on metabolism, there are few, if any, details. The author's investigations require further confirmation. The oöphorin used here would appear to act upon metabolism like thyroid preparations with the exception of the lime salts, but in a less marked degree. In eighteen cases the oöphorin was well borne, and there was no palpitation, no increase in the pulse-rate, and no albuminuria, nor yet any alimentary glycosuria. The author thinks that oöphorin is worthy of further therapeutic and experimental investigation.

**(325) A Pedunculated Fibroma of the Broad Ligament Simulating a Large Salpingitis.**

Under the above title Sibut reports (*France Méd.*, January 22nd, 1897) the results of a necropsy upon a woman who had died of phthisis. The uterus was of normal size, and carried an intramural fibroid projecting from its anterior surface and left side. The left tube was thickened and cystic at its outer end. The left ovary was surrounded by an inflammatory zone; it was cystic and was grooved on its outer surface for the reception of a pedunculated fibroma of the broad ligament as large as a chestnut. The fibroma was attached to the ovary in a way similar to that of the head of the humerus and the glenoid cavity. The pedicle was twisted. The right tube was dilated at its outer end and the right ovary was cystic. There had been no pelvic symptoms during life. Probably everyone would have concluded from an external examination that the fibroma of the broad ligament was a salpingo-ovaritis. The inflammatory lesions were probably tuberculous.

**(326) Missed Labour: Four Years' Retention of Fœtus.**

Resnikoff (*South Russian Medical Journal*, No. 12, 1896) removed from the uterine cavity the skeleton of a 7-months' fœtus four years after its death. At the seventh month of the pregnancy the patient suffered from some febrile malady. Labour did not follow, and constant purulent discharge troubled her till the fœtal remains were removed; a few small bones came away occasionally in the discharge. The uterus was large, but movable. The parametrium and appendages were healthy.

## THERAPEUTICS.

**(327) Airol, Dermatol, and Iodoform.**

Haegler (reprint from *Beiträge zur klinischen Chirurgie*, xv, 1) reports the results of a comparative chemical, physiological, bacteriological, and clinical study of these antiseptic powders. The replacement of antisepsis by asepsis has lessened the field of usefulness of iodoform, the most particular indication for which is found in the case of tuberculous abscesses. Dermatol, a compound of bismuth with gallic acid, is more valuable for its astringent than for its antiseptic qualities. Lüdy conceived the idea of forming a compound of dermatol with iodine, and thus airol was produced as a tasteless and odourless powder, unaffected by light, and containing 44.5 per cent. $Bi_2O_3$ and 24.8 per cent. of iodine; its colour is grey-green, but moist air, or the discharge from a wound, rapidly converts it into a red substance, with liberation of iodine. It is insoluble in ordinary reagents, but readily dissolves in strong caustic soda or weak mineral acids. Haegler's first experiments related to the toxic effects of these antiseptics, weighed quantities of which were injected under the skin or into the peritoneal cavity of animals. The lethal subcutaneous dose of dermatol was 5 to 6 g. per kilog. of body weight, of airol 3 to 5 g., of iodoform 1 g.; intraperitoneally the respective doses were 1.2 to 2 g., 1.2 to 2 g., and 1 g. Airol and dermatol both killed by chronic bismuth poisoning; nevertheless, out of over 2,000 patients treated with airol by the author, not one showed a single sign of bismuth intoxication. The three drugs were next administered to animals in food, and here again it was found that iodoform was by far the most toxic, although the amount taken was the smallest owing to the subjects being repelled by the smell. With regard to dermatol and airol, the latter was the less poisonous, and it was noticed that both were better borne by carnivora than herbivora. In fatal cases of dermatol poisoning perforation of the stomach was frequently observed; this was not seen in animals killed by the administration of airol. Haegler finds that the delay in the growth of organisms produced by airol is slightly greater than that resulting from iodoform, and infinitely more than the effect of dermatol. It is found that the influence of antiseptic powders is greater the earlier their use is commenced; in acute phlegmonous processes, however, they do but little good, while the more chronic the inflammation the better the results obtained, whence their special indication in tuberculosis. The two great advantages in this respect which airol has over iodoform are, first, the fact that a small quantity of its iodine is liberated immediately it comes in contact with the tissues, and, secondly, that the presence of bismuth exercises a powerful desiccating influence upon the secretion, thereby greatly aiding antisepsis. With regard to the preparation to be used, both iodoform and airol are disintegrated by attempted sterilisation, but the powder is a perfectly safe form if dust is carefully excluded. The author also uses airol gauze (20 per cent.) as a dry dressing, and describes its effect in producing a small, hard scab in one to two days as marvellous; it value is particularly striking in superficial lesions, such as ulcers and burns. In tuberculous abscesses the form employed is a 10 per cent. emulsion in equal part of glycerine and water. A final point in favour of airol is that it is extremely bulky, being four times as light as iodoform, and twice as light as dermatol.

**(328) The Electrical Treatment of Psoriasis.**

Chatzky (*Archives d'Elect. Méd.*, January, 1897) records the case of a medical man, aged 32, suffering from severe

psoriasis of four years' duration. The head was covered with dry scales, and itched intolerably; it was indeed the seat of the first manifestation of the disease. The rest of the body showed numerous patches of psoriasis, most marked in the usual seats of election. The condition had somewhat improved with salicylic acid, but had soon relapsed; mercurial ointments were ineffectual, and cold douches aggravated the affection. The general condition of the patient was bad. Digestion was impaired, and constipation obstinate; the nervous system was obviously at fault. There was frequent and violent migraine, vertigo was often present, there was much "nervous" twitching, with muscular weakness and exaggerated reflexes. Sleep was heavy but unrefreshing, and there was marked depression of spirits. Chatzky came to the conclusion that the patient was affected with the cerebro-spinal type of neurasthenia, and that the condition had seized especially upon the sympathetic system, producing vaso-motor disturbances, the result of which was manifestated in the psoriasis. He accordingly determined to try the effect of static electricity. An electrostatic bath and an electric fan were given for twenty minutes; the electric wind was directed first upon the loins and the dorsal spine for five minutes, then over the cervical sympathetic ganglia for five minutes, and finally over the forehead for ten minutes. Three sittings a week were given for three weeks; then the electric wind was directed upon the neck for three minutes and upon the forehead for five, the rest of the time being occupied with an electric douche to the head. At the same time the amount of food was cut down, and beef specially prohibited; the bowels were kept well open, and plenty of fresh milk given. In the course of two months and a-half, including twenty-nine sittings, the patient was completely cured, and was exhibited at the Dermatological Society. The migraine only recurred once after commencing treatment.

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**(329) Meat Extracts.**

Voit (*Münch. med. Woch.*, March 2nd, 1897) discusses the value of meat extract as a nutritive and flavouring or appetising agent. Meat extract is nothing more than concentrated broth of the consistency of honey. It contains all the constituents of meat which are soluble in water. One kilogramme of pure meat yields 31 g. of extract, and 241 g. dried meat 25.2 g. Meat extract in the market contains 19 per cent. water, 58 organic matter, and 23 mineral salts. It thus contains very little nutritive material, and is chiefly an appetising agent. These flavouring agents form, however, an important factor in feeding, and meat extract is one of the best of them. Recently some have attributed a not inconsiderable nutritive value to the soluble albuminous products present in meat extract, but the most important question lies in how much nutritive material is contained in such extracts. In 10 g. meat extract, which represents a considerable dose, there is at most 2 g. of soluble albuminous products, and this amount is extremely small when compared with the 118 g. required by the healthy individual. Albumen, fat, meal flour, etc., have been added to meat extract in order to increase the nutritive value. No direct addition of nutritive agents to meat extract is desirable. The healthy individual should not take the meat extract for its own value, but should take it in addition to other food stuffs which contain a sufficiency of nutritive products. An individual who cannot tolerate ordinary diet should take meat peptones or other peptone preparations in which albumen is already dissolved. It is better to employ meat extract alone as an appetising agent, without directly adding to it other nutritive constituents.

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**(330) The Active Principle of the Thyroid.**

Spoto (*Giorn. dell'Assoc. Napol. di Medici e Naturalisti*, Anno vi, 526) believes the chief function of the thyroid is antitoxic, for, as the result of his experiments on dogs, he found that after removal of the thyroid the urotoxic coefficient rose to nearly double. The toxicity of the blood serum also increased after thyroidectomy. The thyroidin of Baumann, when given to athyroidised dogs, caused the urotoxic coefficient to return almost to the normal, and relieved most of the nervous symptoms. Glycerine extracts of the gland were, however, much more effectual in treatment, especially with regard to the wasting, over which symptom thyroidin had very little effect. Hence the author concludes that although thyroidin is doubtless one of the active antitoxic principles in the thyroid, there are probably other derivatives of therapeutic value which have not yet been isolated.

## PATHOLOGY.

**(331) Fever.**

Loewy and Richter (*Berl. klin. Woch.*, March 1st, 1897) discuss the healing action of fever. Recently the dangers in connection with pyrexia have been shown to be overrated. There is more danger in the infection than in the mere rise of temperature. Some investigators have shown that animals kept in a raised temperature, and then inoculated, have done better than the control animals, but artificial heat can hardly be compared with fever. The authors have trephined animals and punctured the corpus striatum, and during the ensuing pyrexia have made inoculation experiments with the pneumococcus, the micro-organisms of hen cholera and swine fever, and the poison of diphtheria. Even this pyrexia is not exactly comparable to the fever of infection, although it may resemble aseptic fever. The inoculation was made when the temperature was 41° C. The animals previously trephined lived longer than the control ones, and some even recovered when inoculated with a certain lethal dose. The best results were obtained with the pneumococcus, the least with the micro-organisms of hen cholera. In no case did the trephining and puncture do any harm, but the animals had to recover from the operation as well as the infection. The results of these experiments are only applicable to acute infective processes, and not to chronic ones like phthisis. Thus too much importance must not be attached to pyrexia, and antipyresis may at times be absolutely harmful. But antipyretics also act as nervine tonics, and may be of service in this respect. Agents like quinine in malaria, salicylates in acute rheumatism, act upon the cause of the disease, and hence these considerations do not apply here. The value of hydrotherapy lies in its action on the nervous system, circulation, and respiration. It also produces hyperleucocytosis, which is of importance in combating infection. The authors do not say that the pyrexia is never to be treated, and it may even be desirable still to discover antipyretics which have a soothing action on the nervous system. A successful development of the treatment of the cause of the disease can alone make antipyretics of no practical value. Perhaps it is even desirable to find out pyretic remedies such as raise the temperature, but hitherto this search has been fruitless.

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**(332) Death from Burns.**

Sigmund Fraenkel and Spiegler (*Wien. med. Blätter*, 1897, No. 5) hold that the cause of death from severe burns is intoxication by pathological cleavage products of the body proteids, which are caused to break up into abnormal and poisonous compounds. Freund and Reiss have shown that the urine of badly-burnt patients contains pyridin, which Fraenkel has obtained by the decomposition of deutero-albumose with sulphuric acid. It hence seems possible that the body proteid may break up in a similar manner under the influence of heat. The authors have investigated the urine in 4 cases of fatal burns, and found it to contain invariably three abnormal constituents. The first is a series of bases of the pyridin type; the second is, or is closely allied to, cysteine; and the third reduces alkaline copper sulphate, does not ferment, and appears to be optically inactive. This latter seems to belong to Pavy's group of carbohydrate derivatives of proteids. The cystein is completely precipitated by corrosive sublimate, and contains a large amount of sulphur, giving a black precipitate with lead. The urine was free from albumen and nucleo-albumin. The author's theory requires for substantiation the artificial preparation of these substances from proteid and the study of their effects upon animals. Meanwhile an important clinical fact seems to be that their presence in the urine is of grave prognostic import, for one of the cases did not appear at first to be of great severity, although it terminated in death.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

### (333) Appendicitis.

Talamon (*Médecine Moderne*, No. 29, 1897) declares on reviewing the statistics that the mortality of appendicitis appears to be greater after operation than without it, and not entirely so because severe cases are not left to medical treatment, for the figures of Porter and those of Richardson show a mortality of 13 to 15 per cent. in cases not operated on. Statistics cannot decide whether some patients would not have got well without operation, or whether others were not made worse or even killed by it, but they show that the axiom that every appendicitis should be operated on cannot be accepted, and that the indications and chances for interference must depend on the clinical aspect of each individual case. Talamon cannot be accused of systematic hostility to surgical treatment, of which he was an advocate when no surgeon in France would interfere unless it was evident that there was a fluctuating collection of pus in the right iliac fossa, and he thinks the results of 80 cases he has had in hospital and private practice since 1890, interesting as regards (1) the clinical forms of the disease; (2) the question of relapse and recurrence; and (3) the value of medical treatment and the proper time to interfere. These 80 cases comprised 16 of chronic recurrence, a percentage (20 per cent.) that would be somewhat higher were not a few cases, of which he had not preserved the details, omitted from his statistics; but there is no difference of opinion on the treatment of chronic recurrent appendicitis. Of the 64 acute cases 30 were partial fibrinous (plastic) peritonitis, and 13 simple parietal appendicitis; the others comprised 14 cases of localised suppurating peritonitis, and 7 in which the peritonitis was diffuse from the beginning; there were thus 43 medical forms of the disease to 21 surgical. These are the proportions which ordinarily occur, so that about two-thirds of the acute cases of appendicitis do not come within the province of surgeons at all, a fact which should modify their dogmatic assertions on its treatment. When the peritonitis is diffuse from its onset (7 cases fatal between sixth and tenth day) the outbreak takes place suddenly during perfect health, and the patient is foredoomed, there is no possibility of foresight, and early intervention and cure. Operation or necropsy discloses an obliteration of the appendix by large rounded scybala, beyond which there is gangrene, with one or more perforations. Intervention could hardly be earlier than two hours after the onset, as in one of Richardson's cases, and six hours in another; they ended 27 and 36 hours afterwards, and in each a serous fluid with fæcal odour found in the peritoneum gave pure cultures of B. coli. MacBurney has published 14 recoveries out of 24 cases of diffuse peritonitis after incision and lavage, but from the details it does not seem clear that the peritonitis, though extensive, was general in anyone that got well. The differential diagnosis is not easy in the early stages; muscular rigidity may be more marked and the inflation more complete in a sudden diffuse attack than in one which though extensive is limited, but the difference is only one of degree. The frequency of the small, weak pulse is perhaps of most value, if permanently above 120 in an adult or 130 to 140 in a child, the diffuse form is suggested. Pain, vomiting, and fever, and sometimes even spasm of the abdominal walls, or paralytic distension and meteorism may occur in either case. It is better to defer operating in cases of intense peritoneal inflammation. If the attack be already diffuse no harm is done by delay; if otherwise and generalisation is simulated by the intensity of the inflammation and consequent nervous reaction, the operation may be avoided altogether, or in two or three days, when limitation is established, there will be less risk of changing a local mischief into general peritoneal suppuration, as has often been done, especially in children, by premature intervention. Of the 14 cases of perityphlitic suppuration, 8 recovered after operation, 4 after rupture of the abscess and evacuation by the intestine, 1 was beyond hope when admitted, 1 lost sight of. Cure is possible without operation, therefore, in these cases by spontaneous evacuation, but delay entails all the dangers of the perityphlitis of old, purulent sinuses in every direction, pyæmia, phlebitis, thrombosis of the iliac and portal veins, emboli, abscess of the liver, dangers unfortunately not unknown even at the present day. Once the diagnosis of local suppurating appendicitis is established the surgeon should be called in; the most favourable time to operate is during the comparative quiescence after the outbreak and before the fever of suppuration, when limitation is defined; and, provided no attempt be made to resect the appendix, the risks of the operation are reduced to those of opening an abscess.

### (334) Spastic Paralysis and Inherited Nervous Diseases.

Jendrassik (*Deutsch. Arch. f. klin. Med.*, vol. 58, p. 137) doubts the alleged primary degeneration of the pyramidal tracts as the cause of spastic paraplegia. He believes the process may commence at the cells of origin, and that one may speak of a diplegia (spastica) cerebralis, bulbaris, or spinalis, according to where the degenerative process commences. Some of the spinal cases may be due to a mild form of disseminated myelitis, which after some time heals up, leaving only the rigidity behind it. Many of these cases are syphilitic, and may heal up even without specific treatment, leaving, however, the affected structures more or less permanently damaged. The position of the disease is usually easier to recognise when high up in the motor tracts; examples of such cases in children are the traumatic affections occurring at birth, and the infectious encephalitis of childhood, which may lead to porencephalus, lobar sclerosis, etc. Little's cases are those due to asphyxia at birth or to premature birth. Necropsies have proved the possibility of injuries to the brain arising from extreme asphyxia at birth; in premature children the brain (almost diffluent in the fœtus even at full term) is especially susceptible to injury. Jendrassik does not believe in the alleged explanation that the pyramidal tracts, because imperfectly developed in premature children, fail to become normally developed after birth. The author then proceeds to describe some family groups where in early life a form of spastic paralysis has developed in more than one member of the same family. He compares his groups of hereditary spastic paralysis with groups described by other observers, and points out that although different cases in the same family closely resemble each other, there are wide differences between the types observed in different families. Some of these family groups have points of resemblance with Marie's hereditary cerebellar ataxy, others with Friedreich's disease, others more so with Huntington's hereditary chorea, with hereditary progressive spinal amyotrophy, with hereditary juvenile amyotrophic lateral sclerosis, with hereditary juvenile bulbar paralysis, with the "Charcot-Marie type" of cases, and even with the severer cases classed as hereditary senile dementia and hereditary idiocy. Jendrassik holds the opinion that all these types of hereditary nervous affection (degeneration or combined scleroses) run into each other. The different cases cannot be exactly classified on any anatomical basis, since the variations in type are almost infinite between the different family groups, though the different cases observed in any one family may be almost identical with each other. Perhaps all the different groups of cases might best be described as a single affection, namely, hereditary (family) nervous degeneration, having the type of progressive amyotrophy, or of spastic paraplegia, or of Friedreich's cases, etc.

### (335) Intestinal Lithiasis and Intestinal Gravel.

Dieulafoy (*Bull. de l'Acad. de Méd.*, March, 1897) mentions that Laboulbène published the first description of this disorder based on 6 cases. The author gives details of 4 cases of his own, 2 observed by Matthieu, and 2 published by Mongour and Oddo respectively. As regards the composition of the sand, there is an organic element chiefly stercoral in character, and an inorganic one represented by calcic and magnesic salts, with a trace of silica,

etc., but there is no cholesterin. Thus there is a difference from biliary calculi. Calculi of mixed composition originate in the gall bladder, but they are very rare. Intestinal lithiasis is frequently associated with membranous enteritis. The intestinal sand mostly appears at the same time as the enteritis, but sometimes the enteritis precedes the lithiasis. The author is of opinion that intestinal gravel should in many cases be classed among the manifestations of the gouty diathesis, and he relates 4 cases of his own and 1 of Laboulbène to show the close relation with gout. In one case biliary lithiasis alternated with or occurred at the same time as the intestinal lithiasis. In another case there had been gouty manifestations, eczema, asthma, renal colic, etc. In a third case attacks of gout, renal colic, and intestinal gravel were observed. All cases of intestinal lithiasis are not of a gouty nature. As regards symptoms, the passage of the foreign body is more or less painful. Sometimes the attacks of pain may be so severe as to simulate biliary colic or appendicular colic. No distinct locality can be assigned to the pain. The attack does not always begin suddenly, but there may be previous discomfort. Abdominal tympanites is one of the most common preliminary symptoms. Sometimes the attacks succeeds each other rapidly, the whole lasting twenty-four to thirty-six hours. It is followed by the expulsion of hard fæcal material, and sometimes by diarrhœal stools with mucoid masses in them. In the stools may be found sand, gravel, or calculi. The attacks are often periodical, occurring some hours after a repast. Sometimes they occur several times a month or a year through many years. Apart from lead colic and the pains of gastric or duodenal ulcer, intestinal lithiasis is most likely to be mistaken for hepatic colic or appendicitis. The stools should be examined, and, if sand or calculi are found, the analysis will show the exact nature. The muscles contract over the painful area of appendicitis. In lithiasis the discovery of pseudo-membrane, sand, etc., confirms the diagnosis. Morphine should be given during the attack. In the interim hygienic measures, dieting, and treatment by mineral waters are recommended. Vichy is specially suited to these cases.

## SURGERY.

**(336) Wound of Heart and Pericardium: Suture of Pericardium: Recovery.**

H. Williams (*New York Med. Rec.*, March 27th, 1897) believes the following to be the first case—successful or otherwise—recorded of suture of the pericardium: J. C., aged 24 years, was admitted into Provident Hospital, Chicago, July 9th, 1893, with a stab wound about one inch long, three-fourths of an inch to the left of the sternum, through and in the long axis of the fifth cartilage. At first the wound was regarded as a superficial one; but during the night there were such persistent hæmorrhage, pain over the cardiac area, cough, and pronounced symptoms of shock that a re-examination was made on the following morning, which showed that the knife had penetrated the fifth cartilage far enough to wound the internal mammary vessels. The following operation was then performed: The original wound was lengthened to the right as far as the middle of the sternum. A second incision was made from the centre of the first, and carried over the middle of the cartilage and fifth rib, about 6 inches in length. The sternum, cartilage, and about 1 inch of the fifth rib were exposed. The cartilage of the fifth rib was separated at its junction with the sternum and at a point $2\frac{1}{2}$ inches from the sternum and $\frac{1}{4}$ inch from its attachment to the rib. The inferior attachments of the incised portion were separated, leaving the superior ones in place. The incised piece was reflected upwards, making an opening about 2 inches long and $1\frac{1}{2}$ inch in width, bringing the internal mammary vessels into view. These vessels were ligatured above and below. To secure additional room an incision was made in the fifth intercostal space. The heart and lung being depressed backwards, a small punctured wound of the heart was seen. This wound was about one-tenth of an inch in length, and was about half an inch to the right of the right coronary artery, between two of its lateral branches. The wound in the pericardium was about $1\frac{1}{4}$ inch in length. There was no hæmorrhage from the heart or pericardium. The wound in the pericardium was closed by a catgut suture; the parietal flap was replaced, and the wound dressed. The patient, notwithstanding a sharp attack of pericarditis and pleurisy, made a complete recovery. Three years afterwards he is reported as being well.

**(337) Bier's Treatment of Tuberculous Arthritis.**

Boutroue (*Thèse de Paris*, 8vo pp. 38, vii Obs., 1896-7, No. 2) records the success of this method in 7 cases in Aubeau's clinic at the Hôpital International, Paris. The circulation in the affected limb was almost completely arrested every day or every other day by the application over a layer of cotton-wool of an Esmarch bandage above the affected joint for a period of five or six minutes at first, afterwards increased, but never exceeding twenty minutes. In the intervals the limb was kept wrapped in cotton-wool in a gutta-percha splint, but every day or every other day was placed for twenty or thirty minutes in a bath of boiled water kept at a temperature of 50° to 55° C. (122° to 131° F.). In affection of the knee-joint the bath was given by hot compresses—ten to fifteen layers of tarletan covered with oil silk. To relieve pruritus an ointment of mercury and belladonna was used, and suitable constitutional treatment was adopted. Massage was cautiously applied later, the *sine quâ non* being that it should not give pain. Two cases were completely cured the others greatly improved. Boutroue does not consider the local asphyxia and bath of serum a sufficient explanation of the effects of venous stasis upon tuberculous arthritis. No doubt the formation of fibrous tissue is thus promoted, but a great part of the benefit is due to a sort of auto-serotherapy by direct action on the tubercle bacillus.

**(338) Spontaneous Suppuration of Hæmatocele caused by Pneumococcus Infection.**

Halbau (*Wien. klin. Woch.*, 1896, No. 44) records the following case which occurred recently in Albert's clinic. The patient was a man, aged 53, who slipped one day and found afterwards that he had a pain in the left side of the scrotum. A swelling developed in spite of cold compresses, but there was no marked pain. About three weeks later, when admitted, the left half of the scrotum was the size of a man's fist, the skin red and somewhat œdematous, and the tumour fluctuating, but neither translucent nor tender; the testicle could be felt behind. An incision was made next day, and a considerable quantity of greenish-yellow pus escaped. The temperature, which was 100°, kept up after the operation, rigors and pains in the abdomen supervened, and the patient succumbed three weeks and a-half later to general suppurative peritonitis. Bacteriological examination of the contents of the scrotum showed the presence of a capsule bacillus resembling in all morphological and cultural respects Friedlaender's pneumococcus. The interesting features of the case are, first, the "spontaneous" suppuration, the bacillus having entered most probably by the blood, direct infection by the urino-genital tract being much less likely. The suppuration spread to the left testicle, and thence infected the peritoneum *viâ* the lymphatics. The second point of interest is the unusual nature of the infecting germ, this case being, so far as is known, unique. Thirdly, it is remarkable that the scrotal tumour was almost painless, and that throughout the course of the peritonitis there was hardly any tenderness of the abdomen.

## MIDWIFERY AND DISEASES OF WOMEN.

**(339) Intrauterine Injections of Steam in Puerperal Endometritis.**

Kahn (*Centralblatt f. Gynäk.*, No. 49, 1896) claims excellent results in 7 out of 8 cases of septic endometritis after labour or abortion. His practice is to inject superheated steam into the uterine cavity. A metal can, with a spirit lamp and thermometer (which must mark to 200° C.) serves as a boiler, the tubing fitting on to a catheter. The application lasts about half a minute, and never over a full minute. By a tap, the current of steam can be interrupted while the catheter is being adjusted before use, lest scalding or burning should occur. The temperature of the

steam must be a little above boiling point—about 110° C. Kahn finds that the jet of steam is followed by no bad effects, and gives little or no pain. It actually puts a stop to the tenderness of the uterus usual in puerperal endometritis from retained placenta, etc. Uterine contractions are actively stimulated, and ill-smelling discharges cease. Kahn has no doubt that the steam kills the bacteria in the endometrium, and as it coagulates albumen, all blood vessels and lymphatics are sealed up, and fresh granulations can develop under a protective covering.

**(340) Retention of Dead Fœtus in Uterus.**

BIOT (*Lyon Méd.*, February 28th, 1897) claims to have observed two evident cases of this phenomenon, and to have attended a third patient where retention occurred during a pregnancy when she was under the care of another. The first patient was 27. During the third month she fell downstairs. The uterus remained stationary till five months and a week after the accident, when labour set in, and a macerated fœtus of the fourth month was delivered. Intra-uterine injections of carbolic acid were employed, and the puerperium was natural. The patient has since borne a healthy child. The second patient was 28 years old. At the second month threatened abortion was observed, and the uterus henceforward ceased to enlarge. Six months later labour pains set in; the uterus was of the size of a big fist. Spontaneous delivery occurred. A complete unruptured ovum was discharged, followed by a large placenta, though the fœtus was very small, only just over an inch long, and mummified. A feverish attack occurred during childbed. From its clinical characters, Biot considered that it represented not sepsis but paludal fever, from which the patient had suffered eighteen years before. There seems, however, to have been left parametritis. The patient got up on the eighteenth day apparently quite well. The third patient was 42. She struck against a bench when 6½ months' pregnant. At term she was delivered of a macerated fœtus. Between that time and the previous injury she had enjoyed good health and attended to her business. Four months after delivery a cervical gland suppurated. Other glands in the same region became inflamed from time to time, and this condition has lasted for several years. Biot attributes the adenitis not to the abnormal pregnancy, but to the unhealthiness of the patient's home. The writer concludes with a useful historical summary of previous cases of retained fœtus.

**(341) Bad Labours after Vaginal Fixation of Uterus.**

GESSNER (*Centralbl. f. Gynäk.*, No. 46, 1896) relates two serious cases where pregnancy occurred after Dührssen's operation. The first had undergone vaginal fixation for prolapse. The usual disturbances occurred during the first stage of labour. When the waters broke the cord prolapsed. After turning, deep incisions into the cicatricial tissue in front of the cervix were found necessary, and the child was delivered alive. The second patient had been under the hands of Dührssen himself. The labour was unusually complicated, for there was placenta prævia centralis, and the bladder was strongly deflected to the left. Four hours after turning a dead child was spontaneously delivered. Gessner distinctly implies that in these cases the operation of vaginal fixation was skilfully performed and for good reasons. Successful as they seemed to have proved for relieving the displacement, they gravely complicated labour. In the second instance parametritis occurred in childbed.

**(342) The Faradic Treatment of Uterine Fibromata.**

VEYRIER (*Arch. d'Elect Médicale*, No. 46) recommends faradism in the treatment of fibroids in preference to Apostoli's galvanic method. Faradisation of the uterus was originally introduced by Tripier, and is particularly indicated in the following conditions: (1) Inaccessibility of the cervix; (2) when pain is the predominant symptom; (3) when it is desired to induce the "delivery" of a pedunculated submucous fibroid. Its advantage in the first case is that it is effectual without the electrode requiring to enter the cavity of the uterus. The anodyne action of faradism is well known, and it has often been found to hasten the expulsion of the uterine contents when ergot has failed. The intensity of current to be used depends upon the sensibility of the patient; it is pushed to a point beyond which further increase would cause too much pain. The author uses an indifferent electrode of nickelled copper, covered with a thick layer of gauze, which rests upon the abdomen; the active electrode is passed through a glass Fergusson's speculum, and rests upon a wad of moist wool at its upper end, reaching to the cervix. The bipolar instrument, used by Apostoli for galvanism, is also of great service. The active pole may be introduced into the uterus if possible. The strength of current should never be sufficient to produce any chemical effect. The sittings are not to be prolonged beyond a quarter of an hour, and the patient is recommended to remain recumbent for the rest of the day, lest the sedative effect of the treatment lead to imprudent exertion. The author quotes 19 cases, 3 of which are original, illustrating the value of the method.

## THERAPEUTICS.

**(343) The Efficacy of Antipneumonic Serum Prepared from Different Animals.**

PANE (*Rif. Med.*, April 5th, 6th, 7th, 1897) has made a series of experiments with antipneumonic serum derived respectively from the rabbit, the ass, and the cow. If injected intravenously, the serum of the ass was found the most efficacious. The sooner the injection was made after inoculation with pneumococci the better the results. Indeed, if injected as late as eighteen to twenty-four hours after inoculation, death generally followed either by general infection or large local abscesses. On the contrary, when the different serums were severally mixed with pneumococci cultures and injected subcutaneously and simultaneously, the rabbit serum was alone found efficacious. The author supposes that this difference is due to the rapidity with which the necessary state of defence of the organism is brought about. He believes that the serum has no direct action on the pneumococci, but produces a state of active immunity, which differs only from that formed in animals during the process of immunisation by the rapidity with which it is formed and by its lesser intensity; and this immunity is obtained through the formation by the leucocytes of some substance capable of defending the organism against the pneumococci and against these alone.

**(344) The Action of Spermin.**

G. HIRSCH (*St. Petersburger med. Woch.*, 1897, No. 7) is inclined to think that Brown-Séquard's testicular emulsion contains both substances which when injected are useful, and substances which have a disturbing action on the metabolism. Professor Poehl was able to isolate a substance, spermin, which he thinks is contained in all organs used therapeutically. Hirsch has tried Professor Poehl's spermin (by the mouth or injected) in cases of anæmia, tabes dorsalis, and endarteritis obliterans, and by his own observations and those of several other observers communicated to him he has arrived at the following conclusions. The spermin of Professor Poehl has no specific action at all in particular diseases. It seems, however, to control in some way the metabolism or intra-organic oxidation, and by the removal of accumulated waste products to disencumber the nervous system, and so finally to favour the *vis medicatrix naturæ*.

**(345) The Probable Value of Cytisin in Medicine.**

PLUGGE (*Belgique Méd.*, April 1st, 1897) calls attention to the alkaloid of the cytisus as being worthy of extended trial in therapeutics. The action of cytisin ($C_{11}H_{14}N_2O$) has been investigated, among others by Radziwillowicz and Van de Moer, who find that it causes contraction of the arterioles and a consequent rise of blood pressure, due according to the former authority exclusively to stimulation of the vaso-motor centre, according to the latter to simultaneous stimulation of the central and peripheral vaso-constrictor mechanisms. Therapeutically it has been recommended by Scott Gray as a diuretic, by Marmé and Flügge to relieve the hyperæmia of acute arsenical poisoning, and by Kobert for melancholia and paralytic migraine. Kraepelin says one must always remember its great toxicity; not more one-seventh

of a grain of the nitrate of cytisine should be given hypodermically, and it is well to begin with only one-twentieth to one-thirteenth. The author has found that several plants which have a great local reputation as medicines contain this alkaloid. Such are the sophora tomentosa whose seeds and roots were long known in India as "semina et radix anticholericæ," and were used for hæmorrhages, colic, and dysentery; the euchsesta horsfieldii, which has a great reputation among the natives of Java in hæmoptysis and diseases of the lungs, and the baptisia tinctoria, which is much used in North America. The latter contains an alkaloid named by v. Schroeder "baptitoxin," but which, according to Plügge, is identical with cytisine.

**(346) Tetanus Antitoxin.**

Höfling (*Deut. med. Woch.*, April 1st, 1897) reports a case of traumatic tetanus which was treated with antitoxin and recovered. A lad, aged 17, had the terminal phalanx of his little finger crushed, and about a week later the disease began with pains in the neck. The symptoms soon became aggravated, and five days after the onset he was unable to open his mouth more than a few millimetres. When an attempt to show the tongue was made a paroxysm of tonic spasm occurred, so that the body became rigid and the tongue was bitten. Eight days after the onset 5 g. of dry antitoxin obtained from the Höchst factory was dissolved in 45 c.cm. sterilised water below 40° C., and injected. A slight improvement was noted after it. Two days later there was great difficulty of breathing owing to spasm of the diaphragm. A second injection of antitoxin was given. There was considerable improvement by the next day, and from this time the patient steadily got well. In this case there was only slight improvement after the first injection, but rapid recovery followed upon the second. No other remedy was given in this case. The author adds that in future with a sufficient dose of the antitoxin it may be unnecessary to do more locally than to clean up the wound and apply an antiseptic dressing.

**(347) Cantharides in the Infectious Nephritis of Young Subjects.**

Mlle. A. Myszynska (*Thèse de Paris*, No. 24, 1896-7), who relates ten personal and many other observations, says that, especially in the early stages, tincture of cantharides in doses of 10 to 12 drops is very beneficial in the acute infectious nephritis, with or without anasarca, occurring in young people. It is contra-indicated in the interstitial nephritis of arterio-sclerosis and in lead poisoning, and causes a rise in temperature in some cases of latent tuberculosis, but otherwise is harmless.

**(348) Thiosinamine in Keloid.**

Thiosinamine (allyl sulpho-carbamide) has been tried by Tousey and Newton (*New York Med. Journ.*, March 20th, 1897) in cases of keloid. This drug had previously been tried by Hebra and others in lupus and other skin diseases, and in chronic adenitis, corneal opacities, and urethral stricture. Its chief action appears to be on scar tissue. Newton has tried it in two cases—one a case of contracted scar following a burn, the other a case of multiple keloids. In both cases the fibrous tissue became softer, and in the second case the keloids appeared to diminish in size; this method of treatment is, however, at present only on trial. The method of administration is intramuscular injection of an alcoholic solution of the drug.

## PATHOLOGY.

**(349) Pathology of Little's Disease.**

Déjerine (*Semaine Méd.*, March 24th, 1897) proves that the anatomical lesions in cases of congenital spastic rigidity may be very various. He gives the case of a man with typical congenital spastic paraplegia, and no wasting or weakness in the affected limbs. He had been subject from childhood to attacks of epilepsy, but his general intelligence, speech, and the movements of his face and upper limbs were normal. At the necropsy, a bilateral porencephalous lesion was found occupying the Rolandic area of each hemisphere, and penetrating into the lateral ventricle. The loss of substance was crateriform and the convolutions converged around the crater; in other words, the lesion was the so-called "congenital porencephalus." This had given rise to partial non-development of the nerve fibres in the pyramidal columns of the spinal cord. Déjerine's other case is the first one which proves that Little's disease may depend on a primitive lesion of the spinal cord arising during intrauterine life. The case was that of a man who died at the age of 45. Like the first case, he was born at full term. From his birth he suffered from spastic rigidity of all four limbs, best marked in the lower limbs. Sensation and the action of the sphincters were unaffected. General intelligence was tolerable, and there were no epileptiform fits. At the necropsy the whole brain was found normal. Between the level of the first and second cervical nerves there was a patch of sclerosis replacing the two posterior horns of grey matter up to the grey commissure, and in this patch of sclerosis there were vascular changes, characterised by endarteritis and periarteritis, with marked hypertrophy of the muscular coats of the arteries. Below the lesion the antero-lateral columns of the cord were too small, and part of the site of the crossed pyramidal tracts was occupied by hypertrophied neuroglia, almost destitute of nerve fibres.

**(350) The Relation of Tetany to Rickets.**

Kassowitz, at the Wiener Medicinischer Club (*Neurol. Centralbl.*, March, 1897), showed a child with latent tetany and rickets, in whom complete recovery followed the administration of phosphorus. In reference to this case he discussed the relation of tetany in childhood to rickets. The gastro-intestinal origin must be considered unproven; Kassowitz has never seen tetany occur with chronic gastro-intestinal catarrh in the absence of rickets, and the seasonal variations of tetany are exactly the opposite of those of gastro-intestinal disorders, tetany being most frequent in the winter, while the gastro-intestinal troubles are most common in the summer. The frequency of tetany does, however, vary directly with the frequency of rickets. The close relationship of these two conditions is explained by the rachitic affection of the skull, which produces hyperæmia not only of the cranial bones, but also of the meninges and cortex, and so causes undue excitability of the motor centres and a tendency to convulsive movement. The exciting cause of the tetany spasm is some noxious substance entering by the respiratory tract from the foul air in the dwellings of the poor.

**(351) The Etiology of Malignant Syphilis.**

Neumann (*Wien. med. Presse*, January 31st, 1897) discusses Tarnowsky's recent paper on this subject. The latter's main conclusions were that variations in the clinical course of syphilis were due to simultaneous infection with pyogenic cocci, and furthermore that serious relapses, with suppurating nodules, might be induced by unfavourable influences during the progress of a mild syphilitic attack. These suppurating nodules are often taken for gummata, but are acute in their course and infectious. Neumann holds that in thus limiting the causes of variability Tarnowsky goes too far, since the course of the disease is no doubt influenced by the condition of the patient when infected and by other causes. He points out that a case of "benign" syphilis may in different individuals infected by it evoke ordinary and malignant symptoms of the disease. Also that a patient infected by a case of malignant syphilis may develop no more than the ordinary symptoms. In the former instance the individuals are each infected in the same way, and the difference in the effects must depend on the resisting power of the organism to the disease producers. Again, a mixed infection is frequently demonstrable in cases which do not assume a malignant character; for this to occur a special susceptibility to the invasion of pyogenic cocci seems to be necessary. This susceptibility is most frequently the result of diabetes, tubercle, or alcohol. There is no doubt that these cocci play a part in syphilitic as in all other suppurative processes; they form, therefore, an etiological factor, though not the exclusive one, in malignant syphilis. The main factor is, according to the author, the special condition of the organism which renders it more or less liable to the attacks of various kinds of bacteria. The susceptibility may be present from the first or may develop later, so that the malignant type is assumed by the primary or the secondary lesions accordingly.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

### (352) Appendicitis.

TALAMON (*Médecine Moderne*, No. 31, 1897) in a further communication (see EPITOME, May 1st, par. 333) discusses the question of perforation. Only 28 (11 per cent.) of Fitz's 257 cases of perforation had suffered from appendicitis before the fatal attack; only 25 per cent. of Krafft's. Of Talamon's own 57 acute cases, 17 had suffered at least once previously. Of these 17 only 1 was fatal (6 per cent.); in the other 40 cases there were 6 deaths (15 per cent.); and, classing as perforation all instances of diffuse or suppurating peritonitis, 13 (32.5 per cent.) occurred in a first attack, and only 4 (23.4) in a recurrence. Of 8 fatal cases, the question of a previous attack was not decided in one, and another patient had had a slight trouble which passed as indigestion six months previously, but none of the other 6 had ever previously suffered from appendicitis. A first attack, and still more a second or third, is far more likely to lead to the chronic, relapsing form of the disease than to perforation. Most cases of fatal peritonitis in patients supposed to be convalescent are due to recrudescence; an error in diet or getting up too soon rekindles the inflammation and ulceration, and perforation takes place, the more readily as the circulation is not yet properly restored in the swollen and congested tissues of the appendix. It is better for a patient, after plastic peritonitis, to remain in bed eight days after every nodule of induration has disappeared, though it be for two months or more, and even after the parietal form as long as there is any tumour or pain on pressure in the iliac fossa, though these generally disappear in twelve days he should not get up till the end of the third week. Happily perforation is not necessarily fatal; in 6 of the 80 cases it happened, at times varying from the fourth to the twentieth day; it prolonged the illness of the patients, but none of them died. The danger of perforation is but little in chronic relapsing appendicitis; it is greater in recrudescence than in recurrence, and always greatest in a first attack. No gastric disturbance preceded the attack in any of Talamon's acute cases; nor, except in 5, was there marked constipation; 1 case exploded on the eighth day of a slimy diarrhœa. The disease occurs so much more frequently in males than in females (52.28 of the 80) that constipation, a condition much more common in women, can hardly be with justice invoked as a predisposing cause. Colitis (mucous or muco-membranous) is almost always included in the syndroma of chronic relapsing appendicitis; it was present in 13 of Talamon's 16 cases, though whether it preceded or only followed the initial attack was not decided; 12 of the 60 acute cases had suffered for months, years, or even from childhood, from mucous colitis. The persistent constipation found in 5 of these acute cases is a condition which seldom exists without some dry or mucous inflammation of the colon; it would be hard, therefore, to deny to colitis any *rôle* in the pathogenesis of appendicitis, but Talamon thinks this *rôle* was much exaggerated in the recent discussion in the Paris Surgical Society. He expressly noted in nearly one half of his 60 cases of acute appendicitis, the entire absence of any prior attack of the disease or previous intestinal trouble, whether constipation, diarrhœa, or colitis, and holds that nearly as often as otherwise appendicitis is a primary lesion, purely accidental, and independent of pre-existing disease. As regards the moot points in treatment, at the commencement of any attack, however slight, purgatives increase the painful contractions and the dangers of impending or existing perforation, and should be absolutely interdicted; but when, under ice, leeches, or morphine, the acute pains of the first few days have subsided aperients are not merely harmless but indispensable. Talamon prefers castor-oil or calomel but does not object to salines; drastics are, of course, excluded. Opium paralyses nervous tone and resistance to microbic proliferation, and masks symptoms. It is even doubtful whether it has ever checked peritonitis. He therefore prefers to depend on leeches, ice, and if necessary for acute pain hypodermics of morphine. The old fashioned laudanum poultice is sufficient in parietal cases, and in plastic ones is useful in promoting resorption. Surgical measures are required only in one-third of the cases, and should always be preceded by medical treatment. Experience has shown that immediate intervention gives no better results in diffuse peritonitis than if delayed for a few days, and that in local suppuration the time of election for operation is not during the acute symptoms, but between the twelfth and fifteenth days. The partisans of early intervention, because the mortality is some 10 per cent., behave as if every case was inevitably doomed, and have made appendicitis a bugbear to frighten patients and doctors into accepting abdominal section as the one hope of salvation; the juster course is to recommend operation whenever necessary, but to adhere to medical treatment when that is adequate to the emergency.

### (353) Congenital Facial Palsy.

BERNHARDT (*Neurol. Centralbl.*, April, 1897) discusses the question whether congenital facial palsy ever occurs apart from traumatism at birth. He reports a second case where the paralysis was said to have been present from the day of birth, and in this case the birth had not been instrumental. There was complete paralysis of the right side of the face; no ocular paralysis; no nystagmus (an important fact, as the presence of nystagmus in some of the recorded cases has been thought to indicate a central rather than a peripheral lesion). There was no reaction to faradism or galvanism, except slightly in the muscles of the lips and chin. It is extremely difficult to decide whether the lesion is nuclear or peripheral, as it has been shown that secondary changes in the nucleus take place more rapidly and completely with peripheral facial palsy in young children than in adults. In both the cases recorded by Bernhardt, and also in that recorded by Schultze, the labour had been natural, and no cause could be found for the palsy. Bernhardt considers that the evidence is not conclusive in favour of a truly congenital facial palsy.

## SURGERY.

### (354) Calculous Anuria and its Surgical Treatment.

VAILHEN (*Thèse de Paris*, No. 33, 1896-97) summarises the results of 35 cases of surgical intervention: 20 nephrectomies with 11 deaths, 8 cures, and 1 fistula; 5 nephrotomies, with 1 death and 4 cures; 3 ureterotomies, all cured; 4 pyelectomies, with 1 death, 2 cures, and 1 fistula; and 1 vesical operation fatal on the third day—that is, including the fistulæ, 19 recoveries in 35 cases. With these he compares 68 cases of medical treatment collected by Donnadieu (*Thèse de Bordeaux*, 1895), of which 48 succumbed after a more or less protracted tolerance, 3 others died within a month from hectic or undefined accident, only 17 recovered. Considering the 9 cures among the 20 nephrotomies, and that in most of these cases the operation was delayed till it was one of necessity, Vailhen considers the propriety of the operation to be established, but that the results would have been much better if the intervention had not been unduly delayed; everything depends on not waiting too long. If, after two or three days' medical treatment, the diagnosis of calculous anuria be established, intervention should not be delayed; uræmia may come on very rapidly. Nephrotomy is the best operation.

### (355) Infectious Conjunctivitis.

COPPEZ (*Soc. Belge d'Ophtal.*, December 20th, 1896) gives the following classification: The gonococcus may cause purulent, catarrhal, granular, or pseudo-membranous conjunctivitis. Weeks's bacillus may cause catarrhal and pseudo-membranous forms. The pneumococcus, may cause catarrhal, phlyctenular, purulent, granular, and pseudo-membranous forms. The streptococcus may cause lachrymo-catarrhal, pustular, and pseudo-membranous forms. Staphylococci may be responsible for catarrhal, purulent, phlyctenular, and pseudo-membranous conjunctivitis; and the Klebs-Loeffler bacillus for catarrhal and pseudo-membranous.

**(356) The Recto-vaginal Incision in Rectal Operations.**

STERNBERG (*Centralbl. f. Chir.*, No. 11, 1897) advocates in operations for partial resection of the rectum in women the practice of making an incision of the anterior portion of the perineal raphé and of the median line of the recto-vaginal septum. By this procedure, associated with division of the sphincter, isolation and resection of the diseased rectum, and exposure and removal of affected glands are facilitated to a considerable degree. The gut is at least as freely exposed by this as by the sacral method, and in many cases is rendered still more accessible. The surgeon in the former works in a large funnel-shaped wound, the external diameter of which corresponds with the natural dimensions of the pelvis. The extent of the disease can thus be more readily determined, and the bleeding during the stage of resection be more easily controlled, there is less difficulty also in closing any wound of the peritoneum, and the facilities of drainage are much improved. The recto-vaginal septum, if free from disease, can be readily renewed by bringing together the lateral flaps by sutures. If it be found necessary to remove a portion of the septum, the remaining portions can still be stitched together. The results of extirpation of the rectum by this method have hitherto, it is stated, proved very satisfactory. The author refers to 14 cases—12 of carcinoma, 2 of non-malignant stricture—in which Gersung has performed this operation. In one of these cases death resulted on the eighth day from septic peritonitis. The remaining patients recovered from the effects of the surgical treatment, but the interval since the date of operation in almost every case is too brief to permit any definite conclusion as to the permanency of the relief.

**(357) Congenital Tumours of the Sacro-coccygeal Region.**

E. KIRMISSON (*Bull. Méd.*, No. 10, 1897) points out that congenital sacro-coccygeal tumours occur most frequently in females, are usually large and cystic or polycystic in character, and have very often a most complex structure containing sometimes every possible anatomical element. Some cases are of the nature of sacral spina bifida; others are dermoids; and yet others are undoubtedly fœtal inclusions. In a small number of instances the growth is a lipoma, a myxoma, or a fibroma: and in a recorded case in an infant, 19 months old, which died under the author's care, it was a cystic sarcoma. The value of the rectal touch is insisted upon in diagnosing the nature and intrapelvic connections of the tumour. The prognosis varies, being worst in the tumours which are intrapelvic and in posterior spina bifida, but not so grave in the posterior growths of another kind. In operation by removal of the growth, the two great dangers are opening into the spinal canal and opening into the intestine. Kirmisson reports, in conclusion, a case in which he operated on an infant 36 hours old; a large tumour which had ruptured was removed, but an intrapelvic prolongation had to be left; the child recovered well, and it is hoped that the intrapelvic part will not develop.

## MIDWIFERY AND DISEASES OF WOMEN.

**(358) Pulmonary Embolism after Hysterectomy: Recovery.**

FLAISCHLEN (*Centralbl. f. Gynäk.*, No. 9, 1897) removed a uterus with a fibroid weighing 12 lbs. by supravaginal hysterectomy. The veins in the broad ligament were greatly dilated. For nearly three weeks all went well, but Flaischlen was constantly in dread of embolism, as so many large veins were tied. On the twentieth day the patient was allowed to get up. Extreme dyspnœa set in, but subsided within a few hours. A day or two later embolic pleuro-pneumonia of the left lung was easily diagnosed. A fortnight afterwards the patient got up again. On the third day, when stooping to tie her shoelaces, another attack came on. She made frantic efforts to breathe easily, the pulse rose over 130, and Flaischlen thought that she was dying. Yet she recovered from the second attack, and at the end of a month was quite well. There had been no high temperature between the operation and the first attack, and the pulse during that interval was quite regular.

**(359) The Management of Post-Abortum Placental Retention.**

CHALEIX-VIVIE points out (*Gaz. Hebd. de Méd. et de Chir.*, December 27th, 1896) that the chief dangers of incomplete abortion are hæmorrhage, sepsis with a crowd of resulting morbid states, and the formation of deciduoma malignum. He shows how vaginal and uterine injections, the introduction into the uterus of caustic solutions or of sticks of chloride of zinc, the administration of ergot, and the plugging of the vagina, are all inadequate or dangerous means of arresting the hæmorrhage from placental retention. He advises digital or instrumental curettage; but, with regard to the latter, he insists that the performer shall be an expert in uterine surgery; failing this qualification, the physician ought simply to plug the uterus with iodoform gauze until operative interference can be safely undertaken. For the septic dangers, also, and even for the risk of the growth of a deciduoma malignum, Chaleix-Vivie regards curetting as the treatment of election.

**(360) Tuberculous Peritonitis Cured by Simple Abdominal Section.**

BROHL (*Centralbl. f. Gynäk.*, No. 4, 1897) relates a very distinct case of this kind. The patient was a girl, aged 15. There was no ascites, but the abdomen was swollen and tender; the evening temperature was high, and metrorrhagia was observed. The adherent pelvic viscera felt like a large tumour. Recovery was rapid, the clinical symptoms referred to disappeared, and three weeks after the incision had been made in the abdominal parietes the tumour-like mass could no longer be felt on bimanual palpation. It transpired that this patient had contracted syphilis, but that disease did not prove prejudicial to the course of the case after operation. Tuberculous peritonitis is specially interesting to the gynæcologist, as the deposit and adherent intestine in the pelvic cavity simulate certain well-known diseases quite independent of tubercle and of necessity peculiar to women. Female cases seem to do best under treatment by abdominal section. Brohl relates a similar operation on a male child aged 4. The result was satisfactory, but the symptoms disappeared very slowly, in striking contrast to the former case.

**(361) Placenta Prævia Adherent to Fibroid.**

MAYGRIER (*Bull. et Mém. de la Soc. Obstét. et Gynéc. de Paris*, January 14th, 1897) publishes full notes of a bad case of placenta prævia. The patient, in the eighth month of pregnancy, was brought into hospital already exhausted by profuse hæmorrhage. A dead child was extracted by version. The detachment of the placenta offered extraordinary difficulties. Maygrier was fairly puzzled by a soft mass which he detected on introducing his hand into the uterine cavity. It was very resistant notwithstanding its softness, and the process of separation of the intimately adherent border of the placenta fatigued him so that the midwife had to conclude the process as far as was possible. In spite of subcutaneous injections of ether and intravenous injections of serum, the woman died an hour and a half after delivery. The uterus was removed after death. A tumour was found occupying the posterior and left aspect of the lower segment of the uterus, nearly reaching the os. It measured 6 inches in its longest diameter, and was a pure fibroma, very soft, yet being made up of very resistant white fibres. The placenta, altered by disease, was closely incorporated with its lower surface. Thus was explained the fatal complication in a condition always perilous during parturition.

**(362) Puerperal Sepsis due to Infection with the Bacillus Aerogenes Capsulatus.**

G. W. DOBBIN (*Johns Hopkins Hosp. Bulletin*, February, 1897) records an extraordinary case of the development of an inflammable gas in the interior of the uterus. The patient had a contracted pelvis (C.V., about 8 c.cm.); she had been in labour under the care of a midwife for two days, and the fœtal head was impacted firmly in the pelvis. On approaching the bed a sweetish offensive odour was noticeable, and a distinct bubbling, crackling sound could be heard. The vulva was bathed in a dirty reddish-brown fluid containing many gas bubbles, and herein lay the explanation of the smell and sound. The fœtus being dead its head was re-

moved, after great difficulty, by the basiotribe (Tarnier's), and then the body was dragged away by a blunt hook. Just as the child was born there was an escape of gas from the uterine cavity, accompanied by an explosive sound. The gas had a most intense sickening fœtid odour. The placenta had to be delivered manually. On the first day of the puerperium the lochial discharge was examined bacteriologically, and staphylococci, streptococci, and "gas bacilli" were found in large numbers. "Gas bacilli" had already been found in the tissues of the fœtus and placenta. The woman died on the evening of the first day after labour, and soon after death the body became enormously swollen, and gas could be felt in the subcutaneous tissues. No necropsy was allowed. In the case of the fœtus there was general emphysema; the body was put under water, and when the abdomen was opened there was a marked escape of gas, which when ignited shot up in a flame 6 inches high. Bacteriological investigation showed the bacillus aërogenes capsulatus (the gas bacillus of Welch and Nuttall), along with staphylococci and streptococci; and inoculation of rabbits with cultures produced the same emphysematous changes in the subcutaneous tissues.

**(363) Fatal Case of Hydramnion.**

LOIN (*La Clinique de Bruxelles*, December 3rd, 1896) records a case of some importance in relation to dropsy of the amnion. The patient was a pluripara, aged 39, but she had not borne a child for eleven years. On April 1st last year, she stated that she had not menstruated since February 9th, and expected to be confined about the middle of November. Shortly afterwards small hæmorrhages set in, and continued for several weeks. By the fifth month the uterus felt so large that the presence of an excess of amniotic fluid was evident. At that time fœtal movements had been felt. On November 5th the patient was taken very ill with nausea and great pain in the highly distended abdomen. The cervix was not dilated, and hardly admitted the entrance of the tip of the finger. After consultation, Loin, on the night of the 7th, made a fine puncture in the membranes as high up from the orifice of the cervix as he could safely manage without making a rent at once. In spite of all care the puncture was enlarged at once to an undesirable extent by the rapid escape of over nine pints of greenish liquor amnii, stained with meconium. The breech presented, and, as a little fluid remained, labour was left to itself till a few hours later, when Loin, finding the os well dilated, delivered the child, which was dead, very big, and had the funis twisted three times round its neck. Twenty minutes later the placenta was expressed. The patient did well for a night, when coffee-ground vomiting set in, and she died about thirty-six hours after delivery. Loin considers that acute secondary hydramnion caused the violent pain and the bad labour which was induced to terminate the suffering and distension. The twisting of the cord round the fœtal neck caused the chronic hydramnion observed early in pregnancy. The patient's health had already been lowered by the threatened abortion indicated by hæmorrhage. A sudden increase in the tension of the cord brought on a more acute form of hydramnion. As this form is liable to supervene late in pregnancy, when the uterus is already distended, it is best when that stage is reached in a case of chronic hydramnion to make a capillary puncture of the membranes.

## THERAPEUTICS.

**(364) The Treatment of Diabetic Coma.**

LÉPINE (*Sem. Méd.*, No. 10, 1897) records the results of intravenous saline injections in a case of diabetic coma. The patient regained consciousness for several hours. Before the onset of coma the urine gave a marked reaction with perchloride of iron; no albumen was present; 9 to 10 litres of urine were passed daily, and the amount of sugar was 48 to 55 g. per litre. The first symptom of coma was deep respiration. Sodium bicarbonate (25 g. in the twenty-four hours) was prescribed. Next day the patient felt much worse; coma developed, and became complete. The eyes were closed, the pupils very contracted; the respirations were 28 per minute, and very deep. The breath had the characteristic odour of acetone. The pulse was very feeble, and the pulse-beats 124 per minute. The temperature was subnormal. A solution was prepared, consisting of 7 g. of chloride of sodium and 10 g. of bicarbonate of soda dissolved in 1 litre of sterilised water. Two litres of this solution, at a temperature of 38° C., were injected into a vein of the arm in less than a quarter of an hour. Whilst the fluid was being injected the pulse became stronger, the respiration less deep; at last the patient opened his eyes, and asked to drink; 50 g. of bicarbonate of soda dissolved in water and wine were given to him in the course of a few hours. Four hours after the injection the patient still remained conscious. The urine was very acid, pale, and scanty. Three hours afterwards the patient became unconscious. After the coma had continued eight hours death occurred. In the case recorded the patient took altogether 90 g. of bicarbonate of soda by the mouth, and 20 g. were given by intravenous injection. The urine remained very acid in spite of the great quantity of alkali taken. In another communication Lépine (*Lyon Méd.*, No. 15, April 11th, 1897) states that he has never known any case of diabetic coma recover. In order to have any prospect of success he thinks that the injection of alkaline fluids ought to be made before the patient becomes comatose, that is, when the prodromal dyspnœa first appears. He records two cases in which early injections were made. The first case was that of a boy, aged 16, who suffered from a very severe form of diabetes. The urine gave an intense reaction with perchloride of iron. Large doses of bicarbonate of soda internally (30 grammes daily) produce no effect. As the condition was becoming worse, 2 litres of a solution containing 7 grammes of sodium chloride, and 10 grammes of bicarbonate of soda per litre were injected subcutaneously—under the skin of the abdomen. The condition of the urine remained practically the same; no improvement occurred; symptoms of commencing coma appeared, and the patient was removed from the hospital by his parents. The second case was that of a man, aged 37, who also suffered from a severe form of the disease. Whilst under treatment aceto-acetic acid appeared in the urine, and the general condition became much worse. He became restless, and a marked augmentation of the respiratory movements was noticed. An intravenous injection of 2 litres of the above-mentioned solution (sterilised) was made. After the injection the quantity of urine increased slightly, and at least three times the quantity of acetone, aceto-acetic acid, and oxybutyric acid was excreted. Thus the injection caused abundant elimination of these toxic substances. Next day there was improvement of the general condition and diminution of the quantity of urine excreted. Twenty-nine days later the patient was shown at the Lyon Medical Society, the improvement having continued.

**(365) Holocain.**

HEINZ AND SCHLÖSSER (*Klin. Monats. f. Augen.*, April, 1897), report on this new local anasthetic, which is the chloride of p-diethoxyethenyldiphenylamidin; the latter is allied to phenacetin. The salt is crystalline, and of neutral reaction, soluble with difficulty in cold water, easily in hot water, but recrystallising from solutions stronger than 2 per cent. A 1 per cent. solution dropped into a rabbit's eye causes no irritation; full anæsthesia is obtained in 15 to 20 seconds, and lasts 12 to 15 minutes. In dogs, full anæsthesia is obtained in 40 seconds, and lasts 20 minutes or more. The anæsthesia is due to paralysis of the sensory nerve endings, and not to ischæmia. Holocaïn has no effect on the pupil, on accommodation, or on the blood vessels. It is detrimental to the lower forms of life (protozoa), inhibiting their movements, and, in fact, showing itself to be a protoplasmic poison. It has the same effect on bacteria. If the hot solution be put into a glass vessel, after some hours a deposit forms, owing to alkali freed by the hot water from the glass. If the glass is first thoroughly washed out with distilled water this can be avoided; or porcelain vessels can be used. As the solution is antiseptic it need not be sterilised by boiling. When absorbed it has poisonous effects analogous to those of strychnine. The toxic dose for a mouse is 0.001 g. subcutaneously; for a medium-sized rabbit, 0.01 to 0.015 g. For ophthalmic practice a 1 per cent.

solution is recommended, one or two drops of which produces analgesia in 40 or 50 seconds; if one or two drops more are now instilled in 30 seconds full corneal anæsthesia will have been obtained. When first instilled it causes some burning sensations, which, however, pass off in 30 to 40 seconds; also slight conjunctival injection, passing off in 1 to 2 minutes. Anæsthesia lasts at least 10 minutes. In the rabbit a 1 per cent. solution coloured with methylene blue has been injected into the anterior chamber without irritation or inflammatory or other effects; and the solution has also been employed in operations involving an opening into the eye; its anæsthetic effect on the iris would seem to be quite as complete as on the cornea, and no poisonous effects from absorption have been observed. It has not been employed subconjunctivally. Like cocaine, it causes some unevenness of the corneal epithelium in rabbits, but this has not occurred in man. Holocain would appear to be less likely than cocaine to injure the epithelium as it does not constrict blood vessels, so that the corneal lymph circulation ought not to be impaired. Its speedy action is also in its favour.

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**(366) Hairy Nævus treated by means of X Rays.**

LEOPOLD FREUND (*Wien. med. Woch.*, March 6th, 1897) has been induced by the cases of dermatitis with loss of hair resulting from the use of the Roentgen rays, to attempt the treatment of nævus pilaris by means of the discharge through a vacuum tube. The patient was a girl, aged 5, suffering from a hairy and pigmented nævus reaching from the nape of the neck, down almost to the fold of the nates and extending over the whole back, the sides of the thorax, the shoulders, and the upper half of the right arm. There were a large number of smaller nævi in various parts of the body. Treatment consisted in the use of the rays from a vacuum tube through which the current from a Rühmkorf's coil with a 10-inch spark was passed. The child's back was exposed to the rays for two hours every morning at a distance of 4 inches from the tube, the kathode rays being employed. For ten days no effect was produced, but on the eleventh a few hairs began to fall out in bundles, and this continued to an increasing extent for eight days, when a slight dermatitis appeared, which soon yielded under the use of ichthyol. By this time the neck and interscapular space had become quite bald. The day before the hair began to come out the nævus was, by an oversight, exposed for about twenty minutes to purely anodal rays. To ascertain if this was the cause of the phenomenon, the first line of treatment was stopped, and the part of the nævus on the right arm exposed daily for twelve days to the anode rays; no epilation, however, resulted. To find out whether the therapeutical action was due to the *x* rays or simply to electrical waves, a third part of the nævus was exposed to the former alone, a thin screen of cardboard covered with aluminium foil and connected with the water tap being used to insulate it entirely from electrical influence. In ten to fourteen days the part exposed had been rendered completely bald. It was noticed that the thin, fine, normal hairs were always more readily affected than the strong, short hairs of the nævus; further, that the action of the rays was slow in commencing, but when once established appeared to be cumulative. The actual cause of the falling out of the hairs appears to have been a slight inflammatory change, followed by atrophy of the follicles. No attempt at regeneration had taken place within six weeks, but this was of course too short a time for a final conclusion.

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**(367) Creasote in Pneumonia.**

CASATI (*Gazz. degli Osped. e delle Clin.*, April 11th, 1897), with the idea that creasote is a cardiac and nervine stimulant, was led to try it in 26 cases of pneumonia, forming part of a somewhat serious epidemic of that disease. The only case recorded in detail by the author is that of a man, aged 70, who was given creasote on the third day of the disease and recovered. Some of the cases were treated with creasote (in tincture of gentian) alone; in others this was supplemented by digitalis or caffein in small doses. The author believes that the cases treated with creasote recovered more rapidly and more thoroughly than those treated in other ways. He pushed the drug freely, but never saw any unpleasant symptoms follow it use.

## PATHOLOGY.

**(368) "Common" Cirrhosis of the Liver.**

KELYNACK (*Birm. Med. Rev.*, February, 1897) analyses 121 cases of cirrhosis of the liver occurring in 3,053 medical cases in the Manchester Royal Infirmary. He considers that the disease cannot be conveniently divided into alcoholic and non-alcoholic varieties, most examples met with in hospital occurring in alcoholic subjects. Nearly 50 per cent. of the cases actually die from the hepatic cirrhosis, and over 12 per cent. from active tuberculosis. Tubercle of the peritoneum is found in a little over 9 per cent., and active, latent, or obsolete tubercle occurs in 24 per cent. of all cases. Cirrhosis appears to be more common in men in the proportion of about 2 to 1. The average age at death is, for males 45½, and females 42. Ascites he finds to occur in 56 per cent. of all cases, and to be usually less extensive in females than in males. It constantly occurs in association with hæmatemesis, in spite of their having been stated to be mutually exclusive. The weight of the liver averages 53 to 54 ounces. It is increased in size in nearly 33 per cent. of all cases, and diminished in about 61½ per cent.; its *ante-mortem* and *post-mortem* conditions may not correspond. The typical "hob-nailed" liver is not common at the present day. The spleen in hepatic cirrhosis averages in males 14¼ ounces, in females, 11½ ounces. It is enlarged in 83 per cent., diminished in 7¾ per cent.; it is larger and heavier than that met with in cardiac cases. Renal cirrhosis only occurs in association with hepatic cirrhosis in a little over 18½ per cent. of all cases.

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**(369) The Leucocytes in Wounds of Cornea.**

RANVIER (*Sem. Méd.*, March 12th, 1897) reports to the Academy of Sciences his researches on the physiological *rôle* of the leucocytes in connection with wounds of the cornea. Microscopic examination of a frayed wound of the cornea shows: 1. The epithelium which occupies the surface of the wound presents signs of active cell proliferation, a certain number of nuclei giving evidence of proliferation by indirect division. 2. Large numbers of epithelial cells pass into the hollows on the surface of the wound, forming intertwining granulations. 3. In the denuded centre of the wound there are numbers of lymph cells, and in the stroma of the cornea at this point there is a small suppurating nodule. The lymph cells are much less numerous in the neighbouring parts covered with fresh epithelium; their concentration in the denuded parts is caused by their direct contact with atmospheric air. The majority of lymph cells on the denuded area are clear, round, and contain several nuclei. These present the characters of pus cells and are lymph cells dead or undergoing destruction. These modified cells have passed over to the tissues with which they are in contact part of the nutritive substances with which they were loaded. The activity manifested by the epithelial cells would be impossible without abundant nourishment, which cannot be brought by blood vessels since the cornea contains none. The same is true of lymph channels. The simplest explanation of the phenomenon is that the nutritive elements are brought by the migratory cells. In suppurating wounds of the cornea, where lymph cells are present in large numbers and pressed closely together, these appear to be dead, and there are a large number of free nuclei among them. The number of these set free by the dissolution of the cell body is proportionate to the intensity of the inflammation. It is possible that the entire protoplasm may even be dissolved and its constituent materials distributed in the nutritive plasma containing the various organs. Leucocytes doubtless absorb particles for their own nourishment, but they may also give them up after having carried them a distance. They penetrate into all parts of the body where there are no blood vessels, for instance the cornea.

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ERRATUM.—In paragraph 287 of the EPITOME of the BRITISH MEDICAL JOURNAL, April 10th, the statement was made that "the lycetol was given in divided doses amounting to 1½ to 2 grains a day." The word "grains" was a misprint for *grammes*.

# AN EPITOME

OF

# CURRENT MEDICAL LITERATURE.

## MEDICINE.

**(370) Gastric Ulcer Associated with Septicæmia.**

WIDAL AND MESLAY (*Sem. Méd.*, March 19th, 1897) report the case of a patient who succumbed to staphylococcic pyæmia. On opening the stomach *post mortem*, a perforating ulcer with perpendicular edges, having for its base the subperitoneal adipose tissue, was found. The mucous and submucous layers were very œdematous and infiltrated. Numerous sections of the ulcer were made but no staphylococci found. It is possible that a small abscess or erosion, due to the staphylococcus, formed first on the surface of the mucous membrane, and the gastric juice then transformed a small lesion into a large ulcer. The mischief was doubtless first microbial and afterwards peptic, the microbes disappearing as the lesion extended. At some necropsies after death from septicæmia (in one case puerperal) microbial gastric ulcers have been found. They are also found in animals killed by various experimental infections, often in the form of the initial ulceration, rarely as complete ulcers. In some subjects any slight loss of substance of the gastric mucous membrane may result in the formation of a round ulcer. Bacteriological confirmation of the origin of these ulcers is often likely to be wanting, as the microbe which starts the ulceration disappears, leaving behind it the round ulcer, which is simply the result of a trophic disturbance peculiar to the gastric mucous membrane.

**(371) Pulsus Paradoxus on One Side.**

GERHARDT (*Berl. klin. Woch.*, April 5th, 1897), in reference to the case of a woman who generally had fewer beats in the left radial than in the right one (the right radial pulse corresponded to the heart beats), reports the case of another patient in whom exactly the same phenomenon was observed. At the *post-mortem* examination, fresh purulent pleurisy and pericarditis were found, and the subclavian artery when slit open on the right side measured 2 cm., whilst that on the left side measured only 0.8 cm. Gerhardt thinks that the pericarditis caused the pulsus paradoxus, whilst the stenosis of the left subclavian artery caused some of the cardiac pulsations not to be felt in the left radial. By experiments on healthy persons, it was found that if a certain degree of continuous pressure be exerted on the artery of one arm, the pulse cannot be felt at the corresponding wrist during very deep inspiration, though during ordinary respiration the pulse continues to be felt at both wrists. The explanation suggested in Gerhardt's first-mentioned patient (*Berl. klin. Woch.*, 1897, No. 1) was that there was a stenosis probably from atheroma at the origin of both the left carotid and left subclavian arteries, since the pulse in the left carotid was likewise less frequent and smaller than on the right side. This patient left the hospital. A similar symptom is recorded by O. Heubner in a woman, aged 52; the right pulse was sometimes smaller and less frequent than the left pulse. at the necropsy a thrombus was found nearly closing the channel of the right subclavian artery.

**(372) The Phonendoscope.**

GROTE (*Münch. med. Woch.*, March 9th, 1897) discusses the use of this instrument in determining the limits of organs by the friction method. He agrees with Egger that the phonendoscope offers some advantages in the appreciation of very feeble moist sounds or distant heart sounds. As regards the limits of organs, the author's investigations led him to believe that the projection figures depended on (1) the strength of the friction used; (2) the choice of situation upon which the phonendoscope is placed; and (3) the amount of stretching of the surrounding skin. He refers especially to a case of mitral disease with much cardiac hypertrophy and bulging of the præcordium, in which a different area of cardiac dulness was obtained according as the patient raised his arm or not. A different area was obtained on examination after death. The author finally concludes that the projection figures obtained by the friction method are chiefly due to the degree of stretching of portions of the skin, and not to the condition or size of the underlying organs.

**(373) Mucous Septicæmia.**

BABES (*Bull. de l' Acad. de Méd.*, February 16th) describes under this name an illness characterised by facial paralysis, anæmia, fever, general progressive enfeeblement, and fatal ending. *Post mortem* the vessels are filled with a whitish substance of a mucous nature, resulting from "mucous" transformation of the blood under the influence of a specific microbe, which is encapsuled and short, growing on the ordinary media, and termed by Babes the "bacillus septicæmiæ mucogenæ hominis." Presumably this microbe requires special conditions to develop its action, for it did not produce mucous transformation of the blood in the laboratory animals.

**(374) The Motor Functions of the Stomach.**

GOLDSCHMIDT (*Münch. med. Woch.*, March 30th, 1897) describes a method of estimating the motor functions. Leube and others recommended emptying the stomach at stated times after a test meal to find out whether the contents had disappeared. Klemperer's oil method is open to many objections. The salol test, even as modified by Huber, is not altogether satisfactory. These methods are not adapted for ascertaining the amount of the stomach contents in the various stages of digestion. It is impossible to empty the stomach completely with the tube. It was sought to estimate the remainder by introducing a solution of hydrochloric acid of known strength, and so calculating the fluid remaining in the stomach by the dilution the acid solution underwent. Grape sugar has also been used for the same purpose as being more easy of determination. Another method consists in introducing 100 c.cm. of distilled water, and comparing the specific gravity of the fluid drawn off with that of the stomach contents first obtained. The author has investigated this subject in a patient with a gastric fistula. After expressing the stomach contents he introduces 50 c.cm. of distilled water and again expresses. Both specimens are filtered. As many c.cm. of the first filtrate are added to 50 c.cm. of distilled water as will produce the specific gravity of the second filtrate. The number of c.cm. added will represent the amount of fluid left in the stomach after the first expression. The temperature of both fluids must be the same. The author's investigations have shown this procedure to be accurate, and it is very simple.

## SURGERY.

**(375) Injection of Antistreptococcic Serum in Cases of Operation involving subsequent Sepsis.**

WATSON CHEYNE (*Practitioner*, April, 1897, p. 347) accounts for the great variation in the reported results of the treatment of septic trouble by antistreptococcic serum by the acute character of the diseases set up by the streptococcus pyogenes; irremediable damage is done to the body before the immunising material has time to produce its effect, or, as in two of his own cases, though the local process is arrested the general temperature is not improved, nor the life of the patient preserved. Experimental evidence is strongly in favour of the prophylactic action of injections of antistreptococcic serum; he thinks their use should not be confined to cases in which infection has already occurred, and that it is in prophylaxis that they will be found most valuable, and especially in operations about the tongue or throat in which septic pneumonia engendered in most if not in all cases by the streptococcus pyogenes is very frequently the cause of death. In a recent case of carcinoma involving the base of the tongue, the anterior pillar of the fauces, the tonsil, and also the large glands in the anterior triangle of the neck, Cheyne, on the two days before operating, injected 20 cm. and 10 cm. of B.I.P.M. antistreptococcic serum; and after a preliminary tracheotomy extirpated the glands, ligatured the external carotid, split the cheek, and removed the diseased parts of the mouth and throat. Ligature of the external carotid greatly facilitates such an operation and diminishes the immediate danger, but is a very fatal proceeding owing to sloughing and secondary hæmorrhage. Here there was nothing of the kind.

The progress of the case was very remarkable; after the first twenty-four hours there was no elevation of temperature except a rise, evidently an after-effect of the serum, some days later; there was no septic pneumonia, no tendency to septic infection, no inflammation, no sloughing of the surface of the wound; there was an almost entire absence of smell in the breath. Healing was quite uninterrupted. In a case of malignant disease of the left side of the lower jaw inside of the cheek and anterior pillar of the fauces, and extending to the alveolar process of the upper jaw and some small cervical glands, injections of 20 cm. were made on February 15th and 16th, and one of 10 cm. on the 17th a few hours before the operation. The skin healed by first intention, and the wound in the mouth rapidly granulated without any sloughing; there was no elevation of temperature after the first twenty-four hours, and then it did not exceed 100.4°, and the case was most striking from its absolute freedom from septic complication. In a third case, after preliminary extirpation of a large mass of glands from the neck, 90 cm. were injected during the four days preceding the removal of the tongue. There was the same freedom from septic trouble, and the same absence of smell, and everything promised well till the patient suddenly expired. An embolus detached from a thrombus in the lingual artery, which had extended into the carotid, had lodged in the brain. Though a certain amount of sloughing was found at the back of the wound, the greater part was quite clean and free, and there is no reason to doubt that but for this unfortunate accident healing would have been uninterrupted. Extensive operations will be far more feasible if the septic pneumonia and the diffuse septic processes so apt to follow them can be prevented by the prophylactic use of antistreptococcic serum.

**(376) Death following the Passage of a Sound through a Urethral Stricture.**

ZUCKERKANDL (*Wien. med. Presse*, 1896, No. 45) records the case of a man, aged 34, suffering from stricture of the membranous urethra. Two years before he had been under the author's care for this, and dilatation was carried out by means of bougies. He returned home, and the urinary trouble returning he commenced to introduce instruments himself, often with no other result than the induction of hæmorrhage and fever. When he again came under Zuckerkandl's care the urine contained pus, and the stricture was surrounded by a number of false passages into the corpora cavernosa. After repeated trials a metal sound was passed into the stricture, and a rectal examination showed that it had successfully entered the membranous urethra. After removal of the the bougie the patient went home, and was soon attacked with rigors and diarrhœa; collapse followed, and he died six hours after the operation. The necropsy confirmed the diagnosed urethral condition, and revealed the presence of fatty degeneration of the heart. No bacteriological examination of the blood was possible. The author classifies the causes of death after the passage of a sound as follows: First, urinary fever (acute and chronic), always due to bacterial infection, usually with the colon bacillus; secondly, reflex inhibition of the secretion of urine, leading to fatal anuria; lastly, in long-standing cases of prostatic hypertrophy, where the kidneys are already affected, the slightest operative interference may stir up the latent mischief and lead to death.

**(377) Extensive Injury to the Orbit.**

FOUCHER (*Union Méd. du Canada*, February, 1897) reports a case of penetrating wound of the orbit, which extended into and opened up the maxillary, ethmoidal, and sphenoidal sinuses. The patient, a man aged 51, had been struck over the lower margin of the orbital cavity by a branch of a falling tree. A large fragment of wood was removed soon after the receipt of the injury, and in the course of the prolonged suppuration which ensued smaller fragments were extracted from time to time. The wounding body, which was of considerable size and irregular form, had been projected into the orbit with considerable force, and had broken up a large portion of the floor of the cavity, without penetrating into the cranial cavity, and without wounding any of the important vessels and nerves distributed to the eyeball. Vision was not impaired as a direct result of this injury, but after an interval of four years astigmatism had developed, and the gradual displacement of the eyeball in consequence of cicatricial retraction had led to diplopia and consecutive amblyopia.

**(378) Hereditary Syphilis and Exostoses.**

LABBÉ (*Rev. d'Orthopédie*, No. 2, 1897) publishes a case of symmetrical exostoses of the upper extremities of the femora in an infant, 12 days old, suffering from hereditary syphilis. This association, it is pointed out, is very rare, as the author has failed to find more than two other recorded instances. The exostosis was situated in one of these on the lower end of the humerus, and in the other on the great trochanter. The presence of syphilis in the three cases was proved by the coexistence of coryza, roseola, perianal fissures, and anal mucous patches. The specific nature of the exostosis was indicated in each case by (1) the age of the patient, which was that in which osteogenic exostoses do not usually appear; (2) the disappearance in two cases of the osseous growth under the influence of a treatment by iodide of potassium and mercury; (3) the coexistence of other and decided specific lesions, such as osteophytes, enlargement of the lower end of the humerus, and periostitis of the upper extremity of the ulna. The author acknowledges, however, that it is very difficult to distinguish between an exostosis of purely syphilitic origin and one of overgrowth—*exostose de croissance*. The specific nature of the outgrowth may, he states, be suspected when it makes its appearance in the course of the first few weeks of life, when it is accompanied by decided and well-marked indications of hereditary syphilis, when it is tender, and when it disappears under an antisyphilitic treatment. The pathological appearances in the case of bilateral femoral exostosis observed by the author seemed to suggest to him that the osseous outgrowth on either side was really a mass of exuberant callus due to juxta-epiphyseal detachment of the upper extremity of the femur, and developed to an abnormal degree under the influence of the syphilitic taint.

## MIDWIFERY AND DISEASES OF WOMEN.

**(379) "Missed Abortion."**

KOSSIER (*Rev. Méd. de la Suisse Rom.*, February 20th, 1897) reports three cases which occurred in his own practice. (1) A woman, aged 30, had had three labours at term, the first seven, the last two, years ago. On July 30th, 1895, she aborted at six weeks with an ovum showing signs of hydatiform degeneration. On January 12th, 1896, slight hæmorrhage; uterus about size of a two months' pregnancy. From then till February 28th repeated hæmorrhages; uterus on this date almost normal in size and consistence, the internal os, however, being tightly closed. On March 9th violent pains, with passing of clots. Uterus found to be slightly enlarged, cervical canal rigid, the internal os admitting the tip of the finger, which felt a substance which might have been either clot or fœtus. Vagina plugged with iodoform gauze. On March 11th, on removing the plug, the conditions were found to be unchanged, and a "missed abortion" was diagnosed. The ovum was removed by forceps, and was followed by two vesicles about the size of a small nut. Uterus curetted and phenol applied. Uninterrupted recovery. (2) A woman, aged 26, had had one child at term two years previously. Last menses middle of December, 1895. On June 25th, 1896, violent hæmorrhage. *Per vaginam* a complete ovum could be felt, and this was removed by the finger. In the uterus itself there was a hard, fibrous mass, without a trace of villi macroscopically, about the size of a hen's egg. This, which represented the chorion, placenta, and decidua, was also removed by the finger. The ovum was a three months' fœtus, and must have died about the middle of March, giving no trouble till June 25th. (3) A woman, aged 21, married a few months. Menses last seen on July 28th. None in August, but in September slight hæmorrhage, which was taken by patient for a return of the periods. This lasted on and off till November 11th, when the discharge became fœtid. *Per vaginam*, just beyond the internal os, a hard, round body, about the size of a large

nut, was felt adherent to the fundus. This was detached by the finger and removed by forceps. Curetting brought away thickened fœtid masses of decidual membrane. The ovum had a central cavity, the fœtus having been absorbed. Thus, in the first case, the dead fœtus remained in the uterus from January 12th to March 11th, in the second four months and a-half, in the third six weeks.

**(380) Pruritus Vulvæ: Cure by Operation.**

VON MARS (*Monats. f. Geburtsh. u. Gynäk.*, April, 1897) admits that the enormous literature of this subject is not satisfactory to contemplate. The pathology and treatment of pruritus vulvæ are both imperfectly understood. In 3 cases under his own observation he noted that the greater labia were, probably from changes due to swelling or atrophy, in a condition of entropion, hairs being seen turned inwards on the vestibule and clitoris. When the hair was carefully trimmed the pruritus at once ceased. Such treatment, of course, would be difficult to carry out for long, as the stumps of the hair soon became irritating, and Von Mars therefore suggests that a thin elliptical piece of skin be excised from the outer limits of each labium majus, so as to produce an artificial ectropion of the labia.

**(381) The Treatment of Post-Partum Endometritis.**

A. SOLOWJEV (*Vratch*, No. 12, 1897), having tried several remedies with little result, reports excellent results from the use of tincture of iodine, which he employed in a series of cases of endometritis following delivery at the lying-in hospital of Moscow. It acts best when used in the early stages and as often as once or even twice daily. As soon, however, as the signs of acute inflammation subside and the secretion diminishes the remedy should be, according to the individual case, applied less frequently. Pains of varying character usually follow this mode of treatment; but, on the whole, they disappear almost within an hour of application. The method of application is as follows: The patient lies on a couch on her back, and a speculum is introduced into the vagina. If the cervix is blocked with mucus, the os is drawn down with a volsella, the portio vaginalis is irrigated, and the parts dried with aseptic cotton-wool; the canal is then swabbed with the pure tincture of iodine. In cases where the corpus uteri is also involved the remedy is applied in the same way as to the cervix.

**(382) Foreign Body in the Ovary.**

C. LIEBMAN, of Trieste (*Centralbl. f. Gynäk.*, No. 16, 1897) recently met with a case of foreign body in the pelvis of an unmarried girl of 19, who had had two children. She complained of pain in the abdomen and back, and of leucorrhœa which had lasted for some weeks. Examination revealed an anteflexed and enlarged uterus, movable, but causing pain on movement. The left ovary was enlarged, and tender on pressure; and lying between it and the uterus was felt a thin elongated body of a metallic hardness, with its ends embedded in the ovary and the uterus about the level of the os internum. The patient said that some years previously a sewing needle had passed into the skin of her abdomen and been lost. An incision was made *per vaginam* into the pouch of Douglas, and the foreign body, a needle with a broken eye, was safely removed. A thin strip of iodoform gauze was placed in the wound. No bad symptoms followed, and fourteen days later the uterus was of normal consistence, and could be moved without pain, and the left ovary was smaller, and no longer tender on pressure.

**(383) Successful Hysterectomy during Labour.**

PINARD AND SEGOND (*Sem. Méd.*, January 20th, 1897) showed before the Academy of Medicine a primipara, aged 32, with very marked rickety deformities of the skeleton and a waist measurement of 45 inches. The pelvis was asymmetrical and the antero-posterior diameter 3.12 inches. Pinard allowed the pregnancy to proceed to term, and then, on November 16th, 1896, after labour had begun, performed hysterotomy followed by complete hysterectomy. The child extracted from the uterus weighed 7 lbs. 15 ozs. At the date of the report the mother was suckling it, and was in perfect health.

## THERAPEUTICS.

**(384) Thyroid Feeding in Operative Myxœdema.**

FÖRSTER (*Deut. med. Woch.*, April 15th, 1897) relates some further observations on a case successfully treated by thyroid feeding. The thyroid treatment was discontinued for a period of 147 days, at the end of which time well-marked manifestations of the disease again appeared. During the first period of 257 days, 187 g. of thyroid were taken, and during the third period of 73 days, 64 g. During the discontinuance of the treatment the weight remained almost stationary for six weeks, then increased for the next three or four weeks, while the swelling was returning and then again became stationary, as during this last stage the myxœdematous swelling was still increasing, a loss of weight must have been taking place at the expense of the tissues of the body. Thus three stages can be recognised: (1) The stage of quiescence; (2) the development of the myxœdema; and (3) the further development of the myxœdema along with cachexia. During the second stage the hæmoglobin diminished, and there was a decrease in the red cells, while the leucocytes were normal in numbers. In the third stage the hæmoglobin steadily got less, while the corpuscles remained stationary. It appears here, as in other observations, that the myxœdema would never attain the same degree as formerly. When the feeding was resumed the myxœdema diminished, and the body weight decreased, but the cachexia required longer to improve. When the patient was well again there was a loss of weight of 5 lbs. as compared with the previous interval of health during the thyroid feeding, showing that this amount had been lost to the tissues of the body. The number of red cells and the amount of hæmoglobin began to increase while the weight was still increasing. Menstruation was increased during the discontinuance of thyroid treatment. Thus the thyroid treatment must be kept up from time to time, and must only be discontinued so long as no new swelling appears, namely, for a period of not more than seven weeks. After a discontinuance of twenty-one weeks, ten weeks' feeding was sufficient to cause the myxœdema to disappear. Thus five weeks' feeding should amply suffice in ordinary cases. The weight at the beginning and end of the treatment should be carefully determined. The intervals may eventually be prolonged when no manifestations of myxœdema appear.

**(385) Anticarcinomatous Serum.**

DUBOIS (*Rev. Méd. de l'Est.*, February 1st, 1897) injected animals hypodermically with material obtained by harpooning fragments of human carcinomata and mashing them up, the object being to influence the organism by the inoculated cancerous elements, so as to obtain an anticarcinomatous serum. As a result several tumours appeared in the animals, the largest of which weighed more than 20 ozs. Three cases were treated by the serum. (1) A non-ulcerated cancer of the breast was almost completely cured after forty-five days' treatment, the tumour atrophying and being transformed into a fibrous nodule. (2) An epithelioma of the forehead had greatly diminished after thirty-five days. In these 2 cases 2 to 3 c.cm. of serum were injected every other day near the tumour, a few drops of slightly iodised alcohol being injected into the tumour itself. (3) A recurrent ulcerated fungating epithelioma of the upper lip had its progress arrested after twenty-three days' treatment, but there was no tendency to cure. The action of the serum is to induce a fibrous metamorphosis, and is most certain when used early in the case. Its use is not dangerous except in very advanced cases.

**(386) Action of Eucaine on the Eye.**

DOLGANOFF (*Klinische Monatsbl. f. Augen.*, February, 1897), has employed a 1 per cent. solution of the hydrochlorate, and finds that after the instillation of three drop anæsthesia is complete in about one and a-half to two minutes, and lasts five to thirteen minutes, or on an average seven or eight minutes. First the cornea becomes anæsthetic, then the conjunctiva of the globe, and lastly that covering the lids; sensation is recovered in the reverse order. The drops cause great pain, so much so that some of those experimented on could not be persuaded to have a second drop put in. The marked conjunctival injection may be accompanied by œdema. The pupils

for the most part remained unaffected, but in some cases they became contracted, in others slightly dilated. Atropine dilates the pupil more quickly if the eye be previously eucainised. On accommodation eucaine has no effect. In some cases eucaine appears to retard the action of atropine in paralysing the accommodation. Under the influence of eucaine diffusion from the surface of the eye into the anterior chamber (as tested by the colorimetric method) occurs from four to eight times more energetically than without it. The intraocular pressure, on the whole, falls somewhat. Dolganoff is inclined to think that eucaine has no advantages over cocaine, and will not displace the latter.

**(387) Effect of Venesection in Skin Diseases.**

SCHUBERT (*Berl. klin. Woch.*, 1897, No. 16) has treated thirteen chronic cases of skin affections — including eczema, psoriasis, and furunculosis—by venesection. Nine of these cases were cured. The effect in furunculosis is especially marked. Dyes described the case of a lady, aged 30, who for seventeen years suffered from general moist eczema, for which every kind of treatment had been tried in vain. After the first venesection the eczema dried up, and four weeks after the third venesection the patient was cured. Schubert found in blood obtained by venesection that there was an increase in the number of white corpuscles in skin diseases, just as in another illnesses. He thinks that the white corpuscles are most numerous in the capillaries, and that, therefore, they come away first with the blood drawn. The accumulation of white corpuscles in the cutaneous capillaries offers a good nutrient material for the growth of parasitic microbes, which excite skin diseases. His explanation of the good effect of bleeding in some cases of skin disease is that with each venesection the blood becomes poorer in these white corpuscles. With repeated venesection he has observed a kind of regeneration of the skin, the latter assuming a purer aspect and improved colouring.

**(388) Oxygen in Chlorosis.**

CORISH (*New York Med. Journ.*, February 13th, 1897) gives the results of treatment of chlorosis by inhalation of oxygen gas at half the atmospheric pressure. He describes 3 cases of chlorosis in women, all of whom had previously been treated with iron, and one of them with arsenic as well. In one case there were signs of phthisis. Oxygen inhalations were given three times daily with marked improvement. Corish does not recommend iron in cases where there is nervous excitement, or where digestion is impaired. Such cases he prefers to treat with arsenic combined with oxygen inhalations. The oxygen used was diluted with nitrogen (Walton's compound).

**(389) Uses of Formalin.**

ALEXANDER (*New York Med. Jour.*, January 9th, 1897) recommends formalin as a general antiseptic in preference to perchloride of mercury, carbolic acid, etc., its main advantages being that it is less irritating, and has no action on metals. Alexander has tried it with success in the following cases: As a $\frac{1}{2}$ to 1 per cent. solution for general antiseptic purposes; as an injection for gonorrhœa and vaginal and uterine discharges; as a 40 per cent. solution for chancres; as a $\frac{1}{2}$ per cent. solution for a spray in whooping-cough and hay fever. He has also used the strong solution with success in diphtheria as a local application to the membrane, which he states exfoliates in twelve hours.

**(390) Tuberculin in Lupus.**

CAMPANA (*Il Policlinico*, February 1st) finds that tuberculin gradually applied is never hurtful, and that it is useful in resolving lupous or tuberculous infiltrations of long standing. Before applying tuberculin, it is necessary to get rid of any septic phenomena which may be present. It is inefficacious in the case of very extensive alterations with advanced caseification. The use of the thermo-cautery at the same time is advisable to destroy any nodules as soon as they appear. In the case of external localisations of tubercle, the author advises tuberculin as well as surgical treatment where this is applicable.

## PATHOLOGY.

**(391) Bacteriological Examination of the Blood.**

HANS KOHN (*Deut. med. Woch.*, February 25th, 1897) relates his researches upon this subject, especially in cases of acute pneumonia. He employed Sittmann's method, in which, with all the usual precautions, 5 c.cm. of blood is obtained with a sterilised syringe from the veins of the arm, 1 c.cm. of blood is mixed with nutrient agar previously made fluid, and the whole poured out into a dish. In cases of general sepsis due to malignant endocarditis, the streptococcus in numerous colonies was obtained in 1 case along with a few colonies of the staphylococcus, but in a second case the staphylococcus alone was found. In 3 cases of subacute and chronic endocarditis, the results were negative except in 1 case where there was a thrombo-phlebitis, and here six staphylococcus colonies developed, on two plates. In 1 case of erysipelas, in 1 of phlegmon, in 1 of icterus with enlarged spleen, in 1 of paroxysmal hæmoglobinuria, and in 1 case of aphthous stomatitis with severe intestinal symptoms, the results were negative. In 8 cases of enteric fever, a bacillus was found in 2 cases, but it could not be proved to be the typhoid bacillus. In 1 case of chronic leukæmia and 1 of pseudo-leukæmia the results were negative. In a case of pyæmia with joint manifestations, the streptococcus was found, but in 2 cases of acute rheumatism the results were negative. In 18 out of 32 cases of acute pneumonia, no colonies developed, and all these patients recovered. In 7 cases the pneumococcus was found, and all these cases were fatal. In 3 other cases positive results were obtained, but these patients recovered. Three further cases proved fatal, but no micro-organisms developed from the blood. Twice the results were again negative, but death was here due to a staphylococcus empyema. In 1 of 3 fatal cases without micro-organisms, the patient was an old man and a drunkard; in another, influenza bacilli were found in the lung, and in the third there was nothing special to note. Thus in by far the greatest number of cases which recovered the cultivation experiments were negative, whereas in the large majority of fatal cases the pneumococcus was found in the blood. The colonies varied from 2 to 200. The positive results were obtained twenty-four to forty-eight hours before death. The presence of the pneumococcus in the blood is, therefore, of unfavourable import, and these results confirm those obtained by other observers. Thus in a certain number of cases of pneumonia the severity of the disease is due to a complicating sepsis, namely, a pneumococcus sepsis. To the other possible causes of death sepsis must be added. It is possible that the cardiac failure is due to the action of toxins, which may even act more powerfully when the micro-organisms are present in the blood. Until a specific (bacteriological) treatment is discovered, efforts must be made to get rid of the micro-organisms from the blood by diuresis, etc. The administration of large quantities of fluid may, however, further embarrass an already overburdened heart.

**(392) The Anæmia of Malignant Disease.**

MORI (*Atti dell' Acad. Med.-Chir. di Perugia*, v. 8, f. 4) gives the result of his experiments on this subject. Having prepared a sterile extract of cancer—taken from a case of rectal epithelioma and from one of mammary cancer—he injected 2 to 4 c.cm. daily into rabbits. At first the rabbit (a young one) increased in weight, but afterwards steadily lost. The red corpuscles, except in the later stages, were unchanged. The leucocytes augmented in number immediately after injection (from 1 in 400 to 1 in 100). The hæmoglobin coefficient rank from 70 to 50. After two months the animal was killed, and except for enlarged glands about the site of injection, the organs were healthy. Other rabbits similarly treated exhibited similar effects. In another set of experiments the author tried the effect of intermittent injections, with the result that the animal (if young) recovered when the injections were interrupted. This was tried over a period of two years in some cases, and always with the result that stoppage of the injections was followed by return to the normal condition. The author does not discuss the nature of the toxic principle contained in his extract, but considers that the anæmia of malignant disease is probably closely associated if not due to some toxic product of the neoplasm.

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

### (393) The Duration of Infection in Whooping-Cough.

WEILL, who in 1894 expressed the opinion that whooping-cough is contagious only during the premonitory catarrhal stage, has since put his opinion to the test (*Lyon Méd.*, May 9th, 1897). On various occasions he permitted nearly 100 young children, who had not previously suffered from whooping-cough, to be associated in the same ward for twenty days or more with children suffering from the disease during the stage of whooping. In only one case was the disease contracted, and in this instance the patient from whom the infection was derived was in the very earliest period of the whooping stage. In three small epidemics Weill was able to satisfy himself that infection was contracted from children who had not yet begun to whoop. He concludes that infection ceases very soon after the characteristic whoops commence, and that therefore in a family it is not the patient who is already whooping, but his brothers and sisters who have not previously had whooping-cough who ought to be isolated.

### (394) Lineæ Albicantes.

OSLER (*Montreal Medical Journal*, April, 1897, p. 795) divides lineæ albicantes into three groups: (1) those due to distension, such as the lineæ gravidarum of pregnancy or those seen in dropsy or in consequence of rapidly increasing obesity; (2) postfebrile, especially those following typhoid or scarlet fever. Of this form a case is described in a girl, aged 17, in whom the atrophic lines appeared during the convalescence from scarlet fever: they were on both limbs, but more marked on the arms, and were a distinct disfigurement. When she was out of sorts they got red and itchy, and in cold weather were of a bluish tint. (3) Idiopathic form met with as frequently in men as in women, and less extensive than the mechanical form.

### (395) Deformities in Syringomyelia.

ASTIÉ (*Thèse de Paris*, No. 225, 1896-97) discusses the boat-shaped deformity of the thorax, met with in some cases of syringomyelia, to which, in association with Pierre Marie, he drew the attention of the Medical Society of the Paris hospitals a short time ago (*Sem. Méd.*, February 24th, 1897). It consists in a characteristic depression of the central portion of the anterior wall of the chest above the lower margins of the great pectoral muscles, on either side of which the chest wall rises, so that the shoulders appear to be brought forward. This depression does not resemble any deformity hitherto described; it is not a consequence of atrophy of the pectoral muscles, nor of scoliosis, but is a trophic lesion analogous to those affecting other parts of the skeleton in the same disease. It does not cause any functional trouble, but is an interesting symptom and a useful element in diagnosis. He gives four cases illustrated from photographs, and numerous figures in the text.—Marinesco (*Thèse*, No. 341) says that in some cases, either at the beginning or in later stages of the malady, trophic cutaneous and vasomotor disturbances associated with Aran-Duchenne atrophy give a peculiar form and appearance to the hand, to which he applies the term "succulent," suggested to him by Pierre Marie. There is a swelling of the dorsal surface, probably due to hyperplasia of the subcutaneous connective tissue; the skin is not thickened, but smooth, shining, and unbroken. The cutaneous troubles are permanent, the accompanying vasomotor disturbances vary with the temperature of the surrounding atmosphere. This type of hand (Fig. 3), like that of Morvan's disease, and cheiromegaly, has a diagnostic value, and points to peri-ependymal gliosis. In its production the anterior motor tract, the vasomotor, in the middle of the grey matter, and the indirect sensory in the posterior horn are all interested. The muscular atrophy depends on the affection of the motor area, and the affection, commencing generally at the level of the eighth cervical or first dorsal root, extends upwards. In any section of the forearm the innervation of the smaller muscles comes from a lower part of the spinal cord than that of the larger, and the flexors depend on a lower level than the extensors. The flexors are consequently first attacked and suffer most, and the extensors give the hand that attitude, hardly met with but in syringomelia, which Charcot called "the preacher's hand." There is, moreover, a relaxation and distension of the joints which can not only be recognised by the vicious attitude of the hand and the abnormal movements that may be imparted to the fingers, but may be demonstrated by the Roentgen rays.

### (396) Acute Œdema of the Larynx.

STANKOWSKI (*Münch. med. Woch.*, March 23rd, 1897) relates two cases due to iodide of potassium: (1) A man, aged 29, was suffering from pulmonary and laryngeal phthisis. The laryngeal manifestations consisted in infiltration of the interarytenoid and right aryteno-epiglottic folds. He was treated with potassic iodide with the view of improving the nutrition. In five days a considerable œdema of the left aryteno-epiglottic fold was noticed, which disappeared when the iodide was discontinued. The author gives his reasons for believing that this œdema was due to the iodide, and was not a manifestation of tuberculosis. (2) This case occurred in a man, aged 31, who had been treated with several courses of mercurial inunction. Some six years after the initial lesion he was given potassic iodide as syphilitic manifestations had again appeared, as well as a solution of iodine in potassic iodide to be applied to a swelling on the lip. After he had been taking the iodide for two weeks he began to suffer from coryza and dyspnœa. There was an œdematous swelling on the right side of the larynx. The iodide was omitted, and the swelling in the larynx soon disappeared. In this case there was no infiltration, and the swelling had not the characteristics of a syphilitic perichondritis. The œdema was unilateral in both cases, a feature not often met with in cases hitherto recorded. In the first case 12 g. of iodide were taken in five days; and in the second case iodide had previously been taken without any evidence of iodism. In both cases the œdema did not appear at the commencement of the treatment with small doses of iodide, as has generally been known to be the case. The laryngeal symptoms were never urgent, as has happened in most of the recorded cases.

## SURGERY.

### (397) Osteoplastic Treatment of Cavities in Bone.

OLLIER (*Rev. de Chir.*, April, 1897) points out that abnormal cavities in bone resulting from injury, disease, or surgical operation are not readily filled up, when wide and deep, by reason of the rigidity of their walls. Such cavities, except in young and growing subjects, are not, as a rule, obliterated by the growth from the osseous walls of granulations of medullary origin. This failure of repair is more particularly observed in cases of tuberculosis of bone. With a view to the more effectual obliteration of such cavities, which occur most frequently and are most difficult to deal with in the tibia and os calcis, the author proposes to suppress or to mobilise one of the osseous walls so as, in the former case, to allow the periosteum to come in contact with the opposite wall, and, in the second case, to bring together the osseous walls themselves. When one of the osseous walls of the cavity has been removed, the corresponding portion of periosteum and of attached soft parts sinks into the cavity, and comes into contact with the opposite wall. The resistance of the bone is temporarily diminished by this operation, but the deposition of new bone soon affords the necessary solidity. The suppression of one of the walls of an osseous cavity is especially indicated in cases in which the affected bone has become hypertrophied under the influence of osteomyelitis. In cases in which there is very little, if any, hyperostosis, it would be better, it is stated, not to sacrifice any part of the osseous walls of the cavity, but to render it mobile by partially detaching it in the form of an osseous flap or valve, which can be applied to the opposite wall of the cavity, and, in some instances, be fixed to it by a screw or peg. The cavity, it may be anticipated, will now become obliterated by granulations which, though exerting no effect on a rigid

wall, will act by cicatricial reaction on the mobile surroundings. The surgeon may form multiple osseous flaps according to the form and disposition of the cavity, or he may make use of flaps taken from other parts of the same, or even from an adjacent bone, and displaced by either simple gliding or partial torsion of the periosteal pedicle.

**(398) Carbolic Acid Gangrene.**

CZERNY (*Münch. med. Woch.*, April 20th, 1897) observes that, whereas some twenty-five years ago there where numerous records of carbolic acid intoxication, yet even in that period the occurrence of gangrene was rarely reported. After referring to some recorded cases, Czerny observes that hardly a semester passes in his clinic without a case of carbolic acid gangrene presenting itself, and he warns his students against the use of watery solutions of this agent. He gives details of 3 cases recently admitted to his clinic. In all the cases the carbolic acid solution was applied for a wound of the finger. Gangrene supervened, and amputation became necessary. This gangrene is of the dry kind. The anæsthetic action of carbolic acid induces the patient to leave the dressing on. The part first becomes greyish-white and eventually black without any sensation of pain. Circulatory disturbances caused by firm bandaging, inflammation, or a severe injury predispose to it. The above-named patients were in robust health, and the injuries were not such as to induce gangrene by themselves. In 2 of the cases a 3 per cent. solution of carbolic acid was applied, but it was kept on for several days. The duration of the application is more important than the concentration. The author concludes that since with any solution of carbolic acid gangrene may, under certain circumstances develop, this agent should be altogether avoided as a dressing, and other antiseptic solutions used.

**(399) Treatment of Fracture of the Zygomatic Arch.**

MATAS (Reprint from the *New Orleans Med. and Surg. Journ.*, September, 1896) describes a case of fracture of the zygomatic arch treated with complete success by a simple and original method of reduction and fixation. In cases of simple fracture of this arch the recommendations to interfere are made conditional, partly because of the slight importance attached to this fracture and partly because of the acknowledged difficulty of reduction without complicating the original injury by an open section. The author holds, however, that as deformity may result from the injury, and as severe pain during mastication may persist for weeks and even months; also that, as the final consequences of this fracture may not be foretold until the opportunity for simple reduction and repair is past; and furthermore, that as permanent impairment of the function of mastication may follow the injury, it would be advisable to attempt immediate reduction in every case in which there is evidence of fracture with displacement and deformity. In the instance recorded in this paper a depressed fragment of the arch was brought into its proper position by a loop of silver wire passed subcutaneously around it, which loop permitted strong and easy traction to be made. The fragment when reduced was kept in position for nine days by twisting the ends of the wire over a glass slide enwrapped in antiseptic gauze. The slide, of the kind used for microscopical work, rested at one end on the malar prominence and at the other on the temporal root of the zygoma.

**(400) Bacteriuria as a Cause of Diurnal Enuresis.**

L. NICOLAYSEN (*Norsk Mag. f. Laegevidensk.*, October, 1896) reports 8 cases of diurnal incontinence of urine in children varying from 5 to 13 years of age. In 4 of these there was bacteriuria, the urine carefully removed giving rise to cultures of the bacillus coli; but whether the bacteriuria was due to an affection of the bladder, or was the expression of a slight irritation of the pelvis of the kidney from a concretion, was not clearly to be ascertained. The treatment recommended is the washing out of the bladder with a solution of nitrate of silver and the internal administration of salol or other antiseptic; but the bacteriuria may be very persistent.

## MIDWIFERY AND DISEASES OF WOMEN.

**(401) Chronic Metritis and Diseased Appendages.**

PILLIET (*Progrès Médical*, May 8th, 1897) appears to advocate, on pathological grounds, the practice of removing the uterus itself when it, as well as the appendages, is the seat of chronic inflammatory change. He refers chiefly to the descending type of metritis, not that which begins at the cervix but the variety which proceeds from a pyosalpinx. He declares that removal of the tubes alone will not cure the patient, and that the pain from which she often suffers after such an operation is not necessarily due to neuralgia of the pedicle from the presence of the ligature, but, as clinical evidence proves, to simple continuation of the morbid process in the uterus. He describes a case where the well-known symptoms of chronic pelvic inflammation had continued for two years following labour in a woman, aged 33. The fornices were free; a mass could be felt in the back of the uterus resembling a fibroid. She was kept at rest, and it is admitted that the mass disappeared, and the patient became much better. Nevertheless, as the swelling developed again, although it was then recognised as inflammatory, vaginal hysterectomy was performed, and the uterus removed with two dilated suppurating tubes. The patient "left the hospital cured April 1st," 1897. The uterus was the seat of parenchymatous hæmorrhagic metritis.

**(402) Kidney in Female Pelvis.**

MÜLLERHEIM (*Zeitschrift f. Geburtsh. u. Gynak.*, vol. xxxvi, pt. 2, 1897) recently demonstrated this rare condition, undoubtedly congenital in his specimen. The patient was an adult who died in a hospital of apoplexy, and there was no history of renal disease. The left kidney lay against the upper part of the left half of the sacrum, in close apposition; its upper border did not reach the promontory, though it was rather larger than an average kidney. The left suprarenal capsule was placed a little lower than usual, but still up in the loin far from the kidney. The rectum was pushed to the right, and there was no sigmoid flexure, the portion of intestine so called being almost straight. The uterus was firmly pressed against the right side of the pelvis, the kidney impinging on the left of its posterior aspect. In consequence, the back of the uterus had assumed the form of the bottom and keel of a boat. There was not a trace of pelvic peritonitis, and the appendages were healthy. The ureter was very short, with no trace of disease. The left renal artery sprang from the aorta immediately above the origin of the left common iliac; it did not enter the hilum, but sent one branch into the upper border and two to the outer border of the kidney. The left renal vein ran upwards into the right renal. These anomalies show that the kidney had not become displaced from its normal situation. The right kidney, small and lobulated, lay normally in the loin.

**(403) Appendicitis Complicating Pregnancy.**

IT is not long since Mundé first recorded a case of appendicitis complicating pregnancy; and now R. Abrahams (*American Journ. Obst.*, February, 1897) is able to review fifteen examples of the occurrence, including four under his own observation. He points out the extra danger met with in such cases when the uterus forms one of the walls of the abscess cavity, and regards the habitual constipation of pregnancy as a predisposing etiological factor. The conditions which require to be differentiated from appendicitis in pregnancy are chiefly right-sided tubal gestation, salpingitis or oöphoritis, and typhoid fever. In 10 suppurative cases, all but one of which were operated upon, there was a maternal mortality of 7 (70 per cent.); on the other hand, all the instances of catarrhal appendicitis recovered, so that the total mortality was a little over 46 per cent. The infantile mortality was over 85 per cent. The treatment is early operation (laparotomy) in acute perforative appendicitis, a pulse of 116 to 120 being an indication. The same rule holds for recurrent old appendicitis in pregnancy, even if the attack be mild.

**(404) Pregnancy and Tuberculous Laryngitis.**

DUMONT-LELOIR (*L'Obstétrique*, March 15th, 1897) adds a case of this remarkable complication to the 4 already reported by Rémy and the 1 described

twelve years ago by Aysaguer. The laryngeal disease comes on shortly after the cessation of the catamenia—in some cases without any previous history of tubercle. Dysphagia appears to be specially severe in the tuberculous laryngitis of pregnancy, and the patient's health is deeply affected as the gastric irritability natural to pregnancy and the fear of taking food caused by the dysphagia profoundly affect nutrition. During the earlier months of pregnancy the local disease proceeds slowly, but later on acute dyspnœa, far more severe than is seen so early in the same disease in male patients, sets in and tracheotomy is needed. The effect of the laryngeal disease on gestation is marked, labour being always premature. Excess of carbon, due to the impeded respiration, acts as a stimulant to the uterine muscular fibres. In Dumont-Leloir's case labour followed tracheotomy. The laryngeal disorder does not seem to interfere with the course of labour itself; indeed, in the author's case labour was very short. On the other hand, this disease is most deadly, as 5 out of the 6 patients died very shortly after labour. In fact the phenomena of pulmonary tuberculous phthisis during and after labour are exaggerated in laryngitis, the latter disease advancing with great rapidity during the puerperium.

**(405) Rapid Death after Labour from Infectious Meningitis from the Pneumococcus.**

CROUZAT (*Rev. Obstét. Internat.*, April 21st, 1897) communicates a case of death occurring soon after labour from an unusual cause. The patient had presented no abnormal symptoms in pregnancy; her confinement (the twelfth) and the first day of the puerperium were also physiological. Without any premonitory symptoms she passed suddenly into a state of coma, and in less than twenty-four hours she was dead. The urine examined at the time of labour was free from albumen. The following was the history: Two days after her confinement she complained of pain in the head, and after a few slight convulsive movements became comatose. The urine now contained a small quantity of albumen, but this soon afterwards disappeared again. The head was turned backwards, she kept grinding her teeth and biting her tongue, and the limbs showed some degree of contracture. The lower extremities showed diminished sensibility on the left side, but hyperæsthesia on the right. A purgative was ordered; inhalations of oxygen, ice to the head, and injections of caffein and ether were given. The diagnosis rested between meningeal hæmorrhage and slowly progressing tuberculous meningitis. There was marked inequality of the pupils, and the *tache meningitique* of Trousseau was very apparent. Death followed in a few hours: and at the necropsy the kidneys were found to be normal, but the meningeal vessels were greatly congested, and although there were no hæmorrhages, all the cerebral vessels beneath the pia mater and at the base of the brain were marked out by tracks of pus. There was no trace of tubercle. There were old adhesions between the left lung and the pleura. The pus contained the pneumococcus of Talamon-Fraenkel and no other micro-organism. The subcutaneous inoculation of a rabbit with the pus caused death by septicæmia in forty-eight hours. The author can give no explanation of the source of the pneumococcus.

**(406) The Curette in Uterine Fibroids.**

OLERIN (*Monats. f. Geburtsh. u. Gynäk.*, January, 1897) speaks in favour of scraping the uterine cavity in cases of myoma. In two instances where this was done thoroughly not only did the hæmorrhage cease, but the growth dimininished in size.

## THERAPEUTICS.

**(407) Kryofin.**

EICHHORST (*Deut. med. Woch.*, April 22nd, 1897) describes the action of this new antipyretic discovered by Bischler. It is a p-phenetidin derivative and is a condensation product of p-phenetidin and methylglycolic acid. Kryofin forms white, odourless, and tasteless crystals. It dissolves in the proportion of 1 to 52 in hot water, and of 1 in 600 of cold water. The author has given it in capsules containing 0.59, which amount corresponds in action to 1 g. phenacetin (acetic acid phenetidin). If kryofin fails to act other remedies, such as phenacetin, lactophenin, and antipyrin, are almost always also without effect. The author gives short details of six illustrative cases treated with kryofin, including 2 of typhoid fever, 1 of pleuro-pneumonia, 1 of severe puerperal sepsis, 1 of post-scarlatinal febrile nephritis, and 1 of facial erysipelas. He says that kryofin has proved itself a serviceable antipyretic, which may well compete with other antipyretics. He has also found it useful in the fever of phthisis, streptococcus, diphtherioid, tuberculous meningitis, and malignant endocarditis. No serious after-effect was apparent. Occasionally there was profuse sweating, and once or twice some cyanosis. The blood pressure in the radial artery as indicated by the sphygmograph was increased. The author has also found kryofin useful as an antineuralgic. In acute or chronic articular rheumatism it was less valuable. To prevent misconception Eichhorst observes in his paper that a diminution in the body temperature in fever is not by any means the first thing to be aimed at.

**(408) The Treatment of Chronic Cardiac Insufficiency.**

F. NEUMANN (*Berl. klin. Woch.*, May 3rd, 1897) begins a study of this subject. The cases referred to include uncompensated valvular disease, cardiac hypertrophy due to renal disease, chronic myocarditis accompanying arterio-sclerosis, etc. The author speaks of cases in which the disease had lasted twenty, thirty, or forty years. Experience has convinced him that people with cardiac disease, by adopting a simple and regular mode of life, may live for a long time without any limitation of their activity or of a moderate enjoyment of life. It is when the heart muscle becomes affected that the circulatory difficulties become obvious. In general the author finds that the patients just living within the limit of their cardiac power are pale and thin and show no evidence of plethora. Oertel's treatment is certainly not applicable to some cases. Digitalis remains the most important remedy. The author uses it in large doses over short periods of time. He combines iodide of potassium with it in cases of sclerotic cardiac degeneration. The favourable action of this combination on the force of the heart, the excretion of the urine, and the quality of the pulse has been obvious. The good effect is produced where there is no evidence of syphilis. In case of the degenerate and fatty heart with only slight arterio-sclerosis the iodide may be not only useless but even harmful. Neumann uses the infusion of digitalis with the iodide. He has not had the same good results with strophanthus as with digitalis until recently, when he obtained a French preparation of strophanthus in the shape of a pill. It is merely a loss of time to use other remedies, including caffeine. When the severer symptoms are relieved, nitroglycerine may be useful. Suitable iron preparations may be given when the condition of the patient has improved and the stomach will stand them. The effervescing citrate of iron and ferratin are the best; the latter may be taken in milk or broth. Ferruginous waters may be employed in place of these preparations.

**(409) Hydrastis Canadensis.**

M. SAENGER (*Centralbl. f. inn. Med.*, May 1st, 1897) speaks of the value of this drug in bronchial catarrh. He first employed it in 2 cases of early phthisis with hæmoptysis six years ago, when he noticed that the expectoration became more fluid and less abundant. In 1 case it apparently acted more beneficially on the cough than opium or its derivatives. After this, Saenger used hydrastis in a number of cases of bronchitis not of tuberculous origin. In the early stages of acute bronchial catarrh it was useless; but later, especially when the course was protracted and the sputum muco-purulent, it was of exceptional value. It lessened the impulse to cough, rendered the expectoration mucoid, thinner, and easier, and brought about a diminution in the abnormal physical signs. It lessened the tendency to cough in a more marked manner than opium or its derivatives. The expectorant action was at least equal to the ordinary expectorants. The anticatarrhal action, so far as indicated by the physical signs and condition of the sputum, was more pronounced. The author has employed his remedy for

over six years, both in acute and chronic bronchial catarrh, and with it he has been enabled considerably to restrict the use of opium and its derivatives in phthisis. He gives doses of 20, 25, or 30 drops of the fluid extract four times a day. The remedy is harmless, and the dose can therefore be increased if the action is not efficient. In considerably increased doses it would appear to produce in cardiac cases and very debilitated persons a kind of angina pectoris.

#### (410) Milk in Diabetes.

Œttinger (*Sem. Méd.*, March 26th, 1897) discusses the question of milk as a permissible food stuff for diabetics. It has been rigorously excluded on account of the lactose it contains, there being no doubt, at least in diabetic subjects, of the ultimate transformation of this into grape sugar. Following the lead of Bouchardat, many authors forbid the use of milk, or prescribe it only in cases of absolute necessity when there are visceral lesions, albuminuria, inability to take other food, or threatened uræmia. Donkin, on the other hand, advocates a complete diet of skimmed milk for a few weeks previous to putting the patient on diabetic diet. Both these views are, in Œttinger's opinion, irrational, clinical experience being the best guide. Œttinger treated patients with chronic myocarditis, albuminuria, generalised gout, dyspepsia, etc., with milk diet with great success, and concludes that milk is not so injurious as is supposed. It is far from certain that lactose generates glycosuria in all cases of diabetes, though it has been shown to do so in some. Bouchard has shown that all generators of glycogen do not have an equal action. There are carbohydrates that seem to have little influence on glycosuria, such as levulose, inulin, and mannite, which have often been used without ill-effect. It is, however, certain that the same carbohydrates produce different effects in different persons. Certainly the rule is that the group of sugars which deviate polarised light to the left are less injurious than those that deviate it to the right. Œttinger has shown that milk may be invaluable in some cases of diabetes, and that its prescription should depend, not on a general theory, but entirely on the individual case.

#### (411) Baths in Syphilis.

A. Neisser (*Berl. klin. Woch.*, 1897, Nos. 16 and 17) believes that balneological treatment has no specific action in syphilis; but that the syphilitic virus can be specifically attacked, even in tertiary cases, only by mercury. For getting rid of the syphilitic virus, latent or otherwise, he has long upheld Fournier's chronic intermittent method of treatment. Powerful aids, however, to the mercury treatment are iodides and balneotherapeutics. During inunction treatment one of the effects of baths is to wash off mercury from the surface of the skin, which if allowed to remain might afterwards be absorbed. Moreover, baths of sulphurous waters turn some of the metal into sulphide of mercury, a salt which Neisser concludes from his experiments has no power whatever. The effect of baths, therefore, is to some extent antagonistic to that of mercurial treatment, and yet Neisser, whenever he can, endeavours to combine balneo-therapeutics with mercurial treatment. One effect of balneo-therapeutics is to necessitate the giving up of the duties and irregular habits of ordinary daily life. Bath treatment favours the excretion of the mercury, and this effect is useful in cases where mercury has produced a cachectic condition or local troubles. If it be supposed that the baths are causing too rapid an excretion of mercury, more mercury can always be given, and part of the good result of baths may be due to a power which they have of modifying the action upon the virus of the mercury already present in the tissues. Used internally, sulphurous waters may help to ward off mercurial enteritis, whilst in sufficient doses common salt waters favour metabolic processes generally, including those undergone by the mercury in its passage through the organism. The latter waters likewise increase diuresis and the excretion of the mercury.

## PATHOLOGY.

#### (412) Adenoid Vegetations and their Bacilli.

Gourc (*Thèse de Paris*, No. 175, 1896-97), from examination of 213 cases, concludes that there is no bactericidal property in the secretion of the glands, and probably none in the nasal mucus. Latent lacunar encysted adenoiditis is a rarity. As regards the bacilli, 25 examinations disclosed none; 37 streptococci, but never pure; 60 staphylococci, pure; and 69 associated with other micro-organisms; other forms of cocci, 41 pure and 54 associated; pneumococci, 3; leptothrix buccalis, 1 pure and 1 associated; and a short bacillus not taking Gram's stain in 1 case. There was hypertrophy of the tonsils in 17 cases; tuberculosis, collateral, in 30; hereditary in 18 and personal in 17, but Koch's bacillus was never detected in the vegetations. Metastatic anginæ and laryngitides no doubt depend on the above bacteria, and some cases of facial erysipelas may be explained by the streptococci. Contraction of the nose, acute arching of the palate, and dental deviations due to hereditary causes, rickets, scrofula, or lymphatism may accompany but are not results of adenoid growths. Operation should be complete, as remnants left do not atrophy.

#### (413) Infection by Bacillus Aerogenes Capsulatus.

Jamieson (*Montreal Med. Journ.*, August, 1896) records the case of a man of 23 who, ten days before admission, fell over a washtub and injured his left side. This was followed by intermittent vomiting, and two days before admission a swelling was noticed on the lef side, accompanied by a rigor. He was found to have a swelling in the left hypochondriac and epigastric regions, extending backwards to the left loin and downwards to about 3 inches below the umbilicus, passing beneath the right ribs about 1 inch inside the nipple. There was distinct fluctuation, the dulness extending up to the middle of the left axilla. Aspiration drew off a few minims of a chocolate-coloured fluid, consisting mainly of blood cells. The urine contained blood for eleven days and then became clear, with a trace of albumen; at the same time the temperature rose, there was a rigor, vomiting set in, and the tumour, which had much diminished in size, became again enlarged and tympanitic. Three days later an incision was made in the left lumbar region, and an immense quantity of gas and dark red putrid fluid was evacuated; the patient died under the operation. The anatomical investigation revealed old amputation of the appendix, chronic adhesive peritonitis with slaty pigmentation, left pyelonephrosis and perinephritis with obliteration of the ureter, right hydronephrosis and acute parenchymatous nephritis, submucous emphysema of the stomach, foaming and acute cloudy swelling of the spleen, foaming liver, frothing bile, and calcification of the mesenteric glands. A guinea-pig inoculated with liver blood died in thirty-six hours, with rapid development of gas in the blood vessels, and emphysema of the tissues and organs. Microscopic examination revealed the presence of the rare bacillus aërogenes capsulatus. Some of the liver blood from the patient was cultivated anaërobically on 2 per cent. glucose agar, and a growth was obtained accompanied by the evolution of gas. This bacillus had only once previously been described in Canada.

#### (414) The Influence of Diet on the Action of Certain Toxins.

Teissier and Guinard (*Sem. Méd.*, February 24th, 1897) experimented on the conditions which modify the effects of certain bacterial toxins, and found that fasting raised the resistance of the animals to these toxins. Thus, with the toxins of diphtheria and pneumo-bacilli the first toxic symptoms generally appear much later in fasting dogs than in well-fed ones, four out of twenty-two resisting the toxins absolutely. The *post-mortem* lesions, also, were invariably slighter in those that died after a fast, and the longer the fast the greater was the resistance. By fasting is here means a diet sufficiently restricted to modify general nutrition. The explanation it either that (1) the toxins, meeting with starved cellular elements, are destroyed by them before they have produced their full effect, or that (2) the action of the toxins is delayed or absent because the starved body is wanting in some substances on which the toxins depend for the production of directly active poisons. The second is the more probable explanation.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

### (415) Etiology of Asthma.

Kuss (*Thèse de Paris*, 1897) maintains that, among the various causes of true asthmatic dyspnœa, the principal is a defective evaporation caused by a want of sufficient fluid in the epithelial cells of the pulmonary vesicles. This insufficiency of fluid must be attributed to the reflex affection, from various causes, of the vasomotor nerves governing the nutrition of the cells, and produces the same effect as a sudden and considerable reduction in area of the active pulmonary surface. The convulsive action of the respiratory muscles might easily be a consequence of this dyspnœic condition. In the treatment of asthma (1) increased activity must be given to the secretory powers of the epithelial cells by acting on the secretory (vasomotor) nerves; (2) the determining cause of the harmful reflexes must be obviated by various recognised methods; (3) the physiological and anatomical soundness of the alveolar walls should be maintained by appropriate nutrition.

### (416) Congenital Dextrocardia.

Vehsemeyer (*Deut. med. Woch.*, March 18th, 1897) relates a case examined by means of the Roentgen rays. It occurred in a lad, aged 16, who was ill-developed for his age. He was left-handed. There was no cardiac impulse to the left of the sternum, but a diffuse pulsation was noted on the right side, the apex beat being in the fourth right interspace. The cardiac dulness was also placed to the right. The diagnosis of congenital dextrocardia, without transposition of the large vessels, hypertrophy of the right ventricle, chronic pneumonia of the left lung, and chronic bronchitis was made. In the skiagraph taken from behind, the lungs showed an even, bright shadow, which extended three ribs lower down on the left than on the right. To the right of the vertebral column there was a shadow due to the heart more deeply marked in the upper and middle parts. The dome of the diaphragm was distinctly to be made out, and this shadow was curiously placed higher on the left than on the right side. On the right, the cardiac shadow passed into the hepatic shadow. The splenic shadow was also visible. The hepatic shadow was intensified lower down owing to the renal shadow. Pure congenital dextrocardia appears to be much rarer than complete transformation of the viscera. It has been recorded only in some 20 cases.

### (417) Collection of the Urine of Young Infants.

Marfan (*Journ. de Clin. et de Thérap. Infant.*, April 22nd, 1897) comments upon the difficulty of collecting the urine of infants at the breast for examination. It is passed involuntarily, and mixes with the fæcal matters; and it is not always convenient to collect it by means of the catheter, which is the only accurate method. He has, therefore, devised an apparatus to meet this difficulty. For the male infant he uses a pear-shaped indiarubber bag with an orifice in its posterior aspect into which the penis and scrotum are introduced; this is fixed in position by an abdominal belt; at its lower end is a metallic tap through which the collected urine can be drawn off. For girl babies a sort of funnel flattened laterally is fixed round the vulva, leaving the anus outside; it also has a tap which is straight when closed, and is thus not interfered with by the pressure of the thighs of the infant. The apparatus can easily be disinfected, and it enables the total quantity of urine to be gauged.

### (418) Milky White Non-chylous Ascites.

Apert (*Bull. de la Soc. Anat.*, Paris, 1897, p. 187) gives an account of a case in which the ascitic fluid exactly resembled chylous ascites to the naked eye, but microscopically did not contain fat globules, and chemically a very small quantity of fat only was found. The specific gravity was high and the amount of albumen large. Cultures made from the fluid remained sterile, and it was not altered by filtration. No clotting or separation into distinct layers took place on standing. Such cases are rare: previous recorded instances are those of Lion, Achard, and Sainton. The patient was a man, aged 43, who died from the effects of chronic peritonitis and cardiac failure. Paracentesis abdominis was performed twenty times, the fluid being clear; the twenty-first tapping was remarkable in that the fluid had the milky non-chylous character. Frequent tappings after this date showed the same appearances. Blood taken from the median cephalic vein clotted naturally, and the serum was quite translucent, and at the *post-mortem* examination the right pleura and the pericardium contained clear effusions, so that there must have been some local factor at work; but *post mortem* no pressure on the thoracic duct could be made out, and there was no cancer in the peritoneal cavity, so the milky colour could not, as in the previously recorded cases, be explained by degeneration of cancer cells taking place in the ascitic fluid. The cause of this condition is not clear, but there are apparently two kinds, (*a*) in which the blood serum generally is milky, as in Achard's case; and (*b*) as in which the condition is quite a local one, as in Sainton's case and the author's.

### (419) Fatal Polyneuritis.

Brauer (*Berl. klin. Woch.*, March 29th, 1897) discusses a case occurring in a syphilitic patient treated with mercury. A man, aged 24, acquired syphilis in the beginning of August, 1895, and was treated with a five weeks' course of mercurial inunction shortly afterwards. At first 3 g., and later 5 g., were used daily. There was no stomatitis or salivation. Towards the end of the five weeks he experienced a feeling of numbness in the fingers, and the arms became weak, but the legs were unaffected. The mercury was at once stopped, but as he was going home he experienced some uncertainty in his gait. On the second day the legs became weak, and on the third day there was some difficulty in speech. Swallowing was also difficult. He steadily became worse, and on October 9th secondary syphilitic skin affection appeared. For this he was treated by injections of salicylate of mercury. The syphilide disappeared, but the nervous symptoms became worse. When admitted into the medical wards there was a well-marked paresis of both arms and legs. No muscles were completely paralysed. The movements were ataxic. There was impairment of sensation, but no pains. The patellar reflexes had gone. Coarse fibrillary twitchings were present in the affected muscles. The nerves were tender, and in a less degree the muscles. There was a partial reaction of degeneration. The sphincters were easily disturbed, and there was moderate constipation. Suffocative attacks supervened, and the diaphragm was found paralysed on January 19th. Death resulted from pneumonia. Marked pathological changes were found in the nerves, consisting of degeneration in the medullary sheath, and a slight proliferation in the interstitial tissue. The axis cylinders were slightly swollen in places. There was no disease in the nerve roots, and no pathological changes in the minute arteries. The brain and spinal cord were intact. The muscles only showed slight morbid changes. There was no other possible cause of the neuritis than recent syphilis and mercurial intoxication. In syphilis the nervous system may be involved, either by the specific syphilitic lesion or by changes caused by the toxins in the blood. A true syphilitic affection could be excluded with certainty. The slight changes in the interstitial tissue in the nerves were in all probability due to the degeneration in the parenchymatous elements. Syphilitic neuritis does not occur in so widespread and symmetrical a form. Finally, syphilitic nervous affections rarely supervene at a time when syphilitic manifestations are disappearing under antisyphilitic treatment.

## SURGERY.

### (420) Lipoma of the Tongue.

Deregnaucourt (*Journ. de Méd.*, March 10th, 1897) has made a study of this unusual condition. These tumours may be observed at any age, and may even be congenital. Lipomatosis has not been observed in cases of lingual lipoma, but the coexistence of marked conditions of malnutrition. Only one case is mentioned in which a malignant tumour was present in a patient having lipoma. The author states that often the dis-

covery of the lipoma is due to chance. The symptoms as a rule are slight, and may sometimes acquire considerable importance. Pain may appear simultaneously at various points, due apparently to the lipoma coming in contact with different nerve trunks. Taste may be completely lost or merely diminished. Tactile sensibility has also been known to disappear. The tongue sometimes becomes displaced so as to cause considerable inconvenience in mastication and speaking. These latter symptoms, as a rule slight, may become of considerable importance in the newly born. Generally lipoma is situated at the tip of the tongue, but if the tumour is a mixed one it may be found at any part of the organ. It may become pedunculated, and should it happen to arise far back it may then cause awkward laryngeal symptoms. The tumour is generally single, but has been found on each side. It may attain the size of a hen's egg. The mucosa in its neighbourhood is smooth and tender. The papillæ are atrophied and the yellow colour of the tumour may appear underneath. The tumour feels soft and fluctuating or resistent, according to the amount of fibrous tissue it contains. Complications have been known to arise in the form of ulceration, suppuration, and even hæmorrhage. Transformation of this tumour into malignant character has not been established. So far the condition has not been known to disappear nor to return. The lingual muscle seems unaffected. Extirpation by enucleation is the best treatment.

**(421) Decay of the Practice of Drainage.**

Clark (*Amer. Journ. Obst.*, April, 1897) brings forward clear clinical and scientific evidence which tends to support the growing mistrust of the drainage tube in abdominal surgery. Mechanically it is not to be trusted. Its presence handicaps the peritoneum in three ways: The normal peritoneal currents are disturbed, so that the circulation of fluids and foreign matter towards the diaphragm is retarded. An active inflammation is set up about the drain, limiting and impeding the action of the peritoneum. Thirdly, within a few hours the general peritoneum is cut off from all participation in the work of absorption by the wall of adhesions around the drain. Sinuses and hernia not infrequently follow the use of the tube. Infection through the tube may undoubtedly occur. Hunter, Kopp, Kelly, and others report badly of the tube after long experience. Kelly tried the Mikulicz gauze bag in 40 cases, but it proved little more effective than the simple gauze or glass tube. The pieces of gauze within the tube were easily removed, but the gauze bag itself was often difficult to extract, and, except that it checked oozing more effectually, was not superior to simple gauze. Lastly, in the Johns Hopkins Hospital, the great frequency of the infection of drains, as demonstrated by bacterial examinations and the rarity of living pyogenic organisms in the diseased structures, has caused the almost complete abandonment of drainage as a means of removing infectious matters from the peritoneal cavity.



**(422) Gonorrhœa in the Female.**

Finger (*Wien. klin. Woch.*, 1897, No. 3) points out the difference the discovery of the gonococcus has made in our knowledge of gonorrhœa in the female, and suggests measures based upon this recent work to be applied in prophylaxis. Three doctrines which were formerly held as to gonorrhœa in women have now been overthrown: first, that its main seat is in the vagina; secondly, that the urethra is but rarely infected; and, thirdly, that a man can catch gonorrhœa from a healthy woman, or as Ricord put it, "a man gives himself gonorrhœa more often than he receives it." The frequency of gonorrhœal vaginitis has now been shown to be minimal; in fact of 483 cases of gonorrhœa examined by Steinschneider the vaginal form was present as a primary affection in 7 only. The seats of election are in order: the urethra, which is affected in 75 to 90 per cent., the cervix, which suffers in 40 to 50 per cent., and the Bartholin's glands, which are involved in about 15 per cent. The old view that gonorrhœa might be acquired from a woman showing no clinical signs of the disease is quite true; the fallacy is that gonorrhœa in the female is often quite unrecognisable clinically. Thus, while clinical inspection during the operation of the Contagious Diseases Act in 1864-83, considerably reduced the amount of syphilis and soft chancre among the prostitutes and soldiers of garrison towns, it left gonorrhœa practically untouched. The bacteriological examination of prostitutes was systematically carried out a few years ago at Breslau by Neisser. The results of this were: first, that the percentage of gonorrhœa-infected prostitutes in the hospital rose, owing to greater accuracy of diagnosis, from 10 to 54; and, secondly, that the percentage of men affected in the garrison fell from 6.3 to 3.3. Other experiments have shown that a large number of women who are discharged as (clinically) cured, still carry virulent gonococci in their genito-urinary tracts, and so serve to spread infection. The naked eye appearance of the urethral secretion afforded no criterion of immunity, for the diplococci were often present in a perfectly clear and watery fluid. Finger concludes by recommending the bacteriological examination of all prostitutes as an important factor in prophylaxis.

**(423) Exostosis Luxurians.**

Frits Sano (*Belg. Méd.*, November 10th, 1896) reports under this title a case shown by him to the Antwerp Medico-Chirurgical Society. The patient has made the tour of Europe, and been presented at the great clinics by Virchow, Raymond, and quite recently by Gowers. A. S., born at Galatz (Roumania), is now aged 31. Family history not peculiar; no similar case to the patient's has ever existed. At 13 he had several attacks of intermittent fever; he married at 17, and had, before his disease started, a boy who is alive now and healthy. At 19 the complaint began with a painful swelling of the right shoulder and right temporo-maxillary articulation; little by little a new growth of bony tissue arose in the interior of the parts attacked, and the articulations were immobilised by it. The patient was compelled to have his teeth drawn, in order to feed himself. This first attack started in April and ended in June, leaving the jaw and right shoulder ankylosed. In the sequel, each time in the spring the malady underwent a fresh aggravation; the exostoses increased, invading muscles and tendons and immobilising the joints. During these attacks the general health suffered considerably. Not till the third year were the articulations of the left side attacked, in the same manner in other respects as those of the right side. Five years ago the trouble stopped completely. At the present time the jaw and both shoulders are ankylosed, the trunk is bent forwards and stiff, respiration is perforce abdominal, the lumbar masses are ossified; the right hip is ankylosed, there exists a large bony column in the popliteal space, and in the great toe an exostosis like an accessory toe. Virchow remarks that the name of myositis ossificans progressiva which is usually given to these cases is not justified; the bony neoplasms arise in general from the articular or epiphysial cartilages to invade the muscles secondarily. In the patient the growth in the right shoulder could be felt to start from the posterior part of the articular interspace, and was directed on the one hand in a tapering manner in the triceps as far as the olecranon; on the other hand it developed along the side, adhering to it, whilst following the external border of the latissimus dorsi. The muscles in which the exostoses exist show progressive reduction of their size, the electric excitability being quantitatively but not qualitatively altered. Fritz Sano remarks that the etiology, pathogeny, and prognosis are entirely unknown. Schultze in two necropsies found the nervous system unaltered. The author believes that the antecedent of intermittent fever, and the fact of cessation from the time when the patient left his native soil point to an infectious origin.

## MIDWIFERY AND DISEASES OF WOMEN.

**(424) Uterus Biseptus: Five Pregnancies.**

Pruvost (*Progrès Médical*, May 1st, 1897) reports that a woman, when in labour for the first time at the age of 23, was found to have a double uterus with a right and left os. Delivery at the eighth month terminated the second pregnancy, the placenta was discharged, and a few hours later pains set in in the opposite half uterus, which at length discharged decidual relics. In the three subsequent pregnancies the halves became pregnant alternately, and the same phenomenon occurred in all three

as after the second labour, though the non-gravid half was not always so prompt to discharge its decidna. Patay, of Rennes, discussing Pruvost's case, related an instance of uterus biseptus and double vagina in his own experience. After a normal labour the patient was examined and the abnormality detected. The cavity of the right uterus measured a few days after labour $4\frac{7}{10}$ inches, that of the left $3\frac{1}{8}$ inches. The septum was very thick, complete, and much more resistant than its continuation in the vagina.

**(425) Wandering of Ligatures into the Bladder after Gynæcological Operations.** KOLISCHER, of Schauta's Clinic (*Wien. klin. Rundschau*, 1897, No. 4) states that the use of the cystoscope has shown that it is not uncommon for stitches and ligatures to find their way into the female bladder after operations on adjoining parts, particularly the ovaries and adnexa. This may also occur in vaginal fixation of the uterus; ulceration may go on without unpleasant symptoms arising until the bladder wall is eroded. Then there may be a rigor, with more or less lasting fever, followed by pain in the region of the bladder and frequent passing of cloudy urine containing pus and even blood. In slighter cases pain is absent, and there may only be slight discomfort at the end of micturition; the turbidity of the urine is variable. The author records two cases. In the first, violent bladder symptoms came on suddenly after an ovariotomy, and the cystoscope showed an œdematous swelling 1 c.cm. above the left ureter. It was soft and tender, and on carefully opening it with scissors blood and pus escaped. After washing out the bladder a ligature could be seen presenting in the minute wound; this was easily removed with cystoscope forceps. The second patient developed the symptoms of acute cystitis six weeks after removal of the adnexa by the abdomen. There was an œdematous prominence in the trigone. A fortnight later this had been replaced by a hole in which lay a ligature. As the process of passage of the ligature through the wall is very slow the author recommends that it be not pulled on by forceps till quite loose; the threads do not incrust very often, but the bladder should be washed out with antiseptic solutions before they are removed. If a ligature appear in the bladder after an operation it must be taken as probable that the remaining ligatures of the same stump will follow, usually through the same channel. They are best got rid of by cystoscope scissors and forceps, and the cystitis they set up is then readily got under. In only one case did a small vesical ulcer persist for some little time.

**(426) Uterine Fibroids and Sterility.** G. PUJOL (*Arch. de Gynéc. et de Tocol.*, September to December, 1896) has investigated this question fully, and finds that all agree as to the frequent coexistence of uterine fibroids and sterility; but all are not at one as to the kind of relationship, the majority regarding the sterility as the result of the tumours, some looking upon the fibroids as the consequence of the sterility. He believes that a sufficient explanation of the sterility is found in the various modifications which the fibro-myomatous neoplasms produce in the uterus that contains them. These are chiefly metritis (especially glandular), inflammatory affections of the tubes, and atrophy in the ovaries of the Graafian follicles; less efficient are the uterine hæmorrhages or hydrorrhœa, spasmodic contractions of the uterus, its displacements, and slight attacks of pelvic peritonitis and the occasional existence of vaginismus as a complication. Finally, it has been seen how the removal of a fibroid has been followed by conception, and thus the relationship of the tumour as a cause and the sterility as an effect has been proved.

**(427) Deciduoma Malignum.** MARTIN, ZONDECK, AND GEBHARD (*Centralblatt f. Gynäk.*, No. 17, 1897) brought forward three cases at the March meeting of the Berlin Obstetrical Society. Martin's patient was 28, and had aborted fourteen months before the uterus was removed, when there was considerable infiltration around the cervix. The tumour tissue resembled that described by Marchand. Although over a year had elapsed since the abortion traces of villi, healthy or in a state of malignant degeneration, were found in the lumen of the veins. The patient recovered, and the infiltration, clearly parametric, disappeared. Zondeck's patient was 43 years of age; she had been sixteen times pregnant, and in the seventh month of her seventeenth pregnancy was delivered of a vesicular mole. The uterus was at once scraped, the process had to be repeated on account of hæmorrhages; at the end of two months rigors occurred. A final use of the curette showed that the bleeding structure was malignant; the uterus was therefore removed, and a month later the patient was doing well. A large mass of deciduoma occupied the uterine cavity, invading the walls, and a smaller mass, as big as a pea, lay under the serous coat. Gebhard's patient was 30; the uterus was removed seven weeks after her last confinement. He demonstrated how uterine glandular elements were undergoing malignant changes, and also showed under the microscope a section of cancer of the cervical canal where a similar change was visible. All three cases were recent, so that evidence of diffusion or recurrence is wanting.

**(428) Delayed Expulsion of Second Twin.** LELARGE AND VERCHÈRE (*Revue de Gynéc. et de Chirurg. Abdom.*, March-April, 1897) record the case of a multipara who aborted of a six weeks' fœtus on June 12th, 1896. She rose ten days later; there was much sero-sanguineous discharge. The uterus was bulky, the os uteri patulous, and subinvolution was diagnosed. The uterine cavity was swabbed with glycerine of creasote, and this treatment was repeated eight times. The sound passed 3 inches. The discharges disappeared, and the patient made excursions in a mountain watering place. On September 2nd, the day after her return to Paris, labour pains set in and the leg of a fœtus was seen projecting from the vulva. The fœtus was extracted, and it appeared to have attained the fourth month. The placenta could not be removed till four hours later. Thus the pregnant uterus tolerated the sound; eight applications of the cautery; the fatigues of a long voyage and the exertions of long walks up and down mountain paths. The authors remark that the diagnosis of early pregnancy is by no means easy, and that the sound should never be passed without certain precautions being taken. The fact that abortion does not invariably follow the passage of that instrument within a few days is no disproof of pregnancy.

**(429) Pregnancy lasting Eleven Months.** WIGODSKY (*Medicinsk. Obosrenie*, No. 2, 1896) observed protracted gestation in a 3-para, aged 28. The last period was on September 7th, the fœtal movements were first felt at the end of January, and labour occurred on August 13th. Pregnancy otherwise ran a natural course. Delivery was delayed by the great breadth of the shoulders, and the forceps was applied. The fœtus was a living anencephalus.

**(430) Cæsarean Section for Pelvic Tumour** RAKAEFF (*Annales de Gynéc. et d'Obstét.*, April, 1897) reports this case. The patient was a 4-para, aged 35. The upper part of the left thigh was enormously swollen, and the hip-joint stiff. There was an osteo-sarcoma of the head of the bone invading the pelvis and growing rapidly. Cæsarean section was performed, and the patient was well enough to leave hospital on the twelfth day. It is not stated whether the operation was performed at term, or whether the child was saved.

## THERAPEUTICS.

**(431) Hydrochlorate of Holocaine.** LOEWENSTAMM (*Therap. Monats.*, May, 1897) relates some further investigations into the use of holocaine in 1 per cent. watery solutions in ophthalmic practice. It cannot be employed subcutaneously because its toxic action is considerably greater than cocaine, and even in ophthalmic work it should be used in minimum doses. By applying a few drops anæsthesia is produced in the eye in about ten minutes. The author has employed holocaine in 16 cases, of which 7 were normal eyes, 5 were examples of foreign bodies, and 4 were operation cases. In one set of 3 cases, 4 drops were put into the eye and repeated in five minutes, when the anæsthesia of the cornea and conjunctiva lasted on an average nineteen minutes. In 6 other cases the same quantity was used on three occasions at intervals of five minutes, and the anæsthesia lasted on an average thirty minutes. A slight touch was felt before the lid reflex returned. In 3 cases 4 drops were applied on three

occasions at intervals of two minutes, and here the anæsthesia lasted on an average twenty-six minutes. This method has the advantage of requiring only a short time before the operation can be commenced. Often an increase in the anæsthesia of the conjunctiva was noted after the second and third application, and where this did not occur a passing sensation of burning was experienced. The removal of the foreign body was accomplished in one eye eight minutes and in the other fifteen minutes after the second application, without the patient feeling anything. In two operations for squint lasting fifteen to twenty minutes two applications sufficed. As regards gradual action no difference was noted from cocaine, but the tension of the bulb was not lessened, the cornea retained its lustre and moistness, and the pupil was not dilated. No toxic effect was noticed and no change in the pulse or urine. Heinz allowed a 5 per cent. solution, and also the dry powder to be applied to his own eye, and no intoxication symptoms occurred. Perhaps holocaine is less readily absorbed from the conjunctiva than cocaine. Thus holocaine is a prompt, pronounced, and long-lasting anæsthetic with no unpleasant results. It should find a permanent place in ophthalmic practice. Boiling the solution is not requisite, as holocaine possesses powerful disinfectant properties.

**(432) Splenic Extract in Exophthalmic Goitre.**

H. C. Wood (*American Journal of the Medical Sciences*, May, 1897, p. 511), in the course of a critical article on the ductless glands, advocates the treatment of exophthalmic goître by splenic extract. He was led to try this form of treatment by observing that in a case of severe chronic exophthalmic goître, an acute attack of splenitis, with subsequent discharge of an abscess from the spleen, was followed by complete recovery. This result led him to try splenic extract in Graves's disease. A case is given in which a very satisfactory result was thus obtained. The remedy, however, is disagreeable, for when given in doses sufficient to do any good to the disease, it is very apt to give rise to dyspepsia, pain, and vomiting, and, when given hypodermically, frequently produces great local irritation, and even suppuration.

**(433) The Action of Alcohol on the Motor Nerves.**

Gioffredi (*Rif. Med.*, March 19th, 1897) describes certain experiments with ethylic and amylic alcohol to determine the action of alcohol on the motor nerves and on the latent excitability of muscles. By means of graphic tracings he found that alcohol has a paralytic action on motor nerves, preceded by a fugitive and inconstant stage of excitement. At first it increased the velocity of the stimulus to the motor nerves, but this was afterwards diminished. In the first stage the latent period is shortened, but later it becomes lengthened. The paper is illustrated by several tracings taking during the course of the experiments. The sciatic nerve and gastrocnemius muscle of the frog provided the working material.

**(434) Camphor as an Antigalactogogue.**

Herrgott (*Rev. Méd. de l'Est*, February 1st, 1897) being dissatisfied with the effect produced by the usual antigalactogogues, including antipyrin, has tried camphor, and finds that 9¼ grains a day divided into three doses, and given for three days, nearly always produce a remarkable diminution of the secretion. He has used it in 30 cases, having been first led to try it by the good results obtained by Kiener in animals, especially milch cows.

**(435) Baths of Artificial Mineral Waters.**

Stifler (*Berl. klin. Woch.*, April 19th, 1897) thinks that baths of artificial mineral waters have the same effect as baths of natural mineral waters, provided that the artificial waters are of the proper strength, and that the technique of the baths is perfect. In practice, however, these conditions are hard to fulfil. The best artificial effervescent baths are those of Lippert and Keller, but, though they are useful, their strength cannot be exactly regulated, and they are not equal to baths of natural gaseous waters. The effervescent baths of Sandow and Quaglio are somewhat unreliable, for both of them give an alkaline reaction except during periods of extreme effervescence. This produces an alternating effect in their action, which is quite different from that of natural gaseous water. The "Moorsalz" and "Moorlauge" baths of Mattoni hardly resemble natural peat baths at all. In the case, however, of common salt, the effect of artificial baths is the same as the effect of natural brine baths of the same strength.

## PATHOLOGY.

**(436) Foot and Mouth Disease.**

Bussenius and Siegel (*Deut. med. Woch.*, February 4th, 1897) record their investigations into the common cause of this disease in man and animals. Most researches have centred round the streptococcus as the cause of the disease, but feeding animals with the streptococcus does not produce the disease. The authors relate their investigations in cases of slight mouth disease ("Mundseuche") in children. In 3 cases pure cultures of an ovoid bacillus (Siegel's B.) were eventually obtained from the saliva. The saliva was administered by the mouth to a dog, cat, sheep, two hens, and a calf. Only the hens and calf became ill. The hens suffered from diarrhœa, with hæmorrhage. Cultures of the ovoid bacillus were obtained from the blood as from the saliva. The calf developed foot and mouth disease, and the same micro-organism was recovered from the blood. Thus the transference of the disease from man to an animal was effected. The authors record an investigation into an epidemic in a dairy farm. Saliva was taken from 3 animals, and milk, fæces, blood, and urine from one of them. From the blood small bluish-white colonies developed, consisting of the above-named ovoid bacillus. Bouillon is especially adapted for its growth. The bacillus was not obtained from the milk, fæces, or urine. At a later period, when ulcers had formed, further investigations were made and the same bacillus found. In the case of a 10 days' old calf the bacillus was obtained from the blood, spleen, kidney, and liver. Another calf placed in the same stall licked the diseased parts of the first calf, and developed the disease. The results of the bacteriological examination was the same in this as in the former case. The authors refer to another investigation, but here all the animals except one had practically recovered. The bacteriological examination was negative, as the material had been obtained too late. In another epidemic the nasal discharge still persisted, and the cultivation experiments gave positive results as regards the blood and saliva, but negative as regards the secretion from the ulcers. Experiments were made upon calves, 10 c.cm. of a bouillon culture of the ovoid bacillus being given to one calf, and 1 c.cm. to another. Both developed the disease. A pig was also fed with a culture, and developed the symptoms of foot and mouth disease. The ovoid bacillus was found here in the blood from the heart. The authors produced the disease in guinea-pigs by the use of saliva, blood, or fresh cultures, but not with old cultures, where the micro-organisms had become less virulent. The guinea-pigs died with symptoms of blood poisoning, and cultures from the blood showed the ovoid bacillus. The above goes to show that the cause of the disease in man and animals is the same.

**(437) The Action of Thymus Secretion.**

Svehla (*Wien. med. Blätt.*, 46-52, 1896) has made a series of experiments on dogs with dried and watery extracts of thymus taken from bullocks, pigs, dogs, and man. The effect on the circulation was particularly studied. The extract was injected into the femoral vein, and the effect on the circulation observed by the kymograph connected with the carotid artery. He concludes as the result of his observations that the injection is followed by a fall of blood pressure due to weakening or paralysis of the vasoconstrictors, and also by an increase in the pulse rate, due to direct influence on the heart. Where large doses were administered there was excitement, followed by dyspnœa and collapse, ending in death; the *post-mortem* appearances were simply those of asphyxia. The practical bearing of these observations is to establish the possibility that some of the cases of so-called "thymic asthma" in children may be due to an excess of thymic secretion in the blood.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

**(438) Syphilis of the Heart.**

GRASSMANN (*Münch. med. Woch.*, May 4th and 11th, 1897) maintains that when syphilis of the heart is said to be uncommonly rare, this really applies to gummata of the heart. The recognition of cardiac syphilis during life is only rarely possible. A gummatous pericarditis hardly ever occurs, but a pericarditis may be present over a gumma in the cardiac wall. The same applies to a syphilitic endocarditis. Gummata of the heart vary in size; they may be of microscopic size, or even as large as a chestnut. The gumma may soften, or be converted into a hard mass owing to the proliferation of the interstitial tissue. A result of softening may be an aneurysm of the cardiac wall. The author refers to a case in a woman, aged 38, who died of cardiac insufficiency. There was a large gumma at the apex of the ventricle, an aneurysm filled with clot on the anterior ventricular wall, and an aneurysmal bulging of one mitral cusp towards the auricle. There was also a defect in the ventricular septum, apparently due to the absorption of a gumma. Gummata are usually placed in the left ventricular wall. It would appear that a syphilitic myocarditis may occur without any gummatous formation, and Ehrlich would attribute it to disease of the minute vessels. Cardiac syphilis is a late manifestation of syphilis, but very rarely it has been known to occur within the first two years. Cardiac symptoms may occur in the earlier stages of syphilis, and the author refers to a research of his own not yet completed where varying symptoms of cardiac disturbance were noted in early syphilis. As regards later cardiac syphilis, there are no pathognomonic signs. Symptoms of cardiac insufficiency, with œdema, arhythmia, dyspnœa, etc., have been noted. Only in the rarest cases have there been symptoms of a typical valvular lesion. Sudden death may occur. Thus, in Mracek's 63 cases, death took place unexpectedly in 21. The presence of cardiac syphilis can be ascertained only in an indirect way, such as an early infection, the presence of other syphilitic manifestations, the ineffectiveness of any other than antisyphilitic treatment. Antisyphilitic treatment cannot remove a fibrous myocarditis or arterial disease, but it may be of value before such lesions have become advanced. Gummata can, of course, be absorbed, but a rapid absorption may even lead to aneurysm of the heart. The treatment should be a mild and extended one, for a vigorous antisyphilitic treatment where gummata are present may be harmful. The author concludes with the statement that syphilis does not spare even the heart.

**(439) The Cerebral Diplegiæ of Infancy.**

MASSALONGO (*Il Policlinico*, January 15th, 1897) contributes a first instalment towards a study of this subject. After referring to the works of Little and others, he reports the three following cases: 1. L. G., 6 years, of healthy parents; no neurotic history; pregnancy and labour quite regular. At 3 months the child suffered from gastro-enteritis and marasmus with fever. Some months later spasm of all the muscles, especially those of the lower limbs, was observed. Mentally backward; speech rudimentary; convergent strabismus of left eye; horizontal nystagmus; ataxic movements in upper limbs, ataxo-spasmodic in lower; very slight improvement occurred. At 5 he could speak a few words and stand and walk with help, the legs being wide apart, and the feet scraping along the ground. 2. A. de C., aged 17. Mother hysterical; father healthy; no known neuropathic antecedent; only child; pregnancy and labour regular. At 13 months intense fever and epileptiform convulsions. Similar convulsive attacks at various intervals up to 8 years. Spastic paraparesis and right hemiparesis. Speech difficult: intelligence good; writing almost impossible. 3. L. G., aged 4. Father alcoholic; mother delicate and neurotic; no other neurotic history in family. Several frights during pregnancy. Labour protracted and difficult; child partially asphyxiated at birth. From the early days of birth the child suffered from general spasmodic rigidity. Some weeks later diffused athetoid movements were observed. Intelligence backward; walking impossible. Photographs of each case are given, and a full detailed account of the disease, with necropsy when provided.

**(440) Pyloric Obstruction from Peritoneal Adhesions.**

THOMAS (*Rev. Méd. de la Suisse Rom.*, January 20th, 1897) publishes 12 cases in which pyloric obstruction was due to adhesions. As regards etiology, alcoholism and tuberculosis were present in 1, 1 was preceded by enteric fever, 2 by hepatic colic, 3 by gall stones and cholecystitis, and 1 by gastric ulcer. The symptoms are those of obstruction in general, but sometimes pyloric spasm is a factor, as proved by the results of washing out the stomach, and the intermittence of the symptoms. Bouveret gives two symptoms as being more or less characteristic: (1) By reason of adhesion of the pylorus to the gall bladder, the former is kinked at this point. Therefore if the patient is about, the dilated stomach drags on the pylorus and causes frequent vomiting, while if lying down the stomach empties itself more readily, and vomiting is less frequent. (2) If the amount of food has been lessened vomiting diminishes in frequency; if a good meal is ordered the symptoms of stenosis return. Another point is that on insufflating the stomach the pylorus remains fixed at the level of the right costal margin. The illness has probably lasted a long time, and has been preceded by a painful affection of the stomach or liver, and is accompanied by pronounced emaciation and often by hypersecretion of HCl, which latter sign is not present in cancer unless developing in an old ulcer. The treatment medically consists in alleviating or curing spasm if this is present. As regards surgical treatment the author agrees with Doyen in believing that gastro-enterostomy will prove to be a safer operation than separation of adhesions. The latter operation seems to have given good results, however, unless the adhesions involved the gall bladder when it has usually proved fatal.

**(441) The Prognosis of Choked Disc.**

EPERON (*Rev. Méd. de la Suisse Rom.*, February 20th, 1897) states that, as a symptom of cerebral tumour, choked disc is wanting in at least 20 per cent. of cases, and that several *post-mortem* examinations have shown that a cerebral tumour was present, although this sign was absent during life. An examination of reported cases and those within the author's experience shows that the prognosis is less serious than is usually supposed. Cases susceptible of cure may be classified as follows: (1) Choked disc with ill-defined cerebral symptoms, such as occur in Gerlier's disease (paralytic vertigo). (2) Choked disc symptomatic of syphilitic tumours; the author has found 12 recorded cases of cure. (3) Choked disc with cerebral symptoms, probably caused by cerebral tuberculosis (meningitis). (4) Choked disc may disappear spontaneously when caused by intracranial hæmorrhagic effusion of traumatic origin; and (5) in some cases of very slowly-developing cerebral tumours, while the cerebral symptoms still persist. Details of several interesting cases in support of these assertions are given. In the discussion following the reading of this paper Dufour related a case of a boy, aged 7 years, who had cerebral symptoms with double choked disc, but who rapidly recovered after a dose of santonin and the evacuation of round worms.

## SURGERY.

**(442) Radical Cure of Hernia.**

KOCHER (*Centralbl. für Chir.*, No. 19, 1897) whilst recognising the value of Bassini's method in certain cases of hernia, holds that it would be advisable to resort to some other procedure for radical cure in subjects who are not likely to tolerate a serious and complicated operation. The success of Bassini's operation would, it is pointed out, be compromised by suppuration, and by giving way of the deep sutures, events which cannot always be prevented even by the strictest precautions. The author claims for his own method the advantages that it is quite safe when practised on old subjects, and that its results are not influenced by the occurrence of suppuration. Reference is made to tables of 126 cases of

inguinal hernia treated by this method; which have recently been collected by Lebensohn and Beresowsky. The operation, followed in every case by the recovery of the patient, resulted in 4 relapses only in 111 cases of indirect inguinal hernia. Of the 108 cases of supposed radical cure 26 were treated in the first half of 1896, 35 in 1895, 24 in 1894, and 23 in 1893. Most of the patients were above the age of 40. Kocher's operation, which originally consisted in drawing the isolated and emptied sac through a slit made in the aponeurosis of the external oblique muscle to the outer side of the internal ring, and by fixing it by sutures over the anterior wall of the inguinal canal, has been modified from time to time. The risks attending probable sloughing of the isolated and compressed sac have been obviated by cutting it away, and in the present paper it is recommended, with the view of removing as much as possible of protruded peritoneum, to make a direct opening into the peritoneal cavity, and to drag through this the sac which is invaginated so that the serous surface is exposed along its whole length. After removal of the sac the opening in the peritoneal and other layers in the abdominal wall is closed by sutures.

**(443) Results of Resection of the Knee in Childhood.**

KIRMISSON (*Rev. d'Orthopédie*, May, 1897) publishes a case of unusual distortion of the lower limb following resection of the knee in a child 9 years of age. The leg was semiflexed, and there was also a slight degree of genu varum, the leg and thigh forming an angle the apex of which was turned outwards. This condition was associated with a compensating pes valgus and considerable obliquity of the pelvis. This case is brought forward by the author in support of his view that arthrectomy and resection of the knee are, except in some very few cases, contraindicated in subjects under the age of 15 years. In children, it is asserted, methods of conservative and bloodless treatment give much better results than cutting operations. The latter are liable to result in considerable shortening of the limb in consequence of interference with the epiphysial cartilages, and in complete deviations of the leg, which in most instances is turned outwards.

**(444) Hernia of the Bladder.**

GIBSON (*N. Y. Med. Rec.*, March 20th, 1887) reports four fresh cases of hernial protrusion of the bladder observed during operations on hernia. In two of these cases the intestinal hernia was inguinal (both in males) and in the other two femoral (both in females). Clinically these vesical herniæ may be divided into two classes—those in which a portion of the bladder is engaged in the hernial orifice, and those in which the bladder is drawn into the orifice during the course of an operation for radical cure of ordinary hernia. The author's experience and study have led him to the conclusion that when a hernial sac has been exposed and opened, anything resembling another sac should be looked upon with the suspicion that it may be the bladder, and should be approached as such until its identity with that structure is clearly disproved by all the means of recognition at our command. It is pointed out that exploring with a sound, or distension with air or fluid, will sometimes apparently fail to establish the connection of a given structure with the bladder, and lead the operator to open this organ in spite of all precautions. All fatty material in the neighbourhood of a hernial sac, especially on its inner and posterior aspect, should be treated as if a portion of the bladder was hidden within it, and should never be cut away till the absence of anything but fat has been clearly demonstrated. The author states that he has met with protrusion of the bladder twice within a few months during the course of less than two dozen operations for hernia. If the bladder be accidentally wounded under such circumstances, the opening should be closed by a double row of silk sutures not involving the mucous membrane. The superficial portions of the hernial wound should not be closed, but be packed with gauze. The temporary retention of a catheter passed by the urethra is not advocated, as in some cases such practice has been attended by very bad results.

**(445) A New Incision for Operations on the Knee-joint.**

NICHANS (*Centralbl. für Chirurgie*, No. 16, 1897) describes a new method of laying open the knee-joint which in the course of the past nine years he has frequently practised with good results in the operations of arthrotomy, arthrectomy, and resection. The incision, which is commenced about 4 inches above the patella, is carried downwards along the inner border of the tendon of the rectus, and, in a slight curve, by the side of the patella to the tubercle of the tibia. At its lower extremity it is joined by a short transverse incision. The tubercle is now detached from the tibia by a chisel, and the long wound is carried into the joint. On flexing the limb the extensor tendons, together with the patella, can be slipped inwards, and the whole of the anterior half of the joint is rendered freely accessible. If it be necessary to expose the whole joint, this can, it is stated, be readily effected by dividing the lateral and crucial ligaments. The advantages claimed for this method are the maintenance of the continuity of the extensor tendons of the leg, and the free exposure of the synovial pouch above the patella.

**(446) Hyperbolic Glasses.**

LOHNSTEIN (*Klin. Monats. f. Augen.*, April, 1897), who is himself the subject of conical corneæ, shows that a hyperboliform cornea is not even approximately corrected by hyperbolic glasses, such as Raehlmann recommended. The theoretical correcting spectacle glass is concave in the centre, convex at the periphery, and is therefore fundamentally different from a hyperboloid. By experimenting on himself with some hyperbolic glasses, he found that he saw much worse when he held the centre before the eye, but much better when he looked through the margins. Now the margin of such a glass is equivalent to a cylindrical lens, and, as a matter of fact, Lohnstein saw still better with a — 11 D cylinder. Raehlmann himself remarked that patients decentred their glasses until they found a spot which gave the best results. The same results apply to "conical glasses" (employed by Angelucci and others). It thus appears that hyperbolic and conical glasses have no specific or special action suiting them for the correction of keratoconus, but act only as cylinders. And cylinders have this advantage, that their whole surface is available for use. Their effect on the vision, however, much depends on the size of the pupil. Thus, Lohnstein, with his — 11 D cylinder, sees much worse in bright daylight, as the pupil is then smaller.

## MIDWIFERY AND DISEASES OF WOMEN.

**(447) Abdominal Gestation completed to Term after Rupture of the Uterus.**

LEOPOLD (*Arch. f. Geb. u. Gyn.*, lii, p. 376) relates that a woman, aged 42, ruptured her uterus in her twelfth pregnancy two or three weeks before quickening by falling down some cellar stairs and alighting heavily on her sacrum and nates. She had no hæmorrhage or abdominal inflammation, and soon recovered; but from the time the child's movements began they caused such severe abdominal pain as to keep her almost completely bedridden. About three weeks before the end of her term the movements ceased, she suffered from feelings of coldness and heat, headache, and great discomfort; there was no discharge of blood or decidua. On admission the case was diagnosed as a left-sided extrauterine pregnancy, with a mature fœtus dead about three weeks. On laparotomy the child was found in a delicate sac, and when it was extracted by the head, the pelvis and feet, which lay near the pancreas, were followed by a coil of small intestine, with which they must have been in direct contact. The cord passed into the uterus through a perpendicular slit, about 2 cm. long, behind the right broad ligament. The uterus was removed with the placenta, the stump secured in the abdominal wound, and gauze drains placed in the fœtal cavity and pelvis. She left the hospital on the forty-fourth day in excellent condition. Leopold gives microscopical and macroscopical details (two plates), and concludes that the uterine tissue had suffered from the numerous pregnancies and labours, in the last three of which the placenta had had to be removed by hand; that the rupture was caused by the posterior surface coming into violent

contact with the promontory of the sacrum, and could not have occurred before the seventeenth week, as the reflexa was everywhere in contact with the uterine wall; that as the placenta remained *in situ* there could have been no sudden escape of the waters, the membranes could not have given way at first, but must have protruded through the gap in the uterus, and been followed by the child's feet and a great portion of the cord; and that the extrusion of the child must have been gradual. The child, a boy 50 cm. in length, and weighing 2,720 g., was covered with vernix caseosa, and somewhat macerated; the total length of the cord (49 cm.) corresponded to maturity. The posterior wall of the uterus, very much thinned, showed a cicatrix 6 cm. across and 2 mm. thick, in the centre of which was the opening. A sound passed freely into the uterus all round the cord except at the lower side, where there were some fine adhesions; there was a supplementary placenta. Leopold reports this case as almost unique, and a wonderful illustration of the self-help of Nature.

**(448) Puerperal Septicæmia Treated by Antistreptococcus Serum.**

W. EDMUNDS (*American Jour. Med. Sci.*, April, 1897) records a case in which the serum was given a fair trial. That it was a case of genuine streptococcus infection was shown by the examination of pus from an abscess near the knee. Further, no other surgical treatment was carried on during the administration of the antitoxin. The case is thus free from two of the common fallacies which prevent us forming a due estimate of the value of such injections. The patient made a complete recovery, which Edmunds thinks was entirely due to the antitoxin. The injections produced in varying degree pain, erythema, and, on four occasions, an abscess. Possibly this was due to some decomposition having taken place in the bottle after it was opened; and it will be best, therefore, to have the serum supplied in single dose bottles.

**(449) Pregnancy in Rudimentary Cornu: Probable Migration of Ovum.**

CULLEN AND WILKINS (*Johns Hopkins Hospital Reports*, vol. vi, 1896) write of a woman, aged 29, who had borne one child and suffered from symptoms of oöphoritis. After the period had ceased for three months, severe uterine pains, as in labour, with rectal and vesical tenesmus, set in. On vaginal examination, a globular tumour, about the size of an orange, could be felt low down in the pelvis and to the left of the uterus. At the end of two days, collapse and death occurred just when preparations were being made for abdominal section. The peritoneal cavity was found full of blood, in which the fœtus and its investing membranes swam about. The internal organs consisted of a uterus with normal cervix, right cornu, ovary and tube, and attached to the left side of the uterus at the junction of the internal os with the body was a stout, broad, muscular band about 3 inches long, ending in a rudimentary uterus. There was a normal left ovary and tube attached to this uterus—or rather left cornu—the left round ligament springing from the junction of this detached cornu with the tube. A big rent was found in the posterior part of the stout muscular wall of the cornu. In the band uniting the cornu to the main part of the uterus lay a remarkable cord-like body, several millimetres in diameter. It was undoubtedly part of Müller's duct. Both the cornual and the uterine end were simple muscular cords, but in the middle of its course the duct was a true canal. Decidual tissue was found in its mucosa. The cornu bore the usual lining seen in fœtal sacs. There was a recent corpus luteum in the right ovary, but none in the left. The only way by which the spermatozoa could have reached the left horn was by passing up the cervix, right cornu and tube, then escaping from the right ostium and entering the left tube, which opened into the left horn. The ovum must have passed the same way. This migration was easy to understand, as the left cornu was most likely folded backwards against the rest of the uterus, so that the ostia of the two Fallopian tubes may have lain very close to each other.

**(450) Precocious Puberty.**

BROHL (*Centralb. f. Gynäk.*, No. 4, 1897) read, at a recent meeting of the Cologne Obstetrical Society, the case of a girl, aged 7, who, according to her mother, had menstruated two months running. Brohl saw her a month after the second period or pseudo-period. There was a free growth of pudendal hair, though otherwise the subject seemed still a child. He was consulted because the patient's abdomen was getting larger. He found the parietes tense, with universal dulness. A large cystic tumour of the left ovary was removed; there were but few adhesions. Its contents were dark and glairy, and numerous secondary cysts sprang from its inner wall. The operation was performed in February, 1895. Down till January 16th, 1897, when the case was reported, the period had never reappeared.

**(451) Treatment of Dysmenorrhœa.**

J. E. LANGSTAFF (*Brooklyn Med. Journ.*, May, 1897) has found that in dysmenorrhœa preceding the flow and associated with a movable uterus, the best treatment is the injection of 10 minims of a 3 per cent. mixture of Churchill's tincture of iodine and water into the uterine cavity every four or five days during the intermenstrual period. The injection is carried out by a fine glass tube, curved an inch from one end, and expanded into a funnel shape at the other; a piece of sheet rubber covers this end, and by the pressure of the finger the contents are passed into the uterine cavity. In the majority of the cases treated the patient was unmarried, and had previously required opiates for the excessive menstrual suffering. The treatment has no effect when there is pelvic inflammation or disease of the ovaries and tubes; yet in suitable cases it may prevent the development of a neurotic temperament.

## THERAPEUTICS.

**(452) Eucaine.**

HOBDAY (*Journ. Comp. Path. and Therap.*, March 29th) states that in the clinic of the Veterinary College eucaine has been used in some forty cases, some of them being of a nature especially favourable for making a comparison between the action of that drug and cocaine. The results have been to confirm the view that the toxic dose of eucaine is somewhat larger than that of cocaine, and at the same time that for operation on the cornea eucaine compares very favourably with cocaine, although anæsthesia is not produced quite so rapidly; but for its local anæsthetic effects when injected subcutaneously or applied locally to parts other than the eye, the results obtained in the horse, dog, and cat, have not by any means come up to the results obtained with cocaine. Hobday and his colleagues have found, however, that a mixture of cocaine and eucaine dissolved in water possesses the better anæsthetic properties of the cocaine solution, and can be tolerated in larger dose than cocaine alone. A number of illustrative cases of operations on animals are given, and the conclusion is arrived at that in regard to the amount of eucaine that can be used subcutaneously with safety, the limit of safety in the case of the cat and dog is about one-fifth of a grain to each pound of bodyweight; in the horse there is little likelihood of a case arising in which more than 20 grains will be required. Four grains of eucaine produced toxic symptoms in a dog of 12 lbs. weight, but the animal eventually recovered, whereas such a dose of cocaine would certainly have caused death. Again, a dog of 35 lbs. weight received subcutaneously 8 grains without producing any very noticeable symptoms. In a cat in which local anæsthesia was attempted by 1 grain of eucaine in solution no toxic symtoms followed, but by a mistake a couple of days later a grain of cocaine produced in the same animal toxic symptoms and death. The toxic symptoms are not noticeable so rapidly as those of cocaine; hyperæsthesia is present, but not to such an extent; the rectal temperature rises, salivation takes place, but not so thin and watery as with cocaine, and gulping movements are not so well marked. Similar clonic involuntary spasms take place as with cocaine, but at much longer intervals, and the animal becomes prostrate; respiration is accelerated; in the cat the pupil certainly becomes widely dilated; consciousness is not lost until shortly before death, and there is not the same peculiar quietness and absence of moaning which is so characteristic of cocaine. In one case death appeared to occur from cardiac failure, as there were a few distinct respiratory efforts after the heart had ceased. *Post-mortem*

appearances show nothing very pathognomonic; if examination take place within a short time after death the back of the pharynx, œsophagus, and in some cases the stomach as well are are found fully of frothy mucus, but if the *post-mortem* examination be delayed some hours, even this will have disappeared.

**(453) Intramuscular Injections in Syphilis.**

LUKASIEWICZ (*Wien. klin. Wochenschrift*, April 22nd, 1897) gives the results of treatment of 500 cases by intramuscular injection of a 5 per cent. solution of perchloride of mercury, 1 cm. being injected into the gluteal muscles once a week. On an average, six injections were used for each patient. The cases included all stages of syphilis in both males and females, varying in age from 16 to 65 years. Lukasiewicz states that severe secondary lesions, including rupia, iritis, periostitis, choroido-retinitis and laryngitis yield to this form of treatment, also early tertiary conditions, such as cutaneous gummata. He points out a peculiar phenomenon which appears after the first injection—namely, an increased distinctness of the syphilitic rash, and compares this to the reaction which follows the injection of Koch's tuberculin.

**(454) Pellotin.**

PILCZ (*Wien. klin. Woch.*, 1896, No. 48) ecords the results of his investigations with pellotin, the new hypnotic prepared from anhalonium williamsii by Heftner, and so strongly recommended by Jolly, according to whom 2 gr. of the hydrochloride of the alkaloid can be injected subcutaneously without causing any effect beyond that of refreshing sleep. The author tried the drug in 58 cases of insomnia, giving $\frac{1}{3}$ gr. as a minimal dose. The patients were inmates of the principal lunatic asylums in Vienna. In 29 cases a perfect result was obtained, the patient falling asleep within an hour and a half, and remaining so all night; a moderate effect resulted in 17 cases, while in the remaining 12 the remedy was ineffectual, though of these latter Pilcz considers that 4 should be excluded as not fair tests. Of the successful cases 19 reacted to the minimal dose; none of the remainder required more than a grain. Curiously enough the author himself was refractory, $\frac{1}{3}$ gr. giving him only half an hour's sleep. The beneficial effects were sometimes very marked in cases where other hypnotics had failed; thus $\frac{1}{3}$ gr. of pellotin produced sleep in one patient who had resisted 60 gr., and another who was unaffected by 75 gr. of paraldehyde. The author failed to observe the slowing of the pulse recorded by Jolly, or the collapse seen in one case by Langstein; he did not attempt to obtain any anodyne effects. In 2 cases only was there giddiness, and 1 of these patients was a paranoiac with sensory hallucinations. The author concludes that the drug is of value in many cases where others fail, and is particularly valuable in that it can be given subcutaneously without trouble. As regards dosage he recommends $\frac{1}{3}$ to $\frac{2}{3}$ gr., repeated two or three times if necessary.

**(455) Maragliano's Serum in Phthisis.**

RAIMONDI AND MASCUCCI (*Rif. Med.*, May 5th, 1897) report the effect of this serum in 5 men and 10 women. Five are described as phthisis with lesion circumscribed in one or both lungs, slowly progressing disease with little or no fever; 10 had more or less extensive tuberculous broncho-pneumonia, with cavities, fever, and night sweats. In the latter group 5 to 10 c.cm. of serum were given every five to eight days until some effect was produced (for example, lowered temperature), and then 1 c.cm. every day or alternate days. In the former group 1 c.cm. was given on alternate days. A generous diet was ordered, and phosphates of iron or calcium administered. The total quantity of serum given varied from 20 to 100 c.cm. No deleterious results of any importance followed the injections. As to the effect on the disease, no absolute cure was effected. Apparent cure or noteworthy and persistent improvement was observed in 4 cases, transitory benefit in 6 cases, no useful result in 3 cases. The good effects observed were diminution or cessation of the fever and night sweats, rapid improvement in strength, nutrition and body weight, and disappearance or lessening of the physical signs.

**(456) Holocain.**

DENEFFE (*Académie de Médecine de Belgique*, March 27th), Winselmann (*Klin. Monatsbl. f. Augen.*, May, 1897), Hirschfeld (*ibid.*), report favourably on this new anæsthetic. They commend its immediate action, the small quantity required (three drops suffice for most eye operations), and the fact that accommodation is not impaired nor mydriasis produced. No poisonous effects have yet been observed. Winselmann has used it in operations for squint, in removing foreign bodies, conjunctival growths, needling a secondary cataract, cataract extraction, and has been quite satisfied with its action.

## PATHOLOGY.

**(457) The Analysis of the Urine as a Test for Immunity.**

POEHL (*Wien. med. Woch.*, 1897, No. 4) points out that immunity varies not only with the nature of the infection, but with the condition of the infected, and hence that an investigation of the latter must be of great importance for both natural and acquired immunity. He holds that the existing power of the organism depends very largely upon the manner in which its internal or tissue respiration is carried on, and states that he has never examined a case of infectious disease in which this has been normal. According to the author the most important predisposing cause of infection is auto-intoxication, and the most potent agency in the production of this is deficient internal respiration. Hence the whole problem may be elucidated by the study of the urine. The main causes of auto-intoxication are: 1. Diminished alkalinity of the blood due to acidity of the tissues from over-exertion or other causes. 2. Insufficient supply of oxygen. 3. Abnormal fermentation processes in the intestine. 4. Poisoning from without by bacterial or other agencies. 5. Retention of metabolic products. Many of these conditions can be detected by examination of the urine. Thus intestinal auto-intoxication is indicated when the proportion of organic to inorganic sulphates exceeds 1 to 10, and also when the amount of indican is markedly increased. Diminution in the alkalinity of the blood may be inferred when the proportion of phosphoric acid estimated as disodium hydrogen phosphate is less than 50 per cent. of the normal, or when the proportion of uric acid to phosphoric acid estimated in this way is more than 2 to 5. Furthermore the proportion of urea nitrogen to total nitrogen is a test for oxydation processes in the tissues; when the proportion is less than 9 to 10 these are defective, and the same is the case when the amount of sodium chloride present is less than half that of the urea. The author considers that the pernicious action of deficient alkalinity of the blood arises from non-production of spermin from the leucocytes, which, according to him, plays the part of a ferment in determining tissue respiration.

**(458) The Bacteriological Diagnosis of Leprosy.**

JOHNSTON AND JAMIESON (*Montreal Medical Journal*, January, 1897) relate three cases showing the value of the bacteriological diagnosis of leprosy for public health purposes. The method adopted and now advocated for this purpose is exceedingly simple. A cover slip is smeared with a drop of the serum obtained by scraping one of the leprosy nodules. This is stained with carbol fuchsin and decolorised with sulphuric acid and methylene blue (Gabbett's fluid). It may then be examined under the microscope in the ordinary way. This simple method appears to be eminently adapted for the examination of any doubtful case of skin disease where leprosy is suspected. If it be present the bacilli are certain to be found in large numbers in cover slips prepared in the above manner. The microscopic resemblance between the leprosy and tubercle bacilli should not form a serious source of error, as in tuberculous lesions of the skin the bacilli are always very scanty, and usually only a few are found in the entire cover slip; but in lepra each microscopic field shows enormous numbers of them. The lepra bacilli also readily stain by the simple aniline dyes, while tubercle bacilli do not. In choosing a nodule from which to take the specimen, it is desirable to select one in an early stage of development, before much scarring has taken place.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

**(459) Serum Diagnosis of Typhoid Fever.** WIDAL AND SICARD (*Sem. Méd.*, February 24th, 1897) have tested the agglutinative action of serum taken during the fever, during a relapse, or during convalescence in 21 cases of enteric. They find that (1) if different proportions of the serum are added to broth cultures of the bacilli incubated for one or two days, successive microscopical examinations show that the limit of the agglutinative power is reached after one or two hours; (2) macroscopically the clearing of the broth culture mixed with the serum is perceived only after several hours in the incubator; (3) the serum keeps its power for several days—an important point as regards sending specimens of blood for examination; (4) while in mild cases the agglutinative power may be slight, yet the extent of the reaction is no index of the severity of the case; (5) the curve of the reaction traced through the whole course of the illness is a variable one; it is sometimes slightly marked at first, and increases progressively, or it may remain the same all through; as a rule it diminishes more or less rapidly during convalescence, or even during defervescence, sometimes with remarkable rapidity, but exceptionally it lasts for months or years; (6) it is, therefore, essentially a reaction of the infective period, and cannot be, as is often supposed, a reaction of immunity. Agglutination caused by the serum of artificially immunised animals was first described by Charrin and Roger, and is quite distinct. The authors, in fact, introduced serum diagnosis after discovering this distinction.

**(460) Herpes Zoster and Facial Paralysis.** EICHHORST (*Centralb. f. inn. Med.*, May 8th, 1897) first refers to the recorded cases, 18 in number, of these combined affections, and then relates the following case in a woman, aged 20. On December 12th she was exposed to cold. On the next day she noticed painful sensations in the right side of the face. Severer pain was then felt in the neck and back of the head. On the third day these symptoms disappeared, but a right-sided facial paralysis supervened. Four days later a vesicular eruption appeared over the lower part of the right ear, in the meatus, on the right side of the tongue, and on the right side of the hard palate and uvula. The vesicles were small, and surrounded by a red area. In about a week the herpes had healed. The facial paralysis developed into a severe form with the reaction of degeneration. There was no oblique position of the uvula. Sensation and taste were intact on both sides of the tongue. No painful spots were present over the facial or trigeminal nerves. Usually the herpes has appeared before the paralysis, there being only three exceptions to this. A herpes occipito-collaris has been most frequently seen, but when the facial paralysis has appeared first, the herpes has been in the distribution of a single branch of the fifth nerve. In the author's case the herpes was relatively extensive. Remak's case is the only recorded one in which the herpes was present on a mucous surface, and here the anterior two-thirds of the tongue was involved. In facial paralysis there may be a diminution of taste over the anterior two-thirds of the tongue, but in both Remak's case and in the author's there was no disturbance of taste. The chorda tympani must contain two sets of fibres, one gustatory and the other trophic.

**(461) Myoclonus.** D'ALLOCCO (*Rif. Med.*, January 25th, 26th, and 27th, 1897) records 24 cases of myoclonus, 19 of which occurred in 5 different family groups. Heredity played a small part in most of the cases—that is, directly, but almost all showed more or less marked stigmata of degeneration, such as anomalous development of various parts of the body, especially the cranium, and anomalies in the psychical sphere—for example, hysterism, epilepsy, neurasthenia. Four of the cases might be classed as epileptics. Myoclonus associated with epilepsy is, in the author's opinion, not only one of the phenomena of degeneration, but also a special phenomenon of epilepsy. Whether myoclonus unassociated with epilepsy may be a marked form of that disease is not certain, but there are cases which seem to support that view. In the author's cases the muscular contractions were clonic, more or less diffused, chiefly fibrillary, with slight movements of the heart, but in some cases larger and exciting coarse rhythmic movements, true tremor, or partial choreiform movements. In some cases the various types of spasm were, as it were, interchangeable. Each case is more or less fully reported.

**(462) The Gastro-intestinal Hæmorrhages of Infants.** HERMARY (*Thèse de Paris*, 1896-97, No. 5) points out that hæmorrhages from the stomach or bowels in young children as a rule occur within the first ten days after birth. Hæmatemesis without melæna is so rare that all cases may be included in the term "melæna neonatorum." Melæna spuria, in which the blood does not come from the stomach or intestines, but has been swallowed, is far the most common form; the blood generally comes from cracks in the nurse's nipples, and the child's health does not suffer. Melæna vera is met with in only 34 per cent. of the cases. It occurs as a rule in children otherwise doing well and within the first three days, but when the result of intra-uterine affection or abnormal labour it may appear within the first few hours after birth. The pathological lesions hitherto discovered are congestion of the gastro-intestinal mucosa, or ulceration of the stomach or duodenum; the lower portion of the small intestine is not so frequently affected, the colon never. The other viscera are generally anæmic, rarely congested: Pomorski and v. Preuschen have met with intracranial hæmorrhages, Herrgott with a cardiac deformity. The congestion and ulceration are to be attributed to the secondary influence of causes affecting the entire organism—asphyxia, portal obstruction, compression of the abdomen during labour, hæmorrhage into the fourth ventricle causing vasomotor disturbance, organic malformations, exposure to cold, infection, or syphilis; from the absence of lesions or pathognomonic symptoms many cases cannot be explained. There are numerous symptomatic forms. In typical cases the prodromata are insignificant; the hæmorrhage occurs suddenly, and, if there is any hope, ceases in less than forty-eight hours; it is sometimes so slight that the child continues to take the breast and does not materially suffer, sometimes so severe as to kill in a few hours. Infectious forms vary from the slightest to those with multiple hæmorrhages and grave general symptoms. The mortality is variously stated from 51 to 84 per cent. The treatment should consist in warmth, iced milk, dilute alcohol sedatives, ergot or rhatany, but no active astringents and no clysters: in emergency oxygen, ether, dry cupping, artificial respiration, serumtherapy. In syphilitic cases, specific treatment as soon as the hæmorrhage will allow.

## SURGERY.

**(463) Resection of the Gasserian Ganglion.** MARCHANT AND HERBET (*Rev. de Chir.*, April, 1897) have formed the following conclusions as a result of a careful study of recorded cases of trifacial neuralgia treated by a surgical attack on the Gasserian ganglion. It seems to be certain, they state, that some forms of obstinate facial neuralgia have for origin a Gasserian lesion, and that the only treatment of this lesion, which is held to be one of inflammatory nature, is destruction of the ganglion. In instances in which there is no appreciable lesion of the ganglion, and notwithstanding this, extirpation has been followed by cessation of the neuralgia, the cure may be explained by destruction of this nerve centre, which includes the nerve cells the mere extensions of which are suppressed in simple extracranial section. The temporo-sphenoidal method is the most effectual one of reaching the ganglion, as the exposure of its primary branches, especially the inferior maxillary in the foramen ovale, is the best way of leading the surgeon to the central object of attack. It is possible to effect complete extirpation. In most of the recorded cases the ganglion was incompletely destroyed by scraping or crushing. Some surgeons have rested content with simple resection of its branches. The most frequently observed accidents immediately

resulting from the operation are hæmorrhage from the middle meningeal artery or the vessels of the dura mater, and cerebral compression. The remote evils to be feared are septic infection, secondary hæmorrhage, iodoform poisoning, and ocular lesions. The anæsthesia of the regions supplied by the three main branches of the ganglion does not persist for any length of time. Relapse of the neuralgia occurs much less frequently after destruction of the ganglion than after resection of the main branches. Hitherto the results of complete extirpation have not, it seems, been superior to those of simple destruction of the ganglion. Of 95 recorded cases of operation 17 proved fatal, the mortality of the temporal method (Hartley-Krause and Doyen) having been about 12½ per cent., and that of Rose's method about 20½ per cent. There has been no difference in the rates of mortality attending complete and incomplete extirpation of the ganglion.

**(464) Congenital Absence of the Tibia.**

MOTTA (*Archiv. di Ortoped.*, An. 14, f. 2, 1897) contributes the first part of a study (with 2 cases) of this subject. The author has collected 50 cases in 39 subjects. In 11 the absence was bilateral, 19 males, 9 females. In 5 the sex was not named, and 6 occurred in fœtuses. It was generally associated with deformities of other limbs. The femur of the same side was usually altered in shape and size. The patella was often absent, also the crucial ligaments and semilunar cartilages. The fibula was generally thickened at its extremities. Two cases, with photographs, are carefully recorded and described, the one in a child of 7 months and the other at 30 months. Most of the usual muscles seem to be represented in these cases although considerably altered. As to the etiology, heredity must be excluded, as there is seldom any history of family deformity. Maternal impressions have probably no marked influence. The deformity occurs at various epochs of intrauterine development.

**(465) The Surgical Treatment of Perforative Peritonitis in Typhoid Fever.**

MONOD AND VANVERTS (*Rev. de Chir.*, March, 1897), after a careful study of published statistics, have formed the following conclusions with regard to the operative treatment of perforating typhoid ulcer: (1) The results of surgical intervention in cases of diffused peritonitis consequent on intestinal perforations of typhoid fever are not very encouraging; (2) as, however, this lesion, if left to itself, is almost certainly fatal (95 per cent. of fatal cases), it is justifiable to resort to an intervention the general results of which (88 per cent. of mortality) are better than those of expectation; (3) the prospects of operative treatment are less unfavourable when the perforation has occurred at a late stage of typhoid fever, and particularly during convalescence or at the end of a relapse. The surgeon, however, may act at any period of the fever at which the perforation is produced, provided there no distinct contra-indications presented by the general condition of the patient; (4) the operation should be performed with the least possible delay, a condition of success which may be taken advantage of as an immediate diagnosis of perforation is possible in most cases; (5) the results of surgical intervention, and more particularly of suturing, are excellent with regard to occlusion of the perforation, but, on the other hand, are unfortunately less favourable with regard to the survival of the patient; (6) the causes of the almost constant failures are multiple, the most frequent being persistence of the intensely septic peritonitis, occurrence of fresh perforations, and extreme exhaustion of the patient; (7) this last condition should in certain cases constitute a contra-indication to surgical treatment. If, in fact, the patient seem too exhausted or collapsed to be capable of bearing an operation, it would be well to abstain; (8) surgical intervention would in most cases consist in median laparotomy and simple suture of the perforation. Intestinal resection and the formation of an unnatural anus would be reserved for cases in which the lesions are more or less complicated; free irrigation and drainage would complete the operation; (9) in a case of encysted peritonitis, the frequency and severity of which lesion are less considerable, the surgeon should restrict his intervention to simple incision over the seat of disease, in order to effect evacuation of the pyo-stercoral accumulation. It might under such circumstances be possible to recognise the perforation, and to close it by suture.

**(466) Operation for Appendicitis in an Infant aged 4.**

F. VILLARD (*Journ. de Clin. et de Thérap. infant.*, April 22nd, 1897) reports a case of appendicitis in an infant scarcely 4 years of age. There was a history of habitual constipation. About two days previous, the child began to complain of pain in the right side of the abdomen, and this steadily increased, being worst at night. There was a swelling in the right iliac fossa and pain on pressure. Micturition was normal, but there was complete constipation. There had been some vomiting, and the temperature was above the normal. An incision was made above Poupart's ligament. It was noted that the cellular tissue was œdematous, and on cutting through the muscular layers a large abscess cavity with some fæcal contents was opened into. The pus was evacuated, and an unsuccessful attempt made to find the appendix. A further attempt revealed it lying behind the cæcum and perforated at its base. It was easily removed, and was found to contain a small mass of hardened fæces. Villard is of opinion that one should operate between the second and third day in such cases if the symptoms do not ameliorate. One should not temporise, although the condition may tempt one to do so.

## MIDWIFERY AND DISEASES OF WOMEN.

**(467) Pregnancy and Heart Disease.**

BONNET AND GRIMODIE (*Bulletins et Mémoires de la Soc. Obstét. et Gynéc. de Paris*, April, 1897) report a case of hydrorrhœa in a woman aged 30. At 20 she suffered from rheumatic fever; next year she married and soon became pregnant, bearing her child to term; it survived. She was troubled with palpitations about the eighth month. Eight years later she again became pregnant, and soon suffered from œdema, dyspnœa, and profuse discharge. At the eighth month premature delivery occurred. The child lived for a few hours; the patient was ill for weeks after, but the cardiac symptoms abated. During the third pregnancy she was under Grimodie's observation. Very soon severe complications set in, and mitral obstruction and insufficiency became evident. A pint of fluid suddenly came away from the vagina during the fifth month; several similar escapes of fluid, always beginning unexpectedly, occurred at intervals, with no oozing between the attacks, till five weeks after the first, when spontaneous delivery took place, the child living one hour. The placenta, it appears, was normal. Next day, when the lochia were very free and fœtid, a severe rigor set in, a few days later there was a second. Profuse watery discharge continued, and there were very grave cardiac symptoms, œdema, albuminuria, etc. The patient recovered under appropriate treatment. Two years later, last autumn, the cardiac affection was again becoming formidable. Grimodie brought this case forward as illustrating the frequency of a perfectly spontaneous form of abortion in pregnant women with heart disease, and also as showing that in his opinion hydrorrhœa during gestation was a localised form of cardiac dropsy. This theory was discussed when the paper referred to was read. Porak stated that the placenta was often diseased in women with morbus cordis; no doubt the decidua might also suffer, but he had had no experience of such a complication. Hydramnion had been noted where passive effusions into serous cavities complicating valvular disease existed, yet this condition was exceptional. Porak considered that it represented a coincidence rather than localised dropsy, and hydramnion must, theoretically, be more probable in cardiac cases than hydrorrhœa. Bar disagreed with the latter objection, for the amniotic fluid is of fœtal origin. Anasarca from heart disease was not necessarily associated with hydrorrhœa, which never occurred without disease of the decidua. Porak admitted Bar's authority, but denied that fluid in the amniotic cavity was under all circumstances, a purely fœtal secretion.

**(468) Influence of Death of Fœtus on Albuminuria of Pregnancy.**

LANNOIS (*Lyon Méd.*, January 10th, 1897) observed a woman, aged 33, who had borne one child twelve years pre-

viously, and suffered five years later from strumous disease of the right metacarpus and the right astragalus. She became pregnant, and at the fifth month, when the fœtal movements had already been felt, she was seized with dyspnœa and anasarca, and the urine was found highly albuminous. Whether it contained albumen before gestation remains unknown. A month later the patient was much worse, the fœtal heart sounds were feeble and irregular. Suddenly she felt great relief. Nové-Josserand examined her very carefully, and felt sure that the fœtus had died. Seventeen days later it was expelled spontaneously, macerated. The albuminuria had greatly diminished, urine was abundantly secreted, and the œdema had almost disappeared. There was little trouble from dyspnœa. A few days later the patient seems to have caught cold, pericarditis and right pleurisy set in, and the thorax was tapped. The patient recovered, then the amount of albumen remained stationary; there were a few hyaline casts.

**(469) Cæsarean Section for Cancer of the Uterus.**

ROBERT SOREL (*Arch. Provinc. de Chirurgie*, May, 1897) thinks that although the range of usefulness of Cæsarean section has recently been limited by the introduction of symphysiotomy, etc., it still finds a clear indication when cancer of the uterus has rendered cervical dilatation impossible. The case reported was one in which pregnancy had arrived at the full term. The cancer was not one that could be operated upon. Labour had been going on for sixty hours without a trace of dilatation. Cæsarean section was performed, and the infant was saved alive. The patient is still living, but the cancer is making steady, although slow, progress. Had Sorel seen the case in early pregnancy he would have counselled removal of the whole uterus; as it was, Cæsarean section was preferable to total abdominal hysterectomy as being more rapid and less dangerous, and because the malignant disease had already invaded the vagina.

**(470) Ptyalism and Retroflexion of the Gravid Uterus.**

AUDEBERT (*Journ. de Méd. de Bordeaux*, May 16th, 1897) has met with a case of retroflexion of the pregnant uterus in a 2-parous woman, aged 38 years. From the first month of pregnancy she suffered from salivation in a marked degree. She began to lose flesh, and on two occasions had retention of urine which only yielded to treatment by hot baths. Various medicinal means were employed to check the ptyalism, but without result, and the emaciation proceeded rapidly. On vaginal examination a pregnant uterus of two and a-half to three months was found lying sharply retroflexed. The amount of saliva lost every day averaged at this time about 1 litre. The patient was put in the genu-pectoral position, and the uterus was replaced and retained in position by a plug. The next day the sialorrhœa was less, and in three days had entirely ceased. The confinement occurred normally at the full term. The author regards the salivation as a reflex effect of the displacement of the uterus.

**(471) Menstruation in an Infant.**

MONTARIS of Mitylene (*Indépendance Méd.*, 1896, No. 35) reports the case of an infant who was born on August 21st, 1892, and menstruated on February 21st, 1893. Her body was unusually developed, the hair of the head strong and long, the breasts large. The features were regular, and, as is not usual in such cases, the expression of the features was intelligent.

## THERAPEUTICS.

**(472) Opotherapy in Diabetes Mellitus.**

GILBERT AND CARNOT (*Sem. Méd.*, May 10th, 1897) have tried opotherapy in many diseases of the liver, but as improvement is very difficult to estimate exactly in most cases, they confine themselves in this paper to diabetes in which a lessened amount of sugar is an exact measure of the improvement. They recommend that hepatic extract, prepared as follows, should be given daily *per rectum*: 3½ to 5¼ oz. of fresh pig's liver are minced in a machine and macerated for two hours in 7 to 9 oz. of water at 95° to 100° F., then filtered through muslin and expressed. This amount is usually well borne as an enema; if it is not, divided doses must be given. The cases of diabetes which derived the most benefit from the treatment were those of definite hepatic origin—in subjects, for instance, with enlarged or cirrhotic livers. However, if the hepatic cell is too diseased, the treatment fails, just as fatty fibres of the heart may refuse to react to digitalis. Thus it is found that obese diabetics passing over 17 oz. of sugar daily improve but temporarily. An example is given of a man who passed more than 31¾ oz. There was an initial improvement, as is the rule in such cases, but he died shortly afterwards. Several other failures are reported. Among the successes was a woman, who, on January 29th, was passing 2,392½ gr. of sugar in twenty-four hours; 3½ oz. of liver were given a day. On February 8th the sugar had fallen to 1,311¾ gr. The treatment being discontinued, it again rose to 1,481½ gr. Other striking cases are reported; in one 293¼ gr. were passed a day, but completely disappeared under the treatment; in another, 679 gr. a day fell to nothing. The latter case was in an alcoholic patient with enlarged liver and spleen, and when treatment was suspended for a time the sugar rose. Summing up 12 cases, 3 were benefited temporarily, 5 were improved permanently, and in 4 the glycosuria ceased completely. It is interesting to note that in most cases urea and uric acid are increased while liver is taken. Thus, in the case where at first 679 gr. of sugar were excreted, the urea, which oscillated between 169¾ gr. and 216 gr. before, rose to 247 gr. to 278 gr. after treatment, and the uric acid from 3.465 gr. to 4.986 gr. in the twenty-four hours. The quantity of urine is unchanged, though some observers have noticed an increase (Vidal; also Mairet and Vires, *Sem. Méd.*, May 5th), others a decrease (Jousset). The authors have also experimented on the effect of the extract on diabetes artificially produced in various ways both in men and animals. One deduction is certain—that the extract lessens the excretion of glucose; whether by increasing the power of storing up reserves of sugar or by causing a more rapid destruction of ingested hydrocarbons remains uncertain. Another question is whether the effect is due to a local stimulation of the organ corresponding to that given (liver), or to a general stimulation of nutrition by means of the nervous system. If the extract acts by stimulating the hepatic cells the other functions besides the glycogenic should be involved. Experiments show that the antitoxic function of the liver is little, if at all, the biliary but slightly, while the glycogenic and uropoietic functions are markedly influenced. Perhaps this multiple action on the hepatic functions is a proof of a direct action on the hepatic cell, which must be still fairly healthy for the treatment to succeed.

**(473) Tetanus Cured by Injection of Carbolic Acid.**

POLI (*Gazz. degli Osped.*, March 14th, 1897) reports the case of a boy, aged 16, who was kicked on the foot by a horse. Five days later symptoms of tetanus set in. The wound had been dressed with a bit of rag, a leaf, and waxplaster. On admission (September 28th) the wounded part was excised and thoroughly cleansed with carbolic and iodoform. Bromide and chloral, given internally, and injections of 1 per cent. carbolic solution given every two hours. Nicolaier's bacillus was found in the excised tissue. September 30th the patient could open his mouth a little, and the face was less contracted. October 2nd, trismus and opisthotonos still well marked. October 4th, temperature normal, but tetanic symptoms as before. The carbolic injections were now given every hour. On October 16th the patient was practically well, but the injections were continued every two hours up to October 28th. Although this case at first sight seems to support the equine theory of tetanus, further examination convinced the author that on the contrary it really supported the telluric theory. Other cases where carbolic injections had been successful in tetanus are referred to, and although nearly 500 injections were given in this case no bad results were noticed.

**(474) The X Rays in Acute Pulmonary Tuberculosis.**

CHAPTELOUBE, DESCOMPS, AND ROULLIÉS (*Archives d'Electricité Médicale*, May 5th, 1897) describe the effects of treatment by means of Roentgen rays upon a woman aged 22, the subject of acute and rapidly spreading pulmonary tuberculosis. There was a cavity at the right apex,

the whole right lung was infiltrated, and there was generalised extension to the left lung; the sputum was crammed with tubercle bacilli. Medical treatment had no effect upon the symptoms; hectic supervened, and the patient rapidly lost ground. All medicines were accordingly left off, and the influence of the *x* rays substituted. During the first fortnight of their employment, which was much resented by the patient, the general condition became worse. At the eighth application a kind of crisis occurred, with a fall of temperature, which had, however, risen again to 103.2° by the end of the fortnight. At this time there could be noticed some improvement in the right infraclavicular fossa. During the next month the rays were used from behind twice a day; this resulted in a marked drying up (fibrosis) of both lungs, diminution in cough and expectoration, and almost complete disappearance of tubercle bacilli. At the same the general condition remained grave, and ulcers appeared on the exposed parts. The use of the rays was discontinued, and during the next three weeks a great improvement took place. The patient, who had hitherto refused food, regained her appetite, the healing of the pulmonary lesions continued, together with the diminution of the cough and the bacilli, and the greater ease and depth of respiration. The diarrhœa disappeared and the strength returned; the temperature alone kept up (101° in the evening), which the authors explain as being probably due to bacillary infection of some other part than the lungs. The authors conclude that, without discussing the question of a permanent cure, in thirty sittings the *x* rays have favourably affected and almost healed lungs affected with acute tuberculosis, no other medicinal agent being employed at the time.

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**(475) Injections of Iodine and Guaiacol in Surgical Tuberculosis.**

LO RE (*Rif. Med.*, April 28th, 29th, 30th, May 1st, 1897) records 15 cases of surgical tuberculosis in which this treatment proved highly beneficial. Injections of iodine alone (Durante's method) are efficacious, but they have the great drawback of being very painful. But if guaiacol is added, the injections are very well borne and the lesions are cured in much less time. The treatment probably has no specific effect, but by its effect on the blood and tissues it increases the general and local resistance to disease. Cure so obtained is not always radical; relapses may occur, but these also yield to adequate treatment. Operative measures, when necessary, are not to be excluded, in addition to this modification of Durante's method of treatment.

## PATHOLOGY.

**(476) The Plague Bacillus.**

ABEL (*Centralbl. f. Bakt.*, April 24th, 1897) records the first complete investigation hitherto published of the bacteriology of plague. He worked in Loeffler's laboratory on two colonies of the bacilli, one descended from specimens isolated by Kitasato, the others from those obtained from one of the cases which occurred in London last year. The bacilli are found in long and short forms, with cell intermediate stages; the length of the individuals appears to be inversely proportional to the nutritional value of the culture medium. The most characteristic appearance is that of sharply and repeatedly bent chains of immobile spindle-shaped bacteria, almost as small as cocci. They are decolorised by Gram's method, and with weak solutions of staining reagents show a clear space in the centre of the rod. Abel was unable to demonstrate a capsule or the formation of spores. The bacillus grows both aërobically and anaërobically; it causes acid formation, but will grow in quite strongly alkaline solutions. It forms characteristic growths on agar and in bouillon; the best medium is alkaline solution of peptone containing 1 or 2 per cent. of gelatine. It is pathogenic to all the small laboratory animals with the exception of pigeons, killing them in a few days with the symptoms of septicæmia and with severe local reaction at the point of injection; the bacillus was practically always present in the blood, though not in large numbers, after death. With regard to the resisting powers of the microorganism, it is rapidly killed by drying at temperatures of 30° C. and upwards over concentrated $H_2SO_4$, but is much less affected by slow desiccation at lower temperatures. But even at the room temperature rapid drying, as by exposure on cover slips, is much more lethal than slow drying in tissues and fabrics. In the latter Abel demonstrated the persistence of life in contained bacilli for at least thirty days at the room temperature. Coming to the diagnosis of the disease, the results of clinical examinations cannot be regarded as certain, and most reliance must therefore be placed upon the examination of the blood for bacilli. These have been shown by Kitasato to persist in the blood for three or four weeks after the onset of the disease, so that the complaint can in some cases be diagnosed in convalescents, who may also possibly spread it unwittingly. The examination of the blood may be fallacious owing to the variability of the bacillus leading to its confusion with other forms; the best confirmatory evidence is the result of a broth or agar cultivation. Inoculation experiments are also advisable, and as the infection is often a mixed one the animals used should have been previously subjected to "vaccination" against streptococci. As the number of germs in the blood is not very great, a fair quantity of blood should be used and kept at a temperature of 37° C. for ten or twelve hours before being cultivated. The urine practically always contains albumen and plague bacilli, the latter often persisting for a week after convalescence. Infection is most often caused by wounds, and next through the alimentary canal, fruits, vegetables, and the water of springs being the culpable agents. Wilm demonstrated the plague bacillus in the water of three suspected springs. Infection through the lungs is possible but rare. The organism can in all probability live a long time, and even multiply outside the body. The most important natural enemies of the bacillus are dryness and sunlight; it is spread mainly by the action of animals, especially rats and mice, but also pigs, cattle, and flies. The prophylaxis against plague should go on similar lines to that of cholera, but in the former there are the additional dangers of the entrance of the germ through wounds, and its conveyance by susceptible animals, such as rats and mice on board ship. Abel has made an exhaustive series of investigations into the best methods of disinfection in cases of plague, and particularly recommends moist heat, that is, steam. Of chemical reagents he finds the best to be 1 in 1,000 sublimate in carbol-sulphuric acid, lysol, and chloride of lime in 1 per cent. solution. Carbolic acid is useless in less than 5 per cent. strength.

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**(477) Pneumococcus Suppuration.**

H. BRUNS (*Berl. klin. Woch.*, April 26th, 1897) states that mice and rabbits are more susceptible than man to Fraenkel's pneumococcus, and hence the injection of it produces in them a pneumococcus sepsis. Except under certain conditions it is difficult to produce a pneumonia in these animals by inhalation of the pneumococcus. Rosenbach was able to set up an endocarditis by suitable inoculation. Boulay produced a peritonitis by introducing the pneumococcus along with a solid substance, such as gelatine. The author has been able to set up a purulent peritonitis in animals by inoculating sputum into the peritoneal cavity. In the peritoneal exudation from these animals innumerable pneumococci were found, whereas in the spleen, heart blood, etc., there were few. The microorganism presented all the features of Fraenkel's pneumococcus. Three rabbits were further intraperitoneally inoculated with this exudation, and a fibrino-purulent peritonitis was produced, but when the inoculation was subcutaneous a pneumococcus sepsis arose. Thus the pneumococcus was made to produce a local suppuration. The sputum acted here in preventing the absorption of the pneumococcus. By a local inoculation of an agar culture twenty-four hours old the author was able to set up a purulent meningitis in dogs, but in rabbits and guinea-pigs death took place by a general sepsis before suppuration was produced. Dogs are less susceptible to the pneumococcus than rabbits, etc. The question must remain open as to whether the pneumococcus obtained here from the sputum was an avirulent variety often found in the saliva, which owing to some unknown cause had acquired virulence as well as pyogenic properties.

# AN EPITOME
OF
# CURRENT MEDICAL LITERATURE.

## MEDICINE.

### (478) Appendicitis.

TALAMON (*Méd. Mod.*, No. 30) continuing his previous communications (EPITOME, 1897, pars. 333 and 352) gives details of the largest class in the 80: 30 cases of plastic appendicitis. One was operated on for intestinal obstruction on the sixth day: the appendix was resected in another on the twentieth for a recrudescence: the rest were treated medically, and all recovered. As Fergusson found the appendix in close contact with the connective tissue of the iliac fossa in 77 instances out of 200, entirely or partially subperitoneal, some of these 30 cases were no doubt due to non-suppurating inflammation of the cellular tissue: but the clinical distinction of such cases is almost impossible and is unimportant. Indeed before the second week one can hardly tell plastic cases from suppurating peritonitis. The violent onset with high fever, suggesting suppuration, may, especially in women and children, be due to intense nervous reaction. Suppuration seemed threatened by the severity of the symptoms in 4 cases, but resolution took place without intervention. In 19 cases kept under observation, resolution was complete in less than three weeks: in 8 on the average it required a month; the most rapid took fifteen days, the longest two months. The calm succeeding the storm of onset is more quickly established—spontaneously or by leeching—in plastic appendicitis than in suppurating cases: fever falls, the general condition improves, the swelling becomes defined and diminishes, and if no recrudescence take place, from the fault of the patient or his attendants, the resorption, whether rapid or slow, is uninterrupted; but till resolution is complete and there is neither tumour nor tenderness in the iliac fossa, the least imprudence may rekindle the inflammation and lead to accidents perhaps more serious than the initial attack. Of parietal appendicitis, the most benign form, ranging from simple catarrhal inflammation of the mucosa to infiltration of the wall serious enough to irritate but not inflame the serosa, there were 13 cases. Talamon, giving a summary of each, classes the simpler ones as appendicular colic, and for the more severe Gould suggests the term "appendicitis with peritonism," which in hysterical cases may be so severe as to simulate diffuse peritonitis. In addition to the sudden attack of violent colic with vomiting of food and bilious matter, there was fixed pain in the right groin, tension and rigidity of the right rectus muscle, with hyperæsthesia, worst at McBurney's point, and slight evanescent pyrexia; in two cases after the subsidence of the pain the appendix was palpable as a small rounded or ovular tumour, disappearing after fifteen and twenty-three days; in the other cases there was fixed pain, lasting from six to seventeen, or on the average twelve days. Of chronic relapsing appendicitis, characterised by acute appendicular attacks supervening at longer or shorter intervals on a continued condition of trouble depending rather upon the cæcum or intestine there are 16 cases given. The acute attack varies from appendicular colic, lasting only twenty-four to forty-eight hours, to true local peritonitis, differing from that of recurrent appendicitis in that it never leads to perforation. Relapse may become so frequent as to make life unbearable, and there is no absolute respite in the intervals; intestinal atony is generally present; and colitis, dry mucous or membranous, is the rule, and was present in all but 3 of the 16 cases. Though one patient who for three years had had a relapse every month or two was quite free from such for one year under strict observance of the rules of medical treatment he may not continue so; another had eighteen crises in twenty years; another had relapses for five years, was free from them for nine, after which they reappeared with greater frequency and severity. Resection is the only sure relief, but patients are apt to decline or postpone the operation; all but 3 of the 16 did so, but these 3 were permanently cured.

### (479) Aortic Aneurysm and the "X" Rays.

ARON (*Deut. med. Woch.*, May 27th, 1897) discusses the early diagnosis of aortic aneurysm with the aid of the *x* rays, and relates two cases. (1) A woman, aged 40, was found to have paralysis of the left cord with hoarseness. The examination of the chest yielded no definite evidence of intrathoracic aneurysm or growth. By means of the *x* rays it was shown that the area corresponding to the cardiac dulness was more extensive than usual in the neighbourhood of the third rib in front and the fourth rib behind. A marked pulsation was noted in the shadow behind. This evidence was of greater importance, since the laryngeal palsy had apparently come on after an attack of influenza. (2) The second case, in a man aged 32, was even more conclusive. Five years previously he had contracted syphilis, which was insufficiently treated. This patient had a fibroma of the interarytenoid fold removed some two years ago. Now he came complaining of a slight hæmoptysis, for which no cause could be found in the examination of the chest. A paralysis of the left cord was discovered. No other sign or symptom of aneurysm was present. The *x* rays revealed a fortnight later a pulsating protuberance from the aorta in the neighbourhood of the second rib. This was confirmed by subsequent examinations, and thus the diagnosis was rendered certain. The author draws attention to the importance of the *x* rays in making an early diagnosis of aneurysm. In respect to etiology, it is known that a previous syphilis plays a part, and hence a suitable treatment will be rendered possible at an earlier date. In the author's second case mercurial inunction was commenced at once, and potassic iodide was given internally. Considerable improvement resulted. The author then discusses the possibility of complete recovery from a thoracic aneurysm. Hitherto the recorded cases of aneurysm in which the *x* rays have been employed have been undoubted examples of the disease, but in the author's cases the diagnosis was previously very uncertain. Thus the *x* rays should prove to be an extension of our means of early diagnosis.

### (480) Tabes Dorsalis and Movable Kidney.

HABEL (*Centralbl. f. inn. Med.*, February 20th, 1897) says that, among 68 cases of locomotor ataxia admitted into Eichhorst's clinic, a movable kidney was noted 6 times, all in women. Of the 68 cases, 44 were men and 24 women. In the 6 cases the movable kidney was noted on the right side 4 times, on the left once, and it was double-sided in the remaining case. The percentage of this affection of the kidney was thus 14.5 among the 68 cases, and 25.6 among the 24 women. Of 5,393 other women patients admitted into the clinic, a movable kidney was noted in 1 per cent. Thus, the question arises as to whether there can be any relation between locomotor ataxia and the movable kidney. Perhaps a causal connection lies in the general wasting so frequently observed in locomotor ataxia, and perhaps a slackening and diminution in tone of the abdominal ligaments occurs. Movable kidney is very rare in men; thus, only 1 case was observed among 16,518 men. Of course the number of cases recorded here is far too small to base conclusions upon, and the object of reporting them is to draw attention to the possible connection between the two diseases.

## SURGERY.

### (481) Wounds of Vessels.

P. KLEMM, of v. Bergmann's clinic (*Deut. med. Woch.*, April 29th, 1897) speaks especially of the treatment. The apparent wound of the soft parts does not always correspond to that of the vessel. How little the investigation of the pulse will suffice to indicate a wound of the vessel is sufficiently well known. Thus, when a large artery is divided, the pulse may be rapidly restored owing to the collateral circulation. In cases of a partial wound of the vessel wall, a rough or blowing murmur may be heard over the vessel synchronous with the heart-beat. This may be the only symptom present which indicates immediate operation. In small vessels this murmur is not present. The author records a case of wound of the carotid artery where this murmur was of diagnostic value. Owing to the unfavourable results of ligatures of the arteries of the neck for hæmorrhage, it becomes a question whether suture of the vessel wall should not be substituted

for ordinary ligature. The author records a case in which there was a wound of the subclavian vein below the clavicle. The vein was laid bare, and the wound, 7 mm. long, was found. The edges of the wound were picked up with the artery forceps, and a ligature was placed round this portion of the vessel wall. The bleeding ceased, and the patient recovered. This would appear to be the only recorded case of wound of this vein without the artery being also involved. The diagnosis of wound of a vein is of the first importance. As in this case, the only evidence of it may be pallor, fainting, small pulse, etc. In wounds of veins three courses may be adopted: (1) The double ligature; (2) lateral ligature or temporary use of Klemm's forceps; and (3) suture of the vessel wall. Ligature of the vein has been shown to be a correct procedure; yet it is desirable to avoid the absolute closure of the vein, as may be done by means of the lateral ligature. Blasius found a mortality of 71.5 per cent. with this form of ligature in 16 cases. Braun, however, proved that death was not directly connected with the mode of operation. He also showed that in animals lateral ligature is efficient, that the vessel remains pervious, and that the fear of thrombosis is unfounded. The double ligature will find the most frequent application. It is easily carried out, and, as far as closure of a vessel is concerned, is certain. It should be adopted in large wounds of the vessel, and where there is fear of infection. The lateral closure of a wound in a vein by ligature or suture would be indicated in small and clean-cut wounds of the vessel. Schede has recently advocated suture. It is applicable in case of wounds of the vein during operation. In wounds of veins by puncture or cut, where not more than one-third of the circumference is involved, and in branches close to the main trunk, lateral ligature of the vessel wall is best.

**(482) Surgical Treatment of Suppurative Pericarditis.**

AT the recent meeting of the American Surgical Association, John B. Roberts (*Med. News*, May 8th) advocated, as he had since 1876, the treatment of pericardial effusions in the same manner as pleural effusions, and stated that paracentesis was insufficient to cure suppurative pericarditis. Incision and drainage were essential, and should be adopted as soon as the diagnosis of pus in the pericardium was made. The diagnosis of the purulent character of the effusion was determinable only by exploratory puncture. This should be done at the upper part of the left xiphoid fossa, close to the top of the angle between the seventh cartilage and the xiphoid cartilage. Pericardiotomy should then be done after resection of the fourth and fifth costal cartilage in the manner described by the author. The operation was believed to be novel in some of its details, though others have recommended and operated upon by various forms of resection. This method was devised to avoid injury of the left pleura, which was nearly always a complication in the ordinary methods of puncturing or incising the pericardium. As a rule, empyema was liable to occur as a sequel of pericardio-puncture or incision in suppurative pericarditis. The prognosis was good in pericardiotomy for pyopericardium. In a table of 26 collected cases, 10 recoveries and 16 deaths were shown. This gave a percentage of recovery of 38.44 per cent. Of the fatal cases, at least 9 were septic, and all the others which died had complicating lesions, such as pleurisy, pulmonary, cardiac, or renal lesions. The operation devised by Roberts consisted in raising a trap door of the fourth and fifth costal cartilages and connecting soft parts, and using the tissues of the third interspace as a hinge. The internal mammary vessels and left pleura are thus exposed and pushed to the left. Charles B. Porter, in discussing the paper, gave the history of one case which was operated on in a manner similar to that recommended by Roberts. The result in this case was that, after convalescence was established, the patient was in excellent health, and was able to ride a bicycle a considerable distance without fatigue. With regard to the indications for the operation, it might be said with confidence that the percentage of recoveries after its performance warranted the statement that it was indicated in all cases of purulent pericarditis. The ideal operation was as far as possible (1) to avoid opening the pleural cavity, (2) to open the pericardium opposite the point where drainage would remain good after the sac has contracted, and (3) to secure permanent and free drainage.

**(483) Penetration by a Needle of the Liver and Right Lung of an Infant.**

HAUSHALTER (*Revue Médicale de l'Est*, April 15th, 1897) presented at a recent meeting of the Société de Médecine of Nancy the liver and right lung of a child aged 9 months, in which organs was found after death a needle 2 inches in length, which had entered at the eighth intercostal space. The diaphragm around the penetrating wound was adherent to both liver and lung. The lower third of the needle was fixed in the liver, and the upper two-thirds were included in a gangrenous cavity in the base of the lung. At the point of entrance between the eighth and ninth ribs, there was some foul ulceration of the skin. Death had been caused by broncho-pneumonia, the presence of the foreign body having been unsuspected. Before the end of life there had been frequent attacks of hæmoptysis, which are explained by the probable puncture, during coughing, of an adjacent branch of the pulmonary artery by the point of the needle. The wound in the artery had become infected, and the lumen of the vessel at the seat of injury was occupied by a pale thrombus. Full details of the clinical and pathological points of this case are given in a further contribution to the same number of this journal by Grosmaire and Zuber.

**(484) The Treatment of Varicose Ulcer.**

SANTORECCHI (*Atti della Accad. Medico-Chir. di Perugia*, vol. viii, f. 4) speaks highly of ligature and resection of the internal and external saphenous veins in the treatment of this disease. The author records 8 cases where parts of one or both veins were excised, and in each case the ulcer healed, and there was no true relapse. The only 2 cases in which the ulcer reappeared were due direct injury of the part. Three or four days before operation the ulcer is rendered as aseptic as possible, and then under cocaine a small part of the internal saphenous vein is resected in Scarpa's triangle; if this is not sufficient, part of the external saphena vein is resected in the popliteal space. Some of the author's cases were of long standing, reaching from ten to thirty years, but the results even here were highly satisfactory.

## MIDWIFERY AND DISEASES OF WOMEN.

**(485) Hyperemesis and Vesicular Mole.**

BUÉ (*Bull. de la Soc. Obst. de France*, April, 1897) records two typical cases. The first patient was a married woman, aged 30, who had borne four children to term and aborted once. In the first three pregnancies there was much sickness during the four earlier months; all the children were females. There was no vomiting during the fourth, when the child was a male. The molar pregnancy began early in September, 1896. In the middle of that month uncontrollable vomiting set in. The patient continued to work hard, and to indulge in dissipation, until at the end of October she was so exhausted that she had to take to her bed. The pulse was 120, temperature 99.5°, no albuminuria. The uterus nearly reached the umbilicus; it was smooth, permanently contracted, and not tender. The cervix was hardly softened, and the os not dilated. There had been a bloody discharge for some time. After a few days, when the vomiting had abated, yet the patient had grown very weak, the os dilated, the placenta presented, and much flooding occurred. The vagina was plugged with iodoform gauze, and the ovum was found a few hours later behind the tampon. It was a vesicular mole as big as a fist; no embryo remained. Vomiting ceased on the next day, and the patient recovered. The second patient was 26, and had been four times pregnant. The period had never been seen since the first pregnancy. In August, 1896, metrorrhagia set in, followed by uncontrollable vomiting. That complication had not occurred during any of the previous pregnancies. The patient grew very weak; the abdomen steadily increased in size. On January 3rd, 1897, labour pains set in, and lasted all day; flooding was serious; the patient was delivered in a police station, where she sought relief. The ambulance van took the mother, and what was thought to be the child, to the hospital, where the

medical offi[cer] on duty found a very large vesic[ular] mole between the patient's th[ighs]. It weighed nearly 4½ lbs. The [pat]ient was very anæmic, and fainted repeatedly. By means of a hot water ine douche and subsequent applion of the tampon to the uterine cavhe bleeding was stopped. Next day vomiting ceased altogether. Tatient recovered, though she was w[eak] owing to the anæmia when she discharged.

**(486) Idiopathic Hypertrophy of Cervix.**

MÖLLER (*Ztralbl. f. Gynäk.*, No. 21, 1897) repo[rts] 5 cases of elongated cervix in Engstr[öm]'s wards. In 4 the patient had born children. The fifth was a virgin [aged] 18. She had menstruated normally [from] the beginning of her 17th year (h[er] was a Finn, a race in which puber[ty] begins late). Leucorrhœa had set in [when] she was 15. When laid up with feverish attack six months before treatment she detected something projecting from the vulva. Engström found retroflexion, and the vaginal part of the cervix was greatly elongated, projecting three-quarters of an inch out of the vagina. It was soft and not œdematous. The uterine body was of the usual length, the fornices at their ordinary level; nor was there any prolapse of the vaginal walls. The hymen was intact. The elongated cervix was amputated by the Simon-Marckwald method. After recovery the uterus became anteflexed, as in most virgins. Möller believes that this was a case of Huguier's idiopathic hypertrophy. The usual external causes, gestation, self-abuse, chronic metritis, and injury were absent. He thinks that the elongation was most probably congenital. He is not even satisfied that it might not have been congenital in one [or] more of the other 4 cases.

**(487) The Production of Milk.**

BU[RG]IN (*Sem. Méd.*, May 21st, 1897) reports [on] an investigation made by him as t[o] the amount of milk furnished hour by h[our] by the fourteen wet nurses in his [ma]ternity department. The nurses had [in] their own and fifty additional children to suckle. By a kind of systematic training the milk production was gradually increased. On October 1st, 1896, the average daily production of each nurse was 1,657 g. It was raised successively to 1,868, 1,953, and on November 20th to 2,270 g. Analysis showed that the quality remained uniformly good, and the condition of the infants confirmed this. The conclusion is that within given limits the supply of milk varies with the demand. To obtain a large quantity of milk the nurses must suckle the infants freely. It is found that if a woman has barely enough milk for one child the supply is much increased by giving her one or two infants to suckle.

**(488) Hydramnion and Hydatidiform Mole.**

BRINDEAU (*Annales de Gynéc. et d'Obstét.*, May, 1897) treated a patient greatly distressed by extreme hydramnion at the fifth month. The membranes were punctured, and over 12 pints of liquor amnii came away. Delivery followed. The placenta weighed over 20 ounces, the child a little more than 2 pounds; it was ascitic, and the spleen was enlarged. The hydramnion was due to sarcoma of one kidney. The umbilical vein was dilated, and when fluid was injected into its channel transudation was observed. Bué, in speaking on Brindeau's case, referred to hydatidiform mole, and on the strength of two cases considered that it was one cause of uncontrollable vomiting in pregnancy. Budin, he said, has related a similar case.

## THERAPEUTICS.

**(489) Ichthyol in Small-pox.**

KOL CASSENKO (*Vratch*, No. 13, 1897) recommends ichthyol as a local application in variola. He has employed it in 10 cases (6 hospital and 4 private). Of these 8 recovered and 2 died, the latter being hopeless when admitted. In 2 of those which recovered the patients were the subjects of advanced chronic disease previous to the attack. The remedy was used as an ointment made as follows: Ichthyol 10, fat 60, lanolin 20; the latter, however, may be, according to the individual case, replaced by chloroform, olive oil, glycerine, etc. The ointment was rubbed in three times a day as soon as the papules become visible. It also proved very beneficial when applied twice a day to the upper part of the trunk in the prodromal stage. As a result there was little or no tenderness at the seats of eruption, the temperature never rose high, and desquamation was almost completed in three or four days from the maturation of the eruption (half the usual duration). In several severe cases where this treatment had been adopted from the very beginning there was no inflammation of the skin and subcutaneous tissue, and the course of the disease was, on the whole, mild in character. No toxic symptoms resulted from the use of that remedy even in children. Rozdestwensky, to whom the author refers in conclusion, has, at the latter's suggestion, tried this mode of treatment in a series of hospital cases and obtained excellent results, which are not yet published.

**(490) The Action of Iodide of Potassium on the Blood of Syphilitics.**

COLOMBINI AND GERULLI, working at the Dermato-syphilitic Institute in Siena, find that iodide of potassium given by the stomach before any other drug, and in the early stages of syphilitic infection, causes an increase in the number of red corpuscles and in the quantity of hæmoglobin. If the administration is continued, sometimes a diminution of the red corpuscles, followed by a progressive and continuous increase, occurs. Sometimes the increase is continuous, and not interrupted by a decrease. When the iodide is stopped the red corpuscles and hæmoglobin tend at first to diminish, but afterwards start afresh to increase. At the same time there is a notable and constant increase in body weight. The authors attribute the beneficial results of treatment to a specific action of the iodide upon the syphilitic virus. They believe that iodide of potassium in moderate doses, and over a moderate time, is the best remedy for the severe forms of chloro-anæmia due to syphilis. A parallel series of experiments on the blood of healthy subjects showed that under iodide of potassium there was constant diminution of hæmoglobin and of red corpuscles. The white corpuscles appeared unaffected. The body weight decreased, especially when the dose of iodide of potassium was progressively increased.

**(491) The Antithermic Action of the Phenols used Epidermically.**

GIOFFREDI (*Gazz. degli Osped. e dell. Clin.*, April 25th, 1897) has experimented with phenol, guaiacol, aseptol, creosol, thymol, and hydroquinone as antipyretics when painted on the skin. All these substances were absorbed into the system and eliminated through the urine as sulphuric ethers. For the most part this cutaneous absorption took place in the vapour state. Oleaginous solvents did not diminish the absorption much, but rather checked the antithermic action owing to diminished local action. Antipyresis is due not to the general action of the absorbed drug, but to a peripheral mechanism which acts by inducing an increased dispersion and a lessened production of heat, though a peripheral vaso-dilation and a functional modification of the heat centres respectively.

**(492) The Cutaneous Absorption of Iodine.**

LINOSSIER AND LANNOIS (*Bull. de l'Acad. de Méd.*, No. 17, 1897) refer to the fact that if the healthy skin is painted with tincture of iodine a small quantity of the halogen is found constantly in the urine, and they have experimented as to the conditions under which this absorption takes place. They find that (1) tincture of iodine is absorbed by the skin in very small and inconstant quantities if the painted surface is freely exposed to the air; (2) if the surface is covered hermetically the quantity absorbed is much greater, in one case the amount recovered from the urine being nearly a third of that applied to the skin; the greater absorption from the covered surface proves that the iodine enters chiefly by the skin itself, and not by the inhalation of its vapour; (4) the superficial alteration of the epidermis caused by the tincture, unless it has progressed to the destruction of the corneal layer, seems to act rather as an obstacle to absorption than otherwise, since it is during the first few hours after its application that the urine is richest in iodine, while the disorganisation of the skin proceeds slowly; (5) iodine is also absorbed from iodised cotton wool applied to the skin; (6) even under the most favourable conditions this absorption is too inconstant in amount to be used as a general means of administer-

ing iodine; (7) iodoform and iodide of ethyl are absorbed by the healthy skin, the latter in such quantity as to be available, if necessary, for introducing iodine into the system.

**(493) Diuretic Action of Salicylic Acid and Caffeine.**

SIEGERT (*Münch. med. Woch.*, May 25th, 1897) concludes a study of this subject. In a case of chronic peritonitis salicylate of sodium in both small and large doses lessened diuresis, the specific gravity of the urine being increased. With pure caffeine there was constantly observed a markedly increased diuresis, but with caffeine natro-salicylate the opposite effect was seen, the caffeine diuresis being suppressed by the salicylate. Caffeine produced its most marked effect after a course of small doses of salicylates. The use of caffeine alone made tapping of the ascites unnecessary owing to the absorption of all the œdema, which, on the other hand, was increased by the use of salicylates. The author shows by experiments on animals how the salicylates can abolish the diuresis produced by caffeine. Thus it is undesirable to use the combination of caffeine and salicylates where a diuretic effect is aimed at. In one case where tapping had been done some ninety times the use of caffeine made any further tapping unnecessary. The author has used caffeine with digitalis, and has found the diuretic effect very marked. It is desirable to use the insoluble caffeine in preference to the soluble combinations. The author would recommend the use of caffeine with or without digitalis in all cases of venous engorgement with intact kidneys in order to remove the œdema by diuresis.

**(494) Fochier's Abscess in Typhoid Fever.**

GAUTIER (*Rev. Méd. de la Suisse Rom.*, March 20th, 1897) has employed Fochier's method (the *abcès de fixation*) in two cases of enteric fever with predominating cerebral symptoms. (1) A boy, aged 13 years, was attacked with enteric, and towards the end of the second week fell into a "typhoid" state with symptoms of meningitis. After the fourteenth day there was complete aphasia. On the sixteenth he was so collapsed that three-quarters of a pint of normal saline solution were injected hypodermically. After this his pulse improved, but the cerebral symptoms remained unchanged, so that on the seventeenth day 1 c.cm. of essence of turpentine was injected into the left thigh. Five days later a slough formed over the sacrum and the *abcès de fixation* developed. This burst two days later, giving exit to about 3½ ounces of yellowish pus smelling of turpentine, and after some time a central slough was removed. Improvement set in five days after the injection of turpentine, and the patient ultimately recovered, though speech was not perfect till six weeks later. (2) The second case, in a woman aged 22, admitted to hospital August 22nd, began as acute rheumatism with right pleural effusion. After these had subsided the evening temperature still remained 104° F. On September 2nd there was violent delirium with hallucinations; September 4th, well-marked signs of typhoid fever. On September 6th, owing to the continuance of the delirium, which Gautier took for a sign of profound typhoid intoxication, a Pravaz syringeful of essence of turpentine was injected into the right thigh. Six days later the resulting abscess burst, there being no necrosis of tissue. On September 25th temperature was normal, and a fortnight later the delirium ceased suddenly, and the patient recovered. The turpentine had a much more energetic local action in the first case, and here also the therapeutic effect was distinct without being sudden or striking, since the cerebral symptoms subsided while the abscess was developing. In the second it turned out that the girl had been insane for two or three months the previous year, and so the injection was given on a wrong supposition; hence it did not modify the symptoms, but did no harm. In neither case was there albumen in the urine, and in both liquid nourishment was always taken voluntarily, which facts must be considered in estimating the probable chance of recovery if this line of treatment had not been adopted.

**(495) Calomel Injections in Syphilis.**

ASSELBERGS (*Presse Médicale Belge*, November, 1896) uses calomel injections in the following conditions: (1) Certain cutaneous and mucous syphilides, erosion of the tongue, onychia, palmar and plantar psoriasis; (2) ulcerations in general, especially of the tongue; (3) visceral and cerebral syphilis; (4) cases which resist other forms of treatment; (5) cases of dyspepsia in which the stomach will not tolerate mercury by the mouth. He does not agree with Julien in advocating it as a routine treatment for all cases owing to the considerable amount of pain caused after the injections.

## PATHOLOGY.

**(496) The Value of Post-mortem Bacteriology.**

CHVOSTEK (*Wien. klin. Woch.*, 1896, No. 49), after summarising a large number of researches on this subject and giving the results of his own experiments, comes to the following important conclusions: The value of *post-mortem* bacteriological discoveries as an aid to conclusions regarding the etiology of a pathological process must at least be considerably restricted compared with former views. They show that the circumstances on which are based many of our present views leading to conclusions as to *intra-vitam* conditions from those found bacteriologically *post mortem* are not actually and constantly present. It has been shown that at the moment of death an invasion of micro-organisms into the circulation can take place, which has nothing to do with the infective process. It is thus sufficiently proved that their cultive **Ulcer.** body will not suffice alo. *Medico-* the conditions which m speaks present during life and n of the a causal connection betwe us veins found and the pathologica e. The sent. No other natural parts of other microbes normally and in found in the intestine tha d there terium coli which it ha 2 cases tendency to set aside in ere due exceptional class. Beco's or four no conclusion as to *intra-vi* is ren- can be deduced from the d then bacterium coli into the ci the in- the death agony must hen cted in be extended to all other micr t suffi- which may pre-exist in the a vein The author's researches on Some Achard and Phulpin's obse stand- human beings show that the years, of staphylococci in the highly *mortem*, which is so frequent and which is usually held much, must be received wi much reserve in studying th of a disease.

**(497) Asymmetry of the Extr ole.**

G. GULDBERG (*Norsk Mag. densk*, February, 1897) has in cases the occurrence of asymmetr man limbs of the human subjec en t generally admitted that among firs symmetry of the organs, and e sick of those of locomotion, is in di ; a tion with speed of movement fr wa to place; this does not, howeve the that it has no other sign ole Observations have been made be human subject by measuring o ing the bones, or by mensuration life. Osteometric measurement upper limbs showed excess on t side in 78 per cent., on the left i cent., and equality in 12 per researches on the living subje nearly the same results. With to the lower limbs, the right si dominated in 29.5 per cent., the 50.5 per cent., and there was equa 20 per cent. Dynamometric o tions were made in the case of 22 m students, with the result that in cent. there was predominance right side in the upper limbs, i cent. of the left side, and in 4.5 per there was equality. In the same jects the lower limbs showed a right- predominance in about 45 per cent., sided predominance in about the percentage, and equality in 9 per In the above cases there was cr asymmetry in about 40 per cent., th to say, there was predominance o right side in the upper limbs, and o left side in the lower. These obse tions go to prove that there is a relat between the osteometric and dyna metric measurements, between mor logical and functional asymmetry. this double asymmetry the author fi an explanation of the tendency a pers has to wander in a circle when lost in wood or in a mountain fog. He thin that there is a physiological circul movement which may be artificially s up by a temporary inhibition of the sens presiding over locomotion.

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